

AUGUST 2007

# FREEWAYTODAY

## COUNTDOWN ON PHASE 3A

Lubbock motorists will soon be driving over the tallest and longest bridge structure in the history of the Lubbock District.

Phase 3A—construction of the freeway from Salem Avenue to just past the loop and the 3,600-foot flyover—is scheduled to open this fall. And that’s just a few months away.

Contractors have placed all the beams and columns for the flyovers and the main lanes. The southbound flyover is about 90 percent complete. The east-bound flyover is finished.

Inclement weather has slowed some parts of the construction project, according to Will Barnett, assistant area engineer. Contractors have lost about 15 days so far on the 3A project because of heavy rains. However, the weather has had less impact on the 3A project than it has on Phase 2 because 3A doesn’t have a lot of paving or drainage work—mostly bridge structures.

Said Barnett, “We can still make concrete pours in the wet, muddy conditions as long as we can maintain access to the project.”

The project is about 90 percent complete. Contractors still need to pour some bridge deck on southbound flyover.

Work left includes pouring bridge deck on the southbound flyover, some paving, placing railing, striping and signage and putting in lighting. Shafts have been set for lighting.

Anti-icing systems will be built into the flyovers at the Loop and US 62/82 and at the 19th Street interchange.

The system is similar to an underground lawn irrigation system. Supply lines are embedded inside the deck, and

the control valves will be mounted to the back of the bridge rail. The nozzles are located in the bridge rail just above the deck.

This on-site weather recording station documents air temperature, relative humidity and other atmospheric data. Semi-conductors embedded in the deck detect falling air temperatures and increases in relative humidity. The computer knows the exact temperature at which ice crystals begin to form. Once the air temperature reaches a preset limit about 5 degrees above the temperature at which ice first forms, the system activates sending a signal to the control valves to dispense chemical (magnesium chloride). The chemical lowers the freezing point of the moisture.

Once the valves are activated, they will spray a fine mist over the surface of the deck. Traffic helps track and dispense the chemicals over the deck as well as off the departure end of the bridge.

The computer continually monitors the actual freezing point versus the air temperature and dispenses chemical as needed. Information on current weather conditions is transmitted to TxDOT via the internet including information on the number of times chemical is dispensed.



Contractors finish up bridge columns at Red Raider Avenue. The pedestrian bridge at this location will open in 2008. Bottom photo: The southbound direct connect.



# BRIDGING THE GAP

- **Southbound** flyover at West Loop 289 and Brownfield Highway is 3,900 feet long and 75 feet high. It is the longest and tallest bridge structure in the history of the Lubbock District. The flyover is about 90 percent complete.
- **Eastbound** flyover at West Loop 289 and Brownfield Highway is 1,700 feet long and 41 feet tall. It has two steel caps that pass through the beam girders instead of the girders sitting on top of the cap as in traditional bridge design. This flyover is complete.
- **19th Street** Westbound Connector is 2,264 feet long with 887 feet of steel girders. It's 30 feet tall at its highest point. This flyover will feature an anti-icing system. Completion is scheduled for the winter of next year.
- **19th Street** Eastbound Connector is 1,570 feet long. Completion is scheduled for the winter of next year.
- **The University Street** bridge will feature a Spanish Colonial design to match Texas Tech University. The bridge will be 202 feet long and 198 feet wide. Contractors started working this summer on the intersection. It is scheduled for completion in the summer of 2008.
- **Texas Tech Parkway** bridge is 191 feet long and 171 feet wide. The Spanish Colonial design was used to match the other structures on the Texas Tech campus. The bridge was opened to traffic in May.
- **US 62/82** main lane bridges at West Loop 289. The westbound bridge will be 2,400 feet long and 44 feet high. The eastbound bridge is also 2,400 feet long but slightly higher at 46 feet. The main lanes are 75 percent complete and are scheduled to open soon.

## FACTOIDS

- Contractors could receive up to \$380,000 in incentive money for finishing the University Avenue bridge within the amount of time bid. That's \$19,800 a day.
- Contractors will work around the clock in 24-hour shifts while completing the University Avenue bridge.
- All flyovers will feature an anti-icing system



# TRAFFIC CHANGES SCHEDULED FOR PHASE 2

Despite the rainy weather, contractors have made progress on Phase 2 of the Marsha Sharp Freeway project.

More than \$76 million has been paid over 27 months on this \$131 million project. And TxDOT engineers estimate that—despite being about 45 days behind schedule—construction is about 60 percent complete.

Rainy weather has impacted the project somewhat. But, despite inclement conditions, contractors have completed several milestones.

Last year, contractors finished the new playa lake at Quaker and 19th Street. The existing two-acre playa lake was moved further north to get it out of the way of the freeway.

In May, TxDOT opened the Texas Tech Parkway bridge, making the Parkway accessible all the way from 19th Street to North Loop 289.

