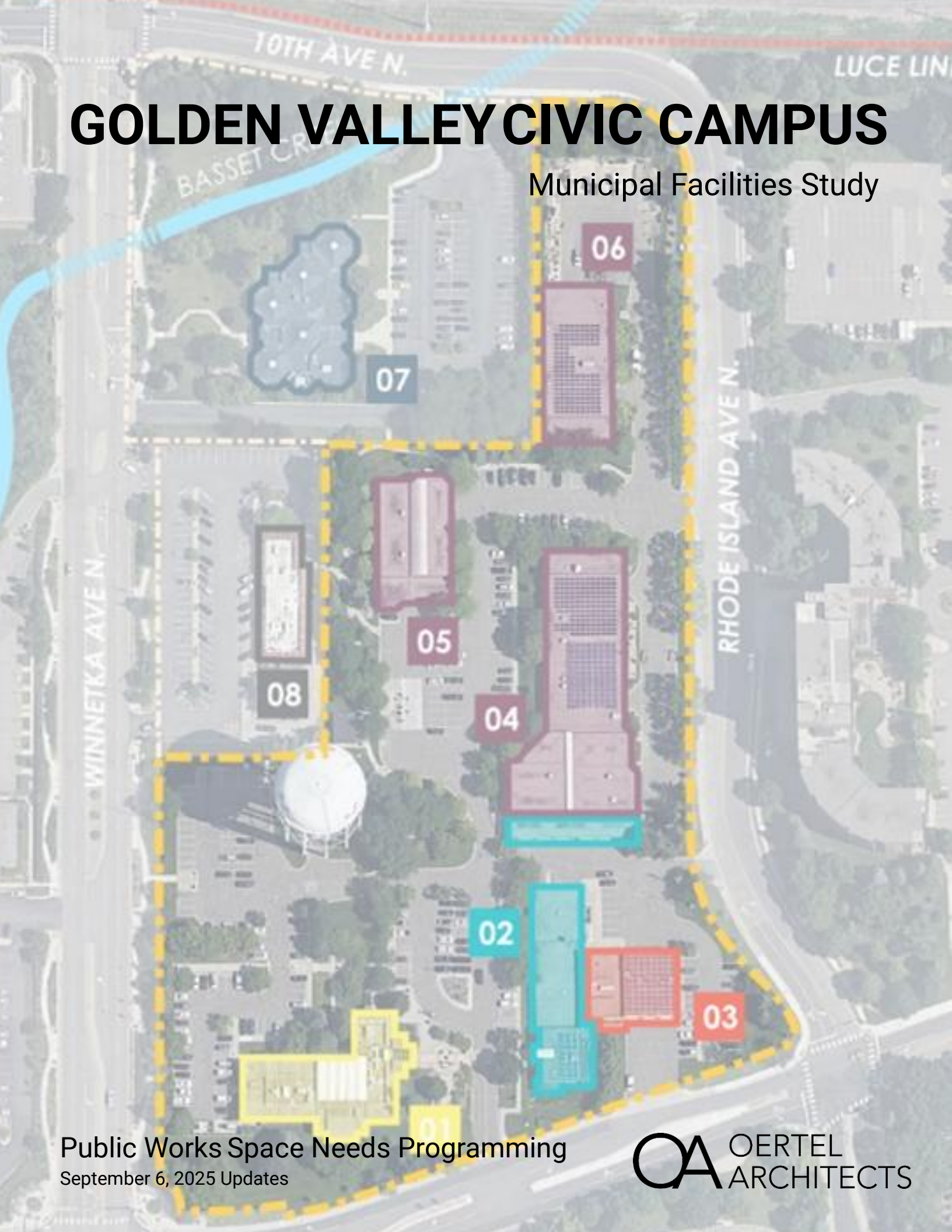


GOLDEN VALLEY CIVIC CAMPUS

Municipal Facilities Study



Public Works Space Needs Programming
September 6, 2025 Updates

OA OERTEL
ARCHITECTS

Golden Valley Civic Campus Municipal Facilities Study – PW Space Needs

Purpose – Explanation of Space Program Documents

The purpose of this narrative is to provide a brief overview to the way Oertel Architects evaluated data provided by the City of Golden Valley, applied industry standards and best practices, and produced the space needs programs for the public works department.

