

CITY COUNCIL COMMITTEE

INFRASTRUCTURE & FRANCHISE

Laura Hoffmeister, Chair
Edi Birsan, Committee Member

5:30 p.m.
Monday, July 13, 2015

Building A, Garden Conference Room
1950 Parkside Drive, Concord

AGENDA

ROLL CALL

STAFF PRESENT

MEMBERS OF THE PUBLIC WHO ADDRESSED THE COMMITTEE

PUBLIC COMMENT PERIOD

- 1. UPDATE** – Updated Proposal to Install New Bus Shelters in the City of Concord. Report by Ray Kuzbari, Transportation Manager.
- 2. DISCUSSION** – of Accessible Ramp Standards, Including Color of Truncated Dome Surface/Detectable Warning Device. Report by Jeff Rogers, Associate Civil Engineer.
- 3. DISCUSSION** – of Special Bike Lane Pavement Marking “Pilot Program” for Detroit Avenue Bicycle and Pedestrian Improvements (PJ2276). Report by Mark Migliore, Associate Civil Engineer.
- 4. ADJOURNMENT**

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Distribution: City Council
Valerie Barone, City Manager
Jovan Grogan, Deputy City Manager
Mark Coon, City Attorney
Victoria Walker, Community & Economic Development Director
Robert Ovadia, City Engineer
Jeff Rogers, Associate Civil Engineer
Mark Migliore, Associate Civil Engineer
Ray Kuzbari, Transportation Manager
Administrative Services

Memorandum

DATE: July 13, 2015

TO: Council Committee on Infrastructure and Franchise

FROM: Ray Kuzbari, Transportation Manager

VIA: Victoria Walker, Director of Community and Economic Development

RE: **Updated Proposal to Install New Bus Shelters in the City of Concord**

On May 11, 2015, Community & Economic Development (CED) Transportation staff presented a proposal to the Infrastructure and Franchise Committee (Committee) to install new bus shelters in the City using federal funds obtained from the Federal Transit Administration by County Connection under the Transit Productivity Improvement (TPI) program.

The Committee reviewed the original proposal on May 11th and concurred with staff's recommendation to install new shelters at seven (7) County Connection bus stops. The bus stops include four locations where legacy County Connection shelters currently exist, two (2) locations that have only a bench, and one (1) location with no bench or shelter. The proposed locations for new bus shelters are listed in **Table 1**.

Additionally, the Committee directed staff to follow the general criteria listed below for selecting shelter design/style(s), and to further coordinate with County Connection regarding any style or color that may have been adopted in recent years by the Central Contra Costa Transit Authority (CCCTA) Board for new bus shelters. The Committee also inquired about solar panel mounting and aesthetics, and directed staff to report back to the Committee with an updated proposal at the next Committee meeting.

General Selection Criteria for New Bus Shelters as Directed by the Committee:

- **Style:** Tolar Sierra, Niagara or Euro; distinct style for the downtown area may be considered (shelter renderings will be shared with the Committee at the July 13th meeting)
- **Color:** Downtown Todos Santos Blue or other color options may be considered
- **Length:** 13 feet to match the length of existing advertising shelters
- **Width:** 5 feet to match the width of existing advertising shelters
- **Power Source:** Solar
- **Advertising Panel:** 4' x 6' two-sided, illuminated panel similar to existing advertising shelters
- **Opposite Panel:** Glass
- **Back Wall:** Glass
- **Roof:** Opaque (metal) with security lighting on the inside (separate from ads lighting)

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- **Bench:** Six-foot bench with back and convenient arm rests; must leave room for a wheelchair

Three-dimensional exhibits of bus shelters that meet the above criteria will be shared with the Committee at the July 13th meeting. Solar panel mounting will also be shown on the exhibits.

TABLE 1
Proposed New Bus Shelters in the City of Concord

	Bus Stop Location	Direction of Bus Travel	Existing Infrastructure Proposed to be Replaced	
			Legacy Shelter with Bench	Bench Only
1	CLAYTON RD at FRY WAY	West Bound	None	√
2	CLAYTON RD at WASHINGTON BLVD	East Bound	√	None
3	CLAYTON RD at WEST ST	West Bound	√	None
4	CONTRA COSTA BLVD at VIKING DR	North Bound	√	None
5	DETROIT AVE at SUNSHINE DR / LYNN AVE	South Bound	None	√
6	DETROIT AVE at WALTERS WAY	North Bound	None	None
7	MONUMENT BLVD at REGANTI DR	East Bound	√	None

In total, there are nine (9) existing bus shelters that contain advertising space within the City of Concord. These shelters have been installed by CBS Outdoor or its predecessors at various times since 1997 and are not due for replacement. **Table 1** lists seven other locations where City and County Connection staff have recommended that a new or replacement shelter be installed. Of these seven locations, four locations have legacy bus shelters (remnant County Connection

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shelters) without advertising space, two locations have only a bench, and one location (*Detroit Avenue at Walters Way*) has neither a bench nor a bus shelter.

