

8 STATION DEVELOPMENT IMPACTS

Introduction: An important feature of the development of the Ohio Hub Passenger Rail system is the role of its stations. Ohio Hub stations will be the gateway to communities and provide the “front door” to the other rail travel across Ohio. At this “gateway” or “front door”, considerable development potential will exist. Increased train operations will encourage service industry to locate at the station, and its immediate environs. Such activity will generate both commercial and residential development. Industries looking for a home along the Ohio Hub system will see it as a good “seeding” ground for business.

As a result, a key output of the community analysis is the increase in property values that can be expected at station locations throughout the Ohio Hub system. These can be equated to development opportunities, which will exist in and around the stations. In a North American or European environment this opportunity is frequently recognized by both the private and public sector who form partnerships to implement such projects. Of the estimated \$3.0 billion in development it is anticipated that approximately one half of this total will come from private sector investments, one quarter from state, county and municipal sources, and the final quarter – from the Federal government. These proportions are derived from typical results for passenger rail corridors. However, the exact proportions will depend on the share of risk the private sector is willing to assume and the level of leadership the public sector is willing to take. Typically the greater the public leadership the lower the risk for the private sector.

Station Profile: There are over 30 stations serving the Ohio Hub Passenger Rail System. Exhibit 8.1 shows the profile of these stations, including the alternatives⁵¹. More than 90% of Ohio Hub alternative stations and communities have been visited to evaluate the potential of each community to maximize the economic development potential from the Ohio Hub Passenger Rail System and to find the better location for the station. This evaluation was conducted using the methodology shown in Exhibit 8.2.

⁵¹ The profile for Canadian stations except Niagara Falls (Ont.) is not provided here.

OHIO HUB PASSENGER RAIL ECONOMIC IMPACT STUDY

Exhibit 8.1: Ohio Hub Passenger Rail station Profile: Location

<i>Station Names¹</i>	<i>State</i>	<i>County</i>	<i>Address²</i>	<i>Zip Code</i>	<i>Feeder Bus Connection</i>
Ohio-Hub Passenger Rail System:					
Main Ohio Hub Stations:					
Cleveland	Ohio	Cuyahoga	200 Cleveland Memorial Shoreway	44114	yes
Cincinnati	Ohio	Hamilton			yes
Columbus	Ohio	Franklin			yes
Toledo	Ohio	Lucas	415 Emerald Ave. Central Avenue Plaza	43602	yes
Pittsburgh	Pennsylvania	Allegheny	1100 Liberty Avenue	15222	yes
Detroit	Michigan	Wayne	11 West Baltimore Ave.	48202	no
Other Ohio Hub Stations :					
Cleveland-Buffalo-Niagara Falls Line :					
Northeast Cleveland, alternatives:					
					no
Mentor	Ohio	Lake		44060	
Painesville	Ohio	Lake		44077	
Willoughby	Ohio	Lake		44094	
Ashtabula	Ohio	Ashtabula		44004	no
Erie	Pennsylvania	Erie	125 West 14th St.	16501	no
Buffalo	New York	Erie	75 Exchange St.	14203	yes
Niagara Falls	New York	Niagara	27th St. and Lockport Rd.	14305	no
St. Catharines - Niagara Falls	Ontario, CN	Niagara RM			no
Cleveland-Pittsburgh Line:					
Southeast Cleveland, alternatives:					
					no
Bedford	Ohio	Cuyahoga		44146	
Hudson	Ohio	Summit		44236	
Macedonia	Ohio	Summit		44056	
Maple Heights	Ohio	Cuyahoga		44137	
Alternative Route * (in Options 1 & 3):					
Warren	Ohio	Trumbull			no
Youngstown	Ohio	Mahoning			no
Northwest Pittsburgh (New Castle)	Pennsylvania	Lawrence			no
Alternative Route * (in Options 2 & 4):					
Alliance	Ohio	Stark		44601	no
Salem-Columbiana, alternatives:					
					no
Salem	Ohio	Columbiana		44460	
Columbiana	Ohio	Columbiana		44408	
Cleveland-Toledo Line:					
Cleveland Hopkins International Airport	Ohio	Cuyahoga	5300 Riverside Drive	44135	no
Elyria	Ohio	Lorain	410 East River Road	44035	no
Sandusky	Ohio	Erie	12 North Depot St. at Shelby St.	44870	no
Cleveland-Columbus Line:					
North Central Ohio, alternatives:					
					yes
Galion	Ohio	Crawford		44833	
Crestline	Ohio	Crawford		44827	
Shelby	Ohio	Richland		44875	
North Columbus, alternatives:					
					no
Delaware	Ohio	Delaware		43015	
Worthington	Ohio	Franklin		43085	

Exhibit 8.1: Ohio Hub Passenger Rail Station Profile: Location – continued

<i>Station Names¹</i>	<i>State</i>	<i>County</i>	<i>Address²</i>	<i>Zip Code</i>	<i>Feeder Bus Connection</i>
Ohio-Hub Passenger Rail System:					
Columbus-Cincinnati Line :					
Springfield	Ohio	Clark			no
Dayton	Ohio	Montgomery			yes
Middletown-Hamilton, alternatives:					
Middletown	Ohio	Butler			no
Hamilton	Ohio	Butler			no
North Cincinnati (Sharonville)	Ohio	Hamilton		45241	yes
Toledo-Detroit Line:					
Monroe	Michigan	Monroe			no
Alternative Route * (in Options 1 & 4):					
Detroit Metro Airport	Michigan	Wayne	Smith Terminal - Mezzanine Level	48242	no
South Detroit Suborbs (Dearborn)	Michigan	Wayne	16121 Michigan Avenue	48126	no
Alternative Route * (in Options 2 & 3):					
South Detroit Suborbs (Wyandotte)	Michigan	Wayne		48192	no

Notes:

¹ Station name given in parentheses shows the name of the existing Amtrak station that has the same location as the new station, named by TEMS.

² The address of the station (when it is available) reflects the address of the corresponding Amtrak station.

*In the frame of Ohio Hub Economic Study the following four options were considered:

- Option 1: Cleveland-Detroit via Dearborn & Detroit Airport combined with Cleveland-Pittsburgh via Warren, Youngstown and New Castle.
- Option 2: Cleveland-Detroit via Wyandotte combined with Cleveland-Pittsburgh via Alliance & Salem-Columbiana.
- Option 3: Cleveland-Detroit via Wyandotte combined with Cleveland-Pittsburgh via Warren, Youngstown and New Castle.
- Option 4: Cleveland-Detroit via Dearborn & Detroit Airport combined with Cleveland-Pittsburgh via Alliance & Salem-Columbiana.

OHIO HUB PASSENGER RAIL ECONOMIC IMPACT STUDY

Exhibit 8.1: Ohio Hub Passenger Rail Station Profile: Trip Volumes

<i>Station Names</i> ¹	<i>State</i>	<i>Volume of Trips:</i> ³				
		<i>Base Year 2005</i> ²	<i>Ohio Hub System, Option 1 *</i>		<i>Ohio Hub System, Option 4 *</i>	
			<i>Year 2020</i>	<i>Year 2040</i>	<i>Year 2020</i>	<i>Year 2040</i>
Ohio-Hub Passenger Rail System:						
Main Ohio Hub Stations:						
Cleveland	Ohio	32,810	1,029,249	1,320,377	1,014,118	1,300,533
Cincinnati	Ohio	12,407	838,497	1,144,445	835,689	1,140,629
Columbus	Ohio	0	588,731	805,682	585,093	800,818
Toledo	Ohio	56,983	598,351	751,110	594,083	745,772
Pittsburgh	Pennsylvania	110,781	466,558	612,739	445,104	584,805
Detroit	Michigan	57,217	346,845	418,480	345,025	416,326
Other Ohio Hub Stations :						
Cleveland-Buffalo-Niagara Falls Line :						
Northeast Cleveland, alternatives:	Ohio	0	140,226	194,109	140,067	193,964
Mentor	Ohio					
Painesville	Ohio					
Willoughby	Ohio					
Ashtabula	Ohio	0	29,884	38,504	29,776	38,380
Erie	Pennsylvania	8,690	169,283	221,398	168,154	219,961
Buffalo	New York	15,132	196,175	259,545	194,775	257,814
Niagara Falls	New York	21,409	48,805	64,496	48,546	64,184
St. Catherines - Niagara Falls	Ontario, CN	N/A	31,629	42,190	31,498	42,028
Cleveland-Pittsburgh Line :						
Southeast Cleveland, alternatives:	Ohio	0	59,106	80,109	58,054	78,742
Bedford	Ohio					
Hudson	Ohio					
Macedonia	Ohio					
Maple Heights	Ohio					
Alternative Route *(in Options 1 & 3):						
Warren	Ohio	0	103,449	133,148	N/A	N/A
Youngstown	Ohio	0	72,733	94,463	N/A	N/A
Northwest Pittsburgh (New Castle)	Pennsylvania	0	125,384	168,974	N/A	N/A
Alternative Route *(in Options 2 & 4):						
Alliance	Ohio	2,956	N/A	N/A	99,377	128,503
Salem-Columbiana, alternatives:	Ohio	0	N/A	N/A	115,821	155,663
Salem	Ohio					
Columbiana	Ohio					
Cleveland-Toledo Line :						
Cleveland Hopkins International Airport	Ohio		37,202	50,314	36,470	49,318
Elyria	Ohio	2,925	200,032	256,307	198,726	254,852
Sandusky	Ohio	4,794	133,537	173,615	132,884	172,794
Cleveland-Columbus Line:						
North Central Ohio, alternatives:	Ohio	0	73,878	98,154	73,776	98,040
Galion	Ohio					
Crestline	Ohio					
Shelby	Ohio					
North Columbus, alternatives:	Ohio	0	270,885	376,760	269,690	375,236
Delaware	Ohio					
Worthington	Ohio					

