

**REVIEW BY FORT BEND COUNTY**  
**COMMISSIONERS COURT**

**Fort Bend County**  
**Engineering Department**  
301 Jackson Suite 401  
Richmond, Texas 77469  
281.633.7500  
Permits@fortbendcountytexas.gov

- ☒ Right of Way Permit  
☐ Commercial Driveway Permit

Permit No: 2018-21150

**Applicant:** AT&T Texas/ Cobb, Fendley & Associates, Inc...

**Job Location Site:** Grand Parkway at Brazos River, Sugar Land, TX 77479

**Bond No.**                      **Date of Bond:** 11/28/2017 **Amount:** \$50,000.00

The above applicant came to make use of certain Fort Bend County property subject to, "The Order Regulating the Laying, Construction, Maintenance, and Repair of Buried Cables, Conduits, and Pole Lines, In, Under, Across or Along Roads, Streets, Highways, and Drainage Ditches in Fort Bend County, Texas, Under the Jurisdiction of the Commissioners Court of Fort Bend County, Texas," as passed by the Commissioners Court of Fort Bend County, Texas, of the Minutes of the Commissioners Court of Fort Bend County, Texas, to the extent that such order is not inconsistent with Chapter 181, Vernon's Texas Statutes and Codes Annotated.

**Notes:**

1. Evidence of review by the Commissioners Court must be kept on the job site and failure to do so constitutes grounds for job shutdown.
2. Written notices are required:
  - a. 48 hours in advance of construction start up, and
  - b. When construction is completed and ready for final inspection, submit notification to Permit Administrator thru MyGovernmentOnline.org portal.
3. This permit expires one (1) year from date of permit if construction has not commenced.

On this 3rd day of July, 2018, Upon Motion of Commissioner Meyers, seconded by Commissioner Morales, duly put and carried, it is ORDERED, ADJUDGED AND DECREED that said notice of said above purpose is hereby acknowledged by the Commissioners Court of Fort Bend County, Texas, and that said notice be placed on record according to the regulation order thereof.

**Signature**

Presented to Commissioners Court and approved.

By: Sean Eglinton

Date Recorded 7-6-2018 Comm. Court No. 8A

County Engineer

Clerk of Commissioners Court

By: N/A

By: Ronda Willis

Drainage District Engineer/Manager

Deputy



**PERMIT APPLICATION REVIEW FORM FOR  
CABLE, CONDUIT, AND POLE LINE ACTIVITY  
IN FORT BEND COUNTY**

**Fort Bend County  
Engineering Department**  
301 Jackson Suite 401  
Richmond, Texas 77469  
281.633.7500  
Permits@fortbendcountytexas.gov

- ☒ Right of Way Permit  
☐ Commercial Driveway Permit

Permit No: 2018-21150

The following "Notice of Proposed Cable, Conduit, and/or Pole Line activity in Fort Bend County" and accompanying attachments have been reviewed and the notice conforms to appropriate regulations set by Commissioner's Court of Fort Bend County, Texas.

**(1) COMPLETE APPLICATION FORM:**

- ☒ a. Name of road, street, and/or drainage ditch affected.  
☒ b. Vicinity map showing course of directions  
☒ c. Plans and specifications

**(2) BOND:**

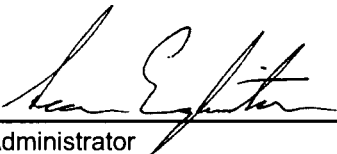
- ☐ County Attorney, approval when applicable.
- ☒ Perpetual bond currently posted.      Bond No: [REDACTED]      Amount: \$50,000.00
- ☐ Performance bond submitted.      Bond No: \_\_\_\_\_      Amount: \_\_\_\_\_
- ☐ Cashier's Check      Check No: \_\_\_\_\_      Amount: \_\_\_\_\_

**(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):**

\_\_\_\_\_  
Drainage District Approval

\_\_\_\_\_  
Date

**We have reviewed this project and agree it meets minimum requirements.**

  
\_\_\_\_\_  
Permit Administrator

6/25/2018

\_\_\_\_\_  
Date

**From:** Gary Gehbauer  
**To:** Velasquez, Courtney  
**Cc:** Phil Martin (philmartin@mikestoneassociates.com)  
**Subject:** RE: Permit 2018-21150 - Grand Pkwy. at Brazos River  
**Date:** Thursday, June 14, 2018 12:08:08 PM  
**Attachments:** [2018-21150-Site Plan.pdf](#)

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**CAUTION:** This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Courtney,

Yes, just trying to catch back up. I actually didn't get back until yesterday instead of Monday.

Fortunately, Phil and I have been working with AT&T on this one. They have included everything that we need. I know that Richard Stolleis wants to make sure that this permit includes language that it is only for work within the toll road right of way and does not permit the crossing the river. AT&T knows that they must get other entity approvals to cross the river.

Thanks,  
Gary

Gary Gehbauer, PE  
BGE  
10777 Westheimer, Suite 400  
Houston, Texas 77042  
(281)558-8700 voice  
(281)558-9706 fax  
[ggehbauer@bgeinc.com](mailto:ggehbauer@bgeinc.com)

**From:** Velasquez, Courtney [mailto:Courtney.Velasquez@fortbendcountytexas.gov]  
**Sent:** Thursday, June 14, 2018 8:15 AM  
**To:** Gary Gehbauer <GGehbauer@bgeinc.com>  
**Subject:** FW: Permit 2018-21150 - Grand Pkwy. at Brazos River

Hello Gary. Welcome back! I know you are super busy but I wanted to follow up on this permit. When you get a chance can you take a look at it for me.

Thank you,

**Courtney Velasquez**  
**Clerk III**  
**Fort Bend County Engineering**  
301 Jackson St., Suite 401 | Richmond, TX 77469  
Email: [Courtney.Velasquez@fortbendcountytexas.gov](mailto:Courtney.Velasquez@fortbendcountytexas.gov)  
Phone: 281-633-7516

**From:** Velasquez, Courtney  
**Sent:** Wednesday, June 06, 2018 11:05 AM

**To:** 'Gary Gehbauer'; [philmartin@mikestoneassociates.com](mailto:philmartin@mikestoneassociates.com)  
**Cc:** Slawinski, Stacy; Peterson, Jillian; Eglinton, Sean  
**Subject:** Permit 2018-21150 - Grand Pkwy. at Brazos River

Hello Gary, The above referenced permit is actually in association with the previous 2018-20467 that we were discussing. Can you please review this one.

"AT&T Texas will performing a directional bore under the Brazos River at HWY 99. Originally they had an aerial crossing river but now they will be crossing the river with 3-4" HDPE in a 12" steel casing."

Thank you.

**Courtney Velasquez**  
**Clerk III**  
**Fort Bend County Engineering**  
301 Jackson St., Suite 401 | Richmond, TX 77469  
Email: [Courtney.Velasquez@fortbendcountytexas.gov](mailto:Courtney.Velasquez@fortbendcountytexas.gov)  
Phone: 281-633-7516

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**Attach the message to the E-Mail**

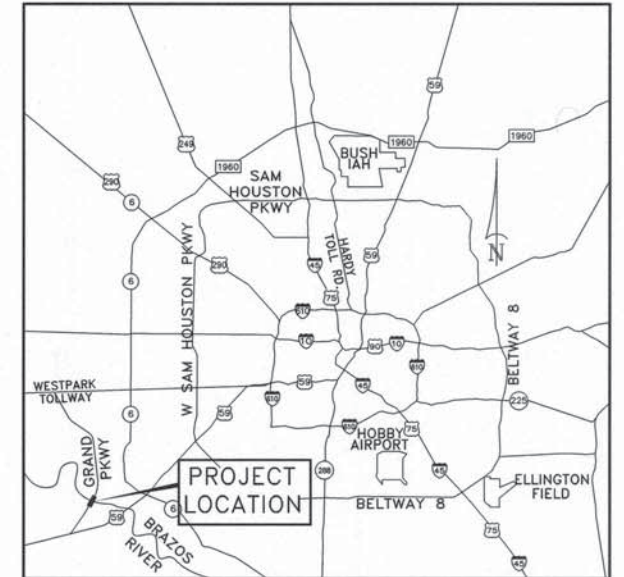
Right-Click the Spam/Phish message (not the text) copy and paste into the body of the new message. Should show as an envelope under attachments.

INDEX		
SHEET NO.	AT&T SHEET NO.	DESCRIPTION
1	100	COVER SHEET
2-11	101-110	PLAN & PROFILE SHEETS
12	111	NOTE SHEET
13-14	201-202	GENERAL DETAILS & SPECIFICATIONS
15	203	TYPICAL S.W.D.P. PLAN
16	205	TRAFFIC CONTROL DETAILS

