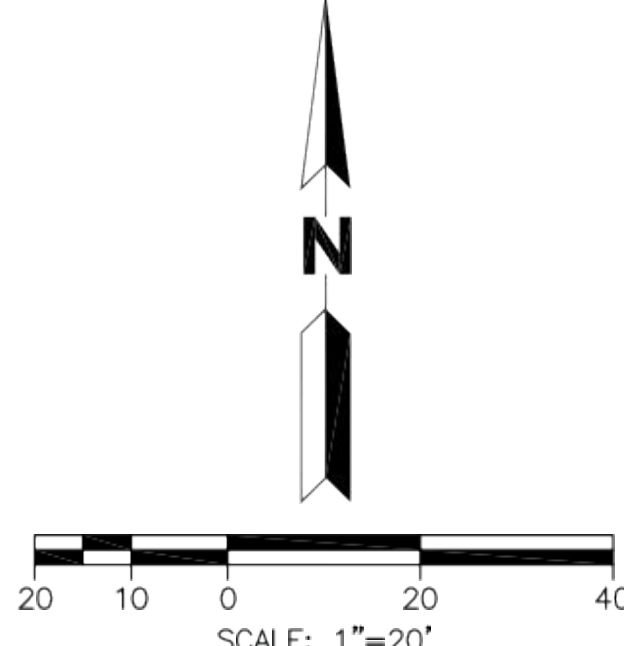
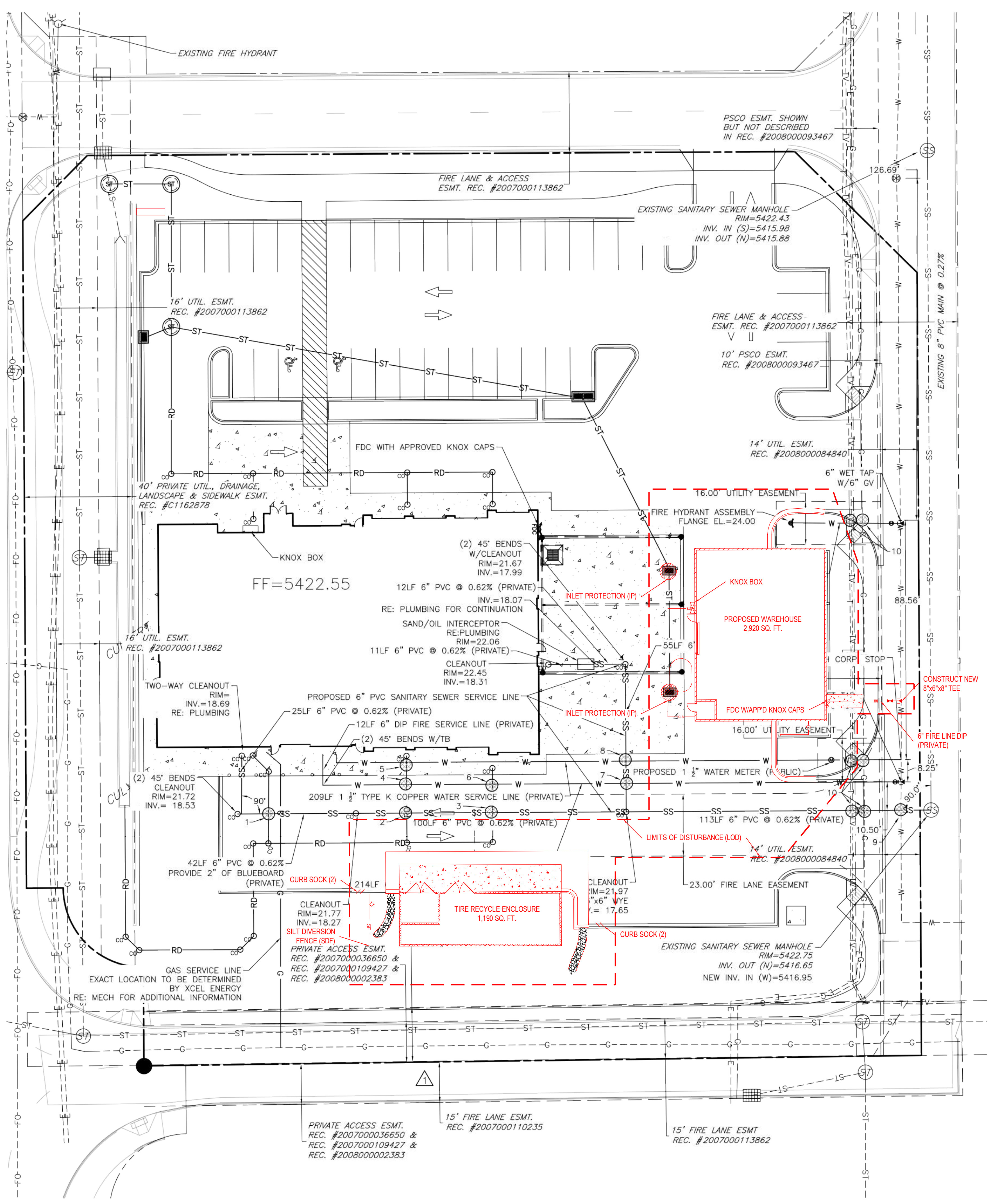




