NOTIFICATION OF PROPOSED INSTALLATION AND/OR REPAIRS OF TELEPHONE FACILITIES AND DESIGNATING PLACEMENT OF UTILITY IN COUNTY RIGHT OF WAY TO: THE COUNTY ENGINEER OF BRAZOS COUNTY, TEXAS

Comes now Frontier Communications [company name], hereinafter referred to as "Company" a Texas [state] Corporation, with authority to transact business in Texas, acting by and through its duly authorized representative, and hereby notifies the County Engineer of its intent to lay, construct, maintain, repair and/or operate a telephone facility under, over, across and/or along certain County Roads as shown on drawings and diagrams attached hereto and said location described as follows:

RELOCATE PED1 TO SAME LOCATION AS
EXISTING CONNECTION. EXTEND CABLE (2) WITH UEB CABLE (18)
AS NEEDED & SET BACK CABLES (5&6)

WORK IS BEING DONE TO ACCOMMODATE ROADWAY RECONSTRUCTION
ON MACEY ROAD.

The location and description of the proposed installation and appurtenances must be fully shown on detailed drawings attached to this Notification.

The Company shall commence actual construction/work in good faith within 60 days from the date of said permit and shall complete said construction /work within 20 working days. (COMPANY MUST FILL IN). If such construction is not begun by the 60th day, Company will be required to provide a new notice.

Company declares that prior to filing this application, it has ascertained the location of all existing utilities, both aerial and underground, and the filing of this application is prima facie evidence that the proposed installation will not conflict with any existing utility.

A copy of this notice shall be kept at the job site any time work is being performed.

In the event of deviation from this notice, the Brazos County Engineer's Office or its designated representative will be notified as soon as practicable.

Approval of County Engineer's Office may take as long as two weeks after complete application is received.

Failure to notify the County Engineer's Office within 24 hours of beginning construction shall constitute grounds for job shutdown.

By signing below, I certify that I am authorized to represent the Company listed below, and that the Company agrees to the conditions/provisions included in this notification.

Frontier Communications

Company Name

By:

Joshua May

Signature

Network Architect Engineer

Title

220t Ave. Plano, TX 75047

Address

Phone Number 979-402-7446

Email: joshua.i.may@ftr.com

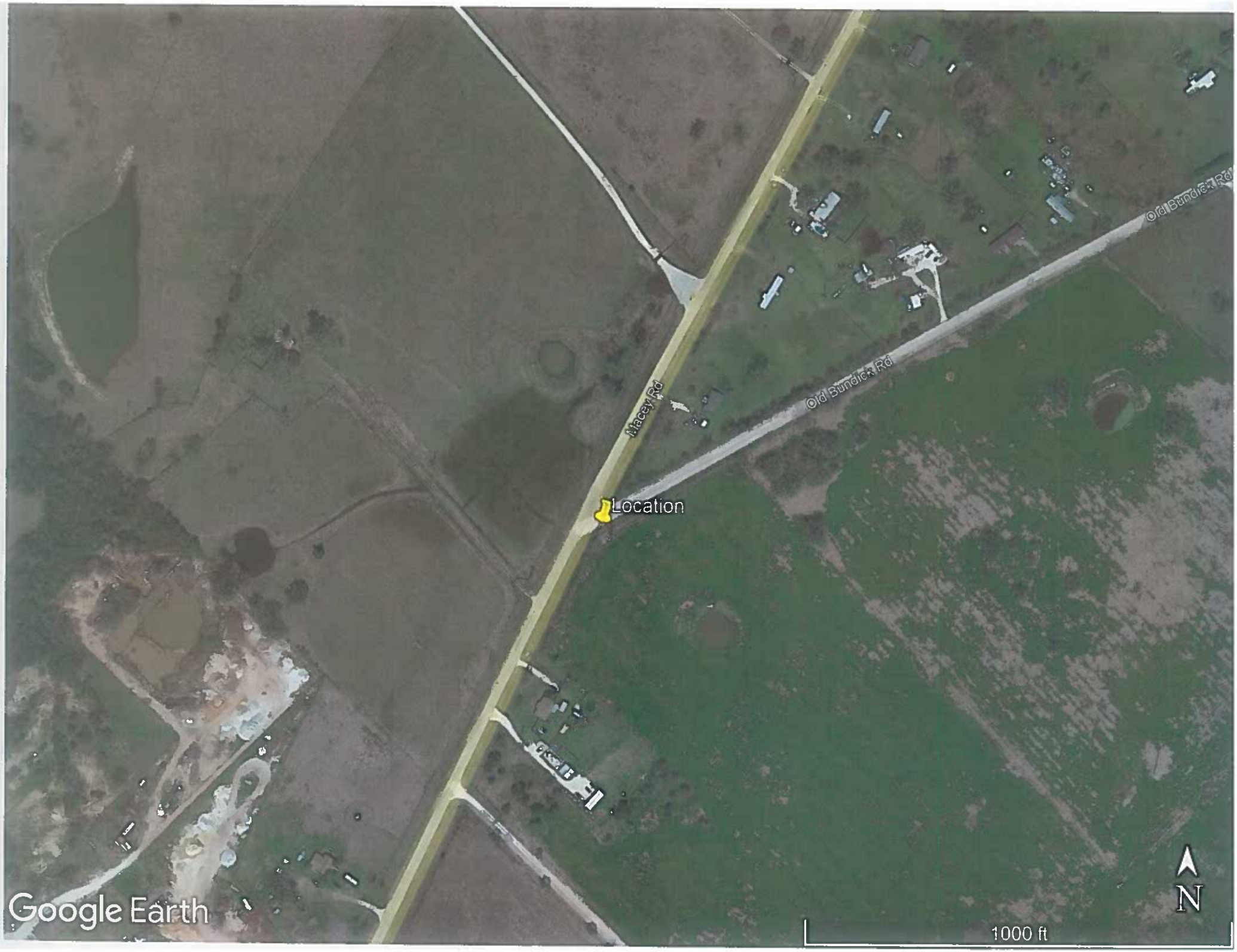
ACCEPTANCE OF NOTIFICATION

Brazos County offers no objection to the proposed location of the utility in the County right of way as shown by accompanying drawings and notice dated 3-29-23 except as noted below: (Month/Day/Year)