CED Transportation staff has inquired about the need to recognize any preferences that County Connection might have regarding use of a uniform style or color for all new bus shelters within the CCCTA service area. Based on recent conversations with County Connection staff, City staff has learned that CCCTA has no official policy or preference on bus shelter design, style or color. County Connection defers to the local jurisdiction (such as the City of Concord) to determine its own specifications for any new bus shelters installed within that jurisdiction.

It should be noted that there is a wide variety of design, style and color options offered by Tolar Manufacturing Company, Inc., the vendor of bus shelters to Outfront Media. Outfront Media is the advertising company under contract with both the City of Concord and County Connection to install and maintain bus shelters with advertising material.

Recommendation

Staff recommends that the Committee review the updated information and exhibits provided to the Committee to install new bus shelters in the City of Concord, and provide comments and/or direction to staff regarding the final selection of shelter design, style(s) and color(s) for the seven locations listed in Table 1.

Attachment: Original proposal to install new bus shelters in the City of Concord, dated May 11, 2015

Memorandum

DATE: May 11, 2015

TO: Council Committee on Infrastructure and Franchise

FROM: Ray Kuzbari, Transportation Manager

VIA: Victoria Walker, Director of Community and Economic Development

RE: **Proposal to Install New Bus Shelters in the City of Concord**

County Connection has recently approached CED Transportation staff with a proposal to install new bus shelters in the City using federal funds obtained from the Federal Transit Administration by County Connection under the Transit Productivity Improvement (TPI) program.

The City has a bus shelter agreement with Outfront Media (previously CBS Outdoor) to install and maintain bus shelters for the use of the general public at designated County Connection bus stops within the City. The bus shelters are installed and maintained at no cost to the City and contain advertising material of which the City approves.

Using the TPI program, County Connection has offered to pay Outfront Media approximately \$8,000 for any new shelter installed within the City of Concord as an incentive for Outfront Media to invest in new bus shelters in the area. Upon reviewing existing shelters in Concord with County Connection staff, it is recommended that new shelters be installed at the locations listed in Table 1 to replace old County Connection shelters or benches, or to establish a new shelter where no seating amenities currently exist. The new bus shelters will be solar powered for nighttime lighting.

Additionally, the manufacturer of the bus shelters for Outfront Media (TOLAR Manufacturing) offers four basic designs to choose from and a variety of colors available. The design choices are attached for review by the Committee. It should be noted that, in the past, the City specified Todos Santos Blue Dupont L9656 for painting street lights, traffic signal poles and controller cabinets in downtown Concord.

The bus shelters are custom built and provide choices on basic style, bench design, roof material (metal vs acrylic), trash receptacles, perforated back metal vs glass walls, and color. Staff recommends that the new shelters in Concord be customized with the following specifications:

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- The “**Signature**” style shelter with aluminum grey color as shown in the attachment for minimum visual intrusion (*design variations maybe available with this style and will be shared with the Committee*);
- Single bench with dividers and back support;
- Metal roof painted with Todos Santos Blue Dupont L9656 paint;
- A trash receptacle beside the shelter as shown in the attachment; and
- Perforated back metal walls.

In total, there are nine existing bus shelters that contain adverting space within the City of Concord. These shelters have been installed by CBS Outdoor or its predecessors at various times since 1997 and are not due for replacement. The following table lists seven other locations where staff is recommending that a new or replacement shelter be installed. Of these seven locations, four have older bus shelters (County Connection style shelters) without advertising space, two locations have only a bench, and one location has neither a bench nor a bus shelter.

TABLE 1
Proposed New Bus Shelters in the City of Concord

	Bus Stop Location	Direction	Replacing Existing	
			Shelter w/out Advertising and Bench	Bench Only
1	CLAYTON RD / FRY WAY	West Bound		Yes
2	CLAYTON RD / WASHINGTON BLVD	East Bound	Yes	
3	CLAYTON RD / WEST ST	West Bound	Yes	
4	CONTRA COSTA BLVD / VIKING DR	North Bound	Yes	
5	DETROIT AVE / SUNSHINE DR / LYNN AVE	South Bound		Yes
6	DETROIT AVE / WALTERS WAY	North Bound	No	No
7	MONUMENT BLVD / REGANTI DR	East Bound	Yes	

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Staff recommends that the Committee review the proposal to install new bus shelters in Concord as outlined in this memorandum and provide comments and/or direction to staff.

Attachment: Bus Shelter Design Brochures

THE PERFECT FIT. YOUR COMMUNITY. OUR SHELTERS.

THE SIERRA. THE LEADER. THE ORIGINAL.



The Sierra Shelter line is one of Tolar's initial, and still most popular, shelter designs that was originally engineered for a project in San Diego in 1991. As styles and community expectations have evolved over the years, we have added even more choices to the line.

