



# SAN FRANCISCO PLANNING DEPARTMENT

**MEMO**

**TO:** Planning Department Transportation Consultant List  
**FROM:** Planning Department Transportation Team  
**DATE:** May 15, 2015  
**SUBJECT:** Transit Data for Transportation Impact Studies

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## Purpose

The purpose of this memorandum is to provide an update to the data used in transportation analyses for determining capacity utilization for the San Francisco Municipal Transportation Agency (SFMTA) individual lines and screenlines. Additionally, included for your convenience is the regional transit screenline information previously distributed in the March 10, 2014 "Regional & Local 2040 Cumulative Transit Screenlines for Transportation Impact Studies" memo.

## Background

The SFMTA Board has adopted an "85 percent" capacity utilization performance standard for transit vehicle loads. In other words, SFMTA local transit lines should operate at or below 85 percent capacity utilization. The SFMTA Board has determined that this performance standard more accurately reflects actual operations and the likelihood of "pass-ups" (i.e., vehicles not stopping to pick up more passengers). The Planning Department, in preparing and reviewing transportation impact studies, has similarly utilized the 85 percent capacity utilization standard as a threshold of significance for determining peak period transit demand impacts to the SFMTA lines. By contrast, regional transit agencies use 100 percent capacity utilization standard, and therefore the Planning Department uses 100 percent capacity utilization as a threshold of significance for determining peak period transit demand impacts to regional transit.

Over time and as with this current update, SFMTA will provide the Planning Department updated ridership counts using automatic passenger count data for buses and updated manual counts for rail. Previously, the Planning Department released a memo in December 18, 2012, with 2010/2011 SFMTA transit data, and Cumulative transit data for the year 2035. This was subsequently updated in June 2013 with transit data used during the SFMTA TEP review process, and in March 2014 with Cumulative SFMTA and regional data for the year 2040. This May 2015 memo supersedes these previous transit data memos (and while the Cumulative screenline data has not changed since March 2014, it is being provided again in this memo for your convenience). The notable updates contained in this May 2015 memo are the newly available Fall 2013 SFMTA Line Load and Capacity data provided in Attachment A, and updated SFMTA Existing Screenline provided in Attachment B.

## SFMTA and Regional Transit Screenline Analysis

Typically, transit impacts are analyzed through a screenline analysis. A screenline analysis assumes that there are identifiable corridors or directions of travel which are served by a grouping of transit lines. Therefore, an individual line would be combined with other transit lines in a corridor and corridors combined into a screenline in determining significance. However, on a case-by-case basis the Planning Department may request individual line capacity utilization

analysis as described below. In either case, the same methodology for impact determination would apply.

Four screenlines have been established in San Francisco to analyze potential impacts of projects on SFMTA service: the northeast screenline, the northwest screenline, the southeast screenline, and the southwest screenline, with sub-corridors within each screenline. The SFMTA routes by screenline and sub-corridors are shown in Attachment B. As discussed above, the Planning Department uses the 85 percent capacity utilization standard as the threshold of significance for identifying transit crowding impacts. If a project generates enough trips on a screenline or corridor that would cause that screenline or corridor to exceed the 85 percent capacity utilization performance standard, it would be considered to result in a significant transit impact. Similarly, if a screenline or corridor operates at above the 85 percent capacity utilization threshold, the analysis needs to calculate the percentage of trips that the proposed project would contribute to the corridor or screenline. If the percent contribution to the screenline or corridor ridership is five percent or greater, then the proposed project would contribute substantially to transit crowding and a significant transit impact.

Four principal regional transit providers serve San Francisco: BART from the East Bay and Peninsula; SamTrans from the Peninsula; AC Transit from the East Bay, and Golden Gate Bridge, Highway and Transportation District (GGBHTD) from the North Bay. Two additional ferry providers exist besides GGBHTD: Alameda Harbor Bay Ferry from the East Bay and Blue & Gold Fleet from the North Bay and East Bay. For regional transit providers, the Maximum Load Point (MLP) is typically at the San Francisco City limit (i.e., the East Bay MLP would occur at the Transbay Tube and on the Bay Bridge; the North Bay MLP would occur at the Golden Gate Bridge; and the South Bay MLP would occur at the southern city border). The regional transit providers by screenline are provided in Attachment C. The Planning Department uses 100 percent capacity utilization as the threshold of significance for identifying regional transit crowding impacts.

### **SFMTA Individual Line Analysis**

As mentioned above, transit impacts may also be analyzed on a corridor or line-by-line basis at times. Generally, if a proposed project would generate enough trips on a particular line that it would cause the route to exceed the 85 percent capacity utilization, it would be considered to result in a significant transit impact. Similarly, using the line-by-line analysis, if the bus route operates above the 85 percent performance standard, the analysis needs to calculate the percentage of trips that the proposed project contributes to the line. If the percent contribution to the total peak hour ridership at the MLP is five percent or greater, then the proposed project would contribute substantially to transit crowding and would result in a significant transit impact.

### **Applicability**

Generally, the attached updated SFMTA data should be used in any transportation impact study that has yet to reach the screencheck submittal phase and all future transportation impact studies and technical memoranda, unless otherwise directed by your transportation planner. The

transportation planner, in coordination with the environmental planner, will determine on a case-by-case basis whether a project is not subject to this general applicability requirement. Applicability questions should be directed to the transportation planner.

