

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON
AT SEATTLE

ARRIVALSTAR S.A. and
MELVINO TECHNOLOGIES LIMITED,

Plaintiffs,

v.

CENTRAL PUGET SOUND REGIONAL
TRANSIT AUTHORITY d/b/a Sound Transit,

Defendant.

Civil Action No. 2:12-cv-977-TSZ

**SOUND TRANSIT’S NON-
INFRINGEMENT CONTENTIONS
AND INVALIDITY CONTENTIONS**

Defendant Central Puget Sound Regional Transit Authority (“Defendant” or “Sound Transit”), by and through its undersigned counsel, hereby discloses its patent non-infringement contentions and patent invalidity contentions to Plaintiffs ArrivalStar S.A. (“ArrivalStar) and Melvino Technologies Limited (“Melvino”).

Sound Transit’s position is based on the intrinsic evidence currently available to it without the benefit of the extrinsic evidence to be developed through discovery, Plaintiffs’ claim construction contentions, or the Court’s *Markman* order. Sound Transit reserves the right to revise its patent non-infringement and invalidity positions and to amend and supplement these disclosures to the extent further information becomes available through discovery or in light of Court rulings relevant to the issues herein.

UNITED STATES PATENT NO. 7,030,781
NON-INFRINGEMENT CLAIM CHART

United States Patent No. 7,030,781 ("the '781 patent")	<u>ABSENT ELEMENT</u>
Claim 1. A method, comprising the steps of:	Sound Transit does not use any method claimed in the '781 patent or described in the patent specification.
monitoring travel data associated with the vehicle;	Sound Transit does not monitor travel data associated with a vehicle using a vehicle control unit or base station control unit incorporating a base station control mechanism or a base station communication mechanism. Nor does any Sound Transit method utilize dual control units to monitor vehicle location and elapsed time.
comparing planned timing of the vehicle along a route to updated vehicle status information;	Sound Transit does not compare the planned timing of a vehicle along a route to updated vehicle status information using a vehicle control unit or microprocessor controller. Nor does any Sound Transit method compare the planned timing of a vehicle along a route to update vehicle status information using a base station control unit in communication with a user communications device. Nor does any Sound Transit method utilize dual vehicle and base control units to compare vehicle location and elapsed time.
contacting a user communications device before the vehicle reaches a vehicle stop along the route; and	Sound Transit does not contact user communications devices before a vehicle reaches a vehicle stop along the route via a base computer that automatically initiates communications to users.
informing the user of the vehicle delay with respect to the vehicle stop and of updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing.	Sound Transit does not inform users of vehicle delay with respect to a vehicle stop and of updated impending arrival of the vehicle at the vehicle stop based upon automatically updated vehicle status information and planned timing information.

UNITED STATES PATENT NO. 7,030,781
35 U.S.C. § 101 (UNPATENTABLE SUBJECT MATTER)
INVALIDITY CLAIM CHART

<p style="text-align: center;">United States Patent No. 7,030,781 (“the ‘781 patent”)</p>	<p style="text-align: center;">INVALIDITY (35 U.S.C. § 101)</p>
<p>Claim 1. A method, comprising the steps of:</p>	<p>Claim 1 of the ‘781 patent, as asserted against Sound Transit, does not constitute patentable subject matter. The invention asserted against Sound Transit is an unpatentable abstract idea that may be merely implemented by human beings using computers or user communications devices. The ‘781 patent’s applying and limiting of the abstract idea of monitoring, comparing, and communicating with users regarding vehicle schedules, routes, and updated travel data to specific steps in a particular technological environment or adding post-solution components does not render the concept constitutionally patentable subject matter under Art. I, § 8, cl. 8; 35 U.S.C. § 101; <i>Graham v. John Deere Co.</i>, 383 U.S. 1, 5, 86 S. Ct. 684 (1966); or <i>Bilski v. Kappos</i>, 561 US — , 130 S. Ct. 3218 (2010).</p>
<p>monitoring travel data associated with the vehicle;</p>	<p>Claim 1 of the ‘781 patent, as asserted against Sound Transit, does not constitute patentable subject matter. The invention asserted against Sound Transit is an unpatentable abstract idea that may be merely implemented by human beings using computers or user communications devices. The ‘781 patent’s applying and limiting of the abstract idea of monitoring travel data to specific steps in a particular technological environment or adding post-solution components does not render the concept constitutionally patentable subject matter under Art. I, § 8, cl. 8; 35 U.S.C. § 101; <i>Graham v. John Deere Co.</i>, 383 U.S. 1, 5, 86 S. Ct. 684 (1966); or <i>Bilski v. Kappos</i>, 561 US — , 130 S. Ct. 3218 (2010).</p>

1 comparing planned timing of the vehicle
2 along a route to updated vehicle status
3 information;

Claim 1 of the '781 patent, as asserted against Sound Transit, does not constitute patentable subject matter. The invention asserted against Sound Transit is an unpatentable abstract idea that may be merely implemented by human beings using computers or user communications devices. The '781 patent's applying and limiting of the abstract idea of comparing planned timing of a vehicle along a route to updated vehicle status information to specific steps in a particular technological environment or adding post-solution components does not render the concept constitutionally patentable subject matter under Art. I, § 8, cl. 8; 35 U.S.C. § 101; *Graham v. John Deere Co.*, 383 U.S. 1, 5, 86 S. Ct. 684 (1966); or *Bilski v. Kappos*, 561 US — , 130 S. Ct. 3218 (2010).

