



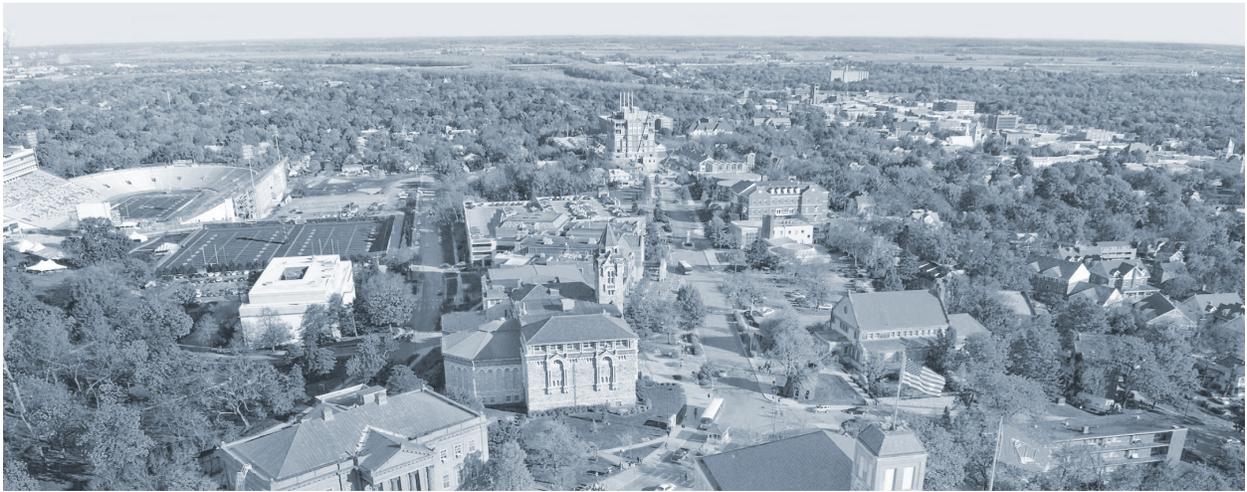
City of Lawrence

# Lawrence Field Operations Facility

## **Division Programming Summary**

12 May 2020





DAKE|WELLS  
architecture



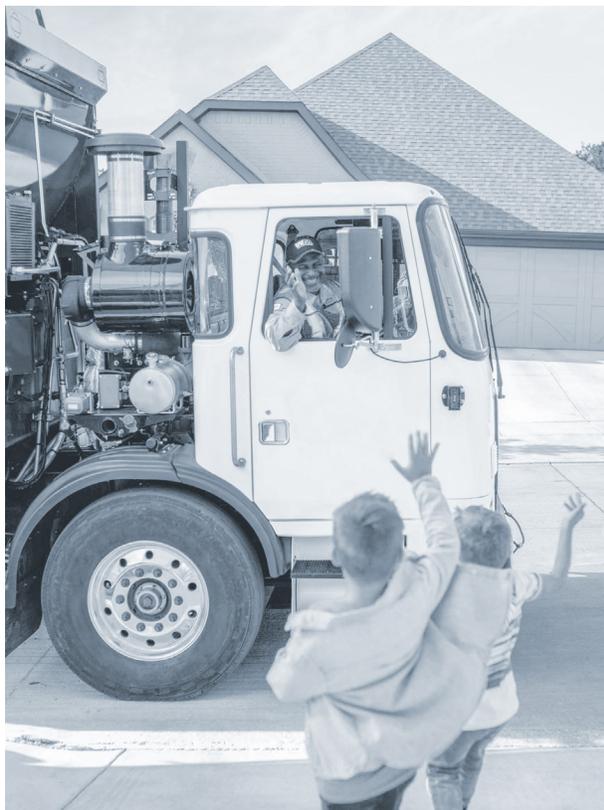
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# 1 - Introduction

**The Lawrence Field Operations Facility.** In recent years, the City of Lawrence Kansas has streamlined city services to create the Municipal Services and Operations Organization, commonly referred to as MSO. The Organization is divided into several Divisions that provide services to the collective of residents and businesses in Lawrence. It is the desire of the City to create a single campus-oriented facility that consolidates the field operations for MSO Divisions--along with a few Field Operations Divisions within the Parks and Recreation Department.

In 2019, a Design Team led by Dake Wells Architecture, Oertel Architects and CFS Engineers was retained to develop a Program and Conceptual Design for the Lawrence Field Operations Facility. The purpose of this document is to outline the preliminary programmatic requirements of each individual Division, and to determine how they could interact within a campus-type facility. Brief summaries of the field operations for each Division are as follows:



## **CMG – Central Maintenance Garage**

Central Maintenance provides service and repair to the entire fleet of City owned equipment. Maintenance staff are responsible for day to day preventative maintenance services, as well as detailed large scale repairs, including repairs of specialized equipment. Divisional leadership is responsible for all fleet asset management, including fuel management and fleet equipment purchase and replacement.

## **CMED – Construction Management Engineering**

CMED provides oversight and management for city funded projects, ranging from planning to construction projects.

## **FAC – Facility Maintenance**

Facility Maintenance is responsible for the maintenance and continued operation of the current 258 facilities owned and operated by the City of Lawrence. Services include HVAC, electrical, plumbing, building structure maintenance and grounds maintenance.

## **FOR – Forestry**

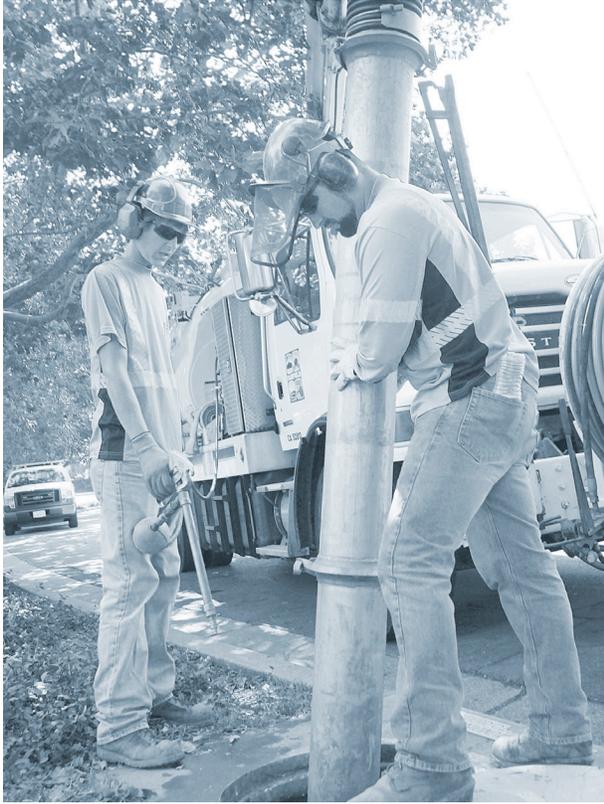
Forestry works to protect and maintain street trees throughout the City of Lawrence, enhancing community image and pride through the beautification of public spaces. Forestry works closely with Streets, Water, Wastewater, Engineering, Traffic, Horticulture and other Parks and Recreation facilities to provide these services.

## **HOR – Horticulture**

Horticulture staff provides maintenance and services which beautify and preserve parks, natural areas, municipal building exteriors, right of way landscaping, and traffic landscaping throughout the City of Lawrence to enhance community image and civic pride. Horticulture works closely with Forestry staff and Parks and Recreation facilities to provide these services.

## **HHW – Household Hazardous Waste**

The Household Hazardous Waste Facility is a component of the Environmental Division for the City of Lawrence and is a joint venture between the City of Lawrence and Douglas County. The purpose is to provide residents a proper and easy way to dispose



of common household hazardous waste and remove these dangerous items from traditional waste streams, reducing the threat to the environment and overall public health.

### **INS – Inspections**

Inspections provide installation and repair oversight for all City of Lawrence infrastructure construction and repair activities.

### **SWD – Solid Waste**

Solid Waste has been a city service since 1946 and provides a valuable service to Lawrence residents. The collection services are provided to residential and commercial entities within the city. Collections include trash, recycling, yard waste, bulky items and tires. The Division maintains a stock of commercial dumpsters and an operational vehicle fleet that requires specialized work areas.

### **STWT – Stormwater**

Stormwater staff oversee the construction and maintenance of stormwater infrastructure throughout the City of Lawrence and are closely integrated with the Streets Division.

### **STRT – Streets**

The Streets Division provides day to day general maintenance of the network of roads and supports other Divisions in the maintenance of their respective responsibility for city infrastructure.

### **TRAF – Traffic**

The Traffic Division maintains and monitors signs and signals throughout the City of Lawrence. To accomplish this mission, the City makes and keeps street and traffic signs, and stores and repairs signal equipment to maintain the entire traffic system with minimal downtime. The Division works closely with Streets, Distribution and Collection divisions for use of signs and coordinating maintenance activities.

### **WSWT – Wastewater Collections**

Wastewater Collection staff is responsible for maintaining the city's sanitary sewer system. Their work efforts prevent sewer backups and overflows to homes and businesses within the City.

### **WTDT – Water Distribution**

Distribution staff is responsible for maintaining the water distribution system for the City of Lawrence. They ensure safe, clean water and fire protection to all customers. Distribution services include providing water meters, servicing and repairing the entire water distribution network. The Distribution Division operates closely with the Streets Division and Wastewater Collections Division.

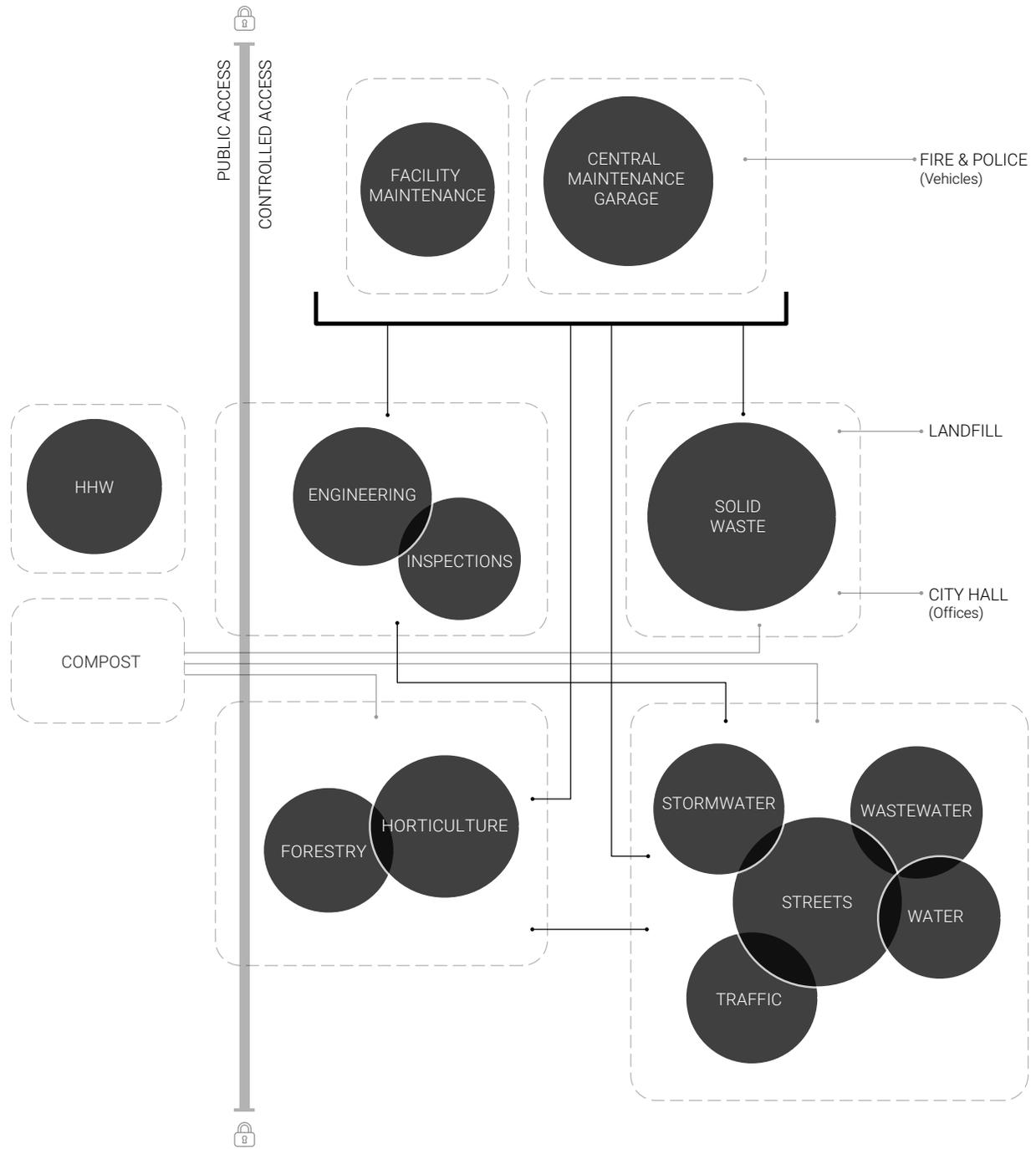


## 2 - Divisional Space Needs

Through research, site visits and preliminary interviews with Division Management, an organizational diagram has been developed to communicate the general relationship between Divisions at the Lawrence Field Operations Facility. The diagram illustrates that the entrance to the Facility will be controlled, and that public access will be limited. It also illustrates how other City Departments and services (Fire Department, Police Department, Landfill, City Hall, Composting Operation) would interact with the Facility.

After the development of the Diagram, the Programming process began in earnest. The Design Team reached out to leaders within each Division, to obtain staffing counts, vehicle and equipment lists and to determine what the critical operational spaces were. Site tours and interviews followed, resulting in Adjacency Diagrams and Space Needs spreadsheets for each Division.





### Division Organization Diagram

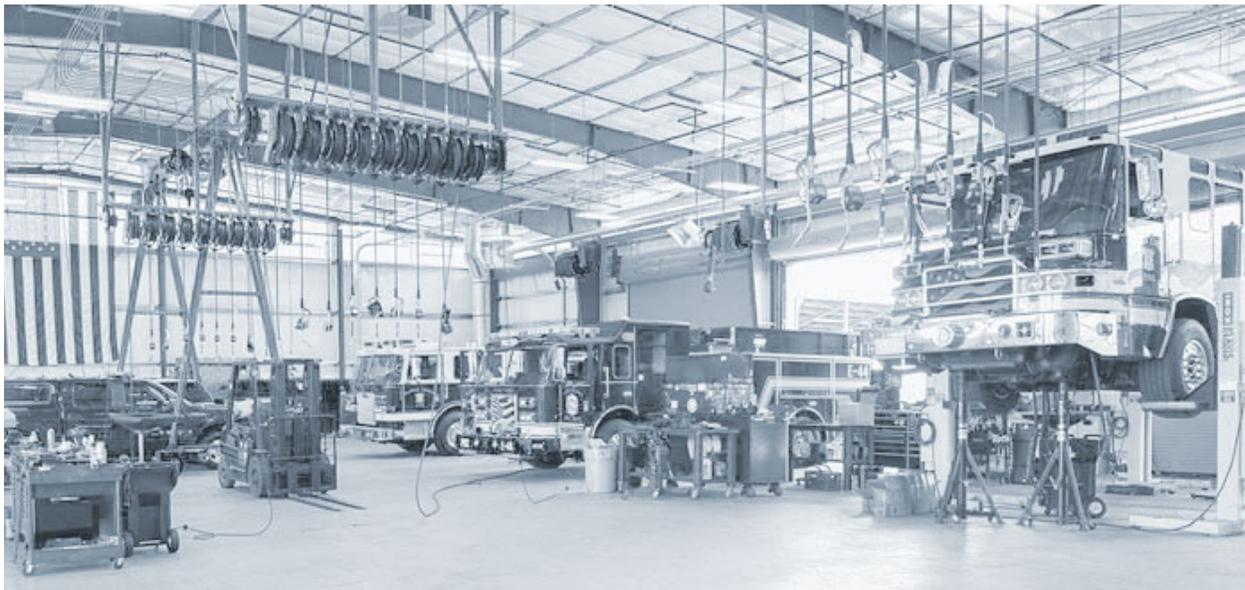
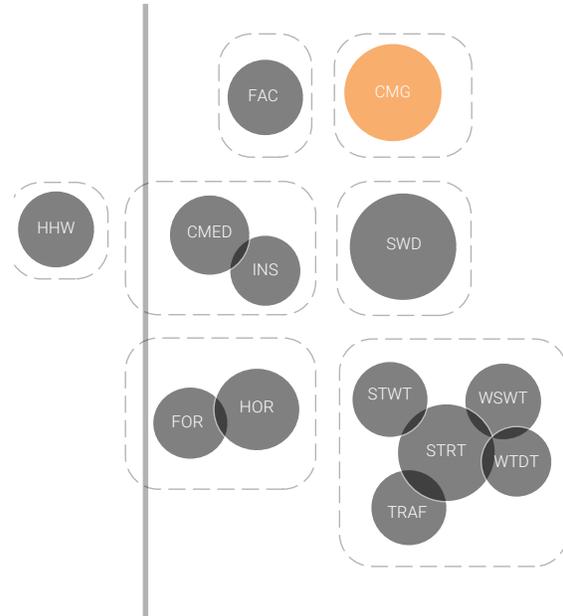
-  Secure entry
-  External connection
-  Internal connection

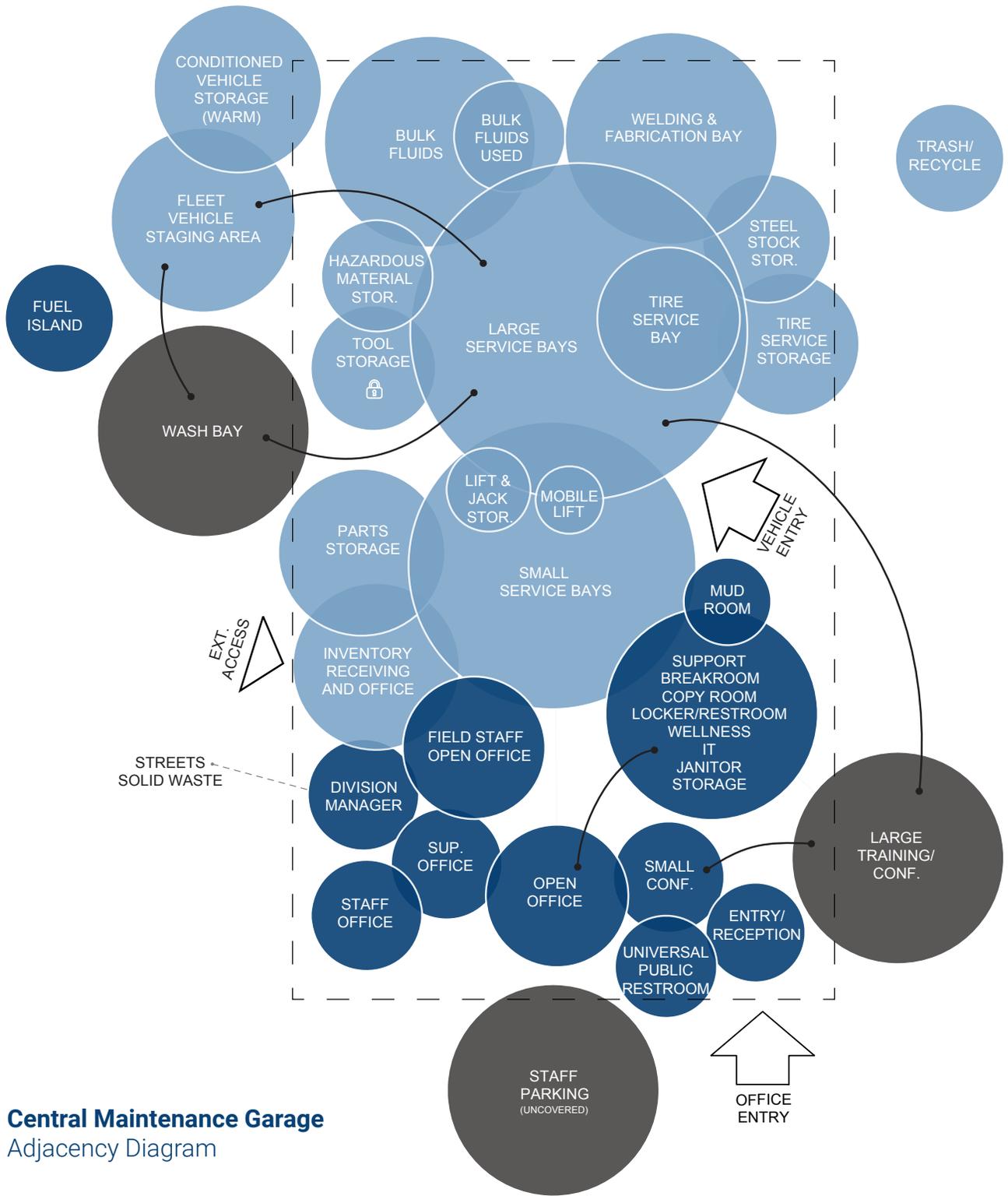
# CMG – Central Maintenance Garage

Central Maintenance has space needs that include all functions necessary for a standalone facility. Though CMG supports the entire City of Lawrence operation, due to its highly trained and specialized work force and tasks, it is a Division that should have some distinct separation from other Divisions.

CMG has a need for both large and small vehicle service bays. The number of each bay size will be based on workflow and maintenance practices, number of maintenance staff and organization of those staff. Specialized equipment storage, parts and material storage, as well as personal tool storage, is required to support the primary activity of each service bay.

CMG staff need to be supported with administrative and personnel supporting spaces. These include private offices and open office workspace, small group meeting and large group training rooms, restrooms and locker rooms based on current and projected staff make-up, break and personnel comfort areas, and administrative and function support spaces such as IT closet, general storage, janitorial and building mechanical equipment rooms.





