



**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@fortbendcountytx.gov

- ☒ **Right of Way Permit**
☐ **Commercial Driveway Permit**

Permit No: 2017-15543

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.

Charles O. Ay

Permit Administrator

Date

MCImetro
ACCESS TRANSMISSION SERVICES CORPORATION

OUTSIDE PLANT CONSTRUCTION
FIBER OPTIC CABLE ROUTE

PROJECT #: 1706ANBG.011
KATY MALL TO MASON RD

KATY, TX
FORT BEND COUNTY

SITE CODE: HODATX
08/09/2017 (REVISED)

PROJECT STATUS: CONSTRUCTION

KATY, TX
FORT BEND COUNTY



KATY MALL

MASON RD

[illegible]

MCImetro
ACCESS TRANSMISSION SERVICES CORP.
OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
KATY MALL TO MASON RD
LOCATION MAP

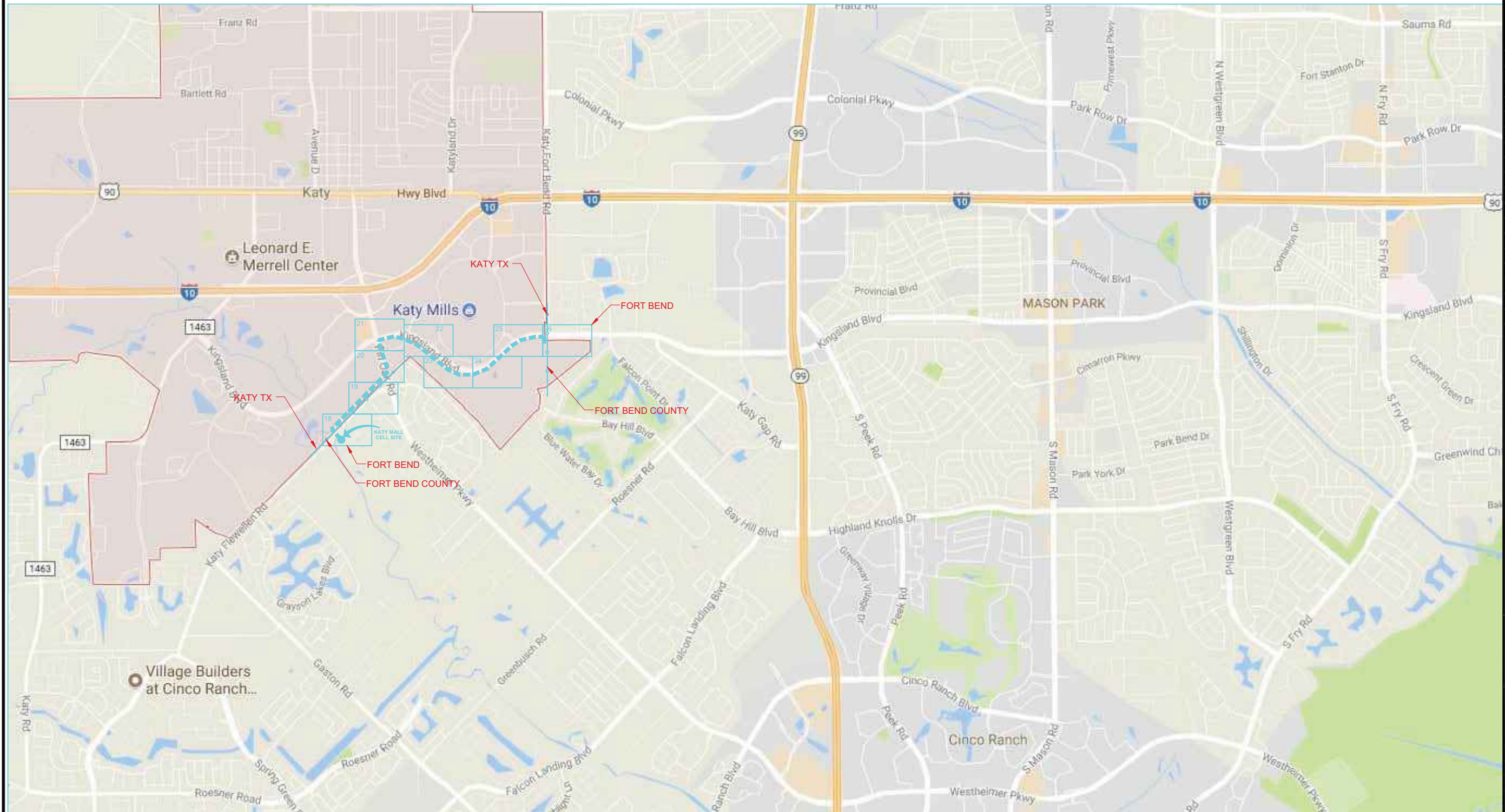
DRAWN BY: GXT

[illegible]

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MP	TO MP
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FILE: 1706ANBG. 011-0102AC. BEL. DWG



MAP LINE LEGEND



**PROPOSED
BURIED CABLE**

**PROPOSED
AERIAL CABLE**

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GENERAL NOTES / CLARIFICATION NOTES

CONSTRUCTION NOTES

1. ALL CONDUIT WILL BE 4" ID SCHEDULE 40 (i.e. PVC OR BSP/GSP, MANUFACTURED SPLIT PVC OR SPLIT BSP/GSP), UNLESS SPECIFIED OTHERWISE.
2. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UTILITIES 48 HOURS PRIOR TO CONSTRUCTION ACTIVITY. SEE CONTACT SHEET FOR CONTACT NAME AND TELEPHONE NUMBER.
3. ALL UNDERGROUND OBSTRUCTIONS, WHEN LOCATED, WILL REQUIRE THE PLACEMENT OF A BURIED CABLE MARKER AND THE PLACEMENT OF 4" MANUFACTURED SPLIT PVC, BSP/GSP OVER OR UNDER EACH OBSTRUCTION.
4. SHORING MAY BE REQUIRED AND SHALL COMPLY TO O.S.H.A. STANDARDS.
5. ALL BURIED CONDUIT/CABLE WILL BE PLACED AT 42" MINIMUM COVER UNLESS SPECIFIED OTHERWISE ON THE CONSTRUCTION DRAWINGS.
6. MECHANICAL PROTECTION SHALL BE REQUIRED ANYTIME A 36" MINIMUM COVER IS UNOBTAINABLE UNLESS SPECIFIED OTHERWISE ON THE CONSTRUCTION DRAWINGS.
7. ALL 90 DEGREE BENDS IN CONDUIT CONSTRUCTION WILL BE A MINIMUM 38.2" RADIUS UNLESS SPECIFIED OTHERWISE. ALL SPLIT CONDUIT BENDS AND SOLID PVC BENDS SHALL REQUIRE CONCRETE ENCASEMENT, UNLESS SPECIFIED OTHERWISE.
8. OPERATIONS PERSONNEL TO BE CONTACTED BY THE CONTRACTOR 48 HOURS PRIOR TO CONSTRUCTION. SEE CONTACT SHEET FOR CONTACT NAME AND TELEPHONE NUMBER.
9. ALL STATIONING IS BASED ON AS-BUILT INFORMATION, THEREFORE SOME VARIANCE SHOULD BE ANTICIPATED. ADJUST AS NEEDED.
10. RAILROAD COMMUNICATION AND SIGNAL CABLES TO BE LOCATED PRIOR TO CONSTRUCTION ACTIVITY. RAILROAD TO BE GIVEN 48 HOURS NOTICE PRIOR TO CONSTRUCTION.
11. ALL BURIED CABLE MARKER POSTS AND HARDWARE PLACED AND/OR REMOVED ON ALL NEW AND EXISTING ROUTES SHALL BE IMPLEMENTED AS FOLLOWS:

A. ON THOSE ROUTES THAT ARE CONSIDERED TO BE IN A NORTH TO SOUTH GEOGRAPHICAL ORIENTATION, THE SOUTHERN-MOST SIGN AND POST SHOULD BE REMOVED.
* FOR NEW ROUTES BEING CONSTRUCTED, ONE SIGN POST WILL BE PLACED AT THE NORTH END OF EACH HANDHOLE.

B. ON THOSE ROUTES THAT ARE CONSIDERED TO BE IN AN EAST TO WEST GEOGRAPHICAL ORIENTATION, THE WESTERN-MOST SIGN AND POST SHOULD BE REMOVED.
* FOR NEW ROUTES BEING CONSTRUCTED, ONE SIGN POST WILL BE PLACED AT THE EAST END OF EACH HANDHOLE.

GENERAL NOTES

1. MCI COMPRISES THE FOLLOWING OPERATING ENTITIES:

- MCI COMMUNICATIONS SERVICES, INC.

- MCI METRO ACCESS TRANSMISSION SERVICES, LLC

- MCI METRO ACCESS TRANSMISSION SERVICES OF VIRGINIA, INC.

- MCI METRO ACCESS TRANSMISSION SERVICES OF MASSACHUSETTS, INC.

- METROPOLITIAN FIBER SYSTEMS OF NEW YORK, INC.
2. ALL WORK TO BE DONE WITH EXTREME CAUTION ! FIBER OPTIC CABLE IS CARRYING TRAFFIC AND LOSS OF SERVICE WILL RESULT IN LOSS OF REVENUE. CONTRACTOR SHALL NOT WORK IN A MANNER THAT MAY AFFECT TRAFFIC-CARRYING FACILITIES IN THE ABSENCE OF AN MCI EMPLOYEE OR CERTIFIED CONTRACTOR.
3. ALL WORK TO BE PERFORMED IN STRICT ACCORDANCE WITH THE APPLICABLE CODES OR REQUIREMENTS OF ANY REGULATING GOVERNMENTAL AGENCY, VERIZON BUSINESS, OR THE RIGHT-OF-WAY- GRANTOR.
4. LOCATIONS OF SOME OF THE PHYSICAL FEATURES WERE OBTAINED FROM DATED RAILROAD VALUATION MAPS OR OTHER DRAWINGS, AND MAY BE AS SHOWN OR DEPICTED ON THESE DRAWINGS.
5. UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE RECORDS AND FIELD OBSERVATIONS, BUT ARE NOT NECESSARILY EXACT. THERFORE, UTILITY LOCATIONS WILL BE VERIFIED AT LEAST 100 FEET IN ADVANCE OF TRENCHING OR PLOWING, SO THAT CHANGES IN CABLE PLACEMENT CAN BE MADE IN EVENT OF CONFLICTS.
6. ALL KNOWN BURIED OBSTRUCTIONS ARE SHOWN ON THE CONSTRUCTION DRAWINGS. ANY AND ALL OTHERS ENCOUNTERED ARE ALSO THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE, PROTECT, AND REPAIR, IF DAMAGED.
7. ANY AND ALL IMPROVEMENTS, SUCH AS ASPHALT OR CONCRETE PAVEMENT, CURBS, GUTTERS, WALKS, DRAINAGE DITCHES, EMBANKMENTS, SHRUBS, TREES, GRASS SOD, ETC., IF DAMAGED, SHALL BE RESTORED TO ORGINAL OR BETTER CONDITION.
8. EQUIPMENT TYPES SPECIFIED HEREIN (ie: "BACKHOE, "SWAMP PLOW", ETC.) ARE SUGGESTIONS ONLY AND ARE NOT INTENDED AS REQUIREMENTS. CONTRACTOR WILL BE NOTIFIED AS TO EXCEPTIONS.

ADDENDUM NOTES

CLARIFICATION NOTES (CONTINUED)

- JACK AND DRY BORE CONDUIT(S)
- PLACE CONDUIT
PLACE HIGH DENSITY POLYETHYLENE (HDPE)
ROCK ADDER
SLURRY BACKFILL ADDER
EXPOSE CONDUIT
EXPOSE CONDUIT AND RELOCATE
EXPOSE CONDUIT AND REPLACE/SUBSTITUTE
EXPOSE AND REMOVE CONDUIT
EXPOSE AND REMOVE CONDUIT (ABANDONED)
CONCRETE ENCASE
REMOVE CONCRETE ENCASEMENT
REMOVE CONCRETE CAP
PLACE HANDHOLE
REMOVE EXISTING HANDHOLE
RELOCATE HANHOLE
REPLACE/SUBSTITUTE HANDHOLE
EXCAVATE SPLICE PIT
PLACE MANHOLE
REMOVE EXISTING MANHOLE
RELOCATE PRECAST MANHOLE
REPLACE/SUBSTITUTE PRECAST MANHOLE
CONSTRUCT WALL
REMOVE AND RESTORE ASPHALT
REMOVE AND RESTORE CONCRETE
REMOVE AND RESTORE SIDEWALK
REMOVE AND RESTORE CURBING
- ATTACH CONDUIT TO WALL OR STRUCTURE
DETACH CONDUIT FROM WALL OR STRUCTURE
CORE BORE
ATTACH PULL/SPLICE BOX TO WALL OR STRUCTURE
- PULL CABLE
PULL THROUGH DUCT (INNERDUCT)
REMOVE CABLE FROM CONDUIT
REPOSITION ACTIVE CABLE SLACK
- DIRECT BURY CABLE
EXPOSE DIRECT BURIED CABLE
EXPOSE DIRECT BURIED CABLE AND RELOCATE
REMOVE AND DISPOSE OF CABLE
PLACE AERIAL CABLE
RELOCATE AERIAL CABLE
DELASH AERIAL CABLE
RELASH AERIAL CABLE
REMOVE AERIAL CABLE
PLACE POLE/PUSH BRACE
REMOVE POLE/PUSH BRACE
- JETTING CONDUIT
EMBEDMENT PLOW
DIRECTIONAL BORE
- PLACE BURIED CABLE MARKERS AND SIGNS/MWCOM
WATER CROSSING SIGNS
PLACE ISOLATOR/PROTECTION SYSTEM AT EXISTING HANDHOLES/MANHOLES
REMOVE BURIED CABLE MARKER POST/HARDWARE
REMOVE CONCRETE BURIED CABLE MARKER POST

PROJECT: 1706ANBG. 011

KATY MALL

MASON RD

CLARIFICATION NO.	QUANTITY
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MCImetro
ACCESS TRANSMISSION SERVICES CORP.

