



# Peninsula Corridor JPB Caltrain Rail Transportation Group Generation II Cars Update

Bicycle Advisory Committee

March 17, 2016

Agenda Item #8



## Service Fleet Configuration

- **16 Bombardier Cars (from Metrolink)**
- **Phase 1**
  - 5 Cars Rehabbed and in Service
  - Current Caltrain Fleet Configuration
    - Five 6-Car Bombardier Sets (2 bike cars / train)
    - Fifteen 5-Car Gallery Sets (2 bike cars / train)



## Service Fleet Configuration

- **Phase 2**

- 5 Cars got rehabbed as bike cars - Completed
- Scheduled Service date April 4, 2016
- Replace a trailer car from each 5 Bombardier Trains
- Future Caltrain Fleet Configuration
  - Five 6-Car Bombardier Sets (3 bike cars / train)
  - Fifteen 5-Car Gallery Sets (2 bike cars / train)



## Service Fleet Configuration

- **Phase 2 Continues**

- Scope of Work for the rehab work
  - Train compatibility with current fleet
  - Lighting and Communication System update
  - Water System, signage and windows replacement
  - PNA ramp modification
  - Floor replacement
  - Bike Rack Purchase and Application



## Service Fleet Configuration

- Phase 2 Continues – before



## Service Fleet Configuration

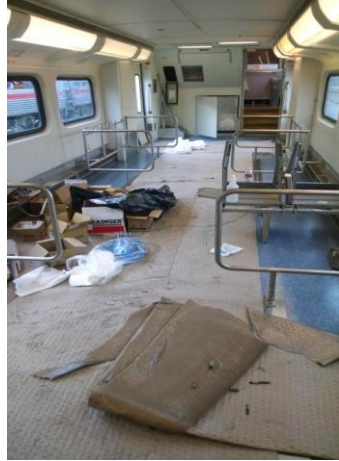
- Phase 2 Continues – rehab work





## Service Fleet Configuration

- Phase 2 Continues – rehab work



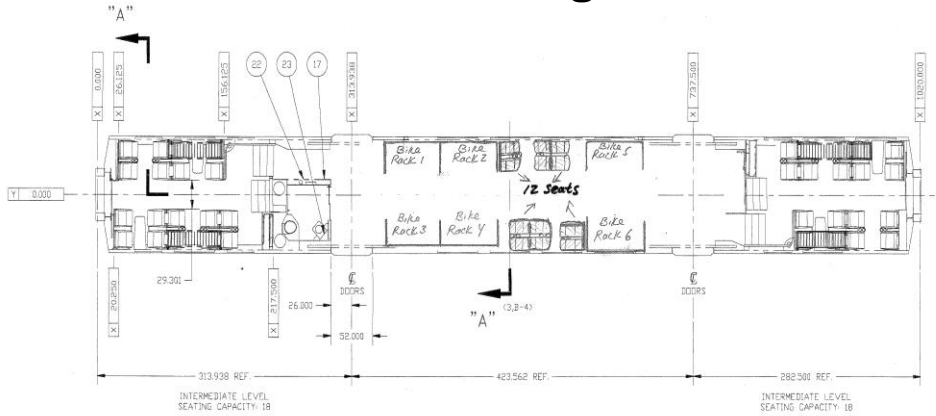
## Service Fleet Configuration

- Phase 2 Continues – Final





# Service Fleet Configuration

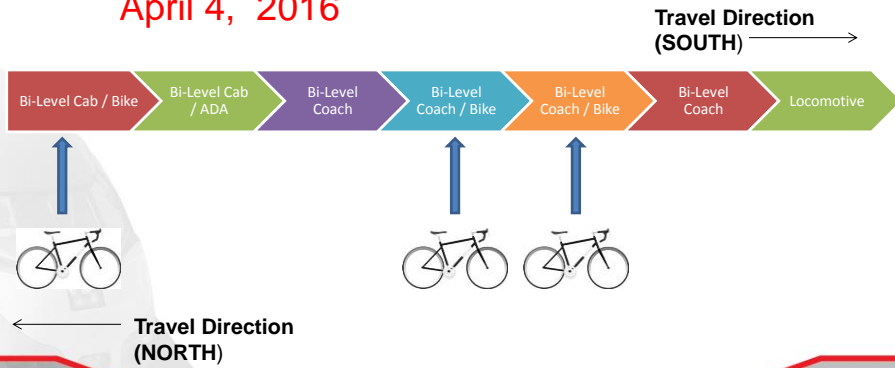


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# Service Fleet Configuration