## Central Maintenance Garage Adjacency Diagram

- Standardized Spaces
- Division Specific Spaces
- Shared Spaces

\* Some shared spaces are defined in the Space Standards section

# Central Maintenance Garage Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	0	1	100	
DIV.1b - Reception *	100	10' x 10'	1	100	
DIV.2 - Division Manager Office	180	12' x 15'	1	180	
DIV.3 - Supervisor Office	150	10' x 15'	2	300	
DIV.4 - Staff Office	120	12' x 10'	1	120	
DIV.5 - Field Staff Workstation / Open Office	684	6'x6' x (FTE+1/2PTE)	1	684	
DIV.6a - Small Conference Room *	120	12' x 10'	1	120	
DIV.6b - Standard Conference Room *	NA			-	
DIV.7 - Large Conference Room-Training Room *	500	20' x 25'	1	500	
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	216	
DIV.9 - Breakroom *	750	25 sf x Staff #	1	750	
DIV.10a - Universal Public Restroom *	72	8' x 9'	2	144	
DIV.10b - Men's Locker and Restroom *	445	TBD	1	445	
DIV.10c - Women's Locker and Restroom *	251	TBD	1	251	
DIV.10d - Wellness Room *	168	12' x 14'	1	168	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	2	126	
DIV.11 - General Storage / Supply Closets	100	10' x 10'	1	100	
DIV.12 - Mud Room / Wash Area	96	8' x 12'	1	96	
DIV.13 - General Computer Area *	NA			-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	NA			-	
DIV.10g - Mechanical and Electrical Room	667	15% of supported	1.0	667	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				5,115	
CIRCULATION @ 30%				1,535	
<b>TOTAL</b>				6,650	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	6	1,200	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	1,200				
<b>DOUBLE TRAFFIC LANE STORAGE INCREASE</b>	1,440			2,640	Parking plus traffic lane serving parking
Mezzanine Storage				880	Maximum 1/3 of open storage area (IBC)
General Storage area				330	Area created by angled parking, used for small implement storage
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				2,640	Parking plus traffic lane serving parking
CIRCULATION @ 15%				396	
<b>TOTAL</b>				3,366	Sum of parking and traffic lanes, plus additional circulation and general storage

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
CMG.1a - Large Service Bay	1,456	28' x 52'	18	26,208	Bays based on Projected Fleet & Vehicles per Mechanic
CMG.1b - Small Service Bay	704	22' x 32'	12	8,448	Bays based on Projected Fleet & Vehicles per Mechanic
CMG.2 - Welding and Fabrication Bay	2,560	32' x 80'	2	5,120	
CMG.2b - Steel Stock Storage	200	10' x 20'	2	400	
CMG.3a - Tire Service Bay	1,456	28' x 52'	1	1,456	
CMG.3b - Tire Service Storage	800	20' x 40'	1	800	
CMG.4.a - Bulk Fluids Room - Waste Oil	180	15' x 12'	1	180	
CMG.4.b - Bulk Fluids Room - Virgin Fluids	2,000	50'x40'	1	2,000	
CMG.5 - Parts Storage	1,500	50' x 30'	1	1,500	
CMG.6 - Tool Storage	450	15' x 30'	1	450	
CMG.7 - Mobile Lift and Jack Storage	64	8' x 8'	5	320	
CMG.8 - Hazardous Material Storage	150	15' x 10'	1	150	
CMG.9 - Inventory Receiving Area and Office	300	15' x 20'	1	330	
CMG.10 - Wash Bay - Degreasing Bay	1,680	56' x 30'	1	1,680	
CMG Division Operation Critical Spaces	49,042				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				49,042	
CIRCULATION @ 30%				14,713	
<b>TOTAL</b>				63,755	

UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	0	0	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	0				
DOUBLE TRAFFIC LANE STORAGE INCREASE	0			0	Parking plus traffic lane serving parking
Mezzanine Storage				0	Maximum 1/3 of open storage area (IBC)
General Storage area				0	Area created by angled parking, used for small implement storage
<b>UNCONDITIONED VEHICLE STORAGE SUBTOTAL</b>				0	Parking plus traffic lane serving parking
CIRCULATION @ 15%				0	
<b>TOTAL</b>				0	Sum of parking and traffic lanes, plus additional circ and storage

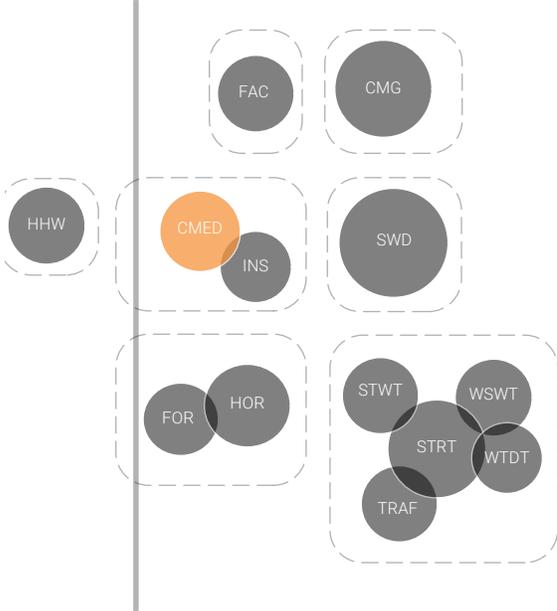
SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18' +1/2 of 27' Drive	30	8,505	1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	0	0	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	1	367	
DIV.15 - Trash / Recycling Area	900	30'x30' (can vary)	1	900	
CMG.11 - Fleet Vehicle Staging Area	900	20' x 45'	6	5,400	
Fuel Island	1,500	30' x 50'	1	1,500	
<b>SITE PROGRAM SUB-TOTAL</b>				16,672	
SITE CIRCULATION @ 150%				25,008	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				41,681	

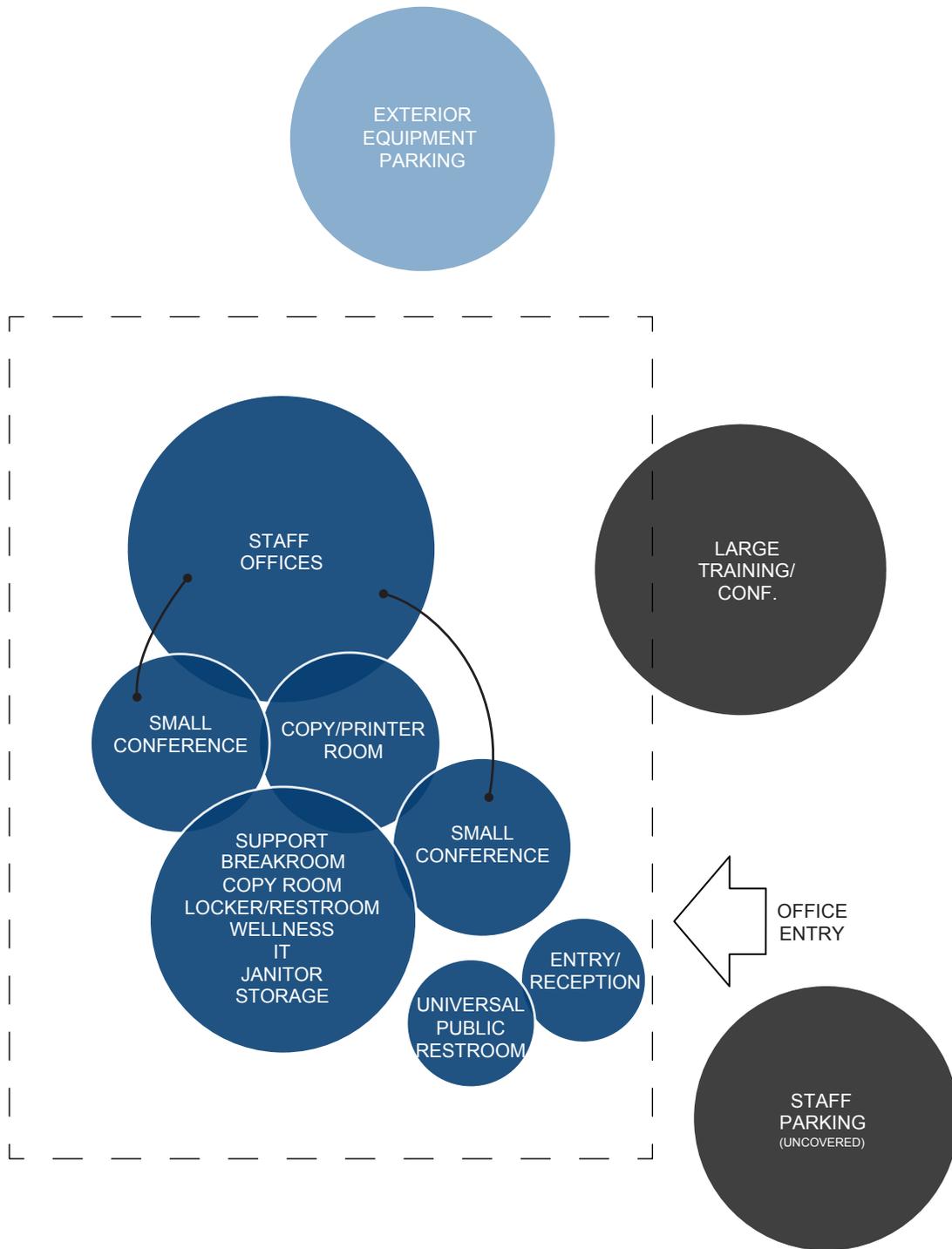
SITE AREA TOTALS					
<b>MAIN BUILDING</b>	73,770				
CIRCULATION AROUND BUILDING	15,939	25% of subtotal			
<b>COLD STORAGE</b>	0				
CIRCULATION AROUND BUILDING	0	25% of subtotal			
<b>SITE PROGRAM REQUIREMENTS</b>	41,681				
CIRCULATION AROUND BUILDING	10,420	25% of subtotal			
<b>Program Totals</b>	141,810				
<b>25% GREEN SPACE</b>	35,452				
Stormwater Management	35,452	25% of subtotal			
<b>GRAND TOTAL SITE AREA NEEDED</b>	276,529	8.25			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

\* Sharing potential across Divisions

# CMED - Construction Management Engineering Division

CMED's space needs are well suited for combining with another MSO division at a central facility. Space needs as identified are limited to office function based on staff hierarchy and number, meeting rooms, and staff support spaces such as break rooms and locker rooms. Vehicles ideally would be parked indoors but could be parked in an outdoor fleet lot.





## Construction Management Engineering Division Adjacency Diagram

- Standardized Spaces
- Division Specific Spaces
- Shared Spaces

\* Some shared spaces are defined in the Space Standards section

## Construction Management Engineering Division Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	10'x10'	1	100	
DIV.1b - Reception *	100	10' x 10'	1	100	
DIV.2 - Division Manager Office	180	12' x 15'	0	0	
DIV.3 - Supervisor Office	150	10' x 15'	0	0	
DIV.4 - Staff Office	120	12' x 10'	23	2,760	
DIV.5 - Field Staff Workstation / Open Office	0	6'x6' x (FTE+1/2PTE)	1	0	
DIV.6a - Small Conference Room *	120	12' x 10'	1	120	
DIV.6b - Standard Conference Room *	NA			-	
DIV.7 - Large Conference Room-Training Room *	500	20' x 25'	1	500	
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	216	
DIV.9 - Breakroom *	575	25 sf x Staff #	1	575	
DIV.10a - Universal Public Restroom *	72	8' x 9'	2	144	
DIV.10b - Men's Locker and Restroom *	450	Varies	1	450	
DIV.10c - Women's Locker and Restroom *	335	Varies	1	335	
DIV.10d - Wellness Room *	168	12' x 14'	1	168	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	1	63	
DIV.11 - General Storage / Supply Closets	100	10' x 10'	1	100	
DIV.12 - Mud Room / Wash Area	NA			-	
DIV.13 - General Computer Area *	NA			-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	NA			-	
DIV.10g - Mechanical and Electrical Room	852	10' x 10'	1	852	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				6,531	
CIRCULATION @ 30%				1,959	
<b>TOTAL</b>				8,490	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	0	0	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	0				
DOUBLE TRAFFIC LANE STORAGE INCREASE	0			0	Parking plus traffic lane serving parking
Mezzanine Storage				0	Maximum 1/3 of open storage area (IBC)
General Storage area				0	Area created by angled parking, used for small implement storage
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				0	Parking plus traffic lane serving parking
CIRCULATION @ 15%				0	
<b>TOTAL</b>				0	Sum of parking and traffic lanes, plus additional circulation and general storage

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
NO SPACES REQUIRED				0	
CMED Division Operation Critical Spaces	0				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				0	
CIRCULATION @ 30%				0	
<b>TOTAL</b>				0	

\* Sharing potential across Divisions

UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	0	0	Parking Spaces Only
VEHICLE PARKING SUBTOTAL	0				
DOUBLE TRAFFIC LANE STORAGE INCREASE	0			0	Parking plus traffic lane serving parking
Mezzanine Storage				0	Maximum 1/3 of open storage area (IBC)
General Storage area				0	Area created by angled parking, used for small implement storage
UNCONDITIONED VEHICLE STORAGE SUBTOTAL				0	Parking plus traffic lane serving parking
CIRCULATION @ 15%				0	
<b>TOTAL</b>				0	Maximum 1/3 of open storage area (IBC)

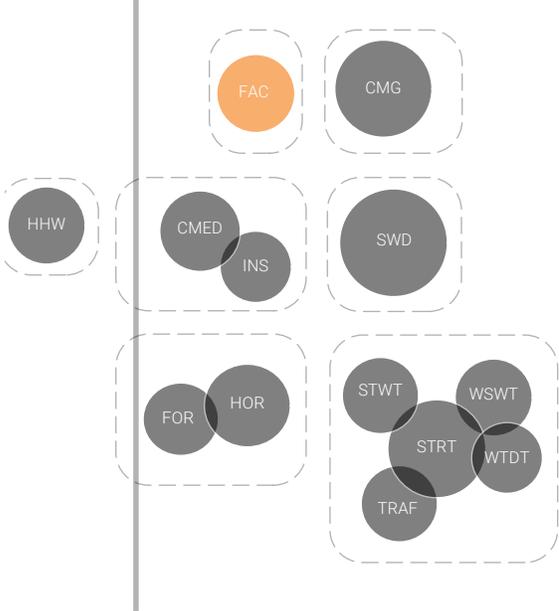
SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18'	23	6,521	1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	10	2,765	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	1	306	
SITE PROGRAM SUB-TOTAL				9,591	
SITE CIRCULATION @ 150%				14,387	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				23,978	

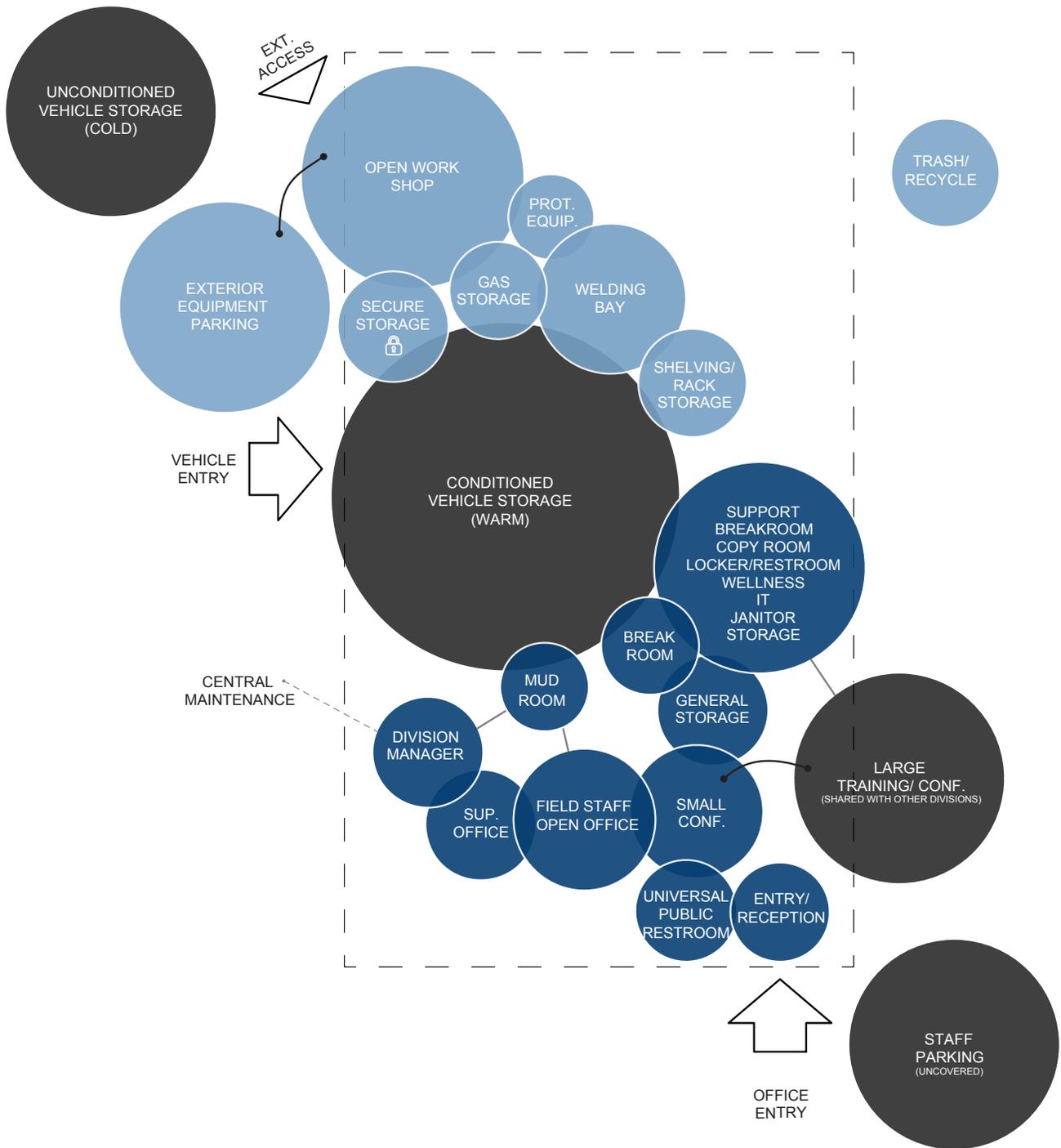
SITE AREA TOTALS					
<b>MAIN BUILDING</b>	8,490				
CIRCULATION AROUND BUILDING	2,123	25% of subtotal			
<b>COLD STORAGE</b>	0				
CIRCULATION AROUND BUILDING	0	25% of subtotal			
<b>SITE PROGRAM REQUIREMENTS</b>	23,978				
CIRCULATION AROUND BUILDING	11,989	25% of subtotal			
<b>Program Totals</b>	46,580				
<b>25% GREEN SPACE</b>	11,645				
<b>Stormwater Management</b>	11,645	25% of subtotal			
<b>GRAND TOTAL SITE AREA NEEDED</b>	90,831	2.71			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

# FAC – Facility Maintenance Division

Facility Maintenance space needs include: administrative space, personnel support space, vehicle warm storage and specialized workshop areas.

Facility Maintenance’s mission is to support every part of Lawrence’s building inventory; thus they support each and every division of MSO. There is no direct correlation between their workflow and another division of MSO, which makes them well suited for either a standalone facility, or inclusion in a centralized campus facility.





## Facility Maintenance Division Adjacency Diagram

- Standardized Spaces
- Division Specific Spaces
- Shared Spaces

\* Some shared spaces are defined in the Space Standards section

## Facility Maintenance Division Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	10'x10'	1	100	
DIV.1b - Reception *	100	10' x 10'	0	0	
DIV.2 - Division Manager Office	180	12' x 15'	1	180	
DIV.3 - Supervisor Office	150	10' x 15'	1	150	
DIV.4 - Staff Office	NA			-	
DIV.5 - Field Staff Workstation / Open Office	574	6'x6' x (FTE+1/2PTE)	1	574	
DIV.6a - Small Conference Room *	120	12' x 10'	1	120	
DIV.6b - Standard Conference Room *	NA			-	
DIV.7 - Large Conference Room-Training Room *	500	20' x 25'	0	0	Not included in program, shared with another division
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	216	
DIV.9 - Breakroom *	425	25 sf.x Staff #	1	425	
DIV.10a - Universal Public Restroom *	72	8' x 9'	1	72	
DIV.10b - Men's Locker and Restroom *	348	TBD	1	348	
DIV.10c - Women's Locker and Restroom *	252	TBD	1	252	
DIV.10d - Wellness Room *	168	12' x 14'	1	168	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	1	63	
DIV.11 - General Storage / Supply Closets	NA			-	
DIV.12 - Mud Room / Wash Area	96	8' x 12'	1	96	
DIV.13 - General Computer Area *	NA			-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	NA			-	
DIV.10g - Mechanical and Electrical Room	407	10' x 10'	1	407	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				3,219	
CIRCULATION @ 30%				966	
<b>TOTAL</b>				4,185	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	5	4,320	Parking Spaces Only
Medium Space	288	12'x24'	14	4,147	Parking Spaces Only
Pickup Space	200	10'x20'	5	1,040	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	9,507				
DOUBLE TRAFFIC LANE STORAGE INCREASE	11,409			20,916	Parking plus traffic lane serving parking
Mezzanine Storage				6,972	Maximum 1/3 of open storage area (IBC)
General Storage area				2,614	Area created by angled parking, used for small implement storage
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				20,916	Parking plus traffic lane serving parking
CIRCULATION @ 15%				3,137	
<b>TOTAL</b>				26,668	Sum of parking and traffic lanes, plus additional circ and storage

\* Sharing potential across Divisions

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
FAC.2 - Open Work Shop	750	25' x 30'	1	750	
FAC.3 - Welding Bay	384	32' x 12'	1	384	
FAC.4 - Shelving and Racking Storage	450	15' x 30'	1	450	
FAC.5 - Personal Protective Equipment Storage	80	8' x 10'	1	80	
FAC.6 - Secure Tool/Parts/Material Storage	240	20' x 12'	1	240	
FAC.7 - Refrigerant and Compressed Gas Storage	150	15' x 10'	1	150	
FAC Division Operation Critical Spaces	2,054				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				2,054	
CIRCULATION @ 30%				616	
<b>TOTAL</b>				2,670	

UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	16	3,200	Parking Spaces Only
VEHICLE PARKING SUBTOTAL	3,200				
DOUBLE TRAFFIC LANE STORAGE INCREASE	3,840			7,040	Parking plus traffic lane serving parking
Mezzanine Storage				2,347	Maximum 1/3 of open storage area (IBC)
General Storage area				880	Area created by angled parking, used for small implement storage
<b>UNCONDITIONED VEHICLE STORAGE SUBTOTAL</b>				7,040	Parking plus traffic lane serving parking
CIRCULATION @ 15%				1,056	
<b>TOTAL</b>				8,976	Sum of parking and traffic lanes, plus additional circ and storage

SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18'	18	5,103	1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	0	0	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	1	306	
DIV.15 - Trash/Recycling Area	900	30'x30' (can vary)	1	900	
<b>SITE PROGRAM SUB-TOTAL</b>				6,309	
SITE CIRCULATION @ 150%				9,464	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				15,773	

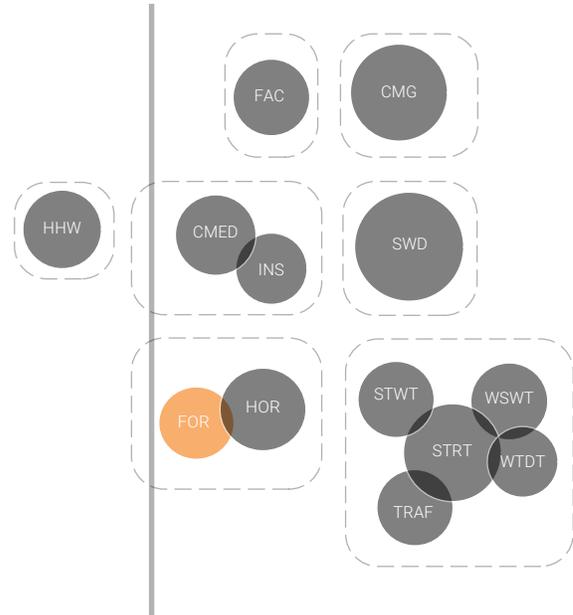
SITE AREA TOTALS					
<b>MAIN BUILDING</b>	33,523				
CIRCULATION AROUND BUILDING	8,381			25% of subtotal	
<b>COLD STORAGE</b>	8,976				
CIRCULATION AROUND BUILDING	4,488			25% of subtotal	
<b>SITE PROGRAM REQUIREMENTS</b>	15,773				
CIRCULATION AROUND BUILDING	7,886			25% of subtotal	
<b>Program Totals</b>	79,027				
<b>25% GREEN SPACE</b>	19,757				
<b>Stormwater Management</b>	19,757			25% of subtotal	
<b>GRAND TOTAL SITE AREA NEEDED</b>	154,102	4.60			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

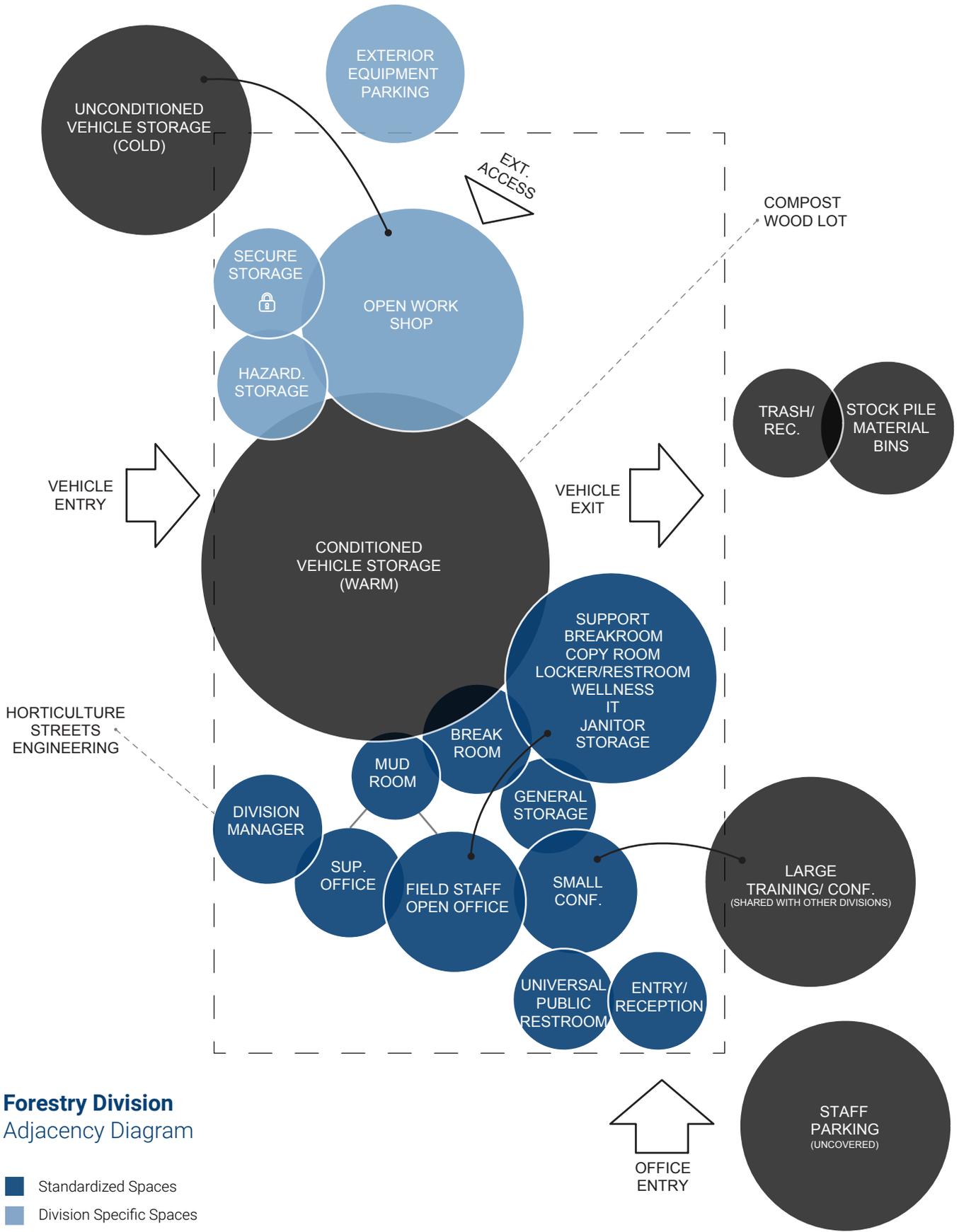
# FOR – Forestry Division

Forestry has a need for specialized work areas, both indoor and outdoor, as well as administrative support spaces. Divisional administrative spaces would include both private and open office functions. There is need for proper break space and locker room / restroom facilities. There is also a need for warm vehicle storage to support the specialized interior work areas.

