

**TOWN OF PLYMOUTH CAPITAL IMPROVEMENT PLAN REQUEST FORM
FY25 ANNUAL TOWN MEETING REQUEST FORM**

Department: SEWER DIVISION		THREE TWO
Project Title and Description: #53 MAC Tank Truck Replacement	Total Project Cost:	\$579,000.00

Department/Division Head: Doug Pinard Wastewater Superintendent

Cost estimate was developed: Internally ☐ Externally ☒

Basis of Estimated Costs (attach additional information if available)			If project has impact on 5 Year Plan and future operating budgets, insert estimated amounts.		
Capital:	Cost	Comments	Fiscal Year:	Capital	O & M
<i>Planning and Design</i>			FY26		
<i>Labor and Materials</i>			FY27		
<i>Administration</i>			FY28		
<i>Land Acquisition</i>			FY29		
<i>Equipment</i>	\$445,000.00		FY30		
<i>Other</i>					
<i>Contingency</i>	\$134,000.00				
Total Capital	\$579,000.00				

Possible sources and amounts of funding, if known: _____

Project Justification and Objective: This request is to replace a 1995 pump truck to be operated by sewer department staff. This important piece of equipment is responsible for preventing SSO's and septic tank pump outs of various town buildings including schools.

For Capital Project Requests:

Will this project be phased over more than one fiscal year? If yes, enter it on the next 5 Year Plan Yes ☐ No ☒
Can this project be phased over more than one fiscal year? Yes ☐ No ☒

For Capital Equipment Requests:

☒ Check if equipment requested is replacement and enter the year, make & model, VIN and present condition of existing equipment

1995, MAC, Model 1RD688SX, VIN#1M2P268C6SM022988 This is an important part of equipment for the sewer department and is vital to daily operations. This truck is a 1995 MAC and has become costly to maintain due to part accessibility and frequency of continuous breakdowns. Safety has also become an issue with deterioration of the frame and none functioning instrumentation. See attached back up for exciting equipment condition.

Attach additional information, estimates, or justification.

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TECHNICAL SPECIFICATION

GRANITE 64FR



APPLICATION PACKAGES	DESCRIPTION
CHASSIS CONFIGURATION PACKAGE	ONEBOX EATS, LH BATTERY BOX, 8.7 GALLON (33L) SLEEVED DEF, SINGLE 26" LH FUEL TANK

CUSTOMER/VEHICLE INFO	DESCRIPTION
S CHASSIS (BASE MODEL)	GRANITE 64FR
S ASSEMBLY PLANT	Made in Macungie, PA USA
CUSTOMER FLEET SIZE	DEALER FLEET WITH LESS THAN 25 VEHICLES IN OWN FLEET OF ANY VEHICLE BRAND
TYPE OF SERVICE	MUNICIPAL
S WARRANTY REGISTRATION LOCATION	USA - WARRANTY REGISTRATION LOCATION
EMISSION WARRANTY CERTIFICATION	CARB + EPA for Mack MP7 / MP8 Diesel
INTENDED REGISTRATION LOCATION	MASSACHUSETTS
S INITIAL REGISTRATION LOCATION	USA REGISTRATION
BRAND ORNAMENT	BULLDOG BRAND ORNAMENT, CHROME
S LANGUAGE-PUBS/DECAL/SIGNS	ENGLISH
S ROAD CONDITION	WELL MAINTAINED SURFACED ROADS >95% DRIVING DISTANCE
VEHICLE USE & BODY/TRAILER TYPE	TANKER or PUMPER TRUCK
TRAILER TYPE	WITHOUT TRAILER TYPE
S GROSS COMBINATION WEIGHT (CA in PC29 only)	TRUCK ONLY - NO TRAILER TOWING PROVISIONS PROVIDED
S BRAKE REGULATION	BRAKE REGULATION, STOPPING DISTANCE 94M (310FT)
TOPOGRAPHY	GRADES <3% GREATER THAN 98% OF DRIVING DISTANCE MAX GRADE 8%
S AMBIENT TEMP UPPER LIMIT (GTA)	AMBIENT TEMPERATURE HOT. WARMER THAN 104 F (40 C) ALLOWED UP TO 25 HOURS PER YEAR
S OPERATING TERRAIN GRADE CONDITIONS	ON-OFF HIGHWAY, STARTING GRADES<18%
S LOADING SURFACE FACTOR	CONCRETE LOADING AND / OR UNLOADING SURFACE
VEHICLE VOCATION	PICKUP & DELIVERY / SHORT HAUL SERVICE

ENGINE/TRANSMISSIONS	DESCRIPTION
ENGINE PACKAGE, COMBUSTION	MP8-425C MACK 425HP @ 1500-1700 RPM (PEAK) 2100 RPM (GOV) 1550 LB-FT, US'21
S GHG APPLICATION, VEHICLE	GREEN HOUSE GAS VOCATIONAL APPLICATION
TRANSMISSION	4500 RDS 6 SPEED ALLISON GEN 6 W/PROGNOSTICS, WITH PTO PROVISION
S GEARBOX 12TH GEAR LOCK-OUT	WITHOUT 12TH GEARBOX GEAR LOCK-OUT

EXHAUST/EMISSIONS	DESCRIPTION
NOX LIMITS	CARB LEGACY / EPA (200MG/HP/HR), 50 State Idle Compliance
S IDLE EMISSION LABEL LOCATION (CA in PC29 only)	IDLE EMISSION LABEL LOCATION, LOWER LH CORNER OF DRIVER DOOR
S DPF DIESEL PARTICULATE FILTER	CLEARTECH ONE BOX E.A.T.S. RH SIDE UNDER CAB US17 / US21
S CHASSIS MOUNTED EMISSIONS FINISH	W/O DEF COVER & PAINTED DPF COVER
DIESEL EXHAUST FLUID TANK	8.7 GALLON (33 L) 26" LEFT SIDE FUEL TANK MTD
EXHAUST	SINGLE VERTICAL RIGHT SIDE CAB MOUNTED, LOWER VENTURI DIFFUSER, TURNED END
EXHAUST STACK HEIGHT	9' 6" FROM GROUND
EXHAUST SYSTEM MATERIAL FINISH	SINGLE, BRIGHT FINISH HEAT SHIELD, STACK
EMISSION ON BOARD DIAG CONTROL	EMISSION OBD, DISPLAY ONLY, USA2024

TECHNICAL SPECIFICATION (cont.)



