



THE CONCRETE COALITION
Community Risk Profile Summary

Community Risk Profile Summary for Pasadena

Please note: Estimates in this report are preliminary and have not yet been reviewed for accuracy.

Population: 146,518 (2007)

Year of Incorporation: 1886

Population Density: 6,385/mi²

Data Sources	Counts & Surveys	Discussion with Building official
		Google Map
	Plans and Histories	Zoning maps
	Field Work	Selected sample areas
	Google Earth	

Total Number of Buildings:

Single Family Residences: 65,000

Multi-Family Residences: 12,000

Other Private Buildings:

City Buildings:

Total number of concrete buildings:

Total number of pre-1980 buildings: 21--39

Total Square Footage: 100,000--180,000

Total Number of Pre-1980 Concrete Buildings: 12--16

Total Square Footage of Pre-1980 Concrete Buildings: 340000

(* Concrete Coalition will provide counts for public schools, OSHPD-regulated hospitals and State of CA buildings)

Attached Files (see below): 1) Final_Community_risk_profile_Pasadena_1-29-09.xls

Reporter's Information

.

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Comments: group leader

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Name: Michael Cheng

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Name: Vanessa Heckman

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Comments: and Stephen Wu, Graduate Student, California Institute of Technology

COMMUNITY RISK PROFILE

INTRODUCTION

THIS IS A SAMPLE OF THE FILE THAT IS ON THE WEB. PLEASE WORK ON THE WEB-BASED FILE, USING THIS FOR REFERENCE. YOU CAN START AND SAVE YOUR WORK ON THE WEB, AND COME BACK TO IT AS YOU HAVE TIME.

One of the major goals of the Concrete Coalition's work for the Governor's Office of Emergency Services is to improve the information about potentially vulnerable, older concrete buildings in California. How many are there? Where are they? In the longer term this information will be valuable for local and regional communities to understand and mitigate their specific risk within their physical, economic, and political environments. To work toward that goal, the Concrete Coalition is assembling information from individual jurisdictions, primarily cities and counties, into Community Risk Profiles. Hospitals, schools, court facilities and other government owned buildings will also be included in separate cross-referenced profiles. The format for the Community Risk Profiles will be consistent to allow for systematic organization into a web based resource.

The information for the Community Risk Profiles will be gathered and prepared by local community volunteers from the Concrete Coalition. They will work with others in their communities to collect and refine the data. The Community Risk Profiles will be continuously updated as this process moves forward. Workshops for volunteers to discuss and further develop the process are being scheduled for Northern and Southern California.

This Risk Profile is divided into SIX active worksheets. There is also a worksheet that lists possible data sources. You can access all these worksheets through the tabs at the bottom of this page.

The six parts of the Risk Profile are:

- 1. Community Risk Profile Summary (if you only fill out one page this is it!)**
- 2. Basic Community Background**
- 3. Existing Building Inventory Information**
- 4. Seismic Policies and Awareness**
- 5. Contacts**
- 6. Additional (Optional) Questions**

The appendix called **Data Sources** has suggestions about websites and data sources that might be useful in looking for the data.

There are instructions alongside many of the fields in the first few worksheets. Please read through these instructions before beginning.

Please be sure and provide contact information about each of the authors of this report in the first worksheet.

If you have questions as you are working on this profile, feel free to contact the Concrete Coalition at concretecoalition@concretecoalition.org.

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Instructions:
 Up to 3 people per city or other type of jurisdiction can work on one report. Please indicate who is the leader or primary contact. Once the report has been submitted, the steering committee or others the committee appoints, will review the data before it is posted on the website.

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Comments

Save & Continue

Community Risk Profile Summary

Name of Jurisdiction:

Population: **Density:**

Year of Incorporation:

check all that apply

Data Sources	Counts & Surveys		
		Discussion with Building official	
	Assessor's data		
	Loss estimates		
	Other (describe)	Google Map	✓
	Other (describe)		
Plans and Histories	Zoning maps		✓
	Past & current land use plans		
	Historic accounts & preservation studies		
	Housing & economic reports		
	Engineering firm archives		
Field Work	selected sample areas		✓
	all relevant districts in city		
Google Earth	(if possible, attach kml/z file)		

Total number of buildings:

Single family residences:

Multi - Family residences:

Other Private buildings:

Public buildings:

AND/OR

Total number of pre-1980 bldgs:

Total square footage:

Total number of pre-1980 Concrete buildings:

Total square footage of pre-1980 concrete buildings:

Basis of data:
(check all that apply)

direct data	
inferred data	✓
individual opinion	✓
individual opinion+interviews	✓
group opinion	✓
other	

