Software Requirements - *Lane Closure System Project, v1.2*

SOF REQ REF#	BUS REQ REF#	P	REP	ENVIRONMENT	MODULE	REQUIREMENT	REQUIREMENT DESCRIPTION	COMMENTS	ALTERNATIVES
1.001	B1.001	H	X	Web/Mobile	Application-wide	Public site support English & French	External website (visible to public) must support English and French		
1.002	B1.001	H	X	Web/Mobile	Application-wide	Internal Site support English Only	Internal website (visible only to internal employees) will support English		
1.003	B1.005	H	X	Mobile	Application-wide	Mobile Application	Tablet friendly mobile app not required		
1.004	B1.005	H	X	Mobile	Application-wide	Support IOS and Android	Support top most commonly used smart phone operating systems		
1.005	B1.004	H	X	Web	Application-wide	Web-based Application	To support business requirement for ease of accessibility outside of an installed windows based application		
1.006	B1.006	H	X	Web/Mobile	Application-wide	History	Log changes to all fields - SEE EXT DOC LCA-Data Requirements History		
1.007	B1.008	H	X	Web/Mobile	Application-wide	Database	Data must be compatible with city's GIS data		
1.008	B13.001	H	X	Web/Mobile	Application-wide	Design	When displaying street name data where multiple street names apply, concatenate names as needed		
2.001	B2.017	W		Web	Home Page	Banner	Editable rich text field to highlight any important information to the public. Can be empty, which will in turn not display anything on the page.		
2.002	B2.017	W		Web	Home Page	Banner	Display ticker to show reported closures/opening as they come in.		
2.003	B2.019	H	X	Web	Home Page	Waze Details	Area in which Waze details can be communicated to public		
2.004	B2.003	H		Web	Home Page	Map	Embedded map on page - SEE SOF REQ REF# 3.001 Will include the same data/filters/quick links/pop-up design		
2.005	B2.005	H		Web	Home Page	Closure List	List on page - SEE SOF REQ REF# 4.001 Do not display filters as Map will have filters		
2.006	B2.005	H		Web	Home Page	Closure List Print	Option to print table as is, or text only version. Print results only.		
2.007	B2.001, B2.002, B2.018	H		Web	Home Page	Disclaimer	Display this disclaimer at bottom of page. Disclaimer and Indemnity: The information on this web site is provided as a public service and should be used for general information purposes only. Although the information provided is believed to be reliable when posted, www.winnipeg.ca/LaneClosures cannot guarantee that it is accurate or complete or that it will be current at all times. This site should not be the sole source of information relied upon when determining whether to travel in a particular area. The reporting of adverse conditions does not guarantee that the area has or will be serviced by officials responsible for the area. For information whether a particular section of road will be serviced, you should contact the local officials for the specific area. The information on this web site is subject to change without notice. WWW.Winnipeg.ca AND ITS AFFILIATES ARE NOT RESPONSIBLE IN ANY MANNER FOR DIRECT, INDIRECT, SPECIAL OR CONSEQUENTIAL DAMAGES HOWSOEVER CAUSED RESULTING FROM THE USE, MISUSE OR MISINTERPRETATION OF ANY CONTENT, PRODUCTS OR SERVICES PROVIDED BY THIS WEB SITE. By using this site, you agree to indemnify, defend and hold harmless City of Winnipeg and its officials, officers, employees and authorized representatives from and against any liability, loss injury (including injuries resulting in death), demand, action, cost, expense, or claim of any kind, including but not limited to lawyer's fees, relating in any way to your use of the contents, or services provided by this web site.		
3.001	B2.001, B2.002	H		Web	Map - Full Page	Data	Approved requests & reported lane closures submitted by approved users. Fields: Street, directionality of closure, cross streets start/end, expected duration date/time, description, type, isNew (icon), IsFullDirectional closure (icon), isWithinPeakTime (icon) IsNew: Closure begins today, started after 12am IsFullDirectionalClosure: all lanes closed on street or one full direction is closed on street		
3.002		H		Web	Map - Full Page	Data	isWithinPeakTime: closure occurs within peak time (7-9am, 3:30-5:30pm Monday to Friday)		
3.003	B2.004	H		Web	Map - Full Page	Filter	Filter on: date/time range, approved requests, reported, new, full/directional closure, within peak time		
3.004	B2.004	H		Web	Map - Full Page	Filter	Default to Today (current date time to midnight)		
3.005	B2.004 B2.007,8	H		Web	Map - Full Page	Filter	Filter to apply to map and corresponding list of closures.		
3.006	2.008 B2.006, B2.009	M		Web	Map - Full Page	Filter	Quick date/time filter buttons: Today (current date time to midnight), Two Weeks (current date time to two weeks after current date time)		
3.007		M		Web	Map - Full Page	Filter	Reset filter button: Return to default to select all closures Today		
3.008	B2.010	H		Web	Map - Full Page	Design	Full page map with filters/legend		
3.009	B2.004	M		Web	Map - Full Page	Design	List of closures displayed for selection. When selected, highlight section on map.		
3.010	B2.004	M		Web	Map - Full Page	Design	Selection of closure on map to pop-up box with data. Pop-up to stay open until closed by user.		