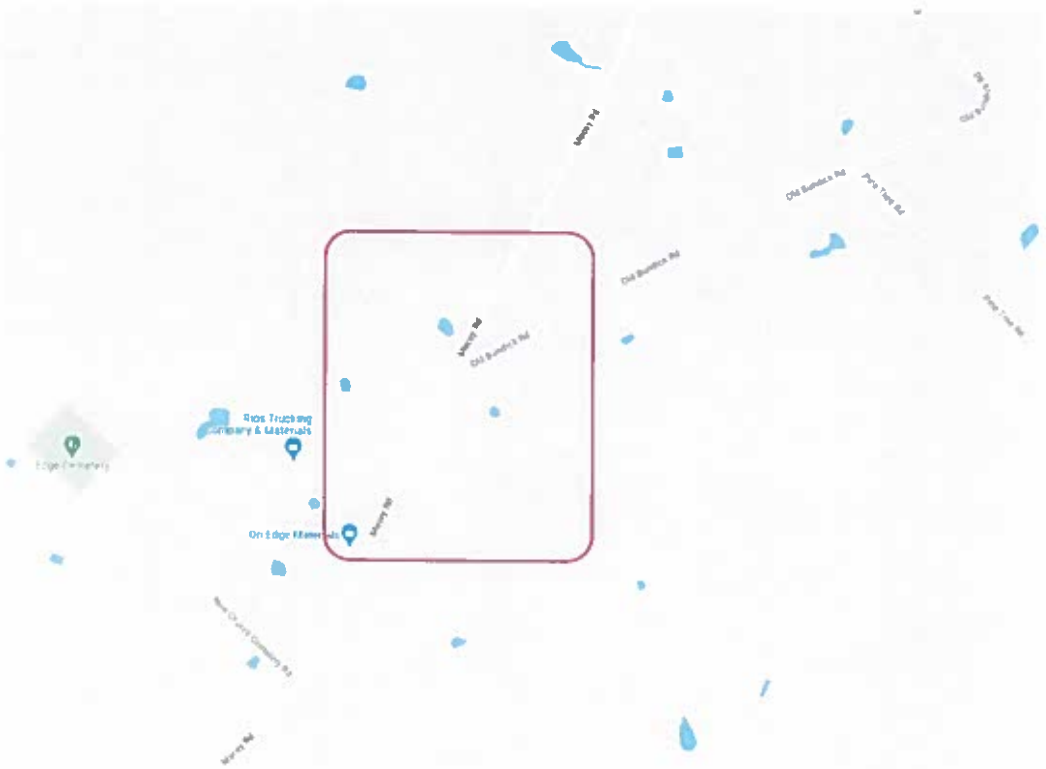
EXCEPTIONS: None

Darrell W. Kolar

for Brazos County Engineer


Macey Rd
Old Bundick Rd
Old Bundick Rd
Location
Google Earth
N
1000 ft

5321687 - KRTNTXXA - OBLIG - MACEY ROAD RECONSTRUCTION
RELOCATE UG FACILITIES IN CONFLICT
POTENTIAL CONFLICT INTERSECTION OF: MACEY RD & OLD BUNDICK RD
16110 MACEY RD, HEARNE TX 77859



CONTACT LIST
FTR ENGINEER: JOSHUA MAY
CBR: 979.402.7446
EMAIL: JOSHUA.I.MAY@FTR.COM
DESIGNED BY: MIKE PLANT
EMAIL: MICHAEL.PLANT@ATCOTELECOM.COM

