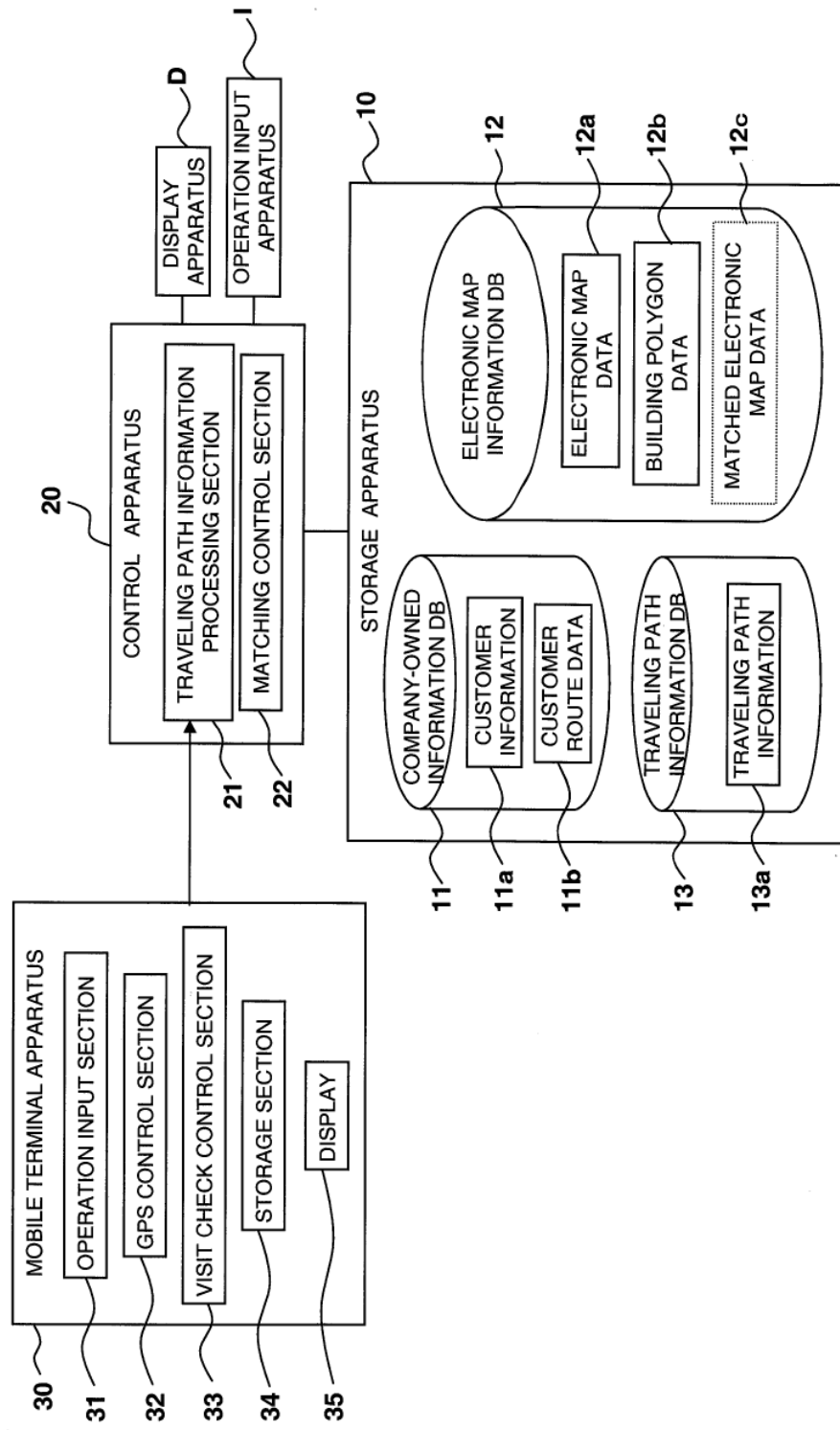


【FIG1】

ELECTRONIC MAP DATA PROCESSING SYSTEM 1



【FIG2】

(CUSTOMER INFORMATION)

| CUSTOMER ID | NAME | ADDRESS                            | RELATED INFORMATION 1 | RELATED INFORMATION 2 | ... |
|-------------|------|------------------------------------|-----------------------|-----------------------|-----|
| AA0001      | A    | 1-3-14, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... |
| AA0002      | B    | 1-3-14, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... |
| AA0003      | I    | 1-3-21, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... |
| AA0004      | H    | 1-3-20, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... |
| AA0005      | E    | 1-3-17, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... |
| AA0006      | F    | 1-3-18, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... |
| AA0007      | G    | 1-3-19, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... |
| AA0008      | D    | 1-3-16, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... |
| AA0009      | C    | 1-3-15, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... |

(a)

(CUSTOMER ROUTE DATA)

| ROUTE NUMBER | CUSTOMER ID | NAME | ADDRESS                            |
|--------------|-------------|------|------------------------------------|
| 1            | AA0001      | A    | 1-3-14, SHIBAURA, MINATO-KU, TOKYO |
| 2            | AA0002      | B    | 1-3-14, SHIBAURA, MINATO-KU, TOKYO |
| 3            | AA0003      | C    | 1-3-15, SHIBAURA, MINATO-KU, TOKYO |
| 4            | AA0004      | D    | 1-3-16, SHIBAURA, MINATO-KU, TOKYO |
| 5            | AA0005      | E    | 1-3-17, SHIBAURA, MINATO-KU, TOKYO |
| 6            | AA0006      | F    | 1-3-18, SHIBAURA, MINATO-KU, TOKYO |
| 7            | AA0007      | G    | 1-3-19, SHIBAURA, MINATO-KU, TOKYO |
| 8            | AA0008      | H    | 1-3-20, SHIBAURA, MINATO-KU, TOKYO |
| 9            | AA0009      | I    | 1-3-21, SHIBAURA, MINATO-KU, TOKYO |