3.011	B2.011	H		Web	Map - Full Page	Design	Use of Google Maps Map colours: ○ Active orange ○ Upcoming magenta ○ Full/dir closure red icon		
3.012	B2.004			Web	Map - Full Page	Design			
3.013	B2.012	H		Web/Mobile	Map - Full Page	Search	Display Google map zoomed in to users' current location with multi-function text box that will allow user to search on address, street, intersection, place of business.		
3.014	B2.013	H		Web	Map - Full Page	View	Ability to switch to Earth View and back to map view		
3.015	B2.014	H		Web/Mobile	Map - Full Page	Zoom	Ability to zoom in and out with fingers (mobile)/mouse (desktop) and buttons		
3.016	B2.015	M		Web/Mobile	Map - Full Page	Compass	Display compass for directionality		
4.001	B2.005	H		Web	Closure List - Full Page	Data	Fields: Street, directionality of closure, cross streets start/end, expected duration date/time, description, type, isNew (icon), IsFullDirectional closure (icon), isWithinPeakTime (icon)		
4.002	B2.005	H		Web	Closure List - Full Page	Filters	Same filter as Map (Full Page) Filter		
4.003	B2.005	H		Web	Closure List - Full Page	Design	Display in table format		
4.004	B2.005	H		Web	Closure List - Full Page	Print	SEE SOF REQ REF# 2.006		
5.001		H		Web	Menu	Home	Default page		
5.002		M		Web	Menu	Full Map	Open Map - Full Page in a new browser tab		
5.003	B2.016, B2.020	M		Web	Menu	Full List	Open Closure List - Full Page in a new browser tab		
5.004		H	X	Web	Menu	Request/Report a Lane Closure	Open Request/Report a Lane Closure Page		
5.005		H		Web	Menu	Regional Street Map	Open Regional Street Map PDF (http://winnipeg.ca/publicworks/trafficControl/pdf/regionalStreetNetwork-MAP.pdf)		
5.006		H		Web	Menu	Manual of Temporary Traffic Control	Open Manual of Temporary Traffic Control landing page (http://winnipeg.ca/publicworks/trafficControl/manualTempTrafficControl.stm)		
5.007	B3.001, B3.002	H	X	Web	Menu	Menu Order	Home, Map, List, Request/Report a Lane Closure, Regional Street Map, Manual of Temporary Traffic Control		
6.001		H	X	Web	Organization Admin	Data	SEE EXT DOC LCA-Data Requirements EXCEL FILE for data requirements		
6.002	B3.001	H	X	Web	Organization Admin	List View	SEE EXT DOC LCA-Business Requirements DOC FILE for assumptions on List View		
6.003	B3.001	H	X	Web	Organization Admin	List View	Text search on organization name		
6.004	B3.001	H	X	Web	Organization Admin	List View	Filter list by Enabled/Disabled Organizations (default to enabled)		
6.005	B3.001	H	X	Web	Organization Admin	List View / Details Page	SEE EXT DOC LCA-Business Requirements for assumptions on list view/details page & add/editing/disabling/deleting a record		
6.008	B3.001	H	X	Web	Organization Admin	Details Page	Will be able to set 1 or more users as a user administrator for this level		
6.013	B3.001	L	X	Web	Organization Admin	EMAIL: Approved Organization Administrator	Email template containing responsibilities of an User Administrator (disclaimer)	Can be done manually	
6.014	B3.001	L	X	Web	Organization Admin	Send Approved Organization Administrator Email	User can choose to send Authorized User Administrator the approved user administrator email SEE SOF REQ REF# 6.013	Can be done manually	
7.001	B3.001	M	X	Web	Department Admin	Data	SEE EXT DOC LCA-Data Requirements EXCEL FILE for data requirements		
7.002	B3.001	M	X	Web	Department Admin	Data	Department must belong to an organization		
7.003	B3.001	M	X	Web	Department Admin	List View / Details Page	SEE EXT DOC LCA-Business Requirements for assumptions on list view/details page & add/editing/disabling/deleting a record		
7.004	B3.001	M	X	Web	Department Admin	Details Page	SEE SOF REQ REF# 6.008, 6.014		
8.001	B3.001	M	X	Web	Division Admin	Data	SEE EXT DOC LCA-Data Requirements		
8.002	B3.001	M	X	Web	Division Admin	Data	Division must belong to a department		
8.003	B3.001	M	X	Web	Division Admin	List View / Details Page	SEE EXT DOC LCA-Business Requirements for assumptions on list view/details page & add/editing/disabling/deleting a record		
8.004	B3.001	M	X	Web	Division Admin	Details Page	SEE SOF REQ REF# 6.008, 6.014		
9.001	B3.001	M	X	Web	Branch Admin	Data	SEE EXT DOC LCA-Data Requirements		
9.002	B3.001	M	X	Web	Branch Admin	Data	Branch must belong to a division		
9.003	B3.001	M	X	Web	Branch Admin	List View / Details Page	SEE EXT DOC LCA-Business Requirements for assumptions on list view/details page & add/editing/disabling/deleting a record		
9.004	B3.001	M	X	Web	Branch Admin	Details Page	SEE SOF REQ REF# 6.008, 6.014		
10.001	B3.001	H	X	Web	User Admin	Data	SEE EXT DOC LCA-Data Requirements		
10.002	B3.001	H	X	Web	User Admin	List View / Details Page	SEE EXT DOC LCA-Business Requirements for assumptions on list view/details page & add/editing/disabling/deleting a record		
10.003	B3.001	H	X	Web	User Admin	Details Page	If user is a User Administrator, clearly display which org/dep/div/branch they are administrators of		
10.004	B3.001	M	X	Web	User Admin	Details Page	Administrator should be able to remove User Administrator permissions from the Details Page		
10.006	B3.001	M	X	Web	User Admin	Details Page	When User is added via admin pages, send email to user with login instructions. When user first logs in, prompt for password creation.		
