Executive Committee Agenda

February 1, 2024

Click link to access the meeting:

https://us02web.zoom.us/j/94562188418

Zoom Meeting ID

Ways to Join

Computer: Click the link above. You will be prompted to run the Zoom browser or Zoom application. Once signed on to the meeting, you will have the option to join using your computer audio system or phone.

Webinar Features:

Raise Hand	▶	Use the **raise hand** feature every time you wish to make a public comment.
CC	▶	Participants can enable **closed captioning** by clicking the CC icon. You may also view the full transcript and change the font size by clicking 'subtitle settings'. These features are not available via phone.
	▶	This symbol shows you are **muted**, click this icon to unmute your microphone.
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	▶	The chat feature should be used by panelists and attendees solely for "housekeeping" matters as comments made through this feature will not be retained as part of the meeting record. See the **Live Verbal Public Comment** for instructions on how to make a public comment.

Smartphone or Tablet: Download the Zoom app and join the meeting by clicking the link or using the webinar ID (found in the link).

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1. If you are joining the meeting audio by phone and viewing the meeting on a device, dial the number provided in the 'join audio' phone call tab of the initial pop-up, and enter the Meeting ID (found in the link).
2. If you are joining by phone only, dial: **+1-669-900-9128** or **+1-253-215-8782** and type the meeting ID found in the link, press #. You will have access to the meeting audio, **but will NOT be able to view the PowerPoint presentations.**

Live Verbal Public Comments: Use the 'Raise Hand' icon every time you wish to make a public comment on an item. Raise your hand once the agenda item you wish to comment on has been called. In person public comments will be taken first, virtual attendees will be taken in the order in which they raise their hand. Requests to speak will not be taken after the public comment period ends, unless under the Chair's discretion. General Public Comment, at the beginning of the Board of Directors meeting only, will be limited to five speakers. Additional speakers with general public comments will be heard at the end of the meeting. Two-minutes of time is allotted per speaker, unless otherwise directed by the Chair.

Public Comments Made Via Zoom

1. Click the link found at the top of this instruction page
2. Click the raise hand icon located in the bottom center of the platform
3. The Clerk will announce your name when it is your turn to speak
4. Unmute yourself to speak

Public Comments Made by Phone Only

1. Dial **+1-669-900-9128**
2. Type in the zoom meeting ID found in the link and press #
3. Dial *9 to raise your hand via phone
4. The Clerk will call out the last 4 digits of your phone number to announce you are next to speak
5. Dial *6 to unmute yourself

Written Public Comments (before the meeting): Written public comments will be recorded in the public record and will be provided to MTS Board Members in advance of the meeting. Comments must be emailed or mailed to the Clerk of the Board* by 4:00pm the day prior to the meeting.

Translation Services: Requests for translation services can be made by contacting the Clerk of the Board* at least four working days in advance of the meeting.

In-Person Participation: In-person public comments will be heard first. Following in-person public comments, virtual attendees will be heard in the order in which they raise their hand via the Zoom platform. Speaking time will be limited to two minutes per person, unless specified by the Chairperson. Requests to speak will not be taken after the public comment period ends, unless under the Chair's discretion.

Instructions for providing in-person public comments:
1. Fill out a speaker slip located at the entrance of the Board Room;
2. Submit speaker slip to MTS staff seated at the entrance of the Board Room;
3. When your name is announced, please approach the podium located on the right side of the dais to make your public comments.

Members of the public are permitted to make general public comment at the beginning of the agenda or specific comments referencing items on the agenda during the public comment period. General Public Comment, at the beginning of the Board of Directors meeting only, will be limited to five speakers. Additional speakers with general public comments will be heard at the end of the meeting.

Assistive Listening Devices (ALDs): ALDs are available from the Clerk of the Board* prior to the meeting and are to be returned at the end of the meeting.

Reasonable Accommodations: As required by the Americans with Disabilities Act (ADA), requests for agenda information in an alternative format or to request reasonable accommodations to facilitate meeting participation, please contact the Clerk of the Board* at least two working days prior to the meeting.

***Contact Information:** Contact the Clerk of the Board via email at ClerkoftheBoard@sdmts.com, phone at **(619) 398-9681** or by mail at **1255 Imperial Ave. Suite 1000, San Diego CA 92101.**

Agenda del Comité Ejecutivo

1 de febrero 2024

Haga clic en el enlace para acceder a la reunión:

https://us02web.zoom.us/j/94562188418

ID de la reunión en Zoom

Formas de Participar

Computadora: Haga clic en el enlace más arriba. Recibirá instrucciones para operar el navegador de Zoom o la aplicación de Zoom. Una vez que haya iniciado sesión en la reunión, tendrá la opción de participar usando el sistema de audio de su computadora o teléfono.

Funciones del Seminario En Línea:

Levantar la mano	▶	Use la herramienta de **levantar la mano** cada vez que desee hacer un comentario público.
CC	▶	Los participantes pueden habilitar **el subtitulado** haciendo clic en el ícono CC. También puede ver la transcripción completa y cambiar el tamaño de letra haciendo clic en “configuración de subtítulos”. Estas herramientas no están disponibles por teléfono.
	▶	Este símbolo indica que usted se encuentra en **silencio**, haga clic en este ícono para quitar el silenciador de su micrófono.
	▶	Este símbolo indica que su micrófono se encuentra **encendido**. Haga clic en este símbolo para silenciar su micrófono.
	▶	La herramienta de chat deben usarla los panelistas y asistentes únicamente para asuntos “pertinentes a la reunión”, ya que comentarios realizados a través de esta herramienta no se conservarán como parte del registro de la reunión. Consulte el **Comentario público verbal** en vivo para obtener instrucciones sobre cómo hacer un comentario público.

Teléfono Inteligente o Tableta: Descargue la aplicación de Zoom y participe en la reunión haciendo clic en el enlace o usando el ID del seminario web (que se encuentra en el enlace).

Descarga en el App Store

Obténla en Google Play

Teléfono:

1. Si está participando en la reunión mediante audio de su teléfono y viendo la reunión en un dispositivo, marque el número indicado en la pestaña de llamada telefónica “unirse por audio” en la ventana emergente inicial e ingrese el ID de la reunión (que se encuentra en el enlace).
2. Si está participando solo por teléfono, marque: **+1-669-900-9128** o **+1-253-215-8782** e ingrese el ID de la reunión que se encuentra en el enlace, pulse #. Tendrá acceso al audio de la reunión, **pero NO podrá ver las presentaciones en PowerPoint.**

Comentarios Públicos Verbales en Vivo: Use la herramienta “levantar la mano” cada vez que desee hacer un comentario público sobre alguno de los artículos. Levante la mano una vez que el artículo de la agenda sobre el que desea comentar haya sido convocado. Los comentarios públicos en persona se escucharán primero, se escuchará a los asistentes virtuales en el orden en el que levanten la mano. No se aceptarán solicitudes para hablar después de que termine el periodo para hacer comentarios públicos, a menos de que el presidente determine de otra forma a su discreción. Comentarios públicos generales, únicamente al inicio de la reunión de la Junta de Directores, se limitarán a cinco personas que deseen hablar. Las personas adicionales que deseen aportar comentarios públicos generales podrán hacerlo al final de la reunión. Se otorga dos minutos de tiempo por persona que desee hablar, a menos de que el presidente instruya de otra forma. (*Consulte la página 2 para obtener instrucciones sobre cómo hacer un comentario público.*)

Comentarios Públicos a Través de Zoom

1. Haga clic en el enlace que se encuentra en la parte superior de esta página de instrucciones
2. Haga clic en el ícono de levantar la mano en el centro inferior de la plataforma
3. El secretario anunciará su nombre cuando sea su turno de hablar
4. Desactive el silenciador para que pueda hablar

Comentarios Públicos Realizados Únicamente por Teléfono

1. Marque el **+1-669-900-9128**
2. Ingrese el ID de la reunión en Zoom que se encuentra en el enlace y pulse #
3. Marque *9 para levantar la mano por teléfono
4. El secretario indicará los últimos 4 dígitos de su número de teléfono para anunciar que usted será el siguiente en hablar
5. Marque *6 para desactivar el silenciador

Comentarios Públicos por Escrito (Antes de la Reunión): Los comentarios públicos por escrito se registrarán en el registro público y se entregarán a los miembros de la Junta de MTS antes de la reunión. Los comentarios deben enviarse por correo electrónico o postal al secretario de la Junta* antes de las 4:00 p.m. el día anterior a la reunión.

Servicios de Traducción: Pueden solicitarse servicios de traducción comunicándose con el secretario de la Junta* por lo menos cuatro días hábiles antes de la reunión.

Participación en Persona: Los comentarios públicos en persona se escucharán primero. Después de los comentarios públicos en persona, se escuchará a los asistentes virtuales en el orden en el que levanten la mano a través de la plataforma de Zoom. El tiempo para hablar se limitará a dos minutos por persona, a menos de que el presidente especifique de otra forma. No se recibirán solicitudes para hablar después de que termine el periodo para hacer comentarios públicos, a menos de que el presidente determine de otra forma a su discreción.

Instrucciones para brindar comentarios públicos en persona:

1. Llene la boleta para personas que desean hablar que se encuentran en la entrada de la Sala de la Junta.
2. Entregue la boleta para personas que desean hablar al personal de MTS que se encuentra sentado en la entrada de la Sala de la Junta.
3. Cuando anuncien su nombre, por favor, acérquese al podio ubicado en el lado derecho de la tarima para hacer sus comentarios públicos.

Los miembros del público pueden hacer comentarios públicos generales al inicio de la agenda o comentarios específicos que hagan referencia a los puntos de la agenda durante el periodo de comentarios públicos. Los comentarios públicos generales únicamente al inicio de la reunión de la Junta de Directores, se limitarán a cinco personas que deseen hablar. Las personas adicionales que deseen aportar comentarios públicos generales podrán hacerlo al final de la reunión.

Dispositivos de Asistencia Auditiva (ALD, por sus siglas en inglés): Los ALD están disponibles con el secretario de la Junta* antes de la reunión y estos deberán ser devueltos al final de la reunión.

Facilidades Razonables: Según lo requerido por la Ley de Estadounidenses con Discapacidades (ADA, por sus siglas en inglés), para presentar solicitudes de información de la agenda en un formato alternativo o solicitar facilidades razonables para facilitar su participación en la reunión, por favor, comuníquese con el secretario de la Junta* por lo menos dos días hábiles antes de la reunión.

***Información de Contacto:** Comuníquese con el secretario de la Junta por correo electrónico en ClerkoftheBoard@sdmts.com, por teléfono al **(619) 398-9681** o por correo postal en **1255 Imperial Ave. Suite 1000, San Diego CA 92101.**

Metropolitan Transit System

Executive Committee

Agenda

February 1, 2024 at *9:00 a.m.

* This meeting will begin upon the adjournment of the AOC meeting,

In-Person Participation: James R. Mills Building, 1255 Imperial Avenue, 10th Floor Board Room, San Diego CA 92101

Teleconference Participation: (669) 444-9171; Webinar ID: 945 6218 8418, https://us02web.zoom.us/j/94562188418

NO.	ITEM SUBJECT AND DESCRIPTION	ACTION
1.	**Roll Call**	
2.	**Public Comments** This item has a two minute per speaker time limit. If you have a report to present, please give your copies to the Clerk of the Board.	
3.	**Approval of Minutes** Action would approve the December 7, 2023 Executive Committee meeting Minutes.	Approve
DISCUSSION AND REPORT ITEMS		
4.	**San Diego Transit Corporation (SDTC) Pension Investment Status (Jeremy Miller, with RVK Inc., and Mike Thompson)**	Informational
5.	**San Diego Transit Corporation (SDTC) Employee Retirement Plan's Actuarial Valuation as of July 1, 2023 (Anne Harper and Alice Alsberghe with Cheiron Inc., and Mike Thompson)** Action would forward a recommendation to the Board of Directors to receive the SDTC Employee Retirement Plan's (Plan) Actuarial Valuation as of July 1, 2023 and adopt the pension contribution amount of $20,174,660 for fiscal year 2025.	Approve
6.	**Equity Policy Update (Julia Tuer and Samantha Leslie)**	Informational
7.	**Overnight Downtown - Border Express Bus Service Implementation (Denis Desmond)**	Informational
8.	**Storm Damage Update and Authorization to Create a Program for Transit Assistance for Victims of Flooding (Brian Riley)** Action would receive a report on storm damage experienced by MTS, and authorize the Chief Executive Officer (CEO) to create a free transit pass program for eligible individuals who have lost the use of their vehicles due to the January 22, 2024 storm. MTS staff will work with partner agencies to identify additional funding and a process for getting the passes to eligible recipients.	Approve

OTHER ITEMS

9. Review of Draft February 8, 2024 MTS Board Agenda

10. Staff Communications and Committee Member Communications

11. Next Meeting Date: March 7, 2024 at 9:00 a.m.

12. Adjournment

967 3rd Street
Imperial Beach, CA 91932
January 29, 2024

Imperial Beach City Hall
825 Imperial Beach Blvd.
Imperial Beach, CA 91932

Beverly Neff
MTS Planning Department
1255 Imperial Avenue, Suite 1000

Re: Rapid Route 227

Dear Mayor Aguirre, City Councilmembers, City Manager Foltz, & Ms. Beverly Neff:

We want to thank all of you for your efforts to preserve the quality of life in our residential neighborhood by supporting moving the Rapid Route 227 off of 3rd Street.

We feel that this route is illegitimate. The encroachment permit was granted without benefit of outreach, notice to residents or community meeting, and without benefit of the Planning Commission approval. It can't be a valid permit and for these reasons, we are requesting the removal of the buses from 3rd Street NOW. Making residents wait from October to June or even worse, September is totally illegal and unfair and unreasonable. Our quality of life has been compromised, through no fault of our own. Our rights have been violated. Since the buses are empty, no one will miss it we would appreciate a quick solution.

We have had no update for over a month as to what is going on after being notified that the route would be moved. We feel it would be fair and necessary that we have weekly updates from the City in a good faith effort to repair the harm that has been caused to this neighborhood.

Related to this, we cannot support the new proposed bus route on 9th Street. While we think it great that the impacts to 9th Street would be much less since there would be no new bus stops or loss of parking, and shorter hours, the truth is, the route is NOT needed. I know that we suggested 9th Street months ago, but at that time, we had no idea that there was no need for the bus, that it would be empty most of the time, that they would be using diesel polluting buses, and that the outreach MTS claims to have done 5 years ago, was inadequate. I think there are no ridership numbers to support the continuance of this route. No one could have guessed that MTS would insist on running empty buses in IB, 4 times and hour, for 21 hours a day!

We also believe that it is wasteful and a huge folly for MTS to continue to plan for a bus stop and 3rd and IB Blvd, since the route is being moved. MTS must have serious problems if they can't right a wrong quickly, if they take parking and make useless bus stops, and can't see how unreasonable this is. It is sad, that when we need so many things, they are wasting taxpayer money.

We think it best that the City, **JUST SAY NO** to MTS and Rapid Route 227 in Imperial Beach.

Sincerely,

John & Lenora Porcella

From: W. M. Harris <mike619harris@yahoo.com>
Sent: Tuesday, January 30, 2024 8:33 AM
To: ClerkoftheBoard
Subject: 227 bus in IB

I don't know how long you need to experiment with bus route 227 in IB, to determine it's usefulness. My opinion, as an IB resident, is that this is an unneeded route. I am on Seacoast all the time, and I have observed a bus that is usually empty. There seems to be no use for this service. Come down and take a look for yourself, or look at your own data. A two-bus length contraption absent patronage.
I see a need for a connecting route that goes from, say, Iris trolley Station, to Otay Mesa, to service the community going to the cross-border airport. But to have this similar (227) route extend all the way to the beach, with virtually zero ridership west of highway 5, is ridiculous, and an indication that someone in your administration, in cahoots with clowns at IB City Hall, want to shove this down our throats.
We don't need this route! We have 933 and 934, and the one that goes from Iris trolley plaza, to downtown through IB and Coronado. That would suffice, in my opinion.
If it ain't broke, don't fix it!

William Mike Harris, Realtor - Notary
DRE # 01752948
Supv. BPA, Ret
SDC-IMB
http://www.BorderPatrolTours.com

George Orwell: *People sleep peaceably in their beds at night* only because rough men stand ready to do violence on their behalf.

MINUTES

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM

EXECUTIVE COMMITTEE

December 7, 2023

[Clerk's note: Except where noted, public, staff and board member comments are paraphrased. The full comment can be heard by reviewing the recording at the MTS website.]

1. Roll Call

Chair Whitburn called the Executive Committee meeting to order at 9:01 a.m. A roll call sheet listing Executive Committee member attendance is attached.

2. Public Comment

Alex Wong – Provided a verbal statement to the Board during the meeting. Alex expressed support for the people mover airport connection concept and emphasized frequency as a priority.

3. Approval of Minutes

Board Member Hall moved to approve the minutes of the November 2, 2023, MTS Joint Meeting of the Executive and Budget Development Committee meeting. Vice Chair Goble seconded the motion, and the vote was 4 to 0 in favor with Board Member Elo-Rivera, Board Member Montgomery Steppe and Board Member Bush absent.

DISCUSSION ITEMS

4. 2024 Legislative Program (Julia Tuer, Mark Watts, Peter Peyser)

Julia Tuer, MTS Manager of Government Affairs, Mark Watts, MTS State Legislative Representative and Peter Peyser, MTS Federal Legislative Representative, presented on the proposed 2024 Legislative Program. They outlined: legislative priorities, 2023 recap, 2024 proposals, state and federal legislative updates and staff recommendation.

Committee Comment

Board Member Elo-Rivera asked that there be language related to public restrooms. He asked that language be broadened to include direct funding for the operation of public restrooms and supporting cost recovery measures for public bathroom access. He did not think that the entire responsibility for providing public restroom access should fall on MTS and stated that the more municipalities are able to provide access, the more likely it is that a robust network is able to serve riders. Ms. Tuer stated that the language change would be added to the final recommendation presented to the Board. Sharon Cooney, MTS Chief Executive Officer, asked if similar language was included in the City's Legislative Program. Board Member Elo-Rivera confirmed it was.

Chair Whitburn asked Mr. Watts to clarify an earlier comment about SB 125 funding being vulnerable to reallocation by the state to address the deficit. Mr. Watts acknowledged a cautionary note that since Transit and Intercity Rail Capital Program (TRICP) was under a general fund and not protected like State Transit Assistance (STA) and Transportation Development Act (TDA) funds, there could be a chance that general fund allocations are re-directed or re-prioritized. He did not anticipate claimed funds to be reallocated, however unclaimed funds could be at risk.

Board Member Moreno asked Mr. Watts to clarify Senator Weiner's action noted in the presentation. Mr. Watts clarified that he conducted his select committee on Bay Area transit. He intended to assemble a Bay Area funding program, which would generate new tax revenues for transit purposes. Mr. Watts believed that if that initiative became a bill, it would not benefit other areas in the state, since the action would be specific to that region. Board Member Moreno noted her limited knowledge about the committee and stated she would ask additional questions to staff offline. Ms. Cooney added that Bay Area transit operators are in more dire straits compared to San Diego, and the intent of the proposal is to assist that region. Board Member Moreno stated that MTS should not be punished for managing the system correctly. Mr. Watts added that the select committee is a special type of committee that is designed to frame future potential legislation or regulatory changes and cannot adopt anything other than recommendations.

Action Taken

Board Member Hall moved to forward a recommendation to the Board of Directors to approve the 2024 Legislative Program with the inclusion of an amendment to item 20 in the Program to state: "Seek direct funding for the operation of public restrooms and support cost-recovery measures for public restroom access." Board Member Elo-Rivera seconded the motion, and the vote was 6 to 0 in favor, with Board Member Montgomery Steppe absent.

5. Senate Bill (SB) 125 Allocation Package (Denis Desmond)

Denis Desmond, MTS Director of Planning, presented on the proposed SB 125 Allocation Package. He outlined: state budget, legislative intent, social equity details, Zero Emission Transit Capital Program (ZETCP) proposed projects, Transit and Intercity Rail Capital Program (TIRCP) proposed projects, and staff's recommendation.

Public Comment

San Diego Transportation Equity Working Group (SDTEWG) – Representing CASA Familiar, Center on Policy Initiatives, City Heights CDC, Environmental Health Coalition, Mid-City CAN and San Diego 350 made a written statement to the Board prior to the meeting.

Carolina Martinez – Representing Environmental Health Coalition made a verbal statement to the Board during the meeting. Carolina requested that proposed frequency improvements and 24-hour bus service be implemented by FY25. Carolina noted the driver hiring and retention challenges and asked that the Board address hiring obstacles in preparation for the incorporation of additional services.

Committee Comment

Board Member Moreno noted that based on the previous presentation, transit funding may be in jeopardy. She highlighted the transparency requirements, noted MTS's equity efforts and thanked staff. Board Member Moreno noted that the sample package was not available during the SDTEWG meeting and stated that the attachment was not available the night before. She asked staff if the package was available to SDTEWG for the meeting. Mr. Desmond replied that the November sample package was available for the group's reference and that a detailed review of bus routes was not a talking point in the meeting. Based on community feedback, Board Member Moreno asked for the implementation of the overnight buses from Downtown to the Border to be accelerated to FY25. Mr. Desmond replied that the funding would be available, and that the agency does have flexibility to re-prioritize projects, although there are driver resource issue limitations. Board Member Moreno asked staff about their strategy to address the ongoing driver shortage. Ms. Cooney noted aggressive recruiting strategies and additional recruiter positions slated for Board approval for additional HR staff. Ms. Cooney clarified that the shortage is a concern, but not as alarming as it once was. She also added that the overnight downtown service is new and will still need to go through the Federal process of public vetting and input period. Board Member Moreno asked about the timeline for the process, and staff replied that an aggressive timeline would take approximately six months. Board Member Moreno asked that an agenda item to explain the driver shortage be presented to the Board and that that public outreach and transparency at MTS will need to improve.

Chair Whitburn confirmed that an update on the driver shortage can be placed on the agenda at a future meeting for discussion.

Board Member Bush asked if the driver shortage discussion was intended to be part of the motion. Board Member Moreno stated that it was not necessary. He asked if the border to downtown bus line would effectively make the line 24-hour service. Mr. Desmond added that currently there is 24-hour service to the Border however, it is local service and the proposed service would mirror the trolley route. Board Member Bush asked that the bus line be advanced as much as possible and reiterated the importance of addressing the driver shortage.

Chair Whitburn thanked MTS staff for bringing the opportunity forward and Ms. Cooney for creating such an opportunity.

Board Member Elo-Rivera asked staff to clarify if Board Member Montgomery Steppe should be counted as absent. Ms. Cooney stated that Board Member Montgomery Steppe was appointed to the MTS Board of Directors concurrently with her appointment to the Board of Supervisors. Board Member Bush asked if she was part of the Executive Committee, and Ms. Cooney confirmed that under Policy 22, the County position has membership on the Executive Committee.

Action Taken

Board Member Moreno moved to forward a recommendation to the Board of Directors to approve the SB 125 Allocation Package. Board Member Bush seconded the motion, and the vote was 6 to 0 in favor with Board Member Montgomery Steppe absent.

OTHER ITEMS (TAKEN OUT OF ORDER):

8. Review of Draft December 14, 2023 Board Agenda

Recommended Consent Items

3. **Approval of Minutes**
Action would approve the November 9, 2023 Board of Directors meeting minutes.

4. **San Diego and Arizona Eastern (SD&AE) Railway Company Board of Directors Meeting on October 17, 2023 – Report Update**
Action would receive the reports to the SD&AE Board of Directors at its meeting on October 17, 2023 for the San Diego and Imperial Valley Railroad (SD&IV), Pacific Southwest Railway Museum Association (Museum), and Desert Line activities for information.

5. **PRONTO Extend Pilot Program – Pilot Extension**
Action would approve a six-month extension of the PRONTO Extend Pilot Program, extending the pilot until June 30, 2024.

6. **Approve the Fiscal Year (FY) 2023-24 State Transit Assistance (STA) Claim and STA Interest Claim**
Action would adopt Resolution No. 23-12 approving the FY 2023-24 STA claim.

7. **Clean California Local Grant Program (Cycle 2) Beyer Blvd Pathway Beautification –Grant Project Funding Determination Project is Exempt from Environmental Review under the California Environmental Quality Act and approval of Project**
Action would approve Resolution No. 23-13 in order to: 1) Authorize the use of FY 2023-24 Clean California grant funding in the amount of, $1,604,000 for the Beyer Blvd Pathway Beautification Project; and 2) Authorize $535,000 in local match funding for the Beyer Blvd Pathway Beautification Project and 3) Determine that Project is exempt from environmental review under the California Environmental Quality Act; and 4) Approve the Project.

8. **Clean California Local Grant Program (District Transit Partnership Program) South Bay Transit Beautification – Grant Project Funding**
Action would approve Resolution No. 23-14 in order to authorize the use of FY 2023-24 Clean California grant funding in the amount of $1,001,000 for the South Bay Transit Beautification Project.

9. **SD100 Light Rail Vehicle (LRV) Replacement Project – Funds Transfer**
Action would 1) Approve the transfer of Federal Transit Administration (FTA) Section 5337 funding in the amount of $2,640,000 from the Downtown Parallel Cable Project to the SD100 LRV Replacement Project; and 2) Approve the transfer of FTA Section 5337 funding in the amount of $851,766 from the A-Yard Catenary Replacement Project to the SD100 LRV Replacement Project to continue the 47 Siemens SD10 LRV vehicle replacement.

10. **Amendments to County and MTS Sublease (Mills Building)**
Action would authorize the Chief Executive Officer (CEO) to execute an Amendment to Sublease between MTS and the County of San Diego (County) related to the Mills Building located at 1255 Imperial Avenue in San Diego.

11. **Addition of Six (6) Full Time Equivalent Positions: Capital Projects, Procurement and Human Resources Departments – Additional Staffing**
Action would authorize the Chief Executive Officer (CEO) to add two (2) Project Managers, two (2) Procurement Specialists and two (2) Talent Acquisition Specialists to the position tables previously approved in the Fiscal Year 2024 budget.

12. **Addition of One (1) Full Time Equivalent Position: Information Technology (IT) Department – Additional Staffing**
Action would authorize the Chief Executive Officer (CEO) to add one (1) ETL Developer to the position tables for the IT Department previously approved in the Fiscal Year 2024 budget.

13. **Addition of Four (4) Full Time Equivalent Positions and Conversion of Five (5) Part Time Positions to Full Time Status: San Diego Trolley Inc. (MTS Rail Division) – Additional Staffing**
Action would approve the creation of Four (4) Roadway Worker Supervisor positions and Conversion of Five (5) Part-Time Train Operator positions to Full-Time in the Rail Division position tables previously approved in the Fiscal Year 2024 budget.

14. **Wheel Truing Machine – Sole Source Contract Award**
Action would authorize the Chief Executive Officer (CEO) to execute MTS PWL369.0-23, with NSH USA Corporation (NSH) for the purchase and installation of a Hegenscheidt U2000-150 Under-Floor Wheel-Truing Machine in the amount of $2,152,578.00.

15. **SD8 Power Axles Overhaul - Sole Source Contract Award**
Action would authorize the Chief Executive Officer (CEO) to: 1) Execute MTS Doc. No. L1647.0-23 with Siemens Mobility, Inc. at $15,477,856.50 (including sales tax), to overhaul two-hundred and sixty-nine (269) power axles on the entire fleet of SD8 vehicles, over the next seven (7) years; and 2) Approve a 20% Contingency of up to $3,095,571.30 for any out of scope repair needs that are discovered during the overhaul process.

16. **MTS Collateral Distribution Services – Contract Award**
Action would authorize the Chief Executive Officer (CEO) to: 1) Execute MTS Doc. G2840.0-24, with Certified Folder Display Service, Inc. (Certified Folder), for Collateral Distribution Services for a four (4) year base period with two (2) 1-year options for a total cost of $182,360.16; and 2) Exercise the option years at the CEO’s discretion.

17. **Non-Revenue Vehicles - Body Shop Repairs – Contract Award**
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc No. G2758.0-23, with Carlos Guzman, Inc. (Guzman), a Disadvantage Business Enterprise (DBE), for the provision of non-revenue vehicles body shop repairs services for five (5) years, for a total of $623,765.24.

18. **A-Yard Asphalt Resurfacing and Repairs – Work Order Agreement**
Action would authorize the Chief Executive Officer (CEO) to execute Work Order MTSJOC347-27 under Job Order Contract (JOC) to MTS Doc. No. PWG347.0-22, with ABC General Contractor, Inc. (ABCGC), in the amount of $578,092.38 for the resurfacing and repair of the asphalt at the San Diego Trolley Inc. (SDTI) Facilities Maintenance A-Yard (A-Yard).

19. **Blue Line Right of Way Retaining Wall – Work Order Amendment**
Action would authorize the Chief Executive Officer (CEO) to execute Change Order (CCO) 2 to Work Order No. MTSJOC348-01.02 under Job Order Contract (JOC) MTS Doc. No. PWG348.0-22 with Veterans Engineering Inc. (Veterans) in the amount of $865,530.74 for the additional sheet pile depth and thickness required for the installation of 550 linear feet of a new sheet pile retaining wall near Switch 85 along the Blue Line Right of way.

20. **Closed Circuit Television (CCTV) Maintenance Services – Contract Amendment**
Action would 1) Ratify Amendment 2 to MTS Doc. No. PWG335.0-21 with Electro Specialty Systems (ESS), a Small Business (SB), in the amount of $125,000.00; and 2) Authorize the Chief Executive Officer (CEO) to execute Amendment 3 to MTS Doc. No. PWG335.0-21 with ESS, in the amount of $1,526,933.47, for a total of $1,651,933.47.

21. **Mt. Soledad Radio Lease – Contract Amendment**

22. **Janitorial Services Supplies – Contract Award**
Action would authorize the Chief Executive Officer (CEO) to: 1) Execute MTS Doc. No. G2835.0-24 with Interboro Packaging Corporation (Interboro) to furnish janitorial supplies for five (5) years in the amount of $17,305.15; 2) Execute MTS Doc. No. G2836.0-24 with Pacific Star Corporation (Pacific Star) to furnish janitorial supplies for five (5) years in the amount of $61,020.06; 3) Execute MTS Doc. No. G2837.0-24 with Supply Solutions to furnish janitorial supplies for five (5) years in the amount of $570,710.89; 4) Execute MTS Doc. No. G2838.0-24 with Waxie Sanitary Supply (Waxie) to furnish janitorial supplies for five (5) years in the amount of $1,873,707.02; for a grand total of $2,718,255.71.

23. **Disadvantaged Business Enterprise (DBE) Awards and Payments – Semiannual Uniform Report**

STAFF COMMENTS

Ms. Cooney added that the Project Labor Agreement (PLA) contract would be part of the December Board Meeting. She asked if the PLA and legislative program items could be placed under consent. Karen Landers, MTS General Counsel, noted that there was clarifying language incorporated in the PLA contract, based on the Executive Committee's feedback in September. Ms. Cooney gave the committee a synopsis of the draft consent calendar and Ms. Landers noted the additional consent items that included the STA claim, opening of an investment account, and additional fixed-route and paratransit bus services salary adjustments.

9. Other Staff Communications and Business

There was no Other Staff Communications and Business discussion.

10. Committee Member Communications and Other Business

There was no Committee Member Communications and Other Business discussion.

11. Next Meeting Date

The next Executive Committee meeting is scheduled for January 11, 2024, at 9:00 a.m.

CLOSED SESSION (TAKEN OUT OF ORDER):

The Committee convened to Closed Session at 10:59 a.m.

6. Conference with Legal Counsel—Anticipated Litigation
Significant exposure to litigation pursuant to Government Code Section 54956.9(d)(2) and (e)(5): (1 Potential Case)

7. Closed Session – Conference with Legal Counsel – Existing Litigation Pursuant to California Government Code Section 54956.9(d)(1)
Grecia Figueroa v Nathan Fletcher, San Diego Metropolitan Transit System, et al.
San Diego Superior Court Case No. 37-2023-00012828-CU-OE-CTL

The Committee reconvened to Open Session at 11:53 a.m.

Karen Landers, General Counsel, reported the following oral report of final actions taken in Closed Session:

6. The Executive Committee received a report from legal counsel.

7. The Executive Committee received a report from legal counsel.

12. Adjournment

The meeting was adjourned at 11:56 a.m.

Chairperson San Diego Metropolitan Transit System	Clerk of the Board San Diego Metropolitan Transit System

Attachment: Roll Call Sheet

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
EXECUTIVE COMMITTEE

ROLL CALL

MEETING OF (DATE):	December 7, 2023	CALL TO ORDER (TIME):	9:01 a.m.
RECESS:		RECONVENE:	
CLOSED SESSION:	10:59 a.m.	RECONVENE:	11:53 a.m.
PUBLIC HEARING:		RECONVENE:	
ORDINANCES ADOPTED:		ADJOURN:	11:56 a.m.

REPRESENTING	BOARD MEMBER		ALTERNATE		PRESENT (TIME ARRIVED)	ABSENT (TIME LEFT)
Chair	Whitburn	☒	No Alternate	☐	9:01 a.m.	11:54 a.m.
City of San Diego	Elo-Rivera	☒	Vacant	☐	9:06 a.m.	11:54 a.m.
County of San Diego	Montgomery Steppe	☐	Vargas	☐	ABSENT	ABSENT
East County	Hall	☒	Frank	☐	9:01 a.m.	11:54 a.m.
SANDAG Transportation Committee	Moreno	☒	Bush	☐	9:01 a.m.	11:54 a.m.
South Bay	Bush	☒	Leyba-Gonzalez	☐	9:06 a.m.	11:54 a.m.
Vice Chair	Goble	☒	No Alternate	☐	9:01 a.m.	11:54 a.m.

SIGNED BY THE CLERK OF THE BOARD: /S/ Dalia Gonzalez

Agenda Item No. 4

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
EXECUTIVE COMMITTEE

February 1, 2024

SUBJECT:

San Diego Transit Corporation (SDTC) Pension Investment Status (Jeremy Miller, with RVK Inc., and Mike Thompson)

INFORMATION ONLY

Budget Impact

None at this time.

DISCUSSION:

San Diego Metropolitan Transit System (MTS) was created by state statute in 1975. Over the following two decades, MTS assumed responsibility for all public transit services within our jurisdictional area. This was achieved by MTS bringing three distinct entities under the MTS umbrella: MTS (administration employees such as Human Resources (HR), Finance, Planning, Marketing, Legal, Internal Audit, Information Technology (IT), Security, Capital Projects, and the Executive Office), San Diego Trolley, Inc. (SDTI) (employees operating and maintaining the trolley system), and SDTC (employees operating and maintaining the bus system). Members of the MTS Board also serve as members of the governing boards for SDTI and SDTC. MTS Board meetings are considered consolidated meetings of all three entities.

MTS and SDTI employees participate in the statewide California Public Employee Retirement System (CalPERS). However, legacy SDTC employees participate in a private retirement plan that was created before the City of San Diego transferred the SDTC entity to MTS.

Today's presentation will relate to the private SDTC Employee Retirement Plan (Plan) that MTS is responsible for. The Plan has a pool of investments to fund the current and future pension benefit of the Plan members. In 2012, the Plan was closed to new members.

The Plan's investment advisor, Jeremy Miller from RVK, will provide the Board of Directors with an update as to the performance of the Plan as well as general capital market performance. RVK's pension investment performance analysis (Attachment A) for the Plan as of June 30, 2023, includes assets with a market value of $184.4 million. During fiscal year 2023, the Plan's assets increased by approximately $6.9 million, primarily due to positive market investment performance partially offset by benefit payments to retirees.

The Plan's ten products achieved a combined investment return of 7.0% for the year. The Plan's returns over the past three, five and ten years were 5.0%, 4.2% and 4.8% respectively. Since inception (10/1/1982), the Plan's investments have returned 8.4%. The current actuarial target for the Plan is 6.0%.

/S /Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. RVK Pension Investment Performance Analysis

Monthly Investment Performance Analysis

San Diego Transit Corporation

Employees Retirement Plan

Period Ended: June 30, 2023

Capital Markets Review

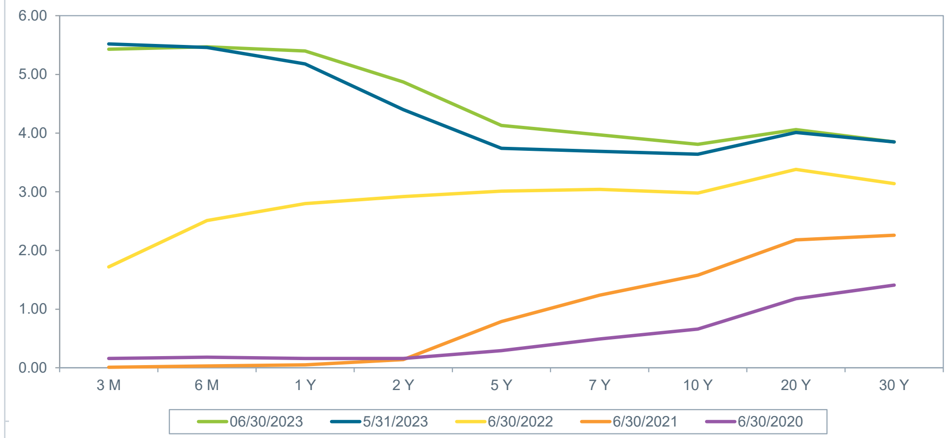
As of June 30, 2023

General Market Commentary

- Global equity markets experienced positive results in June, with most US and international indexes posting mid-single digit returns for the month. Stocks traded higher largely due to encouraging inflation news and optimism of a soft landing for the US economy.
- Inflation continued to moderate, with year-over-year inflation as of May 2023 coming in at 4.00%, its lowest reading in two years and significantly lower than the 9.10% pandemic-era peak in June 2022.
- The Fed decided to pause interest rate hikes at their June meeting, following ten consecutive interest rate hikes. However, given Fed Chair Powell's comments, additional rate hikes are expected this year as the Fed attempts to continue to bring inflation down to the 2.00% target.
- Equity markets posted positive returns in June as the S&P 500 (Cap Wtd) Index returned 6.61% and the MSCI EAFE (Net) Index returned 4.55%. Emerging markets returned 3.80%, as measured by the MSCI EM (Net) Index.
- The Bloomberg US Aggregate Bond Index returned -0.36% in June, outperforming the -0.93% return by the Bloomberg US Treasury Intermediate Term Index. International fixed income markets returned 0.53%, as measured by the FTSE Non-US World Gov't Bond Index.
- Public real estate returned 5.15% in June and 4.55% over the trailing five-year period, as measured by the FTSE NAREIT Eq REITs Index (TR).
- The Cambridge US Private Equity Index returned -0.52% for the trailing one-year period and 16.16% for the trailing five-year period ending March 2023.
- Absolute return strategies returned 1.16% for the month and 3.67% over the trailing one-year period, as measured by the HFRI FOF Comp Index.
- Crude oil's price increased by 3.75% during the month but has decreased by 33.21% YoY.

Economic Indicators	Jun-23		May-23	Jun-22	10 Yr	20 Yr
Federal Funds Rate (%)	5.08	—	5.08	1.58	1.01	1.39
Breakeven Inflation - 5 Year (%)	2.17	▲	2.14	2.62	1.89	1.94
Breakeven Inflation - 10 Year (%)	2.21	▼	2.23	2.34	1.97	2.09
Breakeven Inflation - 30 Year (%)	2.23	▼	2.29	2.21	2.03	2.26
Bloomberg US Agg Bond Index - Yield (%)	4.81	▲	4.59	3.72	2.53	3.23
Bloomberg US Agg Bond Index - OAS (%)	0.49	▼	0.55	0.55	0.47	0.59
Bloomberg US Agg Credit Index - OAS (%)	1.14	▼	1.28	1.43	1.18	1.38
Bloomberg US Corp: HY Index - OAS (%)	3.90	▼	4.59	5.69	4.28	4.96
Capacity Utilization (%)	N/A	N/A	79.58	79.84	77.34	77.09
Unemployment Rate (%)	3.60	▼	3.70	3.60	5.05	5.94
PMI - Manufacturing (%)	46.00	▼	46.90	53.00	54.25	53.61
Baltic Dry Index - Shipping	1,091	▲	977	2,240	1,365	2,405
Consumer Conf (Conf Board)	109.70	▲	102.30	98.40	107.29	91.95
CPI YoY (Headline) (%)	3.00	▼	4.00	9.10	2.68	2.56
CPI YoY (Core) (%)	4.80	▼	5.30	5.90	2.69	2.30
PPI YoY (%)	-3.10	▼	-0.90	18.30	2.78	3.08
M2 YoY (%)	N/A	N/A	-4.00	5.60	7.66	6.86
US Dollar Total Weighted Index	119.89	▼	121.23	121.05	111.61	103.57
WTI Crude Oil per Barrel ($)	71	▲	68	106	65	69
Gold Spot per Oz ($)	1,906	▼	1,958	1,807	1,458	1,199

Treasury Yield Curve (%)



Treasury Yield Curve (%)	Jun-23	May-23	Jun-22	Jun-21	Jun-20
3 Month	5.43	5.52	1.72	0.01	0.16
6 Month	5.47	5.46	2.51	0.03	0.18
1 Year	5.40	5.18	2.80	0.05	0.16
2 Year	4.87	4.40	2.92	0.14	0.16
5 Year	4.13	3.74	3.01	0.79	0.29
7 Year	3.97	3.69	3.04	1.24	0.49
10 Year	3.81	3.64	2.98	1.58	0.66
20 Year	4.06	4.01	3.38	2.18	1.18
30 Year	3.85	3.85	3.14	2.26	1.41

Market Performance (%)	MTD	QTD	CYTD	1 Yr	3 Yr	5 Yr	7 Yr	10 Yr
S&P 500 (Cap Wtd)	6.61	8.74	16.89	19.59	14.60	12.31	13.38	12.86
Russell 2000	8.13	5.21	8.09	12.31	10.82	4.21	8.76	8.26
MSCI EAFE (Net)	4.55	2.95	11.67	18.77	8.93	4.39	6.88	5.41
MSCI EAFE SC (Net)	2.89	0.58	5.53	10.18	5.70	1.30	5.74	6.19
MSCI EM (Net)	3.80	0.90	4.89	1.75	2.32	0.93	4.95	2.95
Bloomberg US Agg Bond	-0.36	-0.84	2.09	-0.94	-3.97	0.77	0.44	1.52
ICE BofAML 3 Mo US T-Bill	0.46	1.17	2.25	3.59	1.27	1.55	1.37	0.98
NCREIF ODCE (Gross)	-2.68	-2.68	-5.77	-9.98	7.99	6.50	6.97	8.74
FTSE NAREIT Eq REITs Index (TR)	5.15	2.62	5.37	-0.13	8.91	4.55	3.49	6.42
HFRI FOF Comp Index	1.16	1.52	2.27	3.67	5.04	3.32	4.03	3.39
Bloomberg Cmdty Index (TR)	4.04	-2.56	-7.79	-9.61	17.82	4.73	3.41	-0.99

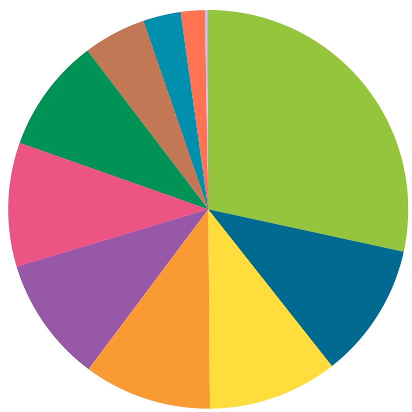
NCREIF performance is reported quarterly; MTD and QTD returns are shown as "N/A" on interim-quarter months and until available. Data shown is as of most recent quarter-end. Treasury data courtesy of the US Department of the Treasury. Economic data courtesy of Bloomberg Professional Service. The previous month's CPI YoY is used as a proxy for the current YoY return until it becomes available.

San Diego Transit Corporation Employees Retirement Plan
AA by Manager, AA vs. Target, and Schedule of Investable Assets

As of June 30, 2023

Asset Allocation by Manager

June 30, 2023 : $184,393,142

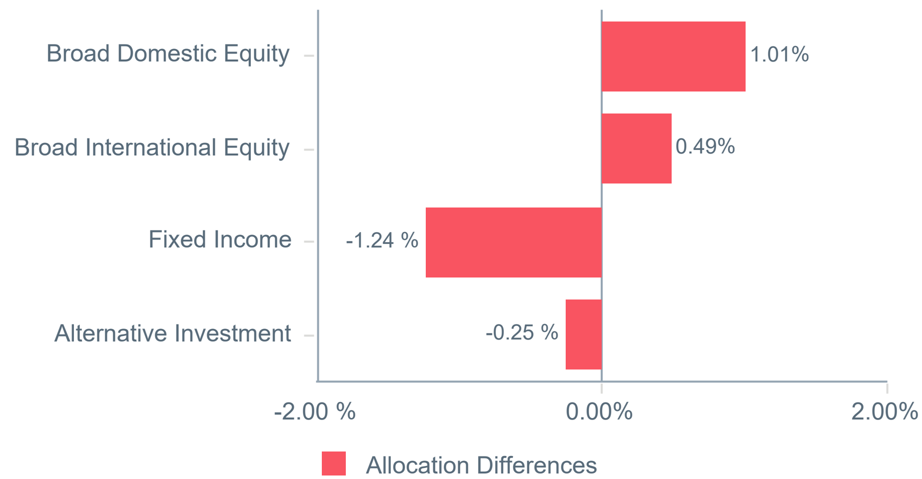


	Market Value ($)	Allocation (%)
Vanguard Tot Bd;Inst (VBTIX)	52,386,975	28.41
Westwood Qual ACp;Ultra (WQAUX)	20,235,190	10.97
PIMCO:All Ast Ath;Inst (PAUIX)	19,338,223	10.49
PIMCO:RAE GlxUS;Inst (PZRIX)	19,056,990	10.33
MFS Intl Grth Cl 2 (CIT)	18,717,335	10.15
Systematic Edge US Low Volatility (CF)	18,547,689	10.06
GMO:Bchmk-Fr All;III (GBMFX)	17,070,830	9.26
Vanguard Infl-Prot;Adm (VAIPX)	9,355,963	5.07
Newton TBC US SMID Cap Grth Eq (CF)	5,588,952	3.03
Fidelity US Sustainability Index Fund (FITLX)	3,582,321	1.94
Disbursement Account	302,806	0.16
Contribution Account	209,869	0.11

Asset Allocation vs. Target Allocation

	Market Value ($)	Allocation (%)	Target (%)
Broad Domestic Equity	47,954,152	26.01	25.00
Broad International Equity	37,774,324	20.49	20.00
Fixed Income	62,255,612	33.76	35.00
Alternative Investment	36,409,053	19.75	20.00
Total Fund	184,393,142	100.00	100.00

Asset Allocation vs. Target Allocation Differences



Schedule of Investable Assets

Periods Ending	Beginning Market Value ($)	Net Cash Flow ($)	Gain/Loss ($)	Ending Market Value ($)	% Return
FYTD	**177,508,436**	**-5,330,407**	**12,215,112**	**184,393,142**	**6.97**

Performance shown is gross of fees. Market values and performance are preliminary and subject to change. Allocations shown may not sum up to 100% exactly due to rounding. Fiscal year ends 06/30.

San Diego Transit Corporation Employees Retirement Plan
Asset Allocation & Performance

As of June 30, 2023

	Allocation		Performance (%)											
	Market Value ($)	%	MTD	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	Since Incep.	Inception Date
San Diego Transit Total Fund	**184,393,142**	**100.00**	**2.81**	**1.14**	**4.99**	**6.97**	**5.00**	**4.23**	**4.79**	**-10.44**	**8.36**	**8.88**	**8.42**	**10/01/1982**
Policy Index			3.18	2.89	8.37	8.80	4.46	4.93	5.19	-15.80	8.87	13.05	8.65	
Difference			-0.37	-1.75	-3.38	-1.83	0.54	-0.70	-0.40	5.36	-0.51	-4.17	-0.23	
Domestic Equity	**47,954,152**	**26.01**	**5.34**	**2.26**	**3.77**	**10.37**	**11.16**	**7.86**	**9.82**	**-7.18**	**16.35**	**13.11**	**7.81**	**03/01/2005**
Russell 3000 Index			6.83	8.39	16.17	18.95	13.89	11.39	12.34	-19.21	25.66	20.89	9.46	
Difference			-1.49	-6.13	-12.40	-8.58	-2.73	-3.53	-2.52	12.03	-9.31	-7.78	-1.65	
International Equity	**37,774,324**	**20.49**	**4.92**	**3.64**	**11.78**	**18.15**	**11.34**	**6.17**	**7.12**	**-11.49**	**12.03**	**9.68**	**4.66**	**03/01/2005**
MSCI ACW Ex US Index (USD) (Net)			4.49	2.44	9.47	12.72	7.22	3.52	4.75	-16.00	7.82	10.65	4.63	
Difference			0.43	1.20	2.31	5.43	4.12	2.65	2.37	4.51	4.21	-0.97	0.03	
Fixed Income	**62,255,612**	**33.76**	**-0.37**	**-0.96**	**2.17**	**-0.97**	**-3.83**	**0.80**	**1.41**	**-13.01**	**-1.42**	**7.74**	**3.68**	**03/01/2005**
Bloomberg US Agg Bond Index			-0.36	-0.84	2.09	-0.94	-3.97	0.77	1.52	-13.01	-1.55	7.51	3.03	
Difference			-0.01	-0.12	0.08	-0.03	0.14	0.03	-0.11	0.00	0.13	0.23	0.65	
Alternative Investment	**36,409,053**	**19.75**	**3.01**	**0.73**	**4.71**	**5.94**	**5.68**	**2.90**	**2.35**	**-9.27**	**10.98**	**2.11**	**2.40**	**05/01/2007**
Alternative Investment Custom Index			3.48	3.07	8.82	9.25	4.53	4.62	3.82	-17.33	8.78	14.05	2.29	
Difference			-0.47	-2.34	-4.11	-3.31	1.15	-1.72	-1.47	8.06	2.20	-11.94	0.11	

Performance shown is gross of fees. Market values and performance are preliminary and subject to change. Fiscal year ends 06/30. Inception dates shown represent the first full month following initial funding.

