

EASTERN CORRIDOR SATELLITE GARAGE BASIS OF ESTIMATE MEMO (DRAFT)

CITY OF WINNIPEG

DRAFT MEMO

PROJECT NO.: 17M-0063-00 DATE: SEPTEMBER 26, 2019

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APPROVED ¹ BY <mark>(must be reviewed for techni</mark>	cal accuracy prior to approval)
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INTRODUCTION

As part of the Eastern Corridor Study undertaken by The City of Winnipeg a Maintenance and Storage Facility (MSF) for the transit vehicles was determined necessary. The MSF was developed as a staged facility with initial phase construction for 225 buses beginning in 2020 with additions planned of 125 and 150 rigid body and articulated busses in 2035 and 2050 respectively. Due to constructability concerns at the site initially selected for the facility, the design and cost estimate was developed without a predetermined geographic location. The absence of a physical site has had implications on the development of this estimate insofar as the estimate could only be developed within the project data available. In this case without adequate location information the estimate was advanced to a preliminary level for the Site Work, Buildings, and Equipment required only. For the current design deliverables, within the bounds of the project data available, the methodology used to develop a capital cost estimate for each phase of the Winnipeg Satellite Garage can be described as parametric modeling checked against data for composite representative gross building costs and is considered accurate within +60% and -30%. Costs for offsite work including natural gas and electric site services have been provided as allowances only, with no specific scope attached.

GENERAL METHODOLOGY

Conceptual site and overall building drawings and/or written descriptions have been provided and form the basis for the identification of the various infrastructure elements that were used to prepare the capital cost estimate. These infrastructure elements are organized into the categories of site work, buildings, and equipment and are detailed below. In addition to infrastructure elements, cost allowances for professional services and escalation have also been included to reflect an overall estimate for the facility program. There has been no allowance made in the estimate for the purchase or lease of real estate.

PARAMETRIC MODELLING PROCESS

Parametric modeling is a process where typical infrastructure elements are grouped into a variety of typical facilities. Typical facility costs are developed by combining construction activities that can be associated either with a typical cross-section or plan based on a conceptual scope of work that is common to a specific facility. The typical facility composite unit cost is developed by combining the costs for individual construction elements common to a given typical section or facility and creating a representative composite unit cost. The following describes the process used to develop scope, quantity and cost parameters for each cost component used in the estimate.

Table 1 - Space Needs Program Summary

			PHASE 1 225 BUSES	PHASE 2 125 BUSES	PHASE 3 150 BUSES	TOTAL 500 BUSES
			(SQ. METERS)	(SQ. METERS)	(SQ. METERS)	(SQ. METERS)
Building Are	eas					
	Shared/Common Space Operations, And Driver		1,710	653	0	2,363
	Maint. Vehicle Syst-Su Maint. Vehicle Syst-Sh Maint-Facility, Stores/F	ops,	2,671	1,310	0	3,981
Transit	Maintenance - Vehicles Systems - Shops	8	5,956	2,698	4,441	13,096
	Service - Vehicles		2,278	26	-10	2,295
	Agency Vehicle Parking Interior Spaces	25,353	13,885	12,238	51,476	
Total Buildir	ng Areas	37,970	18,573	16,670	73,214	
Exterior Are	as		'	'		
	Site Areas		901	9	345	1,255
Transit	Employee / Visitor Veh Parking - Exterior Space		10,089	3,257	5,560	18,907
Total All Ext	erior Areas		10,990	3,266	5,905	20,162
Subtotal All	Areas		48,961	21,840	48,961	48,961
	g Factor (setbacks, , stormwater, etc.)	75%	36,720	16,380	16,931	70,033
Total for All	Areas		85,682	38,220	16,931	70,033
Site Area	Unused Space		95,585	-21,840	-48,961	51,169
Grand Total	for All Areas		144,546	144,546	144,546	144,546
Acres			35.72	35.72	35.72	35.72

SITE WORK

The Site Work component of the attached estimates include costs for all anticipated work required to prepare the site for building construction and finishing of areas of the facility not typically considered building scopes. These scopes include: excavation & removal of contaminated soil and a limited amount of existing impermeable surfaces, clearing & grubbing allowance, rough grading, finish grading, footing excavation or cut as required, erosion control, storm water management, site finishing including aggregate base, asphalt concrete pavement, concrete pavement, signing and striping, parking lots, concrete curb and gutter, concrete sidewalk, and area lighting.

BUILDINGS

The Buildings component of the attached estimates include costs for all anticipated work required to construct the interior enclosed spaces of the facility as well as all typical 'base building' furnishings of the space. Building areas include: the substructure, structure, exterior enclosure, partitions, finishes, mechanical, and electrical. Allowances were included for general requirements, fees, and mobilization. The buildings were estimated for the following major use areas:

- Administrative and Operations Areas;
 - Finished, public office space construction.
 - Includes offices, wellness areas, employee use areas, and meeting space.
- Vehicle Maintenance Areas;
 - Industrial steel frame structure.
 - Includes spaces for in-ground and platform lifts; body repair, upholstery, and painting areas; lube/compressor rooms; and electronics shops.
- Parts Storage Areas;
 - Industrial steel frame structure Bare, lightly serviced warehouse construction.
 - Includes secure storage, shipping and receiving, consumables area, and canopy covered garage.
- Interior Bus Parking;
 - Industrial steel frame structure Unfinished, reinforced concrete and steel building.
 - Includes open parking spaces. Additional structure, mechanical, and electrical costs allowed for to permit future building outfitting and retrofitting for electrical and/or compressed natural gas bus fueling/storage
- Service Areas;
 - Industrial steel frame structure Unfinished, industrial serviced.
 - Includes washing and fueling spaces. Additional structure, mechanical, and electrical costs allowed for to permit future building outfitting and retrofitting for electrical and/or compressed natural gas bus fueling/storage.

EQUIPMENT

The equipment beyond standard finishes, furniture, and equipment for the space use required for the functional operation of the space for the following areas:

- Maintenance Shops Spaces;
 - In-ground lift repair bays, platform lift repair bay, light duty flat bay, portable equipment, electronics bay, electronics shop, common work area, tire bay, tire storage, minor body repair / prep bay, paint booth, paint mix, central dust collection, body shop, upholstery, shop, body shop storage, battery charging, light duty hoist, chassis wash, forklift / scissor lift / sweeper parking, lube /compressor room.
- Maintenance Stores and Parts;
 - Stores, secure storage / tool crib, shipping and receiving, consumables area, and canopy covered garage.
- Maintenance Facility Spaces;
 - Wood working shop, HVAC / industrial mech shop, electrical FM shop, and FM stores.
- Site Areas;
 - Liquid Fuel Tank Farm

For additional detail on assumed specialty equipment outfitting of the facility, see Appendix D.

SCOPE

The scope of work for the project estimate has been derived from review of the attached conceptual plans of the three phases of the facility development. Areas of scope not indicated on the plans have either been excluded from the estimate, or included as specific assumptions herein.

UNIT COST LIBRARY

Estimates were developed using area take offs, multiplied by an appropriate unit cost for the measured unit. Cost data was developed using several sources and is considered representative to those seen in the Winnipeg metro region for similar types of construction. All unit costs include contractor's direct construction cost plus all taxes, general conditions, mobilization, overhead and profit. Where costs were estimated in US currency and a conversion factor of \$1.33 Canadian dollars to \$1.00 US dollar was applied. The unit costs do not include allowances for such items as engineering, construction management, owner's administrative costs and allowances for contingencies. These costs were included as percentage add-ons to the cost estimate under separate sections.

ALLOWANCES

DESIGN ALLOWANCE

Design allowance is typically included in an estimate as an allowance for minor variability in scope between the time of estimate and construction that would not be significant enough to warrant re-estimation. This item accounts for potential design changes that could impact overall project cost including the selection of materials, finishes, fixtures, and specific equipment. A design allowance of 10% has been applied to each cost category.

CONSTRUCTION AND PRICING ALLOWANCE

A contingency for construction and pricing was included for the level of detail of estimate completed. Like the Design Allowance the construction and pricing contingency is meant to account for the differences in the final value from the calculated value due to potential project change resulting from unforeseen conditions/events during construction, economic conditions, trade pricing, and material costs. A Construction and Pricing allowance of 15% has been applied to each cost category.

PROFESSIONAL SERVICES ALLOWANCE

This cost category includes allowances for construction management, environmental clearance, design and specifications, design services during construction, design reviews by other, permitting and agency administration. These allowances are computed by applying a percentage to the total construction cost estimated for each cost category. The total percentage add-on for each of the various elements within this cost category is 30%.

ASSUMPTIONS

- The estimates for each phase reflect 2019 dollars.
- Escalation was determined based on the City of Winnipeg Rate table for Basis of Estimate (2019).

- Site work was developed based on the assumed work required for similarly sized facilities. As no site is known for this facility, risk exists in the costs estimated for sitework if site conditions vary significantly from the assumed topography, layout, size, or soil conditions.
- Buildings are assumed to be constructed to allow for future outfitting for compressed natural gas fueling and/or electrification of busses. No specific equipment has been included in the estimate to support electric bus charging or natural gas bus fueling, maintenance, or storage.
- This estimate is based upon the assumption that there will be an adequate level of competition.
- The estimate presents the total project value of the scope of work represented in the feasibility documents.
- That third parties will not interfere with the overall construction of the project.
- That no unusual work restriction or obligation will be imposed upon the contract that will prevent or impede the contractor in performing the work in the most efficient way.
- That the contractor will be required to have coverage for General Liability, Excess Liability and Builders Risk Insurance.
- That the contractor will not be restricted from access to work areas where work needs to be performed.
- Offsite utility servicing scope assumed with a budget of \$350k.

EXCLUSIONS

Due to the nature of the estimate without an established site a number of site dependent and highly variable items could not be estimated as part of the project; these include but are not limited to:

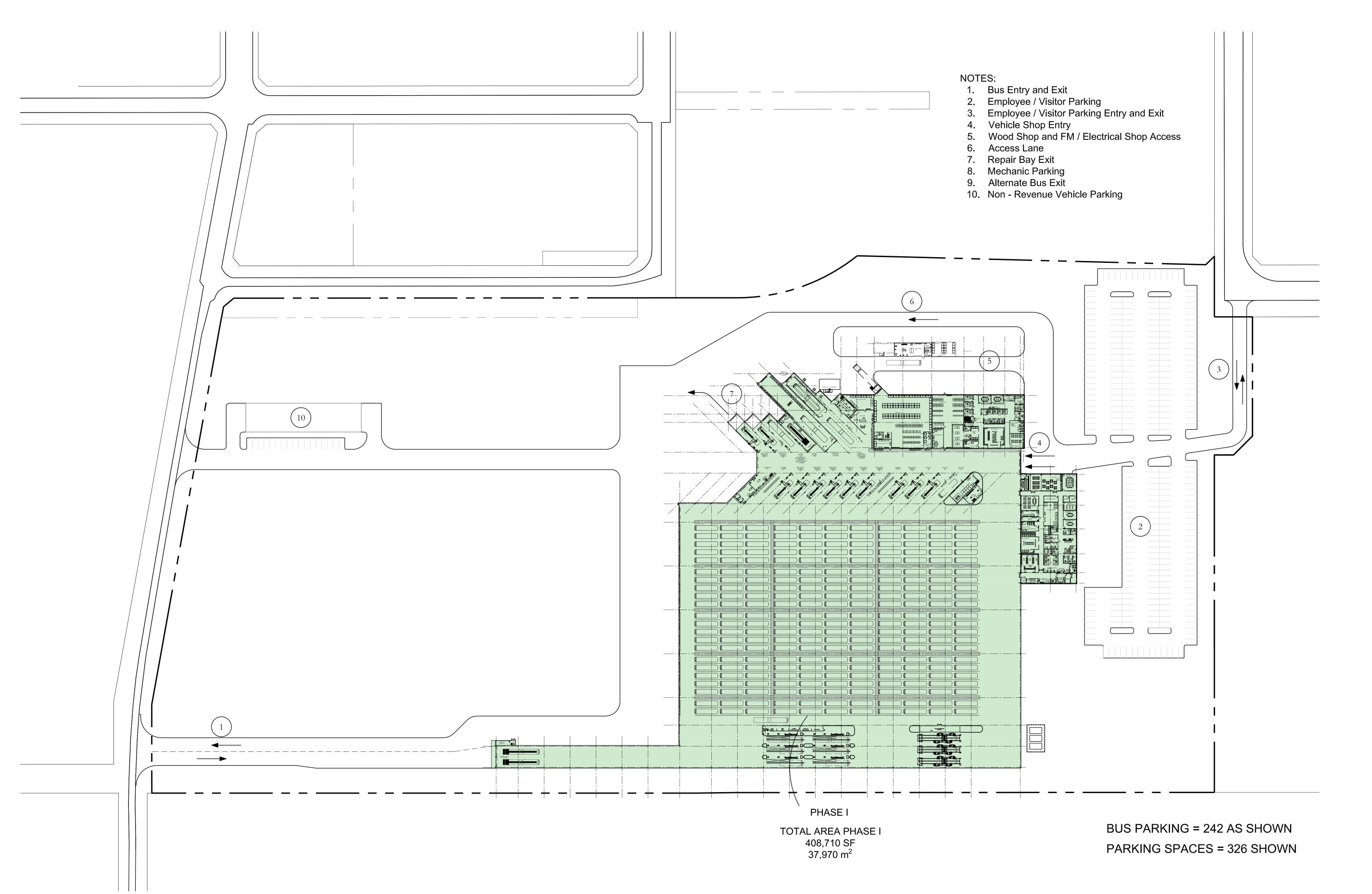
- Land Acquisition
- Existing building or site improvement demolition
- External road improvements
- Traffic management
- Site Access
- Other Costs (Sound Attenuation, Public Realm and Placemaking)
- Financing Costs
- Provincial and Federal taxes

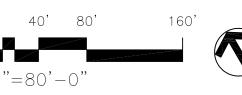
QUALIFICATION

This estimate represents an opinion of probable construction cost in 2019 dollars, based on our professional experience and qualifications. There are any number of factors which can influence a probable contractors actual bid, therefore we cannot guarantee that actual bids or final construction costs will not vary from this opinion of probable cost.

APPENDIX

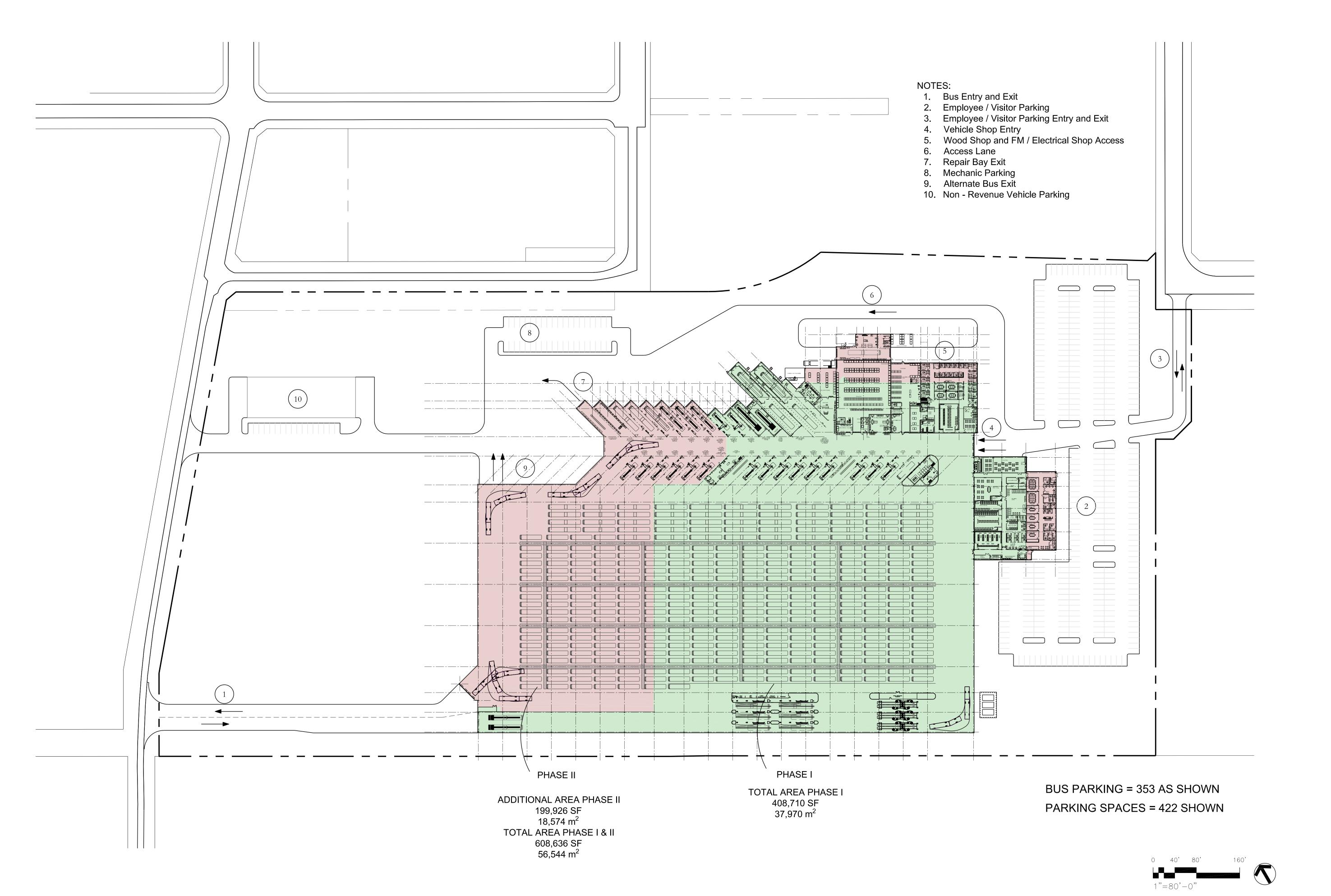
A SITE PLANS





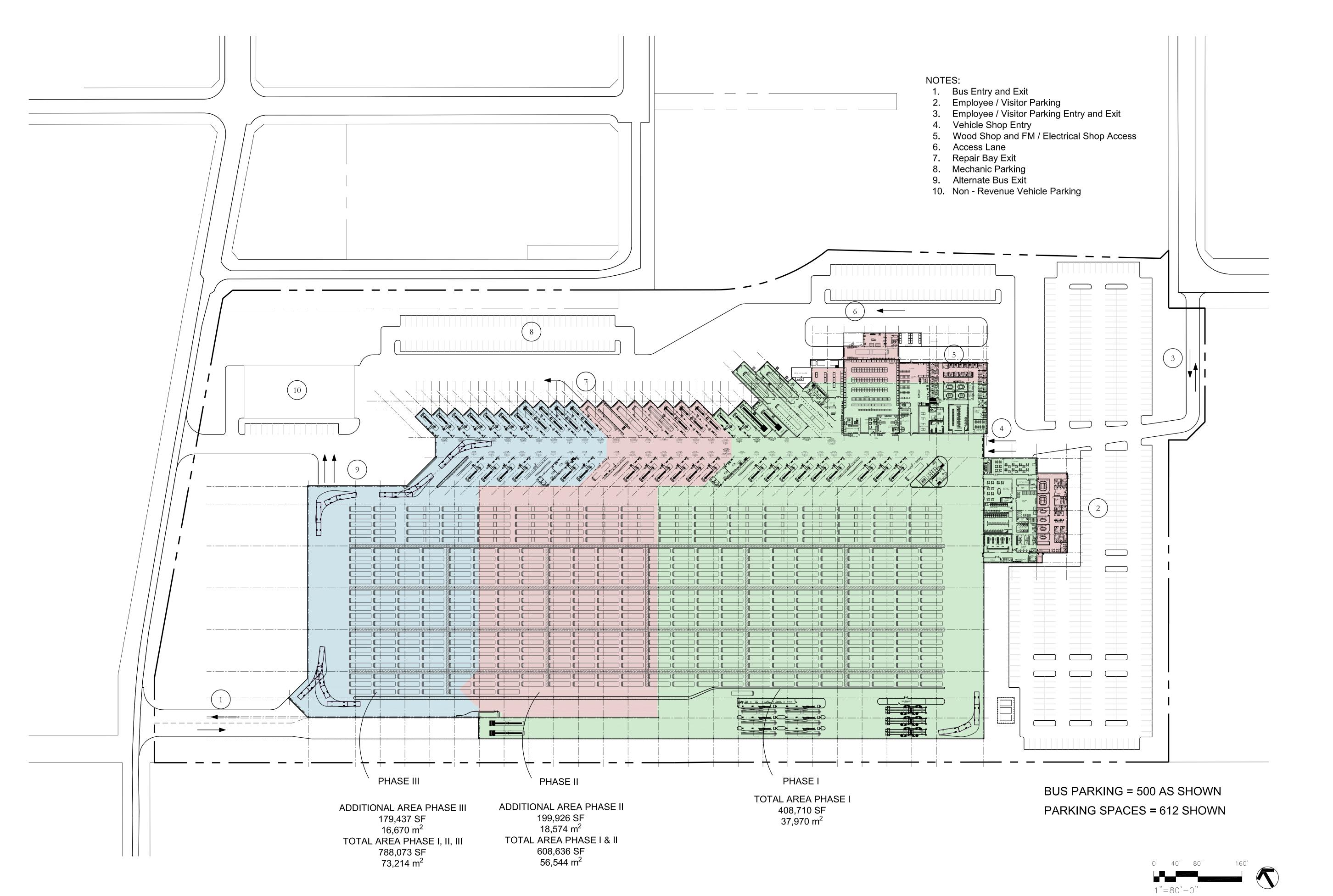
SITE PLANG TSG OVERALL S WINNIPEG PHASE 1