CAD FILE: G:\JANSEN\123341-Les Schwab 34th and Tower\PLANS\C500 Utility.dwg  
Apr 23, 2012 - 3:20pm



TOST = TOP OF STORM SEWER PIPE  
BOST = BOTTOM OF STORM SEWER PIPE  
BOSS = BOTTOM OF SANITARY SEWER PIPE  
BOW = BOTTOM OF WATER LINE  
TOW = TOP OF WATER LINE

\* CONTRACTOR TO FIELD VERIFY DEPTH OF EXISTING WATER MAIN. IF IN CONFLICT WITH SANITARY SEWER, WATER MAIN TO BE MECHANICALLY LOWERED PER COA STANDARDS AND SPECIFICATIONS (DETAIL 227). IF CLEARANCE CAN BE ACHIEVED, BUT IS LESS THAN 18 INCHES, PROVIDE CONCRETE CRADLE PER COA STANDARD DETAIL AND SPECIFICATIONS (DETAIL 402). CONCRETE ENCASES SANITARY SEWER IF OVER WATER MAIN.

\*\* EXISTING DRY UTILITIES ASSUMED TO HAVE 30" OF COVER. NOTIFY ENGINEER IMMEDIATELY OF ANY CONFLICTS.

\*\*\* CONCRETE ENCASE PROPOSED SANITARY SEWER SERVICE LINE OVER ROOF DRAIN LINES PER COA STANDARDS AND SPECIFICATIONS.

\*\*\*\* CONCRETE ENCASE PROPOSED SANITARY SEWER SERVICE LINE OVER WATER LINES PER COA STANDARDS AND SPECIFICATIONS. PROVIDE WATER LINE LOWERINGS PER COA STANDARDS AND SPECIFICATIONS TO PROVIDE MIN. 18" OF CLEARANCE.

\*\*\*\*\* PROVIDE WATER LINE LOWERINGS PER COA STANDARDS AND SPECIFICATIONS TO PROVIDE MIN. 18" OF CLEARANCE.

NOTES:

1. CONSTRUCTION OF ALL UTILITIES TO BE IN COMPLIANCE WITH CITY OF AURORA STANDARDS AND SPECIFICATIONS.
2. SEE SHEETS C600 & C601 FOR STORM SEWER INFORMATION.
3. ALL PVC TO BE SDR 35.
4. WATER SERVICE LINE TO BE TYPE K COPPER.
5. FIRE SERVICE LINE TO BE DIP.
6. ALL BEDDING MATERIAL TO BE CLASS B BEDDING.
7. PER THE GEOTECH REPORT, SOIL MEASUREMENTS OF ELECTRICAL RESISTIVITY FOR ON-SITE SOILS WERE BETWEEN 4,500 AND 7,000 OHM CENTIMETERS WHICH CORRELATES TO MODERATELY CORROSIVE SOILS.