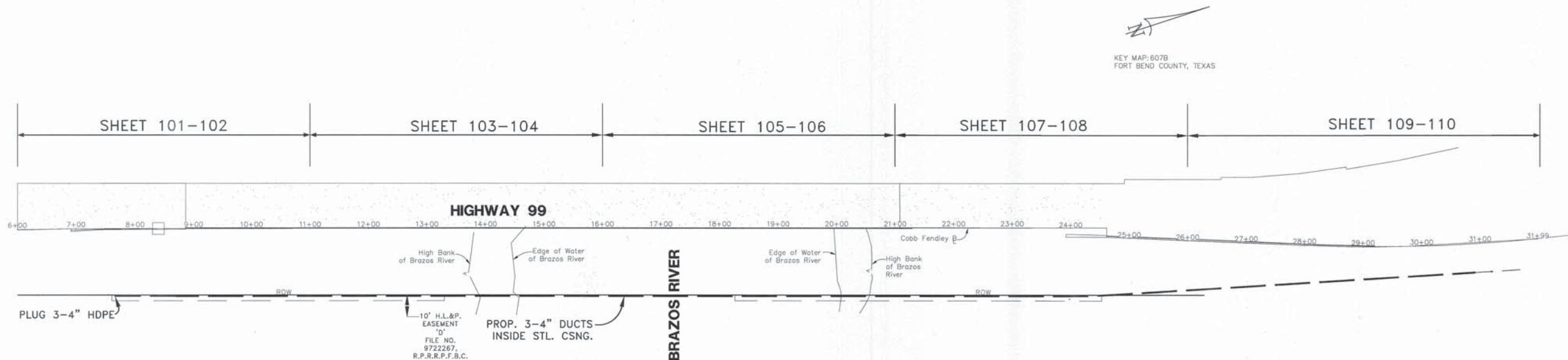
# AT&T Texas/SWBT

HOUSTON SOUTHWEST UNIT RICH-ROSE "232" W8-9232

PROPOSED CONDUIT ALIGNMENT ALONG GRAND PKWY - HWY 99  
AT THE BRAZOS RIVER FOR APPROXIMATELY 2370FT



LOCATION MAP



**Self Inflicted Cable Damage Avoidance Note:**

1. The contractor must notify the AT&T Contract Coordinator 48 hours prior to starting work around high profile facilities. (See Sec. II for Definition of high profile).
2. All pre-work by the contractor (i.e. locates, potholes, cable exposure, etc.) Should be performed before the build authorization meeting. All pre-work should be excavated to allow the correct identification of facilities. In addition, all lump sum bid projects will have potholes, cable exposure, etc. performed by a vacuum method.
3. The build authorization meeting should be held on site if possible or via telephone if the onsite meeting is not feasible. This meeting is required between the contractor and the AT&T Contract Coordinator.
4. If there is any doubt about existing cable facility locations, solicit assistance from AT&T personnel.
5. The contractor must verify the location of the high profile facilities at the beginning, at each road crossing, at each significant obstacle in the cable path that may have altered the original placement (i.e. sewer manhole, street light signal box, etc.) and a minimum of every 300' when excavating within local requirements of the high profile facility. Attention should be given to the obstacles in the trench path and the minimum locate verification will be every 1,000'.
6. No bore should be performed within 10' vertically or horizontally of the existing high profile cable facilities without prior consultation with AT&T Engineering/Construction personnel.
7. Existing high profile copper/fiber cables should be exposed on both sides of the thoroughfare prior to commencing bore.
8. The contractor must not mechanically excavate within 2' of either side of a high profile facility.

ONE-CALL NOTIFICATION SYSTEM  
CALL BEFORE YOU DIG !!!

(713) 223-4567 (In Houston)  
New Statewide Number (Outside Of Houston)  
1-800-545-6005

AREA DETERMINED TO BE INSIDE THE  
500-YEAR FLOODPLAIN (ZONE-AE) BASED  
ON F.I.R.M. 48157C0260L, PANEL 260  
OF 575 (REF. April 2, 2014)



4/5/18

**CobbFendley**

Texas Registration No. 274  
13430 Northwest Freeway, Suite 1100  
Houston, Texas 77040  
713.462.3242 | fax 713.462.3262 | www.cobbfendley.com

CP#			
PROJECT NO.	A00FV4D	AREA NO.	W8-9232
DATE ISSUED		NUMBER OF SHEETS	16
			100

CobbFendley JOB NO. 1605-063-51C

F.B.# 2857

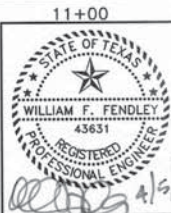
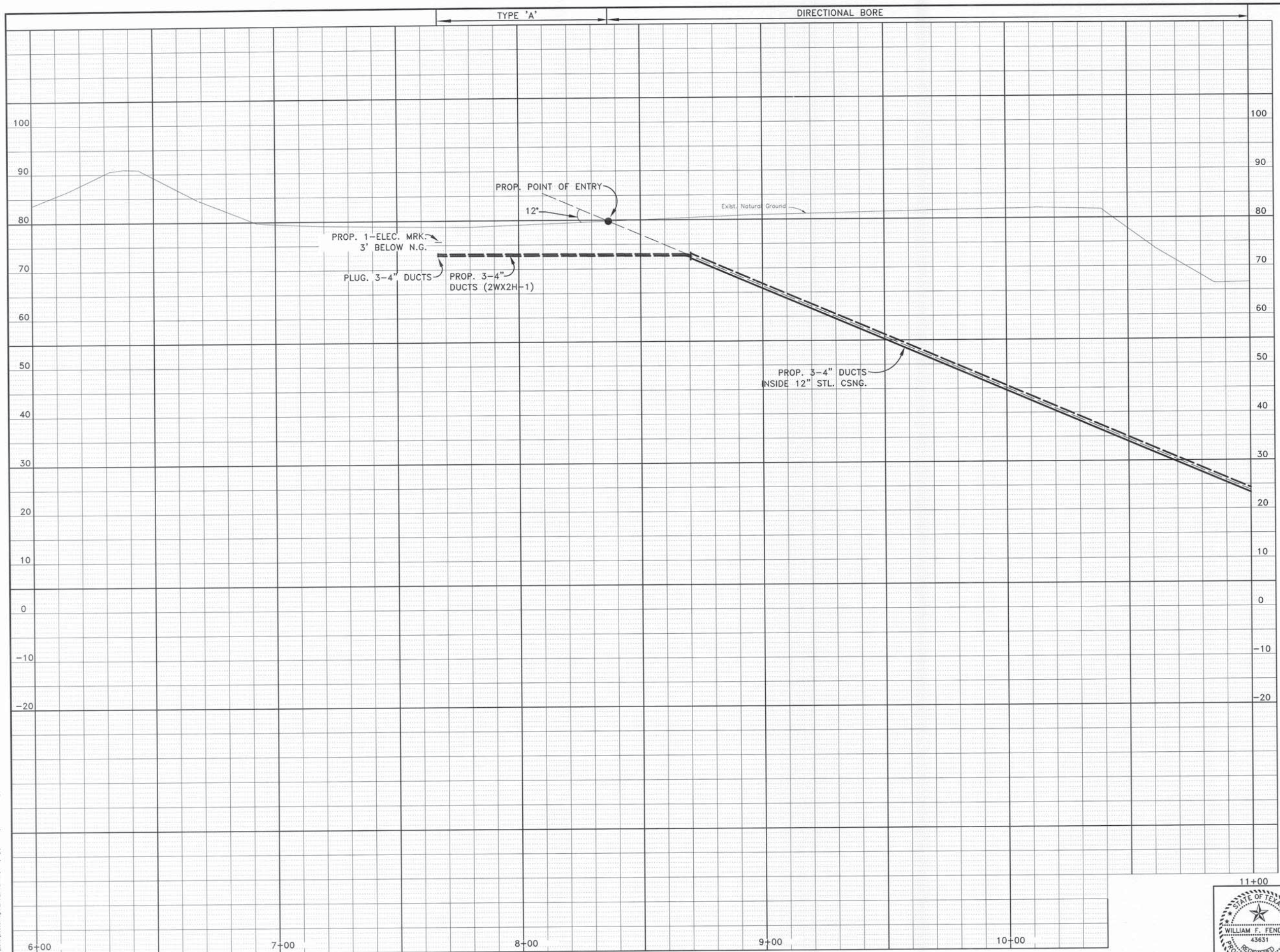
BRAZOS RIVER @ GRAND PKWY - HWY 99







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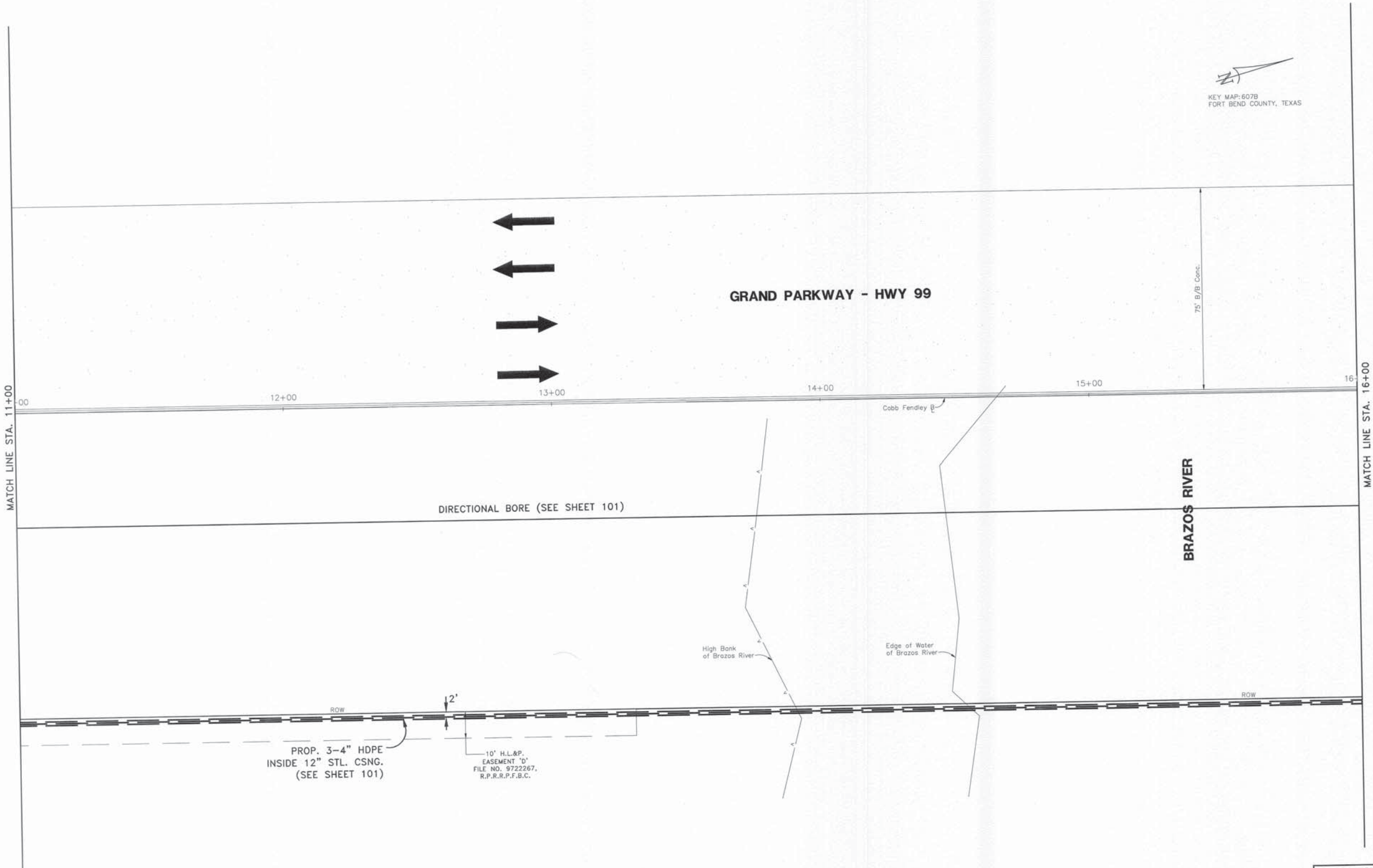
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REVISION	REVISION DATE	DESCRIPTION	INITIAL
<b>AT&amp;T Texas/SWBT</b>			
<b>BRAZOS RIVER @ GRAND PKWY</b>			
<b>FORT BEND COUNTY, TEXAS</b>			
SCALE: PLAN 1"= N/A    PROFILE VERT. 1"= 10'    PROFILE HORZ. 1"= 20'			
C.P.#			
PREPARED BY			
MGR-ENR. DESIGN		AREA MGR-ENR. DESIGN	
PREPARED BY	CONDUIT DISTRICT	DRAWN BY	ISSUE DATE
PROJECT	A00FV4D	REC REF	240-275-11
AREA NO.	WB-9232	c.o.RICH-ROSE "232"	TAX DIST. FG-009
SHEET			102

