



**HEMPFIELD SCHOOL DISTRICT  
ROHRERSTOWN ELEMENTARY SCHOOL**

**2200 NOLL DRIVE  
LANCASTER, PA**

**RF Emissions Testing Results  
Test Date: February 12, 2021**

Engineer: Stephanie Koles  
Meter: Narda NBM-550  
Calibration Due: April 1, 2021  
Probe: EA5091 Electric Field Probe  
Calibration Due: April 1, 2021  
Test Date: February 12, 2021



## 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<sup>1</sup>. The meter has a dynamic range of 30dB and is capable of calculating percentage with respect to FCC maximum permissible exposure (MPE) limits. The probe used is a broadband (300 kHz to 50 GHz) electric field isotropic 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 the school and on the roof.

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 the major worldwide standards concerned with human exposure to radio frequency radiation have exposure limits based on field levels averaged over the whole body.

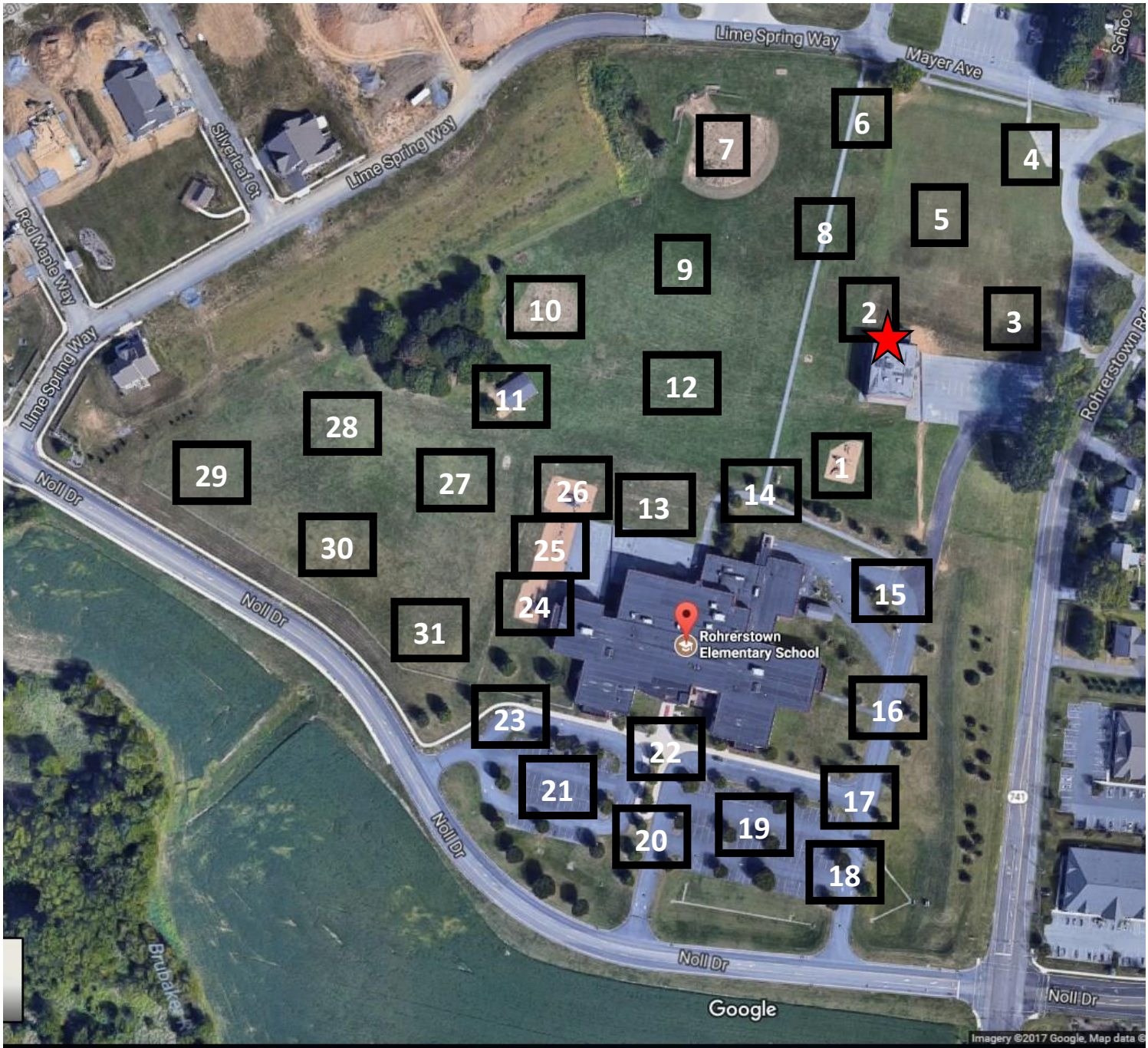
## Results

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 **1.68 %** of FCC Standard for the public environment, which complies with federal RF safety limits.

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<sup>1</sup> 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



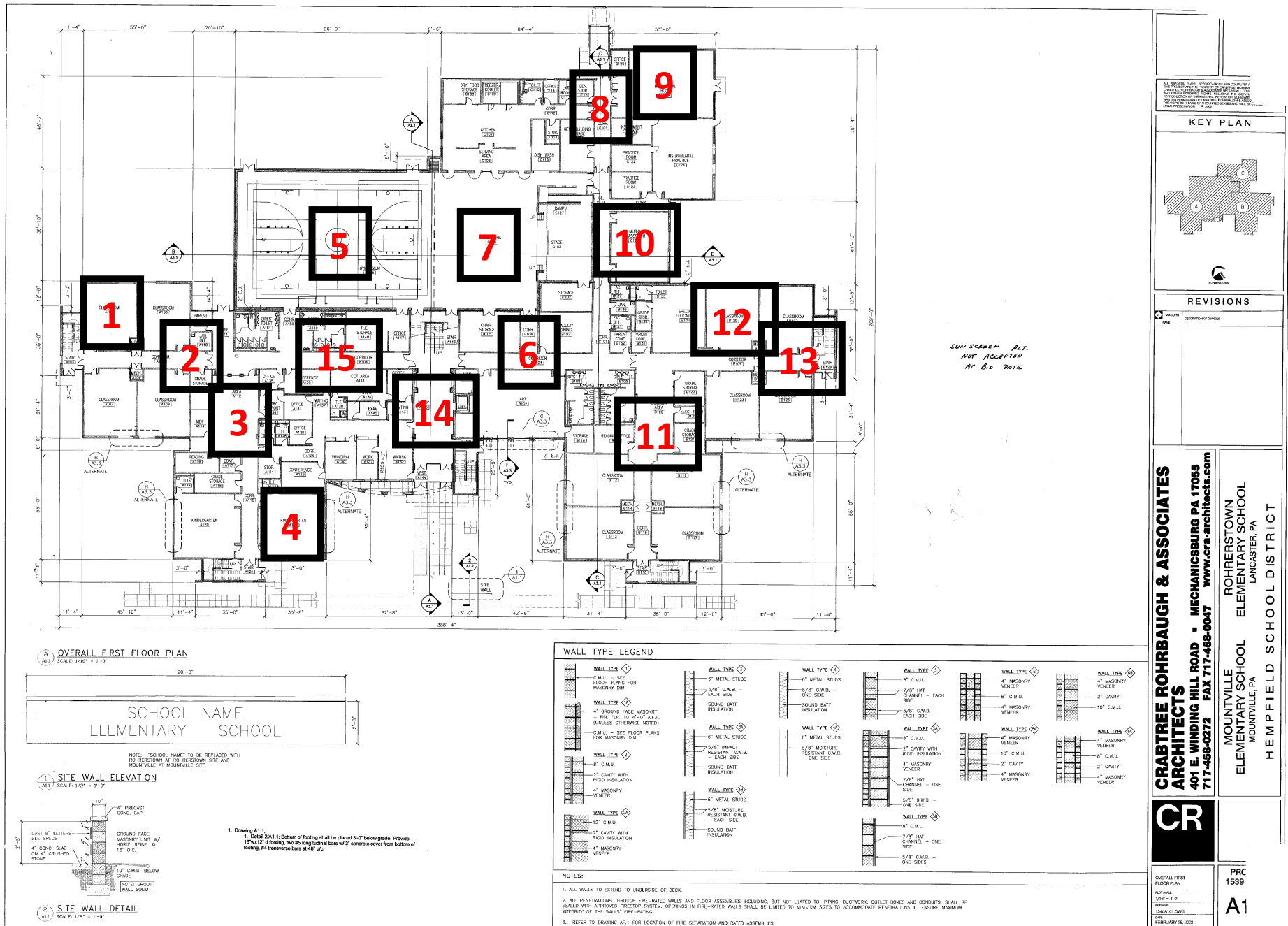
### Rohrerstown Elementary School Outdoor RF Emissions Testing Data