6 contacting a user communications device
7 before the vehicle reaches a vehicle stop
8 along the route; and

Claim 1 of the '781 patent, as asserted against Sound Transit, does not constitute patentable subject matter. The invention asserted against Sound Transit is an unpatentable abstract idea that may be merely implemented by human beings using computers or user communications devices. The '781 patent's applying and limiting of the abstract idea of contacting a user communications device before a vehicle reaches a vehicle stop along a route to specific steps in a particular technological environment or adding post-solution components does not render the concept constitutionally patentable subject matter under Art. I, § 8, cl. 8; 35 U.S.C. § 101; *Graham v. John Deere Co.*, 383 U.S. 1, 5, 86 S. Ct. 684 (1966); or *Bilski v. Kappos*, 561 US — , 130 S. Ct. 3218 (2010).

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

informing the user of the vehicle delay with respect to the vehicle stop and of updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing.

Claim 1 of the '781 patent, as asserted against Sound Transit, does not constitute patentable subject matter. The invention asserted against Sound Transit is an unpatentable abstract idea that may be merely implemented by human beings using computers or user communications devices. The '781 patent's applying and limiting of the abstract idea of informing a user of a vehicle delay with respect to a vehicle stop and of updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing to specific steps in a particular technological environment or adding post-solution components does not render the concept constitutionally patentable subject matter under Art. I, § 8, cl. 8; 35 U.S.C. § 101; *Graham v. John Deere Co.*, 383 U.S. 1, 5, 86 S. Ct. 684 (1966); or *Bilski v. Kappos*, 561 US —, 130 S. Ct. 3218 (2010).

UNITED STATES PATENT NO. 7,030,781

35 U.S.C. § 102 (ANTICIPATION)

INVALIDITY CLAIM CHART

Gilles David, “THE FRENCH EXPERIENCE WITH AUTOMATIC VEHICLE LOCATION IN URBAN TRANSPORTATION SYSTEMS” (Report Presented at the International Conference on Automatic Vehicle Location System, Ottawa, Canada, September 19-21, 1988)

NOTE: This claim chart is based on the copy of the David reference currently available as produced together herewith. The David reference is in the public domain, and Sound Transit reserves the right to update and supplement this disclosure and document production to the extent Sound Transit locates, through discovery or otherwise, a better or more complete copy of the David reference.

United States Patent No. 7,030,781 (“the ‘781 patent’”)	Gilles David, “The French Experience with Automatic Vehicle Location in Urban Transportation Systems” (Report Presented at the International Conference on Automatic Vehicle Location System, Ottawa, Canada, September 19-21, 1988)
Claim 1. A method, comprising the steps of:	David describes a method for monitoring, comparing, and communicating with users regarding travel data.
monitoring travel data associated with the vehicle;	David describes methods for monitoring travel data associated with a vehicle and transmitting that data to a central location, including at least using odometer readings together with door opening indicators and a system map, signpost locators, signpost locators and odometer readings, and radio transmitters onboard the vehicle picked up by signpost or fixed location detectors. <i>See David at 5, 6, 7, 10, 11, 12, 13, 14, 15, 16.</i>
comparing planned timing of the vehicle along a route to updated vehicle status information;	David describes a method for comparing planned timing of a vehicle along a route to updated vehicle status information by comparing the vehicle’s actual speed and position with the planned vehicle route and schedule and determining whether the vehicle is on, ahead of, or behind schedule. David discloses performing this calculation either onboard the vehicle or at a central location. <i>See David at 6, 8, 10, 11, 12, 13, 15, 16.</i>

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

<p>contacting a user communications device before the vehicle reaches a vehicle stop along the route; and</p>	<p>David describes a method for contacting a user communications device before a vehicle reaches a vehicle stop along the route, including at least video radio, telephone or Minitel system telematics, and including while a user is at home or at a bus stop.</p> <p><i>See David at 4, 8, 13.</i></p>
<p>informing the user of the vehicle delay with respect to the vehicle stop and of updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing.</p>	<p>David describes a method for informing a user of the vehicle delay with respect to a vehicle stop and of updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing:</p> <p><i>See David at 4, 8, 13.</i></p>

UNITED STATES PATENT NO. 7,030,781

35 U.S.C. § 102 (ANTICIPATION)

INVALIDITY CLAIM CHART

Labell, et al., “ADVANCED PUBLIC TRANSPORTATION SYSTEMS: THE STATE OF THE ART UPDATE ’92” (U.S. DOT April 1992)

<p>United States Patent No. 7,030,781 (“the ‘781 patent”)</p>	<p>Labell, et al., Advanced Public Transportation Systems: The State of the Art <i>Update</i> ’92 (U.S. DOT April 1992)</p>
<p>Claim 1. A method, comprising the steps of:</p>	<p>Labell describes a method for monitoring, comparing, and communicating with users regarding travel data.</p>
<p>monitoring travel data associated with the vehicle;</p>	<p>Labell describes methods for monitoring travel data associated with a vehicle:</p> <p>Labell describes measuring the position of a vehicle through methods including Global Position System (GPS), LORAN-C, radio-transmitter signposts (including odometer-assisted signpost systems), dead reckoning (including signpost-assisted dead reckoning), inductive loop detectors, and combinations of these and similar approaches.</p> <p>Labell describes monitoring travel data by transmitting location information (or processed data or exception reports) from the vehicle or remote device to a central computer system at regular intervals.</p> <p><i>See</i> Labell at xiii-xiv, 44-55.</p>
<p>comparing planned timing of the vehicle along a route to updated vehicle status information;</p>	<p>Labell describes a method for comparing planned timing of a vehicle along a route to updated vehicle status information:</p> <p>Labell describes comparing the vehicle’s actual speed and position with the planned vehicle route and schedule.</p> <p>Labell also discloses using this information to determine whether the vehicle is on, ahead of, or behind schedule.</p> <p><i>See</i> Labell at xii-xiv, 5, 31, 44-47, 51-52, 53, 54, 55, 56-57, 72-77.</p>