OUTSIDE PLANT CONSTRUCTION

TITLE: FIBER OPTIC CABLE ROUTE

KATY MALL TO MASON RD

GENERAL NOTES / CLARIFICATIONS NOTES

DATE: 07/24/2017

ENGINEER: GXT

DRAWN BY: GXT

REVISIONS

DATE	DESCRIPTION	INITIAL
-	-	-

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SCALE

HORIZONTAL: NTS

VERTICAL: NTS

MP TO MP

SHEET 04 OF 26

FILE: 1706ANBG. 011-0104AC. BEL. DWG

GENERAL CONSTRUCTION NOTES

1. NOTIFY FORT BEND COUNTY ENGINEERING DEPARTMENT IN WRITING AT LEAST 48 HOURS PRIOR TO CONSTRUCTION. SUBMIT THE FORT BEND COUNTY 48 HOUR PRE-CONSTRUCTION NOTIFICATION FORM AND A COPY OF THE APPROVED CONSTRUCTION DRAWINGS TO FORT BEND COUNTY ENGINEERING DEPARTMENT AT 301 JACKSON, SUITE 401, RICHMOND, TEXAS 77469.
2. ENGINEER SHALL SUBMIT CERTIFICATION LETTER AND RECORD DRAWINGS TO FORT BEND COUNTY ENGINEERING DEPARTMENT ENGINEERING DEPARTMENT, REQUESTING INSPECTION OF ITEMS CONSTRUCTED IN FOR BEND COUNTY RIGHT-OF-WAY PRIOR TO REQUESTING INSPECTION.
3. PROTECT, MAINTAIN, AND RESTORE EXISTING BACKSLOPE DRAINAGE SYSTEMS.
4. BACKSLOPE SWALE AND INTERCEPTOR STRUCTURE ELEVATIONS AND LOCATIONS SHOWN ON PLANS ARE APPROXIMATE. FINAL ELEVATIONS AND LOCATIONS SHALL BE FIELD VERIFIED BY THE ENGINEER PRIOR TO INSTALLATION.
5. ESTABLISH TURF GRASS ON ALL DISTRUBED AREAS WITHIN THE CHANNEL OR DETENTION RIGHT-OF-WAY, EXCEPT THE CHANNEL BOTTOM AND WHERE STRUCTURAL EROSION MEASURES ARE USED. MINIMUM ACCEPTANCE CRITERIA ARE 75% COVERAGE OF LIVE BERMUDA GRASS AND NO EROSION OR RILLS DEEPER THAN 4”.
6. BACKFILL IN ACCORDANCE WITH THE HARRIS CONTROL FLOOD CONTROL DISTRICT STANDARD SPECIFICATION, SECTION 02315 – EXCAVATING AND BACKFILLING, OR EQUIVALENT.
7. EXCAVATE CHANNEL FLOWLINE TO DESIGN ELEVATION AS SHOWN ON PLANS AND DOWNSTREAM, AS NECESSARY, TO ENSURE NO WATER IN STORM SEWER DURING ”DRY” CONDITIONS.
8. MAINTAIN FLOW IN CHANNEL DURING CONSTRUCTION AND RESTORE CHANNEL TO ORIGINAL CONDITION.
9. REMOVE ALL EXCAVATED MATERIAL FROM FORT BEND COUNTY RIGHT-OF-WAY. NO FILL IS TO BE PLACED WITHIN A DESIGNATED FLOOD PLAIN AREA WITHOUT FIRST OBTAINING A FILL PERMIT FROM THE APPROPRIATE JURISDICTIONAL AUTHORITY.
10. OBTAIN AND COMPLY WITH ALL APPLICABLE CITY, COUNTY, STATE, AND FEDERAL PERMITS AND APPROVALS, WITH ASSISTANCE FROM ENGINEER, IF NECESSARY.

PROJECT: 1706ANBG. 011

KATY MALL

MASON RD

CLARIFICATION NO.	QUANTITY
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MCImetro
ACCESS TRANSMISSION SERVICES CORP.

OUTSIDE PLANT CONSTRUCTION

TITLE: FIBER OPTIC CABLE ROUTE

KATY MALL TO MASON RD

GENERAL CONSTRUCTION NOTES

DATE: 07/24/2017

ENGINEER: GXT

DRAWN BY: GXT

REVISIONS

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SCALE

HORIZONTAL: NTS

VERTICAL: NTS

MP _____ TO MP _____

SHEET _05_ OF _26_

FILE: 1706ANBG. 011-0105AC. BEL. DWG

SYMBOLS KEY

	EXISTING	PROPOSED
BURIED CABLE		
AERIAL CABLE		
SUBMARINE CABLE		
FOGWIRE CABLE		
DIRECT BURIED HDPE		
PVC OR SPLIT PVC CONDUIT		
BSP/GSP OR SPLIT BSP/GSP CONDUIT		
STEEL CASING		
REMOVE AND RESTORE ASPHALT OR CONCRETE (WIDTH AS INDICATED)		
CORE BORE		
JACK AND BORE		
DIRECTIONAL BORE		
FUTURE CABLE		
REMOVE CABLE		
TO BE REMOVED OR ABANDONED (SHOWN FOR HDPE)		
AERIAL UTILITY (ELECTRIC)		
UNDERGROUND UTILITY (TELEPHONE)		
MAIN TRACKS		
AUXILLARY TRACKS		
CENTERLINE		
RIGHT-OF-WAY		
EDGE OF PAVEMENT		
SIDEWALK		
DITCH LINE		
TAX DISTRICT		
CITY, COUNTY OR STATE BOUNDARY LINE		
PROPERTY LINE		
FENCE LINE		
GUARDRAIL		
TOP OF SLOPE		
TOE OF SLOPE		

STEEL MARKER AND SIGN-(A)
ALUMINUM "HUB"-STYLE MARKER-(B)
FLAT MARKER-(C)
TUBULAR MARKER-(D)
TUBULAR MARKER, & ISOLATOR PROTECTOR-(E)

MILE POST MARKER
NOTE:
DASHED = NOT FOUND IN FIELD

PERMIT TRACKING FORM IDENTIFIER

ROCK PROBE (DEPTH AS INDICATED)

UTILITY COVER DEPTH

HANDHOLE, MANHOLE OR PULLBOX

POLE

ANCHOR ONLY

GUY ONLY

OVERHEAD GUY (ARROW IN DIRECTION OF PULL)

ANCHOR AND GUY

SIDEWALK ANCHOR AND GUY

FOREIGN ANCHOR AND GUY

PUSH BRACE (EXISTING POLE)

ACCOUNT CODE CHANGE (BURIED TO AERIAL)

BOND AND GROUND

CULVERT (SIZE AS INDICATED)

BRIDGE

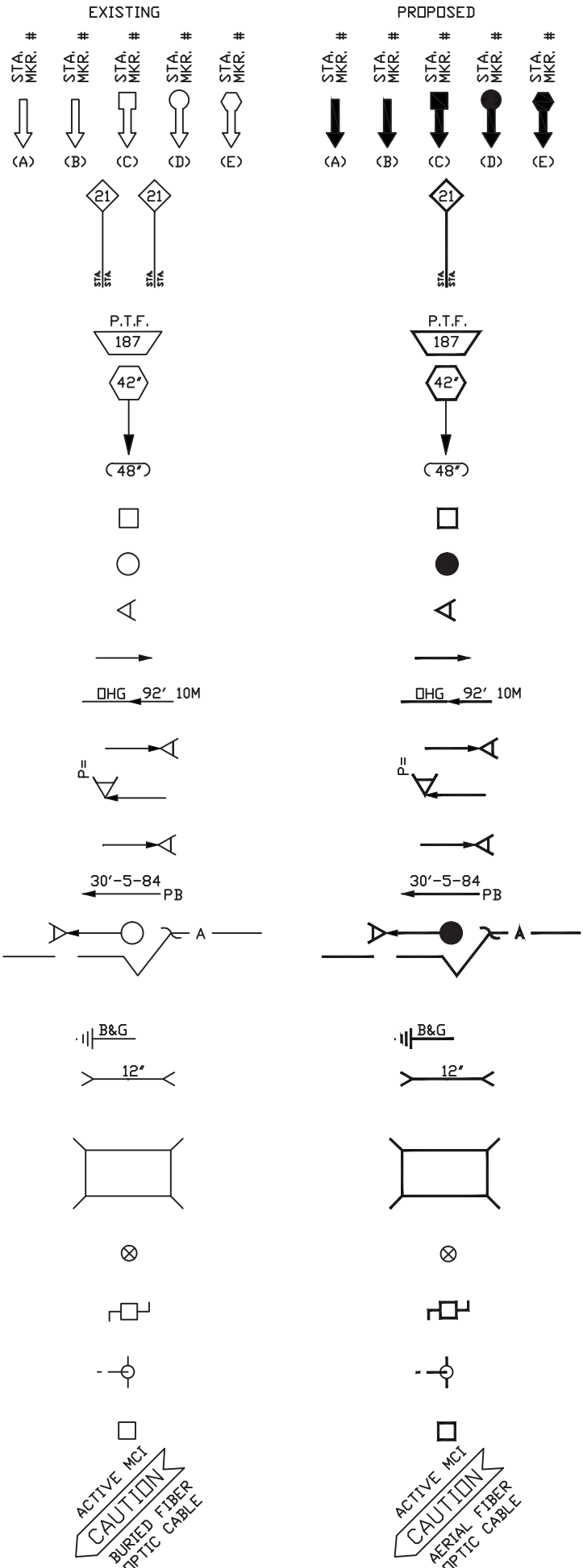
WATER METER

GAS VALVE

FIRE HYDRANT

RAILROAD SIGNAL CONTROL BOX

CAUTION NOTE



PROJECT: 1706ANBG. 011

KATY MALL

MASON RD

CLARIFICATION NO. QUANTITY

MCImetro
ACCESS TRANSMISSION SERVICES CORP.
OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
KATY MALL TO MASON RD
SYMBOLS KEY

DATE: 07/24/2017

ENGINEER: GXT

DRAWN BY: GXT

REVISIONS

DATE	DESCRIPTION	INITIAL
-	-	-

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SCALE

HORIZONTAL: NTS

VERTICAL: NTS

MP TO MP

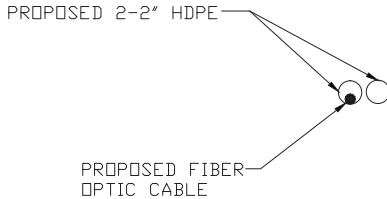
SHEET 07 OF 26

FILE: 1706ANBG. 011-0107AC. BEL. DWG

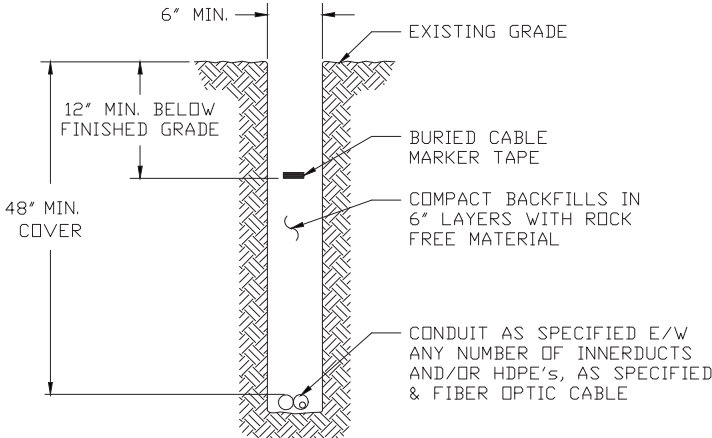
CONSTRUCTION DETAILS

TYPICAL DETAIL A

CROSS SECTION OF PROPOSED HDPE

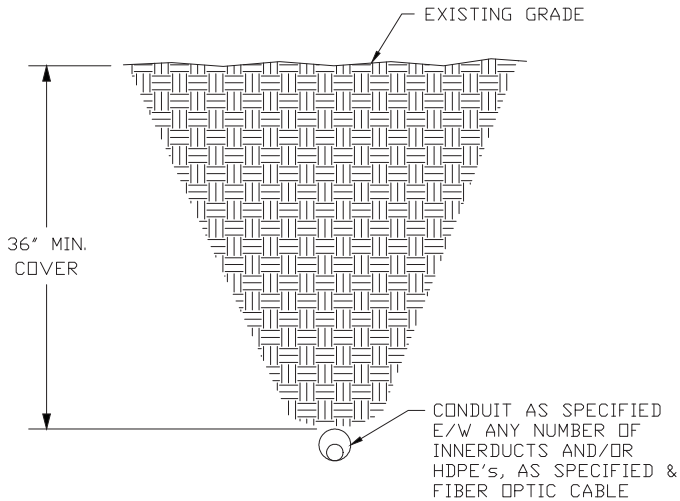


TYPICAL DETAIL B
TRENCH & PLACE CONDUIT



TYPICAL DETAIL C

DIRECTIONAL BORE CROSS SECTION
FOR CONDUIT



PROJECT: 1706ANBG. 011

KATY MALL

MASON RD

CLARIFICATION NO.

