

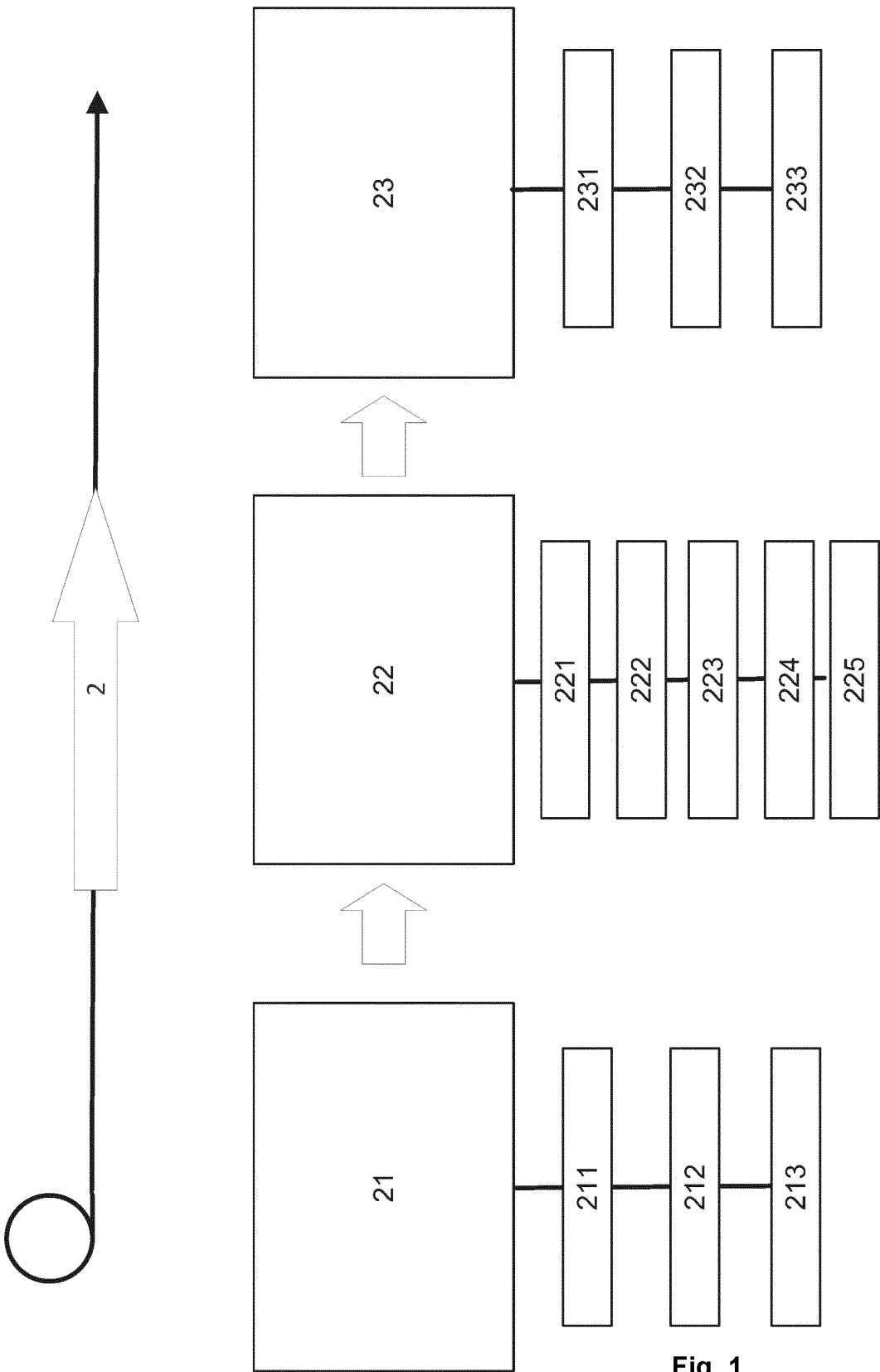
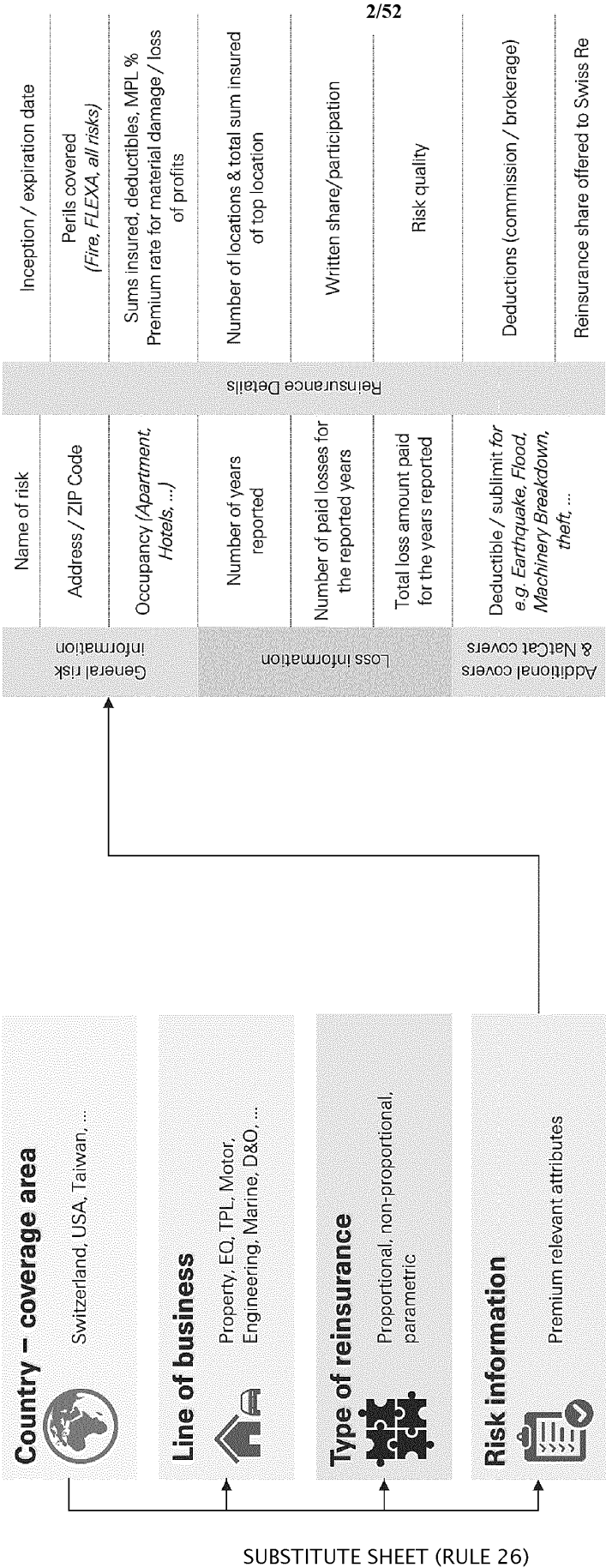


