



JIM STRICKLAND
MAYOR
ENGINEERING DIVISION

PROCEDURES FOR FIBER OPTIC CABLE PERMITS

REVISED: AUGUST 13, 2020

Land Development Office; Room 644

CITY OF MEMPHIS 125 N. Main St., Memphis TN 38103



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I Introduction & General Background

The City of Memphis, Engineering Division (City Engineering) welcomes the opportunity to serve the citizens of our community. This document serves as a means to communicate our process related to land development, and the role that City Engineering plays in that process.

The Land Development Office (LDO) is a department under City Engineering that specifically works with the Memphis and Shelby County Office of Planning & Development (OPD) to ensure that all developments adhere to City standards and meet the requirements set forth for public improvements.

This document is meant to serve as a guide for following the correct procedures to obtain a permit to install fiber optic cables within the City of Memphis Right of Way (ROW). Any additional questions or concerns may be addressed to the following contact in Land Development:

Title: Assistant Plans Review Coordinator
Address: 125 North Main Street, Suite 644
Memphis, TN 38103
Phone: 901.636.6794

Disclaimer: This document is provided as a general guideline for the plan submittal process in the City of Memphis ROW. Information contained herein is for the designer's aid. The intent of this document is to provide information and guidance only. The engineer is ultimately responsible for the accuracy and completeness of the design submittal.

To permit in other municipalities around Shelby County please contact the following departments:

City of Bartlett
[Erin Campbell, Plans Reviewer](#)
[Timothy Herndon, Utilities Engineer](#)

City of Germantown
[Tim Gwaltney, City Engineer](#)
[Tony Ladd, Asst. City Engineer](#)
[Tim Bierdz, Storm Water Engineer](#)

City of Collierville
[Mike Kelly, Development Tech](#)

City of Lakeland
[Emily Harrell, City Engineer](#)

City of Millington
[Jason Dixon, City Engineer](#)

Additionally, the links to the following City of Memphis ordinances that are relevant to this document are included below:

[CHAPTER 6-24. - FIBER OPTIC AND TELECOMMUNICATIONS FRANCHISE](#)
[CHAPTER 6-28. - FIBER OPTIC AND TELECOMMUNICATIONS RESELLER FRANCHISES](#)



II. Submittal Requirements

A. Companies with Franchise Agreements:

The following companies have “franchise agreements” with the City of Memphis for work performed in the City of Memphis ROW. Unless specifically stated, these companies only need to provide the items listed in Subsection B:

1. AT&T
2. Comcast
3. Level 3¹
4. Time Warner Cable²
5. XO Communications
6. Zayo Fiber Solutions

Companies not listed above will be referenced as “non-franchise” and will additionally need to provide the items listed in Subsection D.

B. Items to be submitted for all fiber optic cable requests:

All fiber optic cable plans that are submitted to Land Development must contain:

1. Construction drawings that clearly depict the route requested (in PDF format) including installation details. **If there is a request to install fiber optic cable onto a traffic signal pole, the request will need to include appropriate wording and drawing details of the installation. The request will need to be approved by the Traffic Engineering Department before a permit can be issued.** All permit drawings must contain the following items:
 - Standard Plat Sheet Size (either Letter or Legal size)
 - North Arrow
 - Scale
 - Clearly Labeled Cross Streets
 - Include and Clearly Label the entirety of ROW work on map (s)
 - Project Name
 - Locations of Proposed Work: Beginning and End Points with GPS Coordinates
 - Unique Line Type or Color for Unique Type of Installment
 - Length of Fiber Segments between Handholes (to scale)
 - Handholes Clearly Labeled with GPS Coordinates
 - Description of route included
 - Match Line (as needed)
 - Page Numbers (as needed)
 - Text Legible; 0.12” Text Height; Not Overlapping
2. An aerial shot (in PDF format) that depicts the area in which the project is located.
3. Permit request document (in Word format) including the following:

¹ Level 3 is now CenturyLink as of November 1, 2017

² Time Warner Cable is now Spectrum as of May 18, 2016



- i. Route name identifier or customer being served.
- ii. Narrative description of entire route (in Word format). Narrative description must provide information concerning the location of the start of the route, applicable changes in direction with appropriate lengths for each run in a different direction, structures that may be placed in ROW, and the location of the end of the route.
 1. **Permit requests for work crossing through areas outside of City of Memphis ROW:** All permits issued are valid for work within City of Memphis ROW. See Section C regarding permits that will run through Tennessee Department of Transportation (TDOT), Memphis Area Transportation Authority (MATA), and other railroad authorities.
 2. **Permit requests outside of work hours listed in General Requirements, Item 10:** All permit requests are issued for work from Monday through Friday from 9:00 AM – 3:00 PM per General Requirements Item 10 (Page 5) **unless specifically requested.** Permit requests that are requested for work during over time hours of 6:00 PM – 6:00 AM will need to provide valid reasoning for the request along with overtime inspection fees (see Section 3.B.6.ii.1) and will be reviewed on a case to case basis where work hours are determined to be more feasible in overtime hours than the regular hours listed in the General Requirements.
- iii. Installer’s contact information (see Sample Permit)
- iv. Subcontractor’s information (see Sample Permit)
4. Latitude and Longitude coordinates for all bore entry and exit locations.
5. Utility locate numbers. If unavailable at the time of submission, the contractor will be required to obtain [utility locate numbers](#) prior to construction.
6. Fiber Optics Fees:
 - i. A \$750 base review is required for projects less than 1 mile in length (with exception to XO Communications and AT&T). The check for this fee is written out to “City of Memphis, 125 N. Main St. Memphis, TN 38103” and will be processed in Land Development.
 - ii. A fee of \$1 per foot is assessed by City Inspections prior to construction to cover the permit fee for such projects. The check for this fee is written out to “City of Memphis, 125 N. Main St. Memphis, TN 38103” and will be processed in Land Development.
 1. **Permit requests outside of work hours listed in General Requirements, Item 10: Permit requests that are requested for work during over time hours of 6:00 PM – 6:00 AM (see Section 2.B.3.ii.1.) will be billed for over time inspection at \$1.50 per foot.**
 - iii. For Fiber Optic projects over 1 mile in length, fees for review, permit, and construction inspection are assessed on a case-by case basis.
7. Length of time that a permit number is valid:
 - i. **Permit numbers are valid for 8 weeks after the date of issue.** An extension for work that is not completed within the listed time frame needs to be requested and approved by the LDO with an update on remaining work.
 - ii. Failure to request an extension will result in the LDO closing out the permit number and a new permit having to be issued for remaining work.



C. Permit requests for work crossing through areas outside of City of Memphis ROW:

State Routes - Tennessee Department of Transportation:

- Point of Contact:
Patrick Walker | Technician Senior
Region 4 Utility Permit Coordinator
Project Development Utilities
300 Benchmark Place
Jackson, Tennessee 38301
Phone: 731-935-0121
Cell: 731-343-0038
Patrick.Walker@tn.gov
- [List of State Routes](#)
- [Map of State Routes](#)
- Contractor will be responsible for contacting the above listed point of contact and obtaining a permit for the span of installment in TDOT ROW before a City of Memphis permit is issued. TDOT standards and guidelines must be adhered along with City of Memphis General Requirements. Construction drawings submitted are permitted to show a continuous route extending from City of Memphis through TDOT ROW with notes referring to included TDOT permit.
- TDOT forms have been attached in Appendix C (TDOT Application and Utility Use and Occupancy Agreement).

MATA Trolley Routes - Memphis Area Transportation Authority:

- Point of Contact:
Karl Johnson | Manager of Trolley Maintenance and Infrastructure
Memphis Area Transit Authority/ Mid-South Transportation Management, Inc.
Office: 901.577.2653 | 547 N. Main Street, Memphis, TN 38105
Mobile: 650.762.4673
kjohnson@matatransit.com
- [Map of MATA Tracks](#)
- Contractor will be responsible for contacting the above listed point of contact and sending construction drawings for the span of installment in MATA ROW. Approval from MATA must be shown before a City of Memphis permit is issued. MATA standards and guidelines must be adhered along with City of Memphis General Requirements. Construction drawings submitted are permitted to show a continuous route extending from City of Memphis through MATA ROW with notes referring to included MATA approval.
- MATA forms have been attached in Appendix D-F for reference. Standard operating procedures are listed in detail: Appendix D and E (MATA ROW Work Request and MATA Roadway Worker Protection) should be referenced for all projects within the vicinity of MATA ROW and Appendix F (MATA Track Access Permits) should be additionally referenced if work is being requested through MATA Trolley Tracks.