CobbFendley  
Texas Registration No. 274

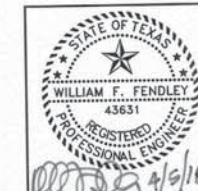
JOB NO. 1605-063-01-51C    F.B.# 2857





KEY MAP-607B  
FORT BEND COUNTY, TEXAS

BENCHMARK:  
ELEVATIONS SHOWN HEREON ARE BASED ON NGS  
MONUMENT NO. DM7885,  
A 2-INCH GALVANIZED STEEL PIPE LOCATED AT  
THE NORTHEAST CORNER OF A FENCED  
COMPOUND, APPROXIMATELY 885' NORTH OF FM  
762 ON WEST SIDE OF PAYNE LANE.  
ELEVATION = 88.80' NAVD83(2001 ADJUSTMENT)



CobbFendley  
Texas Registration No. 274

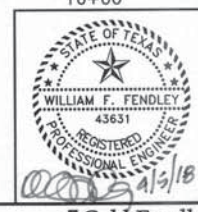
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BRAZOS RIVER @ GRAND PKWY			
FORT BEND COUNTY, TEXAS			
SCALE: PLAN 1"= 20' PROFILE VERT. 1"= N/A PROFILE HORZ. 1"= N/A			
C.P.#			
PREPARED BY			
PREPARED BY		CONDUIT DISTRICT	ISSUE DATE
PROJECT		REC REF	TAX DIST.
AREA NO.		F.B.#	

4/9/18

JOB NO. 1605-063-01-51C F.B.# 2857



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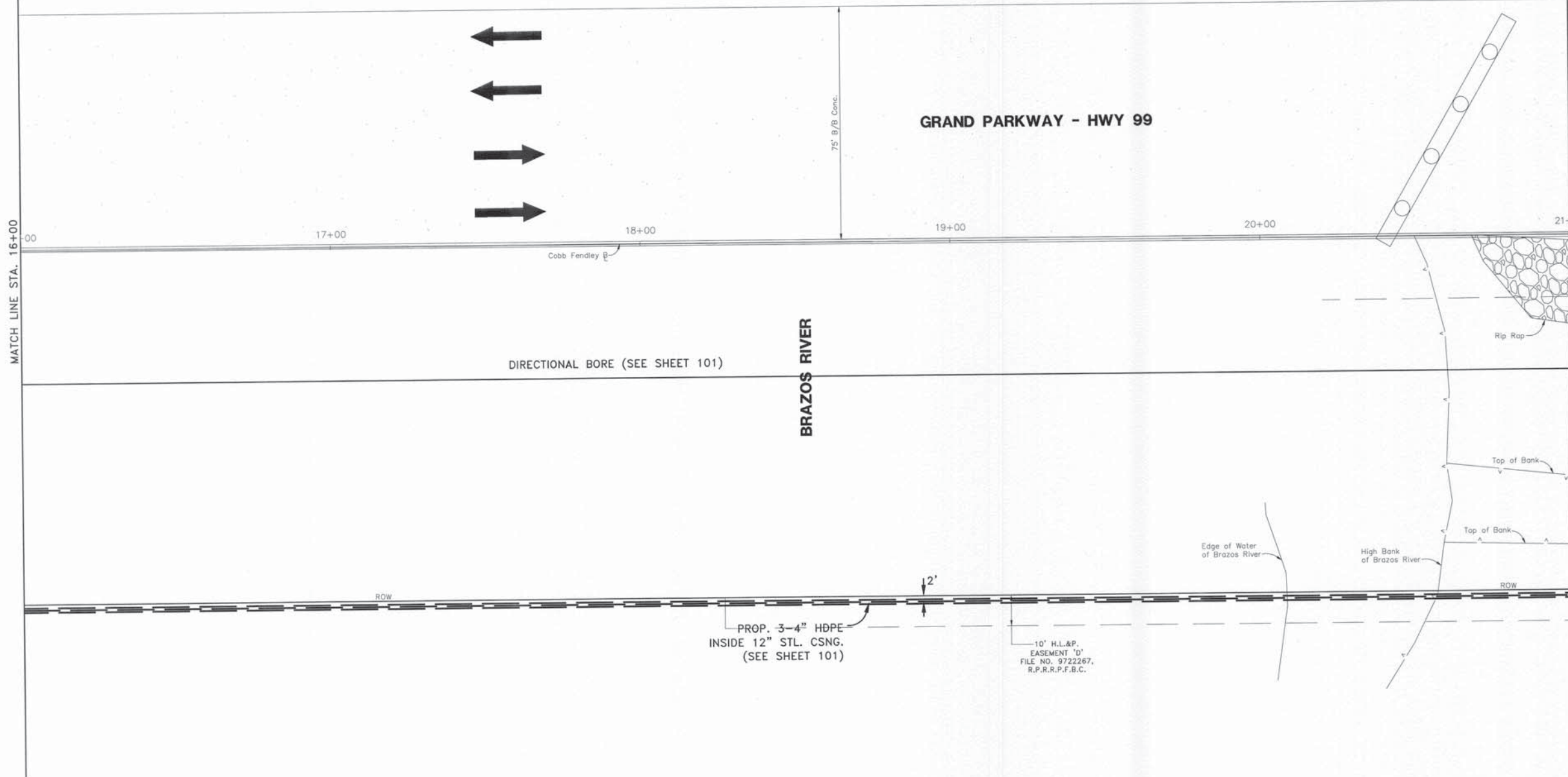
**CobbFendley**  
Texas Registration No. 274

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SCALE: PLAN 1"= N/A    PROFILE VERT. 1"= 10'    PROFILE HORIZ. 1"= 20'			
C.P.#			
PREPARED BY			
MGR-ENG. DESIGN		AREA MGR-ENG. DESIGN	
PREPARED BY	CONDUIT DISTRICT	DRAWN BY	ISSUE DATE
MGR-ENG. DESIGN		CFA/CC	
PROJECT	A00FV4D	REC REF	240-275-11
AREA NO.	WB-9232	c.o. RICH-ROSE	"232" TAX. DIST. FG-009
SHEET			<b>104</b>

JOB NO. 1605-063-01-51C    F.B.# 2857



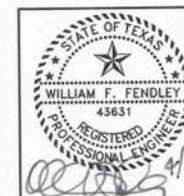
MATCH LINE STA. 16+00



KEY MAP: 607B  
FORT BEND COUNTY, TEXAS

MATCH LINE STA. 21+00

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762 ON WEST SIDE OF PAYNE LANE.  
ELEVATION = 88.80' NAVD88(2001 ADJUSTMENT)



CobbFendley  
Texas Registration No. 274

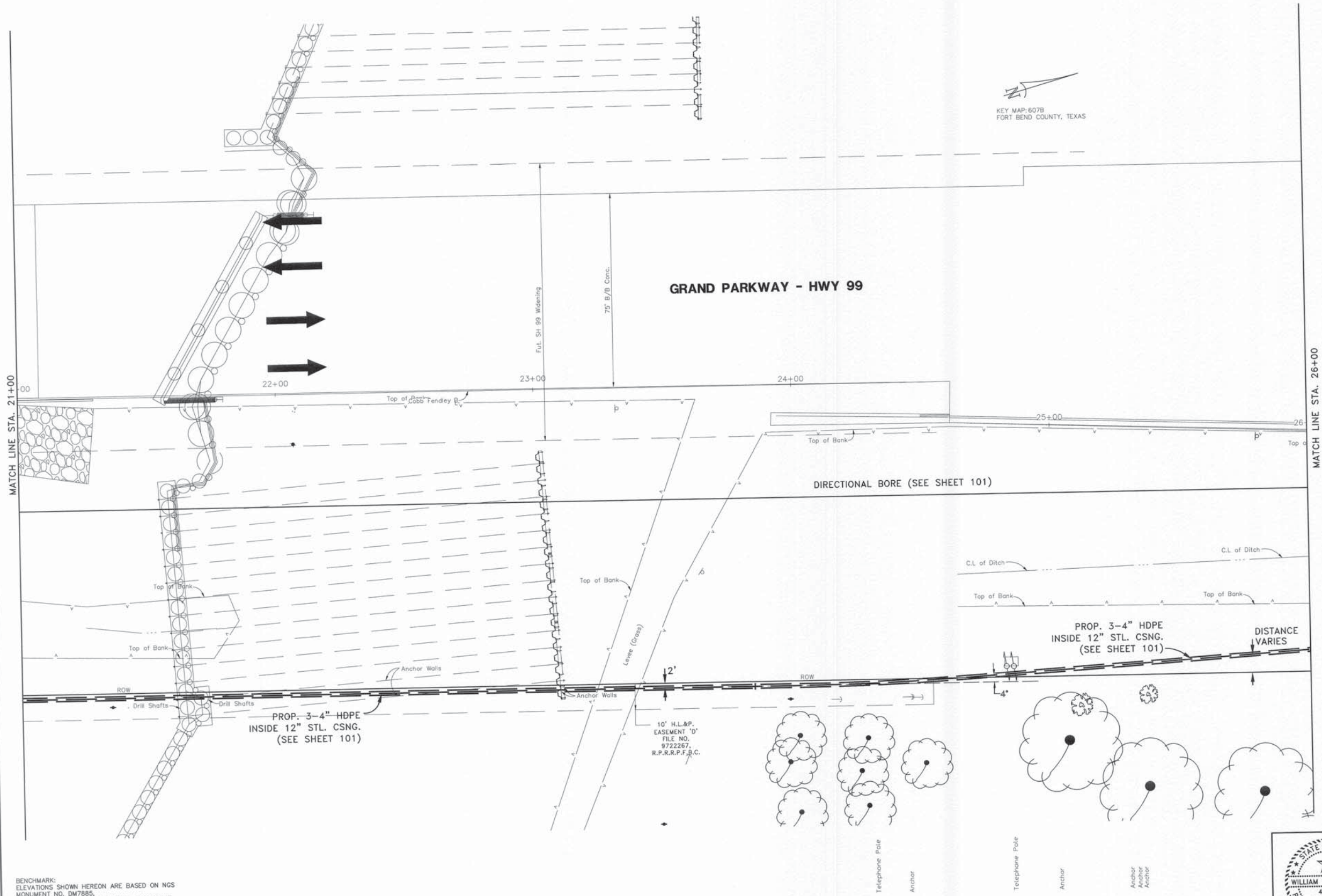
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<b>FORT BEND COUNTY, TEXAS</b>			
SCALE: PLAN 1"= 20'    PROFILE VERT. 1"= N/A    PROFILE HORZ. 1"= N/A			
C.P.#			
PREPARED BY			
PREPARED BY CONDUIT DISTRICT		AREA WORK-ENG. DESIGN DRAWN BY CFA/CC	ISSUE DATE
PROJECT A00FV4D	REC REF 240-275-11	SHEET <b>105</b>	
AREA NO. WB-9232	C.O.RICH-ROSE "232"	TAX DIST. FG-009	

