## Prepared for:

State of New York Department of Public Service
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Albany, New York 12223-1350

# Comprehensive Investigative Accounting Examination of Consolidated Edison of New York, Inc. 

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## I. Introduction

1. Charles River Associates ("CRA") was retained in September 2009 to perform an investigative accounting audit on the construction program of Consolidated Edison Company of New York, Inc. ("CECONY", "Company") for the period 2000 to 2009. This Audit was initiated by the Public Service Commission ("PSC") Order 09-M-0243 as a result of arrests and alleged fraudulent activity by certain CECONY employees and a contractor related to work associated with street utility activities.
2. Our investigative audit included two parts, as delineated by the PSC in the Request for Proposal ("RFP") dated April 21, 2009. Part 1 analysis was limited to an examination of the fraudulent transactions identified in the arrest affidavits, an assessment of the internal controls surrounding the fraudulent transactions, and an examination of potential overcharges associated with the projects identified in the affidavits. Based on this examination, a Quantitative Indicator Model ("QIM") was developed to determine the magnitude of the potential "at-risk" transactions for the contractors identified in the arrest affidavits, which turned out to be only Felix Associates ("Felix"). The results of this examination were documented in our Part 1 Report which was delivered to the PSC on October 14, 2010 and accepted by the PSC.
3. The purpose of the Part 2 analysis, as intended by the RFP, was to expand the investigation beyond the contractors and contracts examined during Part 1 and to determine if other contractors, contracts, and transactions exhibited patterns or traits similar to those identified and examined during Part 1. Further, an estimate of "improper or illegal contract overcharges" (RFP, page 2) for this wider population was to be developed and presented.
4. Based on the knowledge gained during Part 1 and on a review of the work performed by CECONY's consultant KPMG, a Part 2 Work Plan was developed in coordination
with the PSC’s Department of Public Service Staff ("DPS Staff"). This Part 2 Work Plan, dated August 5, 2011, delineated the scope of work to be performed into two tasks. Task 1 involved an examination of KPMG's K-Trace model ${ }^{1}$ and the sampling methodologies employed by KPMG in the selection and review of CECONY's contractor payment files. Task 2 involved an independent examination of a subset of KPMG's contractor payment file analysis and the development of an estimate of contractor overpayment or Company losses. The results of these tasks will be discussed in Sections III through V of this report.
5. As per the RFP, this Part 2 report should be read in conjunction with our earlier Part 1 report. Terms, concepts and factual background already explained in the Part 1 report are generally not covered here again.

## II. KPMG Analysis

6. As discussed in our Part 1 Report, KPMG was retained by Davis Polk \& Wardell LLP. The scope of KPMG's work was initially defined within its engagement letter dated March 2, 2009 and later redefined on July 31, 2009. Phase I of KPMG’s work was discussed extensively in our Part 1 Report. During the summer of 2011, we had two meetings with KPMG's representatives during which KPMG explained their Phase II work. This section presents KPMG's Phase II work as understood by us from these meetings.
7. We understand from KPMG that it conducted Phase I and II of its work at CECONY between March 2009 and January 2011. We understand from KPMG that its Phase II work comprised of assessing a sample of layouts to identify other instances of misconduct in

[^0]order to quantify additional Company losses and improper employee enrichment resulting from such misconduct or waste. In order to implement this work, KPMG sampled and analyzed layouts from the Construction Management Payment and Support System ("COMPASS") database. Each layout selected was reviewed by KPMG on an item-by-item basis for any overcharges or undercharges, collectively known as variances, in amounts paid by the Company to the contractor.
8. KPMG's Phase II sampling work comprised of three distinct phases: IIA, IIB and IIC. The information presented below reflects our understanding of KPMG's work on these phases.

## KPMG's Phase IIA Work

9. We understand from KPMG that, during Phase IIA of its work, KPMG utilized its K-Trace model to assess the population of approximately 127,000 layouts within COMPASS through February 1, 2009. This application of K-Trace was based on 27 tests or "routines" which identified layouts containing certain traits. Each test was individually weighted providing a score on a given test ranging from zero to five, and specific tests were run on the population to flag layouts for either participation by an arrestee or an arrested contractor.
10. The scores for each test were aggregated to arrive at a total score per layout. A sample of 100 highest scoring layouts was selected for review whose total spend was greater than $\$ 10,000$. The K-Trace scores for this sample ranged from 10 to $13 .{ }^{2}$ We understand from KPMG that CECONY was unable to produce some of the selected layout payment files and

[^1]these files are discussed further in Paragraphs 14 through 18. Ultimately KPMG reviewed the payment files on 90 selected layouts. During this exercise, KPMG also conducted interviews and held meetings with CECONY employees including Construction Management personnel to facilitate its review.

## KPMG’s Phase IIB Work

11. We understand from KPMG that based on its Phase IIA findings and further interviews conducted with CECONY Construction Management personnel, KPMG refined and expanded its K-Trace tests for Phase IIB arriving at a total of 86 tests which were applied to the population of layouts within COMPASS during the period of January 1, 2000 through February 1, 2009. Similar to Phase IIA, each test was individually weighted with scores ranging from zero to five, except that the tests to flag for participation by an arrested employee or arrested contractor were not used during this phase.
12. The scores for each test were aggregated to arrive at a total score per layout. A sample of 100 highest scoring layouts was selected for review whose total spend was greater than $\$ 5,000$. The K-Trace scores for this sample ranged from 4 to $8 .^{3}$ We understand that CECONY was unable to produce some of the selected layout payment files and these files are discussed in paragraphs 14 through 18. As a result, KPMG requested additional layouts based on the aggregate K-Trace score. Ultimately KPMG reviewed payment files for 137 layouts.
[^2]
## KPMG's Phase IIC Work

13. We understand from KPMG that it selected the sample of layouts for Phase IIC analysis using random sampling and making additional random selections to obtain representations of layouts over $\$ 1$ million in size. ${ }^{4}$ This sample included layouts whose total spend was less than $\$ 10,000$ which were previously excluded from either the Phase IIA or IIB review. KPMG first selected 103 layouts and reviewed them for payment variances (overcharges or undercharges). KPMG calculated the standard deviation on the percentage variance for this sample population and used it as an estimate for the population standard deviation and for an initial sample size determination, which was subsequently increased. KPMG additionally selected for review some layouts with total payments between $\$ 1$ million and $\$ 6$ million and some layouts with total payments over $\$ 6$ million. Ultimately KPMG reviewed payment files for 524 layouts in its Phase IIC analysis.

## Layout Documentation Not Produced to KPMG

14. We understand from CECONY that at the time of KPMG's Phase II investigation, it was unable to produce payment files for 167 layouts. CECONY subsequently searched for these missing payment files and was able to locate files for 86 of the initial missing 167 layouts. We obtained from CECONY a list of the remaining 81 missing layouts including the name of the contractor, purchase order number, year, and amount. CECONY has informed us that they are uncertain as to why these files are unable to be located and acknowledge that misfiling may be a factor or there is no other record of where these files may be. To the extent that CECONY was unable to locate and produce the missing payment files, this is indicative of a weakness in CECONY's document retention system.

[^3]15. For Phases IIA and IIB of KPMG's work, CECONY was ultimately unable to produce the payment files for 6 layouts. For Phase IIC of KPMG's work, CECONY was ultimately unable to produce the payment files for 75 layouts. In summary, CECONY was unable to locate the payment files for 81, or $8.8 \%$, of the 918 layouts requested by KPMG during their Phase II work. Of these 81 payment files, 45 were from the period 2003 or earlier. Table 1 gives a breakdown of the missing payment files by Street Work, Special Projects and Interference.

Table 1: Missing Layout Payment File Documentation

| Type | Count of <br> Missing <br> Layout <br> Payment Files | Total Value |
| :--- | :---: | ---: |
| Construction |  |  |
| Street Work | 50 | $\$ 328,052$ |
| Special Projects | 7 | $\$ 3,106,296$ |
| Interference | 24 | $\$ 6,433,798$ |
| Total | 81 | $\$ 9,868,146$ |

16. Our review of the data regarding the missing Street Work payment files indicates that these layouts are on average small with an average layout value of approximately $\$ 6,500$, representing a layout activity duration of either a day or two of work. Further, the missing Street Work layouts represent less than $1 \%$ of the total dollar value of Street Work layouts reviewed by KPMG. Our review and analysis of this information did not find any pattern or bias. Therefore, our extrapolation and estimate of loss pertaining to Street Work has adequately factored these missing layouts.
17. Further, our review of the data regarding the missing Special Projects payment files reveals that $93 \%$ of the total value is contained within two layouts both performed by the same contractor on a specific project. We have excluded Special Projects from our extrapolation
and estimate of loss as discussed in paragraph 67 and, as such, these missing payment files do not affect our extrapolation and estimate of loss.
18. Finally, regarding the missing Interference payment files, $91 \%$ of the total value is contained within two layouts performed by two different contractors on unrelated layouts in 2001 and 2003. Considering that layouts of this size (greater than $\$ 1$ million) require a certain level of approval for purchase authorization and payment as prescribed in the Delegation of Authority ${ }^{5}$, it is unlikely that these are phantom layouts. It is more likely instead that they are misplaced payment files. The remaining missing Interference layouts had an average value of approximately $\$ 26,500$. Our review and analysis of this data set did not find any pattern or bias other than the fact that these large files are missing. Therefore, our extrapolation and estimate of loss related to Interference work has adequately factored these missing layouts.
[^4]
## Discussion of KPMG Review

19. It is our understanding that KPMG's methodology and effort were employed to establish a business insurance claim and support restitution and forfeiture claims by the US Attorney and civil claims. KPMG focused on identifying variances by comparing the items and quantities paid with those set out on source documents such as Field Data Forms, Daily Logs and Time and Equipment ("T+E") sheets. To the extent that some of the source documents within a payment file, e.g., an invoice for materials supplied or T+E sheet, were not available or were missing from the payment file, KPMG did not calculate a variance.
20. As noted, KPMG’s K-Trace model consisted of several tests. To compute an aggregate score, KPMG assigned equal weighting to the scores from the tests. On the other hand, while most tests were assigned a score of either zero or one, several tests were permitted to have larger scores based on the quantity of indicators present, for example the number of arrested employees associated with the layout.
21. Construction projects that are recorded in COMPASS include payments for Street Work, Interference and also Special Projects. Interference work, otherwise known as Public Improvement, is utility work performed in support of a City of New York project. For the purposes of this report, Special Projects are projects related to the construction, repair and / or renovation of CECONY facilities. Facilities falling into this category included CECONY's generating stations, substations, storage yards and office spaces. Purchase Orders pertaining to work on these facilities were typically contracted as lump sum projects. As such, the payments issued on these projects were typically single lump sum payments for an invoiced amount submitted by the contractor. The payment cycle for these projects may have been prescribed
within the Purchase Order, or in some cases monthly payment requisitions were made on the project.
22. For its sample selections, KPMG did not stratify the COMPASS population by type of project - layouts were selected without consideration of whether they were related to Street Work, Interference or Special Projects. On Construction - Street Work projects, one layout payment file typically represents a single project from start to finish. On Special Projects, however, each payment made on the project is typically coded as a single layout (or "LPN") within COMPASS, and a given project would most likely contain many layouts (i.e., payments). Selecting and reviewing only one layout out of the many that might belong to a given Special Project can only be expected to provide limited and incomplete insight into the performance of the project's contractor or the appropriateness of all the payments made on the project.
23. In terms of numbers of layouts, the COMPASS population for the relevant period ${ }^{6}$ consisted of approximately 127,000 layouts of which $87 \%$ are related to Construction-Street Work, $5 \%$ are related to Special Projects, and 8\% are related to Interference. In dollar terms, however, the above COMPASS population broke down as $40 \%$ related to Construction-Street Work, $36 \%$ related to Special Projects, and $24 \%$ related to Interference. ${ }^{7}$ Since KPMG’s sampling for Phase IIC review did not stratify by project type and was based on a random sample of all layouts within the total COMPASS population, significantly more layouts from Construction-Street Work were reviewed rather than either Special Projects or Interference, despite the latter types of projects having broadly similar aggregate monetary amounts. A stratified sampling based on the project type, i.e., Street Work, Special Projects or Interference,
${ }^{6}$ As described in our Part 2 Work Plan, our requirement was to assess the overall loss to CECONY on payments made in the COMPASS system between 2000 and the date of the arrests. ${ }^{7}$ See Table 6 for additional data.
would have produced a more representative sample of the money spent on each type of project reflecting the significantly different execution characteristics of these project types.
24. A stratified sample based on project type would also have allowed KPMG to structure the review of each project type subset accordingly. A sample of Special Projects could have been selected for review whereby the entire project was reviewed from start to finish versus reviewing one random payment from a Special Project. A Special Project is typically a firm fixed price, and change orders, if any, should have been reviewed to determine entitlement and pricing reasonableness as compared to the scope of work contemplated under the original firm fixed price. We consider a full contract review of Special Projects including any change orders the appropriate examination process.

## III. Investigation of Contractor Payment File Analysis

25. As discussed in our Part 1 Report, fraudulent transactions were found to have been carried out by a series of data manipulations and falsifications of records perpetrated at various stages of the contract administration process. These manipulations included (1) falsification of source documents including Daily Log Reports, Field Data Forms, and T+E sheets by the relevant Construction Inspector ("CI") or Chief Construction Inspector ("CCI"), (2) manipulation of worksheet items within COMPASS by the reviewing CCI, and (3) processing of worksheet items in COMPASS by the Technical Reviewer ("TR") of the "Sysbill".
26. Consistent with the RFP and Part 2 Work Plan, a subset of contractor payment files previously reviewed by KPMG was independently analyzed to determine if non-indictment contracts exhibited traits and / or patterns similar to those cited in the indictments and reviewed
during Part 1. The methodology and findings of our layout payment file review is described in the following sections.

## Selection of Layouts

27. A data request was submitted to CECONY for the work product and payment files related to 60 layouts from KPMG's Phase IIA, IIB and IIC sample sets, consisting of 7 payment files from the IIA set, 11 payment files from the IIB set, and 42 payment files from the Phase IIC set. These layouts were randomly selected from KPMG's sample sets. The characteristics of this random sample were sufficiently broad in terms of the K-Trace score, amount paid on layout, vendor, and KPMG-calculated variance. As such, this sample provided us with a sufficiently broad variety of layouts for analysis so that we could adequately budget and plan the scope of the remaining review.
28. Review of the requested layouts was conducted. Based on our effort to review 34 of the requested 60 layouts consisting of 7 layouts from Phase IIA, 11 layouts from Phase IIB, and 16 layouts from Phase IIC, we estimated that an additional 225 to 250 layout payment file reviews could be conducted for a total review count of approximately 259 to 284 layout reviews. This quantity estimate was presented to and accepted by the DPS Staff prior to continuing with the remainder of our data requests and review.
29. Two subsequent data requests were submitted to CECONY for the work product and payment files related to an additional 245 randomly selected layouts reviewed by KPMG, consisting of 50 layout files from the Phase IIA set, 64 files from the Phase IIB set, and 131 files from the Phase IIC set. In summary, a total of 305 layouts were requested (including the initial set of 60 requested layouts).
30. Our random sample of KPMG's sample sets provided us with the categories that we have used to extrapolate the loss. Our sample of the IIA and IIB layouts reviewed by KPMG represents a random sample of layouts "identified by K-Trace", and the IIC layouts that we reviewed represents a random sample of the remaining population.

## Methodology

31. Pursuant to our request, CECONY produced copies of the original documentation for the requested layouts utilized by KPMG during its review related to the scope of work and supporting payment files, including the related Purchase Order and Purchase Order Modifications, and, if applicable, Special Conditions attached to the Purchase Order. Typically, the payment file contained several documents detailing the work performed including COMPASS worksheets, the Field Data Form or "cut sheet", Daily Logs, T+E sheets, Department of Transportation Street Opening Permit, and Engineering Drawings.
32. CECONY also provided us with electronic files containing KPMG’s detailed analysis of each requested layout file. Each of these electronic files contained the COMPASS payment data for a given layout and KPMG's item-by-item review of the payment items.
33. Upon receipt of these files, we reviewed each layout payment file and each COMPASS payment item on an item-by-item basis. Our review effort of these layouts aimed to not only identify and calculate variances related to inconsistencies between the source documentation and the COMPASS data or charges inconsistent with the Trenching Manual, but also to assess the reasonableness of the items and quantities charged considering the nature of the work. Our assessment of specific scenarios based on our knowledge of construction practices is discussed later in this report.
34. Interviews were also conducted with personnel from Purchasing, Construction Quality Assurance, Construction, and Estimating to review a variety of layout scenarios and our treatment of those scenarios.
35. Variances in amounts paid were classified into scenarios. For consistency, we retained KPMG’s variance scenarios, but utilized two additional scenarios. These scenarios are described in Table 2.