Fig. 1



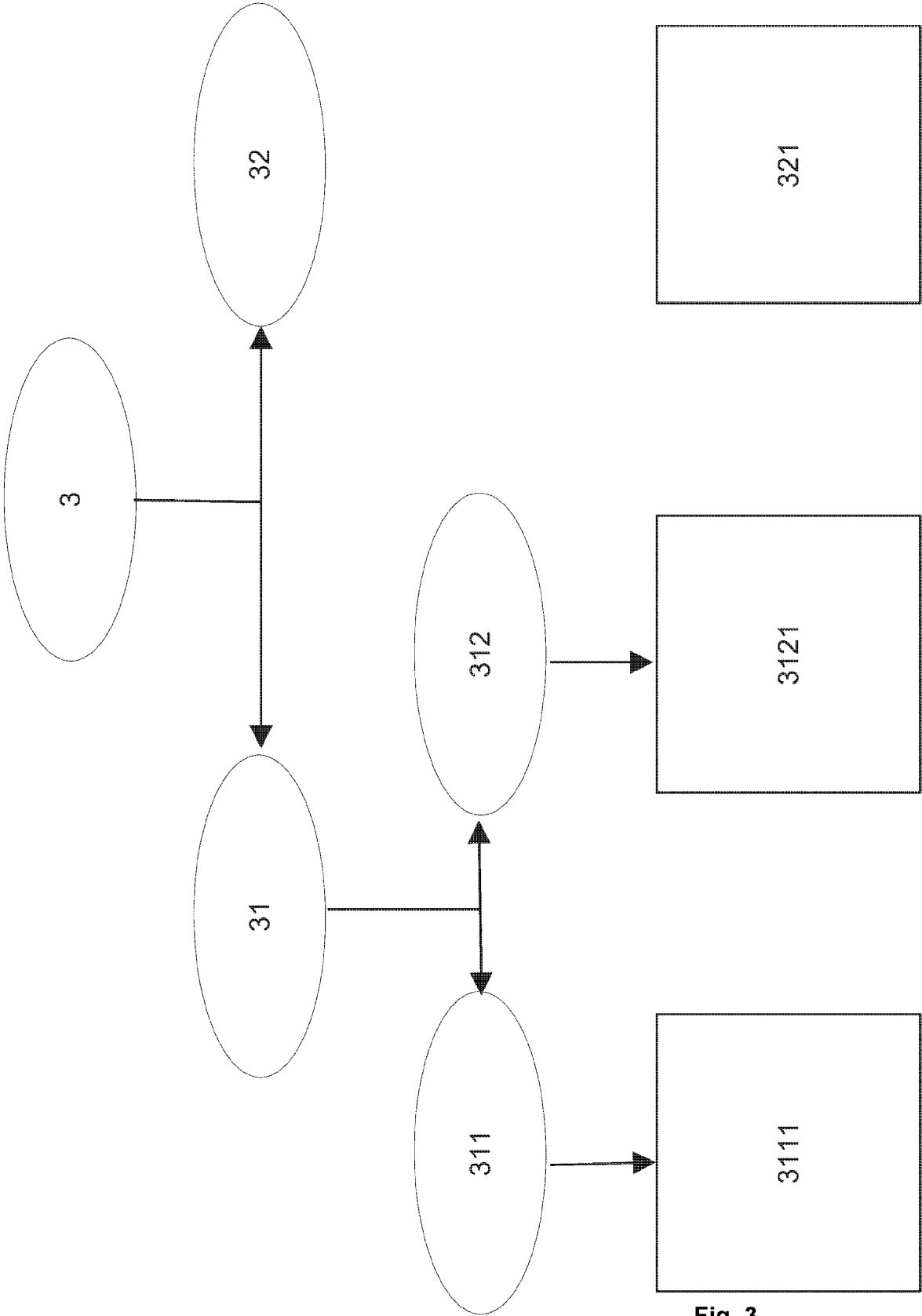


Fig. 3

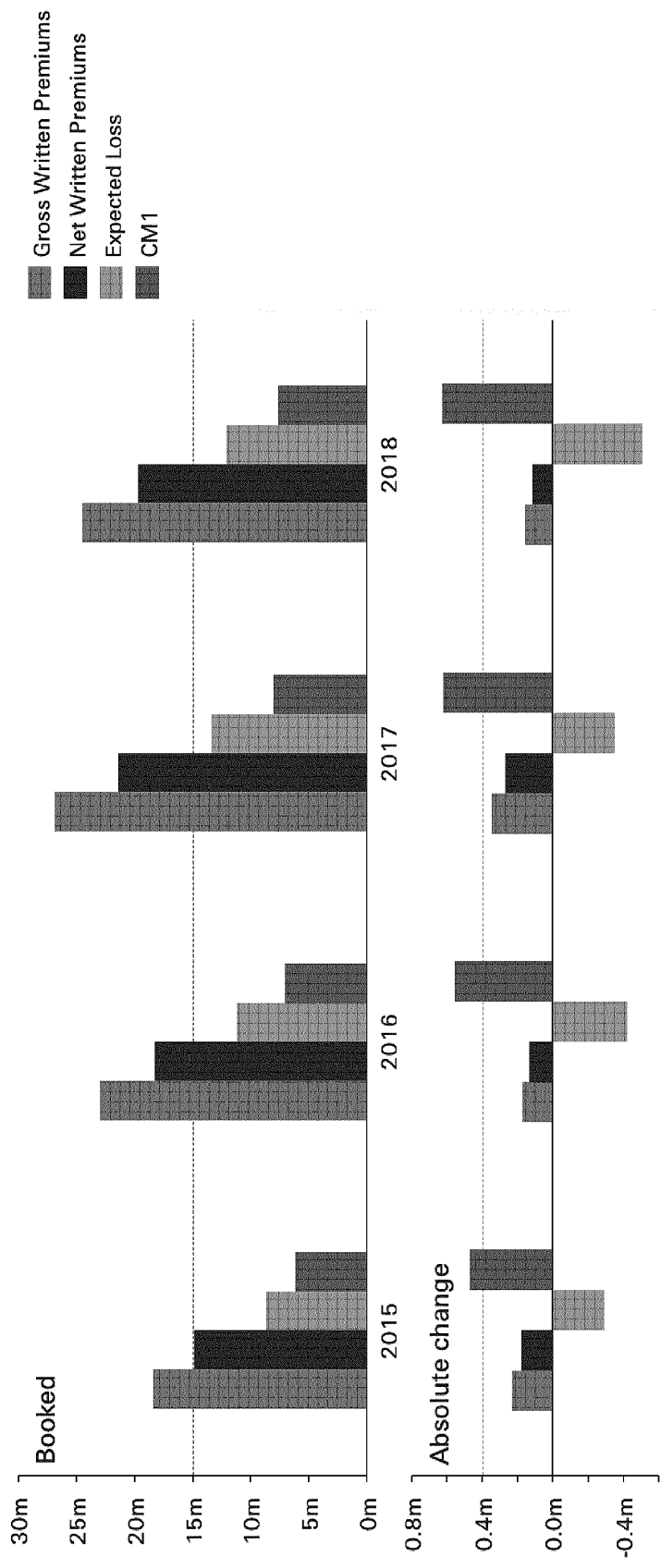


Fig. 4

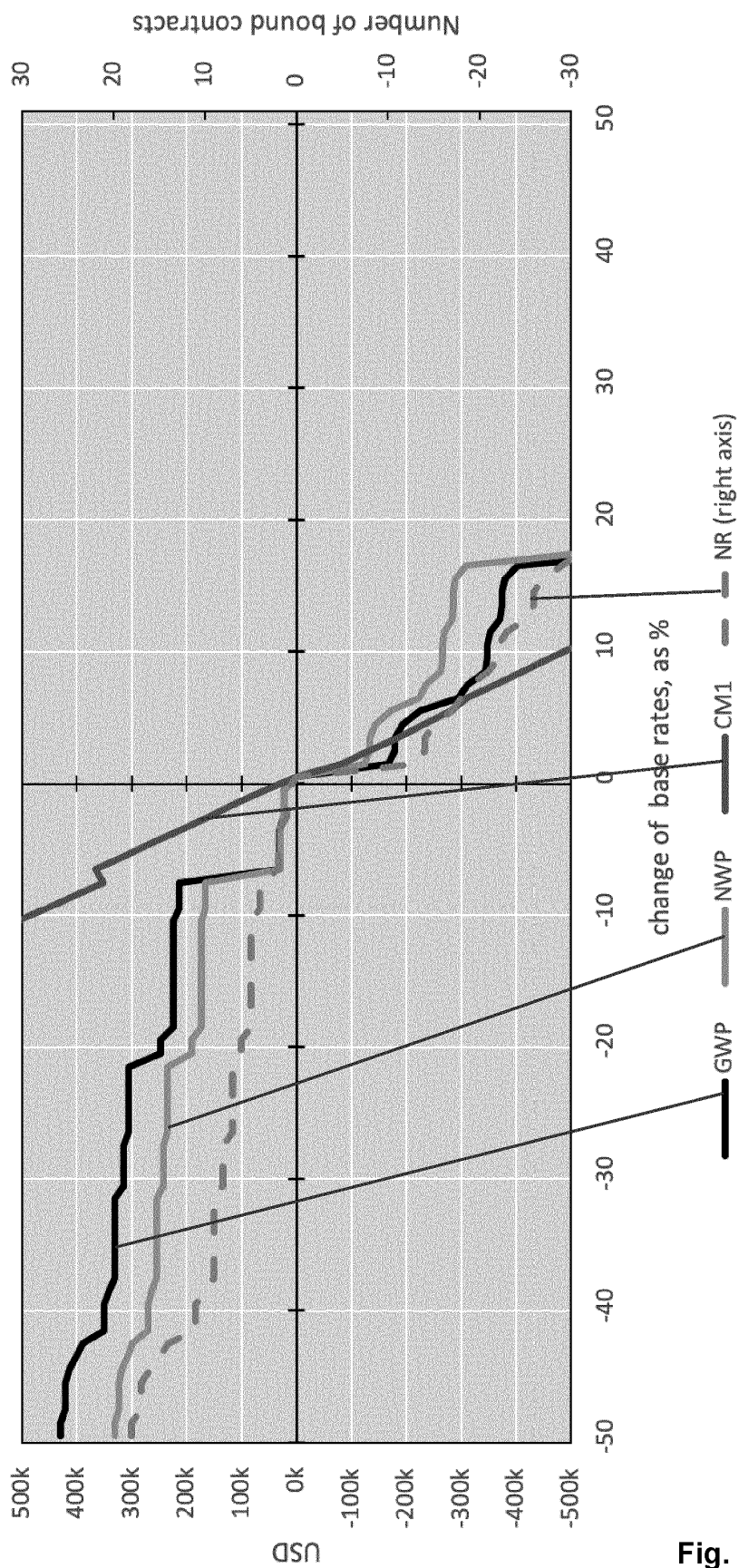


Fig. 5

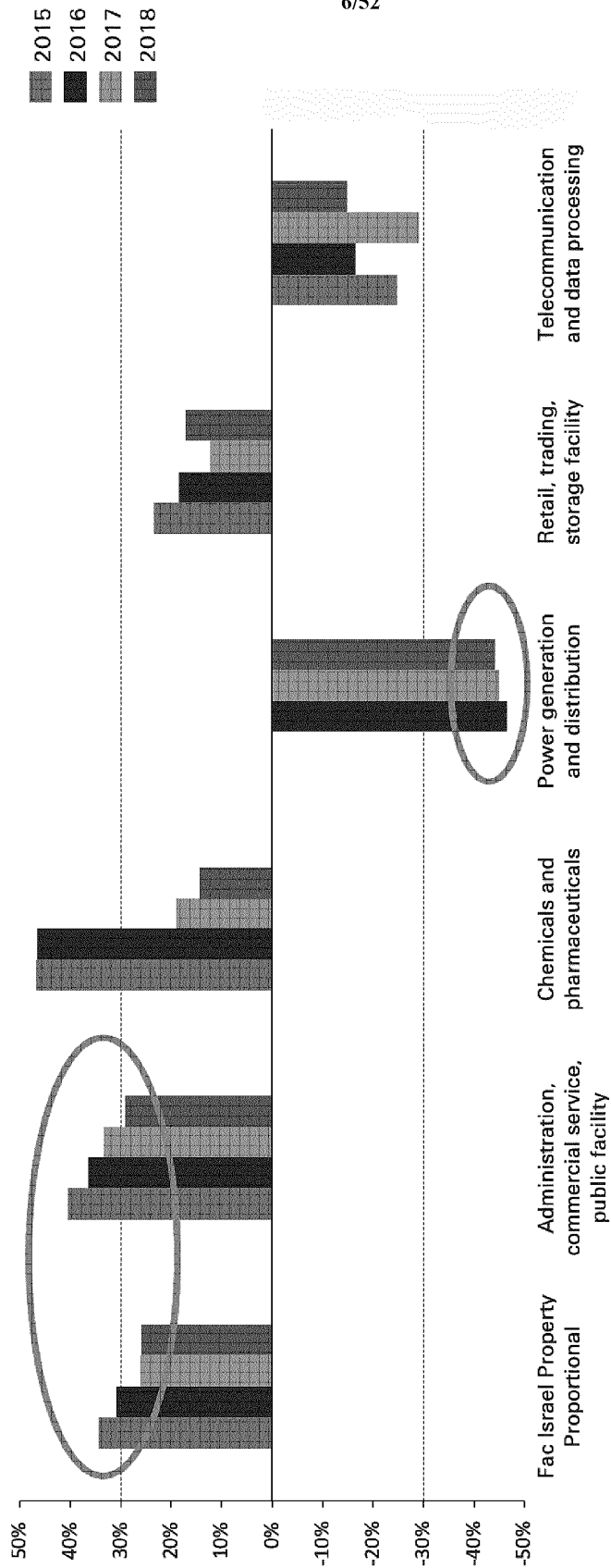


Fig. 6

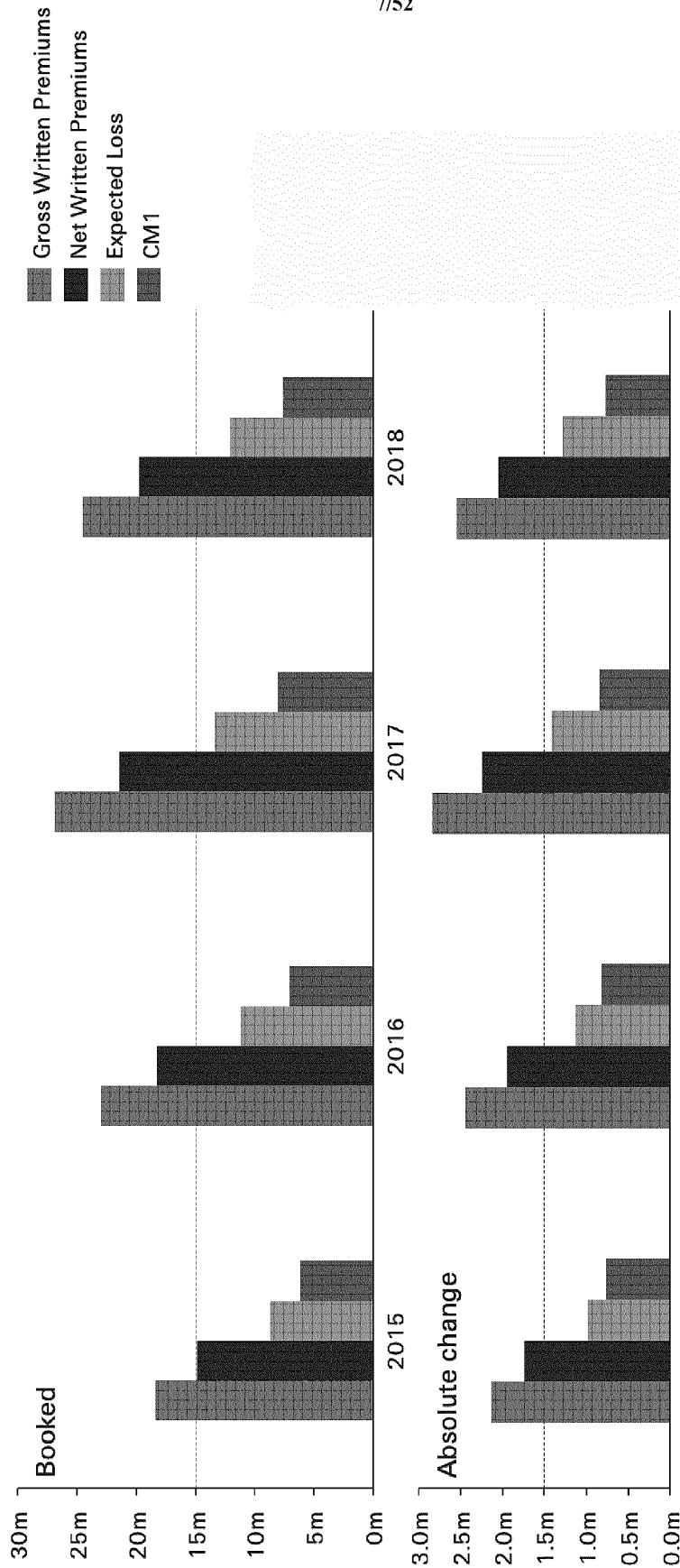


Fig. 7

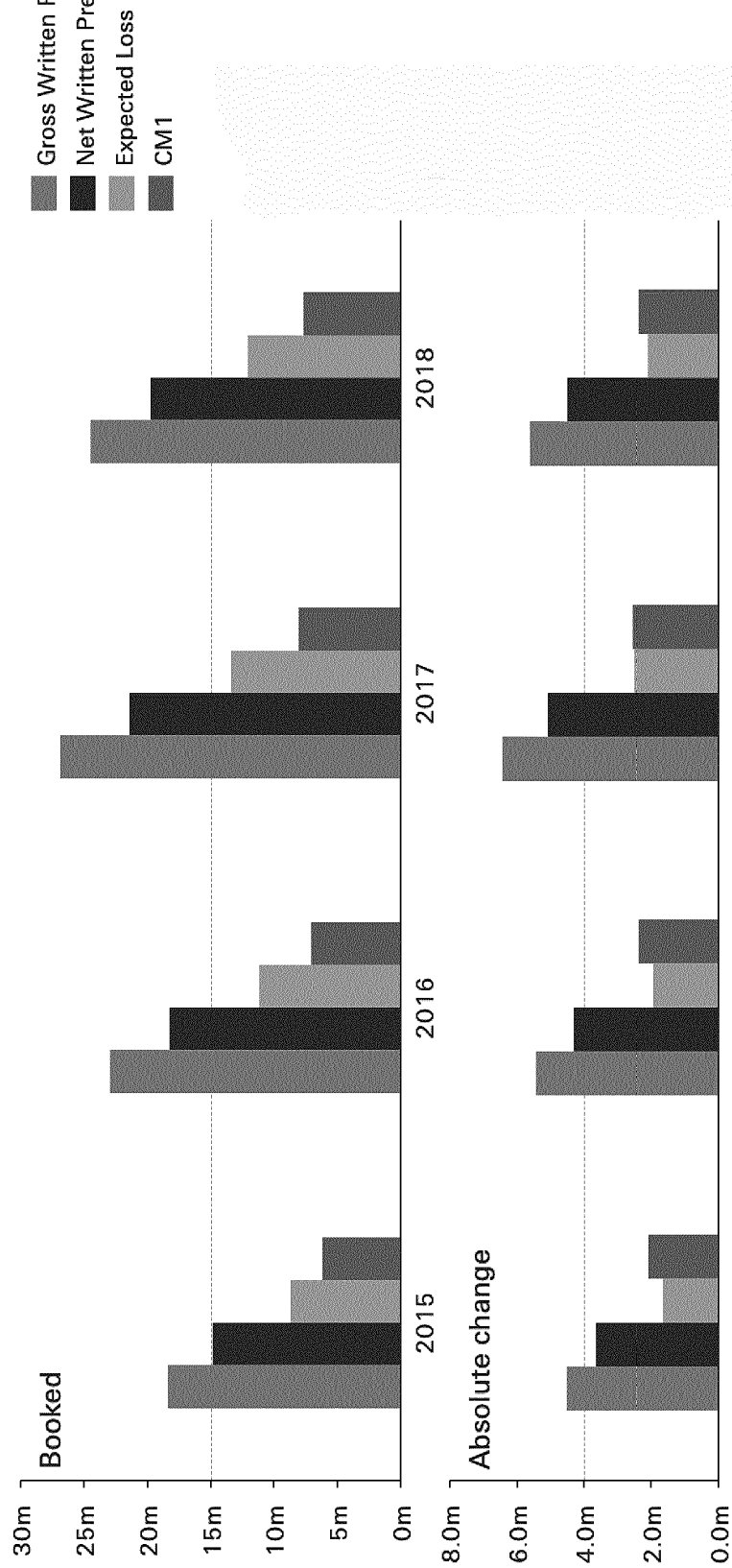
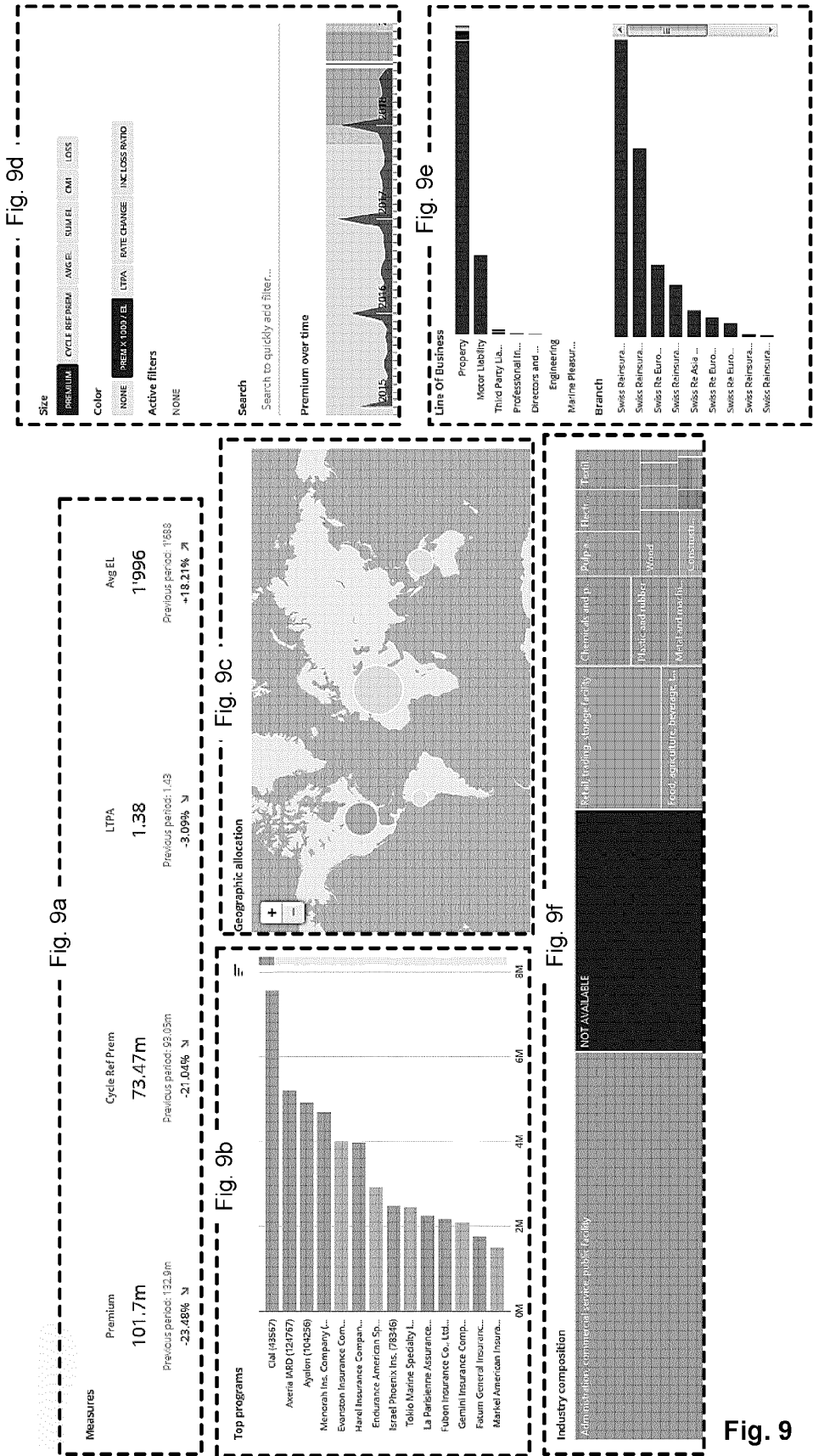