LOC	Date	Timestamp	E-Field % Controlled Standard	E-Field % Uncontrolled Standard
1	02/12/21	11:58:00	0.2112	1.056
2	02/12/21	12:00:36	0.1455	0.7275
3	02/12/21	12:02:46	0.3364	1.682
4	02/12/21	12:04:29	0.0330	0.165
5	02/12/21	12:05:41	0.0317	0.1585
6	02/12/21	12:07:11	0.1145	0.5725
7	02/12/21	12:08:42	0.2129	1.0645
8	02/12/21	12:10:08	0.0020	0.01
9	02/12/21	12:12:43	0.0320	0.16
10	02/12/21	12:14:01	0.0938	0.469
11	02/12/21	12:15:15	0.0430	0.215
12	02/12/21	12:17:23	0.0489	0.2445
13	02/12/21	12:18:51	0.0457	0.2285
14	02/12/21	12:20:03	0.1060	0.53
15	02/12/21	12:21:24	0.0892	0.446
16	02/12/21	12:22:27	0.0424	0.212

LOC	Date	Timestamp	E-Field % Controlled Standard	E-Field % Uncontrolled Standard
17	02/12/21	12:23:24	0.0244	0.122
18	02/12/21	12:24:05	0.0449	0.2245
19	02/12/21	12:25:04	0.0777	0.3885
20	02/12/21	12:26:04	0.0974	0.487
21	02/12/21	12:27:33	0.0644	0.322
22	02/12/21	12:28:33	0.0229	0.1145
23	02/12/21	12:29:54	0.0297	0.1485
24	02/12/21	12:31:36	0.0217	0.1085
25	02/12/21	12:32:39	0.0580	0.29
26	02/12/21	12:33:33	0.0521	0.2605
27	02/12/21	12:34:47	0.0133	0.0665
28	02/12/21	12:35:53	0.0187	0.0935
29	02/12/21	12:37:39	0.0615	0.3075
30	02/12/21	12:39:46	0.0015	0.0075
31	02/12/21	12:41:07	0.0000	0



