Service Module

This module contains two forms:

1. Service form (S-10)
2. Fixed Guideway Segments form (S-20).

Service form (S-10)

The S-10 form provides data on the transit service supplied by the transit agency and the transit service consumed by passengers.

This form is required for all transit agencies. Transit agencies complete separate forms for directly operated (DO) and for purchased transportation (PT) services by mode.

Fixed Guideway Segments form (S-20)

The S-20 form details segments of fixed guideway (FG) facilities in order to determine directional route miles (DRM) for service operated and for eligibility in FTA Federal funding programs.

Internet reporting generates the data requirements for this form based on the mode of service operated. The data requirements vary by three modal groupings:

1. Bus (MB) mode
2. Trolleybus (TB) mode
3. All other FG modes.

This form is required for all transit agencies that operate service on FG facilities. Transit agencies complete separate forms for DO and PT services by mode. The form is not applicable to ferryboat (FB), demand response (DR), demand response-taxi (DT), jitney (JT), publico (PB), and vanpool (VP) modes.

Service form (S-10)

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Form Name: Service Rail (S-10) **Mode:** HR **Service:** PT — Add Form Note — Close Form

Line	a	b	c	d		e	f	g	h
Maximum Service Vehicles									
01 Vehicles operated in annual maximum service (VOMS)	#								
02 Vehicles available for annual maximum service									
Periods of Service	Average Weekday Schedule	Average Saturday Schedule	Average Sunday Schedule	Annual Total Schedule	Auto Calculate Annual Total	Weekday AM Peak	Weekday Midday	Weekday PM Peak	Weekday Other
03 Time service begins									
04 Time service ends									
Service Supplied									
05 Trains in operation									
06 Passenger cars in operation									
07 Total actual train miles									
08 Total actual train hours									
09 Total actual train revenue miles									
09a Train deadhead miles (line 07 minus line 09 by column)									
10 Total actual train revenue hours									
10a Train deadhead hours (line 08 minus line 10 by column)									
11 Total actual passenger car miles									
						Average Weekday AM Peak Schedule	Average Weekday Midday Schedule	Average Weekday PM Peak Schedule	Average Weekday Other Schedule
12 Total actual passenger car revenue miles									
12a Passenger car deadhead miles (line 11 minus line 12 by column)									
13 Total scheduled passenger car revenue miles									
14 Total actual passenger car hours									
15 Total actual passenger car revenue hours									
15a Passenger car deadhead hours (line 14 minus line 15 by column)									
Service Consumed									
18 Unlinked passenger trips (UPT)									
20 Passenger miles (PM)									
Service Operated (Days)	Weekdays Schedule	Saturdays Schedule	Sundays Schedule						
21 Days operated									
22 Days not operated due to strikes									
23 Days not operated due to officially declared emergencies									
Directional Route Miles	Total								
27 Total									

Save | Close | Print

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Form Name: Service Non-Rail (S-10) **Mode:** MB **Service:** PT — Add Form Note — Close Form

Line	a	b	c	d		e	f	g	h
Maximum Service Vehicles									
01 Vehicles operated in annual maximum service (VOMS)	#								
02 Vehicles available for annual maximum service									
Periods of Service	Average Weekday Schedule	Average Saturday Schedule	Average Sunday Schedule	Annual Total Schedule	Auto Calculate Annual Total	Weekday AM Peak	Weekday Midday	Weekday PM Peak	Weekday Other
03 Time service begins									
04 Time service ends									
Service Supplied									
06 Vehicles in operation									
11 Total actual vehicle miles									
12 Total actual vehicle revenue miles (VRM)									
12a Deadhead miles (line 11 minus line 12 by column)									
13 Total scheduled vehicle revenue miles									
14 Total actual vehicle hours									
15 Total actual vehicle revenue hours (VRH)									
15a Deadhead hours (line 14 minus line 15 by column)									
16 Charter service hours									
17 School bus hours									
Service Consumed									
18 Unlinked passenger trips (UPT)									
20 Passenger miles traveled (PMT)									
Service Operated (Days)	Weekdays Schedule	Saturdays Schedule	Sundays Schedule	Annual Total Schedule					
21 Days operated									
22 Days not operated due to strikes									
23 Days not operated due to officially declared emergencies									
Directional Route Miles	Total								
24 Exclusive right-of-way (ROW)									
25 Controlled access right-of-way (ROW)									
26 Mixed traffic right-of-way (ROW)									
27 Total									

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Form Name: Service Non-Rail (S-10) **Mode:** FB **Service:** PT Add Form Note Close Form

Line	a	b	c	d	
Maximum Service Vehicles					
01 Vehicles operated in annual maximum service (VOMS)	#				
02 Vehicles available for annual maximum service					
Periods of Service	**Average Weekday Schedule**	**Average Saturday Schedule**	**Average Sunday Schedule**	**Annual Total Schedule**	**Auto Calculate Annual Total**
03 Time service begins					
04 Time service ends					
Service Supplied					
06 Vehicles in operation					
11 Total actual vehicle miles					
12 Total actual vehicle revenue miles (VRM)					
12a Deadhead miles (line 11 minus line 12 by column)					
13 Total scheduled vehicle revenue miles					
14 Total actual vehicle hours					
15 Total actual vehicle revenue hours (VRH)					
15a Deadhead hours (line 14 minus line 15 by column)					
16 Charter service hours					
Service Consumed					
18 Unlinked passenger trips (UPT)					
20 Passenger miles traveled (PMT)					
Service Operated (Days)	**Weekdays Schedule**	**Saturdays Schedule**	**Sundays Schedule**	**Annual Total Schedule**	
21 Days operated					
22 Days not operated due to strikes					
23 Days not operated due to officially declared emergencies					
Directional Route Miles	**Total**				
27 Total					

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Form Name: Service Non-Rail (S-10) **Mode:** VP **Service:** PT Add Form Note Close Form

Line	a	b	c	d	
Maximum Service Vehicles					
01 Vehicles operated in annual maximum service (VOMS)	#				
02 Vehicles available for annual maximum service					
	Average Weekday Schedule	**Average Saturday Schedule**	**Average Sunday Schedule**	**Annual Total Schedule**	**Auto Calculate Annual Total**
Service Supplied					
06 Vehicles in operation					
11 Total actual vehicle miles					
12 Total actual vehicle revenue miles (VRM)					
14 Total actual vehicle hours					
15 Total actual vehicle revenue hours (VRH)					
16 Charter service hours					
17 School bus hours					
Service Consumed					
18 Unlinked passenger trips (UPT)					
20 Passenger miles traveled (PMT)					
Service Operated (Days)	**Weekdays Schedule**	**Saturdays Schedule**	**Sundays Schedule**	**Annual Total Schedule**	
21 Days operated					
22 Days not operated due to strikes					
23 Days not operated due to officially declared emergencies					

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Form Name: Service Non-Rail (S-10) **Mode:** JT **Service:** PT Add Form Note Close Form

Line	a	b	c	d	
Maximum Service Vehicles					
01 Vehicles operated in annual maximum service (VOMS)	#				
02 Vehicles available for annual maximum service					
Periods of Service	**Average Weekday Schedule**	**Average Saturday Schedule**	**Average Sunday Schedule**	**Annual Total Schedule**	**Auto Calculate Annual Total**
03 Time service begins					
04 Time service ends					
Service Supplied					
06 Vehicles in operation					
11 Total actual vehicle miles					
12 Total actual vehicle revenue miles (VRM)					
12a Deadhead miles (line 11 minus line 12 by column)					
14 Total actual vehicle hours					
15 Total actual vehicle revenue hours (VRH)					
15a Deadhead hours (line 14 minus line 15 by column)					
16 Charter service hours					
17 School bus hours					
Service Consumed					
18 Unlinked passenger trips (UPT)					
20 Passenger miles traveled (PMT)					
Service Operated (Days)	**Weekdays Schedule**	**Saturdays Schedule**	**Sundays Schedule**	**Annual Total Schedule**	
21 Days operated					
22 Days not operated due to strikes					
23 Days not operated due to officially declared emergencies					

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Form Name: Service Non-Rail (S-10) **Mode:** DR **Service:** PT Add Form Note Close Form

Line	a	b	c	d	
Maximum Service Vehicles					
01 Vehicles operated in annual maximum service (VOMS)	#				
02 Vehicles available for annual maximum service					
Periods of Service	**Average Weekday**	**Average Saturday**	**Average Sunday**	**Annual Total**	**Auto Calculate Annual Total**
03 Time service begins					
04 Time service ends					
Service Supplied					
06 Vehicles in operation					
11 Total actual vehicle miles					
12 Total actual vehicle revenue miles (VRM)					
12a Deadhead miles (line 11 minus line 12 by column)					
14 Total actual vehicle hours					
15 Total actual vehicle revenue hours (VRH)					
15a Deadhead hours (line 14 minus line 15 by column)					
16 Charter service hours					
17 School bus hours					
Service Consumed					
18 Unlinked passenger trips (UPT)					
19 Americans with Disabilities Act of 1990 (ADA) unlinked passenger trips (UPT)					
19a Sponsored service (UPT)					
20 Passenger miles traveled (PMT)					
Service Operated (Days)	**Weekdays**	**Saturdays**	**Sundays**	**Annual Total**	
21 Days operated					
22 Days not operated due to strikes					
23 Days not operated due to officially declared emergencies					

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Form Name: Service Non-Rail (S-10) **Mode:** DT **Service:** PT Add Form Note Close Form

Line	a	b	c	d
Maximum Service Vehicles - Taxicab				
01 Vehicle operated in annual maximum service (VOMS)	#			
02 Vehicle available for annual maximum service				
				Annual Total
Service Supplied				
12 Total actual vehicle revenue miles (VRM)				
15 Total actual vehicle revenue hours (VRH)				
Service Consumed				
18 Unlinked passenger trips (UPT)				
19 Americans with Disabilities Act of 1990 (ADA) unlinked passenger trips (UPT)				
19a Sponsored service (UPT)				
20 Passenger miles traveled (PMT)				
Service Operated (Days)				
21 Days operated				
22 Days not operated due to strikes				
23 Days not operated due to officially declared emergencies				

Save Close Print

Overview

The Service form (S-10) form is used to report data on the transit service supplied by the transit agency and the transit service consumed by passengers on the system.

Reporting Requirements and Thresholds

All transit agencies must complete this form. You should complete one form for each mode and type of service (TOS).

When completing this form, you should use bus (MB) mode for any route deviation or point deviation services operated. Typically, deviated services are used to comply with the Americans with Disabilities Act of 1990 (ADA) requirements to provide complementary paratransit service. See discussion in the Identification form (B-10).

What Has Changed from Prior Year

There is one change for the 2010 report year:

1. Demand response service operated through taxicab providers is now a separate mode. The new mode is demand response-taxi and is always purchased transportation type of service (DT/PT). There are now separate forms for demand response and demand response-taxi modes.

Approach

You should use this form to report data for the revenue vehicles used to provide transit service:

- Vehicle requirements for maximum service
- Periods of service
- Service supplied (miles and hours)
- Service consumed (passenger boardings and miles)
- Days service operated
- Directional route miles (DRM).

You report most data items by four time periods:

1. Average Weekday
2. Average Saturday
3. Average Sunday
4. Annual total.

You report limited data for weekday time periods — Weekday AM Peak, Weekday Midday, Weekday PM Peak, and Weekday Other.

The service supplied data are also distinguished by whether they are for rail or non-rail modes. Data are provided for rail service in terms of passenger car and train statistics while only vehicle statistics are provided for non-rail services.

Consistent with the general NTD reporting requirements, you should report actual, not estimated, data on this form. The only exceptions are the values you report for PMT and UPT. The sampling requirements for these data items are discussed later in this section under Passenger Mile and Unlinked Passenger Trip Data.

The following discussion covers reporting by time period and rail and non-rail mode reporting.

Reporting by Time Period

There are three basic time periods — average day schedules (weekday, Saturday or Sunday), peak and off-peak periods for an average weekday, and annual.

Average Daily Totals

You should report average daily data for an average weekday schedule, an average Saturday schedule, and an average Sunday schedule.

Average daily data depends on whether services are fixed route or non-fixed route:

- For scheduled, fixed route services, such as MB and rail modes, the average daily totals are for service that your agency usually operated, i.e., service operated on typical days. Average daily totals do not include service operated for one-time or limited events such as day of the game football shuttles, extra holiday shopper service, or a visit to the city

by the President of the United States. They also do not include severe inclement weather days such as hurricanes and snowstorms.

- For non-fixed route and non-scheduled services (i.e., DR and VP) the average daily totals cover all days operated by your agency— typical and atypical.

The average daily data cover the service operated on typical days in accordance with the normal schedule (for fixed schedule service). Most transit agencies operate different schedules reflecting seasonal variation in demand for service. Additionally, transit agencies may add or delete service on certain routes during the year. The average daily totals must account for the seasonal variation in service.

A typical day is a day on which your transit agency:

- Operates its normal, regular schedule
- Does not provide extra service to meet demands for special events such as conventions, parades, or public celebrations
- Does not operate significantly reduced service because of unusually bad weather (e.g., snow storms, hurricanes, tornadoes, earthquakes) or major public disruptions (e.g., terrorism).

The average daily totals apply to the schedules developed for these days. Often, transit systems operate the Sunday schedule on holidays that fall on Monday through Saturday. You should include the data for these holidays in the day schedule that is operated (e.g., Sunday).

You may calculate the average daily totals (weekday, Saturday and Sunday) in one of two ways:

1. You may calculate the mathematical average for the service operated on typical days, if your transit agency has accumulated the actual data. This is the total service supplied or service consumed data for typical days divided by the number of typical days.
2. You may estimate the average for the service operated on typical days based on a sample of representative days throughout the year, taking into account the different schedules in place throughout the year. This is the weighted average of the service operated on a sample of typical days throughout the year, weighted to the number of days each schedule was operated.

The following examples illustrate how to compute average daily totals.

Example 17 — Computing Average Daily Data

Example 1: How to compute the actual vehicle miles for average weekday total for MB.
Solution: You calculate the mathematical average of total actual vehicle miles for typical weekdays.

	Typical Weekday Day Operation	Atypical Weekday Day Operation	Total Days Operated
Total vehicle miles operated	6,993,520	562,330	
Number of days	230	20	**250**
Average Weekday Total	**30,407**		

Average weekday total = 6,993,520 Actual vehicle miles / 230 days = **30,407**

Example 2: How to compute actual vehicle miles for average weekday total for DR (Same system as in Example 1).
Solution: You calculate the mathematical average of total actual vehicle miles for total weekdays operated.

	Total Days Operated
Total vehicle miles operated	1,567,238
Number of days	250
Average Weekday Total	**6,269**

Average weekday total = 1,567,238 Actual vehicle miles / 250 days **= 6,249**

Example 3: How to compute the actual vehicle miles for average weekday schedule for MB.
Four seasonal schedules — spring, summer, fall and winter. (No count of actual vehicle miles operated).
Solution: You record actual vehicle miles operated on several weekdays for each of the schedules and estimate the average actual vehicle miles operated for each schedule. You the estimate the weighted average for the reporting period as the weighted average for the schedule estimates by the number of days each schedule was in operation.

Schedule	Average Actual Vehicle Miles Operated on Sample Typical Days	Total Days Schedule Operated	Weighted Actual Vehicle Miles
Spring	6,012	75	450,900
Summer	5,608	60	336,480
Fall	6,258	75	469,350
Winter	6,123	42	257,166
Annual	**252**	**1,513,896**	

Average weekday total = 1,513,896 Actual vehicle miles / 252 weekdays = **6,008**

Average Weekday Time Periods

You use average weekday time periods — Weekday AM Peak period, Weekday Midday period, Weekday PM Peak period and Weekday Other period —to report data on times service begins and ends and the average number of revenue vehicles (passenger cars and trains) used during typical service for the year for selected modes. You should not report these data items for TR, DR, FB, JT, and PB services.

In addition to reporting revenue vehicles by average weekday time periods, you must report passenger car revenue miles and unlinked passenger trips for weekday time periods if the mode is heavy rail (HR), commuter rail (CR), and light rail (LR).

Exhibit 10 — Requirements for Weekday Periods

Average Weekday Data Item Breakdown by Time Period	Line / Column	Non-Rail Modes Except Bus and Trolleybus	Bus and Trolleybus	Rail Modes Except Heavy Rail, Commuter Rail and Light Rail	Heavy Rail, Commuter Rail and Light Rail
Time service begins	Line 3, columns e, f and g	No	Yes	Yes	Yes
Time service ends	Line 4, columns e, f and g	No	Yes	Yes	Yes
Vehicles in operation	Line 6, columns e, f, g and h	No	Yes	N/A	N/A
Trains in operation	Line 5, columns e, f, g and h	N/A	N/A	Yes	Yes
Passenger cars in operation	Line 6, columns e, f, g and h	N/A	N/A	Yes	Yes
Passenger car revenue miles	Line 12, columns e, f, g and h	N/A	N/A	No	Yes
Unlinked Passenger Trips	Line 18, columns e, f, g and h	No	No	No	Yes

The average weekday time periods are defined based on the service operated by your transit agency. You determine the beginning and ending of these time periods examining the changes in the normal vehicle headway, i.e., scheduled time interval between vehicles traveling in the same direction on a route. You use the other category, as appropriate, to provide information on night service operating after the PM peak and before the AM peak.

Consistent with current reporting requirements, you should define the peak period for your rail agency based upon those times of day at which it operates trains on shorter headways, relative to the rest of the day. As part of this effort you may define a one-way trip of a train as being either “peak” or “off-peak.” As such, it would not be necessary for you to determine when persons boarded an individual train trip and how you should add them to either “peak” or “off-peak” totals. Instead, you can define peak service using data for a complete one-way trip of a train.

The following example illustrates how to compute average weekday passenger car revenue miles and unlinked passenger trips by time period.

Example 18 — Computing Average Weekday Passenger Car Revenue Miles and Unlinked Passenger trips by Time Period

Example: An agency operates light rail (LR) service. The hours of operation for weekdays are from 6:00 AM to 3:00 AM.

The following time periods define the peak and off-peak hours for weekday service:

- Time Periods for Weekday service
- Time Period Hours Headway
- Weekday AM Peak 6:00 AM – 9:00 AM 10 minutes
- Weekday Midday 9:01 AM – 3:30 PM 25 minutes
- Weekday PM Peak 3:31 PM – 7:00 PM 10 minutes
- Weekday Other 7:01 PM – 3:00 AM 30 minutes

The following sample of trips was extracted randomly from the set of weekday trips.

This example is for illustration purposes only. The actual calculation may need either a complete set of weekday trips or a much larger sample.

Trip #	Day of Week	Trip Departed at	Unlinked Passenger Trips	Passenger Car Revenue Miles	Peak Period
1	Monday	7:00 AM	20	10	Weekday AM Peak
2	Tuesday	8:30 AM	35	15	Weekday AM Peak
3	Wednesday	9:10 PM	10	20	Weekday Other
4	Thursday	4:00 PM	40	20	Weekday PM Peak
5	Friday	6:00 PM	30	10	Weekday PM Peak
6	Monday	11:30 AM	25	10	Weekday Midday
7	Tuesday	7:00 PM	40	20	Weekday PM Peak
8	Wednesday	6:45 AM	40	20	Weekday AM Peak
9	Thursday	9:00 PM	15	10	Weekday Other
10	Friday	6:00 AM	40	25	Weekday AM Peak
	Total		295	160	

For this sample of trips, the average weekday unlinked passenger trips equals 295 unlinked passenger trips/10 weekday trips = 29.5 average weekday unlinked passenger trips.

Solution: The average weekday passenger car revenue miles equals 160 miles/10 trips = 16 miles.

To break down this data by time period:

1. For Weekday AM Peak (6 AM to 9 AM) – Use trips 1, 2, and 10 to calculate average:
   - Average AM Peak Unlinked Passenger Trips= (20 + 35 + 40)/3 = 32 average unlinked passenger trips for Weekday AM Peak
   - Average AM Peak Passenger Car Revenue Miles = (10 + 15 + 25)/3 = 17 average passenger car revenue miles for Weekday AM Peak.
2. For Weekday Midday Service (9 AM to 4 PM) – Use trip 6 to calculate average:
   - Average Midday Unlinked Passenger Trips = 25/1 = 25 average unlinked passenger trips for Weekday Midday Service
   - Average Midday Passenger Car Revenue Miles = 10/1 = 10 passenger car revenue miles for Weekday Midday.
3. For Weekday PM Peak – Use trips 4, 5, and 7 to calculate average:
   - Average PM Peak Unlinked Passenger Trips = (40 + 30 + 40)/3 = 37 average unlinked passenger trips for Weekday PM Peak
   - Average PM Peak Passenger Car Revenue Miles = (20 + 10 + 20)/3 = 17 passenger car revenue miles for Weekday PM Peak.
4. For Weekday Other Period: Use trips 3 and 9 to calculate average:
   - Average Other Period Unlinked Passenger Trips = (10 + 15)/2 = 13 average unlinked passenger trips for Weekday Other period.
   - Average Other Passenger Car Revenue Miles = (20 + 10)/2 = 15 passenger car revenue miles for Weekday Other Period.

Note that the sum of the averages for the peak periods does not equal the average weekday total.

