

# Policy and Practice Smart Growth Audit

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## Abbreviations

AASHTO	American Association of Highway and Transportation Officials
CPEX	Center for Planning Excellence
CPPC	City-Parish Planning Commission
CRPC	Capital Region Planning Commission
DPM	Development Policy Manual
DPW	Department of Public Works
GLP	Green Light Plan
LADOTD	Louisiana Department of Transportation and Development
SIF	Sewer Impact Fee
TIF	Traffic Impact Fee
UDC	Unified Development Code

## Introduction

This document assesses the extent to which DPW's policies and practices achieve and implement smart growth principles and makes recommendations for improvements. It draws heavily from work done in early 2004, in which the Smart Growth Leadership Institute and Plan Baton Rouge worked collaboratively on a review and audit of the 1992 Baton Rouge Horizon Plan and the Unified Development Code (referred to in this document as the 2004 Audit). The persistent gap between the intent to pursue smart growth principles and the ability to develop 'smartly' under existing policies and practices prompted the EPA to fund the 2004 Audit and the author to complete this Audit.

### ***Purpose of the Audit***

The purpose of this Audit is to complement the 2004 Audit, which focused on the Horizon Plan and Unified Development Code, by reviewing the policies and practices of the Department of Public Works. As stated in the 2004 Audit, "the goal of the project is not to state that Baton Rouge's planning and development policies are 'wrong' or 'right' with respect to municipal growth — the judgment about how to grow can only be made by the residents and their elected officials. Instead, [this audit] establish[es] what the [DPW] has 'on the books' and in practice in relation to the commonly accepted principles of smart growth identified in this document."<sup>1</sup>

*Perhaps the single greatest impact DPW has on smart growth in Baton Rouge is the design of our roadways – particularly arterials and collectors – and the auto-oriented land uses and lack of pedestrian, bicycle and transit opportunities they contribute to.*

This Audit has two main objectives:

- Highlight the specific ways in which DPW has an impact on how Baton Rouge grows; and,
- Make specific recommendations for how DPW can help Baton Rouge grow smarter.

### ***Smart Growth Defined***

"Smart growth is often understood as the opposite of sprawl, which is characterized as the predominant form of American land use. Where sprawl treats land as an unlimited commodity, smart growth sees land as a limited resource. Where sprawl develops at low density on raw land at the urban fringe (a pattern largely underwritten by government policy and practice), smart growth first directs growth to areas within the existing urban footprint (infill and redevelopment) and often seeks to permanently maintain open space at the urban edge. Sprawl develops at relatively low density with leap-frog development and separated land uses while smart growth emphasizes higher density with interconnected, compact, contiguous, and mixed-use development."<sup>2</sup>

<sup>1</sup> Excerpt from 2004 Audit: "Policy and Code Audit Report, East Baton Rouge Parish and the City of Baton Rouge," by The Smart Growth Leadership Team, July 6, 2004, pg. 4.

<sup>2</sup> Excerpt from 2004 Audit: pg. 2.

Smart Growth is defined by 6 goals:

- **“Neighborhood livability:** The central goal of any smart growth plan is the quality of the neighborhoods where we live. They should be safe, convenient, attractive, and affordable. Sprawl development too often forces trade-offs between these goals. Some neighborhoods are safe but not convenient. Others are convenient but not affordable. Too many affordable neighborhoods are not safe. Careful planning can help bring all these elements together.
- **Better access, less traffic:** One of the major downfalls of sprawl is traffic. By putting jobs, homes and other destinations far apart and requiring a car for every trip, sprawl makes completing everyday tasks an onerous chore. Smart growth’s emphasis on mixing land uses, clustering development, and providing multiple transportation choices helps us link trips more efficiently, manage congestion, pollute less and save energy. Those who want to drive can, but people who would rather not drive everywhere or don’t own a car have other choices.
- **Thriving cities, suburbs, and towns:** Smart growth puts the needs of existing communities first. By guiding development to already built-up areas and in places where the local government has already made significant infrastructure investments, new investments can be made in transportation, schools, libraries and other public services in the communities where people live today. This is especially important for neighborhoods that have inadequate public services and low levels of private investment. It is also critical for preserving what makes so many places special—attractive buildings, historic districts and cultural landmarks.
- **Shared benefits:** Sprawl leaves too many people behind. Divisions by income and race have allowed some areas to prosper while others languish. As basic needs such as jobs, education and health care become less plentiful in some communities, residents have diminishing opportunities to participate in their regional economy. Smart growth enables all residents to be beneficiaries of prosperity.
- **Lower costs, lower taxes:** Sprawl costs money. Opening up green space to new development means that the cost of new schools, roads, sewer lines, and water supplies will be borne by residents throughout metro areas. Sprawl also means families have to own more cars and drive them further. This has made transportation the second highest category of household spending, just behind shelter. Smart growth helps on both fronts. Taking advantage of existing infrastructure keeps taxes down. And where convenient transportation choices enable families to rely less on driving, there’s more money left over for other things, like buying a home or saving for college.
- **Keeping Open Space Open:** By focusing development in already built-up areas, smart growth preserves rapidly vanishing natural treasures. From forests and farms to wetlands and wildlife, smart growth lets us pass on to our children the landscapes we love. Communities are demanding more parks that are conveniently located and bring recreation within reach of more people. Also, protecting natural resources will provide healthier air and cleaner drinking water.”<sup>3</sup>

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<sup>3</sup> Excerpt from 2004 Audit: pgs. 5-6.

## ***The Audit Process***

5 basic steps were used in the audit process, described in the text and diagram below. Once these steps were complete, a draft of the document was distributed to and comments were actively solicited from DPW management and staff with an interest in land development, the City-Parish administration, CPPC, the CRPC Bicycle and Pedestrian Advisory Committee, and CPEX for review and comment. Those comments have been incorporated into the document and are also summarized in *Appendix III: Log of Comments*.

Due to limited time and resources, some steps in what would have otherwise been a full and proper audit were eliminated. Most specifically, time was not spent engaging the community and stakeholders to define what smart growth means in Baton Rouge.

### **Step 1. Identify Smart Growth Standards**

This step involved the creation of a list of standard smart growth policies and practices, referred to as the “Smart Growth Standards,” taken from a variety of sources. First, smart growth policies and code were taken directly from the 2004 Audit. These two lists were then merged by matching the individual code to the Principle that it most directly achieved. Duplicate codes were consolidated, vague wording was made more precise and code that was extremely vague and did not apply to DPW was deleted from the list. The Smart Growth Standards were then supplemented with additional standards and details from the author’s knowledge and experience. The complete list of Smart Growth Standards can be found in Appendix I.

### **Step 2. Identify DPW Standards**

DPW’s policies and practices related to land development were identified. The author compiled a list of documents and observed policies and practices. This list was refined and supplemented during the draft Audit review.

### **Step 3. Match Smart Growth and DPW Standards**

DPW policies and practices were matched as best as possible to the Smart Growth Standards. If a Smart Growth Standard could not be matched to a DPW policy or practice, this was identified. Similarly, if a DPW policy or practice could not be matched to a Smart Growth Standard, this was also noted.

### **Step 4. Evaluate Matched Standards**

DPW’s policies and practices were evaluated against the Smart Growth Standards to see the extent to which they achieved, were indifferent toward, or hindered the Smart Growth Standard.

### **Step 5. Make Recommendations**

Recommendations for improving DPW’s policies and practices were made for those that either were indifferent toward or hindered the Smart Growth Standards. Recommendations for new DPW policies or practices were made for certain Smart Growth Standards that had no DPW match.

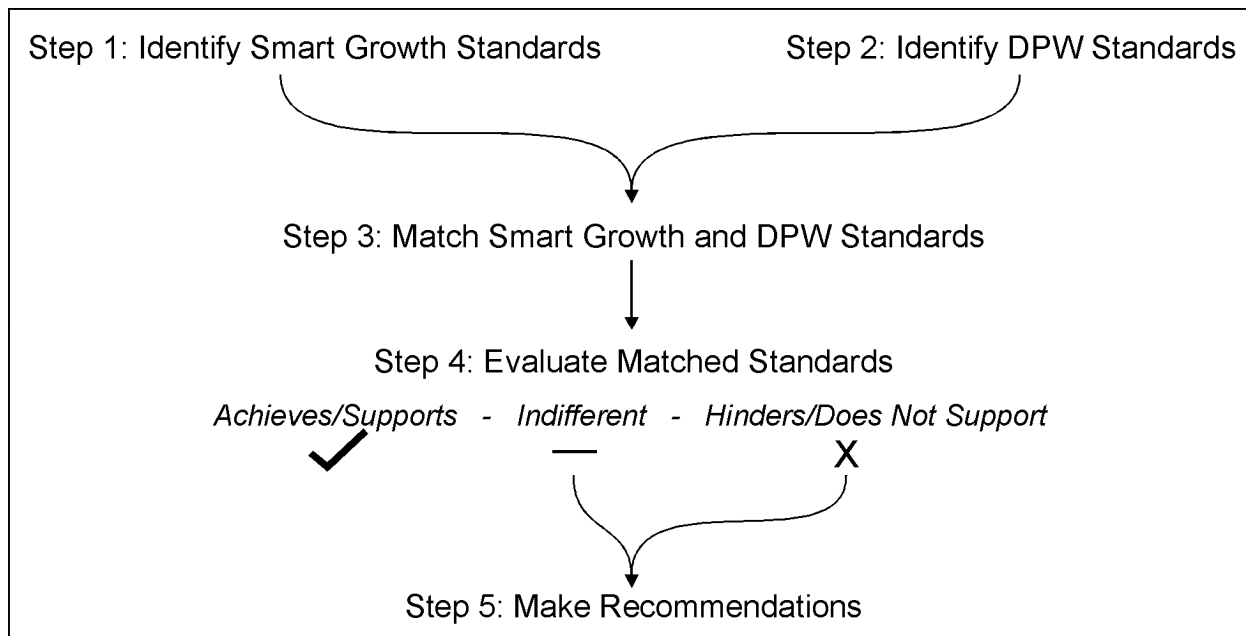


Figure 1: Smart Growth Audit process.

## Best Practices and Other Supporting Documents

While the Smart Growth Standards provide statements regarding desirable policies and practices, they do not by nature go into the level of detail required to address specific design criteria. For those areas where an evaluation of design detail was required, other documents were consulted for best practices. These supporting documents are described below:

- **AASHTO’s Guide for the Planning, Design, and Operation of Pedestrian Facilities (AASHTO Pedestrian Guide).** “The purpose of the [AASHTO Pedestrian Guide] is to provide guidance on the planning, design, and operation of pedestrian facilities along streets and highways.”<sup>4</sup>
- **AASHTO’s Guide for the Development of Bicycle Facilities (AASHTO Bike Guide).** “This guide is designed to provide information on the development of facilities to enhance and encourage safe bicycle travel.”<sup>5</sup>
- **AASHTO’s A Policy on Geometric Design of Highways and Streets (2004 Green Book).** “These guidelines are intended to provide operational efficiency, comfort, safety, and convenience for the motorist. The design concepts presented herein were also developed with consideration for environmental quality... This principle, coupled with that of aesthetic consistency with the surrounding terrain and urban setting, is intended to produce highways that are safe and efficient for users, acceptable to non-users, and in harmony with the environment.”<sup>6</sup>

<sup>4</sup> AASHTO. *Guide for the Planning, Design, and Operation of Pedestrian Facilities*. American Association of State and Highway Transportation Officials. Washington, DC, 2004.

<sup>5</sup> AASHTO. *Guide for the Development of Bicycle Facilities*. American Association of State and Highway Transportation Officials. Washington, DC, 1999.

<sup>6</sup> AASHTO. *A Policy on Geometric Design of Highways and Streets*. American Association of State and Highway Transportation Officials. Washington, DC, 2004.

## Smart Growth and DPW Standards

The Audit process (steps 1-3) identified and then matched 81 Smart Growth Standards (SGS) and 79 DPW policies and practices. These standards, policies and practices are briefly described below, with more detailed information, including the matches, provided in *Appendix I: DPW and Smart Growth Standards Match* and *Appendix II: Evaluation of DPW Policies and Practices*.

### **Smart Growth Standards**

The “Smart Growth Standards” is a comprehensive list of widely accepted smart growth policies and practices, organized by the following 10 Smart Growth Principles (see Appendix I for a complete list of the Standards):

1. Provide a Variety of Transportation Choices
2. Mix Land Uses
3. Create Range of Housing Opportunities and Choices
4. Create Walkable Neighborhoods
5. Encourage Community and Stakeholder Collaboration
6. Foster Distinctive, Attractive Communities with a Strong Sense of Place
7. Make Development Decisions Predictable, Fair and Cost Effective
8. Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Area
9. Strengthen and Direct Development Towards Existing Communities
10. Take Advantage of Compact Building Design and Efficient Infrastructure Design

### **DPW Policies and Practices**

DPW’s land development-related policies and practices exist in a number of documents, ranging from code adopted by ordinance to policy memorandums issued by the Director. Some of the policies and practices are not documented, but are simply the result of institutional knowledge or the necessities of day-to-day operations.

Those policies and practices that are documented are described in the list below (see Appendix II for more detail). While this list is likely not complete, it reflects the author’s best effort to compile the documents with the most obvious and/or greatest impact on development:

#### **■ Unified Development Code**

Much of the Unified Development Code (UDC) is administered and/or enforced by various DPW divisions, including the Building Official, Drainage Office, Sewer Administration, Office of Landscape and Forestry, and Traffic Engineering. While the UDC was audited in the 2004 Audit, it is being included in this list to ensure that those portions of the UDC specifically related to DPW are identified and reviewed.

#### **■ Development Policy Manual (draft, as of 2008)**

The Development Policy Manual (DPM) sets forth DPW’s policies and requirements associated with the development process from initial proposals, through infrastructure

construction, to completion of a proposed development. The DPM fulfills the mutual needs of the private and public sectors in Baton Rouge to clarify DPW's development policies and is intended for City-Parish staff, property owners, developers and their agents, especially planners, architects and engineers. The DPM is currently in final draft form, missing a section on the Building Permitting process and Transportation requirements.

■ **Standard Plans, 2003**

This document contains the standard plans for a number of common items, including concrete pavement, curb inlets, manholes, guard rails, pavement marking and striping, handicap curb ramps, commercial and residential drives, inlets, and catch basins. It is currently in the process of being updated and revised.

■ **Standard Specifications for Public Works Construction, 1997**

This document contains the standard specifications for all construction projects administered by DPW, including bidding requirements, earthwork, structures, drainage, sanitary sewer and materials.

The information in this document deals exclusively with the detailed bidding and design standards for construction, a process that occurs after the planning and design of improvements is made. Policies and practices related to smart growth happen before a project gets to the construction stage; therefore, this document has no impact on DPW's implementation of smart growth and is not evaluated in this Audit.

■ **Green Light Plan Engineering Standards and Specifications**

The Green Light Plan (GLP) program manager, CSRS, in consult with a technical oversight committee, developed engineering standards to be used by design consultants in the design of the roadway projects associated with the GLP. The guide presents the consultant with the information necessary to design the projects in accordance with DPW and LADOTD requirements, and provide for consistency in the design of all roadways for the GLP. The guide also establishes guidelines and reference publications that are to be used in the design of the projects. The following major elements are addressed in the guide: Corridor Survey, Utility Relocations, Environmental Assessments, Geotechnical Engineering, Traffic Operations & Design, Construction Traffic Control, Roadway Design, Hydrology & Hydraulics, Structural Design, and ROW Mapping.

■ **Sewer Impact Fee Ordinance**

A Sewer Impact Fee was adopted in 1994 (Ord. 10043, Sept. 28, 1994). The intent of the ordinance was "to assist in the implementation of the City-Parish Comprehensive Land Use and Development Plan." Its purpose was "to regulate the use and development of land so as to assure that new development bears a proportionate share of the cost of capital expenditures necessary to provide wastewater facilities." The ordinance requires that any new sewer infrastructure accepted for public maintenance, new connections to the wastewater system, or changes, modifications or expansions of existing connections shall pay a fee. The fee is based on estimated wastewater flow for residential and commercial use categories. Changes or modifications of existing connections do not have to pay a fee if a larger meter is not installed or if the use does not change from residential to commercial. Funds must be expended or encumbered within 6 years and cannot be used for maintenance or operations.

### ■ **Traffic Impact Fee Policy**

A Traffic Impact Fee policy was administratively adopted in August 2007. The policy includes a schedule of fees based on land use applied uniformly to all new development and most redevelopment throughout the City and unincorporated areas of the Parish. The fees are specifically dedicated to expanding the capacity of major roadway facilities to accommodate impact-generating development, including but not limited to right-of-way acquisition, new road construction, widening of existing roads, intersection improvements, and installation of traffic signals. Ancillary components of a capacity-expanding road improvement, such as lane reconstruction, sidewalk construction, medians, landscaping, and street lighting, cannot be funded with the fee.

### ■ **Traffic Calming Manual**

The DPW Traffic Engineering Division adopted the Residential Traffic Calming Manual in early 2007. This Manual describes the purpose of traffic calming, three levels of different traffic calming devices, and a process by which local residents can request traffic calming in their neighborhoods.

