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**Item No.12.1.4**  
**Transportation Standing Committee**  
**June 24, 2021**

**TO:** Chair and Members of Transportation Standing Committee

**SUBMITTED BY:**                   - Original Signed -                    
Brad Anguish, P.Eng., Executive Director, Transportation & Public Works

                  - Original Signed -                    
Jacques Dubé, Chief Administrative Officer

**DATE:** June 2, 2021

**SUBJECT:**                   Street Art in the Right-of-Way                  

**ORIGIN**

Item 15.1 of the September 26, 2019 session of the Transportation Standing Committee.

MOVED by Councillor Austin, seconded by Councillor Cleary THAT the Transportation Standing Committee request a staff report on street art that outlines and explains any legal restrictions preventing HRM from considering street art at crosswalks and furthermore, makes recommendations concerning:

- (1) A trial 3d crosswalk
- (2) Enabling the use of art in tactical urbanism projects
- (3) Allowing for art on sidewalks
- (4) Allowing for placemaking on higher-volume streets

MOTION PUT AND PASSED

**LEGISLATIVE AUTHORITY**

Nova Scotia Motor Vehicle Act

2(ah) “official traffic signs” means signs, markings and devices, other than signals, not inconsistent with this Act, placed or erected by authority of a public body or official having jurisdiction, for the purpose of guiding, directing, warning or regulating traffic;

89(1) Subject to such authority as may be vested in the Minister, the Registrar or the Department, traffic authorities in regard to highways under their respective authority may cause appropriate signs to be erected

**RECOMMENDATION ON PAGE 2**

and maintained designating business and residence districts and railway grade crossings and such other signs, markings and traffic control signals as may be deemed necessary to direct and regulate traffic and to carry out the provisions of this Act.

(2) The Department shall have general supervision with respect to the erection by traffic authorities of official traffic signs and signals, for the purpose of obtaining, so far as practicable, uniformity as to type and location of official traffic signs and signals throughout the Province, and no traffic authority shall place or erect any traffic signs, signals or markings unless of a type or conforming to specifications approved by the Department.

94 (1) It shall be an offence for any person to place or maintain or to display upon or in view of any highway any unofficial sign, signal or device which purports to be or is an imitation of or resembles an official traffic sign or signal or which attempts to direct the movement of traffic, or which hides from view or interferes with the effectiveness of any official traffic sign or signal, and no person shall erect or maintain upon any highway any traffic or highway signal or sign bearing thereon any commercial advertising.

94 (2) Every prohibited sign, signal or device is hereby declared to be a public nuisance, and the authority having jurisdiction over the highways is hereby empowered to remove the same, or cause it to be removed without notice.

Halifax Regional Municipality Charter, Part XII, subsection 322(1), "The Council may design, lay out, open, expand, construct, maintain, improve, alter, repair, light, water, clean and clear streets in the Municipality."

## **RECOMMENDATION**

It is recommended that the Transportation Standing Committee recommend that Halifax Regional Council:

1. Direct the Chief Administrative Officer to continue the use of street art, where appropriate, as part of Tactical Urbanism projects, subject to approval of the Traffic Authority.
2. Direct the Chief Administrative Officer to continue allowing for art on sidewalks, subject to applicable by-laws, provided appropriate materials are used to ensure adequate slip resistance; and,
3. Direct the Chief Administrative Officer to continue to only allow the installation of street art placemaking on lower volume roadways, except under extraordinary circumstances as approved by the Engineer, as outlined in the discussion section of this report.

## **BACKGROUND**

Installation of regulatory pavement markings, including crosswalks, is governed by the Nova Scotia Motor Vehicle Act (MVA) and falls under the responsibility of the Traffic Authority. The Manual of Uniform Traffic Control Devices for Canada (MUTCDC) produced by the Transportation Association of Canada (TAC) outlines the size, colour, shape, etc. of pavement markings used to manage, control and guide road users. This document is a nationally accepted guideline and is used by jurisdictions across Canada to provide consistency in the appearance and use of pavement markings. The Traffic Signs Regulations under the Motor Vehicle Act require all "official traffic signs" to comply with the MUTCDC or be approved by the Provincial Traffic Authority. The definition of "official traffic sign" under the MVA includes "markings".