Annual Totals

The annual totals are the total service for the year. Therefore, they include data for both typical and atypical days. Annual totals include:

- Scheduled service

  Plus (+)
- Extra service operated for special events

  Less (-)
- Scheduled service not operated for any reason such as:
  - Driver and equipment shortages
  - Breakdowns
  - Problems created by severe weather conditions.

The annual total fields equal:

- The total number of weekdays, Saturdays, and Sundays of service multiplied by the corresponding data for an average weekday, Saturday and Sunday for typical days

  Plus (+)
- Corresponding data for atypical days.

The example below illustrates how to compute annual total data.

Example 19– Computing Annual Total Data

Example 1: How to compute the actual vehicle miles for average weekday total for MB (Data from Example 18, Example 1).

	Typical Weekday Day Operation	Atypical Weekday Day Operation	Total Actual Vehicle Miles Operated
Total actual vehicle miles operated	6,993,520	562,330	7,555,850
Number of Days	230	20	
Solution: Report total actual vehicle miles operated			7,555,850

Example 2: How to compute the actual vehicle miles for average weekday total for DR (Data from Example 18, Example 2).

	Total Days Operated
Total actual vehicle miles operated	1,567,238
Number of days	250
Solution: Report total actual vehicle miles operated =	1,567,238

Auto Calculate Annual Totals

The S-10 form estimates the values for the annual total by: 1) multiplying the values reported for the average day schedules by the corresponding number of days the schedules were operated (line 21) and then 2) summing the three products — weekday, Saturday, and Sunday — to estimate the annual totals. These estimates are provided to help you judge the reasonableness of the data that you are reporting for the average day schedules and for the annual totals.

Reporting for Rail and Non-Rail

The data for service supplied, the miles and hours of service operated, are different for rail and non-rail modes. Rail mode reporting captures information on both the passenger cars (the revenue vehicles that carry passengers) and the trains (grouping of passenger cars that travel as one unit). Typically, rail modes such as HR and LR have two or more cars in a train. Other rail modes, such as cable car (CC) and inclined plane (IP) have only one car in a train.

Detailed Instructions

You should report data by mode and TOS. You should complete one form for each directly operated (DO) mode and for each purchased transportation (PT) mode.

There are reduced reporting requirements for the demand response-tax mode. Complete only annual total data listed below:

- Maximum Service Vehicles (Annual Total)
  - VOMS
  - Vehicles available for annual maximum service.
- Service Supplied (Annual Total)
  - Total VRM
  - Total VRH.
- Service Consumed (Annual Total)
  - UPT
  - ADA unlinked passenger trips
  - Sponsored service unlinked passenger trips
  - PMT.
- Service Operated (Days)(Annual Total):
  - Days Operated — days that service was actually operated
  - Days Not Operated Due to Strikes — days that service would normally have operated but was not due to a transit labor strike
  - Days Not Operated Due to Officially Declared Emergencies — days that service would normally have operated but was not due to an officially declared emergency.

The following detailed instructions are presented in the order that they appear on the form:

- Maximum service vehicles
- Periods of service
- Service supplied
- Service consumed
- Service operated
- DRM.

Maximum Service Vehicles

You should report the number of revenue vehicles required to meet and available for service requirements as:

- VOMS
- Vehicles available for annual maximum service.

Vehicles Operated in Annual Maximum Service

You should report the number of VOMS for the current year. When you enter this number of VOMS on the Identification form (B-10) the number transfers automatically to the S-10 form.

For CR, you should report both passenger cars and the locomotives used to pull them. You should report locomotives whether or not they are used to carry passengers in revenue service.

> **Vehicles Operated in Annual Maximum Service (VOMS):** The number of revenue vehicles operated to meet the annual maximum service requirement. This is the revenue vehicle count during the peak season of the year; on the week and day that maximum service is provided. In most instances, this is the number of scheduled vehicles since most transit agencies have sufficient vehicles to operate the scheduled service. VOMS exclude atypical days or one-time special events.

Vehicles Available for Annual Maximum Service

You should report the number of vehicles available for maximum service for the current year.

For CR, You should report both passenger cars and the locomotives used to pull them. You should report locomotives whether or not they are used to carry passengers in revenue service.

Vehicles Available for Annual Maximum Service: The number of revenue vehicles available to meet the annual maximum service requirement. Vehicles available for maximum service include spare vehicles, out of service vehicles and vehicles in or awaiting maintenance, but exclude vehicles awaiting sale and emergency contingency vehicles.

Spare vehicles are needed to preserve and meet scheduled service. They are held in reserve to replace vehicles that break down or are involved in accidents. Spare vehicles also allow routine vehicle maintenance to be performed during the day when service is being operated.

Emergency contingency vehicles are inactive revenue vehicles that have reached their useful life and would normally be disposed. However, FTA allows your transit agency to retain the vehicles in the event of energy or local emergencies (floods, earthquakes, etc.) if they are in an FTA approved emergency contingency plan.

Unless there were changes in the vehicle inventory during the report year, the number of vehicles available for maximum service should be consistent with the active revenue vehicles that you report on the Revenue Vehicle Inventory form (A-30).

The exhibit below illustrates the difference between VOMS and vehicles available for maximum service.

Exhibit 11 – Vehicles Operated in Maximum Service and Vehicles Available in Maximum Service

Non-rail Modes	**Demand Response, Demand Response-Taxi and Vanpool**	**All other non-rail modes**
VOMS	The largest number of vehicles in revenue service at any one time during the reporting year (includes atypical service).	The largest number of scheduled revenue vehicles in service at any one time during the reporting year (excludes atypical service).
Vehicles Available for Annual Maximum Service	The largest number of vehicles in revenue service at any one time during the reporting year (includes atypical service) and all spare vehicles available outside of what is needed to provide maximum service.	The largest number of scheduled revenue vehicles in service at any one time during the reporting year (excludes atypical service) and all the spare vehicles available to provide both typical and atypical service.
Rail Modes	**Commuter Rail and Alaska Railroad**	**All other rail modes**
VOMS	The largest number of passenger cars and locomotives scheduled for service at any one time during the reporting year (excludes atypical service). Passenger cars and locomotives each count as a vehicle in this case.	The largest number of passenger cars (vehicles) scheduled for service at any one time during the reporting year (excluding atypical service).
Vehicles Available for Annual Maximum Service	The largest number of passenger cars and locomotives scheduled for service at any one time during the reporting year (excludes atypical service). Passenger cars and locomotives each count as a vehicle in this case, and the total number of spare passenger cars and locomotives available to provide service.	The largest number of passenger cars (vehicles) scheduled for service at any one time during the reporting year (excluding atypical service) and all spare passenger cars available to provide service.

The following exhibit illustrates the difference between trains in operation and passenger cars in operation.

Exhibit 12 – Trains in Operation and Passenger Cars in Operation

	Commuter Rail and Alaska Railroad	All other rail modes
Trains in Operation	The largest number of locomotive / passenger car combinations scheduled to provide service on the average weekday / Saturday or Sunday Schedule (excludes atypical service) Example: One locomotive may pull three passenger cars and you should report this as one train.	The largest number of single passenger cars or set of adjoining passenger cars scheduled for service on the average weekday / Saturday or Sunday Schedule (excludes atypical service). Example: Three adjoining passenger cars would be one train and one passenger car with no adjoining cars would also be considered one train. If your transit agency operates only one passenger car at a time (single car trains), this number will be the same as passenger cars in operation.
Passenger Cars in Operation	The largest number of passenger cars (excluding locomotives) scheduled for service on the average weekday / Saturday or Sunday Schedule (excludes atypical service). This will not be equal to trains in operation.	The largest number of passenger cars scheduled for the average weekday / Saturday or Sunday Schedule (excludes atypical service). If your transit agency operates only one passenger car at a time (single car trains), this number will be the same as trains in operation.

Periods of Service

You report service by the following time periods:

- Average Weekday Schedule — Whole day, Weekday AM peak, Week Midday and Weekday PM peak
- Average Saturday Schedule — Whole day
- Average Sunday Schedule — Whole day.

You should not report time period data for vanpool (VP) or demand response-taxi service.

Time Service Begins

You should report the beginning time for service on an average weekday by Weekday AM Peak period, Weekday Midday period, Weekday PM Peak period and for the day. The beginning time for the AM peak and for the day is defined as the time when the first revenue service vehicle leaves the garage or point of dispatch. You should determine the peak periods on the basis of service frequency (headway), not on the basis of the number of vehicles in service.

You should report the beginning (time service begins) for service on an average Saturday schedule and on an average Sunday schedule. Use 2400-hour time (e.g., 2:00 PM = 1400).

You should report the normal periods of service for a continuous day of operation. For example, if Weekday AM Peak service begins at 4:45 AM and the last service of the day ends at 2:00 AM the following day, you should report the periods of service for an average weekday as 0445 and 0200.

For TR, DR, FB, JT, and PB services, you should complete only the average weekday, Saturday and Sunday columns.

Time Service Ends

You should report the ending times for service on an average weekday by Weekday AM Peak period, Weekday Midday period, Weekday PM Peak period and for the day. The ending time for the day is defined as the time when the last revenue service vehicle returns to the garage or point of dispatch. You should determine the peak periods on the basis of service frequency (headway), not on the basis of the number of vehicles in service.

You should report the ending times (time service ends) for service on an average Saturday and on an average Sunday. Use 2400-hour time (e.g., 2:00 PM = 1400).

You should report the normal periods of service for a continuous day of operation. For example, if AM peak service begins at 4:45 AM and the last service of the day ends at 2:00 AM the following day, you should report the periods of service for an average weekday as 0445 and 0200.

For TR, DR, FB, JT, and PB services. You should complete only the average weekday, Saturday and Sunday columns.

Service Supplied

This section first provides a general discussion of the concepts relevant for reporting service supplied data. Detailed instructions for reporting service supplied data follow in the sections for rail and non-rail modes since they vary depending on whether the mode is a rail mode or a non-rail mode.

Key Service Supplied Concepts

Understanding the measures of service supplied and their components (deadhead, layover / recovery) will help you determine the appropriate category of vehicle miles and hours for reporting. The basic concepts addressed below are:

- Revenue service
- Deadhead
- Total service
- Determining revenue and total service statistics
- Scheduled and actual service.

Revenue Service

Revenue service is when your transit vehicle is providing public transportation and is available to carry passengers. Revenue service excludes non-public transportation activities such as exclusive school bus service and charter service. Vehicles operated in fare free service are considered in revenue service.

You measure revenue service in terms of revenue hours and revenue miles. For non-rail services, the service measures are VRH and VRM. For rail services, there are two different types of measures — train revenue hours (miles) and passenger car revenue hours (miles).

Revenue hours and miles for conventionally scheduled services, are comprised of two elements:

1. Running time, and
2. Layover / recovery time.

Running time is the time it takes your transit vehicle to travel from the beginning to the end of the transit route. Your agency's passenger timetable typically shows the running times for all trips operated by your agency.

The layover / recovery time typically is scheduled at the end of each trip and usually ranges from 10 to 20 percent of the running time. The time is scheduled to provide the transit operator a rest break and to provide an opportunity to get the transit service back on schedule if it was running late on the last trip.

For DR service, the definition of revenue service is slightly different than that for conventionally scheduled service. Revenue time includes all travel time from the point of the first passenger pick-up to the last passenger drop-off, as long as the vehicle does not return to the dispatching point.

For DT service, revenue service is only the time spent carrying passengers.

Deadhead

Deadhead is the mileage and operating time needed to move your transit vehicle before revenue service begins and after revenue service ends. When transit vehicles are deadheading, they operate closed-door and are not available to passengers. Deadhead in fixed route services can involve travel between:

- The garage and the beginning of a route
- The end of one route and the start of a second route, or
- The end of a route and the garage.

Note that bus (MB) deadhead includes mileage and time when your vehicle is not advertised as available for the general public, but is traveling to its first publicly advertised stop from the garage or to the garage from the last publicly advertised stop. For a vehicle to be considered in revenue service there must be a marked stop which is advertised in your schedules and an indication on your bus (e.g., head sign, window board) that it is in revenue service.

For non-fixed route services (DR, VP), deadheading can involve travel between:

- The garage and the dispatching point
- The garage and the first passenger pick-up
- The last passenger drop-off and the dispatching point
- The last passenger drop-off and the garage, or
- The dispatching point and the garage.

DR services typically operate some deadhead mileage and time. VP services, on the other hand, rarely operate deadhead time and mileage because typically vanpool vehicles start and end at the homes of drivers which are the first passenger pick-up points and last passenger drop-off points. For DT services, while taxicab providers may operate some deadhead, NTD collects only revenue service miles and hours. Taxicab service is typically paid for a passenger trip from origin to destination (for the revenue part of the trip).

Deadhead does not include vehicle travel during other times when vehicles are not available to the general public. Examples include non-public transportation activities such as charter or exclusive school bus service and internal transit activities such as operator training and moving vehicles between maintenance or operations facilities.

Deadheading also does not cover fueling operations. Some transit system do not have fueling facilities at their maintenance facilities or parking lots and may have their drivers fuel their vehicles on the way back to the garage after they have completed their day's work. You should not include the time that the drivers spend fueling their vehicles as part of deadhead time (hours).

Total Service

Total service covers the time from when your transit vehicle starts (pull-out time) from a garage to go into revenue service to the time it returns to the garage (pull-in time) after completing its revenue service. Since total service covers the time between pull-out and pull-in, it therefore includes both deadhead and revenue service.

You measure total service in terms of hours and miles. For non-rail services, the service measures are vehicle hours and vehicle miles. For rail services, there are two types of measures — train hours (miles) and passenger car hours (miles).

Determining Revenue and Total Service Statistics

You can calculate revenue and total service hours (miles) by examining the schedule for each of your agency's revenue vehicle, commonly known as a vehicle block. The example below illustrates how to calculate the vehicle revenue hours (miles) and vehicle hours (miles) for a bus vehicle block.

Example 20 — Calculating Vehicle Revenue and Vehicle Hours and Miles for Peak Periods

Example: How to compute vehicle revenue and vehicle hours and miles for a morning rush hour trip.

Starting Location	Ending Location	Start Time	End Time	Time (Minutes)	Distance (Miles)	Activity
Garage	Route 22 suburban end	6:30 AM	6:35 AM	5	2.0	Deadhead time
Route 22 suburban end	Route 22 CBD end	6:35 AM	7:25 AM	50	15.3	Running end time
Route 22 CBD end	Route 22 CBD end	7:25 AM	7:35 AM	10	0.0	Layover / recovery time
Route 22 CBD end	Route 22 suburban end	7:35 AM	8:25 AM	50	15.3	Running time
Running time	Garage	8:25 AM	8:30 AM	5	2.0	Deadhead time

Solution:

Vehicle revenue hours / miles = running time plus layover / recovery time

VRH = (50 + 10 + 50) / 60 = 110 / 60 = **1.83**

VRM = 15.3 + 15.3 = **30.6**

Vehicle hours / miles = running time plus layover / recovery time plus deadhead time

Vehicle hours = (5 + 50 + 10 + 50 + 5) / 60 = 120 / 60 = **2.0**

Vehicle miles = 2.0 + 15.3 + 15.3 + 2.0 = **34.6**

Scheduled and Actual Service

Scheduled service refers to the service that your agency planned to operate. Generally, this service is detailed in internal agency documents and provided to the users in public timetables.

Depending on the mode, you should report different scheduled statistics. For scheduled, non-rail services, the service measure is scheduled vehicle revenue miles. For rail services, the service measure is scheduled passenger car revenue miles. You should report scheduled service statistics only for scheduled services and therefore, you should not report for DR, VP, JT, and PB services.

Actual service refers to the service that your transit agency operated during the reporting period. The amount of actual service usually is very close to the amount of scheduled service. The difference between actual and scheduled service is due to two types of operating changes:

1. Missed service that occurred because of shortages of operators and revenue vehicles, vehicle breakdowns, weather related cancellations of service, and other service interruptions.

2. Added service operated as needed to meet the expected high ridership for special events such as fairs, parades, and civic celebrations.

Except for scheduled vehicle revenue miles (non-rail) and scheduled passenger car revenue miles, you must report actual service data in the service supplied portion of this form.

Service Supplied (Non-Rail Modes) Instructions

The reporting requirements for service supplied data vary by the two types of service operated:

1. Scheduled fixed route —TR, MB, FB, JT, PB, and TB
2. Non-Scheduled, Non-Fixed Route Services —DR, DT and VP.

Scheduled Fixed Route Services

For scheduled, fixed route services (TR, MB, FB, JT, PB, and TB), service supplied data for the average daily schedules cover the service typically (or commonly) operated by your transit agency. The average daily schedule values do not include:

- Service operated by your transit agency for one-time or limited events such as day of the game football shuttles or a visit to the city by the President of the United States
- Extra service operated in addition to the service public timetable by your transit agency to meet anticipated higher demand for limited season travel such as holiday shopping or county fairs.

You should report service supplied data for the average day schedules (weekday, Saturday and Sunday) and for the annual total.

Vehicles in Operation

You should report the vehicles in operation for service that is typically operated by your transit agency. These are the maximum number of vehicles necessary to actually operate service excluding atypical days.

In addition to average daily schedule data, for MB and TB, you should report vehicles in operation for the Weekday AM Peak, Weekday Midday, weekday PM Peak, and Weekday Other time periods.

Actual Vehicle Miles and Hours, Actual Vehicle Revenue Miles and Hours, Deadhead Miles and Hours

You should report average daily schedule and annual total data for actual vehicle miles, actual vehicle hours, VRM and VRH. Actual vehicle revenue miles and hours are when the service is available to the general public. These are the miles and hours traveled by vehicles in carrying passengers, plus layover / recovery time. It does not include the miles and hours for items such as deadhead, charter services, school bus service, operator training or maintenance testing.

The following exhibit illustrates how to report hours and miles for a vehicle in fixed route service.

Exhibit 13 — Accounting for Miles and Hours for Bus Service

	Actual Vehicle		Vehicle Revenue	
Activity	**Hours**	**Miles**	**Hours**	**Miles**
Bus travels (deadheads) from dispatching point to start of route.	Yes	Yes	No	No
Bus travels from its route in scheduled revenue operation. Passengers board the vehicle.	Yes	Yes	Yes	Yes
Bus travels its route in scheduled revenue operation. No passengers board the vehicle.	Yes	Yes	Yes	Yes
Bus arrives at the end of the route, lays over. Passengers can board during layover.	Yes	N/A	Yes	N/A
Bus arrives at the end of the route, lays over. Passengers cannot board during layover.	Yes	N/A	Yes	N/A
Bus arrives at the end of the route, goes out of service. Resumes service in PM peak.	No	No	No	No
Bus arrives at the end of the route, travels (deadheads) and parks at storage lot.	Yes	Yes	No	No
Bus arrives at the end of the route, travels (deadheads) to another route to operate a scheduled trip. Passengers cannot board during deadhead.	Yes	Yes	No	No
Bus arrives at the end of the route, travels (deadheads) to the dispatching point.	Yes	Yes	No	No
From the garage the bus travels to another maintenance facility to perform routine maintenance.	No	No	No	No
Due to a collision with another vehicle, the trip is terminated and the bus travels to a maintenance facility.	Yes	Yes	No	No
Bus travels from start to end of a route for training. Vehicle is not in service and does not board passengers.	No	No	No	No

The S-10 form automatically calculates deadhead miles (line 12a) and deadhead hours (line 15a) based on the data you reported for actual vehicle miles, actual vehicle hours, VRM and VRH. The automatic calculations are made as follows:

- Deadhead miles (line 12a) are calculated as total actual vehicle miles (line 11) minus total actual vehicle revenue miles (line 12) by column
- Deadhead hours (line 15a) are calculated as total actual vehicle hours (line 14) minus total actual vehicle revenue hours (line 15) by column.

These calculations are provided to help you judge the reasonableness of the data that you are reporting for the average day schedules and for the annual totals.

Scheduled Vehicle Revenue Miles

You should report scheduled vehicle revenue miles directly from your schedules, excluding any service interruptions or special additional services. Average weekday schedule data are the sum of the scheduled service offered during all time segments of a typical weekday.

Charter Service and School Bus Hours

You should report charter service hours and school bus hours. Charter and school bus service are not open to the general public, but serve a select group.

School bus service means the exclusive use of vehicles for carrying students. It does not mean additional services (school trippers) that your transit agency may operate on an existing route to meet the demands of traveling students. You should report school trippers as part of revenue service.

Most transit agencies operate no or very limited charter and school bus service.

Modes Using Ferryboat Service

The reporting of FB service has unique reporting requirements when other transportation modes also utilize the FB service. These other transportation modes may be other public transit modes such as VP and MB, or they may be private vehicles such as automobiles.

The following rules apply:

- You should report vehicle miles operated by the ferryboat only once, as FB mode. Other public transit mode vehicles are stationary on the ferryboat and therefore do not accumulate any vehicle mileage
- You should report the time for other public transit modes that their vehicles spend your ferryboats. You should report this time like you report “layover” time since there are passengers on board these other public transit vehicles. You should report this time as part of actual vehicle hours and actual vehicle revenue hours.

Non-Scheduled Non-Fixed Route Services

In the following, reporting instructions are given for three types of non-scheduled services:

1. DR
2. DT
3. VP.

The reporting of average daily totals is different for DR and VP than it is for scheduled, fixed route services. For DR and VP services (non-fixed route, non-scheduled), the average daily totals cover all days operated — typical and atypical. For DT, report all days operated — typical and atypical — only for the annual total.

