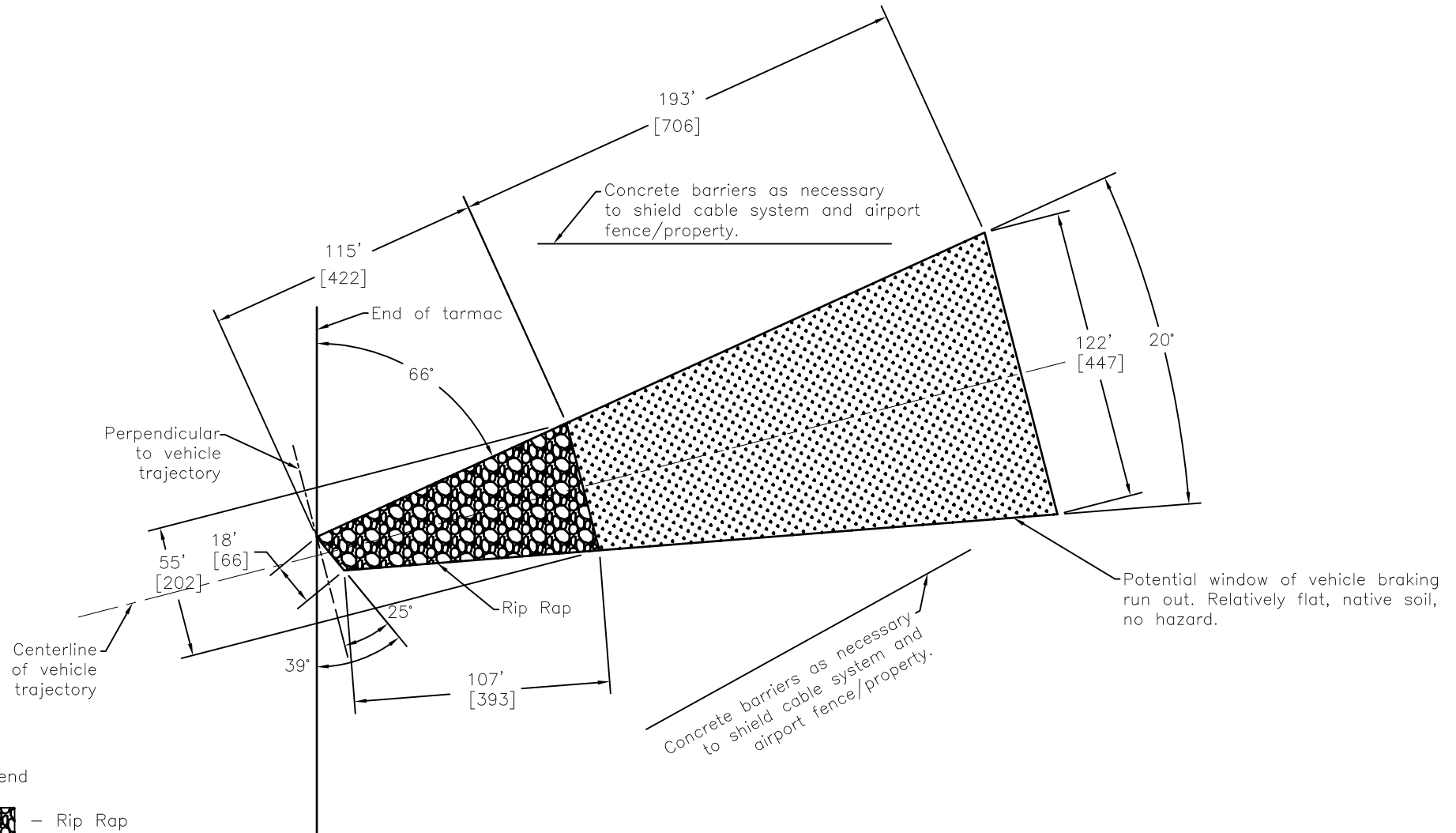




Test No.	Speed (mph)	Special Note
RDLT-1	50	Hit Brakes at End of Rip Rap




Legend

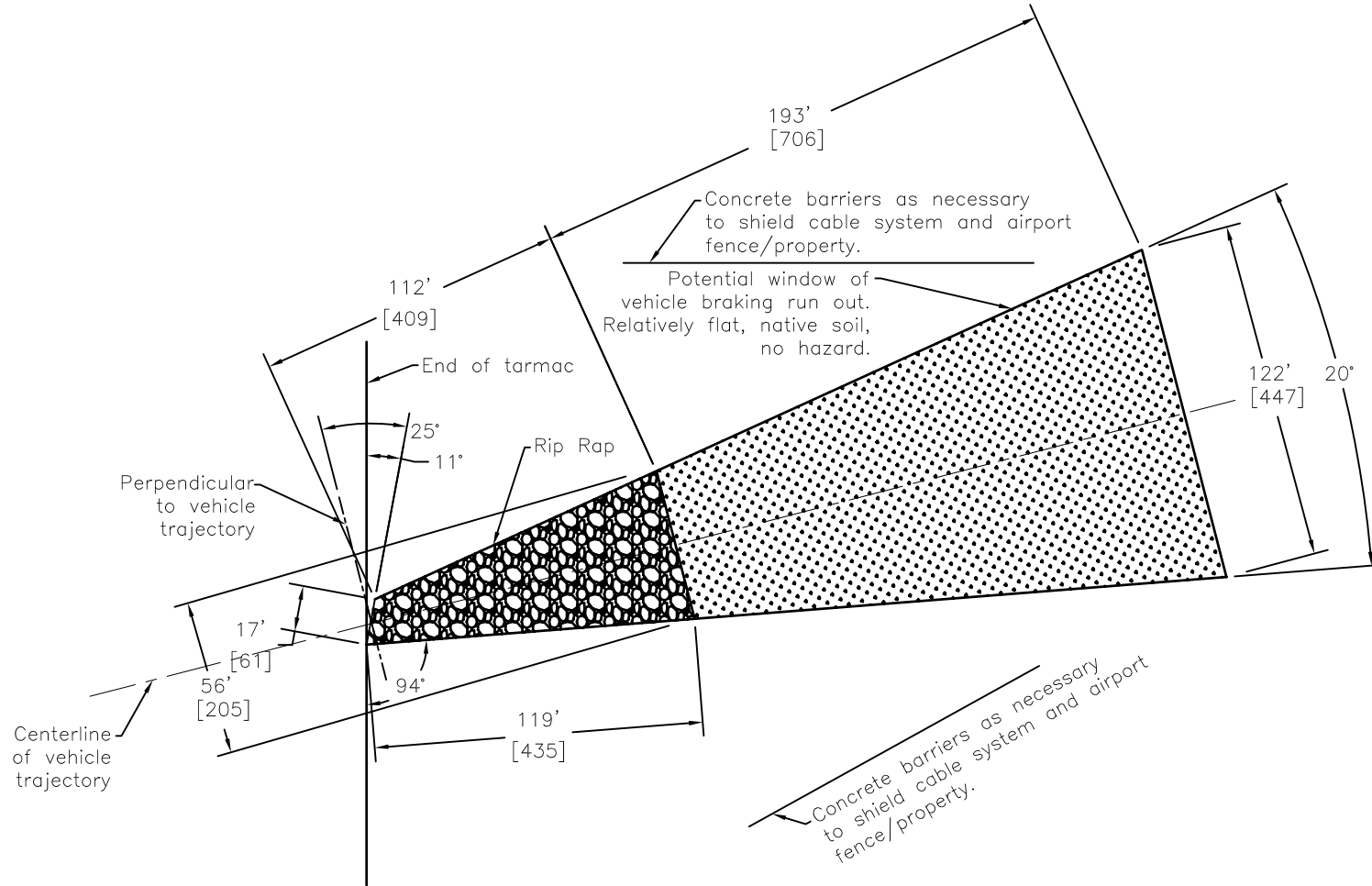
-  - Rip Rap
-  - Braking Region

Notes: (1) Layout No. 1.



(2) Install concrete barriers as necessary to shield cable system and airport fence/property.

 Midwest Roadside Safety Facility	WI RIP RAP ROCK DITCH LINER	SHEET: 1 of 3
	POTENTIAL LAYOUT - 1	DATE: 5/26/2015
DWG. NAME: WI Rip_Rap_R5.dwg	SCALE: 1:500 UNITS: ft.[m]	DRAWN BY: ALL
		REV. BY: KAL/CSS /RKF