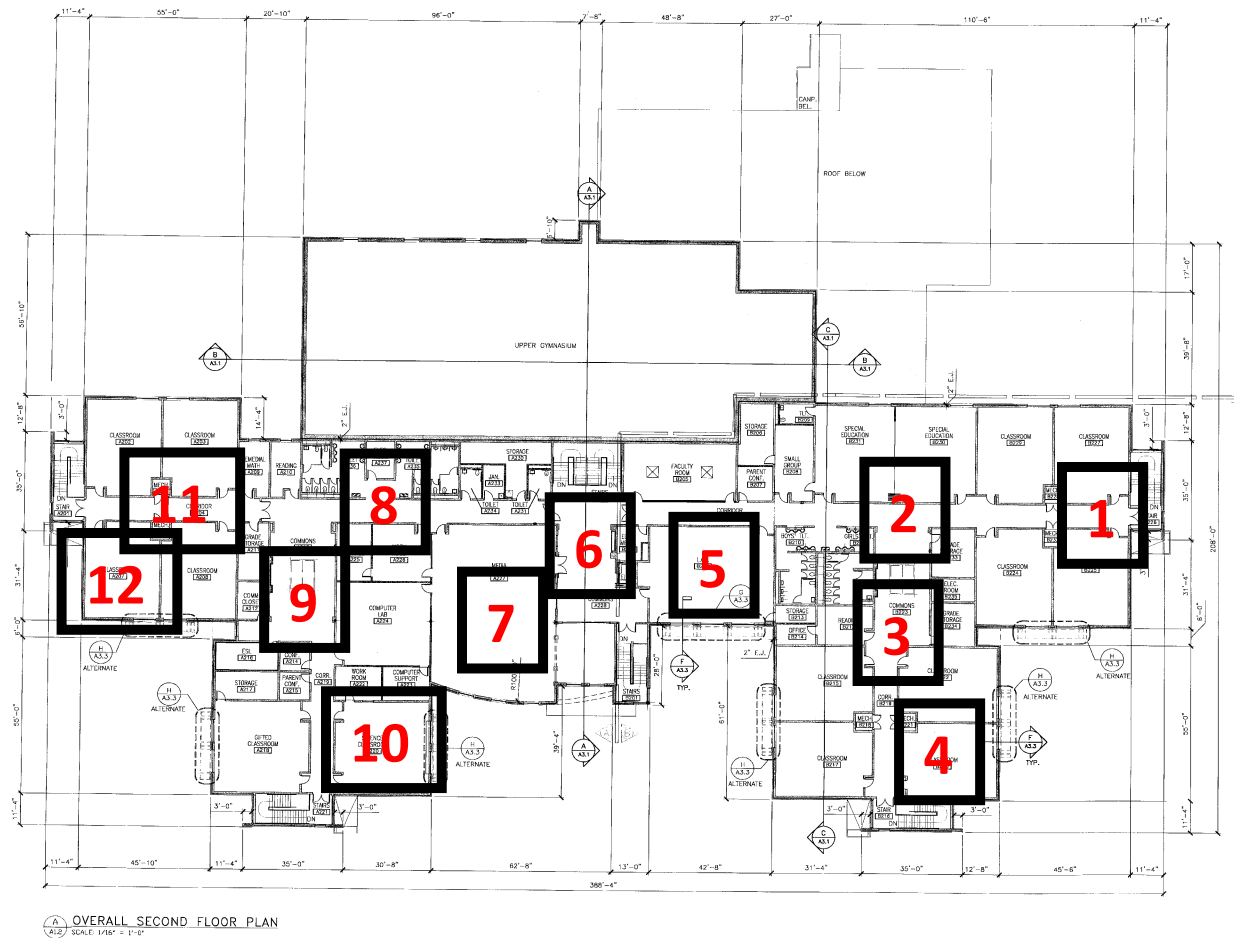
# Rohrerstown Elementary School First Floor RF Emissions Testing Locations



Rohrerstown Elementary School First Floor RF Emissions Testing Data

Index	Date	Timestamp	E-Field % Controlled Standard	E-Field % Uncontrolled Standard
1	02/12/21	11:24:30	0.0343	0.1715
2	02/12/21	11:26:01	0.0255	0.1275
3	02/12/21	11:26:58	0.1060	0.53
4	02/12/21	11:27:47	0.0901	0.4505
5	02/12/21	11:31:02	0.0154	0.077
6	02/12/21	11:35:06	0.0330	0.165
7	02/12/21	11:35:45	0.0452	0.226
8	02/12/21	11:37:19	0.0224	0.112
9	02/12/21	11:38:05	0.0216	0.108
10	02/12/21	11:39:23	0.0609	0.3045
11	02/12/21	11:40:58	0.0180	0.09
12	02/12/21	11:42:13	0.0191	0.0955
13	02/12/21	11:42:53	0.0343	0.1715
14	02/12/21	11:44:14	0.0918	0.459
15	02/12/21	11:45:08	0.0879	0.4395