Sierra Shelters still represent our flagship line: Striking style. Functional design. Exceptional value. Consider these key features:

- Lengths that range from 9 to 24 feet; widths up to 5 foot 8 inches
- Choose from walls of tempered glass or tough, transparent Lexan
- Perforated metal options include Victorian and Herringbone styles
- Mansard roof options available
- Available with or without advertising kiosks

Crafted by the category leader, the Sierra Shelter line's roof design also features two horizontal circular shapes, one that serves as a rain gutter, and the other that houses wiring for optional security lighting.

TOLAR'S SIERRA SHELTERS: FUNCTIONAL DESIGNS, CLASSIC APPEARANCE, RENOWNED RELIABILITY.



SIERRA SHELTERS

TECHNICAL SPECIFICATIONS AND DESIGN OPTIONS

Sierra Shelters are offered in an array of design and style options, depending on your project aesthetics, shelter requirements and style preferences.

SIZING OPTIONS

- Lengths range from 9', 13', 17', 20' and 24'
- Widths range from 4 feet 6 inches to 5 feet 8 inches

ROOF STYLE OPTIONS

- Dome style
- Hip roof
- Low peak
- Mansard
- High peak

ROOF PANEL OPTIONS

- Bronze
- Lexan (high-strength transparent thermoplastic)
- White
- Powder-coated aluminum

END WALL OPTIONS

- 3/8" clear tempered safety glass
- Framed acrylic or polycarbonate
- Wire grid
- Perforated metal, including standard, Victorian and Herringbone
- Glass options, including bronze, yellow dot, Victorian and custom logos
- End walls available in a variety of widths

AD KIOSK CHOICES (FOR ALL SHELTERS)

- Two-door back-to-back style
- V-angled kiosks in sizes 24", 48" and 52"
- Top- or side-hinged doors

ILLUMINATION OPTIONS

- Conventional 110-volt lighting
- Solar-powered lighting
- Low-draw LED lighting

COLOR OPTIONS

- Variety of durable, baked powder-coat finish colors
- Standard RAL options or custom-matched color
- Durable wet paint options to match project aesthetics

COMPLEMENTARY STREET FURNITURE

We have a wide variety of bench, trash receptacle, kiosks, bike racks and map case options to complete your street furniture design.

FOR ADDITIONAL OPTIONS AND MORE INFORMATION, VISIT WWW.TOLARMFG.COM.



13' Mansard roof shelter with Lexan roof panels, Semi-V advertising kiosk, no walls, 6' wire grid contour bench with back, street plaque

13' High peak roof shelter with aluminum roof panels and raised battens, perforated metal rear wall with acrylic inserts. 3/8" clear tempered safety glass in the end walls, 6' perforated metal bench with back, 30 gallon perforated metal trash receptacle



13' non-advertising shelter with dome roof, aluminum roof panels, decorative raised battens, integrated map case, 8' pert bench with bars, pole-mounted trash receptacle, solar lighting

18' dome roof shelter with dome roof, bronze Lexan roof panels perforated metal at the bottom, 3/8" glass in the top with integrated map case, integrated bike bars on both ends, 3' perforated metal benches, no back



THE PERFECT FIT. YOUR COMMUNITY. OUR SHELTERS.

LET IT FLOW. LIKE NIAGARA.



Light, ventilation, simplicity, and visibility are all optimized in Tolar's Niagara Series shelter.

The clean, open appearance, design flexibility, ease of maintenance and simple installation make the line a favorite for shelter buyers nationwide. The advantages are as powerful as the falls that lend the line its name:

- Roof lines and styles to suit any streetscape

- Wide range of complementary accessories
- Variety of glass treatments and wall panels
- Variety of illumination options
- Exceptional weather protection

The Niagara Series shelters are engineered from a minimal number of parts, which makes for fast, easy installation. All Niagara Series shelters can be shipped in a kit to reduce freight charges.

ENHANCE YOUR COMMUNITY WITH THE ELEGANCE AND FUNCTIONALITY OF THE NIAGARA SERIES.



NIAGARA SHELTER LINE

TECHNICAL SPECIFICATIONS AND DESIGN MODEL OPTIONS

As with all of Tolar's shelter, furniture and display models, our Niagara series offers a wide range of size, design and style options. Tolar is ready to meet your project requirements. Our Niagara Series shelters, as with all Tolar models, can be fabricated in advertising and non-advertising models as well as a wide variety of roof, wall and illumination options. All shelters are finished with our durable backed powder-coat process.

