MCImetro

ACCESS TRANSMISSION SERVICES CORP

D/B/A VERIZON ACCESS TRANSMISSION

OUTSIDE PLANT CONSTRUCTION

FIBER OPTIC CABLE ROUTE

123069_8001 FORESTVIEW LN N_2203EAFI_DESIGN_5.19.2022

FQNID	EWO NFID
	2203EAFI

MAPLE GROVE, MINNESOTA

PROJECT STATUS: ISSUED FOR PERMITTING

STATUS DATE: 05-19-2022

COMLINK MIDWEST

mi-TECH

INDEX SHEET

MCI

PROJECT: 123069_8001 FORESTVIEW LN N_2203EAFI_DESIGN_5.19.2022

MAPLE GROVE, MN

CLARIFICATION NO.	QUANTITY

MCImetro
ACCESS TRANSMISSION SERVICES, LLC

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TITLE: FIBER OPTIC CABLE ROUTE

123069_8001 FORESTVIEW LN N_2203EAFI_DESIGN_5.19.2022

DATE: 05-19-2022

ENGINEER: YL

DRAWN BY: YL

REVISIONS

DATE	DESCRIPTION	INITIAL
05-19-2022	CONSTRUCTION PKG	YL

SCALE

HORIZONTAL: NTS

VERTICAL: NTS

MP _____ TO MP _____

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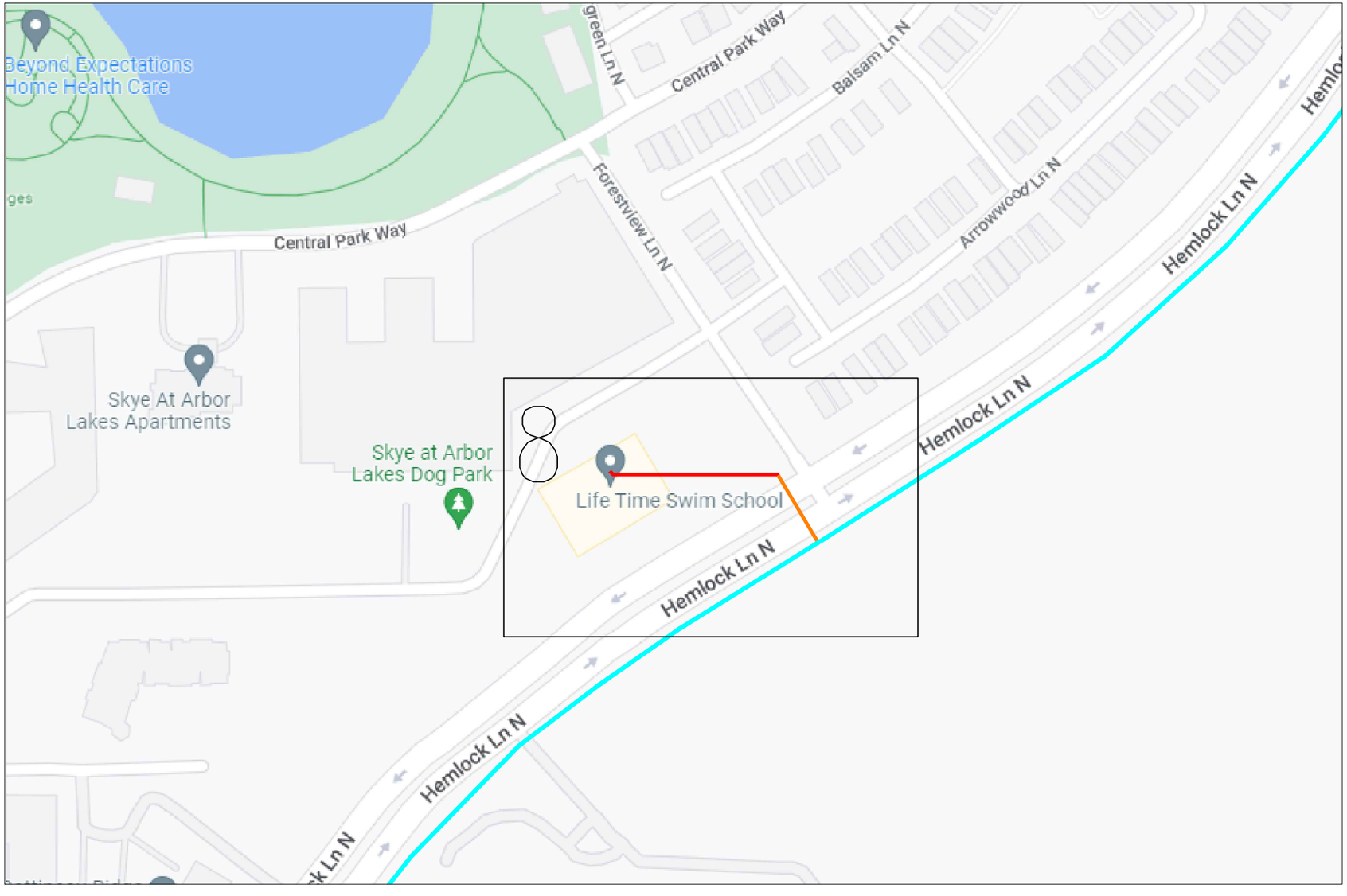
LOCATION MAP

PROPOSED BURIED

PROPOSED AERIAL

EXISTING CORE

PROPOSED OVERPULL CABLE



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CONTACT SHEET

VERIZON BUSINESS

OUTSIDE PLANT ENGINEERING:

PROJECT ENGINEER:
ANDY FRETTE — 612-919-1751
1200 WASHINGTON AVE
MINNEAPOLIS, MN 55401

SENIOR PROJECT ENGINEER:
DAN SCHMIDT — 612-221-7997
1200 WASHINGTON AVE
MINNEAPOLIS, MN 55401

OUTSIDE PLANT CONSTRUCTION:

PROJECT SUPERVISOR:

FIELD CONST. SUPERINTENDENT:

MANAGER:

RIGHT-OF-WAY:

AGENT:

MANAGER:

CONTRACTS:

OTHERS:

PROGRAM MANAGER:

LIGHTWAVE ENGINEER:

CIVIL ENGINEER:

TERMINAL CONST. REP.:

SPLICING MANAGER:

TSO MANAGER:

ENGINEERING CONTRACTOR

NAME OF FIRM: MI-TECH SERVICES
PROJECT MANAGER: YER LO — 612-283-3088

CONSTRUCTION CONTRACTOR

NAME OF FIRM: COMLINK MIDWEST
PROJECT MANAGER: MONA ROULAINE — 651-329-8403

RAILROADS

UTILITIES

AT&T TRANSMISSION	(612) 344-3327
CENTURYLINK	(855) 742-6062
CENTER POINT ENERGY	(800) 778-9140
COMCAST	(800) 762-0592
CITY OF MINNEAPOLIS WATER	(612) 673-5600
CITY OF MINNEAPOLIS TRAFFIC	(612) 673-5600
CITY OF MINNEAPOLIS SEWER	(612) 673-5600
DISTRICT ENERGY	(651) 297-8955
EXTENET SYSTEMS INC	(800) 778-9140
HENNEPIN COUNTY PUBLIC WORKS	(406) 541-9571
LEVEL 3 COMMUNICATIONS	(877) 366-8344
METRO TRANSIT	(612) 349-7547
METRO WASTE COMMISSION	(651) 602-4511
MNDOT	(651) 366-5750
QWEST COMMUNICATIONS	(800) 283-4237
ROGERS COMMUNICATIONS	(877) 459-2690
SPRINT/LONG DISTANCE	(800) 521-0579
ST PAUL REGIONAL WATER	(651) 266-6868
ST PAUL SEWER	(651) 266-9850
ST PAUL TRAFFIC AND LIGHTING	(651) 266-9777
ST PAUL PARKS	(651) 632-5129
WINDSTREAM COMMUNICATIONS	(800) 289-1901
XCEL ENERGY	(800) 848-7558
ZAYO BANDWIDTH	(888) 267-1063
ZAYO ENTERPRISE NETWORKS LLC	(218) 346-5500

CITY GOVERNMENT

CITY OF MAPLE GROVE
KELLY MATZKE
WORK: 763-494-6365
CELL: 612-968-3615
KMATZKE@MAPLEGROVEMN.GOV

COUNTY GOVERNMENT

STATE GOVERNMENT

MINNESOTA DEPARTMENT OF TRANSPORTATION
ANN DRIVER
UTILITY PERMITS
MAILSTOP 678
395 JOHN IRELAND BLVD
SAINT PAUL, MN 55155

FEDERAL GOVERNMENT

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GENERAL NOTES

1. VERIZON BUSINESS 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 PERFORMED IN STRICT ACCORDANCE WITH THE APPLICABLE CODES OR REQUIREMENTS OF ANY REGULATING GOVERNMENTAL AGENCY, VERIZON BUSINESS AND THE RIGHT-OF-WAY GRANTOR.

3. LOCATIONS OF SOME OF THE PHYSICAL FEATURES WERE OBTAINED FROM DATED RAILROAD EVALUATION MAPS OR OTHER DRAWINGS AND MAY NOT BE AS SHOWN OR DEPICTED ON THESE DRAWINGS.

4. 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 THE EVENT OF CONFLICT.

5. 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 ORIGINAL CONDITION.

6. EQUIPMENT TYPES SPECIFIED HEREIN (IE: "BACKHOE", SWAMP PLOW" ETC.) ARE SUGGESTIONS ONLY AND ARE NOT INTENDED AS REQUIREMENTS.

7. SHORING OF EXCAVATIONS AND TRENCHES IN ACCORDANCE WITH OSHA REGULATIONS IS MANDATORY.

8. BURIED CABLE MARKERS WILL BE PLACED AT ALL UNDERGROUND UTILITY LOCATIONS AND ALL OTHER LOCATIONS IN ACCORDANCE WITH THE CONSTRUCTION DRAWINGS AND THE OUTSIDE PLANT HANDBOOK.

9. ALL 2" ID CONDUIT WILL BE HDPE, OR AS SPECIFIED.

10. UNDERGROUND CONDUIT WILL BE PLACED AT 36" MINIMUM COVER UNLESS OTHERWISE SPECIFIED ON THE CONSTRUCTION DRAWINGS.

CLARIFICATION NOTES

1.
2.
3.
4.
5.
6.
7.

1. STATION
2. LOCATION
3. CLARIFICATION NO. AND MINIMUM COVER
4. QUANTITY LINEAR FOOTAGE/SQUARE FOOTAGE, SIZE OF MANHOLE/HANDHOLE SIZE OF PULL/SPLICE BOX, DIMENSION OF WALL, HEIGHT/CLASS/TYPE OF POLE
5. TYPICAL DRAWING NO. AND TYPICAL DETAIL DRAWING NUMBER
6. PLANT ACCOUNTING CODE
7. SPECIFIED CONDUIT, HANDHOLE/MANHOLE NO., SPECIFIED PURPOSE AND MATERIAL, BRIDGE NO. AND RAILROAD STATION, MATERIAL, POLE NO.