BRAZOS COUNTY CONTACT INFORMATION:
FRED PAINE, P.E.
OPERATIONS MANAGER
O: (979) 822-2127
FPAINE@BRAZOSCOUNTYTX.GOV

PRARTHANA BANERJI, P.E., CFM
BRAZOS COUNTY ENGINEER
O: (979) 822-2127
PBANERJI@BRAZOSCOUNTYTX.GOV

1

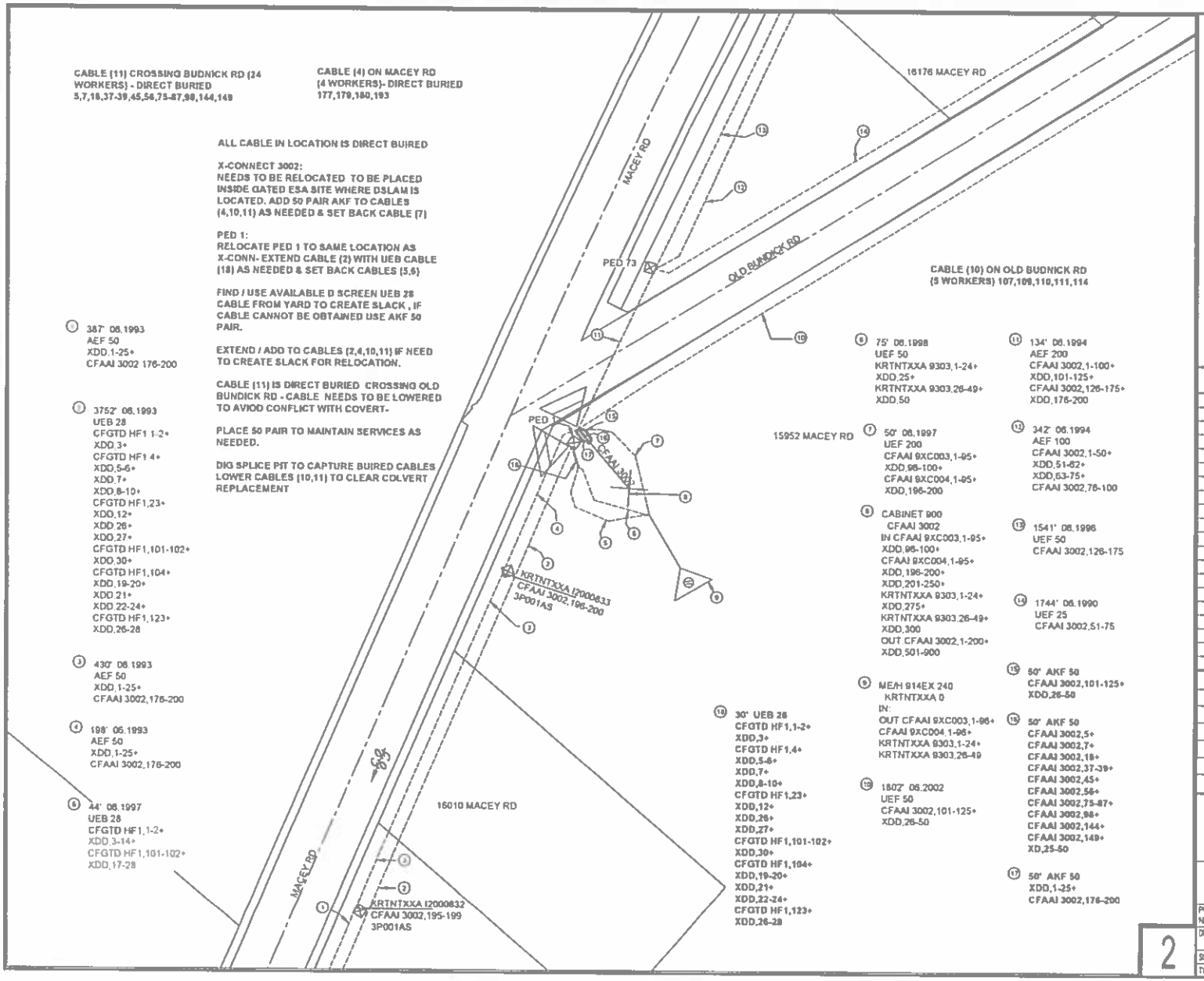
UNITS / ACCT CODES

REVISIONS

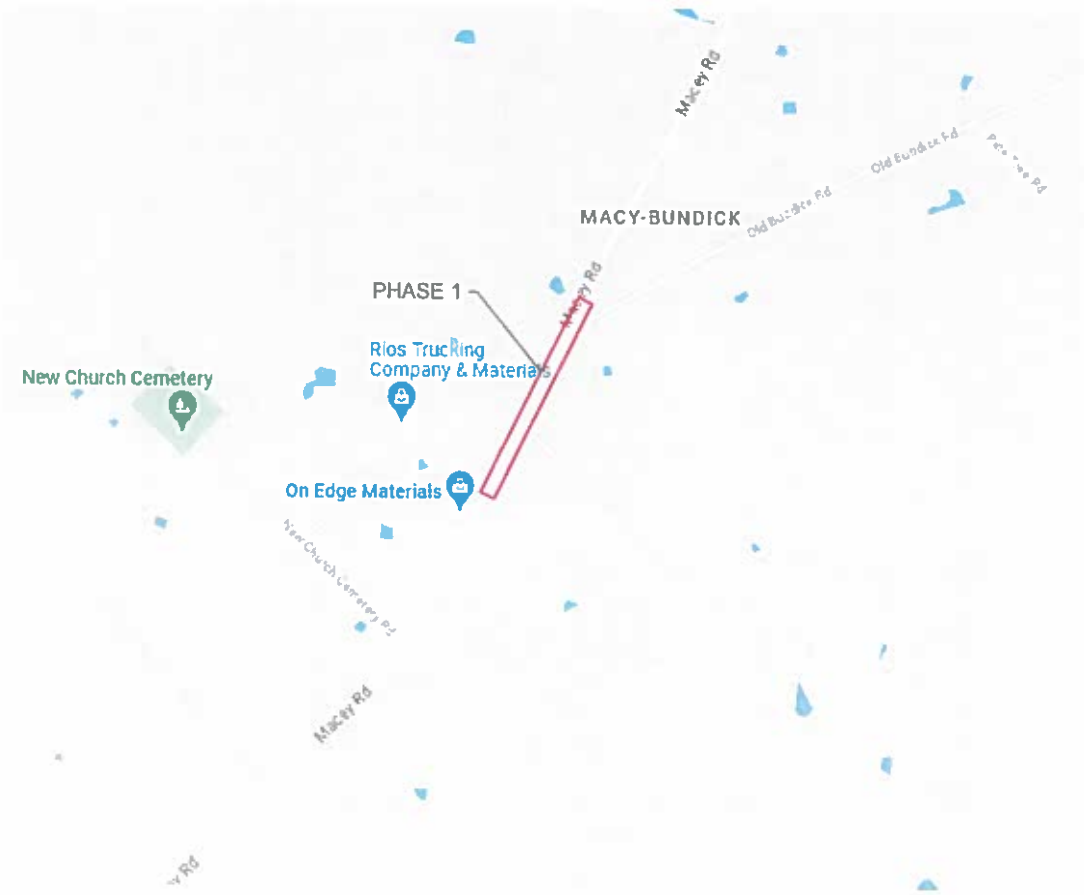
FRONTIER

MACEY RD RELOCATION
16110 MACEY RD

PROJECT NUMBER	5321687	C.O. AREA	KRTNTXXA
		ENG'G CODE	KURTEN
DRAWN DATE 3/2023	ENGR JOSHUA MAY	CNTY	BRAZOS
	PHONE 979.402.7446	FILE	MACEY RD
SCALE 1 100	TAX DISTRICT —	DWG	1 OF 2
TWSHP —	RNG —	SEC	—