Railroad Routes – respective railroad authority:

- Procedure links:
 - [Union Pacific](#)
 - [BNSF Railway](#)
 - [Norfolk Southern](#)
 - [Canadian National](#)
- Contractor will be responsible for referencing the above listed links and obtaining a permit for the span of installment in applicable railroad authority’s ROW and will be permitted separately from City of Memphis permit. **Construction drawings submitted are not permitted to show a continuous route extending from City of Memphis through applicable railroad authority’s ROW. City of Memphis permit route will begin and end outside of applicable railroad authority’s ROW.**
- Sample Scenario for Railroad Route can be found in Appendix B.

D. Additional items to be submitted for “non-franchise” fiber optic cable requests:

Additional items to be submitted will reference the following document:

[Procedures for Street/Utility Cut Permit](#)

For “non-franchise” companies, the following items must be provided:

1. Comprehensive General Liability and Auto Insurance Listing (*Section 5.A.2; Section 5.A.3*)
2. A \$15,000 performance bond (*Section 5.B.1*)
3. Memorandum of Understanding (*Section 5.C*)
4. A flat fee for the street cut permit for \$300.00 (*Section 5.D*):

Once all applicable items have been received, a permit number will be assigned to the permit release memo by Land Development. **This memo will be sent to City Inspections and from there the procedures listed in the General Requirements must be followed (see Section 3: General Requirements for Permit Work).**

E. Links for Civil Standards and MUTCD:

Below is a list of helpful links for references to City of Memphis Civil Standards, relevant Civil Standards, and MUTCD (Part 6: Temporary Traffic Control) requirements that will be enforced by inspectors as necessary to the scope of a permit:

[Full Set of Civil Standards](#)

- [Curb Ramp Existing](#)
- [Repair of Utility Cuts](#)
- [Pavement Repair Traverse Patches Details](#)
- [Pavement Repair Wheel Path Details](#)
- [Pavement Repair Cross Slope Details](#)
- [Pavement Repair Multi Lane Details](#)
- [Pavement Repair Patch Inside A Patch Details](#)
- [Pavement Repair Cut Restoration Detail](#)
- [Utility Cut Locations at Intersections](#)
- [Concrete Pavement Repair](#)
- [Pavement Repair Patches in Series](#)

[MUTCD 2009 Edition](#)



III. General Requirements for Permit Work

The following General Requirements are listed at the bottom of every approved permit release memo.

GENERAL REQUIREMENTS:

1. The contractor is responsible for contacting, via email, Construction.Services@cannon-cannon.com Cannon & Cannon, Inc (CCI) Construction Services, 60 Germantown Court, Suite 110, Memphis, TN, at (901) 820-0020 a minimum of 24 hours prior to any work done within the public right-of-way.
2. The physical location of the work site and the issued permit number shall be included in the notification.
3. The contractor shall contact the [City of Memphis Traffic Signal Maintenance Shop, 980 S. Third St. Memphis, TN, at \(901\) 528-2844 between the hours of 7:30 AM to 3:00 PM on weekdays](#) for location of signal conduit and wires a minimum of 72 (weekday) hours prior to starting any work within 350 feet of a traffic signal device³. Voice messages will not be accepted.
4. The name of the subcontractor's company, address, point of contact, and phone number listed in this permit must be verified by the City of Memphis Construction Inspections. The listed subcontractor shall be the subcontractor that is physically carrying out the requested permit.⁴
5. The subcontractor is required to have clear company insignia on the sides of all vehicles present at the work site to ensure that the listed subcontractor is performing the work listed in this permit. The vehicle mounted company insignias will reflect both the general contractor and the subcontractor.⁵
6. This permit is not valid unless the point of contact listed above as the subcontractor has been verified to perform the work listed in this permit.
7. **This permit is valid only for work within City of Memphis ROW. A copy of the approved permit and other applicable permits for TDOT, MATA, or other railroad authorities must be kept on the job site at all times.**
8. Any work or impacts (including drill spoils, equipment placement, and infrastructure placement) to property outside the City of Memphis ROW is specifically PROHIBITED.)
9. At locations where the contractor is unable to bore, cutting the pavement may be necessary. Where sidewalk is impacted with the installation of a handhole or other construction, the contractor is required to remove and replace all of the sidewalk between the joints on either side of the disturbance. The pavement and sidewalk shall be removed and restored according to standard City of Memphis specifications. Any work involving streets, sidewalks and/or curb/gutter will require an appropriate permit issued by City of Memphis Construction Inspection office located at 2599 Avery Avenue, (901) 636-2462 and operate between the hours of 7:00 AM to 4:00 PM Monday through Friday. Any permit issued by Construction Inspections shall be valid for the area covered by the fiber permit. Any construction impacts to a commercial driveway will require a City of Memphis permit from Traffic Engineering located at City Hall, 125 N. Main Street, Room 668, (901) 636-6710. The office hours are 8:30 AM to 5:00 PM Monday through Friday.
10. **Unless specifically authorized in writing on this permit installation work will only occur from 9:00 AM to 3:00 PM from Monday to Friday.**⁶
11. The contractor is also responsible for notifying CCI Inspection Services when their work on the site is substantially completed and then final. Substantially complete is all construction up to, but not including fiber installation and new pole installation, if required. The notification shall be by email to Construction.Services@cannon-cannon.com. The contractor will be responsible for repairing and/or replacing any work within public right-of-way, or any public or private infrastructure damaged during construction, to the satisfaction of the Inspector prior to release of bond and insurance, or prior to approval of notice to proceed with construction of subsequent projects - whichever is applicable. Any deficiencies within the street travel way shall be addressed within three working days of notification including sod replacement and removal of excess soil and/or debris. Any deficiencies impacting sidewalk shall be addressed within two weeks of notification. **Upon final completion of work, which will include any pole replacements and the installation of the fiber optic cabling, the owner shall notify CCI to request and pass the final inspection.**
12. All cable placement will be placed 30 to 48 inches in depth **between the back of the curb to the edge of the ROW only. Equipment installed in the ROW must be clearly labelled with the installer's name and a phone number.**
13. The contractor shall place any above ground markers on property lines within residential areas whenever practical.
14. Any disturbed ground resulting from construction shall be sodding, not seeding, with a sod similar to that on the remainder of the site near the disturbed area.
15. A permit number for the requested route will be issued by the [City of Memphis Land Development Office, 125 N. Main St., Memphis, TN](#). This permit is not valid without a valid permit number. **All fees including engineering review (if applicable) and inspection fees must be paid prior to issuance of a permit.**⁷
16. **The permit number issued is valid for 8 weeks after the date of issue.** An extension for work that is not completed within the listed time frame needs to be requested and approved by the Land Development Office with an update on remaining work. **Failure to request an extension prior to the termination date will result in the Land Development Office closing out the permit number, applicable fees being billed with the new permit request, and a new permit having to be issued for remaining work. Final inspections must be requested within the 8 weeks that the permit is active.**

Failure to follow the above notification procedures will result in a stop work order and a hold on the approval of future permit requests. The stop work order and hold will not be released until General Requirements and conditions have been satisfied.

³ Devices include traffic signal lights, school signals, and flashers.

⁴ Subcontractor information will be listed for reference. If the individual overseeing the work does not match the person listed on the permit the work requested will be halted.

⁵ All vehicles at job site must have clear insignia; failure to do so will result in work being halted.

⁶ Work hours can be requested outside of 9am-3pm, but it must be approved by the Land Development Office (see Section 2.B.3.ii.2.)

⁷ See Section 2.B.3.iii-iv



As of August 13, 2020, the 16 listed General Requirements are applicable to all companies requesting fiber optic installation. Additional requirements may be added per discretion of the Land Development and City Inspections Offices.

Notice on Stop Work Orders:

The contractor shall be assessed a \$500 penalty for any issued Stop Work Orders due to proceeding with any unauthorized work that is in violation of the General Requirements. **A Stop Work Order will result in future permits being placed on hold until all infractions have been satisfied.** Unauthorized work is work conducted without a valid permit or contacting Construction.Services@cannon-cannon.com and/or the City of Memphis Traffic Signal Shop within the time frames specified within the permit general requirements. The Stop Work Order and permit holds will not be removed until the \$500 penalty is paid and the violated permit conditions are addressed to the satisfaction of the City of Memphis.

Permits that are installed before a permit has been issued or worked on after a permit has expired will be issued a Stop Work Order. For the listed permits violating permitting rules the installer will also be billed applicable review fees and overtime installation at \$1.50/ft. of inspection fees on the entire length of the permit requested.

Note for clarification on contacting Construction Services:

Construction Services must be notified of installations at the following given time frames to be compliant with General Requirements:

- A minimum of 24 hours prior to any work done within the public right-of-way.
- At the start of each work day where crews are anticipating being on site.
- If emergencies arise on site, especially if crews need to conduct emergency work outside of permitted hours.
- When work is completed to request a final inspection of the site.



