

5.5 Opportunities With Future Land Use Changes

Building and Site Improvements

The 2015 Campus Master Plan Update will direct campus development and reinvestment to meet the academic and campus needs and trends anticipated in the next 20 years. While the master plan is highly conceptual, it is intended as a road map to guide future development and provides an effective tool for use in planning future green infrastructure opportunities.

The 2015 Campus Master Plan Update suggests the following with respect to green infrastructure and stormwater management planning:

1. Substantial redevelopment is likely to occur in the vicinity of Lot 60 with the development of a new combined Track/Soccer facility. Surface parking will be replaced with a new parking structure flanked by new academic buildings and access road south of Marsh Lane near the existing marching band practice field. This work offers opportunities for pollutant reductions through the reduction in driving surfaces as well as opportunities for drainage reconfiguration and new green infrastructure facilities.
2. Also in the west campus area, it is anticipated that the campus physical plant grounds storage will be relocated. A primary focus area of the master plan is restoration of the Willow Creek corridor. These initiatives offer opportunities for reducing pollutant loading through land use modification and introduction of new green infrastructure practices.
3. Substantial modifications are anticipated in the near west campus area including expansion of the Veterinary Medicine building to the existing Lot 62, eventual removal and reconstruction of the Meat Science and Muscle Biology Lab, reconfiguration of Linden Drive, and other initiatives. A vision of the master plan is to develop this area as a “green” neighborhood offering opportunities such as addition of green street reaches on Linden and Observatory Drives as well as introduction of new biofiltration areas. In addition to pollutant reductions offered through new biofiltration and green street practices, replacement of Lot 62 with rooftop surfaces will substantially reduce pollutant loads from this district.
4. The Near East Athletic Fields and Natatorium are planned for reconstruction within the next 5 years. Because campus recreation space is at a premium, opportunities for surface stormwater treatment are limited. However, subsurface stormwater treatment may be viable below a portion of the Near East Athletic Fields. Two major storm sewers serving a cumulative tributary area of over 40 acres intersect at the Observatory Drive/Elm Drive intersection, just southeast of the fields. Given the proximity of this intersection, and the potential area served, substantial reductions in pollutant loadings could be achieved through a large scale facility at this location.
5. Lot 34, located east of Tripp Residence Hall and near the base of Observatory Hill, is planned for removal as part of the master plan. The removal of Lot 34, in conjunction with planned Observatory Hill landscape enhancements, creates the opportunity for a highly visible stormwater treatment feature as described in Chapter 5.
6. A primary master plan goal is to improve north-south pedestrian and vehicular movements through the “superblock”, bounded by Linden Drive to the north, Henry Mall to the west, University Avenue to the south, and North Charter Street to the east. The long term plan calls for replacement or major renovation of all buildings along Linden Drive as well as replacement of the Lot 20 Parking Ramp, Taylor Hall, and 445 Henry Mall. Introduction of open spaces and courtyards in this block will provide the opportunity for either surface or underground stormwater management features.
7. South Campus is currently a highly urban mix of campus buildings, private housing, and commercial areas. The master plan seeks to improve access to areas to the north, improve campus identity, and provide additional centralized social and recreational spaces. Due to the expected increase in density in this area, opportunities for district-wide practices may be limited. However, site-level practices such as green roofs, permeable pavement areas, green streets, and small biofiltration areas are expected to become more prominent features.



Figure 5-55 2015 Master Plan Primary Areas of Redevelopment

5. GREEN INFRASTRUCTURE MASTER PLAN

- The master plan includes extensive utility and transportation improvements throughout campus. These projects are unique in that they often include in-kind surface replacement and are often not subject to post-construction stormwater permitting. Consequently, the feasibility of implementing green infrastructure practices such as replacement of impervious cover with permeable pavement or other BMP opportunities are rarely budgeted or explored. Future scoping and budgeting studies should include consultation with this document and consultation with FP & M staff to identify opportunities for implementation of practices such as green streets, biofiltration areas, permeable pavement or other related practices. These opportunities are described in more in Chapter 5.

