City and County of San Francisco
Municipal Transportation Agency
One South Van Ness Ave., 7th Floor
San Francisco, California 94103

Agreement between the City and County of San Francisco and

MacKay Meters, Inc.

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Contract No. SFMTA-2020-46

This Agreement is made as of _____, in the City and County of San Francisco (City), State of California, by and between MacKay Meters, Inc. (Contractor) and City, a municipal corporation, acting by and through its Municipal Transportation Agency (SFMTA).

Recitals

A. The SFMTA wishes to procure Parking Meters and associated Meter Management System (MMS) applications and services.

B. This Agreement was competitively procured as required by San Francisco Administrative Code Chapter 21.1 through a Request for Proposals (RFP) issued on June 18, 2020, pursuant to which City selected Contractor as the highest-qualified scorer.

C. There is no Local Business Entity (LBE) subcontracting participation requirement for this Agreement.

D. Contractor represents and warrants that it is qualified to provide the equipment and MMS, and perform the Services required by City as set forth under this Agreement.

E. The Agreement was approved by the SFMTA Board of Directors on [**insert date**], and by the San Francisco Board of Supervisors on [**insert date**] as required by San Francisco Charter Section 9.1118.

Now, THEREFORE, the parties agree as follows:

Article 1   Definitions

The following definitions apply to this Agreement. Where any word or phrase defined below, or a pronoun in place of the word or phrase, is used in any part of this Agreement, it shall have the meaning set forth below. Where a word or phrase is capitalized but not defined below, it shall have the meaning set forth in the Terms and Abbreviations in Appendix A, Statement of Work:

1.1 "**Acceptance**" means the formal acceptance by the City that all work, or a specific portion thereof, under the Contract has been satisfactorily completed, in accordance with the Acceptance criteria set out in Section 6.5.

1.2 "**Agreement**" or "**Contract**" means the written contract executed by the City and Contractor, covering the performance of the Work and furnishing of labor, materials, equipment, tools, and services, including Work incidental to the procurement, to include all Conformed Contract Documents, Contractor's proposal submissions, the Contract bonds or other security, all Contract Modifications, and all applicable City Ordinances and Mandatory City Requirements specifically incorporated into this Agreement by reference as provided herein.

1.3 "**Amendment**" or "**Contract Modification**" means a written order, issued by the City to Contractor, covering changes in the Contract documents within the general scope of the Contract and establishing the basis of payment and time adjustments for the work affected by the changes.

1.4 "**Award**" means notification from the City to Contractor of acceptance of Contractor's Proposal, subject to the execution and approval of a satisfactory Contract, and to such other conditions as may be specified or otherwise required

1.5 "**Back-Up Environment**" means the Contractor's back-up Data Center for the MMS Services.

1.6 "**Batch**" means a delivery of a set number of Meters, including all associated components that would allow a Meter to operate in a street environment (e.g., all the necessary software, firmware, hardware, installation kits, domes, decals).

1.7 "**Board of Supervisors**" means the Board of Supervisors of the City and County of San Francisco.

1.8 "**CCO**" means the SFMTA Contract Compliance Office.

1.9 "**Certification**" means certification by the Controller of City that funds necessary to make payments as required under the Agreement are available in accordance with Section 6.302 of the City Charter.

1.10 "**Change Notice**" means a written interpretation, revision, or addition to the RFP issued before proposal opening.

1.11 "**City**" or "**the City**" means the City and County of San Francisco, a municipal corporation, acting by and through its Municipal Transportation Agency.

1.12 "**City Data**" or "**Data**" means all data given to Contractor by City in the performance of this Agreement

1.13 "**CMD**" means the Contract Monitoring Division of the City.

1.14 "**Confidential Information**" means confidential City information including, but not limited to, personally-identifiable information (PII), protected health information (PHI), or individual financial information (collectively, "Proprietary or Confidential Information") that is subject to local, state or federal laws restricting the use and disclosure of such information, including, but not limited to, Article 1, Section 1 of the California Constitution; the California Information Practices Act (Civil Code § 1798 et seq.); the California Confidentiality of

Medical Information Act (Civil Code § 56 et seq.); the federal Gramm-Leach-Bliley Act (15 U.S.C. §§ 6801(b) and 6805(b)(2)); the privacy and information security aspects of the Administrative Simplification provisions of the federal Health Insurance Portability and Accountability Act (45 CFR Part 160 and Subparts A, C, and E of part 164); and San Francisco Administrative Code Chapter 12M (Chapter 12M).

1.15 "**Conformed Contract Documents**" means the contract documents revised to incorporate all changes made during the proposal period by Change Notice and to incorporate information included in the Proposal accepted by the City.

1.16 "**Contract Administrator**" means the contract administrator assigned to the Contract by the SFMTA, or his or her designated agent.

1.17 "**Contractor**" or "**Consultant**" means MacKay Meters, Inc., 1342 Abercrombie Road, New Glasgow, Nova Scotia, Canada B2H 5C6.

1.18 "**Controller**" means Controller of the City.

1.19 "**C&P**" means SFMTA Contracts and Procurement.

1.20 "**Data Breach**" means any access, destruction, loss, theft, use, modification or disclosure of City Data by an unauthorized party or that is in violation of the Agreement terms and/or applicable local, state or federal law.

1.21 "**Data Center(s)**" means a physical location within United States or Canada where the Contractor (or its subcontractor) houses and operates the hardware (including computer servers, routers, and other related equipment) on which Contractor hosts on the Internet the MMS Application and City Data pursuant to this Agreement.

1.22 "**Day**" (whether or not capitalized) means calendar days, unless otherwise designated.

1.23 "**Deliverables**" means Contractor's work product resulting from the Services provided by Contractor to City during the course of Contractor's performance of the Agreement, including without limitation, the equipment, components, materials and Services and all other work product described in the "Statement of Work" attached as Appendix A.

1.24 "**Delivery**" means point in time in the procurement process when Meters have been delivered to the mutually agreed upon staging location in San Francisco, Daly City, South San Francisco or Brisbane.

1.25 "**Director**" means the Director of Transportation of the SFMTA or his or her designee.

1.26 "**Disabling Code**" means computer instructions or programs, subroutines, code, instructions, data or functions (including but not limited to viruses, worms, date bombs or time bombs), including but not limited to other programs, data storage, computer libraries and programs that self-replicate without manual intervention, instructions programmed to activate at a predetermined time or upon a specified event, and/or programs purporting to do a meaningful

function but designed for a different function, that alter, destroy, inhibit, damage, interrupt, interfere with or hinder the operation of the City's access to the MMS Services through the MMS Website and/or User's processing environment, the system in which it resides, or any other software or data on such system or any other system with which it is capable of communicating.

1.27 "**Effective Date**" means the date upon which the City's Controller certifies the availability of funds for this Agreement as provided in Section 3.1.

1.28 "**End Users**" means any User who accesses the MMS Website and uses the MMS Application and Services.

1.29 "**Internet**" means that certain global network of computers and devices commonly referred to as the "internet," including, without limitation, the World Wide Web.

1.30 "**Mandatory City Requirements**" means those City laws set forth in the San Francisco Municipal Code that impose specific duties and obligations upon Contractor, including the duly authorized rules, regulations, and guidelines implementing such laws.

1.31 "**Manual**" means the technical publications provided by Contractor to City relating to use of the MMS Application, such as reference, administrative, maintenance, and programmer manuals.

1.32 "**Meter**" or "**Parking Meter**" means the equipment as defined in the Statement of Work in Appendix A.

1.33 "**MMS Website**" means the website that provides User access to the MMS Services.

1.34 "**Notice to Proceed**" means a written notice from the City to the Contractor of the date on which it shall begin the Work.

1.35 "**Party**" and "**Parties**" mean the City and Contractor either collectively or individually.

1.36 "**Performance Bond**" means security issued by a corporate surety, acceptable to the City and on a form furnished by the City, to guarantee the performance of obligations under the Contract.

1.37 "**Project Manager**" means the project manager assigned to the Contract for the SFMTA, or his or her designated agent.

1.38 "**Proposal**" means the technical and management information and prices submitted in the prescribed format and on the prescribed forms in response to the Request for Proposals.

1.39 "**Proposer**" means any firm, partnership, corporation, or combination thereof submitting a Proposal for the contemplated procurement.

1.40 "**Purchase Order**" means the written order issued by the City to the Contractor, confirming certification of funds as provided in Section 4.1.

1.41 "**MMS Application/MMS Software/Software**" means the licensed and hosted computer program and associated documentation, as listed in this Agreement and Appendices, and any modification or Upgrades or modifications to the program(s), residing in Contractor's servers that provides the MMS Services that may be accessed by Users through the Internet. All Software, revisions and versions provided by Contractor shall be subject to the terms and conditions of this Agreement, including any amendments thereto. "SaaS Application" also refers to "MMS Application."

1.42 "**MMS Application Patch**" means an update to the MMS Application comprised of code inserted (or patched) into the code of the MMS Application, and which may be installed as a temporary fix between full releases of a MMS Application Revision or MMS Application Version. Such a patch may address a variety of issues including without limitation fixing a Software bug, installing new drivers, addressing new security vulnerabilities, addressing software stability issues, and upgrading the Software. MMS Application Patches are included in the annual payments made by City to Contractor for the MMS Services under this Agreement.

1.43 "**MMS Issue**" means a problem with the MMS Services identified by the City that requires a response by Contractor to resolve.

1.44 "**MMS Services**" means the services performed by Contractor to host the MMS Application to provide the functionality listed in the Manual and as reflected in the Statement of Work.

1.45 "**MMS Severity Level**" means a designation of the effect of a MMS Issue on the City. The severity of a MMS Issue is initially defined by the City and confirmed by Contractor. Until the MMS Issue has been resolved, the Severity Level may be raised or lowered based on Contractor's analysis of impact to business.

1.46 "**MMS Software**" means those MMS licensed programs and associated documentation licensed to City by Contractor as listed in this Agreement and Appendices, and any modification or Upgrades or modifications to the program(s) provided under this Agreement. "SaaS Software" also refers to "MMS Software."

1.47 "**MMS Software Error**" means any failure of MMS Software to conform in all material respects to the requirements of this Agreement or Contractor's published specifications.

1.48 "**MMS Software Error Correction**" means either a modification or addition that, when made or added to the MMS Software, brings the MMS Software into material conformity with the published specifications, or a procedure or routine that, when observed in the regular operation of the MMS Software, avoids the practical adverse effect of such nonconformity.

1.49 **"MMS Software Revision"** means an update to the current MMS Software Version of the MMS Software code that consists of minor enhancements to existing features and code corrections. MMS Software Revisions are provided and included with the annual service payments made by City to Contractor for the MMS Service.

1.50 **"MMS Software Version"** means the base or core version of the MMS Software that contains significant new features and significant fixes and is available to the City. MMS Software Versions may occur as the MMS Software architecture changes or as new technologies are developed. The nomenclature used for updates and upgrades consists of major, minor, build, and fix and these correspond to the following digit locations of a release, a, b, c, d, an example of which would be NCC 7.4.1.3, where the 7 refers to the major release, the 4 refers to the minor release, the 1 refers to the build, and the 4 refers to a fix. All MMS Software Versions are provided and included as part of this Agreement upon request or approval from City for the upgrade.

1.51 "**San Francisco Municipal Transportation Agency,**" "**SFMTA,**" or "**Agency**" means the agency of the City with jurisdiction over surface transportation in San Francisco, as provided under Article VIIIA of the City's Charter.

1.52 "**Services**" means the work performed by Contractor under this Agreement other than the provision of equipment as specifically described in the "Statement of Work" attached as Appendix A, including, but not limited to, access to the Meter Management System; credit card processing; communications between the Meter and the credit card processing gateway, vendor management system, and SFMTA databases; product support; and warranty.

1.53 "**Scheduled MMS Maintenance**" means the time (in minutes) during the month, as measured by Contractor, in which access to the MMS Services is scheduled to be unavailable for use by the City due to planned system maintenance and major version upgrades.

1.54 "**Subcontractor**" means any individual, partnership, firm, or corporation that undertakes integrally on the Project the partial or total design, manufacture, or performance of one or more items of work under the terms of the contract. As used herein, the terms subcontractor and sub-supplier are synonymous.

1.55 "**Surety**" means the corporate body, licensed to issue bonds in the State of California, bound with and for the Contractor for the full and complete performance of the contract and for the payment of all debtors pertaining to the work.

1.56 "**Work**" means the furnishing of all services, products, materials, equipment, tools, supplies and the performance of all requirements called for by the Contract and necessary to the completion of the Contract.

Article 2   Term of the Agreement

2.1   The term of this Agreement shall commence on the Effective Date, as evidenced by SFMTA's issuance of the Notice to Proceed, and expire five years from the Effective Date, unless earlier terminated as otherwise provided herein.

2.2   The City has the option to renew the Agreement for up to five additional years. The City may extend this Agreement beyond the expiration date by exercising an option at the Director of Transportation's sole and absolute discretion and by modifying this Agreement as provided in Section 18.5 (Modification of this Agreement).

Article 3   Statement of Work and Options

3.1   The Agreement covers the procurement of 2,365 multi-space and 12,100 single-space Meters, and associated Services as set forth in Appendix A (Statement of Work).

3.2   The City reserves an option to procure an additional 100 multi-space Meters. Delivery of the optional Meters shall be mutually agreed between SFMTA and Contractor.

Article 4   Financial Matters

4.1   **Certification of Funds; Budget and Fiscal Provisions; Termination in the Event of Non-Appropriation**. This Agreement is subject to the budget and fiscal provisions of the City's Charter. Charges will accrue only after prior written authorization certified by the Controller in the form of a Purchase Order, and the amount of City's obligation hereunder shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization. This Agreement will terminate without penalty, liability or expense of any kind to City at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Agreement will terminate, without penalty, liability or expense of any kind at the end of the term for which funds are appropriated. City has no obligation to make appropriations for this Agreement in lieu of appropriations for new or other agreements. City budget decisions are subject to the discretion of the Mayor and the Board of Supervisors. Contractor's assumption of risk of possible non-appropriation is part of the consideration for this Agreement.

THIS SECTION CONTROLS AGAINST ANY AND ALL OTHER PROVISIONS OF THIS AGREEMENT.

4.2   **Guaranteed Maximum Costs**. The City's payment obligation to Contractor cannot at any time exceed the amount certified by City's Controller for the purpose and period stated in such certification. Absent an authorized Emergency per the City Charter or applicable Code, no City representative is authorized to offer or promise, nor is the City required to honor, any offered or promised payments to Contractor under this Agreement in excess of the certified maximum amount without the Controller having first certified the additional promised amount

and the Parties having modified this Agreement as provided in Section 18.5 (Modification of this Agreement).

4.3   Compensation.

4.3.1   Payment. Compensation shall be made in monthly payments on or before the 30th day of each month for work, as set forth in Article 4 of this Agreement, that the SFMTA's Director of Transportation, in his or her sole discretion, concludes has been performed as of the last day of the immediately preceding month. Subject to any subsequent deductions for Liquidated Damages as listed in Section IV of Appendix D, the City agrees to pay an amount not to exceed **seventy million five hundred fifty-seven thousand eight hundred ninety-four dollars ($70,557,894)** in accordance with the terms and conditions of this Agreement. The breakdown of costs associated with this Agreement appears in Appendix C (Cost Schedule), incorporated by reference as though fully set forth herein. In no event shall City be liable for interest or late charges for any late payments.

4.3.2   Payment Limited to Satisfactory Deliverables. Contractor is not entitled to any payments from City for Meters or MMS Services until these have been Accepted by the City. Payments to Contractor by City shall not excuse Contractor from its obligation to replace unsatisfactory Deliverables even if the unsatisfactory character of such Deliverables may not have been apparent or detected at the time such payment was made. Deliverables that do not conform to the requirements of this Agreement may be rejected by City and in such case Contractor must cure any non-conformity without delay and at no cost to the City.

4.3.3   Payment Schedule.

(a)   **Meters.** Subject to Section 4.3.1, the City will make payment for each Meter after it is Accepted by City and properly invoiced.

(b)   **Monthly Operational Expenses**. The City will make monthly progress payments for operational expenses, which include the following fees: Credit Card Transactions, Pay-by-phone visual indication, Communication (Active and Standby), Meter Management System (Active and Standby), On-going Support, and Project Management (first 48 Contract months only).

(c)   **Spare Parts**. The City will make payment for each order of spare parts after its delivery to the Meter Shop and receipt of a proper invoice.

4.3.4   Withhold Payments. If Contractor fails to provide Deliverables in accordance with Contractor's obligations under this Agreement, the City may withhold any and all payments due Contractor for such Deliverables until such failure to perform is cured, and Contractor shall not stop work as a result of City's withholding of payments as provided herein.

4.3.5   Invoice Format. Contractor may invoice SFMTA for all items Accepted and Services covered under this Agreement. Invoices furnished by Contractor under this Agreement must be in a form acceptable to the City's Controller and the SFMTA, and must include a unique invoice number. City will make payment as specified in Section 4.3.9, or in such alternate manner as the Parties have mutually agreed upon in writing.

Each invoice shall also include:
- Relevant milestones
- Contract order number
- Quantity of items
- Description of items
- Unit price
- Amount of sales taxes requested to be paid
- Total invoice amount

Contractor's invoices shall be supported by evidence (such as original delivery notes, Acceptance paper work, or MMS billing reports) satisfactory to SFMTA that the Work invoiced has been accomplished and that the materials, listed, if any, are stored and ready for use.

4.3.6   Currency. All payments by the City to Contractor pursuant to this Article 4 shall be in United States Dollars and made by bank-to-bank electronic transfer. Contractor shall provide to SFMTA all routing information required to effect such transfers.

4.3.7   Exchange Rate Risk. The City will not make price adjustments on this Contract to protect the Contractor from fluctuations in the value of the applicable foreign currency in relation to the United States dollar.

4.3.8   Inflation Risk. City will not make price adjustments during the base term of this Contract to protect Contractor from economic inflation. A one-time price adjustment may be considered during extension years.

4.3.9   Getting Paid by the City for Goods and/or Services.

(a)   All City vendors receiving new contracts, contract renewals, or contract extensions must sign up to receive electronic payments through the City's Automated Clearing House (ACH) payments service/provider. Electronic payments are processed every business day and are safe and secure. To sign up for electronic payments, visit www.sfgov.org/ach.

(b)   The following information is required to sign up: (i) The enroller must be their company's authorized financial representative, (ii) the company's legal name, main telephone number and all physical and remittance addresses used by the company, (iii) the company's U.S. federal employer identification number (EIN) or Social Security number (if

they are a sole proprietor), and (iv) the company's bank account information, including routing and account numbers.

4.4   Audit and Inspection of Records. Contractor agrees to maintain and make available to the City, during regular business hours, accurate books and accounting records relating to its Services. Contractor will permit City to audit, examine and make excerpts and transcripts from such books and records, and to make audits of all invoices, materials, payrolls, records or personnel and other data related to all other matters covered by this Agreement, whether funded in whole or in part under this Agreement. Contractor shall maintain such data and records in an accessible location and condition for a period of not fewer than five years after final payment under this Agreement or until after final audit has been resolved, whichever is later. The State of California or any Federal agency having an interest in the subject matter of this Agreement shall have the same rights as conferred upon City by this Section. Contractor shall include the same audit and inspection rights and record retention requirements in all subcontracts. City will reasonably accommodate Contractor during an audit to protect any information that Contractor asserts to be a trade secret as defined under California law.

4.5   Submitting False Claims. The full text of San Francisco Administrative Code Chapter 21, Section 21.35, including the enforcement and penalty provisions, is incorporated into this Agreement. Pursuant to San Francisco Administrative Code §21.35, any contractor or subcontractor who submits a false claim shall be liable to the City for the statutory penalties set forth in that section. A contractor or subcontractor will be deemed to have submitted a false claim to the City if the contractor or subcontractor: (a) knowingly presents or causes to be presented to an officer or employee of the City a false claim or request for payment or approval; (b) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by the City; (c) conspires to defraud the City by getting a false claim allowed or paid by the City; (d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to pay or transmit money or property to the City; or (e) is a beneficiary of an inadvertent submission of a false claim to the City, subsequently discovers the falsity of the claim, and fails to disclose the false claim to the City within a reasonable time after discovery of the false claim.

4.6   Payment Does Not Imply Acceptance of Work. The granting of any payment or payments by the City, or the receipt thereof by the Contractor, shall in no way lessen the liability of the Contractor to replace unsatisfactory work or material although the unsatisfactory character of such work or material may not have been apparent or detected at the time such payment was made. Materials, components, or workmanship that do not conform to the Technical Specifications will be rejected and shall be replaced by the Contractor without delay.

4.7   Reserved. (Payment of Prevailing Wages.)

Article 5   Services and Production

5.1   Fabrication. The Contractor shall fabricate and guarantee that Meters procured under this Contract in accordance with the Statement of Work and the Contractor's warranty provisions, contained in Appendix A of the Conformed Contract Document of this Agreement.

5.2   Omission. Notwithstanding technical specifications, or other data provided by the SFMTA Project Manager, the Contractor shall have the responsibility of supplying all parts and details required to make Meters complete and ready for service even though such details may not be specifically mentioned in the specifications. Items that are installed by SFMTA shall not be the responsibility of the Contractor unless they are included in the Agreement or should have been installed by the Contractor.

5.3   Priority. In the event of any deviation between the description of Meters in the Statement of Work and in any other provision of the Contract or the Contractor's Proposal, the Statement of Work shall govern.

5.4   Responsibility for Materials/Accessories. Contractor shall be responsible for all materials and workmanship in the construction of Meters and all accessories used, whether the same are manufactured by the Contractor or purchased from a subcontractor. This provision excludes equipment leased or supplied by SFMTA, except insofar as such equipment is damaged by the failure of a part or component for which the Contractor is responsible, or except insofar as the damage to such equipment is caused by the Contractor during the manufacture of the Meters.

Article 6   Meter Procurement Process

6.1   Deliverables. Contractor shall provide Meters and all related components and services according to the specifications set forth in the Statement of Work in Appendix A.

6.2   Delivery Schedule. Contractor shall provide a delivery schedule within three Days upon receipt of the Notice to Proceed. The delivery schedule shall be based on estimated purchase quantities of Meter hardware (single and multi-space) detailed in Appendix C – Cost Schedule or a mutually agreed upon alternative delivery schedule. The schedule is subject to SFMTA's approval. Contractor shall deliver Meter hardware in accordance with the approved delivery schedule.

6.3   Assumption of Risk of Loss. Except for losses directly and solely attributable to actions or inactions of SFMTA, or as a result of vandalism, prior to Delivery of Meters to SFMTA, the Contractor shall bear risk of loss of Meters, including any damage sustained during transportation to the Delivery site. Transfer of title to Meters, and risk of loss, shall pass to City upon Delivery.

6.4 **MMS Application and MMS Services.** Contractor shall provide the MMS Application and MMS Services as set forth in Appendix A, Statement of Work, including but not limited to the following:

(a) Provide all software and other equipment at Contractor's hosting site as described in Appendix A or any Description of Services (and any applicable disaster recovery site) as necessary to host and deliver the MMS Application and Services.

(b) Provide Users access to the MMS Application and Services.

(c) Comply with the Service Level Obligations described in the Statement of Work. It is mutually agreed and understood, that the Service Level Obligations will be applied beginning on the first full calendar month following the Acceptance of the MMS Application and Services.

(d) Maintain the correct operation of the MMS Application and Services, Contractor's Website, and provide MMS Maintenance Services and support services as specified in this Agreement.

(e) Provide telephone support for Users in the operation of the MMS Application and Services.

(f) Provide Disaster Recovery Services as described in Section 20.6 and Appendix E.

6.5 **Acceptance**

6.5.1 **General Acceptance Criteria**. The Contractor shall meet the following acceptance criteria for the Meters and related Services. Meters installed, operational, and fully functional for 30 days shall be deemed to be Accepted and SFMTA will send written verification of which Meters are Accepted and which are not Accepted in each Batch. A delivered Batch will be considered "Not Accepted" if five percent of the Meters fail any of the conditions listed below. If SFMTA determines a Batch to be "Not Accepted," the Contractor shall return the Batch at its expense and provide a compliant Batch. Notwithstanding the above, unless notified otherwise by the SFMTA, a Meter Batch will be deemed Accepted 45 Days from its Delivery.

(a) The Meters delivered meet the requirements set forth in Sections IIA or IIB of the Statement of Work.

(b) The delivered MMS meets the requirements set forth in Section III of the Statement of Work.

(c) The transaction feed to the SFMTA Data Warehouse from Contractor's MMS meets the requirements of Attachment 1-5to the Statement of Work.

(d) The audit vs. actual coin revenue is accurate to 99% (i.e., the MMS coin revenue audit report in Section III.7 of the Appendix A matches actual revenue collected from Parking Meters to 99% accuracy).

6.5.2 Commissioning Checklist. SFMTA will use the checklist detailed in Attachment 06 to test the Meters and MMS prior to and during installation. SFMTA may test for any functional Meter and MMS requirement at any time.

6.5.3 Document Delivery. Contractor will deliver the completed Manual in electronic format for the MMS Application and Services at the time it gives the SFMTA access to the MMS Application and Services. The Manual will accurately and completely describe the functions and features of the MMS Application and Services, including all subsequent revisions thereto. The Manual shall be understandable by a typical end user and shall provide Users with sufficient instruction such that an User can become self-reliant with respect to access and use of the MMS Application and Services. The SFMTA shall have the right to make any number of additional copies of the Manual at no additional charge. The SFMTA may withhold its issuance of the notice of Acceptance until the SFMTA receives the completed Manual.

Article 7   Resources

7.1 Qualified Personnel. Contractor shall use only competent personnel under the supervision of, and in the employment of, Contractor (or Contractor's authorized subcontractors) to perform the Work. Contractor will comply with City's reasonable requests regarding assignment and/or removal of personnel, but all personnel, including those assigned at City's request, must be supervised by Contractor. Contractor shall commit adequate resources to allow timely completion within the project schedule specified in this Agreement.

7.2 Subcontracting.

7.2.1 Contractor may subcontract portions of the Work only upon prior written approval of City. Contractor is responsible for its subcontractors throughout the course of the work required to perform the Work. All subcontracts must incorporate the terms of Article 17 (Additional Requirements Incorporated by Reference) of this Agreement, unless inapplicable. Neither Party shall, on the basis of this Agreement, contract on behalf of, or in the name of, the other Party. Any agreement made in violation of this provision shall be null and void.

7.2.2 City's execution of this Agreement constitutes its approval of the subcontractors listed below.

Serco Inc.
Dixon Resources Unlimited, Inc.

7.3 Independent Contractor; Payment of Employment Taxes and Other Expenses.

7.3.1 Independent Contractor. For the purposes of this Article 7, "Contractor" shall be deemed to include not only Contractor, but also any agent or employee of Contractor. Contractor acknowledges and agrees that at all times, Contractor or any agent or employee of

Contractor shall be deemed at all times to be an independent contractor and is wholly responsible for the manner in which it performs the services and work requested by City under this Agreement. Contractor, its agents, and employees will not represent or hold themselves out to be employees of the City at any time. Contractor or any agent or employee of Contractor shall not have employee status with City, nor be entitled to participate in any plans, arrangements, or distributions by City pertaining to or in connection with any retirement, health or other benefits that City may offer its employees. Contractor or any agent or employee of Contractor is liable for the acts and omissions of itself, its employees and its agents. Contractor shall be responsible for all obligations and payments, whether imposed by federal, state or local law, including, but not limited to, FICA, income tax withholdings, unemployment compensation, insurance, and other similar responsibilities related to Contractor's performing services and work, or any agent or employee of Contractor providing same. Nothing in this Agreement shall be construed as creating an employment or agency relationship between City and Contractor or any agent or employee of Contractor. Any terms in this Agreement referring to direction from City shall be construed as providing for direction as to policy and the result of Contractor's work only, and not as to the means by which such a result is obtained. City does not retain the right to control the means or the method by which Contractor performs work under this Agreement. Contractor agrees to maintain and make available to City, upon request and during regular business hours, accurate books and accounting records demonstrating Contractor's compliance with this section. Should City determine that Contractor, or any agent or employee of Contractor, is not performing in accordance with the requirements of this Agreement, City shall provide Contractor with written notice of such failure. Within five business days of Contractor's receipt of such notice, and in accordance with Contractor policy and procedure, Contractor shall remedy the deficiency. Notwithstanding, if City believes that an action of Contractor, or any agent or employee of Contractor, warrants immediate remedial action by Contractor, City shall contact Contractor and provide Contractor in writing with the reason for requesting such immediate action.

7.3.2   Payment of Employment Taxes and Other Expenses. Should City, in its discretion, or a relevant taxing authority such as the Internal Revenue Service or the State Employment Development Division, or both, determine that Contractor is an employee for purposes of collection of any employment taxes, the amounts payable under this Agreement shall be reduced by amounts equal to both the employee and employer portions of the tax due (and offsetting any credits for amounts already paid by Contractor which can be applied against this liability). City shall then forward those amounts to the relevant taxing authority. Should a relevant taxing authority determine a liability for past services performed by Contractor for City, upon notification of such fact by City, Contractor shall promptly remit such amount due or arrange with City to have the amount due withheld from future payments to Contractor under this Agreement (again, offsetting any amounts already paid by Contractor which can be applied as a credit against such liability). A determination of employment status pursuant to this Section 4.4 shall be solely limited to the purposes of the particular tax in question, and for all other

purposes of this Agreement, Contractor shall not be considered an employee of City. Notwithstanding the foregoing, Contractor agrees to indemnify and save harmless City and its officers, agents and employees from, and, if requested, shall defend them against any and all claims, losses, costs, damages, and expenses, including attorneys' fees, arising from this section.

7.4   Assignment. The Services to be performed by Contractor are personal in character. Neither this Agreement, nor any duties or obligations hereunder, may be directly or indirectly assigned, novated, hypothecated, transferred, or delegated by Contractor, or, where the Contractor is a joint venture, a joint venture partner, (collectively referred to as an "Assignment") unless first approved by City by written instrument executed and approved as required under City law and under the policy of the SFMTA Board of Directors. The City's approval of any such Assignment is subject to the Contractor demonstrating to City's reasonable satisfaction that the proposed transferee is: (a) reputable and capable, financially and otherwise, of performing each of Contractor's obligations under this Agreement and any other documents to be assigned, (b) not forbidden by applicable law from transacting business or entering into contracts with City; and (c) subject to the jurisdiction of the courts of the State of California. A change of ownership or control of Contractor or a sale or transfer of substantially all of the assets of Contractor shall be deemed an Assignment for purposes of this Agreement. Contractor shall immediately notify City about any Assignment. Any purported Assignment made in violation of this provision shall be null and void.

7.5   Warranty. Contractor warrants to City that the Services will be performed with the degree of skill and care that is required by current, good and sound professional procedures and practices, and in conformance with generally accepted professional standards prevailing at the time the Services are performed so as to ensure that all Services performed are correct and appropriate for the purposes contemplated in this Agreement.

7.5.1   Warranty of Authority; No Conflict. Each Party warrants to the other that it is authorized to enter into this Agreement and that its performance of the Agreement will not conflict with any other agreement.

7.5.2   Warranty of Performance. Contractor warrants that when fully implemented, the MMS Application to be configured and provided under this Agreement shall perform in accordance with the specifications applicable thereto. With respect to all Services to be performed by Contractor under this Agreement, including MMS Application and Services outlined in Appendix A, Contractor warrants that it will use reasonable care and skill. All services shall be performed in a professional, competent and timely manner by Contractor personnel appropriately qualified and trained to perform such services. In the event of a breach of the foregoing warranty relating to any service under this Agreement within 12 months from the date of provision of such services, Contractor shall, at its sole cost and expense, re-perform such services.

7.5.3   Compliance with Description of Services. Contractor represents and warrants that the MMS Application and Services specified in this Agreement, and all

updates and improvements to the MMS Application and Services, will comply in all material respects with the specifications and representations specified in the Manual (including performance, capabilities, accuracy, completeness, characteristics, specifications, configurations, standards, functions and requirements) as set forth (i) herein or in any amendment hereto, and (ii) the updates thereto.

7.5.4 **Title.** Contractor represents and warrants to City that it is the lawful owner or license holder of all Software, materials and property identified by Contractor as Contractor-owned and used by it in the performance of the MMS Services contemplated hereunder and has the right to permit City access to or use of the MMS Application and Services and each component thereof. To the extent that Contractor has used Open Source Software (OSS) in the development of the MMS Application and Services, Contractor represents and warrants that it is in compliance with any applicable OSS license(s) and is not infringing.

7.5.5 **Disabling Code**. Contractor represents and warrants that the MMS Application and Services, and any information, reports or other materials provided to Users as a result of the operation of the MMS Application and Services, including future enhancements and modifications thereto, shall be free of any Disabling Code.

7.5.6 **Warranty of Suitability for Intended Purpose.** Contractor warrants that the MMS Application and Services will be suitable for the intended purpose of providing the Meters as described in Appendix A.

Article 8 Liquidated Damages; Credit Assessments; Delay

8.1 **Liquidated Damages Schedule.** The Schedule of Liquidated Damages (LDs) is in Appendix D. LDs will not be assessed in situations where actual damages are known and for which Credit Assessments may be imposed (see Section 8.2 below). Moreover, City may seek damages for matters for which liquidated damages are not provided for and any other damages that may be recoverable by the City and specified elsewhere in the Contract documents. With respect to any breaches or items for which the City has a right to obtain liquidated damages, the City will not seek actual damages or any damages in excess of the liquidated damages to which it may be entitled.

8.2 **Credit Assessments**. The Schedule of Credit Assessments is in Appendix D.

8.3 **Unavoidable Delay.** An Unavoidable Delay is an interruption of the Work beyond the control of the Contractor, which the Contractor could not have avoided by the exercise of care, prudence, foresight, and diligence. Such delays include and are limited to acts of God; floods; windstorms; tornadoes; earthquakes or other natural disasters; acts of terrorism; wars; riots; insurrections; epidemics; pandemics, including specifically COVID-19; quarantine restrictions; abnormal delays in shipping, supply chain disruption or labor availability or productivity due to COVID-19; strikes and lockouts; freight embargoes; acts of a governmental agency, including but not limited to, government-imposed travel restrictions; priorities or privileges established for the manufacture, assembly, or allotment of materials by order, decree,

or otherwise of the United States or by any department, bureau, commission, committee, agent, or administrator of any legally constituted public authority; vandalism, theft and accidental damage not caused in any way by the Contractor after Delivery of Meters; changes in the Work ordered by the City insofar as they necessarily require additional time in which to complete the entire Work; the prevention by the City of the Contractor's commencing or prosecuting the Work, or interruption, failure, or reduction of electrical power, the internet or cellular telecommunications services caused by any of the events or causes described herein or caused by the providers of such electrical power, the internet or cellular telecommunication or their network capacities. The duration of said Unavoidable Delays shall be limited to the extent that the commencement, prosecution, and completion of the Work are delayed thereby, as determined by the City acting reasonably.

