Vermont Freight Forum Agenda

1. Introduction to freight
2. Vermont Freight Plan overview
3. Freight Issues
   - Freight and economic data analysis and trends
   - COVID-19 effects and outlook
4. Freight needs and ideas for initiatives
5. Wrap-up and next steps
We will be using interactive polling throughout the meeting.

You can view the entire presentation via Menti or just respond to polling questions via your smartphone, tablet, or another browser tab.
What is your affiliation?

- Public: 2
- Freight carrier: 1
- Logistics services provider: 0
- Local government: 0
- Regional Planning Commission: 6
- State government: 3
- Economic development: 2
- Community organization: 1
- Other: 2
What is Freight?

Freight transportation is the movement of goods, for example:

- Raw materials moved to manufacturing facilities
- Manufactured products moved to warehouses and retailers
- Agricultural products delivered to farm stands, retail stores, food product manufacturers, and institutions
- E-commerce orders delivered to your door
- Medical supplies delivered to hospitals
- Home heating oil delivered
- Construction materials delivered to job sites
- Waste picked up and moved to recycling or disposal facilities
Common Freight Modes by Industry Sector

INDUSTRY SECTORS
- Agriculture & Mining
- Construction Energy
- Manufacturing
- Wholesale Trade & Transportation
- Retail Trade & Health Care
- Government
- Knowledge (PST)

MODES
- Rail
- Heavy Truck
- Pipeline
- Water
- Less-Than-Truckload
- Light Truck
- Air

SHIPMENT CHARACTERISTICS

VERMONT FREIGHT PLAN UPDATE – Vermont Freight Forum

5/6/2021
Supply Chain Example: Food Products

North America
- Domestic Farming, Fishing
- Manufacturing, Processing, Packaging
- Warehousing, Distribution, Fulfillment
- Retail, Restaurant, Institutional, Direct-to-Consumer

Overseas
- International Farming, Fishing
- Manufacturing, Processing, Packaging

INTERNATIONAL BOUNDARY

VARIOUS MODES

VERMONT FREIGHT PLAN UPDATE – Vermont Freight Forum
5/6/2021
In what ways does freight support your business or way of life?

1. **Delivery of materials to a job site**
   - Freight supports 100% of our business
   - 100%

2. **The transportation of groceries, I care about this on a daily basis**
   - Brings me all the goods I use every day!

3. **E-commerce has become a big part of home life in the past year.**
   - I work in the railroad industry- freight pays the bills

4. **Receiving consumer goods that have been ordered online or telephone as well as purchased in retail food and goods**
| Freight supports our entire way of life | Indirect: provides supply chain for businesses we work with. Shipping in raw materials and shipping out finished products. | Receive goods weekly by truck |
What freight issues are you most interested in or concerned about? (select up to 3)

- Economic Recovery: 6
- Growth in E-Commerce Deliveries: 4
- Traffic Impacts of Trucks: 7
- Wear and Tear on Bridges and Roads: 9
- Delays at Rail-Highway Grade Crossings: 0
- Environmental Effects of Goods Movement: 6
- Noise, Light, Odor: 3
- Safety: 4
- Cost of Doing Business: 4
- Other: 3
Vermont Freight Plan Update Overview
Vermont Freight Plan
Background

- Good planning and follow-through makes for an efficient freight system for Vermont
- FHWA requires a State Freight Plan every five years in order to obligate Freight Formula funds
- State Freight Plans must include:
  - Freight trends, needs, and issues
  - Freight policies, strategies and performance measures
  - How innovative technologies are being considered
  - Congestion, delay, mobility, and deterioration issues (if applicable);
  - Freight Investment Plan;
  - Engage stakeholders and Freight Plan Advisory Committee
Rail Plan & Freight Plan Overlaps

UNDERWAY

Freight Plan
- Freight Forum/Industry Focus Groups
- Highway/Air/Water Existing Conditions
- Highway/Air/Water Future Conditions
- Highway/Air/Water Recommendations & Investment Plan
- Final Vermont Freight Plan

COMPLETED

Rail Plan
- Public Engagement Meetings
- Stakeholder Outreach
- Freight Rail Existing Conditions
- Freight Rail Future Conditions
- Update Vision & Goals
- Freight Rail Recommendations & Investment Plan
- Final Vermont Rail Plan

