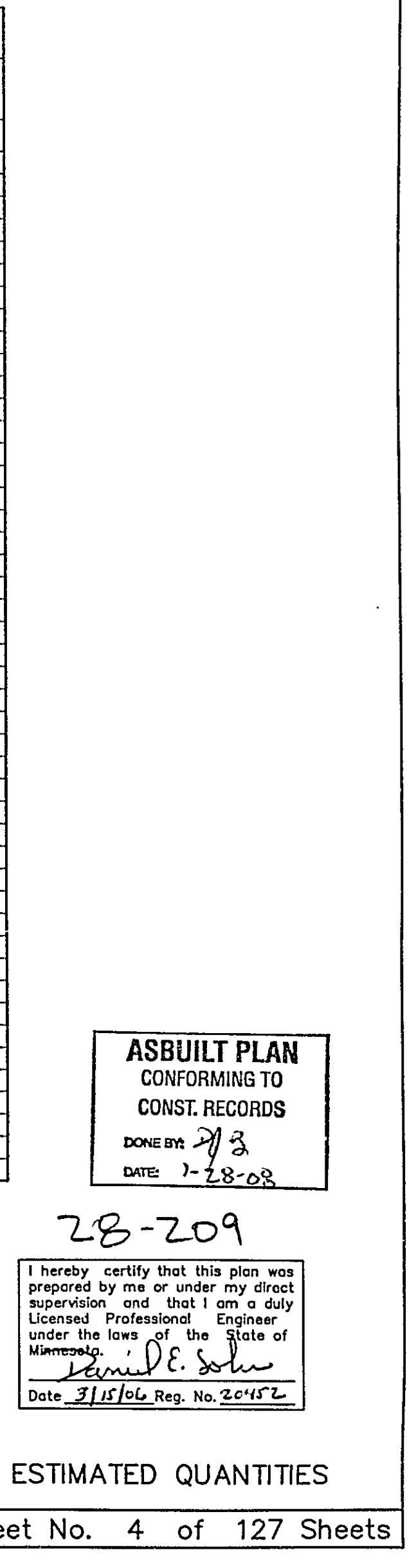




STANDARD PLATES	
THE FOLLOWING STANDARD PLATES, APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION, SHALL APPLY ON THIS PROJECT	
PLATE NO.	DESCRIPTION
3000L	REINFORCED CONCRETE PIPE
3000S	GASKET JOINT FOR R.C. PIPE
3100S	CONCRETE APRON FOR REINFORCED CONCRETE PIPE
3135S	RIPRAP AT TOP OF CUTS
3145S	CONCRETE PIPE TIES
4010S	CONCRETE STREET CURE AND ADJUSTING RING
4011E	PRECAST CONCRETE BASE
4020S	MANHOLE OR CATCH BASIN COVER
4022A	MANHOLE OR CATCH BASIN COVER
4024A	48" DIA. PRECAST SHALLOW DEPTH CATCH BASIN
4101L	MANHOLE OR CATCH BASIN STEP
7035M	CONCRETE WALK & CURB RETURNS AT ENTRANCES
7035P	PEDESTRIAN CURB RAMP
7101H	CONCRETE CURB AND GUTTERS (DESIGN B & DESIGN V)
7105C	CONCRETE MEDIAN (MOUNTABLE TYPE)
7111D	INSTALLATION OF CATCH BASIN CASTINGS
7115A	CONCRETE APPROACH ROSE DETAIL
8000D	STANDARD BARRICADE
8114A	P.V.C. HANDICAP / PULL BOX
8115D	PEDESTRIAN PUSH BUTTON INSTALLATION
8120L	POLE FOUNDATION (PAB)
8122C	POSTAL AND PEDIESTAL BASE
8123P	POLE AND MAST ARM (LUMINAIRE AND TRAFFIC LIGHTS)
8124C	MAST ARM SIGNAL HEAD MOUNTS
8126G	POLE FOUNDATION (PASO AND PATOD)
8127B	STREET LIGHT BASE - DESIGN E MODIFIED
8202L	CHAIN LINK FENCE

CONSTRUCTION NOTES

WATER, GAS, ELECTRIC, TELEPHONE, SEWER, AND T.V. CABLE LINES SHOWN ON THE DRAWINGS AND CROSS-SECTIONS ARE PLOTTED FROM THE BEST INFORMATION AVAILABLE AT THE TIME OF PLAN PREPARATION, BUT MAY NOT REFLECT ACTUAL LOCATIONS OR ELEVATIONS. THE CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES BEFORE BEGINNING CONSTRUCTION WHICH MAY BE AFFECTED BY A UTILITY CONFLICT. THE CONTRACTOR SHALL GIVE 48 HOURS NOTICE TO THE OWNERS OF ALL KNOWN UTILITIES BEFORE STARTING ANY OPERATIONS AFFECTING THOSE PROPERTIES, OR BEGINNING EXCAVATION IN THE VICINITY OF THOSE PROPERTIES. THE CONTRACTOR'S ATTENTION IS DIRECTED TO SECTION 1507 IN THE STANDARD SPECIFICATIONS.

UTILITY COMPANIES WILL RELOCATE THEIR FACILITIES CONCURRENTLY WITH THE CONSTRUCTION OPERATIONS UNDER THIS CONTRACT. CONTRACTOR SHALL SCHEDULE CONSTRUCTION IN COOPERATION WITH UTILITY RELOCATION.

PROVIDE FOR REMOVAL AND DISPOSAL (OUTSIDE THE CONSTRUCTION ZONE) OF ALL INPLACE STRUCTURES THAT WILL INTERFERE WITH CONSTRUCTION. DISPOSAL OF ITEMS REMOVED UNDER THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF 2104.30.3.

EXCESS EXCAVATED AND UNSUITABLE MATERIALS SHALL BE DISPOSED OF IN ACCORDANCE WITH THE REQUIREMENTS OF 2104.30.2 AND 2105.30.

SOODING QUANTITIES ALONG ROADWAY SLOPES ARE BASED ON SOODING LIMITS FROM THE BACK OF THE CURB TO THE CONSTRUCTION LIMITS.

COMPACTION IN GRADING ITEMS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SPEC. 2105.32.2 "QUALITY COMPACTION METHOD".

COMPACTION OF BITUMINOUS SURFACE ITEMS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH SPEC. 2306.06 "ORDINARY COMPACTION".

WHEN EXCAVATING ADJACENT TO INPLACE PAVEMENT, NO MATERIAL SHALL BE REQUIRED FROM INSIDE AN APPROXIMATE 2:1 SLOPED LINE DRAIN DOWNWARD AND OUTWARD FROM THE BOTTOM OF THE INPLACE PAVEMENT.

WHEN CONNECTION TO EXISTING BITUMINOUS PAVEMENT IS REQUIRED, THE EDGE OF EXISTING PAVEMENT SHALL BE CUT TO A NEAT LINE PRIOR TO CONSTRUCTING ASPHALT SURFACING.

STABILIZING AGGREGATE SHALL BE APPLIED IF NECESSARY TO ACHIEVE SATISFACTORY SURFACE STABILITY AS DETERMINED BY THE ENGINEER. THE MATERIAL SHALL SATISFY THE REQUIREMENTS OF SECTION 3149.20 AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 2105.30 OF THE STANDARD SPECIFICATIONS.

USE TACK COAT BETWEEN ALL BITUMINOUS LIFTS.

ALL USES OF THE WORD "MODIFIED" IN THESE CONSTRUCTION DOCUMENTS SHALL BE CONSTRUED TO MEAN INCIDENTAL WORK FOR WHICH NO DIRECT COMPENSATION SHALL BE MADE.

ALL DRAINAGE STRUCTURES TYPE III & C SHALL HAVE A MINIMUM 6" OF CONCRETE ADJUSTING RINGS.

EXCESS COMMON EXCAVATION SHALL BECOME THE PROPERTY OF THE CONTRACTOR. THE COST FOR DISPOSAL SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND NO ADDITIONAL COMPENSATION WILL BE PAID OUTSIDE THE PRICE BID FOR COMMON EXCAVATION.

CHART INDEX

	SHEET
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F WOODEN FENCE	25
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H BITUMINOUS SUMMARY	26
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BASIS FOR ESTIMATED QUANTITIES

2350&2360 MIXES - BITUMINOUS MIXTURES - 110 LBS PER 1" THICKNESS PER SQ. YD.	
2357.502 - BITUMINOUS MATERIAL FOR TACK COAT ESTIMATED AT 0.05 GAL. PER SQ. YD. PER APPLICATION	
2575.511 - MULCH MATERIAL ESTIMATED AT 2 TONS PER ACRE	
2575.532 - FERTILIZER APPLICATION RATE 250 LBS/ACRE	
2575.502 - MIXTURE 200 30 LBS PER ACRE	
2575.502 - MIXTURE 1000 100 LBS PER ACRE	
2575.502 - MIXTURE 1100 100 LBS PER ACRE	
2575.608 - HYDRAULIC SOIL STABILIZER ESTIMATED AT 2500 LBS PER ACRE	
2575.608 - MIXTURE 250 70 LBS PER ACRE	
2575.608 - MIXTURE 310 82 LBS PER ACRE	

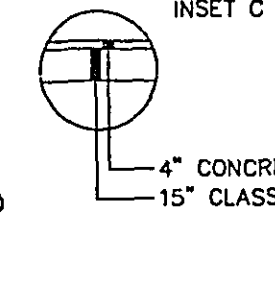
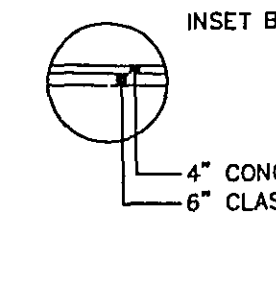
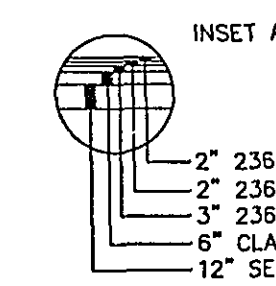
28-209

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY *SJB*
DATE: 1-28-08

CONSTRUCTION NOTES, STANDARD PLATES,
CHART INDEX, BASIS FOR QUANTITIES

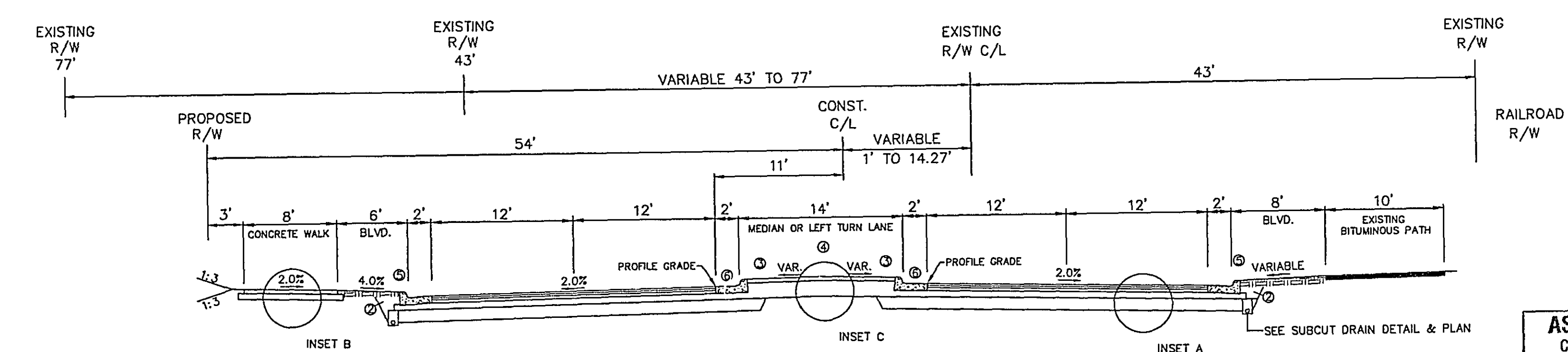
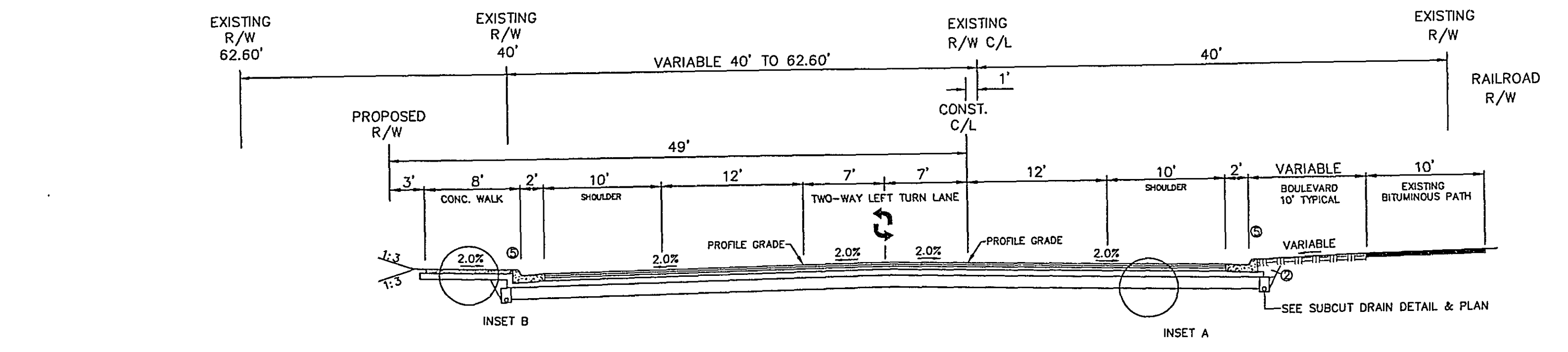
S.P. No. 62-623-41

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NOTES

- ALL CROSS SLOPES ARE IN FT / FT
- ① USE CLASS 6 SPECIFICATION FOR GRADATIONS
- ② BACKFILL WITH COMMON BORROW
- ③ CONCRETE WALK SPECIAL - STAMPED & COLORED CONCRETE SEE SPECIAL PROVISIONS
- ④ WHEN MEDIAN WIDTH IS 6.5' OR GREATER, PLACE 2' WIDE COLORED SIDEWALK ALONG BACK OF CURBS & FILL MIDDLE WITH 18" OF SELECT TOPSOIL, BORROW (MOD.) AND SOD
- ⑤ 1.5 FOOT CLEARANCE FROM FACE OF CURB TO FIXED OBJECTS
- ⑥ CONSTRUCT OUTFALL GUTTERS ON ALL MEDIAN GUTTERS EXCEPT WHERE INDICATED ON THE CONSTRUCTION PLAN.



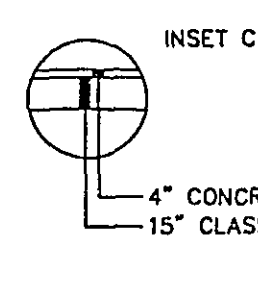
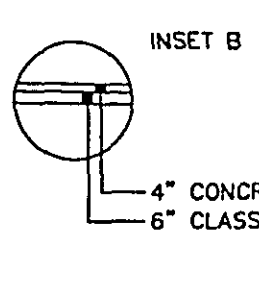
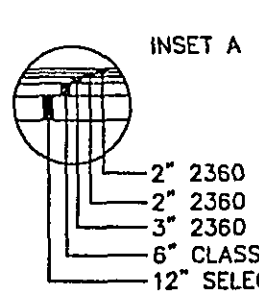
ASBUILT PLAN
CONFORMING TO
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DATE: 1-28-08

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TYPICAL SECTIONS

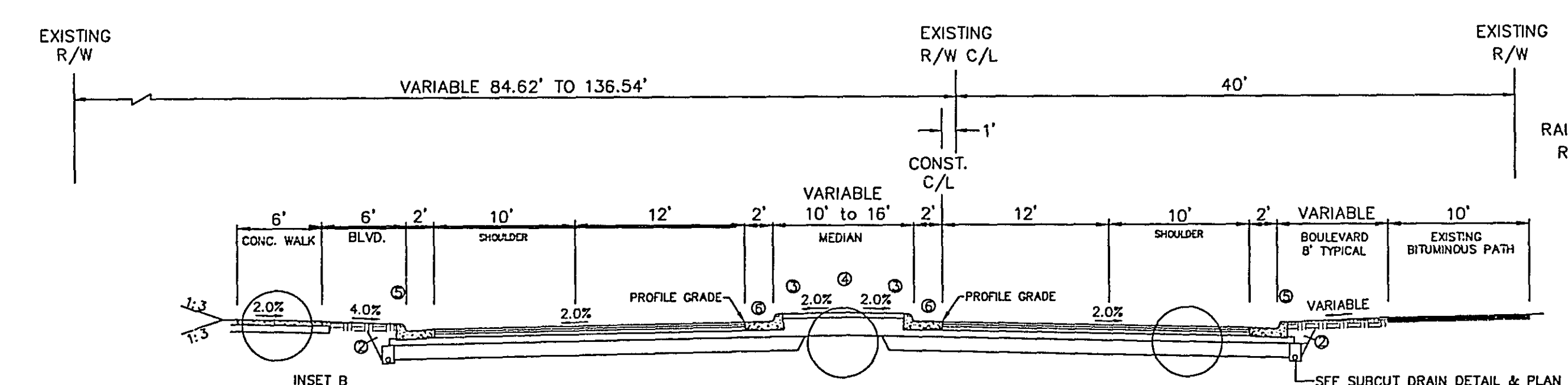
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SHEET NO. 6 OF 127 SHEETS

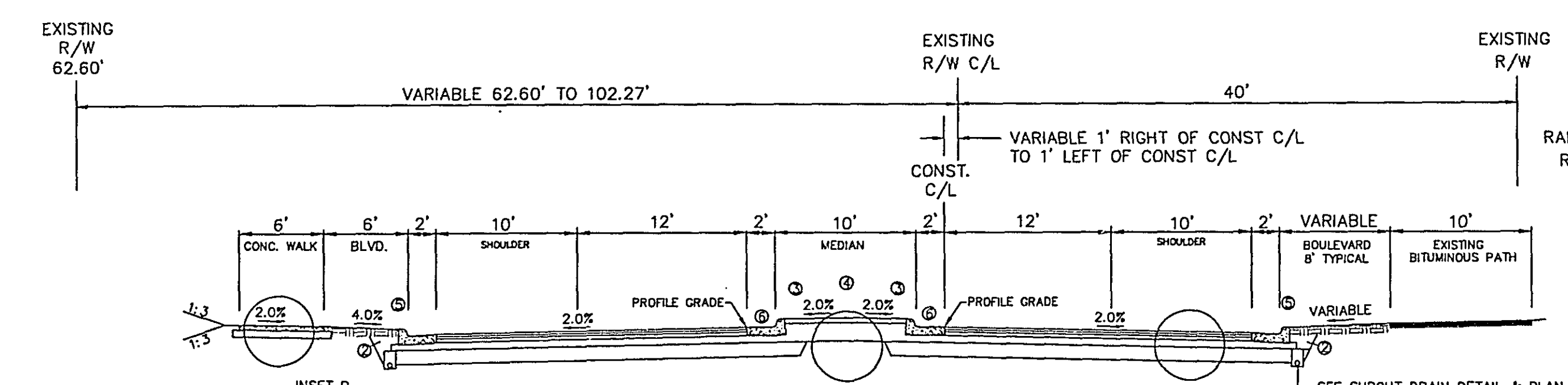


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STATION 141+70 TO STATION 158+85



STATION 128+84 TO STATION 141+70

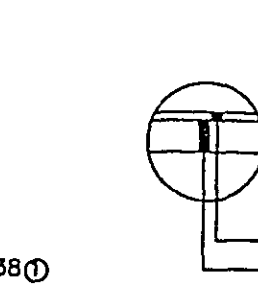
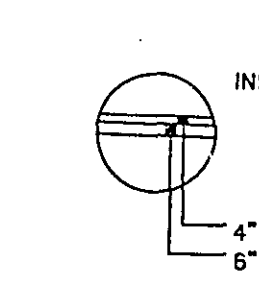
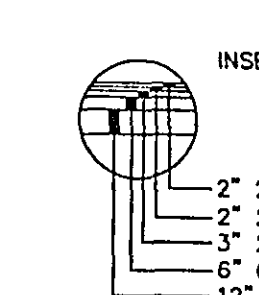
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TYPICAL SECTIONS

