Executive Summary

The Plan provides a new vision for OSU Institute of Technology in the 21st century.

This Master Plan is a road map to implementing a shared vision for the campus and community of Oklahoma State University Institute of Technology.

The overall goal of the Master Plan is to unify and expand the programs in a comprehensive way to form a complete professional campus yet retaining a neighborhood feel and understanding of each program neighborhood.

The formal, central Technology Mall provides internal access as well as organizing the programs within the campus in order to maximize the interaction between instructional programs, as well as with the Okmulgee community and all other points.

Emphasizing pedestrian orientation between the instructional buildings, these areas are clustered around the southern end of the new Technology Mall, pushing vehicular traffic to the perimeter. The central campus area comprises high visibility programs and buildings, allowing maximum public interaction with the culinary program, a possible Hotel, a large event center, and access to the Learning Resource Center.

The northern portion of the campus is an ideal location for the large-scale technical programs, anchored by the automotive programs, centered around the Automotive Center of Excellence.

The overall feel of the new buildings and landscape should have a feeling of Technology, integrating clean lines, flexible configurations, and with sustainable maintenance, while providing a clear evolution from the history of the campus.

The Vision of the Campus looks forward to a technical future that can adapt and achieve ever-changing progress, while preserving roots in Oklahoma and History.
1. Primary commuter entry from Loop 58. Needs new campus monument sign and additional landscape treatment for emphasis.

2. Area near intersection at Grady Clack Center is confusing due to multitude of access points.

3. Primary circulation loop.

4. Zones of conflict between parking and circulation loop—north and south sides of Grady Clack Center.

5. Pedestrian access routes that need clarification and improvement with additional walks and landscaping.

6. Potential extension of existing primary pedestrian corridor.

7. Internal intersection off of E. 4th St. creates confusion for auto traffic due to configuration.

8. Excellent view corridor. Could be enhanced as formal entry.

9. Campus entry from E. 4th St. not well defined but has significant potential due to streets, buildings, and open space configuration.

10. Campus edges along E. 4th St. and Mission Lane not well defined.

11. Intersection of E. 4th St. and Mission Lane is a visual cornerstone between the campus and Okmulgee community.


13. Existing major east-west pedestrian corridor is well defined and functional.

14. Underutilized parking areas around perimeter of campus detract from campus appearance.

15. Primary interior parking area north of Visual Communications is in need of reorganization and beautification.

16. Tower has potential for creation of an iconic feature.

17. The northwest corner of campus suffers from visual and functional discontinuity.
There are multiple points of entry to the campus. These were documented by frequency of use and physical connection. Several concerns were raised regarding campus and student security with multiple points of entry. This condition also appeared to increase the amount of driving on and around campus.

Campus interior was also found to be defined by both irregular roads and buildings on the outside of roads. This also contributed to the lack of a sense of place.

There are four well defined, formal green spaces on campus:
- The Kite Plaza west of Grady Clack,
- The Quadrangle North of Vis-Comm
- The Bell Tower Park North of the Student Union
- Entry Drive

There are three informal open spaces that were seen as high-value due to use:
- Game Field along Kennedy Road
- Pathways around both ponds along the Loop Road
- Open Green space South of Student Housing

Pedestrian Circulation was most intense in the before-mentioned well-defined open spaces. Documentation shows circulatory paths and spaces; observation showed relatively light use by students.

Overall size of campus allows for less than a 10-minute walk from corner to corner of campus. However, because of inconsistent connection and availability of drives and parking, most students were observed to drive across campus, especially from housing to technical programs. All students are free to drive from building to building rather than walk.
Vehicular Circulation

Most roads connect to other roads rather than connect to a location. Roads interconnecting tend to increase traffic volumes due to pass-through traffic. While a map review of the circulation routes would appear to show a distribution loop, on the ground there is no clear distributive route through campus.