12.001	B2.020	H	X	Web	Request/Report Lane Closure Page	Details	Display mobile application download and details		
12.002	B2.021	H	X	Web	Request/Report Lane Closure Page	Login/Registration	Display Login / Registration options SEE SOF REQ REF# 25.xxx and link to start new registration		
12.003	B2.022	M	X	Web	Request/Report Lane Closure Page	Quick Links	Display quick links to Regional Street Map, Manual of Temporary Control and Transit Map (SEE SOF REQ REF# 5.005/6 - Transit Map link http://winnipegtransit.com/en/locations/find)		
12.004	B2.021	L	X	Web	Request/Report Lane Closure Page	FAQ	Display frequently asked questions and answers area, content to be provided by TMB		
13.001	B5.003	H	X	Web/Mobile	Dashboards	Types	Dashboard required per User Role (e.g. Lane Closure Requestor, Lane Closure Request Approver, Lane Closure Request Manager) and environment (i.e. Desktop / Mobile)		
13.002	B5.003	H	X	Web/Mobile	Dashboards	Elements	Elements of a dashboard will consist of a map, table grids displaying records clickable to record, stats that can be further drilled into to see records relating to those stats and associated filter/sorting capabilities		
13.003	B5.003	L	X	Web/Mobile	Dashboards	Sound	Play sound when a reported lane closure/restriction expires		
13.004	B5.003	H	X	Web/Mobile	Dashboards	Accessibility	Landing page after User Login		
13.005	B5.003	H	X	Mobile	Dashboards	Elements	Ability to Report a new lane closure/restriction, request a new lane closure, go to search/Quick Links/FAQ/settings		
13.006	B5.003	H	X	Web	Dashboards	Elements	Ability to Report a new lane closure/restriction, request a new lane closure, go to search/reports/Quick Links/FAQ/settings		
14.001	B5.004	H	X	Mobile	Quick Search	Quick Search	Ability to find a specific record, allow search on LCR ID, RLC ID, RR ID, User, Type of record (LCR, RLC, RR), Date Range, project/bid ID		
14.002	B5.004	H	X	Web	Quick Search	Quick Search	Ability to find a specific record, allow search on LCR ID, RLC ID, RR ID, User ID, Street, Type of record (LCR, RLC, RR, User), Date Range, User First Name/Last Name, Record Status, Request Status, Project/BidID		
15.001	B6.001	H	X	Web	Reports	Print	Lane Closures Report: street, directionality, cross streets, Traffic Effect, Status, Created By, Creation Date/Time, Start/end date/time, User Information (Organizational structure, Name (first/last), Primary/Secondary phone, email		
16.001	B5.004	H	X	Database	Advanced Search	Advanced Search	Manually request export of data from database from IT support for reporting purposes		
17.001	B6.001	H	X	Web/Mobile	User Profile Settings	Reminders	Ability to set Lane Closure Request Reminder emails on/off - Default ON		
17.002	B6.001	H	X	Web/Mobile	User Profile Settings	Reminders	Ability to set Lane Closure Request Reminder app notifications on/off - Default ON		
17.003		L	X	Web/Mobile	User Profile Settings	Dashboard	Ability to set Reported Lane Closure/Restriction expiration sound notification on/off - Default OFF		
18.001	B6.002	H		Web	Global Settings	Default LCR Record Owner	Ability to select User as default New Lane Closure owner. Current Default set to: Primary Traffic Investigator		
18.002	B6.003	H		Web	Global Settings	LCR Agencies	Ability to list emails for CC on LCR approval (i.e. transit, parking, signal, traffic services, permits >> full/directional closures go to WPS/WFPS/Carol Cropo)		
18.003	B6.004	M		Web	Global Settings	By-law Enforcement Officer	Email address for By-law Enforcement Officer who recieves emails on cancelled regional street reported lane closures & 3rd notice on failing to report re-opening of lane closure request		
18.004		L		Web	Global Settings	Banner Content	Ability to edit rich text content for web public home page banner (allow formatting/hyperlinks)		
18.005	B6.005	L		Web	Global Settings	Notice/Reminder Intervals	Ability to edit intervals in which notices/reminders are sent out		
19.001	B1.006	M	X	Web/Mobile	History	Data	SEE EXT DOC LCA-Data Requirements - History		
19.002	B1.006	M	X	Web/Mobile	History	Log	Log changes for the following records: Organizational Structure, User, LCR, RLC, RR		
19.003	B1.007	H	X	Web/Mobile	History	Functionality	Should have ability to view changes to a record in a readable format, with the ability to export to a .csv.		