ENGINE EQUIPMENT		DESCRIPTION
S	AIR CLEANER	UNDER HOOD SINGLE ELEMENT DRY TYPE W/AIR INTAKE FROM BOTH SIDES OF HOOD
S	BUG SCREEN	BLACK ALUMINUM BUG SCREEN MOUNTED BEHIND GRILLE, WITHOUT WINTER FRONT COVER
S	AIR COMPRESSOR/DRYER	WABCO HEATED SS-HP AIR DRYER W/ WABCO 636 (37.4 CFM) AIR COMPRESSOR
S	AIR DRYER POSITION (CA)	AIR DRYER POSITION STANDARD
S	ALTERNATOR	DELCO 12V 160A (28SI) BRUSH-TYPE
S	BATTERIES	(3) MACK 12V 760/2280 CCA THREADED STUD TYPE
S	BATTERY BOX - MOUNTING (x)	LH RAIL UNDER CAB FORWARD OF FUEL TANK (3 BATTERY MAX)
S	BATTERY BOX COVER	MOLDED PLASTIC
	BATTERY DISCONNECT SWITCH	FLAMING RIVER BIG SWITCH WIRED TO POSITIVE SIDE
	STARTER MOTOR	12 VOLT MELCO STARTER (MITSUBISHI ELECTRIC)
	ENGINE BRAKE	MACK MP8 POWERLEASH
S	ENGINE BRAKE LIGHTING (CA)	VEHICLE AND TRAILER (IF APPLICABLE) STOP LAMPS ACTIVATE UPON SERVICE BRAKE APPLICATION ONLY(3899000)
S	FAN DRIVE	BEHR FAN AND ELECTRONIC MODULATING VISCOUS FAN DRIVE
S	COOLANT PROTECTION	ETHYLENE GLYCOL FULLY FORMULATED COOLANT (50/50 MIX DYED PINK) TO -34DEG, W/ FILTER
	HOSES - RADIATOR/HEATER	SILICONE RADIATOR AND HEATER HOSES
S	FUEL-WATER SEPARATOR	MACK W/MANUAL DRAIN VALVE V2 (INTEGRAL W/ PRIMARY FUEL FILTER)
S	PRIMARY FUEL FILTER POSITION (CA)	STANDARD FUEL FILTER POSITION
S	ENGINE HEATERS	120v 1500w BLOCK HEATER ONLY (120V-15A PLUG)
	OIL SUMP	CORROSION RESISTANT OIL PAN
S	ENGINE STOP, EMERGENCY (CA in PC29 only)	WITHOUT ENGINE STOP, EMERGENCY

CLUTCH/TRANS EQUIPMENT		DESCRIPTION
	GEAR SHIFTER	ALLISON DASH MOUNTED SHIFTER W/NEUTRAL TO RANGE INHIBIT (HD SERIES)
S	CLUTCH ACTUATION SYSTEM & PEDAL PAD	WITHOUT CLUTCH CABLE SYSTEM
	MINIMUM REQUIRED PROP SHAFT SIZE	MINIMUM REQUIRED FOR KAX PROP SHAFT, PROPS-L
	DRIVELINE - MAIN	SPICER 1810 HD W/COATED SPLINES (PROPS-L)
	DRIVELINE - INTERAXLE	SPICER 1710 HD W/COATED SPLINES
	PROPELLR SHAFT MAIN, UNVSL JNT	UNIVERSAL JOINT HALF-ROUND TYPE
S	PROP SHAFT INTERAXL UNIV JOINT	HALF-ROUND UNIVERSAL JOINT
S	TRANSMISSION OUTPUT TORQUE	TRANSMISSION OUTPUT TORQUE BASIC
	LUBRICANTS, TRANSMISSION	TRANSYND SYNTHETIC LUBE FOR ALLISON TRANS
	TRANSMISSION OIL COOLER	ALLISON 4xxx SERIES TRANSMISSION W/DIRECT MOUNT COOLER & SS COOLANT TUBES

FRONT AXLE EQUIPMENT		DESCRIPTION
	FRONT AXLE	20000# (9100 KG) MACK FXL20 STRAIGHT SPINDLE/UNITIZED BEARINGS
	SPRINGS - FRONT	MACK TAPERLEAF HD 20000# (9100 KG) GROUND LOAD RATING, EQUAL BIAS
S	FRONT AXLE BRAKES	MERITOR "S" CAM TYPE 16.5" x 6" Q+
S	BRAKE, FRONT	CAST IRON
	FRONT AXLE BRAKE DUST SHIELD	DUST SHIELDS FOR FRONT AXLE
S	FRONT BRAKE ADJ. MANUFACTURE	HALDEX - AUTOMATIC
S	FRONT BRAKE CHAMBER MFG.	FRONT BRAKE CHAMBER MANUFACTURER, HALDEX
S	HUB MATERIAL, FRONT	FERROUS
S	FRONT AXLE LUBRICANT	FRONT AXLE LUBE, FAG NLGI2 GREASE

TECHNICAL SPECIFICATION (cont.)



