

**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: 2018-18535

Applicant: AT&T Texas/Black & Veatch

Job Location Site: 8002 Vista Del Sol Drive, Houston, TX 77083

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 27th day of February, 2018, Upon Motion of Commissioner Myers, seconded by Commissioner Patterson, 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

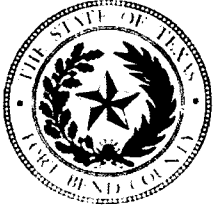
Presented to Commissioners Court and approved.

By: Charles O. Ay
County Engineer

Date Recorded 3-5-2018 Comm. Court No. 14 H

By: N/A
Drainage District Engineer/Manager

Clerk of Commissioners Court
By: Ronda Walker
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: 2018-18535

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: 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.

Charles O. AM

Permit Administrator

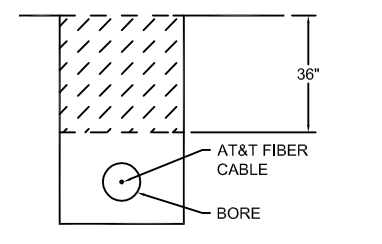
2/16/2018

Date

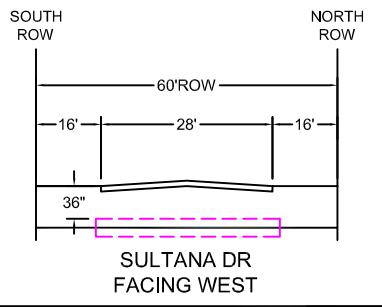
BLACK & VEATCH
 DESIGN ENGINEER CONTACT:
 VLAD CHERNENKO
 BLACK & VEATCH
 (303) 264-0587
 CHERNENKOV@BV.COM

FORT BEND COUNTY
 PERMIT #
 SHOWN ON PRINT 18

DESIGN SUMMARY:
 -BORE AND PLACE FIBER.

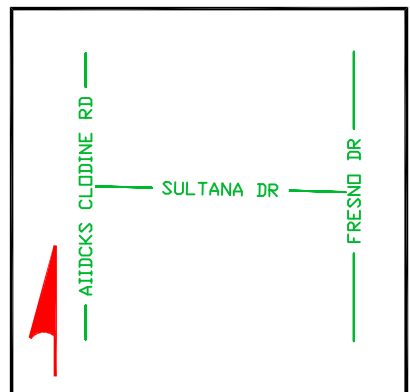
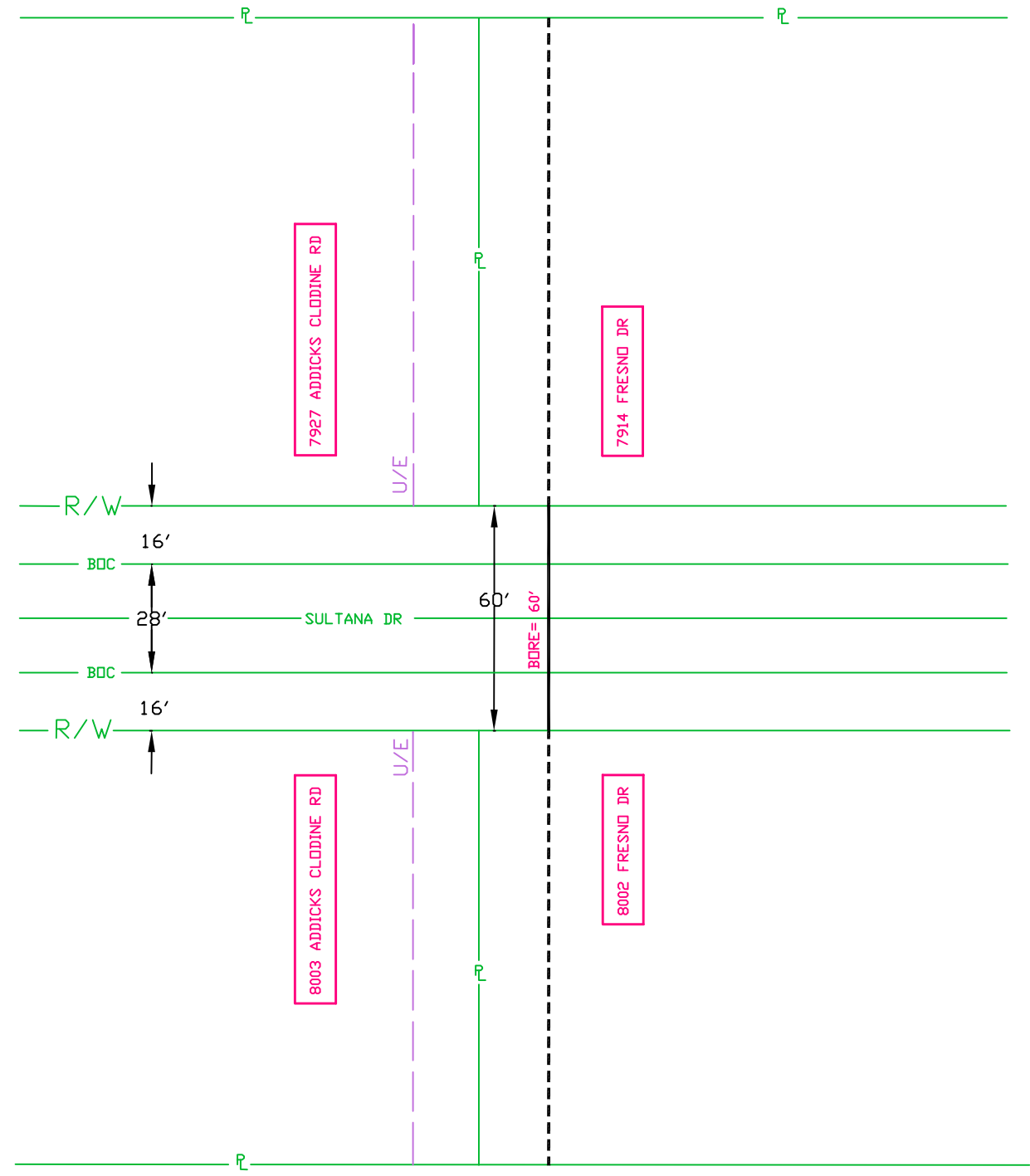


BORE DETAIL NTS



TYPICAL BORE CROSS-SECTION NTS

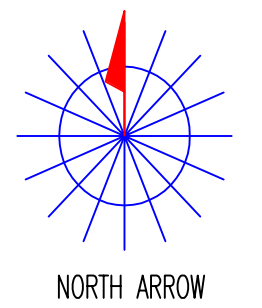
FORT BEND COUNTY NOTIFICATION



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 1166PA

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 A012X6Q

TOT.PRINTS 67 PRINT NO. 53
 NPA/NNX: 281-498 PRT:281498


EXCH. ALIEF
 TAX DIST. FG071
 GEO LOC. W85498

ENGR. SS DRAWN JW
 TELEPHONE NO. (281) 320-3812

REC. REF.
 MAP REF.
 SCALE NONE

ISSUE DATE
 PROJ TITLE LIGHTGIG-1166PA--DIST-AF
 REV. NUMBER
 DATE REV.

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

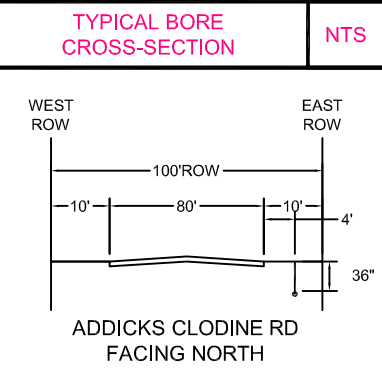
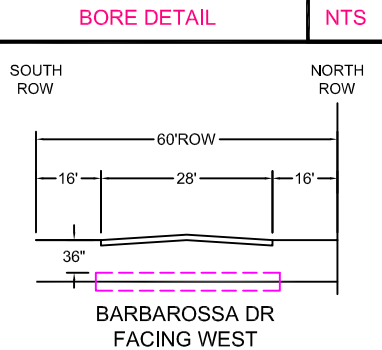
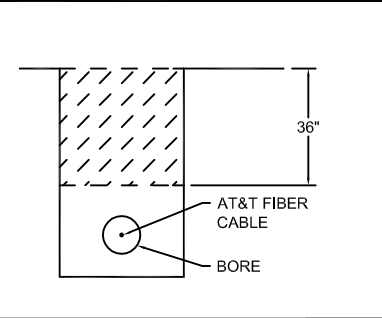


BLACK & VEATCH

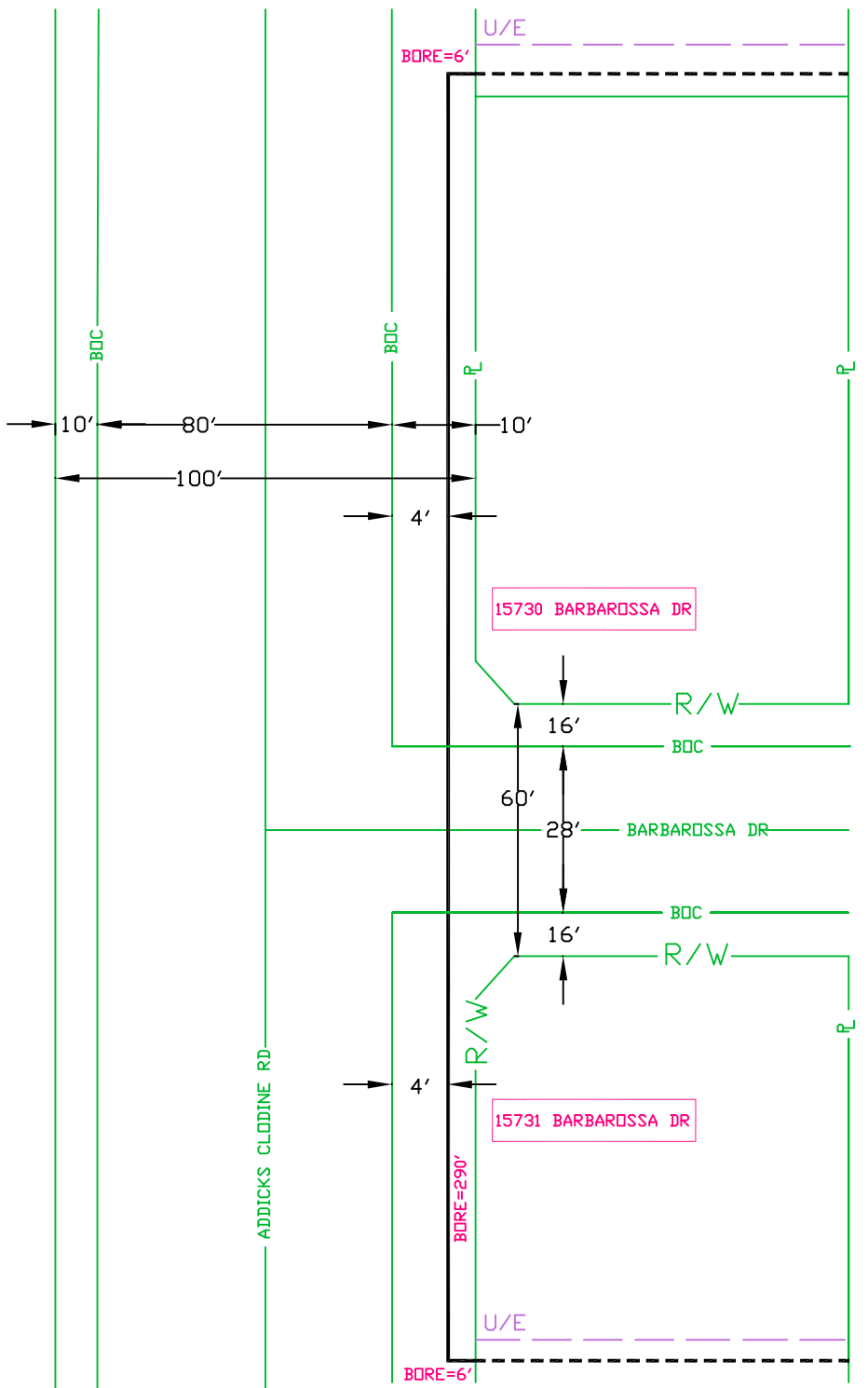
DESIGN ENGINEER CONTACT:
VLAD CHERNENKO
BLACK & VEATCH
(303) 264-0587
CHERNENKOV@BV.COM

FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 12

DESIGN SUMMARY:
-BORE AND PLACE FIBER.



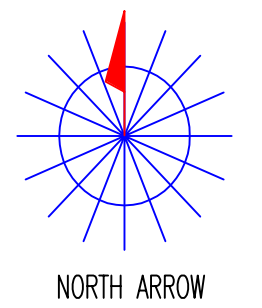
FORT BEND COUNTY NOTIFICATION



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 1166PA

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 A012X6Q

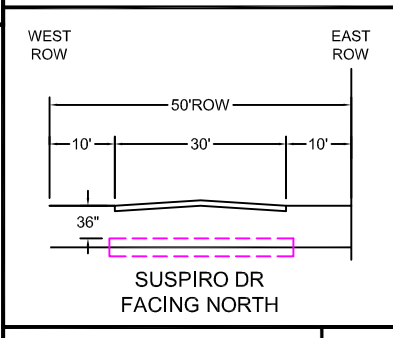
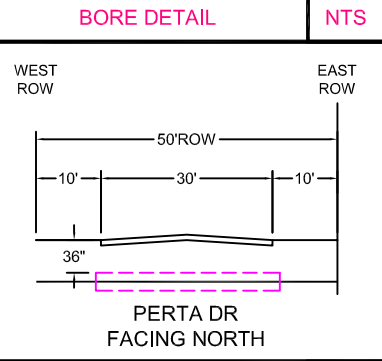
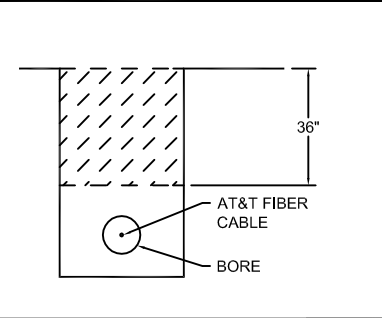
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NPA/NNX: 281-498 PRT:281498
EXCH. ALIEF
TAX DIST. FG071
GEO LOC. W85498
ENGR. SS DRAWN JW
TELEPHONE NO. (281) 320-3812
REC. REF.
MAP REF.
SCALE NONE
ISSUE DATE
PROJ TITLE LIGHTGIG-1166PA--DIST-AF
REV. NUMBER
DATE REV.

