

Technical specification of:

Convoy



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this image is an example

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CONVOY CHILDREN DESCRIPTION

CONSTRUCTION CHARACTERISTICS

Chassis

The chassis is made of sheet metal plate and steel tubes welded between themselves, arranged so as to support all mechanical parts and the body.

It is protected against corrosion and rust by an electro-galvanic zinc-plating and then furnace-painting with epoxy polyester powders.

Front wheels steering device

The chassis - aligned with the wheels - lodges a particular oscillating support equipped with a lever with grooved hole; a steering bar is connected to the lever and it controls the wheel steering hubs. The hubs are connected between themselves by a second bar.

The guiding trolley grooved pin is engaged inside the grooved hole.

Motor and Transmission

The car is driven by a 48 V DC motor with reducer, which transmits the motion to the driving wheel on the rear axle by a chain drive.

The motor is lodged on the car rear side and transmits the motion to left wheel. The motor is complete with electrical brake equipped with unlocking lever.

The transmission is equipped with a chain tensioner device allowing to recover chain cession (elongation).

Rear Axle

It is made of squared section steel drawing. It is equipped with fixing plates to be fixed to the chassis.

The axle is manufactured to receive the transmission on both wheels: wheel carrier hubs and drive crown wheels are mounted on the edges.

Chain tensioner devices are mounted on it: one per each side.

Collision-proof device

The car is equipped with a device, made up of three front photocells and rear reflectors. The device triggers when the car approaches the other car preceding it, and acting on the engine electrical brake. A set of three photocells is mounted onto a revolving support, controlled by a cable connected to a steering hub. This allows the device to operate along the bends, too.

Electric System

The electric system components are partly assembled on chassis front side and partly on chassis rear side. The access to the electric system is possible after lifting the complete body.

Bumpers

The car is equipped with front and rear bumpers: they consist of a steel core and a polyurethane foam coating. They can bear small crashes only. Collisions at a speed over 1.5 m/sec. (5.4 km/h) may deform them permanently.

Body

The body is made of PRFV (fibreglass), finished with spray painting and completed with moulding, accessories, lights, etc.

The body is fixed to the chassis, on the right side, by a couple of hinges, and on the left side by a screw. By removing the screw, it is possible to lift the body on the hinged side. Then, using a proper bar kept lifted, it is possible to reach the electric system, the transmission and other devices.

Lighting systems

The front side of the car is equipped with two lights with 24V 10W lamps, and the rear side with four small 24V 5W lights.

Manual Start Button

This device, placed on the body rear side, includes a key switch and a button. The latter allows to manually move the car for maintenance operations.

Guiding Trolley

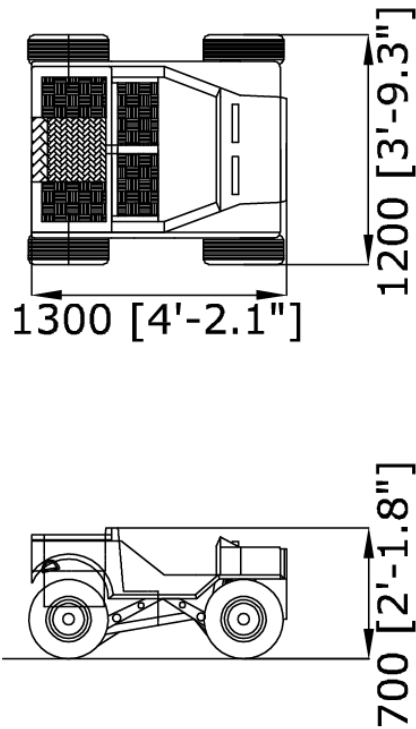
This device guides the car along the rail and directs the front wheels. It is complete with lateral rubbing contacts taking current from conductors placed on rail side.

A rubbing contact mounted on the right side, onto an arm, excludes the collision-proof system in the station. That is why, a proper contact track is located in the station area.

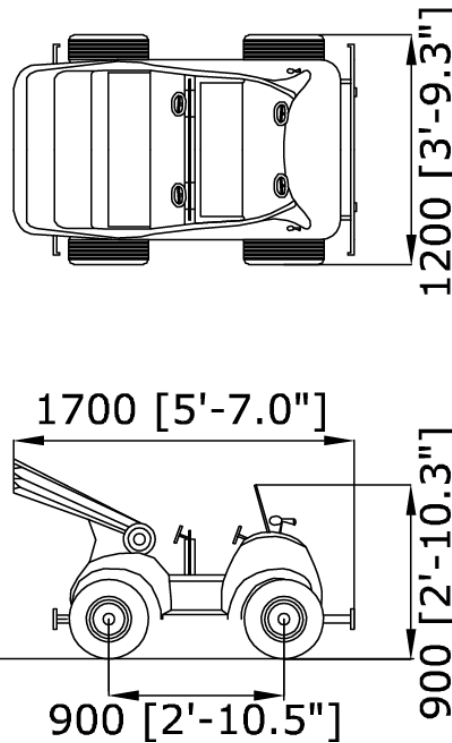
Children convoy cars

Models

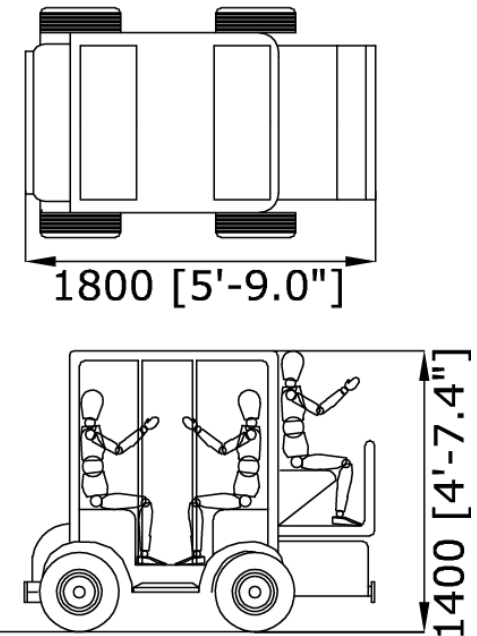
Mod. **BIG FOOT**



Mod. **Charlie Go-Go**



Mod. **DILIGENCE**



this design is an example

TECHNICAL DATA

Weight	184 Kg – 1.8 KN (each car)
Max Speed	1.2 m/sec
Capacity	
- Diligence	6 children
- Big foot / Charlie Go-Go	4 children
Minimum safety envelope	700mm from the car side

