

FREIGHT TRANSPORTATION FRAMEWORK STUDY

Examining Freight and Multimodal
Opportunities in the Sun Corridor

MAG Economic Development Committee
October 2, 2012

JOINT PLANNING ADVISORY COUNCIL

A Planning Partnership for the Arizona Sun Corridor

Study Goal

Identify and develop
freight related economic
development opportunities



An aerial photograph of a city and industrial area. The city is built on a hillside, with a large, flat, sandy area in the foreground. The industrial area features several large buildings, parking lots, and a road with a semi-transparent text overlay. The text is white and yellow, and the background is a semi-transparent dark grey.

Regional Objectives

Capitalize on **strategic position** relative to goods movement.

Identify **added value** for supply chain.

Diversify **regional economic** base.

Create jobs.



Initial Findings

Sun Corridor needs to better promote advantages of the region to supply chain

Land availability, lower costs, solid workforce and legislation are seen as favorable

There is a general lack of understanding regarding the benefits of the region as part of the supply chain



Initial Findings

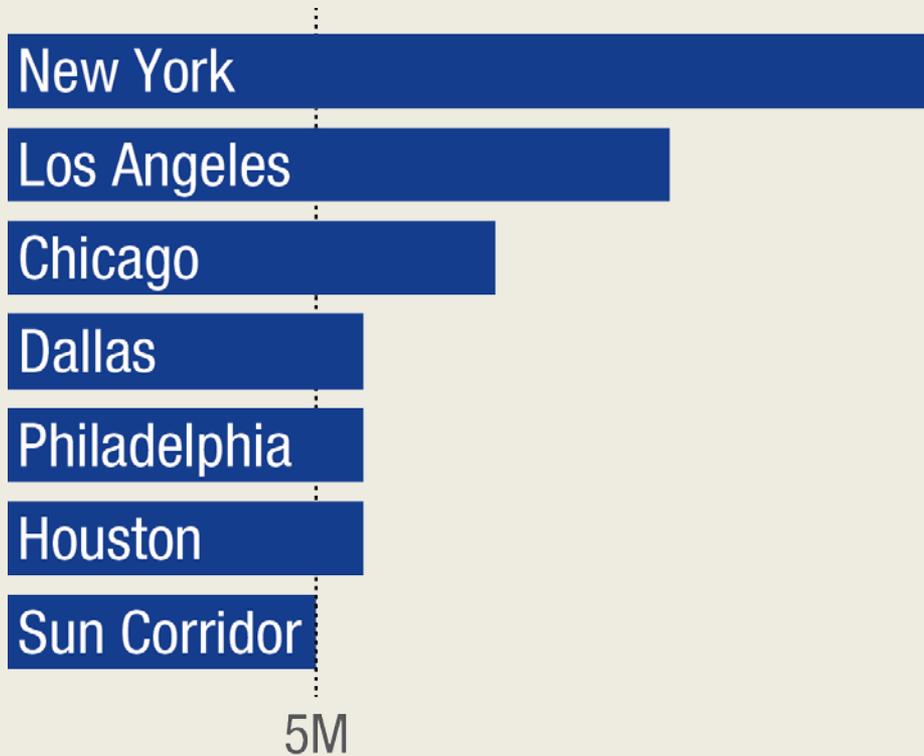
South to north and **east to west** commodity flows **offers greatest potential** for Sun Corridor

Bypass Southern California for distribution to AZ, SW and US, especially for imports from Mexico and Texas ports

Location affects ability to compete with Southern California for west to east commodity flows

Freight Framework 'Big Picture'