--Proprietary--
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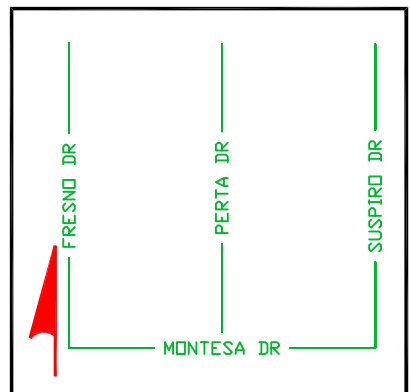
BLACK & VEATCH
 DESIGN ENGINEER CONTACT:
 VLAD CHERNENKO
 BLACK & VEATCH
 (303) 264-0587
 CHERNENKOV@BV.COM

FORT BEND COUNTY
 PERMIT #
 SHOWN ON PRINT 27 & 28

DESIGN SUMMARY:
 -BORE AND PLACE FIBER.

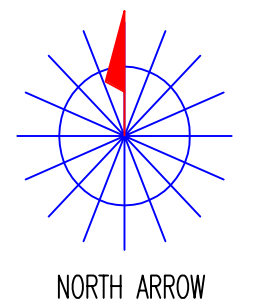


FORT BEND COUNTY NOTIFICATION



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 1166PA

CAUTION HIGH VOLTAGE
 KV 0.00 AERIAL N BURIED N

HIGHWAY PERMIT NO.

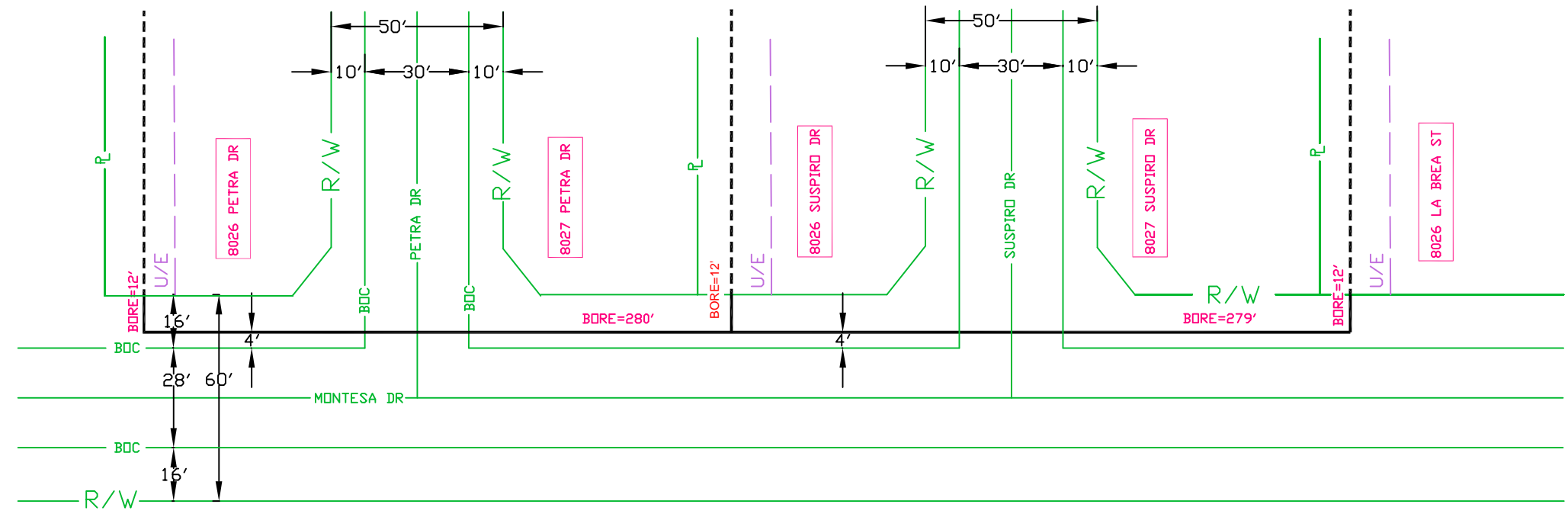
Utility CO
 REP NAME
 REP TEL NO.
 POLE CONTACTS (+) 0 (-) 0

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

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

PROJECT NO A012X6Q

TOT.PRINTS 67 PRINT NO.55
 NPA/NNX: 281-498 PRT:281498
 EXCH. ALIEF
 TAX DIST. FG071
 GEO LOC. W85498
 ENGR. SS DRAWN JW
 TELEPHONE NO. (281) 320-3812
 REC. REF.
 MAP REF.
 SCALE NONE
 ISSUE DATE
 PROJ TITLE LIGHTGIG-1166PA--DIST-AF
 REV. NUMBER
 DATE REV.

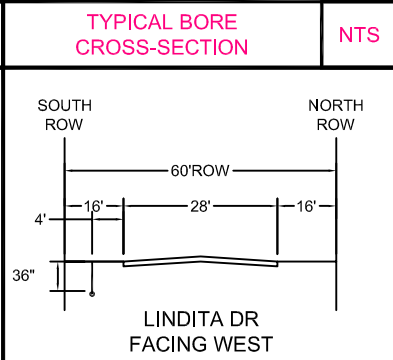
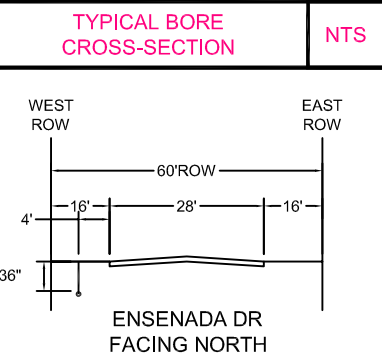
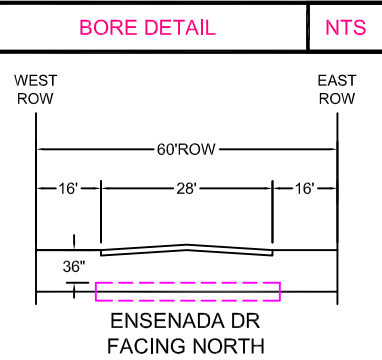
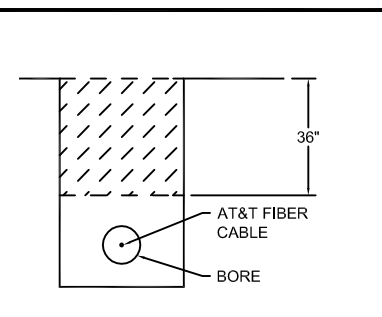


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BLACK & VEATCH
 DESIGN ENGINEER CONTACT:
 VLAD CHERNENKO
 BLACK & VEATCH
 (303) 264-0587
 CHERNENKOV@BV.COM

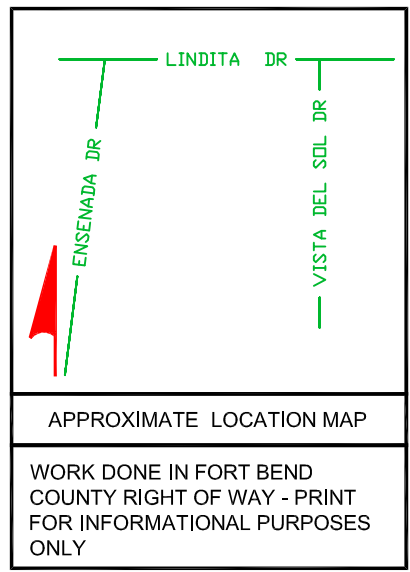
FORT BEND COUNTY
 PERMIT #
 SHOWN ON PRINT 4

DESIGN SUMMARY:
 -BORE AND PLACE FIBER.

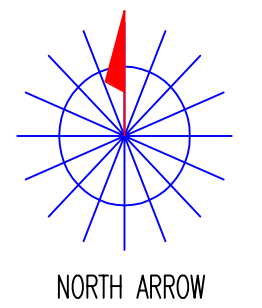


TYPICAL CROSS-SECTION NTS

FORT BEND COUNTY NOTIFICATION



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 1166PA

CAUTION HIGH VOLTAGE
 KV 0.00 AERIAL N BURIED N

HIGHWAY PERMIT NO.

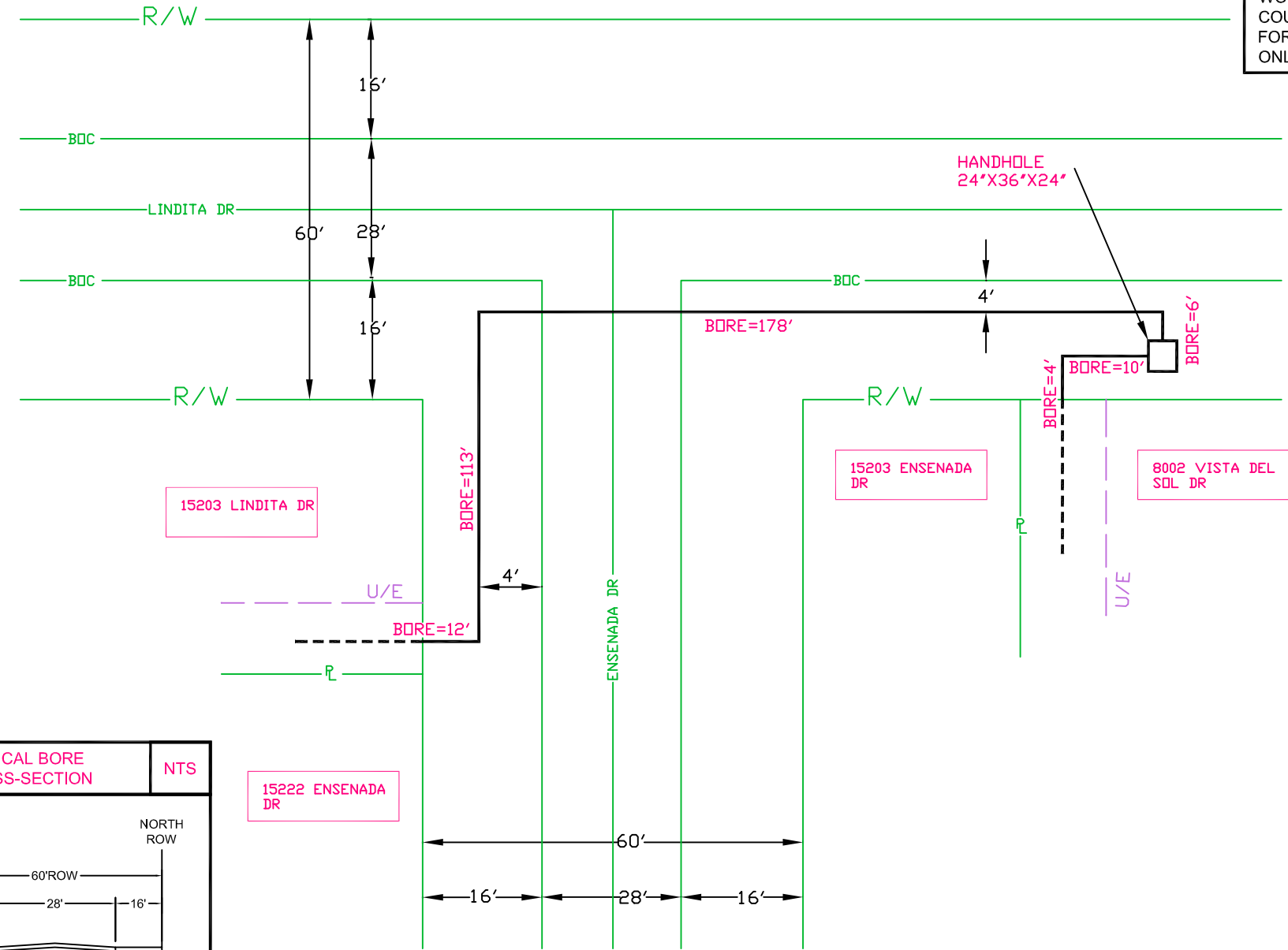
Utility CO
 REP NAME
 REP TEL NO.
 POLE CONTACTS (+) 0 (-) 0

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


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

PROJECT NO A012X6Q

TOT.PRINTS 67 PRINT NO.56
 NPA/NNX: 281-498 PRT:281498
 EXCH. ALIEF
 TAX DIST. FG071
 GEO LOC. W85498
 ENGR. SS DRAWN JW
 TELEPHONE NO. (281) 320-3812
 REC. REF.
 MAP REF.
 SCALE NONE
 ISSUE DATE
 PROJ TITLE LIGHTGIG-1166PA--DIST-AF
 REV. NUMBER
 DATE REV.



--Proprietary--
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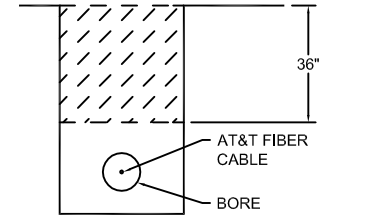


BLACK & VEATCH

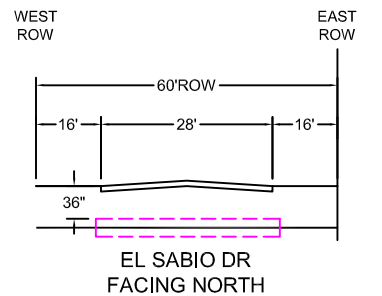
DESIGN ENGINEER CONTACT:
VLAD CHERNENKO
BLACK & VEATCH
(303) 264-0587
CHERNENKOV@BV.COM

FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 8

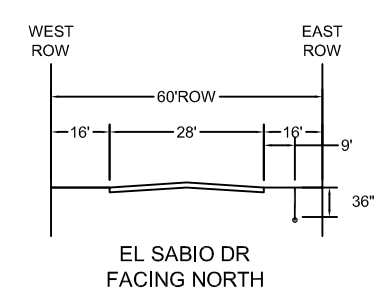
DESIGN SUMMARY:
-BORE AND PLACE FIBER.



