HEMPFIELD SCHOOL DISTRICT

ROHRERSTOWN ELEMENTARY SCHOOL

2200 NOLL DRIVE
LANCASTER, PA

RF Emissions Testing Results

Engineer: Stephanie Koles
Meter: Narda NBM-550
Calibration Due: April 15, 2023
Probe: EA5091 Electric Field Probe
Calibration Due: April 16, 2023
Test Date: March 18, 2022

V-COMM, L.L.C
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Introduction

V-COMM, L.L.C. has been commissioned by the Hempfield School District, to provide RF exposure measurement and reporting. This report provides the EME field study for Rohrerstown Elementary School.

EME Field Measurements

The following details the procedure used in collecting EME field measurements. The survey instrument used was setup for recording the field strength at various points around the Rohrerstown Elementary School at 2200 Noll Drive, Lancaster, Pennsylvania.

The model NBM-550 electric field strength meter and model EA5091 field intensity probe, both manufactured by Narda Safety Test Solutions and L3 Technologies Company, were used to collect all the field measurements.[1] The meter has a dynamic range of 30dB and can calculate percentage with respect to FCC maximum permissible exposure (MPE) limits. The probe used is a broadband (300 kHz to 50 GHz) electric field isotopic shaped probe calibrated for the occupational environment. For exposure to multiple frequencies (broadband), the fraction (or percentage) of the MPE produced by frequency is determined and the addition of these fractions (or percentage) must not exceed unity (or 100 percent of FCC standard) to be in compliance with federal requirements.

The instrumentation and the measurement procedures used are based on the references published by the IEEE document (ANSI/IEEE C95.3-1992) and by the NCRP document (NCRP Report No. 199), all approved references by the FCC. Also, the equipment used conforms to FCC 1997 Regulation 300 kHz – 50 GHz, NCRP Report 86, Occupational Environments 300 kHz - 50GHz and ANSI C95.1 – 1982 300kHz – 50 GHz.

A walk around survey was performed around the Rohrerstown Elementary School and its immediate vicinity to determine the areas of high field strength. Measurements were performed inside, on the grounds, and outside.

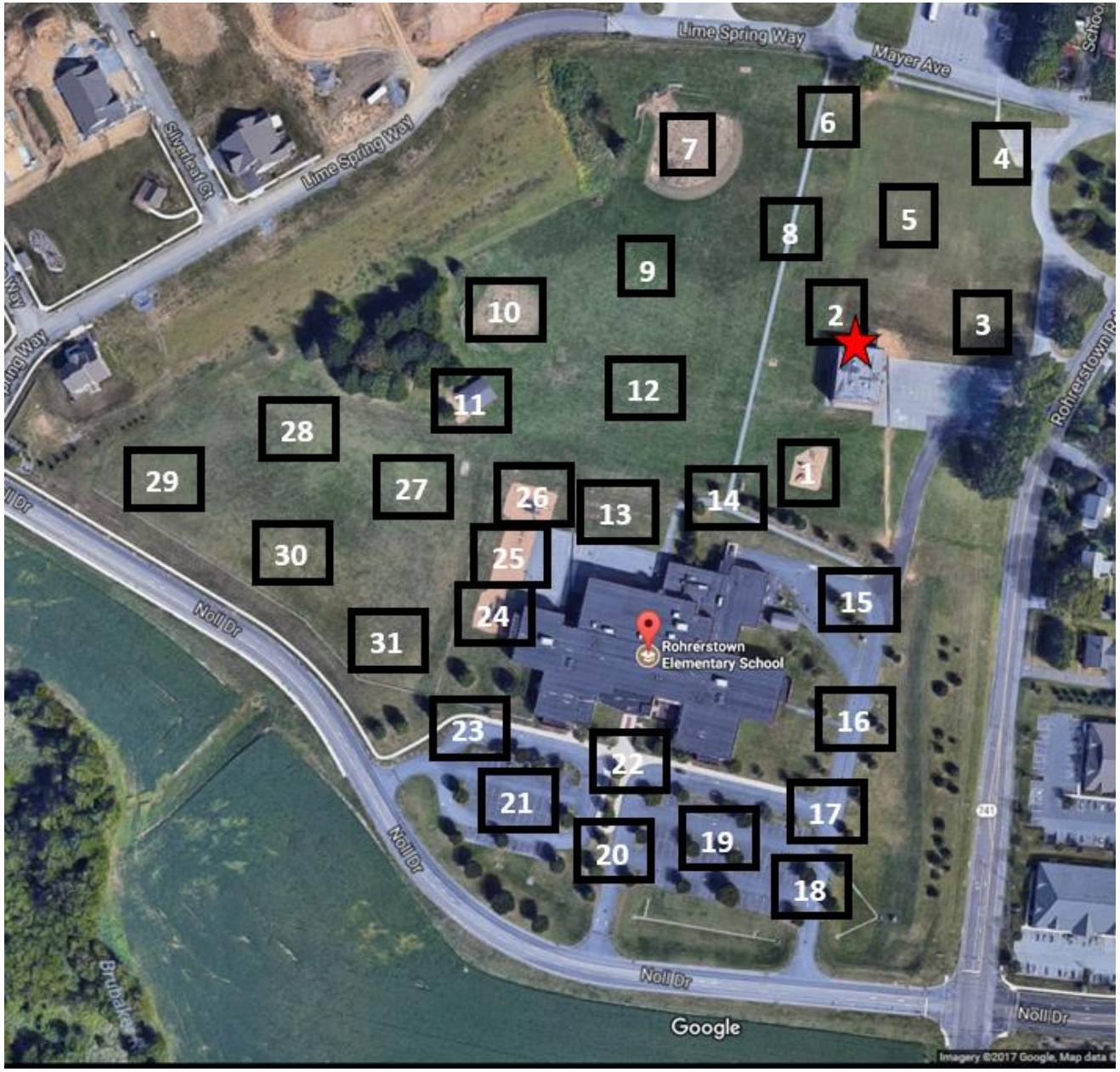
The measurements for this site were performed utilizing spatial averaging technique, in compliance with FCC requirements. A spatially average measurement is simply an average value derived by making a series of measurements, either in a straight line or over two-dimensional area that is a representative of the human form. Spatially average RF field levels most accurately relate to estimating the whole body averaged specific absorption rate that will result from the exposure. All major worldwide standards concerned with human exposure to radio frequency radiation have exposure limits based on field levels averaged over the whole body.

