

CITY TRAFFIC ENGINEER'S REPORT

ISSUE NO. TC 781

Traffic Island on Tualatin Valley Highway between 142nd Avenue and 144th Avenue

September 17, 2018

Background Information

The Oregon Department of Transportation (ODOT) is concerned about safety on Tualatin Valley Highway (TV Hwy) at the driveway to U-Hall / Precision Body and Paint. TV Hwy is under ODOT jurisdiction. To address the safety concerns, ODOT is proposing restricting the left turning movements to and from and this driveway.

Currently TV Hwy between 142nd Avenue and Murray Boulevard is a 7 lane highway. It is classified as a Major Arterial. It has only one driveway on the north side between 142nd Avenue and 144th Avenue that provide access to two businesses, U-Hall and Precision Body and Paint. This shared driveway is connected to Carousel Court to the north. There is an existing traffic island on TV Hwy that extends from Murray Boulevard to approximately 100 feet east of 144th Avenue. This traffic island was installed to address safety concerns at the intersection with 144th Avenue.

The crash history on TV Hwy at the subject driveway shows that during the most recent complete 3 years of available crash data (January 2014 to December 2016), there were 16 reported angle type crashes that involved eastbound vehicles making a left turn into the driveway and getting hit by a vehicle traveling westbound. There were also 3 reported same type angle crashes at this driveway within the first 9 months of 2017.

A traffic turn count taken in May and June of 2018 shows that during the weekday a.m. peak hour, 12 vehicles turned left into the driveway from TV Hwy and no vehicles turned left out of the driveway. It also showed that during the weekday p.m. peak hour, 9 vehicles turned left into the driveway from TV Hwy and 3 vehicles turned left out of the driveway. The traffic count showed that on Saturday, the traffic peak hour at the driveway is between 12:45 p.m. and 1:45 p.m. were 30 vehicles turned left into the driveway and 12 vehicles turned left out of the driveway.

Restricting left turns at the driveway would require eastbound traffic accessing and leaving the businesses to utilize 141st Avenue and Carousel Court. This will improve safety and significantly reduce the number of crashes and injuries at the driveway.

Applicable Criteria

Applicable criteria from Beaverton Code 6.02.060A are:

- 1a (provide for safe vehicle, bicycle and pedestrian movements);
- 1g (carry anticipated traffic volume safely);
- 1h (comply with Federal and State regulations).

Conclusions:

1. Restricting left turns on TV Hwy at the driveway on the north side of the highway between 142nd Avenue and 144th Avenue would improve safety by eliminating the majority of the crashes and injuries at the driveway. Therefore Criteria 1a and 1g are satisfied.
2. Proposed revisions on Tualatin Valley Highway at the driveway between 142nd Avenue and 144th Avenue have been approved by ODOT as required by State regulation. Therefore Criterion 1h is satisfied.