BORE DETAIL NTS

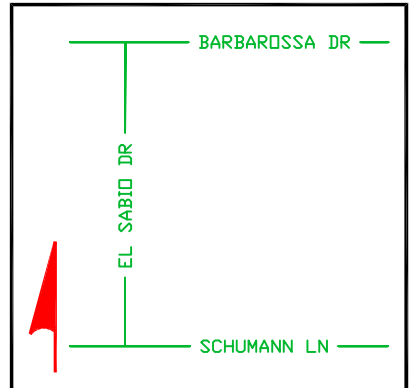
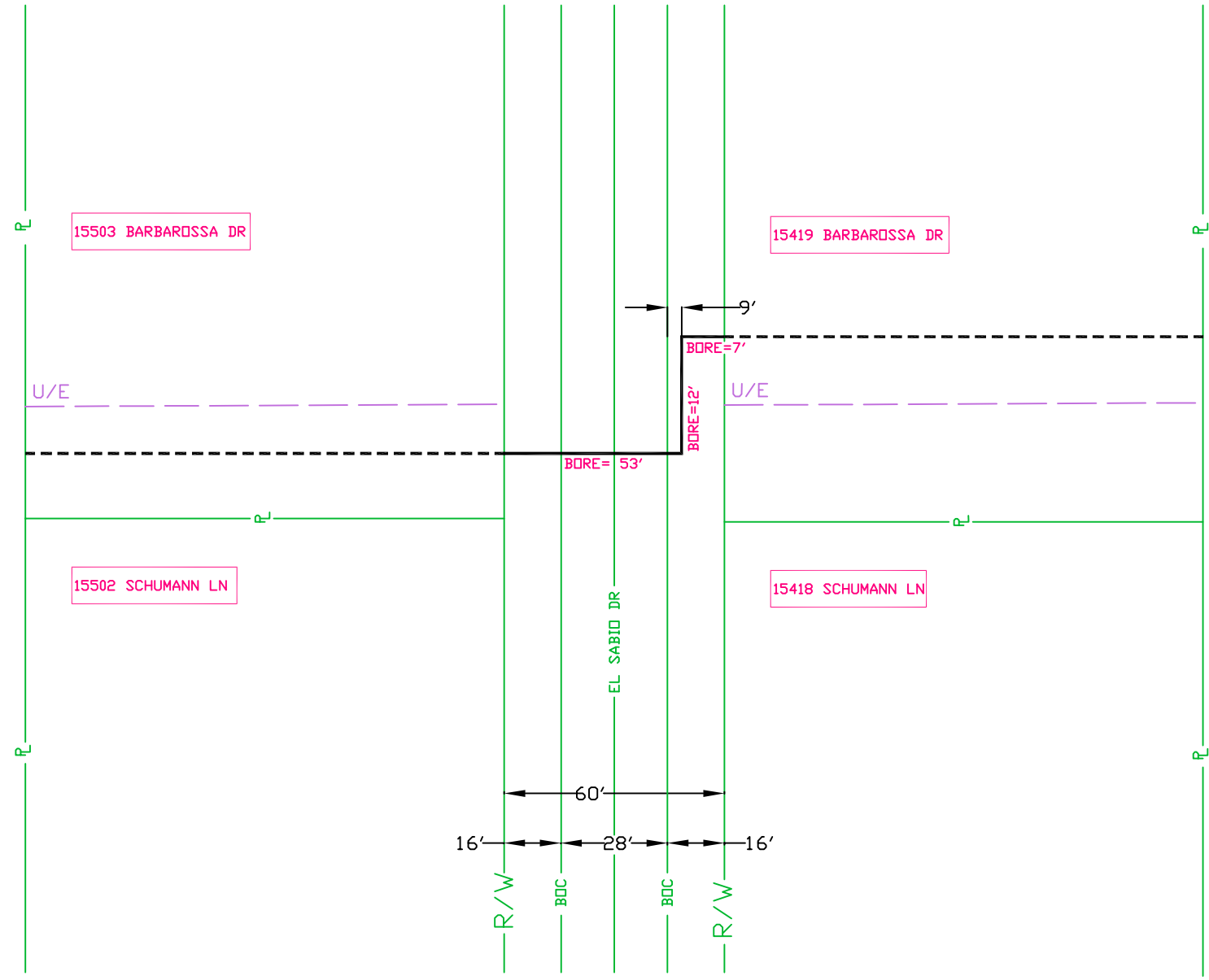


TYPICAL BORE CROSS-SECTION NTS



TYPICAL CROSS-SECTION NTS

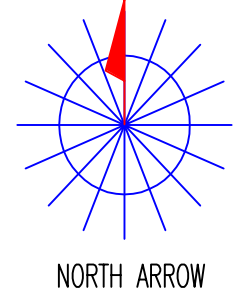
FORT BEND COUNTY NOTIFICATION



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 1166PA

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 A012X6Q

TOT.PRINTS 67 PRINT NO. 57
NPA/NNX: 281-498 PRT:281498
EXCH. ALIEF
TAX DIST. FG071
GEO LOC. W85498
ENGR. SS DRAWN JW
TELEPHONE NO. (281) 320-3812
REC. REF.
MAP REF.
SCALE NONE
ISSUE DATE
PROJ TITLE LIGHTGIG-1166PA--DIST-AF
REV. NUMBER
DATE REV.

--Proprietary--
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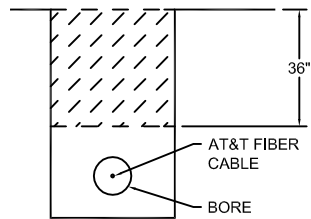


BLACK & VEATCH

DESIGN ENGINEER CONTACT:
VLAD CHERNENKO
BLACK & VEATCH
(303) 264-0587
CHERNENKOV@BV.COM

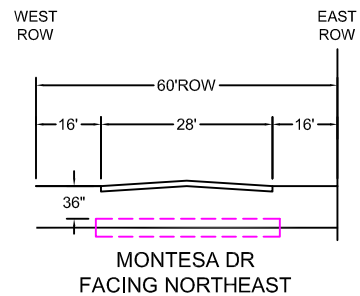
FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 14

DESIGN SUMMARY:
-BORE AND PLACE FIBER.



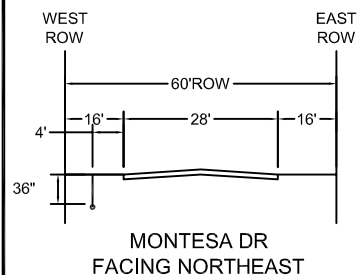
BORE DETAIL

NTS



TYPICAL BORE CROSS-SECTION

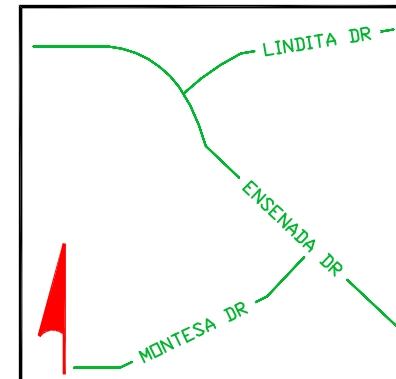
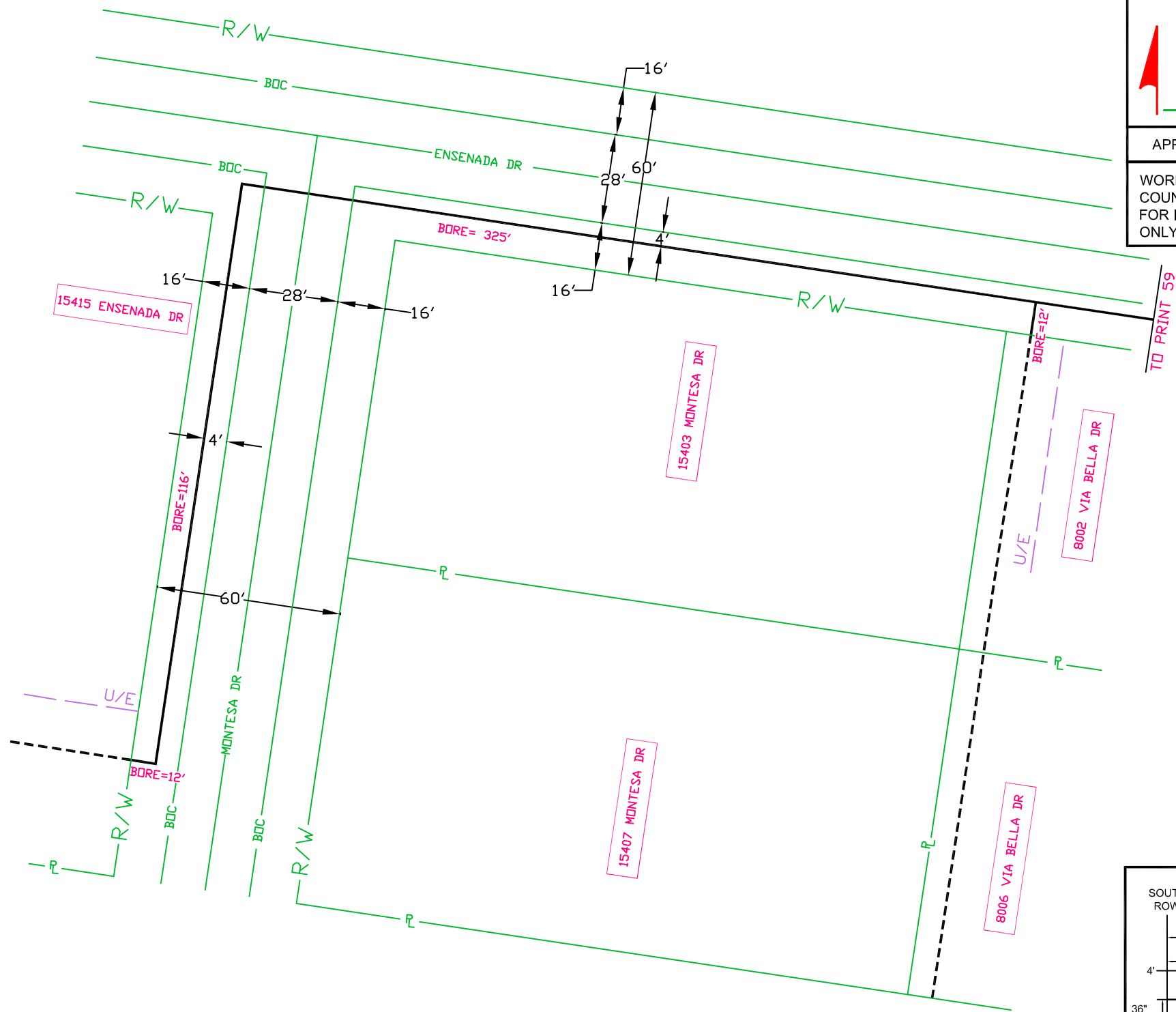
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TYPICAL CROSS-SECTION

NTS

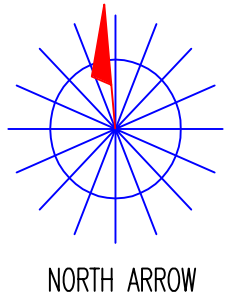
FORT BEND COUNTY NOTIFICATION



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 1166PA

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 A012X6Q

TOT.PRINTS 67 PRINT NO.58

NPA/NNX: 281-498 PRT:281498

EXCH. ALIEF

TAX DIST. FG071

GEO LOC. W85498

ENGR. SS DRAWN JW

TELEPHONE NO. (281) 320-3812

REC. REF.

MAP REF.

SCALE NONE

ISSUE DATE

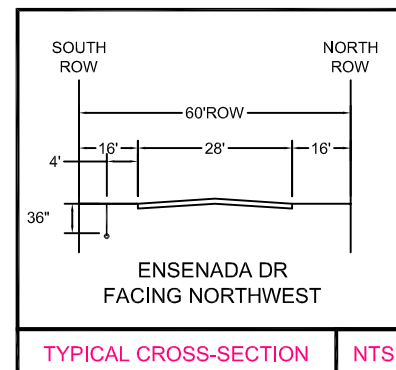
PROJ TITLE LIGHTGIG-1166PA--DIST-AF

REV. NUMBER

DATE REV.

--Proprietary--

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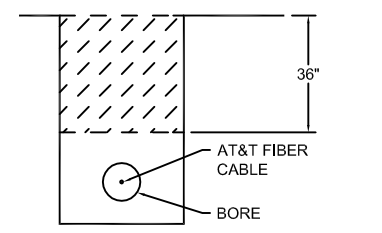
TYPICAL CROSS-SECTION

NTS

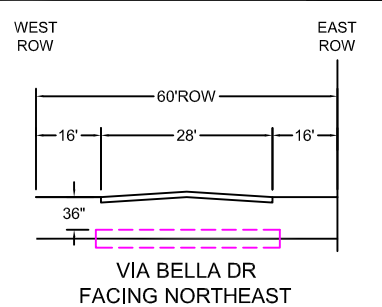
BLACK & VEATCH
 DESIGN ENGINEER CONTACT:
 VLAD CHERNENKO
 BLACK & VEATCH
 (303) 264-0587
 CHERNENKOV@BV.COM

FORT BEND COUNTY
 PERMIT #
 SHOWN ON PRINT 7 & 14

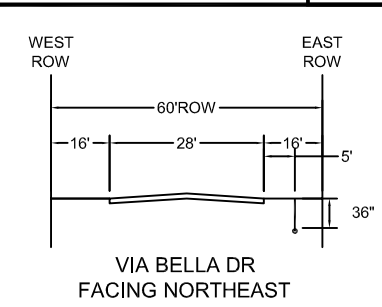
DESIGN SUMMARY:
 -BORE AND PLACE FIBER.



