

**REQUEST FOR PROPOSAL
FOR
DESIGN AND MANUFACTURE OF RAIL CARS AND
RELATED SERVICES
SOLICITATION # 20CTRAIL-1**

ADDENDUM #1

1. The following are included in this Addendum #1.
 - a) CTDOT's responses to the RFP questions received from Proposers;
 - b) Revisions to RFP documents;
 - c) Drawing No. MNR-NO. 8, Rev. B;
 - d) Drawing No. MNR-NO. 9, Rev. C; and
 - e) PART 6: PRICE PROPOSAL FORM (rev Aug 2020).
2. Except for Revisions set forth in this Addendum #1, all other terms and conditions of the RFP remain the same.

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1	G	General	How often does CTDOT anticipate changing the size of its consists?	The consist size is expected to change during every major holiday weekend or at least six times per year. Maintenance requirements, repairs, and service requirements may result in more frequent changes.
2	G	General	Would CTDOT consider an option for a leasing contract with or without maintenance in lieu of a purchase contract?	No.
3	1	F.1	Cover Letter The RFP requires: Identification of Proposer entity. If a corporation, partnership, or limited liability company registered with the Connecticut Secretary of the State (“SOTS”) at the time of submitting a Proposal, Proposer must submit a current corporate, partnership, or company record printout from the SOTS (which will not count toward the page limitation). Please note that the selected Proposer will be required to be registered with the SOTS as of the date Proposer executes its Contract with CTDOT. Please confirm if an affiliate company registered with the Connecticut Secretary of State suffices to fulfill this requirement?	No. The entity submitting the Proposal must be registered.
4	1	F.1.b	Please clarify if “be registered with the SOTS” include the situation of a foreign state company to register as a foreign entity in Connecticut.	The entity submitting the Proposal, foreign or domestic, must be registered.
5	1	F.2.o	O. “Post-Warranty Service and Support: Proposer shall submit a separate technical proposal for all requirements described in RFP Part 3 (Scope of Work) Section 12: Post-Warranty Service and Support (Option 5). The proposal shall include a detailed narrative on the Proposer’s approach to the requirements listed in the Scope of Work. All material is to be furnished in accordance with the Technical Specification.” The “Part 3 (scope of work) section 12” cannot be found in the Specification. Does it refer to “Section 8 Option for Post-Warranty Service and Support”?	Yes, it refers to Section 8, Option for Post-Warranty Service and Support. The Instructions to Proposers is modified accordingly.
6	1	F.7.d	Instructions for Proposers Section 7.d.v. & vi Options 5 & 6 for Post Warranty Service and Support Can CTDOT please confirm if a separate set of terms and conditions will be distributed for Options 5 & 6 related to the Post Warranty Service and Support?	A separate set of terms and conditions will not be distributed for Options 5 and 6. Proposers shall be subject to the requirements of the Scope of Work. At the time CTDOT elects to exercise the Post Warranty Service and Support Option, Contractor and CTDOT shall finalize terms and conditions for Options 5 and 6.
7	1	Table 2	Could CTDOT elaborate on how to evaluate “C. Economic Recovery”? Is there a formula to be used similar to the “Price Score”?	Economic Recovery will be rated using weighted categories for percent of work (by cost) in United States, percent of work (by cost) in Connecticut, percent of materials manufactured in United States, and percent of materials manufactured in Connecticut. Ratings in each of these categories will be given on a scale from 0 to 4, with 0 = not in US at all, 1 = 1-10% in specified location, 2 = 11-20% in specified location, 3 = 21-40% in specified location, and 4 = 41-70% in specified location, and 5 = greater than 70% in specified location.

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8	1	Table 2	G. PROPOSAL EVALUATION - Table 2: Proposal Evaluation Criteria Evaluation Criteria in table 2 defines the following: F. Price Maximum Points 20 Is the pricing of the Options considered in the evaluation? If so, how?	Yes, the pricing of the vehicle Options is considered in the evaluation. The Instructions to Proposers is modified accordingly.
9	3	1.c.v	From the Scope of Work document (1. c. v.): The delivery requirement is for equipment to be delivered such that four car consists seating 312 passengers will result. Question: Will it be acceptable for delivery to result in eleven unit articulated sets seating 325?	No.
10	3	7	From the Scope of Work document (7): The "Options" imply the following consists are planned: i Three cars, 232 seats ii Five cars, 392 seats iii & iv Seven cars, 552 seats or Eight cars, 632 seats Question: Will the following be considered equivalent? i A nine car articulated consist seating 257 (versus 232) ii A 13 car consist seating 393 (versus 392) iii/iv A 17 car consist seating 529 (versus 552) and A 21 car consist seating 665 (versus 632)	No.
11	3	7.c	Instructions for Proposers Execution of Options is specified in terms of days of delivery of last production vehicle and no later than delivery of last rail car for preceding Option. Would CTDOT consider changing this to "x" months prior to production of last car and "x" months prior to production of preceding Options so the Contractor can maintain continuous production at the end of the base order or the preceding Option cars respectively.	CTDOT's intent is for the Contractor to maintain continuous production. Article 10.2 of the Contract details the timing related to exercising any option for additional rail cars. Article 7 of Part 3, Scope of Work, details the delivery schedule for the Option rail cars.
12	3	8.2.d	"d. The material provided by Contractor will be stored in space provided at the CT Rail Maintenance Facility or other location that CTDOT may make available. Contractor is solely responsible for establishing inventory levels to meet the demand of the Post-Warranty Maintenance Plan and working with CTDOT's maintenance provider to determine needed storage and inventory control best practices." Please clarify the size of material storage place. Will it be charged and if yes, what is the cost?	There will be no cost to use CTDOT's 10 ft x 20 ft storage shed.

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13	3	General	Can CTDOT provide more information about the maintenance mode of existing CTrail vehicles. How often will the vehicle be maintained? What kind of maintenance capabilities does CTDOT's maintenance provider have?	<p>CTDOT follows typical U.S. commuter rail maintenance practices with 15-day, 45-day, 90-day, annual, etc. cycles.</p> <p>These coaches will be maintained by Amtrak at the CTrail maintenance facilities in the New Haven Yard.</p> <p>The CTrail Diesel Shop was re-built in 1997 and now supports both SLE and HL services. The facility houses four tracks; 3 raised tracks 340 feet long and a single track flush with the floor. All tracks are run-through. Two raised tracks are equipped with a single wheelset or combo drop table and the release track has a lift top on the flush floor track. Two of the pedestal tracks have a single raised platform between them at car floor level to access the interior of the coaches. The raised tracks and track pits enable servicing under car equipment. The single flush floor track slab is reinforced for locomotive jacking the entire length of the shop. A single car-length pit between the gauge is provided in this area.</p> <p>The shop has two 10-ton cranes over the pedestal track area, one 35-ton capacity bridge crane over the east end of flush floor area able to remove a prime mover, and a 10-ton gantry crane on the west end of the track. The shop is equipped with 480 volt AC outlets for standby power for all tracks, and 120 volt AC and compressed air outlets on all tracks. Outside the east end of the service tracks there are toilet dump stations servicing the 3 tracks. The existing facility was built for 3-car train plus a locomotive service. In case of a power outage a diesel locomotive can be backed up to switchgear that allows the locomotive to at least provide electric power to key parts of the facility.</p> <p>CTrail also intends to re-occupy, in the near term, the adjoining Car Shop that is currently used for another fleet. This would expand CTrail maintenance operations from the present 12 spots, to a 24-spot full maintenance facility.</p> <p>Currently these facilities are being evaluated to determine if modifications will be necessary to maintain the new coaches.</p> <p>Additionally, the CTrail operations has access to two wheel true facilities in the New Haven yard complex.</p>
14	4	1.03	Would the CTDOT entertain and equally evaluate alternative proposals for single level equipment that is either self-propelled or utilizes a GenoHead (Powerhead) type solution? Our platform is scalable, and offers the benefit of lower life-cycle costs through savings on maintenance, fuel, etc. Our platform is also lighter in weight, which reduces track infrastructure related repair costs while meeting FTA-AVT requirements allowing it to co-mingle with freight.	No.
15	4	1.03, 2	<p>From the Tech Spec (1.03 , 2): “... capable of fully functional co-mingled operation...”</p> <p>Question: Will it be acceptable that, while Talgo equipment will be able to intermix with all types of CTDOT equipment while facing in either direction, the minimum Talgo consist will be 183 ft. long and seat 92 passengers?</p>	No.

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16	4	1.03.B.2	<p>All cars and car types supplied under this technical specification must be capable of fully functional co-mingled operation, both among themselves and when in mixed CTDOT train consists of all types of CTDOT single-level passenger cars in any combination, including if individual cars are turned end-for-end. Complete functional electrical and pneumatic interoperability must be provided with all applicable diesel and electrical locomotives, and with all CTDOT single-level trailer and cab cars. All pneumatic trainline, Head End Power (HEP) trainline and communications/door control trainline functionality shall be maintained. Push-pull trainline functionality shall also be provided when coupled to other CTDOT cars and locomotives so equipped.</p> <p>Please confirm or correct our understanding that this requirement only applies to existing cars, cab-cars and locomotives with electrical, pneumatic and mechanical equipment that supports the interoperability requirements as specified.</p>	Confirmed.
17	4	1.03.B.2	<p>All cars shall be fully compatible for unlimited duration movement when locomotive hauled, and locomotive pushed, or when coupled to conventional freight cars as in a freight train.</p> <p>Please clarify if HEP power is available when cars are coupled in a freight train, and what functionality is required.</p>	HEP power is not available when cars are coupled in a freight train. Coupling to conventional freight cars is intended for transportation only.
18	4	1.04.01.A	<p>From the Tech Spec (1.04.01 A): “This technical specification provides for two types of cars”</p> <p>Question: Will it be acceptable to provide equivalent functionality and seating using the following car types? 1. Pairs of intermediate (“trailer”) cars seating 68 and including an accessible toilet and wheelchair space 2. An end car seating 24 paired with an intermediate car with an accessible toilet and wheelchair space 3. A cab car with no revenue seating and an HEP plant</p> <p>The lack of revenue seating in the cab car is a safety enhancement, and the HEP plant improves reliability by providing redundancy with the locomotive HEP.</p>	No.
19	4	1.04.02.B.2,3 / 13.05.03.B / 13.12.11	<p>Several different consist lengths are described in the TS: 1.04.02(B)2,3: “Maximum consist of 10 cars..” 12.05.06(B): “The system shall support a consist of up to 8 cars.” 13.05.03(B)“at the extreme end of the 12-car consist ..” and “one end of a 12-car train..” 13.12.11: “in a train of up to twelve cars...”</p> <p>Can CTDOT confirm the maximum operating train length is 10 cars? Or do the references to 8- and 12-car consists constitute separate or additional requirements planned for support of future increase of train consist length?</p>	The maximum operating consist is ten (10) cars. Technical Specification sections 12.05.06.B, 13.05.03.B, and 13.12.11 are modified to reflect this.