Fig. 8



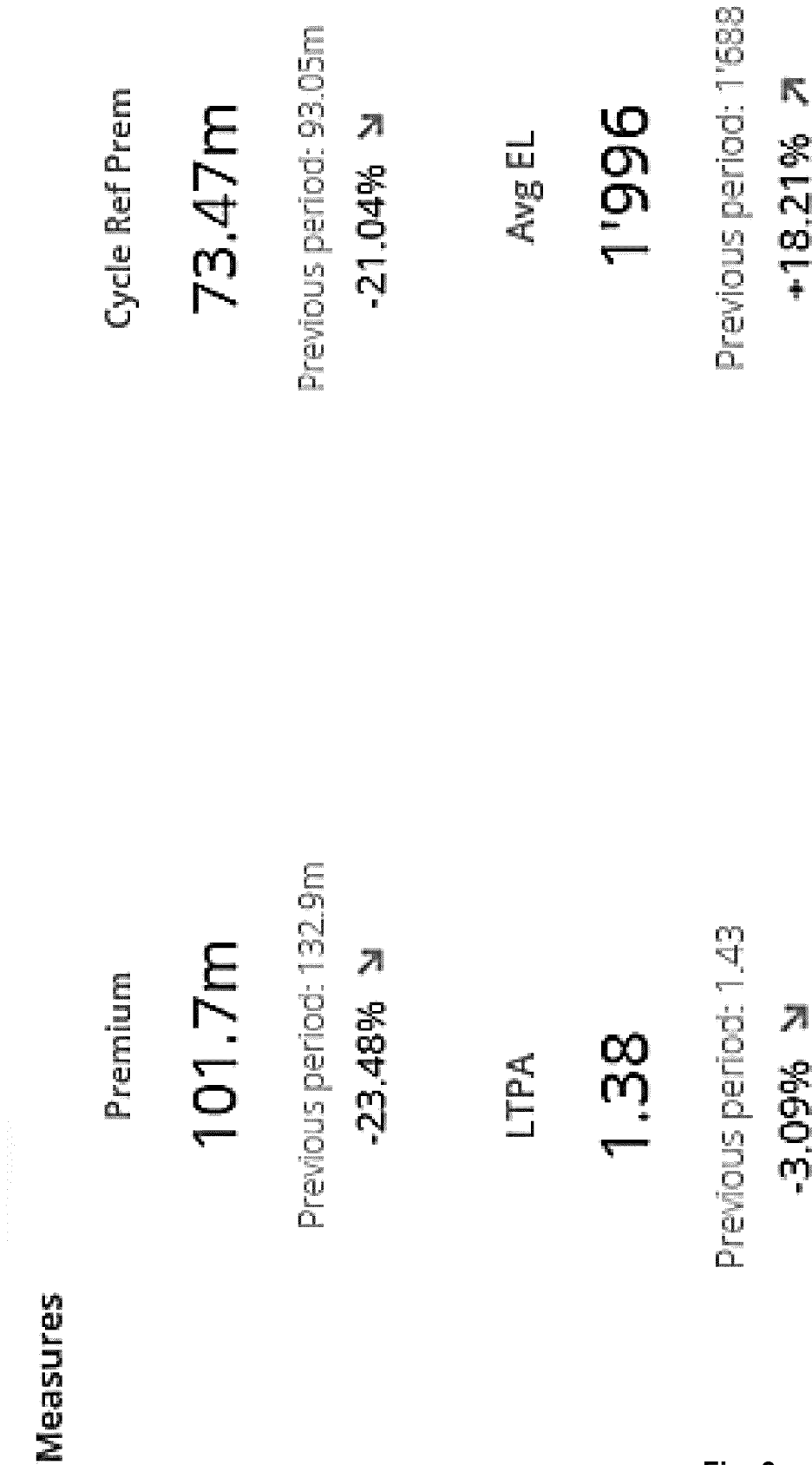


Fig. 9a

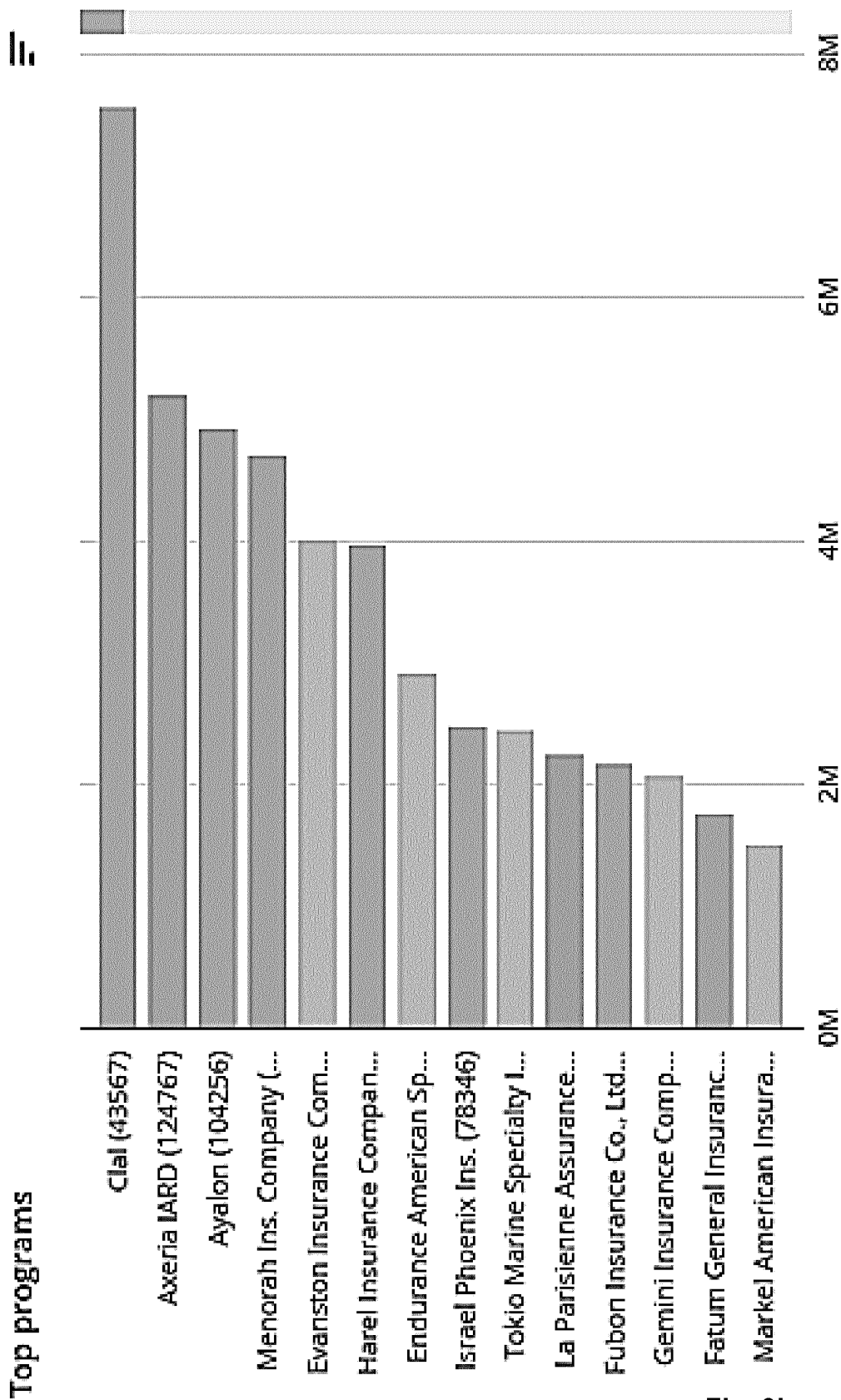


Fig. 9b



Fig. 9c

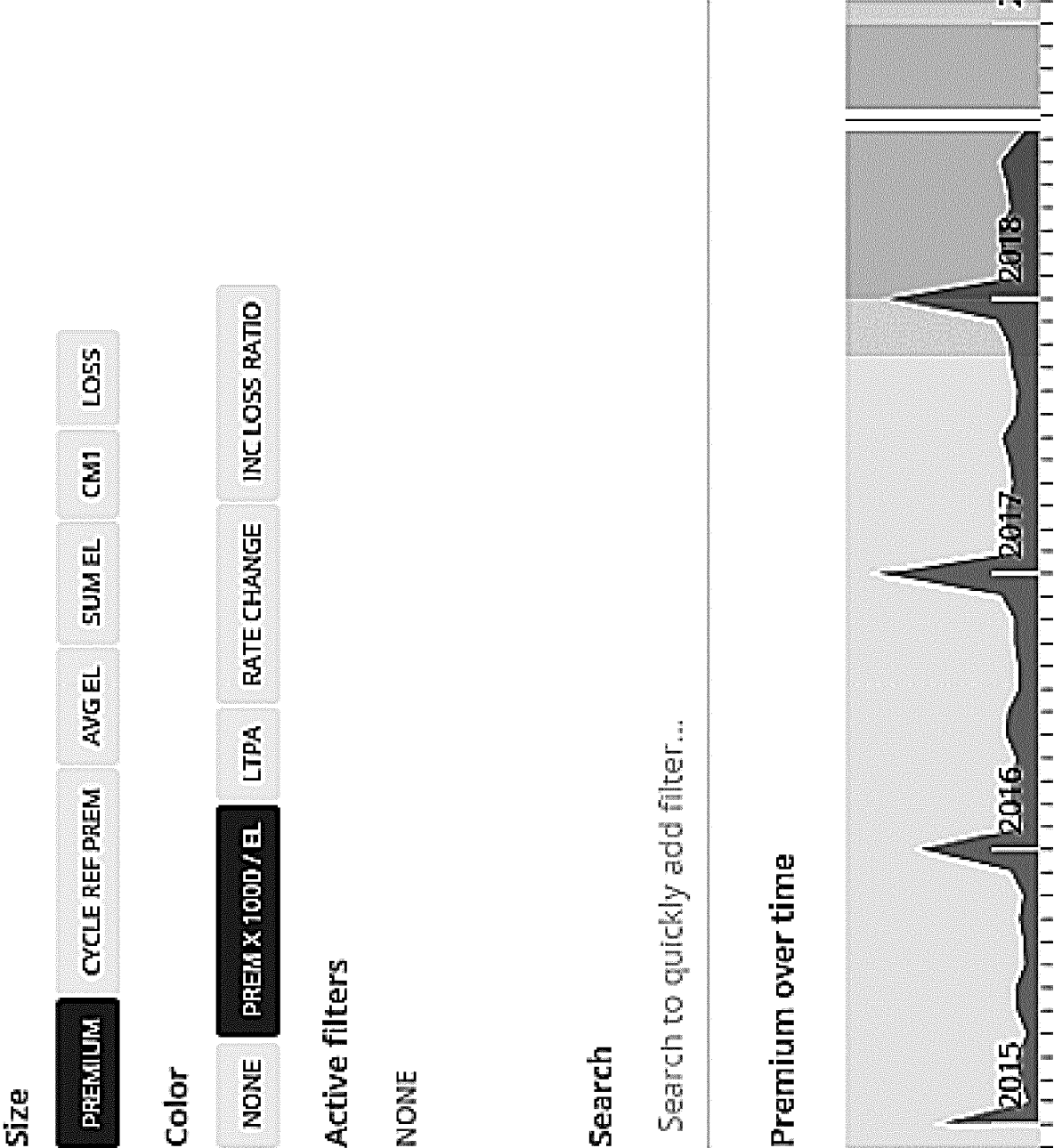


Fig. 9d

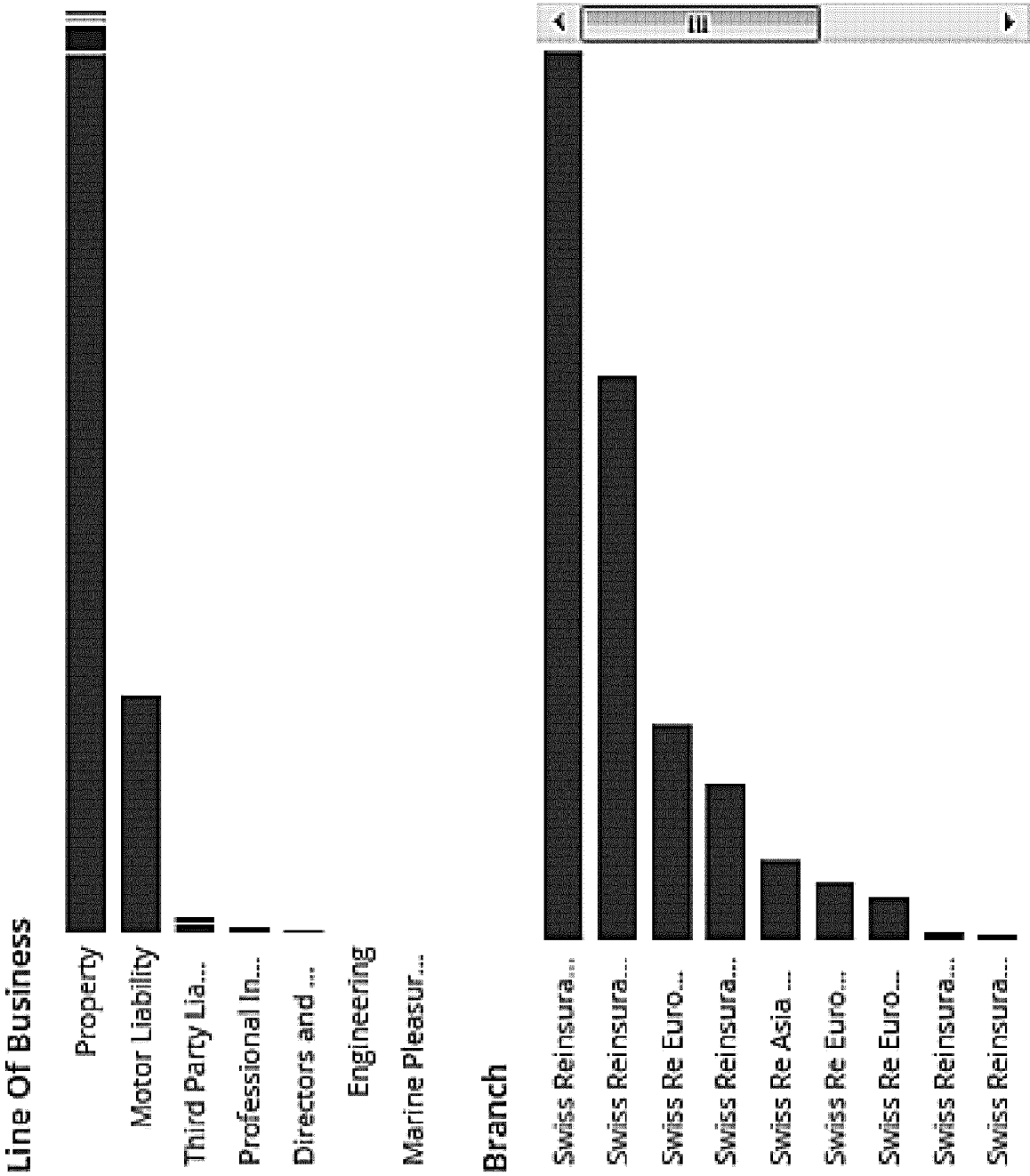


Fig. 9e

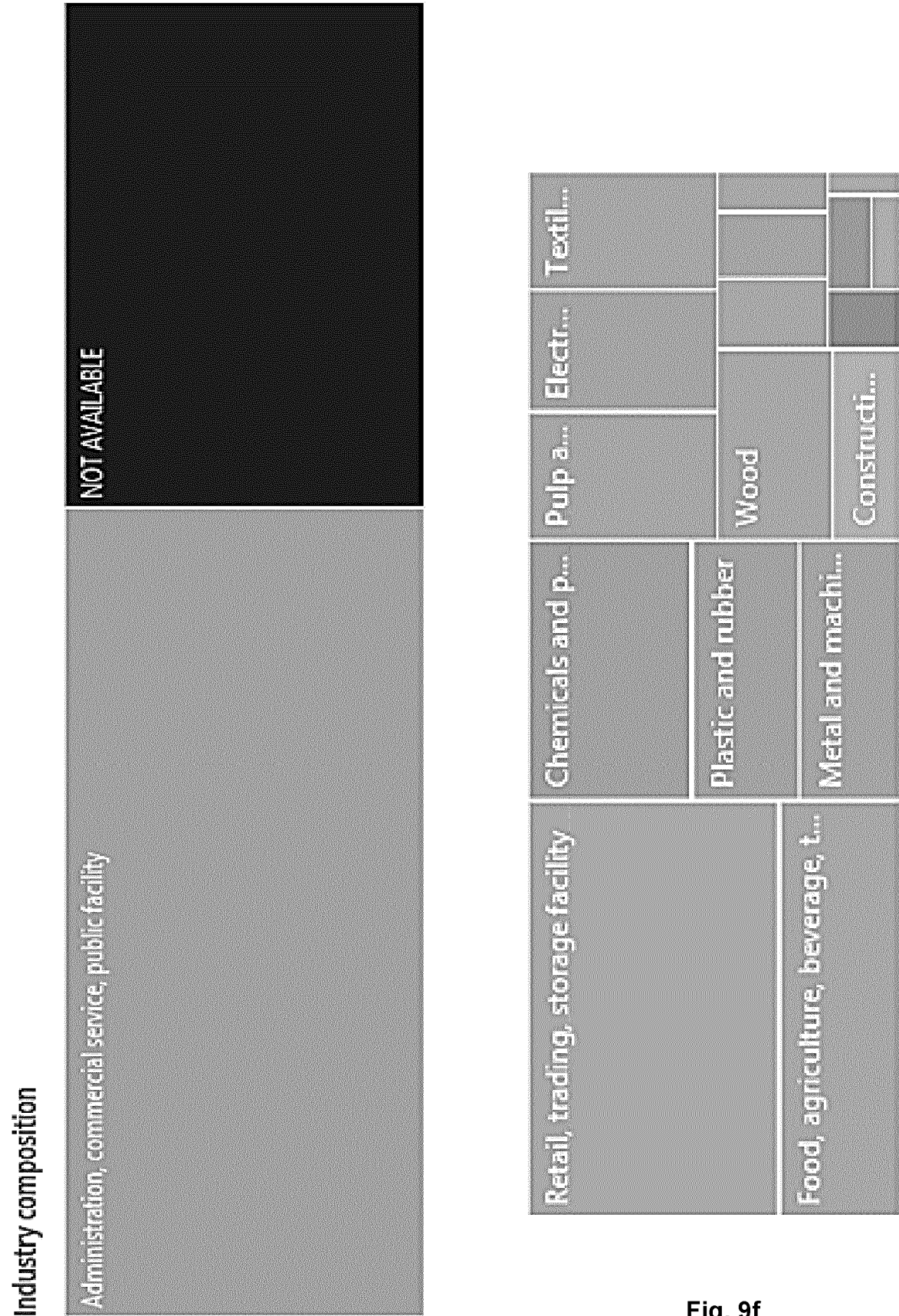


Fig. 9f



Fig. 10

	Peril	Ground-up Loss
Portfolio with minimum attributes set	Earthquake - Shock	\$ 22
	Flood - River	\$ 48
	Tropical Cyclone - Wind	\$ 701
	Overall Total (All Perils)	\$ 771

Fig. 11a

	Peril	Ground-up Loss
Portfolio enriched with NCEDI	Earthquake - Shock	\$ 18
	Flood - River	\$ 47
	Tropical Cyclone - Wind	\$ 801
	Overall Total (All Perils)	\$ 867

Fig. 11b

Name: Site/100-401311345-4090		Perils:	
Condition	Geographical Location	Physical Properties	Flood Physical Properties
Storm Physical Properties	EQ Physical Properties	Expert Attributes	
Geo Input Data Country: United States (USA) State/Province: County/District: Cresta Code: Cresta Name: Sub Cresta Code: Sub Cresta Name: Zip Code: Zip Code Resolution: City: Street: 243 hulbert st House Number: 243 Latitude: 40.59138 Longitude: -74.08497 Geocoding Resolution: Geocoding Quality:		Geocoded Data Admin 0: United States (USA) (339) Admin 1: New York (12026) Admin 2: Richmond (318119) Cresta: Richmond (403818) Sub Cresta: Highest Res. Zip: 10305 (500032-40) Place: Latitude: 40.59138 Longitude: -74.08497 Encoding Quality: EXACT Encoding Status: ENCODED_AND_COMPLETED Rating Zone: EQ USA Rest (650044) FL USA Mainland (653051) TC USA Zone 2 (651032)	

Fig. 12a

Name: Site/100-40.1311345-4090

Perils:

Geographical Location

Physical Properties

Flood Physical Properties

Storm Physical Properties

EQ Physical Properties

Expert Attributes

Input Properties		Reference Properties	
Occ Level 1:		Reference Occ Level 1:	Residential (1018255)
Occ Level 2:		Reference Occ Level 2:	Single-family housing (1018256)
Occ Level 3:		Reference Occ Level 3:	
Main Struct. Type:		Reference Main Struct. Type:	Wood frames (1)
Det. Struct. Type:		Reference Det. Struct. Type:	General wood frames (31)
Design Year:	1960	Reference Design Year	1960
Number of Storeys:	2		
Shape Irregularity:			
No. Of Risks:	1		
Risks Proximity:	☒ Risks In Geo Proximity Flag		
Source Primary Site ID:			
Source Site Name:			
Primary Building Flag: ☐ Primary Building			

