

REVIEW BY FORT BEND COUNTY
COMMISSIONERS COURT

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

☒ Right of Way Permit
☐ Commercial Driveway Permit
Permit No: 2018-22259

Applicant: AT&T Texas/Black & Veatch

Job Location Site: 5034 Vancouver Boulevard, Richmond, TX 77469

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 14th day of August, 2018, Upon Motion of Commissioner Meyers, seconded by Commissioner Mosales, 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

By: Sean Eglinton

County Engineer

N/A

By:

Drainage District Engineer/Manager

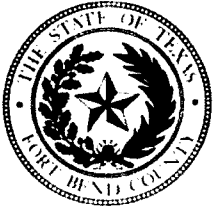
Presented to Commissioners Court and approved.

Date Recorded 8-17-2018 Comm. Court No. 10A

Clerk of Commissioners Court

By: Josie W. White

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: 2018-22259

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:

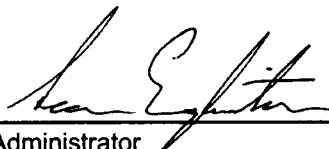
- ☐ County Attorney, approval when applicable.
- ☒ Perpetual bond currently posted. Bond No: [REDACTED] Amount: \$50,000.00
- ☐ Performance bond submitted. Bond No: _____ Amount: _____
- ☐ Cashier's Check Check No: _____ Amount: _____

(3) DRAINAGE DISTRICT APPROVAL (WHEN APPLICABLE):

Drainage District Approval

Date

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



Permit Administrator

8/6/2018

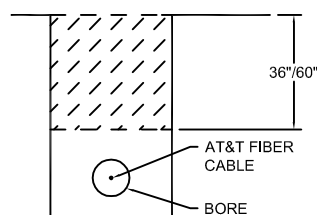
Date



DESIGN ENGINEER CONTACT:
AARON GREWING
BLACK & VEATCH
(469) 914-4150
GREWINGA@BV.COM

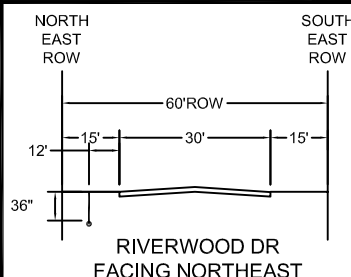
FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 3, 4, 5

DESIGN SUMMARY:
-BORE AND PLACE FIBER



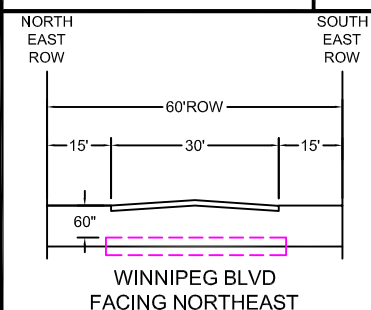
BORE DETAIL

NTS



TYPICAL CROSS-SECTION

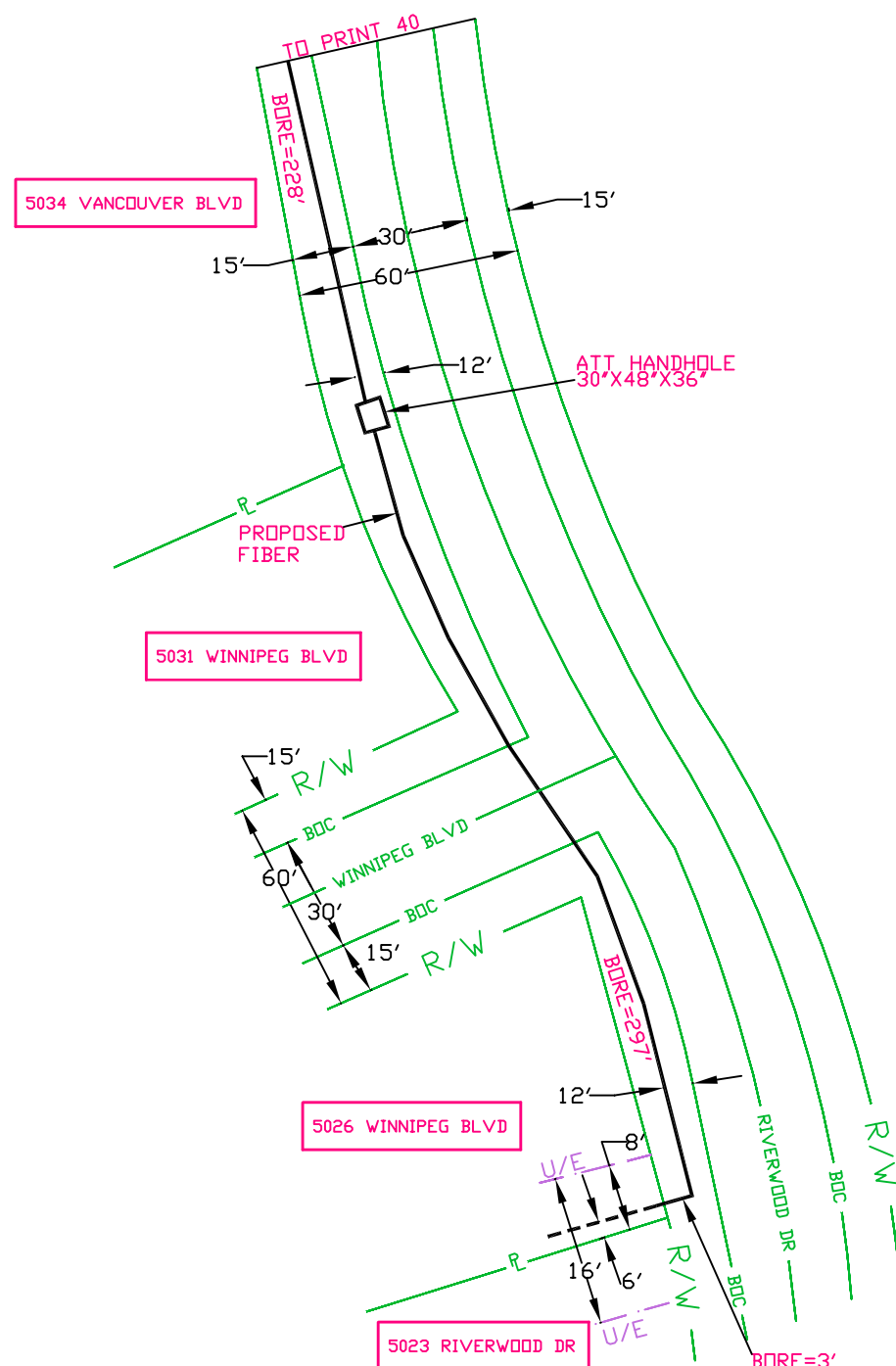
NTS



TYPICAL BORE CROSS-SECTION

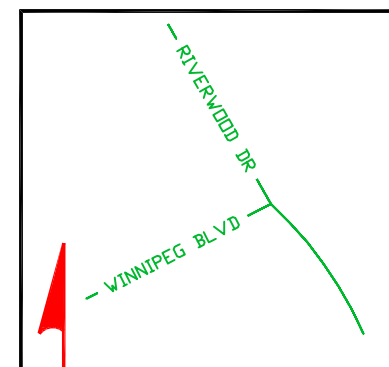
NTS

FORT BEND COUNTY NOTIFICATION



--Proprietary--

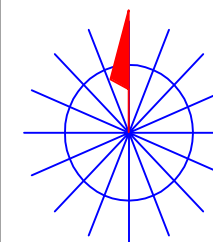
Not for use or disclosure outside the AT&T companies except under written agreement.



APPROXIMATE LOCATION MAP

WORK DONE IN FORT BEND
COUNTY RIGHT OF WAY - PRINT
FOR INFORMATIONAL PURPOSES
ONLY

SPECIAL CIRCUITS	N
6203 FORWARDED	N
PERMIT REQUIRED	Y



NORTH ARROW

OPERATING RANGE OF JOB STEPS

TASK _____ TO _____

MFRC

TRANSMISSION ZONE	
RZ 0	CZ 0 TAPER CODE 1604PA

CAUTION HIGH VOLTAGE
KV 0.00 AERIAL N BURIED N

HIGHWAY PERMIT NO.

