



HEALTHY DEVELOPMENT CHECKLIST

This publication was developed by the Riverside University Health System - Public Health. Thank you to the contributors: Michael Osur, MBA, Miguel Vazquez, AICP, Salomeh Wagaw MPH. A list of partners who helped shaped this checklist can be found on the following page.

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The Healthy Development Checklist is intended to help communities across the region incorporate health into everyday life. It is a major step forward in Riverside County's (also known as the Riverside University Health System) continuing drive to build healthy communities. Beginning in 2011, with the adoption of the [Healthy Communities Element](#) as part of the County's General Plan and the [Healthy Riverside County Resolution](#), we have continued to encourage the inclusion of health in planning and transportation policy in the County and in its 28 cities.¹ The Checklist has also garnered the support of regional partners, including the San Bernardino County Transportation Authority and Western Riverside Council of Governments. Both of these partners are working with Riverside County to promote a broader use of this Health Development Checklist, including in San Bernardino County.

An overarching principle in the Healthy Development Checklist is Equity. Health equity is ensuring that all people have full and equal access to opportunities that enable them to lead healthy lives. This approach to health equity has informed the content and strategies in the Healthy Development Checklist.

E Engagement and Empowerment.

All of us must work collectively to ensure our communities are engaged in the planning process. We must empower our constituents to be engaged in decision-making by providing accurate, easy to understand and timely information. Engagement and Empowerment of our communities allows for inclusion and a higher sense of buy-in.

Q Quality.

We must ensure that our communities are built to the highest quality possible. This means keeping healthy communities as the focus and ensuring that where people live, work, play and learn provides them with opportunities to build health into their everyday life.

U Utilization.

How we utilize our limited resources is essential to ensure we can serve our growing population. We must build complete streets that encourage active transportation, healthy eating and active living.

I Increase healthy behaviors.

We must build our communities so that there is easy access to parks, open spaces, recreational activities, shopping, jobs and educational opportunities. Healthy behaviors lead to lower morbidity and mortality rates thereby, improving and extending an overall quality of life.

T Transportation.

The provision of active transportation infrastructure for walking, biking and access to transit ensures greater healthy options for our residents.

Y Youth.

By building healthy communities where youth can thrive and grow with clean air, water, access to healthy foods, parks and active transportation we can increase the opportunities for our children to live a healthier life.

¹ For additional information on community health data in Riverside County, you can visit [SHAPE Riverside County](#).

HEALTHY DEVELOPMENT CHECKLIST & CRITERIA

The design of our communities has a great impact on our health and the well-being of our residents. This checklist provides criteria, empirical evidence, and best practices for new healthy development. Our goal is to encourage developers, city officials, and decision makers to use this tool to help guide the development of neighborhoods that promote physical and mental health, encourage community engagement, and improve quality of life for all. Community members may also find this tool as a useful resource to better understand healthy development practices.

WHAT IS THE PURPOSE OF THE CHECKLIST?

The Healthy Development Checklist was developed to provide criteria for healthy development practices in the Inland Empire. It is intended to be used as a tool to judge the overall health performance and supportiveness of new development projects. While not every criterion will apply to every development project, projects should aim to comply with as many of the criteria as possible to promote health through their development project.

HOW TO USE THE CHECKLIST?

The Healthy Development Checklist is organized into six topical categories:

- 1) Active Design
- 2) Connectivity
- 3) Public Safety
- 4) Environmental Health
- 5) Community Cohesion
- 6) Access to Food, Services, and Jobs

A summary checklist is followed by a more detailed catalogue of the checklist. For each checklist question, projects can assess their performance as follows:

- **"COMPLIES WITH ALL CRITERIA"** (if a project meets all criteria)
- **"COMPLIES WITH SOME CRITERIA"** (if the project meets some, but not all of the bulleted criteria)
- **"DOES NOT COMPLY"** (if the project does not meet any of the criteria)
- **"N/A"** (if the criteria does not apply to this project)

WHO SHOULD USE THE CHECKLIST?

Developers, planning staff, and decision-makers should use the Healthy Development Criteria:

- Developers should refer to the criteria and checklist as a guide for the design and planning of a project in the early stages, preferably before submitting an application for development review.
- City staff can use the checklist to review development proposals and make recommendations to both developers and decision-makers. The checklist can also be used to inform staff reports and public meetings on projects.
- Decision-makers are encouraged to use the completed project checklist to better understand the health outcomes of a proposed project.
- Community members and advocates can use the checklist as a resource and tool to guide healthy development in their communities.

SUMMARY CHECKLIST

ACTIVE DESIGN

- 1. **NEIGHBORHOOD AMENITIES.** How well does the project support access to neighborhood amenities (e.g., convenience store, dry cleaning, community center, café, etc.) within reasonable walking distance from residential developments?
- 2. **PARKS AND OPEN SPACE.** How well does the project incorporate a park or open space within reasonable walking distance of all residential development?
- 3. **PEDESTRIAN ENVIRONMENT.** How well does the project contribute to creating a safe and comfortable pedestrian environment for residents of all ages?
- 4. **SIDEWALKS.** How well does the project create or contribute to a complete network of sidewalks?
- 5. **FRONTAGE DESIGN.** How well does the project incorporate attractive, pedestrian-scale exteriors and massing to encourage walkability for people of all ages?
- 6. **PHYSICAL ACTIVITY.** How well does the project incorporate design features to promote the physical activity of all building occupants?

CONNECTIVITY

- 7. **NETWORK.** How well does the project leverage public open space, sidewalks, pedestrian amenities, bicycle facilities, and multi-use trails to connect safely and comfortably to surrounding neighborhoods?
- 8. **WALKABILITY.** How well does the project enhance walkability by providing a highly-connected street network?
- 9. **TRANSIT ACCESS.** How well does the project provide all residents with safe access to transit and transit facilities within reasonable walking distance?
- 10. **BICYCLE CONNECTIVITY.** How well does the project provide high levels of bicycle connectivity through a safe, well-marked and complete bicycle network?

	Complies with all criteria	Complies with some criteria	Does not comply	N/A
1. NEIGHBORHOOD AMENITIES. How well does the project support access to neighborhood amenities (e.g., convenience store, dry cleaning, community center, café, etc.) within reasonable walking distance from residential developments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. PARKS AND OPEN SPACE. How well does the project incorporate a park or open space within reasonable walking distance of all residential development?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. PEDESTRIAN ENVIRONMENT. How well does the project contribute to creating a safe and comfortable pedestrian environment for residents of all ages?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. SIDEWALKS. How well does the project create or contribute to a complete network of sidewalks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. FRONTAGE DESIGN. How well does the project incorporate attractive, pedestrian-scale exteriors and massing to encourage walkability for people of all ages?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. PHYSICAL ACTIVITY. How well does the project incorporate design features to promote the physical activity of all building occupants?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. NETWORK. How well does the project leverage public open space, sidewalks, pedestrian amenities, bicycle facilities, and multi-use trails to connect safely and comfortably to surrounding neighborhoods?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. WALKABILITY. How well does the project enhance walkability by providing a highly-connected street network?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. TRANSIT ACCESS. How well does the project provide all residents with safe access to transit and transit facilities within reasonable walking distance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. BICYCLE CONNECTIVITY. How well does the project provide high levels of bicycle connectivity through a safe, well-marked and complete bicycle network?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

PUBLIC SAFETY

11. INJURY PREVENTION. How well does the project foster injury prevention through the use of traffic calming features, such as bulb outs and speed humps, safe pedestrian crossings, and moderate roadway speeds?