Basic Community Background

APPLICATION NOTES

Jurisdiction Name:	Pasadena	
Type of Jurisdiction:	Municipality (City)	
	if other, describe:	
	if Municipality (City), name County:	
Website:	http://www.ci.pasadena.ca.us/	
Year of Incorporation:	1886	(yyyy)
Geographic area of jurisdiction:	23.1	square miles
Current Population:	146,518	people
Year of "current" population count:	2007	(yyyy)
Population by Era:		
	Population	(% change)
2000 - Present:		
1991 - 2000:		
1981 - 1990:		
1971 - 1980:		
1961 - 1970:		
1951 - 1960:		
1941 - 1950:		
1931 - 1940:		
1921 - 1930:		
1910 - 1920:		
Pre 1910:		

click for dropdown list.

Provide if available.

[Click here for incorporation dates and basic demographic data](#)

[Click here for US Census data--Table C1 has area and recent population statistics](#)

Check individual city website & US Census data website above

[Recent population data at US Census site \(here\)](#)

Look for older population data on city site

This is valuable to indicate boom years of growth, which are a rough indicator of the likelihood of these buildings existing in the city

If you can't easily find historic population data, search for boom periods and indicate those in last question on this sheet.

Local Business & Community Sectors:		
Industry	# of Establishments	# of Employees
Manufacturing		
Wholesale trade		
Retail trade		
Information		
Real estate & rental & leasing		
Professional, scientific, & technical services		
Administrative & support & waste management & remediation service		
Educational services		
Health care & social assistance		
Arts, entertainment, & recreation		
Accommodation & food services		
Other services (except public administration)		

To help us compare easily across jurisdictions these same data will be provided for each jurisdiction, from Fact Finder, 2002 U.S. Economic Census

Our plan is to fill this out for each jurisdiction, so you can either leave this blank or, if curious, look for these tables in Fact Finder and fill out the data for your jurisdiction.

We will use these data as a very crude indicator of how much industry is in a city, and how big that sector is, which might indicate the presence of these buildings.

(source: U.S. Bureau of the Census, 2002 Economic Census)

City Land Usage (By Zoning)		Percentages
Residential:		59.8
Commercial		1.8
Mixed Use (Commerical / Residential)		
Retail		
Industrial:		0.7
Government		9.4
Medical		
Education / Institutional - Schools		
Undeveloped Land		13.4
Recreation Parkland / beaches		
Other:		14.9
if other, describe:	specific plans and planned developments	
TOTAL (should equal 100%):		100

Zoning maps likely available from the Bulding Department, possibly on line

Single Family residential areas will likely only have a few services buildings that will possibly be pre - 1980 concrete such as Post office, Fire Department and churches, and these buildings are ikely 2 stories and less.

Some communities will be large enough to have several districts. Are there significant concentrations of these older buildings? Name districts or neighborhoods, and provide isome type of location information (zipcode, cross streets)

Were there times when the community experienced rapid expansion, particularly prior to 1980?

Neighborhoods where older concrete buildings might be found:

Building boom years/era:

Save and Exit

Save & Submit for Approval

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IF YOU HAVE ADDITIONAL OR DIFFERENT DATA THAT YOU WANT TO INCLUDE, YOU WILL BE ABLE TO ATTACH SEPARATE FILES ON THE SUMMARY PAGE ON THE WEB

Existing Building Inventory Information

Year Structure Built

1999 - March 2000

1995 - 1998

1990 - 1994

1980 - 1989

1970 - 1979

1960 - 1969

1940 - 1959

1939 and earlier:

Total Number of Buildings

Total Number of Buildings (prior to 1980):

Number of Buildings

From U.S. Census Bureau, Census 2000, Table DP-4

Type of Building

Residential (Single family)

Residential (Multi-Family complex or tower)

Commercial

Retail

Mixed Use (Commercial / Retail / Residential)

Industrial / Manufacturing / Shipping

Government / Public Centers / Parkland / Airport

Hospital & Medical Office / Convalescent

Educational

(Total should be 100 % and

Total # of pre-1980 Bldgs, respectively)

Percent of buildings(%)

Number of buildings by %
(Built Prior to 1980)

Source of Information

48.4		City of Pasadena Zoning Map
11.4		
1.8		
0.1		
9.4		
71		

Total # or square footage of all existing buildings:

Total # or square footage of all existing buildings
(Prior to 1980):

Total # or square footage of all Pre-1980 concrete
buildings:

Number

Source of estimate

Note source, website, census, if applicable:

**Pre-1980 Concrete Buildings by Story Height
(Potential Buildings Actually Observed for
confirmation follow up at a later date)**

1 -2 stories

Number

Source

--	--

(Note: If in doubt if actual building being observed is a pre-1980 concrete building include it in the survey, since may not be able to confirm 100% without seeing actual structural drawings)

3-4 stories		
5-6 stories		
7-8 stories		
9-10 stories		
11-12 stories		
Greater than 12 stories		
Total:		

Number of retrofits of pre-1980 concrete buildings *Number* *Source*

1 -2 stories		
3-4 stories		
5-6 stories		
7-8 stories		
9-10 stories		
11-12 stories		
Greater than 12 stories		
Total :		

Have there been any existing inventories done on Nonductile Concrete Buildings in this jurisdiction?

