

WFPS FUNCTIONAL REQUIREMENTS

Station 15 - Waverley West

<i>Room / Design Item</i>	<i>Comments / Details</i>
Front Entry	• Video doorbell with 1x remote release station at Watch Desk, • Doorbell needs to be heard throughout the station • F/A panel • Provide space adjacent to F/A panel for COW monitoring equipment • Provide dedicated 15A 120V power drop and network cable back to IT Room in ceiling for COW F/A communication panel • Card access at exterior
Kitchen	• 2x sliding glass door refrigerators • Residential upright freezer • 6-burner stove w/ grill & oven • Exhaust hood • Dishwasher • Commercial SS deep double sink • SS countertops • SS cabinets without doors • Under sink SS cover • Gooseneck faucet • Grease interceptor • Window to Apparatus Bay to have fire shutter as required
Dining	• Kitty lockers to go along Dining west wall • 4x Kitty locker min. size: 18"d x 20"w x 40"h • Space to accommodate table/chairs for 12 people (table & chairs to be provided by WFPS) • TV: provide sufficient space, wall blocking, power, and network provision (entertainment network to be run from IT Closet). TV and mounting bracket to be supplied by WFPS • Light filtering blinds
Lounge / Small Training Room	• TV: provide sufficient space (east wall?), wall blocking, power, and network provision (COW network to be run from IT Room). TV and mounting bracket to be supplied by WFPS • Blackout blinds • Furniture to be supplied by WFPS
Watch Desk	• 2x desk chairs to be supplied by WFPS • Window to Apparatus Bay to have fire shutter as required • Reduce amount of exterior glazing for this room shown in Dwg A3 to reduce glare, improve occupant comfort, increase energy efficiency (1x window per side would be sufficient)

	• A fold out sofa bed is required for this space (could be located at the Apparatus Bay wall) • Desk to have minimum 2 pedestals, 4 lockable drawers per pedestal • Desk to have sufficient power and space for: ○ a radio charging bank (Design Standard: Motorola PMLN6588) ○ SCBA charging bank ○ 2x computer (on UPS power) ○ PA system ○ Portable radio system (on UPS power) • TV: provide sufficient space, wall blocking, power, and network provision (entertainment network to be run from IT Closet). TV and mounting bracket to be supplied by WFPS
Captain's Office	• WFPS to provide all furniture except the desks • 2x Desks, each to have minimum 2 pedestals, 4 lockable drawers per pedestal (for the Captain and the Lieutenant) • 2x computer chair • 2x guest chairs
Captain's Quarters	• 6 lockers (18" x 18" x 72") • XL twin bed frame & mattress (supplied by WFPS) • Small desk to fit the space, 15A duplex receptacle above desk for user use • Desk chair & reading lamp (provide 15A duplex receptacle under desk to power the lamp) (chair and lamp supplied by WFPS) • operable egress awning window • blackout blind • door sweeps and door stop
Lieutenant's Quarters	• 6 lockers (18" x 18" x 72") • XL twin bed frame & mattress (supplied by WFPS) • Small desk to fit the space, 15A duplex receptacle above desk for user use • Desk chair & reading lamp (provide 15A duplex receptacle under desk to power the lamp) (chair and lamp supplied by WFPS) • operable egress awning window • blackout blind • door sweeps and door stop
Multi Purpose Room	• Used as a Quiet Room • Furniture supplied by WFPS: 1x desk, 1x desk chair, 2x comfort chairs or a couch • operable egress awning window • blackout blind • door sweeps and door stop • provide power and network provision for a computer (COW network to be run from IT Room). Computer to be supplied by WFPS
Dormitories	• XL twin bed frame & mattress (supplied by WFPS) • Small desk to fit the space, 15A duplex receptacle above desk for user use • Desk chair & reading lamp (provide 15A duplex receptacle under desk to power the lamp) (chair and lamp supplied by WFPS) • operable egress awning window