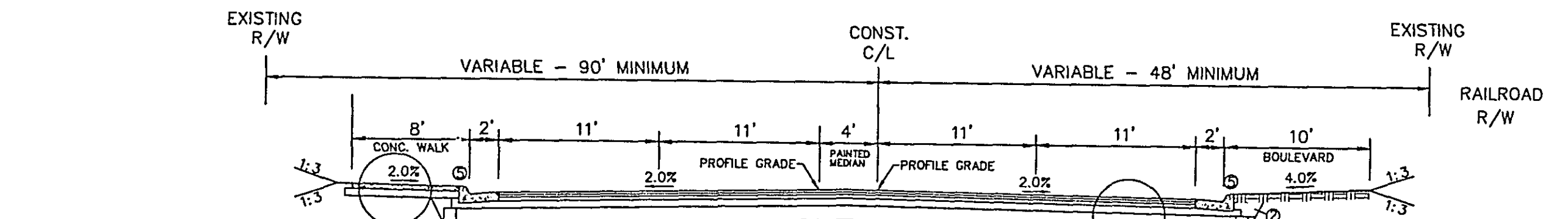
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SHEET NO. 7 OF 127 SHEETS

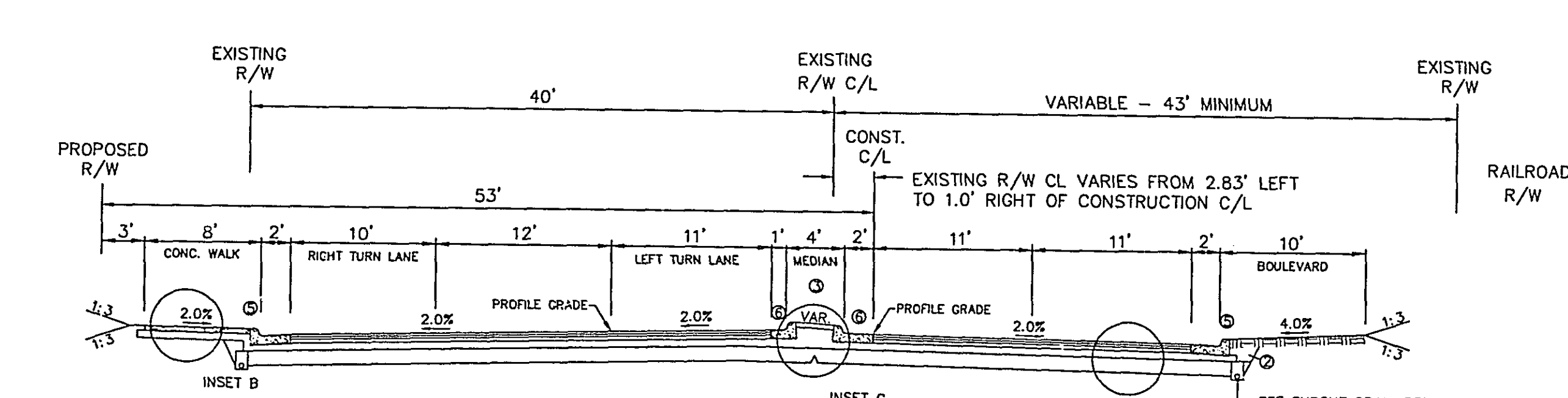


NOTES

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STATION 160+93 TO STATION 168+00



STATION 158+85 TO STATION 160+93

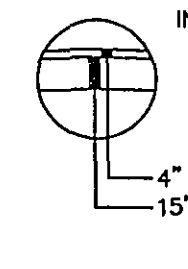
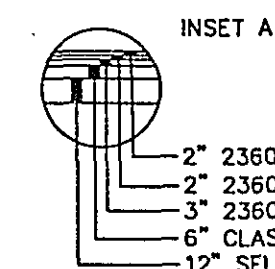
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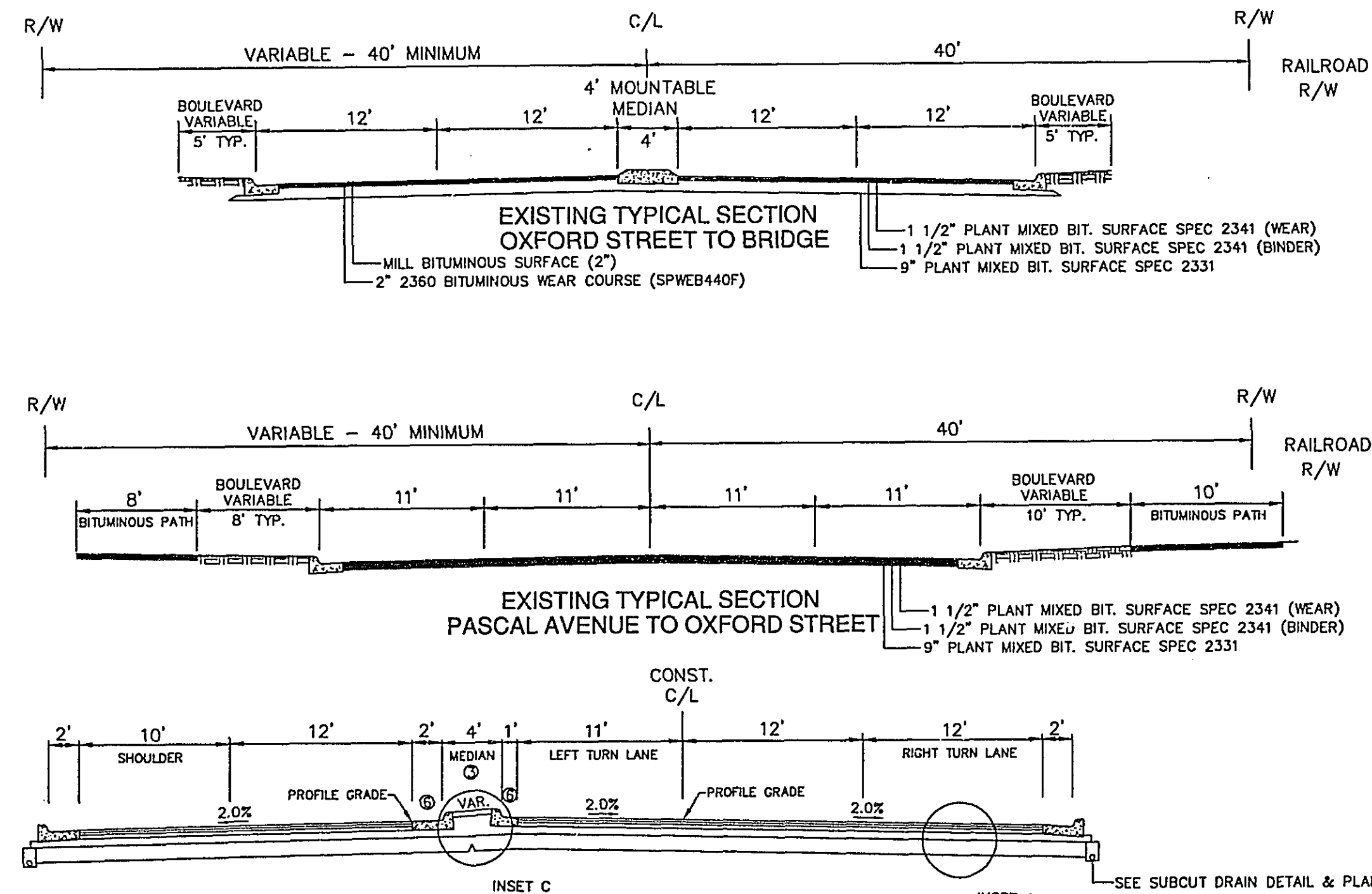
TYPICAL SECTIONS

S.P. 62-623-41

SHEET NO. 8 OF 127 SHEETS



- NOTES
- ALL CROSS SLOPES ARE IN FT / FT
 - USE CLASS 6 SPECIFICATION FOR GRADATIONS
 - BACKFILL WITH COMMON BORROW
 - CONCRETE WALK SPECIAL - STAMPED & COLORED CONCRETE SEE SPECIAL PROVISIONS
 - WHEN MEDIAN WIDTH IS 6.5' OR GREATER, PLACE 2' WIDE COLORED SIDEWALK ALONG BACK OF CURBS & FILL MIDDLE WITH 16" OF SELECT TOPSOIL BORROW (MOD.) AND SOO
 - 1.5 FOOT CLEARANCE FROM FACE OF CURB TO FIXED OBJECTS
 - CONSTRUCT DUTAIL CUTTERS ON ALL MEDIAN GUTTERS EXCEPT WHERE INDICATED ON THE CONSTRUCTION PLAN.



LEFT TURN LANES AT INTERSECTIONS
SEE PLAN SHEETS FOR LOCATIONS

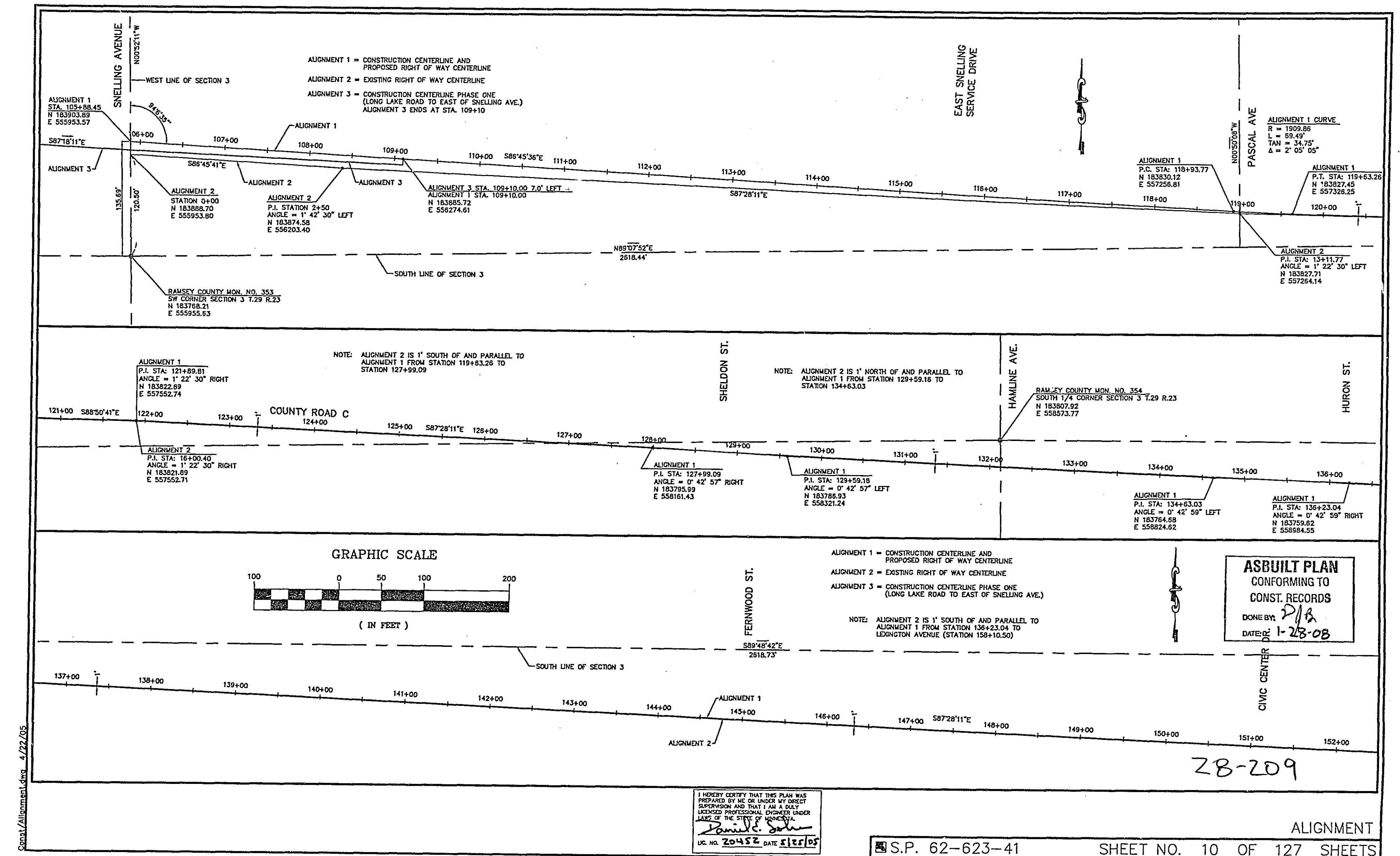
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DATE 1-28-08

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TYPICAL SECTIONS

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SHEET NO. 9 OF 127 SHEETS



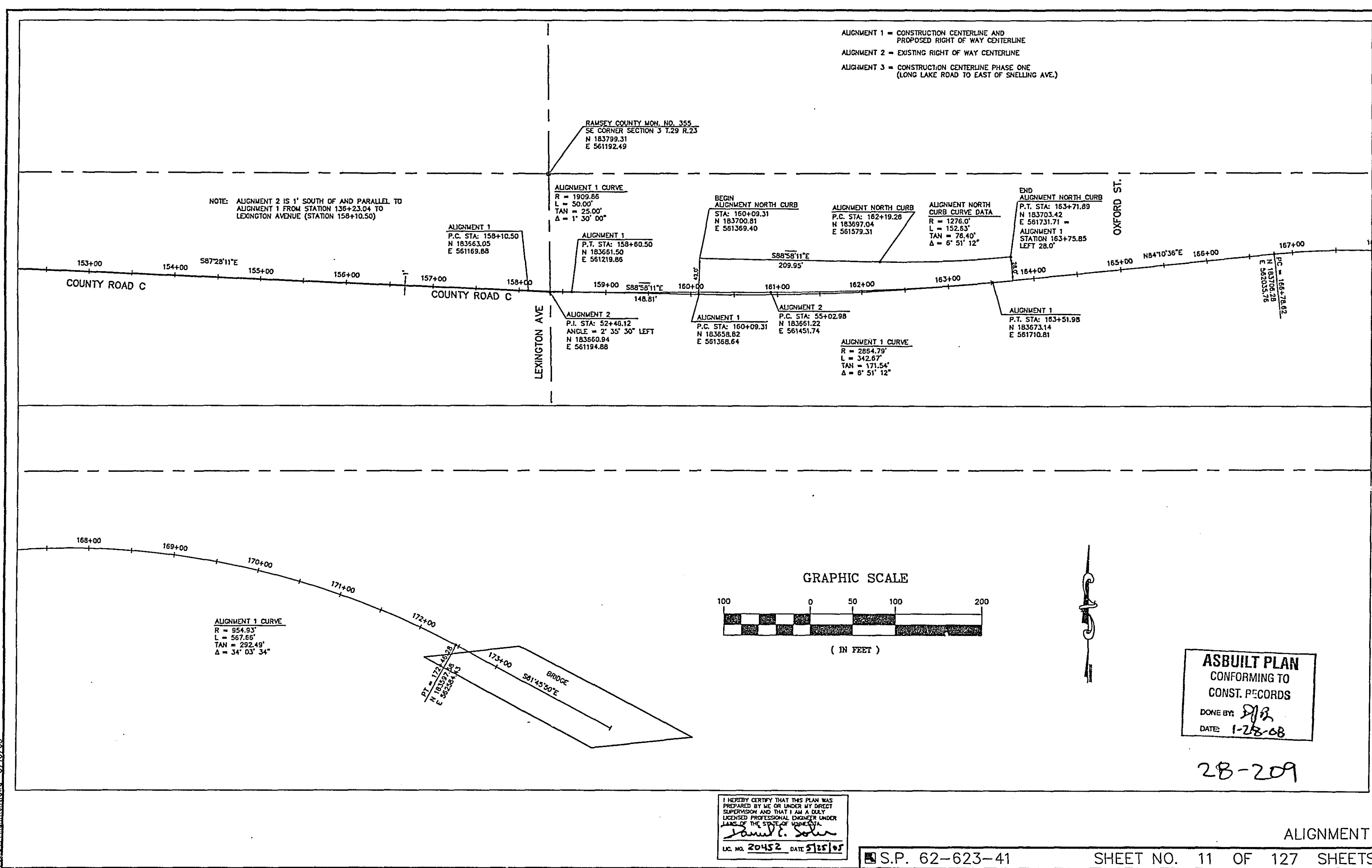
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ALIGNMENT

S.P. 62-623-41

SHEET NO. 10 OF 127 SHEETS



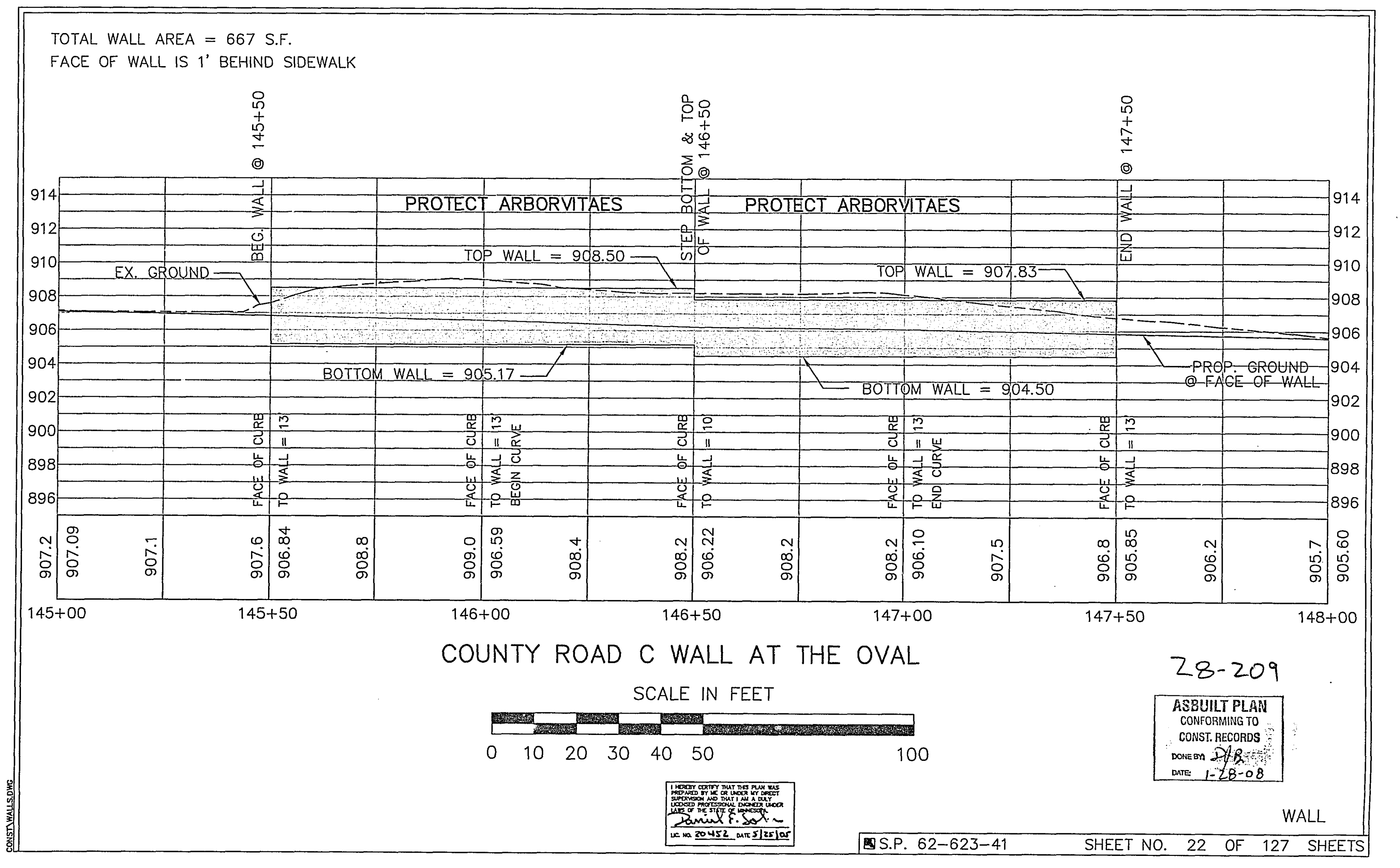
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ALIGNMENT

S.P. 62-623-41

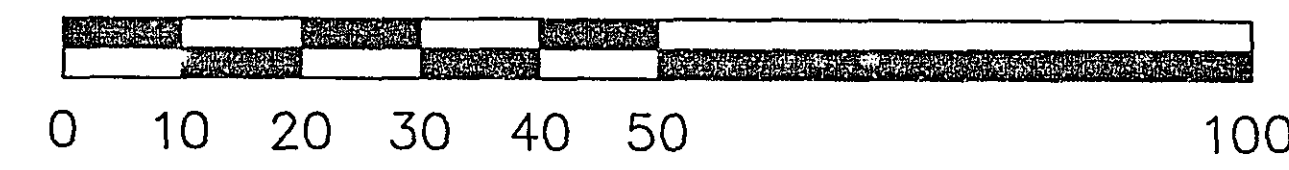
SHEET NO. 11 OF 127 SHEETS



TOTAL WALL AREA = 667 S.F.
FACE OF WALL IS 1' BEHIND SIDEWALK

COUNTY ROAD C WALL AT THE OVAL

SCALE IN FEET



28-209

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY *PJB*
DATE 1-28-08

WALL

S.P. 62-623-41

SHEET NO. 22 OF 127 SHEETS

CHART G

ALIGNMENT	STA. - STA	LOCATION LT/RT	CURBS				MISCELLANEOUS				6" PRECAST TRUNCATED DOWELS	S.F.
			CONC C&G DESIGN B624	CONC C&G DESIGN B618	CONC C&G DESIGN B612	7" VALLEY GUTTER	CONCRETE MEDIAN NOSE	CONCRETE MEDIAN (MOUNTABLE)	4" CONCRETE WALK	SPECIAL SURFACE TREATMENT		
COUNTY RD. C	109+10 - 119+33	LT - RT	2,875		275	155	3		9,208	2,124	300	80
COUNTY RD. C	119+33 - 131+84	LT - RT	2,797	66	205	72	2		9,792	820	287	72
COUNTY RD. C	131+84 - 158+16	LT - RT	9,678		514	77	2		24,851	9,784	353	92
COUNTY RD. C	158+16 - 168+00	LT - RT	2,152		200		2	62	5,627	800	301	48
PROJECT TOTAL			17,500	66	1,194	304	11	62	49,478	13,528	1,241	292

THIS QUANTITY AND PAY ITEM IS FOR THE COST OF THE COLORING AND SURFACE TREATMENT ONLY.
PAYMENT FOR THE ACTUAL CONCRETE FOR THIS ITEM IS INCLUDED IN THE 49,599 S.F. OF 4" CONCRETE WALK.

