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**RIGHT OF WAY MANAGEMENT COST REVIEW
AND
FEE STRUCTURE DEVELOPMENT REPORT
FOR THE CITY OF LANCASTER**

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RIGHT OF WAY (ROW) MANAGEMENT COST REVIEW AND FEE STRUCTURE DEVELOPMENT AND REVISIONS

INTRODUCTION AND BACKGROUND

At the request of the City of Lancaster (“City”) CBG Communications, Inc. (“CBG”) has reviewed the City’s Right of Way (ROW) Management process and costs and conducted an analysis of the City’s ROW Management permit and other fees established to recover those costs.

The City has believed for some time that its fees should rise significantly for use of the ROW, in order to recover its direct and indirect costs of current ROW management programs and to cover the cost of necessary program expansion to meet future right-of-way management requirements. As part of CBG’s analysis, we reviewed permits currently being issued by the Department of Public Works, such as: Curb and Sidewalk Permits, Driveway Permits, Dumpster Permits, Street Opening Permits and Pole Permits.

It is clear that the use of the ROW is a tremendously valuable resource for placement of facilities for water, sewer, gas, telecommunications, power, cable and other service providers’ (Occupants) facilities. Legal review indicates that the City has the authority to recover its costs related to ROW management concerning all entities. Our review to-date indicates that the City is significantly under-recovering such costs from the Occupants of the ROW. The study described in this document focuses on the City’s actual costs to manage the ROW and the fees recommended are intended to recover those costs.

ROW Management activities that were evaluated included but were not limited to: permitting and inspection activities, utility coordination, complaint review and resolution oversight, customer service, plan and drawing reviews, City ROW planning, pavement management and underground, aerial (overhead) and pole ROW maintenance activities, and other similar tasks.

CBG used the City’s most currently available audited financial figures, specifically year-end financials as of December 31, 2011 (FY 2011), as a basis for its costs review, unless otherwise noted¹. Audited financials for FY 2012 (most recent completed fiscal year) will not be available until October 2013.

¹ Budgeted cost figures were used for the recommended Additional Engineer/Inspector as noted in this report.

SECTION 1

RIGHT-OF-WAY MANAGEMENT COST REVIEW

RIGHT-OF-WAY MANAGEMENT COST REVIEW

A. Direct and Indirect Costs to the City for Managing the Rights-Of-Way

In order to determine an appropriate cost recovery, it was first necessary to determine the City’s true ROW management costs. After reviewing pertinent Ordinances/City Code Sections and various ROW use permitting and inspection processes, procedures and policies, CBG developed the following outline of cost recovery categories:

I. ROW Management Cost Recovery Categories

Department of Public Works

Bureau of Engineering

- Administrative Costs (Personnel Time, Permit Processing, Planning, Research, Inspection Time, Pavement Management Activities, ROW Coordination and Management, etc.)
- ROW Maintenance Costs (Non-Reimbursed Repair and Replacement, ROW Upgrades, etc.)
- Street Life Recovery Costs

Bureaus of Water and Sewer

- Project Engineer Costs (Engineering Technical Specialist Time, Permit Processing, Planning, Research, Inspection Time, ROW Coordination and Management, etc.)
- Capital Improvements Manager Costs (Time and costs associated with Pavement Improvement Program)
- Water/Wastewater Utilities Engineer (Time and costs associated with Pavement Improvement Program)
- Equipment Operator I and Operator II (Time and costs associated with ROW Use Planning, Plan Review, Inspections, Utility Coordination, Street Excavation Restoration, etc. related to ROW Management activities pertaining to City facilities)

Bureau of Streets – Maintenance

- Salaried Personnel Costs, including overtime (related to Bureaus of Water and Sewer)
- Street Paving Costs (related to Bureaus of Water and Sewer)
- Other Direct Costs

Bureau of Streets – Cleaning

- Operations Supervisors Cost (Time and costs associated with Street openings related to Bureaus of Water and Sewer)
- Other Direct Costs

Overhead and Indirect Costs

- For all above - Materials, Equipment, Office Leases, Utilities, (electrical power, internet and networking, telephone, etc.), Vehicle Use, etc.
- Capital Costs related to Utility, Telecommunication Systems and Similar Entity Use of the City's Rights-of-Way – i.e., New Permitting System, GIS System Upgrades, Pavement Management System, etc.
- Indirect Costs – Applicable indirect costs as defined and established in the City's Central Services Cost Allocation Plan (CAP)

Third Party Costs

- Consultant Fees (cost associated with ROW Management activities)
- Outside Counsel (costs associated with ROW Management activities)
- Other Contract or Outsourcing Costs (Publication, Copying, Equipment, Temporary Support, Pavement Management Studies, IT support, other ROW Management support services, etc.)

B. Direct ROW Management Activities and Costs

After discussion with senior staff of the Bureau of Engineering and other Department of Public Works (DPW) staff, it was determined that the primary focus for ROW cost recovery associated with the Bureau of Engineering permits should be on direct departmental personnel and material costs related to ROW management, together with departmental and general City overhead costs related to ROW Management activities.

An initial review indicated that by far the largest portion of the City's expenditures related to ROW management were in the Bureau of Engineering. The next largest expenditures were found in the Bureaus of Water and Sewer, the Bureau of Streets and the Bureau of Code and Compliance (Housing). After this, lesser expenditures were found in the Department of Public Safety, Department of Economic Development and Neighborhood Revitalization, Department of Administrative Services, the Mayor's Office, City Council, and several other Departments.

Our review indicated that the Bureau of Engineering also performs contract development, evaluation and some management of street restorations for the City and the Bureau of Streets supports the Bureaus of Water and Sewer operations on their trench work. As such, these activities were reviewed to determine their effect on the base cost of recovering street life.

CBG, in conjunction with City DPW staff, conducted a comprehensive review of the ROW management activities of the Bureau of Engineering, other DPW Bureaus and other Departments listed above to determine the total cost to the City for ROW management. Five basic factors were considered for each Department/Bureau:

1. Average amount of time on an annual basis that Departmental/Bureau personnel spend on the review of ROW use permit applications, inspections and other ROW management activities.
2. Departmental/Bureau costs associated with the annual review and management process of the ROW (percentage of time spent multiplied by the pertinent Departmental/Office personnel's, or the lowest step in their grade level, salary plus benefits, overhead, etc.).
3. Any support costs incurred by the Department or Bureau during the permitting, review, inspection, administration and overall ROW Management process (i.e., clerical support, equipment or supplies purchased in part or specifically for these tasks, etc.)
4. Other time and costs the Department or Bureau expends related to ROW use permitting and management (e.g., meetings within the Bureau of Engineering and Department of Public Works on general permitting issues, participation in other types of ROW management activities, etc.)
5. Time and costs associated with each Department's or Bureau's personnel in relation to street restorations, reconstruction, repaving and repairs of the City streets.

Using these factors as a guide, cost information was gathered from the different Departments/ Bureaus with ROW management responsibilities (See Charts 3 and 4 at the end of this document). The costs were found to be significant in the case of the Bureau of Engineering and it was determined that they would be utilized as part of the calculations to develop the initial fee analysis. Additionally, costs associated with one Engineer from the Bureau of Water were also included in the initial fee calculation.

Specifically, regarding the Bureaus of Water and Sewer, cost figures associated with the engineer working on commercial and residential construction in the ROW (based on actual amounts), including salary, benefits, and administrative overhead were gathered. To analyze the current permitting fee structure, the Bureau of Engineering and the Engineer from the Bureau of Water costs and activities were further allocated down to work specifically related to general ROW management, permitting and inspection activities.

Additionally, CBG found significant costs incurred in the Bureau of Streets and the Bureaus of Water and Sewer related to the City's own facilities. Further analysis of these costs was performed to evaluate the City's current allocation of recoverable funding to the City through Water and Sewer rates, inter-fund transfers and supportive in-kind services.

Our review of other Departments/Bureaus with ROW-related activities (e.g. Mayor's Office, City Council/ City Clerk), showed that although costs were incurred, these costs were not individually large enough to affect the fee analysis. For this reason, and because these entities are also central services agencies, subject to the City's Indirect Cost Allocation Rate, it was decided to incorporate their contributions to ROW management into the fee analysis as a portion of the overhead cost attributable under the Cost Allocation Plan (CAP) to the Bureau of Engineering (see detailed discussion below).

C. Indirect ROW Management Activities and Costs

I. Application of the Citywide Central Services Full Cost Allocation Plan

The analysis, based on items 1-5 above captured the costs directly attributable to the ROW management activities of the Bureau of Engineering, Bureau of Streets and Bureaus of Water and Sewer. In addition to these direct costs, the City incurs significant indirect costs for ROW management, comprising the costs of the support that numerous City agencies with central support functions provide to these Bureaus' ROW management functions. In order to capture this class of indirect costs for ROW management, CBG used the "indirect cost rates" based on actual FY 2011² costs for the Bureau of Engineering, Bureau of Streets and the Bureaus of Water and Sewer established in the City's Citywide Full Cost Allocation Plan (CAP).

By way of background, our review of information provided by the City indicates that the CAP was developed and has been in use for many years as a methodology for identifying indirect costs the City incurs related to the services provided to its various agencies by those departments that have central support responsibilities. These central support services are provided by agencies whose principal role is central support of governmental functions (e.g. the Bureau of Accounting, Bureau of Procurement and Collections, Office of the Mayor, Bureau of Information Technology, City Council, Bureau of Human Resources, City Controller, etc.). The City's annual accounting and budgeting process identifies and charges to the appropriate accounts every bureau's direct costs for salaries, supplies, contracts, etc. However, the costs of central support services – the counterpart, for the City, of "overhead" costs in the private sector – are not directly reflected as expenditures by the departments served because they are, in the nature of the case, incurred by other departments. Hence they are not captured in the annual accounting and budgeting process without a methodology for calculating them and charging them back to each benefiting Department/Bureau. The CAP is developed annually as an accounting methodology that permits the City to determine the total actual cost of operations, by calculating City-wide indirect costs as well as each Bureau's direct costs.

By providing a methodology for determining true costs, direct and indirect, of a Bureau's operations, the CAP "indirect cost rate(s)" allow the City to account accurately for the total cost it incurs to deliver any particular program or service to a non-City or City user group. That is, by including the indirect (overhead) costs for service delivery, as determined by the applicable CAP "indirect cost rate(s)," the City can set user fees for consumers of City services, or claim reimbursements from users, at a level that reflects the City's true cost, direct and indirect, of providing the services.

In deriving the recommended ROW fee structure, the Central Services Allocation Plan – Full Cost 2011 or "indirect cost rates" (based on actual costs incurred for the fiscal year ending December 31, 2011) for the Bureaus of Engineering, Streets, Water and Sewer were applied to the FY 2011 direct costs incurred for ROW management activities to derive a total cost, reflecting both direct and indirect costs to the City of furnishing these services to ROW users. This total cost, based on actual

² Actual fully audited financial costs for the year ending December 31, 2011.

audited financials for year ending December 31, 2011 were the basis for analyzing current ROW user fees.

SECTION 2

RIGHT-OF-WAY MANAGEMENT COST REVIEW METHODOLOGIES AND ALLOCATIONS

ROW MANAGEMENT COST REVIEW METHODOLOGIES AND ALLOCATIONS

A. Department of Public Works (DPW)

As indicated above, because the Department of Public Works' (DPW) ROW Management costs were the largest part of the City's overall ROW management costs, and thus was the primary focus of this study, a detailed review was conducted of the Department of Public Works' actual costs and projections as of FY 2011 related to personnel, operating and capital expenses utilized or anticipated for ROW Management activities. After review and analysis of all the information gathered, it was determined that appropriate Engineering cost recovery could be accomplished by factoring in a portion of pertinent personnel salaries, operating and capital expenses as applicable depending on the level of activity related to both current and projected ROW management tasks (Our review also showed that some inspection costs related to the underground utility infrastructure itself, as opposed to the disturbance in the ROW surface and subsurface created by placement of such infrastructure, are incurred by a third party inspector [contracted through the City]³ and then passed on to the Occupant, contractor or builder performing utility work in the ROW).

The review categories for the Department of Public Works included the following:

- *Bureau of Engineering*
 - Deputy Director/City Engineer's salary and task time allocation
 - Engineering Aide III salary and task time allocation
 - Engineering Aide II salary and task time allocation
 - Secretary I salary and task time allocation
 - Operational costs
 - Any capital equipment or capitalized operating expenses (such as system design and software) new or anticipated, plus the useful life, amortized cost of existing and planned equipment, specifically related to ROW management activities.
- *Bureaus of Water and Sewer*
 - Engineering Technical Specialist salary and task time allocation
 - Capital Improvements Manager salary and task time allocation
 - Water/Wastewater Utilities Manager salary and task time allocation
 - Equipment Operator I salary and task time allocation
 - Equipment Operator II salary and task time allocation
- *Bureau of Streets (Maintenance)*
 - Labor Supervisor II salary and task time allocation
 - Two Equipment Operator II's salaries and task time allocation

³ Effective February 16, 2010, the City of Lancaster expanded the Third Party Code Agency selection for Commercial Projects that meet certain criteria,

http://www.cityoflanasterpa.com/lanastercity/lib/lanastercity/Effective_February_16_2010_Expanded_Third_Party_Listing_web_site_info.pdf

- Maintenance Worker salary and task time allocation
- Four Equipment Operator I's salaries and task time allocation
- Three Laborers salaries and task time allocation
- Operational costs
- Any capital equipment, materials and other capital costs associated with ROW management

- *Bureau of Streets (Cleaning)*
 - Operations Supervisor salary and task time allocation

- *Percentage Add-ons*
 - As noted above, the standard CAP (Cost Allocation Plan) percentage was utilized taking into account Departmental overhead figures. Fringe benefit escalators were used as well.

B. Allocation and Methodology for ROW Management Permit and Inspection Cost Analysis

I. Methodology

A review of all the permitting and inspection information gathered, determined that the Bureau of Engineering's ROW Management costs associated with permitting and inspections were attributable to street, sidewalk, curb, poles, dumpsters and driveway installations, replacement, restoration and construction in the ROW.

As previously stated, the costs associated with some of the inspection of underground Occupant facilities in the ROW are incurred by the contractor, builder or Occupant through a third party inspector contracted through the City as of February 16, 2010. The contractor, builder and Occupant in the ROW contract directly with the third party inspector and the third party inspector bills the contractor, builder or occupant directly for facility inspections. (http://www.cityoflancafterpa.com/lancaftercity/lib/lancaftercity/Effective_February_16_2010_Expanded_Third_Party_Listing_web_site_info.pdf.) Since the City does not incur costs associated with underground Occupant facility inspections in these cases, these costs were not analyzed for this report. **It should be noted, though, that if the City decides in the future to perform the portion of underground Occupant facility inspections in the ROW that are currently handled by third party inspectors and incur all associated costs related to such activities, then the City would need to incorporate these costs into the current inspection fee calculation formula to ensure full recovery to the City.**

Accordingly, all costs incurred by way of the permitting and inspection activities performed by the Bureau of Engineering were reviewed and analyzed against the existing permitting fees, the City Ordinance and Departmental procedures. Activities that were included in CBG's ROW permitting and inspection cost analysis included, but were not limited to:

- Administrative and Inspection activities such as:
 - Application processing, including verification of applicable signatures, purpose for the excavation, the size and location, the full scope of work, the dates of duration, date of expected completion. (§ 262-45)
 - Initial drawing and plan review of projects
 - Permit calculations and collection of fees
 - Mailing and filing of permits and notices
 - Initial site inspection
 - Excavation and restoration inspection
 - Excavation measuring for permit and degradation calculation
 - Utility coordination (including Permit-related PA One calls)
 - Review of Emergency Permits (§ 262-43)
 - Review of Bonds (§ 262-46)
 - Review of Certificates of Insurance
 - Cancellation of Permit and associated activities (§ 262-48)

- Revocation of Permit and associated activities (§ 262-53)
- Other administrative permitting and inspection activities, etc.