FRONT AXLE EQUIPMENT		DESCRIPTION
S	SHOCK ABSORBER, FRONT STEERING	DOUBLE ACTING TYPE SHEPPARD SD110 + HD94

REAR AXLE EQUIPMENT		DESCRIPTION
	REAR AXLE	52000# (23600kg) MACK S522R CAST DUCTILE IRON HOUSING
S	REAR AXLE CASING WIDTH	W/O WIDE TRACK AXLE
S	DRIVE AXLE LUBRICANT	DRIVE AXLE LUBE, SHELL 75W90 SYNTHETIC OIL
S	CARRIER - REAR AXLE	150/151 SERIES (Tandem Mack Rear Axles up to 150,000lb GCW)
	TRACTION DIFFERENTIAL	INTERWHEEL DIFFERENTIAL LOCK, ALL REAR AXLES
S	POWER DIVIDER LOCKOUT	INTERAXLE POWER DIVIDER LOCKOUT, W/BUZZER & LIGHT
	REAR AXLE RATIO	4.19 RATIO
	REAR SUSPENSION	AIR ADZ-252 NEWAY 52,000 lb
	BOGIE SPREAD, REAR	52" AXLE SPACING (BOGIE WHEELBASE)
	SUSPENSION LEVELLING DEVICE (CA in PC29 only)	ELECTRICAL REGULATION LEVELING DEVICE
	AIR SUSPENSION DUMP WARNING	AIR SUSPENSION DUMP, SPEED LIMITED, WARNING INDICATOR & BUZZER
	REAR SHOCK ABSORBER	REAR SHOCK ABSORBER
	TRANSVERSE TORQUE RODS, R SUSP	TRANSVERSE TORQUE ROD - ALL AXLES
S	AUX.SPRING BRAKE QTY	AUX SPRING BRAKE QTY, 4 CHAMBERS
	BRAKES - REAR	MERITOR HEAVY DUTY "S" CAM 16.5"x7" Q+ (Total for QTY = 2)
S	BRAKE, DRIVE, REAR	CAST IRON
S	REAR BRAKE ADJ MANUFACTURE	HALDEX - AUTOMATIC (Total for QTY = 2)
	DRIVE AXLE BRAKE DUST SHIELD	DUST SHIELDS FOR REAR AXLE
	REAR BRAKE CHAMBER SIZE	REAR SPRING BRAKE CHAMBERS 30/30 TYPE
	BRAKE ORI REAR-MOST DRIVE AXLE	DRUM BRAKE CHAMBER ORIENTATION: Middle Mount - Forward of Axle - Chamber Up
	PARKING BRAKE CHAMBER	HALDEX "LIFE SEAL PLUS" BRAKE CHAMBERS (Total for QTY = 2)
S	HUB MATERIAL, DRIVE	IRON PRESET REAR HUB W/INTEGRATED SPINDLE NUT
S	ANTILOCK BRAKE SYSTEM	BENDIX WITH TRACTION CONTROL 4S4M
S	BRAKE VALVE VERSION	BENDIX SWITCHES AND VALVES WHERE POSSIBLE
S	TRACTION CONTROL DISABLE (CA in PC29 only)	AUTOMATIC TRACTION CONTROL (ATC) FULL DISABLE SWITCH

FRAME EQUIPMENT/FUEL TANKS		DESCRIPTION
	WHEELBASE	255"
	AF (OVERHANG)	74"
	FRAME RAILS & LINERS	11.1 x 90 x 300mm - (0.437" x 3.54" x 11.81")W/ Partial Liner; RBM 3,920,000 LB-IN
S	FRONT FRAME EXT. (BOLTED ON)	6" BOLT ON FRAME EXTENSION
S	FRONT FRAME LENGTH	FRONT FRAME LENGTH 725MM
	CROSSMEMBERS	BOC AND INTERMEDIATE CROSSMEMBERS, HD I-BEAM
S	REAR CROSSMEMBER OPTIONS	STEEL CLOSING REAR CROSSMEMBER
S	REAR FRAME TREATMENT	WITHOUT TAPERED FRAME RAIL ENDS
	FRONT BUMPER	EXTENDED-SWEPT BACK-STEEL BRIGHT FINISH
	CAB GUARD, FRONT	PLATE TYPE BRIGHT FINISH
S	CROSSMEMBER, BOGIE TYPE	BASIC SOLUTION TRUNNION BRACKET, STD HEIGHT
S	TOWING DEVICE, FRONT	HOOKS
S	FUEL LEVEL SENDER UNIT, LIQUID	BASIC FUEL LEVEL SENDER MOUNTED ON L.H TANK
	FUEL TANK - LH	72 GALLON (275 L) 26" ALUMINUM, SLEEVED D-SHAPED

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TECHNICAL SPECIFICATION (cont.)



FRAME EQUIPMENT/FUEL TANKS		DESCRIPTION
S	FUEL TANK - RH	W/O RH FUEL TANK
S	FUEL HOSES, LIQUID	BRAIDED HOSE
S	FUEL FILLER NECK OPTIONS	WITHOUT FILLER NECK SCREEN, WITH NON-LOCKABLE FUEL TANK CAP
	FUEL LINE OPTIONS, LIQUID	W/O FUEL LINE OPTION
S	CAB INSTEP VERSION	STANDARD 2 STEP CAB ACCESS
S	STEPS (BRIGHT) - FUEL TANK	STANDARD FINISH STEPS AND BRIGHT FINISH STRAPS

