

## Antigo's Airfield Rubblization Projects (1999-2019)

Antigo Job #	Location	Year	Concrete Rubblized (square yards)	Thickness of Existing Concrete (inches)	Overlay Type	Overlay Thickness (inches)	Comments
1857	Rantoul Airport, IL, R/W 18-36 & T/W 'F'	1999	45,670	6-8	HMA	5	Demonstrated 3 maximum surface sizes: 3", 9" & 18"
2074	Columbus Airport, IN, T/W 'C' & West Apron Taxilane	2000	24,975	6	HMA	7.5	
2205	Watertown Airport, SD, Apron Area	2001	39,456	8	HMA	4	Asphalt millings (3") placed prior to HMA overlay
2267	Rantoul Airport, IL, R/W 9-27	2001	3,625	6-8	HMA	4.6	
2369	Kalamazoo/Battle Creek Airport, MI, T/W 'E'	2002	5,250	8	HMA	11.5	
2455	Selfridge Air National Guard Base, Detroit, MI, R/W 01-19	2002	95,706	13-21	HMA	7	21" concrete is 11" bonded over 10", crushed aggregate (4.5") placed for grade correction
2562	IN Air National Guard Base, Ft. Wayne, IN, Parking Ramp & T/W	2003	25,258	10	JPCP	13	
2665	Watertown Airport, SD, Hanger Area	2003	1,982	6	HMA	3	Asphalt millings (3") placed prior to HMA overlay
2835	Ephrata Airport, WA, R/W 11-29 & T/W B-2	2004	26,500	6	HMA	4	
2970	Columbus Airport, IN, T/W 'E'	2004	12,768	6	HMA	7	
2976	Capital Airport, Springfield, IL, R/W 4 Overrun	2005	15,000	10	HMA	3	
3084	Grand Forks Air Force Base, ND, R/W 17-35	2005	237,558	19-24	HMA	9	Crushed aggregate (4-13") placed for crown correction
2938	Buffalo Niagara Airport, NY, T/W 'A'	2005-06	21,562	11	HMA	8	
3183	San Juan International Airport, Puerto Rico, R/W 10-28	2005-07	147,143	15	PCCP	16	Crushed aggregate (3-6") placed prior to concrete overlay
3162	Pierre Airport, SD, R/W 13-31 Blast Pad	2005	4,984	9	HMA	4	
3149	Toledo Metcalf Field, OH, R/W 4-22	2006	29,542	6	HMA	3	Crushed aggregate (variable) placed prior to HMA overlay

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3246	Detroit Metro Airport, MI, Connector W-1	2006	625	17	HMA	5-9	Feasibility test for Detroit Metro runways & taxiways
3547	Tullahoma Airport, TN, Runway	2007	1,000	7	n/a	n/a	Demonstrate rubblization for 3 subgrade conditions.
3824	Dayton Int'l Airport, OH, T/W J & H	2007	6,000	6	HMA	10	Crushed aggregate (6") placed prior to HMA overlay
	King Abdulaziz International Airport (KAIA), Jeddah, Saudi Arabia.	2008-12	1,560,000	12-17	HMA	10	
4108	Nashville International Airport, TN, R/W 2L-20R	2009	3,600	16	PCCP	15	Crushed aggregate (4") and HMA (4") placed prior to concrete overlay.
3871	Travis Air Force Base, CA, R/W 21L-03R	2010	134,000	14-21	PCCP	14	Crushed aggregate (minimum 4") placed prior to concrete overlay
	Chhatrapati Shivaji International Airport, Mumbai, India, T2 Apron	2010-11	93,393	16	PCCP	16	"Black sand" layer (variable) placed prior to concrete overlay.
4203	F.S. Gabreski Airport, Southampton, NY, R/W 6-24	2010	25,750	9	HMA	6	
4220	Eastern Iowa Airport, Cedar Rapids, IA, R/W 9/27	2010	80,417	8-17	PCCP	16	Cement treated base (1") over crushed aggregate (2") placed prior to concrete overlay
4246	Sterling Airport, CO, Rehabilitate R/W 15/33	2010	38,180	6	HMA	6	
4339	Cleveland Hopkins Airport, OH, R/W 10-28 (28 end)	2011	29,790	11-16	PCCP	14	Stabilized base (8") placed prior to concrete overlay.
4397	Cleveland Hopkins Airport, OH, R/W 10-28 (10 end)	2011	15,600	11	PCCP	14	Crushed aggregate (variable) and stabilized base (8") placed prior to concrete overlay.
4485	Great Falls International Airport, MT, taxilane	2011	7,645	7	HMA	4	
4516	Oklahoma Air National Guard, Tulsa, OK, parking apron	2012-13	36,477	11	PCCP	12	Crushed aggregate (variable) and HMA base (3") and stabilized drainage layer (4") placed prior to concrete overlay.
4569	Atlantic City International Airport, NJ, emergency access roads	2012	6,438	12	HMA	4+	

