

Appendix A – Selected Casualty Reduction programme and further analysis and feasibility sites for 2019/20.

Sites for Concern (above 15 recorded injury collisions within a 5 year period)

Location	Total Number of injury collisions	Collision Pattern	Engineering Solution	Estimated Cost	Comments
Burley Road/Cardigan Road/Willow Road junction	16	Turning conflicts	Proposed major junction improvement	£400,000	Feasibility during 2019/20 and construction 2020/21
Harehills Road/Ashley Road junction	15	Unconventional 4 arm mini roundabout causing turning and emerging conflicts	Proposed simplifications of mini roundabout, including potential closure of one arm.	£45,000	Feasibility during 2019/20 and construction 2020/21.
A6120/ Cross Gates Lane/Cross Gates Rd junction	15	Lane changing conflicts on circulatory carriageway of roundabout	Proposed traffic signal improvement scheme	£45,000	Feasibility during 2019/20 and construction 2020/21.
A58 Claypit Ln/ North St/ Sheepscar junction	31	Nose to tail shunt type collisions in all directions and 7 Loss of control type collisions	Proposed Red Light Violation Camera replacement and junction improvement scheme	£30,000	Replacement of red light camera during 2019/20 Feasibility of junction improvements during 2019/20 and construction 2020/21. Potential future regeneration funding for major junction improvements.

Lengths for Concern (above 15 recorded injury collisions within a 5 year period)

Location	Total Number of injury collisions	Collision Pattern	Engineering Solution	Estimated Cost	Comments
Harehills Road	53	Side road emerging and pedestrian collisions	Proposed road safety scheme ongoing	£100,000	Works ongoing on site
A58 Roundhay Road (Bayswater Road to Harehills Road)	37	Turning conflicts and side road emerging collisions	Full review of the scheme implemented in 2014, with a view to further improvements	£200,000	Feasibility during 2019/20 and construction 2020/21.
Chapelton Road (Barrack Rd to Harehills Lane)	70	Turning conflicts and side road emerging collisions	Full review of the scheme implemented in 2011, with a view to further improvements via side road closures and improved pedestrian facilities	£150,000	Feasibility during 2019/20 and construction 2020/21.
King Lane (Ring Rd to Alwoodley Lane)	30	Pedestrian and loss of control type collisions	Proposed traffic calming and highway improvement scheme	£140,000	Delivery of traffic calming/highway improvement scheme during 2019/20.
Wood Lane (St Georges Crescent to Ingram Parade)	12	Speed related collisions	Proposed traffic calming review and highway improvement scheme	£80,000	Feasibility during 2019/20 and construction 2020/21.
Cookridge Lane/Otley Old Lane (Holtdale Approach to Cookridge Av)	25	Mixture of cycle related, cycling conflict and excessive speed collisions.	Proposed traffic calming and highway improvement scheme	£120,000	Delivery of traffic calming/highway improvement scheme during 2019/20.
Harrogate Road – Harewood	14	Mixture of excessive speed and loss of control collisions in dark and wet conditions.	Proposed road marking, road studs and traffic signing improvement scheme	£15,000	Delivery of lining and signing improvement scheme during 2019/20.

Lower Order Sites for Concern (between 10 to 14 recorded injury collisions within a 3 year period)

Location	Total Number of injury collisions	Collision Pattern	Engineering Solution	Estimated Cost	Comments
A63 Selby Road/A642 Wakefield Rd junction	12	Lane changing and emerging collisions	Proposed road marking and traffic signing improvement scheme	£15,000	Delivery of lining and signing improvement scheme during 2019/20.
A61 South Accommodation Road/East Street junction	11	Lane changing and emerging collisions	Proposed road marking and traffic signing improvement scheme	£50,000	Delivery of lining and signing improvement scheme during 2019/20.
Beckett Street/Shakespeare Street	11	Emerging from side road conflicts	Proposed junction improvement to re-inforce one-way junction.	£15,000	Delivery of junction improvement scheme during 2019/20.
Gelderd Road/Whitehall Road/Domestic Street	10	Lane changing and emerging collisions	Proposed road marking and traffic signing improvement scheme	£5,000	Delivery of lining and signing improvement scheme during 2019/20.