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

contacting a user communications device before the vehicle reaches a vehicle stop along the route; and

Labell describes a method for contacting a user communications device before a vehicle reaches a vehicle stop along the route:

Labell describes contacting user communications devices, including via telephone, cable television, teletext, audiotex, videotex, cellular telephone, voicemail, in-vehicle displays and communication devices, electronic kiosks, and through personal computers.

Labell also describes contacting the user communications device prior to the vehicle's arrival at a stop along the vehicle's route.

See Labell at vii-ix, x-xi, 5-12, 25-31, 52, 54, 56, 72-77.

informing the user of the vehicle delay with respect to the vehicle stop and of updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing.

Labell describes a method for informing a user of the vehicle delay with respect to a vehicle stop and of updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing:

Labell includes a description of informing the user of vehicle delays from schedule.

Labell includes a description of informing the user of updated estimates of vehicle arrival times based on vehicle location and status information and the planned vehicle route.

See Labell at vii-ix, x-xi, 5-12, 25-31, 43, 44, 52, 54, 56, 72-77.

UNITED STATES PATENT NO. 7,030,781

35 U.S.C. § 102 (ANTICIPATION)

INVALIDITY CLAIM CHART

Davies, et al., “ASSESSMENT OF ADVANCED TECHNOLOGIES FOR TRANSIT AND RIDESHARE APPLICATIONS” (NCTRP July 1991)

<p>United States Patent No. 7,030,781 (“the ‘781 patent”)</p>	<p>Davies, et al., Assessment of Advanced Technologies For Transit and Rideshare Applications (National Cooperative Transit Research and Development Program April 1992)</p>
<p>Claim 1. A method, comprising the steps of:</p>	<p>Davies describes a method for monitoring, comparing, and communicating with users regarding travel data.</p>
<p>monitoring travel data associated with the vehicle;</p>	<p>Davies describes methods for monitoring travel data associated with a vehicle:</p> <p>Davies describes measuring the position of a vehicle through methods including (alone or in combination) Global Position System (GPS), RDSS, U.S. Navy Transit System, LORAN-C, infra-red beacons radio-transmitter signposts (including odometer-assisted signpost systems), dead reckoning (including signpost-assisted dead reckoning), inductive loop detectors, vehicle-based transponders, and similar methods.</p> <p>Davies describes monitoring travel data by transmitting location information (or processed data) from the vehicle or remote device to a central computer system at regular intervals.</p> <p><i>See Davies at 53-62, 119-121.</i></p>

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

<p>comparing planned timing of the vehicle along a route to updated vehicle status information;</p>	<p>Davies describes a method for comparing planned timing of a vehicle along a route to updated vehicle status information:</p> <p>Davies describes comparing the vehicle's actual speed and position with the planned vehicle route and schedule.</p> <p>Davies also discloses using this information to determine whether the vehicle is on, ahead of, or behind schedule.</p> <p><i>See Davies at 11-14, 53-62, 75-78, 88-89, 119-121.</i></p>
<p>contacting a user communications device before the vehicle reaches a vehicle stop along the route; and</p>	<p>Davies describes a method for contacting a user communications device before a vehicle reaches a vehicle stop along the route:</p> <p>Davies describes contacting user communications devices, including (alone or in combination) via telephone, cable television, teletext, videotex, Minitel, Teletel, in-vehicle displays, and similar methods.</p> <p>Davies also describes contacting the user communications device prior to the vehicle's arrival at a stop along the vehicle's route.</p> <p><i>See Davies at 11-14, 22, 59, 75-78, 88-89, 118-119.</i></p>

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

informing the user of the vehicle delay with respect to the vehicle stop and of updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing.

Davies describes a method for informing a user of the vehicle delay with respect to a vehicle stop and of updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing:

Davies includes a description of informing the user of vehicle delays from schedule.

Davies includes a description of informing the user of updated estimates of vehicle arrival times based on vehicle location and status information and the planned vehicle route.

See Davies at 11-14, 22, 43, 59, 75-78, 88-89, 118-119.

