



CONTRACT NO. 808

THIS AGREEMENT made and entered into as of this day of Nov, 20, 2013 by and between, Clever Devices Ltd. a corporation organized and existing under the laws of the State of Arizona, having its principal office at 137 Commercial Street, Plainview, NY 11803 (hereinafter referred to as the "Contractor"), and Miami-Dade County, a political subdivision of the State of Florida, having its principal office at 111 N.W. 1st Street, Miami, Florida 33128 (hereinafter referred to as the "County"),

WITNESSETH:

WHEREAS, the Contractor has offered to provide a Computer Aided Dispatch / Automated Vehicle Locator Replacement Project (CADAVLRP) and Kendall Drive Signalization Solution, that shall conform to the Contract Documents and,

WHEREAS, the Contractor has submitted a written proposal dated April 20, 2012, hereinafter referred to as the "Contractor's Proposal" which is incorporated herein; and,

WHEREAS, the Contractor shall deliver all Computer Aided Dispatch / Automated Vehicle Locator Replacement Project (CADAVLRP) and Kendall Drive Signalization Solution hardware, software, and related services; to be delivered per the delivery schedule in the Form of Agreement documents herein, after the Notice to Proceed (NTP). All bonding and insurance shall be delivered to the County as required by the Contract. The Contractor shall provide Bonds for performance, and payment guarantees for the Computer Aided Dispatch / Automated Vehicle Locator Replacement Project (CADAVLRP) and Kendall Drive Signalization Solution; and,

WHEREAS, the County and the Contractor have mutually agreed to these documents, hereinafter referred to as the "Contract Documents", which are incorporated herein. Payments will be made as provided by the contract Payment Schedule; and,

WHEREAS, the County desires to procure from the Contractor such Work for the County, in accordance with the Contract Documents.

NOW, THEREFORE, in consideration of the mutual covenants and agreements herein contained, the parties hereto agree as follows:

County hereby agrees to pay to the Contractor for said Work, and warranty, the total fixed price



sum of FOURTEEN MILLION SIX HUNDRED THIRTY SIX THOUSAND FORTY FOUR DOLLARS (\$14,636,044.00 (USD)) which includes the costs associated with Bonds, Insurance, Software Licenses, Training, Professional Services, System Warranty and Software Escrow Services. Additionally, at the sole discretion of the County, software and maintenance agreements may be obtained for a cost of TWO MILLION SEVEN HUNDRED SEVENTEEN THOUSAND SIX HUNDRED EIGHTY SIX DOLLARS, (\$ 2,717,686.00 (USD)), over a seven-year period, pursuant to Schedule C - "Software Maintenance Pricing".

ARTICLE 1. DEFINITIONS

The following words and expressions used or referenced in this Agreement shall be construed as follows, except when it is clear from the context that another meaning is intended:

- a. Whenever in the Specifications the words "acceptable", "accepted", "approval", "approved", "authorized", "condemned", "considered-necessary", "deemed necessary", "designated", "determined", "directed", "disapproved", "established", "given", "indicated", "insufficient", "ordered", "permitted", "rejected", "required", "reserved", "satisfactory", "unacceptable", "unsatisfactory", or words of like import are used, it shall be understood as if such words were followed by the words in writing, "by THE COUNTY" or "to the Department", unless otherwise specifically stated.
 - b. Wherever the word "indicated" is used, it shall be understood to mean " as described in the Specifications", "as shown on the contract Plans", or "as required by the other Contract Documents."
 - c. Wherever the words "provided", "supplied", or "installed" are used in the Specifications in reference to work to be performed by the Contractor, it shall be understood to mean "furnished and delivered completed".
1. The word "ACCEPTANCE" to mean reviewed for conformity to Specification and accepted, in writing, by Miami-Dade County (MDC) through issuance of an Acceptance Certificate. Acceptance of individual components within each subsystem of the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION will take place either after completion of installation acceptance testing or upon first use of the respective component in service by MDC. Upon achievement of Acceptance, the Acceptance Certificate shall be issued.
 2. The words "ACCEPTED EQUAL" to mean the proposed alternative shall be functionally compatible with, and of equal or better quality than the item it is proposed to replace. MDC's decision as to whether any material or equipment proposed is equal to that specified shall be binding on both MDC and Contractor.
 3. The word "ALTERATION" to mean a change or substitution in the form, character, or detail of the work done or to be done within the original scope of the Contract.



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4. The words "AMERICANS WITH DISABILITIES ACT (ADA)" to mean the most current version of the federal law mandating facility and equipment accessibility requirements for persons with disabilities.
5. The word "APPROVAL" to mean MDC's written acknowledgement of acceptance.
6. The word "ASSIGNEE" to mean the third party to which rights and/or obligations of a contract is transferred from a contracting party ("Assignor").
7. The word "ASSIGNMENT" to mean the transfer to a third party ("Assignee") by a contracting party ("Assignor") of its obligations and or rights under a contract.
8. The word "ASSIGNOR" to mean a party under contract which assigns rights and/or obligations of that contract to a third party ("Assignee").
9. The words "AUTHORIZED PROVIDER" to mean a firm or individual certified by the Contractor to provide services relating to the Contractor's products.
10. The words "AUTHORIZED SIGNEE" to mean the person who is executing the Contract on behalf of the Contractor and who is authorized to bind the Contractor.
11. The words "BASE LINE DESIGN" to mean the design of each component, apparatus, systems, subsystems, or materials which have received drawing acceptance and/or First Article acceptance by MDC.
12. The words "BASIC or MANUFACTURER'S STANDARD" to mean the component or part standard to be acceptable as part of the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION of the Contractor.
13. The words "CERTIFICATE OF ACCEPTANCE" to mean a certificate issued by the County, for an installed location, when the Contractor has completed installation and testing, of all COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION equipment, connectivity; including software and hardware, electrical and network wiring, for a location, and the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION functions as specified by the Contract Documents.
14. The words "CERTIFICATE OF ACCEPTANCE OF FINAL INSPECTION" to mean a certificate issued by the County when the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION has been completed; including completion of installation of all equipment, materials, all required inspections, tests, work, and rework as required by the Contract documents.
15. The words "CHANGE ORDER" or "EXTRA WORK" or "ADDITIONAL WORK" resulting in additions or deletions or modifications to the amount, time, type or value of the Work and Services as required in this Contract, as directed and/or approved by the County.



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16. The words "COMPONENT IN SERVICE" to mean installed equipment that is operational and meets the criteria for the issuance of a Certificate of Acceptance although such certificate has not yet been issued.
17. The words "CONDITIONAL ACCEPTANCE" to mean acceptance of the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVALRP) AND KENDALL DRIVE SIGNALIZATION for service prior to final acceptance. The System remains conditionally accepted until it is totally responsive to the Specification requirements and corrective action(s) implemented to MDC's satisfaction.
18. The words "CONTRACT" or "CONTRACT DOCUMENTS" or "AGREEMENT" to mean collectively these terms and conditions setting forth the obligations of the Parties there under, and all authorized changes issued subsequent to the execution of the Contract, the performance of the procurement as indicated, and any Exhibits outlined in Article 2.2, and all associated addenda and attachments, the Contractor's Proposal, and all other attachments hereto and all amendments issued hereto.
19. The words "CONTRACT BONDS" to mean the Surety Performance, Warranty, and Payment Bonds executed by the Contractor, and his Surety or sureties, guaranteeing performance of the Procurement in accordance with the Contract and all subsequent agreements.
20. The words "CONTRACT SUM" to mean all monies paid to the Contractor by Miami-Dade County for the work to be completed pursuant to the Contract Documents.
21. The words "CONTRACT TERM" to mean the time period allowed for completion of the Contract.
22. The words "CONTRACTING OFFICER" to mean the individual designated by the Internal Services Department (ISD) - Procurement Management Services (PMS) Director, or designee, to perform Contract Management activities for the Contract.
23. The word "CONTRACTOR" to mean the Prime Contractor, and its permitted successors and assigns, solely responsible for the quality and proper functioning of the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVALRP) AND KENDALL DRIVE SIGNALIZATION and all components; the person or persons, Proposer, partnership, corporation, or combination thereof which has entered into this Contract with MDC to supply the (CADAVALRP).
24. The words "CONTRACTOR'S DRAWINGS" to mean items such as general drawings, detail drawings, graphs, diagrams, sketches, calculations, and catalog cuts which are prepared by the Contractor to detail its work.
25. The words "CONTRACTOR REPRESENTATIVE/PROJECT MANAGER" to mean the person designated by the Contractor with responsibility for the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT AND KENDALL DRIVE SIGNALIZATION (CADAVALRP), who must be empowered to act on behalf of the Contractor.
26. The word(s) "COUNTY" or "THE COUNTY" to mean Miami-Dade County (MDC), as represented by the County Mayor or its authorized designee.



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27. The words "COUNTY PROVIDED DRAWINGS" to mean items such as general drawings, detail drawings, graphs, diagrams, sketches, calculations, and catalog cuts which are prepared by the County to detail the expected system. Drawings are intended to provide a general concept of the County's expectations. Drawings are not to scale and are not to be considered "as-built" drawings.
28. The words "COUNTY REPRESENTATIVE/PROJECT MANAGER" to mean the person designated by the County with responsibility for the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION who must be empowered to act on behalf of the County.
29. The words "CONTRACT DATE" to mean the date on which this Agreement is effective.
30. The words "CONTRACT MANAGER" to mean Miami-Dade County's Director, Internal Services Department (ISD) - Procurement Management Services (PMS), or the duly authorized representative designated to manage the Contract.
31. The words "CUSTOMIZATION" or "SOFTWARE CUSTOMIZATION" to mean software that is specially developed for some specific organization to accommodate that organization's particular preferences, requirements and expectations.
32. The word "DAYS" to mean Calendar Days unless specified otherwise.
33. The word "DEFECT" to mean the inability of a system, subsystem, assembly, or component to perform its required function. This shall not cover expendable items that are subject to normal wear and aging unless they do not perform adequately within their expected life span, or are a contributing cause to failures in other components.
34. The word "DELIVERABLES" to mean all documentation and any items of any nature submitted by the Contractor to the County's Project Manager for review and approval pursuant to the terms of this Agreement.
35. The word "DELIVERY" to mean receipt at MDC of the system in a sound, whole, ready for operation, ready to Acceptance Testing condition. The Contractor shall complete and deliver all equipment and materials defined in the Contract Documents, to designated delivery points.
36. The words "DELIVERY POINT(S)" to mean the location to which the end products are expected to be delivered.
37. The words "DESIGN REVIEW" to mean the stages of system development where equipment and procedures are demonstrated prior to receiving approval to advance the effort to the next level. Stages include a Conceptual Design Review, a Preliminary Design Review and a Final Design Review.



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38. The words "DIRECTED", "REQUIRED", "PERMITTED", "ORDERED", "DESIGNATED", "SELECTED", "PRESCRIBED" or words of like import to mean respectively, the direction, requirement, permission, order, designation, selection or prescription of the County's Project Manager; and similarly the words "APPROVED", "ACCEPTABLE", "SATISFACTORY", "EQUAL", "NECESSARY", or words of like import to mean respectively, approved by, or acceptable or satisfactory to, equal or necessary in the opinion of the County's Project Manager.
39. The words "DIRECTOR, PROCUREMENT" to mean Director of Procurement for MDC, an official designated by MDC as the Principal Contracting Officer.
40. The word "DEPARTMENT" to mean Miami-Dade County Transit department.
41. The words "DOWNLOAD" to mean the process of transferring data from a system containing the information, into a designated recipient system.
42. The words "END PRODUCT" to mean:
 - a. The Contract item(s) to be purchased by MDC in accordance with the Contract Documents.
 - b. End Product(s) includes, but is not limited to, drawings, specifications, instructions, books, education programs, spare parts and/or services.
44. The word "EQUAL" to mean the make or quality of material or equipment in this Contract, the Agency's decision as to whether any material or equipment proposed is equal to that specified shall be binding on both the Contractor and MDC.
45. The words "ESCROW DEPOSIT" to mean placement of Source Code, development tools and documentation for Contractor-Developed Core COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION with an agreed with third party who will insure the safe keeping of these items and shall also release the items to MDC under specific defined conditions.
46. The words "EXTRA WORK" to mean Work required by the County consistent with the general Scope of Services described in the Contract Documents. Such Work shall be completed by the Contractor based on a negotiated Change Order issued by the County to the Contractor.
47. The word "FAILURE" to mean the inability of a system, subsystem, assembly, or component to perform its required function. An improper condition requiring the equipment/system to be withheld or removed from service for corrective action.
48. The words "FAIL SAFE" to mean:
 - a. A characteristic of a system which insures that any malfunction affecting safety shall cause the system to revert to a state that is known to be safe.
 - b. To be considered "fail safe" the systems shall also automatically furnish an acceptable indication in accordance with the Specification that a failure has occurred
49. The word "FIRMWARE" to mean computer programs and data loaded in a class of memory that cannot be modified by the computer during normal operation and is not erased by loss of power.



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50. The words "FIRST USED IN SERVICE" to mean the system has been installed and is operational, meeting all specified requirements to the county's satisfaction. The system has been tested and information (in various formats) can be published via the centralized software; no errors occur, no elements malfunction, and the issuance of a Certificate of Acceptance is imminent.
51. The words "FINAL ACCEPTANCE OF COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT AND KENDALL DRIVE SIGNALIZATION (CADAVLRP)" to mean when all corrective actions and retrofit (if any) have been fully completed, and the System is considered by MDC to be fully compliant with the Contract.
52. The words "FIRST ARTICLE CONFIGURATION INSPECTION (FACI)" to mean inspection and approval of the hardware configuration for each type of COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION equipment to ensure that the technical requirements are met and to establish a baseline for the quality of workmanship to be maintained for production.
53. The words "FIRST ARTICLE INSPECTION/TEST/ACCEPTANCE" to mean the physical examination and approval by MDC of an initial part, major assembly, subassembly, system, subsystem, apparatus, or material, manufactured or assembled by either the Contractor or Subcontractors. The first article approval establishes the baseline design and the minimum level of quality. Although the exercise of First Article Approval shall be at MDC's option, the Contractor shall assume that MDC will subject all equipment to first article examination and approval.
54. The word "GAP ANALYSIS" to mean a technique for determining the steps to be taken in moving from a current state to a desired future-state. In software development, for instance, a gap analysis can be used to document the services and/or functions that need to be eliminated and the ones that need improvement. Gap analysis seeks to answer the questions: "Where are we?" (Current state) and "Where we do we want to be" (Future/target state).
55. The word "INSPECTOR" to mean the person designated by MDC as its quality control representative. The Inspector's authority is derived through the Project Manager.
56. The words "INTELLECTUAL PROPERTY" to mean information, systems, COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION programs, processes, technology, services, methodologies, products and any other materials or rights, tangible or intangible all relating to the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT AND KENDALL DRIVE SIGNALIZATION (CADAVLRP).
57. The word "INTERFACE" to mean the points where two or more physical subsystems or systems meet to transfer energy, data or information.
58. The word "LICENSEE" to mean one to whom a license is granted.



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59. The word "LICENSOR" to mean one who owns the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION and all portions thereof.
60. The words "LOCAL AREA NETWORK" to mean a data communication network used to connect multiple computer workstations in close proximity to one another, i.e., in one office or building.
61. The words "MAINTENANCE, CORRECTIVE" to mean the action performed, as a result of a failure, to restore a system or component item to a specified condition.
62. The words "MAINTENANCE, PREVENTIVE" to mean the action performed in an attempt to maintain equipment or operating function in a specified condition by providing systematic inspection and maintenance.
63. The word "MANUFACTURER" to mean the original manufacturer supplying materials, equipment for the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT AND KENDALL DRIVE SIGNALIZATION (CADAVLRP), or apparatus for installation or usage by MDC.
64. The word "MATERIAL (SUPPLIES)" to mean any substances specified for use in the construction and/or manufacture of the Procurement End Product(s), or to be furnished to MDC as loose items as part of the Procurement.
65. The letters "MDC" to mean Miami-Dade County, a political subdivision of the State of Florida.
66. **INTENTIONALLY OMITTED**
67. The words "NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)" to mean the national safety organization that issues fire safety standards.
68. The word "NOISE" to mean interference presented on a system by undesirable voltages or currents.
69. The word "NOTICE" to mean a written notice.
70. The word "OPTION" to mean a unilateral right in a contract by which, for a specified time, MDC may elect to purchase additional equipment, supplies, or services called for by the contract, or may elect to extend the term of the contract.
71. The word "PACKET" to mean a data block with a unique address, control, and forward error correction signals transmitted as a unit through a telecommunications system.
72. The words "PARTY, PARTIES" to mean entity(ies) entering into the agreement.
73. The words "PRE-EXISTING WORK" to mean work completed and/or owned by the Contractor that may be provided to MDC for the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION within the Terms of the Contract.



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74. The word "PROJECT" to mean the project as described in the Contract documents.
75. The words "PROJECT MANAGER" to mean the authorized representative having the responsibility to oversee and manage the day to day activities of the contract.
76. The word "PROOF" (used as a suffix) to mean that apparatus is designated as splash proof, dust proof, etc., when so constructed, protected, or treated that its successful operation is not interfered with when subject to the specified material or condition.
77. The word "PROPOSAL" to mean the Offer in response to MDC's Request for Proposal, including the Contract Documents with Specifications, to be submitted in the prescribed manner, properly signed and certified using the forms provided by MDC as required and all data to be supplied by the to be in conformance with said Documents. The Proposal includes the Price Proposal.



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78. The word "PROPOSER" to mean any individual, legal proposer; partnership; corporation or joint venture submitting a Proposal on the Form for Proposal provided, for the work contemplated, acting directly or through a duly authorized representative.
79. The word "PROVIDE" as used in "Exhibit 1 - Scope of Services" Section of these Specifications, means design, furnish, test to a fully operational condition, and document, in the manner specified, and to the greatest extent compatible with the intent.
80. The word "QUALIFY" as used in these Specifications shall be the determination that an equipment, assembly, sub-assembly, or any part thereof is satisfactory for continued service under the Contractor's warranty, or that the time is suitable for repair or overhaul to restore it to warrantable service, or that the item must be replaced with a new (or warrantable rebuilt) part.
81. The word "REDUNDANCY" to mean the existence in a system of more than one means to accomplish a given function, for the purpose of increasing security, availability or reliability.
82. The word "REFERENCE" to mean where reference is made in the Contract Documents to publications or standards issued by associations or societies, the intent shall be to specify the current edition of such publications or standards in effect on the date of the RFP Advertisement, notwithstanding any reference to a particular date.
83. The words "RELATED DEFECT" to mean damage inflicted on any component or subsystem as a direct result of a defect.
84. The word "REPRESENTATIVE" to mean any duly authorized agent of MDC or the Contractor.
85. The words "SCOPE OF SERVICES" to mean the document appended hereto as Exhibit 1, which details the work to be performed by the Contractor.
86. The words "SERVICE" as in "SERVICE USE" to mean operation of the System under normal conditions.
87. The words "SOFTWARE" to mean Contractor proprietary licensed software as identified in Exhibit 2, Schedules A and B of this Agreement.
88. The word "STANDARD" to mean a set of universally acknowledged conditions or protocols, established by a recognized authority as a rule for the measure of quantity, weight, extent, value, performance, or quality.
89. The word "STATE" to mean The State of Florida.
90. The words "SUBCONTRACTOR" or "SUBCONSULTANT" to mean any person, entity, firm or corporation, other than the employees of the Contractor, who furnishes labor and/or materials, in connection with the Work, whether directly or indirectly, on behalf and/or under the direction of the Contractor and whether or not in privity of Contract with the Contractor.
91. The word "SUNSET" (as a verb) to mean defining the ending and/or termination of agreements between the Contractor and MDC.



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92. The words "SUPPLEMENTAL AGREEMENT" to mean the Contract may be amended via Supplemental Agreement by the County to document agreed upon additions, deletions, change orders, revisions, modifications, or alterations of the contract documents and Work.
93. The words "SUPPLIER" or "VENDOR" to mean the persons, or corporations who furnish materials/services to the Contractor. Supplier furnished materials/services shall comply with all the contract requirements.
94. The word "SURETY" to mean the corporate body bound with and for the Contractor for the full and complete performance of the Contract and for the payment of all legal debts pertaining to the work, and who executed Bond(s) furnished by the Contractor.
95. The words "SYSTEM" or "SOLUTION" to mean the Computer Aided Dispatch / Automated Vehicle Locator Replacement Project (CADAVALRP) and Kendall Drive Signalization.
96. The words "SYSTEM DEFECT(S)" as used in the Specifications, to mean the failure of identical items by specific location and function in the System, covered by the Warranty, and occurring in the warranty period, in a proportion of the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVALRP) AND KENDALL DRIVE SIGNALIZATION delivered under this Contract.
97. The words "TECHNICAL SPECIFICATIONS" to mean:
 - a. Specifications pertaining generally to the method and manner of performing the work and/or the qualities and quantities of equipment and materials and End Product(s) to be furnished under the Contract.
 - b. The technical specifications may include provisions adopted and issued by MDC or may include other standards incorporated in the Contract Documents by reference.
98. The words "THIRD PARTY SOFTWARE" shall mean software developed by an organization or individual other than the two principals (Contractor and County) involved in this Agreement and licensed by Contractor to County pursuant to this agreement.
99. The word "TIGHT" (used as a suffix) to mean that apparatus is designated as water tight, dust tight, air tight, etc., when so constructed that the enclosing case will exclude the specified material.
100. The words "USER CONFIGURABLE/SETTABLE" to mean Miami-Dade County will be able to make changes without the need for source code modification or Contractor support.
101. The Words "WARRANTY" OR "THREE YEAR WARRANTY" to mean the Contractor's obligation to ensure proper functionality of the Work and all material, components, parts, equipment, products, hardware and software systems furnished pursuant to the Contract Documents are, shall be, and shall perform, in accordance and conformance with the requirements of the Contract Documents.



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- 102. The words "WIDE AREA NETWORK (WAN)" to mean a data communication network connecting multiple workstations or local area networks (LANs) not located in close proximity to each other.
- 103. The words "WIRELESS LAN" to mean a local area network that transmits over the air typically in the 2.4 GHz or 5GHz unlicensed frequency band. It does not require line of sight between sender and receiver. Wireless base stations (access points) are wired to an Ethernet network and transmit a radio frequency over an area of several hundred feet through walls and other non-metal barriers. Roaming users can be handed off from one access point to another like a cellular phone system.
- 104. The words "WORK", "SERVICES", "PROGRAM", "PROJECT" or "ENGAGEMENT" to mean all matters and things that will be required to be done by the Contractor in accordance with "Exhibit 1 - Scope of Services" and the terms and conditions of this Solicitation. Work shall include extra work desired by the County authorized via Change Order to the Contractor.
- 105. The words "WORKING DAYS" to mean all days excluding Saturdays and Sundays, and all County observed holidays.

ARTICLE 1.1 ADDITIONAL DEFINITIONS

- 1.1.2 Wherever in the Contract Documents the words "directed", "required", "ordered", "designated", "prescribed", or similar words are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription" of the County or the County is intended unless otherwise expressly stated. Similarly, the words "approved", "satisfactory", or similar words, shall mean "approved by", or "satisfactory to" the County or the County, unless otherwise expressly stated.
- 1.1.3 Where "as shown", "as indicated", "as detailed", or similar words are used, it shall be understood that the reference is made to the Contract Documents unless stated otherwise.

ARTICLE 1.2. ABBREVIATIONS

ADA	American with Disabilities Act
ANSI	American National Standards Institute
AVL	Automatic Vehicle Locator
BPS	Bits Per Second
CAD	Computer Aided Dispatch
CD-ROM	Compact Disc-Read Only Memory
FACI	First Article Configuration Inspection
FAT	First Article Test
FCC	Federal Communications Commission
GPS	Global Positioning System
GUI	Graphical User Interface
ISO	International Standards Organization
LAN	Local Area Network
LOC	Letter of Credit



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NTP	Notice To Proceed
NFPA	National Fire Protection Agency
ODBC	Open Data Base Connectivity
OSHA	Occupational Safety and Health Administration
OEM	Original Equipment Manufacturer
PIN	Personal Identification Number
PROM	Programmable Read Only Memory
RAM	Random Access Memory
RDBM	Relational Database Manager
RFP	Request for Proposals
TRFP	Test Request for Proposals
ROM	Read Only Memory
SAN	Storage Area Network
COUNTY	Miami-Dade County
TCP/IP	Transmission Control Protocol/Internet Protocol
WAN	Wide Area Network

ARTICLE 2. ORDER OF PRECEDENCE AND LIST OF EXHIBITS

- 2.1 If there is a conflict between or among the provisions of this Agreement, the order of precedence is as follows: 1) Any Amendment (s) to this agreement 2) these terms and conditions, 3) the Scope of Services (Exhibit 1), 4) Software License Agreement (Exhibit 2), 5) Software Escrow Agreement (Exhibit 4), 6) Software Maintenance and Support Agreement (Exhibit 3), 7) Contractor's Proposal, 8) the Miami-Dade County's RFP No. 808, and any associated addenda and attachments thereof.
- 2.2 The following is a list of the exhibits under this Agreement:
 - Exhibit 1 – Scope of Services
 - Exhibit 2 – Software License Agreement
 - Exhibit 3 – Software Maintenance and Support Agreement
 - Exhibit 4 – Software Escrow Agreement
 - Exhibit 5 – Project Schedule
 - Exhibit 6 – Payment Schedule
 - Exhibit 7 – Approach to Providing the Services
 - Exhibit 8 – Price Schedule
 - Exhibit 9 – Intentionally Omitted (Wireless Coverage Map All Modes)
 - Exhibit 10 – Infotainment Pilot

ARTICLE 3. RULES OF INTERPRETATION



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- 3.1 References to a specified Article, section or schedule shall be construed as reference to that specified Article, or section of, or schedule to this Agreement unless otherwise indicated.
- 3.2 Reference to any agreement or other instrument shall be deemed to include such agreement or other instrument as such agreement or other instrument may, from time to time, be modified, amended, supplemented, or restated in accordance with its terms.
- 3.4 The terms "hereof", "herein", "hereinafter", "hereby", "herewith", "hereto", and "hereunder" shall be deemed to refer to this Agreement. The titles, headings, captions and arrangements used in these Terms and Conditions are for convenience only and shall not be deemed to limit, amplify or modify the terms of this Contract, nor affect the meaning thereof.
- 3.5 Referenced Standards

Whenever the Contract Documents reference a standard, said standard shall be, unless otherwise indicated, the latest version or edition in effect on the date on which the Best and Final Offers were due. In the case of a conflict between referenced standards and the Contract Documents, the Contract Documents shall govern.

ARTICLE 4. NATURE OF THE AGREEMENT

- 4.1 This Agreement incorporates and includes all prior negotiations, correspondence, conversations, agreements, and understandings applicable to the matters contained in this Agreement. The parties agree that there are no commitments, agreements, or understandings concerning the subject matter of this Agreement that are not contained in this Agreement, and that this Agreement contains the entire agreement between the parties as to all matters contained herein. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representations or agreements, whether oral or written. It is further agreed that any oral representations or modifications concerning this Agreement shall be of no force or effect, and that this Agreement may be modified, altered or amended only by a written amendment duly executed by both parties hereto or their authorized representatives.
- 4.2 The Contractor shall provide the services set forth in "Exhibit 1- Scope of Services", and render full and prompt cooperation with the County in all aspects of the Services performed hereunder.
- 4.3 The Contractor acknowledges that this Agreement requires the performance of all things necessary for or incidental to the effective and complete performance of all Work and Services under this Contract. All things not expressly mentioned in this Agreement but necessary to carrying out its intent are required by this Agreement, and the Contractor shall perform the same as though they were specifically mentioned, described and delineated.
- 4.4 The Contractor shall furnish all labor, materials, tools, supplies, and other items required to perform the Work and Services that are necessary for the completion of this Contract. All Work and Services shall be accomplished at the direction of and to the satisfaction of the County's Project Manager.
- 4.5 The Contractor acknowledges that the County shall be responsible for making all policy



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decisions regarding the Scope of Services. The Contractor agrees to provide input on policy issues in the form of recommendations. The Contractor agrees to implement any and all changes in providing Services hereunder as a result of a policy change implemented by the County. The Contractor agrees to act in an expeditious and fiscally sound manner in providing the County with input regarding the time and cost to implement said changes and in executing the activities required to implement said changes.

ARTICLE 5. CONTRACT TERM

5.1 The Contract shall become effective on _____ and shall be in effect for up to twelve (12) years from the date of the Notice To Proceed (NTP). The County, at its sole discretion, reserves the right to execute Software Agreements for: Software License, Software Escrow, and Software Maintenance and Support Agreements, for up to seven years, on a year-to year basis, included in the 12 year term. The County reserves the right to exercise its option to extend this Contract for up to one hundred-eighty (180) calendar days beyond the current Contract period and will notify the Contractor in writing of the extension. This Contract may be extended beyond the initial one hundred-eighty (180) calendar day extension period by mutual agreement between the County and the Contractor, upon approval by the Board of County Commissioners.

ARTICLE 6. NOTICE REQUIREMENTS

6.1 All notices required or permitted under this Agreement shall be in writing and shall be deemed sufficiently served if delivered by Registered or Certified Mail, with return receipt requested; or delivered personally; or delivered via fax or e-mail (if provided below) and followed with delivery of hard copy; and in any case addressed as follows:

(1) to the County

a) to the Project Manager: Transit Director or Designee

Miami-Dade County
Attention: Transit Project Manager
Phone: 786-469-5081
Fax: 786-469-5490
E-mail: hectorg@miamidade.gov

and,

b) to the Contract Manager:

Director of Miami-Dade County Internal Services Department (ISD) -
Procurement Management Services (PMS) Designee

Miami-Dade County
Internal Services Department (ISD) - Procurement Management Services
(PMS)
111 N.W. 1st Street, Suite 1300
Miami, FL 33128-1974



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Attention: Director, Internal Services Department (ISD)
Phone: (305) 375-5548
Fax: (305) 375-2316

(2) To the Contractor

Clever Devices, Ltd.
300 Crossways Park Drive
Woodbury New York 11797

Attention: Andrew Stanton
Phone: 516 433 6100

And

Mitchell Bierman, Attorney
Weiss Serota PL
2525 Ponce de Leon Blvd, Suite 700
Coral Gables, Florida 33134
(305) 728 4127

Either party may at any time designate a different address and/or contact person by giving notice as provided above to the other party. Such notices shall be deemed given upon receipt by the addressee.

ARTICLE 7. PAYMENT FOR SERVICES/AMOUNT OBLIGATED

- 7.1 The Contractor warrants that it has reviewed the County's requirements and has asked such questions and conducted such other inquiries as the Contractor deemed necessary in order to determine the price the Contractor will charge to provide the Work and Services to be performed under this Contract. The compensation for all Work and Services performed under this Contract, including all costs associated with such Work and Services, shall be in the total amount of FOURTEEN MILLION SIX HUNDRED THIRTY SIX THOUSAND FORTY FOUR DOLLARS (\$14,636,044.00 (USD)). Additionally, at the sole discretion of the County, software and maintenance agreements may be obtained for a cost of TWO MILLION SEVEN HUNDRED SEVENTEEN THOUSAND SIX HUNDRED EIGHTY SIX DOLLARS, (\$ 2,717,686.00 (USD)), over a seven-year period, pursuant to Schedule C - "Software Maintenance Pricing". The County shall have no obligation to pay the Contractor any additional sum in excess of this amount, except for a change and/or modification to the Contract, which is approved and executed in writing by the County and the Contractor.
- 7.2 All Services undertaken by the Contractor before County's approval of this Contract shall be at the Contractor's risk and expense. With respect to travel costs and travel-related expenses, the Contractor agrees to adhere to Section 112.061 of the Florida Statutes as they pertain to out-of-pocket expenses, including employee lodging, transportation, per diem, and all miscellaneous cost and fees. The County shall not be liable for any such expenses that have not been approved in advance, in writing, by the County.



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ARTICLE 8. PRICING

- 8.1 Prices shall remain firm and fixed for the term of the Contract, including any option or extension periods; however, the Contractor may offer incentive discounts to the County at any time during the Contract term, including any renewal or extension thereof. The County's pricing shall be in accordance with Price Schedule (Exhibit 8) for this Agreement.

ARTICLE 9. METHOD AND TIMES OF PAYMENT

- 9.1 The Contractor agrees that under the provisions of this Agreement, as reimbursement for those actual, reasonable and necessary costs incurred by the Contractor, which are directly attributable or properly allocable to the Software license fees, hardware costs, Services, expenses, and annual maintenance fees, the Contractor may bill the County in accordance with Exhibit 6 - the Payment Schedule. All invoices shall be taken from the books of account kept by the Contractor, documents reasonably required by the County, shall show the County's contract number, and shall have a unique invoice number assigned by the Contractor.
- 9.2 It is the policy of Miami-Dade County that payment for all purchases by County agencies and the Public Health Trust shall be made in a timely manner and that interest payments be made on late payments. In accordance with Florida Statutes, Section 218.74 and Section 2-8.1.4 of the Miami-Dade County Code, the time at which payment shall be due from the County or the Public Health Trust shall be forty-five (45) days from receipt of a proper invoice. All payments due from the County or the Public Health Trust and not made within the time specified by this section shall bear interest from thirty (30) days after the due date at the rate of one percent (1%) per month on the unpaid balance. Further, proceedings to resolve disputes for payment of obligations shall be concluded by final written decision of the County Mayor, or his or her designee(s), not later than sixty (60) days after the date on which the proper invoice was received by the County or the Public Health Trust.
- 9.4 Invoices and associated back-up documentation shall be submitted in duplicate by the Contractor to the County as follows:
- Miami-Dade County
701 NW 1st Ct, 12th Floor
Miami, FL 33136
Attention: CADAFLRP Project Manager
- 9.5 The County may at any time designate a different address and/or contact person by giving written notice to the other party.
- 9.6 In the event expenditures reimbursed to the Contractor under the Contract are subsequently disallowed by the County, due to accounting errors, changes not in conformity with the Contract, or any other reason the Contractor shall immediately refund such amounts to the County.
- 9.7 Payments made under the Contract by the County shall not be construed as relieving the Contractor from sole responsibility for all, material, equipment and work upon which



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payments have been made or as an acceptance of defective work or acceptance of improper material, or as condoning any omission of required work. No payment or certificate, final or otherwise, shall be construed as relieving the Contractor from its contractual obligations to make acceptable any defects and consequences thereof, discovered in the Work, even when discovered after completion or acceptance of same. No payment or certificate, final or otherwise, shall be construed as a waiver of any of the Contractor's obligations set forth in the Contract.

ARTICLE 10. INDEMNIFICATION AND INSURANCE

10.1 The Contractor shall indemnify and hold harmless the County and its officers, employees, agents and instrumentalities from any and all liability, losses or damages, including attorneys' fees and costs of defense ("Losses"), which the County or its officers, or employees, agents or instrumentalities ("Indemnified Parties") may incur as a result of claims, demands, suits, causes of actions or proceedings of any kind or nature arising out of, relating to or resulting from the Contractor's negligent or intentional acts or omissions committed in the course of the performance of this Agreement by the Contractor or its employees, agents, servants, partners principals or subcontractors, but only to the extent that such Losses are not the result of negligence or acts or omissions on the part of the Indemnified Parties or other actors not under the control of Contractor. The Contractor shall settle/pay all claims and losses in connection therewith and shall investigate and defend all claims, suits or actions of any kind or nature in the name of the Indemnified Parties, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may issue thereon, provided that the Indemnified Parties give the Contractor reasonable notice of such claims, suites or actions. The Contractor expressly understands and agrees that any insurance or Bond protection required by this Agreement or otherwise provided by the Contractor shall in no way limit the responsibility to indemnify, keep and save harmless and defend the Indemnified Parties or its officers, employees, agents and instrumentalities as herein provided.

The Contractor's entire liability and responsibility for any and all claims, damages or losses arising from or in connection with this Contract or the use of the Contractor's software by the County or the development, modification or maintenance of the Contractor's software, shall be absolutely limited to the amount of the Contract amount as it may be or have been changed from time to time in accordance with the Contract documents. Except for, and/or to the extent covered by, liquidated damages incurred pursuant to Article 56, neither party shall be liable to the other party or any third party for losses or damages suffered by a party or any third party, whether suffered directly or indirectly or that are immediate or consequential (to the fullest extent permitted by law), which fall within the following categories: a) special damages; b) loss of profits, anticipated savings, business opportunity or goodwill; or c) loss of data or information of any kind.

10.2 Upon County's notification, the Contractor shall furnish to the Internal Services Department (ISD) - Procurement Management Services (PMS), Certificates of Insurance that indicate that insurance coverage has been obtained, which meets the requirements as outlined below:

1. Worker's Compensation Insurance for all employees of the Contractor as



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required by Florida Statute 440.

2. General Liability Insurance on a comprehensive basis in an amount not less than \$1,000,000 combined single limit per occurrence for bodily injury and property damage. Miami-Dade County must be shown as an additional insured with respect to this coverage. **The mailing address of Miami-Dade County 111 N.W. 1st Street, Suite 1300, Miami, Florida 33128-1974, as the certificate holder, must appear on the certificate of insurance.**
 3. Automobile Liability Insurance covering all owned, non-owned, and hired vehicles used in connection with the Services, in an amount not less than \$500,00 combined single limit per occurrence for bodily injury and property damage.
 4. Professional Liability Insurance in an amount not less than \$1,000,000 with a deductible per claim not to exceed ten percent (10%) of the limit of liability.
- 10.3 The insurance coverage required shall include those classifications, as listed in standard liability insurance manuals, which most nearly reflect the operation of the Contractor. All insurance policies required above shall be issued by companies authorized to do business under the laws of the State of Florida with the following qualifications:
- 10.3.1 The company must be rated no less than "B" as to management, and no less than "Class V" as to financial strength by A.M. Best Company, Oldwick, New Jersey, or its equivalent, subject to the approval of the County Risk Management Division.
- OR
- 10.3.2 The company must hold a valid Florida Certificate of Authority as shown in the latest "List of All Insurance Companies Authorized or Approved to Do Business in Florida", issued by the State of Florida Department of Financial Services and are members of the Florida Guaranty Fund.
- 10.4 **Certificates of Insurance must indicate that for any cancellation of coverage before the expiration date, the issuing insurance carrier will endeavor to mail thirty (30) day written advance notice to the certificate holder. In addition, the Contractor hereby agrees not to modify the insurance coverage without thirty (30) days written advance notice to the County.**
- 10.5 **NOTE: MIAMI-DADE COUNTY CONTRACT NUMBER AND TITLE MUST APPEAR ON EACH CERTIFICATE OF INSURANCE.**
- 10.6 Compliance with the foregoing requirements shall not relieve the Contractor of this liability and obligation under this section or under any other section in this Agreement.
- 10.7 Award of this Contract is contingent upon the receipt of the insurance documents, as required, within ten (10) business days after notification of recommendation to award. If the insurance certificate is received within the specified time frame but not in the manner prescribed in this Agreement, the Contractor shall have an additional five (5) business days to submit a corrected certificate to the County. If the Contractor fails to submit the required insurance documents in the manner prescribed in this Agreement within fifteen



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(15) business days, the Contractor shall be in default of the contractual terms and conditions and award of the Contract may be rescinded, unless such timeframe for submission has been extended by the County.

- 10.8 The Contractor shall be responsible for ensuring that the insurance certificates required in conjunction with this Section remain in force for the duration of the contractual period of the Contract, including any and all option years or extension periods that may be granted by the County. If insurance certificates are scheduled to expire during the contractual period, the Contractor shall be responsible for submitting new or renewed insurance certificates to the County at a minimum of thirty (30) calendar days in advance of such expiration. In the event that expired certificates are not replaced with new or renewed certificates which cover the contractual period, the County shall suspend the Contract until such time as the new or renewed certificates are received by the County in the manner prescribed herein; provided, however, that this suspended period does not exceed thirty (30) calendar days. Thereafter, the County may, at its sole discretion, terminate this contract.

ARTICLE 11. MANNER OF PERFORMANCE

- 11.1 The Contractor shall provide the Services described herein in a competent and professional manner satisfactory to the County in accordance with the terms and conditions of this Agreement. The County shall be entitled to a satisfactory performance of all Services described herein and to full and prompt cooperation by the Contractor in all aspects of the Services. At the request of the County, the Contractor shall promptly remove from the project any Contractor's employee, subcontractor, or any other person performing Services hereunder. The Contractor agrees that such removal of any of its employees does not require the termination or demotion of any employee by the Contractor. The County shall not act arbitrarily or discriminatorily in the exercise of this authority.
- 11.2 The Contractor agrees to defend, hold harmless and indemnify the County and shall be liable and responsible for any and all claims, suits, actions, damages and costs (including attorney's fees and court costs) made against the County, occurring on account of, arising from or in connection with the removal and replacement of any Contractor's personnel performing services hereunder at the behest of the County. Removal and replacement of any Contractor's personnel as used in this Article shall not require the termination and or demotion of such Contractor's personnel.
- 11.3 The Contractor agrees that at all times it will employ, maintain and assign to the performance of the Services a sufficient number of competent and qualified professionals and other personnel to meet the requirements to which reference is hereinafter made. The Contractor agrees to adjust its personnel staffing levels or to replace any its personnel if so directed upon reasonable request from the County, should the County make a determination, in its sole discretion that said personnel staffing is inappropriate or that any individual is not performing in a manner consistent with the requirements for such a position.
- 11.4 The Contractor warrants and represents that its personnel have the proper skill, training, background, knowledge, experience, rights, authorizations, integrity, character and licenses as necessary to perform the Services described herein, in a competent and professional manner.



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- 11.5 The Contractor shall at all times cooperate with the County and coordinate its respective work efforts to most effectively and efficiently maintain the progress in performing the Services.
- 11.6 The Contractor shall comply with all provisions of all federal, state and local laws, statutes, ordinances, and regulations that are applicable to the performance of this Agreement.

ARTICLE 12. EMPLOYEES ARE THE RESPONSIBILITY OF THE CONTRACTOR

- 12.1 All employees of the Contractor shall be considered to be, at all times, employees of the Contractor under its sole direction and not employees or agents of the County. The Contractor shall supply competent employees. Miami-Dade County may require the Contractor to remove an employee it deems careless, incompetent, insubordinate or otherwise objectionable and whose continued employment on County property is not in the best interest of the County. Each employee shall have and wear proper county issued identification.

ARTICLE 13. INDEPENDENT CONTRACTOR RELATIONSHIP

- 13.1 The Contractor is, and shall be, in the performance of all work services and activities under this Agreement, an independent contractor, and not an employee, agent or servant of the County. All persons engaged in any of the work or services performed pursuant to this Agreement shall at all times, and in all places, be subject to the Contractor's sole direction, supervision and control. The Contractor shall exercise control over the means and manner in which it and its employees perform the work, and in all respects the Contractor's relationship and the relationship of its employees to the County shall be that of an independent contractor and not as employees and agents of the County.
- 13.2 The Contractor does not have the power or authority to bind the County in any promise, agreement or representation other than specifically provided for in this Agreement.

ARTICLE 14. AUTHORITY OF THE COUNTY'S PROJECT MANAGER

- 14.1 The Contractor hereby acknowledges that the County's Project Manager will determine in the first instance all questions of any nature whatsoever arising out of, under, or in connection with, or in any way related to or on account of, this Agreement including without limitations: questions as to the value, acceptability and fitness of the Services; questions as to either party's fulfillment of its obligations under the Contract; negligence, fraud or misrepresentation before or subsequent to acceptance of the Contractor's Proposal; questions as to the interpretation of the Contract Documents; and claims for damages, compensation and losses.
- 14.2 The Contractor shall be bound by all determinations or orders and shall promptly obey and follow every order of the County's Project Manager, including the withdrawal or modification of any previous order and regardless of whether the Contractor agrees with the County's Project Manager's determination or order. Where orders are given orally,



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they will be issued in writing by the County's Project Manager within five (5) business days thereafter.

- 14.3 The Contractor must, in the final instance, seek to resolve every difference concerning the Agreement with the County's Project Manager. In the event that the Contractor and the County's Project Manager are unable to resolve their difference, the Contractor may initiate a claim of dispute in accordance with the procedures set forth in Article 69. Exhaustion of these procedures shall be a condition precedent to any lawsuit permitted hereunder.

ARTICLE 15. MUTUAL OBLIGATIONS

- 15.1 This Agreement, including attachments and appendices to the Agreement, shall constitute the entire Agreement between the parties with respect hereto and supersedes all previous communications and representations or agreements, whether written or oral, with respect to the subject matter hereto unless acknowledged in writing by the duly authorized representatives of both parties.
- 15.2 Nothing in this Agreement shall be construed for the benefit, intended or otherwise, of any third party that is not a parent or subsidiary of a party or otherwise related (by virtue of ownership control or statutory control) to a party.
- 15.3 In those situations where this Agreement imposes an indemnity obligation on the Contractor, the County may, at its expense, elect to participate in the defense if the County should so choose. Furthermore, the County may at its own expense defend or settle any such claims if the Contractor fails to diligently defend such claims, and thereafter seek indemnity for costs from the Contractor.
- 15.4 The County shall:
- (i) Provide all data, information, assistance, access to its computers (including direct remote electronic access) and facilities at its location, as reasonably required by the Contractor, in order to facilitate the optimum performance by the Contractor of its obligations.
 - (ii) Designate a person to manage the project for the County, (the "Project Manager") who is appropriately experienced in its business, skilled in managing software installation and implementation projects and vested with sufficient authority to make and convey the County's decisions relating to the services being provided and Software installed by the Contractor and to use all reasonable endeavors to ensure that any agreed timescales for the County's actions are achieved.
 - (iii) Deliver all data and information to the Contractor during the implementation process necessary to enable the Contractor to install and implement the Contractor's Software.
 - (iv) Take steps and acts necessary to allow the Contractor to perform its obligations under this Amendment in a timely and efficient manner. Such steps and acts shall include, without limitation, the purchase, installation and implementation by the County of the network communication infrastructure as may be necessary to the fulfillment of the Contractor's obligations set out herein.



ARTICLE 16. QUALITY ASSURANCE RECORD KEEPING

- 16.1 The Contractor shall maintain, and shall require that its subcontractors and suppliers maintain, complete and accurate records to substantiate compliance with the requirements set forth in Exhibit 1 - Scope of Services. The Contractor and its subcontractors and suppliers, shall retain such records, and all other documents relevant to the Services furnished under this Agreement for a period of three (3) years from the expiration date of this Agreement and any extension thereof.

ARTICLE 17. AUDITS

- 17.1 The County, or its duly authorized representatives or governmental agencies, shall until the expiration of three (3) years after the expiration of this Agreement and any extension thereof, have access to and the right to examine and reproduce any of the Contractor's books, documents, papers and records and of its subcontractors and suppliers which apply to all matters of the County. Such records shall subsequently conform to Generally Accepted Accounting Principles requirements, as applicable, and shall only address those transactions related to this Agreement.
- 17.2 Pursuant to County Ordinance No. 03-2, the Contractor will grant access to the Commission Auditor to all financial and performance related records, property, and equipment purchased in whole or in part with government funds. The Contractor agrees to maintain an accounting system that provides accounting records that are supported with adequate documentation, and adequate procedures for determining the allowability and allocability of costs.

ARTICLE 18. SUBSTITUTION OF PERSONNEL

- 18.1 In the event the Contractor wishes to substitute personnel for the key personnel identified by the Contractor's Proposal, the Contractor must notify the County in writing and request written approval for the substitution at least fifteen (15) business days prior to effecting such substitution.

ARTICLE 19. CONSENT OF THE COUNTY REQUIRED FOR ASSIGNMENT

- 19.1 The Contractor shall not assign, transfer, convey or otherwise dispose of this Agreement, including its rights, title or interest in or to the same or any part thereof without the prior written consent of the County. Said consent shall not be unreasonably withheld.
- 19.2 The County may assign its rights and obligations under this Agreement, to the extent allowed by applicable laws or governmental regulations. Nothing herein shall prohibit the County from allowing a third-party service provider that provides outsourcing services directly to the County from accessing the CADAVALRP in order to provide any such outsourcing services to the County.



ARTICLE 20. SUBCONTRACTS/SUBCONTRACTUAL RELATIONSHIPS

- 20.1 Prior to the County's review of a proposed agreement, subcontract or purchase order, or proposed Subcontractor or Supplier, the Contractor shall provide the County with the name of the proposed Subcontractor or Supplier, the task to be performed by the proposed Subcontractor or Supplier, and the qualifications of the proposed Subcontractor or Supplier to perform said portion of the Work.
- 20.2 The Contractor shall not knowingly enter into any lower tier transactions with any person or company who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in the Agreement, unless authorized in writing by the County. Furthermore, the Contractor shall include the provisions of this paragraph, without modification, in all lower tier contracts and in all solicitations for lower tier contracts.
- 20.3 The Contractor shall be responsible to the County for acts and omissions of actions in relation to its own employees, and for the acts and omissions of any Subcontractor or any Supplier in relation to its employees. The Contractor shall also be responsible for the coordination of the work of all Subcontractors and Suppliers. When a portion of the Work which has been subcontracted by the Contractor is not prosecuted in accordance with the Contract Documents, the Subcontractor or Supplier shall be immediately replaced upon request of the County and shall not again be employed on the Work.
- 20.4 The County shall not be responsible for settling any differences between the Contractor and its Subcontractors or Suppliers.
- 20.5 If the Contractor will cause any part of this Agreement to be performed by a Subcontractor, the provisions of this Contract will apply to such Subcontractor and its officers, agents and employees in all respects as if it and they were employees of the Contractor; and the Contractor will not be in any manner thereby discharged from its obligations and liabilities hereunder, but will be liable hereunder for all acts and negligence of the Subcontractor, its officers, agents, and employees, as if they were employees of the Contractor. The services performed by the Subcontractor will be subject to the provisions hereof as if performed directly by the Contractor.
- 20.6 The Contractor, before making any subcontract for any portion of the services, will state in writing to the County the name of the proposed Subcontractor, the portion of the Services which the Subcontractor is to do, the place of business of such Subcontractor, and such other information as the County may require. The County will have the right to require the Contractor not to award any subcontract to a person, firm or corporation disapproved by the County.
- 20.7 Before entering into any subcontract hereunder, the Contractor will inform the Subcontractor fully and completely of all provisions and requirements of this Agreement relating either directly or indirectly to the Services to be performed. Such Services performed by such Subcontractor will strictly comply with the requirements of this Contract.
- 20.8 In order to qualify as a Subcontractor satisfactory to the County, in addition to the other requirements herein provided, the Subcontractor must be prepared to prove to the satisfaction of the County that it has the necessary facilities, skill and experience, and ample financial resources to perform the Services in a satisfactory manner. To be considered skilled and experienced, the Subcontractor must show to the satisfaction of the County that it has satisfactorily performed services of the same general type which is



required to be performed under this Agreement.

- 20.9 The County shall have the right to withdraw its consent to a subcontract if it appears to the County that the subcontract will delay, prevent, or otherwise impair the performance of the Contractor's obligations under this Agreement. All Subcontractors are required to protect the confidentiality of the County's and County's proprietary and confidential information. Contractor shall furnish to the County copies of all subcontracts between Contractor and Subcontractors and suppliers hereunder. Within each such subcontract, there shall be a clause for the benefit of the County in the event the County finds the Contractor in breach of this Contract, permitting the County to request completion by the Subcontractor of its performance obligations under the subcontract. The clause shall include an option for the County to pay the Subcontractor directly for the performance by such Subcontractor. Notwithstanding, the foregoing shall neither convey nor imply any obligation or liability on the part of the County to any subcontractor hereunder as more fully described herein.

ARTICLE 21. ASSUMPTION, PARAMETERS, PROJECTIONS, ESTIMATES AND EXPLANATIONS

- 21.1 The Contractor understands and agrees that any assumptions, parameters, projections, estimates and explanations presented by the County were provided to the Contractor for evaluation purposes only. However, since these assumptions, parameters, projections, estimates and explanations represent predictions of future events the County makes no representations or guarantees; and the County shall not be responsible for the accuracy of the assumptions presented; and the County shall not be responsible for conclusions to be drawn therefrom; and any assumptions, parameters, projections, estimates and explanations shall not form the basis of any claim by the Contractor. The Contractor accepts all risk associated with using this information.

ARTICLE 22. SEVERABILITY

- 22.1 If this Agreement contains any provision found to be unlawful, the same shall be deemed to be of no effect and shall be deemed stricken from this Agreement without affecting the binding force of this Agreement as it shall remain after omitting such provision.

ARTICLE 23. TERMINATION AND SUSPENSION OF WORK

- 23.1 The County may terminate this Agreement if an individual or corporation or other entity attempts to meet its contractual obligation with the County through fraud, misrepresentation or material misstatement.
- 23.2 The County may, as a further sanction, terminate or cancel any other contract(s) that such individual or corporation or other entity has with the County and that such individual, corporation or other entity shall be responsible for all direct and indirect costs associated with such termination or cancellation, including attorney's fees.
- 23.3 The foregoing notwithstanding, any individual, corporation or other entity which attempts to meet its contractual obligations with the County through fraud, misrepresentation or material misstatement may be debarred from County contracting for up to five (5) years in accordance with the County debarment procedures. The Contractor may be subject



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to debarment for failure to perform and all other reasons set forth in Section 10-38 of the County Code.

23.4 In addition to cancellation or termination as otherwise provided in this Agreement, the County may at any time, in its sole discretion, with or without cause, terminate this Agreement by at least thirty (30) business days written notice to the Contractor and in such event:

23.4.1 The Contractor shall, upon receipt of such notice, unless otherwise directed by the County:

- i. stop work on the date specified in the notice ("the Effective Termination Date");
- ii. take such action as may be necessary for the protection and preservation of the County's materials and property;
- iii. cancel orders;
- iv. assign to the County and deliver to any location designated by the County any non-cancelable orders for Deliverables that are not capable of use except in the performance of this Agreement and has been specifically developed for the sole purpose of this Agreement and not incorporated in the Services; and
- v. take no action which will increase the amounts payable by the County under this Agreement.

23.5 In the event that the County exercises its right to terminate this Agreement pursuant to this Article, the Contractor will be compensated as stated in the payment Articles herein for the:

- i. portion of the Services completed in accordance with the Agreement up to the Effective Termination Date; and
- ii. non-cancelable deliverables that are not capable of use except in the performance of this Agreement and Work Order and has been specifically developed for the sole purpose of this Agreement and Work Order, but not incorporated in the Services.
- iii. Costs incurred by the Contractor as a direct result of the termination such as demobilization costs.

23.6 All compensation pursuant to this Article is subject to audit.

ARTICLE 24. EVENT OF DEFAULT

24.1 An Event of Default shall mean a breach of this Agreement by the Contractor. Without limiting the generality of the foregoing, and in addition to those instances referred to herein as a breach, an Event of Default shall include the following:



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- i. the Contractor has not delivered Deliverables in accordance with a written project schedule mutually agreed to by the parties where such failure unreasonably delays completion of the Project and which the delayed delivery is not excused by force majeure or other cause beyond the Contractor's control;

the Contractor has refused or failed, except in case for which an extension of time is provided, to supply enough properly skilled staff personnel and which such failure unreasonably delays the completion of the Project.

- ii. the Contractor has failed to make prompt payment to subcontractors or suppliers for any Services;
- iii. the Contractor has become insolvent (other than as interdicted by the bankruptcy laws), or has assigned the proceeds received for the benefit of the Contractor's creditors, or the Contractor has taken advantage of any insolvency statute or debtor/creditor law or if the Contractor's affairs have been put in the hands of a receiver;
- iv. the Contractor has failed to obtain the approval of the County where required by this Agreement and has failed to remedy the same.
- v. the Contractor has failed to provide "adequate assurances" as required under subsection b below;
- vi. the Contractor has failed in the representation of any warranties stated herein.

24.2 When, in the opinion of the County, reasonable grounds for uncertainty exist with respect to the Contractor's ability to perform the Services or any portion thereof, the County may request that the Contractor, within the timeframe set forth in the County's request, provide adequate assurances to the County, in writing, of the Contractor's ability to perform in accordance with the terms of this Agreement. Until the County receives such assurances, the County may request an adjustment to the compensation received by the Contractor for portions of the Services which the Contractor has not performed. In the event that the Contractor fails to provide to the County the requested assurances within the prescribed timeframe, the County may:

- i. treat such failure as a repudiation of this Agreement; and
- ii. resort to any remedy for breach provided herein or at law, including but not limited to, taking over the performance of the Services or any part thereof either by itself or through others.

24.3 In the event the County shall terminate this Agreement for default, the County or its designated representatives may immediately take possession of all applicable equipment, materials, products, documentation, reports and data, and the County shall return to the Contractor all copies of the Contractor's proprietary software, all related software documentation, and any other proprietary material of the Contractor, or will certify to the Contractor that all such copies have been destroyed.

ARTICLE 25. NOTICE OF DEFAULT-OPPORTUNITY TO CURE

25.1 If an Event of Default occurs in the determination of the County, the County shall notify



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the Contractor in writing ("Default Notice"), specifying the basis for such default and the County shall allow the Contractor to rectify the default to the County's reasonable satisfaction within a thirty (30) day period. The County may grant an additional period of such duration as the County shall deem appropriate without waiver of any of the County's rights hereunder, so long as the Contractor has commenced curing such default and is effectuating a cure with diligence and continuity during such thirty (30) day period or any other period which the County prescribes. The default notice shall specify the date the Contractor shall discontinue the Services upon the Termination Date.

ARTICLE 26. REMEDIES IN THE EVENT OF DEFAULT

- 26.1 If an Event of Default occurs and subject to the provisions of Article 46, the Contractor shall be liable for all damages resulting from the default, including but not limited to:
- a. the difference between the cost associated with procuring Services hereunder the amount actually expended by the County for re-procurement of Services, including procurement and administrative costs; and
 - b. such other direct damages.
- 26.2 The Contractor shall also remain liable for any liabilities and claims related to the Contractor's default. The County may also bring any suit or proceeding for specific performance or for an injunction.

ARTICLE 27. TERMINATION FOR DEFAULT

- 27.1 If the Contractor fails to begin Work within the time specified in the Notice to Proceed; fails, neglects or refuses to remove materials or perform any work rejected as defective or unsatisfactory; becomes insolvent, the Contractor has become insolvent (other than as interdicted by the bankruptcy laws), or has assigned the proceeds received for the benefit of the Contractor's creditors, or the Contractor has taken advantage of any insolvency statute or debtor/creditor law or if the Contractor's affairs have been put in the hands of a receiver; the Contractor has failed to obtain the approval of the County where required by this Agreement; the Contractor has failed in the representation of any warranties stated herein; allows any final judgment to stand against it unsatisfied for a period of thirty (30) working days; makes an assignment for the benefit of creditors; fails to protect, repair or make good any damage or injury to property caused by Contractor's negligence or willful misconduct; has failed to make prompt payment to subcontractors or suppliers for any Work, or fails to perform or adhere to any provision of the Contract Documents, the County, after having given seven (7) days written notice to the Contractor of any of the above identified delays, neglects, or defaults on the part of the Contractor, shall be entitled, without invalidating the Agreement, to declare the Contractor in default, take the prosecution of the Work out of the hands of the Contractor, appropriate or use materials and equipment and enter into a new contract or new contracts for the completion of the Work, or any portion of the Work; or may use such other methods as in the County's reasonable opinion will be expedient for the completion of the Work.



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In the event the costs and legal charges, including attorneys' fees, incurred by the County, less the credits provided for, exceeds the sum which would have been payable under the Agreement for the completed Work, the County may hold the Contractor or its Surety liable to the County for the amount of said excess.

- 27.2 Subject to the limitations of liability pursuant to Article 46 in the event the County exercises its right of termination under this provision, the Contractor shall be liable to the County for any re-procurement charges, outstanding warranty claims, its excess costs, including reasonable attorneys' fees, and, in addition, for liquidated damages, pursuant to provisions herein, for each day up to and including the date of termination.
- 27.3 This Agreement may be terminated by Contractor if any of the following events of default occur: (1) if the County is in default of any term or condition of this Agreement, and fails to cure such default within thirty (30) days after receipt of written notice of such default, (2) the County fails to pay any amount when due hereunder.
- 27.4 If, after the Contractor is terminated under this provision, a determination is made that the Contractor was not in default, the rights and obligations of the parties shall be the same as if a termination for convenience had been issued pursuant to provisions herein and such termination will be compensated in accordance with the provisions of Article 28.1 without prejudice to any legal rights the Contractor may have.
- 27.5 The rights and remedies of the County and Contractor provided in this provision are in addition to any other rights and remedies provided by law or under the Contract Documents.
- 27.6 If an Event of Default occurs, in the determination of the County, the County shall notify Contractor ("Default Notice"), specifying the basis for such default, and advising the Contractor that such default must be cured within thirty (30) or this Agreement with the County may be terminated. The County shall allow the Contractor to rectify the default to the County's reasonable satisfaction within a thirty (30) day period. The County may grant an additional period of such duration as the County shall deem appropriate without waiver of any of the County's rights hereunder, so long as the Contractor has commenced curing such default and is effectuating a cure with diligence and continuity during such thirty (30) day period or any other period which the County prescribes. The default notice shall specify the date the Contractor shall discontinue the Services upon the Termination Date.

ARTICLE 28. TERMINATION FOR CONVENIENCE OF MIAMI-DADE COUNTY

- 28.1 The Agreement may be terminated by the County in accordance with this provision in whole, or in part, whenever the County determines that such termination is in its best interests. Any such determination shall be effected by delivery to the Contractor of a forty-five (45) days prior written Notice of Termination specifying the extent to which the Agreement is terminated and the date upon which such termination becomes effective.
- 28.2 After receipt of a Notice of Termination and except as otherwise directed by the County, the Contractor shall:



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- (A) Stop work under the Agreement on the date and to the extent specified in the Notice of Termination;
- (B) Place no further orders or subcontracts for materials, services or equipment, except as may be necessary for completion of such portion of the Work not terminated;
- (C) Terminate all orders and subcontracts to the extent that they relate to the terminated portion of the Agreement;
- (D) Transfer title and deliver to the County in the manner, at the times, and to the extent directed by the County.
- (E) Deliver hardware procured as a part of, or acquired in connection with the performance of, the portion of the Agreement terminated;
- (F) Complete performance of such portion of the Agreement as was not terminated by the Notice of Termination; and
- (G) Take such action as may be necessary, or as the County may direct, for the protection and preservation of the equipment related to this Agreement, which is in the possession of the Contractor and in which the County has or may acquire an interest, until the effective date of termination.

28.3 After receipt of a Notice of Termination, the Contractor shall submit to the County its termination claim, if any, in the form and with the certification prescribed by the County. Such claim shall be submitted promptly but in no event later than one year from the date of termination. The failure of the Contractor to submit its termination claim within the time specified shall preclude the recovery of any costs or damages incurred by the Contractor as a result of the total or partial termination of the Agreement.

28.4 Subject to the provisions of Article 24, the Contractor and the County may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of the Agreement pursuant to Article 24, which amount or amounts may include a reasonable allowance for profit on the portion of the Agreement performed; provided, that such agreed upon amount or amounts, shall not exceed the total Contract Sum as reduced by the amount of payment otherwise made and as further reduced by the portion of the Agreement not performed. No claims for lost or anticipated profit shall be allowed for the terminated portion of the Agreement.

28.5 If an agreement is reached by the Contractor and the County upon the amount to be paid the Contractor by reason of the termination of the Agreement, the Agreement shall be amended accordingly, and the Contractor shall be paid the agreed amount. Nothing in Article 27, prescribes the amount to be paid to the Contractor in the event of failure of the Contractor and the County to agree upon the whole amount to be paid to the Contractor by reason of the termination of the Agreement.

28.6 In the event of submission of a timely termination claim by the Contractor and the failure of the Contractor and the County to agree upon the amount to be paid to the Contractor by reason of a termination pursuant to Article 27, the County will determine, based on the information available to the County, the amount, if any, due to the Contractor by



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reason of the termination and will pay to the Contractor the amounts determined as follows:

- (A) With respect to all work performed on the terminated portion of the Agreement, prior to the effective date of the Notice of Termination, the total (without duplication of any items) of:
 - 1. The cost of acceptable work performed, except defective work, and materials delivered;
 - 2. The cost of settling and paying claims arising out of the termination of work under subcontracts or orders as provided in Article 28; and
 - 3. Reasonable profit for the portion of the Agreement performed but no lost or anticipated profit on the portion of the Agreement not performed.
- (B) The reasonable cost of the preservation and protection of property incurred.

28.7 The total sum to be paid to the Contractor under Article 28 shall not exceed the Contract Sum as reduced by the amount of payments otherwise made and as further reduced by the value of that portion of the Agreement not performed. Except to the extent that the County shall have otherwise expressly assumed the risk of loss, there shall be excluded from the amounts payable to the Contractor under Article 28 the fair value of property which is destroyed, lost, stolen, or damaged so as to become undeliverable to the County, or to a buyer pursuant to Article 27.

28.8 In arriving at the amount due the Contractor under this provision, there shall be deducted:

- (A) All payments made to the Contractor by the County applicable to the terminated portion of the Agreement;
- (B) Any claim which the County may in good faith have against the Contractor, so long as such claim has been asserted no more than six (6) months from the date of deduction of payment.

ARTICLE 29. ACCEPTANCE, TITLE, AND RISK OF LOSS

29.1 When a portion of the Work has been completed in compliance with the Contract Documents and all applicable tests, inspections, and rework have been completed therefore, the Contractor will recommend to the County that said portion of the Work be accepted. The recommendation of the Contractor will be subject to the approval and acceptance by the County.

29.2 Notwithstanding any provision of the Uniform Commercial Code or other applicable law, risk of loss and title for the CADAVLRP, system, subsystem, component, part, equipment, or other material or other portion of the Work shall vest in the County when the CADAVLRP is satisfactorily placed on the County's property at the location(s) identified by Miami-Dade Transit, or the system, subsystem, component, part, equipment, or other material is satisfactorily unloaded onto the County's property at the location(s) identified by Miami-Dade Transit, whichever is earlier. The Certificate of Acceptance of Final Inspection for the CADAVLRP, or other item of Work will be issued



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only after the CADAVLRP, and its systems, subsystems, components, parts and equipment or other item of Work has been received by the County, fully and satisfactorily tested, inspected and accepted. The Certificate of Acceptance of Final Inspection for the CADAVLRP, or other item of Work will be issued if the CADAVLRP, or other item of Work is subject to the satisfactory completion of any outstanding Work items, or the CADAVLRP, or other item of Work is placed in service.

