

2020

Pathway Closure and Detour Manual



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Chapter 1

Introduction

Purpose

The purpose of this manual is to set out consistent standards and specifications for pathway closures and detours in Calgary designed to:

1. Safely and efficiently detour pathway users, including pedestrians, cyclists, and other wheeling modes (ex. eScooters, mobility aids)
2. Ensure the safety of workers
3. Enhance communication protocols and processes with the intention of providing advanced notice to pathway users and minimize disruption to pathway users
4. Allow construction to progress with a clear set of defined standards for pathway closures

Scope

This manual is intended as a practical working reference to be used by private contractors, consultants, utility companies, and City personnel that require a closure of a City of Calgary pathway, for the purposes of construction. Uniform standards and procedures are set out in this manual and shall be adhered to when working on or adjacent to pathways under the jurisdiction of The City of Calgary. Closures that occur within High-Priority Areas (see Chapter 4) require coordination and design alongside Calgary Parks Pathway Technicians; all closures must be approved by Calgary Parks.

All agencies and contractors shall observe and maintain these standards and procedures to ensure:

1. Uniform standards for design and quality of pathway closures and detours
2. Standardize procedure and placement of signage and traffic control devices to minimize confusion for all users

This manual shall be used in conjunction with The Temporary Traffic Control Manual, associated regulations, and all applicable bylaws and related contract documents.

For the purposes of this document, it is assumed that pathway closures are in place for construction purposes. All terminology herein is reflective of this assumption.

Authority

All work performed on City-owned land shall conform to the policies, standards and procedures set out by The City of Calgary including this Pathway Closure and Detour Manual. The Director of Calgary Parks is appointed by Council under Bylaw 11M2019.

The Director or designate is the final authority on pathway closure and detour standards and sets the extent of disruption allowed on pathways and trails. As such, The Director or designate (311) must be notified before commencing work on, or adjacent to all City-owned Right of Way (ROW). Such notification will utilize the ePermit process, discussed below in Chapter 2.

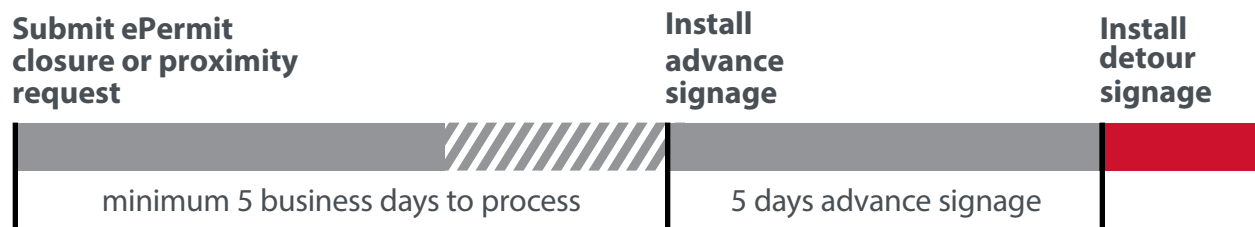
Chapter 2

Before you work on City pathways

Required permits / authorization

All work on City pathways required authorization and a permit. Pathways ePermit submissions via the City's [MyID Web Portal](#) must be received with enough lead time to ensure appropriate advance notice is given. A minimum of five calendar days of advance signage notice is required on the pathway that will be closed. An additional minimum of five business days is required to process the request and permit. Note that high priority locations (see Chapter 4) may require up to an additional 5 business days to process. For emergency closures, close the pathway in accordance with signage standards outlined in this manual (no advance notice signage required) and notify Calgary Parks (pathways@calgary.ca) of the location, duration, and details of the closure.

Timelines for closure



Pre-work checklist

See Appendix A for a Quick Reference Guide to the closure and detour process

1. Has the Calgary Parks, Pathways division approved your work and provided a detour plan?
2. Do you have the necessary permits (Pathway Closure ePermit or Pathway Access & Proximity ePermit, and if applicable Roads Street Use Permit, etc)?
3. Submitted pre-access/ construction pathway condition photos to Parks, Pathways?
4. Is a tree protection plan required? (Contact Parks, Urban Forestry at 311)
5. Have you given adequate advance notice of the work that you plan related to your project to the impacted residents, businesses, and utilities? Has the signage strategy been provided and adhered to as designed by Calgary Parks, Pathways division?
6. If the start date is delayed, advanced signage can remain on site with amended start date or be removed and re-installed 5 days prior to new start date.
7. For closures in high priority areas lasting longer than 21 days, is a communications plan ready for distribution?
8. Have paving services and materials been sequestered for completing the end of the job in advance of re-opening the pathway?

Questions and permissions pathways@calgary.ca

During the job

1. Is all the signage and are all temporary traffic control devices still in their proper places, aligned, and standing upright? Do you need to secure signs with sandbags? Are the signs clean and legible (day and night)?
2. Does the pathway detour setup continue to meet the needs of your job? If not, seek approval from Calgary Parks, Pathway division to modify and make changes.
3. Is the work zone and all detour signage being inspected regularly and are proper records collected using the **On-Site Monitoring Log** in **Appendix B** as specified? This form is to be submitted to pathways@calgary.ca weekly for the duration of the closure or at the end of the closure.
4. Are your paving services ready prior to completion of the job to bring the pathway back into service and up to pre-access condition or better?

After the job

1. Have you notified Calgary Parks Pathways division to re-open the pathway? For sites with daily openings/closures the hours of closure are to be set during application review; notification to Calgary Parks is only required when work is completed and the pathway is ready to be permanently reopened.
2. Have you cleaned up the worksite and rehabilitated the pathway in a condition equal to or better than it was prior to the start of the work?
3. Have you removed all temporary traffic control devices?

Chapter 3

Performance guidelines

Pedestrian and cyclist safety

The safety of pedestrians and cyclists must be considered in the design, set-up, and operation of a pathway closure and detour.