UNITED STATES PATENT NO. 7,030,781

35 U.S.C. § 102 (ANTICIPATION)

INVALIDITY CLAIM CHART

**Casey, et al., “ADVANCED PUBLIC TRANSPORTATION SYSTEMS: THE STATE OF THE ART”
(U.S. DOT April 1991)**

<p>United States Patent No. 7,030,781 (“the ‘781 patent”)</p>	<p>Casey, et al., Advanced Public Transportation Systems: The State of the Art (U.S. DOT April 1991)</p>
<p>Claim 1. A method, comprising the steps of:</p>	<p>Casey describes a method for monitoring, comparing, and communicating with users regarding travel data.</p>
<p>monitoring travel data associated with the vehicle;</p>	<p>Casey describes methods for monitoring travel data associated with a vehicle:</p> <p>Casey describes measuring the position of a vehicle through methods including Global Position System (GPS), LORAN-C, radio-transmitter signposts (including odometer-assisted signpost systems), dead reckoning (including signpost-assisted dead reckoning), and inductive loop detectors.</p> <p>Casey describes monitoring travel data by transmitting location information from the vehicle or remote device to a central computer system at regular intervals.</p> <p><i>See Casey at xiii, 28-29, 30, 32- 40.</i></p>
<p>comparing planned timing of the vehicle along a route to updated vehicle status information;</p>	<p>Casey describes a method for comparing planned timing of a vehicle along a route to updated vehicle status information:</p> <p>Casey describes comparing the vehicle’s actual speed and position with the planned vehicle route and schedule.</p> <p>Cases also discloses using this information to determine whether the vehicle is on, ahead of, or behind schedule.</p> <p><i>See Casey at 6, 21, 22-23, 28-29, 30, 33, 35, 36.</i></p>

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

<p>contacting a user communications device before the vehicle reaches a vehicle stop along the route; and</p>	<p>Casey describes a method for contacting a user communications device before a vehicle reaches a vehicle stop along the route:</p> <p>Casey describes contacting user communications devices, including via telephone, cable television, teletext, minitel, in-vehicle displays, and the Internet.</p> <p>Casey also describes contacting the user communications device prior to the vehicle's arrival at a stop along the vehicle's route.</p> <p><i>See Casey at ix, xiii, 6, 7, 8, 20, 22-23, 28-29.</i></p>
<p>informing the user of the vehicle delay with respect to the vehicle stop and of updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing.</p>	<p>Casey describes a method for informing a user of the vehicle delay with respect to a vehicle stop and of updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing:</p> <p>Casey includes a description of informing the user of vehicle delays from schedule.</p> <p>Casey includes a description of informing the user of updated estimates of vehicle arrival times based on vehicle location and status information and the planned vehicle route.</p> <p><i>See Casey at 6, 7, 8, 20, 21, 22-23, 28-29, 35.</i></p>

UNITED STATES PATENT NO. 7,030,781
35 U.S.C. § 103 (OBVIOUSNESS)
INVALIDITY CLAIM CHART

COMBINATION OF:

**Labell, et al., “ADVANCED PUBLIC TRANSPORTATION SYSTEMS: THE STATE OF THE ART
UPDATE ’92” (U.S. DOT April 1992)**

COMBINED WITH

**Casey, et al., “ADVANCED PUBLIC TRANSPORTATION SYSTEMS: THE STATE OF THE ART”
(U.S. DOT April 1991)**

Sound Transit believes each prior art reference cited in this claim chart invalidates the claims of the patents-in-suit via anticipation under 35 U.S.C. § 102. Nevertheless, insofar as the claims of the patent have not yet been construed and discovery has not yet been obtained, including from Plaintiffs, Sound Transit submits these Section 103 disclosures as further bases of patent invalidity irrespective of the independent grounds for invalidity under 35 U.S.C. §§ 101, 102, and 112. In addition, insofar as the prior art of record, including the prior art cited on pages 1-5 of the patent-in-suit and in the prosecution history thereof, is cumulative and redundant with parts of the references cited in this claim chart, that prior art of record is incorporated by reference herein.

<p style="text-align: center;">United States Patent No. 7,030,781 (“the ‘781 patent”)</p>	<p style="text-align: center;">Labell, et al., Advanced Public Transportation Systems: The State of the Art <i>Update</i> ’92 (U.S. DOT April 1992) COMBINED WITH Casey, et al., Advanced Public Transportation Systems: The State of the Art (U.S. DOT April 1991)</p>
<p>Claim 1. A method, comprising the steps of:</p>	<p>Labell and Casey, in combination, describe a method for monitoring, comparing, and communicating with users regarding travel data.</p>

1 monitoring travel data associated with the
2 vehicle;

Labell and Casey, in combination, describe
methods for monitoring travel data associated
with a vehicle:

3 Labell describes measuring the position
4 of a vehicle through methods including
5 Global Position System (GPS), LORAN-
6 C, radio-transmitter signposts (including
7 odometer-assisted signpost systems),
8 dead reckoning (including signpost-
9 assisted dead reckoning), inductive loop
10 detectors, and combinations of these and
11 similar approaches.

12 Labell describes monitoring travel data
13 by transmitting location information (or
14 processed data or exception reports) from
15 the vehicle or remote device to a central
16 computer system at regular intervals.
17 *See* Labell at xiii-xiv, 44-55.

18 Casey describes measuring the position
19 of a vehicle through methods including
20 Global Position System (GPS), LORAN-
21 C, radio-transmitter signposts (including
22 odometer-assisted signpost systems),
23 dead reckoning (including signpost-
24 assisted dead reckoning), and inductive
25 loop detectors.

26 Casey describes monitoring travel data
by transmitting location information from
the vehicle or remote device to a central
computer system at regular intervals.
See Casey at xiii, 28-29, 30, 32- 40.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

comparing planned timing of the vehicle along a route to updated vehicle status information;

Labell and Casey, in combination describe a method for comparing planned timing of a vehicle along a route to updated vehicle status information:

Labell describes comparing the vehicle's actual speed and position with the planned vehicle route and schedule.

Labell also discloses using this information to determine whether the vehicle is on, ahead of, or behind schedule.

See Labell at xii-xiv, 5, 31, 44-47, 51-52, 53, 54, 55, 56-57, 72-77.