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+) 0 (-) 0

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+)0 (-)0

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+)0 (-)0

PROJECT NO A01A6ZD

TOT.PRINTS 49 PRINT NO.39
NPA/NNX: 281-232 PRT:281232

EXCH. RICH-ROSE

TAX DIST. FG051

GEO LOC. W89232

ENGR. CTB DRAWN CG

TELEPHONE NO. (713) 943-4935

REC.	REF.
------	------

MAP REF. 605E

SCALE NONE


ISSUE DATE

PROJ TITLE LIGHTGIG-1604PA-DIST-RR

REV. NUMBER

DATE REV.

DATE REV.

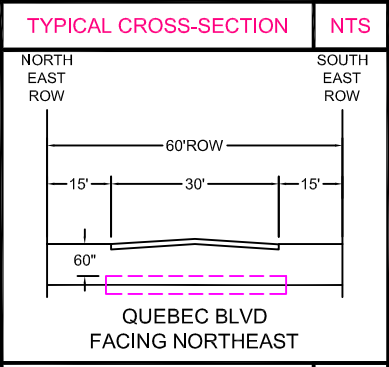
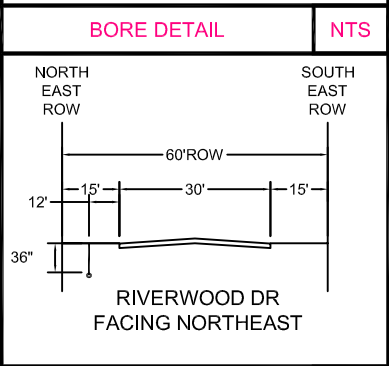
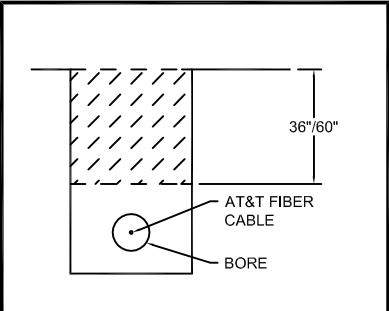


BLACK & VEATCH

DESIGN ENGINEER CONTACT:
AARON GREWING
BLACK & VEATCH
(469) 914-4150
GREWINGA@BV.COM

FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 21, 32

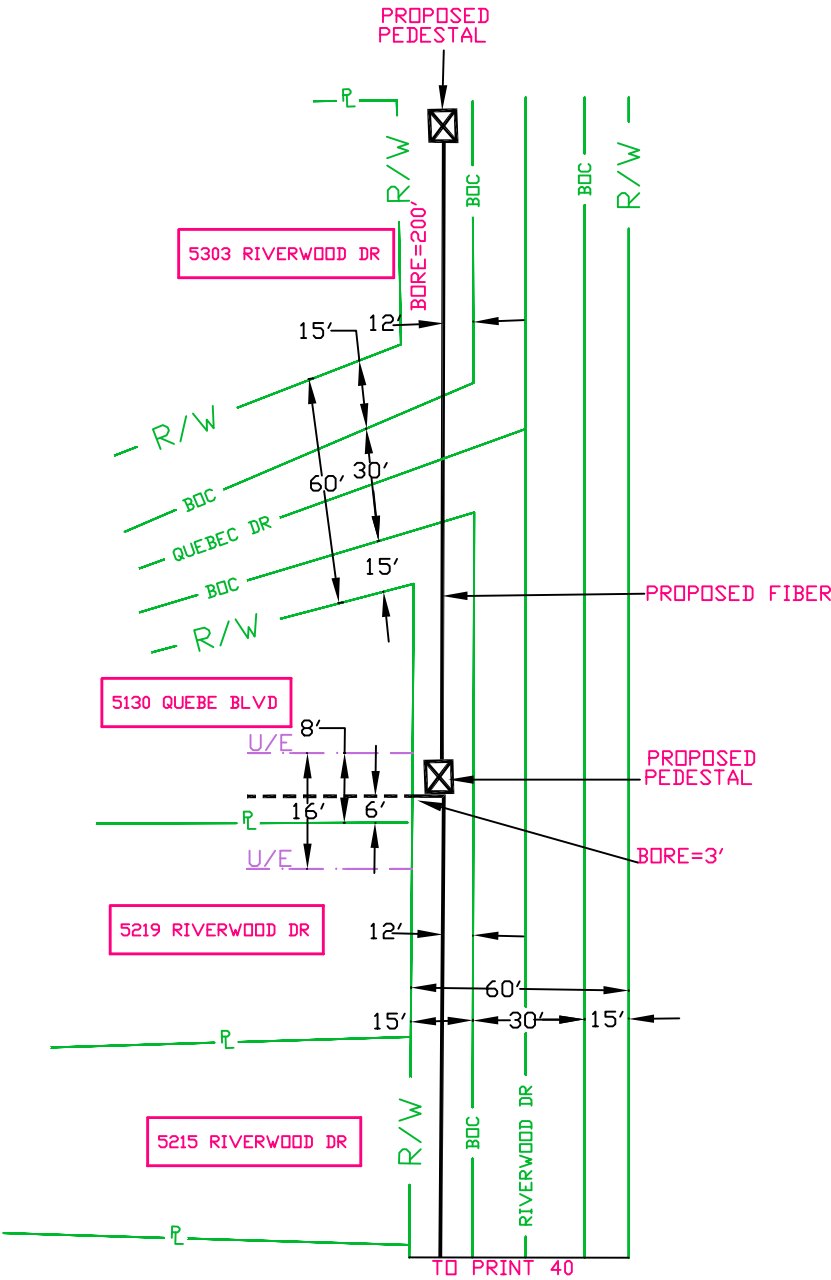
DESIGN SUMMARY:
-BORE AND PLACE FIBER




TYPICAL BORE
CROSS-SECTION

NTS

FORT BEND COUNTY NOTIFICATION

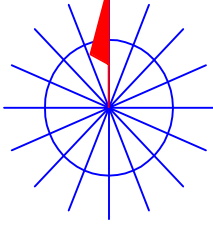


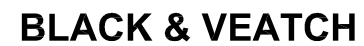
--Proprietary--
Not for use or disclosure outside the AT&T companies except under written agreement.



APPROXIMATE LOCATION MAP

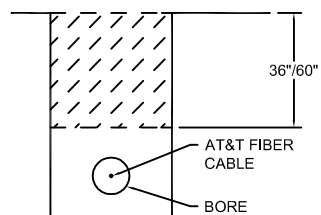
WORK DONE IN FORT BEND
COUNTY RIGHT OF WAY - PRINT
FOR INFORMATIONAL PURPOSES
ONLY

SPECIAL CIRCUITS	N	 NORTH ARROW
6203 FORWARDED	N	
PERMIT REQUIRED	Y	
OPERATING RANGE OF JOB STEPS		
TASK _____ TO _____		
MFR		
TRANSMISSION ZONE		
RZ 0	CZ 0	TAPER CODE 1604PA
CAUTION HIGH VOLTAGE		
KV 0.00	AERIAL N	BURIED N
HIGHWAY PERMIT NO.		
Utility CO REP NAME REP TEL NO. POLE CONTACTS (+) 0 (-) 0		
Utility CO REP NAME REP TEL NO. POLE CONTACTS (+) 0 (-) 0		
Utility CO REP NAME REP TEL NO. POLE CONTACTS (+) 0 (-) 0		
PROJECT NO A01A6ZD		
TOT.PRINTS 49 PRINT NO. 41		
NPA/NNX: 281-232 PRT:281232		
EXCH. RICH-ROSE		
TAX DIST. FG051		
GEO LOC. W89232		
ENGR. CTB DRAWN CG		
TELEPHONE NO. (713) 943-4935		
REC. REF.		
MAP REF. 605E		
SCALE NONE		
ISSUE DATE		
PROJ TITLE LIGHTGIG-1604PA-DIST-RR		
REV. NUMBER		
DATE REV.		