Anchor Market



Metropolitan Statistical Areas

Sun Corridor is **now a**
major **anchor market**

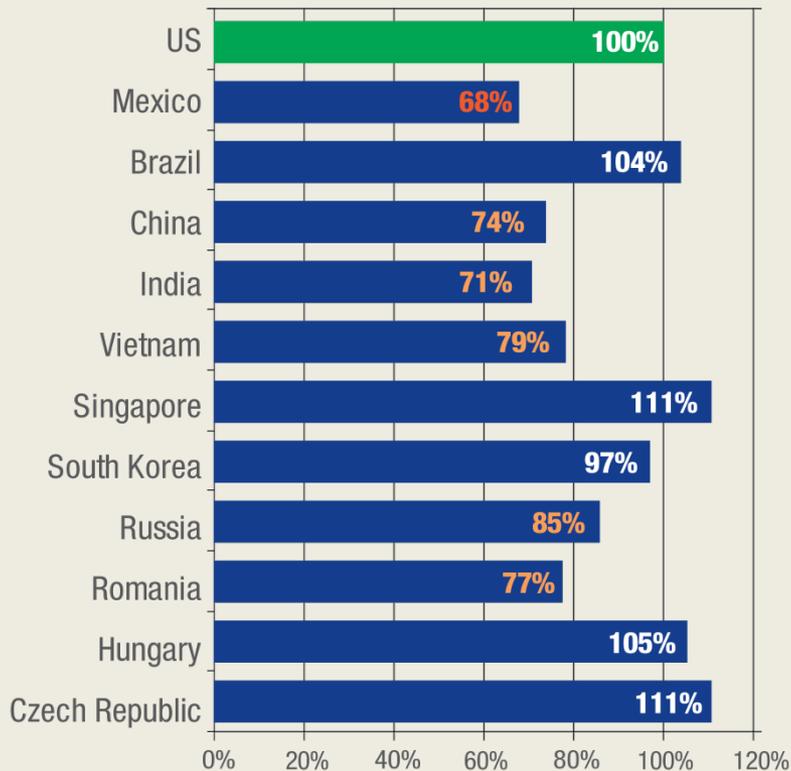
Population is 7th in U.S.
for combined MSAs

Only top market between
Texas and California

Freight Framework 'Big Picture'

Cost Competitiveness

U.S. Landed Costs as % of U.S. Manufacturing Cost by Country for Moderate Labor and Shipping Cost Product



Increases in transportation and labor costs are **shifting economic advantage** from Asia **to Mexico** (and U.S.)

Mexico is now the lowest cost producer for many goods

Freight Framework 'Big Picture' Leverage Strategic Location

Sun Corridor is now a logical hub for staging imports and distribution to West markets

