


**LAS VEGAS CONVENTION AND VISITORS AUTHORITY
BOARD OF DIRECTORS' MEETING
AGENDA DOCUMENTATION**

MEETING DATE:	MARCH 12, 2019	ITEM NO. 8
TO:	BOARD OF DIRECTORS	
FROM:	ED FINGER CHIEF FINANCIAL OFFICER	
SUBJECT:	AUTHORIZATION TO NEGOTIATE AND EXECUTE SALES LISTING AGREEMENT	

RECOMMENDATION

That the Board of Directors consider: 1) Authorizing the Chief Executive Officer (CEO)/President to negotiate and execute a sales listing agreement with CBRE Inc. (CBRE), for the potential sale of approximately ten (10) acres of Las Vegas Convention and Visitors Authority (LVCVA) land along Las Vegas Boulevard.

For possible action.

FISCAL IMPACT

The commission structure will be incentive-based if the land sale is 7.5 acres or greater, with a one-percent (1%) commission up to a certain per-acreage value, and a higher percentage (up to 5%) if higher per-acreage values are reached. If the sale is smaller than 7.5 acres, the commission will be one and one-half percent (1.5%).

BOARD ACTION:	
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**STEVE HILL
CEO/PRESIDENT**

PURPOSE AND BACKGROUND

After interviewing three large, local, commercial real estate firms, the LVCVA is seeking approval to enter into a sales listing agreement with CBRE, a Nevada commercial real estate broker, to assist with the strategy and potential sale of the LVCVA's strip-front acreage.

Any proposed sale will be subject to future Board of Director approval.

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MEETING DATE:	MARCH 12, 2019	ITEM NO. 9
TO:	BOARD OF DIRECTORS	
FROM:	STEVE HILL CEO/PRESIDENT	
SUBJECT:	RFP #19-4570 LAS VEGAS CONVENTION CENTER DISTRICT CAMPUS WIDE PEOPLE MOVER RECOMMENDATION	

RECOMMENDATION

That the Board of Directors consider: 1) Awarding RFP #19-4570, *Las Vegas Convention Center District Campus Wide People Mover*, to The Boring Company; and 2) Authorizing the Chief Executive Officer (CEO)/President to negotiate a design, construction, and operations agreement with The Boring Company.

For possible action.

FISCAL IMPACT

There is no budgetary impact from this action. The estimated system cost is between \$35 million and \$55 million, depending on route, number of stations, and size of stations.

BOARD ACTION:	
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**STEVE HILL
CEO/PRESIDENT**

PURPOSE AND BACKGROUND

As stated by the CEO/President at the December 11, 2018, Regular Meeting of the Las Vegas Convention and Visitors Authority (LVCVA) Board of Directors, the LVCVA staff is bringing forward a recommendation of a company to design, construct, and operate a Campus Wide People Mover (Project). The process to reach the recommendation comes after a multi-step process to evaluate prospective companies for consideration. The three steps included: 1) Request for Information (RFI), 2) Request for Proposal (RFP), and 3) an Interview.

The LVCVA established an Evaluation Team to review and rank the submittals and interviews. The Evaluation Team included representatives from the LVCVA Board of Directors, the LVCVA staff, the director of design and construction of a resort corridor partner, and a third-party consultant with experience in automated people mover construction and

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operations. Additionally, the LVCVA retained a transportation systems expert to assist in the evaluation of the candidates, as a non-voting member of the Evaluation Team. Cordell Corporation, the LVCVA's Owner Representative, served as the administrator of the process.

Steps two and three, the RFP and Interview process, required a review by the Evaluation Team of the technical information provided by the respondents and the information presented during the interviews. The reviews allowed the Evaluation Team to formulate their recommendation on which respondent is the most responsive and most suitable to provide the design, construction, and operation of a Campus Wide People Mover for the Las Vegas Convention Center (LVCC).

The Evaluation Team has completed their analysis and is recommending The Boring Company for the Project. This agenda item would authorize the CEO/President and staff work with The Boring Company to develop specific design, construction, and operational plans, and negotiate all necessary agreements, subject to final approval by the Board of Directors. Final Board of Directors consideration is anticipated in May or June 2019.

SUMMARY OF PROCESS

Step One

On December 3, 2018, an RFI was publicly released by the LVCVA to solicit information from interested companies to provide design, construction, and operation for the Project. A total of nine (9) submittals were received from both US and internationally based companies.