- **Phase 2 – Final**
  - Cars are ready and will be in service on **April 4, 2016**





# Service Fleet Configuration Logic

- Keep current car configuration (Last car & 4<sup>th</sup> from end: bike cars)
- ADA cars need to align with current mini-high platform locations
- All trains will be staffed with two conductors
- Two bike cars needed to be next to each other for conductors to manage bikes car capacity



TASI List Based On Equipment Turns		Caltrain 2015 Annual Count NORTHBOUND - PERCENT OF CAPACITY AND BOARDINGS BY TRAIN										Current Schedule	Future Schedule	Delta	Self Reported Bike Bumps CY 15	Bike Space Gain / Loss
Current	Equipment Type	Train Number	Depart SJ 2014	Leaving Station	Max Load	Train Capacity	Percent Capacity	Total Boardings	Depart SJ 2015	Depart SJ 2016				CY 2015	Aug-15	Gain / Loss
5 Car - Gallery	5 Car - Gallery	101	4:30:00 AM	Burlingame	82	650	13%	112	4:30:00 AM	4:30:00 AM	00:00					0
5 Car - Gallery	5 Car - Gallery	103	5:05:00 AM	Burlingame	130	650	20%	218	5:05:00 AM	5:05:00 AM	00:00					0
5 Car - Gallery	6 Car - Bombardier	305	5:45:00 AM	Hillsdale	313	650	48%	378	5:45:00 AM	5:45:00 AM	00:00					32
5 Car - Gallery	5 Car - Gallery	207	5:57:00 AM	Hillsdale	387	650	60%	528	5:57:00 AM	5:57:00 AM	00:00					0
5 Car - Gallery	6 Car - Bombardier	309	6:03:00 AM	San Mateo	441	650	68%	607	6:03:00 AM	6:03:00 AM	00:00					32
5 Car - Gallery	5 Car - Gallery	211	6:20:00 AM	Burlingame	228	650	35%	445	6:20:00 AM	6:19:00 AM	01:00					0
6 Car - Bombardier	6 Car - Bombardier	215	6:50:00 AM	San Bruno	691	650	106%	959	6:50:00 AM	6:50:00 AM	00:00	6				32
5 Car - Gallery (Gilroy)	5 Car - Gallery (Gilroy)	217	6:57:00 AM	Hillsdale	791	650	122%	1,320	6:57:00 AM	6:57:00 AM	00:00	18	4			0
6 Car - Bombardier	6 Car - Bombardier	319	7:03:00 AM	Sunnyvale	878	650	135%	1,207	7:03:00 AM	7:03:00 AM	00:00	20				24
5 Car - Gallery (Gilroy)	5 Car - Gallery (Gilroy)	221	7:18:00 AM	Mountain View	474	650	73%	1,033	7:18:00 AM	7:18:00 AM	00:00	1				0
6 Car - Bombardier	6 Car - Bombardier	323	7:45:00 AM	Hillsdale	834	650	128%	1,154	7:45:00 AM	7:45:00 AM	00:00	58		11		24
6 Car - Bombardier	5 Car - Gallery	225	7:50:00 AM	San Bruno	761	650	117%	1,055	7:50:00 AM	7:50:00 AM	00:00	16				-8
5 Car - Gallery (Gilroy)	5 Car - Gallery (Gilroy)	227	7:55:00 AM	Hillsdale	671	650	103%	1,317	7:55:00 AM	7:57:00 AM	02:00	5				0
6 Car - Bombardier	5 Car - Gallery	329	8:03:00 AM	Sunnyvale	828	650	127%	1,178	8:03:00 AM	8:03:00 AM	00:00	5				-8
5 Car - Gallery	5 Car - Gallery	231	8:20:00 AM	Mountain View	450	650	69%	770	8:20:00 AM	8:22:00 AM	02:00					0
5 Car - Gallery	5 Car - Gallery	233	8:40:00 AM	San Antonio	660	650	102%	1,135	8:40:00 AM	8:40:00 AM	00:00	2				0
5 Car - Gallery	6 Car - Bombardier	135	9:10:00 AM	San Antonio	443	650	68%	735	9:15:00 AM	9:15:00 AM	00:00	14		2		32
5 Car - Gallery	5 Car - Gallery	237	9:40:00 AM	San Antonio	297	650	46%	508	9:50:00 AM	9:50:00 AM	00:00					0
5 Car - Gallery	5 Car - Gallery	139	10:10:00 AM	Burlingame	194	650	30%	360	10:15:00 AM	10:15:00 AM	00:00					0