Those policies and practices that are not documented are more difficult to audit. Nevertheless, the list below describes a number of policies and practices observed by the author that relate to development:

- **Pedestrian Crossings.** Controlled pedestrian crossings are often excluded from intersection improvement projects because they would reduce the vehicle capacity of the intersection and lessen the project's ability to improve congestion. They are also denied when requested at intersections with high vehicle volumes and long crossing distances, where they are arguably needed the most to improve the safety of pedestrians that need to cross. Mid-block crossings are strongly discouraged. When crossings are provided, they often are not designed in accordance with the AASHTO Pedestrian Guide.
- **Bicycle Lanes.** When faced with high construction costs or constrained right-of-way, bike lanes are one of the first things cut from a project. To compensate, an adjacent sidewalk is often labeled as a shared use path. Further, the bike lanes that are included in projects often are not designed according to the AASHTO Bike Guide.
- **Connectivity.** DPW has not pursued greater road connectivity and instead relies on larger intersections and wider roadways to handle traffic. Less connectivity was proposed on one Green Light project by terminating an existing connection in order to force traffic onto a new roadway.
- **Road Design Process.** The road design process is most often conducted by hired consultants or staff, with no active solicitation of stakeholder input and community meetings held only as informational meetings toward the end of the design process. While this process is efficient, achieving engineering standards and whatever broad objective was assigned to the project (most often congestion reduction) in a timely manner, this process inherently leads to a roadway that functions but may not achieve other community goals or fit into its context.
- **Code Enforcement.** While DPW's responsibility to enforce the UDC is documented and there are procedures in place to carry out this task, what happens in practice is not always consistent. The frequency of code enforcement inconsistencies, misinterpretations or

mishaps is difficult to get a handle on, as it can only be ascertained on a case-by-case and complaint-driven basis.

- **Infrastructure Planning.** Planning for infrastructure, specifically transportation, sewer and drainage, has historically not been a high priority, being overshadowed by the day-to-day operations that DPW is responsible for. Also, the CPPC has not been able to fill this role. For roads, the CPPC maintains the Major Street Plan. This Plan, however, has no priorities, is often waived for specific cases, and serves more as a corridor preservation tool for road widening than a transportation plan. Transportation priorities seem to be established based on perceived needs and political influence, rather than a thoughtful planning process that includes a vision and goals for the community's future. For sewer, DPW hired a private consultant to draft a Sewer Master Plan. This Plan is tied to future land uses as established in the Horizon Plan, as well as population projections utilized by the CRPC. For drainage, there is a desire to have a Master Drainage Plan, but this has not been done yet.
- **Capital Improvement Plan.** The process for developing and updating the Capital Improvement Plan is not entirely clear. Horizon Plan Action Item LU3.A "Annual CIP/Capital Budget" states that a 5-year CIP shall be developed and updated annually and shall address the "planning and financing for all capital projects needs for all aspects of City-Parish government." This Action Item was originally the responsibility of CPPC, then it was changed to DPW during the 10-year update in 2002, and subsequently it was recommended that it once again be the responsibility of CPPC. Which department is responsible for the development and updating of the CIP, and what process is followed for identifying and prioritizing projects, does not appear to be clearly defined.

## Recommendations

The following recommendations are the result of a very detailed evaluation of a number of DPW's land-development related policies and practices. The recommendations are divided into "general" recommendations that do not apply to any one policy or practice and "specific" recommendations for each of the identified policies and practices.

A major finding of the Audit is that the single greatest impact DPW has on achieving smart growth in Baton Rouge is the design of roadways – particularly arterials and collectors – and the auto-oriented land uses and lack of pedestrian, bicycle and transit opportunities they contribute to. DPW can help Baton Rouge grow smarter by designing and building major streets that allow pedestrians, bicyclists, motorists and bus riders of all ages and abilities to safely move along and across the street.

### ***General Recommendations***

The following are general recommendations to facilitate implementation of smart growth in DPW:

#### **Form a DPW Smart Growth Committee**

A DPW Smart Growth Committee should be formed to prioritize the Audit's recommendations, monitor its implementation, and provide the necessary support and momentum to ensure project success. The Committee should be comprised of interested and committed stakeholders from within the City-Parish and the community, including but not limited to representatives of DPW, CPPC, the Mayor's Office, and the Mayor's Smart Growth Task Force. The Committee should also review the Smart Growth Standards that could not be matched to a DPW policy or practice and identify how these can be addressed.

#### **Develop and formally adopt a Complete Streets policy**

The DPW Smart Growth Committee, in coordination with representatives from DPW, CPPC and the Mayor's Office, should develop a Complete Streets policy. This policy should be modeled on best practice standards available at [www.completestreets.org](http://www.completestreets.org). Once complete, this policy should be formally adopted.

#### **Develop a "routine accommodation" policy and checklist**

DPW staff, in consultation with the DPW Smart Growth Committee, should develop a "routine accommodation" policy and checklist to ensure that safe and convenient pedestrian and bicycle facilities are included in all road construction and rehabilitation projects. This policy and checklist should be formally adopted, in part through a Policy Memorandum from the DPW Director.

#### **Train and hire "smart growth" staff**

Having staff onboard that are familiar with and supportive of smart growth principles will go a long way towards implementation of these recommendations. Existing staff should receive training in applicable smart growth principles. Additionally, in hiring new staff, the applicant's familiarity with smart growth principles should be a key consideration.

▪ **Develop DPW smart growth promotional material**

The DPW Smart Growth Committee should work with DPW staff to create assorted promotional material – web-based as well as paper – that describes how DPW is helping Baton Rouge grow smarter.

## ***Specific Recommendations***

The following recommendations are specific to each of the evaluated DPW policies and practices. For all, see *Appendix II: Evaluation of DPW Policies and Practices* for more detailed recommendations for all specific policies and practices that either hindered or were indifferent toward Smart Growth Standards.

▪ **Unified Development Code**

Sections of the UDC evaluated in this Audit varied as to whether they supported or hindered Smart Growth Standards. To begin, the adequate public facilities language (UDC 4.103.A.2.) is indifferent toward the Smart Growth Standard of requiring that new urban growth is coordinated with the provision of infrastructure capacity, leaving great room for improvement in this area (see the evaluation in Appendix II for more on this). Next, the access management and roadway connectivity requirements of the UDC, while a decent start, need substantial modification and strengthening to achieve the smart growth principle of creating walkable and bikable neighborhoods. Finally, while the UDC does a good job of regulating the design of development in flood-prone areas, more restrictions should be placed on the type and amount of development allowed in flood-prone areas. All of these recommended revisions will require the combined effort of a number of stakeholders and cannot be accomplished by DPW alone.

▪ **Development Policy Manual (draft, as of June 2008)**

The DPM documents DPW's land-development related policies and requirements and thus achieves the smart growth principle of making development decisions predictable, fair and cost effective. To that end, the DPM should be completed as soon as possible. Critical sections that remain to be drafted are the Staff-Level Review process, Building Permitting process and Transportation requirements.

▪ **Standard Plans, 2003**

The Standard Plans, 2003, for the most part, do not support Smart Growth Standards, particularly in relation to road design standards that support transit and non-automotive modes. The Pavement Marking and Striping Details should include standard striping plans for pedestrian and bicycle components of the roadway, including pedestrian crossings and bicycle lanes. The treatment of bicycle lanes at intersections, specifically in relation to right-turn lanes, should be included. The lane widths and corner radii depicted on a number of Plans should be modified to be more pedestrian and bicycle friendly.

▪ **Green Light Plan Engineering Standards and Specifications**

The GLP Standards, for the most part, does not support Smart Growth Standards, particularly in relation to road design standards that support transit and non-automotive modes. While it is recognized that the GLP's main purpose is to improve traffic congestion, this same goal can and should be accomplished with due consideration given to the road design needs of all roadway users. Standards for pedestrians and bicyclists should be fully integrated in all aspects of the GLP Standards. Just as the 2004 Green Book is cited as a guide for road design, the AASHTO Pedestrian and Bike Guides should also be cited.

Further, the roadway's context – the existing and planned adjacent land uses, the character of the area, the mix and characteristics of roadway users – should be emphasized as a key guiding design principle. Also, the growth rate used to determine design-year traffic counts should be carefully evaluated to ensure that each roadway and intersection is right-sized and that the improvements do not inadvertently induce travel demand in the future. These amendments, in addition to being applicable to any GLP project that has not begun the design phase, will also likely serve as a guide for all future road construction projects.

#### ■ **Sewer Impact Fee Ordinance**

Overall, the SIF supports smart growth objectives. However, there is some room for improvement, specifically in the use of the SIF to encourage infill development and to discourage sprawl. The SIF should institute lesser fees for developments in areas where there is existing adequate sewer capacity.

#### ■ **Traffic Impact Fee Policy**

Overall, the TIF supports smart growth objectives. However, there is great room for improvement, specifically in the use of the TIF to encourage infill and grey/brownfield development and to discourage sprawl. The TIF should institute lesser fees for grey/brownfield development, for developments in areas where there is existing adequate roadway capacity, and for developments that are well-served by other modes of transportation, especially transit. To more closely link the provision of adequate infrastructure with land use decisions, consider requiring the funds be applied more proximate to the development. Also, the TIF funds should be allowed to apply to transportation improvements other than roadway capacity expansion.

#### ■ **Traffic Calming Manual**

Overall, the Traffic Calming Manual supports smart growth objectives. There are two general areas where improvements could be made. First, the Traffic Engineering Division could initiate traffic calming and not rely solely on residents. This would require more resources but would get more traffic calming in a shorter time period. Secondly, all new streets should be designed so that they calm traffic and do not require costly retrofits in the future. Since the focus of the Manual is on existing residential streets, this would have to be addressed elsewhere.

#### ■ **Undocumented practices**

- **Pedestrian Crossings.** Pedestrian crossings should be included in all intersection improvement projects. While high traffic volumes at an intersection play an important consideration in the design of the pedestrian crossing, it cannot be used as a reason for not providing the crossing at all. Mid-block crossings, while not suitable for all situations, should be considered in areas where the block length is long and there is substantial pedestrian traffic, especially in commercial areas. All pedestrian crossings should be designed in accordance with the AASHTO Pedestrian Guide.
- **Bicycle Lanes.** When a project is faced with monetary or right-of-way constraints, other aspects of the project should be evaluated in addition to the bike lanes, including median width, lane width, and number of lanes. If a bike lane is not feasible, a wide outside lane should be considered. All bike facilities should be designed in accordance with the AASHTO Bike Guide.
- **Connectivity.** Road connectivity can be a complex issue, involving the coordination of many different agencies and the public. And in areas that are already developed and

lack connectivity, it can be politically impossible and financially infeasible to retrofit. DPW alone cannot be made responsible for implementing greater roadway connectivity, but DPW should make a conscious effort to improve connectivity with every available opportunity.

- **Road Design Process.** A more proactive and inclusive road design process should be strongly considered for all road projects, especially new construction and substantial reconstruction. This could lengthen the time it takes to design a road, but is worth the time for a road that will serve its community for at least a generation. Engineering standards are a vital component of roadway design, but there are other factors, including the roadway's context and the community's goals and objectives, that should also be carefully considered.
- **Code Enforcement.** DPW should practice consistent enforcement of the UDC and Building Code. To be effective, this includes adequate training of staff, keeping abreast of changes to the code (e.g. new overlay districts in the UDC), and establishing policies for staff interpretations of unclear code.
- **Infrastructure Planning.** Overall, the observed practice related to infrastructure planning supports smart growth principles. However, further evaluation should be done to ensure that infrastructure planning efforts carry forward the goals and policies of the Horizon Plan, with a particular focus on the transportation planning process.

## Appendix I: DPW and Smart Growth Standards Match

The tables on the following pages show the matches that were identified between DPW policies and practices and the “Smart Growth Standards,” a comprehensive list of widely accepted smart growth policies and practices put together from the 2004 Audit. The Standards are organized by the 10 Smart Growth Principles.

**Table 1. Matches for Principle 1: Provide a Variety of Transportation Choices**

	Smart Growth Standards	DPW Policy or Practice
1-1	Encourage development in areas supported by a balanced transportation network	Traffic Impact Fee Policy
1-2	Implement roadway design standards that support transit and non-automotive modes	UDC 17.12.B.4. UDC 17.12.B.6. CPS 905-01 CPS 905-02 (sheet 1) CPS 905-02 (general) CPS 905-02 (sheet 1) CPS 906-01 (sheet 5) CPS 907-01 CPS 907-03 CPS 907-04 CPS S/D-02A GLP Traffic Design Report GLP Traffic Signal Plans GLP Construction Traffic Control GLP Additional Design Standard Notes GLP Typical Sections GLP Intersections GLP Bridge Structures Traffic Calming Manual Undocumented – Pedestrian Crossings Undocumented – Bicycle Lanes Undocumented – Connectivity
1-3	Provide a network of bike routes, lanes, and multi-use trails	GLP Additional Design Standard Notes GLP Typical Sections Traffic Impact Fee Policy Undocumented – Bicycle Lanes
1-4	Require bicycle parking facilities	

	Smart Growth Standards	DPW Policy or Practice
1-5	Encourage transit-oriented and transit friendly developments	UDC 10.107.L.3.
1-6	Encourage public transit use by integrating multimodal use and connectivity (Park and Ride lots, transit centers, etc.)	
1-7	Reduce parking requirements along transit routes	UDC 17.9.
1-8	Encourage the formation of vanpools and carpools	
1-9	Establish high-occupancy vehicle (HOV) lanes	

**Table 2. Matches for Principle 2: Mix Land Uses**

	Smart Growth Standards	DPW Policy or Practice
2-1	Allow mixed uses at building, site, and neighborhood levels	Not DPW
2-2	Establish compatibility standards for mixed uses, including home occupations	Not DPW
2-3	Allow home occupations in residential areas	Not DPW
2-4	Allow a full mix of compatible uses, including residential, in the downtown area and other business and commercial areas	Not DPW

**Table 3. Matches for Principle 3: Create a Range of Housing Opportunities and Choices**

	Smart Growth Standards	DPW Policy or Practice
3-1	Encourage a wide range of housing types	Not DPW
3-2	Meet housing needs for all income groups	Not DPW
3-3	Encourage mixed income housing developments	Not DPW
3-4	Encourage traditional neighborhood residential patterns	Not DPW
3-5	Require a mix of housing affordable to all income levels within PUDs and TNDs	Not DPW

	Smart Growth Standards	DPW Policy or Practice
3-6	Allow accessory dwelling units	Not DPW
3-7	Allow live/work units	Not DPW
3-8	Allow a wide range of lot sizes within each zoning district or subdivision	Not DPW
3-9	Allow a variety of parcel configurations and avoid excessive minimum street frontage requirements	Not DPW
3-10	Avoid establishing minimum residential square footage requirements	Not DPW
3-11	Allow manufactured homes in all zoning districts	Not DPW
3-12	Meet or exceed the regional fairshare housing allocation for both market-rate and affordable housing	Not DPW
3-13	Address jobs and housing balance in the General Plan	Not DPW

**Table 4. Matches for Principle 4: Create Walkable and Bikable Neighborhoods**

	Smart Growth Standards	DPW Policy or Practice
4-1	Reduce street widths to promote walkability and bike friendliness	CPS 905-02 (sheet 5) CPS S/D-02A GLP Typical Sections
4-2	Establish a fine-grained street hierarchy (e.g. differentiate between various widths of arterials, major and minor collectors, commercial and residential local streets)	CPS S/D-02A GLP Typical Sections
4-3	Design streets using design speed standards to regulate speeding and create pedestrian and bicycle friendly environments (25 mph on local streets, 30 mph on minor collectors, 40 mph on major collectors, and 45 mph on arterials)	CPS S/D-02A GLP Typical Sections GLP Horizontal Alignment
4-4	Require alleys	
4-5	Limit the size of blocks (perimeter max of 1600 feet and/or block length max of 500 feet)	UDC 4.103.A.6. Block length

	Smart Growth Standards	DPW Policy or Practice
4-6	Limit use of cul-de-sacs and limit length to 300 feet when allowed (consider requiring pedestrian and bicycle access at the end of cul-de-sacs)	
4-7	Require mid-block pedestrian passages in commercial and mixed-use zones (at 250-foot intervals)	
4-8	Design streets that are walkable for all age groups and abilities	Undocumented – Pedestrian Crossings
4-9	Require sidewalks on both sides of the street	CPS S/D-02A GLP Typical Sections
4-10	Require a minimum sidewalk width that compliments the nature of the street and the anticipated volume of pedestrian traffic	CPS S/D-02A GLP Typical Sections
4-11	Require crosswalks, especially on long blocks	CPS 905-02 (general) CPS 907-01 GLP Intersections Undocumented – Pedestrian Crossings
4-12	Connect sidewalks to amenities such as parks and open space	CPS 905-02 (general) CPS 906-01 (sheet 5)
4-13	Require a center median on wider streets	GLP Typical Sections
4-14	Encourage landscaped medians and curbsides	
4-15	Adopt traffic-calming measures	Traffic Calming Manual
4-16	Encourage traffic calming features where street design speeds encourage speeding and to discourage the routine use of local residential streets by through traffic	Traffic Calming Manual
4-17	Limit curb cuts on streets	UDC 4.103.A.5. Access to Lots UDC 17.12.B.5. Access management
4-18	Limit curb radii on all residential streets (access and connectors) to 4 to 15 feet	UDC 13.2.D. Street turn radii UDC 13.6.A.3. Street intersection curb radius returns not less than 25 feet CPS 905-02 (sheet 1) CPS 907-04

	Smart Growth Standards	DPW Policy or Practice
4-19	Establish desirable standards for bicycle lane width (6' minimum on new roads; 5' minimum on retrofits; 12' minimum shared bike/parking lane)	GLP Typical Sections Undocumented – Bicycle Lanes
4-20	Establish desirable standards for bicycle lane surface, including specifications for uniform and smooth surfaces and elimination of grade differences due to gutter pans	
4-21	Establish a trail system or other non-motorized public access to amenities	
4-22	Encourage on-street parking	CPS S/D-02A
4-23	Establish design standards for on-street parking that respond to a variety of street configurations and uses	GLP Typical Sections

**Table 5. Matches for Principle 5: Encourage Community and Stakeholder Collaboration**

	Smart Growth Standards	DPW Policy or Practice
5-1	Support and implement incentives for adoption of comprehensive plans and Capital Improvement Plans prior to imposition of local land use regulations and controls	Sewer Impact Fee Ordinance Traffic Impact Fee Policy
5-2	Strengthen state, metro, and regional institutions to facilitate multi-jurisdictional decision making and problem solving	
5-3	Provide a process for public participation in drafting and adopting the General Plan and supporting ordinances	Traffic Impact Fee Policy Traffic Calming Manual Undocumented – Infrastructure Planning

**Table 6. Matches for Principle 6: Foster Distinctive, Attractive Communities with a Strong Sense of Place**

	Smart Growth Standards	DPW Policy or Practice
6-1	Improve the image and environmental and aesthetic quality of targeted neighborhoods through the repair and improvement of public infrastructure	
6-2	Apply different streetscape features to different districts (e.g. transit districts)	

	Smart Growth Standards	DPW Policy or Practice
6-3	Place restrictions on signage	[DPW responsible for enforcement of UDC 17]
6-4	Make provisions for Traditional Neighborhood districts (TND)	[does DPW encourage or hinder the TND process?]