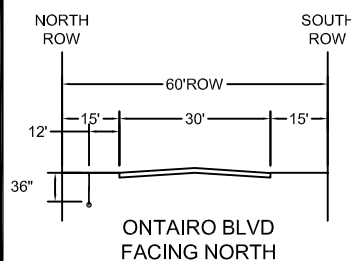
FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 26, 27

DESIGN SUMMARY:
-BORE AND PLACE FIBER



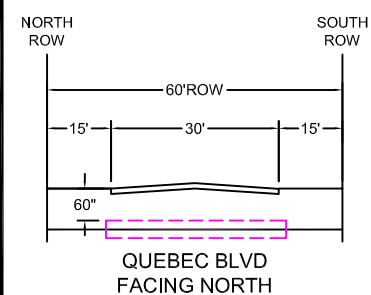
BORE DETAIL

NTS



TYPICAL CROSS-SECTION

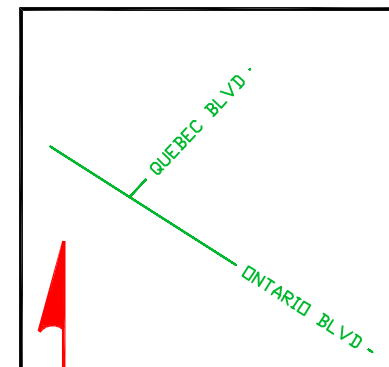
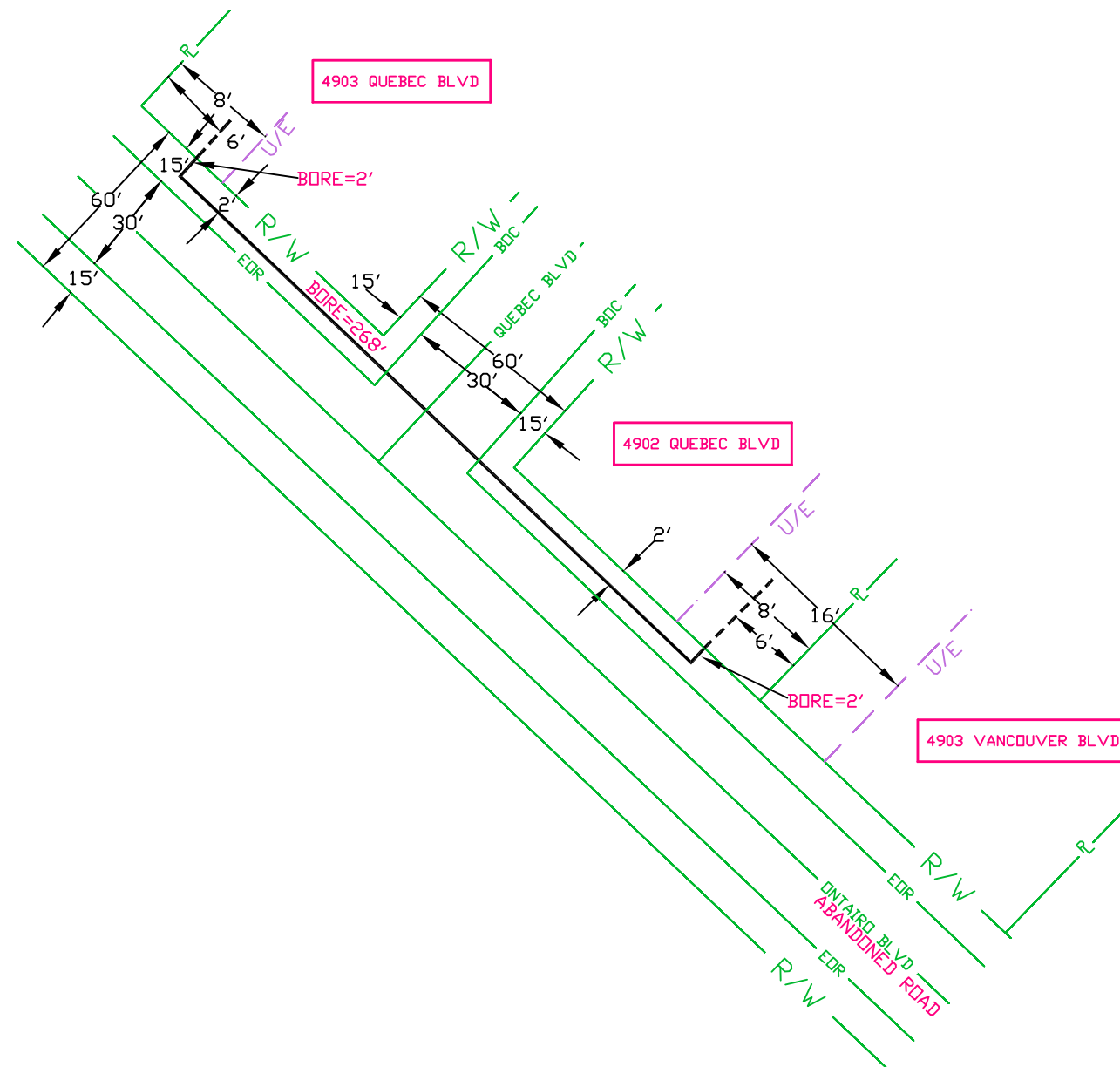
NTS



TYPICAL BORE CROSS-SECTION

NTS

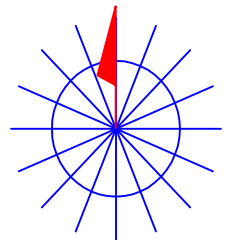
FORT BEND COUNTY NOTIFICATION



APPROXIMATE LOCATION MAP

WORK DONE IN FORT BEND
COUNTY RIGHT OF WAY - PRINT
FOR INFORMATIONAL PURPOSES
ONLY

SPECIAL CIRCUITS	N
6203 FORWARDED	N
PERMIT REQUIRED	Y



NORTH ARROW

OPERATING RANGE OF JOB STEPS

TASK _____ TO _____

MFRC

TRANSMISSION ZONE
RZ 0 CZ 0 TAPER CODE 1604PA

CAUTION HIGH VOLTAGE
KV 0.00 AERIAL N BURIED N

HIGHWAY PERMIT NO.

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+)0 (-)0

Utility CO		
REP NAME		
REP TEL NO.		
POLE CONTACTS	(+)0	(-)0

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+)0 (-)0

PROJECT NO A01A6ZD

TOT.PRINTS 49 PRINT NO. 42
NPA/NNX: 281-232 PRT:281232

EXCH. RICH-ROSE

TAX DIST. FG051

GEO LOC. W89232

ENGR. CTB

DRAWN CG

TELEPHONE NO. (713) 943-4935

REC.	REF.
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MAP REF. 605E

SCALE NONE

ISSUE DATE

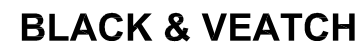
PROJ TITLE	LIGHTGIG-1604PA-DIST-RR
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REV. NUMBER

DATE REV.

