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Located at the core of the City of Denver and the heart of the larger metropolitan area, the Auraria Higher Education Center (AHEC or Auraria) campus occupies 126 acres within a five minute walk of Denver’s financial district, its theater and convention district, and many of its most vibrant mixed-use neighborhoods. Leaders of the campus’ three educational institutions - along with campus administrators - have long valued the proximity of the campus to the civic core and the relationships with the civic leadership and business and cultural community that the location affords.

As the Denver metropolitan area has grown in the last two decades, so too has the student population educated at the Auraria campus. Today, as the City and other jurisdictional agencies enthusiastically embrace growth through a number of concurrent planning and development activities (including RTD’s FasTracks program, the update of the Downtown Denver Area Plan, station area planning activities around light rail stations, and City planning and zoning code updates to guide private investment), they similarly show their enthusiasm for the health and growth envisioned by AHEC for its campus.

This report articulates the physical plan that supports AHEC’s vision in its role as educator for thousands of metropolitan-area residents, source for new employment to fuel the campus’ growth and perpetuate the City’s prosperity, and provider of learning and cultural activities to a broad local, regional, and national audience. The plan illustrates a thoughtful relationship between the campus and surrounding neighborhoods, introducing land uses to the campus that are typical of these communities – residences, offices and other commercial uses, and retail – that provide continuity in the urban framework of Downtown Denver while respecting the existing boundaries of the campus. Within the campus, the Plan deploys an urban outlook for the development of buildings and open spaces and creates neighborhoods for the Community College of Denver (CCD), Metropolitan State College of Denver (MSCD), and the University of Colorado at Denver and Health Sciences Center (UCDHSC).

The plan also addresses difficult challenges of creating an administrative structure to fuel the level of capital investment needed in the campus today and to keep pace with the continued growth of demand predicted for education at each of the three Auraria institutions.
1970 - Auraria Higher Education Center: Vision and Intent

During the early 1970s, the Denver Urban Renewal Authority assembled the AHEC campus on blighted land formerly known as the Town of Auraria. The campus was envisioned to be shared by three institutions – CCD, MSCD, and UCDHSC – creating one of the largest urban higher education campuses in the nation. Core to the Auraria concept was the intention of AHEC and institutional administrators in undertaking their respective missions with the perspective that the City of Denver is their partner, and the central business district a learning laboratory for their students.

The AHEC campus, originally planned for 13,000 full time (equivalent) students, opened in 1976. Two elements of the pre-existing community were honored in the planning and design of the campus: the historic street grid system of the Town of Auraria and the preservation of architecturally and culturally significant buildings (including the Tivoli Brewery building, St. Elizabeth’s Church, St. Cajetan’s Church, the Emmanuel Gallery, and the historic homes along what is now 9th Street Park – some of which were relocated to 9th Street from other locations). With a large amount of acreage on the new campus, the first generation of academic buildings were developed at three stories or less and concentrated on the eastern half of the campus. Portions of the west edge of the campus are in the 100-year floodplain of the Platte River, and the majority of campus land west of 9th Street was dedicated to surface parking.

Since the inception of planning for the campus, there has been recognition that an administrative role is needed to facilitate collaboration of its host institutions on issues of common concern. AHEC administrators consult with the senior administration for each of the three educational institutions in the management of physical resources; planning for capital funding; attraction and management of private development on campus; design and operation of buildings and infrastructure; planning for transportation access to, on, and through the campus; provision of parking; management of the student center and shared student services; operation of childcare services; provision of campus recreation; and management of public safety. AHEC’s goal is to manage the campus in support of the distinct missions of each individual academic institution.
1990 - Historic Preservation, Denver Parks and Parkways
Two decades after the inception of the Auraria campus, historic preservation considerations related to both Denver’s park and parkways system and the campus’ historic buildings influenced the plan and the identity of the campus – while still maintaining the original vision of campus form and modern architecture. The design intent of this plan was to create a park-like identity for the campus to benefit of AHEC community and surrounding neighborhoods. The campus would share attributes with Denver’s parks and parkways and, by association, maintain an identity distinct from the City’s neighboring economic center. Focus was given to planting more than 3,000 trees, enhancing the historic landscape of campus edges, creating a system of connected landscapes on the campus, and view protection to historic landscapes and buildings.

Today - Campus in the City: Momentum for Change
Recent municipal plans contemplate the relationship of AHEC to its surroundings in ways that seek to improve both the physical and perceptual connection of the campus with the city’s core business district. For example, the 2003 document “Denver Park and Recreation Plan” (DPR) is the first of the City’s plans of the last decade to articulate a vision for the Auraria campus – proposing a “land bridge” over Speer Boulevard to connect the Auraria Campus and the Denver Center for the Performing Arts. Focus was given to planting more than 3,000 trees, enhancing the historic landscape of campus edges, creating a system of connected landscapes on the campus, and view protection to historic landscapes and buildings.

In the same year, development of the city and region’s transportation strategy took form in the Regional Transportation District’s (RTD’s) FasTracks program, establishing a mass transit plan of new light rail, commuter rail, and enhanced bus service to meet the needs of the metropolitan area’s projected population of over 3.5 million residents by 2025. The FasTracks plan locates a new transit station at the west edge of the campus, bringing two additional lines to the campus in addition to the existing three lines that serve the Colfax at Auraria and existing Auraria West stations. Because of the convergence of rail lines serving the Central Business District, the southeast metropolitan corridor, the southwest metropolitan corridor, and the west metropolitan corridor, RTD estimates that upwards of 26,000 daily transfers will take place at the new Auraria West Station – making this station the second busiest in the entire regional light rail system.

Community College of Denver
The Community College of Denver was established in 1967. It offers open admissions to more than 14,000 students at six campuses, less than 40% of which are enrolled on a full-time basis. It offers associate degrees and educational certificates across more than 125 programs. The school forms important partnerships within the community, with K-12 schools and with local companies who train over 1,000 students every year.

Metropolitan State College of Denver
Established in 1965, Metropolitan State College of Denver offers its more than 21,000 students programs in the arts and sciences, professional and business sectors. Of its 51 majors, the school is best known for its programs in teacher-preparation, criminal justice and criminology. 60% of MSCD students are enrolled on a full-time basis and more than half are 24 years old and older. MSCD is designed to be a college accessible to a very broad spectrum of the population.

University of Colorado at Denver and Health Science Center
With roots in the Denver region that date to 1912, the University of Colorado at Denver and Health Science Center is described as Colorado’s premier urban university. In 2006, the University of Colorado at Denver and the University of Colorado Health Science Center merged. The newly combined institutions now offer more than 100 degree programs in 12 schools and colleges to its 27,000 students. The fall of 2006 saw over 12,000 students enroll at UCDHSC at the Auraria Campus, with 64% of these full-time students.
In development concurrent with this Plan, the Downtown Denver Area Plan (DDAP) is striving to describe a dynamic, safe, and pedestrian-oriented Downtown comprised of a number of distinct districts – including the Auraria district. The DDAP’s “Auraria Connection Working Group” is contemplating public-private partnerships to densify both the campus and privately-held properties at its edges, integrating the campus with Lower Downtown and the central business district through better relationships at the Speer Boulevard, Auraria Parkway, and Colfax Avenue edges. The group sees benefit in improving the pedestrian crossings and urban character of these streets and in enhancing cultural, economic, and job-training connections between the campus and the city.

Through the *Auraria Higher Education Center Master Plan Update*, AHEC provides details in support of the contemporary view that the success of the campus and its three academic institutions is best supported by a campus whose urban form, access to public transit, and proximities to employment, culture, and commerce complement those of other central business district neighborhoods.
3 CAMPUS GROWTH NEEDS

Enrollment projections for the campus suggest the need to construct nearly 1.2 million square feet of assignable space (asf) over the next two decades. This justifies nearly doubling the number of classrooms on campus, and is distinct from consideration of the need to renovate existing space – a large proportion of which is nearing the end of its first capital cycle.

Administrators of AHEC and the three academic institutions believe that the campus must pursue construction and renovation of a combination of instructional and non-instructional space as priorities. Only in doing so will campus facility growth be balanced and responsive to the increasing demands of the growing proportion of younger and full-time students seeking a more traditional campus experience at Auraria.