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20	4	1.04.03.B	Clearances The cars, including the F-end snowplow pilot on the cab car, shall fully conform to: 1. Drawing No. MNR-NO. 8, Rev. B 2. Drawing No. MNR-NO. 9, Rev. C. Can CTDOT kindly provide the referenced drawings?	Yes, attached.
21	4	1.04.03.C.3	Chapter 1.04.03 C.3 stated "The cars shall be capable of negotiating a 250 ft (76,200 mm) radius (18 degree) horizontal curve." Please clarify if 250ft is the revenue curve radius or the depot line curve radius, is it also it the minimum radius? If 250ft is the revenue curve radius, for a no-bolster truck design, the 8 ft 6 in axle base might lead to a faster wheel wear-out. If it's recommended to propose a no-bolster truck design, is possible to shorten the axle base? If 250ft is the depot or yard curve radius, please provide information about the revenue radius, i.e. curve radius between stations, the super elevation and cant deficiency data.	CTDOT confirms the 250ft is a depot curve. CTDOT requires a bolster truck design.
22	4	1.04.04.A	From the Tech Spec (1.04.04 A): "Stainless steel car shell ..." Question: Will CTDOT consider lightweight aluminum monocoque construction? The equipment will be in full compliance with all FRA requirements. But this type of construction will significantly reduce both operating cost and schedule time (as, with any given locomotive, acceleration out of stations will be faster).	No, a monocoque construction will not be considered. Aluminum carshells will be considered on a case-by-case basis per RFP Part 4, Technical Specification, Section 4.01.B.
23	4	1.04.04.D, 1.04.08.A, 4.07.01	1.04.04 D Carbody (Chapter 4) Each side of the car has at least two side entries. 1.04.08 A Door Systems (Chapter 8) The trailer cars feature at least two side entry doors per side,...The cab cars feature at least two side entry doors per side,... 4.07.01 Side Doorway Framing - Trailer Cars The actual number of doors desired at the above four framed locations will be an Engineer preference that is defined during the procurement process. Please confirm or correct our understanding that each car shall have at least 4 side entry doors, with 2 on each side.	Confirmed. Each side has two (2) doors for a total of four (4) per car.

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24	4	1.04.05.B	<p>From the Tech Spec (1.04.05 B): “All trucks will use standard Amtrak wheelsets.”</p> <p>Question 6: Will it be acceptable to use Talgo independent, steered wheels at the articulations?</p> <p>This system eliminates hunting and reduces flanging, greatly improving comfort and <u>reducing wheel wear.</u></p>	No.
25	4	1.04.10.C	<p>From the Tech Spec (1.04.10 C): “Two identical HVAC units...”</p> <p>Question: Will our arrangement be considered equivalent to this requirement? This arrangement uses one unit per car, which results in almost exactly the specified two per 85 feet of train length. In addition, each unit is internally redundant, essentially two units in one enclosure, producing the intended reliability.</p> <p>We suggest that in the post Covid-19 environment passengers are likely to greatly prefer vehicles accommodating fewer than 40 passengers to those seating twice that number.</p>	No.
26	4	1.04.15	<p>For Chapter 1.04.15 B: “All waste water will be captured and stored in a 100-gal (379 L) waste retention tank at the B-end of each car.”and Chapter 15.03.01 D “The WCRS shall be a vacuum system with sufficient capacity to collect and retain all waste water generated on the car during a 48-hour period in a single tank, for discharge at a wayside dumping facility. Minimum waste capacity shall be 120 gal (454 L), and shall be verified during design review.”, the question is as follows:</p> <p>The description of volume of the waste retention tank in two chapters is contradictory. Whether to consider the proposal design according to the minimum 120 gal (454l) initially.(In the later stage, according to the results of capacity calculation and space check under the vehicle, the value needs to be increased.)</p>	Section 1.04.15.B is modified to require a 120 gallon (454 L) tank.

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27	4	1.04.16.G, 16.02.01.C.1, 1.04.08.A, 4.07.03, 8.02.02.A	<p>1.04.16 G Cab & Controls The cab end of the cab car will include streamlined styling to the extent practical, considering the limitations of a pass-through door, for reduced wind resistance, which reduces fuel consumption and enhances locomotive performance at high speeds when in push mode.</p> <p>16.02.01 C1 Cab Car Arrange The front face of the compartment shall have one body end door in the center, with an electrically heated windshield on both the right (Operator's) and left (Observer's) sides.</p> <p>Contradicts</p> <p>1.04.08 A Door Systems The cab cars feature at least two side entry doors per side, a body end door at the non-cab end, and a sliding pocket vestibule door at the non-cab end.</p> <p>4.07.03 Carbody End Doorways Each cab car shall include a carbody end doorway at the non-cab-end.</p> <p>8.02.02 A Carbody End Doors Each end of each car, except the cab end of the cab car, shall be equipped with a stainless steel, single leaf, full height, piano hinged inward swinging car body end door panel.</p> <p>Specification sections 1.04.16 G & 16.02.01 C1 indicate a "pass-through door" at the cab end of the cab car. However, such door is not specified any further in any other sections, particularly door sections.</p>	No pass-through door is required at the cab end of the cab car. The Technical Specification is modified accordingly.
28	4	3.05.01.D.3	<p>TS Clause: More than 6 minutes late at its destination terminal; or Clarification: Considering the operating condition and supportive logistic time, suggest to change train delay as more than 10 minutes late at its destination terminal. Suggest to amend as follows: More than 10 minutes late at its destination terminal; or</p>	No.
29	4	3.05.04.C.10	<p>TS Clause: Systems that rely on structural integrity for safety shall have sufficient safety factors such that failures are not possible within the life of the car under all possible normal conditions. Clarification: The common requirement from relevant standards regarding system safety is to control hazardous failure rate to a certain level of frequency instead of "not possible within in the life of a system" Suggest to amend as follows: Please consider to remove this clause or define which "system that rely on structural integrity for safety" is and what "safety factor" to be achieved.</p>	No.

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30	4	3.05.04.C.13	<p>TS Clause: All systems shall function safely under all combinations of supply voltages, fluid pressures, shock, vibration, dirt accumulation and the railroad environment.</p> <p>Clarification: According to EN 50126, the safety for a system/function is assessed under a certain defined operating condition. It is not possible to get a conclusion that a system will not fail under any conditions.</p> <p>Suggest to amend as follows: All systems shall function safely under all combinations of supply voltages, fluid pressures, shock, vibration, dirt accumulation and the railroad environment operating conditions as defined in System Definition/Technical Specification.</p>	No.
31	4	3.05.04.C.17	<p>TS Clause: No sequence of operations, or the simultaneous activation of any controls, shall result in unsafe conditions.</p> <p>Clarification: According to EN 50126, the safety for a system/function is assessed under a certain defined operating condition. It is not possible to get a conclusion that a system will not fail under any conditions.</p> <p>Suggest to amend as follows: No sequence of operations, or the simultaneous activation of any controls, shall result in unsafe conditions in the premise that the operation and maintenance manuals are strictly followed.</p>	No.
32	4	4.03.01	<p>“B. The completed car shall include all antennas and other devices mounted to the car, and shall fully conform to PRIIA Drawing 305-801.”</p> <p>The PRIIA Drawing 305-801 mentioned is not found in the Specification, please provide the PRIIA Drawing 305-801. In addition, it appears that the drawing is a bi-level car clearance drawing.</p>	As required by Section 1.04.03.B, the car shall fully comply to Drawing No. MNR-NO. 8, Rev. B and Drawing No. MNR-NO. 9, Rev. C. Section 4.03.01.B is modified to reflect this.
33	4	4.03.01	Can CTDOT confirm in Section 4.03.01.C, should the cab car weight be 109,960 lbs (49,877 kg)?	Confirmed. Section 4.03.01.C is modified to reflect this.
34	4	4.04.03, 4.19.04.H.2	<p>Section 4.04.03.B.4 states: “Notwithstanding the previous paragraph, for each joint design, the static stress at the AW3 carbody load shall be less than the stress that determines the allowable fatigue stress range. <u>The allowable fatigue stress range shall be computed by multiplying the static stress at the AW3 load by the dynamic factor (fatigue load range).</u> This stress range shall be within the design fatigue stress range (fatigue limit) obtained from AAR Standard C-II, Section 7.2, or AWS Standard D1.1, and as approved by the Engineer.”</p> <p>4.19.04.H.2 states: “<u>The minimum allowable fatigue stress range for the carbody is computed by multiplying the static stress at the AW3 load by the dynamic factor.....</u>”</p> <p>We are confused by the underlined texts. Our understanding is that the allowable fatigue stress range is determined by the properties of the materials and the structural construction. We don’t understand how this can be computed from the actual static stress sustained by the car structure/joints under the AW3 load. Please clarify the intent of these requirements.</p>	The specification is modified to clarify the requirement.

