

**Special Temporary Authority**  
**Purpose and Technical Information**  
**Gray Television Licensee, LLC**  
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**Transition to Reassignment Channel**

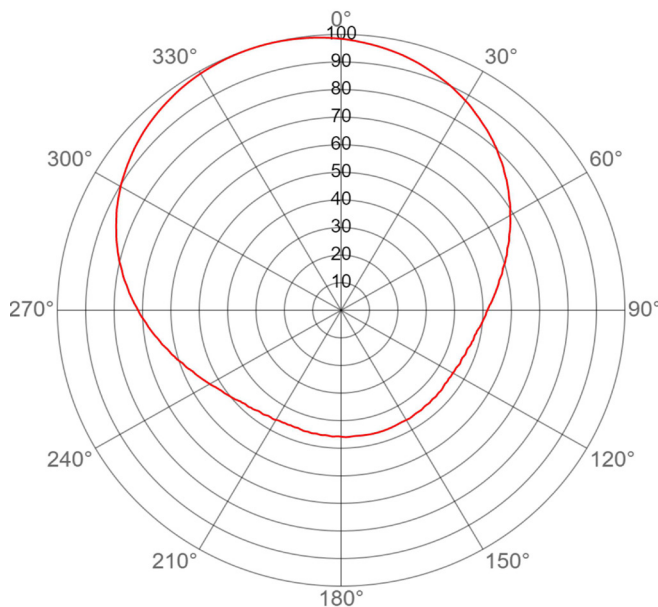
Television Station:	WSFA(DT) Facility ID 13993 Montgomery, AL Pre-Auction Channel: 12 Reassignment Channel: 8 Transition Phase Assignment: Phase 10 Phase Testing Period Start Date: 05/02/2020 Phase Completion Date: 07/03/2020
STA purpose:	To operate on pre-auction Ch. 12 with an interim antenna prior to transition in order to accommodate tower work, removal of existing Ch. 12 main antenna, and installation of post-auction Ch. 8 main antenna. Work to commence June 2020.
STA Channel:	12
STA Site Location:	WSFA licensed Ch. 12 site Antenna Structure Registration # 1036432
STA Antenna System:	Side-mount broadband directional (Figure 1)
STA Power and Height:	24.1 kW effective radiated power 4.0 kW transmitter power output (post-filter) 466.0 meters height above ground level 628.2 meters height above mean sea level 496.8 meters height above average terrain
STA Facility Coverage:	Does not extend beyond licensed, provides required principal community coverage (Figure 2)
RF Exposure:	The calculated signal density near the tower at two meters above ground level attributable to the proposed facility is 0.2 percent of the general population/uncontrolled maximum permitted exposure limit. Calculations conducted pursuant to FCC OET Bulletin Number 65 and incorporate 30 percent relative field at downward angles (from antenna elevation pattern data). This is below the five percent threshold limit described in §1.1307(b) regarding sites with multiple emitters, categorically excluding the applicant

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from responsibility for taking any corrective action in the areas  
where the proposal's contribution is less than five percent.

**Chesapeake RF Consultants, LLC**  
Joseph M. Davis, P.E.                      March 30, 2020  
207 Old Dominion Road                      Yorktown, VA 23692                      703-650-9600



## Horizontal Polarization AZIMUTH PATTERN

Exhibit No.