1. Pedestrian and cyclist traffic must be physically separated from workers and equipment in the work area. Accommodations must be made for a safe passage through or around the work area.
2. This may require the use of barricades to separate the worksite from the pathway. In all cases, measures taken to protect the pedestrians and cyclists are subject to approval by the Calgary Parks, Pathways division. This may include reflective flagging placed on barriers.
3. A pedestrian detour route must provide a reasonably safe, continuous, accessible and convenient route with a smooth hard surface (paved) and accessible features consistent with the affected facility, as determined by the Pathway Technician.
4. It is important to consider the wide-ranging needs of pedestrians. All pedestrian detours need to follow [Access Design Standards](#). This includes being wheelchair accessible, with the inclusion of temporary ramps when necessary. In addition, all barriers, signs, and other obstructions must be detectable via tactile methods. No obstructions should protrude into the walk zone (at or below head height).
5. A bicycle detour route must provide a reasonably safe, continuous, accessible and convenient route with a smooth hard surface and features consistent with the affected facility. Bicycle detours may require temporary ramps where grade changes are involved.
6. In some instances, it may be preferable to construct a temporary pathway around the worksite, instead of offering a detour route. This option should be considered for long-term closures, especially where detour routes may greatly inconvenience pathway users. Temporary pathway should be constructed to similar spec of the pathway closed.

Standards of performance and responsibility

With the exception of emergency related work, all work on City pathways shall:

1. Be approved by the Pathways division under the authority of the Director. They will set the extent of pathway disruption allowed. They will determine the temporary control required for the work proposed
2. Be pre-authorized and reported to the Pathways Division **in advance** of expected start date; timelines are noted in Chapter 2.
3. Require authorization and the appropriate ePermit when working on or adjacent to a pathway.
4. Be coordinated through Calgary Parks – Pathways division. Calgary Parks will coordinate with Roads – Traffic Detours division on behalf of the permit applicant when detour routes enter the road right of way. **Any closure or other road impact (street use, hoarding) must be submitted to Roads – Traffic Detours by the applicant.**

In the case of emergency related work, contact the Pathways division
Pathways@calgary.ca

Unless otherwise specified:

1. All necessary pathway control devices must be in place before the work commences. These devices shall be maintained by the contracting agency for the duration of work, while any obstruction to pathway users exists. These devices shall remain in place for the duration of the work.
2. A minimum multi-use pathway width shall be 2.5 meters clear width with no obstructions or encroachments. For detours involving both pedestrians and bicycles, 3.0 meters clear width is preferred. This width shall be increased in the event of a high likelihood of people using mobility aids or heavy pedestrian and cyclist traffic. Path of travel shall be free from obstructions for the full width of the pathway to a minimum height of 2.5 meters.
3. Ensure that concrete barriers or construction fences do not reduce the minimum pathway width; ensure these devices are used so as to not obstruct bike trailers or cargo bikes from negotiating turns and so that they do not reduce sightlines, especially around corners.
4. Ensure all vehicles and equipment are stored outside of the pedestrian and cyclist detour routes.
5. Limit site access across the pedestrian and cyclist routes to controlled points and maintain the pedestrian and cycles route surface at the site access driveways (remove tracked earth, gravel, mud) to provide a smooth surface.

Securing the worksite

Securing the worksite is necessary to protect the public from potential hazardous conditions within the work zone. It is necessary to secure the worksite when work is taking place and during any periods of inactivity.

Some examples of inactivity are shutdowns due to weather conditions, end of shift, weekends, holidays and lunch/coffee breaks. The necessary steps to secure the worksite are outlined below:

During periods of activity

1. Ensure that all temporary traffic control devices are legible and properly positioned.
2. All devices must be retro-reflective, with the exception being the chloroplast detour map.
3. Remove, securely cover, or tip down any signs that are not required.
4. All temporary traffic control devices shall be properly secured/weighted with sandbags.
5. Inspect the worksite as required and keep record of inspection weekly. See Appendix B.
6. Once secured, drive and walk the worksite weekly for the length of the closure to ensure that the traffic control set-up provides cyclists and pedestrians with adequate advance warning, and provides positive guidance around the worksite. Ensure that safe, convenient and accessible pedestrian and cyclist movement is maintained.
7. **PLEASE NOTE:** Arrange to have sidewalks and multi-use pathways within the detour routing cleared of snow, ice and debris. If required, sand during periods of icy conditions.

During periods of inactivity

1. Establish a barrier around open excavations using physical barriers, such as concrete safety shaped barriers, suitable fencing, etc. The location and the nature of the excavation will dictate the method used to provide the necessary safety required.
2. All traffic control devices shall be secured during periods of inactivity.
3. Remove, securely cover, or tip down any signs that are not required.
4. Inspect the worksite as required and keep a record of the inspections. See Appendix B.
5. **PLEASE NOTE:** Arrange to have sidewalks and multi-use pathways within the traffic control zone cleared of snow, ice and debris. If required, sand during periods of icy conditions.
6. Once secured, drive and walk the worksite weekly to ensure that the traffic control set-up continue to provide motorists, cyclists and pedestrians with adequate advance warning and provides positive guidance around the worksite. Ensure that safe, convenient and accessible pedestrian and cyclist movement is maintained and pedestrian and vehicle movements are separated.

