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Caltrans 2024 Sustainable Freight Academy

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16. Abstract The Caltrans 2024 Sustainable Freight Academy was held on November 18-21, 2024. The academy consisted of presentations from goods movement professionals and subject matter experts, including those from both public and private organizations. The final group presentation allowed participants to develop their skills in grant writing by applying lessons learned from the course. Participants were divided into eight groups and took on various roles such as Grant Writer, Project Manager, and Industry Partner in order to develop and present a mock Trade Corridor Enhancement Program (TCEP) proposal topic.			
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Caltrans 2024 Sustainable Freight Academy

A National Center for Sustainable Transportation Report

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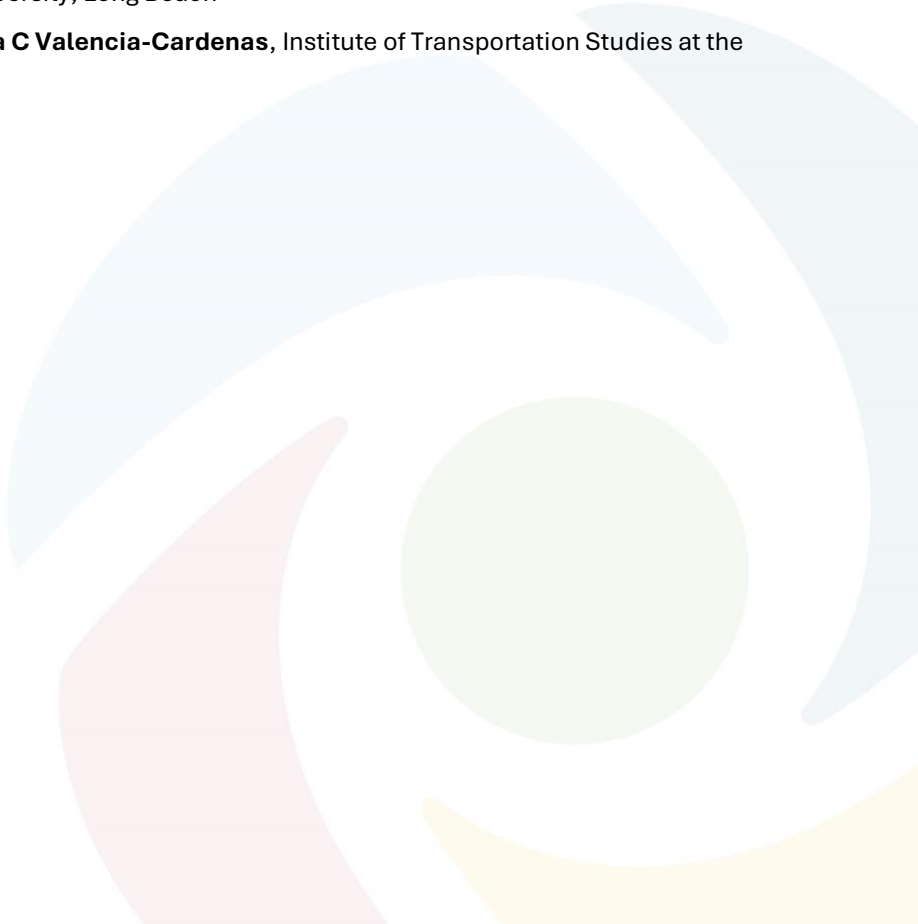


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Caltrans 2024 Sustainable Freight Academy

COURSE OBJECTIVES AND PROPOSAL

California State University Long Beach's Center for International Trade and Transportation (CITT) has collaborated with Caltrans on the development of Freight Academies since 2005. Initially called Goods Movement Workshops, these professional development trainings have been targeted at both planners and engineers at Headquarters and in District offices to build capacity for freight planning through better understanding of freight operations.

What started as "Freight 101" courses have become opportunities to more deeply explore freight-related issues of interest to Caltrans from a geographic and topical perspective. Past courses have been held in Long Beach, Oakland, San Diego, Ontario, and Sacramento, as well as virtually. Focus areas have included the relationship between freight and system-wide planning, border issues, and warehousing and distribution.