**Attachment A – Fall 2013 SFMTA Line Load and Capacity by Time Period  
and Direction of Travel**

AM - Outbound (Muni Operations Direction)								AM - Inbound (Muni Operations Direction)							Route
Line	100% capacity per vehicle	Headway (Mins)	Average Max Load	Peak Hour Load	MLP (Maximum Load Point)*	Peak Hour Capacity	Peak Hour Capacity Utilization	100% capacity per vehicle	Headway (Mins)	Average Max Load	Peak Hour Load	MLP (Maximum Load Point)*	Peak Hour Capacity	Peak Hour Capacity Utilization	
1	63	3.5	34	583	Sacramento/Gough	1,080	53.0%	63	4.0	49	735	Clay/Taylor	945	77.8%	1
1AX								63	10.5	56	320	California St/8th Ave	360	88.9%	1AX*
1BX								94	8.0	74	555	California St/Fillmore	705	78.7%	1BX*
2	63	12.0	25	125	Sutter/Hyde	315	39.0%	63	12.0	48	240	Post/Jones	315	76.2%	2
3	63	12.0	21	105	Sutter/Polk	315	33.0%	63	12.0	48	240	Post/Jones	315	76.2%	3
5	63	6.0	26	260	McAllister/Lyon	630	41.0%	63	6.0	48	480	McAllister/Fillmore	630	76.2%	5
5L	63	6.0	17	170	Fulton/Masonic	630	26.0%	63	6.0	53	530	McAllister/Haight	630	84.1%	5L
6	63	10.0	18	108	Haight/Pierce	378	28.0%	63	10.0	41	246	Haight/Buchanan	378	65.1%	6
8X	94	8.0	62	465	Geneva Ave/Madrid St	705	65.0%								8X
8AX								94	7.5	79	632	Bryant/5th St	752	84.0%	8AX
8BX								94	7.5	74	592	Bayshore Blvd/Blanken Ave	752	78.7%	8BX
9	63	12.0	37	185	11th/Mission	315	58.0%	63	12.0	47	235	Bayshore Blvd/Cortland Ave	315	74.6%	9
9L	63	12.0	32	160	11th St/Market St	315	50.0%	63	12.0	46	230	Bayshore Blvd/Oakdale	315	73.0%	9L
10	63	15.0	52	208	Pacific Ave/Mason St	252	82.0%	63	14.0	57	244	2nd St/Townsend St	270	90.5%	10
12	63	20.0	44	132	Pacific Ave/Mason St	189	69.0%	63	20.0	40	120	Folsom St/8th St	189	63.5%	12
14	94	8.0	21	158	Olis St/12th St	705	22.0%	63	8.0	39	293	Mission/26th St	473	61.9%	14
14L	94	9.0	34	227	Mission/Silver	627	36.0%	94	9.0	72	480	Mission/30th St	627	76.6%	14L
14X								94	8.0	66	495	Trumbull St/Stoneybrook Ave	705	70.2%	14X
16X								63	9.0	43	287	Lincoln Way/111 h Ave	420	68.3%	16X
17	63	30.0	8	16	J Serra/Ocean	126	12.0%	63	30.0	24	48	Ocean/J Serra	126	38.1%	17
18	63	20.0	25	75	Lake Merced/Lake Merced	189	39.0%	63	20.0	37	111	Balboa/37th Ave	189	58.7%	18
19	63	15.0	40	160	8th St/Howard St	252	63.0%	63	15.0	47	188	Larkin/O'Farrell	252	74.6%	19
21	63	9.0	18	120	Hayes/Buchanan	420	28.0%	63	9.0	40	267	Grove St/Gough St	420	63.5%	21
22	63	9.0	40	267	16th St/Mission St	420	63.0%	63	9.0	44	293	16th/Guerrero	420	69.8%	22
23	63	20.0	35	105	Bodsworth/Rotteck	189	55.0%	63	20.0	31	93	Monterey Blvd/Baden St	189	49.2%	23
24	63	10.0	24	144	Castro/14th St	378	38.0%	63	10.0	45	270	Castro/ 19th St	378	71.4%	24
27	63	15.0	41	164	Mason/Ellis	252	65.0%	63	15.0	40	160	Bryant/Mariposa	252	63.5%	27
28	63	10.0	35	210	19th Ave/Santiago	378	55.0%	63	10.0	41	246	19th Ave/Lincoln	378	65.1%	28
28L	63	10.0	30	180	19th Ave/Judah St	378	47.0%	63	10.0	44	264	19th Ave/Taraval	378	69.8%	28L
29	63	9.0	53	353	Persia/Mission	420	84.0%	63	11.0	47	256	Geneva/Cayuga	344	74.6%	29
30	69	6.0	47	470	Stockton St/Sutter St	690	68.0%	65	12.0	43	215	Stockton/Washington St	327	65.7%	30
30X								63	4.5	58	773	Chestnut/Van Ness Ave	840	92.1%	30X
31	63	12.0	29	145	Eddy St/Van Ness	315	46.0%	63	12.0	40	200	Turk/Stanyan	315	63.5%	31
31AX								63	10.5	49	280	Balboa St/Park Presidio	360	77.8%	31AX
31BX								63	11.0	51	278	Presidio/Geary	344	81.0%	31BX
33	63	15.0	29	116	18th St/Hattie	252	46.0%	63	15.0	29	116	18th St/Guerrero St	252	46.0%	33