Fig. 12b

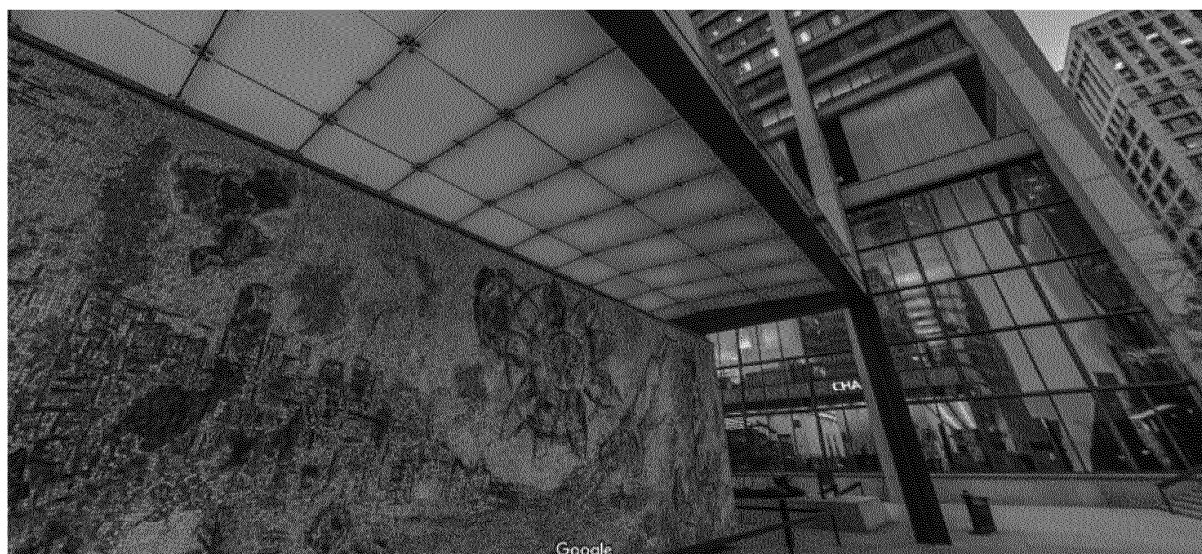


Fig. 13a

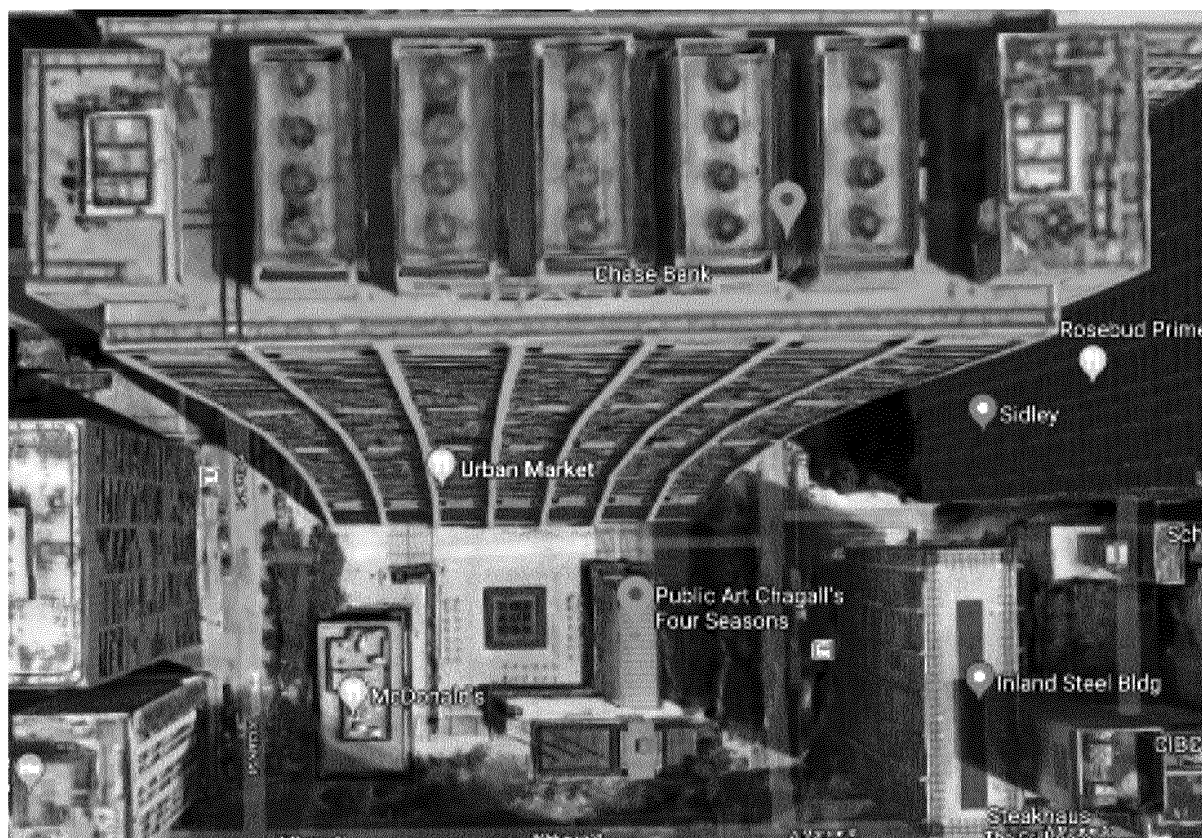


Fig. 13b



Fig. 14a



Fig. 14b

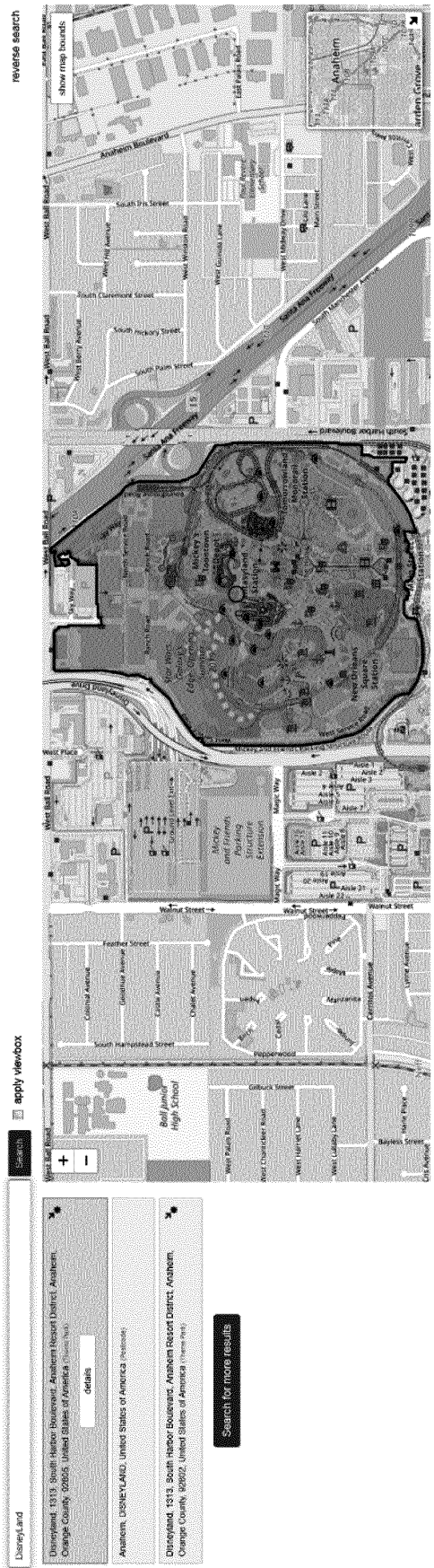


Fig. 15

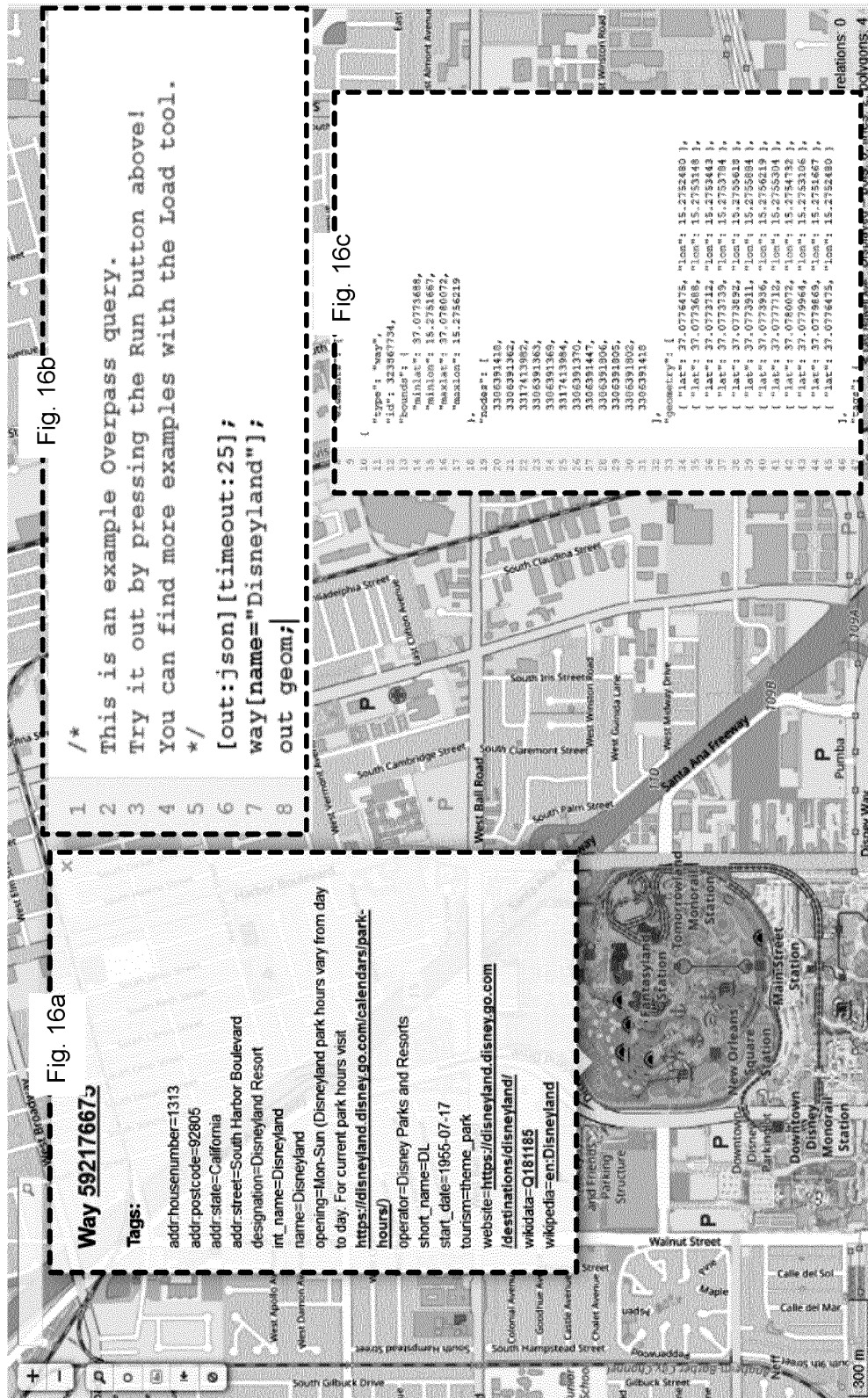


Fig. 16

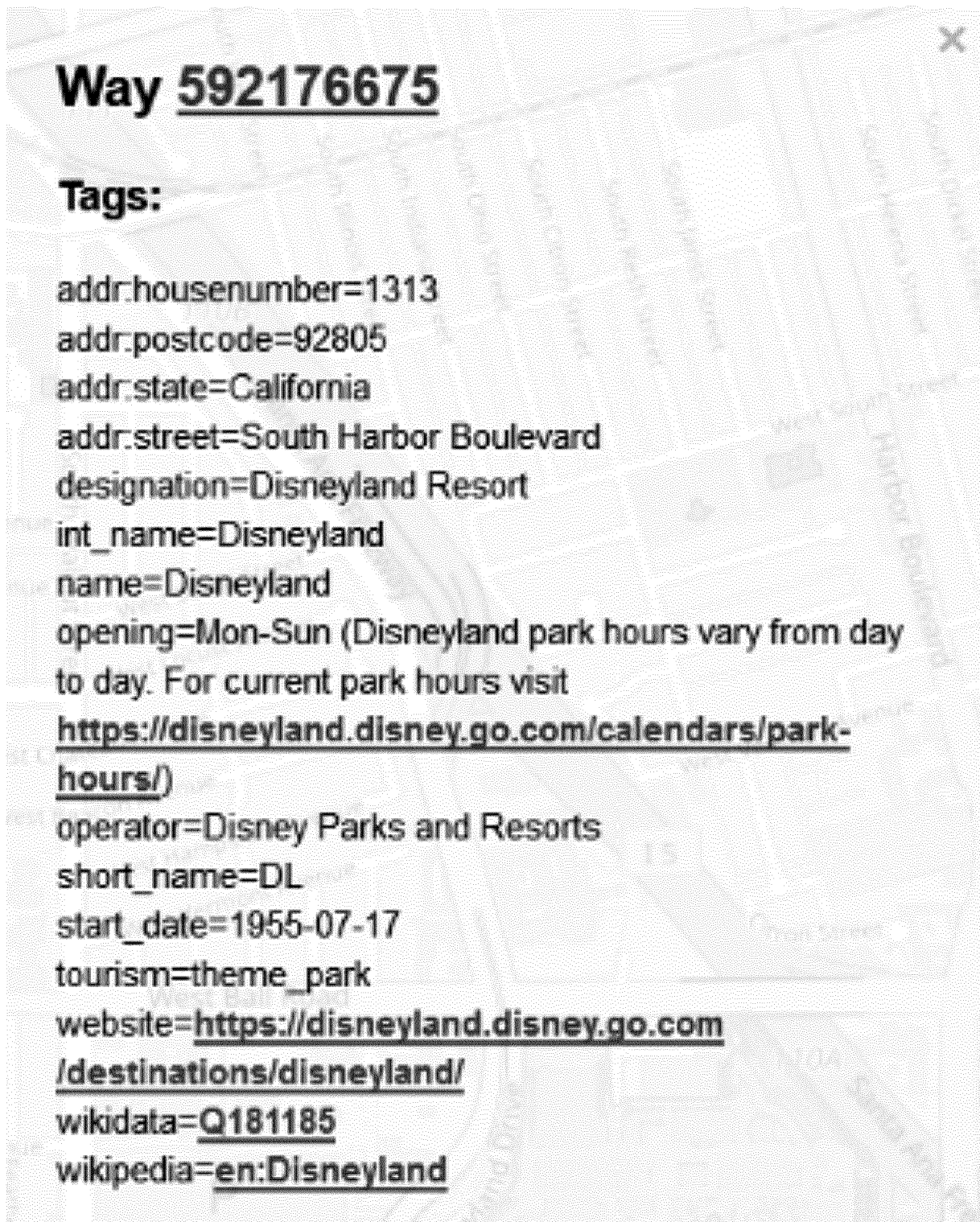


Fig. 16a


```
1  /*
2  This is an example Overpass query.
3  Try it out by pressing the Run button above!
4  You can find more examples with the Load tool.
5  */
6  [out:json][timeout:25];
7  way[name="Disneyland"];
8  out geom;
```

Fig. 16b


```
8      "elements": [  
9  
10     [  
11       "type": "way",  
12       "id": 323867734,  
13       "bounds": {  
14         "minlat": 37.0773688,  
15         "minlon": 15.2751667,  
16         "maxlat": 37.0780072,  
17         "maxlon": 15.2756219  
18       },  
19       "nodes": [  
20         3306391418,  
21         3306391362,  
22         3317413982,  
23         3306391363,  
24         3306391369,  
25         3317413984,  
26         3306391370,  
27         3306391447,  
28         3306391806,  
29         3306391805,  
30         3306391802,  
31         3306391418  
32       ],  
33       "geometry": [  
34         { "lat": 37.0776475, "lon": 15.2752480 },  
35         { "lat": 37.0773688, "lon": 15.2753148 },  
36         { "lat": 37.0773712, "lon": 15.2753443 },  
37         { "lat": 37.0773739, "lon": 15.2753784 },  
38         { "lat": 37.0773892, "lon": 15.2755618 },  
39         { "lat": 37.0773911, "lon": 15.2755884 },  
40         { "lat": 37.0773936, "lon": 15.2756219 },  
41         { "lat": 37.0777112, "lon": 15.2755304 },  
42         { "lat": 37.0780072, "lon": 15.2754732 },  
43         { "lat": 37.0779964, "lon": 15.2753106 },  
44         { "lat": 37.0779869, "lon": 15.2751667 },  
45         { "lat": 37.0776475, "lon": 15.2752480 }  
46       ],  
47       "tags": {
```