ADDENDUM NOTES

CLARIFICATION NOTES (CONTINUED)

100	110	JACK AND DRY BORE CONDUIT(S)
200	210	PLACE CONDUIT
	212	PLACE HIGH DENSITY POLYETHYLENE (HDPE)
	213	ROCK ADDER
	214	SLURRY BACKFILL ADDER
	215	EXPOSE CONDUIT
	216	EXPOSE COMDUIT AND RELOCATE
	217	EXPOSE CONDUIT AND REPLACE/SUBSTITUTE
	218	EXPOSE AND REMOVE CONDUIT
	219	EXPOSE AND REMOVE CONDUIT (ABANDONED)
	220	CONCRETE ENCASE
	221	REMOVE CONCRETE ENCASEMENT
	222	REMOVE CONCRETE CAP
	240	PLACE HANDHOLE
	244	REMOVE EXISTING HANDHOLE
	245	RELOCATE HANHOLE
		REPLACE/SUBSTITUTE HANDHOLE
	247	EXCAVATE SPLICE PIT
	250	PLACE MANHOLE
	252	REMOVE EXISTING MANHOLE
	255	RELOCATE PRECAST MANHOLE
	256	REPLACE/SUBSTITUTE PRECAST MANHOLE
	260	CONSTRUCT WALL
	270	REMOVE AND RESTORE ASPHALT
	280	REMOVE AND RESTORE CONCRETE
	281	REMOVE AND RESTORE SIDEWALK
	282	REMOVE AND RESTORE CURBING
300	310	ATTACH CONDUIT TO WALL OR STRUCTURE
	315	DETACH CONDUIT FROM WALL OR STRUCTURE
	320	CORE BORE
	330	ATTACH PULL/SPLICE BOX TO WALL OR STRUCTURE
400	410	PULL CABLE
	411	PULL THROUGH DUCT (INNERDUCT)
	415	REMOVE CABLE FROM CONDUIT
	420	REPOSITION ACTIVE CABLE SLACK
500	510	DIRECT BURY CABLE
	515	EXPOSE DIRECT BURIED CABLE
	516	EXPOSE DIRECT BURIED CABLE AND RELOCATE
	517	REMOVE AND DISPOSE OF CABLE
	520	PLACE AERIAL CABLE
	525	RELOCATE AERIAL CABLE
	526	DELASH AERIAL CABLE
	527	RELASH AERIAL CABLE
	528	REMOVE AERIAL CABLE
	530	PLACE POLE/PUSH BRACE
	535	REMOVE POLE/PUSH BRACE
600	610	JETTING CONDUIT
	620	EMBEDMENT PLOW
	630	DIRECTIONAL BORE
700	710	PLACE BURIED CABLE MARKERS AND SIGNS/MWCOM WATER CROSSING SIGNS
	711	PLACE ISOLATOR/PROTECTION SYSTEM AT EXISTING HANDHOLES/MANHOLES
	712	REMOVE BURIED CABLE MARKER POST/HARDWARE
	714	REMOVE CONCRETE BURIED CABLE MARKER POST

GENERAL NOTES

1. CONTRACTOR MUST OBTAIN LOCATES PRIOR TO DISTURBING THE GROUND.
2. CONTRACTOR MUST HAVE A COPY OF THE APPROVED PERMIT FROM THE APPROPRIATE AGENCY ON THE JOBSITE AT ALL TIMES.
3. ALL CABLE WILL BE PLACED AT STANDARD MINIMUM DEPTH. (MCI STANDARD IS 48" DEEP UNLESS OTHERWISE DIRECTED BY A MCI REPRESENTATIVE.)
4. ANY LANDSCAPING WILL BE REPLACED TO EQUAL OR BETTER THAN THAT WHICH EXISTED PRIOR TO WORK.
5. PROJECT SITE WILL BE PROPERLY SECURED PRIOR TO THE END OF EACH DAY.
6. ALL WORK IS TO BE IN ACCORDANCE WITH ALL AUTHORITIES HAVING JURISDICTION IN THE WORK ZONE.
7. CONTRACTORS ARE ADVISED TO CONTACT MCI FOR ANY ADDITIONAL INFORMATION OR CLARIFICATION CONCERNING SCOPE OF WORK OR THE REQUIREMENTS NECESSARY FOR PROJECT COMPLETION.
8. CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY ALL DIMENSIONS, QUANTITIES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION. IF A SIGNIFICANT CHANGE TO THE RUNNING LINE IS NEEDED, PLEASE CONTACT YOUR MCI REPRESENTATIVE BEFORE PROCEEDING.
9. BEFORE CONSTRUCTION BEGINS, CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO AVOID ANY POTENTIAL OBSTRUCTIONS PRIOR TO PROCEEDING WITH WORK.
10. NO CONSTRUCTION ON PRIVATE PROPERTY WILL COMMENCE UNTIL APPROVAL IS GIVEN BY THE APPROPRIATE MCI EMPLOYEE.
11. CONTRACTOR SHALL NOT PROCEED WITH WORK UNTIL THEY HAVE RECEIVED A PURCHASE ORDER AND HAVE BEEN DIRECTED TO DO SO BY AN AUTHORIZED MCI REPRESENTATIVE.
12. CONTRACTOR SHALL NOT EXCEED THE PURCHASE ORDER VALUE WITHOUT AUTHORIZATION IN WRITING FROM THE APPROPRIATE MCI REPRESENTATIVE.
13. AS-BUILTS WILL BE REQUIRED FOR EACH PROJECT INCLUDING CABLE FOOTAGE SEQUENTIAL'S AT EVERY ACCESS POINT, SLACK LOOP, SPLICE LOCATION, POLE AND TERMINATION POINT. CONTRACTOR SHALL PROVIDE NOTES OF ALL CHANGES IN DEPTHS, RUNNING LINES, MH/HH LOCATIONS, AND ANY OTHER APPLICABLE NOTES TO DEPICT THE WORK THAT TOOK PLACE. NOTE: ALL MAJOR CHANGES NEED TO BE PRE-APPROVED BY AN AUTHORIZED MCI EMPLOYEE PRIOR TO STARTING THE WORK.
14. THE SUBSURFACE UTILITY INFORMATION IN THIS PLAN IS UTILITY QUALITY LEVEL D. THIS UTILITY QUALITY LEVEL WAS DETERMINED ACCORDING TO THE GUIDELINES OF CI/ASCE 38-02, ENTITLED STANDARD GUIDELINES FOR THE COLLECTION AND DEPICTION OF EXISTING SUBSURFACE UTILITY DATA. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO UTILIZE THE GOPHER STATE ONE CALL EXCAVATION NOTICE SYSTEM REQUIRED MN STATUTE, CHAPTER 216D FOR ALL UNDERGROUND UTILITY LOCATIONS.

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SYMBOLS KEY

	EXISTING	PROPOSED
BURIED CABLE		
AERIAL CABLE	A	A
SUBMARINE CABLE	SUBM	SUBM
FOGWIRE CABLE	FOGW	FOGW
DIRECT BURIED HDPE	H	H
PVC OR SPLIT PVC CONDUIT		
BSP/GSP OR SPLIT BSP/GSP CONDUIT		
STEEL CASING		
REMOVE AND RESTORE ASPHALT OR CONCRETE (WIDTH AS INDICATED)	48"	48"
CORE BORE		
JACK AND BORE		
DIRECTIONAL BORE	DB	DB
FUTURE CABLE		
REMOVE CABLE	R	R
TO BE REMOVED OR ABANDONED (SHOWN FOR HDPE)	H	H
AERIAL UTILITY (ELECTRIC)	E	E
UNDERGROUND UTILITY (TELEPHONE)	T	T
MAIN TRACKS		
AUXILLARY TRACKS		
CENTERLINE	C/L	C/L
RIGHT-OF-WAY	R/W	R/W
EDGE OF PAVEMENT		
SIDEWALK		
DITCH LINE	D/L	D/L
TAX DISTRICT		
CITY, COUNTY OR STATE BOUNDARY LINE		
PROPERTY LINE		
FENCE LINE	x	x
GUARDRAIL		
TOP OF SLOPE		
TOE OF SLOPE		
FACE OF CURB	F of C	F of C
PROPOSED FIBER IN EXISTING DUCT	OP	OP
PROPOSED FIBER AND DUCT	DB	DB
PROPOSED DUCT	DB	DB
MST TAIL		
EXISTING MCI	FO	FO

GAS	G
WATER	W
TELEPHONE	T
ELECTRIC	E
SANITARY SEWER (SEW)	SEW
STORM DRAIN	SD
FENCE	X X
CABLE TV	TV
STEAM	STM
OIL	OIL
UNKNOWN UTILITY	UNK
RIGHT OF WAY	R/W
FACE OF CURB	F of C
STREET LT/TRAFFIC SIGNAL	SL/TS
EDGE OF PAVEMENT	EOP

MST - PROPOSED	# ROUTE_NO STA FIBER_CNT
HANDHOLE - EXISTING	HH STA 0+00 24x36x24
HANDHOLE - PROPOSED	HH STA 0+00 24x36x24
MANHOLE - EXISTING	MH STA 0+00
MANHOLE - PROPOSED	MH STA 0+00
SPLICE POINT - EXISTING	
SPLICE POINT - PROPOSED	
SITE CALLOUT - PROPOSED	MACRO CELL NAME STREET
AERIAL STORAGE - EXISTING	0'
AERIAL STORAGE - PROPOSED	0'
FDH - PROPOSED	FDH# FDH_SIZE F1_COUNT
POWER PEDESTAL	P
TELEPHONE PEDESTAL	T

	EXISTING	PROPOSED
STEEL MARKER AND SIGN-(A) ALUMINUM "HUB"-STYLE MARKER-(B) FLAT MARKER-(C) TUBULAR MARKER-(D) TUBULAR MARKER, & ISOLATOR PROTECTOR-(E)	STA. MKR. # (A) (B) (C) (D) (E)	STA. MKR. # (A) (B) (C) (D) (E)
MILE POST MARKER NOTE: DASHED = NOT FOUND IN FIELD	21 21	21
PERMIT TRACKING FORM IDENTIFIER	P.T.F. 187	P.T.F. 187
ROCK PROBE (DEPTH AS INDICATED)	42"	42"
UTILITY COVER DEPTH	48"	48"
HANDHOLE, MANHOLE OR PULLBOX		
POLE		
ANCHOR ONLY		
GUY ONLY		
OVERHEAD GUY (ARROW IN DIRECTION OF PULL)	OHG 92' 10M	OHG 92' 10M
ANCHOR AND GUY		
SIDEWALK ANCHOR AND GUY	P=	P=
FOREIGN ANCHOR AND GUY		
PUSH BRACE (EXISTING POLE)	30'-5-84 PB	30'-5-84 PB
ACCOUNT CODE CHANGE (BURIED TO AERIAL)	A	A
BOND AND GROUND	B&G	B&G
CULVERT (SIZE AS INDICATED)	12"	12"
BRIDGE		
WATER METER		
GAS VALVE		
FIRE HYDRANT		
RAILROAD SIGNAL CONTROL BOX		
CAUTION NOTE	ACTIVE MCI CAUTION BURIED FIBER OPTIC CABLE	ACTIVE MCI CAUTION AERIAL FIBER OPTIC CABLE
CONDUIT CALL OUTS	U-FOC-48	