There are several non-uniform intersections creating vehicle-pedestrian conflict. Several of the major parking lots interact with the roads at several points blending primary vehicular circulation with parking lots. Many of these non-uniform intersections occur within the blended street/parking lots.

Parking

Initial parking lot capacity and use observations were confirmed with the Traffic and Parking Study. There was a significant variety to the utilization of parking lots indicating significant on-campus commuting associated with student housing and the technical programs.

A Significant overcapacity of parking was observed.

Building Coverage

Existing Building coverage reinforces the current separation of programs and uses across campus.

The greatest density of existing facilities were large footprint metal buildings of significant age creating a campus within a campus.
**Tree Cover**

Tree coverage on campus is generally concentrated around and within informal open spaces. Tree density also increased around areas and buildings of greater age. There did not appear to be any formal plantings of trees to accentuate any particular space or building.

Trees generally were away from buildings, contributing to the previously noted feeling of leftover space. There did not appear to be a comprehensive pattern of tree types around campus.

Areas of turf irrigation generally corresponded to the formal open spaces or newer buildings.

**Existing Utility Corridors**

Within the campus, the utilities run generally in a grid of corridors. These corridors are noted as the major branch lines and service lines, and do not note service connections to individual buildings. Due to the great expense of relocation that would be associated with these lines, they have been accommodated as much as possible with all development concepts as well as the final Master Plan.

**Existing Building Evaluation**

![Diagram of Building Evaluation](image)
Existing Building Evaluation

To be respectful of the existing infrastructure and buildings, an inventory of existing buildings was performed. The condition of each building has been documented to help prioritize building replacement, renovations and expansions. The report has been reviewed with the physical plant for accuracy.

Overall potential scores for each area were weighted to total 100, while giving a greater weight to generally more expensive aspects to repair/maintain/replace. The Structural system, being the most intrusive and expensive aspect to repair, was given a possible 25 points. Conditions of the envelop, (exterior walls and roof), the interior construction, and the mechanical systems all require some level of continuous maintenance, and as such, potential scores were limited to 15 each.

Space Function & Efficiency had a possible 20 points to contribute, and generally were low across the campus. In large part, the Paulien report was consulted to compare existing area and guideline recommended, or target areas for each program. While not specifically noted, the correlation between target areas and existing areas was reflected in the Space Function & Efficiency scores.
The campus facilities Master Plan was initiated in response to the OSUIT’s desire to increase enrollment over the next ten years.

Paulien & Associates, Inc was contracted with Dewberry to provide an Analysis of current Space Needs. The academic space needs analysis included a determination of existing facilities space needs based on a quantitative evaluation of built space on the campus, and determination of space requirements to accommodate future needs.

The University provided facilities, course, and staffing data for Fall 2012. This was considered the base year, with a headcount of 2,990.

The target year was 2022, a ten-year horizon, with a projected headcount of 3,969. The target year headcount reflects an overall increase of 33%.

The utilization study showed that the 25 Arts & Sciences classrooms averaged 16 weekly room hours, at 71% student station occupancy. The average student station was 34 assignable square feet (ASF).

The 16 average weekly hours of use at OSUIT is below the range that the consultant would expect to see, and is lower than the Oklahoma State Regents for Higher Education guideline for general classrooms, 31.5 hours per week. The OSUIT student station occupancy of 71% is above the Oklahoma State Regents for Higher Education guideline of 65%. The student station size of 34 ASF per station at OSUIT is more than double the Oklahoma State Regents for Higher Education guideline of 16 ASF.
### Building Numbers and Building Names

