

**Attachment#1:  
ITB-FFD-2400  
SPECIFICATION for: Various Sizes Utility Tilt Deck Trailer**

Projects: 0675A  
 Replacing: Vehicles: 5540A, 5542, 5958, 5960, 5961, 5962, 5963 - Parks  
 Specification  
 Prepared by: Ernie Baker, Sr. Mechanical Engineer  
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**● IMPORTANT ●**

Complete response to each item is required, responses must be written on this form. Attach any information necessary to explain or clarify your bid. Bids failing to include specific responses may be rejected. Evaluation will be based on compliance with specifications. Non-compliant items must be clearly indicated. Any mandatory items (marked "shall", "minimum" or "maximum") must be in compliance or the bid will be rejected. Acceptable abbreviations for use on this form: Standard = (STD), Not Available = (N/A), No Charge = (NC), Comply = (CPL). All items described by attachments or addendum should be referenced on the submitted bid in proper numerical sequence. You are encouraged to list and price any options that you feel would enhance the use of this item and/or would be desirable. Option prices will not be considered as part of the pricing evaluation.

**ITEMS REQUIRED**

**RESPONSE**

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<b>SCOPE:</b>	
<p>It is the intent of these specifications to describe a variety of full tilt deck, deck between the wheels, utility trailers to establish a blanket contract for their purchase. The contract term shall be for five (5) years with an option to extend for an additional two (2) years. The trailers will be used by various departments in the City of Seattle. The spec is divided into sections based on the GVWR for each size the City is seeking to establish a contract for. The City has an immediate need for seven (7) or more 7,000 lb. GVWR trailers described herein to carry equipment like Toro 4000D mowers between parks in the City.</p>	
<b>GLOBAL REQUIREMENTS:</b>	
<p>1. Bidders are encouraged to offer options in their bid. Cost differences and alternatives should be detailed and completely defined in the</p>	CPL

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options section of the bid.	
2. A performance demonstration may be required prior to bid award.	CPL
3. All units shall be new, unused, up-to-date models and shall be delivered ready for service. Each unit shall include all inspection coupons and warranty identification cards furnished to general trade. All extended warranty months and miles shall be clearly noted on a placard installed on the trailer.	STD
4. All components and accessories cataloged as standard, unless superseded by these specifications, shall be provided with the unit.	CPL
5. In the event of a conflict between the specifications requirements and federal or state laws, the federal or state laws shall prevail.	CPL
6. Hose, wire and tube routing shall not impede normal maintenance and adjustment of the unit. Hoses, wires and tubes shall be securely and neatly positioned and secured with non-corrosive clamps.	CPL
7. On all items that the bidder is requesting Sr. Engineer equivalent approval, the part number, model, description and performance data (if applicable) of the alternative must be provided. The term "Sr. Engineer" means the Fleets and Facilities Department, Fleet Services Division, Senior Mechanical Engineer, whose name appears on the first page of this specification, or alternately, the Fleet Services Fleet Administration Manager. All such approvals shall be in writing.	CPL
8 Vendor logos if applied shall be no larger than 4" x 6" in size and there shall be no more than 4.	STD
9 If special tools, gauges, adapters, etc., are required for normal maintenance, adjustment and/or inspection of the unit, they shall be identified and provided with the unit.	CPL
10 Vendor is required to have been in the business of selling and repairing trailers for a minimum of 4 years.	CPL
11 Inspection of bidder's parts and service facility may be required before award of bid is made.	CPL
<b>BODY:</b>	
1. Trailer shall be street legal and conform to Washington State and Federal code.	STD
2. Minimum 14 GA steel fenders, full enclosure including deck side.	STD
3. A Grip Strut or diamond plate step is to be located toward the front on driver side. The step may be tied into the front of the fender.	CPL Diamond plate
4. Full width steel dash, 4" high minimum.	NC
5. In tongue mounted chain tray large enough for misc. tools and tie down chains. The chain tray is to be at least eight inches deep, have a solid metal bottom with drain holes and have a lockable lid. If the break away battery is located inside the tray, a divider must be	Tongue mounted box is STD