Most of the beams have been placed for the 9th Street and Brownfield Highway bridge (a new location road). That bridge will open the first

of August.

Eastbound and westbound traffic has been switched to the new frontage roads at several locations along the route. Eventually, most of the east and westbound traffic will be on new pavement (frontage roads) and off the existing facility while contractors finish up main lanes.

Work has begun at University and Fourth Street. Completion date on this bridge is spring of 2008 for the east side and fall of 2008 for the west half. The first pedestrian bridge (just east of the new 9th Street location) will open this winter.

Phase 2 is scheduled for completion in early 2009.



A worker paints one of the windmill murals at the Brownfield Highway and West Loop 289. The windmills were the first artwork to go up on the Marsha Sharp Freeway. There are five other images planned along the eight mile route. The mulberry tree and windmill grace the retaining walls at the Quaker Avenue intersection on Phase 2 of the Marsha Sharp Freeway project. The picture is a copy of the original tree and windmill that stood for many years at the corner of Indiana and 50th Street in Winchester Square.

# 3B to begin in September

It won't be long before this freeway is finished. Most of it, anyway. When Phase 2 wraps up in 2009, Phase 3B will be right behind it, meaning that motorists will have access to a freeway facility from Avenue L to the West Loop.

Left to complete will be Phase 4 and

5, both scheduled to begin in 2011 and 2013 respectively. Granite Construction Company will start on Phase 3B in September.

Phase 3B is the construction of the freeway from Chicago to Salem Avenue.

Included are the interchanges at 34th Street and Slide Road.

Project letting date is September. This \$34.3 million project will wrap up in early fall 2009.



Will Barnett, Lubbock District assistant area engineer, talks about the construction on the southbound direct connect at the Brownfield Highway and West Loop 289. The flyover, which will be open this fall, is the longest and tallest bridge structure in the history of the Lubbock District.

## Phase 5 letting pushed out to 2013

With several federal rescissions already taking place, and another call to return federal highway dollars, Texas is looking for new ways to find the means for new construction.

Reduced federal funding and continuously dwindling state resources all work together to mean less new construction because our dollars are needed for maintenance.

Some districts are already feeling the pinch—all of Texas will definitely feel the dollar strain within the next 10 to 20 years. Unless Texas can come up with other ways to fund these projects.

Fortunately, for the Lubbock District, funding is in place for most of the freeway project. Phase 4—the interchange at IH27 and Fourth Street—is a \$60 million project with \$44 million coming out of the state's Metro Area Corridor Project Fund (Cate-

gory 2). Another \$8 million will come from Metro Mobility (Category 7) and the last \$8 million from district discretionary funds (Category 11).

Phase 5, however, is not completely funded. Six million has been set aside from Category 2, but the additional \$44 million or more will need to be identified before the proposed letting date of December 2013.

“Texas is being really innovative in identifying alternate means of funding,” said Jerry Cash, advanced planning and development manager. “Money is always an issue, but we feel because of the new funding tools statewide that we will see what we need to finish this project on a timely basis.”



The City closed Slide Road temporarily in June and the first of July to finish moving a water utility line that ran through the freeway right of way. Lubbock citizens were asked to conserve water while the line was relocated.

# What's ahead?

## Late July/Early August

Eastbound traffic will be placed on the new frontage road from Canton to University

## First week in August

Westbound traffic will be on the new frontage road from Avenue L to Uvalde.

## August 1

Canton at US 82 closes. Signals are removed. Red Raider reopens with signals.

## Mid to late August

East and westbound traffic will be detoured into the cut from 19th Street to the Coliseum. Westbound traffic will be switched first, then eastbound. Once the eastbound traffic is switched, motorists heading north on Drive of Champions can only turn right and head east. Eastbound US 62/82 traffic will have access to Drive of Champions, but westbound will not.

Traffic coming from the stadium can use the turn around at University to travel west toward

4th Street or US 62/82. Westbound traffic can access the stadium via a turn around at the Fourth Street signal.

## Late September/Early October

Westbound traffic from Avenue L to 4th Street will be on the new frontage road just west of Parkway. Westbound traffic will cross over into the excavation area near Red Raider Avenue. Signals will be removed at Red Raider, and all traffic leaving the stadium must travel east to University.

## December

By the end of the year, traffic will be split all along Phase 2 from Avenue L to Salem Avenue.



# Traffic changes scheduled for Phase 2

August brings a significant number of traffic changes along the freeway, including an opportunity to drive on the freeway main lanes for the first time ever.

Several weeks ago, TxDOT moved the westbound traffic from existing lanes to the new frontage roads from Avenue L to Uvalde. This move split up the east and west bound traffic for the first time in that location. By late September, traffic will be running on the new frontage roads from Avenue L all the way to Fourth Street.