CABLE (11) CROSSING BUDNICK RD (24 WORKERS) - DIRECT BURIED
5,7,18,37-39,45,56,75-87,98,144,149
CABLE (4) ON MACEY RD (4 WORKERS)- DIRECT BURIED
177,178,180,193
ALL CABLE IN LOCATION IS DIRECT BUIRED
X-CONNECT 3002:
NEEDS TO BE RELOCATED TO BE PLACED INSIDE GATED ESA SITE WHERE DSLAM IS LOCATED. ADD 50 PAIR AKF TO CABLES (4,10,11) AS NEEDED & SET BACK CABLE (7)
PED 1:
RELOCATE PED 1 TO SAME LOCATION AS X-CONN- EXTEND CABLE (2) WITH UEB CABLE (18) AS NEEDED & SET BACK CABLES (5,6)
FIND / USE AVAILABLE D SCREEN UEB 28 CABLE FROM YARD TO CREATE SLACK , IF CABLE CANNOT BE OBTAINED USE AKF 50 PAIR.
EXTEND / ADD TO CABLES (2,4,10,11) IF NEED TO CREATE SLACK FOR RELOCATION.
CABLE (11) IS DIRECT BURIED CROSSING OLD BUNDICK RD - CABLE NEEDS TO BE LOWERED TO AVOID CONFLICT WITH COVERT-
PLACE 50 PAIR TO MAINTAIN SERVICES AS NEEDED.
DIG SPLICE PIT TO CAPTURE BURIED CABLES LOWER CABLES (10,11) TO CLEAR COLVERT REPLACEMENT
16176 MACEY RD
MACEY RD
OLD BUNDICK RD
PED 13
CABLE (10) ON OLD BUNDICK RD (3 WORKERS) 107,109,110,111,114
PED 1
CFAAI 3002
15952 MACEY RD
16010 MACEY RD
MACEY RD
KRTNTXXA I2000833
CFAAI 3002,196-200
3P001AS
KRTNTXXA I2000832
CFAAI 3002,195-199
3P001AS
1 387' 06.1993 AEF 50 XDD,1-25+ CFAAI 3002 176-200
2 3752' 06.1993 UEB 28 CFGTD HF1 1-2+ XDD,3+ CFGTD HF1 4+ XDD,5-6+ XDD,7+ XDD,8-10+ CFGTD HF1,23+ XDD,12+ XDD,26+ XDD,27+ CFGTD HF1,101-102+ XDD,30+ CFGTD HF1,104+ XDD,19-20+ XDD,21+ XDD,22-24+ CFGTD HF1,123+ XDD,26-28
3 430' 06.1993 AEF 50 XDD,1-25+ CFAAI 3002,176-200
4 198' 06.1993 AEF 50 XDD,1-25+ CFAAI 3002,176-200
6 44' 06.1997 UEB 28 CFGTD HF1,1-2+ XDD,3-14+ CFGTD HF1,101-102+ XDD,17-28
8 75' 06.1998 UEF 50 KRTNTXXA 9303,1-24+ XDD,25+ KRTNTXXA 9303,26-49+ XDD,50
7 50' 06.1997 UEF 200 CFAAI 9XC003,1-95+ XDD,96-100+ CFAAI 9XC004,1-95+ XDD,196-200
9 CABINET 900 CFAAI 3002 IN CFAAI 9XC003,1-95+ XDD,96-100+ CFAAI 9XC004,1-95+ XDD,196-200+ XDD,201-250+ KRTNTXXA 9303,1-24+ XDD,275+ KRTNTXXA 9303,26-49+ XDD,300 OUT CFAAI 3002,1-200+ XDD,501-900
9 ME/H 914EX 240 KRTNTXXA 0 IN: OUT CFAAI 9XC003,1-96+ CFAAI 9XC004,1-96+ KRTNTXXA 9303,1-24+ KRTNTXXA 9303,26-49
18 1802' 06.2002 UEF 50 CFAAI 3002,101-125+ XDD,26-50
10 30' UEB 28 CFGTD HF1,1-2+ XDD,3+ CFGTD HF1,4+ XDD,5-6+ XDD,7+ XDD,8-10+ CFGTD HF1,23+ XDD,12+ XDD,26+ XDD,27+ CFGTD HF1,101-102+ XDD,30+ CFGTD HF1,104+ XDD,19-20+ XDD,21+ XDD,22-24+ CFGTD HF1,123+ XDD,26-28
11 134' 06.1994 AEF 200 CFAAI 3002,1-100+ XDD,101-125+ CFAAI 3002,126-175+ XDD,176-200
12 342' 06.1994 AEF 100 CFAAI 3002,1-50+ XDD,51-62+ XDD,63-75+ CFAAI 3002,76-100
13 1541' 06.1996 UEF 50 CFAAI 3002,126-175
14 1744' 06.1990 UEF 25 CFAAI 3002,51-75
15 50' AKF 50 CFAAI 3002,101-125+ XDD,26-50
16 50' AKF 50 CFAAI 3002,5+ CFAAI 3002,7+ CFAAI 3002,18+ CFAAI 3002,37-39+ CFAAI 3002,45+ CFAAI 3002,56+ CFAAI 3002,75-87+ CFAAI 3002,98+ CFAAI 3002,144+ CFAAI 3002,149+ XD,25-50
17 50' AKF 50 XDD,1-25+ CFAAI 3002,176-200
UNITS / ACCT CODES
REVISIONS
FRONTIER
MACEY RD RELOCATION
16110 MACEY RD
PROJECT NUMBER 5321687
C.O. AREA KRTNTXXA
EXCH CODE: KRTN
DRAWN DATE 3/2023
ENGR JOSHUA MAY
PHONE 972.452.7446
SCALE 1:100
TAX DISTRICT —
TWSHP —
RNG —
SEC —
CNTY DALLAS
FILE MACEY RD
DWG 2 OF 2
2

ATCO COMMUNICATIONS SERVICES, LLC AS THE DESIGNER OF THIS TRAFFIC CONTROL PLAN, MAKES NO REPRESENTATION AS TO ITS' GENERAL ADEQUACY OR BEING APPROVED FOR IMPLEMENTATION. APPROVAL MUST RESULT FROM THE TRAFFIC ENGINEER OR OTHER PUBLIC OFFICIAL HAVING STATUTORY ENFORCEMENT AUTHORITY IN THE JURISDICTION. UTILIZATION AND IMPLEMENTATION OF THIS PLAN SHALL BE A RESULT OF THE APPROVAL. REF. MUTCD 2009 6A - 01 (10)



VICINITY MAP

ATCO COMMUNICATIONS SERVICES, LLC
www.atcotelecom.com
360.563.9000
708 First Street
Snohomish, WA 98290

FRONTIER
2201 I Avenue, Plano TX 75074

PROJECT NUMBER	5321687
PROJECT ADDRESS	16110 MACEY RD HEARNE, TX
LOCATION:	NEW CHURCH CEMETERY RD AND OLD BUNDICK RD
FILE NAME:	5321687.dwg

COVER SHEET

DATE:	04.28.2023
REVIEWED BY:	D. LAFLEUR
DESIGNED BY:	R. MERAZ
ATCO CONTACT:	469.395.7057 roger.meraz@atcotelecom.com

SCALE: NOT TO SCALE

SHEET: 01

NO: 1 OF 3

LEGEND:

- SIGNALIZED INTERSECTION
- CONE (CANDLESTICK)
- TYPE III BARRICADE
- WORK TRUCK
- WORK ZONE LIMITS
- WARNING SIGN
- ARROW BOARD (WHERE REQUIRED)
- DIRECTION OF TRAFFIC (NOT PAVEMENT MARKINGS)
- FLAGGER-SPOTTER
- FLAGGER STATION