8.4   Notification of Delay. The Contractor shall notify SFMTA as soon as the Contractor has, or should have, knowledge that an event has occurred that will result in an Unavoidable Delay of deliveries or delay in meeting other requirements of the Agreement. Within five calendar days, the Contractor shall confirm such notice in writing, furnishing as much detail as is available.

8.5   Request for Extension of Time; Other Relief. The Contractor agrees to supply, as soon as such data is available, any reasonable proof that is required by SFMTA to make a decision on any request for an extension of time or request for any other relief caused by the delay, including, but not limited to, relief from any Credit Assessments or Liquidated Damages. The Contractor shall specify in the request the type of Unavoidable Delay. For any such request, SFMTA shall examine the request and any documents supplied by the Contractor and shall determine if the Contractor is entitled to the relief requested. For requests for extensions of time, if the City grants the request, its determination will include the duration of such extension. For any other request, if the City grants the request, the City's determination will include the type and extent of the relief granted. SFMTA shall notify the Contractor of its decision in writing. The granting of an extension of time or other relief because of Unavoidable Delays shall in no way operate as a waiver on the part of the City of the right to collect liquidated damages for other delays or of any other rights to which the City is entitled.

Article 9   Bonding Requirements

9.1   The Contractor shall maintain at its own expense, and furnish to City, within 20 days following the receipt of the Notice to Proceed of the Contract, corporate surety bonds, as follows:

9.1.1   A Performance Bond in the amount of $1,000,000 to guarantee Contractor's faithful performance of all obligations regarding the supply, Delivery and Acceptance of Meters to be furnished under the Contract,

9.1.2 A Performance Bond in the amount of $2,000,000 to guarantee Contractor's faithful performance of all obligations regarding the Services to be furnished under the Contract, including warranty obligations.

9.2 The corporate surety on these bonds must be legally authorized to engage in the business of furnishing surety bonds in the State of California. All sureties, bond coverage forms, and requests for changes to the bonding requirements must be approved by the City's Risk Manager. During the period covered by the Contract, if the surety on these bonds shall, in the opinion of the City's Risk Manager, become insolvent or unable to pay promptly the amount of such bonds to the extent to which surety might be liable, the Contractor, within 30 days after notice given by the City to the Contractor, shall by supplemental bonds or otherwise substitute another and sufficient surety approved by the Risk Manager in place of the surety becoming insolvent or unable to pay. If the Contractor fails within such 30-day period to substitute another and sufficient surety, the Contractor shall, if the City so elects, be deemed to be in default in the performance of its obligations hereunder, and the City, in addition to any and all other remedies, may terminate the Contract or bring any proper suit or proceeding against the Contractor and the surety, or may deduct from any monies then due or which thereafter may become due to Contractor under the Contract the amount for which the surety, insolvent or unable to pay as aforesaid, is obligated on the bonds, and the monies so deducted shall be held by the City as collateral security for the performance of the conditions of the bonds.

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Article 10   Letter of Credit

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10.1 As an alternative to furnishing the performance bond(s) under Section 9, Contractor may submit within 15 Days following the receipt of a Notice to Proceed, one or more letters of credit in the amounts described in subsections 9.1.1 and 9.1.2 that comply with the requirements set forth below.

10.2 Any and all letters of credit issued pursuant to this Agreement shall be obtained from a national or California bank with at least a Moody's A rating and having at least one branch office within the City and County of San Francisco. The letter of credit shall be a confirmed, clean irrevocable letter of credit in favor of the City and County of San Francisco, a municipal corporation. The letter of credit shall have an original term of one year, with automatic extensions of the principal amount throughout the term of the contract, or until released by the City. The letter of credit shall provide that payment of the entire face amount of the letter of credit, or any portion thereof, shall be made to the City and County of San Francisco, upon presentation of a written demand to the bank signed by the General Manager on behalf of the City and County of San Francisco. The letter of credit shall constitute a security deposit guaranteeing all progress payments for which the letter of credit is issued.

10.3 If Contractor defaults with respect to any provision of this Agreement, City may, but shall not be required to, make its demand under the letter of credit for all or any portion thereof to compensate City for any loss that City may have incurred by reason of Contractor's default. City shall present its written demand to the bank for payment under the letter of credit

only after City shall have made its demand for payment directly to Contractor, and five full business days have elapsed without Contractor having made payment to City or otherwise cured the default. City need not terminate this Agreement in order to receive compensation for its damages. If any portion of a letter of credit is so used or applied, Contractor, within 10 business days after written demand, therefore, shall reinstate the letter of credit to its original amount; Contractor's failure to do so shall be a material breach of this Agreement.

10.4	Any letter of credit issued hereunder shall provide for 60 days' notice by the bank to City in the event of non-extension of the letter of credit; in that event, Contractor shall replace the letter of credit at least 10 business days prior to its expiration. If Contractor fails to do so, City shall be entitled to present its written demand for payment of the entire face amount of the letter of credit. Any amounts so received by City shall be returned to Contractor upon replacement of the letter of credit.

10.5	If City receives any payments from the aforementioned bank under the letter of credit by reason of having made a wrongful or excessive demand for payment, City shall return to Contractor the amount by which City's total receipts from Contractor and from the bank under the letter of credit exceeds the amount to which City rightfully is entitled, together with interest thereon at the legal rate of interest, but City shall not otherwise be liable to Contractor for any damages or penalties.

10.6	Letter of credit issued in the amount of $1,000,000 to guarantee Contractor's faithful performance of all obligations regarding the supply, Delivery and Acceptance of Meters to be furnished under the Contract, pursuant to 9.1.1 and 10.1, shall no longer be required at the date of Acceptance of the final Batch of meters ordered under this contract.

## Article 11	Insurance and Indemnity

### 11.1	Insurance.

11.1.1 Required Coverages. Without in any way limiting Contractor's liability pursuant to the "Indemnification" section of this Agreement, Contractor must maintain in force, during the full term of the Agreement, insurance in the following amounts and coverages:

(a)	Workers' Compensation, in statutory amounts, with Employers' Liability Limits not less than $1,000,000 each accident, injury, or illness; and

(b)	Commercial General Liability Insurance with limits not less than $1,000,000 each occurrence and $2,000,000 general aggregate for Bodily Injury and Property Damage, including Contractual Liability, Personal Injury, Products and Completed Operations; and

(c)	Commercial Automobile Liability Insurance with limits not less than $5,000,000 each occurrence, "Combined Single Limit" for Bodily Injury and Property Damage, including Owned, Non-Owned and Hired auto coverage, as applicable.

(d)	Reserved. (Professional Liability Coverage).

(e)	Technology Errors and Omissions Liability coverage, with limits of $1,000,000 for each claim and each loss. The policy shall at a minimum cover professional misconduct or lack of the requisite skill required for the performance of services defined in the contract and shall also provide coverage for the following risks:

(i)	Network security liability arising from the unauthorized access to, use of, or tampering with computers or computer systems, including hacker attacks; and

(ii)	Liability arising from the introduction of any form of malicious software including computer viruses into, or otherwise causing damage to the City's or third person's computer, computer system, network, or similar computer related property and the data, software, and programs thereon.

(f)	Contractor shall maintain in force during the full life of the agreement Cyber and Privacy Insurance with limits of not less than $1,000,000 per claim. Such insurance shall include coverage for liability arising from theft, dissemination, and/or use of confidential information, including but not limited to, bank and credit card account information or personal information, such as name, address, social security numbers, protected health information or other personally identifying information, stored or transmitted in electronic form.

11.1.2 Commercial General Liability and Commercial Automobile Liability Insurance policies must be endorsed to name as Additional Insured the City and County of San Francisco, its Officers, Agents, and Employees.

11.1.3 Contractor's Commercial General Liability and Commercial Automobile Liability Insurance policies shall provide that such policies are primary insurance to any other insurance available to the Additional Insureds, with respect to any claims arising out of this Agreement, and that the insurance applies separately to each insured against whom claim is made or suit is brought.

11.1.4 All policies shall be endorsed to provide 30 days' advance written notice to the City of cancellation for any reason, intended non-renewal, or reduction in coverages. Notices shall be sent to the City address set forth in Section 18.1 (Notices to the Parties). All notices, certificates and endorsements shall include the SFMTA contract number and title on the cover page.

11.1.5 Should any of the required insurance be provided under a claims-made form, Contractor shall maintain such coverage continuously throughout the term of this Agreement and, without lapse, for a period of three years beyond the expiration of this Agreement, to the effect that, should occurrences during the contract term give rise to claims made after expiration of the Agreement, such claims shall be covered by such claims-made policies.

11.1.6 Should any of the required insurance be provided under a form of coverage that includes a general annual aggregate limit or provides that claims investigation or legal defense costs be included in such general annual aggregate limit, such general annual aggregate limit shall be double the occurrence or claims limits specified above.

11.1.7 Should any required insurance lapse during the term of this Agreement, requests for payments originating after such lapse shall not be processed until the City receives satisfactory evidence of reinstated coverage as required by this Agreement, effective as of the lapse date. If insurance is not reinstated, the City may, at its sole option, terminate this Agreement effective on the date of such lapse of insurance.

11.1.8 Before commencing any Services, Contractor shall furnish to City certificates of insurance and additional insured policy endorsements from insurers with ratings comparable to A-, VIII or higher that are authorized to do business in the State of California, and that are satisfactory to City, in form evidencing all coverages set forth above. Approval of the insurance by City shall not relieve or decrease Contractor's liability hereunder.

11.1.9 The Workers' Compensation policy(ies) shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Contractor, its employees, agents and subcontractors.

11.1.10 If Contractor will use any subcontractor(s) to provide Services, Contractor shall require the subcontractor(s) to provide all necessary insurance and to name the City and County of San Francisco, its officers, agents and employees and the Contractor as additional insureds.

11.2 Indemnification. Contractor shall indemnify and hold harmless City and its officers, agents and employees from, and, if requested, shall defend them from and against any and all claims, demands, losses, damages, costs, expenses, and liability (legal, contractual, or otherwise) arising from or in any way connected with any: (i) injury to or death of a person, including employees of City or Contractor; (ii) loss of or damage to property; (iii) violation of local, state, or federal common law, statute or regulation, including but not limited to privacy or personally identifiable information, health information, disability and labor laws or regulations; (iv) strict liability imposed by any law or regulation; or (v) losses arising from Contractor's execution of subcontracts not in accordance with the requirements of this Agreement applicable to subcontractors; so long as such injury, violation, loss, or strict liability (as set forth in subsections (i) – (v) above) arises directly or indirectly from Contractor's performance of this Agreement, including, but not limited to, Contractor's use of facilities or equipment provided by City or others, regardless of the negligence of, and regardless of whether liability without fault is imposed or sought to be imposed on City, except to the extent that such indemnity is void or otherwise unenforceable under applicable law, and except where such loss, damage, injury, liability or claim is the result of the active negligence or willful misconduct of City and is not contributed to by any act of, or by any omission to perform some duty imposed by law or agreement on Contractor, its subcontractors, or either's agent or employee. The foregoing

indemnity shall include, without limitation, reasonable fees of attorneys, consultants and experts and related costs and City's costs of investigating any claims against the City. In addition to Contractor's obligation to indemnify City, Contractor specifically acknowledges and agrees that it has an immediate and independent obligation to defend City from any claim which actually or potentially falls within this indemnification provision, even if the allegations are or may be groundless, false or fraudulent, which obligation arises at the time such claim is tendered to Contractor by City and continues at all times thereafter.

11.3 **Intellectual Property.** If notified promptly in writing of any judicial action brought against City based on an allegation that City's use of the MMS Application and Services or Meters infringes a patent, copyright, or any right of a third-party or constitutes misuse or misappropriation of a trade secret or any other right in intellectual property (Infringement), Contractor will hold City harmless and defend such action at its own expense. Contractor will pay the costs and damages awarded in any such action or the cost of settling such action, provided that Contractor shall have sole control of the defense of any such action and all negotiations or its settlement or compromise, provided, however, that Contractor shall not agree to any injunctive relief or settlement that obligates the City to perform any obligation, make an admission of guilt, fault or culpability or incur any expense, without City's prior written consent, which shall not be unreasonably withheld or delayed. If notified promptly in writing of any informal claim (other than a judicial action) brought against City based on an allegation that City's use of the MMS Application, Services and/or Meters constitutes Infringement, Contractor will pay the costs associated with resolving such claim and will pay the settlement amount (if any), provided that Contractor shall have sole control of the resolution of any such claim and all negotiations for its settlement. In the event a final injunction is obtained against City's use of the MMS Application, Services and/or Meters by reason of Infringement, or in Contractor's opinion City's use of the MMS Application, Services and/or Meters is likely to become the subject of Infringement, Contractor may at its option and expense: (a) procure for City the right to continue to use the MMS Application, Services and/or Meters as contemplated hereunder, (b) replace the MMS Application, Services and/or Meters with a non-infringing, functionally equivalent substitute MMS Application, Services and/or Meters, or (c) suitably modify the MMS Application, Services and/or Meters to make its use hereunder non-infringing while retaining functional equivalency to the unmodified version of the MMS Application, Services and/or Meters. If none of these options is reasonably available to Contractor, then the applicable Authorization Document or relevant part of such Authorization Document may be terminated at the option of either Party hereto and Contractor shall refund to City all amounts paid under this Agreement for the license of such infringing MMS Application and/or Services. Any unauthorized modification or attempted modification of the MMS Application and Services by City or any failure by City to implement any improvements or updates to the MMS Application and Services, as supplied by Contractor, shall void this indemnity unless City has obtained prior written authorization from Contractor permitting such modification, attempted modification or failure to implement. Contractor shall have no liability for any claim of Infringement based on

City's use or combination of the MMS Application and Services with products or data of the type for which the MMS Application and Services was neither designed nor intended to be used.

Article 12   Liability of the Parties

12.1   Liability of City. EXCEPT TO THE EXTENT THAT THE CONTRACTOR IS CAUSED LOSS OR DAMAGE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF THE CITY, CITY'S PAYMENT OBLIGATIONS UNDER THIS AGREEMENT SHALL BE LIMITED TO THE PAYMENT OF THE COMPENSATION PROVIDED FOR IN SECTION 4.3.1 (PAYMENT) OF THIS AGREEMENT. NOTWITHSTANDING ANY OTHER PROVISION OF THIS AGREEMENT, EXCEPT TO THE EXTENT THAT SUCH CLAIM IS THE RESULT OF THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF THE CITY, THE CITY SHALL NOT BE LIABLE, REGARDLESS OF WHETHER ANY CLAIM IS BASED ON CONTRACT OR TORT, FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT OR INCIDENTAL DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT OR THE SERVICES PERFORMED IN CONNECTION WITH THIS AGREEMENT.

12.2   Liability for Use of Equipment. City shall not be liable for any damage to persons or property as a result of the use, misuse or failure of any equipment used by Contractor, or any of its subcontractors, or by any of their employees, even though such equipment is furnished, rented or loaned by City. The acceptance or use of such equipment by Contractor or any of its employees shall be construed to mean that Contractor accepts full responsibility for and agrees to exonerate, indemnify, defend, and save harmless City from and against any and all claims for any damage or injury of any type arising from the use, misuse, or failure of such equipment, whether such damage be to the contractor, its employees, City employees, or third parties, or to property belonging to any of the above.

12.3   Liability for Incidental and Consequential Damages. Notwithstanding any other provision of this Agreement, Contractor shall not be responsible for incidental and consequential damages resulting in whole or in part from Contractor's acts or omissions. However, Contractor shall be liable for incidental consequential damages resulting from: (a) where such damages relating to loss of revenues or profits, except that such damages shall be limited to those connected to Failures identified in Appendix D Liquidated Damages and Credit Assessments, and limited in amount to the Liquidated Damages or Credit Assessments provided for therein; (b) damages caused by Contractor's gross negligence, reckless conduct or willful acts or omissions; (c) claims or damages that fall within the insurance coverage of this Agreement; (d) fines, expenses, damages caused by Contractor's violation of federal, state or local laws, including but not limited to those specified in this Agreement and regarding privacy; (e) Contractor's obligation to indemnify and defend the City pursuant to the general indemnification

clause and for intellectual property infringement; (f) Contractor's warranties under this agreement; and, (g) wrongful death caused by contractor.

Article 13   Payment of Taxes

13.1   Contractor to Pay All Taxes. The City will reimburse the Contractor for any levied sales tax on articles purchased by the City under this Agreement. However, if the Contractor cannot be authorized to collect and pay the sales taxes to the State of California, then the City will pay the sales tax directly to the State. Contractor shall be solely responsible for any penalties, interest or fees assessed as a result of late or erroneous payment of such taxes on the part of the Contractor. The City warrants that it is a public entity exempt from certain federal excise taxes and in connection therewith that it has obtained a federal excise tax exemption certificate. Contractor will pay all other taxes, licenses, imposts, duties, and all other governmental charges of any type whatsoever.

13.2   Possessory Interest Taxes. Contractor acknowledges that this Agreement may create a "possessory interest" for property tax purposes. Generally, such a possessory interest is not created unless the Agreement entitles the Contractor to possession, occupancy, or use of City property for private gain. If such a possessory interest is created, then the following shall apply:

13.2.1 Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that Contractor, and any permitted successors and assigns, may be subject to real property tax assessments on the possessory interest.

13.2.2 Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that the creation, extension, renewal, or assignment of this Agreement may result in a "change in ownership" for purposes of real property taxes, and therefore may result in a revaluation of any possessory interest created by this Agreement. Contractor accordingly agrees on behalf of itself and its permitted successors and assigns to report on behalf of the City to the County Assessor the information required by Revenue and Taxation Code section 480.5, as amended from time to time, and any successor provision.

13.2.3 Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that other events also may cause a change of ownership of the possessory interest and result in the revaluation of the possessory interest. (see, e.g., Rev. & Tax. Code section 64, as amended from time to time). Contractor accordingly agrees on behalf of itself and its permitted successors and assigns to report any change in ownership to the County Assessor, the State Board of Equalization or other public agency as required by law.

13.2.4 Contractor further agrees to provide such other information as may be requested by the City to enable the City to comply with any reporting requirements for possessory interests that are imposed by applicable law.

13.3   Withholding. Contractor agrees that it is obligated to pay all amounts due to the City under the San Francisco Business and Tax Regulations Code during the term of this

Agreement. Pursuant to Section 6.10-2 of the San Francisco Business and Tax Regulations Code, Contractor further acknowledges and agrees that City may withhold any payments due to Contractor under this Agreement if Contractor is delinquent in the payment of any amount required to be paid to the City under the San Francisco Business and Tax Regulations Code. The City will pay Contractor any monies withheld under this paragraph, without interest, when Contractor comes into compliance with its obligations.

Article 14   Termination and Default

14.1   Termination for Convenience

14.1.1   City shall have the option, in its sole discretion, to terminate this Agreement, at any time during the term hereof, for convenience and without cause. City shall exercise this option by giving Contractor a 30-Day written notice of termination. The notice shall specify the date on which termination shall become effective. Notwithstanding the above, the Parties agree that if Meter fabrication is in progress when the SFMTA issues a notice of termination, the Agreement will not terminate until Acceptance of such Meters.

14.1.2 Upon receipt of the notice of termination, Contractor shall commence and perform, with diligence, all actions necessary on the part of Contractor to effect the termination of this Agreement on the date specified by City and to minimize the liability of Contractor and City to third parties as a result of termination. All such actions shall be subject to the prior approval of City. Such actions may include any of the following, without limitation:

(a)   Halting the performance of all Work under this Agreement on the date(s) and in the manner specified by the SFMTA.

(b)   Terminating all existing orders and subcontracts to the extent possible, and not placing any further orders or subcontracts for materials, Services, equipment or other items.

(c)   At the SFMTA's direction, assigning to City any or all of Contractor's right, title, and interest under the orders and subcontracts terminated. Upon such assignment, the SFMTA shall have the right, in its sole discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.

(d)   Subject to the SFMTA's approval, settling all outstanding liabilities and all claims arising out of the termination of orders and subcontracts.

(e)   Completing performance of any Work that the SFMTA designates to be completed prior to the date of termination specified by the SFMTA.

(f)   Transferring title to the SFMTA and delivering in the manner, at the times, and to the extent, if any, directed by the SFMTA the fabricated or un-fabricated parts, work in process, completed work, supplies, and other material produced as part of, or acquired in connection with the performance of the work terminated, and the completed or partially

completed plans, drawings, information and other property which, if the contract had been completed, would have been required to be furnished to the SFMTA.

(g)   Using its best efforts to sell, in the manner, at the times, to the extent, and at the price(s) directed or authorized by the SFMTA, any property of the types referred to above; provided, however, that the Contractor shall not be required to extend credit to any purchaser, and may acquire any such property under the conditions prescribed by and at a price(s) approved by the SFMTA; and provided further that the proceeds of any such transfer or disposition shall be applied in reduction of any payments to be made by the SFMTA to the Contractor under this Contract or shall otherwise be credited to the price or cost of the work covered by this contract or paid in such other manner as the SFMTA may direct.

(h)   Taking such action as may be necessary, or as the SFMTA may direct, for the protection and preservation of any property related to this Agreement which is in the possession of Contractor and in which the SFMTA has or may acquire an interest.

14.1.3 Within 30 days after the specified termination date, Contractor shall submit to the SFMTA an invoice, which shall set forth each of the following as a separate line item:

(a)   The cost to Contractor, for all Deliverables completed and accepted prior to the specified termination date, for which Deliverables the SFMTA has not already tendered payment. Contractor may also recover the reasonable cost of preparing the invoice.

(b)   The reasonable cost to Contractor of handling material or equipment returned to the vendor, delivered to the SFMTA or otherwise disposed of as directed by the SFMTA.

(c)   A deduction for the cost of materials to be retained by Contractor, amounts realized from the sale of materials and not otherwise recovered by or credited to the SFMTA, and any other appropriate credits to the SFMTA against the cost of the Deliverables.

(d)   Reasonable costs to Contractor of Terminating all existing orders and subcontracts to the extent possible pursuant to 14.1.2 (b).

(e)   Cost of materials acquired by Contractor for Deliverables but not yet completed prior to the specified termination date.

14.1.4 In no event shall the City be liable for costs incurred by Contractor or any of its subcontractors after the termination date specified by the SFMTA, except for those costs specifically listed in Section 14.1.3. Such non-recoverable costs include, but are not limited to, anticipated profits on the Work under this Agreement, post-termination employee salaries, post-termination administrative expenses, post-termination overhead or unabsorbed overhead, attorneys' fees or other costs relating to the prosecution of a claim or lawsuit, prejudgment interest, or any other expense which is not reasonable or authorized under Section 14.1.3.

14.1.5 In arriving at the amount due to Contractor under this Section, the SFMTA may deduct: (i) all payments previously made by the SFMTA for Deliverables covered by Contractor's final invoice; (ii) any claim which the SFMTA may have against Contractor in connection with this Agreement; (iii) any invoiced costs or expenses excluded pursuant to the immediately preceding subsection 14.1.4; and (iv) in instances in which, in the opinion of the SFMTA, the cost of any Work performed under this Agreement is excessively high due to costs incurred to remedy or replace defective or rejected Services, the difference between the invoiced amount and the SFMTA's estimate of the reasonable cost of performing the invoiced Services in compliance with the requirements of this Agreement.

14.1.6 The City's payment obligation under this Section shall survive termination of this Agreement.

14.2   Termination for Default; Remedies.

14.2.1 Each of the following shall constitute an immediate event of default (Event of Default) under this Agreement:

(a)   Contractor fails or refuses to perform or observe any term, covenant or condition contained in any of the following Sections of this Agreement:

4.5	Submitting False Claims
7.4	Assignment
Article 11	Insurance and Indemnity
Article 13	Payment of Taxes
17.10	Alcohol and Drug-Free Workplace
18.9	Compliance with Laws
Article 20	Data and Security

(b)   Contractor fails or refuses to perform or observe any other term, covenant or condition contained in this Agreement, including any obligation imposed by ordinance or statute and incorporated by reference herein, and such default is not cured within 10 days after written notice thereof from the SFMTA to Contractor. If Contractor defaults a second time in the same manner as a prior default cured by Contractor, the SFMTA may in its sole discretion immediately terminate the Agreement for default or grant an additional period not to exceed five days for Contractor to cure the default.

(c)   Contractor (i) is generally not paying its debts as they become due; (ii) files, or consents by answer or otherwise to the filing against it of a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction; (iii) makes an assignment for the benefit of its creditors; (iv) consents to the appointment of a custodian, receiver, trustee or other officer with similar powers of Contractor or of any substantial part of Contractor's property; or (v) takes action for the purpose of any of the foregoing.

(d) A court or government authority enters an order (i) appointing a custodian, receiver, trustee or other officer with similar powers with respect to Contractor or with respect to any substantial part of Contractor's property, (ii) constituting an order for relief or approving a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction or (iii) ordering the dissolution, winding-up or liquidation of Contractor.

14.2.2 On and after any Event of Default, City shall have the right to exercise its legal and equitable remedies, including, without limitation, the right to terminate this Agreement or to seek specific performance of all or any part of this Agreement. In addition, where applicable, City shall have the right (but no obligation) to cure (or cause to be cured) on behalf of Contractor any Event of Default; Contractor shall pay to City on demand all costs and expenses incurred by City in effecting such cure, with interest thereon from the date of incurrence at the maximum rate then permitted by law. City shall have the right to offset from any amounts due to Contractor under this Agreement or any other agreement between City and Contractor: (i) all damages, losses, costs or expenses incurred by City as a result of an Event of Default; and (ii) any liquidated damages levied upon Contractor pursuant to the terms of this Agreement; and (iii), any damages imposed by any ordinance or statute that is incorporated into this Agreement by reference, or into any other agreement with the City.

14.2.3 All remedies provided for in this Agreement may be exercised individually or in combination with any other remedy available hereunder or under applicable laws, rules and regulations. The exercise of any remedy shall not preclude or in any way be deemed to waive any other remedy. Nothing in this Agreement shall constitute a waiver or limitation of any rights that City may have under applicable law.

14.2.4 Any notice of default must be sent to the address set forth in Article 18, and in the manner prescribed in Article 18.

14.3   Non-Waiver of Rights. The omission by either party at any time to enforce any default or right reserved to it, or to require performance of any of the terms, covenants, or provisions hereof by the other party at the time designated, shall not be a waiver of any such default or right to which the party is entitled, nor shall it in any way affect the right of the party to enforce such provisions thereafter.

14.4   Rights and Duties upon Termination or Expiration.

14.4.1 This Section and the following Sections of this Agreement listed below, shall survive termination or expiration of this Agreement:

4.3.2	Payment Limited to Satisfactory Deliveries
4.4	Audit and Inspection of Records
4.5	Submitting False Claims
Article11	Insurance and Indemnity

14.4.2 Subject to the survival of the Sections identified in Section 14.4.1, above, if this Agreement is terminated prior to expiration of the term specified in Article 2, this Agreement shall be of no further force or effect. Contractor shall transfer title to City, and deliver in the manner, at the times, and to the extent, if any, directed by City, any work in progress, completed work, supplies, equipment, and other materials produced as a part of, or acquired in connection with the performance of this Agreement, and any completed or partially completed work which, if this Agreement had been completed, would have been required to be furnished to City.

14.5 **Transition of Services and Disposition of Data**. Upon expiration or termination of the MMS Services under this Agreement:

14.5.1 Contractor may immediately discontinue the MMS Services and City shall immediately cease accessing the MMS Application and Services upon termination of the MMS Services. Contractor shall within fourteen (14) calendar days of the expiration or termination of the MMS Services return City's data in an agreed-upon machine readable format. This provision shall also apply to all City Data that is in the possession of subcontractors, agents or auditors of Contractor. Such data transfer shall be done at no cost to the City. Once Contractor has received written confirmation from City that City's Data has been successfully transferred to City, Contractor shall within thirty (30) calendar days clear, purge or physically destroy all City Data from its hosted servers or files and provide City with written certification within five (5) calendar days that such clear or purge and/or physical destruction has occurred. Secure disposal shall be accomplished by "clearing," "purging" or "physical destruction," in accordance with National Institute of Standards and Technology (NIST) Special Publication 800-88 or most current industry standard.

14.5.2 Contractor shall provide to City and/or Successor Service Provider assistance requested by City to effect the orderly transition of the MMS Services, in whole or in part, to City or to Successor Service Provider. During the transition period, MMS and City Data

access shall continue to be made available to City without alteration. Such Transition Services shall be provided on a time and materials basis if the City opts to return to its own servers or City chooses a Successor Service Provider. Transition costs may include: (a) developing a plan for the orderly transition of the terminated MMS Services from Contractor to Successor Service Provider; (b) if required, transferring the City Data to Successor Service Provider; (c) using commercially reasonable efforts to assist City in acquiring any necessary rights to legally and physically access and use any third-party technologies and documentation then being used by Contractor in connection with the Services; (d) using commercially reasonable efforts to make available to City, pursuant to mutually agreeable terms and conditions, any third-party services then being used by Contractor in connection with the MMS Services; and, (e) such other activities upon which the Parties may agree. Notwithstanding the foregoing, should City terminate this Agreement due to Contractor's material breach, City may elect to use the Services for a period of no greater than six (6) months from the date of termination at a reduced rate of twenty (20%) percent off of the then-current Services Fees for the terminated Services. All applicable terms and conditions of this Agreement shall apply to the Transition Services. This Section shall survive the termination of this Agreement.

Article 15   Intellectual Property Rights

15.1   Ownership of Results. If, in connection with Services performed under this Agreement, Contractor or its subcontractors create new drawings, plans, specifications, blueprints, studies, reports, memoranda, computation sheets, computer files and media or other documents prepared by Contractor or its subcontractors specifically and expressly for the City's use only, such works of authorship shall become the property of and will be transmitted to City, subject to Section 15.2. However, unless expressly prohibited elsewhere in this Agreement, Contractor may retain and use copies for reference and as documentation of its experience and capabilities. Subject to Section 15.2, Contractor retains sole ownership of and all rights to all intellectual property, instruments of service, moral rights, if applicable, trade secrets, any patented and non-patented technology relating in any way to the Deliverables or the Services, whether existing prior to or developed by Contractor, its subcontractors or hires during this Agreement unless newly developed during the Term, specifically and expressly for use by the City only. This Section remains subject to and does not lessen the rights of the City under Article 20.

15.2   Works for Hire. If, in connection with Services, Contractor or its subcontractors creates specifically and expressly for the City's use only new artwork, copy, posters, billboards, photographs, videotapes, audiotapes, reports, diagrams, surveys or any other original works of authorship, whether in digital or any other format, such works of authorship shall be works for hire as defined under Title 17 of the United States Code, and all copyrights in such works shall be the property of the City. If any such Deliverables created by Contractor or its subcontractor(s) under this Agreement are ever determined not to be works for hire under U.S. law, Contractor

hereby assigns all Contractor's copyrights to such Deliverables to the City, agrees to provide any material and execute any documents necessary to effectuate such assignment, and agrees to include a clause in every subcontract imposing the same duties upon subcontractor(s). However, the City shall not use or allow others to use any such works or any Deliverables for any purposes other than the City's own use during the Term and the City shall not reverse engineer, decompile, disassemble, alter, modify, assign, or adapt any software, including but not limited to translating, decompiling, and disassembly or creating derivative works, without written consent of the Contractor. Contractor and its subcontractor(s) may retain and use copies of such works for reference and as documentation of their respective experience and capabilities. Notwithstanding any other term in this Agreement, the Contractor shall not be restricted in its right to use of any technology, invention, process, design, or any work product, technique, programing or process of any form, which the Contractor or its subcontractor(s), or hires may develop as part of the Services or providing the Deliverables, for any other purpose.

15.3 Licenses Granted

15.3.1 MMS Application and Services. Subject to the terms and conditions of this Agreement, Contractor grants City and Users a renewable, irrevocable, non-exclusive, royalty-free, and worldwide license to access, display, and execute the MMS Application and MMS Services during the Term of this Agreement and any renewals thereof, if any. With prior written consent of the Contractor, the City shall also be authorized to modify or prepare derivative works of the Deliverables and make copies of such Deliverables for internal use only and any such authorized modifications shall become the property of the City unless such modifications are not used exclusively for internal purposes. City agrees not to remove or destroy any proprietary markings or proprietary legends placed upon or contained within the Deliverable(s) or any related materials or Manual. The City may not sell, rent or lease the Software. Except as otherwise set forth in this Agreement, the City shall not reverse engineer, decompile, disassemble, alter, modify, assign, or adapt the Software including but not limited to translating, decompiling, and disassembly or creating derivative works. Contractor hereby warrants that it has title to and/or the authority to grant a license of such MMS Application, MMS Services, and all other Deliverables to the City.

15.3.2 Click-Wrap Disclaimer. No "click to accept" agreement that may be required for the City and/or Users' access to the MMS Services or Contractor's Website and no "terms of use" or "privacy policy" referenced therein or conditioned for use of the MMS Services or Contractor's Website shall apply. Only the provisions of this Agreement as amended from time to time shall apply to City and/or Users for access thereto and use thereof. The Parties acknowledge that City and/or each User may be required to click "Accept" as a condition of access to the MMS Services through the Contractor's Website, but the provisions of such "click to accept" agreement and other terms (including Terms of Use and Privacy Policy) referenced therein shall be null and void for City and/or each such User. The foregoing does not apply to the City's own click-wrap agreements in the event the City chooses to have Contractor include

terms of use, terms or service, privacy policies, or similar requirements drafted and approved by the City.

15.3.3   MMS Application Title. City acknowledges that title to each MMS Application and MMS Services shall at all times remain with Contractor, and that City has no rights in the MMS Application or MMS Services except those expressly granted by this Agreement.

15.3.4   Authorized APIs. City shall be permitted to access and use Contractor's MMS Application Program Interfaces (APIs) when commercially available to develop and modify, as necessary, macros and user interfaces for use with any existing or future City systems and infrastructure. For purposes of this Agreement, such development shall be deemed an authorized modification but will not be supported by Contractor unless provided for in this Agreement. Functionality and compatibility of City-developed macros will be sole responsibility of City. Any such macros or user interfaces developed by City shall become the property of City. All flat-file exchanges will be over an encrypted file transport service (ftps/vsftpd/scp/sftp) to a secure private ftp site.