5 Car - Gallery	5 Car - Gallery	143	11:10:00 AM	Hillsdale	261	650	40%	437	11:10:00 AM	11:10:00 AM	00:00					0
6 Car - Bombardier	5 Car - Gallery	147	12:10:00 PM	San Mateo	238	650	37%	391	12:10:00 PM	12:10:00 PM	00:00					-8
5 Car - Gallery	5 Car - Gallery	151	1:10:00 PM	Hillsdale	241	650	37%	410	1:10:00 PM	1:10:00 PM	00:00					0
6 Car - Bombardier	5 Car - Gallery	155	2:10:00 PM	Hayward Park	263	650	40%	453	2:15:00 PM	2:15:00 PM	00:00					-8
6 Car - Bombardier	6 Car - Bombardier	257	2:40:00 PM	Belmont	203	650	31%	321	2:40:00 PM	2:40:00 PM	00:00					24
5 Car - Gallery	5 Car - Gallery	159	3:05:00 PM	Hillsdale	303	650	47%	524	3:05:00 PM	3:05:00 PM	00:00					0
5 Car - Gallery	5 Car - Gallery	261	3:44:00 PM	San Carlos	581	650	89%	777	3:44:00 PM	3:45:00 PM	01:00					0
6 Car - Bombardier	5 Car - Gallery	263	4:05:00 PM	San Carlos	190	650	29%	360	4:05:00 PM	4:08:00 PM	03:00	1				-8
5 Car - Gallery	5 Car - Gallery	305	4:23:00 PM	Redwood City	626	650	96%	719	4:23:00 PM	4:22:00 PM	01:00					0
5 Car - Gallery	6 Car - Bombardier	267	4:31:00 PM	San Carlos	349	650	54%	522	4:31:00 PM	4:31:00 PM	00:00	7				32
6 Car - Bombardier	5 Car - Gallery	269	4:39:00 PM	Redwood City	690	650	106%	970	4:39:00 PM	4:40:00 PM	01:00	30		9		-8
5 Car - Gallery	6 Car - Bombardier	271	4:45:00 PM	Palo Alto	514	650	79%	591	4:45:00 PM	4:45:00 PM	00:00					32
5 Car - Gallery	6 Car - Bombardier	273	5:05:00 PM	San Carlos	290	650	45%	532	5:06:00 PM	5:08:00 PM	02:00	3				32
5 Car - Gallery	5 Car - Gallery	375	5:23:00 PM	Redwood City	794	650	122%	940	5:23:00 PM	5:22:00 PM	01:00	9				0
5 Car - Gallery	5 Car - Gallery	277	5:31:00 PM	Menlo Park	467	650	72%	662	5:31:00 PM	5:31:00 PM	00:00	4				0
5 Car - Gallery	5 Car - Gallery	279	5:39:00 PM	Redwood City	542	650	83%	757	5:39:00 PM	5:40:00 PM	01:00	16				0
5 Car - Gallery	5 Car - Gallery	381	5:45:00 PM	Palo Alto	465	650	72%	528	5:45:00 PM	5:45:00 PM	00:00	3		2		0
5 Car - Gallery	5 Car - Gallery	283	6:05:00 PM	San Carlos	190	650	29%	340	6:05:00 PM	6:08:00 PM	03:00					0
5 Car - Gallery	5 Car - Gallery	287	6:31:00 PM	Redwood City	550	650	85%	650	6:23:00 PM	6:22:00 PM	01:00	8				0
6 Car - Bombardier	6 Car - Bombardier	287	6:31:00 PM	Menlo Park	231	650	36%	326	6:31:00 PM	6:31:00 PM	00:00	6				24
6 Car - Bombardier	6 Car - Bombardier	289	6:45:00 PM	Redwood City	292	650	45%	396	6:45:00 PM	6:45:00 PM	00:00	7				24
5 Car - Gallery	5 Car - Gallery	191	6:50:00 PM	Redwood City	194	650	30%	306	6:50:00 PM	6:50:00 PM	00:00					0
6 Car - Bombardier	5 Car - Gallery	193	7:30:00 PM	Redwood City	302	650	47%	417	7:30:00 PM	7:30:00 PM	00:00	1				0
5 Car - Gallery	5 Car - Gallery	195	8:30:00 PM	Redwood City	259	650	40%	378	8:30:00 PM	8:30:00 PM	00:00					0
5 Car - Gallery	6 Car - Bombardier	197	9:30:00 PM	San Carlos	196	650	30%	296	9:30:00 PM	9:30:00 PM	00:00					32
6 Car - Bombardier	5 Car - Gallery	199	10:30:00 PM	Palo Alto	78	650	12%	118	10:30:00 PM	10:30:00 PM	00:00					-8
		14		13	46		19,557	32,500	60%	29,050						304