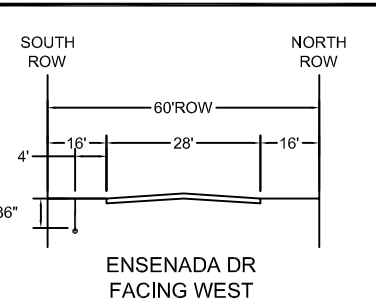
BORE DETAIL NTS



TYPICAL BORE CROSS-SECTION NTS

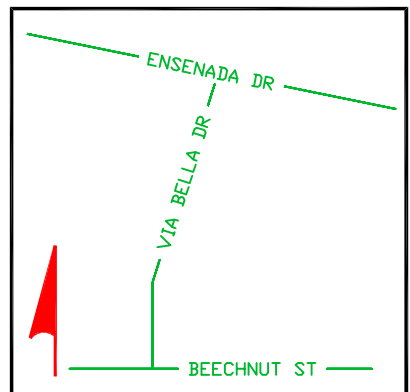
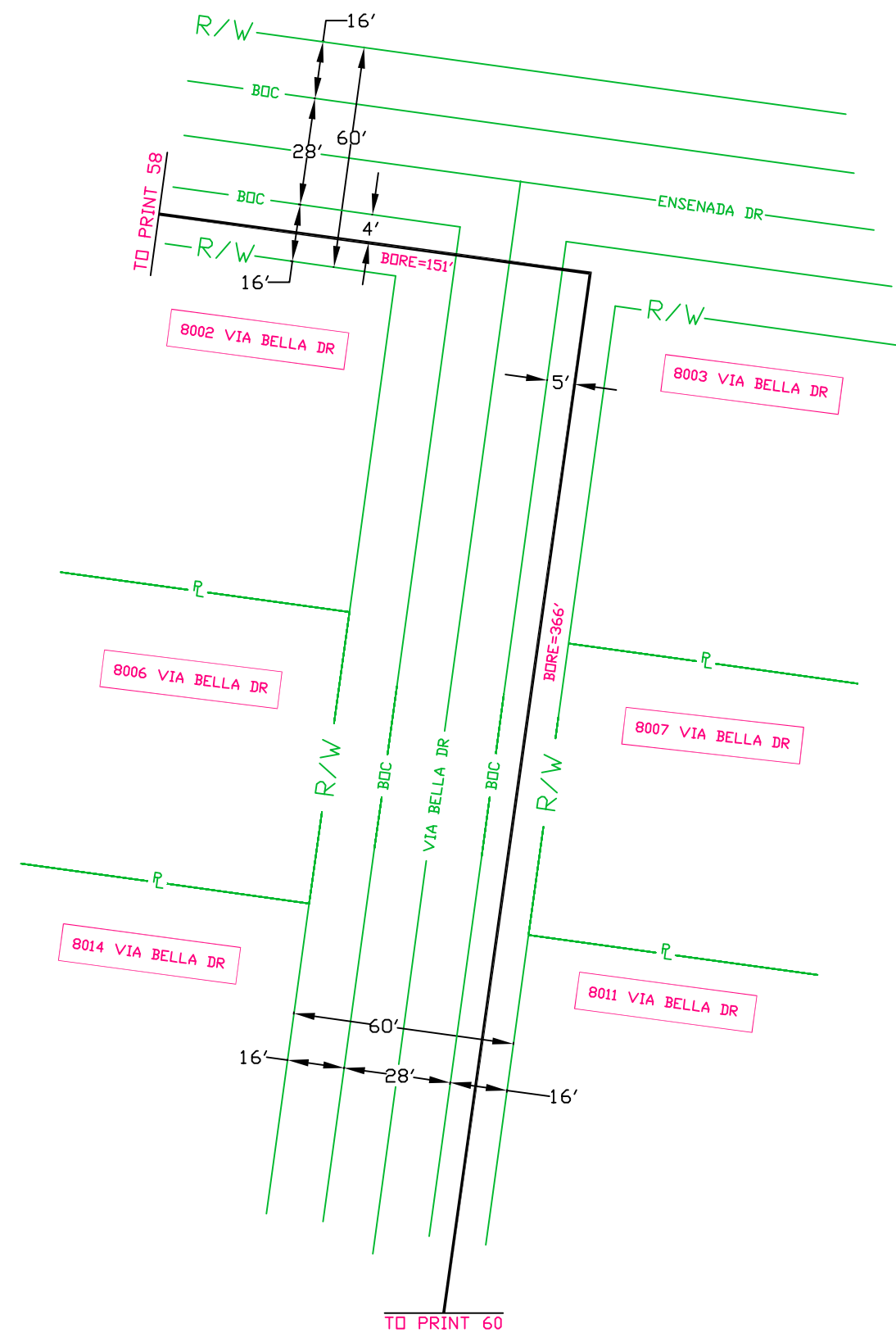


TYPICAL CROSS-SECTION NTS



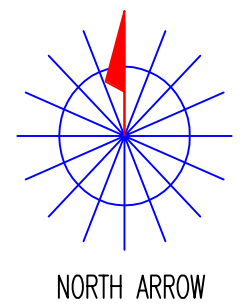
TYPICAL CROSS-SECTION NTS

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 1166PA

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 A012X6Q

TOT.PRINTS 67 PRINT NO. 59
 NPA/NNX: 281-498 PRT:281498
 EXCH. ALIEF
 TAX DIST. FG071
 GEO LOC. W85498
 ENGR. SS DRAWN JW
 TELEPHONE NO. (281) 320-3812
 REC. REF.
 MAP REF.
 SCALE NONE
 ISSUE DATE
 PROJ TITLE LIGHTGIG-1166PA--DIST-AF
 REV. NUMBER
 DATE REV.

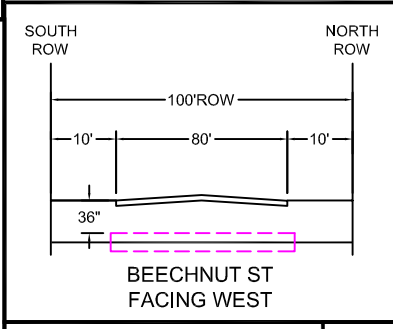
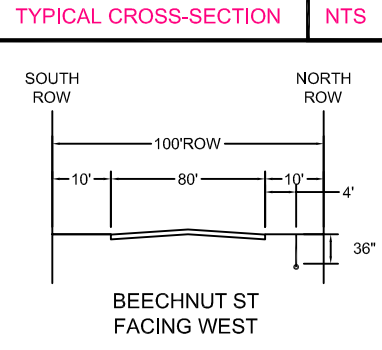
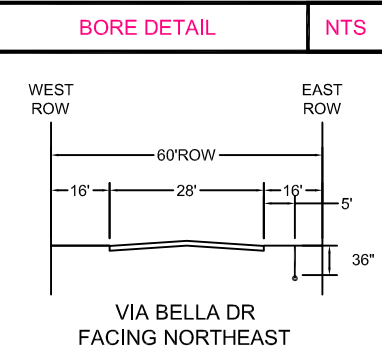
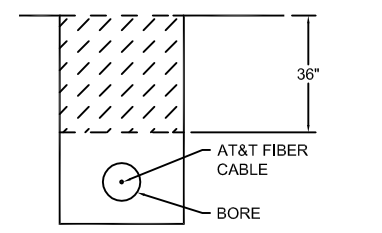
--Proprietary--
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BLACK & VEATCH

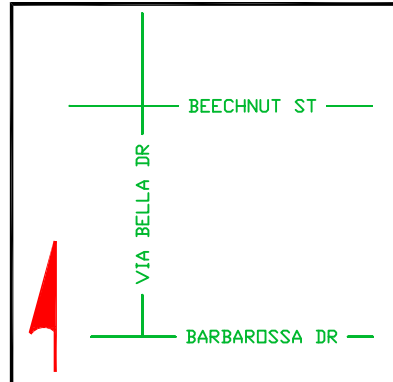
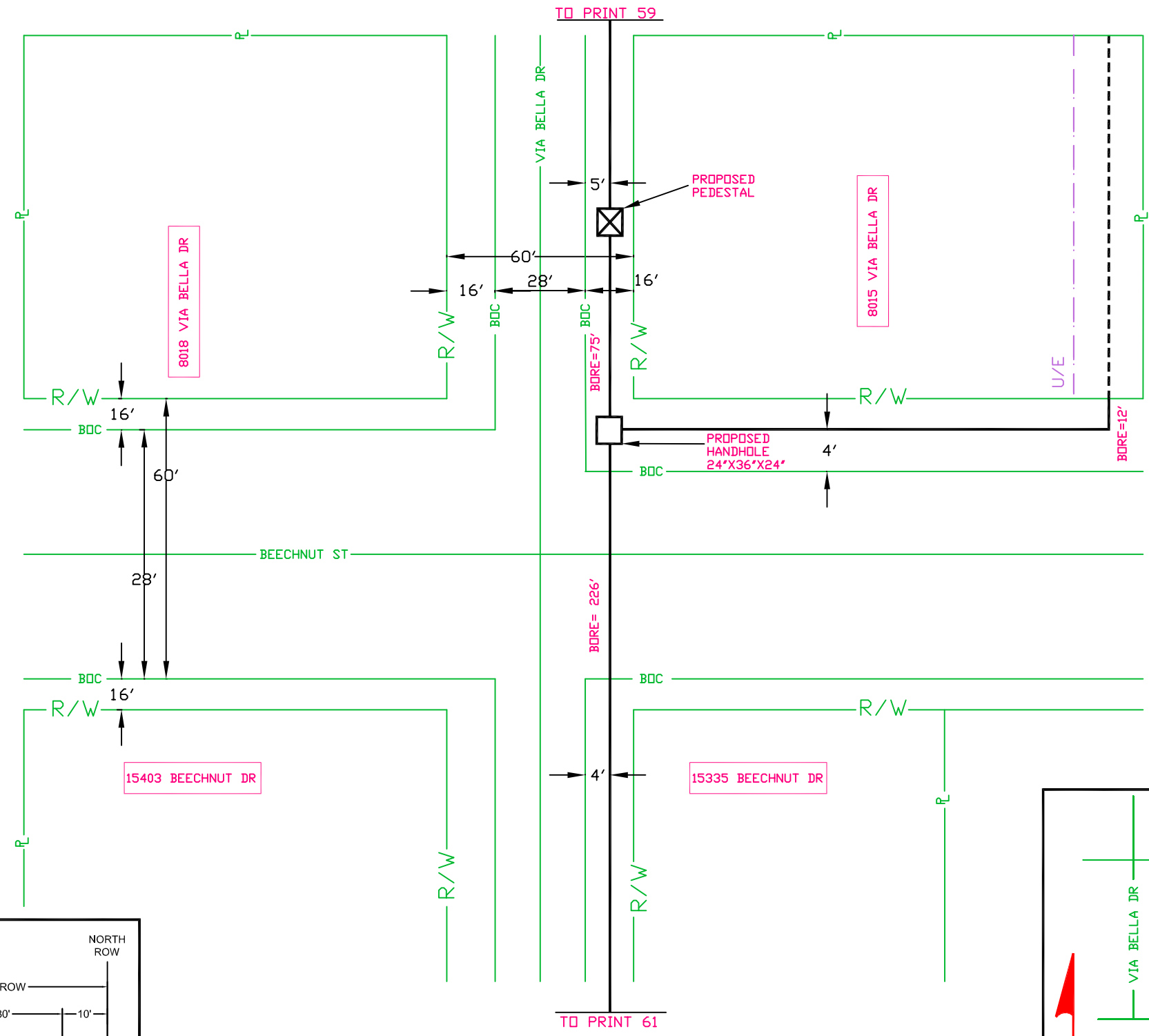
DESIGN ENGINEER CONTACT:
VLAD CHERNENKO
BLACK & VEATCH
(303) 264-0587
CHERNENKOV@BV.COM

FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 7 & 8

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

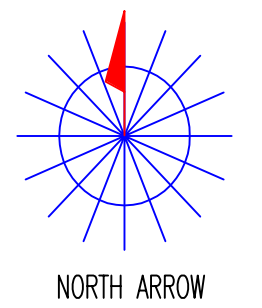


FORT BEND COUNTY NOTIFICATION



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 1166PA

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 A012X6Q

TOT.PRINTS 67 PRINT NO. 60
NPA/NNX: 281-498 PRT:281498
EXCH. ALIEF
TAX DIST. FG071
GEO LOC. W85498
ENGR. SS DRAWN JW
TELEPHONE NO. (281) 320-3812
REC. REF.
MAP REF.
SCALE NONE
ISSUE DATE
PROJ TITLE LIGHTGIG-1166PA--DIST-AF
REV. NUMBER
DATE REV.

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

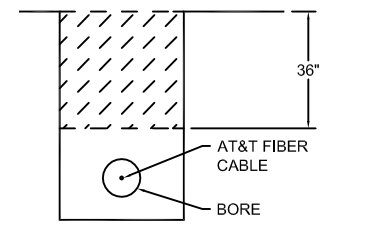


BLACK & VEATCH

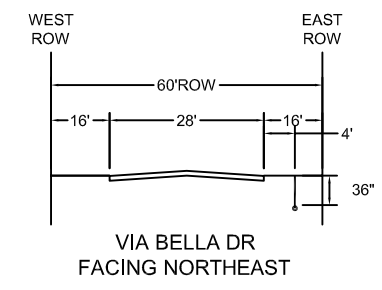
DESIGN ENGINEER CONTACT:
VLAD CHERNENKO
BLACK & VEATCH
(303) 264-0587
CHERNENKOV@BV.COM

FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 8

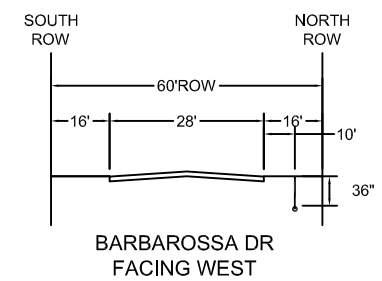
DESIGN SUMMARY:
-BORE AND PLACE FIBER.
-PLACE (1) ONE PROPOSED
PEDESTAL.