- 29.3 Risk of loss for the existing, or CADAVLRP (and the systems, subsystems, components, parts, and equipment therefore, while in transit, including all aspects of loading and unloading while on County property), or otherwise not located on the County's property, shall be borne by the Contractor.
- 29.4 The title transferred to the County for any CADAVLRP equipment, shall be good, and free and clear of any and all security interests, liens, or encumbrances of any kind or nature. The Contractor shall not pledge, hypothecate, or otherwise encumber CADAVLRP any equipment thereof, or other portion of the Work in any manner that would result in any lien, security interest, charge, or claim upon or against any such item under the Uniform Commercial Code or any other law that may be applicable.
- 29.5 Adequate documentation for securing and transferring title to the CADAVLRP, equipment, shall be provided to the County by the Contractor a minimum of fourteen (14) business days before Delivery for Acceptance Testing of the CADAVLRP, or delivery of other portions of the Work to the County.
- 29.6 The issuance of a Certificate of Acceptance of Final Inspection, the Acceptance Certificate, the transfer of title for the CADAVLRP, or other portion of the Work or the approval or acceptance by the County of the CADAVLRP, or other portion of the Work shall not relieve or release the Contractor from liability for faulty workmanship or materials or the failure to strictly adhere to the requirements of the Contract Documents, pursuant to Contractor's warranty obligations under this Agreement.
- 29.7 Upon final completion of the customization and installation of the Software by the Contractor, the Contractor shall notify the County in writing. The County shall be entitled to a period of forty-five (45) business days to conduct such acceptance tests as it considers appropriate. At the end of this period, the Software will be deemed to have met the Contractor's standard of performance and shall be deemed to have been granted Acceptance, unless County notifies the Contractor otherwise. The County agrees that Acceptance shall be based on the requirements of the Scope of Services as defined by the operational review and as may be otherwise specified herein. In the event that the Acceptance test requirements are not satisfied and the Contractor is so notified, the Contractor shall within ten (10) business days, unless otherwise directed in writing by County Project Manager, deliver to the County the necessary revisions and/or a modification until Acceptance is achieved. The County shall not unreasonably deny a written request for an extension to the above ten (10) business day period, so long as the Contractor is proceeding in an expeditious manner.

ARTICLE 30. INTENTIONALLY OMITTED.

ARTICLE 31. CONFIDENTIALITY



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- 31.1 All County and Contractor Developed Works and other materials, data, transactions of all forms, financial information, documentation, inventions, designs and methods obtained from each other in connection with this Agreement for which the parties hold the proprietary rights, constitute Confidential Information and may not, without the prior written consent of the disclosing party, be used by the other party or its employees, agents, subcontractors or suppliers for any purpose other than for the fulfillment of both parties obligations under this Agreement, unless required by law. In addition to the foregoing, all County employee information and County financial information shall be considered Confidential Information and shall be subject to all the requirements stated herein. Neither party nor its employees, agents, subcontractors or suppliers may sell, transfer, publish, disclose, display, license or otherwise make available to others any part of such Confidential Information without the prior written consent of the disclosing party. Additionally, the parties expressly agree to be bound by and to defend, indemnify and hold harmless the disclosing party, and its officers and employees from the breach of any federal, state or local law in regard to the privacy of individuals.
- 31.2 The County and Contractor shall advise each of its employees, agents, subcontractors and suppliers who may be exposed to such Confidential Information of their obligation to keep such information confidential and shall promptly advise the disclosing party in writing if it learns of any unauthorized use or disclosure of the Confidential Information by any of its employees or agents, or subcontractor's or supplier's employees, present or former. In addition, the parties agree to cooperate fully and provide any assistance necessary to ensure the confidentiality of the Confidential Information.
- 31.3 It is understood and agreed that in the event of a breach of this Article damages may not be an adequate remedy and the disclosing party shall be entitled to injunctive relief to restrain any such breach or threatened breach. Unless otherwise requested by the County, upon the completion of the Services performed hereunder, the Contractor shall immediately turn over to the County all such Confidential Information existing in tangible form, and no copies thereof shall be retained by the Contractor or its employees, agents, subcontractors or suppliers without the prior written consent of the County. A certificate evidencing compliance with this provision and signed by an officer of the Contractor shall accompany such materials.

ARTICLE 32. PROPRIETARY INFORMATION & PROPRIETARY RIGHTS

- 32.1 As a political subdivision of the State of Florida, Miami-Dade County is subject to the stipulations of Florida's Public Records Law. The Contractor acknowledges that all computer software in the County's possession does not constitute or contain information or materials which the County has agreed to protect as proprietary information from disclosure or unauthorized use and may also constitute or contain information or materials which the County has developed at its own expense, the disclosure of which could harm the County's proprietary interest therein.
- 32.2 During the term of the contract, the Contractor will not use directly or indirectly for itself or for others, or publish or disclose to any third party, or remove from the County's property, any computer programs, data compilations, or other software which the County has developed, has used or is using, is holding for use, or which are otherwise in the possession of the County (hereinafter "Computer Software"). All third-party license



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agreements must also be honored by the contractors and their employees, except as authorized by the County and, if the Computer Software has been leased or purchased by the County, all hired party license agreements must also be honored by the contractors' employees with the approval of the lessor or Contractors thereof. This includes mainframe, minis, telecommunications, personal computers and any and all information technology software.

- 32.3 The Contractor will report to the County any information discovered or which is disclosed to the Contractor which may relate to the improper use, publication, disclosure or removal from the County's property of any information technology software and hardware and will take such steps as are within the Contractor's authority to prevent improper use, disclosure or removal.
- 32.4 The Contractor hereby acknowledges and agrees that the County retains all rights, title and interests in and to all materials, data, documentation and copies thereof furnished by the County to the Contractor hereunder. The Contractor shall not, without the prior written consent of the County, use such documentation on any other project in which the Contractor or its employees, agents, subcontractors or suppliers are or may become engaged. Submission or distribution by the Contractor to meet official regulatory requirements or for other purposes in connection with the performance of Services under this Agreement shall not be construed as publication in derogation of the County's copyrights or other proprietary rights.
- 32.5 All rights, title and interest to all data and interfaces developed by County, and copies thereof, which are specifically generated as a result of the use of the Licensed Software by the County., hereinafter referred to as "Developed Works" shall become the property of the County.
- 32.6 Accordingly, neither the Contractor nor its employees, agents, subcontractors or suppliers shall have any proprietary interest in such Developed Works. The Developed Works may not be utilized, reproduced or distributed by or on behalf of the Contractor, or any employee, agent, subcontractor or supplier thereof, without the prior written consent of the County, except as required for the Contractor's performance hereunder.
- 32.7 Except as otherwise provided in subsections 32.4, 32.5, 32.6 above, or elsewhere herein, the Contractor and its subcontractors and suppliers hereunder shall retain all proprietary rights in and to all Licensed Software provided hereunder. Notwithstanding the foregoing, the Contractor hereby grants, and shall require that its subcontractors and suppliers grant, if the County so desires, a perpetual, unlimited nodes irrevocable and unrestricted right and license to use, duplicate, disclose and/or permit any other person(s) or entity(ies) to use all such Licensed Software and the associated specifications, technical data and other Documentation for the operations of the County.
- 32.8 Ownership: The County further acknowledges that all copies of the Software and Documentation in any form provided by the Contractor are the sole property of the Contractor. The County shall not have any right, title, or interest to any such Software, Source Code or Documentation or copies thereof except as provided in this Agreement, and further shall secure and protect all Software and Documentation consistent with maintenance of the Contractor's proprietary rights the rein.



ARTICLE 33. PUBLIC RECORDS DISCLOSURES

- 33.1 The Contractor has represented that the Software and Documentation are owned by it and are protected by applicable copyright laws. The Contractor further represents that the Software does constitute trade secrets of the Contractor as the term "trade secrets" is defined in Section 812.081 of the Florida Statutes. The Contractor claims exemption from disclosure of the Software as provided under Chapter 119, Public Records Law, Florida Statutes. The County agrees prior to any disclosure of the Software and/or Documentation under the Public Records Law that the County will promptly notify the Contractor of any request for disclosure so that the Contractor may take such action or actions the Contractor deems necessary to prevent such disclosure and/or to defend against or settle any suit or proceeding against the County for the failure to make disclosure of the Software as provided under Chapter 119, Public Records Law, or other laws requiring disclosure by the County.
- 33.2 In the event the Contractor elects to prevent disclosure as above provided, the Contractor agrees, at its own expense, to protect, defend and indemnify the County against any claim, demand, action, proceeding, loss, liability, cost and expense (including court costs and reasonable fees of attorneys) incurred or suffered by the County as a result of any claim against the County for the failure to make disclosure of the Software as provided under Chapter 119, Public Records Law, or other laws requiring disclosure by the County.
- 33.3 Nondisclosure by the County shall not apply to information that; a) is or becomes known to the public without fault or breach on the part of the County; or b) the Contractor regularly discloses to third parties without restriction on disclosure
- 33.4 Notwithstanding anything to the contrary contained above or elsewhere in this Agreement, the County shall have the right to use the Software to provide access to the public to the data base, files or information derived from the use of the Software and/or to generate reports from such data, files or information or to provide such data, files or information on electronic media to the public where required or allowed by the laws of the State of Florida or other laws allowing disclosure by the County. The Contractor acknowledges and agrees that the County is the owner and custodian of its information and data, whether or not such is electronically retained, and regardless of the retention media and that the use of the Software in relation to such information, or data does not in any way restrict the County in the County's rights of disclosure of its data and information.

ARTICLE 34. VENDOR REGISTRATION/CONFLICT OF INTEREST

34.1 Vendor Registration

The Contractor shall be a registered vendor with the County – Internal Services Department (ISD) - Procurement Management Services (PMS), for the duration of this Agreement. In becoming a Registered Vendor with Miami-Dade County, the Contractor confirms its knowledge of and commitment to comply with the following:

- 1. *Miami-Dade County Ownership Disclosure Affidavit*
(Section 2-8.1 of the County Code)
- 2. *Miami-Dade County Employment Disclosure Affidavit*
(Section 2.8-1(d)(2) of the County Code)



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- 3. **Miami-Dade Employment Drug-free Workplace Certification**
(Section 2-8.1.2(b) of the County Code)
- 4. **Miami-Dade Disability and Nondiscrimination Affidavit**
(Section 2-8.1.5 of the County Code)
- 5. **Miami-Dade County Debarment Disclosure Affidavit**
(Section 10.38 of the County Code)
- 6. **Miami-Dade County Vendor Obligation to County Affidavit**
(Section 2-8.1 of the County Code)
- 7. **Miami-Dade County Code of Business Ethics Affidavit**
(Section 2-8.1(i) and 2-11(b)(1) of the County Code through (6) and (9) of the County Code and Section 2-11.1(c) of the County Code)
- 8. **Miami-Dade County Family Leave Affidavit**
(Article V of Chapter 11 of the County Code)
- 9. **Miami-Dade County Living Wage Affidavit**
(Section 2-8.9 of the County Code)
- 10. **Miami-Dade County Domestic Leave and Reporting Affidavit**
(Article 8, Section 11A-60 11A-67 of the County Code)
- 11. **Subcontracting Practices**
(Ordinance 97-35)
- 12. **Subcontractor /Supplier Listing**
(Section 2-8.8 of the County Code)
- 13. **Environmentally Acceptable Packaging**
(Resolution R-738-92)
- 14. **W-9 and 8109 Forms**

(as required by the Internal Revenue Service)

- 15. **FEIN Number or Social Security Number**
In order to establish a file, the Contractor's Federal Employer Identification Number (FEIN) must be provided. If no FEIN exists, the Social Security Number of the owner or individual must be provided. This number becomes Contractor's "County Vendor Number". To comply with Section 119.071(5) of the Florida Statutes relating to the collection of an individual's Social Security Number, be aware that the County requests the Social Security Number for the following purposes:
 - Identification of individual account records
 - To make payments to individual/Contractor for goods and services provided to Miami-Dade County
 - Tax reporting purposes
 - To provide a unique identifier in the vendor database that may be used for searching and sorting departmental records
- 16. **Office of the Inspector General**
(Section 2-1076 of the County Code)
- 17. **Small Business Enterprises**
The County endeavors to obtain the participation of all small business enterprises pursuant to Sections 2-8.2, 2-8.2.3 and 2-8.2.4 of the County Code and Title 49 of the Code of Federal Regulations.
- 18. **Antitrust Laws**
By acceptance of any contract, the Contractor agrees to comply with all antitrust laws of the United States and the State of Florida.

34.2 Conflict of Interest

Section 2-11.1(d) of Miami-Dade County Code requires that any County employee or any member of the employee's immediate family who has a controlling financial interest, direct or indirect, with Miami-Dade County or any person or agency acting for Miami-Dade County, competing or applying for a contract, must first request a conflict of interest opinion from the County's Ethics Commission prior to their or their immediate family member's entering into any contract or transacting any business through a firm, corporation, partnership or business entity in which the employee or any member of the employee's immediate family has a controlling financial interest, direct or indirect, with Miami-Dade County or any person or agency acting for Miami-Dade County. Any such contract or business engagement entered in violation of this subsection, as amended, shall be rendered voidable. For additional information, please contact the Ethics Commission hotline at (305) 579-2593.

ARTICLE 35. INSPECTOR GENERAL REVIEWS

35.1 Independent Private Sector Inspector General Reviews

Pursuant to Miami-Dade County Administrative Order 3-20, the County has the right to retain the services of an Independent Private Sector Inspector General (hereinafter "IPSIG"), whenever the County deems it appropriate to do so. Upon written notice from



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the County, the Contractor shall make available to the IPSIG retained by the County, all requested records and documentation pertaining to this Agreement for inspection. The County shall be responsible for the payment of these IPSIG services, and under no circumstance shall the Contractor's prices and any changes thereto approved by the County, be inclusive of any charges relating to these IPSIG services. The terms of this provision apply to the Contractor, its officers, agents, employees, subcontractors and assignees. Nothing contained in this provision shall impair any independent right of the County to conduct an audit or investigate the operations, activities and performance of the Contractor in connection with this Agreement. The terms of this Article shall not impose any liability on the County by the Contractor or any third party.

35.2 Miami-Dade County Inspector General Review

According to Section 2-1076 of the Code of Miami-Dade County, Miami-Dade County has established the Office of the Inspector General which may, on a random basis, perform audits on all County contracts, throughout the duration of said contracts, except as otherwise provided below.

35.3 Nothing contained above shall in any way limit the powers of the Inspector General to perform audits on all County contracts including, but not limited to, those contracts specifically exempted above. The Miami-Dade County Inspector General is authorized and empowered to review past, present and proposed County and Public Health Trust contracts, transactions, accounts, records and programs. In addition, the Inspector General has the power to subpoena witnesses, administer oaths, require the production of records and monitor existing projects and programs. Monitoring of an existing project or program may include a report concerning whether the project is on time, within budget and in conformance with plans, specifications and applicable law. The Inspector General is empowered to analyze the necessity of and reasonableness of proposed change orders to the Contract. The Inspector General is empowered to retain the services of independent private sector inspectors general (IPSIG) to audit, investigate, monitor, oversee, inspect and review operations, activities, performance and procurement process, including but not limited to project design, specifications, proposal submittals, activities of the Contractor, its officers, agents and employees, lobbyists, County staff and elected officials to ensure compliance with contract specifications and to detect fraud and corruption.

35.4 Upon written notice to the Contractor from the Inspector General or IPSIG retained by the Inspector General, the Contractor shall make all requested records and documents available to the Inspector General or IPSIG for inspection and copying. The Inspector General and IPSIG shall have the right to inspect and copy all documents and records in the Contractor's possession, custody or control which, in the Inspector General's or IPSIG's sole judgment, pertain to performance of the contract, including, but not limited to original estimate files, change order estimate files, worksheets, proposals and agreements form and which successful and unsuccessful subcontractors and suppliers, all project-related correspondence, memoranda, instructions, financial documents, construction documents, proposal and contract documents, back-charge documents, all documents and records which involve cash, trade or volume discounts, insurance proceeds, rebates, or dividends received, payroll and personnel records, and supporting documentation for the aforesaid documents and records.



ARTICLE 36. INTENTIONALLY OMITTED.

ARTICLE 37. LOCAL, STATE AND FEDERAL COMPLIANCE REQUIREMENTS

- 37.1 Contractor agrees to comply, subject to applicable professional standards, with the provisions of any and all applicable Federal, State and the County orders, statutes, ordinances, rules and regulations which may pertain to the Services required under this Agreement, including, but not limited to:
- a) Equal Employment Opportunity (EEO), in compliance with Executive Order 11246 as amended and applicable to this Contract.
 - b) Miami-Dade County Florida, Department of Small Business Development Participation Provisions, as applicable to this Contract.
 - c) Environmental Protection Agency (EPA), as applicable to this Contract.
 - d) Miami-Dade County Code, Chapter 11A, Article 3. All contractors and subcontractors performing work in connection with this Contract shall provide equal opportunity for employment without regard to race, religion, color, age, sex, national origin, sexual preference, disability or marital status. The aforesaid provision shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in a conspicuous place available for employees and applicants for employment, such notices as may be required by the Dade County Fair Housing and Employment Commission, or other authority having jurisdiction over the work setting forth the provisions of the nondiscrimination law.
 - e) "Conflicts of Interest" Section 2-11 of the County Code, and Ordinance 01-199.
 - f) Miami-Dade County Code Section 10-38 "Debarment".
 - g) Miami-Dade County Ordinance 99-5, codified at 11A-60 et. seq. of Miami-Dade Code pertaining to complying with the County's Domestic Leave Ordinance.
 - h) Miami-Dade County Ordinance 99-152, prohibiting the presentation, maintenance, or prosecution of false or fraudulent claims against Miami-Dade County.
- 37.2 The Contractor shall hold all licenses and/or certifications, obtain and pay for all permits and/or inspections, and comply with all laws, ordinances, regulations and building code requirements applicable to the work required herein. Damages, penalties, and/or fines imposed on the County or Contractor for failure to obtain and maintain required licenses, certifications, permits and/or inspections shall be borne by the Contractor. The Project Manager shall verify the certification(s), license(s), permit(s), etc. for the Contractor prior to authorizing work and as needed.
- 37.3 Notwithstanding any other provision of this Agreement, Contractor shall not be required pursuant to this Agreement to take any action or abstain from taking any action if such action or abstention would, in the good faith determination of the Contractor, constitute a violation of any law or regulation to which Contractor is subject, including but not limited to laws and regulations requiring that Contractor conduct its operations in a safe and sound manner.



ARTICLE 38. NONDISCRIMINATION

- 38.1 During the performance of this Contract, Contractor agrees to not discriminate against any employee or applicant for employment because of race, religion, color, sex, handicap, marital status, age or national origin, and will take affirmative action to ensure that they are afforded equal employment opportunities without discrimination. Such action shall be taken with reference to, but not limited to: recruitment, employment, termination, rates of pay or other forms of compensation, and selection for training or retraining, including apprenticeship and on the job training.

- 38.2 By entering into this Contract, the Contractor attests that it is not in violation of the American with Disabilities Act of 1990 (and related Acts); Section 508 of the Rehabilitation Act of 1973 as amended (29 U.S.C. 794d) or Miami-Dade County Resolution No. R-385-95. If the Contractor or any owner, subsidiary or other firm affiliated with or related to the Contractor is found by the responsible enforcement agency or the County to be in violation of the Act or the Resolution, such violation shall render this Contract void. This Contract shall be void if the Contractor submits a false affidavit pursuant to this Resolution or the Contractor violates the Act or the Resolution during the term of this Contract, even if the Contractor was not in violation at the time it submitted its affidavit. For more information on Section 508, see link: <http://www.section508.gov/index.cfm?fuseAction=1998Amend>.

ARTICLE 39. CONFLICT OF INTEREST

- 39.1 The Contractor represents that:
 - a) No officer, director, employee, agent, or other consultant of the County or a member of the immediate family or household of the aforesaid has directly or indirectly received or been promised any form of benefit, payment or compensation, whether tangible or intangible, in connection with the award of this Agreement.

 - b) There are no undisclosed persons or entities interested with the Contractor in this Agreement. This Agreement is entered into by the Contractor without any connection with any other entity or person making a proposal for the same purpose, and without collusion, fraud or conflict of interest. No elected or appointed officer or official, director, employee, agent or other consultant of the County, or of the State of Florida (including elected and appointed members of the legislative and executive branches of government), or a member of the immediate family or household of any of the aforesaid:
 - i) is interested on behalf of or through the Contractor directly or indirectly in any manner whatsoever in the execution or the performance of this Agreement, or in the services, supplies or work, to which this Agreement relates or in any portion of the revenues; or

 - ii) is an employee, agent, advisor, or consultant to the Contractor or to the best of the Contractor's knowledge any subcontractor or supplier to the Contractor.

 - c) Neither the Contractor nor any officer, director, employee, agency, parent, subsidiary, or affiliate of the Contractor shall have an interest which is in conflict with the Contractor's faithful performance of its obligation under this Agreement; provided that the County, in its sole discretion, may consent in writing to such a relationship, provided the Contractor provides the County with a written notice, in



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advance, which identifies all the individuals and entities involved and sets forth in detail the nature of the relationship and why it is in the County's best interest to consent to such relationship.

- d) The provisions of this Article are supplemental to, not in lieu of, all applicable laws with respect to conflict of interest. In the event there is a difference between the standards applicable under this Agreement and those provided by statute, the stricter standard shall apply.
- e) In the event Contractor has no prior knowledge of a conflict of interest as set forth above and acquires information which may indicate that there may be an actual or apparent violation of any of the above, Contractor shall promptly bring such information to the attention of the County's Project Manager. Contractor shall thereafter cooperate with the County's review and investigation of such information, and comply with the instructions Contractor receives from the Project Manager in regard to remedying the situation.

ARTICLE 40. PRESS RELEASE OR OTHER PUBLIC COMMUNICATION

40.1 Under no circumstances shall the Contractor without the express written consent of the County:

- a) Issue or permit to be issued any press release, advertisement or literature of any kind which refers to the County, or the Work being performed hereunder, unless the Contractor first obtains the written approval of the County. Such approval may be withheld if for any reason the County believes that the publication of such information would be harmful to the public interest or is in any way undesirable; and
- b) Communicate in any way with any contractor, department, board, agency, commission or other organization or any person whether governmental or private in connection with the Services to be performed hereunder except upon prior written approval and instruction of the County; and
- c) Except as may be required by law, the Contractor and its employees, agents, subcontractors and suppliers will not represent, directly or indirectly, that any product or service provided by the Contractor or such parties has been approved or endorsed by the County.

ARTICLE 41. BANKRUPTCY

41.1 The County reserves the right to terminate this contract, if, during the term of any contract the Contractor has with the County, the Contractor becomes involved as a debtor in a bankruptcy proceeding, or becomes involved in a reorganization, dissolution, or liquidation proceeding, or if a trustee or receiver is appointed over all or a substantial portion of the property of the Contractor under federal bankruptcy law or any state insolvency law.

ARTICLE 42. GOVERNING LAW

42.1 This Contract, including appendices, and all matters relating to this Contract (whether in contract, statute, tort (such as negligence), or otherwise) shall be governed by, and construed in accordance with, the laws of the State of Florida. Venue shall be Miami-



Dade County.

ARTICLE 43. INDIVIDUALLY IDENTIFIABLE HEALTH INFORMATION and/or PROTECTED HEALTH INFORMATION

43.1 Any person or entity that performs or assists Miami-Dade County with a function or activity involving the use or disclosure of "Individually Identifiable Health Information (IIHI) and/or Protected Health Information (PHI) shall comply with the Health Insurance Portability and Accountability Act (HIPAA) of 1996 and the Miami-Dade County Privacy Standards Administrative Order. HIPAA mandates for privacy, security and electronic transfer standards include but are not limited to:

1. Use of information only for performing services required by the contract or as required by law;
2. Use of appropriate safeguards to prevent non-permitted disclosures;
3. Reporting to Miami-Dade County of any non-permitted use or disclosure;
4. Assurances that any agents and subcontractors agree to the same restrictions and conditions that apply to the Contractor and reasonable assurances that IIHI/PHI will be held confidential;
5. Making Protected Health Information (PHI) available to the customer;
6. Making PHI available to the customer for review and amendment; and incorporating any amendments requested by the customer;
7. Making PHI available to Miami-Dade County for an accounting of disclosures; and
8. Making internal practices, books and records related to PHI available to Miami-Dade County for compliance audits.

43.2 PHI shall maintain its protected status regardless of the form and method of transmission (paper records, and/or electronic transfer of data). The Contractor must give its customers written notice of its privacy information practices including specifically, a description of the types of uses and disclosures that would be made with protected health information.

43.3 Incorporation of Federal Transit Administration (FTA) Terms

- A) The FTA provisions include certain Standard Terms and Conditions required by the U.S. Department of Transportation (DOT), whether or not expressly set forth in this contract. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1F or any revisions thereto, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all DOT or FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any County requests which would cause the County to be in violation of the FTA terms and conditions.
- B) The Contractor agrees to include this clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor who will be subject to the provisions.



ARTICLE 44. CONTRACT BONDS.

44.1 The Contractor shall furnish the following Bond(s) at its own expense:

- A) Performance Bond - Shall be provided to the County within 14 days after contract award, and prior to NTP, in an amount of ten percent (10%) of the Contract Sum. The Performance Bond shall be accessible such that the County may, at its convenience, withdraw funds from the Bond in the event the Contractor fails to execute its performance obligations in accordance with the Contract Documents. The Performance Bond does not apply to the warranty obligations under the Contract. The Performance Bond shall remain in effect from NTP until sixty (60) days after issuance of the Certificate of Acceptance of Final Inspection for the CADAVLRP. The County will not delay return of the Performance Bond to the Contractor after issuance of the Certificate of Acceptance of Final Inspection for the CADAVLRP.
- B) Payment Bond – Shall be provided to the County within 14 days after award and prior to NTP, in the amount of five percent (5%) of the Contract sum, as it may be changed from time to time in accordance with the Contract documents. The Payment Bond shall remain in effect from NTP until sixty (60) days after issuance of the Certificate of Acceptance of Final Inspection for the CADAVLRP.

44.2 Surety Bond Qualifications: The following specifications shall apply to bid, performance, payment, maintenance, and all other types of bonds.

- A. All bonds shall be written through surety insurers authorized to do business in the State of Florida as surety, with the following qualifications as to management and financial strength according to the latest edition of Best's Insurance Guide, published by A. M. Best Company, Oldwick, New Jersey:

Bond Amount			Best Rating	
\$500,001	to	\$1,500,000	B	V
\$1,500,001	to	\$2,500,000	A	VI
\$2,500,001	to	\$5,000,000	A	VII
\$5,000,001	to	\$10,000,000	A	VIII
Over		\$10,000,000	A	IX

On bond amounts of \$500,000 or less, the provisions of Section 287.0935, Florida Statutes (1991) shall be in effect and Surety companies not otherwise qualifying with this paragraph may optionally qualify by:

1. The Surety is licensed to do business in the state of Florida;
2. The Surety holds a certificate of authority authorizing it to write surety bonds in the state;
3. The Surety has twice the minimum surplus and capital required by the Florida Insurance Code at the time the invitation to bid is issued;
4. The Surety is otherwise in compliance with the provisions of the Florida Insurance Code; and



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- 5. The Surety holds a currently valid certificate of authority issued by the United States Department of the Treasury under ss. 31 U.S.C. 9304-9308.

 - B. Surety insurers shall be listed in the latest Circular 570 of the U.S. Department of the Treasury entitled "Surety Companies Acceptable on Federal Bonds", published annually. The bond amount shall not exceed the underwriting limitations as shown in this circular.

 - C. The attorney in fact or other officer who signs a contract bond for a surety company must file with such bond a certified copy of his power of attorney authorizing him to do so. The Contract bond must be countersigned by the surety's resident Florida agent.
-
- 44.3 The Contractor may, in lieu of a surety performance bond, surety payment bond submit three (3) cash bonds or bank letters of credit, conditioned upon the faithful performance of the work in strict accordance with this Contract and with the Plans, Specifications and the completion of the same free from all liens and within the time limit herein specified; the said Bonds shall be so worded as to make the Contract a part thereof and shall contain a clause providing the right of suit or action for those benefits. Said bond shall be executed as disclosed by the text of said Bonds and Contract to the same extent as if he or they were the obligee therein specifically mentioned, and all such persons shall be held or deemed to the obligee thereof.

 - 44.4 The Contractor shall promptly make payments in accordance with County Ordinance 94.40 (Prompt Payment) to all subcontractors, or any other entity, supplying Contractor with labor, materials, or supplies, used directly or indirectly by Contractor in the prosecution of the work provided for in the Contract Documents, and in the times and manner prescribed in the Contract Documents; and

 - 44.5 If the Contractor fails to make payments to any subcontractor, or any other entity, supplying Contractor with labor, materials, or supplies, used directly or indirectly by Contractor in the prosecution of the work provided for in the Contract Documents, and in the times and manner prescribed in the Contract Documents, then subcontractor, or any other entity shall have a right of action against the Contractor and the Surety for the amount it is due. Such action shall not involve the County in any expense. The Contractor shall pay the County for all losses, damages, costs, and attorney's fees, including appellate proceedings that the County sustains because of a failure by Contractor to make any such payments.

 - 44.6 A subcontractor, or any other entity as identified above, except a laborer, who is not in privity with the Contractor and who has not received timely payment for its labor, materials, or supplies may, within 60 days after performance of the labor or after complete delivery of the materials or supplies, and issuance of a properly submitted invoice, deliver to the Contractor and to the Surety written claim advising of the performance of the labor or delivery of the materials or supplies and of the nonpayment. No action for labor, materials or supplies may be instituted against the Contractor or the Surety unless notice has been given. No action shall be instituted against the Contractor or the Surety on the bond after 90 days from the performance of the labor or completion of delivery of the materials or supplies. A claimant may not waive in advance its right to bring an action under the bond against the Surety.

 - 44.7 The Bonds shall be in the form as listed in the solicitation documents as "Surety Performance Bond", "Surety Payment Bond" or on forms otherwise provided and



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approved by the County and shall be executed by a Surety or Sureties acceptable to the County, authorized to issue surety bonds in the State of Florida.

- 44.8 Provisions of the Bonds shall not limit, in any way, any liability of the Contractor to the County.
- 44.9 Alterations, extensions of time, waiver of contractual provisions, extra and additional work, advance payments and other changes to the Contract Documents may be made without securing the consent of the Surety or Sureties for the Bonds. Such changes shall not, however, alter the Surety's or Sureties' responsibility relating to the Bonds.

ARTICLE 45. ADDITIONAL BOND SECURITY

- 45.1 If any Surety upon any Bond furnished in connection with the Agreement becomes reasonably unacceptable to the County, and in accordance with the requirements of Article 44.2, Surety Bond Qualifications, the Contractor shall promptly furnish another Surety acceptable to the County to protect the interests of the County and of persons or firms supplying labor or materials in the prosecution of the Work.

ARTICLE 46. LIMITATION OF LIABILITY

- 46.1 The Contractor's entire liability and responsibility for any and all claims, damages or losses arising from or in connection with this Contract or the use of the Contractor's software by the County or the development, modification or maintenance of the Contractor's software, shall be absolutely limited to the amount of the Contract amount as it may be or have been changed from time to time in accordance with the Contract documents. Except for, and/or to the extent covered by, liquidated damages incurred pursuant to Article 56, neither party shall be liable to the other party or any third party for losses or damages suffered by a party or any third party, whether suffered directly or indirectly or that are immediate or consequential (to the fullest extent permitted by law), which fall within the following categories: a) special damages; b) loss of profits, anticipated savings, business opportunity or goodwill; or c) loss of data or information of any kind.
- 46.2 Nothing herein shall be construed to waive or diminish the procedures and limitations of liability found ss. 768.26, Florida statutes.
- 46.3 Regarding the Auto Neutral Function, the Contractor shall have no responsibility for the creation of policies, operating procedures or protocols for the use of such functionality which policies, operating procedures and protocols shall be solely the responsibility of Transit.



ARTICLE 47. EXECUTION OF AGREEMENT

- 47.1 No later than ten (10) business days after Award, the Contractor shall deliver the following, properly executed: the Bonds (Performance and Payment) and Insurance as required by Article 10.2 as directed by Miami-Dade County. Miami-Dade County will execute all copies of the Agreement and will give one original of all the executed Contract Documents to the Contractor.
- 47.2 Notice to Proceed (NTP) will only be issued after the above documents stated on 47.1 have been provided to the County.

ARTICLE 48. REVIEWING DELIVERABLES

- 48.1 The Contractor shall submit all Deliverables which are required to be submitted for review and approval by the County in accordance with the specific requirements in the Contract Documents, and as specified herein. The Contractor understands that the County shall have final approval on such Deliverables.
- 48.2 In reviewing the Deliverables, the Contractor understands that the County will provide the Contractor with:
- a. a written notification of the County's approval,
 - b. a written notification that each Deliverable is approved subject to the Contractor providing prompt correction of a minor deficiency, or,
 - c. in the case of a Deliverable that does not meet the requirements of the Agreement, a written notification of the County's disapproval. The County's disapproval notification will state with reasonable detail to sufficiently advise the Contractor of the basis on which the Deliverable was determined to be unacceptable.
- 48.3 The Contractor understands that failure by the County to provide a notice of approval or disapproval by the end of twenty (20) business day period as will constitute approval.
- 48.4 Furthermore:
- a) Unless otherwise specified in the Project Schedule, for each Deliverable made hereunder, the County will have twenty (20) business days commencing on the first business day after receipt by the County of the Deliverable, to determine and notify Contractor in writing whether the Deliverable is approved as submitted, is approved subject to the correction by the Contractor of minor discrepancies, or whether it is unacceptable and therefore disapproved.
 - b) Unless an extension of time has been granted by the County pursuant to Article 54 "Extension of Time", within forty-five (45) business days after receipt of the County's notification of "disapproval", the Contractor shall deliver to the County the necessary revisions and/or modifications for a second review by the County.
 - c) If after the second review period the Deliverable remains unacceptable for the County's approval, the County may direct the Contractor to:
 1. Proceed with the Work subject to the correction of all outstanding deficiencies which led to the County's determination that a Deliverable was not acceptable



for approval on or before a specific date established by the County for correcting such deficiency or deficiencies; or,

2. Suspend all Work being performed for which the particular Deliverable is necessary for the prosecution of said work except those services necessary for the correction of outstanding deficiencies, until such time that all such outstanding deficiencies have been corrected by the Contractor and resubmitted to the County for approval. Any suspension of the Work under this provision shall not alter any discount provisions in the event the Work is not completed in accordance with other provisions of this Agreement.
- d) The County reserves the right to approve or accept part of any Deliverable. Any such approval shall be regarded as partial and conditional upon the County's approval or acceptance of all aspects of the Deliverable. The Contractor shall correct any deficiencies within the time the County specifies for such correction in the County's notice concerning a partial approval (including approvals subject to correction of minor deficiencies) or, if no time is given, within five business days. If the County does not subsequently approve or accept all aspects of the Deliverable, the earlier conditional acceptance or approval may, in the sole absolute discretion of the County, be regarded as void and of no effect.

ARTICLE 49. TESTING AND ACCEPTANCE OF THE SYSTEM

- 49.1 There shall be multiple tests of the System and its functional components as described in "Exhibit 1 – Scope of Services". The purposes of the tests are to permit County to determine whether the System and the functional components properly function and provide the capabilities described in Exhibit 1 - Scope of Services document. Each test will be subjected to its own Acceptance by the County.
- 49.2 The Contractor shall notify the County in writing (via email) when the functional components of the System are ready for acceptance testing. Upon such notifications, the County Project Manager shall determine the date of the commencement of acceptance testing. The County, at its own discretion, shall conduct its first round of acceptance tests and will determine whether the Deliverables are in conformance with the Final Acceptance Criteria. The County shall notify Contractor in writing as to any deficiency, in list form to be incorporated by mutual agreement into a punch list during the System acceptance periods described in Article 65 "Project Schedule". The Contractor will promptly commence work on resolving such punch list issues and will redeliver revision to such Deliverables for further testing. The County will commence retesting after receiving the Contractor's notice that the Deliverables are ready for such further testing. The County shall determine the amount of time required to complete the additional acceptance testing. The process will be repeated until either the functional component has substantially conformed to the Final Acceptance Criteria or County decides to accept the functional component as is and the functional component is put into Production Mode.
- 49.3 The above process will be repeated for each functional component delivered hereunder provided that functional components may be tested in tandem as set forth in Article 65 "Project Schedule."
- 49.4 Final Acceptance of the System will be deemed to have occurred on the Deliverables meeting the Final Acceptance Criteria (which the parties will mutually agree to and



develop from the functional and technical requirements as set forth in the Contract documents, provided that the parties recognize that the development of the Contract documents may result in the parties clarifying such requirements). Such Final Acceptance shall be evidenced by a written acknowledgement by the County Project Manager that the System meets all such functional and technical requirements.

49.5 Any dispute as to whether any Deliverable complies with any applicable acceptance criteria shall be subject to the dispute resolution process set forth in Article 69 of this Agreement.

49.6 Final Acceptance Certificate:

- A. The Contractor shall request from the County the Final Acceptance Certificate following the Contractor's receipt of the last Acceptance of Implementation identified as a Milestone # 13 in the Payment Schedule.
- B. Upon receipt of the Contractor's request, the County will review the CADA VLRP to determine satisfactory implementation as required and intended by the Contract Document and will provide notice (a punch list) to the Contractor of any Work necessary for issuance of the Final Acceptance Certificate.
- C. The Contractor shall meet all Deliverables in accordance with the Project Schedule.

ARTICLE 50. FAILURE TO EXECUTE AGREEMENT

50.1 Failure of the Proposer to whom the Agreement is awarded to execute the Agreement, to submit Bonds or to submit proof of insurance, as provided herein, shall be just cause for the cancellation of the Award.

ARTICLE 51. CANCELLATION OF AWARD

51.1 The County reserves the right to cancel the award of the Agreement before the issuance of the NTP when the County deems such cancellation to be in its best interests. In no event, will the County be liable, in any way, for the cancellation of the award or any expenses, costs or damages resulting there-from with the exception of reasonable costs incurred for bonding. The Contractor assumes sole risk and responsibility for any expenses or costs it incurs prior to the issuance of the Notice to Proceed, and shall not commence performance of the Work until the County issues NTP. Any cancellation of the award, other than for default, after execution of this agreement by both parties shall be treated as a termination for convenience.



ARTICLE 52. ASSIGNMENT OF MONIES OWED

52.1 Monies owed, or which become owed, to the Contractor under the Agreement may only be assigned to a bank, trust company, or other financing institution, including any federal lending agency, and may thereafter be further assigned and reassigned to any such institution. Written notice of such an assignment or reassignment must be provided, however, to the County by certified mail within ten (10) days of the assignment or reassignment. Any such assignment or reassignment shall cover all amounts payable under the Contract Documents, but not already paid, and shall not be made to more than one party, except that any such assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in such financing.

ARTICLE 53. QUALITY ASSURANCE

53.1 The Contractor shall utilize a Quality Assurance Plan (QAP) to oversee the work of the Contract and to ensure that the CADAFLRP is designed, procured, and manufactured/constructed in accordance with established design, engineering and quality requirements. These requirements provide the controls for design, procurement, installation, inspection and testing, which will enable MDC to be assured that the quality necessary for safe, secure and reliable operation of the CADAFLRP is achieved. The Quality Assurance Plan (QAP) shall ensure compliance with the requirements of the Contract Documents within the Contractor, Subcontractor's and Supplier's organizations. The Contractor shall create and implement a Quality Assurance Plan (QAP) for the County's CADAFLRP project. The QAP shall include all those planned and systematic actions and/or activities necessary to provide the County with a high level of confidence that the product(s) or services to be provided are of the highest quality throughout, and shall satisfy all areas of the contract. The QAP shall include the quality elements described in the FTA Quality Assurance/Quality Control (QA/QC) Guidelines (FTA-IT-90-5001-02.1) as revised, or the ISO 9001-2008 Standard. The Contractor's Quality Assurance Plan (QAP) shall include processes and methods to ensure compliance with the requirements of the Contract Documents within the Contractor, subcontractor's and supplier's organizations.

53.2 QUALITY ASSURANCE PLAN (QAP)

The Contractor, within fourteen (14) days from the issuance of Notice to Proceed (NTP), shall submit to the County a Quality Assurance Plan for the Project. This plan must include the processes and controls to be used for assuring the quality of design, production and installation. The Contractor shall submit to Transit, Quality Assurance Division, prior to commencement of work, three (3) copies of its complete CADAFLRP QAP for review and approval, or assume the sole risk and expense of costs associated with repairs and/or re-installations due to contract work performed.

The Contractor shall maintain the QAP with the following requirements:

The QAP shall align with the FTA QA/QC Guidelines Elements as a minimum, including the following;

- i. A written quality policy,
- ii. Written procedures (test and inspection),
- iii. A written statement by a duly authorized officer (executive level), stating the unyielding commitment of, and support by, the Company's principals and



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contract management personnel to the highest standards of quality through the implementation of the contract-specific QAP activities.

- iv. The QAP shall be updated and submitted by the Contractor as necessary throughout the duration of the contract.

Within fourteen (14) days after submitting the QAP, and prior to the commencing work, the Contractor shall meet with Transit to discuss the Quality Assurance Plan, in order to obtain a mutual understanding of the Program Plan and the Transit Quality Program to include, minimally, the following topics:

1. Control activities
2. Role of MDC
3. Role of Contractor's QA Representative
4. MDC administration and QA audits (Contractor and sub-contractors)
5. MDC/Contractor roles and responsibilities for testing, inspection, auditing and monitoring
6. Forms and documentation for recording activities
7. Lines of communication and notification responsibilities

The Contractor's Quality Assurance Plan and associated activities shall be subject to MDC's verification at any time. Verification may include, but will not be limited to the following:

1. Surveillance of the operations
2. Auditing of contractors, subcontractors and vendors
3. Inspection to measure quality of the items to ensure compliance with all requirements; and
4. Review of Quality Records.

Contents of QAP: The QAP shall describe in detail all elements of the QA System, the Contractor proposes to implement for the CADAVLRP project. These elements shall be considered in the development of detailed quality procedures. The quality elements at minimum to be addressed in this plan are as follows:

- i. Organization: A functional organization chart showing the interrelationships between the Contractor and subcontractors, and other supporting organizations. The contractor shall designate a Quality Assurance Representative (QAR) experienced in the quality requirements of the Contract. Based on the functional organization chart, the organization structure, levels of authority, and lines of communication for activities affecting quality, shall be clearly established and delineated. Quality Assurance personnel shall have the authority and responsibility to evaluate and assure that the QA system is correctly and effectively executed and verified. Where problems are identified, QA personnel shall have the authority and responsibility to evaluate and assure that the QA System is correctly and effectively executed and verified. QA personnel shall have the authority and organizational freedom to initiate, recommend and provide solutions. The QAR shall not be replaced by the Contractor without prior written approval of MDC.



- ii. **Quality Assurance System:** The QA system shall include those processes necessary to address key activities affecting quality; provide control over activities affecting quality consistent with their importance; provide for the planning and accomplishment of activities affecting quality under suitably controlled conditions. Controlled conditions shall include the use of appropriate equipment, suitable environmental conditions for accomplishing the activity, and assurance that the prerequisites for any given activities have been satisfied; provide for any special controls, processes, test equipment, tools and skills to attain required quality and for necessary verification of quality such as inspection or test; provide orientation and training, as necessary, of personnel performing activities affecting quality to assure that suitable proficiency is achieved and maintained; and require management to regularly assess the adequacy of the QA system and assure its effective implementation.
- iii. **Design Control:** The QA system shall include design control measures to assure that design specifications, regulatory and code requirements, and engineering standards are correctly applied to drawings, specifications, procedures, and instructions; that appropriate quality standards are specified in the design documents; that selection and review of materials and processes essential to installation are suitable for their application; that design review/checking, and certification by licensed professional engineers are performed; and distribution of all design documents.
- iv. **Procurement Control:** The QA system shall include a procurement control process to assure that design, engineering and services, along with materials, machinery and equipment are procured in accordance with the contract requirements. Procurement documents are to be prepared in detail to include and be reviewed for technical, quality and commercial requirements for all materials, products and services, to meet strict requirements to ensure that those documents requiring regulatory or professional approval are submitted in a thorough format and timely manner for approval as required. Refer to Articles 73 and 76 for additional requirements.
- v. **Instructions, Procedures and Drawings:** Instructions, procedures and drawings shall also prescribe quantitative and qualitative acceptance criteria.
- vi. **Document and Data Control:** The QA system shall describe the procedures for issuance, approval, distribution, retention, and maintenance detail of drawings, specifications, reports, procedures, and other quality related documents applicable to the design and construction of the projects. All documents that specify quality requirements or prescribed activities affecting quality shall be controlled to assure that the correct documents are being employed. Refer to Article 80 for additional requirements.
- vii. **Control of Purchased Materials, Equipment, and Services:** This QA element is required to assure that purchased materials, equipment, and services are delivered/ performed by contractors, and suppliers in conformance with the requirements stipulated in the contract documents; and are identified and verifiable to the documents submitted. Refer to Article 98 for additional requirements.
- viii. **Identification and Control of Materials, Parts and Components:** The QA system shall include this element to assure that all materials, parts, and components are



properly identified and controlled; identification is maintained by part number, serial number or other appropriate means either on the item or on the records that are traceable to the item as required throughout fabrication or construction of the item; and nonconforming work, materials, parts or components are prevented from being incorporated into the final product.

- ix. Control of Special Processes: The QA system shall include this element to assure that special processes, including but not limited to welding, heat treating, non-destructive testing, are properly controlled and performed by qualified personnel using approved procedures in accordance with the applicable codes and engineering standards under suitable conditions.
- x. Inspection: The QA system shall include inspection during all phases to assure that requirements of contract documents (e.g. drawings, specifications, instructions, regulatory requirements, applicable codes and standards, etc.) are being complied with by the consultants, contractors, and suppliers. Refer to Article 57 for additional requirements.
- xi. Test Control: The QA System shall include the element of test control to assure that all testing required to demonstrate that the equipment and systems will perform satisfactorily and are done in accordance with approved procedures; test procedures shall include all prerequisite requirements and acceptance criteria specified in the contract documents; and test results are evaluated by responsible and competent persons. Refer to Article 49 for additional requirements.
- xii. Inspection, Test, and Operating Status: The QA System shall include inspection, test and operating status information to demonstrate (provide evidence) that all manufactured or fabricated equipment, components, or systems have satisfactorily passed all required inspection, examination and testing. Refer to Articles 49 and 97 for additional requirements.
- xiii. Nonconforming Parts, Materials, and Components: The QA System shall assure that nonconforming parts, materials and components are prevented from being incorporated/introduced in all manufacturing tasks and/or into the final product; are properly identified and segregated from conforming items while awaiting disposition; and are reported for immediate disposition of nonconformance. Refer to Article 73 for additional requirements.
- xiv. Corrective and Preventive Action: The QA System shall include corrective action processes to assure that conditions which are adverse to quality are promptly identified and corrected; to determine the cause of nonconformance and take corrective measures to prevent recurrence; to document and report to appropriate management all records and procedures used in correcting the condition of nonconformance; and to assure that corrective actions resulting from the audits are properly corrected and immediately responded to.
- xv. Quality Assurance Records: The QA System shall include procedures to assure that all QA related documents and supporting evidence are properly accumulated, maintained, organized and protected; and that all documents are properly identified, controlled, and stored in a well-defined location. These records shall be available for review. Records are considered one of the principle forms of objective evidence that applicable quality system elements have been implemented. Refer to Articles 16 and 88 for additional requirements.



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- xvi. Audits: The QA System shall include audits to verify implementation and compliance with all aspects of the QA System and to determine the effectiveness of the system; assure that audits are performed in accordance with a written checklist by qualified personnel; assure that all audit results are documented and reviewed by management responsible for the area being audited; and assure that follow-up actions and actual verification, including re-audit of deficient areas are performed. The Contractor's Audit program shall include auditing of the subcontractors, sub-consultants and supplier organizations to verify that the quality systems are compliant with contract quality requirements and the organizations' quality plan. Refer to Article 17 for additional requirements.
- xvii. Servicing: The QA System shall include documented procedures for performing, verifying, and reporting that the servicing meets the specified requirements.
- xviii. Software Quality Assurance and Documentation: The Contractor shall submit for approval, a Software Quality Assurance Plan, SQAP (in accordance with ANSI/IEEE Standard 730-2002 or ISO 9001-2008 requirements). For reference, this Standard has the following minimum software documentation requirements:
- Software Requirements Specification (Ref. Exhibit 1 - Scope of Services)
 - Software Design Description
 - Software Verification and Validation Plan
 - Software Verification and Validation Report
 - User Documentation
 - Training Documentation

The Software Design Description (SDD) shall be in accordance with ANSI/IEEE Standard 1016-1998 or ISO 9001 requirements. The final Software Design Description shall include details required by ATA Specification No. 102, through all levels to Level 6 or ISO 9001 requirements. The levels defined in ATA No. 102 are summarized below only for information:

- Level 1. Computer description and operation
- Level 2. Software architecture, basic program and functions.
- Level 3. Detailed flow information.
- Level 4. Annotated compiler/assembly listing
- Level 5. Detailed memory map and listing
- Level 6. Input/output port map

At its option, MDC will participate in both the Software Requirements and the Preliminary Design Review, as defined by the ANSI/IEEE Standard 730-2002 or in accordance with the Contractor's ISO 9001-2008 quality procedures. Following these reviews, the Contractor shall submit, for approval, the Preliminary Design Review Report. All subsequent changes to these reports shall also be submitted and approved prior to implementation.

ARTICLE 54. EXTENSION OF TIME



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- 54.1 In the event the Contractor is delayed, at any time, to affect a schedule or required performance of Work, the Contractor shall provide a written notice to the County at the time, in advance of a delay, that the Contractor knows of any cause which might result in a delay. Additionally, the Contractor shall proceed continuously and diligently with the performance of the unaffected portions of the Work.
- 54.2 The Contractor shall, at minimum, specifically state in such notice:
 - a. That an extension of time is or may be requested.
 - b. Identify and describe the cause(s) and nature of the delay.
 - c. The portions of Work affected by the delay.
 - d. The effect the delay has on the completion of the affected portions of the Work.
 - e. The effect of an extension of time that may provide minimum or no impact to the overall schedule or the further performance of the Work required under this Contract.
- 54.3 The County may require the Contractor to furnish such additional information or documentation, as the County deems reasonably necessary or helpful in considering an extension of time. Once the County has received the Contractor's notice, information, and documentation and has evaluated the matter, the County will advise the Contractor of its decision on such extension of time.
- 54.4 The County will reasonably exercise its discretion to amend any schedule or time requirement for performance of Work in consideration of the following conditions:
 - a. If the cause of the delay is beyond the Contractor's control and arises without its fault or negligence, and neither was nor could have been anticipated by the Contractor by reasonable investigation.
 - b. If the completion of the Work will be actually and necessarily delayed by the cause(s) set forth in "a" above.
 - c. If the effect of such cause(s) cannot be avoided or mitigated by the exercise of all reasonable precautions, efforts and measures whether before or after the occurrence of the cause of delay.
 - d. If the Contractor has provided the aforementioned notice, information, or documentation as stipulated.
- 54.5 The County reserves the right to rescind or shorten any extension of time previously granted if the County subsequently determines that any information provided by the Contractor in support of its request for an extension of time was erroneous or that there has been a material change in the facts stated.
- 54.6 The Contractor shall proceed with the performance of any Work subsequent to any missed schedule or specified timeframe whether the County's decision to amend said time requirement is pending or denied. Such performance of Work shall not affect any discount provisions or waive the County's right to exercise any default provisions of this Contract.

ARTICLE 55. NO DAMAGES FOR DELAY



55.1 The Contractor hereby agrees to make no claim for damages for delay, whether contemplated or not contemplated, in the performance hereunder occasioned by any acts or omissions, other than active interference with the Contractor's performance of the work by the County, or any of its representatives or other contractors, and agree that any such claim shall be fully compensated for by an extension of time to complete performance of the Work, as provided for in Article 54 "Extension of Time".

ARTICLE 56 LIQUIDATED DAMAGES

56.1 In the event the CADAVLRP equipment, materials, or work is not completed and/or delivered to the County, and/or the Work or a portion thereof is not completed within the number of days or weeks set forth herein, and/or within the County approved Project Schedule, damage will be sustained by the County. In such event, the Contractor shall pay to the County, as liquidated damages and not as a penalty, the sums set forth below for every day or fraction thereof of delay in completing the referenced portion of the Work and failing to meet the corresponding interim milestone or the Time of Completion. The Contractor shall pay the referenced sums as fixed and agreed to, liquidated damages, and not by way of a penalty, to the County. The County may deduct the sum of liquidated damages from any monies due or that become due the Contractor under the Agreement or under any other contract with the County, or if such monies are insufficient, the Contractor or its Surety or Sureties shall pay to the County any deficiencies in such monies within thirty (30) days of written notice by the County. The remedies provided herein are not intended to preclude the County from terminating this Agreement as provided in the termination provisions herein. Failure by the Contractor to complete any phase as provided for by the Project Schedule shall result in liquidated damages in the amount specified below:

56.2 LIQUIDATED DAMAGES TABLE

Liquidated Damages	Scheduled Days After NTP	Amount Per Day
	Pursuant to Project Schedule	\$1,175
	Pursuant to Project Schedule	\$1,175
	Pursuant to Project Schedule	\$1,175
	Pursuant to Project Schedule	\$1,175
Completion of the Implementation at Coral Way Bus Garage	Pursuant to Project Schedule	\$1,175
Completion of the Implementation at North East Bus Garage	Pursuant to Project Schedule	\$1,175
Completion of the	Pursuant to	\$1,175



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Implementation at Central Bus Garage	Project Schedule	
Completion of the Implementation at Metrorail Maintenance Facility	Pursuant to Project Schedule	\$1,175
Completion of the Implementation at Metromover Maintenance Facility	Pursuant to Project Schedule	\$1,175

- 56.3 In no event will the total liquidated damages paid by the Contractor to the County exceed ten percent (10%) of the Contract Sum, as it may have been changed from time to time in accordance with the Contract Documents.

- 56.4 Contractor will be deemed to have completed each garage installation when it has completed its installation on all buses that County has made available to Contractor for installation. Any buses that were not available for installation at the time scheduled for installation for its garage shall be treated as punch list items to be completed at a time to be agreed upon by the parties. The Contractor's failure to complete installation on buses or other equipment that were not made available to Contractor at the time scheduled for installation shall not be considered a cause for default or for the assessment of liquidated damages or for the withholding of payment to Contractor in accord with the payment schedule except that County may retain amounts equal to the value of the punch list items from any amounts due the Contractor pursuant to the payment schedule. Contractor and County will agree on an installation schedule which may include minimum quantities of buses to be made available to the Contractor for installation. The availability of the buses may vary depending on the day of the week. If the County cannot provide the agreed upon quantity of buses, the Parties will revise the schedule on a weekly basis and new completion dates will be established.

ARTICLE 57. INSPECTION

- 57.1 The County shall at all times, have the right to inspect, and shall have access to, the Work and any portion thereof and the Contractor shall furnish every reasonable facility for ascertaining that the Work is performed in accordance with the requirements of the Contract Documents. The Work and any portion thereof shall be subject to the County's or the County's on-site and off-site inspection.

- 57.2 Inspection or lack of inspection, approval or acceptance of any portion of the Work shall not relieve or release the Contractor from its obligations to adhere to, and fulfill the requirements of, the Contract Documents, including, but not limited to, the Contractor's warranty obligations. Work not meeting the requirements of the Contract Documents shall be made acceptable to the County. Any non-conforming portion of the Work may be rejected by the County, notwithstanding that such portion of the Work may have been previously inspected, approved, or accepted or that payment therefore may have been included in a prior pay estimate.

- 57.3 Re-inspection of any portion of the Work that is reasonably necessary may be ordered by the County at any time before issuance of the Acceptance Certificate. If such portion of the Work is found to be in accordance with the Contract Documents, the County will pay all costs incurred to perform this inspection. If such portion of the Work is not in



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- accordance with the Contract Documents, Contractor shall pay all costs incurred to perform this inspection.
- 57.4 The Contractor shall provide for the inspection of all incoming systems, subsystems, components, parts, equipment and other materials to insure their correctness and condition. The County shall be given notice of, and shall have the right to observe, such inspections. Items being inspected shall be identified with corresponding drawing, specification, or other pertinent technical documents. All material certifications and test reports used as the basis for acceptance shall be retained by the Contractor.
- 57.5 The Contractor shall assure that all manufacturing processes, fabrication, rehabilitation and other production operations are accomplished under an effective production control system. In-process inspection shall be used to monitor the production control system. The County shall be given notice of, and shall have the right to observe, such inspections. The Contractor shall maintain a system for identifying the progressive inspection status of materials, components, subassemblies and assemblies, so that such status is known throughout the manufacturing, installation, rehabilitation and testing phases. The Contractor's inspection program shall also provide for surveillance to ensure proper handling, storage, preserving, packaging and marking of items during the production process.
- 57.6 The Contractor shall monitor Subcontractor's inspection programs to ensure that services and materials being supplied conform to Contract Documents.
- 57.7 The Contractor shall provide and maintain an inspection program acceptable to the County as specified in Exhibit 1 - Scope of Services herein. Records of all inspection work by the Contractor shall be kept complete and available to the County and the County during the performance of the Agreement, and for a period of five (5) years after the issuance of the Acceptance Certificate. Prior to the issuance of the Certificate of Acceptance of Final Inspection and after the Certificate of Acceptance of the CADA VLRP, all sign-off, inspection and test records, changes, reports, orders, modifications and quality assurance data for the CADA VLRP shall be provided to the County.

ARTICLE 58. FORCE MAJEURE

- 58.1 Except as otherwise expressly provided herein, neither party hereto shall be considered in default in the performance of its obligations hereunder to the extent that such performance is prevented or delayed by any cause, existing or future, which is not within the reasonable control of such party including, but not limited to, acts of God or the public enemy, fires, explosions, riots, strikes (not including strikes of the Contractor's staff personnel), terrorism or war. Notwithstanding the foregoing, the failures of any of the Contractor's suppliers, subcontractors, or the like shall not excuse the Contractor's performance except to the extent those failures are due to any cause without the fault and reasonable control of such suppliers, subcontractors, or the like.
- 58.2 In the event that such failure or delay occurs, the affected party shall notify the other party of the occurrence thereof as soon as possible and the parties shall discuss the best way to resolve the event of force majeure.

**ARTICLE 59. HARDWARE**

- 59.1 All Hardware shall be manufactured, fabricated, assembled, finished, and documented with quality production workmanship and shall conform to all applicable quality standards of the original manufacturer. All Hardware components shall be new and suitable for the purposes of its intended use. All Hardware provided shall be commercially available, standard, off-the-shelf products manufactured by well-established and reputable manufacturers.
- 59.2 Modern Original Equipment Manufacturer (OEM) Products: The Contractor shall supply modern, OEM products of computer and communication hardware required for the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION. All OEM products utilized shall be from authorized distributors. Evidence that products were obtained by the Contractor from authorized distributors shall be provided to the County upon request.
- 59.3 All Hardware shall contain the latest firmware, patches, and software updates available at the time of delivery.
- 59.4 Manuals and other descriptive material shall be available for all Hardware provided by the Contractor, regardless of whether it is manufactured by the Contractor or other. This documentation shall include descriptions, specifications, and theory of operation.
- 59.5 Instructions shall be available for preventive maintenance procedures that include examinations, tests, adjustments, and periodic cleaning. The manuals shall provide guidelines for isolating the causes of Hardware malfunctions.
- 59.6 All such Hardware documentation shall be provided by the Contractor to the County, at no cost, with the Contractor's request to the County for the Final Acceptance Certificate.
- 59.7 Additional Hardware:
- A) The County may purchase, via written order, additional Hardware on an as needed basis, in any lot amount. Such additional Hardware shall be delivered within 30 days from the date of the order, unless otherwise specified.
 - B) The County may consider an adjustment to the prices stated on the Price Schedule for additional Hardware each two-year period following issuance of the Final Acceptance Certificate, upon receipt of a request from the Contractor for a price adjustment at least sixty (60) days prior to the end of the period. The County may request relevant documentation for the requested adjustment. Each adjustment shall not exceed 3% of the current price.
 - C) The Contractor may substitute Hardware stated in the Contract Documents upon written consent from the County and subject to availability. Any substitute Hardware shall be equivalent in quality and shall not affect any essential functions, characteristics, or warranty of the System. However, if Hardware is substituted, the County may be subject to additional costs. The Contractor shall provide the County any such relevant and available documentation, at no charge, to evaluate consent of a substitute Hardware.



ARTICLE 60. SCOPE OF SERVICES

- 60.1 The Contractor shall furnish all labor, materials, tools, equipment, transportation and supervision to furnish, and perform all installation, testing, training, repairs, technical support and other services necessary and incidental to the proper, timely and satisfactory completion of the Work in accordance with Exhibit 1 - Scope of Services, and to do all other tasks required by the Contract Documents.
- 60.2 The intent of the Contract Documents is to provide the County with a COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVLRP) AND KENDALL DRIVE SIGNALIZATION as required by the Contract Documents, ready for operation by the County, as well as the satisfactory completion of all other portions of the Work.
- 60.3 The Contractor shall carefully examine and become familiar with the CONTRACT, the Contract Documents, the County's facilities, and any other conditions or facilities potentially affecting the Work. By submitting a Proposal, the Proposer acknowledges that it has carefully examined the CONTRACT, the Contract Documents, and the County's facilities, and has satisfied itself as to the contractual and technical requirements of the Work and all conditions potentially affecting the Work. Any failure by the Contractor to carefully and completely review the CONTRACT, the Contract Documents, the County's facilities, and any other conditions or facilities potentially affecting the Work, or to acquaint itself with all available information, shall not relieve it from the responsibility for estimating properly the difficulty or cost of successfully performing the Work. The County assumes no responsibility for any conclusions or interpretations made by the Proposer on the basis of any representations made, or information provided by, the County, the County or any of the County's or the County's directors, officers, employees or agents prior to the execution of the Agreement. Such data is included or provided only for the convenience of each Proposer.

ARTICLE 61. INTENT OF CONTRACT DOCUMENTS

- 61.1 The Contract Documents describe the Work. Where the Contract Documents describe portions of the Work in general terms, but not in complete detail, generally accepted industry practice shall be followed. Only new materials and workmanship of the highest quality shall be used.
- 61.2 The Contractor shall check all furnished Contract Documents immediately upon receipt and shall immediately notify the County of any discrepancies therein.
- 61.3 Anything mentioned in Exhibit 1 - Scope of Services and not shown on any County provided drawings, or shown on the said drawings and not mentioned in Exhibit 1 - Scope of Services, shall be treated as if shown or mentioned in both. In case of a discrepancy in the figures or information mentioned in either the Drawings or Exhibit 1 - Scope of Services, the Contractor shall promptly submit the matter to the County's Project Manager, who will provide a written decision to the Contractor to resolve the discrepancy.

ARTICLE 62. USE AND POSSESSION PRIOR TO COMPLETION



- 62.1 The County has the right to take possession as it relates to hardware or equipment or use of any completed portion or partially completed portion of the Work. Such possession or use shall not be deemed as acceptance of the Work or any portion thereof, unless otherwise accepted by the County and issuance of a Certificate of Acceptance. While the County is in possession of such portion of the Work, the Contractor shall be relieved of the responsibility for loss or damage to only that portion of the Work, except for loss or damage resulting from the Contractor's, Subcontractor's or Supplier's fault or negligence. The Contractor shall, however, remain responsible for completion of such portion of the Work in accordance with Contract Documents unless an extension of time is granted by the County or where the Contractor's performance is delayed by County-caused damage to uncompleted work in the County's possession, in which case the County shall grant an extension.
- 62.2 Notwithstanding use by the County of any completed portion or partially completed portion of the Work, the applicable time period for the Contractor's guarantee and warranties shall not commence until issuance of the Certificate of Acceptance of Final Inspection.

ARTICLE 63. OTHER CONTRACTS

- 63.1 The County may undertake or award contracts associated with this Agreement to others for additional work, and the Contractor shall fully cooperate with such other contractors and the County in the performance and scheduling of such additional work and vice versa. The Contractor shall not interfere with, hinder or delay the performance of Work by other contractors or the County.
- 63.2 The Contractor shall provide to the County all necessary drawings, dimensions, data and other information necessary to ensure the complete, integrated and proper design, manufacture, installation and operation of interfacing and connecting parts and systems as may be required by any contractor performing work under or pursuant to another County contract that interfaces with any portion of the Work. The exchange of information will be coordinated by the County, subject to the appropriate Non-Disclosure Agreements being in place with the contractor requesting said information, and one (1) hardcopy and three (3) electronic copies of all the Contractor's data, drawings and correspondence relating to the above shall be furnished to the County.
- 63.3 Contractor, if it deems certain documentation to be proprietary and/or exempt from Florida's Public Records Law, must, at the time of document(s) delivery, if it wishes not to have said documentation publicly disclosed, identify as "proprietary" on the upper right hand corner of each page of said document(s) it maintains are proprietary. In the event the County receives a public records request for said document(s), the County will endeavor to notify the Contractor of the request and provide a reasonable opportunity for the Contractor to obtain a court order to prohibit the release of said documents(s). The Contractor shall bear all responsibility and costs, including attorney's fees, for any court action arising out of Contractor's identification of document(s) as proprietary. Notwithstanding the above, in no case will any action taken by the County, believed to be in good faith required by, or consistent with, the public records laws, constitute a violation of this agreement.
- 63.4 The County shall timely notify the Contractor if there are any other contracts or subcontractors with which the Contractor will need to coordinate with the County.



ARTICLE 64. INDEPENDENT CONTRACTOR

64.1 The Contractor shall be deemed at all times to be an independent contractor and shall be wholly responsible for the manner in which it performs the Work required under the terms of the Contract Documents. The Contractor shall be liable for its own acts and omissions as well as those of its employees, agents, Subcontractors and Suppliers. Nothing contained herein shall be construed as creating an employment or agency relationship between the County and the Contractor, its employees, agents, Subcontractors and Suppliers.

ARTICLE 65. PROJECT SCHEDULE

65.1 See Exhibit 5 – Project Schedule

65.2 (A) Five (5) reproducible copies of the Project Schedule and each update thereto shall be submitted to the County.

(B) Project Schedule sheets shall not be larger than twenty-two inches (22") by thirty-four inches (34").

(C) Approval of the Project Schedule, or any updates thereto, by the County, shall, in no way, waive any requirements of the Contract Documents nor excuse the Contractor from any obligations under the Contract Documents. Upon approval by the County in writing, the approved Project Schedule shall then be the schedule to be used by the Contractor for planning, organizing, and directing the Work and reporting progress.

(D) The Contractor shall submit for the County's approval an updated Project Schedule by the tenth (10th) day of each month the Work is being performed. The updated Project Schedule shall show progress during the preceding month, including actual start and finish dates for each activity.

(E) Failure of the Contractor to submit the Project Schedule or updates thereto, within the time limits specified, shall be sufficient cause for the County to withhold the Contractor's progress payments, or any portion thereof, until such delinquent submittal is made.

(F) The Contractor shall prosecute the Work in accordance with the latest approved Project Schedule. Deviations shall be submitted to the County for review and written approval. In the event that the progress of items along the critical path is delayed, the Contractor shall revise its planning as necessary to meet the Time of Completion.

(G) For changes to the Contract Documents which could influence the order of all of or portions of the Work, restraints between various activities, or duration time estimated for activities on the Project Schedule, a determination of the impact of such changes on any interim milestone dates or the Time of Completion shall be made in accordance with the Contract Documents.