Casey describes comparing the vehicle's actual speed and position with the planned vehicle route and schedule.

Cases also discloses using this information to determine whether the vehicle is on, ahead of, or behind schedule.

See Casey at 6, 21, 22-23, 28-29, 30, 33, 35, 36.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

contacting
a user communications device
before the vehicle reaches a vehicle stop
along the route; and

Labell and Casey, in combination, describe a
method for contacting a user communications
device
before a vehicle reaches a vehicle stop along the
route:

Labell describes contacting user
communications devices, including via
telephone, cable television, teletext,
audiotex, videotex, cellular telephone,
voicemail, in-vehicle displays and
communication devices, electronic
kiosks, and through personal computers.

Labell also describes contacting the user
communications device prior to the
vehicle’s arrival at a stop along the
vehicle’s route.

See Labell at vii-ix, x-xi, 5-12, 25-31, 52, 54, 56,
72-77.

Casey describes contacting user
communications devices, including via
telephone, cable television, teletext,
minitel, in-vehicle displays, and the
Internet.

Casey also describes contacting the user
communications device prior to the
vehicle’s arrival at a stop along the
vehicle’s route.

See Casey at ix, xiii, 6, 7, 8, 20, 22-23, 28-29.

1 informing the user of the vehicle delay with
2 respect to the vehicle stop and of updated
3 impending arrival of the vehicle at the
4 vehicle stop, based upon the updated vehicle
5 status information and the planned timing.

Labell and Casey describe, in combination, a
method for informing a user of the vehicle delay
with respect to a vehicle stop and of updated
impending arrival of the vehicle at the vehicle
stop, based upon the updated vehicle status
information and the planned timing:

Labell includes a description of
informing the user of vehicle delays from
schedule.

Labell includes a description of
informing the user of updated estimates
of vehicle arrival times based on vehicle
location and status information and the
planned vehicle route.

See Labell at vii-ix, x-xi, 5-12, 25-31, 43, 44, 52,
54, 56, 72-77.

Casey includes a description of
informing the user of vehicle delays from
schedule.

Casey includes a description of
informing the user of updated estimates
of vehicle arrival times based on vehicle
location and status information and the
planned vehicle route.

See Casey at 6, 7, 8, 20, 21, 22-23, 28-29, 35

UNITED STATES PATENT NO. 7,030,781

35 U.S.C. § 103 (OBVIOUSNESS)

INVALIDITY CLAIM CHART

COMBINATION OF:

Labell, et al., “ADVANCED PUBLIC TRANSPORTATION SYSTEMS: THE STATE OF THE ART UPDATE '92” (U.S. DOT April 1992)

COMBINED WITH

Casey, et al., “ADVANCED PUBLIC TRANSPORTATION SYSTEMS: THE STATE OF THE ART” (U.S. DOT April 1991)

AND/OR

Gilles David, “THE FRENCH EXPERIENCE WITH AUTOMATIC VEHICLE LOCATION IN URBAN TRANSPORTATION SYSTEMS” (Report Presented at the International Conference on Automatic Vehicle Location System, Ottawa, Canada, September 19-21, 1988)

Sound Transit believes each prior art reference cited in this claim chart invalidates the claims of the patents-in-suit via anticipation under 35 U.S.C. § 102. Nevertheless, insofar as the claims of the patent have not yet been construed and discovery has not yet been obtained, including from Plaintiffs, Sound Transit submits these Section 103 disclosures as further bases of patent invalidity irrespective of the independent grounds for invalidity under 35 U.S.C. §§ 101, 102, and 112. In addition, insofar as the prior art of record, including the prior art cited on pages 1-5 of the patent-in-suit and in the prosecution history thereof, is cumulative and redundant with parts of the references cited in this claim chart, that prior art of record is incorporated by reference herein.

NOTE: This claim chart is based on the copy of the David reference currently available as produced together herewith. The David reference is in the public domain, and Sound Transit reserves the right to update and supplement this disclosure and document production to the extent Sound Transit locates, through discovery or otherwise, a better or more complete copy of the David reference.

**United States Patent No. 7,030,781
 (“the ‘781 patent’”)**

Labell, et al., Advanced
Public Transportation Systems:
The State of the Art *Update* '92 (U.S. DOT
April 1992)
COMBINED WITH
Casey, et al., Advanced Public Transportation
Systems:
The State of the Art (U.S. DOT April 1991)
AND/OR
Gilles David, “The French Experience with
Automatic Vehicle Location in Urban
Transportation Systems” (Report Presented at
the International Conference on Automatic
Vehicle Location System, Ottawa, Canada,
September 19-21, 1988)

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

Claim 1. A method, comprising the steps of:	Labell and Casey and/or David, in combination, describe a method for monitoring, comparing, and communicating with users regarding travel data.
monitoring travel data associated with the vehicle;	<p>Labell and Casey and/or David, in combination, describe methods for monitoring travel data associated with a vehicle:</p> <p>Labell describes measuring the position of a vehicle through methods including Global Position System (GPS), LORAN-C, radio-transmitter signposts (including odometer-assisted signpost systems), dead reckoning (including signpost-assisted dead reckoning), inductive loop detectors, and combinations of these and similar approaches.</p> <p>Labell describes monitoring travel data by transmitting location information (or processed data or exception reports) from the vehicle or remote device to a central computer system at regular intervals. <i>See Labell at xiii-xiv, 44-55.</i></p> <p>Casey describes measuring the position of a vehicle through methods including Global Position System (GPS), LORAN-C, radio-transmitter signposts (including odometer-assisted signpost systems), dead reckoning (including signpost-assisted dead reckoning), and inductive loop detectors.</p> <p>Casey describes monitoring travel data by transmitting location information from the vehicle or remote device to a central computer system at regular intervals. <i>See Casey at xiii, 28-29, 30, 32- 40.</i></p> <p>David describes methods for monitoring travel data associated with a vehicle and transmitting that data to a central location, including at least using odometer readings together with door opening indicators and a system map, signpost locators, signpost locators and odometer readings, and radio transmitters onboard the vehicle picked up by signpost or fixed location detectors. <i>See David at 5, 6, 7, 10, 11, 12, 13, 14, 15, 16.</i></p>