15.3.5 Other Deliverables. Contractor grants City a perpetual, non-exclusive, non-transferable license to use, retain, and reproduce at all locations controlled by SFMTA, for internal use only, all copies (whether in hard copy or electronic format) of drawings, plans, specifications, schematics, studies, reports, memoranda, computation sheets and all other documents that are (i) prepared by Contractor or its subcontractors or suppliers (but not exclusively for City); and (ii) required to be provided to City in connection with this Agreement. Contractor hereby warrants that it has title to and/or the authority to grant a license of such deliverables to the City.

15.3.6 Proprietary Materials. The City agrees that it will not knowingly sell any equipment or allow any third party to gain access to equipment, software, or documentation provided by Contractor for the purposes of reverse engineering without the written consent of the Contractor. This prohibition shall not apply, with Contractor's prior written approval (1) to the sale or other transfer of equipment after the end of its useful life to other City Governments or City Agencies currently using MacKay meters, or (2) to consultants hired by the City to assist with the SFMTA's parking program, provided that the SFMTA will obtain written confirmations that the consultants agree to be bound by the same confidentiality requirements contained in this Agreement.

Article 16   Authority of Contract Administrator; Claims; Disputes

16.1   Authority of SFMTA Contract Administrator. The SFMTA Contract Administrator shall decide all questions which may arise as to the quality or acceptability of materials furnished and work performed and as to the manner of performance and rate of progress of the Work; all questions which may arise as to the acceptable fulfillment of the Contract on the part of the Contractor; and all questions as to compensation. In discharging

the responsibilities outlined above, the SFMTA Contract Administrator shall at all times act fairly and reasonably. Any appeal of the SFMTA Contract Administrator's decisions shall be in accordance with the provisions of Section 16.4 of this Agreement. As with any claim, change, extra or additional work, Contractor shall be paid in accordance with the payment provisions set out in Article 4 of this Contract when the dispute is finally resolved.

Should any questions arise as to the meaning and intent of the Contract, the matter shall be referred to the SFMTA Contract Administrator, who, in consultation with other City representatives, as applicable, and with input from the Contractor, shall decide the true meaning and intent of the Contract. The SFMTA Contract Administrator's decision in this regard shall be administratively final and conclusive.

16.2   Claims for Additional Compensation.

16.2.1 Contractor shall not be entitled to the payment of any additional compensation for any action, or failure to act, by the SFMTA, including failure or refusal to issue a Contract Modification or for the happening of any event, thing, occurrence, or other cause, unless Contractor shall have given the Project Manager due written notice of potential claim.

16.2.2 The written notice of potential claim shall set forth the reasons for which Contractor believes additional compensation will or may be due, the nature of the costs involved, and insofar as possible, the amount of the potential claim. The said notice as above required must have been given to the SFMTA Contract Administrator prior to the time that Contractor shall have performed the work giving rise to the potential claim for additional compensation, or in all other cases, within 15 Days after the happening of the event, thing, occurrence, or other cause giving rise to the potential claim.

16.2.3 It is the intention of this Section 16.2.3 that differences between the Parties arising under and by virtue of the Contract be brought to the attention of the SFMTA at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly be taken. Contractor agrees that it shall have no right to additional compensation for any claim that may be based on any such act, failure to act, event, thing, or occurrence for which no written notice of potential claim as herein required was filed.

16.3   Other Claims. For any dispute involving a question of fact that does not involve a claim for additional compensation, the aggrieved party shall furnish the other party with a notice of dispute within 15 Days of the determination of the dispute. The party receiving a notice of dispute shall submit a written reply with 15 Days of delivery of the notice. The notice and response shall contain the following: (a) a statement of the party's position and a summary of the arguments supporting that position, and (b) any evidence supporting the party's position.

16.4   Resolution of Disputes. Disputes arising in the performance of this Agreement that are not resolved by negotiation between the SFMTA Contract Administrator

and Contractor may be appealed to the SFMTA Director, who will decide the matter after affording the Contractor an opportunity to be heard and to offer evidence in support of its position. The decision of the Director shall be administratively final and conclusive.

16.5   No Cessation of Work. Pending final resolution of a dispute hereunder, the Contractor shall proceed diligently with the performance of its obligations under this Agreement in accordance with the written directions of the SFMTA Contract Administrator.

16.6   Alternative Dispute Resolution. If agreed to by both parties, disputes may be resolved by a mutually agreed to alternative dispute resolution process.

Article 17   Additional Requirements Incorporated by Reference

17.1   Laws Incorporated by Reference. The full text of the laws listed in this Article 10, including enforcement and penalty provisions, are incorporated by reference into this Agreement. The full text of the San Francisco Municipal Code provisions incorporated by reference in this Article and elsewhere in the Agreement (Mandatory City Requirements) are available at http://www.amlegal.com/codes/client/san-francisco_ca.

17.2   Conflict of Interest. By executing this Agreement, Contractor certifies that it does not know of any fact which constitutes a violation of Section 15.103 of the City's Charter; Article III, Chapter 2 of City's Campaign and Governmental Conduct Code; Title 9, Chapter 7 of the California Government Code (Section 87100 *et seq.*), or Title 1, Division 4, Chapter 1, Article 4 of the California Government Code (Section 1090 *et seq.*), and further agrees promptly to notify the City if it becomes aware of any such fact during the term of this Agreement.

17.3   Prohibition on Use of Public Funds for Political Activity. In performing the Services, Contractor shall comply with San Francisco Administrative Code Chapter 12G, which prohibits funds appropriated by the City for this Agreement from being expended to participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure. Contractor is subject to the enforcement and penalty provisions in Chapter 12G.

17.4   Non-Collusion. By submitting a proposal, the Proposer represents and warrants that such proposal is genuine and not sham or collusive or made in the interest or on behalf of any person not therein named, and that the Proposer has not, directly or indirectly, induced or solicited any other Proposer to submit a sham proposal, or any other person, firm, or corporation to refrain from proposing, and that the Proposer has not in any manner sought by collusion to secure to the Proposer an advantage over any other Proposer. If at any time it shall be found that the person, firm, or corporation to whom a contract has been awarded has, in presenting any proposal or proposals, colluded with any other party or parties, then the contract so awarded shall be null and void and the Contractor and its surety shall be liable to the City for all loss or damage

which the City may suffer thereby; and the City may advertise for a new contract for said equipment**.**

17.5   Consideration of Salary History. Contractor shall comply with San Francisco Administrative Code Chapter 12K, the Consideration of Salary History Ordinance or "Pay Parity Act." Contractor is prohibited from considering current or past salary of an applicant in determining whether to hire the applicant or what salary to offer the applicant to the extent that such applicant is applying for employment to be performed on this Agreement or in furtherance of this Agreement, and whose application, in whole or part, will be solicited, received, processed or considered, whether or not through an interview, in the City or on City property. The ordinance also prohibits employers from (a) asking such applicants about their current or past salary or (b) disclosing a current or former employee's salary history without that employee's authorization unless the salary history is publicly available. Contractor is subject to the enforcement and penalty provisions in Chapter 12K. Information about and the text of Chapter 12K is available on the web at https://sfgov.org/olse/consideration-salary-history. Contractor is required to comply with all of the applicable provisions of 12K, irrespective of the listing of obligations in this Section.

17.6   Nondiscrimination Requirements

17.6.1 Non Discrimination in Contracts. Contractor shall comply with the provisions of Chapters 12B and 12C of the San Francisco Administrative Code. Contractor shall incorporate by reference in all subcontracts the provisions of Sections 12B.2(a), 12B.2(c)-(k), and 12C.3 of the San Francisco Administrative Code and shall require all subcontractors to comply with such provisions. Contractor is subject to the enforcement and penalty provisions in Chapters 12B and 12C.

17.6.2 Nondiscrimination in the Provision of Employee Benefits. San Francisco Administrative Code 12B.2. Contractor does not as of the date of this Agreement, and will not during the term of this Agreement, in any of its operations in San Francisco, on real property owned by San Francisco, or where work is being performed for the City elsewhere in the United States, discriminate in the provision of employee benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees, subject to the conditions set forth in San Francisco Administrative Code Section 12B.2.

17.7   Minimum Compensation Ordinance. If Administrative Code Chapter 12P applies to this contract, Contractor shall pay covered employees no less than the minimum compensation required by San Francisco Administrative Code Chapter 12P, including a minimum hourly gross compensation, compensated time off, and uncompensated time off. Contractor is subject to the enforcement and penalty provisions in Chapter 12P. Information about and the text of the Chapter 12P is available on the web at http://sfgov.org/olse/mco. Contractor is required to comply with all of the applicable provisions of 12P, irrespective of the

listing of obligations in this Section. By signing and executing this Agreement, Contractor certifies that it complies with Chapter 12P.

17.8   Health Care Accountability Ordinance. If Administrative Code Chapter 12Q applies to this contract, Contractor shall comply with the requirements of Chapter 12Q. For each Covered Employee, Contractor shall provide the appropriate health benefit set forth in Section 12Q.3 of the HCAO. If Contractor chooses to offer the health plan option, such health plan shall meet the minimum standards set forth by the San Francisco Health Commission. Information about and the text of Chapter 12Q, as well as the Health Commission's minimum standards, is available on the web at http://sfgov.org/olse/hcao. Contractor is subject to the enforcement and penalty provisions in Chapter 12Q. Any Subcontract entered into by Contractor shall require any Subcontractor with 20 or more employees to comply with the requirements of the HCAO and shall contain contractual obligations substantially the same as those set forth in this Section.

17.9   First Source Hiring Program. Contractor must comply with all of the provisions of the First Source Hiring Program, Chapter 83 of the San Francisco Administrative Code, that apply to this Agreement, and Contractor is subject to the enforcement and penalty provisions in Chapter 83.

17.10   Alcohol and Drug-Free Workplace. City reserves the right to deny access to, or require Contractor to remove from, City facilities personnel of any Contractor or subcontractor who City has reasonable grounds to believe has engaged in alcohol abuse or illegal drug activity which in any way impairs City's ability to maintain safe work facilities or to protect the health and well-being of City employees and the general public. City shall have the right of final approval for the entry or re-entry of any such person previously denied access to, or removed from, City facilities. Illegal drug activity means possessing, furnishing, selling, offering, purchasing, using or being under the influence of illegal drugs or other controlled substances for which the individual lacks a valid prescription. Alcohol abuse means possessing, furnishing, selling, offering, or using alcoholic beverages, or being under the influence of alcohol.

17.11   Limitations on Contributions. By executing this Agreement, Contractor acknowledges its obligations under section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with, or is seeking a contract with, any department of the City for the rendition of personal services, for the furnishing of any material, supplies or equipment, for the sale or lease of any land or building, for a grant, loan or loan guarantee, or for a development agreement, from making any campaign contribution to (a) a City elected official if the contract must be approved by that official, a board on which that official serves, or the board of a state agency on which an appointee of that official serves, (c) a candidate for that City elective office, or (b) a committee controlled by such elected official or a candidate for that office, at any time from the submission of a proposal for the contract until the later of either the termination of negotiations for such contract or twelve months after the date the City approves the contract. The prohibition on contributions applies to each prospective party to the contract; each member of Contractor's board of directors; Contractor's chairperson, chief

executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more than 10% in Contractor; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Contractor. Contractor certifies that it has informed each such person of the limitation on contributions imposed by Section 1.126 by the time it submitted a proposal for the contract, and has provided the names of the persons required to be informed to the City department with whom it is contracting.

17.12 **Reserved. (Slavery Era Disclosure)**.

17.13 **Reserved. (Working with Minors).**

17.14 **Consideration of Criminal History in Hiring and Employment Decisions**

17.14.1 Contractor agrees to comply fully with and be bound by all of the provisions of Chapter 12T (City Contractor/Subcontractor Consideration of Criminal History in Hiring and Employment Decisions) of the San Francisco Administrative Code (Chapter 12T), including the remedies provided, and implementing regulations, as may be amended from time to time. The provisions of Chapter 12T are incorporated by reference and made a part of this Agreement as though fully set forth herein. The text of the Chapter 12T is available on the web at http://sfgov.org/olse/fco. Contractor is required to comply with all of the applicable provisions of 12T, irrespective of the listing of obligations in this Section. Capitalized terms used in this Section and not defined in this Agreement shall have the meanings assigned to such terms in Chapter 12T.

17.14.2 The requirements of Chapter 12T shall only apply to a Contractor's or Subcontractor's operations to the extent those operations are in furtherance of the performance of this Agreement, shall apply only to applicants and employees who would be or are performing work in furtherance of this Agreement, and shall apply when the physical location of the employment or prospective employment of an individual is wholly or substantially within the City of San Francisco. Chapter 12T shall not apply when the application in a particular context would conflict with federal or state law or with a requirement of a government agency implementing federal or state law.

17.15 **Reserved. (Public Access to Nonprofit Records and Meetings).**

17.16 **Food Service Waste Reduction Requirements.** Contractor shall comply with the Food Service Waste Reduction Ordinance, as set forth in San Francisco Environment Code Chapter 16, including but not limited to the remedies for noncompliance provided therein.

17.17 **Reserved. (Distribution of Beverages and Water).**

17.18 **Tropical Hardwood and Virgin Redwood Ban**. Pursuant to San Francisco Environment Code Section 804(b), the City urges Contractor not to import, purchase, obtain, or use for any purpose, any tropical hardwood, tropical hardwood wood product, virgin redwood or virgin redwood wood product.

17.19 **Reserved. (Preservative Treated Wood Products).**

Article 18   General Provisions

18.1   Notices to the Parties. Unless otherwise indicated in this Agreement, all written communications sent by the Parties may be by U.S. mail or e-mail, and shall be addressed as follows:

To City: San Francisco Municipal Transportation Agency
1 South Van Ness Avenue, 3rd Floor
San Francisco, CA 94103
Attn: Lorraine R. Fuqua, Contract Administrator
415.701.4678
lorraine.fuqua@sfmta.com

To Contractor: MacKay Meters, Inc.
1342 Abercrombie Road
New Glasgow, Nova Scotia
Canada   B2H 5C6
Attn: James MacKay, Vice President Sales
902.752.5124 X295
james.mackay@mackaymeters.com

Any notice of default must be sent by overnight delivery service or courier, with a signature obtained at delivery. Either Party may change the address to which notice is to be sent by giving written notice thereof to the other Party. If email notification is used, the sender must specify a receipt notice.

18.2   Compliance with Americans with Disabilities Act. Contractor shall provide the Services in a manner that complies with the Americans with Disabilities Act (ADA), including but not limited to Title II's program access requirements, and all other applicable federal, state and local disability rights legislation.

18.3   Incorporation of Recitals. The Recitals are incorporated into and made part of this Agreement.

18.4   Sunshine Ordinance. Contractor acknowledges that this Agreement and all records related to its formation, Contractor's performance of Services, and City's payment are subject to the California Public Records Act, (California Government Code §6250 et. seq.), and the San Francisco Sunshine Ordinance, (San Francisco Administrative Code Chapter 67). Such records are subject to public inspection and copying unless exempt from disclosure under federal, state or local law.

18.5   Modification of this Agreement. This Agreement may not be modified, nor may compliance with any of its terms be waived, except as noted in Section 18.1 (Notices to the

Parties) regarding change in personnel or place, and except by written instrument executed and approved as required under City law and under the policy of the SFMTA Board of Directors. Contractor shall cooperate with the SFMTA to submit to the CCO any amendment, modification, supplement or change order that would result in a cumulative increase of the original amount of this Agreement by more than 20% (CMD Contract Modification Form).

18.6   Agreement Made in California; Venue. The formation, interpretation and performance of this Agreement shall be governed by the laws of the State of California. Venue for all litigation relative to the formation, interpretation and performance of this Agreement shall be in San Francisco.

18.7   Construction. All paragraph captions are for reference only and shall not be considered in construing this Agreement.

18.8   Entire Agreement. This contract sets forth the entire Agreement between the parties, and supersedes all other oral or written provisions. All appendices to this Agreement are incorporated by reference as though fully set forth. This Agreement may be modified only as provided in Section 18.5 (Modification of this Agreement).

18.9   Compliance with Laws. Contractor shall keep itself fully informed of the City's Charter, codes, ordinances and duly adopted rules and regulations of the City and of all state, and federal laws in any manner affecting the performance of this Agreement, and must at all times comply with such local codes, ordinances, and regulations and all applicable laws as they may be amended from time to time.

18.10   Time. Time is of the essence in this Agreement.

18.11   Severability. Should the application of any provision of this Agreement to any particular facts or circumstances be found by a court of competent jurisdiction to be invalid or unenforceable, then (a) the validity of other provisions of this Agreement shall not be affected or impaired thereby, and (b) such provision shall be enforced to the maximum extent possible so as to effect the intent of the parties and shall be reformed without further action by the parties to the extent necessary to make such provision valid and enforceable.

18.12   Cooperative Drafting. This Agreement has been drafted through a cooperative effort of City and Contractor, and both Parties have had an opportunity to have the Agreement reviewed and revised by legal counsel. No Party shall be considered the drafter of this Agreement, and no presumption or rule that an ambiguity shall be construed against the Party drafting the clause shall apply to the interpretation or enforcement of this Agreement.

18.13   Order of Precedence. Contractor agrees to perform the services described below in accordance with the terms and conditions of this Agreement, implementing task orders, the RFP, and Contractor's proposal dated August 31, 2020. The RFP and Contractor's proposal are incorporated by reference as though fully set forth herein. Should there be a conflict of terms or conditions, this Agreement, implementing task orders shall control over the RFP, and the

Contractor's proposal. If the Appendices to this Agreement include any standard printed terms from the Contractor, Contractor agrees that in the event of discrepancy, inconsistency, gap, ambiguity, or conflicting language between the City's terms and Contractor's printed terms attached, the City's terms shall take precedence, followed by the procurement issued by the department, Contractor's proposal, and Contractor's printed terms, respectively.

Article 19   SFMTA Specific Terms

19.1   Large Vehicle Driver Safety Training Requirements.

19.1.1 Contractor agrees that before any of its employees and subcontractors drive large vehicles within the City and County of San Francisco, those employees and subcontractors shall successfully complete either (a) the SFMTA's Large Vehicle Urban Driving Safety training program or (b) a training program that meets the SFMTA's approved standards for large vehicle urban driving safety. The SFMTA's approved standards for large vehicle urban driving safety is available for download at www.SFMTA.com/largevehicletrainingstandards. This requirement does not apply to drivers providing delivery services who are not employees or subcontractors of the Contractor. For purposes of this section, "large vehicle" means any single vehicle or combination of vehicle and trailer with an unladen weight of 10,000 pounds or more, or a van designed to carry 10 or more people.

19.1.2 By entering into this Agreement, Contractor agrees that in the event the Contractor fails to comply with the Large Vehicle Driver Safety Training Requirements, the City will suffer actual damages that will be impractical or extremely difficult to determine; further, Contractor agrees that the sum of up to One Thousand Dollars ($1,000) per employee or subcontractor who is permitted to drive a large vehicle in violation of these requirements is not a penalty, but is a reasonable estimate of the loss that City will incur based on the Contractor's failure to comply with this requirement, established in light of the circumstances existing at the time this Contract was awarded. City may deduct a sum representing the liquidated damages from any money due to Contractor. Such deductions shall not be considered a penalty, but rather agreed monetary damages sustained by City because of Contractor's failure to comply.

Article 20   Data and Security

20.1   City Data

20.1.1 Ownership of City Data. The Parties agree that as between them, all rights, including all intellectual property rights, in and to the City Data, and any derivative works of the City Data, is the exclusive property of the City. The Contractor warrants that the MMS Application does not maintain, store, or export the City Data using a database structure, data model, entity relationship diagram or equivalent.

20.1.2 Use of City Data. Contractor agrees to hold City Data received from or created on behalf of the City in strictest confidence. Contractor shall not use or disclose City's Data except as permitted or required by the Agreement or as otherwise authorized in writing by the City. Access to City's Confidential Information must be strictly controlled and limited to Contractor's staff assigned to this project on a need-to-know basis only. Contractor is provided a

limited non-exclusive license to use the City Data solely for performing its obligations under the Agreement and not for Contractor's own purposes or later use. Nothing herein shall be construed to confer any license or right to the City Data, including user tracking and exception City Data within the system, by implication, estoppel or otherwise, under copyright or other intellectual property rights, to any third party. Unauthorized use of City Data by Contractor, subcontractors or other third-parties is prohibited. For purpose of this requirement, the phrase "unauthorized use" means the data mining or processing of data, stored or transmitted by the service, for unrelated commercial purposes, advertising or advertising-related purposes, or for any purpose other than security or service delivery analysis that is not explicitly authorized.

20.1.3 Access to and Extraction of City Data. City shall have access to City Data 24-hours a day, 7 days a week. The MMS Application shall be capable of creating a digital, reusable copy of the City Data, in whole and in parts, as a platform independent and machine-readable file. Such file formats include, without limitation, plain text files such as comma-delimited tables, extensible markup language, and javascript object notation. City Data that is stored in binary formats, including without limitation portable document format, JPEG, and portable network graphics files, shall instead be reproducible in the same format in which it was loaded into the MMS Application. This reusable copy must be made available in a publicly documented and non-proprietary format, with a clearly-defined data structure and a data dictionary for all terms of art contained in the data. For purposes of this section, non-proprietary formats include formats for which royalty-free codecs are available to End Users. Contractor warrants that City shall be able to extract City Data from the MMS Application on demand, but no later than 24-hours of City's request, without charge and without any conditions or contingencies whatsoever (including but not limited to the payment of any fees to Contractor).

20.1.4 Backup and Recovery of City Data. As a part of the MMS Services, Contractor is responsible for maintaining a backup of City Data and for an orderly and timely recovery of such data in the event of data corruption or interruption of the MMS Services. Unless otherwise described in Appendices A and/or B, Contractor shall maintain a contemporaneous backup of City Data that can be recovered within the requirements in this Agreement and as outlined in Appendix D and maintaining the security of City Data as further described herein. Contractor's backup of City Data shall not be considered in calculating storage used by City.

20.1.5 Data Breach; Loss of City Data. In the event of any Data Breach, act, MMS Software Error, omission, negligence, misconduct, or breach that compromises or is suspected to compromise the security, confidentiality, or integrity of City Data or the physical, technical, administrative, or organizational safeguards put in place by Contractor that relate to the protection of the security, confidentiality, or integrity of City Data, Contractor shall, as applicable:

(a)   Notify City immediately following discovery, but no later than 24 hours, of becoming aware of such occurrence or suspected occurrence. Contractor's report shall identify:

(i)   the nature of the unauthorized access, use or disclosure;

(ii)   the Confidential Information accessed, used or disclosed;

(iii)   the person(s) who accessed, used, disclosed and/or received protected information (if known);

(iv) what Contractor has done or will do to mitigate any deleterious effect of the unauthorized access, use or disclosure, and

(v) what corrective action Contractor has taken or will take to prevent future unauthorized access, use or disclosure.

(b) In the event of a suspected Breach, Contractor shall keep the City informed regularly of the progress of its investigation until the uncertainty is resolved;

(c) Contractor shall coordinate with the City in its breach response activities, including, without limitation:

(i) Immediately preserve any potential forensic evidence relating to the breach, and remedy the breach as quickly as circumstances permit;

(ii) Promptly (within two business days) designate a contact person to whom the City will direct inquiries, and who will communicate Contractor responses to City inquiries;

(iii) As rapidly as circumstances permit, apply appropriate resources to remedy the breach condition, investigate, document, restore City service(s) as directed by the City, and undertake appropriate response activities;

(iv) Provide status reports to the City on Data Breach response activities, either on a daily basis or a frequency approved by the City;

(v) Make all reasonable efforts to assist and cooperate with the City in its Breach response efforts;

(vi) Ensure that knowledgeable Contractor staff are available on short notice, if needed, to participate in City-initiated meetings and/or conference calls regarding the Breach; and

(vii) Cooperate with City in investigating the occurrence, including making available all relevant records, logs, files, data reporting, and other materials required to comply with applicable law or as otherwise required by City.

(d) In the case of personally identifiable information (PII) or protected health information (PHI), at City's sole election, (a) notify the affected individuals as soon as practicable, but no later than is required to comply with applicable law, or, in the absence of any legally required notification period, within five Days of the occurrence; or, (b) reimburse City for any costs in notifying the affected individuals;

(e) In the case of PII, provide third-party credit and identity monitoring services to each of the affected individuals who comprise the PII for the period required to comply with applicable law, or, in the absence of any legally required monitoring services, for no fewer than 24 months following the date of notification to such individuals;

(f) Perform or take any other actions required to comply with applicable law as a result of the occurrence;

(g) Recreate lost City Data in the manner and on the schedule set by City without charge to City; and

(h) Provide to City a detailed plan within 10 Days of the occurrence describing the measures Contractor will undertake to prevent a future occurrence.

(i) Notification to affected individuals, as described above, shall comply with applicable law, be written in plain language, and contain (at the City's election) information that may include: name and contact information of Contractor's (or City's) representative; a description of the nature of the loss; a list of the types of data involved; the known or approximate date of the loss; how such loss may affect the affected individual; what steps Contractor has taken to protect the affected individual; what steps the affected individual can take to protect himself or herself; contact information for major credit card reporting agencies; and, information regarding the credit and identity monitoring services to be provided by Contractor.

(j) Contractor shall retain and preserve City Data in accordance with the City's instruction and requests, including, without limitation, any retention schedules and/or litigation hold orders provided by the City to Contractor, independent of where the City Data is stored.

(k) City shall conduct all media communications related to such Data Breach, unless in its sole discretion, City directs Contractor to do so.

20.2 Proprietary or Confidential Information

20.2.1 Proprietary or Confidential Information of City. Contractor understands and agrees that, in the performance of the work or services under this Agreement may involve access to City Data that is Confidential Information. Contractor and any subcontractors or agents shall use Confidential Information only in accordance with all applicable local, state and federal laws restricting the access, use and disclosure of Confidential Information, and only as necessary in the performance of this Agreement. Contractor's failure to comply with any requirements of local, state or federal laws restricting access, use and disclosure of Confidential Information shall be deemed a material breach of this Agreement, for which City may terminate the Agreement. In addition to termination or any other remedies set forth in this Agreement or available in equity or law, the City may bring a false claim action against the Contractor pursuant to Chapters 6 or 21 of the Administrative Code, or debar the Contractor. Contractor agrees to include all of the terms and conditions regarding Confidential Information contained in this Agreement in all subcontractor or agency contracts providing services under this Agreement.

20.2.2 Obligation of Confidentiality. Subject to San Francisco Administrative Code Section 67.24(e), any state open records or freedom of information statutes, and any other applicable laws, the Contractor agrees to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third-parties other than its employees, agents, or authorized subcontractors who have a need to know in connection with this Agreement, or to use such Confidential Information for any purposes whatsoever other than the performance of this Agreement. Contractor agrees to advise and require its respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential.

20.2.3 Nondisclosure. Contractor agrees and acknowledges that it shall have no proprietary interest in any proprietary or Confidential Information and will not disclose, communicate or publish the nature or content of such information to any person or entity, nor use,

except in connection with the performance of its obligations under this Agreement or as otherwise authorized in writing by the City, any of the Confidential Information it produces, receives, acquires or obtains from the disclosing Party. Contractor shall take all necessary steps to ensure that the Confidential Information is securely maintained. Contractor's obligations set forth herein shall survive the termination or expiration of this Agreement. In the event Contractor becomes legally compelled to disclose any of the Confidential Information, it shall provide the City with prompt notice thereof and shall not divulge any information until the City has had the opportunity to seek a protective order or other appropriate remedy to curtail such disclosure. If such actions by the disclosing Party are unsuccessful, or the disclosing Party otherwise waives its right to seek such remedies, the receiving Party shall disclose only that portion of the Confidential Information that it is legally required to disclose.

20.2.4 Litigation Holds. Contractor shall retain and preserve City Data in accordance with the City's instruction and requests, including, without limitation, any retention schedules and/or litigation hold orders provided by the City to Contractor, independent of where the City Data is stored.

20.2.5 Notification of Legal Requests. Contractor shall immediately notify City upon receipt of any subpoenas, service of process, litigation holds, discovery, requests, and other legal requests (Legal Requests)related to City's Data under this Agreement, or which in any way might reasonably require access to City's Data, and in no event later than 24 hours after it receives the request. Contractor shall not respond to Legal Requests related to City without first notifying City other than to notify the requestor that the information sought is potentially covered under a non-disclosure agreement. Contractor shall retain and preserve City Data in accordance with the City's instruction and requests, including, without limitation, any retention schedules and/or litigation hold orders provided by the City to Contractor, independent of where the City Data is stored.

20.2.6 Cooperation to Prevent Disclosure of Confidential Information. Contractor shall use its best efforts to assist the City in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, Contractor shall advise the City immediately in the event Contractor learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Agreement and Contractor will cooperate with the City in seeking injunctive or other equitable relief against any such person.

20.2.7 Remedies for Breach of Obligation of Confidentiality. Contractor acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the City, which damage may be inadequately compensable in the form of monetary damages. Accordingly, City may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies that may be available, to include, at the sole election of City, the immediate termination of this Agreement, without liability to City.

20.2.8 Surrender of Confidential Information upon Termination. Upon termination of this Agreement, including but not limited to expiration of the term, early termination or termination for convenience, Contractor shall, within five Days from the date of termination, return to City any and all Confidential Information received from the City, or created or received by Contractor on behalf of the City, which are in Contractor's possession, custody, or

control. The return of Confidential Information to City shall follow the timeframe and procedure described further in this Agreement (Article 15).

      20.2.9 Data Security. To prevent unauthorized access or "hacking" of City Data, Contractor shall at all times during the Term provide and maintain up-to-date security with respect to (a) the Services, (b) the MMS Website, (c) Contractor's physical facilities, and (d) Contractor's networks. Contractor shall provide security for its networks and all Internet connections consistent with best practices observed by well-managed MMS working in the financial services industry, and shall promptly install all patches, fixes, upgrades, updates and new versions of any security software it employs. Contractor will maintain appropriate safeguards to restrict access to City's Data to those employees, agents or service providers of Contractor who need the information to carry out the purposes for which it was disclosed to Contractor. For information disclosed in electronic form, Contractor agrees that appropriate safeguards include electronic barriers (e.g., most current industry standard encryption for transport and storage, such as the National Institute of Standards and Technology's Internal Report 7977 or Federal Information Processing Standards [FIPS] 140-2 [Security Requirements for Cryptographic Modules] or FIPS-197 or successors, intrusion prevention/detection or similar barriers) and secure authentication (e.g., password protected) access to the City's Confidential Information and hosted City Data. For information disclosed in written form, Contractor agrees that appropriate safeguards include secured storage of City Data. City Data classified as Confidential Information shall be encrypted at rest and in transit with controlled access. Contractor shall also establish and maintain any additional physical, electronic, administrative, technical and procedural controls and safeguards to protect City Data that are no less rigorous than accepted industry practices (including, as periodically amended or updated, the International Organization for Standardization's standards: ISO/IEC 27001:2005 – Information Security Management Systems – Requirements and ISO-IEC 27002:2005 – Code of Practice for International Security Management, NIST Special Publication 800-53 Revision 4 or its successor, NIST Special Publication 800-18 or its successor, the Information Technology Library (ITIL) standards, the Control Objectives for Information and related Technology (COBIT) standards, or other applicable industry standards for information security), and shall ensure that all such controls and safeguards, including the manner in which Confidential Information is collected, accessed, used, stored, processed, disposed of and disclosed, comply with applicable data protection and privacy laws, as well as the terms and conditions of this Agreement. Contractor warrants to the City compliance with the following (as periodically amended or updated) as applicable:

      (a)   The California Information Practices Act/California Consumer Privacy Act (Civil Code §§ 1798, et seq):

      (b)   The European General Data Protection Regulation (GDPR)

      (c)   Compliance with the following, as applicable:

      (i)   Federal Risk and Authorization Management Program (FedRAMP) certification, where federal funding is involved, and show evidence of having an active compliance program;

      (ii)   Based upon the City's classification of Data: Relevant security provisions of the Payment Card Industry (PCI) Data Security Standard (PCI DSS) including the PCI DSS Cloud Computing Guidelines.

20.2.10 Data Privacy and Information Security Program. Without limiting Contractor's obligation of confidentiality as further described herein, Contractor shall establish and maintain a data privacy and information security program, including physical, technical, administrative, and organizational safeguards, that is designed to: (i) ensure the security and confidentiality of the City Data; (ii) protect against any anticipated threats or hazards to the security or integrity of the City Data; (iii) protect against unauthorized disclosure, access to, or use of the City Data; (iv) ensure the proper disposal of City Data; and, (v) ensure that all of Contractor's employees, agents, and subcontractors, if any, comply with all of the foregoing.

20.2.11 City's Right to Termination for Deficiencies. City reserves the right, at its sole election, to immediately terminate this Agreement, without limitation and without liability, if City reasonably determines that Contractor fails or has failed to meet its obligations under this Article 20.

20.2.12 Data Transmission. The Contractor shall ensure that all electronic transmission or exchange of system and application data with City and/or any other parties expressly designated by City shall take place via encrypted secure means (e.g., HTTPS or SFTP or most current industry standard established by NIST). The Contractor shall also ensure that all data exchanged shall be used expressly and solely for the purposes enumerated in the Agreement. Data shall not be distributed, repurposed or shared across other applications, environments, or business units of the Contractor. The Contractor shall ensure that no City Data of any kind shall be copied, modified, destroyed, deleted, transmitted, exchanged or otherwise passed to other vendors or interested parties except on a case-by-case basis as specifically agreed to in writing by City. Contractor is prohibited from accessing City Data from outside the continental United States.

20.3 SSAE 18, SOC 2, Type II Report, and/or SOC 1 Audit Report.

20.3.1 Contractor shall provide to City, on an annual basis, an SSAE 18, SOC 2, Type II Report, and an SSAE SOC 1 audit report to be conducted by an independent third party ("Audit Reports") (if Contractor is using a hosting service provider, Contractor shall provide such Audit Reports it receives from its service provider or providers) as follows: (a) the Audit Reports shall include a 365 day (12-month) testing period; and (b) the Audit Reports shall be available to City no later than thirty (30) days after they are received by Contractor. Upon City's written request, Contractor shall provide a so-called "negative assurance opinion" to City as soon as said opinion is received by Contractor. Contractor shall implement reasonably required safeguards as identified by any audit of Contractor's data privacy and information security program. In the event that an annual Audit Report that finds a material data privacy or information security issue, Contractor shall, upon written request by City, provide to City any additional Audit Reports and "negative assurance opinions" as City may reasonably request in order to help enable City to see if Contractor's mitigation measures have been effective in addressing such issue(s).