<table>
<thead>
<tr>
<th>Building Number</th>
<th>Building Name</th>
<th>ASF</th>
<th>% of Total</th>
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</thead>
<tbody>
<tr>
<td>203</td>
<td>Allied Health Science Center</td>
<td>12,544</td>
<td>3%</td>
</tr>
<tr>
<td>300</td>
<td>Culinary Arts</td>
<td>33,134</td>
<td>8%</td>
</tr>
<tr>
<td>302</td>
<td>Visual Communications</td>
<td>20,093</td>
<td>5%</td>
</tr>
<tr>
<td>405</td>
<td>Learning Resource Center</td>
<td>7,167</td>
<td>2%</td>
</tr>
<tr>
<td>305</td>
<td>Reynolds Technology Center</td>
<td>32,710</td>
<td>8%</td>
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<tr>
<td>315</td>
<td>Air Conditioning and Refrigeration</td>
<td>22,025</td>
<td>5%</td>
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<tr>
<td>400</td>
<td>Health and Environmental Technology</td>
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<tr>
<td>401</td>
<td>Collision Technology</td>
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<tr>
<td>401A</td>
<td>Collision Technology Annex</td>
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<td>Automotive Technology</td>
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<td>407</td>
<td>Automotive Storage</td>
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<tr>
<td>412</td>
<td>Science and Technology</td>
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<tr>
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<td>Automotive Center</td>
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<td>460</td>
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<tr>
<td>500</td>
<td>Diesel / Heavy Equipment</td>
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<tr>
<td>501</td>
<td>Diesel / Automotive</td>
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<tr>
<td>502*</td>
<td>Diesel / Automotive</td>
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<td>Noble Center</td>
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<td>701</td>
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### Current Programs/Building Number

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<th>Building Number</th>
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<td>640</td>
<td>41,657</td>
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<td>640</td>
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<td>Health Sciences</td>
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<tr>
<td>460</td>
<td>8,444</td>
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</table>

*Note: New energy programs have not yet been identified.*

Dewberry page 9
OSUIT Campus Space Program

A utilization analysis for many colleges and universities and would normally expect to see classroom utilization between 30 and 35 hours per week of use with 60% to 70% student station occupancy. The consultant has found the average size of student stations in contemporary classrooms to be between 25 ASF and 40 ASF.

The space needs analysis helps determine the magnitude of space needed for both the base year (2012) and at the future plan horizon (2022). The consultant applied normative space guidelines, and adapted these guidelines as appropriate during the analysis. The guideline applied for each space category was the one deemed most appropriate for OSUIT. The space needs analysis was performed for all academic divisions and the library. No analysis was made of administrative, student life, or recreations facilities.

- Application of the guideline analysis calculated a surplus of 24,843 ASF for the ten academic divisions at the base year, Fall 2012, with an enrollment of 2,990 students on campus.

- An increase in projected enrollment to 3,969, coupled with the applied guidelines, calculated a total need for 512,160 ASF, for a deficit of 77,003 ASF in the target year.

- Guidelines applied to the library space calculated an existing deficit of 5,350 ASF, increasing to a projected deficit of 9,377 in the target year.
<table>
<thead>
<tr>
<th>Current Program/Building Number</th>
<th>Existing ASF</th>
<th>2012 ASF</th>
<th>2022 ASF</th>
<th>Desired Program</th>
</tr>
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<tbody>
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<td>Automotive Technology</td>
<td>106,171</td>
<td>96,900</td>
<td>125,000</td>
<td>General Motors</td>
</tr>
<tr>
<td>365 Reynolds Technology Center (partial occupancy)</td>
<td>9,275</td>
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<td></td>
<td>Chrysler</td>
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<tr>
<td>401 Auto Collision Technology</td>
<td>17,464</td>
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<td>Toyota</td>
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<td>401A Auto Collision Technology Annex</td>
<td>16,887</td>
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<td>Center of Excellence Shared Programs</td>
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<td>403 Automotive Technology</td>
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<td>Pre-Tech</td>
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<td>403 Automotive Storage</td>
<td>7,875</td>
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<td>Collision</td>
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<td>417 Automotive Center</td>
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<td></td>
<td>Office/Community/Storage</td>
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<tr>
<td>516 Toyota Technology</td>
<td>17,744</td>
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<table>
<thead>
<tr>
<th>Current Program/Building Number</th>
<th>Existing ASF</th>
<th>2012 ASF</th>
<th>2022 ASF</th>
<th>Desired Program</th>
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<td>HLV</td>
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<td>96,000</td>
<td>110,000</td>
<td>General Diesel</td>
</tr>
<tr>
<td>500 Diesel/Heavy Equipment</td>
<td>33,024</td>
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<td></td>
<td>Diesel Heavy CAT</td>
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<tr>
<td>501 Diesel/Heavy Equipment</td>
<td>22,681</td>
<td></td>
<td></td>
<td>Diesel Heavy Komatsu</td>
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<tr>
<td>7 Diesel/Automotive</td>
<td>12,487</td>
<td></td>
<td></td>
<td>Diesel Truck Beaverton</td>
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<tr>
<td>601 HVM Center</td>
<td>4,800</td>
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<td></td>
<td>Diesel Power Generation (Agreko)</td>
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</table>