20.001	B7.001	M	X	Web/Mobile	Report a Lane Closure/Restriction	Optional Form Fields	For optional form fields, these can be hidden under a collapsed area labeled "Optional" for entry if reporter would like to report on that information: Project/Bid #, Work Done For, Nature of Work		
21.001	B8.001	W		Web	Digital Phone Call	Dial	Ability to dial a phone number on IP Phone from application or through other tool (e.g. Outlook dialing)		
22.001	B1.008	L	X	Web/Mobile	Map GIS Layers	Filter	Support GIS layers for display. Data sources / automated conflict management concerning the layers above to be handled at a later time on an as needed basis. (e.g. COW Engineering projects, Water and waste projects, Special events, Transit Routes)		
23.001	B15.001	H	X	Database	Waze	Export	Effort required to supply structured dataset of reported lane closures/restrictions by approved users for use by central repository / Waze		
24.001	B5.006	H	X	Web/Mobile	Settings	Landing Page	This landing page will allow users access to edit their profile, manage users/organizational structure, global settings depending on their permissions		
25.001	B5.006	H	X	Web/Mobile	Login	Remember Me	Display Remember Me checkbox to remember login/password for the current browser/computer or mobile		
25.002	B5.006	H	X	Web/Mobile	Login	Forgot Password - Non-cow user	Display forgot password link that will send reset email link to user's email address		
25.003	B5.006	H	X	Web/Mobile	Login	Forgot Password - cow user	If user clicks forgot password link and is a cow user - display message to contact tech support to reset password, with directions		
25.004	B5.006	H	X	Web/Mobile	Login	Availability	SEE EXT DOC LCA-Business Requirements for Security Requirements on Login Rules		
25.005	B5.006	M	X	Web/Mobile	Login	Login Failed	If corresponding email address has not been validated, display option to resend validation email		
25.006	B5.006	H	X	Web/Mobile	Login	Login Passed	Redirect user to default dashboard		
26.001	B5.006	H	X	Web/Mobile	Registration	Data	SEE EXT DOC LCA-Data Requirements		
26.002	B3.007/ B3.001	H	X	Web/Mobile	Registration	Authentication	SEE EXT DOC LCA-Business Requirements for Security Requirements on Authentication		
26.003	B5.006	H	X	Web/Mobile	Registration	Authorization	SEE EXT DOC LCA-Business Requirements for Security Requirements on Authorization		
26.004	B5.006	H	X	Web/Mobile	Registration	Administrator Process	Go to the User List View and add user from there - SEE SOF REQ REF# 10.002		
26.005	B5.006	H	X	Web/Mobile	Registration	User Process	User chooses to register, send to registration form with User fields for registration. SEE EXT DOC LCA-Data Requirements		
26.006	B5.006	M	X	Web/Mobile	Registration	User Process	When specifying org/dep/div/branch, they can select existing or select Other and enter a new one		
26.007	B5.006	M	X	Web/Mobile	Registration	User Process	Apply masks on form phone fields (1-555-555-5555)		
26.008	B5.006	H	X	Web/Mobile	Registration	User Process	Ability to submit once all required fields are filled in and ability to cancel at any time		
26.009	B5.006	H	X	Web/Mobile	Registration	User Process	On registration form submission, display message to user stating to check their email for validation		
26.010	B5.006	H	X	Web/Mobile	Registration	User Process	On registration form submission send Validate Email Address email to user's email address for validation - SEE SOF REQ REF# 26.011		
26.011	B5.006	H	X	Web/Mobile	Registration	EMAIL: Validate email address	Email template with link to validate email address and instructions. When link is clicked, open browser and display message that email has been validated and that they will be notified once their account has been approved by an Administrator. Update user record that email is validated and notify User administrator accordingly - SEE SOF REQ REF# 26.015		

ID	Ref	Pri	X	Platform	Category	Subcategory	Description	Notes
26.012	B5.006	H	X	Web/Mobile	Registration	User Approval	On email validation, If Organization specified is new, organization must be approved by a TMB Administrator	
26.013	B5.006	H	X	Web/Mobile	Registration	User Approval	On email validation, If Organization specified exists, but no User Administrator within the Organizational structure, organization must be approved by a TMB User Administrator	
26.014	B5.006	M	X	Web/Mobile	Registration	User Approval	On email validation, If Organization specified exists, and there is a User Administrator within the Organizational structure, send a Validate User email (SEE SOF REQ REF#26.015) to all User Administrators at the user's closest organizational structure level	
26.015	B5.006	M	X	Web/Mobile	Registration	EMAIL: Approve User Registration	Email template with registering user's organization, first and last name with approve and deny links and instructions. Clicking approve link will open browser and display message that user is approved. Clicking deny link will open browser and display message that user is denied. Upon action, update user record and send email to user with details on the status of their user account.	Do not display any additional user information in email due to privacy reasons
27.001		H		Web/Mobile	Request a Lane Closure	Data	SEE EXT DOC LCA-Data Requirements - Lane Closure Request sheet - Lane Closure Request Form data column & Lane Closure Request form for form content	
27.002		L		Web/Mobile	Request a Lane Closure	User Contact	Display user's contact info for editing (Name, email, phone numbers)	
27.003		H		Web/Mobile	Request a Lane Closure	Alternate Contact	If this is the user's first request in the system, user will need to select their alternate contact person. User will search for the alternate first. If user is not in the database, user must ensure that their alternate is in the system before proceeding.	