35	45	30.0	10	20	20th/Collingwood	90	22.0%	45	30.0	26	52	Eureka St/19th St	90	57.8%	35
36	45	30.0	27	54	Monterey Blvd/Baden St	90	60.0%	45	30.0	18	36	78-455 Warren Dr.	90	40.0%	36
37	45	15.0	11	44	14th St/Noe St	180	24.0%	45	15.0	37	148	Corbett Ave/Douglass St	180	82.2%	37
38	94	7.0	50	429	Geary Blvd/Van Ness Ave	806	53.0%	94	7.0	56	480	O'Farrell St/Taylor St	806	59.6%	38
38L	94	5.5	57	622	Geary Blvd/Van Ness Ave	1,025	60.0%	94	5.5	79	862	Geary Blvd/Laguna St	1,025	84.0%	38L
38AX								63	11.0	43	235	Geary Blvd/25th Ave	344	68.3%	38AX
38BX								63	12.0	49	245	Geary Blvd/Presidio	315	77.8%	38BX
39															39
41	94	8.0	14	105	Union St/Larkin St	705	14.0%	94	8.0	54	405	Columbus Ave/Stockton St	705	57.4%	41
43	63	10.0	41	246	Laguna Honda Blvd/Clarendon	378	65.0%	63	10.0	53	318	Geneva/Mission	378	84.1%	43
44	63	10.0	40	240	Silver Ave/Dartmouth Ave	378	63.0%	63	10.0	49	294	O'Shaughnessy/Del Vale	378	77.8%	44
45	63	8.0	49	368	Stockton St/Sutter St	473	77.0%	63	8.0	47	353	Stockton St/Washington St	473	74.6%	45
47	63	10.0	47	282	Van Ness Ave/Eddy St	378	74.0%	63	10.0	45	270	Van Ness Ave/Post St	378	71.4%	47
48	63	12.0	49	245	24th St/Folsom St	315	77.0%	63	12.5	46	221	24th St/Guerrero St	302	73.0%	48
49	94	8.0	43	323	Van Ness Ave/Eddy St	705	45.0%	94	8.0	50	375	Van Ness Ave/Mission St	705	53.2%	49
52	63	20.0	23	69	Diamond/Surrey	189	36.0%	63	20.0	34	102	Still/Lyell	189	54.0%	52
54	63	20.0	38	114	Geneva Ave/Mission	189	60.0%	63	20.0	43	129	Mt.Vernon/Louisburg	189	68.3%	54
56	45	30.0	6	12	Bayshore/Blanken	90	13.0%	45	30.0	23	46	Sawyer/Visitation	90	51.1%	56
66	45	20.0	15	45	Quintara St/19th	135	33.0%	45	20.0	20	60	Quintara St/26th Ave	135	44.4%	66
67	63	20.0	16	48	831 Ellsworth St	189	25.0%	63	20.0	33	99	Folsom St/C. Chavez	189	52.4%	67
71	63	10.0	23	138	Haight St/Laguna	378	36.0%								71
71L								63	10.0	56	336	Haigh/Fillmore	378	88.9%	71L
80X															
81X								69	40.0	34	51	4th St/Townsend St	104	49.1%	81X
82X								69	11.5	40	209	4th St/Townsend St	361	57.8%	82X
83X	63	15.0	9	36	8th St/Market St	252	14.0%	63	15.0	11	44	Townsend St/8th St	252	17.5%	83X
88								63	20.0	33	99	Geneva Ave/Mission	189	52.4%	88
108	63	10.0	8	48	Treasure Island/Macall	378	12.0%	63	10.0	34	204	Treasure Island Main Gate	378	54.0%	108
NX								63	10.0	42	252	Judah St/19th Avenue	378	66.7%	NX
NOTE: RAIL DATA COLLECTED MANUALLY (SEPT-OCT 2013)															
F	70	6.0	21	210	Steuart Loop (From Wharf )	700	30.0%	70	6.0	47	465	Steuart Loop (to Wharf)	700	66.0%	F
J	119	9.0	21	139	Duboce & Church	793	17.0%	119	9.0	113	754	Duboce & Church	793	94.0%	J
K/T	119	9.0	52	350	Embarc & Folsom	793	44.0%	119	9.0	125	833	Van Ness IB	793	104.0%	K
L	238	8.0	33	245	Van Ness OB	1,785	13.0%	238	8.0	224	1,678	Van Ness IB	1,785	93.0%	L
M	238	9.0	58	388	Van Ness OB	1,587	24.0%	238	9.0	215	1,433	Van Ness IB	1,587	90.0%	M
N	238	7.0	62	530	Duboce & Church	2,040	26.0%	238	7.0	279	2,387	Duboce/Church	2,040	117.0%	N
T (K/T)	119	9.0	125	833	Van Ness (to Bayview )	793	105.0%	119	9.0	52	350	Emb & Folsom (From Bayview)	793	44.0%	T (K/T)

Notes:  
1) Updated data provided by MTA, including updates to headways, vehicle capacity, average max load, and MLP. Rest of data calculated from those values  
2) MLP, maximum load point represents the stop along the route with the highest total load & may not be the same as the point with the most boardings.  
FALL 2013 v5