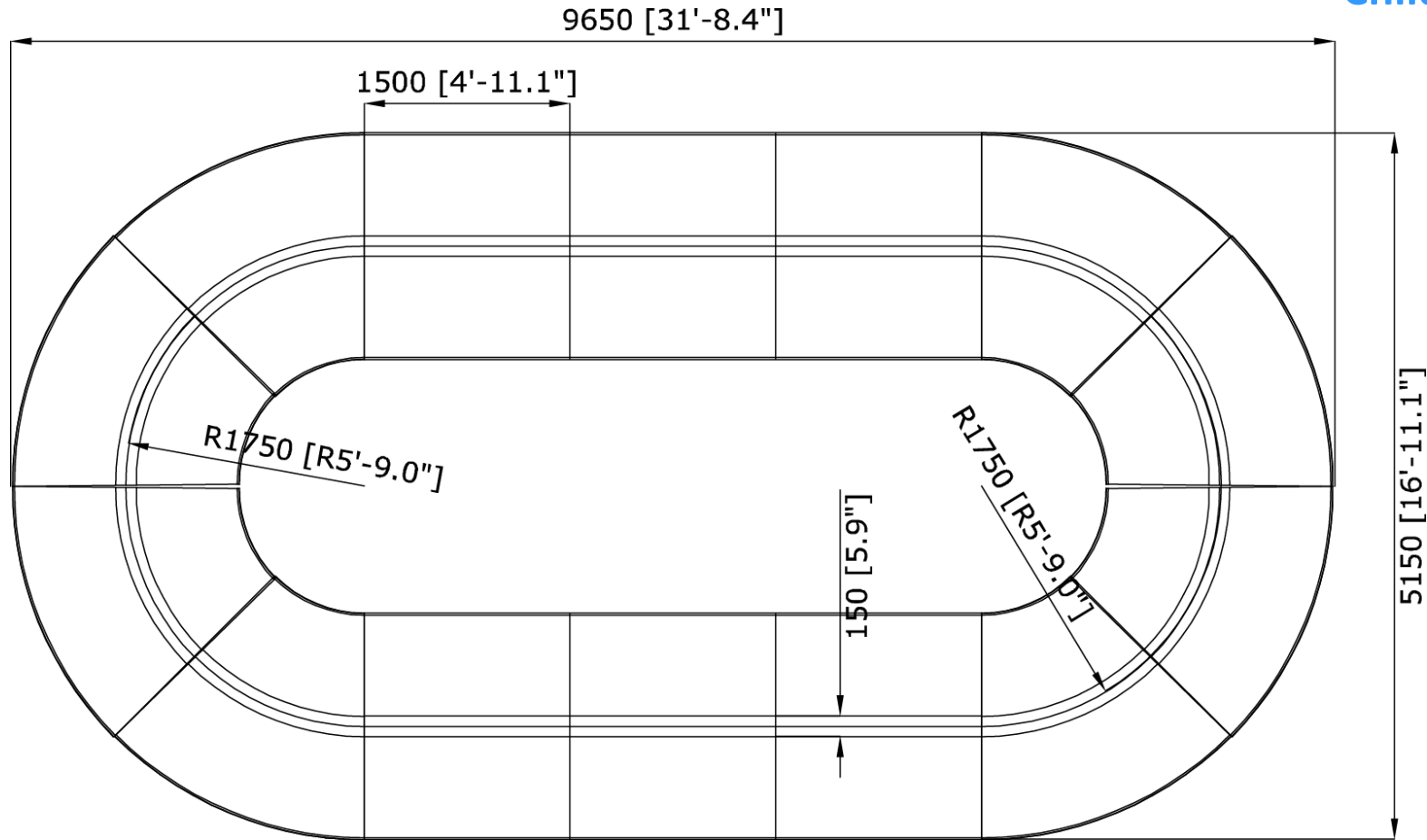
ELECTRICAL DATA

Motive System Voltage	48 V DC
Control System Voltage	24 V DC
Traction power	1.2 kW (each car)
Noise level	<80db

Passengers age/height restrictions: Minimum admissible age 4 years old, height 105 cm - Unaccompanied