(H) If a Change Order is issued, the Project Schedule shall be changed, if necessary, to reflect the requirements of the Change Order. Changes to the Project Schedule shall be made no later than the next updating after the issuance of the Change Order.



(I) If the Contractor fails or refuses to submit or include the foregoing revisions within fifteen (15) days after the date of change, the County will furnish to the Contractor, at the Contractor's expense, the logic, duration time changes, or both, to be entered into the Project Schedule and used in subsequent updating of reports until such time that the change has been settled or until actual dates supersede the estimated dates. Inclusion of a revision in the Project Schedule and use of revised logic or duration time, or both, whether furnished by the Contractor or by the County, will not be construed as an extension of time to the Time of Completion or as a deviation from any other requirements of the Contract Documents.

ARTICLE 66. PROGRESS REPORTS

- 66.1 The Contractor shall submit Progress Reports every calendar month during the performance of the Work in accordance with a format approved by the County which shall provide detailed information for the preceding calendar month on the following items, as applicable:
- (A) The activities started during the report period and to be started in the next report period;
 - (B) The activities completed during the report period and those to be completed in the next report period;
 - (C) Project Schedule deviations and slippage with explanations, a description of their effects on the Work, and plans for correction;
 - (D) Major problems;
 - (E) Pending action items requested by the Contractor or the County;
 - (F) Subcontractor and Supplier status reports;
 - (G) Log of correspondence for the report period;
 - (H) As-built drawings for completed portions of the Work; and
 - (I) Production Status Report detailing the level of completion for each major module.
- 66.2 Progress Reports shall be submitted by the tenth (10th) day of the month following the reporting period in electronic format.

ARTICLE 67. CHANGES

- 67.1 The County may, at any time, without invalidating the Agreement by a written Change Order, order modifications in the Work and/or the Contract Documents, including changes, modifications, additions or deletions. Where additional work may be required, the County will issue a Change Order under the terms and conditions of the Contract.
- 67.2 The Contractor may, at any time, submit in writing to the County proposed modifications to the Work. The County will review such proposals and recommend the approval or denial of such proposed modifications to the County, and the County, at its sole discretion, may either approve or deny such proposed modifications.
- 67.3 Upon accepting modifications proposed by the Contractor, the County will execute and issue a Change Order. The denial by the County of the Contractor's proposed modification shall neither provide the Contractor with any basis for a claim for damages nor an adjustment of the Time of Completion, nor shall the denial release the Contractor from its contractual responsibilities under the Contract Documents.



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- 67.4 Except as herein provided, no order, statement or conduct of the County shall be treated as a Change Order or entitle the Contractor to additional compensation or an equitable adjustment hereunder.
- 67.5 If any Change Order causes an increase or decrease in the Contractor's cost of, or the time required for the performance of any part of the Work, an equitable adjustment will be made and the Agreement will be accordingly modified in writing,.
- 67.6 Within ten (10) days or a mutually agreed upon timeframe of receiving a request from the County or upon submission of a proposed modification Article 67 subsection 67.2, the Contractor shall submit, with each change, modification, addition or deletion, involving an increase or decrease in the cost of or time to perform the Work, an itemized cost breakdown covering any Subcontractor's work as well as its own. The Contractor shall also indicate proposed payment terms and any increase or decrease in the Time of Completion as a result of the proposed modification. The itemized breakdown shall include the following:
 - (A) Material quantities and unit prices
 - (B) Hourly rates for implementing the change
 - (C) Equipment costs

The Contractor shall also include, as part of its submission, a subnet schedule showing a complete breakdown of all of the tasks required to complete the proposed modification, including the impact of the modification on the Project Schedule. This subnet schedule shall be in the same format as, and fully integrated into, the Project Schedule.

- 67.7 Adjustments in the Contract Sum resulting from a change, modification, addition or deletion in the Work shall be determined by one or more of the following:
 - (A) By agreement;
 - (B) By unit price adjustment; or
 - (C) By the County on the basis of the County's estimate of an equitable increase or decrease in the Contract Sum.

If adjustments in the Contract Sum are implemented through Article 67 section 67.7 (C), the Contractor, if not in agreement, may pursue the Dispute Resolution Procedures in accordance with Article 69 – Claims and Disputes.

- 67.8 No allowance shall be made or recovery be allowed to the Contractor for loss of anticipated profit or overhead recovery as a result of a portion of the Work not being performed by reason of a change, modification, addition or deletion in the Work.
- 67.9 Adjustments in the Time of Completion of the Contract shall only be allowed if the Work included in the change, modification, addition or deletion falls on the critical path of the Project Schedule or alters such critical path so as to extend the time required for completion of the Work. The critical path will be determined from the latest approved version of the Contract Project Schedule.
- 67.10 MDC shall have the right at any time during the progress of the Work to increase or decrease the Work. Promptly after being notified of a change, Contractor shall submit an itemized estimate of any cost or time increases or savings it foresees as a result of the change. Except in an emergency endangering life or property, or for minor changes



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ordered by the County's Project Manager, no addition or changes to the Work shall be made except upon written order of MDC, and MDC shall not be liable to Contractor for any increased compensation or adjustment to the Contract Time without such written order. No officer, employee or agent of MDC is authorized to orally direct any increase or decrease in the Work.

- 67.11 The Contractor's written acceptance of a Change Order, absent a written reservation of rights, shall constitute the Contractor's final and binding agreement to the provisions thereof and a waiver by the Contractor of any direct claims, resulting there-from. Disagreement with a Change Order shall in no way excuse the Contractor from complying with, and prosecuting, the work set forth in the Change Order. Should the Contractor disagree with any Change Order, it shall, within ten (10) calendar days after receipt of the Change Order, submit to the County a written statement specifically setting forth the nature and monetary extent of such disagreement. No such claim by the Contractor shall be considered if it is asserted after the earlier of ten (10) calendar days of Contractor's receipt of the Change Order.

ARTICLE 68. INTENTIONALLY OMITTED.

ARTICLE 69. CLAIMS AND DISPUTES

All actions, claims and disputes arising out of, under, or related to, the Agreement, the Contract Documents or for a breach thereof, except as provided in or limited by Article 67 section 67.11 (written acceptance of a Change Order), Article 69 section 69.1 (condition precedent); Article 69 section 69.3 (limitation on commencement), Article 69 section 69.5 (ninety day period) and Article 104 section 104.3 (waiver by final payment), shall only be commenced in a court of competent jurisdiction in Miami, Miami-Dade County, Florida and the Contractor hereby consents and submits to the jurisdiction of such court.

- 69.1 As an express condition precedent to the Contractor's right to commence a court proceeding, as set forth in Article 69.2, the Contractor shall provide to the County's Project Manager:
 - (A) A written claim which shall set forth, in detail, the amount of additional compensation or time claimed and the basis for the claim and the amount claimed;
 - (B) All materials utilized by the Contractor in preparation of its claim, including, but not limited to, all worksheets, quotations, calculations, pricing data, estimates and correspondence relating thereto;
 - (C) Written evidence of, and support for, any claim, including evidence regarding liability, causation and damages, sufficient to enable the County's Project Manager to render a decision with respect to such claim; and
 - (D) Such other information as the County's Project Manager may reasonably request.

Within thirty (30) days of the Contractor's first knowledge of an event giving rise to a claim, the Contractor shall provide written notice to Miami-Dade County of its intent to file a claim. The Contractor shall present such claim and supporting information and



evidence to the County within thirty (30) days of its notice to the County, or within such longer period of time as the County and the Contractor may mutually agree. Within sixty (60) days of receiving all such information and evidence, the County will render a written decision with respect to the claim.

In the event the CONTRACTOR and County's Project Manager are unable to resolve their differences concerning any determination made by the County's Project Manager or any dispute or claim arising under or relating to the Contract, either the CONTRACTOR or COUNTY may initiate a dispute in accordance with the procedure set forth in this Article. Exhaustion of these procedures shall be a precondition to any lawsuit permitted hereunder.

The parties to this contract hereby authorize the use of a mutually agreed upon arbitrator to assist in resolving any dispute. Such arbitration shall be in accordance with the provisions of Article 69.2.

69.2 Resolution of Potential Claims:

MDC will give a formal response to a notice of potential claim within the following time limits after all data requested by MDC or MDC's Representative have been provided: a response to potential claims under \$50,000 will be given within forty-five (45) Days; a response to potential claims from \$50,000 through \$200,000 will be given within sixty (60) Days; and a response to potential claims over \$200,000 will be given within ninety (90) Days. These time limits may be extended if more time is required by the County to respond. If MDC fails or refuses to act on a potential claim within such time, the potential claim will be deemed to have been rejected by MDC on the last day of the period within which MDC was required to act upon the potential claim, and the Contractor may proceed as though the potential claim had not been resolved.

Mediation: Within fifteen (15) Days after receipt of MDC's response, or within fifteen (15) Days after the applicable time limit for MDC's response set forth herein, whichever is earlier, the Contractor may file a written objection with MDC's Representative, stating clearly and in detail the basis for its objection to MDC's response. Within fifteen (15) Days of receipt of the Contractor's objection, the Contractor or MDC may make request for mediation of the potential claim in accordance with the following procedure:

Notice of Mediation: Either MDC or the Contractor may submit any remaining dispute to Mediation by serving a written notice of Nonbinding Arbitration ("Mediation") on the other party. The Notice of Mediation shall be signed, on behalf of MDC, by MDC's Representative; and, on behalf of the Contractor, by an individual having authority as its representative. Mediation shall proceed in accordance with rules promulgated by the Mediator and shall be concluded within thirty (30) Days, unless extended by mutual agreement of the parties. MDC will be represented by MDC's Representative(s) or such other higher-level representative of its choosing, and the Contractor shall be represented by an individual(s) having authority as its representative.

Selection of Mediator: Within fifteen (15) Days of the Notice of Mediation referred to herein, the parties shall meet and select a disinterested third person to act as Mediator ("Mediator"). If the parties fail to agree, either party may request the American Mediation Association in Miami to appoint the Mediator. The Mediator shall be replaced within fifteen (15) Days of receipt of a written request of either party, using the procedure outlined above; provided, however, that either party may only replace the Mediator once.



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Cost of Mediator: The County's Representative shall provide to the Mediator, at no cost to the Contractor, administrative services such as conference facilities and secretarial services, excluding transcription services, which will be borne equally by both parties. Fees and expenses of the Mediator shall be borne equally by the parties.

Change Order: If the County and the Contractor are able to resolve their dispute through Mediation, the County shall promptly process any appropriate Contract Change Order.

Filing of Claim: If the potential claim has not been resolved to the satisfaction of either party by the above procedures, either party may present the Claim to the County Mayor for resolution. The parties hereto further agree that, upon timely request under this Section, both the Contractor and County are entitled to a hearing before the County Mayor, or his designee, at which both Contractor and the County may present evidence and live testimony, in accordance with the Florida Rules of Evidence, and the right to cross-examine each other's witnesses.

Pending final decision of a dispute hereunder, the Contractor shall proceed diligently with the performance of the Contract and in accordance with the directions of the County's Project Manager.

69.3 No court proceeding arising from any such claim, dispute, or other matter shall or may be commenced by the Contractor until the earlier of:

- (A) The date on which the Miami-Dade County Mayor, or his designee, has rendered his written decision provided for in Article 69.2; or
- (B) The ninetieth (90th) day after the Contractor has provided Miami-Dade County with all the materials and evidence required by Article 69.1, if the County Mayor has not rendered his written decision by that date.

Failure by the Contractor to provide notice of intent to commence a court proceeding within said thirty (30) days of the County Mayor, or designee's written decision, shall result in Miami-Dade County's decision becoming final and binding upon the Contractor.

69.4 Unless otherwise agreed in writing by Miami-Dade County, the Contractor shall carry on and maintain progress of the Work pending any claim or court proceeding.

69.5 No claim may be raised by the Contractor later than ninety (90) days following the issuance by Miami-Dade County of the Certificate of Acceptance of Final Inspection, unless it is a claim regarding unpaid sums owed under the Agreement.

69.6 Any court proceeding or action arising out of, under, or in connection with, the Agreement, the Contract Documents, a breach thereof, or Article 69, shall be conducted in accordance with, and governed by, the laws of the State of Florida.

69.7 Should the Contractor sustain any damage or costs through any act or omission of any other contractor having a contract with Miami-Dade County, a subcontractor of such a contractor or any other person or entity, the Contractor shall have no claim against Miami-Dade County for such damage or costs, but instead, shall only have the right to recover such damage or costs from the other contractor, subcontractor, entity or person.

69.8 Notwithstanding any concurrence by the FTA, other Governmental agencies, or the State in or approval of the award of the Agreement, absent the express written consent



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by the FTA, other Governmental agencies, or the State, none of these entities is a party to the Agreement and shall not be subject to any claims, obligations or liabilities by the Contractor.

The Contractor agrees to include the above clause in each subcontract to the Agreement.

ARTICLE 70. WARRANTIES, REPRESENTATIONS AND COVENANTS

70.1 The Contractor warrants, affirmatively represents, and covenants as follows:

- (A) The Contractor shall utilize best practices in performing the Scope of Services; and
- (B) The COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT AND KENDALL DRIVE SIGNALIZATION (CADAVALRP), the Work and all material, components, parts, equipment, products, hardware and software systems furnished pursuant to the Contract Documents are, shall be, and shall perform, in accordance and conformance with the requirements of the Contract Documents; and
- (C) Title conveyed under the provisions of the Contract Documents is, and shall be good, and its transfer rightful and marketable, and all CADAVALRP goods, materials, supplies, systems, components, parts, equipment, products, hardware and software delivered, supplied, or returned to the County, are and shall be free of all security interests or other liens, claims, or encumbrances whatsoever. Contractor also hereby agrees to warrant and defend the same against all persons lawfully claiming whole or any part thereof;
- (D) All material, systems, components, parts, equipment, products, hardware and software furnished pursuant to the Contract Documents, and all other portions of the Work are and shall be: free from defective and inferior workmanship, Article 70 section 70.2, materials, equipment and/or workmanship; fit, sufficient, and of good quality; properly manufactured, and in compliance with all applicable laws, codes, regulations, and standards. Prior to the warranty period, any goods, supplies, systems, equipment, and work found not to be in accordance and conformance with the requirements of the Contract Documents shall be replaced by the Contractor, at no additional cost to the County.
- (E) All CADAVALRP licenses and any CADAVALRP functions, including any required customization, shall meet the material requirements of the Scope of Services,
- (F) All material, systems, components, parts, equipment, products, hardware and software furnished pursuant to the Contract Documents, and all other portions of the Work shall be free of the rightful claim of any person or entity for patent or trademark infringement; and
- (G) The Contractor shall deliver to the County all of the CADAVALRP components required to be furnished pursuant to the Contract Documents and/or required or necessary to deliver, install and integrate the CADAVALRP; and other portions of the Work (collectively, the "COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVALRP) AND KENDALL



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DRIVE SIGNALIZATION”, and none of the CADAVALRP Contractor proprietary software or the County's use thereof will infringe any intellectual property rights of any third party. The County is hereby granted a non-exclusive license to own the CADAVALRP in perpetuity, only for uses as indicated in Exhibit 2 of this Agreement, Software License Agreement; and

- (H) The Contractor shall ensure, consistent with applicable industry standards, that the CADAVALRP including, without limitation, any and all customizations thereto, shall be documented in a manner consistent with Contract Documents and the best standards of the industry; and
 - (I) During the performance of the Scope of Services, free of charge, and, for a minimum of one (1) year after the issuance of the Certificate of Acceptance of Final Inspection at the Contractor's then current rates, the Contractor shall provide CADAVALRP software upgrades and support to the County. The Contractor shall ensure that the latest, most up-to-date, released version of the software applications operating the CADAVALRP has been installed in the Scope of Services, which may require multiple upgrades by the Contractor. In the event that the Contractor should cease to support or repair the CADAVALRP or software, the Contractor shall provide the County, CADAVALRP software pursuant to the Escrow Agreement of like features and functionality at no additional cost to the County;
 - (J) The Contractor shall enter into a CADAVALRP Escrow Agreement with an Escrow Agent pursuant to Exhibit 4 of this Agreement, at the cost identified in Exhibit 8 Price Schedule.
- 70.2 Unless otherwise expressly stated in the Contract Documents, "defective or inferior" shall mean any condition, malfunction, or failure, whether patent or latent, whereby equipment, hardware, and software shall, require repair, replacement, or other than routine maintenance; cause the CADAVALRP or other portion of the Work to cease operating or operate in a degraded mode; inflict damage or harm on any portion of the CADAVALRP or other portion of the Work; or otherwise fail to conform to the requirements of the Contract Documents, excluding any such condition, malfunction or failure caused by County's abuse or neglect, including but not limited to improper or insufficient maintenance or use in other than specified conditions, or caused by damage resulting from accident, vandalism, improper storage, improper handling, improper repair, improper testing, reconfiguration of Transit, or Acts of God.
- 70.3 Unless otherwise expressly stated in the Contract Documents "industry or legislative mandate" shall mean changes required to the System to meet compliance requirements. These changes shall be provided by the Contractor at no additional cost to the County.
- 70.4. The Contractor shall provide qualified technical support personnel through completion of the system warranty period, to provide preventive maintenance, assist with testing, perform corrective maintenance, and to resolve operation and maintenance problems from the time the first CADAVALRP is delivered to Transit and installed at Transit, until the issuance of the Certificate of Acceptance of Final Inspection.

Unless otherwise expressly stated in the Contract Documents, the period(s) for the warranties and guarantees set forth in, referenced in, included in, or required by, the Contract Documents or otherwise expressly made by the Contractor shall commence:

- (A) For the CADAVALRP, when the Certificate of Acceptance is issued, Contractor



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shall provide the warranty and support outlined within Software License Agreement (Exhibit 2 herein) and Software Maintenance Agreement (Exhibit 3 herein).

- (B) One (1) year for all remaining third-party hardware, software, equipment furnished under this Agreement for the CADAVLRP.
 - (C) Prior to the acceptance by the County of the corresponding portion of the Scope of Services, the Contractor shall cause any warranties and/or guarantees received from Subcontractors, Suppliers and manufacturers to be made directly to the County, or if made to the Contractor, the Contractor shall immediately assign the warranty and/or guaranty to the County and shall furnish the County with written evidence of such warranties and guarantees and any assignment thereof. As necessary, all such warranties and guarantees shall be promptly enforced by the Contractor for the County's benefit.
- 70.5 Within the applicable warranty period, if the Software need to be repaired or replaced because of defective material or workmanship, because of a failure to conform to the requirements of the Contract Documents, the County will so inform the Contractor in writing and the Contractor shall, within the time specified Article 70 Section 70.8, and without additional expense to the County:
- (A) Repair or replace all such warranted Software and third-party hardware, as applicable.
 - (B) When the Contractor agrees that a portion of the Work is covered by warranty and warranty repair or replacement ("corrective work, or work"-applicable to Article 70) is required, the County and the Contractor shall agree, within five (5) business days of such decision, on the exact scope of the work to be performed under the warranty. If no agreement is obtained within the five (5) day period, the County reserves the right to commence the required work, only with regards to third-party hardware and software not proprietary to Contractor, in accordance with section 70.10. Such cost(s) for the work required shall be borne by the Contractor. The County reserves the right to make payment adjustments based on any cost(s) associated with this provision.
 - (C) After the Contractor has agreed that a portion of the Work is covered by warranty and has mutually resolved with the County the work necessary, the Contractor shall promptly commence within a time frame mutually agreed to by the Contractor and the County.
 - (D) The Contractor, its Subcontractor or its Supplier may be permitted to use the County's facilities to perform warranty work, provided that such work does not interfere with or potentially violate the requirements of any of the County's labor or other agreements, is conducted during normal business hours, does not interfere with other County activities, and is performed in accordance with the County's operational needs, policies and directions. Any damage to County property caused by the Contractor, its Subcontractor or its Supplier in performing such required work shall be the sole responsibility of the Contractor and shall be at the Contractor's expense.
 - (E) The Contractor shall provide, at its own expense, all parts, tools, and labor required to complete repairs, replacement or other work.



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- (F) If the work involves or requires the redesign or modification of any part of the CADAVLRP, including but not limited to the system, subsystem, component, part, product, hardware, or equipment, the Contractor, at its sole expense, shall revise and update all manuals, documents, and data affected thereby.

- 70.6 Should the Contractor fail to: (i) agree that a defective, inferior, or non-conforming third-party software or hardware not proprietary to the Contractor portion of the Work is covered by warranty or guaranty; (ii) proceed within the time specified by Article 70; or (iii) proceed in accordance with the applicable warranty or guaranty, the County may have such work performed by itself or others and the costs of such work shall be the responsibility of the Contractor and may be deducted from monies due, or to become due, to the Contractor under the Agreement or any other contract with the County. The County shall have the duty to mitigate damages. In the event that final payment under the Agreement has been made, the Contractor shall, within thirty (30) days of notification from the County, reimburse the County for such costs via credit memo.

- 70.7 If warranty work, pursuant Article 70.6, is performed by or on behalf of the County, the following will apply:
 - 1. The County shall be fully reimbursed by the Contractor for all labor, parts and other costs for all such warranty repair or replacement work performed by, or on behalf of, the County. Labor rate reimbursement shall be at the burdened labor rates paid by the County.

 - 2. The performance of any warranty work by the County shall not relieve the Contractor of any responsibility or obligations under the Contract Documents, the applicable warranty or otherwise.

- 70.8 If any portion of the Work for any part of the Software is delivered, installed, or replaced during the applicable warranty period, the properly delivered, installed or replaced portion shall be warranted for a period of the duration of the contracted warranty.

- 70.9 The Contractor shall provide an electronic file, approved in writing by the County, for the CADAVLRP at the time of Delivery for Acceptance Testing to the County. Information in the electronic file shall include, at a minimum, the following:
 - (A) Name of specific components, systems and subsystems;

 - (B) Manufacturer name and model number of each listed component, system and subsystem;

 - (C) Component, system or subsystem serial number;

 - (D) The County CADAVLRP number;

 - (E) Acceptance date of the CADAVLRP module; and

 - (F) The manufacturer identification number for each component.

Electronic file shall be organized for ease of screen display and printing. Access to the electronic file shall be on a record-by-record basis, with each record value correctly named.

Standardized Warranty Claim forms will be provided by the County.



- 70.10 Except as otherwise set forth in the Contract Documents, the guarantees, warranties and representations set forth in, referenced in, included in, or required by, the Contract Documents are in addition to all other warranties, express or implied, whether statutory or common law, including, without limitation, any warranty or merchantability.

ARTICLE 71. DEFECTIVE MATERIALS

- 71.1 Software or equipment for the CADAVLRP, that do not conform to the requirements of the Contract Documents, may be rejected by the County, during the implementation and warranty period as provided for in this Agreement. If so directed by the County, the Contractor shall promptly remove, or replace, in a manner acceptable to the County within reasonable discretion, such Software and equipment. No compensation shall be allowed to the Contractor for such repair or removal and replacement.
- 71.2 Upon failure of the Contractor to repair remove or replace defective or non-conforming software or equipment, after notice in writing from the County, the County may cause the defective or non-conforming software or equipment to be repaired, removed or replaced by other subject to the County's duty to mitigate damages. Any reasonable costs incurred by the County in having defective or non-conforming software or equipment removed or replaced shall be borne by the Contractor and such costs may be deducted from any monies due, or which become due to the Contractor.

ARTICLE 72. INTENTIONALLY OMITTED.

ARTICLE 73. USE OF BRAND NAME MATERIALS OR EQUAL

- 73.1 Equipment or other materials to be incorporated into the Work may be designated in the Contract Documents by their brand names, the names of manufacturers and their catalog information or otherwise. The use of an "equal item" which the Contractor represents to be of at least equal quality and to have the required characteristics for the purpose intended may be permitted by the County to be utilized by the Contractor subject to the following requirements:
- (A) "Equal items" may not be used where the components, parts, equipment or other materials are designated to match others in use in the County's CADAVLRP or equipment; and
 - (B) The burden of proof as to quality and suitability of an "equal items" shall be upon the Contractor and it shall furnish information necessary for such determination, as required by the County, at no additional costs to the County. The County shall be the sole judge as to the quality and suitability of "equal items" and the County's decision shall be final and binding; and
 - (C) Where use of an "equal item" involves redesign of, or changes to, other portions of the Work, or results in the need to use maintenance tools or equipment not in the possession of the County or procedures differing from those procedures currently used by the County, the cost and time required to effect such redesign, changes or provide any required maintenance equipment or tools in quantities determined by the County to be necessary shall be borne by the Contractor; and



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- (D) No tests will be made, nor action taken, relating to approval of an "equal item", until the request for substitution is made in writing by the Contractor accompanied by complete data as to the equality of the item proposed. To permit approval without delaying the Work, such request shall be made no less than ten (10) days prior to the scheduled start of the related work, provided the requirements of this Provision are met.
- (E) Approval of an "equal items" request shall only be for the characteristics or use named in such approval and shall not be used to change or modify any other requirements of the Contract Documents. Further, each approval shall be limited to the portion of the Work for which it is given; and
- (F) Any and all costs and/or delays associated with utilization of an "equal item" shall be borne by the Contractor.

73.2 The specification of a brand name, system, subsystem, component, part, equipment or other material in the Contract Documents shall not relieve the Contractor from its responsibility to complete the Work in accordance with the requirements of the Contract Document. The Contractor shall notify the County of any brand name, system, subsystem, component, part, equipment or other material specified in the Contract Documents which the Contractor believes inappropriate, and/or no longer available, for performing the Work and shall propose a suitable substitute for consideration by the County. Change notice(s) shall be negotiated as needed.

ARTICLE 74. PLANT AND FACILITY INSPECTIONS

74.1 The County, and/or its authorized representative, may inspect, the Contractor's or Subcontractor's plant(s) or facility(ies) during normal business hours, any materials, parts or equipment procured or manufactured at said plant or facility, as well as, may inspect, at the source of supply, any materials, parts or equipment procured and/or manufactured by a Subcontractor or Supplier or other person, for installation into, or to be used for the CADAVLRP, or the Work. The County, or its authorized representative, shall have escorted entry at all times, during normal business hours, to such parts of the plants that pertain to the manufacture or production of the CADAVLRP, or materials, parts or equipment to be installed into or used for the CADAVLRP, or the Work. Adequate facilities to make the necessary inspection shall be furnished, at no cost, to the County. The responsibility for providing a satisfactory CADAVLRP, materials, parts and equipment to install into, or use for the CADAVLRP, or the Work and properly completing the Work rests entirely with the Contractor, notwithstanding any prior inspections or tests by the County, or its authorized representative.

ARTICLE 75. OPERATIONS AND STORAGE AREAS

75.1 To the extent that any portion of the Work is performed on the County's property, all operations of the Contractor, including storage of materials and equipment, shall be confined to areas authorized and approved by the County. The County assumes no responsibility for equipment, material, components, systems or subsystems stored at County facilities.



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- 75.2 Limited parking facilities for the Contractor's and its Subcontractor's and Supplier's personnel will be provided as available by the County, on its property, in an area(s) to be determined by the County. Additional parking facilities for the Contractor's and any Subcontractor's or Supplier's personnel shall be the Contractor's responsibility.

ARTICLE 76. SOURCE OF SUPPLY AND QUALITY OF MATERIALS.

- 76.1 For the purposes of Article 76, only, the term "materials" shall mean all material, equipment, components, hardware, parts and products furnished to complete the CADA VLRP or any other portion of the Work, as identified in this Agreement.
- 76.2 The Contractor shall furnish all materials except those materials to be furnished by the County as expressly designated in the Contract Documents.
- 76.3 Notwithstanding any prior inspection or approval, only materials conforming to the requirements of the Contract Documents, or approved by the County shall be utilized by the Contractor.
- 76.4 The materials furnished by the Contractor shall be new and not used or refurbished except as otherwise provided in the Contract Documents. The materials shall be manufactured, handled, and used in a proper and workmanlike manner to ensure that the Work is completed in accordance with the Contract Documents.
- 76.5 The materials furnished shall conform to the requirements of the Contract Documents for the purposes specified, with properties necessary to withstand, safely and reliably, the strains and stresses to which the Solution will be subjected in normal and/or expected operation. In addition to inspection and testing performed by the Contractor, materials and equipment shall be subject to inspection and testing by the County, at the County's discretion, at either the place of production or manufacture, at the shipping point or at the destination.

ARTICLE 77. BUY AMERICA REQUIREMENTS

77.1

- A) The Agreement and the Work are subject to the provisions of Section 165 of the Surface Transportation Assistance Act of 1982, and 49 CFR Part 661. Further, the Agreement and the Work are subject to the requirements of the Surface Transportation and Uniform Relocation Assistance Act of 1987 and any implementing regulations issued thereunder.
- B) The Contractor must submit a completed Buy America Certificate as required by the RFP.
- C) The Contractor understands and agrees that, pursuant to 49 CFR Part 661.13, whether or not it certifies that it will comply with the applicable Buy America requirements, it is bound by its original certifications and is not permitted to change its certifications for the duration of the Contract. In addition, if the Contractor certifies that it will comply with the applicable Buy America requirements, the Contractor understands and agrees that it is not eligible for a waiver of those requirements.
- D) The Contractor shall fully cooperate with Miami-Dade County in the performance of both a pre-award and a post-delivery audit by Miami-Dade County or its representative to ensure that the Work fully complies with the applicable requirements of Buy America; 49



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U.S.C. § 5323(m) and FTA regulations, "Pre-Award and Post-Delivery Audits of Rolling Stock Purchases," 49 CFR Part 663 and any revisions thereto.

ARTICLE 78. DAVIS BACON/RESPONSIBLE WAGES AND BENEFITS (ORDINANCE No.95-183) ANTI KICKBACK ACT.

- 78.1 Any agreement entered into by the Contractor and Miami-Dade County will be subject to the requirements of a financial assistance Contract between Miami-Dade County and the U.S. Department of Transportation. Any Contractor and its subcontractors performing work at the Work site, will be required to comply with the Safety and Health Regulations for Construction 29 CFR Parts 1910 and 1926, the Davis-Bacon Act and/or the Responsible Wages and Benefits (ordinance 95-183); whichever is higher, the Anti-Kickback Act, the Contract Work Hours and Safety Standards Act, the President's Executive Order No. 11246 and No. 11375, and Miami-Dade County Resolution of Equal Employment Opportunity. Any Contractor, and his subcontractors performing work at the Work site, will be required to pay basic hourly wages, health, welfare, pension, vacation, and apprenticeship training benefits, at rates not less than those established by the U.S. Department of Labor.

ARTICLE 79. RESPONSIBILITY OF COUNTY

- 79.1 The Project Manager will be the County's representative for the Work throughout the contract term, including the Warranty period.
- 79.2 The Project Manager will act on behalf of the County to the extent provided in the Contract Documents, unless modified in writing by the County.
- 79.3 All instructions issued by the Project Manager shall have the same force and effect as if issued by the County.
- 79.4 The County shall have access to the Work at all times and the Contractor shall provide facilities required for safe access to enable the County to perform the County's functions and responsibilities under the Contract Documents.
- 79.5 The County has the authority to issue a Stop Work Order to stop a specific work activity if the work is not being executed by the Contractor in accordance with the Contract Documents. Any costs incurred by the Contractor as a result of the issuance of a Stop Work Order arising out of the work not being executed by the Contractor in accordance with the Contract Documents shall be paid by the Contractor. Should the Contractor disagree with the issuance of the Stop Work Order, it shall follow the procedures set forth in Article 69.

ARTICLE 80. CONTRACTOR DOCUMENT CONTROL REQUIREMENTS

- 80.1 The Contractor shall establish the necessary procedures to assure effective compliance with the document control requirements of the Contract Documents or otherwise specified by the County for the preparation, submission and retention of data, drawings, specifications, product data, transmittal letters, telephone log memoranda, meeting minutes, change orders, reports, schedules and other documents (hereinafter the "Contractors Document Control Program").



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- 80.2 The Contractor's Document Control Program shall be sufficient to allow for County's review and oversight in the following areas:
- (A) Technical Documents – to assure design integrity and a record of the as-built configuration for the CADAVALRP.
 - (B) Production Specifications – to assure Contractor's concurrence regarding the manufacturing process which shall translate the CADAVALRP design from a paper-defined form into an operable CADAVALRP.
 - (C) Design Reviews – to assure design concurrence between the County and the Contractor, regularly scheduled design reviews shall be conducted, at a location to be determined by the County, for the purpose of monitoring progress on a real-time basis. Such concurrence shall not relieve the Contractor from responsibility to comply with all the requirements of the Contract Documents. The Contractor shall submit a design review schedule in accordance with the Contract Documents. The design review schedule shall include the decision-issue subjects of each design review.
- 80.3 Product and technical data and other documents required by the Contract Documents shall be submitted for the County's review.
- 80.4 The Contractor shall employ a system of identifying numbers for data, specifications, and other documents which shall identify all distinct software, hardware, and equipment.

ARTICLE 81. CONTRACT DOCUMENTS AND DATA

- 81.1 The County will furnish the Contractor, for its use, the following Contract Documents:
- A. One original copy of the executed Contract Forms;
 - B. One (1) copy of the Scope of Services/Technical Specifications and Form of Agreement; and
 - C. One (1) set of any related addenda.
 - D. The Contractor shall submit five (5) reproducible copies of all required data or other submittals to the County for approval. The data or other submittals shall be complete and detailed. The data or other submittals shall be submitted using standard transmittal forms in accordance with instructions furnished by the County.
 - E. All data and other submittals, including letters and manuals, shall be legible and provided in English.
 - F. The review and/or approval of data or other submittals by the County shall not be construed as:
 - 1. Permitting any departure by the Contractor from the requirements of the Contract Documents;



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2. Relieving the Contractor of the responsibility for any defects, errors or omissions, including in details, dimensions, or materials, or for complying with the requirements of the Contract Documents;
 3. Approving departures from details furnished by the County, except as otherwise provided herein; or
 4. Approving Contractor's subsequent requests, data, or other submittals.
- G. The Contractor's data shall define the approved configuration of all equipment whether for test, production or for operational use. CADAVLRP configuration shall be identified to the lowest level required to ensure repeatable performance, part replacement, and quality.
- H. The data and other submittals shall be coordinated so that any information required by others is included on the data and other submittals.
- I. Changes on the data and other submittals made by the Contractor at the direction of the County shall be clearly identified by appropriate revision marks at the location on the data and other submittals where changes were made and by appropriate notation on the data and other submittals.
- J. If the data or other submittals show variations from the requirements of the Contract Documents, the Contractor shall specifically describe such variations in its transmittal form. The County may, in its sole discretion, approve any or all such variations. In the execution of any variation which was not specifically identified in the Contractor's transmittal form and not specifically and expressly approved by the County, the Contractor shall not be relieved of the responsibility for executing the Work in accordance with the Contract Documents, even though such data or other submittals have been approved.
- K. If approved by the County, each copy of the data or other submittals will be stamped "Approved." The Contractor shall resubmit any data or other submittals stamped "Not Approved," after the required changes are incorporated, for the County's review and approval. Changes indicated on such data or other submittals shall also be incorporated in the other submittals required by the Contract Documents.
- L. Data or other submittals "Not Approved" will be returned to the Contractor with required corrections for re-submittal. Re-submittals shall be handled in the same manner as first submittals and shall be performed at the sole expense of the Contractor. If the Contractor considers any correction indicated on the drawings, data or other submittals to constitute a change to the Contract, notice as required under Article 67, shall be given to the County.
- M. The County will return data reviews and/or other required submittals to the Contractor within fourteen (14) business days from date of receipt by the County of all satisfactory documentation necessary and required by the Contract Documents to review the data or other submittal. In the event that the nature or number of submittals submitted by the Contractor is such that the County determines that it cannot return the submittals within the said fourteen (14) working days, the Contractor shall work with the County to prioritize the in-process submittals.



- N. Once the data or other submittals have been approved by the County, the Contractor, except as otherwise stated in the Contract Documents, shall carry out the related work in accordance therewith and shall not make any further changes unless approved in writing by the County.
- O. The Contractor shall be responsible for and bear all delays, cost or damages which may result from ordering any systems, subsystems, components, parts or other materials or proceeding with the portion of Work related to the data or other submittals prior to approval by the County data or other submittals.
- P. Data shall be on 8½ inch by 11 inch sheets and suitable for xerographic reproduction. Fold-out sheets 11 inches by 17 inches, with reinforced binder tabs, may be used for figures and sketches. The pages shall be bound in a fashion which is readily disassembled and reassembled. In addition to the printed copies required, printed material shall also be furnished in digital format using Microsoft Word.
- Q. All data shall contain the following label, "These documents may contain Miami-Dade Transit security sensitive information". Such information should not be publicly disclosed without the expressed written consent of Miami-Dade Transit under Florida Statute 119.071(1) and FDOT Rule 14-55.0013(8)".

ARTICLE 82. PERSONNEL FOR THE WORK

- 82.1 Contractor shall secure, at its own expense, all personnel required to perform the Work. Such personnel shall not be employees of Transit, County of Miami-Dade.
- 82.2 All personnel engaged in performing the Work shall be fully qualified to perform such Work.
- 82.3 In the event the Contractor wishes to substitute key personnel, the Contractor must notify the County in writing and request written approval, which shall not be unreasonably withheld, for the substitution at least ten (15) business days prior to effecting such substitution.
- 82.4 The Contractor shall remove from the performance of the Work any of its or its Subcontractor's or Supplier's personnel assigned to the performance of the Work if the County considers such removal necessary, in its reasonable discretion, in its best interests and requests such removal in writing.
- 82.5 At least one technical support person and one for the maintenance support for software support shall be made available from the time the first unit of CADAFLRP equipment is delivered through the end of the first year of warranty.

ARTICLE 83. IDENTIFICATION OF EMPLOYEES

- 83.1 Photo identification badges, issued by Transit, shall be worn at all times by all Contractor, Subcontractor and Supplier personnel when on the County's property. The badges shall show the employer's name and employee's name, picture and identification number. Also, Contractor and Subcontractor shall attend a mandatory Rail Safety Indoctrination meeting scheduled by County and shall wear the issued safety badge at all times, together with the photo identification badge. Such identifications must be



displayed in a prominent manner on each person while on the County's property and shall be produced whenever required by County officials and Security personnel. Access to the County's property will be granted only to properly identified representatives of the Contractor, Subcontractors, and Suppliers.

ARTICLE 84. LAWS TO BE OBSERVED

84.1 The Contractor shall be responsible for keeping itself informed of, and shall comply with all applicable requirements of law, including but not limited to, all applicable international, federal, state and local laws, codes, rules and regulations and any changes thereto which in any manner affect persons engaged or employed in the Work, affect the materials used in the Work, or affect, in any way, the Work, and all such orders and decrees of bodies or tribunals having jurisdiction or authority over the same. The Contractor and its officers, directors, employees, agents, Subcontractors and Suppliers shall indemnify and hold harmless the County, and all of their officers, directors, agents and employees against all claims and liabilities arising from or based upon the violation of any such requirements whether by the Contractor or its officers, directors, employees, agents, subcontractors or suppliers. If any discrepancy or inconsistency is discovered in the Contract Documents in relation to any requirements of law, the Contractor shall immediately report the same to the County in writing.

ARTICLE 85. PERMITS

85.1 The Contractor shall, without additional expense to the County, be responsible for obtaining any and all licenses and permits necessary for the proper and timely completion of the Work.

ARTICLE 86. INTENTIONALLY OMITTED.

ARTICLE 87. ENTIRE AGREEMENT

87.1 All the agreements between the County and the Contractor are included in the Contract Documents and no warranties, expressed or implied, representations, promises, or statements have been made by the County unless set forth therein in writing and no change or waiver of any provision in the Contract Documents shall be valid unless made in writing and executed by the County.

87.2 This Agreement, including attachments and appendixes to the Agreement, shall constitute the entire Agreement between the parties with respect hereto and supersedes all previous communications and representations or agreements, whether written or oral, with respect to the subject matter hereto unless acknowledged in writing by the duly authorized representatives of both parties.

87.3 Nothing in this Agreement shall be construed for the benefit, intended or otherwise, of any third party that is not a parent or subsidiary of a party or otherwise related (by virtue of ownership control or statutory control) to a party.

87.4 In those situations where this Agreement imposes an indemnity obligation on the Contractor, the County may, at its expense, elect to participate in the defense if the County should so choose at its own expense.



ARTICLE 88. ACCESS TO AND RETENTION OF DOCUMENTS

- 88.1 The Contractor shall provide Miami-Dade County, and any of its authorized representatives, subject to entering into Non-Disclosure Agreements, access to any work, books, documents, papers and records of the Contractor which pertain or relate to this Agreement or the Work for the purposes of making audits, examinations, excerpts and/or transcriptions during the performance of the Work and for a period of five (5) years after the date of the issuance of the Acceptance Certificate, except in the event of litigation or settlement of claims regarding or arising from the performance of this Agreement or the Work, in which case the Contractor shall maintain all such documents until all such litigation or settlement of claims have been fully completed and all appeals or exceptions exhausted.
- 88.2 Any documents so disclosed shall be clearly marked as "trade secrets/proprietary documents – not to be disclosed" and County shall not disclose said documents or their contents or information contained therein to any third party or any County employee or agent who is not subject to the Non-Disclosure Agreement absent an order by a court of competent jurisdiction or written authorization by the Contractor to do so. MDC shall defend any action to compel such disclosure through appeal if requested by the Contractor to do so provided; however, that the Contractor shall indemnify the County for any attorney's fees and costs that the County may be ordered to pay pursuant to Florida Statute 119 as a result of defending such an action. MDC shall immediately provide notice to the Contractor of any request it receives for said records.
- 88.3 Upon the completion of the periods set forth in Article 87 section 87.1, the Contractor shall not destroy any such documents and data without first offering them, free of charge, to the County.
- 88.4 The Contractor shall include, or have included, the requirements of Article 87 section 87.1 in all subcontracts of any tier.
- 88.5 The Contractor shall maintain, and shall require that its subcontractors and suppliers maintain, complete and accurate records to substantiate compliance with the requirements set forth in the Scope of Services. The Contractor and its subcontractors and suppliers, shall retain such records, and all other documents relevant to the Services furnished under this Agreement for a period of three (3) years from the expiration date of this Agreement and any extension thereof.

ARTICLE 89. USE OF MIAMI-DADE NAME IN CONTRACTOR ADVERTISING OR PUBLIC RELATIONS

- 89.1 The Contractor shall not publish, or allow to be published, in any advertisements, public relations programs or other documents, any information or data related to this Agreement or the Work, until after the Contractor has submitted such proposed document to, and received prior written approval from, the County.

ARTICLE 90. BUSINESS APPLICATION

- 90.1 The Contractor shall be a registered vendor with the County's Internal Services Department (ISD) - Procurement Management Services (PMS), for the duration of this Agreement. It is the responsibility of the Contractor to file the appropriate Vendor



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Application and to update the Application file for any changes for the duration of this Agreement, including any option years.

- 90.2 Section 2-11.1(d) of Miami-Dade County Code as amended by Ordinance 00-1, requires any county employee or any member of the employee's immediate family who has a controlling financial interest, direct or indirect, with Miami-Dade County or any person or agency acting for Miami-Dade County from competing or applying for any such contract as it pertains to this solicitation, must first request a conflict of interest opinion from the County's Ethics Commission prior to their or their immediate family member's entering into any contract or transacting any business through a firm, corporation, partnership or business entity in which the employee or any member of the employee's immediate family has a controlling financial interest, direct or indirect, with Miami-Dade County or any person or agency acting for Miami-Dade County and that any such contract, agreement or business engagement entered in violation of this subsection, as amended, shall render this Agreement voidable. For additional information, please contact the Ethics Commission hotline at (305) 579-2593.

ARTICLE 91. COMPLIANCE WITH LOCAL AND STATE TRAVEL REQUIREMENTS

- 91.1 With respect to travel costs and travel related expenses, the Contractor agrees to adhere to CH. 112.061 of the Florida Statutes as they pertain to out-of-pocket expenses including employee lodging, transportation, per diem, and all miscellaneous cost-and fees. The County shall not be liable for any such expenses that have not been approved in advance, in writing, by the County.

ARTICLE 92. INTENTIONALLY OMITTED.

ARTICLE 93. PATENT AND COPYRIGHT INDEMNIFICATION

- 93.1 To the best of Contractor's knowledge, the Contractor warrants that Software furnished hereunder, including related documentation, and processes do not infringe upon or violate any patent, copyrights, service marks, trade secret, or any other third party proprietary rights.
- 93.2 The Contractor shall be liable and responsible for any and all claims made against the County for infringement of patents, copyrights, service marks, trade secrets or any other third party proprietary rights, by the use or supplying of the software, and processes in the course of performance or completion of, or in any way connected with, the Work, or the County's continued use of the Deliverables furnished hereunder. Accordingly, the Contractor at its own expense, including the payment of attorney's fees, shall indemnify, and hold harmless the County and defend any third party action brought against the County with respect to any claim, demand, cause of action, debt, or liability.
- 93.3 If such Software materials, or processes are held to constitute an infringement and their use enjoined, the Contractor, at its expense, shall, without prejudice to any other rights of the County or the Project Manager:
 - (A) Secure for the County the right to continue using such Software materials, by suspension of the injunction or by procuring a license or licenses; or
 - (B) Replace such Software materials that provide similar functionality; or



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(C) Modify such Software materials or processes so that they become non-infringing, which modification shall not adversely affect the functionality of such Software materials or processes.

93.4 The Contractor shall be solely responsible for informing the County, once Contractor has been made aware that a prospective supplier or subcontractor is a party to any litigation involving patent or copyright infringement, service mark, trademark, violation, or proprietary rights claims or is subject to any injunction which may prohibit it from providing any Deliverable hereunder. The Contractor shall enter into agreements with all suppliers and subcontractors at the Contractor's own risk. The County may reject any Deliverable that it believes to be the subject of any such litigation or injunction, or if, in the County's reasonable judgment, use thereof would delay the Work or be unlawful.

93.5 The Contractor shall not infringe any copyright, trademark, service mark, trade secrets, patent rights, or other intellectual property rights in the performance of the Work.

ARTICLE 94. NOTICE TO PROCEED

94.1 A written **Notice to Proceed (NTP)** will be delivered to the Contractor as soon as possible after execution of the Agreement and approval of any bonds and insurance certificates or policies by the County. Any bonds and certificates must be delivered to the County within ten (10) business days after execution of the Agreement. The Contractor shall commence work as specified in the Notice to Proceed and shall thereafter diligently prosecute the Work, as authorized by a Work Authorization, to completion.

ARTICLE 95. PROJECT PLANNING AND KICK-OFF MEETING

95.1 Pursuant to Phase 1 of Exhibit 5 - Project Schedule, a project planning and kick-off meeting will be held between the County and Contractor to review project deliverables, Contractor's Personnel and the payment and project schedules.

ARTICLE 96. TIME OF COMPLETION

96.1 The Contractor shall complete all designated portions of the Work, which shall include, but is not limited to, the completion of all required tests, the three (3) year warranty period for the CADA VLRP as Article 70 Section 70.4, and all necessary repairs and modifications resulting from the tests, and warranties, set forth in the County approved Project Schedule, unless revised by Change Order. Time shall be computed starting with the first day after receipt of the Notice to Proceed and ending with the last day of the Work.

96.2 Pursuant to Article 56 the contractor may not be assessed liquidated damages for a delay in completion of Work:

(A) Due to unforeseen causes beyond the control and without the fault or negligence of the Contractor (force majeure) such as those caused by act of God or of a public enemy, war, acts of terrorism, sabotage, explosions, fire, floods, unusually severe weather, hurricanes, epidemics, pandemics, quarantine restrictions, strikes and other work stoppage caused by a labor dispute, shortage of materials



and freight embargoes, provided that the Contractor has taken reasonable precautions to prevent delays due to such causes.

- (B) Unusually severe weather is defined as adverse occurrences beyond the weather norms substantiated by the U.S. Department of Commerce in their Local Climate Data as published by the National Oceanic and Atmospheric Administration–Environmental Data Service, in its periodic reports and annual summary. Occurrence of unusually severe weather shall be recorded on the Project Schedule only after a finding of merit by the County.
- (C) Due to other causes beyond the Contractor's reasonable control, such as acts or omissions of the County, or the County's failure to perform its obligations under this Contract, or any delay that is caused by the County.

The Contractor shall not be entitled, nor shall an adjustment in Time of Completion be granted, for a delay caused by a shortage of materials, except the County–furnished materials, unless the Contractor furnishes to the County documentary proof that the Contractor has diligently made every effort to obtain such materials from all known and reasonable sources. The Contractor shall also submit proof, in the form of critical path analysis data, showing that the inability to obtain such materials when originally planned did in fact cause a delay in the Time of Completion which delay could not be eliminated or reduced by revising the sequence of the Contractor's operations. Only the physical shortage of material shall be considered under this provision as a cause for an adjustment in Time of Completion. No consideration shall be given to any claim that material could not be obtained at a reasonable, practical or economic cost.

- 96.3 Within five (5) business days after the end of a delay the Contractor shall furnish the County with detailed information concerning the circumstances of the delay, number of days actually delayed, the appropriate Contract Document references and the commercially reasonable measures taken to prevent or minimize the delay. Failure by the Contractor to submit such information shall be sufficient and valid cause for the County to deny the Contractor's request for an adjustment in the Time of Completion. After receipt of such information from the Contractor, the County will decide, in its reasonable discretion, the length of the adjustment in Time of Completion, if any, to be granted to the Contractor, which decision shall be final and binding upon the Contractor.
- 96.4 If the prosecution of a portion of the Work is delayed, other portions of the Work unaffected by the delay shall be diligently prosecuted either to completion or until the prosecution of the delayed portion of the Work can be resumed. A Force Majeure event shall not excuse the County from its obligation to pay monies owed the Contractor.
- 96.5 Contractor agrees to make all reasonable efforts to perform all the Services in accordance with the timelines set forth in Exhibit 5 – the Project Schedule, as it may be amended from time to time by the parties.

ARTICLE 97. TESTING

- 97.1 Testing shall be performed in accordance with the requirements of the Scope Of Services.



- 97.2 Any defective or inferior materials, equipment or workmanship which is discovered during the testing or inspection shall be promptly corrected to the specification of the Contract Documents.

ARTICLE 98. SHIPMENTS/DELIVERIES

- 98.1 Shipments and deliveries shall be made by the Contractor in accordance with the Contract Documents or any written instructions received by the Contractor from the County. All CADAVLRP, systems, subsystems, components, parts, equipment and other portions of the Work to be delivered to the County pursuant to the Contract Documents shall be FOB delivered to the County to the point set forth below in Article 98 Section 98.3 and all deliveries shall be coordinated with the County. Unless otherwise provided in the Contract Documents, delivery to the County must be made on, or before, the date specified in the Contract Documents.
- 98.2 All shipments or deliveries of CADAVLRP to the County shall only be made in the manner and on the date specified in the Contract Documents or as otherwise directed, in writing, by the County. Adjustments in the scheduled delivery date for CADAVLRP to the County's property shall be allowed only upon receipt of written approval by the County, which shall not be unreasonably withheld.
- 98.3 All shipments and deliveries to the County required by the Contract Documents shall be made between the hours of 7:00 a.m. and 3:00 p.m., Monday through Friday, excluding all the County holidays. Shipments and deliveries to the County shall be made to:

**Miami-Dade Transit
ATTN: CADAVLRP Project Manager
701 NW 1st Court – 12th Floor
Miami, Florida 33136**

unless the Contractor is otherwise directed in writing by the County.

- 98.4 In the event any item shipped by the Contractor is not received by the County, or its agent, the Contractor shall immediately replace said item in like quantity.
- 98.5 If the Contractor delivers a third-party hardware or third-party software item, that is not proprietary to the Contractor, which fails to meet the requirements of the Contract Document, and does not promptly replace said third-party hardware or third-party software item as required by the Contract Documents, or if the Contractor fails to deliver a third-party hardware or third-party software item within the time specified in the Contract Documents after notification by the County, the County reserves the right to purchase said third-party hardware or third-party software item in the open market and deduct the expense, including any excess in price over the cost of said item pursuant to the Agreement, from the Contract Sum. If the amount due the Contractor under the Agreement is not sufficient to meet such expenses, the County may proceed against the Contractor.

ARTICLE 99. MEETINGS AND REPORTS

- 99.1 The Contractor shall record and maintain the minutes for all meetings held with the County. All meeting minutes and/or recordings shall be provided to the County for approval prior to issuance.



- 99.2 Meetings shall be scheduled at the convenience of the County and at a location selected by the County.
- 99.3 Meetings requiring the attendance of the Contractor shall include the Project planning and Kick-off meeting; all design reviews, Monthly Progress Meetings and others as noticed by the County.

ARTICLE 100. TRAINING

- 100.1 Training on the provided hardware and software shall be performed by the Contractor in accordance with the requirements of the Scope of Services. Contractor shall provide County with a Training Plan (refer to "Table of Performance Period") where the contents of the Training will be detailed. Training sessions will be scheduled in regular County business hours at a County facility and will include at least 2 Transit (IT) staff members designated by the Project Manager as "System Administrators". Contractor shall be responsible for providing all audio/visual and other necessary materials and equipment for scheduled training sessions. Project Manager will assess training effectiveness based on the completion of the Training plan. Project Manager will issue Contractor a Training Completion Notice upon completion of training. Such payment is contingent upon issuance of the aforementioned Training Completion Notice.
- 100.2 Instructors supplied by the Contractor for any training required by the Contract Documents shall be totally fluent in English, both in technical terminology and commonly used expressions.
- 100.3 The Contractor shall reference training requirements in Section 8 Scope of Services.

ARTICLE 101. SCOPE OF PAYMENT

- 101.1 The Contractor will be paid, in the manner set forth in Article 102 and Article 104, the Contract Sum provided for in the Agreement which sum shall be full compensation for all costs incurred for furnishing all Work, including management, materials, manufacturing, labor, incidentals, tools and equipment, for performing the Work in a complete and acceptable manner.
- 101.2 Full compensation for conforming to all the requirements of the Contract Documents shall be considered to be included in the Contract Sum and no additional compensation shall be owed or allowed to the Contractor unless authorized via Change Order.

ARTICLE 102. PROGRESS PAYMENTS

- 102.1 The Agreement is subject to the availability of funds and the County's obligation under the Agreement is contingent upon the availability of such funds from which payment for the Agreement can be made. No obligation on the part of the County for any payment shall arise until such funds are made available to the County for the Agreement and until the Contractor receives written notice of such availability from the County. Notwithstanding anything to the contrary hereunder, the County shall pay the Contractor for all Work, Software, and hardware/equipment completed, delivered, and accepted by the County in accordance with the Contract documents.



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- 102.2 The County will make progress payments to the Contractor in accordance with the total Price of the CADAFLRP found on the Contract Price Form A (Exhibit 8), as specified hereto, and applied to each of the milestones set in Exhibit 6, Payment Schedule. Payment will be made during the course of Contractor's satisfactory performance of the Work, on approved invoices submitted by the Contractor. Progress payment invoices shall not be submitted by the Contractor until after satisfactory completion of each of the milestones and shall not exceed the following stated corresponding percentages of the total price for each milestone.
- 102.3 Invoices for progress payments shall be submitted by the Contractor on forms supplied by the County. Each invoice shall be supported, as required by the Contract Documents, with evidence that the activities associated with the Milestone Payments have been completed. Contractor's invoices shall be submitted to the County. Each invoice shall include:
- A) Agreement number;
 - B) Serial number(s) of CADAFLRP equipment invoiced (if applicable) and all documents required by Contract Documents;
 - C) Total invoice amount.
- The Contractor shall certify, in each invoice, that the Work invoiced has been done and performed in accordance with the requirements of the Contract Documents.
- 102.4 In the event expenditures reimbursed to the Contractor under the Contract Documents are subsequently disallowed by the County, due to accounting errors or changes not in conformity with the Contract Documents, the Contractor shall immediately provide a credit to the County.
- 102.5 After receipt, the County will review and evaluate each invoice for progress payments and the supporting data, and forward same to the County for approval with County's recommendation on payment. No progress payment will be approved by the County until an invoice therefore is received from the Contractor and accepted, and the County has verified that all Work covered thereby has been performed in accordance with the requirements of the Contract Documents.
- 102.6 The County will notify the Contractor within fifteen (15) days of receipt of an invoice if there are any issues regarding the invoice. Each County-approved invoice will be paid by the County within forty-five (45) days of the County's receipt of a proper invoice in accordance with Florida Statute 218.74 and section 2-8.1.4 of the Miami-Dade County Code. Milestone payments shall not be construed as relieving the Contractor from sole responsibility for all engineering, material, equipment and work upon which payments have been made and the restoration of all defective work, or as waiving the right of the County to require the fulfillment of all of the requirements of the Contract Documents.
- 102.7 Payments made under the Contract Documents by the County shall not be construed as an acceptance of defective work or acceptance of improper material, or as condoning any omission of required work. No payment or certificate, final or otherwise, shall be construed as relieving the Contractor from its contractual obligations to make acceptable any defects and consequences thereof, discovered in the Work, even when discovered after completion or acceptance of same. No payment or certificate, final or otherwise,



shall be construed as a waiver of any of the Contractor's obligations set forth in the Contract Documents.

- 102.8 No progress payments will be owed or made for any portion of the Work not in accordance with the requirements of the Contract Documents.
- 102.9 The County may withhold payment of any progress payment due the Contractor until the Contractor has satisfied all requirements for such payment as required by the Contract Documents. Also, if documents, data, samples, drawings, and submittals or any part thereof required to be supplied by the Contractor pursuant to the Contract Documents are not delivered within the time specified by the Contract Documents, or are deficient upon delivery, the County may, until such documents, data, samples, drawings or submittals are delivered or the deficiencies are corrected, withhold any monies due or that may become due to the Contractor. The withholding of any payments to the Contractor shall not be construed as a waiver of any rights accruing to the County under the Contract Documents or according to law.

ARTICLE 103. AGREEMENT ADMINISTRATION CLOSE-OUT

- 103.1 Notwithstanding execution of any maintenance and support agreements, the following list of items collectively constitutes the administration close-out for work performed under this Agreement:
1. The Contractor supplying a general release to the County in a form to be supplied by the County;
 2. Release of all claims and liens against the County arising by virtue of the Agreement;
 3. Finalized Operation;
 4. Expiration of the three (3) year warranty
- 103.2 All of the above listed items shall be completed and submitted to the County at the latest, within thirty (30) days after the completion by the Contractor and the acceptance by the County of all other portions of the Work. Agreement Administration Close-Out shall not be considered complete until all four (4) items (abovementioned) which comprise the Agreement Administration Close-Out work are completed in accordance with the Contract documents.

ARTICLE 104. FINAL PAYMENT

- 104.1 Within forty-five (45) days after completion by the Contractor, and issuance of the Certificate of Acceptance and Final Inspection by the County of all portions of the Work, the Contractor shall prepare and submit an invoice for the final payment. Prior pay estimates and payments shall be subject to correction on the proposed final payment.
- 104.2 The Work shall not be complete until, as noted above, the Contractor has completed, and the County has accepted, all portions of the Work including, but not limited to, the completion and, as applicable, acceptance of: all required tests; all technical support;



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period of one (1) year warranty; and all necessary repairs and modifications resulting from said tests, and warranties, as required by the Contract Documents.

- 104.3 The County will review the Contractor's invoice for the final payment. Any changes or corrections found necessary by the County will be submitted to the Contractor for revision within ten (10) business days from date of invoice. Within ten (10) business days thereafter, the Contractor shall submit to the County an invoice for the final payment incorporating any changes or corrections made by the County. Said invoice will then be reviewed by the County and if approved by the County, this estimate will become the approved final payment. If, however, an invoice for the final payment is not submitted by the Contractor within sixty (60) days after the completion by the Contractor and acceptance by the County of all portions of the Work, the County may elect to make payment of such sums which are not in dispute, without prejudice to the rights of either the County or the Contractor in connection with such sums which are in dispute.
- 104.4 Upon approval of the invoice for the final payment by the County, and after completion of the Agreement Administration Close-Out items as provided Article 103, the County will issue a Certificate of Acceptance of Final Inspection. The Certificate of Acceptance of Final Inspection shall certify that all the Work has been completed and accepted as of the date of the Acceptance Certificate subject to any guarantee or warranty, expressed or implied, provided by the Contractor or pursuant to the Contract Documents. The issuance by the County of the Acceptance Certificate shall not be construed to be acceptance by the County of any defective or inferior work, improper materials, or work not adhering to the requirements of the Contract Documents. The County will transmit copies of the Certificate of Acceptance of Final Inspection to the Contractor.
- 104.5 The County will make final payment to the Contractor after issuance of the Final Acceptance Certificate. Such final payment shall constitute full and complete payment to the Contractor for the Work.

ARTICLE 105. INTENTIONALLY OMITTED.

ARTICLE 106. SOFTWARE ESCROW SERVICES

- 106.1 Contractor shall provide or cause to have provided to the County, uninterrupted escrow services for the contract period. Escrow services shall be provided with no lapse in updates to the Materials. Such services shall be at the sole expense of the Contractor, at no cost to the County.

ARTICLE 107. SURVIVAL

- 107.1 The parties acknowledge that any of the obligations in this Agreement will survive the term, termination and cancellation hereof. Accordingly, the respective obligations of the Contractor and the County under this Agreement, which by nature would continue beyond the termination, cancellation or expiration thereof, shall survive termination, cancellation or expiration hereof.

ARTICLE 108. CELLULAR SERVICES



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108.1 Provision of cellular services to support routers offered in Exhibit 8 Schedule L is conditioned upon the Contractor receiving the extension of the County's preferred rate and unlimited plan with their carrier, and provision for cellular card at no fee with service agreement. Additionally, the Contractor shall not be responsible for any loss or other issue arising from any service outage or other failure or lack of coverage, nor shall the Contractor be responsible for responding to any requests for service relating to such issues and all such issues shall be referred exclusively to the carrier. To the extent there is tax, fees and other governmental charges due as a result of providing any such services the county shall be solely responsible for the payments thereof.

PROJECT SCHEDULE: SEE EXHIBIT 5

PROJECT PAYMENT SCHEDULE: SEE EXHIBIT 6



IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the contract date herein above set forth.

Contractor

Miami-Dade County

X By: Frank J. Ingrassia

By: Carlos A. Gimenez

Name: FRANK J. INGRASSIA

Name: Carlos A. Gimenez

Title: PRESIDENT + CEO

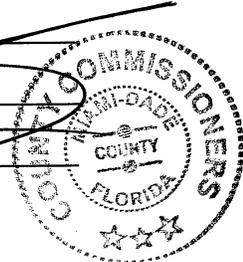
Title: Mayor

Date: 4/17/2013

Date: 11-19-13

Attest: Denise R. Schmidt
Corporate Secretary/Notary Public

Attest: [Signature]
Clerk of the Board



Corporate Seal/Notary Seal

Approved as to form and legal sufficiency

DENISE R. SCHMIDT
NOTARY PUBLIC-STATE OF NEW YORK
No. 015C5015566
Qualified in Nassau County
My Commission Expires July 26, 2013

Bruce Zibhaber
Assistant County Attorney



**Computer Aided Dispatch / Automated Vehicle Locator Replacement Project
(CADAVALRP) and Kendall Drive Signalization
(Contract No.808)**

This project is partially funded by the American Recovery & Reinvestment Act (ARRA)

Exhibit 1 Scope Of Services

Introduction

The County is soliciting proposals for a turnkey system that will support a seamless integration with Transit operations; in addition, the CAD/AVL System shall be of an open architecture, service-proven and capable of performing specific tasks outlined herein and interfacing with other existing County systems including, but not limited to:

- Automated Fare Collection System (AFCS)
- Automatic Passenger Counter (APC) System
- Enterprise Asset Management System (EAMS)
- Onboard Voice Annunciation & Informational Signage
- Metromover/Metrorail Alarms and Communications
- Onboard Mobile Gateway
- Interactive Voice Response (IVR)
- OpenSky Communications Infrastructure
- Transit's current and new Transit Operations System (TOS)

The proposed Solution shall be scalable with the appropriate interfaces to ensure an open system architecture environment to incorporate future changes. This project will leverage the County-wide radio re-banding initiative to replace the communications infrastructure. The County re-banding project utilizes P25 and OpenSky Technology which applies voice-over-IP (VoIP) transport to radio communications architecture. The Contractor shall install and integrate with the County furnished P25 and OpenSky radios while installing its respective onboard equipment. The Contractor will not be responsible for communication coverage.

The CAD/AVL System shall be a highly reliable, fault tolerant system that will meet current needs and provide a growth path for future expansion. The CAD/AVL System's life expectancy is 12 years. The CAD/AVL System shall be implemented to allow for, at a minimum, 50% additional fleet growth.

The Proposer will submit with its proposal a project schedule detailing all phases of System design, installation, testing and maintenance and support. Additionally, the Proposer will submit with its proposal a payment schedule which will be considered by the County for inclusion in the contract documents.

The proposed Solution must comply with the Transit Communications Interface Profiles (TCIP) Standard Development Program. The TCIP is an American Public Transportation Association standard that provides a library of information exchange building blocks, to allow transit agencies and transit suppliers to create standardized tailored interfaces. Additional information on this standard is available at www.aptatcip.com. The standards and protocols that apply for this solicitation are the APTA-TCIP, the latest version at the time of submittal applies.

The CAD/AVL System will also include implementation of vehicle Traffic Signal Priority (TSP) which allows communication with the County's traffic signal controllers under the County Advanced Traffic Management System (ATMS). This solicitation is partially funded by the American Recovery and Reinvestment Act (ARRA) 2009 for the Traffic Signal Priority (TSP) portion of the project.



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Current Operating Environment

Transit utilizes an outdated legacy system running on hardware no longer supported in the industry consisting of Alpha 4100's running on Open VMS Alpha environment version 7.1-1H2. The real-time system operates on a DECnet network protocol and Cisco 2600 router connection to Transit's Enterprise Network. In addition, current CAD/AVL system provides the Metromover Axiom computers with safety sensitive critical alarms from the Metromover Cars. The CAD/AVL system transmits Automatic Train Protection (ATP) by-pass alarms from the Metrorail vehicle's Central Communications Unit (CCU). Furthermore, reporting functions are limited, time consuming, and not user-friendly.

Currently, each bus utilizes a Cooper General Vehicle Logic Unit (VLU) and Transit Control Head (TCH) input/display device to control vehicle communication systems and Global Positioning System (GPS). A trunked Enhanced Digital Communication System (EDACS) 800 MHz radio system provides voice and AVL data communications. Each bus also utilizes a Digital Recorders Inc VLU to operate the destination sign, annunciator and provide GPS data to the AFCS Driver Control Unit (DCU). The onboard fare collection equipment consists of a Cubic Transportation Systems' DCU controlling a validating GFI Genfare Farebox and an Urban Transportation Associates (UTA) Automated Passenger Counter (APC) system.

The current CAD/AVL system also facilitates an incident management module for Metrobus, Metrorail, and Metromover.

Currently, the primary users of the CAD/AVL system are Traffic Controllers (TC) utilizing the system to perform the following functions:

- Vehicle locating
- Incident response
- Alarm monitoring
- Schedule adherence

The CAD/AVL system interfaces real-time with the Transched TOS receiving real-time updates for vehicle and operator assignments. The TOS system is 23 years old and is running on the OpenVMS Alpha mid-range mainframe. TOS is used to assign bus and rail routes to operators, manage daily dispatch duties, monitor schedules, perform operator bid functions, create charter services and generate associated reports. The TOS system creates several ASCII files that contain timepoints, assignments, schedule changes, and operator information. The current CAD/AVL system runs a process that imports these ASCII files into its database.