Vehicles in Operation

You should report the vehicles in operation for service that your transit agency operated. These are the maximum number of vehicles necessary to actually operate the DR or VP service.

Actual Vehicle Miles and Hours, Actual Vehicle Revenue Miles and Hours, Deadhead Miles and Hours

You should report average daily and annual total data for actual vehicle miles, actual vehicle hours, VRM and VRH. This is when the service is available to the general public. For DR service, VRM and VRH include all travel and time from the point of the first passenger pick-up to the last passenger drop-off, as long as the vehicle does not return to the dispatching point. In addition, VRM and VRH include the distance and time to pick-up the next passenger. Thus, actual vehicle miles and hours are usually only slightly larger than actual VRM and VRH.

For DT service, you report only annual totals for VRM and VRH. For DT services, while taxicab providers may operate some deadhead, NTD collects only revenue service miles and hours. Taxicab service is typically paid for a passenger trip from origin to destination (for the revenue part of the trip).

The exhibit below illustrates how to report hours and miles for a vehicle in DR and DT service.

Exhibit 14 — Accounting for Miles and Hours for Demand Response Service

	Actual Vehicle		Vehicle Revenue	
Activity	**Hours**	**Miles**	**Hours**	**Miles**
Vehicle idles at the dispatching point.	No	N/A	No	N/A
Vehicle departs dispatching point to pick-up a passenger.	Yes	Yes	No	No
Vehicle waits for a passenger at the pick-up point.	Yes	N/A	Yes	N/A
After a passenger drop-off, the vehicle departs to pick-up another passenger with no passengers on-board.	Yes	Yes	Yes	Yes
After a passenger drop-off, the driver goes to a restaurant for lunch.	No	No	No	No
Vehicle transports passengers from a community center to a shopping mall.	Yes	Yes	Yes	Yes
Vehicle returns to the dispatching point with no passengers on-board.	Yes	Yes	No	No
Vehicle waits at the dispatching point before returning to shopping mall.	No	N/A	No	N/A
Vehicle waits at the shopping mall until it is time to bring passengers back to the community center.	Yes	N/A	Yes	N/A

For VP, whether the driver is just the driver or whether he is a participant in the VP, determines how to you count miles and hours. The driver is considered a passenger if he makes a work trip or has another trip purpose and does not receive wages. This is the common situation for most vanpool services.

If the driver is a passenger, you report the travel from the driver's home to the first passenger pick-up and the travel from the last passenger drop-off in VRM and VRH. If the driver is not a passenger, this travel is considered deadheading and you only report it in vehicle miles and hours.

For VP you should not report travel to or from maintenance facilities unless the vehicle is routinely (nightly) stored at these facilities. You also should not report the driver's personal use of the vehicle in vehicle miles and hours.

Therefore, for most vanpool services, no deadhead hours or miles are operated and reported because: 1) the drivers are also passengers and 2) most vanpool vehicles are stored at the homes of passenger drivers. Since no deadhead hours or miles are operated, the following relationships will occur:

- Total Actual Vehicle Miles = Total Actual Vehicle Revenue Miles
- Total Actual Vehicle Hours = Total Actual Vehicle Revenue Hours.

The S-10 form automatically calculates deadhead miles (line 12a) and deadhead hours (line 15a) based on the data you reported for actual vehicle miles, actual vehicle hours, VRM and VRH. The automatic calculations are made as follows:

- Deadhead miles (line 12a) are calculated as total actual vehicle miles (line 11) minus total actual vehicle revenue miles (line 12) by column
- Deadhead hours (line 15a) are calculated as total actual vehicle hours (line 14) minus total actual vehicle revenue hours (line 15) by column.

These calculations are provided to help you judge the reasonableness of the data that you are reporting for the average day schedules and for the annual totals.

Scheduled Vehicle Revenue Miles

You do not report these data because DR, DT and VP are non-scheduled services.

Charter Service and School Bus Hours

You should report charter service hours and school bus hours operated for DR and VP mode. Charter and school bus service are not open to the general public, but serve a select group.

School bus service means the exclusive use of vehicles for carrying students. It does not mean additional services (school trippers) that your transit agency may operate on an existing route to meet the demands of traveling students. You should report school trippers as part of revenue service.

Transit agencies rarely operate service with charter or school bus DR, DT or VP service.

Service Supplied (Rail Modes) Instructions

Reporting for rail modes requires separate data for trains and for the passenger cars of each train. A train is simply a group of passenger cars that move as one unit. For CR mode, a train includes the locomotive that pulls the passenger cars even though the locomotive may or may not carry passengers. For some rail modes, such as HR and LR, a train consists of one or more passenger cars. For other rail modes, there may be only one car per train, such as CC, or IP.

You should report service supplied data for average schedule days (weekday, Saturday and Sunday) and for the annual total. In addition, for HR, LR, and CR, you should report average weekday schedule data by time period for the following items:

- Passenger car revenue miles
- Unlinked passenger trips.

Trains and Passenger Cars in Operation

You should report the number of trains in operation and passenger cars in operation for service that your transit agency typically operated. These are the maximum number of trains and passenger cars necessary to actual operate service excluding atypical days. In addition to average daily data, you should report vehicles in operation for the weekday AM peak, midday, PM peak, and other time periods.

Actual Train and Passenger Car Miles and Hours, Actual Train and Passenger Car Revenue Miles and Hours, Train and Passenger Car Deadhead Miles and Hours

You should report actual train miles, actual train hours, actual train revenue miles and actual train revenue hours; and actual passenger car miles, actual passenger car revenue miles, actual passenger car hours and actual passenger car revenue hours. For CR mode, you should not include locomotive miles when reporting passenger car miles and hours.

Examples of how these statistics are computed are shown in the following example.

Example 21— Calculating Actual Train and Passenger Car Statistics

Example: A commuter rail (CR) train makes one round trip in the morning. The train consists of one locomotive and six passenger cars.

Starting Location	Ending Location	Start Time	End Time	Time (Minutes)	Distance (Miles)	Activity
Maintenance facility	Line A suburban end	5:30 AM	5:40 AM	10	3.0	Deadhead time
Line A Suburban end	Line A CBD end	5:40 AM	7:00 AM	80	32.6	Running time
Line A CBD end	Line A CBD end	7:00 AM	7:20 AM	20	0.0	Layover / recovery time
Line A CBD end	Line A suburban end	7:20 AM	8:40 AM	80	32.6	Running time
Line A suburban end	Maintenance facility	8:40 AM	8:50 AM	10	3.0	Deadhead time

Train miles / hours = Deadhead time + Running time + Layover / recovery time

Train miles = 3.0 + 32.6 + 32.6 + 3.0 = **71.2**

Train hours = (10 + 80 + 20 + 80 + 10) / 60 = 200 / 60 = **3.3**

Train revenue miles / hours = Running time + Layover / recovery time

Train revenue miles = 32.6 + 32.6 = **65.2**

Train revenue hours = (80 + 20 + 80) / 60 = 180 / 60 = **3.0**

Passenger car miles / hours = (Deadhead time + Running time + Layover / recovery time) x Number of passenger cars

Passenger car miles = (3.0 + 32.6 + 32.6 +3.0) x 6 = 71.2 X 6 = **427.2**

Passenger car hours = [(10 + 80 + 20 + 80 + 10) X 6] / 60 = [200 X 6] / 60 = 1,200 / 60 = **20.0**

Passenger car revenue miles / hours = (Running time + Layover / recovery time) x Number of passenger cars

Passenger car revenue miles = (32.6 + 32.6) x 6 = 65.2 x 6 = **391.2**

Passenger car revenue hours = [(80 + 20 + 80) x 6] / 60 = [180 x 6] / 60 = 1,080 / 60 = **18.0**

The S-10 form automatically calculates train and passenger car deadhead miles and deadhead hours based on the data you reported for actual miles, actual revenue miles, actual hours and actual revenue hours. The automatic calculations are made as follows:

- Train deadhead miles (line 9a) are calculated as total actual train miles (line 07) minus total actual train revenue miles (line 09) by column
- Train deadhead hours (line 10a) are calculated as total actual train hours (line 08) minus total actual train revenue hours (line 10) by column. Passenger car deadhead miles (line 12a) are calculated as total actual passenger car miles (line 11) minus total actual passenger car revenue miles (line 12) by column
- Passenger car deadhead hours (line 15a) are calculated as total actual passenger car hours (line 14) minus total actual passenger car revenue hours (line 15) by column.

These calculations are provided to help you judge the reasonableness of the data that you are reporting for the average day schedules and for the annual totals.

Scheduled Passenger Car Revenue Miles

You should report scheduled passenger car revenue miles directly from your schedules, excluding any service interruptions or special additional services. Average weekday schedule data are the sum of the scheduled service offered during all time segments of a typical weekday.

The following exhibit illustrates how to report hours and miles for rail modes.

Exhibit 15 — Accounting for Miles and Hours for Rail Service

	Actual Vehicle		Vehicle Revenue	
Activity	**Hours**	**Miles**	**Hours**	**Miles**
Train travels (deadheads) from the yard to the station where the trip is scheduled to start.	Yes	Yes	No	No
Train departs from the yard and travels to an adjacent station. The transit agency states that the train is in revenue service, however, no passengers are allowed to board.	Yes	Yes	No	No
Train travels from beginning to end of the line carrying passengers.	Yes	Yes	Yes	Yes
Train completes trip, lays over. Passengers cannot board during layover.	Yes	N/A	Yes	N/A
Train completes trip, lays over at a maintenance facility adjacent to the station. Passengers cannot board during layover.	Yes	N/A	Yes	N/A
Train completes trip, lays over. Passengers can board during layover.	Yes	N/A	Yes	N/A
Train departs from station A, breaks down at station B. Trip is terminated. Passengers alight at station B to board the next train. Trip operated from station A to station B.	Yes	Yes	Yes	Yes
Trip not operated beyond station B.	No	No	No	No
Train departs from station A, short turns at station B. Passengers alight at station B and board the next train. Trip operated from station A to station B.	Yes	Yes	Yes	Yes
Trip not operated beyond station B.	No	No	No	No
Train departs from station A, is expressed from station B to the end of the line. Passengers on-board can only alight at Station B or at end station. Trip operated from station A to station B.	Yes	Yes	Yes	Yes
Trip operated non-stop beyond station B.	Yes	Yes	Yes	Yes
Train completes a trip, deadheads to the end of another line to make another trip.	Yes	Yes	No	No
In the transition from AM to midday service, the train is put out of service at the end station. Service will resume for PM peak.	No	N/A	No	N/A
In the transition from AM to midday service, the train travels (deadheads) to the yard.	Yes	Yes	No	No
Train travels for operators' training and no passengers are allowed to board.	No	No	No	No
Train travels from the yard to a maintenance facility.	No	No	No	No

Service Consumed

Service consumed data are measures of the use of public transportation. NTD collects data on two measures:

1. UPT
2. PMT.

In addition, for DR and DT service, NTD collects two types of UPT:

1. Americans with Disabilities Act of 1990 (ADA) related unlinked passenger trips (line 19) are complementary paratransit trips provided under the ADA requirements
2. Sponsored service unlinked passenger trips (line 19a) are paid in whole or part by a third party who, in many cases, handled all or part of the trip arrangements.

You report only annual totals for these two special types of UPT. Counts of these two special types are included in the annual total you reported for unlinked passenger trips (line 18).

For FB mode, there are also unique NTD reporting requirements for reporting UPT and PMT when other transportation modes also utilize the FB service. These other transportation modes may be other public transit modes such as VP and MB, or they may be private vehicles such as automobiles.

The following rules apply:

- You report in the FB mode UPT for each occupant of the vehicle including the driver, whether the other transportation mode is public transit or private vehicles
- You report PMT only once and then as FB mode. This is because the other public transit or private vehicle is not moving under its own power aboard the FB.

See also discussion above for reporting vehicle miles and hours, and in the F-10 form for reporting passenger fares and FB ferriage fees.

Unlike all other data reported in the NTD, you may estimate PMT and UPT based on a sampling procedure. Acceptable sampling procedures and requirements are discussed at the end of this section.

Unlinked Passenger Trips

You should report UPT (boardings) for the average weekday schedule, average Saturday schedule, average Sunday schedule, and the annual total. UPT are the number of passengers who board your public transportation vehicles. You should count passengers each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.

For DT mode, report only the annual total UPT.

For DR and DT modes, you should report personal care attendants and companions as long as they are not employees of your transit agency. You should report attendants and companions regardless of whether or not they are fare-paying passengers.

For HR, LR and CR, you should report average weekday unlinked passenger trips by time period (Weekday AM Peak, Weekday Midday, Weekday PM Peak, and Weekday Other).

If your transit agency operates complementary paratransit trips, you should report the number of the unlinked trips attributable to ADA requirements (including personal care attendants and companions) under the DR and DT modes. These UPT should be less than or equal to the UPT you reported for the DR or DT service (line 18).

If your transit agency carries sponsored service trips, you should report the number of the sponsored service unlinked trips under the DR mode. These UPT should be less than or equal to the UPT you reported for the DR or DT service (line 18).

The categories of ADA-related and sponsored service are not exclusive. These kinds of trips can overlap. Each is a separate subset of the unlinked passenger trips. The total of ADA-related unlinked passenger trips and sponsored service unlinked passenger trips can exceed the total unlinked passenger trips.

For VP service, commonly you should report the driver as a passenger since most drivers are not paid wages and they are commuting to work. However, in rare instances, you should consider the drivers employees because, like other transit operators, they are paid wages and are not traveling for personal reasons (e.g., work commuting, shopping).

For rail systems, you should not confuse UPT with counts of passengers entering the systems through fare turnstiles. Often, rail systems allow passengers to transfer from one train to another train without exiting the rail system. In these systems, the turnstile counts always will be less than unlinked passenger counts because the turnstile counts do not include counts of boarding transfer passengers.

Passenger Miles Traveled Data

You should report PMT for an average weekday schedule, average Saturday schedule, average Sunday schedule, and the annual total. PMT is the other measure of service consumed by transit users. This measure tracks the distance traveled by each passenger, i.e., the distance from the time he boards until he gets off the vehicle. PMT are the cumulative sum of the distances ridden by each passenger.

For DT mode, report only the annual total PMT.

Sampling Procedures and Requirements for Passenger Miles Traveled and Unlinked Passenger Trips

The counting of all unlinked passenger trips or all passenger miles traveled consumed is called a 100 percent count. If available and reliable, you must report 100 percent counts of either or both PMT and UPT. This requirement applies to all modes and types of service.

If 100 percent counts are not available and reliable, you must estimate and report the PMT and UPT values based on statistical sampling. The Federal Transit Administration (FTA) requirements for all modes and types of service are:

- Minimum confidence of 95 percent, and
- Minimum precision level of ±10 percent.

The required precision level (±10 percent) applies to the annual total, not the average day schedule estimates that you report. The precision levels for the average day schedule estimates will be greater than ±10 percent if the sample size for the annual count was designed to meet ±10 percent exactly.

PMT and UPT are important NTD data items. The accuracy of the reported PMT and UPT must be certified in the Chief Executive Officer (CEO) Certification.

The 100 percent count method and sampling requirements and procedures are discussed below.

100 Percent Count of Unlinked Passenger Trips and Passenger Miles Traveled

A 100 percent count of UPT involves counting passengers each time they board a vehicle. As part of this count, the distance traveled by each passenger may also recorded to produce a 100 percent count of PMT. These two types of 100 percent counts are generally applicable to smaller systems, but their use is not precluded by a system's size. If 100 percent counts are available and reliable for either UPT or PMT, you must report them.

Your transit agency may try to do a 100 percent count may miss some of the vehicle trips because of personnel problems or equipment failures. If these vehicle trips are two percent or less of the total, then you should factor up the data to account for the missing percentage. If the missed vehicle trips are more than two percent of the total, then you must have a qualified statistician approve the methodology for factoring the data to account for the missing percentage.

Transit agencies using FTA C2710.2A for sampling DR passenger miles traveled must do a 100 percent count of UPT. Refer to FTA Approved Sampling Techniques below.

For DT mode, you may calculate PMT using origin and destination trip data in place of recording the passenger miles traveled using the taxi trip route.

Passenger Miles Traveled Sampling

Your transit agency may use any data sampling technique, by mode and TOS, which meets the 95 percent confidence and ±10 percent precision levels. Your transit agency may use different sampling techniques for each mode / TOS combination.

To assist transit agencies, FTA has developed acceptable PMT and UPT sampling procedures for bus (MB) and DR services. Your transit agency may also use any other procedure (alternative technique) that meets FTA requirements.

If your transit agency samples, you must follow the sampling technique exactly. You may choose to oversample your data, provided that the oversampling is selected randomly from all vehicle runs operated, but you may not in any case collect a smaller sample than is prescribed by the sampling plan. You should not change: 1) the prescribed number of trips in the sample except to oversample as noted above or 2) the approach for selecting trips that comprise the sample.

The following items are discussed below:

- FTA approved sampling techniques
- Alternative sampling techniques
- Automatic Passenger Counters
- Sampling for PT service
- Sampling cycles — mandatory sampling years
- CEO certification of sampling techniques and data.

FTA Approved Sampling Techniques

There are three approved sampling techniques described in circulars that provide definitions, sampling procedures, data recording procedures, annual report compilation and sample selection information:

1. FTA C 2710.1A Sampling Techniques for Obtaining Fixed Route Bus Operating Data Required under the Section 15 Reporting System. Six sampling plans are presented. The minimum number of sample trips is 549 annually. The six sampling plans are for systems that operate daily service. If your transit agency does not operate on a seven-day schedule you should contact their NTD analyst for assistance. You should not submit the documentation outlined in the circular with your NTD Annual report, but retain it for your files.

   This procedure was developed to provide an estimate of both PMT and UPT for fixed route bus systems. However, if a 100 percent count of UPT is available and reliable you can not report the procedure's estimate for UPT. Instead FTA requires you to report the available 100 percent count of UPT. In this case, you should only use the procedure to estimate and report PMT.
2. FTA C 2710.2A Sampling Procedures for Obtaining DR Bus System Operating Data Required under the Section 15 Reporting System. The circular describes a method for sampling the service provided by one demand response (DR) vehicle on one day each week. The method is used to estimate annual passenger miles traveled (PMT) and requires your transit agency to collect 100 percent counts of UPT. The sampling circular includes the Annual Report to FTA —DR form (406B). You should not submit this form with your NTD Annual report, but retain it for your files.

These circulars can be downloaded from the NTD Program website (www.ntdprogram.gov).

Pending New FTA Approved Sampling Manual

There is a new sampling manual currently in the formal approval process by FTA. Transit agencies may use the techniques and sampling templates during this "trial phase".

The sampling techniques are for:

- Estimation of passenger miles traveled
- Estimation of unlinked passenger trips if 100% counts are unreliable or unavailable.

NTD sampling requirements for data estimation remain the same:

- 95% Confidence Level
- 10% Precision.

Key points about the new sampling approach:

- Covers all modes
- Provides more than one sampling plan
- Sample size is not fixed but based on transit agency and mode specific characteristics
- Sampling is based on random selections within a weekly, monthly or quarterly time period
- Sampling templates can be tailored to transit agency needs.

The Sampling manual can be downloaded from the NTD Program website (www.ntdprogram.gov).

You do not need to get approval from FTA nor from a qualified statistician to use the Sampling Package, unless you are using APC's to collect your data—in which case the usual APC approval requirements apply,

Alternative Sampling Techniques

Your transit agency may also use any other procedure (alternative technique) approved by a qualified statistician. An alternative sampling technique is a statistically valid technique, other than a 100 percent count of both UPT and PMT and other than the sampling techniques described in the FTA circulars.

A qualified statistician is someone who can ensure that FTA statistical sampling requirements are met. FTA does not prescribe specific statistician qualifications. Instead, it requires your transit agency to insure that the statistician is suitably qualified. The statistician may be an in-house staff person with a working knowledge and an education or background in statistics. The statistician also may be a hired consultant with appropriate qualifications.

FTA does not review or approve alternative sampling techniques. A qualified statistician must determine that the sampling technique meets FTA's confidence and precision levels.

You must document and retain in your files both the technique and the statistician's approval. The documentation should include:

- A description of the technique that includes:
  - The parameters used to estimate UPT (e.g., UPT per vehicle trip x number of vehicle trips operated) if a 100% count of UPT is not available or reliable, and PMT (e.g., PMT per vehicle trip x number of vehicle trips operated), and
  - The rationale used to estimate the coefficient(s) of variation.
- A signed review of the technique by a qualified statistician including a statement that the technique meets FTA's confidence and precision levels.
- A summary of the statistician's education and experience that indicates that the statistician is qualified.

FTA considers FTA C 2710.4A Revenue Based Sampling Procedures for Obtaining Fixed Route Bus (MB) Operating Data Required under the Section 15 Reporting System an alternative sampling technique. If your transit agency uses C 2710.4A you must have a qualified statistician review, revise (if necessary), and approve the sampling parameters.

Automatic Passenger Counters (APC)

Some transit agencies use automatic passenger counters (APC) for collecting UPT and PMT data for bus (MB) mode, either through sampling or a 100 percent count of data. The APCs must be calibrated and validated by each transit agency periodically in order to be used for NTD reporting.

The use of APCs for NTD reporting requires prior FTA approval. If your transit agency fails to obtain prior FTA approval FTA will not include the reported APC-derived passenger mile data in the Urbanized Area Formula Program apportionment.