Fig. 16c

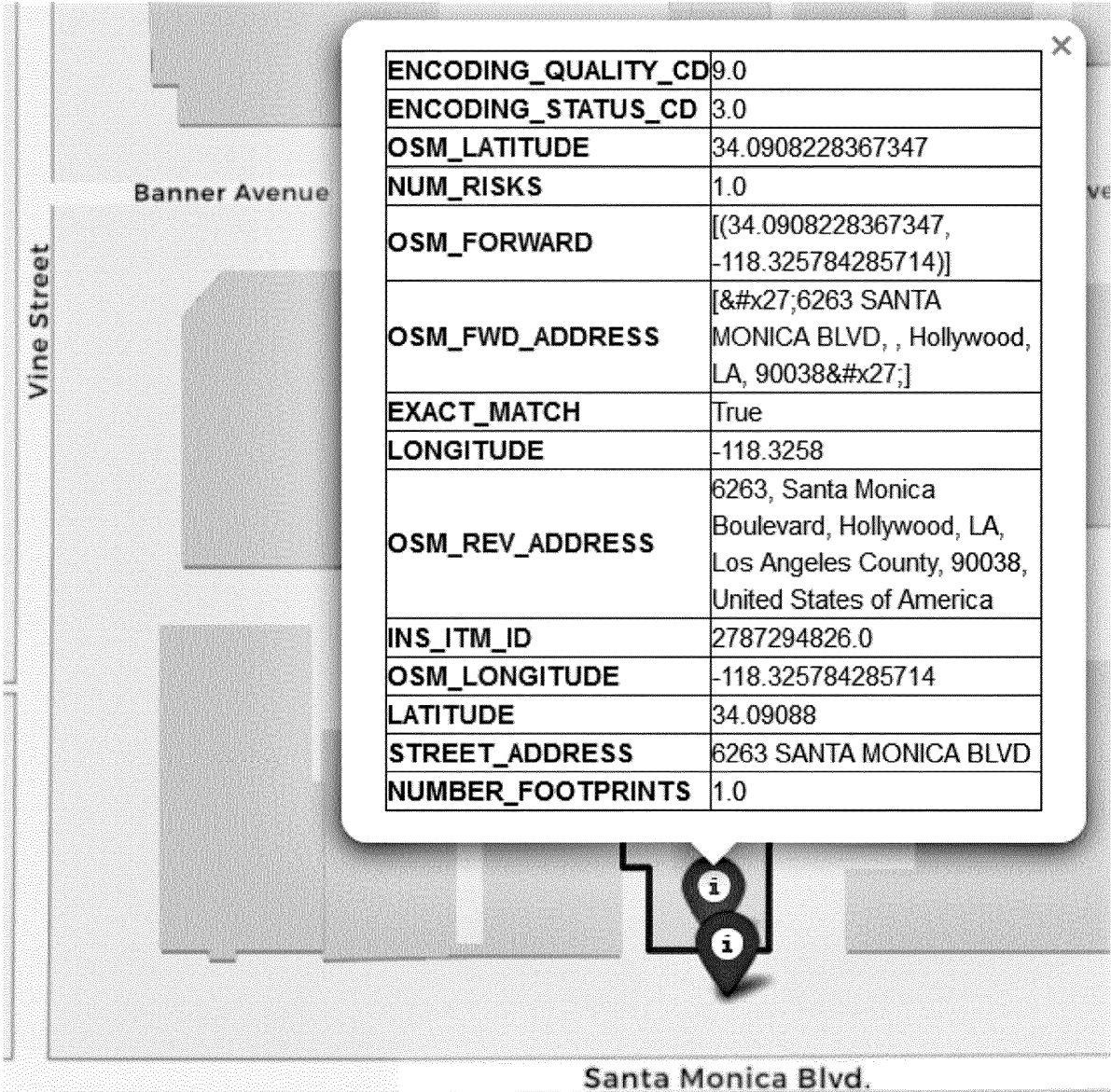


Fig. 17



Fig. 18a

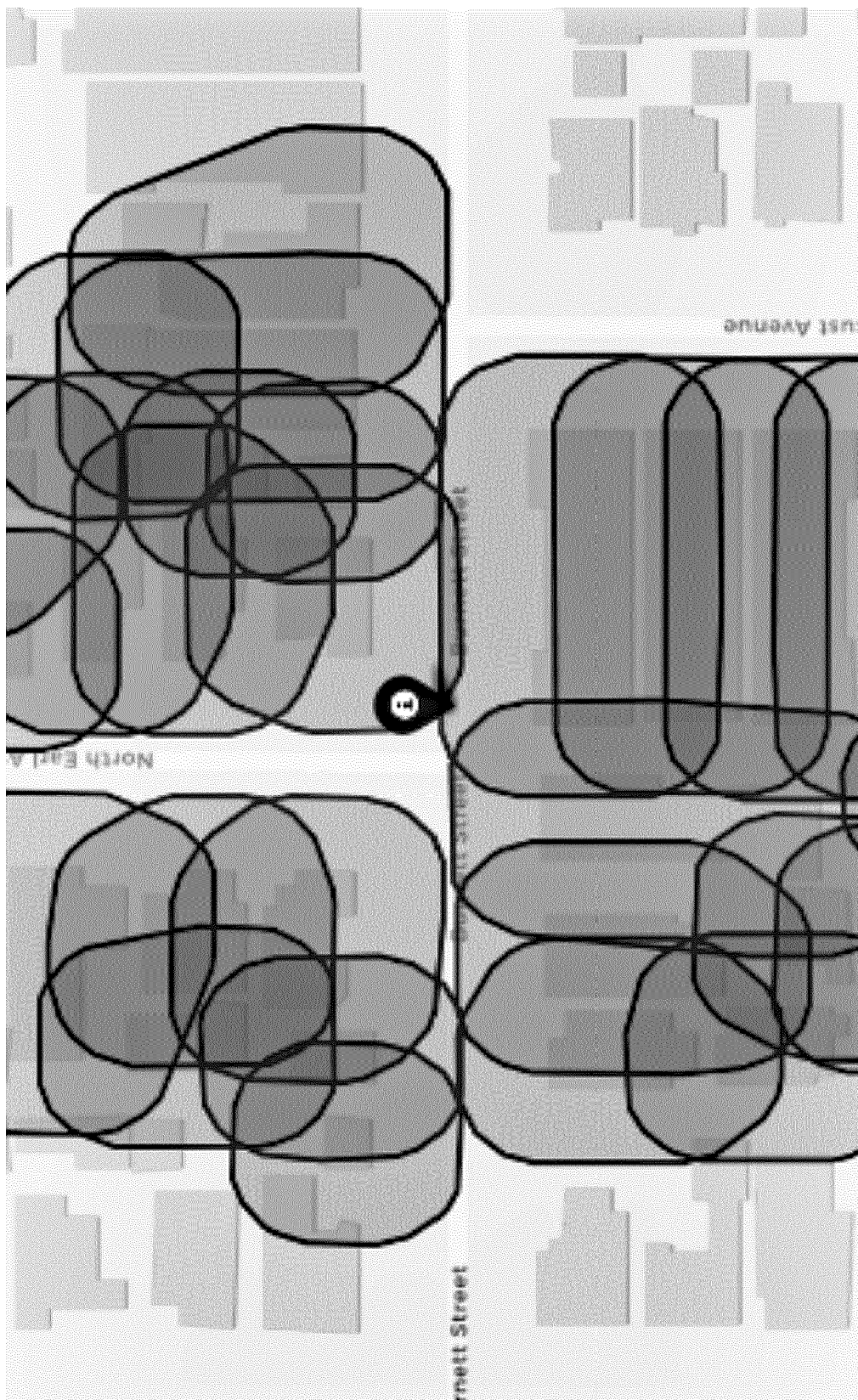


Fig. 18b

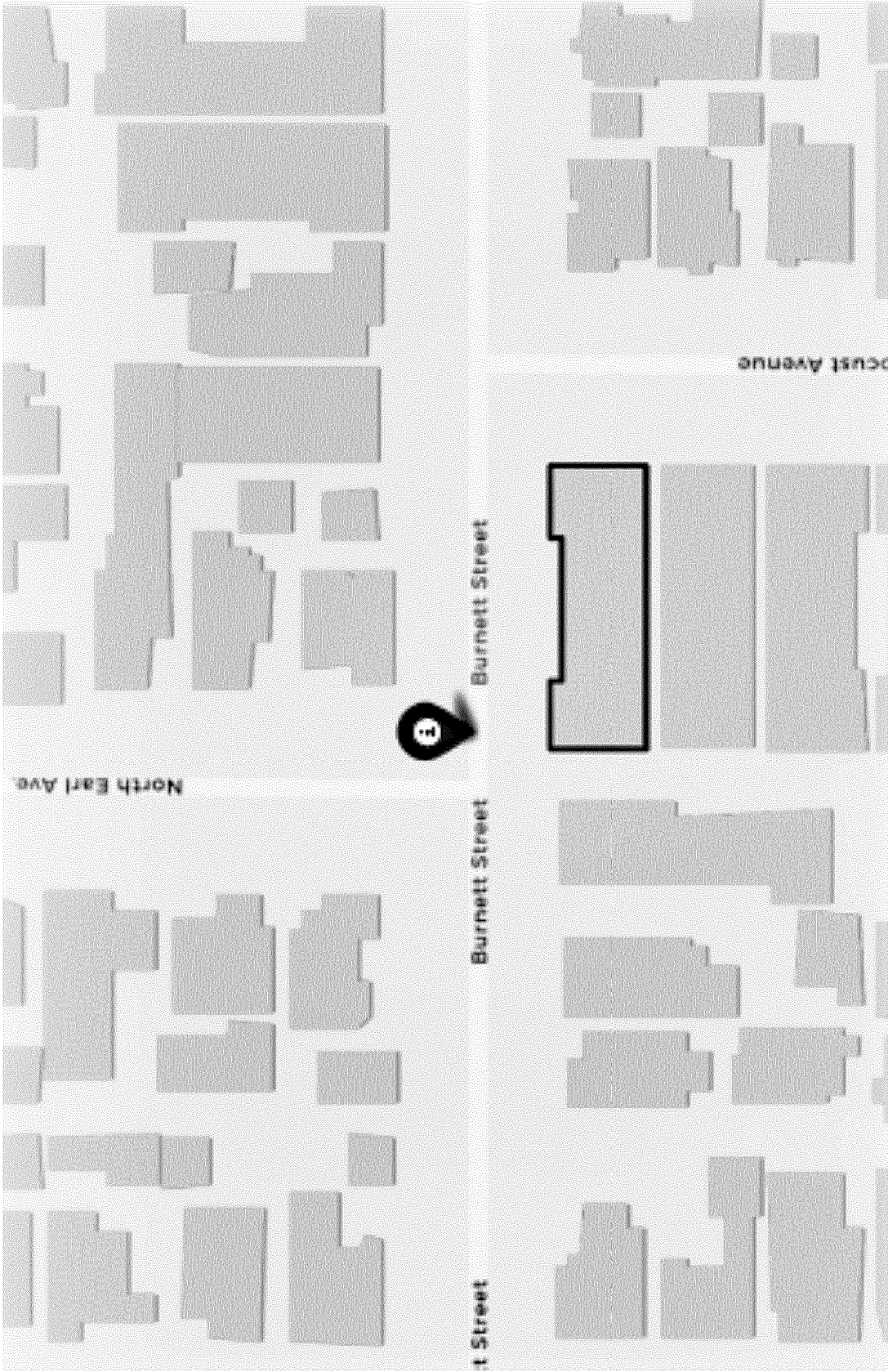


Fig. 18c

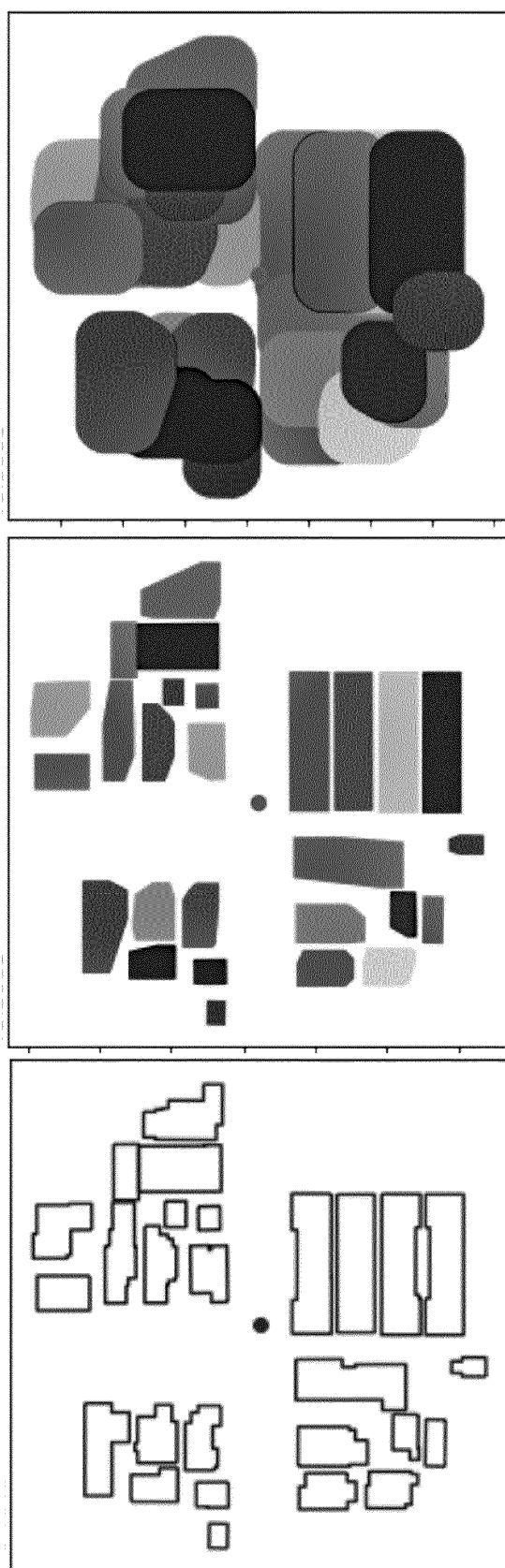


Fig. 19

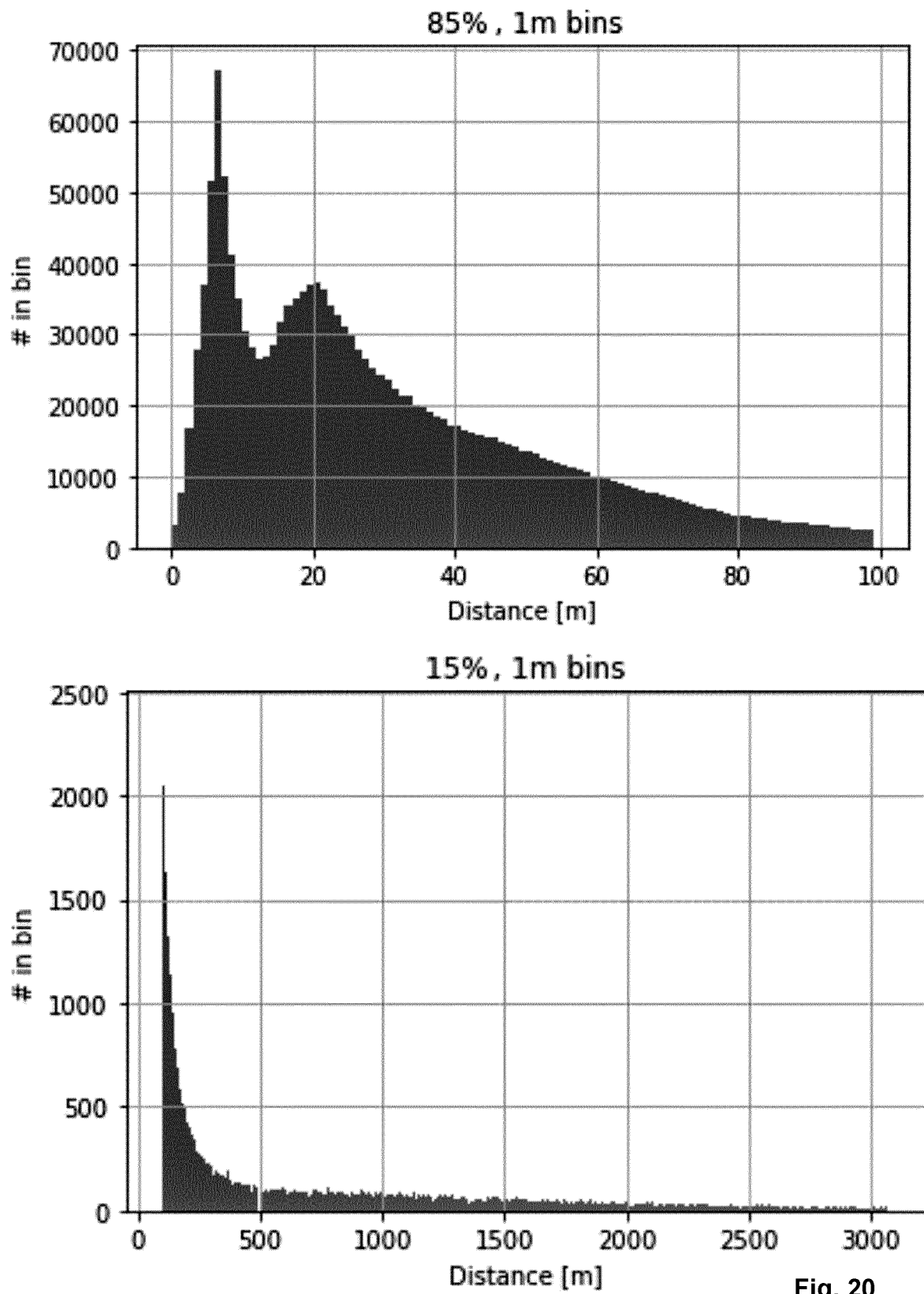
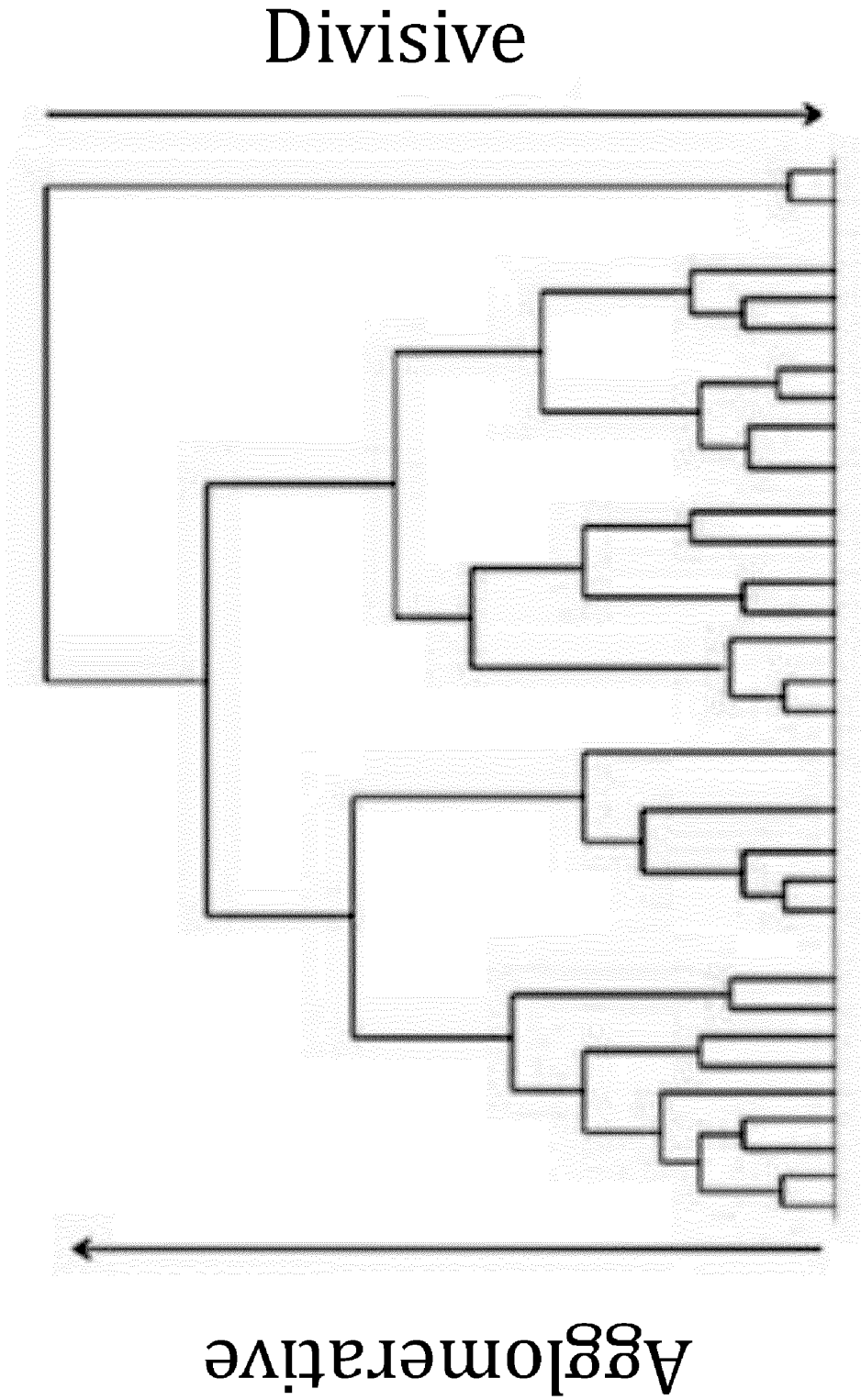


