



Pittsburgh Department of City Planning

IMP Best Practices Guide

MEDIUM AND LARGE ACADEMIC INSTITUTIONS

THESE USE GUIDELINES HAVE BEEN CREATED BY THE DEPARTMENT OF CITY PLANNING (DCP) IN CONSULTATION WITH THE PITTSBURGH WATER AND SEWER AUTHORITY (PWSA) AND DEPARTMENT OF MOBILITY AND INFRASTRUCTURE (DOMI) FOR USE BY ACADEMIC INSTITUTIONS WITH 5,000 OR MORE STUDENTS. THE PURPOSE OF THE DOCUMENT IS TO INCREASE UNDERSTANDING OF THE INSTITUTIONAL MASTER PLAN (IMP) REQUIREMENTS IN THE ZONING CODE AND HOW BEST TO MEET THEM THROUGH LAND USE, MOBILITY, ENERGY, AND ENVIRONMENTAL PLANNING. THE PLANNING COMMISSION MAY USE THESE GUIDELINES AS A REFERENCE IN RELATION TO THE ZONING CODE REQUIREMENTS, BUT THE GUIDELINES DO NOT REPLACE EXISTING REQUIREMENTS OR CREATE NEW REQUIREMENTS.

1. INTRODUCTION

INTENT: THIS CHAPTER SETS THE CONTEXT FOR THE IMP INCLUDING RELEVANT HISTORY, PAST IMPs, THE OVERALL GOALS OF THIS IMP, AND A SUMMARY OF THE PROCESS INCLUDING PUBLIC ENGAGEMENT.

1.1 Mission and Objectives

- This section sets the goals of the IMP for the Institution and the city.
- Provide background about the Institution, its mission and objectives. This should cover goals that are meaningful to the Institution and the city including academic programs, research, livability/experience, transportation, energy, sustainability, community, stormwater, economic, and regional impact. The rest of the IMP should clearly show how the Institution is planning to achieve each goal.

ZONING CODE REFERENCE

905.03.D.4 (b) Mission and Objectives:

The Institutional Master Plan shall include a statement that defines the organizational mission and objectives of the institution and description of how all development contemplated or defined by the Institutional Master Plan advances the goals and objectives of the institution.

1.2 Requirements

- This section briefly identifies all applicable requirements that this plan is intended to fulfill including those set forth in the Zoning Code. If this IMP is a part of any other frameworks, they may be included here.
- For Zoning Code requirements, reference the relevant section or subsection of the requirements that are fulfilled by each portion of the IMP similar to how this guide has been designed to create a narrative for IMPs with call-out boxes that specify relevant Zoning Code requirements. Include a lookup table in the Appendices that identifies each IMP requirement in the Zoning Code and which section of the IMP is intended to fulfill that requirement. Table 1 in the Appendices of this guide provides an example of this lookup table.

1.3 Planning Context

- This section provides necessary background for the reader to understand the proposed IMP. It should set a narrative of the history of the Institution followed by discussions about previous and current plans related to the Institution and its surrounding communities.

1.3.1 History

- Start with a brief narrative that describes the Institution's history.

1.3.2 IMPs

- Discuss the last IMP (or previous IMPs) – their goals and main projects, what was implemented, what was not and why, and what the proposed IMP will take forward from the previous IMP(s). Discuss problems that the Institution faced in implementing the previous IMP(s) and how the new IMP overcomes those issues.
- The IMP may include a discussion of changes to the Institution and its campus since the last IMP. This is important context for the Institution to consider and will be important to readers of the IMP.

1.3.3 Other Planning Efforts

- Describe any additional institutional planning that is happening outside the IMP (e.g., strategic plan, sustainability plan, energy plan, housing plan, etc.). Note how these efforts have impacted the IMP proposals.
- Describe how the IMP relates to City plans or goals and neighborhood plans (adopted or otherwise). Consider summarizing the Institution’s role or engagement in any of those plans (if applicable).

1.4 Process

- This section is intended to present the process of planning the IMP. Consider writing a narrative that describes the sequence of steps that were taken to develop the plan and the rationale behind the approach taken.
- This section should also include information about how the Institution will proceed if the IMP needs to be amended. For example, identify specific community groups that will be engaged, when they will be contacted, what kind of public meetings will be held, and how community input will be recorded and addressed.
- The IMP may additionally reference the standard review and adoption process by the City. This generally takes 6-12 months and includes staff review against the Zoning Code requirements, any adopted neighborhood plans or relevant policy, and briefings and public hearings at both Planning Commission and City Council. Each IMP is valid for 10 years after which a new IMP must be approved. Updates to the IMP within the 10 year period are common and may be advisable to respond to changing conditions.

1.4.1 Project Team and Committees

- List the project team members (internal teams and/or consultants) responsible for drafting the plan and their main focus area or responsibility. Additional details should be listed in the Appendices.
- Describe any internal stakeholder/expert committees or faculty groups that were involved in decision-making for parts of the plan (mobility, design, community engagement, etc.). The main outcomes of each committee should be presented in the relevant section(s) of the plan with details about how the plan is addressing the recommendations or goals identified by each committee.

