



# AUTO BODY & GLASS

6601 SHINGLE CREEK PKWY #200  
BROOKLYN CENTER, MN 55430  
(763) 561-7220  
FAX 561-7433

I HEREBY CERTIFY THAT THIS PLAN, SPECIFICATION OR REPORT WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED CIVIL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA

SIGNATURE \_\_\_\_\_  
DATE \_\_\_\_\_ REGISTRATION NO. \_\_\_\_\_

## ABRA AUTO BODY & GLASS

LINE AVENUE & 183RD CIRCLE  
ELK RIVER, MN

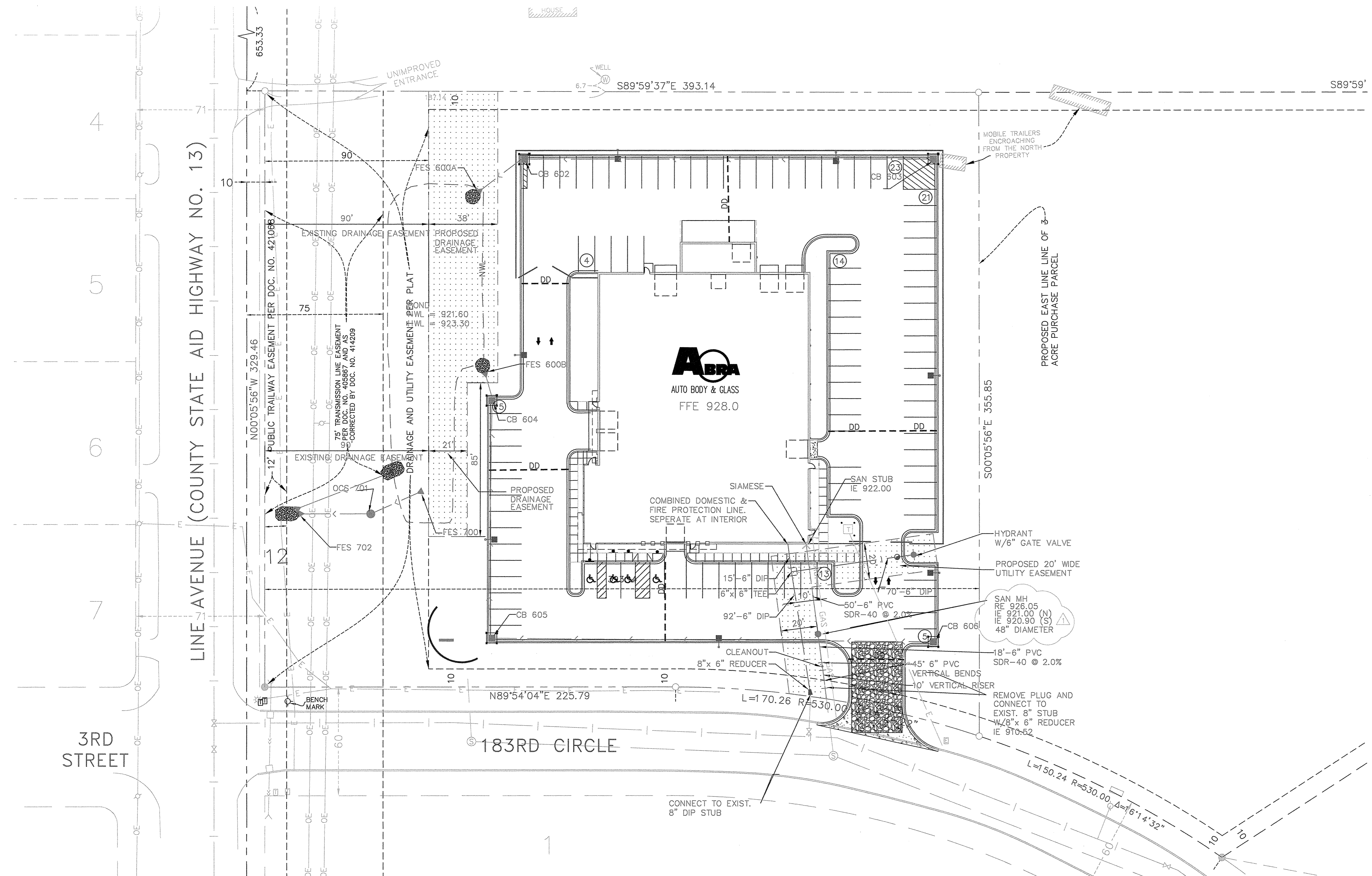
PROJECT NO.: 204-0055	
DRAWN BY: JRL	
CHECKED BY: MA	
DRAWING: 4055util.dwg	
ISSUE:	DATE:
Staff Review	6.14.04
CITY SUBMITTAL	6.25.04
Building Permit Submittal	7.19.04
Revisions per City Comments	8.6.04
Building Permit Submittal	2.15.07
Engineer Dept. comments	3.15.07

PROJECT LOCATION:  
ELK RIVER, MN

SHEET NUMBER / TITLE

C-3

UTILITY PLAN



### UTILITY LEGEND:

- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN
- PROPOSED CATCH BASIN
- PROPOSED SANITARY/STORM MANHOLE
- PROPOSED SANITARY CLEAN OUT
- PROPOSED GATE VALVE
- PROPOSED HYDRANT
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING WATERMAIN
- EXISTING SANITARY/STORM MANHOLE
- EXISTING CATCH BASIN
- EXISTING HYDRANT
- EXISTING WELL
- EXISTING GAS LINE
- EXISTING OVERHEAD ELECTRIC
- EXISTING TELEPHONE
- LUMINAIRE