CHART H

ALIGNMENT	STA. - STA	LOCATION LT/RT	BITUMINOUS SUMMARY				WILL BITUMINOUS SURFACE (2")
			SPWBE440F	SPNWB430B	LVWE35030B	WVWE35030B	
COUNTY RD. C	109+10 - 119+35	LT - RT	1486	1114		22	585
COUNTY RD. C	119+35 - 132+54	LT - RT	1924	1442		42	883
COUNTY RD. C	132+54 - 158+85	LT - RT	3284	2470			1497
COUNTY RD. C	158+85 - 168+00	LT - RT	1108	830			503
EAST SNEILING SERVICE DRIVE		LT	64	48			29
PASCAL		LT	32	24			15
SHELDON		LT	26	20			12
HAMLINE		LT - RT	118	88			54
CHIC CENTER DRIVE		LT	36	27			17
LEXINGTON		LT - RT	164	123			74
OXFORD		LT	30	22			13
BIKE PATH	141+70 - 157+90	LT - RT	225		46		102
COUNTY RD. C	168+00 - 172+08	LT - RT					2040
PROJECT TOTAL			8507	6208	46	64	3884

CHART I

ALIGNMENT	STA. - STA	LOCATION LT/RT	AGGREGATE & BORROW SUMMARY				SELECT TOPSOIL BORROW (W/O.)
			AGGREGATE CLASS 7 CY (CV)	SELECT GRANULAR BORROW IN MEDIAN CY (CV)	SELECT TOPSOIL BORROW (W/O.) CY (LV)		
COUNTY RD. C	109+10 - 119+35	LT - RT	1314	2683	74		
COUNTY RD. C	119+35 - 132+54	LT - RT	1687	3270	0		
COUNTY RD. C	132+54 - 158+85	LT - RT	3342	6118	826		
COUNTY RD. C	158+85 - 168+00	LT - RT	1029	2044	0		
EAST SNEILING SERVICE DRIVE		LT	49	102			
PASCAL		LT	25	52			
SHELDON		LT	20	41			
HAMLINE		LT - RT	90	184			
CHIC CENTER DRIVE		LT	28	57			
LEXINGTON		LT - RT	135	265			
OXFORD		LT	23	46			
BIKE PATH	136+75 - 157+90	LT	275				
SIDEWALK	109+10 - 165+28	LT	574				
DRIVEWAYS	112+39 - 127+45	RT	64				
DRIVEWAY	159+09	LT	7				
PROJECT TOTAL			8662	14,870	900		

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 1-28-08

ZB-209

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
[Signature]
Date 3/15/06 Reg. No. 20452

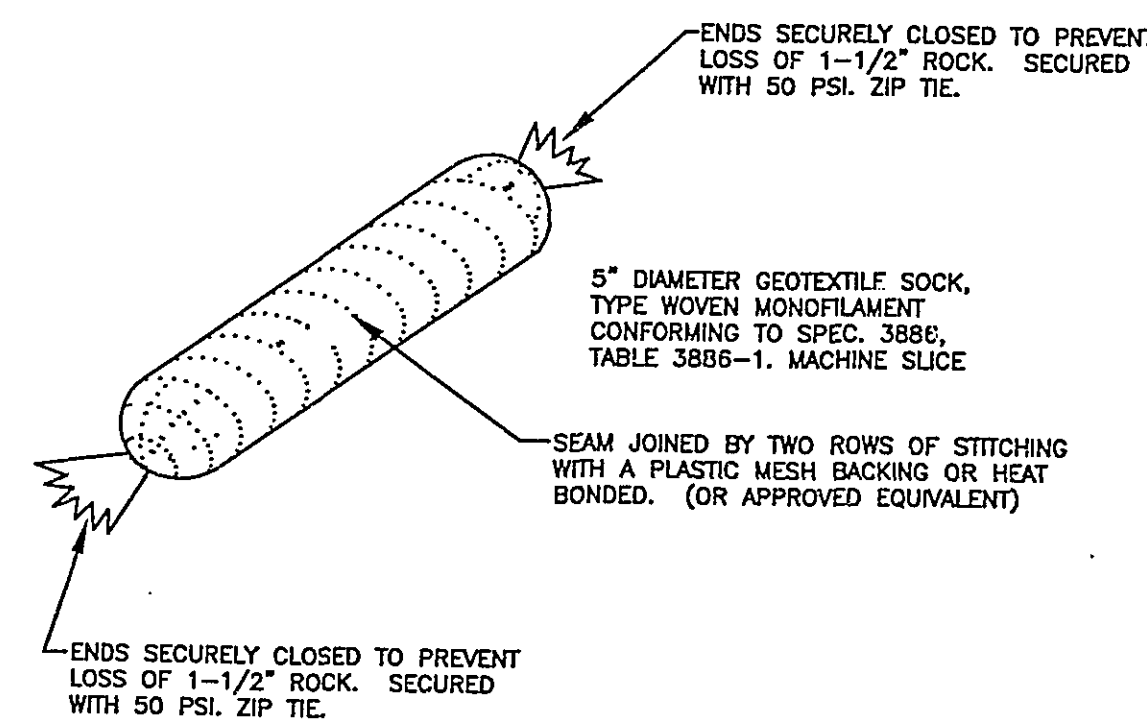
CHARTS

S.P. No. 62-623-41

Sheet No. 26 of 127 Sheets

ROCK LOG DETAIL

ESTIMATED AT 16 LF PER STRUCTURE.



NOTES

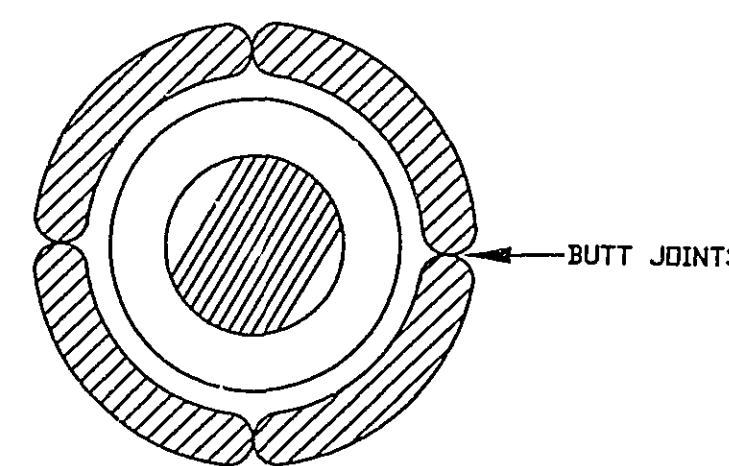
INLETS TO BE PROTECTED WILL BE DETERMINED BY THE ENGINEER.

PAYMENT SHALL INCLUDE ALL MATERIALS, FILING OF LOG, PLACEMENT, MAINTENANCE, & REMOVAL. BOX OF 800 PRICE SHALL BE PAID UPON PROPER PLACEMENT WITH THE FINAL 20% PAID UPON REMOVAL.

NOTE: CRUSHED CONCRETE OR BITUMINOUS SHALL NOT BE USED FOR 1-1/2" ROCK.

FILL ROCK LOG WITH 45 LBS. OF 1-1/2" ROCK CONSISTING OF SOUND, DURABLE PARTICLES OF CRUSHED QUARRY ROCK OR GRAVEL.

SURFACE DRAIN INLET PROTECTION WITH ROCK LOG



CATCH BASIN INLET PROTECTION WITH ROCK LOG

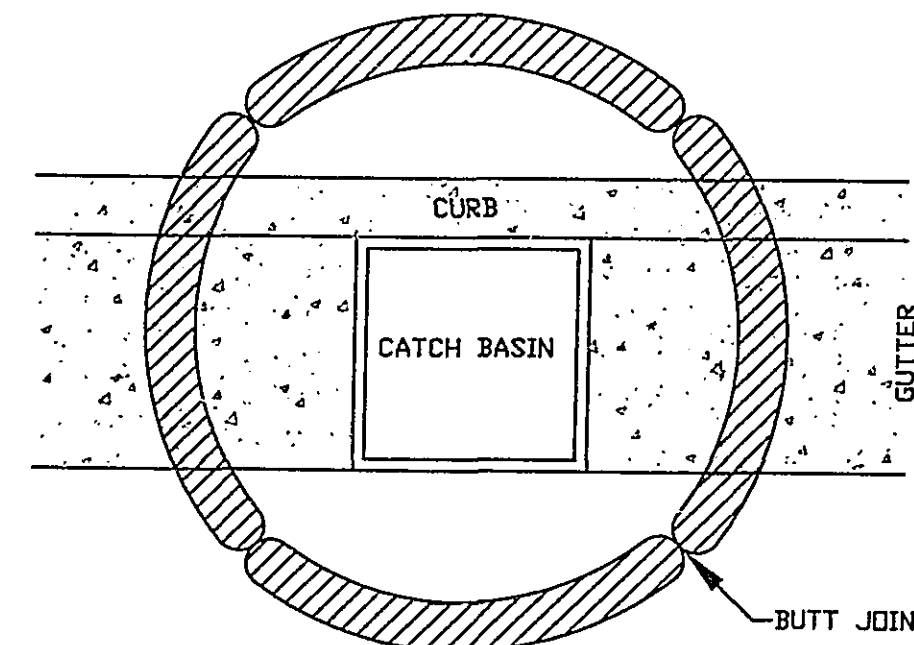


CHART P

STATION	LOCATION	SOD SY	EROSION CONTROL ITEMS										CON. FERT. ANAL. 23-0-30 LB	MULCH TYPE 1 TON	DISC ANCH. ACRES	HYDRAULIC SOIL STABILIZER TYPE 6 LB	MACHINE SUED SLT FENCE LF	FLOTATION SLT CURTAIN LF	12" BIOROLL LF
			EROSION CONTROL BLANKET CAT 2 SY	EROSION CONTROL BLANKET CAT 3 SY	TOPSOIL CY (LV)	SEEDING ACRE	SEED MIX. 100 LB	SEED MIX. 110 LB	SEED MIX. 250 LB	SEED MIX. 310 LB	SEED MIX. 325 LB	SEED MIX. 328 LB							
109+10 - 115+50	LEFT				89								31.0						
109+10 - 112+40	RIGHT	600	548		90	0.11			2.7				26.3						
112+50 - 115+50	RIGHT		477		79	0.10			7.0				24.6						
115+50 - 118+20	LEFT	459	518		85	0.11			23.7				26.9						
115+50 - 119+30	RIGHT				110				41.6				34.3						
119+30 - 128+80	LEFT	806	664		133	0.14			24.8				57.9						
119+30 - 127+10	RIGHT				110				19.7				118.2						
127+50 - 131+90	RIGHT	481			79	0.10			9.6				157.4						
129+00 - 131+90	LEFT	301			63	0.10			7.9				47.4						
132+50 - 158+10	LEFT	3047			503								57.9						
132+40 - 158+10	RIGHT		2289		378	0.47			32.9				15.4						
151+25 - 158+40	RIGHT				151								20.0						
158+40 - 164+90	LEFT	917			121								5.0						
158+40 - 168+00	RIGHT		1178		194	0.24			15.8				65.0						
165+30 - 168+00	LEFT	296			49								20.0						
164+50 - 165+00	LEFT				387	0.08			6.6				5.0						
165+00 - 168+00	RIGHT				128	0.02			21.3				65.0						
MITIGATION AREA																			
109+10 - 168+00	LT/RT					2.85	285						712.5	5.7	2.85	7125	500		
109+10 - 168+00	LT/RT					2.85	285						712.5	5.7	2.85				
POND # 1	LEFT					0.08							20.0	0.2	0.08				
POND # 2	LEFT					0.15							37.5	0.3	0.15				
TOTAL		7627	6155	1742	2562	7.56	285	285	88.9	29.5	7.1	13.2	2284.5	11.9	5.93	7125	500	275	1420

I hereby certify that this plan was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.
[Signature]
Date 3/15/06 Reg. No. 20452

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DONE BY: *[Signature]*
DATE: 1-28-08