AIR/BRAKE		DESCRIPTION
S	AIRTANK DRAIN VALVE	MANUAL (PETCOCK) DRAIN VALVES ON ALL TANKS
	AIRTANK MATERIAL	ALUMINUM AIR TANK PAINTED CHASSIS COLOR
	RELOCATE AIR RESERVOIRS	UNDER BATTERY BOX, REMAINING BETWEEN FRAME RAILS
S	PARKING BRAKE VALVE	SINGLE VALVE SYSTEM

ELECTRICAL		DESCRIPTION
	BACK-UP ALARM	ECCO BACK-UP ALARM 575 CONSTANT SOUND LEVEL 107 dB
	DASH MOUNTED SWITCHES	TWO (2) EXTRA DASH MOUNTED ILLUMINATED SWITCHES
S	ROOF & SIDE MARKER LIGHTS	(5) TRUCKLITE CHROME BULLET ROOF MARKER & STANDARD MARKER / DIRECTIONAL SIGNAL
S	HEADLAMP BULB TYPE	HEADLAMP BULB TYPE, LED, HEATED
S	DAYTIME RUNNING LIGHTS	W/OVERRIDE SWITCH, PARK BRAKE & ENGINE RUNNING ACTIVATED
S	DRL OVERRIDE SPEED THRESHOLD	DRL OVERRIDE SPEED THRESHOLD 8 KMPH (5 MPH)
S	TAIL LAMPS	INCANDESCENT TAIL LAMPS
	WORK LIGHTS - CHASSIS MOUNTED	RH/LH LED WORK LIGHT (STEPS & GROUND) ON BOTH SIDES TRUCK

TRAILER CONNECTIONS		DESCRIPTION
	TRAILER BRAKE VALVE	HAND CONTROL VALVE FOR TRAILER BRAKES W/ AIR CONNECTIONS OR SERVICE BRAKES W/O AIR CONNECTIONS

PTO		DESCRIPTION
	POWER TAKE OFF CONTROL	TRANSMISSION PTO SWITCH AND LIGHT WITH WIRING AND PIPING FOR LOCAL INSTALLATION
S	BODY BUILDER INTERFACE	BODY LINK III W/CAB PASS-THRU

SPECIALTY EQUIPMENT		DESCRIPTION
S	LANE SUPPORT SYSTEM (LSS)	WITHOUT LANE SUPPORT SYSTEM
S	DATA CAPTURE	WITHOUT DATA CAPTURE
S	CAMERA, SURVEILLANCE	WITHOUT CAMERA

CAB INTERIOR (A THRU G)		DESCRIPTION
S	SPEEDOMETER -&- GAUGES - UNIT(S) OF MEASURE	U.S. UNITS (PREDOMINANT)
	GAUGE - PACKAGE, SECONDARY	2ND GA PKG W/ENG OIL TEMP,TRANS OIL TEMP,PYRO,APP AIR PRESS
	GAUGE OIL TEMP-REAR AXLE	REAR AXLE OIL TEMP GAUGE IN DID (DRIVER INFORMATION DISPLAY)
	AUXILIARY PNEUMATIC OUTLET CAB (CA family in PC29 only)	AUX. INCAB PNEUMATIC LINE CLEANOUT
S	AIR CONDITIONING/HEATER	BLEND AIR HVAC W/"ATC" TEMP REGULATION
S	CUPHOLDER	CUPHOLDER
S	DOME LAMP, INTERIOR	(4) DOME LAMPS - DOOR AND SWITCH ACTIVATED

TECHNICAL SPECIFICATION (cont.)



CAB INTERIOR (A THRU G)		DESCRIPTION
S	DASH INDICATOR - LAMP BODY OUT OF POS	DASH MTD, INDICATOR BODY/HOIST UP "BODYBUILDER LAMP"
	FIRE EXTINGUISHER	5LB (ABC RATED) MOUNTED BETWEEN DRIVER SEAT BASE AND DOOR VALVE AIMED REARWARD
S	FLOOR COVERING	POLYURETHANE FLOOR MAT WITHOUT REMOVABLE INSERTS

CAB INTERIOR (H THRU R)		DESCRIPTION
S	INSTMNT CLUSTER LANGUAGE	DEFAULT: ENGLISH, SPANISH, FRENCH
S	KEY TYPES FOR DOORS	ALL CHASSIS KEYED AT RANDOM
S	DOOR OPENING OPTIONS	W/O ELECTRONIC KEYLESS ENTRY
S	FORWARD OVERHEAD STORAGE	(2) STORAGE COMPARTMENTS AND NET RETAINERS W/CENTER MOUNTING FOR CB PROVISIONS
S	AUDIO ACCOMMODATION	PREMIUM STEREO, AM/FM, MP3, WEATHER BAND, BLUETOOTH
S	ANTENNA - RADIO	RADIO ANTENNA, CAB MOUNTED BEHIND LH DOOR
	ANTENNA - CB RADIO	PREP KIT FOR MOUNTING ON LT SIDE MIRROR (W/O ANTENNA)
S	AUDIO SHUTOFF	AUTO SHUTOFF FOR RADIO ENTERTAINMENT SYSTEM WHEN VEHICLE IS ENGAGED IN REVERSE
S	POWER LEADS	POWER LEADS (5-WAY BINDING POSTS FOR CB RADIO) IN HEADER CONSOLE
S	AUDIO SPEAKER LOCATION	SPEAKER LOCATION, IN DOORS, MIDDLE HIGH SIDE PANEL
S	COM.RADIO PREP KIT (CB)	CB RADIO MOUNTING REINFORCEMENT IN HEADER CONSOLE
S	REAR WALL STORAGE COMPARTMENT	STORAGE POUCH REAR
	REFLECTOR KIT	EMERGENCY REFLECTOR KIT MOUNTED PARALLEL & CENTERED AGAINST BOC

