



A Publication of the Dallas County Department of Public Works Volume 8 – Issue 1 – Fall, 2015

## Why Water and Sewer Infrastructure Projects

*That person is like a tree planted by streams of water, which yields its fruit in season and whose leaf does not wither— whatever they do prospers.*

*Psalm 1:3*

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Water is an essential life support and Water Infrastructure is essential to the life support of a community.

Water and sewer improvement infrastructure projects are built primarily to provide safe drinking water and to treat sewage systems to meet state wastewater standards thereby reducing related health risks. Some of these projects are necessary for communities to build new facilities or expand/improve existing ones to meet new regulations. Many communities do however; invest in new water and sewer facilities to encourage economic growth. These economic growth impacts may be simply the expansion of existing businesses or attracting the actual introduction of new business, new industry, or new ventures. Studies have shown that the availability of adequate water and sewer facilities are among the factors that influence businesses in their selecting an area to locate, relocate or expand into.

**Beneficiaries:** When a water or sewer infrastructure project is built to serve, entice, and/or encourage the influx of a potential firm or business, these firms or businesses are called the direct beneficiaries. Their economic impact is called the direct effect of such water and sewer projects. Once an infrastructure water and sewer project has been built it also benefits existing businesses and uses and helps attract new businesses and uses to the project area. For the inland Port Area which is in the southeast quadrant of Dallas County, this is essential. Also in communities such as the City of Cockrell Hill, improvements such as the water and waste water improvements demonstrates valuable partnering to improve the quality of life for all. Water and sewer infrastructure projects can save and/or create jobs, spur private sector investments, attract government funds and enlarge the property tax base.



**Strategic Objective:** One of the core objectives of the Dallas County Capital Improvement Program (MCIP) is the partnership opportunities it offers to the local communities not only in the area of transportation but also in all facets of the local government's effort to enhance the quality of life for its citizens, the Dallas County Tax Payer. The term "Capital Improvement" embodies a wide spectrum of common interest endeavors. The Dallas County Public Works Department, under the direction of the Commissioner's Court, has committed its resources to the planning, design and construction of an Infrastructure Water and Sewer MCIP Project.

Recent legislation (SB/HB SB 1271) permits Texas counties to not only fund, but also plan, design, and construct water and sewer infrastructure projects. This newsletter highlights projects of the ongoing water and sewer infrastructure projects this department is actively involved in this region. The initiative to delve into the planning, design, and construction of water and sewer infrastructure projects was the result of "thinking-out-of-box" strategy. Dallas County elected officials desired a broader application of the County's successful MCIP. It is the goal of the MCIP program to enhance the infrastructure by encouraging the quality of life and growth of a healthy and safe community. In addition, it is also evident that the MCIP had a direct influence on rejuvenating or spurring forward with economic advancement within proximity of project areas.

Also highlighted in this newsletter is our 2014 Utility Partners of the Year - Ms. Amy Loo from Oncor Electric (interviewed by Public Works utility team member, Faye Searcy) as well as all of the 2014 recognized utility partners. These individuals representing key utility partners continuously demonstrate the pro-active spirit that is involved to provide utility services for Dallas County and the North Texas area.

With these partnerships, sustainable systems are the benefits to the County and local communities. Sustainability is defined as: meeting the needs of today without compromising the ability of future generations to meet tomorrow's needs. By building key utility projects through partnering efforts, Dallas County will enhance the quality of life and welfare for its citizens and future generations.



# Bonnie View Paves the Way for New Development

Dallas County Public Works has been in the water and sewer business indirectly for several years, mainly by the inclusion of city-funded utility betterments in its paving and drainage construction contracts.

Historically these utility betterments have amounted to smaller water and sewer mains that serve businesses and citizenry within the immediate project limits. However, in a recent project – Bonnie View Road – Dallas County expanded its scope of utility involvement by partnering with Dallas Water Utilities to construct a small portion of DWU's Southwest Water Transmission Pipeline in conjunction with the road improvement project.