Public Works Operations Ultimate Goal

The ultimate goal of the City of Golden Valley Public Works is to **efficiently consolidate operations** into **one central location**, either as a campus of structures or a singular structure. This is a typical best practice scenario for Public Works service delivery. In some scenarios, separation of some operational functions is also efficient, but need to be evaluated based on size, location and need.

Public Works operations, currently located within the Northeast Quadrant of Golden Valley's downtown district will need to consider total space needs, operational phasing, co-location and possible relocation to achieve those operational goals.

Data Evaluation and Summary

As part of the original information request, the City of Golden Valley provided the design team with a detailed vehicle/equipment list, a staff organizational chart and city growth statistics. We reviewed these resources and incorporated the information into various data collections and calculators that help determine the ultimate space needs, based on best practices within the design, construction, and operation of effective public works facilities.

Vehicle Fleet Evaluation

The city fleet was reviewed and compartmentalized by city division. Each piece of equipment was categorized for best practice storage methodology: Conditioned (warm storage) or Unconditioned (unheated storage) and size: Large (single axle plow equivalent or larger), Medium (Ford 550 or HD pick-ups or equivalent), or Small (Standard Pick-up or equivalent). Smaller equipment, such as skid steers or elements that take up less than a standard pick-up, are counted as a fraction of the small category. Size and configuration of these parking sizes are included in the space standards summary.

Each work group / division had their respective equipment evaluated and categorized separately for specific space needs.

Departments that have vehicles and equipment requiring service by vehicle maintenance, were counted, and categorized separately for establishing vehicle maintenance metrics, but not vehicle storage space needs.

Departmental Staff Evaluation

The organizational chart provided was reviewed for the related Public Works Divisions: Administration, Parks, Utilities (Storm-Water-Sewer), Streets and Vehicle Maintenance. Departmental staffing was broken down by Full Time staff and Seasonal Staff.

City and Departmental Growth

Growth of fleet and staff in Public Works departments is typically reflected in the growth and development of the city for which they serve. The City of Golden Valley is a developed suburban city; thus, growth is going to be generally reflected in population density, rather than area or service development. Growth projections used for this space needs study are limited to an

anticipated percentage of population growth as determined by the city and Met Council. This approach generally reflects a demand on infrastructure, for which public works is ultimately responsible for maintaining.

Programming Summary

The current space demands by fleet and staffing levels for the City of Golden Valley, are larger than current facility assets can manage. Facility age and configuration will make the current facilities difficult and not economically feasible to add on to or reconstruct to serve long term space demands. The largest demand is in conditioned vehicle storage, for large equipment and safe circulation of that equipment.

City growth will not have a significant impact on overall space demands for equipment storage and staffing needs. As a result, the delta between current, 10-year, 30-year and even 50-year projections are not as significant for Golden Valley Public Works, as they would be for a city located further out within the Twin Cities Metro Area.

The primary impact on space needs is the size of equipment within industry trends (size trending larger) and staffing allocations (age of workforce and gender issues). Vehicles and Equipment in a city like Golden Valley will typically have a 1:1 replacement. The key to space programming will be to accommodate anticipated vehicle sizes based on historical trends in size increases.

Staffing may increase overtime to provide services but might be seen in a more seasonal / temporary employee application, rather than full time. An example of this is the daily maintenance of parks and landscaping that the city is responsible for increasing as multifamily dwellings increase, the demand for additional public space will also increase. Additionally, space needs for staff based on gender should remain flexible and accommodate changing demographics, making a male to female ratio more equal, and spaced designed as adaptable to gender neutral as attitudes and building codes change to address societal trends. Staff amenities, such as Wellness rooms (small single user private break area), Locker and Break facilities, flexible meeting / multi-function space and flexible office space are important to be accommodated at the space needs level, and further refined during detailed design phases to demonstrate facility adaptability and resiliency.

Separate and Consolidated Facility Program Review

Space Needs Programs were developed for each individual division (streets, utilities, parks, and vehicle maintenance), like the current division of facilities within the current Civic Campus. Space programs were also developed for a consolidated facility to demonstrate space efficiencies with combination of divisions and determine an ultimate ideal site size for a consolidated campus.