CAB INTERIOR (S THRU Z)		DESCRIPTION
S	INTERIOR TRIM LEVELS	COMFORT TRIM PACKAGE, STEEL GRAY (Package 11A)
S	SEAT - DRIVER'S	MACK-AIR, HIGH BACK, 1 CHAMBER AIR LUMBAR
S	SEAT COVERING - DRIVER'S	DRIVER'S SEAT - STEEL GREY VINYL
S	SEAT - PASSENGER'S	MACK-FIXED, HIGH BACK
S	SEAT COVERING - PASSENGER'S	PASSENGER'S SEAT - STEEL GREY VINYL
	SEAT ARMREST	INBOARD MOUNTED ARM REST, DRIVER'S & RIDER'S SEAT
S	SEAT BELT(S)	LAP & SHOULDER (BOTH SEATS) CAB MOUNTED SHOULDER BELT ADJUSTMENT
S	SEAT BELT REMINDER	SEAT BELT REMINDER IN INSTRUMENT, WITH AUDIO
S	IGNITION TYPE	KEY TYPE
S	STEERING WHEEL	2 SPOKE URETHANE GRIP, SATIN ALUMINUM SPOKES, WITH SWITCHES
S	WINDSHIELD TYPE	TWO PIECE WINDSHIELD
	CAB GLASS	HEATED TINTED WINDSHIELD, GUARDIAN ENHANCED PROTECTIVE REAR GLASS W/SAFEFLEX; 50% TRANSMITTANCE
S	WASHER RESERVOIR POSITION	W/O WINDSHIELD WASHER OPTION
S	WINDSHIELD WIPERS	2 SPEED ELECTRIC MOTOR W/INTERMITTENT FEATURE

CAB EXTERIOR		DESCRIPTION
S	HOOD LATCH TYPE & FINISH	STRAP TYPE HOOD LATCH WITH BLACK FINISH
S	EXTERIOR TRIM FINISH AND PACKAGES	GRANITE BRIGHT AIR INTAKE
	GRILLE	BRIGHT FINISH BARS W/BRIGHT FINISH SURROUND GRILL MOUNTED
S	PASSENGER SIDE VISIBILITY OPTIONS	AUXILIARY WINDOW IN RH DOOR
	GRAB HANDLES	BF EXTERIOR CAB GRAB HANDLES, BLACK GRAB HANDLE RH INTERIOR WINDSHIELD POST
S	HORN - AIR	(2) MACK RECTANGULAR SINGLE TRUMPET, BRIGHT FINISH ALUMINUM W/SNOW SHIELDS
	HORN - ELECTRICAL	DUAL TONE

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TECHNICAL SPECIFICATION (cont.)



CAB EXTERIOR		DESCRIPTION
	MIRRORS - EXTERIOR	FLAT MIRROR - POLISHED ALUMINUM FINSH, HEATED, W/O LAMPS
	MIRRORS - CONVEX TYPE CAB DOORS	BRIGHT FINISH, LH & RH, 8" DIAMETER HEATED CONVEX
	SUN VISOR - EXTERIOR	SUN VISOR, EXTERIOR, STAINLESS STEEL (UNPAINTED)

AERODYNAMIC DEVICES		DESCRIPTION
S	CAB AERODYNAMIC PACKAGES	WITHOUT CAB AERODYNAMIC DEVICES
S	FRONT CHASSIS AERODYNAMIC PACKAGE	WITHOUT FRONT AERODYNAMIC FAIRINGS

WHEELS & TIRES		DESCRIPTION
	TIRES BRAND/TYPE - FRONT	315/80R22.5 L CONTINENTAL HAU3 WT (20000 lbs) (Total for QTY = 2)
	WHEELS - FRONT	22.5x9.00 ALCOA 89U64x CLEAN BUFFED ALUMINUM, 6.94" OFFSET, 10 HAND HOLE (Total for QTY = 2)
	TIRES BRAND/TYPE - REAR	11R24.5 H BRIDGESTONE M799 (26440 lbs) (DRIVE ONLY) (Total for QTY = 8)
	WHEELS - REAR	24.5x8.25 ALCOA 98565x SEVERE SERVICE, CLEAN BUFFED ALUMINUM, 6.60" OFFSET, 10 HAND HOLE (Total for QTY = 8)
S	TIRE INFLATION VALVE	STANDARD VALVE STEMS AND CAPS
S	FRONT HUB/WHEEL TRIM	WITHOUT FRONT HUB/WHEEL TRIM
S	REAR HUB/WHEEL TRIM	WITHOUT REAR HUB/WHEEL TRIM (Total for QTY = 2)
S	WHEEL NUT & FINISH, FRONT	WHEEL NUT BASIC FINISH, FRONT
S	WHEEL NUT FINISH, REAR (CA)	WHEEL NUT BASIC FINISH, REAR

COMMUNICATION SYSTEMS		DESCRIPTION
S	CO-PILOT - DISPLAY FEATURES ACCESS LEVEL	CO-PILOT DISPLAY, DRIVER ACCESS LEVEL 1
S	TELEMATIC GATEWAY	TELEMATICS GATEWAY, 4G/LTE AND WLAN SYSTEM WITH DIAGNOSTIC SERVICES

