

Orange Unified School District

Facilities Condition Assessment



Parsons - National FCA Experts

- 11,000 employees
- 975 K-12 school district clients
- 3 billion+ SF assessed
- 200+ assessment professionals
- eCOMET web-based technology



Engineering News-Record Magazine (ENR) ranks PARSONS in the top 100 of the world's leading contractors and design firms by revenue. Parsons consistently ranks among the top firms in the world.

Facility assessment and master planning are core services.

Representative Statewide FCA Projects



Parsons specialize in FCAs at educational institutions.

Project	Size
Kentucky K-12 Statewide Facilities Inventory and Classification System – P1	33 million GSF 475 schools
Colorado K-12 Statewide Financial Assistance Priority Statewide Assessment	135 million GSF 1,850 schools
California Community Colleges Facility Assessment & Capital Plan	57 million GSF 250 campuses
New Mexico Department of Education Statewide K-12 Assessment	52 million GSF 747 schools
Idaho Department of Education Statewide School Facilities Needs Assessment	33.8 million GSF 113 schools
State of Wyoming School Facilities Commission Condition Assessment	22 million GSF 1,258 buildings
New Mexico Commission on Higher Education Assessment	18 million GSF 27 campuses
Arkansas K-12 Schools Statewide Condition Assessment	90 million GSF 1,200 schools
World Learning/(Republic of) Georgia, FORECAST Program	110 million GSF 2,200 schools
United Arab Emirates, Ministry of Education	48.6 million GSF 740 schools

FCA Nationally Recognized Standard

- **Facility condition assessment (FCA)** is an industry term that describes the process of a qualified group of trained industry professionals performing an analysis of the condition of a group of facilities that may vary in terms of age, design, construction methods, and materials.
- **ASTM E2018** is the national standard for Property Condition Assessment.
- **ASTM E1557** is the national standard for Unifomat II for data classification on a system basis vs the CSI classification for materials – both are integrated in our embedded RSMMeans cost database.



The Business Case for a Facility Assessment

- Enhance teaching mission
- Validate needs for funding programs and community buy-in
- Safety
- Parity/equity of educational facilities
- Budget preparation
- Short term and long term strategic planning



Problem definition – what's broken, what's missing, what's unsuitable?

Facility Condition Assessment - Objectives

Perform facilities condition assessments (FCA) of four high school facilities to assist OUSD to:

- Plan for future maintenance and operation of critical infrastructure and assets, and
- Support development of annual capital and operating budgets.