Results

The results of the analysis indicate that the maximum level of RF energy measured in and around Rohrerstown Elementary School to which the general public (“general population/uncontrolled”) may be exposed to, is below all federal health and safety limits. Specifically, field measurements show that the maximum level of RF energy at the Rohrerstown Elementary School is **4.80 %** of FCC Standard for the public environment, which complies with federal RF safety limits.

[1] Note: The EA5091 Electric Field Probe is calibrated to the FCC Occupational Standard. The conversion to the FCC General Public Standard is to multiply by Occupational measurement by 5.

Rohrerstown Elementary School Outdoor RF Emissions Testing Locations

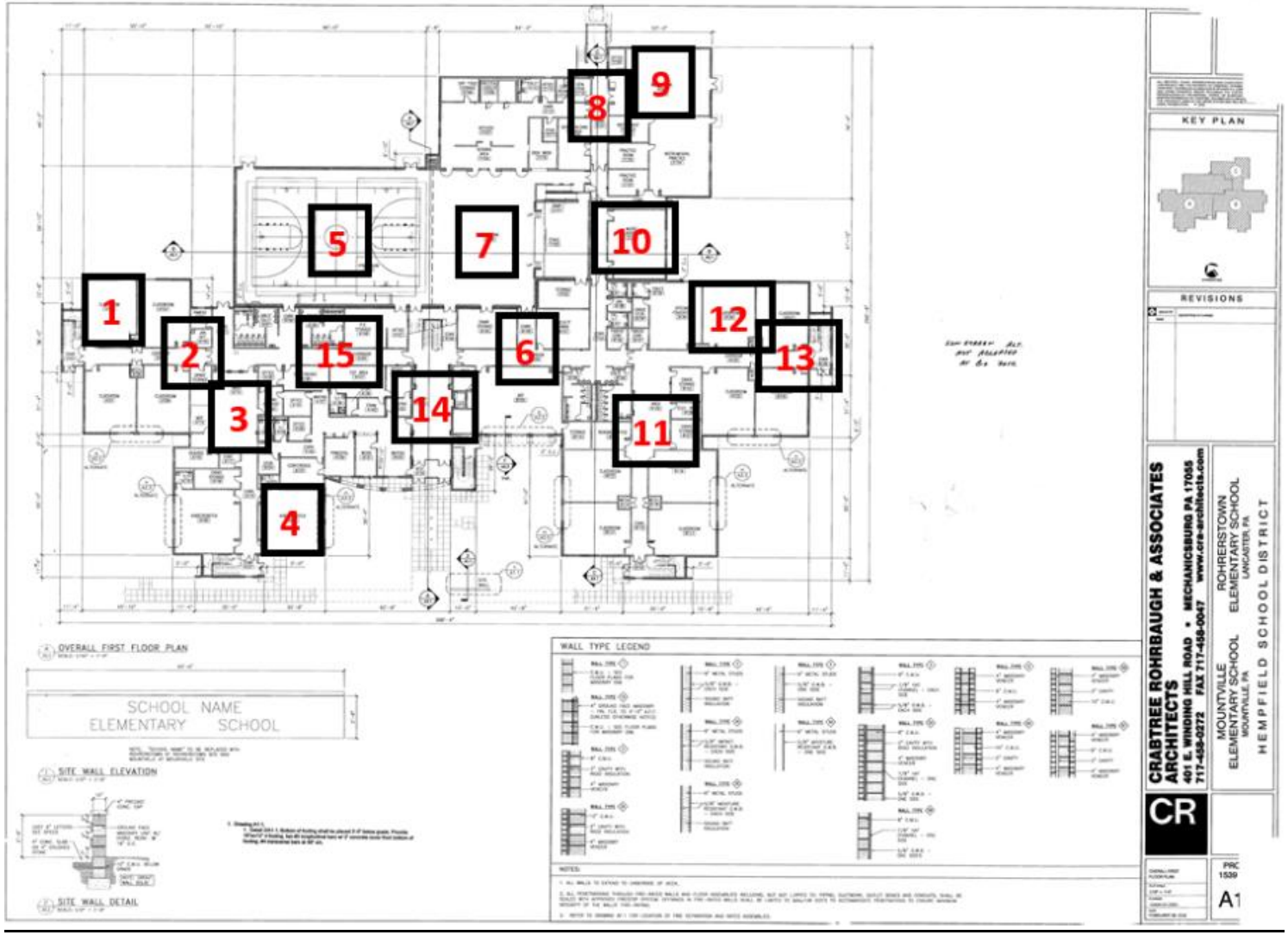


Rohrerstown Elementary School Outdoor RF Emissions Testing Data

LOC	Date	Timestamp	E-Field % Controlled Standard	E-Field % Uncontrolled Standard
1	03/18/22	14:10:16	0.9605	**4.8025**
2	03/18/22	14:12:11	0.7682	3.8410
3	03/18/22	14:13:52	0.6860	3.4300