San Diego Transit Corporation Employees Retirement Plan
Comparative Performance

As of June 30, 2023

	MTD	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	Since Incep.	Inception Date
San Diego Transit Total Fund	**2.81**	**1.14**	**4.99**	**6.97**	**5.00**	**4.23**	**4.79**	**-10.44**	**8.36**	**8.88**	**8.42**	**10/01/1982**
Policy Index	3.18	2.89	8.37	8.80	4.46	4.93	5.19	-15.80	8.87	13.05	8.65	
Difference	-0.37	-1.75	-3.38	-1.83	0.54	-0.70	-0.40	5.36	-0.51	-4.17	-0.23	
Westwood Qual ACp;Ultra (WQAUX) (1)	**5.88**	**2.61**	**3.94**	**11.91**	**15.67**	**8.99**	**10.03**	**-4.89**	**23.36**	**9.02**	**10.57**	**07/01/1986**
Russell 3000 Val Index (2)	6.72	4.03	4.98	11.22	14.38	7.79	9.09	-7.98	25.37	2.87	9.68	
Difference	-0.84	-1.42	-1.04	0.69	1.29	1.20	0.94	3.09	-2.01	6.15	0.89	
Systematic Edge US Low Volatility (CF)	**4.01**	**0.17**	**-0.46**	**6.28**	**8.46**	**7.91**	**9.45**	**-2.85**	**15.69**	**6.63**	**9.94**	**10/01/2012**
MSCI US Min Vol Index (USD) (Net)	4.48	2.50	3.68	7.37	8.35	8.42	10.21	-9.67	20.43	5.09	10.52	
Difference	-0.47	-2.33	-4.14	-1.09	0.11	-0.51	-0.76	6.82	-4.74	1.54	-0.58	
Russell 1000 Index	6.75	8.58	16.68	19.36	14.09	11.92	12.64	-19.13	26.45	20.96	13.09	
Difference	-2.74	-8.41	-17.14	-13.08	-5.63	-4.01	-3.19	16.28	-10.76	-14.33	-3.15	
Fidelity US Sustainability Index Fund (FITLX)	**6.65**	**8.80**	**17.65**	**18.71**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**7.80**	**05/01/2022**
MSCI US ESG Leaders Index (USD) (Gross)	6.64	8.78	17.68	18.70	14.40	12.88	12.55	-20.21	31.73	18.84	7.82	
Difference	0.01	0.02	-0.03	0.01	N/A	N/A	N/A	N/A	N/A	N/A	-0.02	
Newton TBC US SMID Cap Grth Eq (CF)	**7.07**	**4.18**	**10.66**	**15.21**	**-0.70**	**7.75**	**11.79**	**-32.84**	**-3.24**	**70.19**	**15.05**	**04/01/2009**
Russell 2500 Grth Index	7.89	6.41	13.38	18.58	6.56	7.00	10.38	-26.21	5.04	40.47	14.52	
Difference	-0.82	-2.23	-2.72	-3.37	-7.26	0.75	1.41	-6.63	-8.28	29.72	0.53	
PIMCO:RAE GlxUS;Inst (PZRIX)	**6.06**	**4.04**	**10.44**	**16.44**	**12.96**	**4.12**	**5.54**	**-8.72**	**12.77**	**2.30**	**5.65**	**03/01/2012**
FTSE RAFI Dvl'd Ex US 1000 Index	5.54	3.78	10.95	18.22	13.91	5.17	6.27	-8.43	16.13	3.61	6.18	
Difference	0.52	0.26	-0.51	-1.78	-0.95	-1.05	-0.73	-0.29	-3.36	-1.31	-0.53	
MSCI ACW Ex US Index (USD) (Net)	4.49	2.44	9.47	12.72	7.22	3.52	4.75	-16.00	7.82	10.65	4.50	
Difference	1.57	1.60	0.97	3.72	5.74	0.60	0.79	7.28	4.95	-8.35	1.15	
MFS Intl Grth Cl 2 (CIT)	**3.81**	**3.26**	**13.08**	**19.77**	**9.46**	**7.80**	**8.51**	**-14.09**	**10.61**	**16.51**	**8.00**	**03/01/2013**
MSCI ACW Ex US Grth Index (USD) (Net)	3.80	1.94	10.70	13.26	3.96	4.06	5.61	-23.05	5.09	22.20	5.19	
Difference	0.01	1.32	2.38	6.51	5.50	3.74	2.90	8.96	5.52	-5.69	2.81	
Vanguard Tot Bd;Inst (VBTIX)	**-0.37**	**-0.89**	**2.26**	**-0.85**	**-4.00**	**0.81**	**N/A**	**-13.07**	**-1.77**	**7.80**	**0.45**	**07/01/2016**
Vanguard Spl B US Agg Flt Adj Index	-0.34	-0.86	2.12	-0.85	-3.97	0.82	1.54	-13.07	-1.58	7.75	0.47	
Difference	-0.03	-0.03	0.14	0.00	-0.03	-0.01	N/A	0.00	-0.19	0.05	-0.02	
Vanguard Infl-Prot;Adm (VAIPX)	**-0.45**	**-1.56**	**1.93**	**-1.68**	**-0.13**	**2.47**	**2.11**	**-11.80**	**5.78**	**11.07**	**2.69**	**08/01/2010**
Bloomberg US Trsy US TIPS Index	-0.34	-1.42	1.87	-1.40	-0.12	2.49	2.08	-11.85	5.96	10.99	2.67	
Difference	-0.11	-0.14	0.06	-0.28	-0.01	-0.02	0.03	0.05	-0.18	0.08	0.02	

Performance shown is gross of fees, preliminary and subject to change. Manager inception dates shown represent the first full month following initial funding. Fiscal year ends 06/30.

San Diego Transit Corporation Employees Retirement Plan **As of June 30, 2023**
Comparative Performance

	MTD	QTD	CYTD	1 Year	3 Years	5 Years	10 Years	2022	2021	2020	Since Incep.	Inception Date
PIMCO:All Ast Ath;Inst (PAUIX)	**2.16**	**-0.81**	**4.01**	**2.77**	**5.94**	**2.87**	**2.63**	**-14.83**	**16.57**	**5.58**	**3.96**	**06/01/2008**
All Asset Custom Index (Eql Wtd) (3)	1.86	1.92	5.83	6.53	3.31	4.22	4.24	-10.42	6.46	9.89	4.38	
Difference	0.30	-2.73	-1.82	-3.76	2.63	-1.35	-1.61	-4.41	10.11	-4.31	-0.42	
HFRI FOF: Cnsvt Index	0.62	0.85	1.78	3.47	6.01	3.89	3.45	0.08	7.62	6.47	2.08	
Difference	1.54	-1.66	2.23	-0.70	-0.07	-1.02	-0.82	-14.91	8.95	-0.89	1.88	
Consumer Price Index+5%	0.73	2.32	5.34	8.12	11.07	9.09	7.85	11.78	12.39	6.43	7.41	
Difference	1.43	-3.13	-1.33	-5.35	-5.13	-6.22	-5.22	-26.61	4.18	-0.85	-3.45	
GMO:Bchmk-Fr All;III (GBMFX)	**3.99**	**2.54**	**5.51**	**9.99**	**5.42**	**2.98**	**N/A**	**-1.23**	**3.91**	**-1.60**	**3.09**	**04/01/2014**
60% MSCI ACW (Net)/40% Bbrg US Agg Idx	3.34	3.36	9.11	9.44	5.00	5.45	6.04	-16.02	10.20	13.49	5.35	
Difference	0.65	-0.82	-3.60	0.55	0.42	-2.47	N/A	14.79	-6.29	-15.09	-2.26	
HFRI FOF: Cnsvt Index	0.62	0.85	1.78	3.47	6.01	3.89	3.45	0.08	7.62	6.47	3.16	
Difference	3.37	1.69	3.73	6.52	-0.59	-0.91	N/A	-1.31	-3.71	-8.07	-0.07	
Consumer Price Index+5%	0.73	2.32	5.34	8.12	11.07	9.09	7.85	11.78	12.39	6.43	7.94	
Difference	3.26	0.22	0.17	1.87	-5.65	-6.11	N/A	-13.01	-8.48	-8.03	-4.85	

Performance shown is gross of fees, preliminary and subject to change. Manager inception dates shown represent the first full month following initial funding. Fiscal year ends 06/30.

San Diego Transit Corporation Employees Retirement Plan **As of June 30, 2023**
Fee Schedule

	Fee Schedule	Market Value As of 06/30/2023 ($)	Estimated Annual Fee ($)	Estimated Annual Fee (%)
Westwood Qual ACp;Ultra (WQAUX)	0.45 % of Assets	20,235,190	91,058	0.45
Systematic Edge US Low Volatility (CF)	0.40 % of First $20 M 0.30 % of Next $80 M 0.20 % Thereafter	18,547,689	74,191	0.40
Fidelity US Sustainability Index Fund (FITLX)	0.11 % of Assets	3,582,321	3,941	0.11
Newton TBC US SMID Cap Grth Eq (CF)	0.90 % of First $25 M 0.75 % Thereafter	5,588,952	50,301	0.90
PIMCO:RAE GlxUS;Inst (PZRIX)	0.57 % of Assets	19,056,990	108,625	0.57
MFS Intl Grth Cl 2 (CIT)	0.75 % of Assets	18,717,335	140,380	0.75
Vanguard Tot Bd;Inst (VBTIX)	0.04 % of Assets	52,386,975	18,335	0.04
Vanguard Infl-Prot;Adm (VAIPX)	0.10 % of Assets	9,355,963	9,356	0.10
PIMCO:All Ast Ath;Inst (PAUIX)	0.94 % of Assets	19,338,223	181,779	0.94
GMO:Bchmk-Fr All;III (GBMFX)	1.16 % of Assets	17,070,830	198,022	1.16
Contribution Account	0.18 % of Assets	209,869	378	0.18
Disbursement Account	0.18 % of Assets	302,806	545	0.18
San Diego Transit Total Fund		184,393,142	876,910	0.48

Mutual fund fees are sourced from Morningstar and/or the investment manager. The expense ratio for Vanguard Tot Bd;Inst (VBTIX) is 0.035%.

Performance Related and Miscellaneous Comments

- Performance is gross of fees.
- Performance is annualized for periods greater than one year.
- Manager inception dates shown represent the first full month following initial funding.
- Fiscal year ends 06/30.
- The Alternative Investment performance shown is a blend of gross and net of fees, due to gross of fees performance for PAAMCO Pacific Hedged Strategy (CF) being unavailable.
- PIMCO:All Ast Ath;Inst (PAUIX) performance prior to 08/2011 is represented by PIMCO:All Asset;Inst (PAAIX).
- PIMCO:RAE GlxUS;Inst (PZRIX) performance prior to 06/2015 is represented by Research Affiliates Global AC Ex-US, LP (CF).
- Effective 01/02/2019, The Boston Company was rebranded under the Mellon Corporation.
- Vanguard Infl-Prot;Adm (VAIPX) performance prior to 05/2019 is represented by Vanguard Infl-Prot;Inst (VIPIX). Prior to 06/2012, performance is represented by Vanguard Infl-Prot;Adm (VAIPX).
- During 02/2023, PAAMCO Pacific Hedged Strategy (CF) was fully liquidated.

Custom Hybrid Comments

- The Policy Index is calculated monthly and currently consists of 25% Russell 3000 Index, 20% MSCI ACW Ex US Index (USD) (Net), 35% Bloomberg US Agg Bond Index and 20% of the 60% MSCI ACW (Net)/40% Bbrg Gbl Agg Idx. Prior to 05/2020, consisted of 25% Russell 3000 Index, 20% MSCI ACW Ex US Index (USD) (Net), 32.50% Bloomberg US Agg Bond Index and 22.50% of the 60% MSCI ACW (Net)/40% Bbrg Gbl Agg Idx.
- Performance shown for Alternative Investment Custom Index represents 60% MSCI ACW (Net)/40% Bbrg Gbl Agg Idx from 07/2018 through present; and prior to 07/2018, consists of the HFRI FOF: Cnsvt Index.
- Performance shown for Westwood Qual ACp;Ultra (WQAUX) **(1)** represents Westwood Qual ACp;Ultra (WQAUX) from 10/2021 through present; Westwood All Cap Val (CF) from 08/2011 through 09/2021; beginning of month market value weighted average of Westwood LargeCap Value (CF) and Westwood SMidCap Equity (CF) from 07/2008 through 07/2011; Westwood LargeCap Value (CF) from 10/2004 through 06/2008; beginning of month market value weighted average of Westwood LargeCap Value (CF) and Westwood SmallCap Growth (CF) from 01/1997 through 09/2004; and Westwood LargeCap Value (CF) from 07/1986 through 12/1996.
- Performance shown for Russell 3000 Val Index **(2)** represents Russell 3000 Val Index from 08/2011 through present; beginning of month market value weighted average of Westwood LargeCap Value (CF) and Westwood SMidCap Equity (CF) applied to the Russell 1000 Val Index and Russell 2500 Val Index, respectively, from 07/2008 through 07/2011; Russell 1000 Val Index from 10/2004 through 06/2008; beginning of month market value weighted average of Westwood LargeCap Value (CF) and Westwood SmallCap Growth (CF) applied to the Russell 1000 Val Index and Russell 2000 Grth Index, respectively, from 01/1997 through 09/2004; and Russell 1000 Val Index from 01/1986 through 12/1996.
- Performance shown for All Asset Custom Index (Eql Wtd) **(3)** represents All Asset Custom Index (Eql Wtd) from 01/2014 through present; and All Asset Composite Index from 10/1997 through 12/2013.

Custom Hybrid Comments (Continued)

- The All Asset Custom Index (Eql Wtd) is an equal-weighted hybrid created independently by RVK specifically for PIMCO's All Asset strategies, and it consists of the following benchmarks:

  1. *Short Term Strategies*: ICE BofAML 1 Yr T-Bill Index
  2. *US Core and Long Maturity Bond Strategies*: Bloomberg US Agg Bond Index
  3. *EM and Gbl Bond Strategies*: PIMCO GLADI Index*
  4. *Crdt Strategies*: ICE BofAML US Hi Yld Master II Index
  5. *Inflation Related Strategies*: Bloomberg US Trsy US TIPS Index
  6. *US Equity Strategies*: Russell 3000 Index
  7. *Global Equity Strategies*: MSCI ACW Index (USD) (Net)
  8. *Alternative Strategies*: ICE BofAML 3 Mo US T-Bill Index+3%

  * Performance for the PIMCO Gbl Advantage Bond Index (London Close) prior to 01/01/2004 consists of the JPM EMBI Gbl Dvf'd Index (USD) (TR).

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San Diego Transit Corporation - Investment Manager Fiscal Year 2023 Update

Executive Committee

Investment Structure as of 6/30/2023

Asset Allocation vs. Target Allocation			
	Market Value ($)	Allocation (%)	Target (%)
Broad Domestic Equity	47,954,152	26.0	25.0
Broad International Equity	37,774,324	20.5	20.0
Fixed Income	62,255,612	33.8	35.0
Alternatives (Multi-Asset)	36,409,053	19.7	20.0
Total Fund	**184,393,142**	**100**	**100**

- Plan is diversified across four broad asset classes
- Goal is to maximize return, while assuming a prudent risk level
  - Closed Plan to non-management participants (2011/2012)
  - Risk Profile as measured by Volatility (higher % = riskier portfolio) has been meaningfully reduced since Plan closed
    - 6/30/2011: 3-Year Plan Risk = 16% Volatility (Percentile Rank: 31st of 100)
    - 6/30/2023: 3-Year Plan Risk = 11% Volatility (Percentile Rank: 76th of 100)
- Liability structure (mature plan, with net outflows) would suggest an Asset structure that is more conservative, diversified and liquid
  - Assets exist to satisfy the Liabilities, as capital preservation is necessary in mature plan, and thus less emphasis on equity allocation
  - Management fees meaningfully reduced through passive investing

RVK

Investment Details as of 6/30/2023

Fund	Asset Class	Strategy	Market Value ($)	Allocation (%)	Target (%)
Westwood All Cap Value	US Equity	Active	20,235,190	11.0	
Fidelity US Sustainability Index	US Equity	Passive	3,582,321	1.9	
Systematic Edge US Low Volatility	US Equity	Active	18,547,689	10.1	
BNYM Newton US SMID Growth	US Equity	Active	5,588,952	3.0	
Total US Equity			**47,954,152**	**26.0**	**25.0**
PIMCO RAE	Int'l Equity	Active	19,056,990	10.3	
MFS Int'l Growth	Int'l Equity	Active	18,717,335	10.2	
Total International Equity			**37,774,324**	**20.5**	**20.0**
Vanguard Total Bond	Fixed Income	Passive	52,386,975	28.4	
Vanguard Inflation-Protection	Fixed Income	Active	9,355,963	5.1	
Total Fixed Income[1]			**62,255,612**	**33.8**	**35.0**
PIMCO All Asset All Auth❖	GTAA	Active	19,338,223	10.5	
GMO Benchmark-Free	GTAA	Active	17,070,830	9.3	
Total Alternatives[2]			**36,409,053**	**19.7**	**20.0**
TOTAL FUND			**184,393,142**	**100**	**100**

[1]Includes residual cash in the Contribution & Disbursement Accounts

[2]Excludes $6,688 in residual PAAMCO illiquid SPV assets

- Assets are allocated across 10 different products
  - ❖ As of year-end 2023 PIMCO All Asset All Authority has been removed with assets reallocated to a Vanguard Treasury Money Market (VUSXX) fund
- Product diversification reduces overall portfolio risks
- Allocation sizes for active managers are controlled, reducing concentration risks
- Direct ESG allocation via Fidelity US Sustainability Index

RVK

FY 2023 Performance

- Strong rebound for both U.S. and International stocks but concentrated in growth (technology), especially in the first two quarters of 2023
- Bonds continued to underperform as rates continued to rise
- Plan returned **7.0%** over the 2023 fiscal year
- Assumed Actuarial annual rate of return is 6.00%
- Outperformed the Actuarial rate by 1.0% in fiscal year 2023

Long Term Performance Details

As of 6/30/2023

	Allocation		Performance (%)				
	Market Value ($)	%	1 Year	5 Years	10 Years	41 Year	Inception Date
San Diego Transit Total Fund	184,393,142	100%	7.0	4.2	4.8	8.4	10/01/1982
Domestic Equity	47,954,152	26.0%	10.4	7.9	9.8		
International Equity	37,774,324	20.5%	18.2	6.2	7.1		
Fixed Income	62,255,612	33.8%	-1.0	0.8	1.4		
Alternative Investment	36,409,053	19.7%	5.9	2.9	2.4		

- Year to year returns will fluctuate significantly, some years above and some years below the Actuarial rate of return, but over the long-run the SDTC portfolio has outperformed the 6.00% Actuarial return hurdle

RVK

Investment Structure Summary

- Plan is well diversified across a variety of managers and broad asset classes
- Asset Allocation is more conservative by design given that the Plan is closed
  - Focus is on satisfying liabilities
  - Balance capital appreciation vs. capital preservation
- Management fees are kept low with the use of passive investments
- Portfolio is well positioned for the future given the liability structure of the Plan
- Fiscal Year 2024 return for the Plan is 4.9% through 12/31/2023

Questions / Comments

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Metropolitan Transit System

Agenda Item No. 5

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
EXECUTIVE COMMITTEE

February 1, 2024

SUBJECT:

San Diego Transit Corporation (SDTC) Employee Retirement Plan's Actuarial Valuation as of July 1, 2023 (Anne Harper and Alice Alsberghe with Cheiron Inc., and Mike Thompson)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Executive Committee forward a recommendation to the Board of Directors to receive the SDTC Employee Retirement Plan's (Plan) Actuarial Valuation as of July 1, 2023 (Attachment A) and adopt the pension contribution amount of $20,174,660 for fiscal year 2025.

Budget Impact

Board adoption would result in the annual pension contribution of $20,174,660 for fiscal year 2025, consisting of both employer and employee contributions.

DISCUSSION:

The Actuarial Valuation of the Plan as of July 1, 2023, was completed in December 2023 by Cheiron, Inc., and the entire report is included as Attachment A. The purpose of the actuarial valuation is to measure, describe, and identify the following as of the valuation date:

- The financial condition of the Plan,
- Past and expected trends in the financial progress of the Plan, and
- Compute the total annual pension contribution amount.

The Plan's funding policy is to contribute an amount equal to the sum of:

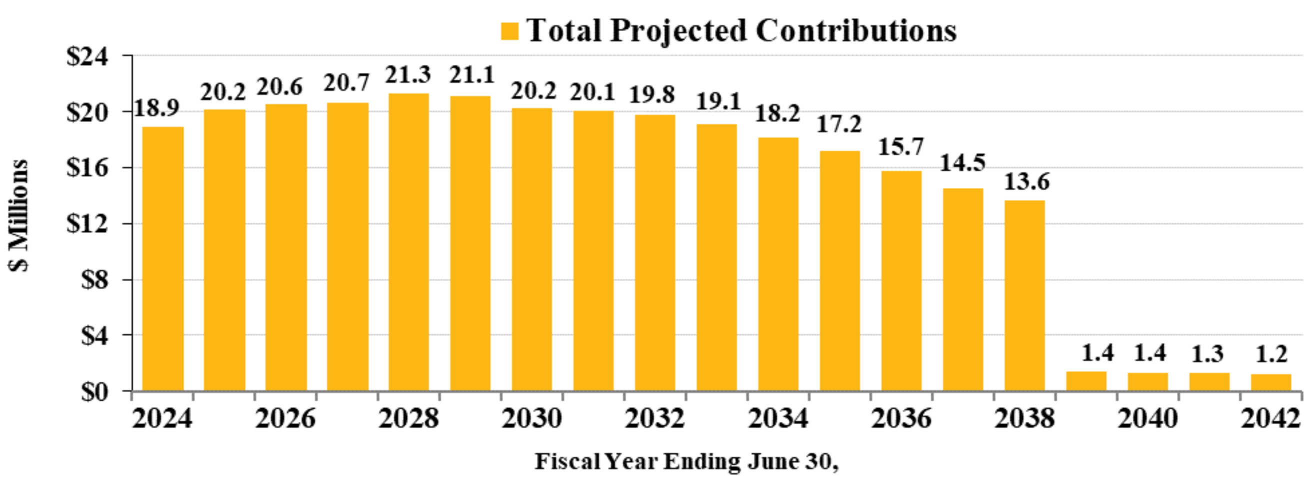
- The normal cost,
- Expected administrative expenses, and
- Amortization of the unfunded actuarial liability.

This valuation has calculated a total contribution of $20,174,660, an increase of 6.5% from fiscal year 2024, which would be used for the fiscal year 2025 budget.

As reflected in the following table, contributions are increasing year over year by approximately $1,228,400.

Total Contribution Reconciliation	
Fiscal Year 2024	**18,946,198**
Change due to actuarial investment experience	641,732
Change due to liability experience	618,295
Change due to other miscellaneous factors	(31,565)
Fiscal Year 2025	**20,174,660**

Given the updated projected rates of return and the closed nature of the Plan, the Plan contributions are projected to continue to stabilize over the next few years, and the Unfunded Actuarial Liability will be fully paid off by fiscal year 2038.



Anne Harper and Alice Alsberghe of Cheiron, Inc. will provide an overview of the report in more detail and be available for any questions.

/S /Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. Actuarial Valuation Report as of July 1, 2023

Retirement Plans of San Diego Transit Corporation

Actuarial Valuation Report as of July 1, 2023

Produced by Cheiron
December 2023

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Via Electronic Mail

December 18, 2023

Mr. Larry Marinesi
San Diego Transit Corporation
1255 Imperial Avenue, Suite 1000
San Diego, California 92101-7490

Dear Mr. Marinesi,

At your request, we have conducted an actuarial valuation of the Retirement Plans of San Diego Transit Corporation ("Plan," "SDTC") as of July 1, 2023. This report contains information on the Plan's assets, liabilities, and contribution levels. It also contains an assessment and disclosures of the Plan's risks. In the Foreword, we refer to the general approach employed in the preparation of this report.

The purpose of this report is to present the results of the annual actuarial valuation of the Plans. This report is for the use of the Retirement Board and the San Diego Metropolitan Transit System ("MTS") Board and its auditors in preparing financial reports in accordance with applicable law and accounting requirements.

In preparing our report, we relied on information (some oral and some written) supplied by the plan administrator. This information includes, but is not limited to, the Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

The assumptions used in calculating the liabilities found in this report reflect the results of an Experience Study approved by the Budget Development Committee in October 2021 and the San Diego Metropolitan Transit System's (MTS) Board of Directors in November 2021.

Future results may differ significantly from the current results presented in this report due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; changes in methods; and changes in plan provisions or applicable law.

This report and its contents have been prepared in accordance with generally recognized and accepted actuarial principles and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable law and regulations. Furthermore, as credentialed actuaries, we meet the U.S. Qualification Standards of the American Academy of Actuaries to render the opinion contained in this report. This report does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This report was prepared exclusively for the Retirement Board and MTS Board for the purposes described herein. Other uses of this valuation report are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

Sincerely,
Cheiron

Anne D. Harper, FSA, EA, MAAA
Principal Consulting Actuary

Alice I. Alsberghe, ASA, EA, MAAA
Consulting Actuary

FOREWORD

Cheiron has performed the actuarial valuation of the Retirement Plans of San Diego Transit Corporation as of July 1, 2023. The valuation report is organized as follows:

- In Section I, the **Executive Summary,** we describe the purpose of an actuarial valuation, summarize the key results found in this valuation, and disclose important trends.

- The **Main Body** of the report presents details on the Plan's:

    - Section II – Assessment and Disclosure of Risk
    - Section III – Assets
    - Section IV – Liabilities
    - Section V – Contributions

- In the **Appendices,** we conclude our report with detailed information describing plan membership (Appendix A), actuarial assumptions and methods employed in the valuation (Appendix B), a summary of pertinent plan provisions (Appendix C), and a glossary of key actuarial terms (Appendix D).

Cheiron utilizes ProVal, an actuarial valuation application leased from Winklevoss Technologies (WinTech), to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have reviewed ProVal and have a basic understanding of it and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this report. The deterministic and stochastic projections shown in this report were developed using R-Scan, our proprietary stochastic projection tool for assessing probabilities of different outcomes. We have relied on Cheiron colleagues who developed the tool, and we have used the tool in accordance with its purpose.

SECTION I – EXECUTIVE SUMMARY

The primary purpose of the actuarial valuation and this report is to measure, describe, and identify the following as of the valuation date:

- The financial condition of the Plan,
- Past and expected trends in the financial progress of the Plan, and
- The total contribution amount (employer and employee) to be made during Fiscal Year 2024-2025.

In the balance of this Executive Summary, we present (A) the basis upon which this year's valuation was completed, (B) the key results of this valuation including a summary of all key financial results, (C) changes in Plan cost, (D) an examination of historical trends, and (E) the future expected financial trends for the Plan.

A. Valuation Basis

This valuation determines total employer and employee contributions for the plan year.

The Plan's funding policy is to contribute an amount equal to the sum of:

- The normal cost under the Entry Age Normal Cost Method,
- Expected administrative expenses, and
- Amortization of the Unfunded Actuarial Liability (UAL) based on level dollar payments.

The employee will contribute according to the Plan schedules below. Member contribution rates in the future may change in response to collective bargaining. It will be the responsibility of the employer to contribute the remaining portion of the total contribution determined in this report.

- IBEW members contribute 8% of compensation (since April 2016)

- ATU drivers and clerical members contribute 8% of compensation (since December 2017)

- Non-Contract members hired before July 1, 2013 contribute 8% of compensation (since January 2017)

- PEPRA: New Members must contribute half of the normal cost of the Plan, rounded to the nearest 0.25%. For the FY 2023-2024, PEPRA members are contributing 9.50% of pay and the employer pays the remaining cost of the Plan. The PEPRA member rate, calculated in the July 1, 2023 actuarial valuation and effective FY 2024-2025, has decreased to 9.00% of pay as a result of the demographic shifts. The development of the PEPRA member rate can be found in Section V in the body of this report.

SECTION I – EXECUTIVE SUMMARY

The SDTC Plans are closed to new entrants, except for Non-Contract members. A closed plan has very different dynamics as active plan membership declines and grows older and a larger portion of the Plan's liability shifts to payees. This dynamic shortens the investment horizon thus mitigating investment risk becomes more important. If the asset mix changes to reflect the expected pattern of benefit payments, it will become more conservative and the expected return on plan assets will decrease. Thus, adjusting the Plan's investment rate of return to be consistent with the expected trending decrease of future asset returns should continue to be monitored.

The true cost of the Plan is a function of actual Plan experience, not the actuarial assumptions. It is important to set realistic assumptions to mitigate the risk of Plan contribution volatility. In Section II of this report, we provide a detailed assessment and disclosure of the Plan's risks.

This valuation was prepared based on the Plan provisions as summarized in Appendix C. There have been no changes in plan provisions since the prior valuation. The results of this valuation do not include members participating in the defined contribution plans.

SECTION I – EXECUTIVE SUMMARY

B. Key Results of this Valuation

The key results of the July 1, 2023 actuarial valuation are as follows:

- The actuarially determined contribution shown in this report is the total contribution required from both the employer and the employees. The total contribution increased from $18.9 million to $20.2 million, an increase of about $1.2 million from the July 1, 2022 valuation. This increase is primarily due to the recognition of the prior year's net asset losses as well as unfavorable liability experience.

  Based on the July 1, 2022 actuarial valuation, the contribution was expected to increase to approximately $19.4 million. See Table I-2 for a reconciliation of the contribution cost from last year to this year that includes all components of the change.

- During the plan year ending June 30, 2023, the return on Plan assets was 6.5% based on the Market Value of Assets (MVA) compared to the 6.0% assumed rate of return. A return over 6.0% would result in an actuarial gain, and a return lower than 6.0% would result in an actuarial loss. The favorable investment experience resulted in an actuarial gain on the market value of assets of $0.9 million.

- The Actuarial Value of Assets (AVA) recognizes 20% of the difference between the expected and actual return, referred to as "Unexpected Earnings", on the Market Value of Assets (MVA) for each of the prior five years. The return on the AVA was return of 2.8% for June 30, 2023 which is less than the 6.0% assumed rate of return. The asset experience resulted in an actuarial loss of $6.1 million.

  There are $13.1 million in net deferred asset losses in the July 1, 2023 actuarial valuation compared to $19.0 million in the previous valuation. See Table III-3 and III-4 for the detailed calculations.

- The Actuarial Liability was more than expected by $4.9 million. The liability experience loss was primarily driven by active member salary increases and retiree benefits that were higher than expected and mortality experience for members in pay status.

- The Plan's funded ratio, the ratio of actuarial (smoothed) assets over the Actuarial Liability, decreased from 58.1% last year to 57.2% as of July 1, 2023. However, the funded ratio based on the Market Value of Assets increased from 52.5% to 53.4%, because the asset gains for FYE 2023 are recognized immediately with the MVA.

- The Unfunded Actuarial Liability (UAL) is the excess of the Plan's Actuarial Liability over the Actuarial Value of Assets. The Plan's UAL increased from $141.2 million to $146.6 million as of July 1, 2023.

SECTION I – EXECUTIVE SUMMARY

Below we present Table I-1, which summarizes all the key results of the valuation with respect to membership, assets and liabilities, and contributions. The results are presented and compared for both the current and prior plan year.

Table I-1
Summary of Principal Plan Results

Participant Counts	**July 1, 2022**	**July 1, 2023**	**% Change**
Active Participants	331	310	-6.3%
Participants Receiving a Benefit	1,058	1,066	0.8%
Inactive Participants	184	175	-4.9%
Total	1,573	1,551	-1.4%
Projected Plan Member Payroll [1] for Fiscal Year 2023 and 2024	$ 23,023,954	$ 22,728,817	-1.3%
Assets and Liabilities			
Actuarial Liability (AL)	$ 337,148,571	$ 342,852,868	1.7%
Actuarial Value of Assets (AVA)	195,924,568	196,279,951	0.2%
Unfunded Actuarial Liability (UAL)	$ 141,224,003	$ 146,572,917	3.8%
Market Value of Assets (MVA)	$ 176,877,426	$ 183,172,692	3.6%
Funded Ratio (AVA)	58.1%	57.2%	-0.9%
Funded Ratio (MVA)	52.5%	53.4%	1.0%
Contributions	**FY 2023-2024**	**FY 2024-2025**	
Total Normal Cost [2]	$ 4,012,243	$ 3,960,536	-1.3%
Total UAL Contribution	14,933,955	16,214,124	8.6%
Total Contribution (middle of year)	$ 18,946,198	$ 20,174,660	6.5%

[1] *Based on valuation data projected using half-year of salary increases but excludes payroll for members expected to leave employment or retire during the year.*

[2] *Includes assumed administrative expenses as of the beginning of the valuation year of $282,000 and $289,050 for both July 1, 2022 and July 1, 2023, respectively.*

C. Changes in Plan Cost

Table I-2 below summarizes the impact of actuarial experience on Plan cost.

Table I-2
Total Contribution Reconciliation

Fiscal Year 2023-2024, middle of year		**$ 18,946,198**
Total Change due to actuarial investment experience		641,732
Investment experience from FYE 2023	(19,676)	
Expected increase from deferred investment losses 2019-2022	661,408	
Change due to liability experience		618,295
Change due to effect of closed plan on benefits earned		(160,729)
Change due to other miscellaneous factors		129,164
Fiscal Year 2024-2025, middle of year		**$ 20,174,660**

An analysis of the cost **changes from the prior valuation** reveals the following:

- The Actuarial Value of Assets recognizes the annual unexpected gains or losses in the Market Value of Assets over a five-year period. Actuarial gains and losses are based on the assumed rate of return. The actual return on Actuarial Value of Assets (AVA) was 2.8%, compared to the expected return of 6.00%, resulting in an actuarial loss of $6,141,232 which is paid over a 14-year period. The actuarial asset experience increased the total contribution by $641,732.

  The asset gain on the Market Value of Assets for the plan year ending June 30, 2023 was $941,479 and resulted in a $19,676 decrease to the total contribution. While the partial recognition of previous year's net deferred assets losses increased the contribution by $661,408.

- Actual demographic experience will always differ from the actuarial assumptions. Salary and demographic experience of the Plan – rates of retirement, death, disability, and termination – were different than expected based on the actuarial assumptions, causing an increase in the contribution of $618,295. The liability experience loss was primarily driven by salary increases and retiree benefits being higher than expected and retiree mortality experience.

- Closing the Plan to most new entrants decreases the total amount of benefits that are being earned each year as members continue to leave employment through retirements, terminations, disabilities, and death, and thus cease to earn additional benefits. This decreased the Plan contribution by $160,729.

- The net effect of other miscellaneous factors, including administrative expenses experience and the timing of contributions, increased the Plan contributions by $129,164.

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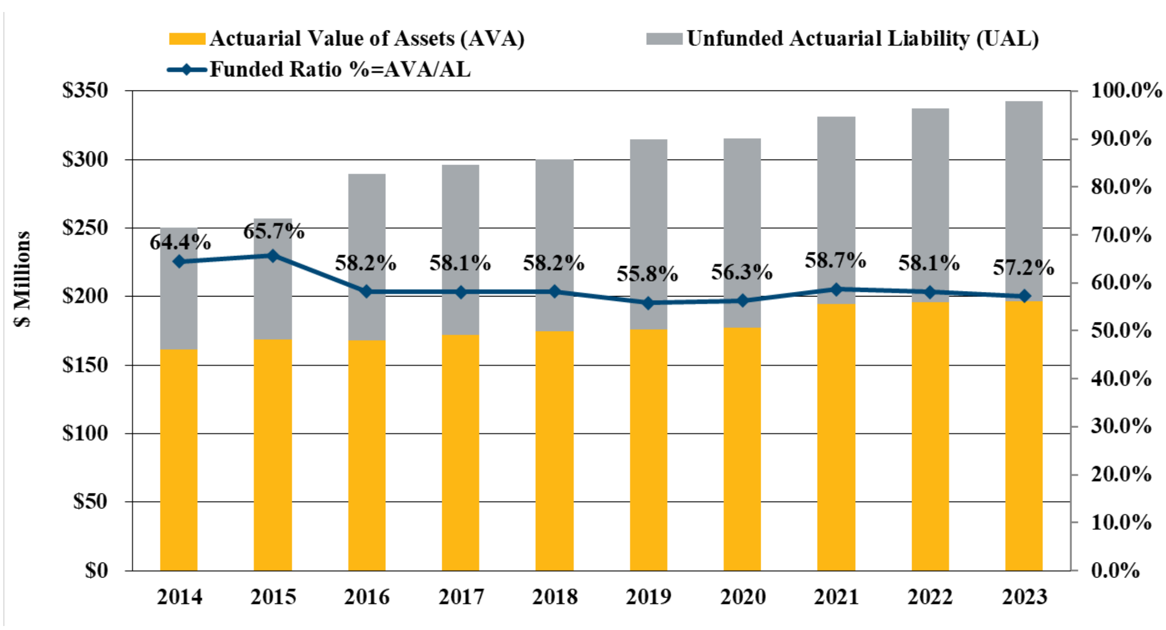
D. Historical Trends

For most retirement plans the greatest attention is given to the current valuation results – in particular, the size of the current Unfunded Actuarial Liability (UAL) and the total contribution – however, it is important to remember that each valuation is merely a snapshot in the long-term progress of a pension fund. It is important to judge a current year's valuation results relative to historical trends, as well as trends expected into the future.

Assets and Liabilities

The chart below presents the Actuarial Value of Assets (gold bars), Unfunded Actuarial Liability (gray bars), and Funded Ratio (navy line). The top of the bars (sum of gold and gray bars) depicts the total Actuarial Liability. Over the 10-year period shown, both the Actuarial Liability and Actuarial Value of Assets have been increasing, however, the Actuarial Liability has grown at a slightly faster pace than the Actuarial Value of Assets. It is important to note that the assumed rate of return at the beginning of the period was 7.50% and has been gradually reduced over the 10-year period to 6.00% as of July 1, 2021, which has been a major source of the decrease in the funded ratio.

The funded ratio decreased from 64.4% in 2014 to 58.2% in 2016, primarily due to a reduction in the assumed rate of return from 7.50% to 7.00%, as well as increases in assumed life expectancy. From 2016 to 2018, the funded ratio remained relatively stable around 58%, then decreased to 55.8% in 2016 due to a further reduction to 6.75% in the assumed rate of return. There was an increase in the funded ratio in 2021 even though the assumed rate of return was reduced from 6.75% to 6.00%. The significant return on assets as of June 30, 2021, and an additional $7.8 million contribution from the CARES Act more than offset the impact of the assumption changes. From 2021 to 2023, the funding ratio decreased by 1.5% due to both unfavorable liability and actuarial asset experience.

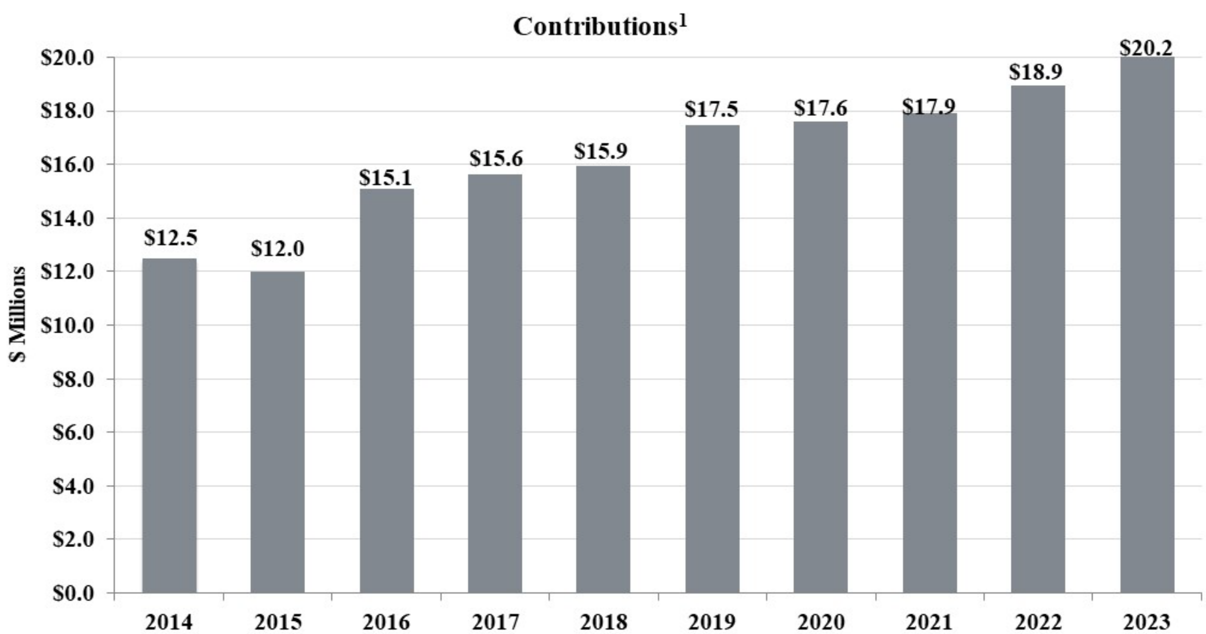


SECTION I – EXECUTIVE SUMMARY

Contributions

The chart below shows a history of the Plan's actuarially determined total contribution. In 2016, the investment rate of return was reduced from 7.50% to 7.00% and mortality assumptions were updated for improved life expectancy. Investment experience on the AVA was the primary source of the contribution increases during for the next four years. However, in 2019, there was a further reduction in the assumed rate of return to 6.75% which also increased the contribution level to $17.5 million. In 2021, the assumption changes, including a reduction in the assumed rate of return to 6.00%, were the primary source for the increase in the total contribution but were partially offset by the additional CARES Act contribution and favorable investment experience. From 2021 to 2023, the contribution level increased to $20.2 million due to combined actuarial asset and liability losses.

A reconciliation of the contributions from the 2022 to 2023 valuations can be found in Table I-2 of this report.

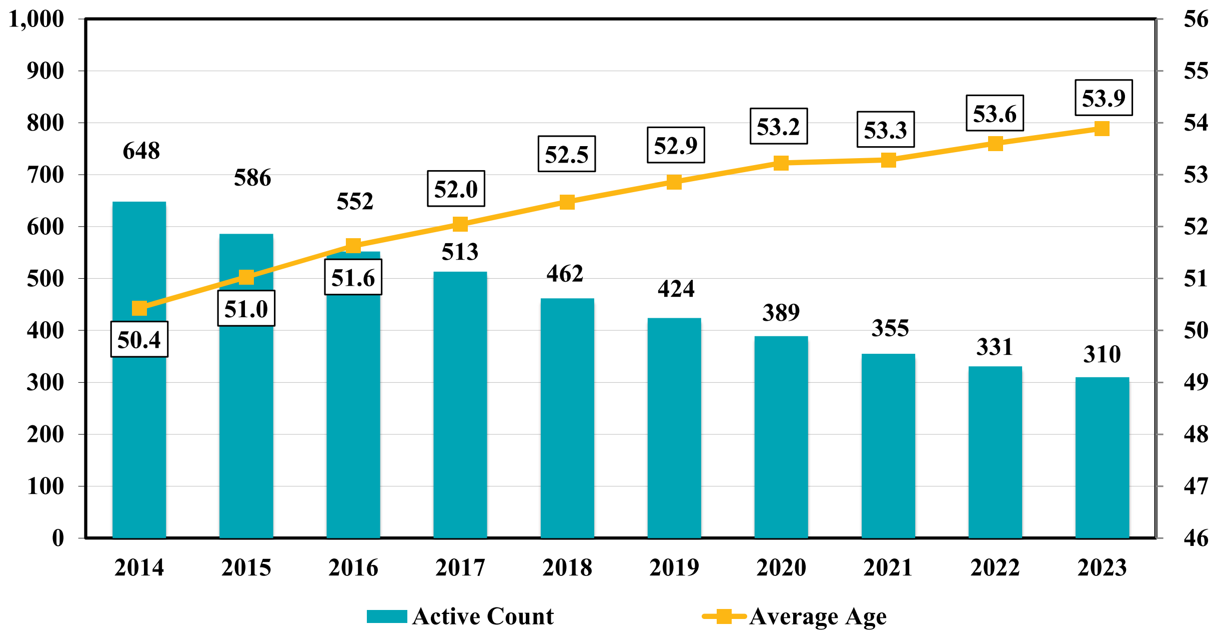


[1] *Beginning with 2015, contribution amounts are mid-year values for the upcoming fiscal year.*

SECTION I – EXECUTIVE SUMMARY

Active Participant Trends

The number and average age of active Plan members for the last 10 years is shown in the chart below. Because the plan has been mostly closed to new entrants since 2012, the membership has declined by 52% from 648 to 310 actives over this period. In addition, the average age of an active member has increased by almost four years during the period shown. These trends are expected to continue, as new bargained employees participate in the defined contribution plan.

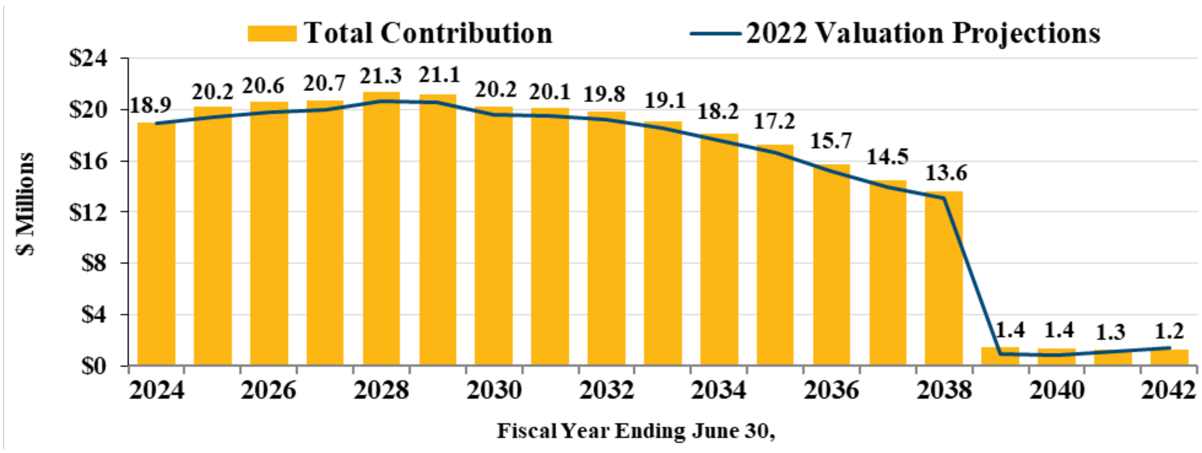


E. Future Expected Financial Trends

The analysis of projected financial trends is an important component of this valuation. In this section, we present our assessment of the implications of the July 1, 2023 valuation results in terms of benefit security (assets over liabilities) and contributions over the next 19 years.

The projections in this section assume that the Plan will achieve the 6.00% investment return assumption and all other actuarial assumptions will be met each year, which is highly unlikely. We also assume the current funding method and amortization policy will remain in place throughout the projection period.

Contributions are shown for the Fiscal Year End that they are expected to be made. For example, the actuarially determined contribution from the July 1, 2023 valuation of $20.2 million is expected to be made during the period July 1, 2024 through June 30, 2025.

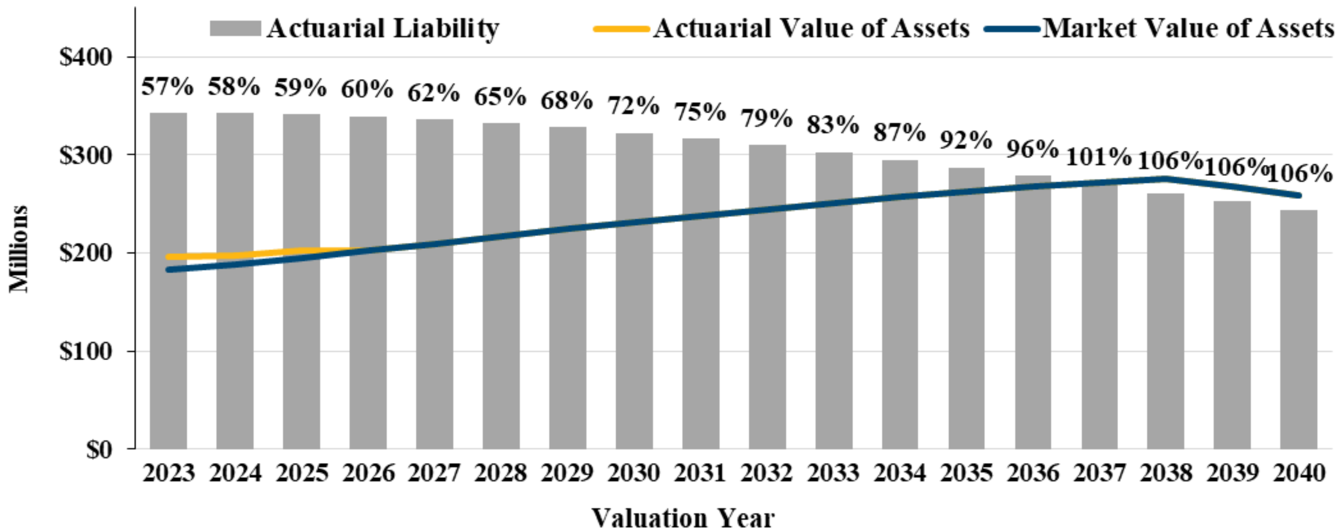


The Plan's projected contributions are very similar to those projected in the 2022 valuation, shown by the blue line. The graph shows that the Plan's contribution are expected to gradually increase over the next three years from $20.2 million to $21.3 million in FYE 2028 as the $13.1 million in net deferred asset losses are recognized. The steady decline in the contribution thereafter is due to the decrease in the annual benefits that are earned as the number of active members decline since the Plan is closed to most new entrants and also fully paying off previous years' actuarial losses.

During Fiscal Year 2037-38 (which will be based on results from the July 1, 2036 valuation), the last payment for the Plan's expected UAL will be made. After that point, employer contributions are expected to stabilize and are based on the normal cost and expected administrative expenses because the UAL is paid off. PEPRA mandates that employees and employers must continue to contribute at least the normal cost portion unless the plan is 120% funded and has met certain legal requirements as well.

Asset and Liability Projections:

This graph shows the projection of assets and liabilities assuming that assets will earn the 6.00% assumption each year during the projection period. The percentages at the top of the graph represent the funded ratio based on the Actuarial Value of Assets.



The funded status is expected to gradually increase over the projection period. The Plan is projected to be fully funded with the July 1, 2037 valuation, assuming the actuarial assumptions are achieved. The projected funded status increases over 100% funded to 106% because of the aforementioned minimum contribution requirement of the normal cost. However, it is the actual return on Plan assets that will determine the future funding status and contributions to the Plan.

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Actuarial valuations are based on a set of assumptions about future economic and demographic experience. These assumptions represent a reasonable estimate of future experience, but actual future experience will undoubtedly be different and may be significantly different. This section of the report is intended to identify the primary risks to the plan, provide some background information about those risks, and provide an assessment of those risks.

Identification of Risks

The fundamental risk to a pension plan is that the contributions needed to pay the benefits become unaffordable. While we believe it is unlikely that the Plan by itself would become unaffordable, the contributions needed to support the Plan may differ significantly from expectations. While there are a number of factors that could lead to contribution amounts deviating from expectations, we believe the primary sources are:

- Investment risk,
- Inflation risk, and
- Contribution risk.

Other risks that we have not identified may also turn out to be important.

Investment Risk is the potential for investment returns to be different than expected. Lower investment returns than anticipated will increase the Unfunded Actuarial Liability (UAL) necessitating higher contributions in the future unless there are other gains that offset these investment losses. In contrast, higher investment returns than anticipated may create a potentially significant surplus that could be difficult to use until all benefits have been paid. Expected future investment returns and their potential volatility are determined by the Plan's asset allocation.

Inflation risk is the potential for actual inflation to be different than expected. Retirement benefits under the plan for the Non-Contract retirees who retired on or after June 30, 1999, are potentially increased annually for inflation with certain caps. Higher inflation than expected could result in the payment of greater benefits, and lower inflation than expected could result in the payment of lower benefits.

Contribution risk is the potential for actual future actuarially determined contributions to deviate from expected future contributions to an extent that they become unaffordable. The Plan's funding policy is to determine an Actuarially Determined Contribution (ADC) equal to the sum of the normal cost, amortization of the UAL, and the Plan's expected administrative expenses. The UAL is amortized in level dollar payments with several layers with differing amortization periods. The UAL is currently expected to be fully paid for as of the July 1, 2037 actuarial valuation. However, as 2037 gets closer and the Plan's remaining amortization period shortens, a significant loss or change in assumption may cause a large increase in the ADC. While the funding policy can be changed when such a situation occurs, any reduction in the ADC will result in a slower recovery in funded status.

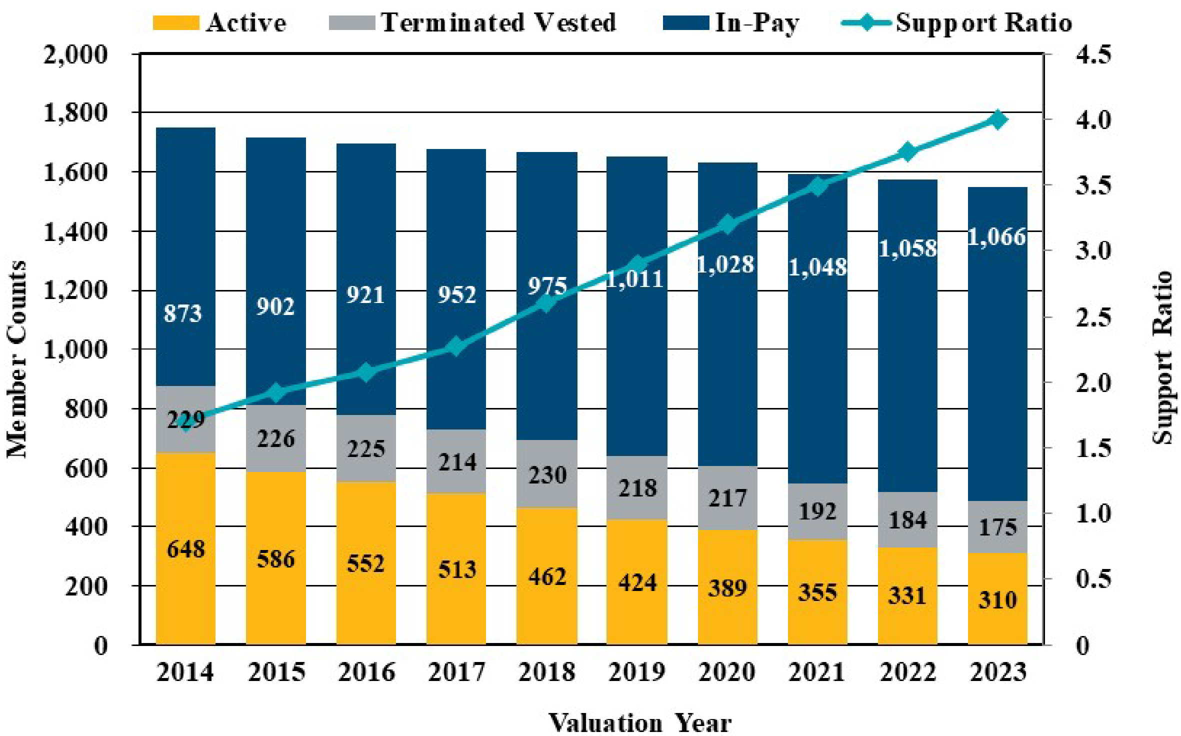
Plan Maturity Measures

The future financial condition of a mature pension plan is more sensitive to each of the risks identified above than a less mature plan. Before assessing each of these risks, it is important to understand the maturity of the plan.