Canyon High School



El Modena High School

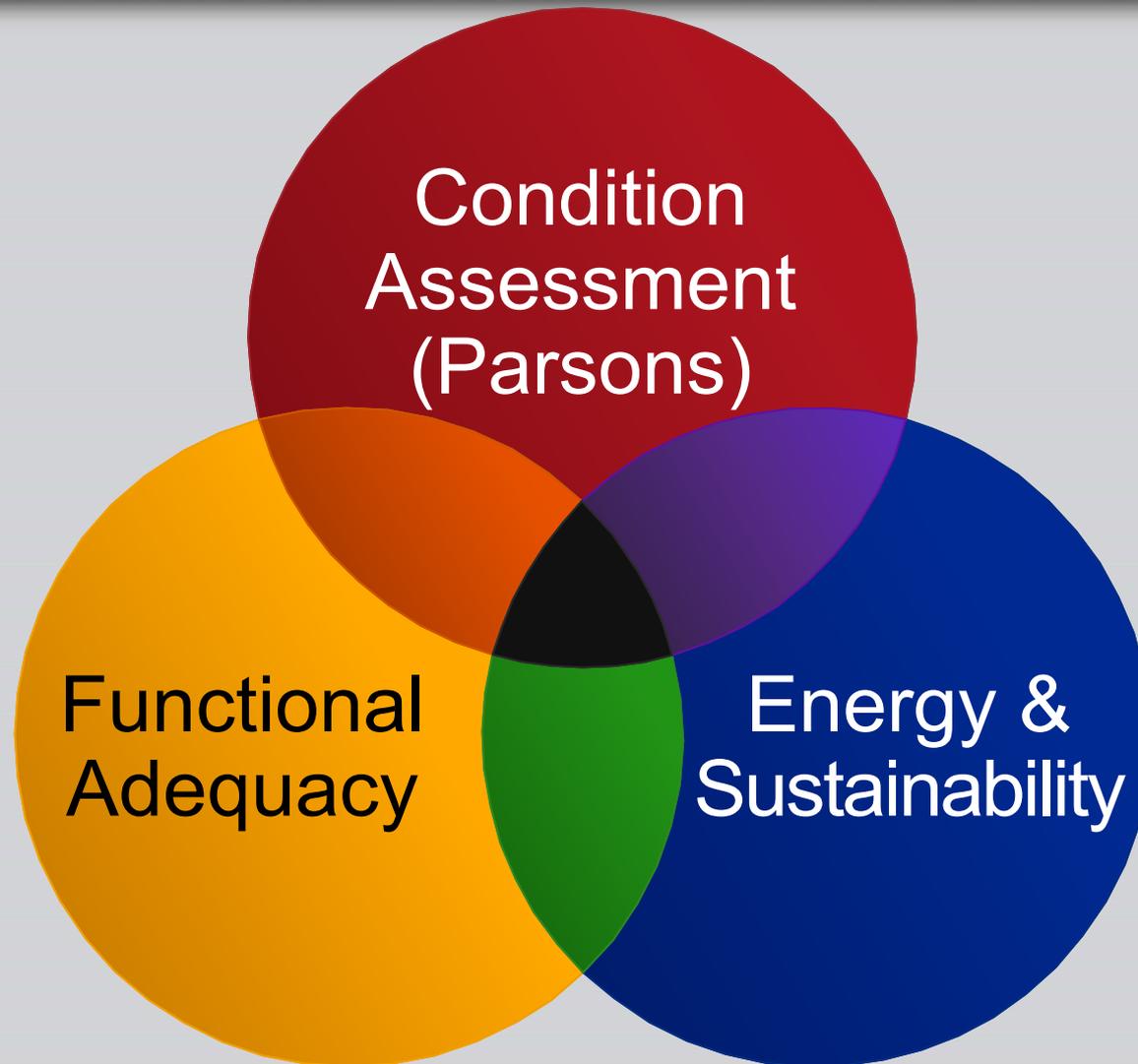


Orange High School



Villa Park High School

Facility Assessment Overview



Knowing what you have – Benchmark Metric FCI

Physical Condition + Educational Functional + Sustainability

FORMULA:
$$\frac{\text{Needed Repairs (\$)}}{\text{Current Replacement Budget (\$)}} = \text{FCI}$$

EXAMPLE:
$$\frac{\text{Needed Repairs of 5M}}{\text{CRB of 10M}} = \frac{5,000,000}{10,000,000} = 0.50 / 50\%$$

Best Practices for FCA	
FCI	Rating
0 to 15%	Good
15.1% - 30%	Fair
>30.1%	Poor

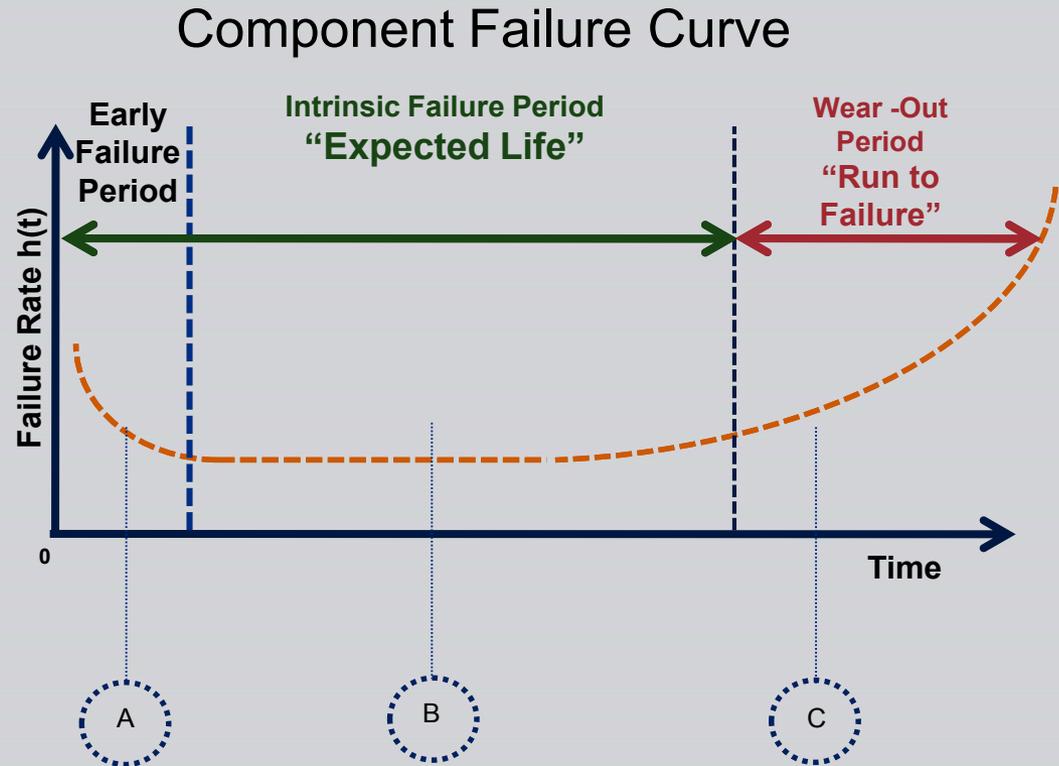
Average existing:

~25% to 35%

~ 65%-70% is flag to consider major renovation or demolition

Managing Facility Failures

- Three types of failures
 - A. **Early** (warranty period)
 - B. **Intrinsic**
 - C. **Wear-out** (run to failure)
- Actionable investments to extend life during the Intrinsic Period (A&B)
- Investments to manage failure risk in the Wear-Out period (C)



Source: Engineering Statistics Handbook

Finding: Facility Condition Needs Summary

- The current FCI rollup for the four high schools is 61.26% with \$199,746,379 in repair needs.
- In 10 years, the FCI will reach 81.91% without significant repair funding.

Facility Name	Age	Gross Area (ft)	Current Replacement Value	Current FCI (%)	Current Needs (2012-13)	10-Year Total Needs
Orange USD		662,532	\$326,054,142	61.26%	\$199,746,379	\$267,060,657
Canyon HS	41	167,921	\$76,625,504	61.81%	\$47,358,616	\$64,837,909
El Modena HS	48	157,033	\$73,881,714	58.49%	\$43,210,182	\$58,744,057
Orange HS	60	169,747	\$81,398,082	72.26%	\$58,815,200	\$71,741,107
Villa Park HS	50	164,671	\$76,307,689	59.09%	\$45,094,020	\$61,769,169
Fred Kelly Stadium	48	3,160	\$17,841,153	29.53%	\$5,268,362	\$9,968,415

~ 65%-70% is flag to consider major renovation or demolition

Finding: Canyon HS Condition Needs Summary

Current FCI = 61.81%

Facility Name	Gross Area (ft)	Current Replacement Value	Current FCI (%)	Current Needs (2012-13)	10-Year Total Needs	10-Year Forecast FCI (%)
Canyon HS	167,921	\$76,625,504	61.81%	\$47,358,616	\$64,837,909	84.62%
Bldg A1_Library	11,774	\$5,316,890	41.33%	\$2,197,262	\$3,813,769	71.73%
Bldg A2_Admin	5,342	\$2,185,824	41.95%	\$916,916	\$1,588,323	72.66%
Bldg B1_2_3_4_100 Wing	28,424	\$11,941,471	58.89%	\$7,031,877	\$8,161,708	68.35%
Bldg C1_2_200 Wing	19,134	\$8,069,508	62.95%	\$5,079,586	\$5,362,918	66.46%
Bldg D_300-305	8,236	\$3,371,451	69.47%	\$2,342,240	\$2,946,320	87.39%
Bldg E_500 Wing	9,484	\$3,892,724	68.10%	\$2,650,948	\$3,392,419	87.15%
Bldg F_306-313	10,546	\$4,441,874	71.22%	\$3,163,558	\$3,578,680	80.57%
Bldg G1/G2 Gym	31,675	\$12,621,039	57.90%	\$7,307,895	\$9,949,181	78.83%
Bldg H1_Cafeteria	14,530	\$6,042,243	50.19%	\$3,032,323	\$4,515,330	74.73%
Bldg H2_400 Wing	7,170	\$3,037,210	48.62%	\$1,476,573	\$2,385,621	78.55%
Pool Equip Bldg	600	\$251,274	35.87%	\$90,131	\$180,836	71.97%
Portables 1-24 *	21,006	\$7,803,242	100.00%	\$8,349,593	\$8,349,593	107.00%
Site	146,905	\$7,650,755	48.62%	\$3,719,716	\$10,613,212	138.72%

* Portables were inventoried as temporary structures.

