



# JOINT COMMITTEE ON DOWNTOWN STREETCAR IMPLEMENTATION FEBRUARY 17, 2017

the milwaukee  
STREETCAR

[WWW.THEMILWAUKEESTREETCAR.COM](http://WWW.THEMILWAUKEESTREETCAR.COM)

# Project Status – Recent Activity

- Reached 100% design for OMF and Phase 1
- Progressing 100% Final Design for Lakefront
- Conducted Project Meetings
- Continued Utility Coordination
- CM/GC team continues to develop
- Ongoing Constructability reviews
- Pre-Construction coordination meetings ongoing

# Project Status – 90 Day Look Ahead

- CM/GC to complete preconstruction activities
- Rail delivery to be scheduled, locations to be determined, goal is to minimize impacts
- CM/GC to begin track construction
- Footing and foundation work at OMF to begin
- Continue Private and Public Utility Coordination and Design
- Conducting Project Design, Utility and Vehicle Engineering Meetings
- Finalize Lakefront Design Drawings
- Kiewit engaged in meeting DBE/RPP goals and is coordinating with the City and WRTP Big Step to achieve those goals
- Operator RFP release imminent – to be published on DPW procurement Site and Streetcar website

# Project Status – Budget

## Streetcar Encumbrances Through Jan. 2017 \$66.22M

Capital Cost Breakdown	Phase I Budget (\$ millions)	Lakefront Line (\$ millions)	Total (\$ millions)	Total Spent to Date (\$ millions)
Construction	\$62.13	\$18.15	\$80.28	\$9.25
Vehicles	\$19.94	\$3.90	\$23.84	\$3.48
Professional Services	\$13.88	\$2.40	\$16.28	\$13.50
Contingency/Escalation	\$ 3.285	\$3.95	\$7.24	\$0
<b>Total</b>	<b>\$99.24</b>	<b>\$28.40</b>	<b>\$127.64</b>	<b>\$26.23</b>

# Schedule Overview – Phase One

## Phase One

	2017				2018			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<i>Final Design</i>								
<i>Utility Relocations</i>								
<i>Construction</i>								
<i>Testing</i>								
<i>Open for Service</i>								

# Schedule Overview – Lakefront Line

Lakefront Line	2017				2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
<i>Final Design</i>												
<i>Utility Relocations</i>												
<i>Construction</i>												
<i>Testing</i>												
<i>Open for Service</i>												



# Utility Coordination

- Agreement legal language has been agreed to on behalf of all private telecoms. Scope, schedule and budget to be negotiated on an Individual basis.
- All streetcar related water work has been completed.
- We Energies Phase 1 relocation work is nearing completion.
- DPW has, and continues to, Employ a Support for Business Program for construction related work

# Steps in Construction: Overview

## ***Advanced Prep Work:***

- Drainage and other utility work
- OCS Pole Foundations
- Rail delivery and welding

## ***Guideway Construction:***

- Excavate and grade
- Drag and set track
- Pour concrete slab

## ***Systems and Roadway Finishing:***

- Install poles and overhead wiring
- Finish roadway elements such as pavement marking, sidewalk, and traffic signals



# Steps in Construction: Rail

Rail delivered and welded in 5 spots along the route. Stored until track construction work comes to that area.



<http://sdotblog.seattle.gov/2012/06/20/streetcar-work-progresses-on-broadway/>



<http://www.dixinary.com/dictionary/flash%20welding>



[https://www.youtube.com/watch?v=fZO\\_hAvkvE-4](https://www.youtube.com/watch?v=fZO_hAvkvE-4)



Source: Kiewit

# Steps in Construction: Overhead Contact System (OCS) Foundations

- Drill foundations for overhead power system poles



<http://www.cincinnati-oh.gov/streetcar/news/streetcar-progress-update-may-4-2015/>



# Steps in Construction: Guideway

- Street excavation for track slab



<https://urbanrailtoday.com/category/atlanta/>

# Steps in Construction: Guideway

- Rail moved into place in street



<http://www.craigslist.com/apps/pbcs.dll/storyimage/CD/20141026/NEWS/310269949/V6/0/V6-310269949.jpg?MaxW=880&v=201411210943>



# Steps in Construction: Guideway

- Pour concrete around tracks



<http://www.kansascity.com/news/local/article26148769.html>

# Steps in Construction: Overhead Contact System (OCS)

- Set poles for overhead power contact system

<http://www.cincinnati-oh.gov/streetcar/news/streetcar-progress-update-august-25-2014/>



<http://www.cincinnati-oh.gov/streetcar/news/streetcar-progress-update-december-1-2014/>