JOB NO. 1605-063-01-51C F.B.# 2857



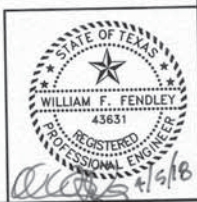






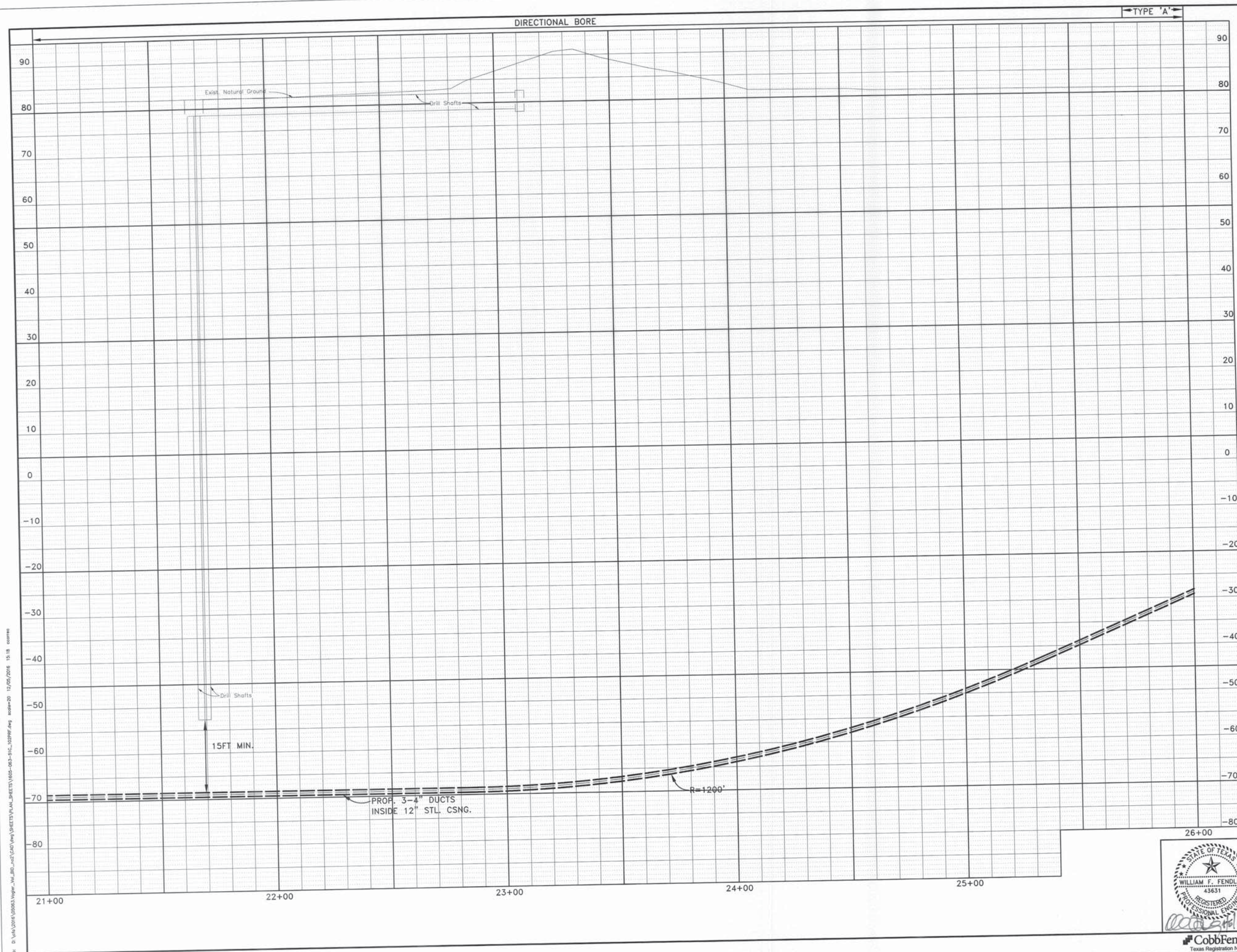
KEY MAP: 607B  
FORT BEND COUNTY, TEXAS

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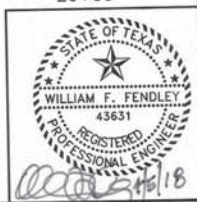


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<b>FORT BEND COUNTY, TEXAS</b>			
SCALE: PLAN 1"= 20'    PROFILE VERT. 1"= N/A    PROFILE HORIZ. 1"= N/A			
C.P.#			
PREPARED BY			
W.F. FENDLEY		CFA/CC	
PREPARED BY		DRAWN BY	
CFA/CC		CFA/CC	
PROJECT		SHEET	
A00FV4D		107	
AREA NO. W8-9232		TAX DIST. FG-009	
C.O. RICH-ROSE "232"		TAX DIST. FG-009	





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C.P.#			
PREPARED BY			
WORK-ENG. DESIGN		AREA WORK-ENG. DESIGN	
PREPARED BY	CONDUIT DISTRICT	DRAWN BY	ISSUE DATE
		CFA/CC	
PROJECT	A00FV4D	REC REF	240-275-11
AREA NO.	WS-9232	C.O. RICH-ROSE	"232" TAX DIST.
SHEET		108	





MATCH LINE STA. 26+00

KEY MAP: 607B  
FORT BEND COUNTY, TEXAS

GRAND PARKWAY - HWY 99

B/B Conc. Varies

27+00

28+00

29+00

30+00

31+00

Cobb Fendley B

Top of Bank

C.L. of Ditch

PROP. 3-4" HDPE  
INSIDE 12" STL. CSNG.  
(SEE SHEET 101)

PLUG 3-4" HDPE

PROP. POINT OF EXIT  
STA. 31+20, 51' RT. COBB FENDLEY B

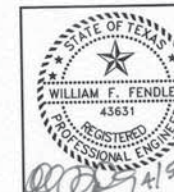
END CASING

Top of Bank

ROW

Pond

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Texas Registration No. 274

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C.P.#			
PREPARED BY			
PREPARED BY CONDUIT DISTRICT		DRAWN BY CFA/CC	ISSUE DATE
PROJECT A00FV4D	REC REF 240-275-11	SHEET 109	
AREA NO. WB-9232	C.O. RICH-ROSE "232"	TAX DIST. FG-009	F.B.# 2857

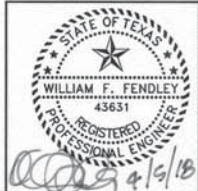
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AT&T Texas/SWBT			
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FORT BEND COUNTY, TEXAS			
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PREPARED BY			
WORK-ENG. DESIGN		AREA WORK-ENG. DESIGN	
PREPARED BY	CONDUIT DISTRICT	DRAWN BY	ISSUE DATE
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PROJECT	A00FV4D	240-275-11	SHEET
AREA NO.	WB-9232	c.o.RICH-ROSE "232"	FG-009
TAX DIST.		110	





PERMIT REQUIREMENTS  
(May 2018)

FORT BEND GRAND PARKWAY TOLL ROAD AUTHORITY  
AND  
FORT BEND COUNTY TOLL ROAD AUTHORITY  
(collectively known as FBTRA)

- A preconstruction meeting with Authority's staff will be required before commencing work. Contact Phil Martin with FBTRA at (713) 574-5261 office; (832) 907-5726 cell, or [philmartin@fbtra.com](mailto:philmartin@fbtra.com) to schedule the meeting.
- All work within the right-of-way shall be performed in accordance with TxDOT standards and specifications as to the installation and materials used. All materials and mix designs to be placed in TxDOT right-of-way must be obtained from TxDOT approved sources and be of approved TxDOT or FBTRA mix designs.
- At least five (5) working days prior to any excavation, permittee shall request the location of all underground utilities within the work area by calling 811, and contacting local municipalities, utility districts, school districts, or any other utility owners. Do not perform underground work on the project until FBTRA owned facilities have been located and marked. Use caution when working in these areas to avoid damaging or interfering with existing facilities. Permittee shall be responsible for relocating and/or adjusting any utilities within the work area.
- Any work with in the toll road right of way requires a traffic control plan (TCP), even if lanes are not affected. Utility borings that don't require equipment or personnel within the right of way do not require TCP.
- This permit is subject to a separate traffic control plan being approved by the Authority's Engineer. All work must follow the TxDOT Traffic Control Plan Standards, Latest Revision, or if approved, Typical Applications shown in the Texas Manual on Uniform Traffic Control Devices, Latest Revision, Chapter 6-H. The advanced warning signage shown on standards BC (1)-14 thru BC (12)-14 will be required. It is mutually agreed and understood that the implementation and maintenance of the traffic control plan shall be the responsibility of the Permittee. Contractor is required to supply all sub-contractors with a copy of this permit and approved traffic control plan. The person in charge for permittee/contractor on the job site shall have a copy of the permit and approved Traffic Control Plan (TCP) at all times.
- No lane closures permitted during peak hours without authorization from the Authority. Peak hours are weekdays from 5am to 9am, and 3pm to 7pm. No lane closures on holidays or holiday weekends.
- Designate in writing, a Contractor's Responsible Person (CRP) and an alternate to be the representative of the Contractor who is responsible for taking or directing corrective measures regarding the traffic control. The CRP or alternate must be accessible by phone 24 hr. per day and able to respond when notified. The CRP and alternate must comply with the requirements of TxDOT Specification, Section 7.2.6.5, "Training."
- Flaggers must be courteous and able to effectively communicate with the public. When directing traffic, flaggers must dress appropriately, wear high-visibility safety apparel, use flags, signs, stop-slow paddles, and other hand-signaling devices, and follow the flagging procedures in the TBMUTCD. Comply with the requirements of TxDOT Specification Section 7.2.6.5, "Training."