II. Allocation

These activities and their corresponding costs were reviewed and percentages were allocated among the costs incurred by staff in DPW’s Bureaus of Engineering and Water based on their time spent on permitting and inspection activities in the ROW over the course of one year. These costs were then compared to the revenue generated related to these activities. Ultimately, it was determined that new and adjusted permit fees are needed in order to recover costs incurred by the City for these permitting and inspection activities. Specifically,

ROW MANAGEMENT PERMITTING AND INSPECTION COST ANALYSIS			
Cost Recovery Category	City Cost Recovery Amounts	City Fees Collected	Under-recovery of Costs
Curbs & Sidewalks	\$113,584.00	\$10,014.00	(\$103,570.00)
Street Excavations	\$83,338.68	\$12,013.00	(\$71,325.68)
Pole Replacements/Relocations	\$12,168.93	\$0.00	(\$12,168.93)
Driveways	\$1,160.11	\$240.00	(\$920.11)
Dumpsters	\$10,547.85	\$0.00	(\$10,547.85)
Total Cost Recoveries	\$220,799.57	\$22,267.00	(\$198,532.57)

C. Allocation and Methodology for Annual ROW Maintenance Cost Analysis

I. Methodology

All activity costs related to ongoing Annual ROW Maintenance in the Bureau of Engineering were also reviewed and analyzed. Activities that were included in CBG's Annual ROW Maintenance cost analysis, for underground (under streets and sidewalks), aerial (overhead) and pole facilities installed in the City's Rights-of-Way, included but were not limited to:

- *Complaint-handling Activities:*
 - Log complaints with all reported information including, time, date, location, problem being reported, emergency level, etc.
 - Through on-site inspection of complaints, determine resolution priority.
 - Other activities related to resolving complaints.
 - Evaluate through on-site inspection resident's reports of broken or deteriorated curbs, street pavement, and alley pavement, as well as utility overhead lines and poles.
 - Thirty days from a warning, determine if the property owner, contractor or utility provider has complied with the Right-of-Way Ordinance.
 - If the property owner, contractor or utility provider is not in compliance, issue a citation for the violation with the pre-determined fines charged until the property owner is in compliance with the City's Right-of-Way Ordinance.
 - Other complaint-handling activities
- *Utility Coordination Activities:*
 - Oversee and coordinate construction of utility work to minimize any negative impact to surrounding property owners
 - Help residents coordinate with utility companies and contractors to minimize the inconvenience for residents.
 - Other Utility Coordination activities
- *ROW Use Planning Activities:*
 - ROW use planning to maximize access to and safety of the City's Rights-of-Way
 - Provide access to maps of utility rights-of-way work
 - Provide planning for new construction, maintenance and service connections
 - Provide site-specific information for inspectors, developers and utilities
 - Ensure cooperative relationships with property owners to facilitate timely ROW projects
 - Other ROW Use Planning Activities

- *Customer Service Activities:*
 - Customer service calls related to the efficient operations and maintenance of the City's streets and utility infrastructure
 - Provide answers to citizen inquiries about work in the rights-of-way
 - Provide information to residents regarding the expected start date, expected completion date, and scope of any work being performed within the local rights-of-way;
 - Other Customer Service activities

- *Code Changes/Updates/Enforcement Activities:*
 - Oversee ADA ramp construction compliance related to street and sidewalk openings
 - Implement Code changes and updates as approved by the City
 - Ensure safety and integrity of the public ROW through enforcement of City Ordinances related to all users of the ROW
 - Ensure consistency with city-wide regulatory documents such as the City Code and City Standard Plans and Specifications, federal, state and regional regulatory requirements, and related city-wide plans
 - Ensure that all work done on public property is performed in accordance with all applicable regulations and construction standards.
 - Other Code related activities

- *On-going Oversight, Inspection and Management of ROW Activities:*
 - On-going street and sidewalk maintenance inspection reviews,
 - Oversee installed facilities maintenance and street openings to minimize disruptions of streets and sidewalk closures
 - Other related ROW Maintenance activities

These activities were reviewed and their costs gathered based on DPW's staff time spent on non-permit related ROW Maintenance activities throughout the year. These costs were developed based on ROW Management activity percentages provided by staff in the Department of Public Works related to the various activities above. Ultimately, it was determined that an Annual ROW Maintenance fee for activities related to underground, overhead and pole facilities installed in the ROW be established to recover costs incurred by the City for these ROW Management activities.⁴

II. Allocation

For many ROW Management Fee structures throughout the country, costs are typically allocated according to the type of ROW management activity being performed (ROW Use planning; utility coordination; periodic and ongoing inspection and ROW maintenance activities; etc.).

Consistent with this, the cost allocation for the Annual ROW Maintenance fee structures is similar to that of other jurisdictions. It focuses on the ROW maintenance and oversight activities

⁴ These costs were broken down further into ROW user categories, such as: residential, commercial, business, non-City Occupant (those Occupants of the ROW that have installed facilities, such as: gas lines, pipelines, cableTV telecommunications, electrical lines, poles, etc.), City Occupant (such as water and sewer lines), etc.

performed by the City on an annual basis based on occupancy and use in the City's Rights-of-Way. For predictability, simplicity and defensibility purposes, the allocation formula consolidates the costs attributed to several ROW Management functions (as described above) into annual ROW Maintenance Fees, apportioned to each ROW User (underground, overhead and pole owners) as outlined below. Specifically:

- **The City's FY 2011 costs for ROW maintenance activities** (i.e., complaints on past work, ROW facility on-going inspections, violation follow-ups, etc.), essentially, the cost of inspectors and other supporting ROW management personnel working to respond to incidental and ongoing issues and complaints and perform annual checks on the condition of the right-of-way surface, subsurface, and the condition of occupant poles and overhead facilities, as well as other applicable annual ROW Maintenance activities.
- **The total footage of each city, non-city, commercial utility or similar provider (ROW Occupant)** was estimated and documented (determined by available as-built maps and estimated facility footage from historical trends). The total footage of all providers' facilities was then derived by adding all providers' facility footages. A percent of the total facility footage within the City was then assigned to each of the Occupants (both underground and overhead). The City's ROW Maintenance activities (overhead [aerial] versus underground) were also reviewed against the percentage of staff time applicable to each ROW Occupant in the City's ROW. It was determined that staff time spent on ROW Maintenance activities was consistent with the Occupants' facility footage allocation percentages in the City's ROW.
- **The basis for an initial proposed ROW Maintenance fee** is calculated by taking the total costs to the City for annual ROW maintenance activities (underground and aerial), as outlined in this section, divided by the total installed facility footage in the City ROW, to determine a per linear foot fee and then multiplying each ROW Occupant's total facility footage in the City ROW (underground and aerial respectively) by that linear foot fee. **In subsequent years, the formulas should be adjusted by reviewing pertinent information such as maps provided by Occupants as well as adding the previous year's constructed linear footage in the ROW to each facility provider's total linear feet.**

Pursuant to the above, Chart 1 below shows current estimated Non-City Owned Facilities Infrastructure Footages in the City's ROW. Once verified by the Facilities Owners, the resulting footages will be used as a basis for the City's ongoing annual underground and proposed aerial ROW Maintenance Fee.

A specific per linear foot allocation of these costs, to each of the identified ROW Users, has been developed and will be further refined once ROW Users have verified their total current aerial and underground infrastructure footage in the ROW.

Chart 1 - Non-City Owned Facilities ROW Infrastructure

NON-CITY OWNED FACILITIES INFRASTRUCTURE FOOTAGES					
City Owned and Maintained Streets and Alleys = 111 Miles					
Operator	Estimated Linear Footages and their percentage in the ROW				Total ROW Footage
	Aerial	%	Underground	%	
AT&T Mobility, LLC	10,106	0.5%	454	0.1%	10,560
Buckeye Partners	0	0.0%	10,560	1.5%	10,560
Comcast Cable	560,879	29.4%	25,201	3.5%	586,080
Community Safety Coalition	56,760	3.0%	0	0.0%	56,760
Frontier Communications	0	0.0%	0	0.0%	0
Hillrise Mutual Housing Association	0	0.0%	1,056	0.1%	1,056
Level 3 Communications	21,250	1.1%	11,250	1.6%	32,500
PPL Electric	560,879	29.4%	25,201	3.5%	586,080
Sunco Pipeline	0	0.0%	10,560	1.5%	10,560
Texas Eastern/Spectra	0	0.0%	10,560	1.5%	10,560
UGI Utilities (gas)	0	0.0%	586,080	82.2%	586,080
Verizon PA	560,879	29.4%	25,201	3.5%	586,080
Windstream - D & E Brownstown	10,106	0.5%	454	0.1%	10,560
XO Communications	25,265	1.3%	1,135	0.2%	26,400
Zayo Bandwidth (formerly PPL)	41,768	2.2%	1,000	0.1%	42,768
One Communications	18,370	1.0%	2,750	0.4%	21,120
Cellco Partnerships (Verizon Wireless)	10,106	0.5%	454	0.1%	10,560
Clearwire Corporation	10,106	0.5%	454	0.1%	10,560
Sprint Nextel (Sprint)	10,106	0.5%	454	0.1%	10,560
T-Mobile	10,106	0.5%	454	0.1%	10,560
Estimated non-City owned Infrastructure in Lancaster ROW	1,906,686	100%	713,278	100%	2,619,964

- **The basis for an initial proposed Pole Maintenance fee (for poles in the City ROW) is calculated by taking the total costs to the City for annual ROW pole maintenance activities, as described later in the Report, divided by the total poles in the City ROW, to determine a per pole fee, then multiplying the pole owner’s total poles in the City ROW by the per pole fee. In subsequent years, the formula should be adjusted by reviewing pertinent information such as maps provided by pole owners, as well as adding the previous years installed poles in the ROW to each pole owner’s total poles in the City ROW.**

SECTION 3

CURRENT RIGHTS OF WAY MANAGEMENT ORDINANCE AND FEE ANALYSIS

CURRENT ROW MANAGEMENT ORDINANCE AND FEE ANALYSIS

As part of CBG’s cost analysis (based on audited financials as of December 31, 2011), we reviewed the City’s current Ordinance requirements and Code Sections and Departmental Policies, Procedures and Construction Standards associated with ROW activities and have noted our findings below. All recommendations made throughout this section are summarized in Section 4. ROW Management Recommendations.

STREET AND SIDEWALK (§ 262 STREET AND SIDEWALK)

A. Curb and Sidewalk

I. Curb and Sidewalk Regulations related to ROW Management (§ 262-34 — § 262-41)

a. Curb and Sidewalk Excavation (Construction, Repair, Replacement and Maintenance)

§ 262-34 Curb and sidewalk construction, repair, replacement and maintenance.

The ordinance states that:

“Any owner of property in the City shall cause the construction, repair or maintenance of curb or sidewalk within a period of 30 days from the date of notice to do so.”

City property owners (residential, business, commercial), ROW Occupants or those who cause damage in the ROW, etc. are responsible for the repair, replacement and maintenance of curbs and sidewalks in front of their property. Through on-going curb and sidewalk maintenance activities (annual ROW Management activities), the property owner can be served a notice by the City Engineer upon their determination that a sidewalk or curb has disintegrated or is damaged to such a degree that it is now a public safety hazard. The property owner has 30 days from the day of receipt of notification from the City Engineer to repair or replace the indicated curb and sidewalk. Common problems that the City Engineer observes are: broken and disintegrating concrete, blocks that have settled or up-heaved, etc.

Below are some examples of what City Engineers encounter on an annual basis:



Patch in sidewalk needs to be caulked to prevent pedestrian injury.



Sidewalk cracks requiring replacement of sidewalk segment.

b. Curb and Sidewalk Permit Fee

§ 262-38 Permit required; fee. (Curb/Sidewalk)

The ordinance states that:

“A permit for construction, replacement or repair of curbs and sidewalks shall be obtained from the City Engineer before work is started upon payment of a permit fee of \$20.”

The City currently requires that any person or property owner desiring or being required to construct, repair, replace and/or maintain curbs and sidewalks in the City ROW to first obtain a curb and sidewalk permit from the Bureau of Engineering.

All applications for curb and sidewalk permits must be signed by the person who will be performing the actual curb and sidewalk work or the property owner. Completed applications

must be submitted to the Bureau of Engineering at least two work days prior to work commencing in the ROW.

The Bureau of Engineering reviews all applications and grants or denies the applicant a permit upon completion of the review. All curb and sidewalk permits are to be signed by the City Engineer and, if necessary, the City Engineer provides the line and grade. Permits are to be kept on the job site for examination by the Bureau of Police and/or the Bureau of Engineering, and per policy all curb and sidewalk permits are good for 45 days from their application date.

Additionally, any property owners or contractors doing curb and sidewalk work without a permit will be required to obtain a permit at double the normal fee rate.

Based on CBG's review, DPW's Bureau of Engineering incurred annual costs of \$89,979.47 in FY 2011 related to curb and sidewalk permit and inspection activities. These costs are actual FY 2011 costs related to salaries, benefits, overhead, indirect cost allocation, capital costs, etc. The revenue generated in FY 2011 associated with curb and sidewalk permits equals \$10,014.00. This gives the City an under-recovery for the curb and sidewalk related ROW costs of \$79,965.47 (these cost figures are based on closing figures at the end of FY 2011).

These costs were broken down further between permitting and inspection costs (up to two inspections). The costs were then incorporated together to calculate the base permit fee for all curb and sidewalk cuts (residential, business, commercial, etc.).

In FY 2011, the costs incurred for curb and sidewalk permitting activities such as application processing, drawing review, specification information, etc. were approximately \$46,740.53⁵ for 440 permits (\$9,560.56 residential, \$18,696.21 commercial, \$18,483.76 - non-City ROW occupant⁶). This equates to approximately \$106.23 per sidewalk/curb cut permit for the application and permit processing activities.

Costs incurred in FY 2011 for curb/sidewalk cut permit-inspection activities such as initial visual inspection prior to work commencing, excavation inspection and final restoration inspection, were approximately \$43,238.94⁷ for 440 permits (\$8,844.32 - residential, \$17,295.58 - commercial, \$17,099.04 - non-City ROW occupant). This equates to approximately \$98.27 per curb/sidewalk cut permit-inspection activities.

When taken together we arrive at a base permit fee (including up to two inspections) of approximately \$204.50 ~ \$205.00. The fee amount will cover the costs associated with the 1,608.20 hours of administrative and inspection time necessary to perform all associated Curb and Sidewalk permit fee activities as defined earlier.

⁵ These costs do not include City costs incurred for curb and sidewalk cut activity performed related to City facilities, such as water and sewer lines. The cost to the City for ROW Management activities (street and sidewalk activities) related to City facilities incurred in the Bureau of Engineering amounted to \$31,344.62. Additionally, costs were also incurred in the Bureaus of Water and Sewer.