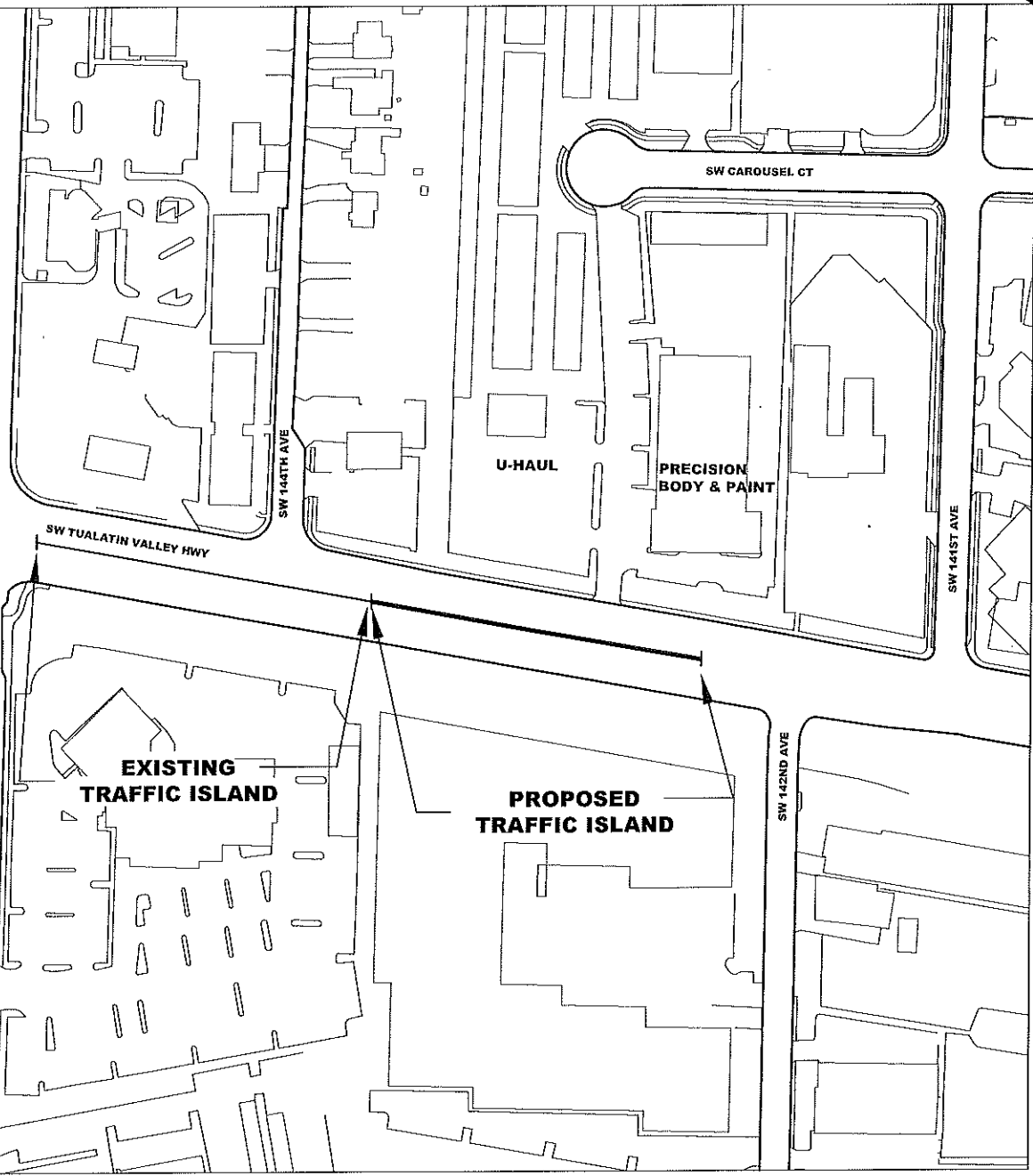
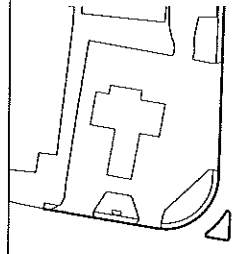
Recommendation:

Extend the traffic island on Tualatin Valley Highway from 144th Avenue to 142nd Avenue to restrict left turning movements at the driveway.

TC # 781



1" = 200'



Y:\TRANSPORTATION\Drawings\2018\TC781 - Traffic Island on SW Tualatin Valley Hwy Bwn 142nd & 144th.DWG



Traffic Island on SW Tualatin Valley Hwy
Between 142nd Ave & 144th Ave

ENGINEERING DEPARTMENT
TRANSPORTATION DIVISION

Drawn By: GO Date: 9/17/18
Reviewed By: _____ Date: _____
Approved By: _____ Date: _____

Jabra Khasho

From: JENSVOLD Martin R <Martin.R.JENSVOLD@odot.state.or.us>
Sent: Tuesday, August 28, 2018 1:48 PM
To: Jabra Khasho
Subject: Traffic Island, OR8: Murray to 141st
Attachments: TV at UHaul.pdf; QA01.pdf