ENGINE ELECTRONICS		DESCRIPTION
S	OIL PRESSURE, ENGINE SHUTDOWN	OIL PRESSURE, ENGINE SHUTDOWN
S	COOLANT TEMP, ENGINE SHUTDOWN	COOLANT TEMP, ENGINE SHUTDOWN
S	ENGINE PROTECTION SYSTEM	ENGINE PROTECTION (SHUTDOWN)
	ENG FAN CNTL, A/C ON, TIME SET	ENG FAN CONTROL, A/C ON, TIME SETTING, 60 SEC
S	ENGINE IDLE CONTROL	IDLE CONTROL, 600 RPM
S	SMART IDLE ELEVATED IDLE RPM TIME	INCREASE 10 MINUTE MAXIMUM TIME
S	IDLE S/D ABS TAMPER CHECK	IDLE SHUTDOWN ABS TAMPER CHECK, ENABLED
S	IDLE S/D WARNING TIME	30 SEC IDLE S/D WARNING TIME
S	IDLE S/D IF WARM-UP TEMP	38C DEG (100F), WARM UP TEMP DELAY
S	IDLE S/D WARM-UP TIMER	5 MIN. WARM UP TIME DELAY
S	IDLE S/D IF PTO ACTIVE	ENGINE IDLE SHUTDOWN TIME OVERRIDDEN IF PTO ACTIVE
S	IDLE SHUTDOWN IF POWER > LIMIT	ENG IDLE SHUTDOWN TIME OVERRIDDEN IF TORQUE > THAN LIMIT
S	IDLE S/D OVERRIDE %ENGINE LOAD	IDLE SHUTDOWN OVERRIDE UPTO 20% ENGINE LOAD THRESHOLD
S	AMBIENT TEMP MIN TRESHOLD	AMBIENT TEMP MIN TRESHOLD, 16 DEG C, (60 DEG F)
S	AMBIENT TEMP MAX TRESHOLD	AMBIENT TEMP MAX TRESHOLD, 27 DEG C, (80 DEG F)
S	EL HD THROTTLE,MAX ROAD SPEED	ELECTRONIC HAND THROTTLE, MAX ROAD SPEED, 16 KMH (10 MPH)
S	EL HAND THROTTLE,MAX ENG SPEED	ELECTRONIC HAND THROTTLE, MAX ENGINE SPEED, 1000 RPM
S	EL HAND THROTTLE,MIN ENG SPEED	ELECTRONIC HAND THROTTLE, MIN ENGINE SPEED, 700 RPM
S	EL HD THROTTLE,SPEED RAMP RATE	ELECTRONIC HAND THROTTLE, SPEED RAMP RATE, 100 RPM/SEC

TECHNICAL SPECIFICATION (cont.)



TRANSMISSION ELECTRONICS	DESCRIPTION
TRANSMISSION ELECTRONICS PACKAGE	SPECIALTY USE (150) - SPLIT SHAFT FOR LOW INERTIA PUMPS (ex. CONCRETE PUMPS)
TRANSM AUTO NEUTRAL ON P-BRAKE	ALLISON PARK BRAKE AUTO NEUTRAL-ALLOWS THE DRIVER TO ENGAGE GEAR PRIOR TO DISENGAGING THE PARK BRAKE
TRANSMISSION ELECTRONIC SHIFTING PROPERTIES	FUELSENSE, FULL NEUTRAL AT STOP

VEHICLE ELECTRONICS	DESCRIPTION
S ROAD SPEED LIMITER SETTING	105 KM/H ROAD SPEED LIMITER (65MPH)
S PEDAL RSL SETTING	101 KM/H PEDAL ROAD SPEED LIMITER (63MPH)
S CRUISE CONTROL	CRUISE CONTROL
S CRUISE CONTROL, MAX SPEED	MAX CRUISE, 105 KPH (65 MPH)
S CRUISE CONTROL MIN SPEED	MIN CRUISE, 32 KPH (20 MPH)
S ENG BRK ENGAGE IN CRUISE	ENG BRK ENGAGE IN CRUISE, 3 MPH, ABOVE SET SPEED
PDLO ENGAGED VLS	POWER DIVIDER LOCK OUT (PDLO) ROAD SPEED LIMIT 24KMH (15MPH)
DIFF LOCK SPEED LIMIT	DIFFERENTIAL LOCK ROAD SPEED LIMIT 24KMH (15MPH)
S MAXIMUM ENG SPEED AT 0 MPH	1000 MAXIMUM ENGINE SPEED AT 0 MPH
S DETECTION SPEED SENSR TMPRNG	DETECTION OF SPEED SENSOR TAMPERING, ENABLE
S ENG TORQUE LIMIT,SPEED SENSOR	ENG TORQUE LIMITED TO 50%, IF SPEED SENSOR TAMPER DETECTED
S DRIVER ID FUNCTION	DRIVER ID FUNCTION, DISABLED
S DR PERFORMANCE PARAMETERS	WITHOUT DRIVER PERFORMANCE PARAMETERS
S ENGINE OVERSPEED,ALL COND, LOG	ENGINE OVERSPEED, ALL CONDITIONS, TIME LOG IF ABOVE 2200 RPM
S ENGINE OVERSPEED,FUELED, LOG	ENGINE OVERSPEED, FUELED, TIME LOG IF ABOVE 2100 RPM
S VEHICLE OVERSPEED,ALL COND,LOG	VEHICLE OVERSPEED,ALL COND, TIME LOG IF ABOVE 75MPH (121KMH)
S VEHICLE OVERSPEED, FUELED, LOG	VEHICLE OVERSPEED, FUELED, TIME LOG IF ABOVE 70MPH (113KMH)
S ENGINE IDLE DELAY TO LOG	ENGINE IDLE DELAY TO START LOG, 2 MIN
S PERIODIC TRIP LOG DAY OF MONTH	PERIODIC TRIP LOG, DAY 1 OF THE MONTH