⁶ A Non-City ROW Occupant refers to ROW users that are not City agencies, which have facilities in the ROW, such as: gas lines, telephone lines, fiber optics, communications infrastructure, oil pipelines, etc. It does not include City ROW Occupants or City ROW facilities such as water and sewer lines).

⁷ See Footnote 4.

CURB AND SIDEWALK PERMIT AND INSPECTION COSTS			
Permit Category	# Permits	Staff Hours (Per Permit - 3.65)	Permit Administrative and Inspection Costs
Residential (non-City ROW Non-Occupant)	90	328.95	\$18,404.88
Commercial (non-City ROW Non-Occupant)	176	643.28	\$35,991.79
Provider (non-City ROW Occupant)	174	635.97	\$35,582.80
Totals	440	1,608.20	\$89,979.47
Cost Per Curb & Sidewalk Permit			\$204.50

c. Curb and Sidewalk Notices

§ 262-40 Curb and sidewalk notices. [Amended 7-26-2005 by Ord. No. 15-2005]

The ordinance states that:

“All notices required hereunder shall be issued by the City Engineer and shall specify the nature and extent of all work to be performed. Failure to comply with notice may result in the City performing the work or causing the same to be done and levying and collecting all costs for such work from the property owner, plus all other amounts due the City pursuant to Chapter 36. All notices shall be in writing and sent by certified mail to the property owner at the address as shown by the County Board of Assessments and shall be deemed effective on the date of mailing.”

Curb and sidewalk notices related to various violations of City regulations (such as: cracks in sidewalk, bad patch work, inaccessible sidewalk, up-heaved sidewalk, water or gas caps/taps sinking or up-heaving in the sidewalk, etc.) are being issued by the City Engineer through various maintenance activities, including:

- Ongoing maintenance reviews/inspections
- Sidewalk rating inspections
- Street improvement activities
- Complaints
- Other activities related to curb and sidewalk ROW Management

However, there are limitations on the amount of time that the Bureau has available to perform follow-up activities to ensure that the notices have been complied with. This is largely due to the volume of curb and sidewalk complaints received, curb and sidewalk work associated with City projects, ADA compliance enforcement, oversight and management of prevailing wage curb and sidewalk projects, various other curb and sidewalk maintenance activities and the large volume of curb and sidewalk permits issued by the City Bureau of Engineering.

Given that there is currently little follow-up done regarding notices issued, not only is the City no able ensure compliance with its notices and improvement of public safety hazards, but it is also missing potential recoveries of City costs related to noncompliance. Accordingly, CBG recommends that the City hire an additional Fulltime (FT) Staff Engineer/Inspector (one FT

Engineering Aide/Draftsman) to ensure timely and effective follow-up concerning the requirements of City Ordinances.

d. Curb and Sidewalk Violations and Penalties

§ 262-41 Violations and penalties.

The ordinance states that:

“Whoever violates any provision of this article shall, upon conviction thereof, be fined not less than \$100 nor more than \$300 for each offense, together with costs, and in the default of payment thereof be imprisoned for not more than 30 days. Each failure to obtain a permit or, having obtained a permit, to comply with any of the requirements of this article, and each and every day during which such violation continues shall constitute a separate offense. The City Engineer may deny the issuance of future curb and sidewalk permits to any person, partnership, firm, association, utility or corporation violating the provisions of this article.”

Specifically, as detailed above, including an additional City Engineer/Inspector, there are methods that the City can employ to collect up to \$300 in fines for each notice not complied with, together with costs to repair the public safety hazard.

For example, the City could implement a tracking or permitting software system (or an expansion of an existing City management software system) for utilization by DPW staff members to facilitate the tracking and monitoring of permits, complaints, violations, etc. All costs associated with the use and implementation of a new computer software system (or an enhanced one) for DPW ROW Management activities and staff time would be rolled into updated permitting, inspection, time extension, and annual maintenance fees, etc. to be fully recovered in future years.

II. Proposed Curb and Sidewalk Regulations related to ROW Management

a. Curb and Sidewalk Additional Inspection Fee

Most residential curb and sidewalk cuts require only two inspections per permit; however, fifty to sixty percent (50-60%) of commercial construction and ROW occupant curb and sidewalk permits require more than two inspections. More inspections are often required because of:

- The size of the job
- The familiarity with City construction standards
- The ADA ramp and sidewalk requirements
- Full construction and installation of ROW occupant facilities longer than 3 linear feet
- Other similar activities which often accompany a commercial construction job.

In light of this, **an additional curb and sidewalk inspection fee was calculated** based on the amount of time expended by the Bureau of Engineering on additional inspections and the

associated costs incurred. In FY 2011, there were approximately 480 additional inspections performed (related to curb and sidewalk permits issued in excess of the two permit inspections, which incurred additional costs of approximately \$23,604.53⁸. This yielded an additional, per inspection cost of approximately \$49.14 related to curb and sidewalk additional inspections. In establishing an “additional inspection fee” we reviewed the administrative and collection costs associated with the establishment of a new permit. Because several administrative activities do not need to be performed again (i.e., plan review, collection of maps, bond information, review of City Code and construction standards, etc.) since they were already performed during the establishment of the initial permit, it is estimated that approximately 0.25 hours of administrative time will also be need when an additional inspection is required. Using our per hour rate of administrative costs (as determined in the curb and sidewalk permit fee section), we calculate an administrative cost of \$26.56 per additional inspection permit ($\$106.23 \times .25 = \26.56). Adding these two costs together, we arrive at an additional inspection fee of \$75.73 ~ \$75.00 ($\$49.14 + \$26.56 = \$75.69 \sim \75.00).

As described above, the City’s current curb and sidewalk fee is insufficient to recover the City’s costs associated with administration, oversight and inspection of curb and sidewalk permit-related activities. Therefore, CBG recommends that an “Additional Inspection Fee” be established for curb and sidewalk permits in the amount of \$75.00.

b. Curb Cut-Only Permit Length

Currently there is no limit to the linear foot length that a curb cut-only permit can have. As previously stated, additional permits are required for extensive job sites. Jobs with curb cuts-only in excess of 36 linear feet are considered extensive jobs and are unusual. In fact, many cities do not allow curb cut-only permits in excess of 36 linear feet. In FY 2011, 6 curb cut only permits were issued with one in excess of 36 linear feet (75’5”).

CBG recommends that all curb cut-only applications in excess of 36 linear feet be reviewed for associated sidewalk repair and/or individual curb cut-only permits should be issued for each 36 linear feet of curb repaired or replaced.

Additionally, during CBG’s review of the FY 2011 sidewalk permits, CBG identified sidewalk permits of varying square footage. Of most interest were that roughly 25% of the permits issued had sidewalk square footages in excess of 200 square feet, and of these, 38% had square footages in excess of 500 square feet to be installed or repaired. In fact, there were two permits with square footages in excess of 6,000 square feet and both had curb cuts in excess of 800 linear feet.

Given the significant size and scope of some of these sidewalk projects, CBG recommends that the City consider issuing multiple curb and sidewalk permits on large jobs or setting a square foot limit per curb and sidewalk permit.

⁸ These costs do not include City costs incurred for similar activities performed concerning City facilities (Water and Sewer).

c. Curb and Sidewalk Permit Time Extension and Associated Fee

Currently there is no fee for extending the time on a curb and sidewalk permit. Additionally, there is no limit or time period established for curb and sidewalk permits. However, there is an understanding, and it is in the City's procedure, that curb and sidewalk permits are good for 45 days.

CBG's recommends that a time extension fee be established for curb and sidewalk permits in the amount of \$105.00 (\$79.67+ \$24.57 = 104.24 ~ \$105.00). This fee will cover the costs associated with the Curb and Sidewalk permit renewal process. At this time it is estimated that approximately 0.75 hours of administrative processing time and approximately 0.5 hours of inspection time will be necessary to renew a Curb and Sidewalk permit. This includes activities such as: receipt and review of extension application, collection of fee, drawing review, review of reason for extension, as well as those tasks related to permit issuance that need to be reviewed again as outlined in the City's Ordinance Chapter § 262 Streets and Sidewalks.

This fee will recover the City's additional costs incurred by extending the permit and will encourage the ROW Occupant to finish the project within a reasonable time. In addition, permittees should be aware that **getting an extension of time does not exempt the permittee from additional inspection fees if two inspections have already occurred prior to the extension of time related to the original permit.**

Furthermore, many cities curb and sidewalk permits are only good for **30 days**. This shorter permit period helps to deter permittees from elongating jobs once they have started and ensures a shorter time for disturbances in the ROW which compromise public safety. CBG recommends that **the City consider establishing a stipulated curb and sidewalk permit period of 30 or 45 days.**

Below is an example of a typical job site seen in the City which may require additional inspections beyond the traditional two as well as potentially an extended time for completion.



d. Curb and Sidewalk Annual ROW Maintenance Costs

The City currently incurs costs on an annual basis related to the overall management (oversight, condition analysis, ADA compliance review, occupancy, access and other related activities) of the City's curbs and sidewalks.

In FY 2011, the Bureau of Engineering incurred costs of approximately \$35,259.23⁹ related to the ongoing curb and sidewalk-related activities listed above (\$11,748.57 for ROW Occupants and \$23,510.66 for non-Occupants¹⁰).

Below are some examples of curb and sidewalk issues identified during routine annual ROW Management activities:



Gas services are not to grade, need to be raised, add patch or fill around them and caulk to prevent premature deterioration of the sidewalk.

⁹ These cost figures are based on actual closing costs at the end of FY 2011

¹⁰ Non-Occupant refers to those ROW users and property owners (residents, businesses, etc.) who **do not have facilities** in the ROW (i.e., do not have gas lines, telephone lines, sewer lines, fiber optics, water lines, communications infrastructure, oil pipes, etc.)



Patch in sidewalk needs to be caulked to prevent premature deterioration of sidewalk.



Sidewalk deterioration requires replacement.

CBG recommends that the costs associated with the non-Occupant¹¹ related curb and sidewalk ROW maintenance activities be recovered through notices and violation fees, as well as traditional residential support funds for Department of Public Works activities.

Those costs associated with curb and sidewalk ROW maintenance activities related to non-City ROW Occupant facilities should be recovered through the proposed new annual ROW Underground Maintenance Fee (See annual ROW Underground Maintenance Fee in Section B. Streets).

Those costs related to City facilities in the ROW should be recovered through various funding methods, including but not limited to in-kind services, inter-fund transfers, and through the Water and Sewer Fund (rate payers).

¹¹ See Footnote 10.

B. Streets

I. Street Excavation Regulations related to ROW Management (§ 262-42 — § 262-58)

a. Street Opening Permit Required

§ 262-43 Permit required and emergency openings.

The current Ordinance states that:

“A. The opening of the surface of any City street is prohibited unless a permit is obtained... Such permit shall be granted through the Department of Public Works of the City when the person applying for such permit files an application with the Department in compliance with the provisions of this article and pays into the City Treasury the amounts hereinafter stated.... The obtaining of street opening permits by City departments and corporate authorities shall be waived when work to be performed is completed by their own personnel. All contractors performing work under contract for the City or City corporate authorities shall obtain the street opening permit for street opening work. Public utilities shall obtain the street opening permit for street excavations performed by their own forces or by contractors.

b. Street Opening Permit Fee

Street Opening Permit Fee (§ 262-47 Fees)

The current Ordinance states that:

“A. A permit fee, inspection fee and degradation fee, for City permits only, shall be paid to the City Treasurer prior to permit issuing. The City shall have the right to waive fees for contractors performing work under contract with the City.

B. The permit fee shall be in the amount of \$60 and shall include inspection fees for the first 4.99 square yards.”

A. Street Opening Permit Costs Related to non-City Facility¹² Activities

The City charges a permit fee for all street opening activity in the ROW. There is an application for all street excavation activity and there is an associated street excavation permit, inspection and, in some cases, degradation fee to accompany the application.

CBG’s review shows that the Bureau of Engineering’s current activity associated with the street opening permit and inspection fees for the first 4.99 square yards is comprised of the following:

- **Permit Application Portion of the Fee** – This part of the fee covers costs related to the issuing, processing and filing of the street opening permit, including plan review and

¹² Non-City facilities refers to all facilities installed in the ROW other than City water and sewer lines.

suggestions made to drawings, coordination of utilities and coordination of permits requiring additional bureau signatures.¹³

- **Permit Inspection Portion of the Fee** – This part of the fee covers costs related to the initial street opening excavation inspection and the inspection of the subsequent restoration of the street excavation and the closing of the permit. These costs also include, but are not limited to, the Ordinance and code compliance review, drawing review, PA one call review, and on-site follow-up work associated with the inspection process related to the street opening permit issued.¹⁴

Because of the amount of time it takes to review all pertinent aspects of the permit applicants’ planned routes and street opening requests and resolution of potential conflicts, inspection of the construction site (before and during construction as well as immediately upon completion of the actual construction) etc., such activity can be quite extensive and can take significant time depending upon the size of the job the permittee has presented with their permit application. .

Currently the street opening permit fee is in the amount of \$60. The permit fee includes an inspection fee for the first 4.99 square yards and is good for 90 days. For excavations greater than 4.99 to 101 square yards there is an additional inspection fee ranging from \$3.00 to \$131.00. For excavations in excess of 101 square yards a fee of \$131.00 plus \$1.00 per square yard in excess of 101 is charged.

In FY 2011 the Bureau of Engineering incurred costs of approximately \$56,250.67 related to street opening permits and inspection activities¹⁵ (residential/commercial and non-City ROW Occupant permits). The revenue generated in FY 2011 associated with street opening permits and additional inspections for permits over 4.99 square yard equals \$12,013.00 for the 172 permits issued (residential/commercial and non-City ROW Occupant permits). This gives the City an under-recovery of \$44,237.67 (these cost figures are based on actual costs for FY 2011). These costs were broken down even further between permitting and inspection costs (up to two inspections). The costs were then incorporated together to calculate the base street opening permit fee.

In FY 2011, the costs incurred for street opening permit applications and issuance-related activities was approximately \$30,031.54 for the 172 permits issued (\$5,063.46 – residential/commercial and \$24,968.08 - non-City ROW Occupant permits). These street opening permit application and issuance-related activities included, but were not limited to:

- Application processing
- Administrative tasks

¹³ These costs do not include those costs associated with street opening activity performed by the Bureaus of Water and Sewer or other City Departments in support of the City’s Bureaus of Water and Sewer. See Section B. “Street Opening Costs related to City Facilities” for information related to City Facility Activity Costs.

¹⁴ Same as footnote 13.

¹⁵ These costs include salary, employee benefits, overhead, direct costs, indirect costs, capital costs, etc. associated with street opening permit and inspection activities performed by City DPW ROW Management staff.

- Plan review
- Oversight of specification requirements
- Review of construction standards
- Collection of permit fee
- Other related activities

This equates to approximately \$174.60 per permit for the application and permit processing and issuance activities ($\$30,031.54/172 = \174.60).