The Metrobus, Metrorail and Metromover Traffic Control Centers are located at:

Stephen P. Clark Center
111 N.W. 1st Street
5th Floor
Miami, Florida 33128

The Disaster Recovery Site is located at:



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Integrated Command Facility Building
11500 N.W. 25th Street
Doral, FL 33172

The bus garage/dispatch center and maintenance facilities are located at:

Central Bus Garage
3300 NW 32 Avenue
Miami, Florida 33142

Coral Way Bus Garage
2775 SW 74 Avenue
Miami, Florida 33155

Northeast Bus Garage
360 NE 185 Street
Miami, Florida 33179

Joseph Bryant Metromover Maintenance Facility
100 SW 1 Avenue
Miami, Florida 33128

Lehman Center (Metrorail Maintenance) Facility and Yard Tower:
6601 NW 72 Avenue
Miami, Florida 33166

All installations scheduled shall occur from Monday thru Saturday, 6:00pm to 5:00am.

Vehicles available for installation per shift are as follows:

Approximately 10-12 buses per shift will be provided. Rail, Mover and Service vehicles will depend on how many installations the vendor can complete during the 6:00pm to 5:00am work window. Non-revenue vehicle installations may be performed during a 6:00am to 2:00pm. Additionally, for IT equipment being delivered at Stephen P. Clark Center, the delivery hours are Monday, Tuesday, Thursday, and Friday from 8am-3:30pm and Wednesday from 8am-12pm. IT equipment may be installed Weekdays from 8am-5pm.

Metromover Subsystem

Metromover alarms generated by the vehicle alarm relay are sent to the on-board Cooper-General VLU and transmitted over the conventional 800Mhz Radio Channel as part of the position report message received by the CAD/AVL System. The server processes and reformats the position report message (including alarms) and logs it into the daily message log file. The CAD software subsystem receives this position message and processes it for CAD-related events, including Mover alarms. Priority alarms are then transmitted to the CAD AR IntelSrv process. The IntelSrv process then reformats the message once more and sends it over an asynchronous data link to the Mover Axiom "Intel Computer" via an RS232 port on one of the terminal servers that is part of the CAD/AVL system. There is a rudimentary heartbeat between the two systems to insure message delivery. All communications between the two systems are



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logged to a file by the IntelSrv process. The "Intel Computer" is linked to the Mover communications system and vehicle alarms appear on the Axiom console.

The Metromover system is an unmanned light rail system that requires no operator; therefore, no Transit Control Head (TCH) onboard is currently onboard. The CAD system provides a user interface to monitor critical alarms and keep track of the unmanned Mover vehicles. The following section describes the alarm protocol currently in use to monitor alarms.

Onboard Voice Communication for:

Phase 1 Vehicles -

In the event of an emergency, customers have the ability to pick up a handset in efforts to communicate with Mover Central Control. When a handset is picked up, an emergency alarm is generated and sent to the EDACS Console via a MDR Voice Radio and appears as a Request to Talk (RTT) on the EDACS Console. The RTT is acknowledged by the Traffic Controller (TC) via a button push on the EDACS Console. Once the RTT is acknowledged the TC will pick up a "RED" phone to establish two way voice communications with the vehicle.

Phase 2 Vehicles -

A passenger intercom panel is mounted at both ends of each vehicle. In an emergency, passengers use a panel to communicate with central control. The panel has a PUSH TO CALL pushbutton, indicator (amber and green LEDs surround the pushbutton), microphone, and a speaker. When the button is pushed the indicator ring will light and an emergency alarm is generated and sent to the EDACS Console via a MDR Voice Radio and appears as a Request to Talk (RTT) on the EDACS Console. The RTT is acknowledged by the Traffic Controller (TC) via a button push on the EDACS Console. Once the RTT is acknowledged the TC will pick up the "RED" phone to establish two way voice communications with the vehicle. The passenger then listens for the operator's response over the speaker. To reply, the passenger must press and hold the button to talk. To listen, the button must be released. The indicator signifies that the passenger speaker/microphone panel is in the system-ready state and can be used for communications. When a passenger is holding the button in to talk, the amber LEDs illuminate. A maintenance technician has the ability to communicate by connecting a maintenance microphone to a manual controller MIC JACK. The technician has the ability to enable the microphone and uses its manual push to talk.

Metromover Alarm Reporting

When the vehicle Automatic Train Control (ATC) system detects alarm conditions in a vehicle, it sends an alarm message to the VLU and Vehicle Monitoring Control System (VMCS). It then sends the information over a serial link to the VLU then to data radio for transmittal to central control. The alarm message appears in the display on the TC's Axiom console and on the CAD console. The TC responds to the alarm by acknowledging the alarm and silencing the Axiom console.



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8.1. General Requirements

8.1.1 System Requirements

A. CAD/AVL System Scalability

1. The CAD/AVL System shall support the functions specified herein with the quantities of vehicles, devices and workstations shown in Section 9 – Available Information. However, the System shall be easily scalable through 12 years from contract effective date to support additional vehicles, users, and workstations without replacement of initially installed components, including both hardware and software components.

B. Functional Expandability

1. The CAD/AVL System shall be expandable to provide new additional function capabilities over the System's lifetime without significant replacement of existing components.
2. The proposed System shall be accessible via mobile device / tablet (iPad and Android) for remote users.

C. Workstation Installation

1. While the county prefers a web-based system, user workstations shall have multiple application installation options to ensure redundancy.

D. UL Requirement

1. Equipment shall comply with UL standards in accordance to the deployment scenario. Such compliance shall be clearly stated in a UL label.

E. Configurable Parameters:

Parameters available in the proposed Solution shall:

1. Be modifiable by authorized users in accordance to their access level.
2. Become effective immediately without having to restart any part of the CAD/AVL System.
3. Be logged and made easily accessible for auditing and reporting purposes.

F. Activity Logging

1. The CAD/AVL System shall log all user and Vehicle Operator actions for auditing and reporting purposes.
2. Each action shall result in a log entry that shall include, at a minimum, user ID, terminal ID, record/file ID's, date/time, module/function ID's and other pertinent data associated with the action.



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3. Logging of activities shall not affect the overall System performance.

G. Data Validation

1. All input data, parameters, and commands whether collected automatically or entered by a user shall be checked for reasonability and validation before allowing the data to be processed or used by the CAD/AVL System, and shall be rejected if unreasonable or harmful. For example, a user enters non-numeric characters instead of numbers in a "date" field.
2. When unreasonable input or results are detected, diagnostic messages clearly describing the problem shall be generated along with an example of correct input. The user shall be required to enter correct input before proceeding to the next field or submittal.

H. Data Integrity

1. The CAD/AVL System data shall be protected in a multi-user and multi-processing environment to preserve integrity.
2. The CAD/AVL System shall utilize exclusion methods to ensure that collected data is not corrupted from multiple concurrent accesses by different processes.
3. In general, users shall be notified and granted read-only access to data that is being updated by another user.

I. Identifier Field Formats

1. All vehicles supported by the CAD/AVL System shall be identified by vehicle IDs, route numbers, and block numbers.
2. Vehicle Operators shall be identified by employee numbers and run numbers.
3. Supervisory and other non-revenue vehicles shall be identified by vehicle ID.
4. The format of the identifiers supported by the CAD/AVL System shall be at least eight numeric digits in length.
5. Where the actual number utilized by Transit is shorter than the maximum length provided for an identifier field, leading zeros shall not be required.

8.1.2 Reference Standards And Guidance

- A.** The Contractor shall comply with the following references as specified throughout these Technical Specifications. The references can be found online.

1. SAE J1455-06 Recommended Environmental Practices for Electronic Equipment Design in Heavy-Duty Vehicle Applications (<http://www.sae.org/standards/>)
2. SAE J1113/13 Immunity to Electrostatic Discharge (<http://www.sae.org/standards/>)



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3. BSR/HFES – 100 Human Factors Engineering of Computer Workstations (<http://www.hfes.org>)
4. Americans with Disabilities Act (ADA) (<http://www.ada.gov>)
5. National Transportation Communications for ITS Protocol (NTCIP) (<http://www.ntcip.org>)

8.1.3 Onsite Support

This section defines the requirements for technical, operation, and maintenance onsite support. The Contractor shall provide two (2) onsite technical support personnel, one for operation/maintenance support and one for IT support. The support personnel shall work onsite at Transit facilities from the time the first unit of CAD/AVL equipment is delivered through the end of the first year of warranty, at no additional cost to the County. The commencement of warranty will be on successful completion of the Final Acceptance Certificate and acceptance of all equipment and systems. The County reserves the rights to request for a replacement of onsite support personnel at no additional cost to the County. In addition, the Contractor's project manager shall work onsite full-time at Transit facilities from 30 days after Notice to Proceed (NTP) through System Acceptance.

- A. When support personnel are not onsite at Transit, they are required to respond on-site to support calls within two (2) hours of initial phone call. Any mission-critical failed equipment shall be replaced and returned to service within four (4) hours of notification. The support personnel shall fulfill all warranty obligations described herein.
- B. Support personnel shall be thoroughly trained and familiar with the operation of all CAD/AVL vehicle equipment, reporting, system software and hardware being procured. Support personnel shall act in a cooperative manner to increase the County personnel's ability to perform fault location, correction, module change-out and preventive maintenance and shall be competent to provide an on-going extension of the more formalized training specified elsewhere in this section. The Contractor shall permit "shadowing" of support personnel by County staff for training purposes at any given time.
- C. The Contractor shall perform a review of the business practices to identify the best use of the proposed System and make recommendations to improve efficiencies. The Contractor shall have onsite subject matter experts to analyze the existing utilization of current technology and make recommendations on how to incorporate industry best practices through the proposed System. The business and technology analysis shall identify areas that can be improved. The analysis shall define the variance between business requirements and new capabilities through the proposed System.

8.2. Vehicle Requirements

8.2.1 Vehicle Hardware Requirements

1. The CAD/AVL System shall include a Vehicle Logic Unit (VLU) central processing device and data storage device installed onboard for all vehicles and powered by the vehicle's electrical system. Metrobus shall utilize a single County furnished radio in OpenSky mode to transmit data and voice communications. Metrorail and Metromover shall utilize 2 (two) County



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furnished radios. Proposers are encouraged to provide alternate solutions that can reduce cost and improve reliability.

A. Vehicle Logic Unit (VLU)/Automatic Vehicle Locator (AVL):

1. The VLU and the AVL shall be fully integrated into a single device.
2. The VLU shall integrate with the existing onboard equipment on each vehicle that provides route/destination announcements and vehicle informational signage with both audible and textual messages, onboard AFCS and automated passenger counters.
3. Integrate and Interface to the Metrobus vehicle's J1939/J1708 to capture, record, and transmit vehicle data.
4. Integrate and interface to the Metromover and Metrorail vehicle's alarm and communications subsystems to capture, record, and transmit vehicle data.
5. A GPS receiver shall be integrated into the VLU used to provide time and location data for AVL and AVM functions.
6. Integrate and interface GPS information to the existing onboard Public Address (PA), AFCS, APC and informational signage.
7. Meet communication requirements for the P25 System, OpenSky radio system, and WLAN. The VLU shall have the ability to integrate with all of the onboard devices and to integrate communications via Transit's digital P25 and OpenSky radio system.
8. Integrate and interface with the wireless local area networks (WLAN) at each garage and maintenance facilities for bulk data uploads and downloads.
9. Meet environmental and vibration standards as defined by SAE J1455-06. The Contractor shall ensure that for the vibration conditions expected in the area of installation are taken into account to ensure that proper isolation and protection is provided.
10. Meet electromagnetic immunity standards of SAE J1113/13 and protect against surge, and reverse polarity.
11. Be capable of multiple radio control, real-time updates and messaging to and from vehicles.
12. Be capable of sending data via the OpenSky radio and the mobile access router/gateways.
13. Allow for future expansion and interoperability with add on modems and mobile access routers/gateways.
14. Data storage capacity shall be sufficient to store the complete current and pending route schedules, announcement files, and event messages.
15. PA announcements shall be created via text to speech in MP3 Format.



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16. Be capable of providing preformatted voice announcements through the existing PA system.
17. PA announcements shall support scheduled or real-time triggering.
18. Store any identifying vehicle parameters such that the VLU can be swapped out and vehicle information not lost.
19. Provide a derived location by interfacing with the VLU as required for basic coverage of a vehicle with minimal accuracy of three (3) meters at 100% of running times to be proven during SIT and throughout the life of the resultant Contract.
20. Utilize dead reckoning for location predictions, whereby the VLU shall determine a position based on a previous position along with known estimated speeds and direction. Dead reckoning shall be utilized in the event GPS data is not available.
21. Contain an algorithm for predicting estimated vehicle arrival times for all revenue service vehicles.
22. Currently, the DRI VLU provides GPS coordinates to the Farebox Subsystem. The Contractor's solution must facilitate the same functionality.
23. All communications to and from the vehicles will support automatic recovery from failed transmissions without user intervention. Any file transfer operation to/from the VLU's on the vehicles will be capable of automatic recovery. All image updates, file updates, data uploads/downloads to/from the vehicle VLU's will use self-recovery and data protection schemes.
24. Bulk data transfer from the VLU shall perform the following:
 - A. Support automated, remote, bi-directional wireless transfer of large amounts of data with all CAD/AVL System equipped vehicles via the garage/maintenance facilities Cache Servers. The primary objective of this function shall be to eliminate the need for Transit personnel to physically work on each vehicle when major schedule changes occur or when routine software, configuration and other non-hardware modifications are required on the vehicles.
 - B. Wireless data transfers shall occur when the vehicles enter specific access zones, which shall include the three Transit garages, Metrorail and Metromover maintenance facilities.
 - C. Enable the System Administrator to post data for transfer to vehicles and to monitor the progress of all transfers on a per-vehicle basis via a configuration tool.
 - D. Detect interrupted transfers, such as when a vehicle leaves the access zone prior to completion of a bulk data transfer. In this instance, the transfer shall be completed normally when the affected vehicle returns to any access zone. In the event of an interrupted data transfer, the original data set shall be retained and used until the data transfer is complete.
 - E. Support the following types of data:



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- A. Fixed-route data including routes, schedules, trips, runs, time points, display/annunciator trigger points, map data and other data required by the vehicles.
 - B. The bulk data transfer function shall permit all such updates to occur over a configurable period prior to the effective date of the new data and without disrupting current operations using the existing data.
 - C. Update informational signage message data for the vehicles with onboard signs.
 - D. Update audio announcement data and visual display data for all vehicles.
 - E. Update MDT parameters, including canned message menus, timeout periods, and schedule activation dates.
 - F. The transfer of higher priority data shall be accomplished before the transfer of less critical data, definable by the System Administrator.
 - G. Potential interference between the CAD/AVL System bulk data transfer function and other Transit systems shall be eliminated.
 - H. Bulk data transfer shall be encrypted and protected from unauthorized interception and/or access.
 - I. Integrity check shall be performed for all bulk data transfer files.
- B. Mobile Data Terminal (MDT) shall:**
1. Be installed on each Metrobus; in addition, two MDT's shall be installed on each Metrorail married pair (one for each end). The MDT shall serve as the interface between the Vehicle Operator and the Bus and Rail Traffic Control Centers and between the Vehicle Operator and other onboard integrated systems. Vehicle logons and logoffs required by a Vehicle Operator shall be consolidated to a single logon device.
 2. Facilitate a "Single Log-on Solution", whereby a single input device serves as the primary vehicle operator interface and eliminates the need to log on to disparate systems.
 3. Incorporate a color graphic screen capable of displaying configurable fonts and size.
 4. Provide configurable audio feedback for positive recognition of a selected input on the MDT keys (hard or soft).
 5. Provide brightness controls to provide for clear and easy viewing in day or night conditions.
 6. Be capable of providing operational status and setup capabilities to the operators and maintenance technicians to all integrated onboard systems including GPS, communication network devices, farebox, signage and annunciator.



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7. Be capable of providing configurable audio tones to alert the Vehicle Operator of incoming messages.
 8. Be configurable to accept input for a pre-trip and post-trip inspection check list. The pre-trip and post-trip inspection shall contain a graphic to allow identification of visible damage. The check list shall be configurable by the County.
 9. The CAD/AVL System shall allow the System Administrator to have a configurable option that will render the MDT inoperable while the vehicle is in motion.
 10. Calculate and display vehicle schedule adherence.
 11. Have the capability for the TC to send detour information to the Vehicle Operator via the MDT.
 12. Present turn-by-turn directions for routes in a non-intrusive, easy to read format. Optional verbal turn-by-turn announcements shall be available to the Vehicle Operator.
 13. The MDT shall be capable of, but not limited to, displaying the following functional keys (hard or soft):
 - F. Home, Next or Back
 - G. Logon
 - H. RTT
 - I. PRT
 - J. Emergency Alarm
 - K. Data Messaging
 - L. Schedule Adherence
 - M. Informational Sign Control
 - N. Maintenance
 - O. Stop Announcement
 - P. Trip/Schedule Display Control
 - Q. Route Guidance (Turn by Turn) with ability to enable or disable by the operator
- C. Covert Emergency Alarm (Silent Alarm)**
1. For each Metrobus and new Metrorail vehicles the Contractor shall utilize the existing Covert Emergency Alarm (CEA) button which will be activate a silent alarm when a Vehicle Operator



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presses the button. In addition the Contractor shall install a Covert microphone giving the Traffic Control Centers the ability to perform a remote key up of the radio and perform live listen-ins. Emergency Alarms shall have the highest priority of all data messages.

2. The Vehicle Operator shall not have the ability to cancel an Emergency Alarm.
3. A CEA event indication shall display a covert acknowledgement to the operator only.
4. If a voice call is already in progress on the vehicle at the time a CEA is activated, then the CEA shall be issued immediately upon termination of the voice call.
5. A CEA event indication shall display an automated, configurable "Call 911" message on the external informational signage. Upon acknowledgement from the Bus Traffic Controller (BTC), the external informational signage shall return to the original state.
6. When a Vehicle Operator sends a CEA, the following events shall occur:
7. An audio and visual alarm shall be triggered and displayed on the respective AVL screen of the TC.
8. When a TC acknowledges the CEA, an incident shall be generated within the Incident Management Module automatically. In addition, a CEA acknowledgment message shall be sent to the vehicle.
9. The TC shall have the ability to immediately listen in on the vehicle audio without Operator intervention via the covert microphone.

D. Overt Emergency Alarm

1. The Overt Emergency Alarm (OEA) allows a Vehicle Operator to communicate the nature of an incident using pre-formatted messages that are transmitted to the Traffic Controller Center in emergency situations in which passenger or Vehicle Operator distress can be openly communicated.
2. The CAD/AVL System Administrator shall have the ability to configure a list of overt emergency messages that are used for all vehicles.

E. Non-Revenue Vehicles

The County shall provide GPS enabled radios for installation into the Non-Revenue fleet. The Contractor shall utilize the GPS from the radio for AVL tracking.

8.2.2 Vehicle Functions

All CAD/AVL System equipped vehicles shall be capable of providing all the following required functions, as specified in the following sections, while operating anywhere within the defined service area and without requiring manual reconfiguration of any kind.

A. Vehicle Operator Support Functions



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1. Single Device Logon/Logoff

A. The Logon Process shall log on the Vehicle Operator to the:

- I. Farebox Subsystem
- II. CAD/AVL Subsystem
- III. Informational Signage and Voice Annunciator Subsystems

B. Vehicle Single Logon Process

- I. The Vehicle Operator shall use a single logon device with the Transit Employee ID badge to initiate the Logon Process. The single logon device shall communicate with the CAD/AVL System and the TOS System (current and replacement) to validate the Vehicle Operator's work assignment. Transit Employee ID currently is a combo smartcard/HID Proximity Card.
- II. Currently only Metrobus is equipped with a smartcard reader on the farebox controlled by the Driver Control Unit (DCU).
- III. Upon successful validation, the CAD/AVL system shall update the onboard subsystems.
- IV. Data transactions during the Logon Process between the Farebox Subsystem, CAD/AVL System, and TOS (existing and replacement) required to complete the logon process shall utilize the Wireless LAN or OpenSky radio system.
- v. The SIOU unit provided by Cubic has one J1708 Port (SM04) used to interface with the DRI units providing Lat/Log information. One RS232 (SM01) connecting the Automatic Passenger Counter. There are 2 RS422/485-2 available.

C. Manual Operator Exception Logon Process

The Vehicle Operator shall have the ability to manually log onto the CAD/AVL and the Voice/Annunciator subsystems; in addition, the Operator has the ability to logon to the farebox through the vehicle Driver Control Unit. In the event of special operational cases including but not limited to:

- I. Last minute Vehicle Operator work assignment changes
- II. Employee ID badge smart card reader recognition failures
- III. Central CAD/AVL System failures
- IV. Wireless LAN and OpenSky Radio system failures

D. The CAD/AVL System shall verify that all logon data is valid before accepting the logon. The validity checks that shall be performed on each input are as follow:



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- I. Employee Number:
 - (1) The employee number is valid in the current active Vehicle Operator list based on the TOS system (current and replacement),
 - (2) The employee is permitted to perform a vehicle logon based on the Transit Human Resource database, and
 - (3) The same employee is not already logged onto another vehicle
 - II. Vehicle ID:
 - (1) The vehicle is valid in the current vehicle list based on EAMS
 - III. Work ID number:
 - (1) Verify that Work ID number received/entered is valid for the current day, time and vehicle assignment based on the TOS system (current and replacement)
 - IV. Employee Personal Identification Number (PIN):
 - (1) The PIN shall be validated against Transit's AMAG database
 - E. Invalid logons shall be rejected after configurable number of consecutive invalid logon attempts. The CAD/AVL System shall generate an alarm to the Traffic Controllers (TC) and log an event about the invalid logon attempt, including the badge number used, the vehicle ID, date and time.
 - F. All valid logons and logoffs shall be logged as events including the Vehicle Operator badge number, vehicle ID, run number, block/route number (for revenue logons), date and time. A successful logon shall trigger the delivery of any data messages to the vehicle.
 - G. When a Vehicle Operator fails to logon prior to leaving the garage/maintenance facilities, the CAD/AVL System shall issue an audible alarm to the Vehicle Operator and prompt the Vehicle Operator to log on. Dispatchers and Traffic Controllers shall be notified immediately when Vehicle Operators fail to logon via an alarm. Successful logon shall not be required to use any of the vehicle communications functions of the CAD/AVL subsystems.
2. Vehicle Operator Changes
- A. The CAD/AVL System shall support route changes of assigned Vehicle Operators for cases such as mechanical breakdowns and Vehicle Operator substitutions.
 - B. When a Vehicle Operator is trying to log on to more than one vehicle, the CAD/AVL System shall automatically logoff the Vehicle Operator from the previous vehicle, thus allowing for a successful logon onto the new vehicle upon validation with the TOS (current and replacement).



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3. Vehicle Operator/Employee Logoff

- A.** In the event that a Vehicle Operator does not log off after a configurable time limit past the assigned work, the CAD/AVL System shall automatically logoff Vehicle Operator.
- B.** Employees who are permitted to perform a vehicle logon shall be logged of after configurable time limit (separate time limit from the Vehicle Operator time limit) after inactivity.

4. Data Messaging

- A.** The CAD/AVL System shall enable Vehicle Operators to send predefined data messages to TC with minimum interaction. The CAD/AVL subsystems shall support configurable number of pre-defined messages of at least 256 characters in length. The CAD/AVL System shall allow CAD/AVL System Administrators to configure and revise predefined messages and to schedule the transfer of the revised messages to all vehicles. Vehicle Operator initiated messages shall be handled as incidents and shall be subject to all of the requirements of Incident Management specified in Section 8.3.8, including incident priority and incidents data access level.
- B.** Data messaging shall be enabled only when a vehicle is stationary.
- C.** Upon a message transmittal, the CAD/AVL System shall notify the Vehicle Operator with a configurable audible message. Message responses shall be routed to the requesting TC.
- D.** The CAD/AVL System Administrators shall be able to designate the routing of selected pre-defined Vehicle Operator initiated data messages to a specific TC, any or all TC logged on to the System. No message from a Vehicle Operator shall be lost.
- E.** Vehicle Operators shall be able to review recently received messages at any time with minimum interaction. The data messages sent to the Vehicle Operators shall be retained on the MDT for review until acknowledgement by the Vehicle Operator. The received messages shall be ordered chronologically in ascending or descending order. Acknowledged messages shall be removed immediately from the MDT pending message queue.

5. Voice Communications

- A.** Vehicle Operators shall be able to easily initiate voice communications with TC through the use of Request to Talk (RTT) and Priority Request to Talk (PRTT) functions. These functions shall notify the appropriate TC of the request to talk. Selection of a radio channel for the subsequent voice communications shall not require Vehicle Operator intervention.
- B.** When a vehicle is placed into fallback mode, the Vehicle Operator shall be notified via a continuously displayed message. All communications with a vehicle in fallback mode shall be via the Vehicle Operator's handset, and not the vehicle's PA system. All vehicles not impacted by the failure shall continue to operate in the normal communications mode.

B. Other Vehicle Functions



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1. Informational Signage Control

- A.** The CAD/AVL System shall provide for control of all destination signs in CAD/AVL System vehicles that are equipped with external interfaces. The informational signage shall be automatically updated by the System at Vehicle Operator logon. Automatic informational signage message changes shall be definable by the CAD/AVL System Administrator.
- B.** The new and revised Informational Signage data shall be automatically transferred to the vehicle via the WLAN without individual programming of each sign.
- C.** Interior informational signage shall display stop requested, bus stop arrival, major intersections, date/time information, and other configurable messages.
- D.** In efforts to reduce cost the proposed Solution may utilize or replace the existing informational signage VLU.
- E.** The System shall allow TC's to send adhoc text messages of a maximum length of 20 characters to the interior signs.
- F.** The System shall allow TC's to remotely change the text that can be displayed on the destination sign in real-time by sending pre-defined destination sign codes that are created by the sign management software and distributed to the destination sign system via BusLink.

2. On-Board Vehicle Audio/Visual Announcements

All messages delivered in visual format shall be annunciated simultaneously.

- A.** The CAD/AVL System shall provide automatic audio/visual announcements to passengers in the vehicles. This function shall support next stop announcements as well as annunciation of major intersections, announcement triggers, key transfer points, public service information and Vehicle Operator initiated messages. Announcement and visual messages will be supplied by Transit and implemented by the Contractor.
- B.** Announcements shall be configurable via text to speech.
- C.** In efforts to reduce cost the proposed Solution may utilize or replace the existing annunciation VLU.
- D.** Audio announcements shall trigger specific messages based upon a variety of conditions. The capability to play timed announcements randomly, such as public service announcements, is required. The CAD/AVL System shall not issue next stop messages when the vehicle is off-route.
- E.** Next stop, major intersection and key transfer point announcements capacity shall be sufficient to support all of the routes in the service area and all of the trips made by each



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vehicle during a service day, plus a 50% spare capacity for other types of announcements.

- F.** The CAD/AVL System shall include modules necessary to allow Transit to revise canned messages provided with the System and to record additional messages as services and routes change. All features of this module shall be fully supported by the in-vehicle announcement capabilities. The new and revised messages shall be automatically transferred to the vehicle via the WLAN without individual programming of each vehicle.
- G.** Audio level of announcements shall be controllable by the Vehicle Operator. The Vehicle Operator shall have the capability of overriding the automatic audio announcements and manually select from a menu of predefined messages for announcements to passengers. The override shall be reported as an event.
- H.** BTC and RTC shall have the ability to make announcements over the onboard PA or the Vehicle Operator cabin speaker to individual vehicles, groups of vehicles (line or route call), by mode or the entire vehicle fleet (all call) through the existing PA amplifiers.
- I.** The CAD/AVL System shall automate, configure and initiate route announcements for external speakers, stop announcements for internal speakers and scheduled announcements for public service and other informational needs. Metrorail and Metromover vehicles do not have external speakers.
- j.** The On-Board Vehicle Audio/Visual Announcements shall be triggered and configurable by location, timed and manually. Presently, triggering the audio announcements comprise of timed messages, manually actuated messages, door open messages, passenger stop requests/wheelchair requests and bus stop/route announcements. Visual announcements include inside sign time/date/stop info and head signs.



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3. Auto Neutral Function

- A.** CAD/AVL System users with the proper access level shall have the ability to perform a remote shutdown of the vehicle which will allow any vehicle to be remotely placed into the neutral mode by a dispatcher or other authorized operator.
- b.** An emergency anti-highjack function shall be provided which will activate the throttle interlock and the transmission auto neutral features when inputs are provided by the radio system. (The transmission "auto neutral" feature is activated when the transmission "auto neutral" input wire is grounded.) The radio VLU will utilize two of its normally open dry contacts to provide ground inputs to the I/O Controls programmable logic system. One contact will provide the signal to activate the anti-highjack function to disable the bus. The bus will remain disabled until the other contact provides a signal to de-activate the anti-highjack function.
- C.** Upon selection of the option, the CAD/AVL System shall require acceptance of a configurable message prompt.
- D.** Upon execution of a Auto Neutral Function, the System shall generate an incident automatically.

8.2.3 Mover Subsystem

A. Communications Requirements

- 1. The Contractor shall provide and install forty-seven (47) complete sets of vehicle components for integration, installation, and testing of all vehicles. The Mover subsystem shall fully integrate and interface with the Mover components and with Central Control. The Contractor shall install two (2) County furnished OpenSky radios while installing its respective onboard equipment. The first OpenSky radio shall be used for data communications with the CAD/AVL System. The second OpenSky radio shall be integrated with the existing passenger intercom system.

The DC/DC power supply on MetroMover vehicles is Newmar model 32-12-25.

- 2. The Contractor shall provide hardware, install, integrate, interface and test a complete Metromover and OpenSky Communication subsystems that shall include all existing functionality with the addition of full duplex hands free communications for all vehicles to and from the passenger intercom panel. The fully integrated system shall be verified, tested and demonstrated as necessary, to satisfy the County.
- 3. The Metromover subsystem design and equipment shall be state-of-the-art and provide a solution whereby all messages and alarms are displayed and recorded through the CAD/AVL System Incident Management Module defined in Section 8.3.8 Events/Incident Management.
- 4. The Contractor shall provide Emergency Alarm listen-in via a remote key up to a covert microphone to be supplied and installed by the Contractor.



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5. All messages and alarms shall be sent to the Metromover Axiom Intel Computer and displayed on the CAD/AVL consoles.
6. Rack-up drawings for all proposed vehicle installations shall be submitted with proposals for approval by Transit to include the following:
 - a. Bill of materials
 - b. Mounting location of all equipment with dimensions
 - c. All integration points
 - d. Power module
 - e. Power cabling
 - f. All wiring and breakouts

8.2.4 Rail Subsystem

A. CAD/AVL Rail Subsystem

The Contractor shall provide, install, integrate and test a complete Rail Subsystem. The Rail Subsystem shall consist of all necessary vehicle hardware and central control components including hardware, software and software tools.

The DC/DC power supply on MetroRail vehicles is Wilmore model 1620-36-13-15.

The Contractor shall:

1. Provide and install 68 complete sets of vehicle borne components for integration, installation (to include County furnished P25 Mobile Radio with two Radio Control Heads and the OpenSky Radio), and testing of both ends of each married pair.
2. Provide one MDT per each end of the married pair.
3. Fully integrate and interface the Rail Subsystem with the Contractor's CAD/AVL System to include but not limited to all functions specified in Section 8 (Mobile Data Terminal, Covert Microphone, etc).
4. Interface and integrate with an onboard Communications Control Unit and the OpenSky Radio and facilitate a configurable alarm priority for the Automatic Train Protection (ATP) Bypass notification. All Rail alarms shall be displayed on the CAD and C3 Maestro Consoles. Alarms shall be acknowledged on either console.
5. Verify, tested and demonstrated as necessary, to satisfy the County that the entire Rail Subsystem will operate as required.



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6. Include a GPS based AVL function. All vehicles shall report GPS location regardless of whether the vehicles are moving, have no assigned routes, or whether or not the vehicles are logged into the CAD/AVL System.
7. Ensure the System is not adversely impacted by GPS errors resulting or other reception errors. The AVL module shall utilize Dead Reckoning for location predictions whereby the VLU shall determine a position based on a previous position along with known estimated speeds and direction. This shall be utilized in the event GPS data is not available. All vehicles shall communicate with the CAD/AVL System to obtain schedule and operator verification data originating from Transit's Scheduling System and TOS (current and replacement)
8. Provide complete details of design, configuration, features and functions for the Rail Subsystem with vehicle interfaces.
9. Provide Emergency Alarm listen-in via a remote key up to a covert microphone to be supplied and installed by the Contractor with audible alarms.
10. Ensure the Solution is expandable to provide various data messages from the vehicle Communications Control Unit (CCU) and shall provide the following message capabilities in addition to those specified herein:
 - A. Train Route/Service/Destination
 - B. Train Number
 - C. Train Formation Number
 - D. Train Length
 - E. Automatic Train Operation (ATO) Train Mode, Yard, Manual
 - F. End in Control.
 - G. Operator Covert Emergency Alarm (CEA)
 - H. Spare message capability
11. Rack-up drawings for all proposed vehicle installations shall be submitted with proposals to be approved by Transit.

8.3. Software Requirements

8.3.1 Graphical User Interface (GUI)

- A. Displays



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The CAD/AVL System shall provide a user-friendly graphical interface for supporting all users. The type of user interface shall be determined by the appropriate user's access level. Within the GUI, the CAD/AVL console shall allow the user to perform, at a minimum, the following configurable functions:

1. Display multiple data message queues, schedule/route adherence, RTT, PRTT, and emergency alarms.
2. Filter within the data message queues to customize information as operationally required by each TC; in addition, the system shall be able to filter and display by any data fields received within the messages.
3. Assign priority levels for filtering, ordering and displaying within the message queues by message types.
4. Send and display real-time canned (pre-defined) and ad hoc text messaging to the MDT or onboard informational signage.
5. Pre-schedule canned (pre-defined) and ad hoc text messaging to the MDT or onboard informational signage at a specified time.
6. Enable voice communication to vehicle handset, Vehicle Operator speaker, and vehicle PA.
7. Remotely enable covert microphones in response to emergency alarms message and downgrade alarm status, as necessary.
8. Display schedule information by block, run and route, including real time status.
9. Select by configurable time ranges and display pull-in and pull-out status per garage and/or maintenance facilities, including alarms for late and/or missed pull-ins/outs.
10. Real-time tracking of all vehicles.
11. Logon and/or logoff Vehicle Operators remotely.
12. Define multiple map views and ability to set as default by user.
13. Select shared views of maps, defined by the CAD/AVL System Administrator, and be saved as default view.
14. Resize map displays.
15. Filter displayed data by combinations of the following:
 - Vehicle ID, Number and/or Type
 - Vehicle assignment attributes
 - Route and block



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- Login status
 - Mechanical status
16. Display route map and traces.
 17. Display vehicle label by number, adherence, route, driver, run, estimated time of arrival at a specified location, direction of travel, type of vehicle, and block.
 18. Locate vehicle, route, intersection, bus stop, signs, and time points.
 19. Establish voice/data communication by individual vehicle or combining a group of vehicles at the same time.
 20. Measure distance between two points.
 21. Allow minimal data entry by populating default values where available (e.g., date, time, user identification, vehicle identification, Vehicle Operator ID). When data entry of a field is limited to a known set of valid responses, the list of valid responses shall be presented to the user in the form of a scrollable list. The user shall be able to select the desired entry from this list. Users shall be able to override any CAD/AVL System generated or default values.
 22. Window configurations (including window locations, window sizes and window content configurations) shall be defined on a per-user basis, and shall be retained between user sessions.
 23. Print current view of displayed items.
 24. Rubber-Band type of selection and display of geographical area and vehicles.



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Any combination of the filtering options mentioned above shall be saved until they are reset by the users.

B. Playback Displays

1. Historical event displays shall playback all pertinent historical messages. Pertinent historical messages shall include, but not be limited to, messages sent and received by MDT, Vehicle Operators, dispatchers, TC, and vehicle maintenance facilities.
2. The display shall be sequenced by events on a geographic map.
3. Playback of historical events shall include the capability to perform the following, but limited to:
 - Allow selection by vehicle(s), driver(s), route(s), fleet(s), or run(s) for specific time frames through a query action window.
 - Allow the selection of onboard route files to play assigned internal and external announcements to validate timing.
 - Configurable speed of replay for moving forward and selectable time points.
 - Graphical representation of event data on common CAD/AVL system maps.
 - Selectable display of map layers.
 - Text display of attributes of each vehicle event message.
 - Step forward, step backward and pause.
 - Measuring distance tool.
 - Configurable Vehicle labels such as by number, adherence, route, driver, run, and block.
 - Vehicle icons that are configurable and display adherence, login, transfer, and maintenance status.
 - Locate vehicle, route, intersection or object.
 - Display route traces.
 - Display date and time message log.
 - Print display.
4. Playbacks Interface Configuration



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- Reconfiguration of the playbacks interface, such as changes to element highlighting techniques, user messages, and displays, shall not require reprogramming or recompilation of program code.
- User-configurable settings and preferences of the playbacks interface shall be retained between user sessions and shall be uniquely defined for each user. Each user shall be able to restore all settings and preferences to the defaults and to store multiple sets of settings and preferences for each user.

C. GUI Performance

1. Display

- A.** When a new display is requested by the user, the new display complete with data values shall appear on the TC workstation screens within two (2) seconds and within three (3) seconds on remote workstations, under the peak load conditions. For this requirement, display response time is defined as the response time to display current database data on a display.
- B.** Geographical map displays, shall have an additional two (2) seconds for a new geographical map display call-up for each of the response times listed in the paragraph above.

2. Display Update

- A.** Once a display containing dynamic data is active, the display shall be updated to ensure a data latency of no more than two (2) seconds. To achieve this, displays may be updated on a periodic basis of a configurable period of time or displays can be updated as changes to the data occur. Data on displays that are being viewed by a user shall be updated regardless of whether or not the window containing the display is the active window. The maximum allowable data latency for remote workstations shall be three (3) seconds.
- B.** From the start of visible activity, an update shall be completed within one (1) second at both TC and remote workstations.

3. Geographical Map Display Zooming

A user's request to display an active geographical map at a different scale factor shall be completed within three (3) seconds.

4. Reporting

Requests for reports shall be acknowledged within five (5) seconds with an indication that the report is being processed.

D. MDT Interface Performance

1. All Vehicle Operator actions performed via the MDT shall be completed in real-time.



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2. When a Vehicle Operator sends an event message, the MDT shall provide immediate feedback that the request has been accepted and sent.
3. When the MDT receives a data message, the Vehicle Operator shall be notified by a mutable audio tone signal and the message shall be available for display on the MDT within one (1) second after it is received.

8.3.2 Traffic Controller Functions

The CAD/AVL System shall provide functions as specified in the following sections to support authorized TC operating from both local and remote CAD/AVL Workstations.

A. Covert Monitoring

1. TC acknowledgment of emergency alarms shall automatically initiate covert monitoring (i.e., a one-way voice call from the vehicle to the TC). TC initiation of covert monitoring without an associated emergency alarm shall be configurable by the CAD/AVL System Administrator.
2. While covert monitoring is active at a workstation, all other workstations shall continue to operate normally, including support for all OpenSky voice and data communications with other revenue and non-revenue vehicles.
3. The TC who selected the emergency alarm shall be able to end the covert monitoring session without cancelling the emergency alarm at any time by entering the proper override commands.

B. Data Messaging

1. Data Messaging Requiring Response

A. The CAD/AVL System shall enable TC to specify multiple pre-defined responses for each text data message that is issued. Response options supported by the CAD/AVL System shall include, but not limited to: "no response", "acknowledgment of receipt", and "yes/no". For messages requiring a response, the CAD/AVL System shall request a response from each Vehicle Operator to whom the data message is directed. Canned data messages shall each have a pre-defined default response requirement. The default response requirement for custom messages shall be "no response".

2. Turn-Back Monitoring

A. The CAD/AVL System shall detect for unauthorized Turn-Backs within a vehicle's assigned block.

B. After a turn-back adjustment, the System shall resume schedule adherence monitoring and automated voice announcements for the vehicle based on the new trip assignment. All turn-backs shall generate alarms.

2. Data Messaging- Store and Forward



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shall periodically check for restoration of normal communications at an interval that is adjustable by the System Administrator.

- D. When normal communications have been restored, all affected vehicles shall automatically return to the normal communications mode.
- E. During fallback mode, vehicles equipped with Covert Emergency Alarm capabilities shall continue to allow emergency alarms to be initiated.
- F. All such fallback Covert Emergency Alarms shall be immediately displayed by visual and audible alerts to the TC and shall provide them with the vehicle ID that issued the alarm.

D. Schedule/Route Adherence Status

- 1. The CAD/AVL System shall monitor the schedule/route adherence status of all fixed-route vehicles. All vehicles that are off-route and/or off-schedule by more than pre-defined threshold values shall be identified on both tabular and map displays to TC. Route and schedule adherence status data presented to TC shall include the number of minutes of deviation from schedule and distance off-route.
- 2. The schedule/route adherence threshold values for declaring a fixed-route vehicle to be off-schedule and off-route, shall be adjustable by the System Administrator. Vehicles that deviate from the schedules by a configurable timeframe shall be handled as an alarm.
- 3. TC shall be able to disable and enable schedule/route adherence alarms for selected vehicles, for all vehicles on selected routes and for all vehicles while they are located within a specified geographic area. These disabled conditions shall be identified in a list available to all TC for review.

E. Fixed-Route Block Status

The CAD/AVL System shall validate a defined block's schedule upon Vehicle Operator logon. The CAD/AVL System shall issue an alarm message to the appropriate TC when a block scheduled for service is logged-on by Vehicle Operator for more than a configurable time period.

F. Headway Management

A route ladder and/or graphical display shall provide real-time linear route traces for one or more routes and include capability to perform the following:

- 1. Display vehicle direction, details, headway or schedule adherence.
- 2. Configurable headway and adherence thresholds with indication by color-coding.
- 3. Initiate voice communication individually, by route and/or by selectable grouping of vehicles.
- 4. Display and defined order of time points.
- 5. Display time points crossed by a multi-pattern route.



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6. Display horizontal or vertical representation of up to 10 routes.
7. Display hotlinks to the schedule and route for easy screen navigation.

8.3.3 CAD/AVL Functional Requirements

A. Automatic Vehicle Locator (AVL)

1. The System shall include a GPS-based AVL function.
2. The AVL function shall provide tracking and reporting of the locations of AVL-equipped vehicles with a positional accuracy of three (3) meters or less, regardless of whether the vehicles are moving, on-route, off-route, have no assigned route or logged into the System. This required level of accuracy shall not be impacted by GPS errors.
3. Vehicle schedule adherence shall be calculated on the MDT. Vehicle locations shall be reported to the System when the schedule adherence thresholds are exceeded as defined in Exception Polling. When no data transmission or communications request are initiated from the vehicle, polling time cycle shall be configurable by the System Administrator. The polling strategy shall include more frequent polling of off-schedule and off-route vehicles and less frequent polling of vehicles in the garage or maintenance facilities.
4. In the event of an emergency alarm, vehicle polling shall automatically be placed on a more frequent polling cycle configurable by the System Administrator
5. The System shall be configurable to poll on a different cycle by Mode when the vehicle is not in service.
6. Mileage of all vehicles shall be tracked and stored in the System via the odometer reading and GPS.
7. AVL Coverage and Storage
 - A. In the event of loss of positioning data, vehicle location shall be determined with dead reckoning techniques utilizing the existing vehicle odometer or other means and technologies which provide position accuracy equivalent to GPS tracking.
 - B. When dead reckoning is utilized an event shall be logged.
8. AVL Map and Overlays
 - A. A County approved GIS base map will be provided by the Contractor. Scheduling data is available through Google's General Transit Feed Specification (GTFS).
9. The CAD/AVL System shall have the capability to accept and display AVL location data from vehicles such as, maintenance and supervisory vehicles.



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B. Computer-Aided Dispatch (CAD)

The CAD/AVL System shall provide a comprehensive set of computer-aided radio dispatch features that allow for effective and efficient monitoring and control of all modes of transportation.

1. Voice Communications

- A.** CAD shall support voice communications via the County provided digital trunking radio OpenSky and P25 Radio Systems that is to be integrated with the System by the Contractor.
- B.** The System Administrator shall be able to assign a default voice talk group to each CAD/AVL Workstation from the pool of available voice talk groups to be used by TC to initiate voice calls.
- C.** The System shall interface and integrate with the Harris C3 Maestro console to provide console selection and deselection.

2. Data Communications

- A.** A suitable data communications protocol shall be used to ensure the reliable delivery of data and control commands over the OpenSky system.
- B.** Protocol parameters, such as timeouts and retry counts and intervals, shall be configurable by the System Administrator.
- C.** Data communications errors and failures shall be logged and sent to the System Administrator.

8.3.4 System Administration Functions

The System shall be comprised of the tools and modules that allow the System Administrator to setup, configure, report, secure, and manage data information collected, accessed, and stored by the System. These tools and modules shall be designed for ease of use and provide a high level of control over the operation of the System.

A. TC Work Assignments

The System shall provide the capability for the TC Supervisor to assign job functions for TC by garage, maintenance facilities, Mode, routes, vehicles, or geographic regions where geographic regions shall be user definable. Distribution of un-assigned vehicles shall be assigned to logged-in TC by explicit or round robin rules. Ability to see emergency situations shall be provided in accordance with the respective access level.

B. Announcement Management

The Contractor shall provide the following capabilities conforming to American with Disabilities Act (ADA) regulations:



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1. Record and import audio announcements intended for internal and external vehicle audio systems.
2. Create and edit textual information to display in conjunction with audio announcements. Textual information shall include date and time display including formatting options.
3. Create and schedule public service messages.
4. Manage recordings, text, text to speech, graphics, associated indexes, and interface to the appropriate Subsystem.

C. Data Archival and Restore

The System shall save data and a database schema for long term storage in accordance standards listed herein. Archiving shall occur from the main and secondary database(s). Provisions shall be provided to restore data by copying archived data from long term storage to either a stand-alone database machine or onto the current System database. Either activity shall be possible by either a graphical user interface or via the command line for automating tasks.

D. Historical Data Storage

A secondary database server that takes the processing load off of the primary real time database shall be provided for the purpose of data retrieval for reporting and data analysis. Enough online data storage shall be provided to keep at least twelve 12 years of historical data. The historical data shall be accessible by included standard System applications and tools. Data replication to the secondary data storage shall be a continuous automated process.

E. Data Transfer Management

- A.** Distributed data transfer architecture shall be supported for data transfer servers located at each garage and maintenance facilities through which file transfers occur regardless of which garage/maintenance facilities a vehicle is located, at any given time.

F. System Maintenance Software

The Contractor shall provide an enterprise system maintenance software for the monitoring and troubleshooting vehicle and System operation. The software shall provide individual message level activity related to data communication, transmission and network health. Access to the software shall be governed by user access level.

G. Access Security

Access to the CAD/AVL System shall be strictly limited to designated and authorized System Administrators. Users without proper access level shall be denied access to all System functions and data.

1. User Authorization



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The Contractor shall provide a user security access module/tool for the System Administrator to configure access levels to the System. This module/tool shall provide a copy feature for duplicating existing user profile/security access. Transit prefers the utilization of Lightweight Directory Access Protocol (LDAP) integration for application access and security groups via the County's Windows Server 2008 Active Directory Domain Services.

2. Access Level

A. The System shall facilitate distinct access levels for the System, such as, but not limited to, devices, application or database.

B. Access to the System functions and capabilities shall be based upon the user's access level and not the physical workstation or user ID being used or created.

C. The user security access module/tool shall not have any limitation on the number of access levels.

D. Access levels shall be able to overlap and be assignable to any number of users.

3. CAD/AVL System Overall Security

A. Transit uses the Payment Card Industry – Data Security Standard (PCI-DSS) as its security standard.

B. The Contractor shall implement a System that shall adhere to the latest PCI-DSS requirements at contract effective date.

C. The Contractor's design and implementation of the System shall incorporate and adhere to the design requirements of the PCI-DSS.

8.3.5 Incident/Events Management

The CAD/AVL System shall support the gathering, processing, storing and displaying of System status, events and incidents relating to service, vehicles and Vehicle Operators.

A. Event Types, Priorities and Management

1. The System shall support configurable set of event types, event subtypes and priority levels. In addition, the System shall be able to configure the display reporting thresholds of selected events in order to reduce the volume of events being reported during peak operating periods and during service disruptions.

2. Low priority events shall be stored onboard and automatically sent via bulk data transfer over the WLAN upon returning to the garage/maintenance facilities.

3. The System shall have configurable tones at the CAD/AVL consoles for events as defined by the System Administrator.



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4. Duplicate events shall be eliminated in order to reduce the display of events. In cases where multiple events are sent from the same vehicle, only the highest, unanswered priority event at that moment shall be displayed.
5. Upon selection of an event, the System shall enable the following, but not limited to, functions:
 - A. Examine all information concerning the event
 - B. Dismiss one (1) or multiple events with/without responding to it
 - C. Create and edit an incident report for the event
 - D. Respond to an event, including establishing voice communications, returning a text data message, and acknowledging alarms
 - E. Show the current location of the vehicle associated with the event on the AVL map display
 - F. Transfer control of the event to another TC.
6. The System shall manage access to events by multiple TC in order to avoid conflicts and loss of data.



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B. Event Storage

1. All events shall be stored by the System and shall be displayed to users according to the appropriate access levels.
2. The System shall be provided with storage capacity to store all events without loss of data.
3. All logged events shall include all data captured and be accessible via the System for reporting and auditing purposes.

C. Incidents

1. The CAD/AVL System shall support the creation, tracking, and reporting of all incidents for all Modes and Vehicle Operators. The System shall facilitate a form creation editor based upon incident types and subtypes as follows, but not limited to:

A. Emergency Alarms

B. Maintenance incidents

C. Accident and incident involving a revenue vehicle or passenger

D. Delays

2. The System shall indicate which incident is system or user generated. User definable fields shall be available in the incident forms and shall not be overwritten during software upgrades.
3. The System shall provide an incident workflow configuration capability. The System Administrator shall be able to configure the sequence of the connected steps within the workflow of incidents.
4. The System Administrator shall be able to define sub-types for each incident. The sub-type shall be an additional field on the incident form.
5. Incidents shall be allowed to be created from current and historical events.
6. Data entered or generated in incident forms shall be editable until the incidents are closed.

8.3.6 Automated Vehicle Monitoring (AVM)

- A. The System shall provide an AVM module that includes a real-time and passive alarm data function to assist Transit to make vehicle preventative and breakdown maintenance decisions. The AVM module shall allow Transit to identify fleet defects and patterns in vehicle maintenance in order to increase efficiencies.



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- B. The AVM module shall be integrated via J-1708/J-1939 with the existing Heating, Ventilation and Air-Conditioning (HVAC), engine control module, transmission control module, automatic braking system, multiplex and powertrain onboard computer software. The AVM shall be configured to include priority alarms detection while monitoring vehicles.
- C. The System shall monitor additional onboard sensors and multiplex systems such as, but not limited to:
 - A. Pressures - oil, hydraulic
 - B. Braking events - hard braking events
 - C. Temperature - engine oil, engine coolant, transmission fluid
 - D. Fluid levels - engine oil, engine coolant, automatic transmission fluid, fuel
 - E. HVAC
 - F. Other circuits such as wheelchair ramp deploy, bus kneel activation, and door open/closed.
- D. The AVM module shall have a configuration tool that allows the System Administrator to set thresholds for alarms, alarm frequencies and which data shall be transferred immediately. Data that is not transferred immediately shall automatically be sent via the WLAN upon returning to the garage or maintenance facilities.
- E. The AVM shall identify on the MDT, vehicles that have priority issues and need to be addressed when arriving/departing the garage.

8.3.7 Garage and Maintenance Facilities Mapping

The System shall provide an garage and maintenance facility mapping module that shall identify and assist Vehicle Operators/Dispatchers in locating vehicles within a garage or maintenance facility. The proposed System shall incorporate GPS data and require no manual tracking input. This module shall facilitate mapping for all vehicle modes at all of Transit's facilities outdoor locations. The proposed System shall be accessible via mobile device / tablet (iPad and Android).

8.4. Interface Requirements

- A. This Section describes interfaces that the CAD/AVL System shall support in order to provide all required functions herein. The Contractor shall be responsible for the coordination and implementation of all defined interfaces. **The System shall be of a configurable open interface architecture using middleware technology.**
- B. CAD/AVL System interfaces shall utilize, to the fullest extent, the capabilities already present in the other systems to be interfaced, so as to minimize the need for modifications to those systems.



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It shall be the responsibility of the Contractor to provide all interfaces in full compliance with the functional requirements of this Specification.

- C. The CAD/AVL System interfaces shall provide a secure means of data exchange, including providing historical and real-time data such as vehicle position and schedule adherence data on the fleet.
- D. CAD/AVL System performance shall not be affected by data transfer activity to and from other Transit systems.
- E. Train Miami-Dade County staff to maintain the interface architecture.
- F. Provide the Interface Control Document (ICD) upon final design of each interface. Any changes on the ICD shall be provided at Final Acceptance.
- G. Work with the vendors required to facilitate the proposed solution to provide the interfaces required by the County. It will be the Contractor's responsibility to complete all work necessary and assume all costs associated with producing the required interfaces.
- H. The Contractor shall not require Transit involvement for coordination and management of any agreement between itself and the respective vendors concerning the required interface.
- I. Network Access to CAD/AVL System Historical Data
 - 1. The CAD/AVL System shall allow extraction of System historical data in common machine-readable formats that can be used in other Transit applications.
 - 2. All such access shall be via a CAD/AVL System information retrieval function accessed through a web browser.
- J. Interfaces
 - 1. The Contractor shall work with all Vendors listed below to provide the interfaces required by the County.

Software Name	Vendor/Support	Database
Fixed Route (FX) Scheduling Version 7.1.23	Trapeze Software Group	ORACLE 11g
Enterprise Asset Management (EAMS) Version 8.3	INFOR	ORACLE 10g
Automatic Passenger Counter (APC)	Cubic Transportation Systems and Urban Transportation Associates	Shared Directory
Automated Fare Collection System (AFCS)	Cubic Transportation Systems	ORACLE 11g
GPS to Farebox, Voice Annunciation,	Digital Recorders Inc.	



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Destination Signs		
Interactive Voice Response (IVR)	Supported by Miami-Dade County	
OpenSky	Harris Corporation	Radio System
Advanced Traffic Management System	Kimley-Horn	
Transit Operations System (TOS)	TranSched Systems	Open VMS 7.1-1H2
Mover Alarm and Communications	Bombardier Inc.	Mover Vehicles
Onboard Mobile Gateway	InMotion	InVehicle Gateway



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A. TOS Interface

The Contractor shall contemplate for this project that the current Transched supported Transit Operations System (TOS) will be replaced concurrently with the implementation of CAD/AVL System, thus requiring integration with current and replacement TOS.

Following is a summary of the functionality of TOS:

a. Master Schedule

- i. Maintain Master Production Fixed-Route Schedule
- ii. Create calendar information for weekly, Saturday and Sunday services
- iii. Maintain vehicle information (vehicle make, year and model)
- iv. Maintain route, time-points and trip information
- v. Create related reports

b. Personnel

- i. Maintain Operator personnel information (i.e. emergency contact, driver's license information).
- ii. Re-compute Operator priority numbers or seniority number
- iii. Create related reports

c. Operator Sign-Up

- i. Process Operators' bid requests
- ii. Create holiday bids
- iii. Maintain roster bids
- iv. Create vacation weeks
- v. Create related reports

d. Daily Dispatch

- i. Create daily work



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- ii. Create charters or special events
 - iii. Transfer of bus assignment to CAD/AVL
 - iv. Transfer of line-up data to CAD/AVL
 - v. Maintain extra-list work
 - vi. Maintain extra-board work
 - vii. Manage service interruptions
 - viii. Create related reports
- e. Community Service
- i. Log consumers' complaints and commendations on operators
 - ii. Create community service codes
 - iii. Create related reports
- f. Absentee Control
- i. Maintain operators' absences
 - ii. Maintain operators' discipline history
 - iii. Create employee profile
 - iv. Maintain absence codes
 - v. Create related reports
- I. The CAD/AVL System shall interface one-way from Transit's current TOS infrastructure and with the TOS Replacement when implemented in order to obtain transit service data. TOS will be accessible via Transit's network.
- II. The CAD/AVL System shall be capable of automatically converting, reformatting, and filtering data acquired from TOS as necessary to support CAD/AVL System functions. Operation of TOS's interface shall not impact other functions of the CAD/AVL System and shall not require the CAD/AVL System to be shut down or disabled in any way. The CAD/AVL System shall not require manual manipulation of acquired Scheduling System data in order for it to be usable by the CAD/AVL System. Manual entry and maintenance of Transit service data within the CAD/AVL System shall be supported.



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III. The CAD/AVL System shall support imports from TOS's default interface format and protocol. The identification and implementation of all required interfaces shall be the sole responsibility of the Contractor. The Contractor shall not require Transit involvement for coordination and management of any agreement between itself and the TOS vendors concerning the required interface. The Contractor shall be responsible for any non-recurring engineering costs for all interfaces.

iv. Daily Schedule Data

- (1) The CAD/AVL System shall acquire daily schedule data from the TOS's Operator Dispatch Module in order to update the base schedule data for a specific future service day with all recent changes. Changes of this nature will typically include changes to trips to handle school closures and early-outs, though changes to runs and blocks may also occur.
- (2) Daily schedule data that is available to the CAD/AVL System from the TOS Operator dispatch module shall include attributes on blocks, vehicles, runs and Vehicle Operators for specific service days. The proposed CAD/AVL System shall support this type of interface and shall permit any number of updates to a CAD/AVL System resident service day schedule via this interface up to within one hour prior to the start of the service day. These operation updates shall not interrupt or affect other CAD/AVL System functions.
- (3) The CAD/AVL System shall support service days that cover time periods over 36 hours in duration and that end at the time of the last pull-in. At 2AM, the new day's schedule shall be utilized for vehicles that pull out after 2AM. Those vehicles that pulled out before midnight shall continue to operate under the schedule of the day they pulled out until they complete their scheduled block, even if the block completion occurs after midnight. Therefore, for a time period after midnight, the CAD/AVL System shall allow two schedules to be in effect concurrently. The schedule times for vehicles that operate beyond midnight are currently identified in schedules by times that are greater than 24:00. The CAD/AVL System shall recognize day-to-day variations in the schedules and only display and use the scheduled trips that apply to the particular service day.

B. Fixed Route (FX) Scheduling and Bus Stop Interfaces

- I. Base Schedule Data: The CAD/AVL System shall acquire from the Transit Scheduling System any and all available base schedule data that is required. Base schedule data available to the CAD/AVL System from the Scheduling System includes attribute data on routes, patterns, time points, blocks, vehicles, stops and runs. The CAD/AVL System shall support at least two base schedule data versions, one current and one future, so that the loading of a new base schedule for a future date does not interrupt current CAD/AVL System operations.



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C. Intentionally Omitted

D. Enterprise Asset Management System (EAMS) Interface

- i. The Contractor's Solution will, at minimum, be able to:
- ii. Allow one-way data transfer from EAMS to the Solution for the display of all available vehicles. The transfer will be real-time.

E. Automatic Passenger Counter (APC)

- i. Currently the APC onboard raw data is sent to the Farebox Driver Control Unit. The Contractor's solution must acquire real-time APC data to facilitate percentage data for vehicle capacity. Percentage data must be made available to all mapping and tabular / textural displays when tracking vehicles; in addition, web enabled devices.

F. OpenSky

- i. Contact:
Danielle Marcella
Senior Program Manager
Harris Corporation, RF Communications
Email: danielle.marcella@harris.com
Telephone: +1-407-581-3786
Fax: +1-407-251-8270

G. Advanced Traffic Management System (ATMS)

- i. The CAD/AVL System shall interface with the ATMS to facilitate Traffic Signal Priority (TSP). The Solution shall design, develop, install, integrate, test, and provide user documentation and training to appropriate staff from Transit and/or the Traffic Signals and Signs (TS&S) Division of the Miami-Dade County Public Works Department (PWD) in regard to the software developed and implemented to accomplish the requirement listed herein.

This interface shall be designed and documented in an Interface Control Document (ICD). Approval of this ICD shall be obtained from Transit prior to starting the development of any software associated with the implementation of this interface.

- ii. The Solution proposed for this RFP shall develop and implement a center-to-center interface and all associated software required to accomplish the information exchange described below:
 - (1) From CAD/AVL to ATMS for each bus priority request
 - a. Bus Identification
 - b. Bus location
 - c. Priority request identification number
- iii. From ATMS to CAD/AVL for each bus priority request (will require multiple transactions)
 - (1) Bus Identification
 - (2) Bus location
 - (3) Priority request identification number
 - (4) Request acknowledgement



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- (5) Request approval/denial decision
- (6) Request denial reason (if request is denied)
- (7) Priority implementation status and actions taken by the intersection controller (if request is approved)
- iv. From ATMS to Intersection Controller for each *approved* bus priority request
 - (1) Priority request
- v. Reports (to support TSP operational effectiveness monitoring and evaluation)
 - (1) ATMS TSP Operation Reports
 - (2) Transit TSP Operation Reports

The ATMS central system software was supplied to the County by:
Kimley-Horn and Associates, Inc.,
5200 NW 33 Avenue, Suite 109
Fort Lauderdale, Florida 33309
Contact: David Osborne
Email: David.Osborne@kimley-horn.com
Telephone: (954) 535-5100.

- vi. Mover Alarm and Communications (See Mover Subsystem)
 - vii. Existing Train to Wayside (See Rail Subsystem)
 - viii. Onboard Mobile Gateway (See Options Sections)
 - ix. Farebox / Single Sign-on Interface (See Vehicle Functions Section)
- H. Interactive Voice Response (IVR) (See IVR Section)**



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8.4.1 Kendall Drive Signalization / Traffic Signal Priority (TSP)

- A. Transit signal priority (TSP) is a methodology whereby buses regularly traveling on surface roads are given priority passage through signalized intersections to improve their on-time service. TSP operation calls for special logic programmed in the traffic controller installed at the signalized intersection to be invoked once a designated Transit bus is detected within a defined proximity of an eligible signalized intersection. Once TSP operation is invoked, this special logic extends the green phase of the signal and informs the centralized system that this action was taken for monitoring, logging and operational evaluation purposes.

The TSP feature to be requested by Transit shall be invoked via the County's existing Advanced Traffic Management System (ATMS).

The proposed Solution shall furnish a CAD/AVL system that tracks the location of the buses via the CAD/AVL Back Office System. Through this tracking feature and appropriate additional logic, the CAD/AVL Back Office System shall be able to determine when a bus is within a pre-defined proximity of County signalized intersections properly equipped to support TSP operation and then send this information in real-time to the ATMS central system software so that it can determine whether or not TSP is to be granted based solely on Traffic Signals and Sign (TS&S) Division of the Miami-Dade Public Works Department's established rules of engagement.

This bus location information shall be sent from the CAD/AVL central system software to the ATMS central system software via a custom interface implemented between the two systems. Upon receipt of this information from the CAD/AVL central system, the ATMS central system software shall decide whether or not to invoke TSP at the subject intersection. If TSP operation is to be invoked, the ATMS software shall execute the center-to-field signal controller logic necessary to cause the intersection controller to grant priority to the approaching bus. Any modifications that must be made to the M-D ATMS central software and/or the CAD/AVL central system software to accomplish this shall be developed, installed, configured and tested as part of this project. The Contractor making the required modifications to the M-D ATMS central software shall be subject to the approval of the Traffic Signals and Sign (TS&S) Division of the Miami-Dade Public Works Department.

8.4.2 Interactive Voice Response (IVR) System Interface

- A. The Solution shall provide a configurable interactive voice response (IVR) interface to allow operators to access, at a minimum, their daily work assignment, bid information, leave balances and hours worked. The Proposer's IVR application will interface with the County's Enterprise IVR system.
- B. After NTP, the County will provide the Contractor the Interface Control Document required to access the County's IVR interface.

8.4.3 Electronic Document Management System (EDMS)

The County utilizes an Electronic Document Management System (EDMS) for all respective project files in efforts to ensure efficient retention and retrieval of documents. All submittals shall



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be fully searchable be in native formats, such as AutoCAD, Word, Excel, or Visio; and allow copy to clipboard permissions.

The Contractor shall ensure that any document submittals follow the County's standard naming convention as follows:

1. Project Number and Alpha Prefix
 - a. To be supplied by the County (three digits), this is the number assigned by Central Document Control for all active projects.
2. Project Name
 - a. The description of the project that should include the location and the active work being performed (to be supplied by the County).
3. File Code Search Class (FCSC)
 - a. The FCSC identifies the search class by specifying the general category and/or subcategory where the document will be filed and later retrieved.
 - b. At NTP, the County will supply the Contractor an updated FCSC document.
4. Contract Number
 - a. At NTP, the County will supply the Contractor the Contract Number
5. Description
 - a. The description identifies the subject of the document.
 - b. Limit 50 Characters

Sample Name:

IRP022.Orange Line Phase I MIC-EH Connector.CT7.CAD Invoice 5. IRP022CT2-TR07.doc

8.4.4 Asset Tracking

- A. The Contractor shall provide Transit with a list of all components utilized in this implementation. All equipment provided as part of the Solution shall be tracked. The hardware information shall include the following:
 1. Serial number
 2. Model number
 3. Part number



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4. Description
 5. Unit Price
- B. Such information shall be prepared in a data file (Microsoft Excel / Access format) and provided to Transit two weeks before scheduled delivery date.
 - C. Transit will prepare barcode labels based on the data file provided by the Contractor and ship the barcode labels to the Contractor.
 - D. The Contractor shall be responsible for affixing the labels to the hardware before shipping to or during installation at Transit.
 - E. The Contractor shall provide Transit with a daily list of installed components in the same aforementioned data file format by noon the next calendar day after installation.

8.5. Reporting Requirements

1. The Contractor shall provide all reports listed in Section 9 Available Reports. All reports supplied by the Contractor shall be available and have the ability to be modified by Transit.
2. Reporting shall be implemented to ensure when large number of users are performing ad hoc retrieval from the stored information, the System performance shall not be adversely affected.
3. All reports provided shall support user-specified parameters that constrain the report content to specific date/time periods, service, vehicle types, etc. Report parameters shall have pre-configured defaults that are used to generate the report. All parameters shall be printed with the report on a report cover page, or equivalent.
4. A report dictionary and schema describing the reports provided by the Contractor shall be provided for reports customizations.
5. The Contractor's System shall facilitate current and future reports as required. In addition the System shall facilitate dashboard reporting.