PTO ELECTRONICS	DESCRIPTION
S PTO1 SINGLE SPEED CONTROL RPM.	PTO 1ST, SINGLE SPEED SETTING, 1000 RPM
S PTO 1ST, MAX ROAD SPEED	1ST PTO, MAX ROAD SPEED, 10 MPH (16 KPH)
S PTO 1ST, SPEED RAMP RATE	PTO 1ST, SPEED RAMP RATE 100 RPM/SEC
S PTO 1ST, MAX ENGINE SPEED	PTO 1ST, MAX ENGINE SPEED, 2100 RPM
S PTO 1ST, ROAD SPEED LIMIT	PTO 1ST, ROAD SPEED LIMIT, 97 KMH (60 MPH)
S PTO 1ST, MINIMUM ENGINE SPEED	PTO 1ST, MINIMUM ENGINE SPEED, 600 RPM
S PTO 2ND, SINGLE SPEED SETTING	PTO 2ND, SINGLE SPEED SETTING, 1000 RPM
S PTO 2ND, MAX ROAD SPEED	2ND PTO, MAX ROAD SPEED, 10 MPH (16 KPH)
S PTO 2ND, SPEED RAMP RATE	PTO 2ND, SPEED RAMP RATE 100 RPM/SEC
S PTO 2ND, MAX ENGINE SPEED	PTO 2ND, MAX ENGINE SPEED, 2100 RPM
S PTO 2ND, ROAD SPEED LIMIT	PTO 2ND, ROAD SPEED LIMIT, 97 KMH (60 MPH)
S PTO 2ND, MINIMUM ENGINE SPEED	PTO 2ND, MINIMUM ENGINE SPEED, 600 RPM

PAINT	DESCRIPTION
S PAINT DESIGN	SINGLE COLOR
S PAINT TYPE	SOLID PAINT
PAINT COLOR - FIRST COLOR	MACK GREEN; P9014
S PAINT COLOR - SECOND COLOR	NO SECOND TRUCK COLOR PROVIDED; NO COLOR

TECHNICAL SPECIFICATION (cont.)



PAINT	DESCRIPTION
S PAINT COLOR - THIRD COLOR	NO THIRD TRUCK COLOR PROVIDED; NO COLOR
S PAINT - CAB PAINT SYSTEM	PAINT - CAB, URETHANE CLEAR COAT
S CAB COLOR	SAME AS FIRST COLOR - CAB
S HOOD COLOR	SAME AS FIRST COLOR - HOOD
S SLEEPER ROOF COLOR	WITHOUT SLEEPER ROOF COLOR
S ROOF FAIRING COLOR	WITHOUT ROOF FAIRING
S CHASSIS RUNNING GEAR	MACK BLACK (URETHANE); P3036
BUMPER	W/O OPTIONAL BUMPER PAINT
S FUEL TANK - ***NO INVENTED VARIANTS ALLOWED in the FUEL TANK PAINT FAMILY***	W/O OPTIONAL FUEL TANK PAINT
S HUBS & DRUMS-FRONT	SAME AS CHASSIS RUNNING GEAR
S HUBS & DRUMS-REAR	SAME AS CHASSIS RUNNING GEAR

CALCULATED CODES - KAX	DESCRIPTION
S PROPCALC SELECTION	YES, THE ORDER MUST BE CALCULATED

BASE WARRANTY & PURCHASED COVERAGES	DESCRIPTION
S VEHICLE WARRANTY TYPE	HEAVY DUTY WARRANTY CLASSIFICATION
BASIC CHASSIS COVERAGE	CHASSIS PLAN 2 60/250K MI NORMAL/HEAVY DUTY, GRANITE/TERRAPRO/LR MODELS PROTECTION PLAN
EMISSION - SURCHARGE	CARB + EPA for Mack MP7 / MP8 Diesel
ENGINE WARRANTY	CARB - ENGINE PLAN 2, 84 MO/250K MILES, MP7/MP8 <460HP
EMISSION COMPONENT COVERAGE	US and CANADA CARB EQUIPPED VEHICLE EMISSION COMPONENTS COVERAGE 60 MONTHS/350,000 MILES
ENGINE AFTERTREATMENT SYSTEM	CARB - EATS: 84 MO/250K MI-ENGINE AFTERTREATMENT MP7/MP8 <460HP
TRANSMISSION WARRANTY	ALLISON TRANSMISSIONS (Contact Allison Transmission for standard warranty and extended coverage data)
S CARRIER & AXLE HOUSING WARRANTY	STANDARD MACK HEAVY DUTY COVERAGE 60 MONTHS / 500,000 (804,672 KM)
S AIR CONDITIONING WARRANTY	AIR CONDITIONING STANDARD COVERAGE (Sealed System Only) 12 MONTHS UNLIMITED MILEAGE
CHASSIS TOWING WARRANTY	CHASSIS TOWING 60 MO/250K MILES
ENGINE TOWING WARRANTY	ENGINE TOWING 60 MO/250K MILES
S GUARDDOG CONNECT BUNDLE	NO GUARDDOG CONNECT (ASIST & MACK ONECALL)

SERVICES	DESCRIPTION
MACK INTEGRATED UPTIME	MACK INTEGRATED UPTIME - 84 MONTHS
S FLEET INTEGRATION	WITHOUT FLEET INTEGRATION
S PARTNERED SERVICES	NO PARTNERED SERVICES PROVIDED