Staff size and divisional function is ideal for a dedicated workshop with associated vehicle parking. Personnel areas could be combined with other Divisions, such as Horticulture, to take advantage of meeting room, break room and locker room programmatic needs.

The Forestry Division is content with their current location due to its proximity to the Woodlot, Downtown, and other City Parks and Rec buildings.





\* Some shared spaces are defined in the Space Standards section

## Forestry Division Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	10'x10'	1	100	
DIV.1b - Reception *	100	10' x 10'	0	0	
DIV.2 - Division Manager Office	180	12' x 15'	1	180	
DIV.3 - Supervisor Office	150	10' x 15'	1	150	
DIV.4 - Staff Office	120	12' x 10'	0	0	
DIV.5 - Field Staff Workstation / Open Office	378	6'x6' x (FTE+1/2PTE)	1	378	
DIV.6a - Small Conference Room *	120	12' x 10'	1	120	
DIV.6b - Standard Conference Room *	NA			-	
DIV.7 - Large Conference Room-Training Room *	500	20' x 25'	0	0	Not included in program, shared with another division
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	216	
DIV.9 - Breakroom *	263	25 sf x Staff #	1	263	
DIV.10a - Universal Public Restroom *	72	8' x 9'	1	72	
DIV.10b - Men's Locker and Restroom *	299	TBD	1	299	
DIV.10c - Women's Locker and Restroom *	246	Varies	1	246	
DIV.10d - Wellness Room *	168	12' x 14'	1	168	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	2	126	
DIV.11 - General Storage / Supply Closets	100	10' x 10'	1	100	
DIV.12 - Mud Room / Wash Area	96	8' x 12'	1	96	
DIV.13 - General Computer Area *	NA			-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	NA			-	
DIV.10g - Mechanical and Electrical Room	384	15% of supported	1	384	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				2,946	
CIRCULATION @ 30%				884	
<b>TOTAL</b>				3,829	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	5	4,320	Parking Spaces Only
Medium Space	288	12'x24'	3	922	Parking Spaces Only
Pickup Space	200	10'x20'	8	1,600	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	6,842				
DOUBLE TRAFFIC LANE STORAGE INCREASE	8,210			15,052	Parking plus traffic lane serving parking
Mezzanine Storage				5,017	Maximum 1/3 of open storage area (IBC)
General Storage area				1,881	Area created by angled parking, used for small implement storage
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				15,052	Parking plus traffic lane serving parking
CIRCULATION @ 15%				2,258	
<b>TOTAL</b>				19,191	Sum of parking and traffic lanes, plus additional circ and storage

\* Sharing potential across Divisions

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
FOR.2 - Open Work Shop	875	25' x 35'	1	875	
FOR.3 - Secure Tool/Parts/Material Storage	240	20' x 12'	1	240	
FOR.4 - Hazardous Storage	150	15' x 10'	1	150	
FOR.5 - Exterior Fleet Parking	0	0	0	0	
FOR Division Operation Critical Spaces	1,265				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				1,265	
CIRCULATION @ 30%				380	
<b>TOTAL</b>				1,645	

UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	3	640	Parking Spaces Only
VEHICLE PARKING SUBTOTAL	640				
DOUBLE TRAFFIC LANE STORAGE INCREASE	768			1,408	Parking plus traffic lane serving parking
Mezzanine Storage				469	Maximum 1/3 of open storage area (IBC)
General Storage area				176	Area created by angled parking, used for small implement storage Maximum 1/3 of open storage area (IBC)
<b>UNCONDITIONED VEHICLE STORAGE SUBTOTAL</b>				1,408	Parking plus traffic lane serving parking
CIRCULATION @ 15%				211	
<b>TOTAL</b>				1,795	Sum of parking and traffic lanes, plus additional circ and storage

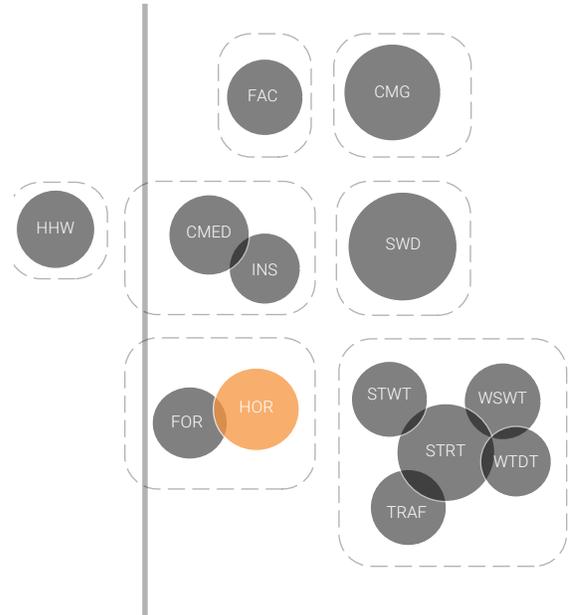
SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18'	8	2,268	1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	0	0	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	1	306	
DIV.15 - Trash Area	900	30'x30' (can vary)	1	900	
DIV.16 - Stock Pile Material Bins	800	40' x 20'	1	800	
<b>SITE PROGRAM SUB-TOTAL</b>				4,274	
SITE CIRCULATION @ 150%				6,411	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				10,685	

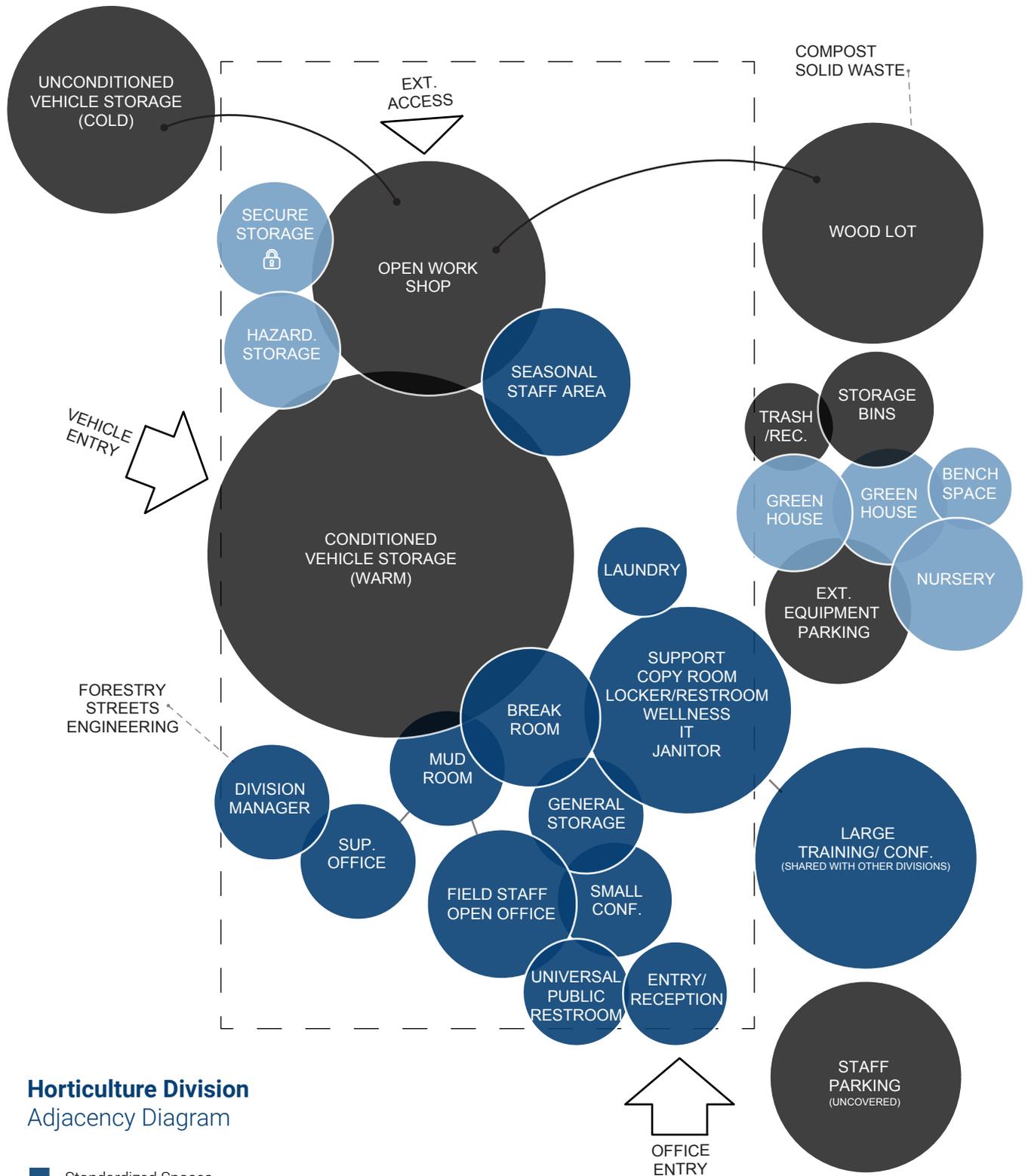
SITE AREA TOTALS					
<b>MAIN BUILDING</b>	24,665				
CIRCULATION AROUND BUILDING	6,166	25% of subtotal			
<b>COLD STORAGE</b>	1,795				
CIRCULATION AROUND BUILDING	449	25% of subtotal			
<b>SITE PROGRAM REQUIREMENTS</b>	10,685				
CIRCULATION AROUND BUILDING	2,671	25% of subtotal			
<b>Program Totals</b>	46,431				
<b>25% GREEN SPACE</b>	11,608				
<b>Stormwater Management</b>	11,608	25% of subtotal			
<b>GRAND TOTAL SITE AREA NEEDED</b>	90,541	2.70			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

# HOR – Horticulture Division

Horticulture has a need for specialized interior work areas but has a high outdoor and/or separate building work area demand. Divisional administrative spaces would include both private and open office functions. There is also a need for proper break space and locker room / restroom facilities.

Staff size and divisional function is ideal for a dedicated workshop with associated vehicle parking, and interior specialized equipment and material storage areas. Personnel areas could be combined with other divisions to take advantage of meeting room, break room and locker room programmatic needs.





## Horticulture Division Adjacency Diagram

- Standardized Spaces
- Division Specific Spaces
- Shared Spaces

\* Some shared spaces are defined in the Space Standards section

## Horticulture Division Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	10'x10'	1	100	
DIV.1b - Reception *	100	10' x 10'	0	0	
DIV.2 - Division Manager Office	180	12' x 15'	1	180	
DIV.3 - Supervisor Office	150	10' x 15'	1	150	
DIV.4 - Staff Office	120	12' x 10'	0	0	
DIV.5 - Field Staff Workstation / Open Office	648	6'x6' x (FTE+1/2PTE)	1	648	
DIV.6a - Small Conference Room *	120	12' x 10'	1	120	
DIV.6b - Standard Conference Room *	NA			-	
DIV.7 - Large Conference Room-Training Room *	500	20' x 25'	0	0	Not included in program, shared with another division
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	216	
DIV.9 - Breakroom *	450	25 sf x Staff #	1	450	
DIV.10a - Universal Public Restroom *	72	8' x 9'	2	144	
DIV.10b - Men's Locker and Restroom *	355	TBD	1	355	
DIV.10c - Women's Locker and Restroom *	265	TBD	1	265	
DIV.10d - Wellness Room *	168	12' x 14'	1	168	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	1	63	
DIV.11 - General Storage / Supply Closets	100	10' x 10'	1	100	
DIV.12 - Mud Room / Wash Area	96	8' x 12'	1	96	
DIV.13 - General Computer Area *	NA			-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	100	10' x 10'	1	100	
DIV.10g - Mechanical and Electrical Room	481	15% of supported	1	481	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				3,684	
CIRCULATION @ 30%				1,105	
<b>TOTAL</b>				4,789	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	9	1,720	Parking Spaces Only
VEHICLE PARKING SUBTOTAL	1,720				
DOUBLE TRAFFIC LANE STORAGE INCREASE	2,064			3,784	Parking plus traffic lane serving parking
Mezzanine Storage				1,261	Maximum 1/3 of open storage area (IBC)
General Storage area				473	Area created by angled parking, used for small implement storage
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				3,784	Parking plus traffic lane serving parking
CIRCULATION @ 15%				568	
<b>TOTAL</b>				4,825	Sum of parking and traffic lanes, plus additional circ and storage

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
HOR.2 - Open Workshop and Storage	750	25' x 30'	2	1,500	
HOR.3 - Seasonal Staff Area	225	15' x 15'	1	225	
HOR.4 - Secure Tool/Parts/Material Storage	240	20' x 12'	1	240	
HOR.5 - Hazardous Storage	150	15' x 10'	3	450	
HOR Division Operation Critical Spaces	1,725				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				1,725	
CIRCULATION @ 30%				518	
<b>TOTAL</b>				2,243	

UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	16	3,200	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	<b>3,200</b>				
DOUBLE TRAFFIC LANE STORAGE INCREASE	3,840			7,040	Parking plus traffic lane serving parking
Mezzanine Storage				2,347	Maximum 1/3 of open storage area (IBC)
General Storage area				880	Area created by angled parking, used for small implement storage Maximum 1/3 of open storage area (IBC)
<b>UNCONDITIONED VEHICLE STORAGE SUBTOTAL</b>				<b>7,040</b>	<b>Parking plus traffic lane serving parking</b>
CIRCULATION @ 15%				1,056	
<b>TOTAL</b>				<b>8,976</b>	<b>Sum of parking and traffic lanes, plus additional circ and storage</b>

SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18'	26	7,371	1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	14	4,147	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	14	4,406	
HOR.7 - Exterior Fleet Parking	0	0	0	0	
HOR.8 - Wood Lot / Hardscape Storage Area	16,000	80' x 200'	1	16,000	
HOR.9 - Storage Bins	800	20' x 20'	4	3,200	
HOR.10a - Greenhouse	1,200	50' x 24'	2	2,400	One Heated Greenhouse / One Unheated
HOR.10b - Bench Space	1,200	50' x 24'	1	1,200	
HOR.11 - Nursery	10,800	120' x 90'	1	10,800	
<b>SITE PROGRAM SUB-TOTAL</b>				<b>49,525</b>	
SITE CIRCULATION @ 150%				74,287	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				<b>123,812</b>	

SITE AREA TOTALS					
<b>MAIN BUILDING</b>	11,856				
CIRCULATION AROUND BUILDING	2,964	25% of subtotal			
<b>COLD STORAGE</b>	8,976				
CIRCULATION AROUND BUILDING	2,244	25% of subtotal			
<b>SITE PROGRAM REQUIREMENTS</b>	123,812				
CIRCULATION AROUND BUILDING	30,953	25% of subtotal			
<b>Program Totals</b>	180,805				
<b>25% GREEN SPACE</b>	45,201				
<b>Stormwater Management</b>	45,201	25% of subtotal			
<b>GRAND TOTAL SITE AREA NEEDED</b>	352,569	10.52			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

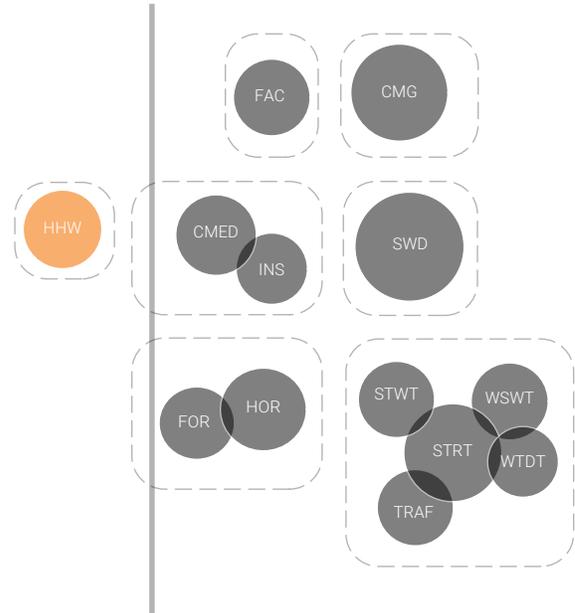
\* Sharing potential across Divisions

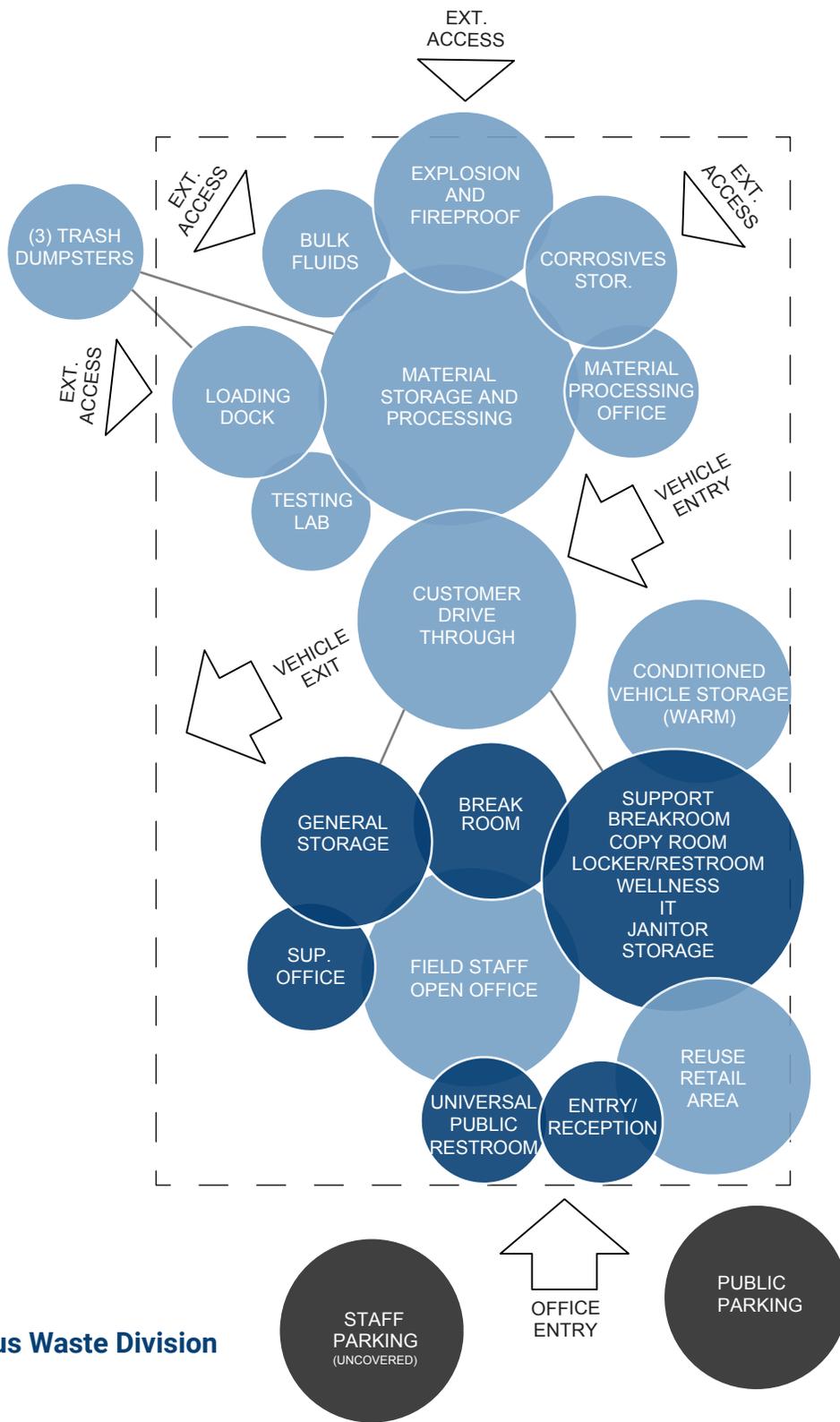
# HHW – Household Hazardous Waste Division

HHW's operation is well suited for a separate facility from a centralized Field Operations Facility (FOF). The primary mission is to receive Household Hazardous Waste Materials from Lawrence and Douglas County residents. This is a critical mission and City service but would introduce traffic flow and security risks if it were part of a centralized facility. Hours of operation include Saturday, further compounding the potential security and traffic risks. An HHW facility could be included in a campus style format, but would require separate site security, separate parking and potentially separate stormwater treatment areas due to possible contamination. This would require a significant amount of site area and possibly limit the flexibility of the available site.

As the facility handles hazardous waste, there are building code complications that require either extreme physical separation or expensive construction to make this facility part of any combined structure.

Space needs include: administrative support spaces, personnel support spaces and facility support spaces, as well as mission critical spaces to meet the operational function.





## Household Hazardous Waste Division Adjacency Diagram

- Standardized Spaces
- Division Specific Spaces
- Shared Spaces

\* Some shared spaces are defined in the Space Standards section

## Household Hazardous Waste Division Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	10'x10'	1	100	
DIV.1b - Reception *	NA			-	
DIV.2 - Division Manager Office	NA			-	
DIV.3 - Supervisor Office	150	10' x 15'	1	150	
DIV.4 - Staff Office	NA			-	
DIV.5 - Field Staff Workstation / Open Office	162	6'x6' x (FTE+1/2PTE)	1	162	
DIV.6a - Small Conference Room *	NA			-	
DIV.6b - Standard Conference Room *	NA			-	
DIV.7 - Large Conference Room-Training Room *	NA			-	
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	216	
DIV.9 - Breakroom *	138	25 sf x Staff #	1	138	
DIV.10a - Universal Public Restroom *	72	8' x 9'	3	216	
DIV.10b - Men's Locker and Restroom *				-	
DIV.10c - Women's Locker and Restroom *				-	
DIV.10d - Wellness Room *	NA			-	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	2	126	
DIV.11 - General Storage / Supply Closets	100	10' x 10'	1	100	
DIV.12 - Mud Room / Wash Area	NA			-	
DIV.13 - General Computer Area *	NA			-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	NA			-	
DIV.10g - Mechanical and Electrical Room	188	15% of supported	1	188	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				1,444	
CIRCULATION @ 30%				433	
<b>TOTAL</b>				1,877	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	1	200	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	200				
DOUBLE TRAFFIC LANE STORAGE INCREASE	240			440	Parking plus traffic lane serving parking
Mezzanine Storage				147	Maximum 1/3 of open storage area (IBC)
General Storage area				55	Area created by angled parking, used for small implement storage
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				440	Parking plus traffic lane serving parking
CIRCULATION @ 15%				66	
<b>TOTAL</b>				561	Sum of parking and traffic lanes, plus additional circ and storage

\* Sharing potential across Divisions

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
HHW.1 - Material Storage and Processing	4,096	64' x 64'	1	4,096	
HHW.2 - Customer Drive Through	225	15' x 15' min.	1	225	
HHW.3 - Testing Lab	224	14' x 16'	1	224	
HHW.4 - Material Processing Office	48	8' x 6'	1	48	
HHW.5 - Corrosives and Water Reactive Storage	224	16' x 14'	1	224	
HHW.6 - Explosion and Fire Proof Room	448	16' x 28'	1	448	
HHW.7 - Bulk Fluids Room - Waste fluids	180	15' x 12'	1	180	
HHW.8 - Loading Dock	225	15' x 15'	2	450	
HHW.9 - Staff Work Area (See DIV.5)				0	
HHW.10 - Reuse Retail Area	1,000	20' x 50'	1	1,000	
HHW.11 - Customer Restrooms (See Div.10a)				0	
HHW.12 - General Operational Storage	600	30' x 20'	1	600	
HHW Division Operation Critical Spaces	7,495				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				7,495	
CIRCULATION @ 30%				2,249	
<b>TOTAL</b>				9,744	

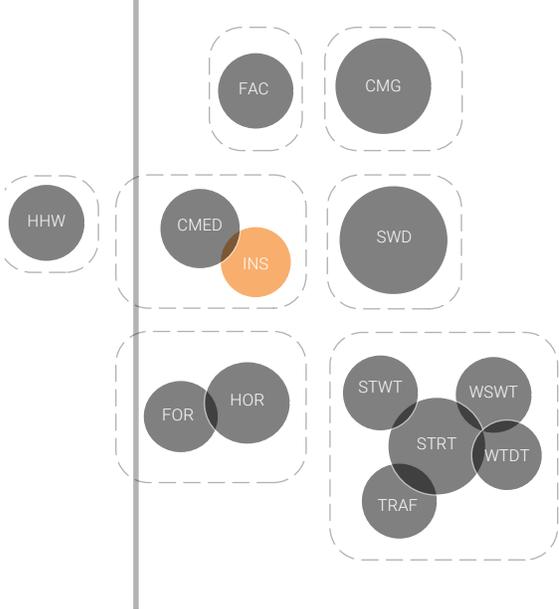
UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Maximum 1/3 of open storage area (IBC)
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	0	0	Parking Spaces Only
VEHICLE PARKING SUBTOTAL	0				
DOUBLE TRAFFIC LANE STORAGE INCREASE	0			0	Parking plus traffic lane serving parking
Mezzanine Storage				0	Maximum 1/3 of open storage area (IBC)
General Storage area				0	Area created by angled parking, used for small implement storage
<b>UNCONDITIONED VEHICLE STORAGE SUBTOTAL</b>				0	Parking plus traffic lane serving parking
CIRCULATION @ 15%				0	
<b>TOTAL</b>				0	Sum of parking and traffic lanes, plus additional circ and storage

