

Memorandum

City of Lawrence

Public Works

TO: Mark Thiel, Assistant Public Works Director

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Date: August 1, 2013

RE: **2013 Engineering Division Mid Year Report**

The Engineering Division is responsible for the review and approval of all public improvement plans for streets, sidewalks, Rights of way, driveways and storm sewers. The division administers designs and inspects these projects. The division evaluates pavement condition and contracts for major pavement restoration and replacement. The Engineering Division solicits grants and other funding for major reconstruction or new construction projects.

In addition to project management, Engineering includes work groups for Storm water Engineering, Traffic Engineering, Bridge inspection, Levee inspection / monitoring, Surveying and supports services, including providing mapping and GIS functions for public information. The Engineering Division is responsible for the Farmland Industries redevelopment project including remediation efforts of ground water and future development as industrial site.

In-house Design Plans

The Engineering Division is working on plan sets and construction documents for upcoming projects:

- 9th & Kentucky - KDOT safety project to install new signal equipment, to be constructed in Spring 2014
- 9th: Emery to Michigan - KDOT safety project install a center two way left turn lane and new signal equipment at 9th & Emery to be constructed in Summer 2014.
- Haskell Rail Trail pavement extension south of 23rd St.
- 2100 Block of Vermont - Brick Street Reconstruction

Residential Additions

Several residential additions with new privately funded infrastructure improvements have had plans approved and some have construction underway:

- Landon Court - 1000' new street, storm sewer and waterline
- North Sycamore (Kaw Ct.) - 300' street with culdesac, storm sewer and waterline
- Stonegate IV (Daylily Dr., Daylily Ct., When Dr., & Prairie Clover Court) - 2100' new street, storm sewer and waterline
- Fox Chase South No. 3 (Kanza Dr. & Warren Ct.) - 700' new street, storm sewer and waterline
- Oregon Trail - Phase 1 of subdivision on Overland Drive, west of Stoneridge Drive

Iowa Reconstruction Project

The Iowa project has finished Phase 2, completion of the intersection at Iowa & 15th/BBP, on July 30th. All pavement and driveways are complete on 15th St and Bob Billings. Sidewalk and signal installation is complete and the intersection was reopened on schedule.

Phase 3 is underway which encompasses reconstruction of Iowa from north of the 15th intersection to Harvard. The estimated project completion date is November 16, 2013.



BBP looking east



Irving Hill Road bridge looking north

Farmland

The Farmland Infrastructure project involves the construction of a new street which connects the existing East Hill Business Park to the recently completed signalized intersection of 23rd Street and O'Connell Road. The improvements with this project include street, storm sewer, rough site grading and water line improvements. Being constructed concurrently with this project are sanitary sewer improvements.

The majority of the site grading has been completed. The alignment of the new east to west road has been rough graded. Construction is also underway on a reinforced concrete box to span the principal drainage ditch through the site. Demolition of the former Farmland lab as well as the compressor building foundation has also been completed. The sanitary sewer line construction has reached the west end of the remediation ponds and will turn south along the east bank of the principal drainage channel.

A brand new electrical service was recently completed on site. This new system provides power for the ground water remediation pumps to operate. The new system has two circuits as opposed to one which provides some redundancy to the system so that the entire system does not lose power. Maintenance for the new system is primarily the responsibility of Westar power company with the exception of the hookups between the meter poles and pumps. This system replaced the 40 to 55 year old aging electrical system that was entirely the responsibility of the City of Lawrence.

23rd & O'Connell Signal Improvements

Construction for project PW1127, 23rd Street & O'Connell Rd Street and Storm Sewer Reconstruction was complete in May and the signal is operational. A concrete approach, including stamped colored brick concrete, to the north was completed and an eastbound left turn lane was installed. This intersection is critical as the future entrance to the Farmland property and serves the existing residential development to the south.



23rd & O'Connell looking west

Bob Billings Parkway - Kasold to east of Crestline, street and waterline

Waterline construction began outside of the roadway near Kasold on May 15th; road reconstruction began on May 20th. Demolition of Bob Billings roadway commenced on eastbound lanes from Kasold to Crestline Drive and on westbound lanes from Crestline Drive to Iowa Street. New asphalt and pavement markings have been completed for the westbound lanes east of Crestline. Traffic has been switched to this completed section and demolition has now been completed for the eastbound lanes east of Crestline. City crews have replaced storm sewer on the project that was in poor condition. The shared-use path grading has been completed for the entire project length and the path has been poured and completed from Kasold to the box culvert just west of Lawrence Ave. The waterline has been completed from Kasold to Crestline Drive and work continues to tie into the Iowa project. The project is scheduled to be complete by August 23rd.