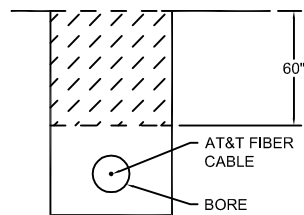
--Proprietary--

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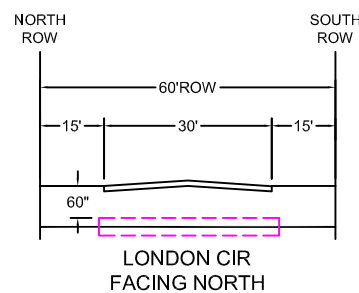
FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 27 & 28

DESIGN SUMMARY:
-BORE AND PLACE FIBER



BORE DETAIL

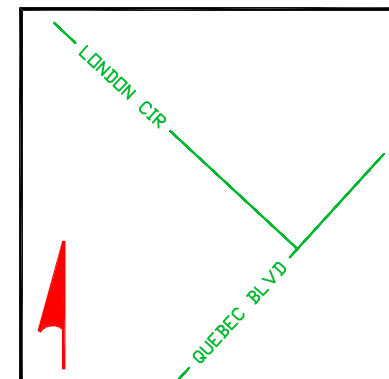
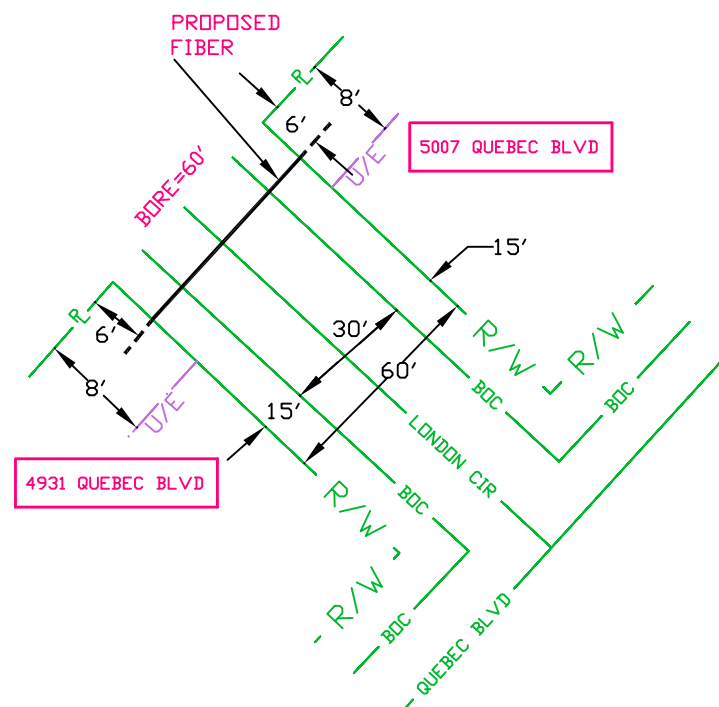
NTS



TYPICAL BORE CROSS-SECTION

NTS

FORT BEND COUNTY NOTIFICATION



APPROXIMATE LOCATION MAP

WORK DONE IN FORT BEND
COUNTY RIGHT OF WAY - PRINT
FOR INFORMATIONAL PURPOSES
ONLY

SPECIAL CIRCUITS	N
6203 FORWARDED	N
PERMIT REQUIRED	Y



OPERATING RANGE OF JOB STEPS

TASK _____ TO _____

MFRC

TRANSMISSION ZONE
RZ 0 CZ 0 TAPER CODE 1604PA

CAUTION HIGH VOLTAGE
KV 0.00 AERIAL N BURIED N

HIGHWAY PERMIT NO.

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+)0 (-)0

Utility CO		
REP NAME		
REP TEL NO.		
POLE CONTACTS	(+)0	(-)0

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+)0 (-)0

PROJECT NO A01A6ZD

TOT.PRINTS 49 PRINT NO. 43
NPA/NNX: 281-232 PRT:281232

EXCH. RICH-ROSE

TAX DIST. FG051

GEO LOC. W89232

ENGR. CTB

DRAWN CG

TELEPHONE NO. (713) 943-4935

REC.	REF.
------	------

MAP REF. 605E

SCALE NONE

ISSUE DATE

PROJ TITLE	LIGHTGIG-1604PA-DIST-RR
------------	-------------------------

REV. NUMBER

DATE REV.

--Proprietary--

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BLACK & VEATCH

DESIGN ENGINEER CONTACT:
AARON GREWING
BLACK & VEATCH
(469) 914-4150
GREWINGA@BV.COM

FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 28

DESIGN SUMMARY:
-BORE AND PLACE FIBER

AT&T FIBER
CABLE

BORE

BORE DETAIL

NTS

NORTH
ROW

SOUTH
ROW

60'ROW

15'

30'

15'

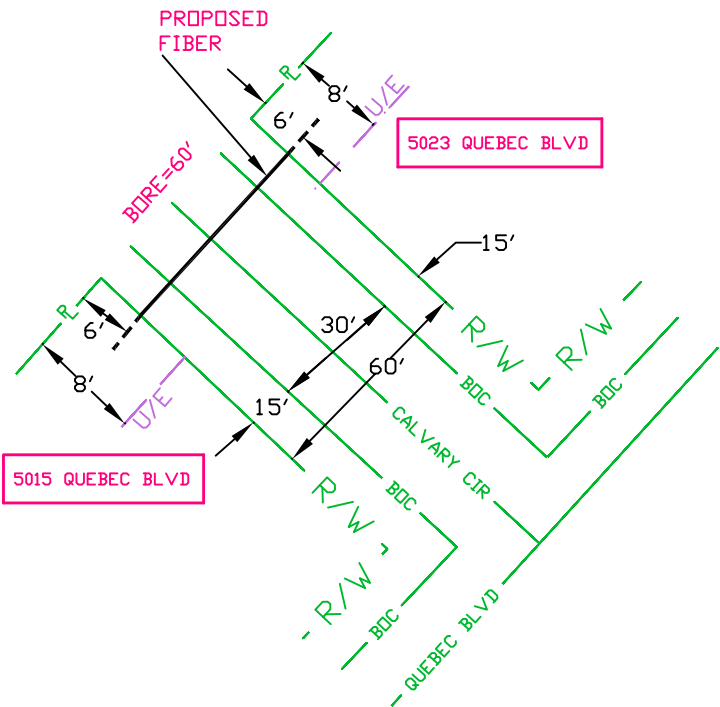
60"

CALVARY CIR
FACING NORTH

TYPICAL BORE
CROSS-SECTION

NTS

FORT BEND COUNTY NOTIFICATION




CALVARY CIR

QUEBEC BLVD

APPROXIMATE LOCATION MAP

WORK DONE IN FORT BEND
COUNTY RIGHT OF WAY - PRINT
FOR INFORMATIONAL PURPOSES
ONLY

<div>SPECIAL CIRCUITS N</div> <div>6203 FORWARDED N</div> <div>PERMIT REQUIRED Y</div>	<div><div></div><div></div></div> <div>NORTH ARROW</div>
<div>OPERATING RANGE OF JOB STEPS</div> <div>TASK _____ TO _____</div> <div>MFRC</div>	
<div>TRANSMISSION ZONE</div> <div>RZ 0 CZ 0 TAPER CODE 1604PA</div>	
<div>CAUTION HIGH VOLTAGE</div> <div>KV 0.00 AERIAL N BURIED N</div>	
<div>HIGHWAY PERMIT NO.</div>	
<div>Utility CO</div> <div>REP NAME</div> <div>REP TEL NO.</div> <div>POLE CONTACTS (+) 0 (-) 0</div>	
<div>Utility CO</div> <div>REP NAME</div> <div>REP TEL NO.</div> <div>POLE CONTACTS (+) 0 (-) 0</div>	
<div>Utility CO</div> <div>REP NAME</div> <div>REP TEL NO.</div> <div>POLE CONTACTS (+) 0 (-) 0</div>	
<div>PROJECT NO A01A6ZD</div>	
<div>TOT.PRINTS 49 PRINT NO. 44</div> <div>NPA/NNX: 281-232 PRT:281232</div> <div>EXCH. RICH-ROSE</div> <div>TAX DIST. FG051</div> <div>GEO LOC. W89232</div> <div>ENGR. CTB DRAWN CG</div> <div>TELEPHONE NO. (713) 943-4935</div> <div>REC. REF.</div> <div>MAP REF. 605E</div> <div>SCALE NONE</div> <div>ISSUE DATE</div> <div>PROJ TITLE LIGHTGIG-1604PA-DIST-RR</div> <div>REV. NUMBER</div> <div>DATE REV.</div>	

