



# City of Milwaukee

200 E. Wells Street  
Milwaukee, Wisconsin  
53202

## Meeting Minutes

### CAPITAL IMPROVEMENTS COMMITTEE

**ALD. ROBERT BAUMAN, CHAIR**

**Ald. Milele Coggs, Ald. Mark Borkowski, Ghassan Korban,  
Martin Matson, Mark Nicolini, and Mariano Schifalacqua**

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Thursday, July 7, 2016

9:00 AM

City Hall, Room 301-B

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*Meeting convened: 9:05 A.M.*

*Glenn Steinbrecher present for Martin Matson*

*Mr. Nicolini arrived at 9:15 a.m.; Ald. Coggs arrived at 9:43 A.M.*

**1. Review and approval of the minutes from the May 25th meeting.**

*Mr. Korban moved, seconded by Ald. Borkowski for approval of the minutes. There were no objections.*

**2. Presentation of the Parking Condition Report.**

*Mr. Tom Woznick discussed the condition of the City's parking facilities. The City has 5 parking structures, the oldest of which is 56 years. The structures are located at 2nd and Plankinton, 1000 N Water, MacArthur Square, Milwaukee and Michigan, and 4th & Highland. The structure at 4th & Highland will be replaced as part of the arena project. The structure at Milwaukee & Michigan is leased to Johnson Controls. Mr. Woznick said both the single space and the multi-space meters are near the end of their useful lives. He said there are about 45 surface lots throughout the city that are used for public parking. Mr. Woznick said that based on the FCI (facility condition index), the parking structures are in good condition.*

*Mr. Woznick said the department has developed a 20 year program with the structural design team. He described the proposed work at 2nd & Plankinton and MacArthur Square structures. He said that work at MacArthur Square is being done in conjunction with a Dept. of Transportation project. Ald. Bauman asked if the City owns the Kilbourn tunnel. Mr. Korban replied that the state owns the roadway and the City owns the ceiling of the tunnel. Mr. Nicolini asked if the cost estimates for the MacArthur Square project were fairly well developed. Mr. Sean Shutten replied that the specifications for the project will be available next year and that the project will be let at the end of 2017 or in 2018. He said the budgeting and consulting have been completed and the pricing is pretty solid at this time.*

*Mr. Woznick discussed surface lot and tow lot repaving. He said a program was developed for the 45 surface lots. The lots that have the highest need for resurfacing, crack filling and striping have been identified.*

*Mr. Wosnick discussed the replacement of single space parking meters. He said that current single space, coin only meters will be replaced with smart meters that will allow the City to change pricing models, provide information to customers and accept*

credit card payment. He said a Request for Proposals will be put out this year and that meter replacement would be phased over several years. There are 3,800, single space meters and 3,100 spaces in the multi-space network. Mr. Woznick said that the current pilot projects suggest that single space meters have the highest level of customer satisfaction and that will be the focus of meter upgrades. He said that 10 years ago, there was no way for a single space meter to take credit cards. Now the single space meter industry can integrate with various technologies in the same way that the multi-space meter does. Ald. Bauman asked about the department's experience with MKE Park. Mr. Woznick said the public response has been fantastic. He said MKE Park averages around 2,200 transactions per day which is between 30% and 35% of the total transactions. He said the rate is significant because MKE Park has only been in use for about a year. He said the app had high integration from the beginning and has continued to grow. He said about 4,000 customers sign up and download the app each month. He anticipates that at some point growth will level off. He said widespread use of MKE Parks will help decrease meter maintenance costs because there is no wear and tear on the meter when customers pay with their phone. Ald. Borkowski asked if the new meters would accept coins. Mr. Woznick said yes. Ald. Bauman asked if meters were being installed on St. Paul. Mr. Woznick said he was not aware of a request for meters at that location but he would look into it.