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Finding: El Modena HS Condition Needs Summary

Current FCI = 58.49%

Facility Name	Gross Area (ft)	Current Replacement Value	Current FCI (%)	Current Needs (2012-13)	10-Year Total Needs	10-Year Forecast FCI (%)
El Modena HS	157,033	\$73,881,714	58.49%	\$43,210,182	\$58,744,057	79.51%
Bldg A	6,006	\$2,582,352	52.84%	\$1,364,482	\$1,769,832	68.54%
Bldg B1-B2	16,402	\$7,051,759	53.27%	\$3,756,177	\$5,105,166	72.40%
Bldg C1-C2	15,230	\$5,442,203	54.13%	\$2,945,613	\$3,744,210	68.80%
Bldg D1-D2	13,763	\$5,918,479	54.97%	\$3,253,370	\$4,078,572	68.91%
Bldg E1-E2	15,481	\$6,657,628	64.44%	\$4,290,337	\$5,304,520	79.68%
Bldg F	7,299	\$3,138,577	53.47%	\$1,678,353	\$2,239,459	71.35%
Bldg G	15,204	\$6,537,067	43.04%	\$2,813,469	\$4,554,098	69.67%
Bldg H	16,840	\$7,241,254	49.83%	\$3,608,356	\$5,070,089	70.02%
Bldg J1-J2	30,246	\$13,004,054	66.67%	\$8,669,955	\$11,330,774	87.13%
Electrical Bldg.	450	\$157,524	45.70%	\$71,987	\$74,212	47.11%
Pool Equipment Bldg.	600	\$210,105	47.53%	\$99,867	\$115,680	55.06%
Portables 1-18 *	19,512	\$7,173,798	100.00%	\$7,622,244	\$8,002,982	111.56%
Site	157,033	\$8,766,915	34.63%	\$3,035,971	\$7,354,462	83.89%
Fred Kelly Stadium	3,160	\$17,841,153	29.53%	\$5,268,362	\$9,968,415	55.87%
Admissions/Ticketing	960	\$292,431	42.08%	\$123,045	\$139,238	47.61%
Concessions/RRs	2,200	\$693,664	60.96%	\$422,837	\$516,095	74.40%
Site	315,326	\$16,855,058	28.02%	\$4,722,480	\$9,313,082	55.25%

* Portables were inventoried as temporary structures.

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Finding: Orange HS Condition Needs Summary

Current FCI = 72.26%

Facility Name	Gross Area (ft)	Current Replacement Value	Current FCI (%)	Current Needs (2012-13)	10-Year Total Needs	10-Year Forecast FCI (%)
Orange HS	169,747	\$81,398,082	72.26%	\$58,815,200	\$71,741,107	88.14%
Bldg 100-200	40,306	\$17,332,886	61.28%	\$10,620,972	\$14,267,273	82.31%
Bldg 300	14,825	\$6,375,538	64.67%	\$4,123,301	\$5,422,474	85.05%
Bldg 400	11,509	\$4,948,464	65.41%	\$3,236,773	\$4,313,767	87.17%
Bldg 500	18,060	\$7,765,504	70.30%	\$5,458,811	\$6,824,764	87.89%
Bldg 600	8,696	\$3,739,493	77.96%	\$2,915,122	\$3,546,317	94.83%
Bldg 700	25,205	\$10,837,568	69.91%	\$7,576,511	\$9,267,270	85.51%
Bldg 800	20,854	\$8,966,420	63.35%	\$5,679,991	\$7,521,659	83.89%
Pool Equipment Building	640	\$224,020	40.60%	\$90,941	\$128,338	57.29%
Portables 1-28 *	29,652	\$10,734,498	100.00%	\$11,583,374	\$12,161,974	113.30%
Site	166,385	\$10,473,690	71.89%	\$7,529,405	\$8,287,272	79.12%

* Portables were inventoried as temporary structures.