Enrollment Projections
Based on a yearly straight-line projection of student growth, the campus will accommodate nearly 6,000 additional students, faculty, and staff in the next twenty years.

Space Needs Projection
National guidelines suggest that AHEC currently has only 65 percent of the occupied space it needs to serve its existing population. Of this shortage, classroom facilities show the greatest deficit of academic categories. The campus has already undertaken the design and financing of additional science classroom space to reduce this deficit (as a renovation and expansion of the Science Building, introducing an additional 174,000 gsf of classroom and

![Table 3.1 Existing and Projected Student Enrollment](image)

<table>
<thead>
<tr>
<th>Institution</th>
<th>Existing FTE</th>
<th>2011 FTE Projected</th>
<th>2016 FTE Projected</th>
<th>2026 FTE Projected</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCDHSC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>5,594</td>
<td>5,706</td>
<td>6,098</td>
<td>6,769</td>
</tr>
<tr>
<td>Graduate</td>
<td>2,078</td>
<td>2,120</td>
<td>2,265</td>
<td>2,515</td>
</tr>
<tr>
<td>Total UCD</td>
<td>7,673</td>
<td>7,826</td>
<td>8,363</td>
<td>9,284</td>
</tr>
<tr>
<td>MSCD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>15,087</td>
<td>15,398</td>
<td>16,373</td>
<td>18,323</td>
</tr>
<tr>
<td>Graduate</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total MSCD</td>
<td>15,087</td>
<td>15,398</td>
<td>16,373</td>
<td>18,323</td>
</tr>
<tr>
<td>CCD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>5,022</td>
<td>5,285</td>
<td>5,617</td>
<td>6,281</td>
</tr>
<tr>
<td>Graduate</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>CCD Total</td>
<td>5,022</td>
<td>5,285</td>
<td>5,617</td>
<td>6,281</td>
</tr>
<tr>
<td>TOTAL ALL INSTITUTIONS</td>
<td>25,703</td>
<td>26,389</td>
<td>28,088</td>
<td>31,373</td>
</tr>
</tbody>
</table>

Table 3.2 Existing and Projected Faculty and Staff

<table>
<thead>
<tr>
<th>Institution</th>
<th>Existing FTE</th>
<th>2011 FTE Projected</th>
<th>2016 FTE Projected</th>
<th>2026 FTE Projected</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCDHSC</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>809</td>
<td>825</td>
<td>882</td>
<td>979</td>
</tr>
<tr>
<td>Staff</td>
<td>704</td>
<td>718</td>
<td>767</td>
<td>852</td>
</tr>
<tr>
<td>MSCD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>869</td>
<td>887</td>
<td>943</td>
<td>1,055</td>
</tr>
<tr>
<td>Staff</td>
<td>355</td>
<td>362</td>
<td>385</td>
<td>431</td>
</tr>
<tr>
<td>CCD</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty</td>
<td>156</td>
<td>164</td>
<td>175</td>
<td>195</td>
</tr>
<tr>
<td>Staff</td>
<td>173</td>
<td>182</td>
<td>193</td>
<td>216</td>
</tr>
<tr>
<td>Total Faculty</td>
<td>1,834</td>
<td>1,876</td>
<td>2,000</td>
<td>2,229</td>
</tr>
<tr>
<td>Total Staff</td>
<td>1,232</td>
<td>1,265</td>
<td>1,345</td>
<td>1,499</td>
</tr>
</tbody>
</table>

Source: Offices of Institutional Research at CCD, MSCD and UCDHSC.
laboratory space to the campus). AHEC has also developed a program plan for renovation and expansion of the South Classroom building on campus, which (among other uses) will increase the classroom inventory; however, this project currently has no funding. While this additional classroom space will help to alleviate some of the campus' space deficit, significant classroom need will continue to exist – and will only be propagated as enrollments grow. Therefore, it will be important for AHEC to define further classroom needs and develop program plans for at least one additional campus academic building in the near term.

Key among priorities for growth of capital facilities is the campus library. The Association of College and Research Libraries (ACRL) guidelines suggest that the library has a shortfall of stack and service space for its existing and planned collection. Assuming a growth in the library collection due to increased enrollment (without compensating for the relatively constrained per student size of the existing collection), an additional 100,000+/- asf of study and stack space will be needed in the next twenty years. In addition, a 2004 external study of the facility established that its electrical and networking capabilities are inadequate for the existing building and do not allow for expansion. Further, the study group recommended the need to redesign and equip library space for collaborative learning, including the provision of additional breakout rooms, expanded space for computer commons, and increased study carrels.

Athletics, physical education, and recreation space is a second category of non-academic space that is generally recognized as an immediate priority for expansion. At present, the campus is not able to attend to student demand for intramural and club sports given the use of outdoor playfields for intercollegiate athletics and as programmed space for academic departments. Metropolitan State’s Division II athletics programs also have less space than is required per national standards to support their needs, particularly in the current lack of a stand-alone NCAA-regulation softball field.

Another noteworthy space deficit is the general use category. Because of AHEC’s opportunity for shared facilities and mixed-use buildings, its large commuting student population, and access to facilities in the surrounding neighborhoods, this space analysis reduced the predicted need for assembly, exhibition, dining/food facilities, open lounges, merchandising, recreation, meeting rooms, and related service areas by 50 percent below national guidelines. Even with this adjustment, AHEC space needs for this variety of space will grow by over 200,000 (asf) in the next two decades.

In addition, within certain disciplines – such as teaching, childcare, child development and psychology, with a combined enrollment of over 2,000 students – the AHEC campus has no demonstration space rooms necessary for practice.
Table 3.3  Current Space Needs (expressed as assignable square feet)

<table>
<thead>
<tr>
<th>Use</th>
<th>Existing Floor Area</th>
<th>Total Space Needs</th>
<th>Deficit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Facilities</td>
<td>170,764</td>
<td>328,998</td>
<td>158,234</td>
</tr>
<tr>
<td>Laboratory Facilities</td>
<td>300,916</td>
<td>385,671</td>
<td>84,755</td>
</tr>
<tr>
<td>Office Facilities</td>
<td>404,080</td>
<td>498,830</td>
<td>94,750</td>
</tr>
<tr>
<td>Study Facilities</td>
<td>119,123</td>
<td>204,596</td>
<td>85,473</td>
</tr>
<tr>
<td>Special (athletics, etc.)</td>
<td>68,429</td>
<td>139,518</td>
<td>71,089</td>
</tr>
<tr>
<td>General Use Facilities</td>
<td>213,197</td>
<td>447,003</td>
<td>233,806</td>
</tr>
<tr>
<td>Support Facilities</td>
<td>95,698</td>
<td>100,231</td>
<td>4,533</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>1,372,207</strong></td>
<td><strong>2,104,846</strong></td>
<td><strong>732,639</strong></td>
</tr>
</tbody>
</table>

Table 3.4  Future Space Needs 2026 (shown as assignable square feet)

<table>
<thead>
<tr>
<th>Use Category</th>
<th>Space Need</th>
<th>Deficit of Current Space Compared to Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom Facilities</td>
<td>401,574</td>
<td>57%</td>
</tr>
<tr>
<td>Laboratory Facilities</td>
<td>470,084</td>
<td>36%</td>
</tr>
<tr>
<td>Office Facilities</td>
<td>606,743</td>
<td>37%</td>
</tr>
<tr>
<td>Study Facilities</td>
<td>247,502</td>
<td>52%</td>
</tr>
<tr>
<td>Special (athletics, etc.)</td>
<td>165,058</td>
<td>59%</td>
</tr>
<tr>
<td>General Use Facilities</td>
<td>539,014</td>
<td>60%</td>
</tr>
<tr>
<td>Support Facilities</td>
<td>121,499</td>
<td>21%</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>2,551,475</strong></td>
<td><strong>46%</strong></td>
</tr>
</tbody>
</table>

Space Needs Assumptions

The Plan describes space needs for the overall campus. Needs are established by applying an efficiency factor to established space standards and assumptions that would be applied to a typical single-institution analysis. Thus, planning predicts space efficiencies originally planned for the campus. An inventory of AHEC’s existing space – a total of 1,372,000 assignable and occupied square feet served as the foundation of analyzing the amount and types of space needed.