(b)

【FIG3】

(ELECTRONIC MAP DATA)

| POLYGON ID | ADDRESS                            | X COORDINATE ON MAP<br>(CENTER) | Y COORDINATE ON MAP<br>(CENTER) |
|------------|------------------------------------|---------------------------------|---------------------------------|
| 1          | 1-3-21, SHIBAURA, MINATO-KU, TOKYO | ....                            | ....                            |
| 2          | 1-3-20, SHIBAURA, MINATO-KU, TOKYO | ....                            | ....                            |
| 3          | 1-3-17, SHIBAURA, MINATO-KU, TOKYO | ....                            | ....                            |
| 4          | 1-3-18, SHIBAURA, MINATO-KU, TOKYO | ....                            | ....                            |
| 5          | 1-3-19, SHIBAURA, MINATO-KU, TOKYO | ....                            | ....                            |
| 6          | 1-3-14, SHIBAURA, MINATO-KU, TOKYO | 139.699                         | 35.689                          |
| 7          | 1-3-14, SHIBAURA, MINATO-KU, TOKYO | 139.698                         | 35.690                          |
| 8          | 1-3-15, SHIBAURA, MINATO-KU, TOKYO | 139.698                         | 35.689                          |
| 9          | 1-3-16, SHIBAURA, MINATO-KU, TOKYO | 139.698                         | 35.689                          |

(a)

(BUILDING POLYGON DATA)

| POLYGON ID | POLYGON NAME | COORDINATES ON MAP                 |
|------------|--------------|------------------------------------|
| 1          | OO BUILDING  | A(O, O), B(O, O), C(O, O), E(O, O) |
| 2          | —            | A(O, O), B(O, O), C(O, O), E(O, O) |
| 3          | —            | A(O, O), B(O, O), C(O, O), E(O, O) |
| 4          | —            | A(O, O), B(O, O), C(O, O), E(O, O) |
| 5          | —            | A(O, O), B(O, O), C(O, O), E(O, O) |
| 6          | —            | A(O, O), B(O, O), C(O, O), E(O, O) |
| 7          | —            | A(O, O), B(O, O), C(O, O), E(O, O) |
| 8          | —            | A(O, O), B(O, O), C(O, O), E(O, O) |
| 9          | —            | A(O, O), B(O, O), C(O, O), E(O, O) |

(b)

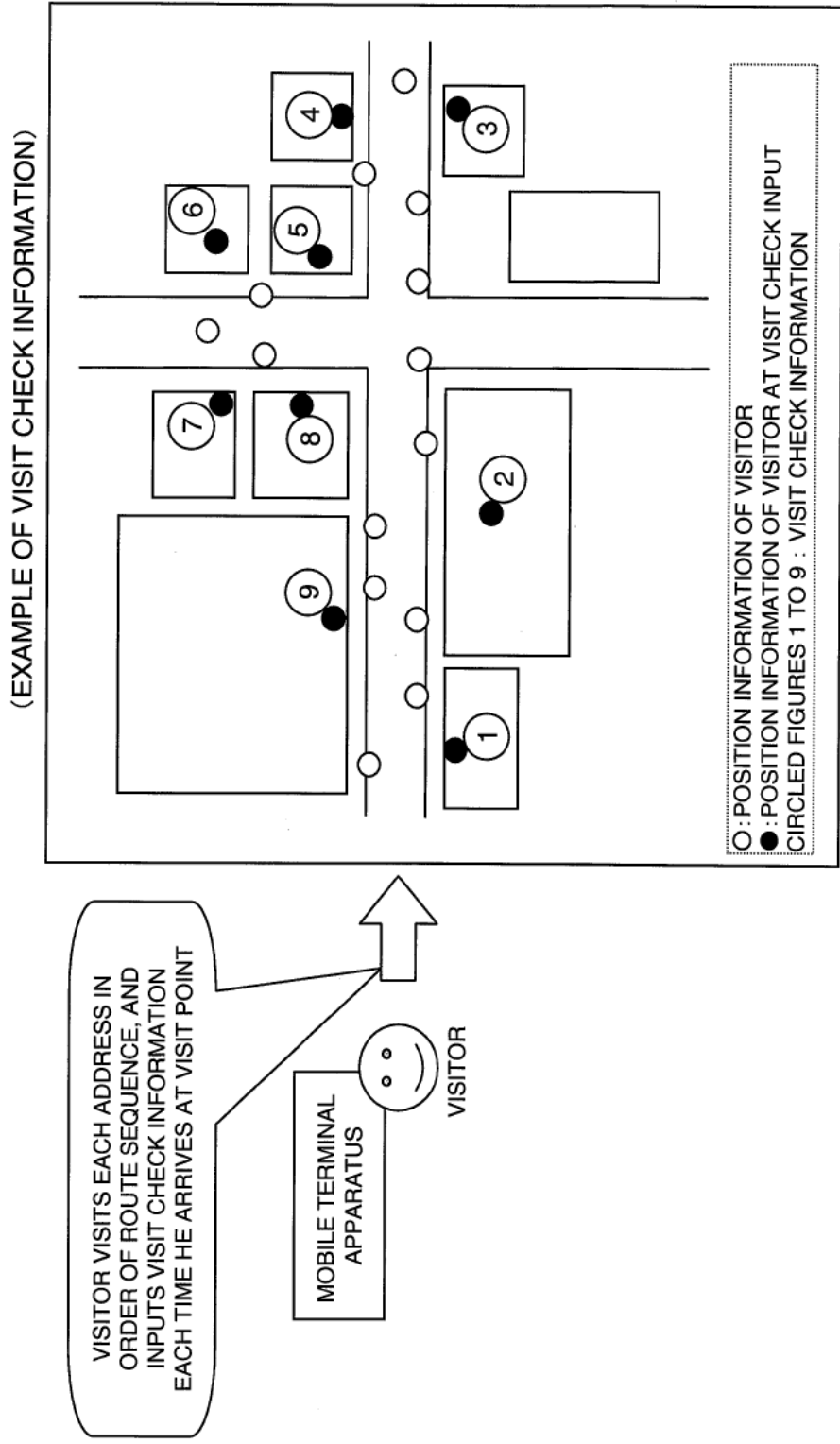
【FIG4】

(TRAVELING PATH INFORMATION)

