

Discussion items for PW 01/08:	PW's Recommendation
<ul style="list-style-type: none"> • Signal Equipment <ul style="list-style-type: none"> ○ Poles and cross arms – standard galvanized steel or painted black finish ○ Review cost difference for painted black equipment ○ LED luminaire's, total of 4 mounted on signal poles at each intersection quadrant <ul style="list-style-type: none"> ▪ Estimated cost of LED fixture is \$450 to \$700 each, based on output size ▪ Fixture project estimate is \$1,800 to \$2,800 ○ Review renderings, minimal obstruction to private building signs 	
<ul style="list-style-type: none"> • Riverwalk entrance aesthetic items <ul style="list-style-type: none"> ○ Place inset medallion with this project, or at a later date 	
<ul style="list-style-type: none"> • Outdoor dining on Eddy <ul style="list-style-type: none"> ○ Recommended to place outdoor dining in bump out area street-side ○ Install safety railing behind curb (similar to Oak St.) 	
<ul style="list-style-type: none"> ○ Identify dining space with colored concrete 	
<p>Esthetics related to retaining wall</p>	

East

ITEM 3b



West

ITEM 3c





STH 100 (Ryan Rd) & CTH V (13th St) w/ trombone arms



STH 100 (Ryan Rd) & CTH V (13th St) w/ signal per lane

From: Sarah Carpenter
Sent: Thursday, January 4, 2018 12:03 PM
To: Tim Mikonowicz <Tmikonowicz@msa-ps.com>
Subject: Eddy Street - Questions/Answers - Monotubes

ITEM 3e

Let me know if you need more information or other details for the next meeting:

VISSIM Video

Attached are two still pictures from the viewing height of a vehicle with the monotubes at Eddy Street. If you'd like us to just draft on an image for better clarity we can do that too.

I spoke to Andy Winga yesterday. He said the DOT will maintain the painted black poles and will maintain LED street lighting with the traffic signal as well. We are all clear to direct order. I have sent over a request to Millerbrandt to get an official quote for the materials. I'll follow up with them today again.

In regards to monotubes vs the traditional trombone arms, the Wisconsin Traffic Signal Design Manual states that *"monotube arm assemblies shall be used on any approach with two or more through lanes for...all permit projects beginning design on January 2012 or later."* The main difference between the monotube and the traditional configuration is monotube structures allow us to extend the arm a longer distance to comply with MUTCD standard in which a signal indication must align over each through lane. Trombone arms max out at 25' which won't allow us to get an indication over each lane. Head-per-lane has actually been shown to reduce crashes (right-angle and rear end specifically) by 20% in Wisconsin signalized intersections. Monotubes are non-breakaway structures and will not be in danger of knockdowns. One benefit perhaps is that trombone arms have two horizontal members which may block views more than a single arm member.