In order to ensure the reliability of the UPT and PMT data FTA must approve the following:

- Implementation of a new APC system
- APC benchmarking plan for the first year
- APC maintenance plan for subsequent years, i.e., periodic calibration of the APC equipment against benchmark dataset (i.e., developing adjustment factors for replicating UPT and PM data collected by ride checkers to APC derived UPT and PMT data).

Specifically, the APC benchmarking plan for the first year must include procedures for:

- Validating the APC data for UPT and PM data against a separate data sample covering a full year. For example, if you wish to use an APC to collect PMT data, then the APCs should be run parallel to traditional human sampling for one year. If the average passenger trip length from the APCs is statistically equivalent to the average passenger trip length from the human sampling, then APCs may be used in the future for collecting PMT data for the NTD.
- Developing procedures for adjusting the APC data for UPT and PMT to replicate the data produced by the other data source; and
- Implementing procedures to ensure that APC data for UPT and PMT meets FTA standards for at least 95% confidence level and 10% precision.

You must submit the benchmarking plan to FTA for approval using the **e-File** tab in Internet Reporting. You also must submit the result after the benchmarking plan has been completed using the **e-File** tab in Internet Reporting.

In subsequent years, the APC maintenance plan must include procedures for the calibration of the APC equipment every year using a sample of at least 100 bus vehicle trips using ride checkers to collect the UPT and PM data. The trips in the sample do not need to be randomly distributed by route, by day, and time of day. Most APC manufacturers recommend routine calibration checks. For MB service, UPT counts from APCs should be regularly checked and reconciled against trip counts and fares from registering fare boxes. If a transit system uses APCs for both directly operated and purchased transportation bus services, separate samples of at least 100 bus vehicle trips are required for each type of service.

You must annually submit to FTA documentation of the results of the maintenance plans including the UPT and PM data collected by ride checkers compared to APC derived UPT and PM data and the statistical variance between the two data sets. You should submit the documentation to NTD using the using the **e-File** tab in Internet Reporting.

The requirements for the use of APCs in the computation of UPT and PMT for bus also are valid for the use of APCs on other modes such as LR service.

Sampling for Purchased Transportation Service

Rules have been developed for sampling PT services when your agency, the buyer, also operates the same mode of service and when there is more than one seller. The guiding sampling rules for PT services included in your report are:

- PT sellers may use different sampling techniques than those implemented by your transit agency for DO service
- Your transit agency may apply one sample technique covering all PT contracts for a specific mode
- Each PT seller may use a different sampling technique.

Sampling Cycles — Mandatory Sampling Years

Transit agencies must sample or collect 100 percent counts of PMT in a mandatory year. The mandatory years are fixed in one-year or three-year cycles based on urbanized area (UZA) size, number of VOMS and TOS. UZAs are determined from the 2000 US Census.

The cycles for mandatory year sampling are based on the TOS operated UZAs served as follows:

- Mandatory One-Year Sampling Cycle
  - Directly operated service
  - Transit agencies serving UZA's with 500,000 more population and operating in total, across all modes, 100 or more vehicles in annual maximum service.
- Mandatory Three-Year Sampling Cycle
  - Directly operated service
  - Transit agencies serving UZA's with 500,000 more population and operating in total, across all modes, less than 100 or more vehicles in annual maximum service
- Transit agencies serving UZA's with less than 500,000 population
  - Purchased transportation modes
  - All transit agencies.

The exhibit below summarizes mandatory year criteria for sampling PMT.

Exhibit 16 — Mandatory Year Criteria for Sampling Passenger Miles Traveled

DO Service Mandatory Year Frequency	Mandatory Year	Population (UZA size)	Number of Directly Operated Vehicles In Annual Maximum Service Across all Modes
Every year	2010	≥ 500,000	≥ 100
Every 3rd year	2011	≥ 500,000	< 100
Every 3rd year	2011	50,000 - 499,999	Any number
PT Service			**Number of Purchased Transportation Vehicles in Annual Maximum**
Mandatory Frequency	**Mandatory Year**	**Population (UZA size)**	**Service Year (not filing separate report)**
Every 3rd year	2011	≥ 50,000	Any number

If your transit agency reporting for the first time or if your transit agency started a new mode / TOS during the report year, you must sample during your first report year even if it is not your mandatory year. Your next mandatory year occurs in the next fixed cycle for your transit agency. Similarly, if your agency is an existing reporter but missed a mandatory sampling year, you must sample the next report year and your next mandatory year occurs in the next fixed cycle for your transit agency.

Sampling Cycles — Non-Mandatory Sampling Years

In intermediate (non-mandatory) years, you may report PMT data in one of three ways:

1. Report 100 percent count.
2. Conduct 100 percent count of UPT. You must estimate PMT data by multiplying: 1) the average trip length (PMT divided by UPT) statistics reported in the annual total from the mandatory year and 2) the UPT (for weekday schedule, Saturday schedule, and Sunday schedule) for the current year.
3. Continue sampling.

Note that you can view your average trip length for annual total data from the prior years in Internet reporting by clicking on the **Reports** tab.

The example below illustrates how to estimate PMT data using the average trip length.

Example 22 — Using Average Trip Length to Estimate Passenger Miles Traveled Data

Example: Transit agency A serves an urbanized area (UZA) with a population of 350,000 (2000 Census). The transit agency DO MB and DR modes with 110 and 34 VOMS, respectively. What are the NTD reporting requirements for PMT data?

Solution: Transit agency A is required to sample (or conduct 100% counts) every three years since it is in an UZA between less than 500,000 population:

- Make a 100% count of PMT and UPT
- Conduct a 100% count of UPT in the current year, and estimate PMT data using the average trip factors from the mandatory year, or
- Use a statistically valid sampling technique to estimate PM.

Transit agency A decides to do a 100% count of PMT and UPT for DR mode and to report MB data using average trip length statistics to estimate intermediate year data. The transit agency performs a 100% count of the UPT for MB in the current year. The following details the mandatory and current year data for MB:

	Weekday	***Saturday***	***Sunday***
PM	50,000,000	7,000,000	3,000,000
UPT	10,000,000	2,000,000	750,000
Average trip length	5.0	3.5	4.0
Non-Mandatory Year			
UPT	10,500,000	2,100,000	800,000
Estimated average trip length (mandatory year)	5.0	3.5	4.0
Estimated PM (current year)	52,500,000 (5.0 x 10,500,000)	7,350,000 (3.5 x 2,100,000)	3,200,000 (4.0 x 800,000)

Estimated average trip length = PM **/** UPT

Estimated PM = average trip length × UPT

The exhibit below summarizes the certification requirements for PMT data.

Exhibit 17 — Passenger Miles Traveled Chief Executive Officer Certification Requirements

Mandatory Sampling Year - CEO Certification of PMT:

- Verifies that the FTA standards for precision and accuracy of sampling are met
- Verifies how (PMT data are collected:
  - Sample, or
  - 100% count.

Intermediate (Non-Mandatory Sampling) Years - CEO Certification of Passenger Miles Traveled (PMT):

- Verifies how PMT data are collected:
  - Sample
  - 100% count, or
  - Estimate PMT data using average trip length statistics from the mandatory year (for an average weekday schedule, Saturday schedule, and Sunday schedule) multiplied by the UPT from the report year (for an average weekday schedule, Saturday schedule, and Sunday schedule).

CEO Certification of Sampling Techniques and Data

For both mandatory and intermediate years, your CEO Certification verifies that the PMT data satisfy FTA requirements and describes how the PMT data were estimated.

Service Operated (Days)

You should report the total number of days of service for the following categories:

- Days Operated — days that service was actually operated
- Days Not Operated Due to Strikes — days that service would normally have operated but was not due to a transit labor strike
- Days Not Operated Due to Officially Declared Emergencies — days that service would normally have operated but was not due to an officially declared emergency.

Within each of these categories, you should report the total number of days for weekday schedule, Saturday schedule, and Sunday schedule service. Many transit systems operate different schedules on weekdays, Saturdays, and Sundays. The reported number of days reflects the number of days each schedule was operated. You should report holiday service as the day that most closely reflects the TOS operated. For example, if on Christmas day you operate a Sunday schedule of service, you should report this as a Sunday.

For DT mode, report only the annual total service operated days.

If you did not operate service on some days due to transit labor strikes or officially declared emergencies, Internet reporting will display a box for you to describe the situation.

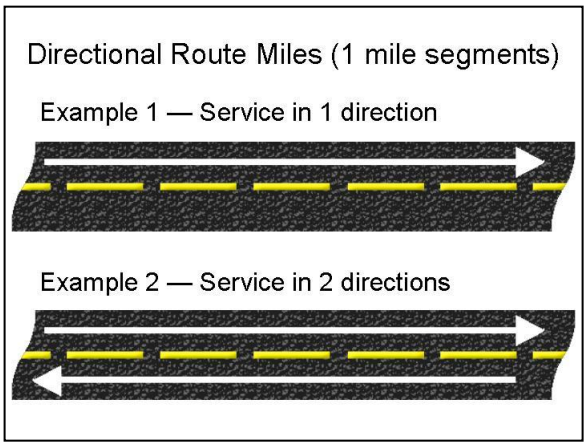
FTA holds harmless adjustments due to strikes, labor disputes, and work stoppages. RY 2010 data are the actual data to be used in apportionment of Fiscal Year (FY) 2012 funds. If your agency had a valid work stoppage during FY 2010, the CEO of your transit agency must request a hold harmless adjustment in writing via the **e-File**. Pending review, an adjustment can be made in the FY 2012 apportionment.

For the period of the strike, for the transit mode affected (e.g., commuter rail), FTA will adjust certain annual data used in the apportionment. FTA's adjustments are final and not subject to appeal. The data to be adjusted are based on the number of days of the strike. Partial strike days will not count.

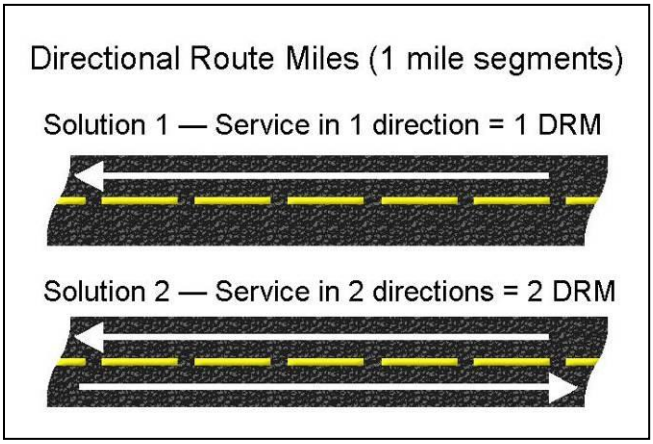
NTD apportionment data to be adjusted are unlinked passenger trips, vehicle revenue miles, passenger miles traveled, and operating costs. For service lost, simple adjustments will be made based on the annual weekday schedule, Saturday schedule, and Sunday schedule averages during the entire year, or an entire year that FTA deems appropriate.

Directional Route Miles

DRM are a measure of the service provided by your transit agency. They measure, by direction, the path of a vehicle in revenue service. They are counted once for each path, i.e., they do not depend on frequency of service. They are computed with regard to direction of service, but without regard to the number of traffic lanes or rail tracks existing in the right-of-way (ROW).



Examples 1 and 2 illustrate reporting of DRM for MB mode for different operations. The graphic illustrates the difference between service operated in one direction only and service operated in both directions.

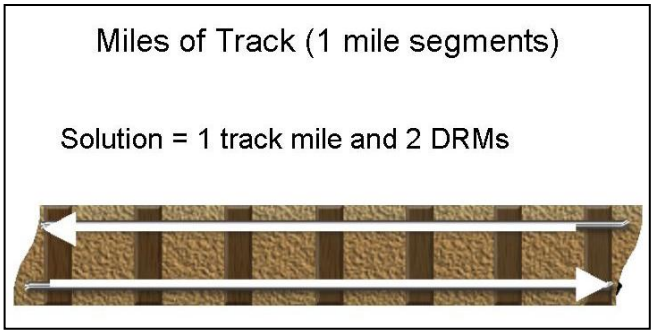


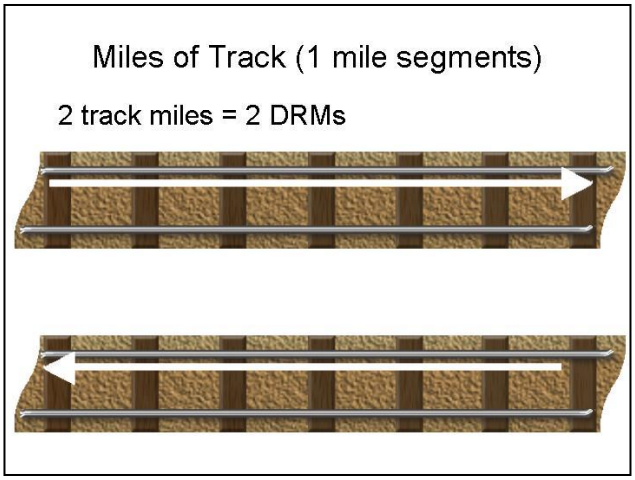
Solution 1: Two MB routes operate in only one direction over a one-mile segment of Main Street. In this case, there is one DRM.

Solution 2: Two MB routes operate in both directions over the one-mile segment of Main Street. In this case, there are two DRM.

The graphic below illustrates reporting of DRM for different rail operations.

Trains operate in both directions over a one-mile segment of track. In this case, one mile of track equals two DRM.





In the second graphic, trains operate in only one direction over two parallel tracks.

In this case, a one-mile segment equals two DRM.

Average Monthly Directional Route Miles

If there were FG segments added (service start-ups) or removed (discontinued service) from revenue service during the report year, Internet reporting calculates the average monthly FG DRM over which your transit agency operated service. Average monthly DRM are transferred automatically to the FFA-10 form.

You should report DRM for fixed route services. You do not report data are reported for DR JT, PB, and VP services.

The discussion in this section covers:

- Guideway classification
- MB reporting requirements
- Reporting requirements for non-bus modes.

Guideway Classification

You enter most data for DRM in the Fixed Guideway Segments form (S-20). These data are summarized and then transferred to the S-10 form. FG is reported by rail and non-rail modes. You enter the data in the Fixed Guideway Segments form (S-20) because DRM are used to measure FG. The traditional definition of FG is a separate ROW for the exclusive use of public transportation vehicles. By this definition, all rail modes operate exclusively on FG.

The concept of FG also has been extended to non-rail modes. A TR operates over its own exclusive air space that is similar to and is considered its own FG. By Federal statute, the ROW used by FB also is considered exclusive FG.

You must report very detailed information on the S-20 form for the modes that operate exclusively on FG. However, only the total DRM are transferred to the S-10 form.

The remaining two fixed route modes —MB and TB — sometimes operate on their own FGs, but often operate in mixed traffic rights-of-way (ROW) with other vehicles. For these two modes, you report and categorize DRM by the type of right-of-way (ROW) in which the mode operates as follows:

- Exclusive rights-of-way (ROW). Roadways reserved at all times for transit use and other HOV such as carpools and VP. Downtown transit malls and bus-only roadways are examples of exclusive ROW.
- Controlled access rights-of-way (ROW). Roadways restricted during selected times of the day (usually commuting hours) and times of the week (usually weekdays) for use by transit vehicles and other HOVs. HOV lanes on freeways that are limited to transit vehicles, carpools, and VP during commuting hours are examples of controlled access ROW.
- Mixed traffic ROW. Conventional streets and roads over which transit vehicles share operating space with cars and trucks. Mixed traffic ROW are the most common ROW used by buses.

Again, for the MB and TB, you report very detailed information on the S-20 form. The total DRM in all three guideway categories for TB are transferred to the S-10 form. However, only the DRM for the exclusive and controlled access ROW are transferred for the MB mode.

The transferred values for DRM describe the service operated by the transit agency. Although related, the transferred data are not necessarily a summary of the DRM that are eligible for funding under the UAF Program. The eligibility for the UAF Program is based on the data reported and summarized in the S-20 form. You should go to the discussion of the S-20 form for more details.

Reporting Requirements

There are no reporting requirements for non-bus modes in the S-10 form. The total DRM are transferred automatically from the data entered in the S-20 form. See the discussion of the S-20 form for more details.

You should report DRM for bus service operated in mixed traffic ROW. Total DRM are transferred from the S-20 form for exclusive and controlled access ROW. See the discussion of the S-20 form for more details.

Line by Line Instructions Service form (S-10)

Completing the Service form (S-10)

You should complete one form for each mode and type of service (TOS).

Form Level Help: You should click on the **Help** tab at the top of the screen for form level help.

Form Note: A form note can be attached to any form. You should use the **Add Form Note** link for relevant information to a specific field, to the entire form or to multiple forms. You should click on the **Add Form Note** link at the top of the screen and enter your note on the **Notes** screen. You can review and / or edit a form note from the **Notes** tab. You should not use the **Form Notes** feature to answer issues generated from this form. From the **Issues** tab, you should use the **Add Comments** link next to the specific issue.

Saving or Closing the Form: You should click on the **Save** button at the bottom of the screen to save the form. You should click on the **Close** button at the bottom of the screen to close the form without saving.

Maximum Service Vehicles

Line 01, column a: Vehicles Operated in Annual Maximum Service (VOMS). **Pre-filled** field based on the data reported on the Identification form (B-10).

- The number of vehicles operated on the maximum day of the year to provide peak period service. For commuter rail (CR), this number includes passenger cars and locomotives.

Line 02, column a: Vehicles Available for Annual Maximum Service.

- Enter the number of vehicles available on the maximum day of the year to provide peak period service (i.e., VOMS) plus spares, out of service vehicles, and vehicles in or awaiting maintenance; and excluding vehicles awaiting sale or emergency contingency fleet). For CR, include passenger cars and locomotives.

Periods of Service

Line 03: Time Service Begins

Use 2400-hour time (e.g., 2:00 PM = 1400). Report the normal periods of service for a continuous day of operation. For example, if AM peak service begins at 4:45 AM and the last service of the day ends at 2:00 AM the following day, report the periods of service for an average weekday schedule as 0445 and 0200.

- Column a: Average Weekday Schedule. Enter the time service begins for an average weekday schedule.
  - Does not apply to demand response-taxi (DT) or vanpool (VP).
  - This is the time vehicles leave the garage or yard to begin the day's service.
- Column b: Average Saturday Schedule. Enter the time service begins for an average Saturday schedule.
  - Does not apply to demand response-taxi (DT) or vanpool (VP).
- Column c: Average Sunday Schedule. Enter the time service begins for an average Sunday schedule.
  - Does not apply to demand response-taxi (DT) or vanpool (VP).
- Column e: Weekday AM Peak. Enter the time AM Peak service begins for an average weekday schedule.
  - Does not apply to aerial tramway (TR), demand response (DR), demand response-taxi (DT), ferryboat (FB), jitney (JT), publico (PB), and vanpool (VP) modes.
- Column f: Weekday Midday. Enter the time midday service begins for average weekday schedule.
  - Does not apply to TR, DR, DT, FB, JT, PB, and VP modes.
- Column g: Weekday PM Peak. Does not apply to TR, DR, DT, FB, JT, PB, and VP modes.
  - Enter the time PM peak service begins for an average weekday schedule.

Line 04: Time Service Ends

Use 2400-hour time (e.g., 2:00 PM = 1400). Report the normal periods of service for a continuous day of operation. For example, if AM Peak service begins at 4:45 AM and the last service of the day ends at 2:00 AM the following day, report the periods of service for an average weekday as 0445 and 0200.

- Column a: Average Weekday Schedule. Enter the time service ends for an average weekday schedule.
  - Does not apply to DT or VP.

  - This is the time vehicles return to the garage or yard to end the day's service.
- Column b: Average Saturday Schedule. Enter the time service ends for an average Saturday.
  - Does not apply to DT or VP
- Column c: Average Sunday Schedule. Enter the time service ends for an average Sunday.
  - Does not apply to DT or VP.
- Column e: Weekday AM Peak. Enter the time AM Peak service ends for an average weekday schedule.
  - Does not apply to TR, DR, DT, FB, JT, PB, and VP modes.
- Column f: Weekday Midday. Enter the time midday service ends for an average weekday schedule.
  - Does not apply to TR, DR, DT, FB, JT, PB, and VP modes.
- Column g: Weekday PM Peak. Enter the time PM peak service ends for an average weekday schedule.
  - Does not apply to TR, DR, DT, FB, JT, PB, and VP modes.

Service Supplied

Line 05: Trains in Operation

Applies to rail modes.

- Column a: Average Weekday Schedule. Enter the number of trains in operation for an average weekday schedule.
- Column b: Average Saturday Schedule. Enter the number of trains in operation for an average Saturday schedule.
- Column c: Average Sunday Schedule. Enter the number of trains in operation for an average Sunday schedule.
- Column e: Weekday AM Peak. Enter the number of trains in operation for AM peak service.
- Column f: Weekday Midday. Enter the number of trains in operation for midday service.
- Column g: Weekday PM Peak. Enter the number of trains in operation for PM peak service.
- Column h: Weekday Other. Enter the number of trains in operation for nighttime service after the PM peak and before the AM peak. This is sometimes referred to as night and owl services.

Line 06: Vehicles / Passenger Cars in Operation

Non-rail modes use vehicles. Rail modes use passenger cars.

Does not apply to DT mode.