1 comparing planned timing of the vehicle
2 along a route to updated vehicle status
3 information;

4 Labell and Casey and/or David, in combination
5 describe a method for comparing planned timing
6 of a vehicle along a route to updated vehicle
7 status information:

8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000

Labell describes comparing the vehicle's
actual speed and position with the
planned vehicle route and schedule.

Labell also discloses using this
information to determine whether the
vehicle is on, ahead of, or behind
schedule.

See Labell at xii-xiv, 5, 31, 44-47, 51-52, 53, 54,
55, 56-57, 72-77.

Casey describes comparing the vehicle's
actual speed and position with the
planned vehicle route and schedule.

Casey also discloses using this
information to determine whether the
vehicle is on, ahead of, or behind
schedule.

See Casey at 6, 21, 22-23, 28-29, 30, 33, 35, 36.

David describes a method for comparing
planned timing of a vehicle along a route
to updated vehicle status information by
comparing the vehicle's actual speed and
position with the planned vehicle route
and schedule and determining whether
the vehicle is on, ahead of, or behind
schedule. David discloses performing
this calculation either onboard the
vehicle or at a central location.

See David at 6, 8, 10, 11, 12, 13, 15, 16.

1 contacting
2 a user communications device
3 before the vehicle reaches a vehicle stop
4 along the route; and

Labell and Casey and/or David, in combination,
describe a method for contacting a user
communications device
before a vehicle reaches a vehicle stop along the
route:

Labell describes contacting user
communications devices, including via
telephone, cable television, teletext,
audiotex, videotex, cellular telephone,
voicemail, in-vehicle displays and
communication devices, electronic
kiosks, and through personal computers.

Labell also describes contacting the user
communications device prior to the
vehicle's arrival at a stop along the
vehicle's route.

See Labell at vii-ix, x-xi, 5-12, 25-31, 52, 54, 56,
72-77.

Casey describes contacting user
communications devices, including via
telephone, cable television, teletext,
minitel, in-vehicle displays, and the
Internet.

Casey also describes contacting the user
communications device prior to the
vehicle's arrival at a stop along the
vehicle's route.

See Casey at ix, xiii, 6, 7, 8, 20, 22-23, 28-29.

David describes a method for contacting
a user communications device before a
vehicle reaches a vehicle stop along the
route, including at least video radio,
telephone or Minitel system telematics,
and including while a user is at home or
at a bus stop.

See David at 4, 8, 13.

1 informing the user of the vehicle delay with
2 respect to the vehicle stop and of updated
3 impending arrival of the vehicle at the
4 vehicle stop, based upon the updated vehicle
5 status information and the planned timing.

Labell and Casey and/or David, in combination,
a method for informing a user of the vehicle
delay with respect to a vehicle stop and of
updated impending arrival of the vehicle at the
vehicle stop, based upon the updated vehicle
status information and the planned timing:

Labell includes a description of
informing the user of vehicle delays from
schedule.

Labell includes a description of
informing the user of updated estimates
of vehicle arrival times based on vehicle
location and status information and the
planned vehicle route.

See Labell at vii-ix, x-xi, 5-12, 25-31, 43, 44, 52,
54, 56, 72-77.

Casey includes a description of
informing the user of vehicle delays from
schedule.

Casey includes a description of
informing the user of updated estimates
of vehicle arrival times based on vehicle
location and status information and the
planned vehicle route.

See Casey at 6, 7, 8, 20, 21, 22-23, 28-29, 35.

David describes a method for informing a
user of the vehicle delay with respect to a
vehicle stop and of updated impending
arrival of the vehicle at the vehicle stop,
based upon the updated vehicle status
information and the planned timing:

See David at 4, 8, 13.

UNITED STATES PATENT NO. 7,030,781

35 U.S.C. § 103 (OBVIOUSNESS)

INVALIDITY CLAIM CHART

COMBINATION OF:

Labell, *et al.*, “ADVANCED PUBLIC TRANSPORTATION SYSTEMS: THE STATE OF THE ART UPDATE '92” (U.S. DOT April 1992)

COMBINED WITH

Casey, *et al.*, “ADVANCED PUBLIC TRANSPORTATION SYSTEMS: THE STATE OF THE ART” (U.S. DOT April 1991)

AND/OR

Gilles David, “THE FRENCH EXPERIENCE WITH AUTOMATIC VEHICLE LOCATION IN URBAN TRANSPORTATION SYSTEMS” (Report Presented at the International Conference on Automatic Vehicle Location System, Ottawa, Canada, September 19-21, 1988)

AND/OR

Davies, *et al.*, “ASSESSMENT OF ADVANCED TECHNOLOGIES FOR TRANSIT AND RIDESHARE APPLICATIONS” (NCTRP July 1991)

Sound Transit believes each prior art reference cited in this claim chart invalidates the claims of the patents-in-suit via anticipation under 35 U.S.C. § 102. Nevertheless, insofar as the claims of the patent have not yet been construed and discovery has not yet been obtained, including from Plaintiffs, Sound Transit submits these Section 103 disclosures as further bases of patent invalidity irrespective of the independent grounds for invalidity under 35 U.S.C. §§ 101, 102, and 112. In addition, insofar as the prior art of record, including the prior art cited on pages 1-5 of the patent-in-suit and in the prosecution history thereof, is cumulative and redundant with parts of the references cited in this claim chart, that prior art of record is incorporated by reference herein.