Step Two

On January 18, 2019, the LVCVA publicly posted an RFP. The RFP required the respondents to respond to a series of key issues including, but not limited to:

1. The company's approach to the design, construction, and operation of a Campus Wide People Mover for the LVCC,
2. The reliability, maintainability, and availability of the company's proposed system,
3. The proposed system's impact on the LVCVA's land area and on-going operations of the LVCC,
4. The proposed system's ability to interface with other existing and possible future transportation systems in Las Vegas, and
5. An estimated budget for design, construction, and operation of the system.

A total of six (6) submittals to the RFP were received. The Evaluation Team reviewed the submittals and through a ranking of each, determined that two (2) respondents were to be invited to interview as finalists in the RFP process.

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Step Three

On March 1, 2019, the Evaluation Team interviewed the two finalists. Upon conclusion of the interviews, the Evaluation Team ranked each finalist on scale of 0 to 100.

The following are the results of the evaluation:

Ranking	Respondent	Score*
1	The Boring Company	529
2	Doppelmayr	450

* Total Maximum Score 600

Based upon a three-step process of reviewing qualifications of the three respondents, analyzing each, and assessing the formal presentations of each of the three proposed teams, the Evaluation Team recommends The Boring Company to design, construct, and operate the Campus Wide People Mover system.

SUMMARY OF THE BORING COMPANY (TBC) PROPOSAL

The TBC proposal details the approach to design, construction, operation, and maintenance of a Campus Wide People Mover (CWPM) with an innovative passenger transportation service through the LVCC campus.

TBC proposes to construct and operate LVCC Loop, an underground, high-capacity CWPM solution that will enable rapid, comfortable movement of people across the LVCC campus. Tesla Autonomous Electric Vehicles (AEVs) and/or larger high-occupancy AEVs will carry passengers on express routes to underground stations integrated into the campus. Stations will be located near exhibit hall entrances and transportation connections. Collectively, this system will provide service to up to 11,000 passengers per hour. This project leverages TBC's leadership in tunnel construction and AEV operation to provide an integrated, affordable, and reliable public transportation option for the world's premier event center. The system is further designed to accommodate future expansion to provide a direct connection between LVCC and other locations such as the Las Vegas Strip, Downtown Las Vegas, McCarran International Airport, and Las Vegas Stadium.

LVCC Loop will incorporate TBC's Loop service, which has been selected for several high-profile projects including the Chicago O'Hare Express System and the Los Angeles Dugout Loop to Dodger Stadium, which will collectively transport millions of passengers each year. TBC's standardization of tunnel construction, AEV operation, and other system components across projects has translated to increased reliability and reduced costs.

TBC's underground system offers reduced total costs, less disruption to pedestrian and vehicle traffic, and faster construction time than traditional ground or above-ground options.

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LVCC Loop provides an exceptional low-risk, value-oriented solution that achieves LVCVA's specified objectives.

Project Criteria	Compliance	Description
<p>"Connectivity between key points on the campus including parking lots, exhibit halls and primary lobby spaces"</p>		<p>Station locations in close proximity to key points of interest. Stations will be placed beneath existing parking lots adjacent to exhibit hall entrances. Small VIP Stations can be placed inside existing buildings.</p> <p>Rapid transit. Passengers can travel on express routes between any two LVCC Loop stations in trips typically between 49 seconds and 2 minutes, 30 seconds.</p>
<p>"Minimal ground surface used by the operation of the CWPM – the surface parking areas are leased as outdoor exhibit space when not being used as parking for customers"</p>		<p>Minimal surface impact. As a subsurface transportation system, LVCC Loop does not permanently alter the surface design of the LVCC. There will be no extended road closures often necessary in the construction of overland transportation systems, and operation will not affect pedestrians or surface vehicles. Loop stations can be partially or entirely covered to return the surface to its former use after construction.</p>
<p>"Scalability to meet the peak customer demands of large trade shows and reduced capacity during smaller trade show events"</p>		<p>High capacity. LVCC Loop is designed to meet the full spectrum of ridership demands at the campus, including demands from future expansions, with a capacity of up to 11,000 passengers per hour (final capacity value based on whether Standard or High-Capacity Stations are implemented).</p> <p>Scalable fleet. Capacity is scaled by dynamically adjusting the number of AEVs in circulation. The number of operational AEVs is maximized to meet peak demand and reduced as demand decreases without increasing wait times.</p> <p>Multiple service vehicles. Standard 5-seat AEVs can be augmented with high-occupancy, 16-passenger AEVs to meet user demand.</p>