WSP USA Inc. 16200 PARK ROW SUITE 200 HOUSTON, TEXAS TEL: (281) 589-5900 FAX: (281) 759-516



WSP USA Inc. 16200 PARK ROV SUITE 200 HOUSTON, TEXA TEL: (281) 589-59 FAX: (281) 759-51

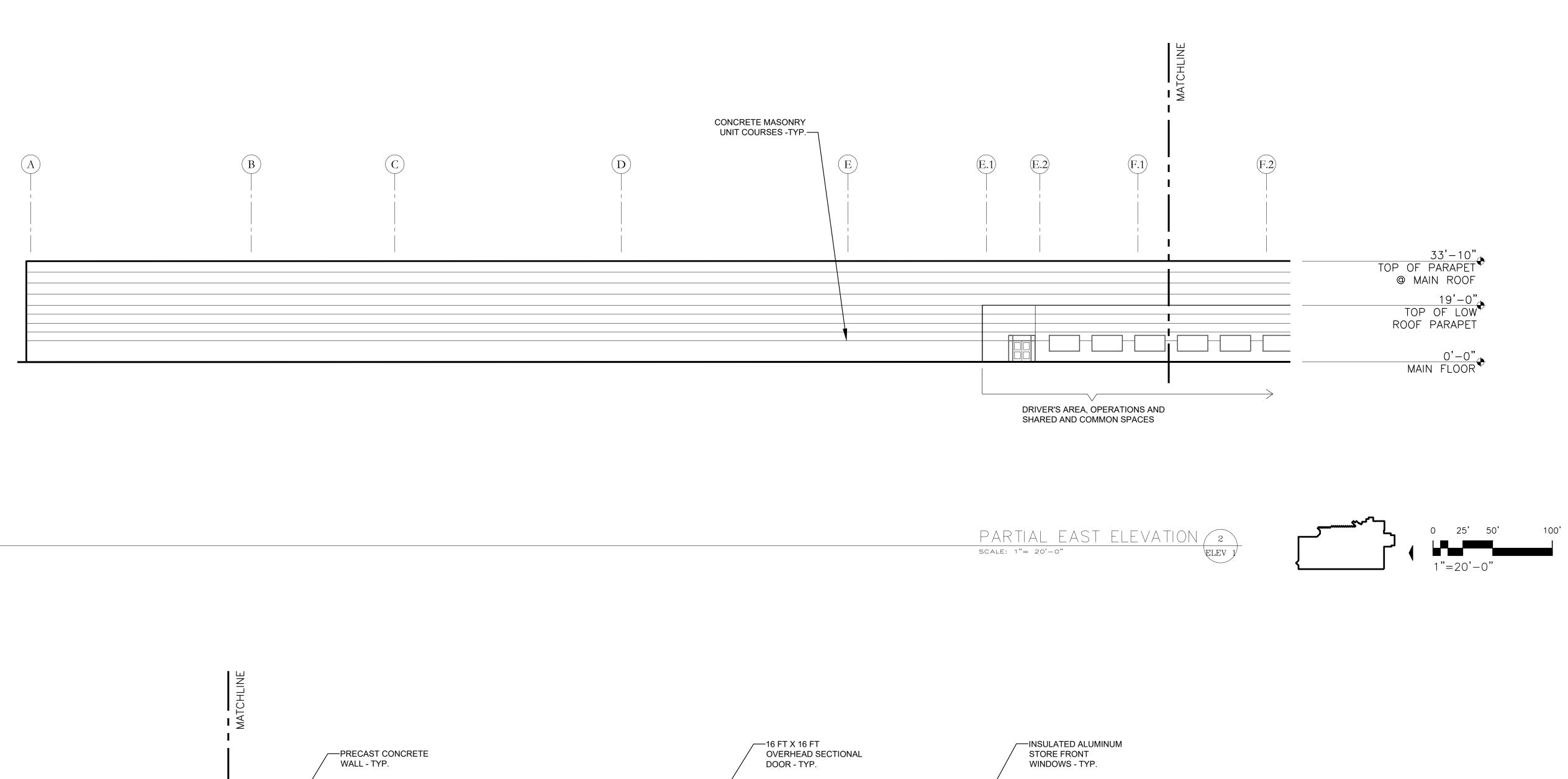
OVERALL S WINNIPEG PHASE 2

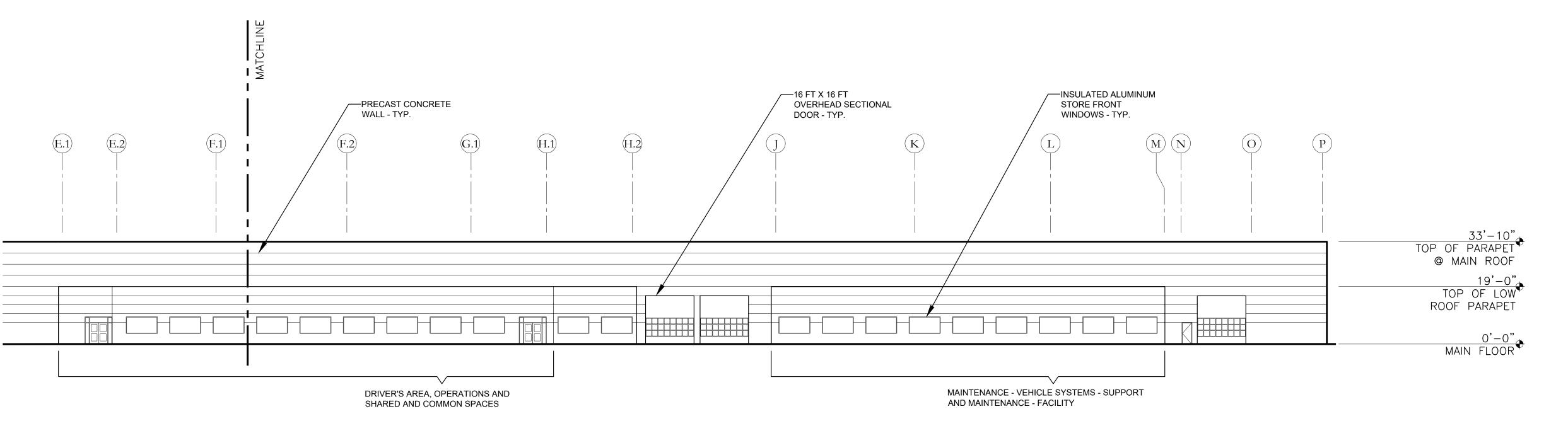


WSP USA Inc. 16200 PARK ROV SUITE 200 HOUSTON, TEXA TEL: (281) 589-55 FAX: (281) 759-5

OVERALL S WINNIPEG PHASE 3

BELEVATIONS





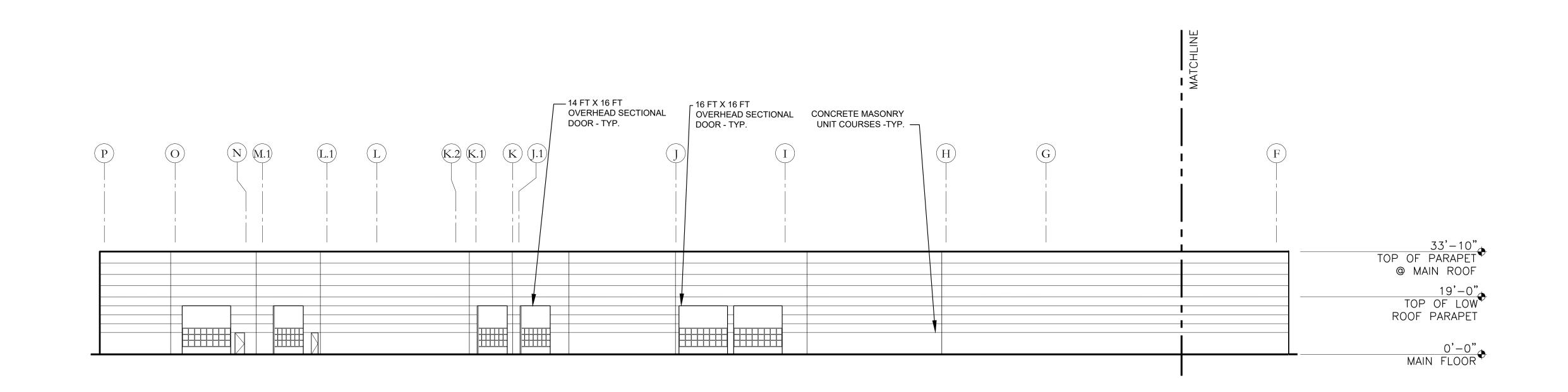




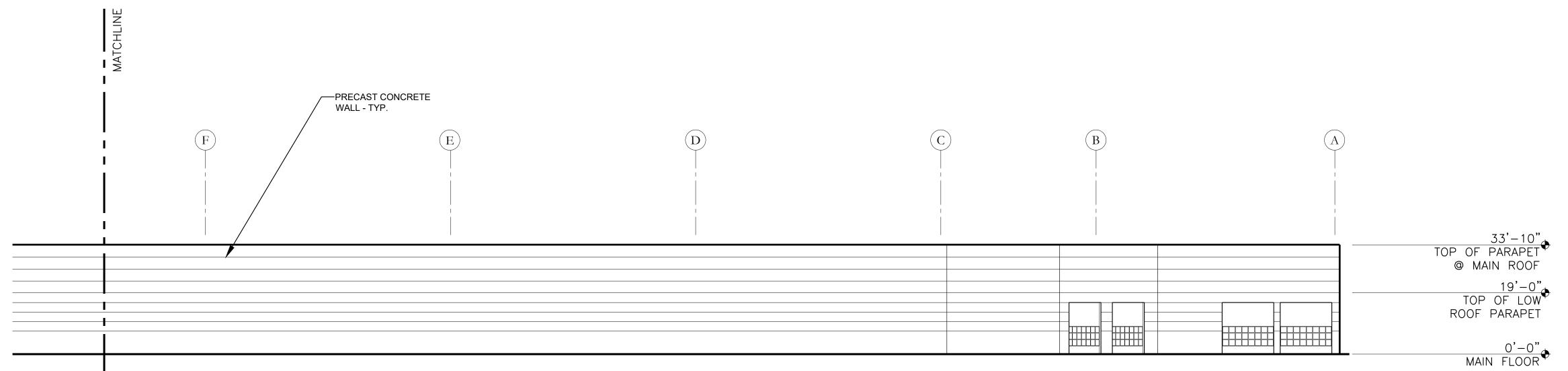
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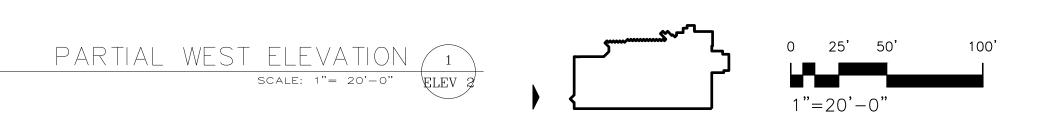
PARTIAL ELEVATION
WINNIPEG TSG
EAST ELEVATION

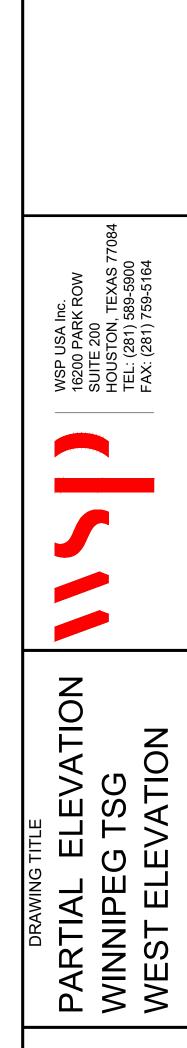
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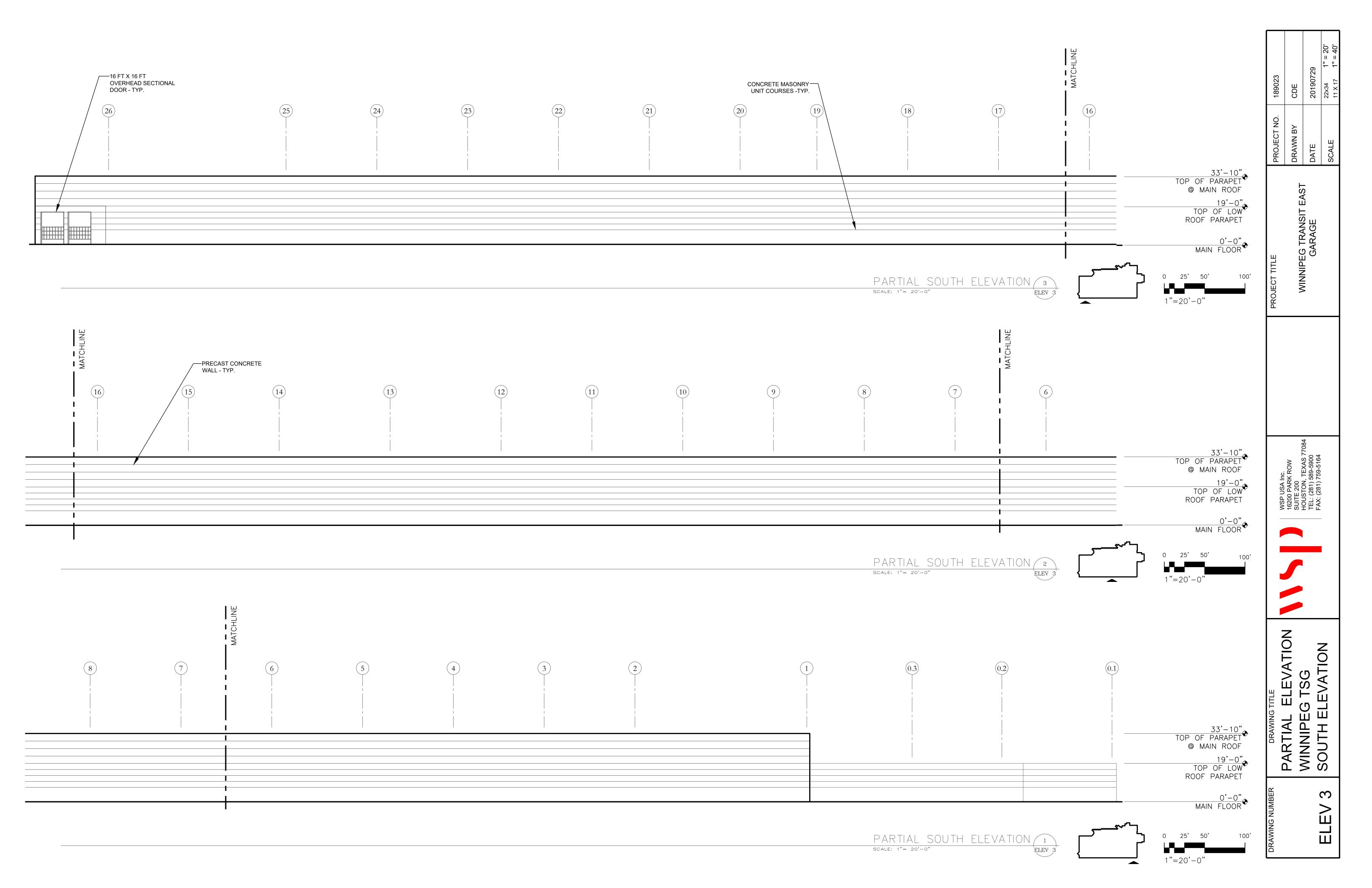


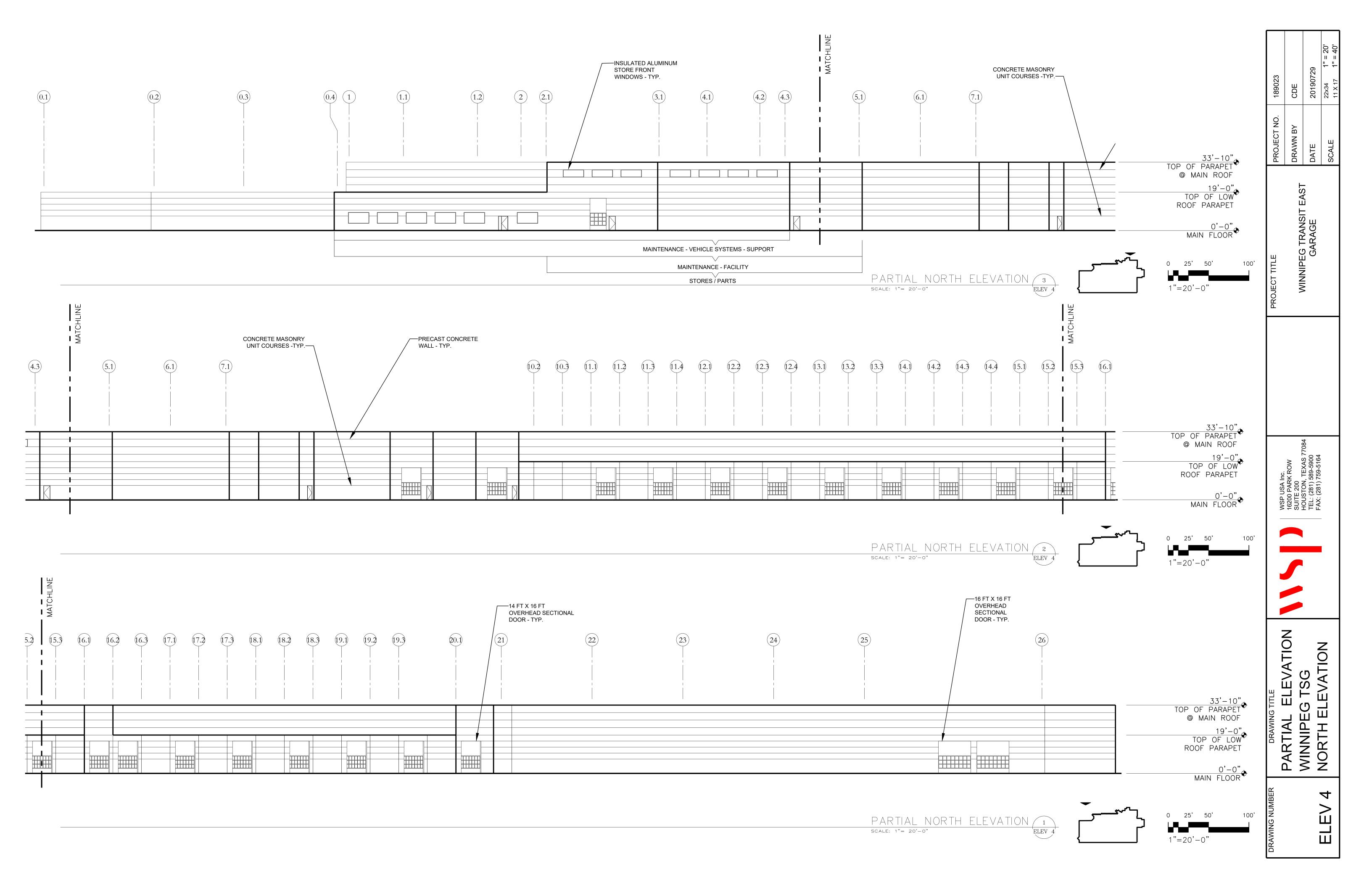


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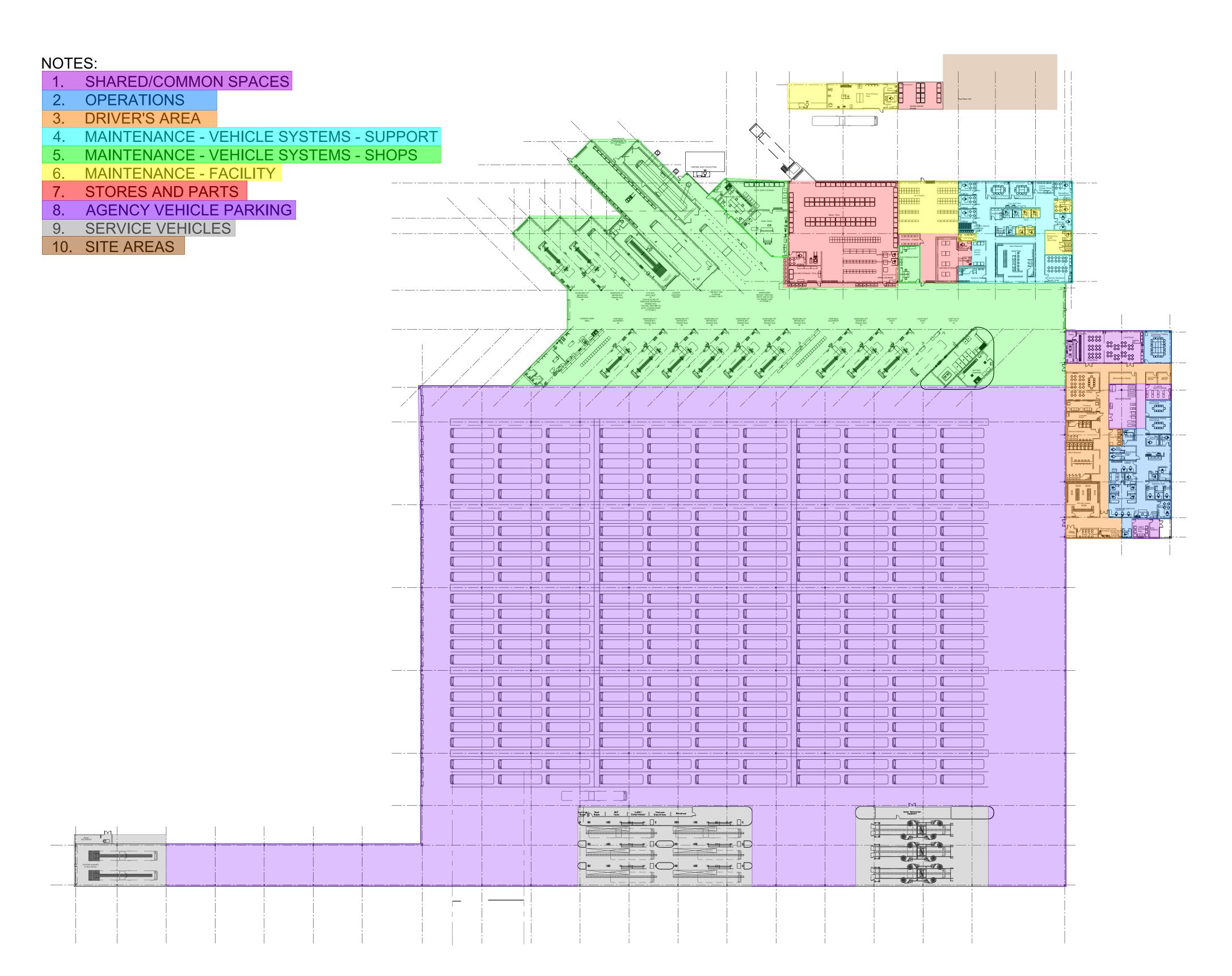
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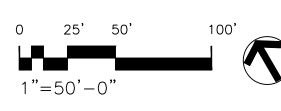
WINNIPEG TRANSIT EAST GARAGE