**Table 7. Matches for Principle 7: Make Development Decisions Predictable, Fair, and Cost Effective**

	Smart Growth Standards	DPW Policy or Practice
7-1	Ensure consistency between local government regulations, local actions and the comprehensive plan	GLP Traffic Design Report Sewer Impact Fee Ordinance Undocumented – Infrastructure Planning
7-2	Establish impact fees for new development (schools, water, sewer, parks, roads, etc.)	Sewer Impact Fee Ordinance Traffic Impact Fee Policy
7-3	Link land use and transportation decisions at the local and regional levels	GLP Traffic Design Report Traffic Impact Fee Policy Undocumented – Infrastructure Planning

**Table 8. Matches for Principle 8: Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas**

	Smart Growth Standards	DPW Policy or Practice
8-1	Regulate development in critical areas	UDC 15.20., 15.21. and 15.23. DPM II.4.G. DPM II.4.H. GLP Wetland Delineation and Permit Application GLP Phase I Environmental Site Assessment GLP NEPA Environmental Assessment
8-2	Establish mechanisms, such as transfer of development rights (TDR) and financial incentives, to protect, preserve, and maintain natural assets	Not DPW
8-3	Restrict development in floodplains	UDC 15.20., 15.21. and 15.23. DPM II.4.D. DPM II.4.H.
8-4	Consider open space connectivity	

	Smart Growth Standards	DPW Policy or Practice
8-5	Consider view corridors	
8-6	Allow cluster development	Not DPW
8-7	Make provisions for the preservation of historic structures	

**Table 9. Matches for Principle 9: Strengthen and Direct Development Towards Existing Communities**

	Smart Growth Standards	DPW Policy or Practice
9-1	Promote brownfields redevelopment, establishing incentives and minimum clean-up standards	Sewer Impact Fee Ordinance Traffic Impact Fee Policy
9-2	Promote greyfields redevelopment	UDC 10.107.L.3. Sewer Impact Fee Ordinance Traffic Impact Fee Policy
9-3	Promote infill development and discourage sprawl	Sewer Impact Fee Ordinance Traffic Impact Fee Policy
9-4	Require new urban growth be coordinated with provision of infrastructure capacity	UDC 4.103.A.2. UDC 14.3.B.3. DPM II.4.A. Sewer Impact Fee Ordinance Traffic Impact Fee Policy
9-5	Favor the use of existing infrastructure over new	DPM II.3.D. Traffic Impact Fee Policy
9-6	Require new development be either self-paying or consciously subsidized	UDC 10.107.L.3. Sewer Impact Fee Ordinance Traffic Impact Fee Policy
9-7	Establish lesser or waived impact fees in areas with excess public facility capacity	UDC 10.107.L.3. Sewer Impact Fee Ordinance Traffic Impact Fee Policy
9-8	Encourage regional tax sharing to discourage fiscalization of land use and destructive sales tax competition	Not DPW

**Table 10. Matches for Principle 10: Adopt Compact Building Patterns and Efficient Infrastructure Design**

	Smart Growth Standards	DPW Policy or Practice
10-1	Establish minimum densities for higher density development	Not DPW
10-2	Establish reduced lot setbacks to encourage higher density	UDC 4.103.A.8. UDC 14.1. UDC 14.2. DPM II.3.D. CPS S/D-02A
10-3	Grant density bonuses in transit or mixed use districts	Not DPW
10-4	Reduce parking requirements or institute parking maximums, especially in TODs	UDC 17.9.
10-5	Establish zone and use specific parking requirements	
10-6	Encourage shared parking	
10-7	Connect infrastructure decisions and land use planning	DPM II.4.C. Sewer Impact Fee Ordinance Traffic Impact Fee Policy Undocumented – Infrastructure Planning

## **Appendix II: Evaluation of DPW Policies and Practices**

This section evaluates DPW's policies and practices against their matched Smart Growth Standards (SGS). Some DPW policies and practices could not be matched against a SGS: These are noted below. This section is organized by DPW policies and practices and into the following major sections:

- Unified Development Code
- Development Policy Manual (draft, as of June 2008)
- Standard Plans, 2003
- Green Light Plan Engineering Standards and Specifications
- Sewer Impact Fee Ordinance
- Traffic Impact Fee Policy
- Traffic Calming Manual
- Undocumented practices
  - Pedestrian Crossings
  - Bicycle Lanes
  - Connectivity
  - Road Design Process
  - Code Enforcement
  - Infrastructure Planning

## ***Unified Development Code***

Much of the Unified Development Code (UDC) is administered and/or enforced by various DPW divisions, including the Building Official, Drainage Office, Sewer Administration, Office of Landscape and Forestry, and Traffic Engineering. While the UDC was audited in the 2004 Audit, it is being included in this list to ensure that those portions of the UDC specifically related to DPW are identified and reviewed.

### **4.103.A.2. Adequate public facilities**

No preliminary plat shall be approved unless the DPW determines that public facilities will be adequate to support and service the area of the proposed subdivision. Public facilities and services to be examined for adequacy will include roads and public transportation facilities, sewerage and water services, schools, police stations, fire houses, and health clinics.

- *SGS 9-4: Require new urban growth be coordinated with provision of infrastructure capacity*  
UDC 4.103.A.2 applies only to new subdivisions through the preliminary plat and thus does not apply to all new growth. For new subdivisions, it does spell out a number of infrastructure types that must be adequate to serve the proposed development. The phrase “will be adequate” gives DPW a great deal of leeway to determine what timeframe to use when evaluating adequacy (e.g. now or in seven years).

DPW only reviews the adequacy of roads, sewerage and drainage, since it does not have any jurisdiction over public transportation, water services, schools, police stations, fire houses or health clinics. For roads, developments are often required to make off-site improvements for traffic, such as left-turn lanes, and are also required to pay a traffic impact fee (also evaluated in this Audit). It appears to be the policy of the DPW Traffic Engineering Division that no development shall have the effect of decreasing the level-of-service of the roads in the immediate area. For sewerage, developments are allowed to install private community treatment systems when adequate capacity is not available in the public sewer system. In the future when capacity becomes available, developments will be required to tie in to the public system at their expense. (For more on this, see evaluation of UDC 14.3.A. and UDC 14.3.B.5.k.) For drainage, “no development... shall... have the effect of reducing the flood carrying capacity within any altered or relocated part of any watercourse.” (UDC 4.3.N.2) Overall, DPW’s administration and enforcement of UDC 4.103.A.2 is indifferent toward SGS 9-4.

*Recommendation:* Overall, DPW’s administration and enforcement of UDC 4.103.A.2 is indifferent toward SGS 9-4. There is great room for improvement. A more defined timeline for evaluating adequacy would strengthen the regulation by making it more transparent and defensible. The road capacity regulation would benefit from a more defined or documented process and inclusion of other modes of transportation in the capacity evaluation. The impact the numerous private community sewer treatment systems have on the environment should be weighed heavily. Implementing a stronger requirement for public facility adequacy, also known as a concurrency requirement, will require the combined effort of a number of stakeholders and cannot be accomplished by DPW alone.

### **4.103.A.4.g. Lot improvements**

Allows private sanitary sewerage systems on lots in subdivisions having 50 or fewer lots.

*No SGS match found.*

#### **4.103.A.5. and 17.12.B.5. Access to Lots**

On lots having a frontage of 50 feet or less, only 1 combined entrance-exit shall be permitted. On lots having a frontage in excess of 50 feet but less than 200 feet, there shall be no more than 2 combined entrance-exits. On property having frontage on C-P maintained streets and roadways in excess of 200 feet, additional drives may be permitted but only when traffic generated by the use warrants the additional drives and the design has been approved by DPW.

- *SGS 4-17: Limit curb cuts on streets*

UDC 4.103.A.5. and 17.12.B.5. both define the number of curb cuts allowed based on the width of street frontage of a lot. While this does in effect provide a limit, it still allows between one-quarter to one-half of the lot's frontage to be driveway. Therefore, UDC 4.103.A.5. and 17.12.B.5. are indifferent toward SGS 4-17.

*Recommendation:* UDC 4.103.A.5. and 17.12.B.5. should both be modified to place greater restriction on the number of allowed curb cuts per lot and to address the issue of curb cuts for group developments that may span more than one lot but can share access. Additional access management best practices, such as establishing a minimum distance from an intersection, should also be incorporated.

#### **4.103.A.6. Block length**

No blocks shall be longer than 1,500 feet between intersecting street centerlines.

- *SGS 4-5: Limit the size of blocks (perimeter max of 1600 feet and/or block length max of 500 feet)*

UDC 4.103.A.6. allows a block length of up to 1,500 feet, three times the 500 foot maximum set forth in SGS 4-5. Therefore, UDC 4.103.A.6. does not support SGS 4-5.

*Recommendation:* UDC 4.103.A.6. should be modified to require smaller block sizes. This could be done by limiting block length or block perimeter, and could include exceptions for areas where it would be physically impossible to implement (e.g. topographic constraints).

#### **4.103.A.8. Utilities**

Certain locations within the street right-of-way and servitudes shall be designated for the construction of subsurface drainage, sanitary sewers, and public facilities to minimize conflicts and facilitate the construction, maintenance, and operation of these facilities in accordance with typical sections as published by DPW showing space allocations for utilities in new subdivision development.

*See the evaluation of Standard Plans, 2003, CPS S/D-02A against SGS 10-2.*

#### **4.9.3. Sewer for townhouses**

Connection to sanitary sewers is the only approved method of sewage disposal for townhouses.

*No SGS match found.*

### **10.107.L.3. Government St UDOD**

Developments with more than 400' of Frontage at designated CATS bus stops... may be eligible for a credit against traffic impact fees as determined by DPW.

- *SGS 1-5: Encourage transit-oriented and transit friendly developments*  
UDC 10.107.L.3. encourages development at existing bus stops but says nothing about the character of that development (e.g. stipulating that it be transit-oriented or transit-friendly). Therefore, UDC 10.107.L.3. is indifferent toward SGS 1-5.
- *SGS 9-2: Promote greyfields redevelopment*  
UDC 10.107.L.3. provides an incentive for development in an area with very little undeveloped land and a fair amount of greyfield properties. Therefore, UDC 10.107.L.3. supports SGS 9-2.
- *SGS 9-6: Establish tax credits/incentives or other policies to encourage infill over greenfield development*  
UDC 10.107.L.3. provides an incentive for development in an inner-ring suburb and not on greenfields. Therefore, UDC 10.107.L.3. supports SGS 9-6.
- *SGS 9-7: Establish lesser or waived impact fees in areas with excess public facility capacity*  
UDC 10.107.L.3. provides for a credit against traffic impact fees for developments in the Government St UDOD at designated CATS bus stops. Therefore, UDC 10.107.L.3. supports SGS 9-7.

*Recommendation:* Overall, UDC 10.107.L.3. supports Smart Growth Standards. However, the limitations of 400' of frontage and location at designated CATS bus stops combine to make this incentive applicable to 13 developments, at best, in a corridor that is 3 miles long. In order to be more supportive of Smart Growth Standards, UDC 10.107.L.3. should be rewritten to apply to more developments.

### **13.2.D. Turning circles at the end of dead-end streets**

Turning circles at the end of dead-end streets shall be open spaces preferably circular and designed as shown in the following drawings. Any other nonstandard designs will be considered and may be approved on a case-by-case basis by DPW. The minimum pavement size of a "T-turnaround" is 20' by 80' and unless otherwise approved by DPW, the required right-of-way is 30' by 90'. All other street turn radii must be approved by DPW.

- *SGS 4-18: Limit curb radii on all residential streets (access and connectors) to 4 to 15 feet*  
The drawings referenced in UDC 13.2.D. show 25' curb radii on a residential street, clearly greater than the 4 to 15 feet set forth in SGS 4-18. Therefore, UDC 13.2.D. does not support SGS 4-18.

*Recommendation:* UDC 13.2.D. should be modified to require a smaller curb radius.

### **13.6.A.3. Street standards in residential subdivisions**

Street intersection curb radius returns shall not be less than 25 feet.

- *SGS 4-18: Limit curb radii on all residential streets (access and connectors) to 4 to 15 feet*  
UDC 13.6.A.3. sets a minimum curb radius of 25 feet in residential subdivisions, clearly greater than the 4 to 15 feet set forth in SGS 4-18. Therefore, UDC 13.6.A.3. does not support SGS 4-18.

*Recommendation:* UDC 13.6.A.3. should be modified to require a smaller curb radius.

### **14.1. Servitudes**

Wherever it is necessary to install sanitary or storm sewers, utilities, or drainage ditches along side lot lines or across lots, a sufficient servitude shall be required to contain the necessary services as determined by the Department of Public Works. Servitudes for sewerage, utilities, or drainage ditches shall also be provided in or adjacent to proposed site or tract developments where determined necessary by the Department of Public Works.

*See the evaluation of Standard Plans, 2003, CPS S/D-02A against SGS 10-2.*

### **14.2. Space allocations for utilities in new subdivisions and on new site or tract developments**

Certain locations within the street right-of-way and servitudes shall be designated for the construction of subsurface drainage, sanitary sewers, and public facilities to minimize conflicts and facilitate the construction, maintenance, and operation of these various facilities in accordance with typical sections as published by the Department of Public Works showing space allocations for utilities in new subdivision development. Where feasible, all utilities shall be installed below the ground.

A copy of the applicable typical cross section showing the location of all utilities shall be included in the subdivision construction plans. The two (2) approved typical street cross sections are CPS S/D-02 and CPS S/D-02A (ACAD File CP-SD02A), as illustrated in Appendix J. If there is to be an exception or variation, the consulting engineer shall submit his proposed typical cross section to the engineering division of the Department of Public Works for their review and approval.

*See the evaluation of Standard Plans, 2003, CPS S/D-02A against SGS 10-2.*

#### **14.3.A. Sanitary sewer accessible**

The subdivider shall connect with the public sanitary sewer and provide adequate sewer collection lines to the property line of each lot, and for site or tract developments provide additional treatment where existing trunk lines are inadequate, unless the Development is more than 500' from the existing trunk line or DPW certifies that there is inadequate capacity in the City-Parish conveyance system.

*No SGS match found.*

### **14.3.B.3. Sanitary sewer not accessible**

All other subdivisions [with greater than 50 lots] shall have community sanitary sewage treatment facilities.

- *SGS 9-4: Require new urban growth be coordinated with provision of infrastructure capacity*  
UDC 14.3.B.3. allows development in areas where there is no public sewer or sewer capacity available. This allows new urban growth to occur without adequate public sewer capacity. Therefore, UDC 14.3.B.3. does not support SGS 9-4.

*Recommendation:* New subdivisions should not be allowed in areas with no connection to the public wastewater system or in areas where there is not adequate existing or planned capacity.

### **14.3.B.5.k. Sanitary sewer not accessible, becomes feasible**

At such time as connection to the public wastewater treatment network becomes feasible due to availability of sufficient capacity or proximity of no more than 500 feet, the property owner may be required to tie in to the public sewer system at his cost in accordance with the procedures set forth in Title 2, Chapter 5, Part III of the Code of Ordinances.

*No SGS match found.*

### **15.20., 15.21. and 15.23. General and Specific standards applicable in all areas of special flood hazard and Standards for areas of shallow flooding**

In all areas of special flood hazard, the following provisions are required for all new construction and substantial improvements...

Except as provided in subsection F of this Section, in all areas of special flood hazard and in Zones B, C, and X, an applicant must submit a \$10 fee to DPW Inspection Division for a flood zone determination to be used in the preparation of the FEMA approved Certificate of Elevation. Where base flood elevation data has been provided as set forth in Section 15.3, Section 15.10(h), or Section 15.22(c), the following provisions are required...

Located within the areas of special flood hazard established in Section 15.3 are areas designated as shallow flooding. These areas have special flood hazards associated with base flood depths of 1 to 3 feet where a clearly defined channel does not exist, where the path of flooding is unpredictable, and where velocity flow may be evident. Such flooding is characterized by-ponding or sheet flow; therefore, the following provisions apply...

- *SGS 8-1: Regulate development in critical areas*  
UDC 15.20., 15.21. and 15.23. outline specific guidelines designed to reduce the impact of flooding on new buildings and their inhabitants. Therefore, UDC 15.20., 15.21. and 15.23. support SGS 8-1.
- *SGS 8-3: Restrict development in floodplains*  
UDC 15.20., 15.21. and 15.23. do not restrict development in floodplains but instead outline specific guidelines for development in areas of special flood hazard. Therefore, UDC 15.20., 15.21. and 15.23. are indifferent toward SGS 8-3.

*Recommendation:* UDC 15.20., 15.21. and 15.23. are important regulations that should be applied whenever development is allowed in areas prone to flooding. However, in accordance with SGS 8-3, new regulations are needed that restrict development in areas prone to flooding. This could include minimum lot size or density requirements to limit the amount of development.

### **17.9. [Parking requirements for] Other uses**

For all other uses not in Table 1 when the Building Official deems it necessary, parking requirements will be determined by DPW based on accepted ITE standards.