Complies with all criteria

Complies with some criteria

Does not comply

N/A

12. SAFE ACCESS TO SCHOOLS. How well does the project incorporate safe access to schools within a reasonable walking distance?

13. LIGHTING. How well does the project provide adequate neighborhood lighting to prevent crime and increase safety?

ENVIRONMENTAL HEALTH

14. SMOKING. How well does the project incorporate efforts to restrict smoking in multi-family development and open spaces?

15. NEAR-ROAD POLLUTION. How well does the project incorporate efforts to protect residents from the harmful effects of high volume roads?

16. NOISE POLLUTION. How well does the project mitigate noise pollution for all residents?

17. ENVIRONMENTAL JUSTICE. How well does the project mitigate any impacts that would disproportionately affect disadvantaged communities?

18. INDOOR AIR QUALITY. How well does the project incorporate the use of materials and products that support healthy indoor quality?

COMMUNITY COHESION

19. PASSIVE SPACES. How well does the project incorporate spaces that facilitate social engagement?

20. RECREATIONAL SPACES. How well does the project incorporate facilities and access to a variety of recreational opportunities for all users?

21. COMMUNITY SPACES. How well does the project incorporate facilities and access to a multi-purpose community space accessible to the public?

ACCESS TO FOOD, JOBS, AND SERVICES

	Complies with all criteria	Complies with some criteria	Does not comply	N/A
22. GROCERY. How well does the project integrate access to a full-service grocery store (e.g., sells meat, dairy, fruits and vegetables) within reasonable walking distance of all residents?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. COMMUNITY GARDEN. How well does the project incorporate space for growing food onsite through community gardens, edible landscaping, or small-scale farming within a reasonable walking distance from residential development?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. FARMER'S MARKET. How well does the project designate space or provide access to a farmer's market within a reasonable walking distance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. HEALTHY FOOD. How well does the project maintain a balance of healthy and unhealthy food retailers?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. JOBS. How well does the project design promote shorter commutes and better access to jobs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. HEALTH SERVICES. How well does the project provide future residents with access to health services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. CHILDCARE. How well does the project support increased access to affordable and high-quality childcare?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. MIXED-USE. How well does the project integrate mixed-use development?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. MIXED HOUSING. How well does the project contribute to a mix of housing options that will allow all potential household sizes, incomes, and types to become neighbors and share available amenities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

DETAILED HEALTHY DEVELOPMENT CRITERIA

ACTIVE DESIGN

- 1. **NEIGHBORHOOD AMENITIES.** How well does the project support access to neighborhood amenities (e.g., convenience store, dry cleaning, community center, café, etc.) within reasonable walking distance from residential developments?

RATIONALE:

Neighborhoods that include destinations within reasonable walking distance are linked to increased total physical activity of residents. A “walk shed” radius is a useful measure to delineate the area from which a place is reachable by a short walk, commonly understood as up to one half mile.² An effective circulation system links people to key neighborhood destinations efficiently and safely.

CRITERIA:

Review the project for the following features:

- Access to one or more existing or planned transit stops (including bus, streetcar, informal transit stop, rapid transit, light or heavy rail stations, commuter rail stations) within a ½ mile walk distance; and
- At least two destinations within a ½ mile walking distance of all or most residents, including parks, schools, commercial centers, and offices.

EVIDENCE:

Congress for New Urbanism. 2001. “Ped Sheds.” *Transportation Tech Sheet*. Retrieved from: http://cnu.civicactions.net/sites/www.cnu.org/files/CNU_Ped_Sheds.pdf

Frumkin, H. and L. Frank, R. Jackson. 2004. *Urban Sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*. Washington, DC: Island Press.

Klingerman M. and J. Sallis, S. Ryan, L. Frank, P. Nader. 2007. “Association of neighborhood design and recreation environment variables with physical activity and body mass index in adolescents.” *American Journal of Health Promotion* 21(4): 274-77.

Mouzon, S. 2012. “Walk Appeal.” *Better Cities and Towns*. Retrieved from: <http://bettercities.net/news-opinion/blogs/steve-mouzon/18645/walk-appeal>

- 2. **PARKS AND OPEN SPACE.** How well does the project incorporate a park or open space within reasonable walking distance of all residential development?

RATIONALE:

The close proximity of parks and recreation services encourages use, physical activity, and mental health benefits for people of all ages. Parks can also be used as spaces for community events and civic engagement. People living within a half mile of a park consider facilities close enough to walk to.

² For the purposes of this Checklist, any references to a “reasonable walking distance” should consider the walk shed as a measure for walkability and also the best applicability to the local community context (e.g., urban, suburban, rural). While practical influences should always be considered (e.g., safety, shortcuts, etc.), projects should aim for at least a ½ mile walk distance, but a ¼ mile walk distance is preferred.

CRITERIA:

Review the project for the following features:

- Every resident lives within ½ of a park or public open space; and
- A ratio of at least 5 acres of parkland per 1,000 residents; and
- Joint-use agreements with local school districts or other entities (if necessary, to achieve these park standards.)

EVIDENCE:

Louv, Richard. 2008. *Last Child in the Woods*. New York: Algonquin Books.

Trust for Public Land. 2016. "Parks on the Clock: Why we Believe in the 10-minute walk." Retrieved from: <https://www.tpl.org/blog/why-the-10-minute-walk#sm.0001bo0t0r4t1d50von1fn8ldyt18>

Westrup, L. 2002. "Quimby Act 101: An Abbreviated Overview." California Department of Parks and Recreation. Retrieved from: <https://www.parks.ca.gov/pages/795/files/quimby101.pdf>

3. PEDESTRIAN ENVIRONMENT.

How well does the project contribute to creating a safe and comfortable pedestrian environment for residents of all ages?

RATIONALE:

Walking is positively correlated with the presence of sidewalks and perceived neighborhood aesthetics and safety. Perceptions matter: the extent to which a neighborhood is perceived as walkable is correlated with residents' likelihood of participating in regular physical activity. A quality pedestrian environment also creates a physical and psychological buffer between pedestrians, bikes and cars, in addition to providing shade. A carefully planned built environment can be highly effective in preventing pedestrian injuries.

