

3D Vector Mapping of Qatar

Zoltan Szecsei GPrGISc

Bespoke Mapping International Limited (Seychelles)
Geograph (Pty) Ltd
Bespoke Mapping International India Pvt Ltd (Hyderabad, India)

Project Structure

Gannett Fleming
Dr Hazem Barakat (Proj. Man.)
Kalyan Chakravarti (Dep Proj Man, on site)

GIS Services for National Mapping Project 2014

Tender No. TC/B/125/2014 | Contract No. C2016/47

CK Aerial Surveys
(Tallow Africa)
Dr Adriaan Combrink

**Package I – Scope 1 (Aerial Mapping) and
Package III (Aerial Lidar)**

Geosense
Ronel Williams
(Now Phoenix Core Consultancy)

Aerial Triangulation and Classic Orthophotos

Bespoke Mapping Int. Ltd.
Zoltan

On site 3D Vector Mapping from 20cm GSD Stereo Pairs

Run-up to August 2018

No Qatar contract yet....

Winding down of ISDG and LGSETA Candidate mentorships to SAGC Registration

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Run-up to August 2018

No Qatar contract yet....

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Find 36 staff willing to work in Doha

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22 July 2018 – Notice that flights booked for 1st August !!

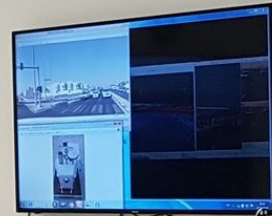
Doha at Last



HW and SW

Microstation v8i
Summit Evolution as a 3D Stereo front-end
ArcGIS 10,4 for deliverables

CGIS
قط QATAR



13 * HP Workstations with nVidia based Stereo 3D
2 * Synology 48TB NAS Devices
16 port 10GB Network Switch.

وزارة البلدية والبيئة
مركز نظم المعلومات والبيئة
Ministry of Municipality and Environment
Center for Geographic Information Systems















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MINISTRY OF INDUSTRY & COMMUNICATIONS
الوزارة للصناعة والاتصالات

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<input type="checkbox"/>	 02_Capture_Completed	20190829 09:56	File folder
<input type="checkbox"/>	 03_QC_First	20190829 09:56	File folder
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- CGIS-Training (\cgis-nmap1) (H:)
- #recycle
- 3D_Training
- Qatar_3D_Mapping_Inputs
- Qatar_3D_Vector_Production
- WORKFLOW
 - 00_Tile_Profiles
 - 01_Capture_In_Progress
 - 02_Capture_Completed

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account_all_deliveries_merged_20191204.xlsx - LibreOffice Calc