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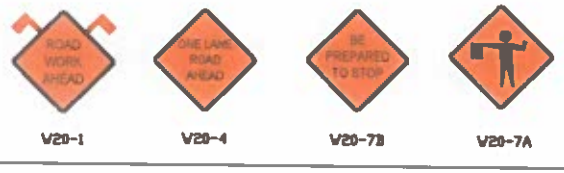
PHASE 1

SITE PLAN SHEET

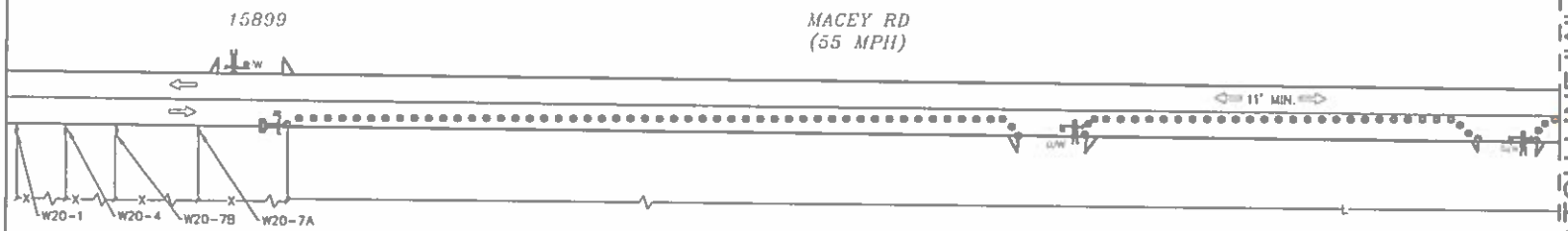
SIGN LEGEND:



WORK DETAILS:

① RELOCATE PED 1 TO SAME LOCATION

* SPOTTER NEEDED FOR PEDESTRIAN & TRAFFIC AND DRIVEWAY ACCESS.



MATCH LINE "A" (SEE SHEET 3)

Posted Speed *	Formula	Minimum Channelizing Taper Length Offset 10'	Offset 11'	Offset 12'	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
30	L=WS²/60	150'	165'	180'	30'	60'	120'	90'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L=WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

*CONVENTIONAL ROADS ONLY

** TAPER LENGTHS HAVE BEEN ROUNDED OFF.

L = LENGTH OF TAPER (FT) · W = WIDTH OF OFFSET (FT) · S = POSTED SPEED LIMIT (MPH)

NOTE:
WORK HOURS:
MON.-FRI. =9:00am TO 4:00pm

ATCO COMMUNICATIONS SERVICES, LLC
www.atcotelecom.com
360.563.9000
708 First Street
Snohomish, WA 98290

FRONTIER

2201 I Avenue, Plano TX 75074

PROJECT NUMBER: 5321687

PROJECT ADDRESS: 16110 MACEY RD HEARNE, TX

LOCATION: NEW CHURCH CEMETERY RD AND OLD BUNDICK RD

TRAFFIC CONTROL PLAN

FILE NAME: 5321687.dwg

DATE: 04.28.2023

REVIEWED BY: D. LAFLEUR WSTCS# 013259

DESIGNED BY: R. MERAZ

ATCO CONTACT: 469.395.7057 roger.meraz@atcotelecom.com

SCALE: 1" = 50'

SHEET: 02

NO: 2 OF 3

LEGEND:

Symbol	Meaning
(S)	SIGNALIZED INTERSECTION
●	CONE (CANDLESTICK)
▨	TYPE III BARRICADE
▭	WORK TRUCK
▦	WORK ZONE LIMITS
▬	WARNING SIGN
●●●	ARROW BOARD (WHERE REQUIRED)
⇨	DIRECTION OF TRAFFIC (NOT PAVEMENT MARKINGS)
	FLAGGER-SPOTTER
	FLAGGER STATION

ATCO COMMUNICATIONS SERVICES, LLC AS THE DESIGNER OF THIS TRAFFIC CONTROL PLAN, MAKES NO REPRESENTATION AS TO ITS' GENERAL ADEQUACY OR BEING APPROVED FOR IMPLEMENTATION. APPROVAL MUST RESULT FROM THE TRAFFIC ENGINEER OR OTHER PUBLIC OFFICIAL HAVING STATUTORY ENFORCEMENT AUTHORITY IN THE JURISDICTION. UTILIZATION AND IMPLEMENTATION OF THIS PLAN SHALL BE A RESULT OF THE APPROVAL. REF. MUTCD 2009 6A - 01 (10)

PHASE 1

SITE PLAN SHEET-

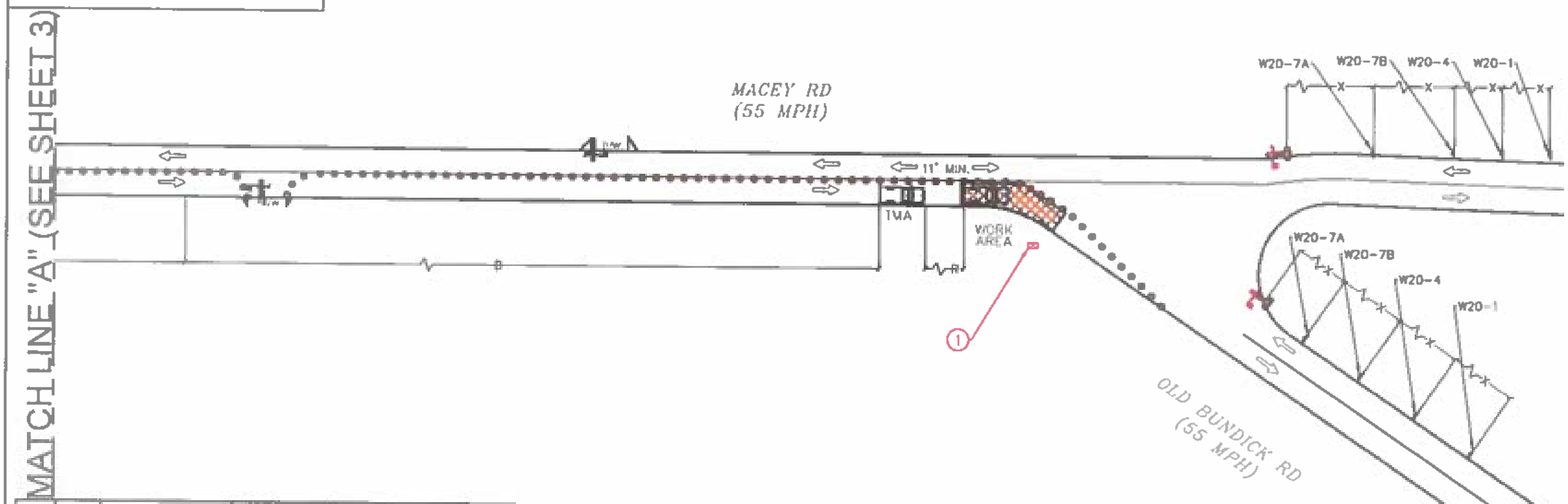
SIGN LEGEND:

ROAD WORK AHEAD	ONE LANE ROAD AHEAD	BE PREPARED TO STOP	(flagger)
W20-1	W20-4	W20-7B	W20-7A

WORK DETAILS

① RELOCATE PED I TO SAME LOCATION

■ SPOTTER NEEDED FOR PEDESTRIAN ■ TRAFFIC AND DRIVEWAY ACCESS.