Additionally, the City-incurred costs for street opening permit-related inspection activities, which amounted to approximately \$26,219.13 for 172 permits (\$4,420.67 – residential/commercial and \$21,798.46 - non-City ROW Occupant permits). Street opening permit-inspection activities included, but were not limited to:

- Initial visual inspection prior to work commencing
- PA One-Call coordination
- On-site permit review
- On-site drawing/construction plan reviews (including change orders)
- Excavation inspection
- Street restoration inspection
- Other related activities

This equates to approximately \$152.44 per permit related to street inspection activities ($\$26,219.13/172 = \152.44).

When taken altogether we arrive at a base street opening permit fee (including up to two inspections) of \$327.04 ~ \$330.00.¹⁶ The fee amount will cover the costs associated with the 915.65 hours of administrative and inspection time necessary to perform all associated Street Opening permit fee activities as defined earlier, as well as those outlined in the City Ordinance, Chapter § 265 Streets.

STREET EXCAVATION PERMIT AND INSPECTION COSTS			
Permit Category	# Permits	Staff Hours (Per Permit – 5.32)	Permit Administrative and Inspection Costs
Residential/Commercial	29	154.28	\$9,484.13
Provider (non-City ROW Occupant)	143	760.76	\$46,766.54
Totals	172	915.04	\$56,250.67
Cost Per Street Opening (Excavation) Permit			\$327.04

¹⁶ This cost per permit does not include costs incurred by the City for street opening and restoration activities performed by City DPW staff related to City underground facilities (Water and Sewer).

B. Street Opening Costs Related to City Facilities (Water and Sewer)

Although the obtaining of a street opening permit is waived for City Departments when City personnel perform the work, the City incurs significant costs associated with street (and curb and sidewalk) excavation work necessary for the installation, repair and maintenance of City underground facilities (water and sewer facilities), similar to those costs incurred by the City concerning non-City owned facilities.

The Bureaus of Water and Sewer perform on average between 50 and 100 street cuts each year in the City to repair and replace both water and sewer pipes. The Bureau of Streets Maintenance assists the Bureaus of Water and Sewer with all street repairs associated with these water and sewer pipe replacements and repairs.

In FY 2011, the Bureau of Water made 61 water trench cuts for a total of 445.56 square yards and the Bureau of Sewer made 57 sewer trench cuts with a total of 350.3 square yards. The City incurred costs associated with the Water and Sewer streets cuts in the Bureau of Streets and the Bureaus of Water and Sewer. An analysis of these activities and costs was done by the Department of Public Works to delineate the recoverable funding necessary for the ROW Management activities performed related to City water and sewer facilities in the ROW. Various funding methods were reviewed for full cost recovery, including but not limited to funding provided through the Water and Sewer Fund, inter-fund transfers and in-kind services, including those discussed later herein, that are provided by the Bureaus of Water and Sewer to offset the cost of support services provided by other City agencies.

c. Street Opening Additional Inspection Fee

§ 262-53 Responsibility; extra inspectors; other rules.

The ordinance states that:

“A. The permittee shall assume all responsibility for the excavation made by such party for refilling the same and for all damages that may arise from the digging of such trenches or excavations. Whenever it is determined by the Director of Public Works that in the best interests of the City it is necessary to assign additional street opening inspectors to supervise excavation, backfill or pavement restoration operations, such inspectors shall be paid by the permittee at a rate per day to be fixed by the Director.

B. The Department is authorized to make such other rules and regulations for the excavation of streets which it may deem necessary for the proper maintenance of the street surface due to excavations, which rules and regulations shall be printed upon the permit granted or forwarded from the Department in writing from time to time.”

As previously stated, the City has a separate inspection fee in addition to the street opening permit which is implemented for all cuts in excess of 4.99 square yards. As described above, the new proposed fee schedule would take into consideration two inspections for all cuts in the

ROW no matter the total square yard opening. However, while many street opening cuts (residential, business, commercial and ROW Occupant cuts) require only two inspections per permit, there are significant costs incurred in the Bureau of Engineering related to multiple inspections necessary on at least fifty to sixty percent (50 - 60%) of the street opening permits issued by the City.

More inspections are often required because of the size of the job, the lack of familiarity with City regulations, the oversight of street restoration requirements, delays or changes to the original plans, and other similar activities. In light of this, **a street opening additional inspection fee was calculated** based on the amount of time expended by the Bureau of Engineering on additional inspections and the associated costs incurred. In FY 2011 there were approximately 355 additional inspections performed (in excess of the two permit inspections) which incurred additional costs of approximately \$27,088.01¹⁷. This yielded a per additional street opening inspection cost of approximately \$76.22 related to street opening additional inspections. In establishing an “additional inspection fee” we reviewed the administrative and collection costs associated with the establishment of a new permit. Because several administrative activities do not need to be performed again since they were already performed during the establishment of the initial permit (i.e., plan review, collection of maps, bond information, review of City Code and construction standards, etc.), it is estimated that approximately 0.25 hours of administrative time will also be need when an additional inspection is required. Using our per hour rate of administrative costs (as determined in the street opening permit fee section), we calculate an administrative cost of \$43.65 per additional inspection permit ($\$174.60 \times .25 = \43.65). Adding these two costs together, we arrive at an additional inspection fee of $\$119.87 \sim \120.00 ($\$43.65 + \$76.22 = \$119.87 \sim \120.00).

This fee will work in tandem with the “extra inspectors” section of the Ordinance as the permitted job requires.

Establishing this additional inspection fee for street opening permits, beyond the two inspections included in the permit fee, may help shorten the length of jobs performed in the City streets; decreasing the delays and inconveniences to the public while the street is opened as well as diminishing public safety issues created by street openings. **The newly established fee will be billed each time the inspector needs to return to the site.** Establishing a fee will also serve to assist permit holders in estimating their overall costs associated with a street opening permit job.

¹⁷ These activity costs does not include costs incurred by the City for street opening and restoration activities performed by City DPW staff , related to City underground facilities (Water and Sewer).

Below is an example of a Street excavation job in the City that may require more than the two standard inspections included with a street opening permit.



d. Time Extension and Fee

§ 262-50 Time extension and fee.

The current ordinance indicates:

“If any permittee is unable to complete the street opening work on or before the date specified in the permit, the permittee shall file a written application for an extension of time with the Department of Public Works. The written application shall be in letter form and shall thoroughly explain the reasons for the extension of time plus the additional length of time required. A fee of \$1 shall accompany the application. This fee shall defray the costs of processing and filing the application.”

Currently a fee of \$1 accompanies all extension applications for street openings (residential, business, commercial, non-City ROW Occupant, etc.) where the permit is about to expire (initial street opening permits are good for 90 days; curb/ sidewalk for 45 days). This fee is to defray the costs of processing and filing the extension application.

CBG’s review of the Street Opening permit renewal process shows that approximately 2.2 hours of administrative processing time and approximately .5 hours of inspection time is necessary to renew a Street Opening permit. This includes activities such as: receipt of application, review of application extension, collection of fee, drawing review, review of reason for extension, as well as those tasks related to permit issuance that need to be reviewed again as described in the City’s Ordinance § 262-45, Prerequisites to Obtaining Street Opening Excavation Permit. Per our review, costs associated with the time extension and renewal of a

Street Opening permit amounts to approximately \$170.00 ($\$130.95 + \$38.11 = 169.06 \sim \170.00) per permit renewal.

Accordingly, the current \$1 Fee is insufficient to cover the City's costs associated with processing, filing applications, and also the inspectors time checking the work site regarding the street opening permit.

This recommended fee of \$170.00 will be sufficient to cover the costs associated with extending a permit and for the City Engineer to determine if it is a reasonable extension. Additionally, this fee will recover the City's additional costs incurred by extending the permit and will encourage the permittee to finish the project within the 90 days allowed by the original permit. In addition, permittees should be aware that **getting an extension of time does not exempt the permittee from additional inspection fees if two inspections have already occurred prior to the extension of the original permit.**

Furthermore, many cities street opening permits are only good for 30 to 45 days. This shorter permit period helps to deter permittees from elongating jobs once they have started and ensures a shorter time disturbances in the ROW for public safety. CBG recommends that **the City consider shortening its street opening permit period to 45 days instead of 90 days.**

e. Additional Work

Moreover, if a permittee is requesting an extension of time due to a change in the scope of the street excavation project has changed and that more work is required (additional area of street is to be excavated), CBG recommends that the City use the same fee for time extensions (as described above) since the additional work activities related to "extending a permit" are similar in nature and duration as those for "Additional work" situations as described in the Ordinance (see below).

§ 262-56 Additional work.

In no case shall a permittee open or remove a greater area of street surface than specified in the original application. The permittee shall not open any street area at any location not specified in the original street opening permit. If the permittee determines during construction that an additional area of the street will have to be opened, he shall notify and secure permission from the Department of Public Works for the additional opening. Upon receipt of permission, the permittee shall file a supplementary application for the work no later than the next workday. Fee amounts specified in this article shall be followed for any subsequent fees associated with supplementary applications.

f. Street Restoration Guaranty of Work

§ 262-57 Guaranty of work.

The permittee shall guarantee and maintain his work for 24 months from the completion of the restoration and replacement work. Within this twenty-four-month period, upon notification from the City of necessary correction work required, the permittee shall correct or cause to be corrected all restoration work required within five calendar days of receipt of the notification. The Department of Public Works shall determine the extent of restoration required and the method of correction. Any and all work not completed within this five-day period may be completed by the City at the discretion of the Director of Public Works. The City shall invoice the permittee for all costs incurred by the City in performance of this work. Payment not made within 30 days of the invoice date will be chargeable against the posted bond, including all fees and costs involved in the collection of this payment.

As previously stated in this report, **CBG recommends that an additional Engineer/Inspector be added to FT personnel staff** to ensure street restoration compliance with the 24 months guarantee of work issued with every permit. Additionally, by implementing a computer-based tracking system for permits, the Bureau of Engineering could track and notify expeditiously permittees when old permit sites are not meeting the “24 month guarantee”.

Currently, follow-on inspections by a permit’s 24 month anniversary are performed in a reactive manner, usually in response to a complaint. By way of increasing inspectors, and thereby inspections of permit sites over the 24 month period and implementing an enhanced tracking system, the City could see a decrease in the number of complaints regarding City streets as well as a decrease in the City’s own street repair costs associated with those sites, where old permit restorations have not held up to the 24 month guarantee but went previously unidentified.

g. Street Excavation Violations and Penalties

§ 262-58 Violations and penalties.

A. Any person violating the provisions of this article shall, upon conviction thereof, be fined not less than \$100 nor more than \$600 for each and every offense, together with costs, and in default of payment thereof be imprisoned for not more than 30 days. Each failure to obtain a permit or, having obtained a permit, to comply with any of the requirements of this article and each day during which such violation continues shall constitute a separate offense.

B. The Department of Public Works reserves the right to deny the issuance of future street opening permits to any person who violates the provisions of this article.

Specifically, as detailed above, there are methods that the City can employ to collect up to \$600 in fines each day for each Ordinance street provision not complied with. If the City would employ such methods the instances of “No Permit Obtained” would decrease in the City. Such

improvement in Permittees adhering to the Ordinance would also serve to decrease the volume of complaints received by the City.

h. Street Degradation Fee (Street Life Recovery Fee)

§ 262-47 Fees.

The Current Ordinance states:

C. The degradation fee and inspection fee to accompany the application, as herein provided, are to be as shown on Tables 1 and 2, respectively, of this section. The City Treasurer shall place collected degradation fees into the City Highway Fund.

(2)The number of square yards computed for the degradation fee and inspection fee will be based on the actual size of excavation disregarding any pavement that must be removed to enable an overlap of the surface course on the existing base course.

Table 1 Degradation Fee (Rate of fee in dollars per square yard. Streets constructed, reconstructed or resurfaced within the following number of years prior to issue date of permit. Rates associated with emergency situations or approved exceptions.)				
Pavement Structure	Less Than 1 Year	1 to 2 Years	3 to 5 Years	Greater Than 5 Years
Concrete foundation (10 inches or less in depth) with any asphalt surface	\$12.00	\$9.50	\$7.50	--
Concrete foundation (greater than 10 inches in depth) with any asphalt surface	\$14.00	\$11.00	\$9.00	--
Cement concrete surface streets	\$12.00	\$9.50	\$7.50	--
Bituminous concrete surface with bituminous or stone base	\$10.00	\$8.00	\$6.50	--
Macadam, vitrified block or granite block on stone foundation	\$7.00	\$5.50	\$4.50	--
Unpaved public streets or alleys	\$1.50	\$1.50	\$1.50	--
Example:				
Degradation fee for street with bituminous concrete surface and stone base three years old, 80 square yards: 80 square yards at \$6.50 per square yard = \$520.				
The number of square yards used in the computation of fees will be based on the nearest whole square yard figure.				
Minimum fee to be equal to the rate for one square yard.				

A. Street Degradation (Reconstruction, Restoration and Repair) Costs Related to non-City ROW Occupant Facilities

The City charges a street degradation fee to non-City ROW Occupants/Users (residential, business, commercial, non-City ROW occupants, etc.) for each street excavation done on streets that are less than 5 years old. Overall, these fees, as currently written and enforced, are under-recovering the current costs incurred by the Bureau of Engineering, the City's Pavement Management Program and other DPW Bureaus specific to non-City ROW Occupants/Users disturbance of City streets.

As a baseline, direct costs associated with street opening degradation related activities that have been incurred in FY 2011 in the Bureau of Engineering (including other City capital costs) equates to \$104,675.64¹⁸ (not including 3rd Party contracted services).

Moreover, additional costs are being incurred by the City in association with the Pavement Management Improvement Projects by way of construction management and oversight activities. These costs need to be considered when determining a per square yard fee associated with the impact of street disturbance on street life and the street's subsequent future restoration.

Based on our review, the current street degradation fee is not recovering the cost of the impact of current construction on the life of the City's streets. Furthermore, as the City refines and implements its green initiative including green roads and sidewalks, the City must refine the cost impacts to these streets and sidewalks constructed using green designs and construction methods. Fees will need to have a clause allowing for adjustments to recover additional costs incurred for construction and street opening of green roads and sidewalks.

Specifically, as part of our review to-date, CBG evaluated the City's current Pavement Management costs associated with street paving, resurfacing and reconstruction and the impact that non-City and City ROW Occupants, residents, businesses, etc. have on the deterioration and impact to the life of City streets and road segments. Some of the costs we reviewed included:

- *Bureaus of Water and Sewer*
 - Costs associated with coordination and oversight of Pavement Management Projects (including staff salaries, oversight and contract management, and similar activities)
- *Bureau of Engineering*
 - Costs associated with contract preparations and bid review for Pavement Management Projects (including staff salaries and similar activities)
 - Research costs related specifically to street life recovery
- *Bureau of Streets*
 - Construction and maintenance costs associated with the resurfacing and restoration of City streets, including costs incurred by the Bureau on City ROW projects and ROW User construction and facility projects.

¹⁸ These costs include salaries, employee benefits, overhead, direct costs, indirect costs, capital costs, etc. associated with street life recovery related activities performed by City DPW ROW Management staff.

The above direct costs were analyzed based on the square yardage of streets restored in FY 2011 under the City's Capital Improvement Project in order to refine the per square yard fee for direct costs associated with street improvement in the ROW. This per square yard fee component has been incorporated into the total per square yard fee for reconstruction/ repaving of City streets, as detailed in contracts currently in place for the City's street improvement project, to ensure full recovery of degradation costs associated with individual disturbances in the ROW.