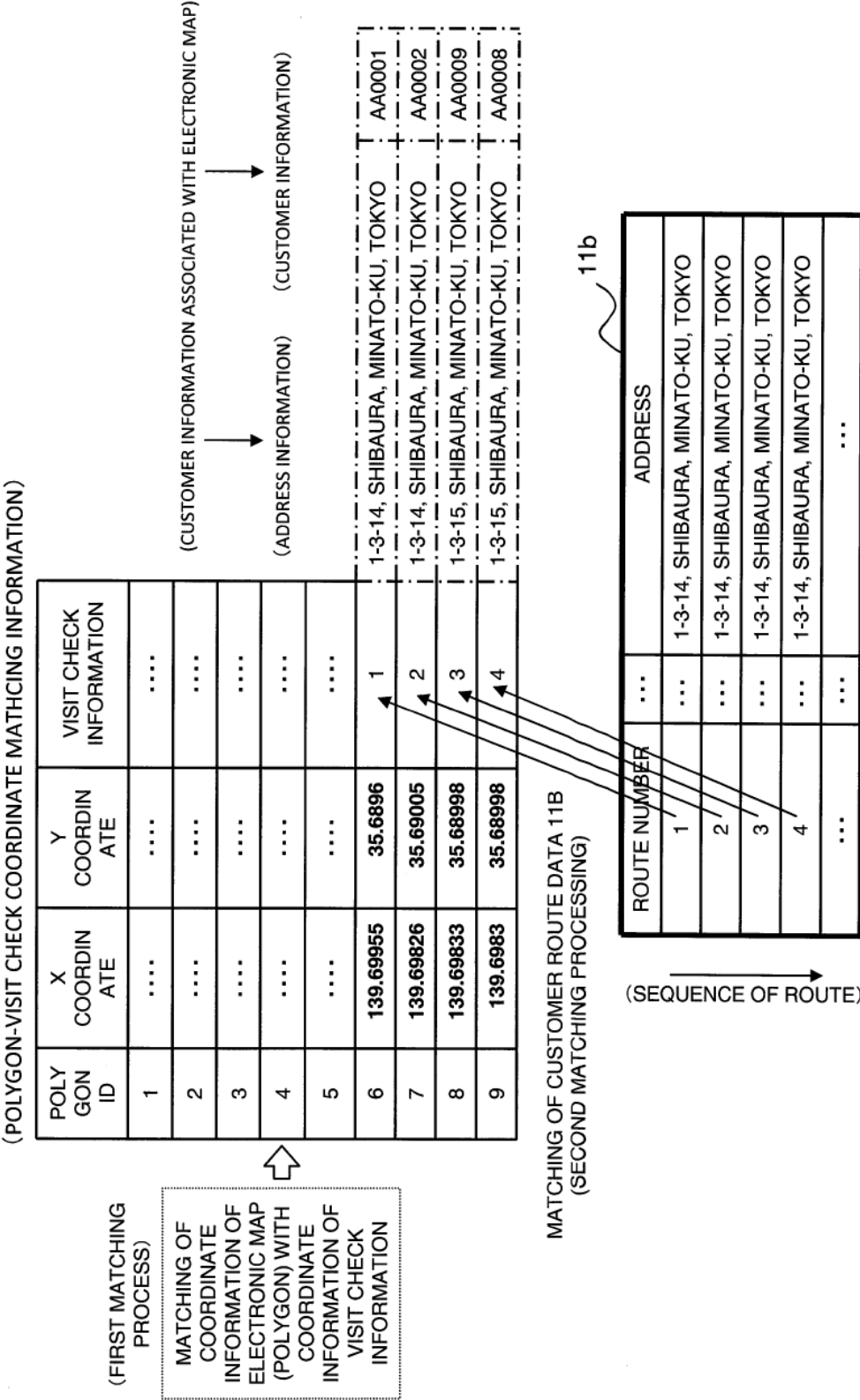
13a

| SEQUENCE NUMBER | X COORDINATE | Y COORDINATE | VISIT CHECK INFORMATION |
|-----------------|--------------|--------------|-------------------------|
| 1               | 139.69955    | 35.6896      | 1                       |
| 2               | 139.69871    | 35.68975     |                         |
| 3               | 139.69833    | 35.69001     |                         |
| 4               | 139.69826    | 35.69005     | 2                       |
| 5               | 139.69826    | 35.69003     |                         |
| 6               | 139.6982     | 35.69013     |                         |
| 7               | 139.69811    | 35.69011     |                         |
| 8               | 139.69833    | 35.68998     | 3                       |
| 9               | 139.69855    | 35.6898      |                         |
| 10              | 139.6983     | 35.68998     | 4                       |
| 11              | ....         | ....         |                         |

【FIG5】



【FIG6】



【FIG7】

(MATCHED ELECTRONIC MAP DATA)