Chapter 4

Guidelines for pathway traffic control devices

Signs and specifications

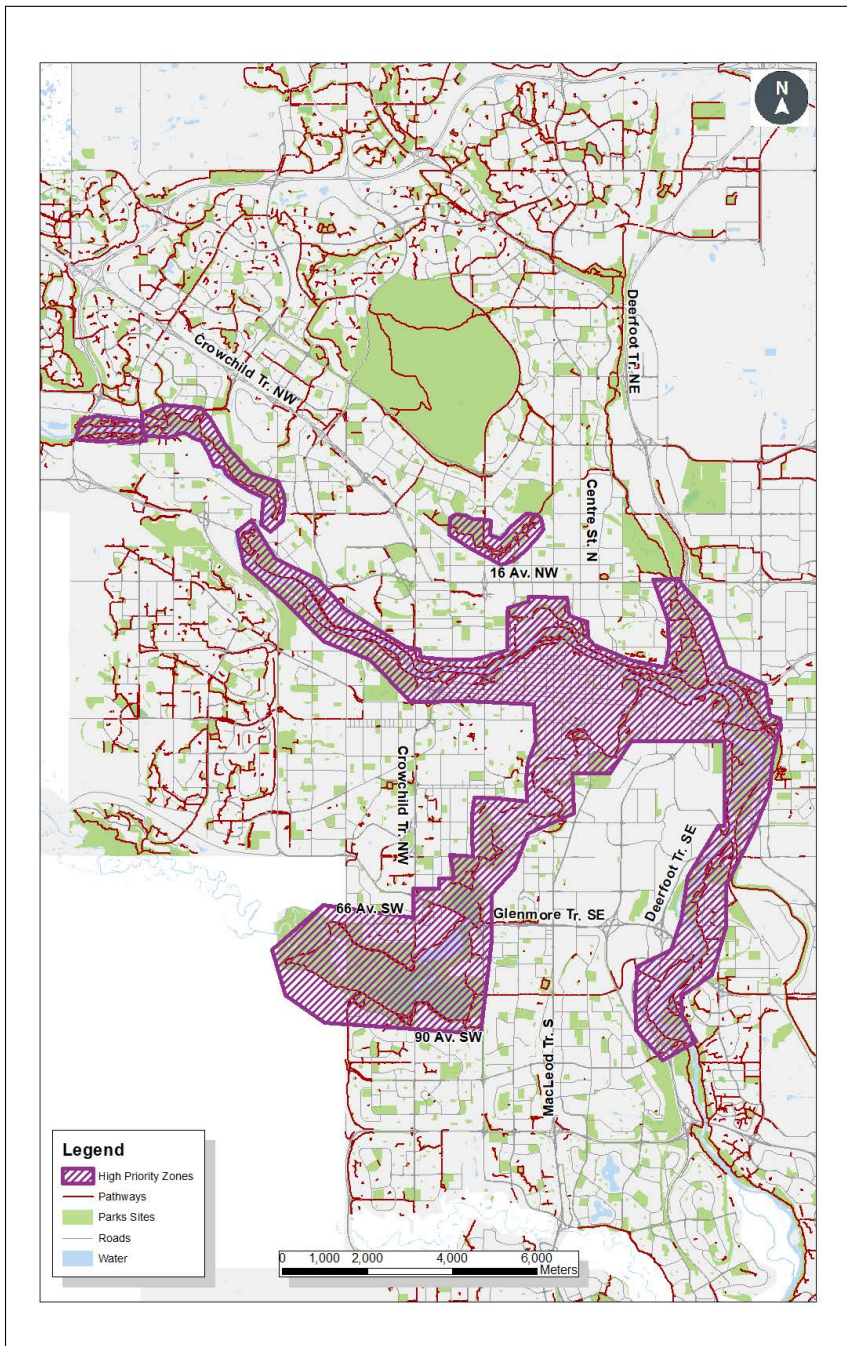
Signage requirements are specified in the pathway closure permit and vary based on the location, length of closure, and volume of pathway users.

All examples provided in the manual denote a typical setup under normal conditions and may be modified at the discretion of the Pathways division.

Signage installation, ongoing management, and take down is to be completed by the contractor.

All signs, unless otherwise specified, must be retro-reflective. High intensity material (reflectivity level 1) is the City standard.

Pathway closures within the Center City area and identified high-priority closure zone (purple in this map) require variable message board signage.



Advance notice signs

High priority locations

1. Pathway closures within the Center City area and identified high-priority closure zone (see map on previous page) require five days advance public notice of a pathway closure.
2. A trailer mounted variable message sign must be placed at both ends of the proposed closure location. Additional signs may be required for closures with multiple entry/exit points. Signs should be mini-size or an equivalent approved by Calgary Parks (such as Ver-Mac PCMS-4880 or 548).
3. Trailer must be set up so that any edge of the trailer/sign unit is a minimum of 1.0m off the edge of the pathway. Sign must be in place, operational with pathway closure message for five days (120 hours) minimum before pathway can be closed and work begins.
4. If the start date is delayed, advanced signage can remain on site with amended start date or be removed and re-installed 5 days prior to new start date.
5. Sample message for sign:
6. For closures longer than 14 days in duration, the variable message sign can be removed after 14 days of closure has elapsed (14 closure days + 5 advance notice days = 19 days total on site).

**Pathway closure
Begins "START DATE"
Calgary.ca For details**



Standard priority locations

1. Pathway closures outside of denoted area require five days advance public notice of a pathway closure.
2. A 900mm x 1200mm retro-reflective or chloroplast black text on orange background sign must be used; the date should be a sticker of the same sized font as the sign.
3. Sign must be placed at both ends of the proposed closure location.
4. If the start date is delayed, advanced signage can remain on site with amended start date (new sticker must be applied) or be removed and re-installed 5 days prior to new start date.
5. Sample sign:



IMPORTANT NOTE:

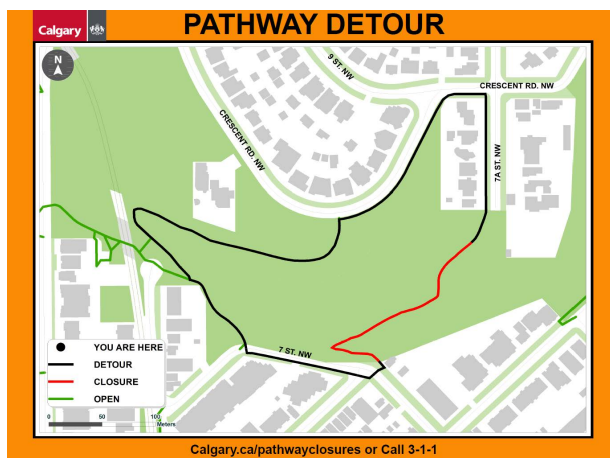
For both High and Standard Priority Advanced Notice, the detour map signs (referred to on the following page) should be placed with the advance notice signs.

