21.207 General Infrastructure Element.

This element ensures the provision of adequate capacity for stormwater management, potable water, sanitary sewer and treatment, and solid waste facilities required to meet the future needs of the university. The General Infrastructure Element shall consist of a Stormwater Management Sub-Element, a Sanitary Sewer Sub-Element, a Potable Water Sub-Element, and a Solid Waste Sub-Element.

(1) STORMWATER MANAGEMENT DATA AND ANALYSIS REQUIREMENTS. This sub-element shall be based on the following data and analysis requirements, pursuant to Subparagraph 21.202(2).

(a) Inventory and assess all public and private facilities and natural features which provide stormwater management for the campus, including detention and retention structures, storm drainage pipe systems, natural stream channels, rivers, lakes, wetlands, etc., (map, narrative). Assessment should include:
   1. A facility capacity analysis by geographic service area, indicating capacity surpluses and deficiencies for:
      i. Existing conditions, based on the facility design capacity and the current demand on facility capacity; and
      ii. The end of the planning time frame, based on the projected demand at current level of service standards for the facility, projected student populations and land use distributions, and any available existing surplus facility capacity.
   2. Analyzing the general performance of existing stormwater management facilities, evaluating the adequacy of the current level of service provided by the facility, the general condition and expected life of the facility, and the impact of the facility upon adjacent natural resources.
   3. Preparing a description of the proportional capacity of any facilities shared between the university and the host and/or affected local governments that are required to meet existing university needs, including a description of any capacity that may have been previously allocated to the university by the host and/or affected communities.
   4. Analyzing the general performance of natural stormwater management and hydrological features, and preparing a map of where these features are located.

(b) Inventory and assess the problems and opportunities for stormwater management facility expansion or replacement to meet projected needs of the university.

(c) Inventory and assess existing regulations and programs which govern land use and development of natural drainage features, including an
(2) REQUIREMENTS FOR STORMWATER MANAGEMENT GOALS, OBJECTIVES AND POLICIES.

(a) The sub-element shall contain one or more goal statements for accommodating future university stormwater management requirements.

(b) The sub-element shall contain one or more objectives for each goal which address:
   1. Correcting existing stormwater management facility deficiencies;
   2. Coordinating the provision of increased facility capacity to meet future needs of the university; and
   3. Protecting the functions of natural stormwater management and hydrological areas.

(c) The element shall contain one or more policy statements for each objective which:
   1. Establish the levels of service to be used by the university in establishing stormwater management standards for stormwater quantity and quality;
   2. Establish priorities for replacement, correcting existing stormwater management facility deficiencies, and providing for future facility needs;
   3. Coordinate the provision of on and off-campus stormwater management facilities required to meet future university needs with the local government or appropriate service provider;
   4. Ensure that future stormwater management facility service capacity and capital improvements required to meet future university needs are provided when required, based on needs identified in other master plan elements;
   5. Establish administrative, operational and other procedures to mitigate impacts of university-generated stormwater; and
   6. Establish the timing or phasing requirements for stormwater management facility improvements to meet future university needs.
   7. Encouraging the use of stormwater best management principles such as low-impact design and development, green roofs, rain harvesting, erosion controls and pesticide management.

(d) The Stormwater Management Sub-Element shall be described, at a minimum, in the General Infrastructure Element Map(s) and explanatory text. This map, along with companion narrative shall identify the location and size of the proposed general infrastructure distribution and collection system lines, treatment facilities and general facilities. The map and text shall be accompanied by explanatory tabular information as required.
(3) POTABLE WATER DATA AND ANALYSIS REQUIREMENTS. This sub-element shall be based on the following data and analysis requirements, pursuant to Subparagraph 21.202(2).