12c

| POLYGON ID | ADDRESS                            | X<br>COORDINATE<br>ON MAP<br>(CENTER) | Y<br>COORDINATE<br>ON MAP<br>(CENTER) | MATCHING<br>RESULT | CUSTOMER<br>ID |
|------------|------------------------------------|---------------------------------------|---------------------------------------|--------------------|----------------|
| 1          | 1-3-21, SHIBAURA, MINATO-KU, TOKYO | ....                                  | ....                                  | MATCHED            | AA0003         |
| 2          | 1-3-20, SHIBAURA, MINATO-KU, TOKYO | ....                                  | ....                                  | MATCHED            | AA0004         |
| 3          | 1-3-17, SHIBAURA, MINATO-KU, TOKYO | ....                                  | ....                                  | MATCHED            | AA0007         |
| 4          | 1-3-18, SHIBAURA, MINATO-KU, TOKYO | ....                                  | ....                                  | MATCHED            | AA0006         |
| 5          | 1-3-19, SHIBAURA, MINATO-KU, TOKYO | ....                                  | ....                                  | MATCHED            | AA0005         |
| 6          | 1-3-14, SHIBAURA, MINATO-KU, TOKYO | 139.699                               | 35.689                                | MATCHED            | AA0001         |
| 7          | 1-3-14, SHIBAURA, MINATO-KU, TOKYO | 139.698                               | 35.690                                | MATCHED            | AA0002         |
| 8          | 1-3-15, SHIBAURA, MINATO-KU, TOKYO | 139.698                               | 35.689                                | MATCHED            | AA0009         |
| 9          | 1-3-16, SHIBAURA, MINATO-KU, TOKYO | 139.698                               | 35.689                                | MATCHED            | AA0008         |

(a)

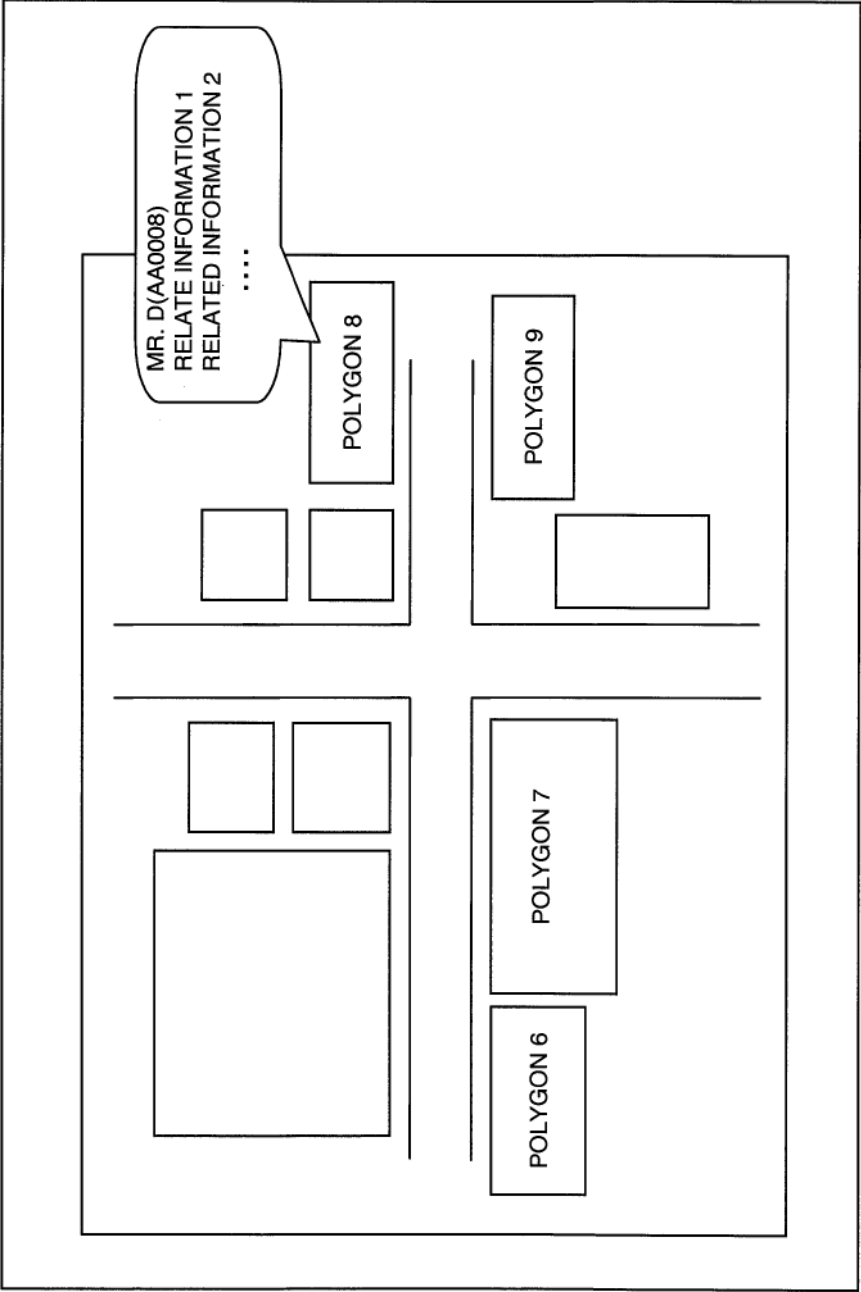
11a

(CUSTOMER INFORMATION)

| CUSTOMER ID | NAME | ADDRESS                            | RELATED INFORMATION 1 | RELATED INFORMATION 2 | ... | POLYGON ID |
|-------------|------|------------------------------------|-----------------------|-----------------------|-----|------------|
| AA0001      | A    | 1-3-14, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... | 6          |
| AA0002      | B    | 1-3-14, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... | 7          |
| AA0003      | I    | 1-3-21, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... | 1          |
| AA0004      | H    | 1-3-20, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... | 2          |
| AA0005      | E    | 1-3-17, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... | 5          |
| AA0006      | F    | 1-3-18, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... | 1          |
| AA0007      | G    | 1-3-19, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... | 2          |
| AA0008      | D    | 1-3-16, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... | 8          |
| AA0009      | C    | 1-3-15, SHIBAURA, MINATO-KU, TOKYO | ...                   | ...                   | ... | 9          |