20.3.2 Audit of Contractor's Policies. Contractor agrees to make its policies, procedures and practices regarding Data Security available to City, if needed, and agrees that City reserves the rights, including, but not limited to, making a site visit, scanning for malicious codes, and hiring a third-party to perform a security audit if City determines that the Audit Report is unsatisfactory.

20.3.3 Information Security Audits. Contractor must contract with an independent third-party to perform yearly information security audits of their primary and backup

Data Centers. The annual audits must include an outside penetration/vulnerability test, and internal penetration and vulnerability tests with the third-party directly on the internal network. The summary results of the audits must be shared with the City. All audit findings must be remedied.

       20.3.4 Audit Findings. Contractor shall implement reasonably required safeguards as identified by City or by any audit of Contractor's data privacy and information security program.

     20.4   **Payment Card Industry (PCI) Requirements.** Contractors providing services and products that handle, transmit or store cardholder data, are subject to the following requirements:

       20.4.1 Applications shall be compliant with the Payment Application Data Security Standard (PA-DSS) and validated by a Payment Application Qualified Security Assessor (PA-QSA). A Contractor whose application has achieved PA-DSS certification must then be listed on the PCI Councils list of PA-DSS approved and validated payment applications.

       20.4.2 Gateway providers shall have appropriate Payment Card Industry Data Security Standards (PCI DSS) certification as service providers (https://www.pcisecuritystandards.org/index.shtml). Compliance with the PCI DSS shall be achieved through a third party audit process. The Contractor shall comply with Visa Cardholder Information Security Program (CISP) and MasterCard Site Data Protection (SDP) programs.

       20.4.3 For any Contractor that processes PIN Debit Cards, payment card devices supplied by Contractor shall be validated against the PCI Council PIN Transaction Security (PTS) program.

       20.4.4 For items 20.4.1 to 20.4.3 above, Contractor shall provide a letter from their qualified security assessor (QSA) affirming their compliance and current PCI or PTS compliance certificate.

       20.4.5 Contractor shall be responsible for furnishing City with an updated PCI compliance certificate 30 Days prior to its expiration.

       20.4.6 Bank Accounts. Collections that represent funds belonging to the City and County of San Francisco shall be deposited, without detour to a third party's bank account, into a City and County of San Francisco bank account designated by the Office of the Treasurer and Tax Collector.

     20.5   **Reserved. (Business Associate Agreement)**.

     20.6   **Disaster Recovery.** In the event of a disaster, as defined below, Contractor shall provide disaster recovery services in accordance with the provisions of the disaster recovery plan attached as Appendix E hereto, or as otherwise set forth in this Agreement or any Statement of Work. Notwithstanding Section 8.3, an Unavoidable Delay shall not excuse Contractor of its obligations for performing disaster recovery services as provided in this Section. In the event that a disaster occurs and Contractor fails to restore the hosting services

within 24 hours of the initial disruption to Services, City may, in its discretion, deem such actions to be a material default by Contractor incapable of cure, and City may immediately terminate this Agreement. For purposes of this Agreement, a "disaster" shall mean an interruption in the hosting services or the inability of Contractor to provide City with the MMS Application and hosting services for any reason that could not be remedied by relocating the MMS Application and hosting services to a different physical location outside the proximity of its primary Data Center.

Article 21   Appendices

The following appendices are attached and incorporated into this Agreement as though fully set forth herein and together form the complete Agreement between the Parties:

    A. Statement of Work

        a. Attachment 01 – Parking Meter API (Policy and Inventory)

        b. Attachment 02 – Parking Meter SE API (Special Event Policies)

        c. Attachment 03 – Real Time Meter Payment Webservice

        d. Attachment 04 – Weekly Revenue Reconciliation

        e. Attachment 05 – Real Time Maintenance Events

        f. Attachment 06 – Acceptance Checklist

    B. MMS Application & Hosting Services

    C. Cost Schedule

    D.   Liquidated Damages and Credit Assessments

    E. Disaster Recovery Plan

Article 22   MacBride Principles And Signature

22.1   MacBride Principles -Northern Ireland. The provisions of San Francisco Administrative Code §12F are incorporated herein by this reference and made part of this Agreement. By signing this Agreement, Contractor confirms that Contractor has read and understood that the City urges companies doing business in Northern Ireland to resolve employment inequities and to abide by the MacBride Principles, and urges San Francisco companies to do business with corporations that abide by the MacBride Principles.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day first mentioned above.

CITY	CONTRACTOR
San Francisco **Municipal Transportation Agency**	**MacKay Meters, Inc.** *James MacKay* ——————————————— James MacKay Vice President Sales 1342 Abercrombie Road New Glasgow, Nova Scotia Canada B2H 5C6
——————————————— Jeffrey P. Tumlin Director of Transportation Authorized By: Municipal Transportation Agency Board of Directors	
Resolution No: ————————————	Acknowledgement of Large Vehicle Driver Safety Training Requirements:
Adopted: ———————————— Attest: ———————————————— 　　　Secretary, SFMTA Board of Directors	By signing this Agreement, Contractor acknowledges that it has read and understands Section 19.1: Large Vehicle Driver Safety Training Requirements.
Board of Supervisors Resolution No: ————————————	
Adopted: —————————————	City Supplier Number: 0000015942
Attest: ———————————————— 　　　Clerk of the Board	
Approved as to Form: Dennis J. Herrera City Attorney By: ——————————————— 　　Julie Veit 　　Deputy City Attorney	

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Appendix A

Statement of Work

Single and Multi-Space Parking Meter Hardware and Associated Management System

1. Table of Contents

1. TERMS AND ABBREVIATIONS

   The following definitions apply to the Statement of Work. Where a word or phrase is capitalized but not defined below, it shall have the meaning set forth in the main Agreement or in Attachments to this SOW.

Term or Acronym	Definition
Acceptance or Accepted	The formal written acceptance by the City that all work, or a specific portion thereof, under the Contract has been satisfactorily completed, in accordance with the Acceptance criteria set out in Attachment 06. Accepted refers to work after Acceptance.
Agreement or Contract	Means the written document executed by the City and Contractor, covering the performance of the Work and furnishing of labor, materials, equipment, tools, and services, including Work incidental to the procurement, to include all Conformed Contract Documents, Contractor's proposal submissions, the Contract bonds or other security, all Contract Modifications, and all applicable City Ordinances and Mandatory City Requirements specifically incorporated into this Agreement by reference as provided herein.
Application Programming Interface or API	A set of subroutine definitions, communication protocols, and tools for programming software and firmware to operate Parking Meter software. In general terms, it is a set of clearly defined methods of communication among various Parking Meter system components (e.g. SFMTA data warehouse, MMS, enforcement handheld, PBP application, VMS).
Backend Settings	Set of variables that affect Meter hardware behavior, such as minimum credit card charge, grace period, backlight, payment increments and LED settings.
Behavior	Meter hardware policies as perceived by the end user (e.g., start/end times, Time Limits, rates, pre-pay, cap color).

Term or Acronym	Definition
Cap Color/Space Type	A color designation of the Meter hardware housing that signifies Meter Behavior. Cap Color may be physical (e.g. Meter housing is painted Yellow or Red) or virtual (e.g. Alternative Grey, which means Yellow Cap or Red Cap commercial Meter assumes characteristics of Grey Cap or general Metered parking). Detailed descriptions of the Cap Colors are listed below: Black – Motorcycle parking, Blue – Disabled person parking (currently unmetered), Brown – Tour bus loading zone (Metered), Green – Short term general Metered parking, Grey – General Metered parking, Orange – Shuttle bus stop, Purple – Boat trailer parking (Metered), Red – Six wheeled truck loading zone, White – Passenger loading zone, Yellow – Commercial loading zone.
City	"City" or "the City" means the City and County of San Francisco, a municipal corporation, acting by and through its Municipal Transportation Agency.
Configuration	Set of Behaviors that make up the Meter Behavior for a standard week period.
Contactless	Describes type of payment made by a Customer with a smart card that uses radio signals to provide a wireless connection to a card reader, so that no physical contact is necessary.
Contractor	The firm awarded the Agreement.
Customer	Person who uses a Meter on the street for the purpose of paying for parking.
Data Warehouse	One of two database and reporting systems hosted and managed by SFMTA.
Day	One calendar day.
Descriptive Variables	Variables that describe attributes of Metered spaces but do not affect Meter Behavior (e.g., area, street, latitude, longitude).
Effective Date	The date of certification of the contract, as evidenced by a Notice To Proceed issued from the SFMTA to the Contractor.
Europay, Mastercard, and Visa (EMV)	A standard developed and managed by American Express, Discover, JCB, Mastercard, UnionPay, and Visa — is a global standard for credit cards that uses

Term or Acronym	Definition
	computer chips to authenticate (and secure) chip-card transactions.
General Metered Parking (GMP)	Refers to locations where Parking Meter hardware are in effect for parking for all types of vehicles.
Hold and Send	Credit Card protocol where transactions are stored in Meter hardware's memory instead of submitted in real-time
Hotlist	A listing of credit card and/or smart card numbers that are not valid forms of payment as a result of fraud, theft or other misuse.
Idle	Refers to the status of the Meter when no payment is in progress. Screen displays static information messages until a payment is started, at which time the Meter switches to active.
Industry Standards	An established norm or requirement regarding the technical systems aspects of Parking Meter hardware or software.
Level I Support	First level of IT support - Contractor receives a Customer call and attempts to resolve the issue reported through immediately available options; usually involves direct interaction with the Customer.
Level II Support	Mid-level IT support - Contractor attempts to recreate the issue in a separate environment to determine how to resolve it. Examples of common fixes done by second level support are configuration changes, data backload, data correction, application restart.
Level III Support	High-level IT support - Contractor applies software code changes and participates in actual software code deployment in order to resolve an issue not resolved in earlier levels of support.
Merchant of Record (MOR)	The Merchant of Record is an entity that is authorized and held liable by the financial institution to process the end consumer's credit and debit card transactions.
Meter or Parking Meter	Single or multi-space device used to manage on-street parking space and allow Customers to pay for parking space usage.

Term or Acronym	Definition
Meter Mechanism	Single-space Meter device consisting primarily of: Motherboard/ CPU, display, modem, coin chute, card reader, solar panel, power unit, NFC reader and keypad.
Meter Operation, Operating Hours, Enforcement Hours	Days and times when payment is required for use of parking spaces.
Meter Shop	SFMTA's Parking Meter maintenance and administration facility located in San Francisco.
Meter Management System (MMS)	A package of software applications consisting of a relational database, user interface, reporting applications, Meter hardware backend settings, display and Behavior programming modules.
Metered Space	A parking space managed by single or multi-space Meter hardware.
Mixed Payment Transaction	A transaction where a Customer uses more than one payment type (e.g., coin and credit card) to pay for a single parking session.
Motherboard, CPU or Board	A printed circuit board containing the principal components of a computer or other device, with connectors into which other circuit boards can be slotted.
MS ID	Multi-space Meter hardware identification number.
Near Field Communication (NFC)	The ability to pay for use of the Parking Meter with a smartphone or certain smart cards by bringing them into proximity with the Meter.
Notice to Proceed (NTP)	Written notification provided by the SFMTA to the Contractor after contract approval and availability of funding that indicates when services under the Agreement shall begin.
Operating Schedule/Hours	Set of rules that govern the overall hours that the Meter is in effect and may include TOW, prepayment settings, and Time Limits.
Parking Space ID	Unique permanent identifier assigned to a Metered space when it is added to the Parking Space Inventory.
Part 1 (Meter Hardware Deployment)	First part of City-wide Meter replacement efforts to replace 3G areas. Will consist of PMR Routes: M, N, P, J-4, J-5, F-1, F-2, G, I, R, and S. Approximately 1,250 multi-space and 4,000 single-space Meter hardware.

Term or Acronym	Definition
Part 2 (Meter Hardware Deployment)	Second part of City-wide Meter replacement efforts to replace remaining areas of the City metered by legacy single-space and multi-space technology. Approximately 14,000 spaces.
Pay by License Plate (PbLP)	Meter hardware that is set to work in "pay by license plate" mode.
Pay-by-Phone (PBP)	Mobile application software that allows a Customer to make a Parking Meter payment through their smartphone.
Payment Window	Time period that begins when the Customer initiates a payment at the Meter and ends when the Meter registers the payment as completed and transmits the transaction to the MMS.
Parking Control Officer (PCO)	Employee of the City and County of San Francisco to enforce parking regulations.
PMD	Geographic areas designated for Metered parking as defined by SFMTA.
Parking Meter Repairer (PMR)	Employee of the City and County of San Francisco to provide Meter maintenance.
Plug and Play (PnP) Device	A device with a specification that facilitates the discovery of a hardware component in a system without the need for physical device configuration or User intervention to resolve resource conflicts.
Port	Port of San Francisco
Post ID	Unique number that identifies the location of a Metered space by street, block number and side of the street.
Prepay Time; Prepayment Time	Time of day before the beginning of Operating Hours when Customer can pay for time that commences at the beginning of Operating Hours.
Price Schedule	Set of rules that govern Meter rates.
Proposer	Firm submitting a proposal in response to RFP.
Parking Space Inventory (PSI)	The complete listing of parking spaces that are or have been Metered spaces in SFMTA's Data Warehouse, including all attributes of the Metered spaces except for variables that govern Meter Behavior
Rate Bucket	Specific hourly rate shown in dollars/hour for specified hours of the day.
Rec and Park	San Francisco Recreation and Parks Department

Term or Acronym	Definition
Regulatory Requirements	Federal, state or local rules and regulations governing design and operation of the Meter hardware.
Return Merchandise Authorization (RMA)	The process by which defective parts are returned and replaced.
Screen	Display on the Meter that shows dynamic messages programmed remotely.
Secure File Transfer Protocol (SFTP) Site	Site that facilitates data access and data transfer over a secure data stream.
Service Level Agreement (SLA)	Requirements for Meter functionality and Contractor support.
SFMTA or Agency	The agency of City with jurisdiction over surface transportation in San Francisco, as provided under Article VIIIA of the City's Charter
SFMTA Parking Card	Prepaid cards sold by SFMTA that can be used with Parking Meter hardware only.
Special Event (SE) Rates	Rates charged by the SFMTA during certain specified times to correspond with expected high parking demand.
Standard Variables	Meter programming and reporting variables typically included in the MMS, such as physical locators: area, street, latitude, longitude and Behavior.
Terminal	Meter hardware Serial Number (represented by Meter CPU S/N).
Time Limit, Max Time	Maximum amount of time allowed to park during Operating Hours.
Time Slot	A period within a day (12 AM to 11:59:59 PM) defined by a START time and an END time and assigned a set of rules that govern the Meter Behavior within those hours.
TOW	Refers to a time slot that a vehicle may be towed for violation of parking regulations.
Vandalism	Shall mean any willful damage caused to the Meter, which affects the appearance and/or operation of the Meter or interferes with the normal use of the Meter.
Variable Message Signage (VMS)	Electronic billboards that provide the public with information related to parking and other traffic-related events (e.g. number of available parking spaces in off street garage).

Term or Acronym	Definition
User	Means a person authorized by City to access the City's Portal and use the MMS Application, including any City employee, contractor, or agent, or any other individual or entity authorized by City.
User-Defined Variables	Variables defined and supplied by SFMTA that are not typically included in the MMS; primarily used to filter and sort Metered spaces in ways that are useful to SFMTA only and do not affect Meter Behavior.
W3-C Browser	Internet browser developed in compliance with World Wide Web Consortium standards.

2. SECTION I: ADMINISTRATIVE

The Contractor shall provide the following with regard to administrative services. This section contains requirements for both single and multi-space Meter hardware.

1. Training

The Contractor shall:

a. Provide all training in San Francisco, California at a location to be determined by the SFMTA. The training shall be provided at no cost to SFMTA.

b. Prior to Meter deployment, provide training for all areas necessary to deploy, maintain, operate, and enforce Parking Meter hardware to be supplied under the Agreement.

c. Prior to Meter deployment, provide up to 120 hours of training covering maintenance, finance, accounting, audit, enforcement, and MMS usage, as scheduled by SFMTA. In addition, at SFMTA's sole discretion, the Contractor shall provide one additional week (40 hours) of training, as scheduled by SFMTA at the later time.

d. Provide follow-up training throughout the period of installation.

e. Train and certify SFMTA and its designee as Level II Support Technician to support the Meter warranty (a minimum of five persons shall be certified).

f. Provide ongoing training classes for SFMTA staff on an annual basis for the duration of the Agreement. The training duration of each class shall be no less than 32 hours. Training topics shall be discussed and agreed to by the SFMTA at least two weeks prior to every class. In the event when a specialized training session is requested and expertise is not available in Contractor's Bay Area office, Contractor and SFMTA will discuss and agree on any associated costs.

g. Supply one hard copy to SFMTA and keep digital copies of all operating, training and repair manuals. Such manuals shall be made a part of the Contractor's on-line management system.

h. Provide online help tools, such as access to all product manuals, technical bulletins, frequently asked questions, as well as the ability to submit help tickets, and track the status of such tickets.

i. Grant to the SFMTA rights to reproduce all training and operation manuals needed for its staff and subcontractors.

2. Customer Support

The Contractor shall provide:

a. One Project Manager and one Field Technician (Level III Support certified) that are 100% allocated to SFMTA during the installation and commissioning phase (i.e. physically located at Contractor's site in Bay Area) during Part 1 and 2 of the Meter hardware deployments, 60% for six months following a hardware Batch Acceptance and 40% for the remainder of the Agreement (including any extension periods).

b. Contractor will be utilizing a warehouse/office facility at 2200 Jerrold Ave, Unit M, San Francisco, CA 94124, or a mutually agreeable alternative as their Bay Area office, for the duration of this Agreement. This warehouse/office location will be used for installation, warranty repairs and general support of Meter hardware and software.

c. Contractor's local warehouse office hours will be 7am – 5pm PST.

d. Level I telephone and web-based help desk from 7am – 5pm PST.

e. Level II and III support during Meter Operation Hours. Such requests shall be returned within 15 minutes.

f. Senior technical contact (i.e. Director of Engineering and CTO) information if an emergency arises (e.g. Meters display "Free Parking" on regular working day). This service apply during Meter Operation Hours. Such calls shall be returned within 15 minutes.

g. Video-based training and a help video library that can be accessed at any time through the MMS and vendors' website.

h. Technical support staff shall return a call from the SFMTA within 15 minutes during Meter Operating Hours. Calls requiring a response from a senior member of the Contractor's staff shall be returned within 30 minutes during the Meter Operating Hours.

i. The City reserves the right to change the Meter Operation Hours.

3. Warranty Hardware Repair Services

a. The Contractor shall provide a Meter hardware warranty for a period of five years from the date of Acceptance of a Meter hardware Batch. The warranty coverage will include repair and/or replacement of any part or modular component determined to be defective in material or workmanship under normal use and service, at no additional cost to the City.

b. The Contractor shall guarantee that all components of the Meter hardware shall work without defects, notwithstanding Vandalism, acts of terrorism, natural disaster, or unauthorized modification on the part of SFMTA , during the five-year warranty period excluding batteries (three years) and Medeco Nexgen locks (two years).

c. SFMTA will consider failures and malfunctions qualified under warranty to be excessive in case where any one component's rate of failure exceeds 10% of the Accepted inventory, or two or more components combined rate of failure exceeds 15% of the Accepted inventory. Performance would be measured for any consecutive 180-Day period.

d. Should the rate of the failures and malfunctions qualified under warranty coverage exceed the thresholds above, the Agency may elect to recover its labor and material costs to replace failing or malfunctioning components through credit assessments described in Appendix D.

e. The warranty period for each Batch of Meter hardware shall commence when the entire Batch is Accepted by SFMTA.

f. The Contractor shall provide a warranty that it conveys good title to the Meter hardware purchased by the City and that at the time of any such sale, the hardware shall be free and clear from all liens and encumbrances.

g. The Contractor shall pay for warranty shipments from the Meter Shop to the Contractor's warranty handling facility and back to the Meter Shop.

h. The Contractor shall supply and maintain an adequate inventory of replacement components (e.g., card readers, coin validators, CPU boards, batteries, keypads) to support San Francisco's RMA process during the entire term of the Agreement.

i. The Contract shall guarantee that Meter hardware can operate within a temperature range of 0 to 140 degrees Fahrenheit and under environmental conditions found in San Francisco, including but not limited to wind-blown grime, rain, fog, salt air, sun (including direct sunlight), and vibrations.

j. The Contractor shall notify the Meter Shop of substitution of parts during warranty repairs. The substitution of parts means a sub-assembly (i.e. change in

vendor, model or part number of a sub-assembly).

k. The Contractor shall return warranty repair and/or replacement to the Meter Shop no later than 45 Days from receipt by The Contractor's warehouse/repair facility.

l. The Contractor shall guarantee that within the term of the Agreement, when more than one warranty is applicable for a replacement part, the later warranty expiration date shall apply. For example: if a CPU is replaced under warranty six months before the end of the general warranty's five-year term, but the CPU warranty is 12 months, then the warranty period for that replacement CPU shall be 12 months.

m. The Contractor shall guarantee that all replacement parts shall meet or exceed the quality of the original parts. All replacements parts shall be approved by SFMTA only when multiple alternative replacement parts are available meeting the specification of the original part.

n. The general five-year warranty shall not apply to background printing, graphics or paint on any Meter hardware, which has been subjected to:
    i. vandalism involving graffiti, sprays, paints, adhesives, unknown chemicals of any kind, excessive heat or flames
    ii. any physical damage that cuts, scratches, or breaks or compromises the paint coat,
    iii. required SFMTA Meter shop cleaning and/removal of graffiti, sprays, paints, adhesives or unknown chemicals that may involve the use of any abrasive scrubbing pads, or tools, which may or may not be combined with any solvents or anti-graffiti cleaning solutions other than non-caustic detergent soaps and water.

o. The general five-year warranty shall not apply where modifications or repairs of any kind to the Meter hardware, housing, the paint coat, the background printing or the graphics which may involve sandblasting and/or repaint processes which in turn may cause housing warping, and/or Meter component fit issues.

p. The general five-year warranty shall not apply to any keypad/input mechanism, which has been subjected to:

    i. vandalism involving graffiti, sprays, paints, adhesives unknown chemicals of any kind, excessive heat or flames.
    ii. any physical damage that cuts, scratches, or breaks or compromised the symbols/markings in any way and/or has been subjected to required SFMTA Meter shop cleaning and removal of

same graffiti, sprays, paints, adhesives or unknown chemicals that may involves the use of any abrasive scrubbing pads, or tools, which may or may not be combined with any solvents or anti-graffiti cleaning solutions other than non-caustic detergent soaps and water.

q. The SFMTA, at its sole discretion, may exercise the option to purchase extended warranty coverage. The SFMTA will notify the Contractor in writing of its intention to purchase up to five additional years of extended warranty coverage no later than *60 Days prior* to the initial warranty expiration. Warranty coverage shall include repair and/or replacement of any part or modular component determined to be defective in material or workmanship under normal use and service in a timely manner and at no additional cost. Costs for the extended warranties are listed in Appendix C: Cost Schedule.

4. Non-Warranty Hardware Repair Services

a. The Contractor shall provide a set fee for non-warranty repairs. This includes parts, labor and shipping but does not include taxes or batteries. Contractor reserves the right to adjust this flat fee once at the beginning of each calendar year based on materials and labor costs from a previous year. Non-warranty repairs costs are listed in Appendix C, Cost Schedule. An item that cannot be repaired is not eligible for a set fee for non-warranty repair. SFMTA reserves the right to inspect all the parts deemed "not repairable" by the Contractor.

b. The Contractor shall return all non-warranty repairs to San Francisco Meter Shop no later than 45 Days excluding time spent determining if the damaged part will be repaired or discarded and replaced, subject to agreement between the SFMTA and the Contractor.

5. MMS Support and Licensing

The Contractor shall:

a. Provide a hosted MMS, and maintain all required licensing for the MMS, for as long as the Meter hardware is in use by the City. Meter Management System Fees for the MMS shall be included in the MMS fee in "Appendix C Cost Schedule".

b. Agree to negotiate in good faith an extension of MMS licensing, communication and other Meter hardware related services to the City beyond terms in the Agreement for as long as Meter hardware is in use by the City as the Meter hardware life span may exceed the term of the Agreement. If the SFMTA seeks such extension of terms, Contractor shall negotiate in good faith at the end of the contract term.

c. Provide MMS service uptime level guarantee of no less than 99.982%.

d. Host its MMS at a secure Tier III facility with a guaranteed uptime consistent with a Tier III facility.

e. Provide an MMS that only requires an internet W3-C Browser to access the system.

f. Be responsible to upgrade or otherwise modify the MMS to accommodate future W3-C Browser upgrades at no cost to the City.

g. Provide an MMS with both desktop and mobile versions accessible via any W3-C Browser. Both versions shall have the same performance parameters and behave identically.

h. Provide separate MMS accounts for three current City departments: SFMTA, Port and Rec & Park.

The SFMTA reserves the right to request that additional City departments be added to the MMS at no additional cost to the City.

6. Installation

The Contractor shall:

a. Deliver single-space Meter hardware to the SFMTA's Meter Shop or its designee as a complete assembly, including all parts and materials needed for immediate deployment. Meter hardware shall include all applicable default decals, such as credit cards, NFC and coins. Post ID and Pay-by-Phone decals will be applied separately by the SFMTA. SFMTA and Contractor must agree to any adjustments to the decal application plans.

b. Make multi-space Meter hardware, including all parts and materials needed for immediate deployment, available for pickup at Contractor's Bay Area staging warehouse. The Contractor shall allow SFMTA or its designee to make daily pickups of the Meter hardware required for a given day's installation schedule. Meter hardware shall include all applicable default decals, such as credit cards, NFC and coins. MS ID and Pay-by-Phone decals will be applied separately by SFMTA staff. SFMTA and Contractor must agree to any adjustments to the decal application plans.

c. Utilize a warehouse/office facility at 2200 Jerrold Ave, Unit M, San Francisco, CA 94124, or a mutually agreeable alternative, for the duration of this Agreement. This warehouse/office location will be used for installation, warranty repairs and general support of Meter hardware and software. Contractor's warehouse support team will include up to five sub-contract employees dedicated for staging, installation, warranty repairs and general support of Meter hardware.

d. Support all aspects of the installation process, including, but not limited to, challenges with high security maintenance and coin vault locks.

e. Configure Meter hardware to connect to the network and be fully operational but powered off at the time the SFMTA takes possession of the hardware.

f. Create electronic inventory records for installed Meters, including but not limited to delivery dates, install dates, warranty commencement and expiration, and post installation location codes and coordinates (Latitude/Longitude).

g. Provide and apply all default Meter hardware decals (credit card label, NFC and coins) at no cost to the City. Decal placement, measurements and color scheme will be included in Exhibit 01 to this SOW.

h. Provide required installation materials for all Meter hardware.
   i. Single-space Meter hardware installation kit will include saddle and four mounting bolts.

ii. Multi-space Meter hardware installation kit will include leveling, mounting plate and four anchor bolts and base skirt.

7. Certification and Compliance

The Contractor shall:

a. Obtain prior to award of the Contract, renew as appropriate, and maintain throughout the Contract term, the certifications listed below with respect to the Meter hardware and related applications and functionality provided under this Agreement.

b. Provide a copy of all renewed compliance certificates or other documentation of the renewals no later than 30 Days past the expiration of the current compliance certificate.

c. Provide documents regarding certification within two business days of a request from the SFMTA at any time during the term of the Agreement.

d. Provide all required FCC Certifications.

e. Provide a valid Payment Card Industry Security Standards (PCI-DSS) Certification.

f. Ensure that the Contractor's credit card gateway maintains appropriate PCI DSS certification as a Level 1 Service Provider.

g. Comply with the Visa Cardholder Information Security Program (CISP) and MasterCard Site Data Protection (SDP) programs.

h. Provide a valid PA-DSS Certification for the Meter system payment application, consisting of the Payment Application Data Security Standard (PA-DSS), validated by a Payment Application Qualified Security Assessor (PA-QSA), and verified on PCI SSC's list of PA-DSS validated payment applications. Refer to Section 20.4 in the Draft Agreement, Appendix C.

i. Ensure that payment software submitted for PA-DSS validation shall incorporate:
    i. Contactless Payment
    ii. Remote connections capability such as Short Messaging Service (SMS)

j. Provide valid EMV Level 1 and Level 2 certifications.

k. Maintain compliance with regulatory Certifications and Industry Standards required at the time of Contract award and listed in Section 7 of this SOW.

l. For modifications to existing, or introduction of new Certification or Industry Standards requirements issued during the term of the Agreement, Contractor shall:
    i. Notify the SFMTA in writing of the timeline for completing pending modifications or new requirements, implement plans to meet requirements at their own expense (excluding new parts) and notify the

SFMTA in writing when the modified or new Certification or Industry Standard has been obtained.

ii. Should the modification of an existing, or a new Certification or Industry Standard requirement or the implementation of such requirements (excluding new parts) be specific to the City, negotiate with the SFMTA in good faith all costs and charges required to implement the modified or new requirement, and be responsible for all costs (excluding new parts) that are not specific to the City.

iii. Should the modification of an existing, or a new Certifications or Industry Standards require modifications to Meter hardware, agree that charges remitted to the SFMTA for any new parts required for the modified or new requirement shall be charged at cost, with no markup.

8. Parking Hardware Disposal

a. With 21 Days' notice from SFMTA, unless extension is authorized by SFMTA, the Contractor shall dispose of or repurpose old Meter hardware in compliance with applicable state or local environmental equipment disposal regulations.

b. With 21 Days' notice from SFMTA, unless extension is authorized by SFMTA, the Contractor shall dispose of or repurpose old MacKay Elite and Tango batteries in compliance with applicable state environmental equipment disposal regulations during the term of the Agreement.

c. The Contractor shall remit all the proceeds from any recycling to the SFMTA after the disposal process is complete.

d. The Contractor shall submit evidence of successful disposal and will invoice the SFMTA for any recycling fees and actual labor and transportation costs incurred as part of the disposal process.

9. Revenue Processing

The Contractor shall:

a. Ensure that credit card processing is performed by a merchant institution/acquiring bank specified by SFMTA (currently CityBase). The SFMTA reserves the right to change the credit card processing entity during the term of the Agreement. The Contractor shall complete such changes in good faith and at no cost to the City provided the new credit card processing entity is compatible with Contractor's gateway provider.

b. Upon request from SFMTA, the Contractor shall propose merchant processing and associated fees schedule as part of its solution (e.g. a Contractor or its subcontractor becomes an MOR for all Meter transactions on behalf of the Agency). If accepted as MOR, the Contractor or its subcontractor shall:

   i. Settle funds into Agency's bank account per mutually agreed deposit schedule.
   ii. Deposit gross revenue receipts into Agency's bank account.
   iii. Provide merchant billing on a monthly basis for the previous month's fees.

c. Provide the bank account information received from SFMTA for making deposits, to the credit card payment gateway provider; deposits will be made directly to bank accounts authorized by SFMTA.

d. Provide credit card gateway services for routing credit card transactions to the specified merchant processor.

e. Utilize different merchant ids (MID) for Meter hardware used by different City departments (currently SFMTA and Port).

f. Accommodate additional City departments during the term of the Agreement at no cost to the City.

g. The SFMTA reserves the right to change the existing gateway provider to a City-preferred gateway at any time during the term of the contract. The SFMTA and the Contractor shall negotiate costs and charges associated with the change.

10.   Consultant Services

a. The Contractor shall, upon SFMTA's request, provide parking related consultant services (itself or through a sub-contract agreement) in accordance with rates published in Appendix C, Cost Schedule, Part 2. Scope and duration of the consultant services shall be mutually agreed by both parties prior to commencement of work. The following services shall be provided:
      i. Junior Developer
      ii. Senior Developer
      iii. Project Manager
      iv. Junior Analyst
      v. Senior Analyst
      vi. Support Technician
      vii. Survey Technician

b. The SFMTA may, at its sole discretion, exercise the option to request from Contractor parking-related consulting services not required by other provisions of the Contract. Such services may include but are not limited to: analytical support for developing pricing strategies based on the best practices employed worldwide, technical support to maintain and upgrade parking rate change engine and related business intelligence systems, Meter planning, inventory control, payment card development options and Meter maintenance and repair operations at the rates established in Appendix C, Costs Schedule, Part 2. Scope and duration of the consultant services shall be mutually agreed by both parties prior to commencement of work. Any additional roles and rates not defined in Appendix C at time of request, will be negotiated with the Contractor.

11.   Website for Parking Receipts

a. The Contractor shall develop a user-facing website that would allow a credit card user to print a receipt of his or her transaction at home using any of the options listed below. The website shall use open architecture design to allow for integration with additional data sources. Contractor will have 12 months from Contract NTP to develop the website functionality.

    i. Contractor shall develop and host for duration of the Agreement the website whereby a Customer would enter only the following pieces of information:

        a. Date or a date range of the transaction.

        b. Last four digits of the credit card number.

b. The Contractor shall provide an ability to receive a parking receipt via text message as a future enhancement. Timeline for this feature development shall be mutually agreed upon between City and the Contractor. Customer support of this feature will be handled via City provided 311 service. Contractor will be responsible for technical support for the duration of the Agreement.

c. Prior to development, the Contractor shall provide development timeline.

d. Hosting, maintenance and overall administration of the website shall be the responsibility of the Contractor for the term of Agreement.

e. Should the Contractor be unable to develop the website, the Contractor agrees to obtain a subcontractor to perform the development, hosting and maintenance as outlined above at no cost to SFMTA.

3. SECTION IIA: METER HARDWARE – SINGLE-SPACE

The Contractor must provide the following with regard to single space Meter hardware. This section contains requirements for single-space Meter hardware (not a single-space Meter managing two bays).