Table 2: CRA Variance Scenarios

| Variance <br> Scenario | Type | Description |
| :---: | :--- | :--- |
| 1 | $\mathrm{~T}+\mathrm{E}$ | Payment made for time and equipment (T+E) which were <br> not supported by documentation |
| 2 | Premium | Premium time charged during regular work days/hours |
| 3 | Xn Multiplier | Incorrect multiplier applied to unit price |
| 4 | Upcoding | Payment for items at more expensive item codes than <br> applicable |
| 5 | Duplicate <br> Charges | Additional payment for work already paid for in all- <br> inclusive payment items (Macro / Micro) |
| 6 | Spantom Activity <br> Condition | Payment for items which did not exist <br> Additional payment for items which were included under <br> the contract |
| 8 | Miscellaneous | Miscellaneous additional charges; e.g., changes to <br> dimensions |
| 9 | Escalation | Escalation charged for work performed prior to <br> escalation date in Purchase Order |
| 10 | Debits | Un-reconciled lump sum debit charges |

## Limitations with Available Data

36. As discussed in our Part 1 Report, limitations exist in uncovering and proving fraud, waste, or abuse. A manual review and reconciliation of all payments to the available source documentation, as was performed here, would provide only the value of identifiable variances within those payments. To the extent that source documents were falsified or
fraudulently produced, further variances may only be identified with the discovery of undoctored documents or the help of reliable intelligence.
37. This review effort also identified additional limitations with conducting a thorough "fingerprint" ${ }^{8}$ analysis. Paragraphs 5.5.14 and 6.10.9 of the Part 1 Report discussed certain limitations and control weaknesses associated with the fingerprint data maintained in COMPASS in that it does not necessarily identify the individual responsible for inputting or amending worksheet item details in the system. The Part 2 review effort enhanced this finding of control deficiencies within the CECONY invoice payment and approval process by revealing that employee(s) responsible for recording the work performed, indicated by signatures on cut sheets, daily log reports and $\mathrm{T}+\mathrm{E}$ sheets, did not always match the employee(s) recorded in COMPASS. A possible method to remedy this deficiency would be to have the responsible employee who recorded the work initiate a check or sign-off if someone else did the input into COMPASS. If CECONY's current control environment does not address the weaknesses identified with the fingerprint data as discussed here, it is suggested that CECONY implement such a control.
38. Limitations also existed in the review of payment files related to Interference work. The documentation supporting payment on Interference work differed from that required for payment of work within Construction. On Construction layouts, the payment file contained several documents detailing the work performed including COMPASS worksheets, the Field Data Form or "cut sheet", Daily Logs, T+E sheets, Department of Transportation Street Opening Permit, and Engineering Drawings. For Interference work, by contrast, the payment file mostly

[^5]contained just an invoice from the contractor for services rendered and, in some cases, a summary narrative briefly describing the daily activities. Invoices reviewed contained signatures of CECONY employees and quantities that were reconciled with the invoice amount. However, there is limited means to effectively conduct a post-job audit without engineering drawings and/or hand sketches of the work being performed as well as access to third party documentation. Unlike the documentation maintained for Construction layouts, the layout payment files for Interference work which we reviewed rarely contained engineering drawings or hand sketches of work performed therefore limiting our ability to fully understand the scope of work being performed. The lack of documentation supporting payment on the files reviewed highlights a potential vulnerability in CECONY's Interference payment approval process. Further, access to and review of additional documentation from third-parties would be required to properly analyze these types of projects and ensure that payments made to contractors were appropriate and reasonable as the potential exists for contractors to be double paid by either the city agency or other utility as well as CECONY for the same work.
39. Further, on Interference work, CECONY enters into an agreement with either the agency or agency contractor to establish the terms of payment for Interference work performed by the agency's contractor. These agreements are generally either Con Edison and Telephone ("CET") unit price agreements, lump sum agreements, General Contractors Association ("GCA") unit price agreements, T\&M, or a combination these different agreements. CECONY reported in its Submission to the PSC dated June 30, 2009 that more than 75\% of the Company's agreements are lump sum. CET units contained in the CET Spec Book are specifications that define interference work and establish a method of measurement of these items for payment. GCA units contained in the GCA Handbook are units of work that have been negotiated and
agreed upon by the GCA and utilities. These two manuals are similar in nature to the Trenching Manual used in Construction in that they define scopes of work included within a unit price and provide a measurement for payment. Despite the existence of these manuals, the lack of documentation previously described limits our ability to confirm scopes of work performed and determine whether the unit item applied was appropriate. It is recommended that CECONY, if it has not already done so, adjust its Interference payment control procedures to require the inclusion of specific project documentation, i.e., engineering drawings, dimensioned hand sketches, photos, etc., within the payment file to support a thorough post-job audit of work performed.
40. Furthermore, in order for our team to have effectively evaluated Special Projects for variances in amounts paid, access to additional documentation related to these types of projects would have been required. As described in Section II above, review of only a single layout (i.e., single invoice) on a Special Project, as was done in both KPMG’s and our review, provides little insight into the performance of the contractor and whether the payments made on these projects were appropriate as these projects are typically contracted as lump sum contracts. To effectively evaluate these types of projects, documentation spanning from the commencement through completion of the project would need to be reviewed. Specifically, the following documents would be required:

- Contracts, drawings and project specifications;
- Daily logs and / or T+E slips for the entirety of the project;
- Change Orders or Modifications describing additional scope; and
- All invoices and payments made on the project.

41. Review of only a single layout or payment on a Special Project limits our ability to understand the entire scope of the project, what scope was included within the lump sum price
and whether the base contract payments and change order payments being reviewed were appropriate and in line with the original lump sum agreement.

## Results

42. Of the 305 layout payment files requested, we were able to complete reviews of a total of 260 payment files - 49 layout files from Phase IIA, 73 files from Phase IIB and 138 files from Phase IIC.
43. The results of our detailed payment file review are included in Appendix 1 and summarized in Table 3.

Table 3: Summary of Payment File Reviews ${ }^{9}$

| Phase | Number of <br> Layouts <br> Reviewed | Amount <br> Reviewed (\$) | CRA <br> Variance <br> (\$) | Average of <br> CRA \% <br> Variance |
| :---: | :---: | ---: | ---: | ---: |
| Construction-Street Work |  |  |  |  |
| IIA/IIB ${ }^{10}$ | 114 | $15,613,050$ | $3,058,740$ | $19.9 \%$ |
| IIC | 119 | $1,886,916$ | 389,222 | $14.7 \%$ |
| Total | 233 | $17,499,966$ | $3,447,962$ | $17.2 \%$ |
| Interference |  |  |  |  |
| IIA/IIB | 8 | 966,182 | 135,276 | $7.1 \%$ |
| IIC | 16 | $1,437,987$ | 54,912 | $2.7 \%$ |
| Total | 24 | $2,404,169$ | 190,189 | $4.2 \%$ |
| Special Projects |  |  |  | - |
| IIC | 3 | 676,183 |  | $0.0 \%$ |
| Total | 260 | $20,580,318$ | $3,638,151$ | $\mathbf{1 5 . 8 \%}$ |

[^6]44. The results sorted by variance scenario are also included in Appendix 2 and are summarized in Table 4.

Table 4: Summary of Variances by Scenario

| Variance <br> Scenario <br> Reference |  | Type | CRA <br> Variance (\$) |
| :---: | :--- | ---: | ---: | | Proportion |
| :---: |
| of CRA |
| Variance |$|$| 1 | T+E | 928,179 | $25.5 \%$ |
| :---: | :--- | ---: | ---: |
| 2 | Premium | 30,207 | $0.8 \%$ |
| 3 | Xn Multiplier | 68,808 | $1.9 \%$ |
| 4 | Upcoding | 94,271 | $2.6 \%$ |
| 5 | Duplicate Charges | $1,594,300$ | $43.8 \%$ |
| 6 | Phantom Activity | 542,022 | $14.9 \%$ |
| 7 | Special Condition | 233,083 | $0.0 \%$ |
| 8 | Miscellaneous | 15,852 | $6.4 \%$ |
| 9 | Escalation | 131,431 | $0.4 \%$ |
| 10 | Debits | $3,638,151$ | $3.6 \%$ |
| Total |  |  |  |

45. Table 5 provides the distribution of variances for Street Work and Interference.

Table 5: Distribution of Variances

| Variance Range | Number of <br> Layouts <br> Reviewed | Amount <br> Reviewed (\$) | CRA <br> Variance (\$) |
| :--- | :---: | ---: | ---: |
| Street Work - Phase IIA/IIB |  |  |  |
| $0 \%$ | 5 | 214,222 | 0 |
| $0-5 \%$ | 22 | $1,487,780$ | 49,223 |
| $5-10 \%$ | 15 | 929,001 | 75,121 |
| 10-25\% Large layout | 1 | $7,143,511$ | $1,182,442$ |
| $10-25 \%$ Others | 34 | $2,869,706$ | 494,842 |
| 25-40\% | 22 | $1,712,867$ | 549,263 |
| Over 40\% | 15 | $1,255,962$ | 707,849 |
| Total | 114 | $15,613,050$ | $3,058,740$ |
| Street Work - Phase IIC |  |  |  |
| $0 \%$ | 45 | 199,592 | 0 |
| $0-5 \%$ | 12 | 153,682 | 2,277 |
| $5-10 \%$ | 5 | 46,681 | 3,344 |
| $10-25 \%$ | 34 | 908,674 | 166,234 |
| 25-40\% | 11 | 463,403 | 149,436 |
| Over 40\% | 12 | 114,884 | 67,932 |
| Total | 119 | $1,886,916$ | 389,222 |
| Interference - Phase IIA/IIB |  |  |  |
| $0 \%$ | 2 | 160,512 | 0 |
| $0-5 \%$ | 4 | 414,761 | 7,323 |
| $5-10 \%$ | 1 | 108,836 | 7,713 |
| Over 40\% | 1 | 282,072 | 120,240 |
| Total | 9 | 966,182 | 135,276 |
| Interference - Phase IIC |  |  |  |
| $0 \%$ | 9 | 429,837 | 0 |
| $0-5 \%$ | 5 | 813,587 | 31,515 |
| $5-10 \%$ | 1 | 122,414 | 10,901 |
| $10-25 \%$ | 1 | 72,149 | 12,496 |
| Total | $1,437,987$ | 54,912 |  |
|  |  |  |  |

46. As can be seen from the data in Table 5, 45 out of the 119 randomly selected Phase IIC Street Work layouts, or $38 \%$ of the total by count, showed no variance. (Similarly, 9 out of the 16 randomly selected Interference layouts showed no variance.) However, 57 out of
the 119 randomly selected Street Work layouts, amounting to $48 \%$ of the total by count and $79 \%$ of the total by value, showed a variance of greater than $10 \%$.

## Treatment of Layout Scenarios

47. During our review effort, certain recurring scenarios resulted in significant variance amounts. These scenarios included specific uses of T+E, Xn multiplier manipulation, plating, dewatering, excavation volumes, escalation and escalated rates, and debits. Our treatment of these scenarios is discussed next.
48. Time and Equipment $(T+E) . \mathrm{T}+\mathrm{E}$ is typically charged when (1) the scope of work is undefinable, (2) completing the work necessitates performing additional scope work which was not included in the Purchase Order, or (3) the contractor's planned work schedule is impacted beyond its control. The Trenching Manual contains multiple paragraphs outlining the contractor's responsibility in relation to the work and specific T\&E scenarios and costs which should be borne by the contractor. These specific scenarios include site accessibility, cost of transporting materials, parking restrictions and weather. These scenarios were also discussed with a CECONY CCI and Manager from the Construction Quality Assurance group. Further, our review took into account any applicable Special Conditions under the governing Purchase Order and also considered the reasonableness for the T+E charge based on the rationale provided by the inspector. If $\mathrm{T}+\mathrm{E}$ was not charged in accordance with either the Trenching Manual or applicable Special Conditions, such charges were deducted as a variance since the contractor bears the risk for these scenarios. Such variances were coded to Scenario 1. As previously noted, certain events are outside of the contractor's control which can impact the planned work schedule (i.e. staging for awards ceremonies, demonstrations, protests, etc.) and charges for $\mathrm{T}+\mathrm{E}$ for such events were allowed when encountered.
49. Further, it is common in the industry that labor union agreements stipulate a union laborer or operator should be compensated a set number of hours - typically two hours - for "show up" time. "Show up" time occurs when laborers arrive at a scheduled job location and are unable to perform work and are therefore either sent home or to another job location. Also, CECONY's Standard Terms and Conditions for Construction Contracts explicitly states that "Operating costs will only be paid for hours during which equipment is actually being used in performance of the work."11 For example, an instance was found during our review where a contractor charged and was paid seven hours for an entire crew after showing up to a work site, being unable to work, and leaving the site within two hours of arriving. ${ }^{12}$ In such instance, allowing these payments would result in excess profits to the contractor as the contractor is only obligated to pay the laborers show up time, not a full day. Thus, the hours charged were reduced from seven to two for "show up" time and the variance was coded to Scenario 1. Further, instances were encountered where a contractor charged for equipment which was not used. If this scenario was encountered, the equipment charge was deducted and the variance coded to Scenario 1.
50. Certain versions of the Trenching Manual, particularly the 1999 and 2000 versions, prohibited the charging of $\mathrm{T}+\mathrm{E}$ for standby time related to NYC DOT Permit Stipulations. If standby time for Permit Stipulations was charged on work governed by either of these Trenching Manuals, those charges were deducted as a variance and coded to Scenario 1.
51. Multiple item codes existed within COMPASS for payment of T+E. Street Work Purchase Orders typically contained Trenching Manual item codes and unit prices for specific

[^7]types of labor and equipment. These item codes are classified as the "T300" codes. COMPASS also maintained a list of labor and equipment codes, known as "L\&E" codes, which are to be used when "T300" codes are not available in a Purchase Order. For example, if a crane operator is required on a specific layout and the Purchase Order does not contain an item code and unit price for this labor category, the applicable "L" code is used to compensate for this labor. The "L\&E" codes were also permitted to be used on 100\% T+E layouts governed by the 2003 and 2004 versions of the Trenching Manual which stated, "If the job being performed is $100 \% \mathrm{~T} \& \mathrm{E}$, then the published T\&E rates are to be used." If the layout was not $100 \%$ T+E, "L\&E" codes should not have been used when "T300" codes were available under the Purchase Order. If the layout did not meet the criteria noted above and if "L\&E" codes were used in lieu of "T300" codes, we adjusted the unit price to the applicable "T300" code provided in the Purchase Order and coded the variance to Scenario 1.
52. Multiplier Manipulation. The Xn factor is a field in the COMPASS system used to calculate the total quantity by applying a multiplier to an item. We observed the Xn factor used in the case of multiple laborers billed under the same unit rate or multiple quantities of an item. The Xn factor was also used to account for "lost hour factors" stipulated within the Purchase Order. A "lost hour factor" was established to compensate a contractor for NYC DOT permit stipulations that reduced a contractor's workday beyond a certain amount of hours. Lost hour factors were specified within Special Conditions attached to a given Purchase Order. These factors typically ranged from $10 \%$ to $12.5 \%$ per hour and were applied to each affected payment item. On numerous layouts, the lost hour factor applied was higher than the contractually stipulated factor. In such cases, we adjusted the factor to the contractually allowed factor within
the Special Conditions provided to our team during our review and the variance was coded to Scenario 3.
53. Controlled Density Backfill. The Trenching Manual contains multiple payment items for furnishing and delivering various backfill material. These payment items are T91 through T94 and cover only the furnishing and delivery of clean earth backfill, sand backfill, controlled density backfill and backfill conforming to New York State Specification Item \#4. The Trenching Manual also contains multiple all inclusive payment items, e.g., T41 and T45, which pay the contractor for earth excavation by machine or hand, furnish, deliver and install clean or sand fill and load, haul away and disposal. In other words, these all-inclusive items cover all the necessary work associated with the excavation and backfill of a prescribed trench.
54. Many instances were encountered where the contractor utilized all-inclusive trenching item codes like T41 or T45, as described above, intended to provide full reimbursement to the contractor for all costs associated with the excavation and backfill of the trench, but then also charged an additional amount for the furnishing and delivery of controlled density backfill (T93). In these cases, the contractor was paid for work not performed - the contractor was paid to furnish, deliver and install either clean or sand backfill material when it was not utilizing clean or sand backfill material, but rather was furnishing and delivering controlled density backfill. In addition, the contractor was also paid to furnish, deliver and install control density fill, T93, which it did use to backfill the trench.
55. The installation of controlled density fill is a far more economical process than installing clean or sand fill. Controlled density fill is a flowable fill that is delivered to the site in a ready mix truck (similar to a concrete delivery) and poured into the trench directly from the truck. The sand or clean fill is installed in lifts; the first lift is placed and compacted by vibratory
equipment, then tested for proper compaction prior to starting the next lift of fill. The installation of sand or clean fill also requires the use of a backhoe and hand compactor whereas no additional equipment is needed for the installation of controlled density fill as it is poured into the trench directly from the truck and is a self-compacting material. As a result, the installation time is decreased with the use of controlled density fill. ${ }^{13}$ Although the Trenching Manual descriptions for the all-inclusive payment items T41 and T45 do not explicitly state that furnishing or installing controlled density fill is included, we deducted the charge for T93 when charged in conjunction with either T41 or T45 as the cost savings for installing controlled density fill in our opinion outweighs the increased cost of furnishing and delivering the controlled density fill. These variances were coded to Scenario 5.
56. Plating. The payment item for plating, typically charged under item T110, covers the first 30 days of a plate rental plus plate installation and removal. If item T110 was charged on a cut where the documentation indicated that the cut was opened, backfilled and closed within the same day and other item codes charged on the cut indicated pavement restoration or base restoration (i.e., items T2R, T30, T31, T32) equal to the depth of pavement originally removed, the plating charge was removed as the contractor should have protected the trench during the day while the work was being performed and there would be no need to protect the trench beyond that day if the trench was restored to the original depth that same day. This rationale for calculating variances related to plating was discussed and confirmed during an interview with a CCI from Construction Organization. Variances resulting from plating charged to cuts opened and closed within one day and restored to the original depth removed were coded to Scenario 6.