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MP	TO MP
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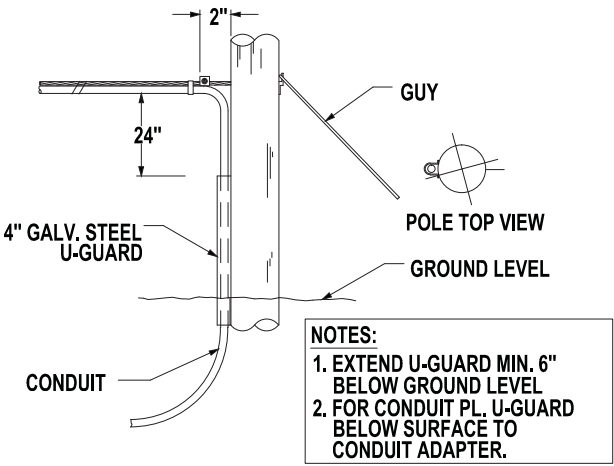
SHEET 08 OF 26

FILE:1706ANBG.011-0108AC.BEL.DWG

TYPICAL AERIAL CONSTRUCTION DETAILS

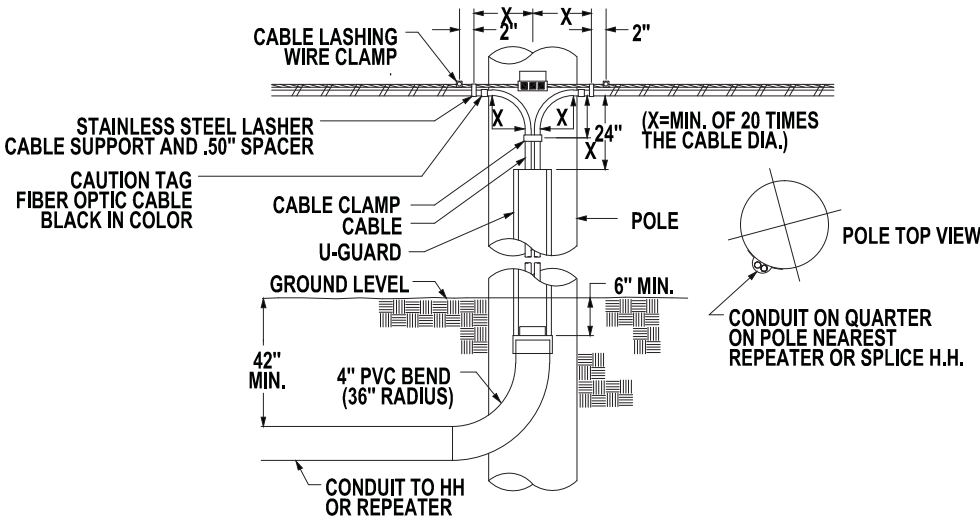
TYPICAL DETAIL "A"

POLE ARRANGEMENT FOR
AERIAL TO BURIED



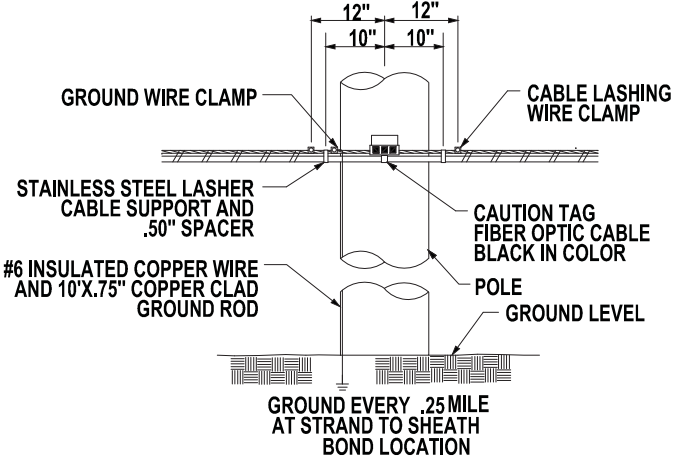
TYPICAL DETAIL "B"

POLE ARRANGEMENT FOR REPEATER
OR HANDHOLE LOCATION



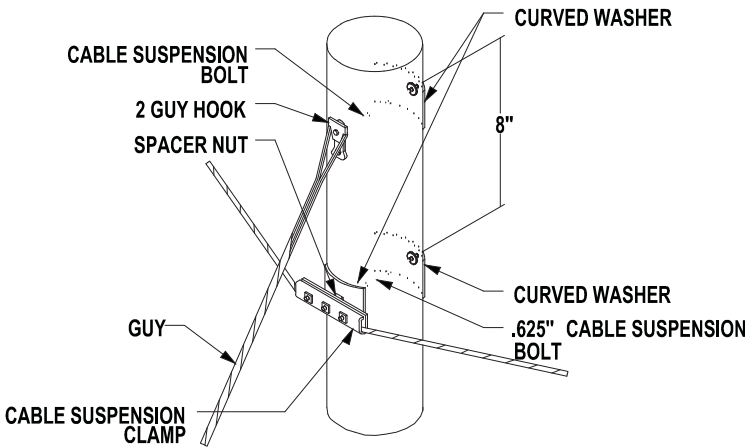
TYPICAL DETAIL "C"

TYPICAL CABLE & HARDWARE
INSTALLATION



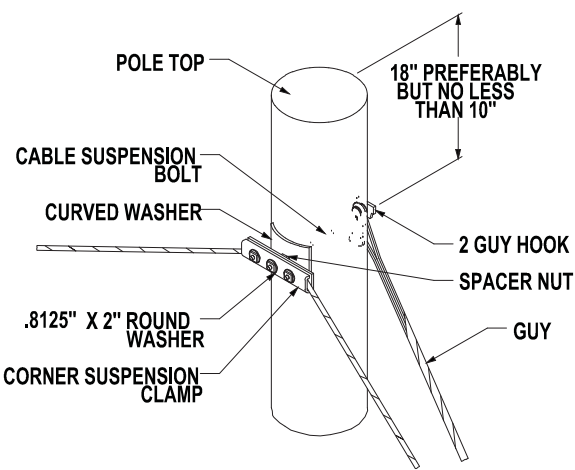
TYPICAL DETAIL "D"

SUSPENSION STRAND - PULL TOWARD
POLE - LESS THAN 5 FEET



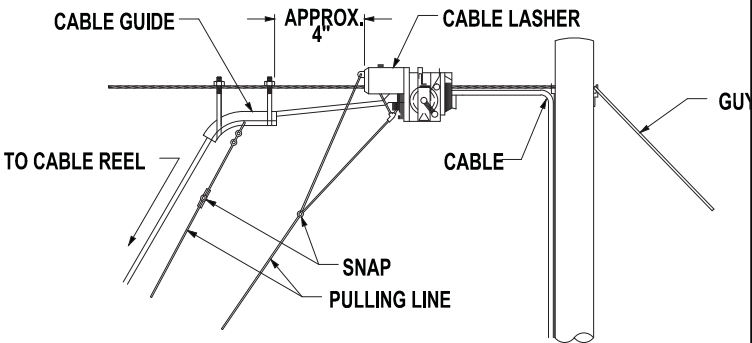
TYPICAL DETAIL "E"

SUSPENSION STRAND - PULL AWAY
FROM POLE - 5 FEET OR MORE



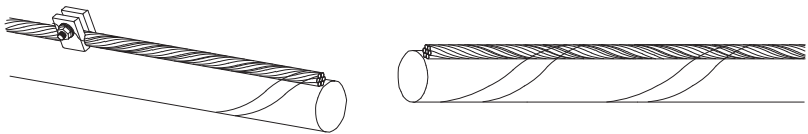
TYPICAL DETAIL "F"

TYPICAL ARRANGEMENT OF
CABLE LASHER AND CABLE GUIDE



TYPICAL DETAIL "G"

JOINING 045 LASHING WIRE



FORMING WIRE OVER
STUD OF CLAMP

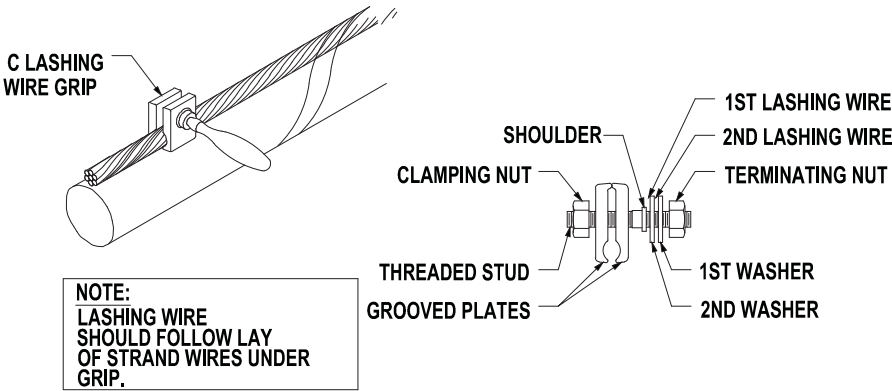
FORMING LASHING WIRE
AROUND STRAND

REMOVE ANY SLACK IN THE LASHING WIRE BY MAINTAINING A PULL ON THE WIRE AND TAPPING THE STRAND SHARPLY. THEN FORM THE WIRE OVER THE STUD AND TIGHTEN THE NUT. CUT THE FREE END OF THE LASHING WIRE OFF .75" BEYOND THE END OF THE CLAMP.

FORM THE LASHING WIRE AROUND THE STRAND AND PLACE IT BELOW THE STUD AND BETWEEN THE SECOND WASHER AND STUD SHOULDER.