The Academy is a four-day in-person Professional Development training program for approximately 50 Caltrans staff. The 2024 Caltrans Sustainable Freight Academy built capacity within the department by allowing Caltrans planners to gain knowledge of current trends and issues surrounding the movement of freight throughout the state. To maximize the benefit to the attendees, the 2024 Caltrans Sustainable Freight Academy hosted goods movement professionals and subject matter experts both in-person and virtually. This year's Academy used California's Central Valley as a laboratory and case study. This knowledge may then be used in the development of Caltrans-sponsored plans and programs, and in coordination with external partners such as the California Air Resources Board (CARB) and the California Energy Commission (CEC).

The 2024 Academy was hosted by The Wonderful Company near Bakersfield to improve Caltrans employee knowledge of agricultural freight supply-chain logistics and warehousing and skills surrounding the transformation of California's freight system based upon goals of sustainability and decarbonization. The Bakersfield location also provides employees with a first-hand experience of rural perspectives, disadvantaged communities, and other equity perspectives in this region. Exercises built into the four days of training will prepare participants to submit effective project nominations for Trade Corridor Enhancement Program (TCEP) funding. Other learning objectives include: (1) improving internal and external relationships to create beneficial solutions aligned with statewide goals and objectives; (2) building capacity to collaborate on climate action and developing skills in creative and innovative problem solving.

The Academy included a combination of lectures both in-person and via Zoom, site visits, and interactive exercises that allow participants to apply knowledge learned to their day-to-day work. The Academy also seeks to maximize interaction with as wide a range of

government agencies and industry experts as possible so that participants expand their freight and planning network as part of the training.

The course curriculum was developed in conjunction with the Caltrans Division of Research, Innovation and System Information (DRISI) and the Division of Transportation Planning (DOTP). The truncated period of performance under the contract made it difficult to implement an agency-side or Division-wide pre-course survey of likely participants to gauge interest in particular topics. Both DRISI and DOTP helped shape the course outline. DOTP also facilitated communication with participants who were nominated to be part of the program. As part of that communication, it was determined that there was limited interest in securing American Institute of Certified Planners (AICP) continuing education units for the course and as a result they were not offered.

Table 1. Principal Tasks and Deliverables

Task 1: Training Scoping	
Revised project scope and timeline	Collaborate with Caltrans to refine training focus, identify dates and location, and determine participant identification process. Coordinate with PI, Office of Strategic Freight Planning (OSFP), DRISI, and Workforce Development Branch to revise project scope and timeline.
Task 2: Data Management Plan (DMP)	
Data Management Plan and compliance report included in the Final Report	Develop a plan for sharing and managing course materials with Caltrans and students. Address limitations due to firewalls and create an accessible platform for collaborative exercises. Identify ways to make curricular materials accessible post-training.
Task 3: Training Academy Design	
Needs assessment results, session learning objectives, curricular materials, evaluation rubrics	3a. Pre-Training Needs Assessment: Develop and distribute a Survey Monkey assessment to participants to evaluate knowledge and skill gaps. Results inform curriculum design.
	3b. Learning Objectives: Develop objectives for each session, aligned with APA CEU application.
	3c. Curriculum Design: Develop session materials (e.g., PowerPoints, readings, GIS StoryMaps) and exercises to solve freight planning problems.
	3d. Evaluation Tools: Create rubrics for session and Academy evaluations. Incorporate findings into Task 5 Report.

Task 4: Training Delivery	
Successfully delivered four-day training with updated materials and a resource guide	Conduct a four-day, in-person training for approximately 50 participants in California's Central Valley in CY 2024. Provide updated materials, name tags/table tents, and other supplies. Coordinate room setup and deliver sessions from 8:00 a.m. to 5:00 p.m., with Day 4 ending at 12:00 noon for travel.
Task 5: Training Report	
Draft and final versions of the Training Report	Develop a draft and final report summarizing needs assessment findings, learning objectives, course materials, session evaluations, and recommendations for future training sessions.

The Academy included a combination of lectures both in-person and via Zoom, site visits, and interactive exercises that allow participants to apply knowledge learned to their day-to-day work. The Freight academy included a wide range of government agencies and industry experts to expand participant's freight and planning network.

COURSE AGENDA

The four-day Freight Academy had a distinct theme for each of the days:

Day One (Nov. 18)

California's Supply Chain Diversity

Day One offered an overview of the diverse California trade sector, including the importance of agricultural supply chains and distribution networks to the Central Valley. Morning presentations included a State of the California Supply Chain with a Freight Jeopardy to reinforce learning, and an introduction to the Central Valley and Planning for its Future from the perspective of the Kern County Council of Governments (COG). The last session of the morning served as an introduction to agricultural supply chains at the national level.