<table>
<thead>
<tr>
<th>Proposed New Program</th>
<th>Existing ASF</th>
<th>2012 ASF</th>
<th>2022 ASF</th>
<th>Desired Program</th>
</tr>
</thead>
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<tr>
<td>Conference and Events Center</td>
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<td>0</td>
<td>60,000</td>
<td>Exhibit Hall</td>
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<td></td>
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<td></td>
<td>Conference Center</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Support</td>
</tr>
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</table>

This program is recommended to fill a need in the Okmulgee area and create economic opportunities for OSUIT students, faculty and private industry partners.

<table>
<thead>
<tr>
<th>Current Program/Building Number</th>
<th>Existing ASF</th>
<th>2012 ASF</th>
<th>2022 ASF</th>
<th>Desired Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Events &amp; Community Center and Health/Fitness</td>
<td>29,188</td>
<td>45,000</td>
<td>55,000</td>
<td>OSUIT &amp; Public Access Fitness Center</td>
</tr>
<tr>
<td>120 Lowell Hall</td>
<td>29,188</td>
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<td></td>
<td>Public Theater/Lecture Hall</td>
</tr>
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<td></td>
<td>Student/Graduate/Public Display</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Large Conference Rooms</td>
</tr>
<tr>
<td></td>
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<td>Food Services</td>
</tr>
</tbody>
</table>
The final Master Plan combines the best received comments and most successful ideas from 4 different concepts approaches into one plan utilizing the concept of Technology Mall as a unifying feature with neighborhood groupings filling the interstitial space between the mall and the campus boundary. The scale of the Mall is refined to make a grand statement.

The importance of a strong “Head” of the Technology Mall called for the Automotive Center of Excellence to anchor the north portion. The south mall is anchored by an expanded Student Center and Tech Tower provided a distinguishing monument at the center of the Mall.

Pedestrian and vehicular circulation are separate systems where both are simplified and parking becomes distributed around the campus.

Housing is kept to the perimeter within the campus edge in order to better transition to the city of Okmulgee.

New building placements adjust density to form a sense of place throughout the campus and the division programs are clustered together in loose neighborhoods.

The front door of the campus is in the traditional location, but enhanced in order to emphasize the transition into a campus core. The grand statement of the front door reflects the grand statement of the Technology Mall and relates to the technical skills if the programs oriented along the mall.

The east entry to campus provides a soft transition from the Loop road. This entry is more humble in scale due to the daily use by enrolled student and faculty. The entry is marked by a bridge over an expanded water feature, enhanced directory, and a realignment with the internal loop road.

As the buildings of the Final Plan were scaled, and program spaces reviewed for synergies and future collaborative possibilities, several iterations were reviewed to best project program location and spaces. Finally, each existing program was identified and located across campus.

As many appropriate buildings that could be saved and repurposed were identified.

The future programs desired by OSUIT were identified and located as well. Several existing building are called to be expanded and several renovated for new programs.