The consultant team’s experience at other campuses was combined with consideration of three sets of well-established guidelines to inform the program analysis: the Council of Educational Facility Planners International; Pennsylvania State System of Higher Education Capital Facilities Planning and Programming Criteria; and the Association of College Research and Libraries. Data regarding the existing and projected population of students, faculty, and staff was provided by each of the AHEC institutions. Assignment of existing space into HEGIS codes was conducted by AHEC. Because specific scheduling data was not available for all institutions, the consultant team estimated this critically important consideration of weekly student contact hours by multiplying the number of full time equivalent students by twelve credit hours for classrooms and by three credit hours for teaching labs.

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1 One can assume that a sum of assignable square feet calculation equates to 65% of total need as a gross square feet calculation. For example, the campus need of 2,551,475 assignable square feet can be assumed to represent approximately 3,925,346 gross square feet.
Classroom facilities – rooms used for scheduled instruction, including lecture halls, seminar rooms, and general-purpose classrooms – were assumed to be scheduled for 12 classroom hours per week per FTE. Space needs projections were calculated by assuming an average of 26 asf per student, with a maximum room use of 50 hours per week per classroom, a 75 percent room use rate, and 65 percent station occupancy. These numbers are recommended and are a more realistic target than AHEC’s reported average room use rate in order to allow for more practical scheduling and improved access to classrooms and labs for maintenance.

Laboratory space- rooms used for formally or regularly scheduled classes that require special purpose equipment or a specific room configuration for student participation, experimentation, observation, or practice, as well as service space – was analyzed at the individual institution level. Of this, 441,183 asf is assigned to teaching and the remainder 28,901 asf is assigned to research lab space.

The space model for research laboratories assumes that students and faculty at UCDHSC and MSCD will use these facilities. Currently, UCDHSC is the only AHEC institution engaged in this form of research, but MSCD aspires to develop a research program. Future laboratory space is based on assumed use patterns of 50 percent of all faculties in the sciences, 25 percent of UCDHSC science students, and 10 percent of MSCD science students requiring space.

The model assumes that, over time, the percentage of students needing dedicated research lab space will grow for UCDHSC to 50 percent of all science students and for MSCD to 15 percent of all science students. Growth assumptions did not distinguish across disciplines.

Office use guidelines establish a range of sizes depending on professional specialty. This level of detail was applied to individual AHEC institutions in establishing current and future space needs.

National guidelines for media production spaces (spaces used in the production or distribution of multi-media materials or signals, such as TV, radio, sound and photo studios, and video and software production or distribution space) establish a core need of space for increments of student enrollment (specific to graduate and undergraduate needs).
Campus Capacity to Accommodate Growth
The Plan represents development of the campus to fully accommodate academic growth needs, as described in this document. Today, the campus has approximately 2.3 million gross square feet of buildings for academic, administrative, service and support uses, and it is predicted to need an additional 1.8 million gross square feet of buildings for the same purposes to accommodate expected growth in student, faculty, and staff populations over the next twenty years and to cover existing space shortfalls. In addition to the identified campus expansion need, an estimated 419,000 gsf of existing buildings need a significant investment in renovation. As capital planning advances, AHEC may find rational to replace some of these buildings rather than expend nearly the same cost to renovate. This analysis of space factors growth (including instances of building replacement) at recommended square foot per occupant levels, but does not correct for existing overcrowding on campus. For example, while new classrooms added to accommodate student population growth and as replacement for inferior facilities are predicted at a reasonable space-per-student rate, the Master Plan does not consider construction of additional classrooms to ease overcrowding in those classrooms that are in a condition to justify continued use for the next two decades.

Campus development capacity was determined in two distinct methods in this Plan: the first related to the growth capacity of areas of the campus designated for the expansion of academic, administrative, service and support space; and the second related to those areas defined as opportunities for public/private development partnership. An analysis of potential growth of the campus tested replacement of antiquated buildings, replacement of parking lots with structured parking, and reconfiguration (and expansion) of open space to test potential for building growth.

Within those areas dedicated to academic purposes, the Plan identifies expansion opportunities totaling 2.8 million additional gross square feet. This level of growth assumes a density of development on campus in scale with the existing campus buildings, with an average building height of academic facilities at 3-stories. There exists significant additional capacity potential for the academic portions of the campus in the event that the institutions choose to develop buildings at a greater building height in the future.

With design of buildings to reflect the context of Denver's Lower Downtown and recognize the intent of view sheds that impact the campus, total capacity of areas set aside for public/private development partnerships is 2,040,000 gross square feet (a floor area ratio of 3.12). This is accomplished through a combination of core academic and campus support buildings at 4-to-6 stories, with up to a dozen taller buildings along Auraria Parkway.

Figure 3.4: Proposed and existing buildings
The Plan establishes five (5) development principles that serve as a framework to guide campus growth in the next two decades.

1. **Expand and intensify the campus to meet the current and future space needs of the Community College of Denver, Metropolitan State College of Denver, and the University of Colorado Denver and Health Sciences Center in a way that is consistent with the physical quality and character of the Auraria campus.** The Auraria campus was designed to accommodate a student population approximately one third of the 37,000 students it currently serves. The appealing campus character established in the 1970’s has been honored through subsequent construction of buildings and open spaces. However, the quality of the experience is challenging as the campus suffers from overcrowding, both in buildings and outdoors – with the exception of demand for parking spaces, which has decreased with increased transit use. This plan provides a framework for new construction to relieve overcrowding and accommodate future growth of the campus community.

Figure 4.1: Birds-eye view looking southwest from above the Colorado Convention Center

Figure 4.2: AHEC Master Plan - Building uses by program
2. Enhance the identity of the individual institutions without undermining the shared identity of the Auraria Campus. AHEC students, faculty, administrators, and alumni associate with their individual school more than the physical campus. Senior administrators of the three institutions believe that the allegiances of students and alumni will be enhanced through campus growth that strengthens the identity of the individual institutions relative to the campus. In turn, this is expected to generate greater success in alumni financial support and a greater sense of pride in the larger campus.

3. Support the educational objectives of the three institutions by creating new opportunities for learning in buildings and outdoors. The average time that US college students spend per week in classrooms is a fraction of the learning time they otherwise spend on campus in informal learning and extracurricular activities. Educators value and demand opportunities to enrich the non-classroom activities – academically related social interaction, cultural, and athletic/ recreational events - that complete the core of the classroom learning experience. This plan identifies means of enhancing both in- and out-of-classroom learning at Auraria.

Figure 4.3: AHEC Master Plan - Institutional Neighborhoods
4. Create strong physical and programmatic connections from the campus to Denver’s core, transit systems, and the regional park and parkways system. The Plan identifies many opportunities to link the campus to adjacent neighborhoods through physical and programmatic connections. In addition, by introducing commercial real estate investment to the campus, the Plan sets the stage for a new financing stream and creates opportunities for public/private partnerships to realize shared development interests and institutional space needs.

Timing is ideal to create these physical and programmatic connections. The City of Denver grew by nearly 20% in the decade of the 1990s. In the timeframe of 2005 to 2030, the Denver regional population is expected to grow by an additional 47%. This regional growth is expected to continue to rely on Downtown Denver as the employment hub, maintaining its current rate of nearly 10% of all employment in the region.

Figure 4.4: Aerial view of AHEC at anticipated build-out from the vantage of Downtown Denver
5. Develop a Plan that represents sustainable planning and design. The City’s Greenprint Denver Plan was released by Mayor Hickenlooper in July 2006. Developed through a process that involved community leaders both from government and the civic/business sector, the Plan articulates the missions and guiding principles for sustainable growth. The document provides concrete direction for the government sector and clear guidance to motivate private investment to consider sustainable practices in urban development.

Figure 4.5: Environmental considerations at AHEC
The Auraria Higher Education Center has undertaken this master planning update to address each institution’s growth aspirations within the context of a vibrant urban campus - one that is part of the fabric of a growing downtown Denver. Integral to the master planning exercise has been an analysis of how higher education institutions may benefit from public/private partnerships. Specifically, AHEC has sought to analyze how it may use its resources to leverage the private sector to bring vibrancy to the campus, support the academic mission, and potentially create additional financial resources for the three institutions.