1.4.2 Public Engagement Summary

- This section details the process of engaging external stakeholders and briefly summarizes large themes of input received and how this affected the overall strategies developed. This summary should not be the only location to report input. Proposals throughout the IMP should include details about relevant input received and how the proposals address or do not address this input. Finally, the Appendices should include a report of all comments recorded regardless of whether they impacted proposals.
- Start by explaining the existing relations or collaborations between the Institution and the public: the neighborhood, the city, and other stakeholders. For example, if the Institution is part of any neighborhood task force, if it has any committee in charge of communicating with the public, if it is funding public or neighborhood initiatives, etc.
- Describe the public engagement process: how it was structured, what events and meetings were organized, the target audience for each event, how the event was advertised, and what committees or groups were

established. This should be a general description, the more detailed events lists, times, attendance, takeaways, and other details should be listed in the Appendices.

- Summarize the main takeaways/themes from meetings (leave the specific and detailed input for the relevant projects or sections and for the appendices).
- Applicants are welcome to utilize guidelines, standards, and/or toolkits for public engagement developed by DCP. The City’s Registered Community Organization program also provides guidance on engaging community organizations and residents. Contact the DCP Neighborhood Planner for the IMP area to learn more.

2. EXISTING CONDITIONS

INTENT: THIS CHAPTER DESCRIBES EXISTING CHARACTERISTICS IN THE PLAN AREA RELEVANT TO THE IMP INCLUDING BUT NOT LIMITED TO LAND USE, URBAN DESIGN, AND MOBILITY SYSTEMS. THE SUBSEQUENT LONG-TERM VISION AND TEN-YEAR DEVELOPMENT ENVELOPE SHOULD BUILD ON THE INFORMATION PRESENTED IN THIS SECTION.

2.1 IMP Boundary

- Use one map to show the existing Educational and Medical Institution (EMI) District boundary for the Institution and the proposed boundary for this IMP. The map should include streets and building footprints.
- Include a short explanation about any changes to the boundary.
- The Institutional Master Plan shall illustrate and identify the current land uses within the EMI District, contiguous properties, and properties within one thousand (1,000) feet of the EMI District which are under the control of the Institution.

ZONING CODE REFERENCE

905.03.D.3 Institutional Master Planning Area

An Institutional Master Plan shall illustrate and identify the current land use of all the area within the EMI District, contiguous properties, and properties within one thousand (1,000) feet of the EMI District which are under the control of the institution.

2.2 Existing Property and Uses

- Present a carefully designed set of maps and tables. Maps should be at an appropriate scale as to allow for easy identification of building boundaries, set back areas, roads, sidewalks, parking, landscape features, and other site improvements. Creating a set of clear maps is preferred over a single inappropriately scaled map showing a large area. A basic list of maps includes:
 - » **Zoning:** The extent of the present EMI zone and adjacent zoning districts overlaid with building footprints and roads.
 - » **Site Plan:** This should show the footprints of each building in the master plan area and any relevant subdistricts, together with roads, sidewalks, parks, open spaces, and other landscape features. This map or series of maps (if divided up by sub-districts, or by content) should highlight acquisitions and improvements since the previous IMP. Note any properties purchased or under control of the Institution outside the existing EMI zone. Consider identifying the

ZONING CODE REFERENCE

905.03.D.4 (c) Existing Property and Uses

The IMP shall include a description of land, buildings, and other structures owned or occupied by the institution as of the date of submission of the IMP. The following information shall be required: (1) Illustrative site plans showing the footprints of each building and structure, together with roads, sidewalks, parking, landscape features and other significant site improvements; (2) Land and building uses; (3) Gross floor area in square feet; (4) Building height in stories and feet; and (5) A description of off-street parking and loading areas and facilities, including a statement of the approximate number of parking spaces in each area or facility.

zoning designations on this map.

- » **Building Uses:** Building footprints should be color coded with predominant use. See Table 2 in the Appendices of this guide for guidance on use categories.
- » **Energy:** Include energy generating facilities, major distribution lines, substations, and on-building generation systems such as solar or wind turbines.
- » **Parking Facilities:** Include on- and off-street parking facilities and loading areas color coded to identify Institution-only, leased, and public parking areas.

- The maps above should include indices and be associated with at least the following data tables:

- » **Table 1 - Buildings:**

YEAR BUILT.

GROSS SQUARE FOOTAGE.

HEIGHT IN STORIES AND FEET.

ALL CURRENT USE CATEGORIES FOR ACTIVITIES IN THE BUILDINGS.

AVERAGE DAILY USERS DURING THE ACADEMIC YEAR.

ENERGY USAGE. USE PORTFOLIO MANAGER OR EQUIVALENT MONITORING SYSTEM TO INDICATE HOW BUILDINGS ARE PERFORMING IN TERMS OF ENERGY, IDEALLY AS SITE ENERGY USE INTENSITY. OTHERWISE, PROVIDE USERS, USES, AND HOURS OF OPERATION AND CITY STAFF WILL ESTIMATE ENERGY PERFORMANCE. CONSIDER SETTING A GOAL FOR METERING ALL BUILDINGS TO ALLOW AN IMP UPDATE OR FUTURE IMP TO MEET THIS NEED MORE ACCURATELY.

NOTE IF BUILDINGS WERE DESIGNED TO MEET ANY RECOGNIZED STANDARDS (E.G., PASSIVE HOUSE, WELL, LEED, ETC.) OR CONTAIN ENERGY-GENERATING EQUIPMENT (SOLAR PANELS, WIND TURBINES, ETC.).

- » **Table 2 - Parking Facilities:**

COUNT OF PARKING SPACES.

COUNT OF SPACES THAT ARE ADA, PREFERRED PARKING, OR ELECTRIC VEHICLE CHARGING.

STRUCTURE OR SURFACE LOT.