Plan maturity can be measured in a variety of ways, but they all get at one basic dynamic – the larger the plan is compared to the contribution or revenue base that supports it, the more sensitive the plan will be to risk. Given that the Plan has been closed to most new entrants since 2012, measures specific to the Plan show significant increases in maturity and risk. However, for the Metropolitan Transit System, this risk is declining relative to the total employment base.

Support Ratio (Inactives per Active)

One simple measure of plan maturity is the ratio of the number of inactive members (those receiving benefits or entitled to a deferred benefit) to the number of active members. For a closed plan, the Support Ratio is expected to increase significantly as the active members retire or terminate and there are no new entrants replacing them. The chart below shows the growth in the Support Ratio for the Plan for the past 10 years.



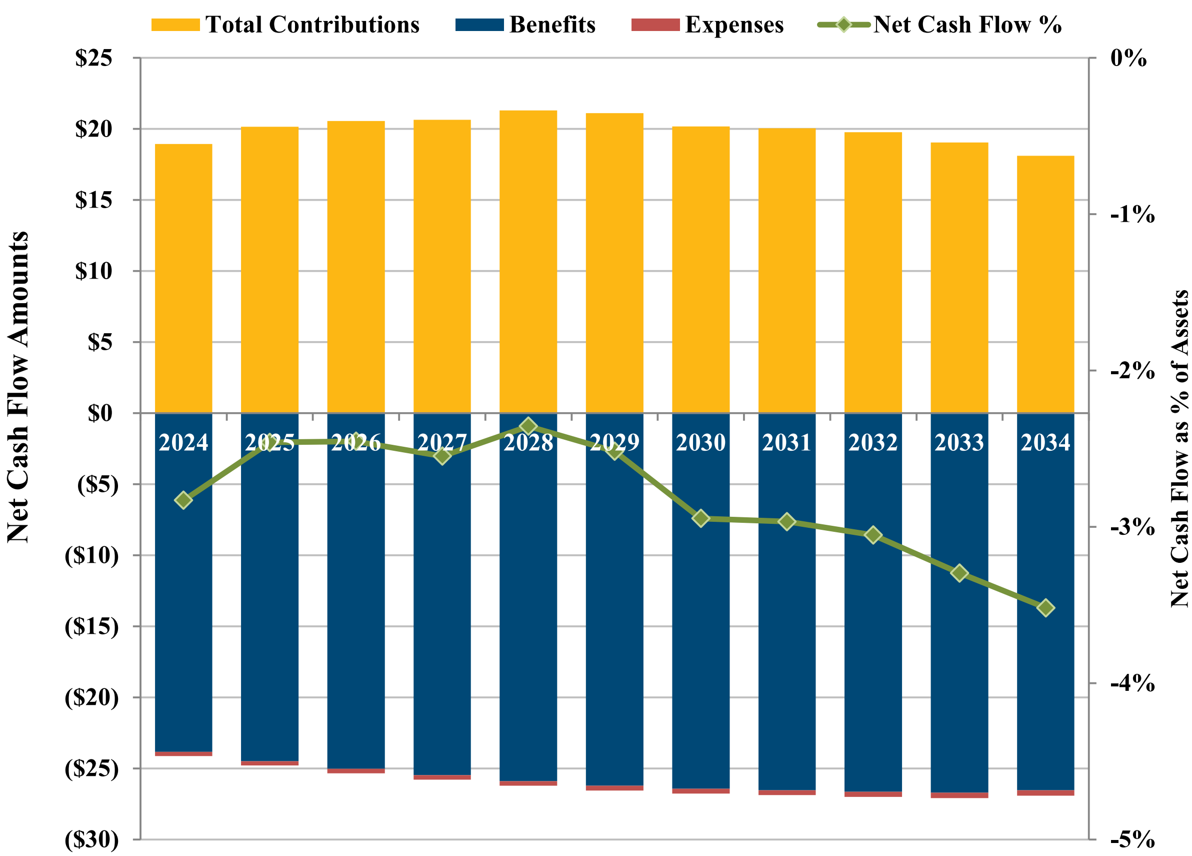
SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Net Cash Flow

The net cash flow of the plan as a percentage of the beginning of year assets indicates the sensitivity of the plan to short-term investment returns. Net cash flow is equal to contributions less benefit payments and administrative expenses. Mature plans can have large amounts of benefit payments compared to contributions, particularly if they are well funded.

The chart below shows the projected net cash flow for the next 10 fiscal years. The bars represent the dollar amounts of the different components of the projected net cash flow, and the line represents the net cash flow as a percentage of the assets as of the beginning of the fiscal year.

Projected Net Cash Flow



The net cash flow has been negative since at least 2013. The net cash flow is expected to become less negative as contributions increase over the next five years. Then as the Plan becomes better funded, benefit payments increase and contributions slowly decline, the net cash flow starts to become increasingly negative.

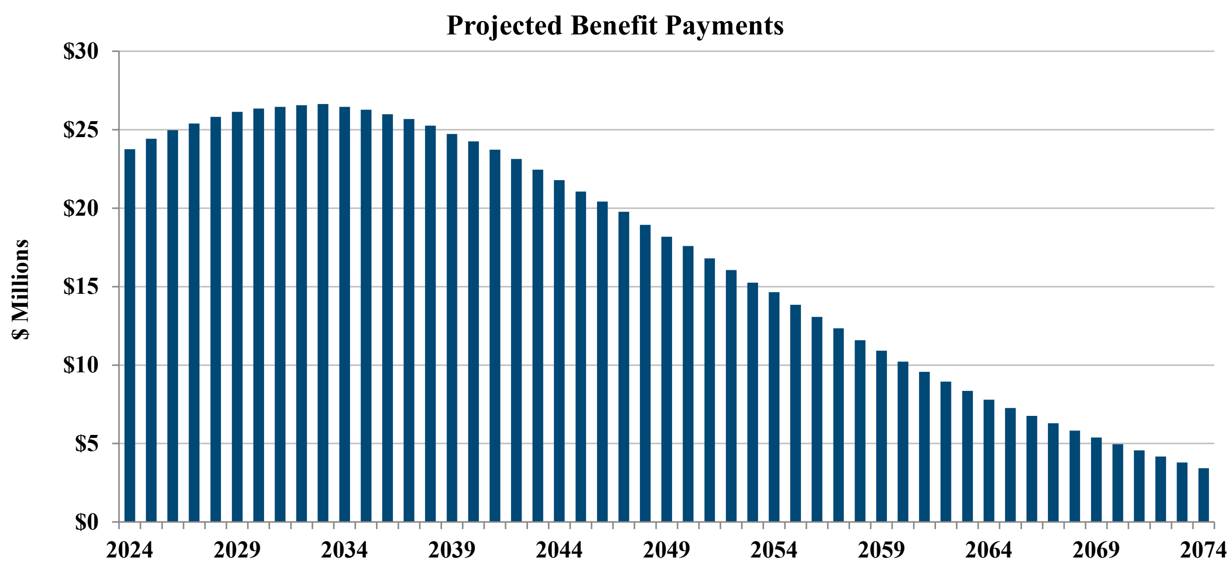
The first issue the negative cash flow presents to the Plan is a need for liquidity in the investments so that benefits can be paid. When the cash flow was positive or close to neutral, benefits could be paid out of contributions without liquidating investments. As net cash flow becomes increasingly negative, the benefit payments will require liquidation of some investments (at least to the extent the bond portfolio does not generate sufficient cash income).

The other change of note is the sensitivity to short-term investment returns. Investment losses in the short term are compounded by the net withdrawal from the plan leaving a smaller asset base to recover from the investment losses. On the other hand, large investment gains in the short term also tend to have a longer beneficial effect as any future losses are relative to a smaller liability base due to the negative cash flow.

Assessing Costs and Risks

A closed pension plan will ultimately either end up with excess assets after all benefits have been paid or run out of assets before all benefits have been paid. If the Plan develops surplus assets, it may be able to reduce the risk in its investment portfolio, immunize investments, or purchase annuities to settle the remaining obligation. However, such an approach may not be the objective for MTS, and if the surplus assets exceed the additional amounts needed to purchase annuities or immunize the portfolio, it is not clear how they could be used once all benefits have been paid.

If the Plan, on the other hand, were to run out of assets, MTS would be forced to pay benefits directly on a pay-as-you-go basis. As long as MTS can afford the pay-as-you-go costs, benefits would remain secure. The chart below shows a projection of expected benefit payments for the closed plan.

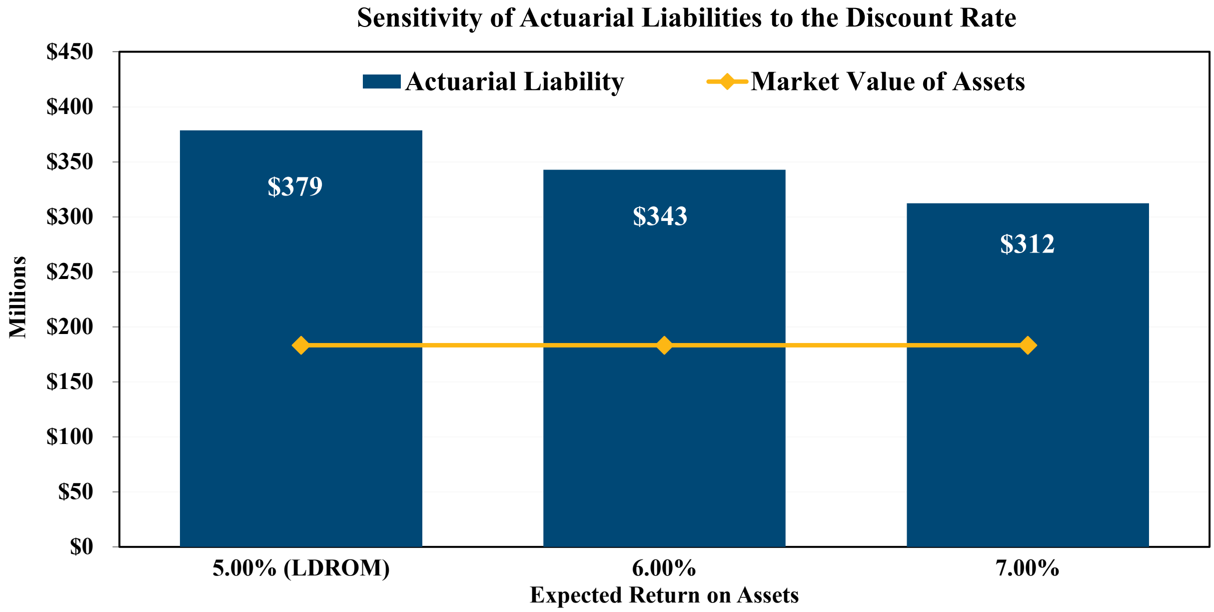


SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Sensitivity to Discount Rates (Investment Returns)

The chart below compares the Market Value of Assets (gold line) to the Actuarial Liability (blue bars) using the discount rates equal to the current expected rate of return and 100 basis points above and below the expected rate of return (which is also the LDROM). The low-default-risk obligation measure (LDROM) is the Actuarial Liability using a discount rate derived from low-default-risk fixed income securities that approximately match the benefit payments of the plan. The revised Actuarial Standard of Practice No. 4 requires the disclosure of this measurement.

Present Value of Future Benefits versus Assets



The Plan invests in a diversified portfolio with the objective of maximizing investment returns at a reasonable level of risk. If investments return 6.00% annually, the Plan would need approximately $343 million in assets today to pay all benefits attributable to past service compared to current assets of $183 million. If investment returns are only 5.00%, the Plan would need approximately $379 million in assets today, and if investment returns are 7.00%, the Plan would only need $312 million in assets.

The lowest risk portfolio for a pension plan with fixed cash flows would be composed entirely of low-default-risk fixed income securities whose cash flows match the benefit cash flows of the Plan. As of June 30, 2023, using the FTSE Pension Liability Index (rounded to the nearest 0.25%), we estimate that such a portfolio would have an expected return of 5.00%, and the Plan would need $379 million to pay all benefits attributed to past service. This amount is the LDROM. The $36 million difference between the LDROM and the Actuarial Liability at 6.00% represents the expected savings from bearing the risk of investing in the Plan's diversified portfolio. Alternatively, it also represents the cost of significantly minimizing the investment risk.

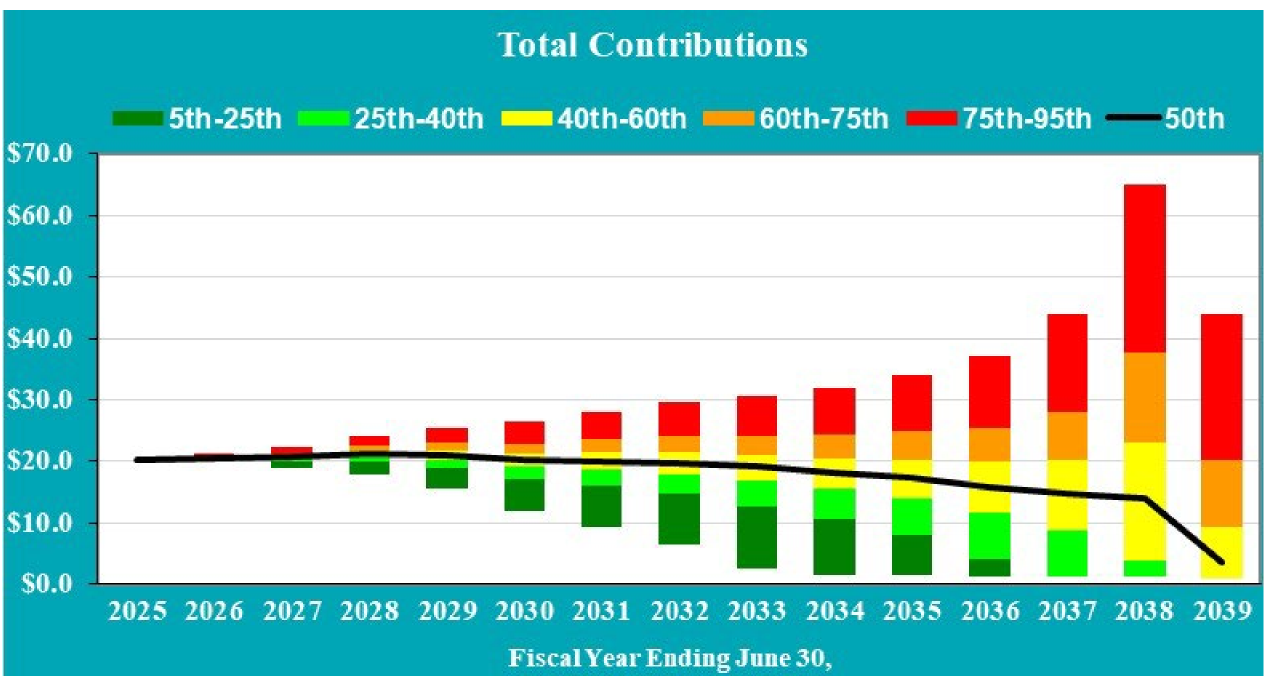
SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

Because the Plan invests in a diversified portfolio and not the LDROM portfolio, the reported funded status is higher, and expected employer contributions are lower. Benefit security for members of the Plan depends on a combination of the Plan's assets, the investment returns generated on those assets, and the ability of the Plan to make any needed future contributions. An LDROM portfolio would generate more predictable but lower expected investment returns, potentially changing the level of reliance on future MTS contributions to secure benefits.

Stochastic Projections

Stochastic projections show the range of probable outcomes of various measurements. The charts on the following pages show the projected range of the total contributions and of the funded ratio on an actuarial value of assets basis. The range in both scenarios is driven by the volatility of investment returns (a 9.7% standard deviation of annual returns from RVK's Asset Allocation Study dated March 2023). The stochastic projections of investment returns are based on an assumption that each future year's investment return is independent from all other years and is identically distributed according to a lognormal distribution. This assumption may result in an unrealistically wide range of compound investment returns over longer periods of time.

Stochastic Projection of Total Contributions (in millions)



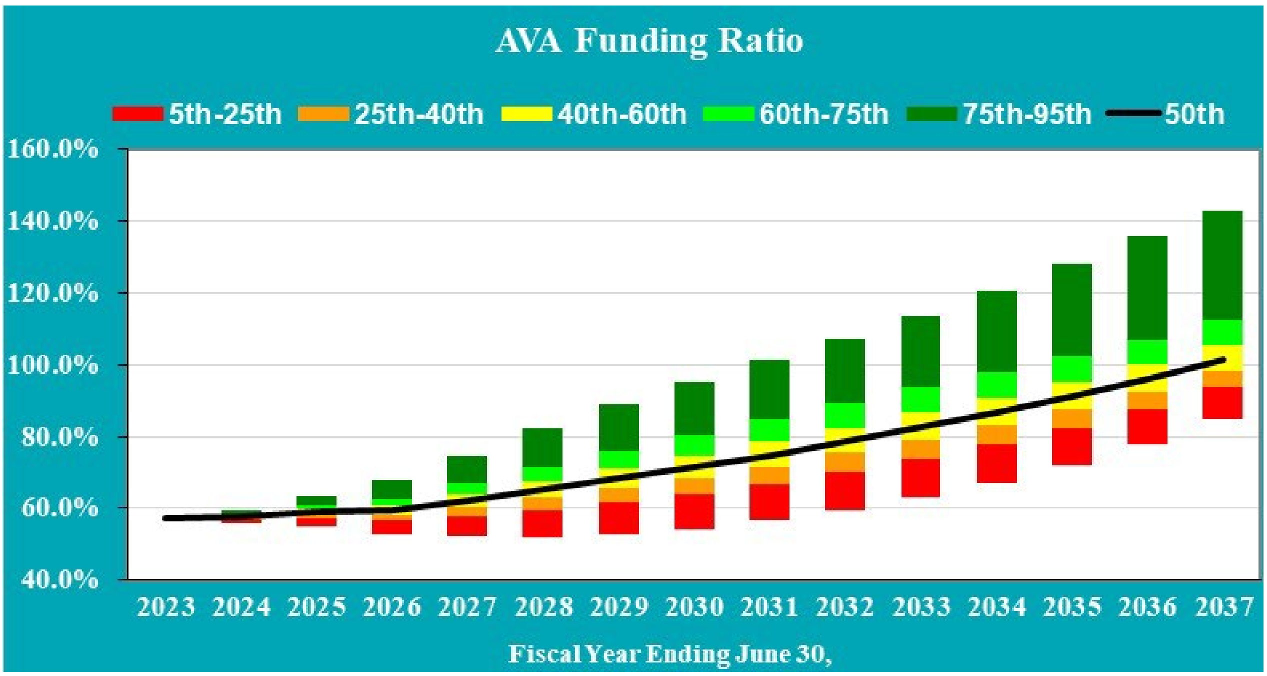
The stochastic projection of contributions shows the probable range of future contributions. The baseline contributions (black line), which is based on the median simulations using an average return of 6.00%, aligns with the projections discussed in Subsection E of the Executive Summary of this report. In the most pessimistic scenario shown, the 95th percentile, the

SECTION II – ASSESSMENT AND DISCLOSURE OF RISK

projected contributions are almost $65 million in FYE 2038. Conversely, in the most optimistic scenario shown, the 5th percentile, the projected contribution amount declines to about $1 million in FYE 2039.

The contribution range in the outer years becomes wider since the amortization periods for any actuarial gains or losses are short and fully paid for by 2039.

Stochastic Projection of Funded Ratio based on the Actuarial Value of Assets



While the baseline funded ratio (black line) is projected to be around 100% at the end of the 15-year period shown here, there is a wide range of potential outcomes. Good investment returns have the likelihood of bringing the funded ratio well over 100%. Due to the sound funding policy of the Plan, even in scenarios with unfavorable investment returns, the Plan is projected to remain above 50% funded, as long as actuarially determined contributions continue to be made.

SECTION III – ASSETS

Pension Plan assets play a key role in the financial operation of the Plan and in the decisions the Board may make with respect to future deployment of those assets. The level of assets, the allocation of assets among asset classes, and the methodology used to measure assets will likely impact benefit levels, contributions, and the ultimate security of participants' benefits.

In this section, we present detailed information on Plan assets including:

- **Disclosure** of Plan assets as of June 30, 2022 and June 30, 2023,
- Statement of the **changes** in market values during the year,
- Development of the **Actuarial Value of Assets**.

Disclosure

There are two types of asset values disclosed in the valuation, the Market Value of Assets, and the Actuarial Value of Assets. The market value represents a snapshot value that provides the principal basis for measuring financial performance from one year to the next. Market values, however, can fluctuate widely with corresponding swings in the marketplace. As a result, market values are usually not as suitable for long-range planning as are the Actuarial Value of Assets that reflect smoothing of annual investment returns.

SECTION III – ASSETS

Table III-1 discloses and compares each component of the Market Value of Assets as of June, 30, 2022 and June 30, 2023.

Table III-1
Statement of Assets at Market Value

	June 30, 2022	June 30, 2023
Investments		
Common Stock	$ 58,668,033	$ 61,854,033
Mutual Funds	56,340,502	59,799,632
Corporate Debt / Bond Funds	52,671,200	52,385,530
Closely Held Instruments	7,694	484
US Treasury Obligations	9,006,975	9,355,832
Short-Term Investments	813,377	601,832
Total Investments	$ 177,507,781	$ 183,997,343
Receivables		
Dividends and Interest	$ 909	$ 3,495
Other Reveivables	0	31,825
Total Receivables	$ 909	$ 35,320
Payables		
Due to Plan Sponsor	$ 541,246	$ 634,237
Other Payables	90,018	225,734
Total Payables	$ 631,264	$ 859,971
Market Value of Assets	**$ 176,877,426**	**$ 183,172,692**

Changes in Market Value

The components of asset change are:

- Contributions (employer and employee)
- Investment income (realized and unrealized), net of investment expenses
- Benefit payments
- Administrative Expenses

Table III-2 shows the components of a change in the Market Value of Assets during FYE 2022 and FYE 2023.

Table III-2
Changes in Market Values

	June 30, 2022	June 30, 2023
Contributions		
Employer's Contribution	15,838,082	16,157,770
Members' Contributions	1,621,654	1,719,444
Total Contributions	17,459,736	17,877,214
Investment Income		
Interest	1,949	38,083
Dividends	6,977,161	4,490,000
Miscellaneous	0	0
Realized & Unrealized Gain/(Loss)	(29,442,846)	7,074,461
Investment Expenses	(296,142)	(199,423)
Net Investment Income	(22,759,878)	11,403,121
Disbursements		
Benefit Payments	(22,029,157)	(22,630,610)
Administrative Expenses	(265,106)	(354,459)
Total Disbursments	(22,294,263)	(22,985,069)
Net Increase (Decrease)	(27,594,405)	6,295,266
Net Assets Held in Trust for Benefits		
Beginning of Year	204,471,831	176,877,426
End of Year	176,877,426	183,172,692
Approximate Return	-11.3%	6.5%

Actuarial Value of Assets (AVA)

The Actuarial Value of Assets represents a "smoothed" value developed by the actuary to reduce the volatile results, which could develop due to short-term fluctuations in the Market Value of Assets. For this Plan, the Actuarial Value of Assets is calculated on a modified market-related value. The Market Value of Assets is adjusted to recognize, over a five-year period, investment earnings which are greater than (or less than) the assumed investment return. The actuarial value is constrained to fall within 20% of the market value.

Table III-3
Development of Actuarial Value of Assets
as of June 30, 2023

Plan Year	(a) Expected Earnings	(b) Actual Earnings	(c) = (b) – (a) Unexpected Earnings	(d) Phase-In Factor	(c) x (d) Phase-In Adjustment
2018 -19	11,481,373	8,415,801	(3,065,572)	0%	0
2019 -20	11,343,578	24,666	(11,318,912)	20%	(2,263,782)
2020 -21	11,328,702	34,664,950	23,336,248	40%	9,334,499
2021 -22	12,125,387	(22,759,878)	(34,885,265)	60%	(20,931,159)
2022 -23	10,461,642	11,403,121	941,479	80%	753,183
1. Total Unrecognized Asset Gains/(Losses)					(13,107,259)
2. Market Value of Assets as of June 30, 2023					183,172,692
3. Actuarial Value of Assets as of June 30, 2023: [(2) - (1)]					196,279,951
4. Ratio of Actuarial Value to Market Value [(3) ÷ (2)]					107%

Investment Performance

The following table calculates the investment related gain/loss for the plan year on both a market value and an actuarial value basis. The market value gain/loss is an appropriate measure for comparing the actual asset performance to the valuation's long-term assumption. The rate of return assumption was 6.00% for the July 1, 2022 actuarial valuation.

Table III-4
Asset Gain/(Loss)

	Market Value	Actuarial Value
As of June 30, 2022	**$ 176,877,426**	**$ 195,924,568**
Employer Contributions	16,157,770	16,157,770
Employee Contributions	1,719,444	1,719,444
Benefit Payments	(22,630,610)	(22,630,610)
Administrative Expenses	(354,459)	(354,459)
Expected Investment Earnings at 6.00%	10,461,642	11,604,470
Expected Value as of June 30, 2023	**$ 182,231,213**	**$ 202,421,183**
Actuarial Gain/(Loss) on Assets	941,479	(6,141,232)
Actual Value as of June 30, 2023	**$ 183,172,692**	**$ 196,279,951**
Return	6.5%	2.8%
Variance from Expected Return of 6.00%	0.5%	-3.2%

SECTION IV – LIABILITIES

In this section, we present detailed information on Plan liabilities including:

- **Disclosure** of Plan liabilities at July 1, 2022 and July 1, 2023,
- Statement of **changes** in these liabilities during the year.

Disclosure

Several types of liabilities are calculated and presented in this report. Each type is distinguished by the people ultimately using the figures and the purpose for which they are using them. Note that these liabilities are not appropriate for settlement purposes, including the purchase of annuities and the payment of lump sums.

- **Present Value of Future Benefits:** Used for measuring all future Plan obligations; the obligations of the Plan earned as of the valuation date and those to be earned in the future by current Plan participants, under the current Plan provisions.

- **Actuarial Liability:** Used for funding calculations, this liability is calculated taking the total Present Value of Future Benefits and subtracting all future normal costs. The method used for this Plan is called the Entry Age Normal (EAN) funding method.

- **Unfunded Actuarial Liability:** The excess of the Actuarial Liability over the Actuarial Value of Assets.

SECTION IV – LIABILITIES

Table IV-1 discloses each of these liabilities for the current and prior valuations.

Table IV-1
Liabilities and Unfunded Actuarial Liability

		July 1, 2022		July 1, 2023
1. Present Value of Future Benefits				
Active Participant Benefits				
ATU/Drivers	$	56,871,565	$	55,441,138
IBEW/Mechanics		28,757,046		29,633,090
ATU/Clerical		2,074,727		2,152,220
Non-Contract/Admin [1]		26,488,209		28,069,668
Total	**$**	**114,191,547**	**$**	**115,296,116**
2. Inactive Actuarial Liability				
ATU/Drivers	$	125,463,264	$	128,086,052
IBEW/Mechanics		33,332,983		33,899,436
ATU/Clerical		5,999,971		5,186,826
Non-Contract/Admin [1]		81,693,824		83,207,265
Total	**$**	**246,490,042**	**$**	**250,379,579**
3. Active Actuarial Liability				
ATU/Drivers	$	45,266,486	$	44,696,858
IBEW/Mechanics		23,667,959		24,822,227
ATU/Clerical		1,746,716		1,834,465
Non-Contract/Admin [1]		19,977,368		21,119,739
Total	**$**	**90,658,529**	**$**	**92,473,289**
4. Total Actuarial Liability, [(2) + (3)]	$	337,148,571	$	342,852,868
5. Plan Assets (Actuarial Value)		195,924,568		196,279,951
6. Unfunded Actuarial Liability (UAL), [(4) - (5)]	**$**	**141,224,003**	**$**	**146,572,917**

[1] *Includes PEPRA members.*

SECTION IV – LIABILITIES

Table IV-2 below analyzes the increases or decreases in the liabilities since the last valuation.

Changes in Liabilities

Each of the liabilities disclosed in the prior table are expected to change at each valuation. The components of that change (as shown in Table IV-2 below), depending upon which liability is analyzed, can include:

- Benefits accrued since the last valuation
- Plan amendments changing benefits
- Passage of time which adds interest to the prior liability
- Benefits paid to retirees since the last valuation
- Actuarial gains or losses from participants retiring, terminating, or dying at rates different than expected
- A change in actuarial assumptions
- A change in the actuarial funding method or software

Table IV-2
Changes in Actuarial Liability

Actuarial Liability at July 1, 2023	$	342,852,868
Actuarial Liability at July 1, 2022	$	337,148,571
Liability Increase (Decrease)	$	5,704,297
Change due to:		
Assumption Changes		0
Accrual of Benefits		3,615,035
Actual Benefit Payments		(22,630,610)
Interest		19,776,787
Actuarial (Gain)/Loss		4,943,085
Liability Increase (Decrease)	$	5,704,297

SECTION IV – LIABILITIES

Unfunded liabilities will change (as shown in Table IV-3 below) because of the changes in liabilities on the previous page, and also due to changes in Plan assets resulting from:

- Contributions different than expected
- Investment earnings different than expected
- Expenses different than expected

Table IV-3
Development of Actuarial Gain / (Loss)

1. Unfunded Actuarial Liability (UAL) at Start of Year (not less than zero)	$	141,224,003
2. Expected UAL Payment		(14,505,139)
3. Interest on (1) and (2) to End of Year		7,603,131
4. Increase in UAL due to Assumption Change		0
5. Expected Unfunded Actuarial Liability at End of Year, [(1) + (2) + (3) + (4)]	$	134,321,995
6. Actual Unfunded Actuarial Liability at End of Year (not less than zero)	$	146,572,917
7. **Actuarial Gain/(Loss), [(5) – (6)]**	$	**(12,250,922)**
(a) Liability Gain/(Loss)		(4,943,085)
(b) Asset Gain/(Loss) on Actuarial Value		(6,141,232)
(c) Contribution Timing Delay Gain/(Loss)		(1,100,586)
(d) Administrative Expenses More than Expected		(66,019)

SECTION V – CONTRIBUTIONS

In the process of evaluating the financial condition of any pension plan, the actuary analyzes the assets and liabilities to determine what level (if any) of contributions are needed to properly maintain the funding status of the Plan. Typically, the actuarial process will use a funding technique that will result in a pattern of contributions that are both stable and predictable.

Based on the assumptions and cost method, Plan assets are currently below the target level of assets determined by the cost method; consequently, there is an Unfunded Actuarial Liability. As a result, the required Plan contribution consists of three components: The normal cost, the amortization of the Unfunded Actuarial Liability (UAL) and assumed administrative expenses.

The normal cost represents the cost of the additional benefits earned during the plan year by active Plan members. The amortization of the unfunded liability represents a payment designed to bring the Plan's assets up to the target level set by the actuarial cost method. Currently, the amortization of UAL represents about three-fourths of the total contribution.

As the UAL is paid overtime, the Plan contribution is expected to decrease to a level near the normal cost plus administrative expenses. The normal cost itself will be changing since the Plan is closed to new members other than Non-Contract employees.

The table below presents the total Plan contributions (both employer and employee) for the current and prior valuations.

Table V-1
Development of Annual Contribution

		July 1, 2022	July 1, 2023
1.	Total Actuarial Liability	$ 337,148,571	$ 342,852,868
2.	Plan Assets (Actuarial Value)	$ 195,924,568	$ 196,279,951
3.	Unfunded Actuarial Liability (UAL), [(1) - (2)]	$ 141,224,003	$ 146,572,917
4.	UAL Amortization Payment	$ 14,505,139	$ 15,748,549
5.	Total Plan Normal Cost	$ 3,615,035	$ 3,557,763
6.	Expected Administrative Expenses	$ 282,000	$ 289,050
7.	Total Cost (beginning of year), [(4) + (5) + (6)]	$ 18,402,174	$ 19,595,362
8.	Total Cost (interest adjusted to middle of year)	$ 18,946,198	$ 20,174,660

SECTION V – CONTRIBUTIONS

Table V-2 presents the calculation of the UAL payments for the Plan under the amortization policy adopted in 2012.

Table V-2
Development of the Amortization Payment (BOY) as of July 1, 2023

	Type of Base	Date Established	Initial Balance	Initial Amortization	Outstanding Balance	Remaining Amortization	Amortization Amount
1.	Initial Unfunded Actuarial Liability	7/1/2012	$ 87,613,245	25	$ 65,533,377	14	$ 6,651,323
2.	Actuarial Loss	7/1/2013	6,555,553	15	2,935,615	5	657,457
3.	Actuarial Gain	7/1/2014	(2,132,368)	15	(1,108,491)	6	(212,666)
4.	Actuarial Loss	7/1/2015	740,624	15	434,709	7	73,464
5.	Assumption Changes	7/1/2016	29,699,872	21	23,779,753	14	2,413,531
6.	Actuarial Loss	7/1/2016	4,978,340	15	3,233,301	8	491,205
7.	Actuarial Loss	7/1/2017	5,880,935	15	4,168,432	9	578,162
8.	Method Changes	7/1/2018	(640,322)	19	(537,484)	14	(54,552)
9.	Actuarial Loss	7/1/2018	5,453,907	15	4,168,364	10	534,290
10.	Assumption Changes	7/1/2019	7,536,766	18	6,500,238	14	659,743
11.	Actuarial Loss	7/1/2019	9,988,472	15	8,152,387	11	975,156
12.	Actuarial Loss	7/1/2020	3,425,437	15	2,964,320	12	333,562
13.	Assumption Changes	7/1/2021	10,215,184	16	9,395,504	14	953,599
14.	Actuarial Gain	7/1/2021	(5,703,358)	15	(5,198,592)	13	(553,994)
15.	Actuarial Loss	7/1/2022	10,345,013	15	9,900,562	14	1,004,859
16.	Actuarial Loss	7/1/2023	12,250,922	14	12,250,922	14	1,243,410
	TOTAL				**$ 146,572,917**		**$ 15,748,549**
					Total UAL Payment, Middle of Year		**$ 16,214,124**

SECTION V – CONTRIBUTIONS

Table V-3 presents the development of the PEPRA Member Contribution Rate. PEPRA Members must contribute half of the total normal cost rate of the Plan, rounded to the nearest 0.25%, as shown in the table below.

Table V-3
Development of the PEPRA Member Contribution Rate

Valuation Date	**July 1, 2022**	**July 1, 2023**
Effective Date	FY 2023-2024	FY 2024-2025
Assumed Rate of Return	6.00%	6.00%
Total Normal Cost Rate	18.81%	18.07%
50/50 Cost Sharing Rate for Members	9.40%	9.03%
Member Contribution Rate	**9.50%**	**9.00%**
(rounded to nearest quarter %)		
Active PEPRA Membership Statistics		
Number	23	26
Average Age	46.8	44.4
Average Service	7.1	6.0
Average Age at Hire Date	39.7	38.4

APPENDIX A – MEMBERSHIP INFORMATION

Data pertaining to active and inactive Members and their beneficiaries as of the valuation date was supplied by the Plan Administrator on electronic media. As is usual in studies of this type, Member data was neither verified nor audited; however, it was reviewed to ensure that it complies with generally accepted actuarial standards.

Summary of Participant Data

Active Participants

Non-Contract/Admin	July 1, 2022	July 1, 2023
Number	47	45
Average Age	51.2	52.3
Average Service	18.0	18.9
Average Pay	$ 82,441	$ 85,940
Non-Contract/PEPRA	**July 1, 2022**	**July 1, 2023**
Number	23	26
Average Age	46.8	44.4
Average Service	7.1	6.0
Average Pay	$ 71,110	$ 76,165
ATU/Clerical	**July 1, 2022**	**July 1, 2023**
Number	9	9
Average Age	53.0	54.0
Average Service	15.4	16.4
Average Pay	$ 56,094	$ 56,224
ATU/Drivers	**July 1, 2022**	**July 1, 2023**
Number	171	152
Average Age	55.3	55.7
Average Service	18.4	18.7
Average Pay	$ 70,855	$ 76,771
IBEW/Mechanics	**July 1, 2022**	**July 1, 2023**
Number	81	78
Average Age	53.5	54.5
Average Service	22.7	23.7
Average Pay	$ 73,474	$ 76,804
Total	**July 1, 2022**	**July 1, 2023**
Number	331	310
Average Age	53.6	53.9
Average Service	18.5	18.8
Average Pay	$ 72,758	$ 77,463

Summary of Participant Data

Deferred Participants

Terminated Vested	July 1, 2022	July 1, 2023
Number	184	175
Average Age	55.2	55.4
Average Annual Benefit	$ 9,249	$ 9,366

In-Pay Participants

Service Retired	July 1, 2022	July 1, 2023
Number	807	817
Average Age	71.4	71.7
Average Annual Benefit	$ 24,269	$ 24,829
Beneficiaries	**July 1, 2022**	**July 1, 2023**
Number	178	181
Average Age	72.9	73.7
Average Annual Benefit	$ 11,698	$ 11,787
Disabled	**July 1, 2022**	**July 1, 2023**
Number	73	68
Average Age	70.9	71.8
Average Annual Benefit	$ 10,121	$ 10,170
Total	**July 1, 2022**	**July 1, 2023**
Number	1,058	1,066
Average Age	71.6	72.0
Average Annual Benefit	$ 21,178	$ 21,680

APPENDIX A – MEMBERSHIP INFORMATION

Status Reconciliation - All Divisions
Changes in Plan Membership as of July 1, 2023

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2022	**331**	**184**	**73**	**807**	**178**	**1,573**
New Entrants	5					5
Rehires						0
Disabilities						0
Retirements/ Domestic Relations Order (DRO)	(18)	(17)		35	0	0
Vested Terminations	(8)	8				0
Died, with Beneficiaries' Benefit Payable			(2)	(7)	9	0
Transfers						0
Died, without Beneficiary, and Other Terminations			(3)	(18)	(1)	(22)
Beneficiary Deaths					(5)	(5)
Data Corrections						0
Total Change	(21)	(9)	(5)	10	3	(22)
Participant count as of July 1, 2023	**310**	**175**	**68**	**817**	**181**	**1,551**

APPENDIX A – MEMBERSHIP INFORMATION

Status Reconciliation - Non-Contract/Administrative[1]
Changes in Plan Membership as of July 1, 2023

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2022	**70**	**23**	**1**	**136**	**35**	**265**
New Entrants	5					5
Rehires						0
Disabilities						0
Retirements/ Domestic Relations Order (DRO)	(1)	(5)		6		0
Vested Terminations	(3)	3				0
Died, with Beneficiaries' Benefit Payable				(2)	2	0
Transfers						0
Died, without Beneficiary, and Other Terminations				(3)		(3)
Beneficiary Deaths					(1)	(1)
Data Corrections				1		1
Total Change	1	(2)	0	2	1	2
Participant count as of July 1, 2023	**71**	**21**	**1**	**138**	**36**	**267**

[1] *Includes 23 active individuals participating in PEPRA.*

APPENDIX A – MEMBERSHIP INFORMATION

Status Reconciliation - Clerical
Changes in Plan Membership as of July 1, 2023

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2022	**9**	**9**	**1**	**34**	**6**	**59**
New Entrants						0
Rehires						0
Disabilities						0
Retirements/ Domestic Relations Order (DRO)		(1)		1		0
Vested Terminations						0
Died, with Beneficiaries' Benefit Payable						0
Transfers						0
Died, without Beneficiary, and Other Terminations				(5)		(5)
Beneficiary Deaths						0
Data Corrections						0
Total Change	0	(1)	0	(4)	0	(5)
Participant count as of July 1, 2023	**9**	**8**	**1**	**30**	**6**	**54**

APPENDIX A – MEMBERSHIP INFORMATION

Status Reconciliation - ATU/Drivers
Changes in Plan Membership as of July 1, 2023

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2022	**171**	**114**	**60**	**513**	**103**	**961**
New Entrants						0
Rehires						0
Disabilities						0
Retirements/ Domestic Relations Order (DRO)	(15)	(9)		24		0
Vested Terminations	(4)	4				0
Died, with Beneficiaries' Benefit Payable			(2)	(5)	7	0
Transfers						0
Died, without Beneficiary, and Other Terminations			(2)	(10)	(1)	(13)
Beneficiary Deaths					(3)	(3)
Data Corrections				(2)		(2)
Total Change	(19)	(5)	(4)	7	3	(18)
Participant count as of July 1, 2023	**152**	**109**	**56**	**520**	**106**	**943**

APPENDIX A – MEMBERSHIP INFORMATION

Status Reconciliation - IBEW/Mechanics
Changes in Plan Membership as of July 1, 2023

	Active	Terminated Vested	Disabled	Retired	Beneficiaries	Total
Participant count as of July 1, 2022	**81**	**38**	**11**	**124**	**34**	**288**
New Entrants						0
Rehires						0
Disabilities						0
Retirements/ Domestic Relations Order (DRO)	(2)	(2)		4		0
Vested Terminations	(1)	1				0
Died, with Beneficiaries' Benefit Payable						0
Transfers						0
Died, without Beneficiary, and Other Terminations			(1)			(1)
Beneficiary Deaths					(1)	(1)
Data Corrections				1		1
Total Change	(3)	(1)	(1)	5	(1)	(1)
Participant count as of July 1, 2023	**78**	**37**	**10**	**129**	**33**	**287**

APPENDIX A – MEMBERSHIP INFORMATION

Age / Service Distribution Of Active Participants - Non-Contract/Administrative[1] (Counts) As of July 1, 2023

	Service												
Age	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	**Total**
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	**0**
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	**0**
25 to 29	0	0	1	1	1	0	0	0	0	0	0	0	**3**
30 to 34	0	0	0	0	0	0	2	0	0	0	0	0	**2**
35 to 39	0	0	0	0	0	5	1	5	0	0	0	0	**11**
40 to 44	1	0	0	0	1	1	4	3	0	0	0	0	**10**
45 to 49	0	0	1	0	0	2	2	1	2	3	0	0	**11**
50 to 54	0	0	0	1	0	0	4	1	2	1	0	0	**9**
55 to 59	0	0	0	1	1	1	1	1	0	1	0	1	**7**
60 to 64	0	0	0	0	0	3	2	4	1	2	1	1	**14**
65 to 69	0	0	0	0	0	0	2	1	0	1	0	0	**4**
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Total	**1**	**0**	**2**	**3**	**3**	**12**	**18**	**16**	**5**	**8**	**1**	**2**	**71**

[1] *Includes 26 active individuals participating in PEPRA.*

Age / Service Distribution Of Active Participants - Non-Contract/Administrative[1] (Average Salary) As of July 1, 2023

	Service												
Age	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	**Total**
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
25 to 29	0	0	50,003	71,510	74,371	0	0	0	0	0	0	0	**$65,295**
30 to 34	0	0	0	0	0	0	89,998	0	0	0	0	0	**$89,998**
35 to 39	0	0	0	0	0	74,851	75,341	83,353	0	0	0	0	**$78,760**
40 to 44	88,234	0	0	0	69,742	104,007	71,753	107,646	0	0	0	0	**$87,193**
45 to 49	0	0	46,093	0	0	84,217	84,306	83,910	105,796	88,127	0	0	**$85,729**
50 to 54	0	0	0	77,299	0	0	80,379	104,520	75,911	75,502	0	0	**$81,184**
55 to 59	0	0	0	50,355	91,763	75,734	100,006	76,001	0	61,000	0	111,796	**$80,951**
60 to 64	0	0	0	0	0	69,041	85,034	79,706	74,371	112,776	64,102	91,763	**$82,272**
65 to 69	0	0	0	0	0	0	79,283	75,502	0	107,187	0	0	**$85,314**
70 & up	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
Total	**$88,234**	**$0**	**$48,048**	**$66,388**	**$78,625**	**$77,463**	**$81,173**	**$87,404**	**$87,557**	**$91,703**	**$64,102**	**$101,780**	**$82,360**

[1] *Includes 26 active individuals participating in PEPRA.*

APPENDIX A – MEMBERSHIP INFORMATION

Age / Service Distribution Of Active Participants - ATU/Clerical (Counts)
As of July 1, 2023

	Service												
Age	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	**Total**
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	**0**
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	**0**
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	**0**
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	**0**
35 to 39	0	0	0	0	0	0	1	0	0	0	0	0	**1**
40 to 44	0	0	0	0	0	0	0	1	0	0	0	0	**1**
45 to 49	0	0	0	0	0	0	1	0	0	0	0	0	**1**
50 to 54	0	0	0	0	0	0	2	0	0	0	0	0	**2**
55 to 59	0	0	0	0	0	0	1	0	1	0	0	0	**2**
60 to 64	0	0	0	0	0	0	0	0	0	1	0	0	**1**
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	**0**
70 & up	0	0	0	0	0	0	0	1	0	0	0	0	**1**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**5**	**2**	**1**	**1**	**0**	**0**	**9**

Age / Service Distribution Of Active Participants - ATU/Clerical (Average Salary)
As of July 1, 2023

	Service												
Age	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	**Total**
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
35 to 39	0	0	0	0	0	0	54,327	0	0	0	0	0	**$54,327**
40 to 44	0	0	0	0	0	0	0	49,623	0	0	0	0	**$49,623**
45 to 49	0	0	0	0	0	0	86,203	0	0	0	0	0	**$86,203**
50 to 54	0	0	0	0	0	0	50,769	0	0	0	0	0	**$50,769**
55 to 59	0	0	0	0	0	0	49,623	0	50,691	0	0	0	**$50,157**
60 to 64	0	0	0	0	0	0	0	0	0	64,386	0	0	**$64,386**
65 to 69	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
70 & up	0	0	0	0	0	0	0	49,623	0	0	0	0	**$49,623**
Total	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$58,338**	**$49,623**	**$50,691**	**$64,386**	**$0**	**$0**	**$56,224**

APPENDIX A – MEMBERSHIP INFORMATION

Age / Service Distribution Of Active Participants - ATU/Drivers (Counts)
As of July 1, 2023

	Service												
Age	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	**Total**
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	**0**
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	**0**
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	**0**
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	**0**
35 to 39	0	0	0	0	0	0	5	2	0	0	0	0	**7**
40 to 44	0	0	0	0	0	0	7	7	1	0	0	0	**15**
45 to 49	0	0	0	0	0	0	3	10	2	0	0	0	**15**
50 to 54	0	0	0	0	0	0	4	11	9	1	0	0	**25**
55 to 59	0	0	0	0	0	0	12	12	9	4	1	0	**38**
60 to 64	0	0	0	0	0	0	11	7	5	7	3	2	**35**
65 to 69	0	0	0	0	0	0	6	2	3	2	1	0	**14**
70 & up	0	0	0	0	0	0	0	0	0	1	1	1	**3**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**48**	**51**	**29**	**15**	**6**	**3**	**152**

Age / Service Distribution Of Active Participants - ATU/Drivers (Average Salary)
As of July 1, 2023

	Service												
Age	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	**Total**
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
30 to 34	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
35 to 39	0	0	0	0	0	0	74,779	73,099	0	0	0	0	**$74,299**
40 to 44	0	0	0	0	0	0	67,040	80,253	84,773	0	0	0	**$74,388**
45 to 49	0	0	0	0	0	0	66,165	67,915	70,532	0	0	0	**$67,914**
50 to 54	0	0	0	0	0	0	87,444	83,087	75,455	90,977	0	0	**$81,352**
55 to 59	0	0	0	0	0	0	81,689	75,823	72,813	82,094	90,457	0	**$78,008**
60 to 64	0	0	0	0	0	0	71,500	90,751	73,135	74,356	87,127	73,862	**$77,629**
65 to 69	0	0	0	0	0	0	74,219	71,075	87,224	79,817	65,410	0	**$76,727**
70 & up	0	0	0	0	0	0	0	0	0	69,972	71,752	83,613	**$75,113**
Total	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$75,073**	**$78,203**	**$75,434**	**$77,964**	**$81,500**	**$77,113**	**$76,771**

APPENDIX A – MEMBERSHIP INFORMATION

Age / Service Distribution Of Active Participants - IBEW/Mechanics (Counts)
As of July 1, 2023

	Service												
Age	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	**Total**
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	**0**
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	**0**
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	**0**
30 to 34	0	0	0	0	0	0	1	1	0	0	0	0	**2**
35 to 39	0	0	0	0	0	0	6	5	0	0	0	0	**11**
40 to 44	0	0	0	0	0	0	2	1	1	0	0	0	**4**
45 to 49	0	0	0	0	0	0	0	0	2	5	0	0	**7**
50 to 54	0	0	0	0	0	0	1	0	2	2	4	0	**9**
55 to 59	0	0	0	0	0	0	0	4	3	2	3	0	**12**
60 to 64	0	0	0	0	0	0	0	5	6	3	6	4	**24**
65 to 69	0	0	0	0	0	0	1	3	0	0	2	1	**7**
70 & up	0	0	0	0	0	0	0	1	1	0	0	0	**2**
Total	**0**	**0**	**0**	**0**	**0**	**0**	**11**	**20**	**15**	**12**	**15**	**5**	**78**

Age / Service Distribution Of Active Participants - IBEW/Mechanics (Average Salary)
As of July 1, 2023

	Service												
Age	Under 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 & up	**Total**
Under 20	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
20 to 24	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
25 to 29	0	0	0	0	0	0	0	0	0	0	0	0	**$0**
30 to 34	0	0	0	0	0	0	85,377	85,377	0	0	0	0	**$85,377**
35 to 39	0	0	0	0	0	0	75,139	85,377	0	0	0	0	**$79,792**
40 to 44	0	0	0	0	0	0	80,862	85,377	85,377	0	0	0	**$83,119**
45 to 49	0	0	0	0	0	0	0	0	80,862	74,467	0	0	**$76,294**
50 to 54	0	0	0	0	0	0	85,377	0	67,134	80,862	80,862	0	**$78,313**
55 to 59	0	0	0	0	0	0	0	57,711	85,377	80,862	73,057	0	**$72,322**
60 to 64	0	0	0	0	0	0	0	76,179	77,712	73,057	79,357	85,377	**$78,499**
65 to 69	0	0	0	0	0	0	76,347	66,084	0	0	80,862	76,347	**$73,238**
70 & up	0	0	0	0	0	0	0	48,891	57,448	0	0	0	**$53,170**
Total	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$78,151**	**$72,826**	**$77,414**	**$76,246**	**$78,699**	**$83,571**	**$76,804**

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

A. Contribution Allocation Procedure

The contribution allocation procedure primarily consists of an actuarial cost method, an asset smoothing method, and an amortization method as described below. This contribution allocation procedure, combined with reasonable assumptions, produces a Reasonable Actuarially Determined Contribution as defined in Actuarial Standard of Practice No. 4. The contribution allocation procedure was selected to balance benefit security, intergenerational equity, and the stability of actuarially determined contributions. The selection also considered the demographics of plan members, the funding goals and objectives of the Board, and the need to accumulate assets to make benefit payments when due.

1. **Actuarial Cost Method**

   The actuarial funding method used to determine the normal cost and the Unfunded Actuarial Liability is the individual entry age to final decrement cost method. This method is consistent with the method required under the GASB accounting statements. Under this cost method, the normal cost is calculated as the amount necessary to fund Members' benefits as a level percentage of total payroll over their projected working lives. At each valuation date, the Actuarial Liability is equal to the difference between the liability for the Members' total projected benefit and the present value of future normal cost contributions. The total normal cost is calculated as the sum of the individual normal costs for each active member (individual entry age method). The Unfunded Actuarial Liability (UAL) is the difference between the Actuarial Liability and the Actuarial Value of Assets (AVA).