Bob Billings Parkway westbound lanes east of Crestline

Dillons Traffic Calming

Dillons has allocated funds for traffic calming in the Barker Neighborhood. Two public meetings were held with the neighborhood and after reaching a consensus, plans were prepared in-house by the Engineering Division. A project was bid with 7 speed humps to be installed on 17th Terrace and 18th Street, between New Hampshire Street and Barker Street and on New Hampshire Street, between 17th Street and 19th Street. The low bid for this project was \$48,721.00. Construction is underway and has a completion date of August 31, 2013.

Wakarusa Reconstruction - Research Parkway to Oread West

Wakarusa Drive Reconstruction started May 20th. This project will add bike lanes and a center left turn lane from Research Park Way to Oread West Drive. Phase one, the reconstruction of Wakarusa Drive from the south of Bob Billings Parkway to Research Park Way, is complete and Phase two, the reconstruction of Wakarusa Drive to the north of Bob Billings Parkway past Oread West Drive is underway. The contractor has been delayed due to rain events and utility conflicts and the project is expected to be complete by mid-September.



Wakarusa Drive south of BBP

Crosswalks

The crosswalk installation project in the downtown area is complete; 18 intersections were included in the project.



Installation of new crosswalk markings at 10th & Vermont

Pennsylvania Street Reconstruction

The construction of 9th Street from Delaware to Pennsylvania, the intersection of 8th and Delaware, 9th and Delaware, and the storm sewer for this project have all been completed. The contractor is currently setting bricks on the 800 block of Pennsylvania and is setting up for the construction of the intersection of 8th and Pennsylvania. The contractor, AT&T, WOW, and Westar are working together to get underground utilities installed in the alley to the west of Pennsylvania.



Reset bricks on Pennsylvania Street

2013 KLINK: Iowa – 29th Street to South City Limits

The 2013 KLINK project includes a mill and overlay project on Iowa Street between 29th Street to the south Lawrence city limits. Other items of work include curb repair, sidewalk construction, full depth pavement patching where needed, and pavement marking installation. This project was awarded to Sunflower Paving Inc. by the city commission on June 25th, 2013. Construction will begin in late July with an estimated completion date of August 31st.

9th & Tennessee

The 9th & Tennessee project consists of a mill and overlay of 9th Street between Tennessee and Kentucky Streets. Other items of work include recessed parking, curb repair, sidewalk construction, pavement marking installation, and new traffic signals to be installed at the 9th & Tennessee intersection. This project is 90% funded by KDOT with a 10% city match. This project was awarded to Sunflower Paving Inc. and construction is set to begin August 5th with completion in September. Traffic signal installation, parking stall construction, and other work outside of the roadway will start first.

2013 Microsurfacing Program

The asphalt patching and microsurfacing operations have been completed, reviewed, and accepted by City Public Works staff. Reestablishment of pavement markings was completed on August 14, 2013 which is also the final acceptance date starting the one year warranty period. This project included a number of City residential and collector streets. Streets that received microsurfacing were determined to be in generally good condition. These streets were included with the microsurfacing planned process as a preventative maintenance work activity to preserve the streets while also addressing some structural deficiencies to prolong pavement life cycle and effectively sustain the infrastructure assets. City streets that are deteriorated beyond the recommended condition for microsurfacing will be typically included in the maintenance plan for milling and overlay.

2013 Concrete Rehabilitation Program

Currently, the project is approximately 75% complete. This concrete rehabilitation project includes intermittent curb repair and replacement, some adjacent concrete sidewalk impacted by curb replacement including access ramps, and various concrete street pavement removal and replacement. The street curb and gutter and concrete pavement sections being worked on are in poor condition with extensive concrete deterioration. Imprinted concrete crosswalks were installed at the intersections of 19th & Barker and Harvard & Monterey Way as part of this project. The completion date for the project is late August of 2013 but may be extended into September based on the addition of some curb and sidewalk work on High Dr and Emery Rd.