Exhibit 8.1: Ohio Hub Passenger Rail Station Profile: Trip Volumes - continued

Station Names ¹	State	Volume of Trips: ³				
		Base Year 2005 ²	Ohio Hub System, Option 1 *		Ohio Hub System, Option 4 *	
			Year 2020	Year 2040	Year 2020	Year 2040
Ohio-Hub Passenger Rail System:						
Columbus-Cincinnati Line :						
Springfield	Ohio	0	47,591	61,767	47,436	61,586
Dayton	Ohio	0	592,033	786,646	589,506	783,351
Middletown-Hamilton, alternatives:						
Middletown	Ohio	0	57,932	83,441	57,921	83,437
Hamilton	Ohio	1,405				
North Cincinnati (Sharonville)	Ohio	0	63,575	90,848	63,403	90,611
Toledo-Detroit Line:						
Monroe	Michigan	0	69,604	91,613	69,332	91,296
Alternative Route * (in Options 1 & 4):						
Detroit Metro Airport	Michigan	0	34,916	47,075	34,636	46,716
South Detroit Suborbs (Dearborn)	Michigan	68,841	372,847	438,749	371,756	437,585
Alternative Route * (in Options 2 & 3):						
South Detroit Suborbs (Wyandotte)	Michigan	0	N/A	N/A	N/A	N/A

Notes:

¹ Station name given in parentheses shows the name of the existing Amtrak station that has the same location as the station named by TEMS, Inc.

² Information on volume of trips for the year 2005, where it is available, is provided by Amtrak (see: www.amtrak.com).

³ Volume of trips (annual number of passengers) for MWRRS reflects the impact of MWRRS only. Volume of trips for Ohio Hub Passenger Rail System also reflects the impact of other high speed rail systems including MWRRS, Empire corridor and Keystone corridor. The projections for the years of 2020 and 2040 are made using Ohio Hub TEMS Demand Forecasting Model and MWRRS TEMS Demand Forecasting Model.

* In the frame of Ohio Hub Economic Study the following four options were considered:

Option 1: Cleveland-Detroit via Dearborn & Detroit Airport combined with Cleveland-Pittsburgh via Warren, Youngstown and New Castle.

Option 2: Cleveland-Detroit via Wyandotte combined with Cleveland-Pittsburgh via Alliance & Salem-Columbiana.

Option 3: Cleveland-Detroit via Wyandotte combined with Cleveland-Pittsburgh via Warren, Youngstown and New Castle.

Option 4: Cleveland-Detroit via Dearborn & Detroit Airport combined with Cleveland-Pittsburgh via Alliance & Salem-Columbiana.

OHIO HUB PASSENGER RAIL ECONOMIC IMPACT STUDY

Exhibit 8.1: Ohio Hub Passenger Rail Station Profile: Trip Volumes - continued

Station Names ¹	State	Volume of Trips: ³					
		Ohio Hub System, Option 2 *		Ohio Hub System, Option 3 *		MWRRS only	
		Year 2020	Year 2040	Year 2020	Year 2040	Year 2020	Year 2040
Ohio-Hub Passenger Rail System:							
Main Ohio Hub Stations:							
Cleveland	Ohio	1,008,816	1,294,074	1,023,947	1,313,918	233,834	300,587
Cincinnati	Ohio	835,226	1,140,020	839,028	1,145,184	296,936	383,823
Columbus	Ohio	583,881	799,240	587,519	804,104	N/A	N/A
Toledo	Ohio	589,154	739,838	593,422	745,176	162,808	210,452
Pittsburgh	Pennsylvania	443,330	582,586	464,776	610,509	N/A	N/A
Detroit	Michigan	359,181	433,154	361,212	435,566	281,062	359,959
Other Ohio Hub Stations :							
Cleveland-Buffalo-Niagara Falls Line :							
Northeast Cleveland, alternatives:	Ohio	139,223	192,895	139,382	193,040	N/A	N/A
Mentor	Ohio						
Painesville	Ohio						
Willoughby	Ohio						
Ashtabula	Ohio	29,612	38,187	29,720	38,311	N/A	N/A
Erie	Pennsylvania	167,444	219,092	168,573	220,529	N/A	N/A
Buffalo	New York	194,402	257,355	195,802	259,086	N/A	N/A
Niagara Falls	New York	48,476	64,101	48,735	64,413	N/A	N/A
St. Catharines - Niagara Falls	Ontario, CN	31,473	41,997	31,604	42,159	N/A	N/A
Cleveland-Pittsburgh Line :							
Southeast Cleveland, alternatives:	Ohio	57,742	78,348	58,790	79,711	N/A	N/A
Bedford	Ohio						
Hudson	Ohio						
Macedonia	Ohio						
Maple Heights	Ohio						
Alternative Route * (in Options 1 & 3):							
Warren	Ohio	N/A	N/A	102,762	132,328	N/A	N/A
Youngstown	Ohio	N/A	N/A	72,248	93,893	N/A	N/A
Northwest Pittsburgh (New Castle)	Pennsylvania	N/A	N/A	124,878	168,329	N/A	N/A
Alternative Route * (in Options 2 & 4):							
Alliance	Ohio	98,738	127,745	N/A	N/A	N/A	N/A
Salem-Columbiana, alternatives:	Ohio	114,918	154,534	N/A	N/A	N/A	N/A
Salem	Ohio						
Columbiana	Ohio						
Cleveland-Toledo Line :							
Cleveland Hopkins International Airport	Ohio	36,315	49,113	37,047	50,109	N/A	N/A
Elyria	Ohio	197,027	252,777	198,333	254,232	43,459	56,102
Sandusky	Ohio	131,771	171,426	132,424	172,247	25,557	32,995
Cleveland-Columbus Line:							
North Central Ohio, alternatives:	Ohio	73,491	97,700	73,593	97,814	N/A	N/A
Galion	Ohio						
Crestline	Ohio						
Shelby	Ohio						
North Columbus, alternatives:	Ohio	268,571	373,798	269,766	375,322	N/A	N/A
Delaware	Ohio						
Worthington	Ohio						

Exhibit 8.1: Ohio Hub Passenger Rail Station Profile: Trip Volumes - continued

Station Names ¹	State	Volume of Trips: ³					
		Ohio Hub System, Option 2 *		Ohio Hub System, Option 3 *		MWRRS only	
		Year 2020	Year 2040	Year 2020	Year 2040	Year 2020	Year 2040
Ohio-Hub Passenger Rail System:							
Columbus-Cincinnati Line :							
Springfield	Ohio	47,383	61,525	47,536	61,704	N/A	N/A
Dayton	Ohio	589,179	782,942	592,021	786,644	N/A	N/A
Middletown-Hamilton, alternatives:	Ohio						
Middletown	Ohio	57,839	83,326	57,855	83,340	N/A	N/A
Hamilton	Ohio						
North Cincinnati (Sharonville)	Ohio	63,341	90,531	63,562	90,839	N/A	N/A
Toledo-Detroit Line:							
Monroe	Michigan	68,812	90,630	69,084	90,947	N/A	N/A
Alternative Route * (in Options 1 & 4):							
Detroit Metro Airport	Michigan	N/A	N/A	N/A	N/A	N/A	N/A
South Detroit Suborbs (Dearborn)	Michigan	343,766	404,719	344,687	405,707	296,024	378,668
Alternative Route * (in Options 2 & 3):							
South Detroit Suborbs (Wyandotte)	Michigan	19,007	25,799	19,123	25,944	N/A	N/A

Notes:

¹ Station name given in parentheses shows the name of the existing Amtrak station that has the same location as the station named by TEMS, Inc.