Impervious Change

Building and site improvements identified in the proposed master plan will maintain or slightly reduce the amount of campus impervious area. As shown in Figure 5-56, master plan land use will reduce impervious traffic areas by approximately 14.2 acres and increase impervious non-traffic area by approximately 13.8 acres. This will reduce overall campus imperviousness by approximately 0.4 acres.

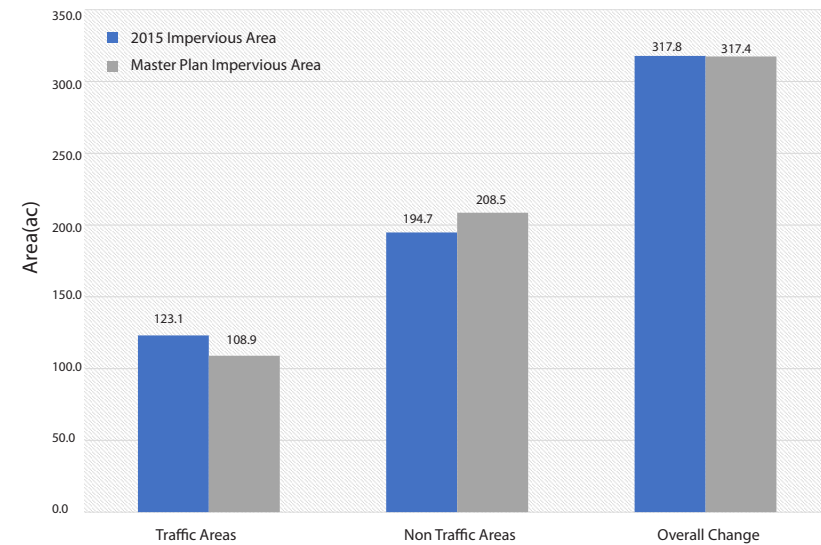


Figure 5-56 Anticipated Impervious Area Change – Permit Area

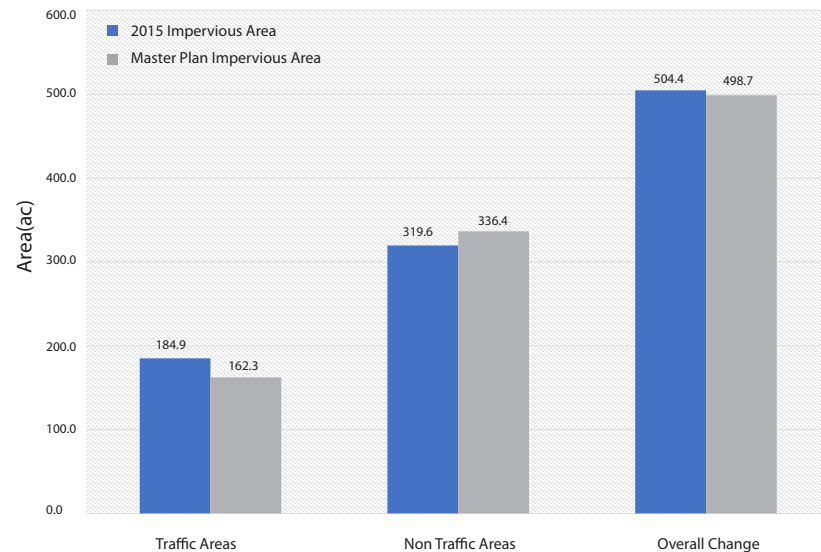