- Column a: Average Weekday Schedule. Enter the number of vehicles / passenger cars in operation for an average weekday schedule.
- Column b: Average Saturday Schedule. Enter the number of vehicles / passenger cars in operation for an average Saturday schedule.
- Column c: Average Sunday Schedule. Enter the number vehicles / passenger cars in operation for an average Sunday schedule.
- Column e: Weekday AM Peak. Enter the number of vehicles / passenger cars in operation for AM peak service.
  - Does not apply to TR, DR, FB, JT, PB, and VP modes.
- Column f: Weekday Midday. Enter the number of vehicles / passenger cars in operation for midday service.
  - Does not apply to TR, DR, FB, JT, PB, and VP modes.
- Column g: Weekday PM Peak. Enter the number of vehicles / passenger cars in operation for PM peak service.
  - Does not apply to TR, DR, FB, JT, PB, and VP modes.
- Column h: Weekday Other. Enter the number of vehicles / passenger cars in operation for nighttime service after the PM peak and before the AM peak. This is sometimes referred to as night and owl services.
  - Does not apply to TR, DR, DT, FB, JT, PB, and VP modes.

Line 07: Total Actual Train Miles

Applies to rail modes.

These are all the revenue and deadhead miles that the trains operated for an average weekday, average Saturday and average Sunday schedule.

- Column a: Average Weekday Schedule. Enter the total actual train miles for an average weekday schedule.
- Column b: Average Saturday Schedule. Enter the total actual train miles for an average Saturday schedule.

- Column c: Average Sunday Schedule. Enter the total actual train miles for an average Sunday schedule.
- Column d: Annual Total. Enter the annual total of train miles. Include service operated for one-time or limited events such as day of the game football shuttles, extra holiday shopper service, or a visit to the city by the President of the United States.

Line 08: Total Actual Train Hours

Applies to rail modes.

These are all the revenue and deadhead hours that the trains operated for an average weekday, average Saturday and average Sunday schedule.

- Column a: Average Weekday Schedule. Enter the total actual train hours for an average weekday schedule.
- Column b: Average Saturday Schedule. Enter the total actual train hours for an average Saturday schedule.
- Column c: Average Sunday Schedule. Enter the total actual train hours for an average Sunday schedule.
- Column d: Annual Total. Enter the annual total of train hours. Include service operated for one-time or limited events such as day of the game football shuttles, extra holiday shopper service, or a visit to the city by the President of the United States.

Line 09: Total Actual Train Revenue Miles

Applies to rail modes.

These are all the miles that the trains operated in revenue service for an average weekday, average Saturday and average Sunday schedule.

- Column a: Average Weekday Schedule. Enter the total actual train revenue miles for an average weekday schedule.
- Column b: Average Saturday Schedule. Enter the total actual train revenue miles for an average Saturday schedule.
- Column c: Average Sunday Schedule. Enter the total actual train revenue miles for an average Sunday schedule. Column d: Annual Total. Enter the annual total of train revenue miles. Include service operated for one-time or limited events such as day of the game football shuttles, extra holiday shopper service, or a visit to the city by the President of the United States.

Line 09a – Train Deadhead Miles

- Columns a – d: These are **non-editable auto-calc** fields.

Line 10: Total Actual Train Revenue Hours

Applies to rail modes.

These are all the hours that the trains operated in revenue service for an average weekday, average Saturday and average Sunday schedule.

- Column a: Average Weekday Schedule. Enter the total actual train revenue hours for an average weekday schedule.
- Column b: Average Saturday Schedule. Enter the total actual train revenue hours for an average Saturday schedule.
- Column c: Average Sunday Schedule. Enter the total actual train revenue hours for an average Sunday schedule.
- Column d: Annual Total. Enter the annual total of train revenue hours. Include service operated for one-time or limited events such as day of the game football shuttles, extra holiday shopper service, or a visit to the city by the President of the United States.

Line 11: Total Actual Vehicle / Passenger Car Miles

Non-rail modes use vehicles. Rail modes use passenger cars.

These are all the revenue and deadhead miles that the vehicle / passenger cars operated for an average weekday, average Saturday and average Sunday schedule.

Does not apply to DT mode.

- Column a: Average Weekday Schedule. Enter the total actual vehicle / passenger car miles for an average weekday schedule.
- Column b: Average Saturday Schedule. Rail modes use passenger cars. Enter the total actual vehicle / passenger car miles for an average Saturday schedule.

- Column c: Average Sunday Schedule. Rail modes use passenger cars. Enter the total actual vehicle / passenger car miles for an average Sunday schedule.
- Column d: Annual Total. Enter the annual total of vehicle / passenger car miles. Include service operated for one-time or limited events such as day of the game football shuttles, extra holiday shopper service, or a visit to the city by the President of the United States.
- DR, DT, VP, JT and PB as non-scheduled services do not have extra service.

Line 11a: Train Deadhead Hours

- Columns a – d: These are **non-editable auto-calc** fields.

Line 12: Total Actual Vehicle / Passenger Car Revenue Miles

Non-rail modes use vehicles. Rail modes use passenger cars.

These are all the miles that the vehicle / passenger cars operated in revenue service for an average weekday, average Saturday and average Sunday schedule.

- Column a: Average Weekday Schedule. Enter the total actual vehicle / passenger car revenue miles for an average weekday schedule.
  - Does not apply to DT mode.
- Column b: Average Saturday Schedule. Enter the total actual vehicle / passenger car revenue miles for an average Saturday schedule.
  - Does not apply to DT mode.
- Column c: Average Sunday Schedule. Enter the total actual vehicle / passenger car revenue miles for an average Sunday schedule.
  - Does not apply to DT mode.
- Column d: Annual Total. Enter the annual total of vehicle / passenger car revenue miles. Include service operated for one-time or limited events such as day of the game football shuttles, extra holiday shopper service, or a visit to the city by the President of the United States.
  - DR, DT, VP, JT, and PB as non-scheduled services do not have extra service.
- Column e: Average Weekday AM Peak. Enter the number of Passenger Car Revenue Miles for average weekday AM peak service.
  - Applies to heavy rail (HR), light rail (LR) and commuter rail (CR) only.
- Column f: Average Weekday Midday. Enter the number of Passenger Car Revenue Miles for average weekday midday service.
  - Applies to HR, LR, and CR only.
- Column g: Average Weekday PM Peak. Enter the number of Passenger Car Revenue Miles for average weekday PM peak service.
  - Applies to HR, LR, and CR only.
- Column h: Average Weekday Other. Enter the number of Passenger Car Revenue Miles for average weekday nighttime service after the PM peak and before the AM peak. This is sometimes referred to as night and owl services.
  - Applies to HR, LR, and CR only.

Line 12a: Deadhead Miles / Passenger Car Deadhead Miles

Does not apply to DT mode.

- Columns a – d: These are **non-editable auto-calc** fields.

Line 13: Total Scheduled Vehicle / Passenger Car Revenue Miles

Non-rail modes use vehicles. Rail modes use passenger cars.

These are all the miles that the vehicle / passenger cars were scheduled to operate in revenue service for an average weekday, average Saturday and average Sunday schedule.

- Column a: Average Weekday Schedule. Enter the total scheduled vehicle / passenger car revenue miles for an average weekday schedule.
  - Does not apply to DR, DT, JT, PB, and VP modes.

- Column b: Average Saturday Schedule. Does not apply to DR, JT, PB, and VP modes. Enter the total scheduled vehicle / passenger car revenue miles for an average Saturday schedule.
  - Does not apply to DR, DT, JT, PB, and VP modes.
- Column c: Average Sunday Schedule. Enter the total scheduled vehicle / passenger car revenue miles for an average Sunday schedule.
  - Does not apply to DR, DT, JT, PB, and VP modes.
- Column d: Annual Total. Enter the annual total of scheduled vehicle / passenger car revenue miles. Equal to the sum of average weekday schedule, Saturday and Sunday scheduled service multiplied by the respective days operated on line 21.
  - In the cell to the right, there is an auto calculation of annualized average daily data computed as the average weekday schedule, average Saturday schedule and average Sunday schedule data multiplied by the number of days operated for (line 21) weekdays (column a), Saturdays (column b) and Sundays (column c). This is the annual total to enter in column d.
  - Does not apply to DR, DT, JT, PB, and VP modes.

Line 14: Total Actual Vehicle / Passenger Car Hours

Does not apply to DT mode.

Non-rail modes use vehicles. Rail modes use passenger cars.

These are all the revenue and deadhead hours that the trains operated for an average weekday, average Saturday and average Sunday schedule.

- Column a: Average Weekday Schedule. Enter total actual vehicle / passenger car hours for an average weekday schedule.
- Column b: Average Saturday Schedule. Enter total actual vehicle / passenger car hours for an average Saturday schedule.
- Column c: Average Sunday Schedule. Enter total actual vehicle / passenger car hours for an average Sunday schedule.
- Column d: Annual Total. Enter the annual total of vehicle / passenger car hours. Include service operated for one-time or limited events such as day of the game football shuttles, extra holiday shopper service, or a visit to the city by the President of the United States.
  - DR, VP, JT, and PB as non-scheduled services do not have extra service.

Line 15: Total Actual Vehicle / Passenger Car Revenue Hours

Non-rail modes use vehicles.

These are all the hours that vehicle / passenger cars operated in revenue service for an average weekday, average Saturday and average Sunday schedule.

- Column a: Average Weekday Schedule. Enter the total actual vehicle / passenger car revenue hours for an average weekday schedule.
  - Does not apply to DT mode.
- Column b: Average Saturday Schedule. Enter the total actual vehicle / passenger car revenue hours for an average Saturday schedule.
  - Does not apply to DT mode.
- Column c: Average Sunday Schedule. Enter the total actual vehicle / passenger car revenue hours for an average Sunday schedule.
  - Does not apply to DT mode.
- Column d: Annual Total. Rail modes use passenger cars. Enter the annual total of actual vehicle / passenger car revenue hours. Include service operated for one-time or limited events such as day of the game football shuttles, extra holiday shopper service, or a visit to the city by the President of the United States.
  - DR, DT, VP, JT, and PB as non-scheduled services do not have extra service.

Line 15a: Deadhead Hours / Passenger Car Deadhead Hours

Does not apply to DT mode.

- Columns a – d: These are **non-editable auto-calc** fields.

Line 16, column d: Charter Service Hours Annual Total. Enter annual charter service hours only if the vehicle is used exclusively for service not available to the general public.

- Applies only to non-rail modes.
- Do not enter charter service hours as vehicle hours or vehicle revenue hours (VRH).

Line 17, column d: School Bus Hours Annual Total. Enter annual school bus hours only if the vehicle is used exclusively to carry school passengers to and from their schools.

- Applies only to non-rail modes.
- Do not include school tripper service. Do not enter school bus hours as vehicle hours or vehicle revenue hours (VRH) above.

Service Consumed

Line 18: Unlinked Passenger Trips (UPT)

Count passengers each time they board a vehicle.

This is not the same as tickets / tokens sold as each unlinked passenger trip (UPT) is counted even if there was a transfer fare paid.

- Column a: Average Weekday Schedule. Enter the total passenger boardings for an average weekday schedule.
  - Does not apply to DT mode.
- Column b: Average Saturday Schedule. Enter the total passenger boardings for an average Saturday schedule.
  - Does not apply to DT mode.
- Column c: Average Sunday Schedule. Enter the total passenger boardings for an average Sunday schedule.
  - Does not apply to DT mode.
- Column d: Annual Total. Enter the annual total of all UPT. Include service operated for one-time or limited events such as day of the game football shuttles, extra holiday shopper service, or a visit to the city by the President of the United States.
  - DR, DT, VP, JT, and PB as non-scheduled services do not have extra service.
- Column e: Weekday AM Peak. Enter the total UPT attributable to service on an average weekday schedule AM Peak.
  - Applies to HR, LR and CR only.
- Column f: Weekday Midday. Enter the total UPT attributable to service on an average weekday schedule Midday.
  - Applies to HR, LR and CR only.
- Column g: Weekday PM Peak. Enter the total UPT attributable to service on an average weekday schedule PM Peak.
  - Applies to HR, LR and CR only.
- Column h: Weekday Other. Enter the total UPT attributable to service for nighttime service after the PM Peak service and before the AM Peak service. This is sometimes referred to as night and owl services.
  - Applies to HR, LR and CR only.

Line 19, column d: Annual Total: Americans with Disabilities Act of 1990 (ADA) UPT Annual Total. Enter the number of UPT for complementary paratransit trips under the Americans with Disabilities Act of 1990 (ADA) requirements.

- Applies to DR and DT modes only.

Line 19a, column d: Annual Total: Sponsored Service Unlinked Passenger Trips (UPT) Annual Total. Enter the number of UPT for sponsored trips. These trips are paid in whole or part by a third party who, in many cases, handled all or part of the trip arrangements.

- Applies to DR and DT modes only.

Line 20: Passenger Miles Traveled (PMT)

Derive passenger miles traveled from sampling, 100 percent counts or estimate for intermediate years (non-mandatory sampling year).

- Column a: Average Weekday Schedule. Enter the total passenger miles traveled (PMT) attributable to service on an average weekday schedule.
  - Does not apply to DT mode.
- Column b: Average Saturday Schedule. Enter the total PMT attributable to service on an average Saturday.

  - Does not apply to DT mode.
- Column c: Average Sunday Schedule. Enter the total PMT attributable to service on an Average Sunday.
  - Does not apply to DT mode.
- Column d: Annual Total. Enter the annual total number of PMT. Include service operated for one-time or limited events such as day of the game football shuttles, extra holiday shopper service, or a visit to the city by the President of the United States.
  - DR, DT, VP, JT and PB as non-scheduled services do not have extra service.

Service Operated (Days)

Line 21: Days Operated

- Column a: Weekday Schedule. Enter the annual number of weekdays that service was operated for your transit agency (only service included in your report).
  - Does not apply to DT mode.
- Column b: Saturday Schedule. Enter the annual number of Saturdays that service operated for your transit agency (only service included in your report).
  - Does not apply to DT mode.
- Column c: Sunday Schedule. Enter the annual number of Sundays that service was operated for your transit agency (only service included in your report).
  - Does not apply to DT mode.
- Column d: Annual Total. This is an **auto-calculated** field and cannot be edited, review for accuracy. Equal to the sum of days operated on weekday, Saturday, and Sunday schedules.
  - For DT mode, enter the days operated. Throughout the year.

Line 22: Days Not Operated Due to Strikes

- Column a: Weekday Schedule. Enter the annual number of weekdays that service was not operated due to strikes.
- Column b: Saturday Schedule. Enter the annual number of Saturdays that service was not operated due to strikes.
- Column c: Sunday Schedule. Enter the annual number of Sundays that service was not operated due to strikes.
- Column d: Annual Total. This is an **auto-calculated** field and cannot be edited, review for accuracy. Equal to the sum of days not operated due to strikes on weekday, Saturday, and Sunday schedules.
  - Describe the Days Not Operated Due to Strikes in the – Other description field.
  - For DT mode, enter the days not operated due to strikes throughout the year.

Line 23: Days Not Operated Due to Officially Declared Emergencies

A person in authority (usually the mayor, county head or governor) must officially declare an emergency.

- Column a: Weekday Schedule. Enter the annual number of weekdays that service was not operated due to officially declared emergencies.
  - Does not apply to DT mode.
- Column b: Saturday Schedule. Enter the annual number of Saturdays that service was not operated due to officially declared emergencies.
  - Does not apply to DT mode.
- Column c: Sunday Schedule. Enter the annual number of Sundays that service was not operated due to officially declared emergencies.
  - Does not apply to DT mode.
- Column d: Annual Total. This is an **auto-calculated** field and cannot be edited, review for accuracy. Use the Add Form Note link at the top of the form to enter your note on the notes screen. Equal to the sum of not operated due to officially declared emergencies on weekday, Saturday, and Sunday schedules.
  - Describe the Days Not Operated Due to Officially Declared Emergencies in the – Other description field.
  - For DT mode, enter the days not operated due to strikes throughout the year.

Directional Route Miles

Line 24, column a: Exclusive Right-of-Way (ROW). This is a **non-editable** field: The number of route miles, to the nearest 10th of a mile, on roadway or other transit right-of-way (ROW) reserved at all times of the day, over which transit vehicles travel in each direction while in revenue service. Directional route miles (DRM) are measured on the last day of the fiscal year.

- Applicable only to MB and TB modes
- Data transfer automatically from the S-20 form.

Line 25, column a: Controlled Access ROW. This is a **non-editable** field: The number of route miles, to the nearest 10th of a mile, on roadway or other transit right-of-way reserved for a portion of the day, over which transit vehicles travel in each direction while in revenue service. DRM are measured on the last day of the fiscal year.

- Applicable only to MB and TB modes
- Data transfer automatically from the S-20 form.

Line 26, column a: Mixed Traffic ROW. Enter the number of route miles to the nearest 10th of a mile, on roadway not reserved during any part of a day (transit vehicles travel with other vehicular traffic in same ROW), over which transit vehicles travel in each direction while in revenue service. DRM are measured on the last day of the fiscal year.

- Applicable only to MB and TB modes.
- Data transfer automatically from the S-20 form for TB mode.
- For MB mode, enter the mixed traffic ROW DRM.

Line 27, column a: Total. This is a **non-editable - auto-calculated** field. The total DRM for rail, FB and TR modes. Note that these modes are considered exclusive right-of-way (ROW). The total DRM over exclusive, controlled access and mixed traffic right-of-way for MB and TB modes.

- Data transfer automatically from the S-20 form for rail, FB and TR modes.

Fixed Guideway Segments form (S-20)

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Form Name: Fixed Guideway Segments (S-20) **Mode:** MB **Service:** PT Close Form

	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
Line No.	Segment Code	Status	UZA	Segment Name	Begins at	Ends at	Length (to .01)	One/Two Way	*Segment Type*	*Peak LOS*	Safe Oper.	Hrs. Proh	Enf. Proh	Original Date of Revenue Service Date (MM/DD/YYYY)	Agency Revenue Service Start Date (MM/DD/YYYY)	Out of Revenue Service Date (MM/DD/YYYY)	Months Operated	Type of Service Claimed	NTD Agency Claiming Segment
1	71926	XST LD N																	

Lines 1 - 1 of 1

Directional Route Miles

All LOS	Non-UZA	UZA 7	UZA 34	UZA 74	UZA 234	Total
01 Total controlled access right-of-way (ROW) @FYE						
02 Average controlled access right-of-way (ROW)						
03 Total exclusive right-of-way (ROW) @FYE						
04 Average exclusive right-of-way (ROW)						
05 Total controlled and exclusive right-of-way (ROW) @FYE						
06 Average controlled and exclusive right-of-way (ROW)						
LOS D,E,F						
07 Total controlled access right-of-way (ROW) @FYE						
08 Average controlled access right-of-way (ROW)						
09 Total exclusive right-of-way (ROW) @FYE						
10 Average exclusive right-of-way (ROW)						
11 Total controlled and exclusive right-of-way (ROW) @FYE						
12 Average controlled and exclusive right-of-way (ROW)						
13 Total average controlled and exclusive right-of-way (ROW) for funding						
LOS D,E,F for segments >7 year @ Federal FYE						
14 Total controlled access right-of-way (ROW)						
15 Total exclusive right-of-way (ROW)						
16 Total controlled and exclusive right-of-way (ROW)						
17 Total controlled and exclusive right-of-way (ROW) for funding						

Legend

S.No.	Status Code	Status Description	How to interpret
1	XST	Existing	Segment brought forward from last year
2	NEW	New	New segment, never existed in the system
3	SPT	Split	Segment split from other segment
4	AD	Added	Segment added by agency or NTD
5	LD	Loaded	Segment loaded by the system
6	Y	Modified	Segment modified atleast once by the NTD user
7	N	Never Modified	Segment never updated by the NTD user

Close Print

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Form Name: Fixed Guideway Segments (S-20) **Mode:** MB **Service:** DO Close Form

	a		b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	q	r
Line No.	Segment Code	Status	UZA	Segment Name	Begins at	Ends at	Length (to .01)	One/Two Way	*Segment Type*	*Peak LOS*	Safe Oper.	Hrs. Proh	Enf. Proh	Original Date of Revenue Service Date (MM/DD/YYYY)	Agency Revenue Service Start Date (MM/DD/YYYY)	Out of Revenue Service Date (MM/DD/YYYY)	Months Operated	Type of Service Claimed	NTD Agency Claiming Segment
1	71852	XST LD N																	

Directional Route Miles

All LOS	Non-UZA	UZA 14	Total
01 Total controlled access right-of-way (ROW) @FYE			
02 Average controlled access right-of-way (ROW)			
03 Total exclusive right-of-way (ROW) @FYE			
04 Average exclusive right-of-way (ROW)			
05 Total controlled and exclusive right-of-way (ROW) @FYE			
06 Average controlled and exclusive right-of-way (ROW)			
LOS D,E,F			
07 Total controlled access right-of-way (ROW) @FYE			
08 Average controlled access right-of-way (ROW)			
09 Total exclusive right-of-way (ROW) @FYE			
10 Average exclusive right-of-way (ROW)			
11 Total controlled and exclusive right-of-way (ROW) @FYE			
12 Average controlled and exclusive right-of-way (ROW)			
13 Total average controlled and exclusive right-of-way (ROW) for funding			
LOS D,E,F for segments >7 year @ Federal FYE			
14 Total controlled access right-of-way (ROW)			
15 Total exclusive right-of-way (ROW)			
16 Total controlled and exclusive right-of-way (ROW)			
17 Total controlled and exclusive right-of-way (ROW) for funding			

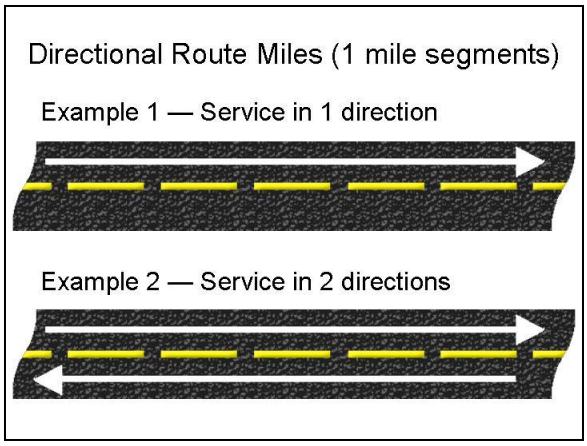
Legend

S.No.	Status Code	Status Description	How to interpret
1	XST	Existing	Segment brought forward from last year
2	NEW	New	New segment, never existed in the system
3	SPT	Split	Segment split from other segment
4	AD	Added	Segment added by agency or NTD
5	LD	Loaded	Segment loaded by the system
6	Y	Modified	Segment modified atleast once by the NTD user
7	N	Never Modified	Segment never updated by the NTD user

Close Print

Overview

The Fixed Guideway Segments form (S-20) form provides an inventory of fixed guideway (FG) facilities for their location, age, operating and physical characteristics. The form summarizes DRM for service operated over segments of the FG facility. Once established, these segments typically remain unchanged in subsequent reports, but each year you should review the entered data primarily for name changes and service characteristics.