Caltrain 2015 Annual Count  
SOUTHBOUND - PERCENT OF CAPACITY AND BOARDINGS BY TRAIN

TASI List Based On Equipment Turns	Current Equipment Type	Train Number	Depart SF	Leaving Station	Max Load	Train Capacity	Percent of Capacity	Total Boardings	Depart SF 2015	Depart SF 2016	Delta	Self Reported Bike Bumps CY 15		Bike Space Gain/Loss
												CY 2015	Aug-16	
6 Car - Bombardier	6 Car - Bombardier	102	4:55:00 AM	Redwood City	49	650	11%	125	4:55:00 AM	4:55:00 AM	00:00			24
6 Car - Bombardier	5 Car - Gallery	104	5:25:00 AM	Menlo Park	127	650	20%	187	5:25:00 AM	5:25:00 AM	00:00			-8
6 Car - Bombardier	6 Car - Bombardier	206	6:11:00 AM	San Carlos	251	650	39%	414	6:11:00 AM	6:06:00 AM	05:00	4		24
5 Car - Gallery	5 Car - Gallery	208	6:24:00 AM	San Carlos	191	650	29%	418	6:24:00 AM	6:24:00 AM	00:00			0
5 Car - Gallery	5 Car - Gallery	210	6:44:00 AM	San Carlos	394	650	61%	761	6:44:00 AM	6:44:00 AM	00:00			0
5 Car - Gallery	5 Car - Gallery	312	6:57:00 AM	Millbrae	481	650	74%	549	6:57:00 AM	6:56:00 AM	01:00			0
5 Car - Gallery	6 Car - Bombardier	314	7:14:00 AM	Hillsdale	603	650	93%	609	7:14:00 AM	7:12:00 AM	02:00	47	3	32
5 Car - Gallery	5 Car - Gallery	216	7:19:00 AM	San Carlos	378	650	58%	541	7:19:00 AM	7:19:00 AM	00:00			0
5 Car - Gallery	6 Car - Bombardier	218	7:24:00 AM	San Carlos	339	650	52%	556	7:24:00 AM	7:24:00 AM	00:00			0
5 Car - Gallery	5 Car - Gallery	220	7:44:00 AM	San Carlos	673	650	104%	938	7:44:00 AM	7:44:00 AM	00:00	9	5	0
5 Car - Gallery	5 Car - Gallery	322	7:57:00 AM	Millbrae	625	650	96%	700	7:57:00 AM	7:56:00 AM	01:00	22	5	0
5 Car - Gallery	5 Car - Gallery	324	8:14:00 AM	Hillsdale	651	650	100%	732	8:14:00 AM	8:12:00 AM	02:00	25	12	0
5 Car - Gallery	5 Car - Gallery	228	8:19:00 AM	Hillsdale	370	650	57%	544	8:19:00 AM	8:19:00 AM	00:00	6		0
6 Car - Bombardier	6 Car - Bombardier	228	8:24:00 AM	San Carlos	271	650	42%	469	8:24:00 AM	8:24:00 AM	00:00	0		24
5 Car - Gallery	5 Car - Gallery	230	8:44:00 AM	Millbrae	540	650	83%	705	8:44:00 AM	8:44:00 AM	00:00	5		0
5 Car - Gallery	5 Car - Gallery	332	8:57:00 AM	Millbrae	548	650	84%	607	8:57:00 AM	8:56:00 AM	01:00	0		0
6 Car - Bombardier	5 Car - Gallery	134	9:07:00 AM	Burlingame	272	650	42%	450	9:07:00 AM	9:09:00 AM	02:00	2		-8
5 Car - Gallery	5 Car - Gallery	236	9:37:00 AM	Millbrae	300	650	46%	412	9:37:00 AM	9:37:00 AM	00:00	0		0
6 Car - Bombardier	6 Car - Bombardier	138	10:07:00 AM	San Mateo	289	650	44%	435	10:07:00 AM	10:00:00 AM	07:00	1		24
6 Car - Bombardier	5 Car - Gallery	142	11:07:00 AM	Millbrae	270	650	42%	427	11:07:00 AM	11:09:00 AM	02:00			-8
6 Car - Bombardier	6 Car - Bombardier	146	12:07:00 PM	San Mateo	229	650	35%	373	12:07:00 PM	12:00:00 PM	07:00			0
5 Car - Gallery	5 Car - Gallery	150	1:07:00 PM	Hayward Park	247	650	38%	421	1:07:00 PM	1:00:00 PM	07:00			0