Municipal Transportation Agency

FALL 2013Route Load and Capacity by Time Period and Direction of Travel

	PM - Outbound (Muni Operations Direction)							PM - Inbound (Muni Operations Direction)							
Line	100% capacity per vehicle	Headway (Mins)	Average Max Load	Peak Hour Load	MLP (Maximum Load Point)*	Peak Hour Capacity	Peak Hour Capacity Utilization	100% capacity per vehicle	Headway (Mins)	Average Max Load	Peak Hour Load	MLP (Maximum Load Point)*	Peak Hour Capacity	Peak Hour Capacity Utilization	Route
1	63	3.5	50	857	Sacramento/Powell	1,080	79.0%	63	6.0	29	290	California/Laurel	630	46.0%	1
1AX*	63	11.5	42	219	Pine St/Montgomery St.	329	66.0%								1AX*
1BX*	63	11.0	45	245	Pine St/Montgomery St.	344	71.0%								1BX*
2	63	12.0	48	240	Sutter/Powell	315	76.0%	63	12.0	28	140	Post/Hyde	315	44.0%	2
3	63	12.0	37	185	Sutter/Taylor	315	58.0%	63	12.0	27	135	Post/Hyde	315	42.0%	3
5	63	8.0	66	495	McAllister/Lyon	473	104.0%	63	8.0	31	233	McAllister/Gough	473	49.0%	5
5L	63	8.0	55	413	McAllister/Van Ness	473	87.0%	63	8.0	30	225	McAllister/Pierce	473	47.0%	5L
6	63	10.0	36	216	Market St/Van Ness Ave	378	57.0%	63	10.5	23	131	Steuart/Mission	360	36.0%	6
8X								94	7.5	60	480	Geneva/Paris	752	63.0%	8X
8AX	94	7.5	71	568	Harrison/6th St	752	75.0%								8AX
8BX	94	7.5	66	528	Stockton St/Sacramento St.	752	70.0%								8BX
9	63	12.0	43	215	Potrero/16th St	315	68.0%	63	12.0	36	180	11th St/Howard	315	57.0%	9
9L	63	12.0	45	225	Potrero/24th St	315	71.0%	63	12.0	35	175	11th St/Harrison	315	55.0%	9L
10	63	20.0	51	153	2nd/Townsend	189	80.0%	63	20.0	56	168	Pacific /Stockton	189	88.0%	10
12	63	20.0	36	108	Harrison/7th St	189	57.0%	63	20.0	46	138	Pacific/Stockton	189	73.0%	12
14	94	8.0	38	285	Mission/Precita	705	40.0%	63	8.0	31	233	Steuart/Mission	473	49.0%	14
14L	94	9.0	70	467	Mission/24th St.	627	74.0%	94	9.0	42	280	Mission/30th St	627	44.0%	14L
14X	94	10.0	53	318	6th/Harrison	564	56.0%								14X
16X	63	9.0	35	233	Fell/Gough	420	55.0%								16X
17	63	30.0	27	54	Crespi/Varela	126	42.0%	63	30.0	16	32	W. Portal/Sloat	126	25.0%	17
18	63	20.0	28	84	Balboa/37th Ave	189	44.0%	63	20.0	28	84	Lake Merced/Higuera	189	44.0%	18
19	63	15.0	42	168	8th/Mission	252	66.0%	63	15.0	45	180	7th St/Howard	252	71.0%	19
21	63	10.0	46	276	Hayes/Van Ness	378	73.0%	63	11.0	23	125	Market/9th St.	344	36.0%	21
22	63	8.0	37	278	Fillmore/Grove	473	58.0%	63	8.0	39	293	16th/Folsom	473	61.0%	22
23	63	20.0	30	90	Diamond/Bosworth	189	47.0%	63	20.0	33	99	Diamond/Bosworth	189	52.0%	23
24	63	10.0	40	240	Castro/19th St	378	63.0%	63	10.0	30	180	Castro/17th St	378	47.0%	24
27	63	15.0	29	116	Harrison/8th St	252	46.0%	63	15.0	38	152	5th/Market	252	60.0%	27
28	63	10.0	44	264	19th Ave/Judah	378	69.0%	63	10.0	48	288	19th Ave/Santiago	378	76.0%	28
28L															28L
29	63	10.5	45	257	Holloway/J. Serra	360	71.0%	63	12.0	47	235	Plymouth/Ocean	315	74.0%	29
30	83	4.0	41	615	Stockton St/Sutter St	1,248	49.0%	82	4.0	41	615	Stockton/Washington	1,224	50.0%	30
30X	63	7.0	54	463	Sansome/Washington St	540	85.0%								30X
31	63	14.0	45	193	Turk/Taylor	270	71.0%	63	15.0	27	108	Eddy St/Laguna	252	42.0%	31
31AX	63	10.5	47	269	Pine St/Montgomery St.	360	74.0%								31AX