Page 1 of 4

- Workers involved with traffic control, including the maintenance of the traffic control, must comply with the requirements of TxDOT Specification, Section 7.2.6.5, "Training."
- Provide a copy of the certification of completion to the Engineer, except in the case of Contractor-developed Training. Ensure the certification of completion includes the following:
  - name of provider and course title,
  - name of participant,
  - date of completion, and
  - date of expiration.For Contractor developed Training, maintain a log of attendees. Make the log available upon request. Ensure the log is legible and includes the following:
  - print name and signature of participant,
  - name and title of trainer, and
  - date of training.
- The Permittee shall coordinate the sequence of construction and traffic control plan with any adjacent construction or maintenance projects. No overnight lane closures will be permitted, unless otherwise approved by the Authority's Engineer.
- Work performed within the waterways, such as rivers, creeks, bayous, and drainage ditches, is subject to the concurrence of appropriate regulatory agencies.
- The Permittee certifies that its drainage system meets all storm water quality criteria of the County and/or City where the permit is located.
- All excavations within the right-of-way shall be backfilled according to the TxDOT Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges (SPECS), Item 400, as currently amended. All surplus material shall be removed from the right-of-way, and the excavation finished flush with surrounding natural ground.
- In no event will an edge drop-off be permitted during the hours of darkness. If the Contractor is unable to complete a section before the end of the work day, loose material capable of vehicle support shall be pulled back to the existing edge on a 4:1 or flatter slope, to provide for driver and pedestrian safety.
- The Contractor shall not create a dirt nuisance or safety hazard in any roadway. The pavement shall be cleaned daily.
- All exposed dirt surfaces shall be fully block sodded, unless otherwise approved by the Authority's Engineer. A slope of 4:1, or flatter, shall be required on the ditch front slope. Sod/grass shall be watered until roots have established into soil.
- No valves, meter boxes, cleanouts, ground boxes, handholes, manhole covers, etc. will be allowed in the pavement. These appurtenances shall be relocated elsewhere within the right-of-way, unless otherwise approved by the Authority's Engineer.
- The Texas Universal Triangular Slip Base Sign Supports shall be required for all signage within the right-of-way. Propped signs, or those which require relocation, shall be done in accordance with the following TxDOT standards: SMD (GEN)-08, SMD (SLIP-1)-08, SMD (SLIP-2)-08, and SMD (SLIP-3)-08.
- All work zone pavement markings shall meet the requirements of TxDOT Specification, Item 662. All permanent pavement markings shall meet the requirements of TxDOT Specification, Item 666, and be placed in accordance with the following standards: PM (1)-12, PM (2)-12, PM (3)-12, and

Page 2 of 4

PM (4)-12. All raised pavement markers shall meet the requirements of TxDOT Specification, Item 672.

- Existing pavement markings shall be removed according to the requirements of TxDOT Specification, Item 677, or to the satisfaction of the Authority's Engineer. All pavement surfaces shall be cleaned and prepared in accordance with TxDOT Specification, Item 678.
- The Contractor shall employ at his/her expense, an approved commercial testing laboratory to perform testing on materials (such as concrete, base, lime, and asphalt). Sample and test concrete in accordance with TxDOT Specifications. Certified reports of all test results shall be submitted to the Authority's Engineer. Make at least one set of test specimens for each element cast each day. Cure these specimens under the same conditions as the portion of the structure involved for all stages of construction. Ensure safe handling, curing, and storage of all test specimens.
- Should the existing roadway pavement or other feature be damaged, the permittee shall make repairs as specified by the Authority's Engineer.
- Inlet depressions in concrete pavement must be removed to prevent ponding in the pavement.
- All storm sewer and culvert pipes used shall be Reinforced Concrete Pipe (RCP).
- Culvert crossings within the 30-foot clear zone (parallel culverts) shall be required to have minimum 6:1 sloping ends known as Safety End Treatments (SETs). The culvert shall have sufficient length to allow the 6:1 slope to be achieved from the top edge of pavement to the flowline at the bottom end of the SET. Culverts that exceed 50' in length shall have a junction box for clean out as specified by the Authority's Engineer.
- Culverts larger than single 33-inch diameter, double 30-inch diameter, or three or more 12-inch diameter shall require safety pipe runners.
- Riprap or stabilizing material shall be provided and installed by grantee at time of construction as directed by Area Engineer.
- Full-depth saw cut shall be made to facilitate removal of the concrete within the limits of the required full-depth cuts. Concrete adjacent to the patch shall not be spalled or fractured by the removal procedure.
- Work areas that have been disturbed must be returned to the original condition and may be required to place grass seed and continual watering until roots are established.
- Placement or removal of beautification on right of way shall be under the direction of the Authority, at the permittees expense. This includes but not limited to landscape, bushes, trees, etc.
- The Grantee certifies that its storm water runoff to the right of way (Authority's/County/State) shall not be contaminated by any industrial processes or significant pollutants, and the Authority/County/State shall not be held liable for any pollutants entering the right of way through storm water connections.
- Grantee shall meet all Americans with Disabilities Act (ADA) and Texas Department of Licensing Regulation (TDLR) requirements for items including but not limited to sidewalks and wheelchair ramps.

Page 3 of 4

- Grantee shall obtain overall environmental clearance with all appropriate regulatory agencies prior to beginning construction. Approval of this request by the Authority/County does not relieve the Grantee or its agents of this obligation.
- Work performed on railroad right-of-way or easements controlled by others is subject to the concurrence of the owner of said properties. Approval of this request by the Authority/County does not relieve the Grantee of this obligation.
- The complete permit package including TCP shall be on the project site at all times and available for review by Authority/County representatives.
- Upon completion of work, submit CADD/Microstation files and pdf of Record Drawings to Phil Martin with FBTRA.
- The Permittee shall indemnify and save harmless the Authority, County and State from any and all damages or losses that may develop due to this project.
- All TxDOT standards are available online for free download:  
Statewide <http://www.dot.state.tx.us/business/standards/planfiles.htm>  
Houston District <http://www.dot.state.tx.us/hou/specinfo/specs.htm>

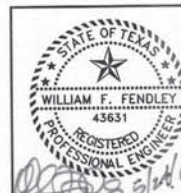
Additional requirements for utilities:

- Contact Phil Martin with FBTRA at (713) 574-5261 office; (832) 907-5726 cell, or [philmartin@fbtra.com](mailto:philmartin@fbtra.com), at least 48 hours prior to starting work within toll road right of way.
- Access to SH 99/Grand Parkway or Fort Bend Parkway must be coordinated with FBTRA prior to work.
- All work must meet TxDOT/State of Texas utility accommodation requirements.
- Markers must be placed at the right of way line for all underground utilities. Markers must indicate owners name and contact information.
- Utility owner must provide owner's responsible person's name and contact information (not contractor's contact information). Owner's responsible person must be available 24 hours/day - 7 days/week for emergency contact.
- Bore pits within the right of way must be protected during non-work hours.
- Borings must be cased from right of way line to right of way line, unless other approval is received from the Authority.

The Authority will assist as follows:

- Provide inspection of construction.
- This permit issued subject to a traffic control plan, which will be prepared, signed/sealed by permittees agent, will approved by the Authority's Engineer. No work within the right of way shall begin until this approval has been granted.

Page 4 of 4



CobbFendley  
Texas Registration No. 274

REVISION	REVISION DATE	DESCRIPTION	INITIAL
<b>AT&amp;T Texas/SWB</b>			
<b>BRAZOS RIVER @ GRAND PKWY</b>			
<b>FORT BEND COUNTY, TEXAS</b>			
SCALE: PLAN 1"= 20' PROFILE VERT. 1"= N/A PROFILE HORIZ. 1"= N/A			
C.P.#			
PREPARED BY			
PREPARED BY CONDUIT DISTRICT		AREA ENGR.-ENR. DESIGN DRAWN BY CFA/CC	ISSUE DATE
PROJECT A00FV4D	REC REF	240-275-11	SHEET 111
AREA NO. W8-9232	c.o.RICH-ROSE	"232" TAX DIST. FG-009	