### 3. Presentation of the Street Lighting and Traffic Control Report.

Mr. Roland Bertran discussed the street lighting system. He said there 77,000 lights in the system. Mr. Bertran discussed the series circuit conversion project. He said the target is to convert 2% of the system each year. He said the department has restructured its approach to the project and the improvement is moving forward. He said the department is targeting circuits that have the highest failure rates. Mr. Nicolini asked which areas are planned for this year and next year assuming a \$1 million budget. Mr. Bertran said that circuits SP7 & 8, which are generally located in the area between, W. Forest Home, W. Morgan, W. Oklahoma, S 51st and S. 60th were replaced in 2015 as were circuits T1, NW3 and NW4. Circuits SR 15 & 16, WK 7 & 8, NE 1 & 2, NM 11 & 12, SJ 9 & 20, SP 7 & 8, T1, and NW 3 & 4 were also replaced in 2015. Work scheduled for 2016 includes SR 7 & 8, which are located between S. Howell, E. Bolivar, E. Layton and S. Logan; NG 1, 2, 13 & 14 which are located in area between W. Hampton, W. Hope, N. Tetonia and N 35th; and NP 3 & 4, which are located between W. Florist, W. Silver Spring, N. 55th and N. 64th Street. Mr. Bertran discussed LED streetlights. He said that the department has identified an instrument that meets the City's specifications. The department has been testing LED lights in various areas of the City including along Montana, on Broadway and Market Streets, and in the 3rd Ward. Mr. Korban said that the Westlawn development has the most holistic LED lighting in the City. Ald. Bauman asked about the environmental impacts of LED street lights. Mr. Bertran said that one of the main issues is the color temperature of the lights and how that affects drivers, especially older drivers. He said that lights with a temperature of 4,000 kelvin are the most widely used by municipalities. He said the industry makes a 5,000 kelvin unit but it is not recommended. Mr. Bertran said that LED lights are being added in the series conversion project. He said it is a little more difficult to convert series circuits in conjunction with paving projects, but the department has found some creative ways to separate the circuits so they don't have to be retrofitted at a later date. Mr. Bertran said the initial cost of LEDs is somewhat higher, but they have a longer life expectancy. He also said that LEDs tend to experience light degradation near the end of their lives, not the sudden failure that occurs with HPS lamps. Because LED fixtures don't have ballasts, there are additional energy savings. He said the

department is replacing 700 to 850 lights per year.

Ald. Bauman asked about the conflict between trees and street lights. Mr. Bertran said the department is in the process of evaluating policies and practices. He said they are working with Forestry to determine appropriate planting distances.

Mr. Joseph Blakeman discussed the City's traffic control facilities. He said there are 767 signalized intersections. He said that seven of the signals were acquired through a jurisdictional transfer, most of them on Appleton Avenue. (@Florist/107, Carmen, 91st, Grantosa, Hampton, Congress) He said the department is continuing the city wide conversion to countdown timers; 129 were added in 2015. Two audible pedestrian signals were added in 2015. He said the department is beginning to install non-intrusive detection at intersections to get loops out of the pavement. As of January, 25 intersections had been completed.

Ald. Bauman asked how the fire preemption system worked. Mr. Blakeman said that the City uses infrared technology. He said it is usually located in the light bar of the vehicle. A small detector is located on the pole or the mast arm of the traffic signal.

Ald. Bauman asked if that system would work for bus rapid transit. Mr. Blakeman said that it could. He said transit signal priority technology can use either infrared or GPS technology.

Mr. Blakeman discussed crosswalks with rapid flashing beacons. He said there are six crosswalks that have rectangular or circular rapid flashing beacons. He said that the research sponsored by Texas A&M University to determine which shape was more effective found no significant difference between the two shapes. The rectangular shape has been designated as the standard so the circular test signs will be replaced with rectangular ones.

Mr. Blakeman said that four intersections have been programed for audible pedestrian signals. (W. Capitol Drive & N. 76th Street, W. Appleton Avenue & N. 76th Street, W. Congress and N. 76th Street, and W. Fond Du Lac Avenue and W. Silver Spring Drive)

Mr. Blakeman discussed the traffic controller replacement project. He said the existing controllers use technology from the early 1980s. He said that parts are becoming difficult to get. He said 35 new controllers have been installed. He said there is funding to replace about half of the controllers over the next 5 years. He said the new controller cabinets will be connected to the City's fiber optic network.

Mr. Blakeman discussed the LED traffic signal conversion which began in 2005. He said that an evaluation of crash data from the last 10 years showed that disregard crashes peaked in 2007 and then decreased by 40%. He said that the data included all disregards so it includes stop sign related crashes, but the reduction coincided with the installation of the LED traffic signals. Mr. Blakeman said that some of the LEDs are beginning to fail. By 2017, 25% of the LEDs will be more than 10 years old and by 2019 more than 90% will be at least 10 years old. Mr. Blakeman said that the Dept. of Transportation experienced about an 8 year life with their first generation LEDs. He said that group replacement of the LEDs should begin next year.

Mr. Blakeman said that projects are completed with City capital funds, and federal and state funds for paving projects as well as Highway Safety Improvement Program (HSIP) and Congestion Mitigation and Air Quality (CMAQ) funds.

