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# San Diego Metropolitan Transit System

## Plan Requirement Guidelines For MTS Right of Entry (ROE) Permit

REVISION: 0

DATE: July 30, 2019

Plans submitted to MTS for a Right of Entry (ROE) permit must comply with the applicable requirements that are listed on this document. For clarification purposes or for any questions regarding plan requirements, general consultant (RailPros) may be contacted via email at [mtsrow@sdmts.com](mailto:mtsrow@sdmts.com).

### **Determining Agency Jurisdiction**

Determining which agencies have jurisdiction within the project area is the first step towards determining which requirements will apply. The trolley tracks are owned by San Diego Trolley Inc, (SDTI); which is a subsidiary corporation of MTS. MTS owns the railroad right of way where the trolley tracks are located, except for the tracks on C Street, Park Boulevard, 12th Avenue, Commercial Street, Cuyamaca Street, and at public street grade crossings. MTS does not own the right of way in downtown San Diego between E Street and Ash Street, this right of way is owned by Catellus. In these areas, the entire width of the public or Catellus right of way is considered MTS operational limits.

MTS owns the railroad right of way on which the North County Transit District (NCTD) tracks are located between Downtown San Diego and the southern boundary of Del Mar. NCTD has jurisdiction over its tracks, and a Joint ROE Permit with MTS and NCTD is required where the MTS and NCTD tracks parallel each other between Old Town and Downtown San Diego.

The MTS subsidiary corporation, San Diego and Arizona Eastern Railway (SD&AE), owns the tracks and right of way on the Coronado Branch within National City and Chula Vista, as well as the Desert Line from Division to Plaster City in East San Diego County and Imperial County. The Trolley Blue Line south of 12<sup>th</sup> & Imperial Station and the Trolley Orange Line from 12<sup>th</sup> & Imperial Station to Main Street in El Cajon are also considered part of the SD&AE.

Certain non-rail MTS facilities such as bus maintenance facilities may also require an (ROE) Permit.

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## Plan Requirements

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### General

1	Plans must include <b>MTS Standard Construction Notes</b> dated August 2020. For the joint MTS-NCTD Right of Entry segment and NCTD-only segment, plans must also include <b>NCTD General Notes</b> dated August 2016 ( <b>MTS Standard Construction Notes</b> can be found <a href="#">Here</a> )
2	Plans must be date stamped at the time of plotting.
3	For projects that have a potential to impact MTS Bus Services, plans must be coordinated with an MTS Planning representative.

### Plan Information

4	The MTS Right of Way lines must be shown and dimensioned as " <b>XX' MTS R/W</b> " on all plan views and profile views in the plan set. If the project is located on C St, Park Blvd, 12th Ave, Commercial St, Cuyamaca St, or any other public street, show the city Right of Way lines, dimension the city right of way and label it as " <b>MTS OPERATIONAL LIMITS</b> " for all plan and profile views in the plan set.
5	Plans must provide enough information to locate oneself on the track; including street names, adequate topography, buildings, and landmarks. If a Trolley station is near the project site, Trolley station must be labeled on all plan views showing the station.
6	On projects in which the proposed improvements may impact the drainage patterns, or where the hydrology of the site needs to be considered for any reason, the plans must provide adequate information to determine the drainage patterns. Projects shall not change existing drainage patterns on the MTS R/W.
7	Plan and profile views must include dimensioning of clearances from the nearest track C/L to the proposed work limits. Dimension must be perpendicular to track.
8	Plan and profile views must include dimensioning of the offsets from the MTS R/W to the proposed work limits. Dimension must be perpendicular to R/W.
9	Plans including proposed improvements within the MTS R/W must provide adequate detail in the form of enlarged plans, cross sections and profiles along with any additional information required such as calculations, equipment layout, specifications and traffic control plans.
10	Traffic Control Plans must include the following note on the TCP cover sheet: " <b>NOTE: FOR ANY WORK ADJACENT TO RAILS, CONTRACTOR TO REFER TO THE REQUIREMENTS NOTED IN THE CALIFORNIA MUTCD PART 8, TRAFFIC CONTROL FOR RAILROAD AND LIGHT RAIL TRANSIT GRADE CROSSING</b> ".

### Plan Information Continued

<b>11</b>	If the project is near the Trolley tracks, include a caution note that points to each trolley track in plan and profile views. The note shall be in bold text and/or in a bold rectangular box. Caution note must read: " <b>CAUTION! HIGH VOLTAGE 650V DC TROLLEY OVERHEAD CATENARY SYSTEM</b> "
<b>12</b>	If the project is near the Trolley tracks, show the trolley catenary poles and label one as typical on each sheet or include the catenary poles in the legend. Use a unique symbol to differentiate the catenary poles from other power poles.
<b>13</b>	Plans with improvements within the R/W must show and label all existing underground and overhead utilities. Include whether they should be protected in place, relocated or removed.
<b>14</b>	Where proposed work crosses the tracks or excavation is being performed within or directly adjacent to the MTS R/W, provide cross sections through the R/W showing proposed improvements, rails, ties and influence lines from track loading. The influence lines from track loading must be based on the <b>MTS Excavation Requirements</b> , in order to determine whether underground improvement is within the excavation, shoring, or sheet piling zone. If the underground improvements or excavation fall within the shoring or sheet piling zones, provide shoring design and calculations per the requirements. ( <b>MTS Excavation Requirements</b> can be found <a href="#">Here</a> )

### Track Representation

<b>15</b>	All plan views including railroad tracks must show each track as two lines representing rails with cross lines representing ties. Cross lines must be continuous across the two rails.
<b>16</b>	For all small-scale plan views, such as vicinity maps, tracks must be represented as one line representing rails and cross lines representing ties.
<b>17</b>	For all profile views, each track must be shown as a true scale cross section with rails through a tie.