# Steps in Construction: Overhead Contact System (OCS)

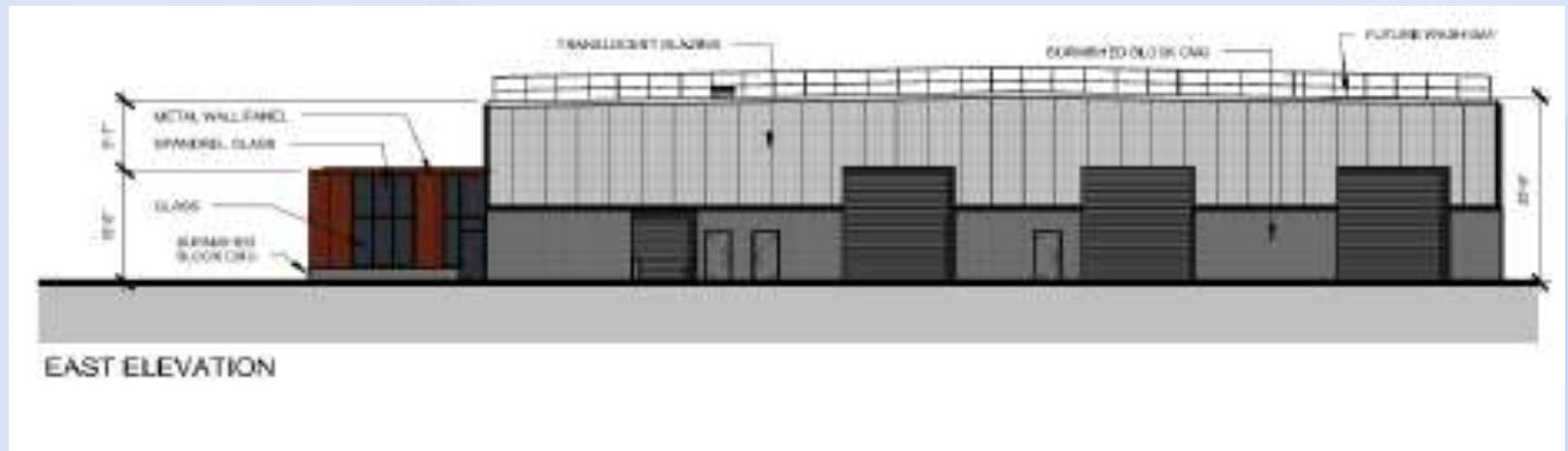
- Pull cable/wire through poles





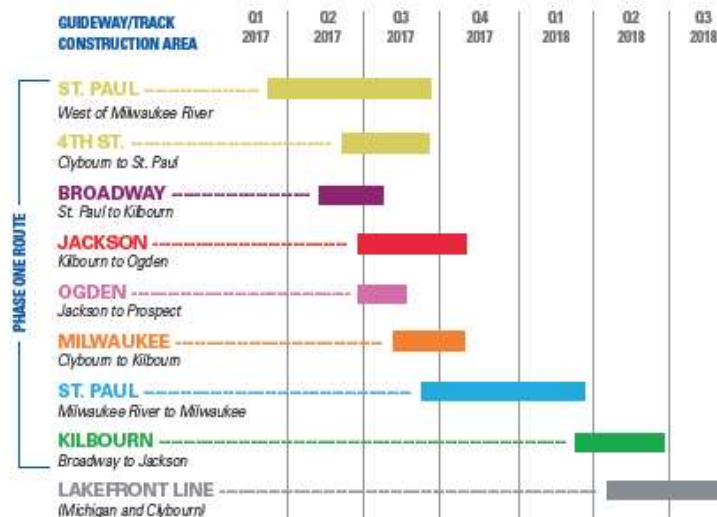
# Operations and Maintenance Facility

- **Construction timeframe:**
- Proposed Completion Winter 2017/18



# DRAFT

## THE MILWAUKEE STREETCAR — PRELIMINARY CONSTRUCTION PLANNING



*Note - This preliminary schedule shows guideway/track construction only. There will be other construction activity throughout the route before and after the draft time frame shown here.*



**PROJECT CONTACT INFORMATION:**  
 Streetcar Construction Helpline: 414-388-9418  
 Email: [comments@themilwaukeestreetcar.com](mailto:comments@themilwaukeestreetcar.com)  
 Sign up for construction news:  
[themilwaukeestreetcar.com/on-the-route](http://themilwaukeestreetcar.com/on-the-route)

**PRELIMINARY: SUBJECT TO CHANGE**

# Traffic Control Strategies During Construction

- One direction of traffic maintained in most areas
- Intersection closures – short and long term
- Pedestrian access maintained
- Coordination with major events and traffic generators
- Comprehensive look at business loading zones and driveway access



# Construction Public Involvement

- One-on-one meetings to prepare property owners along route
- Website and social media kept up-to-date with construction information
- Localized and broader e-blasts
- Construction team available to meet with local stakeholders:
  - 9am Fridays at the Public Market
  - 10am Fridays at Hotel Metro
- Customized direction sheets and construction updates
- Customized business signing

# Vehicle Procurement

- Conducting Bi-weekly Vehicle Engineering Meetings
- Vehicle Final Design Review February 2017
- Anticipated delivery of 1<sup>st</sup> Vehicle December 2017



# Vehicle Procurement

- City Visit to Brookville February 2017



# Staying Informed

- ✓ Facebook: [Facebook.com/TheMilwaukeeStreetcar](https://www.facebook.com/TheMilwaukeeStreetcar)
- ✓ Twitter: [@MilwStreetcar](https://twitter.com/MilwStreetcar)
- ✓ Streetcar Construction Helpline: (414)-388-9418
- ✓ Website: [www.TheMilwaukeeStreetcar.com](http://www.TheMilwaukeeStreetcar.com)
  - Construction News Sign-Up
  - E-Newsletters