ZB-209

CHARTS

S.P. No. 62-623-41

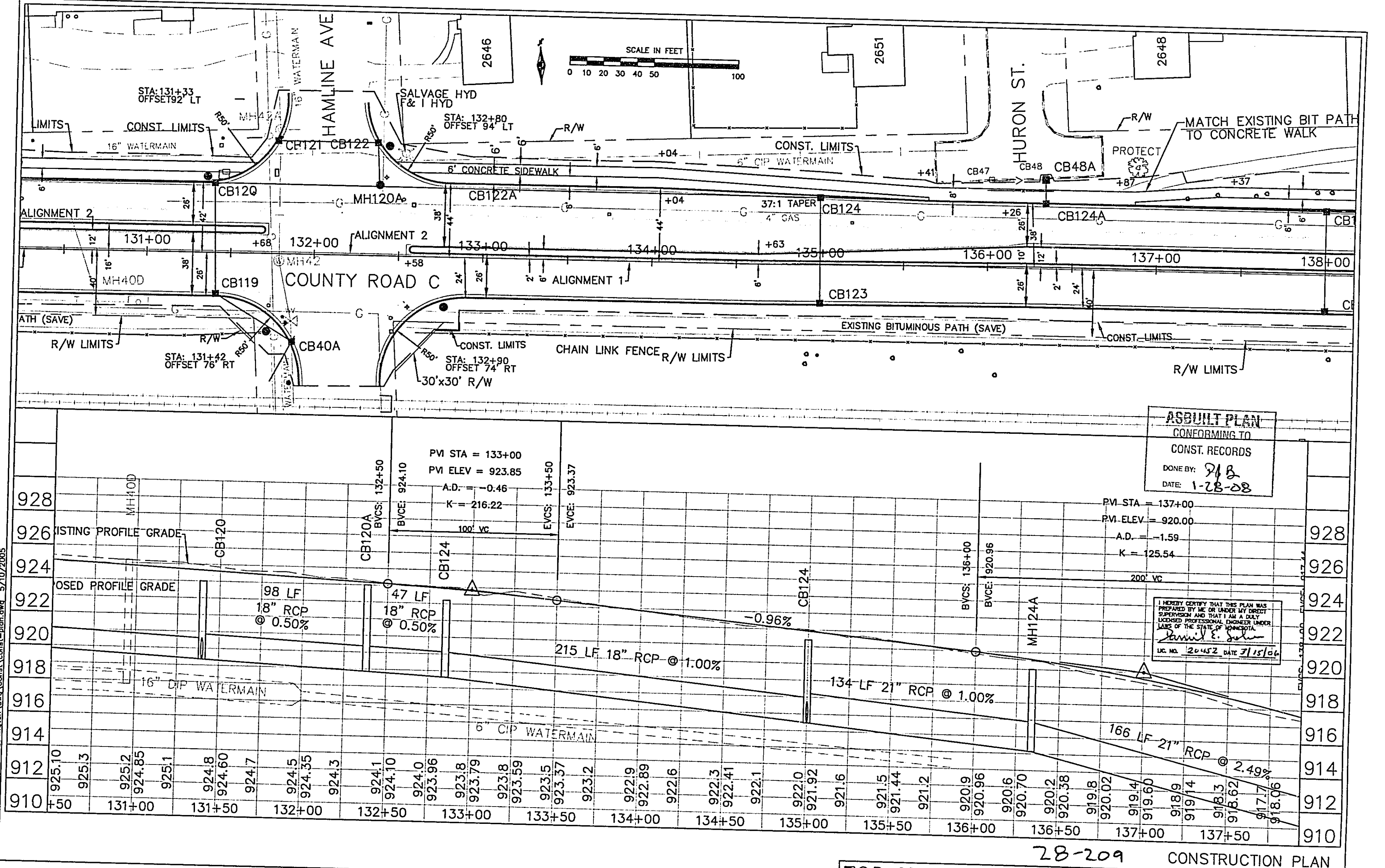
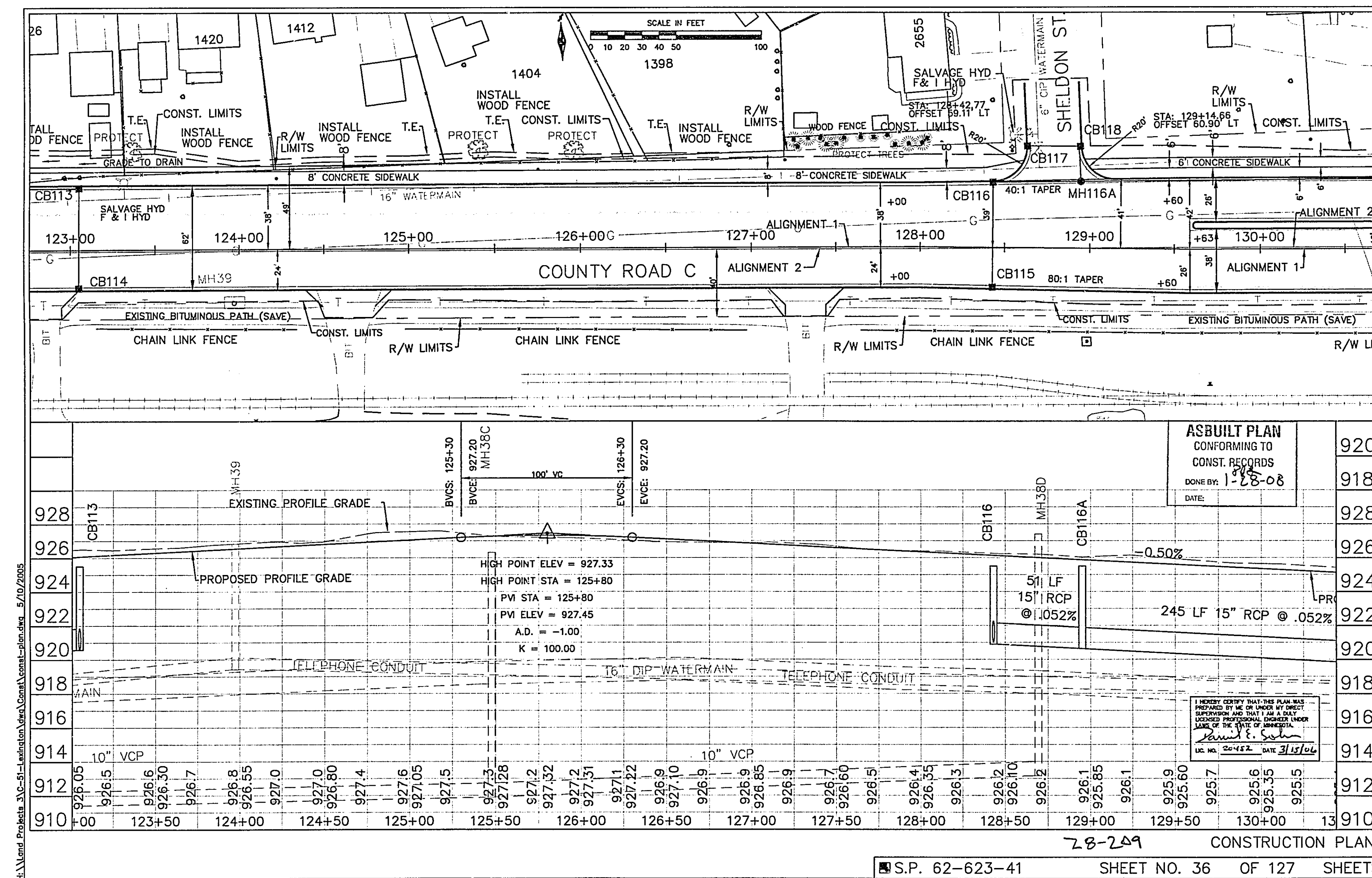
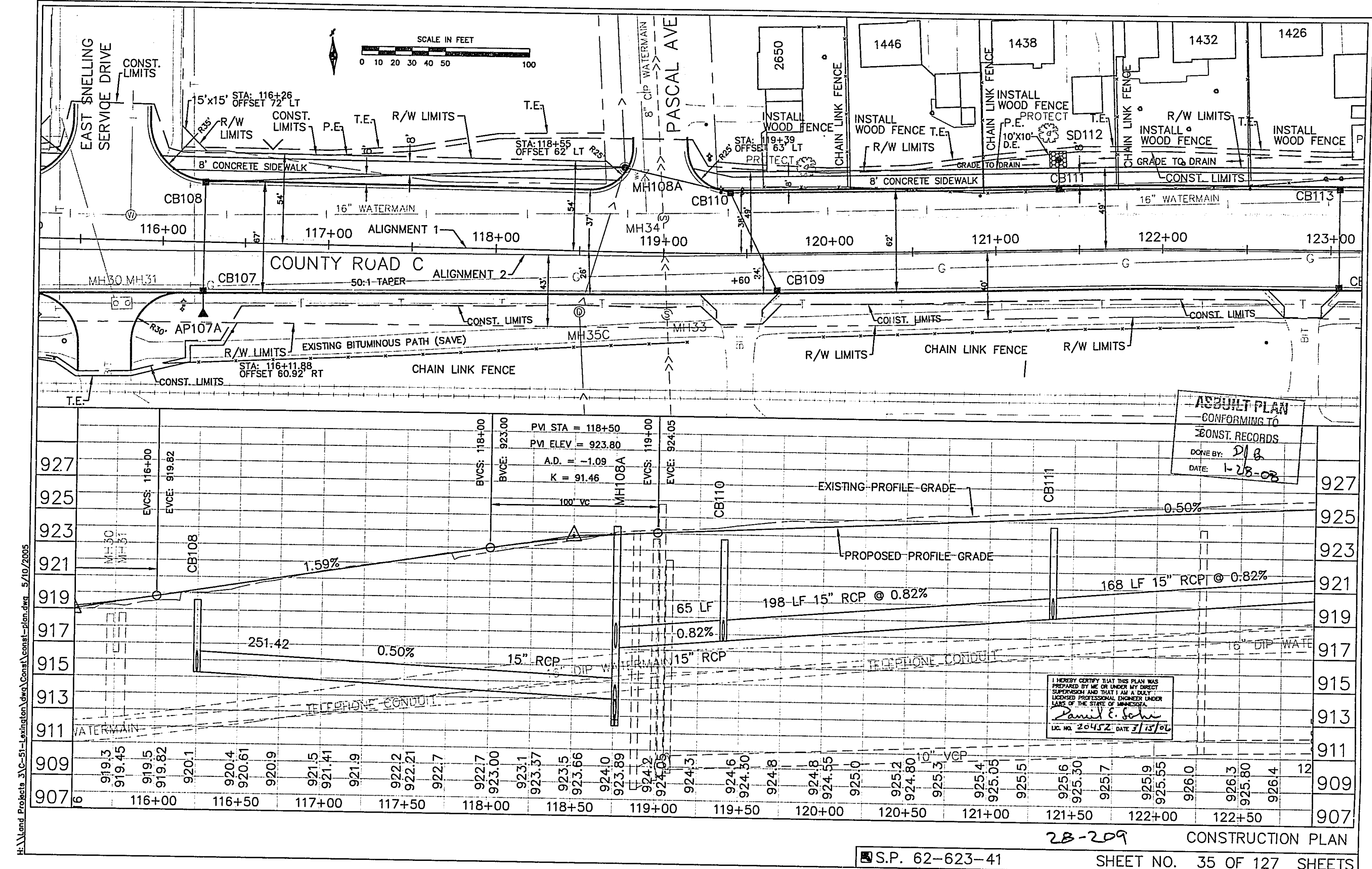
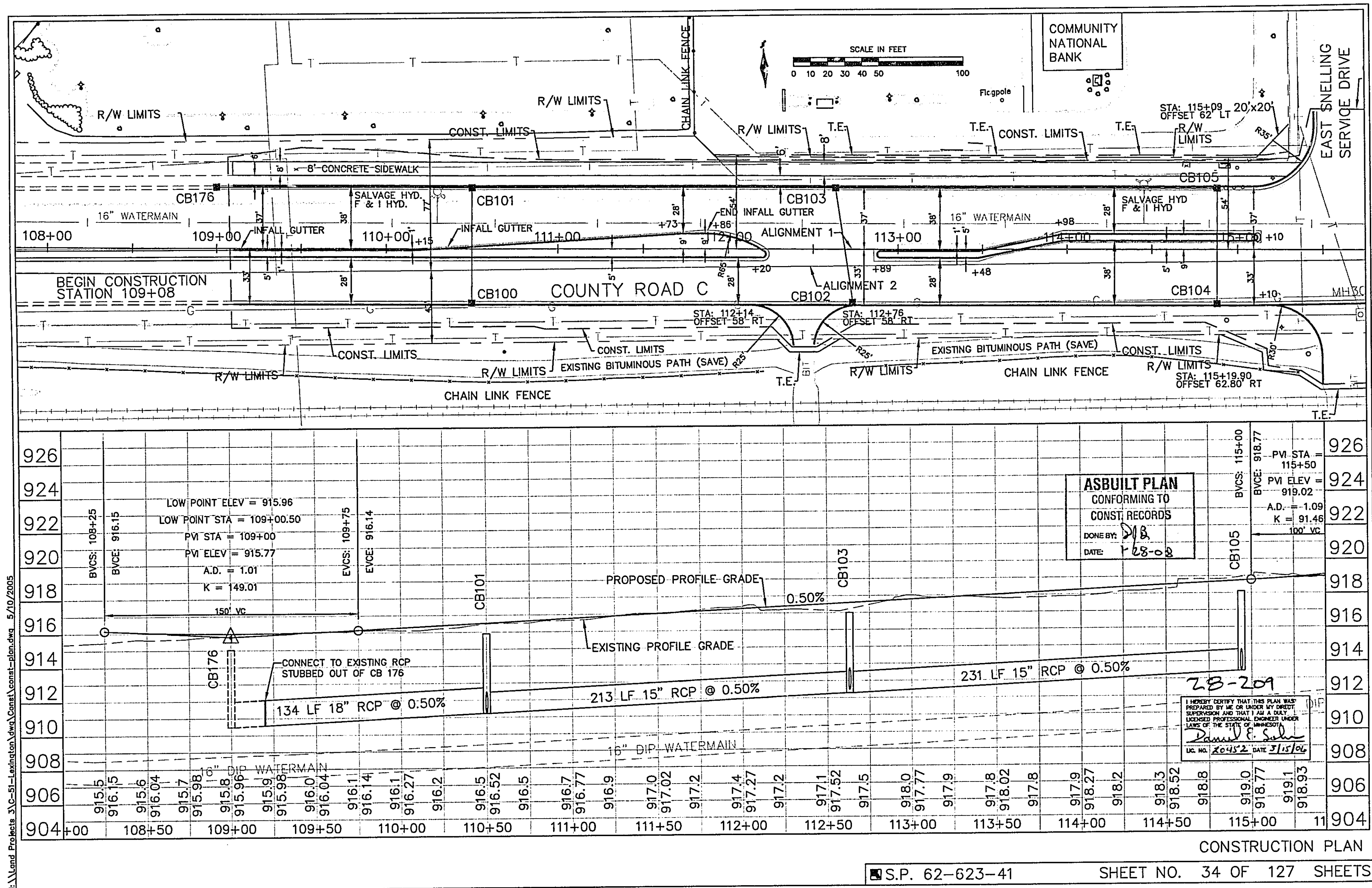
Sheet No. 27 of 127 Sheets