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APPENDIX A: SAMPLE CITY OF MEMPHIS PERMIT

Land Development Office; Room 644
PROCEDURES FOR FIBER OPTIC CABLE PERMITS



City of Memphis

Tennessee



JIM STRICKLAND
MAYOR
ENGINEERING DIVISION

From: Ibrahim Chum E.I., Assistant Plans Review Coordinator

To: James Murray, Cannon & Cannon, Inc. Construction Engineering Inspector

Date: *(Date Permit is Released to City Inspections)*

Re: *(Company name)*, Fiber Optic Cable in City of Memphis Right of Way *(Franchise or Non-Franchise Agreement)*

Route Name: *(Name of route of permit request)*

Description:

(Description provided must provide information concerning the location of the start of the route, applicable changes in direction with appropriate lengths for each run in a different direction, structures that may be placed in ROW, and the location of the end of the route.)

Starting GPS Location: *(Starting Coordinates of Cable Route)*

Ending GPS Location: *(Ending Coordinates of Cable Route)*

Locate Ticket: *(Available Ticket Numbers; if not available locate tickets will be called in by the contractor)*

Total ROW Footage: Directional bore: *(Length of Directional Bore)*
Aerial Placement: *(Length of Aerial Placements)*
Total ROW Footage: *(Length of Total ROW Footage)*

Installer's Contact: *(Name of Point of Contact)*
(Name of Company)
(Email)
(Office Number) *(Cellphone Number)*

Subcontractor's Contact: *(Name of Point of Contact)*
(Name of Company)
(Address)
(Email)
(Office Number) *(Cellphone Number)*

Only a cursory review of the route via available aerial photography was conducted. It is the responsibility of the contractor to ensure that all utility locates have been requested and completed/updated prior to construction, and that any and all permits required from other entities have been acquired. Evidence of underground utilities is present including gas, water, electric, sewer and drainage. Overhead utilities including power lines, street lights, and traffic signals are present. The presence of traffic signals would indicate that buried traffic signal cables are in the vicinity, as well. Other underground utilities should be expected. For this route, it is estimated that the pedestrian traffic will be heavy and the vehicular traffic volumes will be heavy. Appropriate pedestrian and vehicular traffic control should be implemented by the contractor. It is the responsibility of the contractor to notify emergency services of any closure of any roadway or alley – no matter the duration.

Land Development Office; Room 644
PROCEDURES FOR FIBER OPTIC CABLE PERMITS



GENERAL REQUIREMENTS:

1. The contractor is responsible for contacting, via email, Construction.Services@cannon-cannon.com Cannon & Cannon, Inc (CCI) Construction Services, 60 Germantown Court, Suite 110, Memphis, TN, at (901) 820-0020 a minimum of 24 hours prior to any work done within the public right-of-way.
2. The physical location of the work site and the issued permit number shall be included in the notification.
3. The contractor shall contact the City of Memphis Traffic Signal Maintenance Shop, 980 S. Third St. Memphis, TN, at (901) 528-2844 between the hours of 7:30 AM to 3:00 PM on weekdays for location of signal conduit and wires a minimum of 72 (weekday) hours prior to starting any work within 350 feet of a traffic signal device⁸. **Voice messages will not be accepted.**
4. The name of the subcontractor's company, address, point of contact, and phone number listed in this permit must be verified by the City of Memphis Construction Inspections. The listed subcontractor shall be the subcontractor that is physically carrying out the requested permit.⁹
5. The subcontractor is required to have clear company insignia on the sides of all vehicles present at the work site to ensure that the listed subcontractor is performing the work listed in this permit. The vehicle mounted company insignias will reflect both the general contractor and the subcontractor.¹⁰
6. This permit is not valid unless the point of contact listed above as the subcontractor has been verified to perform the work listed in this permit.
7. **This permit is valid only for work within City of Memphis ROW. A copy of the approved permit and other applicable permits for TDOT, MATA, or other railroad authorities must be kept on the job site at all times.**
8. Any work or impacts (including drill spoils, equipment placement, and infrastructure placement) to property outside the City of Memphis ROW is specifically PROHIBITED.)
9. At locations where the contractor is unable to bore, cutting the pavement may be necessary. Where sidewalk is impacted with the installation of a handhole or other construction, the contractor is required to remove and replace all of the sidewalk between the joints on either side of the disturbance. The pavement and sidewalk shall be removed and restored according to standard City of Memphis specifications. Any work involving streets, sidewalks and/or curb/gutter will require an appropriate permit issued by City of Memphis Construction Inspection office located at 2599 Avery Avenue, (901) 636-2462 and operate between the hours of 7:00 AM to 4:00 PM Monday through Friday. Any permit issued by Construction Inspections shall be valid for the area covered by the fiber permit. Any construction impacts to a commercial driveway will require a City of Memphis permit from Traffic Engineering located at City Hall, 125 N. Main Street, Room 668, (901) 636-6710. The office hours are 8:30 AM to 5:00 PM Monday through Friday.
10. **Unless specifically authorized in writing on this permit installation work will only occur from 9:00 AM to 3:00 PM from Monday to Friday.**¹¹
11. The contractor is also responsible for notifying CCI Inspection Services when their work on the site is substantially completed and then final. Substantially complete is all construction up to, but not including fiber installation and new pole installation, if required. The notification shall be by email to Construction.Services@cannon-cannon.com. The contractor will be responsible for repairing and/or replacing any work within public right-of-way, or any public or private infrastructure damaged during construction, to the satisfaction of the Inspector prior to release of bond and insurance, or prior to approval of notice to proceed with construction of subsequent projects - whichever is applicable. Any deficiencies within the street travel way shall be addressed within three working days of notification including sod replacement and removal of excess soil and/or debris. Any deficiencies impacting sidewalk shall be addressed within two weeks of notification. **Upon final completion of work, which will include any pole replacements and the installation of the fiber optic cabling, the owner shall notify CCI to request and pass the final inspection.**
12. All cable placement will be placed 30 to 48 inches in depth **between the back of the curb to the edge of the ROW only. Equipment installed in the ROW must be clearly labelled with the installer's name and a phone number.**
13. The contractor shall place any above ground markers on property lines within residential areas whenever practical.
14. Any disturbed ground resulting from construction shall be sodding, not seeding, with a sod similar to that on the remainder of the site near the disturbed area.
15. A permit number for the requested route will be issued by the City of Memphis Land Development Office, 125 N. Main St., Memphis, TN. This permit is not valid without a valid permit number. **All fees including engineering review (if applicable) and inspection fees must be paid prior to issuance of a permit.**¹²
16. **The permit number issued is valid for 8 weeks after the date of issue.** An extension for work that is not completed within the listed time frame needs to be requested and approved by the Land Development Office with an update on remaining work. **Failure to request an extension prior to the termination date will result in the Land Development Office closing out the permit number, applicable fees being billed with the new permit request, and a new permit having to be issued for remaining work. Final inspections must be requested within the 8 weeks that the permit is active.**

Failure to follow the above notification procedures will result in a stop work order and a hold on the approval of future permit requests. The stop work order and hold will not be released until General Requirements and conditions have been satisfied.

Ibrahim Chum, E.I.
Assistant Plans Review Coordinator
City of Memphis
125 N. Main St. Room 644
Memphis, Tn. 38103-2017
(901) 636-6794 (Office)
Ibrahim.Chum@memphistn.gov
ConstructionServices@cannon-cannon.com

⁸ Devices include traffic signal lights, school signals, and flashers.

⁹ Subcontractor information will be listed for reference. If the individual overseeing the work does not match the person listed on the permit the work requested will be halted.