Pathway closure signs

In all cases:

Detour map signs

1. Two **map** signs minimum are required for all closures, posted at either end. Closures with multiple entry or exit points may require additional map signs.
2. If separate pedestrian and cyclist detours are required, each detour type will require two signs (four minimum).
3. A 900mm x 1200mm non-reflective chloroplast sign, black text on orange background with a map showing the pathway closure and open routes.
4. "You are here" location must be marked on all maps correctly
5. Signs must be in place before pathway is closed and remain in place for the duration of the closure
6. In high-priority locations, lighting may be required if existing on-site lighting is not adequate to read detour maps
7. Sample sign:



Pathway closed signs

1. Pathway closure requires a minimum of two **closed** signs, one posted at the start of each end of the detour route/start of the closure
2. A 450mm x 900mm retro-reflective black text on orange background sign must be used.
3. Signs must be in place before pathway is closed and remain in place for the duration of the closure.
4. Sample sign:



Detour route signs

1. Total number of signs required will vary based on size/scope of the closure.
2. **Every** intersection location will require two signs (one in each direction); intersections may include: pathway-pathway, pathway-road; pathway-bikeway; road-road; road-bikeway.
3. Detour routes may use a combined pedestrian/cyclist route or may require separate cycling routes and pedestrian routes, or a combination of both combined and separated routes.
4. Combined routes require the combined pedestrian/cyclist sign (sign A below).
5. Separate routes require either the pedestrian or cyclist sign, as appropriate (sign B or C below).

6. If a combined route splits into separated routes, the separate signs must be used at the junction where they split (signs B and C both are required at the junction).
7. If separated routes combine into a combined route, the combined route sign must be used at the junction (sign A).
8. All detour route signage is to be 450mm by 450mm, retro-reflective, black text and symbol on orange background.

Sample signs

(Must be metal and retro-reflective):

Sign A



Sign B



Sign C



Sign D



Sign E



Sign F

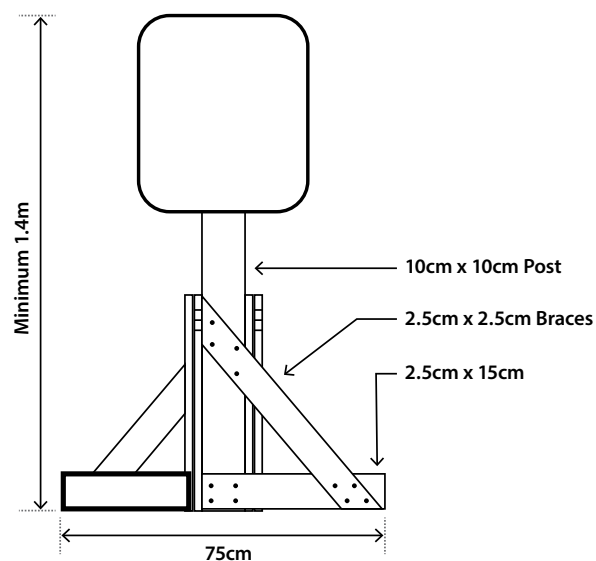
600mm x 600mm



Typical portable sign stand.

Portable signs must be placed outside of the pedestrian and bicycle detour routes.

Front view



Alternative portable sign stands

Where wooden base posts are unavailable, please submit alternate options via photos to pathways@calgary.ca subject to pathway technician approval.

Lawn-sign style sign mounting are NOT appropriate sign stand alternatives.

Barricades

In all cases:

1. Barricades must be placed at the intersection where the detour routes begin, regardless of site boundaries of work being completed.
2. Barricades/Construction fencing must have retro-reflective markings facing approaching pathway users.
3. Any barriers or fencing adjacent to the pathway must maintain 1m from the pathway edge.

Short-term closures:

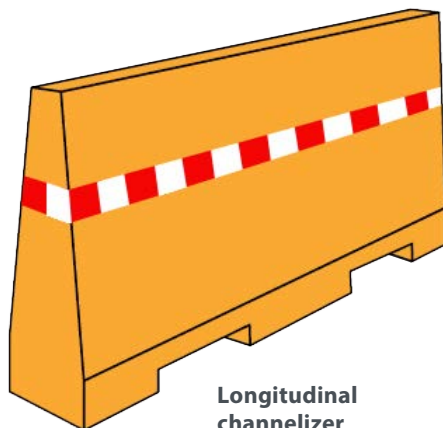
1. Closures of short duration where hazards are not left unattended may use light barricades. An example of when short-term (< 8hrs) closure guidelines would apply is for mid-day closures during daylight hours with the pathway being re-opened during morning and evening rush-hour and overnight.
2. Light barricades should be stabilized using sandbags placed on the lower section of the frame. Under no circumstances shall they be placed over the upper rail of the barricade.
3. Logo and phone number of contractor/owner of the traffic control devices should be clearly marked on barricade.

Long-term closures:

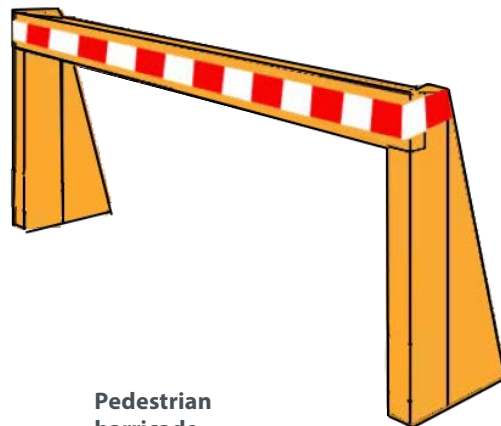
1. Closures of long duration should use more secure barriers that cannot easily be moved/ removed by pedestrians or cyclists. Typical barriers would include concrete barriers, plastic water weighted, or 2m construction fencing. In all instances barrier should have a retro-reflective material (either red-white strip, or reflective flags) facing users.

Barricade design examples

Preferably orange coloured



Longitudinal
channelizer



Pedestrian
barricade

Chapter 5

Pathway closures and detours (typical applications)

This chapter outlines how signs and devices are used for temporary conditions. Since they cannot cover all site-specific conditions, the examples provided here are labelled as typical applications. These typical applications provide the user with the minimum requirements for temporary traffic control. Signs and devices must be placed outside of the pedestrian and bicycle routes, unless they are intending to block access.