[^8]If the trench was opened and closed within one day, but a gap remained between the top of the trench and the adjacent pavement, then the plating charge was permitted as there may have been a 2-inch gap between the restored trench and the adjacent pavement.
57. Dewatering. The Trenching Manual contains a payment item T210 for dewatering. The definition of this item reads, "Furnish labor and equipment for continuous dewatering due to underground streams, tides and water main leaks. Includes up to two 4 inch pumps. Pumping required for the removal of ground water is included in unit item for work." Further, an interview with a CCI from the Construction organization confirmed this definition and provided examples of when this item code should be used. If T210 was charged with the reasoning provided as "ground water," i.e., normally anticipated groundwater, or if no reason was provided to indicate underground streams, tides or a water main leak were present, the charge for dewatering was removed. This variance was coded to Scenario 6.
58. Excavation Volume. There are a variety of payment items within CECONY's Trenching Manual to compensate a contractor for the excavation of a trench. Most of the excavation items we reviewed were paid on a cubic yard unit of measure, and a few items were paid on the basis of linear foot of trench or "each opening". When a cut was billed and paid for on a cubic yard unit of measure, we took the position that payment should have been consistent with the total volume of the cut as defined by the cut opening size. For example, if a cut opening size was recorded as 4 ' $x 4^{\prime} \times 44^{\prime}$ or 2.37 cubic yards, one or a combination of payment items - such as pavement break and removal, excavation by hand or machine and rock removal - should not exceed 2.37 cubic yards.
59. Many instances were observed where rock and masonry excavation charges for T50, T51, T53 and T54 were billed in addition to cubic yard earth excavation items with the total
volume excavated exceeding the total volume of the cut opening. In such cases, we adjusted the volume of the earth excavation item downward to account for the reported quantities of rock or intact masonry removed such that the total quantity removed equaled the volume of the recorded cut opening. Excavation payments were not adjusted for rock removal if the cut was paid on a linear foot or on an "each opening" basis or during a structure installation or if the rock removal item charged was T52 whose definition explicitly states it is an incremental unit for specialized equipment.
60. The Trenching Manual does not provide clear instructions on how to handle this particular scenario. During an interview with a CCI from the Construction organization and a Manager from Construction Quality Assurance, we were informed that payment for rock removal was handled differently by inspectors. Our treatment of this scenario and the rationale we applied in calculating variances was discussed and confirmed during this interview; moreover, we noted instances during our review where rock was paid for by CECONY in the same manner we applied during our review. Variances associated with adjusting the excavation volume due to rock removal were coded as Scenario 8.
61. Escalation. The unit prices to be paid for a given scope of work during a performance period are defined within a Purchase Order. Escalation of these unit prices is provided for within certain Purchase Orders and range from 1.5 to $3.5 \%$ on Purchase Orders reviewed. On such Purchase Orders, work performed prior to the escalation date should have been compensated at the original (or pre-escalated) unit prices established in the Purchase Order. Conversely, work performed after the escalation date should have been compensated at the escalated rate as defined in the Purchase Order. Instances whereby work was performed prior to the effective escalation date and paid at escalated prices were found during our review. These
occurrences appear to be the result of payments being processed in COMPASS after the effective escalation date thus adjusting the applicable unit prices by the escalation rate despite the actual date of work being prior to the contractually stipulated escalation date. In these cases, the amount paid in escalation was deducted from the layout total as a variance and categorized as Scenario 9.
62. Debit. Certain payment files were missing receipts for materials required for reconciliation of items charged as a Debit. As discussed previously, KPMG did not adjust amounts billed in cases of missing documentation. Contrary to KPMG's practice, debit charges that could not be reconciled due to missing documentation within the payment file were deducted during our review and coded to Scenario 10.

## IV. Estimate of Loss for Construction-Street Work

63. The methodology and results for the estimation of loss for the Street Work payment files contained in COMPASS is described in this section. The loss estimate for Interference projects is set out in Section V.
64. As described in our Part 2 Work Plan, our requirement was to assess the overall loss to CECONY on payments made in the COMPASS system between 2000 and the date of the arrests. We have not considered payments made on projects either directly through PMS or through any other method. Between 2000 and January 14, 2009, payments totaling \$3,570 million were made through COMPASS. These payments are categorized within COMPASS as either Construction or Interference (i.e., Public Improvement). ${ }^{14}$ For the

[^9]payments categorized as Construction, we further identified these payments in terms of the type of project, i.e., Street Work or Special Projects. For the purpose of this identification, we reviewed the scope of work contained in each Construction Purchase Order and categorized each of them into either Street Work or Special Projects.
65. Table 6 summarizes the COMPASS payments for Street Work, Special Projects and Interference. ${ }^{15}$

Table 6: COMPASS Payments by Project Type

|  | Amounts <br> Recorded in <br> COMPASS <br> $\mathbf{( \$ ’ 0 0 0 )}$ |
| :--- | ---: |
| Construction |  |
| Street Work | $1,420,901$ |
| Special Projects | $1,280,512$ |
| Interference | 869,009 |
| Total | $3,570,422$ |

66. A number of criteria could be potentially used to group the population for purposes of variance analysis and extrapolation. The rationale supporting our grouping methodology and extrapolation related to Construction-Street Work projects is described below.
67. We excluded Special Projects from our extrapolation and estimate of loss calculation. As noted in paragraphs 22 and 40 above, for our team to have effectively evaluated Special Projects for variances in amounts paid, access to additional documentation would have been required. Special Projects are typically contracted as lump sum projects. It is not possible to review the entirety of a Special Project by reviewing just one layout or payment related to the project. A review of only a single layout (i.e., one invoice) on a project would provide little

[^10]insight into the performance of the contractor and appropriateness of the payment since only a small portion of a large lump sum project would have been analyzed. Furthermore, the type of work that is contained within Special Projects is not similar to most of the layouts that we have reviewed, is not governed by the Trenching Manual, is not similar to the layouts and work identified in Part 1 and in the arrest affidavits. For these reasons, we have excluded Special Projects from our extrapolation and estimate of loss calculation.
68. Although this subset of projects has been excluded from our estimate of loss calculation, we note that payment vulnerabilities, particularly with change order work, with these projects may still exist. Access to and review of additional documentation as previously described would be required to properly analyze and determine if the payments made on these projects were appropriate.
69. For purposes of variance analysis and loss extrapolation, the $\$ 1,421$ million amount related to Street Work was grouped into four categories using a 2 x 2 classification based on (a) whether the contractor performing the work is Felix ${ }^{16}$ or Other Contractors, and (b) whether the layout was identified by KPMG’s K-Trace Model or not identified by K-Trace Model, as follows:
"Felix" vs. "Other Contractors": Given the evidence (through the arrests and convictions) that there was fraud associated with Felix, we categorized all layouts with work performed by Felix separately from layouts with work performed by other contractors.

[^11]"Identified by K-Trace" vs. "Other Layouts": We categorized all layouts as either "Identified by K-Trace," defined as those receiving KPMG’s K-Trace score of greater than or equal to 10 on Phase IIA or greater than or equal to 4 on Phase IIB, ${ }^{17}$ or "Other Layouts".
70. The above $2 \times 2$ groupings results in the following four categories for analysis of Street Work layouts: (1) Felix-Identified by K-Trace, (2) Felix-Other Layouts, (3) Other Contractors-Identified by K-Trace, and (4) Other Contractors-Other Layouts. For each of these categories, a simple mean of the variances from our analysis was calculated. ${ }^{18}$ This was then used as the loss extrapolation rate for the corresponding COMPASS population subgroup.
71. As there are a small number of layouts with a high variance that could have a large effect on the loss extrapolation rate, we capped the variance on a layout for Street Work categories 3 and 4 above at $40 \%$ for purposes of estimating the mean of the variances to apply for extrapolation. ${ }^{19}$ The cap equals approximately three standard deviations of the variances for the non-Felix sample that we calculated. ${ }^{20}$ We did not apply a cap to the computed variances for Street Work categories 1 and 2 above, i.e., Felix layouts, given the evidence (through the arrests and convictions) that there was fraud on some layouts.

[^12]72. The number of layouts reviewed and descriptive statistics for percentage variances for each category of Street Work is given in Table 7.

Table 7: Distribution of Variances for Construction - Street Work ${ }^{21}$

|  | Number <br> of <br> Layouts | Mean of <br> Variances | Standard <br> Deviation <br> of <br> Variances | Median <br> of <br> Variances | Confidence <br> Interval <br> Around the <br> Mean |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| (1) Felix-Identified by K-Trace | 20 | $30.53 \%$ | $22.61 \%$ | $27.90 \%$ | + or $-9.91 \%$ |  |
| (2) Felix-Other Layouts | 17 | $18.52 \%$ | $17.89 \%$ | $15.52 \%$ | + or $-8.50 \%$ |  |
| All Felix Layouts | 37 | $25.02 \%$ | $21.19 \%$ | $18.17 \%$ | + or $-6.83 \%$ |  |
| (3) Other Contractors-Identified by K-Trace | 95 | $16.99 \%$ | $13.05 \%$ | $16.55 \%$ | + or $-2.62 \%$ |  |
| (4) Other Contractors-Other Layouts | 101 | $11.15 \%$ | $13.95 \%$ | $2.74 \%$ | + or $-2.72 \%$ |  |
| All Other Contractors Layouts | 196 | $13.98 \%$ | $13.80 \%$ | $11.19 \%$ | + or $-1.93 \%$ |  |
| All Construction-Street Work Layouts |  |  |  |  |  |  |

73. The means of variances for the four Street Work categories from the above table (namely, $30.53 \%, 18.52 \%, 16.99 \%$ and $11.15 \%$ ) were used as loss extrapolation rates and applied to the relevant subgroups of the population of Street Work transactions. ${ }^{22}$ For example, for the population subgroup of layouts which related to Street Work category 3, "Other Contractors - Identified by K-Trace", the applicable loss rate was $16.99 \%$.

[^13]74. The extrapolation methodology for Street Work (as well as Interference Projects discussed in Section V) is summarized in Figure 1.

Figure 1: Extrapolation Methodology

75. Using the above extrapolation methodology and loss extrapolation rates, the estimated loss for Street Work is given in Table 8.

Table 8: Estimated Loss for Construction - Street Work

| Category | Amounts Recorded in COMPASS (\$’000) | Loss Extrapolation Rate | $\begin{gathered} \text { Estimated } \\ \text { Loss } \\ \text { (\$'000) } \end{gathered}$ |
| :---: | :---: | :---: | :---: |
| (1) Felix - Identified by K-Trace | 6,210 | 30.53\% | 1,896 |
| (2) Felix - Other Layouts | 226,395 | 18.52\% | 41,935 |
| Felix (Total) | 232,606 |  | 43,832 |
| (3) Other Contractors - Identified by K-Trace | 36,850 | 16.99\% | 6,262 |
| (4) Other Contractors - Other Layouts | 1,151,445 | 11.15\% | 128,395 |
| Other Contractors (Total) | 1,188,295 |  | 134,657 |
| Total Construction-Street Work | 1,420,901 |  | 178,489 |

## V. Estimate of Loss for Interference Projects

76. As noted in Section III, limitations exist in the paperwork available to review on Interference projects, and as a result, it is possible that the variances we identify in our review underestimate the loss vulnerabilities that may exist for these projects. In fact, the arrest affidavits referenced specific Interference projects. Access to and review of additional documentation from multiple parties would be required to fully analyze and estimate the loss for these types of projects.
77. Furthermore, as discussed in Section II, KPMG only reviewed a small number of Interference layouts as part of its random sampling. ${ }^{23}$ As a consequence, we also reviewed only 24 Interference layouts, 8 from Phase IIA and 16 from Phase IIC.

[^14]78. Subject to the above qualifications regarding the limitations associated with our review of Interference layouts, we provide below an estimate of the loss associated with Interference projects based on our limited sample analysis. For loss extrapolation, we group the Interference layouts as Felix vs. Other Contractors, as in the case of Street Work. Given our small sample, an additional categorizing based on K-Trace identification was not considered. Thus, the loss estimation was done using only a total of two categories.
79. The number of layouts reviewed and descriptive statistics for percentage variance for each category of Interference projects is given in Table 9.