Children convoy

Typical Track 1



this design is an example

TECHNICAL DATA

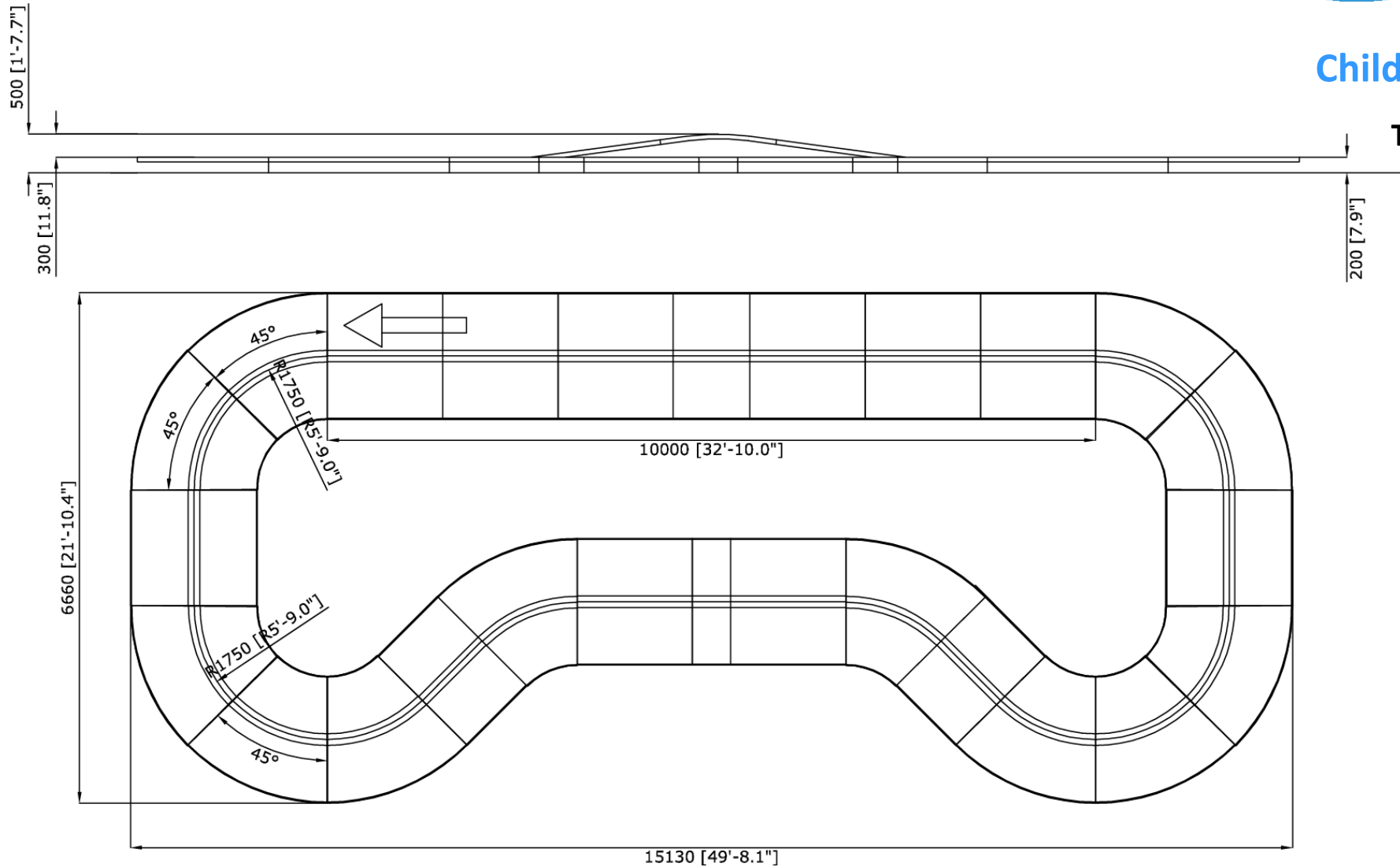
Max Speed	0.6 m/sec
Shipping volume	1x40' box (truck 13,6x7,2)

ELECTRICAL DATA

Voltage	3 phases+neutral+earth (220/380/415V)
Motive power	1.2 Kw for each car
Frequency	50/60 hz
Control	Automatic/Manual

Children convoy

Typical Track 2



this design is an example

TECHNICAL DATA

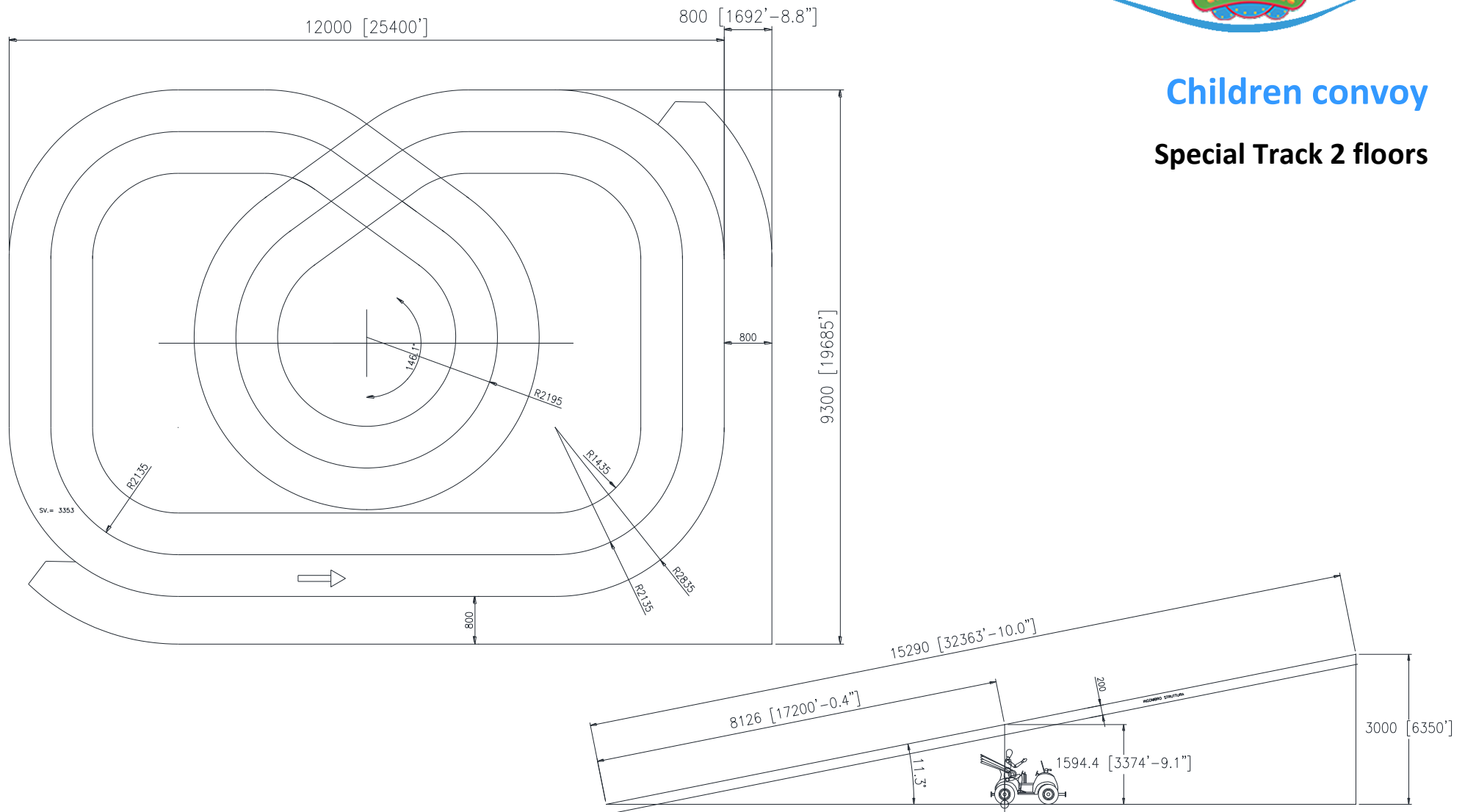
Max Speed	0.6 m/sec
Shipping volume	1x40' box (truck 13,6x7,2)

