

GRADING CALIFORNIA'S RAIL STATION NEIGHBORHOODS

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Why Grade Rail Neighborhoods?



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Project Scope

- Grading major rail transit station neighborhoods in California
 - ▶ The **half-mile radius** around **fixed rail transit stations** along the following transit lines:
 - Los Angeles Metro Rail – 88 Neighborhoods
 - Sacramento Light Rail – 30 Neighborhoods
 - San Diego Metropolitan Transit System (MTS) – 57 Neighborhoods
 - San Francisco BART – 44 Neighborhoods
 - San Francisco Municipal Railway (MUNI) – 205 Neighborhoods
 - Santa Clara Valley Transportation Authority (VTA) – 65 Neighborhoods
 - ▶ A total of **489 Neighborhoods** under evaluation
- Additional highlights in the narrative on:
 - Fresno
 - Bakersfield

Grading Metrics

- Evaluation of each neighborhood based on 11 key indicators, weighted as follows:
 - **Transit**—Transit Use: Residents = 15 %
 - **Transit**—Transit Use: Workers = 15 %
 - **Transit**—Transit Quality = 15 %
 - **Transit**—Transit Safety = 3 %
 - **Total—Transit** = **48 %**
 - **Land Use & Design**—Activity = 15 %
 - **Land Use & Design**—Walkability = 10 %
 - **Total—Land Use & Design** = **25 %**
 - **Context**—Plan Preparedness = 5 %
 - **Context**—Market Performance = 5 %
 - **Total—Context** = **10 %**
 - **Equity**—Affordability = 10 %
 - **Equity**—Transit Dependency = 5 %
 - **Total—Equity** = **15 %**
 - **Public Health/Environment**—GHG per household = **2 %**

Key Data Sources

- **TOD Database**
 - US Census 2000, Employment Dynamics, Census Transportation Planning Package, Housing and Transportation (H+T) Affordability Index, etc.
- **H+T Affordability Index**
 - Measures for transit quality, transit use, level of activity, etc.
- **WalkScore®**
 - Measure of walkability (based on distance to amenities, block size and intersection density)
- **Zillow Index**
 - Measure of trends in home value
- **OPR Database**
 - Information on city planning / policies
- **Crime Reports Database**
 - Measure of reported criminal incidents based on data provided by police departments

Place Types and Grading

- Grouping into similar types for comparison within / between groups:
 - Group 1. Primarily **residential**: 33.3% or less workers relative to workers and residents
 - Group 2. **Mixed**: between 33.4% to 66.6% of workers relative to workers and residents
 - Group 3. Primarily **employment**: 66.7% or more workers relative to workers and residents
- Final grades
 - **Letter grades** assigned based on percentage ranking within place types:

A+ = 95%+

A = 80%+

A- = 75%+

B+ = 70%+

B = 55%+

B- = 50%+

C+ = 45%+

C = 30%+

C- = 25%+

D+ = 20%+

D = 5%+

D- = 2%+

F = 0-2%

Average System Grades & Best/Worst Neighborhoods

Best and Worst Performing Stations Per Region

AGENCY	AVE GRADE	BEST STATION	WORST STATION
SF MUNI	B	Market St & Church St	Third St & Marin
		Market St & 7th St	46th Ave and Vicente St
		Market St & New Montgomery St	
BART	B-	24th St. Mission	SFO Airport
		Civic Center/UN Plaza	South San Francisco
		Montgomery St.	North Concord / Martinez
LA Metro Rail	C	Westlake/MacArthur Park	Wardlow Station
		Wilshire / Vermont	Del Amo
Sacramento RT	C		Willow
		7th St and K St	Longview Dr and I-80
			Fruitridge Rd
San Diego MTS	C-		Roseville Road and I-80
		12th & Imperial Transit Center	Massachusetts Ave Station
			Gillespie Field Station
Santa Clara VTA	C-	Japantown/Ayer Station	Fenton Parkway Station
			Middlefield Station

Residential Mixed Employment



LA METRO

	Line with Station		Amtrak
	Transfer Station		Metrolink
	Interchange Station		Airport
	Red Line - Metro Rail		Parking
	Purple Line - Metro Rail		University
	Blue Line - Metro Rail		Shopping
	Expo Line - Metro Rail		Park
	Gold Line - Metro Rail		Museums
	Green Line - Metro Rail		
	Orange Line - Metro Liner		
	Silver Line - Metro Liner		