Figure 5-57 Anticipated Impervious Area Change – Total Campus

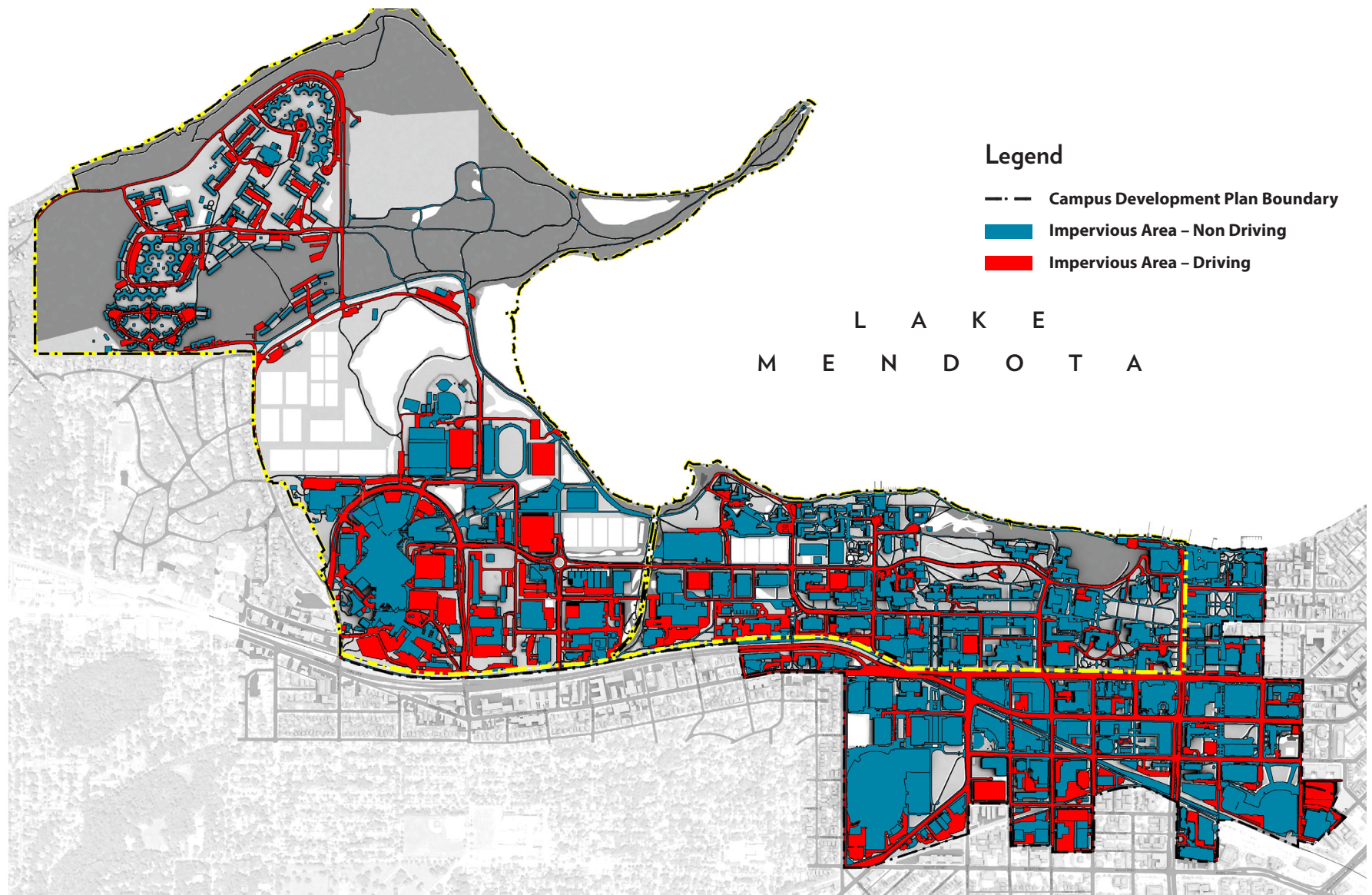


Figure 5-58 Master Plan Impervious Areas

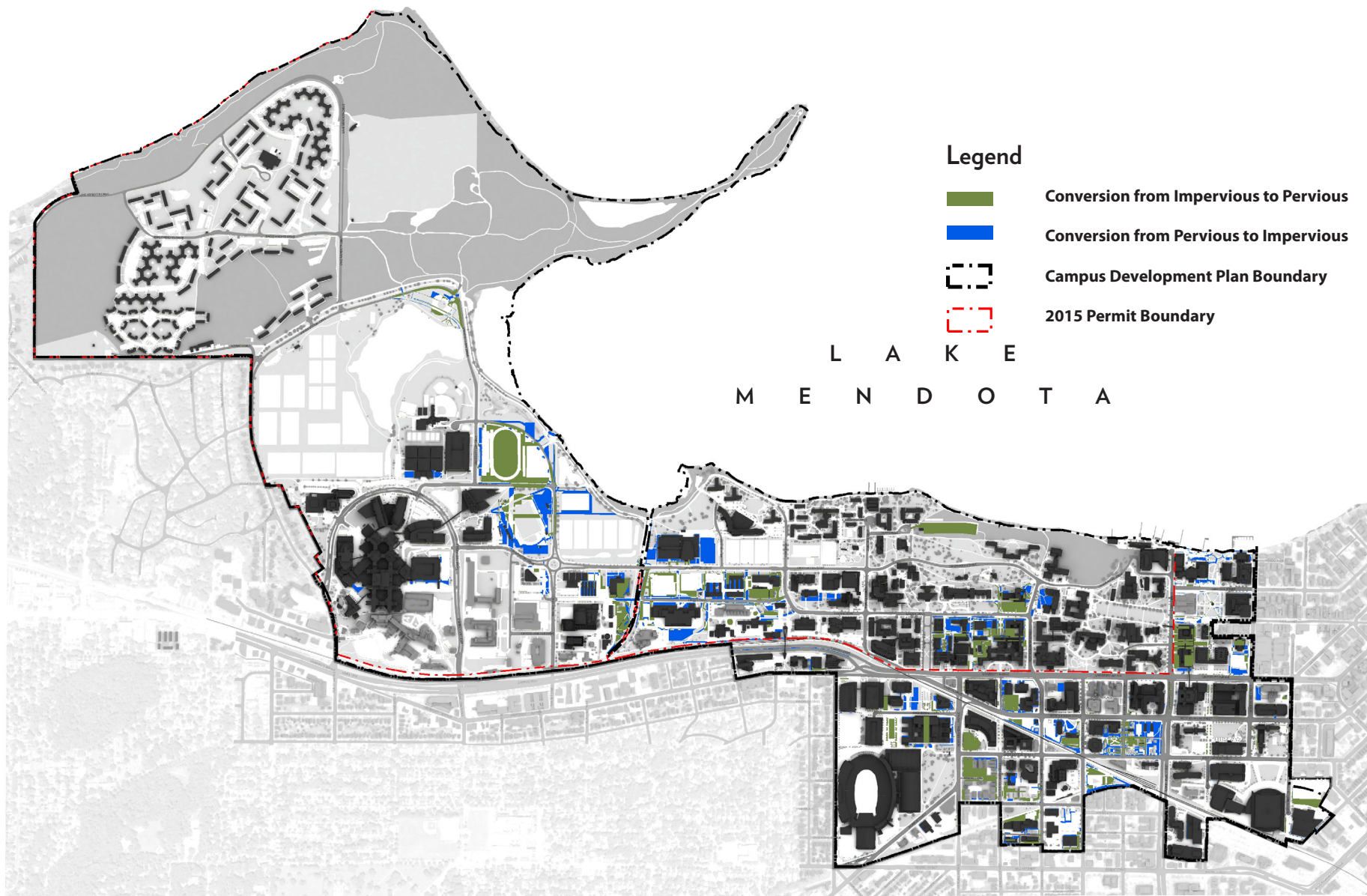


Figure 5-59 Anticipated Impervious Area Change, Existing to Master Plan