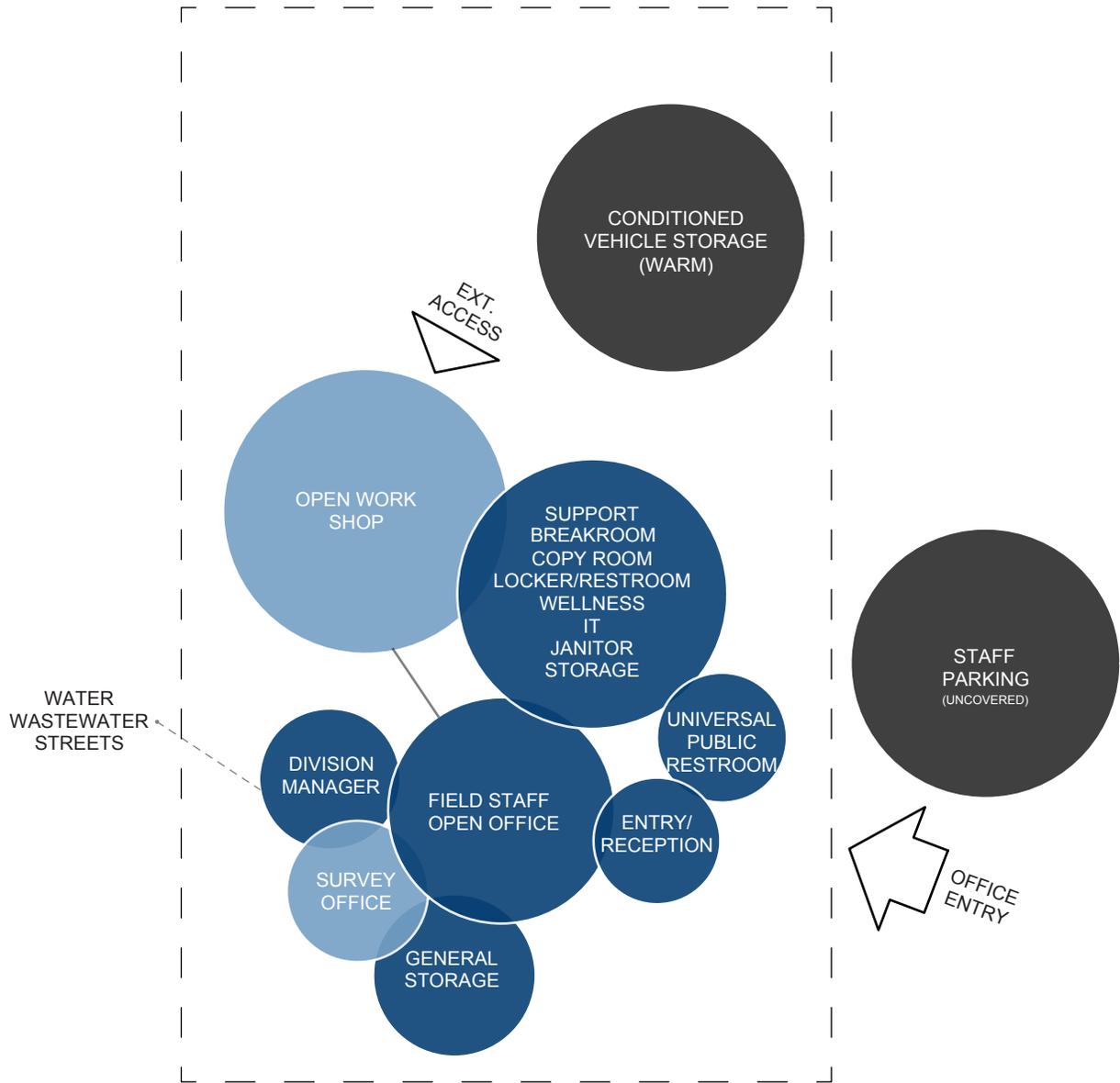
SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18'	9	2,552	1 per staff on largest shift
Public Visitors	284	9' x 18'	17	4,725	
Exterior Equipment Parking Demands	288	12' x 24'	0	0	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	2	612	
HHW.13 - Dumpster Containers	104	8' x 13'	3	312	
<b>SITE PROGRAM SUB-TOTAL</b>				8,201	
SITE CIRCULATION @ 150%				12,301	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				20,501	

SITE AREA TOTALS					
<b>MAIN BUILDING</b>	12,181				
CIRCULATION AROUND BUILDING	4,872	50% of subtotal			
<b>COLD STORAGE</b>	0				
CIRCULATION AROUND BUILDING	0	25% of subtotal			
<b>SITE PROGRAM REQUIREMENTS</b>	20,501				
CIRCULATION AROUND BUILDING	10,251	50% of subtotal			
<b>Program Totals</b>	47,805				
<b>25% GREEN SPACE</b>	11,951				
<b>Stormwater Management</b>	11,951	25% of subtotal			
<b>GRAND TOTAL SITE AREA NEEDED</b>	93,220	2.78			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

# INS - Inspections Division

Inspections' space needs are well suited for combining with other related MSO divisions at a central facility. There is a close operational relationship to most of the divisions. Space needs as identified are basically limited to office function based on staff hierarchy and number, meeting rooms, and staff support spaces such as break rooms and locker rooms. Vehicles would ideally be parked indoors but could be parked in an outdoor fleet lot. Inspections has a need for highly specialized, secure small equipment storage, and a small workshop to support maintenance of that equipment.





## Inspections Division Adjacency Diagram

- Standardized Spaces
- Division Specific Spaces
- Shared Spaces

\* Some shared spaces are defined in the Space Standards section

## Inspections Division Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	10'x10'	1	100	
DIV.1b - Reception *	NA			-	
DIV.2 - Division Manager Office	180	12' x 15'	1	180	
DIV.3 - Supervisor Office	NA			-	
DIV.4 - Staff Office	120	12' x 10'	1	120	
DIV.5 - Field Staff Workstation / Open Office	538	6'x6' x (FTE+1/2PTE)	1	538	
DIV.6a - Small Conference Room *	NA			-	
DIV.6b - Standard Conference Room *	NA			-	
DIV.7 - Large Conference Room-Training Room *	NA			-	
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	216	
DIV.9 - Breakroom *	375	25 sf x Staff #	1	375	
DIV.10a - Universal Public Restroom *	72	8' x 9'	2	144	
DIV.10b - Men's Locker and Restroom *	370	TBD	1	370	
DIV.10c - Women's Locker and Restroom *	258	TBD	1	258	
DIV.10d - Wellness Room *	168	12' x 14'	1	168	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	1	63	
DIV.11 - General Storage / Supply Closets	200	20' x 10'	1	200	
DIV.12 - Mud Room / Wash Area	96	8' x 12'	1	96	
DIV.13 - General Computer Area *	NA			-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	NA			-	
DIV.10g - Mechanical and Electrical Room	431	15% of supported	1	-	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				2,876	
CIRCULATION @ 30%				863	
<b>TOTAL</b>				3,738	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	0	0	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	0				
DOUBLE TRAFFIC LANE STORAGE INCREASE	0			0	Parking plus traffic lane serving parking
Mezzanine Storage				0	Maximum 1/3 of open storage area (IBC)
General Storage area				0	Area created by angled parking, used for small implement storage
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				0	Parking plus traffic lane serving parking
CIRCULATION @ 15%				0	
<b>TOTAL</b>				0	Sum of parking and traffic lanes, plus additional circ and storage

\* Sharing potential across Divisions

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
INS.1 - Open Work Shop	750	25' x 30'	1	750	
INS.2 - Surveyor Office - (See DIV.3)				0	
INS.3 - Common Office Area (See DIV.5)				0	
INS Division Opertion Critical Spaces	750				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				750	
CIRCULATION @ 30%				225	
<b>TOTAL</b>				975	

UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	0	0	Parking Spaces Only
VEHICLE PARKING SUBTOTAL	0				
DOUBLE TRAFFIC LANE STORAGE INCREASE	0			0	Parking plus traffic lane serving parking
Mezzanine Storage				0	Maximum 1/3 of open storage area (IBC)
General Storage area				0	Area created by angled parking, used for small implement storage
<b>UNCONDITIONED VEHICLE STORAGE SUBTOTAL</b>				0	Maximum 1/3 of open storage area (IBC)
CIRCULATION @ 15%				0	
<b>TOTAL</b>				0	Sum of parking and traffic lanes, plus additional circ and storage

SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18'	15	4,253	1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	14	4,147	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	1	306	
<b>SITE PROGRAM SUB-TOTAL</b>				8,706	
SITE CIRCULATION @ 150%				13,059	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				21,764	

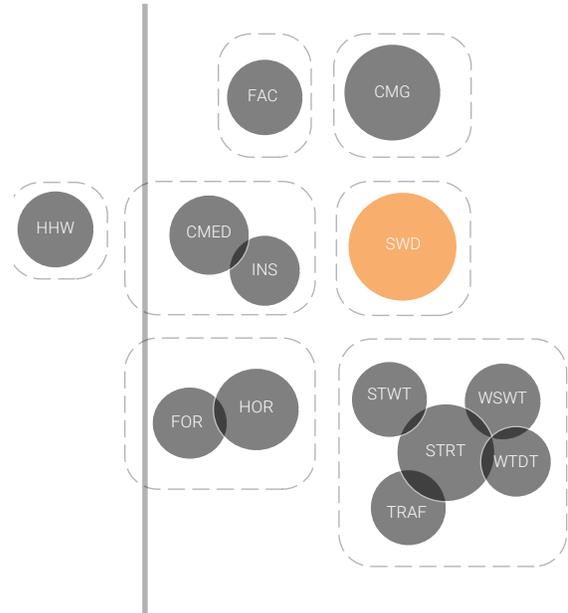
SITE AREA TOTALS					
<b>MAIN BUILDING</b>	4,713				
CIRCULATION AROUND BUILDING	1,178	25% of subtotal			
<b>COLD STORAGE</b>	0				
CIRCULATION AROUND BUILDING	0	25% of subtotal			
<b>SITE PROGRAM REQUIREMENTS</b>	21,764				
CIRCULATION AROUND BUILDING	5,441	25% of subtotal			
<b>Program Totals</b>	33,097				
<b>25% GREEN SPACE</b>	8,274				
<b>Stormwater Management</b>	8,274	25% of subtotal			
<b>GRAND TOTAL SITE AREA NEEDED</b>	64,539	1.93			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

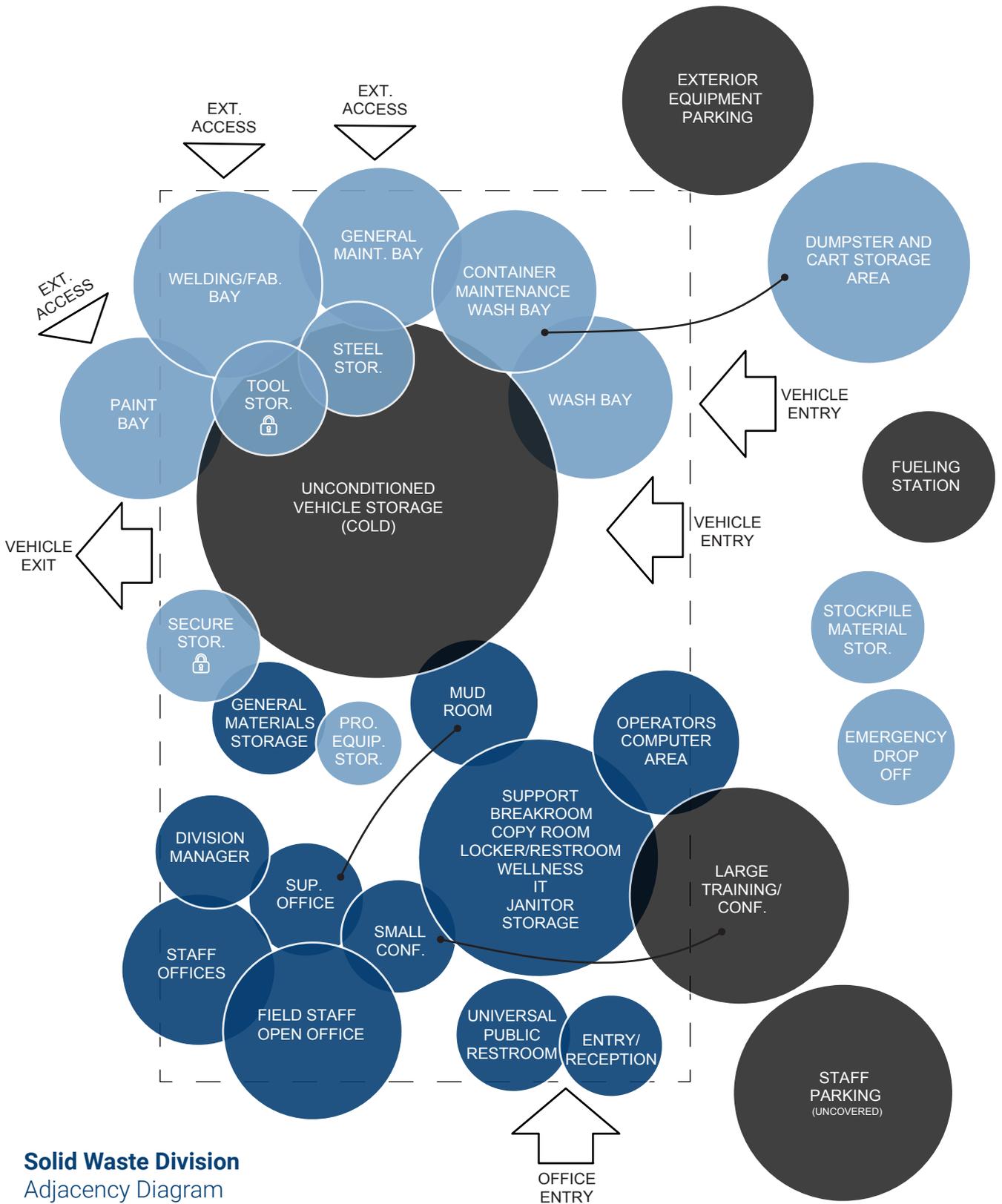
# SWD – Solid Waste Division

Solid Waste has a unique operation that requires administrative, personnel and facility support spaces, as well as highly specialized workshop and service bay functions. Due to the nature of the operation (involving environmental and health contaminant concerns) it makes sense to physically separate this Division from others, although it can still be located at a centralized campus location. Functions that must remain separate include: equipment and vehicle washing, parking and storage, as well as staff entries, wash facilities, locker / restroom facilities.

The Solid Waste vehicle fleet should be stored in a manner to prolong vehicle and equipment life. This could be either an interior, ventilated conditioned space or simply covered storage. Equipment has many moving parts that needs protection from UV exposure (hydraulic hoses) and freezing.

Although key functions must be separated, training and large meeting facilities could potentially be shared. Some equipment general maintenance can be shared or immediately adjacent to CMG to utilize like resources such as welding and exhaust, bulk fluid resources, etc.





**Solid Waste Division**  
Adjacency Diagram

- Standardized Spaces
- Division Specific Spaces
- Shared Spaces

\* Some shared spaces are defined in the Space Standards section

## Solid Waste Division Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	10'x10'	1	100	
DIV.1b - Reception *	NA			-	
DIV.2 - Division Manager Office	180	12' x 15'	1	180	
DIV.3 - Supervisor Office	150	10' x 15'	1	150	
DIV.4 - Staff Office	120	12' x 10'	6	720	
DIV.5 - Field Staff Workstation / Open Office	1,744	4' x 4' x Staff	1	1,744	
DIV.6a - Small Conference Room *	120	12' x 10'	3	360	
DIV.6b - Standard Conference Room *	NA			-	
DIV.7 - Large Conference Room-Training Room *	500	20' x 25'	1	500	
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	216	
DIV.9 - Breakroom *	2,725	25 sf x Staff #	1	2,725	
DIV.10a - Universal Public Restroom *	72	8' x 9'	2	144	
DIV.10b - Men's Locker and Restroom *	874	Varies	1	874	
DIV.10c - Women's Locker and Restroom *	656	Varies	1	656	
DIV.10d - Wellness Room *	168	12' x 14'	1	168	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	4	252	
DIV.11 - General Storage / Supply Closets	100	10' x 10'	3	300	
DIV.12 - Mud Room / Wash Area	160	16' x 10'	1	160	
DIV.13 - General Computer Area *	NA			-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	225	15' X 15'	1	225	
DIV.10g - Mechanical and Electrical Room	1,428	15% of supported	1	1,428	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				10,950	
CIRCULATION @ 30%				3,285	
<b>TOTAL</b>				14,235	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	0	0	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	0				
DOUBLE TRAFFIC LANE STORAGE INCREASE	0			0	Parking plus traffic lane serving parking
Mezzanine Storage				0	Maximum 1/3 of open storage area (IBC)
General Storage area				0	Area created by angled parking, used for small implement storage
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				0	Parking plus traffic lane serving parking
CIRCULATION @ 15%				0	
<b>TOTAL</b>				0	Sum of parking and traffic lanes, plus additional circ and storage

\* Sharing potential across Divisions

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
SWD.2 - Welding and Fabrication Bay	2,560	32' x 80'	5	12,800	
SWD.3 - General Maintenance Bay	1,680	30' x 56'	1	1,680	
SWD.4 - Paint Bay / Booth	1,680	30' x 56'	1	1,680	
SWD.5 - Wash Bay	1,680	30' x 56'	2	3,360	
SWD.6 - Container Maintenance Wash Bay	1,680	56' x 30'	1	1,680	
SWD.7 - General Materials Storage	448	16' x 28'	1	448	
SWD.8 - General Tool Storage	448	16' x 28'	1	448	
SWD.9 - Steel Stock Storage	200	10' x 20'	2	400	
SWD.10 - Personal Protective Equipment Storage	80	8' x 10'	1	80	
SWD Division Operation Critical Spaces	22,576				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				22,576	
CIRCULATION @ 30%				6,773	
<b>TOTAL</b>				29,349	

UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	0	0	Parking Spaces Only
VEHICLE PARKING SUBTOTAL	0				Maximum 1/3 of open storage area (IBC)
DOUBLE TRAFFIC LANE STORAGE INCREASE	0			0	Parking plus traffic lane serving parking
Mezzanine Storage				0	Maximum 1/3 of open storage area (IBC)
General Storage area				0	Area created by angled parking, used for small implement storage
				TOTAL	
<b>UNCONDITIONED VEHICLE STORAGE SUBTOTAL</b>				0	Parking plus traffic lane serving parking
CIRCULATION @ 15%				0	
<b>TOTAL</b>				0	Sum of parking and traffic lanes, plus additional circ and storage

SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18'	109	30,902	1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	109	31,334	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	4	1,334	
SWD.13 - Dumpster and Cart Storage Area	48,000	160' x 300'	1	48,000	
SWD.14 - Roll-Off Dumpster Storage				0	Exterior - Off Site
SWD.15/16 - Stock Pile Material Storage Bins	800	40' x 20'	2	1,600	
SWD. 17 - Emergency Container Drop Off	6,400	80' x 80'	1	6,400	
Fuel Island	1,500	30' x 50'	1	1,500	
<b>SITE PROGRAM SUB-TOTAL</b>				57,500	
SITE CIRCULATION @ 150%				86,250	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				143,750	

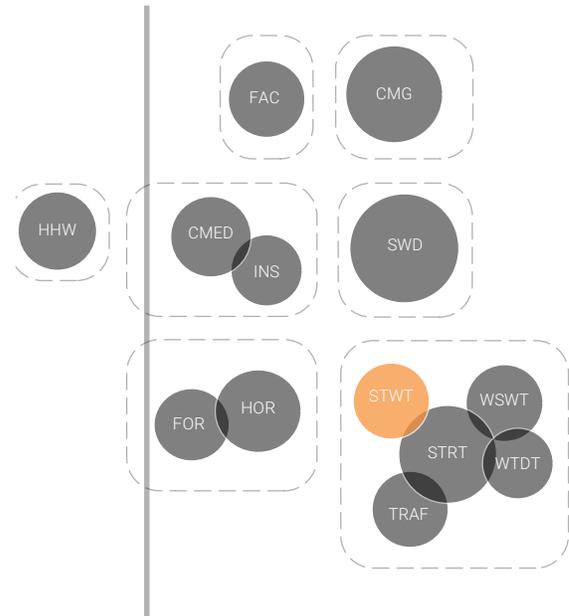
SITE AREA TOTALS					
<b>MAIN BUILDING</b>	43,584				
CIRCULATION AROUND BUILDING	43,584	25% of subtotal			
<b>COLD STORAGE</b>	0				
CIRCULATION AROUND BUILDING	0	12.5% of subtotal			
<b>SITE PROGRAM REQUIREMENTS</b>	143,750				
CIRCULATION AROUND BUILDING	17,969	12.5% of subtotal			
<b>Program Totals</b>	248,887				
<b>25% GREEN SPACE</b>	62,222				
<b>Stormwater Management</b>	62,222	25% of subtotal			
<b>GRAND TOTAL SITE AREA NEEDED</b>	485,330	14.48			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

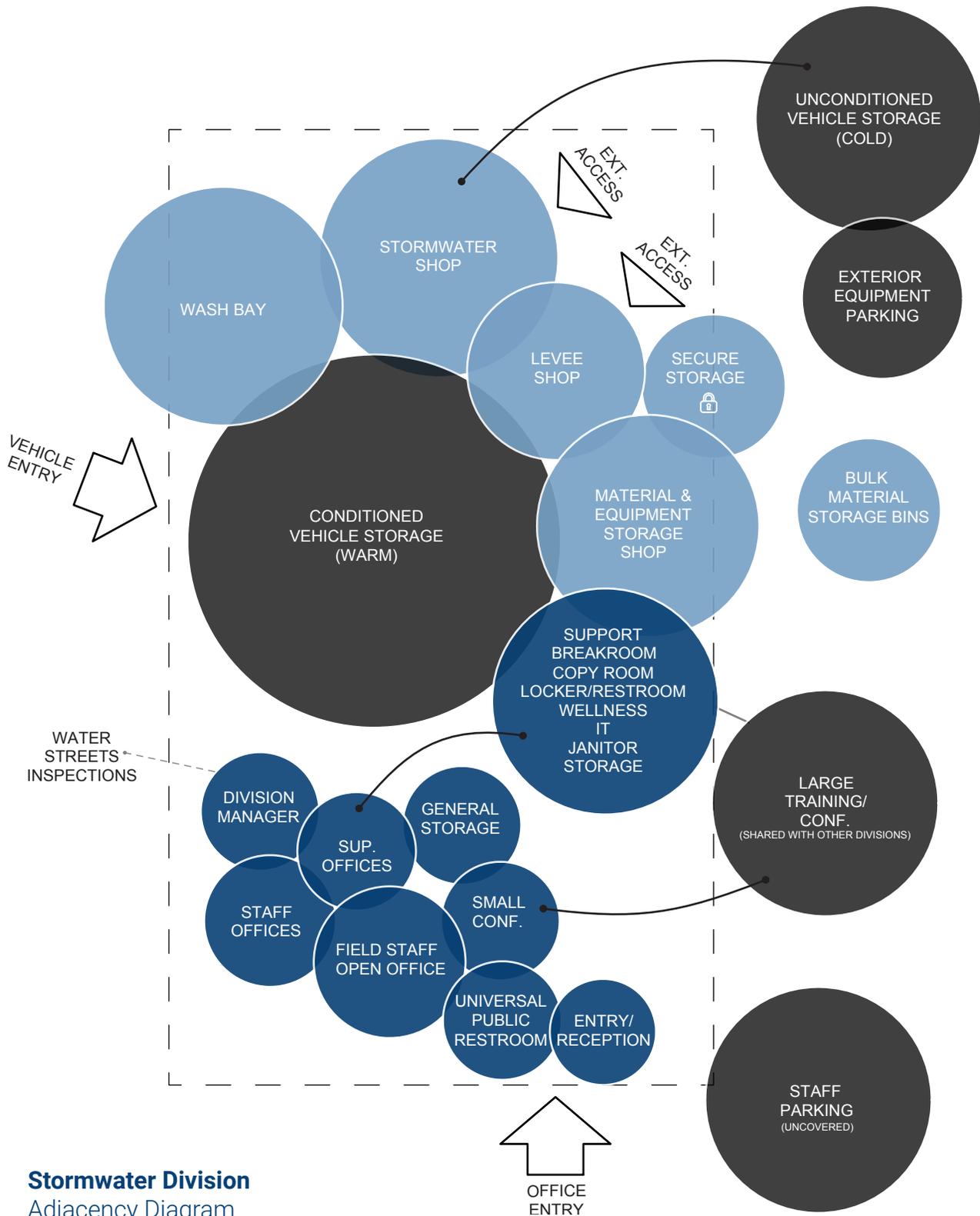
# STWT – Stormwater Division

Stormwater has a significant amount of programmatic synergies with other MSO divisions, specifically Streets. There is a need for separated private offices for manager or supervisor positions, however, open office and administrative support spaces, break space, locker and restroom functions, meeting and training rooms can be combined with several like-function divisions to take advantage of those relationships.