Reporting Requirements and Thresholds

All transit agencies operating over FG must complete this form. Data are reported by mode and type of service (TOS) for each mode operating over FG.

What Has Changed from Prior Year

There are no changes for the 2010 report year.

Approach

The S-20 form is used to identify each segment of transit operations over FG, including high occupancy vehicle (HOV) facilities.

There are three S-20 forms tailored for:

1. Bus (MB)
2. Trolleybus (TB)
3. Rail, ferryboat (FB) and aerial tramway (TR).

Internet reporting summarizes directional route miles (DRM) on the S-20 form and automatically transfers relevant data to the S-10 form and Federal Funding Allocation Statistics form (FFA-10).

The reporting of FG segments requires an understanding of:

- Guideway classification
- DRM
- Multiple users and modes
- Modifying, adding and deleting FG segments
- High Occupancy /Toll (HO/T) Lanes.

Guideway Classification

You report FG for all rail modes and selected non-rail modes. The modes vary by the amount of FG you report:

- All rail modes operate exclusively on FG.
- Aerial tramway (TR) operates exclusively on FG
- The entire ROW used by TB and FB is defined by federal statute as FG for funding eligibility.
- The MB mode operates on FG only if it operates over exclusive or controlled access ROW.
- The remaining non-rail modes always operate on non-fixed-guideway (NFG).

Directional Route Miles (DRM)

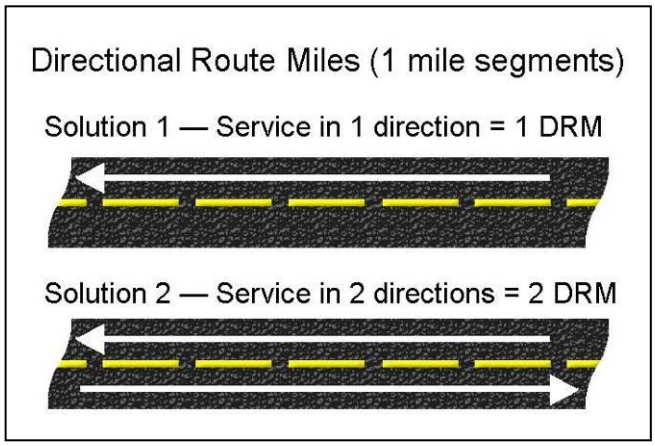
DRM are a measure of the service provided by a transit agency. DRM do not include staging or storage areas at the beginning or end of a route. You should measure DRM using the routes normally followed. You should not count mileage for temporary deviations (e.g., detours).

Internet reporting automatically calculates the fixed guideway directional route miles (FG DRM) using the data reported for each FG segment. FG DRM are transferred automatically to the S-10 form and the Federal Funding Allocation Statistics form (FFA-10).

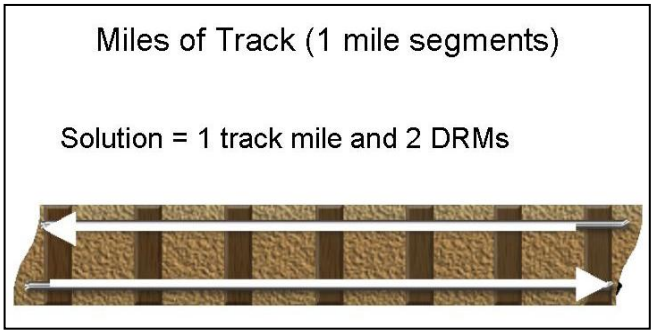
Examples 1 and 2 illustrate reporting of DRM for MB mode for different operations. The graphic illustrates the difference between service operated in one direction only and service operated in both directions.

Solution 1: Two MB routes operate in only one direction over a one-mile segment of Main Street. In this case, there is one DRM.

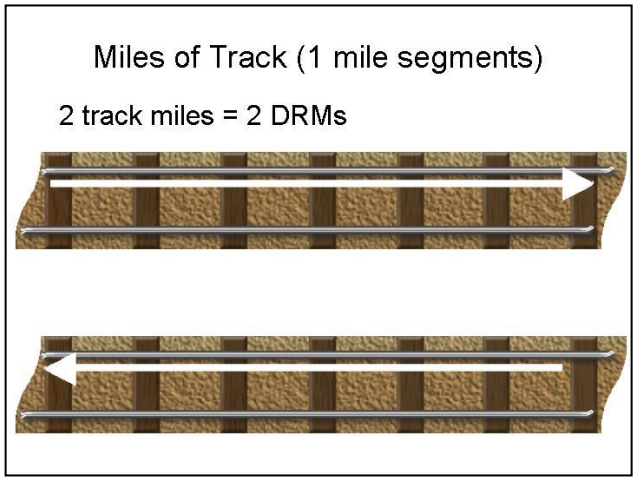
Solution 2: Two MB routes operate in both directions over the one-mile segment of Main Street. In this case, there are two DRM.



The graphic below illustrates reporting of DRM for different rail operations.



Trains operate in both directions over a one-mile segment of track. In this case, one mile of track equals two DRM.



In the second graphic, trains operate in only one direction over two parallel tracks.

In this case, a one-mile segment equals two DRM.

Average Monthly Directional Route Miles

If there were FG segments added (service start-ups) or removed (discontinued service) from revenue service during the report year, Internet reporting calculates the average monthly FG DRM over which your transit agency operated service. Average monthly DRM are transferred automatically to the FFA-10 form.

Reporting Segments for Multiple Users and Modes

You must report all segments on which your transit agency operated a mode either directly (DO) or through a purchased transportation (PT) agreement. It is possible that your transit agency operated different modes or TOS on the same segment. In these situations, you should follow these rules:

- Report all segments for each mode, even if your transit agency operated more than one mode over some or all of the same segments.
- If DO and PT of the same mode operate on a segment, report the segment on both the DO and PT forms.

  Note that this form is an inventory of fixed guideway operation by mode and type of service. You should refer to the Type of Service Claimed section of the detailed instructions for information on funding for shared segments.
- If multiple sellers of service of the same mode in your report operate on common segments, report the segments only once on the S-20 form for PT.

- If multiple transit agencies operate on a segment, report the segment on the fixed guideway form for each agency. Refer to the NTD Agency Claiming Segment section of the detailed instructions for information on funding for segments used by multiple transit agencies.

Modifying, Adding and Deleting FG segments

With limited exceptions, you cannot modify or add segments without FTA approval. You must submit a request for approval using the **New Fixed Guideway Segment Request** selection under the **Add Correspondence** button of the **e-File** tab.

The process for deleting segments is similar. If a segment has been reported in error, you must contact NTD staff for FTA approval to delete segments. However, no FTA approval is required if you stopped operating service on a segment in which case you enter the out-of-revenue service date on the form.

You can find more detailed information on modifying, adding and deleting FG segments at the end of the detailed instructions.

High Occupancy / Toll (HO/T) Lanes

Use and Operation of HOV Facilities by HO/T Vehicles

HO/T toll lanes allow single occupancy vehicles (SOVs) to use high occupancy vehicle (HOV) facilities by paying a toll. These are vehicles that are not otherwise exempt to use the HOV facility (e.g., energy efficient vehicles) if the vehicle pays a toll. If a transit agency has stricter requirements for HOV facilities than the prohibition of SOVs, then those requirements apply to the HO/T lane.

A State agency with jurisdiction over the operation of a HOV facility must establish occupancy requirements for HOV lanes and for any exemptions. The State agency that chooses to allow exceptions to HOV requirements must certify to the US Secretary of Transportation that they have established a program to monitor, assess, and report on the operation of the facility and the impact of high occupancy / toll vehicles and other low emission and energy efficient vehicles. An adequate enforcement program is also required, and provision made for limiting or discontinuing the exemptions if the facility becomes seriously degraded.

Minimum Speed Requirements on New HOV and HO/T lanes – Applies to Bus Only

SAFETEA-LU added provisions to the requirements for new HOV lanes and HO/T lanes (23 U.S.C Section 166). These new provisions included the requirements that the State continuously monitor the performance of HOV and HO/T lanes, including average speed. For example, the State would establish a minimum average speed floor (usually around 45 miles per hour). As noted in FTA's Final Rule (Federal Register, vol. 72, No. 7, Jan. 11, 2007, p. 1366), if average speeds were lower than the State standard, this could constitute "degradation" of HOV or HOT facility performance requirements, making them ineligible for funding.

For transit, to be eligible for funding, HOV and HO/T fixed-guideway service was always intended to function like rail fixed-guideway service, with "free flow" (23 U.S.C 166(d)) and a clear right of way. It is the view of Congress and FTA that vehicles on HOV and HO/T lanes, including transit buses and carpools, must be moving for the fixed-guideway segment to be effective "in reducing congestion and improving mobility," and to be a worthwhile investment for public transit. Specifically, a minimum performance speed on HOV/HO/T lanes provides the required "service advantage" for transit buses relative to regular traffic in the corridor. If new HOV lanes or HO/T lanes do not comply with these new SAFETEA-LU requirements, and there is an unacceptable "degradation" in average speed, they will not be eligible as fixed-guideway segments in the urban formula apportionment or for fixed-guideway modernization funding.

These provisions and clarifications also require that for excess toll revenues, priority consideration is to be given to projects for developing alternatives to single occupancy vehicle travel and for improving highway safety.

If you are reporting HO/T lanes, you must provide a copy of the State's certification to the US Secretary of Transportation.

Detailed Instructions

The following detailed instructions are presented as follows:

- Required data fields
- Directional route miles summary
- Modifying, adding, or deleting fixed guideway segments.

Required Data Fields

This section provides detailed instructions of data items you must report for the three FG segment forms:

1. MB
2. TB
3. Rail, FB and TR.

Internet reporting pre-fills the S-20 form with data from the prior year NTD submission. You may edit these data, add new segment, or delete existing segments, but only after receiving FTA approval. You can find more detailed information on modifying, adding and deleting FG segments at the end of the detailed instructions.

Segment Code – Applies to all Modes

This is a preset code created for NTD to assist in ongoing identification of FG segments. You may not edit these codes.

Urbanized Area – Applies to all Modes

The UZA number is pre-filled with data from the prior year NTD submission.

When adding a new segment, you should select the UZA where the segment is geographically located from the **UZA** drop-down menu. The **UZA** drop-down menu incorporates all UZAs and other than urbanized areas (non-UZAs) identified on the Identification form (B-10).

Segment Name – Applies to all Modes

The segment name is pre-filled with data from the previous NTD report year submission. You cannot edit the name.

When adding a new segment, you should report the name of the segment. You should provide enough detail to identify the segment and its location. You should use route or line name, or the roadways where the facilities are located, to identify segments. Typically, this is a street name (e.g., Main Street) or highway number (e.g., I – 5) for MB and TB modes.

Begins At – Applies to all Modes

The location where the segment begins is pre-filled with data from the previous NTD report year submission. You cannot edit this field.

When adding a new segment, you should report the point at which the segment begins in sufficient detail that it can be uniquely identified.

You should use readily identifiable locations to describe segment endpoints. You should not use abbreviations in these endpoint descriptions because they need to be easily identifiable on maps, timetables and other materials during the validation process. Typically, an endpoint is an intersecting street or milepost marker for bus MB and TB modes.

Ends At – Applies to all Modes

The location where the segment ends is pre-filled with data from the previous NTD report year submission. You cannot edit this field.

When adding a new segment, you should report the point at which the segment ends in sufficient detail that it can be uniquely identified.

You should use readily identifiable locations to describe segment endpoints. You should not use abbreviations in these endpoint descriptions because they need to be easily identifiable on maps, timetables and other materials during the validation process. Typically, an endpoint is an intersecting street or milepost marker for MB and TB modes.

Length – Applies to all Modes

The length of the segment is pre-filled with data from the previous NTD report year submission. You cannot edit this field.

When adding a new segment, you should report the length of the segment to the nearest hundredth of a mile. Reporting the segment length to the nearest hundredth of a mile provides the accuracy of the directional route miles to the nearest tenth for the Federal funding allocations.

Any segment for MB mode that is less than .25 miles will not be considered as FG unless it is running on a bridge, in a tunnel or connect with a transit terminal. In general, you must justify the highway ramps, meter bypasses, and special turning facilities less than .25 miles and obtain approved by FTA before it will be included as a FG segment.

One-Way / Two-Way – Applies to all Modes

A segment is one-way if travel always occurs in the same direction regardless of the time of day. A segment is two-way if travel occurs in both directions during the same period of time, or if travel is inbound during the AM peak and outbound during the PM peak.

The number of directions in which vehicles may travel on the segment is pre-filled with data from the previous NTD report year submission.

When adding a new segment or modifying data for an existing segment; you must select the number of directions in which vehicles may travel (one-way or two-way) on the segment from the **One-Way / Two-Way** drop-down menu.

One-Way / Two-Way menu selections:

1. One-way
2. Two-way

Segment Type – Applies to Bus Only

The segment type refers to the physical construction of the segment and whether it is used as a HO/T lane. The segment type is pre-filled with data from the previous NTD report year submission. You cannot edit this field.

When adding a new segment, you must select the segment type from the **Segment Type** drop-down menu.

Segment Type menu selections:

A. Priority lane on a multilane highway
B. Exclusive lane parallel to a multilane highway, physically separated from general traffic lanes
C. Stand-alone high occupancy roadway, no lanes open to general traffic
D. Exclusive access / egress lane to or from these lanes to a terminal facility
E. Priority lane on a multilane highway used as a HO/T lane
F. Exclusive lane parallel to multilane highway, physically separated from general traffic lanes used as a HO/T lane
G. Stand-alone high occupancy roadway, used as a HO/T lane
H. Exclusive access / egress lane to or from these lanes to a terminal facility

A. Priority lane on a multilane highway

B. Exclusive lane parallel to a multilane highway, physically separated from general traffic lanes

C. Stand-alone high occupancy roadway, no lanes open to general traffic

Peak Level of Service – Applies to Bus Only

Peak LOS is based on traffic conditions as defined in the Highway Capacity Manual. LOS is a measure of the ease with which traffic moves on a roadway. There are six levels ranging from free flow conditions (A) to gridlock (F).

You must report the LOS for the lanes next to the MB FG segment or in the travel corridor. Specifically, you must report the peak period LOS for:

- General traffic lanes for priority lanes on a multilane highway, or
- General traffic lanes for exclusive lanes parallel to a multilane highway, but physically separated from the general traffic lanes, or
- Corridor served by a stand-alone high occupancy roadway of which no lane is open to general traffic.

Peak LOS is pre-filled with data from the previous NTD report year submission. You cannot edit this field.

When adding a new segment, you should select the peak period LOS ranging from A (best) to F (worst) traffic conditions from the **Peak Level of Service** drop-down menu. You should note that segments with peak level of service A, B or C are not eligible for FTA Federal formula allocations for funding because these segments are not defined as serving congested travel corridors.

Peak Level of Service menu selections:

A. Indicates a relatively free flow of traffic, with little or no limitation on vehicle movement or speed.

B. Describes a steady flow of traffic, with only slight delays in vehicle movement and speed. All queues clear in a single traffic signal cycle.

C. Denotes a reasonably steady, high volume flow of traffic, with some limitations on movement and speed, and occasional backups on critical approaches.

D. Designates the level where traffic nears an unstable flow. Intersections still function, but short queues develop and cars may have to wait through one cycle during short peaks.

E. Represents traffic characterized by slow movement and frequent (although momentary) stoppages. This type of congestion is considered severe, but is not uncommon at peak traffic hours, with frequent stopping, long-standing queues, and blocked intersections.

F. Describes unsatisfactory stop-and-go traffic characterized by traffic jams and stoppages of long duration. Vehicles at signalized intersections usually have to wait through one or more signal changes, and upstream intersections may be blocked by the long queues.

Safe Operation – Applies to Bus Only

The safe operation requirements apply to priority lanes (e.g., on freeways / expressways / high-speed facilities) used by MB mode and other HOV; (i.e., vanpools (VP) and carpools), to ensure safe travel. For these lanes, there must be some indication of separation to ensure safe access between free flowing HOV lanes and the congested, unrestricted lanes.

You can find information on signage in the *Manual on Uniform Traffic Control Devices, Millennium Edition*, December 2001, Section 3B.23, and Preferential Lane Longitudinal Markings.

Separation can be accomplished at least two ways:

1. Physical barriers such as cones, concrete dividers, medians
2. Pavement markings such as a double solid wide line, a single solid wide line, a single broken wide line, or a diagonally striped area between lanes.

The graphics below illustrate safe operation for MB FG utilizing double solid line lane striping, traffic pylons, fencing and a concrete barrier.

Safe Operation — High occupancy vehicles (HOV) lanes separated from general traffic lanes by double solid lines.

Safe Operation — High occupancy vehicles (HOV) lanes separated from general traffic lanes by pylons.

Safe Operation — High occupancy vehicles (HOV) lanes separated by fencing.

Safe Operation — High occupancy vehicles (HOV) lanes separated from general traffic lanes by concrete barrier.

You cannot meet the safe operation requirement solely by using roadside or overhead signs, or with only a diamond symbol in the lane. to indicate high occupancy vehicle (HOV) lanes

If a freeway facility does not meet the safe operation requirements, it is not fixed guideway (NFG) for NTD reporting and you should not report the segment.

Lanes restricted to MB mode qualify as safely operated.

Safe operation is pre-filled with data from the previous NTD report year submission. You cannot edit this field.

When adding a new segment you must select whether or not safe operation requirements are met from the **Safe Operation** drop-down menu. For all other segments (non-freeways), select yes.

Safe Operation menu selections:

1. Yes, if high occupancy vehicle (HOV) lanes on freeways meet the safe operation requirements.
2. No, if high occupancy vehicle (HOV) lanes on freeways do not meet the safe operation requirements.

Hours Prohibited – Applies to Bus and Trolleybus

The number of hours per week during which SOVs are legally prohibited from using any portion of the segment is pre-filled with data from the previous NTD report year submission. You cannot edit this field.

If the prohibition is for all hours of the week, then the segment is exclusive right-of-way (ROW).

If the prohibition is for only some hours of the week, then the segment is controlled access right-of-way (ROW).

When adding a new segment, you must report the number of hours per week during which SOVs are legally prohibited from using any portion of the segment. If your transit agency has stricter requirements for HOV facilities than the prohibition of

SOVs, such as three or more persons per vehicle, then those requirements must also apply to the HO/T lane, i.e., one and two-person vehicles would pay tolls.

Enforced / Prohibited – Applies to Bus Only

The number of hours per week during which officers of the law enforce the prohibition is pre-filled with data from the previous NTD report year submission. You cannot edit this field. There must be a level of enforcement sufficient to ensure that 95 percent of the vehicles using the FG segment are eligible to use it.

When adding a new segment, you must report the number of hours per week during which officers of the law enforce the prohibition throughout the segment.

Original Date of Revenue Service – Applies to all Modes

For existing segments, the original date of revenue service is pre-filled with data from the previous NTD report year submission. You cannot edit this field.

For new segments, this is the opening date of revenue service on this segment by any transit agency, even though your transit agency may not have been the original operator. If you are the first transit agency to operate on a new segment, the original date of revenue service will be the same as your agency revenue service start date.

Agency Revenue Service Start Date – Applies to all Modes

The agency revenue service start date is the date that your transit agency begins operating revenue service on a new or preexisting segment. Internet reporting automatically determines and enters the number of months operated (Also see Months Operated below). You cannot edit this field for preexisting segments.

Out of Revenue Service Date – Applies to all Modes

If your transit agency stopped operating transit service on the segment during the year, you should report the last date of revenue service. Other reporters may continue to operate on this segment.