2. **Amortization Method**

   The initial Unfunded Actuarial Liability as of July 1, 2012 is amortized in level dollar payments over a 25-year period ending June 30, 2037. Changes in the Unfunded Actuarial Liability due to Plan amendments, changes in actuarial assumptions or methods will be amortized in level dollar payments over a separate period that ends on June 30, 2037, consistent with the amortization of the remaining June 30, 2012 UAL. Changes in the Unfunded Actuarial Liability due to actuarial gains and losses are amortized over closed separate 15-year periods in level dollar payments. In order for SDTC to achieve its goal of full funding by 2037, once the amortization of future gains and losses extends beyond June 30, 2037, the period will be reduced to end on June 30, 2037. However, as the targeted full funding date of June 30, 2037 approaches, changes to the amortization policy may be made at the MTS Board's discretion to mitigate volatility or unsustainable increases in the UAL payment.

   Though, the Retirement Board may make exceptions, in general, the intent is to follow the guidelines published by the California Actuarial Advisory Panel and the Government Finance Officers' Association.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

3. Actuarial Value of Plan Assets

For the purposes of determining contributions, a smoothed Actuarial Value of Assets (AVA) is used that dampens the effects of volatility in the Market Value of Assets on the pattern of contributions. The AVA is determined using an adjusted market value. Under this method, a preliminary AVA is determined as the Market Value of Assets on the valuation date less a decreasing fraction (4/5, 3/5, 2/5, 1/5) of the gain or loss in each of the preceding four years. The gain or loss for a given year is the difference between the actual investment return (on a market-to-market basis) and the assumed investment return based on the Market Value of Assets at the beginning of the year and actual cash flow. The AVA is adjusted, if necessary, to remain between 80% and 120% of the market value.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

B. Actuarial Assumptions

The economic and demographic assumptions are based on the experience study covering the period from July 1, 2015 through June 30, 2020 that was adopted at the MTS Board of Directors Meeting in November 2021. The rationale for all the assumptions can also be found in the experience study report dated September 2021. All assets and liabilities are computed as of the valuation date, July 1, 2023.

1. Rate of Return

The annual rate of return on all Plan assets is assumed to be 6.00% net of investment expenses.

2. Cost of Living

The cost of living as measured by the Consumer Price Index (CPI) will increase at the rate of 2.50% per year.

3. Post Retirement COLA

Benefits for Non-Contract retirees assumed to increase after retirement at the rate of 2.0% per year.

4. Pay for Benefits

In most cases, pay for benefits is based on a two-year average of each Participant's pay during the two years preceding the valuation date. Special procedures are used in some cases, as noted for full-time Participants.

Unit	Pay for Continuing Participants	Pay for New Participants
Drivers	The larger of gross pay or 1,800 hours times the member's hourly rate	
Mechanics	2,150 hours times the Participant's hourly rate	
Clerical	Gross pay	The larger of gross pay or 2,100 hours times the Participant's hourly rate
Non-Contract	Gross pay	The larger of gross pay or 2,080 hours times the Participant's hourly rate

Part-time Participants are assumed to work 1,040 hours in the calculations shown above.

5. Merit Pay (Longevity and Promotion) Increases

Assumed pay increases for active Participants consist of increases due to inflation (cost-of-living adjustments) and those due to longevity and promotion. Based on an analysis of pay levels and service, we developed the following assumptions:

Longevity and Promotion Increases				
Service	ATU Drivers	IBEW Mechanics	Clerical	Non-Contract
0	6.00%	7.50%	10.00%	3.50%
1	6.00%	7.50%	10.00%	3.50%
2	6.00%	7.50%	0.25%	3.50%
3	6.00%	7.50%	0.25%	3.50%
4	6.00%	7.50%	0.25%	3.50%
5	6.00%	7.50%	0.25%	3.50%
6	6.00%	7.50%	0.25%	3.50%
7	6.00%	7.50%	0.25%	3.50%
8	0.50%	7.50%	0.25%	3.50%
9	0.50%	7.50%	0.25%	3.50%
10+	0.50%	0.50%	0.25%	0.25%

In addition, annual adjustments in pay due to inflation will equal the CPI, for an additional annual increase of 2.50%. The combination of rates is compounded rather than using an additive method.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

6. Active Participant Mortality

Rates of mortality for all active ATU and IBEW Participants are given by Cheiron's ATU Non-Annuitant mortality with generational improvements from the base year 2016 using Scale MP-2020. Sample rates are shown in the table below:

Age	Male	Female
25	0.040%	0.033%
30	0.049%	0.038%
35	0.056%	0.051%
40	0.064%	0.072%
45	0.079%	0.101%
50	0.113%	0.151%
55	0.174%	0.239%
60	0.272%	0.365%
65	0.408%	0.524%

Rates of mortality for all active Clerical and Non-Contract Participants are given by 2010 Public General Employee mortality with generational improvements from the base year 2010 using Scale MP-2020.

7. Healthy Inactive Participant and Beneficiary Mortality

Rates of mortality for healthy inactive ATU and IBEW Participants, spouses, and surviving spouses are given by Cheiron's ATU Healthy-Annuitant mortality with generational improvements from the base year 2016 using Scale MP-2020. Sample rates are shown in the table below:

Age	Male	Female
55	0.898%	0.520%
60	1.123%	0.762%
65	1.309%	1.103%
70	1.983%	1.633%
75	3.272%	2.631%
80	5.595%	4.433%
85	9.647%	7.691%
90	15.707%	13.411%
95	22.864%	20.609%

Rates of mortality for healthy inactive Clerical and Non-Contract Participants, spouses, and surviving spouses are given by 2010 Public General Healthy Annuitant Amount Weighted mortality with generational improvements from the base year 2010 using Scale MP-2020.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

8. Disabled Participant Mortality

Rates of mortality for disabled members are given by Cheiron's ATU Disabled Annuitant mortality with generational improvements from the base year 2016 using Scale MP-2020.

9. Mortality Improvement

Mortality is assumed to improve in future years in accordance with the MP-2020 generational improvement tables.

10. Disability

Among ATU Drivers and IBEW Mechanics uses an 80% male/20% female blend of the standard CalPERS Public Agency Table, with sample rates below. Disabled Participants are assumed not to return to active service. No disability is assumed for Clerical and Non-Contract Participants.

Disability	
Age	Rate
25	0.016%
30	0.020%
35	0.045%
40	0.109%
45	0.158%
50	0.166%
55	0.156%
60	0.143%
65	0.120%
70	0.098%
75+	0.099%

11. Plan Expenses

Expected Plan administrative expenses as of the valuation date of $289,050 are included in the total annual cost, increasing each year with the assumed rate of inflation.

12. Family Composition

100% of active Participants are assumed married. Male spouses are assumed four years older than their wives are.

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

13. Service Retirement

Rates of service retirement among Participants eligible to retire are given by the following table:

Age	ATU Drivers	IBEW Mechanics	Clerical/Non Contract
52 [1]	0%	0%	0%
53-54	0%	0%	7.5%
55	10%	5%	7.5%
56-59	7.5%	5%	10%
60-61	10%	10%	10%
62	15%	10%	30%
63	15%	10%	25%
64	20%	15%	25%
65-66	40%	45%	25%
67-69	25%	20%	25%
70 and older	100%	100%	100%

[1] *Non-Contract retirement assumption at age 52 is for PEPRA participants only, 0% otherwise.*

14. Termination

Service-based or age-based termination rates are shown below by group. For all Participants, termination rates are assumed zero once a participant is eligible for retirement.

Termination for ATU Driver, IBEW Mechanic, and Non-Contract Participants are assumed to occur in accordance with the service-based rates shown in the following table:

Service	ATU Driver	IBEW Mechanic	Non-Contract
0	10.0%	10.0%	5.0%
1-6	4.0%	4.0%	5.0%
7 +	3.0%	3.0%	5.0%

APPENDIX B – ACTUARIAL ASSUMPTIONS AND METHODS

Termination for Clerical Participants is assumed to occur in accordance with the age-based rates shown in the following table:

Clerical	
Age	**Rate**
20-24	25.0%
25-29	15.0%
30-34	13.0%
35-39	11.0%
40-44	10.0%
45-49	9.0%
50 and older	9.0%

15. Employment Status

No future transfers among Participant groups are assumed.

16. Changes in Actuarial Methods and Assumptions since the Prior Valuation

None.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

A. Definitions

Average Monthly Final Earnings: Average Monthly Final Earnings means the average monthly compensation during the consecutive months that produces a Participant's highest average compensation, computed by dividing the Compensation Earnable for such period by the number of months in such period.

- For ATU, IBEW, and Clerical Participants, the averaging period is 36 consecutive months.
- For Non-Contract Participants, the number of consecutive months is 12.
- Public Employees' Pension Reform Act (PEPRA): For Non-Contract Participants hired on and after January 1, 2013, the number of consecutive months is 36.
- Those months during which the Participant did not receive compensation from the Employer equivalent to one-half the regular working days will be excluded. The average is then based on that portion of the averaging period remaining after the excluded months.
- PEPRA: It is possible that exclusions for months in which the Participant did not work full-time may be subject to change.
- Use the total of the Periodic Pensionable Earnings from the highest three calendar (payroll) years. These years need not be consecutive years. There shall be no skips and drops within the three calendar (payroll) years. Add the total Periodic Pensionable Earnings to Terminal Earnings and then divide by 36.

Compensation: Compensation means the remuneration for services paid by the Employer. The monetary value of board, lodgings, fuel, car allowance, laundry, or other advantages furnished to a Participant is not included.

PEPRA: For Participants joining the Plan on or after January 1, 2013, only base compensation up to the Social Security-integrated PEPRA compensation limit ($151,446 for 2024 and $146,042 for 2023) will count for computing Plan benefits and employee and employer contributions; in particular, all or most overtime will be excluded.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Compensation Earnable: Compensation Earnable is the compensation actually received by a Participant during a period of employment. For ATU and Non-Contract Participants, any bonus or retroactive wage increases are treated as compensation when received rather than when the services are performed. For IBEW Participants, Compensation Earnable is limited to 2,140 hours of straight time equivalent hours in any 12-month period.

In addition, the value of any vacation or sick leave accumulated but unused when benefits begin is excluded from Compensation Earnable and from Average Monthly Final Earnings.

PEPRA: For Participants joining the Plan on and after January 1, 2013, it is likely that some sources of compensation, such as those underlined above, may be excluded from benefit and contribution computations for these new Participants.

Credited Years Of Service: In general, Credited Years of Service is continuous service with the San Diego Transit Corporation and its predecessor company from the last date of employment through the date of retirement, death, disability, or other termination of service.

As of November 10, 1997, part-time ATU employees receive one Credited Year of Service for every 2,080 hours of service worked as a part-time employee after December 1, 1990.

For Non-Contract Participants, Credited Years of Service includes any year commencing on or after July 1, 1982 in which the Participant completes at least 1,000 Hours of Service. In addition, Credited Years of Service for Non-Contract Participants will exclude any period of service after the Participant's Normal Retirement Date.

A Participant who is disabled and recovers from disability and reenters the Plan as an active Participant will not receive Credited Years of Service for the period of disability.

B. Membership

All full-time and certain part-time IBEW employees hired prior to May 1, 2011, will become Participants on their date of hire. IBEW employees hired on and after May 1, 2011, will become Participants of a separate defined contribution plan and will not be Participants of this Plan.

All full-time and certain part-time ATU employees hired prior to November 1, 2012, will become Participants on their date of hire. ATU

APPENDIX C – SUMMARY OF PLAN PROVISIONS

employees hired on and after November 1, 2012, will become Participants of a separate defined contribution plan and will not be Participants of this Plan. All Non-Contract employees become Participants after earning one Credited Year of Service.

PEPRA: Any Participant joining the Plan for the first time on or after January 1, 2013, is a New Participant.

C. Retirement Benefit

Eligibility: Clerical and Non-Contract Participants are eligible for normal service retirement upon attaining age 63 and completing five or more Credited Years of Service and eligible for early service retirement upon attaining age 53 and completing five or more Credited Years of Service.

ATU and IBEW Participants are eligible for normal service retirement upon attaining age 63 (65 for IBEW) and completing five or more Credited Years of Service and eligible for early service retirement upon attaining age 55 and completing five or more Credited Years of Service.

PEPRA: New Participants are eligible to retire upon attaining age 52 and completing five or more Credited Years of Service.

Benefit Amount: The monthly service retirement benefit is the Participant's Average Monthly Final Earnings multiplied by the percentage figures shown in the tables below.

- For ATU and Clerical Participants terminating prior to October 1, 2005, ATU/Clerical Table A-1 is used; for ATU and Clerical Participants terminating on and after October 1, 2005, ATU/Clerical Table A-2 is used. Prior to July 1, 2006, the benefit from the table is limited to 60%.

- For IBEW Participants terminating prior to January 1, 2007, IBEW Table A-1 is used; for IBEW Participants terminating on and after January 1, 2007, IBEW Table A-2 is used.

- For Non-Contract participants terminating prior to July 1, 2000, Non-Contract Table A-1 is used; for Non-Contract participants terminating on and after July 1, 2000, Non-Contract Table A-2 is used.

For Participants with fractions of a year of age or service, the Participant's age or service will be rounded to the completed quarter year, and the percentage multiplier will be computed from the table using interpolation.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

ATU participants who are active from November 10, 1997, to December 31, 1998, and from November 10, 1997, to December 31, 1999, receive an additional 2.5% and 2.5%, respectively. However, the multiplier from Table A-1 or A-2, as augmented by the additional 2.5% increments, is still limited to 60% prior to July 1, 2006 and 70% thereafter.

Non-Contract Participants who are active as of July 1, 1994, and July 1, 1995, receive an additional 6% and 2%, respectively. However, the benefit multiplier, as augmented by the additional 6% and 2% increments, is still limited to 60% under Table A-1 and 70% under Table A-2.

A Participant who is disabled and recovers from disability and reenters the Plan as an active Participant will have this benefit amount reduced by the actuarial equivalent of the benefits paid during the period of disability.

PEPRA: For New Participants, the benefit multiplier will be 1% at age 52, increasing by 0.1% for each year of age to 2.5% at 67. In between exact ages, the multiplier will increase by 0.025% for each quarter year increase in age.

Form of Benefit: The normal form of benefit is an annuity payable for the life of the Participant, with no continuation of benefits to a beneficiary after death. The retirement benefit will be paid as a 50% Joint and Survivor benefit actuarially equivalent to the normal form for participants who have been married for at least one year. Otherwise, the normal form will be paid.

Because Participants will be making employee contributions, the Participant's beneficiaries may be eligible to receive a refund of accumulated contributions that exceed the benefits paid out to the Participant (if any) upon death.

The ATU and IBEW benefits have been amended from time to time to remove the actuarial reduction in benefits for previously retired Participants whose spouses have died before them. However, these adjustments are retroactive only, and they do not apply to benefits paid to currently active Participants.

ATU and IBEW Participants may elect an Alternative Retirement Formula if they terminate employment before early retirement but after 10 Credited Years of Service or were hired between April 1, 1968, and March 31, 1971, and desire to retire at their Normal Retirement Date. These Participants are eligible for a deferred benefit commencing at age 65 based on Table B.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Tables A-1 and A-2 for each employee group, as well as Table B, can be found at the end of Appendix C herein.

D. Disability Retirement Benefit

Eligibility: A Participant is eligible for a Disability Retirement Benefit if:

- The Participant has earned five Credited Years of Service (ATU, IBEW, Clerical and Non-Contract), and
- The Participant is unable to perform the duties of his or her job with the Corporation, cannot be transferred to another job with the Corporation, and has submitted satisfactory medical evidence of permanent disqualification from his or her job.

Benefit Amount: The Disability Retirement Benefit is a monthly benefit equal to the lesser of:

1. 1.5% times Credited Years of Service at Disability Retirement Date times the Participant's Average Monthly Final Earnings; and,
2. The Normal Retirement Benefit calculated using the Average Monthly Final Earnings at Disability Retirement Date and the projected Credited Years of Service to Normal Retirement Date.

The benefit is reduced by 50% of the amount of any earned income from other sources in excess of 50% of the Participant’s Average Monthly Earnings during the 12 months prior to disability; this reduction applies to all IBEW and Non-Contract Participants, but only to ATU Participants hired after June 30, 1983.

PEPRA: Note that the Disability Retirement Benefit for New Participants is based on the new definition of Compensation, which is subject to a maximum and excludes overtime.

Form of Benefit: The normal form of benefit is an annuity commencing at disability and payable for the life of the Participant, with no continuation of benefits to a beneficiary after death. The Disability Retirement Benefit will be paid as a 50% Joint and Survivor benefit actuarially equivalent to the normal form for participants who have been married for at least one year. Otherwise, the normal form will be paid.

Because Participants will be making employee contributions, the Participant’s beneficiaries may be eligible to receive a refund of accumulated contributions that exceed the benefits paid out to the Participant (if any) upon death.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

The ATU and IBEW benefits have been amended from time to time to remove the actuarial reduction in benefits for previously retired Participants whose spouses have died before them. However, these adjustments are retroactive only, and they do not apply to benefits paid to currently active Participants.

E. Pre-Retirement Death Benefit

Eligibility: A vested Participant is entitled to elect coverage of a pre-retirement spouse's benefit.

For years, if a Participant is age 55 or under, the cost of the coverage is paid by the Company For the years, a Participant is over age 55 and has elected this coverage, the cost of this coverage is paid by the Participant in the form of a reduced benefit upon retirement. The reduction is 3.5¢ per $10 of monthly benefit for each year of coverage.

There is no cost for this benefit for any ATU, Clerical, or Non-Contract Participant whose monthly benefit commences after November 27, 1990. There is no cost for this benefit for any IBEW Participant whose monthly benefit commences after December 3, 1996.

In order for the spouse to be eligible for this benefit, the participant must be married to the spouse for one year prior to death, unless death occurs from accidental causes.

Benefit Amount: For a Participant who is eligible to retire at death, the pre-retirement death benefit is 50% of the benefit that would have been payable had the Participant retired immediately prior to his or her death and elected to receive a 50% Joint and Survivor annuity.

For a Participant who dies before being eligible to retire, the pre-retirement death benefit is 50% of the benefit that would have been payable had the Participant survived to his or her earliest retirement date, retired, elected to receive a 50% Joint and Survivor annuity, and died immediately.

PEPRA: Note that the Pre-Retirement Death Benefit for New Participants is based on the new definition of compensation, which is subject to a maximum and excludes overtime.

Form of Benefit: For a Participant who is eligible to retire at death, the death benefit begins when the Participant dies and continues for the life of the surviving spouse.

For a Participant who dies before being eligible to retire, the death benefit begins when the Participant would have reached his or her earliest retirement date and continues for the life of the surviving spouse.

Because Participants will be making employee contributions, the Participant's beneficiaries may be eligible to receive a refund of accumulated contributions that exceed the benefits paid out to the Participant or spouse (if any) upon death.

F. Termination Benefit

Eligibility: A Participant is eligible for a termination benefit after earning five Credited Years of Service.

Benefit Amount: The termination benefit is computed in the same manner as the Normal Retirement Benefit, but it is based on Credited Years of Service and Average Monthly Final Earnings on the date of termination.

Effective July 1, 2000, Non-Contract participants who terminate prior to eligibility for early service retirement will have their benefits actuarially reduced if they begin receiving benefits before Normal Retirement Age.

PEPRA: For New Participants, the benefit multiplier will be 1% at age 52, increasing by 0.1% for each year of age to 2.5% at 67. In between exact ages, the multiplier will increase by 0.025% for each quarter year increase in age. Note also that the Termination Benefit for New Participants is based on the new definition of compensation, which is subject to a maximum and excludes overtime.

We assume a refund of employee contributions, with no interest, if termination occurs before five years of service.

Form of Benefit: The Participant will be eligible to commence benefits at the later of termination and earliest retirement eligibility age.

The normal form of benefit is an annuity payable for the life of the Participant, with no continuation of benefits to a beneficiary after death. The retirement benefit will be paid as a 50% Joint and Survivor benefit actuarially equivalent to the normal form for participants who have been married for at least one year. Otherwise, the normal form will be paid.

Because Participants will be making employee contributions, the Participant's beneficiaries may be eligible to receive a refund of accumulated contributions that exceed the benefits paid out to the Participant (if any) upon death.

The ATU and IBEW benefits have been amended from time to time to remove the actuarial reduction in benefits for previously retired Participants whose spouses have died before them. However, these adjustments are retroactive only, and they do not apply to benefits paid to currently active Participants.

G. Cost-of-Living Adjustments

Eligibility: An annual Cost-of-Living Adjustment (COLA) has been added for Non-Contract Participants who were actively employed on or after June 30, 1999. One time only (ad hoc) COLAs were granted to ATU and IBEW Participants in 1991 and 1992.

Benefit Amount: For Non-Contract Participants, the cumulative COLA is the increase in the Consumer Price Index (CPI) since the Participant began receiving benefits.

The COLA is subject to the following limits for Non-Contract Participants:

- The cumulative COLA cannot exceed 2% compounded annually for all years since the Participant's benefits began;
- The annual COLA is zero if the CPI increase in that year is less than 1%;
- The annual COLA is limited to 6% of the initial benefit amount in any year; and,
- A Participant's benefit cannot be reduced below the benefit level when payments commenced.

H. Voluntary Early Retirement Program

The Plan provided enhanced benefits to ATU participants who voluntarily elected early retirement during the window period from July 1, 1998 through February 20, 1998.

The Plan provided enhanced benefits to certain IBEW participants who voluntarily elected early retirement during the window period from July 1, 2004, through December 31, 2004.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

I. DROP Program

The Plan provided DROP benefits to a number of ATU participants who elected retirement from July 1, 2002, through December 31, 2002.

J. Funding

- IBEW members contributed 3% of compensation to the Plan in April 2013 and 4% of compensation in April 2014. The contribution rate increased to 6% of compensation in April 2015 and increased to 8% of compensation in April 2016.
- ATU drivers and clerical members contributed 3% of compensation in July 2013. The contribution rate increased to 5% of compensation in July 2014, to 6% in July 2015, and to 7% of compensation in July 2016. The contribution rate increased to 8% of compensation in December 2017.

- Non-Contract members hired before January 1, 2013, contributed 2% of compensation to the Plan prior to January 2014. The Non-Contract member contributions increased to 4% of compensation in January 2014, to 6% of in January 2015, and increased to 7% of compensation on January 1, 2016. As of January 1, 2017, the member contribution rate increased to 8% of compensation.

- New members under PEPRA must contribute half of the normal cost of the Plan, rounded to the nearest 0.25%. Effective January 1, 2013, PEPRA members were paying 6.25% of pay and the employer has been paying the remaining cost of the Plan. The PEPRA employee contribution rate increases to 7.75% of pay based on the results of July 1, 2021 valuation, 9.50% of pay based on the results of this July 1, 2022 valuation, and 9.00% of pay based on the results of this July 1, 2023 valuation.

  The Corporation pays the actuarial cost of the Plan as reduced by Member contributions. Member contribution rates in the future may change in response to collective bargaining.

K. Changes in Plan Provisions since the Prior Valuation

PEPRA employee contributions decreased from 9.50% of pay to 9.00% of pay.

APPENDIX C – SUMMARY OF PLAN PROVISIONS

ATU/Clerical Table A-1: Retirement Benefit Multipliers

Credited Years Of Service	Age at Retirement								
	55	56	57	58	59	60	61	62	63+
5	5.9%	6.3%	6.7%	7.2%	7.8%	8.3%	8.9%	9.5%	10.1%
6	7.1%	7.5%	8.1%	8.7%	9.3%	10.0%	10.7%	11.4%	12.1%
7	8.2%	8.8%	9.4%	10.1%	10.9%	11.7%	12.4%	13.3%	14.1%
8	9.4%	10.1%	10.8%	11.6%	12.4%	13.3%	14.2%	15.1%	16.1%
9	10.6%	11.3%	12.1%	13.0%	14.0%	15.0%	16.0%	17.0%	18.1%
10	11.8%	12.6%	13.5%	14.4%	15.5%	16.7%	17.8%	18.9%	20.1%
11	12.9%	13.8%	14.8%	15.9%	17.1%	18.3%	19.5%	20.8%	22.2%
12	14.1%	15.1%	16.2%	17.3%	18.6%	20.0%	21.3%	22.7%	24.2%
13	15.3%	16.3%	17.5%	18.8%	20.2%	21.7%	23.1%	24.6%	26.2%
14	16.5%	17.6%	18.9%	20.2%	21.7%	23.3%	24.9%	26.5%	28.2%
15	17.6%	18.9%	20.2%	21.7%	23.3%	25.0%	26.7%	28.4%	30.2%
16	18.8%	20.1%	21.5%	23.1%	24.8%	26.7%	28.4%	30.3%	32.2%
17	20.0%	21.4%	22.9%	24.5%	26.4%	28.3%	30.2%	32.2%	34.3%
18	21.2%	22.6%	24.2%	26.0%	27.9%	30.0%	32.0%	34.1%	36.3%
19	22.3%	23.9%	25.6%	27.4%	29.5%	31.7%	33.8%	36.0%	38.3%
20	23.5%	25.2%	26.9%	28.9%	31.0%	33.3%	35.5%	37.9%	40.3%
21	24.7%	26.4%	28.3%	30.3%	32.6%	35.0%	37.3%	39.7%	42.3%
22	25.9%	27.7%	29.6%	31.8%	34.1%	36.7%	39.1%	41.6%	44.3%
23	27.0%	28.9%	31.0%	33.2%	35.7%	38.3%	40.9%	43.5%	46.3%
24	28.2%	30.2%	32.3%	34.6%	37.2%	40.0%	42.6%	45.4%	48.4%
25	29.4%	31.4%	33.7%	36.1%	38.8%	41.7%	44.4%	47.3%	50.4%
26	30.6%	32.7%	35.0%	37.5%	40.3%	43.3%	46.2%	49.2%	52.4%
27	31.7%	34.0%	36.4%	39.0%	41.9%	45.0%	48.0%	51.1%	54.4%
28	32.9%	35.2%	37.7%	40.4%	43.4%	46.7%	49.8%	52.0%	56.4%
29	34.1%	36.5%	39.1%	41.9%	45.0%	48.3%	50.0%	55.0%	58.4%
30	35.3%	37.7%	40.4%	43.4%	46.5%	50.0%	51.0%	55.5%	60.0%
31	36.5%	39.0%	41.7%	44.8%	48.1%	51.0%	51.5%	56.0%	60.0%
32	37.6%	40.2%	43.1%	46.2%	49.6%	51.5%	52.0%	56.5%	60.0%
33	38.8%	41.5%	44.4%	47.6%	50.0%	52.0%	52.5%	57.0%	60.0%
34	40.0%	42.8%	45.8%	49.1%	51.0%	52.5%	53.0%	57.5%	60.0%
35 or more	41.2%	44.0%	47.1%	50.0%	51.5%	53.0%	53.5%	58.0%	60.0%

APPENDIX C – SUMMARY OF PLAN PROVISIONS

ATU/Clerical Table A-2: Retirement Benefit Multipliers

Credited Years Of Service	Age at Retirement										
	Clerical										
	53	*54*	55	56	57	58	59	60	61	62	63+
5	*8.71%*	*9.33%*	10.00%	10.26%	10.52%	10.78%	11.05%	11.31%	11.57%	11.83%	12.09%
6	*10.45%*	*11.20%*	12.00%	12.31%	12.62%	12.94%	13.26%	13.57%	13.88%	14.20%	14.51%
7	*12.19%*	*13.06%*	14.00%	14.36%	14.73%	15.09%	15.47%	15.83%	16.20%	16.56%	16.93%
8	*13.94%*	*14.93%*	16.00%	16.42%	16.83%	17.25%	17.68%	18.10%	18.51%	18.93%	19.34%
9	*15.68%*	*16.79%*	18.00%	18.47%	18.94%	19.40%	19.89%	20.36%	20.83%	21.29%	21.76%
10	*17.42%*	*18.66%*	20.00%	20.52%	21.04%	21.56%	22.10%	22.62%	23.14%	23.66%	24.18%
11	*19.16%*	*20.53%*	22.00%	22.57%	23.14%	23.72%	24.31%	24.88%	25.45%	26.03%	26.60%
12	*20.90%*	*22.39%*	24.00%	24.62%	25.25%	25.87%	26.52%	27.14%	27.77%	28.39%	29.02%
13	*22.65%*	*24.26%*	26.00%	26.68%	27.35%	28.03%	28.73%	29.41%	30.08%	30.76%	31.43%
14	*24.39%*	*26.12%*	28.00%	28.73%	29.46%	30.18%	30.94%	31.67%	32.40%	33.12%	33.85%
15	*26.13%*	*27.99%*	30.00%	30.78%	31.56%	32.34%	33.15%	33.93%	34.71%	35.49%	36.27%
16	*27.87%*	*29.86%*	32.00%	32.83%	33.66%	34.50%	35.36%	36.19%	37.02%	37.86%	38.69%
17	*29.61%*	*31.72%*	34.00%	34.88%	35.77%	36.65%	37.57%	38.45%	39.34%	40.22%	41.11%
18	*31.36%*	*33.59%*	36.00%	36.94%	37.87%	38.81%	39.78%	40.72%	41.65%	42.59%	43.52%
19	*33.10%*	*35.45%*	38.00%	38.99%	39.98%	40.96%	41.99%	42.98%	43.97%	44.95%	45.94%
20	*34.84%*	*37.32%*	40.00%	41.04%	42.08%	43.12%	44.20%	45.24%	46.28%	47.32%	48.36%
21	*36.58%*	*39.19%*	42.00%	43.09%	44.18%	45.28%	46.41%	47.50%	48.59%	49.69%	50.78%
22	*38.32%*	*41.05%*	44.00%	45.14%	46.29%	47.43%	48.62%	49.76%	50.91%	52.05%	53.20%
23	*40.07%*	*42.92%*	46.00%	47.20%	48.39%	49.59%	50.83%	52.03%	53.22%	54.42%	55.61%
24	*41.81%*	*44.78%*	48.00%	49.25%	50.50%	51.74%	53.04%	54.29%	55.54%	56.78%	58.03%
25	*43.55%*	*46.65%*	50.00%	51.30%	52.60%	53.90%	55.25%	56.55%	57.85%	59.15%	60.45%
26	*45.29%*	*48.52%*	52.00%	53.35%	54.70%	56.06%	57.46%	58.81%	60.16%	61.52%	62.87%
27	*47.03%*	*50.38%*	54.00%	55.40%	56.81%	58.21%	59.67%	61.07%	62.48%	63.88%	65.29%
28	*48.78%*	*52.25%*	56.00%	57.46%	58.91%	60.37%	61.88%	63.34%	64.79%	66.25%	67.70%
29	*50.52%*	*54.11%*	58.00%	59.51%	61.02%	62.52%	64.09%	65.60%	67.11%	68.61%	70.00%
30	*52.26%*	*55.98%*	60.00%	61.56%	63.12%	64.68%	66.30%	67.86%	69.42%	70.00%	70.00%
31	*54.00%*	*57.85%*	62.00%	63.61%	65.22%	66.84%	68.51%	70.00%	70.00%	70.00%	70.00%
32	*55.74%*	*59.71%*	64.00%	65.66%	67.33%	68.99%	70.00%	70.00%	70.00%	70.00%	70.00%
33	*57.49%*	*61.58%*	66.00%	67.72%	69.43%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
34	*59.23%*	*63.44%*	68.00%	69.77%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
35 or more	*60.97%*	*65.31%*	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%

 Att.A, AI 5, 02/01/24

APPENDIX C – SUMMARY OF PLAN PROVISIONS

IBEW Table A-1: Retirement Benefit Multipliers

Credited Years Of Service	Age at Retirement										
	55	56	57	58	59	60	61	62	63	64	65+
5	5.2%	5.5%	5.9%	6.3%	6.7%	7.2%	7.8%	8.3%	8.9%	9.5%	10.1%
6	6.2%	6.6%	7.1%	7.5%	8.1%	8.7%	9.3%	10.0%	10.7%	11.4%	12.1%
7	7.2%	7.7%	8.2%	8.8%	9.4%	10.1%	10.9%	11.7%	12.4%	13.3%	14.1%
8	8.2%	8.8%	9.4%	10.1%	10.8%	11.6%	12.4%	13.3%	14.2%	15.1%	16.1%
9	9.3%	9.9%	10.6%	11.3%	12.1%	13.0%	14.0%	15.0%	16.0%	17.0%	18.1%
10	10.2%	11.0%	11.8%	12.6%	13.5%	14.4%	15.5%	16.7%	17.8%	18.9%	20.1%
11	11.2%	12.1%	12.9%	13.8%	14.8%	15.9%	17.1%	18.3%	19.5%	20.8%	22.2%
12	12.3%	13.2%	14.1%	15.1%	16.2%	17.3%	18.6%	20.0%	21.3%	22.7%	24.2%
13	13.3%	14.3%	15.3%	16.3%	17.5%	18.8%	20.2%	21.7%	23.1%	24.6%	26.2%
14	14.4%	15.4%	16.5%	17.6%	18.9%	20.2%	21.7%	23.3%	24.9%	26.5%	28.2%
15	15.4%	16.5%	17.6%	18.9%	20.2%	21.7%	23.3%	25.0%	26.7%	28.4%	30.2%
16	16.4%	17.6%	18.8%	20.1%	21.5%	23.1%	24.8%	26.7%	28.4%	30.3%	32.2%
17	17.5%	18.7%	20.0%	21.4%	22.9%	24.5%	26.4%	28.3%	30.2%	32.2%	34.3%
18	18.5%	19.8%	21.2%	22.6%	24.2%	26.0%	27.9%	30.0%	32.0%	34.1%	36.3%
19	19.6%	20.9%	22.3%	23.9%	25.6%	27.4%	29.5%	31.7%	33.8%	36.0%	38.3%
20	20.6%	22.0%	23.5%	25.2%	26.9%	28.9%	31.0%	33.3%	35.5%	37.9%	40.3%
21	21.6%	23.1%	24.7%	26.4%	28.3%	30.3%	32.6%	35.0%	37.3%	39.7%	42.3%
22	22.7%	24.2%	25.9%	27.7%	29.6%	31.8%	34.1%	36.7%	39.1%	41.6%	44.3%
23	23.7%	25.3%	27.0%	28.9%	31.0%	33.2%	35.7%	38.3%	40.9%	43.5%	46.3%
24	24.8%	26.4%	28.2%	30.2%	32.3%	34.6%	37.2%	40.0%	42.6%	45.4%	48.4%
25	25.8%	27.5%	29.4%	31.4%	33.7%	36.1%	38.8%	41.7%	44.4%	47.3%	50.4%
26	26.9%	28.6%	30.6%	32.7%	35.0%	37.5%	40.3%	43.3%	46.2%	49.2%	52.4%
27	27.9%	29.7%	31.7%	34.0%	36.4%	39.0%	41.9%	45.0%	48.0%	51.1%	54.4%
28	29.0%	30.9%	32.9%	35.2%	37.7%	40.4%	43.4%	46.7%	49.8%	52.0%	56.4%
29	30.0%	32.0%	34.1%	36.5%	39.1%	41.9%	45.0%	48.3%	50.0%	55.0%	58.4%
30	31.1%	33.1%	35.3%	37.7%	40.4%	43.4%	46.5%	50.0%	51.0%	55.5%	60.0%
31	32.1%	34.2%	36.5%	39.0%	41.7%	44.8%	48.1%	51.0%	51.5%	56.0%	60.0%
32	33.2%	35.3%	37.6%	40.2%	43.1%	46.2%	49.6%	51.5%	52.0%	56.5%	60.0%
33	34.3%	36.5%	38.8%	41.5%	44.4%	47.6%	50.0%	52.0%	52.5%	57.0%	60.0%
34	35.4%	37.6%	40.0%	42.8%	45.8%	49.1%	51.0%	52.5%	53.0%	57.5%	60.0%
35 or more	36.5%	38.7%	41.2%	44.0%	47.1%	50.0%	51.5%	53.0%	53.5%	58.0%	60.0%

APPENDIX C – SUMMARY OF PLAN PROVISIONS

IBEW Table A-2: Retirement Benefit Multipliers

Credited Years Of Service	Age at Retirement								
	55	56	57	58	59	60	61	62	63+
5	10.00%	10.26%	10.52%	10.78%	11.05%	11.31%	11.57%	11.83%	12.09%
6	12.00%	12.31%	12.62%	12.94%	13.26%	13.57%	13.88%	14.20%	14.51%
7	14.00%	14.36%	14.73%	15.09%	15.47%	15.83%	16.20%	16.56%	16.93%
8	16.00%	16.42%	16.83%	17.25%	17.68%	18.10%	18.51%	18.93%	19.34%
9	18.00%	18.47%	18.94%	19.40%	19.89%	20.36%	20.83%	21.29%	21.76%
10	20.00%	20.52%	21.04%	21.56%	22.10%	22.62%	23.14%	23.66%	24.18%
11	22.00%	22.57%	23.14%	23.72%	24.31%	24.88%	25.45%	26.03%	26.60%
12	24.00%	24.62%	25.25%	25.87%	26.52%	27.14%	27.77%	28.39%	29.02%
13	26.00%	26.68%	27.35%	28.03%	28.73%	29.41%	30.08%	30.76%	31.43%
14	28.00%	28.73%	29.46%	30.18%	30.94%	31.67%	32.40%	33.12%	33.85%
15	30.00%	30.78%	31.56%	32.34%	33.15%	33.93%	34.71%	35.49%	36.27%
16	32.00%	32.83%	33.66%	34.50%	35.36%	36.19%	37.02%	37.86%	38.69%
17	34.00%	34.88%	35.77%	36.65%	37.57%	38.45%	39.34%	40.22%	41.11%
18	36.00%	36.94%	37.87%	38.81%	39.78%	40.72%	41.65%	42.59%	43.52%
19	38.00%	38.99%	39.98%	40.96%	41.99%	42.98%	43.97%	44.95%	45.94%
20	40.00%	41.04%	42.08%	43.12%	44.20%	45.24%	46.28%	47.32%	48.36%
21	42.00%	43.09%	44.18%	45.28%	46.41%	47.50%	48.59%	49.69%	50.78%
22	44.00%	45.14%	46.29%	47.43%	48.62%	49.76%	50.91%	52.05%	53.20%
23	46.00%	47.20%	48.39%	49.59%	50.83%	52.03%	53.22%	54.42%	55.61%
24	48.00%	49.25%	50.50%	51.74%	53.04%	54.29%	55.54%	56.78%	58.03%
25	50.00%	51.30%	52.60%	53.90%	55.25%	56.55%	57.85%	59.15%	60.45%
26	52.00%	53.35%	54.70%	56.06%	57.46%	58.81%	60.16%	61.52%	62.87%
27	54.00%	55.40%	56.81%	58.21%	59.67%	61.07%	62.48%	63.88%	65.29%
28	56.00%	57.46%	58.91%	60.37%	61.88%	63.34%	64.79%	66.25%	67.70%
29	58.00%	59.51%	61.02%	62.52%	64.09%	65.60%	67.11%	68.61%	70.00%
30	60.00%	61.56%	63.12%	64.68%	66.30%	67.86%	69.42%	70.00%	70.00%
31	62.00%	63.61%	65.22%	66.84%	68.51%	70.00%	70.00%	70.00%	70.00%
32	64.00%	65.66%	67.33%	68.99%	70.00%	70.00%	70.00%	70.00%	70.00%
33	66.00%	67.72%	69.43%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
34	68.00%	69.77%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
35 or more	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Non-Contract Table A-1: Retirement Benefit Multipliers

Credited Years Of Service	Age at Retirement										
	53	54	55	56	57	58	59	60	61	62	63+
5	5.2%	5.5%	5.9%	6.3%	6.7%	7.2%	7.8%	8.3%	8.9%	9.5%	10.1%
6	6.2%	6.6%	7.1%	7.5%	8.1%	8.7%	9.3%	10.0%	10.7%	11.4%	12.1%
7	7.2%	7.7%	8.2%	8.8%	9.4%	10.1%	10.9%	11.7%	12.4%	13.3%	14.1%
8	8.2%	8.8%	9.4%	10.1%	10.8%	11.6%	12.4%	13.3%	14.2%	15.1%	16.1%
9	9.3%	9.9%	10.6%	11.3%	12.1%	13.0%	14.0%	15.0%	16.0%	17.0%	18.1%
10	10.2%	11.0%	11.8%	12.6%	13.5%	14.4%	15.5%	16.7%	17.8%	18.9%	20.1%
11	11.2%	12.1%	12.9%	13.8%	14.8%	15.9%	17.1%	18.3%	19.5%	20.8%	22.2%
12	12.3%	13.2%	14.1%	15.1%	16.2%	17.3%	18.6%	20.0%	21.3%	22.7%	24.2%
13	13.3%	14.3%	15.3%	16.3%	17.5%	18.8%	20.2%	21.7%	23.1%	24.6%	26.2%
14	14.4%	15.4%	16.5%	17.6%	18.9%	20.2%	21.7%	23.3%	24.9%	26.5%	28.2%
15	15.4%	16.5%	17.6%	18.9%	20.2%	21.7%	23.3%	25.0%	26.7%	28.4%	30.2%
16	16.4%	17.6%	18.8%	20.1%	21.5%	23.1%	24.8%	26.7%	28.4%	30.3%	32.2%
17	17.5%	18.7%	20.0%	21.4%	22.9%	24.5%	26.4%	28.3%	30.2%	32.2%	34.3%
18	18.5%	19.8%	21.2%	22.6%	24.2%	26.0%	27.9%	30.0%	32.0%	34.1%	36.3%
19	19.6%	20.9%	22.3%	23.9%	25.6%	27.4%	29.5%	31.7%	33.8%	36.0%	38.3%
20	20.6%	22.0%	23.5%	25.2%	26.9%	28.9%	31.0%	33.3%	35.5%	37.9%	40.3%
21	21.6%	23.1%	24.7%	26.4%	28.3%	30.3%	32.6%	35.0%	37.3%	39.7%	42.3%
22	22.7%	24.2%	25.9%	27.7%	29.6%	31.8%	34.1%	36.7%	39.1%	41.6%	44.3%
23	23.7%	25.3%	27.0%	28.9%	31.0%	33.2%	35.7%	38.3%	40.9%	43.5%	46.3%
24	24.8%	26.4%	28.2%	30.2%	32.3%	34.6%	37.2%	40.0%	42.6%	45.4%	48.4%
25	25.8%	27.5%	29.4%	31.4%	33.7%	36.1%	38.8%	41.7%	44.4%	47.3%	50.4%
26	26.9%	28.6%	30.6%	32.7%	35.0%	37.5%	40.3%	43.3%	46.2%	49.2%	52.4%
27	27.9%	29.7%	31.7%	34.0%	36.4%	39.0%	41.9%	45.0%	48.0%	51.1%	54.4%
28	29.0%	30.9%	32.9%	35.2%	37.7%	40.4%	43.4%	46.7%	49.8%	52.0%	56.4%
29	30.0%	32.0%	34.1%	36.5%	39.1%	41.9%	45.0%	48.3%	50.0%	55.0%	58.4%
30	31.1%	33.1%	35.3%	37.7%	40.4%	43.4%	46.5%	50.0%	51.0%	55.5%	60.0%
31	32.1%	34.2%	36.5%	39.0%	41.7%	44.8%	48.1%	51.0%	51.5%	56.0%	60.0%
32	33.2%	35.3%	37.6%	40.2%	43.1%	46.2%	49.6%	51.5%	52.0%	56.5%	60.0%
33	34.3%	36.5%	38.8%	41.5%	44.4%	47.6%	50.0%	52.0%	52.5%	57.0%	60.0%
34	35.4%	37.6%	40.0%	42.8%	45.8%	49.1%	51.0%	52.5%	53.0%	57.5%	60.0%
35 or more	36.5%	38.7%	41.2%	44.0%	47.1%	50.0%	51.5%	53.0%	53.5%	58.0%	60.0%

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Non-Contract Table A-2: Retirement Benefit Multipliers

Credited Years Of Service	Age at Retirement										
	53	54	55	56	57	58	59	60	61	62	63+
5	8.71%	9.33%	10.00%	10.26%	10.52%	10.78%	11.05%	11.31%	11.57%	11.83%	12.09%
6	10.45%	11.20%	12.00%	12.31%	12.62%	12.94%	13.26%	13.57%	13.88%	14.20%	14.51%
7	12.19%	13.06%	14.00%	14.36%	14.73%	15.09%	15.47%	15.83%	16.20%	16.56%	16.93%
8	13.94%	14.93%	16.00%	16.42%	16.83%	17.25%	17.68%	18.10%	18.51%	18.93%	19.34%
9	15.68%	16.79%	18.00%	18.47%	18.94%	19.40%	19.89%	20.36%	20.83%	21.29%	21.76%
10	17.42%	18.66%	20.00%	20.52%	21.04%	21.56%	22.10%	22.62%	23.14%	23.66%	24.18%
11	19.16%	20.53%	22.00%	22.57%	23.14%	23.72%	24.31%	24.88%	25.45%	26.03%	26.60%
12	20.90%	22.39%	24.00%	24.62%	25.25%	25.87%	26.52%	27.14%	27.77%	28.39%	29.02%
13	22.65%	24.26%	26.00%	26.68%	27.35%	28.03%	28.73%	29.41%	30.08%	30.76%	31.43%
14	24.39%	26.12%	28.00%	28.73%	29.46%	30.18%	30.94%	31.67%	32.40%	33.12%	33.85%
15	26.13%	27.99%	30.00%	30.78%	31.56%	32.34%	33.15%	33.93%	34.71%	35.49%	36.27%
16	27.87%	29.86%	32.00%	32.83%	33.66%	34.50%	35.36%	36.19%	37.02%	37.86%	38.69%
17	29.61%	31.72%	34.00%	34.88%	35.77%	36.65%	37.57%	38.45%	39.34%	40.22%	41.11%
18	31.36%	33.59%	36.00%	36.94%	37.87%	38.81%	39.78%	40.72%	41.65%	42.59%	43.52%
19	33.10%	35.45%	38.00%	38.99%	39.98%	40.96%	41.99%	42.98%	43.97%	44.95%	45.94%
20	34.84%	37.32%	40.00%	41.04%	42.08%	43.12%	44.20%	45.24%	46.28%	47.32%	48.36%
21	36.58%	39.19%	42.00%	43.09%	44.18%	45.28%	46.41%	47.50%	48.59%	49.69%	50.78%
22	38.32%	41.05%	44.00%	45.14%	46.29%	47.43%	48.62%	49.76%	50.91%	52.05%	53.20%
23	40.07%	42.92%	46.00%	47.20%	48.39%	49.59%	50.83%	52.03%	53.22%	54.42%	55.61%
24	41.81%	44.78%	48.00%	49.25%	50.50%	51.74%	53.04%	54.29%	55.54%	56.78%	58.03%
25	43.55%	46.65%	50.00%	51.30%	52.60%	53.90%	55.25%	56.55%	57.85%	59.15%	60.45%
26	45.29%	48.52%	52.00%	53.35%	54.70%	56.06%	57.46%	58.81%	60.16%	61.52%	62.87%
27	47.03%	50.38%	54.00%	55.40%	56.81%	58.21%	59.67%	61.07%	62.48%	63.88%	65.29%
28	48.78%	52.25%	56.00%	57.46%	58.91%	60.37%	61.88%	63.34%	64.79%	66.25%	67.70%
29	50.52%	54.11%	58.00%	59.51%	61.02%	62.52%	64.09%	65.60%	67.11%	68.61%	70.00%
30	52.26%	55.98%	60.00%	61.56%	63.12%	64.68%	66.30%	67.86%	69.42%	70.00%	70.00%
31	54.00%	57.85%	62.00%	63.61%	65.22%	66.84%	68.51%	70.00%	70.00%	70.00%	70.00%
32	55.74%	59.71%	64.00%	65.66%	67.33%	68.99%	70.00%	70.00%	70.00%	70.00%	70.00%
33	57.49%	61.58%	66.00%	67.72%	69.43%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
34	59.23%	63.44%	68.00%	69.77%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%
35 or more	60.97%	65.31%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%	70.00%

APPENDIX C – SUMMARY OF PLAN PROVISIONS

Table B: Alternate Retirement Formula Multipliers

Credited Years Of Service	Percentage
10	20.1%
11	22.2%
12	24.2%
13	26.2%
14	28.2%
15	30.2%
16	32.2%
17	34.3%
18	36.3%
19	38.3%
20	40.3%
21	42.3%
22	44.3%
23	46.3%
24	48.4%
25	50.4%
26	52.4%
27	54.4%
28	56.4%
29	58.4%
30	60.4%
31	62.5%
32	64.5%
33	66.5%
34	68.5%
35 or more	70.5%

APPENDIX D – GLOSSARY

1. **Actuarial Assumptions**

   Assumptions as to the occurrence of future events affecting pension costs such as mortality, withdrawal, disability, retirement, changes in compensation, and rates of investment return.

2. **Actuarial Cost Method**

   A procedure for determining the actuarial present value of pension plan benefits and expenses and for developing an allocation of such value to each year of service, usually in the form of a normal cost and an Actuarial Liability.

3. **Actuarial Gain (Loss)**

   The difference between actual experience and that expected is based upon a set of actuarial assumptions during the period between two actuarial valuation dates, as determined in accordance with a particular actuarial cost method.

4. **Actuarial Liability**

   The portion of the actuarial present value of projected benefits, which will not be paid by future normal costs. It represents the value of the past normal costs with interest to the valuation date.

5. **Actuarial Present Value (Present Value)**

   The value as of a given date of a future amount or series of payments. The actuarial present value discounts the payments to the given date at the assumed investment return and includes the probability of the payment being made.

6. **Actuarial Valuation**

   The determination, as of a specified date, of the normal cost, Actuarial Liability, Actuarial Value of Assets, and related actuarial present values for a pension plan.

7. **Actuarial Value of Assets**

   The value of cash, investments, and other property belonging to a pension plan as used by the actuary for the purpose of an actuarial valuation. The purpose of an Actuarial Value of Assets is to smooth out fluctuations in market values.

8. **Actuarially Equivalent**

   Of equal actuarial present value, determined as of a given date, with each value based on the same set of actuarial assumptions.

APPENDIX D – GLOSSARY

9. Amortization Payment

The portion of the pension plan contribution that is designed to pay interest and principal on the Unfunded Actuarial Liability in order to pay for that liability in a given number of years.

10. Entry Age Normal Actuarial Cost Method

A method under which the actuarial present value of the projected benefits of each individual included in an actuarial valuation is allocated on a level basis over the earnings of the individual between entry age and assumed exit ages.

11. Funded Ratio

The ratio of the Actuarial Value of Assets to the Actuarial Liabilities.

12. Normal Cost

That portion of the actuarial present value of pension plan benefits and expenses, which is allocated to a valuation year by the actuarial cost method.

13. Projected Benefits

Those pension plan benefit amounts which are expected to be paid in the future under a particular set of actuarial assumptions, taking into account such items as increases in future compensation and service credits.

14. Unfunded Actuarial Liability

The excess of the Actuarial Liability over the Actuarial Value of Assets.