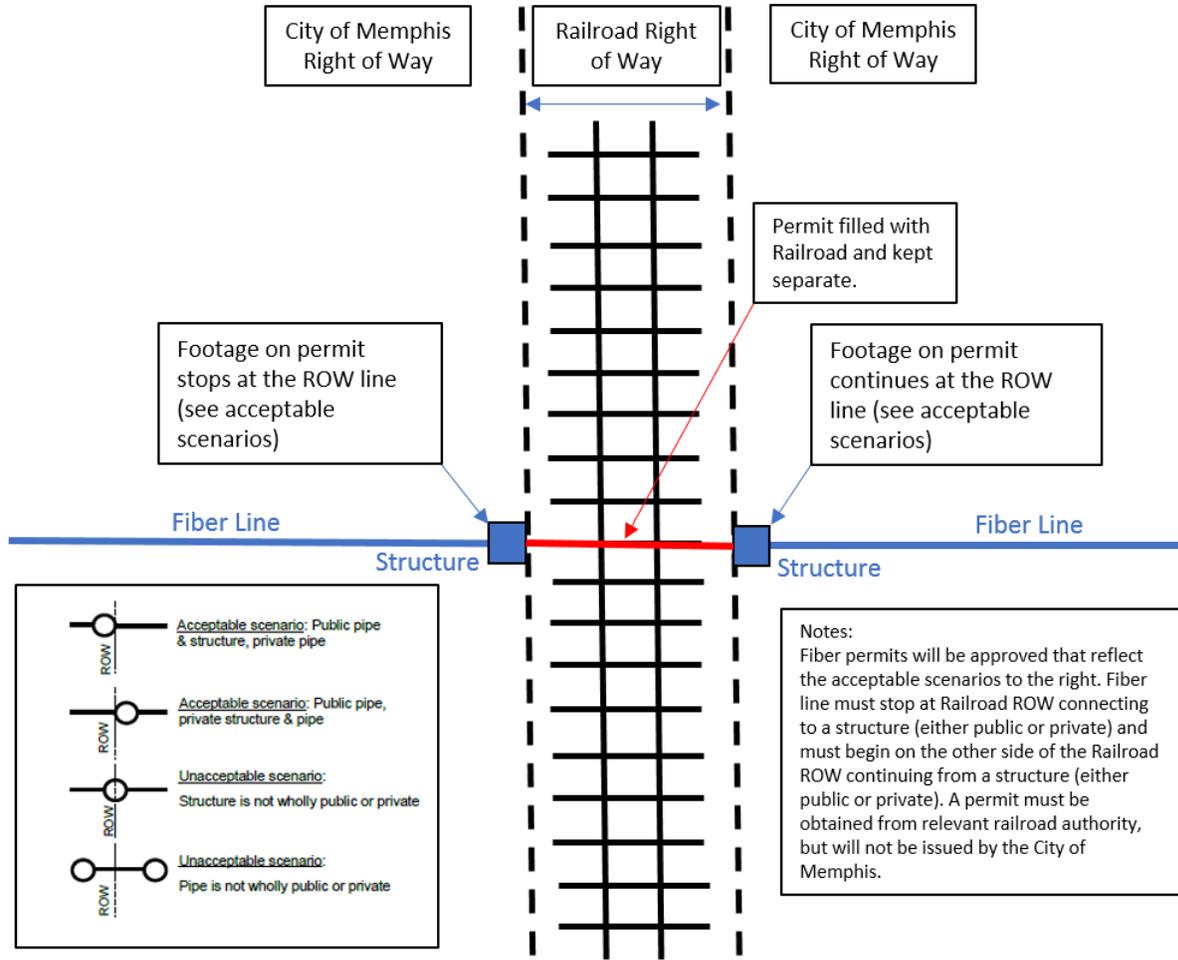
¹⁰ All vehicles at job site must have clear insignia; failure to do so will result in work being halted.

¹¹ Work hours can be requested outside of 9am-3pm, but it must be approved by the Land Development Office (see Section 2.B.3.ii.2.)

¹² See Section 2.B.3.iii-iv

• APPENDIX B: Sample Scenario for Railroad Route

Land Development Office; Room 644
 PROCEDURES FOR FIBER OPTIC CABLE PERMITS



APPENDIX C: TDOT Application and Utility Use and Occupancy Agreement



Application and Utility Use and Occupancy Agreement

Agreement No.	_____
State Route No.	_____
Project No.	_____
County	_____
Type of Surety	_____
Bond / Check No.	_____

Application is hereby made by Name:

_____ ("Applicant")

Address:

for permission to install and maintain the following described utility facilities on the right-of-way of State Highway No. _____ in

_____ County, Tennessee,

Description:

At the following described location:

_____ :

GPS = Start N _____ W _____ , End N _____ W _____

Log Mile = Start _____ End _____

in accordance with the attached plans and subject to *RULES AND REGULATIONS FOR ACCOMMODATING UTILITIES WITHIN HIGHWAY RIGHTS-OF-WAY* hereto issued by the Tennessee Department of Transportation ("TDOT"), and made a part hereof by reference thereto, and particularly to those provisions shown on this agreement and any special provisions set forth herein.

Special Provisions:

A) Applicant is to deliver a **bond**, in a form acceptable to TDOT, in the sum of \$ _____ to guarantee installation of facilities consistent with provisions of this Agreement and maintenance of the State highway right-of-way for a period of _____ months after acceptance of the condition of the State highway right-of-way by an authorized representative of TDOT.

OR

B) An active, fully executed **General Agreement** is in effect for Applicant, dated:

This agreement is to be strictly construed and no work other than that specifically described above is authorized.

The applicant, in applying for this agreement, agrees to the following:

1. Applicant shall design, install and maintain its facilities in accordance with *RULES AND REGULATIONS FOR ACCOMMODATING UTILITIES WITHIN HIGHWAY RIGHTS-OF-WAY* hereto issued by TDOT.
2. Applicant, before commencing any work or installing any facilities, shall submit plans to TDOT's regional utility office showing the location, type, and scope of all work to be done or appliances to be installed in order that the Regional Utilities Coordinator may recommend approval of the proposed work.
3. Applicant is responsible for any damages caused by any negligence on its part, including but not limited to the improper placing of or failure to display construction signs, danger signs, and other required signing, and shall bear any expense proximately caused by its operation on the State highway right-of-way.

4. Applicant is responsible for identifying, surveying, and staking the State highway right-of-way boundary in the above-described work area, and for maintaining said staking for the duration of the installation of Applicant's facilities.
5. Applicant is responsible for acquiring all utility rights-of-way or easements outside the State highway right-of-way as may be needed to perform the installation and maintenance of its facilities, and is responsible for any damages caused by trespass or installation or maintenance of facilities outside the State highway right-of-way.
6. Applicant shall pay the salary and expenses of any inspector(s) that TDOT may see fit to place upon the work while such inspector(s) is/are assigned to this work. TDOT, before incurring any expenses expected to be charged to the Applicant, shall advise the Applicant in writing of this fact.
7. Applicant shall replace or repair any portion of the pavement, shoulders, bridges, private driveways or any part of said highway which may be disturbed or damaged. Replacements and repairs shall be made in accordance with the TDOT *Standard Specifications for Road and Bridge Construction* and any additional instructions which may be issued by TDOT. Applicant agrees that TDOT may accomplish further replacements or repairs if those made by the Applicant are not satisfactory, in which event the Applicant will reimburse TDOT for the cost of such other replacements or repairs. Except in cases of emergency, TDOT shall notify the Applicant of the nature and extent of such further replacements or repairs to be accomplished prior to undertaking the work.
8. If at any future time it should become necessary in the maintenance, construction, or reconstruction of said highway to have Applicant's facilities removed in order that said highway may be properly maintained, constructed or reconstructed, or in the event said facilities should, at any time, interfere with the use of said highway, the Applicant agrees, upon being requested so to do by TDOT, to remove said facilities as promptly as the magnitude of the work to be accomplished will permit, at its own expense and without cost to TDOT, unless any requested removal should be contrary to any law of the State. The relocation of the Applicant's facilities shall be accomplished in accordance with the provisions of Tennessee Code Annotated, Title 54, Chapter 5, Part 8, Relocation of Utilities. If the Applicant fails to remove and relocate its facilities promptly and timely in accordance with the plan and schedule approved, or as directed, by TDOT pursuant to these provisions, the Applicant understands and agrees that it shall be subject to any or all of the following remedies in accordance with T.C.A. § 54-5-854:
 - a. TDOT's contractor may undertake the highway construction project without liability to the Applicant for damages to the Applicant's facilities;
 - b. The Applicant shall be liable to TDOT's contractor for damages resulting from the failure, including without limitation the contractor's delay damages; and
 - c. The Applicant shall be liable for any civil penalty assessed by TDOT for each calendar day the Applicant fails to complete the relocation of its facilities within the required schedule.
 Neither the actions of TDOT nor those of its contractor after the Applicant's failure to remove and relocate its facilities in accordance with the required schedule shall constitute a waiver of any of these statutory remedies.
9. Applicant shall be responsible for any conflicts with other utilities or appurtenances that are on the highway right-of-way and shall notify the respective owner(s) of any conflicts and secure the owners permission for any alterations.
10. Applicant hereby indemnifies and holds harmless TDOT, its employees, officers and agents, from and against any and all claims, liabilities, losses, and causes of action which may arise, accrue, or result to any person, firm, corporation, or other entity which may be injured or damaged as a result of acts, omissions, or negligence on the part of the Applicant, its employees, its contractors, or any person acting for or on its or their behalf in the performance any activities relating to this Agreement. Applicant shall be liable for the reasonable cost of attorneys for TDOT in the event such services are necessitated to enforce the terms of this Agreement or otherwise enforce the obligations of the Applicant to TDOT. In the event of any such suit or claim, the Applicant shall give TDOT immediate notice thereof and shall provide all assistance required by TDOT in TDOT's defense. TDOT shall give the Applicant written notice of any such claim or suit, and the Applicant shall have full right and obligation to conduct its own defense thereof. Nothing contained herein shall be deemed to accord to the Applicant, through its attorney(s), the right to represent TDOT in any legal matter, such rights being governed by Tennessee Code Annotated, Section 8-6-106.