Fig. 20



A generic cluster dendrogram visualizing
agglomerative & divisive clustering

Fig. 21

Clustering or De-duplication of same risk

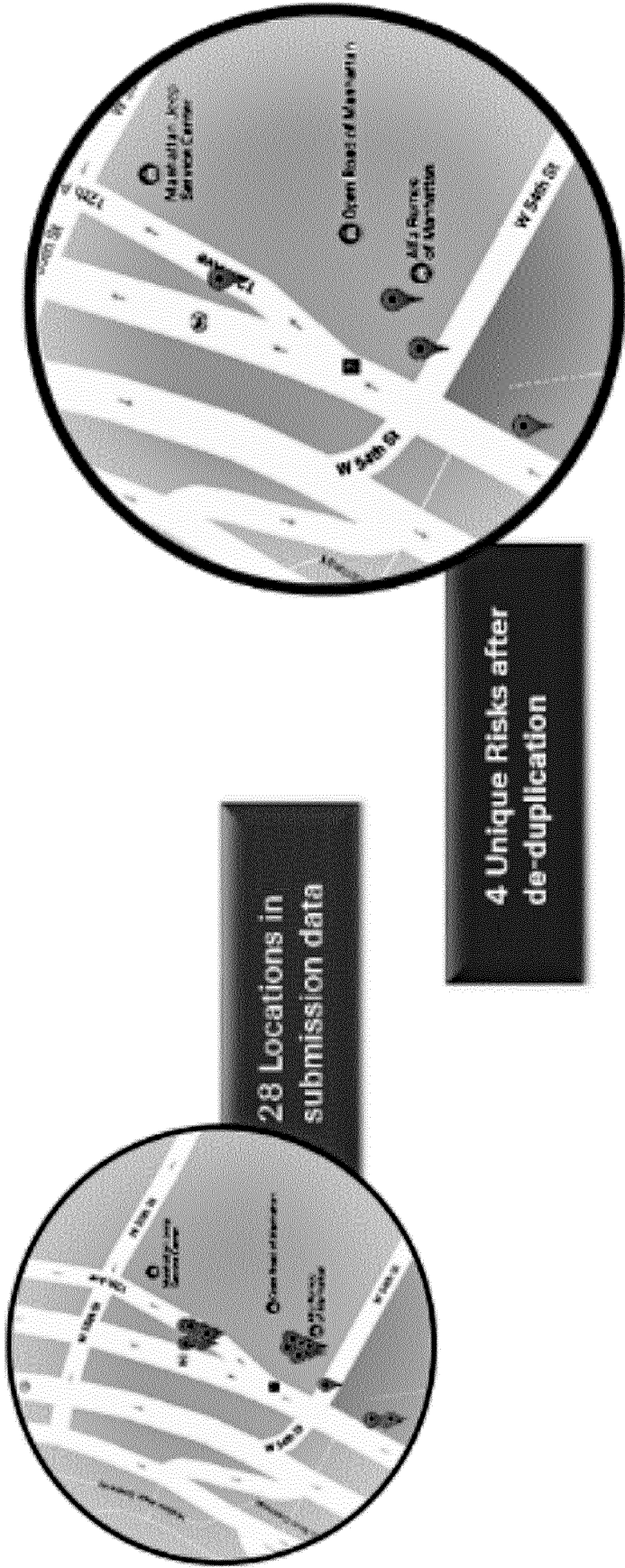


Fig. 22

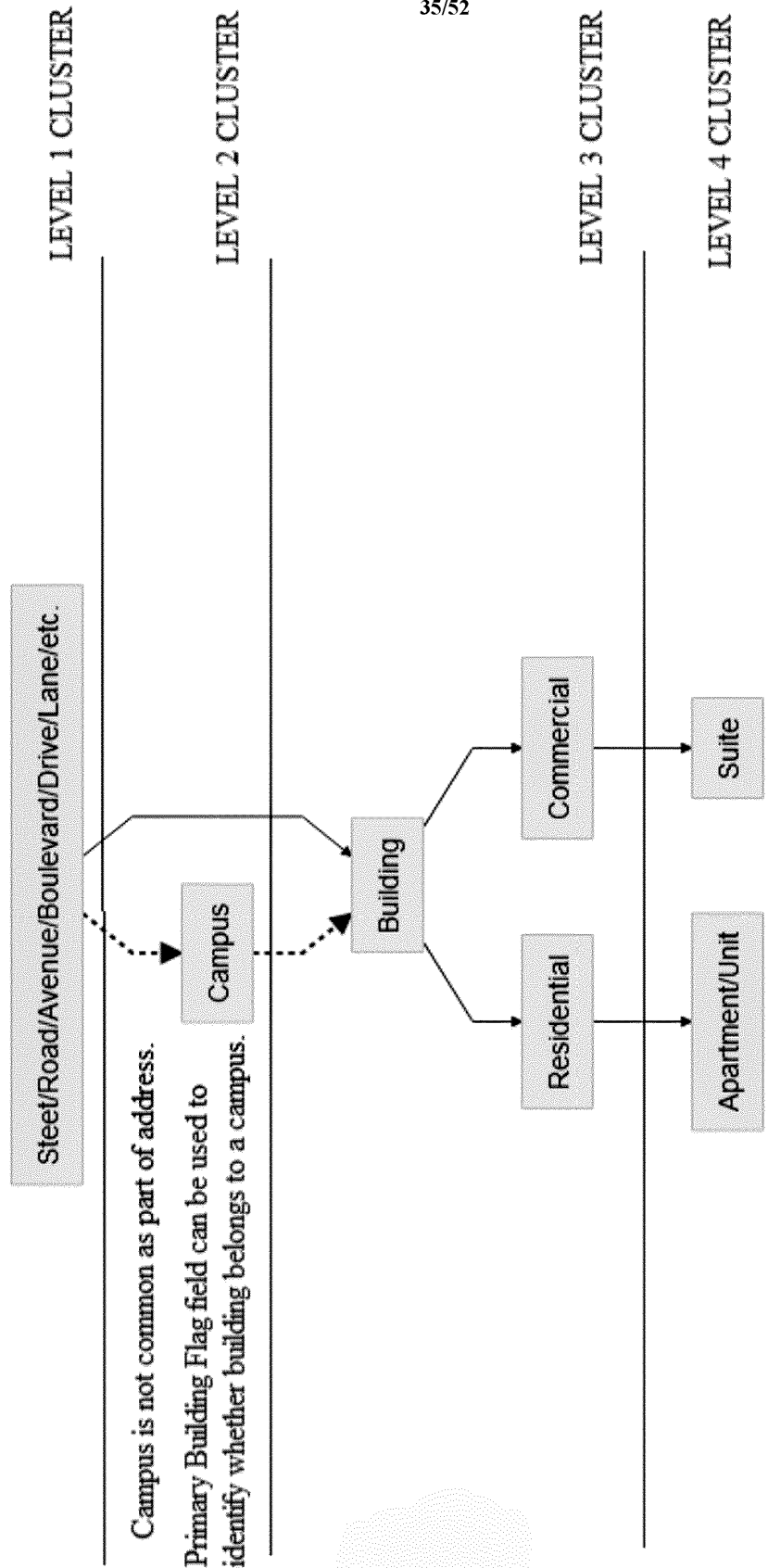


Fig. 23

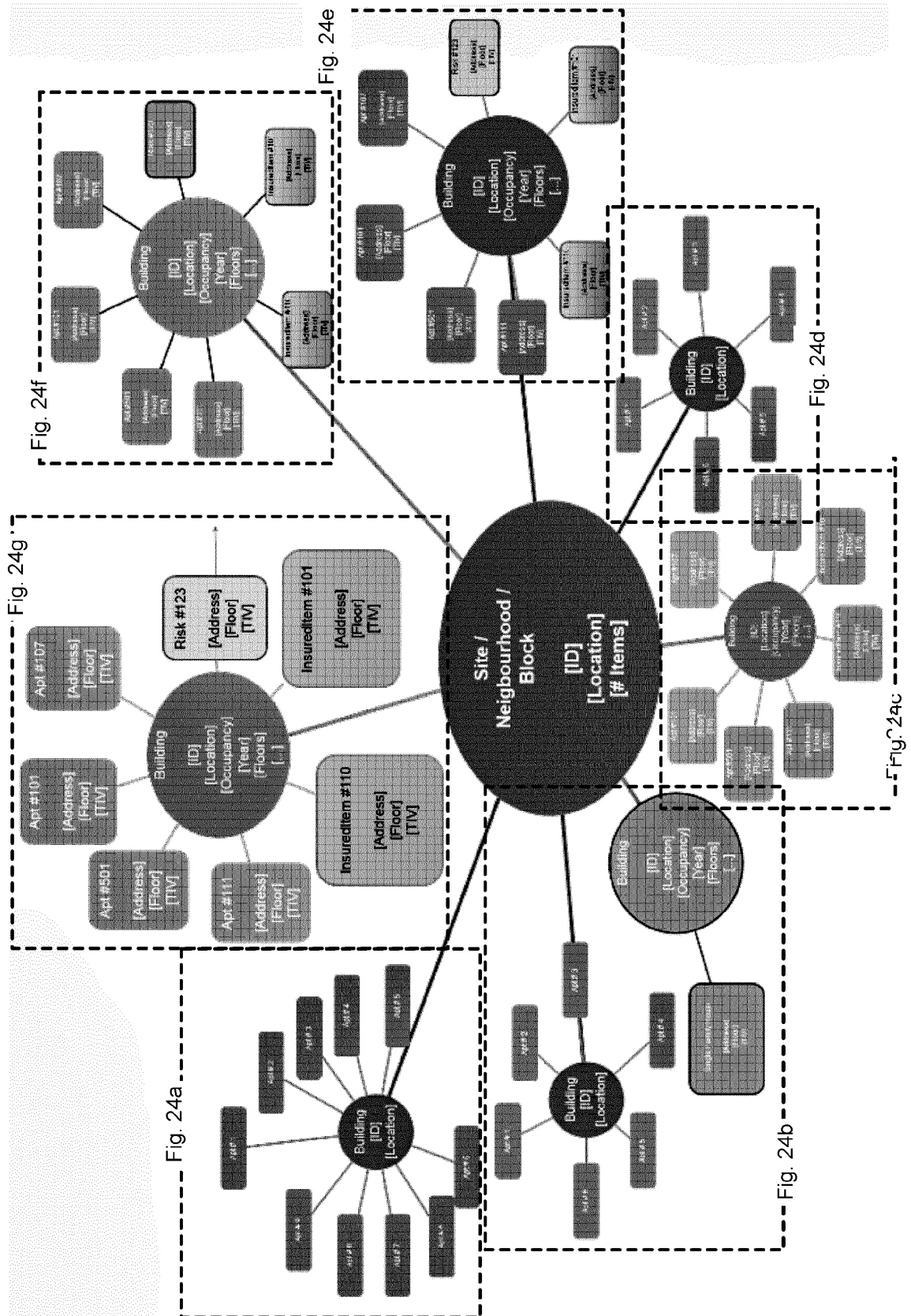


Fig. 24

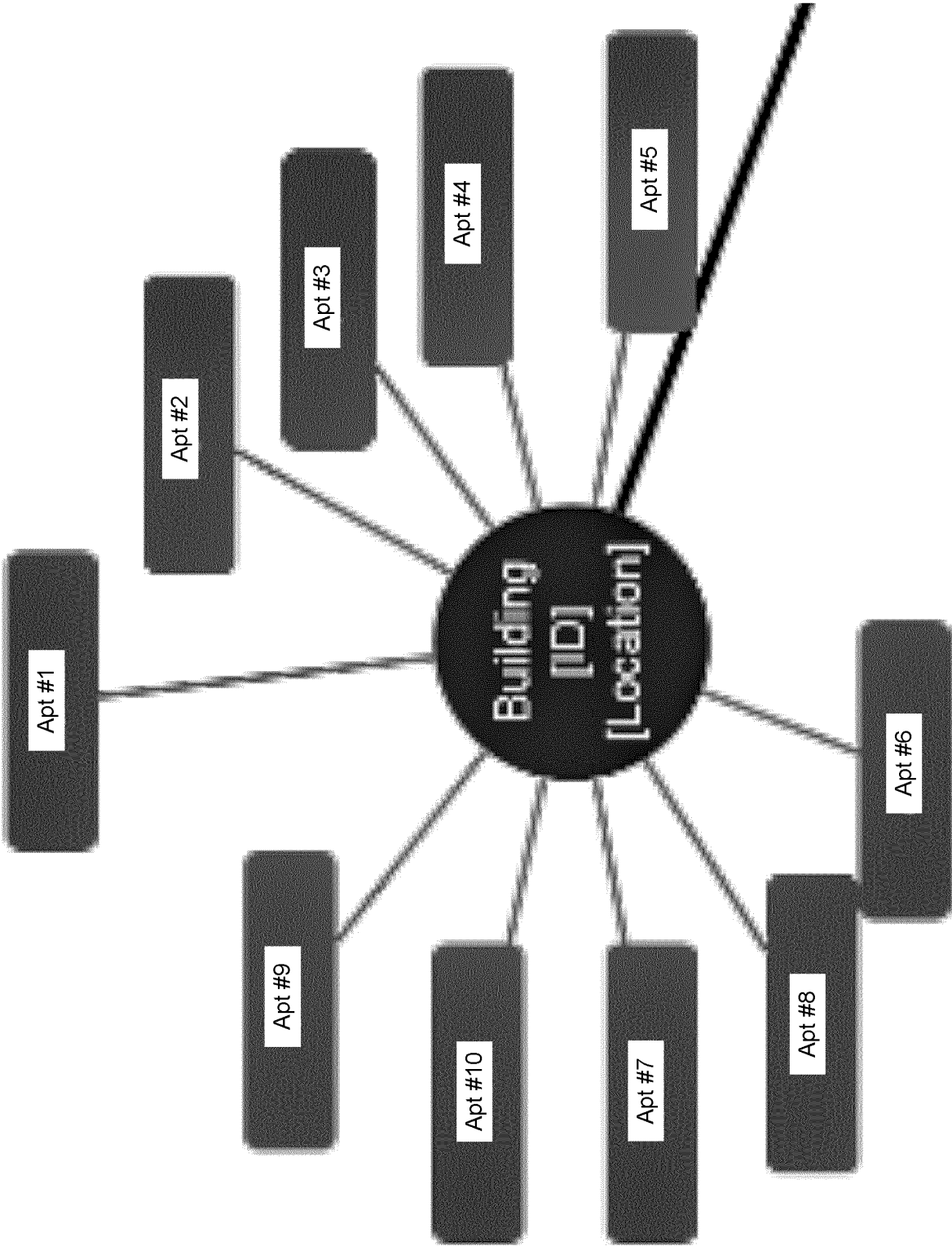


Fig. 24a

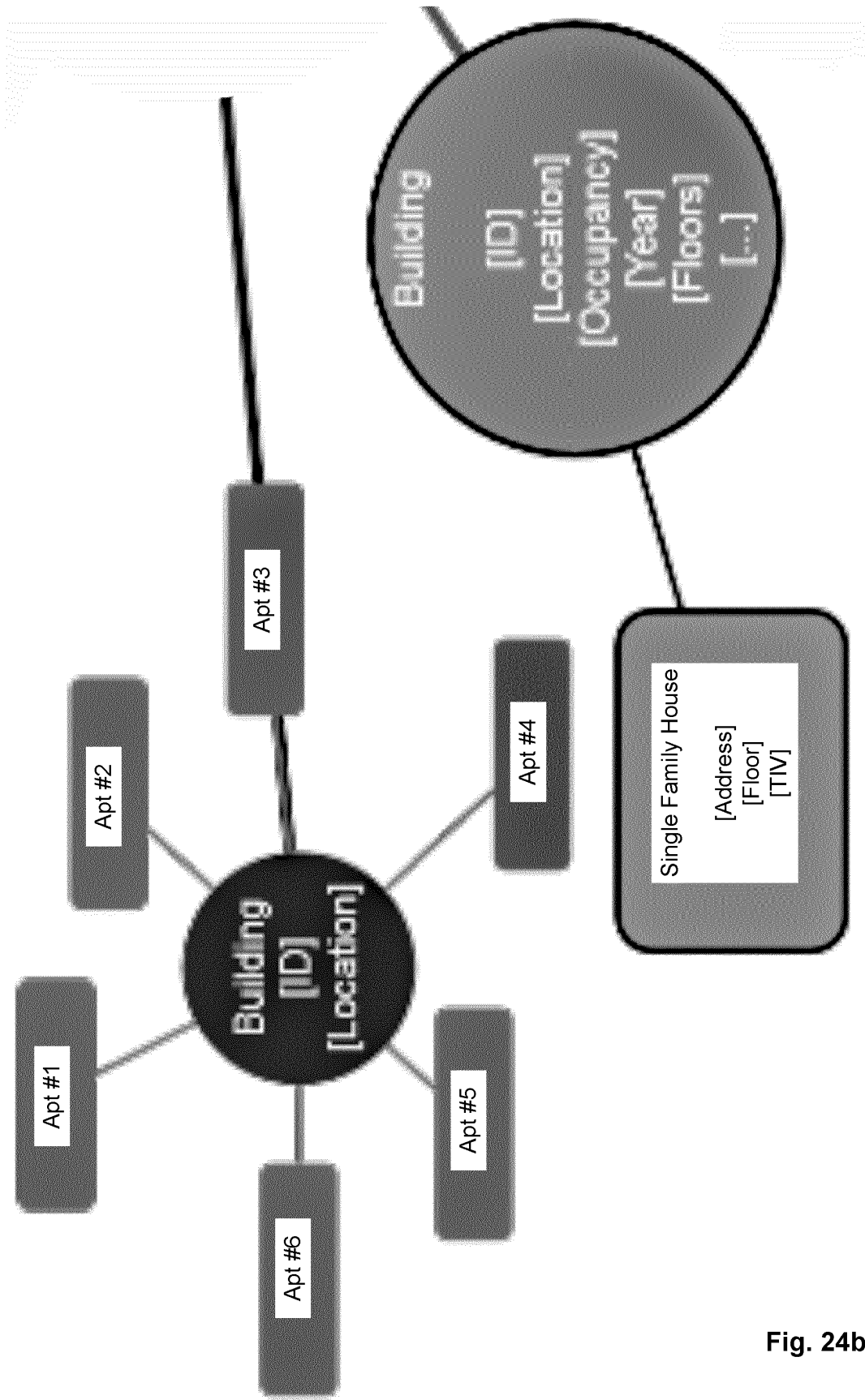


Fig. 24b

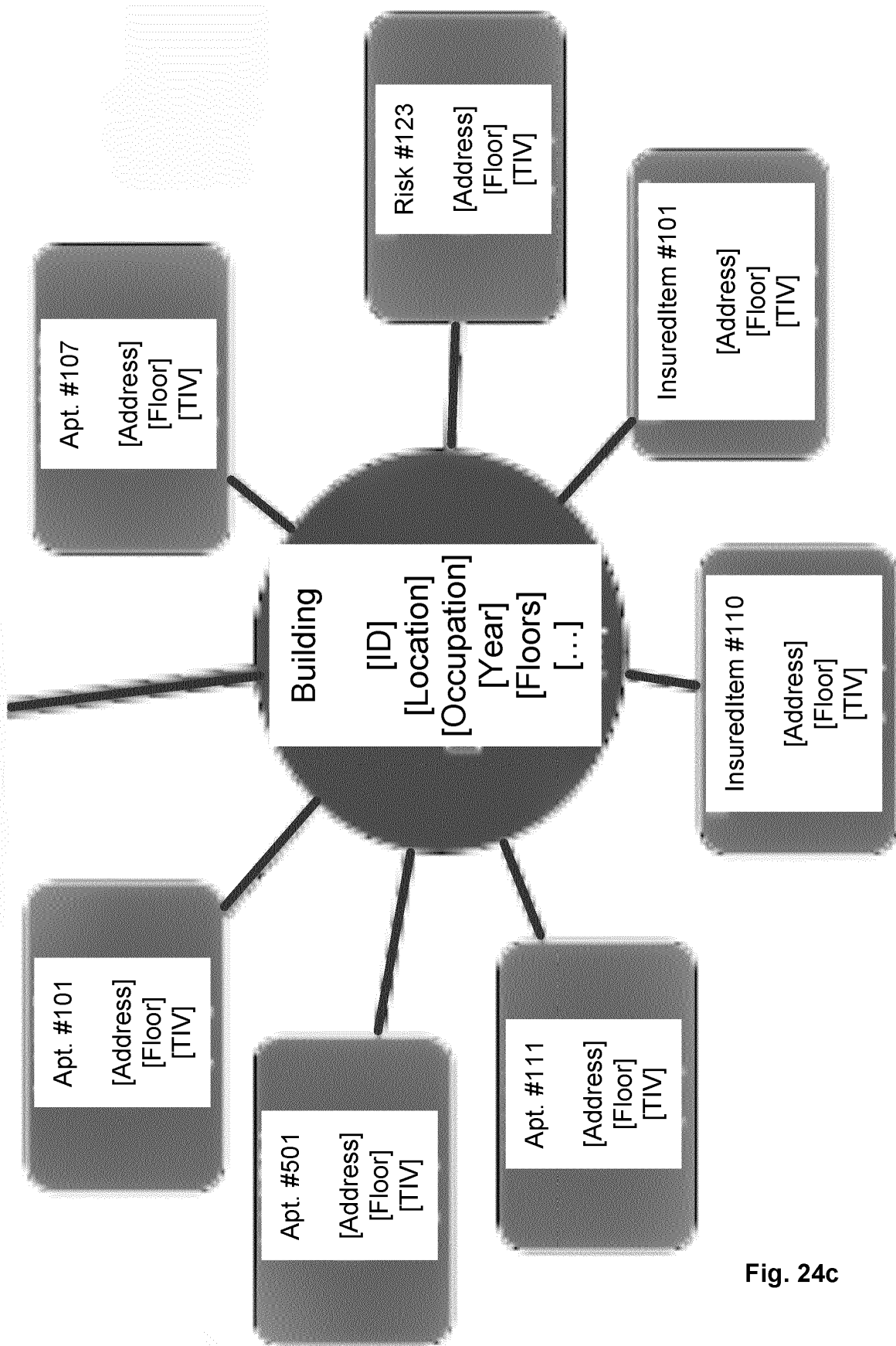
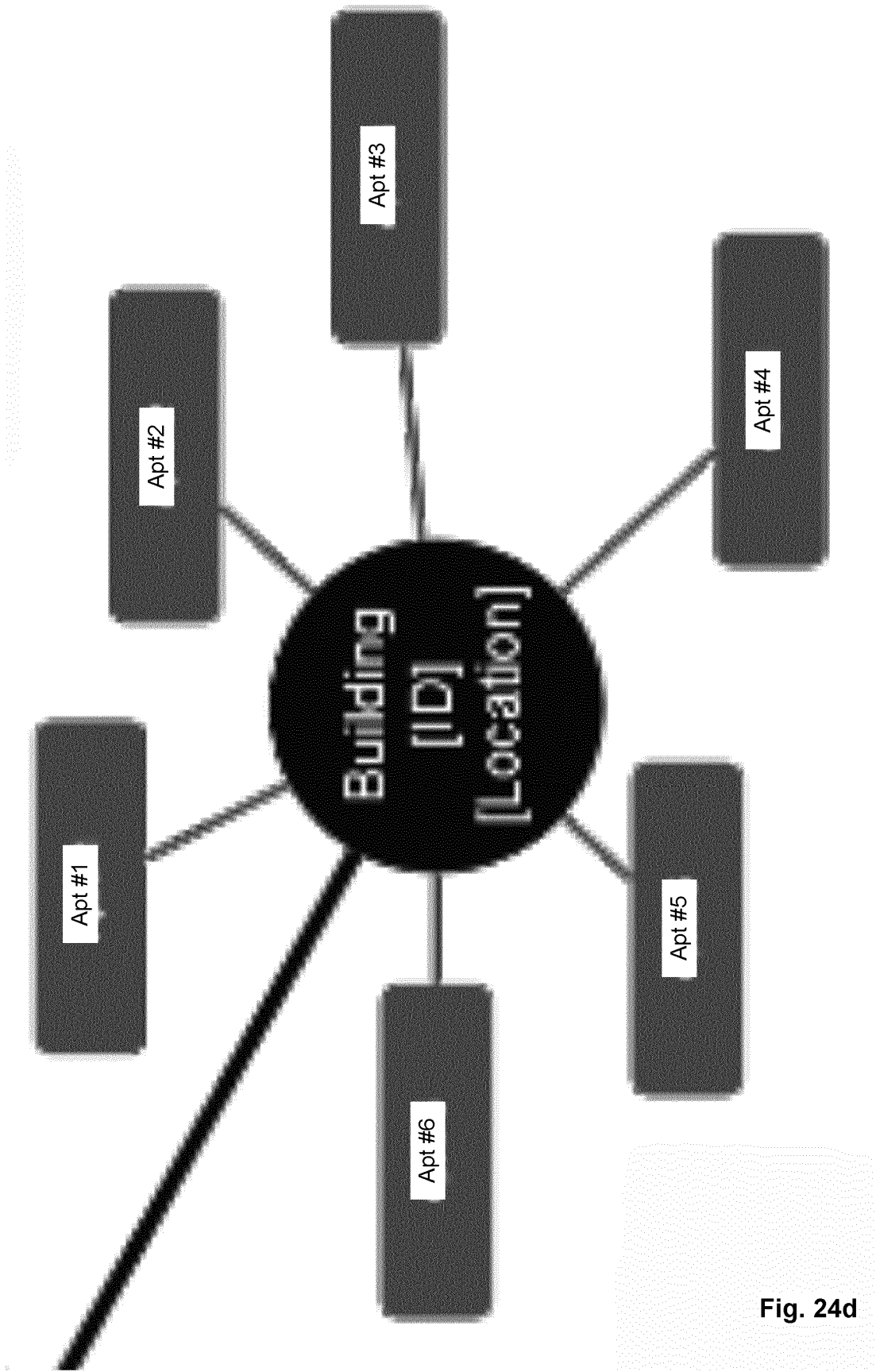