CHEIRON

Classic Values, Innovative Advice

Retirement Plans of
San Diego Transit Corporation

CHEIRON
Classic Values, Innovative Advice

Actuarial Valuation Results as of July 1, 2023

Executive Committee

Anne D. Harper, FSA, EA, MAAA
Alice I. Alsberghe, ASA, EA, MAAA

Today's Discussion

- Background
- Revised Actuarial Standard of Practice (ASOP) No. 4
- Plan Contributions for Fiscal Year 2024-2025 (based on 2023 Actuarial Valuation)
- PEPRA Member Contributions July 1, 2024 (based on 2023 Actuarial Valuation)
- Plan History
- Plan Projections

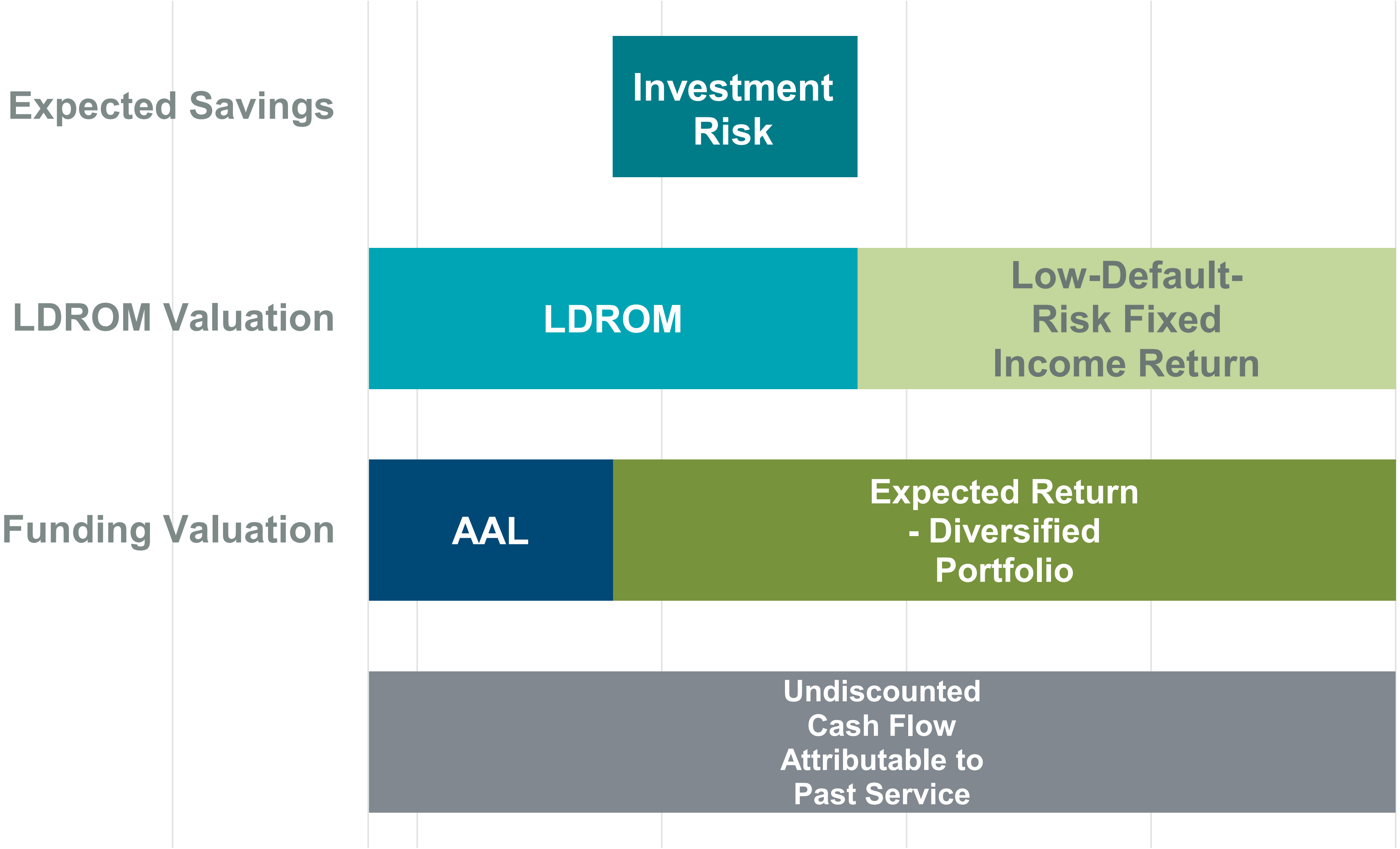
ASOP No. 4

- Actuarial Standard of Practice (ASOP) No. 4:
  Measuring Pension Obligations and Determining Pension Plan Costs or Contributions
  - Revisions are effective February 15, 2023

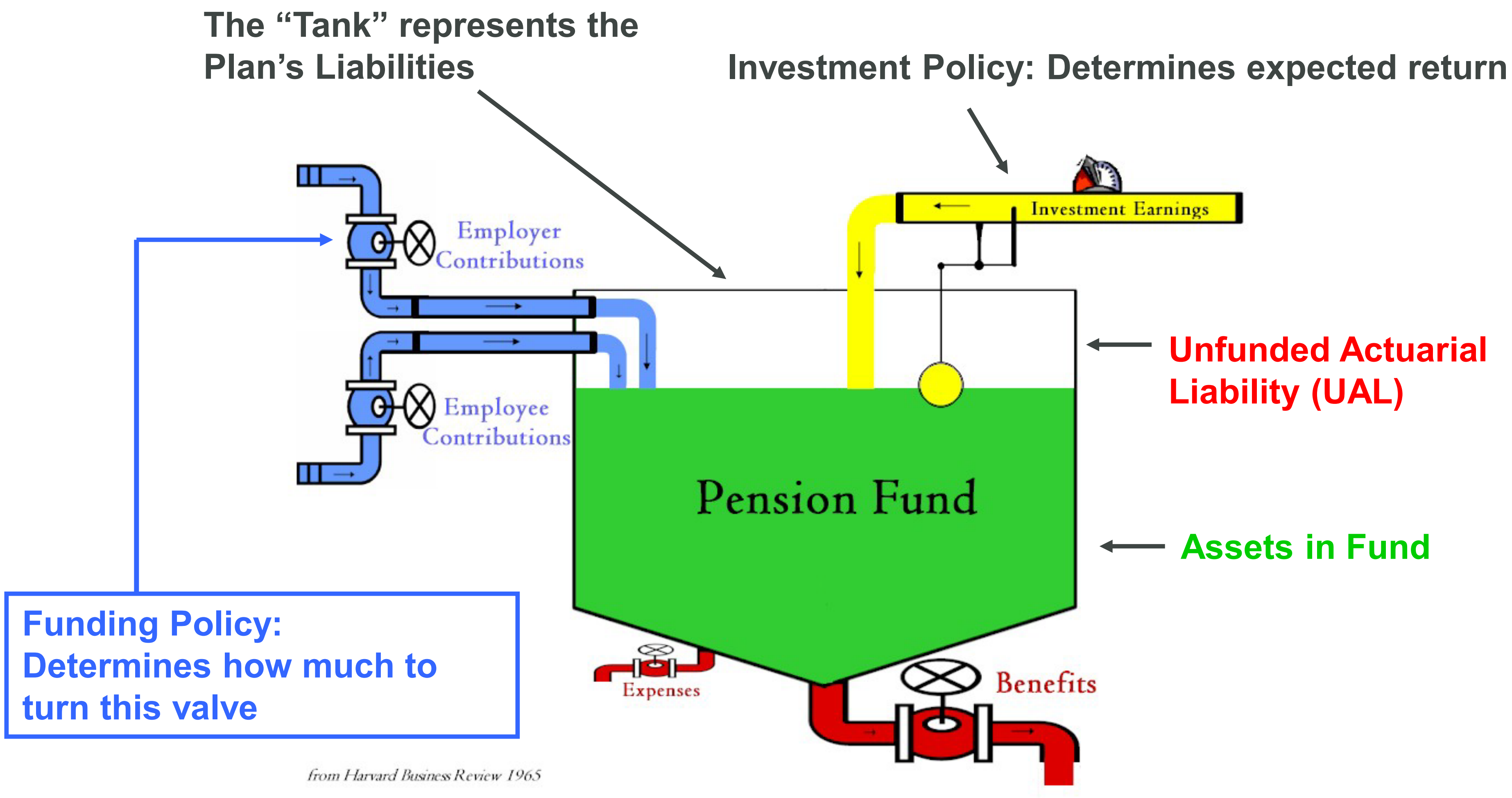
- “Low-Default-Risk Obligation Measure” (LDROM) must be disclosed in the actuarial valuation report
  - NO IMPACT on determining Plan contributions or funded status
  - Discount rate must be derived from:
    - Low-default-risk fixed income securities
    - Cash flows reasonably consistent with pattern of San Diego Transit benefits

- Other ASOP 4 changes already included in San Diego Transit valuation report

ASOP No. 4 – Communicating the LDROM

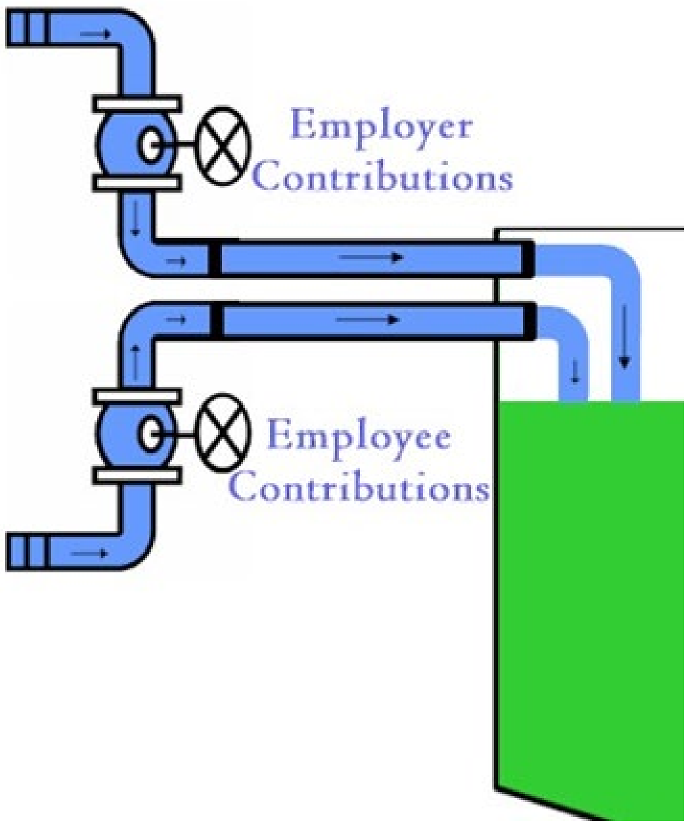


Pension Plan Management



from Harvard Business Review 1965

Pension Plan Contributions



Components of the Contribution

1. *Normal Cost*
   - Active members' benefits earned during the year
   - *Gradual decreases over time for SDTC since Plan is closed to most new employees*
2. *Unfunded Actuarial Liability (UAL) Payment*
   - *New layer each year (payment or credit)*
   - *Level dollar payment for each layer*
   - *Last payment for all layers will be on or before FYE 2038*
3. *Expected Administrative Expenses*
4. *Employer Contributions = 1) + 2) + 3) less Employee Contributions*

Plan Contribution – Changes

Total Contribution Reconciliation		
Fiscal Year 2023-2024		**$ 18,946,000**
Actuarial investment experience		
FYE 2023 asset gain	(20,000)	
FYE 2019-2022 net deferred losses	662,000	
		642,000
Actuarial liability experience		618,000
Fewer benefits earned by active membership due to primarily closed plan		(161,000)
Demographic, salary and COLA experience, and other miscellaneous factors		130,000
Fiscal Year 2024-2025		**$ 20,175,000**

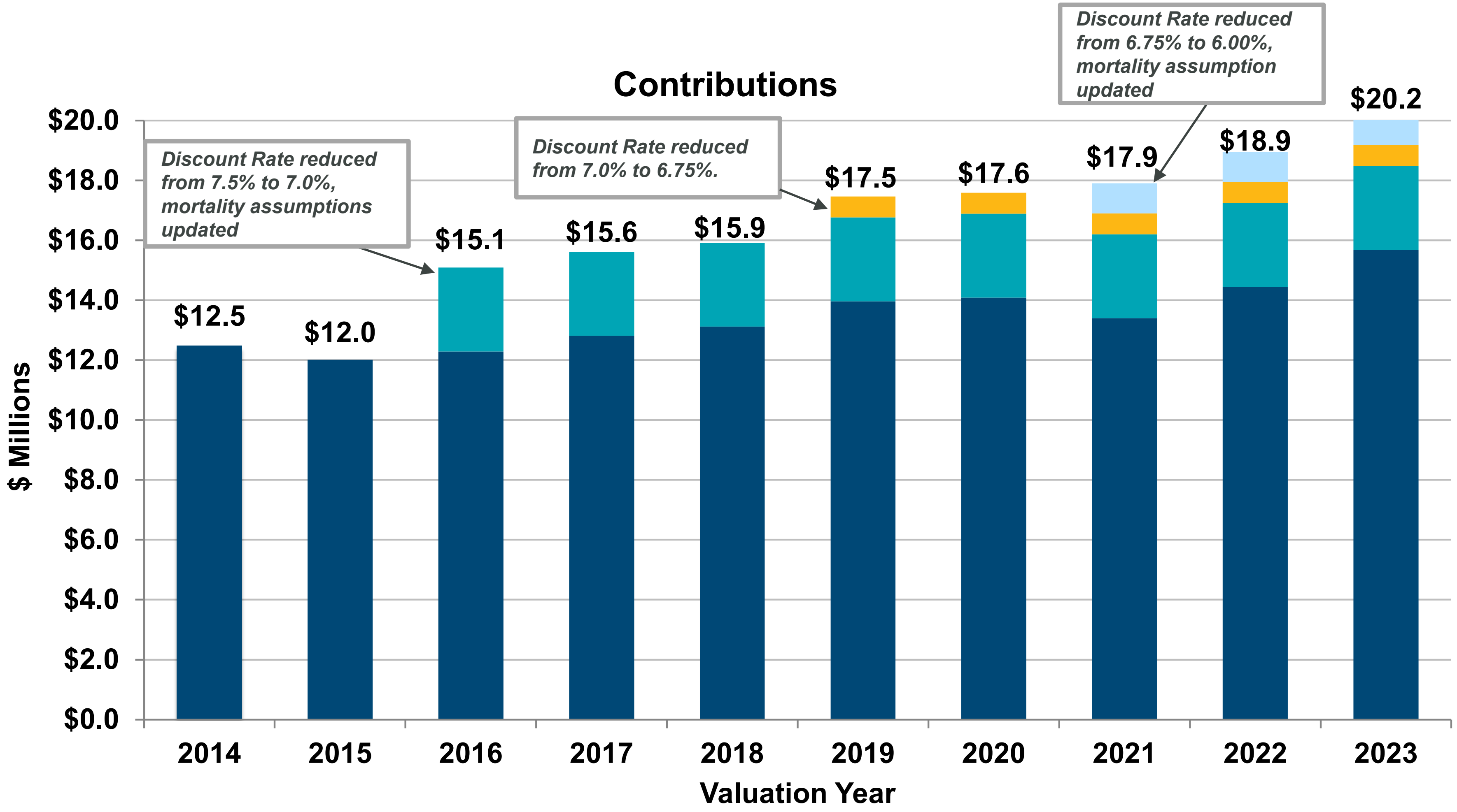
PEPRA Member Contributions

- PEPRA member contribution rates can change based on member demographics, especially average hire age

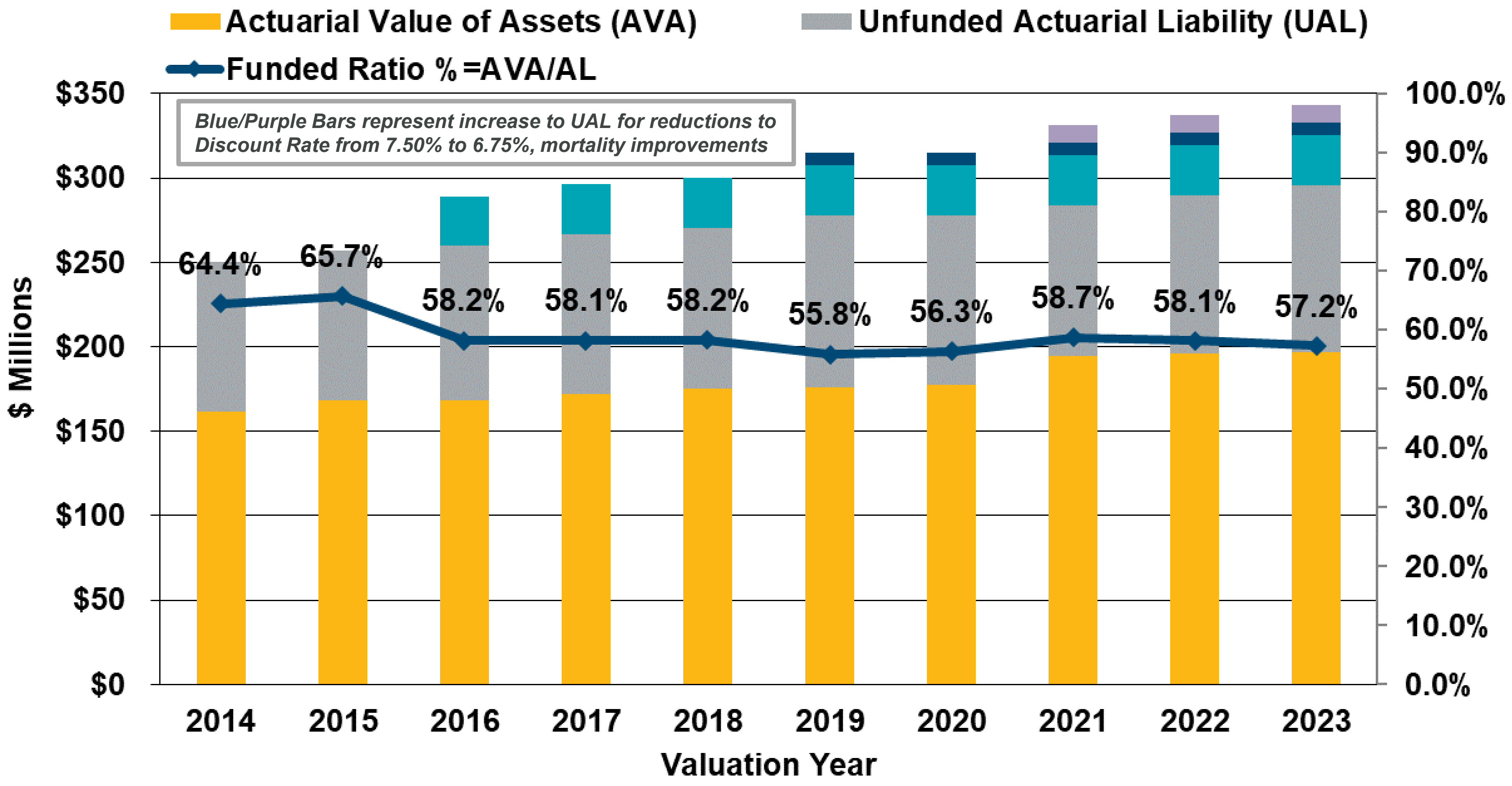
Development of the PEPRA Member Contribution Rate		
Valuation Date	July 1, 2022	July 1, 2023
Effective Date	FY 2023-2024	FY 2024-2025
Assumed Rate of Return	6.00%	6.00%
Total Normal Cost Rate	18.81%	18.07%
50/50 Cost Sharing	9.40%	9.03%
Member Contribution Rate *(rounded to nearest quarter %)*	**9.50%**	**9.00%**

- *IBEW Members, ATU Members, and Non-contract Members hired before July 1, 2013, contribute 8.00% of compensation*

Plan History – Contributions



Plan History – Funding



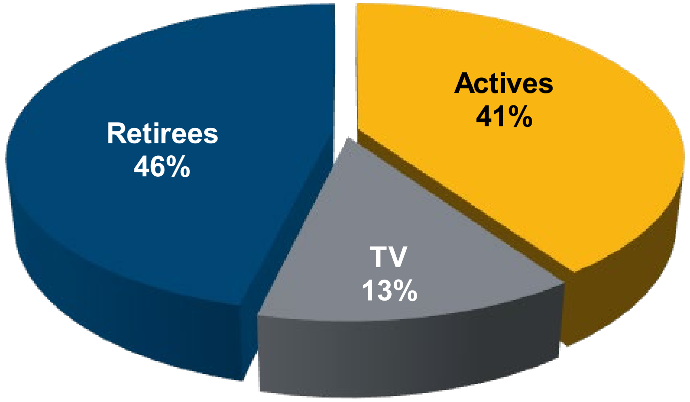
Note: As of July 1, 2023, the Funded Ratio based on the Market Value of Assets is 53.4%.

Plan History - Membership Composition

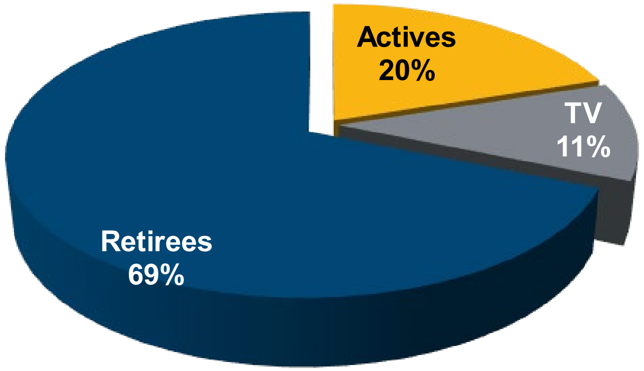
2013

2023

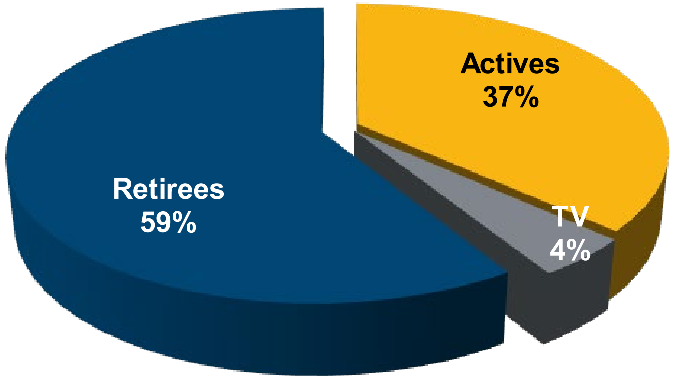
2013 Head Count



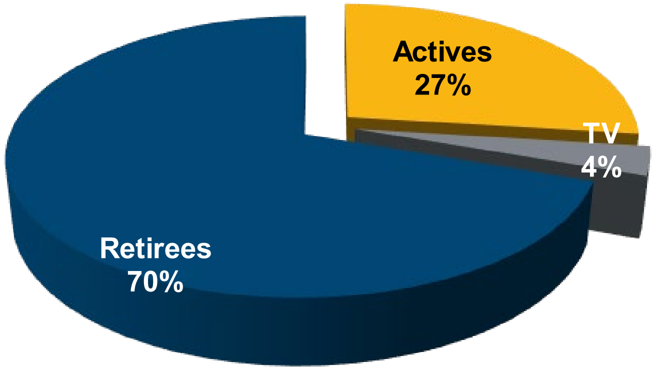
2023 Head Count



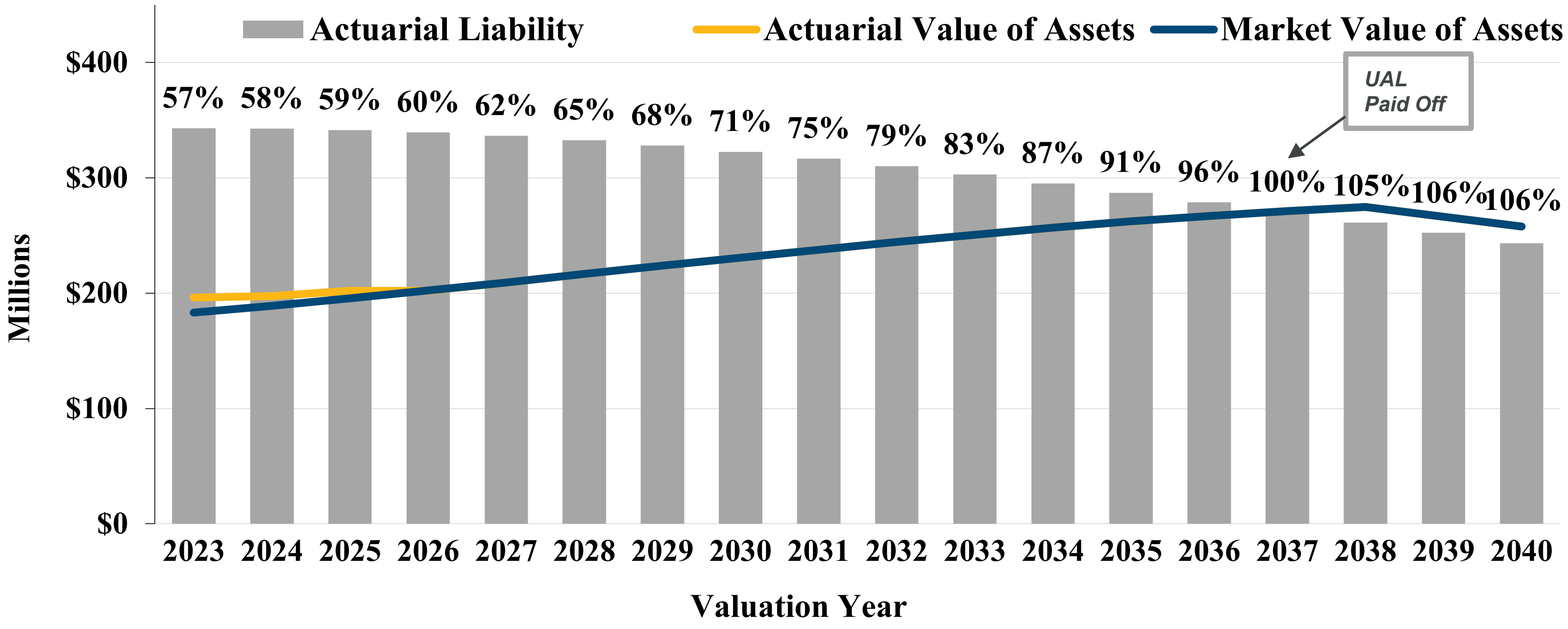
2013 Plan Liabilities



2023 Plan Liabilities

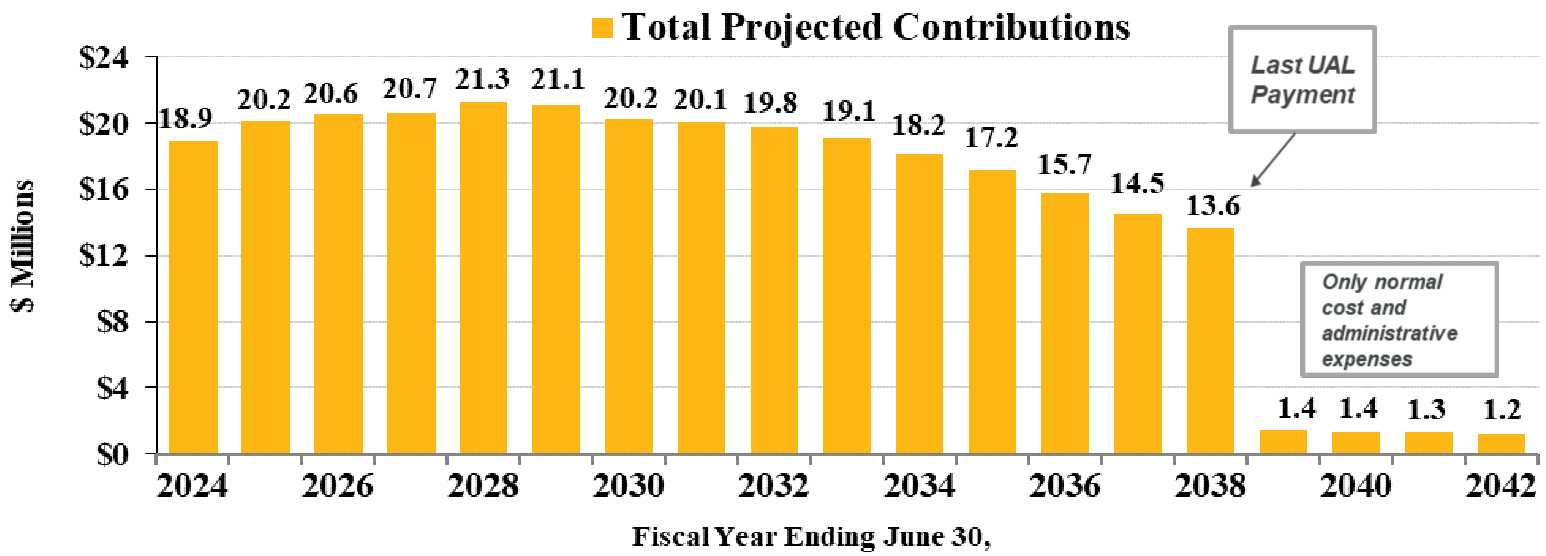


Projected Funded Ratio



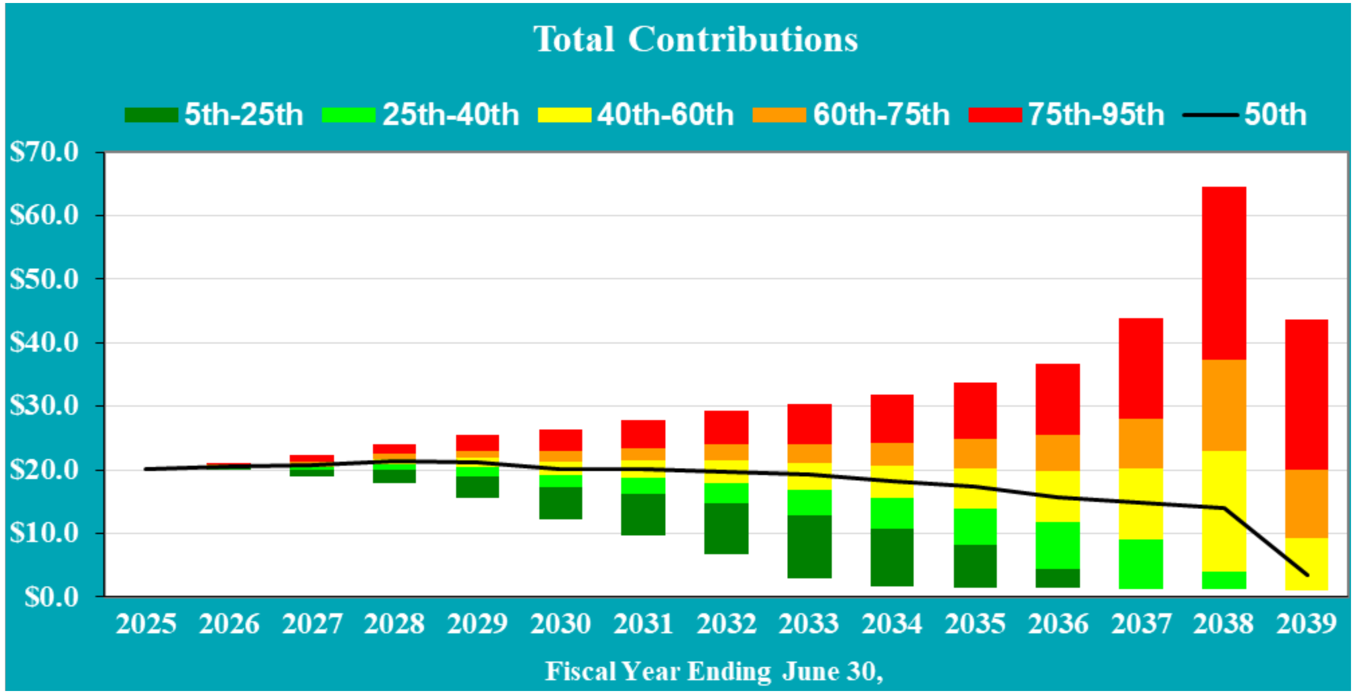
- Slow progress is expected in the funded ratio over the next four years as the net deferred investment losses are phased-in to the Actuarial Value of Assets
- The liabilities are expected to decrease over the period while the assets are expected to grow
- The Plan is still projected to be fully funded as of the 2037 valuation

Projected Total Contributions



- Projected contributions have increased due to:
  - Continued phase-in of net deferred investment losses
  - Salary increases higher than expected
- Total contributions are expected to gradually increase to $21.3 million in FYE 2028 as net deferred asset losses are recognized
- Thereafter, contributions gradually decrease as the number of active members declines

Stochastic Projections of Total Contributions



- These projections show the probable range of future contributions based on variable investment returns, with all other assumptions met
- Based on the Plan's current investment risk profile
- It's important to understand that as the Plan approaches 2039, the risk of higher contributions increases under pessimistic scenarios with the current funding policy

Staff Recommendation

That the MTS Executive Committee forward a recommendation to the MTS Board of Directors to receive the SDTC Employee Retirement Plan's (Plan) Actuarial Valuation as of July 1, 2023 (Attachment A), and adopt the pension contribution amount of $20,174,660 for fiscal year 2025

Required Disclosures

The purpose of this presentation is to discuss the July 1, 2023 Actuarial Valuation Results for the Retirement Plans of San Diego Transit Corporation.

In preparing this presentation, we relied on information (some oral and some written) supplied by the plan administrator. This information includes, but is not limited to, the Plan provisions, employee data, and financial information. We performed an informal examination of the obvious characteristics of the data for reasonableness and consistency in accordance with Actuarial Standard of Practice No. 23.

Cheiron utilizes ProVal, an actuarial valuation application leased from Winklevoss Technologies (WinTech) to calculate liabilities and project benefit payments. We have relied on WinTech as the developer of ProVal. We have a basic understanding of ProVal and have used ProVal in accordance with its original intended purpose. We have not identified any material inconsistencies in assumptions or output of ProVal that would affect this valuation.

Deterministic and stochastic projections in this presentation were developed using R-Scan, a proprietary tool used to illustrate the impact of changes in assumptions, methods, plan provisions, or actual experience (particularly investment experience) on the future financial status of the System. R-Scan uses standard roll-forward techniques that implicitly assume a stable active population.

Future results may differ significantly from the current results presented herein due to such factors as the following: plan experience differing from that anticipated by the assumptions; changes in assumptions; and changes in Plan provisions or applicable law. The future outcomes become increasingly uncertain over time, and therefore the general trends and not the absolute values should be considered in the review of these projections.

This presentation has been prepared in accordance with generally recognized and accepted actuarial principles and practices and our understanding of the Code of Professional Conduct and applicable Actuarial Standards of Practice set out by the Actuarial Standards Board as well as applicable law and regulations. Furthermore, as credentialed actuaries, we meet the Qualification Standards of the American Academy of Actuaries to render the opinion contained in this presentation. This presentation does not address any contractual or legal issues. We are not attorneys, and our firm does not provide any legal services or advice.

This presentation was prepared exclusively for the Retirement Board and MTS Board for the purposes described herein. Other users of this presentation are not intended users as defined in the Actuarial Standards of Practice, and Cheiron assumes no duty or liability to any other user.

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Principal Consulting Actuary

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Consulting Actuary

Metropolitan Transit System

Agenda Item No. 6

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
EXECUTIVE COMMITTEE

February 1, 2024

SUBJECT:

Equity Policy Update (Julia Tuer and Samantha Leslie)

INFORMATIONAL ONLY

Budget Impact

None.

DISCUSSION:

In 2023, MTS conducted a Social Equity Listening Tour (SELT) public engagement effort aimed to understand the experiences of transit riders and to take steps in addressing issues of inequity in transit. The SELT was designed to identify local communities' top transit priorities with regard to inequities in transit service, operations, amenities, and programs. As a result of these efforts, the MTS Board allocated approximately $2.7 million in funding towards priority projects identified by SELT engagement. Additionally, the Board directed staff to develop a draft Board Policy on Equity. Staff will provide a presentation on the latest efforts in developing a draft Board Policy and summarize the proposed scope of work for the upcoming procurement of a professional outside consultant.

/S /Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Equity Policy Update

Executive Committee

Background

- MTS actively participates and seeks to improve ways in which the agency addresses diversity, equity, and inclusion within our workforce and with the services we provide. A few examples:
  - Equal Employment Opportunity (EEO) Policy and Program
  - Title VI Program
    - Vehicle Assignment Policy and Transit Amenities Policy (further review of these policies coming to Executive Committee beginning next month)
    - Transit Service Evaluation and Adjustment Policy (conducting Title VI analyses for major service changes)
    - Transit Service Discrimination Complaints Procedures Policy
    - Language Assistance Plan
    - Public Participation Plan

Background

- In 2021, MTS began involving staff in developing equity-based performance goals
  - That process led to the implementation of various projects and efforts, including, but not limited to, Trolley mural installations along the Orange Line, additional anti-bias training for security personnel, the creation of an internal Diversity, Equity, and Inclusion (DEI) Committee, and the development of the Social Equity Listening Tour

DEI Committee & MTS Workforce

- In 2022, MTS established its internal DEI Committee
  - Committee is made up of various departmental staff members
  - The primary purpose of this internal committee is to examine ways towards building a more diverse, equitable, and inclusive workforce; ensuring employees not only feel included, but have equal opportunity to succeed at MTS

	# of employees	% of employees
American Indian/Alaska Native	8	0.5%
Asian	135	8.3%
Black or African American	257	15.9%
Hispanic or Latino	789	48.7%
Nat Hawaiian/Oth Pac Islander	14	0.9%
Two or More Races	79	4.9%
White	338	20.9%
Decline to Indicate	1	0.1%
	1621	**100.0%**

	# of employees	% of employees
Female	339	20.9%
Male	1282	79.1%
	1621	**100.0%**

As of December 31, 2023

Social Equity Listening Tour

- In 2023, MTS conducted Social Equity Listening Tour (SELT)
- Public engagement effort aimed to understand experiences of transit riders and take steps in addressing issues of inequity in transit
- SELT designed to identify local communities' top transit priorities with regard to inequities in transit service, operations, amenities, and programs
- Board allocated approx. $2.7 million in funding towards identified projects
- Board directed staff to develop a Policy on Equity

Importance of Equity Policy

- While MTS has been actively working towards building a more diverse, equitable, and inclusive workforce, as well as addressing issues of inequity in transit, we understand the need and importance of formalizing these efforts into a Board Policy
- Communicates Board's vision
- Allows management to put this vision into practice
- Provides a framework for progress and decision-making
- Offers measurements for success

Staff Research – Peer Review

- Staff conducted an informal peer review of other agencies regarding any policies, programs, or plans focused on equity
- Responses varied from agencies just beginning their efforts in developing equity policies and/or platforms up to fully dedicated departments leading efforts to maintain and grow equity platforms
- A large takeaway from the informal review, was the importance and need for professional expertise in this area

Staff Research - Internal Review

- Staff conducted an informal internal review of its policies, programs and plans on a agency-wide basis that related to diversity, equity and inclusion
- Discussed how to create an Equity Statement to align with agency values with MTS's internal DEI Committee

Results

- Due to complexity of this focus area and agency desire to ensure proposed actions are aligned with the goals and values of MTS, its employees, and the communities we serve, it was determined a professional outside consultant specializing in developing Equity policies, practices, and trainings for public agencies would be the best next step forward.

Proposed Scope of Work of Consultant

- Review and assess MTS's existing policies and programs related to Equity
  - MTS operations (e.g. fixed route bus, Trolley, complementary paratransit, administration); and
  - MTS capital projects delivered to San Diego (e.g. Bus and Trolley amenities, facilities, etc.)
- Provide outreach to Community-Based Organizations and Transit Advocacy Organizations regarding local priorities surrounding MTS's Equity efforts (examples include, but not limited to, involvement of Disadvantaged Communities, Vulnerable Populations, Environmental Justice Communities, etc.)

Proposed Scope of Work of Consultant

- Create an Equity Statement and Equity Policy that reflects the goals and values of MTS, its employees, and the communities we serve;
- Provide recommendations on ways to improve and/or identify gaps of MTS's existing policies, programs, and procedures relating to Equity; and
- Develop internal training to employees and external communications to the public to illustrate and explain the Equity Statement and Policy (e.g. website)

Next Steps

- Solicitation and award contract (estimated 6 month process)
  - Requires MTS Board of Directors approval to award contract
- Onboard Consultant by late 2024 and begin implementing scope of work
  - Assessment, outreach, development of policy, etc.
  - Estimated timeline of 2 years
- MTS Board of Directors approval to adopt Equity Statement and Equity Policy

Questions/Comments

Metropolitan Transit System

MTS STAFF USE ONLY
Public Comment
AI #: 6 Date: 2/1/24
No. in queue: 1

IN – PERSON PUBLIC COMMENT

SPEAKER INFORMATION (please print)

Agenda Item No.: 6 (EXECUTIVE COMMITEE)

Name: Manny Rodriguez Telephone: 619 788 6445

Email: mrodriguez@cityheightscdc.org

City of Residence: San Diego

Remark Subject: San Diego Transportation Equity

Affiliated Organization: Working Group

PLEASE SUBMIT THIS COMPLETED FORM BACK TO THE CLERK

INSTRUCTIONS

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BOARD OF DIRECTORS MEETING

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Metropolitan Transit System

Agenda Item No. 7

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
EXECUTIVE COMMITTEE

February 1, 2024

SUBJECT:

Overnight Downtown - Border Express Bus Service Implementation (Denis Desmond)

INFORMATIONAL ONLY

Budget Impact

None at this time.

DISCUSSION:

In December 2023, the MTS Board of Directors approved an allocation package for the use of funds that would be disbursed by the State of California pursuant to Senate Bill (SB) 125. The allocation package included several service enhancements, including added frequencies and span-of-service on bus routes and Trolley lines, and funds for new services in Otay Mesa and between Downtown and San Ysidro overnight.

The new overnight express bus route will operate during the late night and early morning hours when the UC San Diego Blue Line cannot run due to temporal separation requirements.[1] Service will be offered at a 30-minute frequency, operating in both directions between Downtown San Diego and the San Ysidro Transit Center. Only selected stations would be served, to maintain a similar travel time as the Trolley between Downtown and the border. Those intermediate stations will be determined as part of the outreach and planning process.

The SB 125 allocation package was structured so that MTS's current bus services that are operating at a reduced level of service (due to bus driver shortages) would largely be restored in 2024. New services funded by SB 125 would follow with implementation throughout 2025. During Board discussion of the SB 125 allocation package, staff was requested to determine if the new overnight border express service could be implemented as early as possible, and within Fiscal Year 2025.

[1] "Temporal separation" is a federal safety rule that a light rail train like the trolley cannot be on the tracks at the same time as a heavy rail vehicle like SDIV/BNSF freight trains or Coaster/Amtrak passenger trains.

Staff will provide a report on the planning and preparation needs for this route, and the feasibility of an earlier implementation.

/S /Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

SB 125 Project Express Border Bus Route

Executive Committee

SB 125 Funding

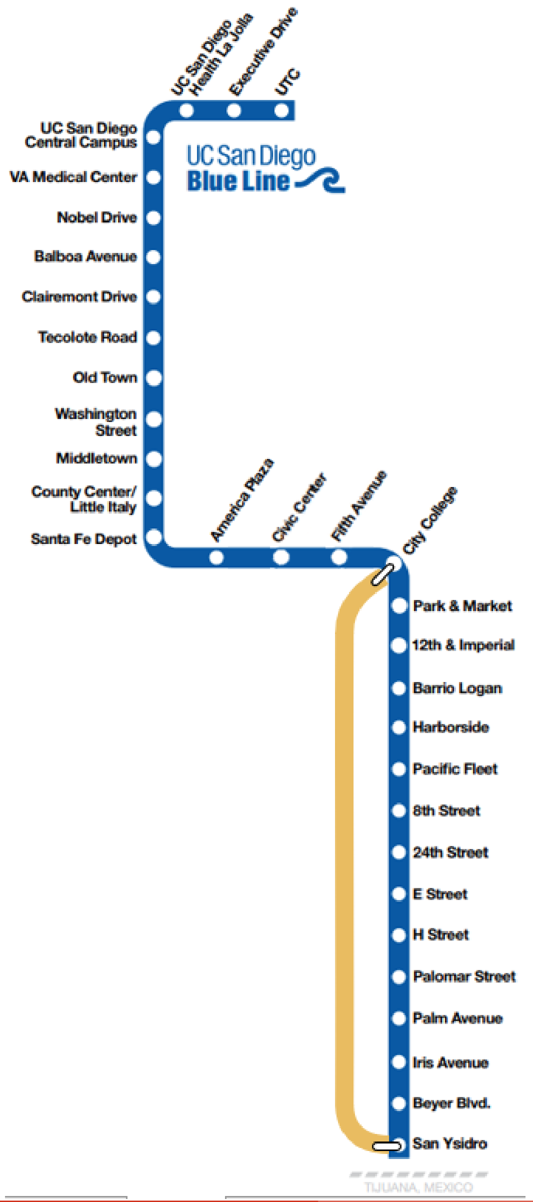
- In Dec. 2023, MTS Board approved an allocation package for submittal to the State for four years of SB 125 funds.
- Allocation package included many service improvements for bus and Trolley, including:
  - Trolley frequency to 15 minutes all day on all Trolley Lines, and 7.5 minute Blue Line frequency all the way to UTC during peaks
  - Funding for Iris Rapid operations, new Otay Mesa service, and service restoration from driver shortages
  - Additional frequency and span of service to several routes
  - New express bus route between Downtown and San Ysidro overnight when Blue Line cannot operate

Bus Service Enhancements

- Plan has been to first restore the services that are currently operating a reduced schedule due to driver shortages
- Implementation of new SB 125 services would then follow, as driver availability allows
- During SB 125 allocation approval, Board discussion indicated interest in expediting the implementation of the new overnight Downtown – San Ysidro express bus route

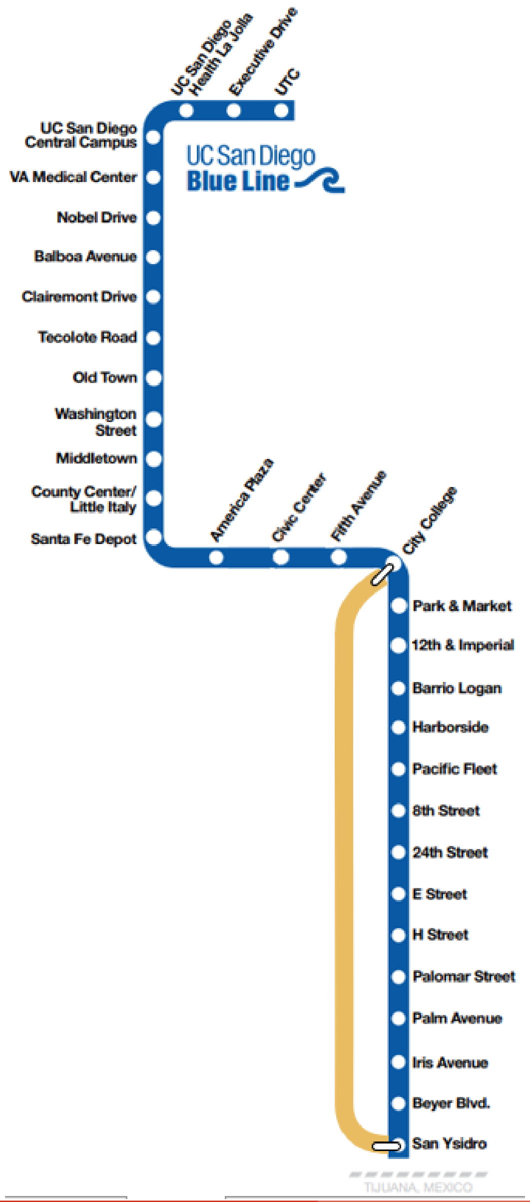
Early Implementation for Border Express

- Route is conceptual (as Route 910) and needs some planning work to determine routing, stations, schedule, etc.
  - Community input plus technical work; effort is already underway.
- Planning and Bus Operations currently working to determine impacts of new route on staffing and CBA, given that this level of overnight service hasn't been operated before.



Early Implementation for Route 910

- A new route is considered a "major service change" requiring a Title VI analysis, public hearing, etc.
  - Policy 42 allows a new route to be operated as a pilot for up to 12 months before a major service change process (past practice has been to seek Board approval prior).
- An expedited community engagement process and agreement on routing and stations could allow for implementation as early as September 2024 or January 2025.
- 2024 implementation would require amendment to SB 125 allocation plan.



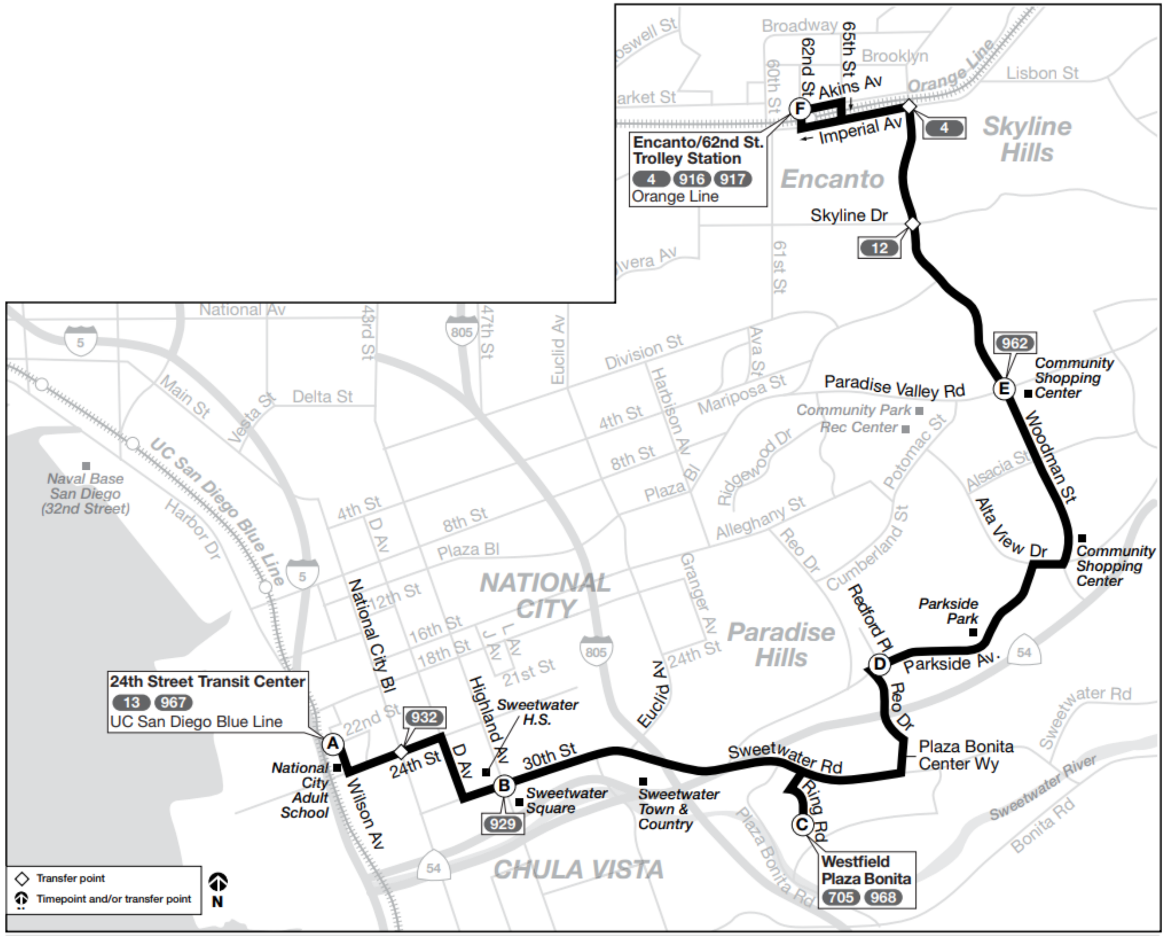
Proposal:

- Expedite two SB 125 service improvements into CY 2024:
  - Implementation of Route 910 (Overnight Downtown – Border Express route)
  - Double Sunday frequency on Route 961 (National City – Paradise Hills – Encanto)
- Postpone restoration of some other services as needed (TBD)
- File amended SB 125 allocation plan accordingly.