11. TDOT does not grant the Applicant any right, title or claim on any State highway right-of-way, and in granting this permission to go upon the State highway right-of-way, TDOT does not in any way assume the maintenance of the Applicant's facility.
12. Applicant may be required by law to obtain one or more environmental permits prior to installing its facilities. Determining which permits are necessary and obtaining those permits are the sole responsibility of the Applicant. Contact information for the regulatory agencies is available from TDOT upon request. The activities of the Applicant in installing its facilities pursuant to this Agreement are not covered under any permit associated with TDOT construction activities.
13. Applicant agrees that if the total area of disturbed land associated with the installation of its facilities is planned to exceed, or does at any time actually exceed, one (1) acre, Applicant shall obtain coverage under a *National Pollutant Discharge Elimination System General Permit For Discharges Of Stormwater Associated With Construction Activities*.
14. Applicant agrees that during all phases of work permitted herein, it shall implement and maintain appropriate Erosion Prevention and Sediment Control measures, as described in the TDOT *Standard Specifications for Road and Bridge Construction* and/or the Tennessee Department of Environment and Conservation *Erosion and Sediment Control Handbook*.
15. The Utility agrees that it shall comply with all State and Federal laws, rules, regulations, and permit terms and conditions applicable to the installation and maintenance of the Applicant's facilities.
16. This agreement shall become void if work is not commenced within a year from the date of execution of this Agreement.

Applicant

**State of Tennessee Department of
Transportation**

By: _____

Signature

Date

Title

By: _____

Regional Utility Coordinator

Date

By: _____

Regional Engineering Director

Date

Pipeline Encroachments

The following information is required to accompany all plans for pipeline encroachments.

	Carrier Pipe	Casing Pipe
1. Contents to be handled	_____	_____
2. Outside Diameter	_____	_____
3. Pipe material	_____	_____
4. Pipe Specification and grade	_____	_____
5. Wall thickness	_____	_____
6. Design Pressure	_____	_____
7. Actual Working Pressure	_____	_____
8. Type of joint	_____	_____
9. Coating	_____	_____
10. Method of installation	_____	_____
11. Protection at end of casing	_____	_____
	Both Ends _____ One end _____ Type _____	
12. Cover: Finished grade to top of casing or carrier _____		
Bottom of ditch or toe of slope to top of carrier to casing _____		

13. Cathodic protection _____		
14. Size and height of casing vent _____		
15. Distance from casing vent to edge of nearest traffic lane _____		

Underground Electric Encroachments

The following information is required to accompany all plans for underground electric or communications encroachments.

This information may be shown on the plan or by attachment thereto.

1. Type of facility _____
2. Type of conductor or cable _____
3. Size of conductor or cable _____
4. Type of duct or encasement _____
5. Minimum longitudinal cover _____
6. Minimum cover at crossing of travel way _____



Overhead Encroachments

The following information is required to accompany all plans for overhead power or communication encroachments.

This information may be shown on the plan or by attachment thereto.

- 1. Type of facility _____
- 2. Type of conductor or cable _____
- 3. Size of conductor or cable _____
- 4. Poles - Height _____
Poles - Type _____
Poles - Class _____
- 5. Guys - Type _____
Guys - Size _____
- 6. Minimum vertical clearance @ point of crossings _____
- 7. Cross arm - Type _____
Cross arm - Size _____



APPENDIX D: MATA ROW WORK REQUEST

Standard Operating Procedure

Title:	Right-of-Way Work Request
SOP #:	204-002
Version:	2
Date Issued:	10-01-2018
Page:	1 of 5

Prepared By:	 Mark Young, Safety and Security Officer Rail, MATA Trolley	<u>10-1-18</u> Date
Concurrence:	 Frank Hauser, Director of Trolley Operations and Maintenance, MATA Trolley	<u>10/01/18</u> Date
Approved By:	 Alvin Pearson, Chief Operations Officer, MATA	<u>10/1/2018</u> Date

I. PURPOSE

To establish the procedure to maintain safety for MATA Trolley employees, and contractors and subcontractors working under the direction of MATA Trolley (collectively "MATA Trolley Workers") for work being performed on or adjacent to the right-of-way ("ROW"). This standard operating procedure ("SOP") is specific to trolley ROW using embedded track in a mixed-use (other road users or pedestrians) environment. A separate procedure covers ROW work requests for any track operating in its own ROW or in shared use with a Federal Railroad Administration regulated rail system.

This policy does not apply to MATA internal emergency repairs, nor to MATA Trolley employees or contractors performing minor work or inspections at the direction of MATA Trolley.

II. RESPONSIBILITIES

It is the responsibility of MATA Trolley Workers working on, under, across, over, or adjacent to the MATA Trolley ROW to satisfy all requirements identified in this procedure, and any other MATA Trolley rules and procedures applicable to the work being performed, including, but not limited to, MATA Trolley SOP 204-000, "Roadway Worker Protection ("RWP") in Mixed-Use Auto Traffic."

All persons working on or about the ROW when trolleys are operating or power is applied to the overhead contact system ("OCS") must have received MATA Trolley ROW training and qualifications. Before beginning work of any kind, such persons shall meet all safety requirements, including, but not limited to, adequate supervision, flagging (as required), communication devices, and any required task specific personal protective equipment



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("PPE"), which may include Class II or Class III reflective safety vests, bump caps or hard hats, safety glasses with side shields, and ANSI-rated work boots.

No one shall perform work on or adjacent to the ROW without being properly authorized by the Radio Control Center ("RCC")/Trolley Supervisor.

All city, state, and local requirements for work limits must be met for street running track.

Anyone working on the ROW must cease work if a hazard occurs, and immediately take action to correct the hazard.

III. PROCEDURE

1. Roadway Worker Crew (MATA Trolley Workers)

- a. MATA Trolley Workers must have a valid work order, pursuant to MATA Trolley SOP 200-014, "Track Access Permits," to work on or adjacent to the ROW.
- b. A MATA Trolley Supervisor or their designee ("OSS") must be present at the work site prior to the beginning of work of any kind. While the OSS may leave the site, at their discretion, it is always the responsibility of the OSS to ensure compliance with the SOP.
- c. Before beginning work of any kind, the OSS must ask permission to begin work from the RCC/Supervisor.
- d. Once authorized to begin work, a job briefing will be conducted by the OSS. See "Attachment A."
- e. The OSS will ensure that a proper work limits are set up as appropriate, that all MATA Trolley Workers have the proper equipment, tools, and PPE, and that all safety rules and procedures are followed by the entire work crew.
- f. The OSS will ensure that all hazards at the site are mitigated or eliminated.
- g. Once work is completed, the OSS will ensure that the work limits will be broken down and all equipment and tools removed from the work site and prepared for return to the yard.
- h. The OSS will notify the RCC/Supervisor when the work is completed.

2. RCC/Supervisor

The RCC/Supervisor will:

- a. Grant authorization as appropriate to work on or adjacent to the ROW.
- b. Keep the OSS informed of all necessary information.



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- c. Ensure all documentation is properly completed and submitted to the MATA Trolley as required.

III. TRACK ACCESS TRAINING

All MATA Trolley Workers performing work on or adjacent to the MATA Trolley ROW and its facilities must receive safety, track (Road Worker Protection), Maintenance of Way, and awareness training regarding all MATA Trolley, city and state safety rules, procedures and regulations. This training will be provided by the SSOR or their designee.

MATA Trolley Workers working within or adjacent to the ROW will be monitored to ensure compliance with the MATA Trolley established rules and procedures for track safety. The MATA Trolley is authorized to perform unannounced inspections of work crews or inspectors along the ROW to ensure compliance with all roadway worker safety procedures. The MATA Trolley has the authority to issue stop work orders to any MATA Trolley Workers, including subcontractors who do not take or refuse to take prompt, corrective action when given notice of noncompliance with any of the applicable safety requirements. If imminent danger exists, the OSS, DTOM, SSOR, Manager of Trolley Operations or Sr. Manager of Trolley Maintenance may issue a stop work order and immediately report its order to the SSOR (as applicable).

IV. ATTACHMENTS

Attachment A: Job Safety Briefing Form



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Attachment A: Job Safety Briefing Form



Job Safety Briefing Form

Version 2

This briefing is required before all work shifts, including on the Right-of-Way. It is also required for any unusual or infrequent work tasks that are assigned in the course of a shift.

EACH BRIEFING MUST USE A SEPARATE FORM.

