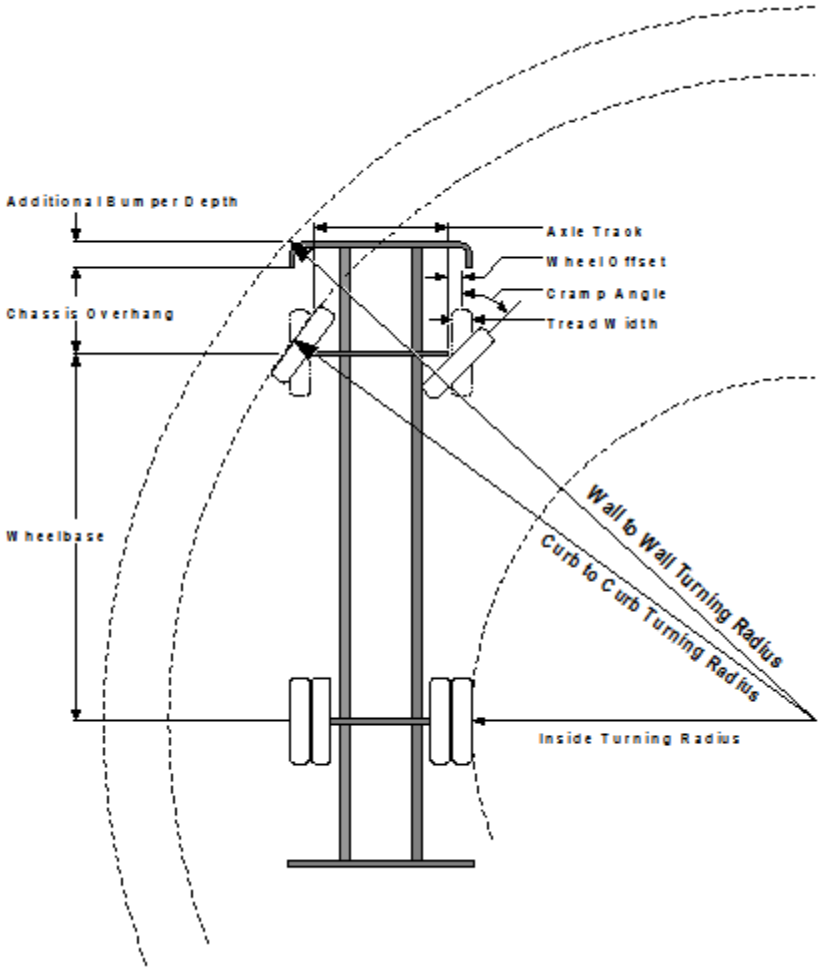
Turning Performance Analysis

4/3/2007

Configuration: East Grand Velocity 100' Platform
Number: EP1955494-101 **V:** 169

Representative: Kerber, Wayne
Organization: Front Range Fire Apparatus, Ltd
Department: East Grand Fire



Parameters:

Inside Cramp Angle:	45°
Axle Track:	85.34"
Wheel Offset:	4.68"
Loaded Tire Width:	17.70"
Chassis Overhang:	79.62"
Additional Bumper Depth:	16.00"
Front Overhang	124.60"
Wheelbase:	279.00"

Calculated Turning Radii:

Inside Turn:	265.47"
Curb to Curb:	472.43"
Wall to Wall:	552.88"

Comments:

Aerial Application

Components	Item #	Description
Front Axle	0018453	Axle, Suspension, Front, Oshkosh TAK-4, Non-Drive, 22,800 lb
Front Wheels	0111380	Aluminum, Alcoa, 22.50 x 12.25
Front Tires	0111371	Michelin, 425/65R22.50, 20 Ply, XZY-3
Chassis	0121631	Velocity Chassis
Front Bumper	0123647	Tray, Bumper, Center, Standard, 35" W x 11.5" L x 13" D
Aerial Device	0022160	Aerial, 100' Pierce Platform

Notes:

Actual Inside Cramp Angle may be less due to highly specialized options.