1. General

The Contractor shall:

a. Provide a Meter hardware that is new and unused.

b. Provide Meter hardware that complies with all applicable Americans with Disabilities Act regulations.

c. Provide a Meter hardware with modular design and PnP components.

d. Provide Meter hardware that includes adequate environmental protection including conformal coating on all electronic boards as well as covered protection from the elements for all electronic components, connections, CPU and wiring for the duration of the Agreement.

e. Provide Meter hardware with built-in diagnostic software that date- and time-stamps all maintenance events, including the duration of the fault, for retrieval and analysis either in the field or remotely; all data shall be integrated with the MMS supplied under this Agreement.

f. Provide Meters hardware with "out of order" function. The out of order event shall be accurately recorded with timestamp. This information shall be automatically sent wirelessly to the MMS (if power and communications are still available) and shall also be available for manual collection by maintenance personnel (via mobile MMS and/or handheld) or another manual interface at the Meter.

g. Provide a Meter hardware or the MMS that accurately record date, time and duration of the out of order event for the following two conditions as defined by SFMTA:
   i. From "needs repairs" to "back in service".
   ii. From "out of order" to "back in service".

h. Provide Meter hardware that allow for adding time to an existing parking session.

i. Provide Meter hardware that allow a Customer to purchase a maximum time for a selected space by pressing one button.

j. Accept the following payment methods:
   i. Credit Card (Visa, MasterCard, AMEX, and Discover)
   ii. Contactless payment

    iii. Coins ($0.05, $0.10, $0.25 and $1.00)
    iv. SFMTA's current smart card schema

 k. Provide Meter hardware that accepts all available types of payment when adding time to an existing session.

l. Provide Meter hardware that can download and store the Hotlist from the MMS to prevent smart cards on the Hotlist from being used. This requirement applies to scheduled (daily) and on-demand (ad-hoc) requests.

m. Resolve performance issues with high security vault lock by its Level II and III personnel.

n. Provide single-space door assembly that include a vault door, brackets, hinges and Medeco Nexgen lock as part of its spare parts list.

o. Meter hardware shall support three languages: English, Spanish, and simplified Chinese.

p. Provide Meter hardware that can be wirelessly updated (software, firmware etc.).

q. SFMTA may, at its sole discretion, introduce other payment methods (e.g. additional credit cards smart card, Google Maps, regional mobility app). If the SFMTA elects to introduce additional payment methods, the parties shall negotiate in good faith on a time and material basis all the costs associated with the payment channel additions in accordance with the consultant rates established in Appendix C, Cost Schedule, Part 2.

r. SFMTA request development of a new payment method, the Contractor shall allocate appropriate administrative resources within 30 Days of the request. The Contractor and the SFMTA must agree upon the scope of such requested enhancements before NTP is issued. The delivery schedule for requested enhancements shall not exceed twelve calendar months from NTP unless an extension is authorized by SFMTA.

2. Meter Hardware Housing

   a. Meter hardware housing shall be made from strong, tamper and Vandalism resistant material. A use of recycled materials is welcomed but not mandatory.

   b. Meter hardware housing shall be outfitted with Medeco high security lock.

   c. The Contractor shall provide four key combinations.

   d. The Contractor shall provide 50 keys of each combination.

   e. Meter hardware housing shall be able to be opened with a force equal to lifting one pound of weight for two feet.

   f. Meter hardware housing shall be able to be transferred to and from the field without special equipment and not have sharp edges.

   g. Meter hardware housing shall have robust background printing, graphics and paint that can accommodate all weather conditions without, chipping or peeling during agreed upon general warranty period of five years.

   h. Meter hardware housing shall accommodate anti fogging and moisture drainage design.

   i. Meter hardware housing shall guarantee to fit the existing MKH4500 vault housing without compromising the integrity of the Meter assembly.

   j. Meter hardware housing shall guarantee weather resistant displays or screens that are not susceptible to color change or loss of opacity when exposed to the UV light and other environmental factors during agreed upon general warranty period of five years.

   k. Meter hardware housing shall be designed to minimize condensation and screen clouding from the excessive moisture in the upper part of the Meter hardware.

   l. Meter hardware housing shall be designed to impede the use of credit card skimmers or other such illegal devices.

   m. Each Meter hardware housing shall have a unique serial number of its own. It is located on the inside of the housing sleeve.

   n. Each Meter hardware housing unit shall be available in different colors including but, not limited to:
      i. Grey
      ii. Red

      iii. Yellow

      iv. Green

      v. White

      vi. Black

o. Meter hardware shall be impact resistant and maintain its integrity during transport to and from the field. It shall withstand the drop from five feet height without compromising the functionality of the Meter hardware.

3. Coin Chute

   a. Coin chute shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

   b. Coin chute shall be a PnP device.

   c. Coins passing through the coin chute shall be deposited directly into a sealed container in a separate vault area of the Meter housing.

   d. If the coin chute is inoperable, Meters shall have the option to accept card payments (e.g., credit card and smart card), Contactless and third-party payments (e.g., PBP payments).

   e. The coin chute or track shall be a free-fall type.

   f. The chute shall include anti-backup (anti-fishing) component(s) to prevent the retrieval of deposited coins (e.g., attached to strings, paddles, wires).

   g. The jam alarm shall only stay active if the cause of the jam is present in the coin chute.

   h. Coin chute shall detect both metallic and non-metallic jams.

   i. When the coin chute detects a jam, the jam shall be recorded in the maintenance log. At a minimum, the Meter shall detect the following objects:
      i. bent paper clip
      ii. bent soda can tab
      iii. cotton
      iv. toothpick
      v. paper matchbook cover
      vi. folded plastic straw
      vii. coffee stirrer
      viii. coin-wrapped in tape
      ix. backed up coin

   j. Coin chute is easily cleared of foreign objects by PMR in the field without use of tools.

   k. The entrance to the coin chute shall be replaceable stainless steel to accommodate or screen out coins of various sizes.

4. Coin Validation

a. Meter hardware shall provide a count of all coins by denomination or other metallic objects passing through the coin chute that match the programmed characteristics of valid coins to a level of accuracy of at least 99%, so 990 coins out of 1000 shall be recorded.

b. The coin validation mechanism shall be programmable to accept a minimum of 16 different coins and/or tokens including U.S. nickels, dimes, quarters and dollar coins.

c. The coin validation system shall accept all user-defined coins and tokens through software parameter changes only. Software changes shall be sent to the Meter wirelessly, via MMS and/or a handheld device. SFMTA shall also have the option to manually train the Meter, if needed.

d. Should the U.S. Mint change the existing currency in any way the Contractor shall, at its own expense upon mutually agreed-upon time, update the software to accept the new coins issued as well as the old coins as soon as new coins are available to the general population.

e. The Contractor shall be able to alter the coin table to add or modify coin parameters to change screening of invalid coins upon the Agency's request. Any changes to the validation process shall be evaluated by the Contractor within 14 Days from the time coin samples are provided by SFMTA. The SFMTA will provide at least 100 samples of items to be screened out as invalid coins.

f. The coin validator and coin chute operations shall incorporate no contact points that could be affected by grime or moisture, or a combination of the two.

g. Meter hardware shall recognize $0.01 coins and record them in its revenue audit files. Recording actual value is preferable; however, recording $0.01 coins as "unrecognized or invalid" is also acceptable.

5. Display Technology

a. Meter hardware shall support up to four display panels. Displays shall

    i. Work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

    ii. Have a configurable backlight feature, as defined by SFMTA. Backlight feature shall be activated by any button press, coin deposit or other payment type (physical, Contactless and PBP).

    iii. Have Backlight settings that allow for "always on" option (i.e. backlight is ON during posted Operating Hours).

    iv. Have Backlight setting shall be configurable based on Meter profile and not be a general setting for all the inventory to behave a like.

    v. Support configurable rate of display panel changeover. SFMTA shall be able to adjust the time interval between panel changes within MMS.

    vi. Accommodate various conditions of displaying the information. For instance, displays shall show Rate Buckets that are constrained by the Meter's Operating Hours.

    vii. show Rate Buckets that are easy to read (e.g. adequate spacing between the lines, bold letters, larger fonts for the current time).

    viii. Support deployment of display configuration (messaging, rates, layouts etc.) to a group of spaces determined by SFMTA in accordance with attributes defined in SOW Attachment 01, Inventory and Policy API.

    ix. Support dynamic messaging functionality based on Meter individual profile. Such messages shall be set via MMS and deployed to a group of spaces determined by SFMTA in accordance with attributes defined in SOW Attachment 01, Inventory and Policy API.

    x. Accommodate at least ten lines of text, (or more lines as space allows on display) information and spacing (see example of the current screen in subsection 5.l below).

    xi. Show the following information:
- Time Limit
- All Rate Buckets for each Day
- Hours of Operation

- Post ID
- Date and time
- User instructions (e.g. TOW Away, Free Parking, Prepay, See Signs)
- Special messages (e.g. Super Bowl, Special Event Tomorrow, Go Warriors)
- Additional information as needed

b. Date, time and Post ID shall be displayed on all display panels.

c. During Operating Hours, the screen shall display the current Time Limit and rate, and all corresponding regulations for that day.

d. The screen shall be fully programmable to display, at a minimum, messages corresponding to the following conditions:

   i. Condition 1: Configurable "Pre-Pay" message (e.g., "No Payment Needed Until Fri 09:00 AM", "You May Prepay Now").

   ii. Condition 2: Days/hours of operation, time slots, rates, regulations. Configurable "Expired" message.

   iii. Condition 3: "Paid Meter mode" with countdown of time left before Meter expires.

   iv. Condition 4: Customer inserts a card incorrectly during Operating Hours. Results: Error message specific to condition (e.g., "Card inserted incorrectly").

   v. Condition 5: Customer inserts credit card and it is declined. Results: Error message specific to condition (e.g. "Invalid card; use another card").

   vi. Condition 6: Payment with card - Customer adds/subtracts time and money using Meter inputs (e.g., +/- buttons), and confirms transaction (e.g., presses "OK" button). Results: "Please Wait" message followed by configurable "Transaction Completed" message.

   vii. Condition 7: Incomplete transaction - Customer inserts parking card causing the Meter to become active but pulls card out before transaction is completed. Message: "Transaction Cancelled" message. Messages may include "Card Error", "Invalid Card", "Chip Error", "Not Read" etc. depending on where in the payment process transaction was canceled.

   viii. Condition 8: Card slot is inoperable. Message: "No cards; Use coin".

   ix. Condition 9: Coin slot is inoperable. Message: "No coins; Use card".

   x. Condition 10: Both coin and card slots are inoperable. Message: "Out

of Order"

    xi. Condition 12: Payment is in progress: current time slot and rate, time and corresponding payment adjusting up or down as Customer adds coins or presses the +/- buttons to add/subtract time.

    xii. Condition 13: Upcoming TOW Away - adds money/time up to the beginning of TOW regulation. Message: Configurable Parking Time Limit Reached; "SEE SIGNS FOR RESTRICTIONS".

    xiii. Condition 14: Time Limit - Customer adds money/time up to the Time Limit programmed in the Meter. Message: "Limit Reached" message (e.g., "4-hr limit reached").

    xiv. Condition 15: Ongoing TOW Away - "TOW Away" message (e.g., TOW Away Until 03:00 PM; DO NOT PARK").

    xv. Condition 16: Free Parking - (e.g., "No payment accepted").

    xvi. Condition 17: Special Event Time - Meter has special programming in effect. Message: "Special Event Rate: $7/hr", "Ongoing Special Event – TOW Away", etc.

    xvii. Condition 18: Passenger or commercial loading zone during certain hours. Message: "No Parking – Loading Zone".

e. A payment by an SFMTA parking card shall consist, generally, of the following steps:
    i. Customer inserts SFMTA parking card in the card slot.
    ii. Meter reads and displays balance in the parking card.
    iii. Customer adds/subtracts time and money.
    iv. Customer confirms payment.
    v. Meter writes new balance back to the SFMTA parking card while displaying configurable "please wait" message.
    vi. Meter displays configurable "transaction completed" message and starts counting down time.

6. Keypad / Input Mechanism

   a. Keypad or other input mechanism shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

   b. Keypad or other input mechanism shall have a method for inputting information., OK (check mark), CANCEL (X mark), MAX Time, Plus, Minus and LANGUAGE buttons.

   c. Meter hardware shall have a mechanism that provides prompting and confirmation to the Customer as a payment is conducted at the Meter (e.g. OK button).

   d. Keypad or other input mechanism shall have a mechanism that allows canceling a transaction (e.g. Cancel button).

   e. Meter hardware shall have an easy to use keypad/input mechanism.

   f. Keypad/input mechanism shall be environmentally sealed to prevent elements (e.g. moisture, grime) from affecting the performance of the hardware.

   g. Keypad/input mechanism shall be a PnP device.

   h. Keypad/input mechanism symbols/marking shall be casted, embedded or engraved (i.e. it cannot be a sticker or a label). Keypad/input mechanism symbols/marking shall not deteriorate, notwithstanding Vandalism, during five-year warranty period.

7. Clock

    a. Meter hardware clocks shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

    b. Meter technology shall automatically adjust internal clocks for periodic daylight savings time periodic changes and have the ability to turn auto update feature on and off thru the MMS.

    c. Meter technology clocks shall be synced each time they communicate with the MMS.

    d. Meter technology clocks shall track each day of the week.

    e. Meter technology clocks shall accommodate 12 hour AM/PM and 24 hours time cycles.

    f. Meter technology clock will retain the current date and time up to five minutes after battery removal. Should the Meter hardware lose power for more than five minutes, it would have to connect to the MMS and update its clock.

8. Power

   a. Meter hardware shall rely on a battery augmented by solar power.

   b. Meter hardware shall utilize rechargeable batteries sourced only from Contractor's spare part list.

   c. Meter hardware batteries shall be warranted for at least 36 months without a need of replacement or a warehouse recharging for an 80% of Accepted inventory, under standard the SFMTA power load (see subsection 8.d below). Contractor and the SFMTA shall measure this requirement by monitoring batteries voltage and replacement histories through an MMS report.

   d. Example of standard SFMTA power load is as follows:
      i. 4:30AM Pre-pay period
      ii. Standard Operating Hours: 75% of the inventory 9a-10p, Monday - Saturday for most spaces, with 25% of Meter inventory also working on Sundays.
      iii. Pay-by-phone visual indication is ON during the Operating Hours.
      iv. Real-time revenue feed (for all transactions) is ON during Pre-pay and Operating Hours (FY2019 ~ 90 transactions per month/space).
      v. Real-time maintenance feed (for all transactions) is ON during Pre-pay and Operating Hours.
      vi. Quarterly Rate changes.
      vii. Occasional screen changes.
      viii. Special event programming for all spaces (currently ~ 28,000 parking spaces).
      ix. Backlight is ON for 10 seconds after any button press, coin deposit, card payment (physical or Contactless) during Pre-Pay period and Operating Hours.
      x. LEDs (paid, expired, need service and out of order) are ON during Operating Hours.

   e. Meter hardware batteries shall utilize the same voltage characteristics thresholds across the Accepted inventory for ease of maintenance and voltage monitoring.

   f. Batteries shall be easily serviceable in the field so that a PMR technician can replace a battery in less than 60 seconds. Meter hardware operating system shall be up and running within three seconds of a new battery insertion without exception, for 100% of the inventory.

g. SFMTA maintenance personnel shall be able to replace batteries without the use of tools (i.e., nothing shall be screwed in or otherwise constrained from removal).

h. Meter hardware shall accommodate two battery alarms: LOW BATTERY and BAD BATTERY. The Low battery alarm is sent when the battery voltage reaches and maintains a specific low battery level for at least 24 hours. The bad battery alarm is logged when the Meter detects a critical shut down voltage level and can no longer operate. Both low and bad voltage level values are configurable. .

i. Meter hardware technology shall employ all available "smart" technologies to dynamically calculate the battery usage and provide notification to PMR staff accordingly.

j. Before battery power is fully depleted, Meter software shall recognize power challenges, log a bad battery alarm, then power the Meter hardware down by "graceful shutdown" software functionality, which allows the operating system to perform its task of safely shutting down processes and closing connections. Once power is restored all logged maintenance statuses will be communicated to the MMS.

k. For each battery provided, the Contractor shall be responsible for identification of the battery manufacturer, production dates, expected shelf life and other applicable references.

l. The Contractor shall provide battery recycling option to SFMTA as part of this proposal. At a minimum, quarterly pickup of bad batteries from SFMTA's Meter Shop facilities shall be scheduled.

m. SFMTA prefers not to use the batteries that include electronic boards or other electronic components besides a wire connection to the mechanism.

n. Voltage check is integrated into the Meter hardware reset sequence.

o. The Meter shall retain all stored programming, operational, and financial audit data for a minimum period of two years, even if the Meter hardware loses power (solar and/or battery), or the battery becomes depleted or disconnected.

p. The Contractor shall provide four battery testing units and charging stations that are capable to simultaneously charge up to 200 Meter batteries.

9. LED and Visual Enforcement

a. The LED and Visual Enforcement shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

b. Meter hardware shall visually communicate (front and back) the following statuses:

    i. Meter is OFF (no LED lights are blinking).

    ii. Meter is ON and in Pre-Pay mode (no LED lights are blinking)

    iii. Meter is ON and EXPIRED, the RED LED is ON.

    iv. Meter is ON and PAID, the GREEN LED is ON.

    v. Meter is ON but requires repair service (e.g. low battery, jam, no communication), the BLUE LED is ON.

    vi. Meter is ON but in Out of Order state (both card reader and coin chute are out of service), the YELLOW LED is ON.

c. Meter hardware shall accommodate visual indication of PBP payments during Operating Hours. This functionality is factored into battery power calculations. The following requirements shall apply:

    i. Meter shall display PBP payments within 60 seconds after payment data is received from the vendor.

    ii. 96% of all online (i.e. normally communicating) Meters shall adhere to the standard listed in subsection (i) above during any given Day.

    iii. The MMS shall produce a report dedicated to PBP visual indication requirements listed in this section that provides daily, monthly and annual filters and statistics.

d. Meter hardware LEDs shall be a PnP component.

e. Meter hardware LEDs shall be programmable based on Time Slot parameters.

f. LED visual indication shall provide clear visibility from at least 30 feet, regardless of viewing angle.

10. Credit Card Reader and Processing

    a. Card reader shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

    b. Card reader shall accommodate anti-skimming and anti-jamming design features.

    c. Card reader shall have EMV 1 and 2 certification levels.

    d. Card reader and Meter hardware shall support the following credit card payments (both stripe and Contactless):
        i. Visa
        ii. MasterCard
        iii. Discover
        iv. Amex

    e. Meter hardware shall support SFMTA's smart card for Meter payment.

    f. Meter hardware shall have the ability to be programmed for additional credit card payment systems upon request of the SFMTA. The SFMTA and the Contractor shall negotiate in good faith all costs and charges associated with such change.

    g. Card reader shall be non-locking and permit users to remove cards without damage to the card, especially during a fault situation or power failure.

    h. If a credit card is inserted incorrectly, the card shall be easily removed by the Customer without the use of any tools.

    i. Meter hardware shall have the option to accept coin and Contactless methods of payment when the card slot or reader is inoperable.

    j. Card connector shall be rated at least 250,000 cycles of transactions.

    k. Card reader shall be a PnP device.

    l. Should a jam be detected, the card reader shall be easily serviced with minimal hand tools required.

    m. At SFMTA's request, the Contractor shall design alternative smart card payment options. The SFMTA and the Contractor shall negotiate a timeline for delivery and development costs. Refer to Consultant Rates in Appendix C, Cost Schedule, Part 2.

11. Modem - Communications

a. Modems shall function without defects or failures, notwithstanding Vandalism, during five-year warranty period.

b. The Contractor shall offer 4G LTE or 5G modem technology. Selection of modem technology will be mutually agreed upon between the Contractor and the SFMTA upon NTP issuance.

c. Should the modem technology become obsolete during the term of the Agreement, the Contractor shall provide replacements parts in a reasonable time frame and without any markup (i.e. extra cost). The parties will negotiate timing and costs of replacing the parts in good faith, as cost of the compliant hardware will be disclosed with the City.

d. Meter hardware shall communicate 95% of revenue and maintenance data to the MMS wirelessly within 120 seconds after determining the transaction is completed for all online (i.e. normally communicating) Accepted inventory.

e. SFMTA prefers for a modem to be a PnP device that is not a part of the Meter hardware CPU or motherboard.

f. Modems shall support secure on-line authorizations of credit cards at the time of the transaction.

g. Meter hardware technology shall initiate communication with the MMS at least every 24 hours.

h. Contractor shall offer at least two different wireless service providers as part of its Meter hardware solution. Modem technology shall support various modem states (e.g. active, stand- by, dormant).

i. Contractor, at its own expense, shall conduct pre-installation surveys using both Meter hardware equipment and handheld multi-carrier, single-strength testers (e.g. Squid testers https://www.bvsystems.com/product/squid-3g4g-bundle/) to highlight any potential problem areas and address with carriers in advance of the deployment. Such surveys shall be conducted at the middle of each block to provide representative data. If any trouble spots are found, Contractor shall have the ability to bring the carrier in for additional surveys and the Contractor shall offer a remediation solution.

12. Maintenance

a. Meter hardware shall be maintained and serviced for all the major components (e.g. coin chute, card reader, modem, Contactless reader, battery, CPU/motherboard). Major Meter hardware components are designed as PnP devices.

b. Meter hardware shall be designed so that metallic and non-metallic foreign objects can be cleared from the coin chute within 60 seconds or less, under any weather conditions, without the need for special tools.

c. Meter hardware shall be designed so that metallic and non-metallic foreign objects can be cleared from the card reader slot in less than three minutes, under all weather conditions, without the need for special tools.

d. Meter hardware shall return to full functionality immediately upon replacing any major component (e.g. coin chute or track and/or and card reader). No special tools shall be required for replacement of these items.

e. Meter hardware shall feature onboard diagnostics that include a full on-screen menu that shows the status of various hardware and software components. (e.g. battery voltage, solar power measurements, cellular signal strength, electronic error codes, firmware versions, communication status, rate profile).

f. Meter hardware shall allow for SFMTA's Meter shop staff to add incremental time without having the payment register as revenue in the audit information (e.g., if a Customer's payment must be deleted during maintenance). This usage shall be logged as a distinct payment type (e.g., instead of the payment being labeled "cash" or "credit", it shall be labeled "Tech Credit"). The value of the payment shall be logged as $0.00.

g. Meter hardware shall allow for SFMTA's Meter shop staff to add MAX time without having the payment register as revenue in the audit information (e.g., if a Customer's payment must be deleted during maintenance). This usage shall be logged as a distinct payment type (e.g., instead of the payment being labeled "cash" or "credit", it shall be labeled "Tech Credit"). The value of the payment shall be logged as $0.00.

h. Meter hardware shall have a feature that allows maintenance staff to add a full Day's time (up to the end of the Operating Hours) to the mechanism without adding coin or card payments. (e.g., when a new Metered space is established in a previously unmetered area).

i. Meter hardware shall have the ability to temporarily disable the recording of cash and card (credit and smartcard) totals to allow audit data test purchases by coin or card without being recorded in the payment audit data. After this

feature is invoked, the recording of any coins/cards shall be immediately disabled to allow for testing.

    i. The test coins/cards shall not register until there has been no activity for a set period provided by the SFMTA (this shall be configurable via MMS), after which time the registering of payments is enabled automatically.

    ii. Once testing is completed, Meter technology shall automatically revert to its normal operation without further intervention or specific commands.

j. Meter hardware shall support the ability to assign the Post ID using a wireless data device (mobile smart phone). Once the Post ID is set, the Meter hardware will automatically connect to the MMS and receive all of the appropriate policy details.

13. Dual Bay Configuration

The Contractor shall:

a. Provide Meter hardware that support management of two spaces.

b. Provide Meter hardware that support selection of a space via a keypad /input mechanism.

c. Provide Meter hardware keypad that support the following button configuration.
   i. Left space selection
   ii. Increase time (plus button)
   iii. Decrease time (minus button)
   iv. OK (check button)
   v. Cancel (X button)
   vi. Right space selection

d. Provide Meter hardware configured for dual bay that adhere to all other requirements applicable to a single-space Meter as defined in this SOW, Appendix A, Section IIA.

4. SECTION IIB: METER HARDWARE – MULTI-SPACE

The Contractor must provide the following with regard to multi-space Meter hardware. The equipment capabilities and supporting software that the Contractor delivers upon execution of the contract shall match the Meter hardware and software specifications listed in this section.

1. General

The Contractor shall:

a. Provide new and unused Meter hardware.

b. Provide fully ADA compliant Meter hardware.

c. Provide Meter hardware that have a modular design with PnP components that can be exchanged in a matter of minutes.

d. Provide Meter hardware that includes adequate environmental protection including conformal coating on all electronic boards as well as covered protection from the elements for all electronic components, connections, CPU and wiring for the duration of the Agreement.

e. Provide Meter hardware with built-in diagnostic software that date- and time-stamps all maintenance events, including the duration of the fault, for retrieval and analysis either in the field or remotely; all data shall be integrated with the MMS supplied under this Agreement.

f. Provide Meter hardware with "out of order" function. The out of order event shall be accurately recorded with time-stamp and automatically sent to the MMS (if power and communications are still available) and shall also be available for manual collection by maintenance personnel (via mobile MMS and/or handheld) or another manual interface at the Meter hardware level.

g. Provide Meter hardware and MMS that accurately record date, time and duration of the out of order event for the following two conditions, as defined by SFMTA:
    i. From "needs repairs" to "back in service".
    ii. From "out of order" to "back in service".

h. Provide Meter hardware that allow for adding time to an existing parking session.

i. Provide Meter hardware that allow a Customer to purchase a maximum time for a selected space.

j. Provide Meter hardware that accepts the following payment methods:
    i. Credit Card (Visa, MasterCard, AMEX, and Discover)
    ii. Contactless payment

        iii. Coins ($0.05, $0.10, $0.25 and $1.00)

        iv. SFMTA's current smart card schema.

k. SFMTA may, at its sole discretion, introduce other payment methods (e.g. additional credit cards smart card, Google Maps, regional mobility app). If the SFMTA elects to introduce additional payment methods, the parties shall negotiate in good faith on a time and material basis all the costs associated with the payment channel additions in accordance with the consultant rates established in Appendix C, Costs Schedule, Part 2.

l. Should SFMTA request development of a new payment method, the Contractor shall allocate appropriate administrative resources within 30 Days of the request. The Contractor and the SFMTA must agree upon the scope of such requested enhancements before NTP is issued. The delivery schedule for requested enhancements shall not exceed twelve calendar months from NTP unless an extension is authorized by SFMTA. Refer to Consultant Rates in Appendix C, Costs Schedule Part 2 for rates.

m. Provide Meter hardware that accept all available types of payment when adding time to an existing parking session.

n. Provide Meter hardware that can download and store the Hotlist from the MMS to prevent smart cards on the Hotlist from being used. This requirement applies to scheduled (daily) and on-demand (ad-hoc) requests.

o. Provide Meter hardware with electronic Medeco Nexgen locks for vault door access.

p. Support resolving performance issues with high security top and vault lock by its Level II and III personnel.

q. Provide Meter hardware with modular design.

r. Provide Meter hardware with components that are replaceable in less than 10 minutes.

s. Provide Meter hardware with Medeco maintenance and vault compartment locks. Access to the battery door is gained from maintenance compartment battery release mechanism.

t. Meter hardware shall support the following three payment schemas:

        i. Pay-by-Space (i.e. a parking space shall be selected prior to accepting a payment).

        ii. Pay-by-License-Plate (i.e. a license plate shall be entered prior to accepting a payment).

        iii. Pay-and-Display (i.e. only a time selection is required prior to accepting a payment).

u. Provide Meter Hardware that support three languages: English, Spanish, and simplified Chinese.

v. Provide multi-space door assembly that includes a vault door, brackets, hinges and Medeco Nexgen lock as part of its spare parts list.

w. Provide Meter hardware that can be wirelessly updated (software, firmware etc.).

x. Provide Meter hardware that is capable in PbLP mode to provide the following functionality:

    i. Payment by "license plate" only where user only needs to enter a license plate number to begin parking transaction.

    ii. Payment by space type / curb color and "license plate". In this case, the user must first select a general space type (e.g. general Meter parking, commercial zone, short term parking) and then a license plate. In this mode, a selection of space type / curb color will result in Meter hardware enforcing certain parking rules, as defined by SFMTA. For instance, a selection of commercial zone prior to entering the license plate will enforce a shorter time limit.

    iii. Payment by PbLP Zone, where parkers enter a zone number and then license plate numbers. This functionality shall allow for "pay at any Meter" protocol for as long as customers are aware of the zone number. Meter hardware shall provide a customer with a choice to accept a current zone (zone machine belongs to) or to enter a different zone.

    iv. Meter hardware and associated MMS shall pass along a commercial zone/space designation along with other Meter payment event attributes.

2. Meter Hardware Housing

a. Meter hardware housing shall be made of welded reinforced 11-guage Grade 304-2B stainless steel (9-gauge carbon steel equivalence). Meter housing shall ensure tamper and Vandalism resistant design. This includes all housing compartments:

    i. Maintenance

    ii. Collection

    iii. Battery

b. Meter hardware housing shall be ergonomically designed and easy to use.

c. Meter hardware housing shall have robust background printing, graphics and paint that can accommodate all weather conditions without, chipping or peeling during agreed upon general warranty period of five years.

d. Meter hardware housing shall accommodate anti fogging and moisture drainage design.

e. Meter hardware housing or dome shall guarantee weather resistant displays or screens that are not susceptible to color change or loss of opacity when exposed to the UV light and other environmental factors during the five-year warranty period.

f. Meter hardware housing shall be designed to impede the use of credit card skimmers or other such illegal devices.

g. Each Meter hardware housing shall have a unique serial number of its own.

h. Meter hardware shall be impact resistant and maintain its integrity during transport to and from the field.

i. At a minimum, Meter hardware maintenance door shall be made of a ¼" thick aluminum skin, attached to a 1/8" thick (11-gauge) Grade 304-2B stainless steel inner door, for an overall 3/8" maintenance door thickness.

j. At a minimum, Meter hardware vault shall consist of three layers of 1/8" thick (11-gauge) Grade 304-2B stainless steel: the outer door layer, the middle layer consisting of the locking cam with locking bars, and the inner or back vault door cover. The vault door features a patented anti-theft mechanism which when under vandal attack, causes the cam to become locked or frozen in place and impossible to turn, keeping the 7 heavy duty locking bars around the perimeter of the door in their locked position.

k. At a minimum, Meter hardware lower service door that secures the lower battery and anchor/level compartment is constructed of welded and reinforced Grade 304-2B stainless steel, having a minimum 9-gauge carbon steel equivalence. The exterior cover consists of a 11-gauge (1/8") thick exterior cover that fits flush with the existing lower cabinet when installed. When properly locked and secured in place onto the lower cabinet, the door is secured to the cabinet on three sides as follows: by fixed full length heavy duty latches welded along the left hand side of the door, by a movable locking bar that engages with the door latch along the top edge of the door when in the locked position, and by a movable multi-point locking bar that engages with corresponding latches along the right hand side of the door when in the locked position.

l. Meter housing mounting hardware shall be made of corrosion resistant material.

m. Meter hardware's door to the coin box vault shall provide no direct access to the maintenance compartment.

n. Meter hardware shall have separate compartments for maintenance, collection vault and battery compartment; the coin may only be accessed by authorized personnel using an electronic key to deactivate the locking system.

o. Meter hardware shall be powder coated.

p. Meter hardware battery compartment shall have a robust locking mechanism to prevent Vandalism and battery theft.

q. Meter hardware shall be built with a printer that is configured to allow automated or on demand printing of the receipt types below:
    i. Payment proof receipt (for a parking customer)
    ii. Audit record of cash collections
    iii. Service door entry receipts

r. Enforcement status receipts showing the payment status for all spaces managed by each Meter hardware. Maintenance door shall support an insert for upgrading to new display and touchscreen technology.

3. Coin Validator

   a. Coin validator shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

   b. Coin validator shall be a PnP device.

   c. If the coin validator is inoperable, Meters shall have the option to accept card payments (e.g., credit card and smart card), Contactless and third-party payments (e.g., PBP payments).

   d. The validator shall include anti-backup (anti-fishing) component(s) to prevent the retrieval of deposited coins (e.g., attached to strings, paddles, wires).

   e. Coin validator shall recognize both metallic and non-metallic jams.

   f. The jam alarm shall only stay active if the cause of the jam is present in the coin chute.

   g. When the coin validator detects a jam, the jam shall be recorded in the maintenance log. At a minimum, a Meter hardware shall detect the following objects:
      i. bent paper clip
      ii. bent soda can tab
      iii. cotton
      iv. toothpick
      v. paper matchbook cover
      vi. folded plastic straw
      vii. coffee stirrer
      viii. coin-wrapped in tape
      ix. backed up coin

   h. Coin validator is easily cleared of foreign objects by PMR in the field without use of tools.

   i. Coins passing through the multi-space Meter hardware shall be deposited directly into a sealed cashbox in a separate vault area of the Multi-space Meter hardware.

   j. Multi-space Meter hardware shall provide "coin return chute" for all invalid coins or in case of canceled transaction.

   k. Multi-space Meter hardware shall provide a count of all invalid coins.

4. Coin Validation

a. Meter hardware shall provide a count of all coins by denomination or other metallic objects passing through the coin chute that match the programmed characteristics of valid coins to a level of accuracy of at least 99 %, so 990 coins out of 1000 shall be recorded.

b. The coin validation mechanism shall be programmable to accept a minimum of 16 different coins and/or tokens including U.S. nickels, dimes, quarters and dollar coins.

c. The coin validation system shall accept all user-defined coins and tokens through software parameter changes only. Software and firmware changes shall be sent to the Meter wirelessly, via MMS and/or a handheld device. SFMTA shall also have the option to manually train the Meter hardware, if needed.

d. Should the U.S. Mint change the existing currency in any way the Contractor shall, at its own expense upon mutually agreed-upon time, update the software to accept the new coins issued as well as the old coins as soon as new coins are available to the general population.

e. The Contractor shall be able to alter the coin table to add or modify coin parameters to change screening of invalid coins upon the Agency's request. Any changes to the validation process shall be evaluated by the Contractor within 14 Days from the time coin samples are provided by SFMTA. The SFMTA will provide at least 100 samples of items to be screened out as invalid coins.

f. The coin validator and coin chute operations shall incorporate no contact points that could be affected by grime or moisture, or a combination of the two.

g. Meter hardware shall recognize $0.01 coins and record them in its revenue audit files. Recording actual value is preferable; however, recording $0.01 coins as "unrecognized or invalid" is also acceptable.