Public/private development on the AHEC campus may offer many benefits:

- **Build connectivity between Auraria and Downtown.** In November 2006, the Downtown Denver Partnership published a report outlining the mutual benefits to both Auraria and the City in building better physical connections. These benefits include training opportunities for students, opportunities for businesses to locate in proximity to centers of learning, and economic development that occurs naturally around an anchor institution such as the Auraria campus.

- **A vibrant campus that reflects the needs of today’s students.** The three institutions vary widely in the type of students they enroll. However, the common ground is that, today, traditional and non-traditional students alike are increasingly sophisticated and have greater demands on their time. A campus that offers a variety of employment opportunities, as well as entertainment, retail, arts and culture, and housing options, will be an appealing destination to both full-time and part-time students.

- **New sources of revenue.** Commercial development offers a means for the institutions to monetize their real estate assets (land) and use these resources to invest in core academic programs.

- **Campus improvements that are not constrained by AHEC’s regulatory and state statutes.** The Plan encourages AHEC to build commercial and residential properties, leveraging third party dollars and using industry efficiencies and business practices.
The Plan identifies approximately 15 contiguous acres of the campus adjacent to Lower Downtown as a potential site for public/private partnerships that may support eventual build out of approximately 1.9 million square feet. Existing market studies and student enrollment data support the potential to develop this site in a way that is congruent with AHEC’s academic mission while still remaining commercially feasible. Proposed uses for the site include:

- Hotel/Conference facility with 200 to 250 rooms (150,000 gsf)
- Market rate housing for undergraduate and graduate students, faculty, and others (995,000 gsf)
- Commercial office space (200,000 gsf), potentially including businesses locating close to Auraria and Public radio/TV stations
- Academic / back office space (200,000 to 300,000 gsf)
- Retail and Arts and Culture spaces (200,000 to 300,000 gsf), including bookstore(s), movie theater and performance venues, fresh food market, cafes and restaurants, and service retail (FedEx Kinko’s, etc.).

Real Estate Transaction Models
Four (4) real estate transaction models were analyzed as potential approaches Auraria can use to proceed with development. These models were evaluated based on the financial risk / reward to AHEC and the institutions, and the amount of control they would exercise over the private development. The four models include:

- **Disposition**, or the sale of land;
- **Self Development**, where AHEC acts as the master developer taking full operational and investment risk;
- **Rapid Development**, where a single developer is selected for the rapid build out of the entire parcel; and,
- **Urban Development**, where project density is maximized using an incremental approach to development that allows AHEC to retain a continued financial and oversight role

The first two models, **Disposition and Self Development**, were discounted because they pose strategic risk to the Institutions. With the disposition of the land, the three institutions would give up future growth capacity for academic programs, while with self development, they would be required to make significant short-term capital investment while returns would be realized only in the future. Given the resource-constrained higher education environment, this would have an adverse impact on the quality of current and future academic programs. Therefore these two models, though technically feasible, are not recommended.

The remaining two models are both feasible and provide the means of realizing AHEC’s goals for development. These models were analyzed in depth for the qualitative as well as financial returns they would provide.
• **Rapid Development**: This approach assumes that AHEC would select a single developer for rapid build out of the entire parcel designated for public/private partnership. The advantage of this model is that it provides AHEC and the institutions some control over the private development while representing low development and operational risk. It also preserves some long-term value and does not require up-front financial investment. The disadvantages are that it prevents AHEC from realizing the full financial value of the development, limits their control over content, and likely requires resources of a national developer—thereby limiting all but a handful of local developers from participating.

• **Urban Development**: This approach assumes that AHEC will partner with a private entity to monetize its current land value and jointly undertake the vertical development of the parcel incrementally. This incremental approach results in a project that maximizes built density of the site while allowing multiple developers to participate in creating a lively and diverse physical environment. The advantages of this model are that it provides a significant role for AHEC and the three institutions to be involved in the visioning and planning of the site, provides immediate cash flow, and allows for control over mix of development. The disadvantage is that this is a unique structure that requires some internal capacity and the right partnership.

The Urban Development model is more likely to allow for a process where AHEC and the three institutions can help guide the private sector's involvement. Financial projections show that it is also the model which will maximize the long-term value of the site.

Financial projections of current and future land value are complex under the best of market circumstances since they rest on comparative data, active transactions, and predominant uses. The Auraria site has conditions attached which impact its value, specifically its disconnect from active markets in downtown, view shed restrictions, and a unique structure of ownership. The financial analysis took these conditions into account and resulted in the following conclusions:

- The Rapid Development model significantly undervalues the land given current restrictions and lack of proven market. This approach would allow only for built density as of right, and only for the level of development that the market can absorb in the near term. These factors result in a development program far short of the build out potential of the site. A smaller built program generates less revenue than a dense program, and thus significantly limits the residual land value. The only way to bring land value to a level considered closer to market is to remove or relieve some of the development restrictions, something that can only be done over time.
The *Urban Development* model results in a land valuation that is consistent with today's market if the land was free of restrictions. If put on the market today, without restriction, AHEC's land value is estimated at least at $20/sf (approximately $875,000 per acre or $13 million for a 15 acre parcel). The financial analysis of the projected incremental development, with a program of 1 million square feet, shows a present land value in the range of $10 million. This is driven largely by the density of development allowed by diminishing zoning restrictions and increased absorption as the market grows over time.

The difference between the land value in the financial analysis (10 million) and current market projection (13 million) can be explained by the fact that the analysis caps development conservatively within the guidelines of the Master Plan. However it is likely that the market will push the development around the edges of the parcel higher, thus increasing the density in the long run and increasing the value of the land closer to $13 million.

### Creating the Structure for Public/Private Partnerships

To prepare for either of these models, changes must be made to AHEC's administrative and governance authority.

First, while its prior experience with the Tivoli Center established AHEC's authority to execute a long-term ground lease of land with a private developer, these payments cannot be used to support academic investments. Ground lease payments can be pledged currently to pay off bonds; however, AHEC can bond only for auxiliary facilities without legislative approval. Looking to the future, AHEC may wish to develop ground lease arrangements and seek state legislative approval to apply some or all of these revenues toward academic purposes.

Alternatively, it can use the mechanism of the Auraria Foundation (or another special purpose foundation created for this project) to issue debt to leverage resources from the private sector back into the academic core. Though AHEC may consult with the Colorado Commission on Higher Education (CCHE) and the Colorado's Executive Branch, this model does not require legislative approval. Following are the major steps in the model:

- AHEC leases land to a Foundation for a nominal rate;
- The Foundation executes ground lease agreement with developer;
- Developer makes annual payments back to the Foundation;
- Foundation uses this revenue stream to issue bonds;
- Foundation undertakes capital projects on campus;
- Foundation leases projects back to AHEC for a nominal rate.
Second, the parcels identified for public/private partnership include parking lots currently encumbered by liens. The State of Colorado stipulates that parking facilities cannot be sold or encumbered while there is a lien in place. To respond to this constraint, AHEC must relocate any displaced parking elsewhere on campus or otherwise establish means of assuring that the debt coverage for parking bonds will not be affected negatively through changed use of the land.

Third, it would benefit AHEC to negotiate an Agreement with the City of Denver that sales and other tax revenue generated on the campus be reinvested in the campus. This will provide AHEC with an additional source of revenue to support investment in infrastructure and public spaces.

Fourth, a Business Improvement District, if established, could leverage the designated partner developer’s capacity to raise investment dollars and pay for operational expenses related to common areas.

The Plan recommends combining a real estate model with a funding structure that best supports Auraria’s educational mission and the Urban Development Strategy should be pursued using a Foundation (either the Auraria Foundation or a new special purpose foundation) as a bridge for bringing resources back to the academic core. This model will provide AHEC and the three institutions with:

- Control over the content of the development;
- Participation in the long term value creation of designated public/private partnership parcels;
- A significant source of new revenue to invest in academic building and programs.
The Plan accommodates growth for Auraria and enhances connections between the campus and the surrounding city-center communities. The Plan is inspired by AHEC Executive Vice President Dean Wolf’s articulation that AHEC and its institutions “consider the Denver community to be the ultimate partner and learning laboratory” and an important opportunity to leverage private investment on campus in order to help meet AHEC’s current and future capital needs. Physical improvements to narrow the real and perceived gap between the AHEC and city community across Speer Boulevard, increased building height and density of the AHEC campus that creates an urban character, improved street circulation, and introduction of private development and uses on campus collectively address this challenge of connectivity and community setting. The Plan further redistributes the location and scale of open space, athletic/recreation fields, and parking to better organize on-campus uses and serve the objective of community connections.