### Track Labeling Convention

<b>18</b>	For tracks used by the MTS trolley only, tracks must be labeled as " <b>MTS/SDTI TROLLEY TRACK</b> ". For tracks used by the MTS trolley and SD&AE, label tracks as " <b>MTS/SDTI/SD&amp;AE RR TRACK</b> ". For tracks used by SD&AE only, label tracks as " <b>MTS/SD&amp;AE RR TRACK</b> ". For all NCTD tracks, label tracks as: " <b>NCTD OPERATIONS RR TRACKS</b> ". For the SD&AE Desert Line tracks, label tracks as " <b>SD&amp;AE/BJRR OPERATIONS RR TRACK</b> ". Label tracks on every sheet where they appear.
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### Improvements Crossing Tracks

<b>19</b>	Improvements crossing the tracks, (at grade, under or above), must include a station equation for the intersection of the proposed work with the Track Stationing and Milepost. <b>Example: SEWER STATION 10+00 = RR ES 100+00/MP 15.0</b> . For crossing under the track see the <b>Jack &amp; Bore and other Trenchless Construction Plans</b> checklist section below. For improvements without stationing, omit the stationing portion of the label and retain the Track Stationing and Milepost portion.
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### Improvements Under a Trolley Bridge

20	Show a true cross section of the Trolley bridge and dimension and label vertical clearances between the bridge soffit and the proposed improvement's top surface. Also include equipment height and clearance from top of equipment to bridge soffit, if equipment is to be used under the bridge.
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### Existing or Permanent Improvements

21	<p>Label existing license/easement agreement and provide width of easement, type of improvement and Recorded Document number. If no document number is available because the entitlement documentation has not yet been executed, include statement "ON FILE" in place of the document number.</p> <p><b>Example 1: EXISTING 20' SEWER EASEMENT PER MTS DOC NO. ##-###-### OR 20' SEWER ENTITLEMENT PER MTS DOC NO. ON FILE.</b></p> <p><b>Example 2: "20' SEWER PER LICENSE AGREEMENT MTS DOC NO.##-###-###" OR "20' SEWER PER MTS DOC NO. ON FILE"</b></p>
22	If work is located where the Trolley is "street running" (e.g. on C Street, Park Boulevard, 12th Avenue, Commercial Street, Cuyamaca Street), or in a grade crossing that is owned by the City, then a license/easement is not required.

### City of San Diego Plans

23	In the MTS-NCTD Joint ROE segment between E Street and the San Diego River, add <b>RR Relations Specifications for NCTD relations with MTS</b> to the plans or specifications. ( <b>RR Relations Specifications for NCTD relations with MTS</b> can be found here: <a href="https://www.sdmts.com/business-center-permits/right-entry">https://www.sdmts.com/business-center-permits/right-entry</a> )
24	If the project is outside the Joint ROE segment and is within one of the SD&AE segments, add <b>RR Relation Specifications for SD&amp;AE relations with MTS</b> to the plans or specifications. ( <b>RR Relation Specifications for SD&amp;AE relations with MTS</b> can be found here: <a href="https://www.sdmts.com/business-center-permits/right-entry">https://www.sdmts.com/business-center-permits/right-entry</a> )

### Jack & Bore and other Trenchless Construction Plans

25	For plans at all tracks, plans must include <b>MTS Jack and Bore Construction Notes</b> dated March 2019. ( <b>MTS Jack and Bore Construction Notes</b> can be found <a href="#">Here</a> )
26	For plans within the MTS-NCTD Joint ROE Segment or at NCTD Tracks only, plans must also include " <b>Additional Jack and Bore Construction Notes within NCTD Operations</b> " dated January 2014. ( <b>Additional Jack and Bore Construction Notes within NCTD Operations</b> can be found here: <a href="https://www.sdmts.com/business-center-permits/right-entry">https://www.sdmts.com/business-center-permits/right-entry</a> )
27	For construction of pipelines conveying flammable substances, casing pipe must have a wall thickness that meets or exceeds the minimum thickness per AREMA Table 1-5-1. Include AREMA Table 1-5-2 on the same sheet as pipe construction with all data including casing thickness, casing depth, casing slope, casing length, and casing vents filled out.

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**Jack & Bore and other Trenchless Construction Plans Continued**

<b>28</b>	For construction of pipelines conveying non-flammable substances and all other utilities, casing pipe must have a wall thickness that meets or exceeds the minimum thickness per AREMA Table 1-5-5. Include AREMA Table 1-5-6 on the same sheet as pipe construction with all data including casing thickness, casing depth, casing slope, casing length, and casing vents filled out.
<b>29</b>	Casing pipes under MTS/SD&AE Tracks only must have a minimum depth of 5.5' below the base of rail for the entire length of R/W and 10' beyond. Casing pipes under the MTS-NCTD Joint ROE Segment or under NCTD Tracks only must have a minimum depth of 6' below the base of rail for the entire length of R/W and 10' beyond.
<b>30</b>	Casing pipes must have a minimum slope of 1% unless the fluid being carried requires a shallower slope based on jurisdictional design. Casing pipes must extend the full length of the R/W plus 10' beyond. Casing pipes must have vents if flammable or hazardous fluids are being carried. For casing pipes under the MTS-NCTD Joint ROE Segment or under NCTD Tracks only, sewer pipes are included in the hazardous fluid category.
<b>31</b>	Jacking and receiving pits are not allowed within the RR R/W unless approved by MTS.
<b>32</b>	Pit sizes must be shown and dimensioned from RR R/W to the nearest pit edge.
<b>33</b>	Proposed underground improvements must be properly stationed and a station equation must be provided, as shown on note 19 under <b>Improvements Crossing Tracks</b> on this document.