5. Display Technology

a. Display shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

b. Meter hardware shall support up to three display panels per each transitional state.

c. Display shall have a configurable backlight feature. Backlight feature shall be activated by any button press, coin deposit or other payment type (physical, Contactless and PBP).

d. Backlight settings shall allow for "always on" option (i.e. backlight is ON during posted Operating Hours).

e. Display shall support configurable rate of display panel changeover. SFMTA shall be able to adjust the time interval between panel changes within MMS.

f. Display shall accommodate various conditions of displaying the information. For instance, Rate Buckets that are constrained by the Meter's Operating Hours.

g. Display shall show Rate Buckets that are easy to read (e.g. adequate spacing between the lines, bold letters, larger fonts for the current time).

h. Display shall support deployment of display configuration (messaging, rates, layouts etc.) to a group of spaces determined by SFMTA in accordance with attributes defined in SOW Attachment 01, Inventory and Policy API.

i. Display shall accommodate at least ten lines of text, (or more lines as space allows on display) information and spacing.

j. Display functionality shall support dynamic messaging based on Meter individual profile. Such messages shall be set via MMS and deployed to a group of spaces determined by SFMTA in accordance with attributes defined in SOW Attachment 01, Inventory and Policy API.

k. Display screens shall contain the following information:
   i. Time Limit
   ii. All Rate Buckets for each Day
   iii. Hours of Operation
   iv. Post ID or MS ID
   v. Date and time
   vi. User instructions (e.g. TOW Away, Free Parking, Prepay, See Signs)
   vii. Special messages (e.g. Super Bowl, Special Event Tomorrow, Go Warriors)

       viii.   Additional information as needed

l. Date, time and Post ID shall be displayed on all display panels.

m. During Operating Hours, the screen shall display the current Time Limit and rate, and all corresponding regulations for that day.

n. The screen shall be fully programmable to display, at a minimum, messages corresponding to the following conditions:

       i.   Condition 1: Configurable "Pre-Pay" message (e.g., "No Payment Needed Until Fri 09:00 AM", "You May Prepay Now").

       ii.   Condition 2: Days/hours of operation, time slots, rates, regulations. Configurable "Expired" message.

       iii.   Condition 3: "Paid Meter mode" with countdown of time left before Meter expires.

       iv.   Condition 4: Customer inserts a card incorrectly during Operating Hours. Results: Error message specific to condition (e.g., "Card inserted incorrectly").

       v.   Condition 5: Customer inserts credit card and it is declined. Results: Error message specific to condition (e.g. "Invalid card; use another card").

       vi.   Condition 6: Payment with card - Customer adds/subtracts time and money using Meter inputs (e.g., +/- buttons), and confirms transaction (e.g., presses "OK" button). Results: "Please Wait" message followed by configurable "Transaction Completed" message.

       vii.   Condition 7: Incomplete transaction - Customer inserts parking card causing the Meter to become active but pulls card out before transaction is completed. Message: "Transaction Cancelled" message. Messages may include "Card Error", "Invalid Card", "Chip Error", "Not Read" etc. depending on where in the payment process transaction was canceled.

       viii.   Condition 8: Card slot is inoperable. Message: "No cards; Use coin".

       ix.   Condition 9: Coin slot is inoperable. Message: "No coins; Use card".

       x.   Condition 10: Both coin and card slots are inoperable. Message: "Out of Order"

       xi.   Condition 12: Payment is in progress: current time slot and rate, time and corresponding payment adjusting up or down as Customer adds coins or presses the +/- buttons to add/subtract time.

       xii.   Condition 13: Upcoming TOW Away - adds money/time up to the

beginning of TOW regulation. Message: Configurable "limit reached" message "Parking Time Limit Reached; "SEE SIGNS FOR RESTRICTIONS".

xiii. Condition 14: Time Limit - Customer adds money/time up to the Time Limit programmed in the Meter. Message: "Limit Reached" message (e.g., "4-hr limit reached").

xiv. Condition 15: Ongoing TOW Away - "TOW Away" message (e.g., TOW Away Until 03:00 PM; DO NOT PARK").

xv. Condition 16: Free Parking - (e.g., "No payment accepted").

xvi. Condition 17: Special Event Time - Meter has special programming in effect. Message: "Special Event Rate: $7/hr", "Ongoing Special Event – TOW Away", etc.

xvii. Condition 18: Passenger or commercial loading zone during certain hours. Message: "No Parking – Loading Zone".

o. A payment by an SFMTA parking card shall consist, generally, of the following steps:

　　i. Customer inserts SFMTA parking card in the card slot.
　　ii. Meter reads and displays balance in the parking card.
　　iii. Customer adds/subtracts time and money.
　　iv. Customer confirms payment.
　　v. Meter writes new balance back to the SFMTA parking card while displaying
　　　　configurable "please wait" message.
　　vi. Meter displays configurable "transaction completed" message and starts counting down time.

6. Keypad / Input Mechanism

a. Keypad or other input mechanism shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

b. Meter hardware shall have an alpha-numeric keypad.

c. Keypad or other input mechanism shall at a minimum have OK (check mark), CANCEL (X mark), MAX Time, Plus, Minus and LANGUAGE buttons.

d. Keypad/input mechanism shall be environmentally sealed to prevent elements (e.g. moisture, grime) from affecting the performance of the hardware.

e. Keypad/input mechanism shall be a PnP device.

f. Keypad/input mechanism symbols/marking shall be casted, embedded or engraved (i.e. it cannot be a sticker or a label). Keypad/input mechanism symbols/marking shall not deteriorate, notwithstanding Vandalism, during five-year warranty period.

7. Clock

a. Meter hardware clocks shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

b. Meter technology shall automatically adjust internal clocks for periodic daylight savings time periodic changes.

c. Meter technology clocks shall be synced each time they communicate with the MMS.

d. Meter technology clocks shall track each day of the week.

e. Meter technology clocks shall accommodate both formats: AM/PM and 24 hours.

f. Meter technology clock will retain the current date and time up to five minutes after battery removal. Should the Meter hardware lose power for more than five minutes, it would have to connect to the MMS to update its clock.

8. Power

a. Meter hardware shall rely on a battery augmented by solar power.

b. Meter hardware shall utilize rechargeable batteries.

c. Meter hardware shall have the option to utilize two separate batteries. One stored in battery compartment and one in maintenance compartment.

d. Meter hardware shall have the option to be delivered with wiring supporting both battery placements. SFMTA shall have the option to purchase the hardware with both batteries present.

e. Meter hardware batteries shall be warranted for at least 36 months without a need of replacement or a warehouse recharging for an 80% of Accepted inventory, under standard SFMTA power load (see point "d" below). The Contractor and the SFMTA will measure this requirement by monitoring batteries voltage and replacement histories in an MMS report.

f. Example of standard SFMTA power load is as follows:
   i. 4:30AM Pre-pay period
   ii. Standard Operating Hours: 75% of the inventory 9a-10p, 25% of the inventory 9a-10p. Monday - Saturday for most spaces, with some spaces working on Sunday.
   iii. Pay-by-phone visual indication is ON during the Operating Hours.
   iv. Real-time revenue feed (for all transactions) is ON during Pre-pay and Operating Hours (FY2019 ~ 90 transactions per month/space).
   v. Real-time maintenance feed (for all transactions) is ON during Pre-pay and Operating Hours.
   vi. Quarterly Rate changes.
   vii. Occasional screen changes.
   viii. Special event programming (currently 200+ days/year).
   ix. Backlight is ON for 10 seconds after any button press, coin deposit, card payment (physical or Contactless) during Pre-Pay period and Operating Hours.
   x. LEDs (paid, expired, need service and out of order) are ON during Operating Hours.

g. Meter hardware batteries shall utilize the same voltage characteristics thresholds across the Accepted inventory for ease of maintenance and voltage monitoring.

h. Batteries shall be easily serviceable on the field so that a PMR technician can replace a battery in less than five minutes. Meter hardware OS shall be available within three seconds of new battery insertion without exception, for 100% of the inventory.

i. The SFMTA shall be able to purchase both rechargeable batteries (corresponding to each placement) separately.

j. Meter hardware shall accommodate two battery alarms: LOW BATTERY and BAD BATTERY. The Low battery alarm is sent when the battery voltage reaches and maintains a specific low battery level for at least 24 hours. The bad battery alarm is logged when the Meter detects a critical shut down voltage level and can no longer operate. Both low and bad voltage level values are configurable.

k. Meter hardware technology shall employ all available smart technologies to dynamically calculate the battery usage and provide notification to PMR staff accordingly.

l. Before battery power is fully depleted, Meter software shall recognize power challenges, log a bad battery alarm, then power the Meter hardware down by "graceful shutdown" software functionality, which allows the operating system to perform its task of safely shutting down processes and closing connections. Once power is restored all logged maintenance statuses will be communicated to the MMS.

m. SFMTA shall have the option to procure battery products through regular consumer channels (i.e. it shall not be required to only use a battery pack of the Contractor's proprietary design). Batteries procured not through Contractor's spare parts list and not approved by Contractor, shall be excluded from the battery performance warranty obligations and any Liquidated Damages and/or Credit Assessments. SFMTA will review "nonstandard" battery specifications with Contractor prior to on-street deployment.

n. For each battery provided, the Contractor shall be responsible for identification of the battery manufacturer, production dates, expected shelf life and other applicable references.

o. The Contractor shall provide battery recycling option to SFMTA. At a minimum, quarterly pickup of bad batteries from SFMTA's Meter Shop facilities shall be scheduled.

p. Batteries shall not include any electronic boards or other electronic components besides a wire connection to the multi-space Meter hardware.

q. Voltage check is integrated into the Meter hardware reset sequence.

r. The Meter shall retain all stored programming, operational, and financial audit data for a minimum period of two years, even if the Meter hardware loses power (solar and/or battery), or the battery becomes depleted or disconnected.

s. The Contractor shall provide, at a minimum, four battery testing units and charging station(s) (to be located at and utilized by the SFMTA Meter Shop); such charging stations shall accommodate simultaneous charging of at least 40 Meter batteries, at no cost to SFMTA.

t. Meter hardware batteries shall include durable and ergonomic handles.

9. LED and Visual Enforcement

a. The LED and Visual Enforcement shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

b. Meter Hardware shall present the means to visually indicate Meter payment (Coin, Credit Card, Smart Card, and Pay-by-Phone) up to ten spaces for hardware setup in PbS mode. Such visual indication shall have a back-side indicator for every space controlled by the Meter hardware, as well as Meter hardware operational status (i.e. requires repair service and/or out of order).

c. In PbS mode, Meter hardware shall visually indicate via flip dot arrays the following statuses:
   i. Paid space (black)
   ii. Expired space (red)
   iii. Needs service (blue)
   iv. Out of Order (yellow)

d. In PbS mode, Meter hardware shall support the following LED statuses:
   i. Meter is OFF (no LED lights are blinking).
   ii. Meter is ON and in Pre-Pay mode (no LED lights are blinking).
   iii. Meter is ON and at least one space is EXPIRED the LED is blinking RED.
   iv. Meter is ON and all spaces are PAID the front LED is blinking GREEN.
   v. Meter needs services; the LED is blinking BLUE
   vi. Meter is Out of Order; the LED is blinking YELLOW

e. In PbLP mode, Meter hardware shall visually indicate via flip dot arrays the following statuses:
   i. Needs service (blue)
   ii. Out of Order (yellow)

f. In PbLP mode, Meter hardware shall support the following LED statuses:
   i. Meter is OFF (no LED lights are blinking).
   ii. Meter is ON and in Pre-Pay mode (no LED lights are blinking).
   iii. Meter needs services; the LED is blinking BLUE
   iv. Meter is Out of Order; the LED is blinking YELLOW

g. In PbS mode, the Meter hardware shall accommodate visual indication of PBP payments during Operating Hours. This functionality is factored into battery power calculations. The following requirements shall apply:
   i. Meter shall display PBP payments within 60 seconds after payment data is received from the vendor.
   ii. 96% of all online (i.e. normally communicating) Meters shall adhere to

the standard listed in subsection (i) above during any given Day.

 iii. The MMS shall produce a report dedicated to PBP visual indication requirements listed in this section that provides daily, monthly and annual filters and statistics.

h. Meter hardware back side flip dot array and LEDs shall be a PnP component.

i. Meter hardware front side LED is a part of the display assembly. Should the front side LED experience a failure or malfunction, the entire display assembly shall be replaced or repaired.

j. Meter hardware LEDs shall be programmable based on Time Slot parameters.

k. In PbS mode, the Meter hardware shall have a visual payment indication module for all spaces controlled by a unit that has reliable visual indication regardless of weather conditions.

l. Visual indication shall provide clear visibility from at least 30 feet, regardless of viewing angle.

10. Credit Card Reader and Processing

a. Card reader shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

b. Card reader shall accommodate anti-skimming and anti-jamming design features.

c. Proposed card reader shall have EMV 1 and 2 certification levels.

d. Meter hardware shall support the following credit card payments (both stripe and Contactless):
   i. Visa
   ii. MasterCard
   iii. Discover
   iv. Amex

e. Meter hardware shall support SFMTA's smart card for Meter payment.

f. Meter hardware shall have the ability to be programmed for additional credit card payment systems upon request of the SFMTA. The SFMTA and the Contractor shall negotiate in good faith all costs and charges associated with such change. Refer to Appendix C, Cost Schedule, Part 2 consultant services rates.

g. Card reader shall be non-locking and permit users to remove cards without damage to the card, especially during a fault situation or power failure.

h. If a credit card is inserted incorrectly, the card shall be easily removed by the Customer without the use of any tools.

i. Meter hardware shall have the option to accept coin and Contactless methods of payment when the card slot or reader is inoperable.

j. Card connector shall be rated at 250,000 cycles of transactions

k. Card reader shall be a PnP device.

l. Should a jam be detected, the card reader shall be easily serviced with minimal hand tools required.

m. At SFMTA's request, the Contractor shall design alternative smart card payment options. The SFMTA and the Contractor shall mutually agree to a timeline for delivery and negotiate development costs. Refer to Appendix C, Cost Schedule, Part 2.

11.   Meter hardware Collection Recording and Revenue Counter

a. Meter hardware shall reset coin counters at the time of the physical coin collection.

b. Meter hardware shall record the time and date of the door opening, and detailed coin audits since the last collection within the MMS.

c. MMS shall keep accurate records of all coin collections under the Agreement.

d. SFMTA maintenance personnel shall be able to open the vault door without producing coin audit or Meter hardware coin counter reset.

e. Meter hardware shall automatically enter all vault opening events data into the MMS. SFMTA shall be able to filter data and produce data reports.

f. Solution shall provide SFMTA the ability to reset Meter hardware' coin counters remotely from the MMS. This feature shall support both individual multi-space Meter hardware resets and group resets (i.e. multiple units grouped together).

12.   Meter Hardware Security and Coin Collection

a. Meter hardware shall allow no access to the coin vault area from maintenance compartment.

b. Meter hardware shall allow no access to the maintenance compartment from the coin vault area.

c. Meter hardware battery compartments hall allow no access to the coin vault area and maintenance compartment

d. Meter hardware shall include a high security locking mechanism for the maintenance compartment.

e. Meter hardware shall include a high security programmable electronic Medeco Nexgen lock for its coin vault compartment.

f. Meter hardware shall use Medeco high security locks with anti-tampering protection for its maintenance door compartment. 100 keys shall be provided as part of the Meter hardware delivery. All locks shall have the same combination.

g. The SFMTA will receive one cashbox for each supplied multi-space Meter hardware unit.

h. Cashboxes shall have a reset flag to indicate that the cashbox was emptied and reset for the next collection use.

i. Cashboxes shall be made of light durable material that is easy to handle and have no sharp edges.

j. Cashboxes shall have an ergonomic handle design.

k. Cashboxes shall have an anti-fishing device protecting a coin box entrance.

l. The SFMTA has the option to request up to ten cashbox keys of each combination of the cashbox lock.

m. Meter hardware shall automatically communicate the total dollar amount and number of coins for each denomination as well as total revenue immediately after any successful collection.

n. Meter hardware shall automatically issue a collection receipt upon removal of the cashbox. The receipt shall indicate the total amount collected, as well as the number of coins of each denomination, and the grand total of the revenue contained within the cashbox.

o. Each cashbox shall have a clearly visible unique serial number.

13. Modem - Communications

a. Modems shall work without defects or failures, notwithstanding Vandalism, during five-year warranty period.

b. The Contractor shall offer 4G LTE or 5G modem technology. Selection of modem technology will be mutually agreed between the Contractor and the SFMTA upon NTP issuance.

c. Should the modem technology become obsolete during the term of the Agreement, the Contractor shall provide replacements parts in a reasonable time frame and without any markup (i.e. extra cost). The parties shall negotiate timing and costs in good faith, as cost of compliant hardware will be disclosed with the City.

d. Meter hardware shall communicate 95% of revenue and maintenance data to the MMS wirelessly within 120 seconds after determining the transaction is completed for all online (i.e. normally communicating) Accepted inventory.

e. Provided modem will be a PnP device that is not a part of the Meter hardware CPU or motherboard.

f. Modems shall support secure on-line authorizations of credit cards at the time of the transaction.

g. Meter hardware technology shall initiate communication with the MMS every 24 hours.

h. Meter hardware technology shall support at least two different wireless service providers as part of its Meter hardware solution.

i. Modem technology shall support various modem states (e.g. active, stand- by, dormant).

j. Contractor, at its own expense, shall conduct pre-installation surveys using both Meter hardware equipment and handheld multi-carrier, single-strength testers (e.g. Squid testers https://www.bvsystems.com/product/squid-3g4g-bundle/) to highlight any potential problem areas and address with carriers in advance of the deployment. Such surveys shall be conducted at the middle of each block to provide representative data. If any trouble spots are found, Contractor shall be able to bring the carrier in for additional surveys and the Contractor shall offer a remediation solution.

14.   Maintenance

a. Meter hardware shall be maintained and serviced for all the major components (e.g. coin chute, card reader, modem, Contactless reader, battery, main Board). Major Meter hardware components are designed as PnP devices.

b. Meter hardware shall be designed so that metallic and non-metallic foreign objects can be cleared from the coin chute within 60 seconds or less, under any weather conditions, without the need for special tools.

c. Meter hardware shall be designed so that metallic and non-metallic foreign objects can be cleared from the card reader slot in less than three minutes, under all weather conditions, without the need for special tools.

d. Meter hardware shall return to full functionality immediately upon replacing any major component (e.g. coin chute or track and/or and card reader). No special tools shall be required for replacement of these items.

e. Meter hardware shall feature onboard diagnostics that include a full on-screen menu that shows the status of various hardware and software components. (e.g. battery voltage, solar power measurements, cellular signal strength, electronic error codes, firmware versions, communication status, rate profile).

f. Meter hardware shall allow for SFMTA's Meter shop staff to add incremental time to a specific space or all spaces without having the payment register as revenue in the audit information (e.g., if a Customer's payment must be deleted during maintenance). This usage shall be logged as a distinct payment type (e.g., instead of the payment being labeled "cash" or "credit", it shall be labeled "Tech Credit"). The value of the payment shall be logged as $0.00.

g. In PbS mode, Meter hardware shall allow for SFMTA's Meter shop staff to add MAX time to a specific space or all spaces without having the payment register as revenue in the audit information (e.g., if a Customer's payment must be deleted during maintenance). This usage shall be logged as a distinct payment type (e.g., instead of the payment being labeled "cash" or "credit", it shall be labeled "Tech Credit"). The value of the payment shall be logged as $0.00.

h. In PbS mode, Meter hardware shall have a feature that allows maintenance staff to add a full Day's time (up to the end of the Operating Hours) to a specific space or all spaces without adding coin or card payments. (e.g., when a new Metered space is established in a previously unmetered area).

i. Meter hardware shall have the ability to temporarily disable the recording of cash and card (credit and smartcard) totals to allow audit data test purchases by coin or card without being recorded in the payment audit data. After this

feature is invoked, the recording of any coins/cards shall be immediately disabled to allow for testing.

  i. The test coins/cards shall not register until there has been no activity for a set period provided by the SFMTA (this shall be configurable via MMS), after which time the registering of payments is enabled automatically.

  ii. Once testing is completed; Meter technology shall automatically revert to its normal operation without further intervention or specific commands.

5. SECTION III: METER MANAGEMENT SYSTEM (MMS)

The Contractor must provide the following with regard to its Meter Management System. The Meter Management System section contains requirements for both single-space and multi-space Meter hardware.

2. General

a. Login to the MMS shall take less than five seconds.

b. The MMS shall contain, at a minimum, the following modules:
   i. System Administration
   ii. Documentation
   iii. Management of User Permissions and Alarms
   iv. Asset and Inventory Management
   v. Faults and Maintenance Reports
   vi. Revenue Reports
   vii. Hotlist Management
   viii. RMA Administration and Management

c. The MMS shall be accessed via a W3-C Browser.

d. The MMS shall support both desktop and mobile platforms utilizing W3-C Browsers.

e. The MMS shall not require any custom software to be installed on the end user's machine.

f. The Contractor shall be responsible, for the duration of the Agreement, for all updates to its MMS to ensure full compatibility with the latest versions of W3-C Browsers.

g. The MMS shall offer a uniform user interface, in which the same colors, fonts, nomenclature, icons and logos are used for all MMS modules.

h. The Contractor shall provide and maintain for the term of the contract (at no cost to SFMTA) the SFTP Site to exchange and store various data files as it relates to the Meter hardware.

i. The Contractor shall provide up to 25 custom reports during the term of the contract to be determined by the SFMTA at no additional cost. Such reports may vary in scope and effort. The Contractor shall assume no less than 40 development hours per report.

j. MMS maintenance module, at the minimum, shall offer the following functionality:

      i.   Review of on-going maintenance alarms.

      ii.   Review of current revenue totals.

      iii.   Ability to display Paid/Unpaid status including data from pay-by-phone vendor.

      iv.   Meter locations.

      v.   Ability to export all the data in suitable format (e.g. csv, xls, jSON) daily, in real-time or batched.

      vi.   Ability to support integrations with other parking and maintenance related software.

k.   Optional Services: The MMS shall have the ability to be configured as curb-length based system rather than Post ID based system. If the SFMTA elects for such change, the SFMTA and Contractor will negotiate the charges on a time and materials basis in good faith. Refer to Appendix C, Cost Schedule, Part 2.

3. System Administration

The MMS shall provide the following administrative functions:

a. Assignment/management of the relationship between Post ID and terminal ID.

b. Configuration creation, deployment and management.

c. A report with a detailed list of all available configurations both current and past.

d. The MMS shall provide an Audit trail of Post ID configuration changes up to last three Price Schedules.

e. The ability to view terminal and Post ID geo-locations map (e.g. Google Map, City base map).

f. The MMS shall provide an ability to generate various reports by utilizing variable parameters as defined in SOW Attachment 01, Inventory and Policy API.

g. MMS shall provide an ability to edit column and report names and titles.

h. The ability to manage coin collection and maintenance cards.

i. The ability to produce a report of all current and decommissioned coin collection card numbers with "last collection event" stamp.

j. The ability to manage various geographical inventory attributes (e.g. collection route, collection sub-route, PMR route, enforcement beat, PMD).

k. The ability to manage user access.

l. The MMS includes a User log that is available within the MMS and includes, amongst other items a timestamp, the function accessed (or data modified) and status of the access/modification.

m. The ability to view Meter hardware counts and status at any point during the term of the Agreement.

4. MMS Documentation

   a. SFMTA may copy/disseminate any related MMS documentation to staff/contractors working with Meter hardware and the MMS.

   b. The MMS manual, which shall be delivered to the SFMTA within 15 days of Notice to Proceed, shall provide a detailed description of the following:

      i. All revenue reports

      ii. All maintenance reports.

      iii. All RMA reports.

      iv. Meter hardware programming.

      v. All Meter hardware backend settings and values.

   c. The MMS manual shall be updated every time new updates, reports and procedures are available.

   d. The Contractor shall proactively and timely update MMS menu help section with patch/release notes summarizing performed changes to all hardware/software.

5. MMS Users and Permissions

a. The MMS shall support a minimum of ten different user groups, each with its own set of permissions for viewing reports and/or conducting changes to Meter programming.

b. The MMS shall allow SFMTA to manage users and permissions directly, without having to go through the Contractor to add users or create or modify user permissions.

c. The MMS shall accommodate at least 200 different users at no cost to SFMTA.

6. Asset and Inventory Management

a. The MMS shall have the historical record of all Meter hardware Accepted by SFMTA, including the dates and services of each device.

b. The MMS shall have the ability to track Meter hardware status (e.g. active, inactive, deactivated, terminated, liquidated) of all Meter hardware Accepted by SFMTA.

c. The MMS shall track serial numbers and Post IDs when one mechanism is replaced by another mechanism during the RMA process.

d. The MMS shall track the following attributes for all Terminals Accepted by SFMTA:

    i. PMD

    ii. PMR Route

    iii. Zone

    iv. Area

    v. Street and Block

    vi. Post ID

    vii. MS ID

    viii. Pole Type

    ix. Pole Status

    x. Meter Type

    xi. Terminal

    xii. Location Status (e.g. assigned to pole, RMA, decommissioned, terminated)

    xiii. Software version

    xiv. Firmware version

    xv. Configuration ID

    xvi. Configuration Name

    xvii. Collection Route

    xviii. Collection Sub Route

    xix. Enforcement beat

    xx. Original install date

    xxi. Current terminal install date

    xxii. Warranty expiration date

    xxiii. Battery installation date

    xxiv. Street side (e.g. odd, even)

    xxv. Street address

    xxvi. Latitude and Longitude

xxvii. Housing color (e.g. grey, green, red, yellow)

xxviii. Carrier (e.g. AT&T, Verizon, T-Mobile)

xxix. Modem type (3G, 4G LTE, 5G)

xxx. Special event area

xxxi. Hours of Operations

xxxii. Rates

xxxiii. Time limits

xxxiv. Restrictions

e. The MMS shall accurately track audit, maintenance, inventory and programming transactions for all Terminals in the Accepted inventory.

f. The MMS shall accurately track the status of single and multi-space inventory counts utilizing ActiveMeterFlag attributes (i.e. M, T, and U) as defined in SOW Attachment 01, Inventory and Policy API, for every MS ID/Post ID and combine current and historic monthly inventory totals by area (e.g. Jurisdiction, Collection Route/Sub-route, PMR Route, PMD).

g. The MMS shall have a detailed rate structure report for all active Meter policy configurations, showing all rates and policies for any given Day.

7. Faults and Maintenance

All fault and maintenance reports described in this section shall have 99% accurate information on any given Day for any 100 spaces. i.e. for any given 100 parking spaces, on any given Day, the report shall be accurate within +/- one parking space.

The MMS shall provide the following functionality/reports/alerts:

a. Ability to group Meter fault and maintenance reporting by various geographic inventory attributes as defined in SOW Attachment 01, Inventory and Policy API (e.g. PMR Route, Street and Block, Collection Route, Enforcement Beat).

b. Ability to group Meter fault and maintenance reporting by various Meter hardware attributes (e.g. Post ID, Mechanism/Terminal ID, MS ID, Cap Color).

c. Ability to report using various time parameters:
   i. Hour
   ii. Day
   iii. Week
   iv. Month
   v. Quarter
   vi. Year (both fiscal and calendar)

d. Ability to produce summary and detailed reports based on various Meter faults.

e. Ability to produce summary and detailed reports based on Meter hardware status. Meter hardware status shall include but are not limited to the following terms:
   i. Out of Order
   ii. Needs Service
   iii. No Communication / Unknown
   iv. Working
   v. Low Battery
   vi. Low Solar
   vii. Coin Blockage
   viii. Card Reader Blockage

f. Ability to produce "Up Time Reports" based on following parameters:

   i. Up Time Without Payment Issues: This parameter is based on the ratio of Operating Hours of all fully functioning Terminals to all available Operating Hours for all the active Terminals. Only Terminals with coin chute, card reader, modem, battery and non-communicating faults are factored in the calculation of the numerator. To calculate: All Operating

Hours for active Terminals MINUS fault duration hours for any Terminal with coin chute, card reader, modem, battery alarm, are DIVIDED by all available Operating Hours for all the active terminals in the inventory.

ii. Up Time Without Coin Payment Available: This parameter is based on the ratio of Operating Hours of all fully functioning Terminals PLUS all terminals where coin purchase was disabled, to all available Operating Hours for all the active Terminals. Only Terminals with card reader, modem, battery and non-communicating faults are factored in calculation of the numerator. To calculate: All Operating Hours for active Terminals MINUS fault duration hours for any Terminal with card reader, modem, battery alarm, are DIVIDED by all available Operating Hours for all the active Terminals in the inventory.

iii. Up Time Without Card Payment Available: This parameter is based on the ratio of Operating Hours of all fully functioning Terminals PLUS all Terminals where card purchase was disabled, to all available Operating Hours for all the active Terminals. Only the Terminals with coin chute, modem, battery and non-communicating faults are factored in calculation of the numerator. To calculate: All Operating Hours for active Terminals MINUS fault duration hours for any Terminal with coin chute, modem, battery alarm, are DIVIDED by all available Operating Hours for all the active Terminals in the inventory.

g. Exception report for Meters that have not communicated with the MMS within a configurable/variable parameter (currently set at 24 hours), including the number of hours since last communication.

h. Exception report for Meters with active alarms listing duration of fault (in hours and Days. This report is aggregated by all available in inventory geographical attributes.

i. Exception report showing coin box full in a percentage that is configurable by User parameter.

j. Exception report for coin collection both in detailed and summary forms.

k. Fault history report (summary, overview, details).

l. Faults overview listing all major faults for specific date. Listed faults shall include but not be limited to the following:

   i. Coin Chute
   ii. Card Reader (and all related card reader issues)
   iii. Battery (and all relative battery alarm states)
   iv. Modem
   v. Coin Box

      vi. Non-reporting faults

     vii. Sensor Faults (any sensor related to the Meter hardware operations, for example, coin accept sensor, vault door sensor)

m. Faults overview shall present data on monthly, quarterly and annualized basis. Figures shall be averaged over a selected time range.

n. Ability to store and produce reports on the following MMS alarms:

       i. Coin canister is full.

      ii. Initial low battery setting has been reached.

     iii. Battery is experiencing a fault.

     iv. Wireless communications interruption.

      v. Coin payment and card payment operation failure.

     vi. Operating system fault.

    vii. Operational functions fault.

   viii. Door open detection (vault and maintenance doors, if applicable).

     ix. Status/record of all file transfer activities.

      x. Live alarm to detect communication status.

     xi. Notice of various initialization and machine setting routines.

    xii. No transaction within defined timeframe.

   xiii. No coin transaction within defined timeframe.

   xiv. No card or credit card transaction within defined timeframe.

o. A standard report showing the usage of maintenance cards, maintenance features that disable revenue totaling, and maintenance payments (i.e. Tech Credit).

8. Revenue Reports

All revenue reports (total revenue and/or any given revenue typed) described in this section shall present 99% accurate information on any given Day for any given $1,000, i.e. for any given $1,000, on any given Day, the report shall be accurate within +/- $10.

The MMS shall provide the following functionality/reports:

a. User shall be able to select any given time range with the smallest increment being one hour (e.g. hour, Day, month, quarter, year, fiscal year).

b. Summary revenue reports shall be based on any of the inventory geographical attributes.

c. Detailed revenue reports, to the space level (for PbS Meter hardware).

d. Coin revenue by coin denomination.

e. Revenue broken down by payment type (i.e., coin, SFMTA parking card, credit card, PBP, and other).

f. Transaction Detail Report that lists the Post ID, MS ID (if available), Space ID, Transaction ID and Transaction Date, Transaction Start Time, Transaction End Time, the Amount Paid, the Payment Type, and the Time Purchased.

g. Parking sessions revenue report.

h. Revenue distribution shown as a percentage of total revenue.

i. Transactions by payment type.

j. Average payment type.

k. Collection details.

l. Collection summary.

m. Credit card settlements (summary and daily).

n. Revenue between coin collections.

o. Revenue based on credit card number using the last four numbers of the credit card number.

p. Revenue based on smart card number and date range.

q. The MMS shall include a standard report showing the number of rejected smart cards and credit cards per machine, broken out by reason for rejection including at least the following three reasons:

  i. Bank declined the charge,
  ii. Communications failure prevented an authorization from being

approved; and,

    iii.   The card was unreadable.

r.   The MMS shall include a standard report showing revenue from each collection day to the following collection day.

s.   The SFMTA shall have the option to introduce new payment types and have them reflected in the Revenue Reports.

9. PBP Reports (used for visual indication of PBP transactions)

    a. The MMS shall include PBP reports searchable by date range. This report shall present received PBP events (i.e. PBP visual indication).

    b. The MMS PBP report shall include but is not limited to the following information:
        i. Post ID and MS ID.
        ii. Date/time of receipt of Pay-By-Phone transaction by the MMS.
        iii. Transaction amount (should that be available from PBP vendor).
        iv. Time purchased.
        v. Date/time of receipt of Pay-By-Phone transaction by the Meter.
        vi. Transmission status (successful, pending, failed).

10. Hotlist Management (SFMTA Smart Card Related)

a. The MMS shall allow for creation and deployment of a Hotlist.

b. The Hotlist shall prohibit any listed smart card number on the list from being used.

c. The MMS shall have a report for current and past hotlist versions (including time stamp of Meter hardware deployment and detailed content of the hotlist).

d. The MMS shall maintain records of declined transactions from smart cards, with serial numbers listed in the current hotlist.

11.   Standard Meter Hardware Settings

a. The MMS shall accommodate at least twelve symbols in alpha numeric format of the Meter identification numbering sequences, including but not limited to Meter number (e.g. Post ID, PS ID, collection route number, enforcement zone number). The current format is nine characters: eight numeric & one symbol (e.g. 102- 02990).

b. The following settings shall be programmable via the MMS:
    i. Standby mode and times
    ii. Card payment settings
    iii. Coin payment settings
    iv. Screen parameters (e.g. time format and location, brightness, sharpness, text font size)
    v. Backlight settings
    vi. LED settings
    vii. Pay-by-Phone payment display settings
    viii. Out of Order settings (e.g. only display OOO when card and coin payment options are not available)
    ix. Payment options settings (e.g. to display Coin Only when the card reader is out or Card Only when coin payment is out)
    x. Other Meter settings as applicable

c. Card payment sequence shall include a programmable variable for a customizable time delay to give the customer an option to cancel a transaction. The transaction cannot be canceled once the check box (confirm) button is pressed.

d. Card payment will not get completed until the check box (confirm) button is pressed. There is a programmable time period of inactivity before card payment screen reverts back to the idle state and the card payment is canceled.

e. Contractor shall include the ability to have a grace period (e.g. should the grace period be defined as 60 seconds, then every completed transaction receives an extra minute before Meter expires).