Mr. Blakeman discussed the age and installation of street signs. He said about 2,000 signs were added last year. The additional signs were primarily new signs required for school zones. A few hundred new stop signs were added for speed humps. He said about 2/3 of the street signs are less than 20 years old. At the budgeted level, the department expects regular and warning signs to be compliant for retro-reflectivity by Jan. 1, 2019. Street name and other guide signs are expected to be compliant by Jan. 12, 2026. Mr. Blakeman said that signs last between 16 and 25 years depending on the color of the sheeting and the letter color. Mr. Blakeman discussed the number of signs that are past their useful life. He said that 1,390 of 21,000 white signs, 2,100 of 7,600 yellow signs, 300 of 18,300 red signs and 11,500 of 21,900

*green signs are older than they should be based on the department's retro-reflectivity study.*

*Mr. Blakeman discussed the pavement marking program. He said the department maintains 295 locations that are arrows and only, 4,563 crosswalks, 1,246 stop bars and about 3,000 angle parking spaces. He said 11 miles of lane lines and center lines were added in 2015. As of Jan. 1, 2016 there were 154 speed humps. Mr. Blakeman discussed the useful life of pavement markings He said the waterborne paint currently used by DPW lasts about a year on the centerline. Dashed white lane lines are repainted two or three times per year depending on the roadway. The epoxy used on state paving projects last about 3 years. The inlaid thermal plastic used on High Impact paving projects lasts about 5 years.*

#### **4. Presentation of the Underground Conduit Report.**

*Mr. Roland Bertan discussed the underground conduit system. He said the system is 9% iron pipe which was installed in the early 1900s, 19% clay, 53% fiber and 19% PVC. The fiber causes the most concern because when it gets wet it tends to collapse. The department is exploring ways to rehabilitate existing ducts by pushing new pipe through the existing duct package. Mr. Bertran said there are 7,500 active communication and electrical manholes. He said 2017 will be the last year of a 5 year manhole inspection program. Inspections have identified 320 manholes that need to be replaced, 95 that require deck replacement and 690 that need chimney repair. The department has begun doing the repair work with a City crew. The data the department has collected so far indicates that there will be cost savings.*

*Mr. Bertran discussed projects in 2015, 2016 and 2017 including the City hall Foundation project, Westlawn and the Bucks arena.*

*Mr. Bertran discussed conduit leases. He said the City leased conduit space to nine telecommunication companies. Annual revenue is \$923,700. Ald. Bauman asked who sets the price and how we know that we charging the appropriate rate. Mr. Bertran said that prices are defined in Chapter 98 of Code of Ordinances. He said the department is in the process of reviewing the leases and will make recommendations to revise Chapter 98.*

#### **5. Presentation of the Public Facility Communications Report.**

*Mr. David Henke discussed the condition of the City's communication network. Ald. Bauman asked how much excess capacity is in the conduit system. Mr. Henke said that system utilization varies by location. He said that the downtown area is very congested and in other areas there is less utilization. He said that areas where the City has a lot of facilities tend to be the same areas that the telecommunications companies want to be. Ald. Bauman asked about the status of call boxes. Mr. Henke said the called boxes are managed by ITMD. He said the call boxes continue to be utilized for the copper communication but the department is downsizing over time. If a call box is damaged or conflicts with a paving project, it is typically removed.*

*Mr. Henke discussed the copper system. He said that it is an older technology that is still used for small sized circuits for remote sites or cabinets. He said that to reduce maintenance costs, the department is moving off of copper over time by replacing copper with gateways and IP phones that utilize the data network and fiber optic. Mr. Henke said there are 637 active repair tickets for copper. Each year more copper tickets are entered than are closed. He said that instead of repairing the copper, the department attempts to relocate services to an alternate technology or a different facility. He said eventually, the copper system will not be used.*

*Mr. Henke discussed the fiber optic system. He said the City has been installing fiber optic for about 25 years. He said the majority of our communications and high speed*

*communications are on the fiber network. He said most of the fiber installation is for construction avoidance and for relocating facilities. He said that when fiber is relocated for construction projects, it is not automatically restored to its original location. The fiber may be restored in the future if a need arises. He said that fiber was relocated off of the Vliet Street Bridge over the Stadium Freeway this summer and that a project on N. 76th Street over W. Silver Spring Drive will be done next year. Mr. Henke said ITMD is working with DPW to install fiber for the new traffic control cabinets and that fiber will be installed to serve the new libraries. Mr. Henke said that in 2015 there were three unscheduled construction incidents that damaged the fiber network and five planned construction cuts.*

*Mr. Henke discussed the City Hall Foundation project. He said that the project is an opportunity to migrate communications to fiber. He said there are over 1,600 copper pairs that provide service to City Hall and that there are over 2,000 pairs from outside locations that come into the building. He said the number of copper pairs will be reduced by over half by the time the project is complete.*

*Meeting adjourned: 10:18 A.M.*

*This meeting can be viewed in its entirety through the City's Legislative Research Center at <http://milwaukee.legistar.com/calendar>.*