8.6. Infrastructure and Hardware Requirements

8.6.1 Network Requirements (Intentionally Omitted)



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8.6.2 Hardware Requirements

A. General Hardware Requirements

The Contractor shall be responsible adequately calculating and sizing hardware to ensure all hardware requirements are met. The Contractor shall:

1. Provide all hardware, listed in Exhibit 8 Price Schedule - System Hardware and Software List.
2. Provide hardware compatible with the County's current minimum standard infrastructure which is listed as follows:

Workstation Hardware	Quantity
HP Z220 Workstation	32
Intel® Core™ Processor i7-3770/ 3.48 MHT, 4 MB cache, 1333 MHz memory, Quad Core	
Convertible Minitower	
HP ENERGY STAR® 5.0 Enabled Configuration	
Intel® HD Graphics 4000	
Dual Monitor Adapter	
8GB (2x4GB) DDR3-1600 nECC Unbuffered	
128GB SSD SATA 6 Gb/s Hard Drive	
16X DVD+/- RW DL SuperMulti	
HP USB Standard Keyboard	
HP USB Optical Scroll Mouse	
Includes 3 years parts, 3 years labor, and 3 years onsite service (3/3/3) standard warranty.	
HP LCD Speaker Bar	32
HP 2711x 27" LED Monitor	64
Software Utilities (B3, v)	
Symantec Endpoint Protection v.12.1 w/1yr Essential Support, Govt.level A	32
Corel WinZip 16 Standard Volume level B (10+)	32



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B. VLU Test/Data Recovery Workstations

The selected Proposer shall provide:

1. Licensing for VLU Upload/Test/Repair stations.
2. Hardware and/or peripherals required to connect the workstation to the VLU. The VLU shall have connectivity to the workstation.

The VLU Test/Data Recovery workstations shall, at a minimum:

1. Be capable of connecting to VLU to retrieve data and test equipment.
2. Be able to upload data from the VLU.
3. Allow for the VLU to generate vehicle alarms through the OpenSky system for testing and troubleshooting.

8.6.3 Power Requirements

The Contractor shall provide new power or retro-fit existing power at the garages and maintenance facilities to accommodate the necessary System equipment. The Contractor shall be responsible for identifying any electrical equipment necessary to utilize existing voltages. If existing power arrangements are unsatisfactory, the Contractor shall propose and perform modifications. All such modifications shall be subject to approval by Transit prior to commencement of modifications. Equipment provided shall be able to function properly in this environment. System equipment provided shall be able to continue to function properly during power disruptions. All System equipment to be installed at SPCC and ICFB shall operate on County-furnished 208V, 3 phase 24AMP AC circuits.

A. Metrobus

The onboard equipment installed on buses shall operate with:

- Primary voltage of +12 volts DC or +24 volts DC nominal;
- Operation from +10 to +18 volts DC for nominal +12 volt DC systems;
- Operation from +20 to +36 volts DC for nominal +24 volt DC systems.

The Contractor shall be responsible for providing DC connection for the onboard equipment.

B. Metrorail

The Contractor shall utilize the 37.5 VDC power supply source for the operation of the Communication System. It is the Contractor's responsibility to provide the necessary vehicle equipment to operate the equipment proposed including what is required to utilize the existing Radio and GPS Systems.



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C. Metromover

The Contractor shall utilize the Vehicle 24 VDC and 110 VAC onboard power supply sources for the operation of the Communication System. All equipment shall be designed, constructed, and installed to allow easy as possible access for removal and maintenance, based upon the existing People Mover.

8.6.4 ADA Compliant Solar Powered Electronic Signs

- A.** The Contractor shall provide and install solar LED route status Dynamic Message Signs (DMS) at fifty locations to meet the ADA Compliant Solar Powered Electronic Signs requirements for the County. These Dynamic Message Signs (DMS) will deliver real-time passenger information to the riding public. The DMS will utilize a cellular data modem to retrieve real-time customer information and will be powered using solar power with a battery system.

The solar sign that will be provided has the following benefits:

- Environmentally friendly
- ADA Compliant
- No disruption to ridership
- Instant installation (no electric power dependency)
- No utility bills
- High reliability
- Long-life LEDs
- Vandal resistant
- Designed for extreme weather conditions

- B.** The DMS provided will be housed in ruggedized enclosures providing protection during severe weather events such as hurricanes, and other rain and wind events. These “environmentally green” DMS will be installed on custom fabricated ground-mounted pole structures and will allow the public to have access to up to date real-time passenger information. Additionally, the Contractor solution shall meet or exceed the ADA requirements for DMS.

The solar sign features include:

- Clever Devices talking sign controller (with text-to-speech engine)
- Audio speakers
- Solar panels
- Batteries mounted in an above ground enclosure
- Solar panel / battery controller
- Mounting post
- Display and solar panel fixing brackets
- Wireless Modem



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- Rugged push button activation
- Controller offering 24/7 operation
- Minimum 10 days battery back-up capacity

The sign is an on demand operation as such, will display the passenger information when the on demand button is pushed.

The solar signs would have the ability for remote configuration and have the capability to enter a configurable "stand-by" or "sleep mode" mode during off hours. The following is an example of the sign to be provided to Miami-Dade County.

Staffing to support sign maintenance will be accomplished by one of the two on-site maintenance technicians during the warranty period.

The proposed new electronic signs meet the following specifications as noted below:

1. Be vandal, UV and water resistant.
2. Have the ability for remote configuration and have the capability to enter a configurable "stand-by" mode during off hours.
3. Include and house in a single enclosure with the following:
 - a. Data modems also powered by the solar power source.
 - b. Speakers capable of producing a sound output of no less than 65db.
4. Be able to withstand winds of 120 mph and gusts up to 144 mph.
5. UL listed category UL 1480
6. IEC IP Code IP-64
7. Operating temperature: -4°F to 131°F
8. Fire-Resistant, ABS Resin, Polyurethane Resin -The body is fire resistant aluminum & steel, the Lexan is a flame resistant transparent polycarbonate with good flammability performance, the paint choice for MDT's signs will be fire resistant
9. Not use strobe/blinking effects.
10. Minimum clearance eighty (80) inches from floor.
11. Visual and audible requirements will meet or exceed all ADA regulations as required by the RFP.
12. Comply with all state and local building codes

C. Power Budget & Management

Power consumption for sign components with 10% duty cycle:

Total = 243.55 + 10% = 268 Wh/day

Solar Sign System Parameters

Parameter	Value	Comments
PV panel	2 x 65Wp	12V (nom) parallel connection
Battery	2 x 80Ah	Useable capacity = 70%
PV panel tilt	45° S	Optimum angle for a fixed, all-season PV panel in Miami
System load/day	268Wh	For sign components: LED/controller, audio, CPU, modem
Panel Wh/day	335Wh	Allowing for system losses, figure is 20% higher than the Wh/day power consumption of sign



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Battery backup duration	5.6 days	The battery will auto disconnect at 30% SoC, leaving a useable capacity of 1530Wh
Daily battery discharge %	14% (av)	268Wh/1920 x 100. (total battery capacity)
Battery lifetime	6 - 8 years	Depth of discharge (15% - 20%)



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The solar panels and batteries are interfaced to the display via a Solar Charge Controller. The controller is an autonomous control element which takes care of solar panel regulation, battery charging management and low volt dropout and over voltage battery protection.

D. Battery Monitoring

Two power monitoring functions are available to the sign host controller; voltage threshold level triggers and battery voltage.

The off-line battery power source has been designed to satisfy the following conditions:

- 24/7 year-round operation
- 5 day battery backup
- Minimal visual impact

E. DMS Physical Attribute

Battery capacity will be based on different levels of reserve power backup: A minimum of 10 day power back up is provided with the proposed sign.

The DMS will operate in temperatures ranging from -4°F to 131°F (equates to -20C to +55C). A cold start heater inside the sign will facilitate operation at low temperature and the increased solar panel and battery backup capacity requirements have been factored into the power budget. Cooling fans inside the sign will be necessary to accommodate the high temperature requirements, further increasing the power draw and associated Solar panel capacity and battery capacity.

Although the metal sign enclosure material we have proposed has fire resistant characteristics, an injection molded polyurethane resin will be retro-fitted over the metal enclosure by our manufacturer to satisfy the County's requirement.

Visual and audible requirements meet or exceed all ADA regulations. The sign that will be provided is full matrix display which provides flexibility in the display area layout. Character height between 5/8" and 3" will be utilized and the Contractor will work with the County to finalized detailed sign layouts per Miami's requirements. Character spacing will be between 10-15% of character height once finalized. An anti-glare finish will be utilized as well.

The signs will display the respective estimated arrival for the next bus(es) for each route that services the location. The signs are configurable to display arrival times for vehicles on the route. When predictions are not available for a given bus the default information displayed will be static schedule arrival time.

The signs comply with the National Transportation Communications for ITS Protocol (NTCIP) - Dynamic Message Signs 1203 Standard. Signs will have the ability for remote configuration and have the capability to enter a configurable "stand-by" mode during off hours.

F. Power Conservation



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In order to conserve battery, the sign will be set up to only operate when the on-demand push button is pressed. When the push button is pressed the following would occur:

- The sign display will show route and ETA information on the ETA "lines" allotted on the sign. The scrolling message line will scroll one or more service bulletins in effect for this stop.
- The sign will announce audio matching the ETA information and scrolling service bulletins displayed by the sign.
- On button press, the sign will function until available information has been completely displayed and announced. To conserve battery power, an administrator will have the option to set a minimum and maximum broadcast period. The default minimum broadcast period is 30 seconds. The default maximum broadcast period is 3 minutes. If this max broadcast period is reached, any audio being played will stop and the display will blank (awaiting another button press). Both attributes will be configurable on a global basis.
- On button press, the sign will display information and begin audio within one second.

G. Operational States

The Solar Sign will operate in one of three states:

- Sleep - This is the sign's low power consumption state. While in this state, the sign will not respond to a button press. Information will not be displayed on the sign nor will any audio announcements be made.
- Active/Waiting - In this state, the sign is waiting for a button press from an end-user. While in this state no information will be displayed on the sign nor will any audio announcements be made.
- Active/Broadcasting - In this state, the sign is displaying ETA and service bulletin information and playing accompanying audio. While in this state, the sign will not respond to a button press from an end-user.

H. The signs shall display the respective estimated arrival for the next bus for each route that services the location. The signs shall be configurable to display arrival estimation for the next two vehicles on route. The visual estimated arrival time of buses shall be in equal configurable audible text to speech format.

I. The signs shall comply with the National Transportation Communications for ITS Protocol (NTCIP) – Dynamic Message Signs 1203 Standard, found at <http://www.ntcip.org>.

J. The Contractors shall perform onsite first line response and maintenance of all electronic signs through the expiration of the warranty period.

1. Comply with all state and local building codes



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K. Visual and audible requirements shall meet or exceed all ADA regulations as required below:

DOT ADA Accessibility Guidelines – Visual Signs

703.3 Signs are required to provide tactile/visual information that shall be duplicated in Braille complying with 703.5.

703.2.1 Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

Advisory 703.4.1

Signs are more legible for persons with low vision when characters contrast with their background by approximately 70 percent.

Contrast in percent can be determined by: $\text{contrast} = [(B1-B2)/B1] \times 100$ where B1=light reflectance value (LRV) of the lighter area and B2=light reflectance value (LRV) of the darker area.

Note: in any application both white and black are never absolute; thus B1 never equals 100 and B2 is always greater than zero.

703.2.2 Tactile Characters. Tactile characters shall be raised 1/32 inch (0.8 mm) minimum above their background.

703.2.3.1 Characters shall be uppercase.

703.2.3.2 Style. Characters shall be sans serif. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.2.3.3 Character width shall be 55% percent minimum and 110% percent maximum the height of the character with the width based on the uppercase letter "O" and the height based on the uppercase letter "I".

703.2.3.4 Character height measured vertically from the baseline of the character shall be 5/8" inch minimum and 2" inches maximum based on the uppercase letter "I".

703.2.3.5 For characters with rectangular cross sections, the stroke thickness of the uppercase letter "I" shall be 10% percent minimum and 15% percent maximum of the height of the character. For characters with other cross sections, the stroke thickness of the uppercase letter "I" shall be 10% percent minimum and 30% percent maximum of the height of the character measured at the base of the cross section. Stroke thickness at the top of the cross section shall be 15 percent maximum of the height of the character.

703.2.4 Character spacing shall be measured between the two closest points of adjacent characters within a message, excluding word spaces. Where characters have rectangular cross sections, spacing between individual characters shall be 1/8" inch minimum to 3/8" inch maximum. Where characters have other cross sections, spacing between individual characters shall be 1/16" inch minimum to 3/8" inch



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maximum at the base of the cross sections and 1/8" inch to 3/8" inch maximum at the top of the cross sections.

703.2.5 Spacing between the baselines of separate lines of characters in a sentence or paragraph shall be 135% percent minimum and 170% percent maximum of the character height.

703.2.6 Characters shall be located 48" inches minimum and 60" inches maximum above the adjacent floor or ground surface measured from the baseline of the characters.

216.3 Directional and Informational Signs. Signs that provide direction to or information about interior spaces and facilities of the site shall have accessible visual characters.

703.5.1 Accessible Visual Characters - Finish and Contrast. Characters and their background shall have a non-glare finish. Characters shall contrast with their background with either light characters on a dark background or dark characters on a light background.

Advisory 703.5.1 Finish and Contrast. Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and its background colors and textures.

703.5.2 Case. Characters shall be uppercase or lowercase or a combination of both.

703.5.3 Style. Characters shall be conventional in form. Characters shall not be italic, oblique, script, highly decorative, or of other unusual forms.

703.5.4 Character Proportions. Characters shall be selected from fonts where the width of the uppercase letter "O" is 55 percent minimum and 110 percent maximum of the height of the uppercase letter "I".

703.5.5 Character Height. Minimum character height shall comply with Table 703.5.5. Viewing distance shall be measured as the horizontal distance between the character and an obstruction preventing further approach towards the sign. Character height shall be based on the uppercase letter "I".

Table 703.5.5 Visual Character Height

Height to Finish Floor or Ground From Baseline of Character	Viewing Distance	Horizontal Minimum Character Height
40 inches to less than or equal to 70 inches.	less than 72 inches	5/8 inch
	72 inches and greater	5/8 inch, plus 1/8 inch per foot of viewing distance above 72 inches
Greater than 70 inches to less than or equal to 120 inches	less than 180 inches	2 inches
	180 inches and greater	2 inches, plus 1/8 inch per foot of viewing distance above 180 inches



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greater than 120 inches	less than 21 feet	3 inches
	21 feet and greater	3 inches, plus 1/8 inch per foot of viewing distance above 21 feet

703.5.6 Height From Finish Floor or Ground. Visual *characters* shall be 40 inches minimum above the finish floor or ground.

703.5.7 Stroke Thickness. Stroke thickness of the uppercase letter "I" shall be 10 percent minimum and 30 percent maximum of the height of the *character*.

703.5.8 Character Spacing. *Character* spacing shall be measured between the two closest points of adjacent *characters*, excluding word *spaces*. Spacing between individual *characters* shall be 10 percent minimum and 35 percent maximum of *character* height.

703.5.9 Line Spacing. Spacing between the baselines of separate lines of *characters* within a message shall be 135 percent minimum and 170 percent maximum of the *character* height.

703.6.2 Finish and Contrast. *Pictograms* and their field shall have a non-glare finish. *Pictograms* shall contrast with their field with either a light *pictogram* on a dark field or a dark *pictogram* on a light field.

Advisory 703.6.2 Finish and Contrast. Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and background colors and textures.

703.6.3 Text Descriptors. *Pictograms* shall have text descriptors located directly below the *pictogram* field. Text descriptors shall comply with 703.2, 703.3 and 703.4.

703.7 Symbols of Accessibility. Symbols of *accessibility* shall comply with 703.7.

703.7.1 Finish and Contrast. Symbols of *accessibility* and their background shall have a non-glare finish. Symbols of *accessibility* shall contrast with their background with either a light symbol on a dark background or a dark symbol on a light background.

Advisory 703.7.1 Finish and Contrast. Signs are more legible for persons with low vision when characters contrast as much as possible with their background. Additional factors affecting the ease with which the text can be distinguished from its background include shadows cast by lighting sources, surface glare, and the uniformity of the text and background colors and textures.

703.7.2 Symbols.

703.7.2.1 International Symbol of Accessibility. The International Symbol of *Accessibility* shall comply with Figure 703.7.2.1.



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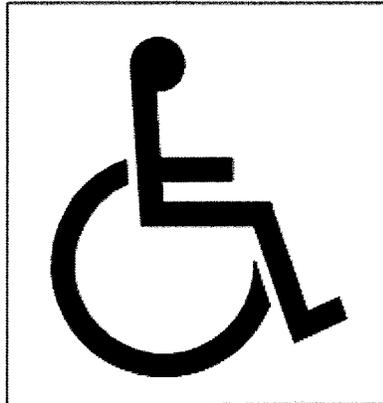


Figure 703.7.2.1
International Symbol of Accessibility

703.7.2.2 International Symbol of TTY. The International Symbol of TTY shall comply with Figure 703.7.2.2.

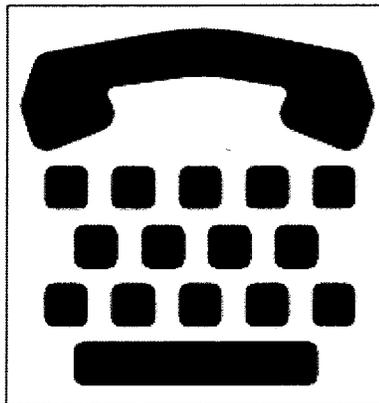


Figure 703.7.2.2
International Symbol of TTY

216.6 Entrances. Where not all *entrances are accessible*, the accessible entrance shall be identified by the International Symbol of *Accessibility*. Directional accessible visual signs that indicate the location of the nearest *entrance* shall be provided at inaccessible *entrances*.

Advisory 216.6 Entrances. Where a directional sign is required, it should be located to minimize backtracking. In some cases, this could mean locating a sign at the beginning of a route, not just at the inaccessible entrances to a building.

810.6.2 Routes and Destinations. Lists of stations, routes and destinations served by the station which are located on boarding areas, platforms, or *mezzanines* shall have accessible visual characters.



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EXCEPTION: Where accessible visual sign *space* is limited, characters shall not be required to exceed 3 inches (75 mm).

Advisory 810.6.2 Routes and Destinations. Route maps are not required to comply with the informational sign requirements in this document.

Advisory 810.6.3 Station Names. It is also important to place accessible visual signs at intervals in the station where passengers in the vehicle will be able to see a sign when the vehicle is either stopped at the station or about to come to a stop in the station. The number of signs necessary may be directly related to the size of the lettering displayed on the sign.

COLOR Contrast

Contrast is the degree of difference between the lightest and darkest part of an object. Percent contrast is calculated using the following formula:

$$\text{Contrast} = 100 \times (R_{\text{max}} - R_{\text{min}}) / R_{\text{max}}$$

Where: R_{max} is the light reflectance value of the lighter area.

R_{min} is the light reflectance value of the darker area.

The higher the percentage contrast the more legible the sign. The minimum acceptable percent contrast is 70. It should be noted that percent contrast can never equal 100 because the darker area, no matter how dark, will always reflect some light.

Commission on Disability Issues (CODI) approved the use of white characters in dark gray or dark blue colors. They provide a contrast color higher than 70% percent.

Mounting Heights for Visual Signs—

For overhead and "flagmounted" signs, the bottom of the sign shall be a minimum of 80 in. (2,030 mm) from the finished floor.

- Viewing angle is the angle between the level line of sight and the line of sight to the center of the sign message. A rule of thumb is not to exceed a 10-deg angle from the user's natural line of vision.

The eye level heights can be determined by averaging the eye levels for the 5th percentile of the U.S. adult female population with the eye level for the 95th percentile of the U.S. adult male population. In order to determine this eye height for the average U.S. adult, an antropometric model was used. Heights were measured in the standing position and in the sitting position to replicate a person sitting in a mobility device. The eye level height at a standing position for the average U.S. adult is 67 in. above the floor. The eye level height in a sitting position for the average U.S. adult is 50 in. above the floor.

These eye level heights should be taken into consideration when locating signs. The viewing angle and the clear height between the bottom of the sign board and the floor are factors that must also be considered.

Care must be taken to ensure that people who use wheelchairs and scooters can see the signs. Many people who have mobility impairments have a difficult time looking up at signs. The maximum viewing angle of 10 deg from the horizontal line of sight should be maintained. This means if a clear height of 80 in (2,032 mm) is to be maintained, a 12 in. x 12 in. overhead sign must be mounted at least 16 ft from the



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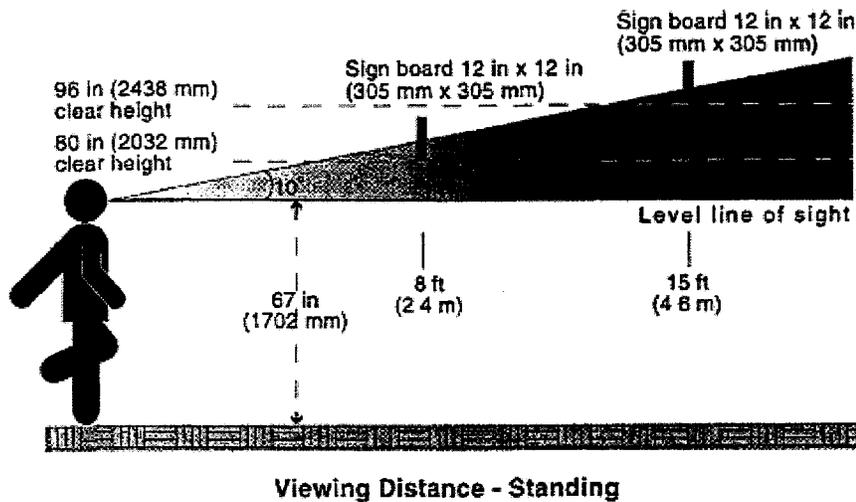
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seated viewer. If a 96-in. clear height must be maintained, the overhead 12 in. x 12 in. sign must be mounted at least 24 ft from the seated viewer.

Sketches in Figure 11 show how the viewing angle for a standing person and a person in a wheelchair can affect the clear height and viewing distance of overhead signs.

If a person is waiting for a bus and a 12 in. x 12 in. bus stop sign is mounted overhead so that there is an 80-inch clearance between the bottom of the sign and the ground, the sign should be positioned so that a person who is standing can move 8 ft away from the sign to view it. A person in a wheelchair must be able to move at least 16 ft from the sign to keep the sign within the 10-deg viewing angle. Once the viewing angle and viewing distance is determined, the size of the characters can be determined.

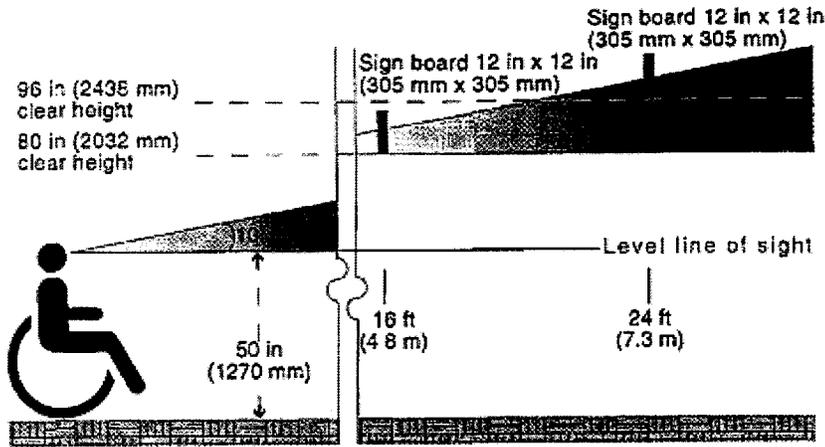
There is an upper and lower limit on character height. The upper limit provides guidance on signage that can be read by those who have visual impairments, the lower limit is for people who have normal sight. Table 3, "Character Height Guidelines," shows the recommended height of the characters for viewing distances between 10 ft and 100 ft.





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Viewing Distance - Wheelchair

Figure 11. Viewing angles for persons standing or sitting in wheelchairs.

Table 3 Character height guidelines

VIEWING DISTANCE (Feet)	CHARACTER HEIGHT (Uppercase "I")	
	Normal Sight (Inches)	Low Vision (Inches)
10	3/8	5/8
15	1/2	3/5
20	5/8	7/8

Transportation Research Board/Federal Transit Administration (TRB/FTA) Guidelines for Transit Facility Signing and Graphics.



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8.6.5 Driver Behavior Module

- A. The Contractor shall provide a configurable driver behavioral module that will enhance safety, improve driving performance and behavior. This module shall, at a minimum, include:
- B. Real-time remote monitoring of sudden changes in direction, excessive acceleration, braking, etc.
- C. Send alarms associated with aggressive driving habits to TC.
- D. Correlate schedules, drivers and fuel consumption in real-time. Individualized tracking and trending of personnel, fuel consumption and driving behavior shall be logged for auditing and reporting purposes.
- E. Facilitate comprehensive dashboard reporting on trending of poor driving patterns and comparisons of drivers.

8.6.6 Bus Stop Inventory (BSI)

- A. In order to facilitate predictive arrivals, the Contractor shall perform a complete bus stop inventory and number all bus stops with decals. The decals shall be provided by the County and installation shall be performed by the Contractor and placed on existing metal panels or signs at all of the existing bus stops. The decals will be provided in organized batches by route and sequential stops. A master list of number to route and associated stop will be supplied by the County to assist in the proper placement of the decals. The Contractor shall complete the bus stop inventory and numbering before System Acceptance but it will not be required as part of any incremental milestone leading up to it.
- B. Bus Stop Amenities shall be added to the bus stop database by the Contractor when preparing the BSI database. The amenities shall be completed and added to the BSI prior to System Acceptance but it will not be required as part of any incremental milestone leading up to it.

8.6.7 Excessive Idling Monitoring

The System shall facilitate monitoring of excessive vehicle idling. The System shall assist Transit to reduce preventable idle time. The Idle Monitoring system shall identify 3 types of Idling:

Avoidable Idle Time: Opportunities for reduction in idle time

Total Idle Time: This is the total idle time

Unavoidable Idle Time: This is Total Idle Time minus Avoidable Idle Time

The Idle Monitoring system captures data and generates idling events as they occur based on the available vehicle network signals and in general monitors the information listed below.



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Transmission Shift:	Filters out conditions when bus is stopped at a light or during revenue service.
RPMs:	Engine rpm
Fuel Consumption:	Used for carbon counting and cost of fuel consumption;
Operator ID:	Associate idle problems to the operator for accountability and retraining;
Trip ID:	Allows correlation to revenue service, Block, Run, Work, Route, etc. to expose this information to Operations & Planning. (Green/Cap & Trade legislation);
Parking Brake Status:	Used to help determine idling status;
Stop ID:	This allows the system to associate the stop name for reporting;
Timestamp:	Date & Time of event
Latitude/Long/Heading:	Can be used to determine maintenance or operational activity.

Capability to provide reports will be provided with the system. The capability to identify precisely when, where, and how long idle conditions were occurring as well as identifying those systems that were operating simultaneously (HVAC, interior lighting) provides Miami-Dade County with the clear understanding of the duty cycle of the vehicle and what idling time can be avoided.



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8.6.8 Spare Parts Pool

A. The Contractor shall supply a spare parts pool as follows:

QTY	Description
37	IVN, TCH, TriBand Antenna & EA Switch (exclusive of harnesses and cables)
4	Spare Metrorail Power Source 1620-36-13-15
4	Spare Metrorail Power Source 1620-36-24-4
7	Spare TCH units/ TREQ-M4 for MetroRail
1	Electronic Solar Powered Sign Spare equipment

QTY	Description

8.6.9 Infotainment

A. The Contractor shall provide an Infotainment system pilot. The contractor shall provide; equipment for 10 buses with upgrades to the IVN® vehicle logic unit to support content management, LCD displays and associated harness adjustments, content media player software for 10 buses, central system content manager software to manage the infotainment content for a total of 10 buses, deployment of the system and validation of the system as working properly using the Contractor's test plans and procedures for this system. Professional services shall include support for setup the MDT display layout, playlists and content as well as set up the associated geo-fencing and triggers not to exceed 50 trigger points. Content will be provided by Transit. Documentation related to the pilot system will be provided external to the base project design documents. The Contractor will assist Transit in management of the system for 12 months after it is installed and verified to work in accordance with test procedures. The



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Contractor shall train Transit staff to support all hardware and software the Infotainment subsystem. Exhibit 10 provides detailed Infotainment scope.

8.7. System Design and Implementation

8.7.1 Design Review and Supporting Documentation

Design review meetings shall be held in which the Contractor conducts a presentation in accordance with a Transit- approved agenda. Development of the design review agenda and schedule shall take into consideration Transit specific requirements, so as to maximize the time available for the review as well as participation of appropriate staff. In its presentation, the Contractor shall address, at a minimum, design approaches, concepts, and design details. The agendas for the Design Reviews shall be submitted to Transit at least seven (7) calendar days prior to the Design Reviews. During these design review meetings, action items shall be identified and documented, with each action item assigned to an individual for disposition by a predetermined response date. All action items identified during the design reviews shall be submitted to the Transit Project Manager for approval two (2) calendar days after the meeting.

The Contractor shall submit drawings, documents, procedures, and data in accordance with Section 11 – Contract Agreement. The Contractor shall submit for review and approval, copies of all documents, data, assembly and installation drawings required to convey concept, design, dimensions, maintenance, operation, and overall assembly aspects and interfaces required as a part of these design reviews. Drawings shall be accompanied by material specifications, process specifications, and test data required for review and approval of the drawings, including detailed parts drawings.

Transit reserves the right to reject any document, without review, that is not in English and that is not readily understandable due to lack of proper grammar, spelling, sentence structure, or punctuation. Transit is under no obligation to expend extraordinary effort to interpret poorly written or translated documents.

Transit reserves the right to request additional drawings, documents, or data, or any combination of documents, drawings, or data to support the review process. This additional information requested by Transit shall be delivered within five (5) calendar days of request. All design review meetings shall be held at County offices.

The Contractor shall participate in the Preliminary Design Review (PDR) and Final Design Review (FDR).

The Contractor shall submit in hardcopy format an unbound original, complete design review submission package, in accordance with Section 8.7.2, fifteen (15) copies of the complete package, and ten (10) universal serial bus (USB) flash drive (thumb drive) of the complete package, for a total of twenty five (25) packages. All electronic copies of documents shall be in native AutoCAD, Word, Excel, or Visio formats and allow copy to clipboard permissions.



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8.7.2 Design Review Submittals and Deliverables

The Contractor shall provide the preliminary draft of the following fourteen (14) days before PDR. Final versions of the following shall be submitted for approval twenty-one (21) days after FDR.

A. Design Review Submittals

1. Implementation and Transition Plan

The implementation plan shall include all aspects of the CADAVLRP from Notice to Proceed (NTP) through the Final Acceptance Certificate. The first draft of the plan shall be submitted with the PDR package and the final plan shall be submitted for approval at the FDR (see PDR and FDR sections below). The Contractor shall clearly demonstrate an efficient and effective implementation and transition plan that minimizes impact to the current operations.

1. The implementation and transition plan shall include all facilities and subsystems.
2. The plan shall include details of tasks by garage and maintenance facilities. It shall provide, at a minimum, the following information for each phase:
 1. Site preparation for System hardware and software, electrical, etc.
 2. Schedule for the phased-in approach, including required tasks and activities.
 3. Descriptions and drawings of any intermediate or temporary configurations required, per phase, which differ from final configuration.
 4. Access to facilities with expected duration and hours.
 5. Transit support personnel.
 6. Transit operations impact or outages along with expected durations and contingency plans.

2. Equipment Removal Plan

The equipment removal plan shall include the process and steps of removing and packaging the existing items below separately:

- A. Vehicle Logical Units and associated components
- B. Transit Control Heads
- C. Orion EDACS 800 MHz Radios

The Contractor shall package removed equipment and provide a serialized inventory list, together with the equipment, one (1) business day after the equipment is removed, to Transit.



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3. Design Diagrams

The Contractor shall submit all design diagrams during PDR and FDR for the following:

A. Electrical Diagrams

B. Mechanical Diagrams

C. Network Security Diagrams

1. Accompanying Excel document with access control lists and firewall rule sets must be provided.
2. Diagrams must show interconnections between the separate networks and what ports are open closed in the diagram.

D. Block Diagrams

1. Block diagrams and WLAN RF coverage plot and floor plans shall be provided showing all major components at each of the following sites:
 - A. SPCC Data Center
 - B. SPCC Traffic Control Centers
 - C. Facility Site plan and equipment layout.
 - D. All Garage and maintenance facilities
2. Block diagrams and plan views of device locations showing all major components in each Metrobus, Metrorail and Metromover vehicle by type.

E. Network Diagrams

The Contractor shall provide both logical and physical network infrastructure diagrams of the System to show the following:

1. Interconnections between separate networks
2. Nodes within the System.
3. All new and existing equipment.

4. Estimated Data Bandwidth Report

The Contractor shall provide a report of the network bandwidth utilization by the System. The report shall indicate minimum, maximum, average and total (weekly, monthly and yearly) data bandwidth utilization in table format per:



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- A. Node
- B. Locations
- C. Device
- D. Mode
- E. Vehicle

The Contractor shall include the assumptions used to generate the information in the report.

5. Quality Assurance Plan (QAP)

The Contractor shall submit the QAP in accordance to Article 53 Quality Assurance.

6. Safety Certification Program Plan

The CAD/AVL System shall be Safety Certified by Transit in accordance with the Transit Safety Certification Program Plan in Section 9 Available Documents.

7. System Design Document (SDD)

The Contractor shall deliver a detailed system design document containing, at a minimum, the following:

- A. CAD/AVL System features, functions, commands, and reports.
- B. User Workstation configurations, control arrangements, and display screen images.
- C. MDT configurations, control arrangements, and display screen images.
- D. Detailed data flow diagrams for all major use case scenarios.
- E. Time synchronization mechanisms for all devices.

8. Field Equipment and Subsystem Acceptance test plan and procedures.

9. System Integration Test plan and procedures.

10. Factory Acceptance Test plan and procedures.

11. Data backup and recovery plan

12. Vehicle in a Box

Complete "vehicle in a box" simulating the Metrobus, Metrorail and Metromover vehicles and the System in live environment including, but not limited to:

- A. MDT
- B. VLU



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- C. Informational Signage
 - D. OpenSky Radio (to be provided by Transit)
 - E. Farebox (Metrobus only, to be provided by Transit)
 - F. Driver Control Unit (Metrobus only, to be provided by Transit)
 - G. Network communication equipment required to allow "vehicle in a box" to be self-contained.
 - H. Power inverters to supply required power to "vehicle in a box" via standard 120V AC, 15amp circuit.
13. Software Interface Plan
- The Contractor shall provide detailed design specifications on software interfaces as required in Section 8.4.
14. Description and illustrations of Bus Traffic Control Center workstations.
15. Training program plan, materials and equipment as required in Section 8.8.
16. Description and locations of power installations including bonding and grounding that will be performed in accordance to Section 8.6.3.
17. Reliability Matrix
- The Contractor shall provide documentation of the reliability in Mean Time between Failures (MTBF) of the equipment including description of their maintainability and life expectancy.

8.7.3 Preliminary Design Review (PDR)

- A. The PDR review shall be submitted to Transit as part of the PDR package. The PDR package shall consist of individual submittals for each subsystem or discrete sections of a combined submittal containing all subsystems. The PDR package shall be submitted in accordance with Exhibit 5 - Project Schedule.
- B. The PDR package shall be organized to include the following headings and information:
 - 1. Equipment List: The Contractor shall submit a table/list of manufacturer, model and part numbers for all proposed equipment and materials to be used for individual subsystems. The equipment list shall include all materials inclusive of those items that are not specified under the subsystem section, including but not limited to, conduit types and sizes, supporting devices, electrical boxes, miscellaneous materials and any associated peripherals. Include the expected lead-time for each item while identifying the ones with lead-times greater than 30 days. The list/table shall be grouped for each subsystem with functional descriptions of equipment or material included. Quantities and locations shall be included.



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2. Product Data Sheet: the Contractor shall submit product information sufficient enough to determine if the component meets the described specification.
3. Calculations: the Contractor's professional engineer shall seal all calculations with that individual's Florida Professional seal approved by the State of Florida as outlined in the subject subsystem.

8.7.4 Final Design Review

The Final Design Review (FDR) shall take place when the detailed design is completed. The FDR is to provide the final opportunity to review, revise, and agree on the details of the final system design. FDR submittals shall include finalized submittals of all required drawings, documents, and data agreed to at CDR.

The FDR meetings shall be held at County offices 14 (Fourteen) days after receipt of the Contractor's Final Design Review submittals. Development of the design review agenda and schedule shall take into consideration Transit's specific requirements, so as to maximize the time available for the review as well as participation of appropriate County staff.

In addition to those items from the CDR that are to be resubmitted in greater detail, Contractor submittals for Transit review and approval for the FDR are listed in Appendix 3. The FDR shall be deemed completed when the final System Design is agreed and a punchlist of outstanding issues is agreed upon.

1. An FDR package shall be one complete submittal sufficient to provide all the required details for overall system integration and operation. Design review requirements defined within the individual subsystem specification sections, shall be consolidated and submitted as a single package. The FDR package shall be submitted in accordance with Exhibit 5- Project Schedule.
2. The FDR submittal package shall not be submitted until Transit has approved all individual PDR submittals. The FDR Submittal Package shall be organized to include the following final design information:
3. Approved and updated versions of all previously submitted design review materials. Updated material shall represent complete design, final calculation; detailed product (component level) parts list, drawings, phasing and interface details required for construction. All the new and revised sections of the subsystem PDRs shall have a side revision bar (Track Changes) to reflect the changes. The previous information submitted in the PDRs shall be organized by subsystems.
4. Updated product submittals for all, materials and components for which product submittals were not previously submitted and approved.
5. Complete Drawing index.
6. Complete list of items to be serialized.
7. Complete cable identification and equipment labels.



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8. Complete wiring diagrams for all equipment to be installed, modified, upgraded, or interfaced to under the resultant contract.
9. Power panel schedule and distribution.

B. Installation Work Plan

1. The Contractor shall submit a complete installation work plan with detailed documentation and drawings no later than 90 days prior to the scheduled date of installation at each location where work is performed and for each subsystem.
2. Installation detailed documentation applicable to a subsystem shall not be submitted prior to approval of the FDR submittal.
3. The Installation Work Plan package shall be organized to include the following heading and information:
 - A. Scope and description of work
 - B. Pre-requisites
 - C. Tools
 - D. Key installation staff and their roles
 - E. Safety rules, regulations, procedures, and requirements
 - F. Permits, traffic plans, licenses, training (confined space) and certifications, etc.
 - G. Planned access dates and times for each location, Transit resources required for each location and Operational Impact
 - H. Daily Preparation and Clean-up Procedures
 - I. Storage / Staging Facilities
 - J. Installation procedures shall include each component (hardware and software) of a subsystem, including any software and configuration setting and changes.
 - K. Installation drawings:
 1. Corresponding subsystem design review drawings, with updates and details. Include detailed physical layout drawings with parts-list keyed to the layouts
 2. Cable and conduit schedules, showing exactly where each cable is to be installed. Include and identify raceways, cable trays, conduit, junction boxes, pull boxes, manholes, hand-holes and floor boxes by type, size, and number
 3. Cable and wiring connectors and terminal assignments



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4. Wiring diagrams (e.g. for patch panels, terminal blocks, power panel details, Main Distribution Frame, etc.)
5. Electrical power diagrams and panel and power strip schedules
6. Mounting, securing and installation details for all equipment and materials
7. For racks in which equipment will be installed, rack face elevations with all intra-rack and inter-rack wiring and cabling to be installed.
8. Power connections, panel schedules and grounding connections

C. Testing Plan

1. A Test Plan shall be submitted no later than 60 days after approval of the FDR, outlining the Contractor's overall testing strategy and schedule.
 - A. The test plan shall include individual subsystem testing plans.
 - B. At a minimum, the test plan shall cover the following testing activities:
 1. Factory Acceptance Testing
 2. Installation Testing
 3. Field Equipment and Subsystem Testing
 4. System Integration Testing
 - C. The test plan shall include a list all the required tests per subsystem that are to be performed in order to meet the requirements of the resultant contract. The Test Plan shall be organized to include:
 1. Type of test
 2. Tools and Test Equipment
 3. Pre-requisites
 4. Pass / fail criteria
 5. Personnel and / or laboratory requirements
 6. Required Cutover and Phasing
 7. Expected Impacts (outages, operational, environmental, traffic, revenue, etc) and recovery plan when required,
 8. Authority resources required



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9. Scheduled date and expected duration
 10. Additional comments/ notes
- D. The Contractor shall provide personnel, as specified herein, and as further required by Transit, throughout the testing phases to provide interface and coordination of all subcontractors.
- E. Test procedures shall be submitted no later than 60 days prior to the scheduled activity. All the required test procedure submittals shall be detailed, organized, consistent and include, but not be limited to the following heading and information:
1. Scope and Purpose: Clearly state the scope, case, and conditions the procedure tests.
 2. Pre-requisites: Describe test environment and the pre-requisites, including access, availability, and equipment configuration for each group of functions.
 3. Technical References
 4. Tools: List test equipment and tools, with calibration data for each item.
 5. Personnel: List test participants and roles.
 6. Procedure: Contain enumerated step-by-step procedures including regression test and pass fail criteria.
 7. Drawings: Detailed drawings depicting test setup including a list of equipment, parts and material used and tested.
 8. Test Data Form: The form will include space to record the tools with calibration date, environmental condition during the test (i.e. rainy, cloudy, temperature, etc.), test measurement, pass/fail criteria, space to record the pass/fail outcome, the signature of the test engineer and a test witness.
 9. Test Exception Form: The form shall be used to record the identifier of the defect report/problem report(s) generated as a result of faults/problems detected during the test. All the troubleshooting techniques and corrective actions shall be documented on this form.
2. Test Records and Reports
- A. All test records and reports shall be submitted within 3 calendar days of completion of the corresponding test.
- B. Test report submittals shall be organized to include the following headings and information:
1. Purpose/Introduction: Defines the scope of the submittal.



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2. Summary of the Test Results: Including measurements, results, problem areas, workarounds, troubleshooting, exceptions, etc.
3. Open Items: Identify any open items requiring resolution. Include the corrective action to resolve the open items.
4. Completed Test Records: Completed, signed, and dated test sheets, as well as a defect/problem report for each fault/problem found during the testing.

8.7.7 Implementation

- A. The Contractor and its subcontractors shall attend a Transit instructor led safety course at a Transit facility.
- B. Operation and Maintenance
 1. Operation and maintenance safety shall be the highest consideration in equipment and subsystem selection and installation.
 2. The location of installation for each equipment must receive prior approval from Transit.
- C. Continued Operation of the Transit's Existing System
 1. The Metrorail or Metromover System conducts revenue operations between the hours of 5:00 AM and midnight, seven days a week. The existing Communications and Central Control System is in use 24 hours per day, 7 days per week.
 2. During non-revenue hours, any disruption to the existing Communications and Traffic Control Centers shall be minimized.
 3. To the extent possible, no more than a single station shall be unavailable through the existing Communications and Traffic Control Centers at any point in time. No station shall become unavailable through the existing Communications and Central Control System without Transit approval.
 4. Track access time is limited and shall be coordinated and approved through the Transit's Change Review Board. Transit will provide the Contractor a basic work rules document to be followed for access and working procedures at Transit facilities.
 5. Transit requires bus service operations over the Transit service areas, 24 hours per day, 7 days per week without disruption.
 6. Installation, replacement, testing and modification of equipment or software during implementation of the new CAD/AVL System shall not disrupt continued operation of the Bus, Rail and Mover.
- D. Testing – General



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1. This subsection and the following subsections include basic requirements for testing activities. Where requirements for these activities are present elsewhere, the requirements specified in this Section should be augmented by those additional requirements.
 2. The Contractor shall:
 - A. Be fully responsible for the replacement of all equipment damaged as a result of the tests, and shall bear all associated costs.
 - B. Maintain comprehensive records of all tests.
 3. Transit reserves the right to:
 - A. Witness any and all tests and inspections required by these Specifications.
 - B. Inspect test records at any time.
 - C. Perform additional testing, beyond that specified herein, of any equipment or material at any time to determine conformance with the contract requirements. This additional testing by Transit is not to be considered as a replacement for any testing required of the Contractor or a manufacturer producing materials for the Contract.
- E. Installation Inspection
1. Installation inspection shall include inspection for:
 - A. Missing components and parts.
 - B. Correct serial numbers.
 - C. Damage to equipment.
 - D. All installed equipment shall undergo as a minimum, inspections for:
 - I. Conformance to standards, methods, and quality.
 - II. Correct location, positioning, mounting, orientation, and labeling.
 - III. Damage to equipment.
 - IV. Correct and secure external connections.
 - V. Correct and secure routing of cable and wires.
 - VI. Correct and secure internal connections.
 - VII. Proper grounding.
 - VIII. Verification of all configuration data and settings.



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IX. Correct labeling.

2. Inspections shall be conducted by both the Contractor and the Transit Project Manager's designee together. The Transit Project Manager's designee will approve or deny the corresponding Final Inspection forms at the time of inspection based on the findings.
3. Prior to testing, the final inspection form shall be submitted to the Transit Project Manager for approval.
4. The completed final inspection forms shall be submitted to the Transit Project Manager.

F. Mini Fleet Deployment

1. Prior to the completion of Systems Integration Testing the Contractor shall implement a two week mini fleet deployment consisting of 10 Buses (including TSP), one supervisory vehicle, one non-revenue vehicle, one Metromover Car and three Rail vehicles (married pairs). The mini fleet deployment must demonstrate the Contractor's solution is operational and all interfaces are functioning as specified herein. The Transit Project Manager must approve the success of the implementation. Before initiating additional vehicle installations the Contractor must receive written Acceptance of a successful implementation.

8.7.8 Factory Acceptance Testing (FAT)

- A. The Contractor shall notify Transit at least 21 days prior to each FAT so that Transit's representatives may be present. FAT shall be conducted for:
 1. All equipment provided for and installed under this Contract.
 2. All components installed, integrated, and operated as a subsystem.
- B. Factory testing for a subsystem shall occur only after approval of the FDR submittal and corresponding subsystem test procedures.
- C. Factory testing for a subsystem must be successfully completed prior to shipping any equipment for that subsystem to Transit.
- D. If the equipment for a location will be assembled at the factory, factory testing for that equipment shall be conducted after all the racks and other subassemblies are integrated and rack interconnections are in place.
- E. Minimum requirements for equipment testing in order to show proper operation of all aspects, behavior, and characteristics, minimum requirements for equipment testing include:
 1. Manufacturers Recommended Testing.
 2. Power-up Testing.



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3. Equipment burn-in of 72 hours, with concurrent operation of the equipment, for the full burn-in period.
 4. After burn-in, comprehensive functional testing, including testing of all controls and indicators.
 5. After burn-in, comprehensive diagnostic testing.
 6. After burn-in, comprehensive performance testing.
 7. After burn-in, comprehensive external interface testing, including verification of:
 - A. Electrical Interface.
 - B. Functional Interface.
 - C. Mechanical Interface.
- F. Minimum requirements for subsystem testing include:
1. Comprehensive Functional Testing.
 2. Comprehensive Performance Testing.
 3. Comprehensive External Interface Testing, including verification of:
 - A. Electrical Interface.
 - B. Functional Interface.
 - C. Mechanical Interface.
 - D. Rack-to-rack Interconnects.

8.7.9 Field Equipment and Subsystem Testing (FEST)

- A. The following types of equipment field tests shall be performed for all installed equipment. Additional field tests for each subsystem, listed in the respective subsystem sections, shall not be construed to limit or otherwise relieve the Contractor of the responsibility for performing comprehensive field testing of the following:
1. Basic operation of the equipment.
 2. Functional and performance testing.
 3. All external interfaces (mechanical, electrical, and functional).



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4. Operation in the presence of equipment and software failures.
 5. Operation in the presence of power failure and restart.
- B. Subsystem testing shall include:
1. Tests for proper local operation.
 2. A Test to confirm the installed equipment or subsystem meets performance requirements.
 3. Validation of all data used to configure or operate the subsystem.
 4. Bulk data transfer from the BackOffice Subsystem.

8.7.10 Systems Integration Testing (SIT)

- A. Upon turn-up, interface, and integration of all required individual subsystems required for interfacing to Transit systems the Contractor shall provide technical support for Transit's SIT. Technical support shall include qualified staff as well as tools, appliances, fixtures, expendable materials, supplies, and test equipment as needed to assist performing the SIT test or to develop and implement required corrective actions on the Contractor's elements.
- B. SIT shall include testing of all communication subsystems added to, modified, or integrated with as a result of work performed under the resultant contract.
1. SIT shall include and demonstrate:
 - A. Proper operation and reporting between CAD/AVL and all other Transit's systems interfaces listed herein.
 - B. Prior to the completion of SIT the Contractor shall implement a two week test pilot for 10 Buses (including TSP), one supervisory vehicle, one non-revenue vehicle, one Metromover Car and three Rail vehicles (married pairs). The pilot must demonstrate the Contractor's solution is operational and all interfaces are functioning as specified herein. The Transit Project Manager must approve the success of the pilot implementation. Before initiating additional vehicle installations the Contractor must receive written Acceptance of a successful pilot implementation.
 - C. Vehicle Import
 - D. Employee Import
 - E. Route And Schedule Import
 - F. Change In Assignments
 - G. Single Log-On
 - H. Radio Call



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- I. Route And Schedule Adherence
 - J. Data Messaging
 - K. Radio Call During Voice Fallback
 - L. Road Call
 - M. Turn By Turn Navigation
 - N. Failover Testing Of All Cluster and backup devices
 - O. CAD Administration Activities such as Startup/Shutdown, Etc)
 - P. AVL Playbacks
 - Q. Farebox Receiving GPS and operational as intended
 - R. Bulk Data Transfer
 - S. Destination Sign and Voice Annunciation operation
- C. "Complete Testing" shall be performed for all equipment that exhibited faults during the SIT. "Complete Testing" shall be testing that is equivalent to the field and functional testing performed on the equipment when first installed, per the specification requirements and approved test procedure, including submission of test results and test reports.

8.8. Training Requirements

The Contractor shall provide a program to educate, train, and teach Transit personnel in all details of the equipment and System that shall enable the personnel to operate, service, and maintain the equipment and System. Training shall include course development, providing instructors, supplying handouts, manuals, classroom aids, and all other items required to train the personnel. Hands-on classes shall be included in the training program. The final training classes and schedule shall be determined at FDR. Exhibit 7 provides detailed training requirements.

A total 4 weeks of refresher training shall be provided and will be planned as agreed upon with Transit over the three year warranty period.

8.8.1 General Requirements

The Contractor shall provide training that include, at a minimum, the quantities and types of training, including combination of train-the-trainer and direct training of personnel, as outlined in Appendix J.



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The training program shall include classroom training given by the Contractor and where necessary, field training. The Contractor shall provide a training plan, which includes a proposed schedule for all shifts, classes and outlines the number of hours required to complete the classes, with recommended class sizes.

A primary objective of the training program shall be to develop the capability for Transit to incorporate similar training under its own training program, utilizing a "train-the-trainer" concept subsequent to the initial training provided by the Contractor. Classroom presentations may be recorded by Transit for use as a training tool in subsequent training sessions.

The Contractor's training program shall include formal and informal instruction, models, manuals, and diagrams. All materials used in the programs, such as models, manuals, mockups, and drawings, shall be of durable construction and shall become the property of Transit. Training materials shall be updated as required during the course of instruction to conform to the latest version of hardware and software installed in the System.

The Contractor shall assume that the personnel do not have knowledge of any features of any equipment. However, the Contractor may assume that maintenance personnel have the basic skills pertinent to their crafts and that systems personnel have knowledge pertinent to their required function. Specialized training in commercial software used on the System shall be the responsibility of the Contractor to provide to the personnel. The training for the specialized commercial software shall not apply to the basic functionality of the operating system or the database software but shall apply only to those elements of the commercial software packages integrated into the System application software which the user interfaces with.

The Contractor shall provide all relevant training materials in original, unprotected software and video file formats, such as AutoCad, Flash, DIVX, Word, Visio and/or Excel, to allow Transit to easily create manuals and training materials for targeted audiences. The Contractor shall provide training syllabus, schedules, and manuals for the training program.

8.8.2 Transit-Furnished Training Related Items

Transit shall furnish the use of the following training related items for training as summarized in Appendix J:

A. Classroom and Practical Training Space

Space for classroom lectures and practical training on equipment shall be furnished by Transit. The location and class times will be set by Transit.

8.8.3 Contractor Furnished Training Related Items

The Contractor shall supply all materials and equipment, including any special tools or test fixtures, required for training not identified Section 8.8.2.



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A. Use of Actual Equipment as Training Aids

The Contractor may use actual equipment or spare parts for use as training aids and for demonstration of and practical exercises in adjusting, testing, disassembly, and assembly of equipment. However, the Contractor shall be responsible for ensuring that such parts are not damaged or modified in any way during training.

8.8.4 Training Program Plan

The Contractor shall submit a Training Program Plan in accordance Section 8. In addition, Transit shall have the right to request and receive instruction regarding the operations and maintenance of the System equipment from the Contractor at any time as part of the training process. A narrative description that documents the plan, format and training materials for training all personnel shall be finalized during Design Reviews. The description for each training program shall include the following:

- A.** Performance objectives that state the expected skills and knowledge to be conveyed to the personnel and the measures and standards to be applied.
- B.** The sequence of learning activities.
- C.** An outline of the course content.
- D.** Learning strategies to be used (e.g., classroom presentation, hands on practice, paper and pencil exercises, etc.)
- E.** Methods and criteria for evaluating performance, including an objective grading system to report progress of trainees during the training.
- F.** Resources required, such as equipment, space, etc.
- G.** Approximate hours and days required for training each personnel, including classroom and field training.

The training program plan shall also include the following;

A. Training Delivery Schedule

A schedule based on the number of hours of instruction for each training courses shall be developed. It shall include the title of the program, general description of program, intended audience, size of class, resources required, sequence and timing of classroom, type of course (classroom, field exercise, hands on, etc.), number of session for each course, estimated hours required for each course, and any other information that will facilitate planning for and delivery of the training programs.

B. "Train-the-Trainers"



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A plan for training personnel as trainers to deliver the training subsequent to the Contractor's involvement shall be included. It shall describe the Contractor's approach, resources and hours required, and any training aids that might be included or recommended.

8.8.5 Overall Training Program Schedule

Transit shall determine the schedule for training based on the course schedules developed by the Contractor, as required in Section 8.8. Training shall be scheduled in a manner to ensure that all required personnel are completely trained at the time equipment is put in service in their area of responsibility. However, training shall not be provided more than eight (8) weeks prior to the equipment being put in service. Scheduling of training classes shall be convenient and not be overlapping so personnel may attend all necessary classes.

8.8.6 Training Courses

The Contractor shall provide, at a minimum, the training courses in accordance to Appendix J:

A. Basic Training Course

The basic training course shall provide general knowledge of the System, such as devices functions, software features, etc., to the personnel. The basic training course shall include:

1. General familiarization of software features, devices by Mode and interfaces.
2. Overview locations, functions and operations of pertinent controls, indicators, and switches

B. 1st Level Maintenance Course

The 1st level maintenance course shall provide information necessary to allow routine servicing and knowledge of each type of devices including, but not limited to:

1. Setup and shutdown procedures as required for each device.
2. Procedures and techniques for troubleshooting in-service failures and for performing preventative maintenance, including general servicing and inspecting.
3. Instructions on power, wiring, connections, and radio communications
4. Procedures on device replacements.
5. Use of any special tools and software for diagnostics.

C. 2nd Level maintenance Course



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The 2nd level maintenance course shall provide adequate instruction for the in-shop repair and trouble diagnosis down to the Lowest Level Replaceable Unit wherever possible for each type of System devices. The 2nd level maintenance course shall instruct personnel in the proper use of the diagnostic and testing of equipment and the use of special tools.

D. System Administrator Course

The Contractor shall provide a course to familiarize personnel with the setup, operation and management of the System. The course shall be comprehensive and cover all functions of the System, including but not limited to:

1. Field device components and sub-systems monitoring.
2. Interpretation and querying of all status messages, alarms, events and indicators.
3. Device software configuration and downloading.
4. Remote control of device functions and operations.
5. System data and reporting.
6. System restarts and reboots
7. Security access level creation and password reset.
8. System troubleshooting procedures through enhanced logging.

E. Train-the-Trainer Course

The Contractor shall train personnel directly responsible for System operation and maintenance as well as personnel who will be training operations personnel. As an aid to these trainers, the training program plan shall include a plan for training Transit personnel to deliver the training subsequent to the Contractor's involvement.

8.8.7 Course Grading and Evaluation Program

The Contractor shall establish and utilize an objective grading system to report the progress of each personnel during a course. Grading shall be kept confidential and furnished only to supervisory personnel for Transit.

A. Written Tests & Performance Assessments

Instructors must give written and/or practical tests as a measuring device to determine knowledge transference. Tests shall use a multiple choice or short answer format, which shall be approved by Transit.



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The Contractor shall ensure that hands-on practical skills tests are utilized to demonstrate the transfer of operational and/or mechanical skills. Any practical test should be embedded into the training to complement the classroom material and provide the employee the opportunity to use the newly gained knowledge.

B. Scoring/Grading

Any safety-sensitive and/or mission critical test questions require a 100% correct response. All incorrect responses must be reviewed by the instructor and corrected by the trainee in their own handwriting.

C. Review/Acknowledgement

When administering written tests, the instructor must collect, grade, and return the test to the employee for review. For each incorrect response to a test item, the employee must circle (write in) and initial the correct response. Once the review is completed, the trainee must sign an acknowledgement statement (Appendix K - Sample Acknowledgement of Review Form). By signing, the trainee acknowledges that they have been given the opportunity to review their individual responses and clearly understand the correct response to any items marked incorrect.

When administering performance assessments or hands-on practical skills tests, the instructor must provide written documentation that includes observable behaviors to be evaluated, along with the required performance standard for each behavior. For each skill performed incorrectly, the instructor must explain or demonstrate the correct procedure. The trainee must also be provided an opportunity to perform the correct procedure. Once the review is completed, the employee must sign an acknowledgement statement (Appendix L - Sample Training Observation Checklist). By signing, the trainee acknowledges that they have been provided the opportunity to practice the skill and clearly understands the correct procedure for any skills performed incorrectly.

D. Course Evaluations

Upon completion of the course, the instructor shall have each trainee complete a written evaluation of the instructor, course content, and method of delivery.

8.8.8 Training Materials

The Contractor shall provide materials for all equipment, devices and software on the system to support each course in the training program, including instructor guides, training aids, student workbooks, System manuals, Vehicle Operator manuals, and maintenance manuals. All training materials shall become the property of Transit. The Contractor shall utilize block diagrams, exploded views, illustrated parts breakdowns, and schematic drawings to facilitate descriptions of assemblies and the relationships of devices and Subsystems.



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Training materials provided shall be written in clear and concise English and shall assume the reader has no more than a high school education.

A. Instructor Guides

The Contractor shall provide an instructor guide for each training course. The Contractor shall also provide detailed instructions for managing any on-the-job training. The guides shall include:

1. Course agendas
2. Course objectives
3. Procedures for managing training sessions
4. Resources and facilities required
5. Detailed lesson plans, including handwritten or outlined presentations and discussion guides
6. Training aids
7. Post-tests
8. Criteria and methodology for measuring performance in the classroom and in the field

B. Training Aids

The Contractor shall provide training aids, such as full size mockups, overhead transparencies, short condensed video demonstrations for each training class offered, Microsoft PowerPoint presentations, and any special tools required.

C. Student Workbooks

The Contractor shall provide a student workbook for each course to all personnel attending the course. The student workbook shall include course agenda, course objectives and summaries, course outlines, instructor's presentation and training aids, student notes, and any other necessary technical information that will facilitate the learning process. Materials, such as operational, maintenance and other technical manuals, may be provided to supplement the information provided in the student workbook. If such material is provided, appropriate cross-references shall be included in the student workbook.

The Contractor shall ensure that hard copies of all training materials are provided to all personnel attending the training courses. The final electronic copy of all training materials in formats, specified in Section 8.81, shall be provided to Transit at least thirty (30) days before the commencement of first training class



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8.8.9 System Manuals

- A.** All System and maintenance manuals shall be provided in original, unprotected software file formats, such as Word, Visio and/or Excel. Any revisions to the manuals shall resubmitted by the Contractor with revisions noted. Information gathered during acceptance testing and training shall be incorporated into the manuals for submittal of subsequent drafts and the final manual. The final version of all manuals shall be submitted thirty (30) days prior to Final Acceptance Certificate.
- B.** Revisions to draft and approved manuals shall be recorded on a control list in the front of each manual. The list shall be issued with each revision and shall show the date of each revision number and the page reference of the revisions.
- C.** Design, Format and Content of Manuals

All manuals shall be designed for continuous, long-term service and permit replacing pages. Manual covers shall be oil, water, and wear resistant. Contents shall be labeled and divided by sections. The format of the manuals shall be as follows:

- 1. All manuals printed by the Contractor shall be numbered on each page of the manual.
- 2. All measurements are to be presented in both Metric units.
- 3. All language on the drawings shall be in English.
- 4. Pages in the manuals shall be printed on both sides and sides of pages intentionally left blank shall be so noted.
- 5. The smallest font shall be Arial eleven.

D. Types of Manuals

1. Operation Instruction Manual

The operation instruction manual shall contain information needed to obtain an understanding of how to operate the System equipment. This manual is intended for use by operations and supervisory personnel. The following sections are examples:

- A.** General system familiarization material
- B.** Vehicle Operator Operation and Interface
- C.** Location, function, and operation of pertinent controls, indicators, and switches
- D.** Trouble symptoms, diagnostic methods, and procedures for isolating minor faults
- E.** Equipment restarts procedures.

2. Repair and Maintenance Manual



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The technician manual shall focus on guiding technicians in verifying the presence of a failure and performing and shall supplement the maintenance manuals provided by the manufacturers of the radio subsystem equipment to fulfill the requirements of this section. At a minimum, the manual shall include the following:

- A. A complete description of operation and function of the equipment.
- B. How to install and replace all devices.
- C. Procedures to troubleshoot in-service failures including a complete listing and explanation of error codes by the individual devices.
- D. Details for performing periodic preventive maintenance including when, where and how for each devices, including general servicing and inspecting.
- E. Information furnished in the Operation Instruction Manual and shall include basic schematic and block diagrams to provide fault diagnosis information appropriate for in-service maintenance.
- F. System Overview.
- G. Radio interface functional description.
- H. Description of the most common failures.
- I. System diagnostic procedures.
- J. Explanation of alarms, error codes and error messages.
- K. Logical procedures for isolating a problem to a specific replaceable device.
- L. How to replace a device and provide detailed procedures for the removal and replacement.
- M. Verification of correct operation of the repaired device and instructions for setting and verification of options, programming, and testing of the replaced unit and associated equipment to verify correct operation.
- N. Description of self-diagnostic features and system administrator reports.

3. User Manual

The user manual shall include a functional explanation and description of each application program and its use. This manual shall not be written as a programmers' document. Procedures shall be explained with how each step is performed, what parameters can be adjusted, and the effects obtained by varying each parameter, etc. All user guidance and error messages shall be described, along with the steps necessary for recovery from error and troubleshooting guidance.



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4. Third-party Manuals

The Contractor shall provide all software manuals for any third-party software included in the System.

5. Software GUI Manual

The Contractor shall provide manual for the use of the GUI. The Contractor shall provide a comprehensive manual on all aspects of operation, functionality and features of the System software, which include but not limited to: how to use the system, databases, software menus, scripts and other elements of the System software.

6. Reports Manual

The Contractor shall provide reports manual to assist Transit with the generation and manipulation of reports, including standard reports and reports available through the transactional database. The manual shall include, at a minimum, report title, reports parameters, sample output, assumptions (if any), report query, etc., for all standard reports provided by the Contractor.

7. Manufacturer Operation and Maintenance Manual

All manufacturer hardware operating guides, and manuals and commercial software manuals, tutorials shall be provided to Transit.

8. Pocket Guides

The Contractor shall provide pocket-size (when folded) guides that include simple, condensed instructions of Vehicle Operator onboard functions. The guide shall provide a clear and concise description of Vehicle Operator interaction with MDT and the System. At a minimum, the manual shall include the following topics:

- A. Illustrations of locations, functions and operations of pertinent controls, indicators, and switches of MDT.



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- B. Step-by-step instructions on performing functions on and operating the MDT, such as radio calls, sending and responding messages.
- C. Procedures for single logon and logoff in addition to manual overrides for each subsystem.
- D. "Frequently Asked Questions" guide for functional failures and problems with descriptions of the most common failures and explanation of error codes and error messages.

9. Database Administrator Manual

The Contractor shall provide a database administrator manual that encompasses a clear and organized description of all System databases. At a minimum, the manual shall contain the following information:

- A. Structure, interfaces, and functions of the System software and databases.
- B. Documentation for all real-time and historical databases, including the configuration, individual elements (files, records, fields, views, and tables), relationships, and security settings for each System database. The documentation shall include, but not be limited to, Entity-Relationship Diagrams (ERD) and a complete listing of the data dictionary for each database. Portions of the databases that were developed, modified, or enhanced specifically for Transit shall be identified.
- C. Monitoring and maintaining the System databases and changes.
- D. Tools and procedures for managing the database configurations.
- E. Procedures for diagnosing problems and repairing the databases.
- F. Database Cold and Warm Start procedures
- G. Database Warm Start procedures
- H. Database Shutdown procedures.
- I. Procedures for manual importing updated route and schedule databases.
- J. Maintaining and tuning the databases using database management tools.
- K. Procedures and management of data archives.

10. System Administrator Manual



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The Contractor shall provide a system administrator's manual that provides a clear, organized description of all of the System computers, the tools and procedures for managing their configuration, and for diagnosing their performance and problems. At a minimum, the manual shall contain the following information:

- A. Overview of the structure, organization, and functionality of the system software, application software, and databases.
- B. A detailed description of computer configurations and interfacing equipment at the control centers, mobile units, configuration of the System LAN/WAN logical and physical entities.
- C. Configuration and operation of System and all Subsystems, TC workstation, Bulk Data Transfer Server, MDTs, and the garage and maintenance facility WAN/LAN.
- D. Use of performance measurement and analysis tools.
- E. Reconfiguration of equipment upon failures.
- F. Failing over to backup servers and devices.
- G. Restoration of equipment and data after failures.
- H. Management of system access, security features, console function assignments, user accounts and passwords, and user privileges.
- I. Installing software updates provided by the Contractor and third-party software suppliers.
- J. Use of software configuration management and administration tools.
- K. A listing and functional description of software components for each computer.
- L. System and subsystem Cold Start Procedures.
- M. System and subsystem Warm Start Procedures.
- N. System and subsystem shutdown procedures.
- O. Overview and details of procedures and tools for installing and verifying new software and rolling back old software for the traffic control center workstations, Computer subsystem, bulk data transfer server, and onboard subsystems.
- P. Monitoring, analysis, and optimization of computer, LAN, and WAN performance.
- Q. List of the most common failures and recovery procedures.
- R. Equipment and operating system error messages and diagnostics, with remedial action for each.