BICYCLE PARKING AREAS AND CAPACITY.

NOTE WHETHER THE LOCATION IS WITHIN THE IMP AREA OR A SATELLITE LOCATION OUTSIDE THIS AREA.

- Additional guidance:

- » **Building Uses:** These should be simple and straightforward in categories that relate to energy and users. Table 2 in the Appendices includes a recommended set of uses that is consistent with the Pittsburgh's Zoning Code use table, EPA's Portfolio Manager, and transportation impact studies.
- » **Building Users:** This information is relevant for both energy modeling and transportation planning. Please include average daily users for buildings during the academic year and some breakdown of the types of users (e.g., students, staff, other visitors, etc.).
- » **Buildings Outside the IMP Area:** Provide a Pittsburgh city or regional map to show where the Institution controls property outside the required 1,000 foot boundary around the EMI area. This is relevant to many aspects of the IMP including the Mobility Chapter (e.g., the use of shuttles to move staff or students across the city between Institution buildings). In past IMPs, Institutions have also provided maps showing building control outside the city and country.

3. NEEDS OF THE INSTITUTION

INTENT: THIS SECTION IDENTIFIES THE EXISTING AND PROJECTED DEMANDS AND CHALLENGES FACING THE INSTITUTION AND ESTABLISHES THE BASIS FOR THE PROPOSALS IN THE REST OF THE IMP. THERE SHOULD BE CLEAR LINKAGES BETWEEN PROPOSALS IN THE TEN-YEAR DEVELOPMENT ENVELOPE AND THE NEEDS IN THIS CHAPTER.

3.1 Expectations for Growth or Change

- Detail current students, faculty, and staff and project where these numbers will be in 10 years. Break down counts and projections based on the categories below. Note proportion of online only students and faculty.
 - » Full- and part-time students.
 - » Students living on- and off-campus.
 - » Undergraduate and graduate students.
 - » Staff, faculty, and other personnel.
 - » Number of schools and colleges, research centers, institutes, etc.

3.2 Current and Future Needs for Facilities

- Introduce the current and future needs for facilities with respect to:
 - » Goals of the Institution (listed in the first section).
 - » Growth projections or lack of growth.
 - » Projections for growth and/or change in relevant neighborhood plans. Clearly explain what the community expects to happen in the near future and how the IMP is designed to meet those expectations.
- Provide a high level explanation of how the campus will change to meet current and future needs. Are more buildings needed to meet expected demands? How will capacity match demand?

ZONING CODE REFERENCE

905.03.D.4 (d) Needs of the Institution

The Institutional Master Plan shall include a summary and projection of the institution's current and future needs for the following facilities: Academic; Service; Research; Office; Housing; Patient care; Public assembly; Parking; and Other facilities related to the institutional use.

3.3 Current and Future Needs for Housing

- Identify the needs of the Institution for housing with regard to students, faculty, and staff. Include both on-campus and off-campus housing. A good method to identify these needs is through surveying students, faculty, and staff to understand where they live and what factors drive decision-making about housing. There are many benefits to students, faculty, and staff living near campuses including reducing congestion, improving public health, supporting local retail, and repurposing land used for vehicle parking. This research should also be used to help identify Transportation Demand Management strategies in the Mobility Chapter.
- Describe how the IMP responds to and addresses issues with the existing and projected housing market. Consider the following questions: Is the Institution planning to build housing? Will the Institution develop programs that encourage students, faculty, and staff to live in adjacent neighborhoods? Are any Employer Assisted Housing programs in place or being proposed? What programs or efforts is the Institution involved in

ZONING CODE REFERENCE

905.03.D.4 (b) Mission and Objectives:

... Should describe the population to be served by the institution, and any projected changes in the size or composition of that population.

related to housing affordability? How might the Institution’s proposals impact the current residential housing market in the adjacent neighborhoods?

- This section should establish needs or desires that are answered in the Ten-Year Development Envelope and in the Neighborhood Enhancement Strategy.

4. LONG-TERM VISION AND GROWTH

INTENT: THIS SECTION IS INHERENTLY SPECULATIVE AND MOSTLY SERVES TO HELP THE CITY AND COMMUNITY UNDERSTAND THE LONG TERM VISION OF THE INSTITUTION.

- Use this section as a framework for developing the detailed 10-year plan. Developing an understanding of potential growth or change over this length of time will help to ensure the proposals in the Ten-Year Development Envelope are aligned with a wider vision.
- The proposals in the Ten-Year Development Envelope should clearly implement part of this long term vision.

4.1 Twenty-Five Year Development Sites

- The content of this section could include amending one or more of the Ten-Year Development Envelope maps with generalized footprints or project locations, their potential size, and what use they may serve. Tables may not be needed for this section.
- Use renderings or other visuals to show what the desired campus will look like or how it will function. The design of the buildings here is non-binding, but visuals may help the readers to imagine the physical development of the campus, and help to frame the Ten-Year Development Envelope proposals as part of Institution’s long term vision.

ZONING CODE REFERENCE

905.03.D.4 (f) Twenty-five Year Development Sites

The IMP shall include written and graphic materials identifying future development sites in addition to those noted in the Ten-Year Development Envelope. This information shall include, at a minimum, the size and location of each parcel which may be developed within a twenty-five year period.