ELECTRICAL DATA

Voltage	3 phases+neutral+earth (220/380/415V)
Motive power	1,2 Kw for each car
Frequency	50/60 hz
Control	Automatic/Manual

Children convoy

Special Track 2 floors



this design is an example

TECHNICAL DATA

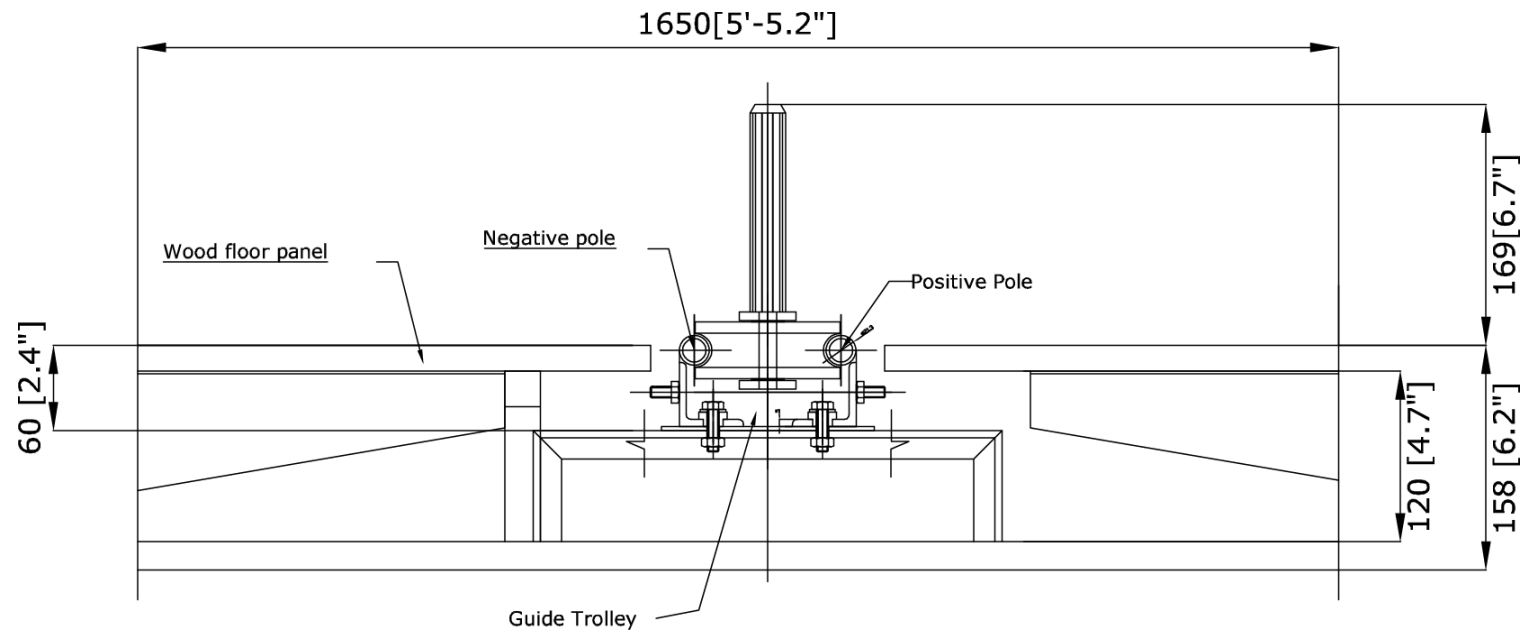
Max Speed	0.6 m/sec
Shipping volume	1x40' box (truck 13,6x7,2)

ELECTRICAL DATA

Voltage	3 phases+neutral+earth (220/380/415V)
Motive power	1 Kw for each car
Frequency	50/60 hz
Control	Automatic/Manual

Children convoy

Track Section



CONVOY FAMILY DESCRIPTION

CONSTRUCTION CHARACTERISTICS

Chassis

The chassis is made of sheet metal plate and steel tubes welded between themselves, arranged so as to support all mechanical parts and the body.

It is protected against corrosion and rust by an electro-galvanic zinc-plating and then furnace-painting with epoxy polyester powders.

Front wheels steering device

The chassis - aligned with the wheels - lodges a particular oscillating support equipped with a lever with grooved hole; a steering bar is connected to the lever and it controls the wheel steering hubs. The hubs are connected between themselves by a second bar.