Although two separate planning efforts, the Freight and Rail Plans share common tasks and work products.
Additional Information on Web Page

- Newsletters
- Data Trends Summaries
- Technical memoranda
- Meeting presentations
- Online map with information and feedback tool

Freight Plan Web Page:
https://vtrans.vermont.gov/planning/freight
Freight Plan Elements

**Existing Conditions**
- State of the multi-modal Freight System
- Economic and commodity flows

**Vision and Goals**
- Review vision and specific goals for the multi-modal freight system

**Trends Analysis**
- Overall socio-economic conditions
- Commodity flows
- Technological and logistics trends

**Initiative Ideas**
- Outstanding from 2017 Freight Plan
- New initiatives

**Investment Plan**
- Prioritizing initiatives
- How will Vermont leverage state and federal funds?
Freight Trends and Issues
Commodity Flow Summary

2018 Tons by Direction
- Total = 47 Million Tons
- Through: 26%
- Inbound: 32%
- Intrastate: 37%
- Outbound: 14%

2018 Value by Direction
- Total = $71 billion
- Through: 26%
- Inbound: 32%
- Intrastate: 12%
- Outbound: 30%

By 2045:
- 79 million tons, 68% increase
- $135 billion, 90% increase

2018 Tons by Mode
- Total = 47 Million Tons
- Multiple modes & mail: 13%
- Rail: 15%
- Other and unknown: 0%
- Other: 0%
- Pipeline: 0%
- Air (include truck-air): 0%
- Water: 0%

2018 Value by Mode
- Total = $71 billion
- Truck: 67%
- Multiple modes & mail: 13%
- Rail: 17%
- Other: 8%
- Water: 0%
- Air (include truck-air): 0%
- Pipeline: 0%

Source: Freight Analysis Framework v4
Freight Commodities by Weight (Tons)

- Construction Materials: 34.4 million tons (2018), 18.2 million tons (2045)
- Energy: 25.2 million tons (2018), 10.7 million tons (2045)
- Food: 15.3 million tons (2018), 8.5 million tons (2045)
- Misc. or Mixed Shipments: 4.9 million tons (2018), 2.4 million tons (2045)
- Paper: 7.6 million tons (2018), 1.8 million tons (2045)
- Waste: 2.3 million tons (2018), 1.3 million tons (2045)
- Chemicals: 2.6 million tons (2018), 1.1 million tons (2045)
- Metals: 1.8 million tons (2018), 1.0 million tons (2045)
- Electronics, Machinery, and Transportation Equipment: 1.6 million tons (2018), 0.8 million tons (2045)
- Plastics: 1.0 million tons (2018), 0.5 million tons (2045)
- Other Durable Goods: 0.3 million tons (2018), 0.2 million tons (2045)
- Textiles, Apparel: 0.1 million tons (2018), 0.1 million tons (2045)

Source: USDOT Freight Analysis Framework v4, STB Waybill, analysis by Cambridge Systematics, 2020
Freight Commodities by Value
(Billions of 2018 Dollars)

Source: USDOT Freight Analysis Framework v4, STB Waybill, analysis by Cambridge Systematics, 2020
Economic Recovery from Pandemic

Percent Change in Vermont Employment by Wage Cohort, January 15, 2020 through March 10, 2021

Source: https://tracktherecovery.org/

Vermont’s data is almost identical to the national trend

data source: Earnin, Intuit, Kronos, Paychex
Pandemic Recovery: Key Sectors

Percent Change in Vermont Employment by Industry Sector, January 15, 2020 through March 10, 2021

Source: [https://tracktherecovery.org/](https://tracktherecovery.org/)

data source: Earmin, Intuit, Kronos, Paychex
Other Pandemic Effects

- Freight traffic is up!
- E-Commerce soaring
- Stress on consumer product supply chains and parcel delivery
What does this mean for Vermont?

**Near-Term:**
- Higher freight transportation costs
- More demand and higher costs for some commodities and goods
- Less reliability in parcel delivery times
- COVID-related population growth in some parts of the state

**Longer-Term:**
- More e-commerce fulfillment and last-mile delivery centers
- Potential reduction in costs (if supply chain risk is mitigated)
- More attention to environmental and community effects
- Will the population growth continue or subside?
How has the COVID-19 pandemic affected your business?