Posted Speed ★	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"	Stopping Sight Distance
		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'	200'
35		205'	225'	245'	35'	70'	160'	120'	250'
40		265'	295'	320'	40'	80'	240'	155'	305'
45	L=WS	450'	495'	540'	45'	90'	320'	195'	360'
50		500'	550'	600'	50'	100'	400'	240'	425'
55		550'	605'	660'	55'	110'	500'	295'	495'
60		600'	660'	720'	60'	120'	600'	350'	570'
65		650'	715'	780'	65'	130'	700'	410'	645'
70		700'	770'	840'	70'	140'	800'	475'	730'
75		750'	825'	900'	75'	150'	900'	540'	820'

*CONVENTIONAL ROADS ONLY

** TAPER LENGTHS HAVE BEEN ROUNDED OFF.

L = LENGTH OF TAPER (FT) - W = WIDTH OF OFFSET (FT) - S = POSTED SPEED LIMIT (MPH)

NOTE
MON.-FRI. 9:00am TO 4:00pm

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FRONTIER
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PROJECT NUMBER: 5321687

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LOCATION: NEW CHURCH CEMETERY RD AND OLD BUNDICK RD

TRAFFIC CONTROL PLAN

FILE NAME: 5321687.dwg

DATE: 04.28.2023

REVIEWED BY: D. LAFLEUR WSTCS# 013259

DESIGNED BY: R. MERAZ

ATCO CONTACT: 469 395 7057 roger.meraz@atcotelecom.com

SCALE: 1"=50'

SHEET: 03

NO: 3 OF 3

BRAZOS COUNTY ROADWAY SAFETY AND ROAD PRESERVATION STANDARDS FOR WORK CONDUCTED IN BRAZOS COUNTY RIGHTS OF WAY

A. *General Requirements*

1. Adequate drainage shall be maintained in ditches at all times.

2. Permittee will use best management practices ("BMP") (EPA and TCEQ both provide lists of examples of BMPs) to minimize erosion and sedimentation resulting from the proposed installation.

3. The permittee shall take precautions to avoid damage to property. All County Right of Way and property shall be restored to its original condition, as far as practical, in the opinion of the County Engineer or appointed representative.

4. The construction and maintenance of such utility shall not interfere with the property or rights of a prior occupant.

5. Permittee shall not interfere with other utilities located in the right of way. In the event damages occur, permittee will be liable to the County or other utilities running through the right of way.

6. County Engineer shall determine whether or not permittee's plans shall inconvenience the public. If it is determined that inconvenience to the public exists, then the County Engineer will decide whether such project will be allowed or if an alternative exists so as not to inconvenience the public.

B. *Safety Requirements*

1. Proper traffic control measures must be put in place prior to beginning work and remain in place during the duration of the job. All traffic control measures must follow the Texas Manual of Uniform Traffic Control Devices (TMUTCD). See Traffic Control Requirements below.

2. During construction, all safety regulations of the Texas Department of Transportation shall be observed.

3. Permittee must take such precautions and measures, including placing and displaying safety devices, as may be necessary, in order to safely conduct the public through the project area. Company shall provide flagmen, signs, signals or devices necessary to provide complete safety to the public.

4. Adequate provisions must be made to cause minimum inconveniences to traffic and adjacent property owners.

5. No cable, conduit and/or pole line shall be laid, constructed, maintained and/or repaired so as to constitute a danger or hazard of any kind to persons or vehicles using such road. Any poles placed in the Right of Way for future installation shall be placed at the back of the Right of Way. Exceptions may be approved by the County Engineer.

C. *Traffic Control Plan*

1. A traffic control plan, pursuant to the TMUTCD or Engineered Traffic Control Plan must be provided for the following:
   a. Any construction (i.e. pit, excavation, hole) left open overnight, requires specific nighttime traffic control measures pursuant to the TMUTCD;

b. If construction is within ten (10) feet of the roadway; or
c. Any work performed in the road right-of-way;

2. Plan must be attached to the permit and kept at the job site any time work is being performed.

3. Plan must set forth the time of completion for the job.

D. Design Standards

1. All overhead installations shall conform to clearance standards of the Texas Department of Transportation and the pole be placed in the designated area for power specified as set forth in the *Texas Utilities Code, Section 181.045.*

2. All pole installation (including lighting) shall be placed at the backside of the Right of Way to ensure safety to the public. Any pole placed in violation of this requirement will be required to be moved to the appropriate location at the company's expense. Exceptions may be approved by the County Engineer.

3. All underground installations shall (these are minimum depths – utility may place deeper):
   a. be placed at a minimum depth of forty-eight (48) inches below the top of the pavement;
   b. be at least thirty-six (36) inches below ditch flow line when installation is within the area measured from top of bank to top of bank;
   c. be at least forty-eight (48) inches below ditch flow line if low pressure gas or petroleum lines. For high pressure gas and petroleum lines, see High Pressure Pipelines requirements listed below;
   d. not be closer than ten (10) feet from the edge of pavement. Exceptions may apply in rights of way of less than 60 feet.

4. Water Lines: All water lines must be a minimum 36-inches below the ditch flow line and cased. Waterlines shall be cased if crossing under the roadway.

5. Utilities in all new developments that have 60 feet or greater of right of way shall be installed within designated locations based upon the type of utility. The locations shall be as follows: (measured from back of right-of-way).