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installed to protect it.	
6. Alternately, a lockable Pro-Tech aluminum tool box or Sr. Engineer approved equivalent may be installed on top of the tongue. The box shall have a stainless piano hinge w/1/8" pin, stainless hasp and a hatch cover style lid.	Steel 10GX, lockable box STD, fully painted
7. Equipped with 3" adjustable height lunette eye (pintle) mounted at approximately 24".	STD
8. Equipped with two safety chains, grade 70 or higher, minimum 1/4" cross section each, with OSHA snap hooks. Per state law, each chain is to be rated at a longitudinal tensile strength at or above the GVWR of the trailer. Chains to be long enough to cross under the tongue and reach the tow vehicle. Each snap hook and chain attachment means to be rated at or above the strength of the chains. No welding is allowed on any safety chain links after the original manufacture of the chain including welding a link to the trailer.	STD
9. Rubber mud flaps are required unless the fenders extend down to the axle centerline. Recycled rubber flaps are preferred.	CPL
10. Four (4) chock blocks total and integral holders, two per side. Recycled rubber blocks are preferred.	CPL
11. Water tight registration box or tube on trailer tongue.	CPL
<b>DECKING:</b>	
1. The decking may be wood or steel with the following requirements:	
2. Wood decking is to be a minimum 2" nominal hardwood, fasten with minimum 5/16" self tapping deck screws. Minimum one screw per board per crossmember. Outside deck member to be half width or wider.	Rough Sawn Oak CPL
3. Wood decking is to have two traction aid treads installed on deck, expanded metal mesh or Sr. Engineer approved equivalent, approximately 24" wide and one half the trailer deck length. The traction aid is to have a border to keep the edges from curling up. Aid and border are to be galvanized, sprayed with Rhino Lining or equivalent.	24" traction aids CPL
4. Steel decking shall have a traction surface like diamond plate and be coated with sand impregnated Rhino Lining or Sr. Engineer approved equivalent.	Hardwood used on this bid, steel decking listed as an option CPL
5. Deck to have positive travel latch, safety pin and stainless steel cable tether or Sr. Engineer approved equivalent.	STD
6. Rear of deck shall have a tapered approach plate that is flush with the top of the deck and forms a ramp to the ground in the tilted position for easy loading and unloading.	STD
<b>AXLES, BRAKES, WHEELS AND TIRES:</b>	
1. Two "Torflex" axles, or Sr. Engineer approved equivalent. Each axle	GDC Torsion Axle STD

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shall be rated at one half the trailer GVWR.	
2. Each axle will be equipped with electrically activated brakes rated for the trailer GVWR.	STD
3. A tongue mounted safety breakaway system is required. Safety breakaway system shall include a dedicated battery. No accessories may be hooked up to this battery.	STD
4. Wheels are to be steel stud piloted and appropriately rated for GVWR of trailer.	STD
5. Tires, minimum, four (4) Goodyear or Sr. Engineer approved equivalent tires. Each set of tires are to be rated at or above the GAWR of the axle.	CPL
6. The trailer shall be equipped with a hub odometer.	CPL
<b>WELDING PROCESS AND CONTROL:</b>	
1. All welds shall meet AWS standards for structural steel joints.	CPL
2. Porosity, penetration leg and throat sizes, heat affected zone, and splatter clean up will meet or exceed AWS requirements.	CPL
3. All rough edges are to be ground smooth before painting.	STD
4. Welding inspection is required by FFD engineer or a designated representative prior to acceptance of the trailers.	CPL
<b>ELECTRICAL REQUIREMENTS:</b>	
<b>General:</b>	
1. The breakaway battery is to be a maintenance free lead acid with a minimum of 350 CCA. The battery is to be protected inside a marine enclosure or storage box with a lockable cover or strap. Exact location of the battery will be determined at the preconstruction meeting.	CPL
2. The trailer battery will have the capability of being charged when the chassis engine is running via trailer electrical connectors.	STD
3. Wiring installation shall include one (1) SAE J 560, 7-pin trailer plug-in connector and one (1) separate ISO 3731, yellow 7-pin trailer plug-in connector wired to the schematic attached at the end of this specification.	CPL
4. All wiring connections will be made at a junction box, lamp housing, appliance or through a weather proof connector such as Deutsch or Weather Pack connectors only. No in-line splices are acceptable.	Full home run wiring from junction box is STD
5. All wiring shall be color coded and/or numerically etched a minimum of every twelve (12) inches.	CPL
6. SAE standards for wire size and run length vs. load are to be followed.	CPL