## Table 9: Distribution of Variances for Interference Projects

|  | Number of <br> Layouts | Mean of <br> Variances | Standard <br> Deviation of <br> Variances | Median of <br> Variances | 95\% Confidence <br> Interval Around <br> the Mean |
| :--- | ---: | ---: | ---: | ---: | ---: |
| (1) Felix ${ }^{24}$ | 3 | $15.48 \%$ | $\mathrm{n} / \mathrm{a}$ | $3.81 \%$ | $\mathrm{n} / \mathrm{a}$ |
| (2) Other Contractors | 21 | $2.55 \%$ | $4.20 \%$ | $0.63 \%$ | + or $-1.80 \%$ |
| Total Interference |  |  |  |  |  |

80. The means of variances for the two Interference categories from the above table (namely, $15.48 \%$ and $2.55 \%$ ) were used as loss extrapolation rates and applied to the relevant subgroups of the population of Interference transactions. Subject to the aforementioned limitations and qualifications associated with our review of Interference layouts, the estimated loss for Interference projects is given in Table 10.
[^15]Table 10: Estimated Loss for Interference Projects

|  | Amounts <br> Recorded in <br> COMPASS <br> $\mathbf{( \$ ’ 0 0 0 )}$ | Loss <br> Extrapolation <br> Rate | Estimated <br> Loss <br> $\mathbf{1}$ <br> Category |
| :--- | ---: | ---: | ---: |
| (1) Felix | 55,917 | $15.48 \%$ | 8,655 |
| (2) Other Contractors | 813,091 | $2.55 \%$ | 20,740 |
|  |  |  |  |
| Total Interference | 869,009 |  | 29,396 |

## VI. Conclusion

81. Our estimate of loss for Construction-Street Work population based on the analysis presented is $\$ 178,489,000$, summarized in Table 8.
82. Subject to the qualifications noted earlier regarding the limitations associated with our review of Interference layouts, our estimate of loss for Interference population is $\$ 29,396,000$, summarized in Table 10. Arrestee affidavits did point to the occurrences of fraud, waste and abuse in Interference work. A separate analysis involving access to Interference files maintained by the City and other utility companies might be needed to more accurately quantify potential fraud, waste, and abuse in Interference work. It is recommended that CECONY develop a study to determine the feasibility of obtaining the documents needed from the various City agencies and utilities for such an analysis. Further, it is recommended that CECONY include language in future Interference agreements which permits CECONY to inspect the City's books and records related to Interference projects to ensure CECONY's payments to the contractor are in accordance with established agreements and not duplicative.
83. Purchase Orders for Special Projects involving CECONY's facilities such as substations, generating stations and office buildings are structured differently than Area (or indefinite quantity) Contracts for Street Work. A separate analysis involving access to all payments made on these types of Purchase Orders and all related project documentation would
be required to more accurately quantify potential fraud, waste, and abuse related to Special Projects. It is recommended that CECONY conduct post job audits of a sample of Special Projects involving review of payment files from commencement through completion of the project.
84. Based on a review of a sample of CECONY Construction layout payment files, we found that other contractors, contracts, and transactions exhibited patterns or traits similar to those examined during Part 1. The consistency of the variances found during our Part 2 review supports and enhances our Part 1 finding that weaknesses in CECONY's internal controls existed and that the breakdowns and lack of enforcement of these controls facilitated overpayments to contractors.
85. Further, our Part 2 review supports our Part 1 finding (Paragraphs 1.2.5 and 5.2.14) that the configuration, quantity and quality of the descriptions in the Trenching Manual provided an opportunity to overpay the contractor by either referencing items with more expensive unit rates than the more appropriate item ("upcoding") or by charging two items together that should not be ("macro / micro" or "mutually exclusive"). The opacity that was inherent in the Trenching Manual allowed for multiple interpretations and manipulations of item code applications. This breakdown in CECONY's internal control processes facilitated both the fraudulent overpayments to contractors by arrestees as well as wasteful overpayments to contractors by employees trained to apply item codes in a certain manner.
86. As discussed in the Part 1 Report (Paragraphs 1.2.3 and 5.2.13), a significant compliance and control tool that was not utilized during the relevant period absent a dispute was the periodic construction contract inspection and audit of a contractor's books and records and random "on the job" audits or "post job" audits of Street Work projects. This is a common
industry standard control mechanism included in CECONY's Standard Terms and Conditions on construction purchase orders. The payment variances determined in our Part 2 review could have been detected and the circumvention of processes and procedures could have been identified and remedied had CECONY conducted periodic audits of the contractor books and records or reviews of CECONY's layout files as was performed here.

## Appendix 1: Payment File Review Results

| Layout | Purchase <br> Order | CRA <br> Phase | Vendor | Type of Project | Amount Reviewed | CRA Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 71 ST 2 AVE. | n/a | 2A | Other Contractor | Interference | \$146,563.34 | \$3,682.80 |
| C07-03302-X | 728405 | 2A | Other Contractor | Construction - street work | \$47,973.00 | \$2,231.16 |
| E02-99999-3M | 30505 | 2A | Felix | Construction - street work | \$23,307.82 | \$4,236.16 |
| E07-12243-WCY | 626324 | 2A | Felix | Construction - street work | \$32,301.57 | \$20,041.38 |
| E08-99999-00100M | 728505 | 2A | Other Contractor | Construction - street work | \$14,346.36 | \$0.00 |
| E99-14032-X | 32664 | 2A | Felix | Construction - street work | \$11,495.89 | \$1,395.01 |
| F00-09977-2X | 32664 | 2A | Felix | Construction - street work | \$29,603.11 | \$1,883.18 |
| F01-04888-7MM1 | 30505 | 2A | Felix | Construction - street work | \$48,506.74 | \$0.00 |
| F06-06690-2WTM | 626324 | 2A | Felix | Construction - street work | \$96,374.56 | \$45,688.90 |
| F06-06694-2WS | 626324 | 2A | Felix | Construction - street work | \$13,397.25 | \$7,274.32 |
| G06-45038-Q | 323024 | 2A | Other Contractor | Construction - street work | \$29,187.87 | \$7,386.35 |
| G07-08030-WTE | 626324 | 2A | Felix | Construction - street work | \$89,979.69 | \$45,007.78 |
| GREENWICH ST TO WASHINGTON ST | n/a | 2A | Other Contractor | Interference | \$108,836.30 | \$7,712.74 |
| MG34-02710 | 519561 | 2A | Felix | Construction - street work | \$171,888.44 | \$13,190.53 |
| MGC05-00075-1M | 436606 | 2A | Felix | Construction - street work | \$272,812.79 | \$140,068.17 |
| MGC06-00011 | 436606 | 2A | Felix | Construction - street work | \$42,497.38 | \$6,480.00 |
| ML06-08630 | 519561 | 2A | Felix | Construction - street work | \$49,832.69 | \$1,474.88 |
| Not Incl In Lump Sum Agreement | n/a | 2A | Other Contractor | Interference | \$33,890.61 | \$869.43 |
| Not Included \#2 | n/a | 2A | Other Contractor | Interference | \$52,847.41 | \$0.00 |
| P03-02804-M | n/a | 2A | Other Contractor | Interference | \$200,456.07 | \$2,556.40 |
| P07-09322-WE | 626324 | 2A | Felix | Construction - street work | \$32,567.75 | \$13,405.55 |
| S00-04306-1MR1 | 433039 | 2A | Other Contractor | Construction - street work | \$19,780.65 | \$2,262.00 |
| S01-02068-1M | 30505 | 2A | Felix | Construction - street work | \$44,831.80 | \$3,729.05 |
| S03-01549-001MR3 | 728426 | 2A | Other Contractor | Construction - street work | \$17,042.83 | \$0.00 |


| Layout | Purchase <br> Order | CRA <br> Phase | Vendor | Type of Project | Amount Reviewed | CRA Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S03-02091-X | 322185 | 2A | Other Contractor | Construction - street work | \$24,498.47 | \$2,289.65 |
| S03-11303-X | 322185 | 2A | Other Contractor | Construction - street work | \$32,051.41 | \$10,744.68 |
| S03-8003-M/16 Gas | n/a | 2A | Felix | Interference | \$282,072.47 | \$120,240.28 |
| S04-04081-X | 322185 | 2A | Other Contractor | Construction - street work | \$11,528.21 | \$5,042.84 |
| S04-08122-MG | 519561 | 2A | Felix | Construction - street work | \$15,377.21 | \$1,810.21 |
| S05-01008-1XR1 | 433038 | 2A | Other Contractor | Construction - street work | \$218,733.76 | \$28,979.30 |
| S05-35022-WNR-R-1 | 498823 | 2A | Other Contractor | Construction - street work | \$43,852.90 | \$7,536.15 |
| S06-06984-4QR2 | 623725 | 2A | Other Contractor | Construction - street work | \$125,362.17 | \$38,219.53 |
| S07-08151-000Q | 623725 | 2A | Other Contractor | Construction - street work | \$14,108.12 | \$6,213.80 |
| S99-02509-MM1 | 433039 | 2A | Other Contractor | Construction - street work | \$13,519.50 | \$14.00 |
| Support Crew | 524271 | 2A | Other Contractor | Construction - street work | \$86,208.90 | \$0.00 |
| W/O WEST BROADWAY | n/a | 2A | Other Contractor | Interference | \$33,851.44 | \$214.56 |
| W90 ST / BROADWAY | n/a | 2A | Felix | Interference | \$107,664.15 | \$0.00 |
| Y07-14125-X | 728405 | 2A | Other Contractor | Construction - street work | \$19,603.94 | \$12,367.98 |
| Z00-02830-1MM | 433039 | 2A | Other Contractor | Construction - street work | \$37,568.63 | \$8,052.80 |
| Z00-09940-1X | 32664 | 2A | Felix | Construction - street work | \$39,466.29 | \$10,860.77 |
| Z01-18286-MC | 199700 | 2A | Other Contractor | Construction - street work | \$37,831.03 | \$4,605.30 |
| Z01-18587-MC | 199700 | 2A | Other Contractor | Construction - street work | \$48,117.50 | \$0.00 |
| Z01-19207-MC | 199700 | 2A | Other Contractor | Construction - street work | \$51,499.37 | \$19,907.08 |
| Z02-19034-MC | 199700 | 2A | Other Contractor | Construction - street work | \$59,015.44 | \$27,145.18 |
| Z04-09612--1XR1 | 433038 | 2A | Other Contractor | Construction - street work | \$228,206.93 | \$67,184.84 |
| Z06-09590-1X | 433038 | 2A | Other Contractor | Construction - street work | \$145,131.78 | \$52,940.63 |
| Z07-09532-1QR1 | 623725 | 2A | Other Contractor | Construction - street work | \$103,930.21 | \$9,285.19 |
| Z08-06855-WTM | 626324 | 2A | Felix | Construction - street work | \$18,071.93 | \$5,110.41 |
| Z08-09502-1Q | 623725 | 2A | Other Contractor | Construction - street work | \$37,023.80 | \$5,210.50 |
| E02-13058-X | 223274 | 2B | Other Contractor | Construction - street work | \$37,501.87 | \$3,662.65 |


| Layout | Purchase Order | CRA <br> Phase | Vendor | Type of Project | Amount Reviewed | CRA Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E05-09803-1QR1 | 623725 | 2B | Other Contractor | Construction - street work | \$55,917.93 | \$21,568.30 |
| E06-13539-Q | 623725 | 2B | Other Contractor | Construction - street work | \$23,425.54 | \$61.67 |
| E06-15175-B | 625544 | 2B | Other Contractor | Construction - street work | \$4,764.20 | \$91.15 |
| F03-09701-4X | 433038 | 2B | Other Contractor | Construction - street work | \$8,295.94 | \$3,219.52 |
| F05-09145-19Q | 623725 | 2B | Other Contractor | Construction - street work | \$21,479.27 | \$1,167.25 |
| F05-09145-3Q | 623725 | 2B | Other Contractor | Construction - street work | \$8,263.53 | \$570.75 |
| F05-2996-42B | 321161 | 2B | Other Contractor | Construction - street work | \$18,075.24 | \$3,054.78 |
| F06-09361-59QR2 | 623725 | 2B | Other Contractor | Construction - street work | \$31,502.44 | \$55.90 |
| F06-09369-QR3 | 623725 | 2B | Other Contractor | Construction - street work | \$42,086.31 | \$13,611.24 |
| F06-09436-2Q | 623725 | 2B | Other Contractor | Construction - street work | \$26,069.05 | \$145.43 |
| F06-09444-7Q | 623725 | 2B | Other Contractor | Construction - street work | \$26,532.24 | \$39.01 |
| F06-09447-2QF | 623725 | 2B | Other Contractor | Construction - street work | \$59,796.33 | \$131.41 |
| F07-09345-12Q | 623725 | 2B | Other Contractor | Construction - street work | \$97,961.61 | \$9,773.09 |
| F07-09362-3Q | 623725 | 2B | Other Contractor | Construction - street work | \$65,695.68 | \$2,843.95 |
| F07-09362-4Q | 623725 | 2B | Other Contractor | Construction - street work | \$51,239.40 | \$4,112.10 |
| F07-09400-10Q | 623725 | 2B | Other Contractor | Construction - street work | \$163,738.11 | \$27,062.56 |
| F07-09400-27Q | 623725 | 2B | Other Contractor | Construction - street work | \$161,482.95 | \$26,821.22 |
| F07-09419-4Q | 623725 | 2B | Other Contractor | Construction - street work | \$35,721.41 | \$6,553.41 |
| F07-09441-QR1 | 623725 | 2B | Other Contractor | Construction - street work | \$34,796.55 | \$1,864.72 |
| F07-09442-2Q | 623725 | 2B | Other Contractor | Construction - street work | \$182,033.54 | \$3,270.26 |
| F08-09120-203QR1 | 623725 | 2B | Other Contractor | Construction - street work | \$55,484.36 | \$9,372.45 |
| F08-09120-204Q | 623725 | 2B | Other Contractor | Construction - street work | \$100,484.84 | \$10,843.46 |
| F08-09334-1Q | 623725 | 2B | Other Contractor | Construction - street work | \$30,870.15 | \$4,446.18 |
| g01-08003--wmv | 27812 | 2B | Other Contractor | Construction - street work | \$39,769.61 | \$11,402.43 |
| g01-08050-wmv | 27812 | 2B | Other Contractor | Construction - street work | \$65,629.69 | \$13,702.19 |
| g01-08073-wa | 27812 | 2B | Other Contractor | Construction - street work | \$72,385.65 | \$12,516.45 |

$\left.\begin{array}{llllrrrrr}\text { Purchase } & \text { CRA } \\ \text { Order }\end{array}\right)$

| Layout | Purchase <br> Order | CRA <br> Phase | Vendor | Type of Project | Amount Reviewed | CRA Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Y08-09905-Q | 623725 | 2B | Other Contractor | Construction - street work | \$42,985.17 | \$2,120.95 |
| z00-06851-wnr | 27812 | 2B | Other Contractor | Construction - street work | \$219,235.59 | \$61,782.74 |
| z00-06852-wpc | 27812 | 2B | Other Contractor | Construction - street work | \$127,732.22 | \$23,657.42 |
| z01-06834-wnrrev1 | 27812 | 2B | Other Contractor | Construction - street work | \$76,833.21 | \$19,314.43 |
| Z01-06903-1WSREV2 | 27812 | 2B | Other Contractor | Construction - street work | \$254,280.20 | \$87,222.28 |
| Z01-06903-2WS | 27812 | 2B | Other Contractor | Construction - street work | \$45,513.64 | \$16,848.33 |
| Z02-06755-WMV | 27812 | 2B | Other Contractor | Construction - street work | \$53,751.04 | \$16,419.01 |
| Z02-06831-WR | 27812 | 2B | Other Contractor | Construction - street work | \$94,145.85 | \$34,012.73 |
| Z02-06849-WNR | 27812 | 2B | Other Contractor | Construction - street work | \$133,579.29 | \$25,586.38 |
| Z02-09117-Q | 323024 | 2B | Other Contractor | Construction - street work | \$63,738.83 | \$11,229.44 |
| Z03-09071-Q | 322230 | 2B | Other Contractor | Construction - street work | \$56,876.18 | \$13,713.12 |
| Z03-09086-Q | 323024 | 2B | Other Contractor | Construction - street work | \$37,591.79 | \$13,158.33 |
| Z06-9541-2Q | 623725 | 2B | Other Contractor | Construction - street work | \$28,530.84 | \$4,870.20 |
| Z07-06881-WWP | 626324 | 2B | Felix | Construction - street work | \$64,166.13 | \$35,631.43 |
| Z07-09503-1Q | 623725 | 2B | Other Contractor | Construction - street work | \$70,190.20 | \$12,824.92 |
| Z07-09545-1Q | 623725 | 2B | Other Contractor | Construction - street work | \$37,601.71 | \$4,390.23 |
| Z07-09556-1QR1 | 623725 | 2B | Other Contractor | Construction - street work | \$104,575.65 | \$4,944.12 |
| Z07-09566-3Q | 623725 | 2B | Other Contractor | Construction - street work | \$46,666.65 | \$2,106.11 |
| Z07-09698-1Q | 623725 | 2B | Other Contractor | Construction - street work | \$40,139.31 | \$1,446.96 |
| G02-901 - | 225946 | 2B - large | Other Contractor | Construction - street work | \$7,143,510.95 | \$1,182,441.79 |
| 2003043150 W54 St | 520499 | 2C | Felix | Construction - street work | \$16,042.86 | \$2,331.98 |
| 2007027585 W. Broadway | 829491 | 2C | Felix | Construction - street work | \$13,851.11 | \$131.03 |
| 200727371002 Madison/E77-E78 | 520499 | 2C | Felix | Construction - street work | \$7,512.01 | \$833.32 |
| 795-BERGENE149TOWEST.AV | n/a | 2C | Other Contractor | Interference | \$4,666.68 | \$0.00 |
| B330397ASL | 434666 | 2C | Other Contractor | Construction - street work | \$4,786.75 | \$536.25 |
| B499569ASL | 434666 | 2C | Other Contractor | Construction - street work | \$12,995.24 | \$356.03 |