As background for the proposed new City Street Degradation Fee (Street Life Recovery Fee), CBG used the City's most recent unit cost per square yard plus the City's costs associated with its Pavement Management Improvement Projects, including costs such as: contract development, bid review, project oversight, construction management, etc. to determine the most accurate projected street degradation fee for the City. This per square yard cost is used in the calculation of a proposed degradation fee associated with ROW construction, maintenance, repair and installation of underground facilities in the ROW; essentially, covering the costs associated with the early replacement of City streets each time they are opened to insert, repair or inspect utility infrastructure.

Currently the City requires street opening permittees to pay a degradation fee for streets younger than 5 years old and no degradation fee for streets older than 5 years. This schedule is established to ensure that pavement management costs associated with newly restored streets within the previous 5 years is recovered from the permittee. This schedule, however, does not take into consideration the full impact of deterioration and reduced street life that the permittee has created due to their street opening cut nor does it look at streets older than 5 years. These impacts vary based on the type and life of the street.

To maintain the City's street system of approximately 111 miles of roads¹⁹, the Department of Public Works currently resurfaces between 16 and 18 city blocks or approximately 36,750²⁰ square yards of streets per year. The goal is to have a reliable infrastructure to facilitate public safety, commerce and public convenience.

Each year, on average, over 125 utility cuts (FY 2011 had 172) plus 50 water and sewer trench cuts (FY 2011 had 118) are made in the City's public rights-of-way by occupants of the ROW. Our review indicates that the street improvement program would be able to increase the number of street blocks restored and resurfaced in the City if those entities making utility cuts were required to compensate the City for the full cost of the resurfacing and reconstruction that their activities make necessary.

¹⁹ Does not include State routes or private alleys.

²⁰ 2041.667 average square yards per street segment multiplied by 18 street segments restored each year.

Below are some examples of street excavations related to ROW Occupant facilities in the ROW that are reducing the life of a City street, i.e., street degradation.



½ block long patch



Multiple patches in street related to various trench work (gas, water, sewer, etc.)

Many studies have been conducted across the country to determine objectively if utility cuts degrade pavements and reduce the life cycle of streets. These studies have also tried to quantify the reduction in pavement life and the resulting additional cost of repairs. Specifically, studies have shown that the impacts of excavation do not end when construction is complete. **In actuality, street excavation increases taxpayer costs to maintain city streets because it**

accelerates the deterioration and reduces the surface life of the streets. This street damage occurs no matter how well excavation is restored, and the more excavations that occur in a street, the more the street is damaged. The conclusion is that excavation damages cost city taxpayers thousands of dollars annually in increased street maintenance. In light of these studies, many cities have added to their permit and annual fees a Street Degradation Fee, Street Life Recovery Fee or Street Damage Restoration Fee.

For example, the City of Harrisburg established a Street Cut Degradation Fee that is assessed and billed after the restoration of all street cuts. As previously stated, some cities look at the type of street surface to establish degradation fees. Consequently, the City of Harrisburg established two degradation fees: one for concrete base streets (ranging from \$110 per square yard for one year old streets to \$60 per square yard for streets 6 through 10 years old); and one for non concrete base streets (ranging from \$80 per square yard for one year old streets to \$30 per square yard for streets 6 through 10 years old)²¹.

As another example, the City of Los Angeles established one Street Damage Restoration Fee for major city streets ranging from \$191.34 per square yard for streets one (and one day) to five years old and \$127.62 per square yard for streets 10 (and one day) to 15 years old. They also established a Street Damage Restoration Fee for other types of city streets.²²

When looking at the costs incurred by the City of Lancaster, in regards to street maintenance, restoration and reconstruction, applying a similar degradation analysis can lead to an increase in street resurfacing for the City that is funded by the entities that contribute to the deterioration of street life through their maintenance and construction of infrastructure in the ROW.

Additionally, CBG also looked at the current Ordinance as well as the current City paving and backfill procedures to establish an understanding of the current level of backfill, paving and replacement that is required of permittees at the time of street excavation.

The City Ordinance states:

§ 262-51 Backfilling and paving.

The permittee shall be responsible for backfilling and paving the opening and restoring the street surface to its original condition. The Department of Public Works shall have the full authority to establish standards for paving and backfilling materials and associated procedures. Details specifying paving and backfilling procedures and materials shall be obtained from the Department prior to any street opening work.

§ 262-52 Backfilling and replacing surface; when done by City.

In case the work has not been completed before the date of expiration as shown on the permit, which time shall be fixed when the permit and/or time extension is granted, the Department of Public Works may take steps to backfill the trench and replace the street surface over the opening for which the permit has been issued.

²¹ City of Harrisburg, Office of the City Engineer, Standard Specifications 1999, Revised December 9, 2005

²² City of Los Angeles, Department of Public Works, Bureau of Engineering, 2010-11 Standard Fees, July 8, 2010

The City shall invoice the permittee for all costs incurred by the City in the performance of this work. Payment not made within 30 days will be chargeable against the posted bond, including all fees and costs involved in the collection of this payment.

In considering a new street degradation fee schedule, CBG looked at various trends across the country and their applicability to the City of Lancaster. Some of the trends considered were:

Age of the Street:

Currently the City has no provision in its procedures that requires full restoration from curb to curb of a disturbed street. CBG recommends that **full restoration from curb to curb and for 10 feet past either side of a trench be established for cuts into streets whose life is three (3) years old or less.** This helps ensure that recently repaved and reconstructed streets are able to maintain their useful life even if a street cut has to be made.

Percentage of Disturbance of the Street:

Currently there is no regulation in the ordinance which specifies that a certain percentage of street disturbance triggers curb to curb or seam to seam resurfacing of the roadway. There is precedent set around the country where local governments are requiring full restoration from curb to curb if 20 to 30 percent of the street segment has been disturbed. CBG recommends that **curb to curb full restoration be performed when 30% of the street segment is impacted by street cuts.**

CBG, for purposes of our review and fee development, has used 30%, as the trigger for full width overlay including pavement milling. As an example, using 30% as the pavement disruption trigger, and the City's most current bid cost per square yard for pavement milling & superpave wearing course overlay (\$11.70)²³, plus the per square yard City cost ($\$104,675.64 \div 36,750 = \2.85)²⁴, plus the annual average base repair cost (\$5.42)²⁵, the per square yard cost to recover the total cost of the overlay and average base repair pertaining to a street cut is $\$19.97/30\% = \$66.56 \sim \$66.00$. In other words, a base fee of \$66.00 should be assessed for each square yard cut; however, this base degradation fee will be reduced by factoring in depreciation over the life cycle of the surface course of the street.

²³ This cost is based on the most recent per square yard contracted costs related to the City's Street Improvement Plan. **It should be noted, thought, if the City decides in the future to perform all street improvement paving activities directly and incur all associated costs related to such activities, then the City would need to incorporate those costs into the current fee calculation formula (instead of the contracted per square yard fee) to ensure full recovery to the City for street life restoration.**

²⁴ This cost is the City's direct costs for project oversight and management, including contract preparation and bid documentation review out of the Bureau of Engineering, and construction oversight from the Capital Improvements Manager out of the Bureau of Water (this amount was calculated based on the number of Street Improvement Projects in the City for FY 2011 and the overall historical trends for oversight of the average number of street segments restored each year).

²⁵ This cost is the average base repair cost associated with the 11% average amount of base repair performed each year under the City's Street Improvement Plan.

The City’s streets are largely comprised of asphalt and together with the Pavement Management Study guidelines and historical pavement studies; the City’s streets have a street life cycle of approximately 15 years.

As the City streets age and they are restored based on their rating in the City’s street improvement project, their life cycle continues to be degraded every time a street cut is made. These street openings make necessary the repaving of the road at an earlier than budgeted time than originally rated. As such these costs associated with the shortened life cycle need to be recovered at the time of the deterioration in order to provide the funds necessary to completely restore the road when it is necessary.

CBG recommends the following range of Street Cut Degradation Fees for City streets as detailed below²⁶.

<u>Pavement Age (yrs)</u>	<u>Fee per Square Yard of Excavation</u>
3 yrs and younger	No excavation allowed except with resurfacing of entire block
3 yrs plus one day – 4 yrs	\$52.80
4 yrs plus one day – 5 yrs	\$48.40
5 yrs plus one day – 6 yrs	\$44.00
6 yrs plus one day – 7 yrs	\$39.60
7 yrs plus one day – 8 yrs	\$35.20
8 yrs plus one day – 9 yrs	\$30.80
9 yrs plus one day – 10 yrs	\$26.40
10 yrs plus one day – 11 yrs	\$22.00
11 yrs plus one day – 12 yrs	\$17.60
12 yrs plus one day – 13 yrs	\$13.20
13 yrs plus one day – 14 yrs	\$8.80
14 yrs plus one day – 15 yrs	\$4.40
15 yrs plus one day – 30 yrs	\$0

The above recommended age and fee changes are based on costs associated with the early replacement of City streets each time they are opened to insert, repair or inspect utility infrastructure and the costs incurred by the City’s Department of Public Works when the street is scheduled for full restoration.

B. Example of Degradation Fee

To illustrate this concept, assume a typical asphalt City street experiences a 30 square yard utility cut (90 feet long by 3 feet wide) in the fifth year of its surface life. The depreciation rate

²⁶ City streets are mostly comprised of Asphalt surface with bituminous concrete or stone base, therefore the above recommended degradation schedule is proposed to be used related to all excavations in all City streets whether scheduled to be reconstructed or resurfaced in future years.

will be \$4.40 per year (\$66.00/15). The formula for calculating the chargeable degradation fee is as follows.

Fee = Area of Cut	*	[Base Fee – (Surface Age * Depreciation rate)]
Fee = 30 S.Y.	*	66.00 - (5 * 4.40)
Fee = 30 S.Y.	*	66.00 - 22.00
Fee = 30 S.Y.	*	44.00
Fee = \$1,320.00		

C. Degradation Cost Analysis

Using the information gathered above, when we consider the amount of ROW construction activity performed in FY 2011, 1,204 square yards²⁷, and if we use the street life median cost of \$35.20 per square yard (Asphalt – 7 years old), we calculate an estimated recovery of \$42,380.80 for FY 2011.

If we look more conservatively at our calculation and calculate our recovery based on a recovery rate of \$4.40 per square yard for the street life year right before full restoration, we calculate a minimum recovery of \$5,297.60 for FY 2011.

If, on the other hand, we look at the opposite end of the street life construction process and we calculate our recovery based on a recovery rate of \$52.80 per square yard for the street life year right after the 3 year full restoration mark we calculate a maximum recovery of \$63,571.20 for FY 2011.

Whatever scenario occurs, the City would have recovered an amount far in excess of the FY 2011 actual degradation recovery amount of \$0.00 related to the 1,204 square yards of street disturbance constructed in FY 2011. These new street degradation recovery fees would then be available for the City’s Pavement Improvement Project budget and allow the City to significantly increase its number of City street blocks restored each year.

D. City Degradation Costs Related to Bureaus of Water and Sewer Street Cuts

As previously stated, the Bureaus of Water and Sewer perform on average between 50 and 100 trench cuts each year in the City to repair and replace both water and sewer pipes. The Bureau of Streets Maintenance assists the Bureaus of Water and Sewer with all street repairs associated with these water and sewer pipe replacements and repairs.

In FY 2011, the Bureau of Water made 61 water trench cuts for a total of 445.56 square yards and the Bureau of Sewer made 57 trench cuts for a total of 350.3 square yards. When we take the same degradation fee per square yard cost and apply it to the street disturbance that the Bureaus of Water and Sewer performed in FY 2011 (795.86 square yards), we calculate a range of degradation fees incurred by the City’s Bureaus of Water and Sewer based on the average age of the streets that were cut. Such as:

²⁷ This figure was provided by the Bureau of Engineering. Degradation fees were calculated based on the amount of square yardage associated with permitting activity in the ROW for FY 2011.

- For an average seven-year old asphalt street, the fee would be \$28,019.20
 - $\$35.20 * 796 \text{ sq. yds.} = \$28,019.20$
- For an average 14-year old asphalt street, the fee would be \$3,502.40
 - $\$4.40 * 796 \text{ sq. yds.} = \$3,502.40$
- For an average 3-year old asphalt street, the fee would be \$42,028.80
 - $\$52.80 * 796 \text{ sq. yds.} = \$42,028.80$

It is important to note that, although the Bureaus of Water and Sewer will incur degradation costs associated with their annual street cuts, they also support the City's Pavement Improvement Project through supporting the management and oversight costs associated with the Capital Improvement Manager's Salary and associated personnel costs.

II. Proposed Street Excavation Regulations related to ROW Management

a. Annual ROW Maintenance Costs related to Streets

Based on actual FY 2011 figures, the total costs incurred by the City for tasks associated with ongoing Annual ROW Underground Maintenance is approximately \$197,704.15. These costs were further delineated into City ROW maintenance and oversight activity costs in the amount of \$95,025.73²⁸ for non-City ROW Occupant (underground), \$79,167.76²⁹ for City ROW facilities and \$23,510.66 for non-Occupants³⁰. As described earlier in this report, these costs are related to annual ROW maintenance activities as they relate to City Streets and Sidewalks.

A. Annual ROW Street Maintenance Costs related to Non-City Facilities

The City currently incurs costs on an annual basis related to the overall management (oversight, street condition review, complaints, street use planning, ADA compliance review, occupancy, access and other related activities) of the City's streets (not including private roads and alleys or State roads).

Based on actual FY 2011 figures, the City incurred annual ROW street maintenance costs related to non-City Occupant facilities in the amount of \$83,277.16. These costs were gathered and evaluated based on a variety of annual ROW street maintenance activities as described in

²⁸ This amount includes the annual ROW Maintenance costs related to non-City facilities work in the curb/sidewalk of \$11,748.57.

²⁹ This cost reflects ROW Maintenance Activities currently performed in the Bureau of Engineering related to City Water and Sewer facilities. It does not include the additional costs incurred by the City in the Bureaus of Water and Sewer related to similar ROW maintenance activities performed concerning City facilities (i.e., ongoing facility inspections, customer complaints, ROW Use planning, Utility Coordination, etc.).

³⁰ Non-Occupant refers to those ROW users and property owners (residents, businesses, etc.) who do not have facilities in the ROW (i.e., do not have gas lines, telephone lines, sewer lines, fiber optics, water lines, communications infrastructure, oil pipes, etc).

Section 2.D.I. – Annual ROW Management Cost Analysis – Methodology. Specifically, these costs breakdown into categories as follows:

- ROW Use Planning – \$15,252.55
- Customer Service – \$16,050.99
- Code Updates and Compliance – \$11,904.90
- Complaints – \$18,530.69
- Oversight and Compliance Maintenance – \$16,212.02
- Utility Coordination - \$5,326.01

The above costs are currently being under-recovered and are included in the allocation of the recommended new Annual ROW Underground Maintenance Fee³¹.

Below are some examples of issues encountered during annual ROW street maintenance activities:



This is an old Gas trench permanent patch which is now sinking.

³¹ The proposed new Annual ROW Underground Maintenance Fee includes all costs incurred by the City for the ongoing oversight and maintenance related to non-City ROW Occupants underground facilities in the City streets, curbs and sidewalks.



Patch in road is sinking.