(a) Inventory and assess all public and private facilities (including main distribution lines) which provide potable water to the campus. Assessment should include:

1. A facility capacity analysis by geographic service area, indicating capacity surpluses and deficiencies for:
   i. Existing conditions, based on the facility design capacity and the current demand on facility capacity; and
   ii. The end of the planning time frame, based on the projected demand at current level of service standards for the facility, projected student populations and land use distributions, and any available existing surplus facility capacity.
2. Analyzing the general performance of existing potable water facilities (including main distribution lines), evaluating the adequacy of the current level of service provided by the facility, the general condition and expected life of the facility, and the impact of the facility upon adjacent natural resources.
3. Preparing a description of the proportional capacity of any facilities shared between the university and the host and/or affected local governments that are required to meet existing university needs, including a description of any capacity that may have been previously allocated to the university by the host and/or affected communities.
4. Analyzing the underground hydrology of the campus, including its potential as a potable water source.

(b) Inventory and assess the problems and opportunities for potable water facility expansion or replacement to meet projected needs of the university.

(c) Inventory and assess existing regulations and programs which govern land use and development of potable water facilities, including an analysis of the strengths and deficiencies of those programs and regulations in maintaining the functions of potable water delivery.

(d) Inventory and assess existing and future uses and opportunities for the use of reclaimed water on the campus and identify the source and entity having operational responsibility for the provision of reclaimed water on or near campus.

(4) REQUIREMENTS FOR POTABLE WATER GOALS, OBJECTIVES AND POLICIES.

(a) The sub-element shall contain one or more goal statements for accommodating future university potable water requirements.
(b) The sub-element shall contain one or more objectives for each goal which address:
1. Correcting existing potable water facility deficiencies;
2. Coordinating the provision of increased facility capacity to meet future needs of the university; and
3. Protecting and conserving potable water sources.
(c) The element shall contain one or more policy statements for each objective which:
1. Establish the levels of service to be used by the university in establishing potable water supply requirements;
2. Establish priorities for replacement, correcting existing potable water facility deficiencies, and providing for future facility needs;
3. Coordinate the provision of on and off-campus potable water facilities required to meet future university needs with the local government or appropriate service provider;
4. Ensure that future potable water facility service capacity and capital improvements required to meet future university needs are provided when required, based on needs identified in other master plan elements;
5. Establish administrative, operational and other procedures to conserve water, including utilization of reclaimed water as appropriate, and thereby minimize future potable water requirements of the university; and
6. Establish the timing or phasing requirements for potable water facility improvements to meet future university needs.
(d) The Potable Water Sub-Element shall be described, at a minimum, in the General Infrastructure Element Map(s) and explanatory text. This map, along with companion narrative shall identify the location and size of the proposed general infrastructure distribution and collection system lines, treatment facilities and generation facilities. The map and text shall be accompanied by explanatory tabular information as required.

(5) SANITARY SEWER DATA AND ANALYSIS REQUIREMENTS. This sub-element shall be based on the following data and analysis requirements, pursuant to Subparagraph 21.202(2).
(a) Inventory and assess all public and private facilities (including main collection lines) which provide sanitary sewer services to the campus. Assessment should include:
1. A facility capacity analysis by geographic service area, indicating capacity surpluses and deficiencies for:
   i. Existing conditions, based on the facility design capacity and the current demand on facility capacity; and
ii. The end of the planning time frame, based on the projected demand at current level of service standards for the facility, projected student populations and land use distributions, and any available existing surplus facility capacity.

2. Analyzing the general performance of existing sanitary sewer facilities (including main collection lines), evaluating the adequacy of the current level of service provided by the facility, the general condition and expected life of the facility, and the impact of the facility upon adjacent natural resources.

3. Preparing a description of the proportional capacity of any facilities shared between the university and the host and/or affected local governments that are required to meet existing university needs, including a description of any capacity that may have been previously allocated to the university by the host and/or affected communities.

(b) Inventory and assess the problems and opportunities for sanitary sewer facility expansion or replacement to meet projected needs of the university.

(c) Inventory and assess existing regulations and programs which govern land use and development of sanitary sewer facilities, including an analysis of the strengths and deficiencies of those programs and regulations in maintaining the functions of sanitary sewer collections.

(6) REQUIREMENTS FOR SANITARY SEWER GOALS, OBJECTIVES AND POLICIES

(a) The sub-element shall contain one or more goal statements for accommodating future university sanitary sewer requirements.

(b) The sub-element shall contain one or more objectives for each goal which address:

1. Correcting existing sanitary sewer facility deficiencies; and
2. Coordinating the provision of increased facility capacity to meet future needs of the university.