### UTILITY NOTES:

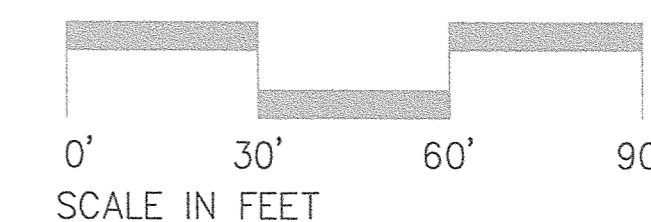
- EXISTING UTILITIES, SERVICE LOCATIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD AND WITH THE CITY OF ELK RIVER, MN PRIOR TO CONSTRUCTION.
- MAINTAIN 18" VERTICAL AND 6' VERTICAL SEPARATION AT ALL PIPE CROSSINGS.
- CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS PRIOR TO THE START OF CONSTRUCTION.
- UTILITY CONTRACTOR TO PROVIDE POLYSTYRENE INSULATION FOR ALL STORM SEWER AND WATER MAIN CROSSINGS WHERE VERTICAL OR HORIZONTAL SEPARATION IS LESS THAN 6'.
- ALL UTILITY WORK WITHIN THE R.O.W. SHALL COMPLY WITH THE CITY OF ELK RIVER ENGINEERING DESIGN STANDARDS.
- NOTIFY GOPHER ONE 48 HOURS IN ADVANCE OF ANY UTILITY WORK.
- PROVIDE TEMPORARY TRAFFIC CONTROL IN COMPLIANCE WITH MNDOT "TEMPORARY TRAFFIC CONTROL ZONE LAYOUTS-FIELD MANUAL" DATED JANUARY 2001, FOR ANY UTILITY CONSTRUCTION WITHIN PUBLIC R.O.W.
- CONNECT RWL TO STORM SEWER LINE WITH "WYE" CONNECTION.
- ARRANGE TEL, GAS, AND ELECTRIC SERVICE CONNECTION WITH THE RESPECTIVE SERVICE COMPANY.
- REFER TO PHOTOMETRIC PLAN FOR LOCATIONS, FOOTCANDLE PRINT OUT AND SPECIFICATIONS.
- ALL SANITARY MANHOLES TO BE 48" DIAMETER CONCRETE W/ NEENAH R-1642 CASTING.
- PROPOSED WATER SERVICE SHALL BE INSTALLED WITH MINIMUM 7.5' OF COVER OVER PIPE.
- SEWER SERVICE SHALL BE 6" PVC, SDR 40, ASTM 3034 USE BENDS & FITTINGS AS REQUIRED.
- THRUST BLOCKS SHALL BE PLACED AT FITTINGS, TEES, BENDS, CROSSES, PLUGS, ETC.,
- CONTRACTOR TO MARK ENDS OF UTILITY STUBS WITH A WOOD 4X4 POST (UPON COMPLETION OF EACH PHASE). BLUE FOR WATER AND RED FOR SANITARY.

### STORM SEWER SCHEDULE

STRUCTURE # FROM	STRUCTURE # TO	FROM INVERT ELEVATION	TO INVERT ELEVATION	PIPE LENGTH, TYPE/CLASS AND SLOPE	RIM ELEVATION	FROM STRUCTURE SIZE AND TYPE	CASTING TYPE	RIP RAP
CB 603	CB 602	923.00	921.88 (E)	229'-12" RCP CL-5 @ 0.50%	925.50	24" x 36" BOX	R-3067	
CB 602	FES 600A	921.76 (W)	921.60	30'-12" RCP CL-5 @ 0.51%	925.50	24" x 36" BOX	R-3067	
FES 600A		921.60				12" RCP W/SAFETY GRATE		2.0 CY CL-3
CB 606	CB 605	923.00	922.28 (E)	247'-12" RCP CL-5 @ 0.29%	925.40	24" x 36" BOX	R-3067	
CB 605	CB 604	922.18 (N)	921.76 (S)	133'-12" RCP CL-5 @ 0.32%	925.00	24" x 36" BOX	R-3067	
CB 604	FES 600B	921.66 (N)	921.60	18'-12" RCP CL-5 @ 0.39%	925.90	24" x 36" BOX	R-3067	
FES 600B		921.60				12" RCP W/SAFETY GRATE		2.0 CY CL-3
FES 700	OCS 701	919.60	918.80 (E)	31'-15" RCP CL-5 @ 2.58%		15" RCP W/SAFETY GRATE		
OCS 701	FES702	917.30 (W)	917.00	40'-15" RCP CL-5 @ 0.80%	924.50	60" DIA.	R-2557	
FES 702		917.00				15" RCP W/SAFETY GRATE		3.0 CY CL-3

### STORM SEWER NOTES

- ALL CASTINGS SHOULD BE NEENAH OR APPROVED EQUAL.
- WATERMAIN TO BE INSULATED AT ALL STORM SEWER CROSSINGS.
- ALL CATCH BASIN RIM ELEVATIONS ARE AT CENTER OF STRUCTURE AT FLOW LINE.



# UTILITY PLAN