Great consideration was given to facilitate the appropriate interaction among students, programs, the outside public, and future international faces expected to be on campus. Programs locations were also reviewed to allow for demonstration of each program. As an example, the construction technology programs are given exterior build space as a transition between the neighborhood scale to the West of campus, and the larger campus buildings.

Additional open space around the student housing was created to allow for future building churn without disruption to existing housing stock. Housing was integrated to link divergent student populations while giving spaces for activities.

A grand entry housing both front-line services and international functions allows for the best foot forward at all times. The only segregated housing is the hotel which will house the growing international outreach visitors. The proposed hotel also could house a new Restaurant/Institutional Hotel Management program.

Finally, the internal vehicular circulations reach out to the adjoining College of Muskogee Nation, allowing for a controlled bus route for shared programs, as well as with the Green Country Technology Center. The outreach continues with the locations of the CNG station and possible Convenience store at the edge of campus, the edge of the city, and adjacent to Physical Plant and Car Pool.

The noted locations of programs, while suggestions, allow for interchange with other programs and uses depending on the immediate need and funding availability.
The Master Plan - New/Existing

With review of the Existing Building Evaluation, and location of buildings within the existing grid, as many existing buildings were accommodated as reasonably possible.

Existing buildings to remain without modification include

- Chesapeake Energy Natural Gas Compression Training Center

Buildings that are candidates for minor additions and/or renovations to accommodate existing or new programs include

- Air Conditioning and Refrigeration
- Reynolds Technology Center
- Noble Center for Advancing Technology
- Allied Health Science Center

Major expansion, renovations, and additions should be considered for

- Grady Clack
- England & Hannigan Halls
- Covell Hall

The Student Union calls for a second floor to be added and the services and activities to students to be expanded. The existing student housing should be considered to be replaced/renovated as appropriate in the future and located within the current locations.

Building 216 currently houses Workforce Oklahoma. This building is found to have a high value to OSUIT for the purpose of phased flexible program space. It is designated for renovation as needed to accommodate other programs on a temporary basis while new buildings are constructed.
The current density of buildings has been found to be inverse of what is appropriate, causing congestion and confusion.

Large footprint buildings located tightly together creates great density and congestion in circulation. This condition can exasperate poor circulation features.

The Master Plan reorders the density of buildings. The program requirements of buildings impose a larger, open structure to have a large footprint. These buildings are spaced around the campus, particularly the Automotive & HEVi programs, and the Event Center. The additional space allows for greater at-grade access and storage as required.

The smaller the program, the smaller the footprint of the building. These programs generally, were able to combine into buildings together creating internal density that maximizes synergy and cooperation between programs. Externally, the buildings are placed closer together to encourage pedestrian traffic over vehicular.

The varied density of the buildings corresponding to the program needs reinforces the neighborhoods of the Master Plan and helps create a sense of place.
Technology Mall

The primary organizing element of the OSUIT campus will be technology mall, an impressive open space over 250 feet wide and 2000 feet long. As the heart of the campus this space will present a world class image for students, faculty and staff.

Several key design factors critical to the success of technology mall are as follows:

1. The underlying grid is both functional and provides a comfortable recognizable form for campus malls. This grid follows existing infrastructure and establishes a solid foundation for the free forms of the mall landscape and adjacent building.

2. The Dynamic Flow of pedestrians though the inner campus and mall is intentionally non-linear. This will guide the students and faculty toward the many “random acts of learning” as we create many casual interaction opportunities.

3. The Gateway to Automotive and HEVi highlights the north end of the mall while providing a foreground to the Automotive Excellence Center. This gateway is also an open space and a massing response to the setback of the Chesapeake Center from the mall boundary. The buildings at this point should have the same setback as the buildings at the southern end of the mall.
4. A precedent has been set at the Allied Health and Reynolds Technology Center. The completion of the current bell tower quadrangle should be balanced with two new similar curved building corners. These new building corners should be unique in detailing yet similar in massing.

