APPENDIX A – Line Section Maps & Safe Zone Legend

A.1 LINE SECTION OVERVIEW

Line	Section ID	Limits	Key Interlockings / Features	Notes / Hazard Focus
Blue Line (A Line)	BL-A-1	Gilbert Tail Track – Edgemont	Guthrie, Edgemont	End-of-line turnback, signal interference near Horne Roundabout
	BL-A-2	Edgemont – Dobson	Hibbert, Date, Longmore	Tight curvature west of Hibbert; sightline obstruction
	BL-A-3	Dobson – Tempe Bridge	River, Dorsey, Mill Pocket	High-risk RSO zone; bridge approach sight limitation
	BL-A-4	Tempe Bridge – 27th Street	Yard Entrance, 27th St	Yard interfaced double permission required
	BL-A-5	27th Street – 3rd Avenue	11th St, 5th St, 3rd Ave	Downtown crossover interaction
Orange Line (B Line)	OL-B-1	Baseline Tail Track – Sherman	Cocopah, Hidalgo, Raymond	Narrow ROW; street-running sections
	OL-B-2	Sherman – McDowell	Jackson	Historic derailment zone—restricted clearance
	OL-B-3	McDowell – Montebello	Culver, Earll, Pierson	Deck Park Tunnel visibility limitation
	OL-B-4	Montebello – Metro Tail Track	Tuckey, Dunlap, Mountain Point	High pedestrian crossings near Metrocenter
Tempe Streetcar	TSC-1	Hayden Ferry – Dorsey	Marina Heights, 9th & Mill	Street operation; spring switches

A.2 MAP KEY / LEGEND

Symbol	Color	Label	Description
✕	Blue	**Lookout**	Identifies the location of a designated lookout responsible for monitoring train movements and providing audible or visual warnings to workers.
⬭	Red	**Switch Points**	Indicates track switches or interlocking locations where train routes can be changed or verified.
▭	Green	**Safe Zone**	Designates a protected area where personnel can safely stand clear of train or equipment movements.

Symbol	Color	Label	Description
	Purple	**Grade Crossing**	Represents areas where tracks intersect with a roadway or pedestrian path, typically protected by gates or warning devices.
	Red	**Diamond Crossing**	It indicates a location where two tracks cross, allowing trains from two lines to intersect at grade, with movements controlled in both directions.
	Red	**Red Aspect**	Symbolizes an active red signal aspect displayed to operators, indicating that the route is dropped, no movement authority is granted, and maintenance personnel must remain clear until route reestablishment is confirmed by OCC

Safe Zone - A designated protected area where personnel can safely stand clear of approaching train or equipment movements. Safe Zones must provide adequate clearance for the maximum dynamic envelopes of rail vehicles and allow for the worker to always maintain full situational awareness.

Requirements:

- Safe Zones should be clearly marked on site maps, plans, or field layouts and verified in the field before beginning work.
- Workers must remain within the Safe Zone whenever active train movements are present.
- Personnel shall face approaching train movements and always maintain visual awareness; the worker's back must never face an oncoming train.
- No work shall be performed from within a Safe Zone unless track access has been granted and confirmed through the Operations Control Center (OCC) or the Roadway Worker in Charge (RWIC).
- Safe Zones must be located at a minimum of 15 feet (or local agency standard) from the nearest rail unless otherwise authorized through engineering controls or physical barriers.

A.3 MAP NOTES

- Safe Zones marked GREEN must be verified during the job briefing before occupancy.
- Red signal triangles denote switch or crossing interlocks requiring OCC clearance.
- Maps must be updated after each track modification, new crossover, or capital project.
- Final diagrams are stored in the Valley Metro GIS Safety Map Repository and appended in the controlled version of this guide.