| Layout | Purchase <br> Order | CRA <br> Phase | Vendor | Type of Project | Amount Reviewed | CRA Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B576150ASL | 434666 | 2C | Other Contractor | Construction - street work | \$6,759.25 | \$414.55 |
| B576169ASL | 434666 | 2C | Other Contractor | Construction - street work | \$5,638.50 | \$0.00 |
| B659887ASL | 434666 | 2C | Other Contractor | Construction - street work | \$1,960.50 | \$300.00 |
| B732577ASL | 321160 | 2C | Other Contractor | Construction - street work | \$3,664.17 | \$0.00 |
| B738855ASL | 730929 | 2C | Other Contractor | Construction - street work | \$10,123.00 | \$0.00 |
| B763134ASL | 730929 | 2C | Other Contractor | Construction - street work | \$3,316.50 | \$484.00 |
| Bartow Ave Abatement Work | n/a | 2C | Other Contractor | Interference | \$122,413.59 | \$10,900.71 |
| Bay Street | n/a | 2C | Other Contractor | Interference | \$71,510.84 | \$0.00 |
| BE04028782 | 434666 | 2C | Other Contractor | Construction - street work | \$4,019.95 | \$2,377.95 |
| BE08000677 | 729967 | 2C | Other Contractor | Construction - street work | \$1,540.00 | \$0.00 |
| BE08009743 | 729967 | 2C | Other Contractor | Construction - street work | \$1,150.00 | \$0.00 |
| BROADWAY B/T BEAVER / MORRIS | n/a | 2C | Felix | Interference | \$26,151.06 | \$996.16 |
| C06-07350-X | 728405 | 2C | Other Contractor | Construction - street work | \$49,315.90 | \$15,658.15 |
| C07-00419-000M | 727056 | 2C | Other Contractor | Construction - street work | \$2,118.18 | \$0.00 |
| C08-45043-Q | 729968 | 2C | Other Contractor | Construction - street work | \$1,150.00 | \$0.00 |
| C08-99944-000M | 728505 | 2C | Other Contractor | Construction - street work | \$1,873.75 | \$0.00 |
| Catch Basins --Chutes | n/a | 2C | Other Contractor | Interference | \$689,966.78 | \$27,487.06 |
| E00-18910-WTC | 936712 | 2C | Other Contractor | Construction - street work | \$2,398.98 | \$0.00 |
| E01-12295-MM1R1 | 30505 | 2C | Felix | Construction - street work | \$4,910.81 | \$1,779.54 |
| E01-14056-X | 223274 | 2C | Other Contractor | Construction - street work | \$2,434.07 | \$692.82 |
| E01-15097--M | 226028 | 2C | Other Contractor | Construction - street work | \$753.94 | \$0.00 |
| E02-13448-Q | 27825 | 2C | Other Contractor | Construction - street work | \$27,216.59 | \$3,511.51 |
| E02-15087-B | 27824 | 2C | Other Contractor | Construction - street work | \$2,943.85 | \$0.00 |
| E02-16038-B | 321160 | 2C | Other Contractor | Construction - street work | \$4,198.95 | \$0.00 |
| E03-16067-B | 321161 | 2C | Other Contractor | Construction - street work | \$4,744.34 | \$1,418.42 |
| E04-12531-MM1C | 433039 | 2C | Other Contractor | Construction - street work | \$13,300.00 | \$1,600.00 |


| Layout | Purchase Order | CRA <br> Phase | Vendor | Type of Project | Amount Reviewed | CRA Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E04-13665-B | 321161 | 2C | Other Contractor | Construction - street work | \$7,448.05 | \$0.00 |
| E04-15527--M | 226028 | 2C | Other Contractor | Construction - street work | \$7,250.22 | \$0.00 |
| E05-12098-XR1 | 433038 | 2C | Other Contractor | Construction - street work | \$16,646.40 | \$0.00 |
| E05-12170-MM1C | 433039 | 2C | Other Contractor | Construction - street work | \$1,775.00 | \$0.00 |
| E05-12336-MM2 | 433041 | 2C | Other Contractor | Construction - street work | \$6,333.83 | \$0.00 |
| E05-15701-WCY | 322219 | 2C | Other Contractor | Construction - street work | \$7,070.35 | \$3,211.50 |
| E05-19053-WTG | 324491 | 2C | Other Contractor | Construction - street work | \$5,181.99 | \$3,725.99 |
| E06-01324--X | 433038 | 2C | Other Contractor | Construction - street work | \$901.02 | \$0.00 |
| E06-15047-X | 433038 | 2C | Other Contractor | Construction - street work | \$8,551.92 | \$1,158.75 |
| E06-SE038-R1 | 519930 | 2C | Other Contractor | Construction - street work | \$7,746.88 | \$916.74 |
| E07-12295-000MM1 | 433039 | 2C | Other Contractor | Construction - street work | \$12,442.90 | \$(0.00) |
| E07-13137-WCY | 626324 | 2C | Felix | Construction - street work | \$18,170.56 | \$10,485.78 |
| E07-17031-000MR1M2 | 433041 | 2C | Other Contractor | Construction - street work | \$27,890.52 | \$4,653.26 |
| E07-20663-000STLC | 625579 | 2C | Other Contractor | Construction - street work | \$435.00 | \$0.00 |
| E07-20887-X | 728405 | 2C | Other Contractor | Construction - street work | \$7,173.44 | \$1,101.09 |
| E07-21589-000MM1 | 728505 | 2C | Other Contractor | Construction - street work | \$2,783.00 | \$415.00 |
| E08-12152-000MM2 | 728505 | 2C | Other Contractor | Construction - street work | \$8,466.89 | \$0.00 |
| E08-13206-1X | 728405 | 2C | Other Contractor | Construction - street work | \$5,409.66 | \$664.01 |
| E08-16674-B | 625545 | 2C | Other Contractor | Construction - street work | \$22,680.83 | \$4,993.57 |
| E08-19300WMP | 629404 | 2C | Other Contractor | Construction - street work | \$9,804.21 | \$824.40 |
| E20-02198-X | 32664 | 2C | Felix | Construction - street work | \$2,188.29 | \$0.00 |
| E4-IU127 | 27820 | 2C | Other Contractor | Construction - street work | \$704.00 | \$0.00 |
| Electric L/O P02-2887-20M | n/a | 2C | Other Contractor | Interference | \$38,977.46 | \$1,111.11 |
| F02-06966-2MM1 | 226028 | 2C | Other Contractor | Construction - street work | \$29,306.03 | \$0.00 |
| F04-07113-1WPK-M1 | 324491 | 2C | Other Contractor | Construction - street work | \$1,732.81 | \$0.00 |
| F05-06915-MM1 | 433039 | 2C | Other Contractor | Construction - street work | \$10,154.87 | \$1,606.00 |


| Layout | Purchase Order | CRA <br> Phase | Vendor | Type of Project | Amount Reviewed | CRA Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| F05-09778-10X | 521602 | 2C | Other Contractor | Construction - street work | \$328,746.74 | \$105,621.31 |
| F05-09778-65X | 521602 | 2C | Other Contractor | Construction - street work | \$7,016.09 | \$0.00 |
| F05-2971-3MM1 | 433039 | 2C | Other Contractor | Construction - street work | \$5,208.00 | \$0.00 |
| F07-03024-003B-R2 | 625544 | 2C | Other Contractor | Construction - street work | \$47,625.44 | \$492.08 |
| G03-08062-WMM | 322380 | 2C | Other Contractor | Construction - street work | \$51,445.11 | \$17,714.35 |
| G07-08011-WCY | 626324 | 2C | Felix | Construction - street work | \$29,520.37 | \$18,689.21 |
| G08-08034-WCY | 626324 | 2C | Felix | Construction - street work | \$10,335.65 | \$2,383.72 |
| Judlau Capital Work(2003) | n/a | 2C | Other Contractor | Interference | \$69,823.62 | \$0.00 |
| L04-7477-WTE | 322219 | 2C | Other Contractor | Construction - street work | \$3,211.50 | \$859.75 |
| L07-04046-WTE | 728835 | 2C | Felix | Construction - street work | \$3,062.87 | \$0.00 |
| LINWOOD AVE | n/a | 2C | Other Contractor | Interference | \$200,000.00 | \$0.00 |
| M07-716084-000STL | 728426 | 2C | Other Contractor | Construction - street work | \$5,201.50 | \$0.00 |
| M08-716004-STL | 728426 | 2C | Other Contractor | Construction - street work | \$2,080.00 | \$0.00 |
| M08-739753-STL | 728505 | 2C | Other Contractor | Construction - street work | \$1,598.00 | \$500.00 |
| MG05-08836 | 519561 | 2C | Felix | Construction - street work | \$4,164.05 | \$646.40 |
| MG08-04467 | 519561 | 2C | Felix | Construction - street work | \$32,383.84 | \$6,194.59 |
| ML05-09615 | 519561 | 2C | Felix | Construction - street work | \$74,086.05 | \$12,195.68 |
| P01-09182-WNO | 27683 | 2C | Other Contractor | Construction - street work | \$696.72 | \$0.00 |
| p01-09340-wcy | 27812 | 2C | Other Contractor | Construction - street work | \$2,359.70 | \$2,044.01 |
| P02-02305-5B | 321161 | 2C | Other Contractor | Construction - street work | \$20,884.85 | \$2,885.25 |
| P04-09407-WNR | 324491 | 2C | Other Contractor | Construction - street work | \$3,400.00 | \$529.00 |
| P04-09449-WTH | 324491 | 2C | Other Contractor | Construction - street work | \$2,158.00 | \$1,846.00 |
| P04-9232-WCY | 322219 | 2C | Other Contractor | Construction - street work | \$2,270.37 | \$839.23 |
| P05-09238-WTG-(BCC797) | 322231 | 2C | Other Contractor | Construction - street work | \$2,499.74 | \$2,157.22 |
| P05-09582-WMV-M1 | 322219 | 2C | Other Contractor | Construction - street work | \$3,226.99 | \$616.97 |
| P07-09478WTG | 629404 | 2C | Other Contractor | Construction - street work | \$5,003.12 | \$3,270.84 |


| Layout | Purchase Order | CRA <br> Phase | Vendor | Type of Project | Amount Reviewed | CRA Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| PART 47 | n/a | 2C | Other Contractor | Interference | \$72,148.58 | \$12,496.16 |
| PART 34 | $\mathrm{n} / \mathrm{a}$ | 2C | Other Contractor | Interference | \$1,294.82 | \$0.00 |
| PART15 | n/a | 2C | Other Contractor | Interference <br> Construction - Special | \$44,623.52 | \$1,492.90 |
| Payment \# 12 (PS002) | 727604 | 2C | Other Contractor | Projects Construction - Special | \$9,000.00 | \$0.00 |
| PAYMENT \#29 (INV. \#1536) | 437523 | 2C | Other Contractor | Projects Construction - Special | \$107,537.36 | \$0.00 |
| PAYMENT 1(INV\#08-59-114BMS-01) | 830956 | 2C | Other Contractor | Projects | \$559,646.10 | \$0.00 |
| R03-01959-X | 322185 | 2C | Other Contractor | Construction - street work | \$22,854.09 | \$5,213.83 |
| Reade St b/t Elk and Center St | n/a | 2C | Other Contractor | Interference | \$12,246.07 | \$0.00 |
| RG ELECT L.O. | n/a | 2C | Other Contractor | Interference | \$13,868.23 | \$428.23 |
| S/S E149 St. Tinton Ave.-349 | n/a | 2C | Other Contractor | Interference | \$39,400.00 | \$0.00 |
| S00-02758-WWP | 1737 | 2C | Other Contractor | Construction - street work | \$1,320.05 | \$0.00 |
| S00-08198-WS | 1737 | 2C | Other Contractor | Construction - street work | \$1,520.02 | \$0.00 |
| S01-04379-003MR1 | 433041 | 2C | Other Contractor | Construction - street work | \$4,528.82 | \$0.00 |
| S02-04120-MR2 | 223200 | 2C | Other Contractor | Construction - street work | \$9,288.16 | \$61.60 |
| S03-03841-Q | 433757 | 2C | Other Contractor | Construction - street work | \$3,014.25 | \$0.00 |
| S03-04282-B | 321161 | 2C | Other Contractor | Construction - street work | \$1,714.36 | \$0.00 |
| S03-05868-Q | 323023 | 2C | Other Contractor | Construction - street work | \$608.35 | \$0.00 |
| S03-08075-2Q | 323023 | 2C | Other Contractor | Construction - street work | \$8,448.30 | \$0.00 |
| S04-3519-B | 321161 | 2C | Other Contractor | Construction - street work | \$4,262.67 | \$585.89 |
| S04-3902-B | 321161 | 2C | Other Contractor | Construction - street work | \$2,368.64 | \$0.00 |
| S05-03543-XR1 | 521602 | 2C | Other Contractor | Construction - street work | \$6,141.91 | \$529.44 |
| S05-04473-000B | 625544 | 2C | Other Contractor | Construction - street work | \$2,188.40 | \$0.00 |
| S05-05535-WS-449 | 498823 | 2C | Other Contractor | Construction - street work | \$10,441.49 | \$4,753.32 |
| S05-08080-000M | 519561 | 2C | Felix | Construction - street work | \$16,724.81 | \$1,113.58 |
| S06-04867-000B | 625544 | 2C | Other Contractor | Construction - street work | \$5,233.12 | \$0.00 |
| S06-07579-000M | 519561 | 2C | Felix | Construction - street work | \$4,871.70 | \$1,098.70 |


| Layout | Purchase Order | CRA <br> Phase | Vendor | Type of Project | Amount Reviewed | CRA Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S06-07660-000M | 519561 | 2C | Felix | Construction - street work | \$13,013.07 | \$1,901.17 |
| S06-08065-X | 521602 | 2C | Other Contractor | Construction - street work | \$9,206.59 | \$347.67 |
| S06-35840-WMV | 727570 | 2C | Other Contractor | Construction - street work | \$12,227.16 | \$3,634.20 |
| S07-02002-000MR1 | 625579 | 2C | Other Contractor | Construction - street work | \$4,343.35 | \$600.00 |
| S07-03095-000B | 625544 | 2C | Other Contractor | Construction - street work | \$2,646.21 | \$0.00 |
| S07-03632-000B | 625544 | 2C | Other Contractor | Construction - street work | \$6,092.75 | \$1,132.96 |
| S07-03680-000B | 625545 | 2C | Other Contractor | Construction - street work | \$6,262.00 | \$700.00 |
| S07-04668-000B | 625544 | 2C | Other Contractor | Construction - street work | \$7,302.92 | \$0.00 |
| S07-06087-000M | 625579 | 2C | Other Contractor | Construction - street work | \$2,716.50 | \$104.48 |
| S07-06502-Q | 623725 | 2C | Other Contractor | Construction - street work | \$4,666.50 | \$0.00 |
| S07-07787-X | 731789 | 2C | Other Contractor | Construction - street work | \$7,124.58 | \$144.45 |
| S07-07976-000M | 519561 | 2C | Felix | Construction - street work | \$18,986.64 | \$484.20 |
| S08-05962-000Q | 623725 | 2C | Other Contractor | Construction - street work | \$7,171.98 | \$155.92 |
| SE06018508 | 519930 | 2C | Other Contractor | Construction - street work | \$2,499.18 | \$717.93 |
| SE06019848 | 519930 | 2C | Other Contractor | Construction - street work | \$1,198.61 | \$0.00 |
| sharrott ave | n/a | 2C | Other Contractor | Interference | \$6,000.00 | \$0.00 |
| T02-04082-1MR1 | 223200 | 2C | Other Contractor | Construction - street work | \$9,873.80 | \$(0.26) |
| X413729ASL | 433038 | 2C | Other Contractor | Construction - street work | \$7,250.83 | \$461.53 |
| XG05-004256R1 | n/a | 2C | Other Contractor | Interference | \$24,895.44 | \$0.00 |
| Y07-17140-000MM1 | 728426 | 2C | Other Contractor | Construction - street work | \$3,946.25 | \$2,818.75 |
| Y07-SD050-000 | 519930 | 2C | Other Contractor | Construction - street work | \$7,157.01 | \$0.00 |
| Z00-09015-M | 27923 | 2C | Felix | Construction - street work | \$41,831.98 | \$10,187.00 |
| Z01-18103-MC | 124604 | 2C | Other Contractor | Construction - street work | \$24,512.29 | \$12,551.80 |
| Z02-1512-1B | 321161 | 2C | Other Contractor | Construction - street work | \$5,450.62 | \$1,348.20 |
| Z02-09157-M | 27923 | 2C | Felix | Construction - street work | \$152,758.23 | \$34,219.74 |
| Z05-9594-1X | 433038 | 2C | Other Contractor | Construction - street work | \$311,478.01 | \$56,584.79 |


| Layout | Purchase <br> Order | CRA <br> Phase | Vendor | Type of Project | Amount <br> Reviewed | CRA Variance |
| :--- | :--- | :--- | :--- | :--- | ---: | ---: |