Imports from Mexico, Gulf Coast ports and SE U.S. manufacturers

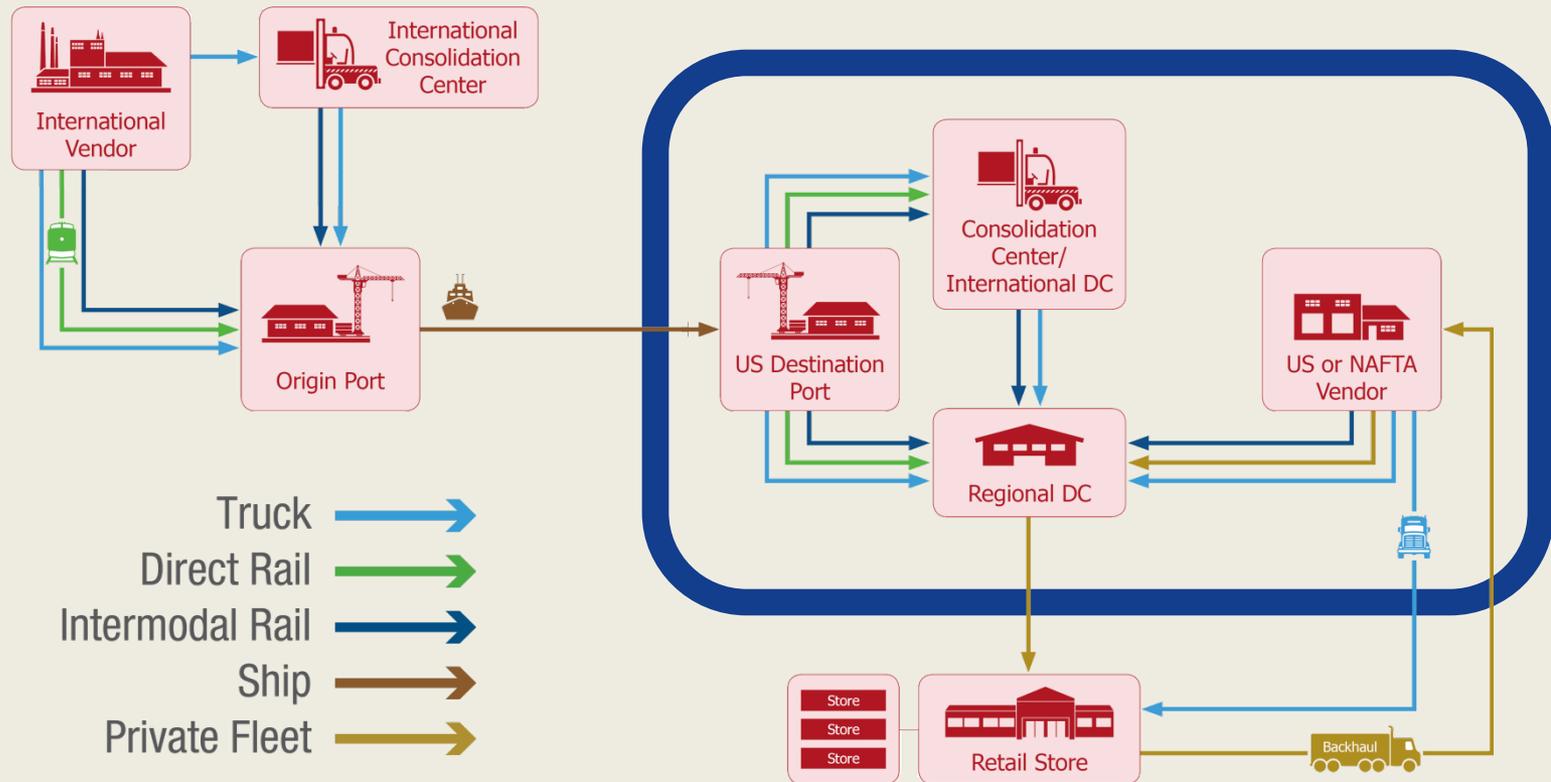
Distribution to local, California, and other West Coast markets

Location and transportation system gives Sun Corridor advantage for East to West commodity flow



Sun Corridor Supply Chain Opportunities

Sun Corridor can leverage core supply chain roles to capture 'Big Picture' opportunities