Test No.	Speed (mph)	Special Note
RDLT-1	50	Hit Brakes at End of Rip Rap

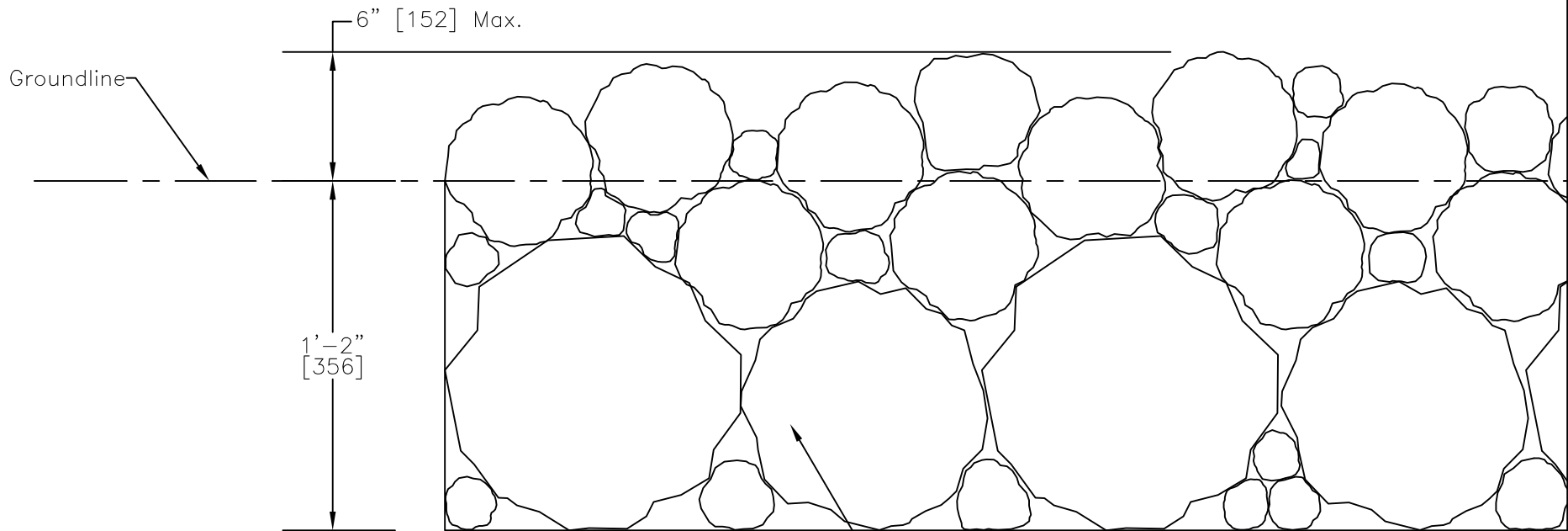


Legend

-  - Rip Rap
-  - Braking Region

- Notes: (1) Alternative Layout No. 2.
 (2) Install concrete barriers as necessary to shield cable system and airport fence/property.

	WI RIP RAP ROCK DITCH LINER	SHEET: 2 of 3
	POTENTIAL LAYOUT - 2	DATE: 5/26/15
Midwest Roadside Safety Facility	DWG. NAME: WI Rip Rap_R5.dwg	SCALE: 1:500 UNITS: ft.[m]
		DRAWN BY: ALL
		REV. BY: KAL/CSS /RKF



PROFILE VIEW

Rip Rap Specification/Installation

Primarily use 10–12 in. diameter rocks dumped from truck into trench.

Fill gaps by dumping rocks less than or equal to 6 in. on top.

*Do not smooth.

*Limit rocks to max of 6" above grade.

*Rocks are quasi-prismatic.

- Notes: (1) Rip rap can extend a maximum of 6" [152] above ground. It should not be smooth. It should be made as rough as possible.
- (2) Primarily use 10–12 in. diameter rocks dumped from truck into trench. Fill gaps by dumping rocks less than or equal to 6 in. on top. Do not smooth. Limit rocks to max of 6" above grade.
- (3) GoPros (or equivalent) should be used within the vehicle suspension along with transducers installed on lower/upper control arms identical to NSRI project (test nos. SH–1 through SH–3, SC–1, and ST–1).
- (4) Test vehicle should be a 4–door Yaris (sedan–type), around 2010 model.
- (5) Vehicle can be on or off. Desire to also collect ACM data.
- (6) Vehicle's initial contact with the rock ditch liner should involve one wheel impacting before the other.
- (7) Braking should be initiated approximately when the vehicle leaves the end of the rip rap if considerable speed remains after traversing rock ditch liner.

	WI RIP RAP ROCK DITCH LINER		SHEET: 3 of 3
	Rip Rap Detail		DATE: 5/21/2015
DWG. NAME: WI Rip Rap_R5.dwg	SCALE: 1:7 UNITS: ft.[m]	DRAWN BY: ALL REV. BY: KAL/CSS /RKF	
Midwest Roadside Safety Facility			

REV.	DATE OF ISSUE	Page	NATURE OF CHANGES	REVIEWER	REVISED BY
0	4/15/2015	–	Created drawing from sample–riprap–layout--2015–04–14.dwg		ALL
1	4/17/2015	–	Added leaders; changed font sizes; added note (2); fixed dimesion and annotation styles;	KAL	ALL
2	4/23/2015	3	Added page 3; section view of rip rap rock; added notes for testing	KAL	ALL
3	4/24/2015	1	Changed annotations	KAL	ALL
		2	Changed annotations		
		3	Fixed notes		
4	5/14/2015	1	Changed barrier notations, added legend, changed note wording.	KAL/RKF /CSS	ALL
		2	Changed barrier notations, added legend, changed note wording.		
		3	Re–drew profile view to reflect realistic look, added specifications and installation instructions to annotation and notes, made edits to notes.		
5	5/21/2015	3	Changed rock height dimension to 6” max, added to note 5, replaced rock ditch liner with rip rap in note 7, added note to specification/installation.	CSS	ALL
6	5/26/2015	1	Changed dimension points and added more dimensions	RKF/KAL	ALL
		2	Changed dimension points and added more dimensions		
		3	Added small fill rocks; made edits to notes		