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35	4	4.13.01.C, 18.10.01	<p>Section 4.13.01.C states: "Construction shall be a double-glazed side window with the exterior light to be tinted polycarbonate, and the inner light to be non-tinted polycarbonate. Laminated safety glass may be specified by the Engineer as a Chapter 23 option, for the interior, exterior, or both panes."</p> <p>Section 18.10.01 states: "Side window assemblies (emergency and non-emergency) shall be double-glazed. The outer pane shall be 0.250-inch (6.35 mm) thick, gray-tinted tempered safety glass unless specified otherwise by the Engineer. The inner pane shall be 0.375-inch (9.5 mm) thick, clear tempered safety glass. The double-glazed assembly shall have a 0.375-inch (9.5 mm) dead air space separating the inner and outer panes. The double-glazed assembly shall be certified FRA Type II and meet all the applicable requirements of ANSI Z-26.1 and U.S. Code of Federal Regulations, 49 CFR Part 223, including Appendix A. The double-glazed assembly shall be a gray tint unless specified otherwise by the Engineer. The double-glazed assembly's visible light transmission shall be 24%. The double-glazed assembly's maximum solar energy transmittance shall not exceed 50%."</p> <p>Please clarify whether the side window pane material is polycarbonate or safety glass.</p>	The side window pane material is safety glass. Section 4.13.01.C is modified to reflect this.
36	4	4.13.02	<p>Section 4.13.02.C states: "C. A permanent protective veneer shall be applied to the exterior surface of all glazing material. This protective covering shall significantly improve the abrasive resistant qualities of the glazing to abrasive materials, natural atmospheric acids, strong cleaning chemicals and cleaning brushes encountered during normal operating and cleaning conditions."</p> <p>Please confirm the protective veneer is still necessary for the window panes of safety glass, even for the cab windshield.</p>	An exterior protective layer is not required on safety glass windows.
37	4	5.01, 5.02A, 5.02B	<p>Chapter 5.01:" The trucks shall incorporate braking via tread and disc brakes." If the brake performance can satisfy the requirement, is it possible to remove tread brake and only keep disc brakes?</p> <p>In 5.02 A: "Truck designs must have a proven service history in North American intercity or commuter rail service, or must be demonstrated as being compliant with all Specification requirements through finite element analysis, truck dynamic behavior through computer simulation (validated as defined by the Engineer) and instrumented testing at an approved test track facility. "</p> <p>If the truck to be adopted has no track record in North America, do we have to provide strength calculation report and dynamics calculation report during the bidding phase?</p> <p>Chapter 5.02 B: "All truck-mounted equipment shall conform to the clearance requirements of drawing numbers MNR-NO. 8 Rev. B, M-8 Static Clearance Line, and MNR-NO. 9 Rev. C, M-8 Dynamic Clearance Line." Please provide the clearance drawing.</p> <p>Is it possible to provide drawings of rail profile, rail cant and wheel tread of existing vehicles?</p>	<p>Both tread and disc brakes are preferred.</p> <p>If the truck to be adopted has no track record in North America, it is advisable to provide a strength calculation report and dynamics calculation report during the bidding phase.</p> <p>The clearance drawings are included with this addendum.</p> <p>No, it is not possible to provide drawings of the rail profile, rail cant and wheel tread of existing vehicles.</p>

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38	4	5.07.01	"The design of the speed sensor cable assemblies shall be submitted to the Engineer for review and approval. As guidance, the Contractor shall reference Amtrak drawings D-00-1365 and D-00-1359." Can CTDOT provide Amtrak drawings D-00-1365 and D-00-1359 during the bidding stage?	No, CTDOT will provide the drawings to the selected Contractor.
39	4	7.03.B	The air brake system shall be designed for operation and maintenance in conformance with all applicable Amtrak air brake rules. Can CTDOT provide a copy of the latest version of 'Amtrak air brake rules and related specifications' for suppliers and carbuilders to review?	No.
40	4	7.06.02	Can the Authority please provide the full route profile including timetable with dwell times, distance between stations, speed limits, and grades for the referenced routes that should be considered for design and simulation purposes? This information is essential for determining necessary thermal brake capacity for the friction brake system.	No.
41	4	7.09 and 01.04.07G	Sections 7.09 and 7.01 require a mechanical handbrake. However, section 1.04.07G states that a spring applied parking brake is allowed as approved by the Engineer. Please confirm that a spring applied parking brake may be used for the handbrake function if approved by the Engineer.	Yes, as noted in section 1.04.07.G, a spring applied parking brake may be proposed in place of a mechanical handbrake, subject to CTDOT approval.
42	4	7.11.02	Can the authority please clarify if "Handbrake" and "Parking Brake" are interchangeable for this requirement? Parking Brakes are required per TS 7.11.02	The Parking Brake function described in section 7.11.02 of the brake control handle set is different from the hand/parking brakes that are installed on each car. Another term used for this feature is a holding brake. A mechanical handbrake is not suitable for this control. Alternate solutions may be proposed if the holding capacity is equal to or better than a full service application of the cab car and the system responds to the command in a timely manner equivalent to full service brake application of the cab car.
43	4	8.02	Section 8.02.A requires: "The carbody end door, exterior side doors, and vestibule sliding end door panels shall be of stainless steel construction bonded with aluminum honeycomb core." Section 8.02.C requires: "Each door leaf shall be as thin as possible, of hollow lightweight construction, internally reinforced,". Please clarify if the aluminum honey core is required for the door panels.	Yes, all door panels, including the body end door, exterior side doors, and sliding end door, shall be of stainless steel construction with honeycomb core.
44	4	8.11.02.C	In "NORMAL" mode, the end door shall automatically open fully within 2 seconds after the push plate is activated. The door shall remain open for 8 to 10 seconds, then automatically close. If a side door in the same vestibule is opened, the end door shall remain open for 30 seconds before automatically closing. Please clarify when does the timing start, to count "the end door remains open for 30 seconds"	The timing starts after the end door has completely opened.

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45	4	10.04.01	<p>Section 10.2.A.2 states: “The vehicle’s interior temperature, including the Engineer’s cab, shall be maintained to the specified value (68°F - 76°F) (20°C – 24°C) under all specified conditions.”</p> <p>We request that the table in Section 10.04.01.A be revised to change the temperature from 72°F (22°C) to 76°F (24°C) to be consistent with the Section 10.2.A.2.</p> <p>Outside Ambient Interior Vehicle Temperature Below -30°F (-34°C) As system will provide -30°F (-34°C) to +60°F (16°C) 68°F (20°C) ± 2°F (±1°C) [±4°F (±2°C) for toilet room] 60°F (16°C) to 110°F (43°C) 72°F (22°C) 76°F (24°C) ± 2°F (±1°C) [±4°F (±2°C) for toilet room] Above 110°F (43°C) As system will provide. Layover Cool Mode 85°F (29°C) [±4°F (±2°C) for toilet room] Layover Heat Mode 50°F (10°C) [±4°F (±2°C) for toilet room]</p>	<p>Section 10.02.A.2 is modified to reflect the vehicle's interior temperature shall be maintained to (68°F - 72°F) (20°C – 22°C) under all specified conditions.</p>
46	4	10.06	<p>In Paragraph A of Chapter 10.06, the overhead heater is required to be put in HVAC unit. The original text in Specification says: “The cars shall be electrically heated using forced air overhead heaters in the roof-mounted HVAC unit and by convection heaters at the sidewalls.”</p> <p>In Paragraph B of Chapter 19.06.08, the electrical heating of air duct is required to be verified. The original text in Specification says: “2. Duct heater operation Duct heat of each car shall be verified for function, uniform temperature distribution and correct current draw. 3. Duct heater shunt trip operation Proper operation of each safety interlock of the duct heat control system shall be verified on each car. In addition, operation of the shunt trip feature of the circuit breaker shall be exercised by applying heat directly to the high limit thermostat of each heater assembly.”</p> <p>The descriptions in Chapter 10.06 A and Chapter 19.06.08 B are inconsistent. It is suggested that the overhead heater in Chapter 10.06 A can be placed in HVAC unit or in air duct, or both, and the details will be determined according to design requirements. In Chapter 19.06.08 B, it is suggested to change the electrical heating test of air duct to the overhead heater electrical heating test.</p>	<p>Section 19.06.08 is modified to replace "duct heater" with "HVAC unit heater".</p>
47	4	12.01.C	<p>Paragraph C of Chapter 12,01 stated “The PA and IC systems shall be fully compatible with existing locomotives operating in CTDOT service.” Please provide the relevant requirements of the existing locomotive operating in CTDOT service.</p>	<p>Section 12.01.C is modified to delete this requirement.</p>