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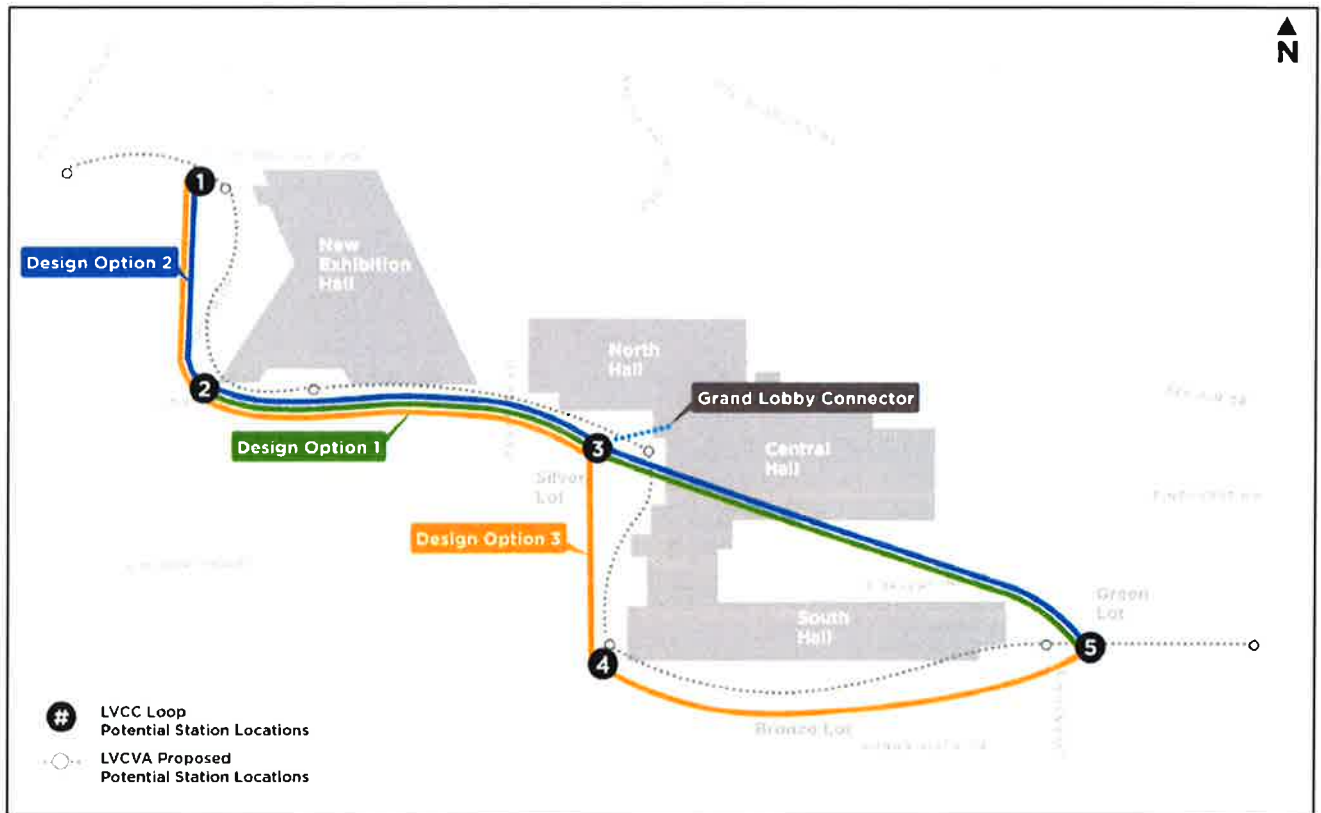
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Project Criteria	Compliance	Description
<p>"The CWPM must be available to operate 365 days of the year"</p>		<p>No vehicle maintenance effects. Because Loop utilizes a large quantity of smaller vehicles, operation and ridership is not meaningfully affected when one or even several vehicles require maintenance.</p> <p>Weatherproof. Rain, snow, wind, and surface temperatures do not adversely affect system operation or structural condition.</p>
<p>"Systems technology must provide operational reliability – the system will not have the frequency of use as occurring at an airport or major metropolitan subway system, but when it is being used for a major trade show, the operational performance must be reliable"</p>		<p>High-reliability vehicles. Loop uses Tesla vehicles with well documented, high-reliability values, predictable service schedules and remote diagnostic capabilities. Routine, preventive maintenance combined with early fault detection ensures minimal off-the-road time for Loop vehicles.</p> <p>Interchangeable fleet. A large supply of reserve vehicles is readily available for circulation into the system.</p> <p>Controlled environment. The Loop system removes many of the environmental conditions that most commonly cause failures in above-ground transportation systems (e.g., weather, temperature variations, potholes), providing increased overall system reliability.</p>
<p>"The LVCVA continues to look to the future which may include expanded facilities beyond the current endeavors, therefore expandability must be considered in the design, construction and operation of the CWPM"</p>		<p>System expansion potential. Loop, and the proposed LVCC alignments, have been designed to accommodate future expansion to destinations outside the LVCC campus, including to hotels along Las Vegas Boulevard and McCarran International Airport. TBC is strongly interested in the possibility of said expansion.</p> <p>Design flexibility. Intermediate, on-campus stations can be added at a future date without meaningfully affecting existing LVCC Loop operations.</p>
<p>"The construction of a CWPM must not disrupt the LVCVA's service to its trade show customers. Furthermore, the construction of the CWPM cannot encroach on the new expansion after it is opened in December of 2020"</p>		<p>No noise or vibration. There is no detectable noise or vibration at the surface during construction and operation.</p> <p>Limited surface presence. Almost all construction and operation occur underground. Loop occupies only a small amount of surface land, freeing up valuable space for other LVCVA uses.</p>