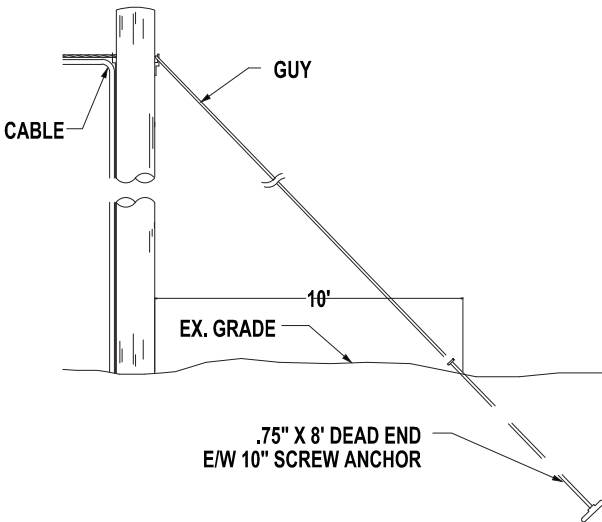
TYPICAL DETAIL "H"

LASHING WIRE GRIP AND CLAMP



TYPICAL DETAIL "I"

ANCHOR & DOWN GUY



PROJECT: 1706ANBG.011

KATY MALL

MASON RD

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ACCESS TRANSMISSION SERVICES CORP.
OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
KATY MALL TO MASON RD
TYPICAL AERIAL CONSTRUCTION DETAILS

DATE: 07/24/2017

ENGINEER: GXT

DRAWN BY: GXT

REVISIONS		
DATE	DESCRIPTION	INITIAL
-	-	-

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SCALE

HORIZONTAL: NTS

VERTICAL: NTS

MP TO MP

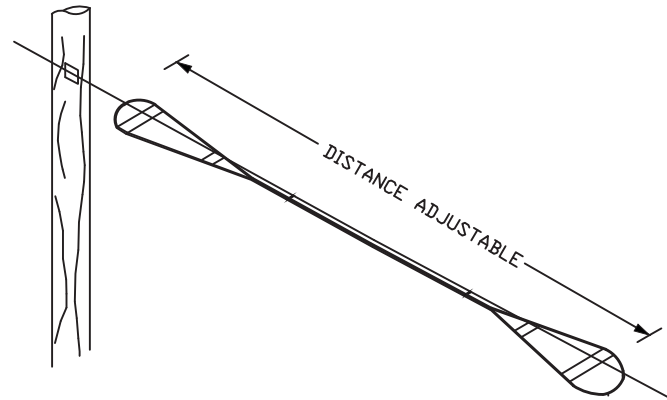
SHEET 09 OF 26

FILE: 1706ANBG.011-0109AC. BEL. DWG

TYPICAL AERIAL CONSTRUCTION DETAILS (CONT.)
TYPICAL AERIAL IN-LINE SLACK STORAGE DETAILS

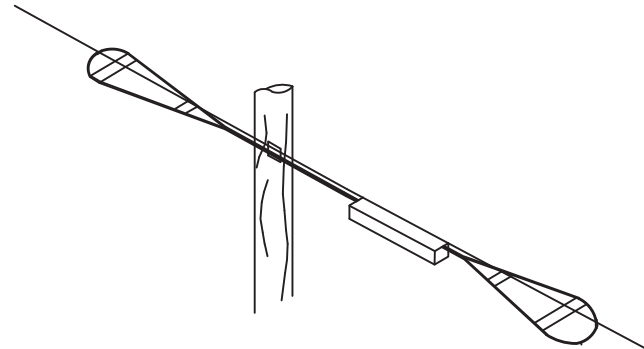
TYPICAL DETAIL "A"

RESERVE CABLE LENGTH STRAND STORAGE APPLICATION



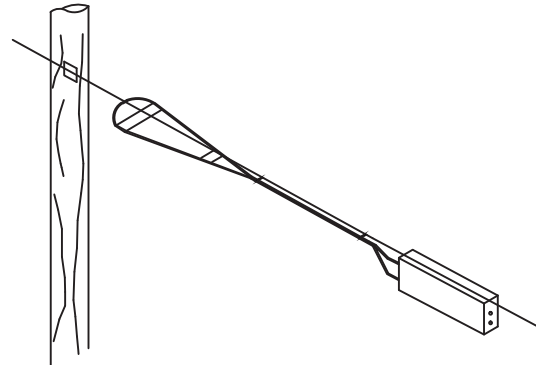
TYPICAL DETAIL "B"

IN-LINE SPLICE APPLICATION



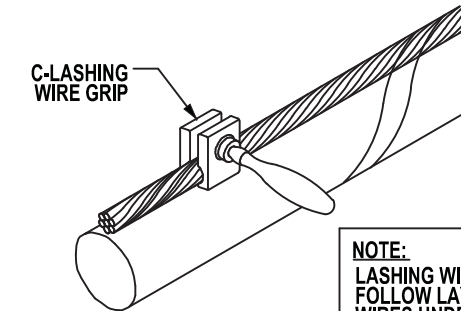
TYPICAL DETAIL "C"

BUTT SPLICE APPLICATION



TYPICAL DETAIL "D"

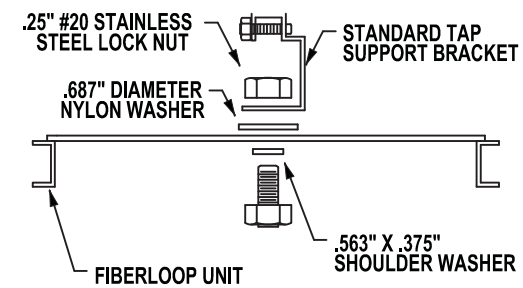
LASHING WIRE GRIP AND CLAMP C-LASHING
WIRE GRIP INSTALLED ON STRAND



NOTE:
LASHING WIRE SHOULD
FOLLOW LAY OF STRAND
WIRES UNDER GRIP.

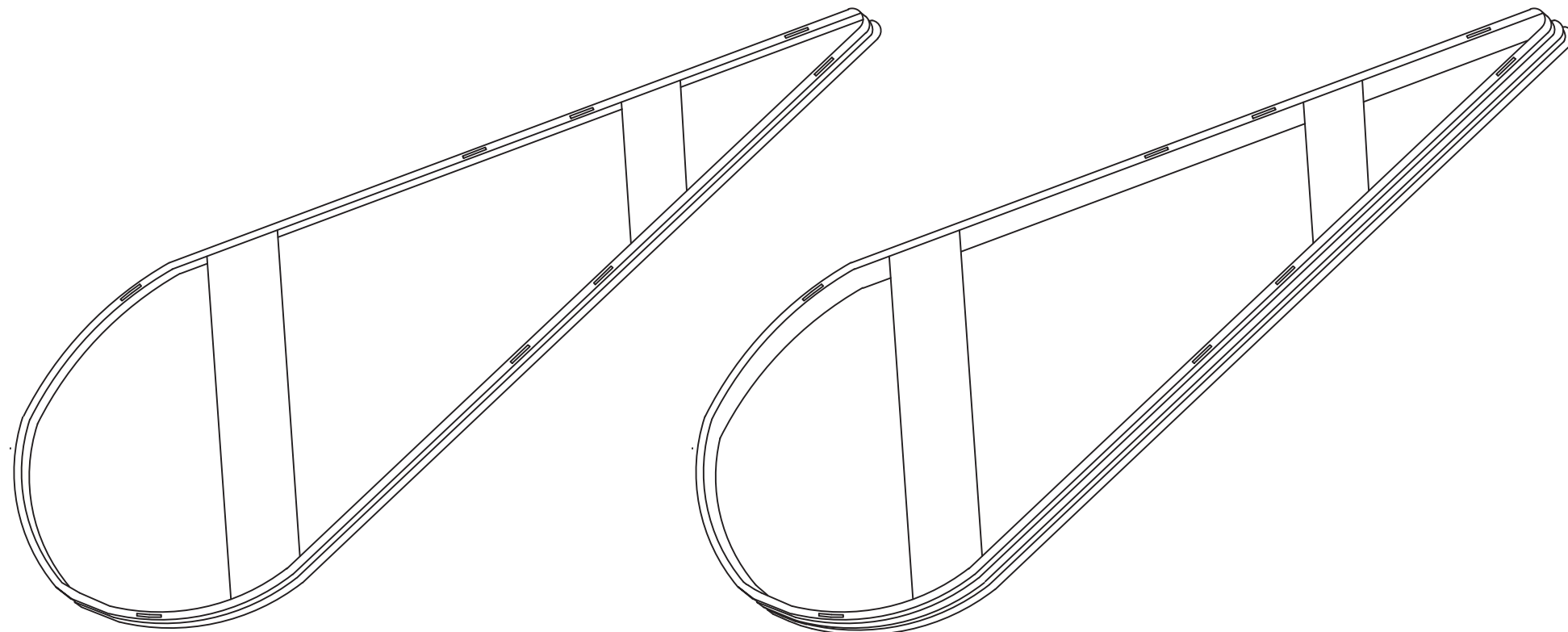
TYPICAL DETAIL "E"

HARDWARE KIT



TYPICAL DETAIL "F"

SINGLE & DOUBLE FIBER LOOPS

PROJECT: 1706ANBG. 011

KATY MALL

MASON RD

CLARIFICATION NO.	QUANTITY
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[illegible]

MCImetro
ACCESS TRANSMISSION SERVICES CORP.

OUTSIDE PLANT CONSTRUCTION

KATY MALL TO MASON RD

TYPICAL AERIAL CONSTRUCTION DETAILS

DATE: 07/24/2017

ENGINEER: GXT

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REVISIONS

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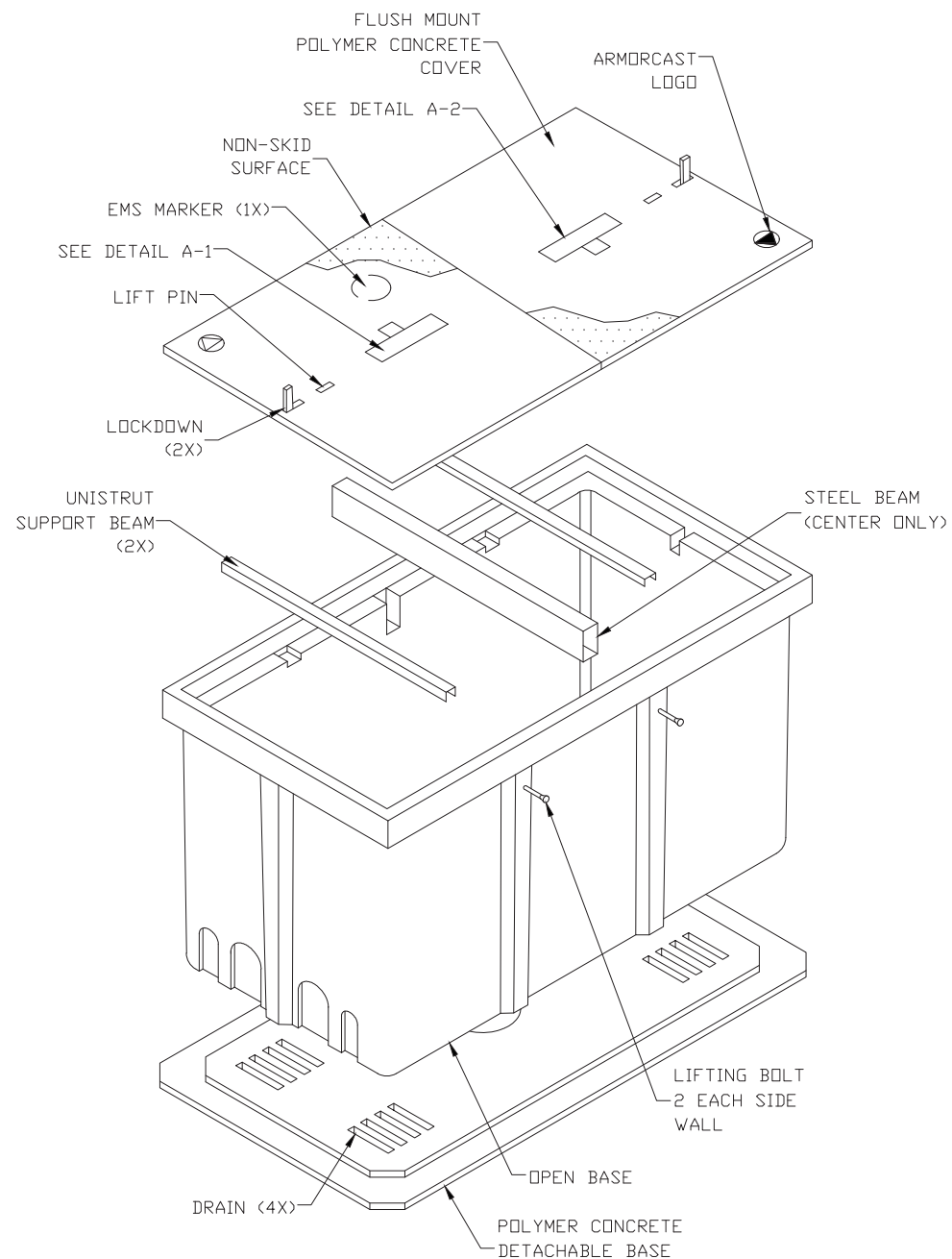
SHEET 10 OF 26