Long-term water supply has been at the forefront of public policy debate in Texas in recent years. DWU's Southwest Water Transmission Pipeline project is an example of a project that has helped reduce concerns about water supply locally. It is a 32-mile long project consisting of either 120-inch or 96-inch diameter pipe that spans multiple customer cities in southern Dallas County and will meet the long-term water demands of these cities upon completion.

DWU has independently pursued some of the private property acquisitions necessary to construct the large scale project, while also seeking alternative, economical delivery methods. One such method is to partner with other public agencies to construct portions of the pipeline along with other public infrastructure projects. The County's Bonnie View Road project was one of a number of county projects identified as a collaborative project.



Located in the City of Dallas on the western fringe of the Dallas International Inland Port area, the Bonnie View Road paving and drainage project is 1.8 miles in length, with limits from Wintergreen Road to Langdon Road. Within these limits, about 3000 feet of 96-inch diameter steel water pipe was installed at a construction cost of \$3 million, representing 25 percent of the overall construction cost.

S.J. Louis Construction, a contractor based in Mansfield, Texas, was awarded the \$12 million Bonnie View Road project in summer 2013. Project construction began in fall 2013 and is expected to be substantially complete by the end 2015. S.J. Louis Construction was directly responsible for installing the water pipeline, which took six months to complete due to construction challenges and inclement weather.



Because the pipeline was installed under new concrete pavement constructed as part of the project, one of the challenges was assuring adequate compaction of the soil used to backfill the 10-foot wide pipe trench. If adequate compaction was not achieved, the integrity of the new road could be compromised. This component of the quality control/quality assurance plan involved coordination between three materials testing laboratories retained by the contractor, Dallas County Public Works and DWU, respectively.

The pipeline was installed at depths of up to 20 feet. Groundwater was encountered during these excavations, requiring installation of underdrains to mitigate the adverse effects of prolonged groundwater saturation on the new pavement subgrade.

The Bonnie View Road project collaboration is a textbook example of how interagency coordination results in comprehensive infrastructure improvements delivered in a single project, thereby optimizing the benefit to Dallas County constituents. This supports Public Works' mission to improve the quality of life for our customers and further enhances our reputation of being an effective project delivery agent and valued partner.



## An Overall Comprehensive Pleasant Run Road Project

In 2012, the Southern Dallas County Infrastructure Analysis (SDCIA) study gave recommendations about the Inland Port area which is an industrial logistic hub in southern Dallas County that takes in parts of Dallas, Hutchins, Lancaster and Ferris, as well as unincorporated areas. One of their findings mentioned that the City of Wilmer will need additional water supply capacity to meet new demands. Another independent study completed by the City of Lancaster, called the Wilmer Water Service Route Study determined that Lancaster could supply 0.8 million gallons of water per day to Wilmer to meet its future water demands without affecting Lancaster's ability to meet their own future water demands.