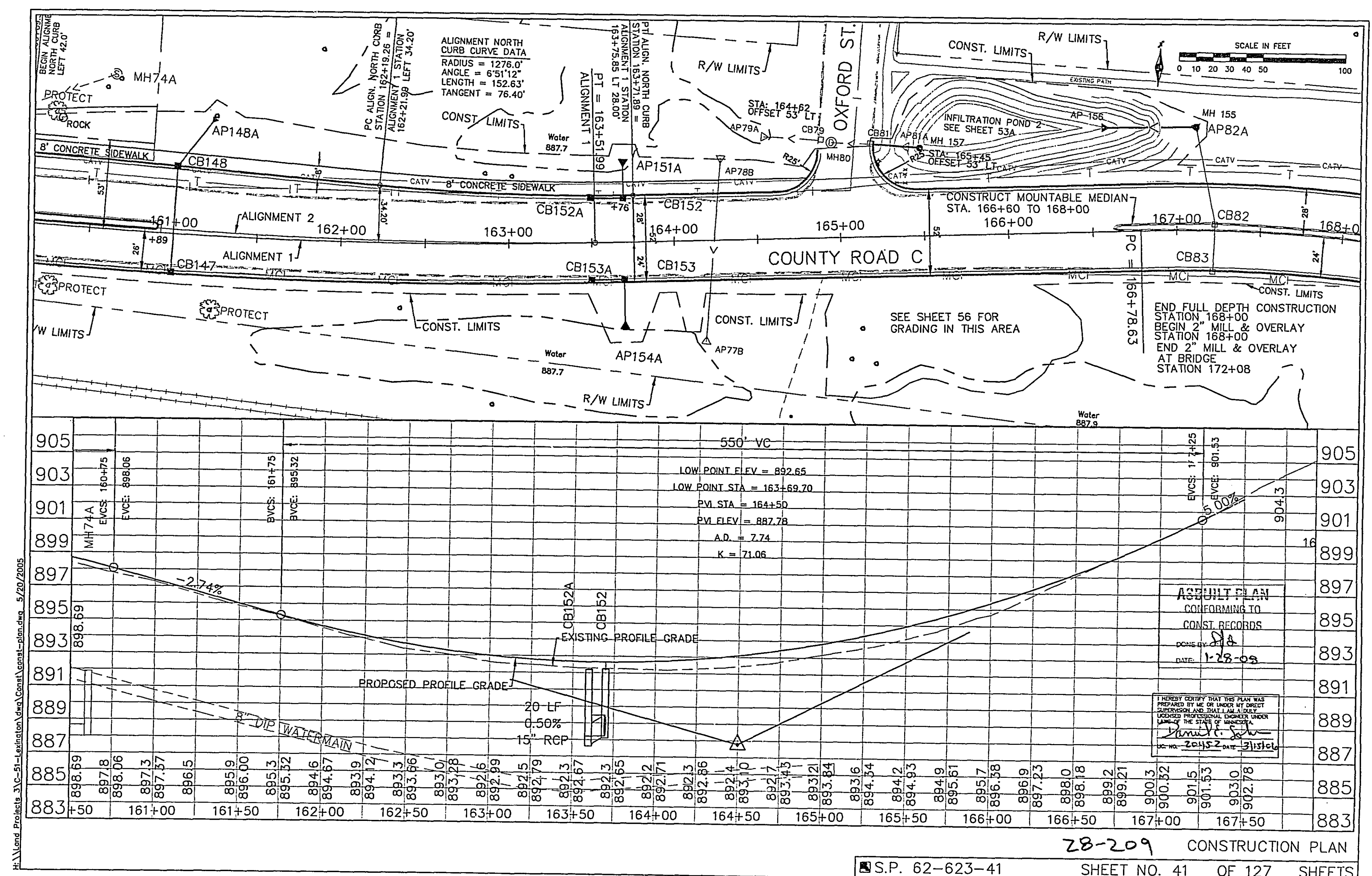
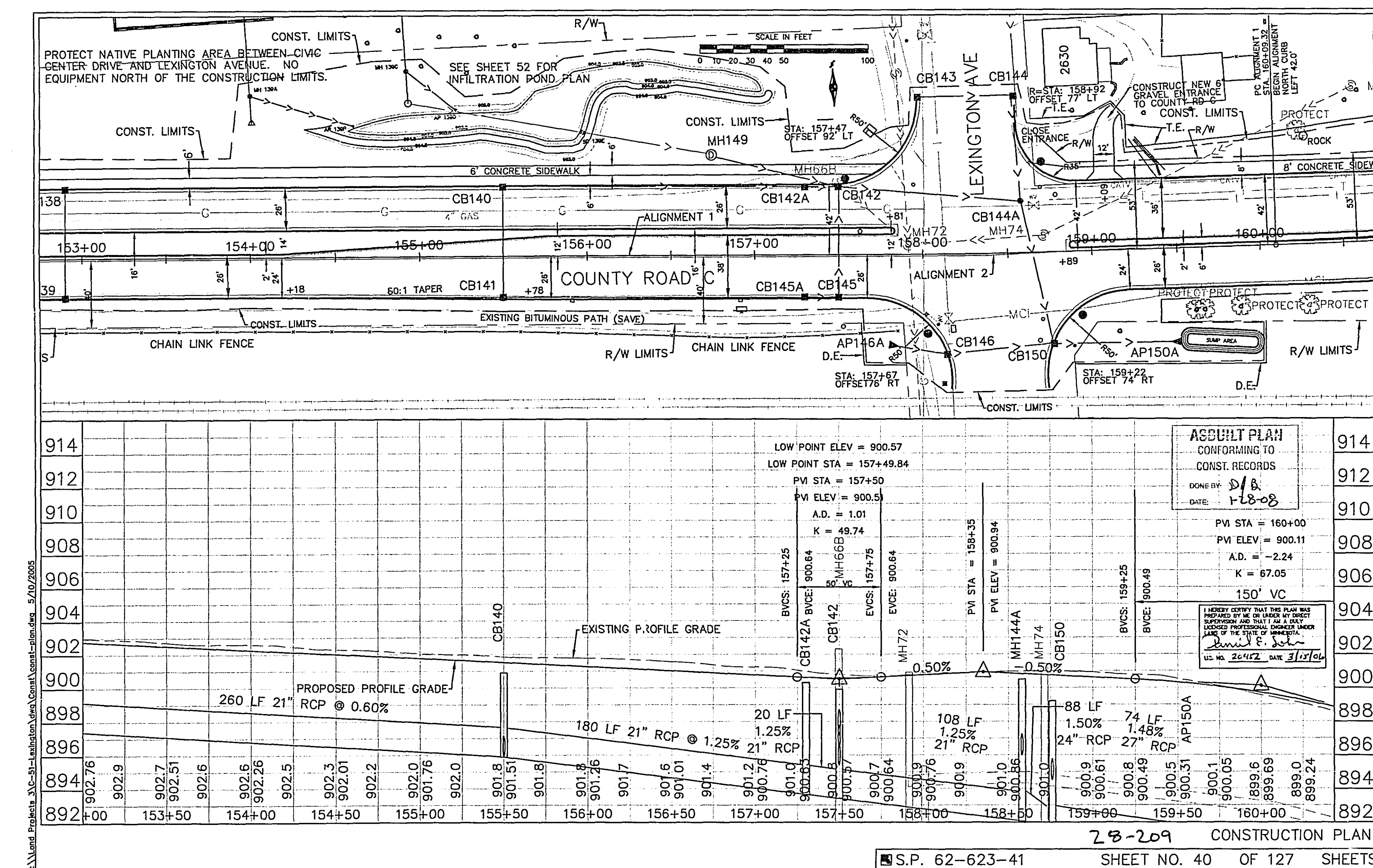
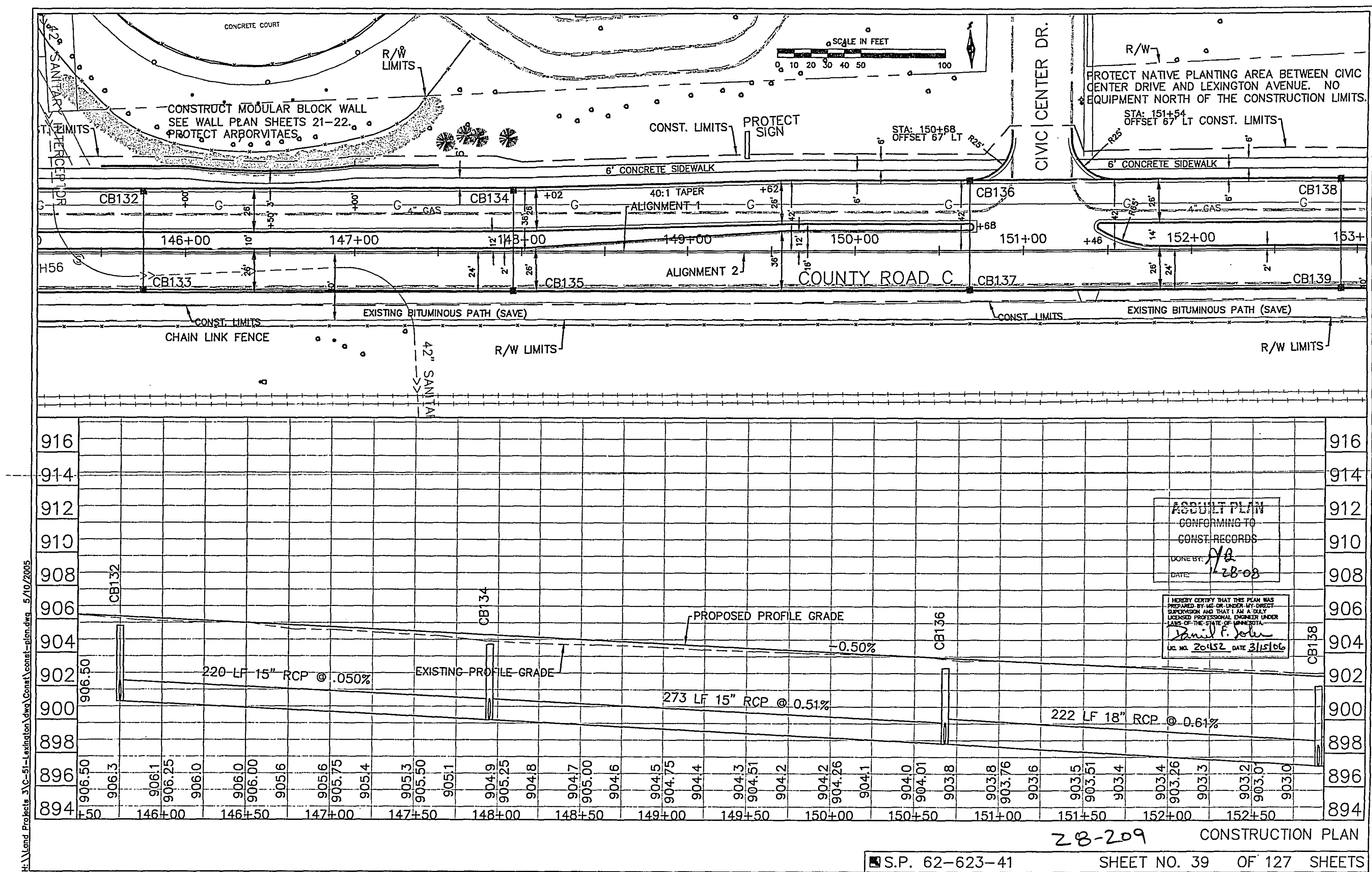
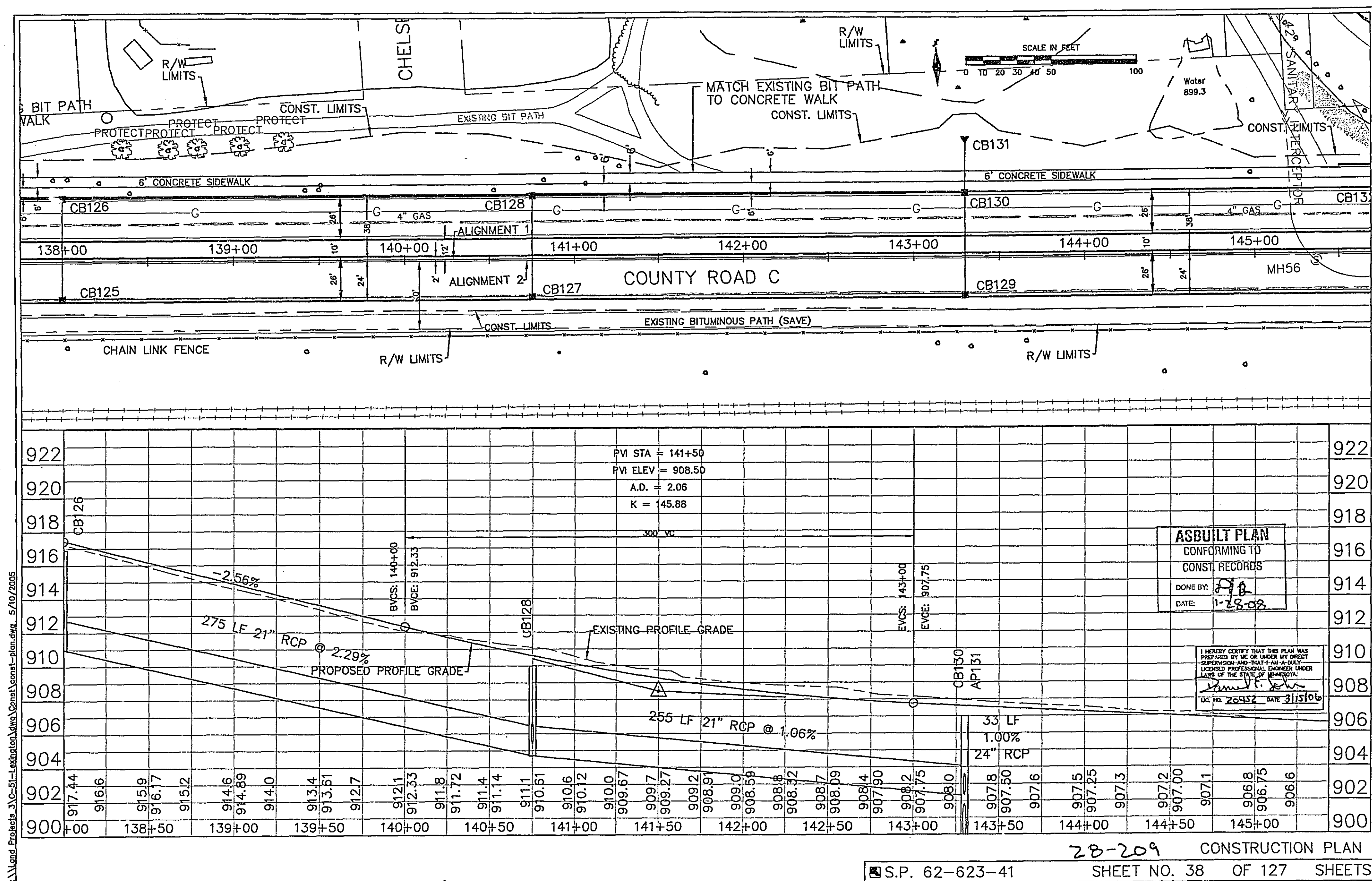
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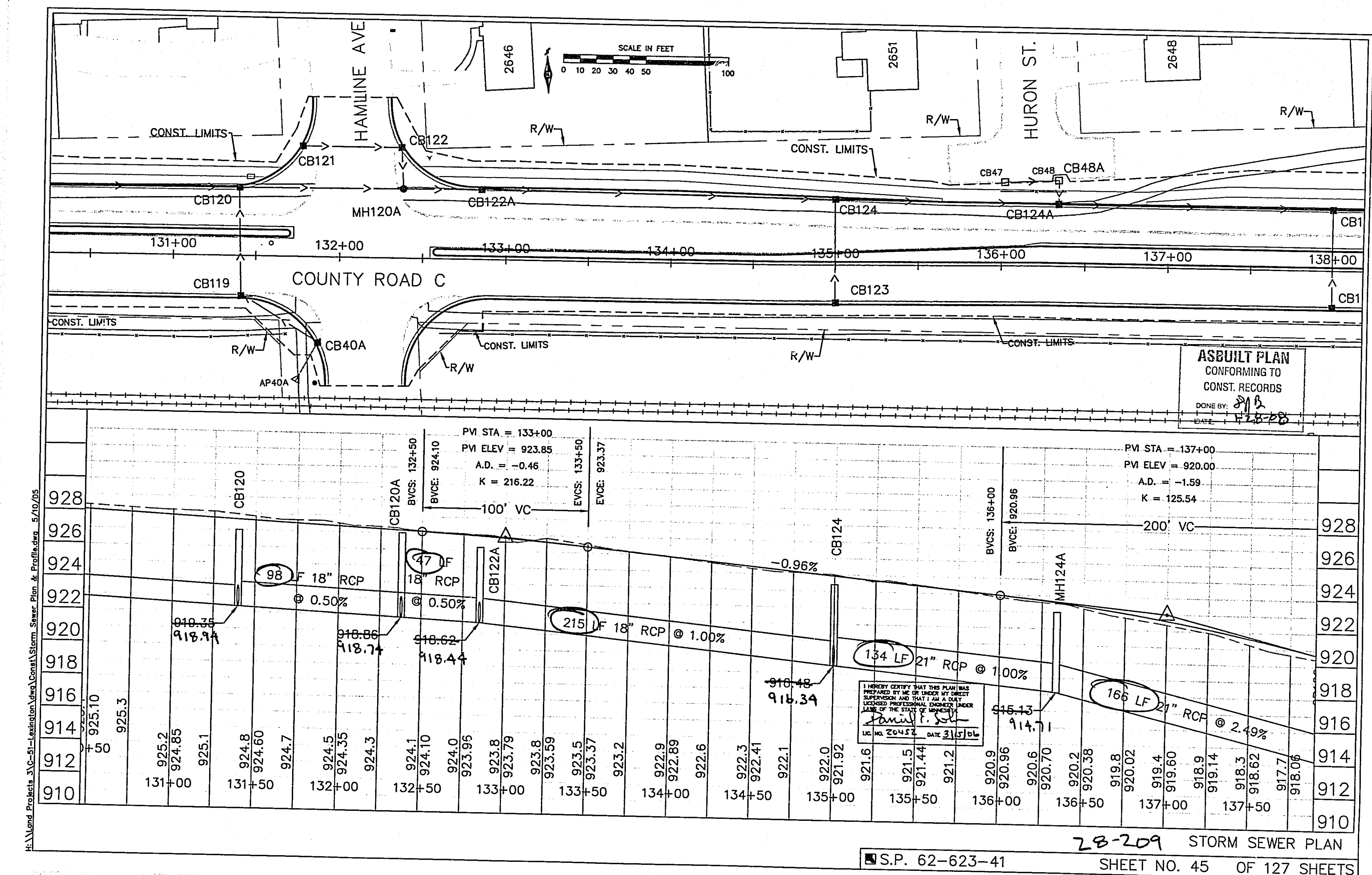
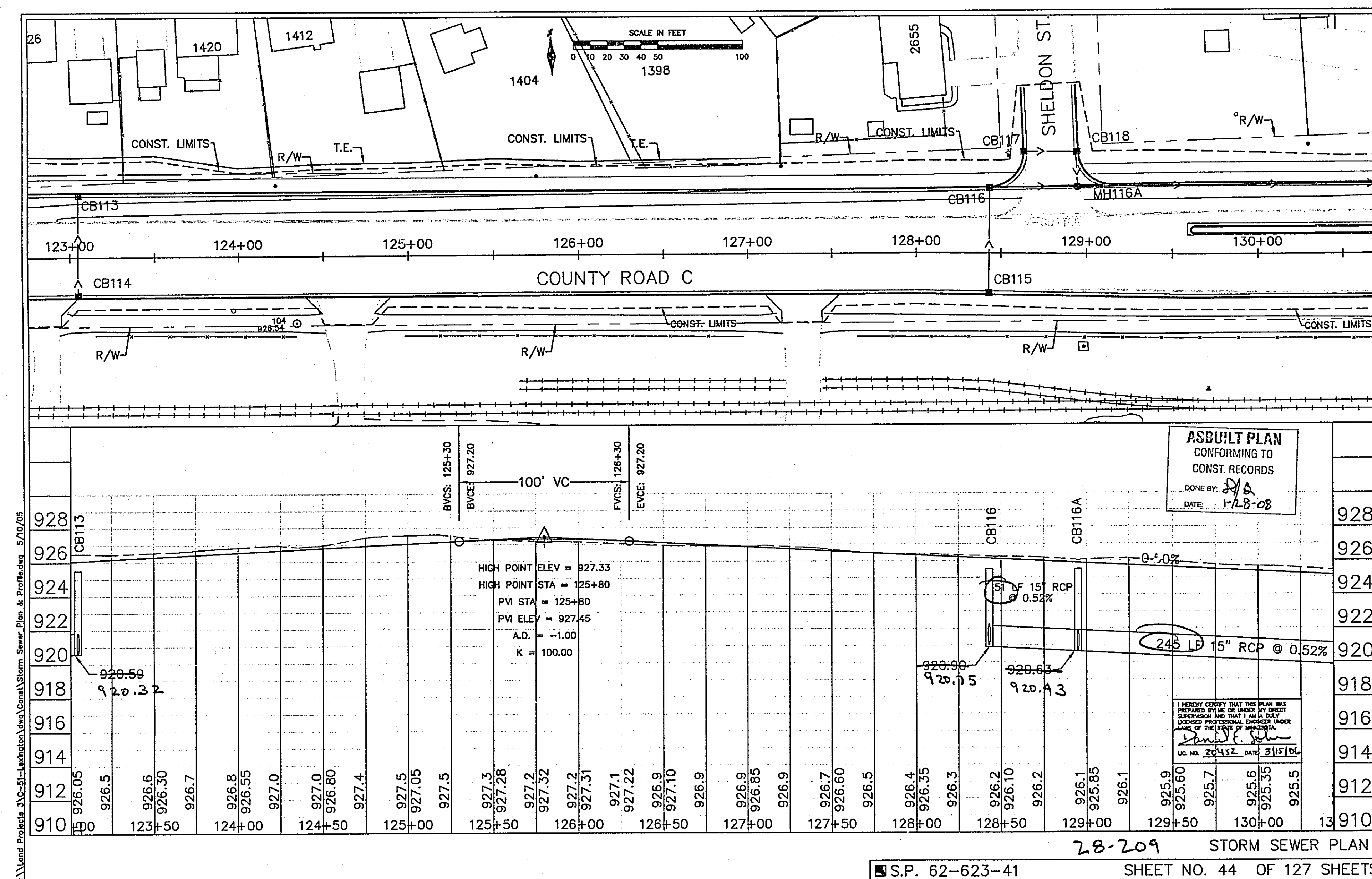
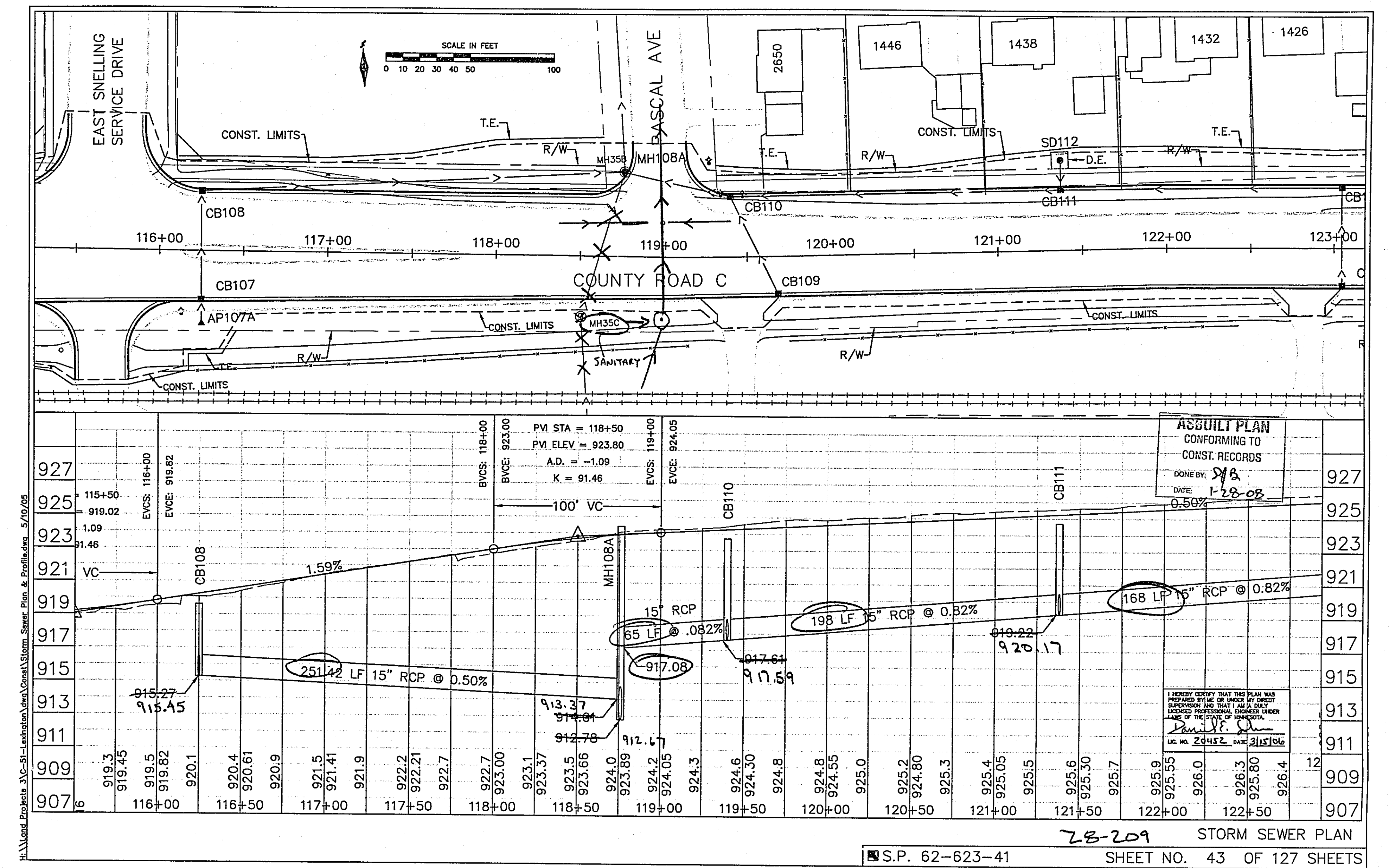
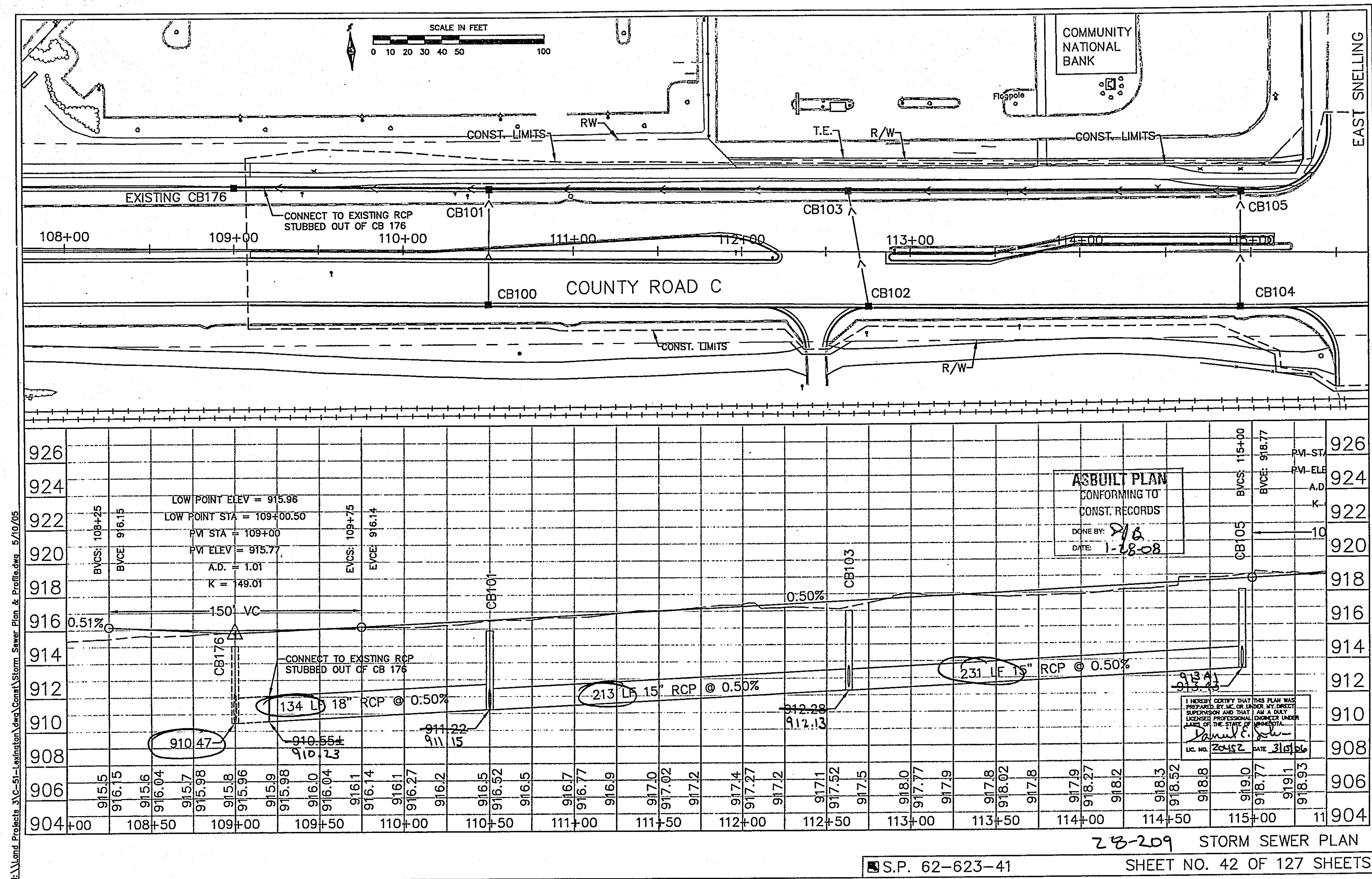
STATION	LOCATION	NUMBER	TYPE	DESIGN	PROFILE ELEVATION	ORIG. GROUND ELEVATION	NEW GROUND ELEVATION	C&G/H INVERT ELEVATION	ADJUST CASTING	RECONSTRUCT CB/MH FL	SALVAGE CASTING	INSTALL CASTING	REMOVE MH	REMARKS
115+72	RT 38	MH 30	MH	TELEPHONE	919.42	918.67	918.7	909.67	1					
115+79	RT 38	MH 31	MH	TELEPHONE	919.57	918.76	918.8	909.66	1					
115+80	LT 15	MH 32	MH	WATER	919.52	918.79	919.2	910.59	1					
115+83	RT 37	MH 33	MH	SANITARY	924.06	923.77	923.7	909.37						OUTSIDE CONSTRUCTION LIMITS
119+07	RT 120	MH 33A	MH	SANITARY	924.09	922.42	922.4	909.84						OUTSIDE CONSTRUCTION LIMITS
119+09	LT 21	MH 34	MH	SANITARY	924.05	923.88	923.6	909.18						OUTSIDE CONSTRUCTION LIMITS
119+08	LT 105	MH 34A	MH	SANITARY	923.08	924.15	924.1	909.61						OUTSIDE CONSTRUCTION LIMITS
122+28	RT 125	MH 38B	MH	SANITARY	925.69	924.65	924.6	911.25						OUTSIDE CONSTRUCTION LIMITS