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APPENDIX B – Radio Channel and Call Number Quick Reference

B.1 RADIO CHANNELS

Channel	Purpose / Use
1	A Line
2	B Line
3	Streetcar / Yard Moves
4	Unused Operations Channel
5	LRV Maintenance
6	Maintenance of Way (MOW)
7	Security (Primary)
8	Security (Secondary / Backup)
9	Emergency Only
10	Bus Operations

B.2 UNIT CALL NUMBER REFERENCE

Unit	Department	Description
300	Track Maintenance	Track Maintainers
400	Traction Power	Traction Power Technicians
500	Signal Maintenance	Signal Technicians
600	Operations	ACI Operations / Train Operators
700	Security	Security and Law Enforcement
800	Facilities	Facilities & Grounds Maintenance
900	Contractors / Third-Party	Authorized under permit ID
000	OCC	Operations Control Center

Example Radio Exchange
“OCC, this is 500 Signal at Culver Interlock — requesting switch 3A to reverse.”
“500 Signal, stand clear. Switch 3A passing to reverse.”

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APPENDIX C – Job Briefing and Safety Checklist

C.1 PRE-WORK JOB BRIEFING

Item	Description	Completed (✓)
Work Scope	Define specific task and location (interlock–to–interlock, station–to–street).	
RWP Type	Exclusive Track Occupancy / Verbal Authority / TAW	
RWIC Name		
Crew Members		
Communication Check	Radios tested, channels confirmed.	
Safe Zone Locations	Designated by RWIC	
OCS Status	Energized / De-energized / Grounded	
Hazards Identified	(Debris, poor visibility, heat, etc.)	
Mitigation Plan	Watchperson assigned / cones / signage / PPE	
Emergency Access Route	Defined and confirmed.	
Lone Worker?	Yes / No – If yes, OCC authorization required.	
Signatures	RWIC / Crew / OCC Controller	

C.2 POST-WORK CLOSEOUT

Item	Description	Completed (✓)
Work Complete / Track Clear	All personnel and tools clear of alignment.	
Route Released	OCC notified; authority released.	
Incident or Near Miss?	Reported via RTRS (Real Time Risk Solutions app).	
Equipment Condition	Verified safe for return to service.	
Debrief Conducted	Hazards reviewed for lessons learned.	
Signatures	RWIC / Supervisor / OCC	

C.3 LONE-WORKER REQUIREMENTS

Lone worker status is only allowed when all conditions below remain true throughout the task:

1. Continuous situational awareness
   - Worker can always see AND hear approaching LRVs in both directions
   - No hearing protection required (<85 dBA exposure)
2. Communication
   - Constant two-way radio communication with OCC
   - Job Safety Briefing establishes check-in frequency

If any condition changes → immediate STOP WORK.

Worker must clear the roadway and request RWIC-controlled protection (ETO or TOOS) prior to resuming.

Compliance Basis: §671.39 Situational Awareness; ADOT RWP Review Checklist Item #6

WORK PRACTICES

During operations, the following controls apply:
- Hoses and tools always remain behind tactile edge
- Worker faces direction of nearest train movement
- Refuge path must remain unobstructed
- Cease washing and occupy refuge when LRV is approaching

Hazard lights on vehicles/equipment are permitted as supplemental visual warning only.

PPE REQUIREMENTS

PPE	Requirement
High-visibility Class 2+	Always required
Hearing protection	Required ≥85 dBA (triggers no-lone-worker restriction)
Gloves & slip-resistant footwear	Required
Eye protection	As needed for cleaning agents
Radio + flashlight	Required for night work

EMERGENCY AND LOSS-OF-PROTECTION RESPONSE

The following conditions require immediate roadway clearance and protection upgrade:

- Loss of radio communication with OCC
- Hearing protection becomes necessary during task
- Crowds or conditions impair visibility of LRVs
- Equipment encroaches into the track envelope

Worker will notify OCC and escalate to RWIC protection (ETO/TOOS) prior to resuming.

DOCUMENTATION

The following forms are required:

- Job Safety Briefing documentation
- Daily Work Summary (Track Access Log)
- Noise exposure assessment if ≥85 dBA Per SOP 1500.09
- OCC notifications (start/clear/protection change)

REFERENCES

Reference	Title
FTA §671.39	Situational Awareness
FTA §671.13(c)(4)	Procedures for Accessing the Roadway
OSHA 29 CFR 1910.95	Noise Exposure & Hearing Conservation
SOP 1500.09	Hearing Conservation
SOP 400.2	Speed Restriction & Signage (as applicable)
ADOT RWP Checklist Item #6	Track Access Procedures & Lone Worker

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