4	03/18/22	14:16:00	0.2514	1.2570
5	03/18/22	14:17:46	0.6297	3.1485
6	03/18/22	14:18:57	0.4267	2.1335
7	03/18/22	14:20:44	0.5843	2.9215
8	03/18/22	14:22:24	0.8804	4.4020
9	03/18/22	14:23:46	0.5850	2.9250
10	03/18/22	14:25:24	0.6266	3.1330
11	03/18/22	14:26:34	0.3085	1.5425
12	03/18/22	14:28:04	0.0037	0.0185
13	03/18/22	14:29:45	0.4699	2.3495
14	03/18/22	14:31:02	0.5223	2.6115
15	03/18/22	14:32:13	0.3004	1.5020
16	03/18/22	14:33:14	0.1327	0.6635

LOC	Date	Timestamp	E-Field % Controlled Standard	E-Field % Uncontrolled Standard
17	03/18/22	14:35:06	0.4892	2.4460
18	03/18/22	14:36:59	0.7374	3.6870
19	03/18/22	14:38:16	0.8517	4.2585
20	03/18/22	14:40:07	0.5911	2.9555
21	03/18/22	14:41:10	0.6539	3.2695
22	03/18/22	14:43:19	0.4987	2.4935
23	03/18/22	14:44:45	0.7246	3.6230
24	03/18/22	14:45:50	0.4526	2.2630
25	03/18/22	14:46:40	0.4967	2.4835
26	03/18/22	14:47:35	0.5238	2.6190
27	03/18/22	14:48:36	0.4650	2.3250
28	03/18/22	14:49:36	0.4762	2.3810
29	03/18/22	14:50:47	0.4736	2.3680
30	03/18/22	14:52:14	0.6656	3.3280
31	03/18/22	14:53:45	0.6065	3.0325