CRITERIA:

Review the project for the following features:

- Pedestrian signals, in-pavement flashing lights, four-way stops, crosswalks, and/or pedestrian overpasses to ensure pedestrian safety; and
- Gently sloped walks instead of or in addition to steps in public open spaces; and
- Barrier-free paths that facilitate access for all users; and
- Legible signage that minimizes confusion and communicates important wayfinding information to all users (e.g., seniors, deaf, multi-language); and
- Street trees planted between the vehicle travel way and sidewalk at intervals of no more than 50 feet along at least 60% of the total existing and planned block length within a project and on blocks bordering the project; and
- Within ten years, shade from trees or permanent structures over at least 40% of the total length of the existing and planned sidewalks within or bordering the project (measured from the estimated crown diameter).

EVIDENCE:

Retting, R. A., and A. T. McCartt, S. A. Ferguson. 2003. "A review of evidence-based traffic engineering measures designed to reduce pedestrian-motor vehicle crashes." *American Journal of Public Health* 93(9): 1456-1462.

Sacramento Transportation and Air Quality Collaborative. "Best Practices for Complete Streets." Retrieved from: <https://www.smartgrowthamerica.org/app/legacy/documents/cs/resources/cs-bestpractices-sacramento.pdf>

U.S. Green Building Council. 2016. *LEED v4 for Neighborhood Development*. Retrieved from: <http://www.usgbc.org/resources/leed-v4-neighborhood-development-current-version>

4. SIDEWALKS. How well does the project create or contribute to a complete network of sidewalks?

RATIONALE:

The presence of a complete sidewalk network is a major determinant of whether or not someone may choose walking for any given trip. Walking is positively correlated with the presence of sidewalks and perceived neighborhood aesthetics and safety. Lack of physical activity is a major factor in Americans' health. The provision of a network that facilitates walking can help bridge this physical activity gap and directly influence measurable health indicators.

CRITERIA:

Review the project for the following features:

- *Sidewalks on both sides of all new and redeveloped streets; and*
- *Minimum sidewalk width of 6 feet along residential streets and 8 feet along commercial or mixed-use streets; and*
- *Continuous sidewalks across the entire project street network (excepting alleys and service-oriented streets); and*
- *Incorporation of universal design features to ensure that all users (including those using wheelchairs, walkers, pushing strollers, and hand carts) can easily travel to neighborhood destinations, including:*
 - *Multi-use pathways that are separated from vehicular traffic and that facilitate pedestrian and wheelchair access,*
 - *Planting strips on both sides of all streets without protruding into the path of travel; and*
 - *Short right-turn radii for major roads and ramps crossing pedestrian rights-of-way.*

EVIDENCE:

American Association of State Highway and Transportation Officials. 2011. A Policy on Geometric Design of Highways and Streets. Washington, DC: American Association of State Highway and Transportation Officials.

Boodlal, L. 2003. "Accessible Sidewalks and Street Crossings - an informational guide." US Department of Transportation, Federal Highway Administration. Retrieved from: http://www.bikewalk.org/pdfs/sopada_fhwa.pdf

5. FRONTAGE DESIGN. How well does the project incorporate attractive, pedestrian-scale exteriors and massing to encourage walkability for people of all ages?

RATIONALE:

Building design greatly affects our sense of comfort while walking, biking, or driving, as well as our connection to a place and our neighbors. Providing opportunities to have frequent face-to-face contact in a neighborhood has been shown to promote social ties among neighbors. Architectural features such as porches and transparent shop fronts that promote visibility from a building's exterior have been linked to higher levels of perceived social support and lower levels of psychological distress.

CRITERIA:

Review the project for the following features:

- *Buildings with primary entrances oriented towards the sidewalk/street or public open spaces; and*

- Buildings that are scaled appropriately to the width of the street to create a pleasant public realm environment (generally using a rule of thumb of at least 1 foot of building height for every 1.5 feet from street centerline to building façade); and
- Surface parking is located behind buildings (or to the side in certain contexts).

EVIDENCE:

ChangeLab Solutions. (n.d.) "Pedestrian Friendly Code Directory: Eyes on the Street." Retrieved from: <http://www.changelabsolutions.org/childhood-obesity/eyes-street>

Lund, Hollie. 2002. "Pedestrian Environments and Sense of Community." *Journal of Planning Education and Research*. 21 (3): 301-312.

Speck, J. 2012. *Walkable City: How Downtown can Save America, One Step at a Time*. New York: North Point Press.

Wekerly, G. 2000. "From Eyes on the Street to Safe Cities." *Places* 13(1): 44-49.

6. PHYSICAL ACTIVITY. How well does the project incorporate design features to promote the physical activity of all building occupants?

RATIONALE:

Certain features can be incorporated into the design of buildings that help people increase their physical activity as a part of daily life. Active design strategies include the convenient placement of stairs, building and site design to encourage walking, and the provision of spaces for physical activity.

CRITERIA:

Review the project for the following features:

- Placement of stairs within 25' of an entrance and before any elevator;
- Stair prompts and signage at elevator banks;
- Windows & skylights to make enclosed stairs more visible and appealing;
- No unnecessary escalators and elevators;
- Elimination of physical barriers (such as walls, door locks, and poor placement of building elements) that can deter physical activity.

EVIDENCE:

Center for Active Design. 2010. "Active Design Guidelines: Promoting Physical Activity and Health In Design." City of New York.

CONNECTIVITY

7. **NETWORK.** How well does the project leverage public open space, sidewalks, pedestrian amenities, bicycle facilities, and multi-use trails to connect safely and comfortably to surrounding neighborhoods?

RATIONALE:

Research indicates that children who bike or walk to recreational sites (parks, playgrounds, etc.) use sites more often. The safer it is to bike or walk to play sites, the more likely it is that kids will bike or walk there. Furthermore, trail use is significantly correlated with user proximity, with evidence showing that trails within at least ½ mile of every residence is ideal for maximizing access and use. Trails and parks that are well maintained, safe, clean, well-lit, and have facilities, such as restrooms, drinking fountains, and exercise equipment, are used more and contribute to higher physical activity levels among users.

CRITERIA:

Review the project for the following features:

- Pedestrian amenities at parks and on trails, including seating, restrooms, signage, lighting, landscaping, shade structure, trash cans and drinking fountains; and
- Park design that emphasizes connectivity to other park/trail access points within reasonable walking distance, including complete streets design, close proximity to transit stops, and safe pedestrian and bike routes.

EVIDENCE:

Kaczynski, A. and K. Henderson. 2007. "Environmental correlates of physical activity: a review of evidence about parks and recreation." *Leisure Sciences* 29(4): 315-354.

National Center for Environmental Health. 2013. *Parks and Trails Health Impact Assessment*. Centers for Disease Control and Prevention. Retrieved from: https://www.cdc.gov/healthyplaces/parks_trails/sectionc.htm#1

Shulaker, B. and J. Isacoff, T. Kjer, and K. Hart. 2016. *Park Design for Physical Activity and Health*. San Francisco: Trust for Public Land.