SIZING OPTIONS

- Shelter lengths from 8 to 24 feet
- Widths from 4 to 8 feet

ROOF STYLE OPTIONS

- Dome
- Hip Peak
- Mansard
- Palladium
- Gable peak

ROOF PANEL OPTIONS

- Bronze Lexan Thermoclear
- Powder-coated aluminum
- White Lexan Thermoclear

WALL OPTIONS

- 3/8" clear or bronze tempered safety glass Custom glass, including yellow dot, Victorian, custom city or transit agency logos
- Perforated metal
- Custom perforated metal, including Victorian and herringbone patterns
- Framed acrylic or polycarbonate
- Half- or full-end wall options

OPTIONAL AD KIOSK CHOICES

- All designed to accommodate the standard 4' X 6' shelter posting size
- Two-door back-to-back kiosks
- V-angled kiosks in a wide variety of sizes including 24", 48" and 52"
- Top-and side-hinged door options
- Wide variety of glazing options

COLOR OPTIONS

- Variety of durable, baked powder-coat finish colors
- Standard RAL options or custom-matched color
- Durable wet paint options to match project aesthetics

ILLUMINATION AND LIGHTING OPTIONS

- Conventional 110-volt
- Low-draw LED
- Solar Lighting

COMPLEMENTARY STREET FURNITURE

We have a wide variety of bench, trash receptacle, kiosks, bike racks and map case options to complete your street furniture design.

VISIT WWW.TOLAR.MFG.COM FOR ADDITIONAL IDEAS, OPTIONS AND SPECIFICATIONS.



16' Niagara hip peak ad shelter with a flat back-to-back ad kiosk, 3/8" yellow dot glass at the rear, end and partial front wall and benches with recycled seat slats



10' 6" dome roof non-ad shelter with perforated metal panels at the rear and end walls and a bench with recycle slats



12' dome roof ad shelter flat back-to-back ad kiosk, custom glass at the rear and end wall, bench with recycled seat slats



8' Hip peak roof non-ad shelter with perforated metal panels at the rear and end walls, custom Star of Texas treatment at front of shelter and a bench with recycled slats

THE PERFECT FIT. YOUR COMMUNITY. OUR SHELTERS.

EURO STYLE. AMERICAN QUALITY.



Sleek and stylish, yet strong and sturdy. That's the combination of design and durability embodied in Tolar's new Euro Shelter line.

Consider just some of the advantages:

- Distinctive new profile and rooflines for a modern look.
- Choose from models with or without ad displays.
- Opt for special cold-climate shelter design options.

- Choose from custom Herringbone or standard perforated metal walls.
- Unique custom glass treatments available.

The Euro Shelter line from Tolar is both beautiful and well-built, a functional, eye-catching addition to the streetscape of your community. Cutting-edge looks combined with unsurpassed craftsmanship. Our Euro models now incorporate an optional integrated channel for water drainage.

EURO SHELTER LINE: THE DISTINCTIVE CHOICE IN COSMOPOLITAN STYLE AND CLASSIC SUBSTANCE.



EURO SHELTERS

Tolar's Euro Shelter line can be tailored to your project, your budget and your community with the following choices:

CONSTRUCTION OPTIONS

- All-aluminum construction
- Optional 4" diameter lamp posts available
- Optional spun (metal) escutcheon shoe covers available
- Standard rear wall or optional cold-weather design
- Integrated channel for water drainage

SIZING OPTIONS

- Shelter lengths range from 8 to 24 feet
- Widths available from 4 to 6 feet

WALL OPTIONS

- 3/8" bronze or clear-tempered safety glass
- Durable Lexan available
- Custom frit or sandblast glass options

ROOF OPTIONS

- Bronze
- Clear Lexan
- Lexan
- Powder-coated aluminum
- Opaque Lexan

AD KIOSK OPTIONS

- Top-hinged or side-hinged door options available

ILLUMINATION OPTIONS

- Conventional 110-volt lighting
- Low-draw 110-volt option
- Solar-powered lighting available

COLOR OPTIONS

- Variety of durable, baked powder-coat finish colors
- Standard RAL options or custom-matched color
- Durable wet paint options to match project aesthetics

COMPLEMENTARY STREET FURNITURE

We have a wide variety of bench, trash receptacle, kiosks, bike racks and map case options to complete your street furniture design.

TO VIEW ADDITIONAL DESIGN OPTIONS AND FIND OUT MORE VISIT WWW.TOLARMFG.COM.



13' Euro shelter with bronze Lexan roof panels, Herringbone style perforated metal walls, escutcheons and a 6' perforated metal bench



13' Euro MAX shelter with white Lexan roof panels, City decal and 6' perforated metal bench



22' Euro model advertising shelter with ad kiosk display, escutcheons, 3/8" custom glass, front wind screen and perforated metal benches



10' Euro ad shelter with advertising kiosk, Lexan MR-10 roof panels, 4" spun posts with escutcheons and 3/8" glass

THE PERFECT FIT. YOUR COMMUNITY. OUR SHELTERS.

YOUR LOOK. YOUR STYLE. YOUR SIGNATURE.



The Signature Shelter line delivers the best of Tolar's proven capability: A look that's unique to your project and reflects your community. For shelters that add value to the streetscape, and create a connection with their users, rely on Tolar to work with you in developing a custom, yet modular shelter style that's distinctive to the community in which they reside.