As a singular division, there is a separate need for specialized workshop spaces for individualized work tasks. This would include a general purpose Stormwater Workshop, but also include support shops such as Levee Shop, Concrete Shop, etc.

Stormwater also has a need for warm vehicle storage, cold storage, outdoor and covered storage, as well as site storage areas to support operations.





**Stormwater Division**  
Adjacency Diagram

- Standardized Spaces
- Division Specific Spaces
- Shared Spaces

\* Some shared spaces are defined in the Space Standards section

## Stormwater Division Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	10'x10'	1	100	
DIV.1b - Reception *	100	10' x 10'	0	0	
DIV.2 - Division Manager Office	180	12' x 15'	1	180	
DIV.3 - Supervisor Office	150	10' x 15'	2	300	
DIV.4 - Staff Office	120	12' x 10'	4	480	
DIV.5 - Field Staff Workstation / Open Office	324	6x6' x (FTE+1/2PTE)	1	324	
DIV.6a - Small Conference Room *	120	12' x 10'	1	120	
DIV.6b - Standard Conference Room *	NA		-	-	
DIV.7 - Large Conference Room-Training Room *	500	20' x 25'	0	0	Not included in program, shared with another division
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	216	
DIV.9 - Breakroom *	400	25 sf x Staff #	1	400	
DIV.10a - Universal Public Restroom *	72	8' x 9'	1	72	
DIV.10b - Men's Locker and Restroom *	380	TBD	1	380	
DIV.10c - Women's Locker and Restroom *	260	TBD	1	260	
DIV.10d - Wellness Room *	168	12' x 14'	1	168	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	1	63	
DIV.11 - General Storage / Supply Closets	100	10' x 10'	3	300	
DIV.12 - Mud Room / Wash Area	96	8' x 12'	1	96	
DIV.13 - General Computer Area *	NA		-	-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	NA		-	-	
DIV.10g - Mechanical and Electrical Room	526	15% of supported	1	526	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				4,033	
CIRCULATION @ 30%				1,210	
<b>TOTAL</b>				5,243	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	13	11,520	Parking Spaces Only
Medium Space	288	12'x24'	8	2,304	Parking Spaces Only
Pickup Space	200	10'x20'	2	400	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	14,224				
DOUBLE TRAFFIC LANE STORAGE INCREASE	17,069			31,293	Parking plus traffic lane serving parking
Mezzanine Storage				10,431	Maximum 1/3 of open storage area (IBC)
General Storage area				3,912	Area created by angled parking, used for small implement storage
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				31,293	Parking plus traffic lane serving parking
CIRCULATION @ 15%				4,694	
<b>TOTAL</b>				39,898	Sum of parking and traffic lanes, plus additional circ and storage

\* Sharing potential across Divisions

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
STWT.2 - Stormwater Shop	800	20' x 40'	1	800	
STWT.3 - Levee Shop	900	30' x 30'	1	900	
STWT.4 - Secure Storage	256	16' x 16'	1	256	
STWT.5 - Material and Equipment Storage Shop	1,350	45' x 30'	1	1,350	
STWT.6 - Wash Bay	1,680	30' x 56'	1	1,680	
STWT Division Operation Critical Spaces	4,986				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				4,986	
CIRCULATION @ 30%				1,496	
<b>TOTAL</b>				6,482	

UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	5	1,382	Parking Spaces Only
Pickup Space	200	10'x20'	16	3,120	Parking Spaces Only
VEHICLE PARKING SUBTOTAL	4,502				
DOUBLE TRAFFIC LANE STORAGE INCREASE	5,403			9,905	Parking plus traffic lane serving parking
Mezzanine Storage				3,302	Maximum 1/3 of open storage area (IBC)
General Storage area				1,238	Maximum 1/3 of open storage area (IBC)
<b>UNCONDITIONED VEHICLE STORAGE SUBTOTAL</b>				9,905	Parking plus traffic lane serving parking
CIRCULATION @ 15%				1,486	
<b>TOTAL</b>				12,629	Sum of parking and traffic lanes, plus additional circ and storage

SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18'	16	4,536	1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	13	3,686	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	1	306	
STWT.7 - Exterior Fleet Parking				0	
STWT.8 - Stormsewer Pipe and Precast Stock				0	
STWT.8 & 9 - Bulk Material Storage Bins	800	40' x 20'	8	6,400	
<b>SITE PROGRAM SUB-TOTAL</b>				10,392	
SITE CIRCULATION @ 150%				15,589	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				25,981	

SITE AREA TOTALS					
<b>MAIN BUILDING</b>	51,623				
CIRCULATION AROUND BUILDING	12,906			25% of subtotal	
<b>COLD STORAGE</b>	12,629				
CIRCULATION AROUND BUILDING	3,157			25% of subtotal	
<b>SITE PROGRAM REQUIREMENTS</b>	25,981				
CIRCULATION AROUND BUILDING	6,495			25% of subtotal	
<b>Program Totals</b>	112,792				
<b>25% GREEN SPACE</b>	28,198				
Stormwater Management	28,198			25% of subtotal	
<b>GRAND TOTAL SITE AREA NEEDED</b>	219,944	6.56			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

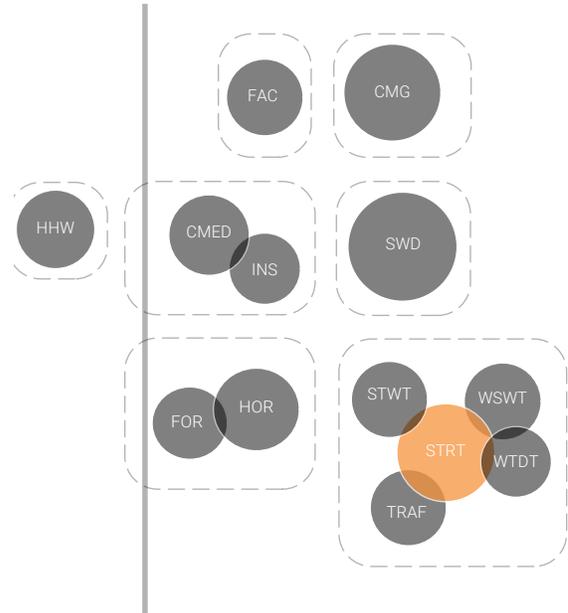
# STRT - Streets Division

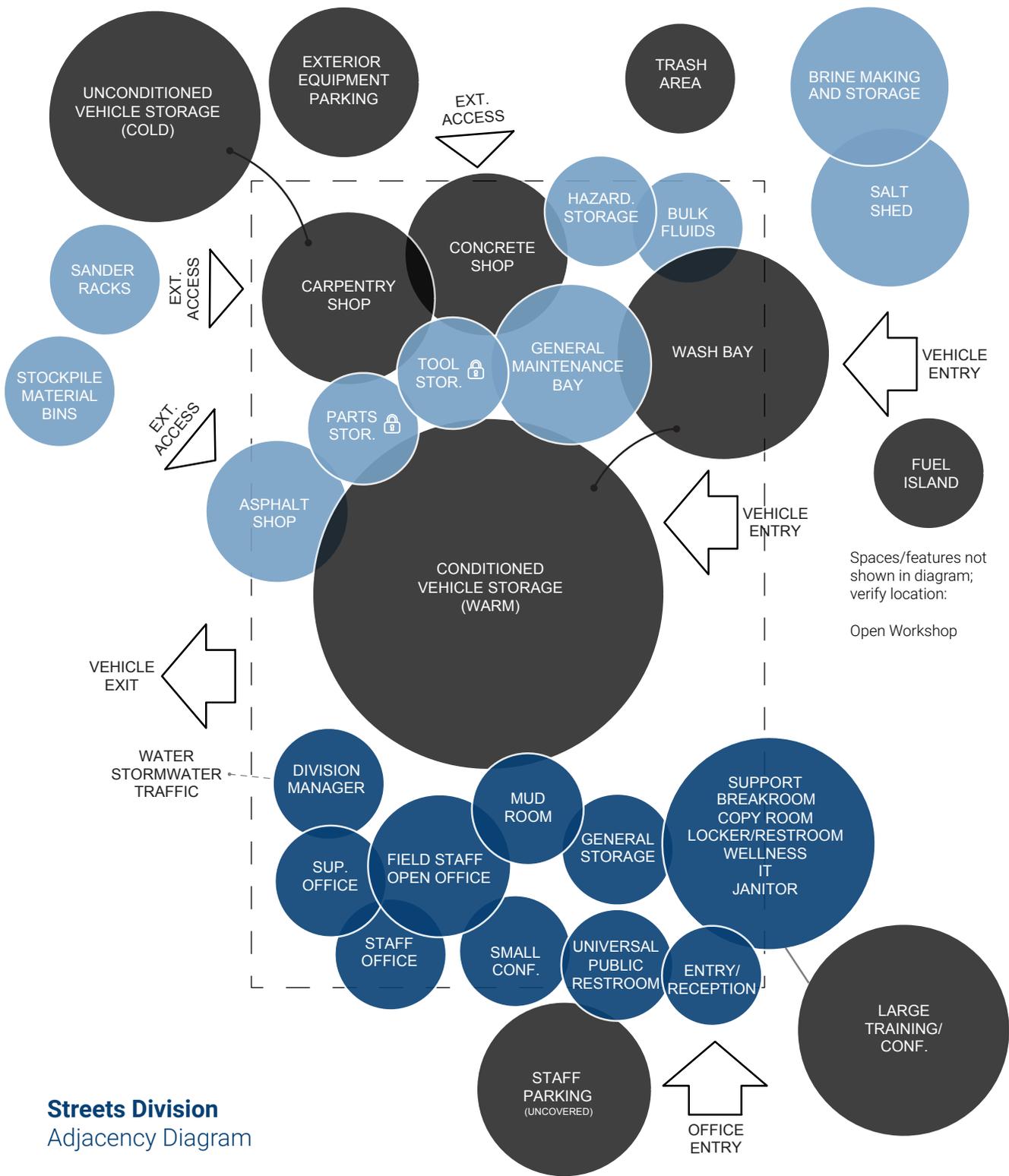
Streets has a significant amount of programmatic synergies with other MSO divisions, specifically Stormwater, and Traffic. There is a need for separated private offices for manager or supervisor positions, however, open office and administrative support spaces, break space, locker and restroom functions, meeting and training rooms can be combined with several like-function divisions to take advantage of those relationships.

As a singular division, there is a separate need for specialized workshop spaces for individualized work tasks. This could include a general purpose Streets Workshop, in addition to support shops such as a daily vehicle inspection and service bay (outside of Central Maintenance Garage), Asphalt Shop, Concrete Shop, Sign and Barricade Shop (double use as carpentry shop), etc.

Streets has a significant need for warm vehicle storage, cold storage, outdoor and covered storage, as well as site storage areas to support operations, based on operational best practices for storage and handling of the current and anticipated future vehicle and equipment inventory.

Streets employees work 12 hour shifts from 12 to 12. This may factor into amenities provided and facility access for this Division.





**Streets Division Adjacency Diagram**

- Standardized Spaces
- Division Specific Spaces
- Shared Spaces

\* Some shared spaces are defined in the Space Standards section

# Streets Division Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	10'x10'	1	100	
DIV.1b - Reception *	100	10' x 10'	1	100	
DIV.2 - Division Manager Office	180	12' x 15'	1	180	
DIV.3 - Supervisor Office	150	10' x 15'	1	150	
DIV.4 - Staff Office	120	12' x 10'	1	120	
DIV.5 - Field Staff Workstation / Open Office	1,296	6'x6' x (FTE+1/2PTE)	1	1,296	
DIV.6a - Small Conference Room *	120	12' x 10'	2	240	
DIV.6b - Standard Conference Room *	NA			-	
DIV.7 - Large Conference Room-Training Room *	500	20' x 25'	1	500	
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	216	
DIV.9 - Breakroom *	975	25 sf x Staff #	1	975	
DIV.10a - Universal Public Restroom *	72	8' x 9'	2	144	
DIV.10b - Men's Locker and Restroom *	610	Varies	1	610	
DIV.10c - Women's Locker and Restroom *	318	Varies	1	318	
DIV.10d - Wellness Room *	168	12' x 14'	2	336	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	1	63	
DIV.11 - General Storage / Supply Closets	100	10' x 10'	3	300	
DIV.12 - Mud Room / Wash Area	96	8' x 12'	1	96	
DIV.13 - General Computer Area *	NA			-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	100	10' x 10'	1	100	
DIV.10g - Mechanical and Electrical Room	884	15% of supported	1	884	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				6,775	
CIRCULATION @ 30%				2,033	
<b>TOTAL</b>				8,808	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	19	17,280	Parking Spaces Only
Medium Space	288	12'x24'	13	3,686	Parking Spaces Only
Pickup Space	200	10'x20'	4	800	Parking Spaces Only
VEHICLE PARKING SUBTOTAL	21,766				
DOUBLE TRAFFIC LANE STORAGE INCREASE	26,120			47,886	Parking plus traffic lane serving parking
Mezzanine Storage				15,962	Maximum 1/3 of open storage area (IBC)
General Storage area				5,986	Area created by angled parking, used for small implement storage
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				47,886	Parking plus traffic lane serving parking
CIRCULATION @ 15%				7,183	
<b>TOTAL</b>				61,055	Sum of parking and traffic lanes, plus additional circ and storage

\* Sharing potential across Divisions

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
STRT.2 - General Maintenance Bay	1,680	30' x 56'	1	1,680	
STRT.3 - Asphalt Shop	1,200	20' x 60'	1	1,200	
STRT.4 - Carpentry / Wood Fabrication Shop	900	30' x 30'	1	900	
STRT.5 - Concrete Shop	960	40' x 24'	1	960	
STRT.6 - Hazardous Storage	450	15' x 30'	1	450	
STRT.7 - Wash Bay	1,680	30' x 56'	1	1,680	
STRT.8 - Parts Storage	224	16' x 14'	1	224	
STRT.9 - Tool Storage	224	16' x 14'	1	224	
STRT.10 - Bulk Fluids Room	192	16' x 12'	1	192	
STRT Division Operation Critical Spaces	7,510				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				7,510	
CIRCULATION @ 30%				2,253	
<b>TOTAL</b>				9,763	

UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	3	922	Parking Spaces Only
Pickup Space	200	10'x20'	16	3,200	Parking Spaces Only
					Maximum 1/3 of open storage area (IBC)
VEHICLE PARKING SUBTOTAL	4,122				
DOUBLE TRAFFIC LANE STORAGE INCREASE	4,946			9,068	Parking plus traffic lane serving parking
Mezzanine Storage				3,023	Maximum 1/3 of open storage area (IBC)
General Storage area				1,133	Area created by angled parking, used for small implement storage
<b>UNCONDITIONED VEHICLE STORAGE SUBTOTAL</b>				9,068	Parking plus traffic lane serving parking
CIRCULATION @ 15%				1,360	
<b>TOTAL</b>				11,561	Sum of parking and traffic lanes, plus additional circ and storage

SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18'	39	11,057	1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	28	7,949	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	2	477	
DIV.15 - Trash Area	900	30'x30' (can vary)	1	900	
STRT.12 - Sander Racks	180	10' x 18'	36	6,480	
STRT.14 - Salt and Sand Mixing	4,800	60' x 80'	1	4,800	
STRT.15 - Salt Shed	8,000	100' x 80'	1	8,000	
STRT.16 - Stock Pile Material Bins	800	40' x 20'	8	6,400	
STRT.17 - Brine Making and Storage	1,920	40' x 48'	1	1,920	
Fuel Island	1,500	30' x 50'	1	1,500	
<b>SITE PROGRAM SUB-TOTAL</b>				29,100	
SITE CIRCULATION @ 150%				43,650	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				72,750	

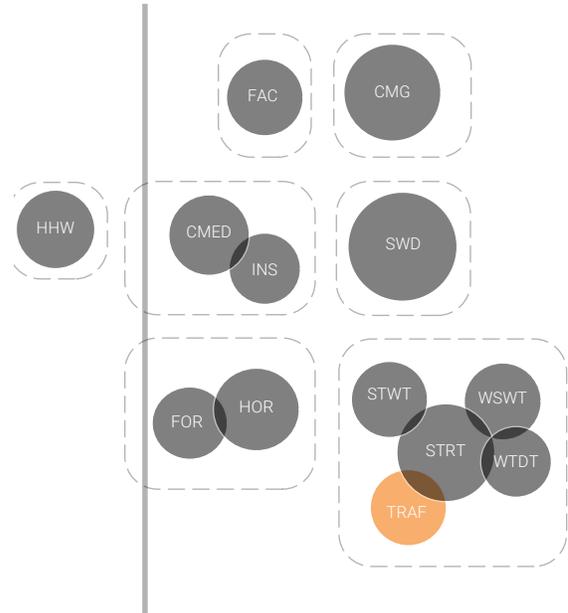
SITE AREA TOTALS					
<b>MAIN BUILDING</b>	79,626				
CIRCULATION AROUND BUILDING	19,906				
<b>COLD STORAGE</b>	11,561				
CIRCULATION AROUND BUILDING	2,890	25% of subtotal			
<b>SITE PROGRAM REQUIREMENTS</b>	72,750				
CIRCULATION AROUND BUILDING	18,188	25% of subtotal			
<b>Program Totals</b>	204,921				
<b>25% GREEN SPACE</b>	51,230				
<b>Stormwater Management</b>	51,230	25% of subtotal			
<b>GRAND TOTAL SITE AREA NEEDED</b>	399,596	11.93			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

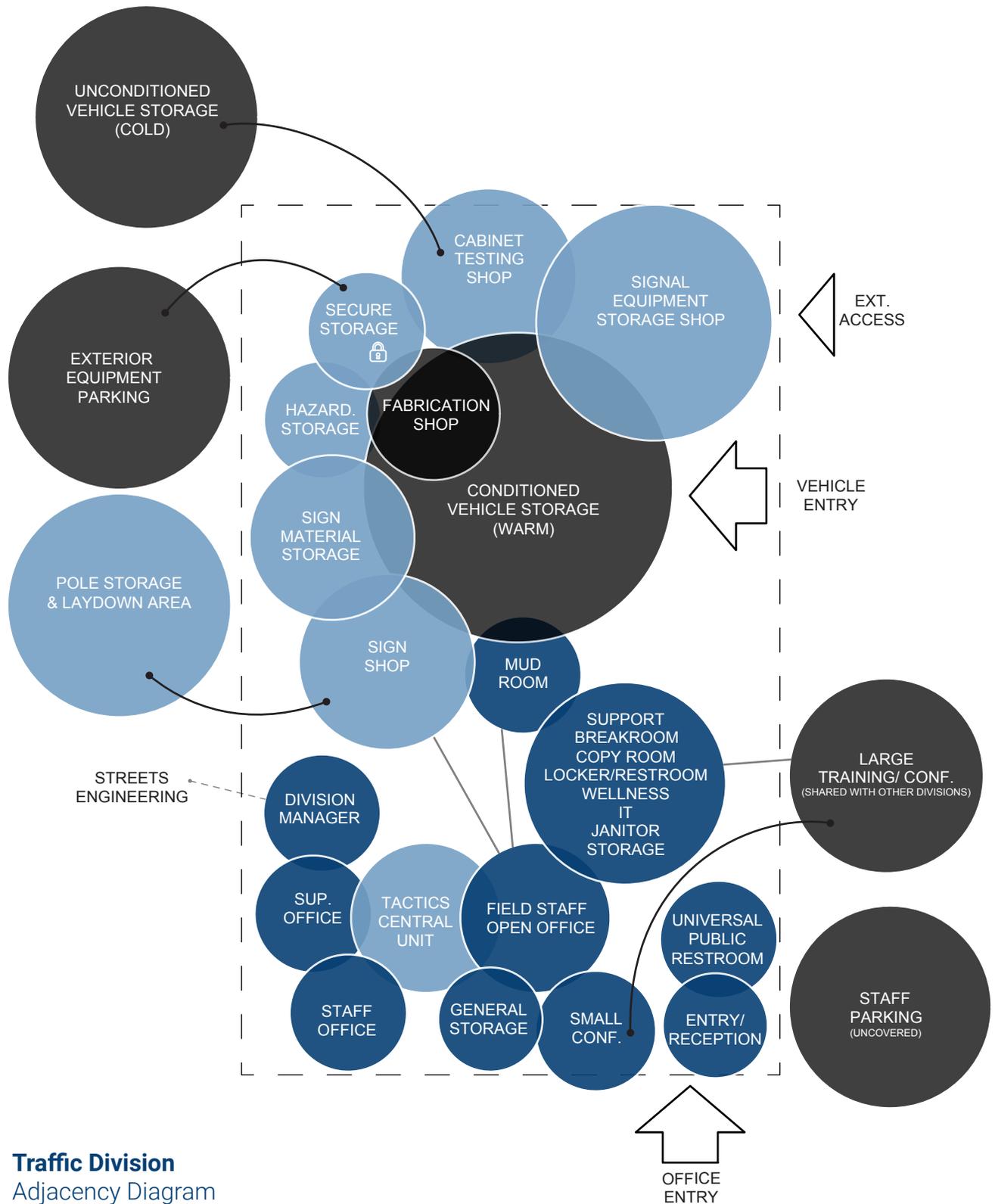
# TRAF – Traffic Division

Traffic has a significant amount of programmatic synergies with other MSO divisions, specifically Streets. There is a need for separated private offices for manager or supervisor positions, however, open office and administrative support spaces, break space, locker and restroom functions, meeting and training rooms can be combined with several like function divisions to take advantage of those relationships.

As a singular division, there is a separate need for specialized workshop spaces for specialized work tasks. This could include a general purpose Traffic Workshop, but also include support shops such as Signal Shop, Sign Making and Storage, etc.

Traffic has a need for warm vehicle storage, cold storage, outdoor and covered storage, as well as site storage areas to support operations, based on operational best practices for storage and handling of the current and anticipated future vehicle and equipment inventory.