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7. All exposed wiring harnesses shall be in non-metallic liquid tight conduit, Hubbell / Kellems PVC jacketed loom, or Sr. Engineer approved equivalent. The Truck-Lite series 50 harness is exempt from this requirement.	Truck-Lite series 50 harness is being used CPL
8. Wire or wire bundles shall be routed free of chafing and abrasions and shall be supported using industrial grade, non-corrosive, insulated clamps. Clamp spacing should be 12-inches	STD
9. Wires penetrating through bulkheads that are not inside conduit, must be protected by Truck-Lite nylon compression fittings and bushing or equivalent.	CPL
<b>Dealer added Wiring:</b>	
1. Any dealer/vendor added electrical runs shall use the following mil-spec wire: "Alpha" part number 7046, MIL-W-16878D or Sr. Engineer approved equivalent. MIL-W-16878D Type D is a multi-strand, tinned copper wire with a Polyolefin insulation rated at 125 degrees Celsius and 600 volts. All wiring circuits other than the Truck-Lite lighting systems described elsewhere in these specifications shall use this type of wire.	CPL
2. WIRE TERMINATIONS: All wiring circuits using the MIL-W-16878D Type D wire shall utilize terminals conforming to MIL-T-7928, MS25036, Type II, Class 2 (insulated with an insulation grip).	CPL
a. Added runs shall use dual crimped (insulator crimp and conductor crimp), using the crimping tool designed for the specific wire.	CPL
b. Ring terminals with proper diameter mounting screws shall be used on all MIL-Spec wires. Spade or hook terminals are unacceptable.	CPL
c. Inexpensive, plastic type splices known as "Scotch Locks" or equal will be aggressively rejected and wires using them will be rejected and replaced at Vendor's expense. <b><u>DO NOT USE THESE DEVICES.</u></b>	CPL
<b>Lighting:</b>	
1. All lights and reflectors required by DOT, ICC, FMVSS 108 standards and Chapter 46.37 of the Revised Code of Washington shall be furnished. Truck-Lite or Sr. Engineer approved equivalent, sealed lighting system installation per the following description.	CPL
A. Installation shall include Truck-Lite series 50 wiring harness with Truck-Lite 50400 junction box(s)	CPL
B. Rear Stop/Tail lights, quantity two (2), shall be red LED Truck-Lite, Diamond Shell, 4" Super 44 series.	CPL
C. The rear turn lights, quantity two (2), shall be amber LED Truck-Lite, Diamond Shell, 4" Super 44 series.	No Amber per pre-bid meeting CPL
D. All rear STT lights shall be flange mounted with tamper proof hardware and protected against damage.	CPL
E. One (1) LED license plate light Truck-Lite LED model 15.	CPL
F. All clearance lights are to be Truck-Lite LED Model 21 Diamond	CPL