27.004		M		Web/Mobile	Request a Lane Closure	Alternate Contact	If this is not the user's first request, pre-load the last alternate user they used for their last request	
27.005		H		Web/Mobile	Request a Lane Closure	Map	SEE SOF REQ REF# 3.012-14	
27.006		M		Web/Mobile	Request a Lane Closure	Street selection	Option 1: Select street start/end points, fill out remainder of Lane Closure Request Form, SEE SOF REQ REF#27.010	This is preferred — Tapping a selected segment would deselect that segment. Do not allow user to select a different street. They must deselect all selected segments before selecting a different street.
~~27.007~~	~~L~~			~~Web/Mobile~~	~~Request a Lane Closure~~	~~Street selection~~	~~Option 2: Select street segments as defined by the CDW, fill out remainder of Lane Closure Request Form, SEE SOF REQ REF#27.010~~	
~~27.008~~	~~H~~			~~Web/Mobile~~	~~Request a Lane Closure~~	~~Street selection~~	~~Option 3: Display lanes, select lane start/end points for closure, fill out remainder of Lane Closure Request Form, SEE SOF REQ REF#27.011~~	
27.009		H		Web/Mobile	Request a Lane Closure	Street selection	Selection of a street can only consist of a continuous line along the same street. A new request must be created to close a different street.	
27.010	B10.002	M		Web/Mobile	Request a Lane Closure	Request Form	Option 1: Fill out Lane Closure Request Form questions that do not relate to streets - SEE EXT DOC LCA-Data Requirements - Lane Closure Request Form	This is preferred
							Option 2: Fill out Lane Closure Request Form questions that do not relate to streets/directionality/lanes affected - SEE EXT DOC LCA-Data Requirements - Lane Closure Request Form	
~~27.011~~	~~H~~			~~Web/Mobile~~	~~Request a Lane Closure~~	~~Request Form~~		
27.012		H		Web/Mobile	Request a Lane Closure	Restrictions	For each intersection present along the selected street, specify turn restriction (left/right/through) for each street direction in/out of intersection.	
~~27.013~~	~~L~~			~~Web/Mobile~~	~~Request a Lane Closure~~	~~Restrictions~~	~~Option 1: Fill out a form specifying any restrictions at specified street/directionality.~~	
27.014	B10.003	M		Web/Mobile	Request a Lane Closure	Restrictions	Option 2: Display a 2 street intersection image with street names, compass and all possible turn restrictions. User will select turn restrictions in effect for closure	This is preferred
~~27.015~~	~~H~~			~~Web/Mobile~~	~~Request a Lane Closure~~	~~Restrictions~~	~~Option 3: Display all possible turn restrictions as an overlay, over a map view. User will select turn restrictions in effect for closure.~~	
27.016	B10.001, B10.004	H		Web/Mobile	Request a Lane Closure	Conflict	If street and duration of closure is in conflict with existing approved request, display message to user with public information of conflicting request. Display message that they can contact the TMB directly if they have any questions. Do not allow user to proceed with a conflicting duration. When returning to the form, auto-populate start/date time of duration to 3 business days after the conflicting request.	
27.017	B10.004	H		Web/Mobile	Request a Lane Closure	Conflict	If start time of closure is within 3 business days of end date/time of existing approved request, display message to user recommending that they place a 3 business day gap between the end date of the request in conflict.	
27.018	B10.004	H		Web/Mobile	Request a Lane Closure	Conflict	If end time of closure is within 3 business days of start date/time of existing approved request, display message to user recommending that they place a 3 business day gap between the start date of the request in conflict.	
27.019		H		Web/Mobile	Request a Lane Closure	Warning	If user proceeds to keep request within 3 business days of an existing approved request, display warning message on Request Details page for administrator to address.	
27.020		H		Web/Mobile	Request a Lane Closure	Warning	If a new/modified request is adjacent to an approved request at the same time, display warning message on Request Details page for administrator to address. A copy feature will be available when reviewing history of requests. Choosing to copy a request will load all lane closure request form data within a new request instance and requires the user to submit the new request when ready. Default start date/time should default to the current date/time and the default end date/time should default to 1/2 hour later.	
27.021	B14.001	H		Web/Mobile	Request a Lane Closure	Copy	When Lane Closure Request is approved, set record Request Status to approved and send notification email to LCR Requestor and CC COW agencies (i.e transit, parking, traffic services, traffic signals) as needed SEE SOF REQ#27.023 & SEE EXT DOC LCA-Data Requirements - Lane Closure Request Form / CC column. Note - always CC to traffic services	
27.022		H		Web	Request a Lane Closure	Approval Email Recipients	Email template notifying LCR Requestor that their LCR has been approved. CC emails set in Global settings for LCR Agencies.	
27.023		H		Web	Request a Lane Closure	Email: LCR Approval	Send App/email notification reminder 1 day in advance of closure start date/time, to requestor with a message to update request if there has been any changes and to report the closure of lane as it occurs	
27.024	B13.002	H		Web/Mobile	Request a Lane Closure	Reminder	15 minutes before scheduled closure, send app/email notification to requestor with a message to update request if there has been any changes and to report the closure of lane as it occurs	
27.025	B13.002	H		Web/Mobile	Request a Lane Closure	Reminder	Send App/email notification reminder 1 day in advance of re-opening start date/time, to requestor with a message to update request if there has been any changes and to report the re-opening of lane as it occurs	
27.026	B13.002	H		Web/Mobile	Request a Lane Closure	Reminder	15 minutes before scheduled re-opening of closure, send app/email notification to requestor with a message to update request if there has been any changes and to report the re-opening of lane as it occurs	
27.027	B13.002	H		Web/Mobile	Request a Lane Closure	Reminder	If lane closure is not reported as closed within 15 minutes of scheduled closure, send app/email notification to Requestor/Alternate to report closure, or update request with new closure duration.	