31BX	63	11.0	30	164	Pine St/Montgomery St.	344	47.0%								31BX
33	63	15.0	27	108	18th St/Dolores	252	42.0%	63	15.0	34	136	18th St/Church	252	53.0%	33
35	45	20.0	24	72	Castro/19th St	135	53.0%	45	20.0	7	21	Eureka/21st St	135	15.0%	35
36	45	30.0	15	30	Fowler/Portola Dr	90	33.0%	45	30.0	30	60	Laguna Honda/Clarendon	90	66.0%	36
37	45	20.0	36	108	17th St/Diamond St	135	80.0%	45	20.0	21	63	14th/Sanchez	135	46.0%	37
38	94	6.0	64	640	Geary Blvd/Taylor St	940	68.0%	94	7.0	57	489	Geary Blvd/Laguna St	806	60.0%	38
38L	94	5.5	85	927	Geary Blvd/Leavenworth	1,025	90.0%	94	6.0	62	620	Geary Blvd/Laguna St	940	65.0%	38L
38AX	63	11.5	36	188	Pine St/Montgomery St.	329	57.0%								38AX
38BX	63	11.5	40	209	Pine St/Montgomery St.	329	63.0%								38BX
39	45	20.0	10	30	Powell/Filbert	135	22.0%	45	20.0	5	15	225 Telegraph Hill Blvd	135	11.0%	39
41	63	8.0	57	428	Union/Columbus	473	90.0%	63	8.0	16	120	Clay St/Montgomery St	473	25.0%	41
43	63	12.0	43	215	Masonic Ave/Golden Gave Ave	315	68.0%	63	12.0	28	140	Masonic/Fulton	315	44.0%	43
44	63	10.0	54	324	Silver Ave/Mission St	378	85.0%	63	10.0	36	216	Silver Ave/San Bruno	378	57.0%	44
45	63	12.0	52	260	Stockton/Sutter	315	82.0%	63	12.5	39	187	Stockton/Sacramento	302	61.0%	45
47	63	10.0	37	222	Van Ness/O'Farrell	378	58.0%	63	10.0	42	252	Van Ness/McAllister	378	66.0%	47
48	63	12.0	41	205	24th St/Folsom St	315	65.0%	63	12.0	36	180	24th St/Mission	315	57.0%	48
49	94	8.0	45	338	Van Ness Ave/McAllister	705	47.0%	94	8.0	46	345	Van Ness Ave/McAllister	705	48.0%	49
52	63	20.0	27	81	Excelsior/Paris	189	42.0%	63	20.0	20	60	Diamond/Sussex	189	31.0%	52
54	63	20.0	41	123	Howth/Geneva	189	65.0%	63	20.0	39	117	Geneva/Paris	189	61.0%	54
56	45	30.0	7	14	Leland/Bayshore	90	15.0%	45	30.0	13	26	Wilde Ave/Girard St	90	28.0%	56
66	45	20.0	14	42	9th Ave/Lawton St	135	31.0%	45	20.0	5	15	16th Ave/Lawton	135	11.0%	66
67	63	20.0	29	87	Folsom/Bessie St	189	46.0%	63	20.0	10	30	24th/Folsom St	189	15.0%	67
71								63	10.0	37	222	Haight/Buena Vista	378	58.0%	71/71L
71 L	63	10.0	47	282	Haight/Octavia	378	74.0%								71L
80X															80X
81X															81X
82X	63	15.0	23	92	Beale/Howard	252	36.0%								82X
83X	63	22.0	12	33	8th /Market	172	19.0%	63	22.0	13	35	9th/Market	172	20.0%	83X
88	63	20.0	26	78	Geneva/Delano	189	41.0%								88
108	63	15.0	30	120	Beale/Folsom	252	47.0%	63	15.0	26	104	Calif. St./Ave C	252	41.0%	108
NX	63	10.0	41	246	Sutter St/Sansome St	378	65.0%								
NOTE: RAIL DATA COLLECTED MANUALLY (SEPT-OCT 2013)															
F	70	6.0	55	555	Steuart Loop (from Wharf)	700	79.0%	70	6.0	38	377	Steuart Loop (to Wharf)	700	53.0%	F
J	119	9.0	81	539	Duboce and Church	793	67.0%	119	9.0	31	209	Duboce and Church	793	26.0%	J
K/T	119	9.0	117	782	Van Ness Station OB	793	98.0%	119	9.0	88	585	Embar & Harr (From Balb.Pk.)	793	73.0%	K
L	238	9.0	177	1,181	Van Ness Station OB	1,587	74.0%	238	9.0	68	455	Van Ness Station	1,587	28.0%	L
M	238	9.0	155	1,032	Van Ness Station OB	1,587	65.0%	238	9.0	70	470	W.P. Station	1,587	29.0%	M
N	238	6.5	207	1,908	Duboce and Church	2,197	86.0%	238	6.5	91	843	Duboce and Church	2,197	38.0%	N
T (K/T)	119	9.0	88	585	Embar & Harr (from Bayview)	793	73.0%	119	9.0	117	782	Embar & Harr (to Bayview)	793	98.0%	T (K/T)