(c) The sub-element shall contain one or more policy statements for each objective which:

1. Establish the levels of service to be used by the university in establishing sanitary sewage collection and treatment facility requirements;
2. Establish priorities for replacement, correcting existing sanitary sewer facility deficiencies, and providing for future facility needs;
3. Coordinate the provision of on and off-campus sanitary sewer facilities required to meet future university needs with the local government or appropriate service provider;
4. Ensure that future sanitary sewer facility service capacity and capital improvements required to meet future university needs are provided
when required, based on needs identified in other master plan elements; and
5. Establish the timing or phasing requirements for sanitary sewer facility improvements to meet future university needs.

(d) The Sanitary Sewer Sub-Element shall be described, at a minimum, in the General Infrastructure Element Map(s) and explanatory text. This map, along with companion narrative, shall identify the location and size of the proposed general infrastructure distribution and collection system lines, treatment facilities and generation facilities. The map and text shall be accompanied by explanatory tabular information as required.

(7) SOLID WASTE DATA AND ANALYSIS REQUIREMENTS. This sub-element shall be based on the following data and analysis requirements, pursuant to Subparagraph 21.202(2).

(a) Inventory and assess all public and private facilities which provide solid waste collection, storage and disposal services to the campus. Assessment should include:
1. A facility capacity analysis by geographic service area, indicating capacity surpluses and deficiencies for:
   i. Existing conditions, based on the facility design capacity and the current demand on facility capacity; and
   ii. The end of the planning time frame, based on the projected demand at current level of service standards for the facility, projected student populations and land use distributions, and any available existing surplus facility capacity.
2. Analyzing the general performance of existing solid waste facilities, evaluating the adequacy of the current level of service provided by the facility, the general condition and expected life of the facility, and the impact of the facility upon adjacent natural resources.
3. Preparing a description of the proportional capacity of any facilities shared between the university and the host and/or affected local governments that are required to meet existing university needs, including a description of any capacity that may have been previously allocated to the university by the host and/or affected communities.

(b) Inventory and assess the problems and opportunities for solid waste facility expansion or replacement to meet projected needs of the university.

(c) Inventory and assess existing regulations and programs which govern land use and development of solid waste facilities, including an analysis of the strengths and deficiencies of those programs and regulations in maintaining the functions of solid waste collection, storage and disposal.
(d) Inventory and assess opportunities or available and practical technologies for the reduction, recycling and re-use of solid waste generated by the university.

(e) Inventory and assess any existing agreements for the collection, storage and disposal of university-generated solid waste, including allocated capacity and duration of service. Identify any future limitations on university development resulting from these factors.

(8) REQUIREMENTS FOR SOLID WASTE GOALS, OBJECTIVES AND POLICIES.

(a) The sub-element shall contain one or more goal statements for accommodating future university solid waste collection and disposal requirements.

(b) The sub-element shall contain one or more objectives for each goal which address:

1. Correcting existing solid waste collection and disposal facility deficiencies; and
2. Coordinating the provision of increased facility capacity to meet future needs of the university.
3. Increasing solid waste recycling.

(c) The element shall contain one or more policy statements for each objective which:

1. Establish the levels of service to be used by the university in establishing solid waste collection and disposal facility requirements;
2. Establish priorities for replacement, correcting existing solid waste collection and disposal facility deficiencies, and providing for future facility needs;
3. Coordinate the provision of on and off-campus solid waste collection and disposal facilities required to meet future university needs with the local government or appropriate service provider;
4. Ensure that future solid waste collection and disposal facility service capacity and capital improvements required to meet future university needs are provided when required, based on needs identified in other master plan elements; and
5. Establish the timing or phasing requirements for solid waste collection and disposal facility improvements to meet future university needs.
6. Increase recycling through increased collection points and awareness campaigns.

(d) The Solid Waste Sub-Element shall be described, at a minimum, in the General Infrastructure Element Map(s) and explanatory text. This map, along with the companion narrative shall identify the location and size of
the proposed general infrastructure distribution and collection system lines, treatment facilities and generation facilities. The map and text shall be accompanied by explanatory tabular information as required.