125+48	RT 126	MH 38C	MH	SANITARY	927.47	926.52	926.5	911.69						OUTSIDE CONSTRUCTION LIMITS
125+49	RT 126	MH 38D	MH	SANITARY	926.00	922.40	922.4	913.17						OUTSIDE CONSTRUCTION LIMITS
123+97	RT 31	MH 39	MH	TELEPHONE	926.54	926.84	926.7	917.14	1					
131+29	RT 30	MH 40B	MH	GAS	924.70	924.62	924.8	916.62	1					
131+61	RT 31	MH 40C	MH	GAS	924.54	924.88	924.7	916.68	1					
130+99	RT 31	MH 40D	MH	TELEPHONE	924.87	925.19	925.0	915.59						
131+79	RT 4	MH 42	MH	WATER	924.46	924.43	924.3	917.13	1					
131+79	LT 74	MH 42A	MH	WATER	924.46	925.25	925.0	915.72	1					
145+37	RT 4	MH 56	MH	SANITARY	926.57	926.89	926.5	905.49						
157+50	LT 43	MH 68B	MH	SANITARY	900.57	902.30	902.0	888.20						1 REMOVE MH BULKHEAD PIPES
157+92	LT 6	MH 72	MH	SANITARY	900.72	900.92	900.6	897.12	1					BULKHEAD NORTHWESTERLY PIPE IN MH
157+72	LT 307	MH	SANITARY	900.62	919.18		917.04							OUTSIDE CONSTRUCTION LIMITS
158+01	RT 138	MH	SANITARY	900.77	895.33		884.17							OUTSIDE CONSTRUCTION LIMITS
158+71	LT 10	MH 74	MH	SANITARY	900.76	901.42	900.5	897.72	1					
160+60	LT 75	MH 74A	MH	SANITARY	898.44	891.88	888.00							OUTSIDE CONSTRUCTION LIMITS
TOTALS									12	5.0	1	1	1	