	• blackout blind • door sweeps and door stop
Dorm Lockers	• Require 61x dormitory lockers in total at this facility (48x1.27) (18" x 18" x 72") ○ 6 in Captain's Quarters ○ 6 in Lieutenant's Quarters ○ Remaining lockers could be located in Dorm Locker Room, Dorm Corridor, etc.
Laundry/Storage	• Stacked washer/dryer • Rodent screen at exterior dryer vent • 24"D 5x shelf unit • SS utility sink next to washer, c/w faucet
WC	• 2-3x WC required at dormitories • 1x WC at gym • Sink w/ single lever faucet, manual operation • Mirror over sink • Wall mounted SS shelf between mirror and sink to hold shaving items • GFCI receptacle • Elongated toilet c/w soft-close seat, touchless sensor flush • Wall-mounted soap dispenser (non-powered) • Wall-mounted paper towel dispenser • Sanitary disposal box • Toilet paper holder • 2 wall hooks
Shower	• 2-3x showers required at dormitories • 1x shower at gym • Mirror, wall mounted SS shelf below mirror • Fold-down seat • 4 towel hooks
Universal Toilet Room	• MUST COMPLY WITH CITY OF WINNIPEG ACCESSIBLE DESIGN STANDARD • Sink w/ single lever faucet, manual operation • Mirror over sink • Elongated toilet c/w soft-close seat, touchless sensor flush • Grab bars and associated blocking • Wall-mounted soap dispenser (non-powered) • Wall-mounted paper towel dispenser • Sanitary disposal box • Full length mirror • Coat hook • Visual alarm call button (light only, no sound) • Push to lock • Bar-type door operators • Baby change table with associated blocking
Apparatus Bays	• 2x 600 cfm/min Plymovent systems (engine bays) • 1x AirMation air scrubber unit (ambulance bay)

	• AirMation bay should have sufficient space to allow a future Plymovent system to be installed, if station operations needs change • 3x ceiling mounted cord reel (20A, 1 per bay) • Sealed epoxy concrete floors, coved at walls. Floors and floor coatings must be able to withstanding engine weight and twisting point loads. Platform ladder weighs 35,380 kg • 3x fast operating insulated Apparatus Bay doors, each with side-mounted motor, manual chain override on drivers side, and capable of being operated by remote fob access ○ Open-Close-Stop button control to be located next to doors ○ Locate main control panels away from Apparatus Bay (could go on Mezzanine) ○ COW is open to considering overhead and bifold door options, bifold door would require bollards • HVAC - COW wants the most efficient, functional heating system. May need a combination of system types (in-floor, forced air, radiant could all be considered). There is no air conditioning in this space • Water must be contained in this space, to prevent migration to other areas • Trench drain to service all 3 bays, complete with oil/sediment separation pits. Pits must be easily accessible and capable of being easily cleaned out by a vacuum truck • 2x 30A 240V receptacles for pressure washer • Paint vehicle guide strips in each bay • <u>Eyewash station</u> to be mounted on rear (east) wall (non-plumbed unit) • <u>Charging Station</u> located at south end of east wall (near the Kitchen), c/w 4x dedicated 15A 120V circuits • <u>Flammable Cabinet</u> located on east wall (supplied by WFPS) • Man doors opening into this area are subject to frequent use and require appropriate hardware and protection • Hooks to hang hose to wash vehicles • Hooks to hang squeegees, mops, brooms, etc. • Equipment in this area must be installed while respecting required minimum vehicle clearances: ○ Door swing – 36" ○ Door height – 9'-7" ○ Clear height in Bay – 8 feet above ladder, which is 12'-0"
Turnout Gear Room	• 42 lockers (18"d x 24"w x 72"h), no doors, locker construction/materials to facilitate good ventilation required • Lockers to have 4 hooks, floor and 1x shelf • Room to have good ventilation, controlled by humidistat and timer
Decon/Wash Area – potentially located at Hose Tower Main Floor	• HD gear washing machine (supplied by WFPS), provide 30A receptacle and conventional 15A receptacle • SS double utility sink • 24" x 48" workbench, 2 drawers, lockable HD casters
Hose Tower	• Need room to hang hoses for 2 engines • Cat walk and locking gate at top of stair will likely be required