BORE DETAIL NTS

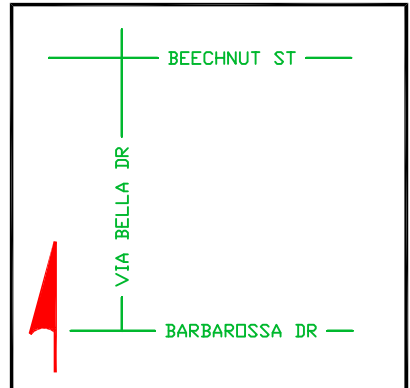
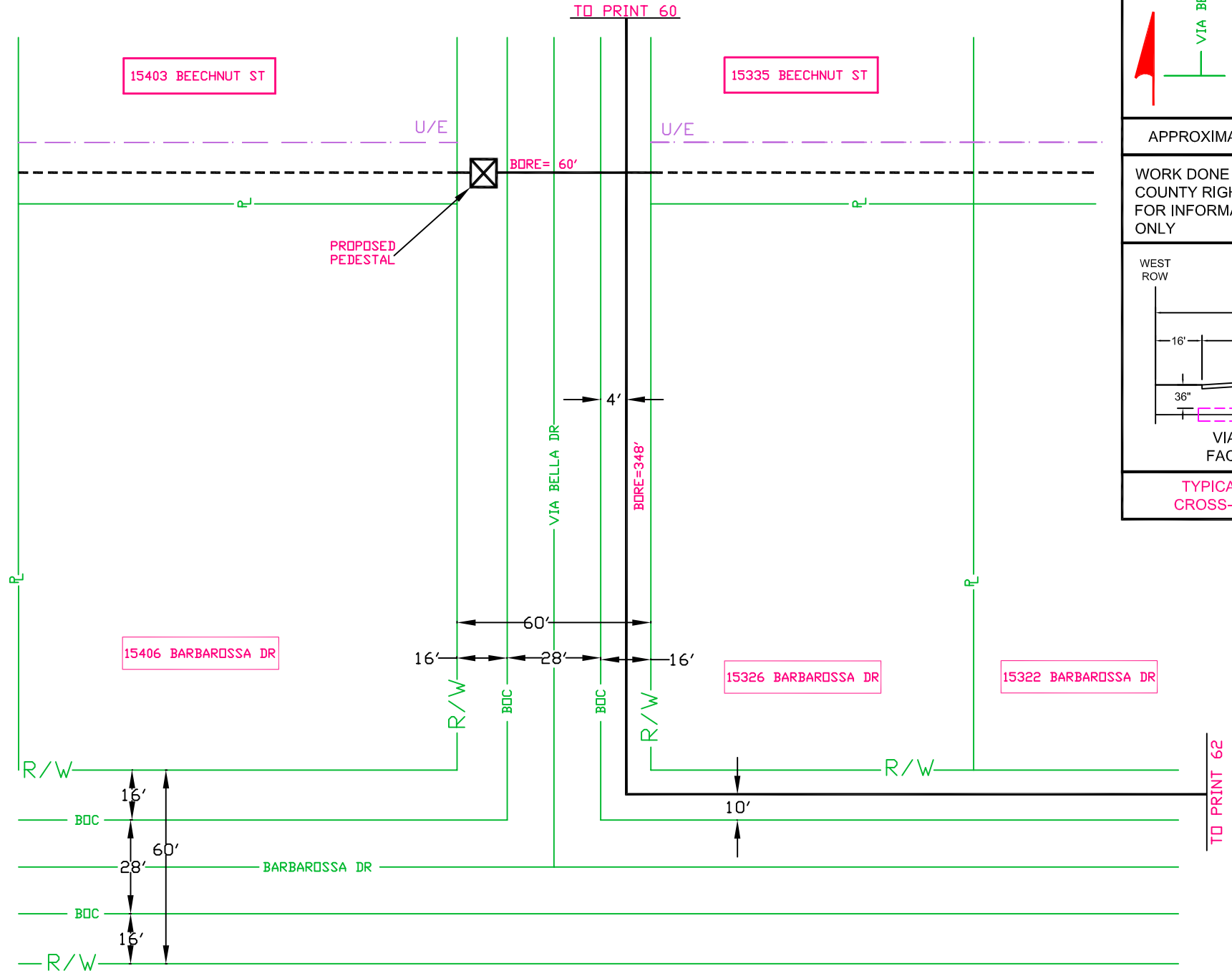


TYPICAL CROSS-SECTION NTS

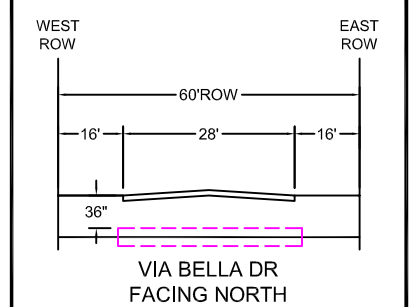


TYPICAL CROSS-SECTION NTS

FORT BEND COUNTY NOTIFICATION

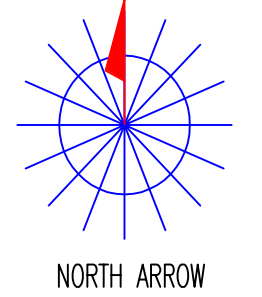


WORK DONE IN FORT BEND COUNTY RIGHT OF WAY - PRINT FOR INFORMATIONAL PURPOSES ONLY



TYPICAL BORE CROSS-SECTION NTS

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 1166PA

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 A012X6Q

TOT.PRINTS 67 PRINT NO. 61
NPA/NNX: 281-498 PRT:281498
EXCH. ALIEF
TAX DIST. FG071
GEO LOC. W85498
ENGR. SS DRAWN JW
TELEPHONE NO. (281) 320-3812
REC. REF.
MAP REF.
SCALE NONE
ISSUE DATE
PROJ TITLE LIGHTGIG-1166PA--DIST-AF
REV. NUMBER
DATE REV.

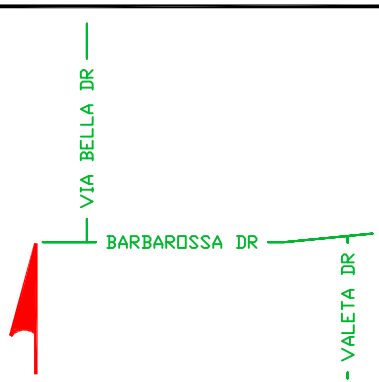
--Proprietary--
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DESIGN ENGINEER CONTACT:
VLAD CHERNENKO
BLACK & VEATCH
(303) 264-0587
CHERNENKOV@BV.COM

FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 8, 13 & 21

DESIGN SUMMARY:
-BORE AND PLACE FIBER.

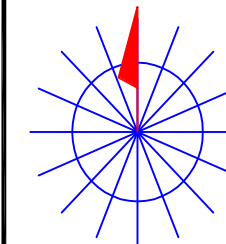


APPROXIMATE LOCATION MAP

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

FORT BEND COUNTY NOTIFICATION

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 1166PA

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 A012X6Q

TOT.PRINTS 67 PRINT NO. 62

NPA/NNX: 281-498 PRT:281498

EXCH. ALIEF

TAX DIST. FG071

GEO LOC. W85498

ENGR. SS DRAWN JW

TELEPHONE NO. (281) 320-3812

REC. REF.

MAP REF.

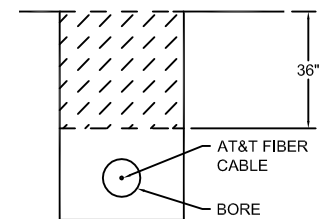
SCALE NONE

ISSUE DATE

PROJ TITLE LIGHTGIG-1166PA--DIST-AF

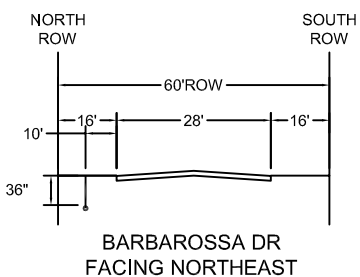
REV. NUMBER

DATE REV.



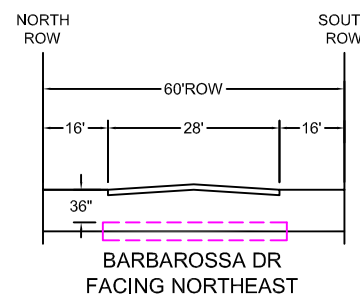
BORE DETAIL

NTS



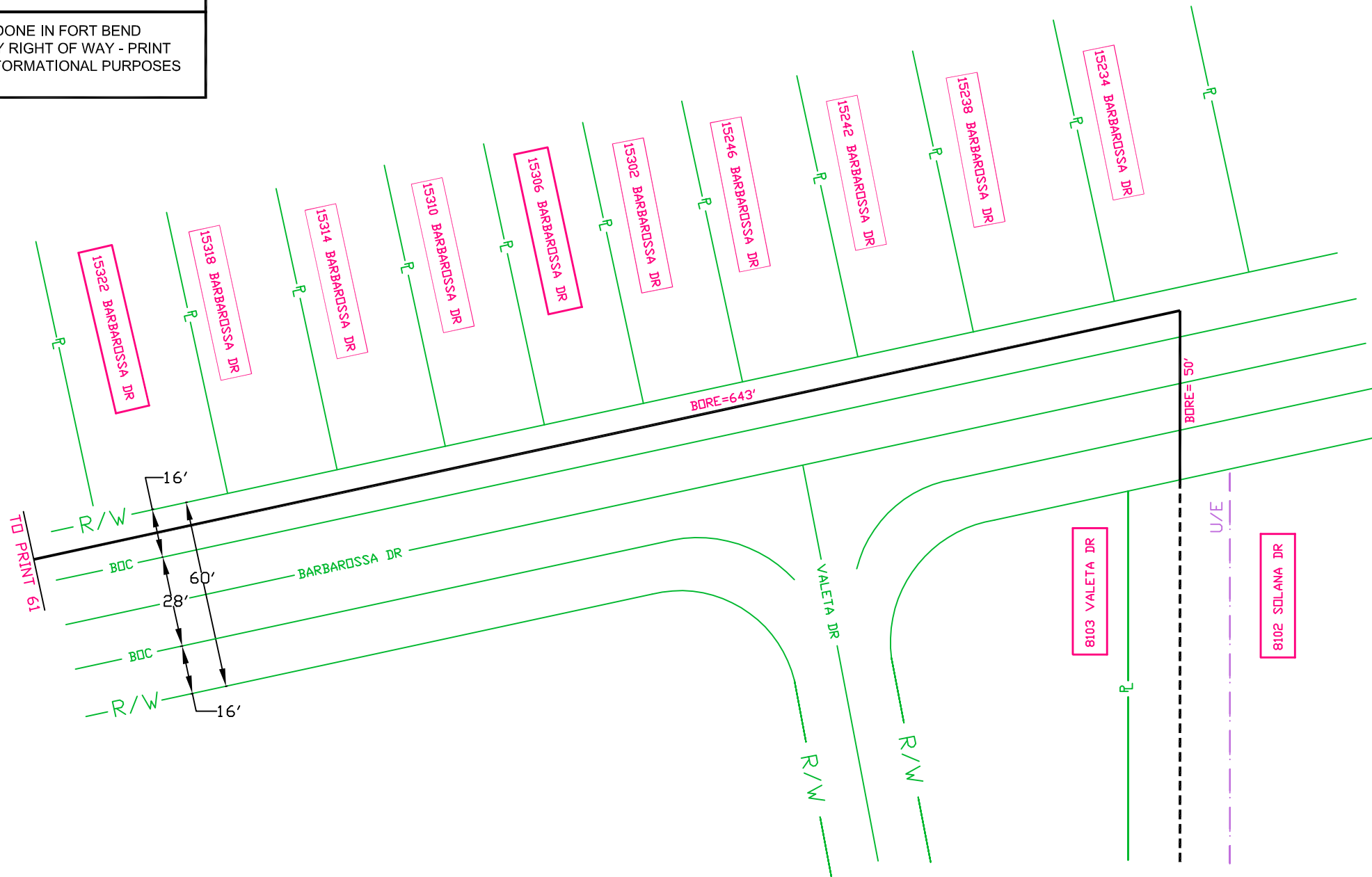
TYPICAL CROSS-SECTION

NTS



TYPICAL BORE
CROSS-SECTION

NTS



--Proprietary--

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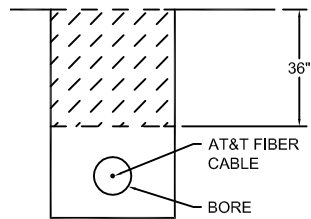


BLACK & VEATCH

DESIGN ENGINEER CONTACT:
VLAD CHERNENKO
BLACK & VEATCH
(303) 264-0587
CHERNENKOV@BV.COM

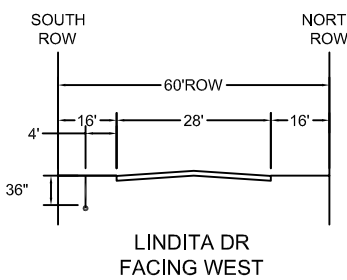
FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 37

DESIGN SUMMARY:
-BORE AND PLACE FIBER.