5. TEN-YEAR DEVELOPMENT ENVELOPE

INTENT: THIS CHAPTER BUILDS ON THE BASELINING IN THE EXISTING PROPERTY AND USES SECTION WITH SPECIFIC NEW PROJECTS. WHILE THIS SECTION IS LARGELY TECHNICAL – ADDING PROPOSALS TO THE MAPS AND TABLES PRESENTED IN THE EXISTING PROPERTY AND USES SECTION – IT IS IMPORTANT TO CONTINUE THE NARRATIVE FROM THE CURRENT AND FUTURE NEEDS OF THE INSTITUTION SECTION SO THAT THE READER CAN CLEARLY LINK THE PROPOSALS ON THE MAPS AND TABLES TO THE NEEDS AND GOALS OF THE INSTITUTION.

5.1 Proposed Development

- Update each of the maps from the Existing Property and Uses section with specific proposals. Proposals should be clearly identified on the map and included in a table with the same details as in the Existing Property and Uses section including the details required by the Zoning Code (e.g., uses, setbacks, height, maximum floor area, parking spaces, etc.). Proposed buildings do not necessarily need to be detailed

ZONING CODE REFERENCE

905.03.D.4 (e) Ten-Year Development Envelope

The IMP shall include a description of the envelope within which development will occur in a ten-year time frame. The development envelope is the maximum amount of development proposed by an institution, which can be supported through impact studies. The intent of this provision is to provide the institution with flexibility regarding the future development potential of its campus, while addressing the potential impacts of that development on the surrounding neighborhoods. The Development Envelope shall include the following: (1) Location of each potential development site; (2) Maximum Floor Area of structures for each potential development ...

footprints, and in fact, footprints for future buildings can be overly proscriptive at this stage. Consider depicting future buildings as massing boxes that accurately depict setbacks and other site parameters but don't express a specific design or landscaping features.

- Do not introduce additional frameworks such as planning themes/goals, new campus subdistricts, etc. in this section.
- One way to incorporate a narrative into this section would be call out boxes that link the proposals to specific needs or goals described in earlier sections. For example, "Building A will be expanded by up to 20,000 sf to accommodate a projected need for Laboratory/Research Services."
- If any of the projects are meant to address issues raised during the public engagement process, use call out boxes or otherwise note this and reference the specific source of the input in the appendices.
- Consider identifying temporary uses for sites, such as surface parking or community gardens on sites that are intended for development by the end of the Ten-Year Development Envelope.

ZONING CODE REFERENCE (CONTINUED)

905.03.D.4 (e) Ten-Year Development Envelope

...site; (3) Total Maximum Floor Area for Institutional Master Plan structures; (4) Height of possible structures; (5) Required setbacks on each parcel; (6) Other factors which may affect the size and form of buildings; and (7) Total number and location of parking spaces which will occur within a ten-year period.

5.2 Implementation Plan

- This section should identify how the Institution will implement the plan, including:
 - » What steps should be taken.
 - » Who should be involved and when.
 - » What are the priorities.
 - » How this plan will relate to the capital budget / investment plan(s).
 - » Grant opportunities, fundraising campaigns, etc. that will fund implementation.
 - » Other processes such as public investments that will be necessary for the Institution to realize the proposed development vision. Note: The planning process should include the appropriate public agencies to ensure they are aware and supportive of the proposed projects.

5.3 Urban Design Guidelines

- This section describes the current character of buildings and spaces and set expectations for how development will look as it is designed and built.
- Design guidelines can be particularly important if there is no predominant architectural style or context that future development would be assumed to continue. Depending on campus size and history, it may be helpful to establish design subdistricts/precincts with guidelines for each.
- For each subdistrict/precinct, provide the following:
 - » **Architectural Inventory:** Index all existing buildings on map(s) and provide table(s) with the year buildings were built, the architect and architectural style, size and location of entrances, roof lines and pitches, and a brief

ZONING CODE REFERENCE

905.03.D.4 (j) Urban Design Guidelines

The Institutional Master Plan shall include design guidelines and objectives for new and renovated buildings and structures to assure their compatibility with supporting neighborhoods and districts and to minimize potential adverse impacts on historic structures and historic districts. Urban design guidelines shall include listings of appropriate materials, height, bulk, massing, and colors that will be used to guide the course of proposed and future development.

description of the façade materials and colors. Note any buildings that are registered historic landmarks and any historic districts.

- » **Civic Realm Inventory:** Describe the civic realm including the amount buildings are set back from streets, trails or other transportation areas, presence and function of open spaces, presence of furnishings and lighting as well as their style, scale of structures and how they are massed including articulation and step backs on upper floors.
- Based on the inventories, propose guidelines for the characteristics of new development as well as additions to existing structures in each subdistrict/precinct. Consider the following:
 - » Massing, materials, architectural language, setbacks and step backs, colors, public realm design and other applicable elements. For example, will buildings be consistent with existing architecture or will future designs be of a more contemporary nature and diverge from historic styles?
 - » How new development interacts with adjacent public streets and integrates into the existing streetscape to create a high quality public realm.
- Other guidance:
 - » Consider how the design guidelines are contributing to the neighborhood’s existing design or context. If there are adopted design guidelines in the surrounding neighborhood, include a narrative describing how they relate to the proposed campus guidelines.
 - » Consider how the design of new buildings will seek to mitigate adverse impacts on adjacent residential areas if present.
 - » Coordinate urban design and open space proposals to link building design with landscape design. Renderings or landscape plans can be a particularly helpful way to show this, but should be clearly labeled as illustrative diagrams and not proposed designs for specific projects.
 - » High-level renderings of campus sub-districts with future development can be a helpful visual as are photos of building materials and civic realm photos and diagrams. These should exemplify the design guidelines proposed.
 - » All mechanical equipment must be screened from public view to the extent possible, unless there is a reason to highlight it such as showing green infrastructure or renewable energy features that express the values of the Institution. If there are any other existing conditions or specialized types of equipment that prevent screening, clearly indicate where and why.
 - » High quality, durable materials should be used for all projects. Examples of materials that typically are short-lived and not appropriate include: Exposed aggregate concrete wall panels, EIFS, T-111 composite plywood siding, vinyl, and fiber cement and composite panels. Provide a list of materials the Institution will adhere to for new buildings.
 - » Institutions should give careful consideration to the creation of public art installations as a means of expressing the activities and history of the Institution and community. Think about the location of new pieces of art and how public art can express what’s happening inside the buildings both to visitors and users of the space.