27.028	B13.003	H		Web/Mobile	Request a Lane Closure	Notice	If lane closure is not reported as closed within 30 minutes of scheduled closure, send app/email notification to Requestor/Alternate and Supervisor/Alternate contact to report closure, or update request with new closure duration.	
27.029	B13.003	H		Web/Mobile	Request a Lane Closure	Notice	If lane closure is not reported as re-opened within 15 minutes of scheduled re-opening, send app/email notification to Requestor/Alternate to report re-opening of lane, or update request with new closure duration.	
27.030	B13.003	H		Web/Mobile	Request a Lane Closure	Notice	If lane closure is not reported as re-opened within 30 minutes of scheduled re-opening, send app/email notification to Requestor/Alternate and Supervisor/Alternate to report re-opening of lane, or update request with new closure duration.	
27.031	B13.003	H		Web/Mobile	Request a Lane Closure	Notice	If lane closure is not reported as re-opened within 45 minutes of scheduled re-opening, send app/email notification to Requestor/Alternate and Supervisor/Alternate that they are now subject to a stop work order unless they report re-opening of lane, or update request with new closure duration. CC By-law Enforcement Officer.	
27.032	B13.003	H		Web/Mobile	Request a Lane Closure	Notice	SEE EXT DOC LCA-Data Requirements - Lane Closure Request	
27.033		H		Web/Mobile	Request a Lane Closure	Record Status	Record status is only visible to Construction Agencies, exception being 'Complete' or 'Cancel', and where they can be manually set, can only be done by internal administrators/managers	
27.034		H		Web/Mobile	Request a Lane Closure	Record Status	When record status is set to 'Complete', save Complete Type based on approval status ('approved', 'denied') or if cancelled ('cancelled')	
27.035		H		Web/Mobile	Request a Lane Closure	Record Status	SEE EXT DOC LCA-Data Requirements - Lane Closure Request	
27.036		H		Web/Mobile	Request a Lane Closure	Request Status	Request status can only be set by internal administrators/managers	
27.037		H		Web/Mobile	Request a Lane Closure	Request Status	If Requestor modifies request record, set Request Status to pending, and highlight data changes in Request Details page for Administrator to review (exception being changes to contact and alternate contact). Send confirmation of change email to Requestor. SEE SOF REQ REF# 27.039	
27.038		H		Web/Mobile	Request a Lane Closure	Modify Record	Email template to notify Requestor that their change to their request now requeires a re-approval	
27.039		H		Web/Mobile	Request a Lane Closure	EMAIL: Confirmation of Change	Allow internal administrator to trasfer ownership of record to another internal administrator	
27.040		H		Web/Mobile	Request a Lane Closure	Transfer of ownership	Allow user to change primary contact to another approved/active user within their organization	
27.041		H		Web/Mobile	Request a Lane Closure	Change of Contact	If Record or Request status is manually changed by an internal administrator, display option to insert a comment in the email that is highlighted at the top of the email for ease of visibility. SEE SOF REQ REF# 27.045	
27.042	B10.005	H		Web/Mobile	Request a Lane Closure	Status Change	If selection is not a regional street, display message to user that request is not required and they can choose to exit or return to their request for modification	
27.043		H		Web/Mobile	Request a Lane Closure	Street selection	For every automatic status change, notify user of change. SEE SOF REQ REF# 27.045	
27.044	B10.005	H		Web/Mobile	Request a Lane Closure	Status Change	Email template to notify Requestor that there has been a change to the status of their request (including at creation i.e. NEW). Area required for statuses that are manually changed, for manual dynamic comments.	
27.045	B13.004	H		Web/Mobile	Request a Lane Closure	EMAIL: Status Change	If requestor sets start date to a date in the past, display message that requests made a minimum of 3 business days in advance of closure, but then allow user to proceed.	
27.046		H		Web/Mobile	Request a Lane Closure	Message	When a user changes the Record Status to complete and there are related RLC/RR, prompt if they would like to complete these as well. If not, proceed with just the request, if yes, set all related reports to complete as well.	
27.047		H		Web/Mobile	Request a Lane Closure	Closure	SEE EXT DOC LCA-Data Requirements - Reported Lane Closure	
28.001		H	X	Web/Mobile	Report a Lane Closure	Data	SEE SOF REQ REF# 3.012-14	
28.002		H	X	Web/Mobile	Report a Lane Closure	Map	Option 1: Select street start/end points and number of open lanes, fill out remainder of Report a Lane Closure Form, SEE SOF REQ REF#28.011	This is preferred
28.003		L	X	Web/Mobile	Report a Lane Closure	Street selection		
~~28.004~~	~~M~~		~~X~~	~~Web/Mobile~~	~~Report a Lane Closure~~	~~Street selection~~	~~Option 2: Select street segments as defined by the cow and number of open lanes, fill out remainder of Report a Lane Closure Form, SEE SOF REQ REF# 28.011~~	
28.005		H	X	Web/Mobile	Report a Lane Closure	Street selection	Option 3: Display lanes, select lane start/end points for closure, fill out remainder of Report a Lane Closure Form, SEE SOF REQ REF#28.012	
28.006		H	X	Web/Mobile	Report a Lane Closure	Street selection	When selecting a start point and end point across multiple streets, snap selection to most logical streets.	