FILE:1706ANBG.011-0110AC.BEL.DWG

2.5' x 5' x 2.5' 30K STANDARD HANDHOLE DETAILS

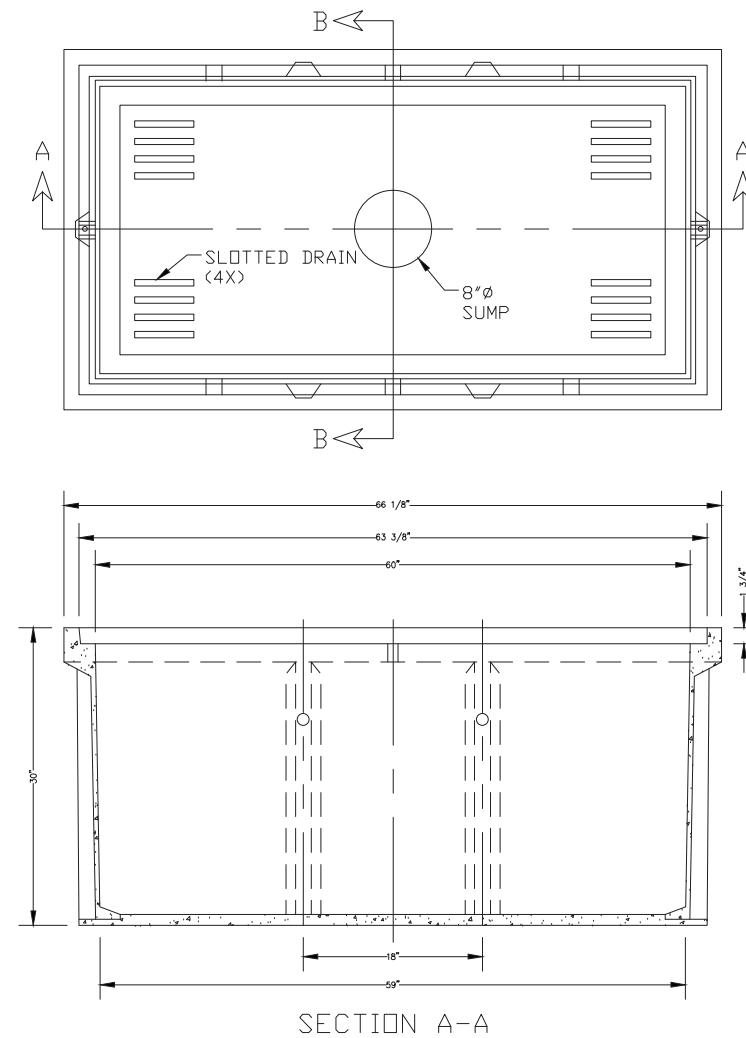
DETAIL "A"

EXPLODED ISOMETRIC DETAIL



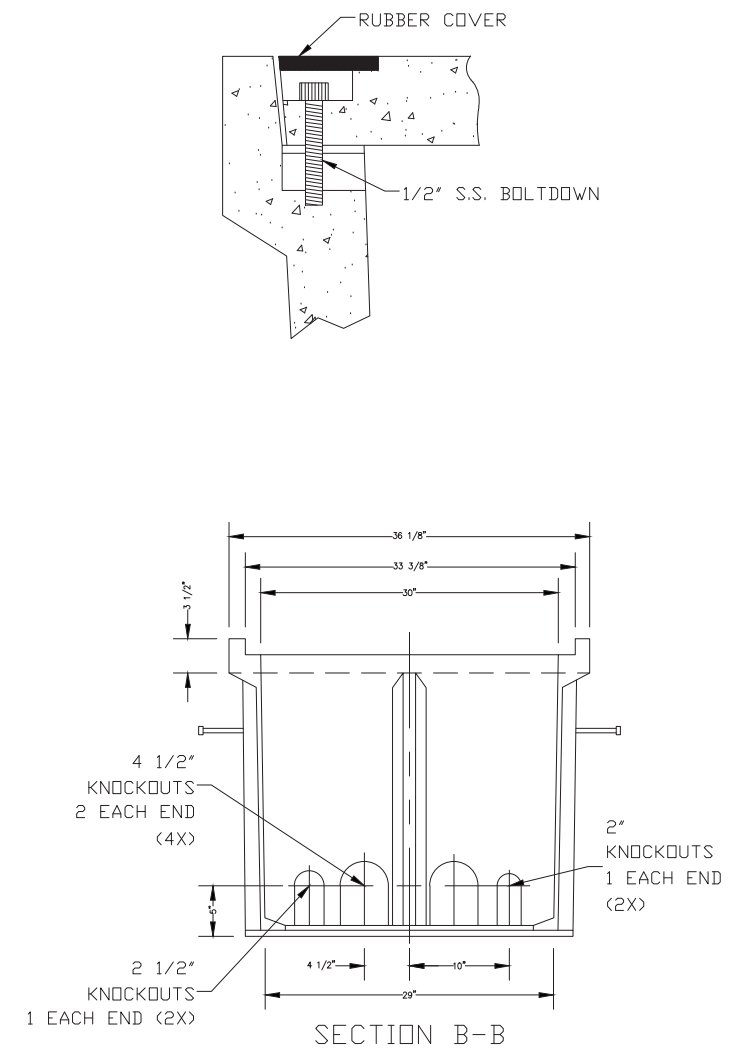
SECTION B

LOCKING DEVICE
CROSS SECTION



DETAIL "C"

FLUSH MOUNT
COVER DETAIL



30K
M C I E
800 MCI-WORK
DETAIL A-1

30K
M C I
800 MCI-WORK
DETAIL A-2

NOTE:

SEALED PLASITC BAG PLACED INSIDE VAULT TO CONTAIN

<u>ITEM</u>	<u>QTY</u>	
1	(1)	JOHNNY LOCK KEY
2	(2)	S.S JOHNNY BOLT W/FLAT WASHER.
3		SHRINK WRAP COVERS TO FRAM FOR PACKAGING.

PROJECT: 1706ANBG. 011

KATY MALL

MASON RD

CLARIFICATION NO.	QUANTITY
-------------------	----------

MCME CPO
ACCESS TRANSMISSION SERVICES CORP.
OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
KATY HALL TO MASON RD
2.5' x 5' x 2.5' HAND-HOLE DETAILS

DATE: 07/24/2017

ENGINEER: GXT

DRAWN BY: GXT

REVISIONS

[illegible]

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SCALE

HORIZONTAL: NTS

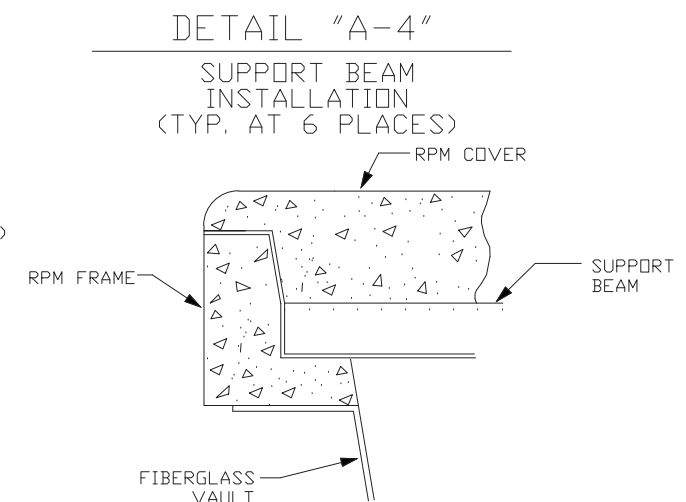
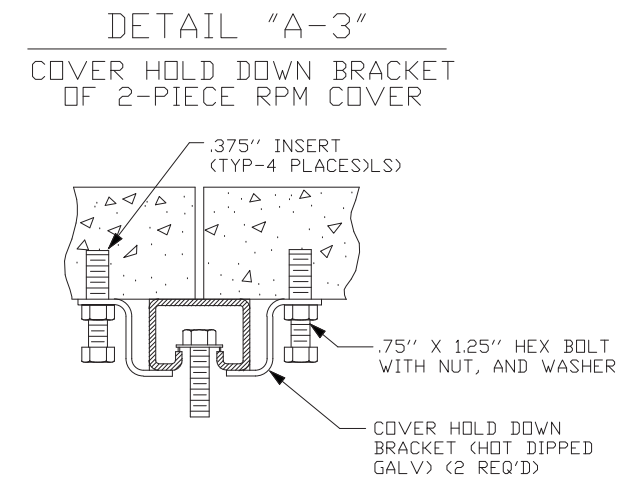
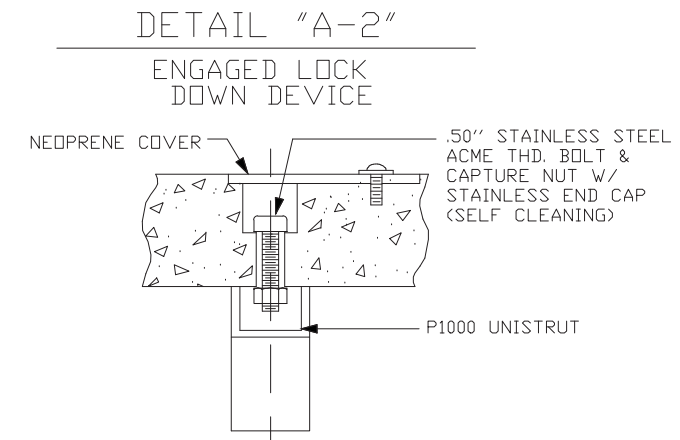
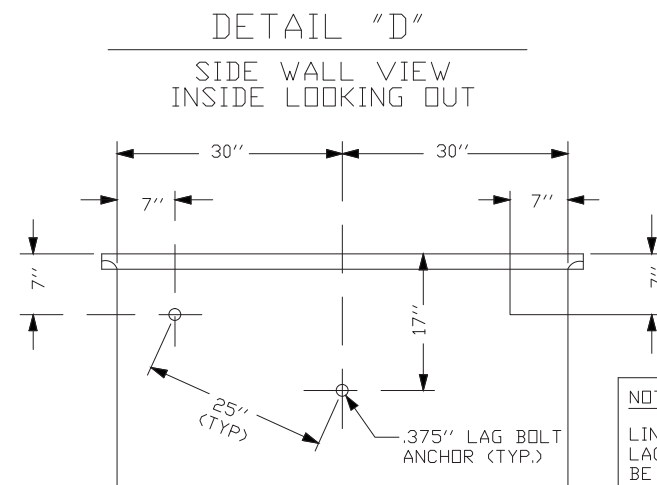
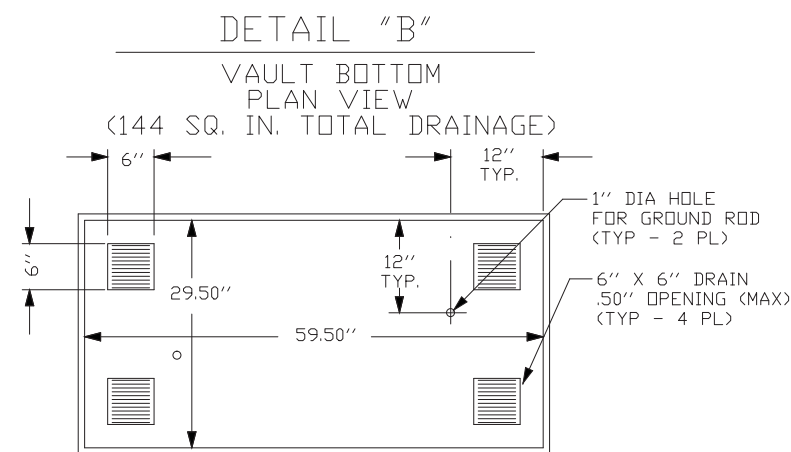
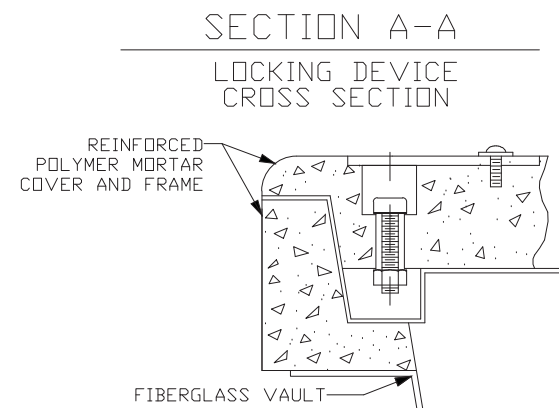
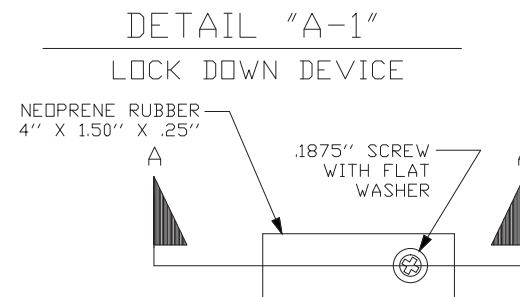
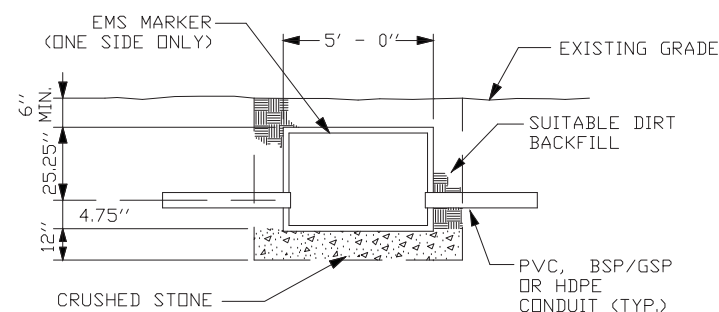
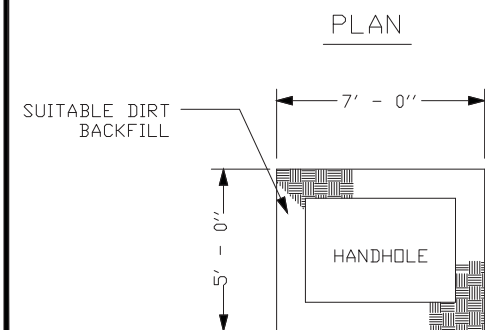
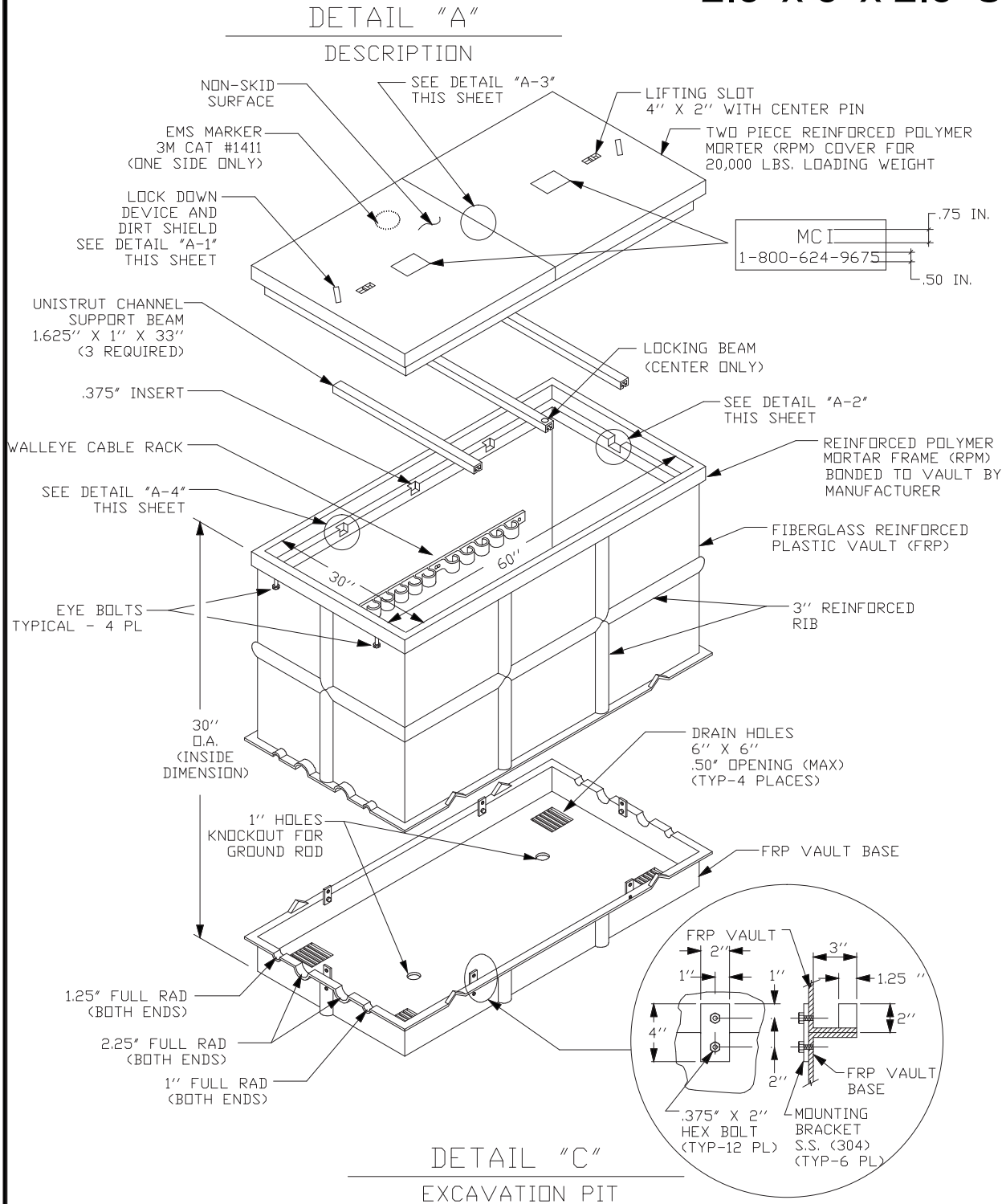
VERTICAL: NTS