As previously described in Section 2.C. Allocation and Methodology for Annual ROW Maintenance Cost Analysis, the Annual ROW Underground Maintenance Fee is \$95,025.73 (\$83,277.16 for streets and \$11,748.57 for curb and sidewalks). Since there is 713,278 total non-City facility linear feet in the underground ROW, a projected new base fee equates to approximately \$0.1332239 ~ \$0.13322 per linear foot for underground non-City facilities. Based on this analysis, it is recommended that a fee be implemented that recovers the Underground ROW Maintenance costs for non-City facilities of \$0.13322 per linear foot of installed facilities in the ROW.

Since the above annual ROW underground maintenance costs in the amount of \$95,025.73 for non-City ROW Occupant facilities is related to a variety of ROW management and oversight functions that are developed on a cost recovery basis³², it will be important to establish a mechanism for receiving and tracking the maintenance fees so that on an annual basis they can be compared and applied to costs expended by the Department of Public Works for ROW management functions.

It should be noted, that the City's staff time devoted to annual ROW maintenance activities was reviewed and analyzed in relation to all ROW Management activities including the annual ROW maintenance activities. Activity percentages related to the above street maintenance categories were further reviewed in comparison to non-City ROW provider allocation percentages to ensure that the cost allocation was comparable to a provider's infrastructure footage in the ROW. The staff activity review showed percentages of time spent on activities in relation to each provider to be consistent with provider footage percentages in the ROW.

Alternatively, CBG worked with the City to review and consider establishing additional fees (such as a Complaint Fee), to correlate with staff time allocated to each ROW maintenance activity. In order to administer these additional fees it was determined that additional

³² See Section 2. Annual ROW Management Cost Analysis - Methodology

administrative, monitoring, follow-up and other activities would also need to be implemented to manage the new fees. This ultimately amounted to an increase in overall costs of as much as \$100,000 which would double the current amount to be recovered. Accordingly, CBG recommends that the ROW maintenance cost categories not be established as separate fees due to the excessive expenditures that would be necessary in additional personnel, direct expenses, monitoring and collection activities, etc. and that a annual ROW Maintenance Fee including all costs categories be established as proposed above.

Some jurisdictions have set up separate sub-funds to receive and track such fees, which they have found to be an effective mechanism. The key, though, is that the fees received must be tracked as a funding source and compared to costs expended so that the City can determine, on an annual basis, whether it is sufficiently and accurately recovering its ROW management costs. Such tracking and cost comparison helps ensure that funds are available to properly support the City’s ROW management activities, including increased support for the City’s street improvement program related to ROW Occupant street disturbance activity, as well as aerial facility inspections and maintenance of overhead facilities in accordance with applicable code provisions and regulations.

B. Annual ROW Maintenance Costs Related to City Facilities

As noted above, the City (Bureaus of Water and Sewer) also incurs ROW Management costs associated with City ROW facility maintenance activities (Water and Sewer) in the ROW. Some of these costs and related costs were incurred outside of the Bureaus of Water and Sewer. As defined earlier, costs were incurred in the amount of \$79,167.76 by the Bureau of Engineering. These costs were examined to assist the Department of Public Works in reviewing their cost recovery for the City regarding ROW Maintenance activities performed related to City facilities. Funding methods that were reviewed and considered, included but were not limited to, inter-fund transfers and in-kind services, as well as the sewer and water funds where applicable.

Chart 2 below shows current estimated City-Owned Facilities Infrastructure Footages in the City’s ROW that were used as a basis for the City’s underground ROW Maintenance costs review.

Chart 2 - City Owned Facilities ROW Infrastructure

CITY OWNED FACILITIES INFRASTRUCTURE FOOTAGES			
City Owned and Maintained Streets and Alleys = 111 Miles			
Operator	Estimated Linear Footages and their percentage in the ROW		
	Aerial	Underground	Total ROW Footage
Lancaster City Sewer	0	586,080	586,080
Lancaster City Water	0	586,080	586,080
Estimated Infrastructure Grand Total in Lancaster ROW	0	1,172,160	1,172,160

b. Closing a Street Permit

As previously stated, there is sometimes a third party inspector hired by the contractor, property owner or ROW Occupant to inspect the provider's facilities. Prior to the Bureau of Engineering closing out a permit, CBG recommends that **the permit holder be required to provide either a certificate of occupancy or similar certificate from the facility inspector approving the facility installation or repair.** If no certificate is provided, then the permittee should be required to file and pay for an extension (See Section III. B.I.g. Extension of Time) until such time that a Certificate or Proof of Inspection is provided to the City Engineer for permit closure.

UTILITIES (§ 279)

A. Poles

I. Poles (§ 279-1 through 279-6)

a. Permit Fee

§ 279-3 Permit for erection or change of location.

The Ordinance states:

“Hereafter no telegraph, telephone, electric light or street railway company or any other corporation or company or person shall erect or cause to be erected or maintained or change the location of any pole now erected on any of the streets, alleys or highways in the city without first having obtained a permit. The Mayor shall specify the number, size and location of the pole or poles to be erected. The Mayor shall issue the permit after the Council has approved of the proposed erection or change of location.”

Currently the City requires a permit for any pole erection, change of location, pole replacement and other similar pole activities. However, there is no fee associated with the required permit although the City incurs costs associated with the processing, filing of the permit application and inspection of the pole site. Based on CBG’s review of pole replacement and relocations, in FY 2011 the City incurred costs of approximately \$12,168.93 related to pole replacement permit activities.

Given that roughly 50 permits were issued in FY 2011, it is recommended that these tasks be part of the duties assigned to a new staff Engineer/Inspector (1 Fulltime Employee)³³, as well as aerial inspections and annual aerial management in the ROW.

Adjusting for a new FT Engineer/Inspector (using estimated budgetary figures), it is projected that the City would now incur approximately \$12,168.93 annually (FY 2011 actual costs were \$5,748.64) related to activities associated with pole permits. We can then calculate a new estimated cost per pole fee of \$245.00 ($\$12,168.93 \div 50 = \$243.38 \sim \245.00). The fee amount will cover the costs associated with the administrative and inspection time necessary to perform all associated Pole replacement and relocation permit fee activities as defined earlier.

Based on this cost review, CBG recommends that **a pole replacement/installation permit fee be charged** in the amount of \$245.00 to cover City administrative costs and initial inspection of the site of the new pole, and follow-up inspection of any old pole removals. It is also recommended that **an additional pole maintenance fee (as further discussed below) be charged to cover on-going inspection costs associated with the maintenance of existing poles.**

³³ This recommendation reflects the same Engineer/Inspector as described in Section 3.A. Curb and Sidewalks.

UTILITY POLE REPLACEMENT/RELOCATION PERMIT AND INSPECTION COSTS			
Permit Category	# Permits	Staff Hours (Per Permit – 4.2)	Permit Administrative and Inspection Costs
Utility Pole Owners	50	210.2	\$12,168.93
Cost Per Utility Pole Replacement/Relocation Permit			\$243.38

Below are pictures of some examples of pole installation, replacement and relocations.



Pole installation has been completed, however, the sidewalk has not been restored to its original condition.



Utility pole was replaced but the sidewalk was not restored to its original condition (site cleanup needed).

II. Proposed Pole Regulations

a. Annual Pole Maintenance Fee

Related to the above, CBG analyzed the City's costs incurred by the Department of Public Works that were related to the management of pole facilities in the ROW. Work related to pole facilities is being performed, mostly based on complaints filed with the Department of Public Works. In FY 2011, CBG determined that approximately \$2,106.74 (30.9 hours of staff time) was spent on pole-related maintenance and inspection activities in the ROW. Taking into consideration the increased staff (one additional Engineer/Inspector³⁴), it is projected that the City will incur approximately \$13,348.85 in pole maintenance costs (These costs are not included in the annual ROW Maintenance Fee (Street/Sidewalk) calculations described earlier in this report).

Since there are approximately 4,500 poles throughout the City's ROW³⁵, a projected new base price per pole comes out to approximately \$2.97 per pole. Based on this analysis, it is recommended that a fee be implemented that recovers the projected costs of at least \$3.00 per pole. As noted, available as-built maps were used in the calculation of the number of telephone poles in the City ROW. **As new poles are installed and old poles are replaced, updated as-built maps should be required by the City from the Pole Owners in order to adjust the per pole fee each year.**

The findings from our review and analysis also show a level of non-compliance. Specifically there are a significant number of pole transfers (old poles in the City that have been replaced by a new pole) that have not been completed. The owner of a pole typically replaces it because of the age and wear on the pole or due to damage of the pole by a vehicle or some other means. After the owner of the pole places a new pole beside the existing pole, they transfer their facilities (wires, cables, equipment, etc.) to the new pole. They then notify the other occupants of the pole and they must transfer their facilities prior to the old pole being removed by the owner. In a large number of cases, there is a disconnect between the Occupants of the pole which creates significant delays in removing the old pole and completing the project. This disconnect results in many poles in the City with facilities held in place by rope, tape or other temporary means rather than by permanent hardware attached to the pole. This amount of time that has passed is unacceptable and needs to be remedied by the City with cooperation by the occupants of the ROW.

Lastly, all the above fees and taxes should be reviewed annually to get a clear understanding of the amounts being paid by Verizon and the applicability to other pole owners and occupants.

³⁴ An additional Engineering/Inspector is needed to ensure the aerial (overhead) facilities in the ROW are maintained in accordance with State and local laws and regulations to ensure the safe access and use of the ROW for the citizens of the City.

³⁵ This figure was calculated based on the available as-built maps provided by the Bureau of Engineering.

ANNUAL UTILITY POLE MAINTENANCE COSTS			
Permit Category	# Permits	Staff Hours (Per Pole – .05)	Permit Administrative and Inspection Costs
Utility Poles	4,500	241.5	\$12,168.93
ROW Maintenance Cost Per Utility Pole			\$2.97

Below are some examples of annual pole maintenance-related activities:



Incomplete pole transfer. Old pole is strapped to new pole. Everything except neutral is removed from old pole.



This utility pole is leaning severely.



Pole replacement, restoration to the sidewalk is incomplete as well as the transfer of telecommunications infrastructure on the original pole on the left.



Although there is a new pole in place, the old pole still needs to be removed. This requires on-going follow-up.



The new pole has been installed but the old pole is hanging in the air due to Cable TV still being attached to the old pole. This requires on-going follow-up to ensure complete pole replacement and wire transfer to ensure safe passageway on the sidewalks and streets below.

B. Aerial (Overhead) Facilities

I. Proposed Aerial Facility Regulations

a. Annual ROW Maintenance Costs Related to Aerial Facilities

It was recommended earlier herein that an **annual ROW maintenance fee be adopted** into the ordinance to cover the maintenance, on-going inspection, complaints, and other similar activities necessary for the oversight of both underground and aerial Occupant facilities in the ROW.

Although lesser costs are currently being incurred by the City for aerial ROW maintenance, CBG recommends that **the City add an Engineer/Inspector to address all tasks³⁶ associated with maintenance and inspection of aerial (overhead) facilities in the ROW** in order to improve the infrastructure in the Right-of-Way and ensure public safety with respect to non-compliance of aerial lines (i.e., drooping line, loose guy wires, lines not grounded properly, etc.).

During the review of the City's ROW Management costs and the Fee Analysis, CBG performed a spot check of the aerial (overhead) facilities in the City to gain a high level of understanding of compliance with standards and codes by the occupants of the ROW. This includes the level of compliance, by the ROW occupants with PUC regulations and, where applicable National Electrical Code (NEC), National Electrical Safety Code (NESC) and good engineering practices. Our findings show that **the City should expand and increase its inspection process related to aerial facilities and develop a reporting process** whereby the occupants of the ROW are required to bring their facilities into compliance in a reasonable timeframe when problems are identified.

The City has an obligation to its citizens and the general public to maintain its ROW in a manner that ensures the public is safe and facilities in the ROW meet all code requirements and are not aesthetically unacceptable. The City needs to inspect aerial facilities in the ROW, and up to and within the building, to ensure these facilities are installed and maintained in the proper manner. Furthermore, the City needs to have a detail-oriented method for reporting problems in the ROW to the pole owner and/or other occupant(s) with specific addresses and a description of the issue needing to be resolved. The occupant(s) then need to respond to the City letting the City know they are aware of the problem and a date by which the problems will be resolved. The occupants need to be held responsible for follow-up on these issues until they are resolved.

During interviews with City staff it was noted that City inspectors currently note issues that exist in the ROW and report them to the occupants for correction. Going forward, **the City needs to expand its inspection program through an additional staff member to increase its focus on ensuring facilities installed in the entire ROW (aerial as well as underground) are installed and correctly maintained by the owners and occupants of the facilities in the ROW. This process must include documentation and notification practices to be performed by the City as well as follow-up procedures and timelines to be required of the Occupants of the ROW.**

³⁶ This recommendation is the same as the one recommended under Curb and Sidewalk permits.

City inspectors feel that they may not currently have in the Code the necessary authority in the Code to require timely completion of the necessary steps by the occupants of the ROW to remedy issues and problems. Therefore, **the City should create and implement ordinance provisions requiring all ROW occupants to maintain their facilities to meet PUC regulations and standards and where applicable NEC and NESC codes, as well as good engineering practices, within the ROW as well as on public and private property including homes and other buildings.** These codes are developed and adjusted over time to ensure compliance by the owners of the facilities that provide the highest level of safety and infrastructure integrity.

Since there is currently no mechanism in place to recover these aerial (overhead) ROW maintenance costs, CBG recommends that a new annual ROW Aerial (overhead) Maintenance Fee be established.

Based on actual FY 2011 figures (plus the recommended FT Engineer/Inspector), the total Annual ROW Management cost related to aerial facility activities was \$83,830.17. Since there are 1,849,926 linear feet of non-City facilities in the aerial/overhead ROW, a projected new base fee comes out to approximately \$0.043966426 ~ \$0.04396 per linear foot. Based on this analysis, it is recommended that a fee be implemented that recovers the City's Aerial ROW Maintenance costs related to non-City facilities of \$0.04396 per linear foot of installed facilities in the ROW.

As noted earlier in this report, since the above ongoing, annual ROW management costs (\$83,830.17-Aerial) relate to a variety of ROW management and oversight functions that are developed on a cost recovery basis, it will be important to **establish a mechanism for receiving and tracking the maintenance fees, as well as all permitting and inspection fees** so that on an annual basis they can be compared and applied to costs expended by the Department of Public Works for ROW management functions. Such tracking and cost comparison helps ensure that funds are available to properly support the City's ROW management activities, including aerial facility inspections and maintenance of overhead facilities in accordance with applicable code regulations.

Below are some examples of what Inspectors see during their aerial (overhead) maintenance activities:



Telephone drop is loosely wrapped around pole.



The communications cables are touching. They should be a minimum of 6-12 inches apart.



The lashing wire (Used to hold cable up on messenger cable) is broken.

DRIVEWAYS (§ 285)

A. Driveways

I. Private Driveways

a. Driveway Permit and Access

§ 285-119 Permit to open driveway.

The current Ordinance indicates:

“No person shall open a private driveway leading from or construct a garage directly accessing any street in the City without first having obtained the consent of the Traffic Commission in addition to all other permits and consents required by law. This consent may be endorsed by the Traffic Engineer on the permit issued by the Department of Public Works or may be in such other form as the Traffic Commission may determine.”