5. Non-Concentric planning rings should establish landscaping and building massing boundaries that align the visual focus past the tower element, unifying the length of the mall while recognizing the importance of this historical campus focal point. The water feature south of the tower balances the vertical with negative space, similarly bringing the eye around the tower to unify the length of the mall.
1. A drivers side campus directory with a separate drive aisle.

2. Present the OSUIT international connections through a colonnade of flagpoles. The color and movement overlaying the rhythm will create a striking and memorable introduction to the campus.

Entry directory kiosk example for reference only, not indicated as Dewberry work product.
South Entry

The south campus entry will be defined by new administration and international center buildings. The image will be welcoming and provide a clear definition of campus boundary and front door.

3. The intentional separation between the administration and the international center creates a sequential expanding glimpse of the inner campus.

4. The entry portal should frame the experience of transition to the inner campus. A second level pedestrian bridge may complete the frame while providing an enclosed connection between the administration and international center.

5. The interstitial space between the administration and student union buildings must beckon the pedestrian toward the inner campus. This will be accomplished through development of the microclimate conditions, sights and sounds of water and defined view axis toward key University buildings.
1. Signage towers and way-finding keys will draw inspiration from the auto malls and dealership row’s which have developed a unique image specifically for branding.

2. Auto related businesses display their vehicles up front. The visitor parking at automotive and HEVi programs will allow this display, or auto show to occur directly adjacent to the instructional space.

3. The natural sloping topography at the north end of the mall is ideal for an outdoor learning amphitheater with the Automotive Center of Excellence buildings providing the backdrop.

**North Mall**

The automotive and HEVi degree programs at OSUIT anchor the north end of Technology Mall. These buildings will draw inspiration from their business and industry counterparts, providing a recognizable link to OSUIT’s partnerships.

**The Master Plan - Design**

Project examples indicating design branding concepts of OSUIT corporate partners are for reference only, not indicated as Dewberry work product.
4. The High Voltage Pole Yard offers a sculptural opportunity to highlight the program within the boundaries of Technology Mall. Careful consideration for spectators and pedestrians will require a secure perimeter such as a decorative fence.

Specific building planning concepts will be developed in future planning, programming and design phases. The campus master plan provides a starting point for these exercises. Connections to the Technology Mall, pedestrian movement and vehicular access.

The primary building planning component defined by this master plan is the concept of dual entry. Entry by pedestrians from the Technology Mall should have equal architectural importance as entry for users arriving by car. This experience and transition to the inner campus will be enhanced by transparent architectural connections between the two entries.
OSUIT campus buildings will incorporate the existing red brick as a key element of the exterior and interior materials. Individual program development will determine percentage required, a suggested minimum of 20% brick and maximum of 80% brick.

Architectonics of a buildings relationship to itself and others is important for campus continuity.

OSUIT campus buildings will uniquely address the programmatic function while incorporating existing campus context. For example, future automotive program buildings may provide a modern interpretation of the current gasoline alley buildings.
Architectural Form and Materials

Born out of history while looking to the future, form is deeply rooted in the functions of its users.

Oklahoma State University Institute of Technology provides a world class technical education.

OSUIT campus buildings will define technical architecture.

Technical Architecture can be defined through the technical exploration and use of materials such as state of the art fiber reinforced concrete structures. It may also take a more literal interpretation such as utilizing a Caterpillar axel for a column cover on the proposed Diesel and Heavy Equipment building.

Materiality, rhythm and texture are based on the unique programs while fitting within the campus context. The buildings will be flexible to change and adapt based on current and future trends.

OSUIT campus buildings will fall within the architectural definition of contemporary or modern. The forms and materials will be flexible to change and adapt based on current and
The landscape comprises an important part of the campus, both visually and functionally. The appearance of a campus is a prime factor when prospective students are choosing an educational institution to attend. The following guidelines covering trees, landscape beds, sidewalks, plazas, site furnishings, lighting, signage, campus edges and landscaping are intended as general parameters for enhancement of the existing landscape and creation of new landscapes at OSUIT.