Appendix 2: Payment File Review Results Sorted by Scenario

| Layout | Amount reviewed | CRA variance | Scenario 1 $\mathbf{T}+\mathbf{E}$ <br> Variance | Scenario 2 <br> Premium <br> Variance | Scenario 3 Xn <br> Multiplier Variance | Scenario 4 <br> Upcoding <br> Variance | Scenario 5 <br> Duplicate <br> Charges <br> Variance | Scenario 6 <br> Phantom <br> Activity <br> Variance | Scenario 7 Special Conditions Variance | Scenario 8 Misc. <br> Variance | Scenario 9 <br> Escalation <br> Variance | Scenario <br> 10 Debits <br> Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 71 ST 2 AVE. | \$146,563.34 | \$3,682.80 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$3,682.80 |
| C07-03302-X | \$47,973.00 | \$2,231.16 | \$2,192.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$39.16 | \$0.00 | \$0.00 |
| E02-99999-3M | \$23,307.82 | \$4,236.16 | \$4,236.16 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E07-12243-WCY | \$32,301.57 | \$20,041.38 | \$4,901.83 | \$0.00 | \$257.40 | \$618.19 | \$0.00 | \$12,040.19 | \$0.00 | \$1,131.44 | \$1,092.32 | \$0.00 |
| E08-99999-00100M | \$14,346.36 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E99-14032-X | \$11,495.89 | \$1,395.01 | \$411.39 | \$0.00 | \$0.00 | \$983.62 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F00-09977-2X | \$29,603.11 | \$1,883.18 | \$1,097.43 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$785.75 | \$0.00 | \$0.00 |
| F01-04888-7MM1 | \$48,506.74 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F06-06690-2WTM | \$96,374.56 | \$45,688.90 | \$8,115.44 | \$0.00 | \$0.00 | \$1,080.85 | \$19,000.49 | \$13,477.61 | \$0.00 | \$755.48 | \$3,259.04 | \$0.00 |
| F06-06694-2WS | \$13,397.25 | \$7,274.32 | \$3,154.80 | \$0.00 | \$1,121.43 | \$0.00 | \$0.00 | \$2,545.04 | \$0.00 | \$0.00 | \$453.05 | \$0.00 |
| G06-45038-Q | \$29,187.87 | \$7,386.35 | \$7,386.35 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| $\begin{aligned} & \text { G07-08030-WTE } \\ & \text { GREENWICH ST TO } \end{aligned}$ | \$89,979.69 | \$45,007.78 | \$17,250.01 | \$0.00 | \$0.00 | \$234.32 | \$20,515.39 | \$1,246.42 | \$0.00 | \$2,718.85 | \$3,042.79 | \$0.00 |
| WASHINGTON ST | \$108,836.30 | \$7,712.74 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$7,712.74 |
| MG34-02710 | \$171,888.44 | \$13,190.53 | \$12,919.63 | \$0.00 | \$270.90 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| MGC05-00075-1M | \$272,812.79 | \$140,068.17 | \$100,868.17 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$39,200.00 |
| MGC06-00011 | \$42,497.38 | \$6,480.00 | \$6,480.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| ML06-08630 <br> Not Incl In Lump Sum | \$49,832.69 | \$1,474.88 | \$1,474.88 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Agreement | \$33,890.61 | \$869.43 | \$94.33 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$775.10 |
| Not Included \#2 | \$52,847.41 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| P03-02804-M | \$200,456.07 | \$2,556.40 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$2,556.40 |
| P07-09322-WE | \$32,567.75 | \$13,405.55 | \$9,892.83 | \$0.00 | \$538.53 | \$0.00 | \$1,218.82 | \$894.24 | \$0.00 | \$861.14 | \$0.00 | \$0.00 |
| S00-04306-1MR1 | \$19,780.65 | \$2,262.00 | \$2,262.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S01-02068-1M | \$44,831.80 | \$3,729.05 | \$0.00 | \$0.00 | \$0.00 | \$153.70 | \$0.00 | \$3,575.35 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S03-01549-001MR3 | \$17,042.83 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S03-02091-X | \$24,498.47 | \$2,289.65 | \$1,373.67 | \$0.00 | \$0.00 | \$0.00 | \$131.81 | \$382.80 | \$0.00 | \$401.37 | \$0.00 | \$0.00 |


| Layout | Amount reviewed | CRA variance | Scenario 1 $\mathbf{T}+\mathbf{E}$ <br> Variance | Scenario 2 <br> Premium <br> Variance | Scenario 3 Xn <br> Multiplier Variance | Scenario 4 <br> Upcoding <br> Variance | Scenario 5 <br> Duplicate <br> Charges <br> Variance | Scenario 6 <br> Phantom <br> Activity <br> Variance | Scenario 7 Special Conditions Variance | Scenario 8 <br> Misc. <br> Variance | Scenario 9 <br> Escalation <br> Variance | Scenario <br> 10 Debits <br> Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S03-11303-X | \$32,051.41 | \$10,744.68 | \$8,891.16 | \$0.00 | \$0.00 | \$317.00 | \$993.15 | \$543.38 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S03-8003-M/16 Gas | \$282,072.47 | \$120,240.28 | \$117,694.05 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$2,546.23 | \$0.00 | \$0.00 |
| S04-04081-X | \$11,528.21 | \$5,042.84 | \$4,226.54 | \$0.00 | \$0.00 | \$657.05 | \$0.00 | \$159.25 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S04-08122-MG | \$15,377.21 | \$1,810.21 | \$1,690.23 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$119.99 | \$0.00 | \$0.00 |
| S05-01008-1XR1 | \$218,733.76 | \$28,979.30 | \$11,377.06 | \$5,778.00 | \$0.00 | \$0.00 | \$4,954.54 | \$0.00 | \$0.00 | \$3,701.41 | \$3,168.29 | \$0.00 |
| S05-35022-WNR-R-1 | \$43,852.90 | \$7,536.15 | \$4,482.21 | \$0.00 | \$0.00 | \$0.00 | \$1,133.88 | \$1,471.10 | \$0.00 | \$0.00 | \$0.00 | \$448.97 |
| S06-06984-4QR2 | \$125,362.17 | \$38,219.53 | \$9,542.00 | \$0.00 | \$2,250.61 | \$0.00 | \$20,509.51 | \$1,490.51 | \$0.00 | \$4,426.90 | \$0.00 | \$0.00 |
| S07-08151-000Q | \$14,108.12 | \$6,213.80 | \$6,132.31 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$40.00 | \$0.00 | \$41.49 | \$0.00 | \$0.00 |
| S99-02509-MM1 | \$13,519.50 | \$14.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$14.00 |
| Support Crew | \$86,208.90 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| W/O WEST BROADWAY | \$33,851.44 | \$214.56 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$214.56 |
| W90 ST / BROADWAY | \$107,664.15 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Y07-14125-X | \$19,603.94 | \$12,367.98 | \$7,624.50 | \$0.00 | \$0.00 | \$0.00 | \$4,743.48 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z00-02830-1MM | \$37,568.63 | \$8,052.80 | \$5,449.05 | \$0.00 | \$0.00 | \$2,603.75 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z00-09940-1X | \$39,466.29 | \$10,860.77 | \$10,860.77 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z01-18286-MC | \$37,831.03 | \$4,605.30 | \$2,531.23 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,760.00 | \$0.00 | \$314.07 | \$0.00 | \$0.00 |
| Z01-18587-MC | \$48,117.50 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z01-19207-MC | \$51,499.37 | \$19,907.08 | \$6,482.50 | \$0.00 | \$0.00 | \$0.00 | \$13,273.38 | \$0.00 | \$0.00 | \$151.20 | \$0.00 | \$0.00 |
| Z02-19034-MC | \$59,015.44 | \$27,145.18 | \$14,510.00 | \$0.00 | \$0.00 | \$0.00 | \$12,635.18 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z04-09612--1XR1 | \$228,206.93 | \$67,184.84 | \$38,023.37 | \$655.93 | \$0.00 | \$0.00 | \$0.00 | \$4,430.73 | \$0.00 | \$2,820.52 | \$3,104.29 | \$18,150.00 |
| Z06-09590-1X | \$145,131.78 | \$52,940.63 | \$21,204.71 | \$7,153.07 | \$0.00 | \$1,997.17 | \$17,228.19 | \$2,909.81 | \$0.00 | \$2,447.68 | \$0.00 | \$0.00 |
| Z07-09532-1QR1 | \$103,930.21 | \$9,285.19 | \$0.00 | \$0.00 | \$429.46 | \$703.70 | \$6,928.41 | \$93.00 | \$0.00 | \$1,130.62 | \$0.00 | \$0.00 |
| Z08-06855-WTM | \$18,071.93 | \$5,110.41 | \$1,353.44 | \$0.00 | \$0.00 | \$0.00 | \$3,123.84 | \$46.91 | \$0.00 | \$586.23 | \$0.00 | \$0.00 |
| Z08-09502-1Q | \$37,023.80 | \$5,210.50 | \$0.00 | \$0.00 | \$31.04 | \$5,000.00 | \$179.46 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E02-13058-X | \$37,501.87 | \$3,662.65 | \$865.78 | \$0.00 | \$0.00 | \$0.00 | \$1,004.62 | \$0.00 | \$0.00 | \$1,792.25 | \$0.00 | \$0.00 |
| E05-09803-1QR1 | \$55,917.93 | \$21,568.30 | \$10,326.50 | \$0.00 | \$496.77 | \$0.00 | \$9,404.87 | \$303.60 | \$0.00 | \$1,036.56 | \$0.00 | \$0.00 |
| E06-13539-Q | \$23,425.54 | \$61.67 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$61.69 | \$0.00 | \$0.00 |
|  |  |  | 51 |  |  |  |  |  |  |  |  |  |


| Layout | Amount reviewed | CRA variance | Scenario 1 $\mathbf{T}+\mathbf{E}$ <br> Variance | Scenario 2 <br> Premium <br> Variance | Scenario 3 Xn <br> Multiplier Variance | Scenario 4 <br> Upcoding <br> Variance | Scenario 5 <br> Duplicate <br> Charges <br> Variance | Scenario 6 <br> Phantom <br> Activity <br> Variance | Scenario 7 <br> Special <br> Conditions <br> Variance | Scenario 8 Misc. Variance | Scenario 9 <br> Escalation <br> Variance | Scenario <br> 10 Debits <br> Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E06-15175-B | \$4,764.20 | \$91.15 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$91.15 | \$0.00 | \$0.00 |
| F03-09701-4X | \$8,295.94 | \$3,219.52 | \$2,025.46 | \$0.00 | \$0.00 | \$0.00 | \$337.81 | \$856.25 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F05-09145-19Q | \$21,479.27 | \$1,167.25 | \$0.00 | \$0.00 | \$383.49 | \$0.00 | \$726.26 | \$57.50 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F05-09145-3Q | \$8,263.53 | \$570.75 | \$340.00 | \$0.00 | \$195.75 | \$0.00 | \$0.00 | \$35.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F05-2996-42B | \$18,075.24 | \$3,054.78 | \$2,767.32 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$107.53 | \$0.00 | \$179.93 | \$0.00 | \$0.00 |
| F06-09361-59QR2 | \$31,502.44 | \$55.90 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$55.90 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F06-09369-QR3 | \$42,086.31 | \$13,611.24 | \$4,905.00 | \$0.00 | \$443.91 | \$0.00 | \$7,644.61 | \$617.72 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F06-09436-2Q | \$26,069.05 | \$145.43 | \$0.00 | \$0.00 | \$110.45 | \$0.00 | \$0.00 | \$35.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F06-09444-7Q | \$26,532.24 | \$39.01 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$39.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F06-09447-2QF | \$59,796.33 | \$131.41 | \$0.00 | \$0.00 | \$71.44 | \$0.00 | \$0.00 | \$60.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F07-09345-12Q | \$97,961.61 | \$9,773.09 | \$303.00 | \$0.00 | \$1,846.98 | \$0.00 | \$0.00 | \$173.42 | \$0.00 | \$7,449.69 | \$0.00 | \$0.00 |
| F07-09362-3Q | \$65,695.68 | \$2,843.95 | \$910.00 | \$0.00 | \$101.83 | \$0.00 | \$483.99 | \$709.80 | \$0.00 | \$638.32 | \$0.00 | \$0.00 |
| F07-09362-4Q | \$51,239.40 | \$4,112.10 | \$1,700.00 | \$0.00 | \$161.42 | \$0.00 | \$2,148.82 | \$0.00 | \$0.00 | \$101.87 | \$0.00 | \$0.00 |
| F07-09400-10Q | \$163,738.11 | \$27,062.56 | \$1,360.00 | \$0.00 | \$0.00 | \$6,000.00 | \$2,694.00 | \$2,715.40 | \$0.00 | \$13,083.02 | \$0.00 | \$1,210.00 |
| F07-09400-27Q | \$161,482.95 | \$26,821.22 | \$0.00 | \$0.00 | \$0.00 | \$4,600.00 | \$8,882.49 | \$3,056.25 | \$0.00 | \$10,282.47 | \$0.00 | \$0.00 |
| F07-09419-4Q | \$35,721.41 | \$6,553.41 | \$680.00 | \$0.00 | \$452.42 | \$2,492.55 | \$219.12 | \$2,709.33 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F07-09441-QR1 | \$34,796.55 | \$1,864.72 | \$0.00 | \$0.00 | \$430.95 | \$0.00 | \$1,223.16 | \$34.50 | \$0.00 | \$176.11 | \$0.00 | \$0.00 |
| F07-09442-2Q | \$182,033.54 | \$3,270.26 | \$0.00 | \$0.00 | \$2,765.49 | \$0.00 | \$0.00 | \$505.44 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F08-09120-203QR1 | \$55,484.36 | \$9,372.45 | \$0.00 | \$0.00 | \$334.05 | \$5,500.00 | \$3,538.40 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F08-09120-204Q | \$100,484.84 | \$10,843.46 | \$340.00 | \$0.00 | \$1,742.31 | \$1,750.00 | \$6,147.71 | \$457.45 | \$0.00 | \$406.00 | \$0.00 | \$0.00 |
| F08-09334-1Q | \$30,870.15 | \$4,446.18 | \$2,760.00 | \$0.00 | \$0.00 | \$0.00 | \$172.64 | \$0.00 | \$0.00 | \$1,513.54 | \$0.00 | \$0.00 |
| g01-08003--wmv | \$39,769.61 | \$11,402.43 | \$3,392.00 | \$0.00 | \$0.00 | \$373.30 | \$4,226.57 | \$1,537.00 | \$0.00 | \$1,873.57 | \$0.00 | \$0.00 |
| g01-08050-wmv | \$65,629.69 | \$13,702.19 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$8,154.51 | \$2,381.07 | \$0.00 | \$3,166.66 | \$0.00 | \$0.00 |
| g01-08073-wa | \$72,385.65 | \$12,516.45 | \$0.00 | \$0.00 | \$0.00 | \$373.30 | \$8,245.05 | \$3,898.10 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| g01-08700-wcy | \$259,212.83 | \$173,891.23 | \$66,648.41 | \$0.00 | \$0.00 | \$600.20 | \$78,335.89 | \$640.00 | \$0.00 | \$4,986.09 | \$0.00 | \$22,680.59 |
| G02-08093-WTH | \$71,528.45 | \$15,441.43 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$9,374.39 | \$3,756.76 | \$0.00 | \$2,310.32 | \$0.00 | \$0.00 |
| G02-08099-WL | \$35,202.13 | \$1,254.31 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$227.74 | \$88.75 | \$0.00 | \$937.87 | \$0.00 | \$0.00 |