Supervisor/Designee's Section

Date: ___/___/___ Job Assignment: _____

Dept.: _____

Work Crew Leader/Supervisor Name: _____ Initials _____

Brief description of work assignment and/or hazards:

Work assignment job safety briefing points to cover: (Examples of briefing points on page 2)

Personal Protective Equipment used? **Yes/No**

Safety Procedures/Safety Assembly Location: _____

Will work be on or near an energized circuit of 50 volts or more? **Yes/No**

Is work within 15 feet of the OCS? **Yes/No**

Time Limits: _____

Track that will be fouled: _____

Warning Signal (Whistle, horn, etc.): _____

Hazards/Special Precautions: _____

Initialing next to your name indicates that you understand these instructions.

All Workers Authorized within Work Limits	Names of Flaggers

RETURN THIS FORM TO THE MATA SAFETY AND SECURITY OFFICER RAIL

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Examples of Briefing Points

Crews PPE – General

- Hard Hats
- Safety Vests clean and fastened
- Safety Eyewear
- Approved Safety Boots
- Hearing protection
- Rulebook
- Rule of the Day as applicable
- Portable Radio

Electrical PPE

- LOTO Devices
- Voltage Rated Hot Gloves
- Removal of all conductive articles, such as: keys, watches, rings, etc.
- High Voltage Areas of TPSS
- Maximum voltage expected
- EH Rated Safety Boots

Flagger Equipment

- Hard Hats
- Safety Vests clean and fastened
- Safety Glasses
- Approved Safety Boots
- Flags
- Air Horn with Extra Can
- Whistle
- Note Pad with Pencil
- Flashlight & Extra Batteries (If Dark)
- Portable Radio
- Valid certification card

Work Area

- Work Limits Location
- Flagger
- Authorized track time limits
- Track segment authorized
- Warning method
- Clear space

Right of Way Safety

- Set up work limits safely and according to TDOT & MATA procedures
- Ensure contact with RCC/Supervisor is maintained as needed
- Walk facing streetcar and motor vehicle traffic
- Trolley approaching, stop and face it and acknowledge operator
- Do not step on rail head
- Motor vehicles operate unsafely in snow and ice
- Ice creates slipping hazards
- Keep noise and talking to a minimum to hear flagger/supervisor
- Trolleys may slide in braking when rail is slippery
- Stay away from the area between tracks as much as possible
- When walking next to motor vehicle traffic, be safe and aware



APPENDIX E: MATA ROADWAY WORKER PROTECTION Standard Operating Procedure

Title:	Roadway Worker Protection ("RWP") in Mixed-Use Auto Traffic
SOP #:	204-000
Version:	3
Date Issued:	10-01-2018
Page:	1 of 9

Prepared By:	 Mark Young, Safety and Security Officer Rail, MATA Trolley	<u>10-1-18</u> Date
Concurrence:	 Frank Hauser, Director of Trolley Operations and Maintenance, MATA Trolley	<u>10/01/18</u> Date
Approved By:	 Alvin Pearson, Chief Operations Officer, MATA	<u>10/1/2018</u> Date

I. PURPOSE

To protect the safety of employees, contractors, and other personnel performing work within or having a safety impact upon the MATA Trolley right-of-way ("ROW"), specifically trolley ROW using embedded track in a mixed-use (other road users or pedestrians) environment, including work within yard limits. A separate procedure covers Road Worker Protection ("RWP") on any track operating in its own ROW or in shared use with a Federal Railroad Administration regulated rail system.

It is essential that a disciplined procedure be implemented to control safety on the ROW in order to protect all personnel from the hazards of moving trolleys and energized traction power.

II. RESPONSIBILITIES

MATA Trolley and all Roadway Workers share the responsibility for ensuring that ROW safety is provided and that proper ROW safety procedures are followed when Roadway Workers are in the ROW under hazardous conditions.

MATA Trolley shall provide ROW safety training.

All MATA Trolley employees, contractor employees, and subcontractor employees must attend annual ROW safety training to be allowed to work on or near the ROW when trolleys are operating or power to the overhead contact system is applied. Subcontractors must also comply with all MATA Trolley requirements, including all safety and security requirements. MATA Trolley personnel will verify conformance on an ongoing basis.



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All employees will follow all procedures pertinent to performing work on or about the ROW at all times, and report and resolve all safety hazards appropriately and properly. No one may work on or about the ROW in violation of any MATA Trolley rule or procedure or in a way that would create an unacceptable hazard or hazards.

Supervisors and work crew leaders are responsible for ensuring full compliance with these safety requirements.

The Safety and Security Officer Rail (“SSOR”) is responsible for ensuring that training is provided as needed to contractors and employees, and to verify conformance with all requirements of this procedure are met.

Operators must comply with all RWP provisions of the MATA Trolley Rulebook and this SOP.

Per the MATA Trolley Rulebook, the Radio Control Center (“RCC”)/Trolley Supervisor is responsible for monitoring, dispatching, controlling and managing all radio communications and facilitating communication between MATA Trolley Operators, Supervisors, Maintenance personnel, management, contractors, first responders, and other personnel as needed.

III. PROCEDURE

1. Definitions

- a. **Right-of-Way (“ROW”)** – an area within 15 feet of the centerline of any track.
- b. **Work Crew Leader (“WCL”)** – the supervisor in charge of the work crew.
- c. **Roadway Worker** – any qualified MATA Trolley employee or contractor whose duties require working within the ROW.
- d. **Fouling the Track** – any person or object (excluding fixed trolley infrastructure, i.e. stations, OCS poles, etc.) within 4 feet of the outside rail of the nearest track.
- e. **Overhead Contact System (“OCS”)** – energized traction power.

2. Access

All work on the MATA Trolley ROW shall start with a Track Access Permit Request (SOP 200-014) or Right-of-Way Work Request (SOP 204-002).

Blue Flag Protection per SOP 200-001, “Restrictive Indicators,” shall be used as appropriate for ROW work that must prevent the movement of trolleys. It is prohibited for employees and contractors to enter a blue flag area without authorization as defined by SOP 200-001.



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Red Tag Permits are required for all work within 10 feet of the OCS, except for “minor work or inspections” not requiring Track Access Permits according to SOP 200-014.

ROW Authorization is granted only by permit issued by MATA Trolley. Red Tag Permits are also issued by MATA Trolley.

In any case, no contractor, employee, or equipment is allowed to enter the ROW portion of the MATA Trolley System for the purposes of working in the system without notifying and being governed by the RCC/Supervisor.

Access to the general/public vehicular and/or pedestrian ROW also requires obtaining all necessary permits and/or permission to perform work pursuant to the current versions of the Manual on Uniform Traffic Control Manual (“MUTCD”), City of Memphis Division of Engineering Design and Review Policy Manual, and the City of Memphis Division of Engineering Design Standard Construction Specifications.

3. Training

- a. ROW Safety Training – ROW Safety Training is required to prevent accidents and injuries that result from rail vehicles and other machinery striking Roadway Workers. All workers that have the potential of being in the ROW to complete their job duties must have successfully completed ROW safety training and carry a valid ROW Safety Identification Card at all times if trolleys are operating or OCS power is applied. All ROW Safety Identification Cards will expire in one year from the date of issue. The MATA Trolley ROW Safety Course must be taken annually to receive a new card. All workers should be trained on how to work next to motor vehicle traffic in a way that minimizes their vulnerability. The ROW Safety Course will address requirements, definitions, safety, responsibilities, the OCS, WCLs, job safety briefings, working on fouled track, and key contacts.
- b. Flagger Training – All flaggers must be trained, certified in flagging, and have their certification card with them at all times while performing flagging activities. Flagger training is provided or licensed by the American Traffic Safety Services Association (ATSSA), National Safety Council (NSC), and Tennessee Transportation Assistance Program (TTAP) meets this requirement. The MATA Trolley will accept flagger training programs developed and conducted by construction industry associations, consultant organizations, and contractors if they have an established, written program that meets all MUTCD requirements and TDOT policies. Flaggers should receive a Flagger Handbook, to keep on their person at all times while performing flagging duties.
- c. Temporary Traffic Control (“TTC”) – Workers having specific TTC responsibilities affecting traffic in the public ROW should be trained in TTC techniques, device usage and placement, which must comply with the MUTCD. TTC training is provided or licensed by the ATSSA. The MATA Trolley will accept TTC training programs developed and conducted by construction industry associations, consultant



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organizations, and contractors if they have an established, written program that meets all MUTCD requirements and TDOT policies.

- d. All employees, including those in the Maintenance Department, must be fully trained in this SOP prior to being qualified to work on the MATA Trolley ROW, with the exception of customer service personnel providing information to customers wholly within the station perimeters.