NOTE: This claim chart is based on the copy of the David reference currently available as produced together herewith. The David reference is in the public domain, and Sound Transit reserves the right to update and supplement this disclosure and document production to the extent Sound Transit locates, through discovery or otherwise, a better or more complete copy of the David reference.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26

<p>United States Patent No. 7,030,781 ("the '781 patent")</p>	<p>Labell, et al., Advanced Public Transportation Systems: The State of the Art <i>Update</i> '92 (U.S. DOT April 1992) COMBINED WITH Casey, et al., Advanced Public Transportation Systems: The State of the Art (U.S. DOT April 1991) AND/OR Gilles David, "The French Experience with Automatic Vehicle Location in Urban Transportation Systems" (Report Presented at the International Conference on Automatic Vehicle Location System, Ottawa, Canada, September 19-21, 1988) AND/OR Davies, et al., Assessment of Advanced Technologies For Transit and Rideshare Applications (National Cooperative Transit Research and Development Program April 1992)</p>
<p>Claim 1. A method, comprising the steps of:</p>	<p>Labell and Casey and/or David and/or Davies, in combination, describe a method for monitoring, comparing, and communicating with users regarding travel data.</p>

1 monitoring travel data associated with the
2 vehicle;

Labell and Casey and/or David and/or Davies, in combination, describe methods for monitoring travel data associated with a vehicle:

3 Labell describes measuring the position
4 of a vehicle through methods including
5 Global Position System (GPS), LORAN-
6 C, radio-transmitter signposts (including
7 odometer-assisted signpost systems),
8 dead reckoning (including signpost-
9 assisted dead reckoning), inductive loop
10 detectors, and combinations of these and
11 similar approaches.

12 Labell describes monitoring travel data
13 by transmitting location information (or
14 processed data or exception reports) from
15 the vehicle or remote device to a central
16 computer system at regular intervals.
17 *See* Labell at xiii-xiv, 44-55.

18 Casey describes measuring the position
19 of a vehicle through methods including
20 Global Position System (GPS), LORAN-
21 C, radio-transmitter signposts (including
22 odometer-assisted signpost systems),
23 dead reckoning (including signpost-
24 assisted dead reckoning), and inductive
25 loop detectors.

26 Casey describes monitoring travel data
by transmitting location information from
the vehicle or remote device to a central
computer system at regular intervals.
See Casey at xiii, 28-29, 30, 32- 40.

David describes methods for monitoring
travel data associated with a vehicle and
transmitting that data to a central
location, including at least using
odometer readings together with door
opening indicators and a system map,
signpost locators, signpost locators and
odometer readings, and radio transmitters
onboard the vehicle picked up by
signpost or fixed location detectors.
See David at 5, 6, 7, 10, 11, 12, 13, 14, 15, 16.

Davies describes measuring the position
of a vehicle through methods including
(alone or in combination) Global Position
System (GPS), RDSS, U.S. Navy Transit
System, LORAN-C, infra-red beacons
radio-transmitter signposts (including
odometer-assisted signpost systems),
dead reckoning (including signpost-
assisted dead reckoning), inductive loop
detectors, vehicle-based transponders,
and similar methods.

1 comparing planned timing of the vehicle
2 along a route to updated vehicle status
3 information;

Labell and Casey and/or David and/or Davies, in
combination describe a method for comparing
planned timing of a vehicle along a route to
updated vehicle status information:

4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
Labell describes comparing the vehicle's
actual speed and position with the
planned vehicle route and schedule.

Labell also discloses using this
information to determine whether the
vehicle is on, ahead of, or behind
schedule.

See Labell at xii-xiv, 5, 31, 44-47, 51-52, 53, 54,
55, 56-57, 72-77.

Casey describes comparing the vehicle's
actual speed and position with the
planned vehicle route and schedule.

Casey also discloses using this
information to determine whether the
vehicle is on, ahead of, or behind
schedule.

See Casey at 6, 21, 22-23, 28-29, 30, 33, 35, 36.

David describes a method for comparing
planned timing of a vehicle along a route
to updated vehicle status information by
comparing the vehicle's actual speed and
position with the planned vehicle route
and schedule and determining whether
the vehicle is on, ahead of, or behind
schedule. David discloses performing
this calculation either onboard the
vehicle or at a central location.

See David at 6, 8, 10, 11, 12, 13, 15, 16.

Davies describes comparing the vehicle's
actual speed and position with the
planned vehicle route and schedule.

Davies also discloses using this
information to determine whether the
vehicle is on, ahead of, or behind
schedule.

See Davies at 11-14, 53-62, 75-78, 88-89, 119-
121.