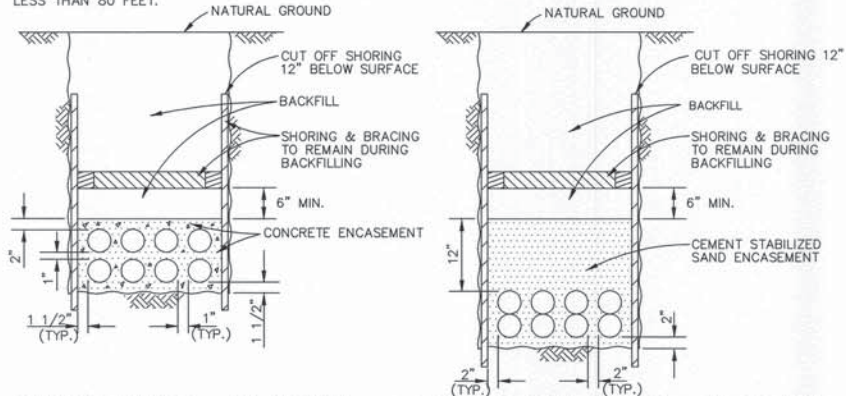
JOB NO. 1605-063-01-51C F.B.# 2857



1. existing buried cable is exposed during trenching operations, coordinate temporary support and protection of buried cable while placing cable in the same trench as conduit.
2. Coordinate temporary support and protection of underground conduit with construction and maintenance forces.
3. Coordinate temporary support and/or final reracking of cables in proposed rebuilt manholes with the construction and maintenance.
4. Soap existing cables in existing manhole(s) at the beginning and end of each work day. If an air leak is detected, notify AT&T Texas personnel immediately.
5. The Contractor is responsible for attending meetings and the coordination of all work with customers and governmental entities.
6. Plug all ducts in all manholes --see BSP 628-220-901 for material and installation specifications.
7. 'C' PVC ducts are to be manroled in accordance with BSP 622-340-201.
8. The location of existing underground utilities, if shown, are in an approximate way only and have not been independently verified by the owner or its representative. The contractor shall determine the exact location of all existing utilities before commencing work, and agrees to be fully responsible for any and all damages which might be occasioned by the contractor's failure to exactly locate and preserve any and all underground utilities. Contractor shall call Texas One Call at 1-800-545-6005, or Lone Star Notification System at 713-223-4567 or 1-800-669-8344 48 hours prior to construction.
9. The information shown on this drawing concerning type and location of underground utilities is not guaranteed to be accurate or all inclusive. The contractor is responsible for making his own determinations as to type and location of underground utilities as may be necessary to avoid damage thereto. The contractor shall verify location of underground pipelines, conduits and structures by contacting owners of underground utilities or by excavation in advance of construction.
0. Contractor shall notify Texas Excavation Safety System (TESS), 48 hours prior to working in or near any and all pipelines at 1-800-344-8377.
1. Contractor must comply with OSHA Specifications and Bell System Practices (622-020-901, Sec. 11 & 12) on trenching, backfilling, excavation and shoring requirements.
2. Contractor shall provide verification statement to AT&T Texas Conduit Engineer that existing utilities have been identified, located and marked by Harris County Department of Public Works, Harris County Traffic Signal Section, and Texas Excavation Safety System (TESS).
3. The Construction Contractor shall also be solely responsible for the means, methods, sequence, procedures, techniques or scheduling all portions of the work of construction in accordance with the contract documents. The Construction Contractor shall also be solely responsible for safety in or about the job site in accordance with any health or safety precautions, regulations, standard or codes required by OSHA or any other regulatory agency.
4. Contractor will be responsible for replacing and maintaining traffic signs and pavement markings which include centerline, barrier lines, lane lines and raised pavement markings.
5. Contractor to coordinate and be responsible for removal, adjustment, or replacement of CenterPoint Energy Electric, CenterPoint Energy Gas or other utilities' facilities and for any cost incurred for this work.
6. Contractor to contact owner(s) of all pole/aerial facilities within project area prior to construction to determine the proper procedures for maintaining the integrity of the pole/aerial facilities during construction. All associated costs with this will be the responsibility of the contractor.
7. Maintain existing ditches and/or culverts for unobstructed drainage at all times and shall provide inlet silt barriers and silt barriers to control ground and surface water.
8. If it becomes necessary to operate machinery on a portion of the pavement, precautions must be taken to prevent any damage whatsoever to the pavement.
9. Contractor to take necessary precautions to protect root systems of shrubs, plants and trees along the area of excavation.
0. No more trench opened at one time than can be backfilled and compacted in 6" lifts at the end of each work period; no trench left open overnight.
1. Tunnel and/or hand dig all concrete curbs.
2. Contractor to provide a minimum of 6" of clearance at all crossings of sanitary sewers, storm sewers, water lines and leads.
3. Changes less than 1' vertically and 3' horizontally due to field conditions do not constitute a change in the scope of work. Contractor shall obtain approval from AT&T Texas inspector prior to varying from design shown on plans and submit a set of marked up plans to the AT&T Texas Manager of Engineering Design.
4. Contractor shall commence work only after permits are obtained and copies are kept on site.
5. Contractor shall abide by AT&T Texas/SWB Standard Practices manual latest edition.
6. Contractor shall have sufficient equipment and manpower on the job site to complete the work on or before the completion date.
7. The contractor shall notify the appropriate governmental agencies forty-eight hours prior to beginning work and get appropriate approval for lane closures.
8. Contractor shall construct horizontal directional drill in accordance with ASTM F 1962, "Standard Guide for use of Maxi-Horizontal Directional Drilling for Placement of Polyethylene Pipe or Conduit Under Obstacles, Including River Crossings."
9. Contractor shall be responsible for determining actual bore pit locations and dimensions. Bore pit locations and dimensions shown on plans are the engineers opinion.
0. The geodetic position of the manholes shown hereon was obtained using rapid static GPS techniques. The latitude and longitude position reported is based on NAD83. The information obtained was post-processed to obtain a positional accuracy of one (1) meter.

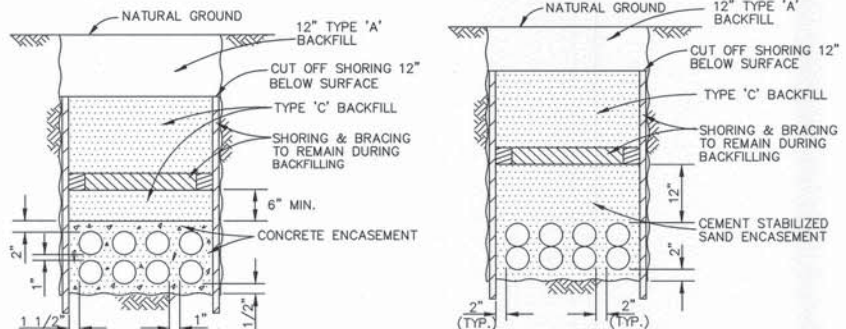
The contractor is fully responsible for any damages caused by his failure to exactly locate and preserve these underground facilities.

1. TYPE 'C' BACKFILL ~ CEMENT STABILIZED SAND (2 SACKS PER TON OR MEET CURRENT LOCAL GOVERNMENTAL ENTITY SPECIFICATIONS WITH TESTING, RESULTS MUST BE PROVIDED TO AT&T TEXAS REPRESENTATIVE).
2. TYPE 'A' BACKFILL ~ ORIGINAL MATERIAL, FREE OF DELETERIOUS MATERIAL, COMPACTED 90-95% PROCTOR IN 6" LIFTS.
3. CONDUIT FORMATIONS, REGARDLESS OF NUMBER OF DUCTS, SHALL MAINTAIN THE SAME MINIMUM CLEARANCES BETWEEN DUCT AND TRENCH WALL, AS SHOWN IN TYPICAL FORMATIONS HEREON.
4. FORMATIONS OVER FOUR DUCTS HIGH REQUIRE 2" SEPARATION AFTER EVERY FOURTH TIER OF DUCTS.
5. ALL DUCTS TO BE ENCASED WITH CEMENT STABILIZED SAND UNLESS OTHERWISE SPECIFIED OR REQUIRED.
6. CONCRETE ENCASE DUCTS WITHIN AREAS OF GRADE CHANGES MORE THAN 20% (1' IN 5') AND BENDS HAVING RADII OF LESS THAN 80 FEET.



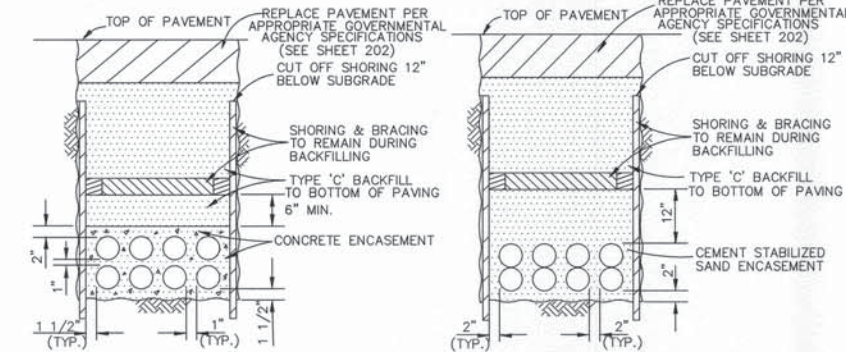
CONCRETE ENCASED - 'A' BACKFILL

CEM. STAB. SAND ENCASED - 'A' BACKFILL



CONCRETE ENCASED - 'C' BACKFILL

CEM. STAB. SAND ENCASED - 'C' BACKFILL



CONCRETE ENCASED - 'C' BACKFIL

CEM. STAB. SAND ENCASED - 'C' BACKFILL

CONCRETE REQUIREMENTS				
TYPE OF STRUCTURE	COMPRESSIVE STRENGTH (PSI)	MAX. SIZE OF AGGREGATE (IN.)	SLUMP (IN.)	TYPE OF CEMENT (SEE NOTE)
Manholes and other form work: Hand Compaction Machine Vibration	4000 4000	3/4 3/4	6 3	I or III
Conduit Encasement	2500	1/4 to 3/8	9	I or III
Conduit Base and Top Protection (for multiple duct or unencased single bore)	2500	3/4	3	I or III
Pavement Base, Sidewalks, Drives	2500	3/4 to 1-1/2	3	I or III

NOTE: Type of cement used will depend on whether normal or short cure period is required. For construction requirements and for concrete placement & procedures, use Bell System Practice 622-020-901.

NOTE: Type of cement used will depend on whether normal or short cure period is required. For construction requirements and for concrete placement & procedures, use Bell System Practice 622-020-901.

RAILROAD TRACKS  
DITCH  
EXIST. AT&T Texas/SWBT CONDUIT  
PROPOSED AT&T Texas/SWBT CONDUIT  
STORM SEWER  
SANITARY SEWER  
WATER  
CENTERPOINT ENERGY GAS  
CENTERPOINT ENERGY ELECTRIC  
WESTERN UNION CONDUIT  
TELE. & ELEC. OR ELEC. POLE  
GUY  
TELEPHONE POLE  
EXIST. BURIED TELEPHONE CABLE  
EXIST. PEDESTAL/CABLE ENCLOSURE  
FUTURE PAVEMENT

Ex. 1. x-x Ducts

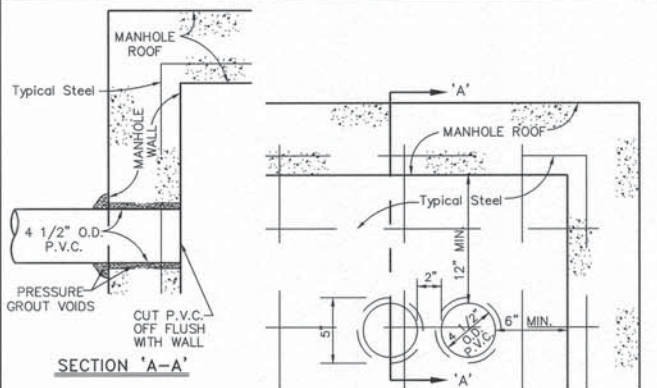
PRIG. x-x DUCTS

x Water

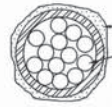
x Elm

x Saw

E or R.O.W.