SB 125 APPLICATION SCHEDULE		RESTORATION		SB-125 ADDITIONS
ROUTE	DESCRIPTION	CY24 Q1-Q2	CY24 Q3-Q4	2025
1	Fashion Vly - EC Blvd. - La Mesa			
2	Dwtn SD - Golden Hill - North Park			
3	Hillcrest - Dwtn SD - Euclid			
4	Dwtn - Imperial Av. - Lomita Vlg.			
5	Dwtn SD - Market St. Corr. - Euclid			
6	North Park - Fashion Valley			
7	Dwtn SD - Univ. Av./College Av.			
10	Old Town - University/College			
11	SDSU - Normal Heights - Dwtn SD			
12	Skyline Hills - Dwtn SD			
28	Old Town - Rosecrans Street			
35	Ocean Beach - Old Town			
43	Clairemont Mesa Blvd.			
120	Dwtn SD - Kearny Mesa			
215	Mid-City Rapid			
225	South Bay Rapid			
235	I-15 Rapid			
280	Escondido - Del Lago - Dwtn SD			
290	R. Bernardo - Sabre Spgs. - Dwtn			
701	H St - Hilltop Dr - Palomar St			
707	Otay Ranch - Southwestern Coll.			
709	H St - Eastlake			
712	Palomar - Southwestern Coll.			
815	El Cajon - E. Main St			
838	Alpine - East Co. Square			
851	Spring Valley - La Mesa			
901	Iris - Imp. Beach - Coronado - Dwtn			
910	New Overnight Dwtn-Border EXP			
929	Iris - 3rd Av. - Highland - Dwtn SD			
932	Iris - Broadway (CV) - National City			
933/934	Iris - Palm City - Imp. Beach Loop			
944	Sabre Springs - Poway			
955	National City - SDSU			
961	Nat'l City - Parad. Hills - Encanto			
962	National City - Spring Valley			
964	Mira Mesa - Scripps Ranch			

Route 961

- Service everyday between National City, Plaza Bonita, Paradise Hills, Encanto
- Weekday frequency
  - 15 min. between 24th St. & Plaza Bonita
  - 30 min. between Plaza Bonita & Encanto
- Saturday frequency increased in 2017 from 60 to 30 minutes as part of TOP
- SB 125 improvement will increase current Sunday frequency from 60 to 30 min.
- Current (FY24 Q1-Q2) average daily ridership:
  - Weekdays: 1,405
  - Saturdays: 906
  - Sundays: 572



Questions & Discussion

Metropolitan Transit System

MTS STAFF USE ONLY
Public Comment
AI #: 7 Date: 2/1/24
No. in queue: 1

IN – PERSON PUBLIC COMMENT

SPEAKER INFORMATION (please print)

Agenda Item No.: 7 (Executive Committee)

Name: Mariana Rodriguez Telephone: 619 788 8445

Email: mrodriguez@cityheightscdc.org

City of Residence: San Diego

Remark Subject: San Diego Transportation

Affiliated Organization: Equity Working Group

PLEASE SUBMIT THIS COMPLETED FORM BACK TO THE CLERK

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Metropolitan Transit System

PUBLIC COMMENT
AI 7, 2/1/2024
No. in Queue:2

CALL – IN PUBLIC COMMENT

Carolina Martinez with Environmental Health Coalition, provided a public comment for agenda item #7. A paraphrased version of Martinez's statement will be reflected in the minutes.

PUBLIC SPEAKER DISCLAIMER

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Metropolitan Transit System

Agenda Item No. 8

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
EXECUTIVE COMMITTEE

February 1, 2024

SUBJECT:

Storm Damage Update and Authorization to Create a Program for Transit Assistance for Victims of Flooding (Brian Riley)

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Executive Committee receive a report on storm damage experienced by MTS, and authorize the Chief Executive Officer (CEO) to create a free transit pass program for eligible individuals who have lost the use of their vehicles due to the January 22, 2024 storm. MTS staff will work with partner agencies to identify additional funding and a process for getting the passes to eligible recipients.

Budget Impact

The cost of a potential program to assist flood victims who lost access to their vehicles through a free transit monthly pass is unclear. However, the CEO is requesting authorization up to $50,000 for the program. The program would be funded in part through existing MTS operating budgets, with the expectation of financial partnerships with the County of San Diego and the San Diego Association of Governments. $100,000 would fund approximately 1,400 monthly passes.

DISCUSSION:

The torrential rainstorm on January 22, 2024, left MTS with significant damages. Staff will provide a report to the Executive Committee on the extent of the damages and the recovery efforts.

Many residents in San Diego also suffered considerable losses, including flood damage to their personal vehicles. MTS has been asked to create a program to temporarily assist these residents who do not have transportation due to the storm, with alternative transportation through some type of transit pass program. While a process has yet to be created, staff is requesting that the Executive Committee authorize such a program.

Board Policy 40, "Complimentary Services", generally prohibits staff from providing free transit access except for specified purposes (Attachment A). However, the policy does provide for authorization of free transit service by the Executive Committee.

40.4 MTS Executive Committee Review and Approval. Where the cost of complimentary MTS and MTS tickets or services is expected to exceed $5,000, or is not specifically covered by this Policy, the specific use must be approved by the Executive Committee. Funds to cover the cost must be identified from the MTS and/or affected MTS operator's budget.

Therefore, staff recommends that the Executive Committee approve a free transit pass program for individuals who lost the use of their vehicles due to the January 22, 2024 storm. MTS staff will work with partner agencies to identify additional funding and a process for getting the passes to eligible recipients.

Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. Board Policy 40: Complimentary Services

Metropolitan Transit System

1255 Imperial Avenue, Suite 1000
San Diego, CA 92101-7490
619/231-1466
FAX 619/234-3407

Policies and Procedures No. 40

SUBJECT: **Board Approval:** 4/29/04

METROPOLITAN TRANSIT SYSTEM (MTS): COMPLIMENTARY SERVICES

PURPOSE:

The purpose of this policy is as follows:

a. To establish a framework of rules governing when MTS and MTS operators may provide complimentary tickets or services.

b. To support MTS's and MTS operators' marketing and promotional efforts.

c. To recognize appropriate obligations as a host for the transit industry and government officials.

BACKGROUND:

MTS and MTS operators receive numerous requests from public, nonprofit, and private-sector groups to provide complimentary tickets and/or special services. In addition, there are certain industry obligations that arise out of MTS and member agency affiliations with transit and city/county associations. Other requests come from visiting delegations of transit and public policy officials specifically interested in viewing some operational aspect of the MTS network of services.

POLICY:

40.1 Scheduled or Special Service to Private Sector, Nonprofit Groups, and Government Agencies. MTS and MTS operators shall not provide free services to the private sector, nonprofit groups, or government agencies except as provided in Sections 40.2 and 40.3.

40.1.1 The cost for special MTS operator services (bus, trolley, tickets, and passes) must be reimbursed in full.

40.1.2 MTS and MTS operators will provide reasonable technical and public relations assistance in coordinating private and/or public transportation services to move large numbers of people for major events (e.g., Super Bowl, America's Cup, World Series).

40.2 Host Obligations for Transportation Study Groups, Transportation Associations. MTS and MTS operators may provide complimentary services to certain groups complying with the definitions below.

40.2.1 MTS and MTS operators may provide limited-duration complimentary passes for members of study groups in San Diego for the express purpose of viewing and studying the MTS network.

40.2.2 MTS and MTS operators may provide limited duration complimentary passes for meetings of recognized state, national, and international public transportation associations (e.g., American Public Transportation Association [APTA], California Transit Association).

40.2.3 MTS operators will allow all local, state, and federal-sworn peace officers, in uniform or in civilian clothes, to ride on scheduled bus and trolley routes without charge. This is deemed as a benefit to both riders and law enforcement agencies. Sworn peace officers include, but are not limited to: all municipal police department officials, all County Sheriff Department deputies, County Marshals, all County of San Diego Probation officers, State Highway Patrol officers, State Police, U.S. Marshals, Federal Bureau of Investigation officers, and U.S. Immigration and Customs officers.

40.2.4 For purposes of Sections 40.2.1 and 40.2.2, dedicated vehicles may be provided only if they do not interfere with the provision of regularly scheduled MTS service.

40.3 Marketing and Promotional Activities. There are certain opportunities where targeted promotion and introductory programs would be geared to increasing ridership.

40.3.1 MTS and MTS operators may provide complimentary or reduced-cost fare media as part of a specific marketing or promotional campaign designed to increase productivity of a specific route or service.

40.3.2 MTS and MTS operators will evaluate each marketing or promotional campaign to ensure that the expenditure of public funds is warranted and is recovered through increased ridership and/or public recognition.

40.4 MTS Executive Committee Review and Approval. Where the cost of complimentary MTS and MTS tickets or services is expected to exceed $5,000, or is not specifically covered by this Policy, the specific use must be approved by the Executive Committee. Funds to cover the cost must be identified from the MTS and/or affected MTS operator's budget.

TFL:ILM/LST/SC/JG
POLICY.40.MTS COMPLEMENTARY SERVICES
7/18/06

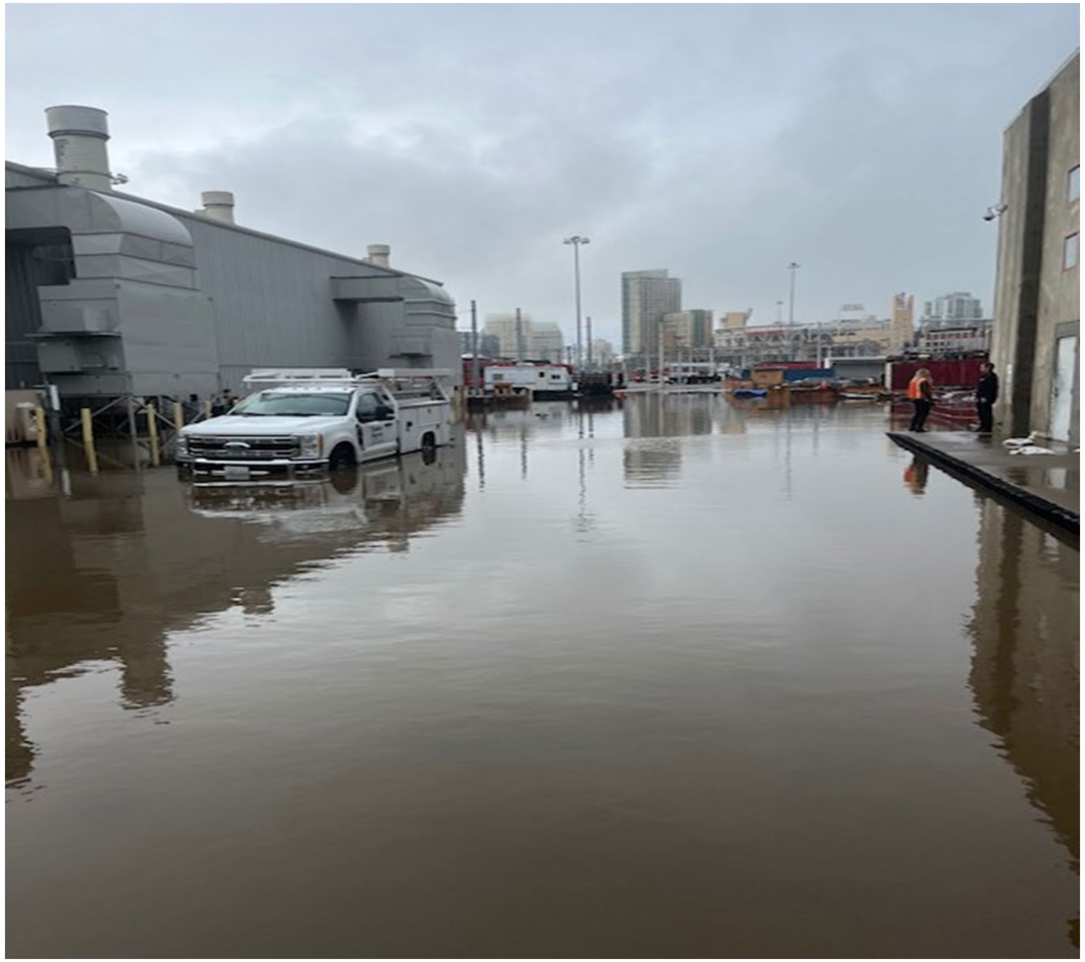
This original policy adopted on 9/12/91.
Policy revised on 4/29/04.

Storm Damage Update

Executive Committee

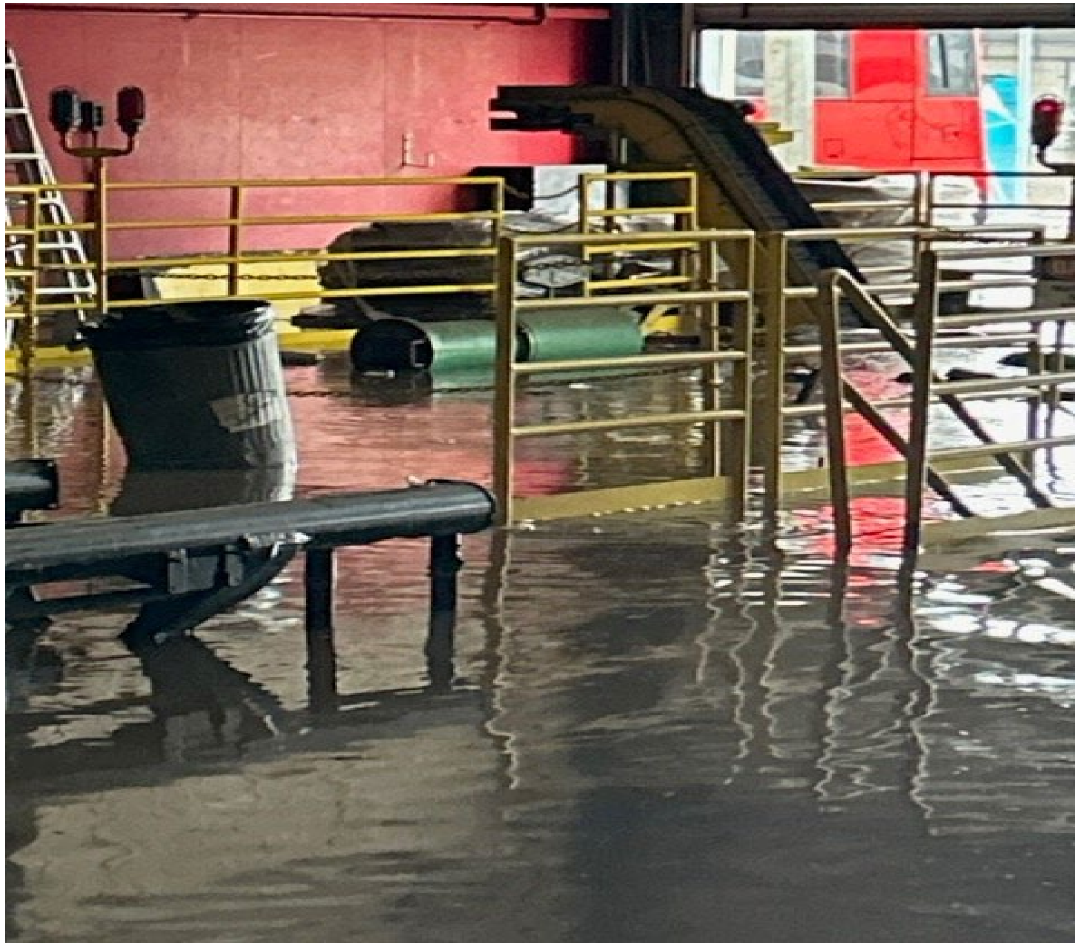
Rail Network Flood Impact

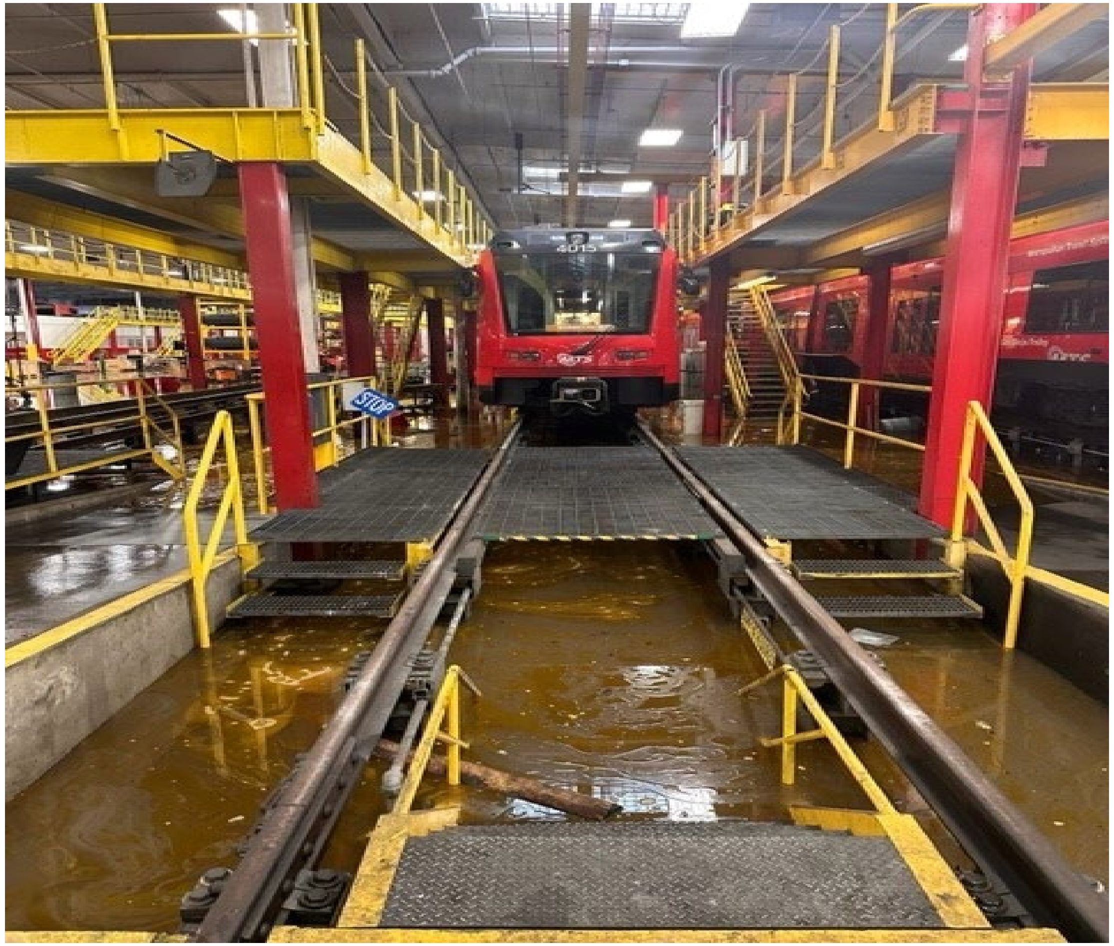
MTS Rail Maintenance Buildings



MTS Rail Maintenance Buildings

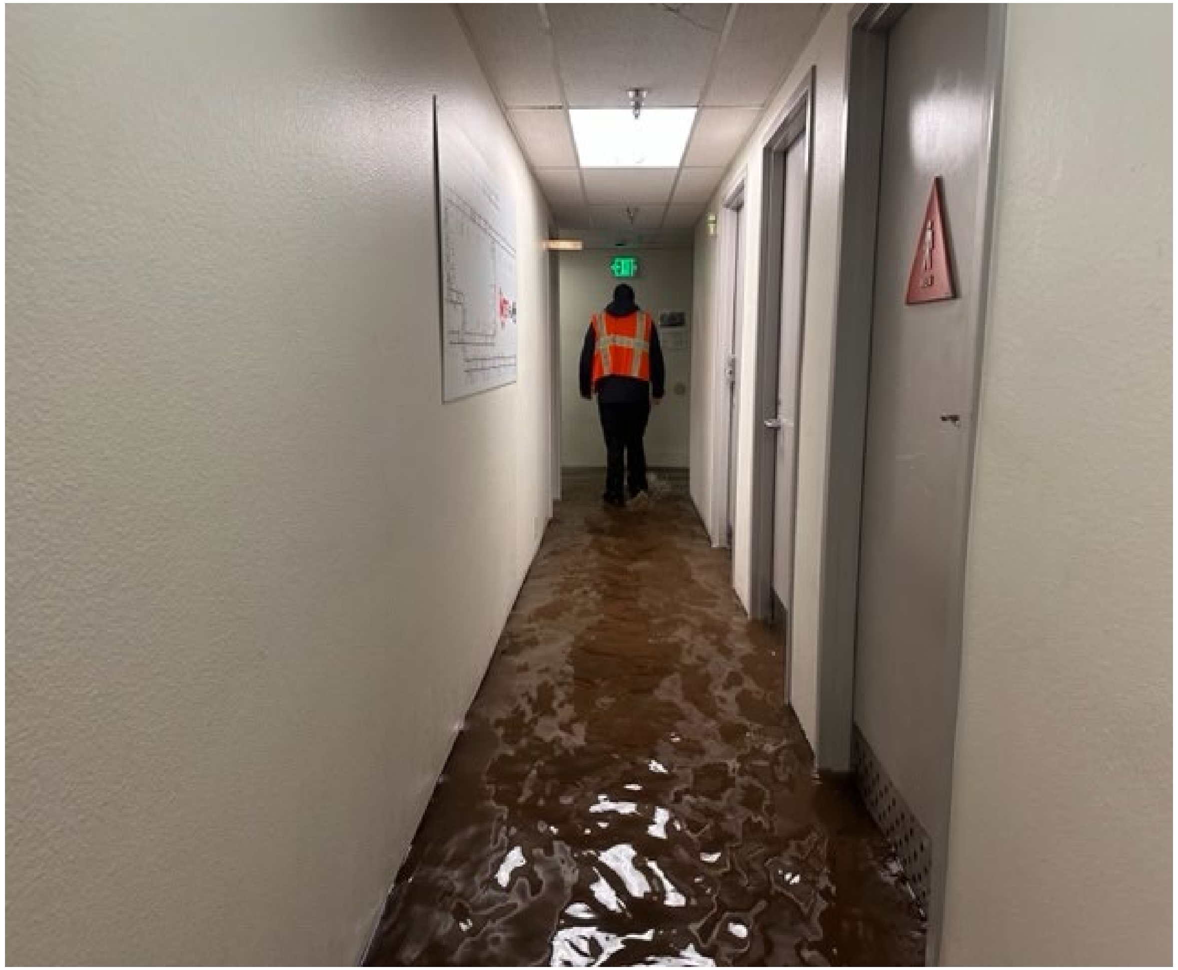
MTS Maintenance A Building





MTS Maintenance C Building

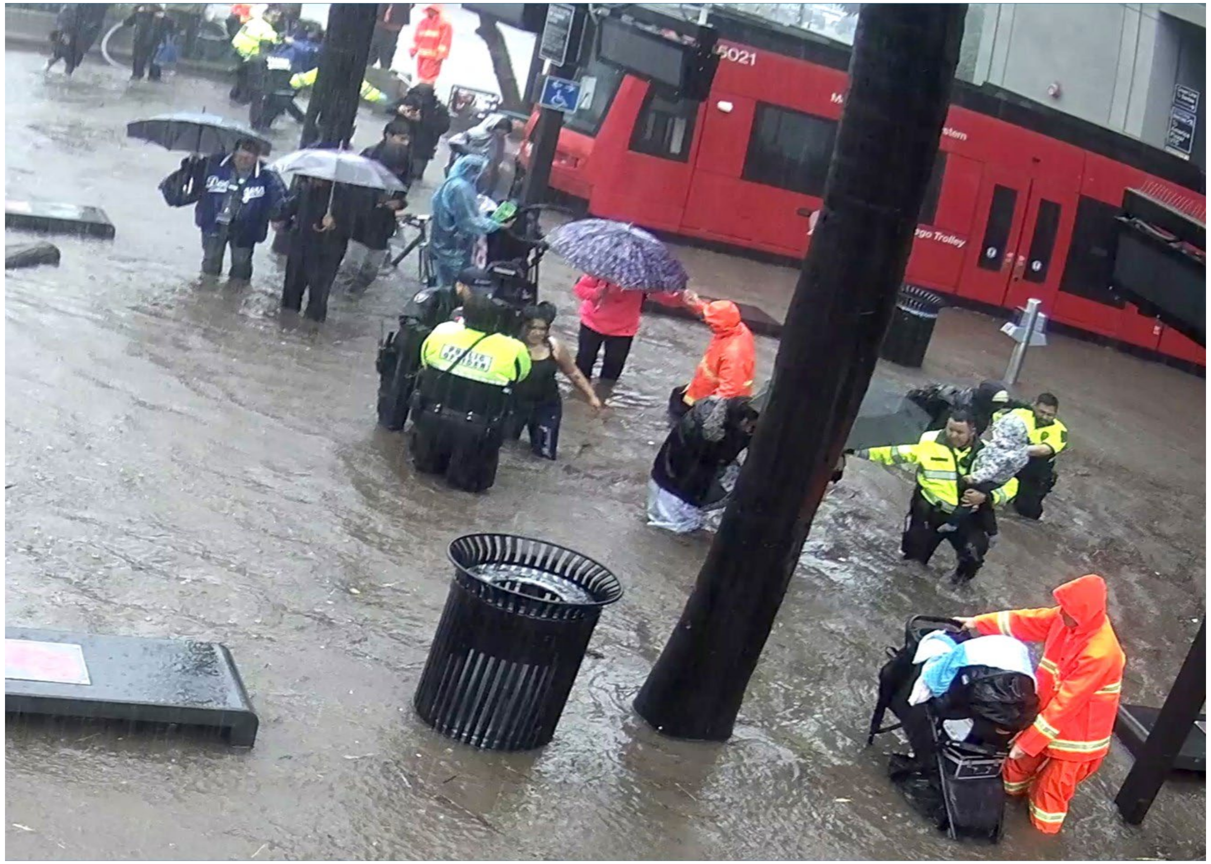
MTS Maintenance A Offices

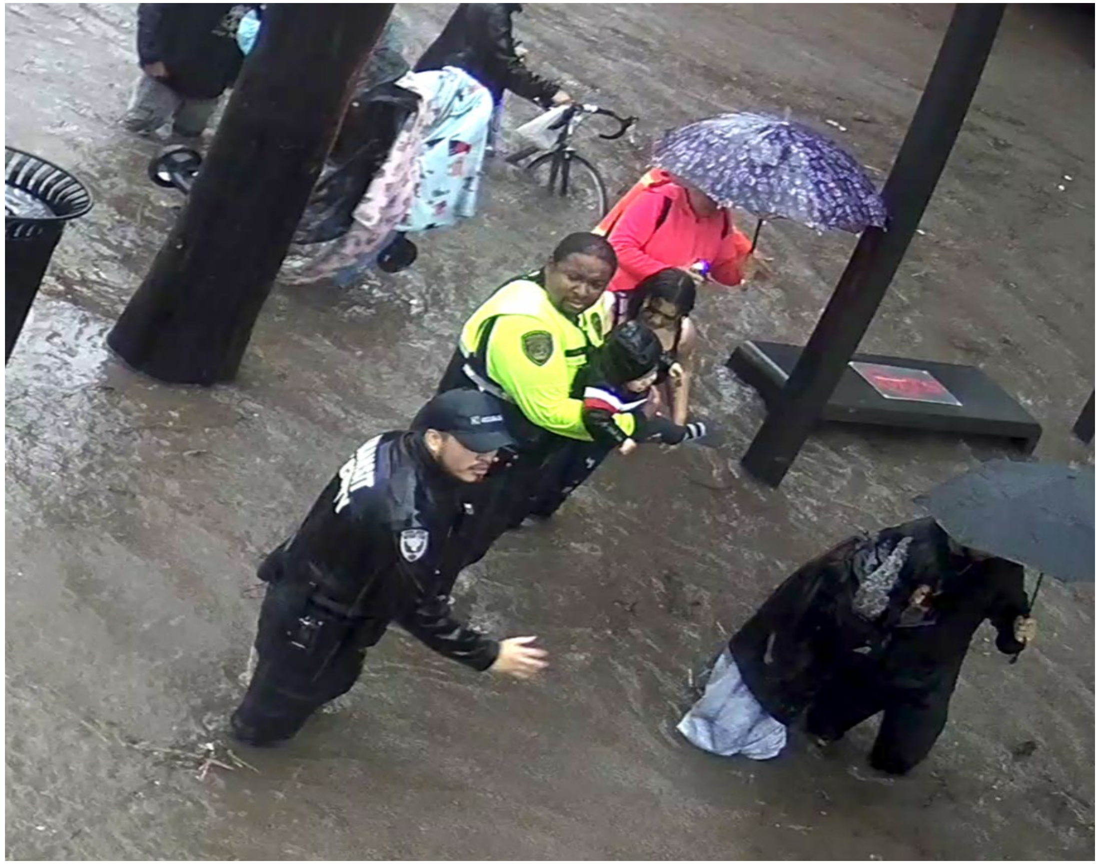


MTS Maintenance C Offices

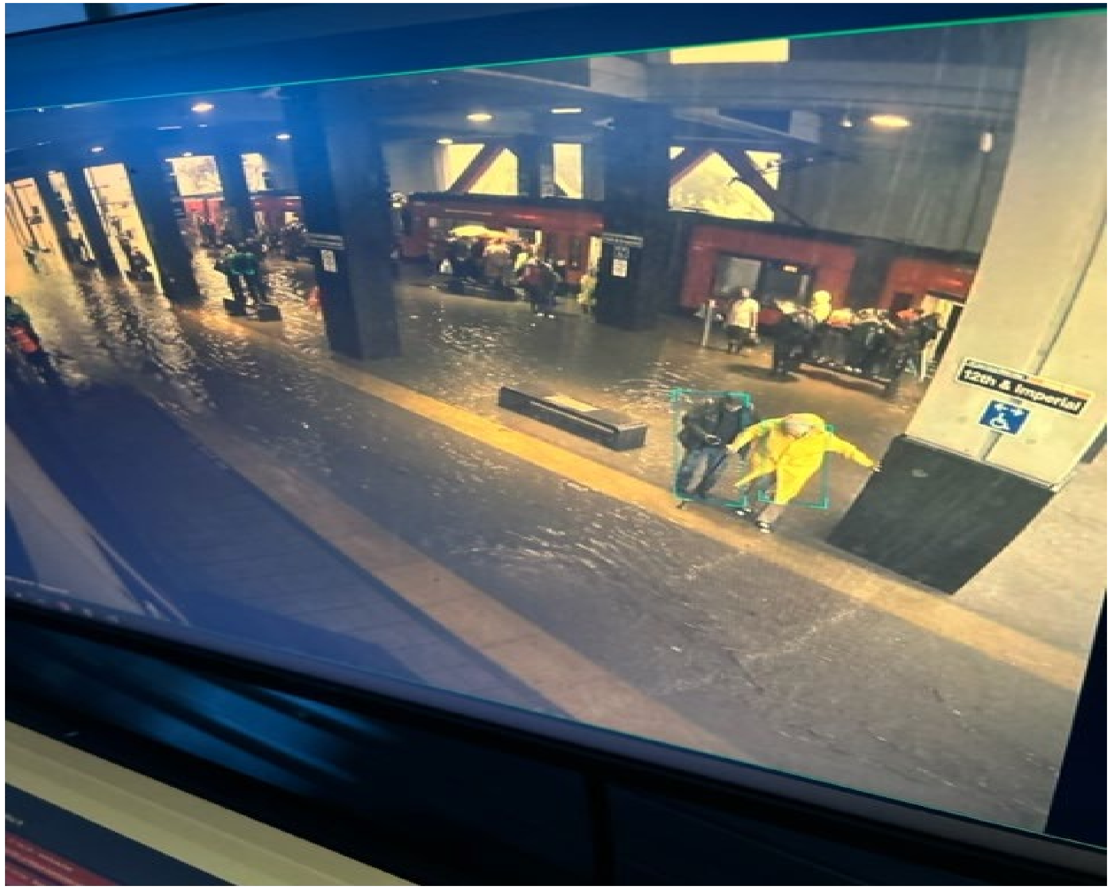
MTS Employees Assist Alpha Project Evacuation

MTS Employees Assist Passenger Evacuation





12th & Imperial Transit Center



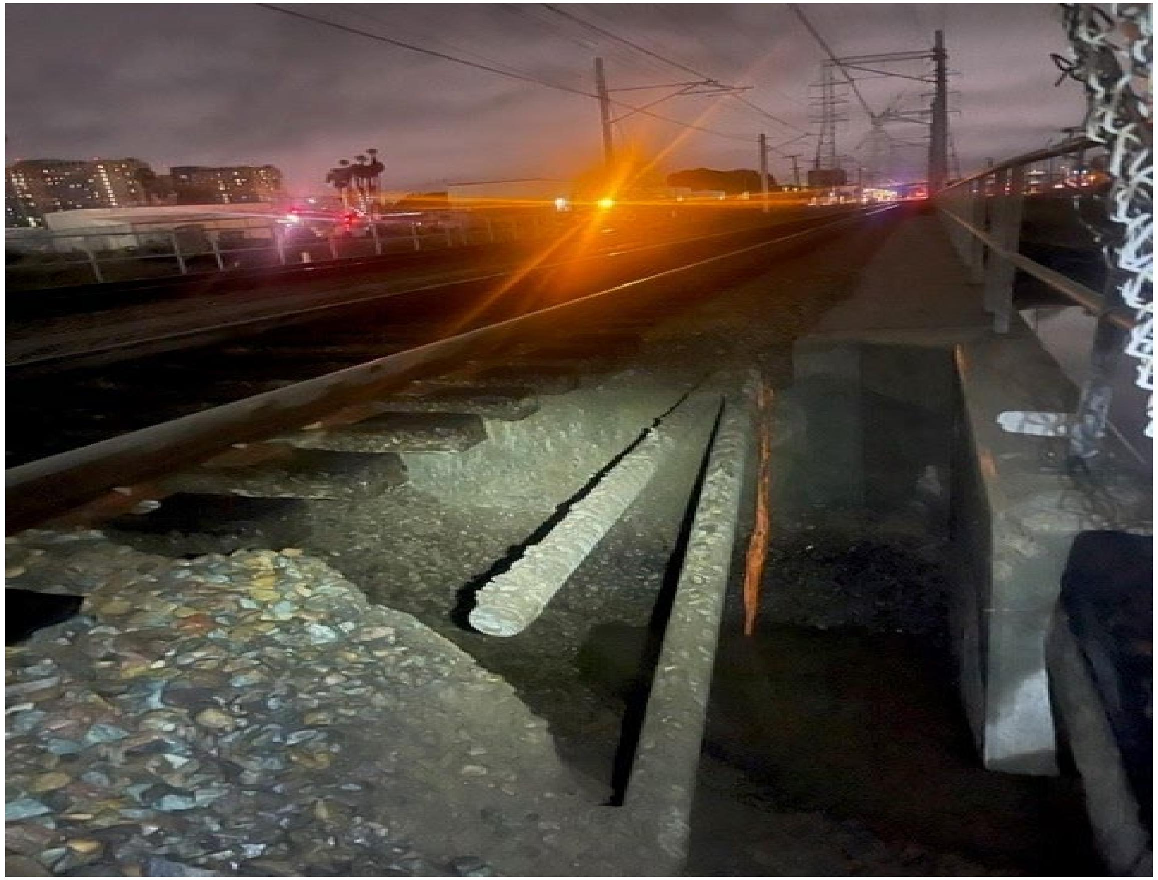
Damage to Right of Way

Orange Line Track Damage: Massachusetts Station

Orange Line Track Damage: 62nd Street & Massachusetts

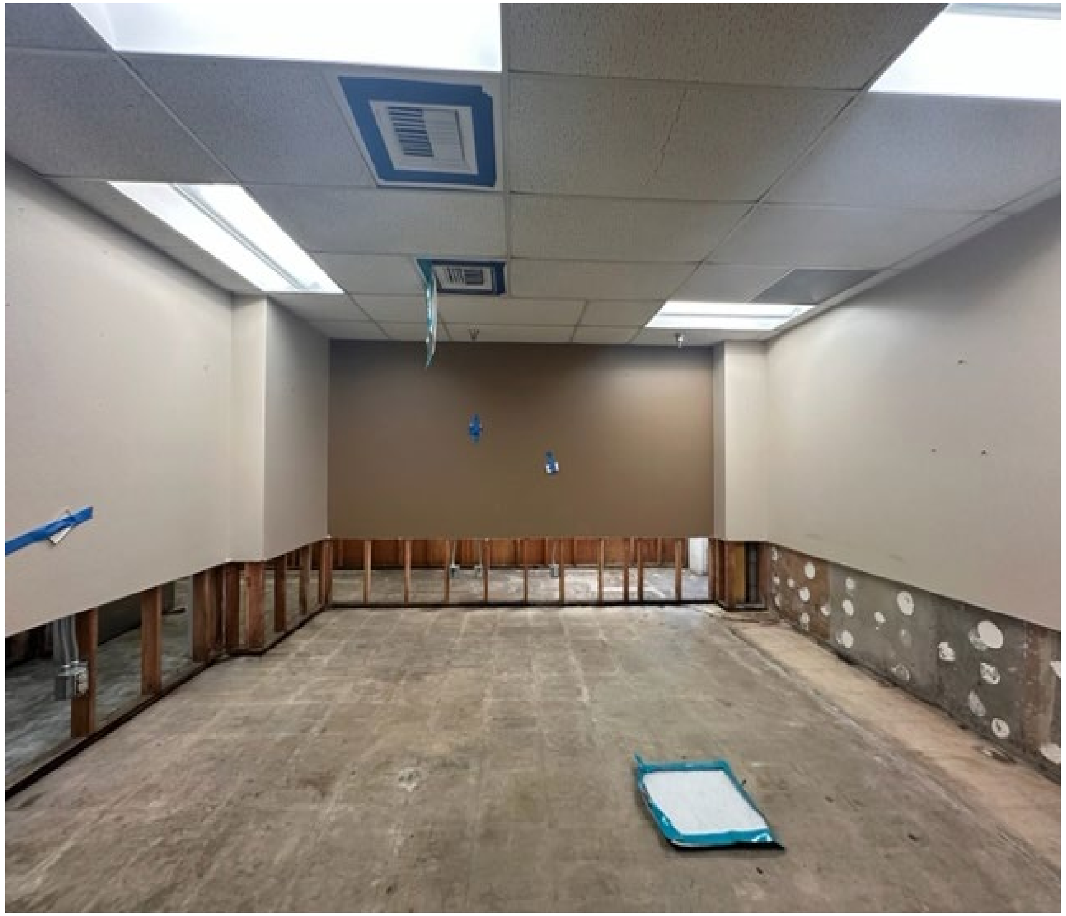
Orange Line Track Damage: 65th Street

Orange & Blue Lines: Sink Holes

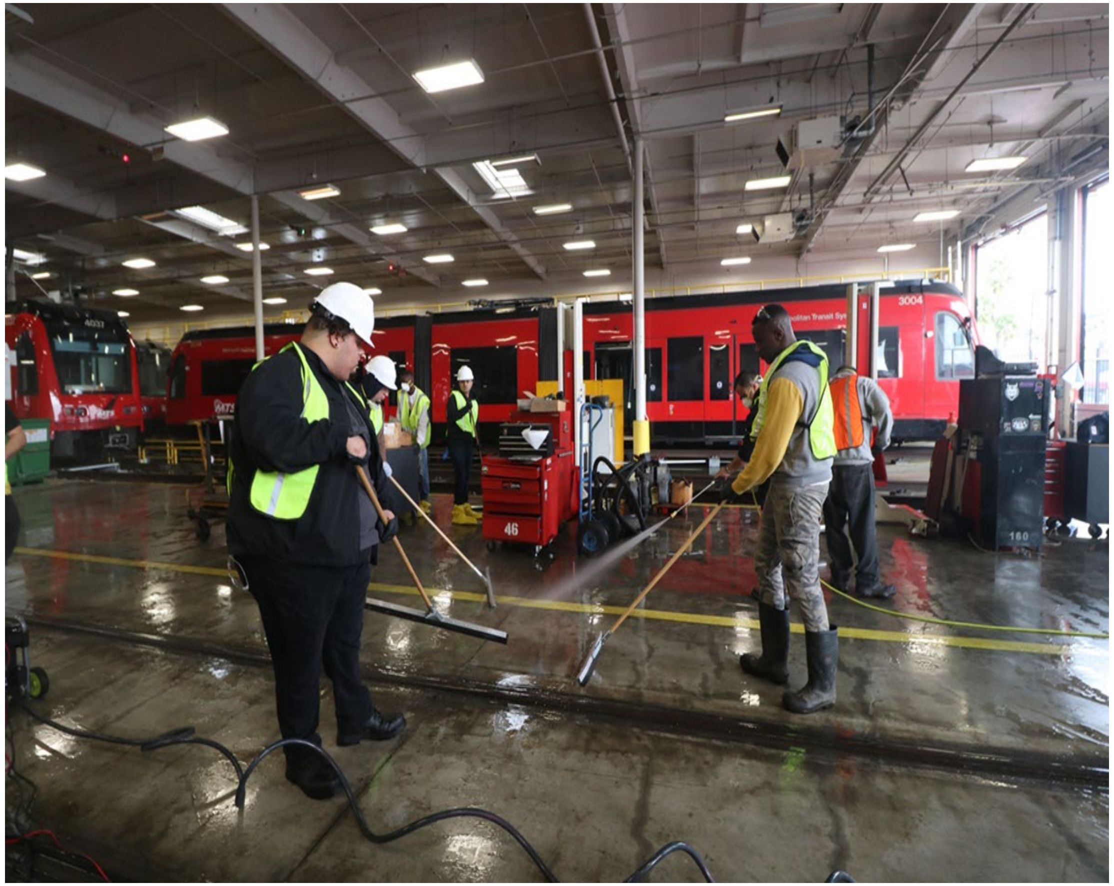


Restoration Efforts

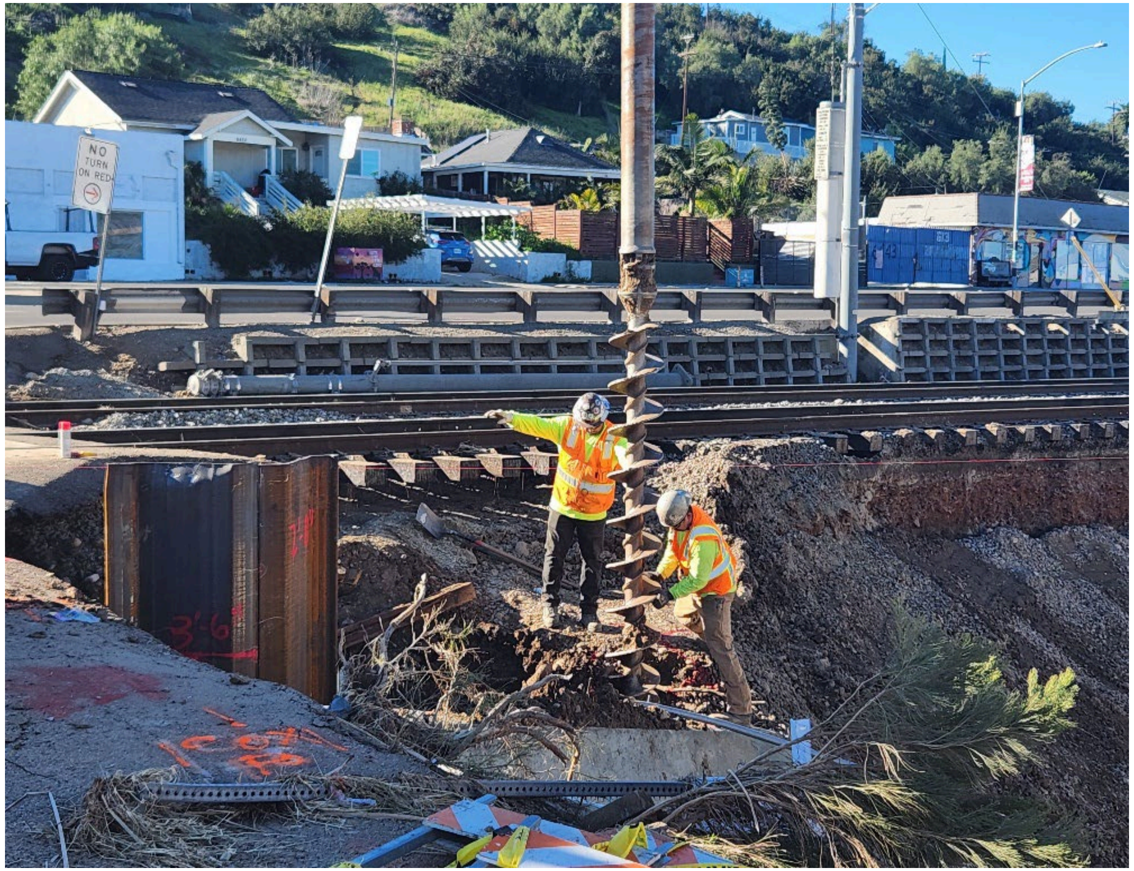
Maintenance Buildings



Maintenance Shops



Crew Installing Metal Sheets Piles 65th Street Crossing Retaining Wall



Track Restoration 62nd to 69th

Track Restoration 54th Street to Euclid Avenue

Track Restoration Mass to Lemon Grove

Drain Clearing Euclid to Lemon Grove

FEMA, San Diego County & California Office of Emergency Services Tour

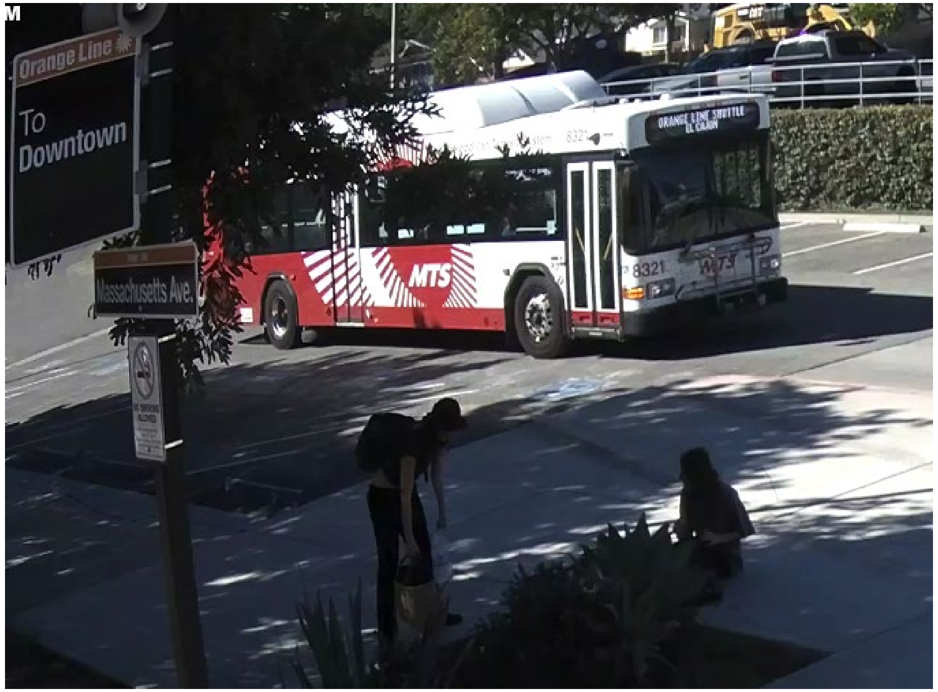
Estimated Costs

- 4,000 feet of track to be restored
- 5,000 tons of ballast used so far
- 1,000 feet of chain-link fence replaced
- 1,800 feet of contaminated ballast
- 400,000 gallons of water pumped out
- 2 Simmons wheel true machines damaged
- 2 sets of floor hoist damaged
- 7 flooded light rail vehicles
- 5 MTS Buildings flooded (A, C, Paint booth, Pyramid and Yard Tower)

Row Labels	Sum of Project Cost	
Bus	**$**	**124,000**
Orange Line	$	124,000
Capital Projects	**$**	**9,381,000**
Orange Line	$	8,900,000
Pyramid Building	$	231,000
Blue Line	$	250,000
Facilities	**$**	**3,180,000**
Building A	$	440,000
Building C	$	2,400,000
Building C Paint Booth	$	185,000
Orange Line	$	85,000
Yard Tower	$	70,000
LRV Maintenance	**$**	**8,601,000**
Building A	$	2,620,000
Building C	$	2,670,000
C Building	$	2,095,000
LRV Fleet	$	1,150,000
Paint Shop	$	21,000
Trailer	$	10,000
Yard	$	35,000
Track/MOW	**$**	**740,000**
Green Line	$	100,000
Orange Line	$	640,000
Grand Total	**$**	**22,026,000**

Recovery

Within 48 hours of storm, 60 of 62 stations had rail service and only 7% of passengers were impacted (though all had alternative bus service available)



Preparation for the Current 10-Day Weather Forecast

Thu 01	59°/48°	Rain	100%	SSW 17 mph
Fri 02	58°/47°	Showers	65%	W 15 mph
Sat 03	59°/43°	Partly Cloudy	12%	W 11 mph
Sun 04	62°/45°	Partly Cloudy	15%	SSW 8 mph
Mon 05	64°/50°	Rain	65%	SSE 11 mph
Tue 06	60°/49°	Rain	76%	SSW 12 mph
Wed 07	58°/47°	Showers	58%	SSW 12 mph
Thu 08	59°/47°	Showers	58%	SSW 11 mph
Fri 09	59°/44°	Showers	58%	SW 11 mph
Sat 10	59°/45°	Showers	39%	WSW 9 mph

- MTS personnel will be deployed to key locations on the MTS rail network
- Sandbags being placed at maintenance facilities shop doors
- Sandbags being placed at flood zones
- Drains and culverts cleared
- Equipment for debris removal on standby
- Water removal pumps on standby
- Transit bus ready to support bus bridging
- Construction services on standby

Staff Recommendation

That the San Diego Metropolitan Transit System (MTS) Executive Committee receive a report on storm damage experienced by MTS, and authorize the Chief Executive Officer (CEO) to create a free transit pass program for eligible individuals who have lost the use of their vehicles due to the January 22, 2024 storm. MTS staff will work with partner agencies to identify additional funding and a process for getting the passes to eligible recipients.

From: Tricia Tasto Levien
To: ClerkoftheBoard
Subject: Authorization to Create a Program for Transit Assistance for Victims of Flooding - Support
Date: Wednesday, January 31, 2024 1:57:48 PM

Chair Whitburn and Members of the Executive Committee,

On behalf of Wakeland Housing and Development Corporation, we urge you to approve Item 8 on your February 1, 2024, agenda, **Storm Damage Update and Authorization to Create a Program for Transit Assistance for Victims of Flooding**.

Wakeland is a San Diego-based nonprofit that provides affordable housing to low income working families, seniors, and people who have experienced homelessness. We currently own and operate 28 affordable housing communities in San Diego County.

On January 22, catastrophic flooding hit one of those communities, Village Green, located in the Rolando area of the City of San Diego (4150 Bonillo Drive, San Diego, 92115). All of the residents living at Village Green Apartments are low-income, very low-income, or extremely low-income. More than half of the households at the 93-unit property lost their homes and belongings when 4-5 foot-surges of stormwater flooded the property. We now have 57 households (more than 200 Village Green residents including 80 children/youth who are living without homes). In the days following, we have seen an urgent need for transportation subsidies from Village Green residents who lost their vehicles in the storm and are now displaced from their homes.

This measure would make a huge difference in the lives of our low-income residents by bringing stability to their transportation needs without creating additional economic burdens at a time when they have lost everything.

Thank you for your leadership on this critical issue to help San Diegans recover from this terrible natural disaster.

Thanks,
Tricia

Tricia Tasto Levien
Vice President of Operations
Wakeland Housing and Development Corporation
Office 619.677.2351 | **Mobile** 310.403.9151
1230 Columbia Street, Ste 950, San Diego, CA 92101
wakelandhdc.com
"Building Foundations For Opportunity Since 1998"

WAKELAND
HOUSING & DEVELOPMENT CORPORATION

January 31, 2024

MTS Executive Committee
1255 Imperial Avenue
San Diego, CA 92101

Via Email: ClerkoftheBoard@sdmts.com

Re: Authorization to Create a Program for Transit Assistance for Victims of Flooding - Support

Chair Whitburn and Members of the Executive Committee,
On behalf of Wakeland Housing and Development Corporation, we urge you to approve Item 8 on your February 1, 2024, agenda, **Storm Damage Update and Authorization to Create a Program for Transit Assistance for Victims of Flooding**.

Wakeland is a San Diego-based nonprofit that provides affordable housing to low income working families, seniors, and people who have experienced homelessness. We currently own and operate 28 affordable housing communities in San Diego County.

On January 22, catastrophic flooding hit one of those communities, Village Green, destroying homes, personal belongings and several cars. In the days following, we have seen an urgent need for transportation subsidies from Village Green residents who lost their vehicles in the storm and are now displaced from their homes.

This measure would make a huge difference in the lives of our low-income residents by bringing stability to their transportation needs without creating additional economic burdens at a time when they have lost everything.
Thank you for your leadership on this critical issue to help San Diegans recover from this terrible natural disaster.

Sincerely,

Tracey Johnson

Tracey Johnson
Director of Resident Services
Wakeland Housing and Development Corporation

Metropolitan Transit System

MTS STAFF USE ONLY
Public Comment
AI #: 8 Date: 2/1/24
No. in queue: 1

IN – PERSON PUBLIC COMMENT

SPEAKER INFORMATION (please print)

Agenda Item No.: 8

Name: Manny Rodriguez Telephone: ____________

Email: ____________

City of Residence: ____________

Remark Subject: ____________

Affiliated Organization: ____________

PLEASE SUBMIT THIS COMPLETED FORM BACK TO THE CLERK

INSTRUCTIONS

This meeting is offered both in an in-person and virtual format. In-person speaker requests will be taken first. Speaking time will be limited to three minutes per person, unless specified by the Chairperson. Please make your comment at the podium located on the right side of the dais. Members of the public are permitted to make general public comments at the beginning of the agenda or make specific comments on any item in the agenda at the time the Board/Committee is considering the item during the meeting. Requests to speak will not be taken after the public comment period ends, unless under the Chair's discretion.