12. RMA Administration and Management

a. The RMA system shall provide the ability to create, track and filter all returns between SFMTA and the Contractor by shipping dates, and provide data related to repairs, including but not limited to:

    i. Create – The ability for SFMTA to create, enter and revise RMA entries within the MMS (for all applicable Jurisdictions).

    ii. Track – All Meter hardware data, utilizing a bar code serial/terminal system.

b. The RMA system shall provide the following reports:

    i. Warranty status report, including a summary of inventory including in- warranty and out-of-warranty status.

    ii. Service history including replaced parts for each piece of equipment.

    iii. Provide diagnosis and solutions, with an explanation, for each replaced component.

c. The RMA system shall provide a price quote for vandalized and out of warranty equipment, giving SFMTA the option to approve the work and proceed with repairs.

6. SECTION IV: METER PROGRAMMING

The Contractor shall provide the following with regard to Meter programming. The Meter Programming section contains requirements for both single and multi-space Meter hardware.

7. General

The Contractor shall utilize SFMTA's API service for its Meter hardware programming for Meter inventory attributes, policy and special events is SFMTA's API service, without exception.

    a. Sample process would look as following:
- i. A policy change is made within SFMTA's data warehouse.
- ii. Appropriate SFMTA's API end point is updated.
- iii. Contractor queries SFMTA's API.
- iv. Contractor validates and propagates the changes to the specified Meter Hardware.
- v. Contractor sends a confirmation to SFMTA's API that changes have been applied.

    b. Meter hardware shall accept programming in two different modes:
- i. API: Inventory, Policy and Special Event policies (Attachment 01 and 02).
- ii. Manual: programming via MMS.

    c. All programming modes shall support the concept of an effective date or a deferred Meter schedule of rates, Operating Hours, Time Limit and other schedule attributes.

    d. When programming using API services, the Contractor shall provide an acknowledgement of inventory, policy and SE configuration changes propagated to the Meter hardware (i.e. API web service "APPLIED" message to SFMTA's data warehouse, corresponding to each affected space).

    e. All programming modes shall include an audit trail listing all configuration changes, and download (if available) timestamps.

    f. Programming audit report shall include but is not limited to the following:
- i. Person/entity (i.e. API, User) responsible for changes.
- ii. Rate and behavioral profile changes (i.e. previous version and current version).
- iii. Effective date of change.

    g. All programming modes shall result in the following exception lists. Exception lists shall be available via email and as a report in MMS.

       i.   Changes received but not applied.

      ii.   Changes applied but not downloaded.

h. All programming modes shall support editing and cancelation of the Special Events policy. Refer to SOW Section V.3 for set of rules governing SE programming.

i. The Contractor must program all Meter holidays (i.e. free parking days) during the term of the Agreement. Current Meter holidays are: New Year's Day, Thanksgiving and Christmas. The SFMTA shall have the option to program Meter holiday schedules depending on Jurisdiction parameter. This functionality shall be available in 12 months from the NTP.

j. All programming modes shall support deployment within 12 hours for 100% of all active and communicating assets.

k. On any given Day, 100% of Accepted and normally communicating Meters shall behave in accordance with assigned programming providing Post ID/MS ID and Terminal associations on-street are not in conflict with MMS records.

l. Programming via MMS shall not involve any specific software (i.e. Java or other special plugins) and shall perform using W3-C Browsers.

8. Programming Rules
   a. Meter hardware shall accept programming of following rules:
      i. FREE – no rate is assigned, does not accept any payment, "Free Parking" message is displayed. Deposited coins shall still be accounted for in revenue audits; albeit, no time will be given.
      ii. PREPAY – Meter accepts payment before the beginning of the Operating Hours, according to scheduled daily rates.
      iii. RATE – Meter accepts payment and credits time based on programmed rate for specified hours of the Day.
      iv. TOW – does not accept payment, "TOW Away" message is displayed. Deposited coins shall still be accounted for in revenue audits; albeit, no time will be given.
      v. NO PARKING – does not accept payment, "No Parking" message is displayed. Deposited coins shall still be accounted for in revenue audits; albeit, no time will be given.
      vi. TIME LIMIT – Meter has Time Limit assigned so that the amount of time a Customer can purchase is restricted.

   b. The Meter hardware shall validate/conform with Meter programming based on the following business rules:
      i. Prepay can only precede time rule type RATE (e.g. should the Meter schedule begin with TOW, there could not be a PREPAY).
      ii. Time periods programmed with behaviors FREE, PREPAY, RATE, and TOW must be mutually exclusive (i.e. no period of the Day can have two of these rules assigned at the same time period).
      iii. Time periods programmed for FREE or TOW may not have TIME LIMIT assigned.
      iv. TIME LIMIT is programmed independently from RATE and may or may not coincide with RATE buckets (i.e. for RATE bucket 12noon - 3p, 12noon – 1p TL = 30 min and from 1p – 3p TL = 120 min).

   c. The SFMTA shall have the option to determine the configuration name rules for Meter hardware.

   d. Meter hardware shall never allow a Customer to purchase parking time in excess of the following:
      i. The total number of Operating Hours for the day (i.e. if Meter operates from 9am to 6pm, the maximum number of hours a Customer can purchase is 9, if selected space has no Time Limit).
      ii. The total number of hours left in the Operating Hours at the time

the Customer conducts the transaction.

iii. The maximum number of continuous Operating Hours from the time of payment until the TOW period begins.

iv. The Time Limit programmed in the Meter.

e. SFMTA configuration uses "1440" value as "no Time Limit" designation. This means that the Customer may purchase parking time up to the end of the Operating Hours. The Meter hardware shall support this setup.

f. Operating Hours shall serve as an ultimate boundary for any programming rules (i.e. should RATE exist outside of the Operating Hours; it shall not be applied beyond the end of the Operating Hours.

g. Cap Color/Space Type designated as WHITE and/or ORANGE is identical in its Behavior to TOW AWAY.

h. Meter hardware shall allow purchasing parking time past midnight (should it be configured to do so).

i. Meter hardware shall support configuration of different space types (i.e. Meter loading, GMP and motorcycles). Such configurations may vary in hourly rates, Operating Hours and Time Limits based on different space numbers within the same Meter.

9. Programming Buckets and Time Limits

a. Meter hardware shall accept programming for 16 unique time rates within a 24-hr period between 0:00:00 and 24:00:00 hours, each with its own rule.

b. Meter hardware shall accept programming for time increments as small as ¼ of an hour.

c. Meter hardware shall accommodate a different set of programing rules, as defined in Section IV.2 above, for each day of the week (i.e. seven different setups M-Su).

d. Meter hardware shall accept programming program rates in $0.05 increments.

e. Should the Meter hardware be programmed with two different rates in adjacent time periods and Customer pays for time starting in one time period and ending in the next, the Meter shall prorate the amount charged for the time purchased.

10. Programming Initial Behavior and Reconciliation

a. Meter hardware shall support automatic initial programming of any new set of Metered spaces at any time via API (Attachment 01) or manually via MMS.

b. Meter hardware shall support automatic SE programming of any new set of Metered spaces at any time via API service (Attachment 02).

c. The Contractor shall allocate resources for routine reconciliation and comparison for the attributes of Metered spaces between SFMTA and Contractor databases for the purposes of verifying programming and correcting any discrepancies that may arise.

d. Meter hardware shall support variable configurations of the screen backlight (e.g. always on, on after any button press, always off - for single space Meter only).

e. If Meter hardware uses LED lights for visual enforcement, then the SFMTA shall be able to configure LED lights for following parameters:
    i. Brightness
    ii. Flashing frequency
    iii. Color – Red or Green
    iv. Dependency on Meter behavior (e.g. yellow = out of order, blue = needs service)

11. Programming Special Events

a. For detailed specifications please refer to SOW Attachment 02.

b. Meter hardware shall accommodate four different special event (SE) types:

    i.   Price override - Rate override over dates defined by a SE calendar

    ii. TOW override - TOW Away override over dates defined by a SE calendar

    iii. No Parking override – Restricts parking but results in No Parking message rather than in TOW Away message

    iv. Time Limit override - Time Limit override over dates defined by a SE calendar

c. SE programming may never override regular TOW schedule.

d. MMS shall support a full calendar year of SE programming.

e. Meter hardware shall support multiple SE overrides during any one Day.

f. Meter hardware shall support SE related configurable display messages (e.g. Special Event Areas).

g. Special events overrides are mutually exclusive (i.e. no two overrides can be scheduled for the same space/time bucket combination).

12. Programming Meter Display (Content and Format)

a. Meter hardware shall accept programming for 16 unique time slots within a 24-hour period between 0:00:00 and 24:00:00 hours, each with its own rule.

b. Meter hardware shall collapse time slots with identical policy settings (e.g. should Meter charge $2 for every hour between 9a and 12noon, display message shall be 9a – 12noon @ $2/hr and not 9a – 10a @ $2/hr, 10a – 11a @ $2/hr, 11a – 12noon @ $2/hr).

c. Screens shall communicate rates and regulations for every time slot in one line.

d. Single-space Meter hardware allows for rate list to be distributed across two display panels.

e. Multi-space Meter hardware only allows for one display panel for the rate list.

f. All time periods, rates and screens messages shall be fully programmable by SFMTA staff within MMS.

g. Programming technology shall support dynamic messages based on various conditions (e.g. TOW Away during TOW, Special Event Area during SE Days, See Signs for Restrictions on all Days). All messaging shall be configurable within MMS by SFMTA staff. Dynamic messages shall support two deployment types:
   i. Based on Post ID or MS ID
   ii. Based on group of spaces determined by SFMTA

h. Programming technology shall support editing/deployment of screen messages separately and independently from deploying Meter policies (regular and SE alike).

i. Programming technology shall support validation and uniformity of screen layout and messaging across all Meter programming profiles.

j. SFMTA shall be able to set default formats for displaying rates, times, Time Limits and other information on the screens.

k. SFMTA shall be able to set various screen properties:
   i. Brightness
   ii. Contrast
   iii. Font
   iv. Backlight (on/off is only available on the single-space Meter hardware)
   v. Change rate (from one panel to another)
   vi. Messages placement (e.g. right corner, top line center corner)

  vii. Capitalization

  viii. Reverse lettering

  ix. Time format: am/pm and 24-hour format

l. SFMTA shall be able to program spacing between the lines on the display screen.

m. SFMTA shall be able to use custom time labels. For example, instead of 12PM to display 12noon or instead of 12AM to display 12midnight. The formats include the following:

Date

1)	MMM DD, YYYY	EXAMPLE: FEB 26, 2021
2)	DD MMM, YYYY	EXAMPLE: 26 FEB, 2021
3)	DD-MM-YYYY	EXAMPLE: 26-02-2021
4)	Day of Week	EXAMPLE: FRI

Time

1)	HH:MM	EXAMPLE: 12:13
2)	HHhMM	EXAMPLE: 12h13
3)	HHMM	EXAMPLE: 12.13
4)	HH:MM am/pm	EXAMPLE: 12:13 am/pm

13. SECTION V: INTEGRATION

The Contractor shall provide the following with regard to integration services. The integration section contains requirements for both single and multi- space Meter hardware.

Upon SFMTA request, the Contractor shall enhance and/or modify the functionality listed in this SOW at no cost to SFMTA for the duration of the Agreement. Such enhancement shall not exceed 500 development hours during the term of the Agreement.

Any additional work beyond 500 hours shall be negotiated with the SFMTA and charged on a time and material basis per the consultant rates set forth in Appendix C, Cost Schedule, Part 2.

1. General

    a. The Contractor shall constantly monitor SFMTA policy, inventory and SE API services and integration points (i.e. visual indication integration with PBP, enforcement integration with Conduent) for availably and up time, at no cost to SFMTA. Such monitoring shall be done in auto mode without reminder from SFMTA.

    b. The Contractor shall implement a monitoring and alerting system (aka "watchdog software") to monitor all data transmissions to and from SFMTA and its SFTP portal, at no cost to SFMTA.

    c. The Contractor shall, at SFMTA's request, send inventory, policy and SE policy changes exceptions alerts (e.g. which spaces were scheduled for SE policy but did not apply it) directly to SFMTA staff via email or other agreed-upon communication methods, at no cost to SFMTA.

    d. Each Meter hardware communication session with the MMS shall update hardware's internal clock, calendar, and day of week information.

    e. The Contractor shall monitor and resend all maintenance and revenue events that were not accepted by SFMTA data warehouse. All failed/undelivered maintenance and revenue events shall continue to be sent until received by SFMTA.

    f. The Contractor shall dedicate an appropriate technical and administrative resource to support SFMTA's integration points, at no cost to SFMTA.

    g. Should SFMTA request development of a new integration point or changes to an existing API, the Contractor shall allocate appropriate administrative resources within 30 Days of the request. The Contractor and the SFMTA shall

agree upon the scope and budget of the requested enhancements before the NTP is issued. The delivery schedule for requested enhancements shall not exceed six calendar months from the NTP, unless an extension is authorized in writing by the SFMTA.

2. Policy API

a. The Contractor shall conform to SFMTA policy API specifications (Attachment 01), at no cost to SFMTA.

b. The Contractor shall support API functionality for the term of the Agreement at no cost to SFMTA.

c. Policy API consist of two modules: Inventory and Policy. Inventory module includes information about all inventory data attributes and policy module includes all policy details such as Operating Hours, Time Limits, closures, prepay, rates.

d. The Contractor shall have the ability to store previous configuration, current configuration, and future configuration for every space in the Accepted inventory. City shall have the ability to query past, current and future configurations via MMS API module.

e. The Contractor shall have the ability to deploy previous space configuration in case when a current configuration was determined to be inaccurate.

3. Special Event API

a. The Contractor shall conform to SFMTA SE API specifications (Attachment 02), at no cost to SFMTA.

b. The Contractor shall support API functionality for the term of the Agreement at no cost to SFMTA.

c. The Contractor shall support year-round SE programming.

d. The Contractor shall develop the ability to store previous configuration, current configuration and future configuration for every space in the Accepted inventory.

e. The Contractor shall have the functionality to support deletion of the scheduled SE. SE must be deleted and SE API modified no less than three Days prior to the Effective Date of the event.

f. The Contractor shall develop functionality to modify or add a SE. SE API must be modified no less than three Days prior to the Effective Date of the event.

4. Enforcement API (Paid Spaces and License Plates)

a. The Contractor shall have the real-time API integration with SFMTA's citation processing vendor (currently Conduent) as it relates to "paid" space or license plate status. The result of such integration would be to provide paid sessions in minutes.

b. The Contractor shall be able to communicate "paid" space and license plate status on Meter (e.g. Post ID 419-02070) and block-face level (e.g. even side of 11th Street 500 block or odd side of Geary 4400 block).

c. The Contractor shall support this API functionality for the term of the Agreement at no cost to SFMTA.

5. Visual Indication (PayByPhone API)

a. The Contractor shall integrate visual indication of the PBP payment on Meter hardware with SFMTA's pay-by-phone vendor (currently PayByPhone Technologies Inc.).

b. The integrated solution shall support communicating PBP payments to the Meter hardware within 60 seconds of receiving the data from PBP vendor for 90% of all online (i.e. normally communicating) Accepted inventory , measured by inspecting and testing 50 Metered spaces over a 1-Day period.

c. The Contractor shall support visual indication functionality for the term of the Agreement at no cost to SFMTA.

6. Real-Time Meter Payments

a. The Contractor shall develop an ability to submit Meter payments to SFMTA API service in accordance with "Attachment 03 – Real-time Meter Payment".

b. The Contractor shall differentiate between two possible transaction event types: new session (NS) and add-time session (AT), where an AT is defined as one where a Customer adds time to a parking session already in progress (i.e. the Meter is already paid when the Customer conducts the transaction).

c. The Contractor shall differentiate between payment time and parking session start time.

d. Mixed payment transaction: When a Customer uses more than one payment type (i.e. coins and credit card) within a payment window to pay for a single parking session, system shall transmit separate transactions for the different payment types.

e. The Contractor shall be able to support passing to SFMTA a transaction attribute type such as commercial, short term or other as defined by Cap Color/Space Type rule within 12 months from the NTP.

f. The Contractor shall deliver Meter payments to SFMTA's API service within 120 seconds from the time of the transaction (at the Meter hardware level). This condition shall be true for 96% of all online (i.e. normally communicating) Accepted inventory. This shall be measured by inspecting and testing 50 Metered spaces over one Day period.

g. The Contractor shall ensure that submitted Meter payments are 99% accurate when compared with MMS totals. This condition shall be true for each payment method (coin, credit card, smart card, PBP) for 99% of all online (i.e. normally communicating) Accepted inventory. This shall be measured over a seven Day period.

h. The Contractor shall support real-time Meter payment functionality for the term of the Agreement at no cost to SFMTA.

7. Weekly Revenue Reconciliation

a. The Contractor shall develop an ability to submit actual weekly revenue summary totals to SFMTA API service in accordance with "Attachment 04 – Weekly Revenue Recon".

b. The Contractor shall deliver weekly revenue summary data 100% of the time for all online (i.e. normally communicating) Accepted inventory,

assuming SFMTA's API service is available.

c. The Contractor shall support weekly revenue summary functionality for the term of the Agreement at no cost to SFMTA.

8. Meter Revenue API – Provided by Contractor

a. The Contractor shall develop a Meter revenue API service at no cost to SFMTA and support this service for the term of the Agreement. The development of this feature shall be completed within six months from the NTP.

b. The API service shall provide revenue details identical to "real-time feed", see Section 6 above.

c. Contractor's Meter Revenue API's main purpose is to serve as a "backup service" for Meter hardware real-time revenue feed. In case when SFMTA revenue data is not accurate, SFMTA shall connect with Contractor's API service and query for missing data.

d. Detailed specifications of such API shall be agreed to between SFMTA and the Contractor.

e. General request parameters shall be the following:

  i. Jurisdiction.
  ii. From date.
  iii. To date.

f. Return data parameters shall be identical to "Attachment 03 – Real-time Meter Payment".

9. Maintenance

a. The Contractor shall develop an ability to submit a real-time Meter maintenance feed to SFMTA API service in accordance with "Attachment 05 – Maintenance Feed".

b. The Contractor shall provide three different Meter maintenance statuses:

    i. Meter is Out of Order.

    ii. Meter Needs Service (i.e. coin and card reader jams, low and critical battery alarms, and communication failures).

    iii. Meter is Back in Order.

c. Contractor shall accurately track the time stamp of Meter fault (regardless of what that is) start time.

d. Contractor shall accurately track the time stamp of when Meter fault resolution.

e. Contractor shall deliver daily Meter maintenance data 100% of the time for all online (i.e. normally communicating) Accepted inventory, assuming

SFMTA's API service is available.

f. Contractor shall support Meter maintenance data feed functionality for the term of the Agreement at no cost to SFMTA.

10.   Optional Service: Credit Card Aggregation

a. At the SFMTA's request, the Contractor shall work with SFMTA's credit card processor on "credit card aggregation process". This shall allow SFMTA to utilize merchant fees savings by combining Meter transactions from the same credit card under the same authorization over a period of Days.

b. SFMTA and the Contractor shall negotiate the scope of this work when detailed specifications are available.

Appendix B
MMS Application & Hosting Services

I.   **Description of the MMS Application and Hosted Services**
II. **MMS Data Centers**
III. **MMS Maintenance Services**
IV. **City Responsibilities**

I.   **Description of the MMS Application and Hosted Services:**
  "MMS Application and Hosted Services" include the following services set forth in Section III of the Statement of Work, Appendix A.

  A.   **Back-Up of City's Data:**   Contractor shall provide up to 60 months of on-line hourly data retention for MMS Software operation and functionality.

  B.   **MMS Environments:** The MMS Application and Hosted Services shall be hosted in a certified and secure Tier-3 data hosting center.

    1) A Back-up Environment available as needed to serve as the backup or "failover" environment for the MMS and Hosted Services

    2) A test environment available to the City and Contractor for the evaluation and eventual promotion of MMS Software updates, patches, fixes or otherwise deemed tests. Test environment shall perform at 50% or better of production environment.

  C.   **Reporting:** Contractor shall provide electronic notification within two hours of discovery and subsequent monthly reporting of any incidents or breaches that had occurred within the environment or to the hosted application. In the event of a breach, Contractor shall follow the procedures set forth in Section 20.1.5 of the Agreement.

  D.   **Availability of MMS Services:** Contractor (or its Hosting Service contractor) shall host the **MMS Services** on computers owned or controlled by the Contractor (or its contractor) and shall provide the City with access to both a production environment with MMS Application and data and a test environment with MMS Application via Internet-access to use according to the terms herein.

    1.   **Hosted System Uptime:** Other than Scheduled MMS Maintenance Services as outlined in Section III, emergency maintenance described below, Unavoidable Delay as described in the Agreement and lack of Internet availability as described below, Contractor shall provide uptime to the MMS Application and Hosted Service to achieve Service Level Availability consistent with a Tier 3 data center.

    2.   **Unscheduled MMS Maintenance.** Contractor shall use commercially reasonable efforts to prevent more than one hour of continuous down time during Business Hours in any month for which unscheduled MMS maintenance is required.

3.   **Emergency Maintenance**. If Unavoidable Delay Events or emergencies arise or continue, Contractor shall be entitled to take any actions that Contractor, in good faith, determines is necessary or advisable to prevent, remedy, mitigate, or otherwise address actual or potential harm, interruption, loss, threat, security or like concern to any of the MMS systems or the MMS Software. Such emergency maintenance may include, but is not limited to: analysis, testing, repair, maintenance, re-setting and other servicing of the hardware, cabling, networks, software and other devices, materials and systems through which access to and/or use of the MMS Software by City is made available. Contractor shall endeavor to provide advance written notice of such emergency maintenance to City as soon as is reasonably possible.

4.   **Notice of Unavailability:** In the event there will be more than 30 minutes down time of any MMS or Hosted Service components for any reason, including, but not limited to Scheduled MMS Maintenance or emergency maintenance, Contractor shall provide notice to users by posting a web page that indicates that the site is temporarily unavailable and to please come back later. Contractor shall also provide advanced e-mail notice to ITSupport@sfmta.com which will include at least a brief description of the reason for the down time and an estimate of the time when City can expect the site to be up and available.

E.   **Changes in Functionality.** During the term of this Agreement, Contractor shall not reduce or eliminate functionality in MMS Services. Where Contractor has reduced or eliminated functionality in MMS Services, City, in its sole election, shall: (i) have, in addition to any other rights and remedies under this Agreement or at law, the right to immediately terminate this Agreement and be entitled to a return of any prepaid fees; or, (ii) determine the value of the reduced or eliminated functionality and Contractor shall immediately adjust the Services fees accordingly on a prospective basis. Where Contractor increases functionality in the MMS Services, such functionality shall be provided to City without any increase in the Services fees.

II.   MMS Data Centers

A.   **Control:** The method and means of providing the Services shall be under the exclusive control, management, and supervision of Contractor, giving due consideration to the requests of City. Contractor, or any previously approved subcontractor, shall provide the Services (including data storage) solely from within the continental United States and Canada and on computing and data storage devices residing in the United States and Canada.

B.   **Location:** The location of the approved Data Centers that will be used to host the MMS Application are as follows:

Primary Data Center:	Telus Communications Company
	Kamloops Internet Data-center
	1458 Bunker Road
	Kamloops, British Columbia, Canada
Back-up Data Center:	Telus Communications Company
	Rimouski Internet Data-center
	190 Rue des Negociants

Rimouski, Quebec, Canada

Data Forwarding Data Center: Carbon 60 Networks Inc.
Cirrus9 Data Center
75 Prince William Street
Saint John, New Brunswick, Canada

C.   Replacement Hosted Provider: In the event Contractor changes the foregoing Hosted Provider, Contractor shall provide City with prior written notice of said change and disclose the name and location of the replacement Hosted Provider. The replacement Hosted Provider shall be a reputable Hosted Provider comparable to Contractor's current Hosted Provider, and said replacement Hosted Provider shall be located within the United States. The replacement Hosted Provider shall perform a SSAE 18, SOC 1 and/or SOC 2, Type II Report and SOC 3 Audit Report at least annually, in accordance with Section 20.3 of this Agreement.

D.   Notice of Change: If the location of the Data Center used to host the MMS Application is changed, Contractor shall provide City with written notice of said change at least 60 Days prior to any such change taking place. Contractor shall disclose the address of the new facility, which shall be within the United States. The Data Centers referenced above are subcontractors that must be approved by City.

E.   Subcontractors. Contractor shall not enter into any subcontracts for the performance of the Services, or assign or transfer any of its rights or obligations under this Agreement, without City's prior written consent and any attempt to do so shall be void and without further effect and shall be a material breach of this Agreement. Contractor's use of subcontractors shall not relieve Contractor of any of its duties or obligations under this Agreement.

III.   MMS Maintenance Services.

A.   The MMS Software maintained under this Agreement shall be the SaaS Software set forth in this Appendix B to this Agreement.

B.   The following MMS Maintenance Services are included as part of this Agreement:

1.   Contractor Software Version Upgrades, Software Revisions and Patches. Contractor shall provide and implement all MMS Software Version upgrades, MMS Software Revisions and MMS Software Patches to ensure: (a) that the functionality of the MMS Software and MMS Services, as described in the Manual, is available to Users; (b) that the functionality of the MMS Software and MMS Services is in accordance with the representations and warranties set forth herein, including but not limited to, the MMS Software and MMS Services conforming in all material respects to the specifications, functions, descriptions, standards, and criteria set forth in the Documentation; (c) that the Service Level Standards can be achieved; and (d) that the MMS Software and MMS Services work with the non-hosted browser version.

a.   Deployment of these revisions will be mutually agreed upon between Contractor and City.

b.	Release of software revisions as defined will be conducted on a schedule as determined by Contractor. Contractor shall provide no less than a 30-Day prior written notice of when any such revision is scheduled to be released. City will be granted a 15-Day evaluation window to review release documentation regarding software modules being impacted and general revision changes.

c.	After the evaluation period, Contractor shall conduct a deployment of the revision to the City test environment. The software deployment will be scheduled in writing five Days prior to actual deployment activities. As part of the upgrade activities within the test environment, Contractor may provide nominal testing to ensure all systems are functional and the revision deployment was successful. Post-deployment activities include an e-mail or portal post to serve as written notification that this service has been completed. City shall have a 45-Day test window in which City has ability to test and raise issues with Contractor. Test environment deployment activities will be conducted during a mutually agreed-to time window and may not necessarily align with the production maintenance windows as described within this document.

d.	If a MMS Severity Level 1 or Severity Level 2 Issue has been identified and appropriately triaged and classified by both Contractor and City during the test environment deployment test window, Contractor shall correct the MMS Issue. The severity of a MMS Issue will be initially defined by the City and confirmed by Contractor. Until the MMS Issue has been resolved, the Severity Level may be raised or lowered based on Contractor's analysis of impact to business. If the MMS Issue can be corrected and can be redeployed within the remainder of the deployment test window, City will have an additional five testing Days in which to evaluate and further test for the MMS Issue resolution. If the MMS Issue cannot be corrected within the remainder of the test window, Contractor will deploy immediately upon availability with as much notice as practicable. City will be allowed an additional five testing Days to evaluate the correction post the test window if desired.

e.	If at any time during the testing window City identifies the presence of multiple MMS Severity Level 1 or Severity Level 2 Issues that can be shown to materially impact City's ability to continue testing, City may, in writing, elect to suspend testing until corrections for the MMS Issues can be provided. Contractor will deploy corrections immediately upon availability with as much notice as practicable. Upon release of corrections, City will have five Days to commence the testing within the then available remaining testing window.

f.	Unless exists outstanding circumstances as described here within, Contractor will promote revision from test environment to production environment and Back-up Environment after the provided test window has elapsed. The software promotion will be scheduled in writing five Days prior to actual deployment activities. As part of the promotion activities within the production environment and Back-up Environment, Contractor may provide nominal testing to ensure all systems are functional and the revision promotion was successful. Post-promotion activities include an e-mail or portal post to serve as written notification that this service has been completed. At the point of e-mail or portal posting, the new revision will be considered "in production" and supported under the maintenance service terms described here within.

g.	In support of such MMS Software Version upgrades, MMS Software Revisions and MMS Software patches, Contractor shall provide updated user technical

documentation reflecting the MMS Software Version upgrades, MMS Software Revisions and MMS Software Patches as soon as reasonably practical after the MMS Software Version upgrades, MMS Software Revisions and MMS Software Patches have been released. Updated user technical documentation that corrects MMS Software Errors or other minor discrepancies will be provided to Contractor's customers when available.

C.   Response to MMS Issues. Contractor shall provide verbal or written responses to MMS Issues identified by City in an expeditious manner.

D.   MMS Software Maintenance Acceptance Period. Unless otherwise agreed to by City on a case-by-case basis, for non-emergency maintenance, City shall have a 20-business-day period to test any maintenance changes prior to Contractor introducing such maintenance changes into production. If the City rejects, for good cause, any maintenance changes during the MMS Software Maintenance Acceptance Period, Contractor shall not introduce such rejected maintenance changes into production. At the end of the Maintenance Acceptance Period, if City has not rejected the maintenance changes, the maintenance changes shall be deemed to be accepted by City and Contractor shall be entitled to introduce the maintenance changes into production.

E.   MMS hardware: Contractor shall use commercially reasonable efforts to ensure that all hardware (including servers, routers, and other related equipment) on which the applications are deployed are attached to back-up power systems sufficient to maintain the site's availability for so long as any power outage could reasonably be expected to occur, based on the experience of Contractor at its deployment location and consistent with the Tier rating of the Data Center.

IV.   City Responsibilities

A. City shall provide Contractor with timely notification of any MMS Issues by either of these methods:

1.   **Contacting Contractor's Customer Support** at 1-888-462-2529.

2.   **By entering the problem on the Contractor Service Portal** Notifications can be submitted through the City Portal. This is the preferred method by which to contact Contractor.

3.   If City cannot readily access the Contractor portal, City may contact Contractor at the "800" number listed above.

B.   Support for Problem Investigation. City shall support all reasonable requests by Contractor as may be required in problem investigation and resolution.

C.   Designation of Point of Contact. City shall assign an individual or individuals to serve as the designated contact(s) for all communication with Contractor during MMS Issue investigation and resolution.

D.   Discovery of MMS Software Errors. Upon discovery of a MMS Software Error, City agrees, if requested by Contractor, to submit to Contractor a listing of output and any other data that Contractor may require in order to reproduce the MMS Software Error and the operating conditions under which the MMS Software Error occurred or was discovered

Appendix C

Cost Schedule

Single and Multi-Space Parking Meter Hardware and Associated Management System

Capital Costs:

Line #	Multi-space categories*	Unit Cost	Unit of Measure
1	Tango paystation (one cashbox, skirt): 1+ units	$4,725	Per paystation
2	Tango light (no coin canister, no pole sleeve	$1,995	Per paystation
3	Tango light (two extended coin canisters, pole sleeve)	$2,995	Per paystation
4	Axillary battery (upper cabinet 32A)	$220	Per each battery
5	Miscellaneous Costs**	$250	Per paystation

Line #	Single-space categories*	Unit Cost	Unit of Measure
6	mkBeacon single bay: up to 10,000 units	$675	Per mechanism
7	mkBeacon single bay: 10,001 - 12,000 units	$625	Per mechanism
8	mkBeacon single bay: 12,001+ units	$575	Per mechanism
9	mkBeacon dual bay: 1+ units	$900	Per mechanism
10	Miscellaneous Costs**	$35	Per mechanism

Meter Type Specific Operational Costs:

Line #	Multi-space categories	Unit Cost	Unit of Measure
11	Communications fee (per each Meter hardware / Month) - Active	$32	Per paystation
12	Communications fee (per each Meter hardware / Month) - Standby	$5	Per paystation
13	Non-warranty hardware repair services	$300	Per repair instance
14	Pay-by-phone visual indication fee	$0	N/A
15	Extended Warranty (per each Meter hardware per year)	$250	Per paystation, per year

Line #	Single-space categories	Unit Cost	Unit of Measure
16	Communications fee single bay (per each Meter hardware / Month) - Active	$7	Per mechanism
17	Communications fee dual bay (per each Meter hardware / Month) - Active	$12	Per mechanism
18	Communications fee (per each Meter hardware / Month) - Standby	$2.60	Per mechanism
19	Non warranty hardware repair services	$100	Per repair instance

Line #	Single-space categories	Unit Cost	Unit of Measure
20	Pay-by-phone visual indication fee	$0.03	Per each PBP transaction
21	Extended Warranty (per each Meter hardware per year)	$35	Per mechanism

Common Operational Costs:

Line #	Multi-space and Single-space Meters	Unit Cost	Unit of Measure
22	Credit card transaction fee	$0.06	Per each credit card transaction
23	Warehouse, receiving, staging, QA, and installation support	$37,500	Per month
24	Monthly Support Fee (Special Event, Rate Changes, Reconciliation, etc.)	$36,000	Per month

*Any Meter hardware purchased during the main term of the Agreement (first five years) includes five years warranty.

** Miscellaneous Costs - cellular network activation, freight, site surveying, and pre-installation commissioning for delivered units.

Support Services Costs:

Line #	Category	Unit Cost
25	Junior Developer per hour	$128
26	Senior Developer per hour	$235
27	Project Manager per hour	$105
28	Junior Analyst per hour	$128
29	Senior Analyst per hour	$200
30	Support Technician per hour	$80
31	Survey Technician per hour	$80

APPENDIX D
LIQUIDATED DAMAGES AND CREDIT
ASSESSMENTS

I. **DEFINITIONS**:

In addition to the definitions in the Agreement and the Statement of Work, the following definitions shall pertain to the terms used within this document:

A. "Consumables" shall mean items that are not subject to credit assessments and/orloss compensation, such as receipt roll paper and attached graphic panels and signs.

B. "Failure" or "Fail" or "Failing" shall refer to functionality described under the column heading "Description of Failure" in the tables herein that is below the threshold set out in the column titled "Threshold for LD Assessment" of said tables for a hardwareor software requirement.

II. **GENERAL EXCLUSIONS:**

Liquidated damages and credit assessments shall not be imposed for the following Failures or to the extent the following are solely responsible for noncompliance with theStatement of Work, Appendix A, requirements:

1. Unavoidable Delays as stated in Article 8, Sections $8.3 - 8.5$ of the Agreement.

2. Failures that are self-corrected by the Meters within agreed performance specifications (e.g., clock re-syncs).

3. Infant mortality, i.e., parts Fail during the first 60 Days after installation of the Meters, provided that such parts are replaced within seven Days of the Failure.