(b)

【FIG8】



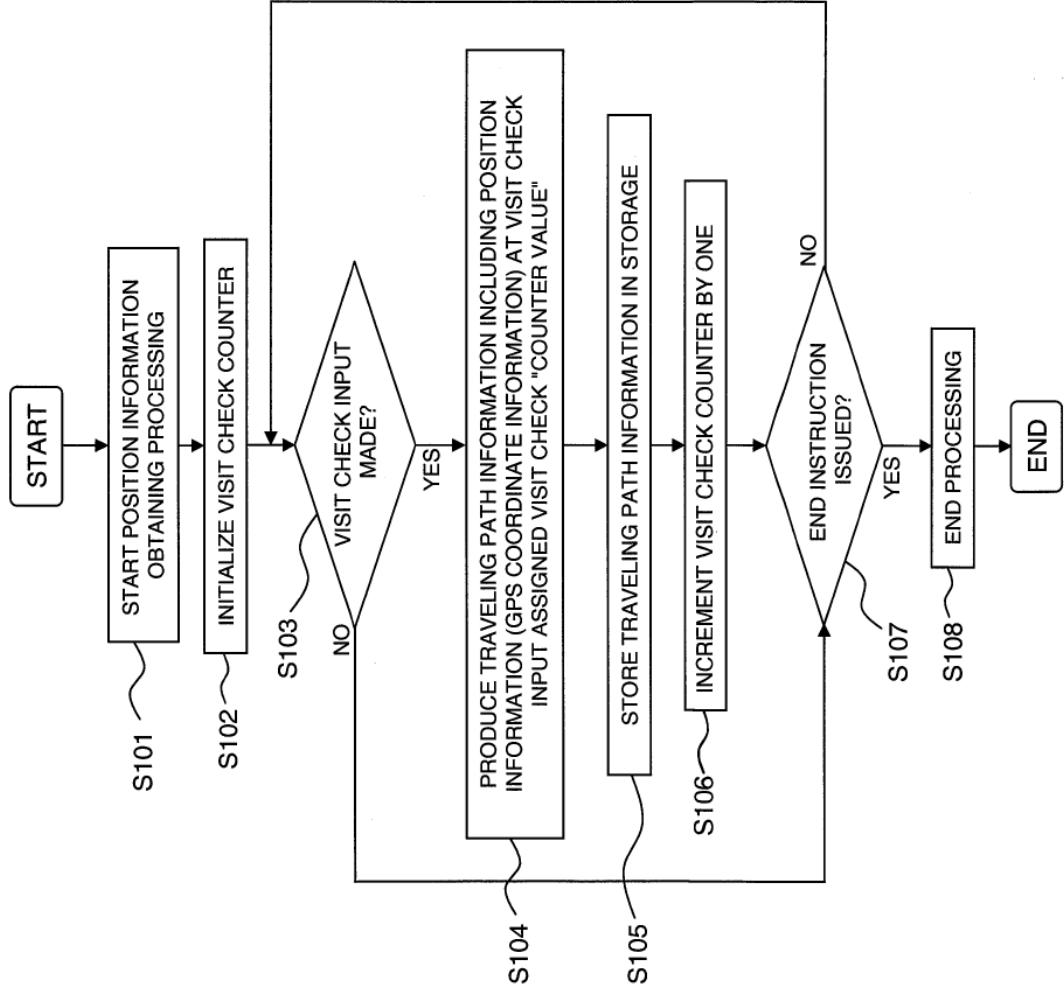
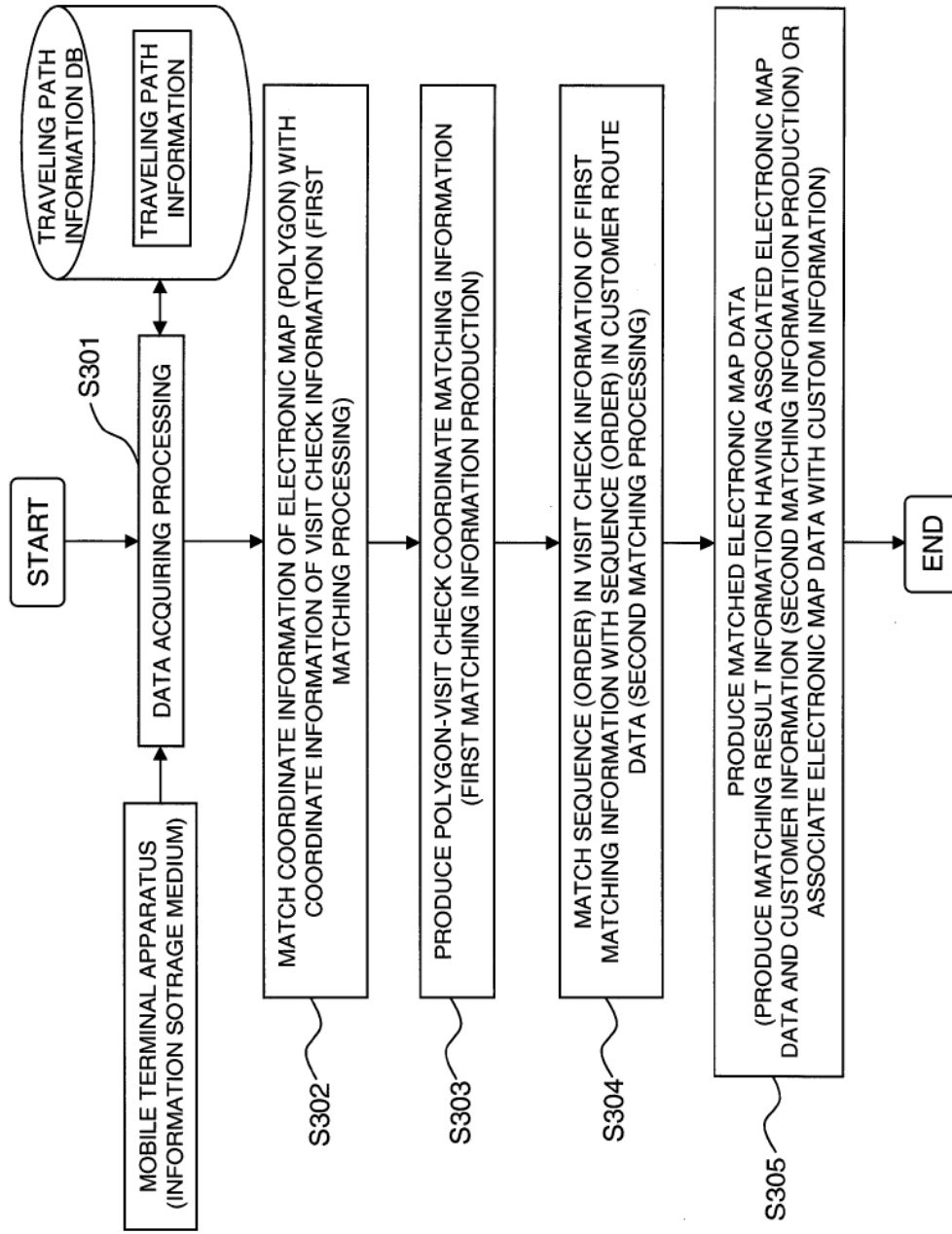