The focus of the afternoon shifted to agricultural supply chains from the California perspective with presentations from both government and industry. The afternoon of Day One also included a case study presentation of a Bakersfield-based supply chain and how it connects to the State's transportation system. Day One closed with an introduction to the Academy exercise: Building an effective summary project outline for a TCEP proposal. Presentations focused on what makes for a successful project nomination and included the perspectives of the California Transportation Commission.

Day Two (Nov. 19)

Freight Planning Priorities

Day Two provided an opportunity for participants to see the supply chain in action which helped reinforce knowledge gained on Day One. The participants visited logistics-related facilities in and around The Wonderful Company. Day Two presentations focused on the public sector role in establishing freight planning priorities at the national, Metropolitan Planning Organizations (MPO) and state levels. Day Two allowed Caltrans to provide critical updates about freight planning to its personnel. This also served as a bridge to an end-of-day exercise that has the objective of identifying planning priorities for TCEP proposals.

Day Three (Nov. 20)

Community and Industry Perspectives on Freight Planning

Day Three centered on Community and Industry Perspectives on Freight Planning. This included a discussion of best practices in engaging industry in the freight planning

process, including ways in which the CA Freight Advisory Committee can be used most effectively.

Day Three also included a similar set of presentations focused on engaging communities impacted both positively and negatively by freight operations - in particular underrepresented communities - in the freight planning process. This included a case study identifying needs and impacts in tribal communities. Day Three closed with a continuation of the TCEP group exercise, focusing on building support for project priorities identified on Day Two. During lunch on this day, Freight Academy participants had a mix-in with Wonderful Company employees designed to allow the participants to better understand the range of job functions that support the State's supply chains. This contributed to the participants' understanding of freight priorities from an operations perspective.

Day Four (Nov. 21)

Securing Funding for Freight Priorities

Day Four was a half-day session. It connected the development of planning priorities with project funding. The day began with a presentation and discussion of cost factors in developing sustainable infrastructure freight systems. The information was intended to be used as another tool in the development of the TCEP project outline. Class participants then presented their project descriptions in groups to an audience of industry and government representatives drawn from the Academy as a whole. Participants received a Certificate of Completion from CSULB.

Table 2. Course Outline

Day One (Nov. 18)

California's Supply Chain Diversity

Time	Presentation Title	Presenters
8:00 – 8:30 am	Welcome to Training and Objectives Review Agenda	Dr. Tom O'Brien , Associate Dean, California State University Long Beach (CSULB) Elizabeth Warren , Senior Industry Liaison, Center for International Trade and Transportation, CSULB Kalin Pacheco , Chief, Office of Strategic Freight Planning, Caltrans John Guinn , Executive Vice President and Chief Operating Officer, The Wonderful Company

Time	Presentation Title	Presenters
8:30 – 9:30 am	State of the CA Supply Chain	Dr. Tom O'Brien , Associate Dean, CSULB
9:30 – 10:00 am	Walking tour of The Wonderful Company facility	Jed Hwang , Senior Director, The Wonderful Company
10:00 – 10:15 am	Break	
10:15 – 11:00 am	Introduction to the Central Valley and Planning for its Future	Rob Ball , Deputy Director – Planning, Kern County Council of Governments
11:00 – 12:00 pm	Agricultural Supply Chains: The National Perspective (I)	Peter Friedmann , Executive Director, Agriculture Transportation Coalition (Virtual)
12:00 – 1:15 pm	Lunch – On Your Own	“Mix-in Lunch” with The Wonderful Company Team Members
1:15 – 2:45 pm	Agricultural Supply Chains: The California Perspective (II)	Christine Birdsong , Undersecretary, California Department of Food and Agriculture Steve Schult , Vice President, Global Supply Chain, Blue Diamond
2:45 – 3:00 pm	Break	
3:00 – 4:00 pm	Case Study: Logistics Solutions at Wonderful Industrial Park – How WIP Provides More Efficient, Sustainable Transportation	Jed Hwang , Senior Director, The Wonderful Company
4:00 – 5:00 pm	Connecting Supply Chain Diversity to Funding: What Makes for a Good TCEP Proposal	Matthew Yosgott , Deputy Director – Programming (SB 1), California Transportation Commission Mike Wallace , Senior Forecasting Practice Leader, Fehr and Peers