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48	4	12.01.G, 12.02.C	“G. The Contractor shall supply, install, and test all equipment and software necessary to successfully integrate with the existing CTDOT Train Information System (TIS),...” Can CTDOT clarify the existing wayside TIS system functions? Are these functions provided by the Wayside System Server (WSS) referenced in 12.02(C)?	The existing wayside Train Information System (TIS) functions are provided by a Clever Devices wayside system, which interfaces with the onboard Intelligent Vehicle Network (IVN-R). The Contractor is responsible for integration of the onboard Passenger Information System (PIS) with the IVN-R. The TIS facilitates on-time performance measurements and integrated on-board and wayside sign control to provide information to CTDOT systems and passengers. The TIS is separate from the Wayside System Server (WSS) functions required to be implemented by the Contractor as referenced in 12.02(C).
49	4	12.01.G.6	Please confirm that the trainline audio interfacing is performed by the PA Amplifier and not by the IVN-R.	The Contractor is responsible for integration of the onboard audio and video public address systems with the Clever Devices IVN-R equipment, as well as interface to trainlines including analog fallback of digital PA/IC communications.
50	4	12.01.G.6, 12.05.02	Could CTDOT please clarify the specific functions to be performed by the Clever Devices IVN-R and ZTCH on the new cars? Several of the functions to be performed by the CCU in Section 12.05.02 appear to overlap with the functions of the Clever Devices equipment.	The IVN-R and ZTCH should be considered as an overlay device which interfaces with and may control functions of the CCU described in Section 12.05.02. The CCU should be able to take IVN-R prompts in order to trigger train-wide messaging, set routes, and receive messages for broadcast, but the CCU shall also be capable of operation, announcements, and graphical sign control if the IVN-R is not available.
51	4	12.01.G.6, 12.05.09	12.01(G)6 requires integration of the IVN-R with passenger counting data, including transfer to wayside systems. 12.05.09 requires an optional wayside APC server. Can CTDOT confirm the TIS and optional APC systems are separate? Can CTDOT confirm there is no requirement for optional APC wayside server integration with existing CTDOT TIS?	The CTDOT Train Information System (TIS) is a separate system with separate requirements.
52	4	12.01.G.6, 13.10.03	Can the IVN-R and reading lights in the Cab Car be powered by the same 24VDC power supply?	As required by Section 12.01.G.2, the IVN-R should be powered by a dedicated circuit (including dedicated 24VDC power supply), such that the failure of the unrelated reading light function would not impact the ability for the CTDOT TIS from functioning.
53	4	12.02.F	The functionality of the communication system described in this section shall be exposed for future system modifications and upgrades through a defined, verified, secure application programming interface (API). Functions to be exposed by the API include control and monitoring of all system components. Please clarify whether this API is intended for access by additional software to be installed on the OTIS/PIS equipment described in this specification, or if the API is intended to be accessed by additional equipment to be installed in the future.	The API is intended for access by additional software running on additional equipment installed on the car or installed on secured wayside servers in the future.
54	4	12.04.02	A separate Ethernet Train Backbone trainline network between cars dedicated to passenger Internet access and provision of 802.11ax access points in each car to provide wireless Internet services to passengers shall be provided. Does CTDOT intend to use the Passenger Internet ETB to access a single backhaul link on the cab car?	The intentions of how CTDOT will use the Passenger Internet ETB has not been determined. Please see the Technical Specification for Contractor requirements.
55	4	12.05.04.D	The cellular connection shall be implemented by utilizing the latest commercially available cellular technology suited for operating in CTDOT service at the time of the earliest design review, minimally a 4G LTE-Advanced Category 12 modem if the availability of 5G (sub 6Ghz and mm-wave) devices suited for the environment are not available. Most cellular connections have fallback speeds due to existing infrastructure. Is it acceptable to fall back to 3G or other speeds in areas not supported by the selected cellular carrier's 4G/5G cell coverage?	The specification for cellular technology includes requirements for the capabilities of the hardware. Cellular carrier certification requirements identify what is required in terms of fallback, but it is understood that in certain areas the cellular networks may not support the fastest speeds the selected modules are capable of. It is acceptable to fall back to 3G or other speeds in areas not supported by the selected carrier's faster cellular networks, but the modems should be configured to use faster networks whenever possible based on cellular reception.

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56	4	12.05.07	Paragraph A of Chapter 12.05.07 stated "Twelve(12) antenna cables shall be installed to support the six rooftop antennas as they are expected to be multiple input, multiple output (MIMO)antennas." Please confirm what kind of devices are included for 6 rooftop antennas, and provide relevant technical requirements.	The antenna selection has not been completed. The Contractor shall assume sizing and space requirements identified in section 12.05.07 A.4. The antenna cable selection should be submitted for approval during design review, as selection would depend on the distance between the roof location and the location of the mounting provisions for the passenger wireless internet access control equipment.
57	4	12.05.07.A	"The passenger wireless LAN connectivity described in this section shall be capable of augmenting the capabilities of the train to wayside communication described in section 12.5.4." Passenger internet access networks are generally isolated from train operation networks for cybersecurity reasons. Does CTDOT intend to allow the interchange of data between the passenger internet system and the TWC system? Does CTDOT require additional cybersecurity analysis/protection for the interface between the Passenger Wireless and TWC systems?	It is expected that an appropriate limitation will be included in the design to prevent access between the passenger WiFi network and other devices on the train. The specific measures employed will be evaluated during design review. The Contractor is required to perform and maintain throughout the design a Cyber Security Risk Assessment as required by Section 13.04.01.H.
58	4	12.05.09.I	The Contractor shall supply a hosted web-based wayside reporting server, providing access to near real-time passenger counts for all cars and trains in the system, including raw data and processed data of collected reports, and facilitate export of the reports to CSV, XLS/XLSX, and text formats. Can the APC web-hosted service be integrated with the TWC web-hosted services described in 12.05.04?	The APC web-hosted service may be integrated with the TWC web-hosted services. In this case, user permissions as required by Section 12.05.04 should include the ability to limit certain user accounts or credentials to APC-related web services only.
59	4	12.05.10.H.2.c	...the output from the rear-view cameras shall be displayed on the cab video monitor beginning when the vehicle is at zero-speed and for five seconds after the vehicle begins moving. Would it be acceptable to integrate the Rear View Monitor functions into the OTIS/PISCU?	The OTIS/PISCU touchscreen is the train crew (and not Operator) interface to the OTIS/PIS system, and will not be located in the cab. The cab will include a Drive Display Unit (DDU) for interfacing with the onboard VMS and OTIS/PIS system, a cab video monitor for the rear-view cameras, an ADU, and other controls as identified throughout the specification. As the rear-view cameras are to be displayed each time the vehicle has stopped, a dedicated display shall be provided to allow the operator to also view active faults, and other train status information on the DDU. CTDOT would consider integrations that provide additional functionality (such as redundancy in the event of a failure of one of the two screens), but given the functionality required it is not practical to combine the functions of VMS, OTIS/PISCU, and rear-view camera on one screen.
60	4	20.02	TS 20.02 specifies (4) sets of portable test equipment while TS20.02 requires (2) sets of bench test equipment. Can the authority please clarify which quantity of test equipment should be provided? Can CTDOT further clarify the quantity of sets necessary for overhaul purposes. Qty 2 Automated BTEs suitable for testing every LRU in a system will be a significant cost driver.	The quantities provided in the specification are accurate for Portable Test Equipment (example: laptop with diagnostic software) used on the car and Bench Test Equipment for support of overhaul of equipment. The Contractor may propose alternate quantities of equipment which will be evaluated on a case-by-case basis. The evaluation will take into account possible cost savings to CTDOT for reduced quantities of equipment vs. anticipated need during maintenance activities. Note the Contractor's proposal must include costing for the specification-required quantities along with details for possible savings.
61	4	22.09	Contract Deliverable Requirements List CDRL 22-026 Cab Simulator Module No specifications for CDRL 22-026 are provided. Please provide the requirements for the Cab Simulator Module.	A cab simulator module is not required. The technical specification is modified accordingly.

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62	5	1.4	<p>Upon prior written approval from CTDOT, Contractor may engage subcontractors to perform portions of the Work. In the event of subcontracting, Contractor shall impose onto its subcontractor(s) all requirements under this Contract related to such Work being subcontracted and, accordingly, include in its subcontracts all applicable "flow-down" provisions.</p> <p>Please clarify whether CTDOT would consider that this would only apply to the major subcontractors list submitted per proposal instructions and deemed accepted by contract award and only changes to these major subcontractors would require CTDOT approval.</p>	<p>The language at issue in Section 1.4 of the Contract applies to those subcontractors who "perform portions of the Work." It requires such subcontracts to include "all applicable 'flow-down' provisions." Such subcontractors may not, per se, be limited to those which the Proposer listed as "major subcontractors" within its Proposal. At time of Contract finalization, CTDOT is willing to consider clarifying revisions as may be necessary. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>
63	5	1.7	<p>Step in Rights</p> <p>If any portion of the Work performed by Contractor or its subcontractor(s) is not completed to CTDOT's satisfaction, ...</p> <p>We respectfully request that CTDOT revises this requirement to more specifically state ". . . not completed in accordance with the Contract requirements."</p>	<p>Upon finalization of the Contract with the successful Proposer, CTDOT is willing to consider clarifying revisions to address this concern. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>
64	5	1.8	<p>Deficiency Mitigation Obligation</p> <p>Contractor shall perform any additional work required in order to correct deficiencies resulting from the acts or omissions of Contractor or its subcontractor(s) performing under the Contract, as determined by CTDOT in its sole reasonable discretion, without charge to CTDOT. Any investigation associated with such additional work shall be performed by Contractor at its sole cost and expense and shall not be considered Change Order Work.</p> <p>We respectfully request that CTDOT revises the highlighted text to more specifically state ". . . in accordance with the Contract requirements,..."</p>	<p>Upon finalization of the Contract with the successful Proposer, CTDOT is willing to consider clarifying revisions to address this concern. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>
65	5	6.3	<p>All risk of loss to the rail car or any part thereof, prior to Contractor's delivery and CTDOT's Conditional Acceptance shall be borne by Contractor.</p> <p>The implication of the transfer of the risk of loss at Conditional Acceptance is that Contractor will retain the risk of loss after delivery, upon which the vehicle is in the customer's custody and the Contractor may have limited control over it.</p> <p>Would CTDOT consider changing risk of loss to transfer at delivery?</p>	<p>No.</p>
66	5	7.2	<p>Liquidated Damages</p> <p>This section establishes the liquidated damages profile but lacks a cap on liquidated damages as is common in the industry.</p> <p>Would CTDOT consider adding a 10% of Contract Value cap on Liquidated Damages and expressly providing that LDs are the sole and exclusive remedy for delays?</p>	<p>No, at this time CTDOT will not add a 10% of Contract Value cap on Liquidated Damages.</p>