| Layout | Amount reviewed | CRA variance | Scenario 1 $\mathbf{T}+\mathbf{E}$ <br> Variance | Scenario 2 <br> Premium <br> Variance | Scenario 3 Xn <br> Multiplier Variance | Scenario 4 <br> Upcoding <br> Variance | Scenario 5 <br> Duplicate <br> Charges <br> Variance | Scenario 6 <br> Phantom <br> Activity <br> Variance | Scenario 7 <br> Special <br> Conditions <br> Variance | Scenario 8 Misc. Variance | Scenario 9 <br> Escalation <br> Variance | Scenario <br> 10 Debits <br> Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G02-08163-WNR | \$82,080.13 | \$16,459.71 | \$2,864.05 | \$0.00 | \$0.00 | \$0.00 | \$12,192.32 | \$60.00 | \$0.00 | \$1,343.33 | \$0.00 | \$0.00 |
| G02-08178-WNR | \$64,893.96 | \$11,996.07 | \$0.00 | \$0.00 | \$0.00 | \$613.71 | \$7,510.55 | \$2,327.20 | \$0.00 | \$1,544.61 | \$0.00 | \$0.00 |
| G02-08309-WCY | \$58,391.14 | \$10,563.64 | \$910.03 | \$0.00 | \$0.00 | \$0.00 | \$5,456.56 | \$2,262.14 | \$0.00 | \$1,934.96 | \$0.00 | \$0.00 |
| G02-08336-WTH | \$48,604.55 | \$9,586.23 | \$895.71 | \$0.00 | \$0.00 | \$3,142.96 | \$4,883.25 | \$368.10 | \$0.00 | \$296.29 | \$0.00 | \$0.00 |
| G02-08340-WMM | \$141,143.11 | \$81,806.57 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$12,083.48 | \$56,281.67 | \$0.00 | \$13,441.51 | \$0.00 | \$0.00 |
| G07-08143-WTG | \$100,456.98 | \$74,529.75 | \$2,949.75 | \$0.00 | \$0.00 | \$189.41 | \$30,569.95 | \$5,842.04 | \$0.00 | \$778.60 | \$0.00 | \$34,200.00 |
| P01-07334-WNR | \$49,293.56 | \$19,733.93 | \$0.00 | \$0.00 | \$0.00 | \$1,839.10 | \$8,912.21 | \$1,058.49 | \$0.00 | \$7,924.15 | \$0.00 | \$0.00 |
| P02-2305-3B | \$124,571.91 | \$13,124.73 | \$4,983.47 | \$0.00 | \$0.00 | \$0.00 | \$8,110.76 | \$0.00 | \$0.00 | \$30.50 | \$0.00 | \$0.00 |
| P02-07313-WCY | \$69,103.83 | \$22,094.64 | \$16,104.39 | \$0.00 | \$0.00 | \$613.71 | \$5,278.45 | \$0.00 | \$0.00 | \$98.16 | \$0.00 | \$0.00 |
| P02-09183-WNR | \$31,260.23 | \$10,780.78 | \$1,791.42 | \$0.00 | \$0.00 | \$0.00 | \$6,128.74 | \$2,860.64 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| P03-07303-WCY | \$16,104.22 | \$5,474.15 | \$0.00 | \$0.00 | \$0.00 | \$613.71 | \$2,218.52 | \$1,778.02 | \$0.00 | \$863.91 | \$0.00 | \$0.00 |
| P03-07906-2Q | \$71,947.58 | \$5,074.74 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,800.00 | \$0.00 | \$3,274.74 | \$0.00 | \$0.00 |
| P05-07517-36Q | \$57,455.51 | \$2,244.98 | \$1,275.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$970.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S04-08110-3Q | \$32,830.66 | \$1,065.04 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$748.80 | \$84.50 | \$0.00 | \$231.74 | \$0.00 | \$0.00 |
| S04-08150-1Q | \$62,387.75 | \$4,129.83 | \$680.00 | \$0.00 | \$0.00 | \$0.00 | \$3,449.78 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S05-04283-1X | \$433,126.30 | \$17,821.88 | \$10,738.45 | \$0.00 | \$0.00 | \$0.00 | \$6,933.18 | \$0.00 | \$0.00 | \$150.25 | \$0.00 | \$0.00 |
| S05-07529-X | \$616,772.57 | \$122,688.80 | \$13,380.25 | \$0.00 | \$43,547.62 | \$166.64 | \$53,017.21 | \$5,001.01 | \$0.00 | \$7,576.07 | \$0.00 | \$0.00 |
| S05-08055-3Q | \$76,515.71 | \$2,522.44 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$2,400.00 | \$0.00 | \$0.00 | \$122.44 | \$0.00 | \$0.00 |
| S06-08000-1Q | \$93,272.62 | \$13,769.49 | \$0.00 | \$0.00 | \$0.00 | \$7,250.00 | \$6,399.49 | \$50.00 | \$0.00 | \$70.00 | \$0.00 | \$0.00 |
| S06-08668-1QR1 | \$138,612.40 | \$12,197.60 | \$0.00 | \$0.00 | \$1,319.25 | \$0.00 | \$6,793.61 | \$1,930.92 | \$0.00 | \$2,153.82 | \$0.00 | \$0.00 |
| S06-08752-QR1 | \$30,059.10 | \$2,190.88 | \$1,199.00 | \$0.00 | \$0.00 | \$0.00 | \$912.00 | \$13.50 | \$0.00 | \$66.37 | \$0.00 | \$0.00 |
| S07-08045-2QF | \$62,876.02 | \$2,507.66 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$2,507.65 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S07-08057-QR2 | \$24,262.86 | \$829.88 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$62.50 | \$0.00 | \$767.38 | \$0.00 | \$0.00 |
| Y08-09905-Q | \$42,985.17 | \$2,120.95 | \$27.60 | \$0.00 | \$159.01 | \$0.00 | \$1,424.61 | \$41.56 | \$0.00 | \$468.17 | \$0.00 | \$0.00 |
| z00-06851-wnr | \$219,235.59 | \$61,782.74 | \$5,391.00 | \$0.00 | \$0.00 | \$0.00 | \$36,981.86 | \$19,409.80 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| z00-06852-wpc | \$127,732.22 | \$23,657.42 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$18,809.93 | \$2,112.20 | \$0.00 | \$2,735.26 | \$0.00 | \$0.00 |
| z01-06834-wnrrev1 | \$76,833.21 | \$19,314.43 | \$3,264.00 | \$0.00 | \$0.00 | \$2,737.30 | \$10,616.94 | \$321.20 | \$0.00 | \$2,375.00 | \$0.00 | \$0.00 |


| Layout | Amount reviewed | CRA variance | Scenario 1 $\mathbf{T}+\mathbf{E}$ <br> Variance | $\begin{gathered} \text { Scenario } \\ 2 \\ \text { Premium } \\ \text { Variance } \\ \hline \end{gathered}$ | Scenario 3 Xn <br> Multiplier Variance | Scenario 4 <br> Upcoding <br> Variance | Scenario 5 <br> Duplicate <br> Charges <br> Variance | Scenario 6 <br> Phantom <br> Activity <br> Variance | Scenario 7 Special Conditions Variance | Scenario 8 Misc. <br> Variance | Scenario 9 <br> Escalation <br> Variance | Scenario 10 Debits Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Z01-06903-1WSREV2 | \$254,280.20 | \$87,222.28 | \$17,758.17 | \$0.00 | \$0.00 | \$1,590.14 | \$25,310.65 | \$13,330.70 | \$0.00 | \$29,232.62 | \$0.00 | \$0.00 |
| Z01-06903-2WS | \$45,513.64 | \$16,848.33 | \$0.00 | \$0.00 | \$0.00 | \$2,280.97 | \$6,056.14 | \$7,234.19 | \$0.00 | \$1,277.03 | \$0.00 | \$0.00 |
| Z02-06755-WMV | \$53,751.04 | \$16,419.01 | \$0.00 | \$0.00 | \$0.00 | \$381.70 | \$7,961.27 | \$1,867.48 | \$0.00 | \$6,208.69 | \$0.00 | \$0.00 |
| Z02-06831-WR | \$94,145.85 | \$34,012.73 | \$16,436.69 | \$0.00 | \$0.00 | \$613.71 | \$9,221.66 | \$2,792.64 | \$0.00 | \$4,948.11 | \$0.00 | \$0.00 |
| Z02-06849-WNR | \$133,579.29 | \$25,586.38 | \$0.00 | \$2,523.01 | \$0.00 | \$0.00 | \$15,762.79 | \$4,105.22 | \$0.00 | \$3,195.43 | \$0.00 | \$0.00 |
| Z02-09117-Q | \$63,738.83 | \$11,229.44 | \$911.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$9,986.51 | \$0.00 | \$331.93 | \$0.00 | \$0.00 |
| Z03-09071-Q | \$56,876.18 | \$13,713.12 | \$2,235.65 | \$0.00 | \$0.00 | \$0.00 | \$10,915.94 | \$48.13 | \$0.00 | \$513.41 | \$0.00 | \$0.00 |
| Z03-09086-Q | \$37,591.79 | \$13,158.33 | \$13,107.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$51.33 | \$0.00 | \$0.00 |
| Z06-9541-2Q | \$28,530.84 | \$4,870.20 | \$0.00 | \$0.00 | \$0.00 | \$2,800.00 | \$2,070.20 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z07-06881-WWP | \$64,166.13 | \$35,631.43 | \$9,350.14 | \$0.00 | \$2,532.96 | \$0.00 | \$6,431.39 | \$6,202.29 | \$0.00 | \$11,114.65 | \$0.00 | \$0.00 |
| Z07-09503-1Q | \$70,190.20 | \$12,824.92 | \$194.00 | \$0.00 | \$0.00 | \$0.00 | \$11,701.23 | \$895.70 | \$0.00 | \$34.03 | \$0.00 | \$0.00 |
| Z07-09545-1Q | \$37,601.71 | \$4,390.23 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,465.70 | \$36.40 | \$0.00 | \$2,888.18 | \$0.00 | \$0.00 |
| Z07-09556-1QR1 | \$104,575.65 | \$4,944.12 | \$425.00 | \$0.00 | \$0.00 | \$220.00 | \$2,514.48 | \$1,784.64 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z07-09566-3Q | \$46,666.65 | \$2,106.11 | \$0.00 | \$0.00 | \$744.51 | \$0.00 | \$1,361.60 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z07-09698-1Q | \$40,139.31 | \$1,446.96 | \$0.00 | \$0.00 | \$845.97 | \$0.00 | \$600.99 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| G02-901 - | \$7,143,510.95 | \$1,182,441.79 | \$87,604.28 | \$2,309.99 | \$0.00 | \$0.00 | \$877,225.82 | \$212,382.90 | \$0.00 | \$2,918.49 | \$0.00 | \$0.00 |
| 2003043150 W54 St | \$16,042.86 | \$2,331.98 | \$1,594.28 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$224.00 | \$0.00 | \$117.35 | \$0.00 | \$396.35 |
| 2007027585 W. Broadway 200727371002 | \$13,851.11 | \$131.03 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$131.03 | \$0.00 | \$0.00 |
| Madison/E77-E78 795- | \$7,512.01 | \$833.32 | \$0.00 | \$0.00 | \$705.22 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$128.10 |
| BERGENE149TOWEST.AV | \$4,666.68 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| B330397ASL | \$4,786.75 | \$536.25 | \$536.25 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| B499569ASL | \$12,995.24 | \$356.03 | \$356.03 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| B576150ASL | \$6,759.25 | \$414.55 | \$414.55 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| B576169ASL | \$5,638.50 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| B659887ASL | \$1,960.50 | \$300.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$300.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| B732577ASL | \$3,664.17 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |


| Layout | Amount reviewed | CRA variance | Scenario 1 $\mathbf{T}+\mathbf{E}$ <br> Variance | Scenario 2 <br> Premium <br> Variance | Scenario 3 Xn <br> Multiplier Variance | Scenario 4 <br> Upcoding <br> Variance | Scenario 5 <br> Duplicate <br> Charges <br> Variance | Scenario 6 <br> Phantom <br> Activity <br> Variance | Scenario 7 <br> Special <br> Conditions <br> Variance | Scenario 8 Misc. <br> Variance | Scenario 9 <br> Escalation <br> Variance | Scenario <br> 10 Debits <br> Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B738855ASL | \$10,123.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| B763134ASL | \$3,316.50 | \$484.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$484.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Bartow Ave Abatement Work | \$122,413.59 | \$10,900.71 | \$5,244.17 | \$0.00 | \$0.00 | \$0.00 | \$1,921.27 | \$3,570.78 | \$0.00 | \$164.48 | \$0.00 | \$0.00 |
| Bay Street | \$71,510.84 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| BE04028782 | \$4,019.95 | \$2,377.95 | \$2,077.95 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$300.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| BE08000677 | \$1,540.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| $\begin{aligned} & \text { BE08009743 } \\ & \text { BROADWAY B/T } \end{aligned}$ | \$1,150.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| BEAVER / MORRIS | \$26,151.06 | \$996.16 | \$996.16 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| C06-07350-X | \$49,315.90 | \$15,658.15 | \$4,050.85 | \$0.00 | \$0.00 | \$9,555.00 | \$1,899.19 | \$0.00 | \$0.00 | \$153.10 | \$0.00 | \$0.00 |
| C07-00419-000M | \$2,118.18 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| C08-45043-Q | \$1,150.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| C08-99944-000M | \$1,873.75 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Catch Basins --Chutes | \$689,966.78 | \$27,487.06 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$24,072.39 | \$2,846.67 | \$0.00 | \$568.00 | \$0.00 | \$0.00 |
| E00-18910-WTC | \$2,398.98 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E01-12295-MM1R1 | \$4,910.81 | \$1,779.54 | \$1,779.54 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E01-14056-X | \$2,434.07 | \$692.82 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$692.82 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E01-15097--M | \$753.94 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E02-13448-Q | \$27,216.59 | \$3,511.51 | \$3,021.51 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$490.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E02-15087-B | \$2,943.85 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E02-16038-B | \$4,198.95 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E03-16067-B | \$4,744.34 | \$1,418.42 | \$1,004.41 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$414.01 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E04-12531-MM1C | \$13,300.00 | \$1,600.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$9,400.00 | \$0.00 | \$(7,800.00) | \$0.00 | \$0.00 |
| E04-13665-B | \$7,448.05 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E04-15527--M | \$7,250.22 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E05-12098-XR1 | \$16,646.40 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E05-12170-MM1C | \$1,775.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E05-12336-MM2 | \$6,333.83 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |


| Layout | Amount reviewed | CRA variance | Scenario 1 $\mathbf{T}+\mathbf{E}$ <br> Variance | Scenario 2 <br> Premium <br> Variance | Scenario 3 Xn <br> Multiplier Variance | Scenario 4 <br> Upcoding <br> Variance | Scenario 5 <br> Duplicate Charges Variance | Scenario 6 <br> Phantom <br> Activity <br> Variance | Scenario 7 <br> Special <br> Conditions Variance | Scenario 8 <br> Misc. <br> Variance | Scenario 9 <br> Escalation <br> Variance | Scenario <br> 10 Debits <br> Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| E05-15701-WCY | \$7,070.35 | \$3,211.50 | \$3,111.63 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$100.04 | \$0.00 | \$0.00 |
| E05-19053-WTG | \$5,181.99 | \$3,725.99 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,611.99 | \$0.00 | \$2,114.00 | \$0.00 | \$0.00 |
| E06-01324--X | \$901.02 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E06-15047-X | \$8,551.92 | \$1,158.75 | \$460.26 | \$0.00 | \$0.00 | \$572.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$126.49 | \$0.00 |
| E06-SE038-R1 | \$7,746.88 | \$916.74 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$577.78 | \$0.00 | \$0.00 | \$338.96 | \$0.00 | \$0.00 |
| E07-12295-000MM1 | \$12,442.90 | \$(0.00) | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E07-13137-WCY | \$18,170.56 | \$10,485.78 | \$3,387.25 | \$0.00 | \$813.18 | \$1,067.36 | \$1,599.00 | \$2,059.90 | \$0.00 | \$1,559.09 | \$0.00 | \$0.00 |
| E07-17031-000MR1M2 | \$27,890.52 | \$4,653.26 | \$4,653.26 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E07-20663-000STLC | \$435.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E07-20887-X | \$7,173.44 | \$1,101.09 | \$0.00 | \$0.00 | \$1,101.09 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E07-21589-000MM1 | \$2,783.00 | \$415.00 | \$415.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E08-12152-000MM2 | \$8,466.89 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E08-13206-1X | \$5,409.66 | \$664.01 | \$0.00 | \$0.00 | \$564.01 | \$0.00 | \$0.00 | \$100.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E08-16674-B | \$22,680.83 | \$4,993.57 | \$1,071.20 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,198.92 | \$0.00 | \$2,723.45 | \$0.00 | \$0.00 |
| E08-19300WMP | \$9,804.21 | \$824.40 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$798.98 | \$0.00 | \$0.00 | \$25.42 | \$0.00 | \$0.00 |
| E20-02198-X | \$2,188.29 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| E4-IU127 | \$704.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Electric L/O P02-2887-20M | \$38,977.46 | \$1,111.11 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,111.11 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F02-06966-2MM1 | \$29,306.03 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F04-07113-1WPK-M1 | \$1,732.81 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F05-06915-MM1 | \$10,154.87 | \$1,606.00 | \$1,606.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F05-09778-10X | \$328,746.74 | \$105,621.31 | \$1,346.08 | \$0.00 | \$0.00 | \$8,554.66 | \$13,138.56 | \$54,972.45 | \$0.00 | \$27,609.55 | \$0.00 | \$0.00 |
| F05-09778-65X | \$7,016.09 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F05-2971-3MM1 | \$5,208.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| F07-03024-003B-R2 | \$47,625.44 | \$492.08 | \$492.08 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| G03-08062-WMM | \$51,445.11 | \$17,714.35 | \$6,184.35 | \$0.00 | \$0.00 | \$2,482.46 | \$1,479.86 | \$5,136.08 | \$0.00 | \$2,431.59 | \$0.00 | \$0.00 |
| G07-08011-WCY | \$29,520.37 | \$18,689.21 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$5,759.85 | \$10,756.47 | \$0.00 | \$1,173.85 | \$998.27 | \$0.00 |