5 Car - Gallery	5 Car - Gallery	152	2:07:00 PM	Hayward Park	240	650	37%	456	2:07:00 PM	2:00:00 PM	07:00			0
5 Car - Gallery	5 Car - Gallery	254	2:37:00 PM	Palo Alto	214	650	33%	398	2:37:00 PM	2:37:00 PM	00:00	0		0
5 Car - Gallery (Gilroy)	5 Car - Gallery (Gilroy)	156	3:07:00 PM	California Ave.	557	650	86%	1,029	3:07:00 PM	3:00:00 PM	07:00	0		0
5 Car - Gallery	5 Car - Gallery	250	3:37:00 PM	California Ave.	465	650	71%	797	3:37:00 PM	3:37:00 PM	00:00			0
5 Car - Gallery	5 Car - Gallery	360	4:09:00 PM	Palo Alto	531	650	82%	748	4:09:00 PM	4:10:00 PM	01:00			0
5 Car - Gallery	5 Car - Gallery	262	4:19:00 PM	California Ave.	456	650	70%	771	4:19:00 PM	4:19:00 PM	00:00			0
5 Car - Gallery	5 Car - Gallery	364	4:27:00 PM	Menlo Park	448	650	69%	752	4:27:00 PM	4:28:00 PM	01:00			0
6 Car - Bombardier	6 Car - Bombardier	366	4:33:00 PM	Palo Alto	809	650	124%	1,150	4:33:00 PM	4:33:00 PM	00:00	3		24
5 Car - Gallery (Gilroy)	5 Car - Gallery (Gilroy)	268	4:56:00 PM	California Ave.	763	650	117%	1,500	4:56:00 PM	4:55:00 PM	01:00	1		0
6 Car - Bombardier	6 Car - Bombardier	370	5:14:00 PM	Millbrae	762	650	117%	972	5:14:00 PM	5:12:00 PM	02:00	9		24
5 Car - Gallery	5 Car - Gallery	272	5:20:00 PM	San Francisco	653	650	101%	983	5:20:00 PM	5:20:00 PM	00:00	0		0
5 Car - Gallery (Gilroy)	5 Car - Gallery (Gilroy)	274	5:27:00 PM	Menlo Park	325	650	50%	693	5:27:00 PM	5:28:00 PM	01:00	0		0
6 Car - Bombardier	6 Car - Bombardier	374	5:33:00 PM	Millbrae	800	650	123%	1,093	5:33:00 PM	5:33:00 PM	00:00	18		-8
6 Car - Bombardier	5 Car - Gallery	278	5:56:00 PM	Millbrae	778	650	120%	1,111	5:56:00 PM	5:55:00 PM	01:00	4		0
5 Car - Gallery	6 Car - Bombardier	380	6:14:00 PM	Millbrae	656	650	101%	766	6:14:00 PM	6:12:00 PM	02:00	7		32
5 Car - Gallery	6 Car - Bombardier	282	6:20:00 PM	San Francisco	601	650	93%	745	6:20:00 PM	6:20:00 PM	00:00	3		32
6 Car - Bombardier	5 Car - Gallery	384	6:27:00 PM	Millbrae	213	650	33%	369	6:27:00 PM	6:28:00 PM	01:00			-8
5 Car - Gallery	5 Car - Gallery	386	6:33:00 PM	Millbrae	560	650	86%	693	6:33:00 PM	6:33:00 PM	00:00	3		0
5 Car - Gallery	6 Car - Bombardier	288	6:56:00 PM	Millbrae	549	650	84%	739	6:56:00 PM	6:55:00 PM	01:00			0
5 Car - Gallery	5 Car - Gallery	190	7:30:00 PM	Millbrae	444	650	68%	684	7:30:00 PM	7:33:00 PM	03:00	0		0
5 Car - Gallery	5 Car - Gallery	192	8:30:00 PM	Millbrae	422	650	65%	597	8:40:00 PM	8:40:00 PM	00:00			0
5 Car - Gallery	6 Car - Bombardier	194	9:30:00 PM	Millbrae	254	650	39%	359	9:40:00 PM	9:40:00 PM	00:00			32
5 Car - Gallery	5 Car - Gallery	196	10:30:00 PM	Millbrae	198	650	30%	268	10:40:00 PM	10:40:00 PM	00:00			0
5 Car - Gallery	6 Car - Bombardier	198	12:01:00 AM	Millbrae	135	650	21%	165	12:01:00 AM	12:01:00 AM	00:00			32
		13												114
		27		46		19,863	31,850	62%	29,195					648