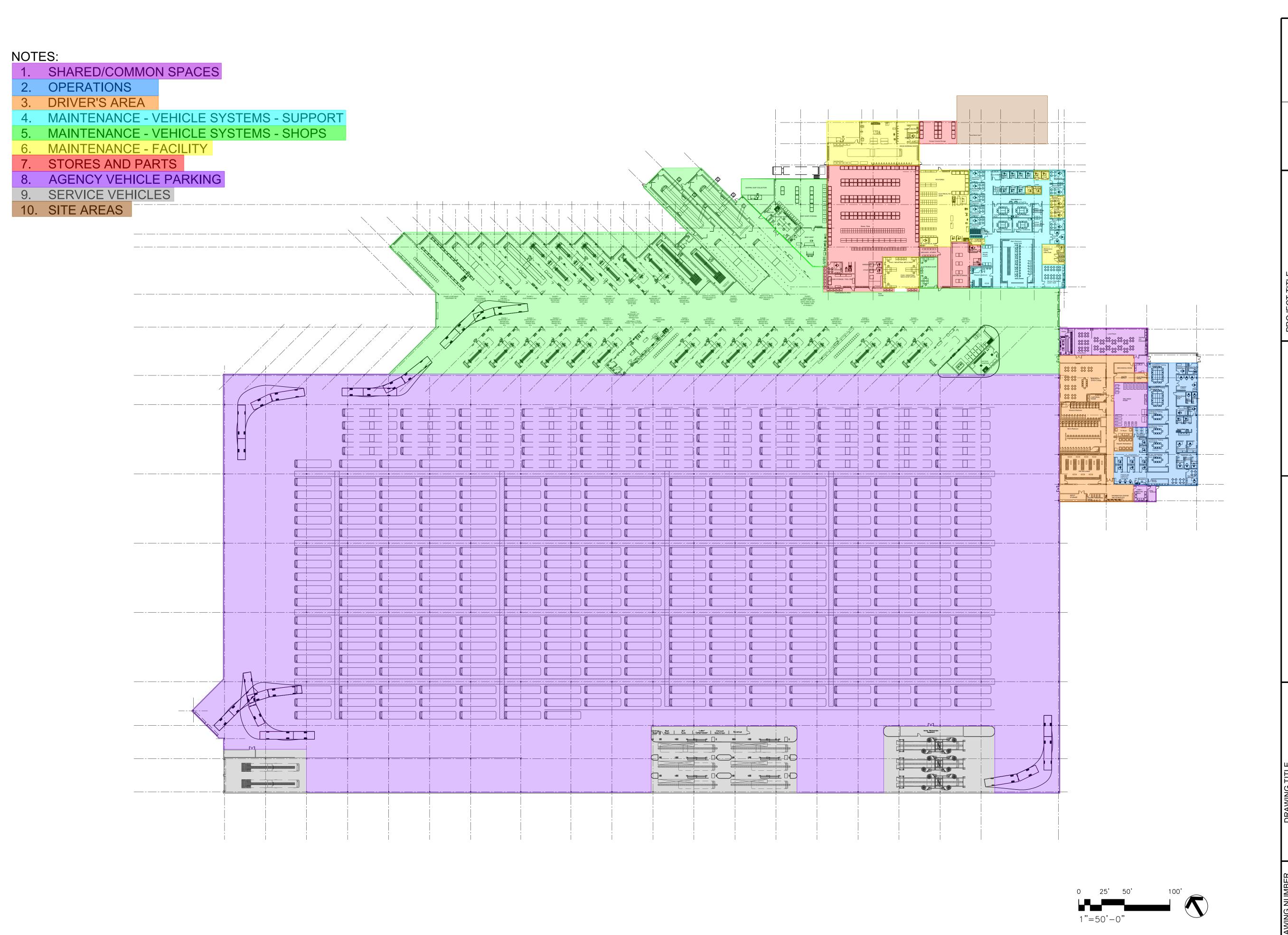
G FLOOR PLANS





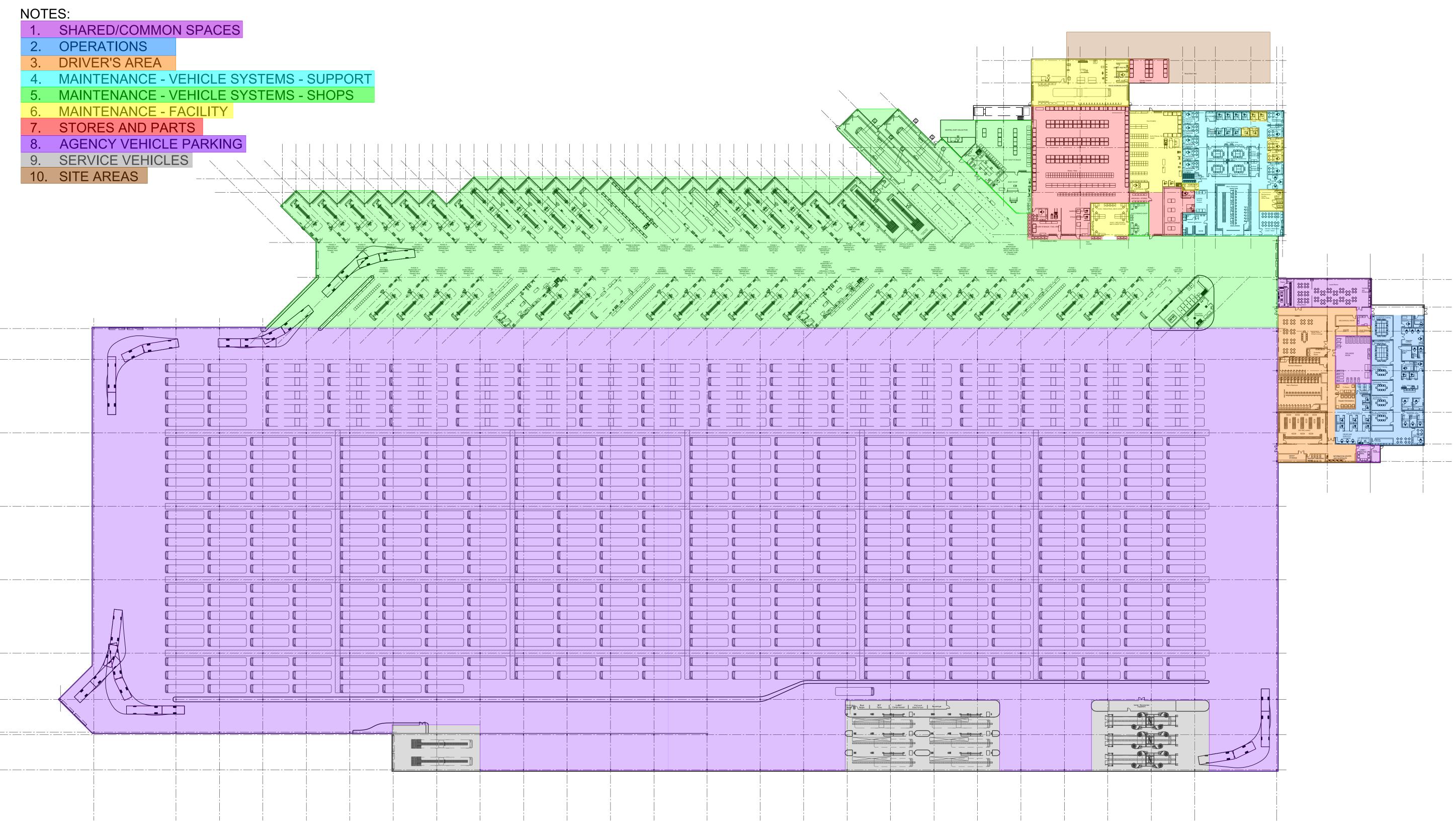
WSP USA Inc. 16200 PARK RC SUITE 200 HOUSTON, TEX TEL: (281) 589-4 FAX: (281) 759-4 OVERALL PLAN
WINNIPEG TSG
PHASE 1

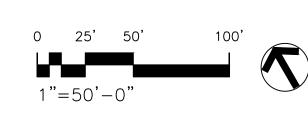
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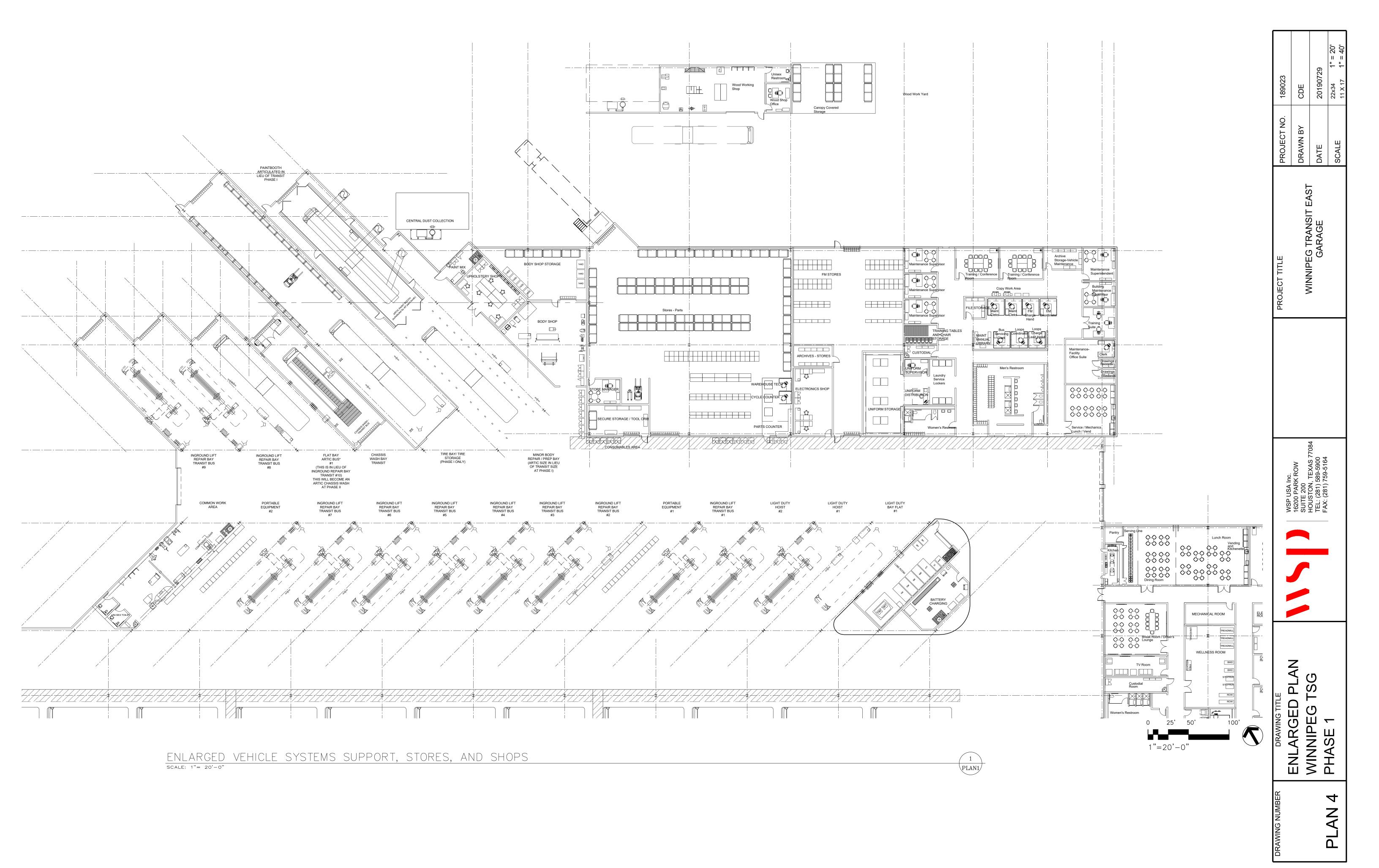
OVERALL PLAN WINNIPEG TSG PHASE 2

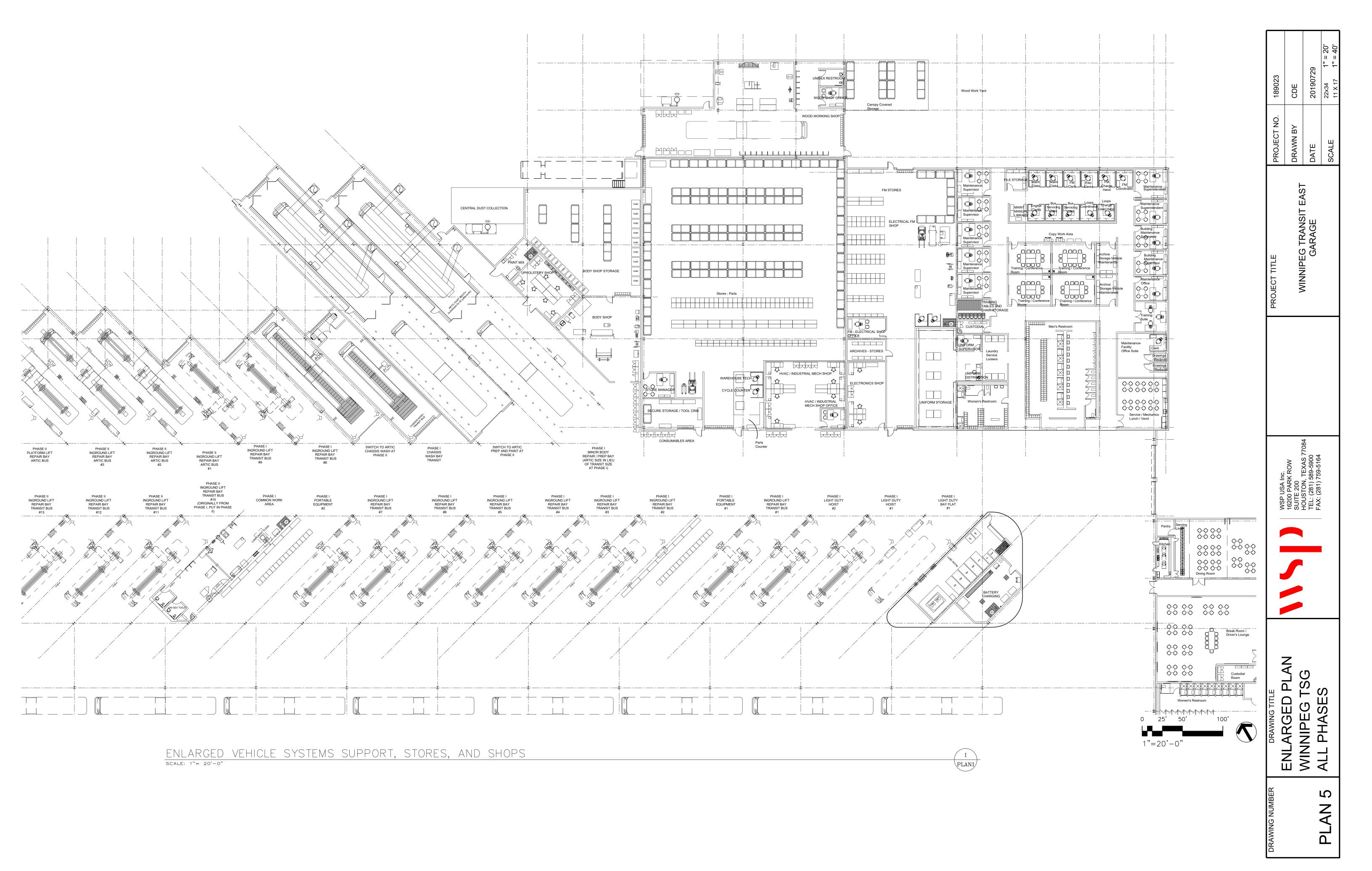
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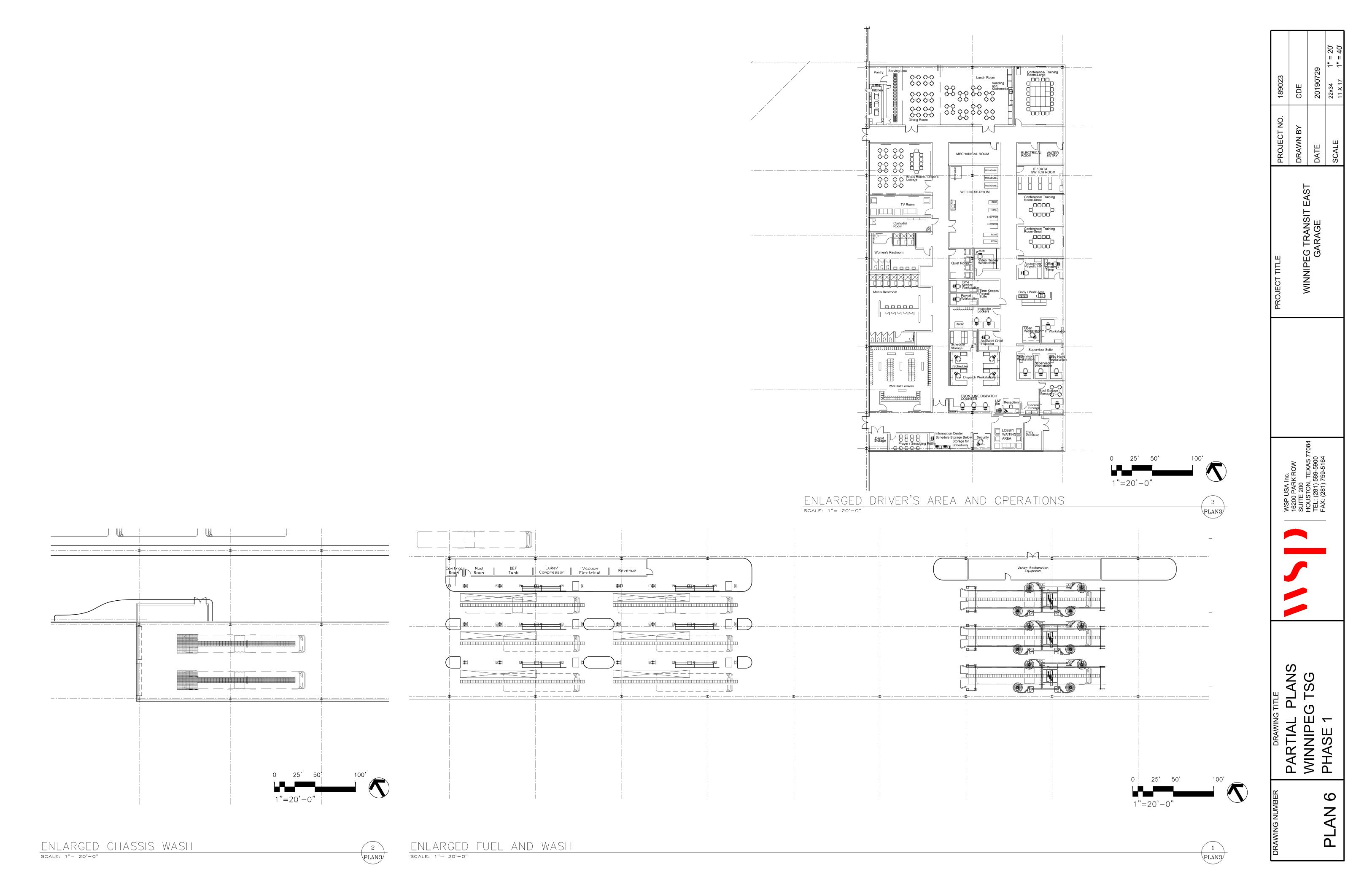


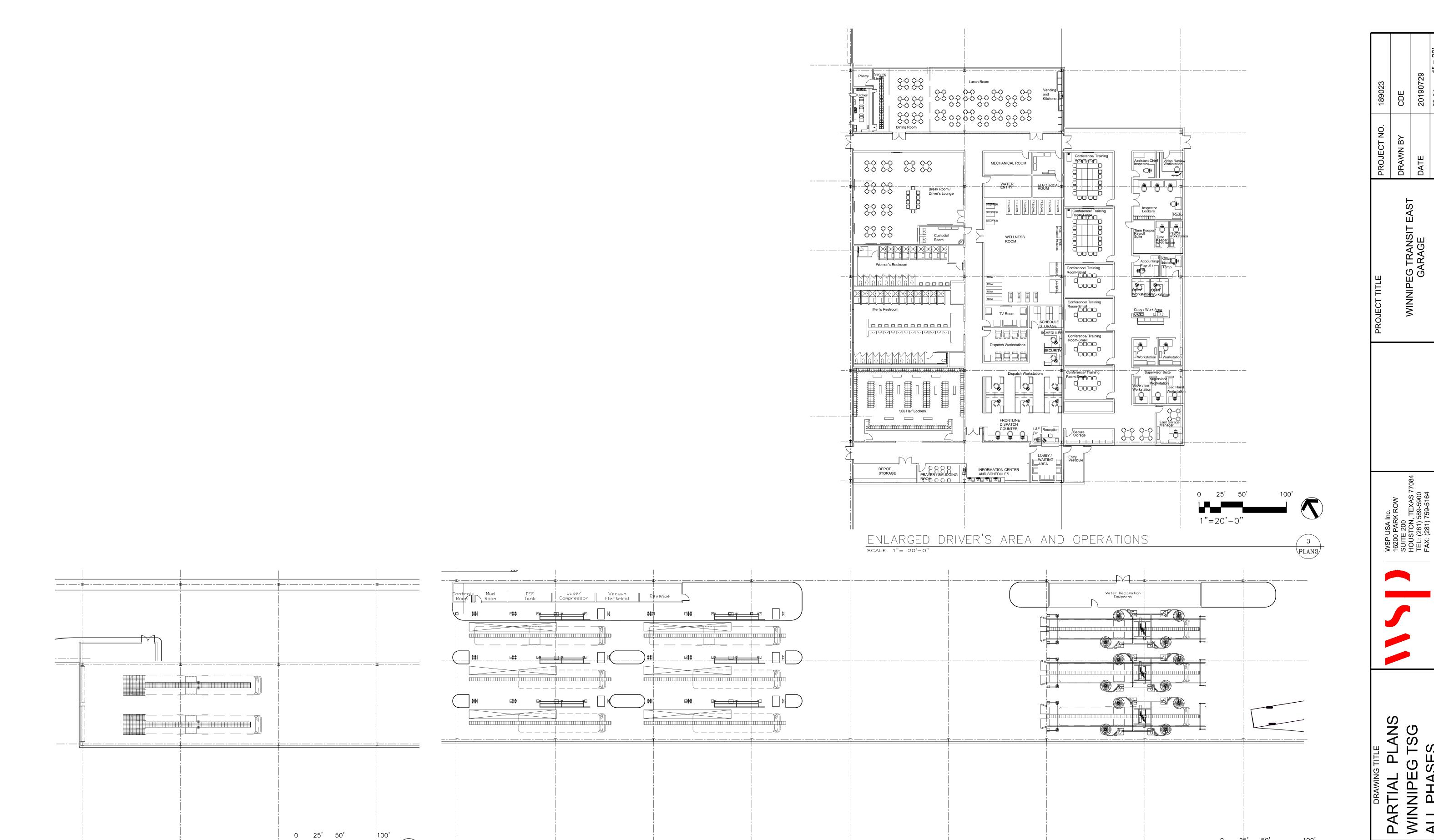


SC SC SC TE TE TE OVERALL PLAN
WINNIPEG TSG
ALL PHASES









ENLARGED FUEL AND WASH SCALE: 1"= 20'-0"

ENLARGED CHASSIS WASH

SCALE: 1"= 20'-0"