- *SGS 1-7: Reduce parking requirements along transit routes*  
UDC 17.9 directs DPW's Building Official to use accepted ITE standards to determine parking requirements for land uses not identified in the UDC. With this language, DPW's ability to support SGS 1-7 is dependent on whether the ITE standards allow reduced parking along transit routes. Therefore, UDC 17.9 is indifferent toward SGS 1-7.
- *SGS 10-4: Reduce parking requirements or institute parking maximums, especially in TODs*  
UDC 17.9 directs DPW's Building Official to use accepted ITE standards to determine parking requirements for land uses not identified in the UDC. With this language, DPW's ability to support SGS 10-4 is dependent on whether the ITE standards allow reduced parking requirements or include parking maximums. Therefore, UDC 17.9 is indifferent toward SGS 10-4.

*Recommendation:* UDC 17.9 is necessary language that provides direction for establishing parking requirements for other land uses. Ch. 17 of the UDC in general does not provide reduce parking along transit routes and does not include parking maximums. When those provisions are added to Ch. 17 in general, then it would be appropriate to consider modifying the language in UDC 17.9.

### **17.12.B.4. Design criteria for parking perpendicular to a public sidewalk or property line**

All parking facilities shall meet the following criteria as established by DPW: When parking is perpendicular to a public sidewalk or property line, barrier curbing shall be installed 2'-6" from the sidewalk or property line to prevent the vehicle from overhanging the sidewalk or property line.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*  
UDC 17.12.B.4. requires barrier curbing for parking perpendicular to a sidewalk to prevent vehicles from overhanging the sidewalk, which would obstruct the path of pedestrians. Thus, UDC 17.12.B.4. supports SGS 1-2.

### **17.12.B.6. Design criteria for entrance-exits**

All parking facilities shall meet the following criteria as established by DPW: All entrance-exits (driveways) on City-Parish streets and roadways shall follow minimum design criteria as found in Appendix A - Design Criteria for Parking, Streets, and Roadways excluding driveways for single family residential uses.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

UDC 17.12.B.6. refers to Appendix A, which shows driveway radii of 25' (minimum). The AASHTO Pedestrian Guide does not recommend a specific radius for driveways but recommends a 10' to 15' radius for street corners. It also shows 2 two-way driveways covering approximately one-third of the lot frontage. By allowing frequently spaced high-speed turning vehicles, UDC 17.12.B.6. does not support SGS 1-2.

*Recommendation:* UDC 17.12.B.6. and Appendix A should be modified to be more supportive of non-automotive modes. This would include smaller driveway radii and reducing the number of driveways allowed.

**Table 11. Evaluation of Unified Development Code**

DPW Policy or Practice	Evaluated Against SGS #	Evaluation
4.103.A.2. Adequate public facilities	9-4	—
4.103.A.4.g. Private sanitary sewerage	None	None
4.103.A.5. and 17.12.B.5. Access to lots	4-17	—
4.103.A.6. Block length	4-5	X
4.103.A.8. Utilities	10-2	(1)
4.9.3. Connection to sewer for townhouses	None	None
10.107.L.3. Government St UDOD	1-5	—
	9-2	✓
	9-6	✓
	9-7	✓
13.2.D. Turning radii	4-18	X
13.6.A.3. Street standards in residential subdivisions	4-18	X
14.1. Servitudes	10-2	(1)
14.2. Space allocations for utilities in new subdivisions and on new site or tract developments	10-2	(1)
14.3.A. Sanitary sewer accessible	None	None
14.3.B.3. Sanitary sewer not accessible	9-4	X
14.3.B.5.k. Sanitary sewer not accessible, becomes feasible	None	None
15.20., 15.21. and 15.23. General and Specific standards applicable in all areas of special flood hazard and Standards for areas of shallow flooding	8-1	✓
	8-3	—
17.9. [Parking requirements for] Other uses	1-7	—
	10-4	—
17.12.B.4. Parking perpendicular to a sidewalk	1-2	✓
17.12.B.6. Design criteria for entrance-exits	1-2	X

✓ = Achieves or Supports Smart Growth Standard (SGS)

— = Indifferent toward Smart Growth Standard (SGS)

X = Hinders or Does Not Support Smart Growth Standard (SGS)

(1) See the evaluation of Standard Plans, 2003, CPS S/D-02A against SGS 10-2.

## ***Development Policy Manual (draft, as of June 2008)***

The Development Policy Manual (DPM) sets forth DPW's policies and requirements associated with the development process from initial proposals, through infrastructure construction, to completion of a proposed development. The DPM fulfills the mutual needs of the private and public sectors in Baton Rouge to clarify DPW's development policies and is intended for City-Parish staff, property owners, developers and their agents, especially planners, architects and engineers. The DPM is currently in final draft form, missing a section on the Building Permitting process and Transportation requirements.

### **I.1.A. Development Review Committee (DRC)**

The DRC provides expert review to support and complement the development application review process and, through the Subdivision Review Committee, make recommendations to the CPPC. The DRC meets face-to-face with applicants in order to fully understand the scope and intent of the proposed development and to have all questions and concerns addressed. The DRC includes 8 member divisions: the Director, drainage engineering, infrastructure planning, landscape and forestry, permits and inspections, sewer engineering, subdivision engineering, and traffic engineering. Each member division performs a detailed review of the development application, works with the applicant to resolve any identified issues, and makes a recommendation to the Committee to approve, defer or deny the application. There are five basic milestones in each DRC cycle, which run in sync with the Planning Commission cycle and are scheduled in advance for each calendar year.

- *Smart Growth Principle 7: Make Development Decisions Predictable, Fair, and Cost Effective*

By describing in detail the responsibilities, membership and schedule of the DRC, DPM I.1.A. makes development decisions more predictable, fair and cost effective, and thus achieves Smart Growth Principle 7.

### **I.1.B. DPW Staff-Level Reviews**

This section is not fully developed, largely because there does not appear to be a standard protocol or schedule for these applications.

- *Smart Growth Principle 7: Make Development Decisions Predictable, Fair, and Cost Effective*

Because there does not appear to be a standard protocol or schedule for staff-level development application reviews, development decisions are less predictable, fair and cost effective. Therefore, DPM I.1.B. does not achieve Smart Growth Principle 7.

*Recommendation:* A more definite protocol and estimated schedule for staff-level development application reviews should be established and documented to provide the development community with a sense of predictability and relative fairness, which translates directly into cost effectiveness.

## **I.3. Construction of Infrastructure**

There are 8 basic steps that apply to the construction of public infrastructure by private entities: 1) Submit Construction Plans and Related Items; 2) Review Construction Plans; 3) Submit Documentation; 4) Attend Pre-Construction Meeting; 5a) Construct Infrastructure or 5b) Bond In

Lieu of Construction; 6) Submit As-Built Drawings; 7) Inspect Infrastructure; and, 8) Inspect for Final Acceptance.

- *Smart Growth Principle 7: Make Development Decisions Predictable, Fair, and Cost Effective*

By describing in detail the steps, documents, responsibilities and fees associated with constructing infrastructure, DPM I.3. makes development decisions more predictable, fair and cost effective, and thus achieves Smart Growth Principle 7.

## **I.5. Required Submittals**

There are 6 documents that must be submitted at various stages of the development process: Sewer Capacity Analysis Request, Stormwater Management Plan, Drainage Impact Study, Water Quality Impact Study, Storm Water Pollution Prevention Plan (SWPPP), and a Traffic Impact Study (TIS) Request. No development application shall be approved until the required documents have been submitted to, reviewed and approved by DPW.

- *Smart Growth Principle 7: Make Development Decisions Predictable, Fair, and Cost Effective*

By describing in detail the documents required at various stages of the development process, DPM I.5. makes development decisions more predictable, fair and cost effective, and thus achieves Smart Growth Principle 7.

## **II.1.A. Drainage Covenants**

Occasionally, a developer of a property will choose to employ a drainage scheme that requires installation and maintenance of temporary drainage features on the developer's property or other properties. In those instances where such drainage features must be perpetually maintained to minimize possible damage to other properties or to public properties, the City-Parish may require the developer enter into a covenant assuring maintenance of such facilities. There are 3 types of covenants: 1) Drainage Covenant (no public easement); 2) Agreement and Covenant; and, 3) Private Facility Drainage Covenant and Reservation of Private Drainage Easement.

*No SGS match found.*

## **II.1.B. Private Storm Drain Facilities within a City-Parish Right-of-Way and/or Easement**

Frequently a drainage plan developed for a particular property involves either discharge directly into a public facility or across a portion of a public right-of-way to a public facility. Examples include connections to the back of an existing storm inlet, construction of sidewalk culverts or a connection to a storm drain manhole or a channel. When such solutions are employed, the construction within the public right-of-way must meet City-Parish standards and the owner of the property is responsible for maintenance of the facility.

*No SGS match found.*

### **II.1.C. Encroachment Agreements**

Occasionally the grading scheme for an approved drainage plan will employ the construction of a retaining wall or other drainage/grading structure outside the periphery of a private property, encroaching into public property. Although such encroachments are discouraged, it is recognized that certain circumstances will require installations of this type. In such event, the City-Parish normally requires an encroachment agreement with the developer. The encroachment agreement, which runs with the land, allows the developer to install some semi-permanent features on public property meeting established criteria. The developer is required to assure the City-Parish that such features will be removed in a timely manner if required by the City-Parish or, alternatively, that the City-Parish will be empowered to remove such encroachments, with the cost of such removal charged to the owner of the property.

*No SGS match found.*

### **II.1.D. Detention/Retention Facilities**

The owner of the proposed development or any successor who acquires title to the stormwater management facility shall at all times maintain the design section of the Storm Water management facility as indicated on the Site Drainage Plan and in the Drainage Impact Analysis Report. In the event DPW determines that the Storm Water management facility has not been maintained, the owner shall make the necessary modifications to conform to the original approved design sections, requirements, etc. within a 30 day period from written notification from DPW. If the owner does not act within this time frame to remedy the situation, DPW may perform the necessary modification, improvements, etc. and bill the owner for the work at its operating cost.

*No SGS match found.*

### **II.3.A. Public versus Private [sewer]**

All improved premises within 300 feet of an established, constructed and operating sanitary sewerage system shall be tied to and connected with the system. (City Code 1951, Title 2, § 303; Parish Code 1962, Title 2, § 303) If capacity does not exist, as determined by DPW, the development may utilize a private community treatment system with the understanding that it will eventually be required to tie to the public system when capacity becomes available. All components of the private system, such as pump stations and collection lines, must comply with public standards before connecting to the public system.

*See the evaluations of UDC 14.3.A., 14.3.B.3., and 14.3.B.5.k.*

### **II.3.C. Individual Private Sewage Treatment Systems**

The following may have effluent from an approved individual private sewage treatment system draining to open effluent ditches, provided such open effluent ditches are predominant in the area and are at least 24 inches deeper than the grade at the building site: subdivisions of 5 lots or less, with each lot at least 22,500 sf with at least 100 feet of frontage; and, subdivisions of 5 to 50 lots of 250 feet with minimum depth of 300 feet. Any other development must have community sewer collection lines tying either to a public system or an approved private community treatment system.

*See the evaluation of UDC 14.3.B.3.*

### **II.3.D. Standard Specifications [for sewer]**

Briefly describes standard specifications for public and private collection lines and public pump stations.

- *SGS 9-5: Favor the use of existing infrastructure over new*  
DPM II.3.D. states that no new sewer wyes are allowed if one already exists. However minor, this favors the use of existing infrastructure over new, and thus, DPM II.3.D. achieves SGS 9-5.
- *SGS 10-2: Establish reduced lot setbacks to encourage higher density*  
DPM II.3.D. requires a minimum 15' public sewer servitude immediately adjacent to but outside of the street right-of way. While this in itself does not preclude reduced lot setbacks, it significantly impacts the amount of lot setback reduction that can be accommodated. Thus, CPS S/D-02A hinders SGS 10-2.

*Recommendation:* Either the location or the size of the public sewer servitude required by DPM II.3.D. should be altered to allow for reduced lot setbacks and more compact building patterns.

### **II.3.F. Sewer Wye Permit**

Any development wishing to tie into an existing public sanitary sewer line must obtain a sewer wye permit, which is issued on a case-by-case basis by the Subdivision Office. Sewer wye permits are free of charge and are issued only to plumbers and contractors licensed by the Louisiana State Contractors Licensing Board.

- *Smart Growth Principle 7: Make Development Decisions Predictable, Fair, and Cost Effective*  
DPM II.3.F. states that sewer wye permits are issued on a case-by-case basis and does not indicate what criteria are used to issue the permit, other than who the permit will be issued to. This makes obtaining a sewer wye permit unpredictable and potentially unfair. Therefore, DPM II.3.F. does not achieve Smart Growth Principle 7.

*Recommendation:* Basic criteria for the issuance of a sewer wye permit should be established and documented.

#### **II.4.A. Performance Criteria [for stormwater infrastructure]**

Stormwater infrastructure must be designed and constructed in accordance with the following criteria: provide capacity for a 10-year storm; and, treat or retain on-site all stormwater pollutants that originate from the site during the first inch of an event.

- *Smart Growth Principle 7: Make Development Decisions Predictable, Fair, and Cost Effective*

By describing the performance criteria by which all stormwater infrastructure will be evaluated, DPM II.4.A. makes development decisions more predictable, fair and cost effective, and thus achieves Smart Growth Principle 7.

- *SGS 9-4: Require new urban growth be coordinated with provision of infrastructure capacity*  
DPM II.4.A. requires development provide adequate drainage capacity for a 10-year storm. Therefore, DPM II.4.A. achieves SGS 9-4.

#### **II.4.B. Hydrology, Hydraulics and Discharge Calculations**

Briefly describes requirements for hydrology, hydraulics and discharge calculations.

- *Smart Growth Principle 7: Make Development Decisions Predictable, Fair, and Cost Effective*

By describing the requirements for hydrology, hydraulics and discharge calculations, DPM II.4.B. makes development decisions more predictable, fair and cost effective, and thus achieves Smart Growth Principle 7.

#### **II.4.C. Storm and Cross Drainage Systems**

Briefly describes requirements for storm and cross drainage systems.

- *Smart Growth Principle 7: Make Development Decisions Predictable, Fair, and Cost Effective*

By describing the requirements for storm and cross drainage systems, DPM II.4.C. makes development decisions more predictable, fair and cost effective, and thus achieves Smart Growth Principle 7.

- *SGS 10-7: Connect infrastructure decisions and land use planning*

DPM II.4.C. states that when offsite adjacent drainage areas contribute flow to the site proposed for development, accommodations for these areas must be considered developed to the maximum allowed density as indicated by the current Horizon Plan Land Use. This connects drainage capacity directly to planned land uses. Thus, DPM II.4.C. achieves SGS 10-7.

#### **II.4.D. Fill Requirements within the Floodplain**

Fill placed within the floodplain must meet 3 restrictions. The following are exempt from these restrictions: lots located within recognized subdivisions developed prior to August 25, 1990, where no recorded inundation of homes has occurred; and, backfill required within the footprint(s) of new structures for foundations up to an aggregate of 5,000sf per tract/lot.

- *Smart Growth Principle 7: Make Development Decisions Predictable, Fair, and Cost Effective*

By describing in detail the restrictions placed on fill within the floodplain and the exemptions from those restrictions, DPM II.4.D. makes development decisions more predictable, fair and cost effective, and thus achieves Smart Growth Principle 7.

- *SGS 8-3: Restrict development in floodplains*

DPM II.4.D. does not restrict development in floodplains but instead outlines specific guidelines for fill requirements in the floodplain. Therefore, DPM II.4.D. is indifferent toward SGS 8-3.

*Recommendation:* DPM II.4.D. is an important regulation that should be applied whenever development is allowed in the floodplain. However, in accordance with SGS 8-3, new regulations are needed that restrict development in floodplains. This could include minimum lot size or density requirements to limit the amount of development.

#### **II.4.F. Conveyance**

Describes conditions that require the use of a public drainage servitude and the criteria to be used in sizing the public drainage servitude.

- *Smart Growth Principle 7: Make Development Decisions Predictable, Fair, and Cost Effective*

By describing in detail the conditions that require the use of a public drainage servitude and the criteria to be used in sizing the public drainage servitude, DPM II.4.F. makes development decisions more predictable, fair and cost effective, and thus achieves Smart Growth Principle 7.

#### **II.4.G. Base Floor Elevation**

Residential covered parking areas attached to the residential building must be built at or above the base flood elevation. Residential streets or uncovered parking areas must be built no less than 1' below base flood elevation. Commercial parking and drives and private streets must be built no less than 2' below base flood elevation or level of record inundation, whichever is higher.

- *SGS 8-1: Regulate development in critical areas*

DPM II.4.G. outlines specific regulations designed to reduce the impact of potential flooding. Therefore, DPM II.4.G. supports SGS 8-1.

#### **II.4.H. Flood Hazard Certification**

Compliance with the requirements of the Flood Damage Prevention Ordinance is required of every applicant for subdivision, site development plan and/or building permit approval.

Compliance is achieved by demonstrating that the proposed project: (1) does not lie within a designated flood hazard area; (2) is removed from a flood hazard area through the FEMA map revisions process; or, (3) adequate flood-proofing is provided as required by the ordinance.

- *SGS 8-1: Regulate development in critical areas*

DPM II.4.H. outlines specific requirements for compliance with the Flood Damage Prevention Ordinance. Therefore, DPM II.4.H. supports SGS 8-1.

- **SGS 8-3: Restrict development in floodplains**

DPM II.4.H. outlines specific requirements for compliance with the Flood Damage Prevention Ordinance, including an option requiring adequate flood-proofing, implying that development is allowed in the floodplain. Therefore, DPM II.4.H. is indifferent toward SGS 8-3.