Date **27 Mar 2020**

Call Letters **WSFA**

Channel **12**

Antenna Type **TLS-V4BB**

Location **Montgomery AL**

Customer **Gray TV**

Gain **2.0 (3.01 dB)**

**Calculated**

Drawing # **TLSV4-H**

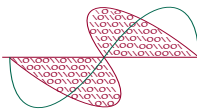
Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value	Deg	Value
0	0.984	36	0.843	72	0.610	108	0.466	144	0.458	180	0.458	216	0.467	252	0.598	288	0.833	324	0.980
1	0.982	37	0.838	73	0.606	109	0.466	145	0.457	181	0.457	217	0.466	253	0.606	289	0.838	325	0.982
2	0.980	38	0.833	74	0.598	110	0.467	146	0.458	182	0.458	218	0.466	254	0.610	290	0.843	326	0.984
3	0.978	39	0.827	75	0.590	111	0.464	147	0.459	183	0.458	219	0.468	255	0.618	291	0.849	327	0.986
4	0.975	40	0.820	76	0.586	112	0.461	148	0.460	184	0.459	220	0.472	256	0.623	292	0.854	328	0.988
5	0.973	41	0.815	77	0.582	113	0.460	149	0.460	185	0.458	221	0.474	257	0.628	293	0.860	329	0.989
6	0.970	42	0.808	78	0.574	114	0.461	150	0.460	186	0.456	222	0.475	258	0.636	294	0.866	330	0.991
7	0.968	43	0.803	79	0.568	115	0.461	151	0.459	187	0.456	223	0.479	259	0.643	295	0.872	331	0.992
8	0.965	44	0.795	80	0.564	116	0.459	152	0.459	188	0.457	224	0.479	260	0.648	296	0.877	332	0.993
9	0.963	45	0.788	81	0.559	117	0.456	153	0.459	189	0.458	225	0.479	261	0.654	297	0.882	333	0.995
10	0.960	46	0.783	82	0.554	118	0.456	154	0.459	190	0.456	226	0.483	262	0.662	298	0.887	334	0.996
11	0.957	47	0.777	83	0.549	119	0.456	155	0.460	191	0.455	227	0.485	263	0.669	299	0.892	335	0.997
12	0.954	48	0.770	84	0.544	120	0.454	156	0.460	192	0.457	228	0.488	264	0.676	300	0.897	336	0.997
13	0.951	49	0.762	85	0.539	121	0.455	157	0.461	193	0.458	229	0.493	265	0.682	301	0.902	337	0.998
14	0.947	50	0.756	86	0.534	122	0.455	158	0.461	194	0.456	230	0.496	266	0.688	302	0.906	338	0.999
15	0.943	51	0.750	87	0.530	123	0.453	159	0.461	195	0.456	231	0.499	267	0.695	303	0.910	339	0.999
16	0.940	52	0.743	88	0.524	124	0.454	160	0.461	196	0.457	232	0.502	268	0.703	304	0.915	340	1.000
17	0.936	53	0.736	89	0.520	125	0.454	161	0.462	197	0.457	233	0.506	269	0.710	305	0.919	341	1.000
18	0.932	54	0.730	90	0.515	126	0.453	162	0.462	198	0.455	234	0.510	270	0.715	306	0.923	342	1.000
19	0.927	55	0.722	91	0.512	127	0.454	163	0.462	199	0.454	235	0.512	271	0.722	307	0.927	343	1.000
20	0.923	56	0.715	92	0.510	128	0.455	164	0.462	200	0.453	236	0.515	272	0.730	308	0.932	344	1.000
21	0.919	57	0.710	93	0.506	129	0.457	165	0.462	201	0.454	237	0.520	273	0.736	309	0.936	345	1.000
22	0.915	58	0.703	94	0.502	130	0.457	166	0.461	202	0.454	238	0.524	274	0.743	310	0.940	346	1.000
23	0.910	59	0.695	95	0.499	131	0.456	167	0.461	203	0.453	239	0.530	275	0.750	311	0.943	347	0.999
24	0.906	60	0.688	96	0.496	132	0.456	168	0.461	204	0.455	240	0.534	276	0.756	312	0.947	348	0.999
25	0.902	61	0.682	97	0.493	133	0.458	169	0.461	205	0.455	241	0.539	277	0.762	313	0.951	349	0.998
26	0.897	62	0.676	98	0.488	134	0.457	170	0.460	206	0.454	242	0.544	278	0.770	314	0.954	350	0.997
27	0.892	63	0.669	99	0.485	135	0.455	171	0.460	207	0.456	243	0.549	279	0.777	315	0.957	351	0.997
28	0.887	64	0.662	100	0.483	136	0.456	172	0.459	208	0.456	244	0.554	280	0.783	316	0.960	352	0.996
29	0.882	65	0.654	101	0.479	137	0.458	173	0.459	209	0.456	245	0.559	281	0.788	317	0.963	353	0.995
30	0.877	66	0.648	102	0.479	138	0.457	174	0.459	210	0.459	246	0.564	282	0.795	318	0.965	354	0.993
31	0.872	67	0.643	103	0.479	139	0.456	175	0.459	211	0.461	247	0.568	283	0.803	319	0.968	355	0.992
32	0.866	68	0.636	104	0.475	140	0.456	176	0.460	212	0.461	248	0.574	284	0.808	320	0.970	356	0.991
33	0.860	69	0.628	105	0.474	141	0.458	177	0.460	213	0.460	249	0.582	285	0.815	321	0.973	357	0.989
34	0.854	70	0.623	106	0.472	142	0.459	178	0.460	214	0.461	250	0.586	286	0.820	322	0.975	358	0.988
35	0.849	71	0.618	107	0.468	143	0.458	179	0.459	215	0.464	251	0.590	287	0.827	323	0.978	359	0.986



**Figure 1**  
**Interim Antenna Azimuthal Pattern**  
**WSFA(DT) Montgomery, AL**  
**Facility ID 13993**  
**Ch. 12 24.1 kW 497 m**

prepared for  
**Gray Television Licensee, LLC**

March, 2020



**Chesapeake RF Consultants, LLC**  
Radiofrequency Consulting Engineers  
Digital Television and Radio

Proposed Interim Ch. 12  
24.1 kW 497 m directional  
43 dBμ  
(Principal Community)  
36 dBμ  
(Noise Limited Service Contour)

**Figure 2**  
**Proposed Interim Contours**  
**WSFA(DT) Montgomery, AL**  
**Facility ID 13993**  
**Ch. 12 24.1 kW 497 m**

prepared for  
**Gray Television Licensee, LLC**

March, 2020

Licensed Ch. 12  
BLCDT-20090622ABN  
31.6 kW 598 m nondirectional  
36 dBμ Contour