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The TBC proposal includes several options of alignment for the underground LVCC Loop as illustrated in the diagram below:



Key to the design of the system will be the final location of the stations for customer access to the LVCC Loop. Locations must facilitate ease of movement for the customer throughout the campus, without sacrificing event time for customers.

Customers will access stations by escalators from the sidewalks located at the ground surface.



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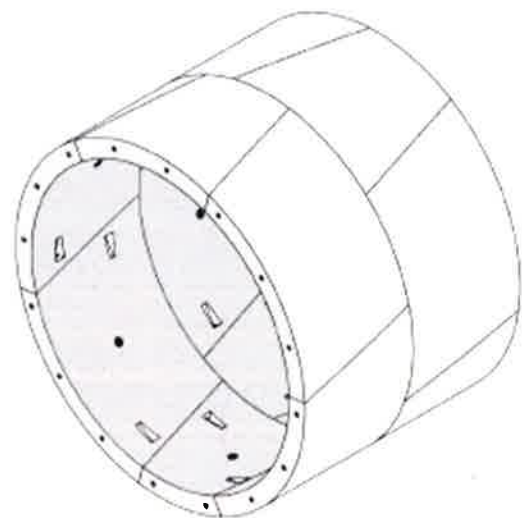
The primary component of the LVCC Loop will be concrete tunnels located approximately 30 feet below grade crossing the footprint of the campus.



The tunnels will be built to the standard TBC tunnel dimensions of a 12-foot inner diameter and a 13.5-foot outer diameter. The tunnels are constructed using precast concrete segments, manufactured in-house by TBC. During tunnel construction, six of the segments are configured to form one 5-foot-long tunnel "ring." For example, for a 1-mile long tunnel, TBC will install 1,056 (5,280 feet divided by 5) rings. The segments are reinforced with steel fibers, along with monofilament polypropylene for fire resistance and concrete longevity. Packing material or "packers" (to alleviate seismic loads) and gaskets (to mitigate water and gas intrusion) are adhered to the segments prior to installation.

While TBC's tunnel diameter and segment design are standardized, TBC's tunnel depth and alignments are flexible. The crown (top) and invert (bottom) of the tunnel will generally be no shallower than 30 feet and 44 feet below the land surface, respectively. At this depth, tunnels avoid nearly all utilities and ensures that tunnel operation remains imperceptible at the surface. The tunnel depth may increase in cases where underground infrastructure (e.g., utilities, foundations, etc.) exists deeper than usual.

As part of the ongoing design process, TBC will conduct thorough due diligence, including a geotechnical and environmental investigation and review of existing subsurface structures to customize tunnel design to the local environment as required.