# Rohrerstown Elementary School Second Floor RF Emissions Testing Locations



See Screen  
Alt.  
Not Received  
At Bldg Date

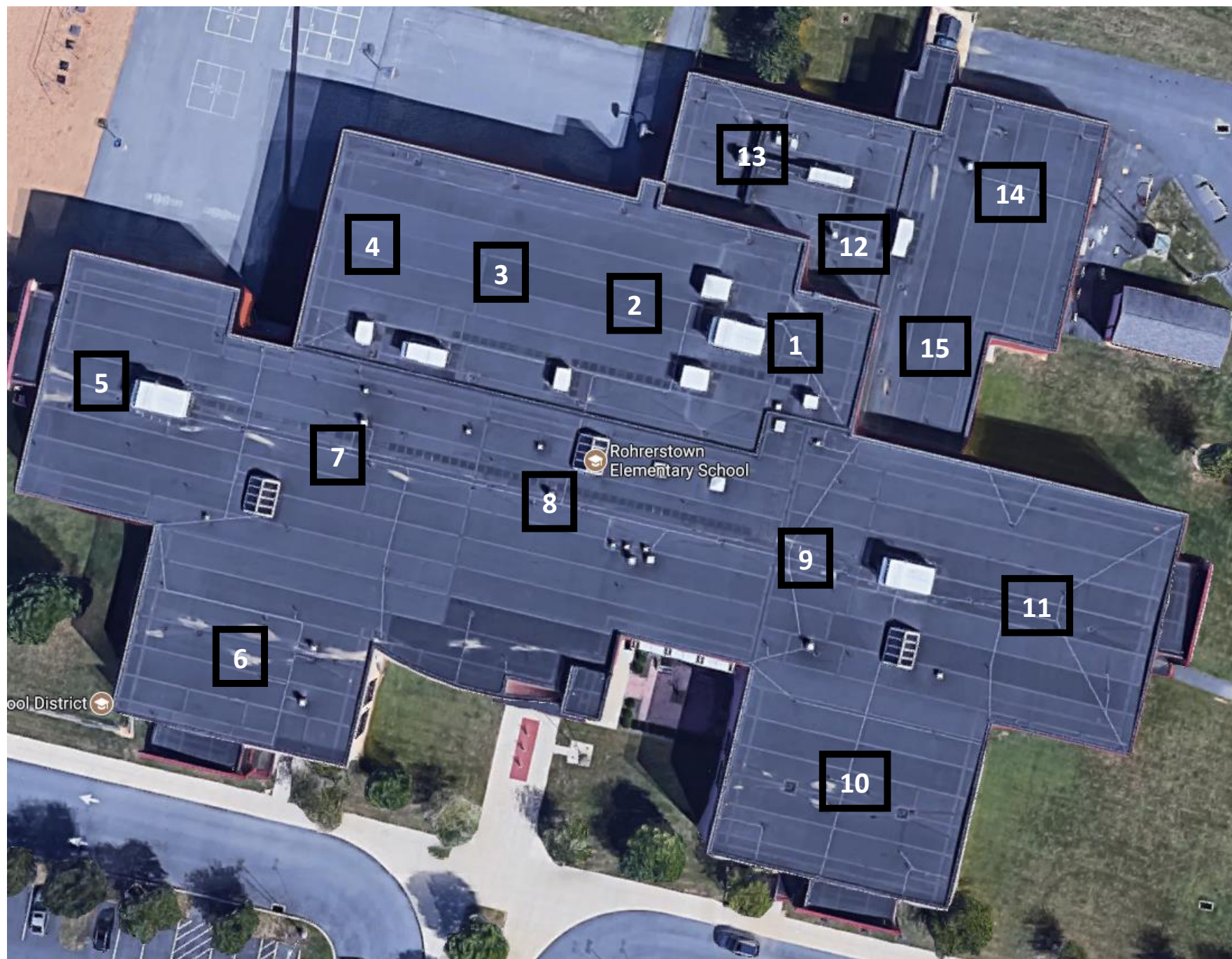
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<p><b>KEY PLAN</b></p>					
<p><b>REVISIONS</b></p> <table border="1"> <thead> <tr> <th>NO.</th> <th>DESCRIPTION OF CHANGE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>REVISION</td> </tr> </tbody> </table>		NO.	DESCRIPTION OF CHANGE	1	REVISION
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<p><b>CRABTREE ROHRBAUGH &amp; ASSOCIATES ARCHITECTS</b> 401 E. WINDING HILL ROAD • MECHANICSBURG PA 17055 717-488-0272 FAX 717-488-0047 <a href="http://www.cra-architects.com">www.cra-architects.com</a></p>					
<p><b>MOUNTVILLE ROHRERSTOWN ELEMENTARY SCHOOL</b> MOUNTVILLE PA LANCASTER PA HEMPFIELD SCHOOL DISTRICT</p>					
<p><b>CR</b></p>					
<p>OVERALL SECOND FLOOR PLAN NOT SCALE DATE: 1-12-21 DESIGNED: CRG DRAWN: JTB INTERVIEW: 28, 2020</p>					
<p>PROJECT 1539 &amp; 1540 <b>A1.2</b></p>					