FIG. 9

【FIG10】



【FIG11】

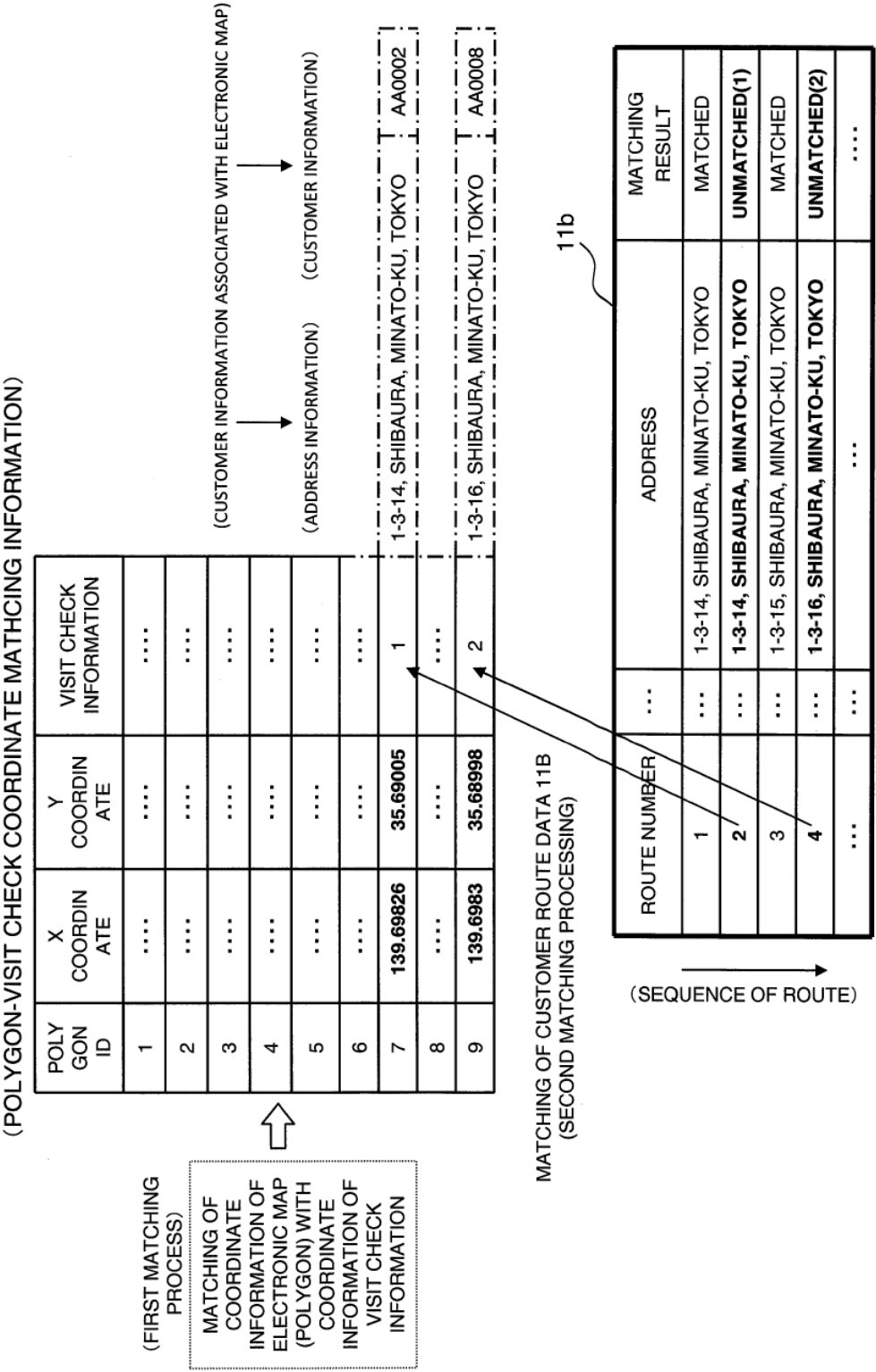
(a)