File View Insert Format Styles Sheet Data Tools Window Help

Arial 8 pt B I U A % 00 00 00

B2 fx Σ = TGARACWY

	A	B	C	D	E	
1	FEATURE NAME	CODE	To Feature Dataset	Geometry	At Height?	
14	Building Overhang Area	TGARBLDE	STRUCTURE	POLYGON	Feature height	Capture along the top of the overhang area.
15	Building Under Construction Area	TGARBLDC	STRUCTURE	POLYGON	Feature height	Might be partial if existing building is being extended.
16	Bund Line	TGLNBUND	STRUCTURE	LINE	Grounded	Can ignore if <2m wide but capture anyway if clearly identifiable.
17	Bus Station Area	TGARBUSN	COMMUNITY	POLYGON	Grounded	Bus terminal - parking depot for buses.
18	Bus Stop Area	TGARBSTP	STRUCTURE	POLYGON	Feature height	Can classify as Canopy if not clearly distinguishable.
19	Bus Stop Point	TGPTBSTP	STRUCTURE	POINT	Grounded	No capture required or use Pole Unspecified if 'big' enough.
20	Camera on Bridge Point	TGPTCMRB	TRANSPORTATION	POINT	Grounded	No capture required or use Pole Unspecified if 'big' enough.
21	Camera Point	TGPTCMRA	TRANSPORTATION	POINT	Grounded	No capture required or use Pole Unspecified if 'big' enough.
22	Canopy Area	TGARCAPY	STRUCTURE	POLYGON	Feature height	Capture if digitisable even if smaller than 2m. This includes canopies above vehicle entrances. If 'entrance' canopy t
23	Carpark Area	TGARCAPK	TRANSPORTATION	POLYGON	Grounded	Only capture if paved and marked as a carpark. Capture parking areas alongside roads. Parking bays in houses or h
24	Carpark Structure Area	TGARCPST	STRUCTURE	POLYGON	Feature height	Capture as Building Area
25	Cemetery Area	TGARCMTY	COMMUNITY	POLYGON	Grounded	Perimeter area only.
26	Cliff Area	TGARCLFF	LANDSCAPE	POLYGON	Grounded	Capture if horizontal deviation from top to bottom reasonably exceeds 5m.
27	Cliff Line	TGLNCLFF	LANDSCAPE	LINE	Grounded	Along the ridge of a cliff
28	Courtyard	TGARCYRD	STRUCTURE	POLYGON	Grounded	The area covering inside a housing property from the Access way entrance to the front of the building(s). Canopies a
29	Cultivated Area	TGARCLAR	VEGETATION	POLYGON	Grounded	Ground level farming (see also Plantation)
30	Culvert Line	TGLNCLVT	TRANSPORTATION	LINE	Grounded	One line across bottom of each end of the culvert(s)
31	Culvert Point	TGPTCLVT	TRANSPORTATION	POINT	Feature height	Do not capture as Point
32	Culvert Wall	TGLNCLWL	TRANSPORTATION	LINE	Feature height	Capture as normal wall feature but code as Culvert Wall.
33	Dock Area	TGARDOCK	LANDSCAPE	POLYGON	Grounded	Note this could also have other features within.
34	Electrical Substation Area	TGARELSB	STRUCTURE	POLYGON	Grounded	Capture if clearly identifiable or as Building if relevant.
35	Embankment Area	TGAREMBK	LANDCHANGE	POLYGON	Grounded	Man-formed embankments (not cliff area sand dune sides etc)
36	Feature Outline Line	TGLNFEUT	STRUCTURE	LINE	Grounded	Perimeter of or short line across unidentifiable features. Close perimeter line if applicable.
37	Fence Line	TGLNFENCE	STRUCTURE	LINE	Feature height	OK
38	Flood Light Point	TGPTFDLT	STRUCTURE	POINT	Feature height	Large Stadium style floodlights
39	Flower Bed Area	TGARFLBD	COMMUNITY	POLYGON	Grounded	Perimeter of flowerbeds excluding private houses but including significant flowerbeds in large estates.
40	Footpath Area	TGARFTPH	TRANSPORTATION	POLYGON	Grounded	Also in private Courtyards.
41	Footpath in tunnel Area	TGARFPTN	TRANSPORTATION	POLYGON	Grounded	Only interpolate through very short tunnels. Height as at start/end of tunnel.