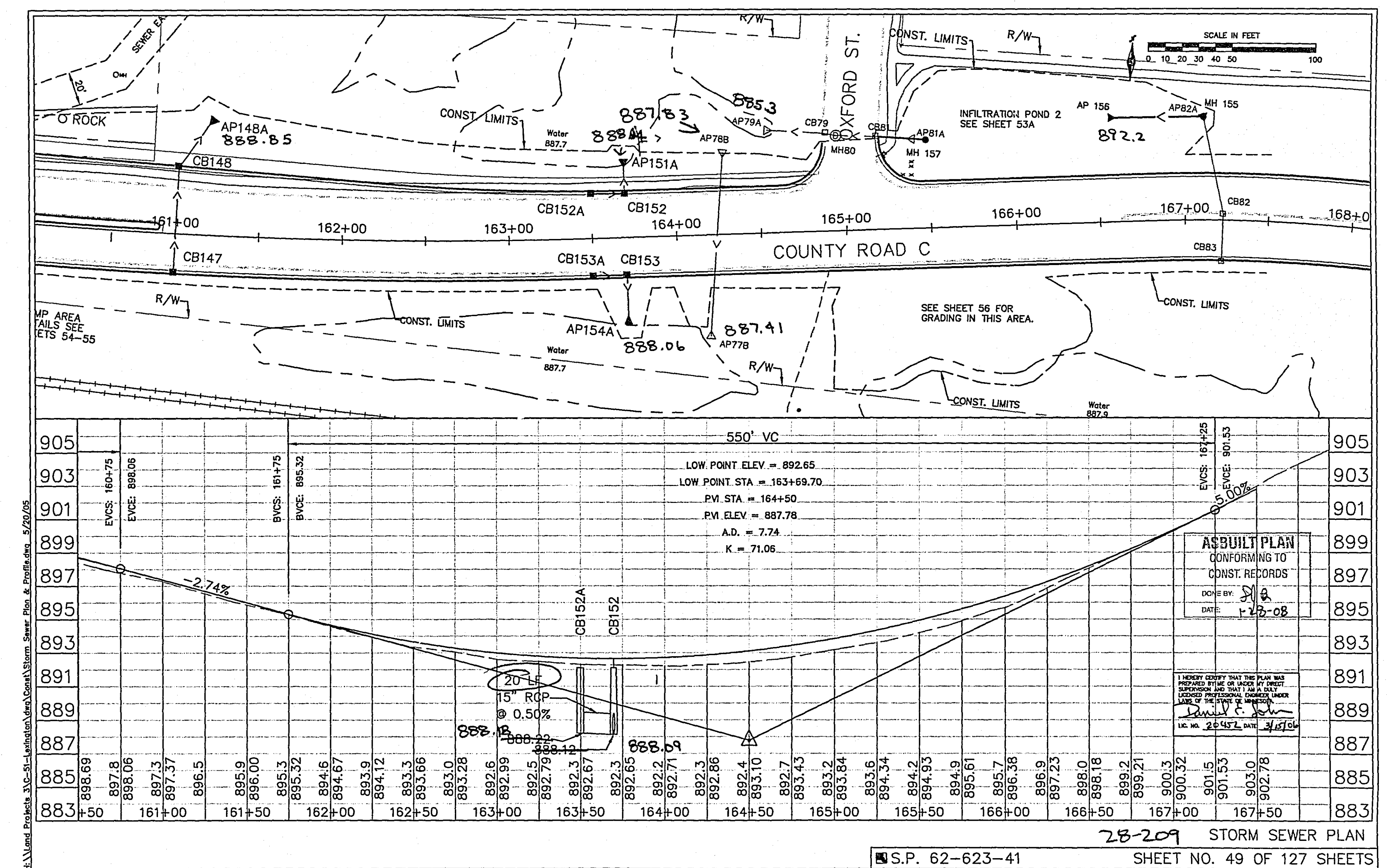
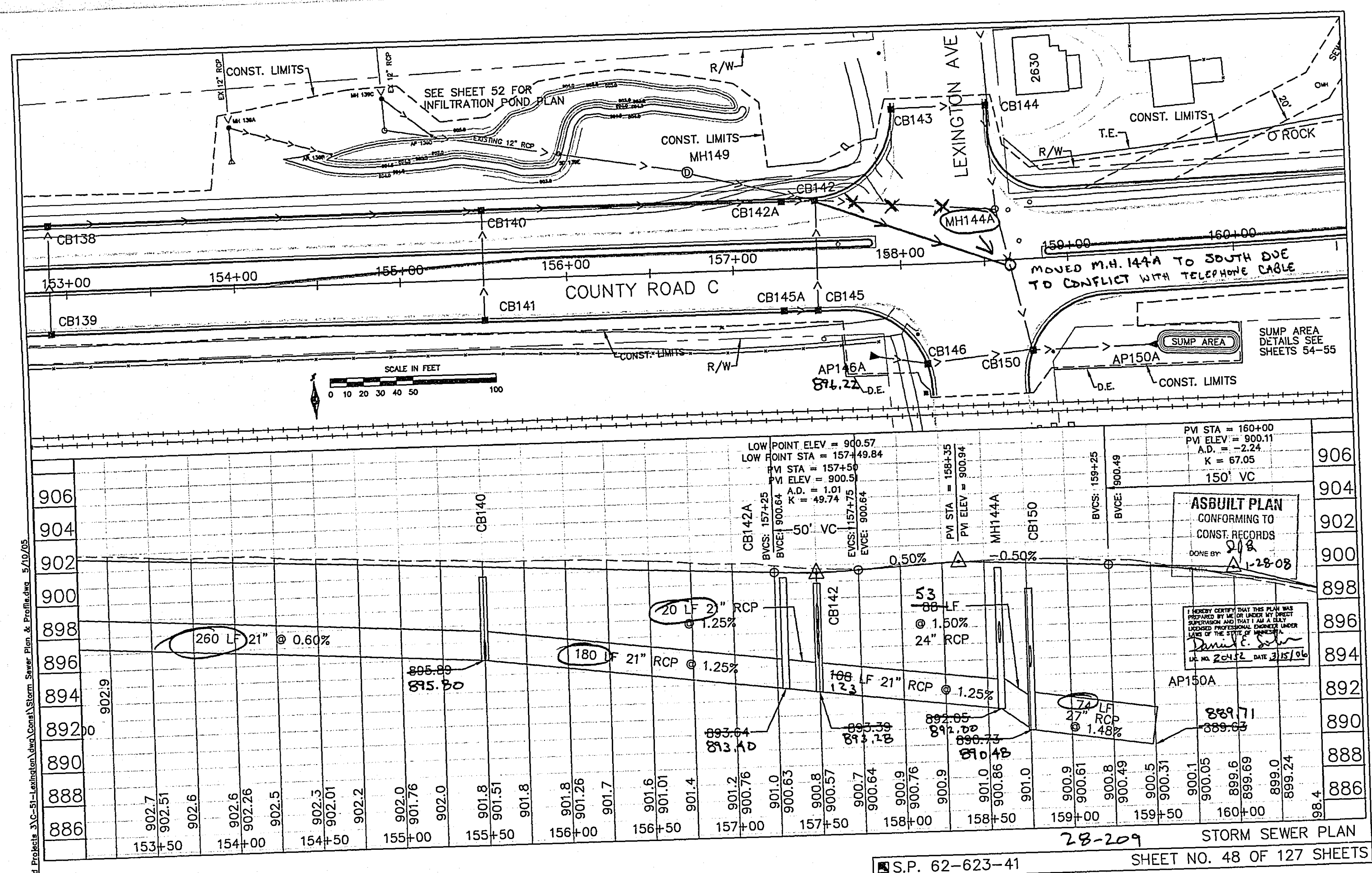
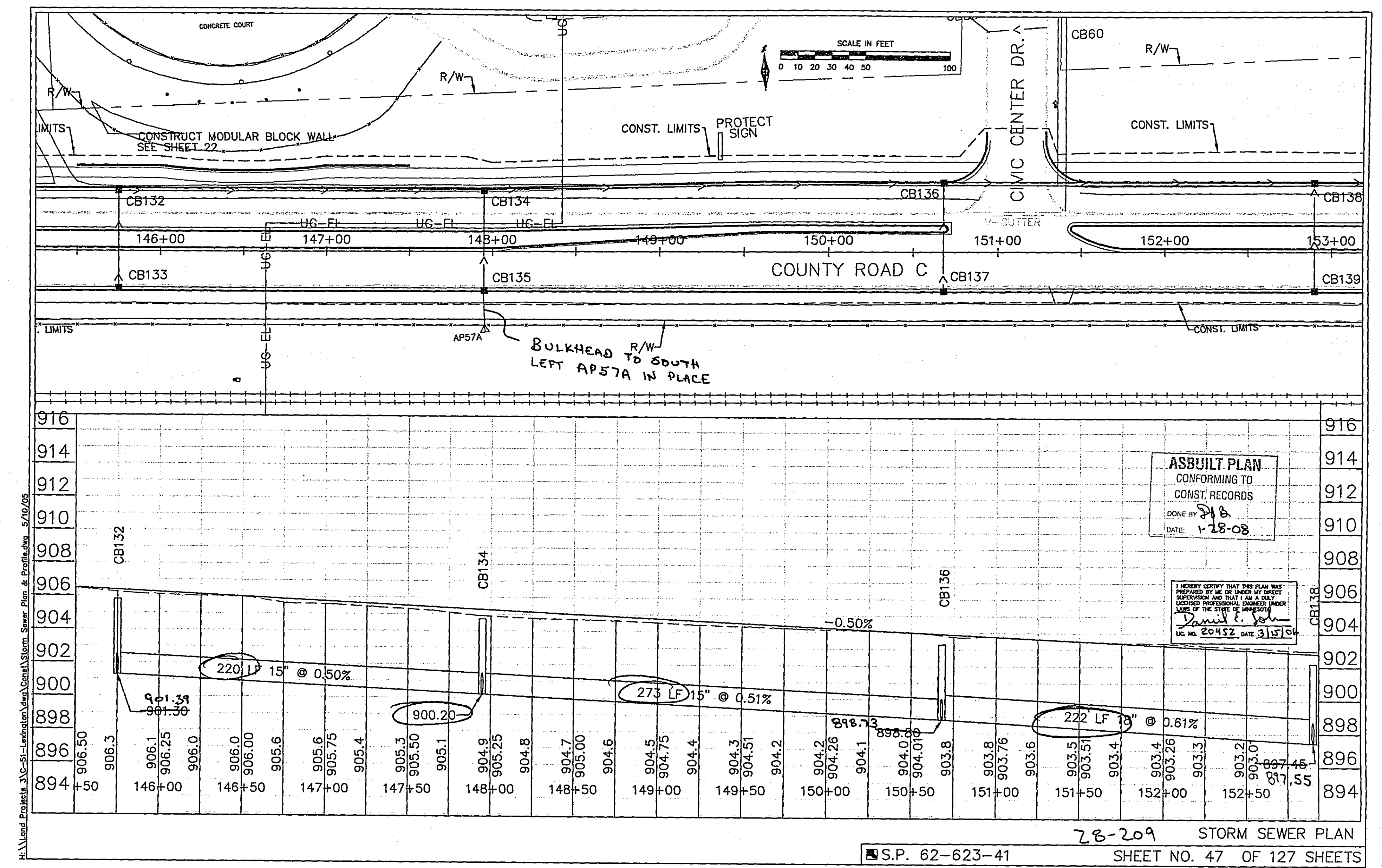
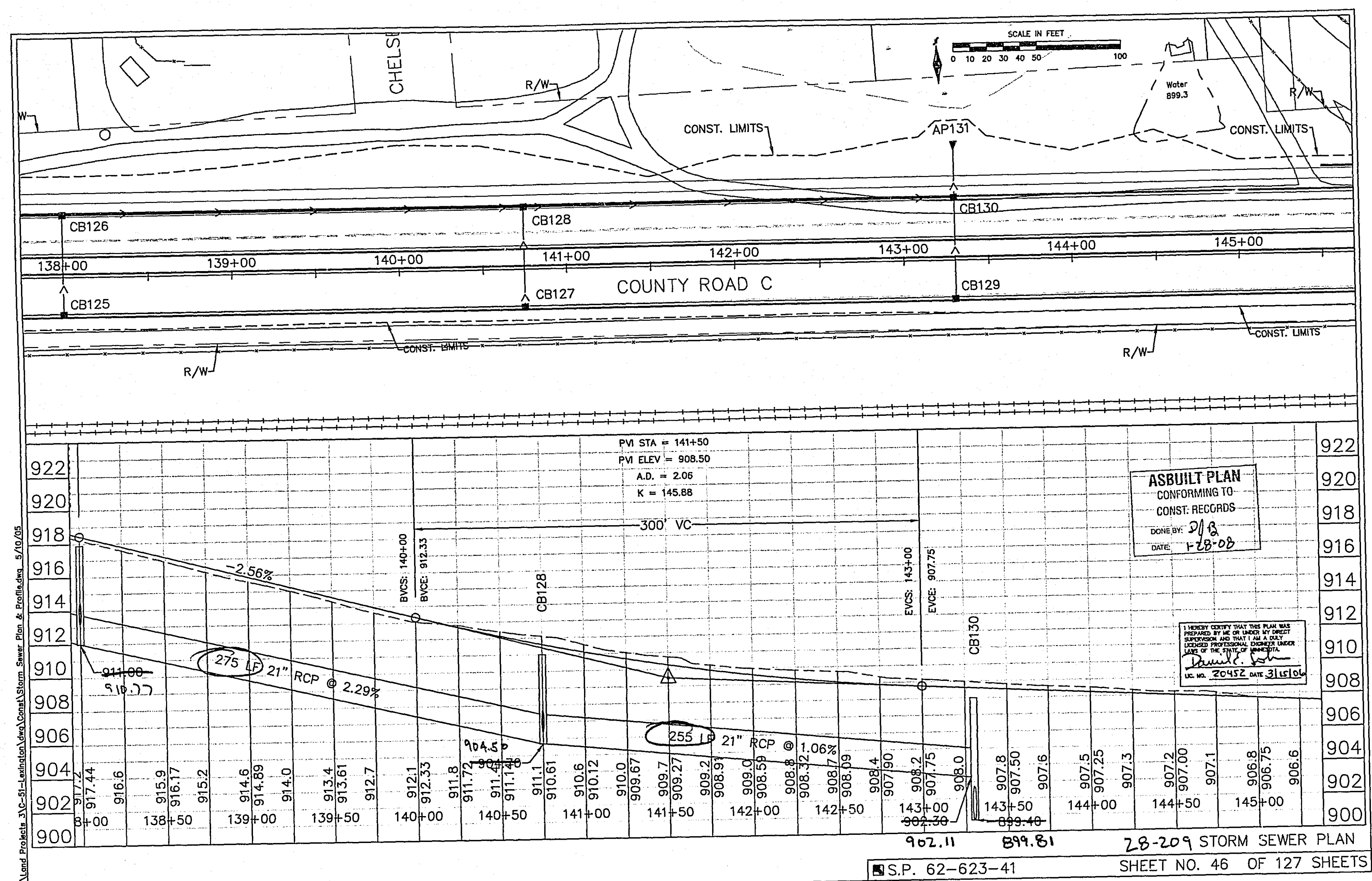
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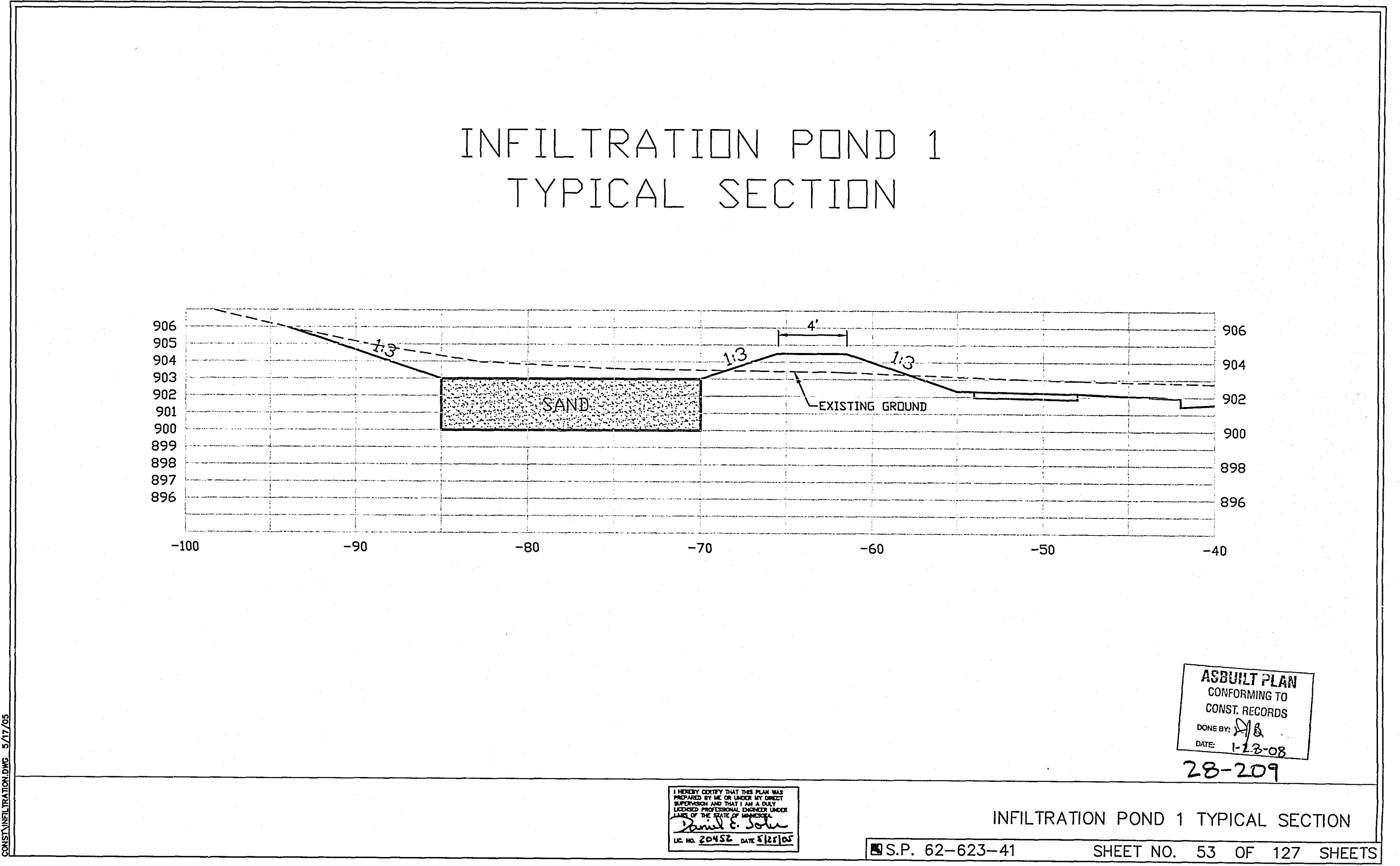
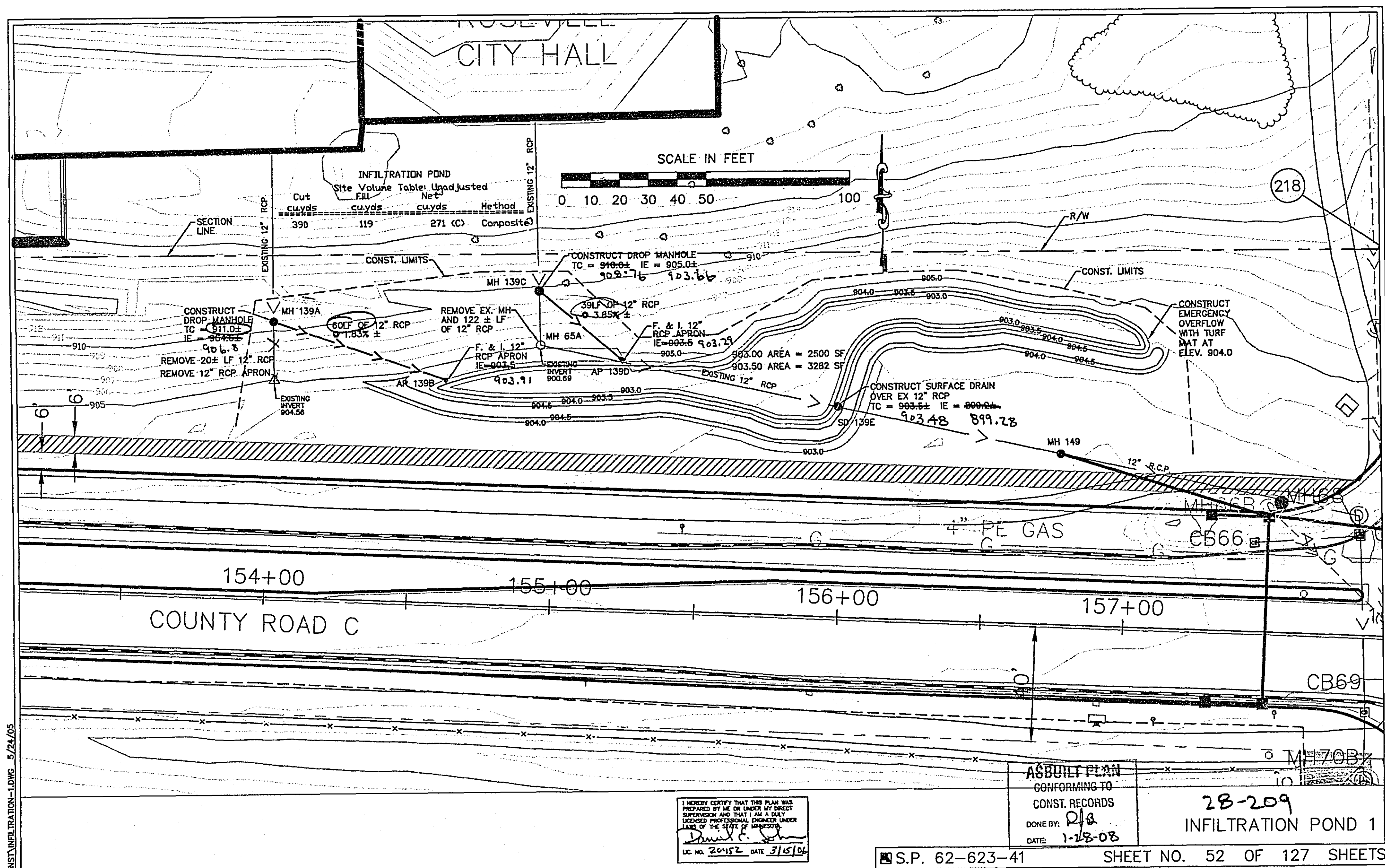
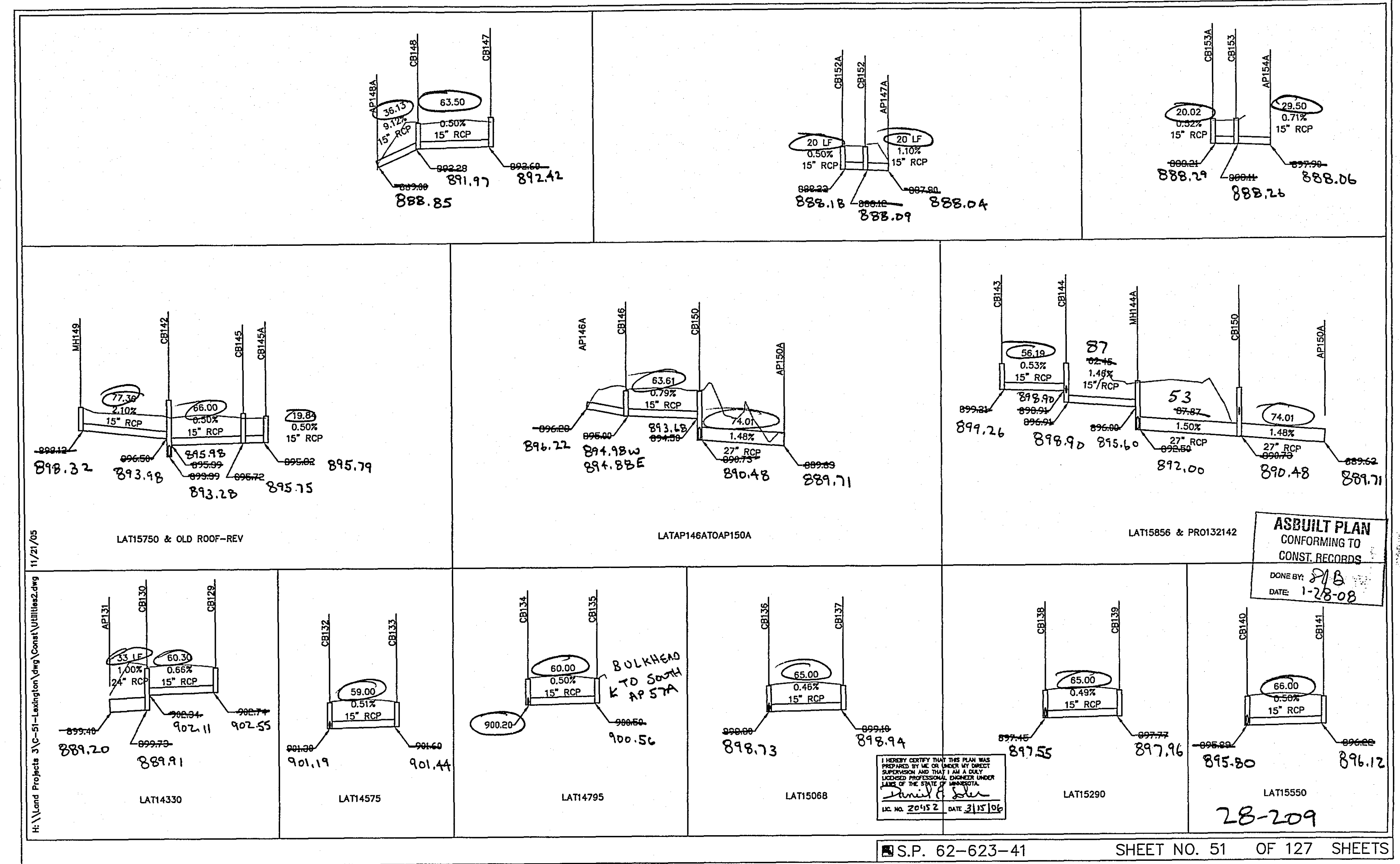
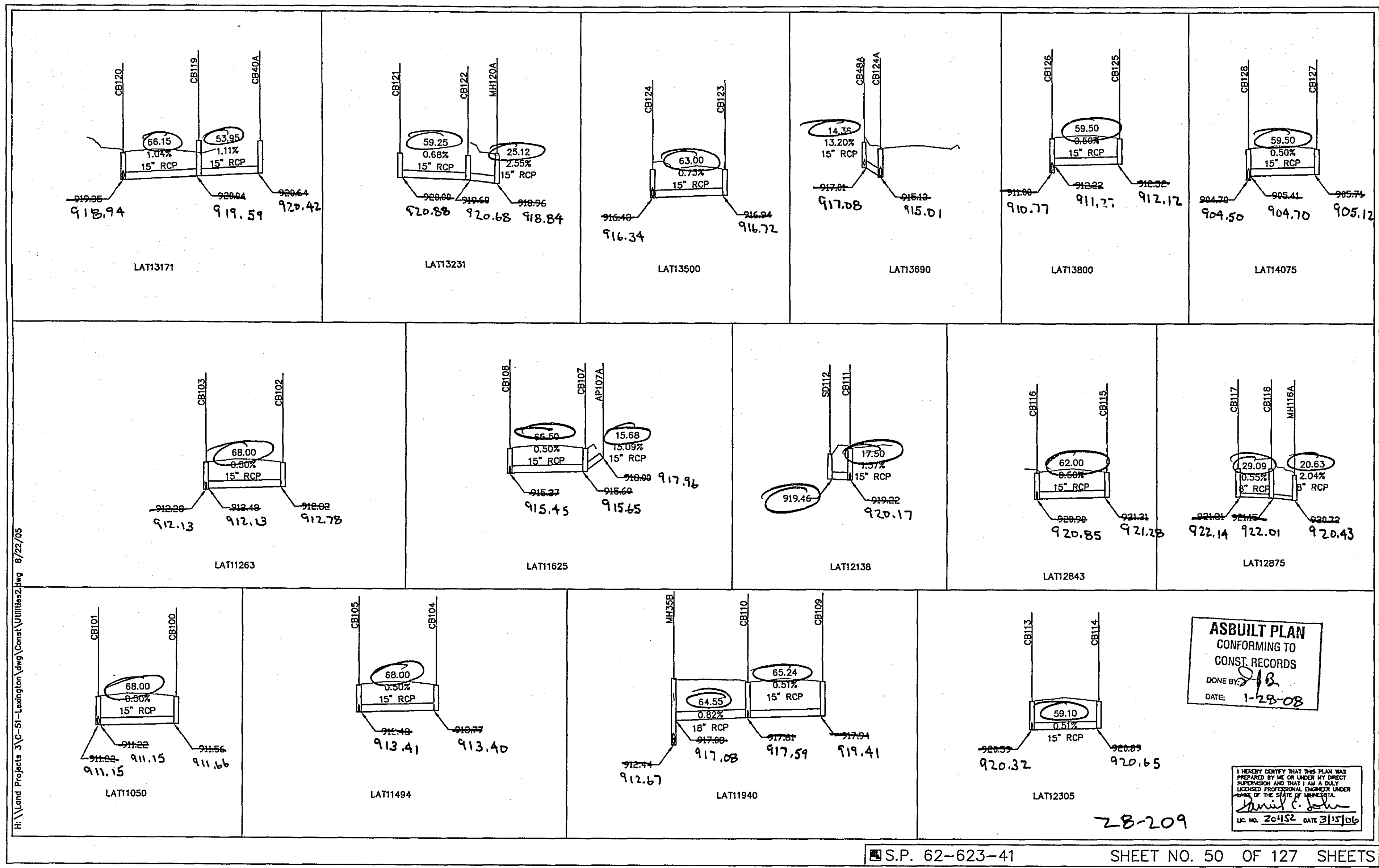
EXISTING WATERMAIN			
STATION	LOCATION	DESCRIPTION	REMARKS
COUNTY ROAD C			
110+30	LT 34	HYDRANT	SALVAGE
110+30	LT	GATE VALVE	ADJUST
114+46	LT 38	HYDRANT	SALVAGE
114+46	LT	GATE VALVE	ADJUST
118+88	LT 41	GATE VALVE	ADJUST (2)
123+32	LT 40	HYDRANT	SALVAGE
123+32	LT	GATE VALVE	ADJUST
129+55	LT 66	HYDRANT	SALVAGE
128+60B	LT 63	GATE VALVE	ADJUST
131+80	LT 75	GATE VALVE	ADJUST
131+87	RT 40	GATE VALVE	ADJUST
132+53	LT 61	HYDRANT	SAL