6. MOBILITY PLAN

INTENT: THIS SECTION IS BASED ON A DETAILED ANALYSIS OF THE TRANSPORTATION CONDITIONS IN THE TEN-YEAR DEVELOPMENT ENVELOPE AND ON THE OUTCOMES OF THE TRANSPORTATION IMPACT STUDY. THIS ANALYSIS, TOGETHER WITH THE INSTITUTION'S GOALS, SHOULD SHAPE A MOBILITY PLAN FOR HOW THE INTUITION'S USERS WILL TRAVEL TO AND FROM THE SITE OVER THE NEXT 10 YEARS. FOR INTUITIONS PROJECTING A GROWTH IN THE NUMBER OF USERS, TRANSPORTATION DEMAND MANAGEMENT (TDM) IS A KEY CONCEPT THAT SHOULD BE THOUGHTFULLY INCORPORATED INTO THIS SECTION. TDM SEEKS TO INCREASE THE EFFICIENCY OF THE TRANSPORTATION NETWORK BY MEETING THE DEMAND FOR TRAVEL THROUGH TRANSPORTATION OPTIONS THAT DO NOT CONTRIBUTE TO PEAK HOUR VEHICLE CONGESTION. PLEASE CONTACT DOMI FOR ADDITIONAL TDM GUIDANCE.

6.1 Existing Conditions

- This section should provide a thorough understanding of the existing transportation systems, issues to address, and transportation projects that precede the new IMP.
- **Existing Transportation Network Map(s):** The extent of the existing condition map(s) should cover a 0.25 mile buffer similar to the “area of influence” and demonstrate how pedestrians and cyclists access the campus under existing conditions. It should include elements such as public and private arterials and collector streets, note how intersections are controlled (signals, stop signs, etc.), loading docks and zones including car service loading areas, bike lanes and routes, bike and car share locations, bike facilities such as racks or covered storage, bus stops and shelters, shuttle locations, pedestrian paths and desire lines. Note any changes to the system since the previous IMP even if they are not due to the Institution's action.
- **Travel Inventory:** Provide counts and description of uses (e.g., students, staff, faculty, etc.), existing parking management (number of on-site and off-site spaces, spaces available for lease, and/or hourly parking), transportation benefit programs, unmet parking demands and issues to address, and programs that actively manage capacity. Conducting a zip code analysis and/or a travel survey of faculty, staff and students is an important part of understanding the transportation dynamics of a campus. Report results of these analyses here.
- **Consistency with Transportation Plans, Policies and Procedures:** Site access, location of bike rooms and other Master Plan or site features should be consistent with transportation plans or planned transportation improvements.
- **Ongoing Projects:** Briefly describe any recent, ongoing or planned transportation planning projects the Institution is or has been involved with (e.g., with PennDOT, DOMI, PAAC, etc.). Save details about new transportation projects for the Mobility Plan section.
- **Transportation Systems and Services:** Discuss any existing citywide transportation-related projects or programs (e.g., shuttle services, garage systems, etc.) that the Institution owns and/or operates.

ZONING CODE REFERENCE

905.03.D.4 (g) Transportation Management Plan

The Institutional Master Plan shall include a transportation and parking management plan, based on the results of the transportation study that identifies any traffic mitigation measures to be employed.

6.2 Mobility Goals

- Discuss the Institution's goals and Zoning Code requirements regarding transportation (e.g., reducing traffic, encouraging walkability, changes in travel preference, etc.), and establish specific mode share goals.
- Mode share goals should be set based on decreasing the share of vehicle trips from existing mode splits and will be evaluated for appropriateness based on the use, context and transportation impact of the proposed development. The following modes should be included: bike, walk, transit, drive alone (SOVs), carpool,

and rideshare. Goals should be consistent with TDM policies or plans adopted by the city. Mode share goals should be developed for the phasing of the development plan. Mode share goals may be tied to vehicle trip reductions identified in the transportation impact study. Make clear connections between the existing conditions, trends, projected growth, and the goals here and in the Mission and Objectives section.