BOARD OF DIRECTORS MEETING

General Public Comment at the beginning of the agenda will be limited to five speakers with the standard three-minute limit, unless otherwise directed by the Chair. Additional speakers with general public comments will be heard at the end of the meeting.

MEETING RECORD

A paraphrased version of this comment will be included in the minutes. The full comment can be heard by reviewing the recording posted on the respective meeting website: https://www.sdmts.com/about/meetings-and-agendas. This form will be included in the Meeting Materials posted on the respective MTS meeting site.

REVISED

Board of Directors

Agenda

February 8, 2024 at 9:00 a.m.

In-Person Participation: James R. Mills Building, 1255 Imperial Avenue, 10th Floor Board Room, San Diego CA 92101

Teleconference Participation: (669) 444-9171; Webinar ID: 982 8803 2362, https://zoom.us/j/98288032362

NO.	ITEM SUBJECT AND DESCRIPTION	ACTION

1. **Roll Call**

2. **Public Comments**
This item is limited to five speakers with two minutes per speaker. Others will be heard after Board Discussion items. If you have a report to present, please give your copies to the Clerk of the Board.

CONSENT ITEMS

3. **Approval of Minutes** — Approve
Action would approve the December 14, 2023 Board of Directors meeting minutes.

4. **Direct Fixation Fasteners – Sole Source Contract Award** — Approve
Action would authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. L1661.0-24, a sole source award to Voestalpine Railway Systems Nortrak (Nortrak), in the amount of $989,145.00 for the purchase of 4,500 direct fixation (DF) fasteners and incidentals for the Maintenance of Way (MOW) department.

5. **Payroll and Human Resources Information System (HRIS) Solution & Implementation Services – Contract Amendment** — Approve
Action would 1) Ratify Amendment 2 to MTS Doc. No. G1935.2-17, in the amount of $50,132.50; and 2) Authorize the Chief Executive Officer (CEO) to execute Amendment No. 3 to MTS Doc G1935.3-17 (in substantially the same format as Attachment B), with ADP, LLC, to add $125,774.00 for Learning Management System and training software and implementation, for a total of $175,906.50.

6. **Background Investigative Services – Contract Amendment** — Approve
Action would authorize the Chief Executive Officer (CEO) to execute Amendment No. 1 to MTS Doc No. G2646.1-22, with Kristy Investigative Services, Inc., to add $300,000.00 for employee background and reference investigation services.

7. **MTS Excess Liability and Workers' Compensation Insurance Renewals** — Approve
Action would 1) Authorize the Chief Executive Officer (CEO) to agree to an extension of the current Excess Liability Insurance Program to March 15, 2024, to allow for further negotiation of terms and conditions of coverage through the next 30 days; and 2) Authorize the CEO to either agree to an extension of the current Excess Workers Compensation Program to March 15, 2024, or at the CEO's discretion, renew the coverage effective March 1, 2024, in an amount not to exceed $335,000.

8. **Operations Budget Status Report for December 2023** — Informational

9. **Additional Staffing – Two (2) Bus Operations Training Instructor** — Approve
Action would authorize the Chief Executive Officer (CEO) to add two (2) Bus Operator Training Instructor to the position tables previously approved in the Fiscal Year 2024 budget.

10. **External Auditing Services – Contract Award** — Approve
Action would authorize the Chief Executive Officer (CEO) to: 1) Execute MTS Doc. G2788.0-24, with The Pun Group, Inc. (The Pun Group) for External Auditing Services for a five (5) year base period in the amount of $1,143,722.35, plus three (3) 1-year options in the amount of $771,190.85 for a total contract amount of $1,914,913.20; and 2) Exercise the option years at the CEO's discretion.

DISCUSSION AND REPORT ITEMS

11. **San Diego Transit Corporation (SDTC) Pension Investment Status (Jeremy Miller, Representative with RVK Inc. and Larry Marinesi)** — Informational

12. **San Diego Transit Corporation (SDTC) Employee Retirement Plan's Actuarial Valuation as of July 1, 2023 (Anne Harper and Alice Alsberghe with Cheiron Inc., and Mike Thompson)** — Approve
Action would receive the SDTC Employee Retirement Plan's (Plan) Actuarial Valuation as of July 1, 2023 (Attachment A) and adopt the pension contribution amount of $20,174,660 for fiscal year 2025.

13. **Overnight Downtown - Border Express Bus Service Implementation (Denis Desmond)** — Informational

14. **MTS Safety Performance Targets Annual Review & Update (Fabeann Soberg and Jared Garcia)** — Informational

OTHER ITEMS

15. **Chair, Board Member and Chief Executive Officer's (CEO's) Communications and CEO Report** — Informational

16. **Remainder of Public Comments Not on The Agenda**

This item is a continuation of item No. 2 (Public Comment), in the event all speakers who request to comment on item No. 2 are not called. If all Public Comment is accepted during item No. 2, no additional public comment will be accepted under this item.

CLOSED SESSION

17. **Closed Session – Conference with Legal Counsel – Existing Litigation Pursuant to California Government Code Section 54956.9(d)(1)** — Possible Action

Lourdes Maria Guerra, et al. vs. Metropolitan Transit System, et al.
San Diego Superior Court Case No. 37-2022-00023104-CU-PA-CTL

18. **Closed Session - Conference with Labor Negotiators Pursuant to California Government Code Section 54957.6** — Possible Action

Agency: San Diego Transit Corporation ("SDTC")
Employee Organization: Amalgamated Transit Union, Local 1309 ("ATU")
Agency- Designated Representative: Michael Wygant, Chief Operating Officer

ADJOURNMENT

19. **Next Meeting Date**

The next Board of Director's meeting is scheduled for March 14, 2024 at 9:00am.

20. **Adjournment**

Metropolitan
Transit
System

DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 2/1/2024

Agenda Item No. 4

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

February 8, 2024

SUBJECT:

Direct Fixation Fasteners – Sole Source Contract Award

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute MTS Doc. No. L1661.0-24 (in substantially the same format as Attachment A), a sole source award to Voestalpine Railway Systems Nortrak (Nortrak), in the amount of $989,145.00 for the purchase of 4,500 direct fixation (DF) fasteners and incidentals for the Maintenance of Way (MOW) department.

Budget Impact

The total contract cost of materials is estimated to be $989,145.00 (Attachment C and inclusive of sales tax and shipping). The project will be funded by the Capital Improvement Project (CIP) account 1009111204 – Misc. Capital and CIP account 2006121401 – Rail Fastener Replacement – Fletcher.

DISCUSSION:

Approximately 4,500 DF fasteners on Main Street and Fletcher Parkway Bridges on the Green Line in El Cajon must be replaced. The existing DF fasteners were installed in 1992 and are starting to fail. The fasteners were recessed into the concrete when bridge decks were originally constructed. The initial construction method requires new fasteners to be the same size as the original fasteners to permit installation without damage to the remainder of the concrete structure.

LORD manufactured the existing fasteners, measuring 14 – ¾” wide by 7 – ¾” high. Unfortunately, LORD no longer operates in the United States and has moved manufacturing to China. The only US-made options fitting the existing bolt holes are L.B. Foster F20R4 and Nortrak FA-40 fasteners. Unfortunately, both US-made options measure larger than the current perimeter of the recessed concrete. However, MTS research was able to identify that LORD possesses a mold for the required fastener in China.

MTS reached out to the following vendors:

- L.B. Foster
- Nortrak
- Progress Rail

L.B. Foster and Progress Rail cannot create custom fasteners or partner with another manufacturer abroad. Nortak has agreed to subcontract with LORD to manufacture the correct fasteners using LORD's mold. Nortak will inspect the fasteners to ensure that they meet the current Federal Railroad Administration (FRA) Specifications. As a result of this process, MTS has determined that Nortak is the only vendor it could identify to supply a DF fastener that will meet MTS's required specifications. A sole source award to Nortak is therefore justified.

Once procured and delivered to MTS, these custom fasteners will be installed in-house by the MTS track department.

The table below provides a summary of costs:

#	Description	Quantity	Unit Price	Extended Price
1	Fastener assembly includes Fastener Body, adjustment plate, bolt, wash and e-clip	4,500	$204.00	$918,000
		7.75% CA Sales Tax		$71,145.00
		Grand Total		**$989,145.00**

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute MTS Doc. No. L1661.0-24 (in substantially the same format as Attachment A), a sole source award to Nortrak, in the amount of $989,145.00 for the purchase of 4,500 DF fasteners and incidentals for the MOW department.

/S /Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachments: A. Draft Agreement, MTS Doc. No. L1661.0-24
B. Scope of Work & Technical Specifications
C. Quote

Metropolitan Transit System

STANDARD AGREEMENT

FOR

MTS DOC. NO. L1661.0-24

DIRECT FIXATION FASTENERS

THIS AGREEMENT is entered into this __________ day of ___________, 2024 in the State of California by and between San Diego Metropolitan Transit System ("MTS"), a California public agency, and the following, hereinafter referred to as "Contractor":

Name: Voestalpine Railway Systems Nortrak

Address: 8814 N. Murray Road

Newman Lake WA 99025
City State Zip

Form of Business: Corporation
(Corporation, Partnership, Sole Proprietor, etc.)

Email: Linnea.frary@voestalpine.com

Telephone: (206) 255-4134

Authorized person to sign contracts Linnea Frary Senior Vice President Sales
Name Title

The Contractor agrees to provide goods as specified in the conformed Scope of Work/Minimum Technical Specification (Exhibit A), Contractor's Quote (Exhibit B), and in accordance with the Standard Agreement, including Standard Conditions (Exhibit C), and Forms (Exhibit D).

The contract term is for 9-months to account for lead time and shipping, shall be effective February 1, 2024 through November 1, 2024.

Payment terms shall be net 30 days from invoice date. The total cost of this contract shall not exceed $989,145.00 without the express written consent of MTS.

SAN DIEGO METROPOLITAN TRANSIT SYSTEM	VOESTALPINE RAILWAY SYSTEMS NORTRAK
By: ______________________	By ______________________
Sharon Cooney, Chief Executive Officer	
Approved as to form:	
By: ______________________	Title: ______________________
Karen Landers, General Counsel	

SCOPE OF WORK/TECHNICAL SPECIFICATIONS

1. GENERAL

Contractor shall provide 4,500 EA direct fixation fasteners and required incidentals as described in these technical specifications.

2. MEASUREMENT AND INVOICE PAYMENT

A. Measurement of acceptable materials shall be by the actual number of each direct fixation fastener and required incidentals manufactured and delivered in accordance with the specifications.

B. Payment shall be made for each direct fixation fastener and required incidentals delivered and accepted in accordance with the specifications, in the amount bid for each type furnished.

C. Material not meeting the requirements of the specifications will be rejected. Rejected material shall be returned to the vender at his expense.

D. MTS shall process the invoice for payment within thirty (30) days of the final invoice approval date. Invoices must be sent to the MTS Accounting Department, via email, at ap@sdmts.com, including along with supporting delivery receipts. All invoices must have the Purchase Order and contract number clearly displayed to ensure timely payment. MTS will not pay on packing slips, receiving documents, delivery documents, or other similar documents. Invoices must be submitted for payment.

E. Contractors must also indicate if any of the invoiced amount is for work provided by a subcontractor and indicated the amount that will be paid to the subcontractor. Contractors must also comply with the prompt payment requirements in the Prompt Progress Payments of the Standard Conditions.

3. WARRANTY

Bidders shall outline in detail their warranty on the equipment offered, including the method of adjustment in cases of equipment, component or parts failure. Warranty shall also be stated for installation labor, materials, and method of adjustment.

4. REPLACEMENT PARTS

Replacement parts and technical support for the specified equipment must be guaranteed by the manufacturer; to be available for a ten (10) year period from the date of purchase. Manufacturer shall keep parts books and maintenance manuals up-to-date for that period.

5. DELIVERY AND ACCEPTANCE

Delivery shall be one hundred eighty (180) calendar days after MTS issues the Notice to Proceed.

All deliveries should meet the instructions shown in the scope of work. Total delivery cost (if any is charged) should be included in the bid form.

Bidder is responsible for all other shipping/delivery costs.

The delivery location shall be at the MTS yard located at 1601 Newton Ave., San Diego, CA 92113

Because of all the coordination involved, the Contractor shall notify MTS three (3) calendar days prior to delivery to allow for unloading by MTS.

The deliverable provided under this contract shall be delivered F.O.B. to the addresses above unless otherwise specified, in first class condition, complete and ready for operation, and the Contractor shall assume all responsibility and risk of loss incident to said delivery.

Contractor shall indicate delivery date on the Bid Form unless already specified, in which case, shall be made within the time set forth. Delivery is part of the consideration and must be adhered to as specified.

Contractor will not be held liable for failure to make delivery because of strikes, construction of property, governmental regulations, acts of God or any other causes beyond his control, provided a written extension of time is obtained from MTS.

Upon delivery, MTS will acknowledge receipt of said items or products. Delivery shall not constitute acceptance. Upon inspection and testing (if necessary) by MTS, a determination will be made whether said items or products are in conformance with contract requirements. If found in conformance, MTS shall approve the Contractor's invoice for payment; thereby constituting acceptance. Payment terms begin from this point. If the delivered items or products are found not in compliance, MTS will immediately notify the Contractor, and furnish all details of deficiencies. Contractor shall correct the deficiencies or supply new items or products (at the discretion of MTS), and resubmit for inspection and testing (if necessary).

PART 1 - GENERAL

Contractor shall provide the following:

- 4500 EA – LORD J-230590-2 Standard Fastener or approved equal. Each Standard fastener shall include the following.
- 4500 EA – 1/8" HDPE Shim, DF Standard
- 9000 EA – Bolts Heavy Hex, 7/8", 3.5" long, Grade 5 ASTM B633 Type II SC2
- 9000 EA – Adjustment Plates, DF, Ductile
- 9000 EA – 7/8" Extra Duty Lock Washers, Type II SC4
- 9000 EA – eClip E2055 Right Hand Clips

1.01 SUMMARY

A. This Section includes requirements for furnishing all labor, materials, and equipment for the manufacturing, testing, fabricating, and delivering all direct fixation fasteners, as specified within the Contract Documents.

B. This Section shall serve as a performance specification for the direction fixation fasteners.

1.02 REFERENCES

A. This Section incorporates by reference the latest revision of the following documents.

1. American Railway Engineering and Maintenance-of-Way Association (AREMA)

a. AREMA Manual for Railway Engineering (AREMA Manual)

2. American Institute of Steel Construction (AISC)

a. AISC Steel Construction Manual

3. ASTM International (ASTM)

a. ASTM A148/A148M Standard Specification for Steel Castings, High Strength, for Structural Purposes

b. ASTM A536 Standard Specification for Ductile Iron Castings

c. ASTM A668/A668M Standard Specification for Steel Forgings, Carbon and Alloy, for General Industrial Use

d. ASTM D257 Standard Test Methods for DC Resistance or Conductance of Insulating Materials

e. ASTM D395 Standard Test Methods for Rubber Property - Compression Set

f. ASTM D412 Standard Test Methods for Vulcanized Rubber and Thermoplastic Elastomers-Tension

g. ASTM D429 Standard Test Methods for Rubber Property - Adhesion to Rigid Substrates

h. ASTM D471 Standard Test Method for Rubber Property - Effect of Liquids

i. ASTM D573 Standard Test Method for Rubber - Deterioration in an Air Oven

j. ASTM D1149 Standard Test Methods for Rubber Deterioration - Cracking in an Ozone Controlled Environment

k. ASTM D1229 Standard Test Method for Rubber Property - Compression Set at Low Temperatures

l. ASTM D2240 Standard Test Method for Rubber Property - Durometer Hardness

m. ASTM E162 Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source

n. ASTM E662 Standard Test Method for Specific Optical Density of Smoke Generated by Solid Materials

o. ASTM F3125/F3125M Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength

p. ASTM G101 Standard Guide for Estimating the Atmospheric Corrosion Resistance of Low Alloy Steels

4. The Society for Protective Coatings (SSPC)

a. SSPC SP 5 White Metal Blast Cleaning

1.03 SUBMITTALS AND TRANSMITTALS

A. Submit the following:

1. Technical Data: Provide Technical Data for each type of direct fixation fastener before the start of fabrication work. Include shop drawings for each fastener and all information including details showing dimensions, arrangement, and material description for each component in fastener assembly.

B. Samples:

1. Furnish two (2) identical samples of the direct fixation fastener.

2. Label each sample indicating:

a. Contract Name and Number

b. Name of Contractor and Subcontractor

c. Material or equipment represented

d. Source

e. Name of manufacturer and brand

f. Reference specifications section and article numbers

3. Qualification Statement: Provide documentation pertaining to fasteners conformance to the requirements as specified herein. Document shall include Contractor's certification that furnished products meet specified requirements.

C. Transmit the following:

1. Product Data: Provide Supplier's product data, catalog cuts, drawings, material specifications, and installation instructions for each component in the fastener assembly and furnished products.

2. Certifications:

a. Rail clip Supplier's approval of rail hold-down spring clip application on proposed direct fixation fastener as specified herein.

b. Certification of each elastomer batch used as specified herein.

3. Threaded element installation data as specified herein.

4. Provide test results documentation as required for the Work as specified herein.

1.04 QUALITY

A. Develop and maintain a quality control program regulating methods, procedures, and processes to ensure compliance with standards of quality required by the Contract Documents.

B. After the Notice to Proceed, submit for approval of the Resident Engineer a detailed narrative explaining the Quality Control Program and description of procedures to be utilized for the Work and a description of the organization to be used on the Contract. Work undertaken by the Contractor before approval of Quality Control Program will be at the Contractor's risk. The Resident Engineer will monitor the Contractor's methods, procedures, and processes for compliance with the approved program.

1. Keep complete records of inspection work by the Contractor and make available to the Resident Engineer and other agencies during the duration of the Contract; and longer as may be specified elsewhere in the Contract.

1.05 DELIVERY, STORAGE AND HANDLING

A. Fasteners shall be packed and shipped in a manner that shall prevent a load on any fastener from exceeding 1,000 pounds.

B. Fasteners shall not be stored by the Contractor in a wet location or where the ambient temperature will exceed 120 degrees Fahrenheit.

C. Fasteners and assemblies shall be packaged to permit outdoor storage.

D. Fastener bodies shall be palletized and banded. Rail hold-down assemblies, shoulders, bolts, nuts, and other loose items shall be packaged by component type in secure shipping kegs, boxes, or bags. All items shall be clearly identified as to the contents.

E. Damage: Replace fasteners and assemblies damaged during packaging, shipping, storage, and handling at no additional cost to Sound Transit. Special care shall be taken to protect the threaded lengths of bolts to prevent damage.

PART 2 - PRODUCTS

2.01 DIRECT FIXATION FASTENER

A. Manufacturers:

1. Direct fixation fasteners Manufactures are required to have five years of direct fixation fastener in-service performance history.

B. Type of Direct Fixation Fastener

1. Standard rail fastener, with and without cant
2. Special trackwork fasteners
3. Zero Longitudinal Restraint (ZLR) rail fastener assembly C.

Fastener Description:

1. The direct fixation fastener shall be for 115RE rail, with spring clips in the righth and configuration.
2. Provide, on both sides of the rail base, a positive means of preventing more than 1/8-inch total lateral movement of the rail base relative to the fastener in case of failure or loosening of one or hold-down assemblies.
3. The lateral rail restraint shall extend a minimum of 3/8-inch vertically, but not higher than 1-3/4-inch above the base of rail in the installed position.
4. The standard rail fastener and the standard special trackwork fastener shall utilize a spring clip type element with non-threaded components to form the rail hold down assembly, fasteners shall utilize the Pandrol E-clip or approved equal. For ZLR fasteners, a threaded component is allowed to be part of the hold-down assembly.
5. The assembled standard rail fasteners shall provide a canted rail seat to provide a 40 to 1 rail cant when mounted to a flat, level surface. Assembled direct fixation fasteners tapered rail seat shall be towards the centerline of the track.
6. The assembled standard rail fasteners to be used in the limits of special trackwork, as specified in the Contract Drawings, shall provide a rail seat with no cant when mounted to a flat, level surface.
7. The assembled special trackwork fasteners shall provide a rail seat with no cant when mounted to a flat, level surface.
8. Fasteners will have two anchorage insert assemblies each, for securing the fastener to the plinth concrete.
9. Direct fixation fasteners shall be composed of as few components as is economically and technically practicable for ease of assembly, disassembly, and maintenance, and shall be designed to permit installation and replacement of the entire assembly or its components by one worker using standard conventional hand tools.
10. Direct fixation fastener shall be designed to dampen lateral and vertical dynamic forces transferred to anchor bolts.
11. In its installed position, the underside of the fastener shall be a flat plane. Base protrusions into the plinth concrete will not be allowed.
12. Bonding of the direct fixation fastener to the plinth concrete shall not be permitted.

13. Fastener plates shall have full bearing on the elastomer in positions of lateral adjustment and have a means of preventing displacement of the elastomer.

14. Stability of the fastener shall not be dependent solely upon the strength of bonding of the elastomer to metal.

15. Provide fastener that when the spring clips are removed, the rail may be lifted vertically until it is completely free of the fastening shoulder without disturbing the horizontal or vertical alignment of the shoulder or the adjacent restraining rail bracket.

16. Fasteners shall be compatible with Pandrol E-clip or approved equal for standard rail fasteners and special trackwork fasteners.

17. For ZLR rail fasteners, spring clips shall be a SKL (tension clamping) with isolated toe clip or isolated “Fastclip” type clips, or approved equal.

18. Dimensional and Shape Requirements:

    a. The fastener shall be rectangular in shape. The frame and top plate shall include keying and turned up plate edges such that loss of elastomer bond shall not result in complete loss of the fasteners ability to hold line and gauge. The fastener should be designed to shed water without leaving pools.

    b. Height:

        1) Direct fixation fasteners with canted rail base shall have a height measured between the top surface of the plinth concrete and the base of the running rail, with the direct fixation fastener in the installed position of between 1-1/2-inch and 2-inch, exclusive of shims.

        2) Direct fixation fasteners without canted rail base shall have a height measured between the top surface of the plinth concrete and the base of the running rail, with the direct fixation fastener in the installed position of between 1-1/4-inch and 2-inch, exclusive of shims.

        3) No part of the direct fixation fastener shall project more than 3inches above the rail base in the installed position.

    c. Standard rail fastener and ZLR rail fastener length and width:

        1) Fastener body dimensions including elastomer:

            a) Length: Measured perpendicular to the rail centerline, shall be between 14-inch and 16–inch.

            b) Width: Measured parallel to the rail centerline, shall be between 8-3/16-inch and 9-inch.

2) No portion of the fastener in the installed position shall extend more than 9-inch toward the field side from the centerline of the running rail.

d. Special trackwork fastener length and width: 1) Fastener body

dimension including elastomer:

a) Length: Measured perpendicular to the rail centerline. Dimensions as shown in Contract Documents

b) Width: Measured parallel to the rail centerline. Dimensions as shown in Contract Documents

2) Anticipated fasteners shown in Contract Documents produced by LB Foster or approved equal.

e. Adjustment Requirements:

1) Lateral Adjustment:

a) Plus or minus 1/4-inch, minimum, provided at the anchor bolts.

b) Do not use friction as a means of preventing lateral movement.

c) If lateral adjustment employs serrations on any component:

i) Engage at least three serrations at interface.

ii) Engage at least 3-inches of serration per fastener.

iii) Machine or cast serrations to a minimum depth of 1/16–inch.

d) Each rail fastener requires components for specified increments of lateral adjustment. Components of the direct fixation fastener shall not be replaced or added to the basic configuration to laterally adjust the rail.

e) Provide 1/32-inch of lateral clearance between the rail seat and the rail for each direct fixation fastener.

2) Vertical Adjustment: 1/8-inch

minimum, in 1/16-inch increments, provided by shims. D.

Performance / Design Criteria:

1. The spring rate for direct fixation fasteners shall be between 94,000 pounds per inch and 200,000 pounds per inch for vertical loads between 4,500 pounds and 12,000 pounds.

2. Standard rail fastener and special trackwork fastener for 115RE rail with longitudinal restraint between 2,000 and 3,500 pounds per rail seat.

3. ZLR rail fastener assembly for 115RE rail with no longitudinal restraint per rail seat.

4. Electrical Isolation: nor

   a. The fastener shall provide an electrical surface leakage distance not less than 1-3/4-inch measured from the grounded portion of the fastener to the charged portion by the most direct path that does not pass through an insulating material, and not less than 1/4-inch when measured passing through an insulating material.

   b. The insulation requirements shall be met within the body of the fastener. No separate or detachable insulating components such as rail base pads or spring clip insulators shall be used.

   c. No surface cut-outs, gaps, edge voids, or edge cut-outs will be allowed that could allow accumulation of dirt, metallic particles, or other material that could provide electrical leakage to ground.

   d. Each fastener shall be furnished with a High Density Polyethylene shim as specified within the Contract Documents. E. Materials:

1. Metal Components:

   a. Metal plate components shall be made from forged, cast steel or ductile iron.

      1) Cast steel: ASTM A148/A148M, Grade 80-40 or equal.

      2) Forged steel: ASTM A668, Grade C or equal.

      3) Ductile iron: ASTM A536, Grade 65-45-12 or equal.

   b. Corrosion Resistance Index: 4.0 minimum, calculated for rolled steel products and other steel with a chemical content within the composition range listed in ASTM G101 and containing less than 1.0 percent manganese.

2. Elastomer:

   a. Fabricated of 51 percent minimum natural rubber.

   b. The design Durometer Shore A shall be 50 plus or minus 10 for natural rubber as measured in accordance with ASTM D2240.

c. Compressive strain of the elastomer: No more than 25 percent of its uncompressed thickness for a load of 14,000 pounds, applied vertically to the rail to a single fully assembled fastener. Include pre-compression of elastomer in fasteners in the installed position in determining the total compressive strain.

d. Elastomeric component of the direct fixation fastener shall be fully vulcanize bonded to its frame and top plate and not less than 1/4-inch thick. The fastener shall also include bonded elastomer on its top surface to a plate.

e. Water Absorption: ASTM D471

1) Test Conditions: In accordance with ASTM D471.

2) Acceptance Criteria: Water absorption after 24 hours immersion shall not exceed 0.5 percent.

f. Tensile Properties: ASTM D412

1) Natural Rubber Tensile Strength: Minimum 2,500 pounds per square inch.

2) Ultimate Elongation: Minimum 350 percent.

g. Resistance to Compression Set: ASTM D395, Method B

1) Test Condition: Natural Rubber, 22 hours at 158 degrees Fahrenheit.

2) Natural Rubber: Maximum 25 percent.

h. Resistance to Aging in Air: ASTM D573

1) Test Condition: 72 hours at 158 degrees Fahrenheit.

2) Natural Rubber, Retention of Tensile Strength: Minimum 75 percent.

3) Retention of Ultimate Elongation: Minimum 75 percent.

4) Change in Hardness: Maximum 10 points Durometer Shore A.

i. Resistance to Ozone Cracking: ASTM D1149

1) Test Conditions: Specimens prepared in accordance with Procedure A of ASTM D1149 shall be tested in accordance with ASTM D1149 at a temperature of 104 degrees Fahrenheit and an ozone concentration of 50 parts per hundred million (pphm).

2) Acceptance Criteria: Exhibit no cracking when examined in accordance with ASTM D1149 at the end of a 100 hour exposure.

j. Adhesion to Metal: ASTM D429, Method B

1) Test Condition: Test specimen shall duplicate actual direct fixation fastener fabrication in respect to type of steel, preparation of steel, bonding agents, and elastomer.

2) Acceptance Criteria: The failures of the elastomer must be a type R failure, i.e., elastomer tears before bond fails.

k. Resistance to Oil: ASTM D471

1) Test Condition: 70 hours at 74 degrees Fahrenheit in ASTM No. 1 oil.

2) Acceptance Criteria: Volume change shall not exceed minus 10 percent or plus 20 percent.

l. Low Temperature Compression Set: ASTM D1229

1) Test Condition: 70 hours at 14 degrees Fahrenheit.

2) Acceptance Criteria: Compression at 30 minutes following release (t_{30} reading): shall not exceed 65 percent.

m. Flame Spread and Smoke Generation: ASTM E162 and ASTM E662

1) Test Condition: Determine flame propagation index (Is) and smoke generation specific optical index (Ds) for flaming and nonflaming modes.

2) Acceptance Criteria: No flaming drippings when tested. No acceptance criteria are specified for the flame propagation index (Is) and smoke generation specific optical index (Ds). Report these indices to the Resident Engineer for information only.

n. Volume resistivity: ASTM D257

1) Test Condition: Apply 1,500 volts DC (minimum) for 3 minutes, and measure volume resistivity in accordance with ASTM D257.

2) Acceptance Criteria: Volume resistivity shall be at least 1×10^{12} ohm-centimeters dry as molded and at least 1×10^{11} ohmcentimeters after 24 hours immersion as determined below. F. Fabrication:

1. Fabrication Tolerances:

a. Length and Width: Plus or minus 1/16-inch

b. Thickness: Plus or minus 0.03-inch

c. Squareness: Plus or minus 1-degree (in a 360-degree circle)

d. Centering of holes: Plus or minus 1/32-inch

e. Diameter of holes: Plus or minus 1/16-inch

f. Durometer Shore A: Plus or minus 10

g. Rail seat flatness: Plus or minus 1/32-inch

2.02 FASTENER SHIMS

A. Shape, size, and configuration of shims: Conform to the overall configuration of the direct fixation fastener with 1/2-inch extending beyond the fastener on all sides.

B. Shims shall be designed so that they can be simply installed and removed. Installation or removal shall not require the removal of the fastener body. The design shall incorporate a positive means of preventing the shims from displacement under operating conditions. C. Shims shall be fabricated from black high density polyethylene and have matte finish.

2.03 ANCHOR INSERT ASSEMBLY – NOT USED

2.04 RAIL FASTENING SPRING CLIPS

A. Spring clips shall be right-hand configuration.

B. Lateral rail position adjustment by the hold down assembly shall not be permitted.

C. Design shall not be dependent upon elastomeric components in torsion.

D. Standard rail fastener and ZLR rail fastener installed into a fixed shoulder, integral to the fastener top plate.

E. Installed without the use of threaded elements for standard rail fasteners and special trackwork fasteners; for ZLR fasteners, threaded components will be allowed. F. No part of the clip shall protrude below the base of rail.

G. The clip shall not have point contact. The clip shall be such that lateral rail movements within the confines of the shoulders will not produce transverse denting, carving, or scoring of the rail base. The clip shall be such that longitudinal rail slippage will not produce overstressing, ending, twisting, or other damage to the clips, and will not damage the rail.

H. Design of the clip for the ZLR fasteners shall be such that the entire clip assembly is at least 1/8-inch clear of the rail base when the rail is sitting on the low friction pad.

I. For direct fixation fasteners, with the exception of the ZLR fasteners design not to permit rail hold-down assembly or the means of preventing lateral movement of the rail to make point contact against the rail. If contact is made in the static or dynamic state, allow no less than 0.125-inch in dimension and no less than 0.15 square inch in area.

2.05 SOURCE QUALITY CONTROL

A. Rail Fastener Qualification and Production Testing: Qualification and production tests for each rail fastener are required. Comply with the following procedures for both qualification and production testing. Perform tests as shown in Figure 1A herein for qualification testing and in Figure 1B herein for production testing.

1. Qualification Testing: At the Contractor’s expense. Prior to production, select for testing two (2) of each type of direct fixation fasteners for testing (if to be installed on the project). Test each fastener as specified in Figure 1A, herein. Should any of the fasteners fail to meet the test requirements, test two (2) additional fasteners. In the event either of the two (2) additional fasteners fail, re-design the fastener, submit new Technical Data, and start the qualification test sequence over.

2. Production Testing: At the Contractor’s expense. Select for testing two (2) direct fixation fasteners from each 2,000 production lot fasteners. Test each fastener as specified in Figure 1B, herein. Should any of the fasteners fail to meet the test requirements, test two (2) additional fasteners of the same type from the production lot. In the event either of the two (2) additional fasteners fails, the entire lot shall be rejected or tested and only those successfully passing all tests shall be incorporated in the finished work.

3. Not less than fifteen (15) days prior to fastener shipments, certified statements for each elastomer batch used in the manufacture of the fasteners being delivered shall be submitted to the Resident Engineer documenting compliance of each elastomer batch with the requirements, as specified herein.

4. In addition to the qualification and production tests, components of the fasteners shall be subject to full or partial testing for compliance with the Contract Documents. The cost of additional testing of components that do not comply with the Contract Documents, shall be at no cost to Sound Transit.

5. Qualification and production testing may be performed at any testing facility in North America, including facilities at the Contractor's plant. Testing equipment shall be in good repair, of adequate capacity, and shall be verified or calibrated against certified standards that have a known traceable relationship to the National Research Council or the National Institute of Standards and Technology. Notify the Resident Engineer not less than fifteen (15) days in advance of dates scheduled for tests.

6. Previous Qualification testing reports may be submitted to the Resident Engineer. Provided these reports are for an appropriate product with five

(5) years of in-service history and past acceptable test results for Sound Transit, Qualification testing may be waived. Production testing must be performed in all cases.

7. Submit six (6) copies of the production test results to the Resident Engineer at least fifteen (15) days prior to fastener shipment.

B. Static Tests: Perform each test listed below on two (2) specimens. For loads that are to be applied at the centerline of fastener, the manufacturer may choose to double the applicable loads and apply at the longitudinal midpoint between rail seats for testing purposes upon approval by the Resident Engineer.

1. Vertical Load Test:

a. Procedure: Apply a vertical load increasing in increments of 1,000 pounds to a maximum load of 14,000 pounds at a rate not less than 500 pounds per minute and not more than 2,000 pounds per minute. Load shall be applied downward at the center of the rail head at the centerline of the fastener normal to the rail. For each increment of load, measure the vertical deflection of the rail head to the nearest 0.001-inch. Remove the load and measure and record the final position of the rail head. Plot the recorded values for vertical loads versus deflection on a graph, as shown in Figure 3, herein. Pre-cycle the fasteners by loading from 0 to 14,000 pounds two (2) times prior to measuring deflections.

b. Test Acceptance Criteria:

1) The load versus deflection curve: within the envelope shown in Figure 3 for loads in the range from 4,500 pounds to 12,000 pounds.

2) The spring rate of the fastener (slope of the load-deflection curve) shall not be less than 94,000 pounds per inch or more than 200,000 pounds per inch for loads between 4,500 pounds and 12,000 pounds.

a) Calculate the spring rate by applying the least-squares linear regression method to the recorded data to obtain a straight line load-deflection relationship.

b) Each recorded deflection shall be within 10 percent of the deflection calculated from the straight-line relationship over the loading range, from 4,500 pounds to 12,000 pounds.

c) After removal of the maximum load, the fastener shall return to within 0.005-inch of its original position within 1 minute.

3) At no time during the test shall any fastener component exhibit any sign of failure by slippage, yielding, or fracture.

Slippage is defined to mean any movement of the fastener components relative to the initial position not attributed to deflection or yielding. The deflection measured at 14,000 pounds divided by the design thickness of the elastomer component shall be used to establish the fastener's compliance with the requirement for a maximum vertical deflection not to exceed 25 percent of the elastomer thickness. The values obtained when this test is repeated on all fasteners shall be within 20 percent of the initial test values.

2. Lateral Load Test:

   a. Procedure: While applying a vertical load of 12,000 pounds downward, offset 3/4-inch from the center of the rail head towards the gauge side at the centerline of the fastener normal to the rail, apply a lateral load horizontally to the rail head at a point 0.625-inch below the top of the rail along the centerline of the fastener in a direction normal to the rail. Increase the load in increments of 1,000 pounds to a maximum load of 8,000 pounds, at a rate of not less than 500 pounds per minute and not more than 1,500 pounds per minute. For each load increment, measure the lateral deflection of the rail head at a point 0.625-inch below the top of the rail to the nearest 0.001-inch and record.

   b. Remove the lateral load and measure and record the final position of the rail head. Plot the recorded values for lateral loads versus deflection on a graph similar to Figure 3, herein.

   c. Test Acceptance Criteria:

      1) The lateral deflection of the rail head for a lateral load of 4,000 pounds shall not exceed 0.15-inch.

      2) The lateral deflection due to the maximum load: shall not exceed 0.37-inch.

      3) Difference between the original and final positions of the rail head shall not exceed 0.027-inch.

      4) No fastener component at any time during the test shall exhibit any sign of failure by slippage, yielding, or fracture.

3. Longitudinal Restraint Test (Not applicable for ZLR rail fastener):

   a. Procedure: Support the rail end on a roller or other low friction support properly elevated to prevent the longitudinal load from binding the rail in the fastener. Apply load longitudinally to the rail at its base increasing in increments of 500 pounds to a maximum load of 10,000 pounds or until the rail is 2-inches from the initial position at a rate not less than 500 pounds per minute and not more than 1,500 pounds per minute. Each load increment shall be maintained until the longitudinal movement of the rail stops before increasing the load to the next increment. For each load, measure the longitudinal movement of the rail in relation to the top plate of the rail fastener to the nearest 0.01-inch and record. Remove the longitudinal load at slippage, measure and record the final position of the rail in relation to the top plate of the rail fastener. Measure and record the load applied at slippage for use in the Push-Pull Test, as specified herein. Plot the recorded values for longitudinal load versus movement on a graph as shown in Figure 3, herein and identify it as “Initial Test.” Without altering test set-up, apply the load to the opposite end of the test rail and re-run the test in its entirety. Plot the recorded values for longitudinal load versus movement on a graph as shown in Figure 3, herein, and identify it as “Reverse Test.”

b. Test Acceptance Criteria:

1) Longitudinal load versus deflection curve, when plotted on Figure 3: entirely within the limits defined by limit lines A and B.

2) Difference between the original (before initial test) and final (after reverse test) position of the rail: not to exceed the total rail slippage plus 0.24-inch.

3) No fastener component at any time during the test shall exhibit any sign of failure by slippage, yielding, or fracture except that slippage which may occur between the rail hold-down assembly and the rail.

4) Rail hold-down assembly longitudinal restraint: constant, uniform, and unbroken curve, which falls within the envelope shown in Figure 4 herein when plotted.

5) At least 85 percent of test results shall fall within limits A and B.

4. Lateral Restraint Test:

a. Procedure: Apply two (2) lateral loads, each increasing simultaneously in increments of 500 pounds to a maximum load of 2,500 pounds at the base of the rail, in the same direction, normal to the centerline of the rail and symmetrically on each side of the fastener centerline. Measure the lateral deflection of the rail at the intersection of the centerline of the fastener and the gage line of the rail to the nearest 0.001-inch and record after each increment of loading.

b. Test Acceptance Criteria:

1) No fastener component at any time during the test shall exhibit any sign of failure by slippage, yielding, or fracture.

2) Difference between the original and final positions of the gage line: not to exceed 0.062-inch.

3) Lateral deflection of the rail, when fully loaded: between 0.03inch and 0.125-inch from the original gage line of the rail.

5. Vertical Uplift Test (Not applicable for ZLR rail fastener):

a. Procedure: Apply and secure a vertical load to the center of the rail head at the centerline of the fastener in a direction normal to the rail, alternating continually from a vertical downward load to a vertical upward load. Increase the upper and lower peaks per cycle in increments of 200 pounds to a maximum of 5,000 pounds downward and upward.
Continually measure the loads and deflections to the nearest 0.001-inch and immediately record on a load-versus-time graph and deflectionversus-time graph, respectively. Remove the load and measure and record the final position of the rail head. Apply the reaction force to the uplift load by only securing the test block on which the fastener is mounted.

b. Test Acceptance Criteria:

1) Vertical deflection of the fastener for lifting load of 2,000 pounds:
within 105 percent to 205 percent of the deflection for a 2,000 pound downward vertical load as determined from the vertical load test.

2) While vertical load is continuously varied from vertical downward loads to vertical uplift loads, the load-deflection curve shall be continuous and there shall be no other indication of backlash or freeplay at times when the load or the deflection changes direction.

3) After removal of the maximum load, the rail shall immediately return to within 0.005-inch of its original position within 1 minute.

4) No fastener components including the fastener anchor insert to the test block at any time during the test shall exhibit any sign of failure by slippage, yielding, or fracture.

C. Electrical Tests: Perform each test listed below on two (2) specimens.

1. Voltage Withstand Test:

a. Procedure: A complete, fully assembled fastener, configured as specified, shall have a ground plate placed below the elastomer. A DC potential of 10 kilovolts shall be applied to the rail head for 1 minute. In the event of breakdown, record the breakdown voltage.

b. Test Acceptance Criteria: The elastomer shall complete this test with no visible damage such as splits, cracks, pinholes, or fractures. Perform all other electrical tests on the fastener.

2. Electrical Resistance Tests:

a. Procedure: Test a complete, fully assembled fastener, as specified herein, for electrical resistance. Before assembly, metal parts, anchor insert, spring clips, elastomer surfaces, and ancillary parts associated with the fastener shall be clean and dry. Assemble the fastener with a section of 115RE rail, not less than 1-foot in length. Mount the test fastener on a 1/4-inch thick metallic ground plate sized to extend 1/2-inch beyond all edges of the fastener. Use anchor insert assemblies supplied, or similar to that for use in actual field installation, to mount the fastener to the ground plate. Use the same number of bolts (or other devices) that will be used to anchor the fastener in-service. Verify that all parts that should be in electrical contact do not exhibit excessive contact resistance because of improper assembly or other causes. This shall apply, but is not necessarily limited to:

1) Rail to rail plate interface

2) Rail hold-down assembly (clip) and rail

3) Anchor bolts and bottom fastener plate (if present)

4) Anchor bolts and ground plate.

b. Dry conditions: 24 hours prior to testing, store the assembled fastener(s) in a clean, dry environment with ambient conditions of 60 degrees Fahrenheit to 80 degrees Fahrenheit and 50 to 70 percent relative humidity. Apply 100 volts (minimum) DC between the rail head and the ground plate for 3 minutes. Measure the applied voltage and resulting current flow, or directly measure the resistance with an accuracy flow, or directly measure the resistance with an accuracy of plus or minus 2 percent. Instrumentation used for direct measurement shall have a minimum 100 volt output capacity.

c. Wet conditions: Perform this test on the same fastener(s) that passed the dry electrical resistance tests. Place the assembled fastener in a nonmetallic trough or other suitable container. Size the container such that there is 2-inch minimum between the sides and bottom of the fastener/ground plate assembly and the sides and bottom of the container. In the event more than one (1) fastener is placed in the same container, maintain a 2-inch clearance between the edges of the ground plates on adjacent fasteners and the clearances cited above. Pour water

into the container to a level midway up the rail web covering all surfaces of the fastener. Maintain this level of immersion for 72 hours. Ambient temperature of fastener surfaces (prior to immersion) of water, and air shall be 60 to 80 degrees Fahrenheit. Relative humidity shall be 50 to 70 percent. Water resistivity shall be 1,000 to 1,500 ohm-cm (use potable water and adjust resistivity by addition of sodium chloride). Drain the water from the container to a level 1/2-inch below the ground plate. Without drying or otherwise disturbing the fastener or creating a condition that causes the fastener surfaces to dry, measure the resistance within 15 seconds after draining as follows:

1) Apply 100 volts between the rail head and the ground plate for 15 seconds.

2) Measure the applied voltage and resulting current flow with an accuracy of plus or minus 2 percent. Calculate the DC wet resistance, or directly measure the resistance with an accuracy of plus or minus 2 percent. Ensure instrumentation used for direct measurement have a minimum 100 volt measuring capacity.

3) Repeat the resistance measurement every 5 minutes for the first hour, every 10 minutes for the second hour, and every 15 minutes thereafter to establish the wet resistance versus time characteristics of the fastener. Perform tests for at least 2 hours after draining. The tests may be terminated after the 2 hour test period when any three (3) consecutive measurements are at least 800,000 ohms or after another 2 hour test period, whichever comes first.

d. Test Acceptance Criteria:

1) Dry conditions: The minimum DC resistance shall be 10 megohms.

2) Wet conditions: A minimum resistance of 800,000 ohms for the average of three (3) consecutive readings within 2 hours after wetting.

a) Average difference between each of the three (3) readings: not exceed 10 percent of the average.

3. Electrical Impedance Test:

a. Procedure: Test a complete, fully assembled fastener for electrical impedance. Apply a potential of 50 volts AC RMS to the rail head for 3 minutes for each increment of measurement for frequencies from 10 hertz to 10 kilohertz in increments of 20 hertz up to 100 hertz, 200 hertz up to 1,000 hertz, and 2,000 hertz up to 10 kilohertz. Measure the impedance after 3 minutes with an accuracy of plus or minus 2 percent and record each frequency. Upon approval by the Resident Engineer, electrical resistance may be calculated by measuring current flow, and impedance may be calculated from the measurements of resistance and capacitance using the impedance equation, which applies to a resistance and capacitance in parallel.

1) Test Acceptance Criteria: The minimum impedance for any frequency between 20 hertz and 10 kilohertz with 50 volts AC RMS: 10,000 ohms.

D. Dynamic Tests: Perform each test listed below on two (2) specimens.

1. Dynamic to Static Stiffness Ratio Test:

a. Procedure. Apply vertical (compression) load to the rail head over the centerline of the fully assembled fastener. The load shall be of sinusoidal waveform over a range from 3,000 pounds to 7,000 pounds and shall be applied at a rate of 10 to 20 cycles per second. After a minimum of 1,000 cycles, measure and record the dynamic deflection of the fastener at 3,000 pounds and 7,000 pounds. Immediately after completing the dynamic deflection measurements, but only after the fastener deflection has stabilized, measure the static deflection at compression loads from 3,000 pounds to 7,000 pounds in 1,000 pound increments at a rate not exceeding 1,000 pounds per minute. Measure the deflections within an accuracy of 0.001-inch.

b. Test Acceptance Criteria:

1) Dynamic stiffness: Calculated by dividing the difference between the recorded maximum and minimum load value (the dynamic load) by the difference between the recorded maximum and minimum deflection (the dynamic deflection).

2) Static stiffness: Calculated by applying the least-squares linear regression method to the recorded data to obtain a straight line and determining the slope of the static load-deflection curve.

3) The ratio shall not exceed 1.5.

2. Vertical and Lateral Repeated Load Test:

a. Procedure. Apply loads to the rail head in such a manner as to produce a vertical downward load of 12,000 pounds, and lateral loads along the centerline of the fastener normal to the rail of 3,900 pounds to the gauge side of the rail head and 2,700 pounds to the field side of the rail head. Apply the vertical load to the rail head and the lateral loads shall be applied 0.625-inch below top of rail along the centerline of each fastener normal to the rail. Alternate application of the lateral loads, each combined with alternating application and release of the vertical load, for a total of 3,000,000 complete cycles for qualification testing or a total of 500,000 cycles for production testing. Application of the field side load and vertical load and then the gauge side load and vertical load shall constitute one (1) cycle. The frequency shall be regulated to prevent the temperature of the components from exceeding 158 degrees Fahrenheit. Do not re-torque threaded elements subsequent to the completion of the initial 500,000 cycles of loading without written approval from the Resident Engineer.

b. Test Acceptance Criteria:

1) Withstand the 3,000,000 cycles for qualification testing or 500,000 cycles for production testing of load application with no evidence of failure.

2) Upon complete disassembly of the fastener and visual inspection, no fastener components shall exhibit any sign of failure by slippage, yielding, abrasion, or fracture.

3) No evidence of wear or grooving on the rail that would contribute to a failure of the rail.

4) Concrete test block at the anchor insert: no evidence of failure as a result of the dynamic test.

3. Anchor Bolt Repeat Load Test:

a. Procedure: After completion of the Vertical and Lateral Repeated Load Test, reassemble the fastener as specified using only the original components previously subjected to testing. With the gauge side anchor bolt loosened such that a minimum gap of 1/4-inch is between the underside of the bolt head and the anchor washer, repeat the Vertical and Lateral Repeated Load Tests for 15,000 cycles.

b. Test Acceptance Criteria:

1) Fastener: Withstand 15,000 cycles of loading with no evidence of failure by slippage, yielding, or fracture.

2) Rail: No evidence of wear or grooving that would contribute to a
failure of the rail.

4. Push-Pull Test:

a. Procedure: Apply a cycling longitudinal load as close to the base of the rail as possible to slip the rail plus and minus 3/4-inch from the initial position of the fastener and relative to the fastener position, for a total of 50 cycles.

b. Immediately following this portion of the test on standard rail fasteners and special trackwork fasteners, apply a cycling longitudinal load equal to 80 percent of the load recorded in the Longitudinal Restraint Test, as specified herein, shall be applied as in the procedure above for a total of 25,000 cycles. Do not reposition the rail hold-down assemblies at any time during this test.

c. Immediately following this portion of the test on ZLR rail fasteners, apply a cycling longitudinal load adequate enough to move the rail as in the procedure above for a total of 25,000 cycles. Do not reposition the rail hold-down assemblies at any time during this test.

d. Test Acceptance Criteria: Withstand the 25,000 cycles of loading with no evidence of failure. Upon visual examination, no component of the fastener shall exhibit any evidence of failure by yielding, abrasion, slippage or fracture, except that slippage which may occur between the rail hold-down assembly of the standard rail fastener and the special trackwork fastener, and the rail. The rail shall exhibit no evidence of wear or grooving that would contribute to a failure of the rail.

1) For the ZLR fasteners, the 25,000 cycles of loading shall require a load of less than 300 pounds to cause the rail to slip through the ZLR fastener. The low friction pad for the ZLR rail fastener shall not exhibit abrasion and shall provide similar low friction properties as before the test.

5. Uplift Repeated Load Test (Not applicable for ZLR rail fasteners):

a. Procedure: Apply loads to the rail head of a fully assembled fastener to produce alternately a vertical downward load of 9,000 pounds and a vertical upward load of 1,000 pounds at the centerline of the fastener in a direction normal to the rail. Alternate the application of the vertical loads for a total of 1,500,000 complete cycles. Regulate the frequency to prevent component temperature from exceeding 158 degrees
Fahrenheit. Do not re-torque threaded elements without written approval from the Resident Engineer. Apply the vertical loading during this part of the test at a rate of not less than 25 cycles per minute. If required for testing stability, install a mechanical stop 1/8-inch from each end of the rail, independent of the test rail fasteners.

b. Test Acceptance Criteria: Withstand 1,500,000 cycles of load application with no evidence of failure. Upon visual inspection, no component of the fastener shall exhibit any evidence of failure by yielding, abrasion, or fracture. The rail shall exhibit no evidence of wear or grooving that would contribute to the failure of the rail.

6. Dynamic Longitudinal Restraint Test (Not applicable for ZLR rail fasteners):

a. Procedure: The dynamic longitudinal restraint test procedure is the same as for the static test specified herein, with an additional vibration load applied vertically to the rail head while the longitudinal load is applied. Vertical vibration load: 50 hertz cyclic load with amplitude of 2,000 pounds. Apply vertical load at the rail head at the mid-point between rail seats.

b. Test Acceptance Criteria:

1) Longitudinal load versus deflection plot is linear within the limits shown in Figure 3, herein. At no time during the test shall any component exhibit evidence of failure including permanent deformation. E. Anchor Insert Tests:

1. General:

   a. Anchor inserts used for testing shall conform to the design submitted by the Contractor and approved by the Resident Engineer.

   b. Production anchor inserts shall be used for tests unless prototype model testing is approved in writing by the Resident Engineer. Before Resident Engineer approval, the Contractor shall submit data showing that the prototype will react in the tests as would the production models. Should prototype testing qualify the anchor inserts design, four (4) production models shall be tested immediately after production is started. Should a production model fail the test, the entire anchor inserts test series shall be repeated using production models. Such tests shall be done at the same laboratory as the earlier tests.

2. Test Conditions: Fourteen (14) test anchor inserts for each anchor shall be furnished by the Contractor. Seven (7) assemblies shall be retained by the Resident Engineer and the other seven (7) assemblies shall be numbered one through seven. Anchor inserts two through seven shall be tested in cast concrete plinth as shown on the Contract Drawings, utilizing the minimum plinth dimensions and specified reinforcement. Concrete shall have a compressive

   strength in accordance with cast-in-place concrete requirements as stated elsewhere in the Contract Documents, and this shall be verified by laboratory tests. Anchor inserts shall be placed in the concrete plinth in accordance with the Contract Drawings.