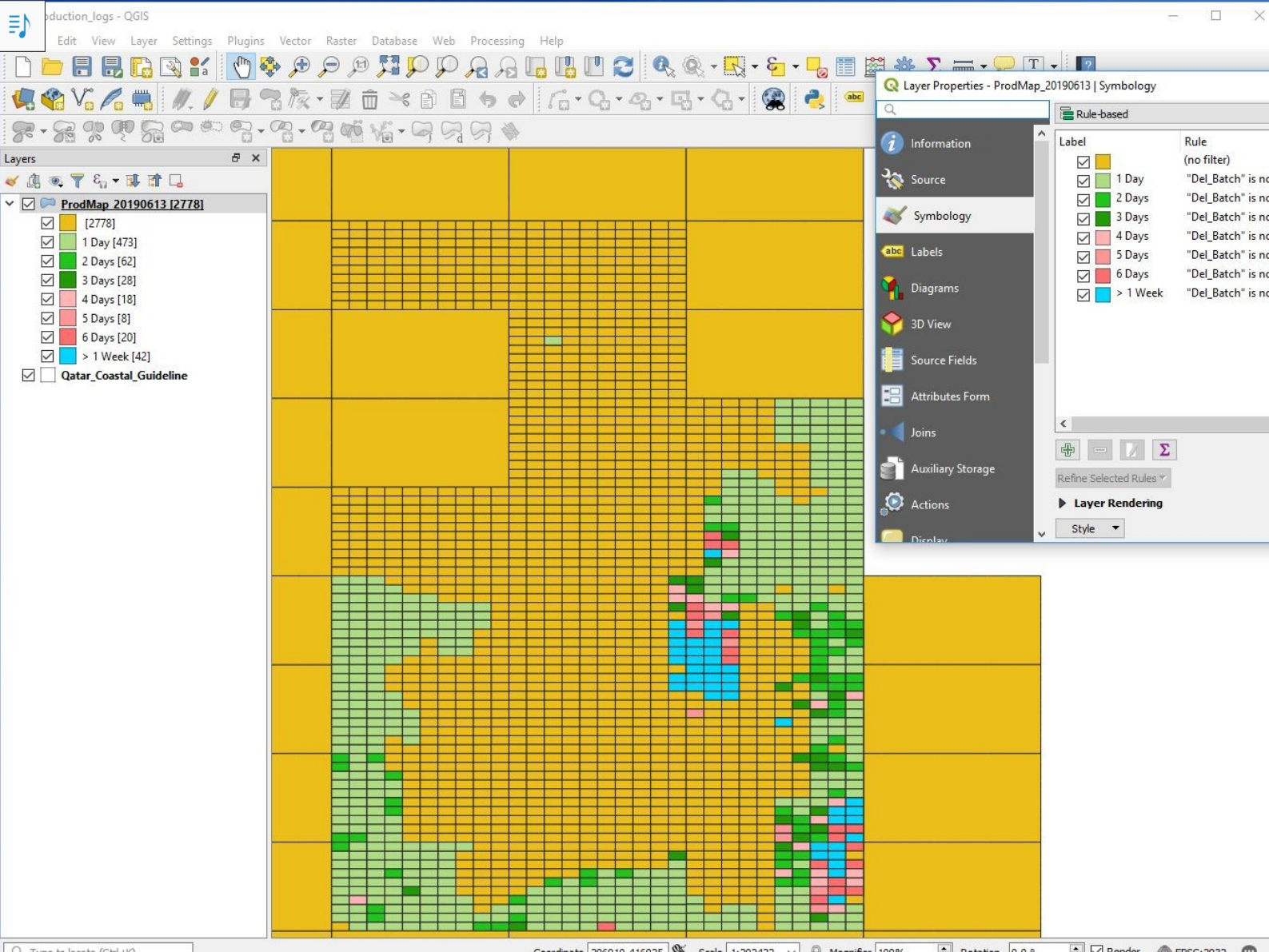
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Find Find All Formatted Display Match Case