6.3 Proposal

- Briefly present the outcomes from the public engagement process regarding transportation issues (whether from meetings, surveys, or any other method), and how the proposal(s) addresses those outcomes. Include references to the detailed input in the appendices.
- Maps and tables for this section should include:
 - » **Proposed Transportation Network Map(s):** Building on the existing network map, identify proposed improvements and projects on the map(s) with indices that connect to the table below.
 - » **Proposed Transportation Projects Table:** As with the Ten-Year Development Envelope, provide details about the proposed improvements and projects in a table. Note any proposals that require commitments from the City, PAAC, or other external partners.
 - » Repeat the existing and proposed parking facilities maps and tables from the Ten-Year Development Envelope section.
- **TDM Plan:** Propose a clear program and identify other initiatives that will allow the Institution to meet their transportation goals, particularly mode share goals. This TDM Plan should also consider the projected growth in students, staff/faculty, and visitors that will need to be accommodated. Describe nationwide transportation trends and how this factors into the Institution's strategy.
- **Parking Demand Management Strategy:** Developing such a strategy is strongly recommended for Institutions that manage a parking supply. This strategy should incentivize non-auto trips and decrease vehicular congestion. If the Institution is unable to create one, it should demonstrate why. A Parking Demand Management Strategy typically involves using an inventory of existing parking and factoring in the demand for future parking, identify strategies to convert existing and future drivers to other modes and provide the minimum parking needed to sustain future demand.
- For transportation improvements needed to support the development (as identified in the TIS) such as new roads, pathways, lane configuration changes, etc., include a brief description of the project, its scale, and the need it addresses. Ideally a rendering or diagram would be provided for each even if it's at a conceptual stage.
- Describe any new citywide or cross IMP boundary transportation projects or programs that the Institution is proposing and its impacts on the transportation system (e.g., shuttle services, satellite parking structures, circulation between campuses, etc.).
- Clearly identify how the Institution will monitor the transportation system including the impact of improvements and progress towards mode share goals. How will this information be shared with stakeholder groups?
- Describe educational materials, campaigns, or other programs that will help the Institution to achieve its transportation goals (e.g., eliminating monthly leases, bike to work, carpooling, transit pass programs, etc.).
- Discuss any needs specific to the IMP proposals such as service agreements around signage if pedestrian or auto wayfinding systems are proposed.
- Report to Planning Commission the results of the travel survey, findings in the TIS, and strategies developed for the TDM Plan and Parking Management Plan.

7. INFRASTRUCTURE PLAN

INTENT: THIS SECTION COVERS TOPICS RELATED TO INFRASTRUCTURE AND ITS CONTRIBUTION TO THE ENVIRONMENT AND CAMPUS SUSTAINABILITY. THIS CHAPTER SHOULD PROVIDE HIGH LEVEL COMMITMENTS, TARGETS, AND GOALS FOR THOSE ELEMENTS THAT PERTAIN SPECIFICALLY TO THE PROPOSED DEVELOPMENT ACTIVITIES. IF THE INSTITUTION HAS CREATED A SEPARATE SUSTAINABILITY, ENERGY, OR STORMWATER PLAN, PLEASE REFERENCE THAT HERE AND INCLUDE IT IN THE APPENDICES.

7.1 Environmental and Sustainability Goals

- Relate goals and efforts in this section to City policy contained in the OnePGH Resilience Plan, the Climate Action Plan, the City Wide Green First Plan, the City’s Comprehensive Plan, and relevant adopted neighborhood plan(s). For example, consider which shocks and stresses from OnePGH the Institution is most susceptible to and how the IMP addresses and/or mitigates them.
- Describe the Institution’s long-term goals and how they compare to those of the City (e.g., 50% GHG, 50% renewable energy, 50% EUI below national average, WUI 50% below district average, reducing transportation GHG by 50%). How does the Institution view its activities as part of the solution to meeting these? And how far is the Institution from those goals?

7.2 Environmental Protection

- The IMP shall identify all sensitive environmental resources within the Institutional Master Plan area, as well as any view corridors that traverse the Institutional Master Plan area.
- The IMP shall identify Environmental Overlay Districts that affect the Institutional Master Plan area and shall include reports on those conditions as required in Chapter 906.
- The IMP shall identify areas of the Institutional Master Plan area which may be subject to the Environmental Performance Standards of Chapter 915. The plan shall identify the measures that will be used to mitigate impacts for each of these conditions.
- Tree preservation should be incorporated into the IMP, and should be evaluated in the early stages of each development project. Mature canopy trees provide far greater environmental, social, and economic benefits than do newly established trees, and are thus critical to the livability and health of our city. An important first step is to hire a certified arborist to conduct an inventory of existing trees (location, species, trunk diameter, condition, canopy coverage) and present goals for preservation coverage in the Ten-Year Development Envelope. Inventory all trees with a trunk diameter at breast height of 3 inches or greater. Actual diameter measurements are preferred for each tree in the inventory. For condition, use the International Society of Arboriculture’s assessment guidelines. Provide standards to ensure critical root zones are protected during construction, and adequate soil volumes are maintained.
- The Sustainable SITES Initiative provides guidance on sustainable landscape design and a certification program (similar to the LEED for buildings) that may be a beneficial resource for Institutions seeking to integrate sustainable landscape design with development. Similar to guidelines for building performance, identify specific open space opportunities and set goals to meet specific standards (e.g., the open space

ZONING CODE REFERENCE

905.03.D.4 (h) Environmental Protection Plan

The Institutional Master Plan shall identify all sensitive environmental resources within the Institutional Master Plan area, as well as any view corridors that traverse the Institutional Master Plan area. The Institutional Master Plan shall identify Environmental Overlay Districts that affect the Institutional Master Plan area and shall include reports on those conditions as required in Chapter 906. The Institutional Master Plan shall identify areas of the Institutional Master Plan area which may be subject to the Environmental Performance Standards of Chapter 915. The plan shall identify the measures that will be used to mitigate impacts for each of these conditions.

created between the new south quad buildings will be designed to meet or exceed the standards for Sustainable SITES Gold certification). Meeting the standards is more important than seeking full certification.

