



DEPARTMENT OF PUBLIC WORKS
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To: CEA Committee
From: Eric S. Lom, City Traffic Engineer
Date: March 15, 2017
Re: Request to Upgrade Truck #481 when Replaced in 2018

The Sign Shop's two existing service vehicles are ½-ton pickup trucks equipped with basic utility bodies, ladder racks, lift gates and hydraulic post pullers. This configuration allows us to carry some of the gear and materials we need to conduct our operations, but it greatly hinders our ability to efficiently conduct our operations in the following regards:

- Inadequate tool/material storage
- Inefficient/injury-prone post driving system
- Safety lighting visibility problems
- Inadequate working area for sign assembly/disassembly
- Lack of a man-lift system

As a part of the truck replacement process, we researched a number of alternate truck types/capabilities that could address many of the operational problems posed by the current vehicle design. In the end, our research led us to three general design options:

- Option 1 (\$48,800 approximate cost): This option would replace the truck as-is. It would fail to address any of the operational efficiency and safety issues identified above and would present a long-term hindrance to our ability to properly maintain our ever-growing sign inventory.
- Option 2 (\$110,000 approximate cost): This option would replace the existing truck with a larger pick-up truck (F550) with significantly improved capabilities, as noted below:
 - Additional tool storage: This would minimize the need to come back to the shop to obtain the proper tools, which is a common issue with our existing truck since it is physically incapable of carrying all our tools.
 - Adequate storage for a wide-array of signs, sign posts and hardware: This would eliminate most of the trips back to the shop that currently need to be made in order to obtain the proper signs/hardware for field repairs (the existing truck has no accommodations for on-board sign storage, and very limited ability to carry other larger sign-related hardware, such as posts and soil anchors).
 - Addition of an air compressor: This would allow us to move from our unreliable two stroke gasoline-powered post driver to a pneumatic post driver, which would improve speed, reliability and worker safety.
 - Ability for workers to easily and safely access the truck bed from the curb side.
 - Addition of a full-size arrow board: The current truck has a small arrow "stick," with no ability to add a full-size arrow board. The existing arrow stick does not provide adequate safety/visibility, especially on high speed/volume roadways.
- Option 3 (\$180,000 approximate cost): This option would replace the existing truck with a full-size specialized sign maintenance truck. Nearly identical to the truck recently purchased by the Outagamie County Highway

Department, this type of truck could be customized to provide a wide array of options and capabilities. In addition to the items listed for Option 2, this option would include a man-lift system and an auger system, as well as additional space to provide more storage options.

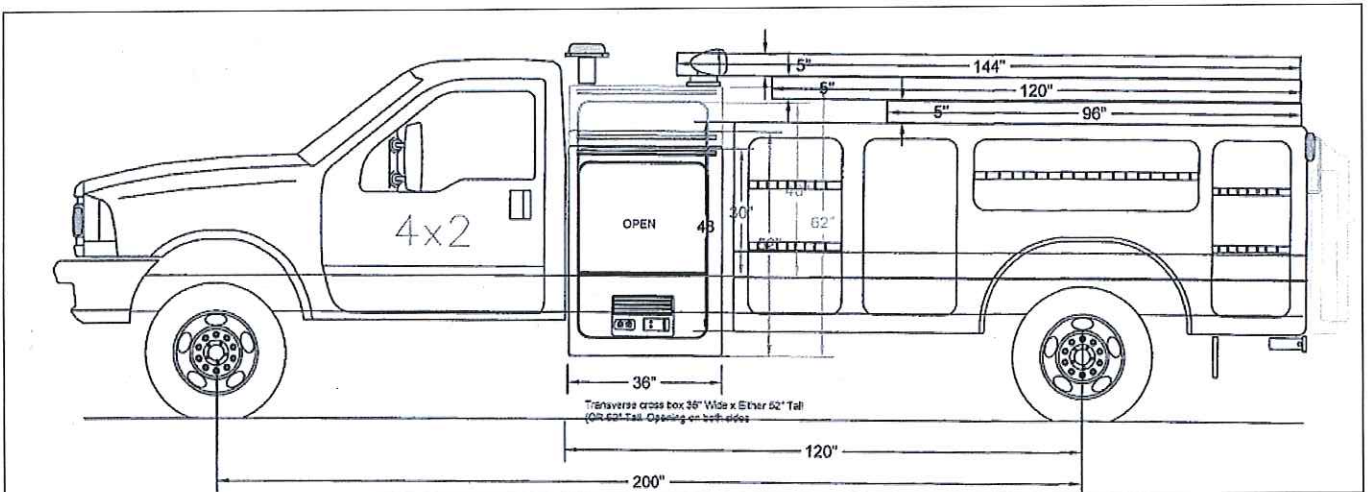
After careful consideration of the various options available to us, as well as a thorough review of our own operational processes, we concluded that Option 3 would yield the greatest efficiencies. However, we did not believe the additional costs associated with it were justifiable. Conversely, we concluded that Option 1 was not in the best long-term interest of the City, as it would serve to "lock-in" the associated operational inefficiencies and safety concerns for another 10-15 years.

That said, we believe that Option 2 offers the best overall long-term value for the City by addressing nearly all of the identified concerns at a price we believe is reasonable. For this reason, we recommend upgrading Truck 181 as noted herein at an estimated additional cost of \$61,200. If approved, the additional cost for the upgrade would be included in the DPW budget for 2018.

Attachment: Example Photos



Option 1



Option 2



Option 3