Day Two (Nov. 19)
Freight Planning Priorities

Time	Presentation Title	Presenters
8:00 am – 8:30 am	Site Visit Orientation	Dr. Tom O'Brien , CSULB Jed Hwang , The Wonderful Company
8:00 am – 12:00 pm	Site Tours of Facilities in Shafter	Walmart, The Wonderful Company Industrial Park, Amazon
12:00 pm – 1:15 pm	Lunch – On Your Own	
1:15 pm – 2:30 pm	Policy Perspectives on Decarbonizing Freight	Genevieve Giuliano , Interim Dean Distinguished Professor of Public Policy, Margaret and John Ferraro Chair in Effective Local Government, Sol Price School of Public Policy, University of Southern California (Virtual) Dr. Tom O'Brien , CSULB
2:30 pm – 3:00 pm	MPO Perspectives on Freight Planning in California	Kome Ajise , Executive Director Southern California Association of Governments (Virtual)
3:00 pm – 3:10 pm	Mini Break	
3:10 pm – 4:30 pm	The Caltrans Role in Freight Planning	Kalin Pacheco , Chief, Office of Strategic Freight Planning, Caltrans Lale Tiejiao , Acting Chief, Office of Technical Freight & Project Integration, Caltrans Caleb Brock , Chief, Office of Multimodal Transportation Planning, Division of Transportation Planning & Local Programs, Caltrans
4:30 pm – 5:00 pm	Building a TCEP Proposal: Identifying Planning Priorities for Sustainable Transportation	Dr. Tom O'Brien , CSULB

Day Three (Nov. 20)***Community and Industry Perspectives on Freight Planning***

Time	Presentation Title	Presenters
8:00 – 8:15 am	Day Two recap	Dr. Tom O’Brien , CSULB
8:15 – 9:15 am	Best Practices for Industry Engagement in Freight Planning	Mike O’Malley , Senior Vice President, Government and Public Relations, DCLI (Virtual)
9:15 - 10:45 am	Understanding the Transportation Needs of Under-Represented Communities Case Study with EJ Communities on Re-routing trucks from local neighborhoods – Collaborating with the City of Shafter, Kern COG and The Wonderful Company.	Gustavo Aguirre , Assistant Director, Center on Race, Poverty & The Environment Rob Ball , Kern Council of Governments Jed Hwang , The Wonderful Company
10:45 – 11:00 am	Break	
11:00 – 11:45 am	Connecting Communities to the TCEP Process	Dr. Tom O’Brien , CSULB
11:45 – 1:30 pm	Lunch – On Your Own	
1:30 – 3:45 pm	Community Readiness Model for Engaging with Tribal Communities, and Tribal Communities and Transportation	Dr. Tyler Reeb , Interim Executive Director, Center for International Trade and Transportation, CSULB
3:45 – 4:00 pm	Break	
4:00 - 5:00 pm	Building a TCEP Proposal: Representing Community Priorities for Sustainable Transportation	Dr. Tom O’Brien , CSULB

Day Four (Nov. 21)***Securing Funding for Freight Priorities***

Time	Presentation Title	Presenters
8:00 – 8:15 am	Day Three recap	Dr. Tom O’Brien and Dr. Tyler Reeb, CSULB
8:15 – 9:15 am	The Cost of Sustainable Freight Infrastructure	Sue Dexter , Ph.D. Candidate, Metrans Researcher, University of Southern California (Virtual)
9:15 - 10:30 am	TCEP Proposal: Putting it all Together	Team presentation prep
10:30 – 10:45 am	Break	
10:45 – 11:45 am	TCEP Presentations and Industry and Community Response	
11:45 - 12:00 pm	Wrap-up and Presentation of Certificates	Dr. Tom O’Brien, CSULB