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- S. Tools and procedures to troubleshoot equipment and software problems on all System equipment, including the LAN, WAN, and wireless LAN equipment.
- T. Procedures to manage and diagnose interfaces with connected systems.

11. Bulk Data Transfer Server Manual

The Contractor shall provide a manual for users of the bulk data transfer server. The manual shall provide a clear and concise description of the user interface for bulk data transfers. At a minimum, the manual shall include the following topics:

- A. System Overview.
- B. Garage/Maintenance facility description.
- C. Onboard subsystem overview.
- D. How the bulk data transfer functions are accessed.
- E. How to manage track uploads and downloads via the wireless LAN.
- F. Description of the most common failures.
- G. Explanation of error codes and error messages and remedial action.

12. Traffic Controller/Supervisor Manual

The Contractor shall provide a manual for Traffic Controllers and Supervisors for all Modes. The manual shall provide a clear and concise description of the user interface for all console functions provided, including radio calls, messaging, vehicle tracking, filtering, and schedule adherence functions. At a minimum, the manual shall include the following topics:

- A. Illustrations of locations, functions and operations of pertinent controls, indicators, and switches of TC workstation.
- B. Onboard subsystem overview.
- C. CAD subsystem description.
- D. How to initiate radio calls, send and receive text messages, locate vehicles on the map displays, respond to PRTT/RTT/EA, etc.
- E. How to create, modify, and save incidents.
- F. How to perform all bus fleet management functions provided at the TC consoles.
- G. Filter route/fleet/vehicle/Vehicle Operator and monitor schedule adherence



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13. Interface Manual

The Contractor shall provide an interface manual that clearly and concisely includes the following:

1. Interface Control Document
2. Maintaining interfaces with existing external systems.
3. Performing updates to the audio/visual next stop announcements, and the destination signs. Recording new messages, defining the triggering conditions for each message, and adding, deleting, modifying, and downloading the messages to the vehicles.
4. Description of data interfaces, tasking, considerations for timing, priorities, and resource use.
5. Description of the interfaces to connected systems described in Section 8.4.
6. Procedures to manage and diagnose interfaces with connected systems.

8.9. Options

All options listed in this section shall be exercised at the discretion of the County.

8.9.1 ADA Compliant Solar Powered Electronic Signs

- A. The Contractor shall provide additional powered-electronic signs at select transfer points and bus stops/shelters, as listed in Exhibit 8 Price Schedule - System Hardware and Software List.
- B. All additional electronic signs exercised through this option shall be in accordance with section 8.6.4.

8.9.2 Mobile Access Router/Gateway

- A. The Contractor shall provide Mobile Access Router/Gateway for bulk data transfer and multi-network routing for support of public Wi-Fi access, as listed in Exhibit 8 Price Schedule - System Hardware and Software List. Transit shall be responsible for any recurring cellular fees.
- B. The Mobile Access Router/Gateway shall be equal or better than the existing onboard InMotion oMG2000 Router.
- C. The Mobile Access Router/Gateway shall include the following characteristics:
 1. Small form factor, ultra-rugged design
 2. Built-in mobile access point Compliance with SAE J1455 (vibrations, shock, drop)



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3. Environmental electromagnetic interference /compatibility
4. Able to operate within the vehicle power range and restrictions
5. Operates in extreme conditions:
 - A. Operating temperature: up to 140°F
 - B. Operating humidity: 10 - 95%
6. Wide Area Network

WAN shall include:

 - A. Integrated compatibility with current wireless WAN standards: EVDO, GPRS, GPRS EDGE, UMTS, HSDPA, HSUPA.
 - B. IEEE 802.11 a/b/g/n (capable of simultaneous dual-band)
 - C. Compatibility with future standards 802.20 (LTE)
 - D. Express Card, Mini PCIe, MiniPCI and USB formats.
 - E. Multiple manageable WAN connections with roaming ability and low latency handoff.
 - F. IPsec Encryption (LAN to LAN or similar)
7. Local Area Network

LAN shall include:

 - A. DHCP Server (RFC 2131)
 - B. Serial port
 - C. Four (4) or more Ethernet ports
 - D. IEEE 802.11 b/g
 - E. WEP, WPA, WPA2, WPA2 Enterprise (802.11i)
 - F. Port blocking/forwarding
 - G. NAT, SPI Firewall
8. Physical Interfaces
 - A. Ethernet – RJ45 x 4 or more.
 - B. USB 2.0 x 2 or more
 - C. Serial – Full RS232
 - D. Expansion cards or customizable panels to accommodate additional connectors.
9. GPS Capable
 - A. Embedded multiple channel GPS receiver



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- B. NMEA and TAIP messaging
- C. Local and remote forwarding via TCP or UDP

10. Protocols

- A. HTTP, HTTPS, SMTP, POP, IMAP, FTP, PPP (RFC 2516), SSH, IP V.4/V.6
- B. Compatible with industry standard mobile routing protocols (including GRE)

11. Power Management

- A. Auto Power-Up on ignition sense
- B. Programmable shut-off delay (up to 2 hours)
- C. Input voltage monitoring with configurable auto-shutdown
- D. Temperature detection with auto-shutdown protection

D. Remote web management portal is also desired.

8.9.3 Intentionally omitted

Contractor

8.9.4 Digital Video Recorder (DVR) and Camera

The following is the standard for DVR and camera installations. The Contractor shall provide equal or better of the following:

- A. The CCTV Surveillance system shall be March Network with 5412 Mobile Digital Video Recorder, twelve (12) cameras (color, infrared, and 8/W), 30 days onboard video storage, and be capable of recording at up to 240 frames per second for all connected cameras or approved equal.
- B. Regulated 13.6 volts DC power shall be provided for the DVR system by the output of the dedicated electronics systems power supply.
- C. Tamperproof Torx screws shall be provided for all camera housings and access covers.
- D. Loom for the facing forward camera wires located below the destination sign compartment near the top of the windshield shall be provided.
- E. An impact sensor shall be provided. A system status indication shall be provided on the dashboard through the I/O controls multiplex (or approved equal) warning indicator LED display.
- F. The vehicle shall be equipped with 10 CCTV Kalatel cameras as follows:
 - 1. A low LUX camera mounted below the destination sign compartment near the top of the windshield, forward facing. The camera shall be a color camera with the capability to capture images in ambient lighting at night. If necessary, the camera may switch to black and white under very low lighting conditions. The field of view shall include the street in front of the vehicle, overhead traffic signal while stopped at an intersection and pedestrians on the sidewalk or at the curb approximately 8 feet in front of the vehicle. (4.0mm if practicable) The mounting shall be such as to prevent camera vibration, water intrusion, interference with the driver's visibility, and shall minimize color shift due to the tinting at the top of the windshield.



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A flexible rubber glare shield (hood) shall be provided on the camera. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. Plastic dome housing is not acceptable.

2. A color camera with infrared capability flush mounted in the panel above the Vehicle Operator facing the farebox and entry door. The camera shall be housed in an "angled down" box. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. The field of view shall wide angle (2.9mm if practicable) and include the Vehicle Operator, the farebox, and the entire entry door opening. The vestibule area shall be illuminated by an infrared emitter under low light conditions.
3. A color camera flush mounted in the panel above the front door facing the Vehicle Operator and farebox. The camera shall be housed in an "angled down" box. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. The field of view shall wide angle (2.9mm if practicable) and include the Vehicle Operator, Vehicle Operator compartment, and the farebox.
4. A color camera shall be flush mounted in the front destination sign compartment door facing rearward. The camera shall be housed in a shallow, waterproof box that will not interfere with the destination sign. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. The field of view shall include the entire length of the front vehicle body section interior and the articulated joint area (6.0mm if practicable).
5. A color camera shall be surface mounted on the centerline of the vehicle ceiling at the center of the vehicle. The camera shall be front facing. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. The field of view shall include the entire length of the front vehicle body section interior (4.0mm if practicable).
6. A color camera shall be surface mounted on the centerline of the vehicle ceiling at the center of the vehicle. The camera shall be rear facing. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. The field of view shall include the entire length of the front bus body section interior (4.0mm if practicable).
7. A color camera shall be surface mounted on the bus ceiling facing the rear door. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. The field of view shall wide angle (2.9mm if practicable) and include the entire rear door opening.
8. A color camera shall be surface mounted on the vehicle exterior over the Vehicle Operator's window near the roofline. The camera shall be facing rearward. The housing shall be waterproof and sealed from the exterior environment to prevent formation of condensation on the housing interior. The housing must be rugged to resist damage from tree limbs. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. The field of view shall include the entire length of the bus exterior and the traffic lane adjacent to the vehicle travel lane (6.0mm if practicable).
9. A color camera shall be surface mounted on the vehicle exterior over the front passenger door near the roofline. The camera shall be facing rearward. The housing shall be waterproof and sealed from the exterior environment to prevent formation of condensation on the



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housing interior. The housing must be rugged to resist damage from tree limbs. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. The field of view shall include the entire length of the vehicle exterior and the traffic lane adjacent to the vehicle travel lane (6.0mm if practicable).

10. A color camera shall be surface mounted on the vehicle exterior at the rear above the engine compartment. The camera shall be facing rearward. The housing shall be waterproof and sealed from the exterior environment to prevent formation of condensation on the housing interior. The housing window shall be glass or a material resistant to scratching, hazing, and cleaning chemicals. The field of view shall include the rear bumper and the ground behind the vehicle (2.9mm if practicable).
- G.** Cameras shall have sufficiently high resolution to allow recognition of faces and to read roadside signs. A complete description of the CCTV Surveillance system, including installation, shall be presented to the County for approval prior to production of the pilot bus or first production vehicle.

8.9.5 Tire Pressure Monitoring Module

The Contractor shall facilitate, install, configure, integrate and interface a Tire Pressure Monitoring Subsystem into the System. This module shall enable configurable thresholds for tire pressures on each respective Metrobus. This subsystem shall continuously monitor tire pressure and allow for configurable alarms when thresholds are exceeded. This subsystem shall interface with the existing MDT and shall notify the Vehicle Operator when thresholds are exceeded and unsafe conditions are detected. Tire pressure data shall be transmitted in real-time and logged by the VLU.

APPENDICES

Appendixes and Schedules

APPENDIX A DATA FILES

DATA TRANSFER TO CAD/AVL QUARTERLY LOAD

The first record on each file is

- control record
- header record
- followed by actual data

VEHICLES:



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```
TABLE-NAME PIC X(16) VALUE      "{table=Vehicles}".
FIELD1 PIC X(38) VALUE          "{attrname=divisionId}{attrtype=string}".
FIELD2 PIC X(36) VALUE          "{attrname=garageId}{attrtype=string}".
FIELD3 PIC X(33) VALUE          "{attrname=vehId}{attrtype=string}".
FIELD4 PIC X(35) VALUE          "{attrname=vehmake}{attrtype=string}".
FIELD5 PIC X(36) VALUE          "{attrname=vehmodel}{attrtype=string}".
FIELD6 PIC X(36) VALUE          "{attrname=vehfleet}{attrtype=string}".
FIELD7 PIC X(36) VALUE          "{attrname=vehyear}{attrtype=integer}".
FIELD8 PIC X(43) VALUE          "{attrname=vehserialnumber}{attrtype=string}".
FIELD9 PIC X(49) VALUE          "{attrname=depotrownumberdefault}{attrtype=string}".
FIELD10 PIC X(55) VALUE         "{attrname=depotpositionnumberdefault}{attrtype=string}~".
```

CALENDAR

```
TABLE-NAME          PIC X(16) VALUE      "{table=calendar}".
FIELD1              PIC X(37) VALUE      "{attrname=dayTypeId}{attrtype=string}".
FIELD2              PIC X(36) VALUE      "{attrname=schedule}{attrtype=string}".
FIELD3              PIC X(38) VALUE      "{attrname=divisionId}{attrtype=string}".
FIELD4              PIC X(41) VALUE      "{attrname=calendarDate}{attrtype=integer}".
FIELD5              PIC X(35) VALUE      "{attrname=holiday}{attrtype=yesno}~".
```

DAY TYPES

```
TABLE-NAME          PIC X(16) VALUE      "{table=DayTypes}".
FIELD1              PIC X(37) VALUE      "{attrname=dayTypeId}{attrtype=string}".
FIELD2              PIC X(39) VALUE      "{attrname=dayTypeDesc}{attrtype=string}".
FIELD3              PIC X(40) VALUE      "{attrname=dayOperated}{attrtype=string}~".
```

SCHEDULES

```
TABLE-NAME          PIC X(17) VALUE      "{table=Schedules}".
FIELD1              PIC X(38) VALUE      "{attrname=divisionId}{attrtype=string}".
FIELD2              PIC X(38) VALUE      "{attrname=scheduleId}{attrtype=string}".
FIELD3              PIC X(41) VALUE      "{attrname=scheduleDesc}{attrtype=string}~".
```

QUARTERLY DATA TRANSFER TO CAD/AVL – FILES LAYOUT (continued)

LINETIMEPOINTS

- 1 - DIRECTIN.TDT
- 2 - LOCATION.TDT
- 3 - SCHLINKS.TDT
- 4 - SCHLKLOC.TDT
- 5 - SCHPATTN.TDT
- 6 - SCHPATLK.TDT
- 7 - SCHROUTE.TDT

Direction:

```
DIR-TABLE-NAME      PIC X(18) VALUE      "{table=Directions}".
DIR-FIELD1          PIC X(38) VALUE      "{attrname=directionId}{attrtype=upper}".
DIR-FIELD2          PIC X(42) VALUE      "{attrname=directionDesc}{attrtype=string}~"
```

Locations

```
LOC-TABLE-NAME      PIC X(17) VALUE      "{table=locations}".
LOC-FIELD1          PIC X(37) VALUE      "{attrname=locationId}{attrtype=upper}".
LOC-FIELD2          PIC X(40) VALUE      "{attrname=locationDesc}{attrtype=string}".
LOC-FIELD3          PIC X(44) VALUE      "{attrname=locationAtStreet}{attrtype=string}".
LOC-FIELD4          PIC X(44) VALUE      "{attrname=locationOnStreet}{attrtype=string}".
```



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LOC-FIELD5 PIC X(41) VALUE "{attrname=locationXCoord}{attrtype=float}".
 LOC-FIELD6 PIC X(41) VALUE "{attrname=locationYCoord}{attrtype=float}".
 LOC-FIELD7 PIC X(42) VALUE "{attrname=locationZCoord}{attrtype=float}~".
 Schedule Links
 SLINK-TABLE-NAME PIC X(16) VALUE "{table=SchLinks}".
 SLINK-FIELD1 PIC X(37) VALUE "{attrname=divisionId}{attrtype=upper}".
 SLINK-FIELD2 PIC X(37) VALUE "{attrname=scheduleId}{attrtype=upper}".
 SLINK-FIELD3 PIC X(35) VALUE "{attrname=schLinkId}{attrtype=long}".
 SLINK-FIELD4 PIC X(40) VALUE "{attrname=schLinkIsLive}{attrtype=yesno}".
 SLINK-FIELD5 PIC X(42) VALUE "{attrname=schLinkDistance}{attrtype=float}".
 SLINK-FIELD6 PIC X(48) VALUE "{attrname=schLinkFirstLocation}{attrtype=string}".
 SLINK-FIELD7 PIC X(48) VALUE "{attrname=schLinkLastLocation}{attrtype=string}~".

Scheduled links locations

SLLOC-TABLE-NAME PIC X(24) VALUE "{table=SchLinkLocations}".
 SLLOC-FIELD1 PIC X(37) VALUE "{attrname=divisionId}{attrtype=upper}".
 SLLOC-FIELD2 PIC X(37) VALUE "{attrname=scheduleId}{attrtype=upper}".
 SLLOC-FIELD3 PIC X(35) VALUE "{attrname=schLinkId}{attrtype=long}".
 SLLOC-FIELD4 PIC X(37) VALUE "{attrname=locationId}{attrtype=upper}".
 SLLOC-FIELD5 PIC X(49) VALUE "{attrname=schLinkLocationOrder}{attrtype=integer}".
 SLLOC-FIELD6 PIC X(57) VALUE "{attrname=schLinkLocationDistanceToNext}{attrtype=float}~".

Schedule Patterns

SPAT-TABLE-NAME PIC X(19) VALUE "{table=SchPatterns}".
 SPAT-FIELD1 PIC X(38) VALUE "{attrname=directionId}{attrtype=upper}".
 SPAT-FIELD2 PIC X(37) VALUE "{attrname=divisionId}{attrtype=upper}".
 SPAT-FIELD3 PIC X(37) VALUE "{attrname=scheduleId}{attrtype=upper}".
 SPAT-FIELD4 PIC X(37) VALUE "{attrname=schRouteId}{attrtype=upper}".
 SPAT-FIELD5 PIC X(39) VALUE "{attrname=schPatternId}{attrtype=upper}".
 SPAT-FIELD6 PIC X(45) VALUE "{attrname=schPatternDistance}{attrtype=float}".
 SPAT-FIELD7 PIC X(54) VALUE "{attrname=schPatternAnchorLinkOrder}{attrtype=integer}".
 SPAT-FIELD8 PIC X(59) VALUE "{attrname=schPatternAnchorLocationOrder}{attrtype=integer}~".

Scheduled Patterns Links

SPLINK-TABLE-NAME PIC X(23) VALUE "{table=SchPatternLinks}".
 SPLINK-FIELD1 PIC X(37) VALUE "{attrname=divisionId}{attrtype=upper}".



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SPLINK-FIELD2 PIC X(37) VALUE
"{attrname=scheduleId}{attrtype=upper}".
SPLINK-FIELD3 PIC X(35) VALUE
"{attrname=schLinkId}{attrtype=long}".
SPLINK-FIELD4 PIC X(38) VALUE
"{attrname=directionId}{attrtype=upper}".
SPLINK-FIELD5 PIC X(38) VALUE
"{attrname=schRouteId}{attrtype=upper}".
SPLINK-FIELD6 PIC X(39) VALUE
"{attrname=schPatternId}{attrtype=upper}".
SPLINK-FIELD7 PIC X(48) VALUE
"{attrname=schPatternLinkId}{attrtype=integer}".
SPLINK-FIELD8 PIC X(43) VALUE
"{attrname=schPatternsLive}{attrtype=yesno}".
SPLINK-FIELD9 PIC X(47) VALUE
"{attrname=schPatternsRevenue}{attrtype=yesno}~".

Scheduled Routes

SROUTE-TABLE-NAME PIC X(17) VALUE
"{table=SchRoutes}".
SROUTE-FIELD1 PIC X(37) VALUE
"{attrname=divisionId}{attrtype=upper}".
SROUTE-FIELD2 PIC X(37) VALUE
"{attrname=scheduleId}{attrtype=upper}".
SROUTE-FIELD3 PIC X(37) VALUE
"{attrname=schRouteId}{attrtype=upper}".
SROUTE-FIELD4 PIC X(40) VALUE
"{attrname=schRouteDesc}{attrtype=string}".
SROUTE-FIELD5 PIC X(46) VALUE
"{attrname=schPatternIdPrimary}{attrtype=upper}".
SROUTE-FIELD6 PIC X(46) VALUE
"{attrname=directionIdPrimary}{attrtype=upper}~".



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QUARTERLY DATA TRANSFER TO CAD/AVL – FILES LAYOUT (continued)

Block Trips:

SCHBLOCK.TDT

SCHBLKEV.TDT

SCHTRIPS.TDT

SCHTRPEV.TDT

EVENTS.TDT

EVENTCLS.TDT

Scheduled Block Events

SCH-BLOCK-EVENTS-TABLE-NAME	PIC X(70) VALUE
"{table=SchBlockEvents}"	
SCH-BLOCK-EVENTS-FIELD1	PIC X(70) VALUE
"{attrname=divisionId}{attrtype=upper}"	
SCH-BLOCK-EVENTS-FIELD2	PIC X(70) VALUE
"{attrname=scheduleId}{attrtype=string}"	
SCH-BLOCK-EVENTS-FIELD3	PIC X(70) VALUE
"{attrname=dayTypeId}{attrtype=upper}"	
SCH-BLOCK-EVENTS-FIELD4	PIC X(70) VALUE
"{attrname=schBlockId}{attrtype=string}"	
SCH-BLOCK-EVENTS-FIELD5	PIC X(70) VALUE
"{attrname=eventId}{attrtype=long}"	
SCH-BLOCK-EVENTS-FIELD6	PIC X(70) VALUE
"{attrname=schBlockEventOrder}{attrtype=long}~"	

Scheduled Trips

SCH-TRIPS-TABLE-NAME	PIC X(70) VALUE
"{table=SchTrips}"	
SCH-TRIPS-FIELD1	PIC X(70) VALUE
"{attrname=directionId}{attrtype=upper}"	
SCH-TRIPS-FIELD2	PIC X(70) VALUE
"{attrname=divisionId}{attrtype=upper}"	
SCH-TRIPS-FIELD3	PIC X(70) VALUE
"{attrname=scheduleId}{attrtype=string}"	
SCH-TRIPS-FIELD4	PIC X(70) VALUE
"{attrname=schRouteId}{attrtype=string}"	
SCH-TRIPS-FIELD5	PIC X(70) VALUE
"{attrname=schPatternId}{attrtype=string}"	
SCH-TRIPS-FIELD6	PIC X(70) VALUE
"{attrname=dayTypeId}{attrtype=string}"	
SCH-TRIPS-FIELD7	PIC X(70) VALUE
"{attrname=schVisitAnchorAtTime}{attrtype=long}~"	

Scheduled Trip Events

SCH-TRIP-EVENTS-TABLE-NAME	PIC X(70) VALUE
"{table=SchTripEvents}"	
SCH-TRIP-EVENTS-FIELD1	PIC X(70) VALUE
"{attrname=directionId}{attrtype=upper}"	
SCH-TRIP-EVENTS-FIELD2	PIC X(70) VALUE



**Computer Aided Dispatch / Automated Vehicle Locator Replacement Project
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"{attrname=divisionId}{attrtype=upper}".
SCH-TRIP-EVENTS-FIELD3 PIC X(70) VALUE
"{attrname=scheduleId}{attrtype=string}".

QUARTERLY DATA TRANSFER TO CAD/AVL – FILES LAYOUT (continued)

SCH-TRIP-EVENTS-FIELD4 PIC X(70) VALUE
"{attrname=schRouteId}{attrtype=string}".
SCH-TRIP-EVENTS-FIELD5 PIC X(70) VALUE
"{attrname=schPatternId}{attrtype=string}".
SCH-TRIP-EVENTS-FIELD6 PIC X(70) VALUE
"{attrname=dayTypeId}{attrtype=string}".
SCH-TRIP-EVENTS-FIELD7 PIC X(70) VALUE
"{attrname=schVisitAnchorAtTime}{attrtype=long}".
SCH-TRIP-EVENTS-FIELD8 PIC X(70) VALUE
"{attrname=eventId}{attrtype=long}".
SCH-TRIP-EVENTS-FIELD9 PIC X(70) VALUE
"{attrname=schTripEventOrder}{attrtype=long}".
SCH-TRIP-EVENTS-FIELD10 PIC X(70) VALUE
"{attrname=schTripEventsReliefPoint}{attrtype=string}".
SCH-TRIP-EVENTS-FIELD11 PIC X(70) VALUE
"{attrname=schTripEventNextLinkisLive}{attrtype=string}".
SCH-TRIP-EVENTS-FIELD12 PIC X(70) VALUE
"{attrname=schTripEventsTiming}{attrtype=string}~".

Events

EVENTS-TABLE-NAME PIC X(70) VALUE
"{table=Events}".
EVENTS-FIELD1 PIC X(70) VALUE
"{attrname=locationId}{attrtype=upper}".
EVENTS-FIELD2 PIC X(70) VALUE
"{attrname=eventId}{attrtype=long}".
EVENTS-FIELD3 PIC X(70) VALUE
"{attrname=eventTime}{attrtype=long}~".

Events Classes

EVENT-CLASSES-TABLE-NAME PIC X(70) VALUE
"{table=eventClasses}".
EVENT-CLASSES-FIELD1 PIC X(70) VALUE
"{attrname=eventId}{attrtype=long}".
EVENT-CLASSES-FIELD2 PIC X(70) VALUE
"{attrname=eventClassCode}{attrtype=string}~".

Block Assignment

TABLE-NAME PIC X(19) VALUE
"{table=BlockAssign}".
FIELD1 PIC X(38) VALUE
"{attrname=divisionId}{attrtype=string}".
FIELD2 PIC X(38) VALUE
"{attrname=scheduleId}{attrtype=string}".
FIELD3 PIC X(37) VALUE



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```

FIELD4      "{attrname=dayTypeld}{attrtype=string}".
             PIC X(43) VALUE
             "{attrname=blockAssStartTime}{attrtype=long}".
FIELD5      PIC X(41) VALUE
             "{attrname=blockAssEndTime}{attrtype=long}".
FIELD6      PIC X(38) VALUE
             "{attrname=schRouteld}{attrtype=string}".
FIELD7      PIC X(38) VALUE
             "{attrname=schBlockld}{attrtype=string}".
FIELD8      PIC X(37) VALUE
             "{attrname=schDutyld}{attrtype=string}".
FIELD9      PIC X(36) VALUE
             "{attrname=pieceld}{attrtype=string}~".

```

CAD/AVL Daily Load File Layout:

```

TABLE-NAME PIC X(17) VALUE      "{table=VehAssign}".
FIELD1 PIC X(33) VALUE          "{attrname=empld}{attrtype=string}".
FIELD2 PIC X(38) VALUE          "{attrname=divisionld}{attrtype=string}".
FIELD3 PIC X(38) VALUE          "{attrname=scheduleld}{attrtype=string}".
FIELD4 PIC X(33) VALUE          "{attrname=vehld}{attrtype=string}".
FIELD5 PIC X(37) VALUE          "{attrname=dayTypeld}{attrtype=string}".
FIELD6 PIC X(39) VALUE          "{attrname=vehAssDate}{attrtype=integer}".
FIELD7 PIC X(44) VALUE          "{attrname=vehAssStartTime}{attrtype=long}".
FIELD8 PIC X(42) VALUE          "{attrname=vehAssEndTime}{attrtype=long}".
FIELD9 PIC X(38) VALUE          "{attrname=schRouteld}{attrtype=string}".
FIELD10 PIC X(38) VALUE         "{attrname=schBlockld}{attrtype=string}".
FIELD11 PIC X(38) VALUE         "{attrname=schDutyld}{attrtype=string}".
FIELD12 PIC X(38) VALUE         "{attrname=pieceld}{attrtype=string}~".

```

CAD/AVL Real-Time Data Transfer

```

TABLE-NAME PIC X(17) VALUE      "{table=VehAssign}".
FIELD1 PIC X(33) VALUE          "{attrname=empld}{attrtype=string}".
FIELD2 PIC X(38) VALUE          "{attrname=divisionld}{attrtype=string}".
FIELD3 PIC X(38) VALUE          "{attrname=scheduleld}{attrtype=string}".
FIELD4 PIC X(33) VALUE          "{attrname=vehld}{attrtype=string}".
FIELD5 PIC X(37) VALUE          "{attrname=dayTypeld}{attrtype=string}".
FIELD6 PIC X(39) VALUE          "{attrname=vehAssDate}{attrtype=integer}".
FIELD7 PIC X(44) VALUE          "{attrname=vehAssStartTime}{attrtype=long}".
FIELD8 PIC X(42) VALUE          "{attrname=vehAssEndTime}{attrtype=long}".
FIELD9 PIC X(38) VALUE          "{attrname=schRouteld}{attrtype=string}".
FIELD10 PIC X(38) VALUE         "{attrname=schBlockld}{attrtype=string}".
FIELD11 PIC X(38) VALUE         "{attrname=schDutyld}{attrtype=string}".
FIELD12 PIC X(38) VALUE         "{attrname=pieceld}{attrtype=string}~".

```



**Computer Aided Dispatch / Automated Vehicle Locator Replacement Project
(CADAVLRP) and Kendall Drive Signalization**

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Metromover Intel Alarm Interface Protocol:

Alarm #	Mover	Alarm Name	Serial Output
01	000001	OVRSPED RLY	000XX00000000002YY
02	000010	UNSCR DOOR OPEN	000XX00000000004YY
03	000011	FIRE EXTR OFF	000XX00000000006YY
04	000100	PARTED CONSIST	000XX00000000008YY
05	000101	PHASE LOSS	000XX0000000000AYY
06	000110	TRAIN STOPPED	000XX0000000000CYY
07	000111	ROLLBACK	000XX0000000000EYY
08	001000	SPRING BRAKES APPLIED	000XX00000000010YY
09	001001	TRIP STOP	000XX00000000012YY
10	001010	SERVICE BRAKE FAILURE	000XX00000000014YY
11	001011	FLAT TIRE	000XX00000000016YY
12	001100	LOSS OF TRACK SIGNAL	000XX00000000018YY
13	001101	MOTOR OVERLOAD	000XX0000000001AYY
14	001110	AIR PRES LOW	000XX0000000001EYY
16	010000	GENERAL CLASS 1	000XX00000000020YY
17	010001	GENERAL CLASS 2	000XX00000000022YY
18	010010	BAT CHARGER FAIL	000XX00000000024YY
19	010011	DOOR FAIL TO OPEN	000XX00000000026YY
20	010100	DOOR FAIL TO CHANGE	000XX00000000028YY
21	010101	RESET AND RUNNING	000XX0000000002AYY
22	010110	HANDBACK	000XX0000000002CYY
23	010111	DYNAMIC BRAKE FAILURE	000XX0000000002EYY
24	011000	DOOR LOCK ALARM	000XX00000000030YY
25	011001	MANUAL MODE	000XX00000000032YY
26	011010	NOT USED	000XX00000000034YY
27	011011	NOT USED	000XX00000000036YY
28	011100	NOT USED	000XX00000000038YY
29	011101	NOT USED	000XX0000000003AYY
30	011110	NOT USED	000XX0000000003CYY
31	011111	NOT USED	000XX0000000003EYY
32	100000	ATO STATUS ALARM	000XX00000000040YY

Where:

XX = Vehicle number

YY = Computed checksum

Metromover Intel Port Configuration:

Local> sh port 7 char

Port 7: Server: DSV701

Character Size:	7	Input Speed:	1200
Flow Control:	XON	Output Speed:	1200
Parity:	Odd	Modem Control:	Disabled
Stop Bits:	1		
Access:	Remote	Local Switch:	None
Backwards Switch:	None	Name:	PORT 7



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Break:	Disabled	Session Limit:	1
Forwards Switch:	None	Type:	Ansi
Default Protocol:	LAT	Default Menu:	None
Preferred Service:	None		
Authorized Groups:	0		
(Current) Groups:	0		



**Computer Aided Dispatch / Automated Vehicle Locator Replacement Project
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APPENDIX I INTENTIONALLY OMITTED (PRICE SCHEUDLE)

APPENDIX J TRANSIT PERSONNEL AND TRAINING COURSES

Table J-1 Transit Personnel

The training requirements per employee classification is delineated in Exhibit 7 - The "Approach to Providing the Services" document.

Table J-2 Training Courses

The training requirements per employee classification is delineated in Exhibit 7 - The "Approach to Providing the Services" document.



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APPENDIX L SAMPLE TRAINING OBSERVATION CHECKLIST



On-the-Job Training (OJT) Assessment Checklist

Division/Unit: Bus Maintenance Training	Training Module Title: Fall Protection Training
Trainee Name:	Job Title/Classification: Bus Maintenance Technician
Evaluator Name:	Job Title/Classification: Bus Maintenance Instructor

Description: This observation has been developed for assessing the competency in the use of the fall protection harness made by Safety Approach Inc. The assessment includes inspection of the following items: harness, self retracting lifeline, horizontal lifeline and shock absorbing cylinder.

Instructions: The Instructor must first demonstrate how to properly perform the tasks mentioned below and then use the checklist to record their observation of the trainee safely using the Fall Protection Harness. Correctly performed tasks must be checked in the column labeled "YES". Incorrect or skipped tasks must be checked in the column labeled "NO". If the trainee skips a task or performs it incorrectly, the instructor must show the trainee how to properly perform the task and then observe them performing it correctly. The trainee must sign in the column labeled "Trainee Initial" for any task performed incorrectly. By signing, the trainee acknowledges that the correct procedure was explained to them and they had an opportunity to perform it correctly.

Required Materials & Equipment: Observation checklist and pen, Safety Approach Inc. harness, scaffold, shop bay with safety line equipment installed, bus.

Task #	Required Task(s)	Correctly Performed?		Evaluator's Comments	Trainee Initial
		Yes	No		
1	Inspects Fall Protection Harness and reports any damage (labels, cuts, frays, stitching, burns, chemical damage etc...)	<input type="checkbox"/>	<input type="checkbox"/>		
2	Ensures Harness is properly oriented (straps are not tangled or overlapped)	<input type="checkbox"/>	<input type="checkbox"/>		
3	Properly puts on harness and adjusts the straps	<input type="checkbox"/>	<input type="checkbox"/>		
4	Tests & Inspects the Self Retracting Lifeline for the following: lead indicating swivel is not red, lifeline extends and retracts freely, pulls 3 times to ensure the lifeline locks.	<input type="checkbox"/>	<input type="checkbox"/>		
5	Inspects shock absorber to ensure it has not been extended (white band not fully exposed)	<input type="checkbox"/>	<input type="checkbox"/>		
6	Properly hooks up to the SRL and ensures tag line is kept out of the way, for example: inside the pant pocket	<input type="checkbox"/>	<input type="checkbox"/>		
7	Safely walks up the scaffold and onto the bus with the tag line out of the way	<input type="checkbox"/>	<input type="checkbox"/>		
8	Walks safely from the front to the rear of the bus ensuring the SRL remains overhead in order to prevent the possibility of a swing fall	<input type="checkbox"/>	<input type="checkbox"/>		
9	Safely walks down the scaffold, unhooks from the SRL and slowly retracts the life line.	<input type="checkbox"/>	<input type="checkbox"/>		
10	Properly ties the tag line and stores the safety harness	<input type="checkbox"/>	<input type="checkbox"/>		

I have been given the opportunity to perform all of the required tasks mentioned above in a safe and proper manner. I have been given the opportunity to review all the steps I performed incorrectly and had them explained to me by the instructor. I understand how to properly use the Fall Protection Harness.

Trainee's Signature: _____	Employee ID: _____	Date: _____
Evaluator's Signature: _____	Evaluator ID: _____	Date: _____



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APPENDIX M INTENTIONALLY OMITTED (PROGRESS PAYMENT SCHEDULE)



EXHIBIT 2 - SOFTWARE LICENSE AGREEMENT

THIS SOFTWARE LICENSE AGREEMENT ("AGREEMENT") IS MADE AND ENTERED INTO THIS ___ DAY OF FEBRUARY, 2013 (THE "EFFECTIVE DATE") BY AND BETWEEN THE MIAMI-DADE COUNTY, A POLITICAL SUBDIVISION OF THE STATE OF FLORIDA, HAVING ITS PRINCIPAL OFFICE AT 111 N.W. 1ST STREET, MIAMI, FLORIDA 33128 (HEREINAFTER REFERRED TO AS "COUNTY" OR "LICENSEE"), AND CLEVER DEVICES LTD., A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF NEW YORK, HAVING ITS PRINCIPAL OFFICE AT 137 COMMERCIAL STREET, PLAINVIEW, NY 11803 (HEREINAFTER REFERRED TO AS "CONTRACTOR" OR "CONTRACTOR " OR "CLEVER").

RECITALS

- A. County has acquired the license rights to use the Software, Third-Party Software, and Documentation (as defined below).
- B. Contractor desires to grant to County and County desires to obtain from Contractor a license in accordance with Article 2 to use the Software, Third Party Software and Documentation solely in accordance with the terms and on the conditions set forth in this Agreement.

NOW, THEREFORE, the parties hereto agree as follows:

ARTICLE 1. DEFINITIONS

As used herein, capitalized terms shall have the meanings provided below. Capitalized terms which are used in this License Agreement but which are not defined below are defined in the context in which they are used, and shall have the meanings indicated by such use.

"Application Programming Interface (API)" is a set of computer programming rules intended to be used as an interface by software components to communicate with each other.

"Commercially Available Software" shall mean software offered for licensed use by third parties to the general public and utilized in the COMPUTER AIDED DISPATCH / AUTOMATED VEHICLE LOCATOR REPLACEMENT PROJECT (CADAVALRP) AND KENDALL DRIVE SIGNALIZATION by the Contractor .

"Contributions" shall mean Confidential Information, as defined below, inventive contributions, works of authorship, or other materials contributed by a party to the development of the CADAVALRP.



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“County Authorized Provider” shall mean a firm or individual approved by County to provide services relating to County’s requirements.

“Deliverable” shall mean an item that is required to be developed, delivered, installed and incorporated into the system by Contractor and presented to County as defined in the Scope of Services attached to Contract No. 808 as Exhibit 1.

“Documentation” shall mean any and all operating instructions, user documentation and other technical material related to the Software that are generally made available by Contractor for use in connection with the Software, whether in print form, on CD-ROM, online or otherwise, including without limitation, customer reference manuals and installation, administrative and programmer guides. Documentation does not include sales literature, marketing literature and other similar items.

“Escrow Deposit” shall mean placement of Source Code, Object Code, and documentation for Software deposited with an Escrow Agent who will ensure the safe keeping of these items and shall also release the items to County under specific defined conditions.

“Intellectual Property” shall mean information, systems, software, programs, processes, technology, services, methodologies, products, documentation, and any other materials or rights, tangible or intangible all relating to the CADAVLRP project.

“License Agreement” shall mean this Software License Agreement.

“Licensee” shall mean County.

“Contractor” shall mean Contractor.

“Object Code” shall mean the binary version of a computer program, produced by a compiler, assembler, or similar program, which contains a sequence of instructions and data derived from the Source Code.

“Pre-existing Work” shall mean work completed and owned by Contractor that may be provided to County for the CADAVLRP that existed prior to the Notice to Proceed for the CADAVLRP Contract No. 808.

“Program” shall mean a set of instructions that directs a computer to perform some processing function or combination of functions.

“Project” shall mean the CADAVLRP project.

“Scope of Services” shall mean the services described in Exhibit 1 to Contract No. 808.

“Software” shall mean computer programs in all forms; instructions that cause the hardware – the CADAVLRP equipment, computers, networking systems, and other microprocessor-controlled devices – to do work. It includes, but is not limited to, all Core Software, compilers, assemblers, library routines, source code, object code, executable code, report generation tools, configurable parameter files, diagnostic programs, and encryption algorithms.



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“Source Code” shall mean a series of instructions written in human readable format using a structured computer programming language, it also includes all appropriate programmer’s comments, data files and structures, macros, annotations and documentation.

“Systems” shall mean computer programs and the hardware upon which the computer programs are run or stored. The term “System” also includes (where such media and documentation are available) the tangible media on which the computer programs are recorded and their supporting documentation, including input and output formats, program listings, narrative descriptions and operating instructions.

“Third-Party Software” shall mean software developed by an organization or individual other than the two principals (Contractor and County) involved in this Agreement and licensed by Contractor to County pursuant to this Agreement.

ARTICLE 2. SOFTWARE LICENSE RIGHTS

- i. Contractor shall grant to County a perpetual, nonexclusive, royalty-free, license right (a) to use, access, and display Software and Third Party Software for its internal business purposes as set forth in the Contract Documents in accordance with the “Operational License Characteristics” set forth in Schedule A. It is expressly understood and agreed to that in the event County wishes to increase the operational license characteristics associated with the license, County will pay any additional licensing fees and the additional hardware and installation services required, as agreed to by the parties, except for those upgrade, fixes, modifications or release versions provided by the Contractor at no charge to County.
- ii. The Contractor shall grant to County a perpetual, non-exclusive, royalty free, license to use, and reproduce, all Documentation for its internal business purposes.
- iii. API License. The Deliverables consisting of interfaces to the Software, identified in Schedule B “List of Software and Interfaces” (the “API”), will be developed by Contractor in such a manner that will allow Contractor to add data elements to the API with respect to the use of the API with any other licensed software or systems that connect to the Software. The API shall be licensed in accordance with the Software license set forth above, except that for the avoidance of doubt County may also utilize the data obtained through the API to function with or connect with any replacement Systems or any other internally developed software or systems. Notwithstanding the foregoing, County shall not grant a third party direct access to the API but a third party may be granted access to the data generated through the API, or otherwise through the Software if such third party is certified pursuant to Contractor’s business partner program (such certification shall not be unreasonably withheld).



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- iv. Nothing contained in this Agreement shall be construed to restrict, impair or deprive Contractor and/or its suppliers of any of its ownership or proprietary interest or rights in technology, information or products that existed prior to the CADAVALRP.
- v. Any Pre-existing Works, (including all tools, documentation, and necessary knowledge to modify these Preexisting Works) which are required or necessary for the performance of the Software under this Agreement and that may be incidental to, or are intended to interact or operate with the Deliverables will be provided to County as part of the Deliverables as follows: Contractor shall grant to County a non-exclusive, perpetual, royalty-free, license to use each such Pre-existing Work.
- vi. Nothing in this Agreement shall be construed as granting to Contractor any right or license under any of County's present or future patent rights or copyrights, or as granting to Contractor any right or license to use for any purpose other than those purposes expressly stated herein any of County's data, systems, software or technical information or results received, discovered, or produced by Contractor in connection with its work for County , except as may be required for Contractor to fulfill its obligations under this Agreement.
- vii. Nothing in this Agreement shall grant to Contractor any ownership interest in any data or information owned by County . Contractor shall, upon request of County , immediately and at any time, surrender to County any data, materials or information, together with any copies thereof, which may be in the possession and/or control of Contractor in the form reasonably requested by County .
- viii. Commercially Available Software: Contractor shall obtain all requisite unlimited user enterprise perpetual, unlimited nodes, irrevocable license rights to commercially available software offered for sale or license by third parties to the general public which Contractor used within the CADAVALRP. Contractor shall provide County with evidence of such licenses and requisite rights, and shall assign such licenses directly to County.
- ix. Software License Fees: In consideration of the license rights granted in this Agreement, Contractor acknowledges that all requisite license fees are included in the prices as set forth in Exhibit 6 to Contract No. 808, "Payment Schedule".

ARTICLE 3. INTENTIONALLY OMITTED

ARTICLE 4. INTENTIONALLY OMITTED

ARTICLE 5. INTENTIONALLY OMITTED

ARTICLE 6. ESCROW



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Contractor agrees to deposit in Escrow, in accordance with the Contract Terms and Conditions of the Escrow Agreement (the "Escrow Deposit"), all Source Code and Object Code for the Software. The Escrow Deposit shall be in accordance with the Escrow Agreement, provided in Exhibit 4 to Contract No. 808.

ARTICLE 7. INTENTIONALLY OMITTED

ARTICLE 8. TERM AND TERMINATION

This Agreement shall become effective as of the effective date set forth above and shall remain in effect and renewable on a year-to-year basis until terminated by the County. County may terminate this Agreement for cause in accordance with Article 14, subsequent to a thirty (30) day cure period, or convenience upon thirty (30) days prior written notice to Contractor .

ARTICLE 9. PROTECTION OF SOFTWARE

9.1 Proprietary Information: As a political subdivision of the State of Florida, Miami-Dade County is subject to the stipulations of Florida's Public Records Law. Additionally Contractor acknowledges that all computer software in the County's possession is subject to Section 812.081 of the Florida Statutes. County acknowledges its obligation to comply with Section 812.081 of the Florida Statutes.

9.2 Proprietary Rights: Contractor hereby acknowledges and agrees that County retains all rights, title and interests in and to all materials, data, documentation and copies thereof furnished by County to hereunder, including all copyright and other proprietary rights herein, which the Contractor as well as its employees, agents, subconsultants, and suppliers may use only in connection of the performance of Services under this Agreement.

9.3 Ownership: County further acknowledges that all copies of the Software, Source Code and Documentation in any form provided by Contractor are the sole property of Contractor . The County shall not have any right, title, or interest to any such Software, Source Code or Documentation or copies thereof except as provided in this Agreement.

ARTICLE 10. CONFIDENTIALITY

10.1 Confidentiality:

- a) All materials or data which contains employee information prohibited from release to the public may not, without the prior written consent of the County, be used by Contractor or its employees, agents, subconsultants, or suppliers for any purpose other than for the benefit of County, unless required by law ("County Confidential Information").
- b) . Neither Contractor , nor its employees, agents, subconsultants, or suppliers ("Contractor Parties") may sell, transfer, publish, disclose, display, license or otherwise make available to others any part of such County Confidential Information without the prior written consent of the County. Additionally, Contractor expressly agrees to be bound by and to defend, indemnify and hold harmless County, and their officers and employees from the breach of any



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federal, state or local law in regard to the privacy of individuals, subject to the provisions of Article 11.4, herein, provided that Contractor Parties are solely and directly responsible for such breach.

10.2 Maintenance of Confidential Information: Contractor shall advise each of its employees, agents, subconsultants, and suppliers who may be exposed to such County Confidential Information of their obligation to keep such information confidential and shall promptly advise the County in writing if it learns of any unauthorized use or disclosure of the County Confidential Information by any of its employees or agents, or subconsultants, or supplier's employees, present or former. In addition, Contractor agrees to cooperate fully and provide any assistance necessary to ensure the confidentiality of the County Confidential Information.

10.3 Survival: Licensee's obligations under this Article 10 will survive the termination of this Agreement or of any license granted under this Agreement for whatever reason.

ARTICLE 11. WARRANTIES

11.1 Ownership: Contractor represents that it is the owner of the entire right, title, and interest in and to Software, and that it has the sole right to grant licenses thereunder, and that it has not knowingly granted licenses thereunder to any other entity that would restrict rights granted hereunder except as stated herein.

11.2 Limited Warranty: Contractor represents and warrants to County that the Software, when properly installed by Contractor, or its agents, and used for the purposes stated in the Scope of Services, will perform as described in the Documentation for such Software for a period of **three years** from the date of System Acceptance ("Warranty Period").

11.3 Contractor 's Sole Remedy: Contractor 's entire liability and the County's exclusive remedy shall be for the repair or replacement of the Software, provided Contractor receives written notice from County during the warranty period of a breach of warranty. Any replacement Software will be warranted for the remainder of the original warranty period or ninety (90) days, whichever is longer.

11.4 Limitation of Liability: COUNTY AND CONTRACTOR ACKNOWLEDGE AND AGREE THAT NEITHER PARTY WILL BE LIABLE TO THE OTHER FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES.

ARTICLE 12. THIRD PARTY WARRANTIES

In addition to the foregoing warranties, Contractor hereby assigns, if assignable, to County, and County shall have the benefit of, any and all subcontractors' and suppliers' warranties and representations with respect to the Third Party Software, Commercially Available Software and hardware provided hereunder. In Contractor's agreements with subcontractors and suppliers, Contractor shall make reasonable efforts to require such parties to (1) consent to the assignment of such warranties and representations to the County; (2) agree that such warranties and representations are enforceable by County in its own name; and (3) furnish to County, the warranties and obligations as set forth in Articles 70 "Warranties, Representations and Covenants" of the Contract.



ARTICLE 13. INDEMNIFICATION

Contractor shall indemnify, hold harmless and defend the County against any action brought against the County to the extent that such action is based on a claim that the Software, as and when furnished, when used in accordance with this Agreement, infringes a United States copyright that is existing and issued as of the date of this Agreement, and Contractor shall pay all costs, settlements and damages finally awarded, provided that the County promptly notifies the Contractor in writing of any claim, gives Contractor control of the defense and settlement thereof and provides all reasonable assistance in connection therewith. If any Software is finally adjudged to so infringe, or in Contractor's opinion is likely to become the subject of such a claim, Contractor shall, either: (i) procure for the County the right to continue using the Software (ii) modify or replace the Software to make it non-infringing, or (iii) refund the fees paid, upon return of the Software at the County's discretion. Licensee shall have no liability regarding any claim arising out of: (i) use of the Software in combination with non-County software, data or equipment if the infringement was caused by such use or combination, (ii) use of third party software. THE FOREGOING STATES THE ENTIRE LIABILITY OF CONTRACTOR AND THE EXCLUSIVE REMEDY FOR THE COUNTY RELATING TO INFRINGEMENT OR CLAIMS OF INFRINGEMENT OF ANY COPYRIGHT OR OTHER PROPRIETARY RIGHT BY THE SOFTWARE.

ARTICLE 14. DEFAULT AND TERMINATION

14.1 Termination: County may terminate this Agreement if an individual or corporation or other entity attempts to meet its contractual obligation with the County through fraud, misrepresentation or material misstatement.

- a) County may, as a further sanction, terminate or cancel any other contract(s) that such individual or corporation or other entity has with County and that such individual, corporation or other entity shall be responsible for all direct and indirect costs associated with such termination or cancellation, including attorney's fees.
- b) The foregoing notwithstanding, any individual, corporation or other entity which attempts to meet its contractual obligations with County through fraud, misrepresentation or material misstatement may be debarred from County contracting for up to five (5) years in accordance with the County debarment procedures. Contractor may be subject to debarment for failure to perform and all other reasons set forth in Section 10-38 of the County Code.

14.2 Events of Default: This Agreement may be terminated by County if any of the following events of default occur: (1) if Contractor materially fails to perform or comply with this Agreement or any provision hereof; (2) if Contractor becomes insolvent or bankrupt, or makes an assignment for the benefit of creditors.



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14.3 Effective Date of Termination: Termination pursuant to Article 14.2 shall be effective thirty (30) days after notice of termination to Contractor if the default has not been cured within such thirty (30) day period.

14.4 Obligations on Termination: If County terminates this agreement for convenience, or the Agreement is terminated due to County defaults, the County shall cease use of the Materials within fourteen (14) days of such termination.

ARTICLE 15. PAYMENT

In consideration of the license rights granted in Article 2, Contractor acknowledges that all requisite license fees and implementation services fees are included in the unit prices purchased by Licensee as part of the CDAVLRP Contract No. 808 through the warranty period. Contractor shall be responsible for such fees in accordance to Schedule B "List of Software and Interfaces", attached hereto.

ARTICLE 16. ASSIGNMENT

This Agreement may be assigned by Contractor as defined in the Contract Documents for Contract No. 808. However, none of the parties' rights or obligations hereunder may be assigned to any third party, including, without limitation, through U.S. Bankruptcy Code Chapter 11 reorganization, without prior written consent of the other party (which shall not be unreasonably withheld).

ARTICLE 17. FORCE MAJEURE

Except as otherwise expressly provided herein, neither party hereto shall be considered in default in the performance of its obligations hereunder to the extent that such performance is prevented or delayed by any cause, existing or future, which is not within the reasonable control of such party including, but not limited to, acts of God or the public enemy, fires, explosions, riots, strikes (not including strikes of the Contractor's staff personnel), terrorism or war. Notwithstanding the foregoing, the failures of any of the Contractor's suppliers, subcontractors, or the like shall not excuse the Contractor's performance except to the extent those failures are due to any cause without the fault and reasonable control of such suppliers, subcontractors, or the like.

In the event that such failure or delay occurs, the affected party shall notify the other party of the occurrence thereof as soon as possible and the parties shall discuss the best way to resolve the event of force majeure.

ARTICLE 18. NOTICES

All notices required or permitted under this Agreement shall be in writing and shall be deemed sufficiently served if delivered by Registered or Certified Mail, with return receipt requested; or delivered personally; or delivered via fax or e-mail (if provided below) and followed with delivery of hard copy; and in any case addressed as follows:

(1) To the Contract Manager:

Miami-Dade County



Internal Services Department (ISD) / Procurement Management Services (PMS)
111 N.W. 1st Street, Suite 1300
Miami, FL 33128-1974

Attention: Fred Simmons, Jr., CPPO

Phone: (305) 375 - 4259

Fax: (305) 375 - 1083

E-Mail: fred@miamidade.gov

(2) To the Contractor

Clever Devices Ltd.
137 Commercial Street
Plainview, NY 11803

Attention: Jeff Cohn
Phone: (617) 512-4151

Either party may at any time designate a different address and/or contact person by giving notice as provided above to the other party. Such notices shall be deemed given upon receipt by the addressee.

ARTICLE 19. INTENTIONALLY OMITTED

ARTICLE 20. INSPECTOR GENERAL REVIEWS

20.1 Independent Private Sector Inspector General Reviews. Pursuant to Miami-Dade County Administrative Order 3-20, the County has the right to retain the services of an Independent Private Sector Inspector General (hereinafter "IPSIG"), whenever County deems it appropriate to do so. Upon written notice from the County, Contractor shall make available to the IPSIG retained by County, all requested records and documentation pertaining to this Agreement for inspection and reproduction. County shall be responsible for the payment of these IPSIG services, and under no circumstance shall Contractor's prices and any changes thereto approved by County, be inclusive of any charges relating to these IPSIG services. The terms of this provision herein, apply to Contractor, its officers, agents, employees, subconsultants, and assignees. Nothing contained in this provision shall impair any independent right of County to conduct an audit or investigate the operations, activities and performance of Contractor in connection with this Agreement. The terms of this Article shall not impose any liability on the County by Contractor or any third party.

20.2 Miami-Dade County Inspector General Review: According to Section 2-1076 of the Code of Miami-Dade County, as amended by Ordinance No. 99-63, Miami-Dade County has established the Office of the Inspector General which may, on a random basis, perform audits on all County contracts, throughout the duration of said contracts, except as otherwise provided below.



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20.3 Inspector General Powers: Nothing contained above shall in any way limit the powers of the Inspector General to perform audits on all County contracts including, but not limited to, those contracts specifically exempted above. The Miami-Dade County Inspector General is authorized and empowered to review past, present and proposed County and Public Health Trust contracts, transactions, accounts, records and programs. In addition, the Inspector General has the power to subpoena witnesses, administer oaths, require the production of records and monitor existing projects and programs. Monitoring of an existing project or program may include a report concerning whether the project is on time, within budget and in conformance with plans, specifications and applicable law. The Inspector General is empowered to analyze the necessity of and reasonableness of proposed change orders to the Contract. The Inspector General is empowered to retain the services of independent private sector inspectors general (IPSIG) to audit, investigate, monitor, oversee, inspect and review operations, activities, performance and procurement process, including but not limited to project design, specifications, proposal submittals, activities of the Contractor, its officers, agents and employees, lobbyists, County staff and elected officials to ensure compliance with contract specifications and to detect fraud and corruption.

Upon written notice to Contractor from the Inspector General or IPSIG retained by the Inspector General, Contractor shall make all requested records and documents available to the Inspector General or IPSIG for inspection and copying. The Inspector General and IPSIG shall have the right to inspect and copy all documents and records in Contractor's possession, custody or control which, in the Inspector General's or IPSIG's sole judgment, pertain to performance of the contract, including, but not limited to original estimate files, change order estimate files, worksheets, proposals and agreements form and which successful and unsuccessful subcontractors and suppliers, all project-related correspondence, memoranda, instructions, financial documents, construction documents, proposal and contract documents, back-charge documents, all documents and records which involve cash, trade or volume discounts, insurance proceeds, rebates, or dividends received, payroll and personnel records, and supporting documentation for the aforesaid documents and records.

ARTICLE 21. GOVERNING LAW

This Contract, including appendices, and all matters relating to this Contract (whether in contract, statute, tort (such as negligence), or otherwise) shall be governed by, and construed in accordance with, the laws of the State of Florida. Venue shall be Miami-Dade County.

ARTICLE 22. CONTRACTOR OBLIGATIONS

As a requirement of this Agreement, the Contractor is obligated to comply with all applicable County ordinances and state statutes. Contractor shall be a registered vendor with Miami-Dade County, ISD / PMS, for the duration of this Agreement. It is the responsibility of Contractor to file the appropriate Vendor Application and to update the Application file for any changes for the duration of this Agreement, including any option years. The following County Vendor Application and Affirmative Action place information can be downloaded from the following websites:



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- a) Active County Vendor Registration and County Affidavits – the vendor registration application and associated affidavits can be downloaded from the following website: http://www.miamidade.gov/dpm/vendor_registration.asp;
- b) Affirmative Action Plan – the information pertaining to this program can be obtained online from the following website: <http://www.miamidade.gov/sba/faqs-affirm-action.asp>

ARTICLE 23. FUNCTIONALLY EQUIVALENT SOFTWARE

Subject to Licensee maintaining its annual maintenance fee payment obligations to Contractor, in the event Contractor wishes to discontinue maintenance and support required in accordance with this Agreement, for the then current version of the Licensed Software as set-forth in Schedule A of this Agreement, or any amendment thereto, the Contractor shall, upon prior written consent from County, be required to provide to County, a new version of the software if a new version has been made available to other Contractor's customers, which shall replace the previous version and perform the functions described in the related Documentation or any amendment thereto. Contractor will make commercially reasonable efforts to ensure the implementation of such new software shall not interrupt the business for which the system is installed. Subject to Licensee maintaining its annual maintenance fee payment obligations to Contractor, in the event Contractor is providing Support of the then current version of the License Software being used by County, Contractor shall provide any new version of the License Software if the new License Software is generally made available to other Contractor's customers.

ARTICLE 24. ANNUAL APPROPRIATION

County's performance and obligation to pay under this contract is contingent upon an annual appropriation by the Board of County Commissioners. Cancellation will not cause any penalty or expense to County, except as to the portions of payments agreed upon and for which funds have been appropriated and budgeted. Service/Maintenance can be cancelled at any time that Contractor is notified in writing, at least thirty (30) days prior to cancellation. There will be no early termination charges from Contractor for canceling service/maintenance during the year.

ARTICLE 26. ENTIRE LICENSE AGREEMENT

This Agreement and the terms and conditions of Contract No.808 constitute the entire agreement between the parties. This Agreement can only be modified in writing and signed by both Parties.

ARTICLE 27. SOFTWARE RELATED DOCUMENTATION

The Software-related Documentation ("Documentation") will consist of system administration manuals, user's manuals, and training materials available in electronic format.

Contractor shall deliver to County the Documentation in electronic format. County will have the right, as part of the license granted herein, to make as many additional copies of the Documentation as it may deem necessary for its internal business purposes.



MIAMI-DADE COUNTY, FLORIDA

Contract NO.808

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ARTICLE 28. REMEDIES

The remedies provided herein are cumulative, and may be exercised either successively or concurrently.

ARTICLE 29. SOVEREIGN IMMUNITY

Nothing in this Agreement shall be construed or interpreted as consent by County to be sued, nor as a waiver of sovereign immunity beyond the waiver provided in Section 768.28, Florida Statutes.



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IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the contract date herein above set forth.

Contractor

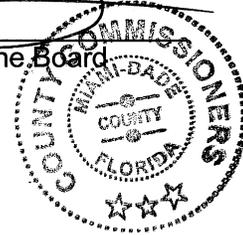
Miami-Dade County

x By: Frank J. Ingrassia
Name: FRANK J. INGRASSIA
Title: PRESIDENT & CEO
Date: 4/17/2013
Attest: Denise R. Schmidt
Corporate Secretary

By: Carlos A. Gomez
Name: Carlos A. Gomez
Title: Mayor
Date: 11-19-13
Attest: [Signature]
Clerk of the Board

DENISE R. SCHMIDT
NOTARY PUBLIC-STATE OF NEW YORK
No. 01SC5015566
Qualified in Nassau County
Corporate Seal
My Commission Expires July 26, 2013

Approved as to form and legal sufficiency



Bruce Zhabner
Assistant County Attorney



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EXHIBIT 3 - SOFTWARE MAINTENANCE & SUPPORT AGREEMENT

This Software Maintenance and Support Agreement commencing the day following the last day of the Warranty Period (as that term is defined in the Software License Agreement (Exhibit 2 of Contract No.808)). The term of this agreement shall be up to a nine year period; renewable each year at the sole discretion of the County.

BETWEEN:

Miami Dade County (County), a political subdivision of the State of Florida with a principal place of business at 111 NW 1st Street, Miami, Florida 33128

-and-

Clever Devices Ltd., a corporation incorporated under the laws of New York, with a principal place of business at 300 Crossways Park Drive, Woodbury, NY 11797, (hereinafter referred to as "Contractor" or "Licensor" or "Clever").

EVIDENCES THAT:

WHEREAS Contractor wishes to provide to the Customer, and the Customer wishes to obtain from Contractor, ongoing Maintenance and Support Services, as hereinafter described, for the Software listed in Schedule A to this Software Maintenance and Support Agreement (the "Agreement") and from time to time added to the Schedule pursuant to the terms of this Agreement;

IN CONSIDERATION OF the premises and the mutual agreements hereinafter contained, the parties agree as follows:

DEFINITIONS

When used in this Agreement, the following terms shall have the meanings specified below:

"Agreement Fees" means the fees as set forth in Section 1 of Schedule C ("Software Maintenance Pricing") of this Support Agreement.

"Contract Documents" means collectively these terms and conditions, the "List of Software and Interfaces" (Schedule B), the "Software Maintenance Pricing" (Schedule C), the Software License Agreement (Exhibit 2 to Contract No.808), the Software Escrow Agreement (Exhibit 4 to Contract No.808), Contract No. 808, and all associated addenda and attachments the Contractor's Proposal, and other attachments hereto and all amendments issued hereto.

"Contract Manager" means the County's Internal Service Department (ISD) Procurement Contract Officer.



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"Days" means Business days.

"Documentation" means any and all operating instructions, user documentation and other technical material related to the Software that are generally made available by the Contractor for use in connection with the Software, whether in print form, on CD-ROM, online or otherwise, including without limitation, customer reference manuals and installation, administrative and programmer guides. Documentation does not include sales literature, marketing literature and other similar items.

"Maintenance Fee" means the fee payable for Maintenance Services, as set out in Schedule C "Software Maintenance Pricing" to this Agreement.

"Maintenance Services" means the services, in respect of the Software, described in Section 1 of this Agreement.

"Problem" means the failure and/or defect of Software to perform its intended functions as specified in the Contract and/or for the Software to be not available for normal services.

"Project Manager" means the Transit contact representative, or designee, for this Agreement.

"Permanent Fix" means a fully-tested and quality-controlled error correction for a Problem.

"Relief" means (i) an immediate solution or a fix for a Problem; or (ii) a Workaround.

"Software" means Contractor proprietary owned Software as identified in Schedule B - "List of Software and Interfaces" to this Agreement, as such schedule may be amended from time to time by mutual agreement.

"Workaround" means a procedural or process change, to be implemented by the County that temporarily circumvents a Problem, temporarily prevents the reoccurrence of a Problem, or reduces the impact of a Problem until such time as a Permanent Fix is implemented.



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1. MAINTENANCE SERVICES

1.1 Warranty on Quality of Maintenance Services: Contractor warrants that it will provide Maintenance Services in a good and workmanlike manner by properly qualified individuals.

1.2 Contractor Obligations: Contractor shall provide the County with the following support and maintenance services for the products licensed by the County for the Computer Aided Dispatch / Automated Vehicle Locator Replacement Project (CADAVLRP) and Kendall Drive Signalization as identified in this Agreement subject to the County's payment of annual maintenance fees.

1.3 Telephone Support: For the term of this Agreement, the Contractor shall provide telephone support for calls from the County for Problems.

1.3.1 The County will generally contact the Contractor indicating the problem description and severity level classification as provided in Section 1.3.5 Maintenance, Support and Escalation. The severity level classification shall be determined by mutual agreement between the parties.

1.3.2 The Contractor shall, via telephone, **1)** provide live technical support (Live Support), excluding on-site support, for each severity level, **2)** respond to the County's report of Problems and begin work (Response Time), **3)** provide a Relief and/or a Permanent Fix to resolve the Problem (Resolution Time), and **4)** provide periodic updates of the resolution status (Status Frequency Update) within the timeframes stated in Section 1.3.5 Maintenance, Support and Escalation.

1.3.3 The Contractor shall make all commercially reasonable efforts to provide a Relief and/or a Permanent Fix in accordance with the Resolution Time stated below and in doing so shall use such internal resources as are reasonably necessary to work on the Problem until resolution. The Contractor shall log all Problems as a Site Problem Report (SPR) and assign a tracking number. The number is used to track the Problem through to final resolution. The SPR shall detail the Problem reported, such as description of the Problem, severity level and support staff assigned, tracking number and all other related information. Upon creation, the SPR shall be sent to the County via e-mail.

1.3.4 During the resolution stage in connection with all Problems, the Contractor shall assign a single point of contact to maintain communication, in accordance to the Frequency of Status Update in the Maintenance and Support Table (Section 1.3.5 -Table 2) with the County. When a resolution is available, the Contractor shall guide the County's staff through any necessary resolution, configuration or setup procedures. Upon resolution of the Problem, the County and the Contractor shall mutually agree to the closing of the SPR and confirmation of the closing shall be sent to the County via e-mail.



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1.3.5: Maintenance, Support and Escalation

If an established goal is not met, the initial escalation will be to the Technical Team Lead. If the Technical Team Lead does not respond in a timely manner, the next escalation point for the County would be the next escalation as defined by the Escalation Table below. All resources can be contacted through the (Insert toll-free support number) or (Insert support email). The County will be apprised of current resources contact information as appropriate.

Table 1: Escalation Table

Escalation	Escalation Level
Call Center Operator	1
Technical Support Specialist	2
System Support Manager	3
Customer Care Representative	4
Director of Service	5
Vice President, Franchise Accounts	6
President	7

Table 2: Maintenance and Support Table

Severity Level	Definition	Availability (Live Support)	Response (Goal)	Resolution Time (Goal)	Status Frequency Updates	Escalation
1	A reported problem in the software, or one of its necessary components, has caused the software to cease functioning or has caused a complete system shutdown.	24 hours a day, seven days per week	Immediately	Continuous work until workaround found or resolved	One Hour	1,3,4,5
2	A reported problem in the software or one of its necessary components has caused a serious disruption of a major business function and cannot be temporarily solved by an alternative method or workaround.	8:30 am to 5:00 pm EST Monday to Friday (business day)	Within 2 hour	Continuous work until workaround found or resolved	Two Hours	1,3,4
3	A reported problem in the software or one of its necessary components for which a temporary workaround is readily known and available.	8:30 am to 5:00 pm EST Monday to Friday (business day)	Within 1 business day	Next SW Update	Weekly	1,3,4



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4	A reported problem, question or request that is not included in the definitions of Priority 1, 2, or 3 and demands less immediate attention than said priorities	8:30 am to 5:00 pm EST Monday to Friday (business day)	Within 1 business day	Future SW Update, if applicable	Bi-Weekly	1,3
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1.3.6 **Email Support:** For the term of this Agreement, the Contractor shall provide support via email for emails from the County. The severity levels and the response times requirements set forth above for Maintenance and support are applicable to email support.

1.4 **Maintenance:** Subject to the County's payment of annual maintenance fees, Contractor will supply to the County, at no additional charge, any improvements, upgrades, or modifications to the Software that Contractor makes generally available. Any such improvements, upgrades, or modifications shall become part of the Software for all purposes of this Agreement. The County acknowledges and agrees that the Maintenance to be provided is limited to the most current version of the Software or the immediately preceding version providing that Contractor has supplied the County with such version(s).

Contractor shall be responsible for responding to service calls in accordance with the goals as set out in Table 2: Maintenance and Support Table herein. An account number will be assigned to the County and a service contact number will be provided upon completion of the work.