MP	TO MP
----	-------

SHEET 11 OF 26

FILE:1706ANBG.011-0111AC.BEL.DWG

2.5' x 5' x 2.5' SPLIT HANDHOLE DETAILS



- NOTES:
1. VOID IN EXCAVATED AREAS TO BE BACKFILLED WITH SELECT MATERIAL.
 2. BOTTOM OF EXCAVATED PIT TO BE BACKFILLED WITH 12" OF CRUSHED STONE (.75" GRADE).
 3. SHORING WILL BE REQUIRED.
 4. ALL HANDHOLES SHALL BE PLACED BELOW EXISTING GRADE.
 5. THIS HANDHOLE IS OF FIBERGLASS MATERIAL, APPROXIMATELY POUNDS IN WEIGHT. THE LIDS ARE POLYMER CONCRETE MATERIAL, EACH APPROXIMATELY POUNDS.

PROJECT: 1706ANBG. 011

KATY MALL

MASON RD

CLARIFICATION NO.	QUANTITY
-------------------	----------

[illegible]

MCImetro
ACCESS TRANSMISSION SERVICES CORP.

OUTSIDE PLANT CONSTRUCTION

KATY MALL TO MASON RD

2.5' x 5' x 2.5' SPLIT HANDHOLE DETAILS

DATE: 07/24/2017

ENGINEER: GXT

DRAWN BY: GXT

REVISIONS

[illegible]

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SCALE

HORIZONTAL: NTS

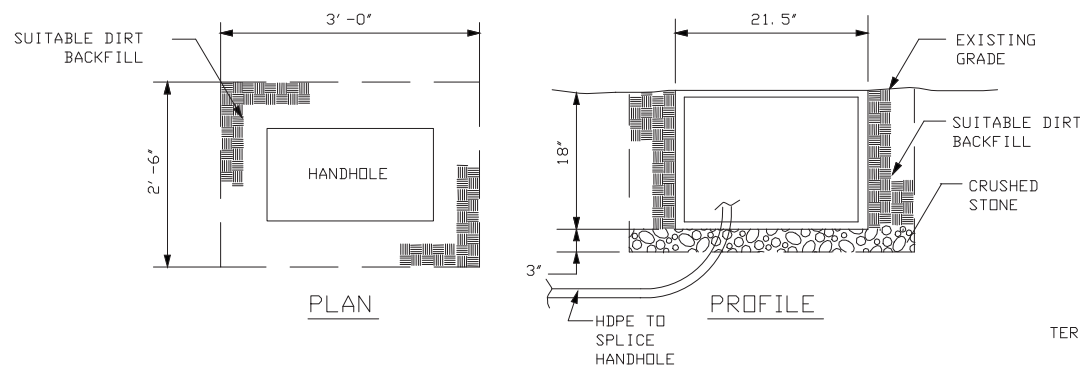
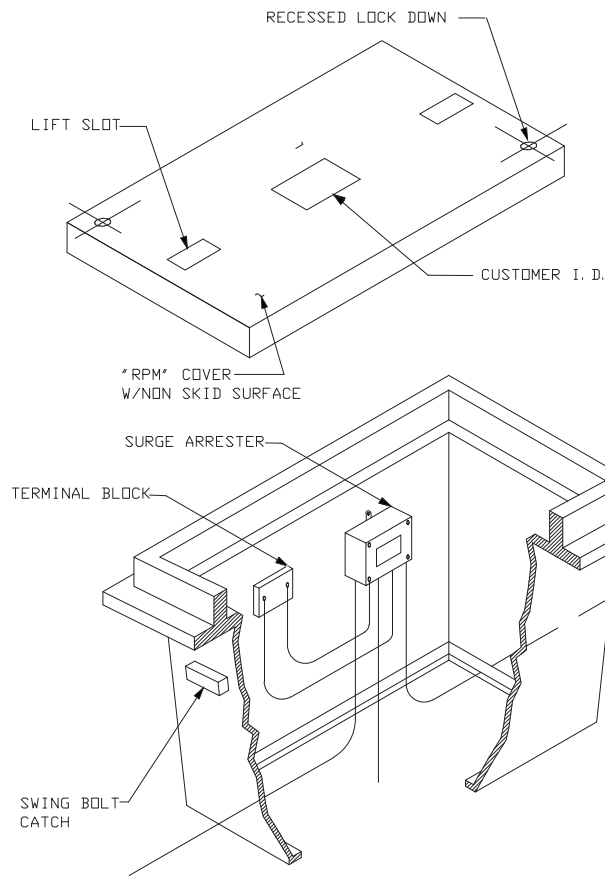
VERTICAL: NTS

MP	TO MP
----	-------

SHEET 12 OF 26

FILE: 1306ANDE 011 0112AG DEL BUS

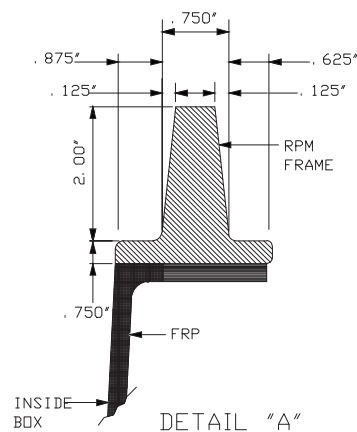
SURGE ARRESTER HANDHOLE DETAIL



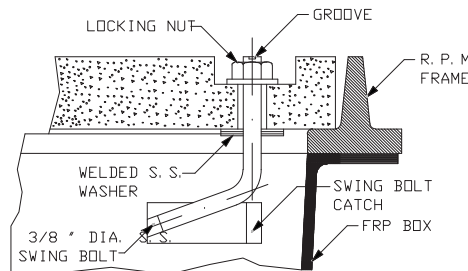
TYPICAL SURGE ARRESTER HANDHOLE

NOTES:

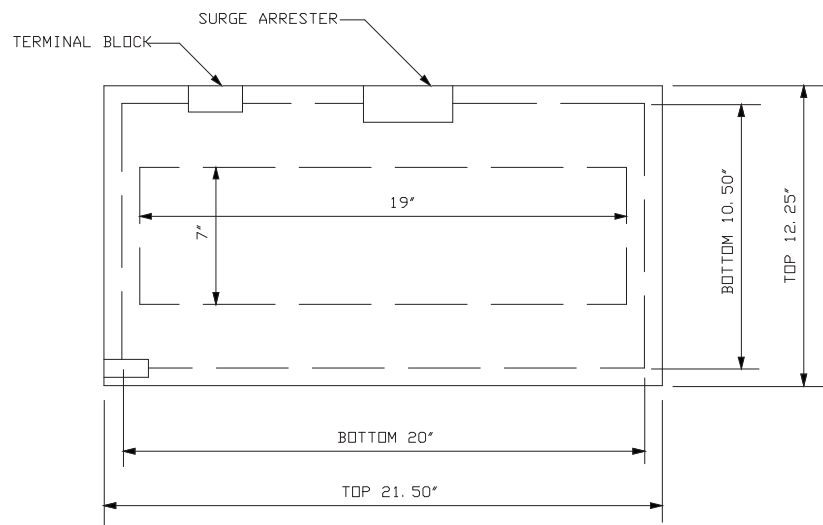
1. VOID IN AREAS TO BE BACKFILLED WITH SELECT MATERIAL.
2. SURGE ARRESTER HANDHOLE TO BE PLACED ON 3" OF CRUSHED STONE (3/4" GRADE).
3. ALL SURGE ARRESTER HANDHOLES SHALL BE SURFACE MOUNTED.
4. SURGE ARRESTER, TERMINAL BLOCK, AND WIRE HARNESS WILL BE MOUNTED BY THE FACTORY.