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67	5	9.1	<p>Correction of Deficiencies</p> <p>This section describes a right of CTDOT and an obligation of Contractor to correct deficiencies and the associated process.</p> <p>It is unclear how this section is implemented as opposed to the Warranty obligations.</p> <p>Can CTDOT please explain how this obligation is different from the Warranty obligations?</p>	<p>CTDOT is preparing clarifying revisions and will issue upon completion as an addendum. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>
68	5	15	<p>The Proponent has approached leading sureties, each of whom meet the requirements of the RFP. These institutions would, in order to be ready to issue the bonds, each propose using bond forms consistent with surety industry practice. Thus, we propose using the American Institute of Architects bond forms that are used in the rail industry.</p> <p>Thank you for considering this request. Please confirm if this is acceptable.</p>	<p>Confirmed.</p>
69	5	15.2	<p>In order to maintain the clear distinction between base and option orders, we respectfully request that CTDOT consider that the option bonds can also be issued as a separate bond instead of increasing and extending the base order Securities. Failure to provide a security for the options orders should not result in a default under the base order contract. Our experience working with leading surety companies would require this as a market-standard approach.</p>	<p>CTDOT does not object to this approach. Upon Contract finalization, CTDOT is willing to consider modifying the Contract language accordingly. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>
70	5	15.2, 15.4	<p>It is our understanding that CTDOT requires a Performance Bond for the performance of work that shall be maintained until Conditional Acceptance of the last base order vehicle. At that time a bond for the performance of warranty work will be required and maintained for only the two (2) year base warranty period.</p> <p>Please confirm or correct our understanding.</p>	<p>Per Section 15.2, the amount of the Performance Bond shall be adjusted accordingly throughout the Term as Contractor completes Work, and, in the event, CTDOT exercises any Option Work. Therefore, upon Conditional Acceptance of each car, the amount of the Performance Bond may be reduced. Prior to Conditional Acceptance of each rail car, Contractor shall furnish a warranty bond which shall be maintained throughout the warranty period of each rail car.</p>
71	5	15.5	<p>Section 15.5 of the Contract provides for release of Bonds "by CTDOT not sooner than six (6) months after the expiration of the Contract or earlier termination of the Contract."</p> <p>We would like to clarify if CTDOT would provide written release of the Performance and Payment bonds six (6) months following Conditional Acceptance of the last base order vehicle or of the last vehicle under a contract option, and warranty bonds to be released in writing six (6) months following the conclusion a warranty period. The RFP does not indicate if the original Bond forms will be retained by CTDOT or returned to the Contractor.</p> <p>Proponent respectfully requests that all original bond instruments be returned with a written release.</p>	<p>CTDOT will return the original bonds in a mutually acceptable manner. Upon Contract finalization, CTDOT is willing to consider modifying the Contract language accordingly. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>

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72	5	16.2 and 30.1	<p>16.2 Assignment</p> <p>Contractor shall not subcontract any portion of the Work required for the completion of this Contract without the prior written approval of CTDOT. The form of any subcontract shall be as developed by Contractor and must be approved by CTDOT.</p> <p>30.1 Subcontractors</p> <p>CTDOT must approve any and all subcontractors utilized by Contractor prior to any such Subcontractor commencing any work</p> <p>Please clarify whether CTDOT would consider that this would only apply to the major subcontractors list submitted per proposal and deemed accepted by contract award and only changes to these major subcontractors would require CTDOT approval.</p>	<p>CTDOT is preparing clarifying revisions and will issue upon completion as an addendum. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>
73	5	17	<p>Confidential Information Protection</p> <p>Note: provision does not stipulate that customer’s confidential information will be marked as such.</p> <p>Would CTDOT consider adding language that provides that any Confidential Information under this paragraph must be clearly marked as Confidential in order to be subject to confidentiality?</p>	<p>Upon finalization of the Contract with the successful Proposer, CTDOT is willing to consider clarifying revisions to address this concern. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>
74	5	18	<p>Non-Infringement Indemnity</p> <p>If a suit or proceeding based on a claimed infringement of a patent or copyright is brought against CTDOT, Contractor shall, at its own cost and expense, defend or settle any such suit or proceeding if authorized to do so in writing by CTDOT, and indemnify and hold harmless the State and CTDOT, its successors and/or assigns, its subsidiaries, agents and employees from all liability, reasonable damages, costs, and expenses associated therewith, including, without limitation, defense costs and attorney fees.</p> <p>Would CTDOT consider adding language that limits the indemnity obligation to the following conditions:</p> <ol style="list-style-type: none"> 1. Contractor choice of remedy 2. Prompt notification of claim to Contractor 3. Contractor exclusive right to conduct the defense 4. Customer being expressly prohibited from acknowledging validity of the claim 	<p>Upon finalization of the Contract with the successful Proposer, CTDOT is willing to consider clarifying revisions to address this concern. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>
75	5	21	<p>Termination for Breach</p> <p>Such Official Notice may set forth, at CTDOT’s discretion, an opportunity to cure such Breach within the time period set forth in the notice (the “Cure Period”).</p> <p>Would CTDOT be open to limiting the termination for breach rights to material breaches of contract only?</p> <p>Also, would CTDOT be open to making the opportunity to cure mandatory?</p>	<p>Upon finalization of the Contract with the successful Proposer, CTDOT is willing to consider clarifying revisions to address this concern. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>

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76	5	22.5	<p>Right to Procure Similar Services</p> <p>In the event CTDOT terminates this Contract in whole or in part, CTDOT may procure, upon such terms and in such manner as CTDOT may deem appropriate, supplies or services similar to those so terminated, and Contractor shall be liable to CTDOT for any excess costs for such similar supplies or services; provided that Contractor shall continue the performance of this Contract to the extent not terminated under the provision of this Article 22.</p> <p>As drafted this provision seems to essentially allow CTDOT to unilaterally terminate any portion of the contract they deem appropriate, contract the terminated scope with another entity, and the Contractor would be liable for excess costs. While this is not unusual for events of termination for breach, it is not industry practice for termination for convenience. Please clarify CTDOT's intent with regards to this provision.</p>	<p>Upon finalization of the Contract with the successful Proposer, CTDOT is willing to consider clarifying revisions to address this concern. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>
77	5	23.10.a	<p>Right to Suspend</p> <p>Any dispute concerning whether the delay or suspension is unreasonable or any other question of fact arising under this paragraph shall be determined by CTDOT or its designee and such determination and decision...</p> <p>The dispute resolution process is described in Article 20. We respectfully request that CTDOT consider that this specific dispute should be covered under that process and revise accordingly.</p>	<p>Upon finalization of the Contract with the successful Proposer, CTDOT is willing to consider clarifying revisions to address this concern. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>
78	5	25.1	<p>Fleet Defect</p> <p>CTDOT may declare a fleet defect in the event that cumulative failures by either system orientation or of any kind identical components serving substantially similar functions exceed three (3) total failures or exceed five (5) percent of the total number of such components in the vehicles, in any consecutive twelve (12) month period prior to the expiration of the warranty period for the last rail car.</p> <p>Would CTDOT consider the following, which is more in line with industry standard: A defect in a component which occurs as a result of the same root cause in any consecutive twelve (12) month period prior to the expiration of the warranty period for the last rail car, in 10% or more of any kind identical component.</p>	<p>No.</p>

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<u>Question No.</u>	<u>Part No.</u>	<u>Section Reference</u>	<u>Question</u>	<u>Answer</u>
79	5	26.1, 26.2, 27.1	<p>26.1-26.2 Technology License</p> <p>27.1 Software License</p> <p>Provision provides that the license shall be "irrevocable, perpetual, royalty-free, nonexclusive license and sublicense ("Technology License") to use, itself or through its agents, for the approved purposes..."</p> <p>Also establishes the Approved Purposes.</p> <p>While Proposer understands the intent and purpose of the rights sought under Section 26, Technology License, the approved purposes listed in sections 26.1 and 26.2 go beyond what can be reasonable attainable by itself and from its major system suppliers. Accordingly, we kindly request these two Sections to be modified as follows:</p> <p>Article 26. TECHNOLOGY LICENSE</p> <p>26.1 Contractor hereby grants to CTDOT on Contractor's behalf, and on behalf of its Subcontractors, suppliers and manufacturers (as to whom Contractor represents and warrants that it has the power and authority to grant such sublicense), an irrevocable, a perpetual, royalty-free, nonexclusive license and sublicense ("Technology License") to use, itself or through its agents, for the approved purposes described in Section 26.2, below without recourse to the original Contractor, Subcontractor, supplier or manufacturer: all patented, copyrighted and unpatented technology, know-how, trade secrets and other proprietary rights, and documentation thereof (except manufacturing detailed drawings and software, which is separately defined at and licensed pursuant to Article 27), which is included in the rail car, including but not limited to all systems, subsystems, assemblies, subassemblies, components, and interface systems and controls which are necessary for the maintenance and repair, modification and upgrading, and overhaul and/or remanufacture of the rail car, and for the manufacture of parts which are unavailable for purchas, as defined below, all of which shall be designated the "Licensed Technology".</p> <p>26.2 CTDOT's rights under this Technology License shall be limited to its use for the following: which shall be designated the "Licensed Technology".</p> <p>26.2 CTDOT's rights under this Technology License shall be limited to its use for the following:</p> <p>(a) evaluation and qualification for the purposes of future procurements of systems, subsystems and components of subsystems on the rail car to be delivered under this Contract;</p> <p>(b) preparation of specifications for future production orders of passenger rail vehicles employing some or all of the Licensed Technology;</p> <p>(c) maintenance and repair of the rail cars;</p> <p>(d) modification and upgrading of the rail cars;</p> <p>(e) overhaul and/or remanufacture of the rail cars;</p> <p>(f) manufacture of parts for the rail cars which become unavailable for purchase. The term "unavailable for purchase" means that a part is no longer being manufactured; or an inventory of the part in sufficient quantities to meet CTDOT's needs as listed in (a), (b), (c) and (e) is not available for purchase; or no supplier will sell a part to CTDOT or cannot supply the part according to a delivery schedule that meets CTDOT's needs (taking into account the customary lead time for such parts); or that no supplier will offer the part at a commercially reasonable aftermarket price.</p>	<p>Upon finalization of the Contract with the successful Proposer, CTDOT is willing to consider clarifying revisions to address this concern. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>