Application of pavement markings in a standard and consistent manner ensures all road users can recognize and understand them regardless of where they are encountered. Section 94(1) of the MVA effectively prohibits the placement of non-standard regulatory pavement markings in streets, including crosswalks. The importance of consistency in regulatory pavement markings is supported through the new

provincial Traffic Safety Act (TSA), the legislation that will replace the existing MVA, in that the draft regulations associated with the TSA specify sizes, colors and configurations for the appearance of regulatory pavement markings, including crosswalks.

The placement of other types of markings on HRM streets or sidewalks in relation to tactical urbanism or placemaking projects is also restricted, in so far as legislation is concerned, in that the graphics / artwork cannot be a nuisance or obstruction pursuant to the Nuisance By-Law (N-300); nor a sign that promotes a business, product, group, etc. (i.e. cannot be any sort of advertising) as it would then fall under control of the Temporary Sign By-Law (By-Law S-801). Outside of legislative restrictions related to the by-law, staff also requires that street art installed on the roads does not cover, modify or otherwise obscure regulatory pavement markings. A streets & services permit for a temporary street closure may also be required pursuant to the Streets By-Law (S-300).

## **DISCUSSION**

### **“Artistic” Crosswalk Treatments & 3D-Crosswalks**

Consideration of the interactions between various road users has an important impact on safety outcomes. Thus, the needs related to perception and cognitive function of road users must be taken into account when introducing new devices and markings within the right of way because it places a high demand on road users in terms of visual search, object recognition, gap estimation and decision making.

As outlined in the background section of this report, the MVA provides the legal authority to HRM’s Traffic Authority related to the installation of regulatory pavement markings, such as marked crosswalks. The use of standardized pavement markings at crosswalks is important for consistent indication of pedestrian crossings which helps to ensure crosswalks are easily identified and avoid potential misinterpretation by both pedestrians and drivers.

There has been some limited allowance for art at marked crosswalks through the Pride Rainbow Crosswalk Art program. Under this program, rainbow flag graphics have been installed within the crosswalks at several signalized intersections. The graphics were designed and installed so that they covered only a limited amount of the crosswalk area and fit completely within the crosswalk without covering or modifying the standard crosswalk lines. This approach ensured the crosswalk remained substantially unaltered and maintained the typical appearance of a marked crosswalk. Excessive, non standard patterning and inconsistent markings applied to the pedestrian through zone at a marked crosswalk can be an impediment to accessibility for those with low vision who rely on consistency and contrast for recognition and guidance at marked crossings.

The approach to allowing “artistic” crosswalks is varied among jurisdictions in both Canada and the US. For jurisdictions where they are allowed, a similar approach to what has been done in HRM so far is taken. The artwork is only allowed in marked crosswalks where there is a traffic control in place (i.e. traffic signal or stop sign) with the twin parallel line markings and the artwork doesn’t cover or obscure the white crosswalk lines. There are jurisdictions that do not allow artistic treatments at crosswalks, citing potential issues related to slip / skid resistance and difficulty for those with low vision or cognitive impairments being able to recognize and identify marked crosswalks with non-standard markings, especially when the potential exists for many different treatments across locations.

Three-dimensional illusion crosswalks (3D crosswalks) would be a type of “artistic” crosswalk treatment that modifies the standard crosswalk markings such that they appear as a 3-dimensional raised object to approaching drivers. These types of optical illusion crosswalk treatments have been experimented with for several years by jurisdictions within and outside North America. Much of the experience with 3D crosswalks has shown that the treatment doesn’t result in achieving the desired effect of slowing vehicle speeds or improving driver yielding at crosswalks. There have also been concerns that the markings may be difficult for individuals with low vision to recognize and use for guidance when crossing the street. Another potential future concern is the ability of automated vehicles successfully recognizing and responding to the non-

standard pavement markings. It has also been shown that use of these types of treatments can actually result in creating other safety issues. Field experimentation conducted through the Federal Highway Administration (FHWA) in the US found that installation of the 3D markings caused unsafe driver reactions / maneuvers such as sudden swerving or braking when seeing the 3D treatments. As a result, the FHWA does not allow the use of 3D treatments for crosswalk markings in the US. Given that these types of treatments have been shown to result in the creation of potentially dangerous conditions while providing no safety benefit, they would not be appropriate for consideration / use on HRM roadways.