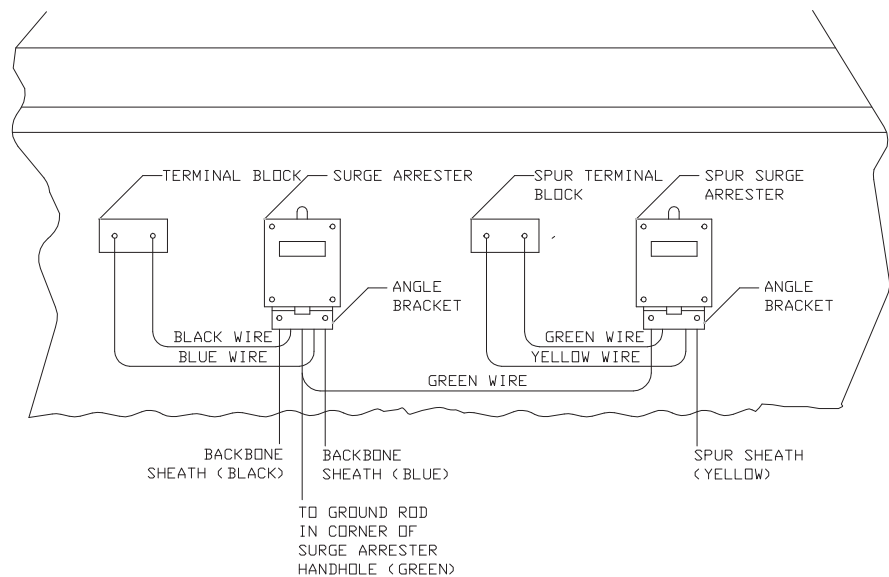
DETAIL "A"



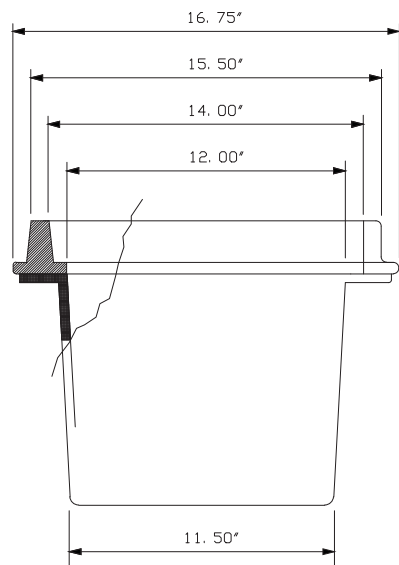
LOCKING DETAIL



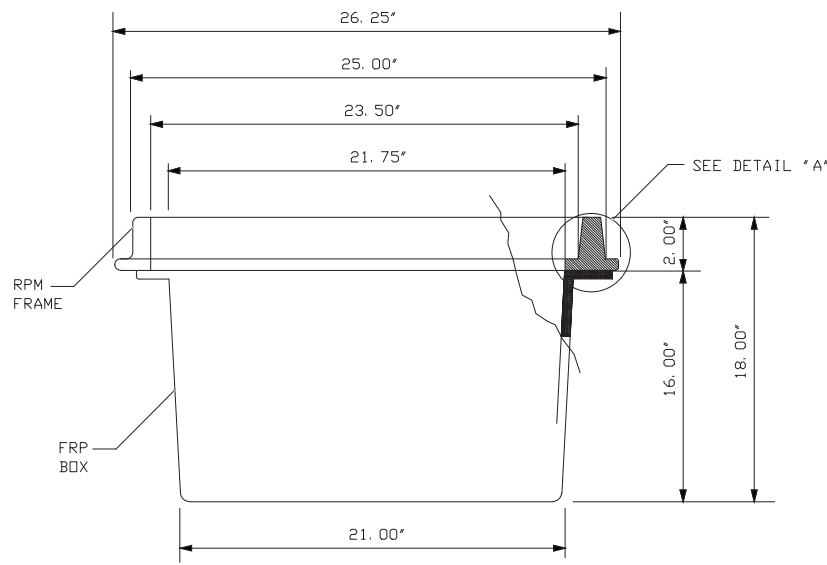
TOP VIEW



SPUR CONFIGURATION DETAIL



END VIEW



SIDE VIEW

PROJECT: 1706ANBG.011

KATY MALL

MASON RD

CLARIFICATION NO. QUANTITY

MCImetro
ACCESS TRANSMISSION SERVICES CORP.
OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
KATY MALL TO MASON RD
SURGE ARRESTER HANDHOLE DETAIL

DATE: 07/24/2017

ENGINEER: GXT

DRAWN BY: GXT

REVISIONS

DATE	DESCRIPTION	INITIAL
-	-	-

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SCALE

HORIZONTAL: NTS

VERTICAL: NTS

MP TO MP

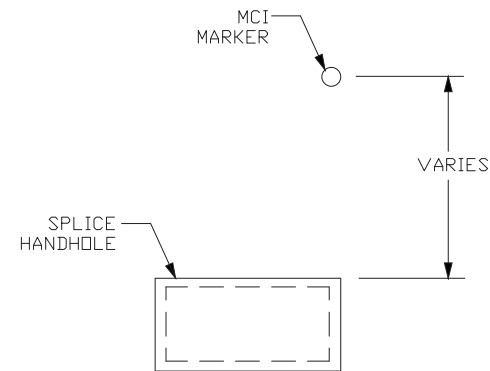
SHEET 13 OF 26

FILE: 1706ANBG.011-0113AC.BEL.DWG

CABLE GROUNDING INSTALLATION DETAILS (FOR CONTRACTOR INSTALLATION)

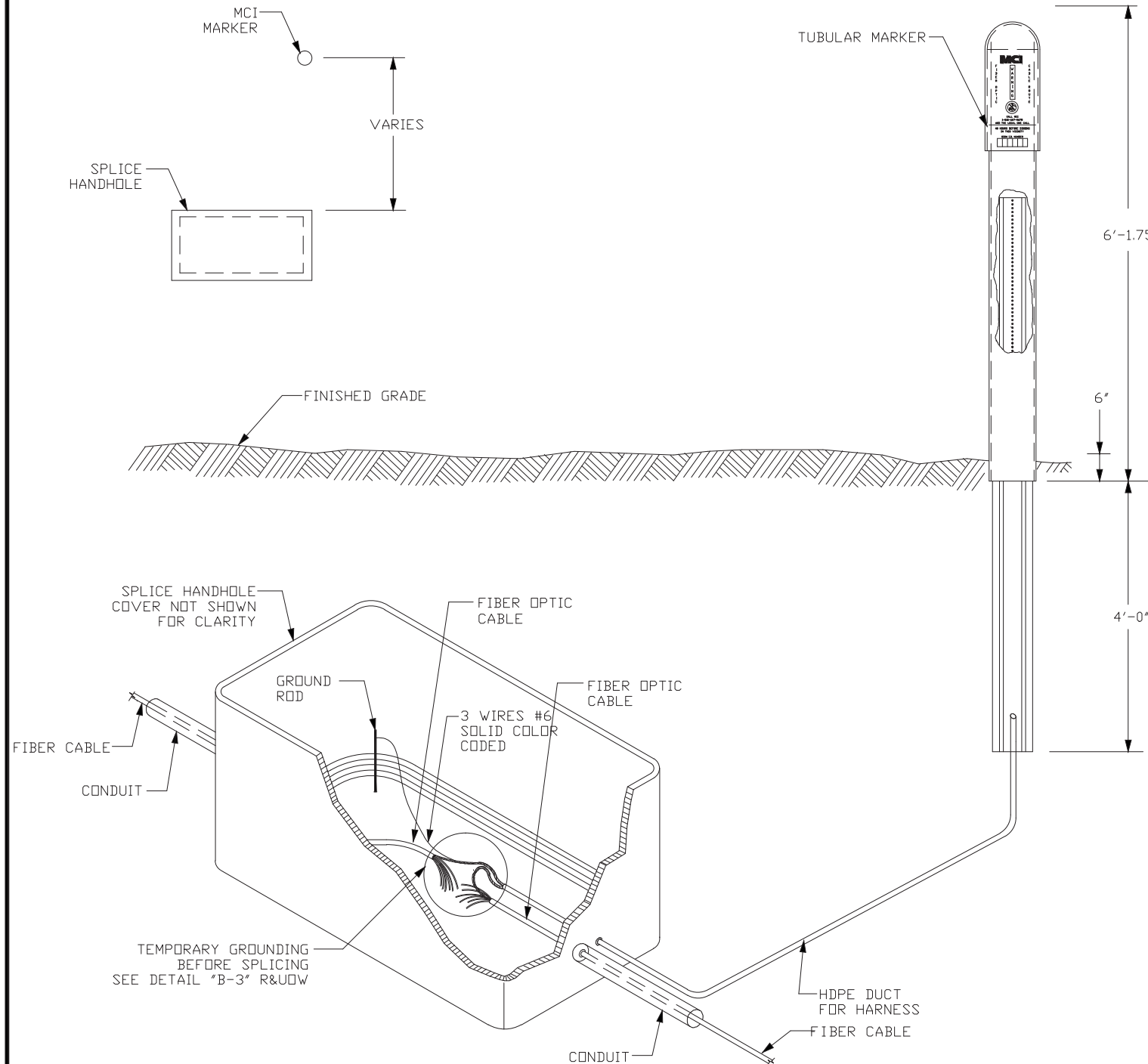
DETAIL "A"

PLAN VIEW



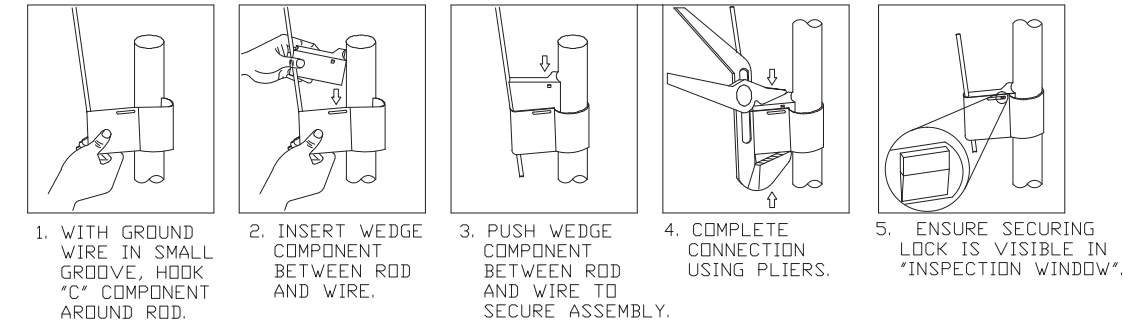
DETAIL "B"

INSTALLATION DETAIL



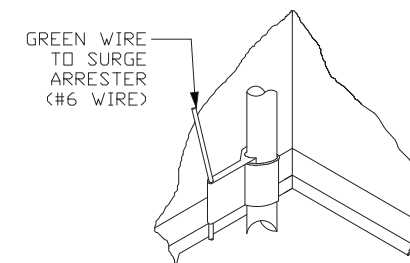
DETAIL "B-1"

C-LOK GROUND ROD
INSTALLATION METHOD



DETAIL "B-2"

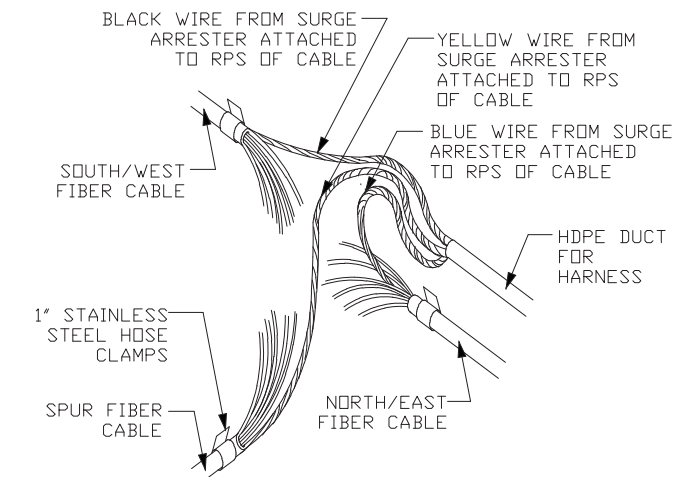
C-LOK CONNECTOR



NOTE:
SEE DETAIL "B-1" THIS
SHEET FOR INSTALLATION
METHOD.

DETAIL "B-3"

TEMPORARY GROUNDING
(INCLUDING SPUR CABLE)



NOTES:

1. DSP CONTRACTOR SHALL INSTALL THE FOLLOWING MCI FURNISHED MATERIALS:
 - * 6' TUBULAR MARKER WITH HARDWARE (1)
 - * SPLICE HANDHOLE
 - * GROUND ROD AND FIGURE 8 CONNECTOR
 - * PULL WIRE HARNESS FROM HANDHOLE TO MARKER
2. THE CONTRACTOR WILL FURNISH AND INSTALL THE HDPE, LENGTH AS REQUIRED PER THE DRAWINGS SUPPLIED.
3. ALL MCI AND CONTRACTOR FURNISHED MATERIALS SHALL BE IN PLACE PRIOR TO PLACEMENT OF THE FIBER OPTIC CABLE, AT WHICH TIME THE TEMPORARY GROUND CONNECTION WILL BE MADE IN ACCORDANCE WITH DETAIL "A".
4. AFTER CONNECTION OF THE TEMPORARY GROUND, THE CONTRACTOR SHALL SEAL THE ENDS OF THE FIBER OPTIC CABLE TO PREVENT THE ENTRY OF MOISTURE.
5. AFTER INSTALLATION OF THE FIBER OPTIC CABLE AND WIRING HARNESS BY THE CONTRACTOR, THE CONTRACTOR SHALL SEAL ALL DUCT LINE OPENINGS WITH MCI APPROVED MATERIAL TO PREVENT THE ENTRY OF MOISTURE.
6. MARKER AND HANDHOLE SHOULD BE PLACED IN LINE WITH THE NORTHERN CORNER OF THE SPLICE HANDHOLE FOR NORTH/SOUTH ROUTES, THE EASTERN CORNER OF THE SPLICE HANDHOLE FOR EAST/WEST ROUTES.