Design and Manufacture of Rail Cars and Related Services
Solicitation # 20CTRAIL-1
Response to RFP Questions

Part Key:
G - General Questions
1 - Instructions
2 - Definitions
3 - Scope of Work
4 - Technical Specification
5 - Draft Contract
6 - Price Proposal Form

<u>Question No.</u>	<u>Part No.</u>	<u>Section Reference</u>	<u>Question</u>	<u>Answer</u>
80	5	30.5	<p>Indemnity</p> <p>Broad indemnity for Claims arising, (1) directly or indirectly, in connection with the Contract, including the acts of commission or omission (collectively, the "Acts") of Contractor or Contractor Parties; and (2) liabilities, damages, losses, costs and expenses, including but not limited to, attorneys' and other professionals' fees, arising, directly or indirectly, in connection with Claims, Acts or the Contract confidentiality of any part of or all of Contractor's bid, proposal or any Records, any intellectual property rights, other proprietary rights of any person or entity, copyrighted or uncopyrighted compositions, secret processes, patented or unpatented inventions, articles or appliances furnished or used in the performance.</p> <p>Would CTDOT consider adding language that limits the indemnity obligation to the following conditions: 1. Contractor choice of remedy 2. Prompt notification of claim to Contractor 3. Contractor's exclusive right to conduct the defense 4. CTDOT being expressly prohibited from acknowledging validity of the claim?</p>	<p>Upon finalization of the Contract with the successful Proposer, CTDOT is willing to consider clarifying revisions to address this concern. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>
81	5	Schedule D	<p>Schedule D - Payment Summary</p> <p>The Payment % per milestone adds up to 102%, not 100% as indicated in the Cumulative percentage. Please advise.</p>	<p>The milestone table is modified to reflect a cumulative total of 100%.</p>
82	5	General	<p>Implied Warranty Disclaimer</p> <p>The Contract does not specify a disclaimer for implied warranties. Would CTDOT be open to the inclusion of a disclaimer of implied warranties (such as merchantability and fitness for a particular purpose) that is mutually acceptable?</p>	<p>At this time, CTDOT will not commit to include such a provision. Upon finalization of the Contract with the successful Proposer, CTDOT is willing to consider concerns with respect to implied warranties. For the purposes of preparing a Proposal, please assume that the Contract will not include a waiver of any implied warranties.</p>
83	5	General	<p>Limitation of Liability and Consequential Damages</p> <p>Contract does not include a limitation of liability clause or a disclaimer of consequential damages as is common in the industry.</p> <p>Would CTDOT be open to the inclusion of a Limitation of Liability clause that includes a disclaimer of consequential, indirect and incidental damages?</p>	<p>Upon finalization of the Contract with the successful Proposer, CTDOT is willing to consider clarifying revisions to address this concern. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>
84	5	General	<p>Changes in Law</p> <p>There is no changes in law provision as is typical in industry contracts.</p> <p>Would CTDOT be open to the inclusion of a mutually acceptable changes-in-law provision that is consistent with industry standards?</p>	<p>Upon finalization of the Contract with the successful Proposer, CTDOT is willing to consider clarifying revisions to address this concern. Any revisions to the Contract will be subject to review and approval as to form by the State of Connecticut Office of the Attorney General.</p>

The following changes are made to the Request for Proposal for Design and Manufacture of Rail Cars and Related Services, Solicitation # 20CTRAIL-1:

Part 1, Paragraph F.2.o is replaced by the following:

Post-Warranty Service and Support: Proposer shall submit a separate technical proposal for all requirements described in RFP Part 3 (Scope of Work) ~~Section 12: Post-Warranty Service and Support (Option 5)~~ **Section 8: Option for Post-Warranty Service and Support**. The proposal shall include a detailed narrative on the Proposer's approach to the requirements listed in the Scope of Work. All material to be furnished in accordance with the Technical Specification.

Part 1, Table 2, Note 1 is replaced by the following:

1 - The Price Proposal with the lowest **average vehicle price** total Base Order Pricing will receive the maximum of twenty (20) points. **The average vehicle price will be calculated by average the proposed price for Base Order vehicles (Base Order Items 1 & 2) and the Option vehicles (Option Pricing items 1A, 1B, 2A, 2B, 3A, 3B, 4A, and 4B.** The remaining higher priced Proposals will receive fewer points based on the following formula: "Price Score" = Lowest proposed average vehicle price for total cost ÷ proposed average vehicle price for total cost X 20

Part 4, Paragraph 1.04.15.B is replaced by the following:

All waste water will be captured and stored in a ~~100-gal (379 L)~~ **120 gal (454 L)** waste retention tank at the B-end of each car.

Part 4, Paragraph 1.04.16.G is replaced by the following:

The cab end of the cab car will include streamlined styling to the extent practical, ~~considering the limitations of a pass-through door,~~ for reduced wind resistance, which reduces fuel consumption and enhances locomotive performance at high speeds when in push mode.

Part 4, Paragraph 3.03.C is replaced by the following:

In addition to the requirement for updated versions of the CPM plan to be submitted to the Engineer, the Contractor shall submit to the Engineer a monthly progress status report in the form of updated computer printouts and narrative reports. [CDRL 03-003] In the narrative report, the Contractor shall state the percentage of work physically completed and include a description of the physical progress during the report period; plans for the forthcoming report period; problem areas **and key risks**, current and anticipated; delaying factors and their impact; and an explanation of corrective actions taken or proposed. Specifically addressed in the report shall be the status of uncompleted activities which have less than 30 calendar days float and which are either in progress or scheduled to be started within the next reporting period. At the

request of the Engineer, the Contractor shall participate in pre-update conferences to verify progress and review modifications to the detailed network schedule prior to the formal monthly submittal. This report shall also include the work done by major suppliers and subcontractors.

Part 4, Paragraph 4.03.01.B is replaced by the following:

The completed car shall include all antennas and other devices mounted to the car, and shall fully conform to ~~PRHA Drawing 305-801~~ **Drawing No. MNR-NO. 8, Rev. B and Drawing No. MNR-NO. 9, Rev. C.**

Part 4, Paragraph 4.03.01.C is replaced by the following:

The final car dry weight shall not exceed the following weight restrictions:

Trailer Car 105,506 lbs (47,882 kg)

Cab Car 109,960 lbs (~~19,877~~ **49,877** kg)

Part 4, Paragraph 4.04.03.B.4 is replaced by the following:

Notwithstanding the previous paragraph, for each joint design, the static stress at the AW3 carbody load shall be less than the stress that determines the allowable fatigue stress range. ~~The allowable A~~ **fatigue stress range, which will be deemed acceptable**, shall be computed by multiplying the static stress at the AW3 load by the dynamic factor (fatigue load range). This stress range shall be within the design fatigue stress range (fatigue limit) obtained from AAR Standard C-II, Section 7.2, or AWS Standard D1.1, and as approved by the Engineer.

Part 4, Paragraph 4.13.01.C is replaced by the following:

Construction shall be a double-glazed **safety glass window in accordance with section 18.10.** ~~side window with the exterior light to be tinted polycarbonate and the inner light to be non-tinted polycarbonate.~~ **Polycarbonate** Laminated safety glass may be specified by the Engineer as a Chapter 23 option, for the interior, exterior or both panes.

Part 4, Paragraph 4.13.02.C is replaced by the following:

~~A permanent protective veneer shall be applied to the exterior surface of all glazing material. This protective covering shall significantly improve the abrasive resistant qualities of the glazing to abrasive materials, natural atmospheric acids, strong cleaning chemicals and cleaning brushes encountered.~~ **Not used.**

Part 4, Paragraph 4.19.04.H.2 is replaced by the following:

The minimum allowable fatigue stress range, ***which will be deemed acceptable*** for the carbody, is computed by multiplying the static stress at the AW3 load by the dynamic factor.....”

Part 4, Paragraph 10.2.A.2 is replaced by the following:

The vehicle’s interior temperature, including the Engineer’s cab, shall be maintained to the specified value ~~(68°F – 76°F) (20°C – 24°C)~~ ***(68°F - 72°F) (20°C – 22°C)*** under all specified conditions.

Part 4, Paragraph 12.01.C is replaced by the following:

The PA and IC systems shall be fully compatible with existing locomotives operating in CTDOT service, including receiving and originating PA announcements and IC communications. Proper PA and IC volume shall be maintained in each car regardless of strength of trainline signal. ***Not used.***

Part 4, Paragraph 12.05.06.B is replaced by the following:

The system shall support a consist of up to ~~8~~ ***10*** cars.

Part 4, Paragraph 13.05.03.B is replaced by the following:

The wire used in the trainline power cables and jumpers shall be 4/0 as specified in APTA-PR-E-RP-016-99. The voltage drop due to the impedance of the power trainline at the extreme end of the ~~1210~~-car consist shall be minimized under the train’s heaviest load. The Contractor shall supply a line voltage analysis showing the voltage loss from one end of a ~~1210~~-car train to the opposite end under the heaviest load case.

Part 4, Paragraph 13.12.11 is replaced by the following:

The VMS shall utilize the Ethernet Train Backbone for train initiation and sequencing, obtaining the car numbers of each vehicle in the train. The train makeup function shall be capable of identifying the number, sequence, and orientation of each car in a train of up to ~~twelve~~ ***ten*** cars. The Ethernet Train Backbone shall detect and report any dead cars and their location in the train. When vehicles are coupled or uncoupled, the Ethernet Train Backbone shall automatically reconfigure itself for the new train configuration. Fault and event messages pertaining to the disconnected vehicles shall be removed from display on the DDU and MDU.

Part 4, Paragraph 16.02.01.C.1 is replaced by the following:

The front face of the compartment shall **include** ~~have one body end door in the center, with an~~ electrically heated windshield on both the right (Operator's) and left (Observer's) sides.