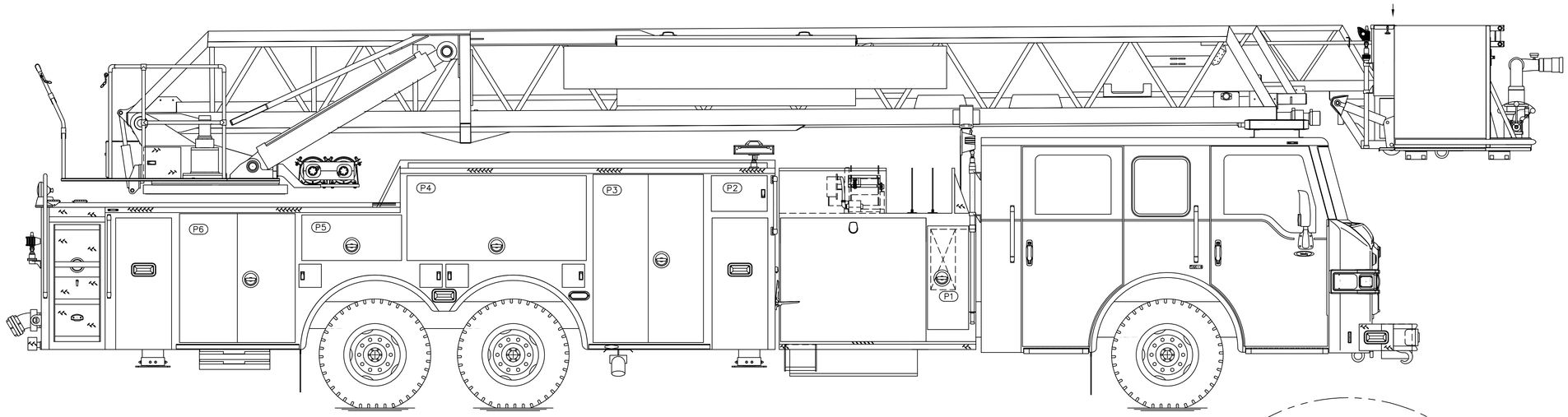
Curb to Curb turning radius calculated for a 9.00 inch curb.

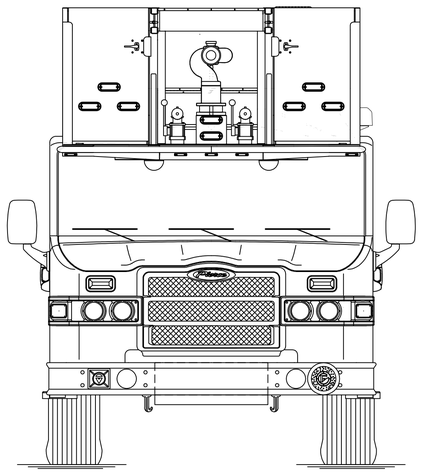
Turning Performance Analysis

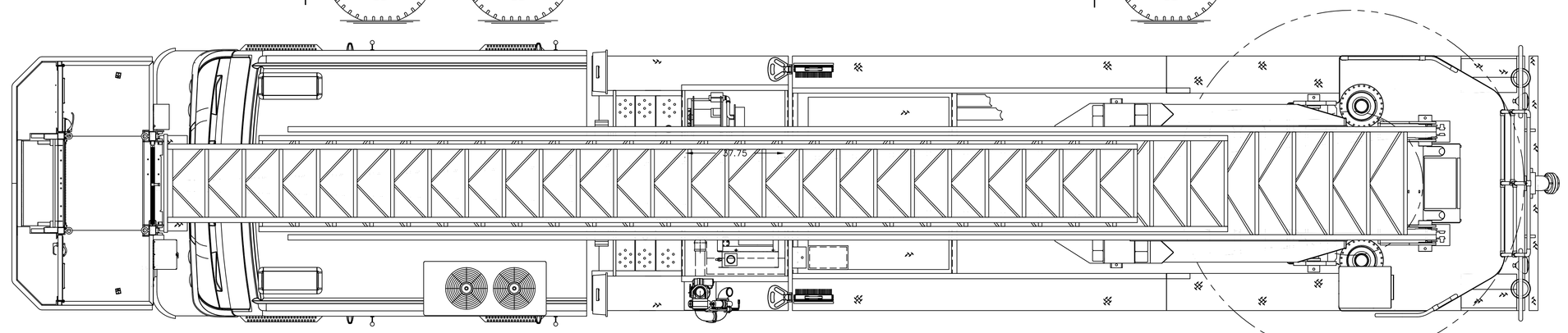
Representative: Kerber, Wayne
Configuration: East Grand Velocity 100' Platform
Organization: Front Range Fire Apparatus, Ltd
Number: EP1955494-101 **V:** 169
Department: East Grand Fire