The guiding trolley grooved pin is engaged inside the grooved hole.

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Lighting systems

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Manual Start Button

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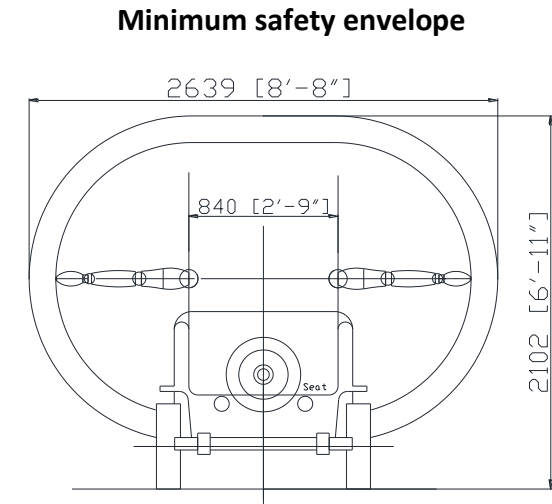
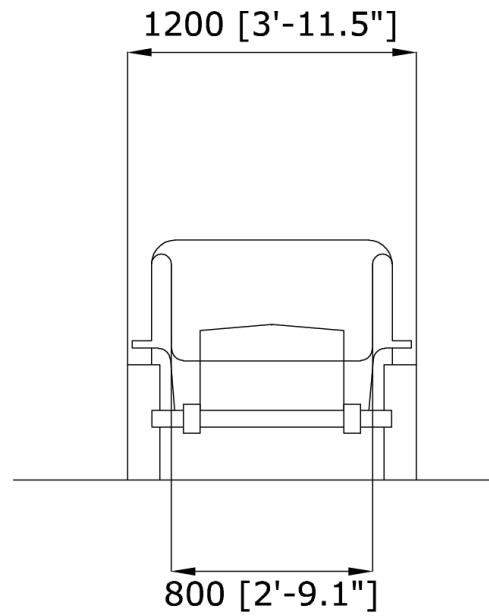
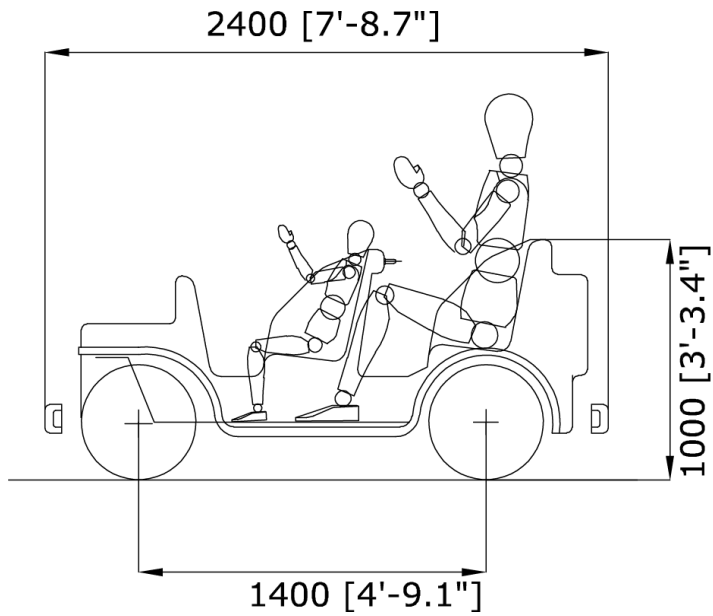
Guiding Trolley

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Family convoy

Models



this design is an example

TECHNICAL DATA

Weight	230 Kg – 2.3 KN
Max Speed	2.2 m/sec
Capacity	4 adult
Options	
- Canvs Hood	
- Duble Light	
- Trumpets	
Shipping volume	N/A

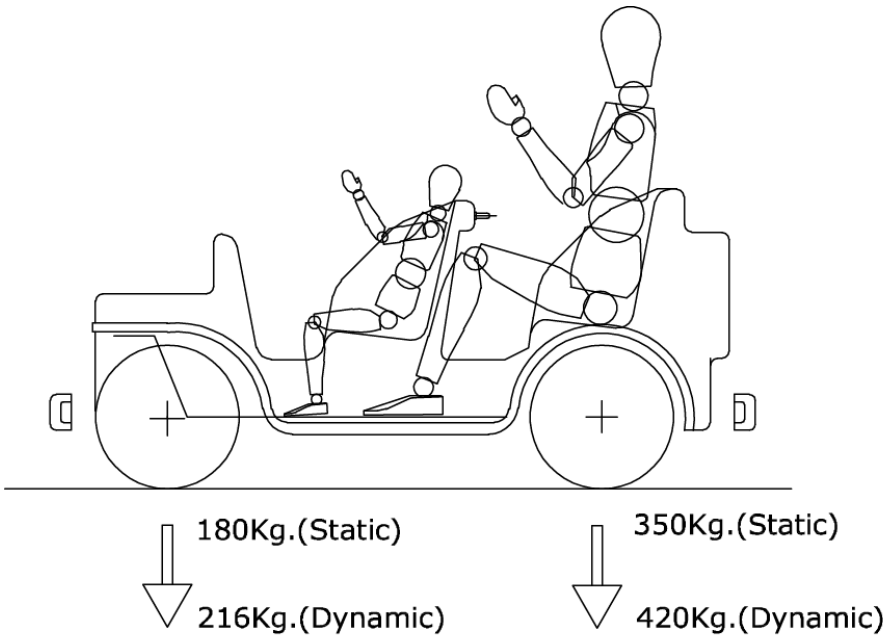
ELECTRICAL DATA

Motive System Voltage	48 V DC
Control System Voltage	24 V DC
Traction power	1 kW
Noise level	<80db