28.007		H	X	Web/Mobile	Report a Lane Closure	Street selection	If multiple street selection is incorrect, allow user to delete a selected street one at a time, or delete all segments selected at once.	
~~28.008~~	~~H~~		~~X~~	~~Web/Mobile~~	~~Report a Lane Closure~~	~~Street Selection Flow~~	~~Option 1: Allow user to select multiple streets that do not have to intersect, then have user enter all required form information, then request information on restrictions, auto-filling the same data across all lane closures and restrictions during this section.~~	
28.009		M	X	Web/Mobile	Report a Lane Closure	Street Selection Flow	Option 2: Allow user to report only on a single street at a time, with corresponding restrictions.	This is preferred with end users stating that they would most likely to enter the lane closure first, then associated restrictions, then enter another lane closure and its associated restrictions
28.010			X	Web/Mobile	Report a Lane Closure	Restrictions	SEE SOF REQ REF# 27.012-5	
28.011		M	X	Web/Mobile	Report a Lane Closure	Form	Option 1: Fill out Report a Lane Closure questions that do not relate to streets - SEE EXT DOC LCA-Data Requirements - Reported Lane Closure - Form Fields	This is preferred
~~28.012~~	~~H~~		~~X~~	~~Web/Mobile~~	~~Report a Lane Closure~~	~~Form~~	~~Option 2: Fill out Report a Lane Closure questions that do not relate to streets/directionality/lanes affected - SEE EXT DOC LCA-Data Requirements - Report Lane Closure - Form Fields~~	
28.013	B9.001	H	X	Web/Mobile	Report a Lane Closure	Conflict	If street and duration of closure is in conflict with existing approved request, display message to user with public information of conflicting request and ask if the reported closure is for this request. If yes, allow user to proceed with closure and relate the reported closure to the request - only allowing them to close within the LCR approved street selection. If no, display message to user that they are required to fill out a Lane Closure Request form to close the regional street or call TMB with any questions. Give user option to return to report form for updating, or to a new Lane Closure Request form which will auto load with details with information already entered in the Report form.	
28.014	B9.001	H	X	Web/Mobile	Report a Lane Closure	Conflict	If street and duration of closure is in conflict with existing reported closure, display message to user with public information of conflicting report and ask if they wish to return to modify report. If yes, return user to reported closure for modification. If no, delete report and return to previous page.	
28.015	B9.001	H	X	Web/Mobile	Report a Lane Closure	Conflict	If details of closure meet requirements for a Lane Closure request, ask if closure is an emergency (Display manual's definition of an emergency with examples of what isn't an emergency (i.e. bathroom not working in restaurant)). If yes, allow user to proceed with reporting. If no, display message to user that they are required to fill out a Lane Closure Request form to close the regional street or call TMB with any questions. Give user option to return to report form for updating, or to a new Lane Closure Request form which will auto load with details with information already entered in the Report form. If user chooses to return to form for updating and cancels, send email warning to By-law Enforcement Officer with details from the cancelled report. A copy feature will be available when reviewing history of reported closures. Choosing to copy a reported closure will load all form data within a new reporting instance and requires the user to submit the new report when ready. Default start date will be set to current date, default end date will be set to same duration of original report. Default start/end time will be set to original start/end time.	
28.016	B14.001	H	X	Web/Mobile	Report a Lane Closure	Copy	15 minutes before scheduled closure, send app/email notification to reporter with a message to update reported lane closure record if there has been any changes and to report the closure of lane as it occurs	
28.017	B13.002	H	X	Web/Mobile	Report a Lane Closure	Reminder	15 minutes before scheduled re-opening of closure, send app/email notification to reporter with a message to update reported lane closure record if there has been any changes and to report the re-opening of lane as it occurs	
28.018	B13.002	H	X	Web/Mobile	Report a Lane Closure	Reminder	If lane closure is not reported as closed within 15 minutes of scheduled closure, send app/email notification to Reporter to report closure, or update report with new closure duration.	
28.019	B13.003	H	X	Web/Mobile	Report a Lane Closure	Notice	If lane closure is not reported as closed within 30 minutes of scheduled closure, send app/email notification to Reporter and Supervisor/Alternate contact to report closure, or update report with new closure duration.	
28.020	B13.003	H	X	Web/Mobile	Report a Lane Closure	Notice	If lane closure is not reported as re-opened within 15 minutes of scheduled re-opening, send app/email notification to Reporter to report re-opening of lane, or update report with new closure duration.	
28.021	B13.003	H	X	Web/Mobile	Report a Lane Closure	Notice	If lane closure is not reported as re-opened within 30 minutes of scheduled re-opening, send app/email notification to Reporter and Supervisor/Alternate to report re-opening of lane, or update report with new closure duration.	