| (ADDRESS MATCHED ELECTRONIC MAP DATA) |                                    |                 |             | 12d |
|---------------------------------------|------------------------------------|-----------------|-------------|-----|
| POLYGON ID                            | ADDRESS                            | MATCHING RESULT | CUSTOMER ID |     |
| 1                                     | 1-3-21, SHIBAURA, MINATO-KU, TOKYO | MATCHED         | AA0003      |     |
| 2                                     | 1-3-20, SHIBAURA, MINATO-KU, TOKYO | MATCHED         | AA0004      |     |
| 3                                     | 1-3-17, SHIBAURA, MINATO-KU, TOKYO | MATCHED         | AA0007      |     |
| 4                                     | 1-3-18, SHIBAURA, MINATO-KU, TOKYO | MATCHED         | AA0006      |     |
| 5                                     | 1-3-19, SHIBAURA, MINATO-KU, TOKYO | MATCHED         | AA0005      |     |
| 6                                     | 1-3-14, SHIBAURA, MINATO-KU, TOKYO | MATCHED         | AA0001      |     |
| 7                                     | 1-3-14, SHIBAURA, MINATO-KU, TOKYO | UNMATCHED       | -           |     |
| 8                                     | 1-3-15, SHIBAURA, MINATO-KU, TOKYO | MATCHED         | AA0009      |     |
| 9                                     | 1-3-16, SHIBAURA, MINATO-KU, TOKYO | UNMATCHED       | -           |     |

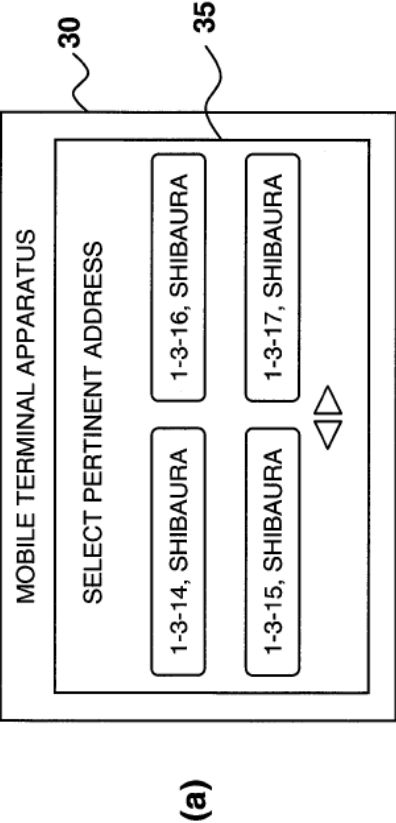
(b)

| ( TRAVELING PATH INFORMATION ) |              |              |                         | 13a |
|--------------------------------|--------------|--------------|-------------------------|-----|
| SEQUENCE NUMBER                | X COORDINATE | Y COORDINATE | VISIT CHECK INFORMATION |     |
| 1                              | 139.69955    | 35.6896      | 1                       |     |
| 2                              | 139.69871    | 35.68975     |                         |     |
| 3                              | 139.69833    | 35.69001     |                         |     |
| 4                              | 139.69826    | 35.69005     | 2                       |     |
| 5                              | ....         | ....         |                         |     |