\* Some shared spaces are defined in the Space Standards section

## Traffic Division Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	10'x10'	1	100	
DIV.1b - Reception *	100	10' x 10'	1	100	
DIV.2 - Division Manager Office	180	12' x 15'	1	180	
DIV.3 - Supervisor Office	150	10' x 15'	1	150	
DIV.4 - Staff Office	120	12' x 10'	2	240	
DIV.5 - Field Staff Workstation / Open Office	216	6'x6' x (FTE+1/2PTE)	1	216	
DIV.6a - Small Conference Room *	120	12' x 10'	1	120	
DIV.6b - Standard Conference Room *	NA			-	
DIV.7 - Large Conference Room-Training Room *	500	20' x 25'	0	0	Not included in program, shared with another division
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	180	
DIV.9 - Breakroom *	250	25 sf x Staff #	1	250	
DIV.10a - Universal Public Restroom *	72	8' x 9'	2	144	
DIV.10b - Men's Locker and Restroom *	320	Varies	1	320	
DIV.10c - Women's Locker and Restroom *	245	Varies	1	245	
DIV.10d - Wellness Room *	168	12' x 14'	1	168	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	1	63	
DIV.11 - General Storage / Supply Closets	100	10' x 10'	1	100	
DIV.12 - Mud Room / Wash Area	96	8' x 12'	1	96	
DIV.13 - General Computer Area *	NA			-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	NA			-	
DIV.10g - Mechanical and Electrical Room	408	15% of supported	1	408	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				3,128	
CIRCULATION @ 30%				938	
<b>TOTAL</b>				4,066	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	6	1,843	Parking Spaces Only
Pickup Space	200	10'x20'	4	800	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	2,643				
DOUBLE TRAFFIC LANE STORAGE INCREASE	3,172			5,815	Parking plus traffic lane serving parking
Mezzanine Storage				1,938	Maximum 1/3 of open storage area (IBC)
General Storage area				727	Area created by angled parking, used for small implement storage
				TOTAL	
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				5,815	Parking plus traffic lane serving parking
CIRCULATION @ 15%				872	
<b>TOTAL</b>				7,414	Sum of parking and traffic lanes, plus additional circ and storage

\* Sharing potential across Divisions

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
TRAF.2 - Fabrication Shop	750	25' x 30'	1	750	
TRAF.3 - Sign Shop	1,500	30' x 50'	1	1,500	
TRAF.4 - Sign Making Material Storage	1,600	40' x 40'	1	1,600	
TRAF.5 - Signal Equipment Storage Shop	4,000	50' x 80'	1	4,000	
TRAF.6 - Cabinet Testing Shop	300	15' x 20'	1	300	
TRAF.7 - Tactics Central Unit	400	20' x 20'	1	400	
TRAF.8 - Secure Storage	256	16' x 16'	1	256	
TRAF.9 - Hazardous Storage	450	15' x 30'	1	450	
TRAF Division Operation Critical Spaces	9,256				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				9,256	
CIRCULATION @ 30%				2,777	
<b>TOTAL</b>				12,033	

UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	0	0	Parking Spaces Only
					Maximum 1/3 of open storage area (IBC)
<b>VEHICLE PARKING SUBTOTAL</b>	0				
DOUBLE TRAFFIC LANE STORAGE INCREASE	0			0	Parking plus traffic lane serving parking
Mezzanine Storage				0	Maximum 1/3 of open storage area (IBC)
General Storage area				0	Area created by angled parking, used for small implement storage
<b>UNCONDITIONED VEHICLE STORAGE SUBTOTAL</b>				0	Parking plus traffic lane serving parking
CIRCULATION @ 15%				0	
<b>TOTAL</b>				0	Sum of parking and traffic lanes, plus additional circ and storage

SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18'	10	2,835	1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	6	1,843	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	1	306	
TRAF.10 - Exterior Fleet Parking	0	0	0	0	
TRAF.12 - Pole Storage and Laydown Area	3,000	100' x 30'	1	3,000	
<b>SITE PROGRAM SUB-TOTAL</b>				7,984	
SITE CIRCULATION @ 150%				11,976	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				19,961	

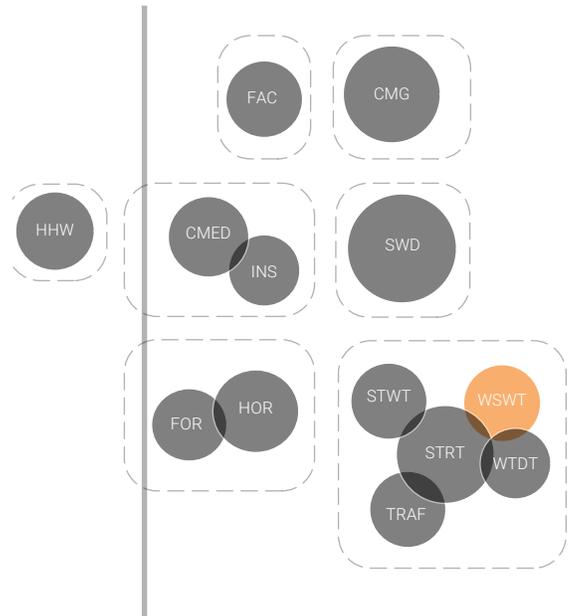
SITE AREA TOTALS					
<b>MAIN BUILDING</b>	23,513				
CIRCULATION AROUND BUILDING	5,878	25% of subtotal			
<b>COLD STORAGE</b>	0				
CIRCULATION AROUND BUILDING	0	25% of subtotal			
<b>SITE PROGRAM REQUIREMENTS</b>	19,961				
CIRCULATION AROUND BUILDING	4,990	25% of subtotal			
<b>Program Totals</b>	54,342				
<b>25% GREEN SPACE</b>	13,586				
<b>Stormwater Management</b>	13,586	25% of subtotal			
<b>GRAND TOTAL SITE AREA NEEDED</b>	105,968	3.16			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

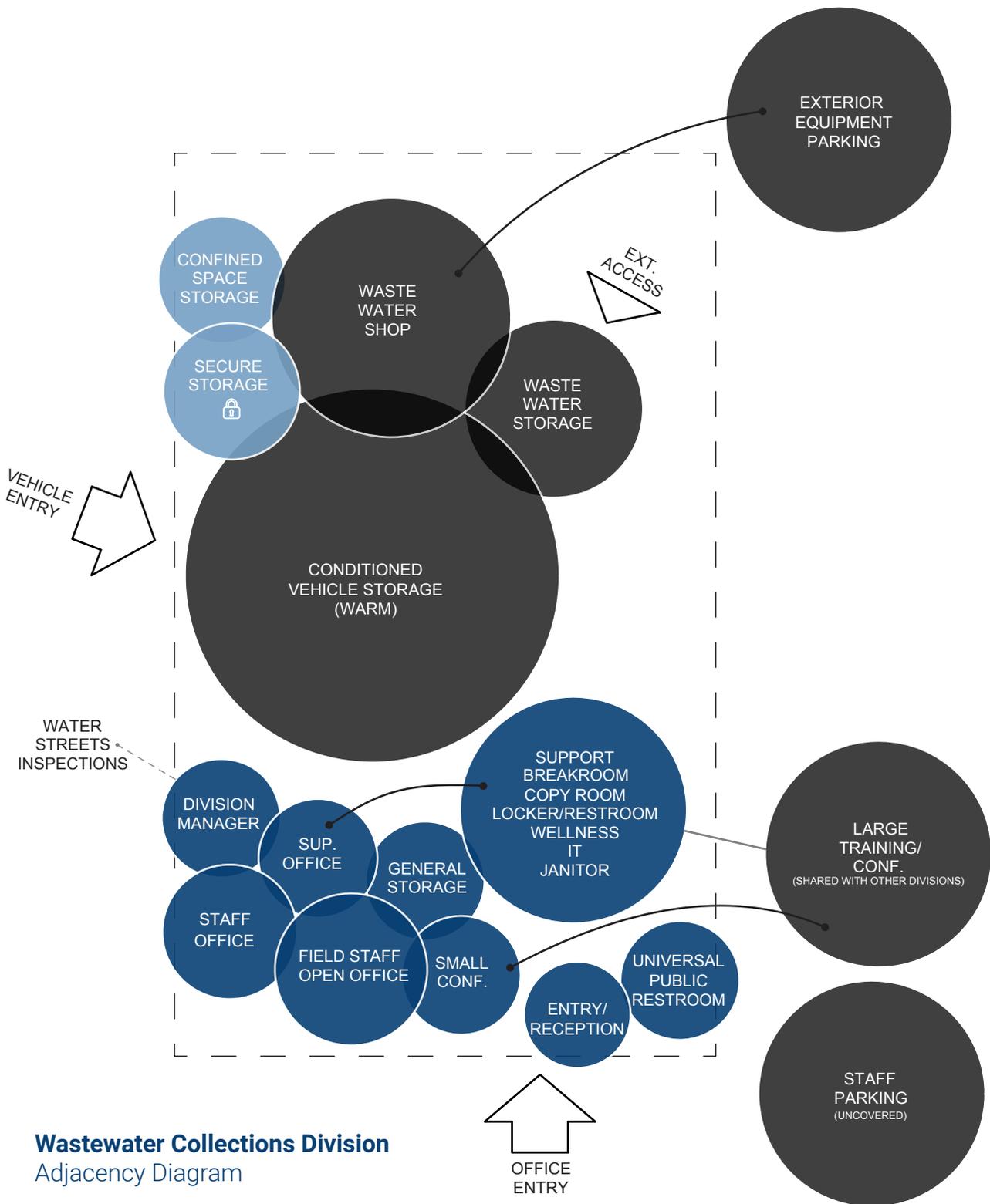
# WSWT – Wastewater Collections Division

Wastewater has a significant amount of programmatic synergies with other MSO divisions, specifically Water Distribution. There is a need for separated private offices for manager or supervisor positions, however, open office and administrative support spaces, break space, locker and restroom functions, meeting and training rooms can be combined with several like function divisions to take advantage of those relationships.

As a singular division, there is a separate need for specialized workshop spaces for individualized work tasks. This would include a general purpose Wastewater Workshop but could also utilize other specialized workshops listed under other divisions, as well as mezzanine level storage.

Wastewater has a need for warm vehicle storage, minimal cold storage, outdoor and covered storage, as well as site storage areas to support operations, based on operational best practices for storage and handling of the current and anticipated future vehicle and equipment inventory.





**Wastewater Collections Division**  
Adjacency Diagram

- Standardized Spaces
- Division Specific Spaces
- Shared Spaces

\* Some shared spaces are defined in the Space Standards section

## Wastewater Division Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	10'x10'	1	100	
DIV.1b - Reception *	100	10' x 10'	0	0	
DIV.2 - Division Manager Office	180	12' x 15'	1	180	
DIV.3 - Supervisor Office	150	10' x 15'	1	150	
DIV.4 - Staff Office	120	12' x 10'	1	120	
DIV.5 - Field Staff Workstation / Open Office	468	6x6' x (FTE+1/2PTE)	1	468	
DIV.6a - Small Conference Room *	120	12' x 10'	1	120	
DIV.6b - Standard Conference Room *	NA			-	
DIV.7 - Large Conference Room-Training Room *	500	20' x 25'	0	0	Not included in program, shared with another division
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	216	
DIV.9 - Breakroom *	400	25 sf x Staff #	1	400	
DIV.10a - Universal Public Restroom *	72	8' x 9'	2	144	
DIV.10b - Men's Locker and Restroom *	340	Varies	1	340	
DIV.10c - Women's Locker and Restroom *	260	Varies	1	260	
DIV.10d - Wellness Room *	168	12' x 14'	1	168	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	1	63	
DIV.11 - General Storage / Supply Closets	100	10' x 10'	1	100	
DIV.12 - Mud Room / Wash Area	96	8' x 12'	1	96	
DIV.13 - General Computer Area *	NA			-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	NA			-	
DIV.10g - Mechanical and Electrical Room	417	15% of supported	1	417	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				3,390	
CIRCULATION @ 30%				1,017	
<b>TOTAL</b>				4,406	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	3	2,880	Parking Spaces Only
Medium Space	288	12'x24'	11	3,226	Parking Spaces Only
Pickup Space	200	10'x20'	0	0	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	6,106				
DOUBLE TRAFFIC LANE STORAGE INCREASE	7,327			13,432	Parking plus traffic lane serving parking
Mezzanine Storage				4,477	Maximum 1/3 of open storage area (IBC)
General Storage area				1,679	Area created by angled parking, used for small implement storage
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				13,432	Parking plus traffic lane serving parking
CIRCULATION @ 15%				2,015	
<b>TOTAL</b>				17,126	Sum of parking and traffic lanes, plus additional circ and storage

\* Sharing potential across Divisions

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
WSWT.2 - Wastewater Shop	400	20' x 20'	1	400	
WSWT.3 - Wastewater Storage Area	200	20' x 10'	1	200	
WSWT.4 - Secure Storage	256	16' x 16'	1	256	
WSWT.5 - Confined Space Storage Unit	64	8' x 8'	1	64	
WSWT Division Operation Critical Spaces	920				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				920	
CIRCULATION @ 30%				276	
<b>TOTAL</b>				1,196	

UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	0	0	Parking Spaces Only
VEHICLE PARKING SUBTOTAL	0				
DOUBLE TRAFFIC LANE STORAGE INCREASE	0			0	Parking plus traffic lane serving parking
Mezzanine Storage				0	Maximum 1/3 of open storage area (IBC)
General Storage area				0	Area created by angled parking, used for small implement storage Maximum 1/3 of open storage area (IBC)
<b>UNCONDITIONED VEHICLE STORAGE SUBTOTAL</b>				0	Parking plus traffic lane serving parking
CIRCULATION @ 15%				0	
<b>TOTAL</b>				0	Sum of parking and traffic lanes, plus additional circ and storage

SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18'	16	4,536	1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	0	0	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	1	306	
<b>SITE PROGRAM SUB-TOTAL</b>				4,842	
SITE CIRCULATION @ 150%				7,263	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				12,105	

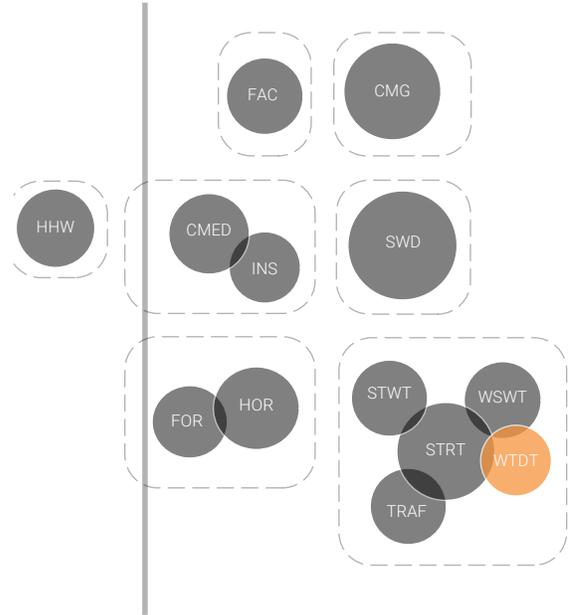
SITE AREA TOTALS					
<b>MAIN BUILDING</b>	22,729				
CIRCULATION AROUND BUILDING	5,682	25% of subtotal			
<b>COLD STORAGE</b>	0				
CIRCULATION AROUND BUILDING	0	25% of subtotal			
<b>SITE PROGRAM REQUIREMENTS</b>	12,105				
CIRCULATION AROUND BUILDING	3,026	25% of subtotal			
<b>Program Totals</b>	43,542				
<b>25% GREEN SPACE</b>	10,886				
Stormwater Management	10,886	25% of subtotal			
<b>GRAND TOTAL SITE AREA NEEDED</b>	84,907	2.53			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

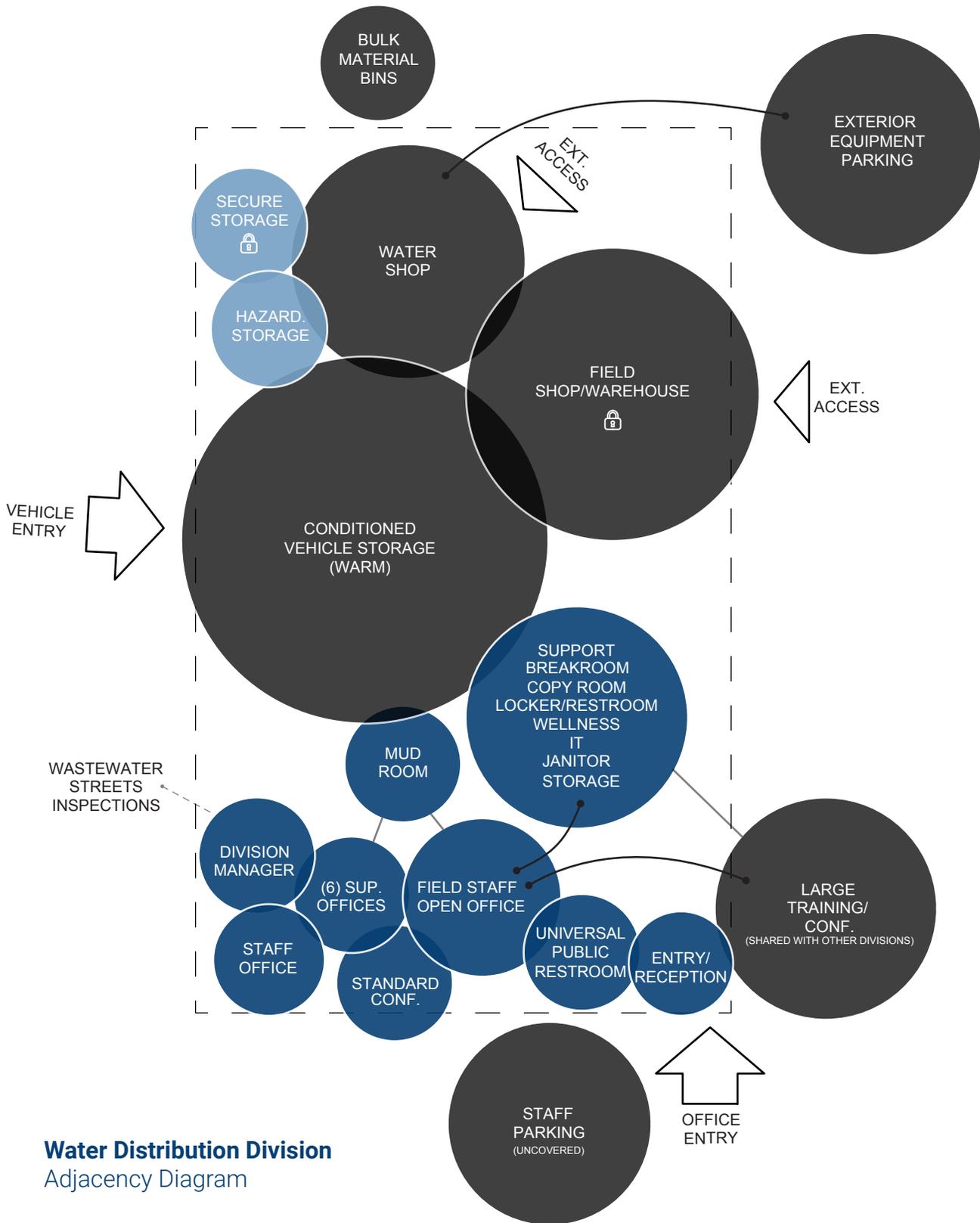
# WTDT – Water Distribution Division

Water has a significant amount of programmatic synergies with other MSO divisions, specifically Streets and Wastewater Collections. There is a need for separated private offices for manager or supervisor positions, however, open office and administrative support spaces, break space, locker and restroom functions, meeting and training rooms can be combined with several like function divisions to take advantage of those relationships.

As a singular division, there is a separate need for specialized workshop spaces for specialized work tasks. This would include a general purpose Water Workshop but could also utilize other specialized workshops listed under other divisions, as well as mezzanine level storage.

Water Distribution has a need for warm vehicle storage, cold storage, outdoor and covered storage, as well as site storage areas to support operations, based on operational best practices for storage and handling of the current and anticipated future vehicle and equipment inventory.





## Water Distribution Division Space Needs Summary

ADMINISTRATIVE	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
DIV.1a - Building Entry / Vestibule *	100	10'x10'	1	100	
DIV.1b - Reception *	100	10' x 10'	0	0	
DIV.2 - Division Manager Office	180	12' x 15'	2	360	
DIV.3 - Supervisor Office	150	10' x 15'	6	900	
DIV.4 - Staff Office	120	12' x 10'	1	120	
DIV.5 - Field Staff Workstation / Open Office	1,548	6'x6' x (FTE+1/2PTE)	1	1,548	
DIV.6a - Small Conference Room *	120	12' x 10'	0	0	
DIV.6b - Standard Conference Room *	240	12' x 20'	2	480	
DIV.7 - Large Conference Room-Training Room*	500	20' x 25'	0	0	Not included in program, shared with another division
DIV.8 - Copy Area / Document Work Room *	216	12' x 18'	1	216	
DIV.9 - Breakroom *	1,300	25 sf x Staff #	1	1,300	
DIV.10a - Universal Public Restroom *	72	8' x 9'	4	288	
DIV.10b - Men's Locker and Restroom *	610	Varies	1	610	
DIV.10c - Women's Locker and Restroom *	350	Varies	1	350	
DIV.10d - Wellness Room *	168	12' x 14'	1	168	
DIV.10e - IT Closet *	48	6' x 8'	1	48	
DIV.10f - Janitorial *	63	7' x 9'	1	63	
DIV.11 - General Storage / Supply Closets	100	10' x 10'	1	100	
DIV.12 - Mud Room / Wash Area	96	8' x 12'	1	96	
DIV.13 - General Computer Area *	NA		-	-	Central Computer area - See Also DIV.5 - Field Staff / Open Office
DIV.14 - Laundry Facility *	NA		-	-	
DIV.10g - Mechanical and Electrical Room	1,012	15% of supported	1	1,012	
<b>ADMINISTRATIVE AREA SUBTOTAL</b>				7,759	
CIRCULATION @ 30%				2,328	
<b>TOTAL</b>				10,087	

CONDITIONED VEHICLE STORAGE (WARM)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	6	5,760	Parking Spaces Only
Medium Space	288	12'x24'	18	5,069	Parking Spaces Only
Pickup Space	200	10'x20'	13	2,520	Parking Spaces Only
<b>VEHICLE PARKING SUBTOTAL</b>	13,349				
DOUBLE TRAFFIC LANE STORAGE INCREASE	16,019			29,367	Parking plus traffic lane serving parking
Mezzanine Storage				9,789	Maximum 1/3 of open storage area (IBC)
General Storage area				3,671	Area created by angled parking, used for small implement storage
<b>CONDITIONED VEHICLE STORAGE SUBTOTAL</b>				29,367	Parking plus traffic lane serving parking
CIRCULATION @ 15%				4,405	
<b>TOTAL</b>				37,443	Sum of parking and traffic lanes, plus additional circ and storage

\* Sharing potential across Divisions

DIVISION OPERATION CRITICAL SPACES	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
WTD.T.2 - Field Shop	6,890	106' x 65'	1	6,890	
WTD.T.3 - Water Distribution Shop	1,248	48' x 26'	1	1,248	
WTD.T.4 - Secure Storage	256	16' x 16'	1	256	
WTD.T.5 - Hazardous Storage	36	6' x 6'	3	108	
WTD.T. Division Operation Critical Spaces	8,502				
<b>DIVISION OPERATION SPACES SUBTOTAL</b>				8,502	
CIRCULATION @ 30%				2,551	
<b>TOTAL</b>				11,053	

UNCONDITIONED VEHICLE STORAGE (COLD)	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Large Space	900	20'x45'	0	0	Parking Spaces Only
Medium Space	288	12'x24'	0	0	Parking Spaces Only
Pickup Space	200	10'x20'	22	4,320	Parking Spaces Only
VEHICLE PARKING SUBTOTAL	4,320				
DOUBLE TRAFFIC LANE STORAGE INCREASE	5,184			9,504	Parking plus traffic lane serving parking
Mezzanine Storage				3,168	Maximum 1/3 of open storage area (IBC)
General Storage area				1,188	Area created by angled parking, used for small implement storage Maximum 1/3 of open storage area (IBC)
<b>UNCONDITIONED VEHICLE STORAGE SUBTOTAL</b>				9,504	Parking plus traffic lane serving parking
CIRCULATION @ 15%				1,426	
<b>TOTAL</b>				12,118	Sum of parking and traffic lanes, plus additional circ and storage

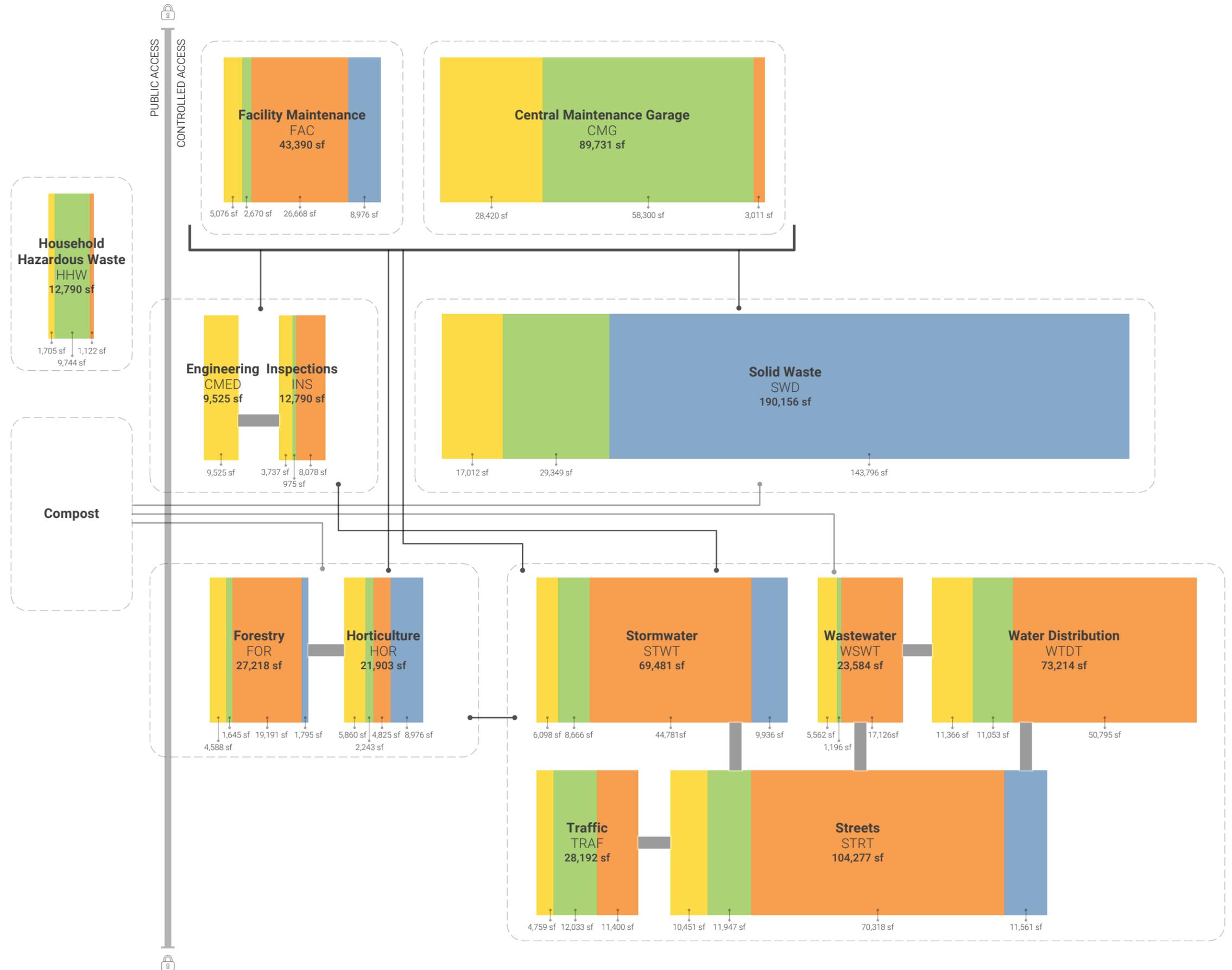
SITE PROGRAM REQUIREMENTS	SF	SIZE (rough dim)	#	TOTAL SF	NOTES
Staff Parking and Drive Aisle	284	9' x 18'	52	14,742	1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	35	10,138	
ADA Space plus Aisle	306	9' x 18' +8' Aisle	2	636	
WTD.T.7 - Bulk Material Bins	750	30' x 25'	3	2,250	
<b>SITE PROGRAM SUB-TOTAL</b>				27,766	
SITE CIRCULATION @ 150%				41,649	Accounts for access to all sides of separated site functions
<b>TOTAL</b>				69,415	

SITE AREA TOTALS					
<b>MAIN BUILDING</b>	58,583				
CIRCULATION AROUND BUILDING	14,646	25% of subtotal			
<b>COLD STORAGE</b>	12,118				
CIRCULATION AROUND BUILDING	6,059	25% of subtotal			
<b>SITE PROGRAM REQUIREMENTS</b>	69,415				
CIRCULATION AROUND BUILDING	17,354	25% of subtotal			
<b>Program Totals</b>	178,174				
<b>25% GREEN SPACE</b>	44,543				
<b>Stormwater Management</b>	44,543	25% of subtotal			
<b>GRAND TOTAL SITE AREA NEEDED</b>	347,439	10			Total squarefootage and acreage, plus added 30% of programmed acreage for drainage paths, easements, setbacks, etc.