1 2001 master Plan
Campus Crossroads
The Plan builds on the strength and logic of the existing campus plan: buildings line the corridors of what would be Lawrence Street and 10th Street to create a crossroads of pedestrian circulation and campus activities. In the Plan, this intersection remains the heart of the campus – the "Campus Crossroads" where buildings that represent shared learning and experiences of the three academic institutions – including the library, academic buildings, and student center – are located.

The "Campus Crossroads" connects three distinct neighborhoods, each associated with one of the three AHEC institutions. These neighborhoods provide the three institutions (UCDHSC, MSCD, and CCD) with enhanced identity and the ability to accommodate institution-specific space needs while maintaining the efficiency of shared facilities and image of a unified campus.

Campus Connections
The AHEC academic institutions attribute their overall growth and changing student profile, in part, to the City of Denver’s solid economy and population growth. AHEC and community leaders both want to realize enhanced physical and programmatic connections between Auraria and its surrounding neighborhoods.

Figure 6.3: AHEC Master Plan - Campus development framework
The Master Plan for AHEC works to foster connections between the campus and the surrounding communities. These efforts are valuable to AHEC and its institutions because they enhance the convenience, safety and quality of life for students, faculty and staff who live and/or work in neighborhoods surrounding the campus. Equally as important, these connections are anticipated to reinforce programmatic connections: the match of AHEC campus students with academically associated employment in Denver. Finally, the enhanced connections between the Auraria campus and Downtown are expected to enhance the attractiveness of development partnerships on the campus.

Perhaps the most important zone for enhanced connection is Speer Boulevard. The boulevard is an 8-lane divided arterial street through most of the area that aligns with the campus, and represents a barrier to pedestrians due to the combination of the distance of the crossing from building front to building front and the timing of traffic (which requires two cycles of the signal to cross the street). Past consideration of this problem has generated proposals for pedestrian bridges or underpasses (even the wholesale burying of Speer in certain areas), but these have not generated adequate support to obtain funding. The Master Plan proposes new campus building construction closer to Speer Boulevard (a suggested landscape buffer of 32’ to 40’) to reduce the pedestrian travel time between destinations on either side of the boulevard and create the perception of connectivity between Downtown and the Campus.

The primary connection of the AHEC campus to the City’s core business center is addressed by enhanced connections into and through the length of the campus along Lawrence Street and Larimer Street and the creation of new street connections on the campus through extensions of Blake and Arapahoe Streets. In each case, the Plan creates an open space gateway to mark where those streets meet the campus.

On the western edge of the campus, replacement of surface parking with athletic and recreation fields, new academic buildings, and enhanced pedestrian circulation will transform this area to a vibrant part of the campus. Developing this area with active uses will connect the campus to recent and planned investments in private student housing and the relocated Auraria West transit station to the west of the campus, as well as planned and future private-sector development anticipated to the south of Colfax Avenue and to the north of Auraria Parkway.

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<th>Table 6.1: Campus Development Capacity</th>
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<td>AHEC Statistics</td>
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<td>Public/Private Development (planned)</td>
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<td>Remaining Campus (planned)</td>
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<td>AHEC Total Floor Area Ratio/Total Gross Square Feet</td>
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<td>Academic Floor Area Ratio/Total Gross Square Feet (including parking)</td>
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<td>Public/Private Partnership/Total Gross Square Feet</td>
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<td>Academic Space to Remain</td>
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Figure 6.4: AHEC Master Plan - Campus Neighborhoods

Figure 6.5: UCDHSC Neighborhood and the Urban District at the northeast portion of campus
Campus Organization: Neighborhoods

To enhance individual institutional identity and provide a land use structure to guide AHEC campus growth, the Plan is organized into “Neighborhoods”:

- Campus Crossroads
- Institutional neighborhoods – CCD, MSCD and UCDHSC
- Urban District
- Campus Village

The Campus Crossroads neighborhood is located at the intersection of the main east-west and north-south pedestrian spines (the Lawrence Street and 10th Street). In this neighborhood – the heart of the campus – academic, student life, cultural and private developments come together. The Campus Crossroads represents the core vision of the Auraria experience – shared facilities operated to serve the needs of the campus’s three academic institutions.

The Institutional Neighborhoods provide the opportunity for the administrative center of each institution to have a distinctive and recognizable character – through a combination of architecture, signage, and exterior treatments – while maintaining a level of visual continuity for the larger Auraria campus. As is the current practice, new construction of academic buildings in these neighborhoods will equitably share academic space through common scheduling; however, the neighborhoods provide opportunity for each institution to provide specialized academic space that is unique to their particular program. In addition, the neighborhoods offer distinct “addresses” for each of the institutions – each related to one of the significant perimeter streets. The CCD neighborhood is located in the vicinity of the South Classroom along Colfax Avenue. MSCD’s neighborhood is located along Auraria Parkway just west of the Tivoli building. And building on its presence in the North Classroom, UCDHSC’s neighborhood extends north across Larimer Street at Speer Boulevard.
The *Urban District* neighborhood hosts public/private partnership developments, providing AHEC and its institutions with financial resources previously unrealized and changing the character of the campus to become a genuine part of the larger urban fabric. This neighborhood, bound by Speer Boulevard and Auraria Parkway, is envisioned to attract private investment in activities that support the needs and interests of the AHEC community. Lower Downtown (LoDo), the adjacent neighborhood to the northeast of this District, inspires the style and character of architecture and urban design envisioned for this District. The Urban District is expected to accommodate up to 2 million gross square feet of private investment in a mix of uses.

Finally, creation of the *Campus Village* neighborhood at the west of the campus builds on the strengths of recent and planned investments in student housing and a relocated light rail transit station to create a hub of activity. This District is intended to provide housing options, campus support space, student service activities, and recreation and athletics facilities serving the campus population as well as demand generated by activity around the Auraria West light rail station. The Plan transforms the existing area largely defined by surface parking into an athletics complex and residential village (along with additional institutional uses) with clearly marked, safe pedestrian paths to the core of the campus.

**Campus/City Interface**

Portions of the edges of the Auraria campus abut urban neighborhoods where significant-scale developments are either planned or underway. The Lower Downtown (LoDo) District, including Larimer Square across Speer Boulevard from the campus, is a thriving mixed-use district that has seen significant recent reinvestment in existing buildings and infill-development. At the northern edge of Lower Downtown, where a number of commercial projects are planned and underway, the redevelopment of Union Station is of a scale and magnitude of importance worthy of note. The creation of a partnership of the City and County of Denver, the Colorado Department of Transportation, the Denver Regional Counsel of Governments, the Regional Transportation District, and the Union Station Neighborhood Company (developer) will provide multimodal transportation services in combination with other land uses. To the north of Union Station is the Central Platte Valley, expected to more than double its population based only on already-approved development projects.

Across the campus from Speer Boulevard, many development activities are occurring in and near the Central Business District. The 14th Street corridor through Downtown is seeing a renaissance in the development of hotel, conference, residential, and cultural facilities – with a direct relationship to the campus at Larimer Street, the Denver Performing Arts Complex, and the Colorado Convention Center. These developments will shift the heart of visitor destinations in Downtown even closer to the campus than it is today.
To the southeast of the campus, reaching east along Colfax Avenue, the emerging Denver Justice Center is strengthening the Denver Civic Center – providing a significant civic and cultural core for the city. As development energy in the area of the Civic Center and Denver Justice Center continues, opportunities exist at the southeast portion of campus to capitalize on this momentum and anchor the west end of this District.

To the west and southwest of the campus, land is being developed around the relocated Auraria West light rail station – a transfer hub for the region's light-rail system. Student-oriented housing constructed here in 2005 has been highly successful, responding to an obvious demand and stimulating plans for additional residential and commercial development at the edges of the AHEC campus. In addition, land northwest of the campus – across Auraria Parkway – is being considered for office and entertainment uses.