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8. **WALKABILITY.** How well does the project enhance walkability by providing a highly-connected street network?

RATIONALE:

There is ample evidence that greater street connectivity and higher residential density are related to higher total physical activity and lower BMI. Adults are more likely to walk if they live in neighborhoods with high connectivity and intersection density, high population density, and a mix of land uses.

A high intersection density is one of the single most important variables for determining whether a place will have high enough levels of connectivity to foster increased levels of walking, as well as for increasing transit use and reducing vehicle distance traveled. Grid street patterns that decrease distance between destinations encourage walking and help foster physical activity.

CRITERIA:

Review the project for the following features:

- No cul-de-sacs, courts, and paseos without through access by pedestrians and bicyclists to other streets, courts, paseos, or parks;
- An internal connectivity of at least 140 motorized/non-motorized intersections per square mile; and
- Small, walkable blocks with perimeters no more than 1600 feet long; and
- At least one through connection (street, alley, trail/path) of all blocks and the project boundary every 800 feet. Does not apply to blocks or portions of the boundary where connections cannot be made due to physical obstacles.

EVIDENCE:

Frank L, Schmid T, Sallis J, Chapman J, Saelens B. 2005. "Linking objectively measured physical activity with objectively measured urban form: findings from SMARTRAQ." *American Journal of Preventive Medicine* 28:117-125.

Stangl, P. 2015. "Block size-based measures of street connectivity: A Critical Assessment and new approach." *Urban Design International* 20(1); 1-12.

U.S. Green Building Council. 2016. *LEED v4 for Neighborhood Development*. Retrieved from: <http://www.usgbc.org/resources/leed-v4-neighborhood-development-current-version>

9. TRANSIT ACCESS. How well does the project provide all residents with safe access to transit and transit facilities within reasonable walking distance?

RATIONALE:

In addition to walking and biking, public transit offers a potential alternative to driving. Public transit improvements can also result in other benefits, including reduced traffic crashes, improved physical fitness and health, energy conservation, increased community livability, increased affordability, and economic development. Urban form, including the presence of compact development and access to public transit, tend to have a positive association with physical activity.

CRITERIA:

Review the project for the following features:

- At least 50% of dwelling units and nonresidential use entrances have access to existing or planned transit stops (including bus, streetcar, informal transit stop, rapid transit, light or heavy rail stations, commuter rail stations) within a ½ mile walk distance; and
- Compact development and mixed land use that maximizes walkable access to public transit; and
- Transit facilities designed to maximize user comfort while waiting by incorporating shade structures, street furniture and relevant information/signage.

EVIDENCE:

American Public Transportation Association. 2009. "Defining Areas of Influence." (Recommended Practice). Retrieved from: <http://www.apta.com/resources/standards/Documents/APTA%20SUDS-UD-RP-001-09.pdf>

Convergence Partnership. 2006. *Healthy, Equitable Transportation Policy*. Retrieved from: http://www.convergencepartnership.org/sites/default/files/healthtrans_fullbook_final.PDF

Forsyth, A. and L. Smead (Eds.). 2015. *Mobility, Universal Design, Health, and Place (A Research Brief)*. Health and Places Initiative. Retrieved from: http://research.gsd.harvard.edu/hapi/files/2015/11/HAPI_ResearchBrief_UniversalDesign-112315.pdf

Litman, T. 2010. "Evaluating Public Transportation Health Benefits." American Public Transportation Association. Retrieved from: http://www.apta.com/resources/reportsandpublications/Documents/APTA_Health_Benefits_Litman.pdf

10. BICYCLE CONNECTIVITY. How well does the project provide high levels of bicycle connectivity through a safe, well-marked and complete bicycle network?

RATIONALE:

Good bicycle connectivity and safe bicycle facilities can have dramatic public health benefits. New bicycling facilities can dramatically lower health care costs. Additionally, communities that support transit use, walking, and bicycling are associated with more physical activity and lower body weights. Key metrics to the success of bicycle networks is trail/bikeway accessibility. Use of trails and bikeways is negatively correlated with distance to the facility.

CRITERIA:

Review the project for the following features:

- On-street bicycle facilities (Class II or Class IV) on most streets; and
- Class IV facilities on limited access roadways with higher rates of speed and larger intersection spacing; and
- Highly visible or color-coded markings and/or bicycle lane striping on the road surface (or a painted buffer between the bicycle and travel lanes).; and
- Where appropriate, "bicycle boulevards" with narrower travel lanes, slower target speeds, unique signage, and bicycle prioritization through vehicle barriers or other visual cues.

EVIDENCE:

Gotschi, T. 2011. "Costs & Benefits of Bicycling Investments in Portland, Oregon." *Journal of Physical Activity & Health* 8(1): S49-S58.

Handy, S. L. 2004. *Critical Assessment of the Literature on the Relationships among Transportation, Land Use, and Physical Activity.* Washington, DC: Transportation Research board and Institutes of Medicine Committee on Physical Activity, Health Transportation, and Land Use.

Pucher J, and J. Dill, and S. Handy. 2010. "Infrastructure, programs, and policies to increase bicycling: an international review." *Preventive Medicine* 50: 106-25.

PUBLIC SAFETY

11. INJURY PREVENTION. How well does the project foster injury prevention through the use of traffic calming features, such as bulb outs and speed humps, safe pedestrian crossings, and moderate roadway speeds?

RATIONALE:

Vehicle speed is one of the most critical variables that determines traffic collision severity. The use of design features that moderate traffic speeds and increase driver awareness of bicycle and pedestrian activity all help to reduce the occurrence and severity of injury of collisions. This is especially true for those with limited mobility, such as elderly pedestrians and children. Risk of injury is also greater on busier streets and streets with more than two lanes. However, pedestrian safety can be improved through the provision of continuous wide sidewalks, well-marked and signalized crosswalks, traffic controls at intersections; and traffic-calming infrastructure.

CRITERIA:

Review the project for the following features:

- Traffic-calming infrastructure, such as speed humps, bulb-outs, and chicanes; and
- To the extent possible, neighborhood/local streets have a target speed limit of 20 miles per hour and collectors/arterials have a target speed limit of 30 miles per hour; and
- All vehicle travel lanes on local streets within the project area are no wider than 10 feet; collector streets and roads are no wider than 11 feet; and arterial roads have travel lanes no wider than 12 feet; and
- All two-lane streets have clearly marked space for on-street parking and/or bicycle lanes; and
- Outside lane striping to delineate the vehicle travel way from on-street parking, bicycle lanes, or unused shoulders; and
- Grade-separated cycle tracks OR wide parking lanes (up to 10 feet) where physical separation between bicycle lanes and on-street parking is not desirable or possible, such as in areas with high parking turnover.

EVIDENCE:

Koepsell, T. 2002. "Crosswalk markings and the risk of pedestrian-motor vehicle collisions in older pedestrians." *The Journal of the American Medical Association* 288 (17): 2136-2143.