Part 4, Paragraph 19.06.08.B is replaced by the following:

2. ~~Duct~~ **HVAC unit** heater operation

~~Duct~~ **HVAC unit** heat of each car shall be verified for function, uniform temperature distribution and correct current draw.

3. ~~Duct~~ **HVAC unit** heater shunt trip operation

Proper operation of each safety interlock of the ~~duct~~ **HVAC unit** heat control system shall be verified on each car. In addition, operation of the shunt trip feature of the circuit breaker shall be exercised by applying heat directly to the high limit thermostat of each heater assembly.

Part 4, Paragraph 22.09, Item 22-026 is replaced by the following:

~~22-026 Cab Simulator Module All~~

Part 5, Article 15.2 is replaced by the following:

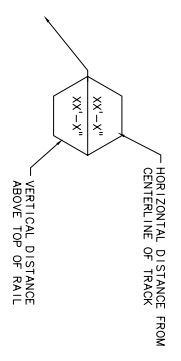
Performance Bond. A Performance Bond will be required in the amount of the Base Order Pricing and shall **be** adjusted accordingly throughout the Term as Contractor completes Work ~~and, in the event, CTDOT exercises any Option Work~~. Such bond must be received prior to issuance of NTP. It is the responsibility of the Contractor to ensure that its bond is updated as required.

Part 6, New calculation is added:

Average Vehicle Price = (Total Base Proposal Price Line 1 + Total Base Proposal Price Line 2 + Total Option Proposal Price Line 1A + Total Option Proposal Price Line 1B + Total Option Proposal Price Line 2A + Total Option Proposal Price Line 2B + Total Option Proposal Price Line 3A + Total Option Proposal Price Line 3B + Total Option Proposal Price Line 4A + Total Option Proposal Price Line 4B) ÷ 132

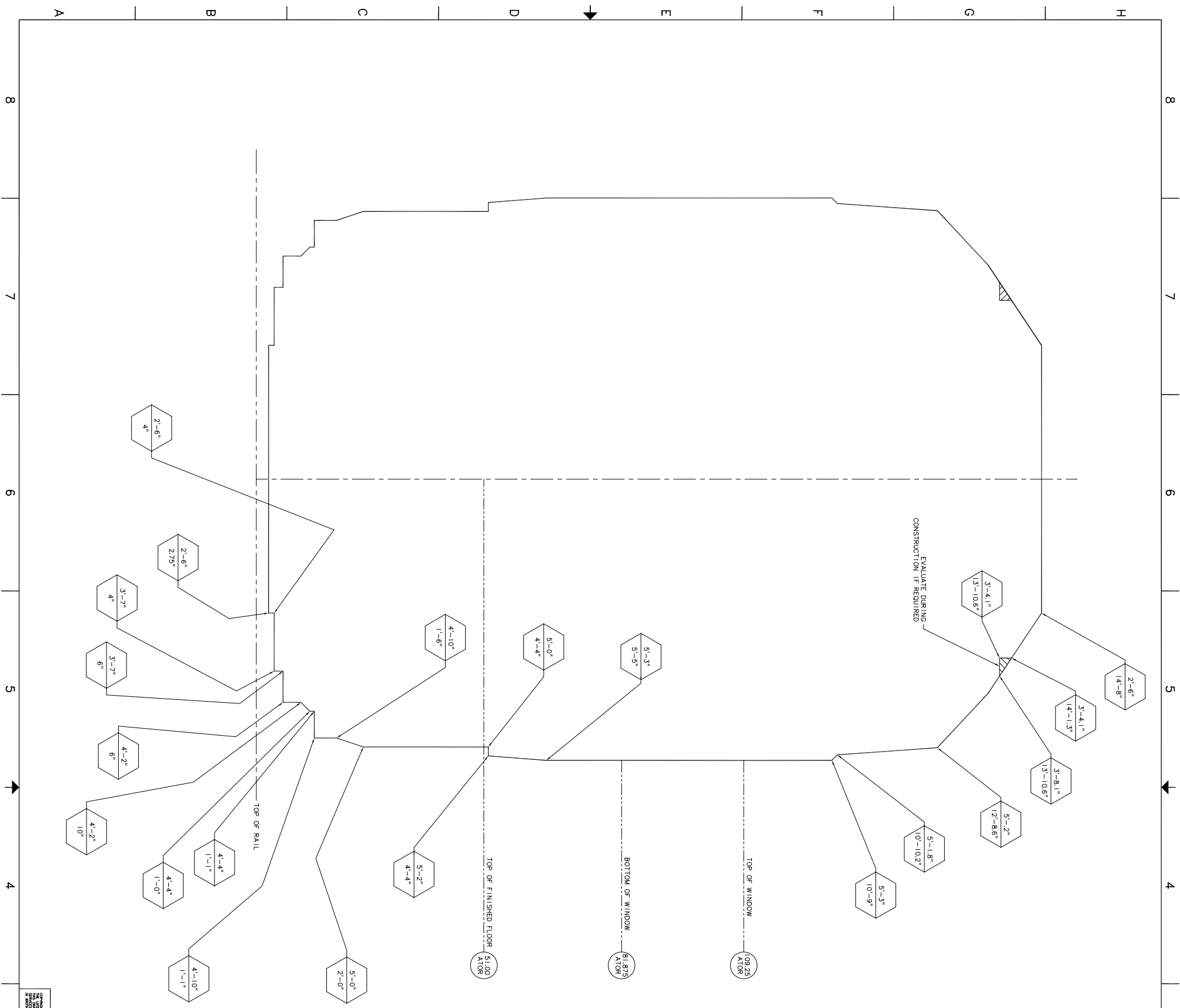
At: _____ Dollars (average price written in words)

ZONE	REV	DESCRIPTION	DATE	APPROVED
A	1	ADDED NOTES 1 AND 2	10/23/08	HTR
B	1	REMOVED UNDER CAR CLEARANCE LIMIT AND CAR WALKWAY	11/13/08	RF



M-8 CONSTRUCTION DIAGRAM DIMENSIONS

- NOTES:
1. THE STATIC CLEARANCE LIMIT REPRESENTS THE MAXIMUM STATIC DIMENSIONS OF THE VEHICLE, EXCEPT FOR THE PASSENGER SIDE DOOR THRESHOLDS AND THE LOOP STEPS. THE PASSENGER SIDE DOOR THRESHOLDS AND LOOP STEPS ARE REFERENCED TO THE CENTERLINE OF THE CAR PROVIDED THE VEHICLE ALSO CONFORMS TO THE REQUIREMENTS OF THE DYNAMIC CLEARANCE LIMIT (DRAWING MNR-NO. 9) AND ALL NOTES THEREIN. THE STATIC CLEARANCE LIMIT MAY BE USED AS THE STATIC CONSTRUCTION OUTLINE OF THE VEHICLE.
 2. THE STATIC CLEARANCE LIMIT IS REFERENCED TO THE PLANE OF THE TOP OF RAILS FOR TRACK WITH AND WITHOUT SUPERELEVATION, FOR TRACKS WITH A MAXIMUM LENGTH OF 65'-0" AND A TRACK CENTER DISTANCE OF 59'-6".

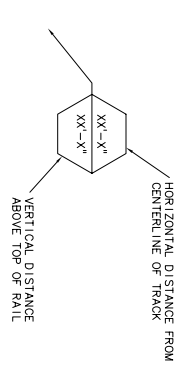


LTK Engineering Services

DATE: 10/23/2008	DATE: 11/13/08
SCALE: 1/8"=1'-1"	SCALE: 1/8"=1'-1"
PROJECT NO. E 3453.03	TOWN NO. MNR-NO. 8
SHEET 1 OF 1	SHEET 1 OF 1