Rohrerstown Elementary School Second Floor RF Emissions Testing Data

Index	Date	Timestamp	E-Field % Controlled Standard	E-Field % Uncontrolled Standard
1	02/12/21	11:03:09	0.1055	0.5275
2	02/12/21	11:06:03	0.1948	0.974
3	02/12/21	11:06:51	0.1642	0.821
4	02/12/21	11:08:20	0.0784	0.392
5	02/12/21	11:09:57	0.1065	0.5325
6	02/12/21	11:10:51	0.0552	0.276
7	02/12/21	11:12:03	0.0466	0.233
8	02/12/21	11:13:13	0.0413	0.2065
9	02/12/21	11:13:57	0.0634	0.317
10	02/12/21	11:15:14	0.1314	0.657
11	02/12/21	11:16:46	0.1794	0.897
12	02/12/21	11:19:39	0.0956	0.478



Rohrerstown Elementary School Rooftop RF Emissions Testing Locations



Rohrerstown Elementary School Rooftop RF Emissions Testing Data

Index	Date	Timestamp	E-Field % Controlled Standard	E-Field % Uncontrolled Standard
1	02/12/21	10:32:11	0.0815	0.4075
2	02/12/21	10:33:38	0.0193	0.0965
3	02/12/21	10:34:22	0.0337	0.1685
4	02/12/21	10:35:20	0.1005	0.5025
5	02/12/21	10:38:16	0.2426	1.213
6	02/12/21	10:39:41	0.2328	1.164
7	02/12/21	10:40:26	0.2919	1.4595
8	02/12/21	10:42:06	0.1163	0.5815
9	02/12/21	10:42:59	0.1049	0.5245
10	02/12/21	10:43:52	0.1254	0.627
11	02/12/21	10:45:06	0.0368	0.184
12	02/12/21	10:48:18	0.0700	0.35
13	02/12/21	10:49:04	0.0844	0.422
14	02/12/21	10:50:16	0.0640	0.32
15	02/12/21	10:51:02	0.0370	0.185