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shell and shall be hard flange mounted.	
G. Rear identification lights Truck-Lite model 35 identification lightbar.	CPL
H. Front, rear, and side reflective striping required. Striping shall be "3M" reflective truck marking conforming to DOT requirements.	STD
<b>PAINT:</b>	
1. Paint shall be Dupont Imron 5000 Polyurethane or Sr. Engineer approved equivalent.	Polane polyurethane paint STD
2. Trailer color to be the manufacturer's standard.	Black STD
3. Wheels to be painted white, all surfaces.	Black per pre-bid CPL
<b>WARRANTY:</b>	
1. Bidder shall have a full time, complete local (within 50 mile radius of FFD shops located at 805 South Charles Street, Seattle, Washington 98134) parts and service facility offering factory authorized service and a parts supply adequate to perform complete warranty repairs.	CPL
2. Manufacturer's standard warranty shall commence the date the trailer is placed in service, not delivery date, as documented by the City of Seattle.	CPL
3. State or attach warranty offered.	CPL
4. Warranty service, extended warranty and recall work must be performed by seller or seller's service facility, who must accept responsibility for all transportation. Seller must respond to a call for warranty service within 24 hours. All costs of warranty repair and service shall be borne by the seller.	CPL
5. Minor warranty repairs than can be done in one (1) hour or less shall be performed by the City of Seattle FFD repair shop. In the event a covered repair will take more than one (1) hour, the City of Seattle FFD shop will call vendors assigned contact person for repair authorization or have the vendor pick up the truck for repairs. All warranty repairs completed by The City of Seattle FFD shop will be reimbursed by the vendor at the current shop rate of \$75.50, \$98.00 per hour for 2009. The City of Seattle FFD shop will only bill for actual time spent. There will be no minimum time charge on any repair. All warranty transportation will be provided by the winning vendor.	CPL-All warranties must be approved by manufacturer prior to work being performed
6. Successful bidder is to fill out attached <b>EQUIPMENT DATA ENTRY FORM. (Attachment#3)</b>	CPL

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<b>PRECONSTRUCTION MEETING:</b>	
After bid award and prior to beginning construction, vendor shall meet with the City of Seattle representatives for the purpose of reviewing construction techniques, clarifying any specification related questions, agreeing on general layout of components and review scope of work, options chosen and the manufacturing schedule.	CPL, Mfg available by appointment

<b>DELIVERY REQUIREMENTS</b>	
1. All equipment and components necessary for operation and normally supplied shall be furnished, even if not called out in the specifications.	CPL
2. Four (4) complete sets of keys for all locks shall be provided with the unit.	NA
3. The equipment shall have full dealer preparation and be ready for service when delivered.	CPL
4. The trailer(s) shall be delivered with title application and MSO made out per current State of Washington code. Enter legal and registered owner as unless otherwise notified:  City of Seattle - FFD 700 Fifth Ave, Suite 5200 PO Box 94689 Seattle, WA 98124-4689	CPL
5. Equipment shall be delivered to:  FFD Shops 805 South Charles Street Seattle, WA 98134 Attn: Truck Shop SOS Phone: 206-386-1153	CPL
6. City Prompt Payment Discount: State Prompt Discount Terms. Discount terms of 10 or more days will be considered in bid evaluation.	<u>  2  </u> % <u> 10 </u> days; Net <u> 30 </u>
7. The City of Seattle has entered into Interlocal Agreements with other governmental agencies pursuant to RCW 39.34, in lieu of those agencies conducting a separate competitive bid. Does Vendor agree to provide this product or service to such agencies?	Yes: <u>  X  </u> No: <u>      </u>
8. Businesses located and licensed within the Seattle City limits are eligible for Seattle tax consideration for purposes of calculation of low bid. This shall be equivalent to a reduction of the cost for purposes of bid evaluation only, of 0.025.	Yes: <u> NA </u> No: <u>      </u>

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**7,000 GVWR Trailer:**

<b>BASIC DIMENSIONS AND WEIGHT:</b>	
1. Trailer is to be a two axle, full tilt deck trailer with deck between wheel wells.	CPL
2. GVWR 7,000 lbs. minimum. GVWR is to be based on 10% to 15% of the total weight on the tongue. State GVWR.	CPL-7000# GVWR
3. Payload capacity 4,100 lbs. minimum. State payload capacity.	CPL-5000# Payload
4. Maximum overall width shall be 8' 6" (102").	CPL
5. Deck length is to be 12' to 14'. State deck length.	14' Deck Length
6. Deck height is to be as low as possible with a 26" maximum. State deck height.	CPL-25" Deck height
7. Deck width inside wheel wells shall be 81" minimum. This requirement is for mower track clearance. State inside width.	CPL 83-3/4" between fenders
8. Load angle 13 degrees maximum. State load angle.	CPL-13 degrees
9. Height from the top of the deck to the top of the fender well shall be 8-1/2" maximum. This requirement is for clearance of the mower deck. State the height from the deck to the top of the fender.	8-1/2" fender height
<b>STRUCTURE:</b>	
1. Minimum 5,000 lb. capacity, manual drop leg tongue jack with sand plate.	CPL 7000# drop leg w/ plate
2. Install ten "D" rings, 1/2" weld on forged lashing rings or Sr. Engineer approved equivalent. Two "D" rings will be mounted next to the headboard approximately 12" inboard from each side. The remaining "D" rings will be mounted down each side at approximately 2', 4', 7-1/2' and 11' from the headboard.	CPL
3. State tire size offered and load rating in pounds.	205-75-15/1820# rating