² Information on volume of trips for the year 2005, where it is available, is provided by Amtrak (see: www.amtrak.com).

³ Volume of trips (annual number of passengers) for MWRRS reflects the impact of MWRRS only. Volume of trips for Ohio Hub Passenger Rail System also reflects the impact of other high speed rail systems including MWRRS, Empire corridor and Keystone corridor. The projections for the years of 2020 and 2040 are made using Ohio Hub TEMS Demand Forecasting Model and MWRRS TEMS Demand Forecasting Model.

* In the frame of Ohio Hub Economic Study the following four options were considered:

Option 1: Cleveland-Detroit via Dearborn & Detroit Airport combined with Cleveland-Pittsburgh via Warren, Youngstown and New Castle.

Option 2: Cleveland-Detroit via Wyandotte combined with Cleveland-Pittsburgh via Alliance & Salem-Columbiana.

Option 3: Cleveland-Detroit via Wyandotte combined with Cleveland-Pittsburgh via Warren, Youngstown and New Castle.

Option 4: Cleveland-Detroit via Dearborn & Detroit Airport combined with Cleveland-Pittsburgh via Alliance & Salem-Columbiana.

OHIO HUB PASSENGER RAIL ECONOMIC IMPACT STUDY

Exhibit 8.1: Ohio Hub Passenger Rail Station Profile: Socio Economics**

		<i>2005 Socio-economic Characteristics (zones):²</i>			
		<i>Population</i>	<i>Employment</i>	<i>Average Household Income (2005 \$)</i>	<i>Average Residential Property Value (2005 \$)</i>
<i>Station Names¹</i>	<i>State</i>				
Ohio-Hub Passenger Rail System:					
Main Ohio Hub Stations:					
Cleveland	Ohio	2,724,540	1,331,278	\$68,452	\$162,919
Cincinnati	Ohio	1,774,057	900,781	\$71,420	\$168,701
Columbus	Ohio	1,992,436	958,807	\$58,857	\$130,478
Toledo	Ohio	1,075,023	531,002	\$63,642	\$133,652
Pittsburgh	Pennsylvania	2,504,522	1,162,610	\$60,902	\$121,102
Detroit	Michigan	2,122,961	958,017	\$67,177	\$156,530
Other Ohio Hub Stations:					
Cleveland-Buffalo-Niagara Falls Line :					
Northeast Cleveland, alternatives:					
Mentor	Ohio				
Painesville	Ohio				
Willoughby	Ohio				
Ashtabula	Ohio	103,805	48,979	\$54,737	\$120,759
Erie	Pennsylvania	614,277	286,880	\$55,449	\$105,329
Buffalo	New York	1,140,937	531,943	\$61,652	\$120,429
Niagara Falls	New York	265,210	122,367	\$58,746	\$106,309
St. Catharines - Niagara Falls	Ontario, CN	384,451	184,472	\$52,711	\$153,646
Cleveland-Pittsburgh Line:					
Southeast Cleveland, alternatives:					
Bedford	Ohio				
Hudson	Ohio				
Macedonia	Ohio				
Maple Heights	Ohio				
Alternative Route * (in Options 1 & 3):					
Warren	Ohio	347,116	160,053	\$59,048	\$115,644
Youngstown	Ohio	368,636	170,530	\$57,627	\$113,930
Northwest Pittsburgh (New Castle)	Pennsylvania	461,759	218,406	\$60,792	\$128,437
Alternative Route * (in Options 2 & 4):					
Alliance	Ohio	602,110	276,921	\$58,809	\$115,329
Salem-Columbiana, alternatives:					
Salem	Ohio	575,402	272,069	\$59,765	\$125,209
Columbiana	Ohio				
Cleveland-Toledo Line:					
Cleveland Hopkins International Airport	Ohio	N/A	N/A	N/A	N/A
Elyria	Ohio	288,400	142,779	\$70,719	\$161,675
Sandusky	Ohio	142,034	69,917	\$64,748	\$147,496
Cleveland-Columbus Line:					
North Central Ohio, alternatives:					
Galion	Ohio	380,901	186,199	\$60,746	\$133,627
Crestline	Ohio				
Shelby	Ohio				
North Columbus, alternatives:					
Delaware	Ohio	608,804	322,770	\$85,410	\$203,610
Worthington	Ohio				

Exhibit 8.1: Ohio Hub Passenger Rail Station Profile: Socio Economics - continued

		<i>2005 Socio-economic Characteristics (zones):²</i>			
		<i>Population</i>	<i>Employment</i>	<i>Average Household Income (2005 \$)</i>	<i>Average Residential Property Value (2005 \$)</i>
<i>Station Names¹</i>	<i>State</i>				
Ohio-Hub Passenger Rail System:					
Columbus-Cincinnati Line :					
Springfield	Ohio	143,949	69,345	\$62,240	\$124,301
Dayton	Ohio	981,889	489,978	\$67,897	\$148,334
Middletown-Hamilton, alternatives:					
Middletown	Ohio	216,180	108,723	\$81,982	\$192,892
Hamilton	Ohio	216,180	108,723	\$81,982	\$192,892
North Cincinnati (Sharonville)	Ohio	359,051	177,702	\$72,713	\$160,080
Toledo-Detroit Line:					
Monroe	Michigan	149,592	74,747	\$75,460	\$168,498
Alternative Route * (in Options 1 & 4):					
Detroit Metro Airport	Michigan	N/A	N/A	N/A	N/A
South Detroit Suborbs (Dearborn)	Michigan	710,889	306,919	\$85,917	\$181,984
Alternative Route * (in Options 2 & 3):					
South Detroit Suborbs (Wyandotte)	Michigan	710,889	306,919	\$85,917	\$181,984

Notes:

¹ Station name given in parentheses shows the name of the existing Amtrak station that has the same location as the new station, named by TEMS, Inc

² Socio-economic data for the year 2000 was provided by U.S. Census Bureau of the Bureau of Economic Analysis. Projections for year 2005 are made using the forecasts prepared by Woods & Poole, Inc. Socio-economic database for Midwest transportation zoning system had been developed by TEMS, Inc (for the base year 2005). Data on population/employment shown in this table for each particular station reflects the total population/ employment for the zones that 'feed' this particular station. Data on average household income/property value for each station is the weighted average of corresponding data for zones that 'feed' this station.

* In the frame of Ohio Hub Economic Study the following four options were considered:

Option 1: Cleveland-Detroit via Dearborn & Detroit Airport combined with Cleveland-Pittsburgh via Warren, Youngstown and New Castle.

Option 2: Cleveland-Detroit via Wyandotte combined with Cleveland-Pittsburgh via Alliance & Salem-Columbiana.

Option 3: Cleveland-Detroit via Wyandotte combined with Cleveland-Pittsburgh via Warren, Youngstown and New Castle.

Option 4: Cleveland-Detroit via Dearborn & Detroit Airport combined with Cleveland-Pittsburgh via Alliance & Salem-Columbiana.

**Socio-economic variables presented here refer to the particular transportation zone or city and are not equal to the socio-economic characteristics of the corresponding super zone illustrated in Exhibits 7.12 through 7.14.

OHIO HUB PASSENGER RAIL ECONOMIC IMPACT STUDY

Exhibit 8.1: Ohio Hub Passenger Rail Station Profile: Socio Economics – continued**