### 3 - Master Programming Needs Diagram

This diagram shows the relative size of the different Divisions, and the adjacencies that would result in the most beneficial campus operation. Each Division is color-coded to show the proportional distribution of Administrative, Division Critical, Conditioned Vehicle Storage and Unconditioned Vehicle Storage Spaces. Some Divisions, such as Central Maintenance Garage and Solid Waste, are shown as stand-alone, and some are shown as being so closely linked operationally that they would benefit from being grouped together, sharing conference, training, and other support spaces. The diagram focuses on Interior spaces-- exterior spaces are shown on a different diagram.



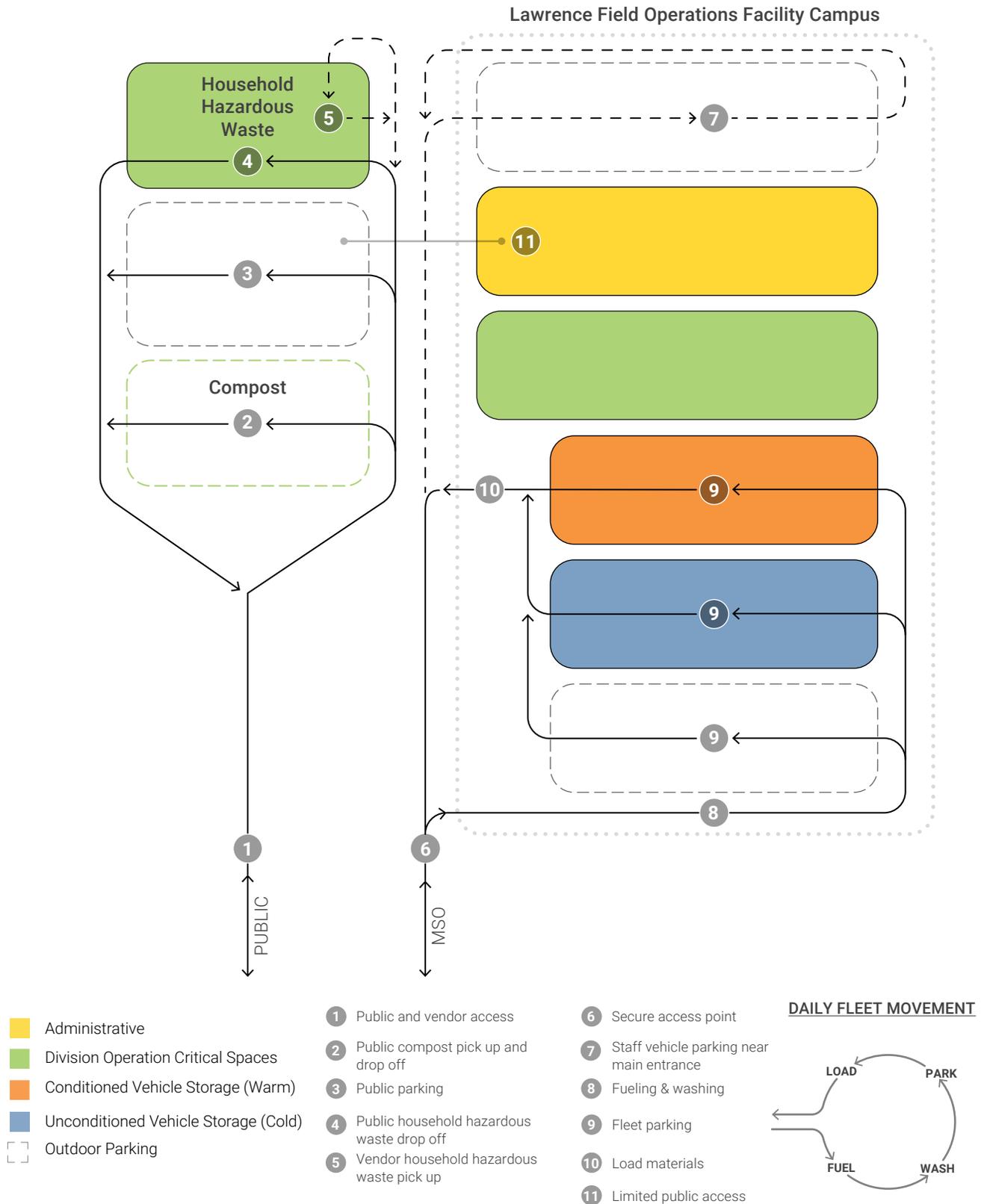


**Master Programming Needs Diagram**

- Secure entry
- External connection
- Internal connection
- Administrative
- Division Operation Critical Spaces
- Conditioned Vehicle Storage (Warm)
- Unconditioned Vehicle Storage (Cold)



# 4 - Site Flow Diagram



## 5 - Space Standards

Following a review of the Divisional Programming Worksheets, and during the course of the Design Team's tours and interviews of each Division, some spaces were noted as typical between Divisions. Standardizing such spaces is a key component of the programming process for the Lawrence Field Operations Facility. These typical spaces would be necessary in whole or part if each division was located within their own facility. Sizes are based on factors such as, code based requirements and industry standards / best practices.

In a combined facility, there would be redundancies between each Division that can be combined for joint use. The following is a list of terms and definitions that describe a variety of functions and spaces in the program for the facility.

### **"Dirty" Functions**

Daily operational work activities that are directly related to in-field operations, such as vehicle maintenance, any vehicle or equipment operation, workshop labor, etc.

### **"Clean" Functions**

Daily operational work activities that are directly related to office or administrative work tasks, such as time-card execution, email correspondence, break time, etc.

### **Multi-Purpose Room**

A large, multi-function space, typically combining a facility or divisional break room space and large conference / training room functions. These spaces are typically cleaner than "Crew Rooms" and located in administrative areas, rather than operational areas. These rooms may be accessed by other groups outside of the specific operational division, such as outside vendors, external / visiting agencies, or potential after-hour events (city council or planning workshops, for example).

### **Crew Room**

A single, multi-function space that houses large meeting functions including workflow planning meetings (tailgate or muster), training events, break space (w/ kitchenette) for specific work groups, and field staff workstations. Typically, ideally sized



for operational work groups typically no larger than 12 staff, all the same institutional hierarchy. Commonly, Crew Rooms are adjacent to a divisional operational workshop space, rather than a singular administrative work area, to separate "dirty" operations.

Larger staffing numbers require individual break rooms with kitchens, meeting rooms and offices / workstations.

### **Tailgate / Muster**

A quick, operational meeting of work crews to discuss and assign daily work tasks. Typically occurring in work specific areas (workshops) or crew rooms.

### **Warm Storage**

This is interior, HVAC conditioned storage space for the storage of vehicles and operational equipment. This is referred to also as Conditioned Vehicle Storage (Warm). Conditioning is providing a heating and ventilation requirement as dictated by building code for the climatological region. The building is fully insulated to meet regional energy code requirements.

Warm Storage is heated to a level to prevent freezing of any portion of the building infrastructure or components stored within the facility. Typical design heating is between 50 and 60 degrees Fahrenheit.



Warm Storage is typically not cooled due to the size of the facility, and the frequency of mechanical air change required to meet safety considerations for fume and particulate pollution. Facilities of significant size will be protected with a wet-pipe automated fire suppression system.

#### **Cold Storage**

This is fully enclosed storage, generally constructed in such a manner like Warm Storage. However, heating is only minimally maintained within the facility, but not fully prevented from technically freezing. Typical installations are utilized for seasonal or rotational equipment that does not require consistent operating.

Heating may be limited to keeping interior temperatures of around 40 degrees Fahrenheit and is sometimes referred to as Sem-Conditioned or Unconditioned Storage (based on local energy codes). Facilities of significant size can be protected with a dry-pipe automated fire suppression system.

#### **Covered (lean-to) Storage**

This storage methodology is not fully enclosed but will have overhead protection from precipitation. As the area is open to the exterior, heating is not permitted by energy codes. Lighting is provided at minimum acceptable levels to not provide light pollution to adjacent properties. Open air storage

does not limit exposure to freezing temperatures, vermin exposure or provide fully secure storage.

#### **Outdoor Storage**

Outdoor storage is simply exterior space, paved or not, for on-site storage of bulk materials or other supporting equipment that is not daily mission critical.

#### **Workshop**

An enclosed, open plan work area that is used for specialized division work tasks. Often given both interior and exterior access. Work benches, tool and material storage areas and mezzanine storage and access are often incorporated into these spaces. Sizes vary based on inclusion of specialized vehicle parking, size of operational equipment or material storage (water meters vs. lumber storage racks) etc. Crew Rooms are often found adjacent to Workshops but separated to keep Clean and Dirty work activities separated.

#### **Bone-Yard**

A large area of open site space, organized by either material laydown areas or material storage bins (constructed with large concrete blocks / panels, timber walls or cast concrete partitions) to store non-critical, weather exposed building materials or equipment. Often located to the rear of a site and significantly screened from adjacent property uses.

## DIV.1a - Building Entry / Vestibule

**Area:** 100 Net SF

**Size:** 10' x 10'

**Description:** A primary or secondary environmentally controlled entry point that provides an airlock separation between exterior and interior spaces, or separation between two building uses that need air separation.

**Key Adjacencies:** Reception; Office Spaces; Small Conference Room

**Floor:** Concrete (polish); traffic mat

**Walls:** CMU or steel framing / gypsum board (paint); Glass (windows)

**Ceiling:** ACT/ gypsum / decorative

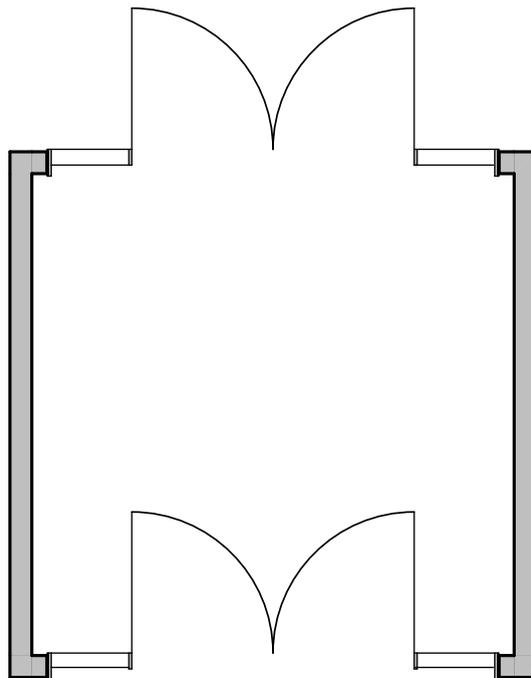
**Doors/Windows:** Secure commercial entry door; exterior aluminum windows

**Lighting:** Direct / indirect LED lay-in fixtures

**Mechanical:** Airlock from exterior to interior; standard air distribution; cabinet unit heater

**Electrical:** Standard electrical power distribution.

**Technology Requirements:** Key fob access; Buzzer / communication from reception



## DIV.1b - Reception

**Area:** 150 Net SF

**Size:** 10' x 15'

**Description:** An interior space inside the primary entry that provides a secure buffer between public and operationally private areas. Inclusion depends on Divisional operation receiving visitors for any reason, including public billing, parts or tool delivery, sales calls, outside agency training events.

**Key Adjacencies:** Building Entry; Staff Offices; Small Conference Room; Circulation to work bays

**FFE:** L-shaped secure workstation with standing height transaction area; confirm file/ drawer units under workstation; task chair and two guest chairs with small side table.

**Floor:** Concrete (polish)

**Walls:** CMU or steel framing / gypsum board (paint)

**Ceiling:** ACT/ gypsum / decorative

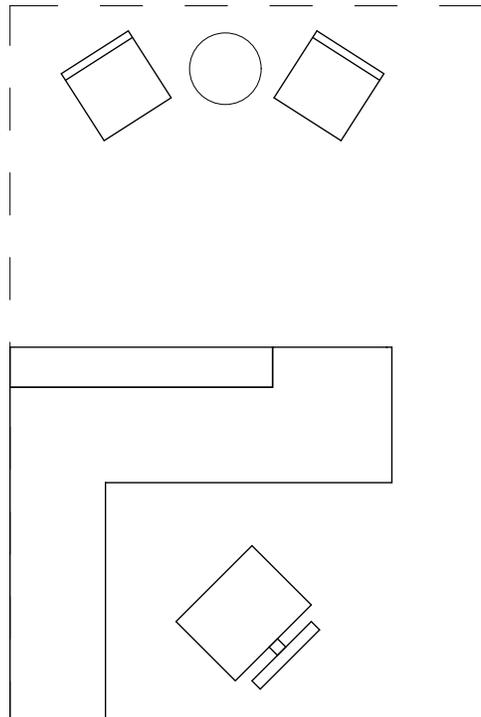
**Doors/Windows:** Secure door to offices; exterior aluminum windows

**Lighting:** Direct / Indirect LED Lay-In Fixtures; daylighting control

**Mechanical:** Standard air distribution; pressurized air to prevent vehicle fume intrusion

**Electrical:** Standard outlet locations

**Technology Requirements:** Voice data distribution; buzzer / communication to entry / waiting



## DIV.2 - Division Manager Office

**Area:** 180 Net SF

**Size:** 12' x 15'

**Description:** Private office for the manager of the overall operational division.

**Key Adjacencies:** Division Supervisor Office; Staff Offices / Field Staff Open Office; Reception; Small Conference Room

**FFE:** L-shaped workstation with task chair and one guest chair; confirm file/drawer units under workstation; small conference table with two guest chairs; credenza/filing unit; small magnetic whiteboard.

**Floor:** Concrete (carpet)

**Walls:** Steel framing / gypsum board (paint)

**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames; wood doors; exterior aluminum windows

**Acoustical Requirements:** STC 52+

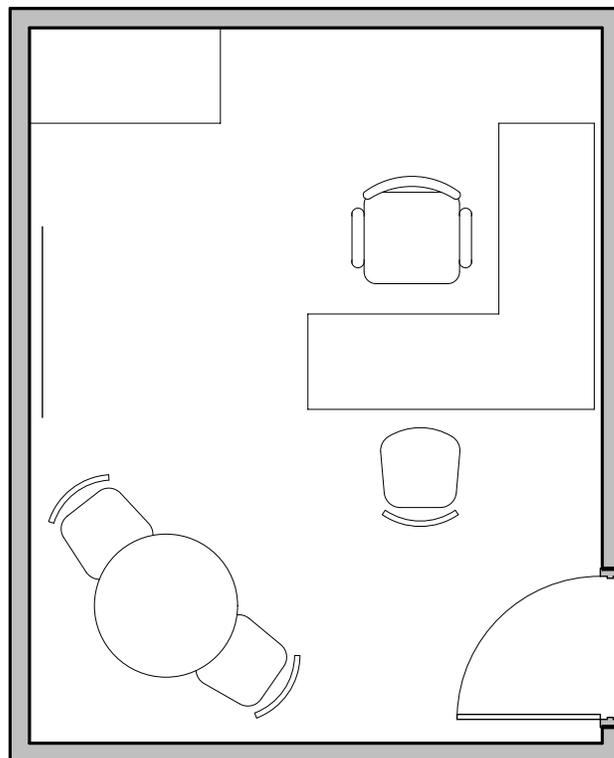
**Lighting:** Standard office lighting levels; task lighting; daylighting control

**Mechanical:** Standard HVAC

**Electrical:** Standard outlet locations

**Technology Requirements:** A/V and voice/data connections

**Special Criteria:** Lockable / securable



## DIV.3 - Supervisor Office

**Area:** 150 Net SF

**Size:** 10' x 15'

**Description:** Private office for a supervisor of specific divisional operations.

**Key Adjacencies:** Division Manager Office; Staff Offices / Field Staff Open Office; Reception; Small Conference Room

**FFE:** L-shaped workstation with task chair and two guest chairs; confirm file/drawer units under workstation; credenza/filing unit; small magnetic whiteboard.

**Floor:** Concrete (carpet)

**Walls:** Steel framing / gypsum board (paint)

**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames; wood doors, exterior aluminum windows

**Acoustical Requirements:** STC 52+

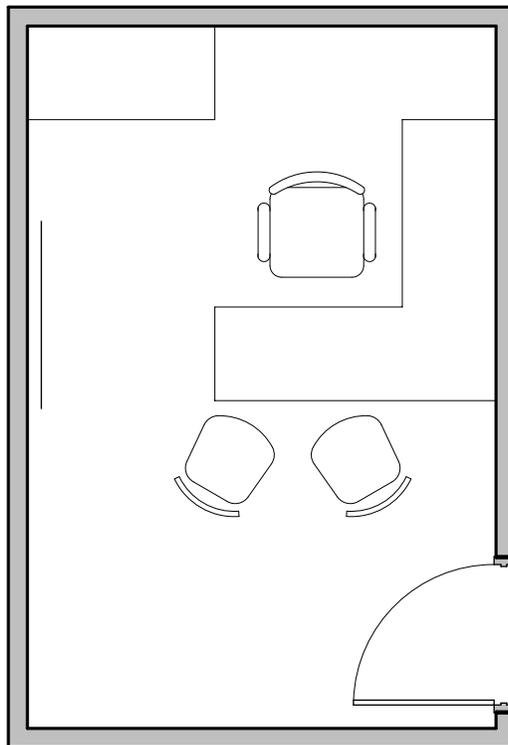
**Lighting:** Standard office lighting levels; task lighting; daylighting control

**Mechanical:** Standard HVAC

**Electrical:** Standard outlet locations

**Technology Requirements:** A/V and voice/data connections

**Special Criteria:** Lockable / securable



## DIV.4 - Staff Office

**Area:** 120 Net SF

**Size:** 10' x 12'

**Description:** Private office for divisional staff such as a technician / specialist or other working staff member requiring a private workspace.

**Key Adjacencies:** Division Manager Office; Division Supervisor Office; Reception; Small Conference Room; Work Bays; Breakroom

**FFE:** L-shaped workstation with task chair and one guest chair; confirm file/drawer units under workstation; credenza/filing unit

**Floor:** Concrete (carpet)

**Walls:** Steel framing / gypsum board (paint)

**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames; wood doors; exterior aluminum windows

**Acoustical Requirements:** STC 52+

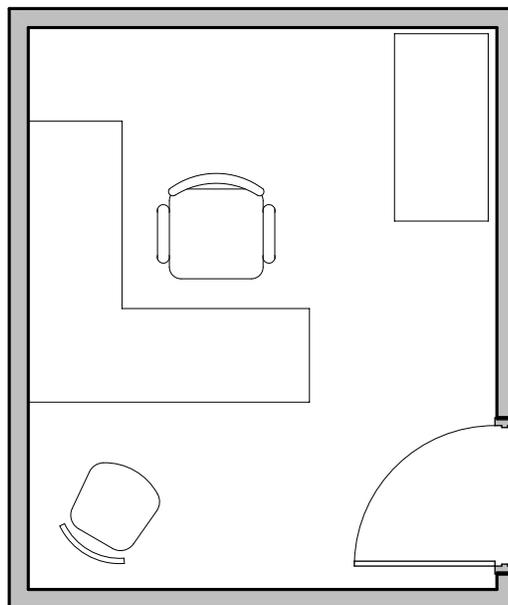
**Lighting:** Standard office lighting levels; task lighting; daylighting control

**Mechanical:** Standard HVAC

**Electrical:** Standard outlet locations

**Technology Requirements:** A/V and voice/data connections

**Special Criteria:** Lockable / securable



## DIV.5 - Field Staff Workstation / Open Office

**Area:** 36 Net SF

**Size:** 6' x 6'

**Description:** An open office style workstation (sitting or standing) that can be utilized by a divisional field staff. Cubicle or office furniture can be utilized to separate. These are non-staff dedicated and are typical one per a specific number of staff. Typically found in an open office scenario.

**Key Adjacencies:** Division Manager Office; Division Supervisor Office; Reception; Work Bays; Breakroom; Small Conference Room

**FFE:** L-shaped workstation with partitions; one task chair; confirm file/drawer units under workstation; confirm partition height

**Floor:** Concrete (carpet)

**Walls:** Steel framing / gypsum board (paint)

**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames; wood doors; exterior aluminum windows

**Acoustical Requirements:** STC 52+

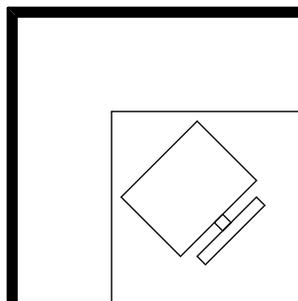
**Lighting:** Standard office lighting levels; task lighting; daylighting control

**Mechanical:** Standard HVAC

**Electrical:** Standard outlet locations

**Technology Requirements:** A/V and voice/data connections

**Special Criteria:** Lockable / securable



## DIV.6a - Small Conference Room

**Area:** 120 Net SF

**Size:** 10' x 12'

**Description:** Small meeting room for 4-6 person meetings. Typically, adjacent to private offices.

**Key Adjacencies:** Entry; Reception; Office Spaces

**FFE:** 36"x48" conference table for 6 people; 6 conference chairs; 70" (min.) monitor with integrated presentation technologies; magnetic whiteboard; built in base cabinets with drawers/doors/solid surface counter top

**Floor:** Concrete (carpet)

**Walls:** Steel framing / gypsum board (paint)

**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames; wood doors; exterior aluminum windows

**Acoustical Requirements:** STC 52+

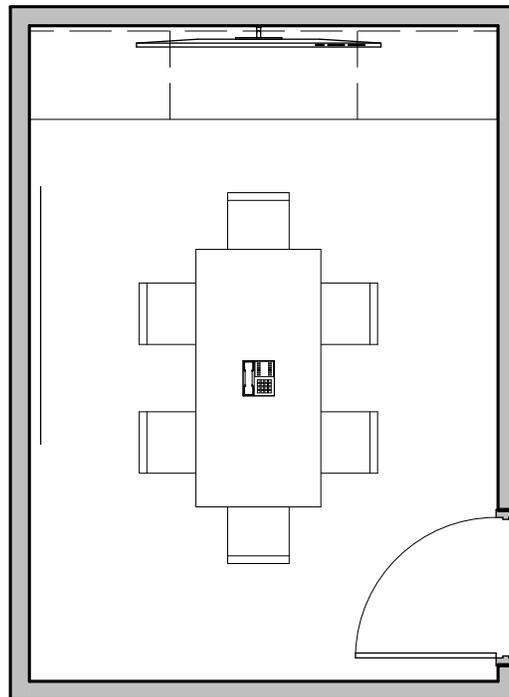
**Lighting:** Direct / indirect LED lay-in fixtures; dimmable; occupant timer ; daylighting control

**Mechanical:** Standard HVAC

**Electrical:** Standard outlet locations; floor box; A/V equipment

**Technology Requirements:** A/V and voice/data connections

**Special Criteria:** Accommodation for computer; teleconferencing



## DIV.6b - Standard Conference Room

**Area:** 240 Net SF

**Size:** 12' x 20'

**Description:** Large meeting room for a comfortable setting of 12 people, with large conference table and audio-visual presentation equipment.