The City currently requires an Access Driveway & Driveway Location permit and inspection prior to any driveway access request or driveway construction and improvement. The driveway permit and inspection activities include:

- Receipt and review of a driveway permit
- A plan review, including dimension, location, length and width, distance from building and property line, building location, etc.
- A review by the City Engineer of the permit application for safe stopping distance, intersection separation distances and pedestrian safety issues.
- Collection of the driveway application fee of \$30 (which includes, but is not limited to application processing costs, plan review, site review and up to two inspections).
- The Driveway permit is good for one 30 day period.

In FY 2011, the City’s costs incurred related to 4 driveway permits was \$1,160.11 (or \$290.03 per permit) with revenues collected on the 4 driveway permits of \$120.00, the City’s under-recovery was \$1,040.11. Accordingly, increasing the City’s driveway permit fee will cover the costs associated with the City’s Driveway permit fee activities.

Specifically, the costs incurred for driveway permitting activities such as application processing, drawing review, specification information, etc. were approximately \$789.51 for 4 permits. This equates to approximately \$197.38 per driveway permit for the application and permit processing activities.

Costs incurred in FY 2011 for driveway cut permit-related inspection activities such as initial visual inspection prior to work commencing, excavation inspection and final restoration inspection, were approximately \$370.61 for 4 permits. This equates to approximately \$92.65 per driveway permit-related inspection activities.

When taken together we arrive at a base permit fee of approximately \$290.03 ~ \$290.00. CBG recommends that the City increase its driveway fee (residential and commercial) to approximately \$290.00.

DRIVEWAY PERMIT AND INSPECTION COSTS			
Permit Category	# Permits	Staff Hours (Per Permit – 4.55)	Permit Administrative and Inspection Costs
Driveway	4	18.2	1,160.11
Cost Per Driveway Permit			\$290.03

b. Driveway Additional Inspection Fee

Additionally, the City is incurring costs for additional inspections beyond the two in the driveway permit related to driveway construction and modification activities occurring during the construction of a proposed driveway.

Consequently, CBG recommends that the City establish a rate of \$95.00 per additional driveway inspection ($\$49.35$ [administrative cost x 0.25] + $\$46.33$ = $\$95.70$ ~ $\$95.00$).

DUMPSTERS

A. Dumpsters

I. Current Dumpster Policy and Procedures

Currently the City has a permit process for placement of dumpsters in the ROW but does not require a fee for the permit. Specifically:

- One permit is required per location. Permits are available in the Engineering Office.
- Dumpster permits are required when obstructions are placed along a sidewalk or within a City street.
- Permits are available at no charge and are typically valid for seven days.
- All dumpster locations must be reviewed by the Engineering office prior to placement to ensure that traffic, parking, and sight-line issues are considered.
- The Engineering Office will coordinate with the Police and/or Fire Departments as necessary prior to issuing a permit at certain locations.

As previously stated, there is no revenue currently collected for dumpster permits in the ROW.

Based on CBG’s cost review, the City incurred costs in FY 2011 in the amount of \$10,547.85 with respect to application processing, inspection and site review of 49 dumpster permits (residential and commercial). This equates to an annual cost of approximately \$215.00 per dumpster permit ($\$10,547.85 \div 49 = \$215.26 \sim \$215.00$). The recommended fee amount will cover the costs associated with administrative and inspection time necessary to perform all associated Dumpster permit fee activities.

DUMPSTER PERMIT AND INSPECTION COSTS			
Permit Category	# Permits	Staff (Hours Per Permit – 3.514)	Permit Administrative and Inspection Costs
Dumpster	49	172.19	\$10,547.85
Cost Per Utility Pole Replacement/Relocation Permit			\$215.26

II. Other Municipalities’ Fees and Procedures

CBG’s review of other municipalities shows that there is precedent for establishing a dumpster fee based on *size and length of use* of a dumpster. For example some jurisdictions charge a fee of approximately \$200 for a dumpster in the Right-of-Way with a capacity of one cubic yard, while other jurisdictions charge a dumpster fee of \$35.00 for the first seven (7) days and then \$15.00 per day after the seventh day. In this case, the dumpster permit is only valid for seven days, but can be renewed *prior to* its expiration date for \$25.00 (for another seven day period).

Most jurisdictions prefer not to issue lengthy permits for dumpsters in the Right-of-Way. Trends in jurisdictions around the country show that on average dumpster permit remains open for 14 days (or 10 working days) prior to expiring, with costs ranging from \$25.00 for a dumpster less than 1 cubic yards to \$75 for dumpsters one cubic yard or greater.

Since the City does not currently charge a fee for dumpsters for the seven day period, nor does it charge a renewal fee, it is hard to determine the amount of time each permit was issued for and its capacity.

SECTION 4

SUMMARY OF CURRENT RIGHTS OF WAY MANAGEMENT ORDINANCE, POLICY, PROCEDURE AND FEE RECOMMENDATIONS

**SUMMARY OF CURRENT ROW MANAGEMENT
ORDINANCE, POLICY, PROCEDURE AND FEE
RECOMMENDATIONS**

I. Curb and Sidewalk Recommendations related to ROW Management:

Based on our analysis, CBG recommends the following related to curb and sidewalk management, permitting, inspection and annual maintenance:

- 1. Update Curb and Sidewalk Permit Fee** – CBG recommends that the curb and sidewalk opening permit be updated to recover the City’s current costs per permit (as of FY 2011) associated with curb and sidewalk cut permit inspection activities. Specifically:

<i>ROW Occupant and Non-Occupant</i>	<i>Fee</i>
Commercial/Residential/Business/Provider: <ul style="list-style-type: none"> • Includes administration, plan/drawing review, providing and ensuring specifications, utility coordination, initial visual inspection, etc. and up to 2 detailed, on-site inspections. 	\$ 205.00 per permit

- 2. Additional Inspection Fee for Curb and Sidewalk Openings** – CBG recommends that an “Inspection Fee” for curb and sidewalk openings be established to recover the City’s current costs(as of FY 2011), per permit associated with additional inspections necessary beyond the 2 inspections included in the Curb and Sidewalk Permit fee. Specifically:

<i>ROW Occupant and Non-Occupant</i>	<i>Fee</i>
Fee per Additional Inspection (in excess of 2 on-site permit inspections)	\$ 75.00 per additional inspection

- 3. Establish a Time Period for Curb and Sidewalk Permits** – CBG recommends that the City establish in the Ordinance that all curb and sidewalk permits are good for a period of 30 or 45 days.
- 4. Establish a Time Extension Fee** –CBG recommends that a permit Time Extension Fee be established in the amount of \$105 for Curb and Sidewalk Opening Permits.
- 5. Establish an Annual ROW Underground Maintenance Fee** – CBG recommends that the City establish an annual ROW Underground Maintenance Fee that recovers the City’s costs associated with the ongoing management of the City’s curbs and sidewalks (as well as the City streets) related to ROW Occupant facilities (See Section 3.B.II.a. Annual ROW Maintenance Costs related to Streets for further details). The annual ROW Maintenance Underground Fee Allocation can be found in Section 5. Summary of Fees.
- 6. Add a Full-Time Staff Engineer/Inspector** – CBG recommends that the City consider adding a Fulltime (FT) **Staff Engineer/Inspector** (one FT Engineering Aide/Draftsman) to ensure

timely and effective follow-up on the requirements of this Ordinance, including the coordination and oversight that may be necessary by the City to perform the required repair work and ensure the levying and collecting of the costs associated with the work performed including notices, violations and penalties.³⁷

7. **Implement a Computer-based Permit Data Tracking System – CBG recommends that a tracking or permitting software system (or an expansion of an existing City management software system) be established for utilization by DPW staff members to facilitate the tracking and monitoring of permits, complaints, violations, etc. Establishment of a software tracking system, or enhancement of an existing system, will be useful in assisting with timely, efficient follow-up on outstanding stop orders, violations, notices, etc. All costs associated with the use and implementation of a new computer software system (or an enhanced one) for DPW ROW Management activities and staff time would be rolled into updated permitting, annual maintenance and inspection fees to be fully recovered in future years.**³⁸

A new permitting software system would also allow the current-related and proposed staff Engineers/Inspectors to allocate more of their time to inspection-related activities such as: notice and violation follow-up, on-going maintenance inspections, aerial facility inspections, ADA compliance issues, etc.

8. **Linear Foot Cut Permit Limit - CBG’s review showed that there was one curb cut-only permit issued in excess of 36 feet (79 feet 5 inches). This is unusual and many cities do not allow curb cut only permits in excess of 36 feet. CBG recommends that curb cut only applications in excess of 36 linear feet be reviewed for associated sidewalk repair and/or individual permits should be issued for each 36 linear feet of curb repaired or replaced.**
9. **Sidewalk Square Foot/Linear Curb Limit - CBG also recommends that the City consider limiting the linear square foot amount (and related curb cut) associated with sidewalk permits to ensure that the permit can be implemented as intended (two inspections being sufficient). If a job is reviewed and determined to be of significant size, then multiple permits should be issued to ensure proper oversight.**

³⁷ Costs associated with an additional Engineering/Inspector were not budgeted as of the FY 2011 budget, therefore costs associated with an additional Engineering/Inspector have been estimated based on current staff salaries and have been included in the new updated and additional permit and inspection fees recommended herein.

³⁸ Costs associated with a new permitting software system or an existing enhanced one were not budgeted for as of FY 2011, therefore, all costs associated with a new software system or enhancements *have not* been included in the new updated and additional permit and inspection fees recommended herein.

II. Street Excavation Recommendations related to ROW Management

As described above, the City’s costs related to street permitting, inspection, degradation, maintenance, review and annual management of the City’s streets are currently being under-recovered. Based on our analysis, CBG recommends the following:

- 1. Update the Street Opening Permit Fee** – The initial fee for street excavation permits should capture the City’s cost for activities including all administrative work associated with issuing a permit, all plan review and revisions/recommended changes to drawings and up to two street opening inspections (the initial excavation inspection and the inspection associated with the restoration process), and other related activities. Accordingly, CBG recommends that the street opening permit fee be increased to recover the City’s current costs per permit (as of FY 2011) associated with street excavation-related permit and inspection activities. Specifically:

Street Opening (includes up to two inspections):

<i>ROW Occupant and Non-Occupant</i>	<i>Fee</i>
Commercial/Residential/Provider (includes administration, plan/drawing review, providing and ensuring specifications, utility coordination, initial visual inspection, etc. and up to 2 detailed, on-site inspections)	\$ 330.00 per permit

- 2. Establish an Additional Inspection Fee for Street Openings** – CBG recommends that an “Inspection Fee” for street cut openings be established to recover the City’s current costs, per permit (as of FY 2011) associated with additional inspections necessary, beyond the 2 inspections included in the street opening permit fee. The increase in the additional inspection fee will serve to capture the City’s costs related to additional inspections necessary based on size of job, workmanship familiarity with City construction standards, delays or changes to the original plans, enforcement of code compliance and other similar activities. Specifically:

Street Opening Additional Inspection fee:

<i>ROW Occupant and Non-Occupant</i>	<i>Fee</i>
Fee per Additional Inspection in excess of 2 on-site inspections	\$ 120.00 per additional inspection

- 3. Update the Street Degradation Fee (Street Life Recovery Fee)** – CBG recommends that the City update the current degradation fee schedule with a new schedule that takes into consideration the age, percentage of street disturbance and the actual square yards of street excavated under the Street opening permit. Specifically, CBG recommends that the following degradation fee schedule be utilized at the time the inspector measures the square yards of street disturbance per permit and the permittee be billed in accordance with the actual square yards of street disturbed.

<u>Pavement Age (yrs)</u>	<u>Fee per Square Yard of Excavation</u>
3 yrs and younger	No excavation allowed except with resurfacing of entire block
3 yrs plus one day – 4 yrs	\$52.80
4 yrs plus one day – 5 yrs	\$48.40
5 yrs plus one day – 6 yrs	\$44.00
6 yrs plus one day – 7 yrs	\$39.60
7 yrs plus one day – 8 yrs	\$35.20
8 yrs plus one day – 9 yrs	\$30.80
9 yrs plus one day – 10 yrs	\$26.40
10 yrs plus one day – 11 yrs	\$22.00
11 yrs plus one day – 12 yrs	\$17.60
12 yrs plus one day – 13 yrs	\$13.20
13 yrs plus one day – 14 yrs	\$8.80
14 yrs plus one day – 15 yrs	\$4.40
15 yrs plus one day – 30 yrs	\$0

4. **Update the Street Backfill, Paving and Replacement of Street Surface Ordinance and Procedures** – CBG recommends that full restoration from curb to curb and for 10 feet past either side of a trench be established for cuts into streets whose life is three (3) years old or less.
5. **Curb to Curb Full Street Restoration** - CBG recommends that curb to curb full restoration be performed when 30% of the street segment is impacted by street cuts.
6. **Update the Time Extension Fee** – As described earlier, the City’s current time extension fee of \$1 does not recover the City’s costs incurred in renewing a permit. CBG recommends that the Time Extension Fee be updated to \$170.00 for Street Opening Permits.
7. **Update the Additional Work Fee** – CBG recommends that the City establish a “Additional Work Fee” in the amount of \$170.00 to be paid for any street opening jobs that require a supplementary application (change order to original street opening permit) to offset the additional costs involved with updating a street opening permit.
8. **Change the Time Period for Street Opening Permits** – CBG recommends that the City change the Street Opening Permit time period to 45 days instead of 90 days.
9. **Establish An Annual ROW Underground Maintenance Non-City Occupant Street Fee** - CBG recommends that an annual ROW Maintenance Street Fee related to ongoing oversight and maintenance of the City streets be established for costs associated with non-City Occupant facilities in the ROW.

Accordingly, as previously defined, CBG recommends that the Annual ROW Underground Maintenance Fee, in the amount of \$0.13322 per linear foot of underground facility be established in order to recover the \$95,025.73 in underground ROW Maintenance costs the

City incurs annually. The Chart below outlines the footage per non-City Occupant Facility Owner based on the City’s estimated footages each Facility Owner has in the City’s ROW. These total footages will be used to calculate the annual fee to be recovered by each ROW non-City Occupant.

NON-CITY OWNED FACILITIES INFRASTRUCTURE FOOTAGES					
City Owned and Maintained Streets and Alleys = 111 Miles					
Operator	Estimated Linear Footages and their percentage in the ROW				Total ROW Footage
	Aerial	%	Underground	%	
AT&T Mobility, LLC	10,106	0.5%	454	0.1%	10,560
Buckeye Partners	0	0.0%	10,560	1.5%	10,560
Comcast Cable	560,879	29.4%	25,201	3.5%	586,080
Community Safety Coalition	56,760	3.0%	0	0.0%	56,760
Frontier Communications	0	0.0%	0	0.0%	0
Hillrise Mutual Housing Association	0	0.0%	1,056	0.1%	1,056
Level 3 Communications	21,250	1.1%	11,250	1.6%	32,500
PPL Electric	560,879	29.4%	25,201	3.5%	586,080
Sunco Pipeline	0	0.0%	10,560	1.5%	10,560
Texas Eastern/Spectra	0	0.0%	10,560	1.5%	10,560
UGI Utilities (gas)	0	0.0%	586,080	82.2%	586,080
Verizon PA	560,879	29.4%	25,201	3.5%	586,080
Windstream - D & E Brownstown	10,106	0.5%	454	0.1%	10,560
XO Communications	25,265	1.3%	1,135	0.2%	26,400
Zayo Bandwidth (formerly PPL)	41,768	2.2%	1,000	0.1%	42,768
One Communications	18,370	1.0%	2,750	0.4%	21,120
Cellco Partnerships (Verizon Wireless)	10,106	0.5%	454	0.1%	10,560
Clearwire Corporation	10,106	0.5%	454	0.1%	10,560
Sprint Nextel (Sprint)	10,106	0.5%	454	0.1%	10,560
T-Mobile	10,106	0.5%	454	0.1%	10,560
Estimated non-City owned Infrastructure in Lancaster ROW	1,906,686	100%	713,278	100%	2,619,964

- 10. Establish a Policy and Procedure for Receiving and Tracking ROW Underground Maintenance Fee** – CBG recommends that the City establish a mechanism for receiving and tracking the maintenance fees so that on an annual basis they can be compared and applied to

costs expended by the Department of Public Works and its Bureaus for ROW management functions.