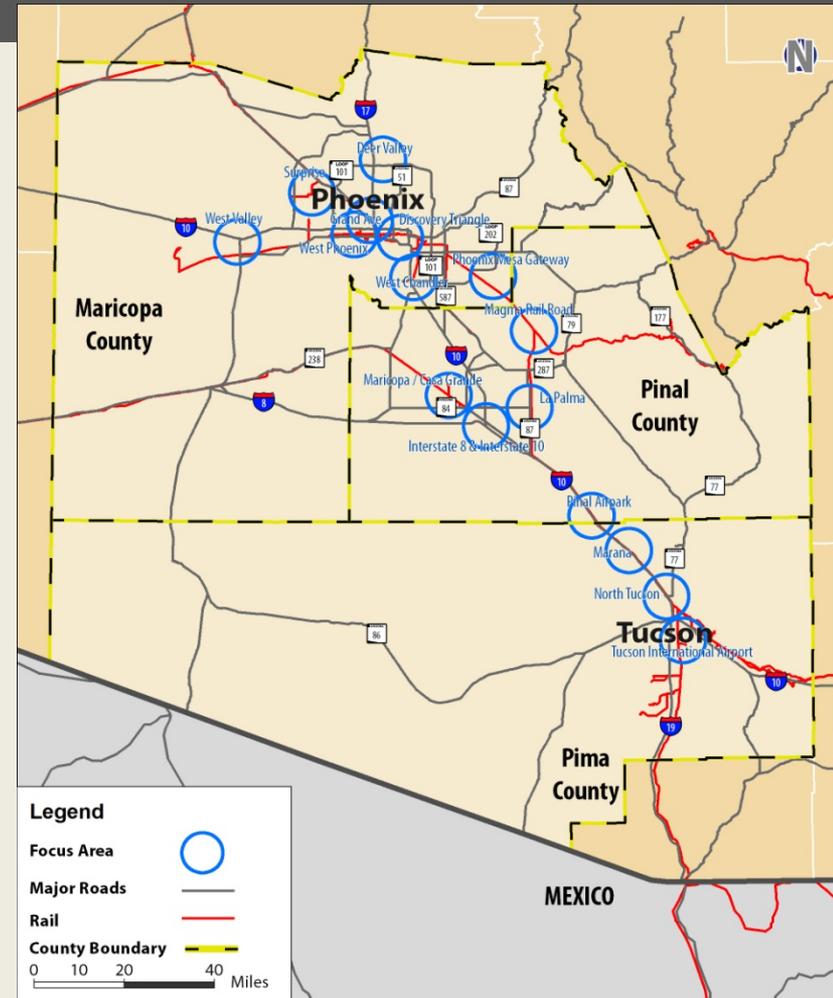


Freight Focus Areas Identified by Study Partners

Regional freight focus areas were identified by study partners

Sites were identified for potential to contribute to the 'Big Picture'

Freight majority use typologies guide the appropriate supply chain role and development type for each area



Freight Focus Area Typologies

Four typologies based on opportunities

Forward Distribution Center

to serve as a gateway for distribution to other regional markets

Manufacturing and Local Distribution Center to produce goods for global market and/or distribution to local markets

Mixing Center to store, consolidate and/or redirect domestic and import goods for distribution

Import Center to receive imports and redirect goods to local and global markets

Typologies work within a regional supply chain system



Freight Focus Area Typologies

Four locations were studied in greater detail

Forward Distribution Center
West Valley

Manufacturing and Local Distribution Center
Mesa Gateway Airport Area

Mixing Center
Eloy Area

Import Center
Tucson International Airport Area



Freight Focus Area Evaluation

Four sample freight focus areas were evaluated for measures including labor, transportation and land use

Phoenix Mesa Gateway

Labor Force

by Age

Population 18 and over	15,278	100%
County 18 and over	26,819	20.8%
County 18 to 24	5,781	6.9%
County 25 to 34	3,740	4.5%
County 35 to 44	4,517	5.5%
County 45 and over	4,831	5.9%

by Educational Attainment

High School Graduate	12,028	78.8%
College Degree	1,248	8.2%
County High School	26,819	100%
County College Degree	7,921	29.5%
County Bachelor's Degree	1,084	8.3%
County Master's Degree	1,084	8.3%
County Doctoral Degree	41	0.3%

Incentive Areas

Foreign Trade Zone

Enterprise Zone

Freight Generators

By Value

Label Rank	Name	SIC	Description
1	General Motors Pontiac	3712	Motor Vehicles and Equipment
2	TWV Vehicle Safety Systems	3714	Motor Vehicle and Equipment
3	Topline Electronics, Inc.	3600	Chemical and Allied Products
4	Amstar Inc	2600	Textile Mills
5	Black Carbonizing	1310	Chemical and Allied Products
6	CDC Motor Controls	3600	Chemical and Allied Products
7	Henneman Building Products	2400	Construction Materials
8	H B Henneman Holdings LLC	2400	Construction Materials
9	Aluminum Distributors	3300	Primary Metal Industries
10	Alcoa Inc	3300	Primary Metal Industries

By Tonnage

Label Rank	Name	SIC	Description
1	General Motors Pontiac	3712	Motor Vehicles and Equipment
2	Black Carbonizing	1310	Chemical and Allied Products
3	TWV Vehicle Safety Systems	3714	Motor Vehicle and Equipment
4	Topline Electronics, Inc.	3600	Chemical and Allied Products
5	Alcoa Inc	3300	Primary Metal Industries
6	Aluminum Distributors	3300	Primary Metal Industries
7	H B Henneman Holdings LLC	2400	Construction Materials
8	Amstar Inc	2600	Textile Mills
9	Aluminum Distributors	3300	Primary Metal Industries
10	H B Henneman Holdings LLC	2400	Construction Materials