List of existing inventories related to or with info about nonductile concrete buildings:

<i>Name</i>	<i>Year</i>	<i>Description</i>	<i>Contact Person/Organization</i>

Other Available Sources of Data:
(tax assessor, public schools/universities, private firms, other)

Save and Exit

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Seismic Policies and Awareness

Comments

General community awareness:

Describe any of the following policies or programs, or other relevant information about seismic awareness in the community

Multi-hazard mitigation plan:

Pre-1980 concrete codes & ordinances

Other structural mitigation codes and ordinances:

Current retrofit triggers & opportunities

change of ownership:

earthquake damage:

lender/insurance company mandate:

code mandate - change of occupancy:

code-mandate - alteration:

code mandate - addition:

other legal mandate:

other:

Remodeling/tenant improvement policies

Post Earthquake repair policies

Other programs or policies

Save and Exit

Save & Submit for Approval

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Contacts

Provide names of local individuals who have or may have an interest in pre-1980 concrete building risks. Please provide contact information if the individuals are willing.

Building Officials:

<i>Name</i>	<i>Title</i>	<i>Organization</i>	<i>Email</i>	<i>Phone</i>	<i>Address</i>

Building and Construction Inspectors:

<i>Name</i>	<i>Title</i>	<i>Organization</i>	<i>Email</i>	<i>Phone</i>	<i>Address</i>

Government Representatives (i.e. city council, mayor, etc.):

<i>Name</i>	<i>Title</i>	<i>Organization</i>	<i>Email</i>	<i>Phone</i>	<i>Address</i>

Design Professionals:

<i>Name</i>	<i>Title</i>	<i>Organization</i>	<i>Email</i>	<i>Phone</i>	<i>Address</i>

Building Owners/Developers:

<i>Name</i>	<i>Title</i>	<i>Organization</i>	<i>Email</i>	<i>Phone</i>	<i>Address</i>

Business Representatives:

<i>Name</i>	<i>Title</i>	<i>Organization</i>	<i>Email</i>	<i>Phone</i>	<i>Address</i>

Other:

<i>Name</i>	<i>Title</i>	<i>Organization</i>	<i>Email</i>	<i>Phone</i>	<i>Address</i>

Save and Exit

Save & Submit for Approval

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Additional Questions

(please answer if you have the information)

Population Density: population per square mile

Residential Composition:

Number of households:

% single family homes:

% multi family homes:

% Other (Mobile Homes /boats)

Additional Institutional Buildings Present within Jurisdiction:

Veterans Administration: if yes, provide quantity within jurisdiction:

Hospital: Yes if yes, provide quantity within jurisdiction:

Cal State University Campus: if yes, provide quantity within jurisdiction:

University of California Campus: if yes, provide quantity within jurisdiction:

Courthouse: if yes, provide quantity within jurisdiction:

Public School: if yes, provide quantity within jurisdiction:

Post Office: if yes, provide quantity within jurisdiction:

Fire Stations: if yes, provide quantity within jurisdiction:

Police Stations: if yes, provide quantity within jurisdiction:

Hazard:

Are there maps, other than building code, that provide seismic hazard data?

Are there local soils conditions maps available, with site classification & liquefaction data?

Known Faults within Jurisdiction limits:

Known Faults within 50 km of Jurisdiction:

Significant Historic Earthquakes:

Name	Date	Description
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Have there been any existing inventories done on other building types? List:

Name	Year	Description	Contact Person/Organization
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Possible Data Sources

SUGGESTIONS FOR WHERE TO LOOK FOR COMMUNITY DATA:

talk to local building official, planning staff

look for general plan, comprehensive plan, safety element, disaster mitigation plan

look for seismic rehabilitation policies, ordinances

is there a Council of Governments such as ABAG or SCAG that might have data?

Has the community replaced default building data in HAZUS with inventory data?

Check with local HAZUS Users Group or planning/building staff

Are there local engineers or architects who can describe particular buildings, or know the neighborhoods where these older buildings might exist?

could you look at assessor's data?