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BOM / MAKE READY COST ESTIMATE
PROJECT SPECIFIC

Site Name	Handhole 24x30x36	Handhole 30x60x30	1.5" HDPE SDR 11 + 5%	2" HDPE SDR 11 + 5%	Ground Rods	Ground Leads	Locate Terminal	Locate Post	Marker Posts	Splice Case 600D	Splice Case 450A	Storage Loops Footage	864F Cable	432F Cable	288F Cable	144F Cable	96F Cable	72F Cable	48F Cable	24F Cable
8001 FORESTVIEW LN N	1	0	0	133	1	1	1	1	1	1	0	200'	0'	0'	0'	0'	623'	0'	0'	0'

BIDUNIT	DESCRIPTION	UNIT	QUANTITY
BDE-100	SimpleOSPDesign	Each	0
BDE-101	SimpleOSPDesignAdder(toBDE-100)	Each	0
BDE-200	FullOSPDesign	Each	1
BDE-201	FullOSPDesignAdder(toBDE-200)	Each	0
BDE-300	DirectCostApplicationFees	Actual+5%	0
BDE-400	PropertyAccessApproval-MTU/Stip/Campus	Each	0
BDE-501	PropertyDesignandEngineering-MTU1-15units	Each	0
BDE-502	PropertyDesignandEngineering-MTU16-50units	Each	0
BDE-503	PropertyDesignandEngineering-MTU50+units	Each	0
BDE-504	PropertyDesignandEngineering-StripMall1-5units	Each	0
BDE-505	PropertyDesignandEngineering-StripMall6+units	Each	0
BDE-506	PropertyDesignandEngineering-Campus1-5units	Each	0
BDE-507	PropertyDesignandEngineering-Campus6-20units	Each	0
BDE-508	PropertyDesignandEngineering-Campus21+units	Each	0

PERMITS REQUIRED

PERMIT AGENCY/PERMIT NUMBER	SHEET #	FOOTAGE
CITY OF MAPLE GROVE	8	155'

BIDUNIT	DESCRIPTION	UNIT	QUANTITY
BDC-050	MobilizationFee	Each	0
BDC-051	TripCharge	Each	0
BDC-101	Construction-NewUnderground(DirectBuried)w/Tracer(>12"cover)	Foot	0
BDC-102	Construction-NewUnderground18mmMicroDuctHDPE(12"to24"cover)	Foot	0
BDC-103	Construction-NewUnderground1x1.25"HDPE(12"to24"cover)	Foot	0
BDC-104	Construction-NewUnderground1x2"HDPE(depthcompliesw/governingjurisdiction)	Foot	0
BDC-105	Construction-NewUndergroundHDPE(size18mmupto2")(Bore)	Foot	133
BDC-106	Construction-NewUnderground(MicroTrench)	Foot	0
BDC-107	Construction-RemoveandReinstateAsphalt(4"Increments)	SqFt	0
BDC-108	Construction-RemoveandReinstateConcrete(4"Increments)	SqFt	0
BDC-109	Construction-NewUndergroundRockAdderthroughRockin6"increments(Mechanical)(AdderBDC-101-104)	Foot	0
BDC-110	Construction-NewUndergroundRockAdder(Bore)(AdderBDC-105)	Foot	0
BDC-111	Construction-PlaceHandhole-Small(size17inchesx30inches)	Each	0
BDC-112	Construction-PlaceHandhole-Medium(size24inchesx36inches)	Each	1
BDC-113	Construction-PlaceHandhole-Large(size36inchesx60inches)	Each	0
BDC-114	Construction-PlaceManhole-(size4footx4foot)	Each	0
BDC-200	Construction-InterceptExistingConduit/Innerduct	Each	1
BDC-300	Construction-Cableplacement	Foot	423
BDC-301	Construction-Cableremoval	Foot	0
BDC-400	Construction–Aerial(New/Overlash)	Foot	0
BDC-501	Removemolding	Foot	0
BDC-502	Placenewmolding	Foot	0
BDC-503	InstallIn-buildinginnerduct	Foot	0
BDC-504.1	PlaceElectricalConduitEMT1"	Foot	0
BDC-504.2	PlaceElectricalConduitEMT2"	Foot	0
BDC-504.3	PlaceElectricalConduitEMT3"	Foot	0
BDC-504.4	PlaceElectricalConduitEMT4"	Foot	0
BDC-505	PlaceCableRaceway	Foot	0
BDC-506	GroundPenetratingRadar(GPR)Survey	Scan	0
BDC-507	CoreBore</=2.5inchDiameterhole-depthof12inches	Each	0
BDC-508	CoreBore</=2.5inchDiameterhole-depthof12-24inches	Each	0
BDC-509	CoreBore</=2.5inchDiameterhole-depthof24-36inches	Each	0
BDC-510	CoreBore2.5to4inchDiameterhole-depthof12inches	Each	0
BDC-511	CoreBore2.5to4inchDiameterhole-depthof12-24inches	Each	0
BDC-512	CoreBore2.5to4inchDiameterhole-depthof24-36inches	Each	0
BDC-513	CoreBore4to5inchDiameterhole-depthof12inches	Each	0
BDC-514	CoreBore4to5inchDiameterhole-depthof12-24inches	Each	0
BDC-515	CoreBore4to5inchDiameterhole-depthof24-36inches	Each	0
BDC-600	DirectCost–3rdPartyOrMakeReady	Actual+5%	0
BDC-701	CablePrep/Splicing/Testing(LooseTube)	Fiber	0
BDC-702	CablePrep/Splicing/Testing(Ribbon)	Fiber	0
BDC-800	TerminalPlacement	Each	1
BDC-900	Sub-ductInstallation	Foot	0

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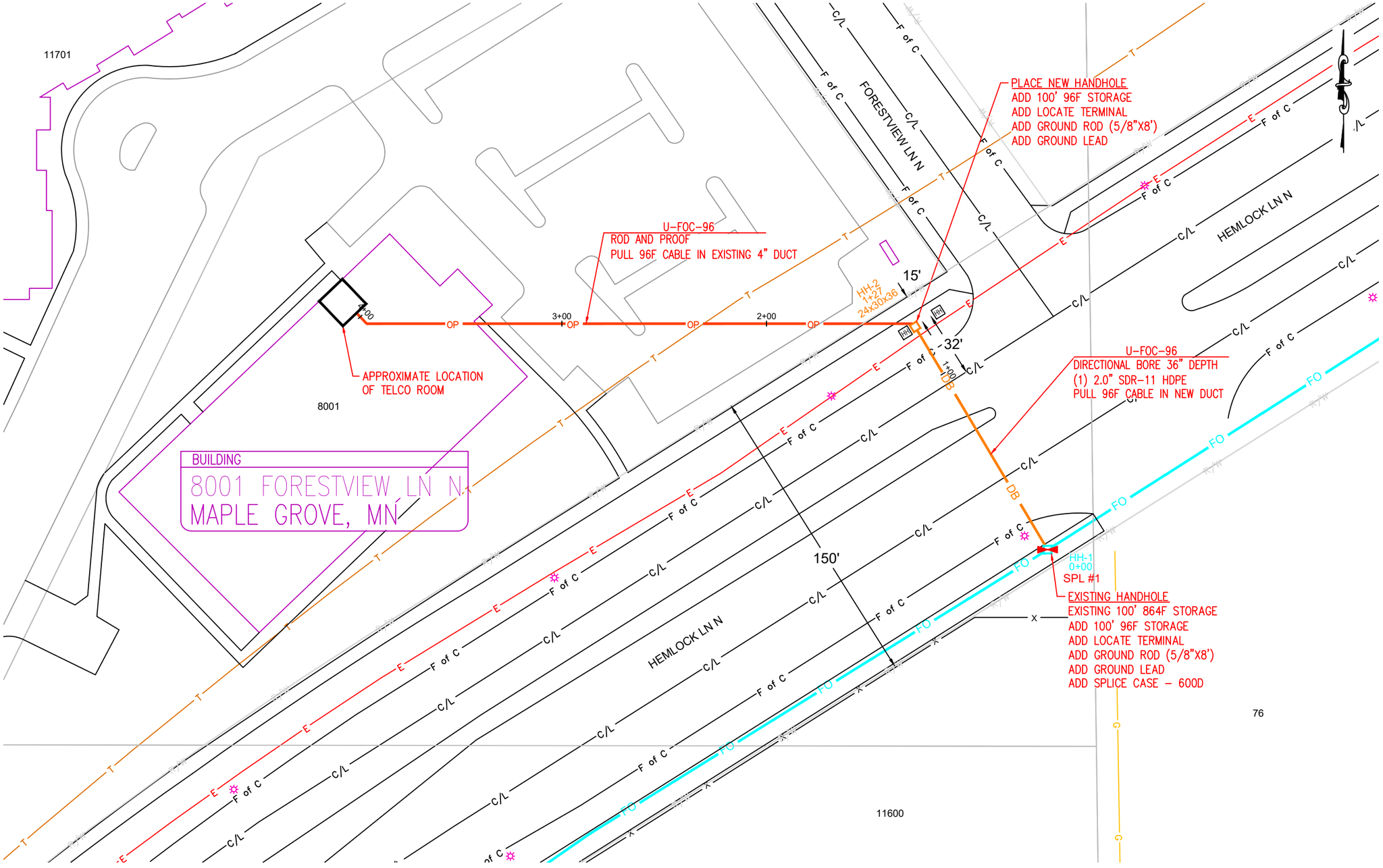