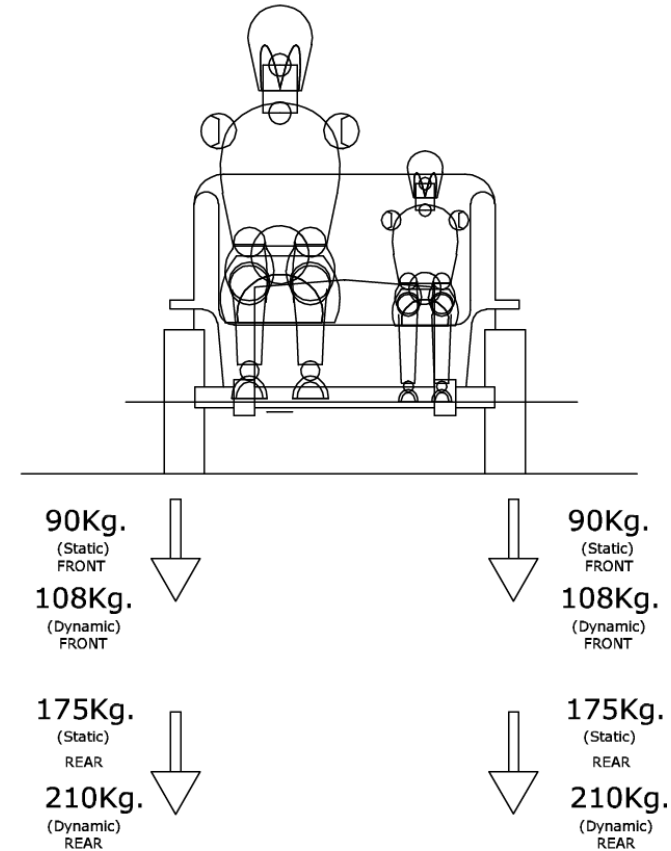
Passengers age/height restrictions: Minimum admissible age 4 years old, height 105 cm - Unaccompanied

Family convoy

Loads on the floor

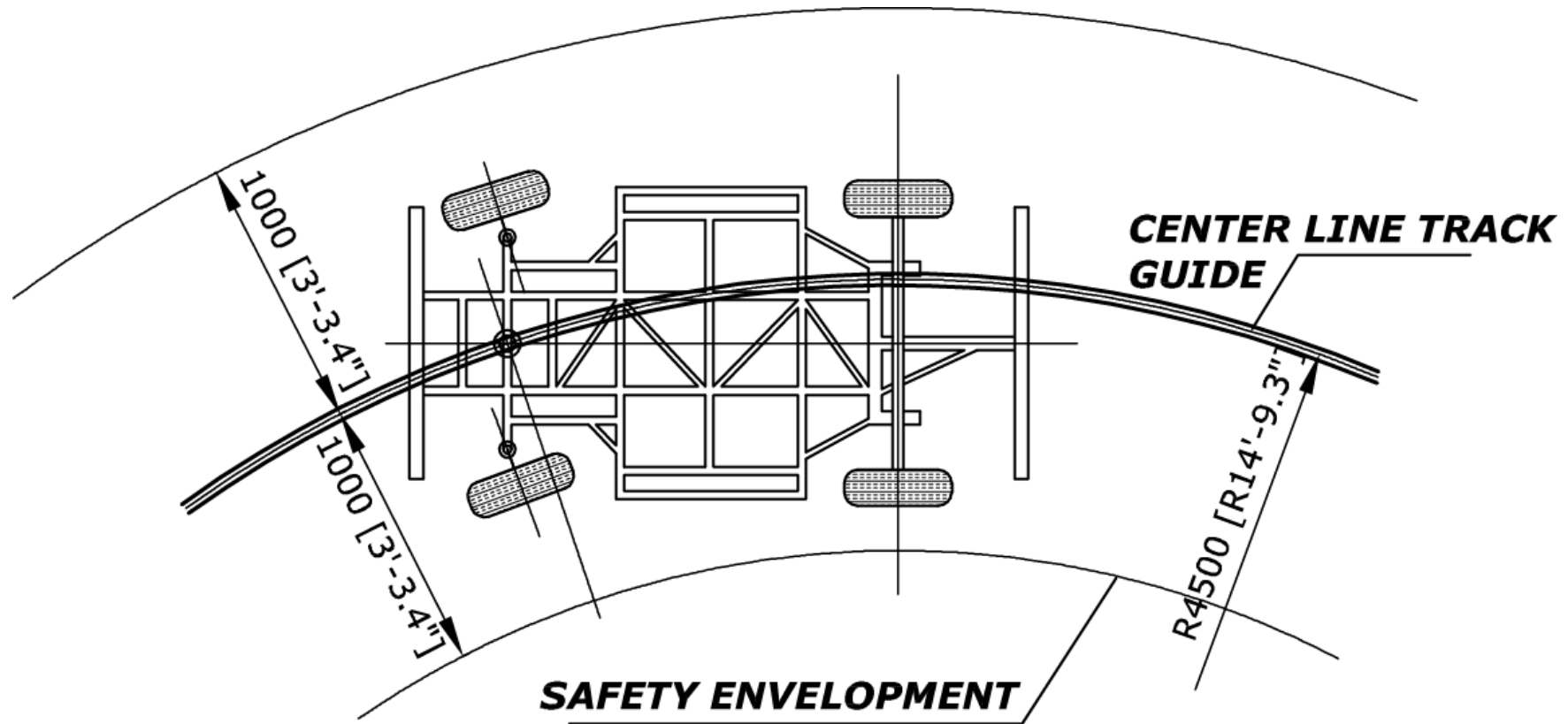


WEIGHT OF PASSENGERS	=300Kg.
CAR WEIGHT	=230Kg.
TOTAL WEIGHT	=530Kg.