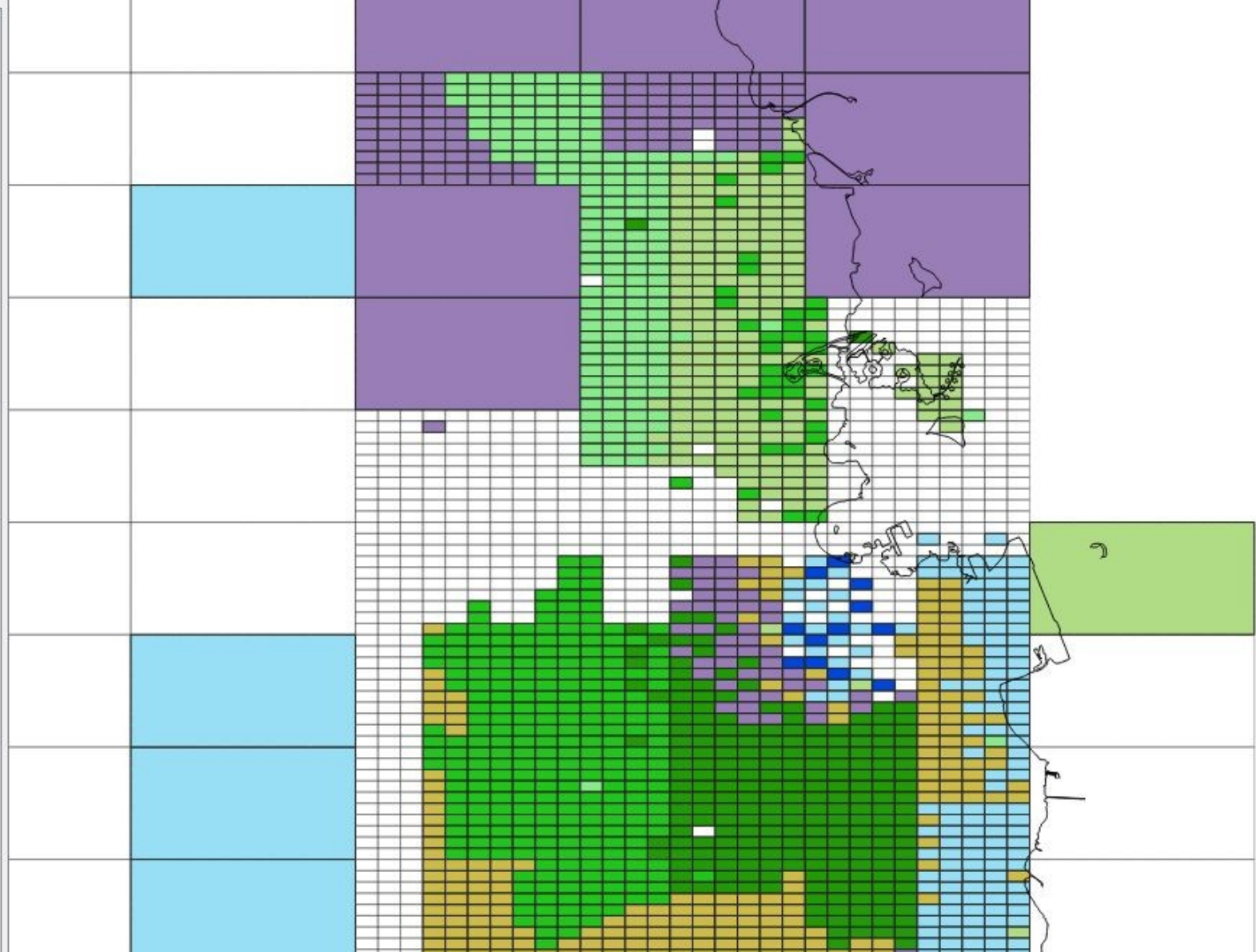
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- Qatar_Coastal_Guideline
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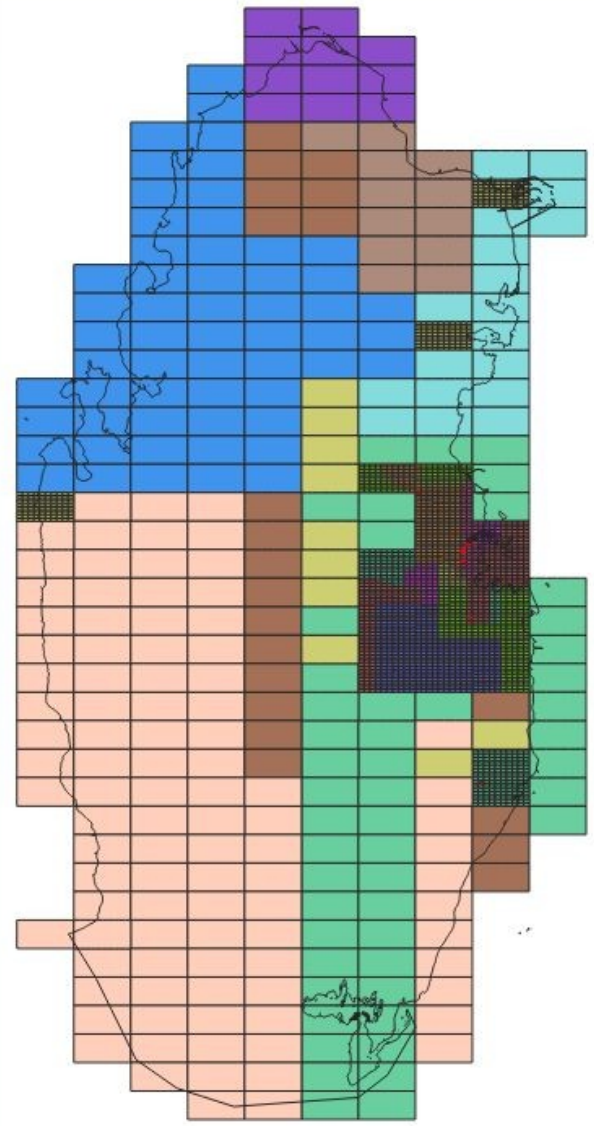