PROJECT NAME : Les Schwab Tire Center  
PROJECT ADDRESS : 3410 Tower Road  
CITY OF AURORA, UTILITY DEPARTMENT  
1470 SOUTH HAVANA STR., AURORA, CO. 80012  
TAP APPLICATION OFFICE - 739-7395  
PLANS REVIEW - 739-7374 FAX - 739-7491  
FAX TO : \_\_\_\_\_ DATE : \_\_\_\_\_  
ATTN : \_\_\_\_\_ FAX # : \_\_\_\_\_

FIXTURE UNIT TABLE	EXISTING WATER SAVING FIXTURES ? EXISTING ULTRA LOW FLOW FIXTURE?				PROPOSED WATER SAVING FIXTURES ? PROPOSED ULTRA LOW FLOW FIXTURE? no				DATE :		BY :		OK BY :					
	EXISTING PRIVATE		PROPOSED PRIVATE		EXISTING PUBLIC		PROPOSED PUBLIC		STANDARD		LOW FLOW		ULTRA LOW FLOW					
	NUMBER OF FIXTURES	FIXTURE VALUE	NUMBER OF FIXTURES	FIXTURE VALUE	NUMBER OF FIXTURES	FIXTURE VALUE	NUMBER OF FIXTURES	FIXTURE VALUE	UNITS SUBTOTALS	PRIV	PUB	PRIV	PUB	PRIV	PUB			
BAR SINK		0.7		0.7		1.4		1.4	0	1	2	0.7	1.4					
BATHTUB (WITH SHOWER)		1.4		1.4		1.8		1.8	0	2	4	1.4	1.8					
DENTAL UNIT		0.7		0.7		0.7		0.7	0	1	1	0.7	0.7					
DRINKING FOUNTAIN		0.7		0.7		1.4	1	1.4	1.4	1	2	0.7	1.4					
HOSE BIBB OR SILL COCK		3		3		5	5	5	25	3	5	3	5					
MOBILE HOME EACH		6		6		6		6	0	6	6	6	6					
LAUNDRY TUB, CLOTHWASHER		2		2		4		4	0	2	4	2	4					
LAVATORY		0.7		0.7		1.4	3	1.4	4.2	1	2	0.7	1.4					
LAVATORY (DENTAL)		0.7		0.7		0.7		0.7	0	1	1	0.7	0.7					
LAWN SPRINKLER EACH HEAD		1		1		1		1	0	1	1	1	1					
SHOWER EACH HEAD		1.4		1.4		2.8		2.8	0	2	4	1.4	2.8					
SINK (PER FAUCET)		0.7		0.7		1.4	1	1.4	1.4	1	2	0.7	1.4					
SINK DISHWASHER		1.4		1.4		2.8		2.8	0	2	4	1.4	2.8					
SINK (FLUSHING RIM)		7		7		7		7	0	10	10	7	7					
SINK (WASHUP)		1.4		1.4		1.4	1	1.4	1.4	2	2	1.4	1.4					
SINK (CIRCULAR WASHUP)		2.8		2.8		2.8		2.8	0	4	4	2.8	2.8					
SINK (SERVICE)		2.25		2.25		2.25	1	2.25	2.25	2.25	2.25	2	2					
URINAL (PEDESTAL)		5		10		5		10	0	10	10			5	5			
URINAL (STALL)		2.5		5		2.5		5	0	5	5			2.5	2.5			
URINAL (WALL)		2.5		5		2.5	1	5	5	5	5			2.5	2.5			
URINAL (FLUSH TANK)		1.5		3		2.5	3	3	0	3	3			1.5	2.5			
WATER CLOSET (TANK)		1.5		2.4		2.5		3.5	0	3	5	2.4	3.5	1.5	2.5			
WATER CLOSET (VALVE)		3		4.7		5	3	7	21	6	10	4.7	7	3	5			
3/8 INCH SUPPLY		1		1		2		2	0	1	2							
1/2 INCH SUPPLY		2		2		4		4	0	2	4							
3/4 INCH SUPPLY		3		3		6		6	0	3	6							
1 INCH SUPPLY		6		6		10		10	0	6	10							
TOTAL									61.65			MAXIMUM FIXTURE UNITS						
* IF WATER SAVING AND/OR ULTRA LOW FLOW FIXTURE VALUES ARE USED THEY MUST BE SPECIFIED ON THE BUILDING PLANS PRIOR TO APPROVAL OF THE BUILDING PERMIT. WATER SAVINGS = 30% REDUCTION ON FAUCETS & 3.5 GALLON WATER CLOSETS ULTRA LOW FLOW = 1.6 GALLON WATER CLOSETS AND URINALS											FLUSH TANK CURVE # 2		FLUSH VALVE CURVE # 1		Max Flow (GPD)			
METER SIZING TABLE									CURVE NO. =		HAZEN WILLIAMS C = 100		HEAD LOSS CALCULATIONS BASED ON HAZEN WILLIAMS COEFFICIENT COPPER SERVICE C = 130, DUCTILE IRON C = 100		METER SIZE DIA.		MAX. FLOW (GPM)	
CURVE NO. 1 FOR FLUSH VALVES									FIXTURE UNIT TOTAL		FLOW FROM TABLE (GPM)		METER SIZE (INCHES)		VELOCITY (FPS)		LENGTH SERVICE (FT)	
CURVE NO. 2 FOR FLUSH TANKS									61.65		32.66		1.50		6.07		500	
															5.20		80	
																	54.01	
															20		20160	
															25		36000	
															55		60	
															100		375	
															220		1075	
															400		2675	
															900		5500	
															6"		1296000	