Station Names ¹	<i>Socio-Economic Characteristics (city):</i> ²				
	State	Population (2005)	Population Size	Population Density	Density Category
Ohio-Hub Passenger Rail System:					
Main Ohio Hub Stations:					
Cleveland	Ohio	452,208	Medium	6,165	High
Cincinnati	Ohio	308,728	Medium	3,958	High
Columbus	Ohio	730,657	Medium	3,474	High
Toledo	Ohio	301,285	Medium	3,738	High
Pittsburgh	Pennsylvania	316,718	Medium	5,696	High
Detroit	Michigan	886,671	Medium	6,388	High
Other Ohio Hub Stations :					
Cleveland-Buffalo-Niagara Falls Line :					
Northeast Cleveland, alternatives:					
Mentor	Ohio	51,485	Small	1,921	Low
Painesville	Ohio	17,789	Small	2,965	Medium
Willoughby	Ohio	22,336	Small	2,190	Medium
Ashtabula	Ohio	20,321	Small	2,674	Medium
Erie	Pennsylvania	102,612	Small	4,644	High
Buffalo	New York	279,745	Small	6,890	High
Niagara Falls	New York	52,866	Small	3,479	High
St. Catherines - Niagara Falls *	Ontario, CN	207,985	Small	1,556	Low
Cleveland-Pittsburgh Line :					
Southeast Cleveland, alternatives:					
Bedford	Ohio	13,571	Small	2,513	Medium
Hudson	Ohio	22,439	Small	877	Low
Macedonia	Ohio	10,314	Small	1,063	Low
Maple Heights		24,739	Small	4,758	High
Alternative Route * (in Options 1 & 3):					
Warren	Ohio	45,796	Small	2,844	Medium
Youngstown	Ohio	82,837	Small	2,444	Medium
Northwest Pittsburgh (New Castle)	Pennsylvania	25,030	Small	2,945	Medium
Alternative Route * (in Options 2 & 4):					
Alliance	Ohio	22,801	Small	2,651	Medium
Salem-Columbiana, alternatives:					
Salem	Ohio	12,005	Small	2,183	Medium
Columbiana	Ohio	5,807	Small	952	Low
Cleveland-Toledo Line :					
Cleveland Hopkins International Airport	Ohio	N/A	N/A	N/A	N/A
Elyria	Ohio	56,061	Small	2,817	Medium
Sandusky	Ohio	26,666	Small	2,667	Medium
Cleveland-Columbus Line:					
North Central Ohio, alternatives:					
Galion	Ohio	11,449	Small	2,290	Medium
Crestline	Ohio	4,964	Small	1,712	Low
Shelby	Ohio	9,471	Small	1,894	Low
North Columbus, alternatives:					
Delaware	Ohio	31,322	Small	2,088	Medium
Worthington	Ohio	13,202	Small	2,316	Medium

Exhibit 8.1: Ohio Hub Passenger Rail Station Profile: Socio Economics - continued

Station Names ¹	Socio-Economic Characteristics (city): ²				
	State	Population (2005)	Population Size	Population Density	Density Category
Ohio-Hub Passenger Rail System:					
Columbus-Cincinnati Line :					
Springfield	Ohio	63,302	Small	2,813	Medium
Dayton	Ohio	158,873	Small	2,847	Medium
Middletown-Hamilton, alternatives:					
Middletown	Ohio	51,472	Small	2,003	Medium
Hamilton	Ohio	61,943	Small	2,868	Medium
North Cincinnati (Sharonville)	Ohio	13,079	Small	1,335	Low
Toledo-Detroit Line:					
Monroe	Michigan	21,791	Small	2,421	Medium
Alternative Route * (in Options 1 & 4):					
Detroit Metro Airport	Michigan	N/A	N/A	N/A	N/A
South Detroit Suborbs (Dearborn)	Michigan	94,090	Small	3,856	High
Alternative Route * (in Options 2 & 3):					
South Detroit Suborbs (Wyandotte)	Michigan	26,940	Small	5,083	High

Notes:

¹ Station name given in parentheses shows the name of the existing Amtrak station that has the same location as the new station, named by TEMS, Inc

² Socio-economic characteristics for each city were not used directly in calculations in the Economic Rent model. They played significant role in the qualitative Economic Rent analysis, i.e. in the developing hierarchy system of the transportation zones. Data on city population for the year 2005 was obtained from: www.city-data.com/. Data on the population density for each city was calculated by TEMS, Inc on the base of the data from the same source.

* In the frame of Ohio Hub Economic Study the following four options were considered:

Option 1: Cleveland-Detroit via Dearborn & Detroit Airport combined with Cleveland-Pittsburgh via Warren, Youngstown and New Castle.

Option 2: Cleveland-Detroit via Wyandotte combined with Cleveland-Pittsburgh via Alliance & Salem-Columbiana.

Option 3: Cleveland-Detroit via Wyandotte combined with Cleveland-Pittsburgh via Warren, Youngstown and New Castle.

Option 4: Cleveland-Detroit via Dearborn & Detroit Airport combined with Cleveland-Pittsburgh via Alliance & Salem-Columbiana.

****Socio-economic variables presented here refer to the particular transportation zone or city and are not equal to the socio-economic characteristics of the corresponding super zone illustrated in Exhibits 7.12 through 7.14.**

OHIO HUB PASSENGER RAIL ECONOMIC IMPACT STUDY

Exhibit 8.1: Ohio Hub Passenger Rail Station Profile: Socio Economics - continued

<i>Station Names</i> ¹	<i>Socio-economic Characteristics (city) - continued:</i> ²		
	<i>State</i>	<i>2000 Median Household Income (2000 \$)</i>	<i>2000 Median House Value (2000 \$)</i>
Ohio-Hub Passenger Rail System:			
Main Ohio Hub Stations:			
Cleveland	Ohio	\$25,928	\$72,100
Cincinnati	Ohio	\$29,493	\$93,000
Columbus	Ohio	\$37,897	\$101,400
Toledo	Ohio	\$32,546	\$75,300
Pittsburgh	Pennsylvania	\$28,588	\$59,700
Detroit	Michigan	\$29,526	\$63,600
Other Ohio Hub Stations :			
Cleveland-Buffalo Line :			
Northeast Cleveland, alternatives:			
Mentor	Ohio	\$57,230	\$147,400
Painesville	Ohio	\$34,842	\$91,500
Willoughby	Ohio	\$43,387	\$129,000
Ashtabula	Ohio	\$27,354	\$69,600
Erie	Pennsylvania	\$28,387	\$65,900
Buffalo	New York	\$24,536	\$59,300
Niagara Falls	New York	\$26,800	\$60,800
St. Catherines - Niagara Falls	Ontario, CN		
Cleveland-Pittsburgh Line :			
Southeast Cleveland, alternatives:			
Bedford	Ohio	\$36,943	\$92,400
Hudson	Ohio	\$99,156	\$236,700
Macedonia	Ohio	\$68,908	\$159,700
Maple Heights		\$40,414	\$85,000
Alternative Route * (in Options 1 & 3):			
Warren	Ohio	\$30,147	\$63,400
Youngstown	Ohio	\$24,201	\$40,900
Northwest Pittsburgh (New Castle)	Pennsylvania	\$25,598	\$42,300
Alternative Route * (in Options 2 & 4):			
Alliance	Ohio	\$30,078	\$71,400
Salem-Columbiana, alternatives:			
Salem	Ohio	\$30,006	\$77,100
Columbiana	Ohio	\$34,560	\$96,200
Cleveland-Toledo Line :			
Cleveland Hopkins International Airport	Ohio	N/A	N/A
Elyria	Ohio	\$38,156	\$96,900
Sandusky	Ohio	\$31,133	\$75,400
Cleveland-Columbus Line:			
North Central Ohio, alternatives:			
Galion	Ohio	\$31,513	\$70,300
Crestline	Ohio	\$31,392	\$72,300
Shelby	Ohio	\$35,938	\$81,300
North Columbus, alternatives:			
Delaware	Ohio	\$46,030	\$126,800
Worthington	Ohio	\$65,568	\$163,300

Exhibit 8.1: Ohio Hub Passenger Rail Station Profile: Socio Economics - continued

Station Names ¹	<i>Socio-economic Characteristics (city) - continued:</i> ²		
	<i>State</i>	<i>2000 Median Household Income (2000 \$)</i>	<i>2000 Median House Value (2000 \$)</i>
Ohio-Hub Passenger Rail System:			
Columbus-Cincinnati Line :			
Springfield	Ohio	\$32,193	\$69,600
Dayton	Ohio	\$27,423	\$67,300
Middletown-Hamilton, alternatives:			
Middletown	Ohio	\$35,365	\$85,100
Hamilton	Ohio	\$36,215	\$91,600
North Cincinnati (Sharonville)	Ohio	\$47,055	\$120,400
Toledo-Detroit Line:			
Monroe	Michigan	\$41,810	\$115,500
Alternative Route * (in Options 1 & 4):			
Detroit Metro Airport	Michigan	N/A	N/A
South Detroit Suborbs (Dearborn)	Michigan	\$44,560	\$129,300
Alternative Route * (in Options 2 & 3):			
South Detroit Suborbs (Wyandotte)	Michigan	\$43,740	\$101,700

Notes:

¹ Station name given in parentheses shows the name of the existing Amtrak station that has the same location as the new station, named by TEMS, Inc

²All data presented here is obtained from www.city-data.com/ and might be very useful in the analysis of the alternative station locations and making decision about the best location for the station. Thus, data on median income and median house value in each city for the year 2000 (the latest available) characterises economic profile of the city and can not be compared with the data on average household income and average residential property value given for each zone and included directly into Economic Rent analysis.