This map is not to scale

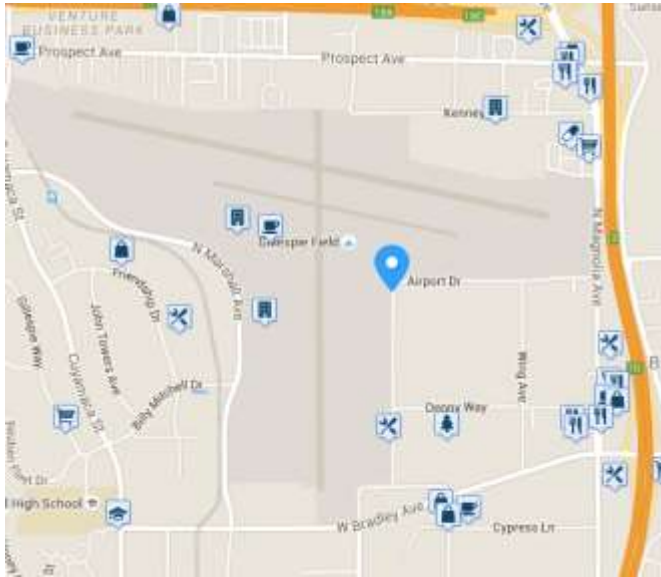


CA Best Rail Neighborhood: Market & Church in S.F.



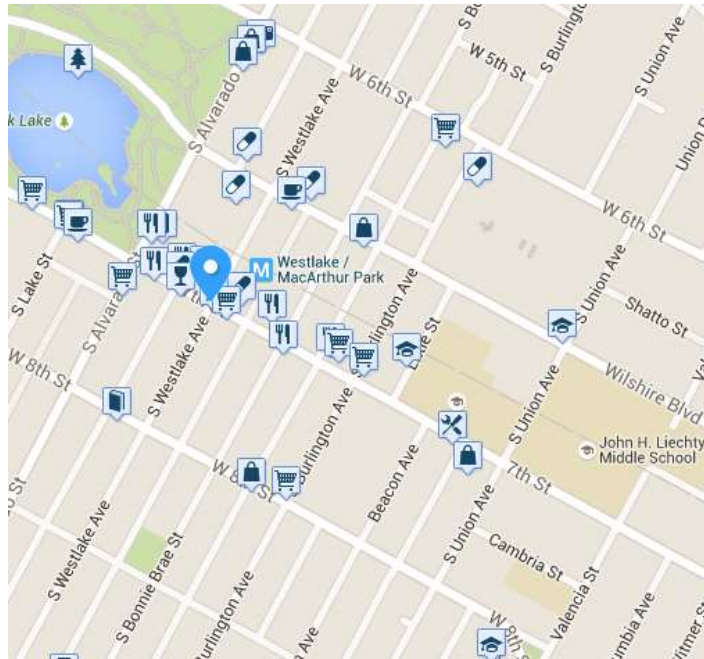
MEASURES	Raw Data	Points	% of Final Grade	
Transit Use: Residents	60.65%	5	15%	
Transit Use: Workers	40.5%	5	15%	
Transit Quality Transit Access Shed Index	109	4	15%	
Transit Safety Number of reported crimes in Dec 2014	28	2	3%	
Activity Sum of jobs and households per Acre	43.23	5	15%	
Walkability – Walk Score	97	5	10%	
Policies/ Plan Preparedness	3	5	5%	
Market Performance	-	4	5%	
Affordability % of income spent on housing + transport	37.21	5	10%	
Transit Dependency % of zero vehicle households	38.94	5	5%	
Health and Environmental Impact GHG Emissions per Household	3,077	4	2%	
TOTAL and FINAL GRADE		4.7/5	93.8/100	A+