National Association of City Transportation Officials. *Urban Street Design Guide*. Washington, DC: Island Press.

Zegeer, C. 2001. "Safety effects of marked versus unmarked crosswalks at uncontrolled locations." *Transportation Research Record* (1773): 56-68.

12. SAFE ACCESS TO SCHOOLS. How well does the project incorporate safe access to schools within reasonable walking distance?

RATIONALE:

The implementation of safe routes to school strategies have resulted in significant decreases in the number of child pedestrian deaths and injury rates. Additionally, improved safety for students walking and biking to school also has broader benefits, including reduced transportation costs, increased connectivity between neighborhoods, and improved student alertness.

CRITERIA:

Review the project for the following features:

- An attendance boundary that adheres to these specified distances: most or all students living within a 3/4-mile walking distance for grades 8 and below, and 1 1/2-mile walking distance for grades 9 and above, of a school building.

EVIDENCE:

Boarnet, MG, and CL Anderson, K. Day, T. McMillan, M. Alfonzo. 2005. "Evaluation of the California Safe Routes to School legislation: urban form changes and children's active transportation to school." *American Journal of Preventive Medicine* 28 (2): 134-40.

National Center for Safe Routes to School. 2015. *Creating Healthier Generations: A Look at the 10 Years of the Federal Safe Routes to School Program*. Retrieved from: http://saferoutesinfo.org/sites/default/files/SRTS_10YearReport_Final.pdf

U.S. Green Building Council. (n.d.) *LEED BD+C: Schools*. Access to Quality Transit. Retrieved from: <http://www.usgbc.org/credits/schools-new-construction/v4-draft/ltc5>

13. LIGHTING. How well does the project provide adequate neighborhood lighting to prevent crime and increase safety?

RATIONALE:

Street lighting improvements can help reduce both crime and people's perceptions of fear. In addition, street lighting can have the effect of increasing activity after dark.

CRITERIA:

Review the project for the following features:

- Lighting that enhances visibility of streets, alleys, windows, walkways, and bikeways for pedestrians and vehicle traffic; and
- Safe pedestrian path zones that align with traffic patterns and generate a sense of welcome at all hours of the day; and
- Enough lighting for safety, while ensuring lighting does not produce glare for users, including pedestrians, drivers, or light trespass to neighbors.

EVIDENCE:

IESNA Security Lighting Committee. 2003. "Guideline for Security Lighting for People, Property, and Public Spaces." New York: Illuminating Engineering Society of America.

Painter, K. 1996. "The Influence of Street Lighting Improvements on Crime, Fear, and Pedestrian Street Use, after dark." *Landscape and Urban Planning* 35(2-3): 193-201.

ENVIRONMENTAL HEALTH

14. SMOKING. How well does the project incorporate efforts to restrict smoking in multi-family development and open spaces?

RATIONALE:

Each year, smoking causes about one in five deaths in the United States. Smoking continues to be an ongoing health issue and is one of concern in the Inland Empire. Furthermore, there is extensive evidence that indicates second hand smoke, especially in shared spaces, such as multifamily residential buildings, can be a health hazard for non-smokers in adjoining units.

CRITERIA:

Review the project for the following features:

- *No smoking in parks and public plazas, and*
- *Signage stating smoking bans in parks and public plazas, and*
- *Restrict smoking in multifamily residential buildings so as to protect tenants from the effects of secondhand smoke generated in nearby or adjoining units.*

EVIDENCE:

Centers for Disease Control and Prevention. 2014. "Health Effects of Cigarette Smoking." Smoking and Tobacco Use, Data and Statistics, Fact Sheets. Retrieved from: http://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/

15. NEAR-ROAD POLLUTION. How well does the project incorporate efforts to protect residents from the harmful effects of high volume roads?

RATIONALE:

Pollutants from cars, trucks and other motor vehicles are found in higher concentrations near major roads. People who live, work or attend school near major roads appear to have an increased incidence and severity of health problems associated with air pollution exposures related to roadway traffic, including higher rates of asthma onset and aggravation, cardiovascular disease, impaired lung development in children, pre-term and low-birthweight infants, childhood leukemia, and premature death.

CRITERIA:

Review the project for the following features:

- *Near-road landscaping that reduces particle concentrations and noise. Generally, include a context-appropriate vegetation barrier that is at least 20 feet and has full coverage (no gaps); and*
- *Locate homes at least 1,000 feet away from a high-volume road; and*
- *Install filtration systems for all buildings within 1,000 feet of a high-volume road.*

EVIDENCE:

California Department of Education. 2015. Sustainable Communities and School Planning. Retrieved from: <http://www.cde.ca.gov/ls/fa/bp/documents/bestprcticesustain.pdf>

California Environmental Protection Agency. 2017. Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways. Retrieved from: https://www.arb.ca.gov/ch/rd_technical_advisory_final.PDF

16. NOISE POLLUTION. How well does the project mitigate noise pollution for all residents?

RATIONALE:

Noise pollution can negatively impact the physical and mental health of residents. Unwanted noise may increase due to population growth, street traffic changes, and even mobile technology. Long term exposure to excessive noise can lead to stress, fatigue, hearing loss, and loss of productivity.

CRITERIA:

Review the project for the following features:

- Active rooms, such as kitchens, placed in locations that buffer sounds from roads in rooms where noise is more problematic, such as bedrooms; and
- Minimize exposure to noise pollution in outdoor spaces by planting earthen berms with grasses or shrubs; and
- Use of green roofs, which can absorb noise and reduce outside sound levels by up to 40-50 decibels; and
- Reduce exposure to noise pollution for building occupants by incorporating acoustically designed walls, double-glazed windows, and well-sealed doors.

EVIDENCE:

Brophy, V. and JO Lewis. 2011. A Green Vitruvius. London: Earthscan.

Kryter, K. 1994. The Handbook of Hearing and the Effects of Noise: Physiology, Psychology, and Public Health. San Diego: Academic Press.

Office of Disease Prevention and Health Promotion. (n.d.) "Environmental Health." Healthy People 2020. Retrieved from: <https://www.healthypeople.gov/2020/topics-objectives/topic/environmental-health>

17. ENVIRONMENTAL JUSTICE. How well does the project mitigate any impacts that would disproportionately affect disadvantaged communities?

RATIONALE:

The negative impacts of the built environment disproportionately impact disadvantaged communities, including higher incidences of respiratory disease, cancer, obesity, and developmental diseases. Community design, together with planning decisions, can play a key role in making these communities healthier and mitigating the impacts of existing land use patterns and transportation investments in the region.