PRICING SUMMARY

GRANITE 64FR

Pumper

VEHICLE PRICE

EXTERNAL LOCALS

4800 gallon Vacuum Tank

VEH111

\$188,287.00

\$120,250.00

\$0.00

TOTAL VEHICLE PRICE

\$308,537.00

SOFT OFFERS AND WARRANTY

CHASSIS PLAN 2 60/250K MI NORMAL/HEAVY DUTY, GRANITE/TERRAPRO/LR MODELS PROTECTION PLAN

\$4,630.00

CARB - ENGINE PLAN 2, 84 MO/250K MILES, MP7/MP8 <460HP

\$4,145.00

CARB - EATS: 84 MO/250K MI-ENGINE AFTERTREATMENT MP7/MP8 <460HP

\$815.00

CHASSIS TOWING 60 MO/250K MILES

\$1,105.00

ENGINE TOWING 60 MO/250K MILES

\$905.00

CARB + EPA for Mack MP7 / MP8 Diesel

\$3,500.00

TOTAL SOFT OFFERS AND WARRANTY

\$15,100.00

FET EXEMPT ITEMS

ALLISON 5 YEAR WARRANTY

\$863.00

TOTAL FET EXEMPT ITEMS

\$863.00

TAX SUMMARY

AMT. SUBJECT TO TAX

FET

\$308,537.00

\$0.00

Tire Tax Credit

N/A

\$0.00

TOTAL TAX

\$0.00

TOTAL SELLING PRICE (PER UNIT) USD

\$324,500.00

TOWN OF PLYMOUTH

DATE

Rick Lavin
BALLARD MACK SALES & SERVICE, INC.

10/27/23
DATE

Hi Rick,

*Here is the Pumper quote and is based on
2nd half of 2024 production.*

*Thank You
Rock*

Town of Plymouth
131 Camelot Drive
Plymouth, MA 02360

10/25/23

Attention: Rick Ragazzini

4800g Truck Mount Vacuum System Estimate

Work to be performed to (1) customer supplied chassis. Please find below a list of components for a complete 4800g vacuum truck build.

- Furnish and install (1) new 4800g Robinson Vacuum Tank barrel on new chassis, using new hardened mounting kits and new sill plates.
- Mount aluminum tray assemblies on barrel.
- Attach hose tray guards to protect vessel.
- Furnish and install new steel bumper assembly, fabricating brackets as necessary to attach to truck frame.
- Prime and paint all steel bracketry and truck mount components black.
- Furnish and install (1) new aluminum 36-48" double door Heil style cabinet (size dictated by clean frame rail availability on curbside of new chassis). Fabricate custom brackets as necessary to work around existing barrel mounts and bracketry if needed.
- Furnish and install new (1) National Vacuum Equipment 887 Max Pak system with built-in secondary scrubber, oil catch, and muffler assembly, fabricating/modifying bracket/pump stand as necessary.
- Furnish and install/attach new Chelsea power take off and driveshaft assembly to power vacuum pump, driveshaft assembly to include Sureflex style coupling.
- Wire all lighting on barrel as necessary and test for proper operation.
- Furnish and install (1) new 4", and (1) 6" HEATED gate valve assembly on both load line and outlet discharge piping.
- Furnish and install all new dust caps and adapters on valve assemblies, include plastic coated cables to attach dust caps to part A adapter plates.
- Furnish and install brass fittings and plugs as needed plumbing lines for heated valves.
- Furnish and install circulation pump for heat collars, wiring as needed for proper operation.
- Attach all vacuum components with reinforced rubber hose as necessary for proper operation.
- Test all vacuum and heat collar systems to ensure proper working order.
- Wash completed unit and ready for pick-up.

NOTE * Pricing below does NOT include tax or incoming freight on parts used. Price does not include any unforeseen issues found during installation of pump and barrel or chassis modifications if necessary.

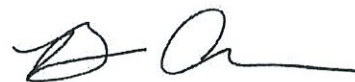
Estimated Cost of Investments:

Robinson Vacuum Tank 4800g Barrel w/ NVE 887 Pump \$120,250

- Robinson Vacuum Tank has an approximate build date of March 2024 -
90 days before production barrel is subject to price change per Robinson Vacuum Tank policy

Parts and Labor ONLY – Federal Excise Tax NOT Included

Sincerely,



Brian Arruda
Sales Representative

If you have any questions regarding anything pertained in this estimate or need modifications to the above spec, please feel free to contact me via phone (508) 801-9348 or email brian@baystatett.com . Thank you for the opportunity to earn your business, I look forward to hearing back either way.

This document and all information contained herein pertains to the terms of agreement between Bay State Truck & Trailer, Inc., 527 Winthrop Street, Rehoboth, MA 02769 and Town of Plymouth, 131 Camelot Drive, Plymouth, MA 02360.

- 1.) The above listed quote is valid for (15) days
- 2.) The quote listed above is for (1) unit.
- 3.) Bay State Truck & Trailer, Inc. requires a 10% security deposit on all vacuum barrels/systems at time of order.
- 4.) Bay State Truck & Trailer, Inc. requires all major service invoices to be paid in full at time of completion and prior to release.
- 5.) Any unpaid equipment left on Bay State property is subject to a per day storage fee.
- 6.) To place this order Bay State Truck & Trailer, Inc. requires an authorized signature from an officer of Town of Plymouth agreeing to specifications, and terms of sale.

By signing below I agree to the terms and specifications designated on this form, which I have read and understood completely. Bay State Truck & Trailer, Inc. is hereby authorized to enter this order for the equipment designated in the specifications above.

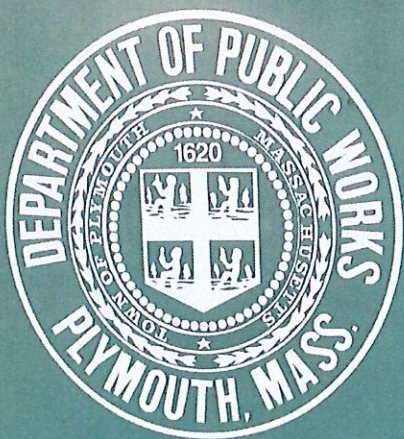
Authorized Signature – Town of Plymouth

Date

Printed Name and Title



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Sewer Dept.