PLAN3

PLAN3

1"=20'-0"

D EQUIPMENT LIST

PHASE 1

Eastern Corridor Study

Aug-19

OF: Owner Furnished GCF: General Contractor Furnished OI: Owner Installed GCI: General Contractor Installed

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks

MAINTENANCE - SHOPS

In-Ground Lift Repair Bays (Articulated Bus- 0 Bays)

In-Grou	und Lift Repair Bays (Articulated Bus- 0 Bays)								
		Subtotal		\$ -					
In-Grou	ınd Lift Repair Bays (Transit Bus - 9 Bays)								
2835	Vise, combination, swivel base, 6"	2050	9	2050	10x16		CF-CI	TBD	Bench mounted
1860	Workbench, severe use	2700	9	2700	72x32		CF-CI	TBD	Fabricated
3304	Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	9	8200	60x30	*	CF-CI	TBD	800cfm at source; 1200F max; 7.5"wc (reel); Ducted to outside. Single drop fan included. Non-bus diesel use. 240 lbs.
8740	Reel bank (pick 4)	8140	9	8140		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8190	Drops, air/electric, trapeze	1600	18	3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
3560	Tank, parts cleaning, solvent, medium	3500	9	31,500	42x30		CF-CI	TBD	
		Subtotal		\$ 55,790					
Platfori	m Lift Repair Bay (Articulated Bus)								
283	35 Vise, combination, swivel base, 6"	2050	1	2050	10x16		CF-CI	TBD	Bench mounted
186	60 Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
330	04 Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	1	8200	60x30	*	CF-CI	TBD	800cfm at source; 1200F max; 7.5"wc (reel); Ducted to outside. Single drop fan included. Non-bus diesel use. 240 lbs.
872	20 Reel bank (pick 2)	4070	1	4070		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
874	40 Reel bank (pick 4)	8140	1	8140		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
819	90 Drops, air/electric, trapeze	1600	2	3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
35	60 Tank, parts cleaning, solvent, medium	3500	1	3,500	42x30		CF-CI	TBD	
		Subtotal		\$ 31,860					

PHASE 1

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext		Area (in)	S.I.	Meth	Spec	Remarks
Light Duty I	Bay Flat (Transit Bus)	•						-		
1860 W	Vorkbench, severe use	2700	1		2700	72x32		CF-CI	TBD	Fabricated
8190 D	rops, air/electric, trapeze	1600	2		3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
2832 V	ise, combination, swivel base, 5"	1240	1		1240	8x14		CF-CI	TBD	Bench mounted
8740 R	eel bank (pick 4)	8140	1		8140		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8720 R	eel bank (GO1, GO2)	2780	1		2780		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
3560 Ta	ank, parts cleaning, solvent, medium	3500	1		3500	42x30		CF-CI	TBD	
1130 C	abinet, 9 drawer, 59"	2170	1		2170	26x24		CF-CI	TBD	Casters available. Add \$120 for casters
3304 R	eel, vehicle exhaust, motor operated, w/ 6" hose	8200	1		8200	60x30	*	CF-CI	TBD	
		Subtotal		\$	31,930					
Portable Eq	uipment (2)									
1113 C	abinet, 9 drawer, 59"	3110	32	1	130620	30x28		CF-CI	TBD	Lockable. Credit \$530 if overhead cabient not used.
1456 R	ack, bulk storage, w/ deck	1400	18		14000	72x24		CF-CI	TBD	
		Subtotal		\$ 1	44,620					
Electronics	Вау									
		Subtotal		\$	-					
Electronics	Shop									
1456 R	ack, bulk storage, w/ deck	1400	1		1400	72x24		CF-CI	TBD	
1800 W	orkbench, electronics, anti-static top, 2 cabinet	4200	3		12600	72x30		CF-CI	TBD	
1802 W	orkbench, electronics, anti-static top, 6 ft.	1730	3		5190	72x30		CF-CI	TBD	
2832 V	ise, combination, swivel base, 5"	1240	3		3720	8x14		CF-CI	TBD	Bench mounted
1185 C	abinet, storage, shop, 18"	970	2		1940	36x18		CF-CI	TBD	
1752 C	hair, shop	680	3		2040	20D		CF-CI	TBD	Includes 5 hard floor casters
		Subtotal		\$	26,890					

PHASE 1

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Common	Work Area						-		
1420	Rack, arm, single face, 7' high	1380	2	2760	36x22		CF-CI	TBD	Add \$500 per add-on. Add \$420 per rack end.
1080	Bin unit, hose/line	2670	1	2670	36x36		CF-CI	TBD	Add \$2860 per add-on
1860	Workbench, severe use	2700	3	8100	72x32		CF-CI	TBD	Fabricated
6330	Crimper, hydraulic hose, bench mounted	9130	1	9130	8x22		CF-CI	TBD	
2708	Saw, cut-off, abrasive/mitering, 16"-18"	4800	1	4800	30x33		CF-CI	TBD	
1140	Cabinet, flammable materials, large	1600	1	1600	43x18		CF-CI	TBD	45 gallon capacity
3080	Cabinet, abrasive blast, medium, w/ dust collector	11100	1	11100	56x88, 30x38		CF-CI	TBD	50"x39"x43" interior working dimensions
2433	Milling machine, vertical	30000	1	30000	80x64		CF-CI	TBD	
2085	Buffer/grinder, 8", w/ pedestal	5240	1	5240	22x11		CF-CI	TBD	
2690	Saw, band, combination, vert./horiz.	4010	1	4010	54x26		CF-CI	TBD	Portable
5074	Crane, bridge, suspended, 1 ton	28160	1	28160		*	CF-CI	TBD	
2248	Dust collector, brake lathe, 2 point	31000	1	31000	22x49, 10x15, 36x24		CF-CI	TBD	Includes wall-mounted pre-separator; simultaneous 2 point operation. Hood assembly included
3785	Washer, parts, jet spray, small	17850	1	17850	42x53		CF-CI	TBD	500 lb load capacity, 25"D by 18"H working dimensions
9400	Handwash station, shop	1200	1	1200	36x24		CF-CI	TBD	
9820	Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	
3560	Tank, parts cleaning, solvent, medium	3500	1	3500	42x30		CF-CI	TBD	
2832	Vise, combination, swivel base, 5"	1240	2	2480	8x14		CF-CI	TBD	Bench mounted
1588	Rack, pick, 66 drawer	1320	1	1320	36x15		CF-CI	TBD	
2540	Press, manual/hydraulic, 25 ton	6280	1	6280	40.5x30x76		CF-CI	TBD	Single acting, spring return 54.5" vert clr, 29" horz clr
2564	Press, arbor, ratchet, 5 ton, ped. mtd.	4450	1	4450	18x29		CF-CI	TBD	
		Subtotal	į	\$ 178,515					

PHASE 1

Eastern Corridor Study

Aug-19

Mark Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Tire Bay					•			
1860 Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
2832 Vise, combination, swivel base, 5"	1240	1	1240	8x14		CF-CI	TBD	Bench mounted
8190 Drops, air/electric, trapeze	1600	2	3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
8710 Reel bank (WWS)	1600	2	3200		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
	Subtotal		\$ 10,340					
Tire Storage								
1640 Rack, tire, stackable	430	32	13760	60x26		CF-CI	TBD	4 tires per rack, based on B305/85R22.5 size or, 6 standard auto type tires
	Subtotal		\$ 13,760					
Minor Body Repair / Prep Bay (Articulated Bus (1))								
1860 Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
2832 Vise, combination, swivel base, 5"	1240	1	1240	8x14		CF-CI	TBD	Bench mounted
6050 Anchor, floor, cast-in	250	30	7500	9x6	*	CF-CI	TBD	Installed during floor construction. Add \$210 for floor anchor turret #532.
8190 Drops, air/electric, trapeze	1600	2	3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
	Subtotal		\$ 14,640					
Paint Booth articulated bus (1)								
5555 Lift, man, pneumatic, paint booth	32330	1	32330	48x36		CF-CI	TBD	60' min booth for a 45' bus. Price for one unit only. Wash Bay options available. Confirm accessories with paint booth type.
6111 Booth, paint, vehicle, down-draft, artic	377000	1	377000	21'x81'	*	CF-CI	TBD	+\$79,000 heated AMU + ducts +82,000 two pneum manlifts +4,000 two fall prot +5,000 two breathable air units. Roof supports for AMU; Slab leavouts Does not include installation
6232 Filtration system, breathing air, grade D, four respirator capacity	3000	1	3000	18x6		CF-CI	TBD	4 hood type respirators, max Filters compressed air to Grade D breathable air
	Subtotal		\$ 412,330					

PHASE 1

Eastern Corridor Study

Aug-19

OF: Owner Furnished GCF: General Contractor Furnished OI: Owner Installed GCI: General Contractor Installed

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
	·	11106	u(y	LAL	Alea (III)	J 0.1.	Metil	Opec	Nomano
Paint Mi	x								
186	0 Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
114	0 Cabinet, flammable materials, large	1600	1	1600	43x18		CF-CI	TBD	45 gallon capacity
940	0 Handwash station, shop	1200	1	1200	36x24		CF-CI	TBD	
982	0 Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
283	2 Vise, combination, swivel base, 5"	1240	1	1240	8x14		CF-CI	TBD	Bench mounted
118	5 Cabinet, storage, shop, 18"	970	1	970	36x18		CF-CI	TBD	
378	8 Washer, paint spray equipment, solvent type, automatic	3080	1	3080	18x14		CF-CI	TBD	Can be connected to solvent recycler for automatic transfer. Price does not include Recycler
667	0 Shaker, paint, industrial, air operated	4240	1	4240	19x33		CF-CI	TBD	
		Subtotal		\$ 17,895	•				
Central	Dust Collection								
224	Dust collection system, central, shop, woodworking	47300	1	47300	49x22, 28x25		CF-CI	TBD	Includes pre-separator w/ stand; 3 active station operation; Add \$58,000 for fire suppression & expl vent INSTALL OUTDOORS USE SMALLER INDIVIDUAL DUST COLLECTOR INSTEAD UNITS WHERE POSSIBLE

47,300

Subtotal

PHASE 1

Eastern Corridor Study

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Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Body Sho	pp						-		
1860	Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
1140	Cabinet, flammable materials, large	1600	1	1600	43x18		CF-CI	TBD	45 gallon capacity
2832	Vise, combination, swivel base, 5"	1240	1	1240	8x14		CF-CI	TBD	Bench mounted
1185	Cabinet, storage, shop, 18"	970	2	1940	36x18		CF-CI	TBD	
2930	Welder, stick, portable	4430	1	4430	19x28		CF-CI	TBD	Stick welding
2900	Welder, MIG, portable, w/ wire feed	4900	1	4900	19x39		CF-CI	TBD	MIG & Fux Cored welding with accessories; 460v / 575v optional
2920	Welder, oxyacetylene, portable, w/ cart	1500	1	1500	25x13		CF-CI	TBD	Gas welding
6255	Brake, hand, 8'	19650	1	19650	143x46		CF-CI	TBD	
6701	Shear, squaring, foot, 52"	17700	1	17700	91x78		CF-CI	TBD	
2925	Welder, plasma cutter, portable	3960	1	3960	13x21		CF-CI	TBD	Air Plasma Cutting & Gouging
2215	Drill press, variable speed, 20", metal shop	6370	1	6370	22x32		CF-CI	TBD	For metal drilling - up to 7/8" steel
2700	Saw, band, vertical, wood, 14"	1500	1	1500	27x19x66		CF-CI	TBD	4" dust collection port requiring 600 CFM Discontinuted, Find Replacement
2460	Oven, dry rod	1820	1	1820	23x30		CF-CI	TBD	Includes thermometer. Bench mounted only, requires table (#1860 or sim)
9355	Filter, mechanical, portable	12,800	1	12800	38x19		CF-CI	TBD	720 CFM of suction. Intended for Welding Fume/Smoke and Grinding operations.
2260	Grinder, 12" disc/6" belt	2150	1	2150	38x21x54		CF-CI	TBD	4" dust collection port requiring 400 cfm
2540	Press, manual/hydraulic, 25 ton	6280	1	6280	40.5x30x76		CF-CI	TBD	Single acting, spring return 54.5" vert clr, 29" horz clr
3560	Tank, parts cleaning, solvent, medium	3500	1	3500	42x30		CF-CI	TBD	
2460	Oven, dry rod	1820	1	1820	23x30		CF-CI	TBD	Includes thermometer. Bench mounted only, requires table (#1860 or sim)
2085	Buffer/grinder, 8", w/ pedestal	5240	1	5240	22x11		CF-CI	TBD	
		Subtotal	•	\$ 101,100					

PHASE 1

Eastern Corridor Study

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Mark Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Upholstery Shop					•			•
1185 Cabinet, storage, shop, 18"	970	4	3880	36x18		CF-CI	TBD	
1764 Table, layout, steel top, 96"x36"	560	4	2240	96x36		CF-CI	TBD	Incld adj legs. Add \$140 for casters. 5000lb cap w/o casters, 1200/3000 cap with.
1752 Chair, shop	680	6	4080	20D		CF-CI	TBD	Includes 5 hard floor casters
9600 Machine, sewing, w/ power stand	4045	2	8090	48x20		CF-CI	TBD	Includes table, stand, and motor.
1610 Rack, upholstery	1080	4	4320	60x18		CF-CI	TBD	
1760 Table, layout, steel top, 60"x30"	650	2	1300	60x30		CF-CI	TBD	Incld adj legs. Add \$140 for casters. 5000lb cap w/o casters, 1200/3000 cap with.
	Subtotal		\$ 23,910					
Body Shop Storage								
1440 Rack, body panel, large	3200	3	9600	51x50		CF-CI	TBD	Fabricated
1450 Rack, body panel, small	2800	4	11200	48x38		CF-CI	TBD	Fabricated
1531 Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	4	8200	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
	Subtotal		\$ 29,000					
Battery Charging								
9280 De-ionizer, battery water	1000	1	1000	6x6		CF-CI	TBD	Wall mounted
5010 Cart, battery	1400	2	2800	48x30		CF-CI	TBD	
5015 Cart, battery lift	1180	2	2360	30x22		CF-CI	TBD	
5785 Pallet, containment, hazardous materials	600	1	600	53x53		CF-CI	TBD	
2130 Charger, battery, fixed	2760	1	2760	15x11		CF-CI	TBD	For up to 36 batteries, 4 bus bars included
9400 Handwash station, shop	1200	1	1200	36x24		CF-CI	TBD	
9820 Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
	Subtotal		\$ 13,585					

PHASE 1

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Light Duty H	oist (2)			-					
1860 W	orkbench, severe use	2700	2	5400	72x32		CF-CI	TBD	Fabricated
8190 Dr	ops, air/electric, trapeze	1600	2	3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
2832 Vi	se, combination, swivel base, 5"	1240	2	2480	8x14		CF-CI	TBD	Bench mounted
8740 Re	eel bank (pick 4)	8140	2	16280		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
3560 Ta	nk, parts cleaning, solvent, medium	3500	2	7000	42x30		CF-CI	TBD	
3304 Re	eel, vehicle exhaust, motor operated, w/ 6" hose	8200	2	16400	60x30	*	CF-CI	TBD	
		Subtotal		\$ 50,760					
Chassis Was	sh - Transit Bus								
8710 Re	eel bank (WWS)	1600	2	3200		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
5703 Lif	t, drive-on, parallelogram, 50,000 lb, 32 ft	161440	1	161440	40'x9'	*	CF-CI	TBD	Includes lights, alarm, 2 pair ramps. Add \$3,350 for flush mount. \$14,000 for 50T rolling jack, \$24,000 for wet environment
9820 Sh	nower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
3720 W	asher, pressure, hot water, NG	13410	2	26820	51x31		CF-CI	TBD	Add \$550 for swivel boom, \$400 for Hose Reel, \$270 per additional Hose/Gun
		Subtotal		\$ 194,325					
Chassis Was	sh - Articulated Bus (2)								
3720	Washer, pressure, hot water, NG	13410	1	13410	51x31		CF-CI	TBD	oom, \$400 for Hose Reel, \$270 per additional Hose/Gun
5703 Lif	t, drive-on, parallelogram, 50,000 lb, 32 ft	161440	1	161440	40'x9'	*	CF-CI	TBD	Includes lights, alarm, 2 pair ramps. Add \$3,350 for flush mount. \$14,000 for 50T rolling jack, \$24,000 for wet environment
9820 Sh	nower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
3811 W	asher, vehicle, chassis	29270	2	58540	20'x50'	*	CF-CI	TBD	For use with mark #3800
3720 W	asher, pressure, hot water, NG	13410	1	13410	51x31		CF-CI	TBD	Add \$550 for swivel boom, \$400 for Hose Reel, \$270 per additional Hose/Gun
		Subtotal		\$ 249,665					

PHASE 1

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Forklift / Scissor Lift / Sweeper Pakring									
5350	Forklift, electric, sit-down, 4000 lb	33550	2	67100	42x120 21x22x27 (charger)		CF-CI	TBD	132" minimum aisle operating width
3359	Scrubber, floor, riding, electric	43500	1	43500	, ,		CF-CI	TBD	a) Scrubber dims b) Battery Charger dims
3365	Sweeper, floor, riding, electric	38000	1	38000	a) 64x82 b) 21x22		CF-CI	TBD	a) Sweeper dimsb) Battery Charger dims
		Subtotal		\$ 148,600					
Lube / Co	empressor Room								
8525	Pump, air piston (ATF), 4.25", 10:1	4910	7	34370			CF-CI	TBD	Size to be confirmed by Mechanical. Add \$314 for wall mounted
5788	Pallet, containment, 2 totes (DEF)	1200	2	2400	99x51		GCF/GC	TBD	Single pallet for two 330 gallon IBC totes (one is a spare). Verify price.
8588	Pump, diaphragm, stainless steel (DEF)	2425	1	2425			CF-CI	TBD	Size to be confirmed by Mechanical. Wall mounted.
2232	Dryer, air, refrigerated, 200 CFM	6410	1	6410	28x30x58		CF-CI	TBD	Size to be confirmed by Mechanical Add \$525 for filters.
9820	Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
8534	Pump, air piston (CG), w/ hoist, 4.25", 50:1	7240	1	7240			CF-CI	TBD	Size to be confirmed by Mechanical
8940A	Tank, storage, cube, 280 gallon (EC, WWF)	3650	2	7300	34x58		CF-CI	TBD	Above ground double wall for lubricants Add \$225 for single wall interior divider Add \$450 for double wall interior divider
2168	Compressor, air, rec. mtd., 25 HP dplx	38500	1	38500	89x61		CF-CI	TBD	Size to be confirmed by Mechanical Includes vibration isolation pads
8945	Tank, storage, cube, 1000 gallon (ATF, GO1, GO2, EO1, EO2)	7610	5	38050	48x112		CF-CI	TBD	Above ground double wall for lubricants Add \$225 for single wall interior divider Add \$450 for double wall interior divider
		Subtotal		\$ 139,560					

PHASE 1

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
MAINTENANCE - STORES / PARTS									
Stores									
1113 (Cabinet, 9 drawer, 59"	3110	42	130620	30x28		CF-CI	TBD	Lockable. Credit \$530 if overhead cabient not used.
1531	Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	46	94300	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
1456 I	Rack, bulk storage, w/ deck	1400	10	14000	72x24		CF-CI	TBD	
1680 \$	Shelving unit, 18"	900	40	36000	36x18		CF-CI	TBD	Add \$575 per add on. Deduct \$6 for floor anchors: (2) pair left & right support feet
		Subtotal	•	\$ 274,920					
Secure Sto	orage / tool Crib								
1531 I	Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	1	2050	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
1456 I	Rack, bulk storage, w/ deck	1400	5	7000	72x24		CF-CI	TBD	
		Subtotal		\$ 9,050					
Shipping a	and Receiving								
1764 ⁻	Table, layout, steel top, 96"x36"	560	2	1120	96x36		CF-CI	TBD	Incld adj legs. Add \$140 for casters. 5000lb cap w/o casters, 1200/3000 cap with.
		Subtotal	•	\$ 1,120					
Consumat	oles Area								
1185 (Cabinet, storage, shop, 18"	970	18	17460	36x18		CF-CI	TBD	
		Subtotal		\$ 17,460					
Canopy Co	overed storage								
1531 I	Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	8	16400	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
		Subtotal	•	\$ 16,400					

PHASE 1

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I. Meth	Spec	Remarks
MAINTENANCE - FACILITY								
Wood Working Shop								
2715	Saw, radial arm, 14"	6170	1	6170	44x47	CF-CI	TBD	
2725	Saw, table, tilting arbor, 14"	5600	1	5600	84X53	CF-CI	TBD	
1420	Rack, arm, single face, 7' high	1380	4	5520	36x22	CF-CI	TBD	Add \$500 per add-on. Add \$420 per rack end.
2705	Saw, band, vertical, 20"	9330	1	9330	42x29	CF-CI	TBD	For cutting both metal and wood
2713	Saw, miter, 10", w/ stand	1250	1	1250	59x26	CF-CI	TBD	
2482	Planer, 22"	8700	1	8700	42x49x59	CF-CI	TBD	5" dust collection port requiring 900 CFM
2240	Dust collection system, central, shop, woodworking	47300	1	47300	49x22, 28x25	CF-CI	TBD	Includes pre-separator w/ stand; 3 active station operation; Add \$58,000 for fire suppression & expl vent INSTALL OUTDOORS USE SMALLER INDIVIDUAL DUST COLLECTOR INSTEAD UNITS WHERE POSSIBLE
2205	Drill press, variable speed, 15"	2730	1	2730	14x20	CF-CI	TBD	For drilling wood or metal - up to 5/8" steel Add \$250 for 3 phase option.
2680	Sander, disc, ped. mtd.	600	1	600	28x20	CF-CI	TBD	2-1/4" dust collection port requiring 400 CFM
1764	Table, layout, steel top, 96"x36"	560	2	1120	96x36	CF-CI	TBD	Incld adj legs. Add \$140 for casters. 5000lb cap w/o casters, 1200/3000 cap with.
2714	Saw, panel, vertical	3100	1	3100	120x31	CF-CI	TBD	Add \$700 for dust collection vacuum when not connected to a central vacuum system
2718	Saw, Scroll							
		Subtotal		\$ 91,420				
HVAC / in	dustrial mech shop							
		Subtotal		\$ -				
Electrical - FM shop								
		Subtotal		\$ -				

PHASE 1

Eastern Corridor Study

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Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
FM Stores				-					-
1113	Cabinet, 9 drawer, 59"	3110	64	199040	30x28		CF-CI	TBD	Lockable. Credit \$530 if overhead cabient not used.
1680	Shelving unit, 18"	900	36	32400	36x18		CF-CI	TBD	Add \$575 per add on. Deduct \$6 for floor anchors: (2) pair left & right support feet
		Subtotal	1	\$ 231,440					
SITE AF	REAS								
Liquid Fu	el Tank Farm								
8934	Tank, vault, steel, fire rated, double wall, 12,000 gallons	66020	3	198060	440x95	*	CF-CI	TBD	Requires slab. Add \$4200 for tank mount pump/dispenser.
		Subtotal	ı	\$ 198,060					

