

APPENDIX C - SAFETY EVALUATION RESULTS

The various concept dimensions were weighted, and concept characteristics scored, as follows:

- Intelligence Distribution (5=weight)
 - Autonomous - 1 (= score for this option)
 - Cooperative - 2
 - Infrastructure Supported - 3
 - Infrastructure Managed - 10
 - Infrastructure Controlled - 0

(This is based on a belief that only infrastructure managed systems will be able to effectively maintain contingency plans on the fly, and implement them if necessary.)

- Separation Policy (4.5)
 - Free Agent - 7
 - Platooning - 7

(There is insufficient evidence to make a safety determination on free agent versus platooning. Both should be implemented in a "safe" manner, whatever that ultimately means in each case.)

- Mixing of AHS with Non-AHS (3)
 - Physical Barriers - 8
 - Barriers with Gaps - 6
 - Virtual Barriers - 3
 - Full Mixing - 2
- Mixing of AHS Vehicle Classes (3)
 - Mixed - 2
 - Not Mixed - 9
- Entry/Exit (3)
 - Dedicated - 6
 - Transition - 4
- Obstacle Avoidance (3.5)
 - Manual - 5
 - Auto/Manual - 5
 - Full Auto - 5

Main Volume of NAHSC Concept Generation Final Report

Concept #	Intel Dist	5	Seperation Policy	4.5	AHS/Non	3	Veh Cls
1a	Auto	1	Free Agt	7	Full Mix	2	Mixed
1b	Auto	1	Free Agt	7	Full Mix	2	Mixed
2	Infra Cntrl	0	Free Agt	7	Phys Bar	8	Mixed
3	Infra Mng	10	Slot	1	Phys Bar	8	Not Mixed
4	Coop	2	Free Agt	7	Bar w/ Gap	6	Mixed
5	Coop	2	Platoon	7	Bar w/ Gap	6	Mixed
6	Infra Spt	3	Free Agt	7	Bar w/ Gap	6	Mixed
8a	Infra Spt	3	Free Agt	7	Phys Bar	8	Mixed
8b	Infra Spt	3	Free Agt	7	Phys Bar	8	Not Mixed
9	Infra Spt	3	Platoon	7	Phys Bar	8	Mixed
10	Infra Mng	10	Free Agt	7	Bar w/ Gap	6	Mixed
11	Infra Mng	10	Platoon	7	Bar w/ Gap	6	Mixed
12a	Infra Mng	10	Free Agt	7	Phys Bar	8	Mixed
12b	Infra Mng	10	Free Agt	7	Phys Bar	8	Not Mixed
13	Infra Mng	10	Platoon	7	Phys Bar	8	Not Mixed
14	Infra Spt	3	Platoon	7	Bar w/ Gap	6	Mixed
15	Infra Mng	10	Free Agt	7	Full Mix	2	Mixed
16	Infra Spt	3	Free Agt	7	Virt Bar	3	Mixed
17	Coop	2	Platoon	7	Virt Bar	3	Mixed
18	Coop	2	Free Agt	7	Phys Bar	8	Mixed
19	Infra Mng	10	Platoon	7	Phys Bar	8	Mixed
20	Infra Spt	3	Free Agt	7	Phys Bar	8	Not Mixed

	3	Entry/Exit	1	Obstacle	3.5	Safety Composite	Safety Scored	Safety Normalized
	2	Transition	4	Manual	5	70	35%	0%
	2	Transition	4	Full Auto	5	70	35%	0%
	2	Dedicated	6	Full Auto	5	85	43%	17%
	9	Dedicated	6	Full Auto	5	129	65%	69%
	2	Transition	4	Full Auto	5	87	44%	20%
	2	Transition	4	Full Auto	5	87	44%	20%
	2	Transition	4	Full Auto	5	92	46%	26%
	2	Dedicated	6	Full Auto	5	100	50%	35%
	9	Dedicated	6	Full Auto	5	121	61%	59%
	2	Dedicated	6	Full Auto	5	100	50%	35%
	2	Transition	4	Full Auto	5	127	64%	66%
	2	Transition	4	Full Auto	5	127	64%	66%
	2	Dedicated	6	Full Auto	5	135	68%	76%
	9	Dedicated	6	Full Auto	5	156	78%	100%
	9	Dedicated	6	Full Auto	5	156	78%	100%
	2	Transition	4	Full Auto	5	92	46%	26%
	2	Transition	4	Full Auto	5	115	58%	52%
	2	Transition	4	Full Auto	5	83	42%	15%
	2	Transition	4	Full Auto	5	78	39%	9%
	2	Dedicated	6	Auto/Man	5	95	48%	29%
	2	Dedicated	6	Auto/Man	5	135	68%	76%
	9	Dedicated	6	Auto/Man	5	121	61%	59%