3. Static Load Tests:

   a. Thread Failure Test (Anchor Insert Number 1):

      1) Procedure: Anchor insert shall be held in a vise or other device and the bolt twisted to failure. To prevent bottoming before failure, the bolt shall be fitted with a spacer, cut washers, or other means. To provide minimum thread contact only, the spacer thickness shall be designed such that the minimum thread is engaged.

      2) Test Acceptance Criteria: Anchor insert shall withstand 600 footpounds of torque without evidence of failure. After removal of the torque, the bolt shall be removed from the insert with a torque no greater than 600 foot-pounds. When torqued to failure, the failure shall be in the bolt threads, not the insert threads.

   b. Torsion Test (Anchor Inserts Numbers 2 and 3):

1) Procedure: Anchor insert shall be subjected to a 600 foot-pound of torque applied to the cap bolt head with spacers used on the bolt to prevent bottoming.

2) Test Acceptance Criteria: Anchor insert shall not rotate and concrete shall not crack or show evidence of failure.

c. Restrained Pull-Out Test (Anchor Inserts Numbers 4 and 5):

1) Procedure: A steel plate with a hole in the center 1/2-inch in diameter larger than the maximum diameter of the top of the insert shall be placed over the anchor inserts on the concrete test block surfaces. The anchor bolt shall then have an upward vertical load of 20,000 pounds applied, held for a minimum of 1 minute, and then released.

2) Test Acceptance Criteria: Anchor insert shall have no evidence of failure from causes including but not limited to, slippage and cracking of the concrete at the indicated load.

d. Unrestrained Pull-Out Test (Anchor Inserts Numbers 6 and 7):

1) Procedure: Anchor insert shall have an upward vertical load applied in such a manner that no vertical load is applied to the concrete test block surface within a 6-inch radius from the center of the insert. An upward vertical load of 10,000 pounds shall be applied and held for not less than 1 minute.

2) Test Acceptance Criteria: There shall be no evidence of failure from causes including, but not limited to, slippage, and cracking of the concrete to assembly bond at the specified loads.

2.06 FIGURES

A. Figure 1A - Qualification Tests

B. Figure 1B - Production Tests

C. Figure 2 - Vertical Deflection Limits

D. Figure 3 - Longitudinal Restraint Limits

END OF SECTION

SECTION 34 11 36.13 – FIGURE 1A

QUALIFICATION TESTS (QT)

STATIC TESTS (ST)	**ARTICLE**	**TEST NAME/ABBR.**
VERTICAL LOAD TEST (VLT)	2.05.B.1	QT-ST-VLT
LATERAL LOAD TEST (LLT)	2.05.B.2	QT-ST-LLT
LONGITUDINAL RESTRAINT TEST (LORT)*	2.05.B.3	QT-ST-LORT
LATERAL RESTRAINT TEST (LART)	2.05.B.4	QT-ST-LART
VERTICAL UPLIFT TEST (VUT)*	2.05.B.5	QT-ST-VUT
ELECTRICAL TESTS (ET)	**ARTICLE**	
VOLTAGE WITHSTAND TEST (VWT)	2.05.C.1	QT-ET-VWT
ELECTRICAL RESISTANCE TESTS (ERT)	2.05.C.2	QT-ET-ERT
ELECTRICAL IMPEDANCE TEST (EIT)	2.05.C.3	QT-ET-EIT
DYNAMIC TESTS (DT)	**ARTICLE**	
DYNAMIC TO STATIC STIFFNESS RATIO TEST (DSSRT)	2.05.D.1	QT-DT-DSSRT
VERTICAL AND LATERAL REPEATED LOAD TEST (VLRLT)	2.05.D.2	QT-DT-VLRLT
ANCHOR BOLT REPEAT LOAD TEST (ABRLT)	2.05.D.3	QT-DT-ABRLT
PUSH – PULL TEST (PPT)	2.05.D.4	QT-DT-PPT
UPLIFT REPEATED LOAD TEST (URLT)*	2.05.D.5	QT-DT-URLT
DYNAMIC LONGITUDINAL RESTRAINT TEST (LORT)*	2.05.D.6	QT-DT-LORT
POST-FATIGUE TESTS (PFT)	**ARTICLE**	
VERTICAL LOAD TEST (VLT)	2.05.B.1	QT-PFT-VLT
LATERAL LOAD TEST (LLT)	2.05.B.2	QT-PFT-LLT
LONGITUDINAL RESTRAINT TEST (LORT)*	2.05.D.6	QT-PFT-LORT
VERTICAL UPLIFT TEST (VUT)*	2.05.B.5	QT-PFT-VUT
VOLTAGE WITHSTAND TEST (VWT)	2.05.C.1	QT-PFT-VWT
ELECTRICAL RESISTANCE TESTS (ERT)	2.05.C.2	QT-PFT-ERT
ELECTRICAL IMPEDANCE TEST (EIT)	2.05.C.3	QT-PFT-EIT
DYNAMIC TO STATIC STIFFNESS RATIO TEST (DSSRT)	2.05.D.1	QT-PFT-DSSRT

*Not applicable for ZLR rail fasteners.

SECTION 34 11 36.13 – FIGURE 1A
QUALIFICATION TESTS (QT)

SECTION 34 11 36.13 – FIGURE 1B

PRODUCTION TESTS (PT)

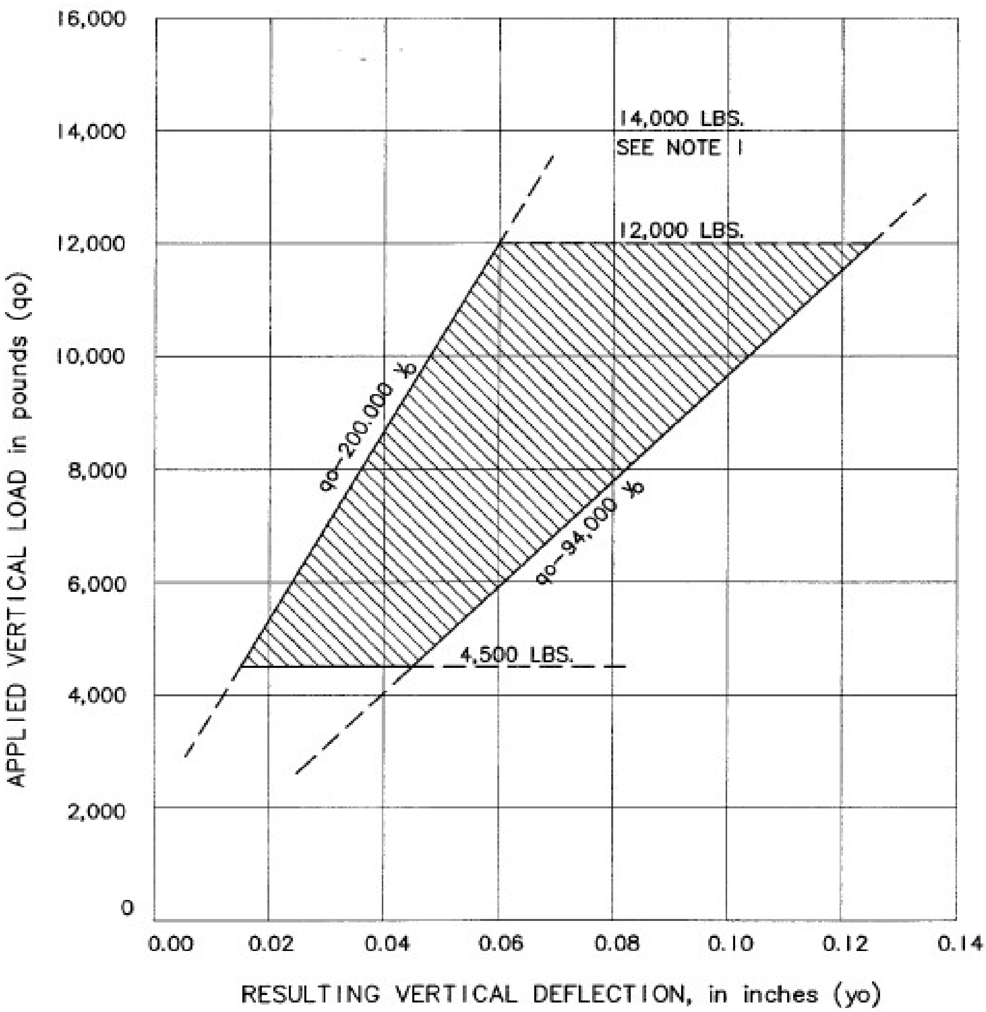
STATIC TESTS (ST)	**ARTICLE**	**TEST NAME/ABBR.**
VERTICAL LOAD TEST (VLT)	2.05.B.1	PT-ST-VLT
LATERAL LOAD TEST (LLT)	2.05.B.2	PT-ST-LLT
LONGITUDINAL RESTRAINT TEST (LORT)*	2.05.B.3	PT-ST-LORT
ELECTRICAL TESTS (ET)	**ARTICLE**	
VOLTAGE WITHSTAND TEST (VWT)	2.05.C.1	PT-ET-VWT
ELECTRICAL RESISTANCE TESTS (ERT)	2.05.C.2	PT-ET-ERT
ELECTRICAL IMPEDANCE TEST (EIT)	2.05.C.3	PT-ET-EIT
DYNAMIC TESTS (DT)	**ARTICLE**	
DYNAMIC TO STATIC STIFFNESS RATIO TEST (DSSRT)	2.05.D.1	PT-DT-DSSRT
VERTICAL AND LATERAL REPEATED LOAD TEST (VLRLT)	2.05.D.2	PT-DT-VLRLT
POST-FATIGUE TESTS (PFT)	**ARTICLE**	
VERTICAL LOAD TEST (VLT)	2.05.B.1	PT-PFT-VLT
LATERAL LOAD TEST (LLT)	2.05.B.2	PT-PFT-LLT
LONGITUDINAL RESTRAINT TEST (LORT)*	2.05.B.3	PT-PFT-LORT
VOLTAGE WITHSTAND TEST (VWT)	2.05.C.1	PT-PFT-VWT
ELECTRICAL RESISTANCE TESTS (ERT)	2.05.C.2	PT-PFT-ERT
ELECTRICAL IMPEDANCE TEST (EIT)	2.05.C.3	PT-PFT-EIT
DYNAMIC TO STATIC STIFFNESS RATIO TEST (DSSRT)	2.05.D.1	PT-PFT-DSSRT

*Not applicable for ZLR rail fasteners.

SECTION 34 11 36.13 – FIGURE 1B
PRODUCTION TESTS (PT)

SECTION 34 11 36.13 – FIGURE 2

VERTICAL DEFLECTION LIMITS



NOTES:

1. MAXIMUM DEFLECTION AT 14,000 LBS. SHALL NOT EXCEED 25% OF THE UNCOMPRESSED THICKNESS OF ELASTOMER PAD.

2. FASTENER SPRING RATE MUST BE BETWEEN 94,000 LBS./IN. AND 200,000 LBS./IN. FOR ALL LOADS BETWEEN 4,500 LBS. AND 12,000 LBS.

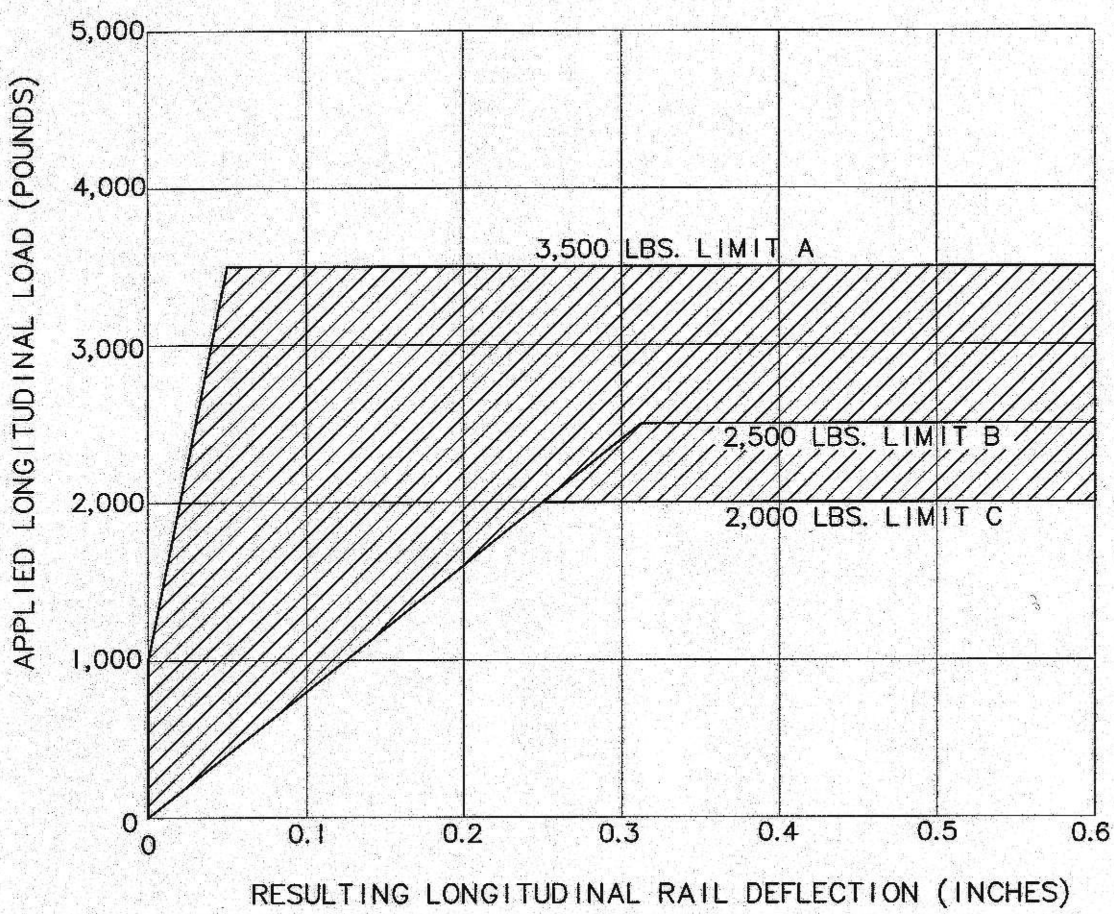
VERTICAL DEFLECTION LIMITS

FIGURE 3

SECTION 34 11 36.13 – FIGURE 2
VERTICAL DEFLECTION LIMITS

SECTION 34 11 36.13 – FIGURE 3

LONGITUDINAL RESTRAINT LIMITS



LONGITUDINAL RESTRAINT LIMITS

FIGURE 4

RAILWAY SYSTEMS
by voestalpine

voestalpine Railway Systems Nortrak LLC

1740 Pacific Avenue
Cheyenne, Wyoming, USA 82007
T. 307-778-8700
F. 307-778-8777
www.voestalpine.com/nortrak

Date: 5JAN2024
Customer: San Diego MTS
Contact: Gabe McKee
Email: gabriel.mckee@sdmts.com
Phone: 619-881-7550
Quote No: SM2024-0064r2
Project: MTS LORD Fastener replacement

Sales Contact: Shaun Morgen
Email: Shaun.Morgen@voestalpine.com
Phone: 509-934-0632

Dear Gabe,

This offer is for minimum quantity of 4,500 fasteners. The price includes OTM for New 115RE Direct Fixation fastener for eclip fasting system as shown below..

Qty	Description	Unit Price	Ext Price
4,500	LORD J-230590-2	$204	$918,000
	Fastener assembly includes Fastener Body, adjustment plate, bolt, lock washer and right hand standard 2055 e-clip or equivalent		
	Taxes San Diego County 7.75%	$15.81	$71,145
	Total with Taxes Included		**$989,145**

CONDITIONS OF ACCEPTANCE:

1. Quotation Term:
- 1.1 Pricing given in this quotation is firm until February 29 2024.
- 1.2 Quote is based on the attached Terms & Conditions
- 1.3 Pricing is based on scope of work being ordered. If quantities or items change then price and lead time are subject to change.

2. Payment Terms:
- 2.1 Net 30 days from receipt of Invoice. Subject to credit approval at time of order.

3. Taxes:
- 3.1 Price includes San Diego County taxes 7.75%.
- 3.2 Price includes US import Tariff of 25.5%
- 3.3 Importation Brokerage fees included along with shipping in the price of the fastener.

4. Delivery:
- 4.1 Lead time: Shipment from Factory 32 weeks from receipt of purchase order
- 4.2 Final delivery will be confirmed at time order is placed.

5. Freight:

5.1. Freight is FOB Jobsite. Material will be shipped in Container; Unloading is not included.

6. Inspections:

6.1 Inspection at LORD Shanghai is an option and will need to be coordinated in advance. MTS shall be responsible for all travel related costs for MTS personnel. vaRS Nortrak shall be responsible for all travel related costs for vaRS Nortrak inspectors.

7. Testing

7.1 Fasteners will be tested at LORD production facility (LMS). LMS is well equipped for various rail fastener testing and given the fastener design is modified for this project, LMS will conduct a single qualification/production test to confirm parts meet the requirements during part approval and initial production process.

Warranty shall be effective for a period equal to the earlier of the following: one (1) year from the date of installation of the fasteners by MTS or two (2) years from the date of shipment of the fasteners from LMS. The warranty is conditioned upon proper storage of the fastening system prior to installation and proper installation in accordance with vaRS Nortrak documents.

We appreciate the opportunity to bid on this project. If you have any questions or need more information, please give me a call.

Sincerely:

voestalpine Railway Systems Nortrak LLC

Shaun Morgen

Sr Engineer, Regional Manager West

DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 2/1/2024

Agenda Item No. 5

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

February 8, 2024

SUBJECT:

Payroll and Human Resources Information System (HRIS) Solution & Implementation Services – Contract Amendment

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors:

1) Ratify Amendment 2 to MTS Doc. No. G1935.2-17, in the amount of $50,132.50 (Attachment A); and

2) Authorize the Chief Executive Officer (CEO) to execute Amendment No. 3 to MTS Doc G1935.3-17 (in substantially the same format as Attachment B), with ADP, LLC, to add $125,774.00 for Learning Management System and training software and implementation, for a total of $175,906.50.

Budget Impact

The total cost of this contract shall not exceed $3,159,056.72 (inclusive of the total costs for Amendment 2 and 3 at $175,906.50). This service cost will be funded by the MTS General Expense Operating Budget account 902010 - 571250.

DISCUSSION:

On November 9, 2017 (AI 8), the MTS Board approved a contract award for payroll and HRIS solution and implementation services for up to a 9-year period (5-year base with four 1-year options, exercisable at MTS's sole discretion). Since contract approval, two amendments were authorized by the CEO under the authority delegated by Board Policy 41 (Signature Authority). The contract, including today's proposed Amendment No. 3, is summarized below:

Date Approved	Description	Option Year 1 2023	Option Year 2 2024	Option Year 3 2025	Option Year 4 2026	Total
11/9/2017 (AI 8)	Original Contract *Base Years 2018-2022* *Option Years 2023-2026*	$328,333.10	$338,183.09	$348,328.59	$358,778.44	$1,373,623.22
9/6/2019 CEO Policy 41	**AM 1** - Project Schedule Change	$0.00	$0.00	$0.00	$0.00	$0.00
5/9/2022 CEO Policy 41	**AM 2** - Total Rewards Setup and Design	$12,000.00	$12,000.00	$11,500.00	$11,000.00	$46,500.00
5/9/2022 CEO Policy 41	**AM 2** - PDF Web Statements (One-time fee)	$2,500.00	-	-	-	$2,500.00
5/9/2022 CEO Policy 41	**AM 2** - Benefits Statements	$277.50 ($0.75 per employee)	$281.25 ($0.75 per employee)	$285.00 ($0.75 per employee)	$288.75 ($0.75 per employee)	$1,132.50
Today's Proposed Action	**AM 3** - Implementation Fee		$14,000.00			$14,000.00
Today's Proposed Action	**AM 3** - Learning Management System (LMS)		$20,764.80 ($2.06 per employee)	$41,529.60 ($2.06 per employee)	$41,529.60 ($2.06 per employee)	$103,824.00
Today's Proposed Action	**AM 3** - Content Strategy Consultant		$1,590.00	$3,180.00	$3,180.00	$7,950.00
11/9/2017 (AI 8)	**Base Years 1-5 (2018-2022) Total Cost**					**$1,609,527.00**
11/9/2017 (AI 8)	**Amendment No. 2 - Option Years Cost**					**$1,373,623.22**
Today's Proposed Action	**Amendment No. 2 - Ratification**					**$50,132.50**
Today's Proposed Action	**Amendment No. 3**					**$125,774.00**
	New Total Contract Value					**$3,159,056.72**

Today’s proposed action, to approve Amendment No. 3, would authorize additional funding of $125,774.00 over 2.5 years (from 7/1/2024 to 12/31/2026) to include the ADP Learning Management Software and training ($3,725.80 per month plus $14,000 implementation fee).

ADP's Learning Management Software creates a centralized system to administer and track compliance for professional development trainings. The software will provide all departments within MTS the ability to monitor and update each employee's training which can be cross-referenced by managers, human resources, and departmental training teams. Employees will also be able to utilize the vast library of new professional development courses.

In an effort to ensure MTS receives the best possible pricing and determine fair and reasonable cost, staff requested quotes from vendors for Learning Management Software and training. Based on the three quotes received (shown in the chart below), ADP provided the lowest price. Estimates assumed 1,680 employees and compared employee cost per month, content strategy consultant cost, inclusion of course content, and implementation fees.

Firm Name	Assumed Employees	Monthly/ Employee	Content Strategy Consultant/ Month	Course Content	Total Monthly	Implementation (1-time)	Cost Over 2.5 Years
ADP	**1680**	**$2.06**	**$265.00**	**Included**	**$3,725.80**	**$14,000**	**$125,774**
Litmos	1680	$2.00	$0.00	$20,000.00	$3,360.00	$8,000	$158,800
Absorb	1680	$2.08	$0.00	$1.50	$6,014.40	$4,925	$185,357

*ADP includes full course catalog ~80,000 courses
*Absorb includes 400 training courses for $1.50/employee/month
*Litmos includes US Compliance training courses at ~$20,000 annually

Because of the existing contract with ADP, staff determined it was appropriate to add this service to the existing agreement, as opposed to creating a separate contract solely for the Learning Management Software and training module.

Therefore, staff recommends that the MTS Board of Directors:

1) Ratify Amendment 2 to MTS Doc No. G1935.2-17 in the amount of $50,132.50 (Attachment A); and

2) Authorize the CEO to execute Amendment No. 3 to MTS Doc No. G1935.3-17 (in substantially the same format as Attachment B), with ADP, LLC, to add $125,774.00 for ADP Learning Management Software and training, for a total of $175,906.50.

/S /Sharon Cooney______________________
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachments: A. Amendment 2, MTS Doc No. G1935.2-17
B. Draft Amendment 3, MTS Doc No. G1935.3-17

Amendment 2

Date: May 9, 2022 MTS Doc No. G1935.2-17

PAYROLL AND HUMAN RESOURCE INFORMATION SYSTEMS SOLUTION AND IMPLEMENTATION SERVICES

ADP, Inc., formerly ADP, LLC
400 W. Covina Boulevard
San Dimas CA, 91773

This shall serve as Amendment No.2 to the original agreement G1935.0-17 as further described below.

SCOPE

Replace the words "ADP, LLC" throughout MTS Doc. G1935.0-17. This amendment shall serve as a formal acceptance by the San Diego Metropolitan Transit System (MTS) of the name change of the contract from ADP, LLC to ADP, Inc, pursuant to the notice of the name change letter and W-9 provided by ADP, Inc. (a copy of which is attached hereto). Pursuant to the contract, MTS shall exercise Option Years 1-4 to continue services outlined in the contract. This amendment shall also authorize the Contractor to provide services for Total Compensation Statement Services as follows:

1. Make design updates as directed by MTS
2. Prepare detailed Composition Specification documentation regarding the composition logic of the statement
3. Develop and provide project plan to MTS
4. Adhere to the project plan and review/approve project plan modifications as necessary
5. Receive and process data
6. Conduct internal Peer Review
7. Prepare statement samples for MTS' review
8. Manage product through the final processes
9. Mail final statements to employee homes or Post final statements online

Services are more fully detailed in the Statement of Work, attached hereto and incorporated herein.

SCHEDULE

Option Years 1-4 shall be effective from January 1, 2023 through December 31, 2026.

PAYMENT

This contract amendment shall authorize a cost increase of $1,423,755.72 [$50,132.50 for new services plus $1,373,623.22 for Option Years 1-4].

Description	Option Year 1	Option Year 2	Option Year 3	Option Year 4	Total
Original Contract	$328,333.10	$338,183.09	$348,328.59	$358,778.44	$1,373,623.22
AM 2 -Total Rewards Setup and Design	$12,000.00	$12,000.00	$11,500.00	$11,000.00	$46,500.00
AM 2 -PDF Web Statements (One-time fee)	$2,500.00	-	-	-	$2,500.00
AM 2- Benefits Statements	$277.50 ($0.75 per employee)	$281.25 ($0.75 per employee)	$285.00 ($0.75 per employee)	$288.75 ($0.75 per employee)	$1,132.50
				Base Years 1-5 Total Cost	**$1,609,527.00**
				Amendment No. 2 Total Cost	**$1,423,755.72**
				Total Contract Amount	**$3,033,282.72**

The total value of this contract including this amendment shall be in the amount of $3,033,282.72. This amount shall not be exceeded without prior written approval from MTS.

Please sign and return the copy to the Contract Specialist at MTS. All other terms and conditions shall remain the same and in effect. Retain the other copies for your records.

Sincerely,

Sharon Cooney

Sharon Cooney, Chief Executive Officer

Agreed:

ADP, Inc., formerly ADP, LLC,

Date: 7/6/2022

A-2

ADP National Account Services

Project Services Statement of Work

Project Information

Client Name	**San Diego Metro Transit System**		
Service Request Number (SR#)		**Request Date**	**2/28/2022**
Client Requestor	**Bree Wilcox**	**Client Requestor eMail**	**Bree.wilcox@sdmts.com**
Client Approver		**Client Approver eMail**	
ADP Client Success Executive	**Matt Waugh**	**ADP Client Success Executive eMail**	**Matt.waugh@adp.com**
HCM Consultant Name		**HCM Consultant eMail**	
Statement of Work Prepared By	**Connie King**	**Date SOW Prepared**	**3-24-2022**
Project Name / Type	**Total Rewards Statements**		
Requested Go-Live Date *	**August 2022**	**Expected Project Duration ****	**12 weeks**
Project Purpose & Objectives	Total Compensation Statement Services that ADP will provide to San Diego Metro Transit for the 2022 calendar year are outlined in this document. • ADP will provide statements for designated employees. • Services include development and design of personalized statements. • All statements are <mailed to employee homes or posted online>.		

The Pricing Detail section below details the projected scope of the project and technical information regarding the proposed solution.

** ADP will make every effort to accommodate but cannot guarantee the requested Go-Live date.*
*** Estimated timeline represents duration from resource assignment to Go-Live.*

Scope of Work

Scope of Work **Please review these details closely. Any changes to this outlined scope of work may result in revised pricing.*	Production of statements will be administered in the following manner: ADP agrees to: • Make design updates as directed by San Diego Metro Transit. • Prepare detailed Composition Specification documentation regarding the composition logic of the statement. • Develop and provide project plan to San Diego Metro Transit. • Adhere to the project plan and review / approve project plan modifications as necessary. • Receive and process data. • Conduct internal Peer Review. • Prepare statement samples for San Diego Metro Transit's review. • Manage product through the final processes. • <Mail final statements to employee homes or Post final statements online>. San Diego Metro Transit agrees to: • Identify a project manager to coordinate all activities within San Diego Metro Transit's location and to coordinate with ADP's project manager. • Approve documentation. • Approve design. • Review mismatch reports for each data file submitted and provide appropriate feedback. • Review sample statements and provide appropriate feedback / corrections. • Adhere to the project plan and review / approve project plan modifications as necessary.
Project Phases & Timeline	(see table below)

Phase	**Duration (weeks)**
Analysis	
Configuration	
Validation	
Migrate to Production/Production	
Total Anticipated Duration	

Pricing Details

Pricing Details
(including Billing Terms or Requirements, if any)

Description	Quantity	MSA Rate	Hours	Total
6K-F00200 PDF2Web Total Rewards statements	350	.75 each		$262.50
6K-F00100 Custom Printed Statements		$12,000 set up*		$12,000
6K-00250 PDF2Web Statements Hosted		$2500 One-time fee		$2500
TOTAL				$14,762.50

*Pricing is in effect for 4 years, and statement setup fee will be as follows:
Year 1 and 2: $12,000
Year 3: $11,500
Year 4: $11,000

This document describes ADP's preliminary understanding of the scope of work and the estimated effort required by ADP resources to support the project as described by the Client. Pricing contained in this Statement of Work (SOW) is an estimate based on the information available at the time of the project request. Any changes in scope, whether requested via a Change Request or determined necessary by either party during the project, may result in changes to the pricing set forth in this SOW. In addition, for projects billed at an hourly rate, the final invoice will reflect the actual hours worked, not the estimated hours reflected in this SOW. If a change in scope and/or Go-Live date will result in additional cost, ADP will obtain Client approval prior to proceeding with the expanded scope or new Go-Live date.

This SOW is governed by the Standard Services Agreement #G1935.0-17 between Client and ADP (the "Agreement"). All other terms and conditions of the Agreement shall remain in full force and effect. Any changes to this SOW must be made in writing and signed by the authorized representatives of both parties.

Metropolitan Transit System

Amendment 3

February 16, 2024 MTS Doc No. G1935.3-17

ADP Learning Management System and Training

ADP, LLC
Linda Russell
Client Success Executive
400 W. Covina Boulevard
San Dimas CA, 91773

This shall serve as Amendment No.3 to the original agreement G1935.0-17 as further described below.

SCOPE

The San Diego Metropolitan Transit System (MTS) shall authorize additional contract capacity to include ADP's Learning Management System and training content starting 7/1/2024 through the remainder of the contract term ending on 12/31/2026 as outlined below:

Category	Item Description	Units Included in Fees	Rate per Unit (or ADP Prevailing Rate)	Based on
VOLUME ASSUMPTIONS				
ADP Talent Management Solutions				
Populations	ADP Learning Management System	1,680	Included	Assumes 1680 supported employees
Partner Integration	Premium Content Package	1,680	Included	Assumes 1680 supported employees
	Learning Content Strategy Consulting (Post Content Hub Implementation)	1	Included	Assumes 1 supported employees
Client Practitioners	Client Name Contacts	5	Included	Includes up to 5 Client Named Contacts who may contact the ADP Support Team.

SCHEDULE

There shall be no change to the schedule of the contract.

PAYMENT

This contract amendment shall authorize additional costs not to exceed $125,774.00 as reflected below:

Description	Option Year 1	Option Year 2	Option Year 3	Option Year 4	Total
Original Contract	$328,333.10	$338,183.09	$348,328.59	$358,778.44	$1,373,623.22
AM 2 - Total Rewards Setup and Design	$12,000.00	$12,000.00	$11,500.00	$11,000.00	$46,500.00
AM 2 - PDF Web Statements (One-time fee)	$2,500.00	-	-	-	$2,500.00
AM 2 - Benefits Statements	$277.50 ($0.75 per employee)	$281.25 ($0.75 per employee)	$285.00 ($0.75 per employee)	$288.75 ($0.75 per employee)	$1,132.50
AM 3 – LMS Implementation Fee		$14,000.00			$14,000.00
AM 3 - Learning Management System (LMS)		$20,764.80 ($2.06 per employee)	$41,529.60 ($2.06 per employee)	$41,529.60 ($2.06 per employee)	$103,824.00
AM 3 – LMS Content Strategy Consultant		$1,590.00	$3,180.00	$3,180.00	$7,950.00
				Base Years 1-5 Total Cost	**$1,609,527.00**
				Amendment No. 2 Total Cost	**$1,423,755.72**
				Amendment No. 3 Total Cost	**$125,774.00**
				Total Contract Amount	**$3,159,056.72**

The total value of this contract, including this amendment, shall be in the amount of $3,159,056.72 ($3,033,282.72 current contract value plus $125,774.00 for Amendment No. 3). This amount shall not be exceeded without prior written approval from MTS.

Please sign and return the copy to the Contract Specialist at MTS. All other terms and conditions shall remain the same and in effect. Retain the other copies for your records.

Sincerely,

Sharon Cooney, Chief Executive Officer

Agreed:

Linda Russell, Client Success Executive
ADP, LLC

Date: ______________________

Attachment: ADP Quote

DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 2/1/2024

Agenda Item No. 6

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

February 8, 2024

SUBJECT:

Background Investigative Services – Contract Amendment

RECOMMENDATION:

That the San Diego Metropolitan Transit System (MTS) Board of Directors authorize the Chief Executive Officer (CEO) to execute Amendment No. 1 to MTS Doc No. G2646.1-22 (in substantially the same format as Attachment A), with Kristy Investigative Services, Inc., to add $300,000.00 for employee background and reference investigation services.

Budget Impact

The total cost of this amendment is estimated to be $300,000.00, and the total contract cost of the services is estimated to be $658,000.00 ($358,500.00 current contract value plus $300,000.00 for Amendment No. 1). The project will be funded by the Human Resources (HR) Department Operating Budget account 711010-571160.

DISCUSSION:

MTS requires comprehensive pre-placement background and reference investigations for all newly hired employees and for contractors with access to sensitive information. These investigations are performed by a specialized third-party provider and supervised by the MTS Human Resources department.

On November 10, 2022 (AI 9), the MTS Board approved a contract award for background investigation services for up to a 10-year period (5-year base with five 1-year options, exercisable at MTS' sole discretion). Today's action under amendment no. 1 is to authorize additional funding of approximately $30,000 per year to include the additional background checks per year with the current contractor. Due to an increase in Full Time Employees (FTE) and high turnover, additional background check services are required.

Therefore, staff recommends that the MTS Board of Directors authorize the CEO to execute Amendment No. 1 to MTS Doc No. G2646.1-22 (in substantially the same format as Attachment

A), with Kristy Investigative Services, Inc., to add $300,000.00 for employee background and reference investigation services.

/S /Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. Draft Amendment 1, MTS Doc. No. G2646.1-22

Amendment 1

Effective Date: January 18, 2024 MTS Doc No: G2646.1-22

BACKGROUND INVESTIGATIVE SERVICES

Kristy Investigative Services Inc.
Rene de la Cova
Chief Executive Officer
969 S. Santa Fe Ave., Suite D
Vista CA, 92083

This shall serve as Amendment No.1 to the original agreement G2646.0-22 as further described below.

SCOPE

The San Diego Metropolitan Transit System (MTS) shall authorize additional contract capacity to include the additional four-hundred (400) estimated background checks per year for the five (5) base years and five (5) option years.

SCHEDULE

There shall be no change to the schedule of the contract.

PAYMENT

This contract amendment shall authorize additional costs not-to-exceed $300,000.00 as reflected below:

Contract Term	Original	Amended	Change
Base Year 1	$ 35,850.00	$ 65,850.00	$ 30,000.00
Base Year 2	$ 35,850.00	$ 65,850.00	$ 30,000.00
Base Year 3	$ 35,850.00	$ 65,850.00	$ 30,000.00
Base Year 4	$ 35,850.00	$ 65,850.00	$ 30,000.00
Base Year 5	$ 35,850.00	$ 65,850.00	$ 30,000.00
Option Year 1 (Year 6)	$ 35,850.00	$ 65,850.00	$ 30,000.00
Option Year 3 (Year 7)	$ 35,850.00	$ 65,850.00	$ 30,000.00
Option Year 3 (Year 8)	$ 35,850.00	$ 65,850.00	$ 30,000.00
Option Year 4 (Year 9)	$ 35,850.00	$ 65,850.00	$ 30,000.00
Option Year 5 (Year 10)	$ 35,850.00	$ 65,850.00	$ 30,000.00
Totals (Base and Options)	**$ 358,500.00**	**$ 658,500.00**	**$ 300,000.00**

The total value of this contract, including this amendment, shall be in the amount of $658,500.00 ($358,500.00 current contract value plus $300,000.00 for Amendment No. 1). This amount shall not be exceeded without prior written approval from MTS.

Please sign and return the copy to the Contract Specialist at MTS. All other terms and conditions shall remain the same and in effect. Retain the other copies for your records.

Sincerely,	Agreed:
____________________________________	____________________________________
Sharon Cooney, Chief Executive Officer	Rene de la Cova, Chief Executive Officer Kristy Investigative Services Inc.
	Date: __________________________

DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 2/1/2024

Agenda Item No. 7

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

February 8, 2024

SUBJECT:

MTS Excess Liability and Workers' Compensation Insurance Renewals

AGENDA ITEM WILL BE PROVIDED BEFORE BOARD MEETING

DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 2/1/2024

Agenda Item No. 8

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

February 8, 2024

SUBJECT:

Operations Budget Status Report for December 2023

INFORMATIONAL ONLY

Budget Impact

None.

DISCUSSION:

This report summarizes the year-to-date operating results for December 2023 compared to the fiscal year (FY) 2024 budget for the San Diego Metropolitan Transit System (MTS). Attachment A-1 combines the operations', administrations' and other activities' results for December 2023. Attachment A-2 details the December 2023 combined operations' results and Attachments A-3 to A-7 present budget comparisons for each MTS operation. Attachment A-8 details budget comparisons for San Diego Metropolitan Transit System (MTS) Administration, and Attachment A-9 provides December 2023 results for MTS's other activities (For Hire Vehicle (FHV) Administration/San Diego and Arizona Eastern Railway Company (SD&AE)).

MTS NET-OPERATING SUBSIDY RESULTS

As indicated within Attachment A-1, for the year-to-date period ending December 2023, MTS's net-operating income unfavorable variance totaled $1,311,000 (-0.9%). Operations produced a $3,400,000 (-2.3%) unfavorable variance and the administrative/other activities areas were favorable by $2,089,000.

MTS COMBINED RESULTS

Operating Revenues. Year-to-date combined revenues through December 2023 were $50,865,000, compared to the year-to-date budget of $51,149,000, representing a $284,000 (-0.6%) unfavorable variance. Year-to-date passenger revenue was unfavorable by $2,228,000 (-5.8%) through December. Passenger revenue is up by $2,066,000 (6.1%) versus the prior year.

Other operating revenue was favorable by $1,943,000 (15%), primarily due to favorable energy credit revenue as well as interest income.

Operating Expenses. Year-to-date combined expenses through December 2023 were $200,063,000, compared to the budget of $199,036,000, representing a $1,027,000 (-0.5%) unfavorable variance.

Personnel Costs. Year-to-date personnel-related costs totaled $87,830,000, compared to a budgetary figure of $87,007,000, producing an unfavorable variance of $823,000 (-0.9%). This is primarily due to unfavorable CalPERS management costs and health and welfare costs within Rail Operations. Wages are also unfavorable for Rail Operators, Flag-persons, and Facility Maintenance.

Outside Services and Purchased Transportation. Total outside services through six months of the fiscal year totaled $71,322,000, compared to a budget of $71,330,000, resulting in a favorable variance of $8,000. This is primarily due to favorable Outside Services costs within Administration and unfavorable construction costs within Rail Operations. Pronto software operating and maintenance costs continues to be favorable to budget each month. Within Rail Operations, Track and Facilities incurred several large expenses in the month of December for unplanned repairs.

Materials and Supplies. Total year-to-date materials and supplies expenses were $8,971,000, compared to a budgetary figure of $8,148,000, resulting in an unfavorable variance of $822,000 (-10.1%). This is primarily due to unfavorable revenue vehicle parts and maintenance supplies within Rail and Bus Operations.

Energy. Total year-to-date energy costs were $24,464,000, compared to the budget of $24,111,000, resulting in an unfavorable variance of $353,000 (-1.5%). This is primarily due to unfavorable commodity rates for compressed natural gas (CNG).

Risk Management. Total year-to-date expenses for risk management were $3,922,000 compared to the budget of $4,541,000, resulting in a favorable variance totaling $619,000 (13.6%). This is primarily due to favorable claim payouts and legal costs within Administrative, Bus, and Rail Operations.

General and Administrative. The year-to-date general and administrative costs were $2,680,000 through December 2023, compared to a budget of $3,073,000, resulting in a favorable variance of $393,000 (12.8%). This is primarily due to favorable fare materials and advertising costs within Administration.

Vehicle and Facility Leases. The year-to-date vehicle and facilities leases costs were $875,000 compared to the budget of $826,000, resulting in a $49,000 (-5.9%) unfavorable variance.

YEAR-TO-DATE SUMMARY

The December 2023, year-to-date net-operating income totaled an unfavorable variance of $1,311,000 (-0.9%). These factors include favorable variances in other revenue, outside services, risk management costs, and general and administrative costs; partially offset by unfavorable variances in passenger revenue, personnel, materials and supplies, energy, and vehicle/facility lease costs.

/S /Sharon Cooney
Sharon Cooney
Chief Executive Officer

Key Staff Contact: Julia Tuer, 619.557.4515, Julia.Tuer@sdmts.com

Attachment: A. Comparison to Budget

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
MTS
CONSOLIDATED
COMPARISON TO BUDGET - FISCAL YEAR 2024
DECEMBER 31, 2023
(in $000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	$ 35,990	$ 38,218	$ (2,228)	-5.8%
Other Revenue	14,874	12,931	1,943	15.0%
Total Operating Revenue	**$ 50,865**	**$ 51,149**	**$ (284)**	**-0.6%**
Personnel costs	$ 87,830	$ 87,007	$ (823)	-0.9%
Outside services	71,322	71,330	8	0.0%
Materials and supplies	8,971	8,148	(822)	-10.1%
Energy	24,464	24,111	(353)	-1.5%
Risk management	3,922	4,541	619	13.6%
General & administrative	2,680	3,073	393	12.8%
Vehicle/facility leases	875	826	(49)	-5.9%
Administrative Allocation	(0)	0	0	0.0%
Total Operating Expenses	**$ 200,063**	**$ 199,036**	**$ (1,027)**	**-0.5%**
Operating Income (Loss)	**$ (149,198)**	**$ (147,887)**	**$ (1,311)**	**-0.9%**
Total Non-Operating Activities	**707**	**555**	**151**	**27.3%**
Income (Loss) before Capital Contributions	**$ (148,491)**	**$ (147,332)**	**$ (1,159)**	**0.8%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OPERATIONS
CONSOLIDATED
COMPARISON TO BUDGET - FISCAL YEAR 2024
DECEMBER 31, 2023
(in $000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	$ 35,990	$ 38,218	$ (2,228)	-5.8%
Other Revenue	468	303	165	54.5%
Total Operating Revenue	**$ 36,459**	**$ 38,521**	**$ (2,063)**	**-5.4%**
Personnel costs	$ 73,514	$ 72,962	$ (552)	-0.8%
Outside services	58,468	58,421	(47)	-0.1%
Materials and supplies	8,944	8,128	(816)	-10.0%
Energy	23,834	23,491	(343)	-1.5%
Risk management	3,589	3,980	391	9.8%
General & administrative	474	528	55	10.3%
Vehicle/facility leases	716	691	(25)	-3.6%
Administrative Allocation	16,124	16,124	0	0.0%
Total Operating Expenses	**$ 185,662**	**$ 184,324**	**$ (1,338)**	**-0.7%**
Operating Income (Loss)	**$ (149,204)**	**$ (145,803)**	**$ (3,400)**	**-2.3%**
Total Non-Operating Activities	**112**	**479**	**(367)**	**-76.6%**
Income (Loss) before Capital Contributions	**$ (149,091)**	**$ (145,324)**	**$ (3,768)**	**2.6%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OPERATIONS
BUS - DIRECTLY OPERATED (SAN DIEGO TRANSIT CORP.)
COMPARISON TO BUDGET - FISCAL YEAR 2024
DECEMBER 31, 2023
(in $000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	$ 9,760	$ 10,367	$ (607)	-5.9%
Other Revenue	112	-	112	-
Total Operating Revenue	**$ 9,872**	**$ 10,367**	**$ (495)**	**-4.8%**
Personnel costs	$ 46,171	$ 46,178	$ 7	0.0%
Outside services	1,164	1,097	(67)	-6.1%
Materials and supplies	3,685	3,499	(186)	-5.3%
Energy	4,226	4,230	4	0.1%
Risk management	1,692	1,822	130	7.1%
General & administrative	235	242	7	2.7%
Vehicle/facility leases	262	203	(59)	-29.1%
Administrative Allocation	2,626	2,626	0	0.0%
Total Operating Expenses	**$ 60,061**	**$ 59,895**	**$ (165)**	**-0.3%**
Operating Income (Loss)	**$ (50,189)**	**$ (49,529)**	**$ (660)**	**-1.3%**
Total Non-Operating Activities	**(49)**	**318**	**(367)**	**-115.6%**
Income (Loss) before Capital Contributions	**$ (50,238)**	**$ (49,211)**	**$ (1,027)**	**2.1%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OPERATIONS
RAIL (SAN DIEGO TROLLEY INC.)
COMPARISON TO BUDGET - FISCAL YEAR 2024
DECEMBER 31, 2023
(in $000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	$ 14,849	$ 15,335	$ (486)	-3.2%
Other Revenue	356	303	53	17.6%
Total Operating Revenue	**$ 15,205**	**$ 15,638**	**$ (433)**	**-2.8%**
Personnel costs	$ 26,912	$ 26,356	$ (557)	-2.1%
Outside services	4,926	4,690	(236)	-5.0%
Materials and supplies	5,234	4,590	(644)	-14.0%
Energy	14,489	14,236	(252)	-1.8%
Risk management	1,881	2,143	262	12.2%
General & administrative	231	271	40	14.8%
Vehicle/facility leases	274	303	29	9.5%
Administrative Allocation	12,056	12,056	0	0.0%
Total Operating Expenses	**$ 66,002**	**$ 64,643**	**$ (1,359)**	**-2.1%**
Operating Income (Loss)	**$ (50,797)**	**$ (49,005)**	**$ (1,792)**	**-3.7%**
Total Non-Operating Activities	-	-	-	-
Income (Loss) before Capital Contributions	**$ (50,797)**	**$ (49,005)**	**$ (1,792)**	**3.7%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OPERATIONS
BUS - CONTRACTED SERVICES (FIXED ROUTE)
COMPARISON TO BUDGET - FISCAL YEAR 2024
DECEMBER 31, 2023
(in $000's)

	YEAR TO DATE			
	ACTUAL	**BUDGET**	**VARIANCE**	**VAR. %**
Passenger Revenue	$ 10,681	$ 11,808	$ (1,127)	-9.5%
Other Revenue	-	-	-	-
Total Operating Revenue	**$ 10,681**	**$ 11,808**	**$ (1,127)**	**-9.5%**
Personnel costs	$ 352	$ 342	$ (10)	-3.0%
Outside services	43,552	43,847	295	0.7%
Materials and supplies	25	40	15	36.7%
Energy	4,694	4,566	(128)	-2.8%
Risk management	-	-	-	-
General & administrative	4	5	1	13.7%
Vehicle/facility leases	9	14	5	35.0%
Administrative Allocation	1,247	1,247	0	0.0%
Total Operating Expenses	**$ 49,884**	**$ 50,061**	**$ 177**	**0.4%**
Operating Income (Loss)	**$ (39,203)**	**$ (38,253)**	**$ (950)**	**-2.5%**
Total Non-Operating Activities	**-**	**-**	**-**	**-**
Income (Loss) before Capital Contributions	**$ (39,203)**	**$ (38,253)**	**$ (950)**	**2.5%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OPERATIONS
BUS - CONTRACTED SERVICES (PARATRANSIT)
COMPARISON TO BUDGET - FISCAL YEAR 2024
DECEMBER 31, 2023
(in $000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	$ 701	$ 708	$ (8)	-1.1%
Other Revenue	-	-	-	-
Total Operating Revenue	**$ 701**	**$ 708**	**$ (8)**	**-1.1%**
Personnel costs	$ 79	$ 86	$ 8	8.9%
Outside services	8,665	8,625	(39)	-0.5%
Materials and supplies	-	-	-	-
Energy	425	458	33	7.1%
Risk management	15	15	0	0.3%
General & administrative	4	11	7	66.4%
Vehicle/facility leases	171	171	0	0.1%
Administrative Allocation	195	195	0	0.0%
Total Operating Expenses	**$ 9,554**	**$ 9,563**	**$ 9**	**0.1%**
Operating Income (Loss)	**$ (8,853)**	**$ (8,854)**	**$ 1**	**0.0%**
Total Non-Operating Activities	**-**	**-**	**-**	**-**
Income (Loss) before Capital Contributions	**$ (8,853)**	**$ (8,854)**	**$ 1**	**0.0%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM

OPERATIONS
CORONADO FERRY

COMPARISON TO BUDGET - FISCAL YEAR 2024
DECEMBER 31, 2023
(in $000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	$ -	$ -	$ -	-
Other Revenue	-	-	-	-
Total Operating Revenue	**$ -**	**$ -**	**$ -**	**-**
Personnel costs	$ -	$ -	$ -	-
Outside services	162	162	-	0.0%
Materials and supplies	-	-	-	-
Energy	-	-	-	-
Risk management	-	-	-	-
General & administrative	-	-	-	-
Vehicle/facility leases	-	-	-	-
Administrative Allocation	-	-	-	0.0%
Total Operating Expenses	**$ 162**	**$ 162**	**$ -**	**0.0%**
Operating Income (Loss)	**$ (162)**	**$ (162)**	**$ -**	**0.0%**
Total Non-Operating Activities	**162**	**162**	**-**	**0.0%**
Income (Loss) before Capital Contributions	**$ -**	**$ -**	**$ -**	**-**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM

ADMINISTRATION
CONSOLIDATED

COMPARISON TO BUDGET - FISCAL YEAR 2024
DECEMBER 31, 2023
(in $000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	$ -	$ -	$ -	-
Other Revenue	13,601	11,930	1,671	14.0%
Total Operating Revenue	**$ 13,601**	**$ 11,930**	**$ 1,671**	**14.0%**
Personnel costs	$ 14,043	$ 13,772	$ (271)	-2.0%
Outside services	12,847	12,880	33	0.3%
Materials and supplies	27	20	(7)	-34.0%
Energy	628	617	(10)	-1.7%
Risk management	305	517	212	41.1%
General & administrative	2,166	2,495	329	13.2%
Vehicle/facility leases	162	125	(37)	-29.9%
Administrative Allocation	(16,131)	(16,131)	(0)	0.0%
Total Operating Expenses	**$ 14,047**	**$ 14,295**	**$ 248**	**1.7%**
Operating Income (Loss)	**$ (446)**	**$ (2,364)**	**$ 1,918**	**81.1%**
Total Non-Operating Activities	**828**	**76**	**752**	**993.2%**
Income (Loss) before Capital Contributions	**$ 382**	**$ (2,289)**	**$ 2,671**	**-116.7%**

SAN DIEGO METROPOLITAN TRANSIT SYSTEM
OTHER ACTIVITIES
CONSOLIDATED
COMPARISON TO BUDGET - FISCAL YEAR 2024
DECEMBER 31, 2023
(in $000's)

	YEAR TO DATE			
	ACTUAL	BUDGET	VARIANCE	VAR. %
Passenger Revenue	$ -	$ -	$ -	-
Other Revenue	805	698	108	15.4%
Total Operating Revenue	**$ 805**	**$ 698**	**$ 108**	**15.4%**
Personnel costs	$ 273	$ 273	$ 0	0.0%
Outside services	7	30	23	78.0%
Materials and supplies	-	0	0	-
Energy	3	4	1	27.9%
Risk management	29	45	16	34.8%
General & administrative	40	50	10	20.0%
Vehicle/facility leases	(4)	10	14	136.1%
Administrative Allocation	7	7	0	0.0%
Total Operating Expenses	**$ 354**	**$ 417**	**$ 63**	**15.2%**
Operating Income (Loss)	**$ 451**	**$ 280**	**$ 171**	**-61.0%**
Total Non-Operating Activities	**(234)**	**-**	**(234)**	**-**
Income (Loss) before Capital Contributions	**$ 218**	**$ 280**	**$ (63)**	**-22.3%**

DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 2/1/2024

Agenda Item No. 9

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

February 8, 2024

SUBJECT:

Additional Staffing – Two (2) Bus Operations Training Instructor

AGENDA ITEM WILL BE PROVIDED BEFORE BOARD MEETING

DRAFT FOR EXECUTIVE COMMITTEE REVIEW DATE: 2/1/2024

Agenda Item No. 10

MEETING OF THE SAN DIEGO METROPOLITAN TRANSIT SYSTEM
BOARD OF DIRECTORS

February 8, 2024

SUBJECT:

External Auditing Services – Contract Award

AGENDA ITEM WILL BE PROVIDED BEFORE BOARD MEETING