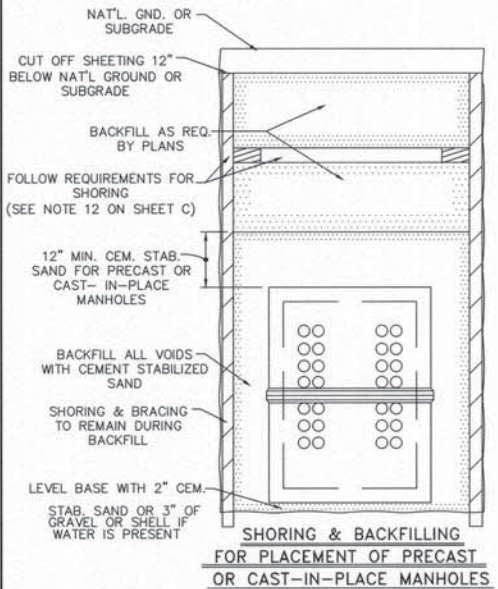
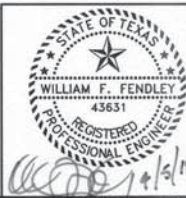


VIEW OF MANHOLE WALL WITH  
2-5" HOLES CORE DRILLED  
(SEE PLAN & PROFILE FOR EXACT LOCATION)

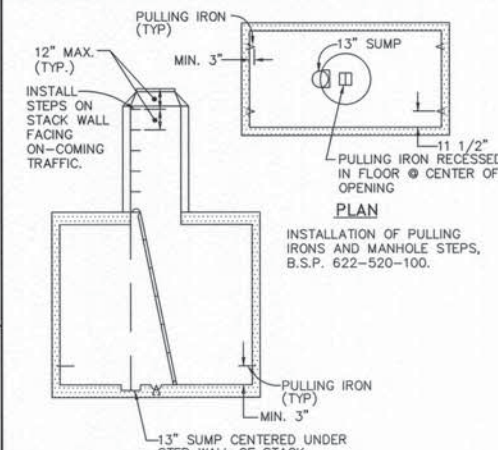


**TYPICAL STEEL  
CASING SECTION**

SIZE (IN.)	THICKNESS (IN.)
UNDER 14	0.188
14 TO 16	0.219
18	0.250
20	0.281
22	0.312
24	0.344
26	0.375
28 TO 30	0.406
32	0.438
34 TO 36	0.469
38 TO 48	0.500



FOR PLACEMENT OF PRECAST  
OR CAST-IN-PLACE MANHOLES



### ELEVATION

	07-12-2004		MS
REVISION	REVISION DATE	DESCRIPTION	INITIAL

## GENERAL DETAILS

## & SPECIFICATIONS

C.P.#		SCALE: N.T.S.	
PREPARED BY CONDUIT DISTRICT _____ WGR-ENG DESIGN		DRAWN BY C.F.A.	ISSUE DATE
PROJECT A00FV4D	REC REF	240-275-11	SHEET <b>201</b>
AREA NO. W8-9232	c.o.RICH-ROSE "232" TAX DIST. FG-009		

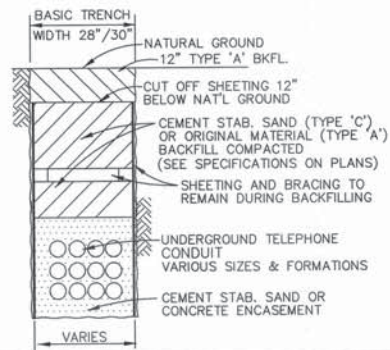


## HARRIS COUNTY NOTES

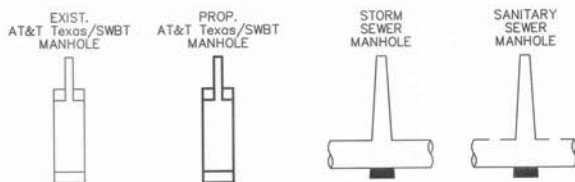
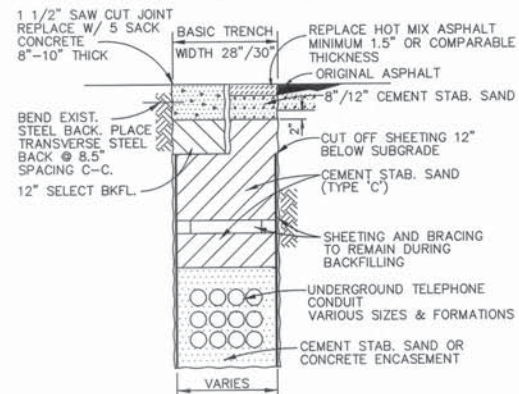
1. Contractor to obtain all permits required by the "Regulations of Harris County, Texas for Flood Plain Management" prior to starting construction.
2. Owner to obtain all permits required by Harris County, Texas prior to starting construction of utilities and/or culverts within Harris County road right-of-way.
3. Note: "Authorization Notice issued by Harris County Public Infrastructure Engineering Department Permit Office required prior to construction of utilities or Left Turn Lanes within Harris County Right-of-Way." Contact Harris County Permit Office (713-956-3000).
4. No more trench opened at one time than can be back filled and compacted in 10" lifts at the end of each work day. (No trench left open overnight.)
5. All excess excavations to be removed from road right of way at end of each day.
6. Ditches to be opened at end of each day to assure adequate drainage.
7. Road must be kept open to traffic and contractor must provide adequate flag men, signs, signals, etc. to provide complete safety to the public.
8. If it becomes necessary for equipment to operate on a portion of the pavement, precautions must be taken to prevent any damage whatsoever to the pavement.
9. Condition of road upon completion of job shall be as good or better than prior to starting.

## HARRIS COUNTY SPECIFICATIONS

### BASIC SECTION FOR TRENCH SUPPORT AND RIGHT-OF-WAY RESTORATION



### BASIC SECTION FOR TRENCH SUPPORT AND RE-PLACEMENT OF CONCRETE OR FLEXIBLE BASE PAVING



## TEXAS DEPARTMENT OF TRANSPORTATION

### Specifications for Placing Utility Lines Within the Right-of-Way of State-Maintained Highways

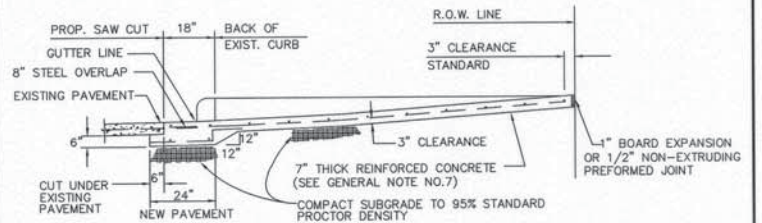
1. All excavations within the right-of-way and not under surfacing shall be backfilled by tamping in 6-inch horizontal layers and/or as directed. All surplus material shall be removed from the right-of-way and the excavation finished flush with the surrounding natural ground.
2. Where sodding is disturbed by excavation or backfilling operations, such areas shall be replaced by seeding. Slopes 4:1 or steeper, shall be replaced by block sodding. This work shall be in accordance with TXDOT specifications.
3. Highway crossings under surfaced roads and surfaced crossroads within the right-of-way shall be placed by boring. Boring shall extend from crown line to crown line. All lines shall be enclosed in satisfactory casing.
4. Use of water and other fluids in connection with boring operations will be permitted only in sufficient quantity to lubricate boring bit and provide a smooth flow of cuttings. Jetting will not be permitted.
5. Pipeline material and design for high pressure lines must meet the minimum Federal Safety Standards for Liquid and Gas Pipelines.
6. Operations on the highways shall be performed in such a manner that operating equipment and excavated material are kept off the pavement at all times.
7. Barricades and warning signs, and flagmen when necessary, shall be provided by the contractor or owner. One-half the traveled portion of the roadway must be open to traffic at all times.
8. Work performed on railroad right-of-way is subject to the concurrence of the railroad company. Work performed within waterways, such as rivers, creeks, bayous, and drainage ditches is subject to the rules & requirements of that appropriate governmental agency.
9. All manhole covers shall be installed flush with ground level. The roof of communications manholes shall be at least five feet below ground level within state right-of-way.

## ABBREVIATIONS

Asph. . . . .	Asphalt	H.R. . . . .	Head Room	Sta. . . . .	Station
B-B . . . . .	Back to Back	L.T. . . . .	Left	Strn. . . . .	Storm
Bkfl. . . . .	Backfill	M.H. . . . .	Manhole	S.E. . . . .	Storm Sewer
B.Lor. . . . .	Baseline	N.F.I.F. . . . .	Not Found In Field	S.E. . . . .	Easement
B.M. . . . .	Benchmark	o/s . . . . .	Offset	Tele. . . . .	Telephone
Cem. . . . .	Cement	PVC . . . . .	Polyvinyl Chloride	T.B.M. . . . .	Temporary Bench Mark
C.Lor. . . . .	Centerline	Pwmt. . . . .	Pavement	TxDOT . . . . .	Texas Department of Transportation
C. of H. . . . .	City of Houston	Ped. . . . .	Pedestal	TY. . . . .	Type
Conc. . . . .	Concrete	P.L. or R. . . . .	Property Line	TYP. . . . .	Typical
Cond. . . . .	Conduit	PROP. . . . .	Proposed	U.E. . . . .	Utility Easement
Constr. . . . .	Construction	Ref. . . . .	Reference	Vol. . . . .	Volume
C.M.P. . . . .	Corrugated Metal Pipe	R.C.B. . . . .	Reinforced Concrete Box	W.L. . . . .	Water Line
Cu. Ft. . . . .	Cubic Feet	R.C.P. . . . .	Reinforced Concrete Pipe	W.L.E. . . . .	Water Line Easement
Esmt. . . . .	Easement	RT. . . . .	Right	WM . . . . .	Water Meter
Elec. . . . .	Electric or Electronic	R.O.W. . . . .	Right-of-Way	WV . . . . .	Water Valve
Elev. . . . .	Elevation	San. . . . .	Sanitary	W.U. . . . .	Western Union
Exist. . . . .	Existing	S.S.E. . . . .	Sanitary Sewer Easement		
F.B. . . . .	Field Book	S.A.I. . . . .	Service Area Interface		
FH . . . . .	Fire Hydrant	Sht. . . . .	Sheet		
F/C . . . . .	Frame and Cover	S.W. . . . .	Sidewalk		
Fut. . . . .	Future	Stab. . . . .	Stabilized		
H.C.F.C.D. . . . .	Harris County Flood Control District				

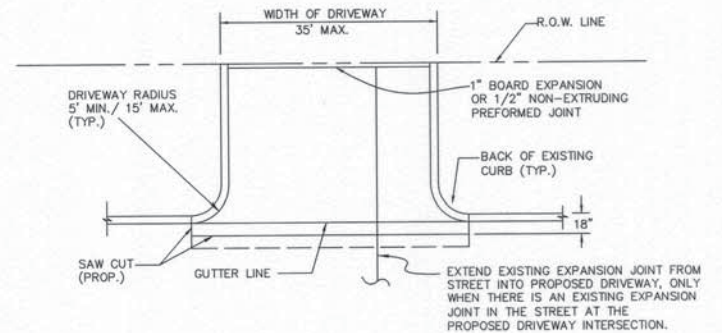
WHEN A COMMERCIAL DRIVEWAY, OR CURB & GUTTER IS CONSTRUCTED, RECONSTRUCTED, REPAIRED OR REGRADED ON COUNTY RIGHT OF WAY USE THE FOLLOWING:

### A - USE FOR ALL PROPOSED DRIVES ON CURBED TYPE STREETS:



"FOR USE WITH CONCRETE OR ASPHALT CURBED TYPE STREETS"

### B - USE FOR ALL PROPOSED EXISTING CURB REMOVAL:



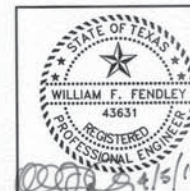
DRIVEWAY ON CONCRETE CURBED  
CONCRETE OR ASPHALT STREETS  
COMMERCIAL AREA

APPROVED BY: J.R. BLOUNT  
DATE: 15 NOV 2005  
DRAWN BY: CASTANEDA, C.  
DRAWING No. DW-1

HARRIS COUNTY ENGINEERING DEPARTMENT

J:\SHARE\Std Dwg and Specifications\Drawings\HCDRWY-1.dwg 07/24/2001 09:07:57 AM CDT

	07-12-2004		MS
REVISION	REVISION DATE	DESCRIPTION	INITIAL
<b>AT&amp;T Texas/SWBT</b>			
<b>GENERAL DETAILS</b>			
<b>&amp; SPECIFICATIONS</b>			
C.P.#		SCALE: N.T.S.	
PREPARED BY CONDUIT DISTRICT		DRAWN BY C.F.A.	ISSUE DATE
PROJECT A00FV4D		REC REF 240-275-11	SHEET <b>202</b>
AREA WB-9232	C.O. RICH-ROSE "232"		TAX DIST. FG-009



CobbFendley  
Texas Registration No. 274

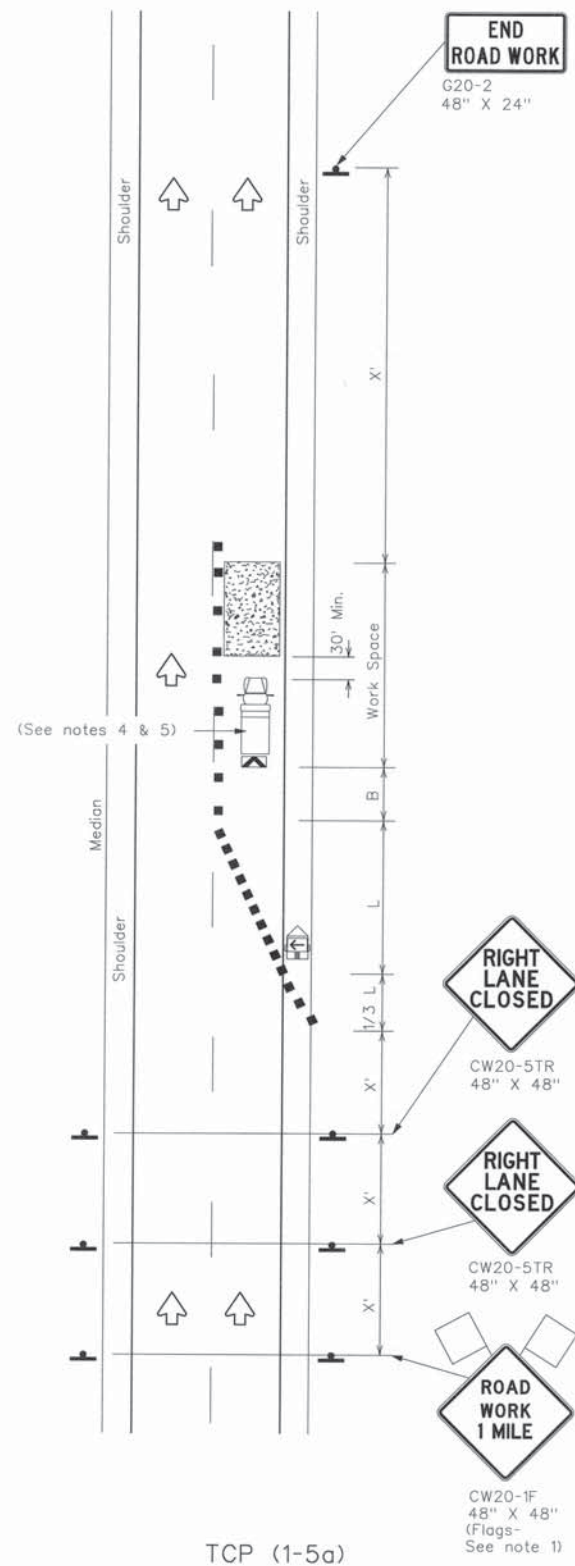
JOB NO. 1605-063-01-51C F.B.# 2857



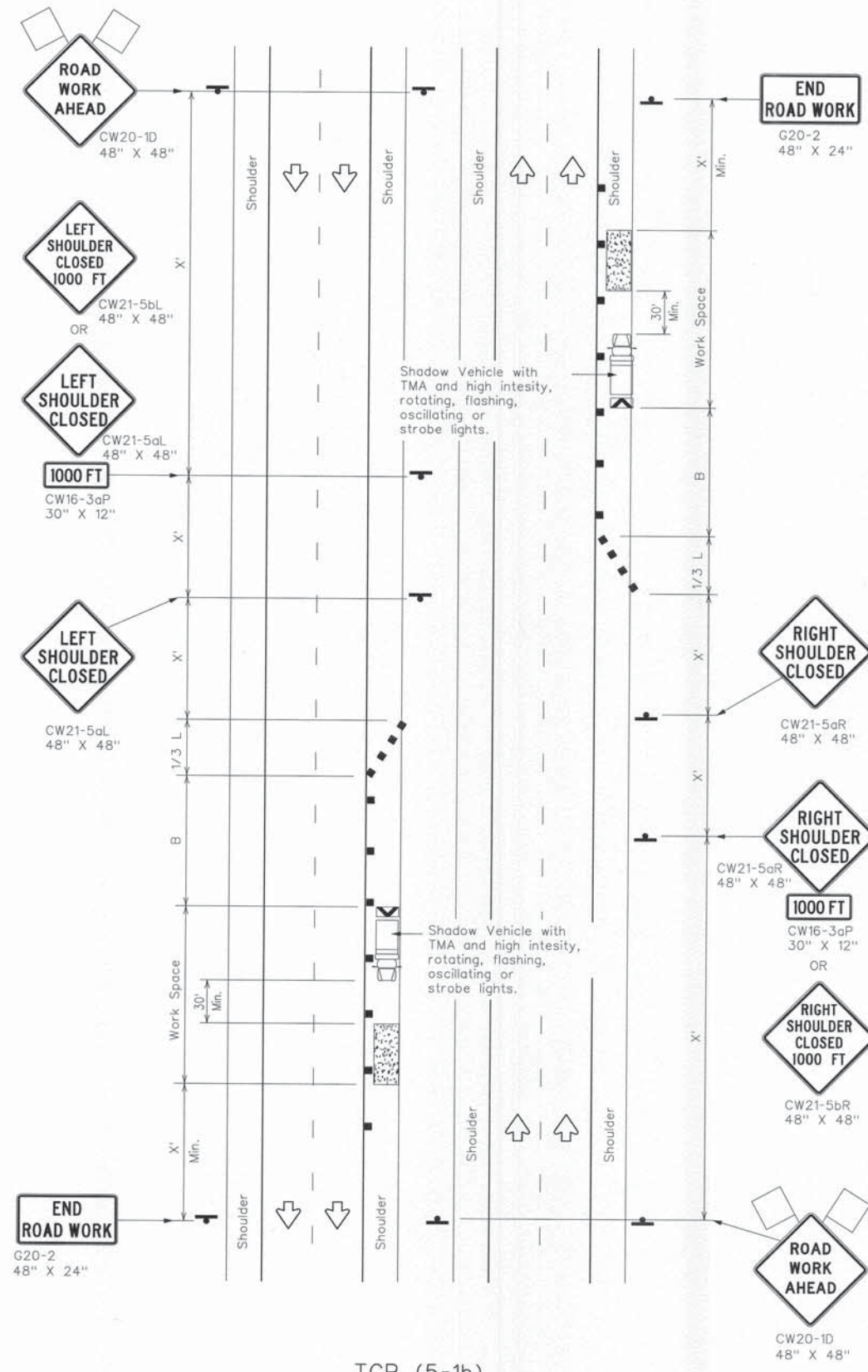




DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conveyance of this standard to other formats or for incorrect results or damages resulting from its use.



ONE LANE CLOSURE



WORK AREA ON SHOULDER

LEGEND					
	Type 3 Barricade		Channelizing Devices		
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)		
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)		
	Sign		Traffic Flow		
	Flag		Flagger		

Posted Speed *	Formula	Minimum Desirable Taper Lengths x x			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L=WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

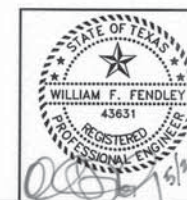
\* Conventional Roads Only  
\* \* Taper lengths have been rounded off.  
L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
		✓		

#### GENERAL NOTES

- Flags attached to signs where shown, are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
- Channelizing devices used to close lanes may be supplemented with the Chevron Alignment Sign placed on every other channelizing device. Chevrons may be attached to plastic drums as per BC Standards.
- Shadow Vehicle with TMA and high intensity rotating, flashing, oscillating or strobe lights. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned in each closed lane, on the shoulder or off the paved surface, next to those shown in order to protect a wider work space.

PLEASE NOTE:  
ONE LANE CLOSURE TRAFFIC OPERTAION  
MAY NOT BE IN EFFECT BETWEEN THE  
HOURS OF 6:00-9:00AM AND  
4:00-7:00PM, MONDAYS TO FRIDAY.



CobbFendley  
Texas Registration No. 274

REVISION	07-01-2004	DESCRIPTION	MS	INITIAL		
AT&T Texas/SWBT TRAFFIC CONTROL PLAN						
C.P.#		SCALE: N.T.S.				
PREPARED BY CONDUIT DISTRICT		DRAWN BY CFA/CC		ISSUE DATE		
PROJECT A00FV40		REC 240-275-11		SHEET		
AREA NO. W8-9232		C.O. RICH-ROSE "232"		TAX DIST. FG-009		
JOB NO. 1605-063-01-51C				F.B.# 2857		
205						