- Declined, and remains below pre-pandemic levels: 3
- Declined, but rebounded to or above pre-pandemic levels: 1
- No effect on my business: 0
- Increase in business during pandemic: 1
- Effects were mixed (some submarkets up, others down): 3
- Other: 0
What is your outlook for your business? I think my business will...

- "Return to normal" this year: 1
- "Return to normal" in 1-3 years: 3
- Enter a "new normal" with business being down: 2
- Enter a "new normal" with substantial growth: 1
- I'm not sure: 0
- Other: 0
One year from now, how do you expect to shop for household consumer goods?

- Mostly online: 2
- Mostly at brick-and-mortar chain retail stores: 0
- Locally more often to small merchants: 5
- Online more, but will also at brick-and-mortar stores: 9
- I don't know: 0
- Other: 0
What is your outlook on the economy in general?

- 1: "Return to normal" this year
- 5: "Return to normal" in 1-3 years
- 2: Enter a "new normal" with less economic growth
- 5: Enter a "new normal" with more economic growth
- 1: I'm not sure
- 0: Other
Other Key Freight Trends

- Growth in E-commerce
  - 21% Electronics
  - 20% Mass Merchandise
  - 15% Furniture and Home Improvement
  - 13% Apparel
  - 13% Jewelry
- Expansion of broadband and economic development opportunity
- Alternative fuels / zero-emission vehicles
- Transportation funding
- Labor supply and Autonomous vehicle technology
What changes will most affect freight in Vermont over the next 10 years? (select up to 3)
What does Vermont's freight system do well?

Connect Vermont to the national and international markets.

Important route between Canada and US

Rail keeps bigger heavier trucks off our roads and our downtowns

Vermont has done a good job of keeping all modes viable throughout public investments and public private partnerships.

Moving freight efficiently and safely

Vermont rail system is a customer responsive business and has been successful at moving freight from truck to rail

public private partnerships with Rail

Allow traffic to come through

given small demands of small population relative to national trends, freight providers do a great job!
Freight Needs and Issues

- Weather-related delays/unreliability
- Labor availability and future workforce
- Regional truck size and weight permit harmony
- Rail service performance and access
- Emissions and environmental effects
- Truck parking
- Farm-to-market, or producer-to-market issues
- Autoroute 35

- Maintaining a "State of Good Repair"
- Achieve 286K weight capacity on freight rail network
- Relationships between economy, land use, trade, and freight demand
What ideas do you have to improve freight transportation in Vermont?

- Insure that Vermont railroads have access to regional markets and directly connect with all the class 1 systems.
- Work to have the railroad more community involved and active so it is easier and more attractive to use more rail.
- Increased inter module to offer service to the "last mile".
- Address congestion hot spots on our highways as well as locations with safety issues.
- Land use and economic policy improvements to accommodate "vermont sized" distribution warehouses/distribution centers etc.
- Reduce red tape (permits) so new businesses can locate in VT. Or existing companies can expand. More businesses can then share in freight infrastructure costs.
- Vermont Automated Vehicle Testing.
- Expand rail access on all active lines.
- You he railroads must be able to handle 286 capacity.
What ideas do you have to improve freight transportation in Vermont?

- Continue to develop regional relationships and coordinated initiatives.
- Prioritize freight complementary land uses along rail lines.
Online Map Tool

- Includes freight system geodata
- Allows visitors to report issues or share ideas
- Collected lots of feedback for the Rail Plan update and remains open for the Freight Plan Update
Next Steps

Freight Plan Advisory Committee Input Throughout the Process

1. Finish Needs and Gaps assessment
2. Develop Investment Plan
3. Develop Initiatives
4. Second Freight Forum
5. Distribute Draft Freight Plan for Comment
Thank You

For more information on the Vermont Freight Plan Update, visit vtrans.vermont.gov/planning/freight or contact Dave Pelletier at Dave.Pelletier@vermont.gov or (802) 595-9675.

For more information on the Vermont Rail Plan Update, visit vtrans.vermont.gov/rail/reports or contact Zoe Neaderland at Zoe.Neaderland@vermont.gov or (802) 793-2778.