**Key Adjacencies:** Entry; Reception; Office Spaces

**FFE:** 14' x 48" conference table for 12 people; 70" (min.) monitor with integrated presentation technologies; magnetic whiteboard; built in base cabinet with drawers/ doors/ solid surface counter top

**Floor:** Concrete (carpet)

**Walls:** Steel framing / gypsum board (paint)

**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames; wood doors; exterior aluminum windows

**Acoustical Requirements:** STC 52+

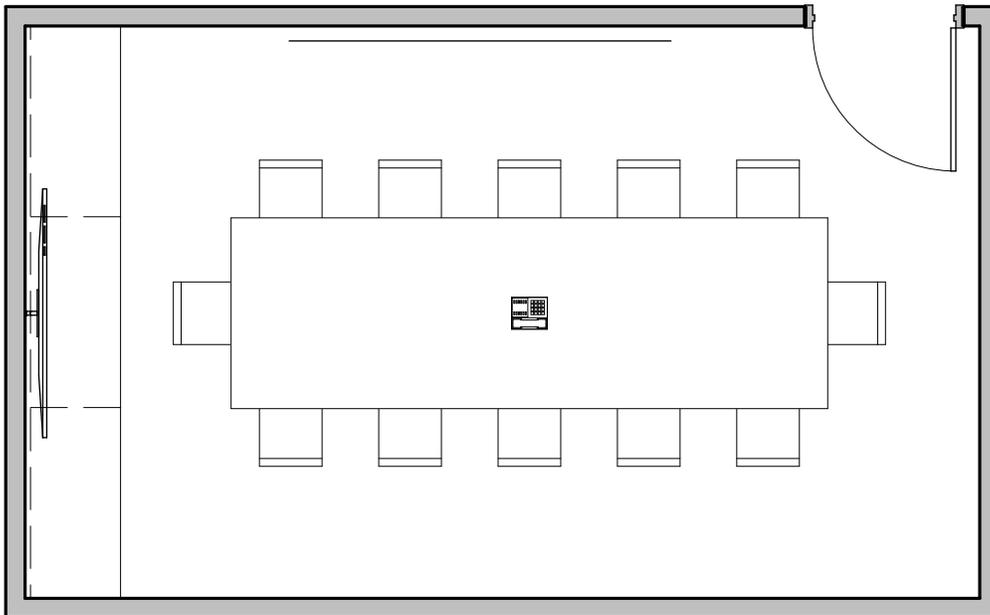
**Lighting:** Direct / indirect LED lay-in fixtures; dimmable; occupant timer; daylighting control

**Mechanical:** Standard HVAC

**Electrical:** Standard outlet locations; floor box; A/V equipment

**Technology Requirements:** A/V and voice/data connections

**Special Criteria:** Accommodation for computer; teleconferencing



## DIV.7 - Large Conference Room / Training Room

**Area:** 500 Net SF Min.

**Size:** 20' x 25' Min.

**Description:** Meeting room for a comfortable setting of a minimum of 25 people. Seating configurations based on unconcentrated tables and chairs set up in a row format. Larger groups can be accommodated by combining multiple conference rooms (via operable partition), or by creating multi-purpose rooms or crew rooms – see Glossary.

**Key Adjacencies:** Entry; Reception; Office Spaces; Breakroom

**FFE:** (12) 30"x60" nesting training tables; (2) 70" (min.) monitors with integrated presentation technologies including integrated speakers; (24) stackable chairs; magnetic whiteboard; built-in base cabinet with drawers / doors/ solid surface counter top

**Floor:** Concrete (carpet)

**Walls:** Steel framing / gypsum board (paint)

**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames; wood doors; exterior aluminum windows

**Acoustical Requirements:** STC 52+

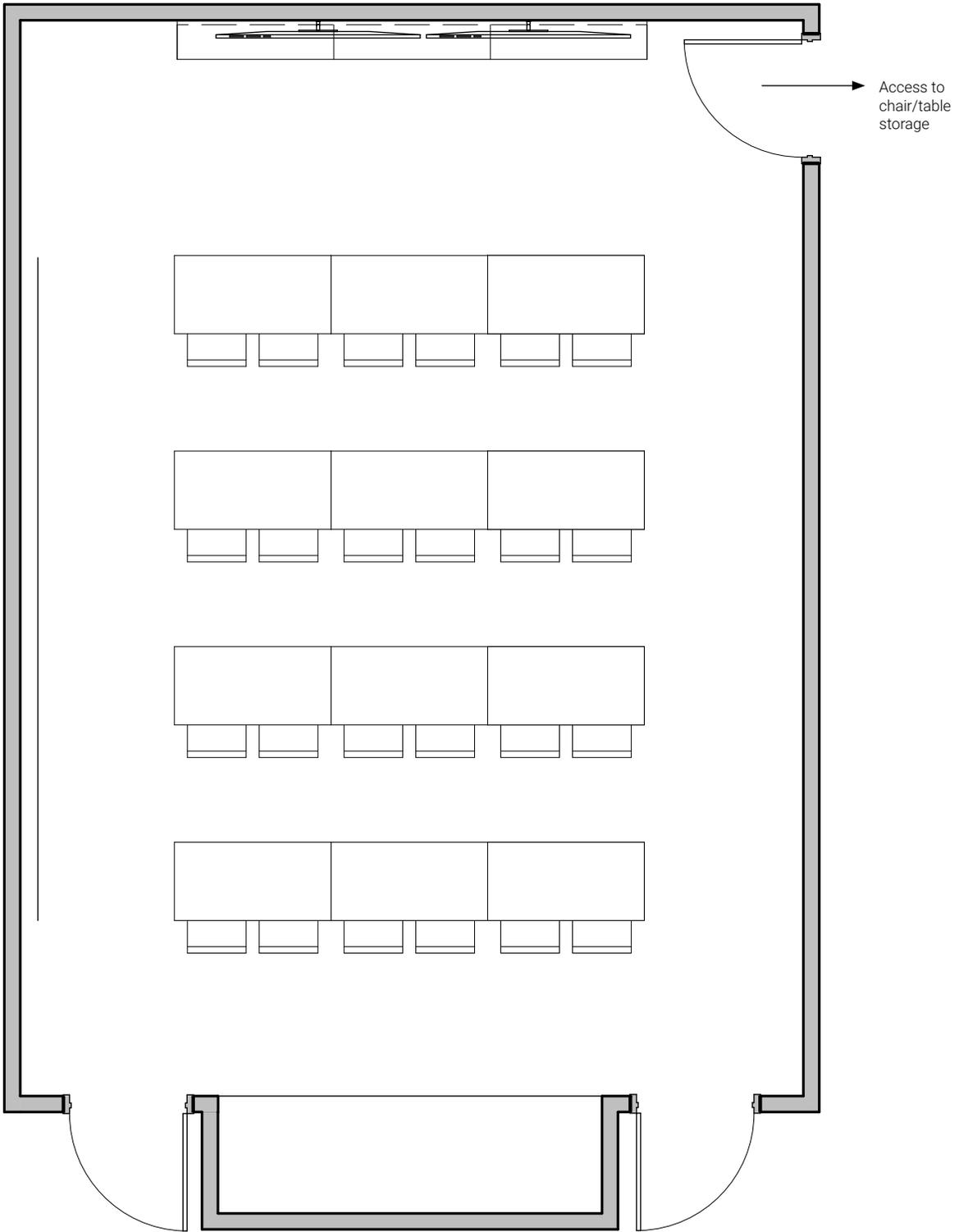
**Lighting:** Direct / indirect LED lay-in fixtures; dimmable; occupant timer; daylighting control

**Mechanical:** Standard HVAC

**Electrical:** Standard outlet locations; floor box; AV equipment

**Technology Requirements:** A/V and voice/data connections

**Special Criteria:** Accommodation for computer; teleconferencing



## DIV.8 - Copy Area / Document Work Room

**Area:** 216 Net SF

**Size:** 12' x 18'

**Description:** An area for the preparation and processing of documents, copy machine and printer location. Includes a work counter and general office product storage. Size can be variable based on number of office / administration staff by division.

**Key Adjacencies:** Office Spaces

**FFE:** Copiers, printers, document and assembly equipment; verify all required equipment, storage and work surfaces.

**Floor:** Concrete (carpet)

**Walls:** Steel framing / gypsum board (paint)

**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames; wood doors; exterior aluminum windows

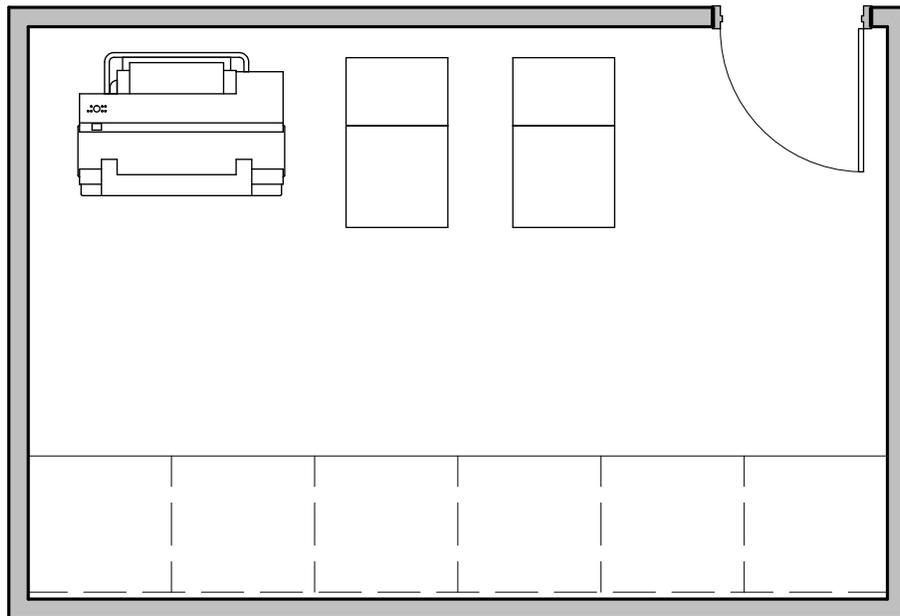
**Acoustical Requirements:** STC 52+

**Lighting:** Standard lighting levels; task lighting; daylighting control

**Mechanical:** Standard HVAC

**Electrical:** Specifically located outlets

**Technology Requirements:** A/V and voice/data connections



## DIV.9 - Break Room

**Area:** 25 SF / Staff

**Size:** Varies

**Description:** Dedicated space for taking periodic breaks during the workday. Space includes dedicated area for food preparation and storage. Size depends on number of divisional staff, and day to day activities.

**Key Adjacencies:** Work Bays; Office Spaces; Locker Rooms; Janitorial; Meeting Rooms; Exterior access

**FFE:** Verify all required kitchen appliances, furniture and storage

**Floor:** Concrete (hard floor finish)

**Walls:** CMU or steel framing; gypsum board (paint)

**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames; wood doors; exterior aluminum windows

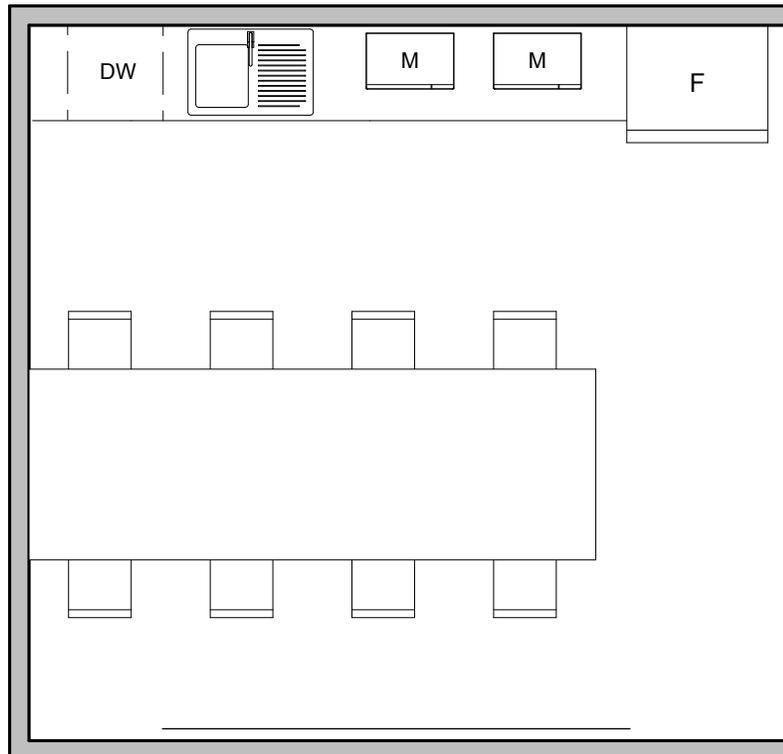
**Lighting:** Standard lighting levels; daylighting control

**Mechanical:** Standard HVAC

**Electrical:** Standard outlet spacing

**Technology Requirements:** A/V and voice/data connections

**Special Criteria:** Daylighting; exterior access



## DIV.10 - Universal Public Restroom

**Area:** 72 Net SF

**Size:** 8' x 9'

**Description:** Public access ADA restroom, non-gender specific for use by visiting public.

**Key Adjacencies:** Entry; Reception; Office Spaces

**FFE:** Plumbing fixtures; hand dryers; mirror

**Floor:** Concrete (hard floor finish)

**Walls:** Steel framing / gypsum board or concrete (paint)

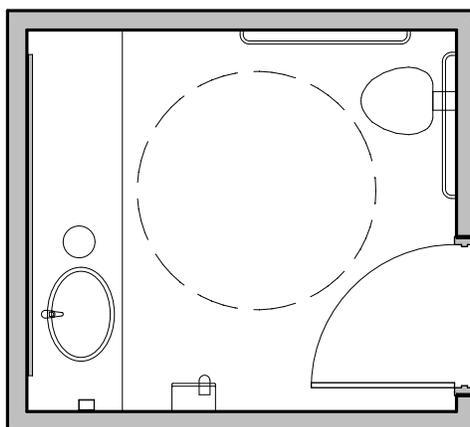
**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames; wood doors

**Lighting:** Standard lighting levels

**Mechanical:** Standard HVAC; plumbing fixtures

**Electrical:** Standard outlet spacing



## DIV.10 - Wellness Room

**Area:** 168 Net SF

**Size:** 12' x 14'

**Description:** This room serves as a quiet, personal break area for single user function. This has been typically dedicated as a mother's room, or for operations that frequently require overnight or long-term stays at the facility due to emergency conditions.

**Key Adjacencies:** Entry; Reception; Office Spaces

**FFE:** Comfortable seating ; side table

**Floor:** Concrete (carpet)

**Walls:** CMU or steel framing; gypsum board (paint)

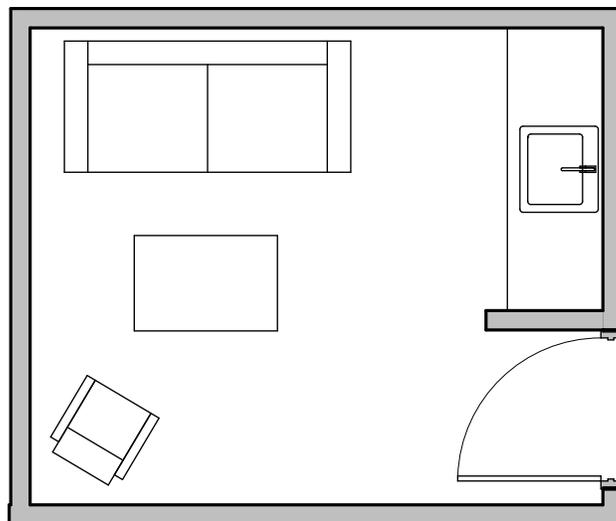
**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames; wood doors; exterior aluminum windows

**Lighting:** Direct / indirect LED lay-in fixtures; dimmable; occupancy timer; daylighting control

**Mechanical:** Standard HVAC

**Electrical:** Standard outlet spacing



## DIV.10 - Locker Room

**Area:** 12 - 15 SF/ Staff

**Size:** Varies

**Description:** Locker facility for personal storage locker per each operational staff member. Space includes dedicated 2' x 2' nominal, secure personal storage locker. Specific operations may require additional lockers, depending on uniform services, dirty or wet divisional operations. Locker facilities also include sex specific restroom facilities, with number of fixtures based on code based calculations for use/occupancy and additional owner request, and personal shower and changing areas.

**Key Adjacencies:** Vehicle Areas; Office Spaces; Breakroom; Janitorial

**FFE:** 2'x2'x6' lockers (verify count); plumbing fixtures, clothing hooks, verify all required fixtures and furniture

**Floor:** Concrete (hard floor finish)

**Walls:** CMU or steel framing; gypsum board (paint)

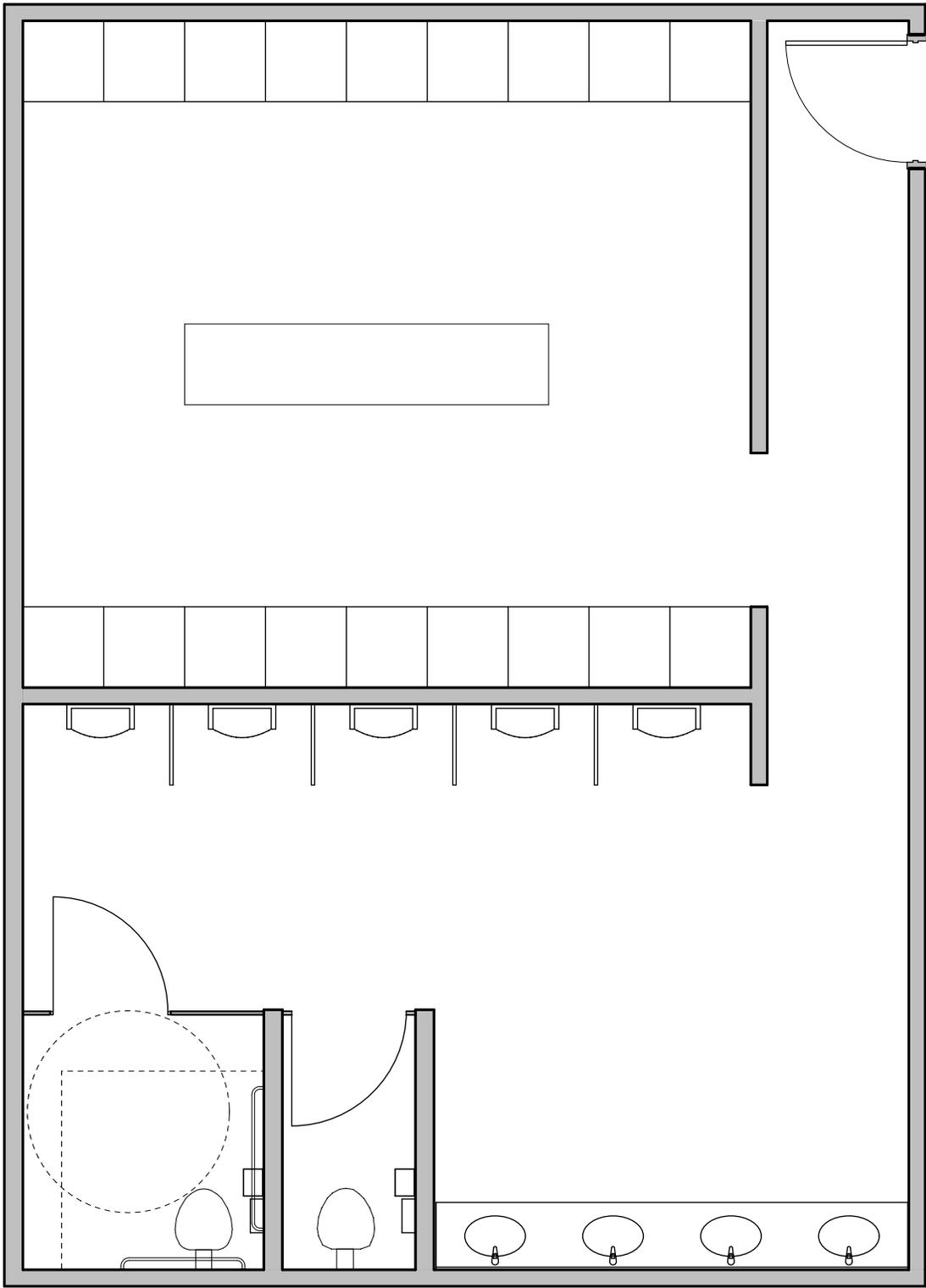
**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames; wood doors; exterior aluminum windows

**Lighting:** Standard lighting levels

**Mechanical:** Standard HVAC

**Electrical:** Standard outlet spacing



## DIV.10 - IT Closet

**Area:** 48 Net SF

**Size:** 6' x 8'

**Description:** Minimum size for the inclusion of IT distribution systems for a divisional use facility. Larger space is required for large administrative work purposes (large number of computers), or multiple locations when facilities are large enough to require additional signal infrastructure.

**Key Adjacencies:** Office Spaces

**FFE:** IT racking provided by owner

**Floor:** Concrete (static sensitive flooring)

**Walls:** Steel framing; gypsum board or concrete (paint)

**Ceiling:** ACT/ gypsum

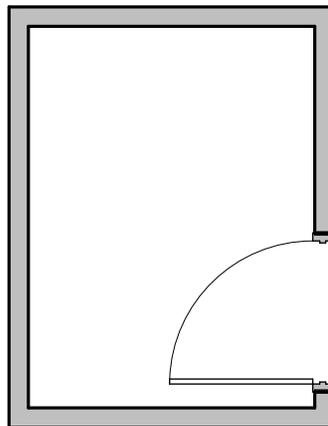
**Doors/Windows:** Hollow metal frames; wood doors

**Lighting:** Standard lighting levels; task lighting

**Mechanical:** Standard HVAC requirements

**Electrical:** Specifically located outlets

**Technology Requirements:** A/V and voice/data connections



## DIV.10 - Janitorial

**Area:** 63 Net SF

**Size:** 7' x 9'

**Description:** General, minimal size for the storage of facility cleaning supplies, wet sink and building maintenance items.

**Key Adjacencies:** Work Bays; Office Spaces; Breakroom; Conference Rooms

**FFE:** Standard washer and dryer; shelving and storage cabinets, service sink

**Floor:** Concrete (hard floor finish)

**Walls:** CMU or steel framing; gypsum board (paint)

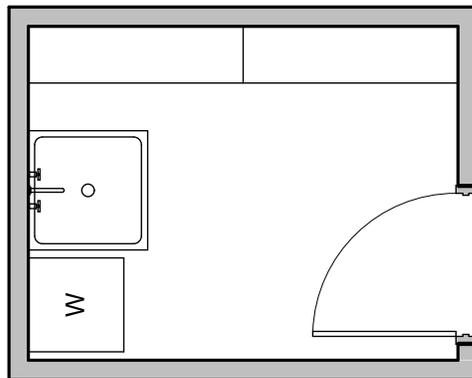
**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal frames and doors

**Lighting:** Standard lighting levels

**Mechanical:** Standard HVAC requirements

**Electrical:** Standard outlet spacing



## DIV.11 - General Storage / Supply Closet

**Area:** Varies

**Size:** Varies

**Description:** Storage of various office needs

**Key Adjacencies:** Office Spaces

**FFE:** Shelving; verify size and count

**Floor:** Concrete

**Walls:** CMU or steel framing; gypsum board (paint)

**Ceiling:** ACT/ gypsum

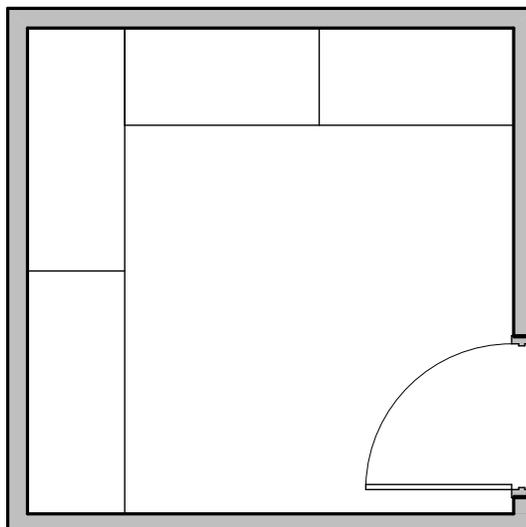
**Doors/Windows:** Hollow metal frames; wood doors

**Lighting:** Standard lighting levels

**Mechanical:** Standard HVAC requirements

**Electrical:** Specifically located outlets

**Technology Requirements:** A/V and voice/data connections



## DIV.12 - Mud Room / Wash Area

**Area:** 96 Net SF

**Size:** 8' x 12'

**Description:** Interior, wet area for staff to wash hands and/or boots, remove dirty or wet outer layer of clothing to contain dirt or contaminated clothing in an operational area prior to entering an administrative space. Typically an interior air-lock vestibule to provide temperature and air pressurization difference between differing facility functions.

**Key Adjacencies:** Work Bays; Vehicle Parking; Office Spaces

**FFE:** Hand wash units; bootwash/cleaning area; wet lockers/clothing hooks

**Floor:** Concrete (hard finish)

**Walls:** CMU or steel framing; gypsum board (paint)

**Ceiling:** ACT/ gypsum

**Doors/Windows:** Hollow metal doors and frames

**Lighting:** Industrial/wet condition fixtures

**Mechanical:** Hot/cold Water, floor drains and containment; wash fixtures; heated and well ventilated; standard HVAC requirements

**Electrical:** Wet condition outlets

**Technology Requirements:** N/A

**Special Criteria:** Wet locker/clothing conditions; often combined with facility laundry facilities