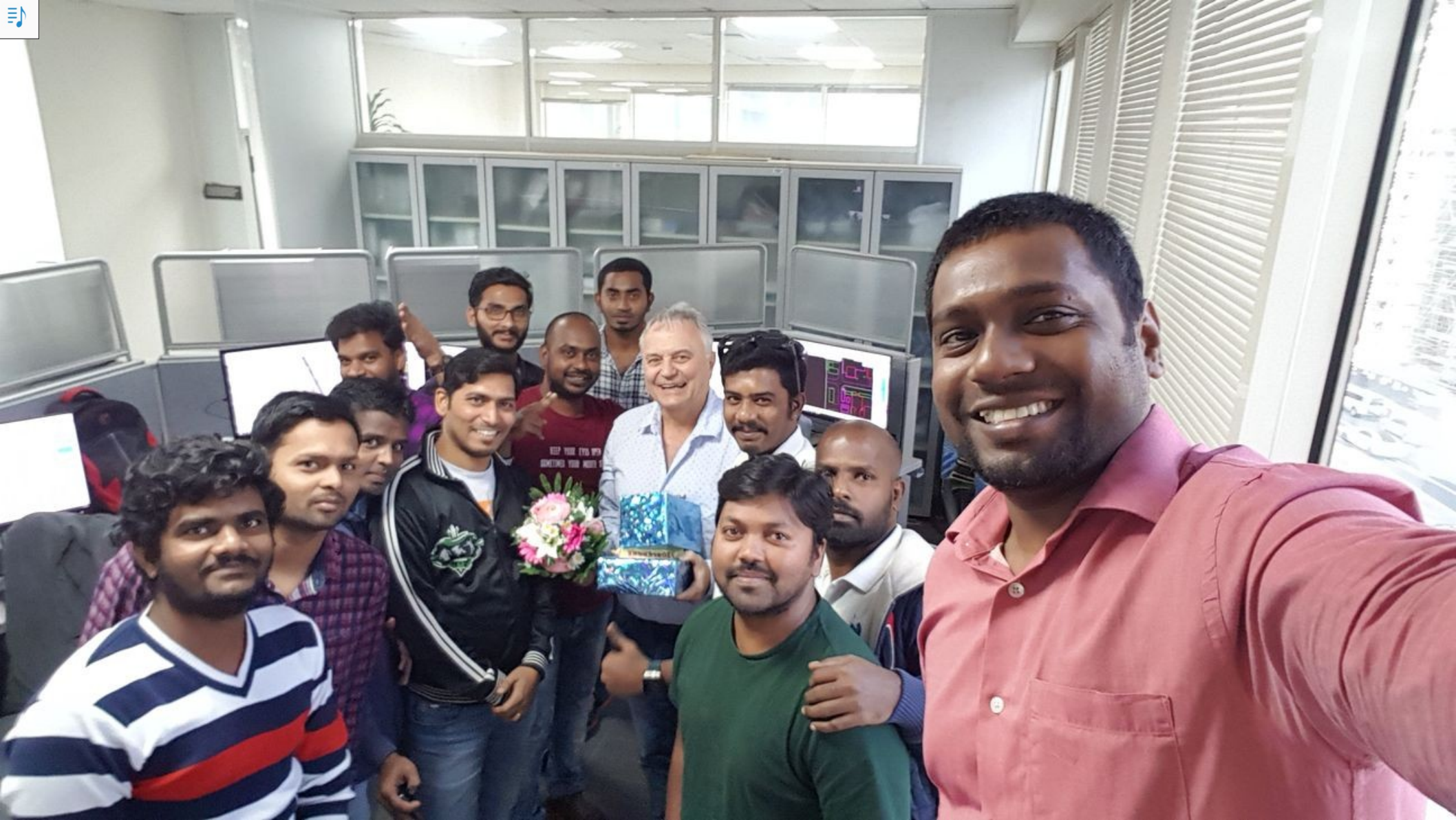


Layers



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 - d09 [57]
 - d10 [18]
 - d11 [11]
 - d12 [12]
 - d13 (Recompiled) [6]
 - d14 [21]
 - d15 [99]
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HAPPY BIRTHDAY DAY #

