UNCC  
UTILITY NOTIFICATION  
CENTER OF COLORADO



811  
Know what's below.  
Call before you dig.

CALL 811 2-BUSINESS DAYS IN ADVANCE  
BEFORE YOU DIG, GRADE OR EXCAVATE FOR  
MARKING OF UNDERGROUND MEMBER UTILITIES

MARTIN/MARTIN ASSUMES NO RESPONSIBILITY FOR UTILITY LOCATIONS. THE UTILITIES SHOWN ON THIS DRAWING HAVE BEEN PLOTTED FROM THE BEST AVAILABLE INFORMATION. IT IS, HOWEVER, THE CONTRACTORS RESPONSIBILITY TO FIELD VERIFY THE SIZE, MATERIAL, HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.

Approved for One Year From this Date

City Engineer	Date
Aurora Water Department	Date
Fire Department	Date

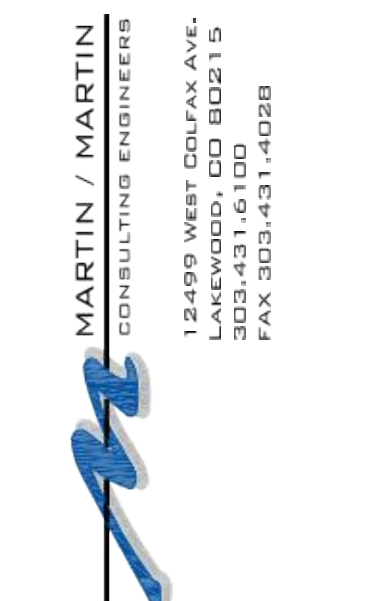


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www.gbdarchitects.com

LES SCHWAB  
TOWER ROAD  
AURORA, COLORADO

LOT 1, BLOCK 1,  
GATEWAY EAST AT  
TOWER SUBDIVISION  
FILING NO. 1,  
AMENDMENT NO. 1



MARTIN / MARTIN  
CONSULTING ENGINEERS  
12495 WEST COLGAN AVE.  
LAKEWOOD, CO 80215  
303-431-6100  
FAX 303-431-1428

01-20-2012  
02-08-2012  
PR #7  
04-23-2012

REVISIONS

DATE  
12-20-2011

PROJECT NUMBER  
20112001

SHEET TITLE  
UTILITY PLAN  
W/ EROSION CONTROL

SCALE  
AS NOTED

C500

SHEET 10