The line's key features provide buyers with an affordable choice combining Tolar's distinctive looks and durable designs, including:

- An exciting alternative to a "generic" style
- A collaborative design process
- Quality materials and engineering
- Custom accessories and colors
- Total support from end-to-end

Why settle for off-the-shelf? With Tolar's Signature line, your community's outdoor environment can be enhanced with shelters that make memorable first impressions for users, earn accolades from community stakeholders, and most importantly grow your ridership.

THE SIGNATURE SHELTER LINE: WHEN YOU WANT THE LOOK THAT'S UNIQUE TO YOU.



SIGNATURE SHELTERS

Some examples of the unique designs and creative styles developed for clients who wanted a look that emphasized their community's distinctive appeal and outdoor environment.

TOLAR SIGNATURE PACIFIC-STYLE SHELTER

Simple and strong, this modern look is a bright addition to any community's streetscape.

- Radius roof with white Lexan roof panels
- Flat back-to-back advertising kiosk
- 8' perforated metal bench and integrated trash receptacle
- Also available in a non-advertising configuration

SIGNATURE FOR LITTLE ROCK

A design that reflects the community's history, with supporting lamp posts with acorn lamps.

- 17' dome roof with aluminum panels
- Twin solar-lit back-to-back advertising kiosks on end walls
- Etched ducks on the 3/8" rear glass walls
- Trolley stop identification sign
- 6' steel strap bench with back

TOLAR SIGNATURE FOR HIGHLANDS RANCH

Designed like an open-beam lodge, this design is a modification to our Tolar Sierra Shelter line.

- 17' dome roof shelter
- Simulated open beams and log support poles
- 48" V-angled advertising kiosk
- Window pane style perforated metal walls
- 6' steel strap bench and matching trash receptacle

TOLAR SIGNATURE RADIUS ROOF

This shelter features brushed aluminum construction for durability and a sleek contemporary look.

- 18' open-style shelter with clear panels
- Semi-cantilever surface mount design
- Premium powder-coat finish
- Flat back-to-back pedestal-style ad kiosk and integrated map case
- LED roof lighting and 10' perforated metal bench

TOLAR SIGNATURE RADIUS CURVES

Designed for the new millennium, this shelter features radius curves in roof and support posts.

- Radius roof shelter with Berridge roof panels
- Lights integrated into the ceiling
- Semi-V ad kiosk with top-hinged doors supported by gas shocks
- 8' perforated metal bench with anti-vagrant bars
- Complementary trash receptacle

VISIT WWW.TOLAR.MFG.COM FOR ADDITIONAL IDEAS, OPTIONS AND SPECIFICATIONS FOR TOLAR SMOKING SHELTERS AND WALKWAYS.



Signature Pacific-Style Shelter



Signature Custom Lamppost Historic Shelter



Signature Custom Empire Shelter



Signature Radius Roof



Signature Radius aluminum shelter, flat back-to-back advertising display kiosk

**REPORT TO INFRASTRUCTURE AND FRANCHISE COMMITTEE**

TO THE HONORABLE COMMITTEE MEMBERS:

DATE: July 13, 2015

SUBJECT: DISCUSSION OF ACCESSIBLE RAMP STANDARDS, INCLUDING COLOR OF TRUNCATED DOME SURFACE/DETECTABLE WARNING DEVICE

Report in Brief

The Americans with Disabilities Act (ADA) Title II requires the City to provide curb ramps when streets, roads, or highways are altered. These ramps include an inset of contrasting colored truncated dome surface to warn pedestrians, those that are visually impaired or in a wheelchair approaching a curb ramp that they are crossing into a hazardous area, such as a street. The yellow truncated dome surface provides the most visual contrast against the standard grey sidewalks, and this has been the requirement for many years. Recently, staff was asked to evaluate possible revisions to the City color standard, as there is an opportunity to select an alternate or context specific color for truncated dome surfaces, also known as a Detectable Warning Device (DWD), on locally funded projects. Federally funded projects will continue to require use of the yellow colored truncated dome surface.

Background

The United States Department of Justice (DOJ) and the Federal Highway Administration (FHWA) released a joint technical assistance guide (Technical Assistance) in June 2013 clarifying ADA Title II requirements to provide curb ramps when streets, roads, or highways are altered. Pursuant to this requirement, most types of paving resurfacing treatments are considered alterations that trigger curb ramp upgrades. Each curb ramp upgrade requires the installation of a truncated dome surface.

ADA guidelines require that truncated domes meet certain dimensional requirements and have a contrast ratio of 70% with the surrounding pavement. Caltrans' standard plans, on which Concord's City standards are based, require that truncated domes be the Federal yellow color. Caltrans extends this requirement to projects using federal dollars, which are administered by Caltrans.

Engineering staff was requested to determine if there is local discretion to use a color other than yellow for the truncated dome surface.