2013 Overlay Program Phase 1

The project is over 50% complete and is scheduled to be completed in late September. This milling and overlay project includes some curb and gutter removal and replacement on City streets as well as some concrete valley gutters and intersections. These streets are generally in fair to poor condition and the planned maintenance work will lead to improved drainage characteristics and structural capacity. Currently, the pavement segment of Bob Billings Pkwy from Wakarusa Dr to Foxfire Dr has been deferred to a future program year, tentatively 2013. The milling and overlay of Naismith Dr from University Dr to Crescent Rd was added to the project

23rd St Access Management Projects

The Engineering Division worked with applicants redeveloping both Myers Liquor and Chipotle to include access management improvements. Adjacent property owners for each project (Jiffy Lube & Car Toyz) were receptive and agreeable to making the access improvements that will mitigate conflicts and improve safety through the 23rd St corridor.

18th Street & Kentucky Street Pedestrian Hybrid Beacon (PHB)

In June 2012, the Traffic Safety Commission (TSC) heard a request from Cordley Elementary School parents to construct a PHB at the intersection of 18th Street & Kentucky Street. The TSC forwarded the request to the City Commission with a recommendation of approval. In August 2012, the City Commission approved the request. In September 2012, funding was secured for the project and city staff began purchasing the equipment necessary. All equipment was received during the winter months and a contractor was obtained to begin construction as soon as weather permitted in the spring of 2013. All construction was completed and the PHB was turned-on in early June 2013. The final cost for the project was \$41,800.



18th & Kentucky Pedestrian Hybrid Beacon

Traffic Engineering Operations

The Traffic Engineering operations has completed several projects so far in 2013, to date:

- Installation of video detection at 17th and Mass.
- Replacement of one signal pole at 6th & Wakarusa.
- Replacement of two round-about poles at 28th & O'Connell.
- Replacement of one signal pole at 33rd and Iowa.
- Installation of new Traffic software in the Traffic operations Center to enhance the Lawrence ITS system.
- Completed the signal at E 23rd and O'Connell into operation.
- Installation of a HAWK signal at 18th & KY to provide a safer crossing for school students.
- Painting crews started painting June 1st and have completed 21.8 lane miles of pavement markings.
- Repaired 762 signs that were damaged, worn, or stolen.
- Installed 126 new signs.

- Inspected 226 signs for wear and/or deterioration.
- Performed preventative maintenance on 27 intersections
- Handled 249 traffic calls.
- Performed 136 Vehicle counts.
- Installation of Painted Bike Lanes on Princeton Blvd and Lawrence Avenue



Bike Lanes on Princeton Blvd and Lawrence Avenue

University of Kansas Master Plan Update

Staff assisted KU with getting traffic counts at intersections surrounding campus and provided crash data at several intersections. The data will be used by consultants working to update the university's master plan.

ITS Projects

The Engineering Division submitted two applications and formally presented to KDOT for ITS grant funding to expand the fiber optic network in the city. One application included equipment and software for intersections along Clinton Parkway , Wakarusa and 6th Street west of Wakarusa. The second application included installation of conduit, fiber, and intersection equipment on 6th Street from Iowa to Wakarusa. KDOT anticipates announcing the projects being awarded this August.

Rock Chalk Park

The division has been involved with the progression of the Rock Chalk Park development this year including plan review, updating cost estimates, reviewing contractor submittals, and inspection.

Sidewalks in East Lawrence

Public works staff is currently working on reviewing the current condition of sidewalk and inventory map from 7th St to 10th St and Delaware to New Hampshire to recommend improvements in the

neighborhood and investigate routes for a future lighted pathway from the Warehouse Arts District to downtown.

2014 Projects

Engineering staff has been working on plans, schedules, utility conflicts and cost estimates for several projects that will begin in 2014:

- 23rd & Iowa - reconstruction of intersection, landscaping enhancements, sidewalk improvements on the southwest corner and access management improvements on the northeast corner
- 6th & Iowa - extension of box bridges to the north and coordination with KDOT
- Bob Billings/K-10 interchange - working with KDOT on improvements and coordination with Langston Commons on northeast quadrant
- 31st Street extension from Haskell to O'Connell - project being let by KDOT with South Lawrence Trafficway, resolving utility conflicts at 31st & O'Connell.