*Recommendation:* DPM II.4.H. is an important regulation that should be applied whenever development is allowed in the floodplain. However, in accordance with SGS 8-3, new regulations are needed that restrict development in floodplains. This could include minimum lot size or density requirements to limit the amount of development.

### **II.4.I. Criteria for Selecting Stormwater Best Management Practices**

Describes 3 basic steps in selecting the appropriate stormwater BMP: 1) Stormwater Treatment Suitability; 2) Physical Feasibility Factors; and, 3) Community and Environmental Factors.

- **Smart Growth Principle 7: Make Development Decisions Predictable, Fair, and Cost Effective**

By describing in detail the process and criteria to be used in selecting stormwater best management practices, DPM II.4.I. makes development decisions more predictable, fair and cost effective, and thus achieves Smart Growth Principle 7.

### **II.4.J. Waiver of specific pollutant treatment**

A waiver to treat a specific pollutant may be obtained if the applicant can provide documentation showing that the specific pollutant does not exist on-site and will not be generated by proposed development.

*No SGS match found.*

### **B.1. Sewer Impact Fees**

Provides a summary of the Sewer Impact Fee Ordinance (City-Parish ordinances 10043, 10915, 11508, and 13231).

*See the evaluation of the Sewer Impact Fee Ordinance.*

### **B.2. Traffic Impact Fees**

Provides a summary of the Traffic Impact Fee Policy.

*See the evaluation of the Traffic Impact Fee Policy.*

**Table 12. Evaluation of Development Policy Manual**

DPW Policy or Practice	Evaluated Against SGS #	Evaluation
I.1.A. Development Review Committee (DRC)	7-0	✓
I.1.B. DPW Staff-Level Reviews	7-0	X
I.3. Construction of Infrastructure	7-0	✓
I.5. Required Submittals	7-0	✓
II.1.A. Drainage Covenants	None	None
II.1.B. Private Storm Drain Facilities within a City-Parish Right-of-Way and/or Easement	None	None
II.1.C. Encroachment Agreements	None	None
II.1.D. Detention/Retention Facilities	None	None
II.3.A. Public versus Private [sewer]	(1)	(1)
II.3.C. Individual Private Sewage Treatment Systems	(2)	(2)
II.3.D. Standard Specifications [for sewer]	9-5	✓
	10-2	X
II.3.F. Sewer Wye Permit	7-0	X
II.4.A. Performance Criteria [for stormwater infrastructure]	7-0	✓
	9-4	✓
II.4.B. Hydrology, Hydraulics and Discharge Calculations	7-0	✓
II.4.C. Storm and Cross Drainage Systems	7-0	✓
	10-7	✓
II.4.D. Fill Requirements within the Floodplain	7-0	✓
	8-3	—
II.4.F. Conveyance	7-0	✓
II.4.G. Base Floor Elevation	8-1	✓
II.4.H. Flood Hazard Certification	8-1	✓
	8-3	—
II.4.I. Criteria for Selecting Stormwater Best Management Practices	7-0	✓

DPW Policy or Practice	Evaluated Against SGS #	Evaluation
II.4.J. Waiver of specific pollutant treatment	None	None
B.1. Sewer Impact Fees	(3)	(3)
B.2. Traffic Impact Fees	(4)	(4)

✓ = Achieves or Supports Smart Growth Standard (SGS)

— = Indifferent toward Smart Growth Standard (SGS)

X = Hinders or Does Not Support Smart Growth Standard (SGS)

(1) See the evaluations of UDC 14.3.A., 14.3.B.3., and 14.3.B.5.k.

(2) See the evaluation of UDC 14.3.B.3.

(3) See the evaluation of the Sewer Impact Fee Ordinance.

(4) See the evaluation of the Traffic Impact Fee Policy.

## ***Standards Plans, 2003***

This document contains the standard plans for a number of common items, including concrete pavement, curb inlets, manholes, guard rails, pavement marking and striping, handicap curb ramps, commercial and residential drives, inlets, and catch basins. It is currently in the process of being updated and revised.

### **CPS 905-01, Construction Signs and Barricades**

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

CPS 905-01 details standard signs and barricades to be used during construction projects. All of the signs and barricades are specifically designed for vehicles. This can be adequate for the needs of bicycles traveling on the road, but is especially inadequate for the needs of pedestrians. Specifically, there are no signs for pedestrians warning of a sidewalk closed. While these signs are intended for temporary use during construction, CPS 905-01 nevertheless fails to implement roadway design standards that support non-automotive modes and thus does not support SGS 1-2.

*Recommendation:* CPS 905-01 should include details of standard signs and barricades for non-automotive modes, especially pedestrians. This could include something as simple as a “Sidewalk Closed” sign.

### **CPS 905-02 (general), Pavement Marking and Striping Details**

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

Two key components of roadway design for transit and non-automotive modes are pedestrian crossings and bicycle lanes. CPS 905-02 does not include a standard striping plan for either pedestrian crossings or bicycle lanes. While these can be installed without a standard striping plan, the lack thereof makes CPS 905-02 indifferent to SGS 1-2.

- *SGS 4-11: Require crosswalks, especially on long blocks*

While a crosswalk can be required without a standard crosswalk striping plan, the lack thereof makes CPS 905-02 indifferent to SGS 4-11.

- *SGS 4-12: Connect sidewalks to amenities such as parks and open space*

Connecting a sidewalk to amenities will most often require a crosswalk. While a crosswalk can be installed without a standard crosswalk striping plan, the lack thereof makes CPS 905-02 indifferent to SGS 4-12.

*Recommendation:* CPS 905-02 should include standard striping plans for pedestrian and bicycle components of the roadway, including pedestrian crossings and bicycle lanes. The treatment of bicycle lanes at intersections, specifically in relation to right-turn lanes, should be included. Best practices, namely the AASHTO Pedestrian and Bike Guides, should be used to develop these standard striping plans.

## **CPS 905-02 (sheet 1), Pavement Marking and Striping Details**

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

CPS 905-02 (sheet 1) shows a typical intersection with 50' turning radii. The AASHTO Pedestrian Guide recommends a 10' to 15' street corner radius. (An exception can be made for intersections with heavy volumes of turning truck traffic, with this radius increased and the stop bar set farther back.) While the 50' turning radius shown in CPS 905-02 does not preclude the 10' to 15' radius recommended by AASHTO, it presents the significantly larger 50' radius as typical rather than exceptional. Therefore, CPS 905-02 (sheet 1) does not support SGS 1-2.

- *SGS 4-18: Limit curb radii on all residential streets (access and connectors) to 4 to 15 feet*
- CPS 905-02 (sheet 1) shows a typical intersection with 50' turning radii. No distinction is made as to what functional classification this applies to. Therefore, CPS 905-02 (sheet 1) does not support SGS 4-18.

*Recommendation:* CPS 905-02 (sheet 1) should be modified to illustrate that a smaller (10' to 15') street corner radius is typical. This could be done by replacing the 50' radius with a 10' to 15', perhaps adding a note that a larger radius may be warranted at intersections where a heavy volume of turning truck traffic is expected. Or this could be done by leaving off any numeric value and indicating that street corner radii will be determined based on an appropriate balance of the needs of pedestrians and heavy vehicles. CPS 905-02 (sheet 1) should also be modified to clarify that the typical intersection is not residential, either with a simple note and/or by adding a typical residential intersection to the sheet.

## **CPS 905-02 (sheet 5), Pavement Marking and Striping Details**

- *SGS 4-1: Reduce street widths to promote walkability and bike friendliness*

CPS 905-02 (sheet 5) shows a minimum 10' width for left turn lanes. While a 10' lane width is acceptable, the lack of a maximum lane width makes CPS 905-02 indifferent to SGS 4-1.

*Recommendation:* CPS 905-02 (sheet 5) should be modified to promote a narrow lane width, either by showing 10' as typical (rather than minimum) or by supplementing the 10' minimum with an acceptable maximum.

## **CPS 906-01 (sheet 5), Traffic Signal and Installation Details**

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

A key component of roadway design for transit and non-automotive modes is pedestrian crossings. CPS 906-01 includes standards for pedestrian signals and push buttons and thus supports SGS 1-2.

- *SGS 4-12: Connect sidewalks to amenities such as parks and open space*

Connecting a sidewalk to amenities will most often require a crosswalk. CPS 906-01 includes standards for pedestrian signals and push buttons and thus supports SGS 4-12.

## **CPS 907-01, Handicap Curb Ramps**

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

A key component of roadway design for transit and non-automotive modes is pedestrian crossings with properly designed handicap ramps. CPS 907-01 includes a number of standard plans for handicap curb ramps but they are difficult to read and interpret. CPS 907-01 is thus indifferent to SGS 1-2.

- *SGS 4-11: Require crosswalks, especially on long blocks*

A critical component of a crosswalk is handicap curb ramps. CPS 907-01 includes a number of standard plans for handicap curb ramps but they are difficult to read and interpret, making CPS 907-01 indifferent to SGS 4-11.

*Recommendation:* CPS 907-01 should be improved to make it easier to read and interpret.

## **CPS 907-03, Commercial Driveways (Curbed Concrete Roadways)**

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

CPS 907-03 shows driveway radii of 25' (where possible). The AASHTO Pedestrian Guide does not recommend a specific radius for driveways but recommends a 10' to 15' radius for street corners. The double-skewed driveways shown on CPS 907-03 (sheet 2) are designed to accommodate higher speed turning vehicles which are a safety hazard for pedestrians and bicyclists. CPS 907-03 shows handicap ramps where the sidewalk and driveway intersect, and these appear to conform with the standards established in the AASHTO Pedestrian Guide.

Overall, CPS 907-03 does not support SGS 1-2. The handicap ramps depicted do comply with the AASHTO Pedestrian Guide, but the 25' driveway radius and double-skewed driveways promote higher-speed vehicle turns and do not support non-automotive modes.

*Recommendation:* CPS 907-03 should be modified to be more supportive of non-automotive modes. This would include tighter turning radii and either the elimination of the double-skewed driveway or a note indicating their limited use.

## **CPS 907-04, Residential Driveways (Curbed Concrete Roadways)**

Shows driveway radius of 25' where possible and 4' sidewalks (setback from curb) instead of 5'.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

CPS 907-04 shows driveway radii of 25' (where possible). The AASHTO Pedestrian Guide does not recommend a specific radius for driveways but recommends a 10' to 15' radius for street corners. CPS 907-04 shows handicap ramps where the sidewalk and driveway intersect, and these appear to conform with the standards established in the AASHTO Pedestrian Guide.

Overall, CPS 907-04 does not support SGS 1-2. The handicap ramps depicted do comply with the AASHTO Pedestrian Guide, but the 25' driveway radius promotes higher-speed vehicle turns and does not support non-automotive modes.

- *SGS 4-18: Limit curb radii on all residential streets (access and connectors) to 4 to 15 feet*  
CPS 907-04 shows a driveway radius on residential driveways of 25', which is 10' greater than the maximum radius recommended in SGS 4-14. Thus, CPS 907-04 does not support SGS 4-18.

*Recommendation:* CPS 907-04 should be modified to reduce the size of the driveway radius.

## **CPS S/D-02A, Typical Section Showing Space Allocation for Utilities in New Subdivision Developments Curb & Gutter Construction**

Shows 2-lane roadway in a 50' right-of-way, with each lane 11'-6", with a 2' curb and gutter on each roadway edge (27' total); a 4' sidewalk setback 4' from back-of-curb on each side of the roadway (8' for each side, 16' total); and an additional 3'-6" on each side of the sidewalk (7' total). Also shows a 12' wide utility servitude against the right-of-way on each side, with all utilities laid out horizontally with approximately 1'-6" of spacing between each.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*  
CPS S/D-02A shows a typical 2-lane roadway that is 27' wide with 4' sidewalks setback on each side of the road. The characteristics of the roadway will likely encourage speeding and not be conducive to pedestrian and bicycle travel. Therefore, CPS S/D-02A does not achieve SGS 1-2.
- *SGS 4-1: Reduce street widths to promote walkability and bike friendliness*  
CPS S/D-02A shows a typical travel lane width of 11'-6" with an additional 2' for curb and gutter. According to the 2004 Green Book, travel lane widths as narrow as 9' are acceptable on low-volume local roadways, such as those found in residential subdivisions. While CPS S/D-02A, as a typical section, does not preclude a narrower street section, it suggests that this wider section is preferred. Therefore, CPS S/D-02A does not achieve SGS 4-1.
- *SGS 4-2: Establish a fine-grained street hierarchy (e.g. differentiate between various widths of arterials, major and minor collectors, commercial and residential local streets)*  
CPS S/D-02A shows a typical section for a street in a new subdivision. While more than one street section could be developed from this one typical section, CPS S/D-02A is indifferent to SGS 4-2.
- *SGS 4-3: Design streets using design speed standards to regulate speeding and create pedestrian and bicycle friendly environments (25 mph on local streets, 30 mph on minor collectors, 40 mph on major collectors, and 45 mph on arterials)*  
CPS S/D-02A describes typical section geometries and makes no reference to design speed. Therefore, CPS S/D-02A does not achieve SGS 4-3.
- *SGS 4-9: Require sidewalks on both sides of the street*  
CPS S/D-02A shows a 4' sidewalk on both sides of the street and thus supports SGS 4-9.
- *SGS 4-10: Require a minimum sidewalk width that compliments the nature of the street and the anticipated volume of pedestrian traffic*  
CPS S/D-02A shows a 4' sidewalk. This is considered the minimum width by the AASHTO Pedestrian Guide and should be supplemented with 5'-wide sidewalk at reasonable intervals to accommodate passing wheelchairs. Thus, CPS S/D-02A is indifferent to SGS 4-10.

- *SGS 4-22: Encourage on-street parking*

CPS S/D-02A makes no defined space allocation for on-street parking. While CPS S/D-02A does not encourage on-street parking, it does not preclude it, and is therefore indifferent to SGS 4-22.

- *SGS 10-2: Establish reduced lot setbacks to encourage higher density*

CPS S/D-02A provides a 12' utility servitude on either side of the right-of-way for utilities. While this in itself does not preclude reduced lot setbacks, it significantly impacts the amount of lot setback reduction that can be accommodated. Thus, CPS S/D-02A hinders SGS 10-2.

*Recommendation:* CPS S/D-02A has already been supplemented in the UDC by a variety of typical street sections (see Appendix J of the UDC). Those typical street sections, however, do not contain standards for utility space. To allow for reduced lot setbacks to encourage higher density, the possibility of narrowing the 12' utility servitude or locating it at the rear of lots along an alley should be explored.

**Table 13. Evaluation of Standard Plans, 2003**

DPW Policy or Practice	Evaluated Against SGS #	Evaluation
CPS 905-01, Construction Signs and Barricades	1-2	X
CPS 905-02 (general), Pavement Marking and Striping Details	1-2	—
	4-11	—
	4-12	—
CPS 905-02 (sheet 1), Pavement Marking and Striping Details	1-2	X
	4-18	X
CPS 905-02 (sheet 5), Pavement Marking and Striping Details	4-1	—
CPS 906-01 (sheet 5), Traffic Signal and Installation Details	1-2	✓
	4-12	✓
CPS 907-01, Handicap Curb Ramps	1-2	—
	4-11	—
CPS 907-03, Commercial Driveways (Curbed Concrete Roadways)	1-2	X
CPS 907-04, Residential Driveways (Curbed Concrete Roadways)	1-2	X
	4-18	X
CPS S/D-02A, Typical Section Showing Space Allocation for Utilities in New Subdivision Developments Curb & Gutter Construction	1-2	X
	4-1	X
	4-2	—
	4-3	X
	4-9	✓
	4-10	—
	4-22	—
	10-2	X

✓ = Achieves or Supports Smart Growth Standard (SGS)

— = Indifferent toward Smart Growth Standard (SGS)

X = Hinders or Does Not Support Smart Growth Standard (SGS)

## ***Green Light Plan Engineering Standards and Specifications***

The Green Light Plan (GLP) program manager, CSRS, in consult with a technical oversight committee, developed engineering standards to be used by design consultants in the design of the roadway projects associated with the GLP. The guide presents the consultant with the information necessary to design the projects in accordance with DPW and LADOTD requirements, and provide for consistency in the design of all roadways for the GLP. The guide also establishes guidelines and reference publications that are to be used in the design of the projects. The following major elements are addressed in the guide: Corridor Survey, Utility Relocations, Environmental Assessments, Geotechnical Engineering, Traffic Operations & Design, Construction Traffic Control, Roadway Design, Hydrology & Hydraulics, Structural Design, and ROW Mapping.

### **Environmental Assessments, Wetland Delineation and Permit Application**

Details process for determining presence of jurisdictional wetlands and steps to follow in the event they are found, including permit applications for fill and purchasing mitigation credits.

- *SGS 8-1: Regulate development in critical areas*

While the GLP Wetland Delineation and Permit Application process does regulate the steps that should be followed in the event that wetlands are found in proximity to a project, it does not state that the first course of action should be to evaluate alternative routes to avoid the wetlands. Therefore, the GLP Wetland Delineation and Permit Application process is indifferent toward SGS 8-1.

*Recommendation:* The Wetland Delineation and Permit Application process is extremely important and largely dictated by federal standards and guidelines. The GLP Standards could be improved by adding a statement that the desired course of action when wetlands are involved is to make every effort to avoid the wetlands.

### **Environmental Assessments, Phase I Environmental Site Assessment**

Details process for performing Phase I Environmental Site Assessments (ESAs). The guidelines generally follow the procedures established in ASTM E 1527, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.

- *SGS 8-1: Regulate development in critical areas*

The GLP Phase I Environmental Site Assessment process requires the careful consideration of the roadway's impact on several environmental factors and thus supports SGS 8-1.

### **Environmental Assessments, Noise Impact Study**

This section presents guidelines for performing noise impact studies.