PRELIMINARY EQUIPMENT LIST

City of Winnipeg Transit Satellite Garage

PHASE 2

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
MAINT	ENANCE - SHOPS								
									
In-Grour	nd Lift Repair Bays (Articulated Bus - 3 Bays)								
2835	Vise, combination, swivel base, 6"	2050	3	6150	10x16		CF-CI	TBD	Bench mounted
1860	Workbench, severe use	2700	3	8100	72x32		CF-CI	TBD	Fabricated
3560	Tank, parts cleaning, solvent, medium	3500	3	10,500	42x30		CF-CI	TBD	
3304	Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	3	24600	60x30	*	CF-CI	TBD	800cfm at source; 1200F max; 7.5"wc (reel);
8720	Reel bank (pick 2)	4070	6	24420		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8740	Reel bank (pick 4)	8140	3	24420		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8190	Drops, air/electric, trapeze	1600	6	9600	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
		Subtotal	•	\$ 107,790					
In-Grour	nd Lift Repair Bays (Transit Bus - 15 Bays)								
2835	Vise, combination, swivel base, 6"	2050	15	30750	10x16		CF-CI	TBD	Bench mounted
1860	Workbench, severe use	2700	15	40500	72x32		CF-CI	TBD	Fabricated
3304	Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	15	123000	60x30	*	CF-CI	TBD	800cfm at source; 1200F max; 7.5"wc (reel); Ducted to outside. Single drop fan included. Non-bus diesel use. 240 lbs.
8740	Reel bank (pick 4)	8140	15	122100		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8190	Drops, air/electric, trapeze	1600	30	48000	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
3560	Tank, parts cleaning, solvent, medium	3500 Subtotal	15	52500 \$ 416,850	42x30		CF-CI	TBD	
		Juniolai		Ψ 410,000					

PHASE 2

Eastern Corridor Study

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Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Platform	Lift Repair Bay (Articulated Bus)								•
2835	Vise, combination, swivel base, 6"	2050	1	2050	10x16		CF-CI	TBD	Bench mounted
1860	Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
3304	Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	1	8200	60x30	*	CF-CI	TBD	800cfm at source; 1200F max; 7.5"wc (reel); Ducted to outside. Single drop fan included. Non-bus diesel use. 240 lbs.
8720	Reel bank (pick 2)	4070	1	4070		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8740	Reel bank (pick 4)	8140	1	8140		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8190	Drops, air/electric, trapeze	1600	2	3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
3560	Tank, parts cleaning, solvent, medium	3500	1	3,500	42x30		CF-CI	TBD	
		Subtotal		\$ 31,860					
Light Dut	y Bay Flat (Transit Bus)								
1860	Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
8190	Drops, air/electric, trapeze	1600	2	3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
2832	Vise, combination, swivel base, 5"	1240	1	1240	8x14		CF-CI	TBD	Bench mounted
8740	Reel bank (pick 4)	8140	1	8140		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8720	Reel bank (GO1, GO2)	2780	1	2780		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
3560	Tank, parts cleaning, solvent, medium	3500	1	3500	42x30		CF-CI	TBD	
1130	Cabinet, 9 drawer, 59"	2170	1	2170	26x24		CF-CI	TBD	Casters available. Add \$120 for casters
3304	Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	1	8200	60x30	*	CF-CI	TBD	
		Subtotal	•	\$ 31,930					
Portable	Equipment (3)								
1113	Cabinet, 9 drawer, 59"	3110	48	130620	30x28		CF-CI	TBD	Lockable. Credit \$530 if overhead cabient not used.
1456	Rack, bulk storage, w/ deck	1400	27	14000	72x24		CF-CI	TBD	
		Subtotal		\$ 144,620					

PHASE 2

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Electronic	s Bay	•		•		•			•
3304 F	Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	1	8200	60x30	*	CF-CI	TBD	
1860 \	Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
8740 F	Reel bank (pick 4)	8140	1	8140		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
2832 \	Vise, combination, swivel base, 5"	1240	1	1240	8x14		CF-CI	TBD	Bench mounted
3560	Tank, parts cleaning, solvent, medium	3500	1	3500	42x30		CF-CI	TBD	
8190 [Drops, air/electric, trapeze	1600	2	3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
8720 F	Reel bank (GO1, GO2)	2780	2	5560		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
1130 (Cabinet, 9 drawer, 59"	2170	1	2170	26x24		CF-CI	TBD	Casters available. Add \$120 for casters
		Subtotal	-	\$ 34,710					
lectronic	s Shop								
1456 F	Rack, bulk storage, w/ deck	1400	1	1400	72x24		CF-CI	TBD	
1800 \	Workbench, electronics, anti-static top, 2 cabinet	4200	3	12600	72x30		CF-CI	TBD	
1802 \	Workbench, electronics, anti-static top, 6 ft.	1730	3	5190	72x30		CF-CI	TBD	
2832 \	Vise, combination, swivel base, 5"	1240	3	3720	8x14		CF-CI	TBD	Bench mounted
1185 (Cabinet, storage, shop, 18"	970	2	1940	36x18		CF-CI	TBD	
1752 (Chair, shop	680	3	2040	20D		CF-CI	TBD	Includes 5 hard floor casters
		Subtotal	•	\$ 26,890					

PHASE 2

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Common	n Work Area								•
1420) Rack, arm, single face, 7' high	1380	2	2760	36x22		CF-CI	TBD	Add \$500 per add-on. Add \$420 per rack end.
1080	Bin unit, hose/line	2670	1	2670	36x36		CF-CI	TBD	Add \$2860 per add-on
1860) Workbench, severe use	2700	3	8100	72x32		CF-CI	TBD	Fabricated
6330	Crimper, hydraulic hose, bench mounted	9130	1	9130	8x22		CF-CI	TBD	
2708	3 Saw, cut-off, abrasive/mitering, 16"-18"	4800	1	4800	30x33		CF-CI	TBD	
1140	Cabinet, flammable materials, large	1600	1	1600	43x18		CF-CI	TBD	45 gallon capacity
3080	Cabinet, abrasive blast, medium, w/ dust collector	11100	1	11100	56x88, 30x38		CF-CI	TBD	50"x39"x43" interior working dimensions
2433	3 Milling machine, vertical	30000	1	30000	80x64		CF-CI	TBD	
2085	5 Buffer/grinder, 8", w/ pedestal	5240	1	5240	22x11		CF-CI	TBD	
2690	Saw, band, combination, vert./horiz.	4010	1	4010	54x26		CF-CI	TBD	Portable
5074	Crane, bridge, suspended, 1 ton	28160	1	28160		*	CF-CI	TBD	
2248	B Dust collector, brake lathe, 2 point	31000	1	31000	22x49, 10x15, 36x24		CF-CI	TBD	Includes wall-mounted pre-separator; simultaneous 2 point operation. Hood assembly included
3785	5 Washer, parts, jet spray, small	17850	1	17850	42x53		CF-CI	TBD	500 lb load capacity, 25"D by 18"H working dimensions
9400) Handwash station, shop	1200	1	1200	36x24		CF-CI	TBD	
9820) Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	
3560	Tank, parts cleaning, solvent, medium	3500	1	3500	42x30		CF-CI	TBD	
2832	Vise, combination, swivel base, 5"	1240	2	2480	8x14		CF-CI	TBD	Bench mounted
1588	Rack, pick, 66 drawer	1320	1	1320	36x15		CF-CI	TBD	
2540	Press, manual/hydraulic, 25 ton	6280	1	6280	40.5x30x76		CF-CI	TBD	Single acting, spring return 54.5" vert clr, 29" horz clr
2564	Press, arbor, ratchet, 5 ton, ped. mtd.	4450	1	4450	18x29		CF-CI	TBD	
		Subtotal	-	\$ 178,515					

PHASE 2

Eastern Corridor Study

Aug-19

Mark Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Tire Bay	-		-		•			•
1860 Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
2832 Vise, combination, swivel base, 5"	1240	1	1240	8x14		CF-CI	TBD	Bench mounted
8190 Drops, air/electric, trapeze	1600	2	3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
8710 Reel bank (WWS)	1600	2	3200		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
	Subtotal		\$ 10,340					
Tire Storage								
1640 Rack, tire, stackable	430	26	11180	60x26		CF-CI	TBD	4 tires per rack, based on B305/85R22.5 size or, 6 standard auto type tires
	Subtotal		\$ 11,180					
Minor Body Repair / Prep Bay (Articulated Bus (2))								
1860 Workbench, severe use	2700	2	5400	72x32		CF-CI	TBD	Fabricated
2832 Vise, combination, swivel base, 5"	1240	2	2480	8x14		CF-CI	TBD	Bench mounted
6050 Anchor, floor, cast-in	250	60	15000	9x6	*	CF-CI	TBD	Installed during floor construction. Add \$210 for floor anchor turret #532.
8190 Drops, air/electric, trapeze	1600	4	6400	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
	Subtotal		\$ 29,280					

PHASE 2

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Paint Bo	oth articulated bus (2)						•		
5555	5 Lift, man, pneumatic, paint booth	32330	2	64660	48x36		CF-CI	TBD	60' min booth for a 45' bus. Price for one unit only. Wash Bay options available. Confirm accessories with paint booth type.
611	1 Booth, paint, vehicle, down-draft, artic	377000	2	754000	21'x81'	*	CF-CI	TBD	+\$79,000 heated AMU + ducts +82,000 two pneum manlifts +4,000 two fall prot +5,000 two breathable air units. Roof supports for AMU; Slab leavouts Does not include installation
6232	2 Filtration system, breathing air, grade D, four respirator capacity	3000	2	6000	18x6		CF-CI	TBD	4 hood type respirators, max Filters compressed air to Grade D breathable air
		Subtotal	'	\$ 824,660					
Paint Mi	x								
1860) Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
1140	Cabinet, flammable materials, large	1600	1	1600	43x18		CF-CI	TBD	45 gallon capacity
9400	Handwash station, shop	1200	1	1200	36x24		CF-CI	TBD	
9820	Common Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
2832	2 Vise, combination, swivel base, 5"	1240	1	1240	8x14		CF-CI	TBD	Bench mounted
1185	5 Cabinet, storage, shop, 18"	970	1	970	36x18		CF-CI	TBD	
3788	3 Washer, paint spray equipment, solvent type, automatic	3080	1	3080	18x14		CF-CI	TBD	Can be connected to solvent recycler for automatic transfer. Price does not include Recycler
6670) Shaker, paint, industrial, air operated	4240	1	4240	19x33		CF-CI	TBD	
		Subtotal		\$ 17,895					

PHASE 2

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Central D	ust Collection					-	-		
2240	Dust collection system, central, shop, woodworking	47300	1	47300	49x22, 28x25		CF-CI	TBD	Includes pre-separator w/ stand; 3 active station operation; Add \$58,000 for fire suppression & expl vent INSTALL OUTDOORS USE SMALLER INDIVIDUAL DUST COLLECTOR INSTEAD UNITS WHERE POSSIBLE
		Subtotal		\$ 47,300	•				
Body Sho	ор								
1860	Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
1140	Cabinet, flammable materials, large	1600	1	1600	43x18		CF-CI	TBD	45 gallon capacity
2832	Vise, combination, swivel base, 5"	1240	1	1240	8x14		CF-CI	TBD	Bench mounted
1185	Cabinet, storage, shop, 18"	970	2	1940	36x18		CF-CI	TBD	
2930	Welder, stick, portable	4430	1	4430	19x28		CF-CI	TBD	Stick welding
2900	Welder, MIG, portable, w/ wire feed	4900	1	4900	19x39		CF-CI	TBD	MIG & Fux Cored welding with accessories; 460v / 575v optional
2920	Welder, oxyacetylene, portable, w/ cart	1500	1	1500	25x13		CF-CI	TBD	Gas welding
6255	Brake, hand, 8'	19650	1	19650	143x46		CF-CI	TBD	
6701	Shear, squaring, foot, 52"	17700	1	17700	91x78		CF-CI	TBD	
2925	Welder, plasma cutter, portable	3960	1	3960	13x21		CF-CI	TBD	Air Plasma Cutting & Gouging
2215	Drill press, variable speed, 20", metal shop	6370	1	6370	22x32		CF-CI	TBD	For metal drilling - up to 7/8" steel
2700	Saw, band, vertical, wood, 14"	1500	1	1500	27x19x66		CF-CI	TBD	4" dust collection port requiring 600 CFM Discontinuted, Find Replacement
2460	Oven, dry rod	1820	1	1820	23x30		CF-CI	TBD	Includes thermometer. Bench mounted only, requires table (#1860 or sim)
9355	Filter, mechanical, portable	12,800	1	12800	38x19		CF-CI	TBD	720 CFM of suction. Intended for Welding Fume/Smoke and Grinding operations.
2260	Grinder, 12" disc/6" belt	2150	1	2150	38x21x54		CF-CI	TBD	4" dust collection port requiring 400 cfm
2540	Press, manual/hydraulic, 25 ton	6280	1	6280	40.5x30x76		CF-CI	TBD	Single acting, spring return 54.5" vert clr, 29" horz clr
3560	Tank, parts cleaning, solvent, medium	3500	1	3500	42x30		CF-CI	TBD	
2460	Oven, dry rod	1820	1	1820	23x30		CF-CI	TBD	Includes thermometer. Bench mounted only, requires table (#1860 or sim)
2085	Buffer/grinder, 8", w/ pedestal	5240	1	5240	22x11		CF-CI	TBD	
		Subtotal		\$ 101,100	•				

PHASE 2

Eastern Corridor Study

Aug-19

Mark Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Upholstery Shop					•			•
1185 Cabinet, storage, shop, 18"	970	4	3880	36x18		CF-CI	TBD	
1764 Table, layout, steel top, 96"x36"	560	4	2240	96x36		CF-CI	TBD	Incld adj legs. Add \$140 for casters. 5000lb cap w/o casters, 1200/3000 cap with.
1752 Chair, shop	680	6	4080	20D		CF-CI	TBD	Includes 5 hard floor casters
9600 Machine, sewing, w/ power stand	4045	2	8090	48x20		CF-CI	TBD	Includes table, stand, and motor.
1610 Rack, upholstery	1080	4	4320	60x18		CF-CI	TBD	
1760 Table, layout, steel top, 60"x30"	650	2	1300	60x30		CF-CI	TBD	Incld adj legs. Add \$140 for casters. 5000lb cap w/o casters, 1200/3000 cap with.
	Subtotal	•	\$ 23,910					
Body Shop Storage								
1440 Rack, body panel, large	3200	9	28800	51x50		CF-CI	TBD	Fabricated
1450 Rack, body panel, small	2800	8	22400	48x38		CF-CI	TBD	Fabricated
1531 Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	6	12300	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
	Subtotal		\$ 63,500					
Battery Charging								
9280 De-ionizer, battery water	1000	1	1000	6x6		CF-CI	TBD	Wall mounted
5010 Cart, battery	1400	2	2800	48x30		CF-CI	TBD	
5015 Cart, battery lift	1180	2	2360	30x22		CF-CI	TBD	
5785 Pallet, containment, hazardous materials	600	1	600	53x53		CF-CI	TBD	
2130 Charger, battery, fixed	2760	1	2760	15x11		CF-CI	TBD	For up to 36 batteries, 4 bus bars included
9400 Handwash station, shop	1200	1	1200	36x24		CF-CI	TBD	
9820 Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
	Subtotal	•	\$ 13,585					

PHASE 2

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Light Du	uty Hoist (2)					-			•
186	0 Workbench, severe use	2700	2	5400	72x32		CF-CI	TBD	Fabricated
819	0 Drops, air/electric, trapeze	1600	2	3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
283	2 Vise, combination, swivel base, 5"	1240	2	2480	8x14		CF-CI	TBD	Bench mounted
874	0 Reel bank (pick 4)	8140	2	16280		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
356	0 Tank, parts cleaning, solvent, medium	3500	2	7000	42x30		CF-CI	TBD	
330	4 Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	2	16400	60x30	*	CF-CI	TBD	
		Subtotal		\$ 50,760					
Chassis	Wash - Transit Bus								
871	0 Reel bank (WWS)	1600	2	3200		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
570	3 Lift, drive-on, parallelogram, 50,000 lb, 32 ft	161440	1	161440	40'x9'	*	CF-CI	TBD	Includes lights, alarm, 2 pair ramps. Add \$3,350 for flush mount. \$14,000 for 50T rolling jack, \$24,000 for wet environment
982	0 Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
372	0 Washer, pressure, hot water, NG	13410	2	26820	51x31		CF-CI	TBD	Add \$550 for swivel boom, \$400 for Hose Reel, \$270 per additional Hose/Gun
		Subtotal	,	\$ 194,325					
Chassis	Wash - Articulated Bus (3)								
871	0 Reel bank (WWS)	1600	1	1600		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
570	3 Lift, drive-on, parallelogram, 50,000 lb, 32 ft	161440	1	161440	40'x9'	*	CF-CI	TBD	Includes lights, alarm, 2 pair ramps. Add \$3,350 for flush mount. \$14,000 for 50T rolling jack, \$24,000 for wet environment
982	0 Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
381	1 Washer, vehicle, chassis	29270	2	58540	20'x50'	*	CF-CI	TBD	For use with mark #3800
372	0 Washer, pressure, hot water, NG	13410	1	13410	51x31		CF-CI	TBD	Add \$550 for swivel boom, \$400 for Hose Reel, \$270 per additional Hose/Gun
		Subtotal		\$ 237,855					

PHASE 2

Eastern Corridor Study

Aug-19

Mark Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Forklift / Scissor Lift / Sweeper Pakring						•		
5350 Forklift, electric, sit-down, 4000 lb	33550	2	67100	42x120 21x22x27 (charger)		CF-CI	TBD	132" minimum aisle operating width
3359 Scrubber, floor, riding, electric	43500	1	43500	a) 88x53 b) 26x24		CF-CI	TBD	a) Scrubber dims b) Battery Charger dims
3365 Sweeper, floor, riding, electric	38000	1	38000	a) 64x82 b) 21x22		CF-CI	TBD	a) Sweeper dims b) Battery Charger dims
	Subtotal	,	\$ 148,600					
Lube / Compressor Room								
8525 Pump, air piston (ATF), 4.25", 10:1	4910	7	34370			CF-CI	TBD	Size to be confirmed by Mechanical. Add \$314 for wall mounted
5788 Pallet, containment, 2 totes (DEF)	1200	2	2400	99x51	G	CF/GC	TBD	Single pallet for two 330 gallon IBC totes (one is a spare). Verify price.
8588 Pump, diaphragm, stainless steel (DEF)	2425	1	2425			CF-CI	TBD	Size to be confirmed by Mechanical. Wall mounted.
2232 Dryer, air, refrigerated, 200 CFM	6410	1	6410	28x30x58		CF-CI	TBD	Size to be confirmed by Mechanical Add \$525 for filters.
9820 Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
8534 Pump, air piston (CG), w/ hoist, 4.25", 50:1	7240	1	7240			CF-CI	TBD	Size to be confirmed by Mechanical
8940A Tank, storage, cube, 280 gallon (EC, WWF)	3650	2	7300	34x58		CF-CI	TBD	Above ground double wall for lubricants Add \$225 for single wall interior divider Add \$450 for double wall interior divider
2168 Compressor, air, rec. mtd., 25 HP dplx	38500	1	38500	89x61		CF-CI	TBD	Size to be confirmed by Mechanical Includes vibration isolation pads
8945 Tank, storage, cube, 1000 gallon (ATF, GO1, GO2, EO1, EO2)	7610	5	38050	48x112		CF-CI	TBD	Above ground double wall for lubricants Add \$225 for single wall interior divider Add \$450 for double wall interior divider
	Subtotal	1	\$ 139,560					

PRELIMINARY EQUIPMENT LIST

City of Winnipeg Transit Satellite Garage

PHASE 2

Eastern Corridor Study

Aug-19

Mark Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
MAINTENANCE - STORES / PARTS								
Stores								
1113 Cabinet, 9 drawer, 59"	3110	60	186600	30x28		CF-CI	TBD	Lockable. Credit \$530 if overhead cabient not used.
1531 Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	67	137350	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
1456 Rack, bulk storage, w/ deck	1400	24	33600	72x24		CF-CI	TBD	
1680 Shelving unit, 18"	900	40	36000	36x18		CF-CI	TBD	Add \$575 per add on. Deduct \$6 for floor anchors: (2) pair left & right support feet
	Subtotal	ι	\$ 393,550					
Secure Storage / tool Crib								
1531 Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	1	2050	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
1456 Rack, bulk storage, w/ deck	1400	5	7000	72x24		CF-CI	TBD	
	Subtotal	'	\$ 9,050					
Shipping and Receiving								
1764 Table, layout, steel top, 96"x36"	560	2	1120	96x36		CF-CI	TBD	Incld adj legs. Add \$140 for casters. 5000lb cap w/o casters, 1200/3000 cap with.
	Subtotal		\$ 1,120					
Consumables Area								
1185 Cabinet, storage, shop, 18"	970	18	17460	36x18		CF-CI	TBD	
	Subtotal	'	\$ 17,460					
Canopy Covered storage								
1531 Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	8	16400	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
	Subtotal	•	\$ 16,400					

PHASE 2

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I. Meth	Spec	Remarks
MAINTE	NANCE - FACILITY				. ,		•	
	rking Shop							
	Cabinet, storage, shop, 24"	1060	6	6360	36x24	CF-CI	TBD	
2715	Saw, radial arm, 14"	6170	1	6170	44x47	CF-CI	TBD	
2725	Saw, table, tilting arbor, 14"	5600	1	5600	84X53	CF-CI	TBD	
1683	Shelving unit, 24"	760	4	3040	36x24	CF-CI	TBD	Add \$700 per add on. Deduct \$6 for floor anchors: (2) pair left & right support feet
1420	Rack, arm, single face, 7' high	1380	22	30360	36x22	CF-CI	TBD	Add \$500 per add-on. Add \$420 per rack end.
2705	Saw, band, vertical, 20"	9330	1	9330	42x29	CF-CI	TBD	For cutting both metal and wood
2713	Saw, miter, 10", w/ stand	1250	1	1250	59x26	CF-CI	TBD	
2482	Planer, 22"	8700	1	8700	42x49x59	CF-CI	TBD	5" dust collection port requiring 900 CFM
2240	Dust collection system, central, shop, woodworking	47300	1	47300	49x22, 28x25	CF-CI	TBD	Includes pre-separator w/ stand; 3 active station operation; Add \$58,000 for fire suppression & expl vent INSTALL OUTDOORS USE SMALLER INDIVIDUAL DUST COLLECTOR INSTEAD UNITS WHERE POSSIBLE
2205	Drill press, variable speed, 15"	2730	1	2730	14x20	CF-CI	TBD	For drilling wood or metal - up to 5/8" steel Add \$250 for 3 phase option.
2680	Sander, disc, ped. mtd.	600	1	600	28x20	CF-CI	TBD	2-1/4" dust collection port requiring 400 CFM
1764	Table, layout, steel top, 96"x36"	560	6	3360	96x36	CF-CI	TBD	Incld adj legs. Add \$140 for casters. 5000lb cap w/o casters, 1200/3000 cap with.
2714	Saw, panel, vertical	3100	1	3100	120x31	CF-CI	TBD	Add \$700 for dust collection vacuum when not connected to a central vacuum system
2718	Saw, Scroll	Subtotal	_	\$ 127,900				
HVAC / in	dustrial mech shop							
	Rack, bulk storage, w/ deck	1400	5	7000	72x24	CF-CI	TBD	
	Workbench, electronics, anti-static top, 2 cabinet	4200	7	29400	72x30	CF-CI	TBD	
1802	Workbench, electronics, anti-static top, 6 ft.	1730	7	12110	72x30	CF-CI	TBD	
2832	Vise, combination, swivel base, 5"	1240	7	8680	8x14	CF-CI	TBD	Bench mounted
1185	Cabinet, storage, shop, 18"	970	6	5820	36x18	CF-CI	TBD	
1752	Chair, shop	680	7	4760	20D	CF-CI	TBD	Includes 5 hard floor casters