Fig. 24c



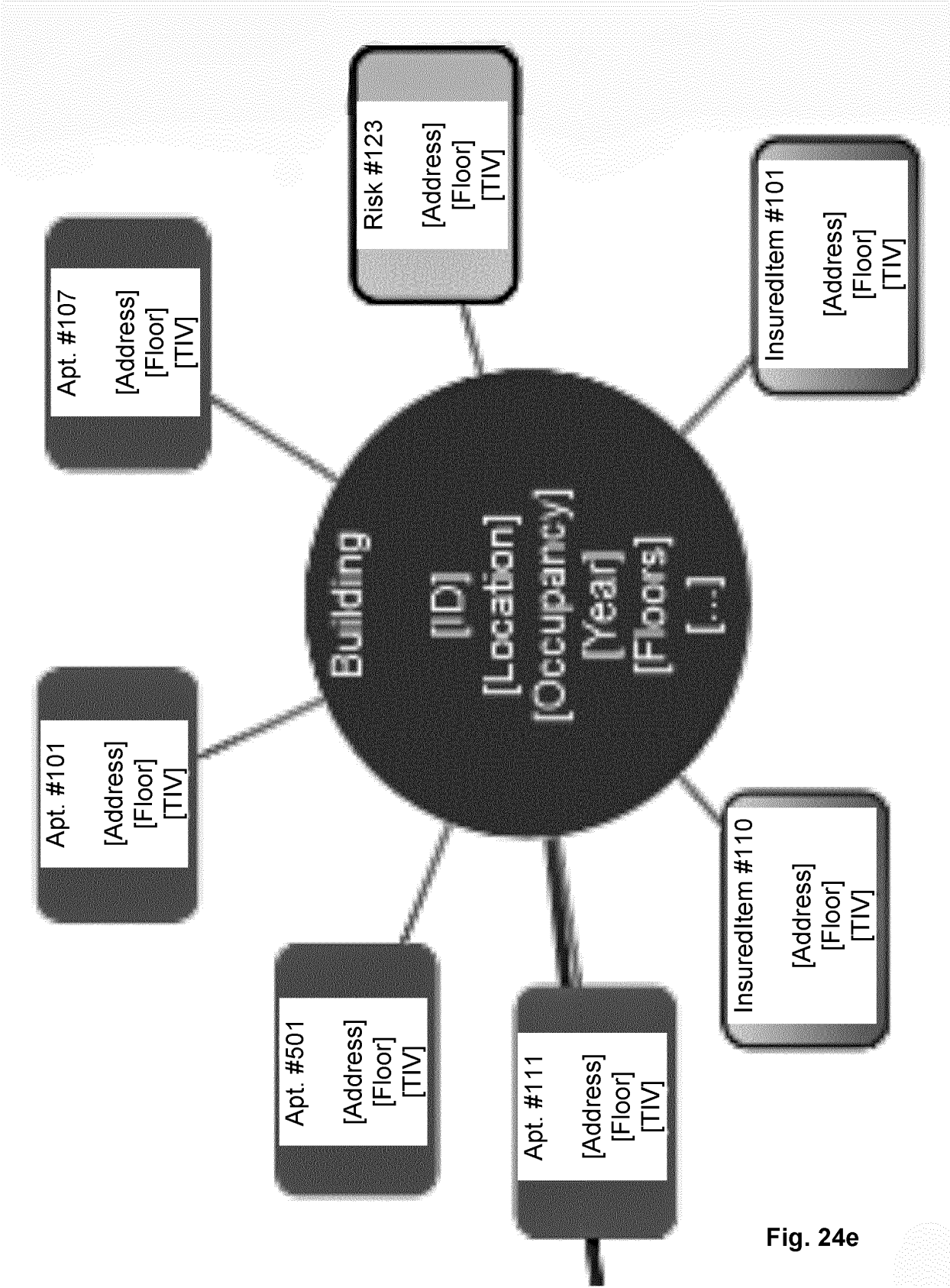


Fig. 24e

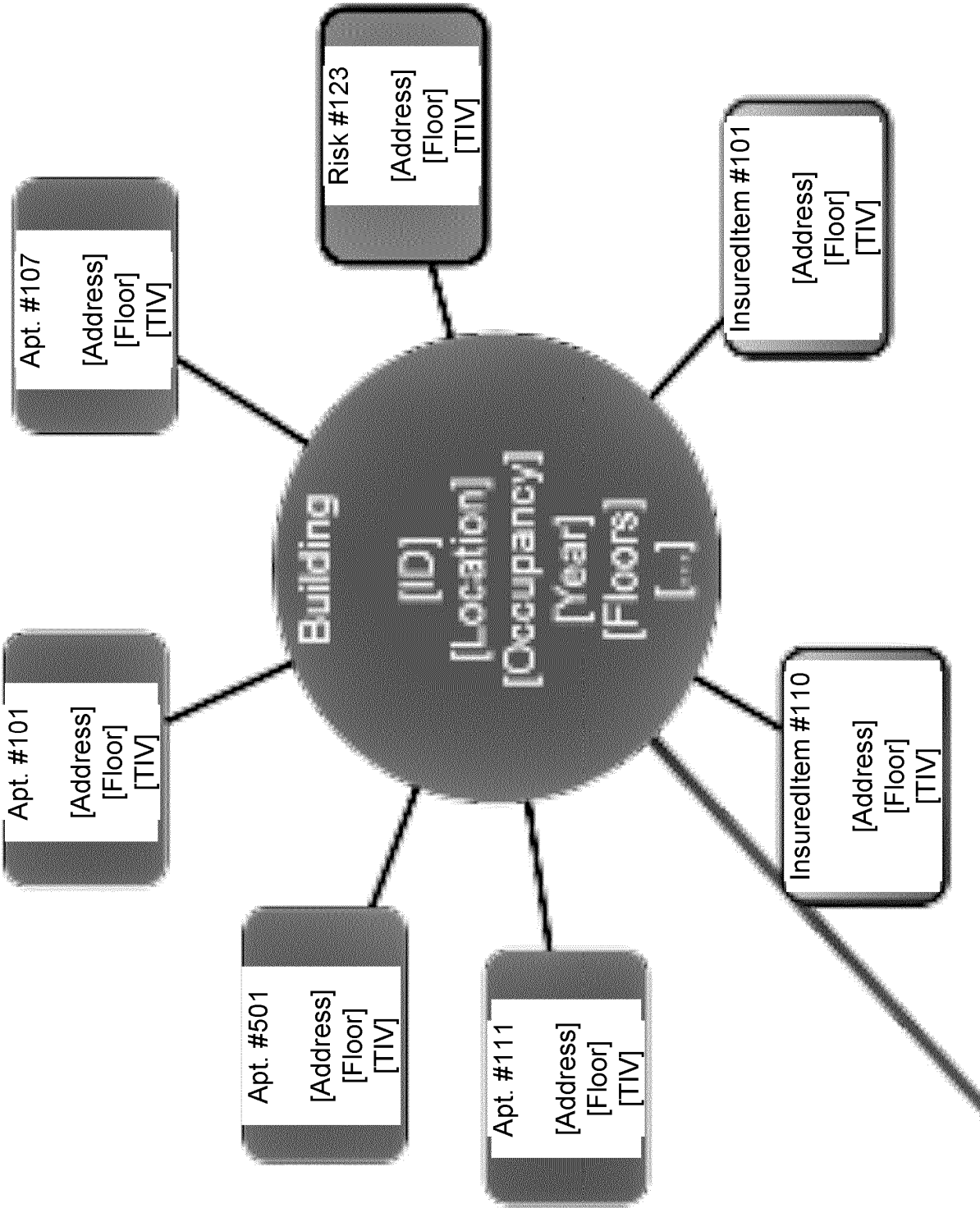


Fig. 24f

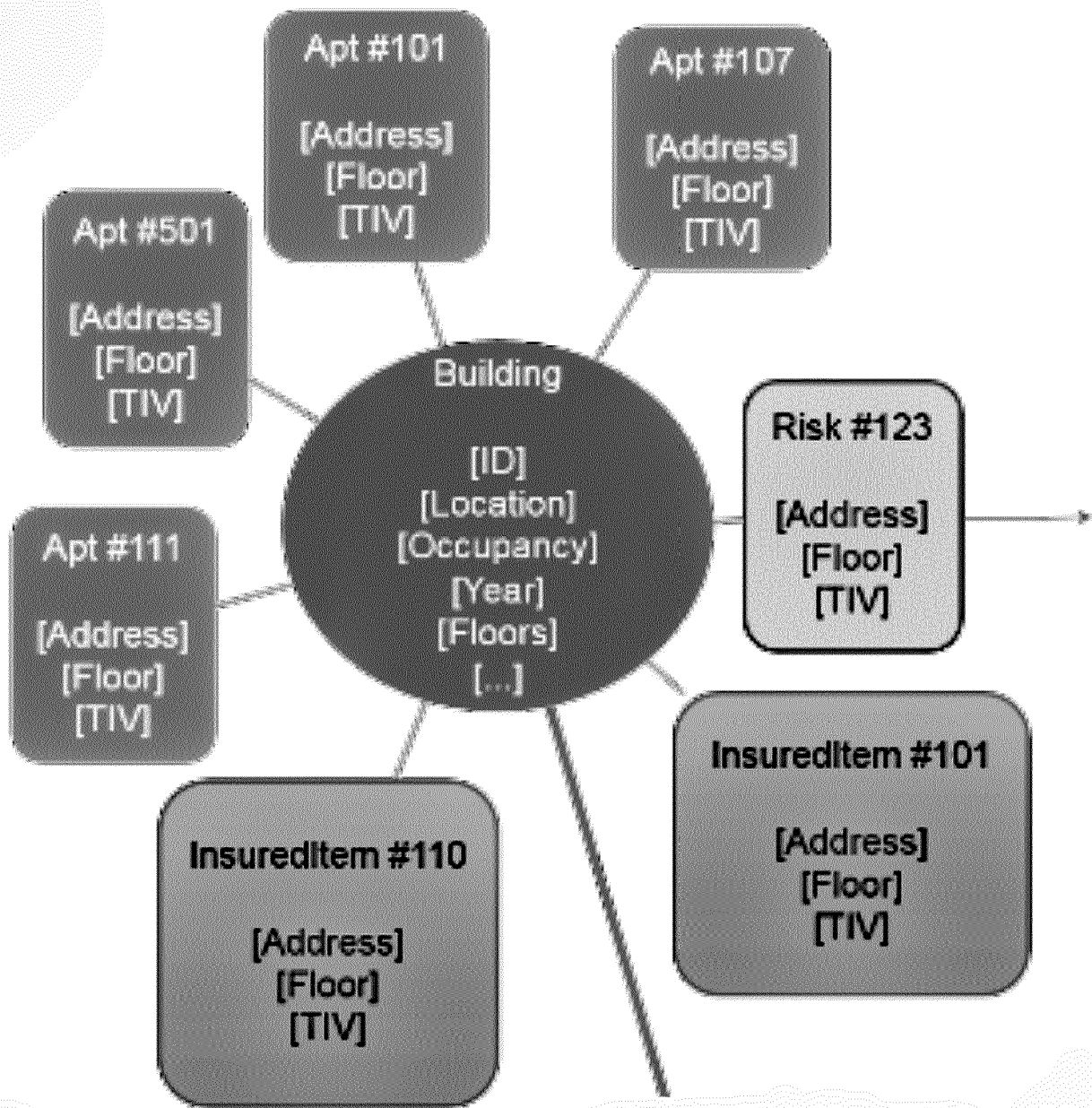


Fig. 24g

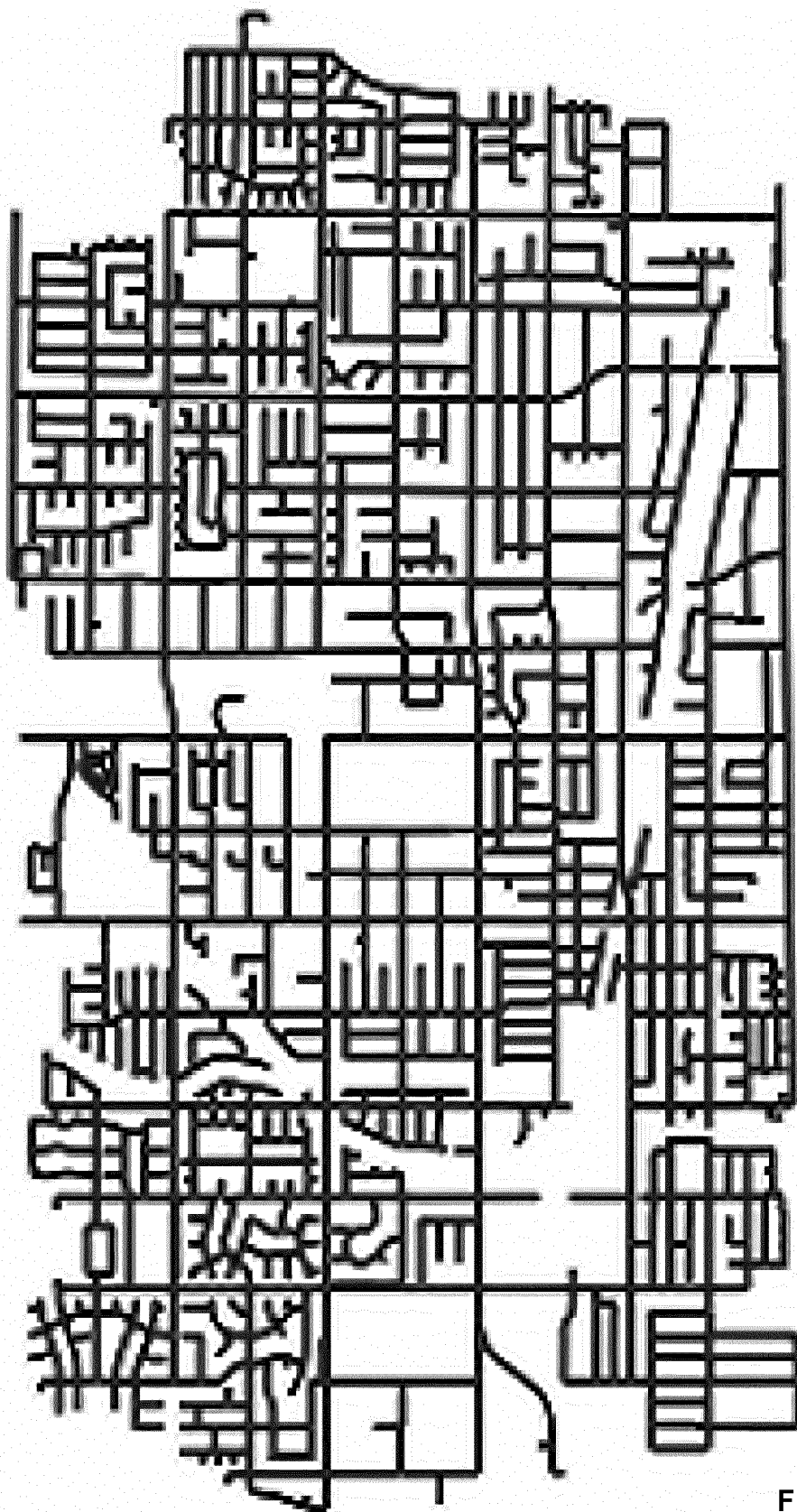


Fig. 25



Fig. 26

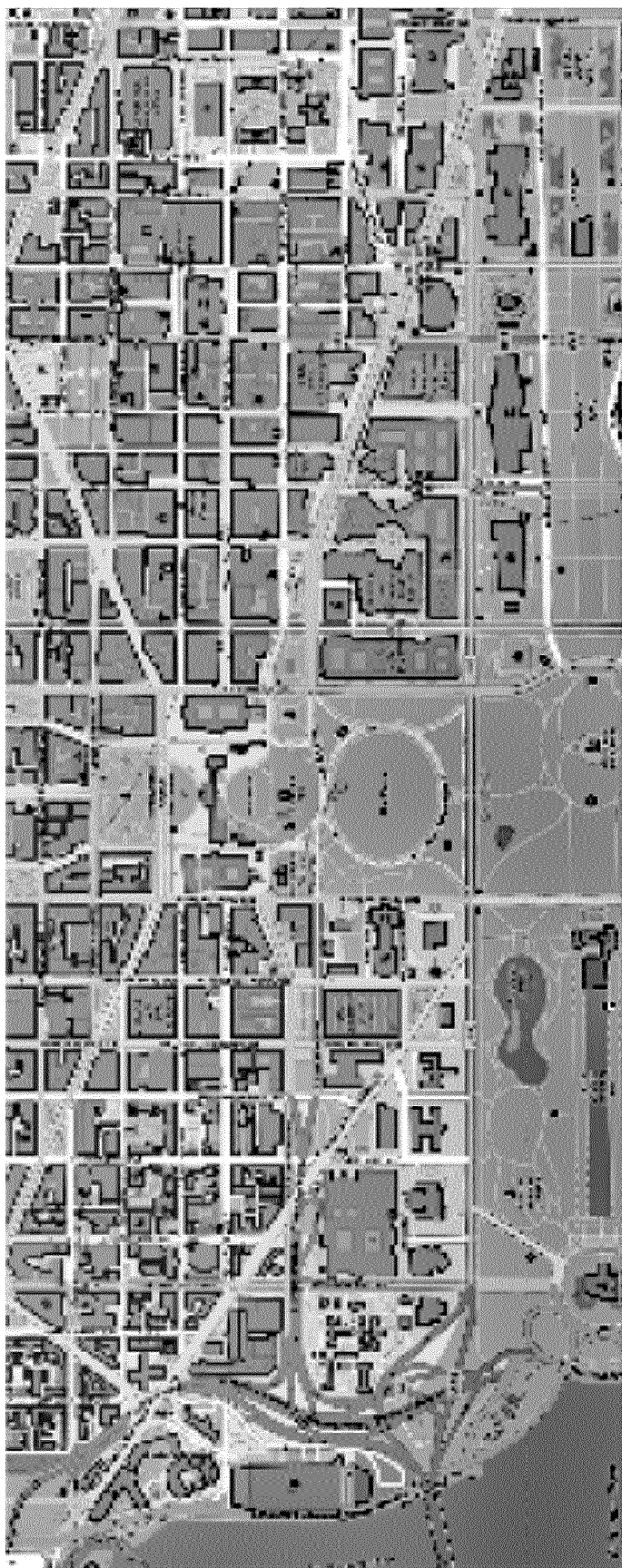


Fig. 27

	building	building:units	ele	height	lacounty:ain	lacounty:bld_id	start_date
0	apartments	8	13.6	6.5	7208013021	503531749871	1959
1	residential	4	10.2	4.5	7205018003	503327749864	1924
2	apartments	3	13.1	6.9	7205018001	503420749804	1965
3	house	1	11.1	5.2	7205018002	503365749865	1925
4	house	1	10.7	4.0	7208012005	503510749975	1942
5	apartments	8	13.7	6.5	7208013023	503527749788	1962
6	residential	4	11.7	6.0	7205018003	503330749797	1924
7	residential	2	14.5	7.8	7208012006	503549750130	1913
	industrial		landuse		name		
0		oil	industrial		Chevron Oil Refinery		
1		port	industrial		Pasha Stevedoring Terminal		
2		oil	industrial		Tesoro Carson Refinery		
5		oil	industrial		Torrance Refinery		
6	auto_wrecker	industrial			NaN		
7	factory	industrial			SpaceX Manufacturing Facility		
8	factory	NaN	Building A - Phase 1 (under construction)				
9	electrical	industrial	Distribution Energy Storage Integration 1				

Fig. 28

Campus/Site/Block

LIQUEF_SUSCEPTIBILITY	3.0
VS30	270
ENCODING_STATUS_CD	3
ENCODINGQUALITY_CD	9
ADMIN0	339
ADMIN1	12034
ADMIN2	316453
CRESTA	400206
SUB_CRESTA	503382
HIGHEST_RES_ZIP	50037949
NUM_RISKS	1
LANDSLIDE_SUSCEPTIBILITY	1.0

Building

NUMBER_OF_STORIES	4
PERCENT_COMPLETE	1