– top floor hose drying area	• Approx 9 hose hanging pegs • Electric hoist on steel I-beam, hoist capacity estimated as 1,000 lbs, final design TBD • <u>Heavy duty dehumidification / exhaust system to dry the hoses, controlled by humidistat & timer</u> • <u>Area to have good ventilation</u> • If hoses could be hung on east wall, then Decon/Wash area could be located on the west wall of the main floor
Compressor Room	• Design parameters are critical ○ Minimum 3ft clearance all around the unit ○ Minimum 8ft clear head height around east, west and south sides • HVAC design is extremely critical ○ Refer to Jordair specifications and requirements ○ Conditioned make-up air needs to enter the unit lower down at north ○ Exhaust can be higher up in the ceiling ○ Air supply is piped into the unit • Compressor is 3Ph 600V 30A (refer to Stn 9), a disconnect is required in the room • Ctr to quote on supply/install compressor as a separate price • Room to have thermostat control • Provide space for a bottle rack • If additional space is needed, could shrink adjacent Exterior Access Storage Room
Exterior Access Storage Room	• Shift door to be at north side, 1000mm door • Room to be unheated • Possibly eliminate jog in the building footprint to gain an additional ~4ft ○ 2ft to Storage Room ○ 2ft to Compressor Room
Medical Supplies	• Space for 2x medical supply cabinets for dry goods, non-locking (cabinets supplied by WFPS) • 1 Knox Box, c/w wall blocking/structure to support the box, and a dedicated 15A 120V circuit and a network cable piped to the box (Knox Box supplied by WFPS)
Janitor	• OS lights • Floor mounted SS janitor sink/taps • Good ventilation / exhaust • 24"D 5x shelf unit • Hooks for squeegies, mops, brooms (high mounted, provision for water dripping off)
Bsmt Storage Room	• OS lights • 24"D 5x shelf units to fill all wall space
Training Room	• Dimmable lighting • Space to accommodate TV/projection on west wall, including all electrical/network cabling • Blackout blinds • Sink and cabinetry • Other furniture to be provided by WFPS

	• Provide all power and network for ceiling mounted projector (COW network from IT Room)
I.T. Room	• Card access entry • OS lights • Network Rack • UPS Batteries • Locution Panel • Public Address System • Shaw/Bell demarcation box (COW fibre optic service) • Bell VOIP box • Shaw fibre optic termination box (patch panel) • Card Access Panel • Adequate HVAC: adequate cooling and dehumidification, room thermostat, adequate ventilation • Static free flooring
I.T. Closet - located within Bsmt Storage Room	• Demarcation for entertainment network service (Shaw/Bell). Run conduit and cabling, to be “ready for activation” • OS lights (tied to Bsmt Storage)
Gym	• OS lights • 1000mm door • Minimum ceiling height 9’-0” • Water fountain • Minimum 4x dedicated 20A receptacles (treadmill, elliptical, etc.) • Provision/structure to hang a punching bag • TV: provide sufficient space, wall blocking, power, and network provision (entertainment network to be run from IT Closet). TV and mounting bracket to be supplied by WFPS
Open Area	• OS lights (tied to Gym?) • Concrete floor
Electrical Room	• OS lights • Card access entry • 1000mm door • Electrical and Mechanical could be one room
Mechanical Room	• OS lights • Card access entry • 1000mm door • Hot water tank
2 nd Floor Mechanical / Storage	• OS lights • Card access entry • 1000mm door
Flagpole	• Per Dwg A1.0

	• 9.1M flag pole on 500mm x 6.1M deep drilled cast-in-place concrete pile (35 MPA concrete with sulphate resistant cement reinforced with 6-20M bars full depth & 10M ties @ 900mm O.C (double tie at top)
Patio	• Will hold BBQ, picnic table • Needs lighting, electrical receptacle(s), PA speaker, card access door • Paving stones • BBQ to be in a covered area, but entire patio doesn't need to be covered • Area needs privacy
Garbage Enclosure	• WFPS prefers location option 1 shown on Dwg A1. (Location option 2 could be snow piling location?) • Garbage enclosure to be fenced, opening to be wide enough for garbage truck access
Parking	• 21x staff spaces, 4x guest spaces • Parking fence with block heater receptacles for staff parking • Need to reserve a grassed area (or other area) where snow can be pushed to in winter time • Need to be able to back generator into it's spot, need a mechanism to lock/secure generator & trailer • Reserved Generator location to be as close as possible to the building, any cabling run between generator and building should be made safe for pedestrians
Parking Lights	• Lights to be shielded
Pylon & Building Signage	• Signage to be in English & French • Pylon sign (similar to Stn 9) • Building signage (similar to Modular Stn 15); • <u>Fire Paramedic Service</u> (backlit, beside the door) • <u>Station 15</u> with new address (backlit, above the apparatus bay doors)
Exterior Finish	• All exterior finishes to be durable, long lasting, and cleanable • Exterior colour and finish will be confirmed at time of design and approved by COW
Landscaping Buffer	• @ north & west • @ east: to block off future public walkway (rear of Station). Fencing with bushes? • @ south: to block off future public walkway, provide privacy for the patio area, and to delineate WFPS "property line"
BUILDING SYSTEMS	
HVAC	• Refer to Mechanical/Electrical Basis of Design • Domestic & Administration shall have heating and air conditioning • Operations shall have heating only • Sleeping quarters/dorms shall have individual temperature controls and operable egress windows • Design should take into consideration that some users may have their windows open
Plumbing	• Refer to Mechanical Basis of Design (MECH B.O.D.) • <u>Corrections/amendments to MECH B.O.D.:</u>