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4591	Niagara Falls International Airport, NY, R/W 10L-28R	2012	85,644	7-10	HMA	8-8.5	Millings leveling course (0"-2") placed prior to asphalt overlay.
4749	Walla Walla Airport, WA, Apron Rehabilitation	2013	57,434	11	HMA	5	
4799	McConnell AFB, Wichita, KS, Repair T/W Alpha - North	2013-14	37,269	10-15	PCCP	19	Rubblization is of lower layer after upper layer and asphalt removed and lower layer milled to provide 23" depth below original grade. Crushed aggregate (4") placed prior to concrete overlay.
4817	Griffiss Intl Airport, Rome, NY, Rehab Taxiways	2013	52,610	16-24	HMA	5	Concrete milled (5"-6") after rubblization to lower grade to accommodate overlay. Crushed aggregate (3") placed prior to asphalt overlay.
4969	Sturgis Airport, KY, center 75' of runway	2013	41,667	6	HMA	4	First asphalt wedge for grade & slope.
4909	Griffiss Intl Airport, Rome, NY, T/W A east & T/W E	2014	35,531	17-18	HMA	5	Crushed aggregate (3+)" placed prior to asphalt overlay.
5079	Whitehorse Airport, Yukon Territory, Canada, T/W A	2014	12,381	12	HMA	4	Crushed aggregate (variable) placed prior to asphalt overlay.
	Chhatrapati Shivaji International Airport, Mumbai, India, T2 Apron & taxiway	2014	132,249	16	PCCP	20	"Black sand" layer (variable) placed prior to concrete overlay. Areas closer to terminal overlaid with asphalt.
5223	Coles County Memorial Airport, Mattoon, IL, R/W 11/29	2015	112,112	14	HMA	6	Crushed aggregate (2-6") placed prior to asphalt overlay.
5248	Griffiss Intl Airport, Rome, NY, T/W E	2015	8,675	17	HMA	5	Crushed aggregate (3") placed prior to asphalt overlay.
5621	Bydgoszcz Airport, Poland, Taxiways	2015	83,360	8	HMA		
5422	Griffiss Intl Airport, Rome, NY, T/W A & T/W B	2016	40,766	16-29	HMA	5	Crushed aggregate (variable thickness) placed prior to asphalt overlay.
5592	Brown Field Airport, San Diego, CA, R/W 8L-26R	2016	8,377	10	HMA	4	Asphalt treated base (variable thickness) placed prior to asphalt overlay.
5704	Griffiss Intl Airport, Rome, NY, T/W A & T/W B	2016	24,607	16-26.5	HMA	5	Crushed aggregate (variable thickness) placed prior to asphalt overlay.
5725	NAS Patuxent River, MD, Overrun area at 14 end of R/W 14-32	2016	5,360	9	HMA	3	

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5784	Buffalo Niagara Int'l Airport, NY, 14 end of runway	2017	26,667	9	HMA	12	Crushed aggregate (variable thickness) placed prior to asphalt overlay.
5823	Rickenbacker Airport, Columbus, OH, T/W A, T/W B, Hammerhead	2017	48,046	19-27	HMA	9	
5981	Wallops Airfield, Wallops Island, VA, various areas	2017	34,698	7-11	HMA	8	
6023	Hanscom Field, Bedford, MA, R/W 11-29	2017	105,444	9	HMA	6	Runway closure limited to 30 days.
6199	Quincy Regional Airport, IL, R/W 13-31	2018	45,333	8-9	HMA	4	Crushed aggregate (4.5"-6.5") placed prior to asphalt overlay.
6209	Rickenbacker Airport, Columbus, OH, T/W A, T/W G	2018	34,733	19-21	HMA	9	T/W A: concrete milled (8") prior to rubblization to lower grade to accommodate overlay. Crushed aggregate (2") placed prior to asphalt overlay.
6445	Plattsburgh Intl Airport, NY, R/W 17-35, T/W C	2018	17,290	10-14	HMA	5	Concrete milled partial depth after rubblization to lower grade to accommodate overlay.
6444	Griffiss Intl Airport, Rome, NY, R/W 15-33	2019	157,698	14"	HMA	7	Concrete milled (5") after rubblization to lower grade to accommodate overlay.
6450	Quincy Regional Airport, IL, R/W 13/31	2019	37,452	08-9"	HMA	4	
6462	Rickenbacker Airport, Columbus, OH, T/W 1C	2019	10,791	13"	HMA	7	Concrete milled (3") prior to rubblization to lower grade to accommodate overlay.
6463	Coles County Memorial Airport, Mattoon, IL, T/W B	2019	27,900	16"	HMA	4	Concrete milled partial depth after rubblization to lower grade to accommodate overlay.
6477	Fort Wayne Int'l Airport, IN, R/W 5/23	2019	67,633	12"	HMA	10	Changed to "modified rubblization" due to weak subgrade.
6517	Shaybah Oil Field, Saudi Arabia, runway & taxiways	2019	133,895	12"	HMA	9	Project completed in 77 days, 4 months ahead of schedule.