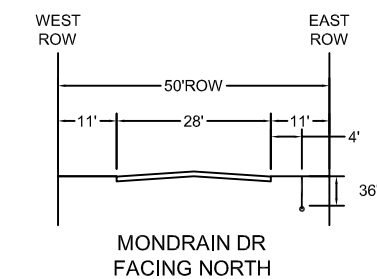
BORE DETAIL

NTS



TYPICAL CROSS-SECTION

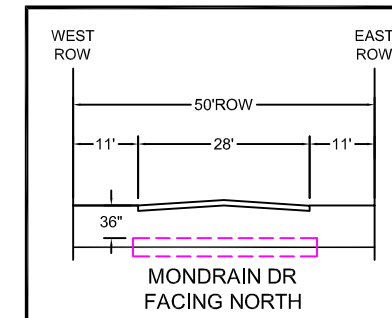
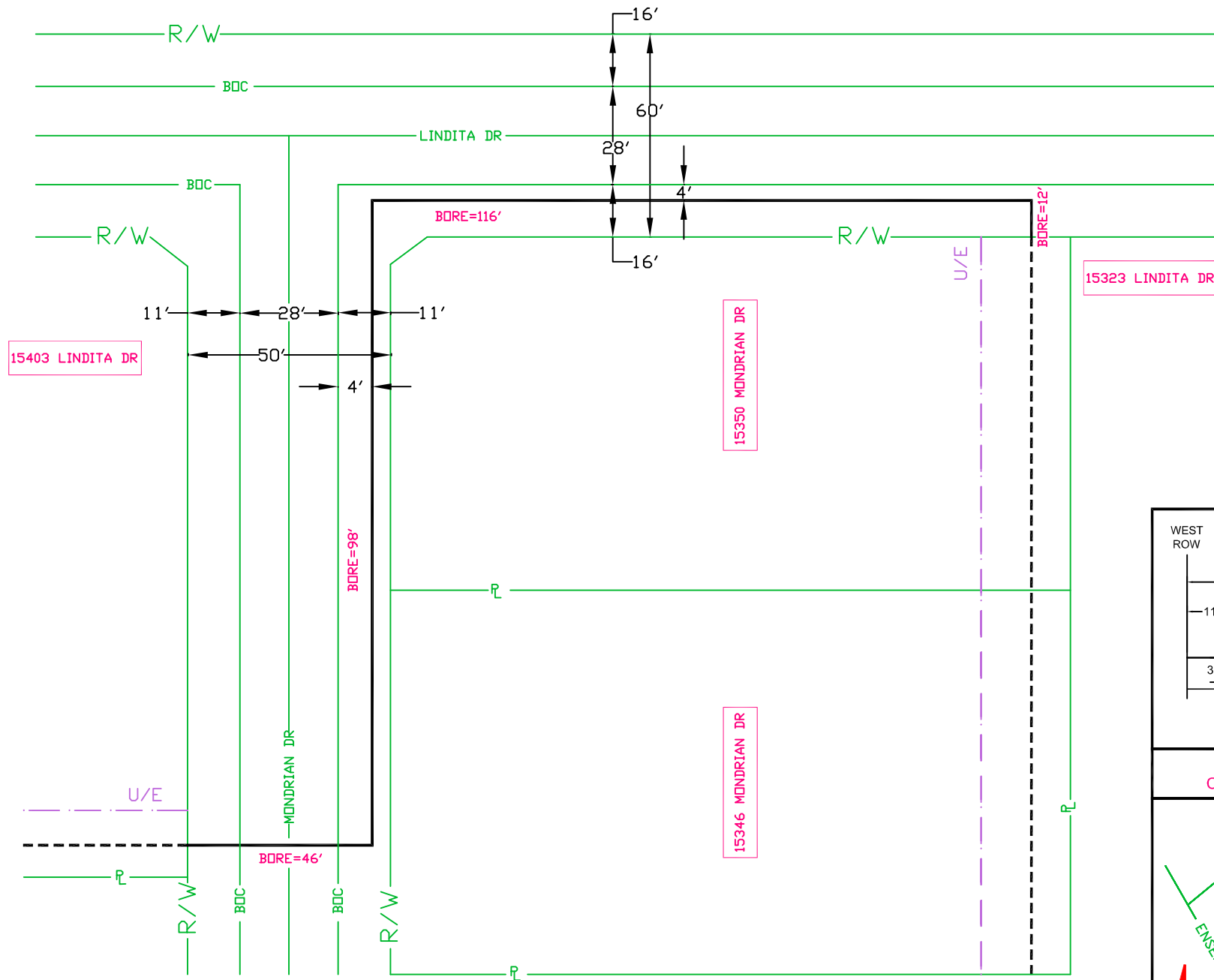
NTS



TYPICAL CROSS-SECTION

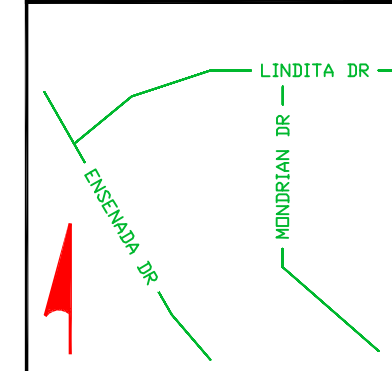
NTS

FORT BEND COUNTY NOTIFICATION



TYPICAL BORE CROSS-SECTION

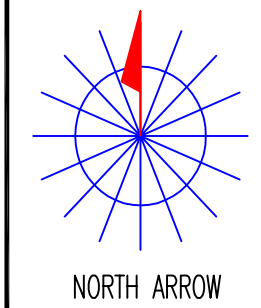
NTS



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 1166PA

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 A012X6Q

TOT.PRINTS 67 PRINT NO. 63
NPA/NNX: 281-498 PRT:281498
EXCH. ALIEF
TAX DIST. FG071
GEO LOC. W85498
ENGR. SS DRAWN JW
TELEPHONE NO. (281) 320-3812

REC. REF.
MAP REF.
SCALE NONE
ISSUE DATE
PROJ TITLE LIGHTGIG-1166PA--DIST-AF
REV. NUMBER
DATE REV.

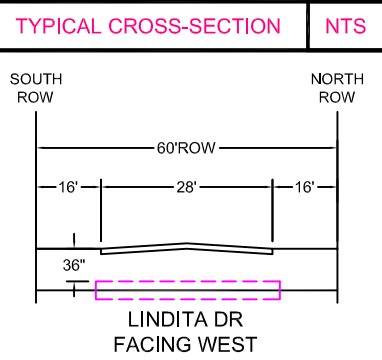
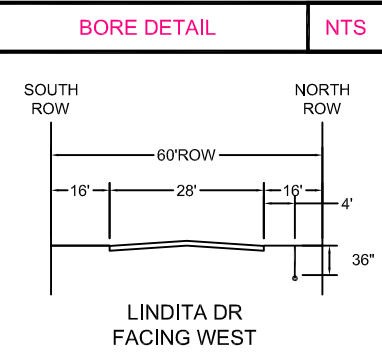
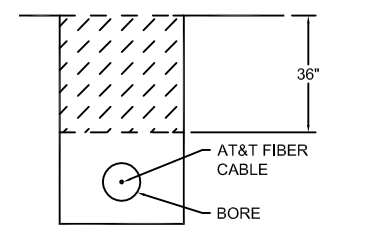
--Proprietary--

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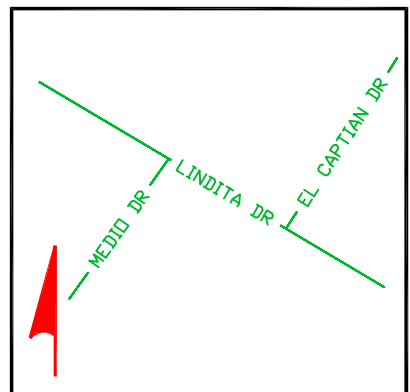
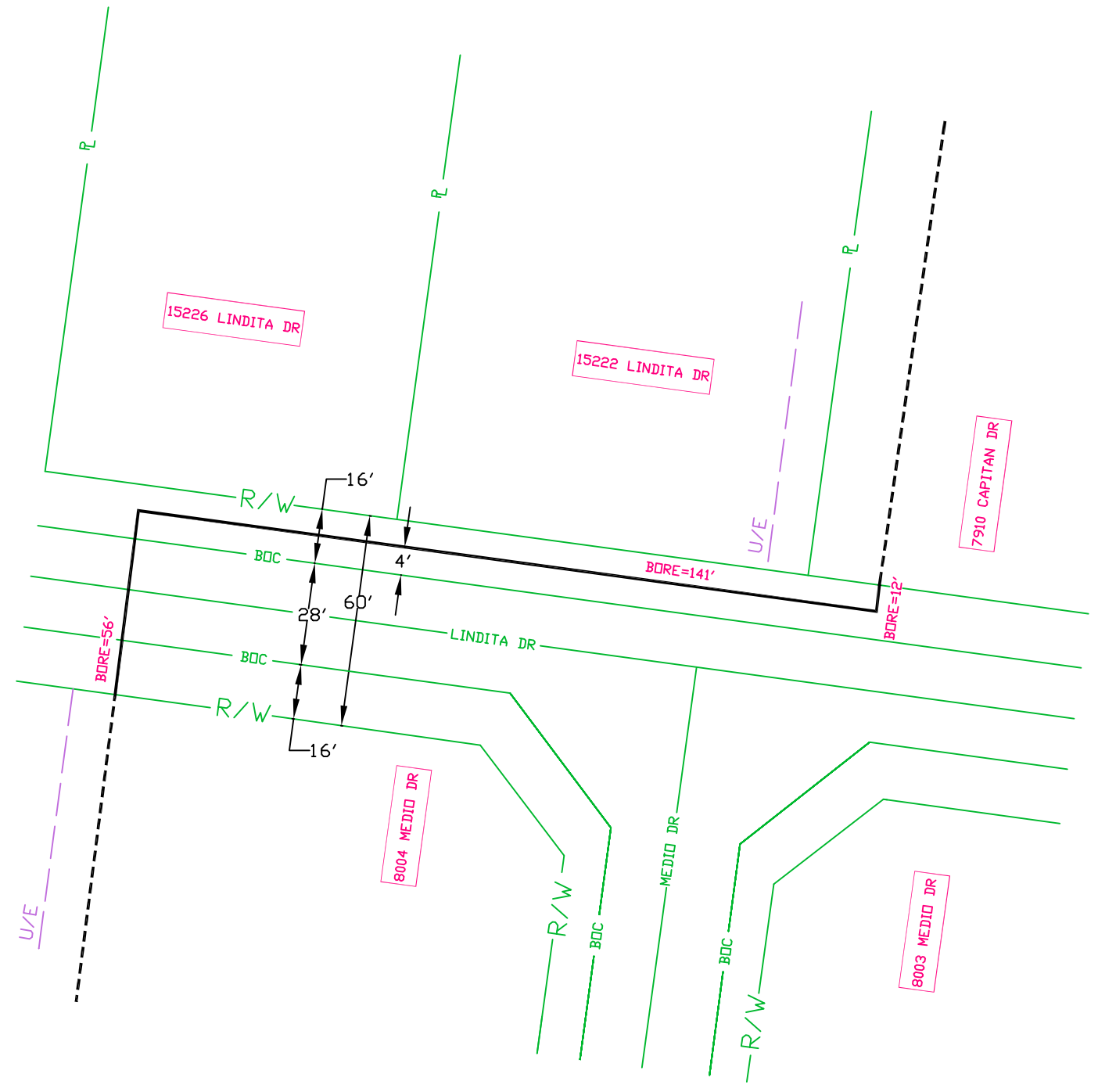
BLACK & VEATCH
 DESIGN ENGINEER CONTACT:
 VLAD CHERNENKO
 BLACK & VEATCH
 (303) 264-0587
 CHERNENKOV@BV.COM

FORT BEND COUNTY
 PERMIT #
 SHOWN ON PRINT 39

DESIGN SUMMARY:
 -BORE AND PLACE FIBER.

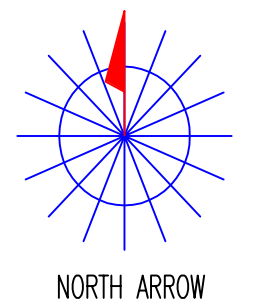


FORT BEND COUNTY NOTIFICATION



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 1166PA

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 A012X6Q

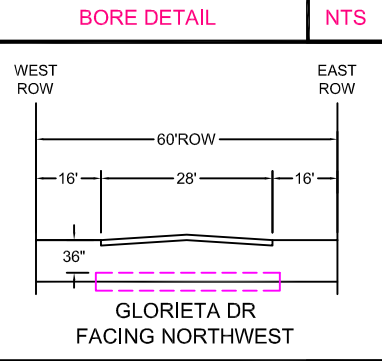
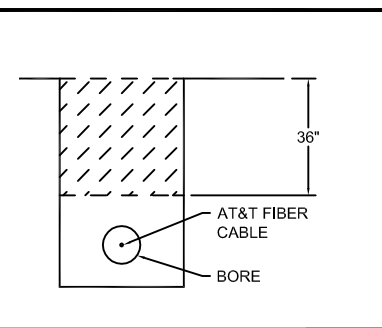
TOT.PRINTS 67 PRINT NO. 64
 NPA/NNX: 281-498 PRT:281498
 EXCH. ALIEF
 TAX DIST. FG071
 GEO LOC. W85498
 ENGR. SS DRAWN JW
 TELEPHONE NO. (281) 320-3812
 REC. REF.
 MAP REF.
 SCALE NONE
 ISSUE DATE
 PROJ TITLE LIGHTGIG-1166PA--DIST-AF
 REV. NUMBER
 DATE REV.

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

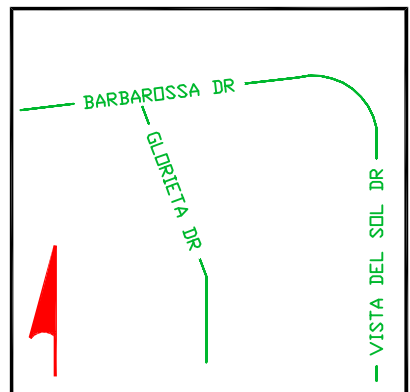
BLACK & VEATCH
 DESIGN ENGINEER CONTACT:
 VLAD CHERNENKO
 BLACK & VEATCH
 (303) 264-0587
 CHERNENKOV@BV.COM

FORT BEND COUNTY
 PERMIT #
 SHOWN ON PRINT 32

DESIGN SUMMARY:
 -BORE AND PLACE FIBER.

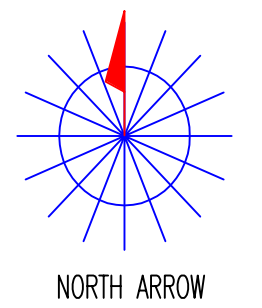


FORT BEND COUNTY NOTIFICATION



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 1166PA

CAUTION HIGH VOLTAGE
 KV 0.00 AERIAL N BURIED N

HIGHWAY PERMIT NO.