MCI

PROJECT: 123069_8001 FORESTVIEW LN N_2203EAFI_DESIGN_5.19.2022

MAPLE GROVE, MN

CLARIFICATION NO.	QUANTITY

MCImetro
ACCESS TRANSMISSION SERVICES, LLC

MCI

OUTSIDE PLANT CONSTRUCTION

TITLE: FIBER OPTIC CABLE ROUTE

123069_8001 FORESTVIEW LN N_2203EAFI_DESIGN_5.19.2022

DATE: 05-19-2022

ENGINEER: YL

DRAWN BY: YL

REVISIONS

DATE	DESCRIPTION	INITIAL
05-19-2022	CONSTRUCTION PKG	YL

SCALE

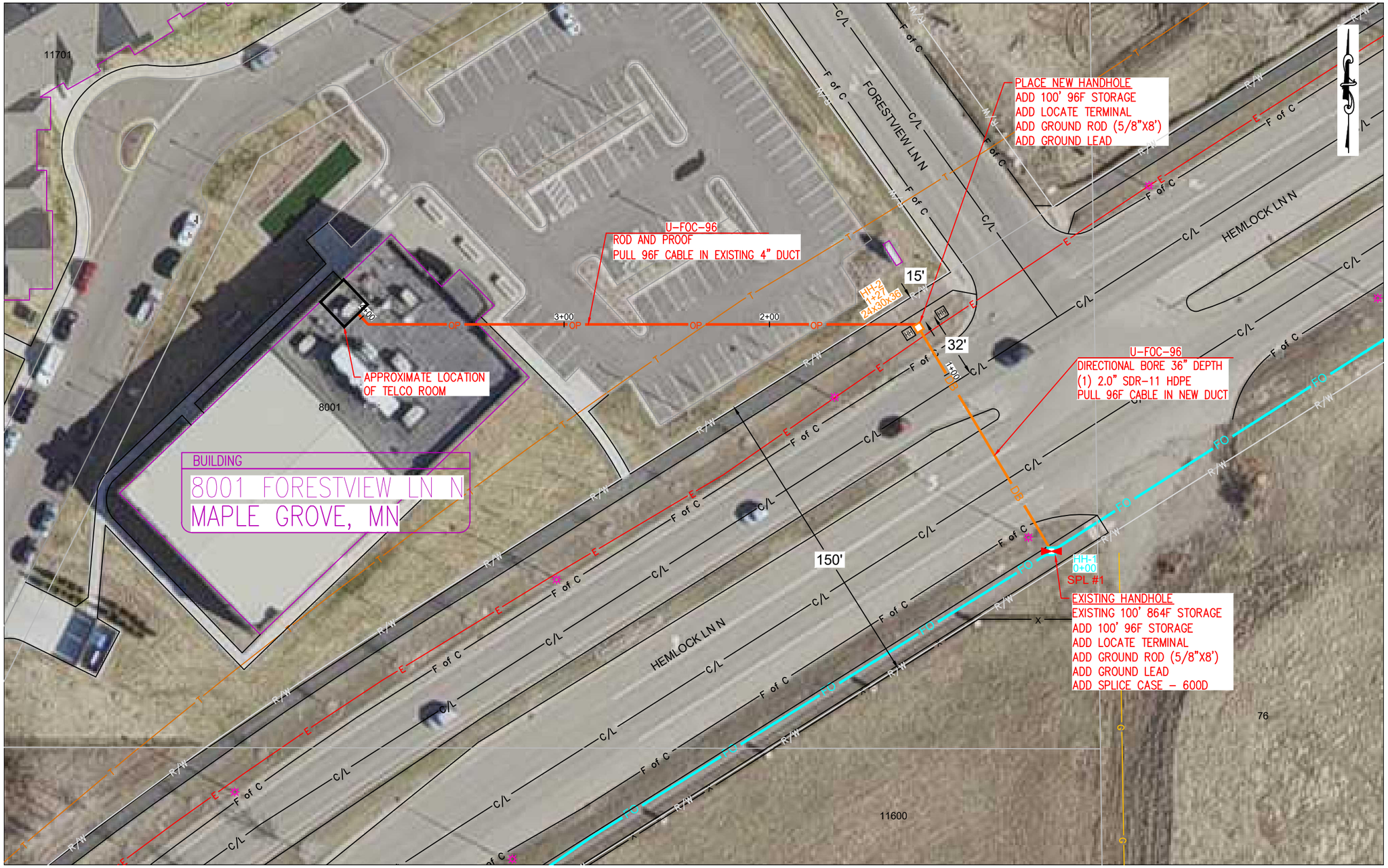
HORIZONTAL: 1"=50'

VERTICAL: 1"=50'

MP _____ TO MP _____

SHEET 8 OF 8

FILE: 123069_8001 FORESTVIEW LN N_2203EAFI_DESIGN_5.19.2022.DWG



MCI

PROJECT: 123069_8001 FORESTVIEW LN N_2203EAFI_DESIGN_5.19.2022

MAPLE GROVE, MN

CLARIFICATION NO.	QUANTITY

MCImetro
ACCESS TRANSMISSION SERVICES, LLC

MCI

OUTSIDE PLANT CONSTRUCTION

TITLE: FIBER OPTIC CABLE ROUTE

123069_8001 FORESTVIEW LN N_2203EAFI_DESIGN_5.19.2022

DATE: 05-19-2022

ENGINEER: YL

DRAWN BY: YL

REVISIONS

DATE	DESCRIPTION	INITIAL
05-19-2022	CONSTRUCTION PKG	YL

SCALE

HORIZONTAL: 1"=50'

VERTICAL: 1"=50'

MP _____ TO MP _____

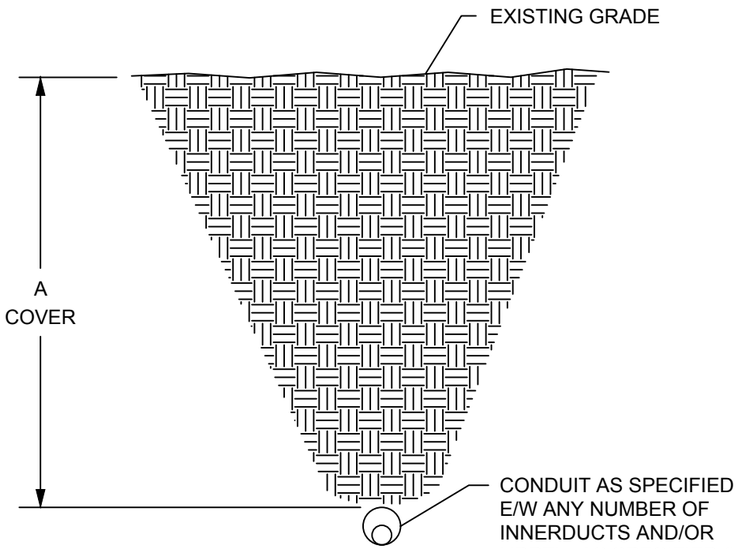
SHEET 8A OF 8

FILE: 123069_8001 FORESTVIEW LN N_2203EAFI_DESIGN_5.19.2022.DWG

CONSTRUCTION DETAILS

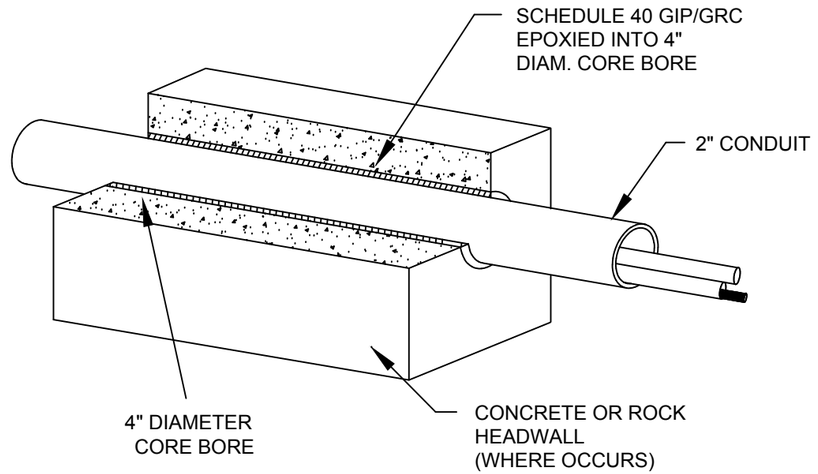
TYPICAL DETAIL A

DIRECTIONAL BORE CROSS SECTION
FOR CONDUIT



TYPICAL DETAIL B

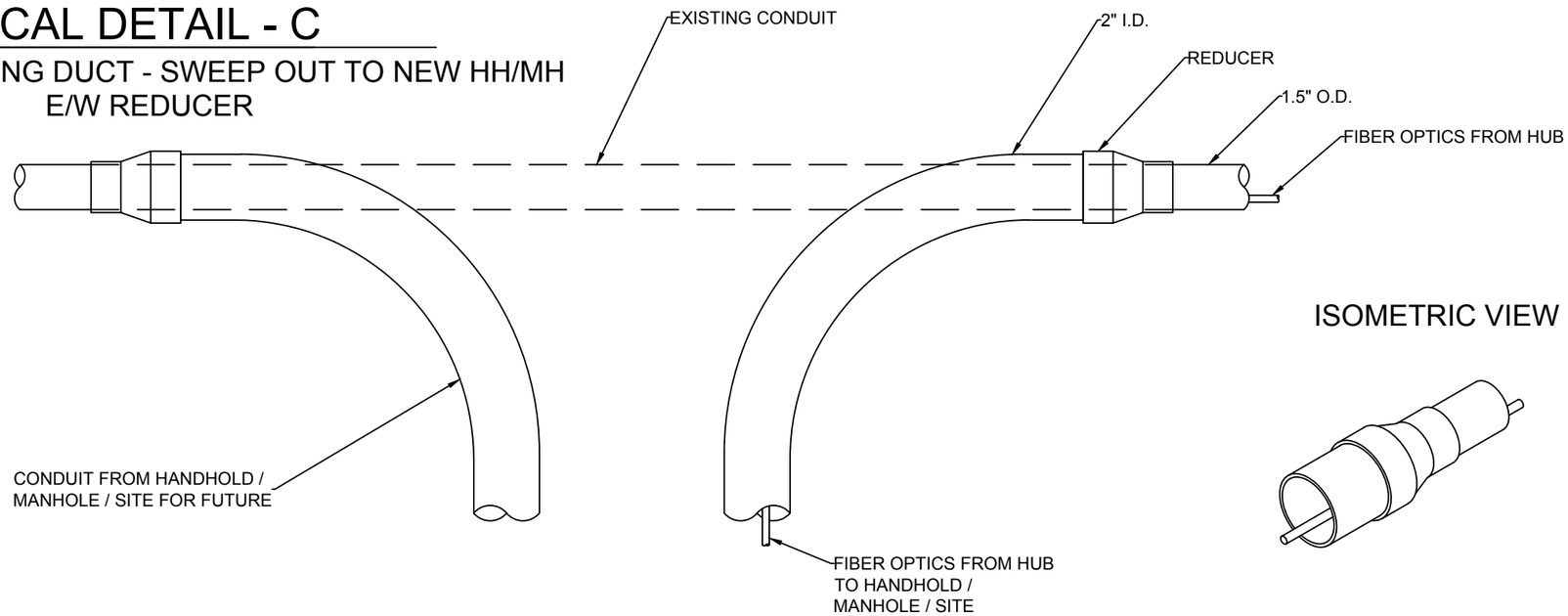
4" CORE BORE



NOTE:
EPOXY GROUT IS USED AT BOTH ENDS OF CORE BORE
TO SEAL GAP BETWEEN 2" CONDUIT AND PVC SLEEVE.