* In the frame of Ohio Hub Economic Study the following four options were considered:

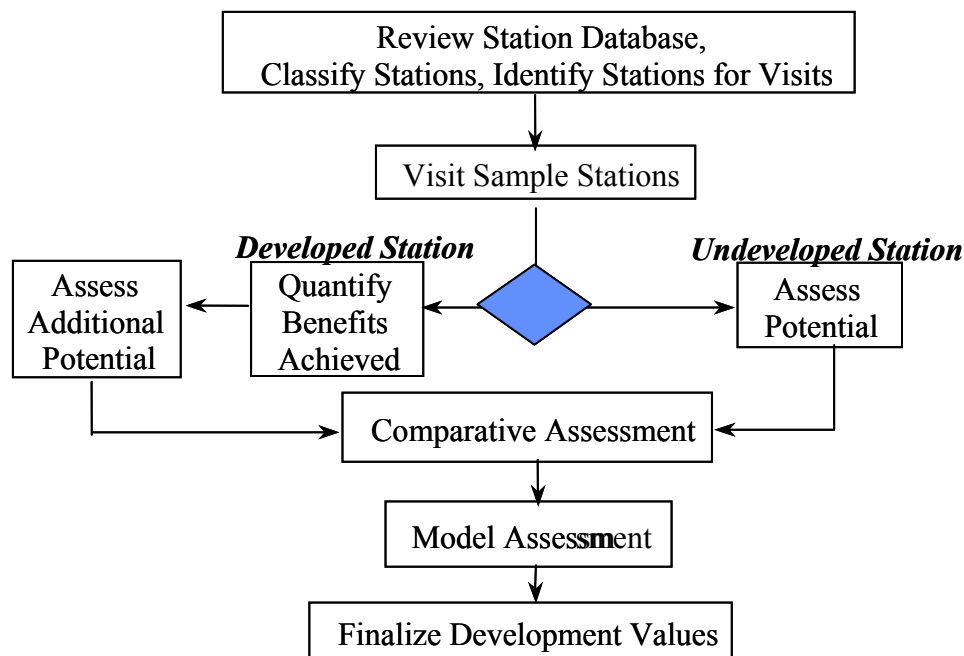
Option 1: Cleveland-Detroit via Dearborn & Dettroit Airport combined with Cleveland-Pittsburgh via Warren, Youngstown and New Castle.

Option 2: Cleveland-Detroit via Wyandotte combined with Cleveland-Pittsburgh via Alliance & Salem-Columbiana.

Option 3: Cleveland-Detroit via Wyandotte combined with Cleveland-Pittsburgh via Warren, Youngstown and New Castle.

Option 4: Cleveland-Detroit via Dearborn & Dettroit Airport combined with Cleveland-Pittsburgh via Alliance & Salem-Columbiana.

Exhibit 8.2: Assessment of Station Development Potential



The main factors impacting the development potential included station location, land availability around the station for development, and community commitment to the station and urban development. The ability of a location to achieve its highest potential is affected by different factors⁵² –

- Level of modal integration at station;
- Frequency of existing rail and bus services;
- Proximity to highways, connections to local transit systems and availability of parking;
- Accessibility of the station to the community (i.e. walking distance to downtowns, sports & entertainment venues, new developments in their CBDs⁵³;
- Existing level of connectivity to regional modal networks;
- Level of existing and potential economic development.

In assessing stations and communities, factors such as community size, proximity of station to major economic markets, current economic base, and density along the corridor were taken into account. Then the potential for each community to realize economic benefits

⁵² Factors were determined by TEMS, Inc. using survey results from Station Location and Economic Development Workshop organized by Ohio Rail Development Commission and held in Columbus, Ohio on July 14, 2006.

⁵³ CBD – Central Business District

from the Ohio Hub Passenger Rail System was determined within the context of the economic rent analysis.

It should be noted that the Economic Rent model uses criteria very similar to those used by the real estate industry in developing an estimate of property value. Whereas the real estate industry uses these criteria to place a current value on properties, the Economic Rent analysis estimates how changes in accessibility will impact the current value. If accessibility improves (due to a transportation investment) the property value improves; if accessibility falls (due to say congestion) then property values fall.

Multimodal Connectivity: Ohio Hub Passenger Rail System station development will bring together many modes of travel—trains, planes, taxis, private automobiles, and regional, inter-city, and airport buses—at a single location in order to maximize benefits and efficiencies. Savings in time and increased economic activity will assure the highest output in economic rent, along with an increase in property values and development potential. The multimodal transportation centers will be well located to encourage other joint-use occupancies and help create “smart growth” areas in urban centers.

In the same way that large department stores anchor a shopping center and create trips that stimulate activity in nearby shops, a multimodal transportation center has the potential to stimulate retail, office, and residential development in an urban center. Without the synergies achieved by bringing all modes of transportation together in one location, there are significant negative impacts on the economic development potential. The Ohio Hub system analysis and the experiences of other transportation centers indicate that the potential property value increase and development potential declines by 30 to 50 percent when the station is a single or limited transportation center. Thus, connectivity is critical to success in the station development effort.

The importance of considering all service characteristics can be illustrated by considering the effects of the relocation of downtown terminals in Saskatoon, Ottawa and Quebec City in Canada⁵⁴.

- In Ottawa the downtown terminal was relocated in 1967 and Ottawa-Montreal traffic fell by 45% in the first year. Later attempts to revive traffic with increased frequencies but without relocating the station, had a minimal effect on the decline.

- In Quebec City downtown station relocation in 1976 lost 30% of Montreal traffic. VIA Rail reopened the downtown station in 1985 after nearly ten years of disuse, and traffic rebounded.

- In 1965 CN⁵⁵ relocated the Saskatoon terminal some five miles from the downtown core. This resulted in a 75% decline in Regina-Saskatoon traffic within 18 months and daily frequency was subsequently reduced from three trains to one.

These examples illustrate the importance of downtown terminals for the proposed Ohio Hub service.

⁵⁴ For more details see: [21]

⁵⁵ CN - Canadian National Railway.

Station Area Development Potential: An intercity high-speed rail system provides considerable development potential at stations. High-speed rail systems developed in Europe and Japan have resulted in very significant joint development projects in which the public/private partnerships have completely changed the character of the urban environment around the station. In France, examples exist in Paris, Lyon and Nantes while in the UK the redevelopment of Liverpool Street Station, Cannon Street Station and plans for Kings Cross Station in London shows the scale of redevelopment possible. At Liverpool Street Station, the project completely changed the character of the surrounding urban environment including massive redevelopment for offices (UBS-PaineWebber headquarters building) housing, and commercial businesses (See Exhibit 8.3). At Kings Cross an eight billion dollar project is underway on the existing railway lands, as a result of the development of 150-mph East coast rail service from London to Edinburgh (See Exhibit 8.4). In this case the railroad is providing the railroad lands on which the original station and yards were located while the private sector will build the station and commercial and residential facilities on this 72 acre site.

In the U.S. the redevelopment of Washington Union Station and the surrounding area is a clear example of the opportunity that high-speed rail can offer for creating a terminal station development (See Exhibit 8.5). Indeed all along the Northeast corridor, station – area redevelopment is showing the ability of high-speed rail service to stimulate increased business activity. The Northeast corridor contrasts strongly with the Midwest where despite attempts to redevelop stations, the low level of rail activity is such that only Chicago Union Station and some smaller community stations have been able to realize much of an impact.

Currently existing stations often share their facilities with entertainment locations. Thus, Cincinnati Amtrak station (See Exhibit 8.6) which is located far from downtown center and where trains come only three times a week in the middle of the night, also serves as a location for Museum Center. Many former rail station historical buildings are turned into stores or restaurants (See exhibits 8.7-8.8) and, in the extreme cases, - even abandoned (see Exhibit 8.9) or relocated away from the tracks (see Exhibit 8.8). TEMS, Inc. has assessed this situation for the Great American Station Foundation and advised on the level of potential associated with existing rail service⁵⁶.