   Power – 0 to 2 feet, nominally 1'
   Phone – 2 to 4 feet, nominally 3'
   Gas – 4 to 6 feet, nominally 5'
   Cable – 6 to 8 feet, nominally 7'

6. Utilities with less than 60 feet right-of-way in all new developments shall install the utility in a similar manner as referenced in No. 3 above; however, the County Engineer or its designated representative will provide final approval of each utility location.

7. The length of any trench to be opened in advance of the pipe, conduit or ducts may not be longer than 400' if left open over night or unattended.

8. Crossings under a county road shall:
   a. be bored or jacked. ABSOLUTELY NO OPEN CUTS WITHIN COUNTY ROAD PAVEMENT;
   b. be pressure grouted for the full length of the crossing *if* the annular space between pipe and casing and soil exceeds one (1) inch. Brazos County must be given 24 hours notice of pressure grouting operations and have the opportunity to have an inspector on site to observe pressure grouting operations;

c. TxDOT Standard Specification Item 476 shall be followed for all boring, jacking, tunneling and joints.

9. Bore Pits:
   a. no pits shall remain open longer than 2 days;
   b. all pits shall have proper traffic control measures in place. See Traffic Control Plan listed above.
   c. pits shall NOT be located within ten (10) feet from the edge of pavement without prior approval from the County Engineer or his representative;
   d. when pits are to remain open for more than 8 hours, due diligence will be used in protecting the spoil pile to prevent drainage problems;
   e. based upon soil conditions, the County Engineer or his representative may require shoring to protect pavement integrity;
   f. based upon soil conditions, the County Engineer or his representative may require pits be placed further from the edge of road.

10. Any installation within ten (10) feet of edge of pavement shall meet the following:
   a. location must be approved by the County Engineer or his representative
   b. backfilled with cement stabilized material.
   c. based upon soil conditions, the County Engineer or his representative may require shoring to protect pavement integrity.
   d. all excess water and mud shall be removed from the trench prior to backfilling. Any backfill placed during a rainy period or at other times where excess water cannot be prevented from entering the trench will be considered TEMPORARY and shall be replaced with PERMANENT cement stabilized material as soon as weather permits;
   e. all disturbed base and pavement materials shall be removed and restored to the satisfaction of the County Engineer or his representatives.
   f. no side or lateral tamping to fill voids under the base and pavement materials is allowed.

11. Company must be careful to not jeopardize the slope or integrity of the shoulder of the road. In the event Company damages the slope, shoulder or any other portion of the right-of-way, Company will be responsible for repairing the damage and replacing the right-of-way to the condition it was prior to commencing construction.

12. Operation of construction and/or maintenance equipment on the traveled surface of any improved County road will not be permitted, except in an instance whereby the laying, construction, maintenance and/or repair of cables, conduits and/or pole lines cannot be accomplished by any other method and in this event all such equipment shall be of the rubber tire variety. Appropriate traffic control shall be provided meeting TMUTCD requirements.

13. In the event said construction and/or maintenance and/or repair requires Company to remove, cut or jeopardize any section of the road (asphalt, cement, road base, etc.), Company will be required to provide a performance bond or letter of credit securing necessary repairs. Said bond amount will be determined by the County Engineer.

14. The applicant shall submit a letter of "No Objection" from the Army Corps of Engineers for all designated wetlands and environmentally sensitive lands.

E. Emergency work

1. In the event Company is required to perform emergency services, that requires excavation in a County Right of Way, and unable to notify the County Engineer prior to conducting emergency repairs, Company

shall notify County Engineer within 24 hours of beginning construction/repairs. This will allow the County Engineer's Office an opportunity to inspect the site to ensure the integrity of the County Right of Way and traffic safety controls used.

*F. **Repairs to existing facilities***

1. Maintenance and/or repair to existing cables, conduits, and/or pole lines which require disturbance of the soil, shall not be performed until plans describing such maintenance and/or repair have been approved by the County Engineer or its designated representative and a permit has been obtained.

*G. **Relocation of utilities***

1. When and if the County Engineer determines that it is necessary for the construction, repair, improvement, alteration or relocation of all or any portion of said road, any or all poles, wires, pipes, cables or other facilities and appurtenances authorized hereunder, shall be removed from said road, or reset or relocated thereon, as required by the County Engineer within a reasonable time as determined by the County Engineer and Utility Company, and at the expense of the Utility Company.

*H. **High Pressure Pipelines***

1. All utility Permits for high pressure pipelines (generally 60 PSI or greater), whether pertaining to controlled access or non-controlled access installations, should contain the following additional information in the description of the permit.

   -diameter
   -wall thickness
   -material specification
   -minimum yield strength
   -maximum operation pressure of the pipeline

2. With the exception of the maximum operation pressure of the pipeline, this information is to be supplied for both the carrier pipe and the casing.

3. Assurance must also be given that the installation material and design meet the minimum Federal Safety Standards for Liquid and Gas Pipe Lines. Assurance must be provided on company letterhead and signed by an authorized representative of the company.

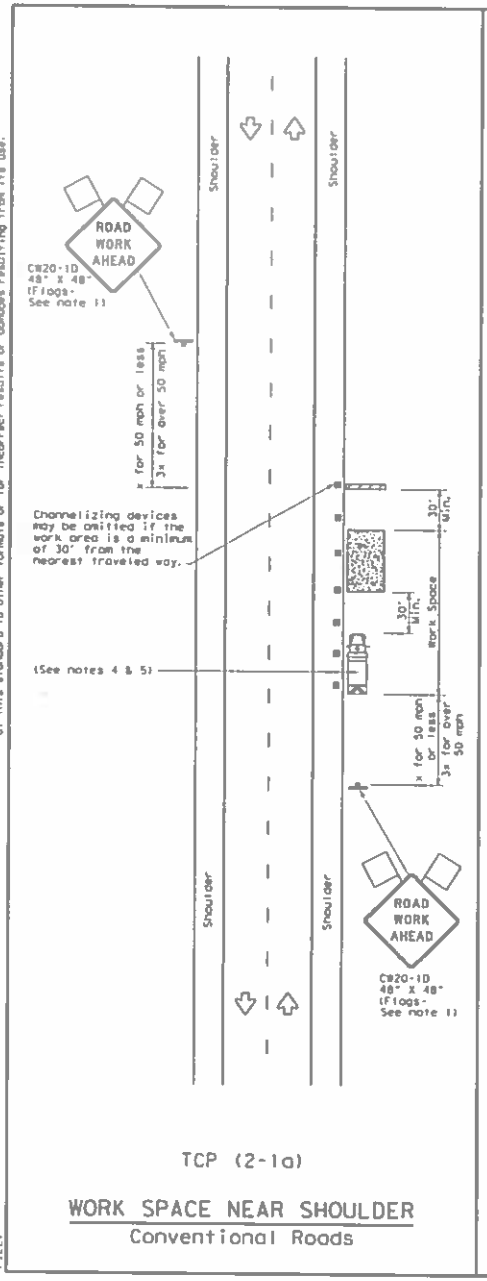
4. Petroleum Pipelines:

Type of Pipeline	Depth (below deepest ditch grade)	Special Requirements
Encased Pipe	Less than 10'	Must be covered with concrete pad at least 36" deep
Encased Pipe	Greater than 10'	No concrete pad required
Non-Cased Pipe	Less than 10'	Must be covered with concrete pad at least 48" deep
Non-Cased Pipe	Greater than 10'	No concrete pad required

   Concrete pad shall be minimum of 3" thick and width shall be pipe diameter plus 18" minimum.

5. Under no circumstances will a pipeline be installed parallel to a County Road within the Right-of-Way. Transmission lines have been determined to be petroleum pipelines (which includes natural gas lines) and shall not be parallel to a County Road.

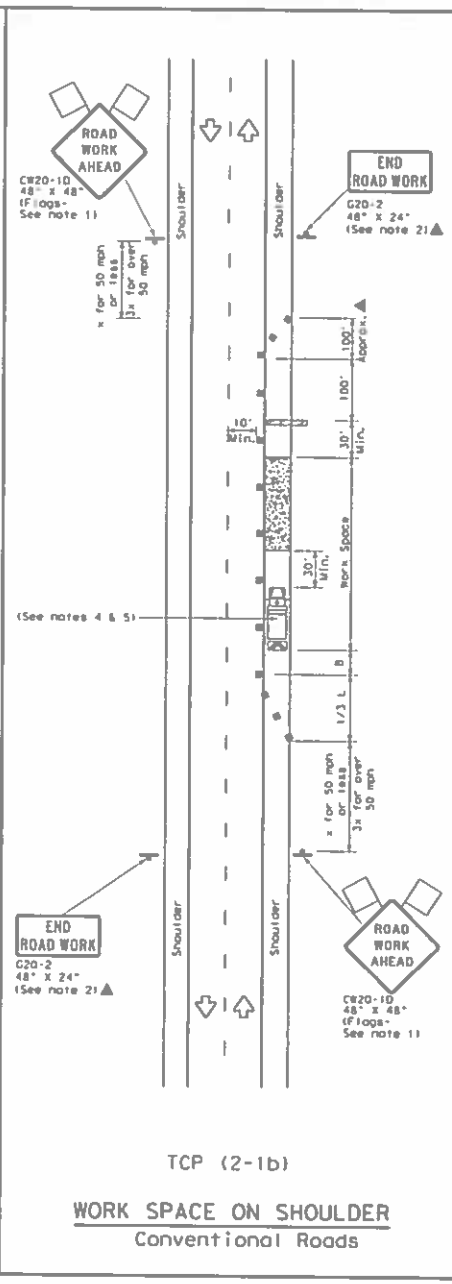
6. Natural Gas Distribution is a line that serves the final customer.



TCP (2-1a)

WORK SPACE NEAR SHOULDER

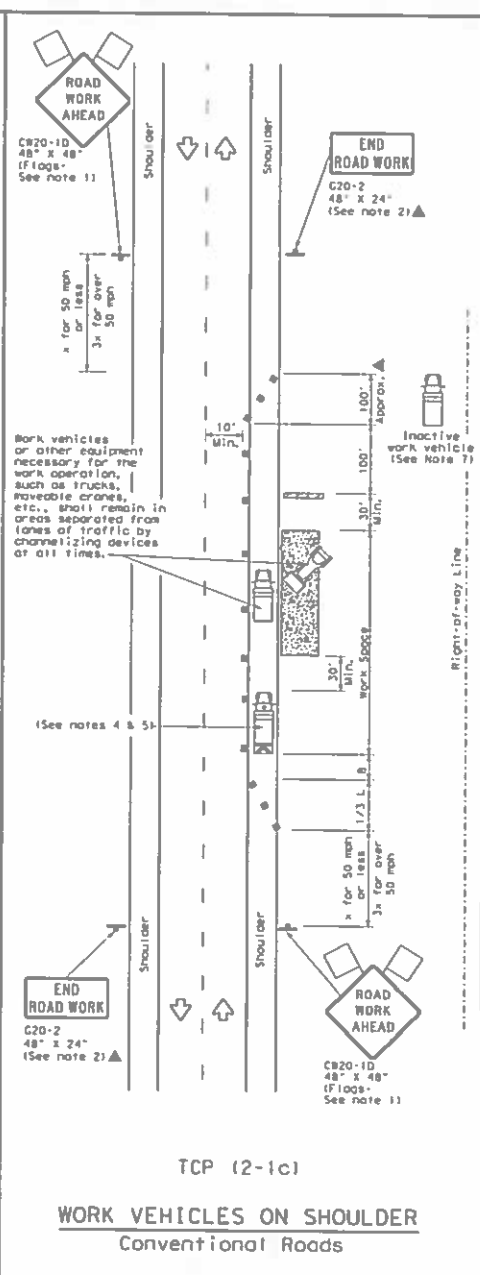
Conventional Roads



TCP (2-1b)

WORK SPACE ON SHOULDER

Conventional Roads



TCP (2-1c)

WORK VEHICLES ON SHOULDER

Conventional Roads

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

Posted Speed *	Formula	Minimum Desirable Taper Lengths * * 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent	Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
30	L= WS²/60	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

1. Flags attached to signs where shown, are REQUIRED.
2. All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated in the plans, or for routine maintenance work, when approved by the Engineer.
3. Stockpiled material should be placed a minimum of 30 feet from nearest traveled way.
4. 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.
5. Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.
6. See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
7. Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
8. C#21-5 "SHOULDER WORK" signs may be used in place of C#21-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

Texas Department of Transportation

Traffic Operations Division Standard

TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK

TCP(2-1)-18

FILE: tcp2-1-18.dgn	DN:	CK:	DW:	CK:
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REVISIONS 2-94 4-98 8-95 2-12 1-97 2-18	DIST	COUNTY		SHEET NO.

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