PHASE 2

Eastern Corridor Study

Aug-19

OF: Owner Furnished GCF: General Contractor Furnished
OI: Owner Installed GCI: General Contractor Installed

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks

Subtotal \$ 67,770

PHASE 2

Eastern Corridor Study

Aug-19

OF: Owner Furnished GCF: General Contractor Furnished
OI: Owner Installed GCI: General Contractor Installed

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
						-			
Electrical	- FM shop								
1531	Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	7	14350	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
1860	Workbench, severe use	2700	3	8100	72x32		CF-CI	TBD	Fabricated
2832	Vise, combination, swivel base, 5"	1240	2	2480	8x14		CF-CI	TBD	Bench mounted
9400	Handwash station, shop	1200	1	1200	36x24		CF-CI	TBD	
9820	Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
2215	Drill press, variable speed, 20", metal shop	6370	1	6370	22x32		CF-CI	TBD	For metal drilling - up to 7/8" steel
2085	Buffer/grinder, 8", w/ pedestal	5240	1	5240	22x11		CF-CI	TBD	
2540	Press, manual/hydraulic, 25 ton	6280	1	6280	40.5x30x76		CF-CI	TBD	Single acting, spring return 54.5" vert clr, 29" horz clr
6076	Bender, power, pipe/tube, portable	9900	1	9900	47x33		CF-CI	TBD	
		Subtotal		\$ 56,785	•				
FM Stores	3								
1456	Rack, bulk storage, w/ deck	1400	9	12600	72x24		CF-CI	TBD	
1113	Cabinet, 9 drawer, 59"	3110	64	199040	30x28		CF-CI	TBD	Lockable. Credit \$530 if overhead cabient not used.
1680	Shelving unit, 18"	900	18	16200	36x18		CF-CI	TBD	Add \$575 per add on. Deduct \$6 for floor anchors: (2) pair left & right support feet
		Subtotal		\$ 227,840	•				
SITE AF	REAS								
32711									
Liquid Fu	el Tank Farm								
	Tank, vault, steel, fire rated, double wall, 12,000 gallons	66020	3	198060	440x95	*	CF-CI	TBD	Requires slab. Add \$4200 for tank mount pump/dispenser.

\$ 198,060

Subtotal

PHASE 3

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
MAINT	ENANCE - SHOPS								
In-Groun	nd Lift Repair Bays (Articulated Bus - 4 Bays)								
2835	Vise, combination, swivel base, 6"	2050	4	8200	10x16		CF-CI	TBD	Bench mounted
1860	Workbench, severe use	2700	4	10800	72x32		CF-CI	TBD	Fabricated
3560	Tank, parts cleaning, solvent, medium	3500	4	14,000	42x30		CF-CI	TBD	
3304	Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	4	32800	60x30	*	CF-CI	TBD	800cfm at source; 1200F max; 7.5"wc (reel);
8720	Reel bank (pick 2)	4070	8	32560		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8740	Reel bank (pick 4)	8140	4	32560		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8190	Drops, air/electric, trapeze	1600	8	12800	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
		Subtotal	•	\$ 143,720					
In-Groun	nd Lift Repair Bays (Transit Bus - 26 Bays)								
2835	Vise, combination, swivel base, 6"	2050	26	53,300	10x16		CF-CI	TBD	Bench mounted
1860	Workbench, severe use	2700	26	70,200	72x32		CF-CI	TBD	Fabricated
3304	Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	52	426,400	60x30	*	CF-CI	TBD	800cfm at source; 1200F max; 7.5"wc (reel); Ducted to outside. Single drop fan included. Non-bus diesel use. 240 lbs.
8740	Reel bank (pick 4)	8140	26	211,640		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8190	Drops, air/electric, trapeze	1600	52	83,200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
3560	Tank, parts cleaning, solvent, medium	3500	26	91,000	42x30		CF-CI	TBD	
		Subtotal		\$ 935,740					

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Eastern Corridor Study

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Mark Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Platform Lift Repair Bay (Articulated Bus)	•							
2835 Vise, combination, swivel base, 6"	2050	1	2050	10x16		CF-CI	TBD	Bench mounted
1860 Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
3304 Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	1	8200	60x30	*	CF-CI	TBD	800cfm at source; 1200F max; 7.5"wc (reel); Ducted to outside. Single drop fan included. Non-bus diesel use. 240 lbs.
8720 Reel bank (pick 2)	4070	1	4070		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8740 Reel bank (pick 4)	8140	1	8140		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8190 Drops, air/electric, trapeze	1600	2	3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
3560 Tank, parts cleaning, solvent, medium	3500	1	3,500	42x30		CF-CI	TBD	
	Subtotal		\$ 31,860					
Light Duty Bay Flat (2 Bays) (Transit Bus)								
1860 Workbench, severe use	2700	2	5400	72x32		CF-CI	TBD	Fabricated
8190 Drops, air/electric, trapeze	1600	4	6400	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
2832 Vise, combination, swivel base, 5"	1240	2	2480	8x14		CF-CI	TBD	Bench mounted
8740 Reel bank (pick 4)	8140	2	16280		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
8720 Reel bank (GO1, GO2)	2780	2	5560		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
3560 Tank, parts cleaning, solvent, medium	3500	2	7000	42x30		CF-CI	TBD	
1130 Cabinet, 9 drawer, 59"	2170	2	4340	26x24		CF-CI	TBD	Casters available. Add \$120 for casters
3304 Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	2	16400	60x30	*	CF-CI	TBD	
	Subtotal		\$ 63,860					
Portable Equipment (3)								
1113 Cabinet, 9 drawer, 59"	3110	80	248800	30x28		CF-CI	TBD	Lockable. Credit \$530 if overhead cabient not used.
1456 Rack, bulk storage, w/ deck	1400	45	63000	72x24		CF-CI	TBD	
	Subtotal		\$ 311,800					

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Eastern Corridor Study

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Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Electroni	ics Bay	•		•					
3304	Reel, vehicle exhaust, motor operated, w/ 6" hose	8200	1	8200	60x30	*	CF-CI	TBD	
1860) Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
8740	Reel bank (pick 4)	8140	1	8140		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
2832	Vise, combination, swivel base, 5"	1240	1	1240	8x14		CF-CI	TBD	Bench mounted
3560	Tank, parts cleaning, solvent, medium	3500	1	3500	42x30		CF-CI	TBD	
8190	Drops, air/electric, trapeze	1600	2	3200	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
8720	Reel bank (GO1, GO2)	2780	2	5560		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
1130	Cabinet, 9 drawer, 59"	2170	1	2170	26x24		CF-CI	TBD	Casters available. Add \$120 for casters
		Subtotal		\$ 34,710					
Electroni	ics Shop								
1456	Rack, bulk storage, w/ deck	1400	1	1400	72x24		CF-CI	TBD	
1800	Workbench, electronics, anti-static top, 2 cabinet	4200	3	12600	72x30		CF-CI	TBD	
1802	2 Workbench, electronics, anti-static top, 6 ft.	1730	3	5190	72x30		CF-CI	TBD	
2832	Vise, combination, swivel base, 5"	1240	3	3720	8x14		CF-CI	TBD	Bench mounted
1185	Cabinet, storage, shop, 18"	970	2	1940	36x18		CF-CI	TBD	
1752	2 Chair, shop	680	3	2040	20D		CF-CI	TBD	Includes 5 hard floor casters
		Subtotal		\$ 26,890					

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Eastern Corridor Study

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Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Commo	n Work Area (x2)								
1420	O Rack, arm, single face, 7' high	1380	4	5520	36x22		CF-CI	TBD	Add \$500 per add-on.
									Add \$420 per rack end.
) Bin unit, hose/line	2670		5340	36x36		CF-CI	TBD	Add \$2860 per add-on
1860	0 Workbench, severe use	2700	6	16200	72x32		CF-CI	TBD	Fabricated
6330	Crimper, hydraulic hose, bench mounted	9130	2	18260	8x22		CF-CI	TBD	
2708	3 Saw, cut-off, abrasive/mitering, 16"-18"	4800	2	9600	30x33		CF-CI	TBD	
1140	Cabinet, flammable materials, large	1600	2	3200	43x18		CF-CI	TBD	45 gallon capacity
3080	O Cabinet, abrasive blast, medium, w/ dust collector	11100	2	22200	56x88, 30x38		CF-CI	TBD	50"x39"x43" interior working dimensions
243	3 Milling machine, vertical	30000	2	60000	80x64		CF-CI	TBD	
208	5 Buffer/grinder, 8", w/ pedestal	5240	2	10480	22x11		CF-CI	TBD	
2690) Saw, band, combination, vert./horiz.	4010	2	8020	54x26		CF-CI	TBD	Portable
5074	4 Crane, bridge, suspended, 1 ton	28160	2	56320		*	CF-CI	TBD	
2248	3 Dust collector, brake lathe, 2 point	31000	2	62000	22x49, 10x15, 36x24		CF-CI	TBD	Includes wall-mounted pre-separator; simultaneous 2 point operation. Hood assembly included
378	5 Washer, parts, jet spray, small	17850	2	35700	42x53		CF-CI	TBD	500 lb load capacity, 25"D by 18"H working dimensions
9400) Handwash station, shop	1200	2	2400	36x24		CF-CI	TBD	
9820	Shower, drench, w/ eyewash	2865	2	5730	14x34	*	CF-CI	TBD	
3560	Tank, parts cleaning, solvent, medium	3500	2	7000	42x30		CF-CI	TBD	
283	2 Vise, combination, swivel base, 5"	1240	4	4960	8x14		CF-CI	TBD	Bench mounted
1588	Rack, pick, 66 drawer	1320	2	2640	36x15		CF-CI	TBD	
2540	9 Press, manual/hydraulic, 25 ton	6280	2	12560	40.5x30x76		CF-CI	TBD	Single acting, spring return 54.5" vert clr, 29" horz clr
2564	4 Press, arbor, ratchet, 5 ton, ped. mtd.	4450	2	8900	18x29		CF-CI	TBD	
		Subtotal		\$ 357,030	l				

PHASE 3

Eastern Corridor Study

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Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Tire Bay	(2 Bays)					-			•
1860	Workbench, severe use	2700	2	5400	72x32		CF-CI	TBD	Fabricated
2832	Vise, combination, swivel base, 5"	1240	2	2480	8x14		CF-CI	TBD	Bench mounted
8190	Drops, air/electric, trapeze	1600	4	6400	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
8710	Reel bank (WWS)	1600	4	6400		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
		Subtotal	•	\$ 20,680					
Tire Stor	age								
1640	Rack, tire, stackable	430	26	11180	60x26		CF-CI	TBD	4 tires per rack, based on B305/85R22.5 size or, 6 standard auto type tires
		Subtotal	!	\$ 11,180					
Minor Bo	ody Repair / Prep Bay (Articulated Bus (2))								
1860	Workbench, severe use	2700	2	5400	72x32		CF-CI	TBD	Fabricated
2832	Vise, combination, swivel base, 5"	1240	2	2480	8x14		CF-CI	TBD	Bench mounted
6050	Anchor, floor, cast-in	250	60	15000	9x6	*	CF-CI	TBD	Installed during floor construction. Add \$210 for floor anchor turret #532.
8190	Drops, air/electric, trapeze	1600	4	6400	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2" impact drives
		Subtotal	•	\$ 29,280					
Paint Boo	oth articulated bus (2)								
5555	Lift, man, pneumatic, paint booth	32330	2	64660	48x36		CF-CI	TBD	60' min booth for a 45' bus. Price for one unit only. Wash Bay options available. Confirm accessories with paint booth type.
6111	Booth, paint, vehicle, down-draft, artic	377000	2	754000	21'x81'	*	CF-CI	TBD	+\$79,000 heated AMU + ducts +82,000 two pneum manlifts +4,000 two fall prot +5,000 two breathable air units. Roof supports for AMU; Slab leavouts Does not include installation
6232	Filtration system, breathing air, grade D, four respirator capacity	3000	2	6000	18x6		CF-CI	TBD	4 hood type respirators, max Filters compressed air to Grade D breathable air
		Subtotal		\$ 824,660					

PHASE 3

Eastern Corridor Study

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OF: Owner Furnished GCF: General Contractor Furnished
OI: Owner Installed GCI: General Contractor Installed

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Paint Mix	ζ			-			•		
1860	Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
1140	Cabinet, flammable materials, large	1600	1	1600	43x18		CF-CI	TBD	45 gallon capacity
9400	Handwash station, shop	1200	1	1200	36x24		CF-CI	TBD	
9820	Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
2832	Vise, combination, swivel base, 5"	1240	1	1240	8x14		CF-CI	TBD	Bench mounted
1185	Cabinet, storage, shop, 18"	970	1	970	36x18		CF-CI	TBD	
3788	3 Washer, paint spray equipment, solvent type, automatic	3080	1	3080	18x14		CF-CI	TBD	Can be connected to solvent recycler for automatic transfer. Price does not include Recycler
6670	Shaker, paint, industrial, air operated	4240	1	4240	19x33		CF-CI	TBD	
		Subtotal	•	\$ 17,895					
Central E	Oust Collection								
2240	Dust collection system, central, shop, woodworking	47300	1	47300	49x22, 28x25		CF-CI	TBD	Includes pre-separator w/ stand; 3 active station operation; Add \$58,000 for fire suppression & expl vent INSTALL OUTDOORS USE SMALLER INDIVIDUAL DUST COLLECTOR INSTEAD UNITS WHERE POSSIBLE

47,300

Subtotal

PHASE 3

Eastern Corridor Study

Aug-19

OF: Owner Furnished GCF: General Contractor Furnished
OI: Owner Installed GCI: General Contractor Installed

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Body Sh	ор								
1860) Workbench, severe use	2700	1	2700	72x32		CF-CI	TBD	Fabricated
1140) Cabinet, flammable materials, large	1600	1	1600	43x18		CF-CI	TBD	45 gallon capacity
2832	Vise, combination, swivel base, 5"	1240	1	1240	8x14		CF-CI	TBD	Bench mounted
1185	5 Cabinet, storage, shop, 18"	970	2	1940	36x18		CF-CI	TBD	
2930) Welder, stick, portable	4430	1	4430	19x28		CF-CI	TBD	Stick welding
2900) Welder, MIG, portable, w/ wire feed	4900	1	4900	19x39		CF-CI	TBD	MIG & Fux Cored welding with accessories; 460v / 575v optional
2920) Welder, oxyacetylene, portable, w/ cart	1500	1	1500	25x13		CF-CI	TBD	Gas welding
6255	5 Brake, hand, 8'	19650	1	19650	143x46		CF-CI	TBD	
6701	Shear, squaring, foot, 52"	17700	1	17700	91x78		CF-CI	TBD	
2925	5 Welder, plasma cutter, portable	3960	1	3960	13x21		CF-CI	TBD	Air Plasma Cutting & Gouging
2215	5 Drill press, variable speed, 20", metal shop	6370	1	6370	22x32		CF-CI	TBD	For metal drilling - up to 7/8" steel
2700	Saw, band, vertical, wood, 14"	1500	1	1500	27x19x66		CF-CI	TBD	4" dust collection port requiring 600 CFM Discontinuted, Find Replacement
2460) Oven, dry rod	1820	1	1820	23x30		CF-CI	TBD	Includes thermometer. Bench mounted only, requires table (#1860 or sim)
9355	5 Filter, mechanical, portable	12,800	1	12800	38x19		CF-CI	TBD	720 CFM of suction. Intended for Welding Fume/Smoke and Grinding operations.
2260	Grinder, 12" disc/6" belt	2150	1	2150	38x21x54		CF-CI	TBD	4" dust collection port requiring 400 cfm
2540	Press, manual/hydraulic, 25 ton	6280	1	6280	40.5x30x76		CF-CI	TBD	Single acting, spring return 54.5" vert clr, 29" horz clr
3560) Tank, parts cleaning, solvent, medium	3500	1	3500	42x30		CF-CI	TBD	
2085	5 Buffer/grinder, 8", w/ pedestal	5240	1	5240	22x11		CF-CI	TBD	
		Subtotal		\$ 99,280					
Upholste	ery Shop								
1185	5 Cabinet, storage, shop, 18"	970	4	3880	36x18		CF-CI	TBD	
1764	Table, layout, steel top, 96"x36"	560	4	2240	96x36		CF-CI	TBD	Incid adj legs. Add \$140 for casters. 5000lb cap w/o casters, 1200/3000 cap with.
1752	2 Chair, shop	680	6	4080	20D		CF-CI	TBD	Includes 5 hard floor casters
9600) Machine, sewing, w/ power stand	4045	2	8090	48x20		CF-CI	TBD	Includes table, stand, and motor.
1610	Rack, upholstery	1080	4	4320	60x18		CF-CI	TBD	
1760) Table, layout, steel top, 60"x30"	650	2	1300	60x30		CF-CI	TBD	Incld adj legs. Add \$140 for casters. 5000lb cap w/o casters, 1200/3000 cap with.

23,910

Subtotal

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Eastern Corridor Study

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Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Body Shop Storage		-							•
1440 Rack, body	panel, large	3200	9	28800	51x50		CF-CI	TBD	Fabricated
1450 Rack, body	panel, small	2800	8	22400	48x38		CF-CI	TBD	Fabricated
1531 Rack, pallet	t, 42" deep, 12' high, 6000lb, w/ deck	2050	6	12300	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
		Subtotal	•	\$ 63,500					
Battery Charging									
9280 De-ionizer,	battery water	1000	1	1000	6x6		CF-CI	TBD	Wall mounted
5010 Cart, batter	y	1400	2	2800	48x30		CF-CI	TBD	
5015 Cart, batter	y lift	1180	2	2360	30x22		CF-CI	TBD	
5785 Pallet, conta	ainment, hazardous materials	600	1	600	53x53		CF-CI	TBD	
2130 Charger, ba	attery, fixed	2760	1	2760	15x11		CF-CI	TBD	For up to 36 batteries, 4 bus bars included
9400 Handwash	station, shop	1200	1	1200	36x24		CF-CI	TBD	
9820 Shower, dre	ench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
		Subtotal	•	\$ 13,585					
Light Duty Hoist (4)									
1860 Workbench	, severe use	2700	4	10800	72x32		CF-CI	TBD	Fabricated
8190 Drops, air/e	lectric, trapeze	1600	4	6400	24x6	*	CF-CI	TBD	Quadraplex receptacle, quick disconnect for 3/8" & 1/2 impact drives
2832 Vise, combi	ination, swivel base, 5"	1240	4	4960	8x14		CF-CI	TBD	Bench mounted
8740 Reel bank (pick 4)	8140	4	32560		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
3560 Tank, parts	cleaning, solvent, medium	3500	4	14000	42x30		CF-CI	TBD	
3304 Reel, vehicl	e exhaust, motor operated, w/ 6" hose	8200	4	32800	60x30	*	CF-CI	TBD	
		Subtotal	•	\$ 101,520					
Chassis Wash - Trans	sit Bus								
8710 Reel bank (WWS)	1600	2	3200		*	CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
5703 Lift, drive-or	n, parallelogram, 50,000 lb, 32 ft	161440	1	161440	40'x9'	*	CF-CI	TBD	Includes lights, alarm, 2 pair ramps. Add \$3,350 for flush mount. \$14,000 for 50T rolling jack, \$24,000 for wet environment
9820 Shower, dre	ench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
3720 Washer, pre	essure, hot water, NG	13410 Subtotal	2	26820 \$ 194,325	51x31		CF-CI	TBD	Add \$550 for swivel boom, \$400 for Hose Reel, \$270 per additional Hose/Gun

PHASE 3

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Ob	h Astroday d Day (0)	-							
	h - Articulated Bus (3)	4000		4000			05.01		Black to the Board 400 House I
	el bank (WWS)	1600		1600			CF-CI	TBD	Plumbed to Lube Room. 100 lbs per reel.
5703 Lift,	drive-on, parallelogram, 50,000 lb, 32 ft	161440	1	161440	40'x9'	*	CF-CI	TBD	Includes lights, alarm, 2 pair ramps. Add \$3,350 for flush mount. \$14,000 for 50T rolling jack, \$24,000 for wet environment
9820 Sho	ower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
3811 Wa	sher, vehicle, chassis	29270	2	58540	20'x50'	*	CF-CI	TBD	For use with mark #3800
3720 Wa	sher, pressure, hot water, NG	13410	2	26820	51x31		CF-CI	TBD	Add \$550 for swivel boom, \$400 for Hose Reel, \$270 per additional Hose/Gun
		Subtotal		\$ 251,265					
Forklift / Scis	sor Lift / Sweeper Pakring								
5350 For	klift, electric, sit-down, 4000 lb	33550	2	67100	42x120 21x22x27 (charger)		CF-CI	TBD	132" minimum aisle operating width
3359 Scr	ubber, floor, riding, electric	43500	1	43500	a) 88x53 b) 26x24		CF-CI	TBD	a) Scrubber dims b) Battery Charger dims
3365 Sw	eeper, floor, riding, electric	38000	1	38000	a) 64x82 b) 21x22		CF-CI	TBD	a) Sweeper dims b) Battery Charger dims
		Subtotal		\$ 148,600					
Lube / Compi	ressor Room								
8525 Pur	np, air piston (ATF), 4.25", 10:1	4910	7	34370			CF-CI	TBD	Size to be confirmed by Mechanical. Add \$314 for wall mounted
5788 Pall	let, containment, 2 totes (DEF)	1200	2	2400	99x51		GCF/GC	TBD	Single pallet for two 330 gallon IBC totes (one is a spare). Verify price.
8588 Pur	mp, diaphragm, stainless steel (DEF)	2425	1	2425			CF-CI	TBD	Size to be confirmed by Mechanical. Wall mounted.
2232 Dry	er, air, refrigerated, 200 CFM	6410	1	6410	28x30x58		CF-CI	TBD	Size to be confirmed by Mechanical Add \$525 for filters.
9820 Sho	ower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
8534 Pur	mp, air piston (CG), w/ hoist, 4.25", 50:1	7240	1	7240			CF-CI	TBD	Size to be confirmed by Mechanical
8940A Tar	nk, storage, cube, 280 gallon (EC, WWF)	3650	2	7300	34x58		CF-CI	TBD	Above ground double wall for lubricants Add \$225 for single wall interior divider Add \$450 for double wall interior divider
2168 Cor	mpressor, air, rec. mtd., 25 HP dplx	38500	1	38500	89x61		CF-CI	TBD	Size to be confirmed by Mechanical Includes vibration isolation pads
	ık, storage, cube, 1000 gallon (ATF, GO1, GO2, 1, EO2)	7610	5	38050	48x112		CF-CI	TBD	Above ground double wall for lubricants Add \$225 for single wall interior divider Add \$450 for double wall interior divider