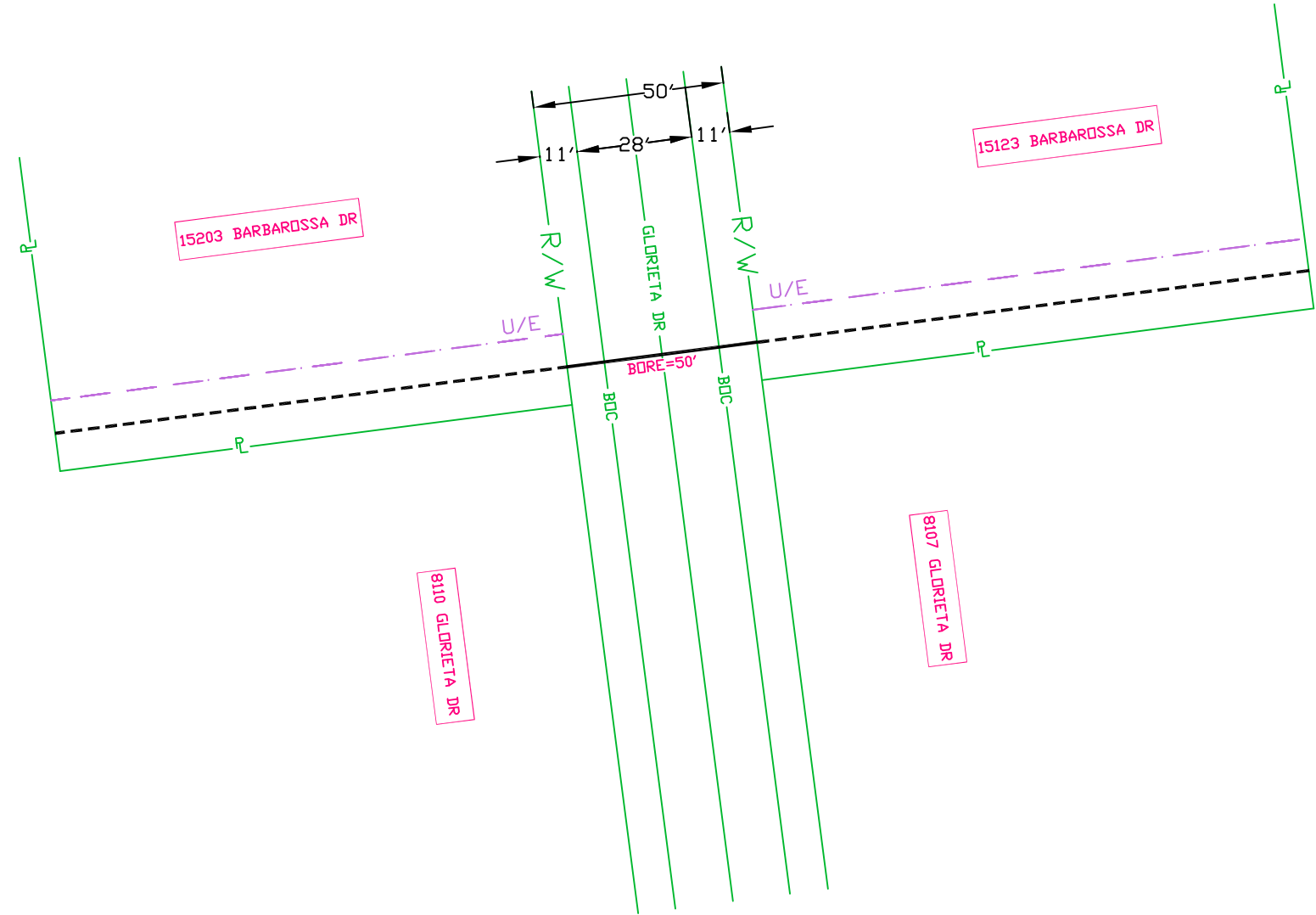
Utility CO
 REP NAME
 REP TEL NO.
 POLE CONTACTS (+) 0 (-) 0

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

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

PROJECT NO A012X6Q

TOT.PRINTS 67 PRINT NO. 65
 NPA/NNX: 281-498 PRT:281498
 EXCH. ALIEF
 TAX DIST. FG071
 GEO LOC. W85498
 ENGR. SS DRAWN JW
 TELEPHONE NO. (281) 320-3812
 REC. REF.
 MAP REF.
 SCALE NONE
 ISSUE DATE
 PROJ TITLE LIGHTGIG-1166PA--DIST-AF
 REV. NUMBER
 DATE REV.



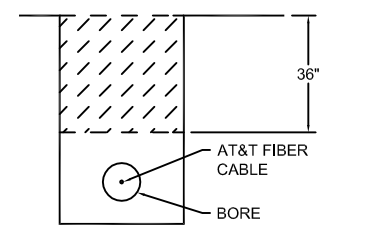
--Proprietary--
 Not for use or disclosure outside the AT&T companies except under written agreement.

BLACK & VEATCH

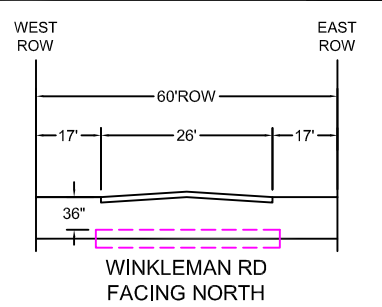
DESIGN ENGINEER CONTACT:
VLAD CHERNENKO
BLACK & VEATCH
(303) 264-0587
CHERNENKOV@BV.COM

FORT BEND COUNTY
PERMIT #
SHOWN ON PRINT 41, 48, 49 & 50

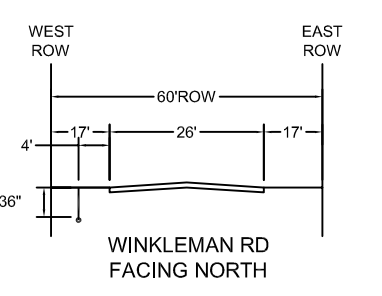
DESIGN SUMMARY:
-BORE AND PLACE FIBER.



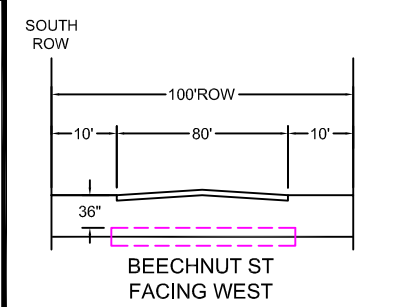
BORE DETAIL NTS



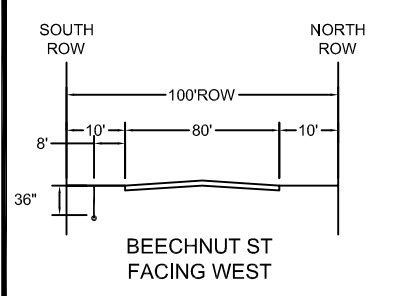
TYPICAL BORE CROSS-SECTION NTS



TYPICAL CROSS-SECTION NTS

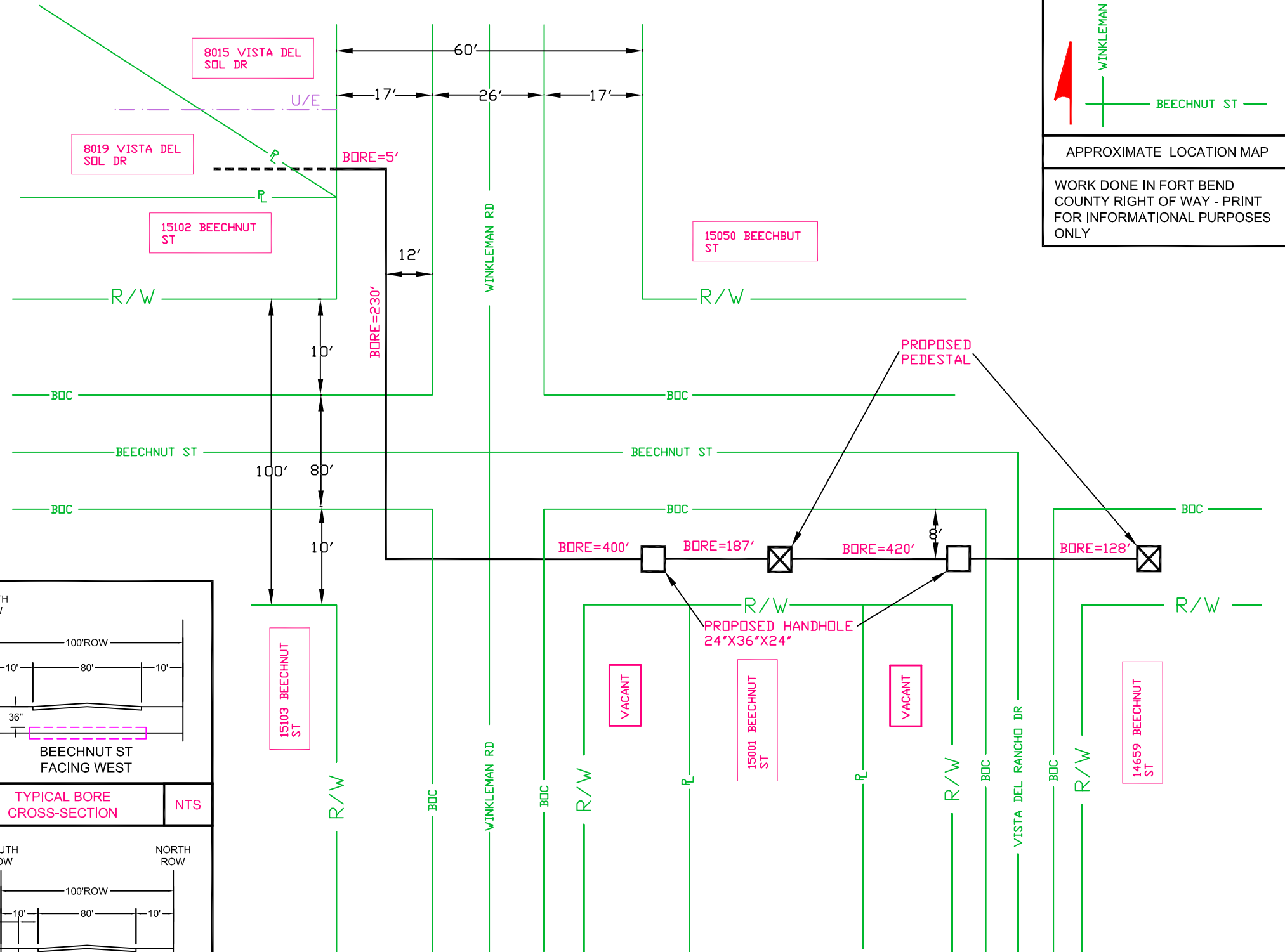


TYPICAL BORE CROSS-SECTION NTS



TYPICAL CROSS-SECTION NTS

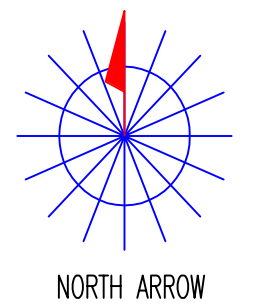
FORT BEND COUNTY NOTIFICATION



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 1166PA

CAUTION HIGH VOLTAGE
KV 0.00 AERIAL N BURIED N

HIGHWAY PERMIT NO.

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

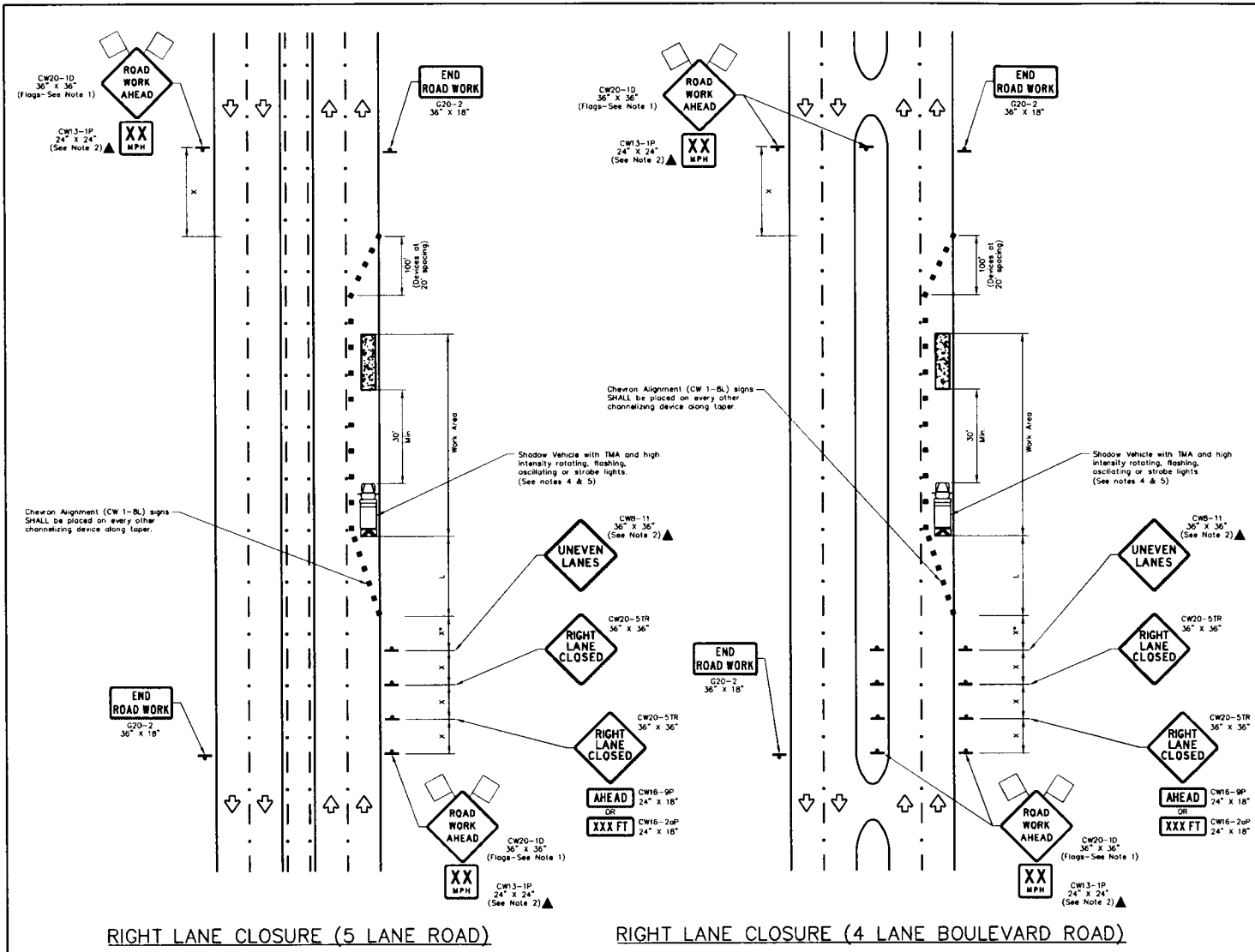
Utility CO
REP NAME
REP TEL NO.
POLE CONTACTS (+) 0 (-) 0

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

PROJECT NO A012X6Q

TOT.PRINTS 67 PRINT NO. 66
NPA/NNX: 281-498 PRT:281498
EXCH. ALIEF
TAX DIST. FG071
GEO LOC. W85498
ENGR. SS DRAWN JW
TELEPHONE NO. (281) 320-3812
REC. REF.
MAP REF.
SCALE NONE
ISSUE DATE
PROJ TITLE LIGHTGIG-1166PA--DIST-AF
REV. NUMBER
DATE REV.