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Finding: Villa Park HS Condition Needs Summary

Current FCI = 59.09%

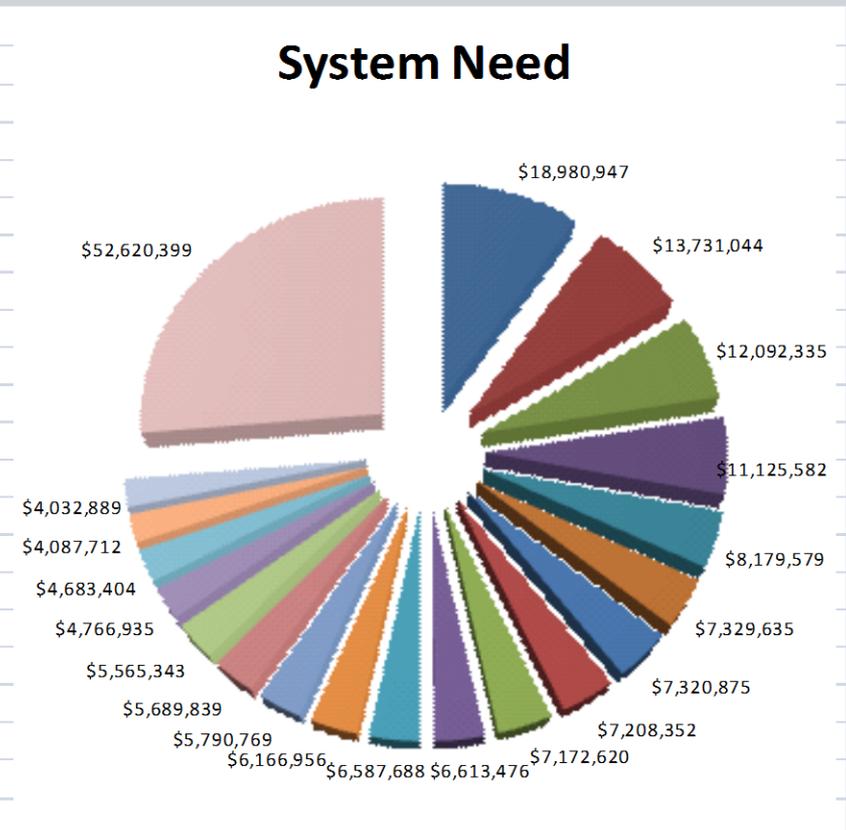
Facility Name	Gross Area (ft)	Current Replacement Value	Current FCI (%)	Current Needs (2012-13)	10-Year Total Needs	10-Year Forecast FCI (%)
Villa Park HS	164,671	\$76,307,689	59.09%	\$45,094,020	\$61,769,169	80.95%
Bldg 100_200-1 & 2	43,947	\$18,973,569	51.80%	\$9,827,871	\$13,840,827	72.95%
Bldg 300	10,500	\$4,535,432	65.67%	\$2,978,618	\$3,848,566	84.86%
Bldg 400	7,960	\$3,421,450	60.36%	\$2,065,334	\$2,522,386	73.72%
Bldg 500	9,040	\$3,887,283	59.48%	\$2,311,998	\$2,639,678	67.91%
Bldg 600	13,972	\$6,003,273	73.04%	\$4,384,620	\$4,941,991	82.32%
Bldg 700_Gymnasium	32,380	\$14,130,044	62.59%	\$8,844,271	\$11,562,739	81.83%
Bldg 800_(F)_Kitchen_Multi Purpose	19,133	\$8,227,337	45.28%	\$3,725,559	\$5,081,298	61.76%
Bldg G_Snack Bar	692	\$262,278	63.80%	\$167,337	\$178,749	68.15%
Bldg H_Music	4,659	\$1,852,621	42.49%	\$787,250	\$1,217,502	65.72%
Pool Equip Bldg	600	\$278,850	40.83%	\$113,866	\$165,204	59.24%
Portables 1-22 *	21,788	\$5,826,286	100.00%	\$6,163,752	\$6,163,752	105.79%
Site	157,896	\$8,909,268	41.79%	\$3,723,543	\$9,606,478	107.83%

* Portables were inventoried as temporary structures.