Notes:  
1) Updated data provided by MTA, including updates to headways, vehicle capacity, average max load, and MLP. Rest of data calculated from those values  
2) MLP, maximum load point represents the stop along the route with the highest total load & may not be the same as the point with the most boardings.  
FALL 2013 v5

## **Attachment B – SFMTA Existing & 2040 Screenline Data**

**TABLE A-1  
EXISTING PEAK HOUR<sup>1</sup>**

Muni Screenline Sub-corridor	AM Peak Hour (Inbound)			PM Peak Hour (Outbound)		
	Ridership	Capacity	Utilization	Ridership	Capacity	Utilization
<b>Northeast</b>						
Kearny/Stockton <sup>2</sup>	2,211	3,050	72.5%	2,245	3,327	67.5%
Other Lines <sup>3</sup>	538	1,141	47.2%	683	1,078	63.4%
<i>Screenline Total</i>	<i>2,749</i>	<i>4,191</i>	<i>65.6%</i>	<i>2,928</i>	<i>4,405</i>	<i>66.5%</i>
<b>Northwest</b>						
Geary <sup>4</sup>	1,821	2,490	73.2%	1,964	2,623	74.9%
California <sup>5</sup>	1,610	2,010	80.1%	1,322	1,752	75.4%
Sutter/Clement <sup>6</sup>	480	630	76.2%	425	630	67.5%
Fulton/Hayes <sup>7</sup>	1,277	1,680	76.0%	1,184	1,323	<b>89.5%</b>
Balboa <sup>8</sup>	758	1,019	74.4%	625	974	64.2%
<i>Screenline Total</i>	<i>5,946</i>	<i>7,828</i>	<i>76.0%</i>	<i>5,519</i>	<i>7,302</i>	<i>75.6%</i>
<b>Southeast</b>						
Third Street <sup>9</sup>	350	793	44.1%	782	793	<b>98.6%</b>
Mission <sup>10</sup>	1,643	2,509	65.5%	1,407	2,601	54.1%
San Bruno/Bayshore <sup>11</sup>	1,689	2,134	79.1%	1,536	2,134	72.0%
Other Lines <sup>12</sup>	1,466	1,756	83.5%	1,084	1,675	64.7%
<i>Screenline Total</i>	<i>5,147</i>	<i>7,193</i>	<i>71.6%</i>	<i>4,810</i>	<i>7,203</i>	<i>66.8%</i>
<b>Southwest</b>						
Subway lines <sup>13</sup>	6,330	6,205	<b>102.0%</b>	4,904	6,164	79.6%
Haight/Noriega <sup>14</sup>	1,121	1,554	72.1%	977	1,554	62.9%
Other lines <sup>15</sup>	465	700	66.5%	555	700	79.0%
<i>Screenline Total</i>	<i>7,916</i>	<i>8,459</i>	<i><b>93.6%</b></i>	<i>6,435</i>	<i>8,418</i>	<i>76.5%</i>
<b>Muni Screenlines Total</b>	<b>21,758</b>	<b>27,671</b>	<b>78.6%</b>	<b>19,693</b>	<b>27,328</b>	<b>72.1%</b>

Screenlines and corridors operating at capacity utilization of 85 percent or greater are highlighted in **bold**.

1. Muni bus and rail data collected in 2013.
  2. 8X Bayshore Express, 30 Stockton, 30X Marina Express, 41 Union, 45 Union-Stockton
  3. F Market & Wharves, 10 Townsend, 12 Folsom-Pacific
  4. 38 Geary, 38L Geary Limited, 38AX Geary 'A' Express, 38BX Geary 'B' Express
  5. 1 California, 1AX California 'A' Express, 1AX California 'B' Express
  6. 2 Sutter, 3 Clement
  7. 5 Fulton, 21 Hayes
  8. 31 Balboa, 31AX Balboa 'A' Express, 31BX Balboa 'B' Express
  9. T Third Street
  10. 14 Mission, 14L Mission Limited, 14X Mission Express, 49 Van Ness-Mission
  11. 8AX Bayshore 'A' Express, 8BX Bayshore 'B' Express, 8X Bayshore Express, 9 San Bruno, 9L San Bruno Limited
  12. J Church, 10 Townsend, 12 Folsom-Pacific, 19 Polk, 27 Bryant
  13. K Ingleside, L Taraval, M Ocean View, N Judah
  14. 6 Parnassus, 71/71L Haight-Noriega Limited, 16X Noriega Express, NX Judah Express
  15. F Market & Wharves
- Source: SFMTA, May 2015.