*No SGS match found.*

### **Environmental Assessments, NEPA Environmental Assessment**

Details process for performing Environmental Assessments in accordance with NEPA.

- *SGS 8-1: Regulate development in critical areas*

The GLP NEPA Environmental Assessment process requires the careful consideration of the roadway's impact on several environmental factors and thus supports SGS 8-1.

## **Traffic Operations and Design, Traffic Design Report**

The purpose of the Traffic Design Report is to verify conceptual intersection geometry (i.e. number of turn lanes and storage requirements) and to develop signal timing plans for signalized intersections within the project. The Report shall include the following: Existing traffic counts at critical intersections for the AM, noon, and PM peak hours, as well as directional 24-hour counts, including classification counts; Design year (2030) traffic volumes, determined by applying a 2% growth per year, and used for the signal timing analysis; Intersection/Roadway analyses performed at critical intersections for the AM, noon, and PM peak hours to determine LOS for existing conditions, design year no build, and design year build scenarios; Signal timing analyses based on implementation year traffic volumes and recommended design year geometry, including considerations for cycle lengths, phase sequence, green split times and clearance intervals; Findings and recommendations to include turn lane requirements with corresponding storage lengths for all critical intersections and recommended signal timing plans.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

The signal timing analyses and plans do not call for accommodations for pedestrian crossings. While this does not preclude such accommodations from being included, it does make it less likely to be included. Therefore, GLP Traffic Design Report hinders SGS 1-2.

- *SGS 7-1: Ensure consistency between local government regulations, local actions and the comprehensive plan*

The GLP Traffic Design Report includes a determination of Design Year (2030) traffic volumes by applying a standard 2% growth factor, unless otherwise noted. The GLP Standards document does not reference how a 2% growth factor was determined, other than saying that it is "based on past studies." Whether the 2% growth factor was influenced by the Horizon Plan or CRPC's population projections is unknown. Therefore, the GLP Traffic Design Report cannot be evaluated against SGS 7-1.

- *SGS 7-3: Link land use and transportation decisions at the local and regional levels*

The GLP Traffic Design Report includes a determination of Design Year (2030) traffic volumes by applying a standard 2% growth factor, unless otherwise noted. It seems highly unlikely that a standard growth rate can be applied across the entire Parish. This would seem to disconnect traffic planning from land use planning and in many cases may overbuild a roadway and caused induced demand in the future. However, without knowing the basis for the 2% growth rate, the GLP Traffic Design Report cannot be evaluated against SGS 7-3.

*Recommendation:* Non-automotive modes, especially pedestrian crossings, should be clearly included in the Traffic Design Report. Also, the growth rate should be carefully evaluated to ensure that each roadway and intersection is right-sized and that the improvements do not inadvertently induce travel demand in the future.

## **Traffic Operations and Design, Traffic Signal Design**

Traffic signal design will be in accordance with the 2003 MUTCD, LDOTD Traffic Signal Manual, LDOTD and City-Parish Standard Plans, and LDOTD and City-Parish Standard Specifications.

*See evaluation of Standard Plans, 2003, CPS 906-01 (sheet 5), Traffic Signal and Installation Details.*

## **Traffic Operations and Design, Traffic Signal Plans**

Details the requirements for preparing traffic signal plans, making reference to an attached Traffic Signal Design Checklist.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

The Traffic Signal Design Checklist includes items referring to pedestrian crossings, including location of existing crosswalk striping, location of proposed pedestrian push buttons, and pedestrian crossing phasing in the signal timing chart. Therefore, the GLP Traffic Signal Plans support SGS 1-2.

## **Traffic Operations and Design, Traffic Markings and Signs**

Makes reference to other documents that shall dictate the design of pavement markings and signs, making specific reference to City-Parish Standard Plan 905-02 for pavement marking details.

*See evaluations of Standard Plans, 2003, CPS 905-02 Pavement Marking and Striping Details.*

## **Construction Traffic Control**

Details the requirements for traffic control to be practiced during project construction.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

GLP Construction Traffic Control does not include any provisions for maintenance of pedestrian traffic. While construction is a temporary condition, the GLP Construction Traffic Control guidelines nevertheless fail to implement roadway design standards that support non-automotive modes and thus do not support SGS 1-2.

*Recommendation:* The GLP Construction Traffic Control guidelines should include provisions for maintenance of pedestrian traffic.

## Roadway Design, Design Standards

Assigns a roadway class and jurisdiction to each project and includes tables of City-Parish and State roadway design standards. All but one of the City-Parish roadways are arterials or collectors. The City-Parish design standards for arterials and collectors are identical, with the exception of number of lanes, maximum grade, and minimum vertical and horizontal clearances. The following summarizes City-Parish design standards for arterials and collectors: lane width of 11-12 feet; raised median width of 6-30 feet; two-way left turn lane width of 11-14 feet; sidewalk width of 5 feet offset from curb or 6 feet adjacent to curb. The standards for State roadways is very similar to the for City-Parish roadways.

*See evaluation of GLP Roadway Design, Typical Sections.*

## Roadway Design, Additional Design Standard Notes

- a. If the walk is designated as a shared use path, the width shall be 6 feet regardless of location.
- b. The width of bridges for curbed facilities with sidewalk shall be the same as the curb to curb width of the roadway.
- c. Barrier curb shall be used on all City-Parish routes unless otherwise approved. Curb type for State routes shall be in accordance with current LDOTD standards.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

A 6 foot shared use path, especially against the back-of-curb, does not meet minimum design guidelines set forth in the AASHTO Bike Guide. 8 foot is given as a minimum for such paths and only to be used in specific situations. 10 foot is recommended. 6 foot is acceptable for a one-way shared use path, but the Guide states that these require effective enforcement measures to assure one-way operation, and without such enforcement, should be designed as two-way paths. Further, the Guide recommends wide separation between a shared use path and an adjacent roadway, or a suitable physical barrier if wide separation is not possible. By failing to meet the minimum design guidelines for a shared use path, GLP Additional Design Standards Notes does not achieve SGS 1-2.

- *SGS 1-3: Provide a network of bike routes, lanes, and multi-use trails*

GLP Additional Design Standards Notes makes provisions for a shared use path. However, this path does not meet the minimum design guidelines for a shared use path as set forth in the AASHTO Bike Guide. Therefore, the GLP Additional Design Standards Notes does not achieve SGS 1-3.

*Recommendation:* A 6 foot shared use path, especially against the back-of-curb, does not meet minimum design guidelines set forth in the AASHTO Bike Guide. Note “a” of the GLP Additional Design Standards Notes should be struck. Additionally, the GLP Standards document should reference the AASHTO Bike Guide as the guiding document regarding the design of bicycle facilities.

## Roadway Design, Typical Sections

Typical sections should be developed based upon the applicable Design Standards provided above. The desirable lane width is 12 feet for all roadways, and a one foot offset should be provided between the edge of travel lane and the face of curb.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

The GLP Typical Sections does not require sidewalks or consideration of bicycle facilities, and provides no guidance on the design of bicycle facilities. Therefore, the GLP Typical Sections does not achieve SGS 1-2.

- *SGS 1-3: Provide a network of bike routes, lanes, and multi-use trails*

The GLP Typical Sections does not address design standards for bicycle facilities. While this does not preclude the inclusion of bike facilities, the lack of a design standard for bicycle facilities makes GLP Typical Sections indifferent toward SGS 1-3.

- *SGS 4-1: Reduce street widths to promote walkability and bike friendliness*

The GLP Typical Sections state that the desirable lane width is 12 feet for all roadways and that an additional one-foot offset should be provided between the edge of the travel lane and the face of the curb. A 12-foot travel lane is the maximum allowed by all but the highest speed road classifications, with 11-foot being the minimum. The 2004 Green Book states that 11-foot lanes are acceptable “in urban areas where pedestrian crossings, right-of-way, or existing development become stringent controls.”<sup>7</sup> Regarding the one-foot offset, the 2004 Green Book states that “curbs may be placed at the edge of the traveled way... [in] low-speed urban street conditions.”<sup>8</sup> While 12-foot travel lanes with a one-foot offset may be desirable in some situations, it is clearly not practical or desirable in all situations. By stating desirable conditions without setting guidelines for its applicability or otherwise indicating that smaller street widths are acceptable, GLP Typical Sections does not achieve SGS 4-1.

- *SGS 4-2: Establish a fine-grained street hierarchy (e.g. differentiate between various widths of arterials, major and minor collectors, commercial and residential local streets)*

By stating that the desired lane width is the same on all roadways, regardless of functional classification, the GLP Typical Sections does not achieve SGS 4-2.

- *SGS 4-3: Design streets using design speed standards to regulate speeding and create pedestrian and bicycle friendly environments (25 mph on local streets, 30 mph on minor collectors, 40 mph on major collectors, and 45 mph on arterials)*

By stating that the desired lane width is the same on all roadways, regardless of the design speed, the GLP Typical Sections does not achieve SGS 4-3.

- *SGS 4-9: Require sidewalks on both sides of the street*

While the GLP Typical Sections provides guidance on the minimum widths of sidewalks, it does not require them. Therefore, the GLP Typical Sections does not achieve SGS 4-9.

- *SGS 4-10: Require a minimum sidewalk width that compliments the nature of the street and the anticipated volume of pedestrian traffic*

The GLP Typical Sections establishes a standard width of sidewalk (5' offset from curb and 6' adjacent to curb for all functional classifications) and does not provide any consideration for the nature of the street or the anticipated volume of pedestrian traffic. Therefore, the GLP Typical Sections does not achieve SGS 4-10.

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<sup>7</sup> Page 312.

<sup>8</sup> Page 322.

- *SGS 4-13: Require a center median on wider streets*

The GLP Typical Sections provide guidance on the width of a center median but do not require it on wider streets. However, the stated preference has been boulevard sections. Therefore, the GLP Typical Sections is indifferent toward SGS 4-13.

- *SGS 4-19: Establish desirable standards for bicycle lane width (6' minimum on new roads; 5' minimum on retrofits; 12' minimum shared bike/parking lane)*

The GLP Typical Sections provides no guidance on the design of bicycle lanes, even though these facilities are being included on several projects. Further, the typical section of bicycle lanes on GLP projects, such as Brightside Ln, is 4' wide occupying the shared space between the travel lane and the face of curb (which includes the otherwise required 1' offset and gutter space). Because of the lack of a documented standard and the observed practice of using 4' lanes, the GLP Typical Sections does not achieve SGS 4-19.

- *SGS 4-23: Establish design standards for on-street parking that respond to a variety of street configurations and uses*

Design standards are established for on-street parking on state routes but not on city routes. The state route standards are based on the roadway functional classification. Because the state on-street parking standards are tied solely to functional classification and do not respond to a variety of street configurations and uses, and because there are no on-street parking standards for city routes, the GLP Typical Sections does not achieve SGS 4-23.

*Recommendations:* There are several issues that need to be addressed in order to make the GLP Typical Sections more supportive of smart growth concepts. Overall, the GLP Typical Sections should provide guidance on the design section of the roadway and should not prescribe a one-size-fits-all solution. By making the statement that the desired lane width on all roadways is 12' with a one foot offset, the roadway designer is directed to achieve this goal and is not directed to design the roadway as appropriate for its context within the applicable range of standards. Depending on the roadway's context, this lane width and offset could be narrowed. Further, the GLP Typical Sections provides no requirement for sidewalks nor guidance for when bicycle or on-street parking lanes are desired. Design standards for bicycle lanes should also be included, perhaps with a simple reference to the AASHTO Bike Guide.

## **Roadway Design, Horizontal Alignment**

Minimum radii for the selected design speed will be in accordance with the design standards of the City-Parish for all roadways. These values differ from the published LDOTD Standards because they were derived from the current 2004 "Green Book."

- *SGS 4-3: Design streets using design speed standards to regulate speeding and create pedestrian and bicycle friendly environments (25 mph on local streets, 30 mph on minor collectors, 40 mph on major collectors, and 45 mph on arterials)*

The GLP Horizontal Alignment ties minimum radii to design speed, and thus achieves SGS 4-3.

## **Roadway Design, Vertical Alignment**

Details the requirements for vertical alignment of roadways.

*No SGS match found.*

## Roadway Design, Superelevation

Urban roadways should normally be designed such that superelevation is not required. However, if required, the maximum superelevation used for urban roadways is 4.0%.

*No SGS match found.*

## Roadway Design, Intersections

Intersection design should be in accordance with Chapter 9 of the 2004 “Green Book.” Generally, major intersections should be designed for a Single Unit (SU) design vehicle unless site conditions require the need for larger vehicles. Simple connections to local roads will be considered turnouts and designed in accordance with the urban standards shown in Figure 6-5 of the LDOTD Roadway Design Procedures and Details... Driveways will be provided in accordance with the LDOTD Driveway Standards for State roadways and in accordance with the DPW Standards for City-Parish roadways. On high volume State roadways with frequent driveways, the designer should consider providing radius designs similar to DPW Standards in lieu of driveway flares.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

The SU design vehicle accommodates a city transit bus, and thus supports SGS 1-2. However, the required 50' minimum intersection radius for the SU design vehicle means that pedestrians have a longer distance to cross. The 2004 Green Book states that “adequate radii for vehicle operation should be balanced against the needs of pedestrians and the difficulty of acquiring additional right-of-way or corner setbacks. Because the corner radius is often a compromise, its effect on both pedestrians and vehicular movements should be examined.” Since refers to the 2004 Green Book for intersection design, the GLP Intersections supports SGS 1-2.

- *SGS 4-11: Require crosswalks, especially on long blocks*

The GLP Intersections does not require provisions for pedestrian crossings. Therefore, the GLP Intersections does not achieve SGS 4-11.

*Recommendation:* Provisions for pedestrians should be required at all intersections. Further, the AASHTO Pedestrian Guide should also be referenced as a guiding document for intersection design.

## Hydrology and Hydraulics

Details the hydraulic design criteria and design guidelines. The hydraulic design of the drainage systems must account for site conditions. Design constraints, such as the depth of the outfall, existing land use, environmental issues, utility conflicts, and backwater flooding, may cause the design engineer to adjust the hydraulic design. The design objectives are: to maintain the existing flow pattern, to have a minimum impact on the drainage system, and to protect the infrastructure.

*No SGS match found.*

## Structural Design, Bridge Structures

The design specifications for GLP projects are the AASHTO “Standard Specifications for Highway Bridges,” latest edition, with current interim specifications, the LDOTD Bridge Design Manual, and other specifications listed below... The bridge width will be as shown in the roadway design criteria... For bridges without sidewalks, the F-shape (PL-2) barrier as shown in the LDOTD bridge manual will be used. For bridges with curbed roadway approaches and sidewalks, the curb and sidewalk will be carried through the bridge, and a vertical face parapet with a galvanized pipe rail will be used.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

The GLP Bridge Structures makes specific provisions for bridge design with a sidewalk. Therefore, the GLP Bridge Structures achieves SGS 1-2.

**Table 14. Evaluation of Green Light Plan Engineering Standards and Specifications**

DPW Policy or Practice	Evaluated Against SGS #	Evaluation
Environmental Assessments, Wetland Delineation and Permit Application	8-1	—
Environmental Assessments, Phase I Environmental Site Assessment	8-1	✓
Environmental Assessments, Noise Impact Study	None	None
Environmental Assessments, NEPA Environmental Assessment	8-1	✓
Traffic Operations and Design, Traffic Design Report	1-2	X
	7-1	(1)
	7-3	(1)
Traffic Operations and Design, Traffic Signal Design	(2)	(2)
Traffic Operations and Design, Traffic Signal Plans	1-2	✓
Traffic Operations and Design, Traffic Markings and Signs	(3)	(3)
Construction Traffic Control	1-2	X
Roadway Design, Design Standards	(4)	(4)
Roadway Design, Additional Design Standard Notes	1-2	X
	1-3	X
Roadway Design, Typical Sections	1-2	X
	1-3	—
	4-1	X
	4-2	X
	4-3	X
	4-9	X
	4-10	X
	4-13	—
	4-19	X
4-23	X	
Roadway Design, Horizontal Alignment	4-3	✓
Roadway Design, Vertical Alignment	None	None
Roadway Design, Superelevation	None	None
Roadway Design, Intersections	1-2	✓

	4-11	X
Hydrology and Hydraulics	None	None
Structural Design, Bridge Structures	1-2	✓

✓ = Achieves or Supports Smart Growth Standard (SGS)

— = Indifferent toward Smart Growth Standard (SGS)

X = Hinders or Does Not Support Smart Growth Standard (SGS)

*(1) Cannot be evaluated.*

*(2) See evaluation of Standard Plans, 2003, CPS 906-01 (sheet 5), Traffic Signal and Installation Details.*

*(3) See evaluations of Standard Plans, 2003, CPS 905-02 Pavement Marking and Striping Details.*

*(4) See evaluation of GLP Roadway Design, Typical Sections.*

## ***Sewer Impact Fee Ordinance***

A Sewer Impact Fee was adopted in 1994 (Ord. 10043, Sept. 28, 1994). The intent of the ordinance was “to assist in the implementation of the City-Parish Comprehensive Land Use and Development Plan.” Its purpose was “to regulate the use and development of land so as to assure that new development bears a proportionate share of the cost of capital expenditures necessary to provide wastewater facilities.” The ordinance requires that any new sewer infrastructure accepted for public maintenance, new connections to the wastewater system, or changes, modifications or expansions of existing connections shall pay a fee. The fee is based on estimated wastewater flow for residential and commercial use categories. Changes or modifications of existing connections do not have to pay a fee if a larger meter is not installed or if the use does not change from residential to commercial. Funds must be expended or encumbered within 6 years and cannot be used for maintenance or operations.

- *SGS 5-1: Support and implement incentives for adoption of comprehensive plans and Capital Improvement Plans prior to imposition of local land use regulations and controls*

The SIF is a local land use regulation that is being imposed in support of an adopted comprehensive plan, known as the Horizon Plan, and an established Capital Improvement planning process. Thus, the SIF achieves SGS 5-1.