Family convoy

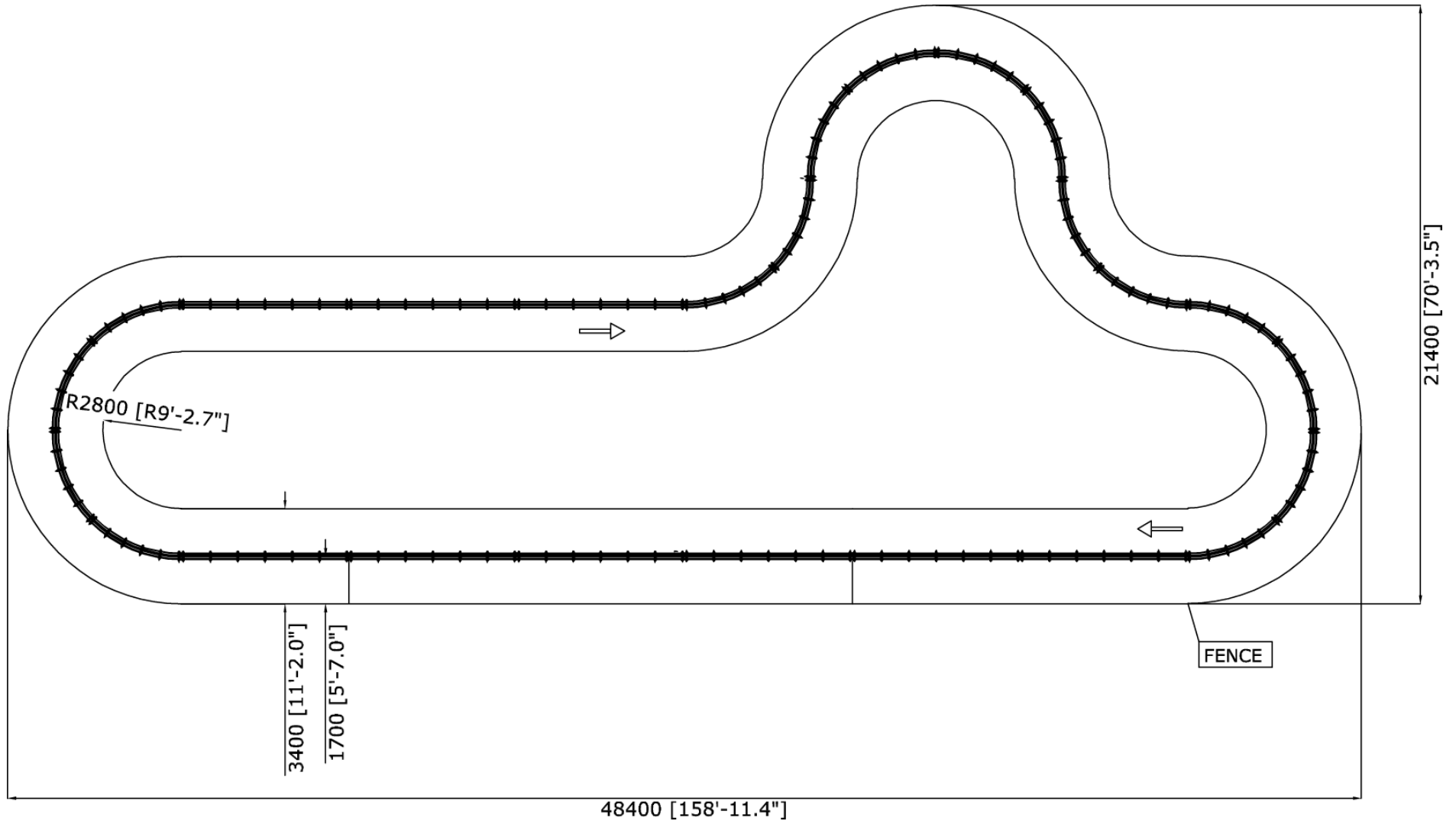
Minimum steering radius





Family convoy

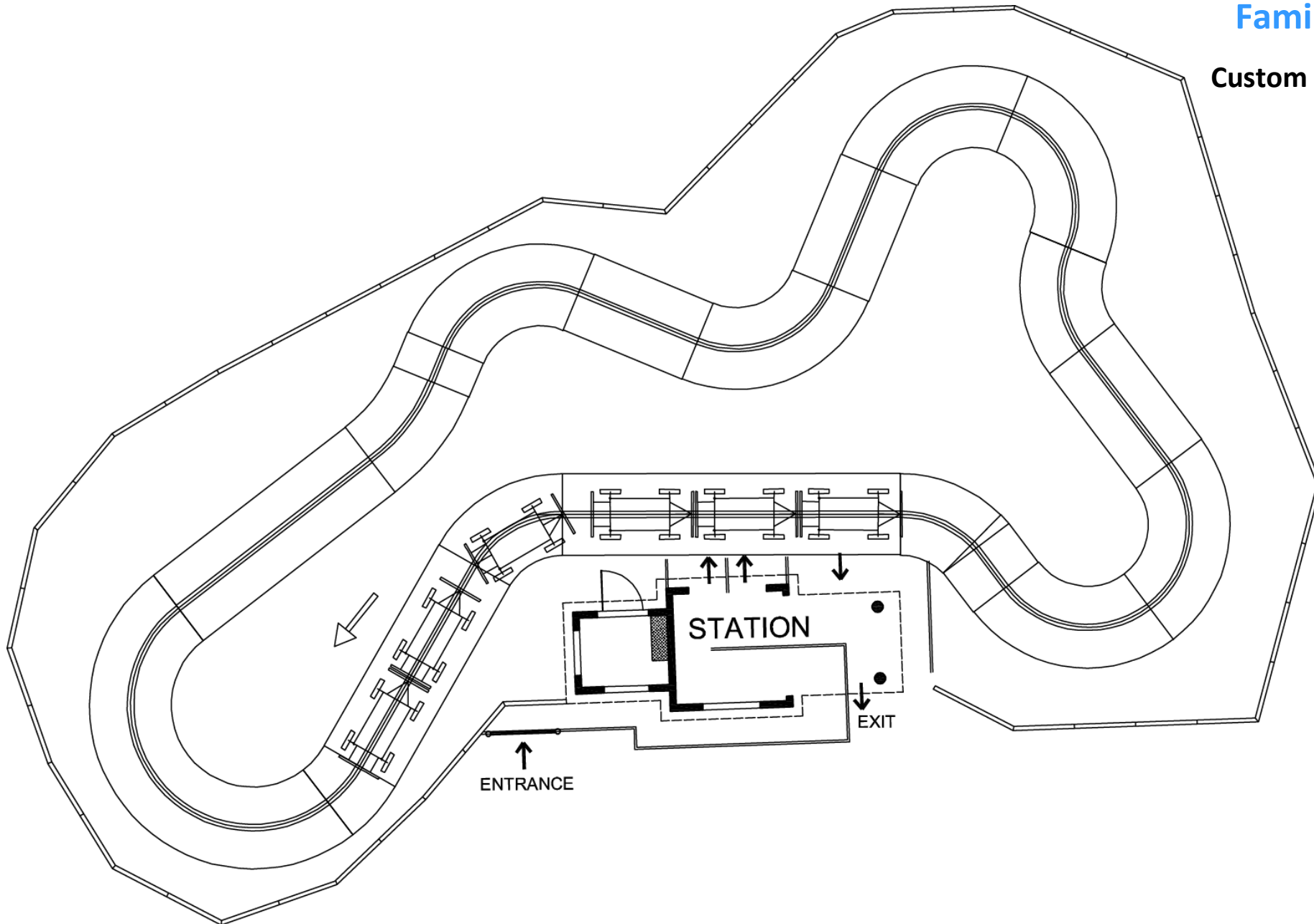
Typical Track



TRANSPORTATION SYSTEM

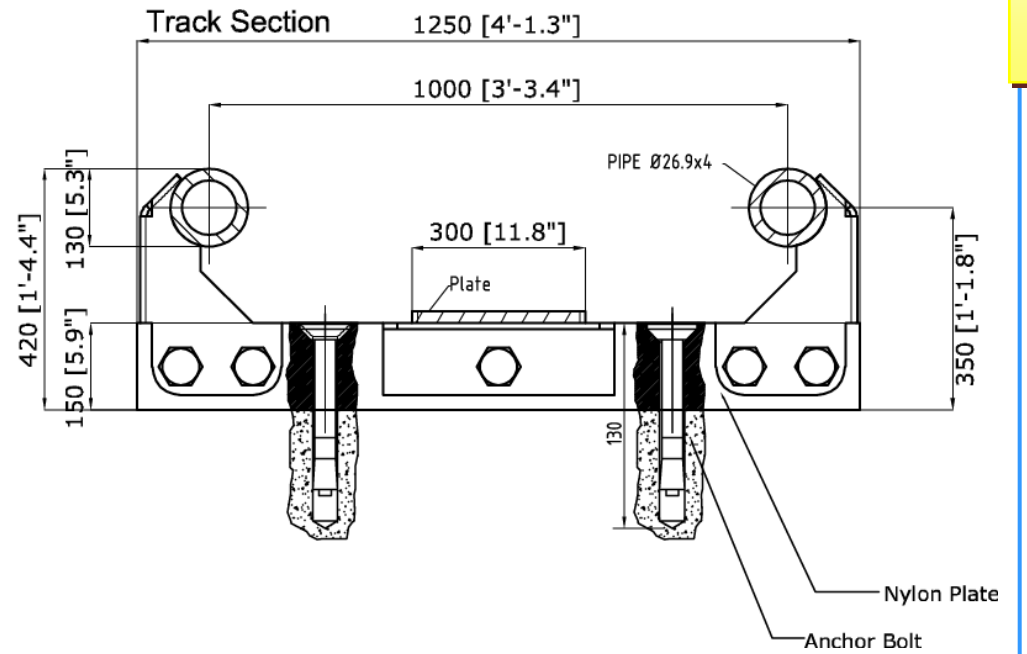
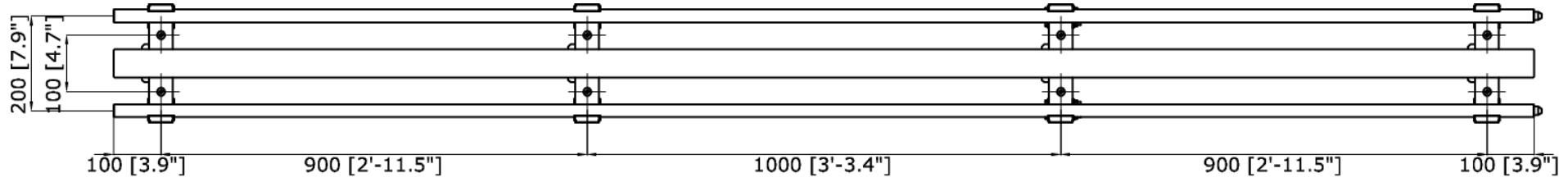
Family convoy

Custom made Track



Family convoy

Track Section



Photos

Convoy children



Charlie Go-Go



Diligence



Truck



Motocycle



Beach Safari



Big foot

Photos

Atlantica theme



TRANSPORTATION
SYSTEM

Photos

Convoy family

TRANSPORTATION SYSTEM



Jeep Safari



Cabriolet



Jeep Safari



Safari