**TABLE A-2  
CUMULATIVE (2040) PEAK HOUR**

Muni Screenline Sub-corridor	AM Peak Hour (Inbound)			PM Peak Hour (Outbound)		
	Ridership	Capacity	Utilization	Ridership	Capacity	Utilization
<b>Northeast</b>						
Kearny/Stockton <sup>1</sup>	7,394	9,473	78.1%	6,295	8,329	75.6%
Other Lines <sup>2</sup>	758	1,785	42.5%	1,229	2,065	59.5%
<i>Screenline Total</i>	<i>8,152</i>	<i>11,258</i>	<i>72.4%</i>	<i>7,524</i>	<i>10,394</i>	<i>72.4%</i>
<b>Northwest</b>						
Geary <sup>3</sup>	2,673	3,763	71.0%	2,996	3,621	82.7%
California <sup>4</sup>	1,989	2,306	<b>86.3%</b>	1,766	2,021	<b>87.4%</b>
Sutter/Clement <sup>5</sup>	581	756	76.9%	749	756	<b>99.1%</b>
Fulton/Hayes <sup>6</sup>	1,962	1,977	<b>99.2%</b>	1,762	1,878	<b>93.8%</b>
Balboa <sup>7</sup>	690	1,008	68.5%	776	974	79.7%
<i>Screenline Total</i>	<i>7,895</i>	<i>9,810</i>	<i>80.5%</i>	<i>8,049</i>	<i>9,250</i>	<i>87.0%</i>
<b>Southeast</b>						
Third Street <sup>8</sup>	2,422	5,712	42.4%	2,300	5,712	40.3%
Mission <sup>9</sup>	3,117	3,008	<b>103.6%</b>	2,673	3,008	<b>88.9%</b>
San Bruno/Bayshore <sup>10</sup>	1,952	2,197	<b>88.8%</b>	1,817	2,134	<b>85.1%</b>
Other Lines <sup>11</sup>	1,795	2,027	<b>88.6%</b>	1,582	1,927	82.1%
<i>Screenline Total</i>	<i>9,286</i>	<i>12,944</i>	<i>71.7%</i>	<i>8,372</i>	<i>12,781</i>	<i>65.5%</i>
<b>Southwest</b>						
Subway lines <sup>12</sup>	6,314	7,020	<b>89.9%</b>	5,692	6,804	83.7%
Haight/Noriega <sup>13</sup>	1,415	1,596	<b>88.7%</b>	1,265	1,596	79.3%
Other lines <sup>14</sup>	175	560	31.3%	380	840	45.2%
<i>Screenline Total</i>	<i>7,904</i>	<i>9,176</i>	<i>86.1%</i>	<i>7,337</i>	<i>9,240</i>	<i>79.4%</i>
<b>Muni Screenlines Total</b>	<b>33,237</b>	<b>43,188</b>	<b>77.0%</b>	<b>31,282</b>	<b>41,665</b>	<b>75.1%</b>

Screenlines and corridors operating at capacity utilization of **85 percent or greater are highlighted in bold**. Some of the individual lines within certain corridors have been adjusted to be in the appropriate city "quadrant" per the screenline. Thus, for some sub-corridors (e.g., Kearny/Stockton AM Peak Hour), the total does not match the individual lines' maximum load point ridership and capacity.

1. 8X Bayshore Express, 30 Stockton, 30X Marina Express, 41 Union, 45 Union-Stockton, T-Third
2. E Embarcadero, F Market & Wharves, 10 Townsend, 12 Folsom-Pacific
3. 38 Geary, 38L Geary Limited, 38X Geary Express
4. 1 California, 1 California Short, 1AX California 'A' Express, 1BX California 'B' Express
5. 2 Clement, 2 Clement Short
6. 5 Fulton, 5L Fulton Limited, 21 Hayes
7. 31 Balboa, 31AX Balboa 'A' Express, 31BX Balboa 'B' Express
8. T Third Street
9. 14 Mission, 14 Mission Short, 14L Mission Limited, 14X Mission Express, 49L Van Ness-Mission Limited
10. 8AX Bayshore Express, 8BX Bayshore Express, 9 San Bruno, 9L San Bruno Limited
11. J Church, 10 Townsend, 19 Polk, 27 Bryant
12. K Ingleside, L Taraval, M Ocean View, N Judah
13. 6 Parnassus, 71L Haight-Noriega Limited, 16X Noriega Express, NX Judah Express
14. F Market & Wharves

Source: SFMTA March 2014.

## **Attachment C – Regional Transit Providers Existing and 2040 Cumulative Screenline Data**

**TABLE B-1  
EXISTING (2012) PEAK HOUR**

Regional Screenline Transit Provider/Service	AM Peak Hour (Inbound)			PM Peak Hour (Outbound)		
	Ridership	Capacity	Utilization	Ridership	Capacity	Utilization
<b>East Bay</b>						
BART	19,716	22,050	89.4%	19,716	22,050	89.4%
AC Transit	1,568	2,829	55.4%	2,256	3,926	57.5%
Ferries	810	1,170	69.2%	805	1,615	49.8%
<i>Screenline Total</i>	<i>22,094</i>	<i>26,049</i>	<i>84.8%</i>	<i>22,777</i>	<i>27,591</i>	<i>82.6%</i>
<b>North Bay</b>						
Golden Gate Transit Bus	1,330	2,543	52.3%	1,384	2,817	49.1%
Ferries	1,082	1,959	55.2%	968	1,959	49.4%
<i>Screenline Total</i>	<i>2,412</i>	<i>4,502</i>	<i>53.6%</i>	<i>2,352</i>	<i>4,776</i>	<i>49.2%</i>
<b>South Bay</b>						
BART	10,682	14,910	71.6%	10,682	14,910	71.6%
Caltrain	2,171	3,100	70.0%	2,377	3,100	76.7%
SamTrans	255	520	49.0%	141	320	44.1%
Ferries	--	--	--	--	--	--
<i>Screenline Total</i>	<i>13,108</i>	<i>18,530</i>	<i>70.7%</i>	<i>13,200</i>	<i>18,330</i>	<i>72.0%</i>
<b>Regional Screenlines Total</b>	<b>37,615</b>	<b>49,081</b>	<b>76.6%</b>	<b>38,330</b>	<b>50,697</b>	<b>75.6%</b>

Screenlines and transit providers/services operating at capacity utilization of 100 percent or greater are highlighted in **bold**.