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CHI

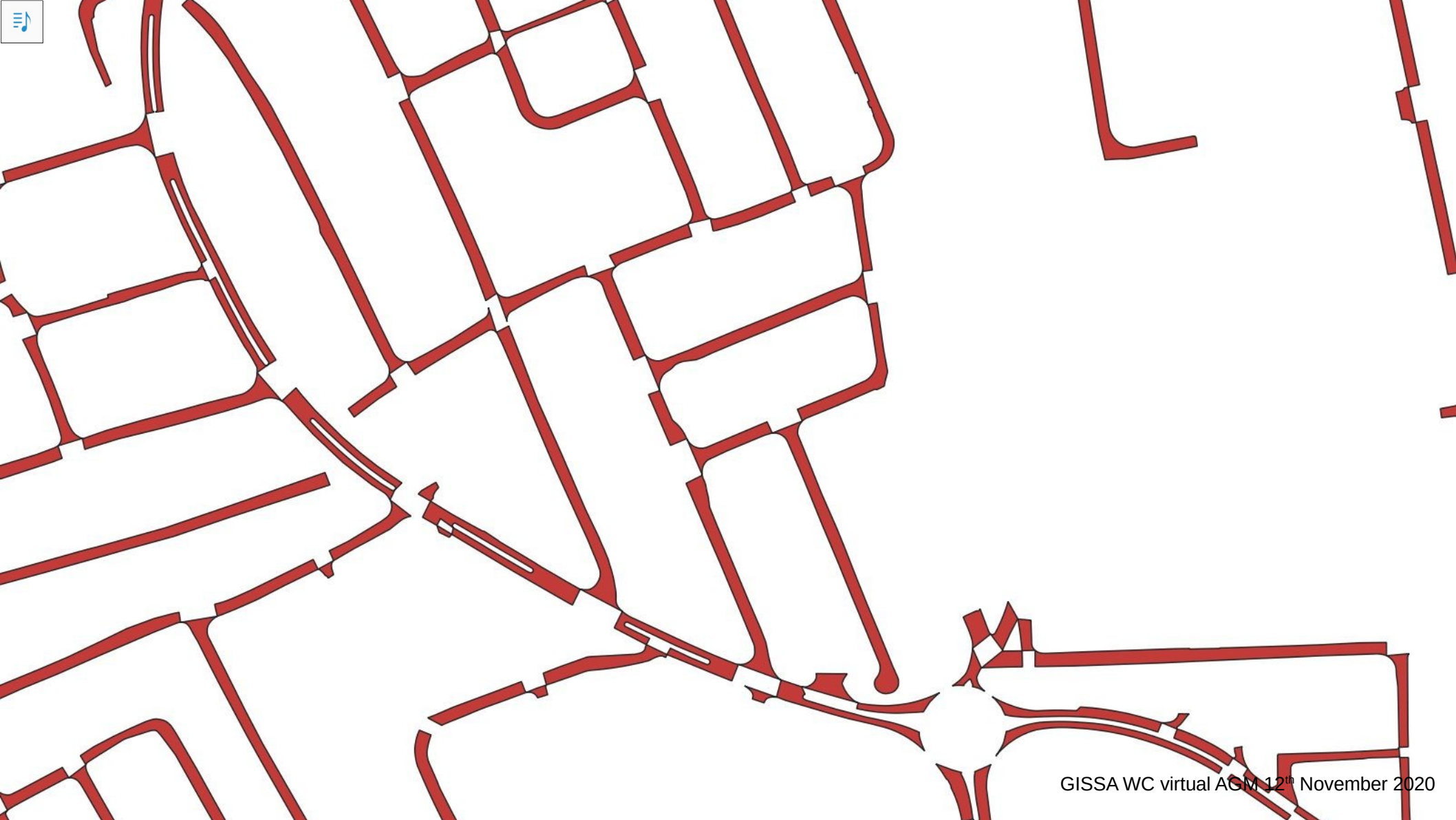