- *SGS 7-1: Ensure consistency between local government regulations, local actions and the comprehensive plan*

The stated intent of the SIF is “to assist in the implementation of the City-Parish Comprehensive Land Use and Development Plan.” The SIF supports one Horizon Plan action item regarding a sewer rehabilitation program but does not support another regarding facilitating infill development. Therefore, the SIF is indifferent toward SGS 7-1.

- *SGS 7-2: Establish impact fees for new development, for schools, water, sewer, parks, roads, etc*

The SIF is an impact fee on new development for sewer facilities and thus achieves SGS 7-2.

- *SGS 9-1: Promote brownfields redevelopment, establishing incentives and minimum clean-up standards*

Alterations or expansions of existing buildings do not have to pay the fee if a larger meter is not installed. Also, the replacement of a building does not have to pay the fee if the building is replaced within 3 years, a larger meter is not installed and the use is not changed from residential to commercial. Thus, the Sewer Impact Fee supports SGS 9-1.

- *SGS 9-2: Promote greyfields redevelopment*

Alterations or expansions of existing buildings do not have to pay the fee if a larger meter is not installed. Also, the replacement of a building does not have to pay the fee if the building is replaced within 3 years, a larger meter is not installed and the use is not changed from residential to commercial. Thus, the Sewer Impact Fee supports SGS 9-2.

- *SGS 9-3: Promote infill development and discourage sprawl*

The SIF is applied uniformly to greenfield and infill development. The SIF does not encourage nor discourage sprawl or infill development. Thus, the Sewer Impact Fee is indifferent toward SGS 9-3.

- *SGS 9-4: Require new urban growth be coordinated with provision of infrastructure capacity*  
Funds generated by the SIF must be spent on sewer projects within 6 years and must first be spent on those areas most directly impacted by the new development, secondly on those areas indirectly affected by the new development, and lastly on the overall system. The SIF contributes to new growth being coordinated with adequate infrastructure capacity and thus supports SGS 9-4.
- *SGS 9-6: Require new development be either self-paying or consciously subsidized*  
The SIF funds the sewer capacity projects as a result of new development. Assuming the rates established in the SIF are adequate to account for the increased sewer demands of the development, the SIF provides a mechanism for making new development self-paying when it comes to sewer. Thus, the SIF achieves SGS 9-6.
- *SGS 9-7: Establish lesser or waived impact fees in areas with excess public facility capacity*  
The SIF is applied based on estimated wastewater flow for residential and commercial use categories with no consideration given to the location of the proposed development and the existing capacity of the sewer system. Thus, the Sewer Impact Fee does not support SGS 9-7.
- *SGS 10-7: Connect infrastructure decisions and land use planning*  
The SIF is a funding source that provides a source of revenue for sewer capacity projects and leaves the planning of those projects to a 5-year plan of development and improvement to be prepared by the DPW Director. The SIF stipulates that the funds must first be spent on those areas most directly impacted by the new development, secondly on those areas indirectly affected by the new development, and lastly on the overall system. Assuming the new development is occurring according to the adopted land use plan, the projects planned according to the SIF are directly tied to land use planning. Thus, the SIF supports SGS 10-7.

*Recommendation:* Overall, the SIF supports smart growth objectives. However, there is some room for improvement, specifically in the use of the SIF to encourage infill development and to discourage sprawl. The SIF should institute lesser fees for developments in areas where there is existing adequate sewer capacity.

**Table 15. Evaluation of Sewer Impact Fee Ordinance**

DPW Policy or Practice	Evaluated Against SGS #	Evaluation
Sewer Impact Fee Ordinance	5-1	✓
	7-1	—
	7-2	✓
	9-1	✓
	9-2	✓
	9-3	—
	9-4	✓
	9-6	✓
	9-7	X
	10-7	✓

✓ = Achieves or Supports Smart Growth Standard (SGS)

— = Indifferent toward Smart Growth Standard (SGS)

X = Hinders or Does Not Support Smart Growth Standard (SGS)

## **Traffic Impact Fee Policy**

A Traffic Impact Fee (TIF) policy was administratively adopted in August 2007. The policy includes a schedule of fees based on land use applied uniformly to all new development and most redevelopment throughout the City and unincorporated areas of the Parish. The fees are specifically dedicated to expanding the capacity of major roadway facilities to accommodate impact-generating development, including but not limited to right-of-way acquisition, new road construction, widening of existing roads, intersection improvements, and installation of traffic signals. Ancillary components of a capacity-expanding road improvement, such as lane reconstruction, sidewalk construction, medians, landscaping, and street lighting, cannot be funded with the fee.

- *SGS 1-1: Encourage development in areas supported by a balanced transportation network*

The TIF is applied uniformly to greenfield and infill development. It does not apply lower fees or any other type of incentive to development in areas that are already served by a balanced transportation system. In fact, the TIF states that if a building is vacant for more than 5 years, any new occupancy of that building must pay the full impact fee. Thus, the Traffic Impact Fee hinders SGS 1-1.

- *SGS 1-3: Provide a network of bike routes, lanes, and multi-use trails*

Because the TIF can only be used for expanding the capacity of major roadway facilities and specifically excludes ancillary components such as sidewalk construction, the Traffic Impact Fee hinders SGS 1-3.

- *SGS 5-1: Support and implement incentives for adoption of comprehensive plans and Capital Improvement Plans prior to imposition of local land use regulations and controls*

The TIF is a local land use regulation that is being imposed in support of an adopted comprehensive plan, known as the Horizon Plan, and an established Capital Improvement planning process. Thus, the TIF achieves SGS 5-1.

- *SGS 5-3: Provide a process for public participation in drafting and adopting the General Plan and supporting ordinances*

The TIF was developed in close collaboration with a number of key area stakeholders, including representatives of the local development and real estate communities. Thus, the TIF achieves SGS 5-3.

- *SGS 7-2: Establish impact fees for new development, for schools, water, sewer, parks, roads, etc*

The TIF is an impact fee on new development for roads and thus achieves SGS 7-2.

- *SGS 7-3: Link land use and transportation decisions at the local and regional levels*

The TIF provides a direct link between local land use decisions (in the form of new development and redevelopment) and local and regional transportation decisions (in the form of roadway capacity expansion projects planned through the Capital Improvement planning process), though the significance of this link is dependent on the adequacy of the fees to fund planned transportation projects. Thus, the TIF achieves SGS 7-3.

- *SGS 9-1: Promote brownfields redevelopment, establishing incentives and minimum clean-up standards*

The TIF is applied uniformly to greenfield and brownfield development and also states that if a building is vacant for more than 5 years, any new occupancy of that building must pay the full impact fee. Thus, the Traffic Impact Fee hinders SGS 9-1.

- *SGS 9-2: Promote greyfields redevelopment*

The TIF is applied uniformly to greenfield and greyfield development and also states that if a building is vacant for more than 5 years, any new occupancy of that building must pay the full impact fee. Thus, the Traffic Impact Fee hinders SGS 9-2.

- *SGS 9-3: Promote infill development and discourage sprawl*

The TIF is applied uniformly to greenfield and infill development. The TIF does not explicitly encourage sprawl but contributes to it by funding only roadway capacity expansion. Thus, the Traffic Impact Fee hinders SGS 9-3.

- *SGS 9-4: Require new urban growth be coordinated with provision of infrastructure capacity*

Funds generated by the TIF must be spent on roadway capacity expansion projects within 6 years but does not stipulate that those projects be in the area of the development paying the TIF. Without this stipulation, the TIF fails to ensure that new growth is coordinated with adequate infrastructure capacity and thus does not support SGS 9-4.

- *SGS 9-5: Favor the use of existing infrastructure over new*

TIF funds may only be used to fund roadway capacity expansion and specifically excludes use of TIF funds for lane reconstruction or other ancillary components. The TIF therefore favors new infrastructure over existing and does not support SGS 9-5.

- *SGS 9-6: Require new development be either self-paying or consciously subsidized*

The TIF funds the expansion of roadway capacity as a result of new development. Assuming the rates established in the TIF are adequate to account for the increased traffic demands of the development, the TIF provides a mechanism for making new development self-paying when it comes to roads. Thus, the TIF achieves SGS 9-6.

- *SGS 9-7: Establish lesser or waived impact fees in areas with excess public facility capacity*

The TIF is applied based on land use categories with no consideration given to the location of the proposed development and the existing capacity of roadways in the area. Thus, the Traffic Impact Fee does not support SGS 9-7.

- *SGS 10-7: Connect infrastructure decisions and land use planning*

The TIF is a funding source that provides a source of revenue for roadway capacity expansion and leaves the planning of those projects to the Capital Improvement planning process. The TIF does not stipulate where (other than the jurisdiction of the City-Parish) funds must be applied, only that they must be spent within 6 years. Thus, the TIF is indifferent toward SGS 10-7.

*Recommendation:* Overall, the TIF supports smart growth objectives. However, there is great room for improvement, specifically in the use of the TIF to encourage infill and grey/brownfield development and to discourage sprawl. The TIF should institute lesser fees for grey/brownfield development, for developments in areas where there is existing adequate roadway capacity, and for developments that are well-served by other modes of transportation, especially transit. To more closely link the provision of adequate infrastructure with land use decisions, consider

requiring the funds be applied more proximate to the development. Also, the TIF funds should be allowed to apply to transportation improvements other than roadway capacity expansion.

**Table 16. Evaluation of Traffic Impact Fee Policy**

DPW Policy or Practice	Evaluated Against SGS #	Evaluation
Traffic Impact Fee Policy	1-1	X
	1-3	X
	5-1	✓
	5-3	✓
	7-2	✓
	7-3	✓
	9-1	X
	9-2	X
	9-3	X
	9-4	X
	9-5	X
	9-6	✓
	9-7	X
	10-7	—

✓ = Achieves or Supports Smart Growth Standard (SGS)

— = Indifferent toward Smart Growth Standard (SGS)

X = Hinders or Does Not Support Smart Growth Standard (SGS)

## **Traffic Calming Manual**

The DPW Traffic Engineering Division adopted the Residential Traffic Calming Manual in early 2007. This Manual describes the purpose of traffic calming, three levels of different traffic calming devices, and a process by which local residents can request traffic calming in their neighborhoods.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

One of the major purposes of traffic calming is to retrofit existing auto-oriented streets and make them more supportive of transit and non-automotive modes of transportation. To that effect, the Traffic Calming Manual supports SGS 1-2. The Manual specifically restricts the use of traffic calming features on arterial and collector streets; however, the focus of the Manual is residential streets and design standards for arterial and collector streets are addressed elsewhere.

- *SGS 4-15: Adopt traffic-calming measures*

The Traffic Calming Manual adopts specific traffic-calming measures and thus supports SGS 4-15.

- *SGS 4-16: Encourage traffic calming features where street design speeds encourage speeding and to discourage the routine use of local residential streets by through traffic*

The Traffic Calming Manual encourages residents on existing streets to ask for traffic calming features, specifically to increase safety, reduce speed, mitigate cut-through traffic and improve aesthetics. The Manual limits level II and III traffic calming features to streets with “adverse traffic,” defined as volumes, speeds or crash rates 10% higher than the city-wide average for similar streets and land uses, or streets with “unusual conditions,” such as limited visibility of pedestrians, irregular roadway design features, or indications of unreported crashes. Additionally, the Manual and frequently asked questions can be found on the internet, making it even easier for citizens to initiate. Overall, the Traffic Calming Manual supports SGS 4-16.

- *SGS 5-3: Provide a process for public participation in drafting and adopting the General Plan and supporting ordinances*

The Traffic Calming Manual is a supporting ordinance of the Horizon Plan and is specifically called out in Action Item T2.F, Traffic Calming in Neighborhoods. The Manual describes a defined process for public involvement, including a citizen petition, community meeting(s) and an implementation plan that must be approved by 65% of the affected households. The extent of public involvement in drafting the Traffic Calming Manual is unknown, but the public involvement process laid out in the Manual supports SGS 5-3.

*Recommendation:* Overall, the Traffic Calming Manual supports smart growth objectives. There are two general areas where improvements could be made. First, the Traffic Engineering Division could initiate traffic calming and not rely solely on residents. This would require more resources but would get more traffic calming in a shorter time period. Secondly, all new streets should be designed so that they calm traffic and do not require costly retrofits in the future. Since the focus of the Manual is on existing residential streets, this would have to be addressed elsewhere.

**Table 17. Evaluation of Traffic Calming Manual**

DPW Policy or Practice	Evaluated Against SGS #	Evaluation
Traffic Calming Manual	1-2	✓
	4-15	✓
	4-16	✓
	5-3	✓

✓ = Achieves or Supports Smart Growth Standard (SGS)

— = Indifferent toward Smart Growth Standard (SGS)

X = Hinders or Does Not Support Smart Growth Standard (SGS)

## ***Undocumented Practices***

Those policies and practices that are not documented are more difficult to audit. Nevertheless, the following are a number of policies and practices observed by the author that relate to development:

### **Pedestrian Crossings**

Controlled pedestrian crossings are often excluded from intersection improvement projects because they would reduce the vehicle capacity of the intersection and lessen the project's ability to improve congestion. They are also denied when requested at intersections with high vehicle volumes and long crossing distances, where they are arguably needed the most to improve the safety of pedestrians that need to cross. Mid-block crossings are strongly discouraged. When crossings are provided, they often are not designed in accordance with the AASHTO Pedestrian Guide.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

Pedestrian crossings are an integral part of roadway design to support pedestrians and also transit (as most transit riders are pedestrians at the beginning and end of their trips). The observed practice of not providing pedestrian crossings and of not designing them in accordance with the AASHTO Pedestrian Guide does not achieve SGS 1-2.

- *SGS 4-8: Design streets that are walkable for all age groups and abilities*

Pedestrian crossings are an especially important consideration for pedestrians that require more time to cross the street, such as the elderly, or need special assistance, such as the blind. These populations are especially vulnerable if given no convenient means to cross a street. The observed practice of not providing pedestrian crossings does not achieve SGS 4-8.

- *SGS 4-11: Require crosswalks, especially on long blocks*

The observed practice of not providing pedestrian crossings and of strongly discouraging mid-block crossings does not achieve SGS 4-11.

*Recommendation:* Pedestrian crossings should be included in all intersection improvement projects. While high traffic volumes at an intersection play an important consideration in the design of the pedestrian crossing, it cannot be used as a reason for not providing the crossing at all. Mid-block crossings, while not suitable for all situations, should be considered in areas where the block length is long and there is substantial pedestrian traffic, especially in commercial areas. All pedestrian crossings should be designed in accordance with the AASHTO Pedestrian Guide.

### **Bicycle Lanes**

When faced with high construction costs or constrained right-of-way, bike lanes are one of the first things cut from a project. To compensate, an adjacent sidewalk is often labeled as a shared use path. Further, the bike lanes that are included in projects often are not designed according to the AASHTO Bike Guide.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

A 5' or 6' sidewalk does not qualify as a shared use path according to the AASHTO Bike Guide. By removing the bike lane and attempting to combine its function with that of the sidewalk, the observed practice related to bicycle lanes fails to support both the bicycle and pedestrian modes of transportation and thus does not achieve SGS 1-2.

- *SGS 1-3: Provide a network of bike routes, lanes, and multi-use trails*

By removing bike lanes from projects, the observed practice related to bicycle lanes does not achieve SGS 1-3.

- *SGS 4-19: Establish desirable standards for bicycle lane width (6' minimum on new roads; 5' minimum on retrofits; 12' minimum shared bike/parking lane)*

A 5' or 6' sidewalk does not qualify as a shared use path according to the AASHTO Bike Guide. Therefore, the observed practice related to bicycle lanes does not achieve SGS 4-19.

*Recommendation:* When a project is faced with monetary or right-of-way constraints, other aspects of the project should be evaluated in addition to the bike lanes, including median width, lane width, and number of lanes. If a bike lane is not feasible, a wide outside lane should be considered. All bike facilities should be designed in accordance with the AASHTO Bike Guide.

## **Connectivity**

DPW has not pursued greater road connectivity and instead relies on larger intersections and wider roadways to handle traffic. Less connectivity was proposed on one Green Light project by terminating an existing connection in order to force traffic onto a new roadway.

- *SGS 1-2: Implement roadway design standards that support transit and non-automotive modes*

Lack of roadway connectivity hinders the movement of all modes of transportation, but has an acute impact on pedestrians and bicycles, as they by nature are not willing to travel as far to reach a destination. Multi-use paths can be used to connect otherwise disconnected roadways, but this has not been the observed practice. Therefore, the observed practice related to connectivity does not achieve SGS 1-2.

*Recommendation:* Road connectivity can be a complex issue, involving the coordination of many different agencies and the public. And in areas that are already developed and lack connectivity, it can be politically impossible and financially infeasible to retrofit. DPW alone cannot be made responsible for implementing greater roadway connectivity, but DPW should make a conscious effort to improve connectivity with every available opportunity.

## **Road Design Process**

The road design process is most often conducted by hired consultants or staff, with no active solicitation of stakeholder input and community meetings held only as informational meetings toward the end of the design process. While this process is efficient, achieving engineering standards and whatever broad objective was assigned to the project (most often congestion reduction) in a timely manner, this process inherently leads to a roadway that functions but may not achieve other community goals or fit into its context.

- *Smart Growth Principle 5: Encourage community and stakeholder collaboration*

The road design process does not encourage nor discourage community and stakeholder collaboration, but instead relies on community and stakeholders requests for an opportunity to provide input. Therefore, the observed practice related to the road design process is indifferent toward Smart Growth Principle 5.