PROJECT: 1706ANBG. 011

KATY MALL

MASON RD

[illegible]

MCImetro
ACCESS TRANSMISSION SERVICES CORP.,
OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
KATY MALL TO MASON RD
CABLE GROUNDING INSTALLATION DETAILS

DATE: 07/24/2017

ENGINEER: GXT

DRAWN BY: GXT

REVISIONS

[illegible]

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SCALE

HORIZONTAL: NTS

VERTICAL: NTS

MP	TO MP
----	-------

SHEET 15 OF 26

FILE:1706ANBG.011-0115AC.BEL.DWG

DETAIL "B"

FRONT VIEW

[illegible]

3.75" O.D.

1.75"

1'-10"

6'-0"

MCI

FIBER OPTIC

WARNING

CABLE ROUTE

CALL MCI
1-800-624-9675
AND THE LOCAL ONE CALL

48 HOURS BEFORE DIGGING
IN THIS VICINITY

SIGN I.D. NUMBER

MARKER
(ORANGE)

THICKNESS
MATERIAL .125"

SLEEVE
(WHITE)

THICKNESS
MATERIAL .125"

.50" DIA.
BOLT HOLE
(BOTH SIDE)
SEE SECTION A-1
& DETAIL "D"
THIS SHEET

3"

3.75" O.D.

3.75" O.D.

1.75"

1'-10"

6'-0"

CABLE ROUTE

FIBER OPTIC

THICKNESS MATERIAL .125"

CALL 1-800-6 AND THE LOC

MCI 24-9675 AL ONE CALL

48 HOURS BE IN THIS SIGN I. D. NUMBER

FORE DIGGING VICINITY

THICKNESS MATERIAL .125"

1.5" DIA. ANCHOR HOLE (BOTH SIDE) SEE SECTION A-1 & DETAIL "D" THIS SHEET

6"

3.75" O.D.

TUBULAR MARKER

8" STEEL POST

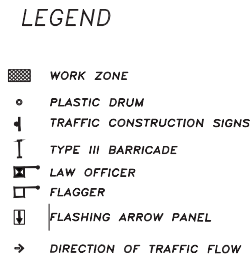
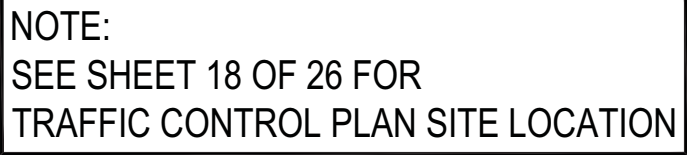
1.5" BOLT
SEE DETAIL "D"

FILE:1706ANBG.011-0116AC.BEL.DWG

1. CONTRACTOR SHALL PROVIDE AND INSTALL TRAFFIC CONTROL DEVICES IN CONFORMANCE WITH PART VI OF TEXAS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (TMUCD - LATEST EDITION WITH REVISIONS) DURING CONSTRUCTION.
2. NO LANES SHALL BE BLOCKED DURING CONSTRUCTION.
3. CONTRACTOR SHALL COVER THE EXCAVATION WITH STEEL PLATES ANCHORED PROPERLY DURING NON-WORKING HOURS AND ALLOW NORMAL TRAFFIC FLOW. IF COVERING IS NOT FEASIBLE, USE TRANTEX FR 336 EFX 36" DELINEATOR OR APPROVED EQUIV WITH SHEETING AND BASE EXPOSED TO PAVEMENT NEXT TO EXCAVATION DURING NON-WORKING HOURS.
4. APPROVED COPIES OF "TRAFFIC CONTROL PLANS" SHALL BE AVAILABLE FOR INSPECTION AT ALL TIMES.
5. IF THE CONTRACTOR CHOOSES TO USE A DIFFERENT METHOD OF TRAFFIC CONTROL PLAN DURING THE CONSTRUCTION THAT IS OUTLINED IN THE CONTRACT DOCUMENTS (S), THE CONTRACTOR IS RESPONSIBLE TO PREPARE AND SUBMIT ALTERNATE PLANS TO TRAFFIC SECTION OF HCPID FOR APPROVAL THEN WORKING DAYS PRIOR TO IMPLEMENTATION.
 - * THESE PLANS SHALL BE DRAWN TO SCALE ON REPRODUCIBLE MYLARs AND SEALED BY A LICENSED ENGINEER IN THE STATE OF TEXAS. PLANS WILL BECOME A PART OF THE CONTRACTOR DRAWINGS.
6. THE CONTRACTOR SHALL CONTACT HARRIS COUNTY PUBLIC INFRASTRUCTURE DEPARTMENT, SIGNAL DIVISION, AT 713-881-3210 FIVE (5) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION.

- A - PLASTIC DRUMS ON MERGING TAPER AT 30' C-C WITH CHEVRON SIGNS
AT 60' C-C AND TYPE "C" WARNING LIGHT
(FOR OVERNIGHT CLOSURE).
- B - PLASTIC DRUMS ON DOWNSTREAM TAPER AT 35' C-C.
- C - PLASTIC DRUMS ON RADII AT 5' C-C.
- D - PLASTIC DRUMS ON TANGENT @ 35' C-C WITH VERTICAL PANEL AT 70' C-C AND TYPE "C" WARNING LIGHT (FOR OVERNIGHT CLOSURE).
- E - PLASTIC DRUMS IN FRONT OF CONSTRUCTION ZONE AT 20' C-C WITH VERTICAL PANEL AT 40' C-C AND TYPE "A" WARNING LIGHT (FOR OVERNIGHT CLOSURE).
- F - CONCRETE TRAFFIC BARRIER (C.T.B) OR LOW PROFILE CONCRETE TRAFFIC BARRIER (L.P.C.T.B.) WITH REFLECTORS AT 10' C-C, IF PAVEMENT DROP IS MORE THAN TWELVE INCHES (12") OR
- G - PLASTIC DRUM WITH GUARD RAIL MOUNTED.
- H - 28" TUBULAR MARKERS AT 30' C-C.
 - a) 4-LANE TO 2-LANE UNDIVIDED ROADWAY TRANSITIONS AT 20' C-C.
 - b) 4-LANE DIVIDED ROADWAY TO ONE SIDE TWO-WAY ROAD AT 20' C-C.
 - c) LEFT LANE, RIGHT LANE STORAGE BAYS AT 15' C-C.

SPACINGS SHOWN ON TRAFFIC CONTROL
PLANS SHALL SUPERSEDE THE ABOVE SPACINGS.
SPACINGS MAY BE ADJUSTED TO MISS
DRIVEWAYS AND/OR MEDIAN OPENINGS.



MCImetro
ACCESS TRANSMISSION SERVICES CORP.
OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
KATY MALL TO MASON RD
TRAFFIC CONTROL PLAN

DATE: 07/24/2017		
ENGINEER: GXT		
DRAWN BY: GXT		
REVISIONS		
DATE	DESCRIPTION	INITIAL
08-09-17	REVISION 1	RB

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HORIZONTAL:	NTS
VERTICAL:	NTS
MP _____ TO MP _____	
SHEET 17A	OF 26

FILE:1706ANBG.011-0117AAC.BEL.DWG

SEE SHEET 019 TO MATCH SURVEY STA. 5+78



MASON RD

[illegible]

OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
KATY MAIL TO MASON RD

REVISIONS

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SHEET 18 OF 26

FILE:1706ANBG.011-0118AC.BEL.DWG



UTILITY & R.O.W. REPRESENTED ON
PLANS ARE BASED ON RECORDS
INFORMATION. NOT BASED ON
BOUNDARY SURVEY & FIELD EXPOSURES.

CONTRAFOR TO LOCATE &
VERIFY ALL EXISTING UTILITIES
PRIOR TO CONSTRUFTION

ALL UTILITIES MUST BE VERIFIED BY POTHOLING
A 18" MAXIMUM DIAMETER "CORE BORE" WILL BE MADE
THEN THE REMAINING SOIL WILL BE REMOVED BY VACUUM EXCAVATION ONLY!



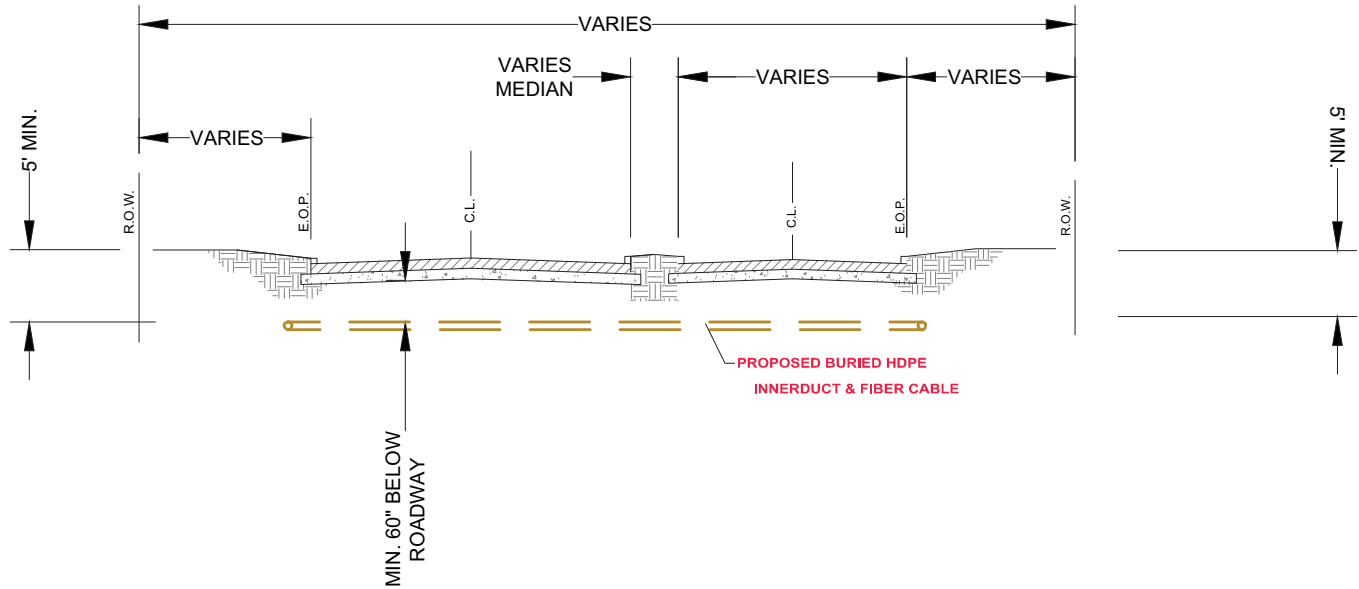
PROJEF: 1706ANBG.011

KATY MALL

MASON RD

CLARIFICATION NO.	QUANTITY
PLACE HANDHOLE	-
PROP. 1-2" HDPE	-
PULL 1-288F CABLE	-
PULL 1-144F CABLE	-
PULL 1-72F CABLE	-
RISER 1-2" STAND OFF RISER	-
DOWN GUY & ANCHOR	-
PLACE 6M STRAND	-
LASH 1-144/1-288 FIBER CA	-
PLACE MARKER	-

TYPICAL ROAD CROSSING DETAIL
KATY FLEWELLEN RD.



MCI
ACCESS TRANSMISSION SERVICES CORP.
OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
KATY MALL TO MASON RD
OUTSIDE PLANT - PLAN

DATE: 07/24/2017

ENGINEER: GXT

DRAWN BY: GXT

REVISIONS		
DATE	DESCRIPTION	INITIAL
-	-	-

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SCALE

HORIZONTAL: 1"=100'

VERTICAL: 1"=100'

MP TO MP

SHEET 18.1 OF 26

FILE 1706ANBG.011-0118.1AC.BEL.DWG

**** NOTE****
UTILITY & R.O.W. REPRESENTED ON
PLANS ARE BASED ON RECORDS
INFORMATION. NOT BASED ON
BOUNDARY SURVEY & FIELD EXPOSURES.

CAUTION !!!!
CONTRAFOR TO LOCATE &
VERIFY ALL EXISTING UTILITIES
PRIOR TO CONSTRUION

**** NOTE ****
ALL UTILITIES MUST BE VERIFIED BY POTHOLING
A 18" MAXIMUM DIAMETER "CORE BORE" WILL BE MADE
THEN THE REMAINING SOIL WILL BE REMOVED BY VACUUM EXCAVATION ONLY!



CALL BEFORE YOU DIG
1-800-245-4545
48 HOURS NOTICE REQUIRED