

TSPLOST 2023 Project Submission

Transportation & Public Works Department (T&PW)

September 13th, 2021

Sign Replacement Program

Sign Replacement Program

Summary of need:

- The industry standard lifespan of traffic signs is 10-years
- There are approximately 33,000 signs maintained by ACC, many residential signs have not been replaced since the neighborhoods were developed (1970's)
- Current funding allows for approximately 200 signs to be replaced annually. On a recurring basis, that provides a lifespan of *165 years* for the average sign, 16.5 times the industry standard
- In addition to aging, traffic signs are often hit by errant vehicles further stretching available resources

Project Request:

- Project Costs (Annual): \$716,400
- Project Costs (Total – 5 year): \$3.58 million
- Program/Project Management: \$205,000
- Public Art: \$30,000
- Total Request: \$3.82 million

Sign Replacement Program

Project Description:

- Sign replacement program replaces and upgrades street name signs, both overhead and ground mounted
- The program installs signs compliant with highly retro-reflective signs compliant with the Federal requirements as required in the Manual on Uniform Traffic Control Devices

Project Justification:

- With age, signs lose retro-reflectivity which reduces visibility at night and under adverse weather conditions
- With loss of visibility, drivers are unable to clearly see regulatory (stop, speed limit, yield) or wayfinding (street names) signs

Sign Replacement Program



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Budget Impacts:

- More effective use of General Fund Operating Budgets
- General Fund Capital Upgrade Overhead Street Name Signs (c0544) savings:
 - FY18: \$30,000
 - FY19: \$100,000
 - FY20: \$150,000
 - FY21: \$150,000
 - FY22: \$75,000

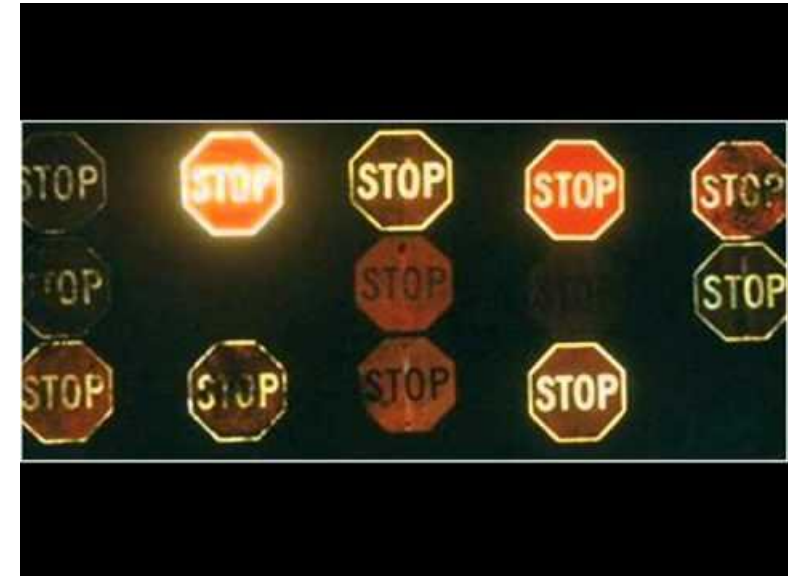
Community Impact:

- Enhanced Safety: improved visibility of signs under all conditions, particularly during adverse weather and at night
- Compliance with Federal retro-reflectivity requirements; decreased liability

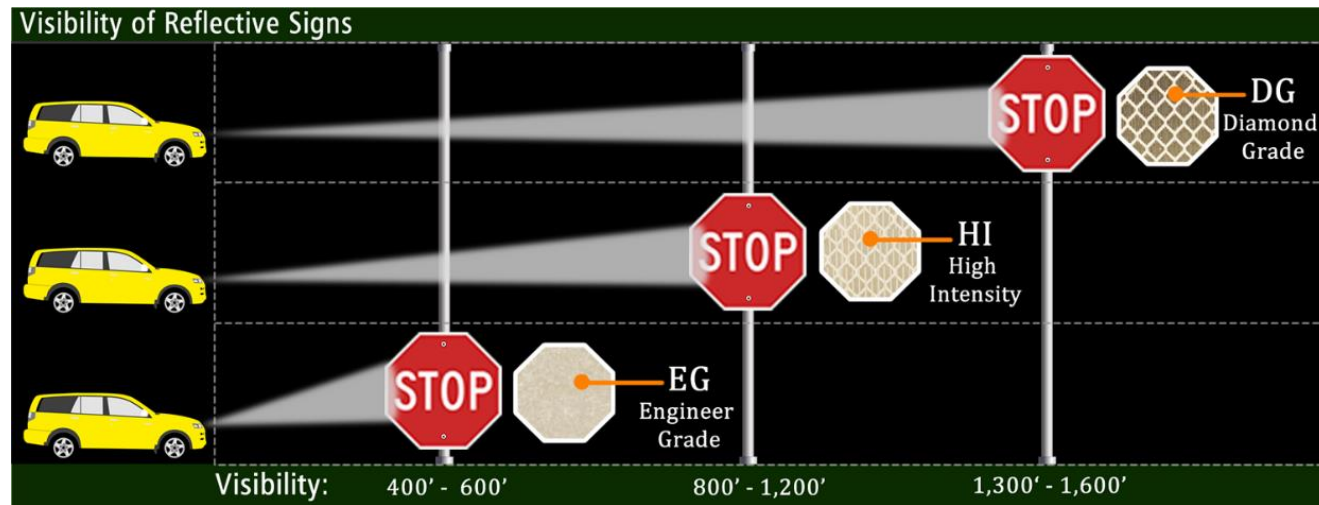
Sign Replacement Program

Impacts of Not Funding:

- Liability due to non-compliance with MUTCD
- Inability to update aging signs with poor visibility
- Continued/degraded safety performance of roadway network



Sign Replacement Program



Retroreflective Sheeting Grades and Uses

Reflective sheeting is the material that makes road signs visible in the dark without having to rely on electricity.

Visibility increases with higher grade levels.

The diagram shows a series of stop signs with a gradient from Engineering Grade to Diamond Grade. The visibility increases with higher grade levels.

Engineering Grade —————> Diamond Grade

9 types of sheeting...

| Sheeting Type | Applications |
|--------------------------------|--|
| Type I (Engineer Grade) | Permanent highway signs, construction zone devices, etc. |
| Type II (Super Engineer Grade) | |

Beads

Closing the Equity Gap

- Data-Driven replacement process, based on sign age and condition
- Many regulatory and street name signs are beyond the useful lifespan.
- Older signs lack sufficient reflectivity which degrades the safety of the roadways and impedes the wayfinding of emergency response vehicles.

M&C Strategic Commitments

- This project strongly supports 5 of the 14 project selection criteria
- This project will improve equity of capital improvements, protect the investment of the community Transportation Infrastructure reducing traffic congestion, time spent traveling, improving access to public facilities, increased access to the public Transit System, improves air quality and promotes Alternative Vehicle use.



Triple Bottom Line Impact

- Economic
 - Recent studies have shown better streets mean better business. Attractive public space and better designed streets are not simply aesthetic or safety improvements. Better streets attract more people and more activity, thus strengthening both communities, the businesses that serve them and the city's economy as a whole
- Social Well-Being
 - Proper signage helps every road user, decreases response times for emergency services and makes our alternative transportation system operable.
- Environmental
 - Our communities become more walkable, our bike lanes more usable and our transit systems complete, reducing our carbon footprint

Questions