Figure 6.9: Aerial view of AHEC, with the Campus Village and relocated Auraria West light rail station in the forefront
Figure 6.10: Aerial view of AHEC, looking over the intersection of Colfax Avenue (on the left) and Speer Boulevard (lower right)

Figure 6.11: Approved future light rail track and station alignment for the Auraria West station
Transportation, Parking, and Circulation
The Plan improves the functionality of the pedestrian experience by strengthening and extending existing connections along Lawrence Street and Larimer Street and through a strategy of providing secondary routes that parallel the north-south axis with attractive pedestrian pathways. The Plan strengthens the strategy of limiting vehicular circulation through the campus through the recommendation of closing a portion of 7th Street. Service access is enhanced without allowing further penetration of vehicles into the campus or otherwise compromising the pedestrian experience.

Improved signage and wayfinding on the campus is needed in order to make it easier for visitors to navigate to their destinations, whether academic buildings or cultural venues such as the Kenneth King Academic and Performing Arts Center. Phased development of this Plan will see reuse of the surface parking lots currently situated on the west end of the campus to active and inviting uses, such as athletic fields and new institutional buildings. The extension of Larimer Street through the campus will provide a grand-scale pedestrian walk and bikeway that may also accommodate a shuttle or streetcar to transport people into the core of the academic campus, the Urban District, and into Lower Downtown.

Parking is located at campus edges to minimize the need for vehicular traffic through the campus while still providing convenient walking distances between parking facilities, ADA accessibility, and other campus destinations. The Plan allows phasing from mostly surface parking to structured parking. Parking capacity is maintained at the current level, even with predicted growth for each of the three institutions. The policy of maintaining parking at current levels is based on a commitment to reducing reliance on use of single occupancy cars, an increase in pervious surface material, and the reduction of associated greenhouse gas emissions. Also, it corresponds to a recent trend in decreased campus demand for parking due to enhanced use of public transit access to the campus.

Less than ten years ago, more than three in four AHEC students, faculty, and staff drove to the campus and more demand existed for parking than was supplied – even with nearly 7,000 spaces on campus. Today, regional transit initiatives have made a big impact. Even with a student growth of 5,000 in the last ten years (16%) the campus has experienced a decline in the demand for parking and today's demand is comfortably provided by the existing supply of nearly 7,000 spaces. In considering a continued increase in the size of the AHEC community and a projection for continued increases in ridership of public transit (associated with changed use patterns and enhanced services), the Plan calls for regular survey of need to monitor trends in increased reliance on transit, bicycle, and foot access to the campus.
Not only are more students, faculty and staff opting for public transit rather than automobile to travel to and from the campus, but bicycle use has also increased. AHEC administrators report regular requests for more racks to secure bicycles and to expand the zones where bicycle use is allowed on campus. The Plan responds to this growth in demand through enhanced bicycle facilities throughout the campus and bicycle connections to off-campus regional bike routes.

The campus enhances the pedestrian system, an imperative created by expected campus population growth, enhanced public transit service to the campus edges, and increased vehicular traffic on adjacent streets. The Plan provides improved and additional pedestrian connections between destination points on and at the edges of the campus. Pedestrian drop-off at the campus edges is a component of pedestrian circulation that also appears to be failing to support current and future needs. The Plan addresses this by improving the effectiveness of existing drop-off points; pedestrian-automobile conflict is eliminated and parking garages are located convenient to the drop-off points. The Plan strengthens the existing system of limiting non-service access into the site and by rationalizing the non-service access (delivery) to designated routes that are less desirable as paths for pedestrian flow between destination points.

Figure 6.12: Proposed vehicular and bicycle circulation system
Figure 7.1: Shade patterns, Spring

Figure 7.2: Shade patterns, Summer

Figure 7.3: Shade patterns, Fall

Figure 7.4: Shade patterns, Winter
The City of Denver is setting both an agenda and example for sustainability in the State through the Greenprint Denver initiative. Denver was recently named by National Geographic as the tenth most Green City in the United States due to factors including Greenprint Denver, investment in solar power, the country’s largest hybrid municipal fleet, public transit initiatives, number of high-performance buildings in design and constructed, and water quality. The City’s commitment through the Downtown Area Plan and its Comprehensive Plan provides a structure within which Auraria and its academic institutions are encouraged to develop plans for growth and partnership with private entities in the next decade.

In addition, the executives of each of the academic institutions recently committed to the Leadership Circle of the American College and University Presidents Climate Commitment. This commitment engages institutions of higher education in accelerating their research, education, and management practices to reverse global warming. The pledge to participate involves:

- Development of an emissions inventory for each school setting a target and milestones for each participating school to become climate neutral;
- Taking short-term action to reduce greenhouse gas emissions;
- Integrating sustainability into the curriculum; and making the inventory, plan and status of related actions available for public consideration.

The physical design and policy recommendations of this Plan support many of the City of Denver’s initiatives for sustainability as presented in the Greenprint Denver Plan (2006). They also support pledges made by CCD and the UCDHSC to the American College and University Presidents Climate Commitment. The City has established a goal to reduce greenhouse gas emissions by 2011 to 10% below the 1990 level. The institutional pledges have no date, but it sets forth a more aggressive reduction goal. CCD and UCDHSC have committed to reduce emissions associated with their institutions to become climate neutral. The first step of this process is to undertake a greenhouse gas emissions inventory. The schools will then develop for community review a plan that includes short-term measures for reduction and pledges to make continuing progress on reducing emission.
Specific Master Plan measures towards sustainability recommended for AHEC include:

Energy Efficiency
- Construct and renovate buildings to be highly energy efficient;
- Maintain a high building use/greenhouse gas emission ratio by ensuring that the programmed use of existing and new buildings is efficient;
- Develop systems to ensure that the timing and extent of building heating and cooling respond to use patterns;
- Orient buildings and open spaces to climate;
- Pursue opportunities to install solar water heating and photovoltaic energy generation in new and existing buildings;
- Pursue opportunities to add photovoltaic energy generation to parking decks and lots;
- Purchase power from regional solar and methane power plants;
- Identify and install energy efficiency measures on campus. Measure their associated cost savings (life cycle) both financially and in metrics valued by the campus community (such as number of work study jobs)

Landscape
- Use deciduous trees for natural shading;
- Plant new and replacement trees and other plant materials that are xeric drought-tolerant species;
- Replace Bluegrass with a lower water requiring turf

Waste
- Develop a waste reduction program for the campus that focuses on reducing organic wastes (kitchen and lawn), paper waste (office and teaching), containers (food and general purchasing), and construction materials;
- Ensure that campus waste reduction and recycling initiatives are visible to stimulate participation and educate the Auraria community;
- Increase campus recycling to meet or exceed the City of Denver goal for the residential sector of fifty percent.

Transportation
- Invest in a "green fleet" of biodiesel and hybrid-fuel vehicles and demand commensurate investment by contractors that employ their fleet on the AHEC campus;
- Decrease reliance on automobiles through public transit use and a transit-oriented design;
- Plan for a walkable campus by locating new construction and renovations near transit and increasing density of new projects compared to the remainder of the campus;
- Expand both the eligibility and extent of transit subsidies;
- Reduce the proportion of on-campus parking spaces compared to campus population;
- Increase the proportion of on-campus parking that is restricted to use by handicapped and car pool vehicles;
- Increase the cost of parking on campus;

Figure 7.5: Existing pervious surfaces

Figure 7.6: Existing impervious surfaces
• Locate program uses for pedestrian needs;
• Decrease or reduce concern for the convenience of travel-time distance between on-campus parking and classrooms;
• Improve campus safety for pedestrians;
• Improve campus access for pedestrians and bicyclists;
• Enhance bicycle circulation and safety

Water
• Contribute to improving the water quality of the South Platte River through community education;
• Limit the amount and improve the quality of campus contribution to the City’s system through on-site storm water management through use of green roofs, water reuse systems, and pervious paving;
• Reduce use of portable water through state-of-art plumbing fixtures, irrigation systems, kitchen operations and other water saving strategies;
• Develop a water-limited landscape irrigation system that may include use of artificial turf on athletic facilities to reduce associated water use;
• Educate students about water-quality issues and provide opportunities for classroom-based involvement in the City’s programs for enhanced data collection, data management, and public engagement to improve water quality;
• Comply with City directives in response to drought conditions;

Green Industries
• Implement courses and work/study opportunities that contribute to workforce development and that advance development of green industries.
A 5-year Implementation Plan has been developed to advise AHEC and its academic institutions on the key steps in implementing the Master Plan update. This Implementation Plan lays the groundwork for actions to be made by AHEC and its resident institutions, planning and design consultants, legal and legislative advisors, and community outreach to enable the campus to pursue academic, student life, administration, infrastructure, and public/private development.