If a segment is temporarily out of service for rehabilitation or reconstruction for less than 12 months, you should not enter an Out of Revenue Service date. If a segment is out of service for rehabilitation or reconstruction for more than 12 months, or for some other temporary stoppage of service, you should contact your NTD analyst. FTA will make a determination on how this DRMs should be reported.

Internet reporting automatically determines and enters the number of months operated (Also see Months Operated below).

Months Operated – Applies to all Modes

The number of months of operation for pre-filled segments defaults to 12. For new segments or segments taken out of revenue service, Internet reporting automatically determines and enters the number of months operated using the agency revenue service start date and out of revenue service date.

Internet reporting will round the number of months of operation to a whole number, reporting a full month for revenue service that begins between the first and 14th of the month; revenue service that begins from the 15th through the end of the month is not counted. If revenue service began in the last two weeks of your transit agency's fiscal year, Internet reporting will indicate 0 months.

Type of Service Claimed – Applies to all Modes

This field applies only to transit agencies which operate both DO and PT for the same mode. If DO and PT service for the same mode operate on the same segment, you should report the segment on both the DO and PT forms. However, you can only claim the segment once for funding purposes. When adding a new segment, you should use the **Type of Service Claimed** drop-down menu to select DO or PT to indicate the TOS for which the segment is claimed on the FFA-10 form.

Type of Service Claimed menu selection:

1. Directly Operated (DO)
2. Purchased Transportation (PT)

NTD Agency Claiming Segment – Applies to all Modes

The NTD Agency Claiming Segment is pre-filled with data from the previous NTD report year submission. You cannot edit this field.

When adding a new segment, from the **NTD Agency Claiming Segment** drop-down menu, you should select the NTD transit agency identification number for the transit agency claiming the segment for funding purposes on the FFA-10 form. Only one transit agency can claim the segment. However, all transit agencies must report the segments over which they operated transit services during the report year.

The **Drop-Down** menu will be pre-filled with all of the NTD reporting agencies located within the UZAs and other than urbanized areas reported on the Identification form (B-10).

Modify / Delete Segment Data – Applies to all Modes

Internet reporting pre-fills the S-20 form with data from the prior year NTD submission. Some pre-filled data fields are not editable.

You may modify selected data for a segment. You cannot delete pre-existing segments from prior report years. Transit agencies can only delete segments during the Working Data stage that they incorrectly added for the current report year.

If your transit agency no longer operated service on a segment that your transit agency reported in the prior report year, you should enter the date that transit service was terminated for this mode and TOS under Out of Revenue Service Date. If service ended in the prior report year, you should enter that date. If service was last operated on the last day of the prior report year, you should enter the date for the first day of the current report year.

Directional Route Miles Summaries

These three summaries are tailored for:

1. Bus (MB)
2. Trolleybus (TB)
3. Rail, ferryboat (FB) and aerial tramway (TR).

Bus

Internet reporting automatically calculates the number of DRM by UZA, non-UZA and total for all approved segments, as follows:

All levels of service:

- Total controlled access right-of-way (ROW) @ fiscal year end (FYE)
- Average controlled access ROW
- Total exclusive right-of-way (ROW) @ FYE
- Average exclusive ROW
- Total controlled and exclusive ROW @ FYE
- Average controlled and exclusive ROW.

Levels of service (LOS) D, E, and F:

- Total controlled access ROW @ FYE
- Average controlled access right-of-way @ (ROW)
- Total exclusive ROW @ FYE
- Average exclusive ROW
- Total controlled and exclusive ROW @ FYE
- Average controlled and exclusive ROW
- Total average controlled and exclusive ROW for funding.

Levels of service (LOS) D, E, F for segments ≥ seven years @ Federal fiscal year end (FFYE):

- Total controlled access ROW
- Total exclusive ROW
- Total controlled and exclusive ROW
- Total controlled and exclusive ROW for funding.

All segments ≥ seven years @ FFYE are highlighted in a separate color.

Internet reporting automatically transfers the data to the Service form (S-10):

- Total controlled access ROW @ FYE is transferred to line 25
- Total exclusive ROW @ FYE is transferred to line 24.

Internet reporting automatically transfers the data to the Federal Funding Allocation Statistics form (FFA-10):

- Total average controlled and exclusive ROW for funding is transferred to line 08
- Total controlled and exclusive ROW for funding for segments ≥ seven years @ FFYE for levels of service (LOS) D, E, and F is transferred to line 16.

Trolleybus

Internet reporting automatically calculates the number of directional route miles (DRM) by UZA, non-UZA and total for all approved segments, as follows:

All segments:

- Total mixed traffic right-of-way (ROW) @ fiscal year end (FYE)
- Average controlled ROW
- Total exclusive ROW @ FYE
- Average exclusive ROW

- Total mixed traffic ROW @ FYE
- Average mixed traffic ROW
- Average controlled, exclusive, and mixed traffic ROW
- Average controlled, exclusive, and mixed traffic ROW for funding
- Total controlled, exclusive, and mixed traffic ROW @ FYE.

Segments ≥ seven years @ Federal fiscal year end (FFYE):

- Total controlled access ROW
- Total exclusive ROW
- Total mixed traffic ROW
- Total controlled, exclusive, and mixed traffic ROW
- Total controlled, exclusive, and mixed traffic ROW for funding.

All segments ≥ seven years @ Federal fiscal year end (FFYE) are highlighted in a separate color.

Internet reporting automatically transfers the data to the Service form (S-10):

- Total controlled access ROW @ FYE is transferred to line 25
- Total exclusive ROW @ FYE is transferred to line 24
- Total mixed traffic ROW @ FYE is transferred to line 26.

Internet reporting automatically transfers the data to the FFA-10 form:

- Average controlled, exclusive, and mixed traffic ROW for funding is transferred to line 06
- Total controlled, exclusive, and mixed traffic ROW for segments ≥ seven years @ FFYE for funding is transferred to line 14.

Rail, Ferryboat and Aerial Tramway

Internet reporting automatically calculates the number of directional route miles (DRM) by urbanized area (UZA), other than urbanized area (non-UZA) and total for all approved segments, as follows:

All Segments:

- Total for all segments @ fiscal year end (FYE)
- Average monthly for all segments
- Average monthly for all segments for funding.

All segments ≥ seven years @ Federal fiscal year end (FFYE):

- Total for all segments ≥ seven years
- Total for all segments ≥ seven years for funding.

All segments ≥ seven years @ FFYE are highlighted in a separate color.

Internet reporting automatically transfers the data to the Service form (S-10):

- Total for all segments @ fiscal year end (FYE) is transferred to line 27.

Internet reporting automatically transfers the data to the Federal Funding Allocation Statistics form (FFA-10):

- Average for all segments for funding is transferred to line 08
- Total for all segments ≥ seven years @ Federal fiscal year end (FFYE) for funding is transferred to line 16.

Modifying, Adding and Deleting FG segments

With limited exceptions, you cannot modify or add segments without FTA approval. You must submit a request for approval using the **New Fixed Guideway Segment Request** selection under the **Add Correspondence** button of the **e-File** tab. The process for deleting segments is similar. This section outlines the process for making changes and for obtaining FTA approval.

Modify Existing Segment Data

Internet reporting pre-fills the S-20 form with data from the prior year NTD submission. Transit agencies can modify data for existing FG segments. You should not remove a segment from revenue service and create a new segment in order to update a data field.

You can edit the following data fields for existing segments without prior NTD approval:

- One-way / Two-way — this is a service characteristic of how transit services operate over the segment, either one-way or two-way operations. This generally does not change.
- Out of Revenue Service Date – this is the date that your transit agency stopped operating transit service on the segment. This field should only be completed if the service is discontinued. Do not include temporary reconstructions. Add a Form Note describing any temporary segment closures.

Without FTA approval, you cannot change the following data fields for existing segments:

- Urbanized area (UZA) — UZAs are based on the 2000 U.S. census. Boundaries should not change unless the U.S. Bureau of the Census changes them. Therefore, segments should not change UZA location.
- Segment Name — the name of the segment using conventional standards that makes the segment readily identifiable. Segment names do not usually change.
- Begins At and Ends At — the beginning and ending points of the segment. Beginning and ending points do not change. If service is discontinued on a portion of the segment or the segment is extended, you should add new segments (See discussion below).
- Length — the physical length of the segment reported to the nearest hundredth of a mile. Length should not change unless the segment was incorrectly measured or in the wrong location (UZA) in the prior report year.
- Segment Type (Bus (MB) FG only) — there are eight categories describing the physical construction of the segment. This should not change unless the segment was reconstructed and its category has changed or high occupancy / toll (HO/T) lane operation is allowed.
- Peak Level of Service (LOS) (MB FG only) — peak level of service (LOS) is periodically updated by state and local highway agencies. You should check for updates to LOS information.
- Safe Operation (MB FG only) — this usually does not change, but you should review.
- Hours Prohibited (MB and trolleybus (TB) FG only) — this usually does not change, but you should review.
- Enforcement Hours (MB FG only) — this usually does not change, but you should review.
- Original Date of Revenue Service — the date that public transit service was first operated on the segment by any transit agency. This date should not change.
- Agency Revenue Service Start Date — the date that your transit agency started operating revenue service.
- Out of Revenue Service Date — if your transit agency stopped operating transit service on the segment during the year, you should report the last date of revenue service. Other transit agencies may continue to operate on this segment.
- Months Operated – the number of months during the year that your transit agency operated on the segment. Unless your transit agency began or ended service on the segment during the year, this should be 12 months.
- TOS Claimed – this only applies if your transit agency operated both DO and PT services for the same mode on the same segment in their NTD Annual report. If a segment is added to both TOS you must identify the segment on both S-20 form as either PT or DO. If during a prior year NTD Annual report both PT and DO were operated and only one TOS is operated in the current year, you may need to correct the TOS claimed.
- NTD Agency Claiming Segment — this usually does not change unless agreed to by all the transit agencies operating service over the segment.

You may request changes be made to the restricted data fields listed above which will be considered on a case-by-case basis. Requested changes do not take effect until after the FTA approval process is complete and the S-20 form has been saved. You should make these requests using the New Fixed Guideway Segment Request selection under the Add Correspondence button of the **e-File** tab. **The requests for data field changes, including supporting documentation, must be received at least 60 calendar days prior to the report due date**. You should refer to the NTD Annual Reporting Timelines exhibit under When to Report in the Introduction section to determine due dates.

The requests for data field changes should:

- Identify the FG segment-by-segment code and segment name.
- Describe fully the requested changes. This description should provide the existing and requested values for each change in a data field.
- Detail the reason for each change. Most reasons are straightforward because there have been changes in the physical environment or changes in the services operated. However, some reasons may be based on corrections to data submitted in the prior year's report. If a correction is requested, you must provide detailed support for the correction and an explanation for why you submitted incorrect data in the prior year's report.
- If length is changed, you must mail detailed maps depicting exact measurement to your NTD transit analyst at least 60 calendar days prior to the report due date.

When a data change request is approved, you must save the S-20 form. The form will then update to include the approved changes in the summary of DRM and the updated data will be transferred to other forms.

Add Pre-Existing and New Segment Data

You may add a segment that has been reported to the NTD in a prior report or may add a new segment by clicking on the **Add Segment** button on the form. A **Drop-Down** menu provides a list of previously reported segments by urbanized area (UZA) as well as a **Create New Segment** button. The following rules apply:

- If your transit agency is operating on an existing segment for the first time, you should select the segment from the list. This is a listing of all existing FG segments in your area. You should add your agency's revenue service start date in the applicable field.
- If your transit agency operates service on only a portion of a pre-existing segment, you should use the **Create New Segment** button. You should report the same original date of revenue service. The segment code will appear as New under Proposed New Segments. NTD staff will reassign a segment code based on the pre-existing segment at the end of the validation process for all reporters. Also, in your request for FG changes you must identify the portions of the segment on which your transit agency operates.
- If your transit agency operates on a segment not in the list, you should use the **Create New Segment** button. The segment code will appear under **Proposed New Segments**. You should complete all data fields and report the original date of revenue service and the agency revenue service start date. These should be the same and should be a date sometime during the current report year.

Once the segments have been proposed, you will be reminded upon saving this form to go to the **e-File** tab and submit your request for Fixed Guideway (FG) Changes. **The requests for data field changes, including supporting documentation, must be received at least 60 calendar days prior to the report due date**. You should refer to the NTD Annual Reporting Timelines exhibit under When to Report in the Introduction section to determine due dates.

When you request new segments you must send detailed supporting documentation to the NTD project site:

- Maps which clearly identify each:
  - Segment beginning and ending point, mile post markings preferred
  - Segment length to the nearest hundredth of a mile, and other supporting documentation of the measurement.
- Proof of when the segment went into revenue service so that the agency revenue service start date can be verified.

You must submit requests for new segments at least 60 calendar days prior to the report due date.

For apportionment purposes, the 7-year age requirement for fixed guideway segments is based on the report year when the segment is first reported by any NTD transit agency. This pertains to segments reported for the first time in the current report year. Even if you can document a revenue service start date prior to the current NTD report year, FTA will only consider segments continuously reported to NTD.

Segments will not be included into the calculations until FTA approves the segments and you save the S-20 form again. Once you save the S-20, the total will re-calculate and the data will transfer to the S-10 and the FFA-10 forms.

Delete Segment Data

If you requested a segment in error or if you reported a segment in error, you must contact NTD staff for FTA approval to delete segments. Once these segments have FTA approval to be deleted, you should save the S-20 form and the total will re-calculate and the revised data will transfer to the S-10 and FFA-10.

If your transit agency no longer operated service on a segment that you reported in the prior report year, you should enter under Out of Revenue Service Date, the date that your transit agency terminated transit service was for this mode and TOS. If service ended in the prior report year, you should enter that date. If service was last operated on the last day of the prior report year, you should enter the date for the first day of the current report year.

Line by Line Instructions Fixed Guideway Segments form (S-20) – Bus

Completing the S-20 form Bus

From the Forms Summary Screen, you should click on the **Fixed Guideway Segments form (S-20)** link for the mode and type of service (TOS) to open the S-20 form.

The S-20 form is pre-filled with segment descriptions from the prior year NTD report submission. You may add additional segments by using the **Add Segment** and **Create New Segment** buttons. Segments submitted under the **Create New Segment** button must receive FTA approval before they are added into calculations on the form.

Form Level Help: You should click on the Help tab at the top of the screen for form level help.

Form Note: A form note can be attached to any form. You should use the **Add Form Note** link for relevant information to a specific field, to the entire form or to multiple forms. You should click on the **Add Form Note** link at the top of the screen and enter your note on the Notes screen. You can review and / or edit a form note from the **Notes** tab. You should not use the Form Notes feature to answer issues generated from this form. From the **Issues** tab you should use the **Add Comments** link next to the specific issue.

Saving or Closing the Form: You should click on the **Save** button at the bottom of the screen to save the form. Click on the **Close** button at the bottom of the screen to close the form without saving.

.25 Miles or Less Segments

For MB mode, transit agencies must comply with FTA requirements regarding FG segments that are either .25 miles or less in length or also used by toll-paying single occupancy vehicles (SOVs) on an incidental basis.

You must justify FG segments for MB mode that are less than or equal .25 miles unless they are operating on a bridge, in a tunnel or connect with a transit terminal. Follow instructions under the length field.

Column a: Segment Code. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited. These pre-filled codes are for NTD internal use only.

- New segments: This field appears as New. A segment code will be assigned at the end of the validation process.

Column b: Urbanized Area (UZA). This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: From the drop-down menu, select the number of the urbanized area (UZA) in which the segment is geographically located or select other than urbanized area (non-UZA) if the segment is not geographically located in UZA. Segments should not cross UZA boundaries.

Column c: Segment Name. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: Enter the name of the segment. Provide enough detail to identify the segment and its location. Use route or line name, or the roadways where the facilities are located, to identify segments.

Column d: Begins At. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited. New segments: Enter the point at which the segment begins, in sufficient detail that it can be uniquely identified. Use readily identifiable locations (e.g., intersections and mileposts) to describe segment endpoints. Do not use abbreviations in these endpoint descriptions because they need to be easily identifiable on maps, timetables and other materials during the validation process.

Column e: Ends At. This field is Pre-filled with data for pre-existing segments from the prior year and cannot be edited.

- New segments: Enter the point at which the segment ends, in sufficient detail that it can be uniquely identified. Use readily identifiable locations (e.g., intersections and mileposts) to describe segment endpoints. Do not use abbreviations in these endpoint descriptions because they need to be easily identifiable on maps, timetables and other materials during the validation process.

Column f: Length. This field is Pre-filled with data for pre-existing segments from the prior year and cannot be edited.

- New segments: Enter the segment length to the nearest hundredth of a mile. Reporting the segment length to the nearest hundredth of a mile provides the accuracy of the directional route miles to the nearest tenth for the Federal funding allocations.

Column g: One / Two-way. This field is **pre-filled** with data for pre-existing segments from the prior year. Click on the **Modify** button to make revisions.

- For pre-existing and new segments: From the drop-down menu, select the number of directions in which vehicles may travel (one-way or two-way).

Column h: Segment Type. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: From the drop-down menu, select the type of physical construction (segment type):
  - Priority lane on a multilane highway
  - Exclusive lane parallel to a multilane highway, physically separated from general traffic lanes
  - Stand-alone high occupancy (HOV) roadway, no lanes open to general traffic
  - Exclusive access / egress lane to or from these lanes to a terminal facility
  - Priority lane on a multilane highway used as a high occupancy toll (HO/T) lane
  - Exclusive lane parallel to multilane highway, physically separated from general traffic lanes used as a HO/T lane
  - Stand-alone HOV roadway, used as a HO/T lane
  - Exclusive access / egress lane to or from these lanes to a terminal facility used as a HO/T lane.

Column i: Peak Level of Service (LOS). This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: From the drop-down menu, select the peak period level of service (LOS) ranging from A (best) to F (worst) traffic conditions as defined in the Highway Capacity Manual. In reporting LOS, this is the traffic condition on the lanes next to the bus (MB) fixed guideway (FG) segment or in the travel corridor. The peak period LOS should be reported for the:
  - General traffic lanes for priority lanes on a multilane highway, or
  - General traffic lanes for exclusive lanes parallel to a multilane highway, but physically separated from the general traffic lanes, or
  - Corridor served by a stand-alone HOV roadway of which no lane is open to general traffic.

    The levels of service are:

    A. Indicates a relatively free flow of traffic, with little or no limitation on vehicle movement or speed.

    B. Describes a steady flow of traffic, with only slight delays in vehicle movement and speed. All queues clear in a single traffic signal cycle.

    C. Denotes a reasonably steady, high volume flow of traffic, with some limitations on movement and speed, and occasional backups on critical approaches.

    D. Designates the level where traffic nears an unstable flow. Intersections still function, but short queues develop and cars may have to wait through one cycle during short peaks.

    E. Represents traffic characterized by slow movement and frequent (although momentary) stoppages. This type of congestion is considered severe, but is not uncommon at peak traffic hours, with frequent stopping, long standing queues, and blocked intersections.

    F. Describes unsatisfactory stop-and-go traffic characterized by traffic jams and stoppages of long duration. Vehicles at signalized intersections usually have to wait through one or more signal changes, and upstream intersections may be blocked by the long queues.

Column j: Safe Operation. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: From the drop-down menu, select whether or not safe operation requirements are met, as follows:
  - Select yes if HOV lanes on freeways meet the safe operation requirements.
  - Select no if HOV lanes on freeways do not meet the safe operation requirements.
  - For all other segments (non-freeways), select yes.
  - The safe operation requirements apply to priority lanes on freeways used by MB mode and other HOVs, such as vanpools (VP) and carpools, to ensure safe travel. For these lanes there must be some indication of separation to ensure safe access between free flowing high occupancy vehicle lanes and the congested, unrestricted lanes. Separation can be physical barriers or lane division markings, but not diamond markings, overhead signs or roadside signs. Lanes restricted to MB mode qualify as safely operated.

Column k: Hours Prohibited. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the number of hours per week during which single occupancy vehicles (SOVs) are legally prohibited from using any portion of the segment. If the prohibition is for all hours of the week, then the segment is exclusive right-of-way (ROW). If the prohibition is for only some hours of the week, then the segment is controlled access right-of-way (ROW). If your transit agency has stricter requirements for high occupancy vehicle (HOV) facilities

than the prohibition of single occupancy vehicles (SOVs), for example, three or more persons per vehicle, then those requirements apply to the high occupancy toll (HO/T) lane, (i.e., one and two-person vehicles would pay tolls).

Column l: Enforced / Prohibited. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the number of hours per week during which officers of the law enforce the prohibition, throughout the segment. There must be a level of enforcement sufficient to ensure that 95 percent of the vehicles using the fixed guideway (FG) segment are eligible to use it.

Column m: Original Date of Revenue Service. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the opening date of revenue service on this segment by any transit operator, even though your transit agency may not have been the original operator. If you are the first transit agency to operate on a new segment, the original date of revenue service will be the same as the agency revenue service start date.

Column n: Agency Revenue Service Start Date. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the date that your transit agency started operating revenue service. Internet reporting automatically determines and enters the number of months operated.

Column o: Out of Revenue Service Date. Pre-existing segments: Click on the **Modify** button to make revisions.

- Enter the last date of revenue service if your transit agency stopped operating transit service on the segment during the year. Other reporters may continue to operate on this segment. If a segment is temporarily out of service for rehabilitation or reconstruction for less than 12 months, do not enter an out of revenue service date. FTA allows the months operated as 12. If a segment is out of service for rehabilitation or reconstruction for more than 12 months, or for some other temporary stoppage of service, contact your NTD analyst. FTA will make a determination on to report the segment.