4. Failures in Meter hardware that are being field tested between installation and Meter Acceptance period.

5. Failure of Consumables.

6. Failure as a result of use of replacement parts, or modifications to existing parts, for the Meter hardware other than those authorized by the Contractor.

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III.   LIQUIDATED DAMAGES:

The Contractor acknowledges that its failure to perform certain obligations under this Agreement during the respective time limits imposed will cause the SFMTA to incur costand inconvenience not contemplated under this Agreement, which cost and inconvenience will constitute damage to the SFMTA, the City and the public, and that the exact amount of such damage will be extremely difficult or impractical to fix. The SFMTA and Contractor agree that the amounts described as liquidated damages in thisAgreement are not penalties but represent a fair and reasonable estimate of the damages that the SFMTA will incur by reason of Contractor's failure to perform, and arefair compensation to City for its losses. Failure by the SFMTA to impose credit assessments for specified violations will not be a waiver of the right to enforce this Section, nor will it constitute a waiver of any other right of the SFMTA under this Agreement.

The SFMTA may deduct a sum representing the liquidated damages assessed from anymoney due to Contractor under this Agreement. Should an assessment take place, the SFMTA will send written notification to the Contractor for its information. Assessments within a given month shall not exceed 35 percent of the combined total of Communications fees, Meter Management System fees, Credit Card Transactions fee and On-going Support fee paid to Contractor. Excess liquidated damages (over a monthly cap) will be carried over to the following month.

If two or more Failures are determined for an event, Contractor will be charged for theFailure with the highest assessment.

Where, under the provisions below, SFMTA is required to issue a written warning to Contractor prior to assessment of liquidated damages, Contractor's obligation to repair,replace, correct, adjust, or modify a Failure shall not commence until the date SFMTA issues such written warning, which written warning shall include a reasonable description of the nature of the Failure as known to SFMTA at the time. Any extensionsto the cure period must be authorized by the SFMTA in writing.

Where, under the provisions below, SFMTA is not required to issue a written warning to Contractor prior to assessment of liquidated damages, SFMTA, as soon as practicable after the failure, will send a written notice of assessment to Contractor, setting forth a reasonable description of the nature of the failure, as known to SFMTA at the time, andthe amount of the assessment.

Detailed descriptions, threshold and potential assessment of the liquidated damagescan be found in Table 1 below.

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Table 1:

Item #	Description of Failure:	Threshold for LD Assessment:	Potential Assessment:
1	The Contractor Fails to maintain Payment Card Industry Data Security Standard Certification.	Any lapse in requirements as described in Article 20, Section 20.4.2 of the main Agreement.	No warning will be issued prior to assessment of liquidated damages for this Failure. The Contractor maybe assessed liquidated damages of $30,000 the first month of non-compliance and $40,000 for each additional month until the Failure is cured. For all such future Failures, the Contractor will be assessed liquidated damages in the amount of $45,000 per month until the Failure is cured.
2	The Contractor Fails to comply with the Batches Delivery Schedule.	Failure to deliver any one batch of Meter hardware within five Days from the mutually agreed upon due date.	No warning will be issued prior to assessment of liquidated damagesfor this Failure. The Contractor may be assessed liquidated damages of $3,000 per Day per Deliverable until the Failure is cured.
3	Meter hardware shall be able to communicate 95%of revenue and maintenance data to the MMS wirelessly within 120 seconds after determining the transaction is completed, in accordance with Appendix A, Sections IIA.11.d and IIB.13.d.	More than five percent (5%) of the total spaces managed by Accepted Meter hardware Fail in any one Day.	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages.The Contractor shall cure the Failure within seven Days thereafter. If the Failure is not cured within the allotted time frame,the Contractor may be assessed liquidated damages of $10 per Failing metered space per Day, from the date of the initial Failure until the Failure is cured. For all future such Failures, that are not cured within seven Days of a written warning, the Contractor may be assessed liquidated damages of $15 per metered spaceper Day until the Failure is cured.

Item #	Description of Failure:	Threshold for LD Assessment:	Potential Assessment:
4	The Contractor Fails to transmit evidence of a transaction paid via pay-by-phone vendor to the Meter within 60 seconds after pay-by-phone transactions are received from PBP vendor, in accordance with Appendix A, Sections IIA.9.c and IIB.9.g.	More than eight percent (8%) of the total spaces managed by Accepted Meter hardware Fail in any one Day.	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages.The Contractor shall cure the Failure within seven Days thereafter. If the Failure is not cured within the allotted time frame,the Contractor may be assessed liquidated damages of $10 per Failing metered space per Day, from the date of the initial Failure until the Failure is cured. For all future such Failures, that are not cured within seven Days of a written warning, the Contractormay be assessed liquidated damages of $15 per metered spaceper Day until the Failure is cured.
5	Meter Fails to provide accurate visual enforcement indication asprogrammed on the front and the back of the Meter,in accordance with Appendix A, Sections IIA.9.b and IIB.9.c and IIB.9.d.	More than eight percent (8%) of the total spaces managed by Accepted Meter hardware Fail in any one Day.	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages.The Contractor shall cure the Failure within seven Days thereafter. If the Failure is not cured within allotted time frame, theContractor may be assessed liquidated damages of $10 per Failing metered space per Day, from the date of the initial Failure until the Failure is cured. For all future such Failures, that are not cured within seven Days of a written warning, the Contractormay be assessed liquidated damages of $15 per metered spaceper Day until the Failure is cured.

Item #	Description of Failure:	Threshold for LD Assessment:	Potential Assessment:
6	Failure of a new coin discrimination parameter change to be sent to a Meter hardware wirelessly, in accordance with Appendix A, SectionsIIA.4.c and IIB.4.c.	More than two percent (2%) ofthe total spaces managed by Accepted Meter hardware Fail in any one Day.	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages.The Contractor shall cure the Failure within seven Days thereafter. If the Failure is not cured within the allotted time frame,the Contractor may be assessed liquidated damages of $10 per Failing metered space per Day, from the date of the initial Failure until the Failure is cured. For all future such Failures, that are not cured within seven Days of a written warning, the Contractormay be assessed liquidated damages of $15 per metered spaceper Day until the Failure is cured.
7	The Contractor fails to program its Meter hardware in accordance with Appendix A, Section IV.2.	More than one percent (1%) ofthe total spaces managed by Accepted Meter hardware Fail in any one Day.	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages.The Contractor shall cure the Failure within seven Days thereafter. If the Failure is not cured within the allotted time frame,the Contractor may be assessed liquidated damages of $10 per Failing metered space per Day, from the date of the initial Failure until the Failure is cured. For all future such Failures, that are not cured within seven Days of a written warning, the Contractormay be assessed liquidated damages of $15 per metered spaceper Day until the Failure is cured.

Item #	Description of Failure:	Threshold for LD Assessment:	Potential Assessment:
8	The Contractor fails to conform with programming of Meter hardware initial behavior and reconciliation, in accordance with Appendix A, Section IV.4.	More than one percent (1%) ofthe total spaces managed by Accepted Meter hardware Fail in any one Day.	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages.The Contractor shall cure the Failure within seven Days thereafter. If the Failure is not cured within allotted the time frame,the Contractor may be assessed liquidated damages of $10 per Failing metered space per Day, from the date of the initial Failure until the Failure is cured. For all future such Failures, that are not cured within seven Days of a written warning, the Contractormay be assessed liquidated damages of $15 per metered spaceper Day until the Failure is cured.
9	The Contractor Fails to program Meter hardware clock, in accordance with Appendix A, Sections IIA.7 and IIB.7.	More than two percent (2%) of the total spaces managed by Accepted Meter hardware Fail in any one Day.	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages.The Contractor shall cure the Failure within seven Days thereafter. If the Failure is not cured within the allotted time frame,the Contractor may be assessed liquidated damages of $10 per Failing metered space per Day, from the date of the initial Failure until the Failure is cured. For all future such Failures, that are not cured within seven Days of a written warning, the Contractormay be assessed liquidated damages of $15 per metered spaceper Day until the Failure is cured.

Item #	Description of Failure:	Threshold for LD Assessment:	Potential Assessment:
10	Failure of Meter hardware to properly recognize and credit time for new coins issued by the U.S. Mint, in accordance with Appendix A, Section IIA.4.d and IIB.4.d.	None	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages. The Contractor shall cure within three Days thereafter. If the Failure is not cured within the allotted time frame the Contractor may be assessed liquidated damages of $10 per Failing metered space per Day, from the date of the initial Failure until the Failure is cured. For all such future Failures, that are not cured within seven Days of a written warning, the Contractor may be assessed liquidated damages in the amount of $15 per Failing metered space per calendar Day until the Failure is cured.
11	The Contractor fails to accurately update Meter hardware Hotlist for smart card transactions, as directed by SFMTA in accordance with Appendix A, Section III.9.	Any one Smart card number from the Hotlist was accepted as valid parking payment by Meter hardware.	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages. The Contractor shall cure within three Days thereafter, unless an extension is authorized by the SFMTA in writing. If the Failure is not cured within the allotted time frame, the Contractor may be assessed liquidated damages of $100 per Day until the Failure is cured. For all future such Failures, that are not cured within three Days of a written warning, the Contractor may be assessed liquidated damages in the amount of $150 per Day until the Failure is cured.
12	Failure of the Contractor's designated technical support staff to return a call from the SFMTA within 15 minutes during Meter Operating Hours, in accordance with Appendix A, Section I.2.f	None	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages. If the Failure occurs a second time, the Contractor may be assessed liquidated damages of $100 per incident. For all future such Failures, the Contractor may be assessed liquidated damages in the amount of $150 per incident.

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Item #	Description of Failure:	Threshold for LD Assessment:	Potential Assessment:
13	Failure of the Contractor's designated senior member to return a call from SFMTA within 30 minutes during the Meter Operating Hours, in accordance with Appendix A, Section I.2.h.	None	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages.If the Failure occurs a second time,the Contractor may be assessed liquidated damages of $100 per incident. For all future such Failures, the Contractor may be assessed liquidated damages in the amount of $150 per incident.
14	Failure of the Contractor to maintain 99% accuracyin its revenue reporting for all online (i.e. normally communicating) Meters in accordance with Appendix A, Section III.7.	Discrepancy of more than 1% in audit of Daily revenue.	At the end of each month, and priorto assessment of liquidated damages, the SFMTA will issue a written warning to Contractor if more than 1% variance has been reached on any day of the month. The Contractor shall cure each Failure within seven Days after receipt of the warning. If any Failure is not cured within the allotted time frame, the Contractor may be assessed liquidated damages of $100 per Day per Failure until the Failure is cured.
15	Failure to provide all required integration points (Attachments 01 to 05).	None	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages.The Contractor shall cure within seven Days thereafter. If the Failure is not cured within the allotted time frame, the Contractor may be assessed liquidated damages of $100 per Day until the Failure is cured. For all future suchFailures, that are not cured within seven Days of a written warning, the Contractor may be assessed liquidated damages in the amount of $150 per Day until the Failure is cured.

Item #	Description of Failure:	Threshold for LD Assessment:	Potential Assessment:
16	Failure of the Meter hardware technology to communicate with the MMS every 24 hours regardless of the occurrence of transactions or faults in accordance with Appendix A Sections IIA.11.g and IIB.13. g.	None	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages. The Contractor shall cure within three Days thereafter. If the Failure is not cured within the allotted time frame, the Contractor may be assessed liquidated damages of $500 per Day until the Failure is cured. For any future such Failures, that are not cured within three Days of a written warning, the Contractor may be assessed liquidated damages in the amount of $750 per Day until the Failure is cured.
17	Contractor Fails to provide an SFTP site with a file structure within 60 Days of the Notice to Proceed, as described in Appendix A, Section III.1 h.	None	The SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages. The Contractor shall cure within seven Days thereafter. If the Failure is not cured within the allotted time frame, the Contractor may be assessed liquidated damages of $500 per Day until the Failure is cured. For any future such Failures, that are not cured within seven Days of a written warning, the Contractor may be assessed liquidated damages in the amount of $750 per Day until the Failure is cured.
18	Contractor Fails to maintain a functional SFTP site for the term of the Agreement, as described in Appendix A, Sections III.1.h.	No functionality of the FTP site for a continuous two-week period.	SFMTA will issue a written warning to Contractor prior to assessment of liquidated damages. The Contractor shall cure within seven Days thereafter. If the Failure is not cured within the allotted time frame, the Contractor may be assessed liquidated damages of $500 per week until the Failure is cured. For all future such Failures, that are not cured within seven Days of a written warning, the Contractor may be assessed liquidated damages without benefit of warning in the amount of $750 per week until the Failure is cured.

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IV. LIQUIDATED DAMAGES:

Contractor agrees that in certain instances of Failure of performance of the Meters, the City will suffer loss of revenue and other damages in an amount that can reasonably becalculated. The Contractor agrees that such loss of revenue ("credit assessments") as set forth below may be deducted by the City from payments to Contractor under the Agreement as they accrue. Should the SFMTA issue an assessment, the SFMTA will send written notification to the Contractor for its information. Assessments within a given month shall not exceed 35 percent of the Monthly Operational Expenses paid to Contractor. Excess liquidated damages (over a monthly cap) will be carried over to thefollowing month.

1. The SFMTA will monitor the Performance Standards listed for compliance with the requirements of the Agreement and share information monthly with the Contractor toprovide early indication of potential issues. These standards are meant to be systematic performance issues.

2. If there is a Failure in the performance of the Meters as provided below, the SFMTAwill issue a written warning with supporting performance data within 30 Days of initial threshold breach.

3. Contractor shall review the potential performance deviation data and respond withinfive Days with acknowledgement of a potential Performance Standard Failure (or lack thereof) and potential causes. Failure to respond to the notice in a timely manner may result in liquidated damages to the SFMTA of $1,000 per Day.

4. In the event of a dispute between the Contractor and SFMTA regarding a Performance Standard Failure that has resulted in notification of a credit assessment, both parties shall follow dispute resolution procedures as referenced in Section 16.4 of the Agreement.

5. Contractor shall cure the Failure within seven Days of the Contractor's acknowledgement of the Failure unless SFMTA agrees to extend the time to cure. If the Failure is not repaired within seven Days ofacknowledgement (unless additional cure time has been granted), SFMTA will cure the Failure and the Contractor agrees that the SFMTA shall be entitled to Credit Assessments as set forth below:

    a. All labor costs incurred by SFMTA associated with repairing or replacing parts required to cure the Failure (e.g., labor costs, including overhead, for the following classifications: Class 7444 (Parking Meter Repairer) and Class 7243 (Parking Meter Repair Supervisor)). Administrative costs shall also be included.

    b. The cost of any materials or parts required to cure the Failure.

    c. Any costs of disposal of Meters associated with the Failure if SFMTA is requiredto repair the Failure.

    d. Revenue losses directly associated with this Failure.

    e. A list of Failures of Performances Standards in this category follows in Table 2below:

Table 2:

Item #	Description of Failure:	Threshold
1	CPU/Motherboard Failure.	More than 2% of Accepted Meter hardware measured over seven consecutive Days period.
2	Solar Panel Failure.	
3	Coin Chute Failure.	
4	Card Reader Failure.	
5	Contactless Card Reader Failure.	
6	Meter Modem Failure.	
7	Meter Antenna Failure.	
8	Keypad or button Failure.	
9	Keypad or button proves to be non-weather-proof or becomes corroded.	
10	Meter hardware batteries Fail to work for at least 36 months without a need of replacement ora warehouse recharging, in accordance with Appendix A, Sections IIA.8.c and IIB.8.e.	More than 20% of Accepted Meter hardware.
11	A Failure of any one component exceeds 10% of the Accepted Meter hardware inventory, or two or more components combined rate of failure exceeds 15% of the Accepted inventory in accordance with Appendix A, Section I.3.c.	Performance shall be measured for any consecutive 180-Day period.

Item #	Description of Failure:	Threshold
12	A Failure of the Meters that results in application of incorrect rates, for all online (i.e. normally communicating) Meters that are not in conflict with MMS records (Post ID/MSID to Terminal ID Association), (e.g., instead of charging $2/hr Meter hardware charges $1/hr **Note**: Assuming 50/50 distribution in metered space management between single and multi-space hardware, each type of hardware will be responsible for managing approximately 13,500 spaces. Thus, the assessed percentage equals: • 1% - 135 metered spaces • 5% - 675 metered spaces • 10% - 1,350 metered spaces.	During Operating Hours: 1) A single Failure that exceeds 1% of the total spaces managed by Accepted Meter hardware 2) Multiple Failures in one Day that together exceed 5% of total spaces managed by Accepted Meter hardware 3) Multiple Failures that cumulatively exceed 10% of total spaces managed by Accepted Meter hardware over a one-week period. A single Failure of the same Meters that continues for more than one Day shall be considered a Multiple Failure for each Day. Should the Contractor overcharge Customers, Contractor shall assist in providing reimbursements to all affected parties.
13	A Failure of the Meters that results in application of incorrect Special Events rates, for all online (i.e. normally communicating) Meters that are not in conflict with MMS records (Post ID/MSID to Terminal ID Association), (e.g., instead of charging $10/hr Meter hardware charges $1/hr **Note**: Special Event areas currently cover an approximate area of 2,500 spaces. Assuming 50/50 distribution in metered space management between single and multi-space hardware, each type of hardware will be responsible for managing approximately 1,250 spaces. Thus, the assessed percentage equals: • 1% - 13 metered spaces • 2% - 25 metered spaces • 5% - 63 metered spaces.	During Operating Hours: 1) A single Failure that exceeds 0.5% of the total spaces managed by Accepted Meter hardware 2) Multiple Failures in one Day that together exceed 2% of the total spaces managed by Accepted Meter hardware 3) Multiple Failures that cumulatively exceed 5% of the total spaces managed by Accepted Meter hardware over a one-week period. A single Failure of the same Meters that continues for more than one Day shall be a Multiple Failure for each Day Should the Contractor overcharge Customers, Contractor shall assist in providing reimbursements to all affected parties.

APPENDIX E - DISASTER RECOVERY PLAN

Abstract

Adrian O'Neil.

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- Information Technology Statement of Intent

This document delineates MacKay Meters Inc., a wholly owned subsidiary of J.J. MacKay Canada Limited (MacKay Meters) policies and procedures for technology disaster recovery, as well as our process-level plans for recovering critical technology platforms and the telecommunications infrastructure. This document summarizes our recommended procedures. In the event of an actual emergency situation, modifications to this document may be made to ensure physical safety of people, systems, and data.

Our mission is to ensure information system uptime, data integrity and availability, and business continuity.

- Policy Statement

Corporate management has approved the following policy statement:

- The company shall maintain an IT disaster recovery plan.
- A formal risk assessment shall be undertaken annually to determine the requirements for the disaster recovery plan.
- The disaster recovery plan shall cover essential and critical infrastructure elements, systems and networks.
- The disaster recovery plan shall be periodically tested to ensure that it can be implemented in emergency situations and that the management and staff understand how it is to be executed.
- The disaster recovery plan is to be kept up to date to take into account changing circumstances.
- Objectives

The disaster recovery programs objective is to develop, test and document an easily understood plan which will help the company recover quickly and effectively from an unforeseen disaster or emergency which interrupts information systems.

- Key Personnel Contact Info

Contact		Details
Adrian O'Neil, CTO	Phone (cell)	902 331 1313
DRT Lead	Phone (office)	902 752 5124 x262
	Email	Adrian.oneil@mackaymeters.com
Brian McMahon, Network Mgr.	Phone (cell)	902 301 9482
DRT Member	Phone (office)	902 752 5124 x253
	Email	Brian.mcmahon@mackaymeters.com
Jan Dykstra, Network Admin.	Phone (cell)	902 301 1716

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Contact		Details
DRT Member	Phone (office)	902 752 5124 x233
	Email	Jan.dykstra@mackaymeters.com
James MacKay, Ownership	Phone (cell)	902 759 8958
DRT Alternate Lead	Phone (office)	902 752 5124 x295
	Email	James.mackay@mackaymeters.com

- Data-hosting Facilities

Primary Data-center   Kamloops Internet Datacenter
                                 Telus Communications Company,
                                 Kamloops BC, Canada

Secondary Data-center   Rimouski Internet Datacenter
                                 Telus Communications Company,
                                 Rimouski, PQ, Canada

Data Forwarding Data-center Cirrus9 Datacenter
                                 Carbon 60 Networks Inc.,
                                 Saint John, NB, Canada

Plan Overview

- Plan Updating

The Disaster Recovery Plan (DRP) and its updating process is managed by MacKay IT through its document management system. Whenever changes are made to the plan, they are fully tested and appropriate amendments are made to any documentation and training materials. This involves the use of formalized change control procedures under the control of the Chief Technology Officer.

Plan Documentation Storage
Copies of this Plan, electronic and hard copies are stored in secure off-site locations, with each member of the Disaster Recovery Team issued an electronic and hard copy as well.

- Recovery Strategy

Meter Management and accompanying Infrastructure
The recovery strategy chosen is for a fully mirrored recovery site at a geographically distinct/separate data-center. This strategy entails the maintenance of a fully mirrored duplicate site which enables instantaneous switching between the live site and the backup site. vCloud availability replicates the information from one site to the other and the load balancer ensures to send the request to the remaining portion of the cluster which is available.

Additionally, daily backups of all data are delivered to a third cloud-based service provider.

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Data Forwarding Segment
The recovery strategy chosen is for complete redundancy of all critical elements of its infrastructure (Hot Idle). All log data is delivered real-time to off site log servers for review, retention and ongoing management.

- Risk Management

There are many potential disruptive threats which can occur at any time and affect the normal business process. We have considered a wide range of potential threats and the results of our deliberations are included design.

Data-center Redundancy (MMS and assorted Infrastructure)
MacKay has employed multiple Tier III facilities that are fully mirrored and geographically distinct to supply critical infrastructure related to its ongoing operations with respect to customer data and on-street infrastructure.   This allows for instantaneous switching between the primary and secondary sites and in so doing greatly reduce the risk of catastrophic failure of either impacting critical operations.
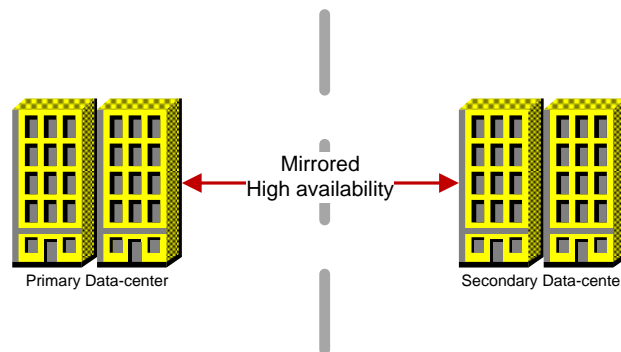
System Redundancy (MMS and assorted infrastructure)
Within each data-center solution architecture includes automated failover of each critical component. All Application, Web and Database servers are configured Active – Passive.
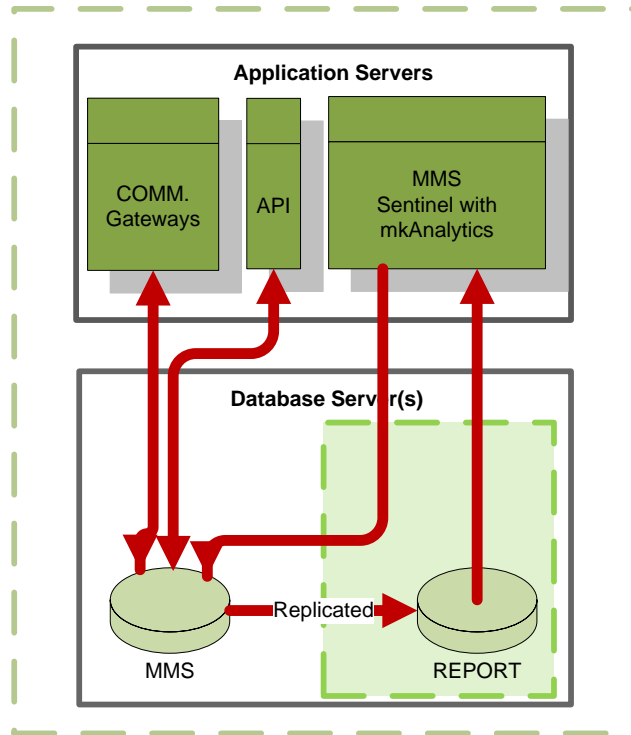
RISK	Probability Rating	Impact Rating	Risk Assessment
Flood	4	5	Leak detection exists. Automated failover to a distinct/separate mirrored datacenter further reduces impact/risk to operations.
Fire	4	5	Fire detection exists. Automated failover to a distinct/separate mirrored datacenter further reduces impact/risk to operations.
Tornado	5	5	Highly unusual occurrence. Automated failover to a distinct/separate mirrored datacenter further reduces impact/risk to operations.
Storms	4	5	Automated failover to a distinct/separate mirrored datacenter further reduces impact/risk to operations.
Terrorism	5	5	24x7 physical security along with video surveillance. Automated failover to a distinct/separate mirrored datacenter further reduces impact/risk to operations.
Sabotage	5	5	24x7 physical security along with video surveillance. Automated failover to a

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			distinct/separate mirrored datacenter further reduces impact/risk to operations.
Power Failure	4	5	Back-up power/generators at each data-center. Automated failover to a distinct/separate mirrored datacenter further reduces impact/risk to operations.
Communications Failure	4	5	Multiple carriers available. Automated failover to a distinct/separate mirrored datacenter further reduces impact/risk to operations.

Probability: 1=Very High, 5=Very Low   Impact: 1=Total Destruction, 5=Minor Impact

System Redundancy (Data Forwarding Segment)

Redundancy of all critical elements of its infrastructure (Hot Idle) is present for MacKay's data-forwarding segment. All log data is delivered real-time to offsite log servers for review, retention and ongoing management.
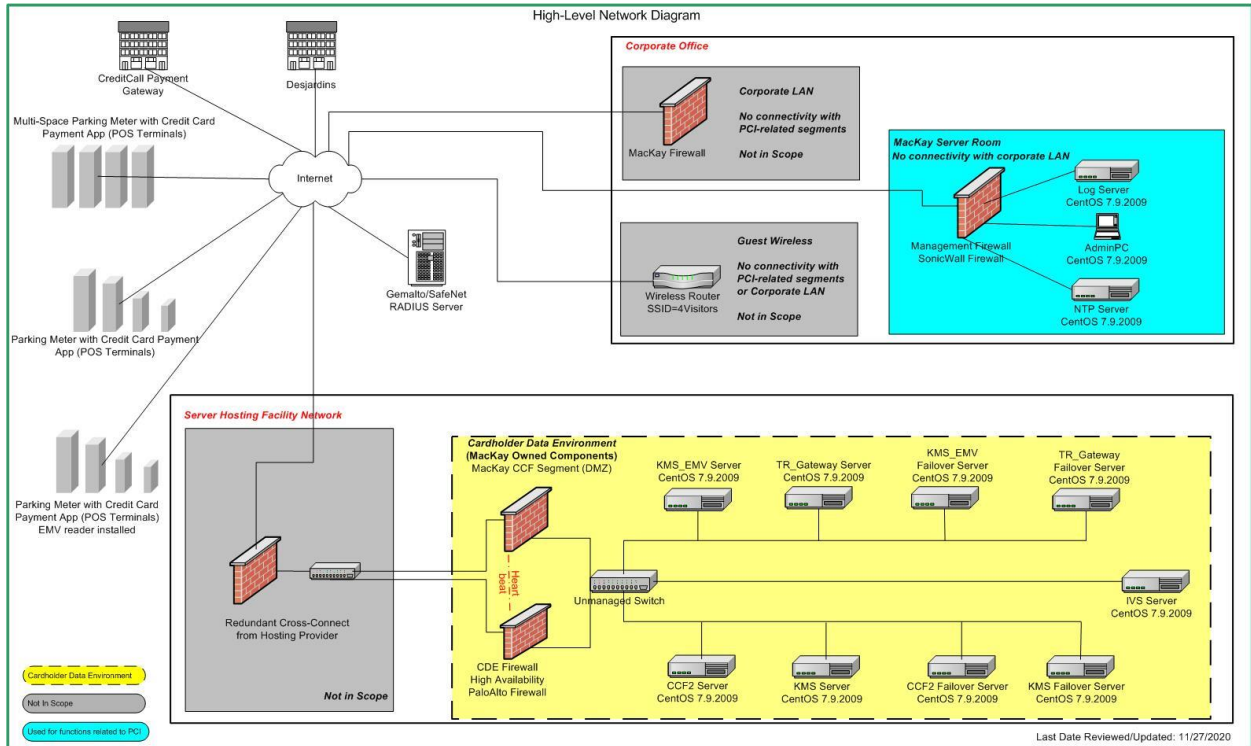
RISK	Probability Rating	Impact Rating	Risk Assessment
Flood	4	5	Tier III infrastructure with Leak detection and mitigation available.

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Fire	4	5	Tier III infrastructure with Fire detection and mitigation available.
Tornado	5	5	Highly unusual occurrence. Secure Tier III facility.
Storms	4	5	Physically Secure Tier III facility with multiple carrier options.
Terrorism	5	5	Tier III facility with 24x7 physical security along with video surveillance.
Sabotage	5	5	Tier III facility with 24x7 physical security along with video surveillance.
Power Failure	4	5	Tier III facility with back-up power/generators and multiple carrier options.
Communications Failure	4	5	Tier III facility with back-up power/generators and multiple carrier options.

Probability: 1=Very High, 5=Very Low Impact   Impact: 1=Total Destruction, 5=Minor

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- Emergency

Plan Triggering Events

Key trigger issues that would lead to activation of the DRP are:

- Loss of communications
- Loss of power
- Flooding of the premises
- Loss of a building

Activation of Disaster Response Team

When an incident occurs the Disaster Response Team (DRT) shall be activated. The DRT will decide the extent to which the DRP must be invoked.

Responsibilities of the DRT are to:

- Respond immediately to a potential disaster;
- Assess the extent of the disaster and its impact on the business, data center, etc.;
- Decide which elements of the DR Plan should be activated;
- Re-establish and maintain vital services and return to normal operation;
- Ensure employees are notified and allocate responsibilities and activities as required

Disaster Recovery Objectives

As noted elsewhere, vCloud availability will replicate information from one physically distinct and geographically separated data-center to another and the load balancer will make sure to send the request to the remaining portion of the cluster which is available reducing risk of a disaster. This automated failover between datacenters will be exercised regularly to ensure functionality. In the highly unusual occurrence that both data-centers are disabled, MacKay would establish facilities for an emergency level of service within 2.0 business hours and;

- Restore key services within 8.0 business hours of the incident;
- Recover to a fully functional state within 24.0 hours after the incident;
- Coordinate activities with disaster recovery team, first responders, etc.

Emergency Alert, Escalation and DRP Activation

This policy and procedure has been established to ensure that in the event of a disaster or crisis, personnel will have a clear understanding of who should be contacted.

- Emergency Alert

The person discovering the incident calls a member of the Disaster Response Team in the order listed:

1. Adrian O'Neil, CTO
2. Brian McMahon, Network Mgr.
3. Jan Dykstra, Network Administrator

If not available try:

1. James MacKay, Ownership

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The Disaster Response Team (DRT) is responsible for activating the DRP for a disaster event or any other occurrence that affects the systems capability to perform normally.

- Assessment of Disaster

One of the tasks during the early stages of the emergency is to notify the Disaster Recovery Team (DRT) that an emergency has occurred. The notification will request DRT members to assemble and review information concerning the emergency. The DRT Leader is the Chief Technology Officer (CTO) and the CTO will be responsible for taking overall charge of the process and ensuring that the systems return to normal working operations as early as possible.

Critical Partner Involvement
Critical infrastructure resides at multiple data-centers and their personnel will be key to recovery. Services are designed with the understanding that infrastructure and certain controls are implemented by these subservice organizations. These controls ensure the minimizing of risk associated with various potential failures that could occur. All in-scope infrastructure is built to Tier III specifications and provides security and surveillance, physical protection and redundancy solutions 24 hours a day, 7 days a week, 365 days a year with nominal downtime. Service Level Agreements (SLAs) are in place.

MacKay's Disaster Recovery Team will work closely with the subservice organization to meet its disaster recovery plan objectives.

- Subservice Contact Information

In case of an issue with the data-hosting environment:

1. Open a ticket either by phone, or via email, and support will be engaged.
2. To escalate, engage Solution Architect and/or Account Manager, referencing case/ticket number.
3. Further escalation is with Direct Atlantic (Telus) and through VP IT Transformation (Carbon60)

CONTACT, TITLE		DETAIL
Stephane Benoit	Solution Architect, Telus	514 617 8769
		stephane.benoit@telusinternational.com
Pierre Turcot	Unified Sales Specialist, Telus	418-781-5251
		Pierre.Turcot@telus.com
Steven Caron	Business development Mgr, iOT	581 996 3087
		Steven.caron@telus.com
Kari Reynolds	Account Manager, Telus	902 200 1292

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		902 786 9979 (cell)
		Kari.reynolds@telus.com
Ken Power	Director Atlantic, Telus	902-293-1753
		Ken.Power@telus.com
Jeff Keith	Account Manager, Carbon 60	506 643 6622
		506 721 5991 (cell)
		Jeff.keith@carbon60.com
Ian MacKinnon	VP IT Transformation, Carbon 60	506 643 6612
		506 333 6418 (cell)
		ian.mackinnon@carbon60.com

Incident Response

All instances of failure, whether causing the Disaster Recovery Team to be invoked or not will be documented via our Incident Response Report (Doc #: JJ09-027). Should the failure involve a breach of confidential information then the Disaster Recovery Team will be governed by the process defined in System Incident Response Plan (Doc #: JJ09-023).

- DRP Exercising

Exercising of the various controls associated with critical infrastructure is governed by System Procedures (Doc #: JJ09-017). System procedures define the daily, quarterly, semi-annual and annual review and exercise of the system. Annually a comprehensive Risk Assessment and simulation of infrastructure failover would occur. More common activities would include amongst other things, user access review and vulnerability scans along with Operating System and software patch applications. All changes to the system are managed through a change order and approval process via a Change Control Order form.

- SFMTA DRP Exercise Requirements

MacKay will perform and document a business continuity drill within 2 months of contract signing and once per year thereafter for the term of the contract. The contractor will share the drill plans, action items and follow-ups with the SFMTA.

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