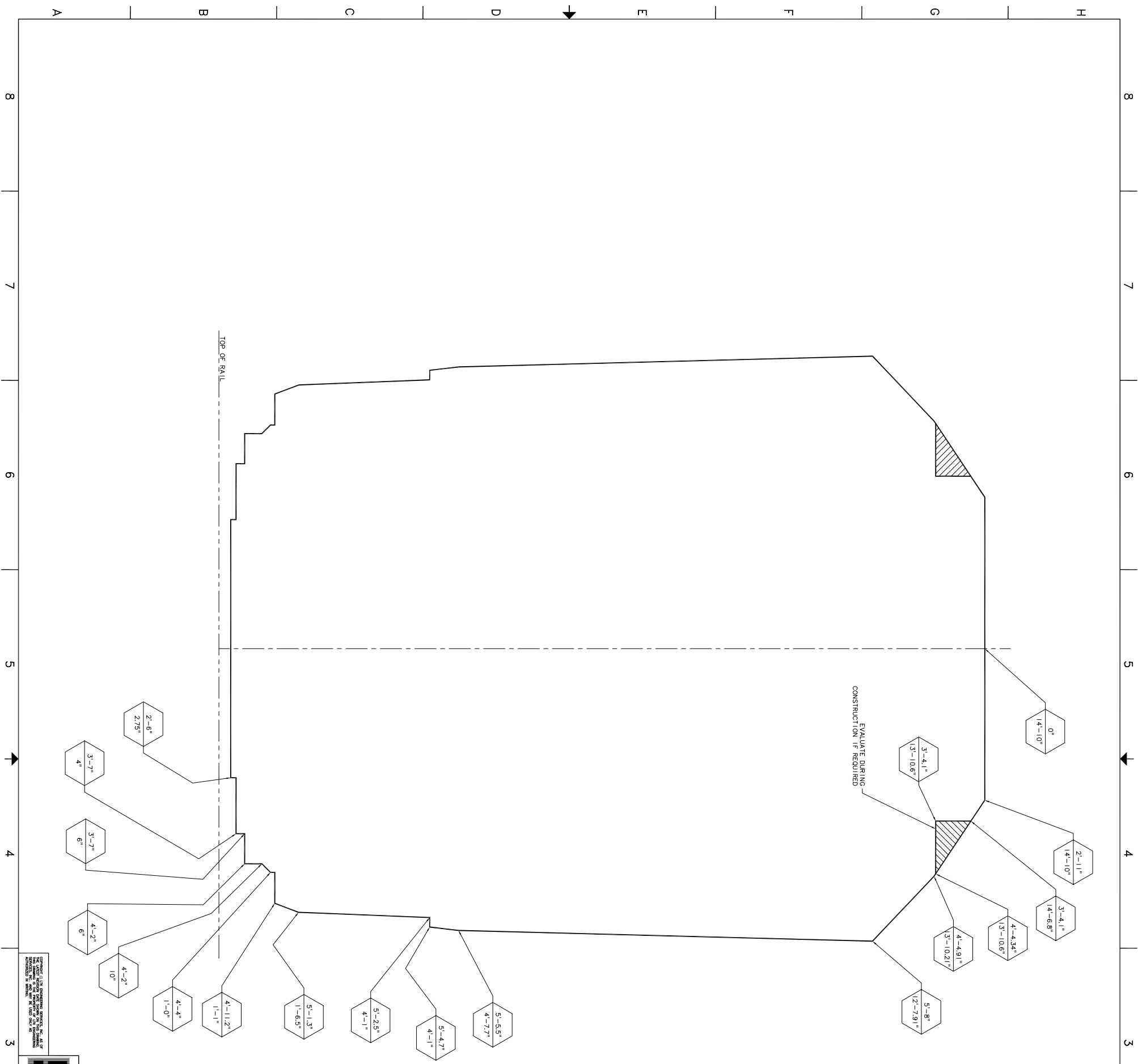
M-8 STATIC CLEARANCE LINE

ZONE	REV	DESCRIPTION	DATE	APPROVED
A	GENERAL DRAWING REVISION		8/27/08	HTR
B	REVISION FOR PORTION OF CLEARANCE LINE		10/03/08	HTR
C	REVISION BASED ON CLEARANCE LINE AND ATTENDANT DIMENSIONS DUE TO TRACK CURVATURE		11/13/08	RP



M-8 CONSTRUCTION DIAGRAM DIMENSIONS

- NOTES:**
- THE DYNAMIC CLEARANCE LIMIT IS REFERRED TO THE PLANE OF THE TOP OF RAIL FOR PASSENGER AND FREIGHT TRAINS AND TO THE ELEVATION FOR FREIGHT TRAINS WITH A MAXIMUM LENGTH OF 85'-0" AND A TRUCK CENTER DISTANCE OF 59'-6".
 - THE VEHICLE EXCLUSIVE OF PASSENGER SIDE DOOR THRESHOLDS AND LOOP STEPS, INCLUDING LATERAL AND VERTICAL MOVEMENT OF THE VEHICLE ON ITS SUSPENSION, ROLL INDUCED BY UP TO 7" SUPERELEVATION (WITH THE VEHICLE STOPPED OR IN MOTION), ROLL INDUCED BY THE DESIGN CANT DEFICIENCY, RANGE OF MOTION OF THE TILT SYSTEM (IF SO EQUIPPED), NORMAL WEAR (INCLUDING WHEEL RADIAL AND FLANGE WEAR), VARIATIONS OF LOAD FAILURE (OF ANY SINGLE WHEEL OR WHEEL SET), AND VARIATIONS OF WIND LOADS (WIND SPEEDS OF 100 MPH AND ANY COMBINATION OF THESE CONDITIONS).
 - THE HORIZONTAL DISTANCE FROM CENTERLINE OF TRACK, FOR VERTICAL DISTANCE BEYOND 2' AND ABOVE 45' RADIUS CURVE, AND HORIZONTAL DISTANCE FROM THE VEHICLE ON A 240' RADIUS CURVE TO CLEAR THE THIRD RAIL OVERHANG OF THE VEHICLE ON A 240' RADIUS CURVE TO CLEAR THE THIRD RAIL UNDER WORST-CASE VERTICAL DEFLECTION AND VERTICAL CURVATURE, ALL VEHICLE STRUCTURE, EQUIPMENT AND APPLIANCES MUST REMAIN WITHIN THIS RAIL CLEARANCE ENVELOPE. THE LOOP STEPS SHALL NOT VIOLATE THE THIRD RAIL CLEARANCE ENVELOPE.



LTK Engineering Services

DRAWN BY	S.F.	DATE	8/14/08
CHECKED BY		DATE	
APPROVED BY		DATE	
SCALE	1/8" = 1'	DO NOT SCALE DRAWING	
PROJECT NO.	3453.03	DWG. NO.	MNR-NO. 9
SHEET NO.	E	TOTAL SHEETS	1 OF 1

LIMITS, UNLESS OTHERWISE NOTED:
 FRACTIONAL ±1/64", DECIMAL ±0.01", ANGULAR ±1/2"

M-8 DYNAMIC CLEARANCE LINE

A B C D E F G H 1 2 3 4 5 6 7 8

Request for Proposal for Design and Manufacture of Rail Cars and Related Services
Solicitation # 20CTRAIL-1

PART 6: PRICE PROPOSAL FORM

Base Order Pricing

ITEM #	QTY	DESCRIPTION	DELIVERED UNIT PRICE	TOTAL BASE PROPOSAL PRICE
1	41	SINGLE-LEVEL PUSH-PULL RAIL CAR, INCLUDING SITE SUPPORT, WARRANTY, AND ALL DELIVERABLES, PER TECHNICAL SPECIFICATION (TRAILER CAR VERSION) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____
2	19	SINGLE-LEVEL PUSH-PULL RAIL CAR, INCLUDING SITE SUPPORT, WARRANTY, AND ALL DELIVERABLES, PER TECHNICAL SPECIFICATION (CAB CAR VERSION) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____
GRAND TOTAL			\$ _____	\$ _____

Add-On Pricing

ITEM #	QTY	DESCRIPTION	DELIVERED UNIT PRICE	TOTAL ADD-ON PROPOSAL PRICE FOR BASE ORDER
1	60	ADD-ON INSTALLED SIDE DOOR STATUS INDICATORS PER TECHNICAL SPECIFICATION SECTION 8.12 (ONE CARSET) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____
2	60	ADD-ON INSTALLED FORBO FLOTEX FLOORING PER TECHNICAL SPECIFICATION SECTION 9.06.03 (ONE CARSET) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____
3	60	ADD-ON INSTALLED AUTOMATIC PASSENGER COUNTING SYSTEM PER TECHNICAL SPECIFICATION SECTION 12.05.09 (ONE CARSET) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____

Option Pricing

ITEM #	QTY	DESCRIPTION	DELIVERED UNIT PRICE	TOTAL OPTION PROPOSAL PRICE
1A	8	ADDITIONAL SINGLE-LEVEL PUSH-PULL RAIL CAR, INCLUDING SITE SUPPORT AND WARRANTY, PER TECHNICAL SPECIFICATION (TRAILER CAR VERSION) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____
1B	4	ADDITIONAL SINGLE-LEVEL PUSH-PULL RAIL CAR, INCLUDING SITE SUPPORT AND WARRANTY, PER TECHNICAL SPECIFICATION (CAB CAR VERSION) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____
2A	12	ADDITIONAL SINGLE-LEVEL PUSH-PULL RAIL CAR, INCLUDING SITE SUPPORT AND WARRANTY, PER TECHNICAL SPECIFICATION (TRAILER CAR VERSION) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____
2B	3	ADDITIONAL SINGLE-LEVEL PUSH-PULL RAIL CAR, INCLUDING SITE SUPPORT AND WARRANTY, PER TECHNICAL SPECIFICATION (CAB CAR VERSION) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____
3A	13	ADDITIONAL SINGLE-LEVEL PUSH-PULL RAIL CAR, INCLUDING SITE SUPPORT AND WARRANTY, PER TECHNICAL SPECIFICATION (TRAILER CAR VERSION) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____
3B	2	ADDITIONAL SINGLE-LEVEL PUSH-PULL RAIL CAR, INCLUDING SITE SUPPORT AND WARRANTY, PER TECHNICAL SPECIFICATION (CAB CAR VERSION) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____
4A	26	ADDITIONAL SINGLE-LEVEL PUSH-PULL RAIL CAR, INCLUDING SITE SUPPORT AND WARRANTY, PER TECHNICAL SPECIFICATION (TRAILER CAR VERSION) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____
4B	4	ADDITIONAL SINGLE-LEVEL PUSH-PULL RAIL CAR, INCLUDING SITE SUPPORT AND WARRANTY, PER TECHNICAL SPECIFICATION (CAB CAR VERSION) AT: _____ Dollars each <i>(unit price written in words)</i>	\$ _____	\$ _____
5	Lot	POST-WARRANTY SERVICE AND SUPPORT FOR THE RAIL CARS PER SCOPE OF WORK (INITIAL 10-YEAR PERIOD) AT: _____ Dollars each <i>(unit price written in words)</i>	N/A	\$ _____

ITEM #	QTY	DESCRIPTION	DELIVERED UNIT PRICE	TOTAL OPTION PROPOSAL PRICE
6	Lot	POST-WARRANTY SERVICE AND SUPPORT FOR THE RAIL CARS PER SCOPE OF WORK (SECOND 10-YEAR PERIOD) AT: _____ Dollars each (<i>unit price written in words</i>)	N/A	\$ _____

Average Vehicle Price

ITEM #	QTY	DESCRIPTION	DELIVERED UNIT PRICE	TOTAL OPTION PROPOSAL PRICE
1	132	Average Vehicle Price = (Total Base Proposal Price Line 1 + Total Base Proposal Price Line 2 + Total Option Proposal Price Line 1A + Total Option Proposal Price Line 1B + Total Option Proposal Price Line 2A + Total Option Proposal Price Line 2B + Total Option Proposal Price Line 3A + Total Option Proposal Price Line 3B + Total Option Proposal Price Line 4A + Total Option Proposal Price Line 4B) ÷ 132 At: _____ Dollars (average price written in words)	N/A	N/A