Freight Activity

Existing	Annual	Outbound
Intermodal (AD)	\$48,111,000	\$16,200,000
Intermodal (Sheds)	\$48,111,000	\$16,200,000
Barrels	\$1,796,710,000	\$218,900,000
Self-loading Activity	\$1,796,710,000	\$218,900,000

Future

Future	Annual	Outbound
Intermodal (AD)	\$10,000,000	\$3,000,000
Intermodal (Sheds)	\$10,000,000	\$3,000,000
Barrels	\$2,217,140,000	\$266,900,000
Self-loading Activity	\$2,217,140,000	\$266,900,000

Land Status / Ownership

Land Status / Ownership

Parcel	Area (sq ft)	% of Total
Arizona State Land Department	1,715,000	8.1%
Arizona State Land Department	1,715,000	8.1%
Arizona State Land Department	1,715,000	8.1%
Arizona State Land Department	1,715,000	8.1%
Arizona State Land Department	1,715,000	8.1%
Arizona State Land Department	1,715,000	8.1%
Arizona State Land Department	1,715,000	8.1%
Arizona State Land Department	1,715,000	8.1%
Arizona State Land Department	1,715,000	8.1%
Arizona State Land Department	1,715,000	8.1%

Proximity to Markets

Western Markets	Travel Distance
Alberquerque	371 miles
Las Vegas	317 miles
Salt Lake	700 miles
San Francisco	765 miles
Los Angeles	775 miles
Phoenix	0 miles

Existing / Prior Planning Efforts

Phoenix-Mesa Gateway Airport Master Plan

Location Typology

Purpose of Identifying Typologies

Transportation Characteristics

Mode	Distance	Travel Time
Freight Train	121 miles	2.1 hours
Intermodal	121 miles	2.1 hours
Freight Truck	121 miles	2.1 hours
Freight Ship	121 miles	2.1 hours
Freight Air	121 miles	2.1 hours