7.3 Campus Energy Planning

- Energy planning goals were detailed in previous sections. Use this section to make it clear how the IMP proposals are part of a larger effort to manage energy use more efficiently.

7.4 Stormwater Management

- This section should describe stormwater programs and projects, particularly green infrastructure.
- **Stormwater Existing Conditions:** Provide a map that includes drainage areas as designated by the PWSA, inlets, drains, topography, impervious surfaces, and green infrastructure including green roofs (contact PWSA to develop this map and for many of the data layers needed). Include a table with this map that details the flows and capacities of, and areas managed by the Best Management Practices (BMPs) in use and proposed. Provide information about how green infrastructure will be managed to maintain functionality over time.
- Consider the multiple benefits of stormwater and habitat as part of the landscape plan. For example, consider how the open space might incorporate green infrastructure and/or native plants or recreate native habitat systems.
- Note: PWSA is in the process of developing a Stormwater Fee that will charge users for the amount of stormwater their property contributes to the municipal system. When the system is in place, fee reductions will be possible for users that manage stormwater on-site. Institutions should consider the IMP as an opportunity to develop projects that will have long term financial and stormwater management benefits.

7.5 Green Buildings

- List existing and proposed buildings on campus where energy use, water use, indoor environmental quality, material selection and the building's effects on its site have been incorporated into the planning, design, construction, and operations of the building. Provide an explanation of how they are contributing to the larger environmental and sustainability goals of the Institution.

7.6 Waste Management and Water Conservation

- Describe water conservation, waste reduction/recycling, and waste management programs and activities – consider identifying current conditions, setting goals for reduction and identifying programs or practices the University will undertake to meet the goals.

7.7 Open Spaces and Pedestrian Circulation

- This section details both the form and function of open spaces between buildings as well as the use of these spaces for pedestrian circulation.
- **Open Space Existing Conditions and Proposed Projects:** Provide maps and/or an inventory that describes the nature of both the current and the proposed open spaces including its uses and ecological function (e.g., forest, grassland, shrubland, cultivated land, gravel or other pervious but non-biological ground cover areas). See guidelines in 7.2 Environmental Protection for details about incorporating third-party standards such as those of the Sustainable SITES Initiative into open space planning.

ZONING CODE REFERENCE

905.03.D.4 (i) Open Space and Pedestrian Circulation Plan

The Institutional Master Plan shall include open space and pedestrian circulation guidelines and objectives, including a description of the circulation system to be provided through the campus and plans for ensuring the accessibility of pedestrian areas and open spaces.

- **Pedestrian Circulation:** The pedestrian circulation component differs from what is covered in the Mobility Plan in that it primarily covers internal circulation on private campus roads and trails for Institution’s users
 - » Provide a map that identifies existing pedestrian malls, trails, routes, desire lines, gateways, including the names they are known by on campus.
 - » Provide a secondary map with the general location or alignment of proposed improvements.
 - » For major projects such as new trails, bridges, and passageways, include a brief description of the project, its scale, and the needs it addresses. Consider including renderings and/or diagrams for each project even if they are conceptual in nature (although make this clear to the reader).

8. Neighborhood Enhancement Strategy

INTENT: PROVIDE DETAILS ON THE ROLE THE INSTITUTION PLAYS IN IMPROVING ITS NEIGHBORHOOD(S) FOR PERMANENT RESIDENTS AND BUSINESSES IN ADDITION TO ITS STUDENTS AND STAFF. THIS SHOULD INCLUDE ACTIVITIES ON CAMPUS AND THAT EXTEND INTO THE SURROUNDING NEIGHBORHOOD(S) SUCH AS PARTNERSHIPS AND PROGRAMS WITH COMMUNITY GROUPS OR SPECIFIC IMPROVEMENT PROJECTS.

- Summarize the relevant neighborhood plan(s) for the area and discuss components of that plan (vision, goals, strategies, actions, etc.) that the Institution is working to address.
- Commit to fully engaging in and supporting any ongoing or future City-led planning processes and adhering to adopted neighborhood plans and policy relevant to the area. Commit to community consultation on all projects that are expected to impact the surrounding neighborhoods.
- Summarize the resident-facing elements of the Institution’s operations today and include proposals for proposed future enhancements in at least the following categories:
 - » **Amenities:** What theaters, libraries, museums, galleries, farmer’s markets, open spaces, events, or other amenities are available to non-enrolled residents and what will be provided moving forward?
 - » **Programs:** What programs does the Institution lead or support that enhance the community, particularly around affordability, employment, improving conditions for permanent residents, and commercial activity? What programs are planned in the next 10 years? Examples of these kinds of programs could include grants or collaborations with community organizations such as Community Development Corporations, workforce training for residents or their children, and programs that help faculty and recent graduates find housing in the neighborhood.
- **Economic Impact:** Describe the economic impact of the Institution on the neighborhood and the city. This could include employment opportunities, financial support, services, retail, or other activities that may have an economic impact. Consider any negative externalities that may result from the economic activity the Institution brings to a neighborhood.
- **Housing Impact:** Describe how the Institution’s housing needs (e.g., demand for student housing), proposed projects, and proposed programs might impact adjacent neighborhoods particularly housing affordability. Consider any existing or potential negative externalities that could be associated with students, faculty, staff and visitors, and how the Institution is working to address these.

ZONING CODE REFERENCE

905.03.D.4 (b) Mission and Objectives

...It should also specify any services to be provided to Pittsburgh residents in adjacent neighborhoods and in other areas of the city.