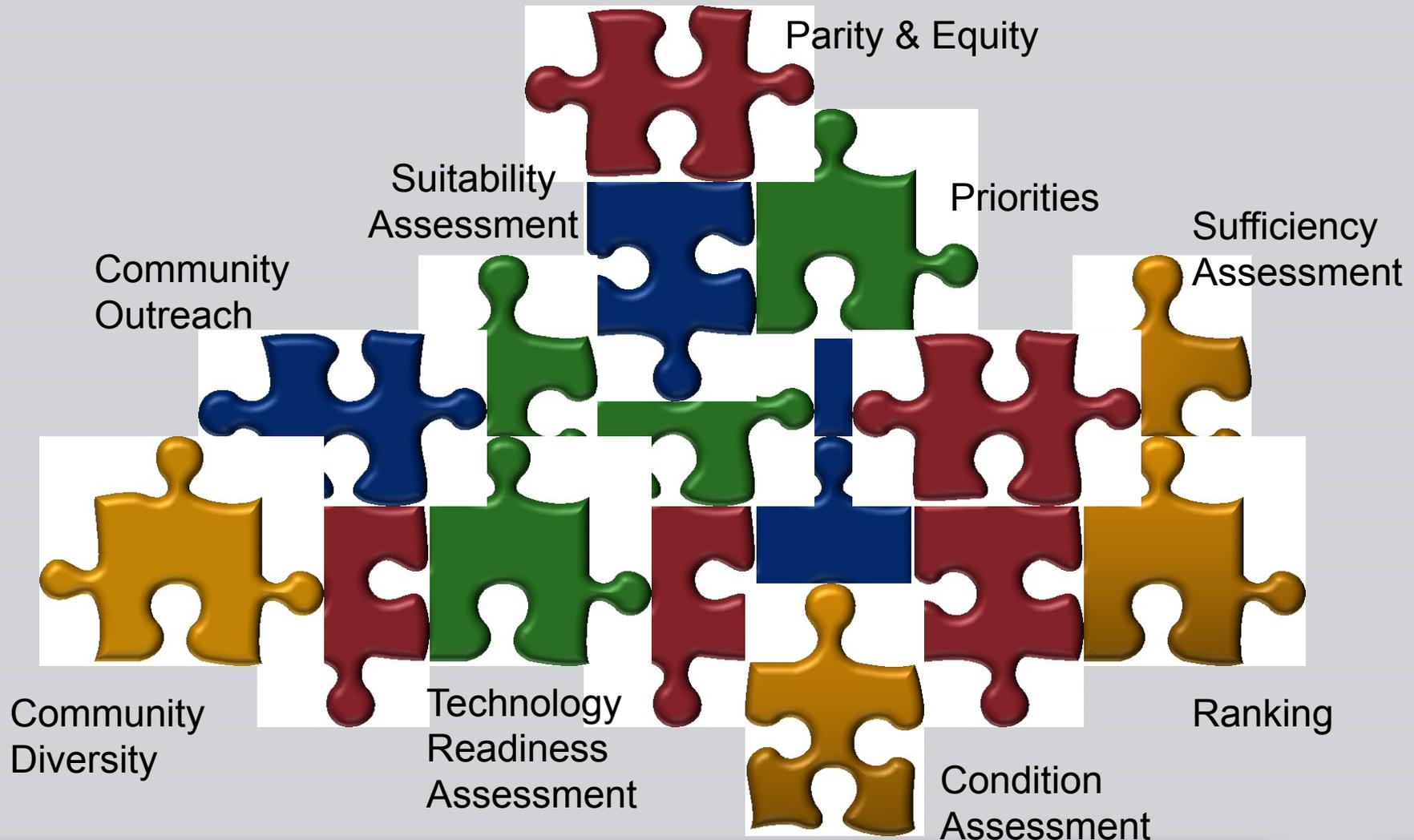
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Finding: Needs Summary by Top 20 Systems

System	Total Amt
Branch Wiring	\$18,980,947
Distribution Systems	\$13,731,044
Ceiling Finishes	\$12,092,335
Lighting	\$11,125,582
Terminal & Package Units	\$8,179,579
Built-Up	\$7,329,635
Electrical Service/Distribution	\$7,320,875
Wall Finishes	\$7,208,352
Fittings	\$7,172,620
Fixed Furnishings	\$6,613,476
Exterior Windows	\$6,587,688
Sprinklers	\$6,166,956
Site Lighting	\$5,790,769
Exterior Doors	\$5,689,839
Plumbing Fixtures	\$5,565,343
Playing Fields	\$4,766,935
Hazardous Components Abatement	\$4,683,404
Sanitary Waste	\$4,087,712
Institutional Equipment	\$4,032,889
Other Miscellaneous Systems	\$52,620,399
Total	\$199,746,379



Understanding the Puzzle: Master Plan



Q & A

PARSONS

