



Memo

TO: Mayor Manier and City Council
FROM: Ed Andrews, Public Works Director
DATE: March 16, 2018
SUBJECT: Residential Street Standards – Increase 0.5" Thickness of HMA

SUMMARY:

Staff reviewed the City's current residential street standards to determine if modifications could be done to reduce the street width, increase the sidewalk width, and improve the longevity of the streets. An analysis has been completed to determine if there may be support to amend the construction standards and/or subdivision code.

These findings were presented at the March 12, 2018 Committee of Whole Meeting with direction to maintain existing pavement and sidewalk widths, but to increase the thickness of hot-mix asphalt (HMA) from three inches (3") to three and a half inches (3.5").

BACKGROUND:

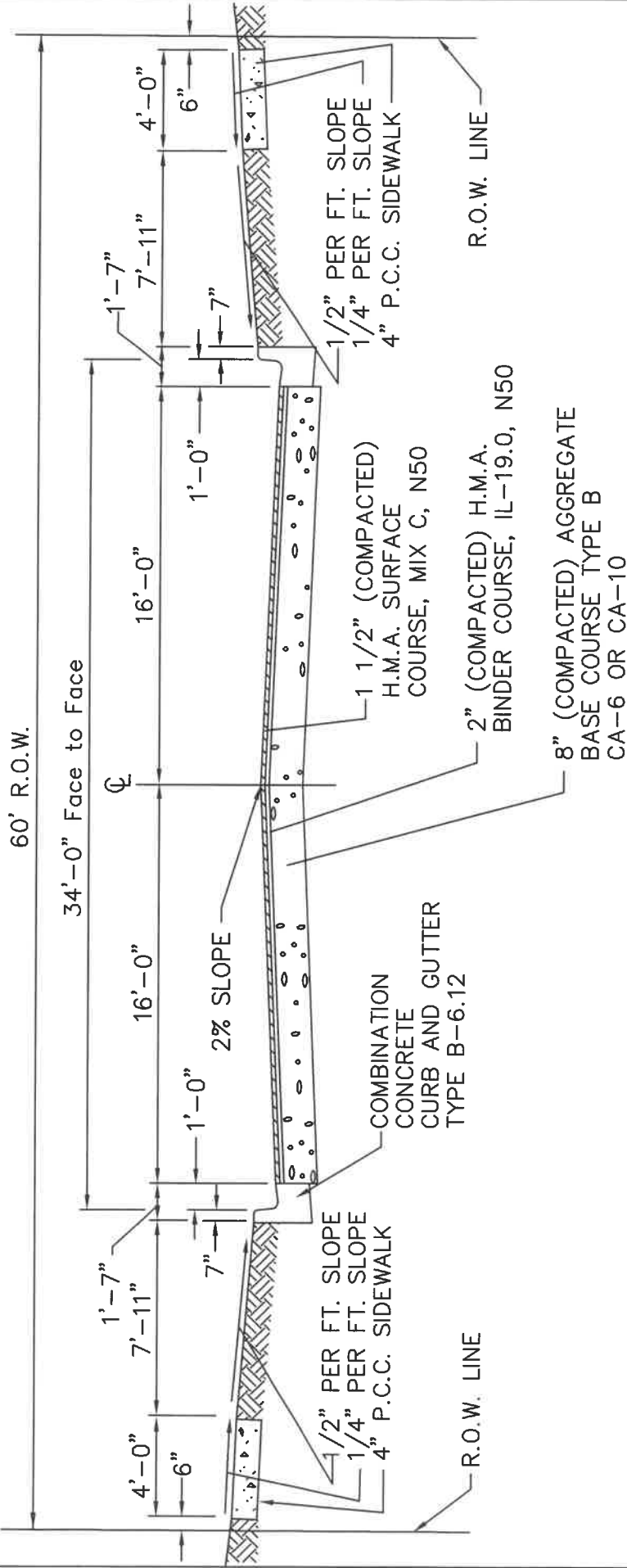
The City's current construction standards and subdivision code require a minimum of a 34' wide street from curb-to-curb (face-to-face) with a minimum 4' wide sidewalk for minor residential/local streets (ADT's of less than 1,000). A minimum 3" asphalt surface is required. Staff compared our standards with those of our larger regional counterparts. Street width standards vary from 28-34' and sidewalk widths are 4-5'. HMA surface depths vary from 3-4.5".

The current residential streets standard is not codified with possible traffic trends. In the fall of 2017 Council adopted a revision to the subdivision code requiring a traffic study to help designate collector or arterial streets in new subdivision developments. These streets would have traffic volumes of 1000 ADT or greater, based upon the average home generating 10 trips per day (10 ADT). Anything less than 1000 ADT would remain designated as a Minor Residential / Local Street. However, a review of the current Residential Street Standard reveals that the current pavement thicknesses only provide a design life of 20 years at a maximum ADT of 500. The potential for traffic between 500 and 1000 ADT reduces the pavement life from 20 years down to 11 years.

It was found that increasing the pavement surface depth by even 0.5" can add up to nine years of life to the design period of the road while only adding approximately \$1.10 per lineal foot to the initial cost. Per discussion with Public Works Committee and then the large Committee of the Whole, a revision to City Standard 001 – Residential Street (Asphalt) has been prepared.

This matter has been placed on the City Council meeting agenda of Monday, March 19th, 2018 for review and approval.

ROADWAY TYPICAL SECTION RESIDENTIAL STREET (ASPHALT)



GENERAL NOTES:

1. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" CURRENT EDITION AND SUPPLEMENTAL SPECIFICATIONS, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
2. EXPANSION JOINTS SHALL BE INSTALLED IN SIDEWALKS AT ALL PROPERTY LINES.
3. PROOF-ROLL SUBGRADE AND AGGREGATE BASE COURSE IN THE PRESENCE OF THE CITY ENGINEER.

City Of Washington

CONSTRUCTION STANDARD

DATE:

rev 3/16/18

STANDARD NO.

001