Aside from the evidence suggesting the unsuitability of 3D crosswalk markings, there is little guidance available to practitioners on the use of non-standard colours or designs for crosswalks and the impact on safety, especially in Canada. Given the increase in requests to jurisdictions across Canada and the gap in available guidance and research, the Transportation Association of Canada (TAC) has just launched a project to study non-standard pavement markings at crosswalks. The study aims to assess non-standard crosswalk treatments to determine driver perception / recognition of crosswalks, driver and pedestrian distraction, slip / skid resistance and recognition by automated driving systems. The intended result is to produce a resource document, to be included in the Manual of Uniform Traffic Control Devices for Canada (MUTCDC), that will provide recommended guidance on the use of non-standard pavement markings at crosswalks. The US Federal Highway Administration (FHWA) is also currently undertaking a study to evaluate “aesthetically treated crosswalks”, which is slated to be completed in May 2022. Upon completion of these studies, jurisdictions throughout Canada and the US will be better positioned to understand the benefits and / or issues related to the use of non-standard treatments at marked crosswalks.

Given the importance of pedestrian / road safety, and the current lack of knowledge around the potential impacts related to artistic treatments at crosswalks, any expansion of the existing limited locations where an artistic treatment is placed at / within a crosswalk should be avoided / limited until the results of the projects being undertaken by TAC and FHWA are available to inform the most appropriate approach to artistic treatments at crosswalks.

#### Tactical Urbanism, Sidewalk Art & Placemaking

Street Improvement Pilot Projects, better known as Tactical Urbanism, are intended to provide an opportunity to “get ahead of the pavers” in order to pilot or test potential treatments that support complete streets initiatives prior to implementing a larger, permanent infrastructure project. The projects are intended to be more temporary in nature, using lower cost materials, including paint, that can be installed in a short timeframe and can be more easily adjusted or removed, if required after implementation. Many of the materials can often be re-used for other projects once the permanent modifications are made.

Action 48 of the *Integrated Mobility Plan* (IMP) drives Tactical Urbanism projects which ultimately support improvements to the safety and comfort of those walking, rolling, cycling and driving. Features and materials associated with Tactical Urbanism projects can vary greatly depending on the location and intended impact. Not all projects would necessarily involve the use of street art, nor would art necessarily be appropriate for all projects. This approach is also supported by IMP Action 46.

*IMP Action 46: “Include artwork appropriate to the regional and community context.”*

*IMP Action 48: “Support pilot projects for creative street uses, such as community events or temporary infrastructure to test new ideas for how streets can function.”*

Some projects may be intended to simply provide for a more defined delineation or separation of the operational space on a street, like the recent separated bike lane installed on Lower Water Street. Tactical treatments (flexible delineators and standard pavement markings) were used to quickly and inexpensively provide visible and physical separation between the vehicle lane and bicycle lane. This type of project wouldn't really lend itself to artistic pavement marking treatments.

Other projects however, may have the intended purpose to not only provide some kind of separation, but also to “create a place”. Projects like this provide for the opportunity to include some form of street painting. An example of this would be the Spring Garden Road “Stoplet”. Tactical elements were used here to temporarily repurpose curbside space to create an enhanced bus stop and mini park. Part of the design included painting the “reclaimed” on-street space to enhance the area.

Moving forward, there are also plans to use paint and other materials to improve the aesthetics of the reclaimed space that was created through the tactical realignment of the Queen St / Birmingham St / Artillery Pl intersection. The use of paint to create “street art” in association with Tactical Urbanism projects is built into the program and is supported by staff with the only caveat that tactical related painting cannot impact regulatory pavement markings.