TYPICAL DETAIL - C

INTERCEPT EXISTING DUCT - SWEEP OUT TO NEW HH/MH
E/W REDUCER



ISOMETRIC VIEW

PROJECT: TYPICALS

TYPICALS

N/A

CLARIFICATION NO.	QUANTITY

XO COMMUNICATIONS
OUTSIDE PLANT CONSTRUCTION

TITLE: FIBER OPTIC CABLE ROUTE

TYPICALS

DATE: N/A

ENGINEER: N/A

DRAWN BY: N/A

REVISIONS

DATE	DESCRIPTION	INITIAL

SCALE

HORIZONTAL: NTS

VERTICAL: NTS

MP _____ TO MP _____

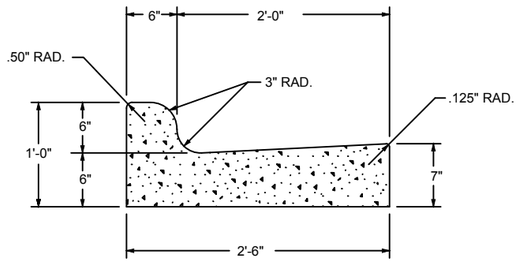
SHEET T1 OF T7

FILE: TYPICALS

CONCRETE CURB, GUTTER AND CURB & GUTTER RESTORATION DETAILS

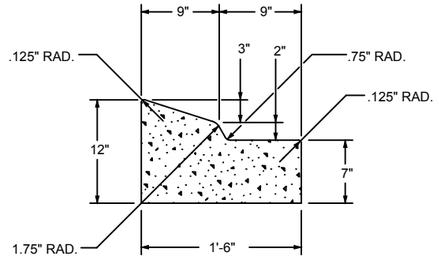
DETAIL "A"

2'-6" CURB AND GUTTER



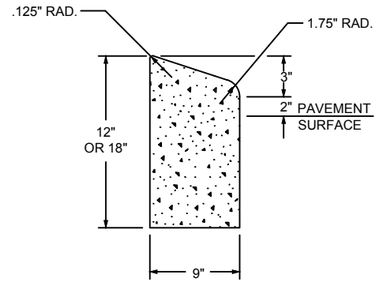
DETAIL "B"

1'-6" CURB AND GUTTER



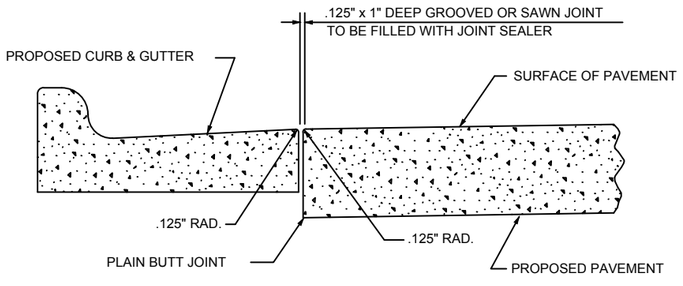
DETAIL "C"

9"X12" OR 18" CONCRETE CURB



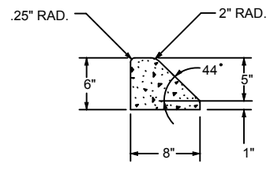
DETAIL "D"

LONGITUDINAL PLANE
BUTT JOINT



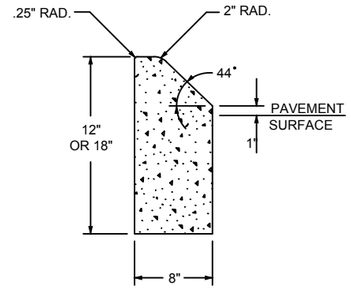
DETAIL "E"

8"X6" MEDIAN CURB



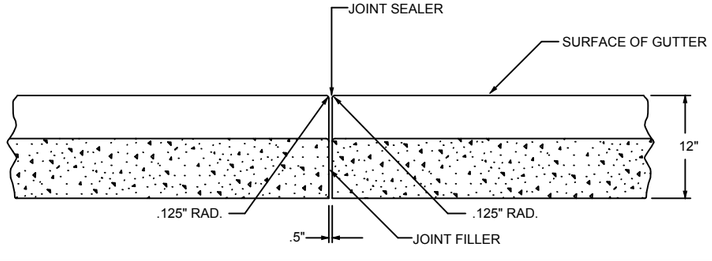
DETAIL "F"

8"X12" OR 18" CONCRETE
CURB



DETAIL "G"

TRANSVERSE EXPANSION JOINT
IN CURB AND GUTTER



NOTES:

1. CONTRACTION JOINTS SHALL BE PLACED AT 10' INTERVALLS, EXCEPT THAT A 15' SPACING MAY BE USED WHEN A MACHINE IS USED OR WHEN SATISFACTORY SUPPORT FOR THE FACE. FORM CAN BE OBTAINED WITHOUT THE USE OF TEMPLATES AT 10' INTERVALS.
2. JOINT SPACING MAY BE ALTERED IF REQUIRED BY THE ENGINEER.
3. CONTRACTION JOINTS MAY BE INSTALLED BY THE USE OF TEMPLATES OR FORMED BY OTHER APPROVED METHODS. WHERE SUCH JOINTS ARE NOT FORMED BY TEMPLATES, A MINIMUM DEPTH OF 1 1/4 " SHALL BE OBTAINED.
4. ALL CONSTRUCTION JOINTS, EXCEPT IN 8" x 6" MEDIAN CURB, SHALL BE FILLED WITH JOINT FILLER AND SEALER.
5. EXPANSION JOINTS SHALL BE SPACED AT 90' INTERVALS, AND ADJACENT TO ALL RIGID OBJECTS.

PROJECT: TYPICALS

TYPICALS

N/A

CLARIFICATION NO.	QUANTITY

XO COMMUNICATIONS
OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
TYPICALS

DATE: N/A
ENGINEER: N/A
DRAWN BY: N/A

REVISIONS

DATE	DESCRIPTION	INITIAL

SCALE

HORIZONTAL: NTS
VERTICAL: NTS

MP _____ TO MP _____

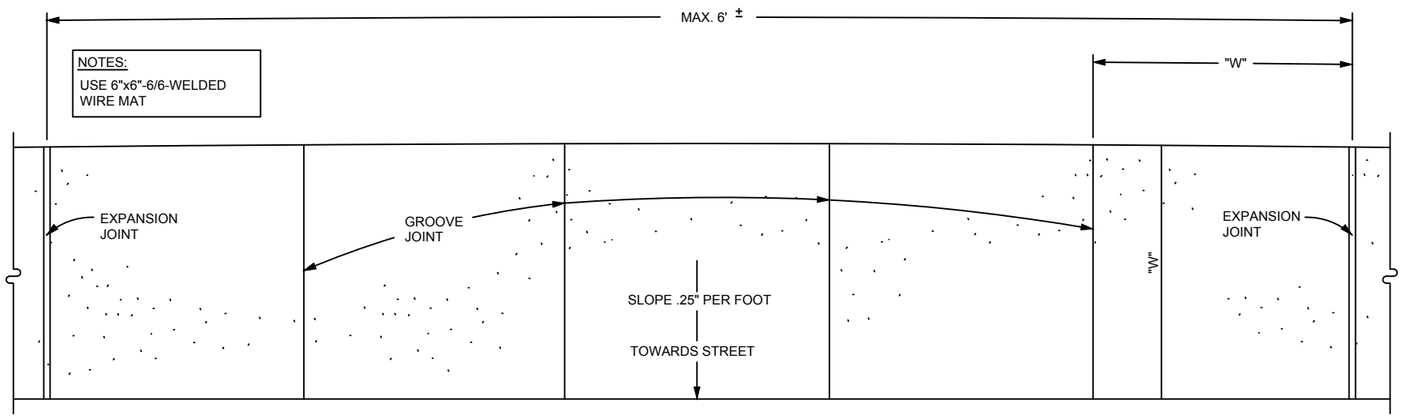
SHEET T2 OF T7

FILE: TYPICALS

STANDARD SIDEWALK DETAILS

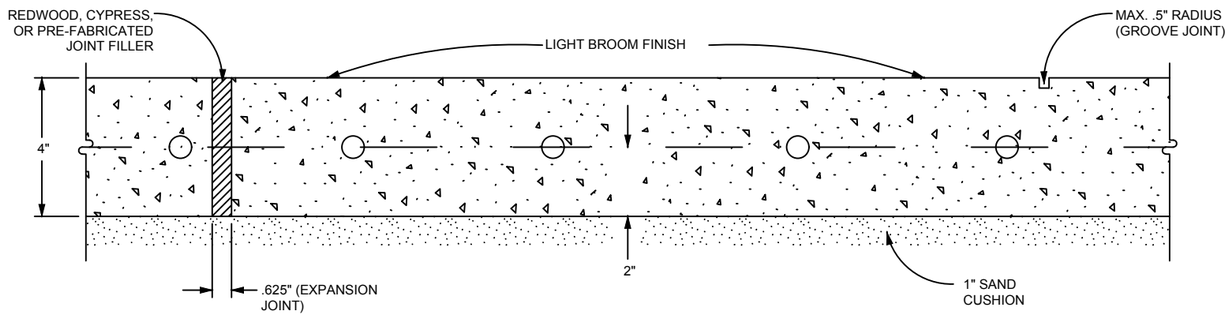
DETAIL "A"

PLAN VIEW



DETAIL "B"

PROFILE VIEW



NOTES:
1. EXPANSION JOINT IF ADJACENT TO CURB.
2. W=MINIMUM OF 5', IF WITHIN 1'-0" OF CURB.
3. MINIMUM "W"=4 FEET.