1.5 **Payments:** The County shall pay Contractor for services on an annual basis pursuant to Schedule C. The Contractor shall invoice the County for Maintenance and Support Fees annually, unless the County terminates Maintenance and Support Services for a subsequent Maintenance Period as provided herein. In the event the County terminates Maintenance and Support, the County shall be entitled to a pro-rated amount for the unused portion of the annual fee. All payments to the Contractor under this Agreement shall be payable in U.S. dollars.



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1.6 Payment of Additional Services: The County shall make payment for additional services provided by the Contractor pursuant to Schedule C: "Additional Pricing". When requested by the County, the Contractor shall provide the requested additional services. Upon the County's request for such additional services, the County shall prepare a Statement of Work ("SOW") for the specific services that shall define in detail the work to be performed. Contractor shall submit a cost proposal including all costs pertaining to furnishing the County with the additional services at a rate identified in Schedule C "Additional Pricing" to perform such required services. Any required travel expenses will be in addition to the hourly rate. Contractor shall not commence any work described under the SOW until a purchase order has been provided by the County.

1.7 Support: Contractor agrees to provide the following software long term support and maintenance services during the term of this agreement:

- a) Contractor shall provide the County with updates to the Software to provide known error corrections by delivery of available patches via electronic communication and for download via the Internet.
- b) Provision of available minor updates (bundling of several error corrections in one version) for download via the Internet.
- c) Information via electronic communication (email) when new updates are available.
- d) Contractor shall provide the County with updates of the Software at the annual Software Maintenance prices identified in Schedule C of this agreement.

2. SOFTWARE MODIFICATIONS

2.1 Error Corrections and Updates: Contractor will provide the County with error corrections, bug fixes, patches or other updates to the Software referenced to the extent available in accordance with Contractor's release schedules for the term of this Agreement.

2.2 Software Enhancements or Modifications: The County may, from time to time, request that Contractor incorporate certain features, enhancements or modifications into the licensed Software. When requested by the County, the Contractor shall provide the requested system enhancements/modifications. Upon the County's request for such enhancements/modifications the County shall prepare a Statement of Work ("SOW") for the specific Project that shall define in detail the Services to be performed. Contractor shall submit a cost proposal including all costs pertaining to furnishing the County with the enhancements/modifications at a rate identified in Schedule C "Software Maintenance Pricing" to perform such required services. Any required travel expenses will be in addition to the hourly rate. Contractor shall not commence any work described under the SOW until a purchase order has been provided by the County.

- a) After the SOW has been accepted a detailed requirements and detailed design document shall be submitted by the Contractor illustrating the complete financial terms that govern the SOW, proposed Project staffing, anticipated Project schedule, and other information relevant to the Project. Each SOW executed



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hereunder shall automatically incorporate the terms and conditions of this Agreement. Contractor shall retain the rights to utilize such enhancements or modifications and the enhancement and modifications shall be deposited into Software Escrow Account. Notwithstanding the foregoing, performance of any such modifications shall not compromise Contractor's warranty obligations.

- b) Following the County's acceptance of all enhancements/modification, Contractor shall provide the County with written confirmation of the date the enhancements/modification were applied to the Licensed Software, and any and all Documentation relating to the Licensed Software and or enhancements/modification thereto and date of deposit to Escrow.

3. LIMITATION OF LIABILITY

COUNTY AND LICENSOR ACKNOWLEDGE AND AGREE THAT NEITHER PARTY WILL BE LIABLE TO THE OTHER FOR ANY CONSEQUENTIAL OR INCIDENTAL DAMAGES.

4. ACCESS TO INFORMATION

In relation to this Agreement, the County shall be responsible to provide Contractor the following:

4.1 Access to Technical Information: The County shall grant Contractor or its representative(s) access to technical information that Contractor might require from time to time.

4.2 On-site Facilities: The County will provide the appropriate escort to access physical equipment as needed.

5. CONTACT REPRESENTATIVES

5.1 County Contact Representatives: The County contact representative shall be the Transit Project Manager or designee. The County may, by notice in writing to Contractor, substitute other employees or agents as its designated representatives for purposes of this section.

5.2 Contractor Contacts: Initial requests for technical support should be directed to the designated telephone contact number that will be made available to the Project Manager prior to commencement of installation.

6. COUNTY RESPONSIBILITIES

6.1 Operating Environment: The County is responsible for maintenance agreements for all operating environment components in which the Software or Third-Party Software is to function.



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IN WITNESS WHEREOF, the parties have executed this Agreement effective as of the last date set forth below.

Contractor

Miami-Dade County

By: Frank J. Ingrassia

By: [Signature]

X Name: FRANK J. INGRASSIA

Name: Carlos A. Gomez

Title: PRESIDENT & CEO

Title: Mayor

Date: 4/17/2013

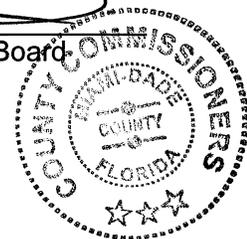
Date: 11-19-13

Attest: Denise R. Schmidt
Corporate Secretary

Attest: [Signature]
Clerk of the Board

DENISE R. SCHMIDT
NOTARY PUBLIC-STATE OF NEW YORK
No. 01SC5015566
Qualified in Nassau County
My Commission Expires July 26, 2013

Approved as to form
and legal sufficiency



Bruce Zilhaber
Assistant County Attorney



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EXHIBIT 4 - SOFTWARE ESCROW AGREEMENT

This Software Escrow Agreement (the "Agreement") is effective _____, 2012 between Clever Devices Ltd. (hereinafter "CLEVER" or the "Depositor"), and Miami-Dade County (hereinafter "the County" or the "Beneficiary"), and Escrow Associates, LLC (the "Escrow Agent"). For purposes of this Agreement, CLEVER, the County, and the Escrow Agent may be referred to singularly as a "Party" and collectively as the "Parties".

WHEREAS, Depositor has entered into a software license agreement dated _____ (the "License", included as Exhibit 2 to Contract No.808) with the County (the "Beneficiary") wherein Depositor has licensed the use of certain Depositor Software and materials outlined in Schedule B herein (the "Materials") in connection with development, production and operation of the Computer Aided Dispatch / Automated Vehicle Locator Replacement Project (CADAVLRP) and Kendall Drive Signalization (the "Computer Aided Dispatch / Automated Vehicle Locator Replacement Project and Kendall Drive Signalization") pursuant to the contract between Depositor and the County (the "Computer Aided Dispatch / Automated Vehicle Locator Replacement Project (CADAVLRP) and Kendall Drive Signalization Contract"); and

WHEREAS, Depositor wishes to protect its Materials under Florida law while providing the County with access to the Materials in the event that certain circumstances described in this Agreement occur; and

WHEREAS, Depositor and the County wish to deposit such Materials in escrow (the "Escrow Deposit") to be held by Escrow Agent in accordance with the terms and conditions of this Agreement, and

WHEREAS, Depositor and Beneficiary desires the term of this Escrow Agreement to commence with System Acceptance through the term of the Contract. **NOW, THEREFORE**, in consideration of the premises, mutual and covenants herein and other good and valuable consideration, the sufficiency of which is hereby acknowledged, the Parties agree as follows:

1. Appointment of Escrow Agent and Escrow Fees

Depositor and the County hereby appoint Iron Mountain as Escrow Agent to hold the Materials, as defined herein, in accordance with the terms and conditions of this Agreement, and Escrow Agent agrees to act in such capacity.

In consideration for the services to be performed hereunder, Depositor shall pay to Escrow Agent a fee of \$ _____ dollars. In the event of non-payment of the escrow fee, Escrow Agent shall give Depositor sixty (60) day notice of default. Escrow agent shall also send such notice to the Beneficiary as a notice of default. In the event the sixty (60) day notice period



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elapses without Escrow Agent having received payment, Escrow Agent shall notify the County of such failure by Depositor, and shall allow thirty (30) days for remedy. If after such period, and any extensions of time which may be granted by Escrow Agent have elapsed and Escrow Agent has not received payment, Escrow Agent shall have the right, without further notice being required and without liability to any Party whatsoever, to terminate this Agreement.

2. Materials Deposited in Escrow

Depositor agrees to deposit with Escrow Agent one copy of all the constituent elements of the Materials, including any revisions, updates and modifications as may be made by the Depositor, but not limited to, text, data, images, animation, graphics, video and audio segments, and source and object code and user and system documentation.

Depositor represents:

- a) It lawfully possesses and has full legal ownership of all Materials;
- b) With respect to all of the Materials presented to Escrow Agent, Depositor has the right and authority to grant to Escrow Agent the rights as provided in this Agreement;
- c) As of the effective date of this Agreement, the Materials are not the subject of any lien or encumbrance; however, any liens or encumbrance made after the execution of this Agreement will not prohibit, limit, or alter the rights and obligations of the Escrow Agent under this Agreement;
- d) The Materials are readable and useable in their current form and if any portion of the Materials is encrypted, the decryption tools and decryption keys necessary to provide the deposited materials in a clear text format have also been deposited in escrow.

Prior to the delivery of the Materials, Depositor shall conspicuously label for identification each document, disk, or other tangible media upon which the Materials are written or stored. Depositor shall complete Schedule B to this Agreement by listing each tangible media by the item label description, the type of media and the quantity. Schedule B shall be signed by an authorized representative of Depositor and delivered to Escrow Agent with the Materials. Unless and until Depositor makes the initial deposit with Escrow Agent, Escrow Agent shall have no obligation with respect to this Agreement, except the obligation to notify the County regarding the status of the account as required herein.

3. Modifications to Materials to be Deposited

Depositor may, from time to time, add to, improve and modify the Materials used by the County in connection with the CADAVLRP project. Depositor agrees to deposit or cause to be deposited with the Escrow Agent, one copy of any additions, updates, and modifications to the Materials.



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If additions, updates or modifications are made to the Materials, a deposit to the Materials shall be added within sixty (60) days of the end of each calendar quarter in which any material modification, upgrade or new release of the Materials occurs. In the event of default or termination, the Escrow Materials must be fully updated, including any additions and modifications to the Materials.

4. Independent Verification of Deposited Materials

Prior to the initial deposit to escrow, subsequent to any additional deposit, subsequent to the modification of previously deposited material, and at reasonable intervals during the term of this escrow agreement, the County shall have the right to engage an independent reviewer acceptable to Depositor to analyze the Escrow Deposit to ensure that the Escrow Deposit complies with Depositor's deposit obligations. The County shall pay all third-party costs associated with this analysis; provided, however, that if the analysis demonstrates that Depositor has failed to fulfill its deposit obligations, then Depositor shall bear all such costs. In any event, Depositor shall provide the County and its reviewer(s), at Depositor's expense, with reasonable assistance in such analysis of the Escrow Deposit.

5. Release and Delivery of Materials by Escrow Agent

The occurrence of any of the following events ("Release Events") shall provide to the County the right to request that the Escrow Agent release and deliver the Materials held in escrow to the County:

- a. The issuance of a final judgment of a court of competent jurisdiction or a final award of an arbitration panel finding that Depositor has committed a material breach of its support obligations under the Software License Agreement or depositor's material failure to carry out support, maintenance or similar obligations under terms of the CADAFLRP Contract, any exercised options to the CADAFLRP Contract, the Software License or the Software Maintenance and Support Agreement, which breach remains uncured by Depositor thirty (30) days following such issuance.
- b. Depositor's unauthorized assignment, either directly or indirectly (whether by merger, acquisition or otherwise), of support, maintenance or similar obligations imposed on it pursuant to the License to another company considered by The County, in its reasonable discretion, to be unsatisfactory.
- c. Entry of an order for relief for Depositor under the United States Bankruptcy Code or any similar proceeding initiated under the law of any other country or province;
- d. The making by Depositor of a general assignment for the benefit of its creditors;
- e. The appointment of a general receiver or trustee in bankruptcy of Depositor's business



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or property;

- f. Action by Depositor under any state insolvency or similar law for the purpose of its bankruptcy, reorganization or liquidation.

Filing for Release: If a Release Event occurs, the County shall provide to the Escrow Agent and Depositor written notice of the occurrence of the Release Event and a request for the release of the Materials. Such notice shall be signed by the County.

Contrary Instructions: From the date the Escrow Agent mails the notice requesting release of the Materials, Depositor shall have thirty (30) days to deliver to the Escrow Agent contrary instructions ("Contrary Instructions"). Contrary Instructions shall mean the written representation by Depositor that a Release Event has not occurred or has been cured. Contrary Instructions shall be signed by Depositor on company letterhead. Upon receipt of Contrary Instructions, the Escrow Agent shall promptly send a copy to the County. Additionally, the Escrow Agent shall notify both Depositor and the County that there is a dispute to be resolved relating to the release. The Escrow Agent will continue to store the Materials without release pending (a) joint instructions from Depositor and the County; (b) dispute resolution pursuant to the Terms and Conditions of Contract 808; or (c) an order from a court of competent jurisdiction.

Release of Deposit: If the Escrow Agent does not receive Contrary Instructions from Depositor, the Escrow Agent shall release the Materials to the County. Copying expense will be chargeable to The Depositor. This Agreement will terminate upon verification by the County of the released Materials, and the functionality as required by the System.

Right to Use Following Release: Unless otherwise provided in the License Agreement, upon release of the Materials, the County agrees to use the Materials only as permitted under the Software License Agreement.

Restrictions on Use: The following restrictions shall apply to the Materials delivered to the County:

- (i) The County shall keep the Materials in a secure, safe place when not in use;
- (ii) The County agrees to use the Materials only as permitted under the Software License Agreement ;
- (iii) The County shall be obligated to maintain the confidentiality of the released Materials in accordance with Section 12 below;
- (iv) Upon release from escrow, The County (and its Authorized Providers) shall have



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the right to use, copy, and modify the Materials, in order to support and expand the CADAFLRP, subject to all license restrictions. Any License Fee obligations owed for increased use of the System shall "sunset" upon escrow release.

6. Confidentiality and Record Keeping

Prior to this Agreement becoming effective, Escrow Agent must enter into a Non-Disclosure Agreement (the "NDA") with Depositor pursuant to which the Escrow Agent shall strictly maintain the confidentiality of all Materials.

7. Right to Make Copies

Escrow Agent shall have the right to make copies of the Materials as reasonably necessary to perform its obligation within this Agreement. Escrow Agent shall also notify Depositor and the County of any requests to copy the Materials. Escrow Agent shall ensure that all copyright, nondisclosure, and other proprietary notices and titles contained on the Materials are accurately and prominently displayed onto any copies made by Escrow Agent. With all Materials submitted to Escrow Agent, Depositor shall provide any and all instructions as may be necessary to duplicate the Materials, including, but not limited to, the hardware and/or software needed. Any copying expenses incurred by Escrow Agent as a result of a request to copy will be borne by the Party requesting the copies. Except as provided for in this Agreement, Escrow Agent shall not make the Materials available for either review or copying by third parties without written approval from Depositor and the County.

8. Termination

In the event, for whatever reason, the Agreement between Escrow Agent and Depositor is terminated or expires, the Depositor shall within thirty (30) calendar days enter into a new Escrow Agreement. If no new Escrow Agreement is established, the Escrow Agent shall proceed to release all deposits as though Miami-Dade County had requested delivery of the Deposited Materials. At all times, Depositor must continue to update the escrowed material as mandated by Section 4 – "Modifications to Materials to be Deposited," of this Agreement.

9. Survival of Terms Following Termination

Upon termination of this Agreement, the following provisions of this Agreement shall survive:

- a. The obligation to pay Escrow Agent any fees and expenses due;
- b. Any provisions in this Agreement which specifically state they survive the termination of this Agreement.

10. Dispute Resolutions shall be in accordance with Article 69 of the Contract.

11. Controlling Law: This Agreement is to be governed and construed in accordance with the laws of the State of Florida, without regard to its conflict of law provisions.

12. General Provisions



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Entire Agreement: This Agreement, which includes Schedule B herein, embodies the entire understanding between the Parties with respect to its subject matter and supersedes all previous communications, representations or understandings, either oral or written. No amendment or modification of this Agreement shall be valid or binding except in writing and signed by the Parties.

Notices: All notices, invoices, payments, deposits and other documents and communications shall be given to the Parties at the addresses specified herein. It shall be the responsibility of the Parties to notify each other as provided in this Section in the event of a change of address. Any correctly addressed notice or last known address of the Party to be notified that is relied on herein that is refused, unclaimed, or undeliverable because of an act or omission of the Party to be notified as provided herein shall be deemed effective as of the first date that said notice was refused, unclaimed, or deemed undeliverable by the postal authorities by mail, through messenger or commercial express delivery services. Unless otherwise provided in this Agreement, all documents and communications may be delivered by First Class mail.

Severability: In the event any provision of this Agreement is found to be invalid, voidable, or unenforceable, the Parties agree that unless it materially affects the entire intent and purpose of this Agreement, such invalidity, voidability, or unenforceability shall affect neither the validity of this Agreement nor the remaining provisions herein, and the provision in question shall be deemed to be replaced with a valid and enforceable provision most closely reflecting the intent and purpose of the original provision.

Successors and Assigns: This Agreement shall be binding upon and shall enure to the benefit of the successors and assigns of the Parties. However, Escrow Agent shall have no obligation in performing this Agreement to recognize any successor or assign of Depositor unless Escrow Agent receives clear, authoritative and conclusive written evidence of the change. Notice of any succession to or any assignment to this Agreement shall be provided to all Parties.

Waiver: Any term of this Agreement may be waived in writing by the Party entitled to the benefits thereof. No waiver of any condition, or breach of any provision of this Agreement, in any one or more instances, shall be deemed to be a further or continuing waiver of such condition or breach. Delay or failure to exercise any right or remedy shall not be deemed the waiver of that right or remedy.

Regulations: All Parties shall be responsible for and warrant compliance with all applicable laws, rules and regulations, including but not limited to customs laws, import, export, and re-export laws and government regulations of any country from or to which the Materials may be delivered in accordance with the provisions of this Agreement.

Attorney's Fees: In the event of litigation among the Parties arising out of or relating to this



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Agreement, the prevailing party shall be awarded reasonable Attorney fees and court costs.

Third Party Rights: This Agreement is made solely for the benefit of the Parties to this Agreement and their respective permitted successors and assigns, and no other person or entity shall have or acquire any right by virtue of this Agreement unless otherwise agreed to by all the Parties.

Authority to Sign: Each of the Parties represents and warrants that the execution, delivery, and performance of this Agreement has been duly authorized and signed by a person who meets statutory or other binding approval to sign on behalf of its business organization as named in this Agreement.

Counterparts: This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.

13. Public Records Disclosures

Materials that are held in escrow shall remain undisclosed property of Depositor, and shall be exempt from Florida Public Records disclosure requirements. In the event that Materials are released to the County under terms of this Agreement, the released Materials shall become subject to Florida Public Records laws and be governed by the following terms and conditions.

i) Depositor has represented that the Software and Documentation are owned by it and are protected by applicable copyright laws. Depositor further represents that the Software constitutes trade secrets of Depositor as the term "trade secrets" is defined in Section 812.081 of the Florida Statutes. Depositor claims exemption from disclosure of the Software as provided under Chapter 119, Public Records Law, Florida Statutes. the County agrees prior to any disclosure of the Software and/or Documentation under the Public Records Law that it will promptly notify Depositor of any request for disclosure so that Depositor may take such action or actions it deems necessary to prevent such disclosure and/or to defend against or settle any suit or proceeding against the County for the failure to make disclosure of the Software as provided under Chapter 119, Public Records Law, or other laws requiring disclosure by the County.

ii) In the event Depositor elects to prevent disclosure as above provided, Depositor agrees at its expense to protect, defend and indemnify the County against any claim, demand, action, proceeding, loss, liability, cost and expense (including court costs and reasonable fees of attorneys and other professionals) incurred or suffered by the County as a result of any claim against the County for the failure to make disclosure of the Software as provided under Chapter 119, Public Records Law, or other laws requiring disclosure by the County.



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iii) Nondisclosure by the County shall not apply to information that:

- a. Is or becomes known to the public without fault or breach on the part of Depositor;
- b. Depositor regularly discloses to third parties without restriction on disclosure; or
- c. The County receives from a party other than Depositor without restriction on disclosure.

5. Payment

The Party responsible for payment ("Paying Party") shall pay to Escrow Agent all fees as set forth in the Work Request ("Service Fees"). All Service Fees are due within thirty (30) calendar days from the date of invoice in U.S. currency and are non-refundable. Escrow Agent may update Service Fees with a ninety (90) calendar day written notice to the Paying Party during the Term of this Agreement (as defined below). The Paying Party is liable for any taxes (other than Escrow Agent income taxes) related specifically to Services purchased under this Agreement or shall present to Escrow Agent an exemption certificate acceptable to the taxing authorities. Applicable taxes shall be billed as a separate item on the invoice. Any Service Fees not collected by Escrow Agent when due shall bear interest until paid at a rate of one percent (1%) per month (12% per annum) or the maximum rate permitted by law, whichever is less. The Beneficiary shall not be responsible in any manner, for interest fees incurred due to non or late payment. Notwithstanding the non-performance of any obligations of Depositor to deliver Deposit Material under the License Agreement or this Agreement, Escrow Agent is entitled to be paid all Service Fees that accrue during the Term of this Agreement.

6. Term and Termination

(a) The term of this Escrow Agreement to commence with System Acceptance through the term of the Contract. This Agreement shall continue in full force and effect until one of the following events occur: (i) Depositor and Beneficiary provide Escrow Agent with sixty (60) days' prior written joint notice of their intent to terminate this Agreement; (ii) Beneficiary provides Escrow Agent and Depositor with sixty (60) days' prior written notice of its intent to terminate this Agreement; (iii) the Agreement terminates under another provision of this Agreement; or (iv) any time after the Initial Term, Escrow Agent provides sixty (60) days' prior written notice to the Depositor and Beneficiary of Escrow Agent's intent to terminate this Agreement. Effective Date and Deposit Account Number to be supplied by Escrow Agent only. The Effective Date supplied by Escrow Agent and specified above shall be the date Escrow Agent sets up the escrow account.

(b) Unless the express terms of this Agreement provide otherwise, upon termination of this Agreement, Escrow Agent shall return the Deposit Material to the Depositor. Unless otherwise



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directed by Depositor, Escrow Agent will use a commercially recognized overnight common carrier such as Federal Express or United Parcel Service to return the Deposit Material to the Depositor. Escrow Agent Depositor will not be responsible for any loss or destruction of, or damage to, such Deposit Material while in the custody of the common carrier. If reasonable attempts to return the Deposit Material to Depositor are unsuccessful, Escrow Agent Depositor shall destroy the Deposit Material.

(c) In the event of the nonpayment of undisputed Service Fees owed to Escrow Agent Depositor, Escrow Agent Depositor shall provide all Parties to this Agreement with written notice of Escrow Agent Depositor's intent to terminate this Agreement. Any Party to this Agreement shall have the right to make the payment to Escrow Agent Depositor to cure the default. If the past due payment is not received in full by Escrow Agent Depositor within thirty (30) calendar days of the date of such written notice, then Escrow Agent Depositor shall have the right to terminate this Agreement at any time thereafter by sending written notice to all Parties. Escrow Agent Depositor shall have no obligation to perform the Services under this Agreement (except those obligations that survive termination of this Agreement, which includes the confidentiality obligations in Section 9) so long as any undisputed Service Fees due Escrow Agent Depositor under this Agreement remain unpaid.

7. Infringement Indemnification

Anything in this Agreement to the contrary notwithstanding, Depositor at its own expense shall defend and hold Escrow Agent fully harmless against any claim or action asserted against Escrow Agent (specifically including costs and reasonable attorneys' fees associated with any such claim or action) to the extent such claim or action is based on an assertion that Escrow Agent's proper administration of this Agreement infringes any patent, copyright, license or other proprietary right of any third party. When Escrow Agent has notice of a claim or action, it shall promptly notify Depositor in writing. At its option, Depositor may elect to control the defense of such claim or action and may elect to enter into a settlement agreement, provided that no such settlement or defense shall include any admission or implication of wrongdoing on the part of Escrow Agent without Escrow Agent's prior written consent, which consent shall not be unreasonably delayed or withheld. Escrow Agent shall have the right to employ separate counsel and participate in the defense of any claim at its own expense.

8. Warranties

(a) Escrow Agent warrants any and all services provided hereunder shall be performed in a workmanlike manner consistent with the measures Escrow Agent takes to protect its own



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information of a similar nature, but in no case less than a reasonable level of care. except as specified in this section, all conditions, representations, and warranties including, without limitation, any implied warranties or conditions of merchantability, fitness for a particular purpose, satisfactory quality, or arising from a course of dealing, usage, or trade practice, are hereby excluded to the extent allowed by applicable law. an aggrieved party must notify Escrow Agent promptly upon learning of any claimed breach of any warranty and, to the extent allowed by applicable law, such party's remedy for breach of this warranty shall be subject to the limitation of liability and consequential damages waiver in this agreement. this disclaimer and exclusion shall apply even if the express warranty and limited remedy set forth above fails of its essential purpose.

(b) Depositor warrants that all Depositor information provided hereunder is accurate and reliable and undertakes to promptly correct and update such Depositor information during the Term of this Agreement.

(c) Beneficiary warrants that all Beneficiary information provided hereunder is accurate and reliable and undertakes to promptly correct and update such Beneficiary information during the Term of this Agreement.

9. Confidential Information

Escrow Agent shall have the obligation to implement and maintain safeguards designed to protect the confidentiality of the Deposit Material. Except as provided in this Agreement Escrow Agent shall not use or disclose the Deposit Material. Escrow Agent shall not disclose the terms of this Agreement to any third party other than its financial, technical, or legal advisors, or its administrative support service providers. Any such third party shall be bound by the same confidentiality obligations as Escrow Agent. If Escrow Agent receives a subpoena or any other order from a court or other judicial tribunal pertaining to the disclosure or release of the Deposit Material, Escrow Agent will promptly notify the Parties to this Agreement unless prohibited by law. After notifying the Parties, Escrow Agent may comply in good faith with such order. It shall be the responsibility of Depositor or Beneficiary to challenge any such order; provided, however, that Escrow Agent does not waive its rights to present its position with respect to any such order. Escrow Agent will cooperate with the Depositor or Beneficiary, as applicable, to support efforts to quash or limit any subpoena, at such Party's expense. Any Party requesting additional assistance shall pay Escrow Agent's standard charges or as quoted upon submission of a detailed request.

10. ___Limitation of Liability



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EXCEPT FOR: (I) LIABILITY FOR DEATH OR BODILY INJURY; (II) PROVEN GROSS NEGLIGENCE OR WILLFUL MISCONDUCT; OR (III) THE INFRINGEMENT INDEMNIFICATION OBLIGATIONS OF SECTION 7, ALL OTHER LIABILITY RELATED TO THIS AGREEMENT, IF ANY, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE, OF ANY PARTY TO THIS AGREEMENT SHALL BE LIMITED TO THE AMOUNT EQUAL TO ONE YEAR OF FEES PAID TO ESCROW AGENT UNDER THIS AGREEMENT. IF CLAIM OR LOSS IS MADE IN RELATION TO A SPECIFIC DEPOSIT OR DEPOSITS, SUCH LIABILITY SHALL BE LIMITED TO THE FEES RELATED SPECIFICALLY TO SUCH DEPOSITS.

11. ___ Consequential Damages Waiver

IN NO EVENT SHALL ANY PARTY TO THIS AGREEMENT BE LIABLE TO ANOTHER PARTY FOR ANY INCIDENTAL, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, LOST PROFITS, ANY COSTS OR EXPENSES FOR THE PROCUREMENT OF SUBSTITUTE SERVICES (EXCLUDING SUBSTITUTE ESCROW SERVICES), OR ANY OTHER INDIRECT DAMAGES, WHETHER ARISING IN CONTRACT, TORT (INCLUDING NEGLIGENCE) OR OTHERWISE EVEN IF THE POSSIBILITY THEREOF MAY BE KNOWN IN ADVANCE TO ONE OR MORE PARTIES.



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IN WITNESS WHEREOF, The Parties have made and executed this Agreement on the respective date under each signature: Depositor, signing by and through its _____, duly authorized to execute same and MIAMI-DADE COUNTY, signing by The Mayor, or his designee, and authorized to execute same by Board action on the ____ day of _____, 2013.

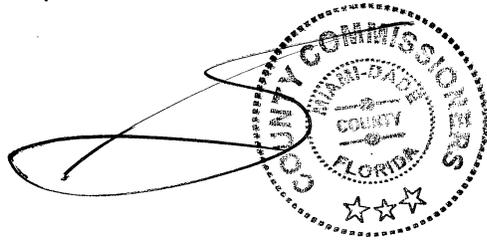
ATTEST:

MIAMI-DADE COUNTY

Carlos A. Gimenez, Mayor

By [Signature],
19 day of November, 2013.

Lester Sola, Director, Internal Services Department



Approved as to form and legal sufficiency by
[Signature]
County Attorney

(THE COUNTY Seal)

ATTEST:

DEPOSITOR

[Signature]
Witness

[Signature]
Signature

DENISE R. SCHMIDT
NOTARY PUBLIC-STATE OF NEW YORK
No. 01SC5015566
Qualified in Nassau County
My Commission Expires July 26, 2013

FRANK J. INGRASSIA, PRESIDENT & CEO
Printed Name and Title

(Corporate Seal)

17th DAY OF APRIL, 2013



MIAMI-DADE COUNTY, FLORIDA

Contract NO.808

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AS TO DUTIES OF ESCROW AGENT ONLY:

ESCROW AGENT:

By: _____

Name: _____

Title: _____



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SCHEDULE B – SOFTWARE AND INTERFACES

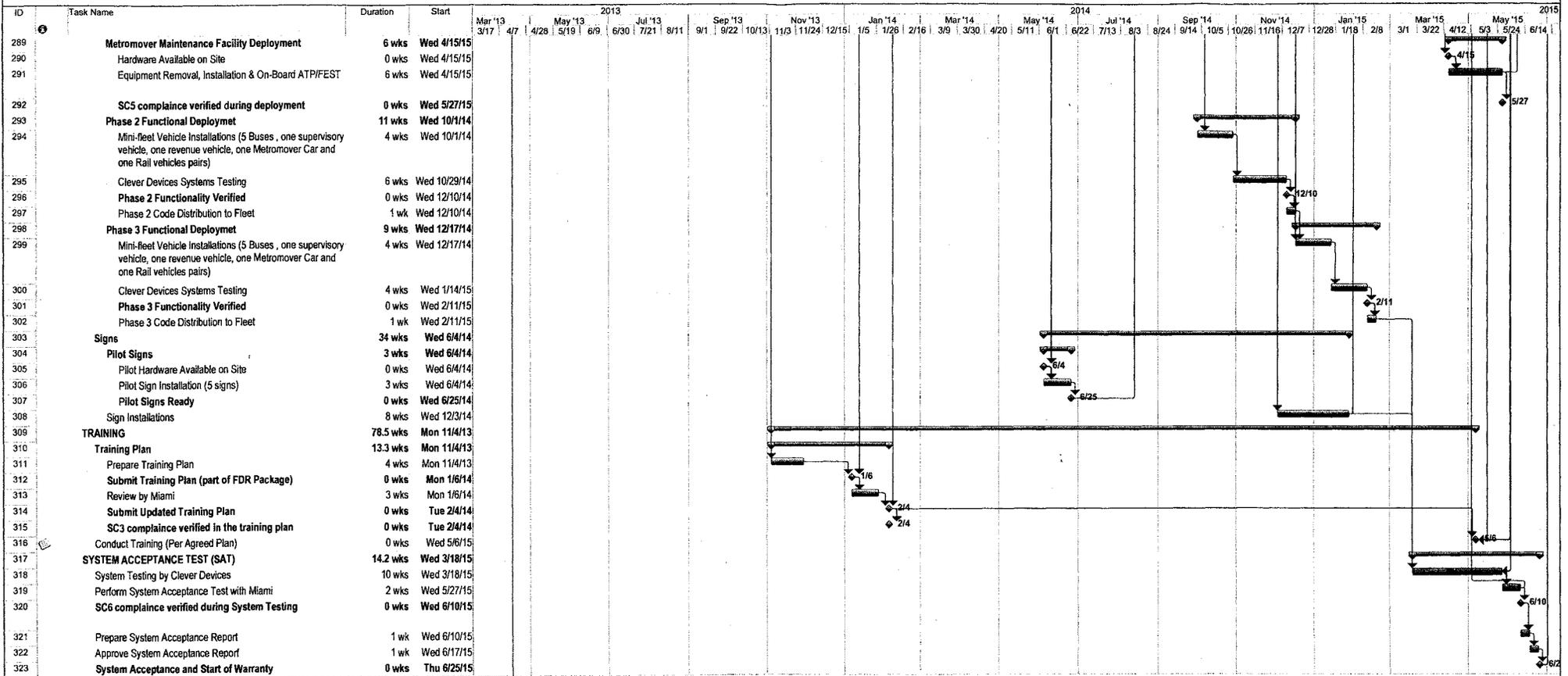
The following table is a sample list of all the Depositor Supplied Software to be escrowed in accordance with the provisions specified in the Software Escrow Agreement of this Contract.

Software Components / Interfaces (“API”)

Incident Management
Incident Analytics Driver Behavior
Idle Monitor
BusTools® and FX Schedule Interface
BusLink® with Fleet and File Manager
CleverCAD® and ATMS TSP Interface
Data Communications Controller Gateway
CleverReports
BusTime®
Operational Data Warehouse and Translator
TOS Interface
AVM® (Automated Vehicle Monitoring) and Interface to EAMS
SmartYard Garage / Maintenance Facility Mapping
IVN® BusWare® application, which includes all on-board interfaces
Infotainment
All associated on-board Interface Control Documents for: Metromover Interface,
Metrorail Interface, Vehicle Single Logon, OpenSky Radio, and Automatic Passenger Counter.

Miami Dade CAD/AVLRP Project Schedule

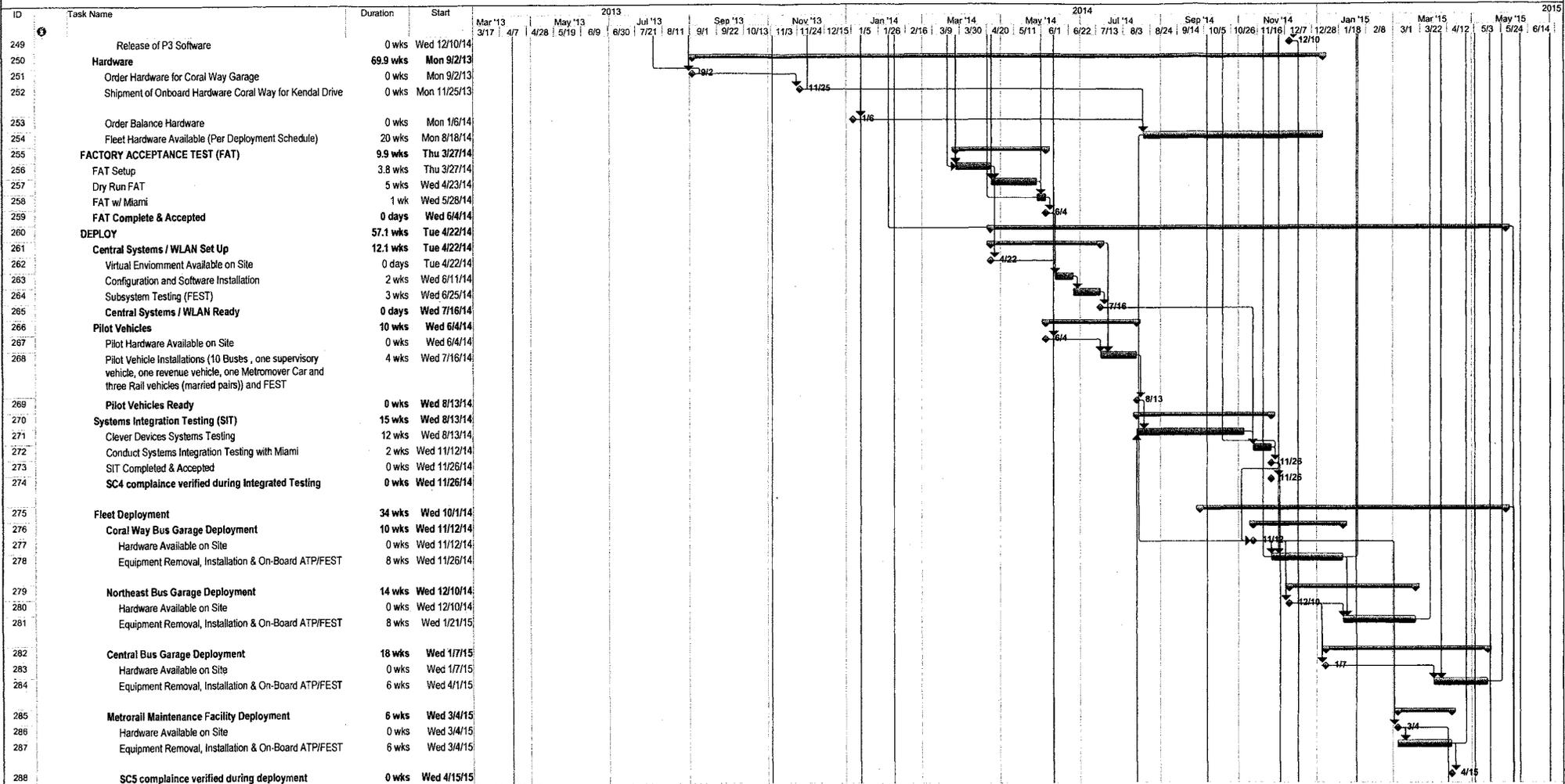
Contract 808 Exhibit 5 Project Schedule Final.mpp



Project: Contract 808 Exhibit 5 Project Schedule Final.mpp Print Date: Wed 4/17/13	Task		Rolled Up Critical Task		Project Summary		Manual Task		Finish-only	
	Critical Task		Rolled Up Milestone		Group By Summary		Duration-only		Critical	
	Milestone		Rolled Up Progress		Inactive Task		Manual Summary Rollup		Critical Split	
	Summary		Split		Inactive Milestone		Manual Summary		Progress	
	Rolled Up Task		External Tasks		Inactive Summary		Start-only		Deadline	

Miami Dade CAD/AVLRP Project Schedule

Contract 808 Exhibit 5 Project Schedule Final.mpp

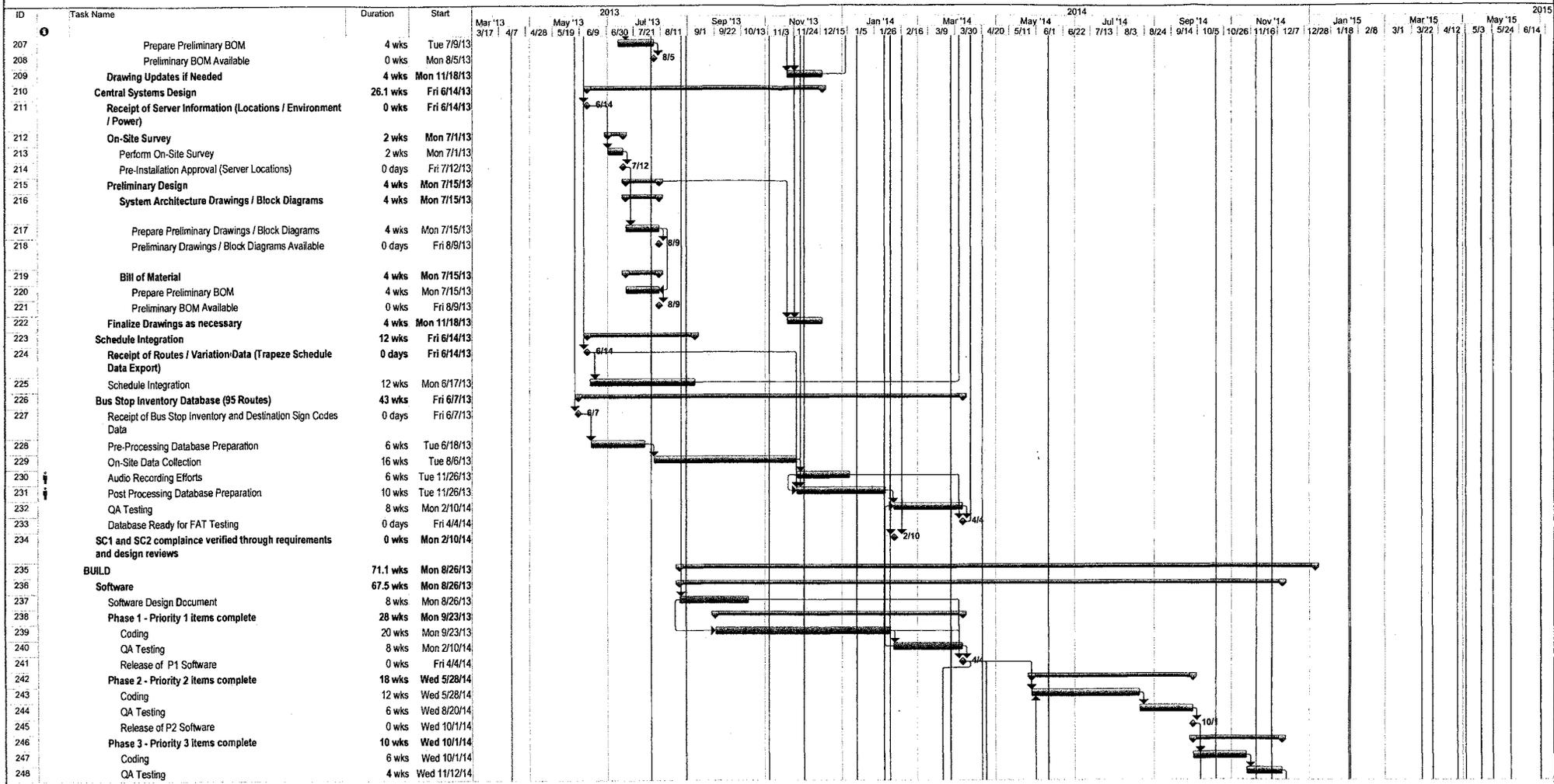


Project: Contract 808 Exhibit 5 Project Schedule Final.mpp
Print Date: Wed 4/17/13

Task		Rolled Up Critical Task		Project Summary		Manual Task		Finish-only	
Critical Task		Rolled Up Milestone		Group By Summary		Duration-only		Critical	
Milestone		Rolled Up Progress		Inactive Task		Manual Summary Rollup		Critical Split	
Summary		Split		Inactive Milestone		Manual Summary		Progress	
Rolled Up Task		External Tasks		Inactive Summary		Start-only		Deadline	

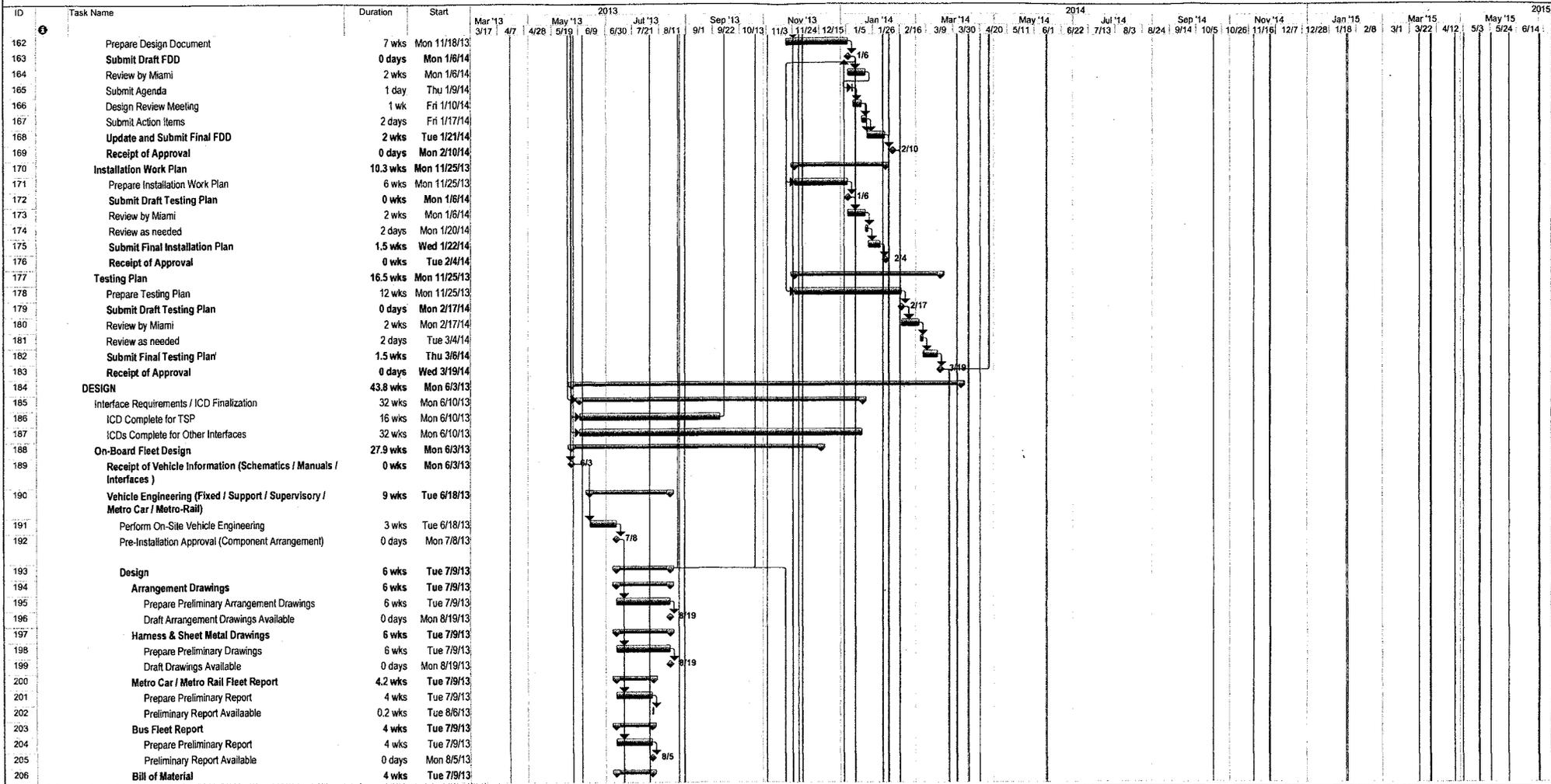
Page 5

Miami Dade CAD/AVLRP Project Schedule Contract 808 Exhibit 5 Project Schedule Final.mpp



Project: Contract 808 Exhibit 5 Project Schedule Final.mpp Print Date: Wed 4/17/13	<table border="0"> <tr> <td>Task</td><td></td><td>Rolled Up Critical Task</td><td></td> <td>Project Summary</td><td></td> <td>Manual Task</td><td></td> <td>Finish-only</td><td></td> </tr> <tr> <td>Critical Task</td><td></td><td>Rolled Up Milestone</td><td></td> <td>Group By Summary</td><td></td> <td>Duration-only</td><td></td> <td>Critical</td><td></td> </tr> <tr> <td>Milestone</td><td></td><td>Rolled Up Progress</td><td></td> <td>Inactive Task</td><td></td> <td>Manual Summary Rollup</td><td></td> <td>Critical Split</td><td></td> </tr> <tr> <td>Summary</td><td></td><td>Split</td><td></td> <td>Inactive Milestone</td><td></td> <td>Manual Summary</td><td></td> <td>Progress</td><td></td> </tr> <tr> <td>Rolled Up Task</td><td></td><td>External Tasks</td><td></td> <td>Inactive Summary</td><td></td> <td>Start-only</td><td></td> <td>Deadline</td><td></td> </tr> </table>	Task		Rolled Up Critical Task		Project Summary		Manual Task		Finish-only		Critical Task		Rolled Up Milestone		Group By Summary		Duration-only		Critical		Milestone		Rolled Up Progress		Inactive Task		Manual Summary Rollup		Critical Split		Summary		Split		Inactive Milestone		Manual Summary		Progress		Rolled Up Task		External Tasks		Inactive Summary		Start-only		Deadline	
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Miami Dade CAD/AVLRP Project Schedule Contract 808 Exhibit 5 Project Schedule Final.mpp

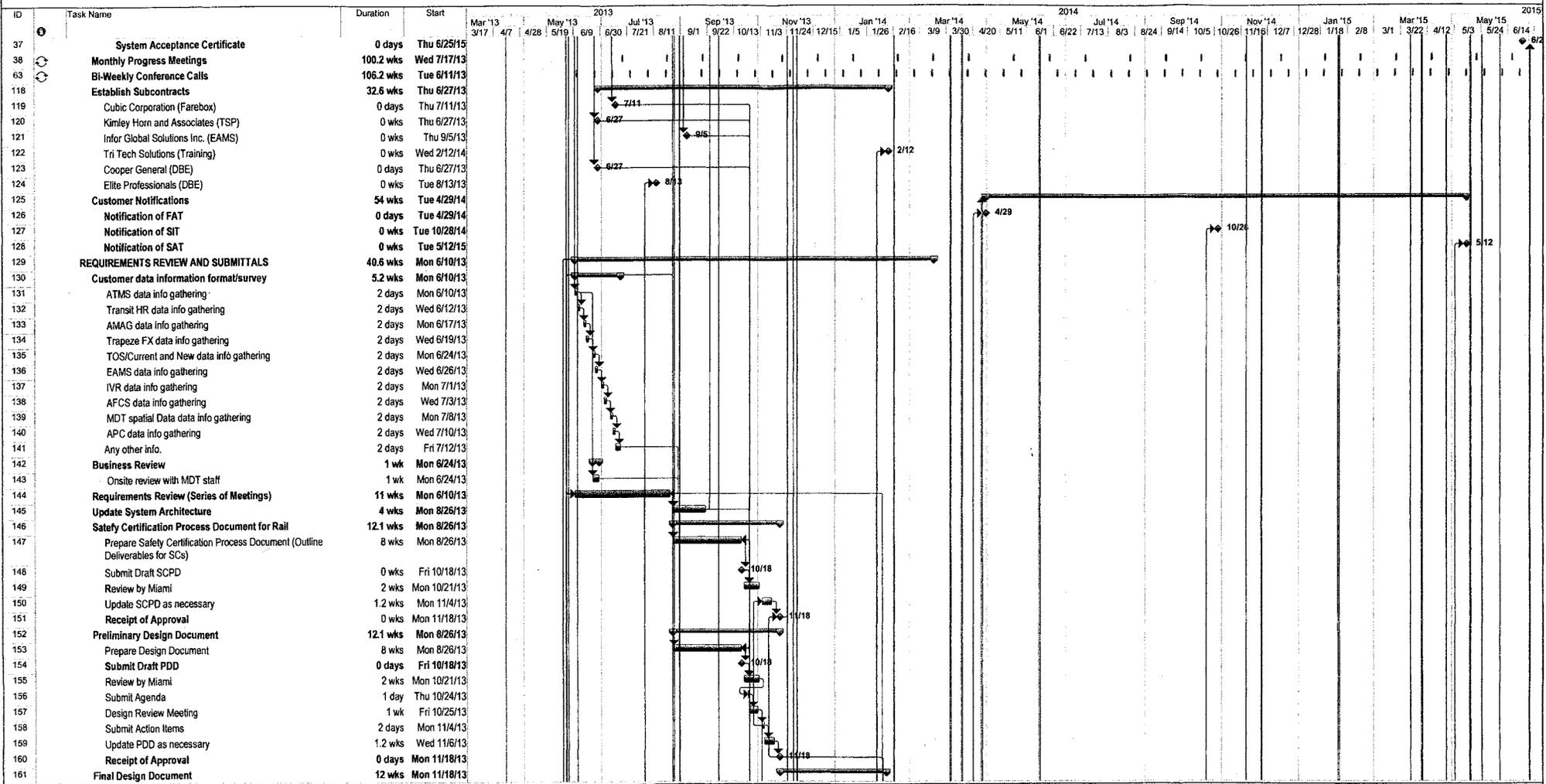


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Miami Dade CAD/AVLRP Project Schedule

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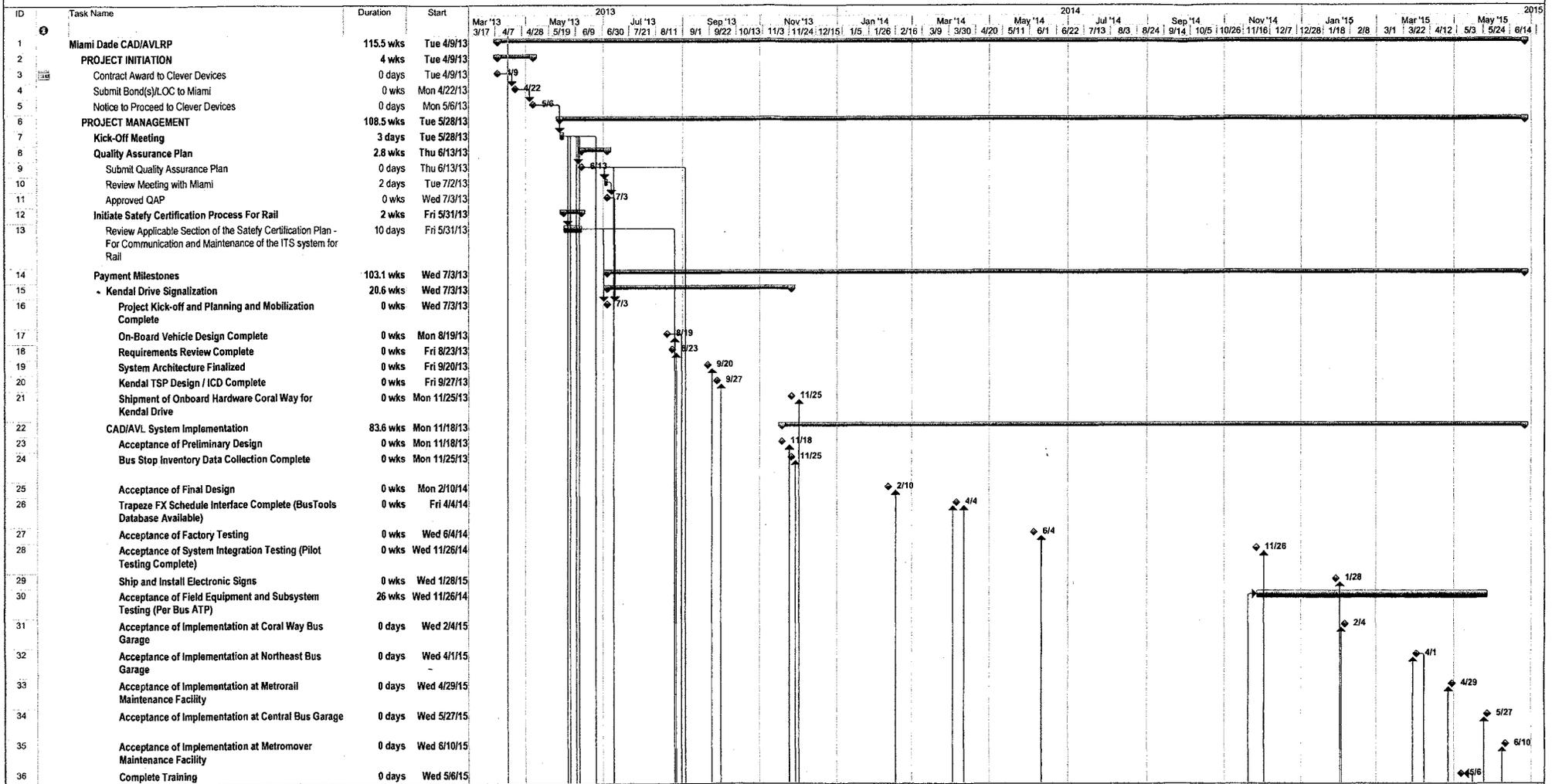


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Task		Rolled Up Critical Task		Project Summary		Manual Task		Finish-only	
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Rolled Up Task		External Tasks		Inactive Summary		Start-only		Deadline	

Miami Dade CAD/AVLRP Project Schedule

Contract 808 Exhibit 5 Project Schedule Final.mpp



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Task	Rollup Critical Task	Project Summary	Manual Task	Finish-only
Critical Task	Rollup Milestone	Group By Summary	Duration-only	Critical
Milestone	Rollup Progress	Inactive Task	Manual Summary Rollup	Critical Split
Summary	Split	Inactive Milestone	Manual Summary	Progress
Rollup Task	External Tasks	Inactive Summary	Start-only	Deadline

EXHIBIT 6: PROJECT PAYMENT SCHEDULE

	Incremental Payment for the CAD/AVL System Implementation Payment Schedule less Kendall Drive Signalization	Completion Payment Percentage	Incremental Payment for the Kendall Drive Signalization	Completion Payment Percentage
Acceptance of Project Design Package			20%	
FAT Kendal Drive Interfaces			30%	50%
Ship equipment for Kendal Drive			20%	70%
Coral Way Garage/Kendal Fleet Install/pilot			30%	100%
Acceptance of Final Project Design Package	10%	10%		
Acceptance of Factory Testing	20.0%	30.0%		
Acceptance of Field Equipment and Subsystem Testing	5.0%	35.0%		
Acceptance of System Integration Testing	5.0%	40.0%		
Acceptance of Implementation at Coral Way Bus Garage	5.0%	45.0%		
Acceptance of Implementation at Northeast Bus Garage	5.0%	50.0%		
Acceptance of Implementation at Central Bus Garage	5.0%	55.0%		
Acceptance of Implementation at Metrorail Maintenance Facility	5.0%	60.0%		
Acceptance of Implementation at Metromover Maintenance Facility	10.0%	70.0%		
System Acceptance Certificate (Commencement of three (3) year warranty)	25.0%	95.0%		

Final Acceptance Certificate / Administrative Closeout (Expiration of three (3) year warranty)	5.0%	100.0%	
	100.0%		100.0%

1 EXHIBIT 7 APPROACH TO PROVIDING THE SERVICES

The purpose of this document is to describe the approach to provide the services necessary to implement the CAD/AVL and Kendall Square Signalization project as described in RFP #808 and subsequent contact documents.

Our standard deployment process follows the FTA guidelines for system engineering incorporating an organized flow of work and documentation that describes and validates that the delivered solution meets the clients stated requirements.

In preparation of the proposal, we carefully reviewed the RFP requirements to design our proposed solution and deployment services approach based on our standard technology and processes. The following sections address the proposed services approach for this project.

- Implementation plan
- Design Reviews
- Software Customization
- Custom training program
- Change Management
- Solution Testing
- Documentation package

1.1 TIMEFRAME

The Project Schedule is provided in Exhibit 5: Project Schedule of the contract.

1.2 PROJECT IMPLEMENTATION APPROACH

Our project approach leverages the FTA systems engineering approach ensuring an organized and efficient technology plan and implementation that follows industry proven processes. The top level deployment approach for this project is illustrated in Figure 1: Miami-Dade County CAD/AVL and Kendall Signalization Deployment Approach below and includes 9 phases and their relationship to major contractual milestones. The phases provide a logical progression of activity to ensure efficient and effective project delivery.

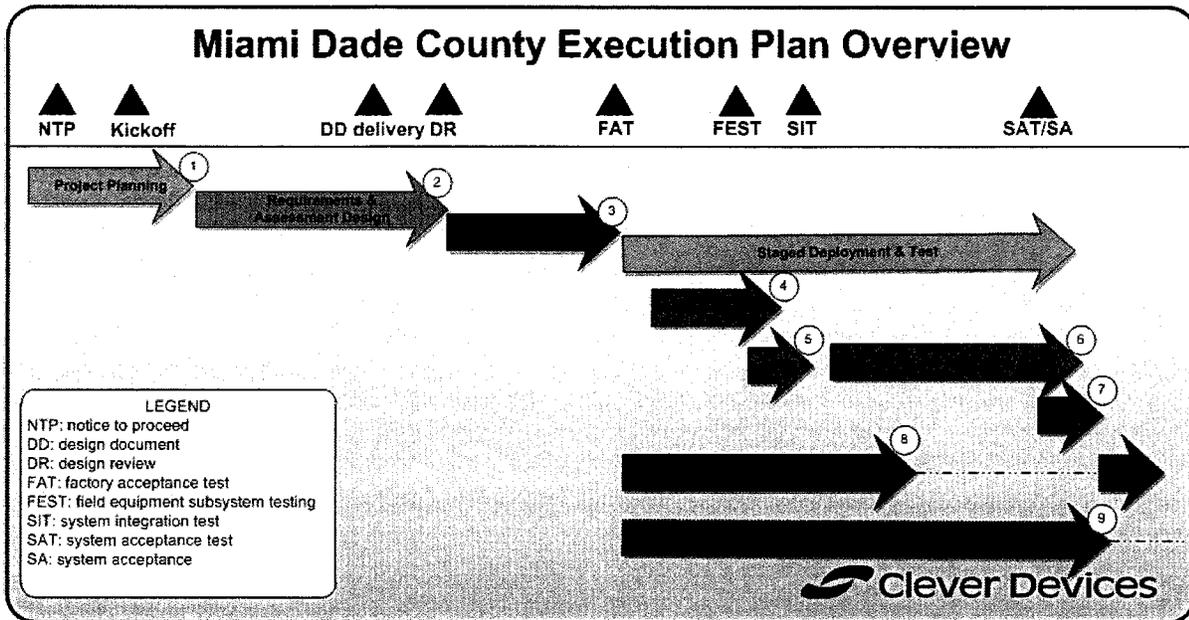


Figure 1: Miami-Dade County CAD/AVL and Kendall Signalization Deployment Approach

The following paragraphs summarize the activities and services provided in each phase of the project.

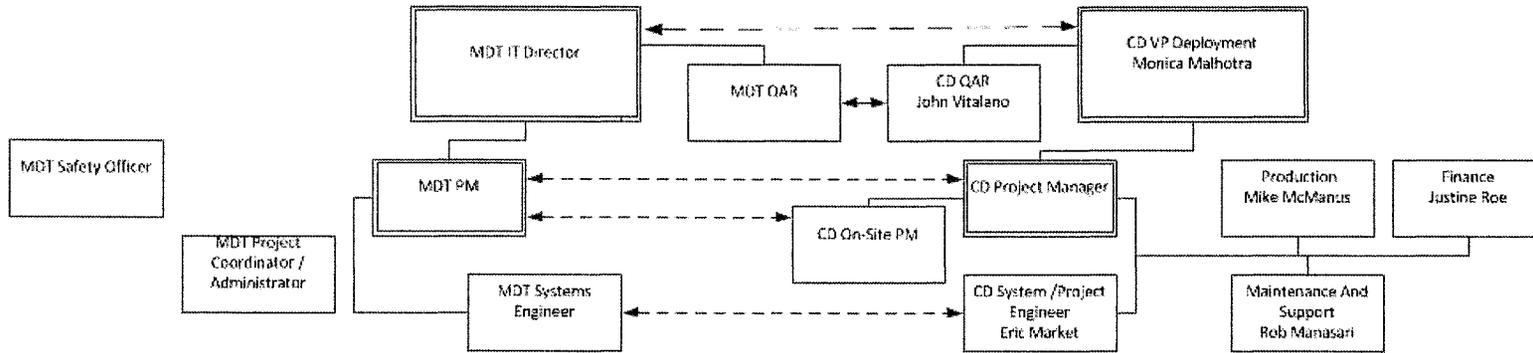
1.2.1 PROJECT TEAM STAFFING

The following resources will be active throughout the project :

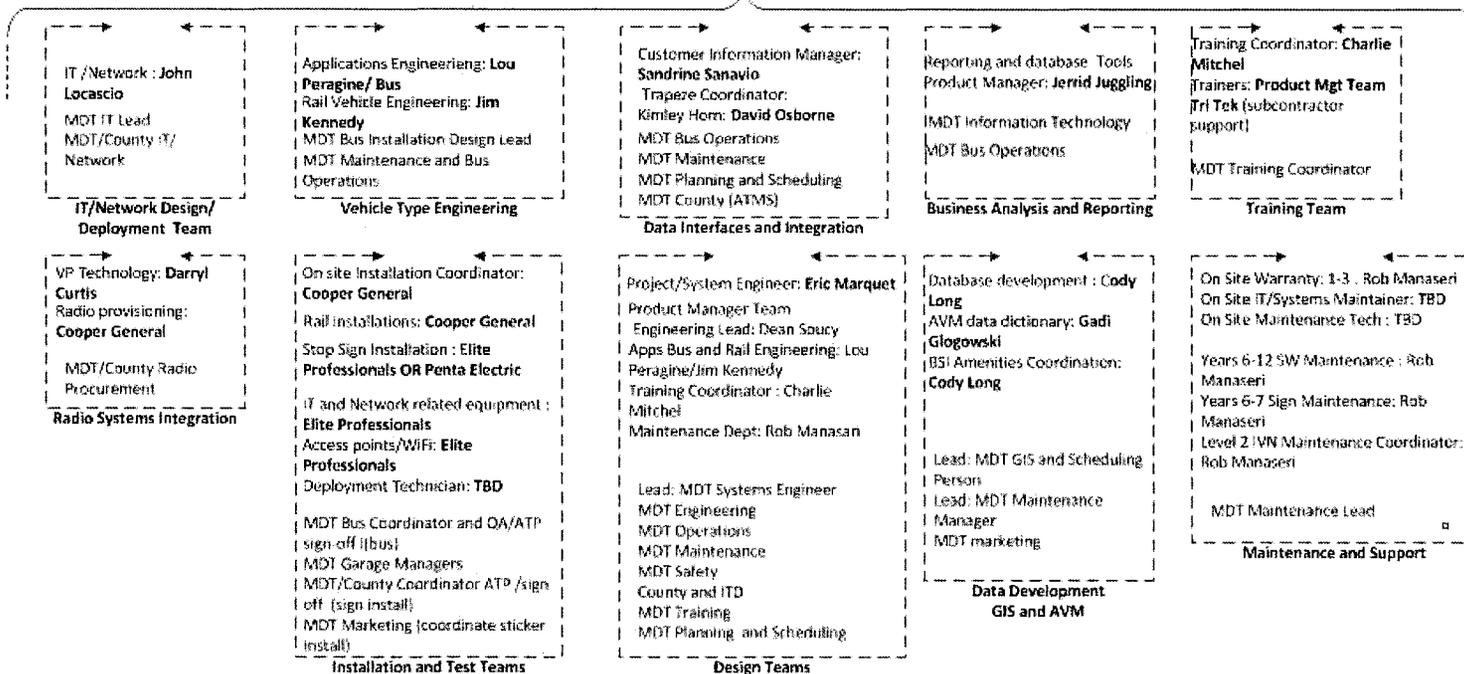
- Project Manager
- System Engineer
- Quality Assurance Manager
- Communications Engineering Lead
- On-Site Project Manager /Customer Information Manager
- Data Systems Lead
- Product Management Group
- Bus Applications Engineering
- Rail Engineering
- On-Site Technician

The illustration below provides an overview of the integrated project team. This organizational structure illustrates the integrated functional working teams who will be engaged throughout the project.