Each space needs program for the separated divisions of Public Works should be evaluated by those work groups. They should be reviewed to identify if space allocation is meeting staff assumptions, identification of any missing functions (or clarification on function identification) or if space allocation is more than operationally necessary.

Example: For the inclusion of a sign shop on the Streets Division program: Is the size appropriate? Does it need a separated storage area? Is a separate sign making office to be included in this location?

Programming Documents Provided

Below is a summary of the documents being provided for review:

Overall Program Summary

This chart provides the total space need for each functional solution, at various time extension intervals.

The first section is for a **CONSOLIDATED** Facility. This facility is assumed as a single-story space need at this stage in the planning process.

The second section is for **separated** department facilities, for use in comparison to existing conditions and if separation or phasing of departmental moves is required.

Detailed Programs

Consolidated Central Facility – All departments, single location. A 30-year projection is illustrated. Single-story assumption.

Departmental Facility – Individualized space needs by department, similar to existing campus organization. A 30-year projection is illustrated. Single-story assumption.

Vehicle Growth Summary

Demonstrates Vehicle Storage and Service Space Needs over time.

Graphic Demonstration

Space Need Increase versus Existing Facility Conditions.

Space Standards and Best Practices

Size and function description of various spaces.

City of Golden Valley Public Works

Consolidated Public Works Facility	Existing	2025-26	10 year	30 year	50 year
Administrative	9,032	12,098	12,808	15,655	16,550
Vehicle Maintenance and Wash Bays	10,332	23,679	24,468	26,142	26,142
Conditioned Vehicle Storage	34,534	64,348	67,038	70,502	75,105
Division Workshops	2,020	6,738	6,738	7,250	10,400
Building Subtotal w/ Circulation	59,425	117,596	122,234	132,088	141,004
Site Functions	181,800	135,618	135,902	137,319	137,319
Unconditioned Vehicle Storage	11,250	12,431	12,750	13,387	14,025
Site Circulation	28,958	54,652	55,498	57,490	59,057
Green Space and Storm Water Management		112,104	114,234	119,099	123,091
Total Consolidated Facility Site Need	281,433	432,400	440,617	459,383	474,497

Separated Departmental Facility

Existing	0 yr / Current	10 year	30 year	50 year
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Utilities

Administrative	2,818	3,689	4,059	4,211	4,211
Vehicle Service / Wash Bay	-	1,680	1,680	1,680	1,680
Conditioned Vehicle Storage	13,015	24,664	27,451	28,009	30,140
Division Workshops	724	2,100	2,100	2,100	2,100
Building Subtotal w/ Circulation	16,557	33,744	37,011	37,767	39,898
Site Functions		28,422	28,422	28,422	28,422
Unconditioned Vehicle Storage		3,418	4,170	4,170	4,557
Site Circulation		49,849	52,815	53,334	55,170
Total Separated Facility Space Need		115,432	122,418	123,692	128,047

Separated Departmental Facility

Existing	0 yr / Current	10 year	30 year	50 year
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Streets

Administrative	2,078	3,814	3,835	4,101	4,101
Vehicle Service / Wash Bay	410	1,680	1,680	1,680	1,680
Conditioned Vehicle Storage	12,335	28,195	30,690	32,821	34,565
Division Workshops	420	3,251	3,251	3,251	5,014
Building Subtotal w/ Circulation	17,900	38,587	41,110	43,588	47,095
Site Functions		28,995	28,995	28,995	28,995
Unconditioned Vehicle Storage		4,991	5,797	6,355	6,355
Site Circulation		55,156	57,662	59,900	62,311
Total Separated Facility Space Need		127,729	133,563	138,837	144,755

Separated Departmental Facility

Existing	0 yr / Current	10 year	30 year	50 year
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Parks

Administrative	1,674	3,362	3,383	3,535	3,561
Vehicle Service / Wash Bay	343	1,680	1,680	1,680	1,680
Conditioned Vehicle Storage	7,157	9,877	12,385	12,943	13,330
Division Workshops	876	1,387	1,387	1,899	3,286
Building Subtotal w/ Circulation	10,900	17,819	20,353	21,621	23,429
Site Functions		25,743	25,743	25,743	25,743
Unconditioned Vehicle Storage		3,635	6,324	6,324	6,324
Site Circulation		36,905	41,222	42,093	43,336
Total Separated Facility Space Need		84,102	93,642	95,781	98,832