Rohrerstown Elementary School First Floor RF Emissions Testing Locations



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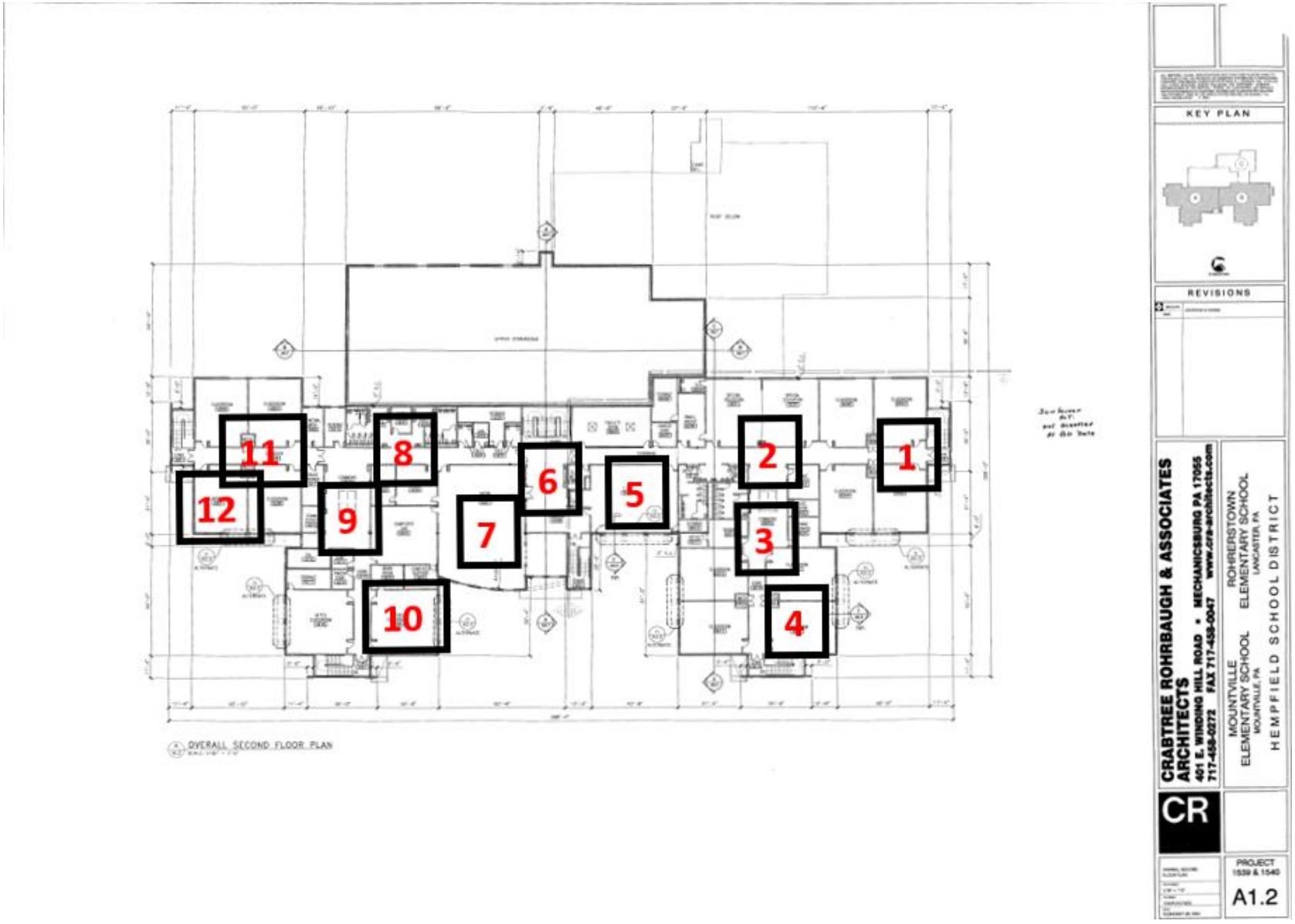
Rohrerstown Elementary School First Floor RF Emissions Testing Data

Index	Date	Timestamp	E-Field % Controlled Standard	E-Field % Uncontrolled Standard
1	03/18/22	13:26:21	0.0015	0.0075
2	03/18/22	13:27:45	0.0023	0.0115
3	03/18/22	13:28:41	0.0016	0.0080
4	03/18/22	13:30:06	0.0050	0.0250
5	03/18/22	13:32:16	0.0640	0.3200
6	03/18/22	13:33:43	0.0159	0.0795
7	03/18/22	13:34:47	0.0164	0.0820
8	03/18/22	13:37:03	0.0026	0.0130
9	03/18/22	13:37:51	0.0025	0.0125
10	03/18/22	13:39:05	0.0332	0.1660
11	03/18/22	13:40:48	0.0326	0.1630
12	03/18/22	13:42:27	0.0730	0.3650
13	03/18/22	13:43:21	0.0355	0.1775
14	03/18/22	13:45:21	0.0495	0.2475
15	03/18/22	13:46:52	0.0497	0.2485

Rohrerstown Elementary School Second Floor RF Emissions Testing Locations



Rohrerstown Elementary School Second Floor RF Emissions Testing Data

Index	Date	Timestamp	E-Field % Controlled Standard	E-Field % Uncontrolled Standard
1	03/18/22	13:50:23	0.1065	0.5325
2	03/18/22	13:51:20	0.0386	0.1930
3	03/18/22	13:52:11	0.1102	0.5510
4	03/18/22	13:53:10	0.0618	0.3090
5	03/18/22	13:54:36	0.0818	0.4090
6	03/18/22	13:55:33	0.0284	0.1420
7	03/18/22	13:56:52	0.0254	0.1270
8	03/18/22	13:57:44	0.0052	0.0260
9	03/18/22	13:58:33	0.0193	0.0965
10	03/18/22	13:59:38	0.0716	0.3580
11	03/18/22	14:00:48	0.0153	0.0765
12	03/18/22	14:01:56	0.0404	0.2020