- 11. Review of Water and Sewer Fund, In-kind and Inter-fund Departmental Transfers** – The City incurs costs related to City-owned facilities in the ROW (Water and Sewer), both in the Bureaus of Water and Sewer and outside the Bureau in other City Departments and Bureaus. CBG recommends that the City review its annual costs incurred by Departments and Bureaus outside of the Bureaus of Water and Sewer and ensure that all necessary recoverable costs are funded through various funding methods, including but not limited to the Water and Sewer rate payers, inter-fund transfers and in-kind services.
- 12. Certificate of Occupancy Prior to Permit Closing** – CBG recommends that the City establish in the Ordinance a provision that all Street Opening permittees obtain a Certificate of Occupancy or similar certificate from the 3rd Party Inspector (Facility Inspector) upon their final inspection prior to backfill, paving and restoration, if a 3rd Party Facility Inspection is required.

III. Pole Recommendations

- 1. Update Pole Replacement/Erection/Change of Location Permit Fee** – Currently there is no fee being charged for the issuance of a pole permit. CBG recommends that the City establish a fee in the amount of \$215.00 for the replacement/erection of utility poles to recover the City’s costs incurred for permit and inspection activities related to pole replacement/erection.
- 2. Establish an Annual Pole Maintenance Fee** – CBG recommends that an annual “Pole Maintenance Fee” in the amount of \$3.00 per pole be established to recover the City’s current costs related to ongoing annual inspection of utility poles and related activities. Ensure all pole owners are complying with the Ordinance.
- 3. Updated As-Built Maps** – CBG recommends that the City continue to enforce the City Ordinance and require as-built maps from all pole owners so that the City can properly identify pole owners in the City.

IV. Aerial Facility Recommendations related to ROW Management

- 1. Establish An Annual ROW Maintenance Aerial Facility Fee** - CBG recommends that an annual ROW Maintenance Aerial Fee in the amount of \$0.04396 per linear foot of installed aerial/overhead facilities related to ongoing oversight and maintenance of the City aerial utilities be established for costs associated with aerial facilities in the ROW. As previously discussed in Section II. ROW MANAGEMENT COST REVIEW, Subsection C. The Basis for Allocating annual ROW Maintenance Costs and above, the City has under-recovered costs in the amount of \$83,830.17 associated with ongoing annual ROW Management Aerial facility activities.

As previously defined, CBG recommends that the Annual ROW Maintenance Aerial Facility Fee be calculated based on each ROW Occupant's total non-City Occupant facility footage in the City's ROW. See the chart on page 70 above for estimated footages each Facility Owner has in the City's ROW.

V. Dumpster Recommendations

Based on our review, trends around the country and the lack of data related to the City's permit lengths and dumpster capacity, CBG recommends the following:

- 1. Establish a Dumpster Permit Fee** - CBG recommends that a Dumpster fee in the amount of \$215.00 be established to recover the City's costs incurred for issuing the dumpster permit and the associated inspection process necessary prior to a dumpster being placed in the ROW.

Placement of dumpsters in the ROW should be discouraged for public safety reasons and placement on private property recommended where no fee is charged.

- 2. Establish a Permit Time Period** – Since the cost assessment was only able to be determined per permit, CBG recommends that dumpster permits be **issued for a 90 day period**. This should be sufficient time necessary to perform work requiring a dumpster in the Rights-of-Way.

If a dumpster is needed for a period in **excess of 90 days**, all applicants should apply for a new permit for each 90 day period. The City Engineer must approve the new permit and deem it necessary and reasonable.

Once trends are established, various periods of expiration can be established for commercial and residential permits.

- 3. Dumpster Permit Fee Guidelines** – CBG recommends that initial dumpster fee guidelines be established for each permit issued. **Once application, timeframe and capacity data are kept for a year, modification to the initial dumpster fee can be refined further related to criteria such as residential or commercial in the ROW, less than 1 cubic yard or greater, etc.**

VI. Overall Utility Recommendations Related to ROW Management

- 1. Update Ordinance Provisions for all ROW Occupants to Maintain their Facilities in the ROW** - The City should create and implement ordinance provisions requiring all Utility ROW occupants to maintain their facilities to meet PUC regulations and standards and where applicable NEC and NESC codes, as well as good engineering practices, within the ROW as well as on public and private property including homes and other buildings. These codes are

developed and adjusted over time to ensure compliance by the owners of the facilities that provide the highest level of safety and infrastructure integrity.

- 2. Update Policies and Procedures to Include Documentation and Notifications** – CBG recommends that the City update their policies and procedures to include documentation and notification procedures including time limits, penalties, violations and notices for all Utility providers in the City’s ROW related to permits, inspections and ROW Management activities.

VII. Driveway Recommendations

- 1. Update the Driveway Permit Fee** - CBG recommends that the driveway permit be updated to an amount of \$290.00 in order to recover the City’s current costs per permit.
- 2. Establish an Additional Driveway Inspection Fee** – CBG recommends that an “Additional Inspection Fee” for driveways be established at a rate of \$95.00 per additional inspection, to recover the City’s current costs associated with additional driveway inspections (in excess of two included in the permit).

CONCLUSION

Our review to-date indicates that the City is currently significantly under-recovering its cost for management of use of the ROW. The review described in this document focuses on the City's actual costs in FY 2011 to manage the ROW and the new fees and fee increases recommended are intended to recover those costs.

CBG's analysis has shown that at a minimum, **the City's fees should rise** related to use of the ROW, in order to fully recover its direct and indirect cost of current ROW management programs. This includes fee increases and expansions to recover the cost of the life of City streets degraded by ROW Occupant construction and installation activities. **The City should also consider adding** or increasing **fees** related to the placement of poles and dumpsters, maintenance of poles, and on-going maintenance and management of underground and overhead facilities in the ROW as detailed throughout this report in the Recommendations at the end of each section. By any measure, the use of the ROW is a tremendously valuable resource for placement of facilities of telecommunications, energy, and other service providers, and the City has a duty and responsibility to ensure the safe access and use associated with the City's Rights-of-Ways. The recommendations made throughout this report serve to assist the City in ensuring such safety.

If all the above fees are adopted, based on a review of the City's actual cost, they would recover a combined *additional* \$414,247.98 (\$436,514.98 - \$22,267.00 [associated FY 2011 revenue]) for the City on an annual basis.

Additionally, if the above degradation fee is adopted, the *additional* recovery for the City, based on FY 2011 disturbance footages, would range between \$5,297.60 and \$63,571.20 on an annual basis, depending on the age of the street disturbed (these figures do not include recoverable street degradation created by the Bureaus of Water and Sewer).

SECTION 5

SUMMARY OF RECOMMENDED RIGHTS OF WAY MANAGEMENT FEES

SUMMARY OF RECOMMENDED ROW MANAGEMENT FEES

The table below summarizes the new recommended fee structure and illustrates how it is applied to determine the fees that would be charged to particular ROW users.

Permit/Fee	Recommended Fee	Recommended Additional Inspection Fee	Permit Period	Recommended Time Extension Fee
Curb and Sidewalk Permit	\$205.00 per permit (includes up to two inspections)	\$75.00 per additional inspection (in excess of the initial two)	Expires in 45 days	\$105.00 for additional permit period
Street Opening Permit	\$330.00 per permit (includes up to two inspections)	\$120.00 per additional inspection (in excess of the initial two)	Expires in 90 days	\$170.00 for additional permit period
Driveway Permit	290.00 per permit	\$95.00 per additional inspection (in excess of the initial two)	Expires in 30 days	
Dumpster Permit	\$215.00 per permit		Expires in 90 days	
Pole Permit (replacement/ erection)	\$245.00 per permit		Expires in 45 days	
Annual Maintenance Fee on Poles	\$3.00 per pole			
Ongoing ROW Underground Maintenance Fee	Annual assessment of \$0.13322 per linear foot of underground installed non-City facilities (allocated based on non-City ROW Occupants footage in the ROW. See footage chart on page 70)			
Ongoing ROW Aerial Maintenance Fee	Annual assessment of \$0.04396 per linear foot of installed aerial/overhead non-City facilities (allocated based on non-City ROW Occupants footage in the ROW. See footage chart on page 70)			

Degradation Fee

An updated Degradation Fee is also proposed. The rate of fee in dollars per square yard for Streets constructed, reconstructed or resurfaced within the following street pavement age would be:

<u>Pavement Age (yrs)</u>	<u>Fee per Square Yard of Excavation</u>
3 yrs and younger	No excavation allowed except with resurfacing of entire block
3 yrs plus one day – 4 yrs	\$52.80
4 yrs plus one day – 5 yrs	\$48.40
5 yrs plus one day – 6 yrs	\$44.00
6 yrs plus one day – 7 yrs	\$39.60
7 yrs plus one day – 8 yrs	\$35.20
8 yrs plus one day – 9 yrs	\$30.80
9 yrs plus one day – 10 yrs	\$26.40
10 yrs plus one day – 11 yrs	\$22.00
11 yrs plus one day – 12 yrs	\$17.60
12 yrs plus one day – 13 yrs	\$13.20
13 yrs plus one day – 14 yrs	\$8.80
14 yrs plus one day – 15 yrs	\$4.40
15 yrs plus one day – 30 yrs	\$0

CHART 3 – SUMMARY OF CITY ROW MANAGEMENT COSTS REVIEWED

SUMMARY OF CITY ROW MANAGEMENT COSTS REVIEWED			
BUREAU OF ENGINEERING			
Bureau of Engineering Fully Loaded Salary (including benefits, workers comp, retirement, overhead, etc.)			
Deputy Director Department of Public Works/City Engineer	\$	131,499.76	
Engineering Aide II/Draftsman	\$	59,313.23	
Engineering Aide III/Draftsman	\$	66,850.18	
Aerial Engineer/Inspector* (Estimated Union Cost)	\$	63,081.70	
Secretary I	\$	55,257.53	
	Subtotal		\$ 376,002.40
Indirect Cost Allocation Percentage -Engineering		67.060%	
Indirect Costs			\$ 165,886.32
Direct Costs - Engineering			\$ 19,156.71
Other Direct Costs:			
Third Party Consulting	\$	31,073.00	
Pavement Management Project Study	\$	64,000.00	
	Subtotal		\$ 95,073.00
Total ROW Management Costs - Engineering			\$ 656,118.43
BUREAUS OF WATER AND SEWER			
Bureaus of Water and Sewer Salaries			
Engineering Technical Specialist -Bureau of Water	\$	85,153.76	
Capital Improvement Manager (7% of salary)	\$	8,148.65	
Water/Wastewater Utilities Manager (2.5% of salary)	\$	3,041.20	
	Subtotal		\$ 96,343.61
Indirect Cost Allocation Percentage		114.27%	
Indirect Costs			\$ 72,428.84
Total ROW Management Costs - Bureaus of Water and Sewer			\$ 168,772.45
TOTAL ROW MANAGEMENT COSTS REVIEWED			\$ 824,890.88

**CHART 4 – SUMMARY OF CITY ROW MANAGEMENT ACTIVITY COSTS
RELATED TO COSTS REVIEWED**

SUMMARY OF CITY ROW MANAGEMENT ACTIVITY COSTS RELATED TO COSTS REVIEWED			
PERMIT AND INSPECTION RELATED ACTIVITY COSTS			
ROW Management Recoverable Services			Activity Costs
Curb & Sidewalk Permit and Inspection			\$ 89,979.47
Curb & Sidewalk Additional Inspection			\$ 23,604.53
		Subtotal Curb & Sidewalk Activity Costs	\$ 113,584.00
Street Opening Permit and Inspection			\$ 56,250.67
Street Opening Additional Inspection			\$ 27,088.02
		Subtotal Street Opening Activity Costs	\$ 83,338.68
Driveway Permit and Inspection			\$ 1,160.11
Dumpster Permit and Inspection			\$ 10,547.85
Utility Pole Replacement and Inspection			\$ 12,168.93
Total Permitting and Inspection Related Activity Costs			\$ 220,799.57
ANNUAL ROW MAINTENANCE ACTIVITY COSTS RELATED TO NON-CITY FACILITIES			
ROW Maintenance Costs:			
Utility Pole Maintenance Costs			\$ 13,348.85
Aerial Maintenance Activity Costs			\$ 83,830.17
Underground Maintenance Activity Costs:			
	Related to Non-Facility Owners		\$ 23,510.66
	Related to non-City Facility Owners		\$ 95,025.73
		Subtotal ROW Underground Maintenance Activity Costs	\$ 118,536.39
Total Annual ROW Maintenance Activity Costs Related to Non-City Facilities			\$ 215,715.41
ROW STREET IMPROVEMENT ACTIVITY COSTS			
Degradation Pavement Management Improvement Activities:			
	Cost incurred by the Bureau of Engineering		\$ 85,073.53
	Cost incurred by the Bureau of Streets		\$ 19,602.11
		Total Costs for Degradation Activities	\$ 104,675.64
Total ROW Street Improvement Activity Costs			\$ 104,675.64

**CHART 4 – SUMMARY OF CITY ROW MANAGEMENT ACTIVITY COSTS
RELATED TO COSTS REVIEWED**

ROW STREET EXCAVATION AND MAINTENANCE ACTIVITY COSTS RELATED TO CITY FACILITIES	
Bureaus of Water and Sewer Street Opening Activities:	
Street Opening Inspection Activities Outside the City (Bureau of Engineering)	\$ 66,675.93
Opening Inspection Activities Inside the City (Bureau of Engineering)	\$ 31,344.62
ROW Maintenance Activities (Bureau of Engineering)	\$ 79,167.76
Total Costs for Bureaus of Water and Sewer Street Activities	\$ 177,188.31
Total ROW Street Excavation and Maintenance Activity Costs Related to City Facilities	\$ 177,188.31
OTHER ROW MANAGEMENT ACTIVITY COSTS NOT RELATED TO FACILITIES	
Other ROW Management Non-Occupant Related Activities:	
Planning Activities, including: land development process, modification of sections and subsections, design of plans, etc. (Bureau of Engineering)	\$ 64,478.98
Non-Occupant Related Activities for businesses, residents, cafés, commercial entities, etc.	\$ 42,032.97
Total Costs for Other ROW Management Activities	\$ 106,511.95
Total Other ROW Management Activity Costs not Related to Facilities	\$ 106,511.95
TOTAL SUMMARY OF CITY ROW MANAGEMENT ACTIVITY COSTS RELATED TO COSTS REVIEWED	\$ 824,890.88