Separated Departmental Facility

Existing	0 yr / Current	10 year	30 year	50 year
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Maintenance / Vehicle Service

Administrative and Technician Support	2,462	1,491	1,491	1,813	1,813
Vehicle Service Bays	9,579	8,640	11,552	11,552	11,552
Specialty Service Bays	2,027	7,929	8,075	9,415	9,415
Wash Bay	-	1,680	1,680	1,680	1,680
Division Workshops	-	-	-	-	-
Building Subtotal w/ Circulation	14,068	21,714	25,078	26,906	26,906
Site Functions		6,135	6,135	6,135	6,135
Unconditioned Vehicle Storage		-	-	-	-
Site Circulation		19,975	22,287	23,544	23,544
Total Separated Facility Space Need		47,824	53,499	56,585	56,585
Sep. Facility Green Space and Storm Need		112,526	120,937	124,468	128,466
Combined SF of Separated Facilities		111,865	123,552	129,881	137,327
Combined Site Size of Separated Facilities		487,612	524,059	539,363	556,684

City of Golden Valley

Public Works - Central Facility

20-30 Year Space Needs

ROOM	SQ.FT.	SIZE (rough dim)	#	TOTAL	NOTES
ADMINISTRATIVE					City Staff to Review and Confirm
					Administrative area space needs forecasted to min. 30 years for Breakrooms, Locker Rooms and Open Office
Building Entry / Vestibule	64	8' x 8'	2.00	128	Primary Building and Secondary Employee Entry
Reception Area / Division Assistant	132	12' x 11'	2.00	264	Adjacent to Primary Building Entry Only
Division Manager Office	192	12' x 16'	1.00	192	
Division Supervisor	144	12' x 12'	4.00	576	
Crew Lead Office	120	10' x 12'	7.00	840	
Field Staff Workstation / Open Office	708	6'x6'x(FT + 1/2PT)/3 stf.	1.00	708	
Small Conference Room	120	12' x 10'	2.00	240	4-6 People
Standard Conference Room	240	12' x 20'	2.00	480	10-12 People
Large Conference Room / Training Room	500	20' x 25'	1.00	500	24 people
Copy Area / Document Work Room	144	12' x 12'	3.13	450	
Universal Public Restroom	72	8' x 9'	4.00	288	
Breakroom	2,625	35 sf x Staff #	1.00	2,625	Multi-Function Space; [Possible Combination with Large Training]
Men's Locker Room	1,309	Varies	1.00	1,309	Lockers per staff + 2 toilet, 1 urinal and 2 Lav fixture Restroom [Min. Restroom Fixtures]
Women's Locker Room	634	Varies	1.00	634	Lockers per staff + 2 toilet and 2 Lav fixture Restroom [Min. Restroom Fixtures]
Wellness Room	120	12' x 10' (1 per 24 staff)	4.00	480	Mother's room; Overnight Room
IT Room & SCADA	99	9' x 11'	2.00	198	
General Storage / Supply Closets	100	10' x 10'	3.00	300	
Janitorial	99	11' x 9'	2.00	198	
Mud Room / Wash Area & Laundry	288	24' x 12'	1.00	288	
Mechanical and Electrical Room	1,605	15% of Supported Area	1	1,605	
ADMINISTRATIVE AREA SPACES SUBTOTAL				12,302	DOES NOT INCLUDE CIRCULATION
ADMINISTRATIVE AREA SUBTOTAL				16,607	DOES INCLUDE 35% CIRCULATION