CRITERIA:

Review the project for the following features:

- Minimize exposure to hazardous contaminants, including contaminated soils, pesticides, contaminated groundwater, and emissions by not siting residential development near or in the path of exposure sites (e.g., bus fleets stations, factories, power plants, landfills, and areas of pesticide spraying)
- Minimize development of sensitive land uses - defined as schools, hospitals, residences, and elder and childcare facilities - near air pollution sources - including freeways, high volume roads, airplane landing paths, and polluting industrial sites.

EVIDENCE:

California Department of Education. 2015. Sustainable Communities and School Planning. Retrieved from: <http://www.cde.ca.gov/ls/fa/bp/documents/bestprcticesustain.pdf>

Environmental Protection Agency. 2016. "Technical Guidance for Assessing Environmental Justice in Regulatory Analysis." Retrieved from: https://www.epa.gov/sites/production/files/2016-06/documents/ejtg_5_6_16_v5.1.pdf

Srinivasan, S. and L. O'Fallon, A. Deary. 2003. "Creating Healthy Communities, Healthy Homes, Healthy People: Initiating a Research Agenda on the Built Environment and Public Health." American Journal of Public Health 93(9): 1446-1450.

18. INDOOR AIR QUALITY. How well does the project incorporate the use of materials and products that support healthy indoor quality?

RATIONALE:

Poor indoor quality can contribute to chronic disease, including asthma, heart disease, and cancer. Poor ventilation, humidity, and exposure to carbon monoxide can exacerbate negative impacts to health. Most exposure to environmental pollutants occurs by breathing air indoors.

CRITERIA:

Review the project for the following features:

- Building materials that are not known to emit harmful toxins; and
- Reduce occupant exposure to VOCs by using cabinetry, doors, molding, shelving, and trim materials with low VOCs. Employ caulking, adhesives, paints, varnishes, and other finishes that are free of solvents and VOCs; and
- Reduce occupant exposure to molds by using mold resistant materials in community bathrooms and other water sensitive locations.

EVIDENCE:

American Lung Association. (n.d). "Healthy Air at Home." Retrieved from: <http://www.lung.org/our-initiatives/healthy-air/indoor/at-home/>

Environmental Protection Agency. (n.d). "Improving Indoor Air Quality." Retrieved from: <https://www.epa.gov/indoor-air-quality-iaq/improving-indoor-air-quality>

COMMUNITY COHESION

19. PASSIVE SPACES. How well does the project incorporate spaces that facilitate social engagement?

RATIONALE:

Creating public spaces that promote the engagement of residents and high connectivity of neighborhoods and services have positive impacts on health. The good design of public spaces is important to ensuring not only their use, but the encouragement of socialization and activity.

CRITERIA:

Review the project for the following features:

- *Plazas, a central square, dog runs, and bbq areas that encourage social interaction and enhance opportunities for physical activity; and*
- *Seating that encourages people to be comfortable in parks and public spaces; and*
- *Design that promotes public gathering and use of open space for activities, places for food, and flexibility for multiple uses, including:*
 - *Visible and accessible entrances, spaces, and paths,*
 - *Functional structures,*
 - *Pedestrian and bicyclist access,*
 - *Public art,*
 - *Close access to public transit.*

EVIDENCE:

Eitler, Thomas W., E.T. McMahon, and T.C.Thoerig. 2013. Ten Principles for Building Healthy Places. Washington, D.C.: Urban Land Institute.

Project for Public Spaces. 2009. Why Public Spaces Fail. Retrieved from: <http://www.pps.org/reference/failedplacefeat/>

20. RECREATIONAL SPACES. How well does the project incorporate facilities and access to a variety of recreational opportunities for all users?

RATIONALE:

Having accessible recreation, exercise, or sports facilities in neighborhoods tends to be associated with active recreation. Additionally, research has shown that children are more physically active in preschools that have more available playground equipment and a larger space for outdoor play.

CRITERIA:

Review the project for the following features:

- *Sports fields, courts, swimming pools, tot lots, putting green, recreational gardening and fitness facilities, including:*
 - *Baseball or softball diamonds, soccer fields, an open play green, a skate park, basketball, tennis, sand volleyball, and/or practice fields; or*
 - *Swimming pools, which may include an adult lap pool and spa, a children's pool, a splash park; or*
 - *Equestrian staging area (if appropriate to the context).*
- *Parks that emphasize open space and natural habitat, have minimal development, and are well distributed throughout the site. Park amenities may include:*

- *Open lawns*
- *Restrooms*
- *Shade structures*
- *Picnic areas*
- *Interpretive areas and interpretive signage*
- *Park facilities for users of all ages with different recreational needs, interests and abilities. Seniors and very young children in particular have unique needs. Consider the following age-specific park infrastructure:*
 - *Very young children (age 0-6): tot lots, splash pads*
 - *Older children (6-18): sports fields, courts, skate park*
 - *Adults: sports fields, putting green, gardening and fitness facilities, adult lap pool*
 - *Senior (age 60+): gardening and fitness facilities, adult lap pool, trails*

EVIDENCE:

Bauman, A. E., and F.C. Bull. Environmental Correlates of Physical Activity and Walking in Adults and Children: A Review of the Reviews. London: National Institute of Health and Clinical Excellence. Retrieved from: <http://www.nice.org.uk/nicemedia/pdf/word/environmental%20correlates%20of%20physical%activity%20review.pdf>

Harnik, P. and B. Welle. 2011. From Fitness Zones to the Medical Mile: How Urban Park Systems Can Best Promote Health and Wellness. Trust for Public Land. Retrieved from: <https://www.tpl.org/sites/default/files/cloud.tpl.org/pubs/ccpe-health-promoting-parks-rpt.pdf>

Ulrich, R. Evidence Based Environmental Design for Improving Medical Outcomes. Retrieved from: http://muhc-healing.mcgill.ca/english/Speakers/ulrich_p.html

21. COMMUNITY SPACES. How well does the project incorporate facilities and access to a multi-purpose community space accessible to the public?

RATIONALE:

Adaptable, multi-purpose community rooms can help foster a sense of social cohesion and offer space for education and health related programming. Education and lifelong learning can improve social well-being and help maintain cognitive function as people age.

CRITERIA:

Review the project for the following features:

- *At least one community space in every community and/or neighborhood; and*
- *Community room with multi-use spaces, including recreational rooms, auditoriums, outdoor plazas, and green building features; and*
- *Integration of community rooms with parks, open space facilities, and cultural centers.*

EVIDENCE:

American Society of Landscape Architects. 2014. "Health Benefits of Nature." Professional Practice. Retrieved from: <http://www.asla.org/healthbenefitsofnature.aspx>

Eitler, T. and E. McMahon, T. Thorig. 2013. Ten Principles for Building Healthy Places. Washington DC: Urban Land Institute.

ACCESS TO FOOD, SERVICES, AND JOBS

22. GROCERY. How well does the project integrate access to a full-service grocery store (e.g., sells meat, dairy, fruits and vegetables) within reasonable walking distance of all residents?