CLADDING_CD	10
DETAILED_STRUCT_CD	20
MAINSTRUCTURE_CD	5
NUM_RISKS	1
DESIGN_YEAR	2002

Insured Item

PF_VERSION_ID	396871
INS_ITM_ID	3289014221
LATITUDE	33.984444
LONGITUDE	-118.30862
OCCUPANCY_CD	1018254
SRC_SYS_ID	27321.0
ENCODING_TIMESTAMP	2012.12.13 09:21:30
STREET_ADDRESS	6050 S WESTERN AVE # 6130 I

Fig. 29

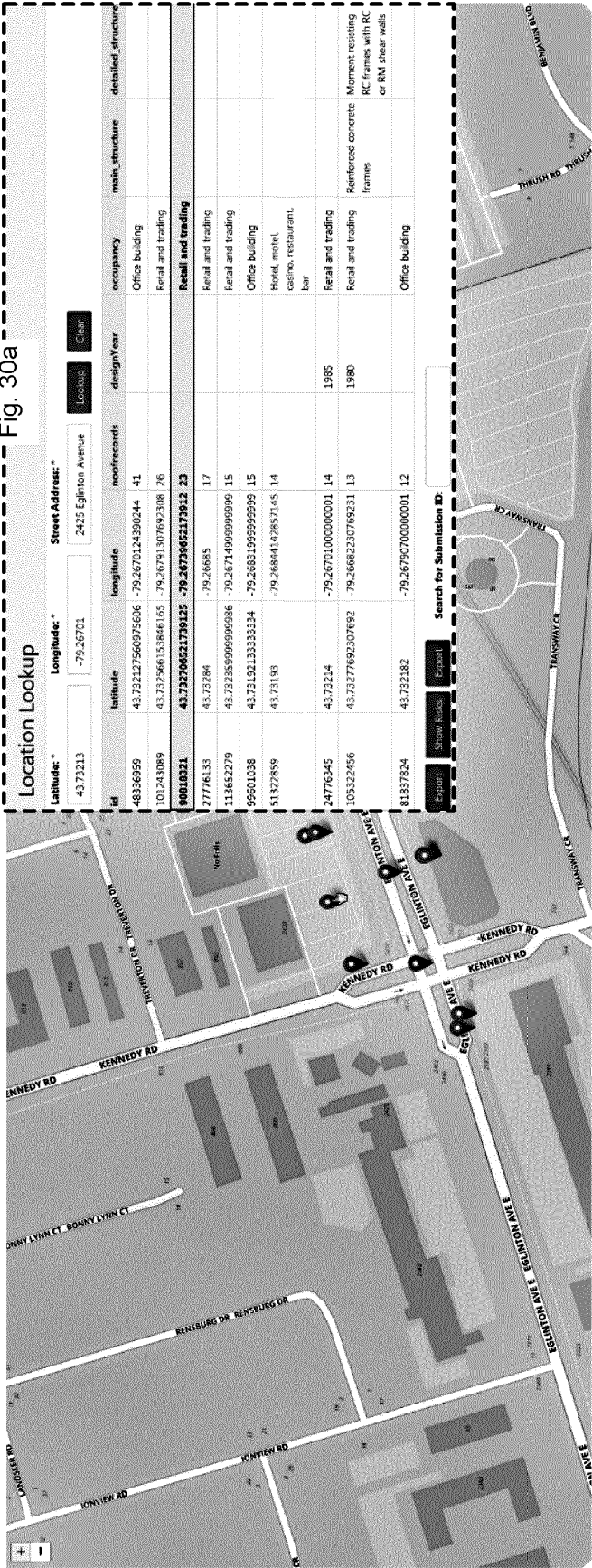


Fig. 30

Location Lookup

Latitude: *

43.73213

Longitude: *

-79.26701

Street Address: *

2425 Eglinton Avenue

Lookup

Clear

id	latitude	longitude	noofrecords	designYear	occupancy	main_structure	detailed_structure
48336959	43.732127560975606	-79.2670124390244	41		Office building		
101243089	43.732566153846165	-79.26791307692308	26		Retail and trading		
90818321	43.732706521739125	-79.26739652173912	23		Retail and trading		
27776133	43.73284	-79.26685	17		Retail and trading		
113652279	43.732359999999986	-79.26714999999999	15		Retail and trading		
99601038	43.7319213333334	-79.26831999999999	15		Office building		
51322859	43.73193	-79.26844142857145	14		Hotel, motel, casino, restaurant, bar		
24776345	43.73214	-79.26701000000001	14	1985	Retail and trading		
105322456	43.73277692307692	-79.26682230769231	13	1980	Retail and trading	Reinforced concrete frames	Moment resisting RC frames with RC or RM shear walls
81837824	43.732182	-79.26790700000001	12		Office building		

Export

Show Risks

Export

Search for Submission ID:

Fig. 30a

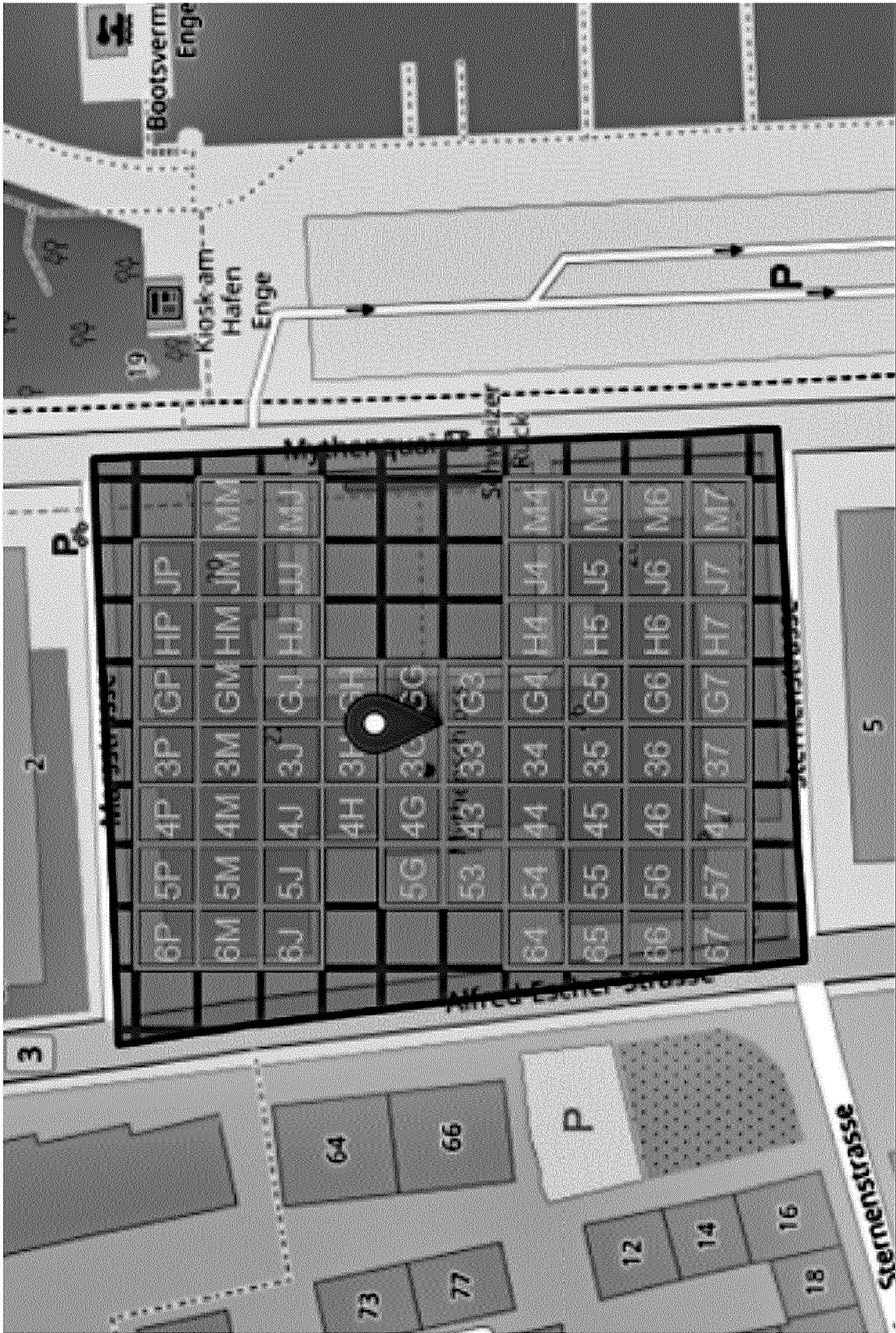


Fig. 31



Fig. 32a



Fig. 32b