⁵⁶ The report is available online, see: <http://www.reconnectingamerica.org/pdfs/EI%20Study%20final%20report.pdf>

Exhibit 8.3: Liverpool Street Station,
London



Exhibit 8.4: Kings Cross Station,
London

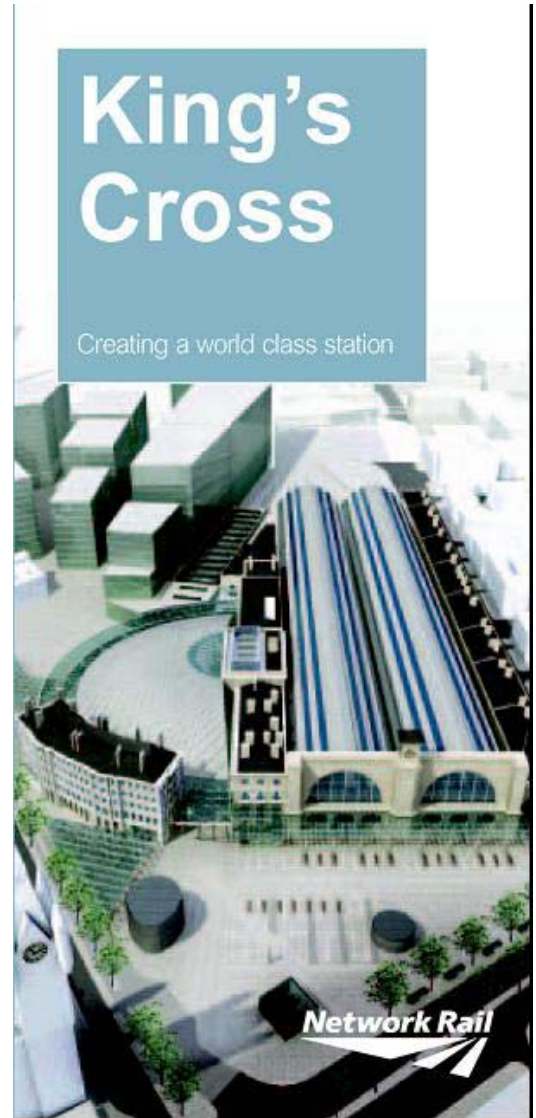




Exhibit 8.5: Washington Union Station
(a typical major station)

Exhibit 8.6: Cincinnati Amtrak Station
(Union Terminal and Museum Center)



Exhibit 8.7:
Mentor Station -OH
(Restaurant)



Exhibit 8.8:
Sharonville Station -OH
(Gift Store; building has
been relocated)

Exhibit 8.9: Ashtabula
Station -OH
(Abandoned Building)



Economic Benefits: The results of the RENTS™ analysis for Ohio Hub stations are shown in Exhibits 8.10 through 8.12. In Exhibit 8.10 the property value development is summarized by level of station in the hierarchy. It can be seen that the seven major terminals can expect development in the order of \$200-\$250 million on average. Medium stations can expect at least \$80-\$100 million, while smaller stations like Elyria, Ohio can expect at least \$50 million for development. The smallest stations of Ohio Hub such as Ashtabula, Ohio can expect \$10-20 million of development. The property value development for each individual station is given in Exhibit 8.11. In Exhibit 8.12 the results of the RENTS™ analysis are summarized for stations that are parts of both MWRRRI and Ohio Hub systems.

Economic Benefits at Each Station: Final Economic Rent analysis translates economic benefits calculated for super zones and states into benefits for each rail station. Economic benefits measured in terms of increase in employment, household income and property values) are presented in Exhibits 8.11-8.12.

Exhibit 8.10: Ohio Hub Stations Development Potential (Tier Summary)⁵⁷

Tier #	Station Names	# Stations	Development Potential (Millions 2005\$)
Tier 1 Stations:	Cleveland	1	360
Tier 2 Stations:	Buffalo, Cincinnati, Columbus, Detroit, Pittsburgh, Toledo	6	1,220
Tier 3 Stations:	Cleveland Hopkins Airport, Dayton, Dearborn, Detroit Metro Airport, Erie, St. Catherine's - Niagara Falls, Youngstown	7	575
Tier 4-5 Stations:	Ashtabula, Elyria, Middletown, Monroe, New Castle (alt.), Niagara Falls, North Central Ohio, North Cincinnati, North Columbus, Northeast Cleveland, Sandusky, Southeast Cleveland, Springfield, Warren	14	725
Total⁵⁸:		28	2,880

⁵⁷ The list of stations of Ohio Hub System (Option 1), presented in the Tier_Summary does not include Canadian stations between Niagara Falls, Ontario and Toronto.

⁵⁸ Total development potential summarized in this table refers to Ohio Hub stations only. It does not include benefits obtained by MWRRS stations integrated into Ohio Hub and receiving benefits from the Ohio Hub project implementation (i.e. located in parts of Indiana and Michigan). That is why the total development potential presented here is smaller than the total development shown in Exhibits 7.15 and 7.17.

OHIO HUB PASSENGER RAIL ECONOMIC IMPACT STUDY

Exhibit 8.11: Ohio Hub Economic Benefits at each Station

<i>Station Names</i> ²	<i>State</i>	Economic Rent Results¹		
		<i>Ohio Hub System</i>		
		<i>Increase in Employment (# of people)</i>	<i>Increase in Household Income (ml. of 2005 US\$)</i>	<i>Increase in Property Value (ml. of 2005 US\$)</i>
Ohio-Hub Passenger Rail System:				
Main Ohio Hub Stations:				
Cleveland	Ohio	1,390-1,910	95-130	290-400
Cincinnati	Ohio	1,010-1,390	65-90	200-275
Columbus	Ohio	1,400-1,925	85-115	250-340
Toledo	Ohio	450-620	25-40	75-105
Pittsburgh	Pennsylvania	1,680-2,450	110-160	295-430
Detroit	Michigan	240-340	20-30	55-80
Other Ohio Hub Stations :				
Cleveland-Buffalo-Niagara Falls Line :				
Northeast Cleveland, alternatives:	Ohio	310-425	20-30	65-90
Mentor	Ohio			
Painesville	Ohio			
Willoughby	Ohio			
Ashtabula	Ohio	70-95	5-7	15-20
Erie	Pennsylvania	535-735	30-45	85-115
Buffalo	New York	610-840	35-50	95-130
Niagara Falls	New York	150-210	9-12	25-35
St. Catherines - Niagara Falls	Ontario, CN	95-135	6-8	15-20
Cleveland-Pittsburgh Line :				
Southeast Cleveland, alternatives:	Ohio	135-185	9-12	30-40
Bedford	Ohio			
Hudson	Ohio			
Macedonia	Ohio			
Maple Heights	Ohio			
Alternative Route * (in Options 1 & 3):				
Warren	Ohio	245-335	15-20	50-70
Youngstown	Ohio	285-390	20-25	50-70
Northwest Pittsburgh (New Castle)	Pennsylvania	475-650	30-40	85-115
Alternative Route * (in Options 2 & 4):				
Alliance	Ohio	405-505	25-35	70-95
Salem-Columbiana, alternatives:	Ohio	250-345	15-25	50-70
Salem	Ohio			
Columbiana	Ohio			
Cleveland-Toledo Line :				
Cleveland Hopkins International Airport	Ohio	35-50	2.5-3.5	10-15
Elyria	Ohio	225-310	15-20	45-65
Sandusky	Ohio	120-165	8-11	25-35
Cleveland-Columbus Line:				
North Central Ohio, alternatives:	Ohio	170-230	11-15	35-50
Galion	Ohio			
Crestline	Ohio			
Shelby	Ohio			
North Columbus, alternatives:	Ohio	635-875	40-55	110-155
Delaware	Ohio			
Worthington	Ohio			

OHIO HUB PASSENGER RAIL ECONOMIC IMPACT STUDY

Exhibit 8.11: Ohio Hub Economic Benefits at each Station – continued

<i>Station Names</i> ²	<i>State</i>	Economic Rent Results¹		
		<i>Ohio Hub System</i>		
		<i>Increase in Employment (# of people)</i>	<i>Increase in Household Income (ml. of 2005 US\$)</i>	<i>Increase in Property Value (ml. of 2005 US\$)</i>
Ohio-Hub Passenger Rail System:				
Springfield	Ohio	120-165	7-10	20-30
Dayton	Ohio	1,145-1,570	75-105	210-285
Middletown	Ohio	105-150	7-10	20-30
North Cincinnati (Sharonville)	Ohio	120-160	8-11	25-35
Toledo-Detroit Line:				
Monroe	Michigan	115-190	10-15	25-40
Alternative Route * (in Options 1 & 4):				
Detroit Metro Airport	Michigan	45-60	4-5	10-15
South Detroit Suborbs (Dearborn)	Michigan	360-495	25-40	80-120
Alternative Route * (in Options 2 & 3):				
South Detroit Suborbs (Wyandotte)	Michigan	35-50	2-3	10-15

Notes:

¹ Shown here Economic Rent Results were calculated using TEMS Ohio Hub Economic Rent model. Listed stations are parts of Ohio Hub Passenger Rail System. Economic Rent results for Canadian stations located between Niagara Falls (Ont.) and Toronto (Ont.) on Buffalo - Toronto rail corridor of Ohio Hub System are not presented here. Economic Benefits for these Canadian stations are expected to be significant, however, their estimates require separate Economic Rent analysis.

² Station name given in parentheses shows the name of the existing Amtrak station that has the same location as the station named by TEMS, Inc.