Discussion

A Detectable Warning Device (DWD), also called a truncated dome surface, is a standardized surface feature built to walking surfaces to warn visually-impaired people of hazards on a circulation path. DWD's are commonly placed in locations such as the edge of a train platform or the edge of a curb ramp next to a street. DWD's are designed to warn a pedestrian, anyone in a wheelchair, or a

DISCUSSION OF ACCESSIBLE RAMP STANDARDS, INCLUDING COLOR OF TRUNCATED DOME SURFACE/DETECTABLE WARNING DEVICE

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visually impaired person that they are crossing into a hazardous area such as a street. Placement of a DWD is a Federal and State requirement for any new or reconstructed curb ramps that are built within the City of Concord.

Tactile Feature:

The tactile feature of the DWD's include small, truncated domes that are in a square grid pattern, oriented in the predominant direction of travel. The truncated domes have a minimum and maximum size diameter, height, and spacing and have been standardized in Caltrans Standard Plans and Specifications. These standards meet Federal Americans with Disabilities Act (ADA) and United States Access Board requirements. The benefit of the truncated dome standards allows pedestrians to feel the DWD through their feet or cane without posing any tripping hazards or obstructing wheelchairs.

Visual Features:

Color

Unlike the tactile feature of a DWD where clear requirements are specified, visual feature requirements of DWD's are not as specific. Currently there are no federal regulations specifying what color the DWD's should be. However, in the 2010 California Department of Transportation Standard Specifications, section: 73-1.02B states that: "Detectable warning surface must be shown on the Authorized Material List for detectable warning surface and must comply with yellow color no. 33538 of FED-STD-595".

Contrast

Contrast in terms of DWD's is the difference in brightness or darkness between the surface of the DWD and the background pavement adjacent to it. A yellow DWD surface next to a gray concrete pavement has significantly more contrast than a gray DWD surface next to a gray concrete pavement. According to 2010 Department of Justice ADA Standards for Accessible Design, section 705.1.3: "Detectable warning surfaces shall contrast visually with adjacent walking surfaces either light-on-dark, or dark-on-light."

However, California requirements as stated in Caltrans Design Information Bulletin (DIB) 82-05, released in October 2013, Section 4.3.1 states that: "material used to provide contrast of detectable warnings on walkway surfaces should have a contrast of at least 70%."

A study conducted for the United States Access Board submitted in June 30, 2007, studies the contrast of ten different colors of DWD's against three different surfaces (asphalt, red brick, and standard grey color concrete) and how a visually-impaired individual perceives each combination. Three different patterns of black and white DWD's were also studied. The study had the following recommendations:

- Do not use detectable warnings that are the same color as the sidewalk.
- Select detectable warning color based on the sidewalk color to provide high luminance contrast either light-on-dark or dark-on-light.

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- Avoid using combinations of sidewalk and detectable warning materials where both surfaces are dark (reflectance less than 10 percent).
- If a contrast-based requirement for detectable warnings installations is used, the guidance should include both a minimum luminance contrast and a minimum reflectance for the lighter of the two surfaces providing the contrast.
- If a standardized color scheme is desired for detectable warnings, adopt a two-color large pattern which provides high internal contrast to ensure high conspicuity across all sidewalk types.
- If a standardized color scheme is desired for single-color detectable warnings, Federal yellow may be a good choice. It provides a high level of conspicuity for a given level of luminance contrast. In this study reds and yellows generally provided higher conspicuity than achromatic colors.
- If a small set of standardized colors is desired for detectable warnings on different sidewalk types then federal yellow may be a good choice where adjacent walking surfaces are dark. A dark brick red color (orange-red) may be a good choice where adjacent walking surfaces are light.
- Consider how visual contrast between the detectable warning and sidewalk surfaces may change over time as the materials age.

Available Options:

Currently, multiple color options DWD's are available in the market. ADA Solutions Inc. for example sells 9 different color DWD's.



{<http://www.adatale.com/castinplace.php>}

DISCUSSION OF ACCESSIBLE RAMP STANDARDS, INCLUDING COLOR OF TRUNCATED DOME SURFACE/DETECTABLE WARNING DEVICE

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In summary, Federal yellow truncated domes have superior color contrast, will not fade over time to the point where the contrast does not meet State requirements, and have already been installed in numerous locations throughout the city.

The City is required to use Federal yellow, the Caltrans Standard Color for truncated domes on federally funded projects, administered by Caltrans. The City has discretion to install other colors meeting the contrast requirement with the surrounding pavement on locally funded projects. Should the Committee direct staff to use alternative colors on locally funded projects, staff recommends the following:

- Continued installation of Federal yellow truncated domes at intersections that already have a majority of existing compliant ramps with Federal yellow truncated dome surfaces.
- Instead of selecting a specific alternative color for locally funded projects, provide general guidance and/or allow staff to use discretion to select the most appropriate color that provides the recommended 70% contrast ratio with the surrounding pavement and meets other guidelines for DWD installation. To illustrate how alternative colors for truncated domes are used, below are samples from other jurisdictions.