PHASE 3

Eastern Corridor Study

Aug-19

OF: Owner Furnished GCF: General Contractor Furnished
OI: Owner Installed GCI: General Contractor Installed

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
	=								=

Subtotal \$ 139,560

PHASE 3

Eastern Corridor Study

Aug-19

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
MAINTE	NANCE - STORES / PARTS								
Stores									
1113	Cabinet, 9 drawer, 59"	3110	60	186600	30x28		CF-CI	TBD	Lockable. Credit \$530 if overhead cabient not used.
1531	Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	67	137350	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
1456	Rack, bulk storage, w/ deck	1400	24	33600	72x24		CF-CI	TBD	
1680	Shelving unit, 18"	900	40	36000	36x18		CF-CI	TBD	Add \$575 per add on. Deduct \$6 for floor anchors: (2) pair left & right support feet
		Subtotal		\$ 393,550					
Secure St	orage / tool Crib								
1531	Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	1	2050	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
1456	Rack, bulk storage, w/ deck	1400	5	7000	72x24		CF-CI	TBD	
		Subtotal	•	\$ 9,050					
Shipping	and Receiving								
1764	Table, layout, steel top, 96"x36"	560	2	1120	96x36		CF-CI	TBD	Incld adj legs. Add \$140 for casters. 5000lb cap w/o casters, 1200/3000 cap with.
		Subtotal	•	\$ 1,120					
Consuma	bles Area								
1185	Cabinet, storage, shop, 18"	970	18	17460	36x18		CF-CI	TBD	
		Subtotal	•	\$ 17,460					
Canopy C	overed storage								
1531	Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	8	16400	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
		Subtotal	•	\$ 16,400					

PHASE 3

Eastern Corridor Study

Aug-19

Mark De	scription	Price	Qty	Ext	Area (in)	S.I. Meth	Spec	Remarks
MAINTENANCE - FACILITY							•	
Wood Working Shop								
1190 Cabinet, storage, shop, 2	4"	1060	6	6360	36x24	CF-C	I TBD	
2715 Saw, radial arm, 14"		6170	1	6170	44x47	CF-C	I TBD	
2725 Saw, table, tilting arbor, 1	4"	5600	1	5600	84X53	CF-C	I TBD	
1683 Shelving unit, 24"		760	4	3040	36x24	CF-C	I TBD	Add \$700 per add on. Deduct \$6 for floor anchors: (2) pair left & right support feet
1420 Rack, arm, single face, 7	' high	1380	22	30360	36x22	CF-C	I TBD	Add \$500 per add-on. Add \$420 per rack end.
2705 Saw, band, vertical, 20"		9330	1	9330	42x29	CF-C	I TBD	For cutting both metal and wood
2713 Saw, miter, 10", w/ stand		1250	1	1250	59x26	CF-C	I TBD	
2482 Planer, 22"		8700	1	8700	42x49x59	CF-C	I TBD	5" dust collection port requiring 900 CFM
2240 Dust collection system, c	entral, shop, woodworking	47300	1	47300	49x22, 28x25	CF-C	I TBD	Includes pre-separator w/ stand; 3 active station operation; Add \$58,000 for fire suppression & expl vent INSTALL OUTDOORS USE SMALLER INDIVIDUAL DUST COLLECTOR INSTEAD UNITS WHERE POSSIBLE
2205 Drill press, variable spee	d, 15"	2730	1	2730	14x20	CF-C	I TBD	For drilling wood or metal - up to 5/8" steel Add \$250 for 3 phase option.
2680 Sander, disc, ped. mtd.		600	1	600	28x20	CF-C	I TBD	2-1/4" dust collection port requiring 400 CFM
1764 Table, layout, steel top, 9	6"x36"	560	6	3360	96x36	CF-C	I TBD	Incld adj legs. Add \$140 for casters. 5000lb cap w/o casters, 1200/3000 cap with.
2714 Saw, panel, vertical		3100	1	3100	120x31	CF-C	I TBD	Add \$700 for dust collection vacuum when not connected to a central vacuum system
2718 Saw, Scroll		Subtotal	-	\$ 127,900				
HVAC / industrial mech shop								
1456 Rack, bulk storage, w/ de	eck	1400	5	7000	72x24	CF-C	I TBD	
1800 Workbench, electronics,	anti-static top, 2 cabinet	4200	7	29400	72x30	CF-C	I TBD	
1802 Workbench, electronics,	anti-static top, 6 ft.	1730	7	12110	72x30	CF-C	I TBD	
2832 Vise, combination, swivel	base, 5"	1240	7	8680	8x14	CF-C	I TBD	Bench mounted
1185 Cabinet, storage, shop, 1	8"	970	6	5820	36x18	CF-C	I TBD	
1752 Chair, shop		680	7	4760	20D	CF-C	I TBD	Includes 5 hard floor casters
		Subtotal	•	\$ 67,770				

PHASE 3

Eastern Corridor Study

Aug-19

OF: Owner Furnished GCF: General Contractor Furnished
OI: Owner Installed GCI: General Contractor Installed

Mark	Description	Price	Qty	Ext	Area (in)	S.I.	Meth	Spec	Remarks
Electrical	I - FM shop				, ,			,	
1531	Rack, pallet, 42" deep, 12' high, 6000lb, w/ deck	2050	7	14350	114x42		CF-CI	TBD	3 shelves w/ wire mesh deck
1860	Workbench, severe use	2700	3	8100	72x32		CF-CI	TBD	Fabricated
2832	Vise, combination, swivel base, 5"	1240	2	2480	8x14		CF-CI	TBD	Bench mounted
9400	Handwash station, shop	1200	1	1200	36x24		CF-CI	TBD	
9820	Shower, drench, w/ eyewash	2865	1	2865	14x34	*	CF-CI	TBD	Free-standing unit. Includes tempered water metering valve. +\$225 for SS shower head. +\$125 for foot control.
2215	Drill press, variable speed, 20", metal shop	6370	1	6370	22x32		CF-CI	TBD	For metal drilling - up to 7/8" steel
2085	Buffer/grinder, 8", w/ pedestal	5240	1	5240	22x11		CF-CI	TBD	
2540	Press, manual/hydraulic, 25 ton	6280	1	6280	40.5x30x76		CF-CI	TBD	Single acting, spring return 54.5" vert clr, 29" horz clr
6076	Bender, power, pipe/tube, portable	9900	1	9900	47x33		CF-CI	TBD	
		Subtotal		\$ 56,785					
FM Store	s								
1456	Rack, bulk storage, w/ deck	1400	9	12600	72x24		CF-CI	TBD	
1113	Cabinet, 9 drawer, 59"	3110	64	199040	30x28		CF-CI	TBD	Lockable. Credit \$530 if overhead cabient not used.
1680	Shelving unit, 18"	900	18	16200	36x18		CF-CI	TBD	Add \$575 per add on. Deduct \$6 for floor anchors: (2) pair left & right support feet
		Subtotal		\$ 227,840					
SITE AI	REAS								
Liquid Fu	uel Tank Farm								
	Tank, vault, steel, fire rated, double wall, 12,000 gallons	66020	3	198060	440x95	*	CF-CI	TBD	Requires slab. Add \$4200 for tank mount pump/dispenser.

Subtotal \$ 198,060

APPENDIX

E TAKEOFFS

TRANSIT SATELLITE GARAGE - EASTERN CORRIDOR STUDY The City of Winnipeg, MB PRELIMINARY SPACE TAKE-OFFS PER PLANS

[E] = Enclosed, [O] = Open/Workstation, [A] = Alcove, [C] = Canopy covered, [X] = Outdoors (exterior)

225	350	500	Total Revenue Fleet at East Garage
			20-25' / 6.1 - 7.62 m Shuttle
			30-35' / 9.14 - 10.67 m Transit Bus
			45' / 13.72 m Double Decker Transit Coaches
225	300	425	40' / 12.19 m Transit Coaches
	50	75	60' / 18.29 m Articulated Coach
2020	2035	2050	

	_			Initial Buildout 2020	╵┕		Future	e 1st Expansion - Est 2035			Future M	aximum Expansion - Est 2050
Space Name +	Qty	Area sf	Area sm	Remarks	Qt	y Area sf	Area sm	Remarks	Qty	Area sf	Area sm	Remarks
SUMMARY - Building Spaces												
SHARED/COMMON SPACES, OPERATIONS, AND DRIVER'S AREA		18,408	1,710.16			25,440	2,363.49			25,440	2,363.49	
MAINT. VEHICLE SYST-SUPPORT, MAINT. VEHICLE SYST-SHOPS, MAI		28,751	2,671.06			42,853	3,981.19			42,862	3,981.98	
MAINTENANCE - VEHICLES SYSTEMS - SHOPS		64,119	5,956.86			93,169	8,655.65			140,973	13,096.78	
SERVICE - VEHICLES		24,530	2,278.93			24,812	2,305.15			24,704	2,295.12	
AGENCY VEHICLE PARKING - INTERIOR SPACES		272,902	25,353.38			422,361	39,238.61			554,094	51,476.99	
SUMMARY - Building Spaces TOTALS		408,710	37,970.39			608,636	56,544.09			788,073	73,214.36	
SUMMARY - Outdoor Spaces												
SITE AREAS		9,701	901			9,797	910.15			13,513	1,255.41	
EMPLOYEE / VISITOR VEHICLE PARKING - EXTERIOR SPACES		108,607	10,089.92			143,670	13,347.33			203,519	18,907.57	
					_							
SUMMARY - Outdoor Spaces TOTALS		118,308	10,991.16			153,466	14,257.49			217,032	20,162.98	
					_							
Site Circulation		267,007				214,864	-			217,893		
Landscape / Setbacks	3	801,505				618,564	-			372,532	-	
TOTAL CITE	. —	4 505 520				4 505 500				1 4 FOE F20		
TOTAL SITE		1,595,530				1,595,530				1,595,530		

TRANSIT SATELLITE GARAGE - EASTERN CORRIDOR STUDY The City of Winnipeg, MB PRELIMINARY SPACE TAKE-OFFS PER PLANS

Men's Restroom

Women's Restroom

Е

2020	2035	2050	
	50	75	60' / 18.29 m Articulated Coach
225	300	425	40' / 12.19 m Transit Coaches
			45' / 13.72 m Double Decker Transit Coaches
			30-35' / 9.14 - 10.67 m Transit Bus
			20-25' / 6.1 - 7.62 m Shuttle
225	350	500	Total Revenue Fleet at East Garage

				30-35' / 9 14	- 10.67 m Transit Bus							3,
[E] = Enclosed, [O] = Open/Workstation, [A] = Alcove,					- 7.62 m Shuttle							
[C] = Canopy covered, [X] = Outdoors (exterior)	225	350	500		ue Fleet at East Garage							
[O] Sanopy sovered, [A] Salabore (Salahor)		000		rotal neven	de l'icet de Last Galage							
					Initial Buildout 2020			Eutur	e 1st Expansion - Est 2035		Eutu	ure Maximum Expansion - Est 2050
		$\vdash \vdash$		I	Illitiai Bulluout 2020	\vdash		Tutui I	e ist Expansion - Est 2000		I	Life Maximum Expansion - Est 2000
	-											
Conses Norma		0			Batta		A		Powerton	04.		Bounds
Space Name +		Qty	Area sf	Area sm	Remarks	Qty	Area sf	Area sm	Remarks	Qty Area s	Area s	m Remarks
CHAPER LOCKMON ORACES OPERATIONS AND DRIVERIS AREA												
SHARED / COMMON SPACES, OPERATIONS, AND DRIVER'S AREA												
SHARED / COMMON SPACES												
Entry Vestibule E		1	162	15.07		1 1	162	15.03		1 1	62 15	5.03
Lobby / Waiting Area O		1	279	25.95		1	279	25.89		1 2		5.89
Cafeteria			213	20.90	included		213	25.09	included	1	2.	included
Dining Room		1	568	52.74		1	567	52.72		1 5	37 5	2.72
Serving Line		1	232	21.55		1	232	21.57		1 2		1.57
Kitchen		1	278	25.82		1	278	25.80		1 2	_	5.80
Lunch Room		1	1,114	103.47		1	1,871	173.82		1 1,8		3.82
Wellness Room		1	1,051	97.68		1	1,810	168.12		1 1,8		8.12
(FM) FM Work Area A		1	.,		included	1	.,	-	included	1		- included
IT / Data Switch Room E		1	333	30.89		1	156	14.52				4.52
OPERATIONS												
Reception O		1	69	6.38		1	84	7.82		1	34	7.82
Frontline Dispatch Counter O		1	154	14.34		1	157	14.57		1 1	57 14	4.57
Dispatch Workstation O		3	308	28.62		6	619	57.51		6 6	19 5	7.51
East Garage Manager E		1	220	20.40		1	246	22.87		1 2	16 22	2.87
Supervisor Suite E		1	412	38.30		1	424	39.39		1 4	24 39	9.39
Supervisor Workstation O		2			included	2		-	included	2		- included
Lead Hand Workstation O		1		-	included	1		-	included	1		- included
Accounting / Payroll / HR E		1	134	12.47		1	141	13.13		1 1		3.13
Office - hoteling / temp E		1	115	10.65		1	115	10.65		1 1		0.65
Assistant Chief Inspector E		1	114	10.57		1	140	13.04		1 1		3.04
Inspector Suite E		1	300	27.86	in almost a	1	453	42.09	:	1 4		2.09
Transit Inspector O		2		-	included included	4			included included	4	_	- included - included
Radio A		$\frac{1}{4}$		-	included	1			included	1	_	
Inspector Lockers		1	119	11.08	moduco	1 1	70	7.24	inoluco			- Included 7.24
Scheduler O Time Keeper / Payroll Suite E		1	335	31.14		1	78 376	34.93		1 3		4.93
Time Keeper Workstation O		1	335	- 31.14	included	1	310	34.93	included	1 3		- included
Payroll Workstation 0				-	included	1			included	1	_	- included
IT Workstation O		1	148	13.73		2	320	29.73		2 3		9.73
Video Review Workstation E		1	198	18.43		1	175	16.30		1 1	_	6.30
Open Workstations O		1	148	13.73		2	143	13.25		_		3.25
Security 0		1	94	8.70		1	80	7.45				7.45
File / Storage Room A		1	50	4.65		1	52	4.83				4.83
Secure Storage E		1	68	6.35		1	181	16.80				6.80
Lost & Found Bin A		1	43	3.99		1	42	3.91				3.91
Break Room		1	835	77.61		1	835	77.57		1 8		7.57
Conference / Training Room - Large E		1	757	70.35		2	1,214	112.74		2 1,2		2.74
Conference / Training Room - Small E		2	747	69.38		4	1,462	135.87		4 1,4		5.87
Copy / Work Area A		1	61	5.68		1	64	5.90				5.90
Schedule Storage E		1	160	14.84		_1	167	15.53		1 1	67 1	5.53
Men's Restroom E				-			-	-				-

TRANSIT SATELLITE GARAGE - EASTERN CORRIDOR STUDY The City of Winnipeg, MB PRELIMINARY SPACE TAKE-OFFS PER PLANS

 $\label{eq:enclosed} \textit{[E] = Enclosed, [O] = Open/Workstation, [A] = Alcove,}$

 2020
 2035
 2050

 50
 75
 60' / 18.29 m Articulated Coach

 225
 300
 425
 40' / 12.19 m Transit Coaches

 45' / 13.72 m Double Decker Transit Coaches
 30-35' / 9.14 - 10.67 m Transit Bus

 20-25' / 6.1 - 7.62 m Shuttle

 225
 350
 500
 Total Revenue Fleet at East Garage

[C] = Canopy covered, [X] = Outdoors (exterior)	225 350 500 Total Revenue Fleet at East G	Garage			
[O] = Gallopy Covered, [A] = Guidoors (exterior)	223 330 300 Total Revenue Fleet at Last G	Jarage			
	Initial Buildout 2	2020		Future 1st Expansion - Est 2035	Future Maximum Expansion - Est 2050
Space Name +	Qty Area sf Area sm	Remarks	Qty Area sf Ar	ea sm Remarks	Qty Area sf Area sm Remarks
DRIVERS' AREA					
Information Center E	1 206 19.09		1 301	27.96	1 301 27.96
Drivers Lounge E	1 200 13.03		1 301	-	-
Locker Area A	1 1,054 97.90		1 1,757	163.22	1 1,757 163.22
Vending / Kitchenette A	1 - included		1	- included	1 - included
TV Room E	1 338 31.40		1 227	21.13	1 227 21.13
Quiet Room E	1 203 18.86		1 334	31.05	2 334 31.05
Prayer / Smudging Room E	1 188 17.44		1 187	17.36	1 187 17.36
Depot Storage E	1 98 9.10		1 283	26.29	1 283 26.29
Men Restroom E	1 1,112 103.28		1 1,883	174.92	1 1,883 174.92
Women's Restroom E	1 647 60.11		1 1,019	94.66	1 1,019 94.66
Custodial Room E	1 243 22.61		1 205	19.07	1 205 19.07
Mechanical Room E	1 291 27.01		1 238	22.13	1 238 22.13
Electrical Room E	1 128 11.93		1 159	14.73	1 159 14.73
Water Entry E	1 144 13.34		1 261	24.22	1 261 24.22
011-10	44.050 400.07		40.777	000.75	40.777
Shared / Common Spaces, Operations and Driver's Area Subtotal	14,256 432.07		19,777	636.75	19,777 636.75
Circulation	4,152 385.69		5,663	526.14	5,663 526.14
SHARED / COMMON SPACES, OPERATIONS AND DRIVER'S	AREA TOTALS 18,408 817.77		25 440	400.00	05 440 4400 00
SHARED / COMMON SPACES, OPERATIONS AND DRIVER S	S AREA TOTALS 18,408 817.77		25,440	,162.89	25,440 1,162.89
MAINTENANCE -VEHICLE SYSTEMS - SUPPORT, MAINTENANCE - FACILITY, STORES	Z / DADTS AND MAINTENANCE VEHCILE SYSTEMS	S SHODS			
MAINTENANCE -VEHICLE STSTEMS - SOFFORT, MAINTENANCE -TACIETT, STORES	FARTS, AND MAINTENANCE -VEHICLE STSTEMS	3-310-3			
MAINTENANCE - VEHICLE SYSTEMS - SUPPORT					
Maintenance Superintendent E	1 288 26.78		2 490	45.56	2 490 45.56
Maintenance Supervisors E	3 670 62.27		5 1,120	104.04	5 1,120 104.04
Maintenance Office Suite E			.,,==	-	-
Maint Clerks O	2 198 18.39		2 198	18.43	2 198 18.43
Electrical Clerks O			1 98	9.12	1 98 9.12
Engine Clerks O			1 82	7.61	1 82 7.61
FM Clerk O			1 98	9.12	1 98 9.12
Bus Servicing Clerks O	1 94 8.75		2 170	15.83	2 170 15.83
File Storage E	1 128 11.93		1 128	11.93	1 128 11.93
Maintenance Manual Library E	1 91 8.45		1 95	8.83	1 95 8.83
Copy / Work Area A	1 104 9.70		1 119	9.70	1 119 11.03
Archive Storage - Vehicle Maintenance E	1 223 20.72		2 345	32.08	2 345 32.08
Training Suite E	1 260 24.15		1 260	24.15 included	1 260 24.15 instruded
Trainer Workstation 0	1 included		1 1 1 100	- included	1 included
Training / Conference Room E Training Storage Room E	2 719 66.76		4 1,408	130.80	4 1,408 130.80
Training Storage Room E Training Table & Chair Storage E	1 169 15.71		1 181	16.78	1 - 2 181 16.78
Service / Mechanics Lunch / Vend	1 169 15.71		1 668	62.06	1 668 62.06
Laundry Service Lockers A	1 303 28.14		1 305	28.33	1 305 28.33
Men's Restroom / Locker / Shower E	1 1,366 126.86		1 2,031	188.70	2 2,031 188.70
Women's Restroom / Locker / Shower E	1 384 35.67		1 644	59.79	2 644 59.79
	55.		· · · · · · · · · · · · · · · · · · ·		
MAINTENANCE - VEHICLES SYSTEMS - SHOPS					
Electronics Shop E	1 693 64.36		1 670	62.26	1 670 62.26

TRANSIT SATELLITE GARAGE - EASTERN CORRIDOR STUDY The City of Winnipeg, MB PRELIMINARY SPACE TAKE-OFFS PER PLANS

[E] = Enclosed, [O] = Open/Workstation, [A] = Alcove, [C] = Canopy covered, [X] = Outdoors (exterior)

			_
2020	2035	2050	
	50	75	60' / 18.29 m Articulated Coach
225	300	425	40' / 12.19 m Transit Coaches
			45' / 13.72 m Double Decker Transit Coaches
			30-35' / 9.14 - 10.67 m Transit Bus
			20-25' / 6.1 - 7.62 m Shuttle
225	350	500	Total Revenue Fleet at East Garage