Closure and detour scenarios

1. Standard-priority area | Advance notice of closure
2. Standard-priority area | Active closure
3. High-priority area | Advance notice of closure
4. High-priority area | Active closure
5. High-priority area | Active closure, separated pedestrian and cyclist detour routes

1. **Standard-priority area** | Advance notice of closure

Example shown

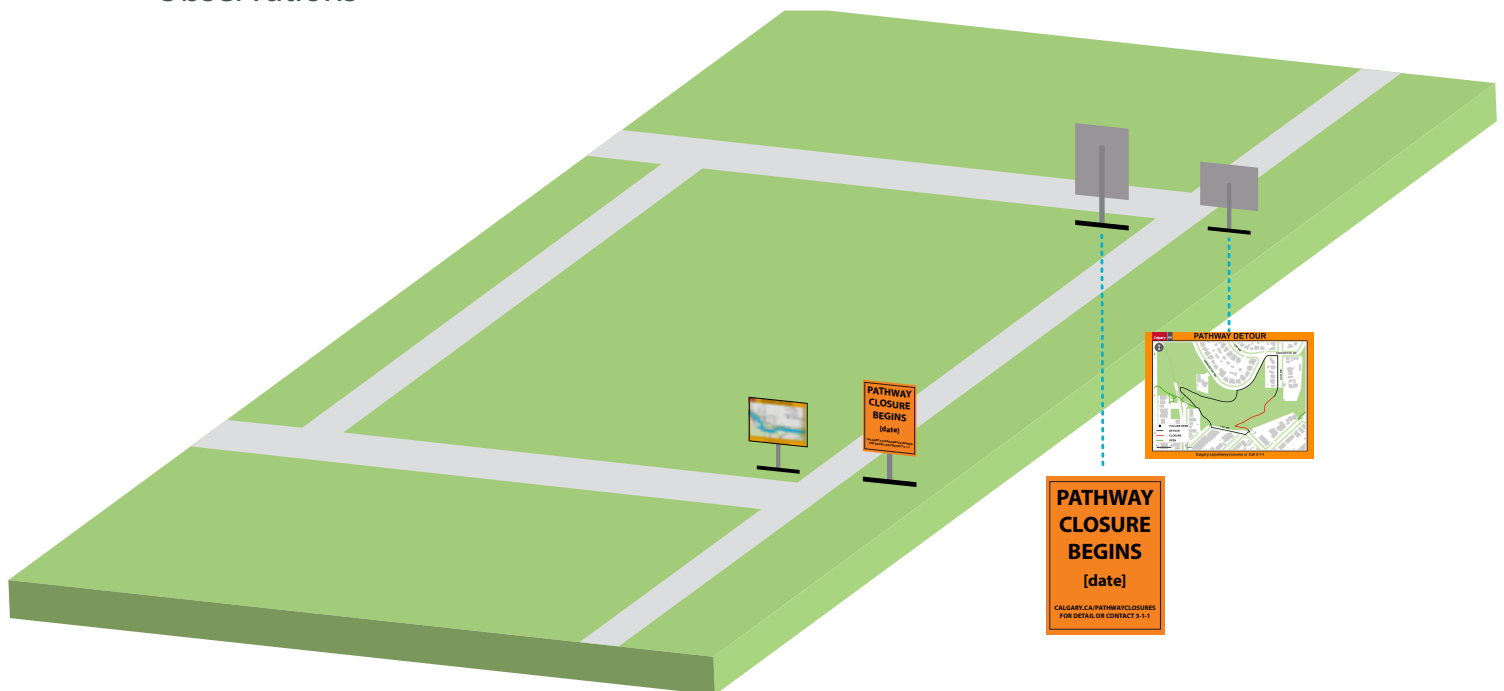
Standard-use/standard priority pathway (outside of area mapped in Chapter 4)

Detour route is combined pedestrians and cyclists

Conditions

Advance notice signage, must be installed for a minimum of five calendar days prior to closure of the pathway.

Observations



2. Standard-priority area | Active closure

Example shown

Standard-use/priority pathway (outside of area mapped in Chapter 4)

Detour route is combined pedestrians and cyclists

Conditions

Active closure conditions

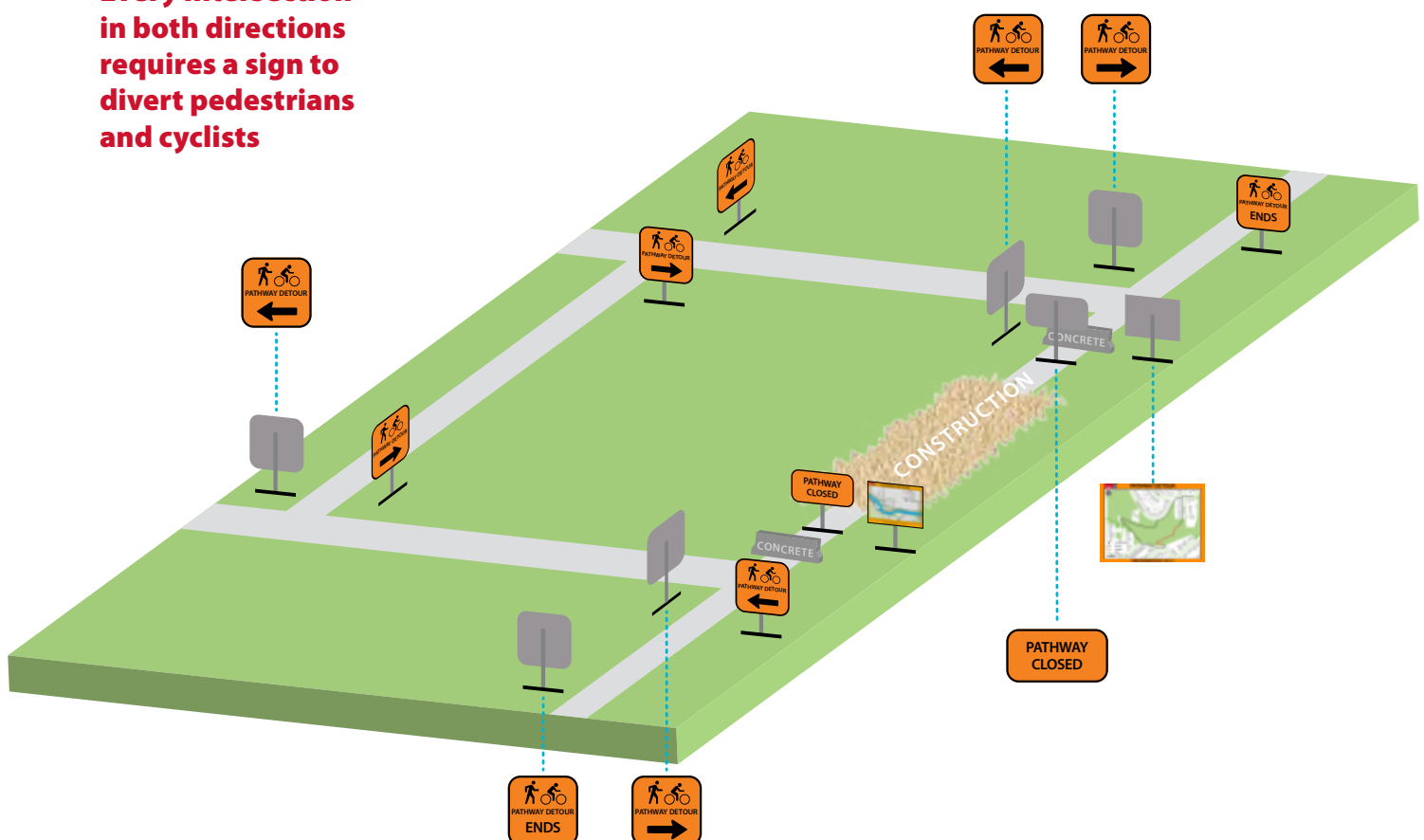
Pathway detour diverts people to an adjacent pathway around the closure site.