VEHICLE MAINTENANCE					
SEE VEHICLES PAGE Large Maintenance Bay	1,456	28' x 52'	6.00	8,736	Methodology of Vehicle Maintenance Service Delivery determines Bays
SEE VEHICLES PAGE Small Maintenance Bay	704	22' x 32'	4.00	2,816	Methodology of Vehicle Maintenance Service Delivery determines Bays
Building Entry / Vestibule	64	8' x 8'	1.00	64	
Parts and Tool Inventory Area	150	10' x 15'	2.00	300	
Crew Lead Office	120	10' x 12'	2.00	240	Crew Room Office/Conference/Breakroom Style Combination
Field Staff Workstation / Open Office	144	6'x6'x(FT + 1/2PT)/3 stf.	1.00	144	Crew Room Office/Conference/Breakroom Style Combination
Small Conference Room	120	12' x 10'	1.00	120	Crew Room Office/Conference/Breakroom Style Combination
Copy Area / Document Work Room	144	12' x 12'	1.00	144	Crew Room Office/Conference/Breakroom Style Combination
Universal Public Restroom	72	8' x 9'	1.00	72	
Breakroom	175	35 sf x Staff #	1.00	175	Crew Room Office/Conference/Breakroom Style Combination
Men's Locker Area	56	0	1.00	56	Combine to Main Facility Locker Room
Women's Locker and Restroom	14	0	1.00	14	Combine to Main Facility Locker Room
IT Room & SCADA	99	9' x 11'	1.00	99	
Janitorial	99	11' x 9'	1.00	99	
Mud Room / Wash Area & Laundry	288	24' x 12'	1.00	288	
Welding and Fabrication Bay	2,560	32' x 80'	1.00	2,560	
Tire Service Bay	960	24' x 40'	1.00	960	
Tire Service Storage	800	20' x 40'	1.00	800	
Bulk Fluids Storage - Waste Oil	60	6' x 10'	1.00	60	
Bulk Fluids Room - Virgin Fluids	392	14'x28'	1.00	392	
Parts Storage	900	30' x 30'	2.00	1,800	
Tool Storage	300	15' x 20'	2.00	600	
Steel Stock Storage	128	8' x 16'	1.00	128	
Mobile Lift and Jack Storage	64	8' x 8'	2.00	128	
Work Bench Bay	960	12' x 80'	1.00	960	
Mechanical and Electrical Room	1,027	5% of Supported Area	1.00	1,027	
Wash Bay	1,680	30' x 56'	2.00	3,360	
VEHICLE MAINTENANCE SUBTOTAL	26,142	MIN. REQ'D AREA			*Does Not Include Mezzanine

City of Golden Valley		Public Works - Central Facility				20-30 Year Space Needs	
ROOM	SQ.FT.	SIZE (rough dim)	#	TOTAL	NOTES		
CONDITIONED VEHICLE STORAGE (WARM)							
Large Space	900	20'x45'	26	23,400	Parking Spaces Only	Single and Tandem Axle Vehicles	
Medium Space	288	12'x24'	26	7,488		F350 or Larger w/ Attachments and Specialized Vehicles (booms, sweepers, etc)	
Pickup Space	200	10'x20'	31	6,200		Standard Pick-up space	
VEHICLE PARKING SUBTOTAL	37,088				Sum of Parking Space Only		
DOUBLE TRAFFIC LANE STORAGE INCREASE	33,414			70,502			
Mezzanine Storage				1,200	Attachment and small equipment storage shelf		
General Storage area				2,500	Area found in corners / edges of angled parking scenarios		

DIVISION OPERATION CRITICAL SPACES / SHOPS						
Parks						
Open Work Shop	875	25' x 35'	1	875		
Secure Tool/Parts/Material Storage	256	16' x 16'	2	512		
Facilities Supply Storage	256	16' x 16'	2	512		
Streets						
Open Work Shop	875	25' x 35'	1	875		
Carpentry / Wood Fabrication Shop	600	30' x 20'	1	600		
Sign Office and Fabrication Shop	1,200	40' x 30'	1	1,200		
Sign Storage	576	24' x 24'	1	576		
Utilities						
Utilities Workshop and Material Storage	1,500	50' x 30'	1	1,500		
Inspection Shop	600	20' x 30'	1	600		
DEPARTMENTAL SHOPS SUBTOTAL	7,250					
BUILDING PROGRAM TOTALS				TOTAL	MINIMUM TOTALS	
SUB-TOTAL				116,195		
CIRCULATION @ 30%				11,533		
TOTAL				127,728		circulation takes maintenance, and office portions only, remainder of numbers have circulation already built in.