Freeway main lanes will also be open to Lubbock drivers this month for the first time. Motorists will actually be traveling on the main lanes from Fourth Street at the Coliseum to 19th Street. It is the first time

that drivers have been “into the cut” since Phase 2 of the project started in May of 2005.

Traffic will be detoured onto the main lanes mid-August so contractors can excavate on the south side to prepare for construction of the eastbound lanes. Westbound Brownfield Highway traffic will be detoured on August 16. Eastbound traffic will be moved into the cut on the 23rd.

Contractors will excavate more than 600,000 cubic yards of dirt on the south side of the Brownfield Highway to prepare for the construction of the eastbound main lanes from University to 19th Street. Motorists are still driving on the old pavement, but that will be removed with the

excavation. About 400,000 cubic yards of the dirt will be stockpiled. The dirt is earmarked for future projects such as the Northwest Passage, Spur 327 and Phase 5 of the freeway which includes bridges at Milwaukee, Spur 327 and Upland.

By the end of the year, traffic will be traveling on the new main lanes all the way from Fourth Street to Vicksburg Avenue.

An animated version of upcoming traffic switches may be viewed on the TxDOT website at [www.txdot.gov](http://www.txdot.gov). From there, click on local information, then LBB, construction projects, Marsha Sharp Freeway and video simulation.



Granite and TxDOT employees look on as a concrete drainage conduit is lowered into the the ground on Phase 2 of the freeway project. Below, a Granite employee seals the joints between the conduits.



# What a rush!

**W**hen the freeway storm sewer system is finished, it will have the capacity to move 801,556 gallons of water per minute or 1,786 cubic feet per second.

Fairly impressive, and considering all the rain the South Plains has received this year, it's probably a good thing that the capacity is so high.

There are three storm sewer systems planned for the freeway, said Davis Melton, district environmental coordinator.

"For the most part, the water from all three of those systems eventually ends up in the Yellowhouse Canyon," Melton said. "Everything west of Quaker Avenue drains naturally along curb and gutter into the playa lake system. But some of the water

west and north of Quaker drains into the playa lake at Quaker and 19th Street."

Said Melton, this is the transitional playa and overflow from this lake goes to Maxey Park.

"But we've also put in a manmade pipeline that carries some of the overflow water from Playa Lake 44 out to the Yellowhouse Canyon," he added.

This pipeline runs down the Brownfield Highway to Fourth Street and then turns up Avenue U to Yellowhouse Canyon. This segment will be completed by next year.

Added Melton, the third segment, which has not been built yet, will drain straight into Yellowhouse Canyon at Mckenzie Park.

The freeway storm sewer drainage project, started in 1995, was brought to a sudden halt a year later when contractors dredged up water and soil contaminated with gasoline from leaking storage tanks. The first phase of the freeway drainage system runs from University Avenue to Avenue U, then north along Avenue U to the Yellowhouse Canyon. The project was stopped just 700 feet short of University Avenue.

The district hired an outside consultant—ENTRIX, Inc.—to search through TCEQ (Texas Commission on Environmental Quality) records to determine the

extent of the contamination and to find out what type of contamination existed.

Melton added, "The consultant found hydrocarbons such as benzene, toluene, ethylbenzene, total xylenes—it goes on from there, but it pretty much means they found gasoline contamination."

Later, the district hired another consultant—LCA Environmental—to develop a soil and groundwater management plan on how to work in a contaminated area.

As part of Phase 2, Granite Construction Company finished up the last 700 feet of the original storm sewer project—from Avenue U to University.

When completed, the manmade portion of the freeway drainage system will extend from Bangor Avenue all the way to the interstate.

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# PROJECT COMPLETION SCHEDULE

## PHASE 1

Widening of West Loop 289 from four to six lanes from 34th Street to Slide Road. Rebuilding frontage road system under the main lanes—three lanes on each side. Building the 50th Street overpass and extending 50th Street to Frankford. Project was completed in early 2006.

## PHASE 2

Building the complete freeway from Salem Avenue to Avenue L. Building 19th St., Quaker Avenue, Fourth Street and Avenue Q interchanges. Construction started

in the spring of 2005. It will take about 3 1/2 years to finish. Cost is \$131 million.

## PHASE 3A

US 82 main lanes and fly overs at Loop 289. Construction started in the spring of 2005. Completion date is late fall 2007. Cost is \$32.5 million.

## PHASE 3B

US 82 from Chicago Avenue to Salem Avenue. Project letting date is March of 2007. This \$34.3 million project will wrap up in early fall 2009.

## PHASE 4

Building the I27 interchange. This \$60 million project will let sometime in late 2009 or early 2010. Project completion is scheduled for 2012.

## PHASE 5

Extending the freeway from one mile past the West Loop to past Wolfforth. This \$50 million project will begin sometime in 2013.