Like Tactical Urbanism projects, street art on sidewalks or as part of Neighbourhood Placemaking projects, would be supported by IMP Action 46.

Sidewalk art is not expressly prohibited and has been allowed in some instances. The primary concern with art applied to sidewalks is the potential to create a slippery surface that would be dangerous to pedestrians, particularly those with limited mobility. The rough or “broomed” surface on concrete sidewalks is specifically intended to create a rough, high friction surface that will not be slippery to pedestrians, particularly when wet. As noted above, artwork is not entirely prohibited on sidewalks; allowing for its installation would be dependant on the materials intended to be used. Using paint on sidewalks tends to fill in the rough surface of the sidewalk, creating a smooth surface that can easily become slippery to pedestrians, especially when wet. If other materials, such as chalk or high friction materials were to be used for sidewalk art, there would be less concern of the creation of a slipping hazard and application of sidewalk art would be considered.

The application of artwork on HRM streets and sidewalks is generally supported with certain requirements as outlined in the Neighbourhood Placemaking Program (i.e. no paintings in crosswalks or on bus routes, and no logos, advertising, words or traffic symbols). The Neighbourhood Placemaking Program is intended to provide creative opportunities for residents to celebrate and explore their neighbourhood’s identity, get to know and develop connections with their neighbours and create “places” where people are drawn to which results in more welcoming and liveable communities.

General requirements associated with the Neighbourhood Placemaking Program are aimed to ensure the safety of road users after the artwork is installed. Artwork designs applied to roadways / intersections are required to minimize large painted areas and the paint used must have some kind of “grit” applied in order to maintain appropriate friction to avoid slipping / skidding. This is especially important for pedestrians and those riding bicycles or motorcycles (particularly when turning through an intersection) but can also impact vehicles when having to swerve or brake quickly.

Application of street art is also limited to lower volume roadways, 2500 vehicles per day or less. Restricting the placement of artwork to lower volume streets helps to ensure the artwork will last longer due to less wear and tear from vehicle traffic, but also helps to minimise potential safety concerns related to slipping / skidding when pedestrians, cyclists, motorcyclists and drivers may need to make evasive maneuvers on higher speed / volume roads. It is recognized though that there could be extraordinary circumstances where street art could be allowed on higher volume roadways on a short-term basis.

Recent application of the “Black Lives Matter” message on Alderney Drive and Brunswick Street is a good example of application of street art to a location with higher volumes that was allowed under extraordinary circumstances. As part of this initiative, the lettering font was adjusted to reduce the amount of larger painted surfaces and an anti-slip additive was also specified. After application of the messaging, there were some concerns received from the public related to the paint being slippery or the potential for it to be slippery, especially when wet. HRM did have friction testing done to determine if the painted areas would create a potential slip / skid hazard. Although testing did show a reduced friction on the painted areas, values were still within acceptable limits for the roadway type. That said, these applications are on straight roadway sections, not within intersections, so the potential for reduced surface friction, even when within acceptable

limits, may still be a concern for cyclists and motorcyclists when turning or having to make evasive maneuvers given the smaller tire “contact patch” associated with these vehicles. When considering this condition, it may not be appropriate to consider allowing street art on higher volume roadways.

### **FINANCIAL IMPLICATIONS**

There are no financial implications associated with this report.

### **RISK CONSIDERATION**

There are no significant risks associated with the recommendations provided in this report.

### **COMMUNITY ENGAGEMENT**

Community engagement is included as part of the identification and implementation of Tactical Urbanism and Neighbourhood Placemaking projects.

### **ENVIRONMENTAL IMPLICATIONS**

No environmental implications were identified.

### **ALTERNATIVES**

The Transportation Standing Committee could choose to recommend that Halifax Regional Council direct the Chief Administrative Officer to discontinue the use of street art in the right-of-way.

### **ATTACHMENTS**

None.

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A copy of this report can be obtained online at [halifax.ca](http://halifax.ca) or by contacting the Office of the Municipal Clerk at 902.490.4210.

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