28.022		H	X	Web/Mobile	Report a Lane Closure	Notice	Ability to set an Owner to a reported lane closure record to identify who is managing the validation of an expired reported lane closure	
28.023		H	X	Web	Report a Lane Closure	Owner	SEE EXT DOC LCA-Data Requirements - Reported Lane Closure	
28.024	B7.002	H	X	Web/Mobile	Report a Lane Closure	Record Status	All statuses are automated and cannot be set manually	
28.025	B7.002	H	X	Web/Mobile	Report a Lane Closure	Record Status	When record is cancelled, set status 'Complete', with Complete Type 'Cancelled'	
28.026	B7.002	H	X	Web/Mobile	Report a Lane Closure	Record Status	At submission of report, send email to user confirming their submission. SEE SOF REQ REF# 28.028	
28.027		H	X	Web/Mobile	Report a Lane Closure	Submission	Email template confirming user's submission of reported lane closures/restrictions.	
28.028		H	X	Web/Mobile	Report a Lane Closure	EMAIL: Submission confirmation	Organization/Department/Division/Branch work is being done for. Any combination of org/dep/div/br can be selected here. Allow the users at that specified level and below access to edit/close the report.	
28.029		H	X	Web/Mobile	Report a Lane Closure	Work Done For Field	Allow user to change primary contact to another approved/active user within any organization	
28.030		H	X	Web/Mobile	Report a Lane Closure	Change of Contact	Allow user to report on scheduled reports for the following day, up until the start date/time of 11:59pm.	
28.031	B7.003	H	X	Web/Mobile	Report a Lane Closure	Scheduled	SEE EXT DOC LCA-Data Requirements - Restriction	
29.001	B12.001	H	X	Web/Mobile	Report a Restriction	Data	15 minutes before scheduled restriction is in-effect send app/email notification to reporter with a message to update restriction record if there has been any changes and to report the restriction as it occurs	
29.002	B13.002	H	X	Web/Mobile	Report a Restriction	Reminder	15 minutes before scheduled restriction is removed, send app/email notification to reporter with a message to update restriction record if there has been any changes and to report the removal of the restriction as it occurs	
29.003	B13.002	H	X	Web/Mobile	Report a Restriction	Reminder	If restriction is not reported in-effect within 15 minutes of scheduled start time, send app/email notification to Reporter to report restriction, or update restriction with new duration.	
29.004	B13.003	H	X	Web/Mobile	Report a Restriction	Notice	If restriction is not reported as in-effect within 30 minutes of start date/time, send app/email notification to Reporter and Supervisor/Alternate contact to report restriction, or update restriction with new duration.	
29.005	B13.003	H	X	Web/Mobile	Report a Restriction	Notice	If restriction is not reported removed within 15 minutes of end date/time, send app/email notification to Reporter to remove restriction, or update restriction with new duration.	
29.006	B13.003	H	X	Web/Mobile	Report a Restriction	Notice	If restriction is not reported removed within 30 minutes of end date/time, send app/email notification to Reporter and Supervisor/Alternate to remove restriction, or update restriction with new duration.	
29.007	B13.003	H	X	Web/Mobile	Report a Restriction	Notice	Ability to set an Owner to a restriction record to identify who is managing the validation of an expired restriction	
29.008		H	X	Web	Report a Restriction	Owner	SEE EXT DOC LCA-Data Requirements - Restriction	
29.009		H	X	Web/Mobile	Report a Restriction	Record Status	All statuses are automated and cannot be set manually	
29.010		H	X	Web/Mobile	Report a Restriction	Record Status	Within an intersection, if system is able to identify the number of streets coming into the intersection, display appropriate drawing (i.e. T intersection, + intersection, and up to 6 streets - confusion corner)	
29.011	B13.001	M	X	Web/Mobile	Report a Restriction	Design	When choosing to report a lane closure/restriction, allow user to go directly to 'Add a new restriction' without having to add a lane closure first.	
29.012		M	X	Web/Mobile	Report a Restriction	Design	At submission of report, send email to user confirming their submission. SEE SOF REQ REF# 28.028	
29.013		H	X	Web/Mobile	Report a Restriction	Submission	Organization/Department/Division/Branch work is being done for. Any combination of org/dep/div/br can be selected here. Allow the users at that specified level and below access to edit/close the report.	
29.014		H	X	Web/Mobile	Report a Restriction	Work Done For Field	Allow user to change primary contact to another approved/active user within any organization	
29.015		H	X	Web/Mobile	Report a Restriction	Change of Contact	Allow user to report on scheduled reports for the following day, up until the start date/time of 11:59pm.	
29.016		H	X	Web/Mobile	Report a Restriction	Scheduled		
30.001	B14.002, B14.003	M	X	Web/Mobile	Contraventions	Data	Contraventions are used to log infractions. SEE EXT DOC LCA-Data Requirements - Contraventions	
30.002	B14.002			Web/Mobile	Contraventions	Enforcement	Provide ability to create a new LCR/RLC/RR with additional contravention information, minus required information that the enforcer will not have. So required information will only be street information and start time. Add a contravention record and ensure that required information is provided before saving	
31.001	B13.006	M	X	Web	Project Admin	Data	SEE EXT DOC LCA-Data Requirements - Project	
31.002	B13.006	M	X	Web	Project Admin	List View / Details Page	SEE EXT DOC LCA-Business Requirements for assumptions on list view/details page & add/editing/disabling/deleting a record	