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



TRAFFIC CONTROL PLAN SECTION SHALL BE COMPLETED BY ENGINEER

ROADWAY	POSTED SPEED	TAPER LENGTH	SPACING CHANNELIZING DEVICES TAPER	SPACING CHANNELIZING DEVICES TANGENT	SIGN SPACING	BUFFER SPACE

LEGEND

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

Posted Speed	Formula	Minimum Desirable Taper Lengths "L"		Suggested Maximum Spacing of Channelizing Devices		Minimum Spacing "X"	Suggested Longitudinal Buffer Space "B"	
		10' Offset	12' Offset	On a Taper	On a Tangent			
30	L = WS	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40	L = WS	265'	295'	320'	40'	80'	240'	155'
45		450'	495'	540'	45'	90'	320'	195'
50	L = WS	500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60	L = WS	600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70	L = WS	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(F) W=Width of Offset(F) 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 crane 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 M of Texas Manual on Uniform Traffic Control Devices (TMUTCD - Latest edition with revisions) during construction.
 - No lanes shall be blocked from 7am to 9am and 4pm to 6:30pm Monday thru Friday.
 - Off duty police officers/floggers are 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) 881-3210 five (5) days prior to the start of construction.

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

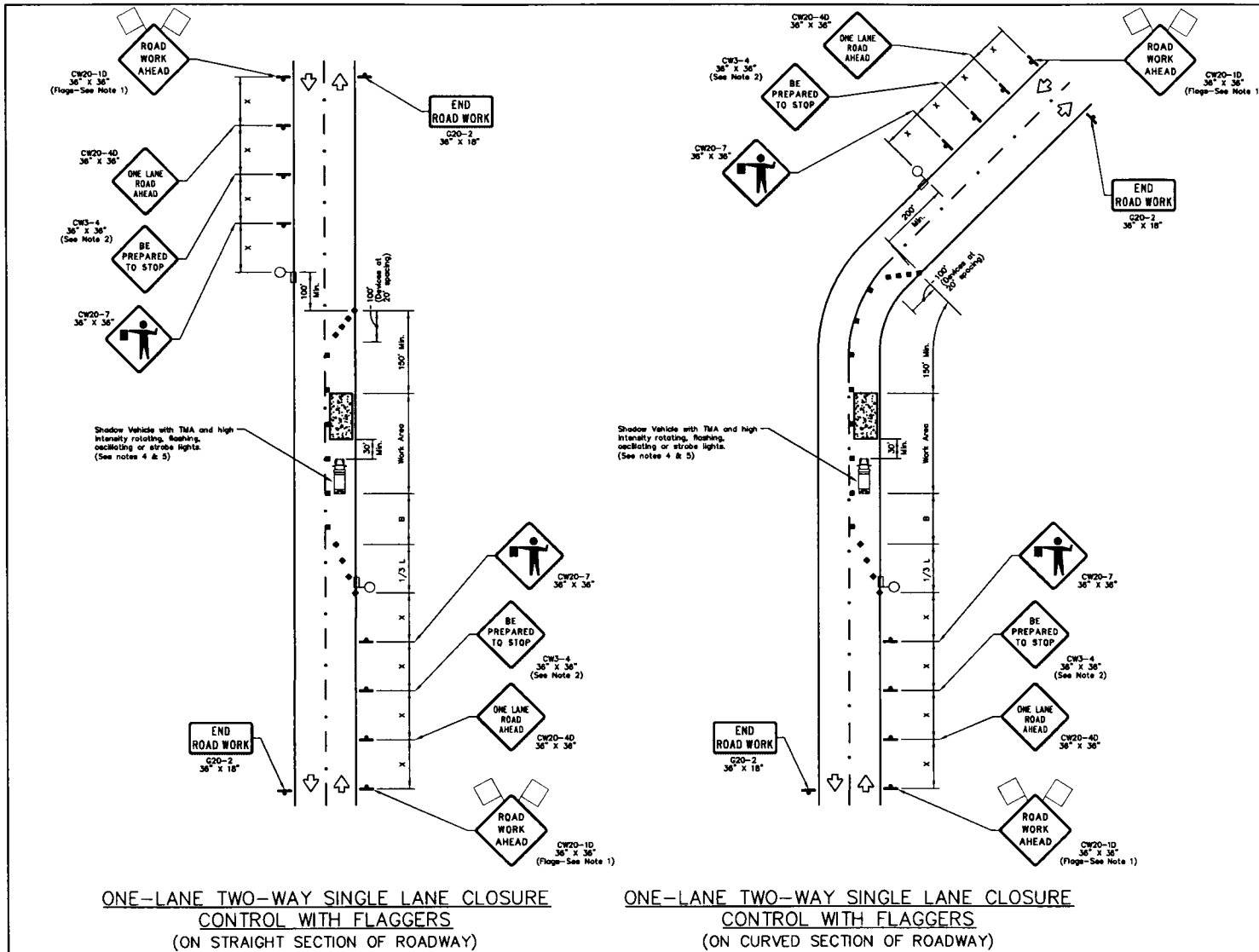
HARRIS COUNTY ENGINEERING DEPARTMENT



CONSULTANT LOGO/INFORMATION

ENGINEERS SEAL

PROJECT TITLE		HCD STANDARD
DRAWN BY: BSH	SHEET DESCRIPTION: TRAFFIC CONTROL PLAN (RIGHT LANE CLOSURE)	
CHK'D BY: BSH	SCALE: N.T.S.	SHEET NO. /
DATE: 8/26/14	APPROVED BY:	SHEET NO. /



TRAFFIC CONTROL PLAN SECTION SHALL BE COMPLETED BY ENGINEER

ROADWAY	POSTED SPEED	TAPER LENGTH	CHANNELIZING DEVICES TAPER TANGENT	SIGN SPACING	BUFFER SPACE

LEGEND

	Type 3 Barricade		Channelizing Device
	Truck Mounted Attenuator (TMA)		Portable Changeable Message Sign (PCMS)
	Trailer Mounted Flashing Arrow Board		Traffic Flow
	Sign		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths ¹ , L*			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing ²	Suggested Longitudinal Buffer Space ³
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	WS ²	150'	185'	180'	30'	60'	120'	80'
35		205'	225'	245'	35'	70'	160'	120'
40	80	285'	295'	320'	40'	80'	240'	155'
45		450'	485'	540'	45'	90'	320'	195'
50	L=WS	500'	550'	600'	50'	100'	420'	240'
55		550'	605'	660'	55'	110'	500'	285'
60	80	800'	860'	720'	60'	120'	600'	350'
65		850'	715'	780'	65'	130'	700'	410'
70	80	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)

- 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 distance 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) 881-3210 five (5) days prior to the start of construction.

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

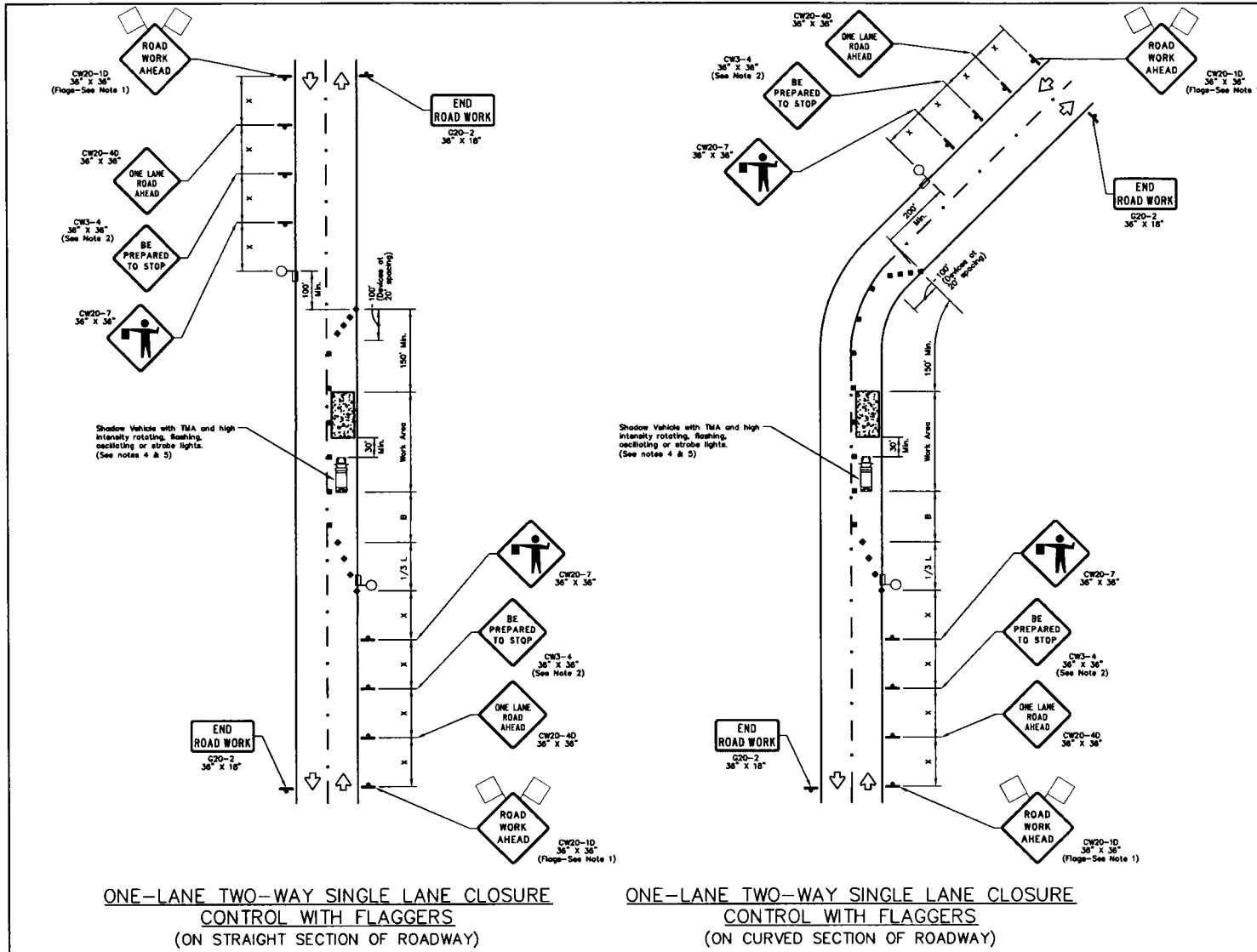
HARRIS COUNTY
ENGINEERING DEPARTMENT



CONSULTANT
LOGO/INFORMATION

ENGINEERS
SEAL

PROJECT TITLE:		HCD STANDARD
DRAWN BY:	BSH	39
CHECKED BY:	BSH	SHEET DESCRIPTION: TRAFFIC CONTROL PLAN (ONE-LANE, TWO-WAY OPERATION)
SCALE:	N.T.S.	SHEET NO:
DATE:	6/26/14	APPROVED BY:



TRAFFIC CONTROL PLAN SECTION SHALL BE COMPLETED BY ENGINEER

ROADWAY	POSTED SPEED	TAPER LENGTH	SPACING CHANNELIZING DEVICES TAPER	SPACING CHANNELIZING DEVICES TANGENT	SIGN SPACING	BUFFER SPACE

LEGEND

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

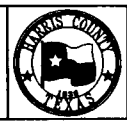
Posted Speed	Formula	Minimum Distribute Taper Lengths "L"			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "S"	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	L = WS / 80	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40	L = WS	285'	295'	320'	40'	80'	240'	155'
45		450'	495'	540'	45'	90'	320'	195'
50	L = WS	500'	530'	600'	50'	100'	400'	240'
55		550'	605'	680'	55'	110'	500'	295'
60	L = WS	600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70	L = WS	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)

- 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.
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 - Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
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 - 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).
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NO.	REVISIONS	DATE	NAME
1	UPDATED DEPARTMENT NAME & GENERAL NOTES	4/16/15	BSH

**HARRIS COUNTY
ENGINEERING DEPARTMENT**



CONSULTANT
LOGO/INFORMATION

ENGINEERS
SEAL

PROJECT TITLE:		HCED STANDARD
DRAWN BY: BSH	SHEET DESCRIPTION: TRAFFIC CONTROL PLAN (ONE-LANE TWO-WAY OPERATION)	39
DATE: 6/26/14	APPROVED BY:	SHEET NO: /