**10,000 GVWR Trailer:**

<b>BASIC DIMENSIONS AND WEIGHT:</b>	
1. Trailer is to be a two axle, full tilt deck trailer with deck between wheel wells.	CPL
2. GVWR 9,900 lbs. minimum. GVWR is to be based on 10% to 15% of the total weight on the tongue. State GVWR.	CPL-9990# GVWR
3. Payload capacity 7,000 lbs. minimum. State payload capacity.	CPL-7190# Payload
4. Maximum overall width shall be 8' 6" (102").	CPL
5. Deck length is to be 15' to 17'. State deck length.	17' Deck Length
6. Deck height is to be as low as possible with a 28" maximum. State deck height.	CPL/27" max deck height

**ITEMS REQUIRED**

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7. Deck width inside wheel wells shall be 81" minimum. State inside width.	CPL 81" between fenders
8. Load angle 14 degrees maximum. State load angle.	CPL 14 degrees
<b>STRUCTURE:</b>	
1. Minimum 7,000 lb. capacity, manual drop leg tongue jack with sand plate.	CPL-STD 10,000# drop leg w/ foot
2. Install ten "D" rings, 1/2" weld on forged lashing rings or Sr. Engineer approved equivalent. The exact location to be determined at the preconstruction meeting.	CPL
3. State tire size offered and load rating in pounds.	225-75-15/2540# rating

**14,000 GVWR Trailer:**

<b>BASIC DIMENSIONS AND WEIGHT:</b>	
1. Trailer is to be a two axle, full tilt deck trailer with deck between wheel wells.	CPL
2. GVWR 13,800 lbs. minimum. GVWR is to be based on 10% to 15% of the total weight on the tongue. State GVWR.	CPL-14,000 GVWR
3. Payload capacity 10,000 lbs. minimum. State payload capacity.	CPL-10,910# Payload
4. Maximum overall width shall be 8' 6" (102").	CPL
5. Deck length is to be 15' to 17'. State deck length.	CPL 17' Deck length
6. Deck height is to be as low as possible with a 28" maximum. State deck height.	CPL 27" max deck height
7. Deck width inside wheel wells shall be 81" minimum. State inside width.	CPL 81" between fenders
8. Load angle 14 degrees maximum. State load angle.	CPL 14 degrees
<b>STRUCTURE:</b>	
1. Minimum 10,000 lb. capacity, manual drop leg tongue jack with sand plate.	STD
2. Install ten "D" rings, 1/2" weld on forged lashing rings or Sr. Engineer approved equivalent. The exact location to be determined at the preconstruction meeting.	STD
3. State tire size offered and load rating in pounds.	235-80-16/3500# rating

**OPTIONS (Option prices are not included in price evaluation):**

1. Quote the price for installing a "Rumber" deck in lieu of the wood and expanded metal deck specified.	\$1000.00
2. Quote price to deduct toolbox.	-\$125.00

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No Charge = NC  
Comply = CPL

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Utility Tilt Trailer Spec

October 3, 2008

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3. Quote price and model number for alternate deck lengths in the utility configuration.	\$310 per 2' increments
4. Quote any options that would be a benefit to the City of Seattle which have been omitted form this specification. It is highly recommended that the bidder list all options available from manufacturer.	See Attached

**\*\*\*\* IMPORTANT \*\*\*\***

The manufacturer's local representative must print the representative's firm name, address, phone number and the VIN number on all written warranty statements and/or manuals. VIN numbers furnished must match the respective item numbers on the contracts. Additionally, all such warranty instruments must be complete with all manufacturer/dealer responses contained therein (typed or neatly printed in ink, no exceptions) before acceptance of the vehicle/equipment will be made.