Grey on Grey

Below are images of grey truncated domes on grey pavement. The first image shows an installation that does not meet the 70% contrast guidelines, whereas the second image may meet the recommended guidelines.



Red on Red

Below are images of red truncated domes alongside red brick pavement surfaces. The first image shows an installation that likely does not meet the 70% contrast guidelines, whereas the second image may meet the recommended guidelines.

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Fiscal Impact

There are no additional costs associated with a revision to the color specification for future DWD installations. There would be significant cost implications if there is direction to retrofit the existing Federal yellow DWD surfaces to insure uniformity whenever curb ramp upgrades are implemented.

Public Contact

The Council Agenda was posted.

Recommendation for Action

Staff requests that the Infrastructure & Franchise Committee provide direction to staff regarding when and where to use alternate colors for truncated dome surfaces.

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Reviewed by: Robert Ovia
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Reviewed by: Victoria Walker
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**REPORT TO COUNCIL COMMITTEE ON
INFRASTRUCTURE & FRANCHISE****TO THE HONORABLE COMMITTEE MEMBERS:**

DATE: July 13, 2015

SUBJECT: DISCUSSION OF SPECIAL BIKE LANE PAVEMENT MARKING “PILOT PROGRAM” FOR DETROIT AVENUE BICYCLE AND PEDESTRIAN IMPROVEMENTS (PJ2276)**Report in Brief**

The Detroit Avenue Bicycle and Pedestrian Improvements project includes the installation of bike lanes, construction of sidewalk and access ramps, installation of additional street lighting, and pavement rehabilitation. During the public outreach efforts conducted throughout the design phase of the project, there was significant interest from both the Monument Impact/First 5 community and from bike advocates to include installation of green pavement markings to designate the bike lanes and increase their visibility (particularly in conflict areas). Due to budgetary concerns, this feature was added to the project as an alternate bid item that could be included in the construction contract if funding was available.

Bids were opened on June 11, 2015 for the Detroit Avenue Bicycle and Pedestrian Improvements Project (PJ 2276). Although sufficient funds are available for the award of the base contract, there are insufficient funds to include the installation of the special green pavement markings. An additional \$150,000 is necessary to fully fund the installation of green pavement markings, inclusive of construction, contingencies and inspection costs.

Staff is seeking guidance from the Infrastructure and Franchise Committee (Committee) on the installation of green pavement markings to designate bike lanes for the Detroit Avenue Bicycle and Pedestrian Improvements project as a pilot program for designated City bike lanes. Staff is currently scheduled to present the construction contract for this project to the City Council for award on July 28, 2015. If recommended by the Committee, staff will include a request for the additional funding through a budget transfer, and recommend award of the alternate bid item with the project.

Background

The City Council approved Detroit Avenue Pedestrian and Bicycle Improvements – Clayton Road to Monument Blvd (PJ2276) as part of its FY 2013-2014 CIP Program. The scope of this project consists of implementing the City’s “Complete Streets” policy which considers the needs of the various roadway users, and includes the installation of bike lanes, construction of sidewalk and access ramps, installation of additional street lighting, and pavement rehabilitation. The project also includes the installation of underground conduits and pull-boxes to accommodate a future fiber-optic cable backbone for the City (funded by IT Operations), as well as catch basin inserts for storm water quality.

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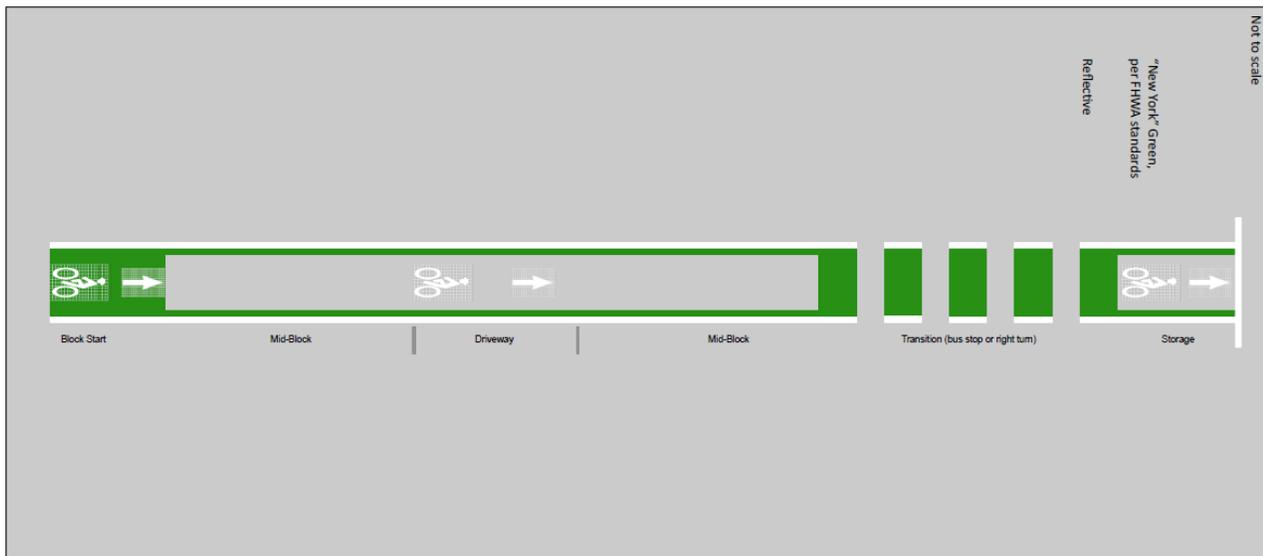
Staff held public meetings during the design process to solicit input from the community regarding the project. Numerous residents, bicycle advocates and community members spoke in favor of including green pavement markings in the project as a way to enhance safety for bicycle riders and provide better visual cues to motorists. Based on this information, staff included the item as a bid alternate to be considered for award depending on bids received and the available budget.