Computer Aided Dispatch/Automatic Vehicle locator Replacement Project and Kendall Drive Signalization Integrated Project Team RFP #808



Integrated Functional Area Working Teams



1.3 PHASE 1: PROJECT PLANNING AND MANAGEMENT

Early planning activities establish the overall implementation strategy team and guidelines of the project and form the foundation of the continuing management of the project. Early planning occurs during the proposal phase resulting in a thorough review of the technical and business requirements that are documented in the RFP. We analyze your requirements for alignment with our standard technology as well as available business capacity. Preparation of the proposal through contract award is the responsibility of the Account Manager assisted with our Technology, Deployment, and Proposal and Pricing teams. The early stage proposal planning ensures the proposed project is viable, the budget is realistic, and our internal organizations and subcontractors understand the project requirements. This translates into our ability to efficiently mobilize upon selection. Key actions and understandings developed during the proposal stage include:

- Top level understanding of system requirements
- Preliminary hardware and software solution design
- Identification of subcontractor team and establishment of scopes of work and budgets
- Development of the overall project budget
- Development of top level schedule
- Risk identification and mitigation concepts
- Identification of the project team/staffing

Once the contract is awarded and we receive Notice To Proceed our project team is mobilized. During this phase we organize formal meetings with MDT and County stakeholders to kick-off the project, review the requirements, designs and technology strategies. We finalize the schedule and roles and responsibilities among the team and we begin to collect both technical information and an understanding of your business process which support development of the design documents.

The following key planning activities will be provided.

- Internal project kickoff with key project team members: designed to convey an overview of the project and key deliverables and timelines so each stakeholder and stakeholder support organization can effectively plan their respective activity /participation on the project
- Data and operations assessment
- Development of the Quality Assurance Plan (QAP)
- Establishment of the Subcontractor Contracts
- Detailed Baseline Schedule is established/Update the deliverables lists
- Finalize the implementation strategy
- Discuss and agree upon a change management process
- Identify risks including ones associated with third party projects

The Project Manager and Quality Assurance Manager will finalize the Quality Assurance Plan (QAP) that will be submitted to MDT QAR for review and acceptance. This plan provides the overview of how the project will be managed, designed, tested, and deployed in accordance with quality policies and procedures. The plan will be developed in accordance with Article 53 of the contract.

Integration of several third party systems is critical to the success of this project. The subcontractor team, many of whom are vendors of the third party systems to be integrated, will be established. The Project Manager and Systems Engineer will refine and execute the subcontractor scopes of work already developed during the proposal process. On boarding the subcontractor team early in the project provides their involvement in development of the design documents.

The Project Manager will refine/update the project schedule as necessary in consultation with the Miami-Dade Project Manager. This schedule provides the documentation work flow and timeline from which progress on the project will be monitored.

The project team will provide a kickoff meeting with Miami-Dade County Team as the first step towards working together with MDT's team. This meeting introduces the teams, reviews the overall project goals, roles and responsibilities, timeline, communications plan, deliverables, and early /next phase activities. We plan to have members of our project team whom participate in the kickoff meeting obtain the required Safety Training during this visit.

MDT's Data Information Survey provides an understanding of your business processes and data flows necessary to support the planning of the projects data integration and third party interface design. The project team includes a customer information manager who will visit MDT to collect this information and develop a data integration overview. This will be used as a guideline for the design and development of the integration subsystems which are key elements of this project.

Business Operations Assessment enables us to efficiently leverage the technology features and functions included in the CAD/AVL and Kendall Drive Signalization solution therefore minimizing potential unnecessary custom development. We will provide a transit report expert who will visit Miami-Dade County early in the project and after the pilot deployment to gather an understanding of your operations process and information needs. Using this information he/she will review our available reports and discuss their utilization with your operations team. Together your team and our report expert will determine which reports are most useful to support your current business process, and those reports that may need to be developed custom for your agency. We provide a second visit and assessment after the pilot deployment as this provides MDT the first utilization of your new CAD/AVL system. This visit will focus on your experiences, and assessed utilization of the key reports selected early in our process. At this time we can make changes, review utilization of other reports, and information available through the system.

1.3.1 MDT ROLES AND RESPONSIBILITIES

In kick-off and planning phase, MDT will be responsible to attend the Kick off meeting, identify subject matter experts and participate in reviews with our survey teams who will be collecting technical and business data for the design process.

MDT will be responsible to engage with our Project Manager and Systems Engineer to review document deliverables.

MDT will be responsible to facilitate the meeting and review of the QAP as well as to provide safety training to Clever Devices staff.

1.3.2 DELIVERABLES:

- QAP
- Project Plan

- Kickoff Meeting Agenda and Material

1.4 REQUIREMENTS AND DESIGN

This phase includes clarification and verification of requirements and development of the system design documents (DD) which are discussed and delivered to support the Preliminary and Final Design Review meetings. The approved design documents form the basis for the system.

Several activities are accomplished during this phase:

- Development of the Requirements Matrix
- Review / Update the System Architecture Diagram
- Site Surveys in support of bus type engineering, and IT equipment installation and technology planning
- Development of the Design Documents
- Completion of the Design Reviews
- Development of the Test Plan and Procedures
- Development of the Training Plan
- Establishment of the Safety Certification list and overall Safety Certification Plan
- Development of the Installation and Cut-over plan
- Procurement of Equipment

1.4.1 REQUIREMENTS

The project/system engineer will develop a Requirements Matrix (RM) to document the correlation between MDT's requirements and elements /products of the proposed solution. The requirements matrix will provide a foundation for the detailed technical understanding and verification/ test procedures for the solution to meet the MDT requirements.

The Requirements Matrix is reviewed with MDT's team during the Requirements Review Meeting. This review starts with Kickoff Meeting with MDT and is accomplished through series of meetings / reviews. At the Requirements Review meeting the following items are discussed for each contract requirement: (1) design intent; (2) the intended design approach; and (3) the general approach to demonstration through either the acceptance testing process, documentation, or another agreed upon process. The requirements review will include a review of the facility and available resources that may need to be updated to accommodate the to-be-added technologies.

After our Project Kickoff Meeting, the Systems Engineer and Network Engineer will conduct a site survey to determine the infrastructure requirements of the deployment and to develop an overall Systems Design.

A representative from the Applications Engineering team will survey each bus type, Metromover and Metrorail vehicle and non -revenue vehicles in MDT's fleet to determine the requirements of the on board equipment placement, harness requirements such as cable lengths, and identify any unique situations which we will need to address in the vehicle systems design.

1.4.2 MDT ROLES AND RESPONSIBILITIES

In requirements review phase, MDT will be responsible to attend the requirements review sessions. MDT's project engineer will be the single point interface to Clever Devices' systems engineering for the requirements review sessions. Other subject matter experts will participate in the specific review sessions e.g. IT design, Schedule Interface, EAMS Interface.

MDT will be responsible to facilitate the on-site meetings.

1.4.3 DESIGN

Major activities of this design phase include development and delivery of the following plans and documents and completion of the Preliminary and Final Design Reviews MDT:

- Integration Plan and Top Level Design
- Test Plans and Procedures which will address procedures for each test segment defined by MDT: 1) Factory Acceptance Test, 2) Field Equipment and SubSystem Test (FEST), 3) System Integration Test (SIT), and 4) System Acceptance Test.
- Installation and Cutover Plan and
- User Manuals
- Training Plan
- Update to the Safety Certification Plan

With the information gathered during the requirements review with MDT, and the surveys completed during the early project activities, the Clever Devices team will develop the Preliminary Design Document containing the material required by MDT. in order to streamline the Clever Devices and MDT review processes, segments of the PDD may be released as they are completed

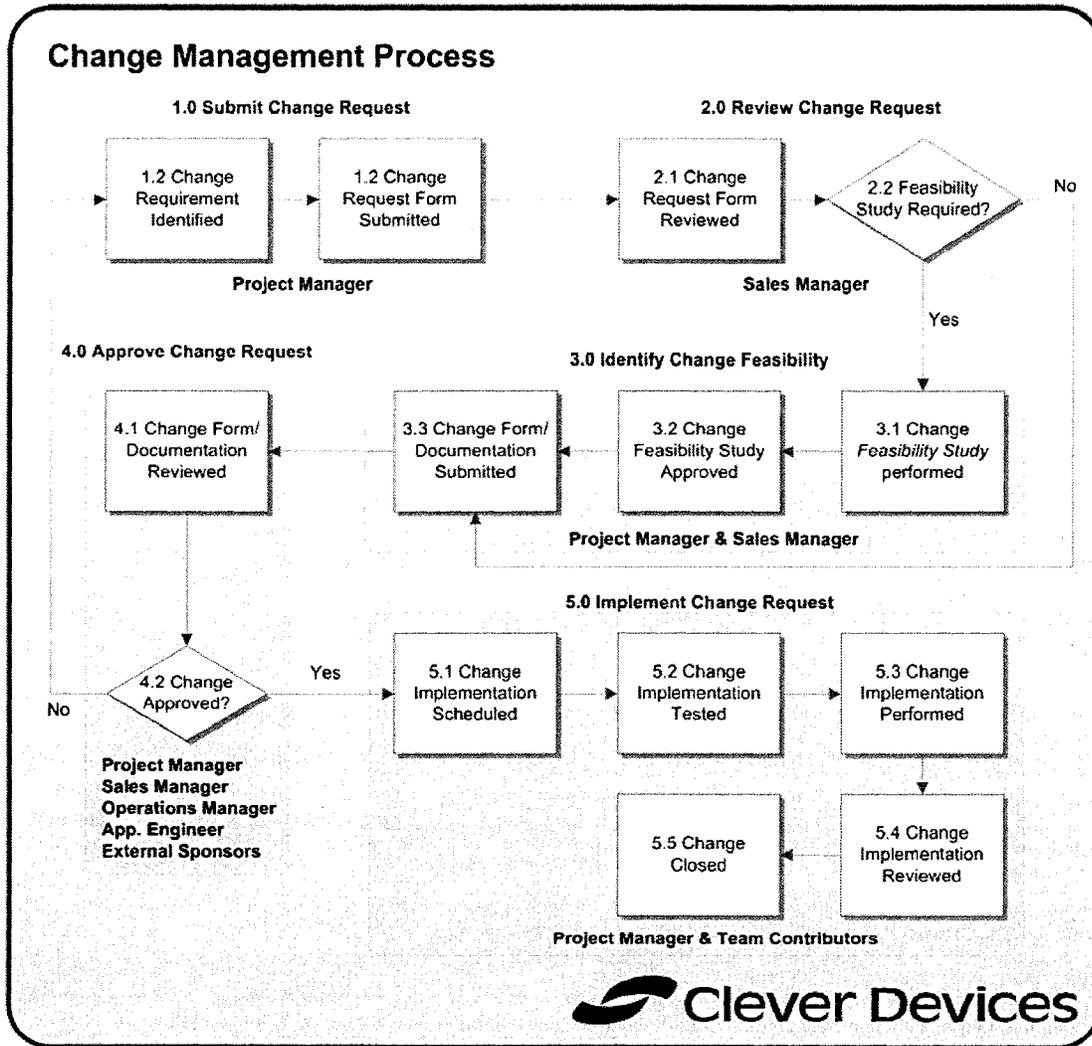
The FDD will provide more detailed information and include agreed upon changes resultant from the PDD review and PDR meeting.

We will conduct a PDR and FDR meetings to review the delivered PDD and FDD.

Completion of this phase resulted in the completion of the design reviews and signed design document.

1.4.4 CHANGE MANAGEMENT

We recognize that as the project progresses requirements defined in the PDR may changes. We use a formal scope change process. . The scope change request would be prepared and submitted to MDT to include the summary of the technical change, timeframe for implementation and budget impacts. At that time, MDT can assess whether to move forward with the change. We work with MDT collaboratively to assess the criticality of the change to ensure a successful outcome. The following illustration provides an overview of the change management process.



1.4.5 MDT ROLES AND RESPONSIBILITIES

For this project phase, MDT will be responsible to work with Clever Devices to finalize the design documentation. The following tasks will be supported:

- Participate in PDR and FDR meetings
- Provide information as required including IT/Network support specific to our understanding and confirmation of MDT and County security requirements
- Review design document deliverable packages to ensure completeness. Mutually agreed upon review durations will be established. MDT Project Engineer will be responsible for collecting the comments from all SMEs, and providing it as single review /comments package to the Clever Devices staff. Once the review has been completed by MDT, on-site design review sessions will be held.

MDT will be responsible to facilitate the on-site meetings.

1.4.6 DELIVERABLES:

- Preliminary and Final Design Documents
- Preliminary and Final Design Reviews

1.5 DEVELOPMENT, INTEGRATION AND FAT

The proposed solution is based on our Standard CAD/AVL system. Each deployment requires unique interfaces and databases specific to that client. The development and integration activities associated with the MDT project include the detailed definition and software development of these unique aspects of the MDT solution, design of the unique harnesses for MDT's bus, rail and Metromover fleet, equipment bracket design and prototype, and database development including collection of the bus stop inventory.

This phase includes tasks such as:

- Interface configuration
- Hardware procurement and staging
- Hardware installation to support FAT
- Software installation process
- Database development and preparation
- Test plan and procedure and test scenarios
- Factory Acceptance Test
- Identification of the trigger points and routes to be implemented for the 10 bus infotainment pilot
- Identifying and understanding the IT/Network settings including security information working with Miami Dade County

1.5.1 INTERFACES AND CUSTOMIZATIONS

The majority of the proposed solution is based on Clever Devices standard off the shelf system that is configured for the MDT specific requirement. However, there is custom middleware to support communications to third party systems planned in some instances to support the initial project. Additionally, the system provides stated TCIP dialogues to support an open standard middleware capability for future third party system integration. During this stage Phase I interfaces such as FX, and ATMS will be completed and internally validated.

This task includes configuring each interface and may include some customization code development.

Unit testing is performed on new code in order to ensure that the code meets the intended requirement specifics. Clever Devices code meets our software QA policy which is incorporated into the project QAP.

Integration testing will assess the integration between the systems including the third party interfaces.

Development of the Bus Stop Inventory, including adding amenities will be completed in the design phase.

1.5.2 DEVELOPMENT OF TEST PLANS

Test planning involves the creation of a plan, scenarios and procedures. This activity is begun during the design phase as test plan overviews will be provided with the design documents.

Test Plan: identification of who executes the test, and when and how is the content of the test plan. This includes identification of the overall testing schedule, expected results and required resources.

Test Procedures: This document provides the repeatable scenario and steps to conduct the given test. Success criteria for that specific test is included in the procedure. The test procedure correlates to the traceability matrix. Test procedures are run, results collected and documented.

1.5.3 HARDWARE PROCUREMENT

Once the design is completed and agreed upon, Clever Devices will begin procurement of materials. Long lead items may be ordered in advance of the FAT as necessary to maintain schedule.

1.5.4 FAT

We plan to conduct Factory Acceptance Test at Clever Devices Headquarters in Woodbury NY. The system will be installed using CD's test environment to replicate as close as practical the overall system. Once FAT testing is completed CD would duplicate the environment in the production systems at the City of Miami data center. FAT is completed by Clever Devices in a dry run task. Upon internal approval, FAT will be completed with MDT present. FAT will be conducted for Phase I software release.

1.5.5 MDT ROLES AND RESPONSIBILITIES

In this phase of the project MDT will provide data information as necessary, and will work with Clever Devices to review and approve the test plans and procedures. MDT will also provide:

- Provide all vehicle information such as detailed fleet information, schematics, and interface drawings
- Provide an operational export and documentation for various interfaces e.g. FX
- Provide 2 on-board sets of interface hardware to Clever Devices for interface configuration and FAT
- Provide GIS data (route/stop information)
- Provide person driver(s) to support field data collection of routes and stop spatial data
- Review of test plans and procedures for completeness and accuracy
- Coordination with our PM to agree upon the test schedule
- MDT will attend the FAT at Clever Devices headquarters in Woodbury, NY.
- MDT will approve FAT success and start of system / pilot installation.

1.6 STAGED DEPLOYMENT

Once FAT testing is completed CD would duplicate the environment in the production systems at the City of Miami data center. We will also begin shipping the balance of equipment to the site for staging to support the installation campaigns. Our on-site PM coordinates the incoming materials placement with the MDT PM and coordinates the installation plan. The Staged Deployment phase incorporates the deployment, test and cut over requirements of the project.

Staged Deployment & System Test: We understand the deployment should not impact ongoing transit operations and requires coordinated installation, training, and performance testing prior to cut-over of the systems to fully dependent operations. Staged deployment is the methodology to lower technical and operational risk. Once FAT is approved, the equipment will begin shipment to Miami where it will be inventoried, and coordinated by Cooper General and staged for installation. With the exception of the Coral Way Garage which will ship as FOB to MDT early to support Kendall Drive Signalization.

The IT environment will be deployed in the MDT/ITD environment to support FEST and SIT testing programs. Deployment is a coordinated sequence of installation, sub-system and system testing as further summarized below.

Field Equipment and Subsystem Test (FEST): FEST accomplishes sub-system testing of the on-board and central systems. During this deployment stage, a segment of the fleet and fixed-end infrastructure will be installed and each will be performance tested. This validates each subsystem and the bus systems are working properly prior to integration testing. In addition to the on-board testing, each interface will be evaluated to work properly. The sub-system interfaces to external systems that are included in the FEST program include:

1. IVN® to the OpenSky network (communications testing)
2. Interface of the CAD/AVL system to the Trapeze-FX schedule system
3. Interface to the ATMS to support signal priority
4. Interface to existing on-board vehicle systems to support single point logon
5. Interface of the CAD/AVL system to the existing TOS (Phase I release) and new TOS (Phase II)
6. Interface to the EAMS system to support enterprise asset management (Phase III release)

The FEST will continue on each vehicle as full deployment commences after the SIT.

System Integration Test (SIT): The SIT will involve pilot test of 10 buses, 3 married pair from the Metrorail, 1 Metromover car, 1 non-revenue, and 1 supervisory vehicle. The test will examine the end-to-end operation of the system, and builds on the success of the prior FEST on these specific vehicles and IT systems. Successful completion of the SIT is a condition to move to full fleet deployment.

Full Deployment: Full deployment commences upon approval of the pilot SIT. Full deployment will commence in accordance with the Installation and Cut-Over plan defined and approved during the design phase.

Decommissioning and De-installation: Equipment and systems being replaced during the deployment phase will be decommissioned and de-installed as required. This activity will be carefully coordinated to ensure minimal impact to on-going operations.

System Acceptance Test (SAT) and System Acceptance (SA) : Clever Devices will provide a system acceptance test procedure to confirm the full system is operating in accordance with the approved design documents and test procedures. System Acceptance will be requested upon passing the

FEST, SAT and delivery of the training and associated training materials, manuals, and system design documents.

1.6.1 MDT ROLES AND RESPONSIBILITIES

In this project phase, MDT will be responsible for engaging with Clever Devices to finalize the following:

- Review of Installation and Cut-Over plan for completeness and accuracy
- MDT Project Engineer to participate in FEST and SIT
- Provide all support necessary for the interfaces, availability of the SMEs for addressing issues as they may arise
- Coordination with our PM for the installation schedule.
- Coordination and support for sign installation
- Provide operator and/or maintenance support during vehicle installation activities to move the vehicle to and from the designated installation areas
- Provisioning equipment in the called for quantities and time to support installation campaigns including the pilot
- Providing installation area, power, lighting, amenities to support installation campaigns
- Providing access to the area at agreed upon times to support installation
- Identification of lay down area near by installation are for the placement of decommissioned equipment
- Trash area near each designated installation location
- Participation in the FEST specifically to provide sign off as tests (vehicles and signs) are completed in the field

1.6.2 TRAINING:

The detailed and agreed upon training plan is included in Exhibit 7: Approach to Services. This plan includes a total addition of 7 days of training during the proposed deployment training plan plus the addition of training videos for each class that include highlights and key material for that class .

A total 4 weeks of refresher training is provided to be supplied during the 1-3 year warranty period, and will be planned as agreed upon with MDT.

The training program assumes MDT will provide space,

Course Name	Max Class Size	Course Hours	Total Classes offered	Pre-Requisites	Manuals Utilized
System Basics Course	15	4	22	NONE	Overview Power Point
Bus Vehicle Operators Course	10	2	15	NONE	Bus Operator training guide (One of these classes should be geared towards the Bus Operator Instructors (14 people).
Rail/Mover Vehicle Operators Course	8	2	5	NONE	Rail Operator training guide

Course Name	Max Class Size	Course Hours	Total Classes offered	Pre-Requisites	Manuals Utilized
Traffic Controllers Course 7 Classes for BTC 4 Classes for RTC	9	4	11	Basic window functions	CleverCAD® user manual CleverCAD® training guide CADVisor user manual CleverCAD® QRC
Bus VLU and MDT Operation	To be including in 1 st level maintenance course				Bus Maintenance training guide
Rail / Mover VLU and MDT Operation	To be included in 1 st level maintenance course				Rail / Mover Maintenance training guide
Bus 1 st Level Maintenance and MDT Operations	6-8	10	5	Maintenance Familiarity	Bus Operations and Advanced Maintenance guide
Rail /Mover 1 st Level Maintenance and MDT Operations	10-11	10	3	Maintenance Familiarity	Rail Operations and Advanced Maintenance guide
AVM3 Training	11	4	5	NONE	AVM3 user guide
Clever Reports™ Training	10-11	4	5	NONE	Clever Reports™ user manual
BusTools® and BusLink® Training	6	8	2	NONE	BusTools® user manual BusTools® QRC BusLink® user manual BusLink® QRC
CADmin	6	4	2	CleverCAD® training	CADMinistrator user manual
IT Support (Back office equipment)	11	4	1		System diagrams IT trouble monitor and troubleshooting guide
Customer Interface Course (Bus and 3-1-1 , 1 class each)	10	4	2		BusTime®
2 nd Level Maintenance	Level 2 maintenance training will be provided on a train the trainer basis.				
Software Application (GUI) Course	Clever Devices provides GUI training for each specific application in the respective training courses. If a separate course is required by Miami-Dade County, Clever Devices will work with the County to accommodate this course.				
System Data and Reporting	The material for this category is covered through multiple courses titled AVM3® Training, Clever Reports™ Training, and BusTools® and BusLink® Training.				
Back Office Equipment Course	The material for this category is covered in the course titled IT Support.				
Network Administrators Course	The material for this category is covered in the course titled IT Support.				
System Administrators Course	The material for this category is covered in the courses titled IT Support, BusTools®, CADMinistrator, BUS VLU & MDT Operation				

1.6.3 MDT ROLES AND RESPONSIBILITIES

For this phase of the project MDT will be responsible to work with Clever Devices team on the following tasks:

- Review of training classes with our PM and training coordinators
- Collaboration for a finalized training schedule
- Support trainers
- Provide equipment as may be required to support training, such as an equipped bus for hands on operator and maintenance training, training room with equipment as required and agreed upon
- MDT to provide all pre-existing vehicle equipment for Metrorail In Box, Metrobus In Box, Metromover In Box and Vehicle in Box.

1.7 SERVICE AND WARRANTY

Three years of warranty beyond System Acceptance is included in the project.



Exhibit 8- Price Schedule Final

APPENDIX I PRICE SCHEDULE

PROPOSED PRICES

The Proposer shall state its price for the Work outlined in this RFP. **Total Proposed Price must not exceed the Solicitation Cap established at \$14,670,000.00 USD. Proposals received that exceed the \$14,670,000 cap will be deemed non-responsive.** The Proposer shall submit its flat, fixed prices which are guaranteed for the term of the contract. The County reserves the right to negotiate prices submitted for each section of work. The prices for any additional work, equipment, or hardware will be negotiated.

The work identified in the following table shall be priced by the Proposer. Prices shall be inclusive of all things necessary to complete the Work. **Prices shall not be conditioned. Conditioned prices may be deemed unresponsive.** Proposed prices for Sections 1-8 with the exceptions of Section 4, and Options K through O in Section 6, will be added together to arrive at a Total Proposed Price for the Work (**Cap Price**). The County will evaluate the Proposer's Total Proposed Price as indicated in Sections 4.2 and 4.3 of the RFP. The Proposer shall also submit prices for the professional services under Section 9 (headings labeled "Professional Services") below. Section 9 prices will not be evaluated but are requested to assist with pricing for the additional work desired by the County.

Subtotal Proposed Price

Sections 1-8 Implementation and Warranty Period + Negotiated Items
(Excluding Section 4, and Section 6 Options K through O) \$ 16,156,044.00

Clever Devices Management Discount \$ (1,520,000.00)

Total Proposed Price With Discount

Sections 1-8 Implementation and Warranty Period + Negotiated Items
(Excluding Section 4, and Section 6 Options K through O) \$ 14,636,044.00

Section 1: Core Software

Core Software and Implementation Cost

**Total Proposed Price
for Section 1: \$ 2,705,841.00**

Section 3: Warranty

Year 1 (After System Acceptance)	\$ <u>0.00</u>
Year 2 (After System Acceptance)	\$ <u>0.00</u>
Year 3 (After System Acceptance)	\$ <u>650,758.00</u>

**Total Proposed Price
for Section 3: \$ 650,758.00**

**Section 4: Software Maintenance and Support
(Not included in the \$14,670,000.00 USD Solicitation Cap)
(After 3 Year System Warranty Expiration)**

Software Maintenance and Support for

Contract Year 6	\$	<u>375,785.01</u>
Contract Year 7	\$	<u>377,884.63</u>
Contract Year 8	\$	<u>380,092.63</u>
Contract Year 9	\$	<u>382,408.63</u>
Contract Year 10	\$	<u>384,832.63</u>
Contract Year 11	\$	<u>400,335.56</u>
Contract Year 12	\$	<u>416,346.91</u>

**Total Proposed
Software Maintenance and
Support Price for
Section 4: \$ 2,717,686.00**

Section 5: Training on all modules and Interfaces

Training of Staff	\$	<u>153,801.00</u>
Training Materials	\$	<u>0.00</u>

**Total Proposed Price
for Section 5: \$ 153,801.00**

Section 6: System Hardware

System Hardware

Quantities to be adjusted in accordance with the proposed solution

A	RAIL EQUIPMENT	Unit	Qty	Unit Price	Extended Price
1	Mobile Data Terminals	EA	136	\$619.00	\$84,184.00
2	Vehicle Logic Unit	EA	136	\$2,354.59	\$320,224.29
3	Cabling Hardware	EA	136	Included in VLU	Included in VLU
4	Covert Microphone	EA	136	Included in VLU	Included in VLU
5	Maintenance VLU Test/Data Recovery Workstations - Furnish and Install	EA	2	\$515.00	\$1,030.00
7	Bulk Data Transfer Server	EA	1	\$0.00	\$0.00
8	Wi-Fi Equipment	EA	1	Included in VLU	Included in VLU
9	Training CAD/AVL Metrorail in Box	EA	1	\$4,506.60	\$4,506.60
Subtotal					\$409,944.89

B	BUS EQUIPMENT	Unit	Qty	Unit Price	Extended Price
1	Mobile Data Terminals	EA	822	\$801.18	\$658,572.85
2	Vehicle Logic Unit	EA	822	\$2,908.58	\$2,390,849.94
3	Cabling Hardware	EA	822	Included in VLU	Included in VLU
4	Covert Microphone	EA	822	Included in VLU	Included in VLU
5	Garage VLU Test/Data Recovery Workstations - Furnish and Install	EA	6	\$515.00	\$3,090.00
6	Bulk Data Transfer Server	EA	3	\$0.00	\$0.00
7	Wi-Fi Equipment	EA	3	Included in VLU	Included in VLU
8	Training CAD/AVL Metrobus in Box	EA	16	\$4,506.60	\$72,105.60
Subtotal					\$3,124,618.39

C	MOVER EQUIPMENT	Unit	Qty	Unit Price	Extended Price
1	Mobile Data Terminals	EA	47	N/A	N/A
2	Vehicle Logic Unit	EA	47	\$3,067.00	\$144,148.98
3	Cabling Hardware	EA	47	Included in VLU	Included in VLU
4	Maintenance VLU Test/Data Recovery Workstations - Furnish and Install	EA	2	\$515.00	\$1,030.00
5	Bulk Data Transfer Server	EA	1	\$0.00	\$0.00
7	Wi-Fi Equipment	EA	1	Included in VLU	Included in VLU
8	Training CAD/AVL Metromover in Box	EA	1	\$4,506.60	\$4,506.60
Subtotal					\$149,685.58

D	Back Office System	Unit	Qty	Unit Price	Extended Price
1	Application Servers - Primary, Secondary, Disaster recovery, and Test	EA	0	\$3,640.13	\$0.00
2	Database Servers - Primary, Secondary, Disaster recovery, and Test	EA	0	\$2,681.24	\$0.00
3	Report Server - Primary, Secondary, Disaster recovery, and Test	EA	0	\$2,681.24	\$0.00
4	Web Server - Primary, Secondary, Disaster recovery, and Test	EA	0	\$2,681.24	\$0.00
5	File Server - Primary, Secondary, Disaster recovery, and Test	EA	0	\$2,681.24	\$0.00
6	Dual-Head Tape Library	EA	0	\$10,734.45	\$0.00
7	Storage SAN	EA	0	\$33,260.99	\$0.00
8	Rack Associated Equipment, KVM and Cabling	EA	0	\$2,784.53	\$0.00
9	ASA Firewalls	EA	0	\$1,817.92	\$0.00
10	Switches	EA	0	\$5,316.09	\$0.00
11	Access Points	EA	0	\$4,097.82	\$0.00
12	Transceiver, modules	EA	0	Included in Item 1 - Application Server	
13	System Administrator WorkStation and Printer	EA	2	\$1,718.03	\$3,436.06
14	27" LED HDMI Monitor	EA	4	\$410.97	\$1,643.88
15	Software and Diagnostic Equipment	EA	0	\$0.00	\$0.00
16	System Administrator Garage VLU Test/Data Recovery Workstations - Furnish and Install	EA	1	\$515.00	\$515.00
17	Training CAD/AVL Vehicle in Box	EA	1	\$4,506.60	\$4,506.60
Subtotal					\$10,101.54

E	THIRD PARTY SOFTWARE LICENSES	Unit	Qty	Unit Price	Extended Price
1	Networking Software	LS	0	\$41,912.76	\$0.00
2	Syslog Server License	LS	0	\$21,607.34	\$0.00
3	Cisco Wireless AP Node Licenses (50 pack bundle)	LS	0	Included in E, Item #1	
4	Oracle RAC License	LS	0	Included in E, Item #2	
5	DataGuard License	LS	0	Included in E, Item #2	
6	System Maintenance Software Enterprise License (Unlimited Nodes)	LS	0	\$2,573.97	\$0.00
7	Oracle Partitioning	LS	0	N/A	N/A
8	Symantec NetBackup	LS	0	\$602.55	\$0.00
9	Software and Diagnostic Tools (Enterprise License)	LS	0	\$7,995.89	\$0.00
Subtotal					\$0.00

F	TRAFFIC CONTROLLER WORKSTATIONS	Unit	Qty	Unit Price	Extended Price
1	PC - To include USB mouse, USB keyboard	EA	30	\$1,199.95	\$35,998.50
2	27" LED HDMI Monitor	EA	60	\$410.97	\$24,658.20
Subtotal					\$60,656.70

G	YARD MONITORS	Unit	Qty	Unit Price	Extended Price
1	70" Display Monitor with TV Cards	EA	5	\$6,850.00	\$34,250.00
Subtotal					\$34,250.00

H		Unit	Qty	Unit Price	Extended Price
	GARAGE/MAINTENANCE FACILITY CACHE SERVER				
	1 Central Bus Garage	EA	1	\$13,630.51	\$13,630.51
	2 Coral Way Bus Garage	EA	1	\$13,630.51	\$13,630.51
	3 Northeast Bus Garage	EA	1	\$13,630.51	\$13,630.51
	4 Rail Maintenance Facility	EA	1	\$13,630.51	\$13,630.51
	5 Mover Maintenance Facility	EA	1	\$13,630.51	\$13,630.51
				Subtotal	\$68,152.54

I		Unit	Qty	Unit Price	Extended Price
	NON-REVENUE VEHICLES AVL SOLUTION				
	1 Treasury Trucks (to include VLU if required by proposed solution)	EA	5	N/A	
	2 Supervisory Vehicles (to include VLU if required by proposed solution)	EA	16	N/A	
	3 Services vans (to include VLU if required by proposed solution)	EA	225	N/A	
				Subtotal	\$0.00

J		Unit	Qty	Unit Price	Extended Price
	ELECTRONIC SIGNS				
	1 Electronic Sign - Furnish & Install	EA	50	\$14,166.00	\$708,300.00
	2 Solar Power Kit - Furnish and Install	EA	50	Included in Sign	Included in Sign
	3 Text to Speech Module with Integrated Speakers - Furnish and Install	EA	50	Included in Sign	Included in Sign
				Subtotal	\$708,300.00

P		Unit	Qty	Unit Price	Extended Price
	SPARE EQUIPMENT (does not include syst. harnessing and cables)				
	1 Adjusted Spare Pool of Vehicle and Sign Hardware	EA	1	\$127,453.50	\$127,453.36

Proposed Price to be included in Cap price of \$14,670,000.00 USD.

Total Proposed Price for Section 6:

\$ 4,693,163.00

Options

K	a) ELECTRONIC SIGNS (OPTION)	Unit	Qty	Unit Price	Extended Price
	1 Electronic Sign, On-Demand - Furnish, Install and 5-Year Warranty	EA	10	\$28,016.00	\$280,160.00
	2 Solar Power Kit - Furnish and Install	EA	10	Included in Sign	Included in Sign
	3 Text to Speech Module with Integrated Speakers - Furnish and Install	EA	10	Included in Sign	Included in Sign
				Subtotal	\$280,160.00

K	b) ELECTRONIC SIGNS (OPTION)	Unit	Qty	Unit Price	Extended Price
	1 Electronic Sign, On-Demand - Furnish, Install and 5-Year Warranty	EA	25	\$25,829.00	\$645,725.00
	2 Solar Power Kit - Furnish and Install	EA	25	Included in Sign	Included in Sign
	3 Text to Speech Module with Integrated Speakers - Furnish and Install	EA	25	Included in Sign	Included in Sign
				Subtotal	\$645,725.00

K	c)	ELECTRONIC SIGNS (OPTION)	Unit	Qty	Unit Price	Extended Price
	1	Electronic Sign, On-Demand - Furnish, Install and 5-Year Warranty	EA	50	\$23,641.00	\$1,182,050.00
	2	Solar Power Kit - Furnish and Install	EA	50	Included in Sign	Included in Sign
	3	Text to Speech Module with Integrated Speakers - Furnish and Install	EA	50	Included in Sign	Included in Sign
Subtotal						\$1,182,050.00

L		MOBILE ACCESS ROUTER/GATEWAY (OPTION)	Unit	Qty	Unit Price	Extended Price
	1	OMG 2040 InMotion Mobile Access Router/Gateway - Furnish and Install	EA	822	\$1,642.78	\$1,350,368.45
		External Antenna (3G cellular or 4G LTE (single lead), Leads 2 & 3 WiFi 2.4/5GHz MIMO for a/b/g/n, Lead 4 GPS)	EA	822	\$99.00	\$81,378.00
		Internal Antenna (802.11 Wifi 2.4/5GHz)	EA	822	Included in Router	Included in Router
		Centralized Server Monitoring and Configuration Enterprise License	EA	1	\$114,950.00	\$114,950.00
		Centralized Server Monitoring and Configuration Server (Application Servers - Primary, Secondary, Disaster Recovery, and Test)	EA	4	\$0.00	\$0.00
Subtotal						\$1,546,696.00

L	a)	MOBILE ACCESS ROUTER/GATEWAY - WARRANTY YEARS 1-3	Unit	Qty	Unit Price	Extended Price
	1	Mobile Access Router/Gateway Warranty - Years 1-3	EA	822	\$407.00	\$334,554.00
Subtotal						\$334,554.00

L	b)	MOBILE ACCESS ROUTER/GATEWAY - WARRANTY YEARS 6-12	Unit	Qty	Unit Price	Extended Price
	1	Mobile Access Router/Gateway Warranty - Year 6	EA	822	\$127.00	\$104,394.00
	2	Mobile Access Router/Gateway Warranty - Year 7	EA	822	\$130.00	\$106,860.00
	3	Mobile Access Router/Gateway Warranty - Year 8	EA	822	\$134.00	\$110,148.00
	4	Mobile Access Router/Gateway Warranty - Year 9	EA	822	\$138.00	\$113,436.00
	5	Mobile Access Router/Gateway Warranty - Year 10	EA	822	\$142.00	\$116,724.00
	6	Mobile Access Router/Gateway Warranty - Year 11	EA	822	\$147.00	\$120,834.00
	7	Mobile Access Router/Gateway Warranty - Year 12	EA	822	\$151.00	\$124,122.00
Subtotal						\$796,518.00

L	c)	MOBILE ACCESS ROUTER/GATEWAY WITH CELLULAR SERVICE	Unit	Qty	Unit Price	Extended Price
	1	OMG 2040 InMotion Mobile Access Router/Gateway - Furnish and Install	EA	822	\$1,642.78	\$1,350,368.45
		External Antenna (3G cellular or 4G LTE (single lead), Leads 2 & 3 WiFi 2.4/5GHz MIMO for a/b/g/n, Lead 4 GPS)	EA	822	\$99.00	\$81,378.00
		Internal Antenna (802.11 Wifi 2.4/5GHz)	EA		Included in Router	Included in Router
		Centralized Server Monitoring and Configuration Enterprise License	EA	1	\$114,950.00	\$114,950.00
		Centralized Server Monitoring and Configuration Server (Application Servers - Primary, Secondary, Disaster Recovery, and Test)	EA	4	\$0.00	\$0.00
		Cellular Service - Deployment + 3 1/2 Years - Per Bus/Month	EA	34,524	\$50.29	\$1,736,211.96
Subtotal						\$3,282,908.00

M		Unit	Qty	Unit Price	Extended Price
	METROBUS DRIVER BEHAVIORAL MODULE (OPTION)				
	1 Onboard Hardware - Furnish and Install	EA	822	Included in Base Price	
	2 Software Module License	EA	822	Included in Base Price	
				Subtotal	\$0.00

N		Unit	Qty	Unit Price	Extended Price
	DIGITAL VIDEO RECORDER (OPTION) - March Networks DVR & GE Cameras				
	1 Complete solution to include all hardware required - Furnish and Install	EA	822	\$10,076.34	\$8,282,751.48
				Subtotal	\$8,282,751.00

N		Unit	Qty	Unit Price	Extended Price
	DIGITAL VIDEO RECORDER (OPTION) - Apollo DVR & GE Cameras				
	1 Complete solution to include all hardware required - Furnish and Install	EA	822	\$8,036.14	\$6,605,711.10
				Subtotal	\$6,605,711.00

O		Unit	Qty	Unit Price	Extended Price
	TIRE PRESSURE MONITORING (OPTION)				
	1 Tire Pressure Monitoring Kit	EA	822	\$823.39	\$676,829.80
				Subtotal	\$676,830.00

		Unit	Qty	Unit Price	Extended Price
	TurnWarning™ Pedestrian Warning System				
	1 TurnWarning™ Pedestrian Warning System	EA	822	\$1,137.26	\$934,830.10
				Subtotal	\$934,830.00

		Unit	Qty	Unit Price	Extended Price
	TurnWarning™ Pedestrian Warning System (Deployed Concurrently with Base Project)				
	1 TurnWarning™ Pedestrian Warning System	EA	822	\$1,037.26	\$852,630.10
				Subtotal	\$852,630.00

		Unit	Qty	Unit Price	Extended Price
	Idle Monitoring				
	1 Idle Monitoring	EA	822	\$60.83	\$50,000.00
				Subtotal	\$50,000.00

		Unit	Qty	Unit Price	Extended Price
	Enhanced Automated Garage / Facility Mapping				
	1 Enhanced Automated Garage / Facility Mapping	EA	822	\$2,114.10	\$1,737,790.20
				Subtotal	\$1,737,790.00

Added Priced Options

		Unit	Qty	Unit Price	Extended Price
	Infotainment - 10 Buses				
	1 Infotainment Systems for 10 Buses - Does not include IVN® Upgrade HW	EA	10	\$13,001.00	\$130,010.00
				Subtotal	\$130,010.00

		Unit	Qty	Unit Price	Extended Price
	Infotainment - 25 Buses				
	1 Infotainment Systems for 25 Buses - Does not include IVN® Upgrade HW	EA	25	\$9,942.00	\$248,550.00
				Subtotal	\$248,550.00

		Unit	Qty	Unit Price	Extended Price
	Infotainment - 50 Buses				
1	Infotainment Systems for 50 Buses - Does not include IVN® Upgrade HW	EA	50	\$8,632.00	\$431,600.00
				Subtotal	\$431,600.00

		Unit	Qty	Unit Price	Extended Price
	Infotainment - 822 Buses				
1	Infotainment Systems for 822 Buses - Does not include IVN® Upgrade HW	EA	822	\$4,918.00	\$4,042,596.00
				Subtotal	\$4,042,596.00

		Unit	Qty	Unit Price	Extended Price
	IVN® Upgrade Hardware for Infotainment - Deployed Concurrently with Base Project				
1	IVN® Upgrade Hardware for Infotainment	EA	822	\$666.00	\$547,452.00
				Subtotal	\$547,452.00

		Unit	Qty	Unit Price	Extended Price
	IVN® Upgrade Hardware for Infotainment - Deployed After Base Project				
1	IVN® Upgrade Hardware for Infotainment	EA	822	\$1,302.00	\$1,070,244.00
				Subtotal	\$1,070,244.00

Section 7: Installation of Interfaces

1. TOS Interface	\$ <u>105,847.99</u>
2. FX Schedule Interface	\$ <u>86,281.20</u>
3. Ad-hoc Reporting Tool	\$ <u>0.00</u>
4. Automated Vehicle Monitoring	\$ <u>30,309.84</u>
5. Garage / Maintenance Facility Mapping	\$ <u>0.00</u>
6. Metromover Interface	\$ <u>0.00</u>
7. Metrorail Interface	\$ <u>0.00</u>
8. Vehicle Single Logon	\$ <u>0.00</u>
9. OpenSky	\$ <u>0.00</u>
10 GPS to Farebox, Voice Annunciation, Destination Signs, and Automatic Passenger Counter (APC).	\$ <u>271,698.90</u>
11 Enterprise Asset Management System	\$ <u>51,074.07</u>

**Total Proposed Price
for Section 7: \$ 545,212.00**

Section 8: Escrow Agreement

1. Escrow Agreement	\$ <u>10,800.00</u>
2. Performance Bond	\$ <u>43,712.00</u>
3. Payment Bond	\$ <u>21,856.00</u>

**Total Proposed Price
for Section 8:** \$ 76,368.00

Section 9: Professional Services

Hourly Rates:

Project Manager	\$ <u>\$134.27</u>
Database Administration	\$ <u>\$107.53</u>
Software Development	\$ <u>\$141.25</u>
Engineering	\$ <u>\$114.58</u>
Testing	\$ <u>\$93.17</u>
Training	\$ <u>\$100.42</u>

**Total Proposed Price
for Section 9:** \$ 691.22

Negotiated Item **Total Value:** **\$2,865,921.00**

Infotainment Pilot - 10 Buses, 50 trigger points, up to 1 year ops, MDT to provide content	<u>\$135,000.00</u>
Level 2 Maintenance Training	<u>\$32,000.00</u>
Top Level Class Training Videos	<u>\$155,271.00</u>
Warranty Year 2, 3 continued On-site support	<u>\$599,040.00</u>
Additional 25 Electronic Solar signs (install and 5 yr HW warranty)	<u>\$498,750.00</u>
Yard mapping using GPS as location method for open areas	<u>\$632,000.00</u>
Added 7 years escrow (result in total of 10 years)	<u>\$8,610.00</u>
Idle Monitoring	<u>\$50,000.00</u>
Bus Stop Sticker Installation	<u>\$195,500.00</u>
Additon of bus stop amenities to BSI database	<u>\$263,500.00</u>
3 Years Cellular Service for 50 Base Project Electronic Solar Signs	<u>\$41,250.00</u>
5-Year HW Warranty for 50 Base Project Electronic Solar Signs	<u>\$255,000.00</u>



**Computer Aided Dispatch / Automated Vehicle Locator Replacement Project
(CADAVLRP) and Kendall Drive Signalization
(RFP No.808)**

This project is partially funded by the American Recovery & Reinvestment Act (ARRA)

Proposer hereby confirms its prices as stated herein, and affirmatively states that these proposed prices are submitted in good faith in response to RFP No.808. Proposer acknowledges that the signature below is by a duly authorized agent of the Proposer. Proposer must provide authorization by which the authorizing individual is granted signature authority. Said prices are valid for the duration of 180 days as required by the RFP.

CONTRACTOR

By: _____

Name: _____

Title: _____

Date: _____

Attest: _____
Corporate Secretary/Notary Public



EXHIBIT 10 - Infotainment Pilot

Clever Devices has offered MDT a Pilot implementation of our Infotainment system. The Infotainment solution enhances the overall experience for riders, increases ridership, improves communication with riders for their navigation and potentially raises revenues thru advertising. Infotainment affords MDT ridership with visual and auditory content, that can consist of time and location based triggered content (for advertising, local attractions...etc.). The Clever Devices solution utilizes ruggedized but vibrant LCD enclosures that can be mounted in multiple locations on-board and can be custom configured to optimally serve MDT's needs.

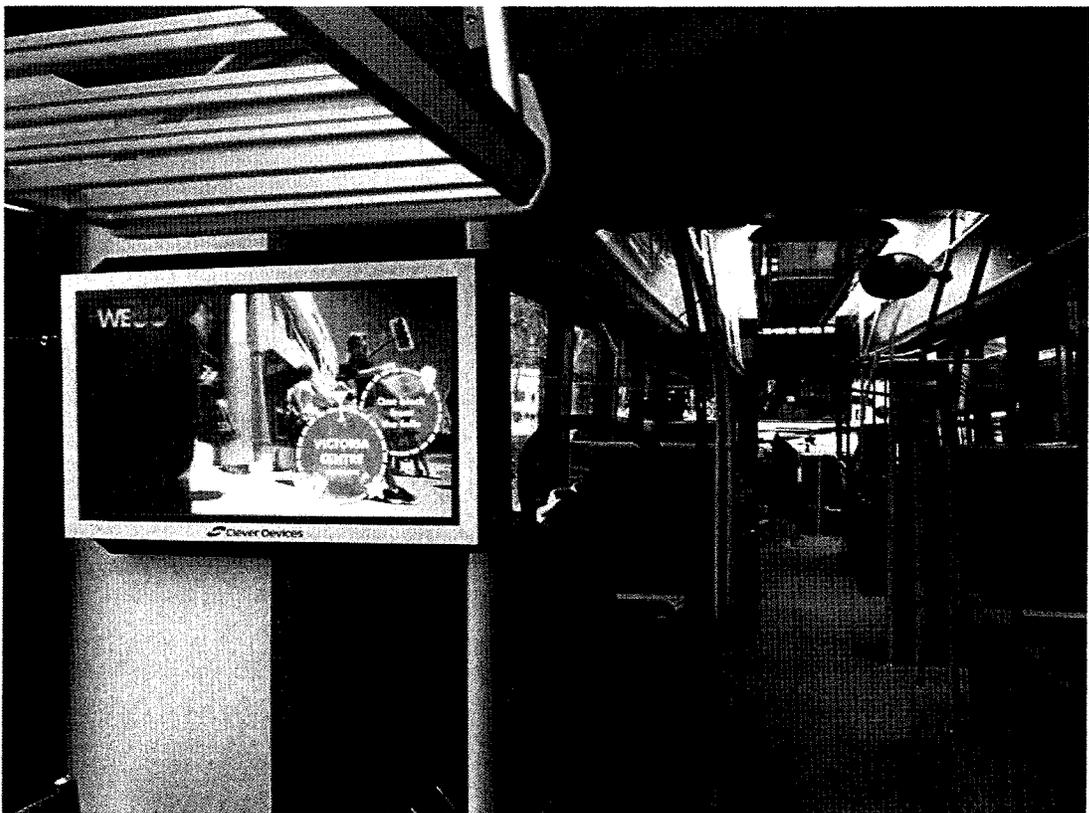


Figure 1: Onboard Niagara VTS vehicle with multiple LCD screens

Scope of Pilot

Equipment for 10 buses comprised of upgrades to the IVN® vehicle logic unit on those buses to support content management, LCD displays and associated harness adjustments, content media player software for 10 buses, central system content manager software to manage the infotainment content for a total of 10 buses, deployment of the system and validation of the system as working properly using Clever Devices internal test plans and procedures for this system. Professional services are included to setup the MDT display layout, playlists and



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content as well as set up the associated geo-fencing and triggers. Documentation related to the pilot system will be provided external to the base project design documents. Clever Devices will assist MDT in management of the system for 12 months after it is installed and verified to work in accordance with our test procedures.

The pilot and if exercised, a production level system deployment, will leverage the CAD/AVL real time communications, the BusTime passenger information system and WiFi systems at MDT garage to support infotainment content up/down loads to the fleet. It is assumed the pilot will operate on the server environment established for the base project.

If the option for expanded Infotainment is exercised, Clever Devices will provide MDT with a server impact assessment to adjust the server infrastructure as required depending on the number of buses added to the system.

The pilot includes establishing up to 50 play trigger points to que the infotainment content. It is assumed MDT will supply the content, such as an image, logo, video, and ads.

The Infotainment Pilot is deployed coincident with the CAD/AVL and Kendall Signalization project but is not included in the base project design, test and commissioning and/or system acceptance.

MDT will assume responsibility and ownership for the management of the Infotainment System 12 months after it is installed and validated by Clever Devices. During the operations time, Clever Devices will assist in content changes. No added changes to geo-fence trigger points is included in the pilot.

General System Features

The Infotainment can be set up to optimally mix RTPi information such as stop arrivals and associated route service messages (that are similar and consistent with MDT RTPi web site) with various graphical content. This can include video or image ads as well as local attraction video and image content (including weather, news feed and any necessary MDT branding messaging, event, promotional or seasonal information). This content mix is meant to augment the rider experience on-board.

Clever Devices' Infotainment utilizes highly effective digital signage software that allows RTPi and media content to be configured from a Content Manager and delivered through a Content Player on-board. Infotainment consists of two major components: the Content Manager and the Vehicle Delivery System. The Content Manager System allows MDT to compose, assemble and configure all visual/audio content to be delivered to the ridership. The Vehicle Delivery System delivers the content that was created by the Content Manager System to the ridership. This system contains the Content Media Player that drives the on-board display screen and the deployment infrastructure over Wifi at the depot.

A playlist provides a way to play the same template and content on multiple Content Players. These two main software components which work together, allow for creating content, building and scheduling ad/content playlists, deploying new content to the buses LCD signs and logging all displayed content on-board the vehicle.



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The LCD signs will have special environmental characteristics appropriate for a transit including extended vibration and temperature tolerance, anti-vandalism, optically bonded anti-glare screen and auto-brightness dimming. Figure 1 below shows an actual Infotainment home screen for Nigara Falls Parks & Transit showing video, RTPi (stop arrivals), weather, date/time and TA logo.



Figure 2: Home Screen Passenger Information Display

Professional Application Development Services

Clever Devices Infotainment includes a standard template and playlist similar to that reflected in the above figure. Some degree of professional services application development is required to take this standard package and adapt it to MDT’s specific environment. This adaptation based on our experience in prior deployments will not require more than 3 weeks of services and is included in the 10 bus pilot offered to MDT.

The above template provides for insertion of a graphically pleasing background and four regions on the screen to provide content. MDT ad or local attractions content (image, video...etc.) can be inserted into the large region and scheduled to play based on vehicle location or time. These regions may be partially transparent to allow the background to be visible to further create aesthetically pleasing signage regions.



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An alternating non-transparent template for full screen image or video is also part of this standard package. Scrolling text or news feeds (not shown) may also be included in this template. The Infotainment application can cycle between any numbers of screen layouts. The standard provides for alternating home screen and full screen content as necessary to make for interesting viewing to riders.

Another part of this platform includes placement of the play triggers (geo-fences) that will trigger location based content (ads) along the MDT route. The necessary logic for the playlist in the standard package allows for videos to play through to the end before switching to the next content ad or simply looping.

Content Manager

The Clever Devices Digital Signage Software (DSS) for content management and playing is a critical component as it determines the content media creation, scheduling, administration, layout flexibility and rendering of the infotainment content. Templates or screen layouts are designed, customized and maintained using this software tool. For this pilot, Clever Devices will set up the initial content, scheduling and layout. MDT must supply the actual content (an image, logo, video, ads).

The Content manager is used to insert almost any type of static or dynamic live content or data into the signage application. Below is a list of available content types:



Available Content Types



< Live Data (from source file or feed)



< MS PowerPoint



< Wayfinding functionality



< Flash animation or video



< Weather feed



< Images & Graphics (.png, .jpg)



< Live TV (requires tuner card)



< Video files (.wmv)



< Current Time and/or Date



< MS Word



< Bing Maps



< PDF documents (multi-page)



< Control Pad



< RSS (news ticker)



< Text (static or scrolling)



< Web pages

MDT will have the ability to schedule content and/or use location based triggers on route for displaying multi-media ads, image, video, local attraction information, arrival information, weather or scrolling feeds for news or transit messaging. Available features of the Content Manager include:

- Easy to use, intuitive interface
- Full preview capability: see exactly what your LCD will look like before you deploy it
- Support for all standard content types
- Built-in interactivity
- Advanced data integration
- Web-based content control
- Media management
- Sophisticated scheduling options
- Scalable: single- or multi-tier setup, as many players as you want
- Innovative wayfinding (for wayside LCD signs in hotels, shelters and transit centers)
- Emergency message triggering



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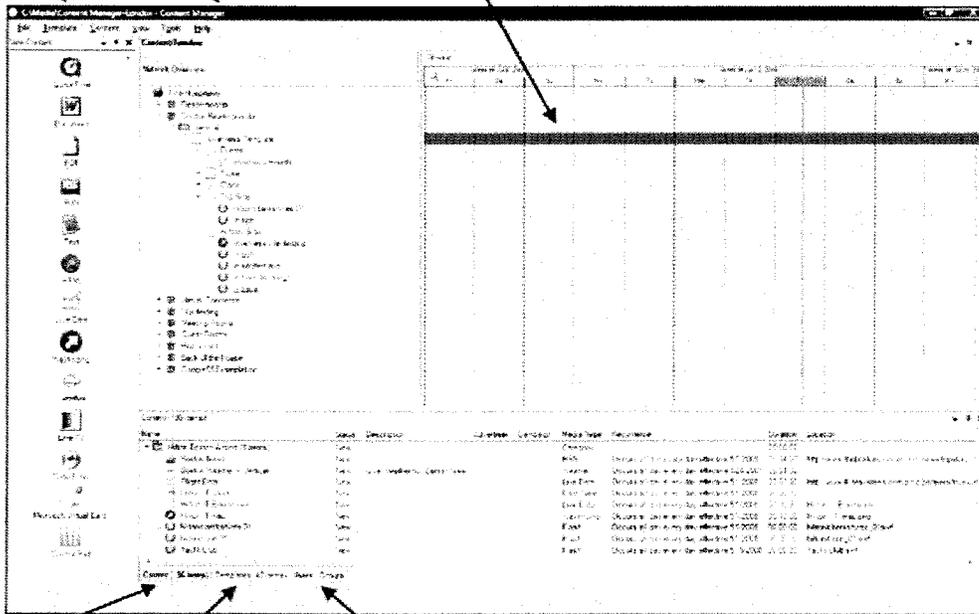
- User and group security, including Active Directory integration

Drag and Drop Interface – Maintenance of content is somewhat easy. A user can drag and drop the content to the region of the sign where you want it to appear. With this solution the user can be productive quickly.

What Content do we want to create? (If you can see it on your desktop – you can see it on your sign)

Where do we want it to run? (Company, Location, Building, Player (sign), Template, Region)

When do we want it to run? (Day, Date, Time)



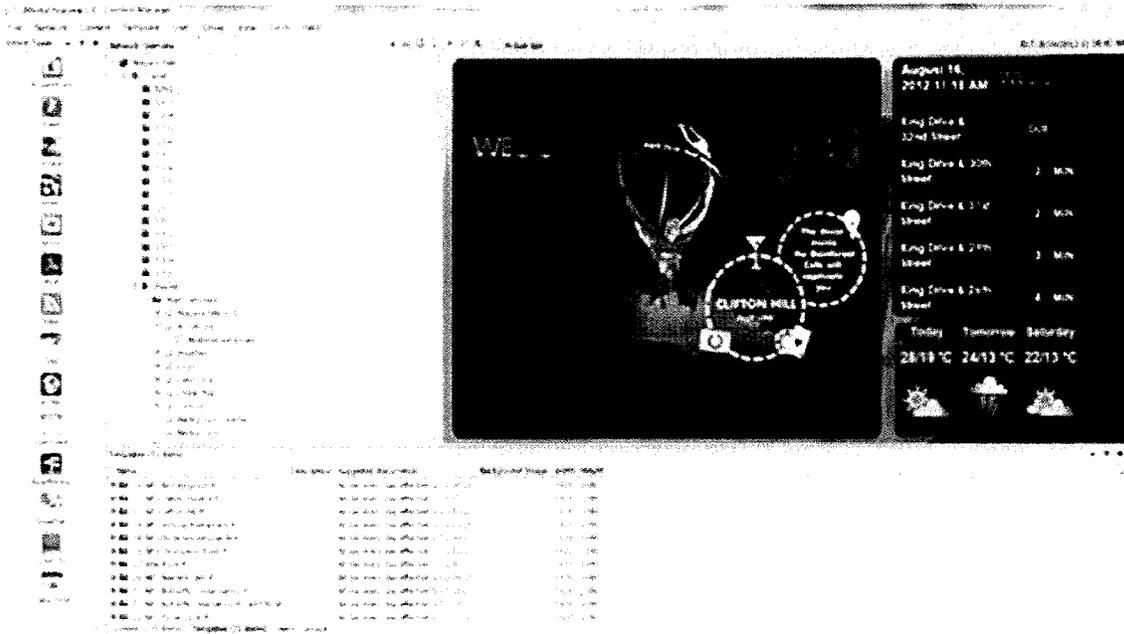
Content and Template Libraries – Drag and drop where needed

Users/Groups – Security control – or use Active Directory

Full Preview Capability – A unique feature is a single click preview of any sign. This lets you ensure the appearance of the sign is perfect before you present it.



Content Manager



Graphic Layout editor – For power and immediate productivity, defining how Live Data is presented is done in an intuitive editor. A user may drag the field name to the desired position on the layout.

Format using standard Windows controls – The Content Manager uses familiar Windows controls for fonts, colors, alignment, borders, auto-sizing, layers, etc. Just as used in MS Word.

Sequence and filter presentation of information – Allows for tabular information to be displayed. User can drag the fields to a sequence area to sort presentation by such things as date, time, alphabetical, category, etc. Present specific information from a large set of data defining a filter. For example, present stop arrival times in ascending order for a given bus on route for the next 3-5 stops in a given direction.

User-friendly Template Editor – The layout of each sign is defined by a template which contains one or more regions where content appears. Creation is performed in a visual layout using simple click and drag functions. Basic scripts used for data manipulation and presentation of data values.



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New Advertising Campaign [X]

Campaign:

* Name:

Code:

* Start: 5/1/2009 * End: 5/31/2009

Sales Rep:

Quoted Plays: 0

Advertiser:

* Name:

Address 1:

Address 2:

City:

State:

Zip Code:

Pricing:

* Billing Period: Calendar Month

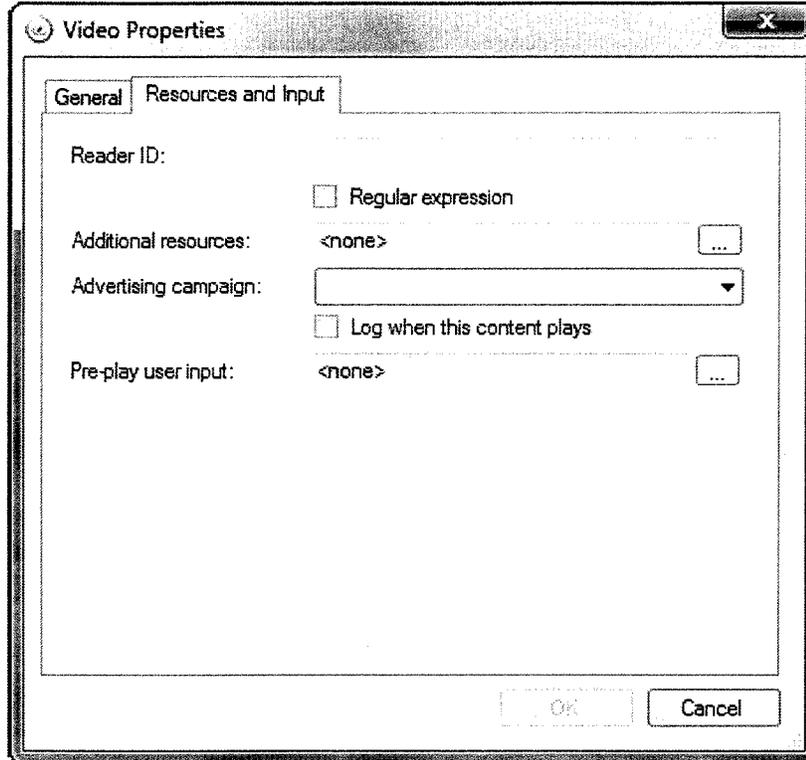
* Price: 0.00 * Per: Calendar Month

Discount: 0.00 %

* Indicates a Required Field

Cancel

When specifying video properties a user can specify additional parameters to help associate content to ads or campaigns and log video play. The log option allows for creating a log entry each time they play the video content.



Microsoft SQL Server backend – When multiple instances of the Content Manager share a set of signs, a Microsoft SQL Server database is used to manage object check-in/out. This industry standard database ensures that conflicts over joint modification of assets do not occur. Only “lightweight” versions of the database are required.

For simplicity and cost control Content Manager does not store/manage actual content files in a database. Instead it manages pointers to the content. Content may be stored on a separate server anywhere on your network without creating a specific content repository for your digital signs.

Flexibility of signage size and orientation –Includes the ability to orient signs in portrait or landscape mode as well as letterbox 16:9 ratios.

Timeline View

The Timeline View enables a user to visualize the scheduling of content and templates and to change the scheduling. The view will display horizontal bars that line up with the templates, regions, and content items of the Network Overview.

Within the Timeline View a user also has the ability to select a specific time, past or present, to check the overall scheduling and also test the digital display.



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Content Distribution

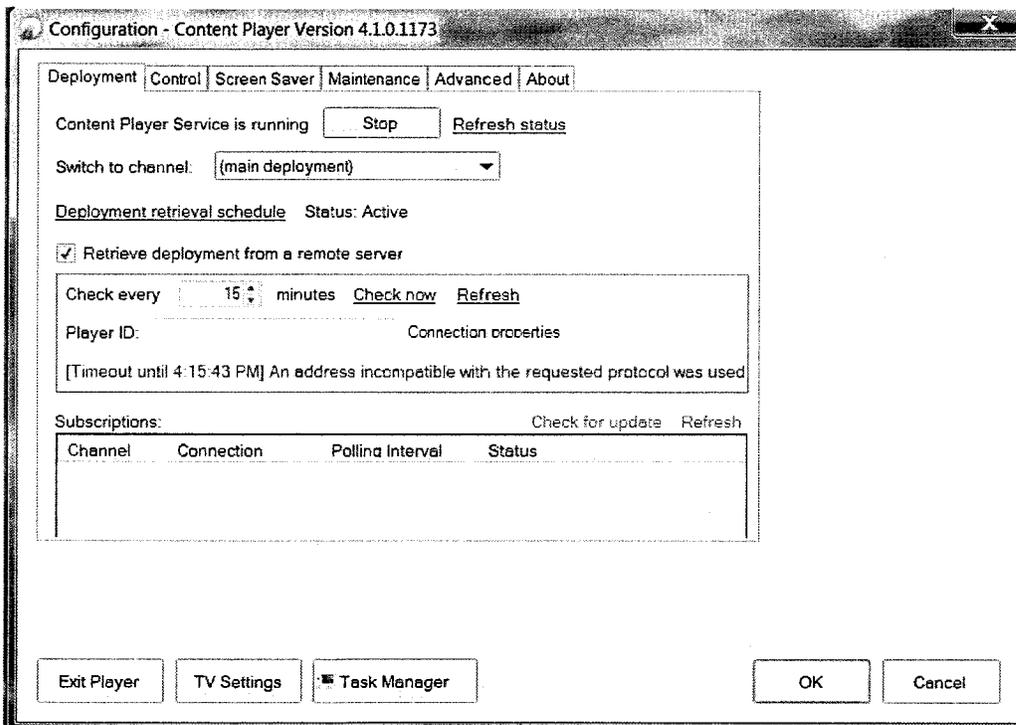
Multiple Deployment Options – Deployment is the process of sending layout, schedule, and content metadata from the Content Manager to specific Content Players/signs on buses. Initial deployment only occurs once and the Content Player drives the sign unassisted afterwards. From there on, the player automatically can check back when in Wifi range at the garage or depot for updated content on a user-defined interval.

Deploy via SFTP/FTP – Deployment over the public internet using File Transfer Protocol (FTP) – either standard or secured. For Bus transit, depot Wi-Fi bulk transfer of data is preferred over 3G wireless due to cost.

Deploy via Removable Media – As a backup or on-going support option a user can deploy to a removable media such as a USB thumb drive.

Content Player

The content player residing on-board the bus once deployed has the entire application and content for the Infotainment system including special customizations for extracting real time geo-fence information from the IVN4 and receiving arrival times and messages from BusTime RTPi server. The following illustration is a sample configuration deployment option screen for the player.





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SCHEDULE A - OPERATIONAL LICENSE CHARACTERISTICS

Software	Operational License Characteristics	Effective Date
Clever Software	Unlimited user enterprise perpetual, unlimited nodes	Contract Date



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SCHEDULE B - LIST OF SOFTWARE AND INTERFACES

List of Software

This Agreement covers the Software itemized on this Schedule B. Additional Software and modules may be added from time to time by mutual agreement pursuant to the provisions of this Agreement.

Software Components / Interfaces ("API")

Incident Management
Incident Analytics Driver Behavior
Idle Monitor
BusTools® and FX Schedule Interface
BusLink® with Fleet and File Manager
CleverCAD® and ATMS TSP Interface
Data Communications Controller Gateway
CleverReports
BusTime®
Operational Data Warehouse and Translator
TOS Interface
AVM® (Automated Vehicle Monitoring) and Interface to EAMS
SmartYard Garage / Maintenance Facility Mapping
IVN® BusWare® application, which includes all on-board interfaces
Infotainment
All associated on-board Interface Control Documents for: Metromover Interface, Metrorail Interface, Vehicle Single Logon, OpenSky Radio, and Automatic Passenger Counter.



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SCHEDULE C - SOFTWARE MAINTENANCE PRICING

1. Software Maintenance Pricing

Date	Software Maintenance Fee
Contract Year 6	\$ 375,785.01
Contract Year 7	\$ 377,884.63
Contract Year 8	\$ 380,092.63
Contract Year 9	\$ 382,408.63
Contract Year 10	\$ 384,832.63
Contract Year 11	\$ 400,335.56
Contract Year 12	\$ 416,346.91

2. Professional Services

Hourly Rates:

Project Manager	\$134.27
Database Administration	\$107.53
Software Development	\$141.25
Engineering	\$ 114.58
Testing	\$ 93.17
Training	\$100.42