Lower Order Lengths for Concern (between 10 to 14 recorded injury collisions within a 3 year period)

Location	Total Number of injury collisions	Collision Pattern	Engineering Solution	Estimated Cost	Comments
A65 New Road, Guiseley (Green Lane to The Green)	30	Mixture of shunt and turning conflicts, nine of which involved cyclists	Proposed highway improvement measures to assist cyclists, especially near entrance to Petrol Station. Review of lining and signing.	£50,000	Delivery of highway improvement scheme during 2019/20.
Street Lane, Roundhay (Devonshire Avenue to Park Lane)	26	Mixture of various collision types	Proposed traffic calming scheme introduced in 2009 saw a major reduction in collisions. Starting to increase again though in recent years.	£50,000	Feasibility during 2019/20 and construction 2020/21. Potential Local Centres Programme Scheme/funding
A63 Selby Road, Garforth (M1 to Ninelands Lane)	17	Mixture of collision types	Proposed road marking and traffic signing improvement scheme	£10,000	Delivery of lining and signing improvement scheme during 2019/20.
A647 Bradford Road, Thornbury (Dawsons Corner to Gain Lane)	17	High proportion of collisions involving elderly and speed.	Proposed scheme to introduce hard standings for mobile speed camera enforcement	£20,000	Delivery of highway improvement scheme during 2019/20.

KSI Cluster Sites (3 or more KSI with 100m radius).

Location	Total Number of injury collisions	Collision Pattern	Engineering Solution	Estimated Cost	Comments
A58 Wetherby Rd/Shadwell Lane/Carr Lane junction	6 (14 KSI's)	Junction overshoot and failure to give way collisions across the A58	Proposed junction improvement scheme	£230,000	Delivery of highway improvement scheme during 2019/20.
A6120 Broadway/Bank Gardens junction	4 (6 KSI's)	High proportion of collisions involving speed.	Proposed continuation of splitter islands	£20,000	Delivery of highway improvement scheme during 2019/20.

KSI Cluster Sites (3 or more pedal cycle collisions within 30m radius).

Location	Total Number of injury collisions	Collision Pattern	Engineering Solution	Estimated Cost	Comments
A65 Kirkstall Rd/Studio Road	3	Turning conflicts across the path of cyclist	Proposed highway improvement measures to assist cyclists	£50,000	Feasibility during 2019/20 and construction 2020/21.
Belle View Road/Woodsley Road	5	Junction overshoot and failure to give way collisions	Proposed junction improvement scheme	£30,000	Delivery of junction improvement scheme during 2019/20
A642 Aberford Road/M1 J45 exit slip road	3	Junction overshoot and failure to give way collisions	Proposed part time signalisation scheme	£40,000	Delivery of junction signalisation scheme during 2019/20

KSI Cluster Sites (3 or more collisions within 100m of a bend).

Location	Total Number of injury collisions	Collision Pattern	Engineering Solution	Estimated Cost	Comments
A58(m)/West Street slip/Park Lane	11	Speed and lane changing conflicts	Proposed road marking and traffic signing improvement scheme	£10,000	Delivery of lining and signing improvement scheme during 2019/20.
Lower Wortley Road	5	Loss of control collisions	Proposed highway improvement scheme	£10,000	Feasibility during 2019/20 and construction 2020/21.

KSI Cluster Sites (4 or more collisions in the dark within 30m, within last 4 year period).

Location	Total Number of injury collisions	Collision Pattern	Engineering Solution	Estimated Cost	Comments
Burley Rd/Cardigan Rd/Willow Rd junction	7 (14 KSIs)	Turning conflicts	Proposed major junction improvement	£400,000	Feasibility during 2019/20 and construction 2020/21

KSI Cluster Sites (3 or more pedestrian collisions within 30m radius).

Location	Total Number of injury collisions	Collision Pattern	Engineering Solution	Estimated Cost	Comments
Great George Street/Calverley Street	7	Pedestrian collisions	Realignment of pedestrian facilities to match desire lines	£65,000	Feasibility during 2019/20 and construction 2020/21
A6120 Ring Road, Seacroft	3	Pedestrians including fatality	Proposed pedestrian island and footway improvements	£40,000	Delivery of highway improvement scheme during 2019/20.

Lower Order Lengths for Concern (between 7 to 9 recorded injury collisions within a 5 year period)

No identifiable pattern to the collisions where engineering intervention would assist. Further monitoring and review proposed.

KSI Cluster Sites (3 or more KSI collisions involving Vulnerable Road Users within 30m radius, within last 4 year period).

No identifiable pattern to the collisions where engineering intervention would assist. Further monitoring and review proposed.

KSI Cluster Sites (3 or more child collisions within 50m).

No identifiable pattern to the collisions where engineering intervention would assist. Further monitoring and review proposed.