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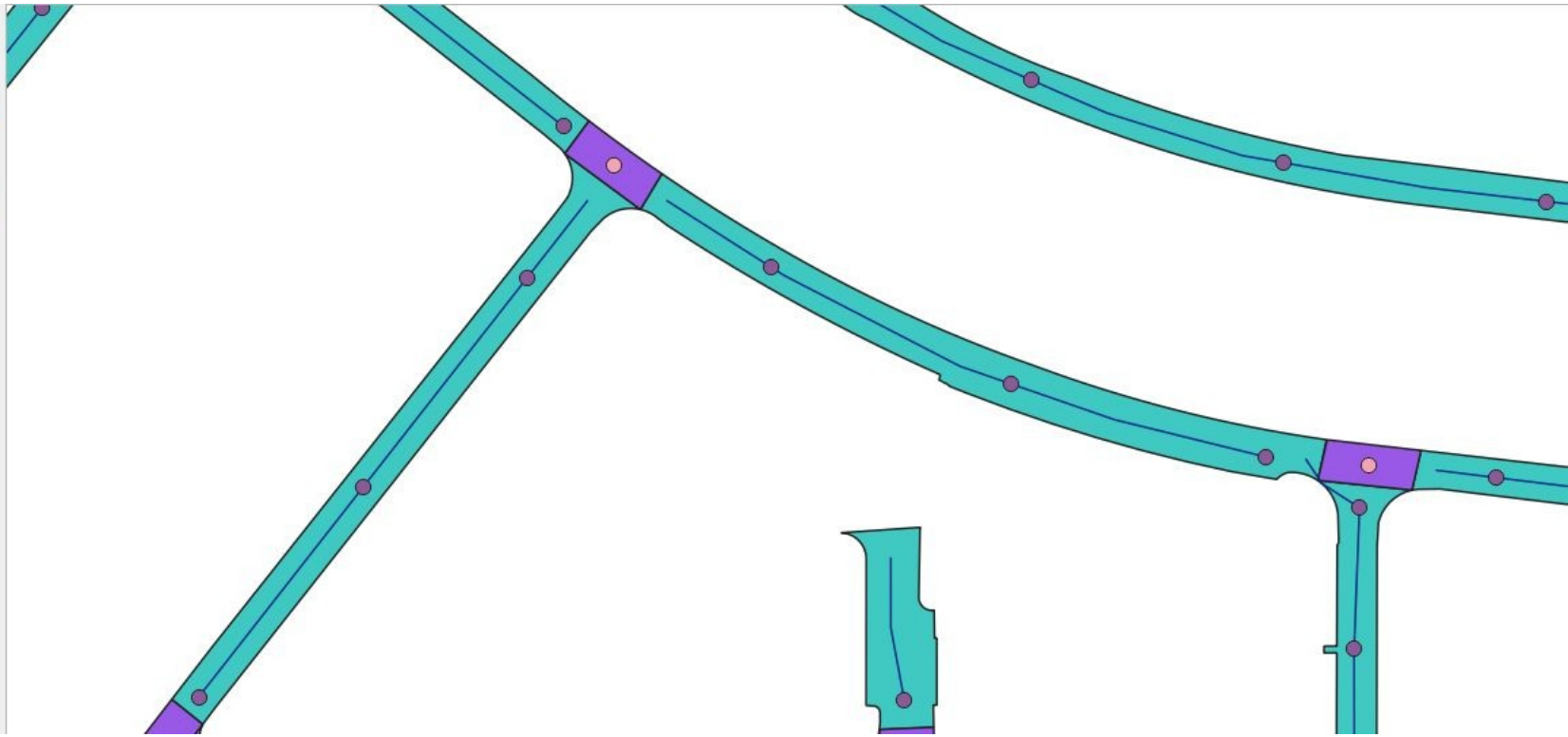