Observations

The “PATHWAY CLOSED” sign can be attached to the barricade

The type of barricade used will depend on the length of closure (Chapter 4 – Barricades).

Every intersection in both directions requires a sign to divert pedestrians and cyclists



3. High-priority area | Advance notice of closure

Example shown

High-use/priority pathway (inside of area mapped in Chapter 4)

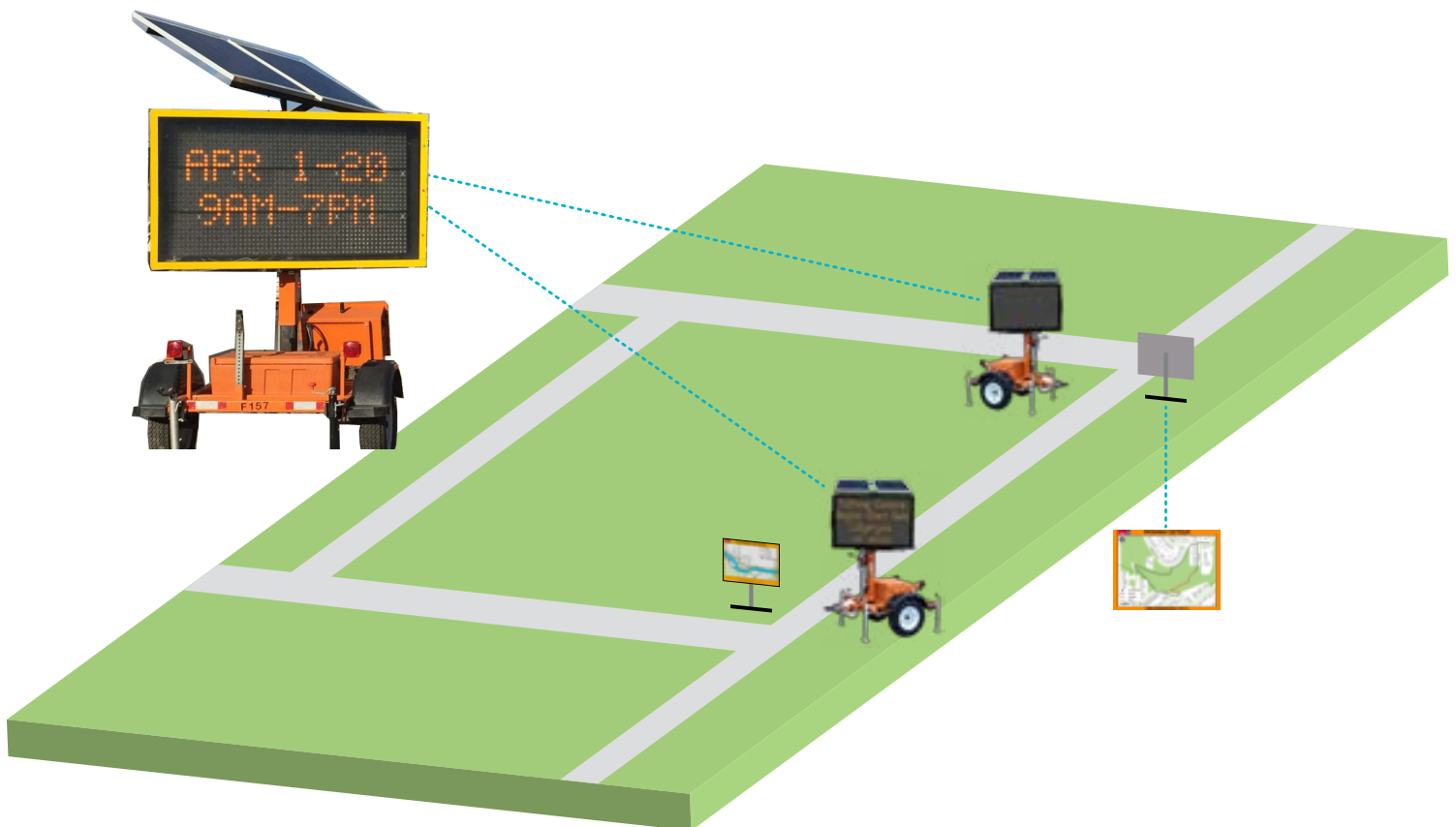
Detour route is combined pedestrians and cyclists