*Recommendation:* A more proactive and inclusive road design process should be strongly considered for all road projects, especially new construction and substantial reconstruction. This could lengthen the time it takes to design a road, but is worth the time for a road that will serve its community for at least a generation. Engineering standards are a vital component of roadway design, but there are other factors, including the roadway's context and the community's goals and objectives, that should also be carefully considered.

## **Code Enforcement**

While DPW's responsibility to enforce the UDC is documented and there are procedures in place to carry out this task, what happens in practice is not always consistent. The frequency of code enforcement inconsistencies, misinterpretations or mishaps is difficult to get a handle on, as it can only be ascertained on a case-by-case and complaint-driven basis.

- *Smart Growth Principle 7: Make development decisions predictable, fair and cost effective*

Consistent enforcement of the UDC and Building Code is a very important component of making development decisions predictable, fair and cost effective. Because the consistency of DPW's code enforcement cannot be fairly established, the observed practice related to code enforcement cannot be evaluated against Smart Growth Principle 7.

*Recommendation:* DPW should practice consistent enforcement of the UDC and Building Code. To be effective, this includes adequate training of staff, keeping abreast of changes to the code (e.g. new overlay districts in the UDC), and establishing policies for staff interpretations of unclear code.

## **Infrastructure Planning**

Planning for infrastructure, specifically transportation, sewer and drainage, has historically not been a high priority, being overshadowed by the day-to-day operations that DPW is responsible for. Also, the CPPC has not been able to fill this role. For roads, the CPPC maintains the Major Street Plan. This Plan, however, has no priorities, is often waived for specific cases, and serves more as a corridor preservation tool for road widening than a transportation plan.

Transportation priorities seem to be established based on perceived needs and political influence, rather than a thoughtful planning process that includes a vision and goals for the community's future. For sewer, DPW hired a private consultant to draft a Sewer Master Plan. This Plan is tied to future land uses as established in the Horizon Plan, as well as population projections utilized by the CRPC. For drainage, there is a desire to have a Master Drainage Plan, but this has not been done yet.

- *SGS 5-3: Provide a process for public participation in drafting and adopting the General Plan and supporting ordinances*

For transportation, anyone can propose an amendment to the Major Street Plan (for an administrative fee) and every proposed amendment must go through the public hearing process. The implementation plan phase of the Baton Rouge Loop included two series of

large public workshops as well as a website for information and posting of comments. Other transportation planning efforts have no defined process for public participation. For the Sewer Master Plan, no public input was solicited. Overall, the observed practice related to infrastructure planning supports SGS 5-3.

- *SGS 7-1: Ensure consistency between local government regulations, local actions and the comprehensive plan*

Infrastructure planning efforts should carry forward the goals and objectives outlined in the Horizon Plan. To provide a detailed evaluation of whether the Major Street Plan, Baton Rouge Loop, and Sewer Master Plan achieve this would be a tremendous effort. Therefore, the observed practice related to infrastructure planning cannot be evaluated against SGS 7-1 at this time.

- *SGS 7-3: Link land use and transportation decisions at the local and regional levels*

On a local level, development applications are required to provide a building setback in accordance with the Major Street Plan. This requirement is often waived, though, for streets indicated as “future” on the Plan. The CRPC is the regional planning agency, and being outside the scope of this Audit, cannot be evaluated at this time. Overall, the observed practice related to infrastructure planning supports SGS 7-3.

- *SGS 10-7: Connect infrastructure decisions and land use planning*

The Major Street Plan is a part of the Horizon Plan. Additionally, the Sewer Master Plan was developed using future land uses established by the Horizon Plan. Therefore, the observed practice related to infrastructure planning supports SGS 10-7.

*Recommendation:* Overall, the observed practice related to infrastructure planning supports smart growth principles. However, further evaluation should be done to ensure that infrastructure planning efforts carry forward the goals and policies of the Horizon Plan, with a particular focus on the transportation planning process.

## **Capital Improvement Plan**

The process for developing and updating the Capital Improvement Plan is not entirely clear. Horizon Plan Action Item LU3.A “Annual CIP/Capital Budget” states that a 5-year CIP shall be developed and updated annually and shall address the “planning and financing for all capital projects needs for all aspects of City-Parish government.” This Action Item was originally the responsibility of CPPC, then it was changed to DPW during the 10-year update in 2002, and subsequently it was recommended that it once again be the responsibility of CPPC. Which department is responsible for the development and updating of the CIP, and what process is followed for identifying and prioritizing projects, does not appear to be clearly defined.

*Recommendation:* Because the undocumented practice regarding the Capital Improvement Plan was identified after the Audit was distributed for comment, it will not be evaluated at this time. However, it should be evaluated by the DPW Smart Growth Committee.

**Table 18. Evaluation of Undocumented Practices**

DPW Policy or Practice	Evaluated Against SGS #	Evaluation
Pedestrian Crossings	1-2	X
	4-8	X
	4-11	X
Bicycle Lanes	1-2	X
	1-3	X
	4-19	X
Connectivity	1-2	X
Road Design Process	5-0	—
Code Enforcement	7-0	(1)
Infrastructure Planning	5-3	✓
	7-1	(1)
	7-3	✓
	10-7	✓
Capital Improvement Plan	(2)	(2)

✓ = Achieves or Supports Smart Growth Standard (SGS)

— = Indifferent toward Smart Growth Standard (SGS)

X = Hinders or Does Not Support Smart Growth Standard (SGS)

(1) *Cannot be evaluated.*

(2) *Because this undocumented practice was identified after the Audit was distributed for comment, it will not be evaluated at this time.*

## ***Smart Growth Standards with no Matching DPW Policy or Practice***

The following Smart Growth Standards could not be matched against any DPW policy or practice. However, each of them is applicable to DPW and should be considered as best practices to be incorporated into DPW's policies and practices.

- SGS 1-4: Require bicycle parking facilities
- SGS 1-6: Encourage public transit use by integrating multimodal use and connectivity (Park and Ride lots, transit centers, etc.)
- SGS 1-8: Encourage the formation of vanpools and carpools
- SGS 1-9: Establish high-occupancy vehicle (HOV) lanes
- SGS 4-4: Require alleys
- SGS 4-6: Limit use of cul-de-sacs and limit length to 300 feet when allowed (consider requiring pedestrian and bicycle access at the end of cul-de-sacs)
- SGS 4-7: Require mid-block pedestrian passages in commercial and mixed-use zones (at 250-foot intervals)
- SGS 4-14: Encourage landscaped medians and curbsides
- SGS 4-20: Establish desirable standards for bicycle lane surface, including specifications for uniform and smooth surfaces and elimination of grade differences due to gutter pans
- SGS 4-21: Establish a trail system or other non-motorized public access to amenities
- SGS 5-2: Strengthen state, metro, and regional institutions to facilitate multi-jurisdictional decision making and problem solving
- SGS 6-1: Improve the image and environmental and aesthetic quality of targeted neighborhoods through the repair and improvement of public infrastructure
- SGS 6-2: Apply different streetscape features to different districts (e.g. transit districts)
- SGS 8-4: Consider open space connectivity
- SGS 8-5: Consider view corridors
- SGS 8-7: Make provisions for the preservation of historic structures
- SGS 10-5: Establish zone and use specific parking requirements
- SGS 10-6: Encourage shared parking

## Appendix III: Log of Comments

Comments were actively solicited from several DPW management and staff with an interest in land development, the City-Parish administration, CPPC, the CRPC Bicycle and Pedestrian Advisory Committee, and CPEX. The following is a summary of comments received.

**From: Andy Piner, member, CRPC Bike/Ped Advisory Committee**

*Received: July 22, 2008      Format: E-mail and Microsoft Word track changes*

- Overall: If using other cities as examples, try to choose those that are more comparable to Baton Rouge. Portland may be seen as too liberal.
- Regarding SGS 4-3: Do we even have streets that are only 25MPH? It seems even the one-block length ones in Capital Heights have a posted limit of 30. Probably why many think the cars are speeding, when in fact they are merely obeying an excessive speed limit.
- Table I-3, SGS 3-9: [Driveway requirements] Possibly [have an impact], if no arrangement for Shared Driveways. That was something addressed in Gov't Street Overlay District, but should be City-Parish wide.
- Table I-9, SGS 9-1, as to whether DPW is promoting or discouraging brownfield redevelopment: Excellent question! You might assume impacts would be less on a redevelopment, unless you are forcing them to upgrade and update existing facilities, which is likely more expensive than new development. Dispensations or accommodations could be made to allow for reinvestment with lesser requirements. Amazing how people still manage to park in front of Sutton's cleaners, despite its deficient parking lot.
- Evaluation of UDC 17.12.B.4. against SGS 1-2: You might address it elsewhere, but would not barrier curbs be prudent any/everywhere you have sidewalks adjacent to anything larger than the smallest residential roadways?
- Evaluation of DPM II.4.C against SGS 10-7: It seems like there could be more emphasis put on permeable lot materials and natural drainage to keep storm water out of the sewers.

**From: Carey Chauvin, Building Official, DPW**

*Received: August 18, 2008      Format: Phone conversation*

- Evaluation of DPM II.3.A.: DEQ has to approve all private community treatment facilities and will only do so if they get a definitive timeline from the City-Parish as to when public sewer will be available. The desired timeframe is within 5 years but no timeframe is formally adopted.

**From: Jim Ferguson, PE, drainage/bridge engineer, DPW**

*Received: August 4, 2008      Format: E-mail*

- I like the proactive approach to traffic calming and connectivity. Traffic calming is usually done from a reactive approach around here and connectivity is usually opposed by the public (adjacent landowners to proposed development).
- Too many non-SG hardliners making policy based on narrow views with no foresight. It will cost more time and money to implement SG concepts into GLP, but GLP is an excellent opportunity to implement some of these ideas – I like the completestreet.org webpage.

- I like the idea of more restriction and regulation of building in the floodplain also. That is the majority of the land available now and always leads to some sort of problem. Until we have leaders that are not so “pro-development” (being elected or placed by the development community), there is no stopping it.
- Most problems with enforcement and fines associated with UDC violations come down to the Director. Most fines can only be authorized by the Director and it gets political. Most fines are too small to have any bite anyway.
- You are right on about different interpretation of the UDC by different personnel.
- There also needs to be a merging of the CPPC and DPW to accomplish all of this (what you were getting at with the creation of a smart growth committee or staff). Most of all, we need to educate existing staff on Smart Growth, especially the younger people who have time to learn and implement these things in day to day operations at some point in the future. Of course without policy in place, it can't be enforced or implemented if push comes to shove.
- In my Parish right now, we are developing a SG Guiding Principals manual to do all of this (Fregonese and Associates). Hopefully it will come to fruition.

**From: Kathleen Spencer, Community Planner, CPEX**  
(formerly Advance Planning Manager, CPPC)

*Received: July 21, 2008      Format: Hand-written*

- Overall: Highlight enforcement and inter-agency coordination. Would there be an opportunity to do a similar audit of the building code?
- Page 8 in relation to the Traffic Impact Fee Policy: Identify infill and brownfield sites for redevelopment and make those sites high priority.
- Table I-7: Evaluate SGS 7-1 against DPW's implementation of its Horizon Plan action items.
- In evaluation of UDC 10.107.L.3.: The traffic impact fee credit allowed in UDC 10.107.L.3. should apply to all developments.

**From: Lael Holton, Advance Planning Manager, CPPC**

*Received: September 9, 2008      Format: Verbal and e-mail*

- SIF and TIF need to be implemented with an eye to scoring—this would create a fair and predictable approach to their imposition, as well as provide opportunities to reduce/remove/prorate them for desirable infill developments.
- DPW/CPPC need to take the lead and create a staff level Smart Growth review committee, at least until the integration/completion of the Smart Growth Advisor and Planning Advisor. This would be an oversight and advisory group, similar to the SRC committee that exists.
- Enforcement needs to be consistent and constant: CPPC needs to amend the UDC to provide DPW with the “teeth” to deny non “smart” development, and DPW needs the staff to lower the burden on them so that they are better able to review plans for consistency with SG Principles, and therefore become less likely to waive requirements and standards.
- Changes to the UDC will be transmitted to DPW for review prior to their adoption by Planning Commission and/or Metropolitan Council. Additionally, any amendments to the UDC will be transmitted to the appropriate DPW departments, and posted online within a week of their approval by Metro Council.

**From: Mark Martin, member, CRPC Bike/Ped Advisory Committee**

*Received: August 1, 2008 Format: E-mail*

Thanks for letting me review the 'Policy and Practice Smart Growth Audit - August 2008.' It seems a very thorough analysis of existing DPW policy and practice against the principles of smart growth.

An analysis of the Evaluation charts found on pages 27, 35-6, 42, 50, 54, and 56: Only one, Traffic Calming Manual, page 56, fully supports Smart Growth and only one other, Development Policy Manual, supports more than is indifferent to or hinders Smart Growth (50% support, 17.86% indifferent/hinders). All the other evaluations predominantly lean away from support toward indifference or hindering, as below:

- UDC: 25% / 37.5%
- GLP Engineering Standards and Specifications: 19.35% / 51.61%
- Traffic Impact Fee: 35.71% / 64.29%
- Standard Plans: 15.00% / 85.00%

This, in turn, seems to indicate day-to-day practice within the DPW is skewed predominately away from Smart Growth despite policy manuals in support of Smart Growth. More importantly, the greatest discrepancy is in the Standard Plans (70%) area followed in diminishing order GLP (32%), Traffic Impact Fees (29%), and UDC (12%).

The greatest problem I can identify from this Audit is in DPW's approach to traffic issues. It seems the Department makes plans to accommodate motor vehicle traffic only, at the expense of pedestrian, bicycle, and mass transit modes. Through this bias toward motor vehicle traffic all other possible transit modes suffer. The North Boulevard Bridge is an excellent case in point.

This emphasis on motor vehicle accommodation at the expense of other possible transit modes combined with approaches to sewerage and drainage issues that do not support Smart Growth tend to favor continued 'sprawl' growth and simultaneously hinder in-fill, brown field, and gray field development.

It seems the corporate and political culture of the city-parish will have to change in order to effectively support Smart Growth.

**From: Rachel DiResto, Vice President, CPEX**

*Received: August 12, 2008 Format: Verbal and Microsoft Word track changes*

- Regarding the undocumented practice of Pedestrian Crossings: Emphasize the need to provide pedestrian crossings in commercial areas.
- Table 4, SGS 4-15: Street design standards could incorporate traffic calming measures.
- Table 10, SGS 10-3: Density bonuses could be granted to developments that install bus stops (CPPC).
- DPW needs to have street design standards for bus stops.

- Evaluation of UDC 4.103.A.2.: The policy for private sewer treatment is not consistent with smart growth. Reevaluate whether UDC 4.103.A.2 supports SGS 9-4.
- Evaluation of UDC 4.103.A.5. and 17.12.B.5.: The minimum distance a curb cut is allowed from an intersection should be reviewed – cuts too close to an intersection become a safety problem for left exits.
- Consider inclusion of design criteria that provides a protected pathway for the pedestrian from remote parking areas to the front door of commercial establishments.
- Evaluation of CPS S/D-02A: Could this also specify a buffer of green between the sidewalk and the curb?
- Evaluation of GLP Roadway Design, Design Standards: Sidewalk width of 5 feet offset from curb is preferable, while 6 feet adjacent to curb is uncomfortable and unsafe for pedestrians.
- Evaluation of Traffic Calming Manual: One of the extreme options available in the manual of closing a street does not support the SG connectivity principle.
- Should this include some mention of the Capital Improvement Plan with the concept in mind that developments should not drive the CIP, projects need to be in line with the CIP?
- Updating these policies to be have multi-modal movement in mind – look beyond issue of traffic volume.

**From: Rick Moreland, member, CRPC Bike/Ped Advisory Committee**

*Received: July 14, 2008 Format: E-mail*

I couldn't read through the whole report in detail, but I liked your implied suggestion for monetary incentives for infill developments and the possibility of tying traffic impact fees to projects near the development. This made me wonder whether there could be similarly specific and effective suggestions to go along with what you note is a tendency to cut bike facilities first when road project costs are higher than anticipated. I see the checklist for new projects, the required references to the Green Book, and the special committee, but I wonder whether there would be any monetary or other consequences for ignoring the advice of these documents and committees, as seems to be the case now.

**From: Troy L. Bunch, Director, CPPC**

*Received: August 13, 2008 Format: Memorandum*

The Office of the Planning Commission appreciates the opportunity to review and provide comments regarding the Department of Public Works (DPW) Policy and Practice Smart Growth Audit. We understand the importance of utilizing Smart Growth Principles for the City-Parish. We believe that DPW and the Planning Commission should collaborate closely to achieve the goals for Smart Growth.

Currently, we have several tools related to Smart Growth and additional tools being developed. The Planning Advisor, including a Smart Growth Scorecard, is being developed by our two departments. The Planning Advisor will evaluate land development applications based on land use factors, economic and demographic considerations, as well as infrastructure, and award bonus points for developments which incorporate Smart Growth Principles.

Additionally, the "Application Tracking System" provides the opportunity to evaluate projects and provide comments related to Smart Growth Principles. By utilizing this tool, the Planning Commission and DPW can make more informed recommendations to elected and appointed officials regarding development based upon Smart Growth Principles.

Supporting the Horizon Plan and enforcing the Unified Development Code (UDC) requirements are critical components to achieve and maintain Smart Growth Principles. We would like to coordinate and take advantage of improvement opportunities with DPW to ensure that the Horizon Plan and UDC are applied and consistently enforced.

Finally, a Smart Growth Task Force does exist which consists of the following Subcommittees: Infill Development; Street Design; Smart Growth Scorecard; Design Standards; Community Outreach; and Regulatory. We support forming a DPW Smart Growth Staff Committee to ensure coordination and consistency related to reviewing and providing comments for land development applications. Specifically, staff comments related to Smart Growth Principles defined in the EPA Smart Growth Audit completed in 2004.

Please contact our office if you have questions regarding this information.