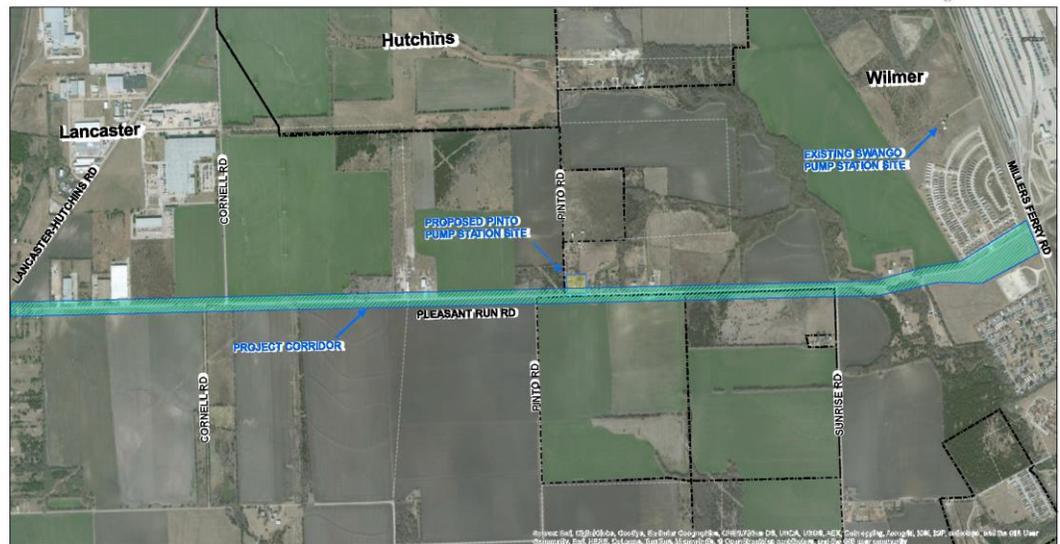
After several meetings with local stakeholders, Dallas County became involved and is partnering with the Cities of Lancaster and Wilmer as well as the North Central Texas Council of Governments to provide water, wastewater, paving and drainage improvements along Pleasant Run Road from Lancaster-Hutchins Road to Millers Ferry Road. This nearly \$30M construction project is divided into two phases where all of the water improvements are in the first phase and the remaining elements are being completed in phase two.

Dallas County is the lead project manager for both phases and for the first time due to (SB1271) the County has jurisdiction to solely handle any water and wastewater improvements projects. The water system improvements involve: installing a 16-inch waterline from Cornell Road to Millers Ferry Road, upsizing an existing waterline with a new 12-inch waterline along Millers Ferry from Pleasant Run Road to Adams Street, as well as at the existing Swango Pump Station. The water improvements also involve a new pump station that will have a 0.5 million gallon elevated storage tank and a 1 million gallon ground storage tank at Pinto Road.

In the second phase, the sanitary sewer improvements consist of a 12-inch sewer line to serve Lancaster from Pinto Road to the west of Cornell Road and installation of a temporary lift station with a 4-inch main at Cornell Road. The city of Wilmer will have their own system from Pinto Road that will connect to Greene Road east of Cottonwood Creek.

The roadway and drainage improvements for the second phase will consist of a 130 foot right of way corridor with a 4-lane divided roadway and a wide median to allow for a 6-lane roadway in the future from Lancaster-Hutchins Road to Millers Ferry Road. The intersections at Pinto and Cornell Road will be realigned to eliminate the staggered intersections. A 30-foot corridor running along the southern side of the roadway will have a 12-foot wide hike/bike trail and an area for future utilities. Lastly, the drainage will have an enclosed system along Pleasant Run Road and an upsize existing culvert crossing at Cottonwood Creek. Construction for the waterline improvements is expected to begin in September/October 2015 and phase two construction is scheduled to begin in the summer of 2016.

### Pleasant Run Road Infrastructure Improvements Project Corridor





# Cockrell Hill Road Project

As part of the design process of road building, cities are asked if the water and waste water lines need to be upgraded or replaced. On the Cockrell Hill Road project in the City of Cockrell Hill, Dallas County's Community Development Block Grant (CDBG) program along with the City of Cockrell Hill determined that both the water and waste water systems needed to be upgraded and/or replaced. The CDBG program is funded by the federal department of Housing and Urban Development (HUD) for cities to use in low and moderately low income neighborhoods for road, water and waste water improvements.

From the city records, it was determined that both the water line and the waste water lines were installed 50 years ago. The waste water lines required a television assessment and condition report to determine if the line needed replacement or to be relined. The waste water mains are 6 inch and 8 inch I.D. (Inner Diameter). The existing lines consisted of vitrified clay tile (VCT) and reinforced concrete pipe (RCP). Both types of material leave the lines leaking to the surrounding area. The decision was to rehabilitate the main waste water lines. The method chosen to rehab the main line along Cockrell Hill Rd. is cured - in - place - pipe (CIPP) because it has less impact to the traffic, future maintenance, local residents and business. CIPP re-lines the existing waste water main. The waste water project bid was \$319,636 of CDBG funds. The project included rehabbing the main sanitary sewer line and adding 8 new waste water manholes (MH). Work started in early August 2015 and completed by September 3, 2015. The rehabbed waste water line should last at least fifty years with yearly maintenance.