OHIO HUB PASSENGER RAIL ECONOMIC IMPACT STUDY

Exhibit 8.12: Ohio Hub and MWRRS Economic Benefits at each Station

<i>Station Names</i> ²	<i>State</i>	Economic Rent Results¹		
		<i>Ohio Hub and MWRRS Systems</i>		
		<i>Increase in Employment (# of people)</i>	<i>Increase in Household Income (ml. of 2005 US\$)</i>	<i>Increase in Property Value (ml. of 2005 US\$)</i>
Main Ohio-Hub Stations:				
Cleveland	Ohio	1,390-1,910	115-160	370-520
Cincinnati	Ohio	1,010-1,390	95-135	330-470
Toledo	Ohio	930-1,340	25-55	115-160
Detroit	Michigan	1,090-1,615	40-60	140-205
Other Ohio Hub Stations :				
Cleveland-Toledo Line :				
Elyria	Ohio	300-420	20-25	50-70
Sandusky	Ohio	165-230	9-12	30-40
Toledo-Detroit Line:				
South Detroit Suborbs (Dearborn)	Michigan	760-1,095	35-55	120-180

Notes:

¹ Shown here Economic Rent Results were calculated using TEMS Ohio Hub and MWRRS Economic Rent models. Listed stations are both parts of Ohio Hub Passenger Rail System and MWRRS System. Shown results represent benefits that station will obtain.

² Station name given in parentheses shows the name of the existing Amtrak station that has the same location as the station named by TEMS, Inc.

Station Development – Case Studies: Given in Exhibits 8.11-8.12 are the range of economic benefits that were estimated for Ohio Hub stations using the Ohio Hub Economic Rent model. For each station the actual amount of benefits (including development potential) will depend on many factors –

- First, the choice of city (town) that will serve as a location for the station is extremely important in terms of realization of economic benefits and, specifically, in terms of development potential. For example, for North Central Ohio, Northeast Cleveland and Southeast Cleveland there are at least four alternative station locations. See Exhibit 8.13.

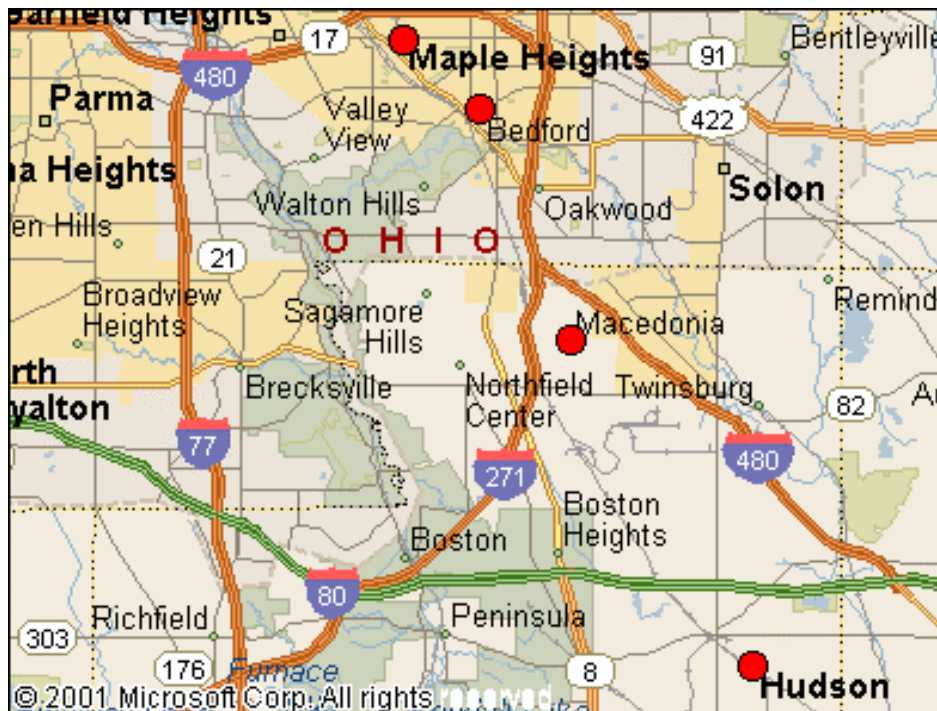
- Second, for any selected city there may be a number of different potential station sites. Their selection may well significantly increase or decrease the development potential benefits obtained by the station. The best site (that has the highest development potential) need not necessary be located near the existing (or old) station. The advantages and disadvantages of each site need to be carefully analyzed.

- Third, presented Economic Rent analysis results are conservative: they assume a reasonable level of urban development opportunities, although, in most cases more effective options are likely to exist. Thus, in situations where the most effective planning station development proposals are generated, the actual economic impacts can be higher.

The following case studies illustrate the process of making decision about station location and development potential for each alternative station.

Southeast Cleveland Suburban Station Alternatives: at least four suburban locations were suggested for the Southeast Cleveland station location: Maple Heights and Bedford - in Cuyahoga County, Macedonia and Hudson – in Summit County. See Exhibit 8.13.

Exhibit 8.13: Alternatives for Southeast Cleveland Station



Maple Heights is the largest town in the selection: its population is almost 25 thousand people and population density is high. However, *Maple Heights* is characterized by low commercial activity and vacant industrial property. (See Exhibits 8.14-8.15⁵⁹). As a result, development potential here will be close to the minimum – \$30 million.

Exhibit 8.14: Examples of Vacant Industrial Property - Maple Heights, OH



Exhibit 8.15: Satellite Image Indicating a Location of Shopping Center for Sale, Rent or Lease - Maple Heights, OH



⁵⁹ According to LoopNet, Inc.(see: <http://www.loopnet.com>) the shown in Exhibits 8.14-8.15 property was on sale, rent or lease on November 15, 2006.

Bedford is another possible location. (See Exhibit 8.16). Income is moderate, but property values and commercial activity are higher than in Maple Heights. Being an emerging community Bedford provides real potential for a station location site in its emerging downtown. Development potential will be \$35-40 million here.

Exhibit 8.16: Bedford, OH - Old Station (left) and Downtown (right)



Macedonia is a third possible site (see Exhibit 8.17). It might be a good location for Southeast Cleveland station, probably better than Bedford. While Macedonia is farther from Cleveland than two previous station alternatives, it is located close to the intersection between Routes 271 and 480, which gives good access from surrounding communities. Besides highway accessibility Macedonia is also characterized by a very strong commercial activity, as well as both greater income and property values. A Macedonia station could generate a property value development of at least \$40 million. It is possible the result could be even higher than suggested by the RENTS™ results, if the city supports the station development project and integrates it into its downtown renewal plan. In this case the impacts can be even doubled.

Exhibit 8.17: Macedonia, OH - Satellite Image with Commercial Property Signs (left)⁶⁰ and Downtown (right)



⁶⁰ Presented by LoopNet, Inc.(see: <http://www.loopnet.com>)

Hudson (see Exhibit 8.18), the fourth alternative for Southeast Cleveland station, represents an affluent community with the highest economic rent factors (such as property value and income) in comparison with all other Southeast Cleveland stations. Located farther than other stations from downtown Cleveland (about 20 miles) it has good highway access. This includes access to route 80 and to other major Ohio highways. Hudson has a very strong commercial downtown. Development potential of the station here depends very much on site location and station integration into urban development process. The old existing station does not necessarily have to be used for the new station location. A number of other good sites were identified during the field study⁶¹. Development potential for Hudson station depends most of all on a particular site location and level of integration with other urban and transportation development proposals. Conservative estimates show the impact of at least \$40 million, which, again, might be much doubled.

Exhibit 8.18: Hudson, OH – Old Station (left) and Downtown (right) ⁶²



Downtown Stations: In case of a downtown station development potential primary depends on a site location and ease of both highway and transit access. Given below are case studies of downtown locations for cities and towns of different sizes: small city/town and large/very large city.

Small city or Town – Ashtabula: As has been already pointed out, an old station location is not necessarily the best site for a new station. Ashtabula gives another example of this situation. In the area around the old station on the CSX rail line (see Exhibit 8.19) there is low population density and poor commercial activity, although lots of vacant areas could provide a good opportunity for development potential (\$15-16 million). In the downtown area (see Exhibit 8.20) a station connected to NS rail line would have stronger development potential (\$20 million and higher – up to \$40-50 million). Although as in general the current level of commercial activity in Ashtabula is low, merging a station with a downtown will increase such activity and provide economic rent to the area.

⁶¹ Station Review Field Study was organized and performed by Ohio Rail Development Commission together with TEMS, Inc. in May-June 2006.