| Layout | Amount reviewed | CRA variance | Scenario 1 $\mathbf{T}+\mathbf{E}$ <br> Variance | Scenario 2 <br> Premium <br> Variance | Scenario 3 Xn <br> Multiplier Variance | Scenario 4 <br> Upcoding <br> Variance | Scenario 5 <br> Duplicate <br> Charges <br> Variance | Scenario 6 <br> Phantom <br> Activity <br> Variance | Scenario 7 <br> Special <br> Conditions <br> Variance | Scenario 8 <br> Misc. <br> Variance | Scenario 9 <br> Escalation <br> Variance | Scenario <br> 10 Debits <br> Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| G08-08034-WCY | \$10,335.65 | \$2,383.72 | \$406.66 | \$0.00 | \$0.00 | \$0.00 | \$643.32 | \$1,099.44 | \$0.00 | \$233.88 | \$0.00 | \$0.00 |
| Judlau Capital Work(2003) | \$69,823.62 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| L04-7477-WTE | \$3,211.50 | \$859.75 | \$859.75 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| L07-04046-WTE | \$3,062.87 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| LINWOOD AVE | \$200,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| M07-716084-000STL | \$5,201.50 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| M08-716004-STL | \$2,080.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| M08-739753-STL | \$1,598.00 | \$500.00 | \$500.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| MG05-08836 | \$4,164.05 | \$646.40 | \$146.40 | \$0.00 | \$0.00 | \$0.00 | \$500.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| MG08-04467 | \$32,383.84 | \$6,194.59 | \$2,336.18 | \$3,858.41 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| ML05-09615 | \$74,086.05 | \$12,195.68 | \$11,248.25 | \$0.00 | \$0.00 | \$0.00 | \$947.43 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| P01-09182-WNO | \$696.72 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| p01-09340-wcy | \$2,359.70 | \$2,044.01 | \$2,044.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| P02-02305-5B | \$20,884.85 | \$2,885.25 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$2,266.42 | \$378.23 | \$0.00 | \$240.59 | \$0.00 | \$0.00 |
| P04-09407-WNR | \$3,400.00 | \$529.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$217.00 | \$0.00 | \$0.00 | \$312.00 | \$0.00 | \$0.00 |
| P04-09449-WTH | \$2,158.00 | \$1,846.00 | \$1,222.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$624.00 | \$0.00 | \$0.00 |
| P04-9232-WCY | \$2,270.37 | \$839.23 | \$625.50 | \$0.00 | \$0.00 | \$0.00 | \$213.75 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| P05-09238-WTG-(BCC797) | \$2,499.74 | \$2,157.22 | \$1,446.20 | \$0.00 | \$0.00 | \$0.00 | \$104.25 | \$332.78 | \$0.00 | \$273.99 | \$0.00 | \$0.00 |
| P05-09582-WMV-M1 | \$3,226.99 | \$616.97 | \$616.97 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| P07-09478WTG | \$5,003.12 | \$3,270.84 | \$1,718.73 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,502.43 | \$0.00 | \$49.68 | \$0.00 | \$0.00 |
| PART 47 | \$72,148.58 | \$12,496.16 | \$7,916.41 | \$0.00 | \$0.00 | \$0.00 | \$4,579.74 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| PART 34 | \$1,294.82 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| PART15 | \$44,623.52 | \$1,492.90 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,492.90 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Payment \# 12 (PS002) PAYMENT \#29 (INV. | \$9,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| $\begin{aligned} & \text { \#1536) } \\ & \text { PAYMENT 1(INV\#08-59- } \end{aligned}$ | \$107,537.36 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| 114BMS-01) | \$559,646.10 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| R03-01959-X | \$22,854.09 | \$5,213.83 | \$2,803.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,834.74 | \$0.00 | \$576.11 | \$0.00 | \$0.00 |


| Layout | Amount reviewed | CRA variance | Scenario 1 $\mathbf{T}+\mathbf{E}$ <br> Variance | Scenario 2 <br> Premium <br> Variance | Scenario 3 Xn <br> Multiplier Variance | Scenario 4 <br> Upcoding <br> Variance | Scenario 5 Duplicate Charges Variance | Scenario 6 <br> Phantom <br> Activity <br> Variance | Scenario 7 Special Conditions Variance | Scenario 8 <br> Misc. <br> Variance | Scenario 9 <br> Escalation <br> Variance | Scenario 10 Debits Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reade St b/t Elk and Center |  |  |  |  |  |  |  |  |  |  |  |  |
| St | \$12,246.07 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| RG ELECT L.O. | \$13,868.23 | \$428.23 | \$428.23 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S/S E149 St. Tinton Ave.349 | \$39,400.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S00-02758-WWP | \$1,320.05 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S00-08198-WS | \$1,520.02 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S01-04379-003MR1 | \$4,528.82 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S02-04120-MR2 | \$9,288.16 | \$61.60 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$61.60 |
| S03-03841-Q | \$3,014.25 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S03-04282-B | \$1,714.36 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S03-05868-Q | \$608.35 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S03-08075-2Q | \$8,448.30 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S04-3519-B | \$4,262.67 | \$585.89 | \$435.89 | \$0.00 | \$0.00 | \$150.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S04-3902-B | \$2,368.64 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S05-03543-XR1 | \$6,141.91 | \$529.44 | \$0.00 | \$0.00 | \$490.24 | \$0.00 | \$39.20 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S05-04473-000B | \$2,188.40 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S05-05535-WS-449 | \$10,441.49 | \$4,753.32 | \$4,753.34 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S05-08080-000M | \$16,724.81 | \$1,113.58 | \$1,113.58 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S06-04867-000B | \$5,233.12 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S06-07579-000M | \$4,871.70 | \$1,098.70 | \$945.70 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$153.00 | \$0.00 | \$0.00 |
| S06-07660-000M | \$13,013.07 | \$1,901.17 | \$1,045.62 | \$0.00 | \$0.00 | \$0.00 | \$855.55 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S06-08065-X | \$9,206.59 | \$347.67 | \$240.14 | \$0.00 | \$0.00 | \$0.00 | \$107.54 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S06-35840-WMV | \$12,227.16 | \$3,634.20 | \$1,080.00 | \$0.00 | \$154.80 | \$0.00 | \$2,399.40 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S07-02002-000MR1 | \$4,343.35 | \$600.00 | \$600.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S07-03095-000B | \$2,646.21 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S07-03632-000B | \$6,092.75 | \$1,132.96 | \$0.00 | \$0.00 | \$1,132.96 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S07-03680-000B | \$6,262.00 | \$700.00 | \$700.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S07-04668-000B | \$7,302.92 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |


| Layout | Amount reviewed | CRA variance | $\begin{gathered} \text { Scenario } 1 \\ \mathbf{T}+\mathbf{E} \\ \text { Variance } \\ \hline \end{gathered}$ | $\begin{gathered} \text { Scenario } \\ 2 \\ \text { Premium } \\ \text { Variance } \\ \hline \end{gathered}$ | Scenario 3 Xn <br> Multiplier Variance | Scenario 4 <br> Upcoding <br> Variance | Scenario 5 <br> Duplicate <br> Charges <br> Variance | Scenario 6 <br> Phantom <br> Activity <br> Variance | Scenario 7 <br> Special <br> Conditions Variance | Scenario 8 <br> Misc. <br> Variance | Scenario 9 <br> Escalation <br> Variance | Scenario <br> 10 Debits <br> Variance |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| S07-06087-000M | \$2,716.50 | \$104.48 | \$0.00 | \$0.00 | \$104.48 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S07-06502-Q | \$4,666.50 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S07-07787-X | \$7,124.58 | \$144.45 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$144.45 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S07-07976-000M | \$18,986.64 | \$484.20 | \$484.20 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| S08-05962-000Q | \$7,171.98 | \$155.92 | \$0.00 | \$0.00 | \$155.92 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| SE06018508 | \$2,499.18 | \$717.93 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$717.93 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| SE06019848 | \$1,198.61 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| sharrott ave | \$6,000.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| T02-04082-1MR1 | \$9,873.80 | \$(0.26) | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| X413729ASL | \$7,250.83 | \$461.53 | \$174.48 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$287.05 | \$0.00 | \$0.00 |
| XG05-004256R1 | \$24,895.44 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Y07-17140-000MM1 | \$3,946.25 | \$2,818.75 | \$2,818.75 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Y07-SD050-000 | \$7,157.01 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z00-09015-M | \$41,831.98 | \$10,187.00 | \$10,187.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z01-18103-MC | \$24,512.29 | \$12,551.80 | \$12,285.76 | \$0.00 | \$0.00 | \$0.00 | \$266.04 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z02-1512-1B | \$5,450.62 | \$1,348.20 | \$532.12 | \$0.00 | \$0.00 | \$0.00 | \$816.08 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z02-09157-M | \$152,758.23 | \$34,219.74 | \$30,797.52 | \$0.00 | \$0.00 | \$0.00 | \$3,422.22 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
| Z05-9594-1X | \$311,478.01 | \$56,584.79 | \$11,397.77 | \$7,928.58 | \$0.00 | \$10,797.39 | \$13,441.83 | \$1,141.83 | \$0.00 | \$11,270.57 | \$607.90 | \$0.00 |
| Z07-04865-010MR1 | \$20,447.92 | \$2,104.18 | \$480.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$1,624.17 | \$0.00 | \$0.00 |
| Z07-09702-Q | \$4,069.50 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 | \$0.00 |
|  | \$20,580,317.69 | \$3,638,151.02 | \$928,178.53 | \$30,206.98 | \$68,807.84 | \$94,270.65 | \$1,594,300.08 | \$542,021.78 | \$0.00 | \$233,082.74 | \$15,852.45 | \$131,431.21 |


[^0]:    ${ }^{1}$ K-Trace is a model developed by KPMG to analyze contractor payment data using a series of queries regarding certain identifiable traits. Based on the identification of these traits, each layout receives a numerical score generated by the K-Trace model.

[^1]:    ${ }^{2}$ There were many layouts not selected by KPMG for review that had similar scores to this sample population. Some of these layouts were either previously reviewed in KPMG's Phase I or excluded for size, but the others did not make the cut for the sample as only a total of 100 layouts were initially selected. For example, we understand that in Phase IIA, of the 429 layouts that received a K-Trace score of 10, 51 layouts were selected for review.

[^2]:    ${ }^{3}$ Similar to Phase IIA, there were many layouts not selected for review that had similar scores to this sample population. Some of these layouts were either previously reviewed in KPMG's Phase I, or Phase IIA, or excluded for size, but the others did not make the cut for the samples as only 100 were initially selected. For example, we understand that of 195 layouts with a Phase IIB K-Trace score of 4, 4 layouts were reviewed. Similarly, we understand that of 95 layouts with a Phase IIB K-Trace score of 5, 62 layouts were selected for review.

[^3]:    ${ }^{4}$ This is representative of a dollar weighted sampling.

[^4]:    ${ }^{5}$ CECONY's Corporate Policy Statement 000-1 "Delegation of Authorities" is discussed in section 1.8 of the Part 1 Report. Specifically, section 3.7E of the Delegation of Authorities contains the approval levels for Purchase Authorizations on Public Improvement work. Purchase Authorizations greater than $\$ 1$ million but less than $\$ 5$ million require final approval by the Vice President of Construction. Purchase Authorizations greater than $\$ 5$ million require progressively higher levels of approval as detailed within the policy. An approval of a Request for Authorization to Purchase is required prior to award of a Purchase Order. Further, section 3.8 contains the approval levels for Public Improvement Purchase Orders and sections 3.11 and 3.12 outline the approval authorities for the payment of certificates and invoices.

[^5]:    ${ }^{8}$ This refers to any electronic evidence of an employee's involvement in the creation, review, or approval of contractor invoices as recorded in the COMPASS system.

[^6]:    ${ }^{9}$ Values and totals presented within this report have been rounded to the nearest dollar or to the nearest thousandth where noted.
    ${ }^{10}$ The IIA/IIB sample included one large layout of $\$ 7,143,511$, constituting approximately $45 \%$ of the total reviewed in this sample. The variance for this layout was $\$ 1,182,442$, or $16.6 \%$.

[^7]:    ${ }^{11}$ Consolidated Edison Company of New York, Inc. Standard Terms and Conditions of Construction Contracts, January 7, 2003.
    ${ }^{12}$ There were other instances involving fewer hours or equipment that were billed but not used.

[^8]:    ${ }^{13}$ https://www.dot.ny.gov/divisions/engineering/design/dqab/hdm/hdm-repository/rev65.pdf. Accessed on June 28, 2012.

[^9]:    ${ }^{14}$ Approximately $\$ 5.5$ million was categorized as URD. For the purposes of this report, we have included that spending within Construction.

[^10]:    ${ }^{15} \$ 108,232$ was not allocated to a category within COMPASS. For the purposes of this analysis, it has been assumed that these were Construction-Street Work payments.

[^11]:    ${ }^{16}$ For the purposes of this Part 2 report, we have considered Felix Associates and Felix Equities together.

[^12]:    ${ }^{17}$ One layout that was reviewed by KPMG as part of Phase IIC had a Phase IIA K-Trace score of 10. Based on our criteria, this was categorized as "Identified by K-Trace". This categorization has no material impact on the results.
    ${ }^{18}$ Use of simple average is consistent with theory related to dollar weighted samples.
    ${ }^{19}$ Curtailing, or capping, of extreme observations is commonly used to control the effect of potential outliers. This procedure reduces our estimates for means of variances used for loss extrapolation.
    ${ }^{20}$ As seen in Table 7, the standard deviation of the capped variances of all layouts other than Felix is $13.80 \%$. It is common to use three standard deviations to identify potential outliers.

[^13]:    ${ }^{21}$ One layout that was reviewed by KPMG as part of Phase IIC had a Phase IIA K-Trace score of 10. Based on our criteria, this layout was categorized as "Felix - Identified by K-Trace". Otherwise all "Identified by K-Trace" layouts were part of our IIA and IIB sample and all other layouts were part of our IIC sample.
    ${ }^{22}$ Without the capping of variances, the mean of variances for category 3 ("Other ContractorsIdentified by K-Trace") is $17.86 \%$, with standard deviation of $15.08 \% \%$ and a $95 \%$ confidence interval of + or $-3.03 \%$, and the mean of variances for category 4 ("Other Contractors-Other Layouts") is $13.81 \%$, with standard deviation of $20.94 \%$ and a $95 \%$ confidence interval of + or 4.08\%. Medians are unchanged.

[^14]:    ${ }^{23}$ As noted in Section II, only 8\% of the layouts in COMPASS are Interference projects, although they constitute $24 \%$ in dollar terms.

[^15]:    ${ }^{24}$ Due to the small sample size, standard deviation and confidence interval are not reported for this category.