Column p: Months Operated. This field cannot be edited.

- For new segments: Internet reporting automatically determines and enters the number of months operated using the agency revenue service start date. Internet reporting will round the number of months of operation to a whole number, reporting a full month for revenue service that begins between the first and 14th of the month; revenue service that begins from the 15th through the end of the month is not counted. If revenue service began in the last two weeks of your transit agency's fiscal year, Internet reporting will indicate 0 months.
- Pre-existing segments:
  - If you did not enter an out of revenue service date, Internet Reporting automatically enters 12 months.
  - If a segment is temporarily out of service for rehabilitation or reconstruction for less than 12 months, the months operated will indicate 12..
  - If a segment is out of service for rehabilitation or reconstruction for more than 12 months, contact your NTD analyst. FTA will make a determination on how to report the segment.

Column q: Type of service (TOS) Claimed. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the TOS claimed for the segment's DRM on the Federal Funding Allocation Statistics form (FFA-10) — DO or PT service — if the same mode operates on the same segment for both the DO and PT service, report the segment on both the DO and PT forms.

Column r: NTD Agency Claiming Segment. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the NTD ID for the transit agency claiming the segment's DRM on the Federal Funding Allocation Statistics form (FFA-10).

Directional Route Miles Summary — All Levels of Service (LOS)

Line 01: Total Controlled Access Right-of-Way (ROW) @ Fiscal Year End (FYE). This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The total number of DRM for all segments on controlled access right-of-way by UZA, non-UZA and total. Internet reporting automatically transfers the total (all UZA and non- UZA) data to the S-10 form, line 25.

Line 02: Average Controlled Access ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The average number of DRM for all segments on controlled access ROW by UZA, non-UZA and total over the course of the report year.

Line 03: Total Exclusive ROW @ FYE. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The total number of DRM for all segments on exclusive ROW by UZA, non-UZA and total. Internet reporting automatically transfers the total (all UZA and non UZA) data to the Service form (S-10), line 24.

Line 04: Average Exclusive ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The average number of DRM for all segments on exclusive ROW by UZA, non-UZA and total over the course of the report year.

Line 05: Total Controlled and Exclusive ROW @ FYE. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The total number of DRM for all segments on controlled and exclusive ROW by UZA, non-UZA, and total.

Line 06: Average Controlled and Exclusive ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The average number of DRM for all segments on controlled and exclusive ROW by UZA, non-UZA, and total over the course of the report year.

Levels of Service Levels (LOS) D, E, and F

Line 07: Total Controlled Access ROW @ FYE. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The total number of DRM on controlled access ROW for segments with peak LOS D, E, and F by UZA, non-UZA and total.

Line 08: Average Controlled Access ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The average number of DRM on controlled access ROW for segments with peak LOS D, E, and F by UZA, non-UZA and total over the course of the report year.

Line 09: Total Exclusive ROW @ FYE. This is an auto-calculated field and cannot be edited, review for accuracy. The total number of DRM on exclusive ROW for segments with peak LOS D, E, and F by UZA, non-UZA and total.

Line 10: Average Exclusive ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The average number of DRM on exclusive ROW for segments with peak LOS D, E, and F by UZA, non-UZA and total over the course of the report year.

Line 11: Total Controlled and Exclusive ROW @ FYE. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The total number of DRM on controlled and exclusive ROW for segments with peak LOS D, E, and F by UZA, non-UZA and total.

Line 12: Average Controlled and Exclusive ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (UZA and non-UZA) data to the Federal Funding Allocation Statistics form (FFA-10) below line 08. VRM, passenger miles traveled (PMT) and operating expenses (OE) for all eligible directional route miles can be claimed under FG on the Federal Funding Allocation Statistics form (FFA-10), lines 10 through 12. These data are used in determining eligible segments for the Urbanized Area Formula Program (UAF).

- The average number of DRM on controlled and exclusive ROW for segments with peak levels of service (LOS) D, E, and F by UZA, non-UZA and total over the course of the report year.

Line 13: Total Average Controlled and Exclusive ROW for Funding. This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (UZA and non-UZA) data to the FFA-10 form, line 08.These are the eligible DRM used for the Urbanized Area Formula Program (UAF).

- The average number of DRM on controlled and exclusive ROW for segments with peak LOS D, E, and F claimed by the reporting agency for funding, by UZA, non-UZA and total.

Levels of Service (LOS) D, E, and F for Segments > Seven Years @ Federal Fiscal Year End (FFYE)

Line 14: Total Controlled Access ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The sum of DRM > seven years on controlled access ROW for segments with peak LOS D, E, and F by UZA, non-UZA, and total.

Line 15: Total Exclusive ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The sum of DRM > seven years on exclusive ROW for segments with peak LOS D, E, and F by UZA, non-UZA, and total.

Line 16: Total Controlled and Exclusive ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (UZA and non-UZA) data to the Federal Funding Allocation Statistics form

(FFA-10) below line 16. VRM for all eligible directional route miles can be claimed under FG on the Federal Funding Allocation Statistics form (FFA-10), line 17.

- The total number of DRM > seven years on controlled and exclusive ROW for segments with peak LOS D, E, and F by UZA, non-UZA, and total. These data are used in determining eligible segments for the Fixed Guideway Modernization Program.

Line 17: Total Controlled and Exclusive Right-of-Way (ROW) for Funding. This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (all UZA and non-UZA) data to the Federal Funding Allocation Statistics form (FFA-10), line 16. These are the eligible DRM used for the Fixed Guideway Modernization Program.

- The total number of DRM > seven years on controlled and exclusive ROW for segments with peak LOS D, E, and F claimed by the reporting agency for funding, by UZA, non-UZA, and total.

Line by Line Instructions Fixed Guideway Segments form (S-20) – Trolleybus

Completing the S-20 form Trolleybus

From the Forms Summary Screen, you should click on the **Fixed Guideway Segments form (S-20)** link for the mode and type of service (TOS) to open the S-20 form.

The S-20 form is pre-filled with segment descriptions from the prior year NTD report submission. You may add additional segments by using the **Add Segment** and **Create New Segment** buttons. Segments submitted under the **Create New Segment** button must receive FTA approval before they are added into calculations on the form.

Form Level Help: You should click on the **Help** tab at the top of the screen for form level help.

Form Note: A form note can be attached to any form. You should use the **Add Form Note** link for relevant information to a specific field, to the entire form or to multiple forms. You should click on the **Add Form Note** link at the top of the screen and enter your note on the **Notes** screen. You can review and / or edit a form note from the **Notes** tab. You should not use the Form Notes feature to answer issues generated from this form. From the **Issues** tab you should use the **Add Comments** link next to the specific issue.

Saving or Closing the Form: You should click on the **Save** button at the bottom of the screen to save the form. You should click on the **Close** button at the bottom of the screen to close the form without saving.

Column a: Segment Code. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited. These pre-filled codes are for NTD internal use only.

- New segments: This field appears as New. A segment code will be assigned at the end of the validation process.

Column b: Urbanized Area (UZA). This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: From the drop-down menu, select the number of the urbanized area (UZA) in which the segment is geographically located or select other than urbanized area (non-UZA) if the segment is not geographically located in UZA. Segments should not cross UZA boundaries.

Column c: Segment Name. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: Enter the name of the segment. Provide enough detail to identify the segment and its location. Use route or line name, or the roadways where the facilities are located, to identify segments.

Column d: Begins At. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: Enter the point at which the segment begins, in sufficient detail that it can be uniquely identified. Use readily identifiable locations (e.g., intersections and mileposts) to describe segment endpoints. Do not use abbreviations in these endpoint descriptions because they need to be easily identifiable on maps, timetables and other materials during the validation process.

Column e: Ends At. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: Enter the point at which the segment ends, in sufficient detail that it can be uniquely identified. Use readily identifiable locations (e.g., intersections and mileposts) to describe segment endpoints. Do not use abbreviations in these endpoint descriptions because they need to be easily identifiable on maps, timetables and other materials during the validation process.

Column f: Length. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: Enter the segment length to the nearest hundredth of a mile. Reporting the segment length to the nearest hundredth of a mile provides the accuracy of the directional route miles to the nearest tenth for the Federal funding allocations.

Column g: One / Two-way. This field is **pre-filled** with data for pre-existing segments from the prior year. Click on the **Modify** button to make revisions.

- For pre-existing and new segments: From the drop-down menu, select the number of directions in which vehicles may travel (one-way or two-way).

Column k: Hours Prohibited. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the number of hours per week during which single occupancy vehicles (SOVs) are legally prohibited from using any portion of the segment. If the prohibition is for all hours of the week, then the segment is exclusive ROW. If the prohibition is for only some hours of the week, then the segment is controlled access ROW. If your transit agency has stricter requirements for HOV facilities than the prohibition of SOVs, for example, three or more

persons per vehicle, then those requirements apply to the HO/T lane, (i.e., one and two-person vehicles would pay tolls).

Column m: Original Date of Revenue Service. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the opening date of revenue service on this segment by any transit operator, even though your transit agency may not have been the original operator. If you are the first transit agency to operate on a new segment, the original date of revenue service will be the same as the agency revenue service start date.

Column n: Agency Revenue Service Start Date. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited. Internet reporting automatically determines and enters the number of months operated.

- For new segments: Enter the date that your transit agency started operating revenue service.

Column o: Out of Revenue Service Date. Pre-existing segments: Click on the **Modify** button to make revisions.

- Enter the last date of revenue service if your transit agency stopped operating transit service on the segment during the year. Other reporters may continue to operate on this segment. If a segment is temporarily out of service for rehabilitation or reconstruction for less than 12 months, do not enter an out of revenue service date. FTA allows the months operated as 12. If a segment is out of service for rehabilitation or reconstruction for more than 12 months, or for some other temporary stoppage of service, contact your NTD analyst. FTA will make a determination on to report the segment.

Column p: Months Operated. This field cannot be edited.

- For new segments: Internet reporting automatically determines and enters the number of months operated using the agency revenue service start date. Internet reporting will round the number of months of operation to a whole number, reporting a full month for revenue service that begins between the first and 14th of the month; revenue service that begins from the 15th through the end of the month is not counted. If revenue service began in the last two weeks of your transit agency's fiscal year, Internet reporting will indicate 0 months.
- Pre-existing segments:
  - If you did not enter an out of revenue service date, Internet Reporting automatically enters 12 months.
  - If a segment is temporarily out of service for rehabilitation or reconstruction for less than 12 months, the months operated will indicate 12..
  - If a segment is out of service for rehabilitation or reconstruction for more than 12 months, contact your NTD analyst. FTA will make a determination on how to report the segment.

Column q: TOS Claimed. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the TOS claimed for the segment's DRM on the FFA-10 form — (DO or PT) service — if the same mode operates on the same segment for both the DO and PT service, report the segment on both the directly operated DO and PT forms.

Column r: NTD Agency Claiming Segment. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the NTD ID for the transit agency claiming the segment's DRM on the FFA-10 form.

Directional Route Miles Summary

Line 01: Total Controlled Access Right-of-Way (ROW) @ Fiscal Year End (FYE). This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (all UZA and non- UZA) data to the Service form (S-10), line 25.

- The total number of DRMs for all segments on controlled access ROW by UZA, non-UZA and total.

Line 02: Average Controlled Access ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The average number of DRM for all segments on controlled access ROW by UZA, non-UZA and total over the course of the report year.

Line 03: Total Exclusive ROW @ FYE. This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (all UZA and non UZA) data to the Service form (S-10), line 24.

- The total number of DRM for all segments on exclusive ROW by UZA, non-UZA and total.

Line 04: Average Exclusive ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The average number of DRM for all segments on exclusive ROW by UZA, non-UZA and total over the course of the report year.

Line 05: Total Mixed Traffic ROW @ FYE. This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (all UZA and non UZA) data to the Service form (S-10), line 26.

- The total number of DRM for all segments on mixed traffic ROW by UZA, non-UZA, and total.

Line 06: Average Mixed Traffic ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The average number of DRM for all segments on mixed traffic ROW by UZA, non-UZA, and total over the course of the report year.

Line 07: Total Average Controlled, Exclusive and Mixed Traffic ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (UZA and non-UZA) data to the FFA-10 form below line 08. Vehicle revenue miles (VRM), passenger miles traveled (PMT) and operating expenses (OE) for all eligible directional route miles can be claimed under fixed guideway (FG) on the FFA-10 form, lines 10 through 12.

- The total average number of DRM on controlled, exclusive and mixed traffic ROW for all segments by UZA, non-UZA and total over the course of the report year. These data are used in determining eligible segments for the Urbanized Area Formula Program (UAF).

Line 08: Total Average Controlled, Exclusive and Mixed Traffic ROW for Funding. This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (all UZA and non-UZA) data to the FFA-10 form, line 08. These are the eligible DRM used for the UAF Program.

- The average number of DRM on controlled access, exclusive, and mixed traffic ROW for all segments claimed by the reporting agency for funding by UZA, non-UZA and total over the course of the report year.

Line 09: Total Controlled, Exclusive and Mixed Traffic ROW @ FYE. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The total number of DRM on controlled access, exclusive, and mixed traffic ROW for all segments by UZA, non-UZA and total.

All Segments ≥ Seven Years @ Federal Fiscal Year End (FFYE)

Line 10: Total Controlled Access ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The number of DRM on controlled access ROW for segments ≥ seven years by UZA, non-UZA, and total.

Line 11: Total Exclusive ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The number of DRM on exclusive ROW for segments ≥ seven years by UZA, non-UZA, and total.

Line 12: Total Mixed Traffic ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The number of DRM on mixed traffic ROW for segments ≥ seven years by UZA, non-UZA, and total.

Line 13: Total Controlled, Exclusive and Mixed Traffic ROW. This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (UZA and non-UZA) data to the Federal Funding Allocation Statistics form (FFA-10) below line 16. VRM for all eligible directional route miles can be claimed under FG on the FFA-10 form, line 17.

- The total number of DRM on controlled access, exclusive and mixed traffic ROW for segments ≥ seven years by UZA, non-UZA, and total. These data are used in determining eligible segments for the UAF Program.

Line 14: Total Controlled, Exclusive and Mixed Traffic ROW for Funding. This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (all UZA and non-UZA) data to the FFA-10 form, line 16. These are the eligible DRM used for the Fixed Guideway Modernization Program.

- The total number of DRM on controlled access, exclusive and mixed traffic ROW for segments ≥ seven years claimed by the reporting agency for funding, by UZA, non-UZA, and total.

Line by Line Instructions Fixed Guideway Segments form (S-20) – Rail, Ferryboat, Aerial Tramway

Completing the S-20 form Rail, Ferryboat, Aerial Tramway

From the **Forms Summary** screen, you should click on the **Fixed Guideway Segments form (S-20)** link for the mode and type of service (TOS) to open the S-20 form.

The Fixed Guideway Segments form (S-20) is pre-filled with segment descriptions from the prior year NTD report submission. You may add additional segments by using the **Add Segment** and **Create New Segment** buttons. Segments submitted under the **Create New Segment** button must receive FTA approval before they are added into calculations on the form.

Form Level Help: You should click on the **Help** tab at the top of the screen for form level help.

Form Note: A form note can be attached to any form. You should use the **Add Form Note** link for relevant information to a specific field, to the entire form or to multiple forms. You should click on the **Add Form Note** link at the top of the screen and enter your note on the **Notes** screen. You can review and / or edit a form note from the **Notes** tab. You should not use the Form Notes feature to answer issues generated from this form. From the **Issues** tab you should use the **Add Comments** link next to the specific issue.

Saving or Closing the Form: You should click on the **Save** button at the bottom of the screen to save the form. You should click on the **Close** button at the bottom of the screen to close the form without saving.

Special Note Regarding Ferryboat (FB) DRM

FB directional route miles (DRM) are based on the most direct route between terminals over navigable water in statute miles. This route may not be the length of the actual path followed. If there are several terminals connected by multiple routes, you should measure the DRM as the minimum path connecting all the terminals.

Column a: Segment Code. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited. These pre-filled codes are for NTD internal use only.

- New segments: This field appears as New. A segment code will be assigned at the end of the validation process.

Column b: Urbanized Area (UZA). This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: From the drop-down menu, select the number of the UZA in which the segment is geographically located or select non-UZA if the segment is not geographically located in UZA. A segment should not be entered as in an UZA and also in a non-UZA Segments should not cross UZA boundaries.

Column c: Segment Name. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: Enter the name of the segment. Provide enough detail to identify the segment and its location. Use route or line name, or the roadways where the facilities are located, to identify segments.

Column d: Begins At. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: Enter the point at which the segment begins, in sufficient detail that it can be uniquely identified. Use readily identifiable locations (e.g., intersections and mileposts) to describe segment endpoints. Do not use abbreviations in these endpoint descriptions because they need to be easily identifiable on maps, timetables and other materials during the validation process.

Column e: Ends At. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: Enter the point at which the segment ends, in sufficient detail that it can be uniquely identified. Use readily identifiable locations (e.g., intersections and mileposts) to describe segment endpoints. Do not use abbreviations in these endpoint descriptions because they need to be easily identifiable on maps, timetables and other materials during the validation process.

Column f: Length. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- New segments: Enter the segment length to the nearest hundredth of a mile. Reporting the segment length to the nearest hundredth of a mile provides the accuracy of the directional route miles to the nearest tenth for the Federal funding allocations.

Column g: One / Two-way. This field is **pre-filled** with data for pre-existing segments from the prior year. Click on the **Modify** button to make revisions.

- For pre-existing and new segments: From the drop-down menu, select the number of directions in which vehicles may travel (one-way or two-way).

Column m: Original Date of Revenue Service. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the opening date of revenue service on this segment by any transit operator, even though your transit agency may not have been the original operator. If you are the first transit agency to operate on a new segment, the original date of revenue service will be the same as the agency revenue service start date.

Column n: Agency Revenue Service Start Date. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the date that your transit agency started operating revenue service. Internet reporting automatically determines and enters the number of months operated.

Column o: Out of Revenue Service Date. Pre-existing segments: Click on the **Modify** button to make revisions.

- Enter the last date of revenue service if your transit agency stopped operating transit service on the segment during the year. Other reporters may continue to operate on this segment. If a segment is temporarily out of service for rehabilitation or reconstruction for less than 12 months, do not enter an out of revenue service date. FTA allows the months operated as 12. If a segment is out of service for rehabilitation or reconstruction for more than 12 months, or for some other temporary stoppage of service, contact your NTD analyst. FTA will make a determination on to report the segment.

Column p: Months Operated. This field cannot be edited.

- For new segments: Internet reporting automatically determines and enters the number of months operated using the agency revenue service start date. Internet reporting will round the number of months of operation to a whole number, reporting a full month for revenue service that begins between the first and 14th of the month; revenue service that begins from the 15th through the end of the month is not counted. If revenue service began in the last two weeks of your transit agency's fiscal year, Internet reporting will indicate 0 months.
- Pre-existing segments:
  - If you did not enter an out of revenue service date, Internet Reporting automatically enters 12 months.
  - If a segment is temporarily out of service for rehabilitation or reconstruction for less than 12 months, the months operated will indicate 12.
  - If a segment is out of service for rehabilitation or reconstruction for more than 12 months, contact your NTD analyst.. FTA will make a determination on how to report the segment.

Column q: Type of service (TOS) Claimed. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the TOS claimed for the segment's DRM on the FFA-10 form — DO or PT service — if the same mode operates on the same segment for both the DO and PT service, report the segment on both the DO and PT forms.

Column r: NTD Agency Claiming Segment. This field is **pre-filled** with data for pre-existing segments from the prior year and cannot be edited.

- For new segments: Enter the NTD ID for the transit agency claiming the segment's DRM on the FFA-10 form.

Directional Route Miles Summary

Line 01: Total for All Segments @ Fiscal Year End (FYE). This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (all UZAs and non-UZAs) data to the S-10 form, line 27.

- The number of DRM for all segments by UZA, non-UZA and total.

Line 02: Average Monthly for All Segments. This is an **auto-calculated** field and cannot be edited, review for accuracy.

- The average number of DRM for all segments by UZA, non-UZA and total over the course of the report year.

Line 03: Average Monthly for All Segments for Funding. This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total data (all UZAs and non-UZAs) to the FFA-10 form, line 08. These are the eligible DRM used for the UAF Program.

- The average number of DRM for all segments by UZA, non-UZA and total for the segments claimed by the reporting agency for funding over the course of the reporting year.

All Segments ≥ Seven Years @ Federal Fiscal Year End (FFYE)

Line 04: Total for Segments ≥ Seven Years. This is an **auto-calculated** field and cannot be edited, review for accuracy. These data are used in determining eligible segments for the Fixed Guideway Modernization Program. Vehicle revenue miles (VRM) can be claimed under fixed guideway (FG) on the FFA-10 form, line 17.

- The number of DRM at least seven years old by UZA, non-UZA and total.

Line 05: Total for Segments ≥ Seven Years for Funding. This is an **auto-calculated** field and cannot be edited, review for accuracy. Internet reporting automatically transfers the total (all UZAs and non-UZAs) data to the FFA-10 form, line 16. These are the eligible DRM used for the Fixed Guideway Modernization Program.

- The number of DRM at least seven years old by UZA, non-UZA and total for the segments claimed by the reporting agency for funding.