【FIG12】



【FIG13】

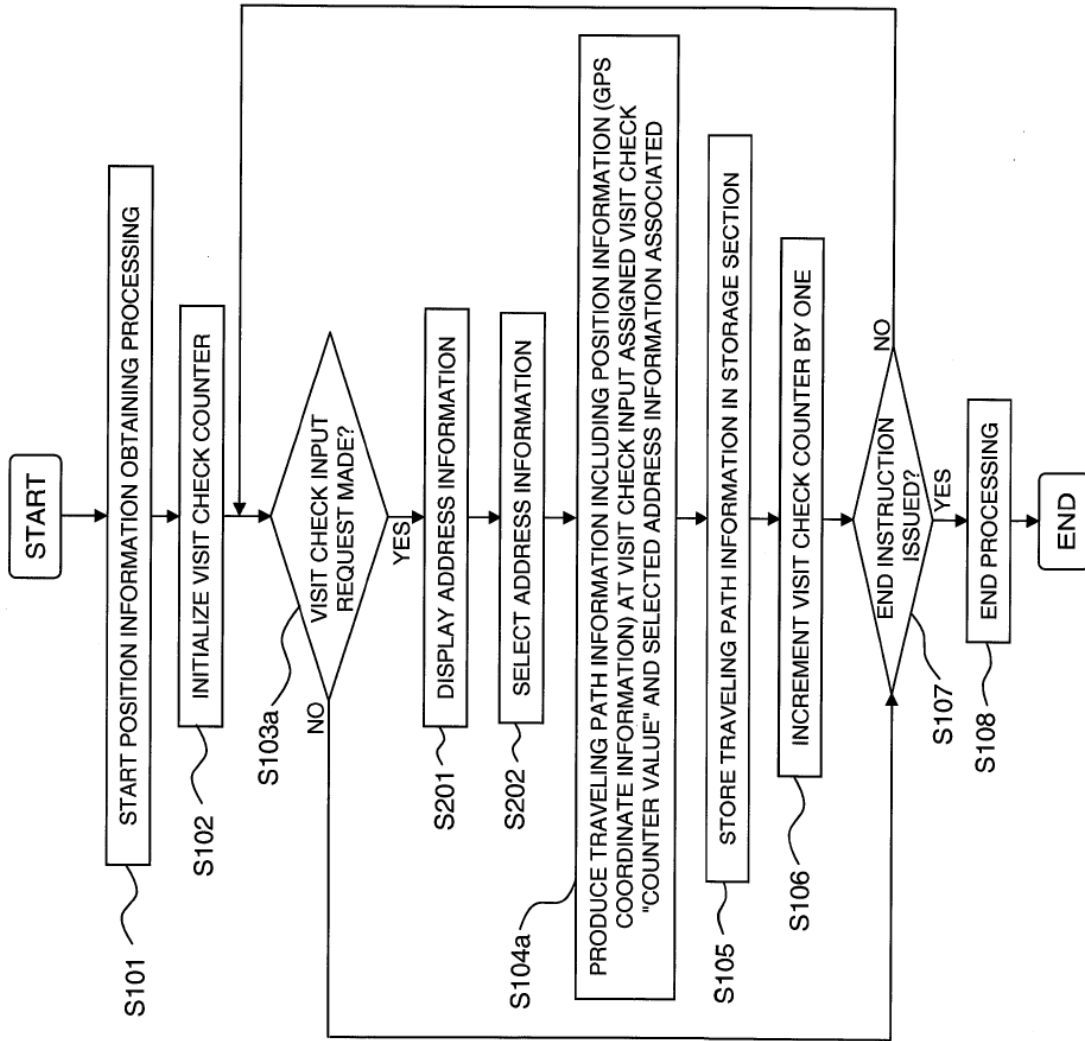


( TRAVELING PATH INFORMATION ) 13a

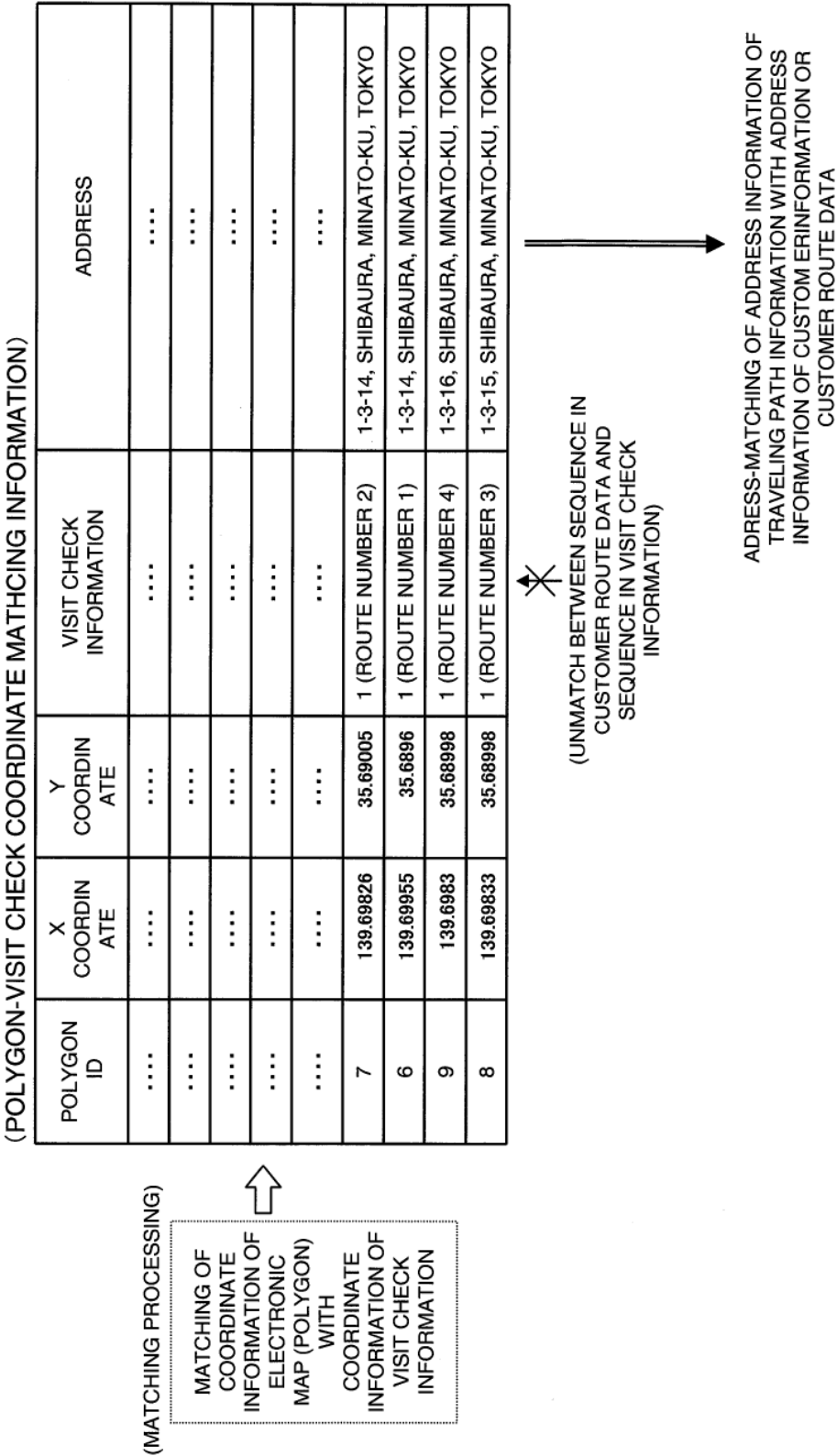
| SEQUENCE NUMBER | X COORDINATE | Y COORDINATE | VISIT CHECK INFORMATION | ADDRESS                            |
|-----------------|--------------|--------------|-------------------------|------------------------------------|
| 1               | 139.69826    | 35.69005     | 1 (ROUTE NUMBER 2)      | 1-3-14, SHIBAURA, MINATO-KU, TOKYO |
| 2               | ....         | ....         |                         |                                    |
| 3               | 139.69955    | 35.6896      | 1 (ROUTE NUMBER 1)      | 1-3-14, SHIBAURA, MINATO-KU, TOKYO |
| 4               | ....         | ....         |                         |                                    |
| 5               | 139.6983     | 35.68998     | 1 (ROUTE NUMBER 4)      | 1-3-16, SHIBAURA, MINATO-KU, TOKYO |
| 6               | ....         | ....         |                         |                                    |
| 7               | 139.69833    | 35.68998     | 1 (ROUTE NUMBER 3)      | 1-3-15, SHIBAURA, MINATO-KU, TOKYO |
| 8               | ....         | ....         |                         |                                    |

(b)

【FIG14】



【FIG15】



【FIG16】