**A. 7000 GVWR Trailer:**

UNIT PRICE PER BASIC SPECIFICATIONS NOT INCLUDING WA STATE SALES TAX:

\$ 6,895.00

MANUFACTURER Mirage Trailers Inc. MODEL MUCHT716TA2

ESTIMATED DELIVERY: 35 Days ARO

**B. 10,000 GVWR Trailer:**

UNIT PRICE PER BASIC SPECIFICATIONS NOT INCLUDING WA STATE SALES TAX:

\$ 8,368.00

MANUFACTURER Mirage Trailers Inc. MODEL MUET716TA3

ESTIMATED DELIVERY: 35 Days ARO

**C. 14,000 GVWR Trailer:**

UNIT PRICE PER BASIC SPECIFICATIONS NOT INCLUDING WA STATE SALES TAX:

\$ 8,967.00

MANUFACTURER Mirage Trailers Inc. MODEL MUET716TA5

ESTIMATED DELIVERY: 35 Days ARO

COMPANY Bart's Sales Co., LLC 253-875-1235  
(Name) (Phone)

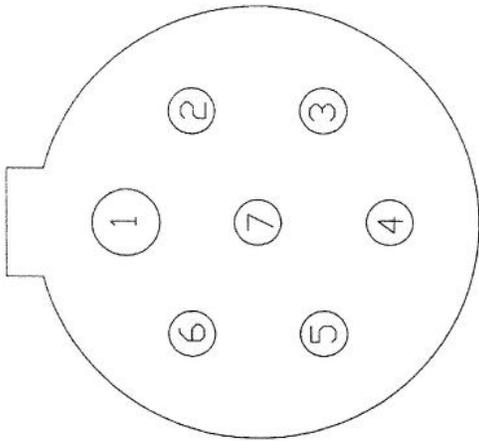
NAME Jennie Bartholomew Member/Manager  
(Print) (Title)

I have read and understand the above specifications

SIGNATURE [Signature] 11/26/18  
(Date)

## OPTIONS & PRICING

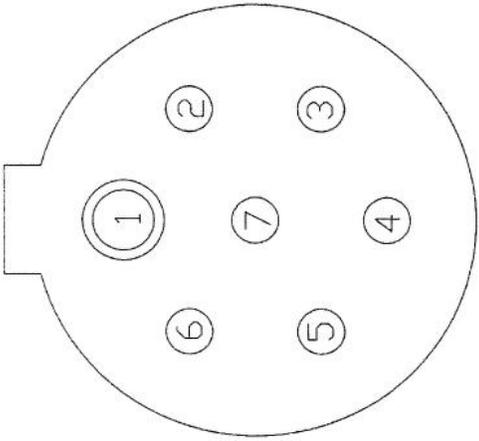
Additional Length Per 2' increments	\$310
Steel Decking With sand impregnated paint	\$700
24" stationary deck On 16' deck would be 16+2' stationary	\$350
48" stationary deck For use on 18'-20' trailer	\$450



Main 7-Pin Connector - SAE J560

Main Plug - Cole Hersee P/N 1255

Black Jacket Cable - Phillips P/N 3-242



Auxiliary 7-Pin Connector - ISO 3731

Yellow Plug - Phillips P/N 15-830

Yellow Jacket Cable - Phillips P/N 3-327 or 3-328

SAE J560 WIRING		Function
Terminal Number	Wire Color	
1	White	Ground
2	Black	Clearance, Side Marker & Identification Lamps
3	Yellow	Left Turn Signal and Hazard Lamp
4	Red	Stop Lamps
5	Green	Right Turn Signal and Hazard Lamp
6	Brown	Tail and License Plate Lamps
7	Blue	Electric Brakes

ISO 3731 AUXILIARY RECEPTACLE WIRING		Function
Terminal Number	Wire Color	
1	White	Blank
2	Black	Blank
3	Yellow	Blank
4	Red	Battery Charge
5	Green	Backup Light/Alarm
6	Brown	Blank
7	Blue	Blank

NON-AIR BRAKE TRAILERS

	The City of Seattle	Fleet Services Engineering
	Trailer Jumper Wiring	NAB/TR