Discussion

Green Pavement Bicycle Markings

The installation of green pavement markings for bike facilities is becoming a best practice, as well as an Engineering standard by the National Association of City Transportation Officials (NACTO). Design guidelines for the construction of colored bike facilities are included in their Urban Bikeway Design Guide, which acts as the standard for municipalities across the country (i.e., San Francisco, Tucson, Eugene and Austin, to name a few). Additionally, the Contra Costa Transportation Authority (CCTA) recommends installation of the colored pavement for any Federally-funded projects and has recently given presentations on increased safety and benefits of its use. Though there are many design options, NACTO has recommended application of the colored pavement in at least any “conflict areas” within a neighborhood or project location. In this instance, a conflict is defined as an “interaction between a bicycle and a motor vehicle, pedestrian, or other bicycle such that at least one of the other parties had to change speed or direction to avoid the other”. These conflict areas can include intersections, driveways, and/or high traffic situations.

The Detroit Avenue Pedestrian and Bicycle Improvements design plans include the installation of the green pavement markings in conflict areas such as in front of driveways and at intersections. Staff notes that based on the community requests, as well as the aforementioned bike facilities best practices recommendations, this project provides the City an opportunity to implement a pilot program to test the benefits and disadvantages of installing the green pavement for other bike lane projects. Below is an example of the suggested “dash pattern” design.



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Award of the Alternate Bid Item – Detroit Avenue Pedestrian and Bicycle Improvements (PJ2276)

Analysis of the project budget indicates that while sufficient funds are available for the award of the base contract, there are insufficient funds to award the green pavement alternate bid item. In order to honor the community’s request and include the alternate bid item in the award of the contract, staff has estimated that \$150,000 is needed to cover the full cost of the additional work including construction, contingency and inspection.

Staff reviewed the budgets of several other CIP projects as potential funding sources but none were found. As a potential cost savings measure, staff also consulted with the Public Works Department as to their ability to install the green pavement markings. Public Works confirmed that currently, they do not have the equipment or expertise required to do such an installation. Staff contacted CCTA based on prior correspondence regarding their desire to facilitate the installation of green pavement markings in bike lanes, and submitted a request for installation funding. CCTA declined the request.

Staff is requesting direction from the Committee regarding the desire to implement a “pilot program” to install green pavement markings with the construction of the Detroit Avenue Bicycle and Pedestrian Improvements project. If the Committee concurs with this approach, staff requests the Committee’s recommendation to include a request for the additional funding through a budget transfer, as well as award of the alternate bid item with the construction contract, to the full City Council on July 28, 2015.

Fiscal Impact

The current project budget is sufficient to recommend award of only the base bid of the construction contract for this project. In order to award the alternate bid item for the installation of the green pavement markings, an additional \$150,000 is needed. Potential funding sources for this budget transfer include the General Fund or Measure Q debt financing funds.

Public Contact

The Council Agenda was posted.

Recommendation for Action

Staff is seeking guidance from the Infrastructure and Franchise Committee (Committee) on the installation of green pavement markings to designate bike lanes for the Detroit Avenue Bicycle and Pedestrian Improvements project as a pilot program for designated City bike lanes. Staff is currently scheduled to present the construction contract for this project to the City Council for award on July 28, 2015. If recommended by the Committee, staff will include a request for the additional funding through a budget transfer, and recommend award of the alternate bid item with the project.

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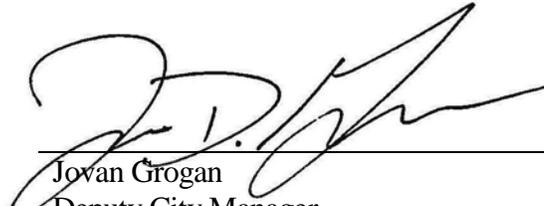
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