PROJECT: TYPICALS

TYPICALS

N/A

CLARIFICATION NO.	QUANTITY

XO COMMUNICATIONS
OUTSIDE PLANT CONSTRUCTION

TITLE: FIBER OPTIC CABLE ROUTE

TYPICALS

DATE: N/A

ENGINEER: N/A

DRAWN BY: N/A

REVISIONS

DATE	DESCRIPTION	INITIAL

SCALE

HORIZONTAL: NTS

VERTICAL: NTS

MP _____ TO MP _____

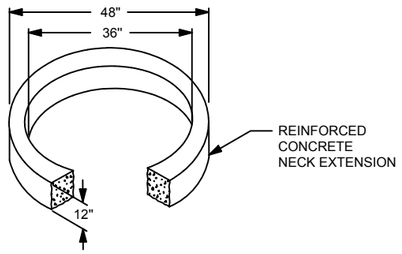
SHEET T3 OF T7

FILE: TYPICALS

4'x4'x4' MANHOLE DETAILS

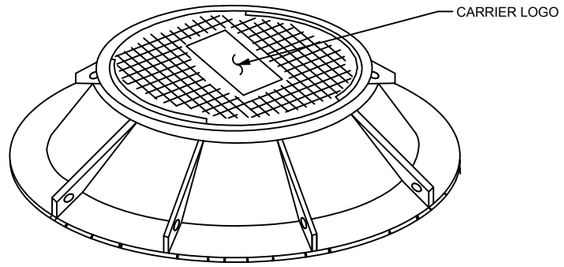
TYPICAL DETAIL "A"

TYPICAL NECK EXTENSION DETAIL



TYPICAL DETAIL "B"

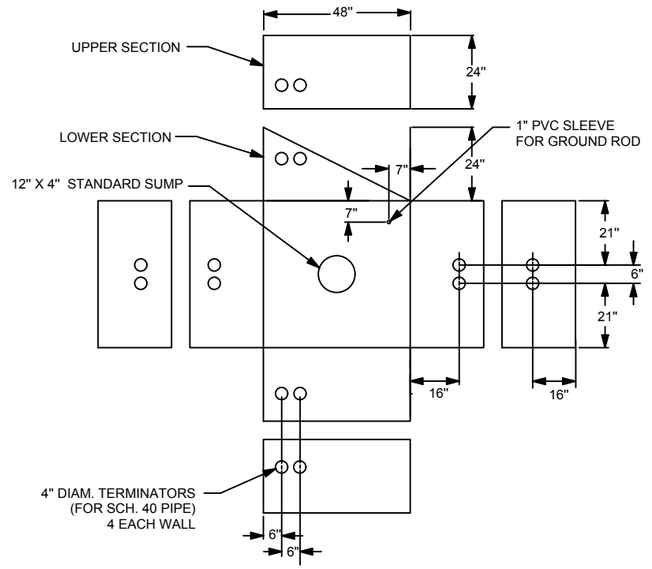
MANHOLE COVER IRONWORKS #B-30



NOTES:
1. EACH COVER TO HAVE (4) PICK SLOTS FOR REMOVING.
2. STAMP CARRIER LOGO IN COVER.
3. ACCESS HOLE: 30"

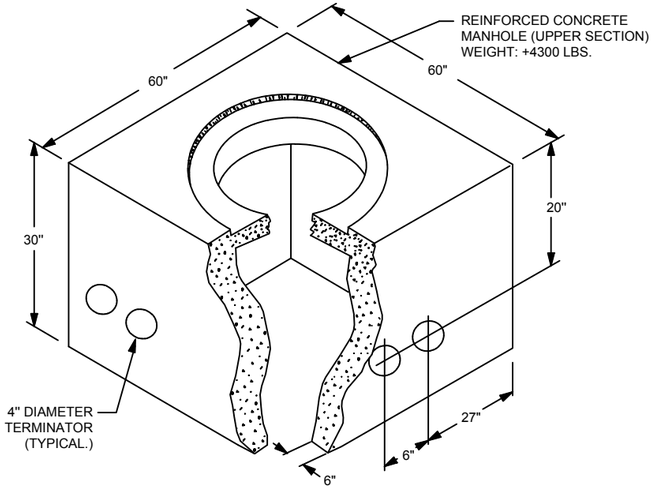
TYPICAL DETAIL "C"

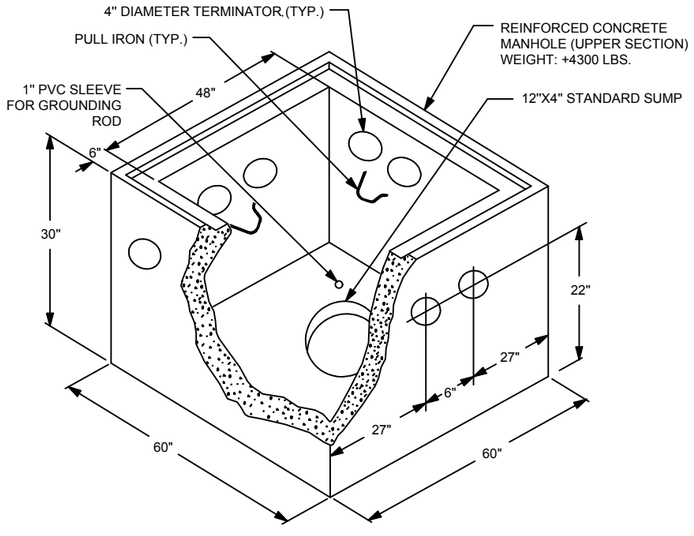
TERMINATORS, SUMP, & GROUND ROD SLEEVE
2 SECTIONS



TYPICAL DETAIL "D"

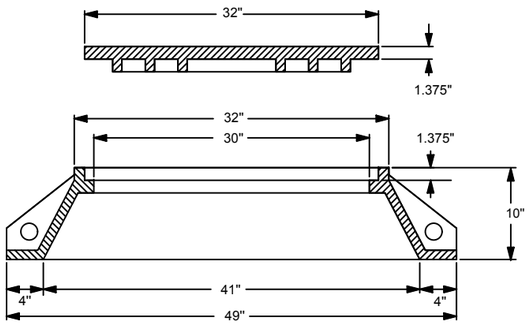
DALWORTH QUICKSET MANHOLE
WALLS: 6in. HEADROOM: 48in.





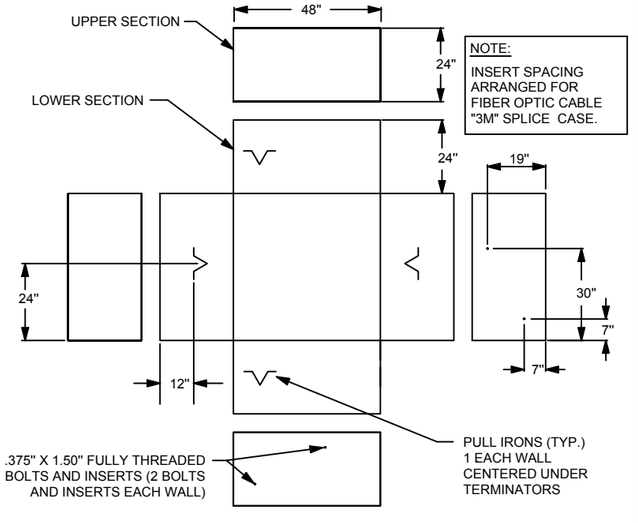
TYPICAL DETAIL "E"

RING AND COVER DETAIL
RING: 390lbs. COVER: 300lbs.



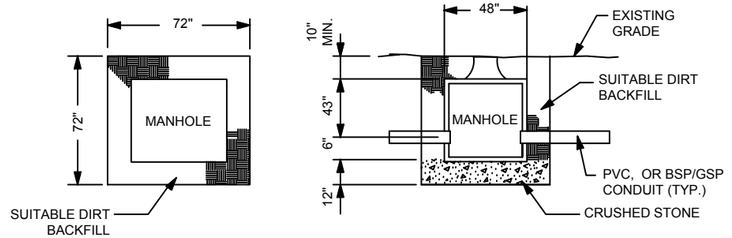
TYPICAL DETAIL "F"

BOLT INSERTS AND PULL IRONS
2 SECTIONS



TYPICAL DETAIL "G"

TYPICAL MANHOLE EXCAVATION PIT



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 (3/4" GRADE). SHORING WILL BE REQUIRED.
3. ALL MANHOLES SHALL BE PLACED WITH COVER FLUSH WITH EXITING GRADE
4.

PROJECT: TYPICALS

TYPICALS

N/A

CLARIFICATION NO.	QUANTITY

XO COMMUNICATIONS
OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
TYPICALS

DATE: N/A
ENGINEER: N/A
DRAWN BY: N/A

REVISIONS

DATE	DESCRIPTION	INITIAL

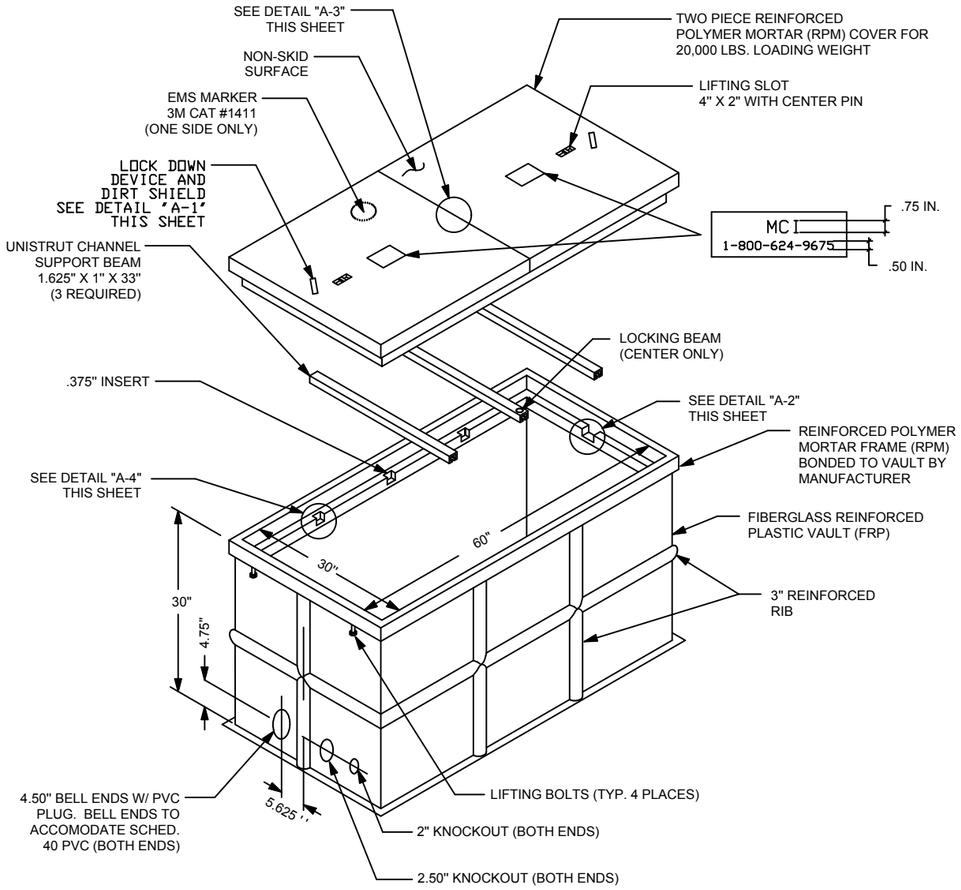
SCALE

HORIZONTAL: NTS
VERTICAL: NTS
MP _____ TO MP _____
SHEET T4 OF T7
FILE: TYPICALS

30" x 60" x 30" HANDHOLE DETAILS

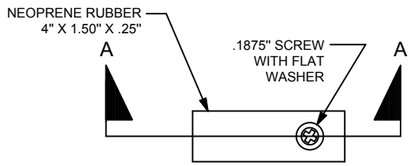
DETAIL "A"