4. Safety Equipment/PPE

All personnel, including flaggers, must wear personal protective equipment (PPE) which may include, an American National Standards Institute (“ANSI”) rated high-visibility safety clothing (vest, shirt, or jacket), hardhat, ANSI-rated work boots, safety glasses with side shields, as well as have a training certification card whenever working on or within the MATA Trolley ROW. PPE requirements can be modified or waived for certain job duties. Exceptions must be made and approved by the Safety and Security Officer Rail (“SSOR”) in writing prior to the task being performed (e.g., station cleaners, public outreach, security personnel).

Flaggers must wear safety apparel meeting the requirements of the International Safety Equipment Association (ISEA) “American National Standard for High-Visibility Safety Apparel” and labeled as meeting ANSI 107-2010 standard performance for Class 3 risk exposure.

No cellular phones or other personal electronic devices are allowed to be used on the ROW at any time, unless required for the work task, such as communication between flagger stations.

5. Roadway Work

All Roadway Workers must take the following actions PRIOR to entering the ROW:

- a. Using the appropriate procedure 204-002, obtain a permit to establish work limits in the MATA Trolley ROW for activities including but not limited to the following:
 - ROW Work Request (SOP 204-002);
 - Restrictive Indicators (SOP 200-001)
- b. Notify the RCC/Supervisor via radio or telephone before entering or working within the MATA Trolley ROW, and provide the following information:
 - State the ROW work permit number (if required)
 - Identify yourself and the number of people in your group
 - Identify location of work



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- State estimated duration of work to be performed
- c. Conduct a ROW Job Safety Briefing. The WCL must conduct and document a Job Safety Briefing with ALL employees working in that area (and flaggers, if used) prior to entering within work limits. Briefings must be documented with worker signatures and briefing contents. Job safety briefings will include:
 - Name of the WCL;
 - Name of the flagger(s), if required;
 - Names and signatures of all workers authorized to work within the work limits;
 - Work limits identification;
 - Time limits of track work that was authorized;
 - Tracks that will be considered "fouled," if any;
 - Means by which the WCL will warn workers to clear track when a trolley is coming (whistle, horn, signals, etc.);
 - Designated place of safety where workers clear to let trolleys pass; and
 - Documentation using the appropriate form per SOP 204-002, Attachment 1.
- d. Conduct Follow-Up ROW Job Briefings under the following conditions:
 - Working conditions change;
 - Other workers enter within work limits;
 - ROW safety requirements are changed or extended; or
 - Any other safety-critical work-related change occurs.

All Job Briefings must be documented using SOP 204-002, Attachment 1.

6. All Roadway Workers have the following responsibilities:
 - a. Follow all MATA Trolley ROW safety rules and procedures;
 - b. Ensure ROW Safety is in place and the RCC/Supervisor are notified before entering the ROW;
 - c. Exercise a good faith right to refuse any directive that violates ROW rules and procedures. Good faith challenges require that the WCL immediately contact the SSOR to make a decision on the challenge. The SSOR will ensure that any good faith challenge is properly documented, including the basis for the challenge and their decision as to the validity of the challenge. The SSOR's decision as to the good faith challenge, safety of the work, and the work limits, is final.



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- d. Notify the WCL if any person directs any employee to violate ROW Safety Rules and Procedures.
 - e. Remain attentive to their location in the traffic and work environment as follows:
 - Wear the appropriate PPE
 - Not use phones or personal electronic devices in the ROW
 - Expect trolleys to run in either direction, on any track, at any time
 - Be alert and cautious of hazards presented by the OCS, the trolley, and automobile traffic
 - Never step in the automobile ROW without looking
 - Walk in designated crosswalks or designated service walkways when at all possible
 - Remain in the clear when a trolley is approaching
 - f. Avoid fouling a track except when necessary to perform work duties. When fouling the track the Road Worker shall act as follows:
 - Never step, stand, sit or walk on any part of the track unless necessary in the performance of duty.
 - Stop and look in both directions before crossing tracks.
 - If trolleys are present, leave 10 feet when crossing in front of or behind them.
 - Always step over rail. Never step on rail.
 - Stay clear of switches and all other rail equipment; never step or stand on track switches; watch for moving switch points. Switches may move at any time.
7. Flaggers will follow the following procedures:
- a. Flaggers shall remain alert, standing, facing oncoming traffic.
 - b. Flaggers shall stand in a highly visible location but never directly in the path of an approaching vehicle
 - c. Flagger stations shall be located such that approaching road users will have sufficient distance to stop at an intended stopping point.

Flagger stations should be located such that an errant vehicle has additional space to stop without entering the workspace. The flagger should identify an escape route that can be used to avoid being struck by an errant vehicle.

Except in emergency situations, flagger stations shall be preceded by an advance warning sign or signs. Except in emergency situations, flagger stations shall be illuminated at night.



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- d. The flagger shall stand alone, never permitting a group of workers to congregate around the flagger station. Vehicles and equipment shall not be allowed around the flagger station, which can interfere with the visibility of the flagger to approaching trolleys or motorists.
 - e. All flagger stations shall be in communication with each other and the WCL via electronic communication equipment (2-way radios, cellular phones with direct connection, etc.).
 - f. Flaggers will use the hand signaling methods described in MUTCD Section 6E. Hand-Signaling Control (Attachment A).
 - g. To stop trolleys or road users, the flagger shall face vehicle operators and aim the STOP paddle face toward the vehicle in a stationary position with the arm extended horizontally away from the body. The free arm shall be held with the palm of the hand above shoulder level toward approaching vehicles.
 - h. To alert or slow trolleys or traffic, the flagger shall face road users with the SLOW paddle face aimed toward road users in a stationary position with the arm extended horizontally away from the body. For added emphasis, the flagger may raise and lower the free hand with the palm down.
 - i. To direct stopped trolleys or road users to proceed, the flagger shall face vehicle operators and aim the SLOW paddle face toward operators in a stationary position with the arm extended horizontally away from the body. The flagger shall motion with the free hand for operators to proceed.
 - j. Flaggers shall follow, and be permitted to follow, the appropriate guidance and techniques provided in training and their Flagger Handbook.
8. When a trolley approaches work limits:
- a. Trolleys MUST sound their gong when approaching Roadway Workers that are on or close to the track.
 - b. Roadway Workers must stop all work and clear the ROW.
 - c. All Roadway Workers will move to a location where they are clear of approaching trolleys, face the approaching trolley, and ensure the trolley Operator can see them. Workers must step off of ladders.
 - d. Roadway Workers must not step onto the adjacent track or roadway unless no other safe area exists (no clearance zone) and look both ways before stepping onto an adjacent track or roadway.
 - e. The flagger must take the following actions when a trolley approaches:
 - The flagger is responsible for warning the WCL and other Roadway Workers of an approaching trolley.



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- The flagger will signal the trolley Operator to come to a stop well in advance of work limits.
- At no time are two trolleys allowed to pass on each side of Roadway Workers at the same time. The flagger will flag both trolleys to a stop and give a signal to proceed to one trolley at a time.
- The flagger will check to ensure personnel are in a safe area and equipment is clear of the tracks. The flagger will then allow the trolley Operator to proceed.
- The flagger will alert the WCL when it is safe to resume work after the trolley passes.

9. Temporary Traffic Control

- a. All work in the public ROW affecting other road traffic or pedestrians requires a permit from the MATA Trolley and City of Memphis Division of Engineering Design.
- b. TTC must comply with MUTCD Part 6, City of Memphis Division of Engineering Design and Review Policy Manual and the City of Memphis Division of Engineering Design Standard Construction Specifications.
- c. Traffic control plans are required for the execution of traffic control and maintenance of traffic within work limits.
- d. Traffic control plans shall include temporary signage that provides warnings of upcoming construction, and temporary pavement markings to redirect traffic. In addition to vehicular traffic, the traffic control plans shall include provisions for pedestrian and bicycle traffic during construction.
- e. Plans shall also include any necessary lane closures, detours and/or street and sidewalk closures required to construct the trolley
- f. The time and duration of street and lane closure shall be provided. Access to driveways, business, and residences shall be maintained and only interrupted for short durations when required, provided with sufficient notice provided to businesses and residents.
- g. Traffic control plans may be based on typical applications found MUTCD Part 6 and the City of Memphis Division of Engineering Design and Review Policy Manual.
- h. Advance warning signs shall be removed or covered when they do not apply.
- i. Traffic control plans shall be approved by the City of Memphis and MATA Director of Trolley Operations and Maintenance.