Conditions

Advance notice signage, must be installed for a minimum of five calendar days prior to closure of the pathway

Observations

Variable message board signs must be used in high use areas



4. High-priority area | Active closure

Example shown

High-priority pathway (inside of area mapped in Chapter 4)

Detour route is combined pedestrians and cyclists

Conditions

Active closure conditions

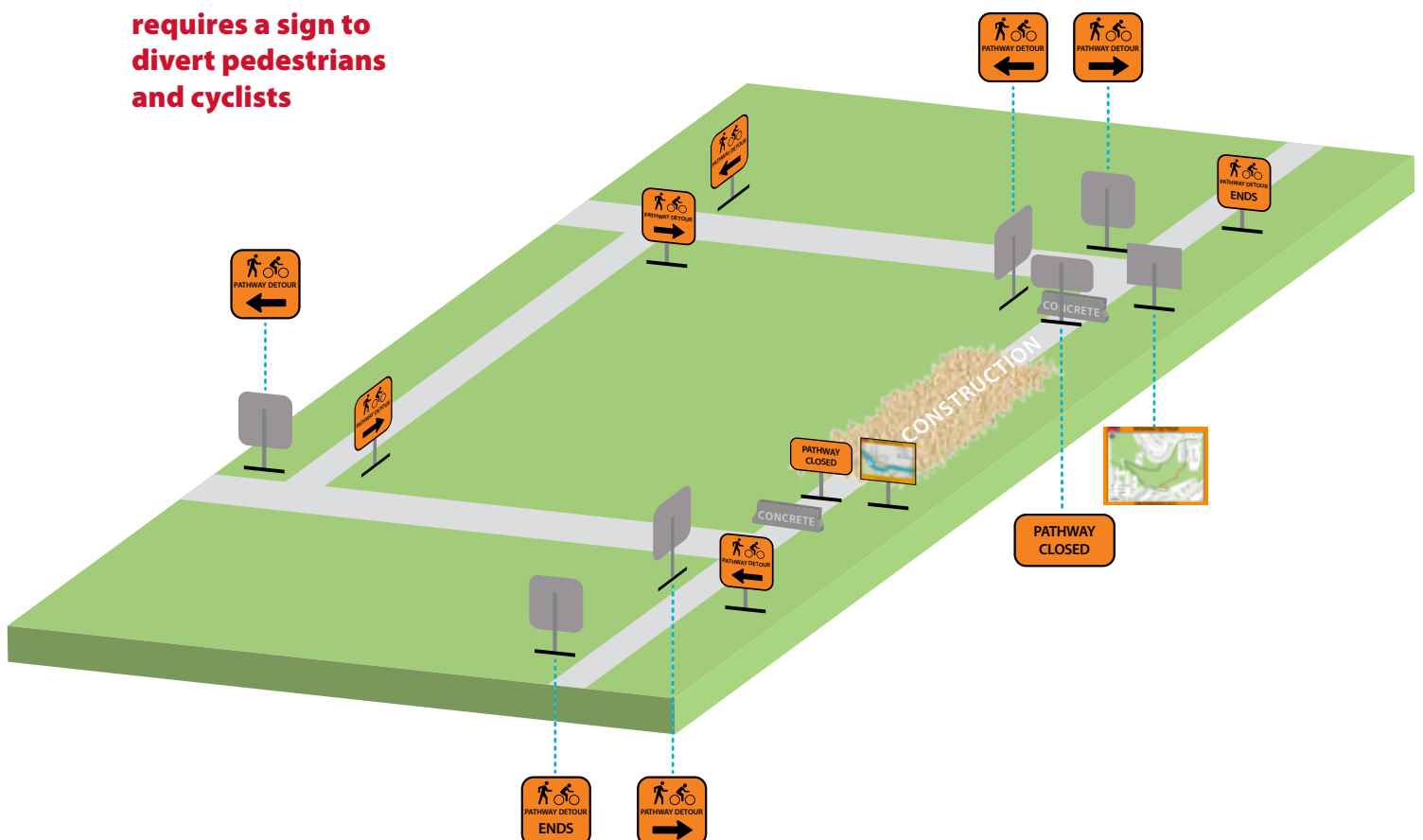
Pathway detour diverts people to an adjacent pathway around the closure site.

Observations

The “PATHWAY CLOSED” sign can be attached to the barricade

A permanent barricade such as a concrete barrier must be used (Chapter 4 – Barricades)

Every intersection in both directions requires a sign to divert pedestrians and cyclists



5. High-priority area | Active closure, separated pedestrian and cyclist detour routes

Example shown

High-use/priority pathway (inside of area mapped in Chapter 4)

Detour route is separated, pedestrians and cyclists each have different detour routes