CA Worst Rail Neighborhood: Gillespie Field in San Diego



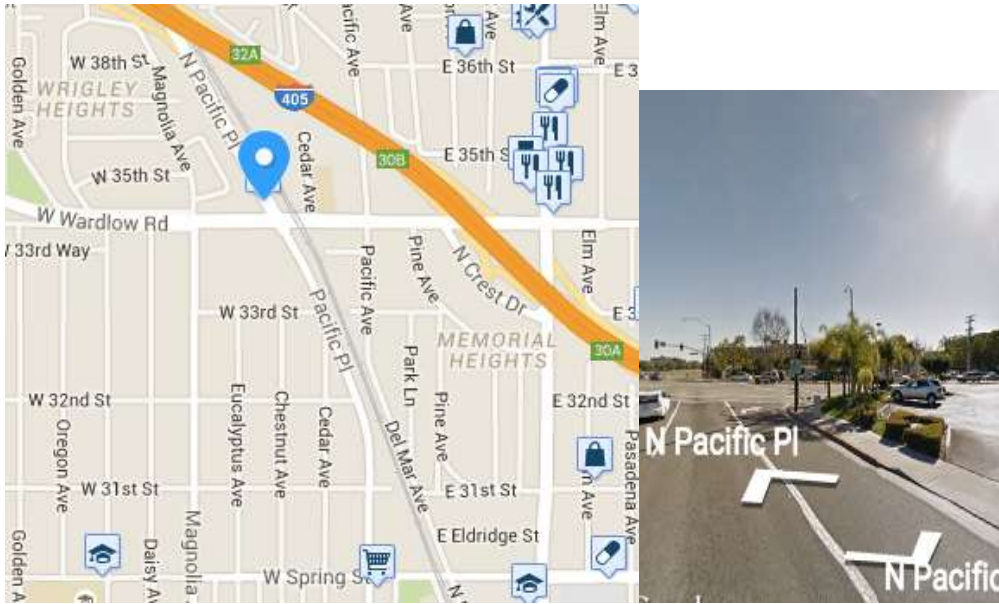
MEASURES	Raw Data	Points	% of Final Grade	
Transit Use: Residents	4.26%	1	15%	
Transit Use: Workers	4.5%	1	15%	
Transit Quality	77	1	15%	
Transit Access Shed Index				
Transit Safety	31.46	3	3%	
Number of reported crimes in Dec 2014				
Activity	7.82	1	15%	
Sum of jobs and households per Acre				
Walkability – Walk Score	32	1	10%	
Policies/ Plan Preparedness	2	3	5%	
Market Performance	-	1	5%	
Affordability	52.1	1	10%	
% of income spent on housing + transport				
Transit Dependency	5.94	1	5%	
% of zero vehicle households				
Health and Environmental Impact	6,814	1	2%	
GHG Emissions per Household				
TOTAL and FINAL GRADE		1/5	23.5/100	F

LA Best: Westlake/MacArthur Park



MEASURES	Raw Data	Points	% of Final Grade	
Transit Use: Residents	58.8%	5	15%	
Transit Use: Workers	18.8%	3	15%	
Transit Quality	219	5	15%	
Transit Access Shed Index				
Transit Safety	55	1	3%	
Number of reported crimes in Dec 2014				
Activity	48.57	5	15%	
Sum of jobs and households per Acre				
Walkability - Walk Score	95	5	10%	
Policies/ Plan Preparedness	3	5	5%	
Market Performance	-	2	5%	
Affordability	27.33	5	10%	
% of income spent on housing + transport				
Transit Dependency	50.56	5	5%	
% of zero vehicle households				
Health and Environmental Impact	2,551	4	2%	
GHG Emissions per Household				
TOTAL and FINAL GRADE		4.4/5	88.2/100	A+

LA Worst: Wardlow



MEASURES	Raw Data	Points	% of Final Grade	
Transit Use: Residents	8.54%	1	15%	
Transit Use: Workers	8.4%	1	15%	
Transit Quality	75	1	15%	
Transit Access Shed Index				
Transit Safety	9	4	3%	
Number of reported crimes in Dec 2014				
Activity	9.25	2	15%	
Sum of jobs and households per Acre				
Walkability – Walk Score	57	1	10%	
Policies/ Plan Preparedness	2	3	5%	
Market Performance	-	3.5	5%	
Affordability	55.21	1	10%	
% of income spent on housing + transport				
Transit Dependency	12.92	3	5%	
% of zero vehicle households				
Health and Environmental Impact	6,538	1	2%	
GHG Emissions per Household				
TOTAL and FINAL GRADE		1.6/5	31.6/100	F

Conclusion

- **Key Findings**

- Best station neighborhoods often in center of systems with density & equity
- Worst neighborhoods in outlying areas with weak markets and structural limitations

- **Policy Recommendations**

- Local land use planning to increase density and equity around stations
- Federal & state investment and financing in underperforming areas
- Transit spending conditioned on local planning for density and equity
- Future station siting dependent on half-mile development potential

Thank you

- **Contact & More Information:**
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