RATIONALE:

Residents of communities with access to healthy foods have healthier diets. Proximity to supermarkets is associated with lower rates of obesity and the presence of convenience stores is associated with higher rates of obesity.

CRITERIA:

Review the project for the following features:

- A neighborhood market within the project design, or
- A public, multi-use space that allows for food markets, or
- Access to a full-service grocery store within reasonable walking distance.

EVIDENCE

Sallis, J., and Karen Glanz. 2009. "Physical Activity and Food Environments: Solutions to the Obesity Epidemic." *Milbank Quarterly*. 87 (1): 123-154.

Wakefield, J. 2004. "Fighting Obesity Through the Built Environment." *Environmental Health Perspectives* 112(11): A616-A618.

23. COMMUNITY GARDEN. How well does the project incorporate space for growing food onsite through community gardens, edible landscaping, or small scale farming within a reasonable walking distance from residential development?

RATIONALE:

Community gardens provide a whole host of community benefits in addition to serving as an additional source of healthy food. Participation in community gardening is associated with higher fruit and vegetable intake, though, and can be an effective strategy at improving access to healthy foods.

CRITERIA:

Review the project for the following features:

- Community gardens in neighborhood parks and residential development as part of project design; or
- Joint-use agreements with local school districts or other entities (if necessary to ensure access to a school garden); or
- Access to a community garden within reasonable walking distance.

EVIDENCE:

Eitler, Thomas W., E.T. McMahon, and T.C. Thoerig. 2013. *Ten Principles for Building Healthy Places*. Washington, D.C.: Urban Land Institute.

Lovell, S. 2010. "Multifunctional urban agriculture for sustainable land use planning in the United States." *Sustainability* 2(8): 2499-2522.

24. FARMER'S MARKET. How well does the project designate space or provide access to a farmer's market within reasonable walking distance?

RATIONALE:

Proximity to farmer's markets has been found to be associated with lower body mass index (BMI) among youth, while density of fast-food and pizza venues has been found to be associated with higher BMI.

CRITERIA:

Review the project for the following features:

- Space included for a farmer's market within project design; or
- Access ensured to a farmer's market within reasonable walking distance.

EVIDENCE:

Jilcott, S. B., and S. Wade, J.T. McGuirt, Q. Wu, S. Lazorick, J.B. Moore. 2011. *The association between the food environment and weight status among eastern North Carolina youth.* Public Health Nutrition 14(09): 1610-1617.

Leadership for Health Communities. 2007. Action Strategies Toolkit. Washington, D.C.: Robert Wood Johnson Foundation.

25. HEALTHY FOOD. How well does the project maintain a balance of healthy and unhealthy food retailers?

RATIONALE:

Peoples' food choices and their likelihood of being overweight or obese are also influenced by their food environment. A popular measure of healthy and less healthy food availability in a given geographic area-including distance to food retailers, cost of foods, or density of food outlets- is the modified Retail Environment Food Index (mREFI), which is a ratio of fast-food restaurants and convenience stores compared to supermarkets, produce markets, and farmer's markets. Presence of fast food retailers has a negative effect on diets and diet related health outcomes.

CRITERIA:

Review the project for the following features:

- Restrict fast food retailers within ½ mile of schools, and
- Manage the allowance of fast food retailers relative to the ratio of healthy food retailers to unhealthy food retailers. This could be accomplished by utilizing the Modified Retail Environment Food Index Score. Calculate the mREFI, which is calculated for a census tract as (healthy retailers) / (healthy retailers + unhealthy retailers). Areas with a score of less than 5 are considered to have "poor access" to healthy retail food, scores of 5 to 10 to have "fair access," scores above 10 to 25 to have "good access," and scores above 25 to have "high access."

EVIDENCE:

Centers for Disease Control. 2011. "Census Tract Level State Maps of the Modified Retail Food Environment Index (mRFEI). Retrieved from: ftp://ftp.cdc.gov/pub/Publications/dnpao/census-tract-level-state-maps-mrfei_TAG508.pdf

Moore LV and AV Diez Roux, JA Nettleton, DR Jacobs, M Franco. 2009. "Fast-food consumption, diet quality, and neighborhood exposure to fast food: the multi-ethnic study of atherosclerosis." *American Journal of Epidemiology* 170 (1): 29-36.

26. JOBS. How well does the project design promote shorter commutes and better access to jobs?

RATIONALE:

Jobs-housing balance is an indirect method of estimating how much commuting future residents of the proposed community might have to endure. While some may find driving enjoyable, commuting is generally a stressful activity that affects one's health and one's social ties to their community. Extended commutes increase stress, with implications for both mental health and familial relationships.

CRITERIA:

Review the project for the following features:

- *Design includes more housing near job-center areas; or*
- *Includes jobs near housing-dense areas; or*
- *Includes affordable housing between job center areas; or*
- *Creates mixed-use projects that include jobs and housing.*

EVIDENCE:

California Planning Roundtable. 2008. "Deconstructing Jobs-Housing Balance." Retrieved from: http://www.cproundtable.org/media/uploads/pub_files/CPR-Jobs-Housing.pdf

Frank, LD and MA Andresen, TL Schmid. 2004. "Obesity Relationships with Community Design, Physical Activity, and Time Spent in Cars. American Journal of Preventive Medicine 27(2): 87-96.

Freeman, Lance. 2002. "The Effects of Sprawl on Neighborhood Social Ties: An Explanatory Analysis". Journal of the American Planning Association 67 (1): 69-77.

Koslowsky, M. and A. Kluger, M. Reich. 1995. Commuting stress: causes, effects, and methods of coping. New York: Plenum Press.

27. HEALTH SERVICES. How well does the project provide future residents with access to health services?

RATIONALE:

The inability to access public transit poses a significant barrier for low-income patients to access health care services and can result in missed appointments, avoiding care, and deterioration of health conditions. One method to bridging the gaps in healthcare is by creating clinical-community partnerships, which can be more cost effective and culturally appropriate in addressing preventive care and population health.

CRITERIA:

Review the project for the following features:

- *Access to a clinic or health facility within reasonable walking distance, or*
- *Include multi-use spaces that could be used as a health center or to provide health services within the project design.*

EVIDENCE:

Active Living by Design. Clinical-Community Collaboration Case Examples. Retrieved from: <http://activelivingbydesign.org/resources/clinical-community-collaboration-case-examples/>

Hobson, J. and Julie Quiroz-Martinez. 2002. *Roadblocks to Health: Transportation Barriers to Healthy Communities*. Transportation for Healthy Communities Collaborative. Retrieved from: http://www.transformca.org/sites/default/files/roadblocks_to_health_2002.pdf

28. CHILDCARE. How well does the project support increased access to affordable and high quality childcare?

RATIONALE:

Access to quality childcare is vital to a child’s early development and also contributes to important economic benefits, including direct and indirect job benefits, increased tax revenues, and a more productive workforce. Communities, cities, and developers are finding unique ways to partner in supporting child care facilities as part of development projects and land use plans.