**Trees**

Trees comprise the most important component of the landscape. Trees not only create aesthetic value but also define spaces and provide human scale especially in campus settings where large buildings typically predominate.

The master plan indicates many of the large trees, which should be preserved, if possible.

**Landscape Beds**

The landscape design of the beds should be similar to beds recently created on campus such as the planting area on the east side of the Culinary Arts building.

It is also recommended that hedges be removed since the contribution to the landscape setting is minimal when compared to maintenance required.

**Irrigation**

Landscape irrigation is recommended for all areas of campus and should be incorporated with each new building or site improvement project.

**Furnishings**

The site furnishings utilized on the Heritage Mall are recommended as standards for the campus.
**Lighting**

Site lighting promotes security both perceived and actual as well as the opportunity to enhance the campus through the use of attractive fixture styles.

Styles of exterior lighting should be similar across campus. The styles recommended for decorative street and walk lighting and bollard (low-level) lighting are found on Heritage Walk and set the standard for future campus lighting. Existing parking lot lighting should be replaced with lighting similar in character to the current Heritage Walk lighting.

**Signage**

Wayfinding is the primary purpose of signage and has been incorporated into the existing campus to a reasonable degree. Continued use of the existing types for historical and interpretive information is recommended.

**Campus Edges and Entries**

To more clearly identify and beautify the campus perimeter, a continuous decorative fence with brick columns is recommended.
Building with technology as Aesthetic is highly associated with Sustainable Design.

All future projects should employ sustainable infrastructure technologies to reduce the ongoing costs of operation and financial exposure. Rising energy costs should influence the approach of future building design and effort should be extended to display these technologies within the projects. Each building project can be a case study of technology. Additional consideration should be given to using sustainable technology that has a direct connection to academic programs on campus.

The 2013 Oklahoma State budget discusses the need to reduce the energy consumptions of state buildings by 20% The reduction of energy usage can be quantified in terms of watts per square-foot. Each new building project should have a goal of 20% energy reduction over the previous project, and as much as 50% reduction over replacement buildings. Similar goals should be set for major renovation projects. Minor renovations should have energy reduction goals set forth prior to design & construction. Changing code minimums for energy consumption should also be referenced for project goals.

Strategies for renovations should include LED lighting, occupancy sensors, increased day-lighting though additional envelope penetrations or light-reflective interior colors. Additional roof, envelope, and duct insulation are major contributors to energy use reduction.

New construction projects should reference air infiltration minimums, continuous insulation, building siting of the facades and materials considering day-lighting and heat-gain issues.

A campus-wide strategy should be developed to connect existing and renovated buildings to a central campus geothermal loop. New projects should include enough wells to serve the project plus a percentage additional capacity to develop a campus central plant. Because buildings are used differentially, overlapping capacity in a central loop can achieve significant reduction in energy usage and costs. The greater the number of buildings on a central loop, the greater the overall efficiency and reduced energy costs.

Specific technologies that should be considered given the specific campus site and micro-climate of Okmulgee:

- **LED Lighting**
- **Occupancy sensors for lights and plumbing**
- **Daylight harvesting sensors for lighting control**
- **Geothermal HVAC for buildings**
- **Geothermal Campus Loop**
- **Programmable thermostats**
- **Building concepts proactive to heat-gain issues**
- **Lighting and mechanical control from a central campus location**
- **Wind-turbine power generation (Vertical Axis Turbines)**
- **Photovoltaic cells on roofs, west & Southwest facing vertical surfaces**
- **Building Designs optimizing natural ventilation where congruous with program**
- **Rainwater capturing and reuse for grey-water functions and irrigation**
- **Native plant selection**
- **Light-reflective colors for roofing, parking lot, and sidewalk/plaza materials**
- **High-use spaces partially underground for earth insulation**
A Distributed Series of Geothermal Fields could remove 80% of Heating and Cooling equipment and 65% of HVAC costs from campus.
1. Automotive Center, Diesel and Heavy equipment are located on undeveloped land north of campus. This allows for uninterrupted academics during construction. Several site factors will require mitigation such as steep slopes, construction debris landfill and ponding area.