Jabra,

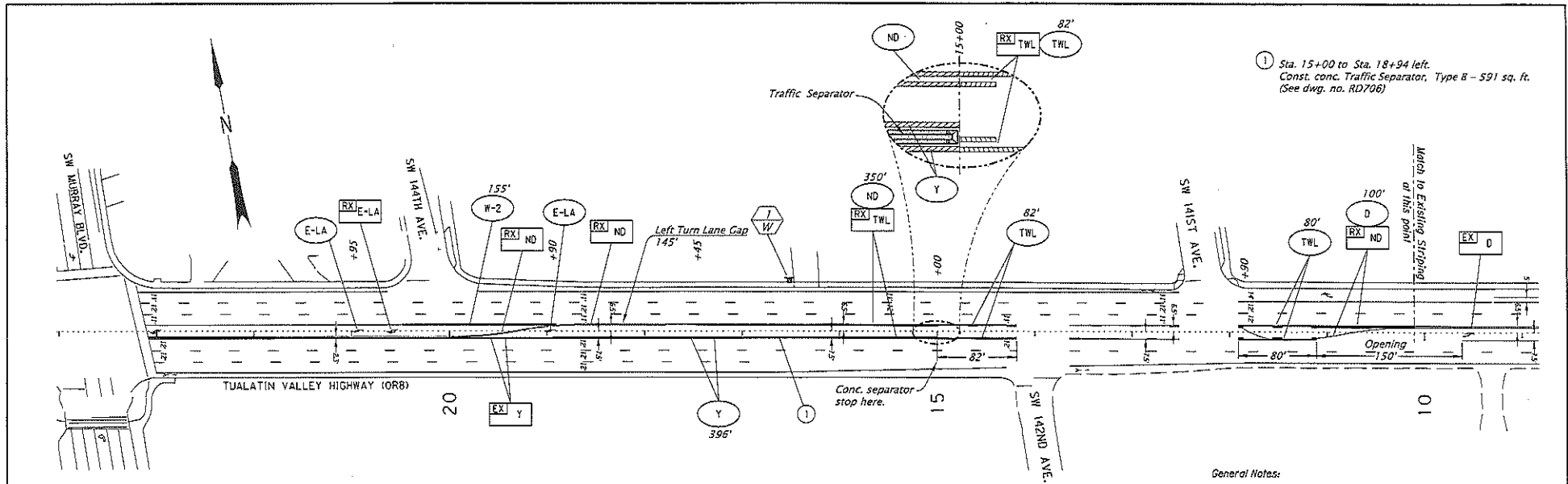
In response to the recent crash history at the U-Haul / Precision Body and Paint driveway on TV Highway west of 142nd Avenue, ODOT is planning to extend the existing raised concrete island on TV Highway east of Murray approximately 370' further east to restrict the driveway to right in, right out.

From 2014 through 2016 there were sixteen reported crashes involving eastbound vehicles trying to turn left into that driveway and getting hit by a westbound thru vehicle. (See attached.) There were three more of these crashes reported during the first nine months of 2017.

Attached is a preliminary plan sheet of the proposed improvements. We are planning to install the island this fall or early next spring.

If you have any questions, let me know.

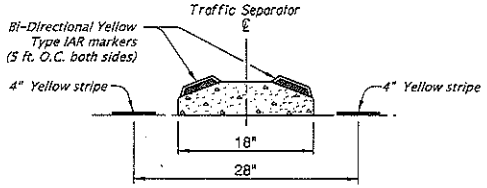
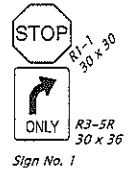
Martin Jensvold, PE
Region 1 Access Management Engineer
Oregon Dept. of Transportation
123 NW Flanders
Portland, OR 97209
(503) 731-8219 (phone)
(503) 731-8259 (fax)



① Sta. 15+00 to Sta. 18+94 left.
Const. conc. Traffic Separator, Type B - 591 sq. ft.
(See dwg. no. RD706)

SIGNING LEGEND

Install new sign (N) on new (M) sign support
 N = Sign Number
 M = Material
 Material options:
 W = Wood Post 6" x 8"



STRIPING LEGEND

- | | |
|---|--|
| Inst. double no-pass | Retain and protect extg. double no-pass |
| Inst. elongated left turn arrow (white) | Retain and protect extg. 4" yellow line |
| Inst. narrow double no-pass | Remove extg. double no-pass |
| Inst. 8" white line | Remove extg. elongated left turn arrow (white) |
| Inst. two-way left turn | Remove extg. two-way left turn |
| Inst. 4" yellow line | |

General Notes:

- Match points to existing striping and station call-outs are approximate and shall be field verified.
- Permanent longitudinal pavement marking, Method "A" is "Thermoplastic", Extruded, Surface, Non-Profiled, 120 mils..
- Raised pavement markers (RPM) used for supplementation or positioning guides are Bi-Directional Yellow Type "IAR".
- Removal of existing pavement markings shown is approximate and shall be field verified.
- Existing signs not shown are to remain in place unless otherwise directed by the Engineer.
- The location of sign installation shown is approx. with exact location to be determined in the field.



ACCOMPANIED BY STANDARD DWGS:
 Signing: TM220, TM670, TM671, and TM676.
 Roadway: RD706
 Striping: TM500, TM501, TM520, TM531, and TM539.

REGISTERED PROFESSIONAL ENGINEER
 59,942
 OREGON
 JAN. 13, 2004
 KATHLEEN M. FREITAG

Hwy: 029
M.P.: 4.58-4.39
COUNTY: WASHINGTON
DATE: 04/18

OREGON DEPARTMENT OF TRANSPORTATION

TRAFFIC SEPARATOR
 MURRAY BLVD. - 141ST AVE. (BEAVERTON) SEC.
 TUALATIN VALLEY HIGHWAY
 WASHINGTON COUNTY

Design: D. HAASE
 Drafter: D. HAASE

Reviewed: C. MAO
 Checker: C. MAO

PAVEMENT MARKING PLAN

SHEET NO. QA01