Records have indicated the existing water mains along Cockrell Hill Rd. consists of 6 inch and 8 inch I.D. (Inner Diameter) cast iron (C.I.) and ductile iron (D.I.) pipes. The city's current standard is to use polyvinylchloride (P.V.C.) pipes. Also the existing fire hydrants do not meet the current fire protection requirements. The design of the water line project was funded by County CDBG funds. The water line construction is divided into two projects. The city is the construction manager from the Moler Street at the south city limit to Penrod Ave. and from Tiffany St. to Meredith Ave. at the north city limit. The city is funding the \$600,000 construction of the water main project through a low-interest loan from the Texas Water Development Board. The city opened bids in October 2015. Construction will be from November 2015 through March 2016. Construction for replacing the water main will be by open trench method.



The water main from Penrod Ave. to Tiffany St. is to be constructed as part of the Cockrell Hill roadway project. This section of Cockrell Hill Rd. includes Jefferson Blvd. intersection. The Jefferson Blvd. at Cockrell Hill Rd. will be a roundabout that will replace the existing traffic signals. The construction management will be the county MCIP project manager for the roadway project. The construction for this section of the water main is funded by the county CDBG funds. The county expects to open bids on the road project with this section of the water main project in early 2016. Construction is to start in Spring 2016. The water main work should be at the beginning of the project with construction duration of 1 month. The projected service life of the water main improvements with yearly maintenance is at least 50 years. This CDBG Cockrell Hill Road water main and waste water main improvements project shall be a success and further reiterates Dallas County as a valued partner to its member cities / towns in the CDBG Public Works program!



## Interview With Amy Loo - 2014 Utility Partner of the Year



*example of the level of commitment Oncor is willing to make because we at Oncor care about our customers and will do our best to meet their needs.*

**Faye --** Did you have a mentor within the company or to what do you attribute your success in the company in such a short while?

**Amy --** *I do have a mentor, and he has helped by being a sounding board and sharing his perspective. I also attribute my success to Oncor for providing the tools and needed training to gain the skill sets that are necessary for success.*

*The New Engineer Development Program got me quickly involved in training and development.*

**Faye --** How long have you been employed by Oncor Electric?

**Amy --** *I have been with Oncor for eight years.*

**Faye --** What is your current position and how many other positions have you held with Oncor?

**Amy --** *Currently I am the Engineering Operations Supervisor of the Lake Dallas Service Center in the McKinney District. I started at Oncor as a summer intern and have held three (3) prior positions in the company. My first official position was in the Distribution Operations, then Transmission Operations, and then on to the Network Engineering Group. Each position has had its different challenges and rewards.*

**Faye --** What is a typical day like in your current position?

**Amy --** *As supervisor of a service center, a typical day involves managing work resources to get multiple construction projects completed and the speedy response to any lights-out tickets. I am responsible for approximately 24 zip codes including Lake Dallas, Lewisville and Denton. The most important part of responsibilities is ensuring that Oncor personnel conduct the work in a safe manner for themselves, co-workers and the public.*

**Faye --** What special projects have you been involved in, and what made them special.

**Amy --** *The Horseshoe Project was special because of the scope of coordination between Oncor, the City of Dallas, Dallas County, LC, and multiple contractors. I think this project was a good*

**Faye --** Tell us about your family and /or what you do for fun?

**Amy --** *I recently married in August. My husband and I feel led to serve in our church and community. I also enjoy cooking, working out, and dancing.*