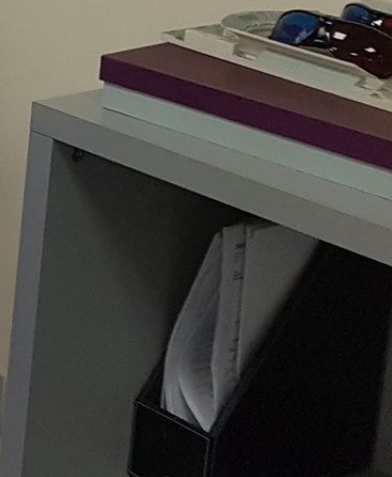
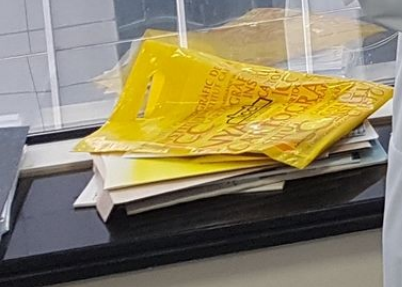
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 -  TGARIRRD [1]
 -  TGARIRTR [1]
 -  TGARROAD [1]





Government Planning
Providing GIS Services for National
Mapping Project 2014
Center for GIS, Ministry of Municipality and
Environment (CGIS-MME)
CGIS
Deliveries at complete set
of
Final 3D Vector Capture data



	A	B	C	D	E	F	G	H	I
1		Item	ProjTotals	D01 (88)	D02(282)	D03(550)	D04(420)	D05(402)	D06(402)
2		TotalFeats	6155973	258453	736852	787226	764087	487279	
3		Polygons	1771657	86296	250998	261027	254405	162393	
4		Lines	1616874	70983	217755	248777	236045	129284	
5		Points	2767442	101174	268099	277422	273637	195602	
6	QATAR	TGAR1111	0	0	0	0	0	0	
7	Other Areas	TGAR2222	0	0	0	0	0	0	
8	Other Areas	TGAR3333	0	0	0	0	0	0	
9	Habitat Island	TGAR4444	44	0	0	0	0	44	
10	Other Areas	TGAR9999	0	0	0	0	0	0	
11	Accessway Area	TGARACWY	47086	1566	11294	9959	7764	4295	
12	Apron Area	TGARAPRN	111	0	0	0	60	9	
13	Assembly Area	TGARASAR	80	1	9	21	11	3	
14	Beach Area	TGARBECH	579	123	0	0	2	39	
15	Bicycle Track Area	TGARBICT	1527	107	102	369	481	27	
16	Breakwater Area	TGARBKWR	366	179	0	0	1	37	
17	Building Under Construction Area	TGARBLDC	16249	776	4097	3601	2139	764	
18	Building Overhang Area	TGARBLDE	45881	2199	8774	7234	9336	4236	
19	Building Area	TGARBLDG	355540	13278	58404	65433	54812	32700	
20	Bridge Area	TGARBRDG	562	15	52	110	70	31	
21	Railway Bridge Area	TGARBRLN	9	0	0	0	7	0	
22	Bus Stop Area	TGARBSTP	67	16	9	1	5	8	
23	Bicycle Track on Bridge Area	TGARBTBR	0	0	0	0	0	0	
24	Bicycle Track in tunnel Area	TGARBTTN	8	0	3	0	1	0	
25	Speed Bump Area	TGARBUMP	8104	317	1307	1851	1394	574	
26	Bus Station Area	TGARBUSN	14	1	2	10	0	0	
27	Construction Area	TGARCPK	49693	2746	5493	6347	6293	6049	



Thank You

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zoltans@bespoke-mapping.com