	○ C.1(c): provide 2x bottle filling stations (Gym and in Corridor 107) ○ E.4(a): compressor may be supplied by provided in contractor contract, supplied by Owner, or future
Electrical	• Refer to Electrical Basis of Design (ELEC B.O.D.) • <u>Corrections/amendments to ELEC B.O.D.:</u> ○ M.1(d): refer to <u>Card Access</u> item in this document for updated number of card readers and associated equipment ○ P.1(e): Provide 4x dedicated 20A circuits, per <u>Gym</u> item in this document
Lighting systems	• Lighting solution should consider energy efficiency, and must be maintainable by owner without the engagement of external service providers
Card Access	• 4x exterior doors • 4x interior doors (IT Room, Bsmt Electrical, Bsmt Mechanical, 2nd Floor Mechanical)
PA System	• Speakers to be located in ALL rooms and the exterior patio, unless otherwise stated in writing by WFPS/COW
Windows	• All windows to be triple pane, low E, argon filled • Operable windows to be awning style with locks and interior screens • Egress windows to be awning style with locks and interior screens, security glass, large size (prefer 48x48)
FINISHES	
Exterior Finish	• All exterior finishes to be durable, long lasting, and cleanable • Exterior colour and finish will be confirmed at time of design and approved by COW
Interior Finish	• All interior finishes shall meet WFPS Station Standards • Any proposed alternative finishes must meet the performance and functional requirements of the finishes they intend to replace • All finishes shall be confirmed at time of design and approved by COW • Admin/Domestic ○ Interior Walls: moisture resistant wall board, very durable, easy to clean ○ Flooring: commercial grade non-slip porcelain tile (similar to Stn 1) porcelain base ○ Ceilings: suspended acoustic ceiling tile • Operations ○ Interior Wall Surface: waterproof, very durable, impact resistant, easy to clean ○ Flooring: waterproof, must be able to handle pooling water, non-slip, very durable, must be able to handle weight of the trucks and tire friction/point loading. Coved based with waterproof seams ○ Ceilings: exposed ceilings
Whiteboards / Tackboards	• <u>Entry Vestibule</u>: 4x4 tackboard for public notices, locate opposite the inner door • <u>Safety</u>: 4x4 tackboard in the corridor • <u>Occupational Health & Safety</u>: 2x3 tackboard • <u>Dept. Communication/Social</u>: 4x4 tackboard on Dining east wall • <u>Groceries</u>: 4x4 whiteboard on Dining east wall • <u>Captain's Office</u>: 4x4 tackboard and 4x4 whiteboard, locate on the north or east wall

	• <u>MPR</u>: 4x4 whiteboard • <u>Gym</u>: 4x6 whiteboard and 4x6 tackboard, location TBD • <u>Training Room</u>: 4x6 whiteboard, 4x6 tackboard, wall or screen for projection (could be a white board)
COMMISSIONING & CLOSEOUT	
Commissioning	• All devices and systems shall be tested, and Consultant/Commissioning Agent shall confirm that they function as designed and meet Contract requirements
Operations & Maintenance Manuals, As-Builts	• Draft to be provided to COW (allow 2 weeks for review) • Completed O&M Manuals to be provided prior to Occupancy (digital PDF and 2x full size hard copies) • <u>As-Builts</u>: digital PDF and CAD, and 2x full size hard copies
Training	• All training to be recorded, and video files provided to COW. Video recordings shall describe each device/system in sufficient detail so a viewer can understand what room they are in, orientation, and operation of the equipment • At Occupancy: 6 hours of training to be provided in conjunction with O&M manuals • At End of Warranty: 6 hours of re-training to be provided (if needed)