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Moving customers through the tunnels will be Autonomous Electric Vehicles (AEVs) proposed by TBC. AEVs are hybrids between cars and automated people mover (APM) vehicles; they are "mechanically confined cars." Standard AEVs are modified Tesla Model X and 3 vehicles, carrying up to five passengers and providing privacy for passengers within a public transportation system. High-occupancy AEVs use a modified Tesla Model X chassis to transport 16 passengers with both sitting and standing room. AEVs drive on standard rubber tires with Tesla's Autopilot feature engaged. Further, the AEVs are confined mechanically to the tunnel walls with added alignment wheels. If there is an Autopilot issue, the alignment wheels maintain the vehicle on its prescribed path.

Tesla Model X AEV



Tesla High Occupancy AEV



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TBC's LVCC Loop is a high-speed underground public transportation system in which passengers are transported in AEVs at up to 150 miles per hour. Loop is often mistaken for a subway system, but there are many distinctions between the two. One key distinction is that Loop is an "express" public transportation system and more resembles an underground highway than a subway system. Through the use of a Main Artery Tunnel with side tunnels for AEV entry/exit, passengers travel directly to their final destination without stopping. As an example, if a train-line had 100 stops, the train would typically stop at each station, so the trip between Stop 1 and Stop 100 would be long. For Loop, passengers travel directly to their destination, anywhere between Stop 1 to Stop 100, without stopping at the intermediate stations.

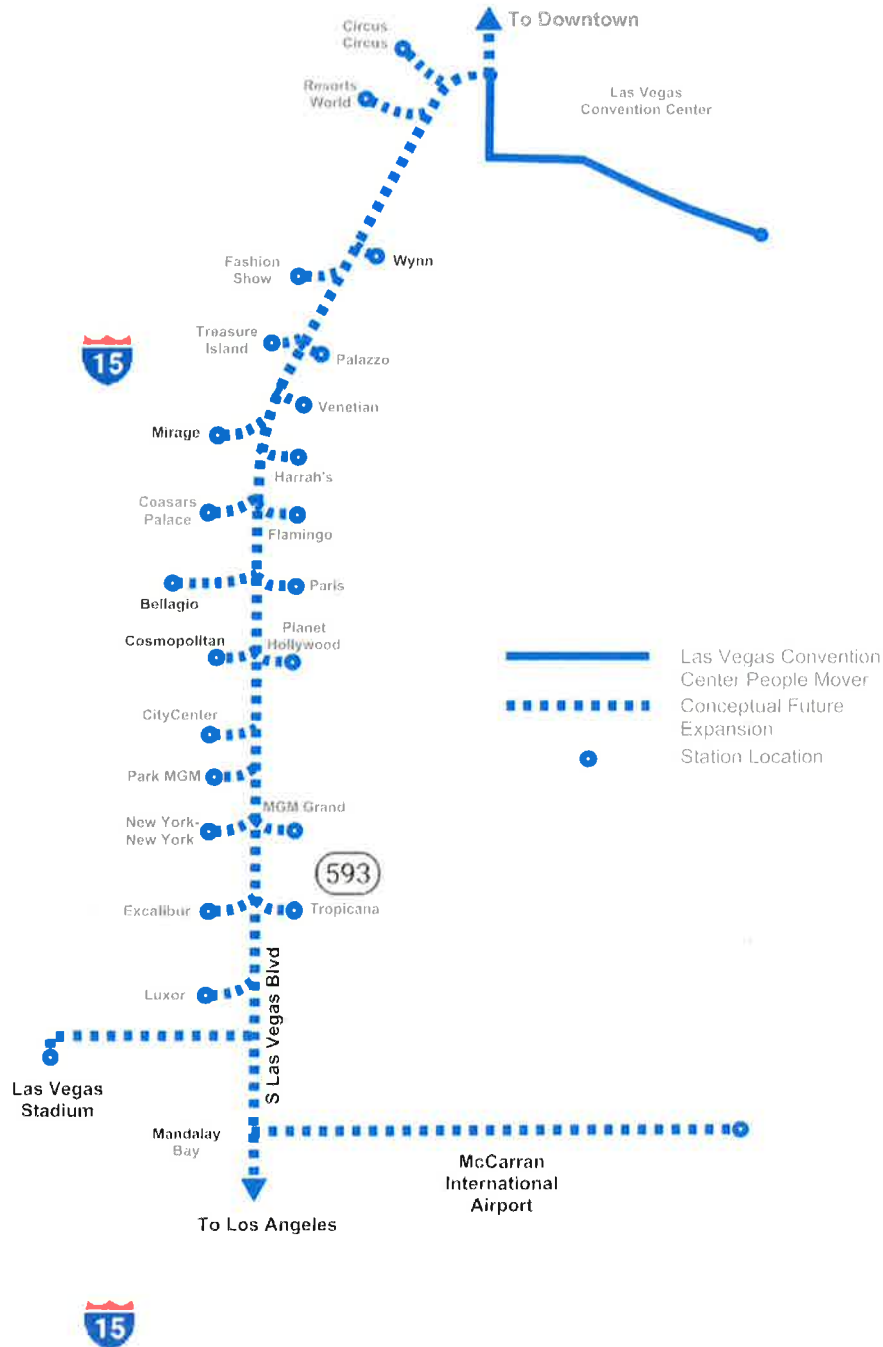
AEVs are also generally faster than conventional subway cars (up to 150 mph vs. up to 65 mph), and Loop's architecture of underground, small-footprint stations gets passengers physically closer to their final desired destinations more quickly, with nearly zero surface footprint.