905.03.D.4 (k) Neighborhood Protection Strategy

The Institutional Master Plan shall identify standards and programs that will be put in place to ensure that the quality of the surrounding neighborhoods is maintained or enhanced.

- **Engagement Strategy:** Make a commitment to ongoing neighborhood consultation and dialogue on a routine basis regardless of necessitating events. Describe how the Institution will work with the community on projects and programs that support community goals, and how the Institution will engage the community when issues arise that require community consultation or where neighborhood residents are directly impacted. Consider which organizations will be involved in different issues that may arise (e.g., resident associations, community development corporations, transportation advocacy organizations). Describe how the Institution will use public community meetings and how input at these meetings will be meaningfully integrated into projects.
- **Student Integration:** Describe processes or programs by which the Institution will partner with the community to assist in the integration of students into the neighborhood, including providing residential responsibilities and civic duties.

9. APPENDICES

- The items below should be included as appendices to the IMP. It is also recommended that the Institution include adding any other reports, studies, or plans that were used to establish the proposals in the IMP.
 - » Full outreach/engagement report: List meetings, dates, and locations for internal stakeholder and external stakeholder/community meetings including how each event was advertised. Briefly describe input from each meeting and how it was used in the planning process. Full survey results, inventories, and background documents.
 - » Letters of support from community and business organizations, elected officials, etc.
 - » Full Transportation Impact Study.

APPENDICES FOR THE IMP BEST PRACTICES GUIDE

Table 1: How Zoning Code Requirements are Satisfied by the IMP Best Practices Guide

This table lists the requirements on the Zoning Code for IMPs and which sections of the IMP Best Practices Guide address those requirements. The table is also an example of the lookup table recommended under guideline 1.2.

Zoning Code Requirement	IMP Best Practices Guide Section
Planning Horizon	None
Mission and Objectives	1.1 Mission and Objectives 4. Long-Term Vision and Growth 8. Neighborhood Enhancement Strategy
Existing Property and Uses	2.2 Existing Property and Uses
Needs of the Institution	3.2 Current and Future Needs for Facilities
Ten-Year Development Envelope	5.1 Proposed Development
Twenty-five Year Development Sites	4.1 Twenty-Five Year Development Sites
Transportation Management Plan	6. Mobility Plan
Environmental Protection Plan	7.2 Environmental Protection
Open Space and Pedestrian Circulation Plan	7.7 Open Spaces and Pedestrian Circulation
Urban Design Guidelines	5.3 Urban Design Guidelines
Neighborhood Protection Strategy	8. Neighborhood Enhancement Strategy

Table 2: Uses Categories for IMP

The table below lists Zoning Use categories clustered into broad categories. The final column shows how these categories align with standard Energy use categories from the Commercial Buildings Energy Consumption Survey (CBECS). Institutions should use this table to establish a set of use categories that is consistent with their own energy planning as well as the zoning categories.

Broad Categories	Zoning Use Category	Energy Use Category (CBECS)	
Residential	Dormitory	Dormitory	
	Single-Unit Detached Residential	Single Family Home	
	Single-Unit Attached Residential		
	Multi-Unit Residential	Multifamily Housing	
	Two-Unit Residential		
	Three-Unit Residential		
	Fraternity/Sorority		
		Other - Residential	
Education	Library	Library	
	Educational Classroom Space		
		Pre-school/Daycare	
		Other - Education	
Entertainment/Public Assembly	Public Assembly	Social/Meeting Hall	
	Cultural Service	Museum	
	Recreation and Entertainment, Indoor		Convention Center
			Movie Theater
			Performing Arts
			Stadium
		Other - Recreation	
	Recreation and Entertainment, Outdoor	Stadium	
	Amusement Arcade		
Art or Music Studio			
		Other - Entertainment/Public Assembly	
Food Sales and Service	Restaurant	Restaurant	
	Restaurant, Fast-Food	Restaurant, Fast-Food	
	Grocery Store	Supermarket/Grocery Store	
		Convenience Store	
		Wholesale Club/Supercenter	
	Sidewalk Café		
			Other – Food Sales & Services

LEGAL DISCLAIMER: This handout should not be used as a substitute for applicable law, including the City of Pittsburgh Zoning Code. The applicant is responsible for compliance with all applicable legal requirements, whether or not addressed in this handout.

Broad Categories	Zoning Use Category	Energy Use Category (CBECS)
Healthcare	Medical Office/Clinic	Medical Office
		Clinic
		Outpatient Rehabilitation/Physical Therapy
		Ambulatory Surgical Center
		Residential Care Facility
	Urgent Care/Clinic/Other Outpatient	
	Animal Care	
	Hospital	Hospital
Office	Office	Office
Parking	Parking Structure	Parking
Services	Safety Service	Fire Station
		Police Station
	Transit Facility	Transportation Terminal/Station
	Laundry Services	
		Mailing Center/Post Office
		Other - Services
Religious	Religious Assembly	Worship Facility
Retail	Retail Sales and Services	Convenience Store
		Mall
	Outdoor Retail Sales and Services	Strip Mall
Technology/Service	Laboratory/Research Services	Laboratory
		Data Center
		Other - Technology/Science
Banking	Bank or Financial Institution	Bank Branch
		Financial Office
Utility	Utility	Drinking Water Treatment & Distribution
		Energy/Power Station
		Wastewater Treatment Plant
	Recycling Collection Station	
	Salvage Yard	
		Other - Utility