IV. ATTACHMENTS

Attachment A: “Use of Hand Signaling Devices by Flagger”

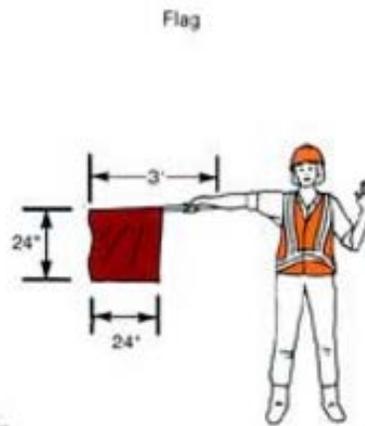
Title:	Roadway Worker Protection ("RWP") in Mixed-Use Auto Traffic
SOP #:	204-000
Version:	3
Date Issued:	10-01-2018
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Attachment A: Use of Hand Signaling Devices by Flagger

PREFERRED METHOD



EMERGENCY USE ONLY



To Stop Traffic



Traffic Proceed



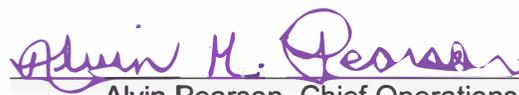
To Alert and Slow Traffic



APPENDIX F: MATA TRACK ACCESS PERMITS

Standard Operating Procedure

Title:	Track Access Permits
SOP #:	200-014
Version:	4
Date:	10-01-2018
Page:	1 of 6

Prepared By:	 Frank Hauser, Director of Trolley Operations and Maintenance, MATA Trolley	<u>10/01/18</u> Date
Concurrence:	 Mark Young, Safety and Security Officer Rail, MATA Trolley	<u>10-1-18</u> Date
Approved By:	 Alvin Pearson, Chief Operations Officer, MATA	<u>10/1/2018</u> Date

I. PURPOSE

To establish the requirements for requesting a Track Access Permit to access the MATA Trolley right-of-way (“ROW”) for construction, repairs, inspections, and maintenance activities within 15 ft. of the centerline of any track, including work performed with the potential of encroaching the 15 ft. of centerline on any track. This also applies for the areas above and below the tracks. In addition, if work needs to be performed within 10 ft. of the MATA Trolley overhead contact system (“OCS”), the OCS must be de-energized and a Red Tag Permit must be requested.

All work conducted in the MATA Trolley ROW must also comply with the policies and procedures established by MATA Trolley SOPs 204-000, “Roadway Worker Protection,” and 204-002, “ROW Work Request.”

This policy does not apply to MATA internal emergency repairs, nor to MATA Trolley employees or contractors performing minor work or inspections at the direction of MATA Trolley.

II. DEFINITIONS

1. “Permittee” refers to the person or company applying for or receiving a permit to perform work within the MATA Trolley ROW under the terms and conditions of this SOP. The term includes:
 - any wholesale or retail electric utility, gas utility, telecommunications company, cable company, water utility, storm water utility, or wastewater utility, regardless of whether the public service provider is publicly or privately owned or required to operate within the MATA Trolley system pursuant to City of Memphis Code of Ordinances;



Standard Operating Procedure

Title:	Track Access Permits
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- any officer, director, partner, manager, superintendent, or other authorized person exercising control over or on behalf of the Permittee; and
 - any contractor or subcontractor of the Permittee, for purposes of compliance with this SOP, as well as the traffic control, construction, and maintenance requirements of this SOP.
2. "Track Access Permits" apply to all Permittees requiring temporary use of the track and traffic lane while conducting authorized and lawful business within the MATA Trolley ROW. This includes delivery service providers requiring temporary use of the track and traffic lane while conducting authorized and lawful businesses within the MATA Trolley ROW.
 3. "Revenue Service Hours" shall mean published Trolley Revenue Service Hours on the MATA Website.
 4. "Non-Revenue Service Hours" shall mean all hours except Revenue Service Hours.
 5. "Minor work or inspection" refers to work performed with a duration of less than two (2) hours and not interfering with Trolley Operations.

III. RESPONSIBILITIES

It is the responsibility of Permittees to fill-out and submit the required forms (see **Attachment A**, "Track Access Permit Request" and, if applicable, **Attachment B**, "Red Tag Permit Request") to the Track Allocation Committee in a timely manner.

The MATA Track Allocation Committee is chaired by the Director of Trolley Operations and Maintenance and consists of at least one (1) representative each from the MATA Trolley Safety, Operations, and Infrastructure Departments.

The Track Allocation Committee will process all submitted forms to ensure there are no conflicts between requesting parties; and the committee will give special attention to dates, times, locations, scope of work, power status, on-track safety protection requirements, and access priority. Should a conflict arise, the Track Allocation Committee may deny a request based on operational priorities, construction priorities, schedule conflicts, or resources availability. The Track Allocation Committee should give access to the ROW during non-revenue service hours whenever possible. Permittee attendance at Track Allocation Committee meetings is mandatory to resolve conflicts, clarify scope of work, and set safety requirements for the scheduled work. If necessary, the Track Allocation Committee can also request a meeting with the Permittee on site.



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IV. TRACK ACCESS PERMITTING SYSTEM

1. The Track Allocation Meetings are held as needed at the MATA Trolley Maintenance and Storage Facility (547 N. Main Street, Memphis, TN 38105) to review track access requests for the following week (Monday to Sunday). Except in special circumstances, track access will be coordinated a minimum of one week prior to beginning requested activities in the ROW.
2. Permittees must schedule and attend a Track Allocation Meeting for the week prior to the requested access period; permittees must also submit all required forms prior to that meeting.
3. Permittees will submit the completed "Track Access Permit Request" form (and, if applicable, the "Red Tag Permit Request" form) via e-mail (available upon request by phone at 901-577-2677), or in person at the Maintenance and Storage Facility. Blank forms are available in hard copy at the Maintenance and Storage Facility or electronically via email.
4. Permits are assigned permit numbers in sequential order at the Track Allocation meeting:
 - a. The format of the permit number is as follows: **YYMM-##**
 - For example, the first Access Permit Request of January 2018 would be **1801-01**, followed by **1801-02**, and etc.
 - b. If an Access Permit Request requires a Red Tag (for traction power removal), the permit number will be followed with an "-R" (i.e., **1801-03-R**, **1801-04-R**, etc.).
5. In addition to adding an "-R" to the permit number to indicate the need to remove traction power, the Permittee must include a "Red Tag Permit Request" form to the "Track Access Permit Request" form. The approved Red Tag Permit request will be forwarded internally to the Manager of Trolley Infrastructure or his/her designee.
6. Once reviewed by the Track Allocation Committee, approved or denied forms will be signed and a copy will be given to the Permittee by email, pickup, or in person at the Track Allocation Meeting.
7. Work cannot commence in the absence of a completed, approved, and signed Track Access Permit Request. A signed Track Access Permit must remain in the possession of the work party at the work site until the work has been completed and the ROW cleared of all permittee personnel and equipment. Persons who fail to show the Track Access Permit may be excluded from further work on the MATA Trolley system.



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8. Prior to commencing work in the ROW, the Permittee must call the MATA Radio Control Center (“RCC”)/Trolley Supervisor and wait for the arrival of a Supervisor at the work area. The Permittee (or designee) must identify a means of communications with the RCC/Supervisor prior to being granted access to the approved work limits.
9. After completion of the approved work, the Permittee or his designee must call the MATA RCC/Supervisor and wait for the arrival of a Supervisor at the work area. The Supervisor will ensure that the work area is clear of equipment and workers and ready to energize and/or resume normal operations.

V. ATTACHMENTS

- Attachment A: “Track Access Permit Request Form”
- Attachment B: “Red Tag Permit Request Form”



Standard Operating Procedure

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Attachment B: "Red Tag Permit Request"



RED TAG PERMIT REQUEST

PART I

SEPARATE Red Tag Permit Request Forms must be submitted for each work area requested per day.
 ALL REQUESTS DUE A MINIMUM OF ONE WEEK PRIOR TO BEGINNING REQUESTED ACTIVITIES IN ROW

Meeting Date: _____	Company: _____
Time: _____	Assigned Rep: _____
Permit No. _____	Contact Phone: _____
	Contact Email/FAX: _____

DATE OF POWER DOWN: _____ DAY: _____

WORK AREA LIMITS	START	FINISH	POWER SECTIONS DOWN	CREW SIZE
Entire Alignment	0000	0000		

DESCRIPTION OF WORK AND EQUIPMENT TO BE USED:

Authorized By: _____ Date: _____
 Track Allocation Manager / Access Coordinator

PART II

MTI (or designee): _____

Print Name
Signature

Date: _____ Location: _____

Equipment: _____ Time Off: _____ Time On: _____

Held By (Contractor Representative): _____

Print Name
Signature

Released By (Contractor Representative): _____

Print Name
Signature

Contractor has verified that the work-site within the limits covered by the permit has been inspected and all personnel and equipment are accounted for and clear of the ROW and Power Section.
 MTI (or designee) has verified that the traction power system is clear of all equipment and personnel, has been returned to the an acceptable condition, and the Power Section is safe to re-energize.

Rev. 10/01/2018