[C] = Canopy covered, [X] = Outdoors (extern	or)	225	350	500	Total Reven	ue Fleet at East Garage								
	Initial Buildout 2020									re 1st Expansion - Est 2035	1 —		Future M	aximum Expansion - Est 2050
						milai Bandout 2020			- r utui		1 -		I	Lot 2000
Space Name	+		Qty	Area sf	Area sm	Remarks	Qty	Area sf	Area sm	Remarks	Qty	Area sf	Area sm	Remarks
MAINTENANCE - FACILITY		_												
Building Maintenance Supervisor	c			211	19.61		2	439	40.79		2	439	40.79	
Maintenance - Facility Office Suite	E			567	52.69		1	599	55.69		1	599	55.69	
Drawings / Records	A		2	301	-	included	2	399	33.09	included	2	399	33.09	included
Clerk	0				-	Area within FM Suite	1			Area within FM Suite	1			Area within FM Suite
Maintenance - Facility Office Suite	E				-	7 tod Within T W Outo	1	-		7 tod Within T W Callo		_		7 I GO WIGHT IN GOILE
FM Coordinator	0			97	9.04	Included in FM Office Suite area	1	97	9.01	Included in FM Office Suite area	1	104		Included in FM Office Suite area
FM Charge Hand	0			97	9.04	Included in FM Office Suite area	1	97		Included in FM Office Suite area	1 1	97	9.01	Included in FM Office Suite area
Maintenance - Loops Office Suite	E			31	3.04	Induded III I III ellice edite di ed	1	-	3.01	morado in i in omos care area		-	3.01	induded in the eniod edite and
Loop Coordinator	0			85		Included in Loops Office Suite area	1	85		Included in Loops Office Suite area	¶ <u> </u>	85		Included in Loops Office Suite area
Loop Charge Lead Hand	0			95	8.83	Included in Loops Office Suite area	1	95		Included in Loops Office Suite area	1 1	97		Included in Loops Office Suite area
Maintenance - Facility Training	E			93	0.00	Share Training Suite with Maintenance - Vehicle	'	93	0.03	Share Training Suite with Maintenance - Vehicle	1 📂	91	0.91	Share Training Suite with Maintenance - Vehicle
Wood Working Shop	F			2,117	196.71	Chare Training dute with Maintenance - Vehicle	1	4,615	428.75	Onare Training Oute with Maintenance - Vehicle		4,615	428.75	onare training dute with Maintenance - vehicle
Wood Working Shop Office	E			205	190.71		1	205	19.05			205	19.05	
HVAC / Industrial Mech Shop	E			203	13.04		1	1,282	119.06			1,282	119.06	
HVAC / Industrial Mech Shop Office	E						1	1,262	14.04			151	14.04	
Electrical - FM Shop	E						1	1,599	148.51			1,599	148.51	
Electrical FM Shop Office	E						1	223	20.76			223	20.76	
FM Stores	E		1	2,597	241.24		1	2,597	241.27		2	2,597	241.27	
Custodial			- <u> </u>	2,597	241.24	included	1	2,597	241.27	included	4 1	2,597	- 241.21	included
Mechanical	E					included	1	-	<u> </u>	included	1 1	-	-	included
Electrical	E					included	1			included	1 1	-		included
Licotrical	-						انت ا				ـــا ل			
STORES / PARTS														
Stores	E		1	8,386	779.07		1	11,232	1043.51		1	11,232	1,043.51	
Stores Manager	E		1	220	20.40		1	220	20.40		1	220		
Warehouse Tech	0		1	97	8.98	Area within Stores SF	1	97	8.98	Area within Stores SF	1	97		Area within Stores SF
Parts Counter	0		1	240	22.26		1	240	22.30		1	240	22.30	
Cycle Counter	0		1	94	8.73		1	94	8.73		1	94	8.73	
Secure Storage / Tool Crib	E		1	512	47.55		1	512	47.55		1	512	47.55	
Shipping Receiving	A		1	1,136	105.57		1	1,136	105.54		1	1,136	105.54	
Consumables Area	Α		1	385	35.78		1	385	35.77		2	385	35.77	
Archives - Stores	Α		1	229	21.29		1	229	21.27		1	229	21.27	
Uniform														
Distribution	Α		1	194	17.98		1	194	18.02		1	194	18.02	
Uniform Supervisor	0		1	109	10.16	Workstation located within Uniform Storage Room	1	109		Workstation located within Uniform Storage Room	1	109	10.13	Workstation located within Uniform Storage Room
Uniform Storage	E		1	957	88.94		1	1,045			1	1,045	97.05	
Dressing Room	E				-				-		4 🗆		-	
Coffee Bar	Α				-				-				-	
Unisex Restroom	E		1	116	10.74		1	116	10.74		1	116	10.74	
Canopy Covered Storage	С		1	1,029	95.60		1	1,029	95.61		1	1,029	95.61	
MaintVehcile Syst-Support, MaintFacilit	y, MaintVehciles Sys	st-Shops and Stores/Parts Subtotal		26,116	1,273.03			37,832	1,438.41			37,841	1,516.21	
		Circulation-People		2,635	244.82			5,021	466.45			5,021	-	
MaintVehcile Syst-Support, MaintFacili	ty, MaintVehciles S	Syst-Shops and Stores/Parts Total		28,751	1,517.85			42,853	1,904.86		4	42,862	1,516.21	
								,			_			



TRANSIT SATELLITE GARAGE - EASTERN CORRIDOR STUDY The City of Winnipeg, MB PRELIMINARY SPACE TAKE-OFFS PER PLANS

[E] = Enclosed, [O] = Open/Workstation, [A] = Alcove, [C] = Canopy covered, [X] = Outdoors (exterior)

225	350	500	Total Revenue Fleet at East Garage
			20-25' / 6.1 - 7.62 m Shuttle
			30-35' / 9.14 - 10.67 m Transit Bus
			45' / 13.72 m Double Decker Transit Coaches
225	300	425	40' / 12.19 m Transit Coaches
	50	75	60' / 18.29 m Articulated Coach
2020	2035	2050	

- Callopy covered, [A] - Oddoors (exterio	• /	L	225 350	000	I otal Nevelli	de Fieet at East Galage	J							
		Initial Buildout 2020						Futur	e 1st Expansion - Est 2035	Future Maximum Expansion - Est 2050				
Space Name	+		Qty	Area sf	Area sm	Remarks	Qty	Area sf	Area sm	Remarks	Qty	Area sf	Area sm	Remarks
MAINTENANCE - VEHICLES SYSTEMS - SH	OBS	_												
n-Ground Lift Repair Bays	UPS						1				1			
. ,	0						3	4,538	421.60		7	10,585	983.36	
	0		9	11,274	1,047.41		15	16,567	1,539.15		26	28,913	2,686.08	
Platform Lift Repair Bays				11,274	1,047.41		13	10,507	1,559.15		20	20,913	2,000.00	
, ,	0		1	1,793	166.55		1	1,512	140.48		1	1,512	140.48	
	0			1,755	100.00		1 1	1,512	140.48		1	1,512	140.48	
· · · · · · · · · · · · · · · · · · ·	A		1	1,567	145.58			1,512	145.58		2	3,134	291.16	
Tire Bay	E		1	2,257	209.67			1,512	140.48		2	3,024	280.96	
·	0			2,695	250.41			1,512	140.48		1 1	1,512	140.48	
	E			2,093	210.88		2	4,553	422.95		3	4,553	422.95	
	E			2,210	210.00		1	2,674	248.42		1 1	2,674	248.42	
	E		1	2,747	255.20			2,677	248.73			2,677	248.73	
	E		1	2,747	20.24		1 1	2,077	21.10			227	21.10	
	C			723	67.18		┨┠╁	723	67.18		<u>'</u>	723	67.18	
	A		1	1,337	124.24		 	1,362	126.55			1,362	126.55	
	A		1	635	58.99		I	668	62.09		H +	668	62.09	
· · ·	A			1,083	100.65		 	2,675	248.48		2	2,675	248.48	
	E			597	55.50		-	597	55.50		2	597	55.50	
Battery Charging	0		2		204.71			2,204	204.71		$\frac{1}{4}$	4,407	409.45	
<u> </u>	0		1	2,204 1,100	102.18		2	1,100	102.18			2,202	204.55	
<u> </u>	E			1,100	102.16		-				1	 	140.64	
Chassis Wash - Articulated	E			4.500	445.47			1,514 1,514	140.64		. —	1,514		
***************************************			1	1,563	145.17	included	ا ⊢ ا	1,514	140.64	included	1	1,514	140.64	included
	A		1		-		2		-		2			
· · · · · · · · · · · · · · · · · · ·	A O		1 2	0.004	204.52	included	3	3944.3	366.44	included	1 5	E 500	- 511.17	included
	0		1	2,201	204.52	included	3	3944.3	300.44	included		5,502	511.17	included
1 3	0		1			included			-	included	-			moraucu
	E .				-	III Ouded		-	-	IIIouueu			-	
Jni-sex Toilet (Shop)	E			4 404	100.00			4 404	400.00			4 404	400.00	
Lube / Compressor Room	E		1	1,101	102.28			1,101	102.28			1,101	102.28	
Custodial Machanical Room	E				-			-	-		-	-	-	
Mechanical Room														
Electrical Room	E													
		Subtotal		37,365	3,471.35			56,254	5,226.15			82,589	7,672.73	
		Circulation -People		2,953	274.30			3,114	10,452.30			3,114		
		Circulation -Vehciles		23,801	2,211.21			33,800	20,904.60			55,270		
		Siliculation - vericiles		20,001	د,د ۱۱.۷۱ د			1 33,000	20,304.00			1 33,270	50,050.51	
	1 8441	NTENANCE - VEHICLES SYSTEMS - SH	IODE TOTAL O	64.440	5,956.86		. —	93,169	36,583.04			140.070	53,709.09	
	INIAIN	ATEMANUE - VEHICLES STOTEMS - SP	IOPS IOTALS	04,119	0,950.86			1 93,109	30,383.04			140,973	55,709.09	

TRANSIT SATELLITE GARAGE - EASTERN CORRIDOR STUDY The City of Winnipeg, MB PRELIMINARY SPACE TAKE-OFFS PER PLANS

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			_
2020	2035	2050	
	50	75	60' / 18.29 m Articulated Coach
225	300	425	40' / 12.19 m Transit Coaches
			45' / 13.72 m Double Decker Transit Coaches
			30-35' / 9.14 - 10.67 m Transit Bus
			20-25' / 6.1 - 7.62 m Shuttle
225	350	500	Total Revenue Fleet at East Garage

		Initial Buildout 2020					Futur	e 1st Expansion - Est 2035	Future Maximum Expansion - Est 2050				
Space Name +		Qty A	rea sf	Area sm	Remarks	Qty	Area sf	Area sm	Remarks	Qty	Area sf	Area sm	Remarks
- VEWS	1												
ICE - VEHICLES g Position - Articulated C		6	9.009	835.91		- 6	8,998	835.91			9,009	835.91	
ng Position - Articulated C Pull C		6 4	8,998	033.91		6 6	0,990	635.91		6	8,998	035.91	
sland Suite E		4	2.000	260.13		1	2.000	260.13		- 0	2.000	260.13	
sland Suite E sland IT / Data room E			2,800	200.13	included		2,800	200.13	included		2,800		included
sland Storage E		1			included	$ +$ $\frac{1}{1}$	-		included			-	included
Il Vacuum Equipment Room E		1		-	included	-			included	-		-	included
g Lube Room E		1		-	included		-		included	++		-	included
Vash Bay E		3	7,585	704.66	moraded	3	7,585	704.66	moraded	3	7,585	704.66	
/ash Equipment E		1	1,402	130.21			1,402	130.21		1	1,402	130.21	
or Chassis Wash -Articulated C			1,702	100.21			1,805	167.73			1,828	169.85	
r Chassis Wash - Transit E		2	3,334	309.77			1,805	167.73			1,783	165.61	
or Chassis Wash - Transit E or Chassis Wash Common Work A			3,334	309.77			1,805	107.73			1,783	105.01	
or Chassis Wash Storage E		1	304	28.22		1	310	28.22			310	28.75	
			108	10.03			108	10.03		1			
um system E E rtising Board Storage E			106		included in common work area		-	10.03	included in common work area		-	-	included in common work area
			_	-	included in common work area	- $+$ $+$			included in common work area			-	
		1	_	-	included in common work area	- $+$ $+$	-		included in common work area			-	included in common work area
anical E cical E					included in common work area	-	-		included in common work area			-	included in common work area
	SERVICE - VEHICLES 1	TOTALS	24,530	2,278.93			24,812	2,304.62			24,704	2,295.12	
F ARFAS	SERVICE - VEHICLES 1	TOTALS	24,530	2,278.93			24,812	2,304.62			24,704	2,295.12	
	SERVICE - VEHICLES 1	TOTALS											
rgency Generator O	SERVICE - VEHICLES 1	TOTALS 1	500	46.45			24,812	2,304.62		2		92.90	
gency Generator O cing Patio C	SERVICE - VEHICLES 1	TOTALS 1	500	46.45			500	46.45		2	1,000	92.90	
gency Generator O king Patio C d Working Shop Yard Storage O	SERVICE - VEHICLES 1	TOTALS 1	500	46.45						2			
gency Generator 0 king Patio C d Working Shop Yard Storage 0 age / Recycling	SERVICE - VEHICLES 1	TOTALS 1	500	46.45 - 479.45			500 5,257	46.45 488.36		2	1,000	92.90 787.16	
gency Generator 0 king Patio C d Working Shop Yard Storage 0 age / Recycling C Trash C	SERVICE - VEHICLES 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	500 - 5,161	46.45 - 479.45 4.46			500 5,257 48	46.45 488.36 4.46		1 1 1	1,000	92.90 787.16 4.46	
gency Generator 0 king Patio C d Working Shop Yard Storage 0 age / Recycling C Trash C Cardboard C	SERVICE - VEHICLES 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	500 - 5,161	46.45 - 479.45			500 5,257	46.45 488.36		1 1 1	1,000 8,473	92.90 787.16	
gency Generator	SERVICE - VEHICLES 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	500 - 5,161	46.45 - 479.45 4.46			500 5,257 48	46.45 488.36 4.46		1 1 1 1	1,000 8,473	92.90 787.16 4.46	
gency Generator	SERVICE - VEHICLES 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	500 - 5,161	46.45 - 479.45 4.46			500 5,257 48	46.45 488.36 4.46		1 1 1 1	1,000 8,473	92.90 787.16 4.46	
gency Generator	SERVICE - VEHICLES 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	500 - 5,161	46.45 - 479.45 4.46			500 5,257 48	46.45 488.36 4.46		1 1 1 1	1,000 8,473	92.90 787.16 4.46	
gency Generator	SERVICE - VEHICLES 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	500 - 5,161	46.45 - 479.45 4.46			500 5,257 48	46.45 488.36 4.46			1,000 8,473	92.90 787.16 4.46	
gency Generator	SERVICE - VEHICLES 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	500 - 5,161	46.45 - 479.45 4.46 4.46		1 1 1	500 5,257 48	46.45 488.36 4.46 4.46			1,000 8,473	92.90 787.16 4.46 4.46	
gency Generator	SERVICE - VEHICLES 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	500 - 5,161 48 48 6	46.45 - 479.45 4.46 4.46		1 1 1	500 5,257 48 48	46.45 488.36 4.46 4.46			1,000 8,473 48 48	92.90 787.16 4.46 4.46	
gency Generator	SERVICE - VEHICLES 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	500 - 5,161 48 48 6	46.45 - 479.45 4.46 4.46		1 1 1	500 5,257 48 48	46.45 488.36 4.46 4.46			1,000 8,473 48 48	92.90 787.16 4.46 4.46	
gency Generator O Cing Patio C C C C C C C C C C C C C C C C C C C	SERVICE - VEHICLES 1	1 1 1 1 1 1 1 1 1	500 - 5,161 48 48 48 6 6 390	46.45 - 479.45 4.46 4.46 0.56 36.23		1 1 1 1 1	500 5,257 48 48 6 390	46.45 488.36 4.46 4.46 0.56 36.23		1 1 1 1 1 1	1,000 8,473 48 48 6 390	92.90 787.16 4.46 4.46 0.56 36.23	
gency Generator	SERVICE - VEHICLES 1	1 1 1 1 1 1 1 1 1	500 - 5,161 48 48 48 6 6 390	46.45 - 479.45 4.46 4.46 0.56 36.23	included	1 1 1 1 1	500 5,257 48 48 6 390 3,448	46.45 488.36 4.46 4.46 0.56 36.23	included	1 1 1 1 1 1	1,000 8,473 48 48 6 390	92.90 787.16 4.46 4.46 0.56 36.23	
rgency Generator	SERVICE - VEHICLES 1	1 1 1 1 1 1 1 1 1	500 - 5,161 48 48 48 6 6 390	46.45 - 479.45 4.46 4.46 0.56 36.23	included	1 1 1 1 3	500 5,257 48 48 6 390 3,448	46.45 488.36 4.46 4.46 0.56 36.23	included	1 1 1 1 3	1,000 8,473 48 48 6 390	92.90 787.16 4.46 4.46 0.56 36.23	included
rgency Generator		1 1 1 1 1 1 1 1 1	500 - 5,161 48 48 48 6 6 390 3,448	46.45 - 479.45 4.46 4.46 0.56 36.23 320.34 - - 9.29	included	1 1 1 1 3 3 1 1	500 5,257 48 48 48 6 390 3,448 -	46.45 488.36 4.46 4.46 0.56 36.23 320.34	included	1 1 1 1 3	1,000 8,473 48 48 6 390 3,448	92.90 787.16 4.46 4.46 0.56 36.23 320.34 - - 9.29	included
rgency Generator	Subtotal	1 1 1 1 1 1 1 1 1	500 - 5,161 48 48 48 6 390 3,448	46.45 - 479.45 4.46 4.46 0.56 36.23 320.34 - 9.29 901.24	included	1 1 1 1 3 3 1 1	500 5,257 48 48 6 390 3,448	46.45 488.36 4.46 4.46 0.56 36.23 320.34 9.29	included	1 1 1 1 3	1,000 8,473 48 48 6 390 3,448	92.90 787.16 4.46 4.46 0.56 36.23 320.34 - - 9.29	included
rgency Generator		1 1 1 1 1 1 1 1 1	500 - 5,161 48 48 48 6 6 390 3,448	46.45 - 479.45 4.46 4.46 0.56 36.23 320.34 - - 9.29	included	1 1 1 1 3 3 1 1	500 5,257 48 48 48 6 390 3,448 -	46.45 488.36 4.46 4.46 0.56 36.23 320.34	included	1 1 1 1 3	1,000 8,473 48 48 6 390 3,448	92.90 787.16 4.46 4.46 0.56 36.23 320.34 - - 9.29	included
Sking Patio C C C C C C C C C	Subtotal	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	500 - 5,161 48 48 48 6 6 390 3,448	46.45 - 479.45 4.46 4.46 0.56 36.23 320.34 - 9.29 901.24		1 1 1 1 3 3 1 1	500 5,257 48 48 48 6 390 3,448 -	46.45 488.36 4.46 4.46 0.56 36.23 320.34 9.29 910.15	included	1 1 1 1 3	1,000 8,473 48 48 6 390 3,448	92.90 787.16 4.46 4.46 0.56 36.23 320.34 - - 9.29	included

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			_
2020	2035	2050	
	50	75	60' / 18.29 m Articulated Coach
225	300	425	40' / 12.19 m Transit Coaches
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			30-35' / 9.14 - 10.67 m Transit Bus
			20-25' / 6.1 - 7.62 m Shuttle
225	350	500	Total Revenue Fleet at East Garage

		Initial Buildout 2020					Future 1st Expansion - Est 2035					Future Maximum Expansion - Est 2050			
		1	<u> </u>	Initial Balldout 2020	\dashv		i utur	- 13t Expunsion - Est 2000	┪┝─		i utuie iv	uninum Enpunsion - Est 2000			
		II I													
Space Name +		Qty A	Area sf Area s	m Remarks	Qty	Area sf	Area sm	Remarks	Qty	Area sf	Area sm	Remarks			
орасе наше .		Qty /	Aleasi Aleas	Temars	Qty	Alcasi	Alea Sili	Remarks	Qty	Aleasi	Alea Sili	Kellidiks			
AGENCY VEHICLE PARKING - INTERIOR SPACES															
Ready Line															
Articulated Bus 60' / 18.29 m E					53	50330	4,675.81		75	68,594	6,372.58				
Transit Bus 40' / 12.19 m E		242	149,072 13,84	.24	300	185373.42	17,221.75		425	268,908	24,982.40				
Double Decker Transit Coach 45' / 13. E															
Transit Bus 30-35' / 9.14-10.67 m E															
Shuttle 20 -25' / 6.1 -7.62 m E															
Bad Order Line															
Articulated Bus 60' / 18.29 m E				Bad Order vehicles parked in tracks			-	Bad Order vehicles parked in tracks			-	Bad Order vehicles parked in tracks			
Transit Bus 40' / 12.19 m E				Bad Order vehicles parked in tracks			-	Bad Order vehicles parked in tracks			-	Bad Order vehicles parked in tracks			
Double Decker Transit Coach 45' / 13. E				Bad Order vehicles parked in tracks				Bad Order vehicles parked in tracks				Bad Order vehicles parked in tracks			
Transit Bus 30-35' / 9.14-10.67 m E				Bad Order vehicles parked in tracks				Bad Order vehicles parked in tracks				Bad Order vehicles parked in tracks			
Shuttle 20 -25' / 6.1 -7.62 m E				Bad Order vehicles parked in tracks				Bad Order vehicles parked in tracks				Bad Order vehicles parked in tracks			
Bicycle Parking O		1		- included	3		-	included	1		-	included			
Non-Revenue Vehicles C		50	10,000 92	.03	75	15,000	1393.55		95	19,000	1,765.16				
-		-						=				-			
	Subtotal		159,072 14,77	.27		250,703	23,291.11			356,502	33,120.14				
	Circulation (bus parking area)		113,830 10,57	.11		171,657	-			197,592	18,356.86				
			•												
AGENCY	VEHICLE PARKING - INTERIOR SPACES	TOTALS	272,902 25,35	.38		422,361	23,291.11			554,094	51,476.99				
			,			,	-,-			, , , , , ,	,				
EMPLOYEE / VISITOR VEHICLE PARKING - EXTERIOR SPACE	ES														
Employee Parking O		301	61,148 5,68	.88	391	77,548	7,204.48		571	104,348	9,694.29				
Visitor Parking O		10	2,000 18		10	2,000	185.81		10	2,000	185.81				
Handicap Accessible Parking O		15	3,000 27		21	5,200	483.09		31	8,200	761.80				
Motorcycle Parking O		5		- included	8	5,200		included	10		701.00	included			
Bicycle Parking O				included	$\frac{3}{3}$			included	$\frac{10}{3}$			included			
Disjoint arking					ب لـــّ			moradou	ے د			moradou			
	Subtotal		66,148 6,14	30		84,748	7,873.39			114,548	10,641.90				
	Circulation		42.459 3.94			58,921	5,473.95		-	88,971	8,265.68				
	Girculation		42,408 3,84	.00		30,921	5,475.95			00,971	0,200.00				
EMDLOVEE / VISITOR	VEHICLE PARKING - EXTERIOR SPACES	TOTALE	108,607 10,08	02	_	143,670	13,347.33		. —	203,519	18,907.57				
EWIPLOTEE / VISITOR	VEHICLE PARKING - EXTERIOR SPACES	TOTALS	100,007 10,08	.32		143,070	13,341.33			203,519	10,907.57				