Some cities have public databases such as ZIMAS and LUPAMS in L.A.

everyblock.com will work for S.F., L.A. and San Jose

Google Earth can help with a rough count of buildings per block, general type of building

sidewalk surveys for small cities or certain neighborhoods

work with building official to gain access to RealQuest, a county database, showing date of construction and material.

are there any other inventories, such as URM or older buildings, that might provide clues?

Concrete Coalition steering committee members are in the process of obtaining hospital, school, university and court data for California jurisdictions, however

If you have particular knowledge of such buildings, please include it either here or in the building inventory worksheet.

WEBSITES WITH BASIC DEMOGRAPHIC AND CENSUS DATA:

1. [List of California Cities and Counties with Dates of Incorporation and Basic Demographic data \(population, land area, density\) --](http://en.wikipedia.org/wiki/List_of_cities_in_California)
http://en.wikipedia.org/wiki/List_of_cities_in_California with clickable demographic information on each city and county

2. [Social Vulnerability Index -- http://www.sovius.org/](http://www.sovius.org/) -- County-level data throughout the United States compiled by Susan Cutter and colleagues at the University Of South Carolina. The index synthesizes 42 socioeconomic and built environment variables, which the research literature suggests contribute to reduction in a community's ability to prepare for, respond to, and recover from hazards. The data were culled from national data sources, primarily those from the United States Census Bureau.

3. [SHELDUS -- Spatial Hazard Events and Losses Database for the United States -- http://www.cas.sc.edu/geog/hrl/SHELDUS.html](http://www.cas.sc.edu/geog/hrl/SHELDUS.html) -- SHELDUS is a county-level hazard data set for the U.S. for 18 different natural hazard events types such as thunderstorms, hurricanes, floods, wildfires, and tornados. For each event the database includes the beginning date, location (county and state), property losses, crop losses, injuries, and fatalities that affected each county. The data set does not include Puerto Rico, Guam, or other U.S. territories.

4. [City and County Databook -- US Census -- http://www.census.gov/prod/www/abs/ccdb07.html](http://www.census.gov/prod/www/abs/ccdb07.html) -- Most recent version 2007 on line from Statistical Abstract of the United States. Wealth of city and county data for the entire United States; counties, cities, and incorporated places of 25,000 or more. Separate tables for different topics arrayed by states, counties, cities, and places within states. Topics vary by county, city, and place -- below are the key items that can be found for California cities/places with more detail available at the county level:

- a. Table C1 Area and population -- land area square miles (2005), population per sq mile (2005), population (1990, 2000), population growth (percent change 2000-2005; 1990-2000)
- b. Table C4 Manufacturing and Wholesale Trade -- Manufacturing establishments and percent with 20 or more employees (2002); Wholesale trade establishments (2002)
- c. Table C5 Retail Trade, Accommodation and Food Services -- Retail trade establishments, percent sales from general merchandise stores (2002); Accommodation and food services establishments, percent sales from food services (2002)
- d. Table D6 Places (including cities) -- owner and renter occupied housing units -- Owner occupied units and median value (2005), renter occupied units and monthly gross rent (2005)

5. [US Economic Census 2002, California data searchable by county, city, place http://www.census.gov/econ/census02/data/ca/CA000_31.HTM](http://www.census.gov/econ/census02/data/ca/CA000_31.HTM)
Detailed listings of numbers of different types of businesses/establishments for different categories of manufacturing/businesses -- pretty granular distinctions in types of establishments; may be able to call out those most likely to have NDC pre 1980 buildings.

6. [California State Data Center -- Census Products 2000 -- http://www.dof.ca.gov/HTML/DEMOGRAP/SDC/SDC-Products.php](http://www.dof.ca.gov/HTML/DEMOGRAP/SDC/SDC-Products.php) Detailed population, housing, and other data compiled by California state personnel from US Census data -- I did not dig into this in detail and much of this is at the census tract level, which is not of much use.

7. [California Department of Finance -- Data Source Handbook --](http://www.dof.ca.gov/HTML/DEMOGRAP/SDC/documents/scdc_handbook_complete.doc)
http://www.dof.ca.gov/HTML/DEMOGRAP/SDC/documents/scdc_handbook_complete.doc Document that lists relevant sources of data for a number of different types of information.

a. [California Department of Finance, Demographic Research Unit http://www.dof.ca.gov/HTML/demograp/druhpar.asp](http://www.dof.ca.gov/HTML/demograp/druhpar.asp)

b. California Department of Finance, Economic and Finance Research Unit

http://www.dof.ca.gov/HTML/FS_DATA/Fs_home.htm

c. Construction Industry Research Board -- info on commercial and residential construction by state, county, and cities -- requires purchase of reports, including historic information about building permits

<http://www.cirbdata.com/>