⁶² The picture was posted online, see: <http://www.city-data.com/city/Hudson-Ohio.html>

Exhibit 8.19: Ashtabula, OH – Site 1 (Old Station, CSX line)

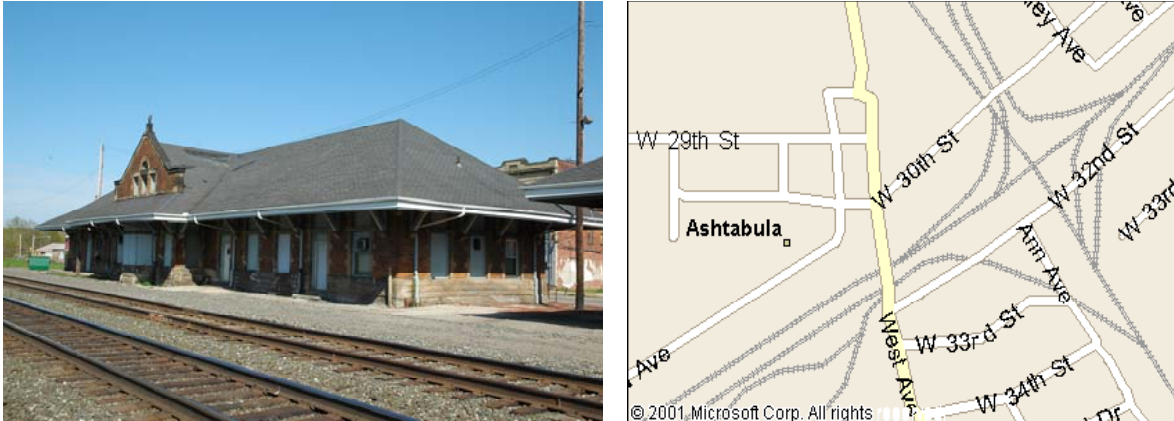
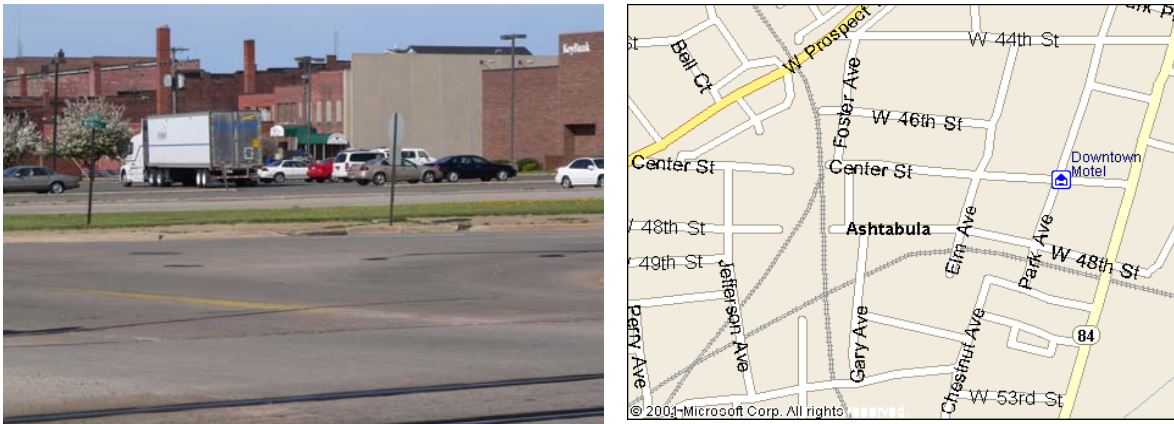


Exhibit 8.20: Downtown – Ashtabula, OH – Site 2 (Downtown, NS line)



Large City - Cincinnati: In case of a large city the range of development potential is usually very broad. For the Crossett site in Cincinnati (see Exhibits 8.21-8.22) development potential was estimated at the level of \$350-500 million. This increase is still more than the total joint value suggested by Ohio Hub and MWRI RENTS™ Models. This result is due to the integration of the proposed station with Cincinnati downtown, bus and rail links, and office development potential. The Transit Center site (see Exhibit 8.23) would offer a reasonable alternative to the Crossett site and would have similar development potential. The Longworth site shown on Exhibits 8.24-8.25 would decrease development potential (expected from Ohio Hub and MWRI projects) to \$300-450 million. For the existing Amtrak station site, located far from downtown (see Exhibit 8.26), the corresponding estimates fall below \$300 million.

Exhibit 8.21: Cincinnati, Downtown. Crosset Site



Exhibit 8.22: Cincinnati, Downtown. Crosset Site – Preliminary Feasibility Study

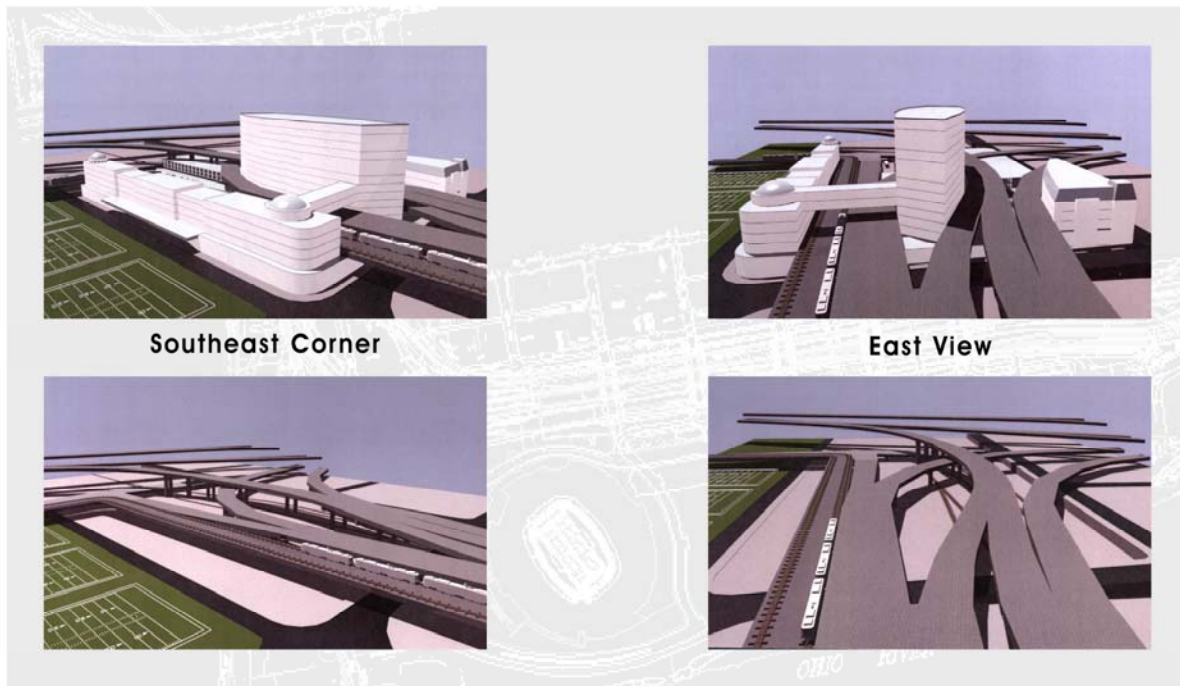


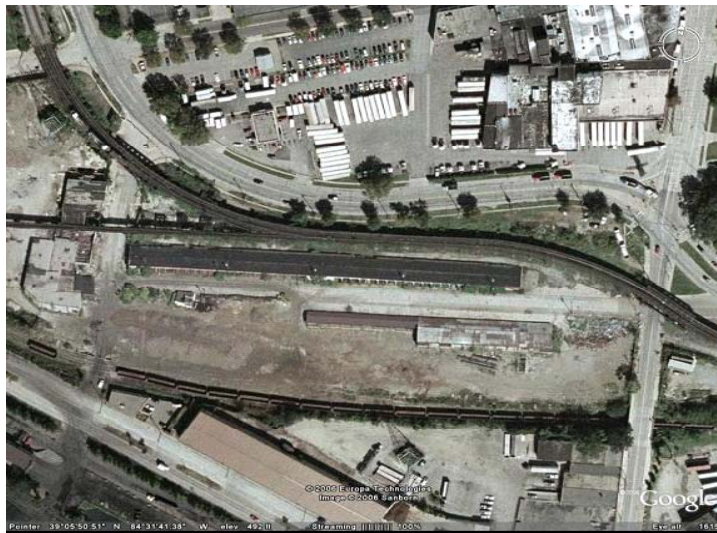
Exhibit 8.23: Cincinnati, Downtown. Transit Center



Exhibit 8.24: Cincinnati, Downtown, CSX line. Longworth Site



Exhibit 8.25: Cincinnati, Downtown, CSX line. Longworth Site - Satellite Image⁶³



⁶³ Prepared using Google Earth[®]

Exhibit 8.26: Cincinnati, OH - Amtrak Station (left) and the view of the Downtown from Amtrak Station (right)