SITE PROGRAM REQUIREMENTS						
Staff Parking and Drive Aisle	283.5	9' x 18'	76	21546		1 per staff on largest shift
Exterior Equipment Parking Demands	288	12' x 24'	29	8352		
ADA Space plus Aisle	306	9' x 18' +8' Aisle	4	1224		
Brine Making and Storage	1,920	40' x 48'	1	1920		
Trash Area	900	30'x30' (can vary)	1	900		
Fuel Island w/ Canopy	1,500	30' x 50'	1	1500		
Stock Pile Material Bins	672	28' x 24'	8	5376		
Site Collections Area	90,000	varies	1	90000		
Salt Shed - up to 1000 ton (combined)	4,800	60' x 80'	1	4800		

UNCONDITIONED VEHICLE STORAGE (COLD)						
Large Space	900	20'x45'	1	994	Parking Spaces Only	
Medium Space	288	12'x24'	15	4,215		Tandem Axle Trailers typical
Pickup Space	200	10'x20'	9	1,878		Most Cold Storage Components
VEHICLE PARKING SUBTOTAL	7,087				Sum of Parking Space Only	
DOUBLE TRAFFIC LANE STORAGE INCREASE	6,300			13,387		
Mezzanine Storage				1,200	Attachment and small equipment storage shelf	
General Storage area				2,500	Area found in corners / edges of angled parking scenarios	

SITE AREA TOTALS						
MAIN BUILDING	127,728					
CIRCULATION AROUND BUILDING	19,159	15% of subtotal				
COLD STORAGE	13,387					
CIRCULATION AROUND BUILDING	3,347	25% of subtotal				
SITE PROGRAM REQUIREMENTS	135,618					
CIRCULATION AROUND SITE PROGRAM	33,905	25% of subtotal				
PROGRAM TOTALS	333,144					
20% GREEN SPACE	66,629					
Stormwater Management	49,972	15% of subtotal				
GRAND TOTAL SITE AREA NEEDED	449,745	10.32		Functionable Site Area		
PROPOSED PROGRAM						

Vehicle Growth Summary

Vehicle and Equipment Storage Demand		0 yr / Current	10 year	30 year	50 year	Notes
Conditioned (Warm) Storage						
Large Vehicles	23	24	26	28		
Medium Vehicles	24	25	26	28		
Small Equipment	28	29	31	33		
Total SF	64,348	67,038	70,502	75,105		
Unconditioned (Cold) Storage						
Large Vehicles	1	1	1	1		
Medium Vehicles	13	14	15	16		
Small Equipment	9	9	9	10		
Total SF	12,431	12,750	13,387	14,025		

Vehicle Maintenance Summary		0 yr / Current	10 year	30 year	50 year	Notes
						2.5 Bays per Mechanic. Ratio of Large to Small based on Fleet Breakdown
Mechanic Based						
Large Bays	5	6	6	6		
Medium/Small Bays	5	4	4	4		
Total Bays	10	10	10	10		
Total SF	10,800	11,552	11,552	11,552		
						12 Large Vehicles Per Technician; 32 Medium / Small per Technician
Total Vehicles per Mechanic						
Large Bays	4	4	4	5		
Medium/Small Bays	4	4	4	4		
Total Bays	8	8	8	8		
Total SF	7,521	7,757	8,157	8,629		
						8 Large Vehicles Per Bay; 40 Medium / Small per Bay
Vehicle Service EQ to Vehicle Size						
Large Bays	5	5	6	6		
Medium/Small Bays	3	3	3	3		
Total Bays	8	8	9	9		
Total SF	9,499	9,818	10,357	10,995		

Conditioned Storage Demand by Division

	0 yr / Current	10 year	30 year	50 year	Notes
Utilities					
Large Vehicles	9	10	10	11	
Medium Vehicles	10	11	12	12	
Small Equipment	9	10	10	11	
Parks					
Large Vehicles	1	2	2	2	
Medium Vehicles	9	9	10	10	
Small Equipment	9	10	10	11	
Streets					
Large Vehicles	13	14	15	16	
Medium Vehicles	4	5	5	5	
Small Equipment	9	9	10	10	

Unconditioned Storage Demand by Division

	0 yr / Current	10 year	30 year	50 year	Notes
Utilities					
Large Vehicles	0	0	0	0	
Medium Vehicles	3	4	4	4	
Small Equipment	5	5	5	6	
Parks					
Large Vehicles	1	2	2	2	
Medium Vehicles	2	3	3	3	
Small Equipment	2	3	3	3	
Streets					
Large Vehicles	0	0	0	0	
Medium Vehicles	8	9	10	10	
Small Equipment	1	2	2	2	