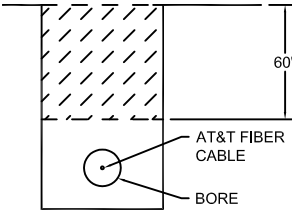


BLACK & VEATCH

DESIGN ENGINEER CONTACT:
AARON GREWING
BLACK & VEATCH
(469) 914-4150
GREWINGA@BV.COM

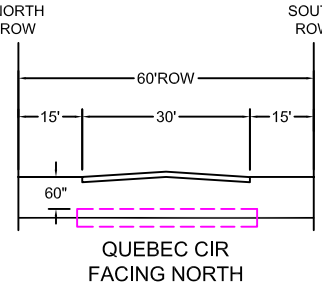
FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 28 AND 29

DESIGN SUMMARY:
-BORE AND PLACE FIBER



AT&T FIBER CABLE
BORE

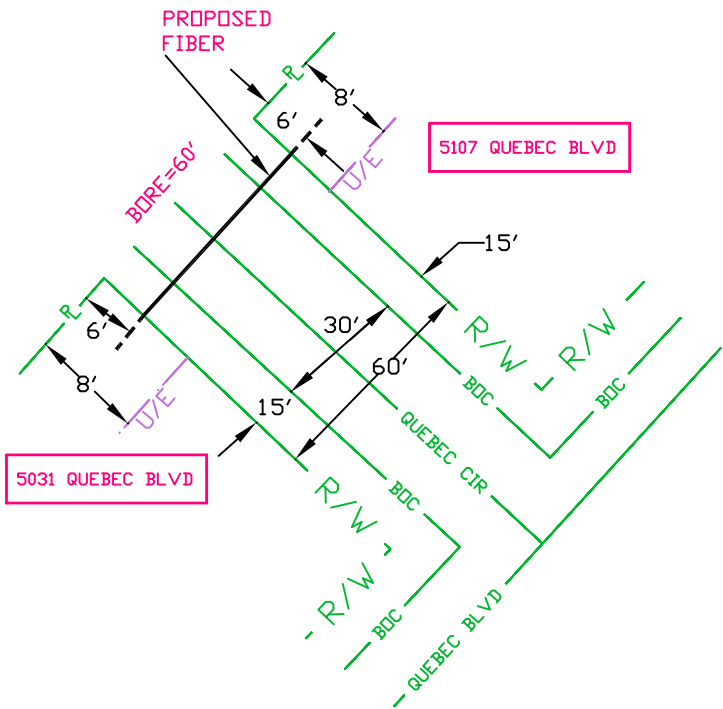
BORE DETAILNTS

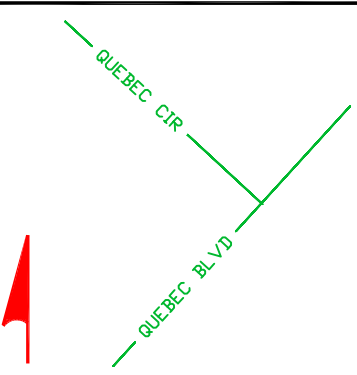


NORTH ROW
SOUTH ROW
60"ROW
15'30'15'
60"
QUEBEC CIR
FACING NORTH

TYPICAL BORE CROSS-SECTIONNTS

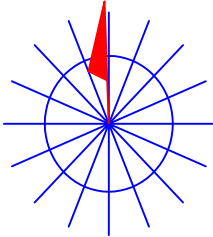
FORT BEND COUNTY NOTIFICATION






APPROXIMATE LOCATION MAP

WORK DONE IN FORT BEND
COUNTY RIGHT OF WAY - PRINT
FOR INFORMATIONAL PURPOSES
ONLY

<div>SPECIAL CIRCUITS N</div> <div>6203 FORWARDED N</div> <div>PERMIT REQUIRED Y</div>	<div></div> <div>NORTH ARROW</div>
OPERATING RANGE OF JOB STEPS	
TASK _____ TO _____	
MFRC	
TRANSMISSION ZONE	
RZ 0	CZ 0 TAPER CODE 1604PA
CAUTION HIGH VOLTAGE	
KV 0.00	AERIAL N BURIED N
HIGHWAY PERMIT NO.	
Utility CO REP NAME REP TEL NO. POLE CONTACTS (+) 0 (-) 0	
Utility CO REP NAME REP TEL NO. POLE CONTACTS (+) 0 (-) 0	
Utility CO REP NAME REP TEL NO. POLE CONTACTS (+) 0 (-) 0	
PROJECT NO A01A6ZD	
TOT.PRINTS 49 PRINT NO. 45	
NPA/NNX: 281-232 PRT:281232	
EXCH. RICH-ROSE	
TAX DIST. FG051	
GEO LOC. W89232	
ENGR. CTB DRAWN CG	
TELEPHONE NO. (713) 943-4935	
REC. REF.	
MAP REF. 605E	
SCALE NONE	
ISSUE DATE	
PROJ TITLE LIGHTGIG-1604PA-DIST-RR	
REV. NUMBER	
DATE REV.	

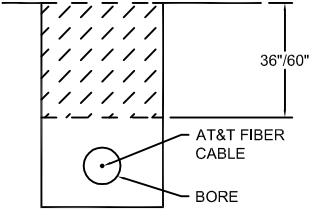


BLACK & VEATCH

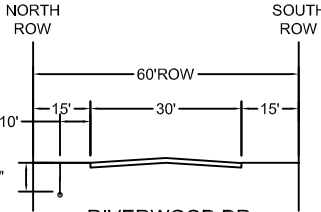
DESIGN ENGINEER CONTACT:
AARON GREWING
BLACK & VEATCH
(469) 914-4150
GREWINGA@BV.COM

FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 8 & 9

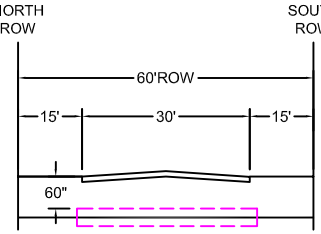
DESIGN SUMMARY:
-BORE AND PLACE FIBER.
-PLACE ONE (1) 24"X36"X24"
HANDHOLE



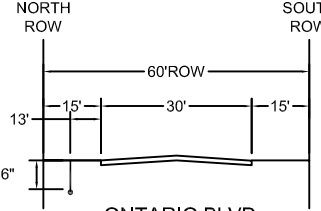
BORE DETAILNTS



TYPICAL CROSS-SECTIONNTS

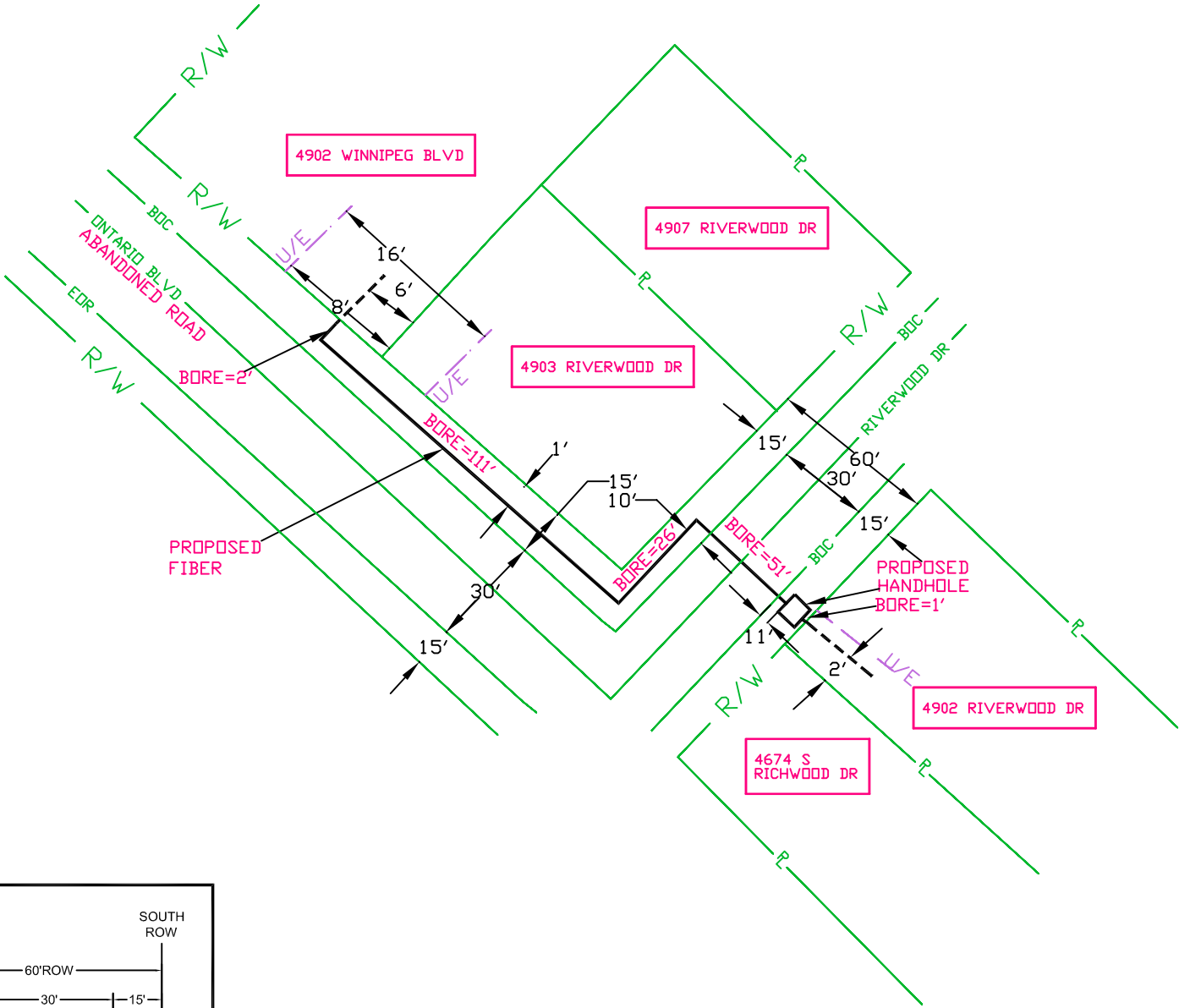


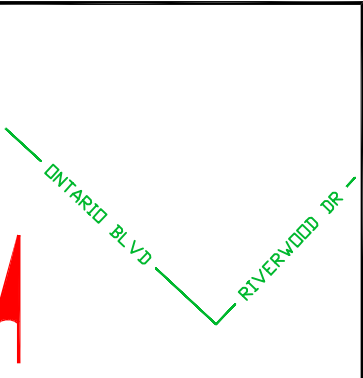
TYPICAL BORE CROSS SECTIONNTS



TYPICAL CROSS-SECTIONNTS

FORT BEND COUNTY NOTIFICATION





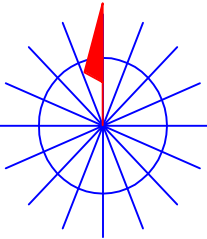
APPROXIMATE LOCATION MAP

WORK DONE IN FORT BEND
COUNTY RIGHT OF WAY - PRINT
FOR INFORMATIONAL PURPOSES
ONLY

SPECIAL
CIRCUITS N

6203
FORWARDED N

PERMIT
REQUIRED Y



NORTH ARROW

OPERATING RANGE OF JOB STEPS

TASK _____ TO _____

MFRC

TRANSMISSION ZONE
RZ 0 CZ 0 TAPER CODE 1604PA

CAUTION HIGH VOLTAGE
KV 0.00 AERIAL N BURIED N

HIGHWAY PERMIT NO.


Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+) 0 (-) 0

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+) 0 (-) 0

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+) 0 (-) 0

PROJECT NO A01A6ZD

TOT.PRINTS 49 PRINT NO. 46
NPA/NNX: 281-232 PRT:281232
EXCH. RICH-ROSE
TAX DIST. FG051
GEO LOC. W89232
ENGR. CTB DRAWN CG
TELEPHONE NO. (713) 943-4935
REC. REF.
MAP REF. 605E
SCALE NONE
ISSUE DATE
PROJ TITLE LIGHTGIG-1604PA-DIST-RR
REV. NUMBER
DATE REV.