The AHEC 5-Year Implementation Plan has been developed along a phased timeline in order to illustrate the sequencing of actions over the next 5 years. Through three (3) phases these efforts are organized under six (6) implementation categories:

- 5 Year Development Plan (physical planning and design)
- Administrative/Governance
- Legislative
- City/Stakeholder Partnerships
- CCHE Coordination
- Enhanced Facilities Operation and Maintenance

PHASE 1 – Summer 2007

5-Year Development Plan
Traffic Study. Current traffic conditions will be analyzed on and adjacent to the AHEC campus, describing levels of service and characterizing pedestrian and bicycle safety and access during peak, off-peak and weekend conditions. An analysis will then be performed to predict the impact of the Master Plan update on these conditions. Understanding the AHEC Master Plan objectives, those of the City of Denver (as found in the Blueprint Denver plan, Downtown Area Plan and FasTracks plan), and of AHEC abutters, the traffic study will recommend enhancements to be considered for the AHEC campus and the study area to improve pedestrian and bicycle safety and level of service for vehicular traffic.

Parking Master Plan. Consistent with the Master Plan, this study will provide short and long term direction for the provision of parking. It will establish options for realizing goals for parking capacity (on and off campus), establish budget for construction and maintenance/operation, and propose policies (including pricing for different users and provision of subsidies for transit). The plan’s first phase of effort will establish means of accommodating the Master Plan’s objective of removing 400 parking spaces from the AHEC Mixed-Use District and to relocate athletic fields in that district to a location on campus currently used for parking.
**Viewshed Analysis.** A technical study will be performed in support of proposed modification to the “Old City Hall” view corridor (City of Denver Ordinance, ORD 133,3-14-88). This will include testing views to the mountains from the site of the former City Hall with varying massing and heights of buildings on the AHEC campus.

**Recreation and Athletics Study.** This study will explore options for accommodating location of potential recreation and athletic programs on and near the campus. In the first phase of the study, locations will be identified and tested against the already established program growth desired by Metropolitan State College, indicating means of sharing facilities with non-AHEC parties (such as the City, abutters to the site, and established Denver-based non-profit recreation and athletic entities) and the other two AHEC institutions. This opportunity and options analysis will be used in the second phase of the study to inform UCDHSC and CCD as they contemplate the nature and size of creating new venues for recreational and athletic facilities for their students. The product of the report will include a plan that will describe the location, dimensions and guidelines for the design of recreation and athletic facilities to serve the three institutions. The study will also assist AHEC in identifying opportunities for naming facilities, leasing facilities to non-AHEC entities, and arranging for AHEC athletics to occur on off-site facilities.

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**Figure 8.2: Viewshed restrictions impacting the campus**

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Precinct Plan for west end of campus. Relying on 2007 AHEC Master Plan Update, a precinct plan will be developed to articulate this district’s design, urban form, land use configuration, accommodation of service (designated routes and building locations), accommodation of parking (consistent with the AHEC 2007 Parking Plan), signage and wayfinding. The precinct plan will be developed in collaboration with the designers of the Auraria West light rail station and with representatives of the owners of adjacent properties as identified and directed by AHEC.

Precinct Plan for the AHEC Mixed-Use District. Relying on the 2007 AHEC Master Plan Update, a precinct plan will be developed to articulate this district’s design, urban form, land use configuration, accommodation of service (designated routes and building locations), accommodation of parking (consistent with the AHEC 2007 Parking Plan), signage and wayfinding. The plan will include street sections, detailing pedestrian and bicycle accommodation, lighting, tree plantings, stormwater management and signage. The plan will propose appropriate zoning for the site, consistent with or complementary to the City’s zoning code.

Speer Boulevard/Auraria Parkway Study. This study will support AHEC in its interest in increasing the safety and visual connection between its campus and the neighborhoods of downtown Denver that abut the campus on the east side of Speer Boulevard (including its right of way and building setback standards) and Auraria Parkway (right of way, from 7th Street east). This will include exploration of conceptual alternatives for Speer Boulevard, with each describing physical improvements within the Speer Boulevard right of way and realignments of streets that meet or cross the street. This effort is intended to prepare AHEC for its active coordination with the City and other abutters of the campus who might be considered stakeholders.

Administrative/Governance
Draft Institutional Memorandum of Agreement. A memorandum of understanding/agreement will be developed for signature by AHEC Executive Board Members to articulate the shared intentions of AHEC and its institutions to cooperate in the implementation of the 2007 AHEC Master Plan Update.

Revisit AHEC Mission. The AHEC Executive Board and Master Plan Steering Committee will consider if the AHEC vision and mission should be revisited to make it current with the contemporary view of the organization and its growth plans, as described in the 2007 AHEC Master Plan Update. Consideration should be given to the benefits, symbolic and otherwise, of modifying the legislative intent and/or authority of AHEC to make it similarly current.

Institutional Approval of Master Plan. The AHEC Executive board and each institution’s board will review, approve, and adopt the 2007 AHEC Master Plan Update.
Clarify Parking Bonding Strategy. The campus will investigate and clarify a bonding and financing strategy in order to pursue future development of campus land currently used as parking, and tied - in turn - to AHEC bonds.

Legislative
Develop strategy for allowing private funds to be reinvested in the campus. Guided by an AHEC legislative team (legal counsel, lobbyist, public/private development consultant) the AHEC Executive Board will work during Summer 2007 to establish a preferred strategy to allow lease payments for use of AHEC land to be reinvested in the campus. This plan will be implemented in the fall of 2007. Should legislation be needed, it will be drafted in September 2007 with the expectation that it will be developed as legislation by June, 2008.

Educate the Legislature about the Master Plan and campus needs, generate support for AHEC capital needs. A presentation of the 2007 AHEC Master Plan Update and campus tours to Legislatures (Capital Development Committee) is scheduled for August 20, 2007. The AHEC Executive Board will direct staff on means of building on this initial effort. This may include a strategy for legislators to view AHEC requests for funding as distinct from those of other institutions in their respective campus systems.

City/Stakeholder Partnerships

Present 2007 AHEC Master Plan Update to the Mayor and other key representatives of the City.

Continue coordination with City and RTD on design of Auraria West station.

Continue coordination with the Downtown Denver Partnership regarding public-private partnerships to densify the Campus, integrating it with LoDo and downtown and to better relate it to the Speer Boulevard edge.

Educate surrounding stakeholders on the Auraria Master Plan Update including neighborhood/business organizations and surrounding property owners.
PHASE 2 – Fall 2007 – Summer 2008

5-Year Development Plan

**Greenhouse gas inventory.** Consistent with the Presidents Climate Commitment, AHEC will develop a greenhouse gas inventory for the campus and its individual institutions.

**Greenhouse gas emissions reduction plan.** Based on the greenhouse gas inventory, the AHEC campus and its institutions will develop short and long-term goals for greenhouse gas emissions reductions. This plan will include an action plan for realization of these goals. The scope of the action plan will address construction, maintenance and operations, purchasing, and community education. The plan will also guide the three AHEC institutions in identifying means of integrating sustainability into the curriculum and creating work/study opportunities that contribute to workforce development and that advance development of green industries.

**South Classroom Program Update.** Consistent with the 2007 AHEC Master Plan Update, AHEC and CCD will revisit the program for expansion and renovation or replacement of the South Campus Classroom Building. This analysis will include development of design and construction costs of the building and its landscape for the purposes of establishing the school's capital budget needs. Products will also include 3-D models and renderings of the building. The building is contemplated to be a high-performance building and thus, the program plan will consider the likely design alternatives and associated costs of achieving LEED certification, LEED silver, or LEED gold.