Equipment Lineup and Train Turns

3/15/2016

Equipment	101	312	231	258	279	
5 Car - Gallery	101	312	231	258	279	
5 Car - Gallery	103	314	135	156		
5 Car - Gallery	305	216	237	264	385	194
5 Car - Gallery	207	220	139	262	283	
5 Car - Gallery	309	322	273	288	197	
5 Car - Gallery	211	324	151	360	381	
5 Car - Gallery	313	226	261	274		
5 Car - Gallery	217	332	159	272	191	
6 Car - Bombardier	319	134	257	366	287	198
5 Car - Gallery	221	236	371	380	195	196
6 Car - Bombardier	225	138	147	370	289	
5 Car - Gallery	227	152	365	386		
6 Car - Bombardier	102	215	228	269	284	
6 Car - Bombardier	104	329	142	155	376	193
6 Car - Bombardier	206	323	146	263	278	199
5 Car - Gallery	208	233	150	375	190	
5 Car - Gallery	210					
5 Car - Gallery	218	267	282			
5 Car - Gallery	230	143	254	277	192	
5 Car - Gallery	268					



### CALTRAIN NOTICE



#### Caltrain Timetable Updated, 3<sup>rd</sup> Bike Car Added

Beginning April 4, Caltrain will roll out service enhancements that will improve the customer experience and increase onboard bicycle capacity. Caltrain will adjust its weekday schedule by several minutes per train to better reflect actual departure times at every station stop.

The adjustments are meant to improve schedule reliability. As many regular riders have noticed, there are a number of trains that are routinely several minutes behind schedule. Those delays are largely due to increases in ridership. It takes additional time to board large groups of customers and bicyclists. Delays related to crowding can compound as the train continues in service, resulting in schedule impacts.

Also launching on April 4, Caltrain will be adding more bike capacity to its system. Bombardier train sets — the newer style trains — will see a significant increase in onboard bicycle space with the addition of a third bike car to each train. The third car will allow those train sets to carry 72 bikes up from the 48 bike spaces currently available.

We recognize that there is an urgent need for increased capacity throughout the system. Caltrain is planning to add a sixth car to more trains, following the completion of rehabilitation work on its aging fleet. Caltrain also is considering whether customer requests for additional Bullet train service can be accommodated.

Caltrain appreciates the feedback we receive from daily riders. With the timetable revision, customers will be able to plan their trips with confidence.

#### BIKE RULES

Caltrain would like to remind bicyclists to follow the onboard posted instructions for bike placement. The aisle in the bike car must be kept clear for emergency access purposes.

Bicyclists are legally responsible for damage to Caltrain equipment and/or injury to other passengers due to the bicyclist's negligence. Caltrain assumes no responsibility for theft or damage to bikes while on the train.

- General**
- Bicyclists must be at least 6 years old. Cyclists younger than 12 years of age must be accompanied by an adult and be able to carry their own bike on and off the train.
  - No extra charge to board a bike.
  - Only single-rider bikes permitted.
  - Maximum bike length: 60 inches.
  - No fuel-powered bikes or three-wheeled bikes.
  - Detachable and collapsible trailers aren't allowed. Large bulky attachments which expand bike width such as saddlebags, backpacks and baskets, aren't allowed to remain on bike.
  - Bikes are not allowed on escalators and should be walked on station platforms and ramps.

**CONTACT INFORMATION**  
 Caltrain Customer Service:  
 1.800.660.4287 (TTY 650.508.6446)  
 Weekdays: 7 am – 7 pm  
 Weekends & Holidays: 9 am – 5 pm  
[www.caltrain.com](http://www.caltrain.com)  
 Regional Traveler Information: 511.org  
 Transit Police: 1.877.723.7245  
 (If it's an emergency, call 911)

Para traducción llama al 1.800.660.4287.  
 如需翻譯請電 1.800.660.4287。  
 如需查詢, 請撥 1.800.660.4287。



## Questions/Comments?