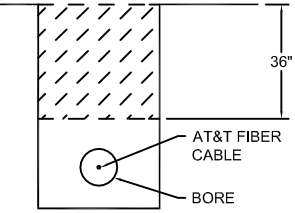


BLACK & VEATCH

DESIGN ENGINEER CONTACT:
AARON GREWING
BLACK & VEATCH
(469) 914-4150
GREWINGA@BV.COM

FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 16

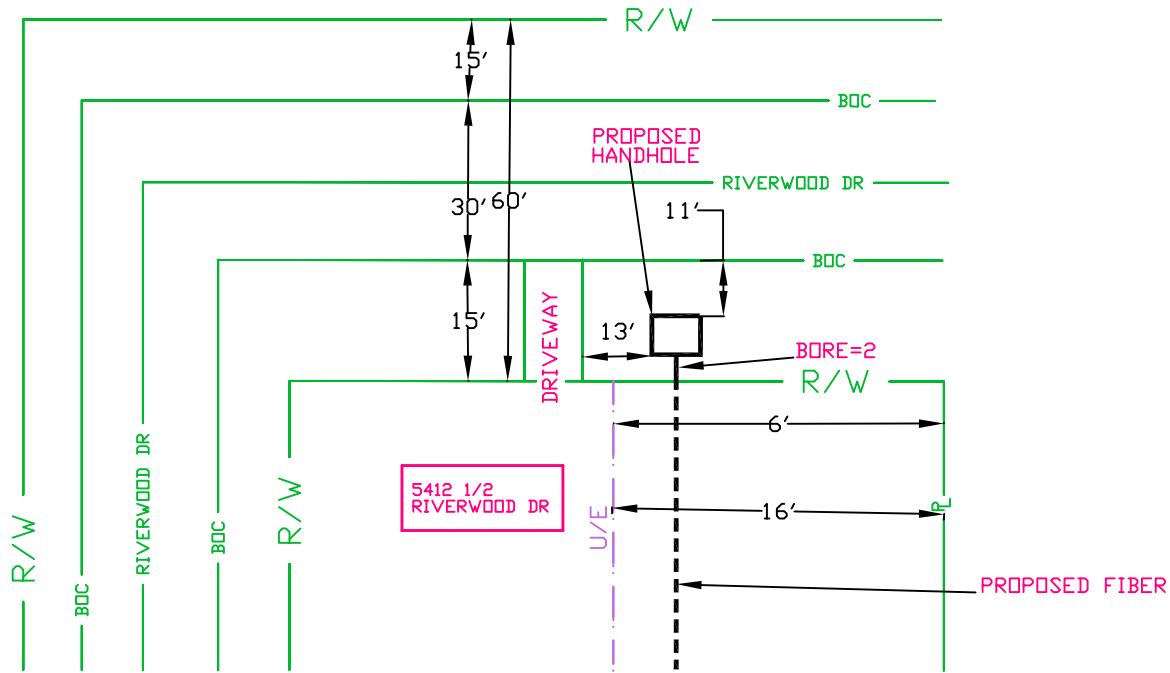
DESIGN SUMMARY:
-BORE AND PLACE FIBER.
-PLACE ONE (1) 24"X36"X24"
HANDHOLE

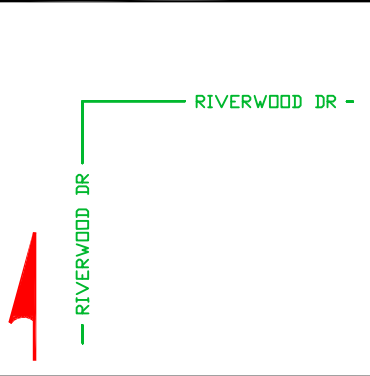


BORE DETAIL

NTS

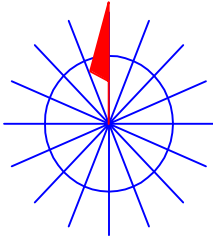
FORT BEND COUNTY NOTIFICATION

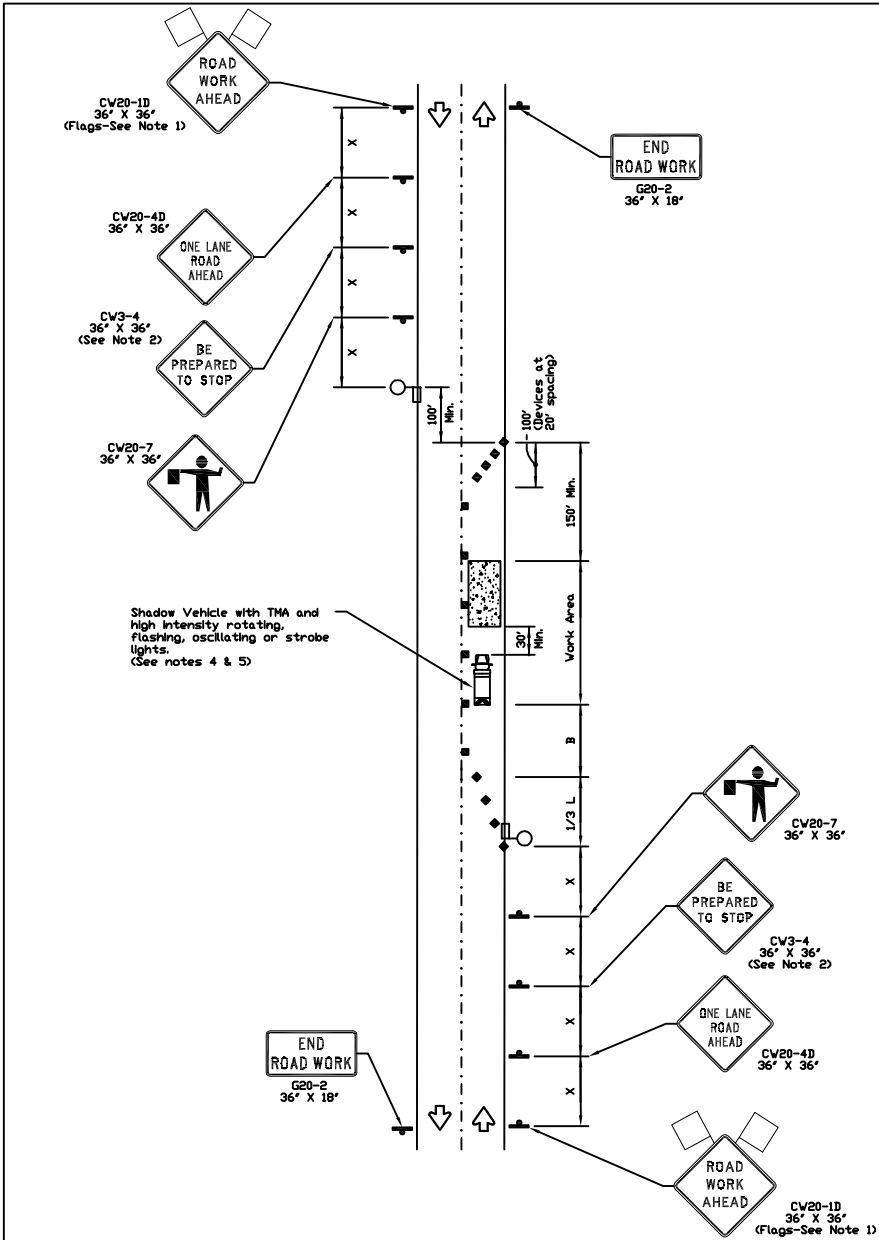




APPROXIMATE LOCATION MAP

WORK DONE IN FORT BEND
COUNTY RIGHT OF WAY - PRINT
FOR INFORMATIONAL PURPOSES
ONLY

SPECIAL CIRCUITS N	 NORTH ARROW
6203 FORWARDED N	
PERMIT REQUIRED Y	
OPERATING RANGE OF JOB STEPS	
TASK _____ TO _____	
MFRC	
TRANSMISSION ZONE	
RZ 0	CZ 0 TAPER CODE 1604PA
CAUTION HIGH VOLTAGE	
KV 0.00	AERIAL N BURIED N
HIGHWAY PERMIT NO.	
Utility CO REP NAME REP TEL NO. POLE CONTACTS (+) 0 (-) 0	
Utility CO REP NAME REP TEL NO. POLE CONTACTS (+) 0 (-) 0	
Utility CO REP NAME REP TEL NO. POLE CONTACTS (+) 0 (-) 0	
PROJECT NO A01A6ZD	
TOT.PRINTS 49 PRINT NO. 47	
NPA/NNX: 281-232 PRT:281232	
EXCH. RICH-ROSE	
TAX DIST. FG051	
GEO LOC. W89232	
ENGR. CTB	DRAWN CG
TELEPHONE NO. (713) 943-4935	
REC. REF.	
MAP REF. 605E 605F	
SCALE NONE	
ISSUE DATE	
PROJ TITLE LIGHTGIG-1604PA-DIST-RR	
REV. NUMBER	
DATE REV.	



ONE-LANE TWO-WAY SINGLE LANE CLOSURE
CONTROL WITH FLAGGERS
(ON STRAIGHT SECTION OF ROADWAY)

NO.	REVISIONS	DATE	NAME
1	UPDATED DEPARTMENT NAME & GENERAL NOTES	4/16/15	BSH

FORT BEND COUNTY
ENGINEERING DEPARTMENT

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION,
BIDDING, OR PERMIT PURPOSES
ENGINEER: NAME
P.E. SERIAL No. NUMBER
DATE: / /

TRAFFIC CONTROL PLAN SECTION SHALL BE
COMPLETED BY ENGINEER

ROADWAY	POSTED SPEED	TAPER LENGTH	SPACING CHANNELIZING DEVICES TAPER	TANGENT	SIGN SPACING	BUFFER SPACE
RIVERWOOD DR	30'	165'	30'	60'	120'	90'
WINNIPEG BLVD	30'	165'	30'	60'	120'	90'
VANCOUVER BLVD	30'	165'	30'	60'	120'	90'
QUEBEC BLVD	30'	165'	30'	60'	120'	90'
LONDON CIR	30'	165'	30'	60'	120'	90'

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 'S	Formula	Minimum Desirable Taper Lengths 'L' =	Suggested Maximum Spacing of Channelizing Devices On a Taper	Minimum Sign Spacing 'X' Distance	Suggested Longitudinal Buffer Space 'B'
30	$L = \frac{WS^2}{60}$	10'	30'	120'	90'
35		11'	60'	160'	120'
40		12'	80'	240'	155'
45		12'	90'	320'	195'
50	L=VS	500'	50'	400'	240'
55		550'	55'	500'	295'
60		600'	60'	600'	350'
65		650'	65'	700'	410'
70	L=VS	700'	70'	800'	475'
75		750'	75'	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)

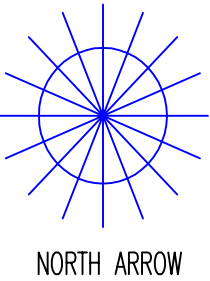
GENERAL NOTES

- Flags attached to signs where shown are OPTIONAL.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol are OPTIONAL.
- Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
- 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 off the paved surface, next to those shown in order to protect wider work spaces.
- Contractor shall provide and install traffic control devices in conformance with part VI of Texas Manual on Uniform Traffic Control Devices (TMUTCD - Latest edition with revisions) during construction.
- Flaggers should use two-way radios or other methods of communication to control traffic.
- Length of work space should be based on the ability of flaggers to communicate.
- If the work space is located near horizontal or vertical curve, the buffer distances should be increased in order to maintain adequate stopping sight distances to the flagger and a queue of stopped vehicles (see table above).
- Channelizing devices on the center-line may be omitted when a pilot car is leading traffic and approved by the Engineer.
- Flaggers should use 24" STOP/SLOW paddles to control traffic. Flags should be limited to emergency situations.
- No lanes shall be blocked from 7am to 9am and 4pm to 6:30pm Monday thru Friday.
- Off duty police officers required to direct traffic when applicable.
- If project is within 400 feet from a signalized intersection, the Contractor shall contact Harris County Engineering Department, Traffic Signal Maintenance at (713) 861-3210 five (5) days prior to the start of construction.