Source: SFMTA TEP Project, Case No. 2011.0558E, October 2012

**TABLE B-2  
CUMULATIVE (2040) PEAK HOUR**

Regional Screenline Transit Provider/Service	AM Peak Hour (Inbound)			PM Peak Hour (Outbound)		
	Ridership	Capacity	Utilization	Ridership	Capacity	Utilization
<b>East Bay</b>						
BART	32,608	33,170	98.3%	30,383	33,170	91.6%
AC Transit	7,000	12,000	58.3%	7,000	12,000	58.3%
Ferries	4,682	5,940	78.8%	5,319	5,940	89.5%
<i>Screenline Total</i>	<b>44,290</b>	<b>51,110</b>	<b>86.7%</b>	<b>42,702</b>	<b>51,110</b>	<b>83.5%</b>
<b>North Bay</b>						
Golden Gate Transit Bus	1,990	2,543	78.3%	2,070	2,817	73.5%
Ferries	1,619	1,959	82.6%	1,619	1,959	82.6%
<i>Screenline Total</i>	<b>3,609</b>	<b>4,502</b>	<b>80.2%</b>	<b>3,689</b>	<b>4,776</b>	<b>77.2%</b>
<b>South Bay</b>						
BART	13,942	24,182	57.7%	13,971	24,182	57.8%
Caltrain	2,310	3,600	64.2%	2,529	3,600	70.3%
SamTrans	271	520	52.1%	150	320	46.9%
Ferries	59	200	29.5%	59	200	29.5%
<i>Screenline Total</i>	<b>16,582</b>	<b>28,502</b>	<b>58.2%</b>	<b>16,709</b>	<b>28,302</b>	<b>59.0%</b>
<b>Regional Screenlines Total</b>	<b>64,481</b>	<b>84,114</b>	<b>76.7%</b>	<b>63,100</b>	<b>84,188</b>	<b>75.0%</b>

Screenlines and transit providers/services operating at capacity utilization of 100 percent or greater are highlighted in **bold**.

Source: SFMTA, March 2014

## Attachment D – Glossary of Terms

*Average Max Load* – The actual ridership (or load) number at the maximum load point for the worst half hour (doubled) during the peak period.

*Headway* – The scheduled peak period time between buses, streetcars, trains, or light rail vehicles on the same line.

*Maximum Load Point* – The transit stop on a given line with the estimated greatest demand.

*Net Available Capacity* – The estimated number of passengers that can be accommodated during the peak hour on a line without exceeding the line's capacity. Calculation is peak hour capacity multiplied by 85 percent minus the peak hour load.

*Peak Hour* – The one-hour during the peak period where ridership at a maximum load point is estimated to be at its highest.

*Peak Hour Capacity* – The estimated volume of ridership that can be accommodated per line during the peak hour. The calculation is equal to the peak hour (60 minutes) divided by the peak hour scheduled headway multiplied by the capacity of the line (provided by SFMTA).

*Peak Hour Capacity Utilization* – The estimated percent capacity of the line that is being used by riders during the peak hour. The calculation is equal to the peak hour load (ridership) divided by the peak hour capacity.

*Peak Hour Load* – The estimated ridership for a bus or rail route at the maximum load point during the peak hour. Calculation is sixty minutes divided by the headway multiplied by the average max load.

*Peak Period* – The time period during the day where crowding on the transit system is at its highest. During the AM, it is defined between 6 AM to 9 AM. During the PM, it is defined between 4 PM to 7 PM.

*100 Percent Capacity per Vehicle* – The capacity per SFMTA vehicle that includes both seated and standing capacity, where standing capacity, is somewhere between 30 to 80 percent seated capacity (depending upon the specific transit vehicle configuration). The capacity per regional transit vehicle is equal to the seated capacity. The following presents the 100 percent capacity of different SFMTA vehicles:<sup>1</sup>

- historic streetcar – 70 passengers ( F Market & Wharves);
- light rail vehicle – 119 passengers ( J Church, KT Ingleside);
- modified light rail – 238 passengers (L Taraval, M Ocean View, and N Judah);

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<sup>1</sup> Note that the different capacities for each line are provided by SFMTA and are subject to change.

- standard bus – 63 passengers (remaining lines not listed in modified bus); and
- modified bus:
  - 45 passengers (35 Eureka, 36 Teresita, 37 Corbett, 39 Coit, 56 Rutland, and 66 Quintara)
  - 69 passengers (81X Caltrain Express, 82X Levi Plaza Express<sup>2</sup>)
  - 73 passengers (1AX California ‘A’ Express)<sup>2</sup>
  - 94 passengers (1BX California ‘B’ Express,<sup>2</sup> 8X Bayshore Express, 8AX Bayshore ‘A’ Express, 8BX Bayshore ‘B’ Express, 14 Mission, 14L Mission Limited, 14X Mission Express, 38 Geary, 38L Geary Limited, 41 Union,<sup>3</sup> 49 Van Ness-Mission)
  - Other (lines 16X Noriega Express and 30 Stockton)<sup>4</sup>

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<sup>2</sup> Only during AM inbound peak period.

<sup>3</sup> Only during AM peak period.

<sup>4</sup> These two lines have other modified buses specific to these lines that differ throughout the day (see Attachment C).