# 2014 Utility Partnering Awards

## UTILITY PARTNER OF THE YEAR



Amy Loo Pink - Oncor

## UTILITY DESIGNER OF THE YEAR



Micheal Kuhlenbeck – Kinetics/TWC

## SPECIAL UTILITY PARTNERING RECOGNITION



Ken Brinkley – Garland ISD

## SPECIAL UTILITY PARTNERING RECOGNITION



Saji Thomas Garland ISD

*Our Utility Partners Are Critical to the Success of Our Projects!*



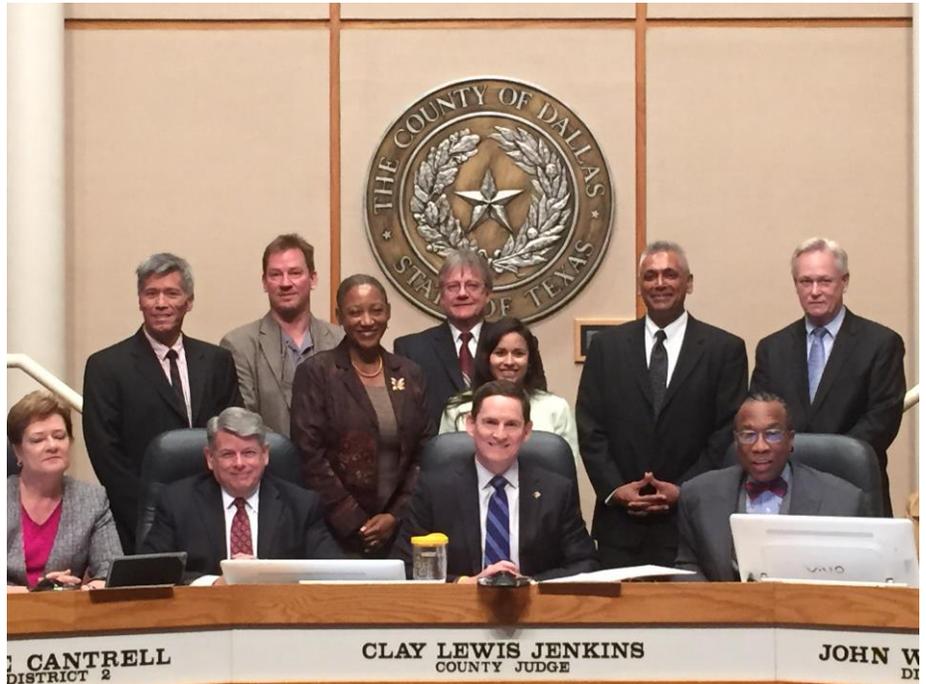
# 2014 Utility Partnering Awards Breakfast



*Our Utility Partners Are Wonderful to Work With and Celebrate With!*



# UTILITIES RECOGNITION AT COMMISSIONERS COURT



**2015 PROJECTS IN CONSTRUCTION**  
 Walnut Hill Lane Underpass at IH-35E  
 Miller Rd.  
 Pleasant Run Rd. Water Line  
 Mountain Creek Parkway  
 Mesquite Heritage Trail Connection  
 Chalk Hill Trail  
 Cedar Crest – Honey Springs Trail Connection  
 CDBG Combine Water Line  
 CDBG Cockrell Hill Water Improvements Phase VII  
 CDBG Glenn Heights Waterline Phase III  
 CDBG Lancaster Streets Improvements

**COUNTY PROJECTS BIDDING WITHIN ONE YEAR**  
 Denton Dr.  
 SOPAC Phase 4A  
 Northaven  
 Marsh Lane Bridge  
 Spring Valley Rd.  
 SOPAC Phase 3  
 Sachse Rd.  
 Riverfront Blvd.  
 Medical District Dr.  
 Pleasant Run Rd. Paving  
 Langdon Rd.  
 Hickory Tree Extension  
 Cockrell Hill Rd. in Cockrell Hill & Dallas  
 CDBG Briar Creek MHP Paving  
 CDBG Wilmer Pecan St. Paving  
 CDBG Adams St. Waterline

CANTRELL DISTRICT 2

CLAY LEWIS JENKINS COUNTY JUDGE

JOHN W DI



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