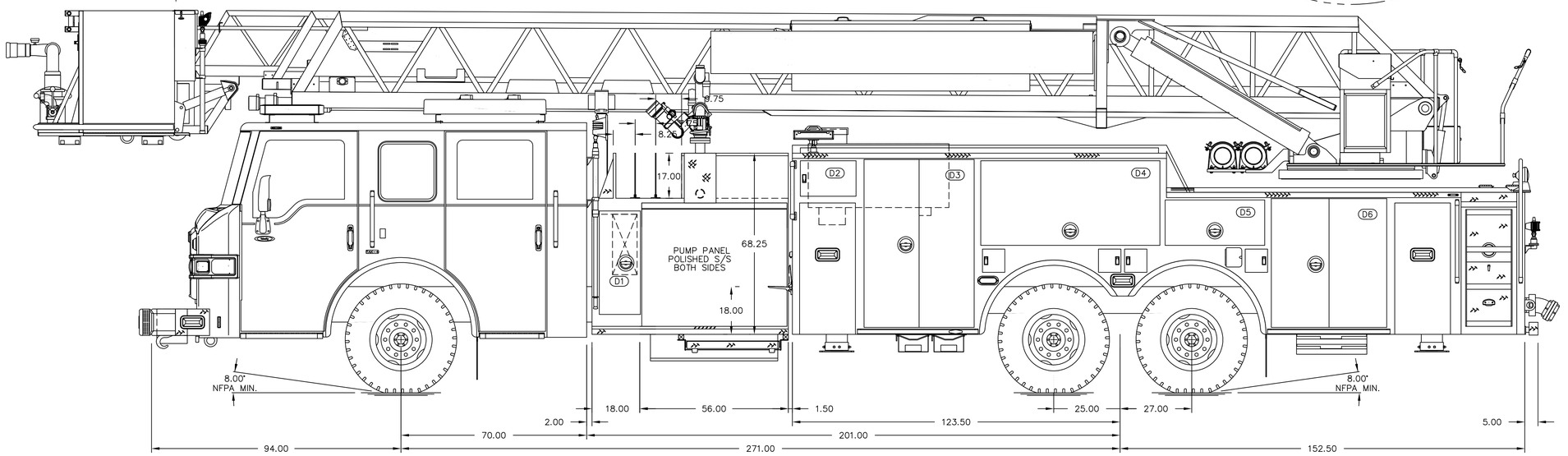
Definitions:

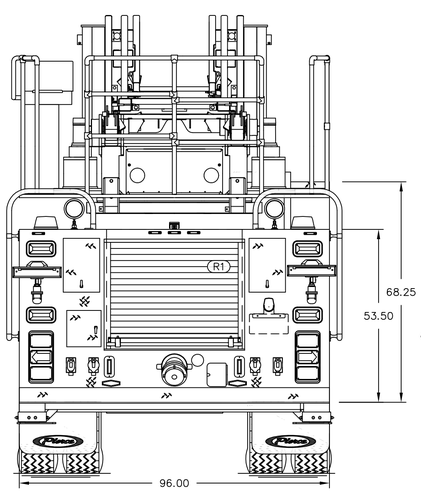
Inside Cramp Angle	Maximum turning angle of the front inside tire.
Axle Track	King-pin to king-pin distance of the front axle.
Wheel Offset	Offset from the center-line of the wheel to the king-pin.
Tread Width	Width of the tire tread.
Chassis Overhang	Distance from the center-line of the front axle to the front edge of the cab. This does not include the bumper depth.
Additional Bumper Depth	Depth that the bumper assembly adds to the front overhang.
Wheelbase	Distance between the center lines of the vehicle's front and rear axles.
Inside Turning Radius	Radius of the smallest circle around which the vehicle can turn.
Curb to Curb Turning Radius	Radius of the smallest circle inside of which the vehicle's tires can turn. This measurement assumes a curb height of 9 inches.
Wall to Wall Turning Radius	Radius of the smallest circle inside of which the entire vehicle can turn. This measurement takes into account any front overhang due to the chassis, bumper extensions and/or aerial devices.

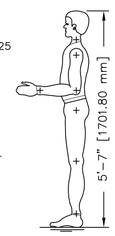












CUSTOMER APPROVAL

PRELIMINARY DRAWING REQUIRES ENGINEERING REVIEW

SIGNATURE _____

DATE _____

BODY MATERIAL = ALUMINUM	ESTIMATED OAH = 147.0	DO NOT SCALE DRAWING.
SIDE SHEET HEIGHT = 71.25	CUSTOMER OAH = N/A	
TOTAL COMPARTMENT CUBIC FEET = 216.46	ESTIMATED OAL = 585.0	DIMENSIONS SHOWN ARE APPROXIMATE AND ARE SUBJECT TO CHANGE AS MAY BE NECESSARY DURING CONSTRUCTION.
TOTAL TANK SIZE = 300	CUSTOMER OAL = N/A	
WATER VOL = 300	WHEELBASE = 271.00	
FOAM VOL CLASS A = 0	HOSEBED DEPTH = 23.50	
FOAM VOL CLASS B = 0	SIDE ROLL PROTECTION, IMP/VEL	SOME DETAILS NOT SHOWN.
AERIAL PEDESTAL RAISED = 3		

Pierce

PERFORM. LIKE NO OTHER.

DRAWN BY	AERIALWEST	CHASSIS MAKE	PIERCE
DATE	08/15/2007		
CONFIG VER	257	CHASSIS MODEL	VEL7000
DWG CHG VER	276		
SOFTWARE VER	01.08.0140	BODY MODEL	PAP100A
DWG DATA VER			

EAST GRAND FIRE

OPPORTUNITY: EAST GRAND VELOCITY PLATFORM

CONFIGURATION: EAST GRAND VELOCITY 100' PLATFORM

JOB/CONFIG NUMBER: 20063 | SD | NO. OF UNITS: 1 | SHEET NO.: 1 OF 1

SCALE: 1:24

SHEET SIZE: D