CRITERIA:

Review the project for the following features:

- Mixed use development included as part of project design; or
- Design of flexible, multi-use spaces that could be used as a child care center; or
- Access to a child care center within reasonable walking distance.

EVIDENCE:

Hodgson, K. 2011. Child care and Sustainable Community Development. (*American Planning Association Family Friendly Communities Briefing Papers*). Retrieved from: <https://www.planning.org/research/family/briefingpapers/childcare.htm>

Local Investment in Child Care (LINCC). 2008. “Building Child Care Into New Developments: A Guide For Creating Child Care Facilities In Transit-Oriented Developments.” Retrieved from: <http://www.reconnectingamerica.org/assets/Uploads/20080624linccdevBRweb.pdf>

PolicyLink and the Marguerite Casey Foundation. 2016. *High-Quality, Affordable Childcare for All: Good for Families, Communities, and the Economy. (Issue Brief Series: The Economic Benefits of Equity)*. Retrieved from: <http://www.policylink.org/sites/default/files/Childcare-for-All-FINAL-05-06-16.pdf>

29. MIXED-USE. How well does the project integrate mixed-use development?

RATIONALE:

There are many different health and wellbeing benefits to living in a mixed-use area. Youths, adults, and seniors residing in neighborhoods with mixed land use typically engage in more total physical activity than those in single-use neighborhoods. Adults are more likely to walk if they live in neighborhoods with high connectivity, high population density, and mixed land use. Additionally, one primary characteristic of a high quality healthy community is mixed land use, where residents live in proximity to services and amenities, rather than in purely residential environments.

CRITERIA:

Review the project for the following features:

- Neighborhood-serving uses, such as food markets, libraries, dry cleaning services and beauty salons within the project design; and
- Retail and service uses on the ground floor to entice pedestrians.

EVIDENCE:

Barton, H. and C. Tsourour. 2001. *Healthy Urban Planning*. New York: Routledge.

Eitler, T. and E. McMahon, T. Thorig. 2013. *Ten Principles for Building Healthy Places*. Washington DC: Urban Land Institute.

Frank, LD and MA Andresen, TL Schmid. 2004. "Obesity Relationships with Community Design, Physical Activity, and Time Spent in Cars. *American Journal of Preventive Medicine* 27(2): 87-96.

Frumkin, H. and L. Frank, R. Jackson. 2004. *Urban Sprawl and Public Health: Designing, Planning, and Building for Healthy Communities*. Washington, DC: Island Press.

30. MIXED-HOUSING. How well does the project contribute to a mix of housing options that will allow all potential household sizes, incomes, and types to become neighbors and share available amenities?

RATIONALE:

Offering housing that is affordable to local workers is crucial, as a mix of housing that meets a diversity of needs and incomes allows diverse professionals to live in the community in which they work. There are ample benefits to having housing that can accommodate local workers, including increased social cohesiveness and a decrease in the amount of driving necessary to support a community.

CRITERIA:

Review the project for the following features:

- An inclusionary housing requirement, and
- Design of multi-generational housing, and
- A wide range of housing for diverse household sizes and types.

EVIDENCE:

Fraser, J. and R. Chaskin, J Bazuin. 2013. *Making Mixed-Income Neighborhoods Work for Low-Income Households*. *Cityscape: A Journal of Policy Development and Research* 15(2): 83-100.

Urban Land Institute. 2003. *Mixed Income Housing, Myth and Fact*. Retrieved from: <http://inclusionaryhousing.ca/wp-content/uploads/sites/2/2010/01/ULI-Mixed-Income-Hsg-2003.pdf>

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- American Association of State Highway and Transportation Officials. 2011. A Policy on Geometric Design of Highways and Streets. Washington, DC: American Association of State Highway and Transportation Officials.*
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- American Public Transportation Association. 2009. "Defining Areas of Influence." (Recommended Practice). Retrieved from: <http://www.apta.com/resources/standards/Documents/APTA%20SUDS-UD-RP-001-09.pdf>*
- American Society of Landscape Architects. 2014. "Health Benefits of Nature." Professional Practice. Retrieved from: <http://www.asla.org/healthbenefitsofnature.aspx>*
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- Boarnet, MG, and CL Anderson, K. Day, T. McMillan, M. Alfonzo. 2005. "Evaluation of the California Safe Routes to School legislation: urban form changes and children's active transportation to school." American Journal of Preventive Medicine 28 (2): 134-40.*
- Boodlal, L. 2003. "Accessible Sidewalks and Street Crossings - an informational guide." US Department of Transportation, Federal Highway Administration. Retrieved from: http://www.bikewalk.org/pdfs/sopada_fhwa.pdf*
- Brophy, V. and JO Lewis. 2011. A Green Vitruvius. London: Earthscan.*
- California Department of Education. 2015. Sustainable Communities and School Planning. Retrieved from: <http://www.cde.ca.gov/ls/fa/bp/documents/bestprcticesustain.pdf>*
- California Planning Roundtable. 2008. "Deconstructing Jobs-Housing Balance." Retrieved from: http://www.cproundtable.org/media/uploads/pub_files/CPR-Jobs-Housing.pdf*
- Center for Active Design. 2010. "Active Design Guidelines: Promoting Physical Activity and Health In Design." City of New York.*
- Centers for Disease Control and Prevention. 2014. "Health Effects of Cigarette Smoking." Smoking and Tobacco Use, Data and Statistics, Fact Sheets. Retrieved from: http://www.cdc.gov/tobacco/data_statistics/fact_sheets/health_effects/effects_cig_smoking/*
- Centers for Disease Control. 2011. "Census Tract Level State Maps of the Modified Retail Food Environment Index (mRFEI). Retrieved from: ftp://ftp.cdc.gov/pub/Publications/dnpao/census-tract-level-state-maps-mrfei_TAG508.pdf*
- ChangeLab Solutions. (n.d.) "Pedestrian Friendly Code Directory: Eyes on the Street." Retrieved from: <http://www.changelabsolutions.org/childhood-obesity/eyes-street>*

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- Convergence Partnership. 2006. *Healthy, Equitable Transportation Policy*. Retrieved from: http://www.convergencepartnership.org/sites/default/files/healthtrans_fullbook_final.PDF
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- Environmental Protection Agency. (n.d). "Improving Indoor Air Quality." Retrieved from: <https://www.epa.gov/indoor-air-quality-iaq/improving-indoor-air-quality>
- Environmental Protection Agency. 2015. *Near Roadway Air Pollution and Health*. Retrieved from: <http://www3.epa.gov/otaq/nearroadway.htm>
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- Forsyth, A. and L. Smead (Eds.). 2015. *Mobility, Universal Design, Health, and Place (A Research Brief)*. Health and Places Initiative. Retrieved from: http://research.gsd.harvard.edu/hapi/files/2015/11/HAPI_ResearchBrief_UniversalDesign-112315.pdf
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