Overview Map

Next Steps to be Successful

Land Use Plans

Economic Development Policy

Transportation Improvements

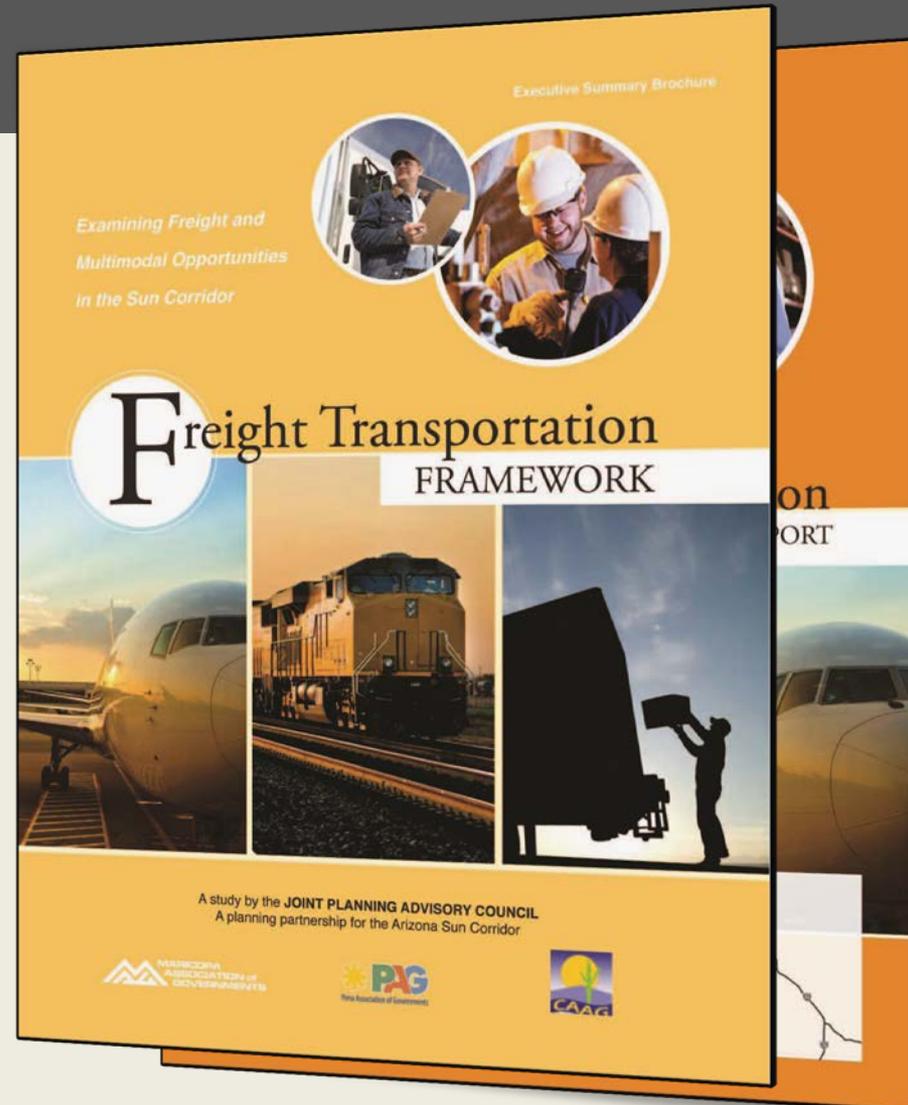
Business Plan Components

Freight Focus Area Evaluation

Big picture overview

Four focus area brochures highlight key characteristics for each area evaluated

Provides a concise reference for policy recommendations and marketing efforts



Key Recommendations

Coordinate regionally to position and market the Sun Corridor for freight related economic development

Sun Corridor must compete **globally** and **not locally** to grow freight related economic development

Sun Corridor must speak with a **unified voice** to establish a clear and positive identity

Key Recommendations

Coordinate regionally to position and market the Sun Corridor for freight related economic development

Form a staffed **regional entity** to implement the regional freight framework to **coordinate** freight transportation, land use, economic development and marketing

Emulate coordination and 'one-stop shop' approach successful in other regions

Build upon existing organizational frameworks

Clarify existing and future roles of related entities



Key Recommendations

Establish a Sun Corridor Freight Development Zone special land use designation

Strengthens general plan designations to establish **consistent region-wide protection** for key areas

Land use/zoning overlays can address current limitations and ensure adequate preservation for land in key areas

Incentives and other benefits can be **tied to zones**

Key Recommendations

Implement strategic transportation improvements to support efficient freight distribution

Efficient transportation is vital to be competitive in the global supply chain

Continue to invest in border crossing facilities, technology and staffing to maximize efficiency and safety at Arizona crossings



Key Recommendations

Implement strategic transportation improvements to support efficient freight distribution

Update and expand regional and statewide plans to enhance infrastructure for freight movements

Address MAP21 freight network requirements to ensure federal funding eligibility

Define **truck route networks** to be **inclusive**, not exclusive

Prioritize investment on transportation infrastructure that accommodates goods movement, particularly in freight focus areas



Key Recommendations

Assist municipal governments with related amendments to public policy

Provide **guidance** to municipalities during the development of general plans and capital improvement programs

Preserve areas most appropriate and advantageous for freight uses

Seek strategies to **better integrate** freight related land uses and transportation

Support the **repurposing** of existing unutilized and underutilized buildings to serve supply chain purposes

Key Recommendations

Assist municipal governments with related amendments to public policy

Refine Freight Focus Areas to define specific boundaries and associated development policies

Support the implementation of Sun Corridor Freight Development Zones

Create **clear and complete** development policies and processes for activities in Freight Focus Areas

Key Recommendations



Prepare conceptual business plans for specific freight related opportunities

Identify **specific sites** with Freight Focus Areas, including new development and redevelopment

Identify Focus Area **market opportunities** within the context of the regional framework

Ensure **highest and best use** based on market analysis

Determine **economic gap**, if one exists, to better understand needs for incentives and funding contributions

Freight Framework Next Steps

Develop topical white papers to further investigate and elaborate on key recommendations

Better understand existing organization structures, framework, opportunities and limitations

Evaluate best practices

Provide **specific recommendations for action**

More detailed discussion

Joint Planning
Advisory Committee
October 30, 2012

Regional Workshop/Retreat
Early 2013