TBC has proposed to tailor LVCC Loop to serve as a high-throughput CWPM. Within the LVCC campus, Loop vehicles will operate at speeds up to 50 mph due to the short distances between stations. Additionally, the LVCC Loop stations will generally be larger than typical Loop stations to facilitate high throughput between a small number of stations. If the system is extended to include additional destinations within Las Vegas, the interchangeable fleet of AEVs will increase to speeds of up to 150 mph outside of the LVCC campus.

Future expansions to augment LVCC Loop can include service extensions to McCarran International Airport, hotels on the Las Vegas Strip, Downtown Las Vegas, Las Vegas Stadium, and, in the long term, Los Angeles. Any future expansion would be designed with similar compatible construction infrastructure and AEVs, and would provide an express connection from the expansion site to LVCC Loop stations. Loop system extensions will operate at speeds of up to 150 mph. AEVs, which will be capable of moving between the LVCC Loop and Loop system extensions, will adjust speeds upon entering the LVCC Loop system to operate as a CWPM.

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Map of Potential Future Expansion



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Commitment to Inclusion

TBC is committed to the inclusion of minority-owned (MBE), women-owned (WBE), and veteran-owned (VBE) business enterprises located and operating in Clark County. TBC will demonstrate its commitment to inclusion through equal opportunity efforts; hiring locally; and, establishing a Workforce Advisory Board.

Equal Opportunity Efforts

TBC affirms that for any contract executed pursuant to this Proposal, MBE, WBE, and VBE firms will be afforded full and fair opportunity to work with TBC on this project. TBC will make the following specific efforts to ensure that MBEs, WBEs, and VBEs have an equal opportunity to compete for subcontracts:

- Prepare work scopes for each opportunity to ensure that the opportunity is consistently and fairly communicated to MBEs, WBEs, and VBEs; and,
- Provide sufficient bid solicitation time for preparation of proposals, quantities of specifications, and delivery schedules to facilitate participation.

Hiring Locally

TBC will hire locally to contribute to the positive economic impact to Las Vegas and Southern Nevada. TBC will host multiple job fairs with respect to construction work and operation, and maintenance employment. Additionally, TBC will use best efforts to participate in local job fairs relevant to either the construction or operation of LVCC Loop.

Workforce Advisory Board

TBC will establish a Workforce Advisory Board to provide community input and strategic guidance. The Workforce Advisory Board will be representative of the communities impacted by LVCC Loop, with membership likely drawn from:

- **Local community representatives:** TBC will partner with local community groups including those with expertise with regard to local MBEs, WBEs, and VBEs, to support the development of the local workforce.
- **Government officials:** TBC will engage with local government officials to understand the needs of community constituents.

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- **Clark County School District:** TBC will seek ways to support local STEM education and innovation by speaking with key education stakeholders in Clark County. To-date, TBC has hosted over 100 educational events for schools from throughout the country and will continue to offer similar opportunities in Clark County.

- **Higher Education:** TBC has already established a relationship with the UNLV College of Engineering to support internship programs for engineering students. TBC intends to build upon this relationship, particularly with respect to promoting women and minorities in the engineering and STEM fields. TBC will also explore apprenticeship opportunities with UNLV and the College of Southern Nevada.

TBC intends to work with the LVCVA to identify additional methods of demonstrating its commitment to inclusion.