OUTCOMES, COURSE EVALUATIONS, AND RECOMMENDATIONS FOR FUTURE TRAININGS

Classes were delivered in person at The Wonderful Company's Industrial Park in Shafter, CA taking place November 18-21, with a final day of participant-led presentations on a mini-capstone project concluding the Academy. Day One of the Academy on "California's Supply Chain Diversity" focused on improving California's supply chain through innovation, sustainability, and infrastructure. Key topics included AI, zero-emission solutions, weight limits, alternative energy, and workforce development. Day Two of the Academy focused on "Freight Planning Priorities" which focused on decarbonizing freight, addressing California's ambitious carbon reduction goals, and improving freight planning. Day Two also included site visits to the various tenants of The Wonderful Company's Industrial Park complex such as Amazon and Walmart, as well as an empty warehouse to discuss future development options. Day Three "Community and Industry Perspectives on Freight Planning" focused on industry engagement, the transportation needs of underrepresented communities and sustainable freight strategies. Key points of discussion included how public-private partnerships can improve freight operations, "green passes" to reduce truck traffic in disadvantaged areas, and using the Community Readiness Model (CRM) to engage tribal communities in transportation planning. Day Four, the final day of the Academy featured a presentation on "The Cost of Sustainable Freight Infrastructure." The presentation addressed the economic challenges of adopting zero-emission truck technology and the challenges and opportunities associated with the transition. After the presentation participants presented their mini capstone project.

The Academy included 48 participants from 11 of the 12 Caltrans districts as well as from partner agencies including Metropolitan Planning Organizations (MPO's). Among partners represented were the California State Transportation Agency, California Transportation Commission, California Department of Food and Agriculture and Madera County Transportation Commission. In addition to partner agencies and MPO's, representatives from Kern County Council of Governments, Tulare County Association of Governments and Fresno Council of Governments attended the training. Participants were assigned into groups of five students from different Caltrans divisions and partner agencies. For the purpose of site tours, groups were consolidated into two larger groups to better manage the experience.

The Academy featured subject matter experts who spoke on the topics of each session and participated in two roundtable discussions and Q&A with the participants. All curricular materials were shared via a digital binder hosted via [Google Drive](#).

Course participants were asked to participate in an evaluation survey that assesses the effectiveness of the academy's learning materials and course structure. The survey was deployed on Day Four of the academy. The evaluation also allowed us to better understand

which aspects were the most impactful for participants. Survey responses are included in a [Google Drive](#) folder.

The 2020 Sustainable Freight Academy was held virtually. Previous survey respondents expressed the desire to return to in-person classes. The 2024 academy was held in person for participants, but some speakers presented through Zoom to accommodate the speakers who would otherwise not be able to attend the training. Of the four days of training, the highest rated was Day Two which was the day of the site tours. In general, what participants enjoyed most about the course was the site visits. The site visits allowed participants to visualize and cement the knowledge they gained from the expert speakers. A common suggestion from participants was to create more breaks or a similar exercise that gives participants a break from sitting and a chance to network with each other.

When asked about future trainings, most participants agreed that the best time for a future training would be a Spring or Fall morning and recommended a variety of topics such as electrification, California specific freight restrictions, and many port specific topics. Many participants expressed the desire for the next training to cover important freight sites such as the San Pedro Bay Port Complex, Port of Hueneme, and warehouse facilities as well as a potential site tours of these facilities. Based on the survey responses participants enjoyed the variety of expert speakers and how the site tours reinforced the topics. In the future CITT will need to ensure that the next location of the freight academy compliments the topics covered in the training program, ensure the audio video aspect of both in-person and virtual presenters is managed well, and to build in more opportunities for participants to network with each other.

FINAL PRESENTATION

The final day included an exercise where participants built and presented a mock Trade Corridor Enhancement Program (TCEP) proposal outline. The purpose of the Trade Corridor Enhancement Program is to provide funding for infrastructure improvements on federally designated Trade Corridors of National and Regional Significance, on California's portion of the National Highway Freight Network, identified in California Freight Mobility Plan, and along with other corridors that have a high volume of freight movement. In pre-Academy discussions held with leadership from Caltrans' Division of Research, Innovation and System Information and the Division of Transportation Planning, it was determined that the participants would benefit from an opportunity to apply lessons learned from the Academy to a task that many in the class are responsible for: securing funding from the California Transportation Commission for freight-related projects. The exercise's problem statement can be found in the Academy's [Google Drive](#). It encouraged participants to identify a project that improved freight mobility while assessing the impact on local communities. Representatives from the California Transportation Commission who attended the presentations commented that they demonstrated an understanding of the Commission's priorities for projects that improve the movement of freight that are developed with community and industry interests in mind.

DEVELOPMENT AND TRAINING MATERIALS

The Caltrans Freight Academy 2024 Google Drive includes all materials presented during the academy. This includes all materials organized by the sequence of events that occurred during the academy along with miscellaneous materials. You will find folders organized by Day 1-4, a Final Project folder, a Resource folder, and the agenda. A link to the Google Drive [can be found here](#).

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