EXPLODED ISOMETRIC DETAIL



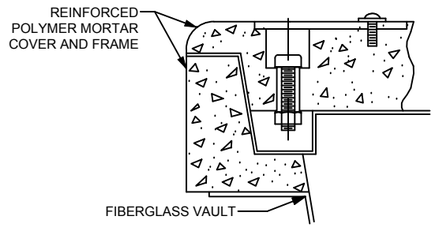
DETAIL "A-1"

LOCK DOWN DEVICE



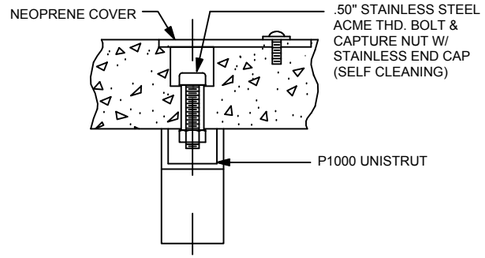
SECTION A-A

LOCKING DEVICE CROSS SECTION



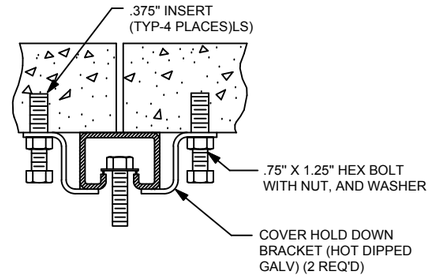
DETAIL "A-2"

ENGAGED LOCK DOWN DEVICE



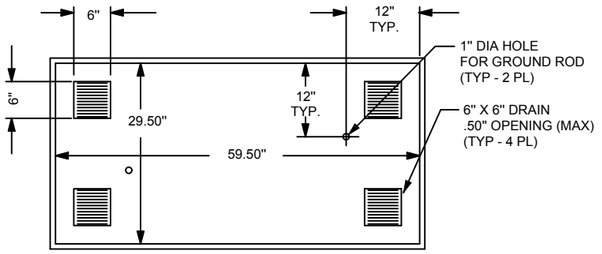
DETAIL "A-3"

COVER HOLD DOWN BRACKET OF 2-PIECE RPM COVER



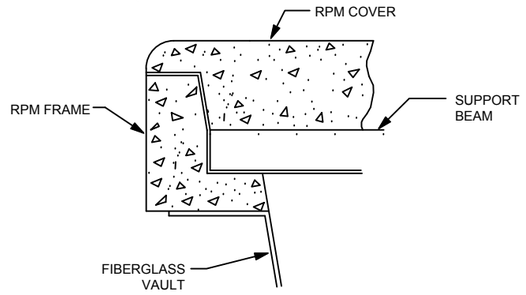
DETAIL "B"

VAULT BOTTOM PLAN VIEW (144 SQ. IN. TOTAL DRAINAGE)



DETAIL "A-4"

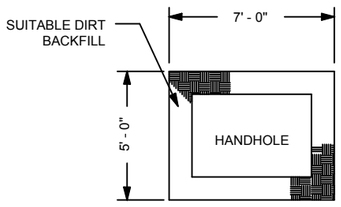
SUPPORT BEAM INSTALLATION (TYP. AT 6 PLACES)



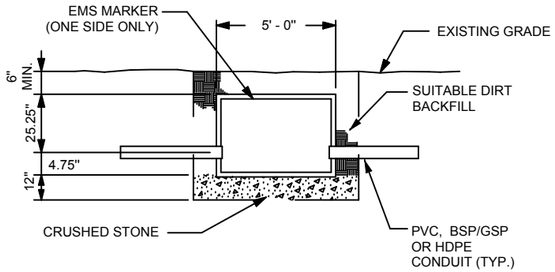
DETAIL "C"

EXCAVATION PIT

PLAN

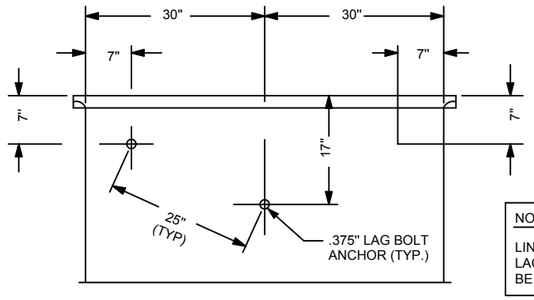


PROFILE



DETAIL "D"

SIDE WALL VIEW INSIDE LOOKING OUT



NOTE:

LINEAR DISTANCE BETWEEN LAG BOLT ANCHORS MUST BE 25".

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 MAY BE REQUIRED IF 48" OR DEEPER.
4. ALL HANDHOLES SHALL BE PLACED BELOW EXISTING GRADE.
5. THIS HANDHOLE IS OF FIBERGLASS MATERIAL, APROXIMATELY POUNDS IN WEIGHT. THE LIDS ARE POLYMER CONCRETE MATERIAL, EACH APPROXIMATELY POUNDS.

PROJECT: TYPICALS

TYPICALS

N/A

CLARIFICATION NO.	QUANTITY

XO COMMUNICATIONS
OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
TYPICALS

DATE: N/A

ENGINEER: N/A

DRAWN BY: N/A

REVISIONS

DATE	DESCRIPTION	INITIAL

SCALE

HORIZONTAL: NTS

VERTICAL: NTS

MP _____ TO MP _____

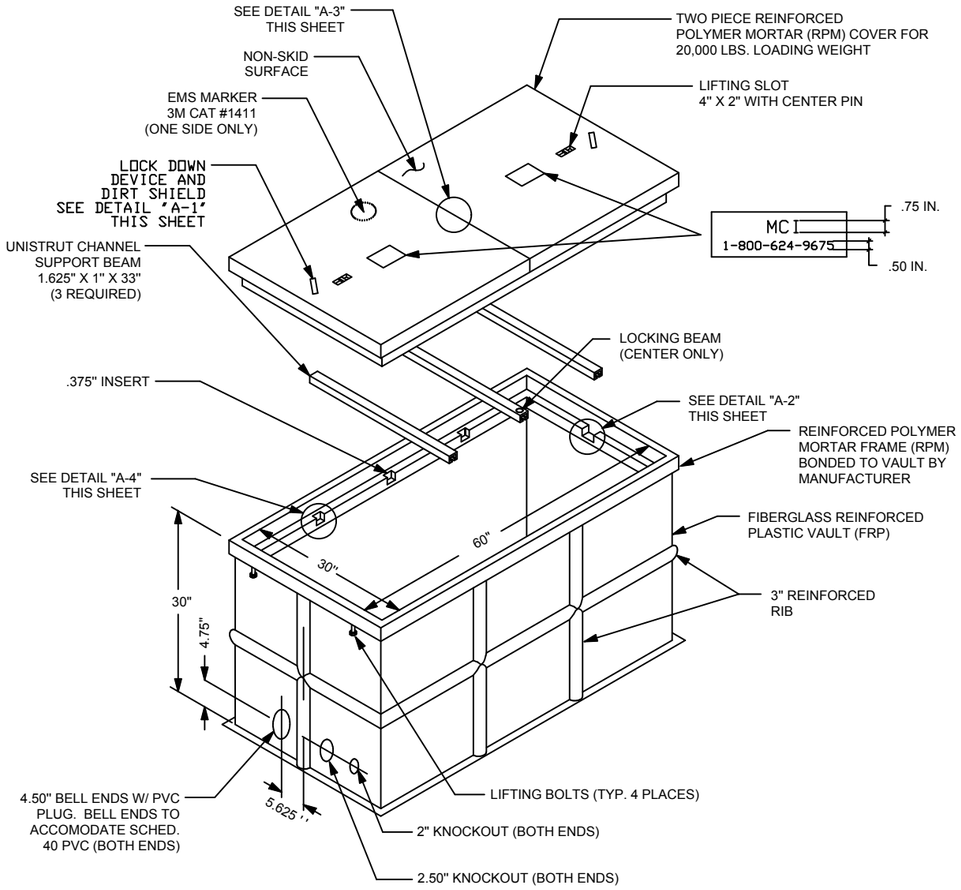
SHEET T5 OF T7

FILE: TYPICALS

24" x 30" x 36" HANDHOLE DETAILS

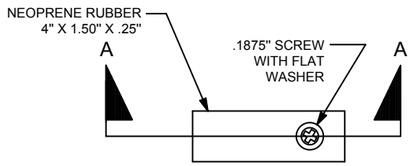
DETAIL "A"

EXPLODED ISOMETRIC DETAIL



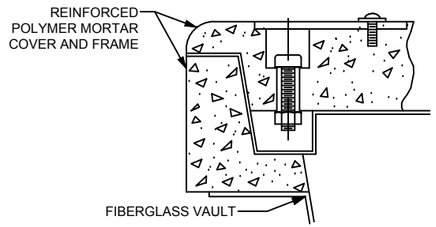
DETAIL "A-1"

LOCK DOWN DEVICE



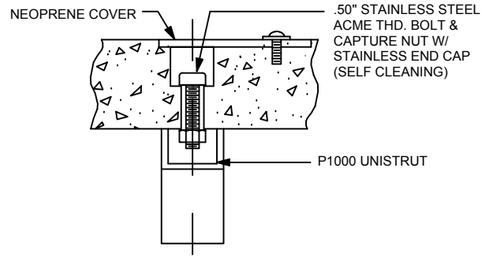
SECTION A-A

LOCKING DEVICE CROSS SECTION



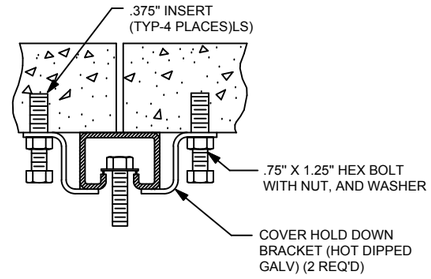
DETAIL "A-2"

ENGAGED LOCK DOWN DEVICE



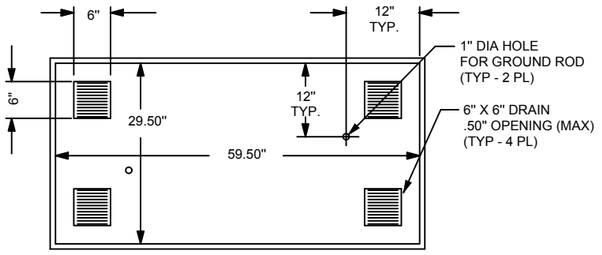
DETAIL "A-3"