PROJECT TITLE:

DRAWN BY: BSH	SHEET DESCRIPTION: TRAFFIC CONTROL PLAN (ONE-LANE, TWO-WAY OPERATION)	HCD STANDARD 39
CK'D BY: BSH		
SCALE: N.T.S.	APPROVED BY:	SHEET NO: /
DATE: 6/26/14		

SPECIAL
CIRCUITS N
6203
FORWARDED N
PERMIT
REQUIRED Y



OPERATING RANGE OF JOB STEPS

TASK _____ TO _____

MFRC

TRANSMISSION ZONE
RZ 0 CZ 0 TAPER CODE 1604PA

CAUTION HIGH VOLTAGE
KV 0.00 AERIAL N BURIED N

HIGHWAY PERMIT NO.

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+) 0 (-) 0

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+) 0 (-) 0

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+) 0 (-) 0

PROJECT NO A01A6ZD

TOT.PRINTS 49 PRINT NO. 48

NPA/NNX: 281-232 PRT:281232

EXCH. RICH-ROSE

TAX DIST. F6051

GEO LOC. W89232

ENGR. CTB DRAWN CG

TELEPHONE NO. (713) 943-4935

REC. REF.

MAP REF.

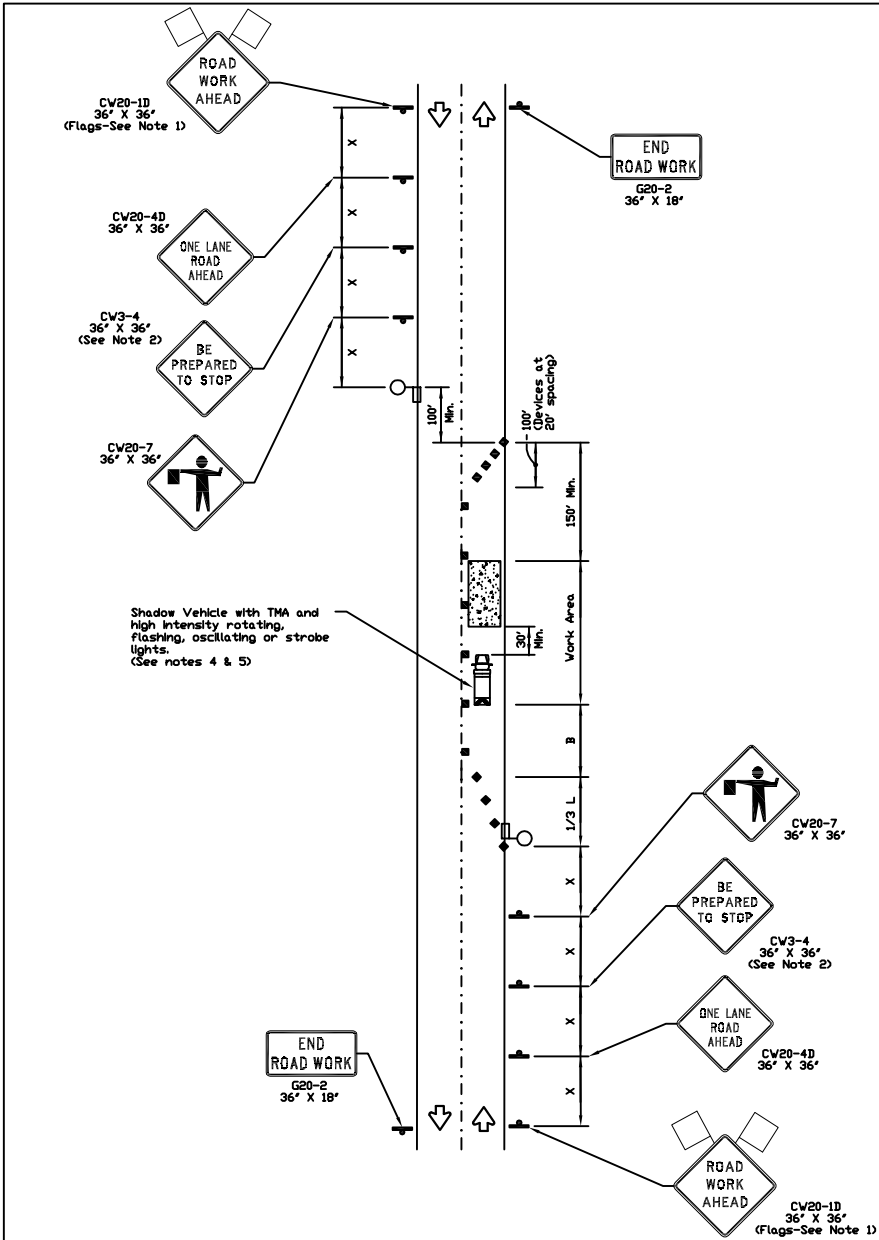
SCALE NONE

ISSUE DATE

PROJ TITLE LIGHTGIG-1604PA-DIST-RR

REV. NUMBER

DATE REV.



ONE-LANE TWO-WAY SINGLE LANE CLOSURE
CONTROL WITH FLAGGERS
(ON STRAIGHT SECTION OF ROADWAY)

NO.	REVISIONS	DATE	NAME
1	UPDATED DEPARTMENT NAME & GENERAL NOTES	4/16/15	BSH

FORT BEND COUNTY
ENGINEERING DEPARTMENT

FOR INTERIM REVIEW ONLY
DOCUMENT INCOMPLETE:
NOT INTENDED FOR CONSTRUCTION,
BIDDING, OR PERMIT PURPOSES
ENGINEER: NAME
P.E. SERIAL No. NUMBER
DATE: / /

TRAFFIC CONTROL PLAN SECTION SHALL BE COMPLETED BY ENGINEER

ROADWAY	POSTED SPEED	TAPER LENGTH	SPACING		SIGN SPACING	BUFFER SPACE
			CHANNELIZING DEVICES	TAPER TANGENT		
CALVARY CIR	30'	165'	30'	60'	120'	90'
QUEBEC CIR	30'	165'	30'	60'	120'	90'

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
	Flagger		Flagger

Posted Speed "S"	Formula	Minimum Desirable Taper Lengths "L"			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=VS	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	L=VS	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)

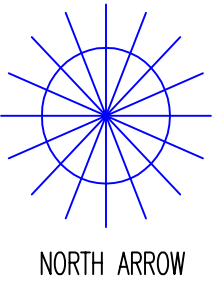
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CK'D BY: BSH		
SCALE: N.T.S.	APPROVED BY:	SHEET NO: /
DATE: 6/26/14		

SPECIAL
CIRCUITS N
6203
FORWARDED N
PERMIT
REQUIRED Y



OPERATING RANGE OF JOB STEPS

TASK _____ TO _____

MFRC

TRANSMISSION ZONE
RZ 0 CZ 0 TAPER CODE 1604PA

CAUTION HIGH VOLTAGE
KV 0.00 AERIAL N BURIED N

HIGHWAY PERMIT NO.

Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+) 0 (-) 0

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REP TEL NO.
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Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+) 0 (-) 0

PROJECT NO A01A6ZD

TOT.PRINTS 49 PRINT NO. 49
NPA/NNX: 281-232 PRT:281232

EXCH. RICH-ROSE

TAX DIST. F6051

GEO LOC. W89232

ENGR. CTB DRAWN CG

TELEPHONE NO. (713) 943-4935

REC. REF.

MAP REF.

SCALE NONE

ISSUE DATE

PROJ TITLE LIGHTGIG-1604PA-DIST-RR

REV. NUMBER

DATE REV.