**Infrastructure Study.** Consistent with the extent and location of buildings contemplated in the 2007 AHEC Master Plan Update, an infrastructure study will assess the viability of the existing infrastructure (provision of water, power, and gas, and electricity and removal of stormwater and wastewater) to support planned growth. Incorporating the campus commitment to reducing its greenhouse gas emissions, achieving energy efficiency and water use efficiency, the consultant will develop a plan illustrating proposed upgrading, replacement and expansion of the existing infrastructure system. Accompanying the physical plan will be detailed recommendations on technologies, specifications, phasing and order-of-magnitude costs for design, engineering and installation.

**Identify Additional Building Program Plans.** In support of buildings identified by AHEC as highest priority (in addition to the South Classroom Building) and consistent with the 2007 AHEC Master Plan Update, AHEC will develop programs for new construction, expansion and renovation or replacement of the identified priority buildings. These analyses will include development of design and construction costs of the building and its landscape for the purposes of establishing the school’s capital budget needs. Products will also include 3-D models and renderings of the building. Campus buildings are contemplated to be of high-performance and thus, the program plans will assist CCD in considering the likely design alternatives and associated costs of achieving LEED certification, LEED silver, or LEED gold.
Develop five-year capital plan. Under the direction of the AHEC Executive Board and employing the 2007 AHEC Master Plan Update and associated plans and documents, AHEC and its resident academic institutions will collaborate to develop a five-year capital plan for AHEC.

Administrative/Governance

Administrative Plan. The AHEC Executive Board will consider the ability of the current administrative structure to guide and support implementation of the 2007 AHEC Master Plan Update. In its wisdom, the Executive Board will identify the need for new structure and/or expanded capacity to support plan goals, articulating means and a schedule (milestone triggers in the Master Plan's implementation) for enhancement of the existing administrative structure.

AHEC financing plan. The AHEC Executive Board will examine the form, functioning, and extent to which AHEC institutions and other sources currently support AHEC administration. This understanding will then be applied to consideration of that needed to implement the 2007 AHEC Master Plan Update. The Executive Board will develop a plan to perpetuate, expand, and/or enhance the current financing system to support AHEC functions (planning in support of capital development and facility management/operation) during plan implementation (assumed to be the five years after August 2007 adoption of the plan by the AHEC institutions).

Update institutional academic master plans (including consideration of residential strategy, athletics strategy, etc.)

Revisit structure of AHEC capital pursuit within each institution's larger campus system. AHEC Executive Board, Master Plan Steering Committee and legislative team will analyze benefits and limitations of existing structure, identify desired changes, if any, and pursue steps to achieve those.

Engage a group to be the “Voice of the Students” to be integrated into the master plan implementation.

Legislative

Implement strategy for capital reinvestment as defined in Phase 1.

Clarify legislative intent to allow for AHEC goals for private investment. The Executive Board will consider whether implementation of the 2007 AHEC Master Plan Update will benefit from modifying the legislative intent for AHEC. If the conclusion is affirmative, the modified language will be drafted during the summer of 2007 with the expectation that is will be developed as legislation by June, 2008.
City/Stakeholder Partnerships

**Viewshed Advocacy.** Begin discussions with neighbors of the campus and the City of Denver to petition for modification of the “Old City Hall” view corridor (City of Denver Ordinance, ORD 133, 3-14-88) which controls building heights in this area of the campus. Based on an AHEC study of the viewshed, work to align AHEC interests with other stakeholders and establish group support for modification to the existing controls. Coordinate with the City to establish zoning for the mixed-use district.

**Negotiate revenue sharing strategy with the City of Denver.** Pursue strategies wherein sales and other tax revenue generated on its campus will be reinvested in the campus. Advocate to the City to create a Business Improvement District, PIF, or Metropolitan District (or similar model) to leverage the designated partner developer’s capacity to raise investment dollars and pay for operational expenses related to common areas.

CCHE Coordination

**2007 AHEC Master Plan Update submission.** As required by the legislature, submit the 2007 AHEC Master Plan Update to CCHE.

**Establish CCHE support.** The Executive Board will consult with the AHEC legal counsel and lobbyist in developing and guiding efforts to cultivate CCHE support for the 2007 AHEC Master Plan Update.

Enhanced Facilities Operations and Maintenance

**Efficient building use.** Identify opportunities to schedule more instructional time on Fridays, weekends, and during the summer in order to ease overcrowding. Develop systems to ensure that the timing and extent of building heating and cooling respond to use patterns.

**Non-fossil fuel energy.** Pursue alternative energy—install solar water heating and photovoltaic energy generation in new and existing buildings. Pursue opportunities to add photovoltaic energy generation to parking decks and lots. Purchase non-fossil fuel power. Expand both the eligibility and extent of transit subsidies. Invest in a “green fleet” of biodiesel and hybrid-fuel vehicles and demand commensurate investment by contractors that employ their fleet on the AHEC campus.
PHASE 3 – Fall 2008 – Summer 2012

5-Year Development Plan

**Architectural, Urban Design and Landscape Design Guidelines.** Neighborhood-specific design guidelines will be developed to give guidance on: dimensional requirements, including the location and characteristics of “landmark” spaces and buildings; building massing; materials selection (plant and manufactured) and design and placement of signage and wayfinding. The guidelines will be developed consistent with the 2007 AHEC Master Plan Update and will incorporate its commitment to sustainability.

**IT Study.** An Information Technology Plan will be developed for the campus that responds to the needs and goals of each of the AHEC institutions. The plan will analyze the adequacy of existing management structures for providing information technology on campus and will recommend a management structures for the next two decades. The plan will analyze and recommend a strategy for cost sharing of infrastructure development, maintenance and operations. The plan will recommend phasing and capital budget needs.

**Develop a capital and maintenance plan for landscape and street improvements for the AHEC campus.** This plan will project costs for new street and sidewalk construction, and development of new open spaces and plazas, as well as a capital reinvestment plan for existing streets, sidewalks and open spaces that will be undisturbed by planned campus growth.

**Economic Impact Study.** AHEC will undertake research and analysis to describe the current and projected economic impact of the campus on the City of Denver and the Denver metropolitan area. Considerations will include municipal revenue generation, workforce development support of public economic development initiatives and industry-specific elements of the regional economy and general economic stimulus to the economy. The projected impact shall be developed employing publicly available data projecting growth of the regional economy and its workforce needs, the 2007 AHEC Master Plan Update and associated documents that characterize each AHEC institution’s student population projections and curriculum development strategies.
Administration/Governance

AHEC will secure a developer for the urban district according to the following process:
- Issue RFP
- Interview candidates and select developer
- Enter into agreement to maintain exclusive relationship during development of full agreement.
- Developer creates mixed-use district plan to satisfy AHEC’s guidelines and gain AHEC support.
- Developer, AHEC and City agree to terms for relief from viewshed limitations. City executes the concept.
- Developer submits Phase 1 plans
- AHEC reviews and approves Phase 1 plans.
- Developer obtains government approvals for Phase 1 development.
- Developer constructs Phase 1
- Developer and AHEC continue relationship on subsequent phases.

Each institution—create/enhance its structure and/or assigned resources for fundraising activities.

Each institution—create/enhance its structure and/or assigned resources for securing grants.

Enhanced Facilities Operation and Maintenance

Energy efficiency. Identify, and install energy efficiency measures on campus. Measure their associated cost savings (life cycle) both financially and in metrics valued by the campus community (such as number of work study jobs).

Waste reduction. Enhance waste reduction and recycling program for the campus. Ensure that initiatives are visible to stimulate participation and educate the Auraria community. Meet or exceed the City of Denver goal for the residential sector of fifty percent.

Water conservation. Reduce use of potable water through state-of-art plumbing fixtures, irrigation systems, kitchen operations and other water saving strategies. Educate students about water-quality issues and provide opportunities for classroom-based involvement in the City’s programs for enhanced data collection, data management, and public engagement to improve water quality.

Drought tolerant landscape measures. Plant new and replacement trees and other plant materials that are drought-resistant species. Comply with City directives in response to drought conditions.

Invest in green fleet. Replace campus service vehicles with green fleet, and require contracted campus service providers to do the same.
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AHEC Board of Trustees

Auraria Executive Committee

AHEC Master Plan and Facilities Subcommittee

SACAB

FACAB

University of Colorado Board of Regents

Metropolitan State College Board of Trustees

State Board for Community Colleges and Occupational Education