1 contacting
2 a user communications device
3 before the vehicle reaches a vehicle stop
4 along the route; and

Labell and Casey and/or David, in combination,
describe a method for contacting a user
communications device
before a vehicle reaches a vehicle stop along the
route:

Labell describes contacting user
communications devices, including via
telephone, cable television, teletext,
audiotex, videotex, cellular telephone,
voicemail, in-vehicle displays and
communication devices, electronic
kiosks, and through personal computers.

Labell also describes contacting the user
communications device prior to the
vehicle's arrival at a stop along the
vehicle's route.

See Labell at vii-ix, x-xi, 5-12, 25-31, 52, 54, 56,
72-77.

Casey describes contacting user
communications devices, including via
telephone, cable television, teletext,
minitel, in-vehicle displays, and the
Internet.

Casey also describes contacting the user
communications device prior to the
vehicle's arrival at a stop along the
vehicle's route.

See Casey at ix, xiii, 6, 7, 8, 20, 22-23, 28-29.

David describes a method for contacting
a user communications device before a
vehicle reaches a vehicle stop along the
route, including at least video radio,
telephone or Minitel system telematics,
and including while a user is at home or
at a bus stop.

See David at 4, 8, 13.

Davies describes contacting user
communications devices, including
(alone or in combination) via telephone,
cable television, teletext, videotex,
Minitel, Teletel, in-vehicle displays, and
similar methods.

Davies also describes contacting the user
communications device prior to the
vehicle's arrival at a stop along the
vehicle's route.

See Davies at 11-14, 22, 59, 75-78, 88-89, 118-
119.

1 informing the user of the vehicle delay with
2 respect to the vehicle stop and of updated
3 impending arrival of the vehicle at the
4 vehicle stop, based upon the updated vehicle
5 status information and the planned timing.

Labell and Casey and/or David, in combination,
a method for informing a user of the vehicle
delay with respect to a vehicle stop and of
updated impending arrival of the vehicle at the
vehicle stop, based upon the updated vehicle
status information and the planned timing:

Labell includes a description of
informing the user of vehicle delays from
schedule.

Labell includes a description of
informing the user of updated estimates
of vehicle arrival times based on vehicle
location and status information and the
planned vehicle route.

See Labell at vii-ix, x-xi, 5-12, 25-31, 43, 44, 52,
54, 56, 72-77.

Casey includes a description of
informing the user of vehicle delays from
schedule.

Casey includes a description of
informing the user of updated estimates
of vehicle arrival times based on vehicle
location and status information and the
planned vehicle route.

See Casey at 6, 7, 8, 20, 21, 22-23, 28-29, 35.

David describes a method for informing a
user of the vehicle delay with respect to a
vehicle stop and of updated impending
arrival of the vehicle at the vehicle stop,
based upon the updated vehicle status
information and the planned timing:

See David at 4, 8, 13.

Davies includes a description of
informing the user of vehicle delays from
schedule.

Davies includes a description of
informing the user of updated estimates
of vehicle arrival times based on vehicle
location and status information and the
planned vehicle route.

See Davies at 11-14, 22, 43, 59, 75-78, 88-89,
118-119.

UNITED STATES PATENT NO. 7,030,781

35 U.S.C. § 112 (ENABLEMENT AND WRITTEN DESCRIPTION)

INVALIDITY CLAIM CHART

United States Patent No. 7,030,781 ("the '781 patent'")	INVALIDITY (35 U.S.C. § 112, ¶1)
Claim 1. A method, comprising the steps of:	The specification of the '781 patent does not describe the purported invention in such full, clear, concise, and exact terms as to enable one of ordinary skill in the art to practice the invention without undue experimentation.
monitoring travel data associated with the vehicle;	The specification of the '781 patent does not describe how the monitoring of travel data associated with a vehicle is to be accomplished by a vehicle control unit in such full, clear, concise, and exact terms as to enable one of ordinary skill in the art to practice the invention without undue experimentation.
comparing planned timing of the vehicle along a route to updated vehicle status information;	The specification of the '781 patent does not describe how the planned timing of a vehicle along a route is to be compared to updated vehicle status information in such full, clear, concise, and exact terms as to enable one of ordinary skill in the art to practice the invention without undue experimentation.
contacting a user communications device before the vehicle reaches a vehicle stop along the route; and	The specification of the '781 patent does not describe how a user communications device is to be contacted by a base station control unit before the vehicle reaches a vehicle stop along the route in such full, clear, concise, and exact terms as to enable one of ordinary skill in the art to practice the invention without undue experimentation.
informing the user of the vehicle delay with respect to the vehicle stop and of updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing.	The specification of the '781 patent does not describe how a user is to be informed via a base station control unit of a vehicle delay with respect to a vehicle stop and of the updated impending arrival of the vehicle at the vehicle stop, based upon the updated vehicle status information and the planned timing, in such full, clear, concise, and exact terms as to enable one of ordinary skill in the art to practice the invention without undue experimentation.

1 DATED this 14th day of September, 2012.

2 Respectfully submitted,

3 STOEL RIVES LLP

4 /s/ Brian C. Park

5 Brian C. Park, WSBA No. 25584
6 600 University Street, Suite 3600
7 Seattle, WA 98101
8 Tel.: (206) 386-7542
9 Fax: (206) 386-7500
10 BCPark@stoel.com

11 Nathan C. Brunette (*pro hac vice*)
12 900 S.W. Fifth Avenue, Suite 2600
13 Portland, OR 97204
14 Tel.: (503) 224-3380
15 Fax: (503) 220-2480
16 NCBrunette@stoel.com