

## Definition of sharrows and their current usage

Sharrows, or “shared lane markings,” are specific street markings used to indicate a shared environment for bicycles and motor vehicles. They have been used in different cities for different purposes: in Seattle, they have been painted liberally in many different contexts, whereas here in Olympia they have been used in a more targeted way to achieve two specific goals:



Sharrow on San Francisco Avenue

1. To connect bicycle lanes over a short distance where there is not enough room for one, such as on Legion Way between Plum and Pear Streets, and
2. On the downhill side of streets that do not have enough room for a bike lane in both directions, such as on San Francisco Avenue.

It is important to understand that sharrows have been deployed in American cities using the best available practices at the time, and those practices are constantly changing. It was only in the 2009 edition of the Manual on Uniform Traffic Control Devices ([MUTCD](#)) that the sharrow was codified; prior to that, its use was experimental and guided by a series of studies in different cities that have shown sometimes contradictory data. Perhaps the most [influential study](#) was conducted in San Francisco in 2004, which established the current design standard— later adopted by the MUTCD – of a bicycle with two chevron markings above it. The study also found that sharrows reduce wrong-way cyclists and sidewalk riding, while making cyclists feel more comfortable riding in the street. One of the discouraging findings of the study was that few motor vehicle drivers even noticed the sharrow, and of all users who did, very few understood what it meant.

The San Francisco study showed that cyclists rode further from parked cars, but not always far enough to be fully out of the “door zone.” A [later study](#) in Texas found the same thing, but intriguingly also found that in some places cyclists rode very far away from the door zone and in others they did not. This may indicate that the context of the street in which the sharrow is placed might be more important than the sharrow itself.

Finally, the San Francisco study found that drivers gave cyclists more room when passing, passed with less frequency, and also encroached in oncoming lanes less frequently.

Now, eight years after that groundbreaking study in San Francisco, the [MUTCD](#) offers the following guidance on the use of sharrows:

### **Section 9C.07 Shared Lane Marking**

#### **Option:**

The Shared Lane Marking shown in Figure 9C-9 may be used to:

- A. Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking in order to reduce the chance of a bicyclist's impacting the open door of a parked vehicle,
- B. Assist bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane,
- C. Alert road users of the lateral location bicyclists are likely to occupy within the traveled way,
- D. Encourage safe passing of bicyclists by motorists, and
- E. Reduce the incidence of wrong-way bicycling.

#### **Guidance:**

*The Shared Lane Marking should not be placed on roadways that have a speed limit above 35 mph.*

#### **Standard:**

**Shared Lane Markings shall not be used on shoulders or in designated bicycle lanes.**

#### *Guidance:*

*If used in a shared lane with on-street parallel parking, Shared Lane Markings should be placed so that the centers of the markings are at least 11 feet from the face of the curb, or from the edge of the pavement where there is no curb.*

*If used on a street without on-street parking that has an outside travel lane that is less than 14 feet wide, the centers of the Shared Lane Markings should be at least 4 feet from the face of the curb, or from the edge of the pavement where there is no curb.*

*If used, the Shared Lane Marking should be placed immediately after an intersection and spaced at intervals not greater than 250 feet thereafter.*

#### **Option:**

Section 9B.06 describes a Bicycles May Use Full Lane sign that may be used in addition to or instead of the Shared Lane Marking to inform road users that bicyclists might occupy the travel lane.

## **Controversy**

Sharrows have been controversial in other cities since their debut in the mid-2000s. Bicycle advocates argue that sharrows are inadequate and allow cities to avoid building more complex, expensive, and politically difficult bicycle facilities, especially those that might require the removal of on-street parking.

There has not been much controversy about sharrows in the Olympia thus far, which might be due to their infrequent and targeted placement here. It is in cities where sharrows have been more widely distributed, particularly in streets with motor vehicle volumes and speeds that are inherently stressful for cyclists, that they are more controversial.

## **New research**

A recently released [study](#) from the University of British Columbia (UBC) of bicycle facilities in Vancouver BC found a significant correlation between sharrows and increased injuries in cyclists when compared to no bicycle facility at all. Closer review indicates that the correlation seems to be strongest when the sharrow is placed by parked cars. Vancouver has used sharrows much more liberally than Olympia has, but this new research, as well as the conflicting and sometimes discouraging results about cyclists' distance from the "door zone," supports a continued cautious approach when using sharrows.

## **Recommendation**

Staff recommends no change in our current use of sharrows and continuing to use them for the following situations:

1. To connect bike lanes over a short distance where there is not enough room for a bike lane, and
2. On the downhill side of streets that do not have room for a bike lane in both directions.