4. Construction Technologies and possible New Energies Program. Demolition of previously vacated Automotive and HEVi buildings will occur prior to new construction.

5. Expanded and new Student Housing. New housing will be constructed prior to the demolition of existing Garden apartment housing. Existing housing will be expanded and renovated.

8. Relocate Physical Plant services and storage. Construct new Compressed Natural Gas filling station with Convenience Store. A current residential property will be demolished.

9. Global Academy and Seminar rooms. Renovate and expand Covell Hall. The Garden Apartments will be demolished prior to construction.

12. Stand alone Event Center. This building is currently on undeveloped land. This will allow the project to develop on a flexible funding/community support schedule.

13. Expand Health Sciences to include orthotics & prosthetics. Completion of the Technology Mall concept may have required the relocation of Orthotics and Prosthetics prior to this new construction.
2. Construct new Visual Communications and LRC. These two projects are constructed on open lawn and parking areas minimizing disruption to the faculty and students. This new construction without demolition or renovation creates the capacity for future project phasing.

3. Culinary Program and expanded Public Restaurant, the site is currently undeveloped. Information Technologies, Engineering Technologies, and Science and Technology relocate to building S6 and vacated Library and VCT space.

6. Student Union Expansion and Technology Mall, including improvements to the Tech Tower. The demolition of several vacated buildings completes the vision of Technology Mall. A few programs such as Orthotics and Prosthetics will require temporary relocation to building S6 or completion of construction currently designated for future phases.

7. Expand the Ponds and nature walk areas. This project completes the East Campus entry and Boundary plan.

10. New Administration and Front Line Services Center. This project completes the South Campus Entry. The brick structure of Alexander North and South Hall is proposed for integration into the final solution as a sustainable reuse of existing structures.

11. Relocate IT programs and New Science Building. The location of IT and Technology programs prior to construction will depend upon the parking for the Library and Culinary programs shown in previous phases.


15. Hotel programs or housing for Global Academy. Construction on currently undeveloped land will allow flexible phasing as private industry partnerships are explored.
A Concept Study for the South Entry Realignment

The South Entry was reviewed for potential extra-campus improvements coordinated with the city of Okmulgee.

This review sprang from the current lack of alignment between Sixth Street, a major collector road, and Fourth Street, the primary access to Highway 56.

The campus entry is located off of 4th Street. 4th Street, while continuing West of campus, blends into the adjacent neighborhood quickly and is primarily a residential street. Access to the campus from downtown Okmulgee on Sixth street requires a zigzag of turns creating confusion for new visitors to campus.

The proposed alignment connects downtown Okmulgee to the existing Highway 56 intersection while providing improved visual recognition to the South Campus Entry.
Acknowledgements

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OSU Institute of Technology-Okmulgee is a campus on the move. As the state’s only university of applied technology, we have witnessed an ever-growing demand for our unique programs and services. Due to the significant role we play in workforce development, we are rapidly gaining in both recognition and popularity.

As we grow, many of our operations are beginning to experience major challenges due to space limitations within existing facilities. We foresee the need for many buildings on campus to be renovated or replaced in the next twenty years, and as these changes occur, it is important that we have a unified plan of action.

The OSUIT Campus Master Plan provides us a “road map” for how we can successfully navigate the future needs of the campus. It brings much needed continuity to our planning process and provides for basic efficiencies, safety, and aesthetics.

I would like to thank all of our constituents that provided valuable input into this project, but especially the talented architectural team of Dewberry for the work they did to produce this insightful and visionary plan.

Sincerely,

Dr. Bill R. Path
President
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