COVER HOLD DOWN BRACKET OF 2-PIECE RPM COVER



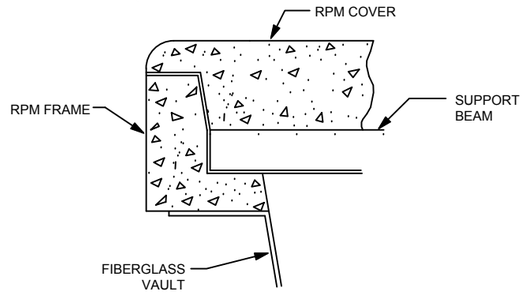
DETAIL "B"

VAULT BOTTOM PLAN VIEW (144 SQ. IN. TOTAL DRAINAGE)



DETAIL "A-4"

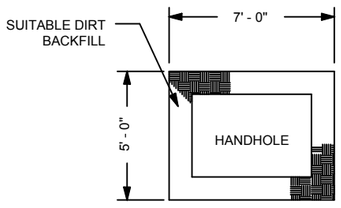
SUPPORT BEAM INSTALLATION (TYP. AT 6 PLACES)



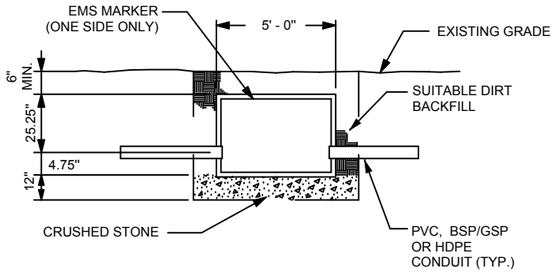
DETAIL "C"

EXCAVATION PIT

PLAN

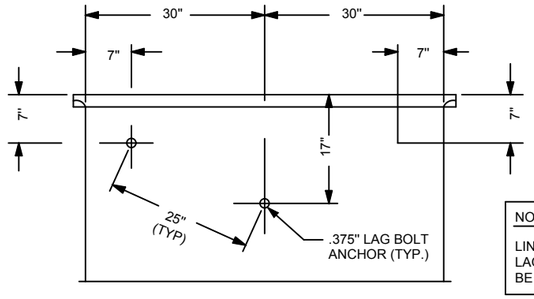


PROFILE



DETAIL "D"

SIDE WALL VIEW INSIDE LOOKING OUT



NOTE:

LINEAR DISTANCE BETWEEN LAG BOLT ANCHORS MUST BE 25".

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 MAY BE REQUIRED IF 48" OR DEEPER.
4. ALL HANDHOLES SHALL BE PLACED BELOW EXISTING GRADE.
5. THIS HANDHOLE IS OF FIBERGLASS MATERIAL, APROXIMATELY POUNDS IN WEIGHT. THE LIDS ARE POLYMER CONCRETE MATERIAL, EACH APPROXIMATELY POUNDS.

PROJECT: TYPICALS

TYPICALS

N/A

CLARIFICATION NO.	QUANTITY

XO COMMUNICATIONS
OUTSIDE PLANT CONSTRUCTIONS

TITLE: FIBER OPTIC CABLE ROUTE

TYPICALS

DATE: N/A

ENGINEER: N/A

DRAWN BY: N/A

REVISIONS

DATE	DESCRIPTION	INITIAL

SCALE

HORIZONTAL: NTS

VERTICAL: NTS

MP _____ TO MP _____

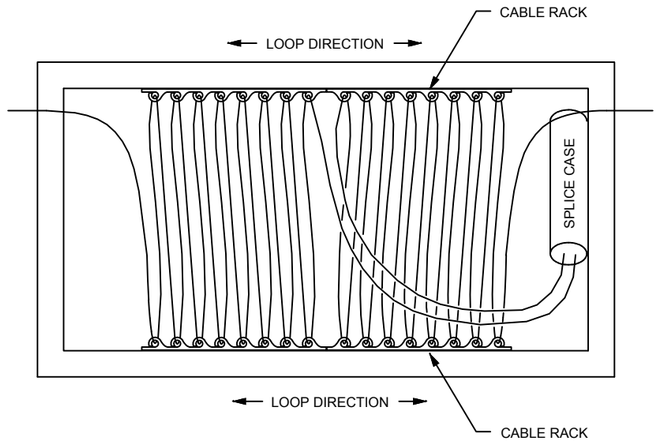
SHEET T6 OF T7

FILE: TYPICALS

HANDHOLE SLACK STORAGE DETAILS

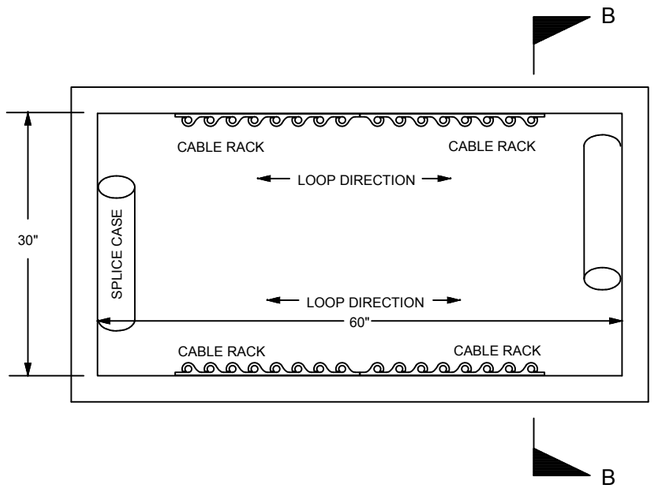
DETAIL "A"

CABLE SLACK ARRANGEMENT

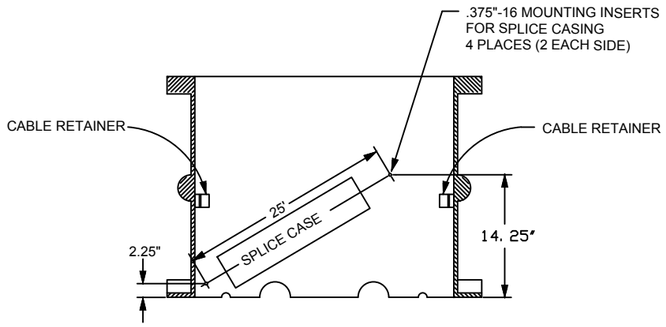


DETAIL "B"

HANDHOLE LAYOUT



SECTION B-B



PROJECT: TYPICALS

TYPICALS

N/A

CLARIFICATION NO.	QUANTITY

XO COMMUNICATIONS
OUTSIDE PLANT CONSTRUCTION
TITLE: FIBER OPTIC CABLE ROUTE
TYPICALS

DATE: N/A

ENGINEER: N/A

DRAWN BY: N/A

REVISIONS

DATE	DESCRIPTION	INITIAL

SCALE

HORIZONTAL: NTS

VERTICAL: NTS

MP _____ TO MP _____

SHEET T7 OF T7

FILE: TYPICALS

MCI Outside Plant FOCUS
*F*iber *O*ptic *C*able *U*ncovering *S*ystem

1) The title of this program, F.O.C.U.S., an acronym for Fiber Optic Cable Uncovering System was selected to remind everyone involved with working near MCI's active fiber optic systems to focus on protecting the facilities. If, during the course of the project, YOU notice any activity which may jeopardize the MCI OSP facilities, it is your duty to stop the work and re- FOCUS.

2) FOCUS rules must be followed on all MCI projects involving work on or near MCI OSP facilities. Safety is MCI's number one priority; everyone must refrain from unsafe and improper practices.

3) Review of FOCUS is mandatory at every Pre-bid, Pre-construction, site meeting and daily tailgate meeting. FOCUS discussion must include site-specific history, unique problems, facility configurations that may be encountered, and past errors. "Those who do not learn from history are doomed to repeat it". Do not let this happen to you.

4) Any work near or requiring handling of MCI Outside Plant facilities can only be performed with an MCI employee or contract representative present -- **THIS MEANS OUT OF HIS OR HER VEHICLE AND DIRECTLY MONITORING THE WORK**. The representative must have a properly operating cable locator checked for accuracy every day prior to commencement of work (comparison of line and depth readings to actual line and depth of the cable).

5) Locate and Pothole Requirements.

- Prior to any excavation, the MCI employee or contract representative must verify the initial locate marks completed by MCI Operations. **Do not trust locate results completed by others!** The MCI or contract representative must locate the cable running line by making at least one pass in each direction. Locate results must then be compared with previous marks and the asbuilts.
- If the proposed work involves digging or excavating *within 3 feet* of the cable, the cable route will be marked continually with orange paint and supplemented by marker flags placed every 10 ft. The excavation contractor must pothole **(all potholes must be completed by hand digging or vacuum excavation)** a minimum of every 15 ft., then expose the entire length of the cable by hand digging or vacuum excavation.
- If the proposed work involves digging or excavating *within 5 feet (but not closer than 3 feet)* of the cable, the cable route will be marked with a continuous dashed orange line and supplemented by marker flags placed every 10 ft. The excavation contractor must pothole the cable a minimum of every 15 ft.
- If the proposed work involves digging or excavating *within 15 feet (but not closer than 5 feet)* of the cable, the cable route will be marked with a continuous dashed orange line and supplemented by marker flags placed every 10 ft. The excavation contractor must pothole the cable a minimum of every 30 ft.
- The cable will also be potholed at any change in the running line of more than 1 ft. in any direction, anytime the accuracy of the electronic locate is questioned, or the marked running line does not match the as-builts.

6) Exposing Requirements.

- No mechanical excavation within 3 ft. of OSP facilities will be allowed unless the facilities have first been properly located, potholed, positively identified, continuously exposed by hand digging or vacuum excavation, and the facilities are clearly visible.
- In addition, mechanical excavation within three feet of OSP facilities requires onsite prior approval from MCI's employee or contract representative.

7) Please refer to the latest edition of the MCI OSP Handbook for additional details. Know it and follow it.

MCI Outside Plant Construction General Requirements

- All Federal, State and local safety regulations must be followed without exception.

- Personal protective equipment appropriate for the specific work site shall be used at all times. At a minimum, hard hat, safety shoes/steel toed boots and florescent orange or green work vest are required upon entering any MCI work site.

- Use of intoxicants, drugs, inhalants or any other substances that may impair alertness are strictly prohibited.

- Contractors are NOT allowed to cut any cable. Cables scheduled for removal will be cut by MCI Operations personnel, and only after verification that all traffic has been off-loaded.

- Extreme caution must be used at all times when working on or near active cables. An MCI employee or contract representative must approve and be present prior to and during all cable handling activities.

- Tools and equipment specifically designed for the job at hand are required. USE THE PROPER TOOL FOR THE JOB.

- Conduit work involving active cables requires specialized tools specifically designed to access ducts with active cables.

- Protecting MCI facilities is EXTREMELY important; however, SAFETY regarding yourself and others is the most important part of any project.