Conditions

Active closure conditions

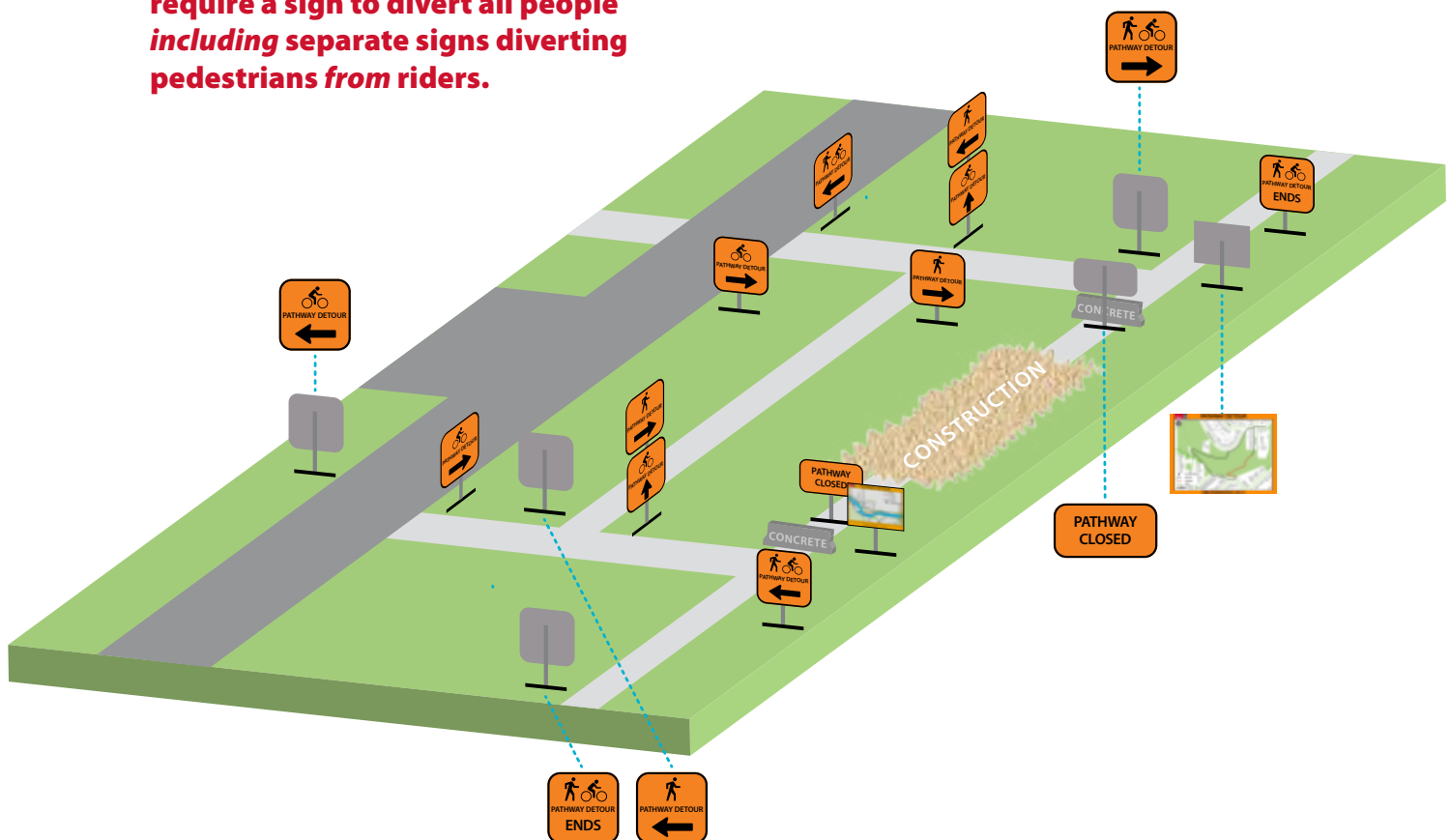
Pathway detour diverts people to an adjacent pathway around the closure site.

Observations

All intersections require signage in both directions.

When detour routes separate into user groups, two signs should be used (can be affixed to the same post, ensure post can accommodate).

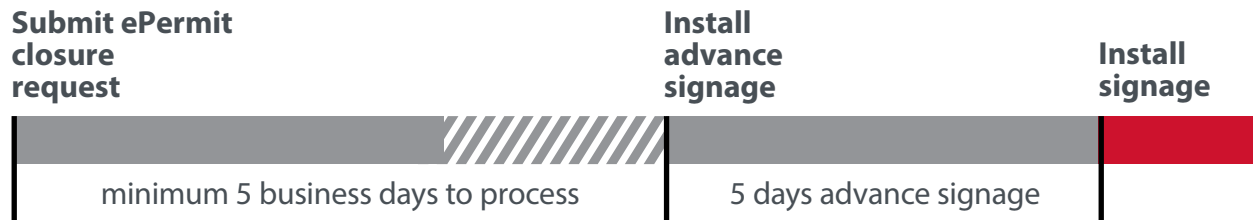
Every intersection in both directions require a sign to divert all people including separate signs diverting pedestrians from riders.



Appendix A

Quick reference

Timelines

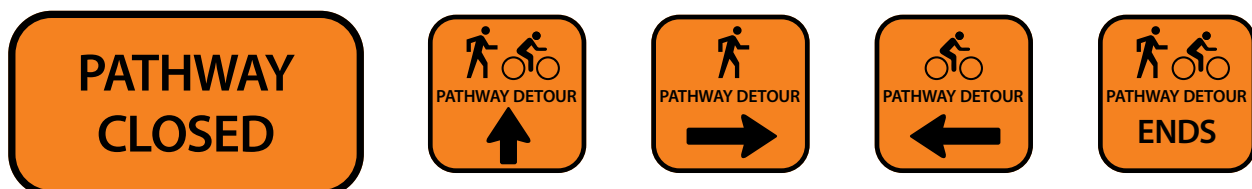


Process

1. Submit pathway closure request form to [MyID Web Portal, Pathways ePermit](#)
2. Pathway Technician reviews request and drafts closure and detour plan (minimum five business days to process). Complicated closures may require up to 5 business days additional processing time.
3. Pathway Closure Permit issued, closure plan included with ePermit.
4. Advance notice signage is installed on site as per guidelines, for a minimum of five calendar days.
5. After five calendar days of advance notice, pathway can be closed. All signage must be installed on site as per closure and detour plan and permit conditions; to be installed by contractor or as arranged per contract agreements.
6. Work is completed.
7. If work will not be completed in time, as per permit dates, an extension must be obtained from Calgary Parks with 2 business days notice. The project manager or their designate is responsible for tracking and reporting any construction delays to Calgary Parks.
8. Contact pathways@calgary.ca to notify them that the pathway is being re-opened
9. Open pathway, remove all signage from site.

Sample signage

(Must be metal and retro-reflective)



Appendix B

Pathway Closure and Detour On-Site Monitoring Log

Record of pathway closure and detour to be submitted every 7 days for review

| Project | | | Address | | | |
|-------------------|------------|--------------|----------------|--------------------|-------------|--------------|
| Contact Name | | | Phone | | Cell | |
| Email | | | Company | | | |
| Date | | | | | | Page of |
| Date (yyyy/mm/dd) | Time (24h) | Inspected by | Type of set up | Deficiencies found | Photo taken | Action taken |
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