

EXHIBIT 1

Program of Research and Experimentation

AT&T Services, Inc. (“AT&T”) plans to conduct pre-deployment testing in the 3.7 GHz band with various equipment manufacturer partners. To facilitate this, AT&T hereby requests an experimental authorization to use the 3.7-3.98 GHz band in the locations listed in the attached application on a temporary basis. AT&T recently won licenses in this band in FCC Auction 107, and this experimental authorization will permit crucial testing activities to take place. AT&T’s request is for a temporary, one-year grant.

Testing will occur indoors and outdoors, pursuant to the technical parameters outlined in the attached Form 442 and attached spreadsheet. AT&T has identified the nearest earth stations and will coordinate operations under the experimental authorization with those earth station operators to avoid potential disruption to their operations. AT&T will immediately cease transmissions if those operators experience interference. In addition, AT&T will cease operations upon notice by any Auction 107 winning bidder that they plan to initiate operations in the relevant area pursuant to their Auction 107 licenses in the relevant areas.

Site	Address	Structure Type	Sector	Answer Below If "Yes" to Directional Antenna			Antenna Extend >6m above structure or ground? (Y/N)	Answer Below if "Yes" to Antenna Extend > 6M Above Structure or Ground			
				Width of beam at the half-power point (in degrees)	Orientation in horizontal plane (degrees from true North)	Orientation in vertical plane (degrees from horizontal)		Height above ground to antenna tip (in Meters)	Elevation of ground at antenna site (AMSL) (meters)	Distance to nearest aircraft landing area (in km)	List natural formation or existing man-made structures (e.g. hills, trees, water tanks, towers) that would shield antenna from aircraft.
Macomb County, Michigan Stations											
1	17800 East Ten Mile Road	Monopole	A	65	345	0	Y	31.39	184.00	9.00	Trees, additional building
			B	65	105	0					
			C	65	225	0					
2	15205 11 Mile Road	Monopole	A	65	342	0	Y	28.96	183.00	9.30	Trees, additional building
			B	65	124	0					
			C	65	228	0					
3	4280 East Thirteen Mile Road	Monopole	A	65	0	0	Y	42.67	190.00	9.00	Trees, additional building
			B	65	120	0					
			C	65	240	0					
4	26620 Dequindre	Monopole	A	65	0	0	Y	31.09	191.00	9.20	Trees, additional building
			B	65	120	0					
			C	65	240	0					
5	30011 Van Dyke	Monopole	A	65	5	0	Y	30.48	185.00	10.90	Trees, additional building
			B	65	120	0					
			C	65	245	0					
6	14164 11 Mile Road	Monopole	A	65	40	0	Y	37.01	189.00	8.50	Trees, additional building
			B	65	160	0					
			C	65	280	0					
7	17371 Eleven Mile Road	Monopole	B	65	120	0	Y	29.26	187.00	10.50	Trees, additional building
			C	65	240	0					
			A	65	5	0					
8	29425 Panama	Monopole	B	65	115	0	Y	37.19	189.00	10.30	Trees, additional building
			C	65	235	0					
			A	65	0	0					
9	27980 Dequindre	Self-Support	B	65	120	0	Y	42.98	193.00	8.70	Trees, additional building
			C	65	235	0					
			A	65	10	0					
10	28590 Loma Avenue	Monopole	A	65	10	0	Y	28.35	188.00	9.40	Trees, additional building
			B	65	130	0					
			C	65	250	0					

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Santa Clara, California Stations												
1	1184 N. Mathilda Ave	Monopole	A	65	20	0	Y	18.87	5.00	1.61	Trees, additional building	
			B	65	260	0						
			C	65	140	0						
2	13000 Glen Brae Drive	Utility	A	65	355	0	Y	17.98	98.00	11.7	Trees, additional building	
			B	65	260	0						
			C	65	160	0						
3	375 Pastoria Ave	Monopole	A	65	19	0	Y	29.56	22.00	2.15	Trees, additional building	
			B	65	261	0						
			C	65	140	0						
4	6148 Bollinger Road	Building-Side Mount	A	65	20	0	Y	12.19	70.00	3.41	Trees, additional building	
			B	65	270	0						
			C	65	180	0						
5	1777 Saratoga Avenue	Monopole	A	65	0	0	Y	14.93	77.00	3.66	Trees, additional building	
			B	65	250	0						
			C	65	140	0						
6	450 North Sunnyvale Ave	Monopole	A	65	60	0	Y	12.19	15.00	2.72	Trees, additional building	
			B	65	260	0						
			C	65	140	0						
7	364 Ferguson Ave	Monopole	A	65	20	0	Y	14.93	24.00	1.97	Trees, additional building	
			B	65	260	0						
			C	65	140	0						
8	13686 Quito Rd	Utility	A	65	40	0	Y	18.29	85.00	11.33	Trees, additional building	
			C	65	140	0						
			A	65	45	0						
9	1600 Saratoga Ave	Rooftop	B	65	275	0	Y	18.29	70.00	8.96	Trees, additional building	
			C	65	160	0						
			A	65	20	0						
10	Alvarado Avenue	Utility	B	65	260	0	Y	14.02	8.00	3.09	Trees, additional building	
			C	65	140	0						
			A	65	20	0						
11	2041 Winchester Blvd	Monopole	A	65	260	0	Y	15.24	60.00	7.94	Trees, additional building	
			B	65	260	0						
			C	65	140	0						

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Collin, Dallas, Denton County, Texas Stations

1	6300 Legacy Drive	Building-Side Mount	A	65	8	0	Y	16.15	685.70	1.64	Trees, additional building
			B	65	128	0					
			C	65	248	0					
2	9801 Valley Ranch Parkway	Building-Side Mount	A	65	60	0	Y	14.94	429.79	2.96	Trees, additional building
			B	65	180	0					
			C	65	300	0					
3	26661 Highway 380E	Guyed	A	65	8	0	Y	61.58	538.06	3.23	Trees, additional building
			B	65	128	0					
			C	65	248	0					
4	6750 North MacArthur Boulevard	Rooftop	A	65	8	0	Y	19.61	501.97	0.24	Trees, additional building
			B	65	8	0					
			C	65	243	0					
5	14197-A King Road	Self Support	A	65	8	0	Y	35.06	557.74	0.62	Trees, additional building
			B	65	8	0					
			C	65	248	0					
6	7808 North MacArthur Boulevard	Stealth Structure	A	65	8	0	Y	18.59	508.53	0.51	Trees, additional building
			B	65	248	0					
			C	65	248	0					
7	5100 O'Connor Road	Rooftop	A	65	8	0	Y	21.03	429.79	4.03	Trees, additional building
			B	65	8	0					
			C	65	128	0					
8	15053 Fishtrap Road	Monopole	A	65	8	0	Y	30.48	570.87	1.84	Trees, additional building
			B	65	128	0					
			C	65	248	0					

San Diego County, California Stations

1	9605 Soranton Road	Rooftop	A	65	0	0	Y	10.96	35.97	6.3	Trees, additional building
2	6325 Lusk Boulevard	Rooftop	A	65	30	0	Y	3.67	12.04	7.01	Trees, additional building
3	6255 Ferris Square	Building-Side Mount	B	65	200	0	Y	2.00	7.11	4.3	Trees, additional building