

Technical Briefing: Traffic Signal Cabinet Art

Introduction

Let's be perfectly honest with ourselves - traffic signal cabinets don't tend to provide much visual appeal in their traditional forms. Being (very understandably) utilitarian in design, their boxy, boilerplate shapes and their bare, metal materials often appear antiseptic and impersonal ... yet, these large fixtures proliferate our community street corners; being still critically important to the success of our traffic signal operations.

Last October, an ITE member from Georgia started an ITE Community Forum discussion about his concerns related to a local grassroots artist movement to "rid the world of ugly, frumpy, traffic signal control boxes by painting them" (ITE Community Forum, 2016 – link provided below). In response to his post, the floodgates opened and members started replying in droves. Some responses were in opposition to the notion of applying art to "sacred" pieces of transportation infrastructure, but many more were in support of the practice, noting the success of their own local programs.

Concerns

One of the concerns raised in the original discussion post was that the application of art to the exterior of the signal cabinets could adversely affect the operations of the cabinet equipment during the summer by raising the internal temperatures. However, with further investigation, these concerns are generally unwarranted. Multiple ITE members from warmer climates provided anecdotal evidence to indicate that they had experienced no issues with their cabinets with the additional artistic layers.

For example, the Ada County Highway District in Idaho has completed over 150 art installations in the past 8 years (a third of their system), with no issues related to overheating (their standard practice is to include two fans in the larger cabinets). A City Traffic Engineer from Wilmington, NC indicated that they have a solid black cabinet in their downtown and have seen no additional maintenance needs.

Econolite (a distributor of these vinyl art wraps) contacted 3M (a supplier of the film material) and according to the 3M Commercial Graphics Division, "the vinyl graphics will have no insulating effect on the traffic cabinets nor create an increase of the internal box temperature over paint of a similar color." They have seen, however, that a lighter color can result in up to 15 degree cooler temperatures, compared to a darker color.

Peter Yauch, of Albeck Gerken, whose post noted an informal study from 30 years ago that identified a 20 degree temperature difference with darker paint colors. His take was that while this increase may have been a concern 30 years ago, today's controllers are generally "more rugged" and that as long as you have a cabinet fan and venting, there shouldn't be issues. He is currently working with multiple agencies in central Florida who paint their TS2 cabinets dark green and black, with no heat related issues.

Benefits

Some of those in support of these art programs highlighted the inherent positives behind the opportunity for traffic engineers to offer a metaphorical "olive branch" to their communities. As stated by Terry Little, P.E. (a retired Traffic Services Manager of the Ada County Highway District): "It is

sometimes hard to stay on the more critical aspects of our mission when there is such a strong movement to capture and convert as much roadway area as possible into a more pleasant environment. Art is an area where I believe we can go a long way in cooperation with virtually no downside other than the usual demand on staff time.” (ITE Community Forum, 2016). As traffic engineers, we often have to say no to the community – this is such an easy win for improving those relationships and helping to build community pride.

Conclusion

While you will ultimately have to decide for yourself if a traffic signal cabinet art program is the right thing for your community, hopefully this information will at least provide you with some knowledge about the possibilities.

For more details on the discussion itself, be sure to check out the ITE Community Forum post and read through the responses:

- ITE Community Forum, Discussion Thread, “the desire to paint everything,” October 2016:
<http://community.ite.org/communities/community-home/viewthread?GroupId=1597&MID=21311&CommunityKey=7e0793b5-eced-48d4-8808-24d0bc3259ae&tab=digestviewer>

Finally, for a little inspiration on examples of how municipalities across the country are partnering with local artists to transform their traffic signal cabinets into something more exciting(!) for their communities, check out the list of resources included below.

Jennifer Warner, Transportation EIT
jennifer.warner@stantec.com

Resources:

- Arts Council of Indianapolis, Traffic Signal Box Participation Guide:
<https://indyarts.org/docman/public-art/36-tsb-participation-guide/file>
- Arts Council of Indianapolis, Examples:
<http://www.indyartsguide.org/public-art-type/traffic-signal-box-art/>
- Decatur, GA Examples:
<http://www.decatourmetro.com/2016/05/31/check-out-all-of-decaturs-newly-painted-signal-boxes/>
- Econolite Cabinet Beautification Product
<https://www.econolite.com/products/traffic-cabinets/cabinet-beautification/>
- Tucson Arts Brigade:
<http://www.tucsonartsbrigade.org/upload/145864/documents/751844302252016075713386.PDF>
- City of Tampa, FL:
<https://www.tampagov.net/art-programs/Programs/partnerships/traffic-signal-boxes>
- Greater Augusta Arts Council:
<http://augustaarts.com/wp-content/uploads/2016/10/art-the-box-guidelines-and-app-2017-update.pdf>