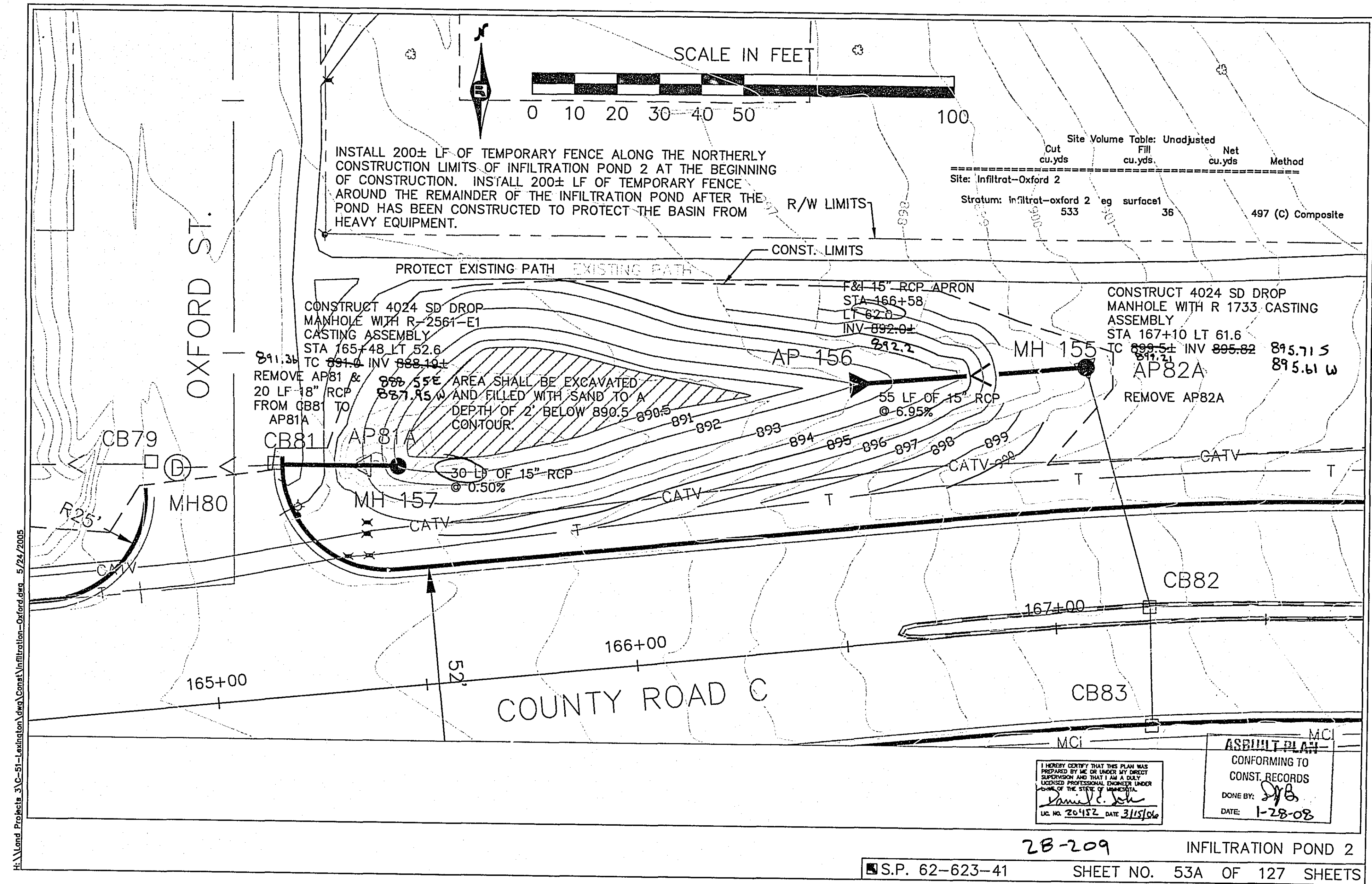


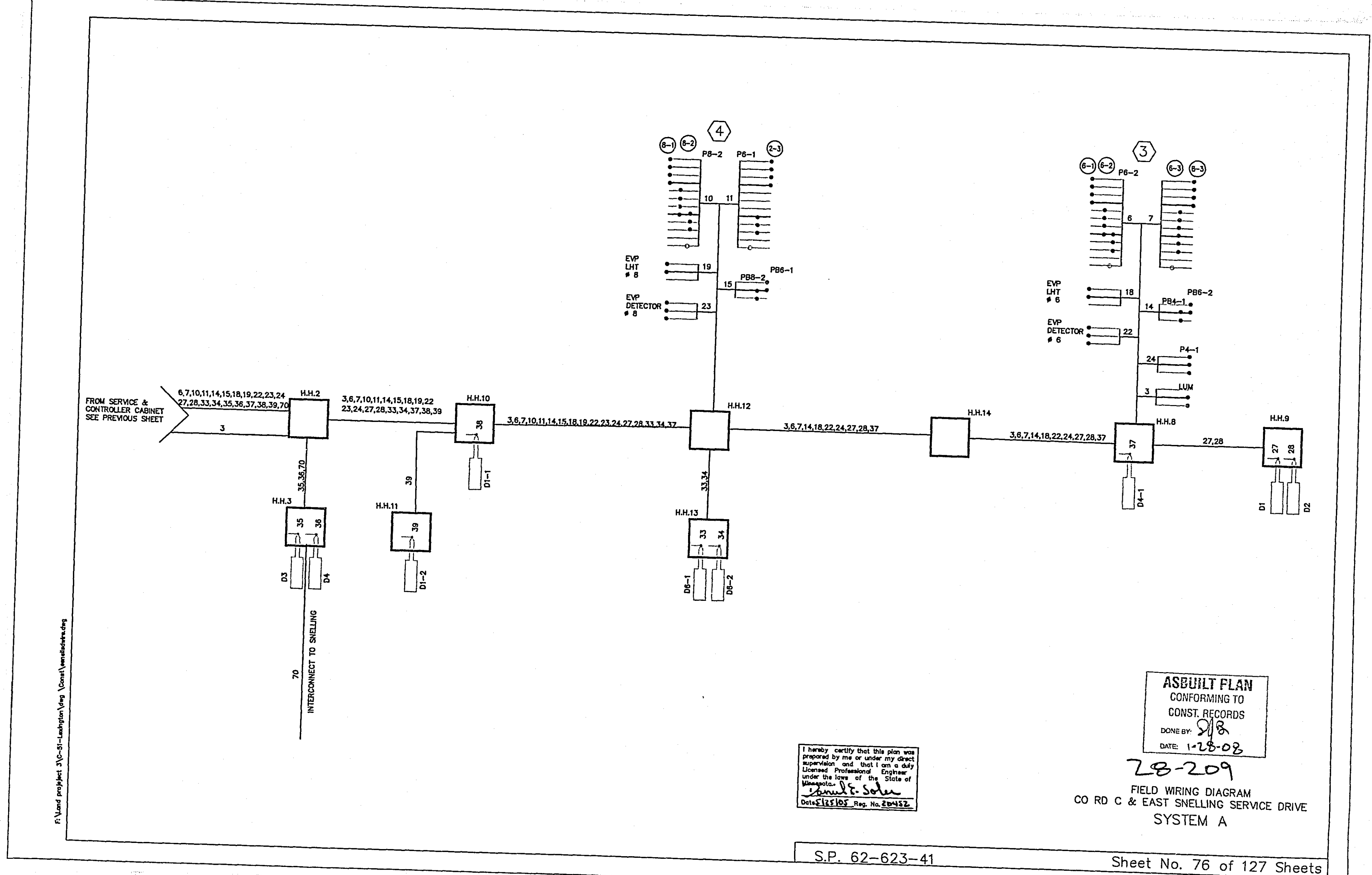
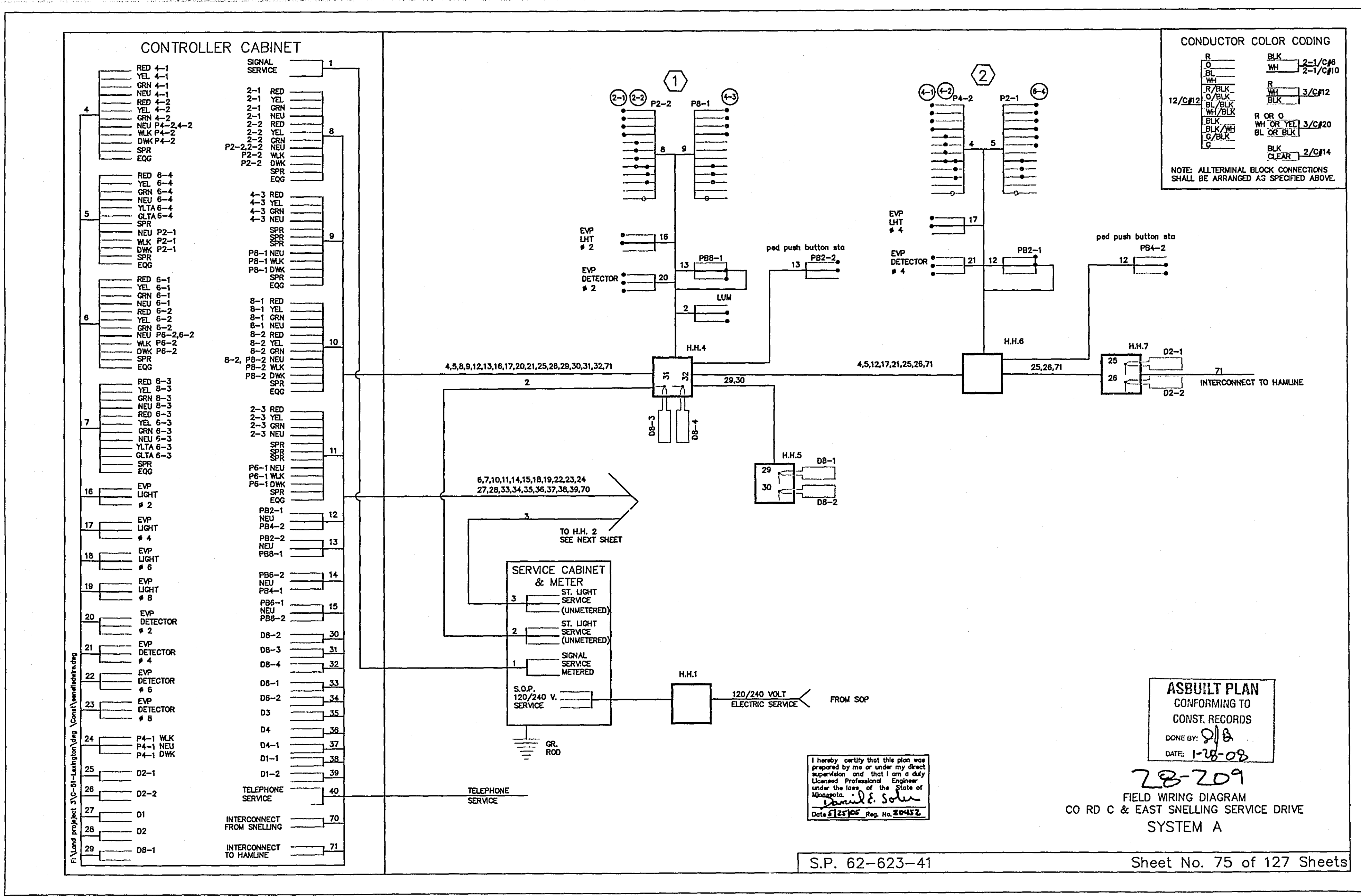
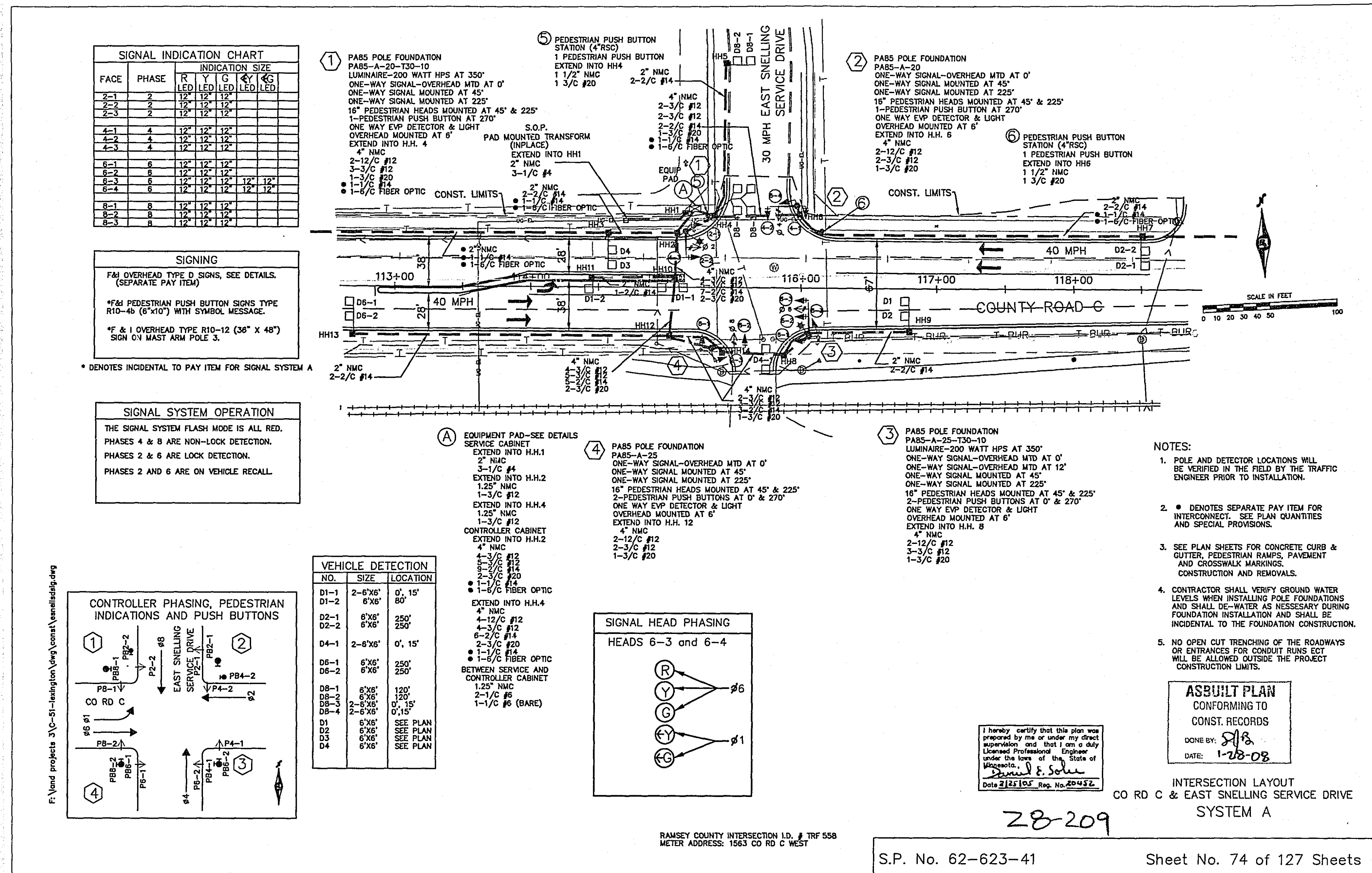
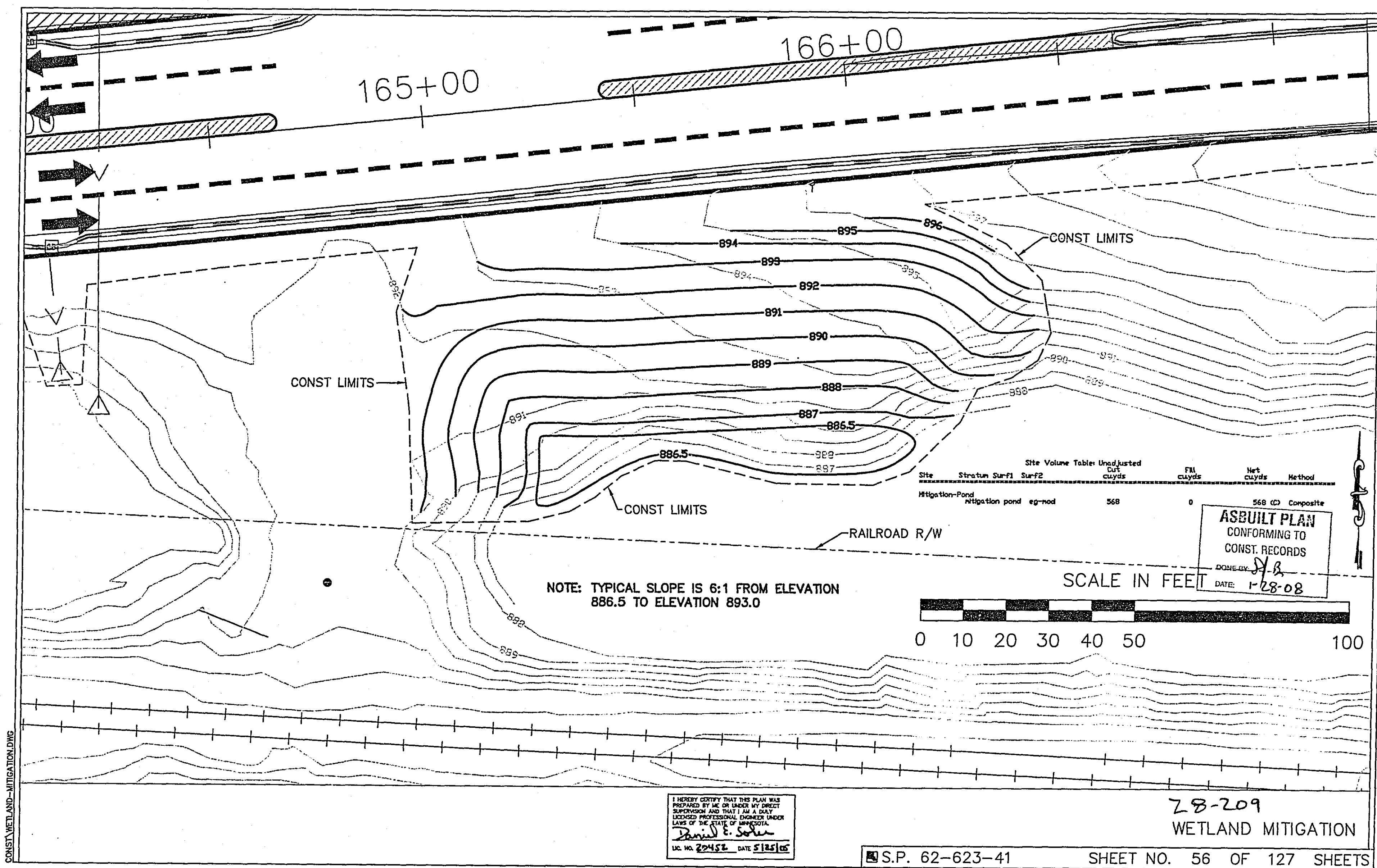












FACE	PHASE	INDICATION SIZE
2-1	2	12" 12" 12"
2-2	2	12" 12" 12"
2-3	2	12" 12" 12"
2-4	2	12" 12" 12"
4-1	4	12" 12" 12"
4-2	4	12" 12" 12"
4-3	4	12" 12" 12"
4-4	4	12" 12" 12"
6-1	6	12" 12" 12"
6-2	6	12" 12" 12"
6-3	6	12" 12" 12"
6-4	6	12" 12" 12"

SIGNING

F&M OVERHEAD TYPE D SIGNS, SEE DETAILS. (SEPARATE PAY ITEM)

*F&M PEDESTRIAN PUSH BUTTON SIGNS TYPE R10-46 (6" X 10") WITH SYMBOL MESSAGE.

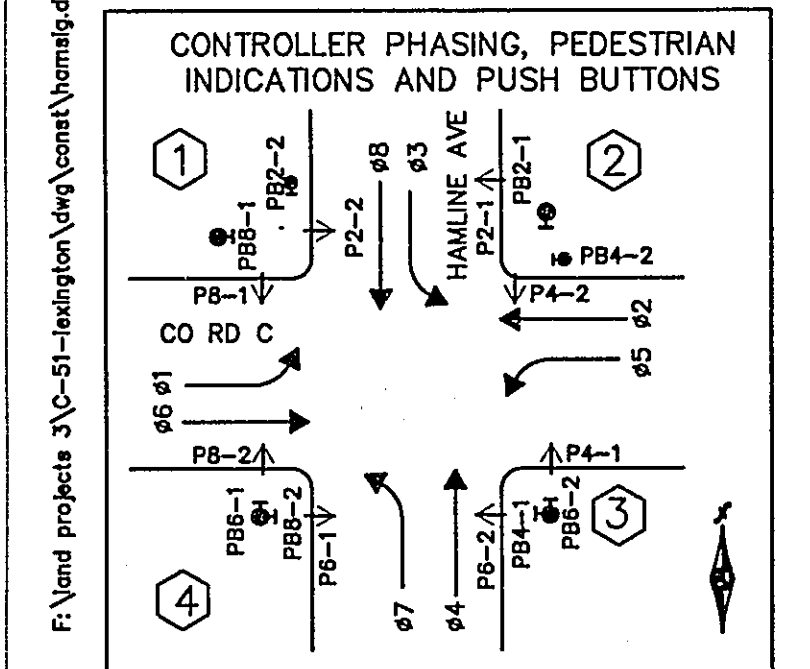
*F&M OVERHEAD TYPE R10-12 (36" X 48") SIGN ON ALL MAST ARM POLES.

* DENOTES INCIDENTAL TO PAY ITEM FOR SIGNAL SYSTEM B

SIGNAL SYSTEM OPERATION

THE SIGNAL SYSTEM FLASH MODE IS ALL RED. PHASES 1,3,5,6,7 ARE PROTECTED/PERMISSIVE LEFT TURNS.

PHASES 4 & 6 ARE NON-LOCK DETECTION. PHASES 2 & 6 ARE LOCK DETECTION. PHASES 2 AND 6 ARE ON VEHICLE RECALL.



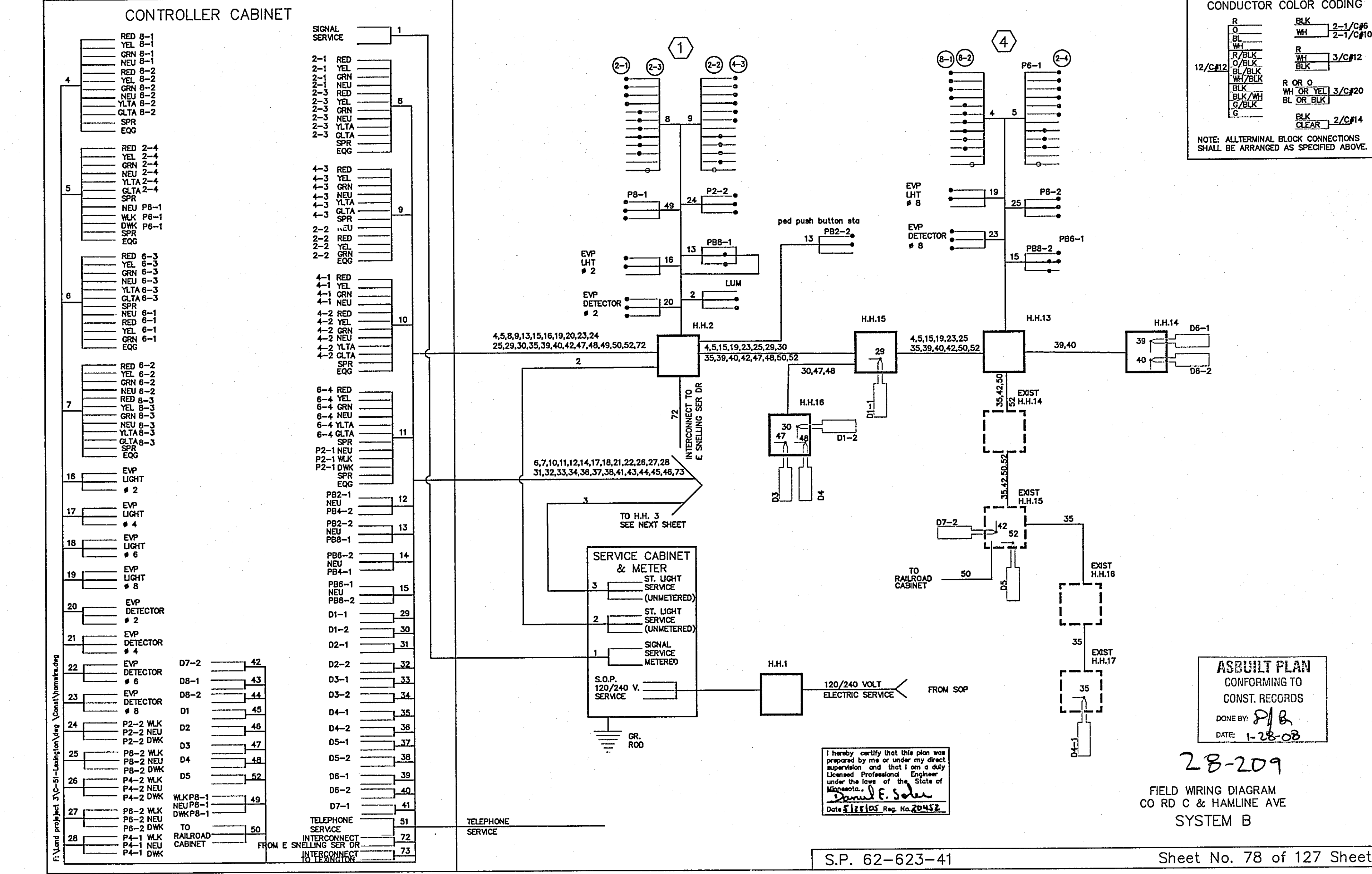
NO.	SIZE	LOCATION
D1-1	2-6"x6"	0', 15'
D1-2	6"x6"	80'
D1-3	6"x6"	80'
D2-1	6"x6"	250'
D2-2	6"x6"	80'
D3-1	2-6"x6"	0', 15'
D3-2	6"x6"	80'
D4-1	6"x6"	180'
D4-2	2-6"x6"	0', 15'
D5-1	6"x6"	80'
D5-2	6"x6"	80'
D6-1	6"x6"	80'
D6-2	6"x6"	80'
D7-1	2-6"x6"	0', 15'
D7-2	6"x6"	80'
D8-1	2-6"x6"	0', 15'
D8-2	6"x6"	80'
D9-1	6"x6"	80'
D9-2	6"x6"	80'
D10-1	6"x6"	80'
D10-2	6"x6"	80'
D11-1	6"x6"	80'
D11-2	6"x6"	80'
D12-1	6"x6"	80'
D12-2	6"x6"	80'

RAMSEY COUNTY INTERSECTION I.D. # TRF 569
METER ADDRESS: 1341 CO RD C WEST

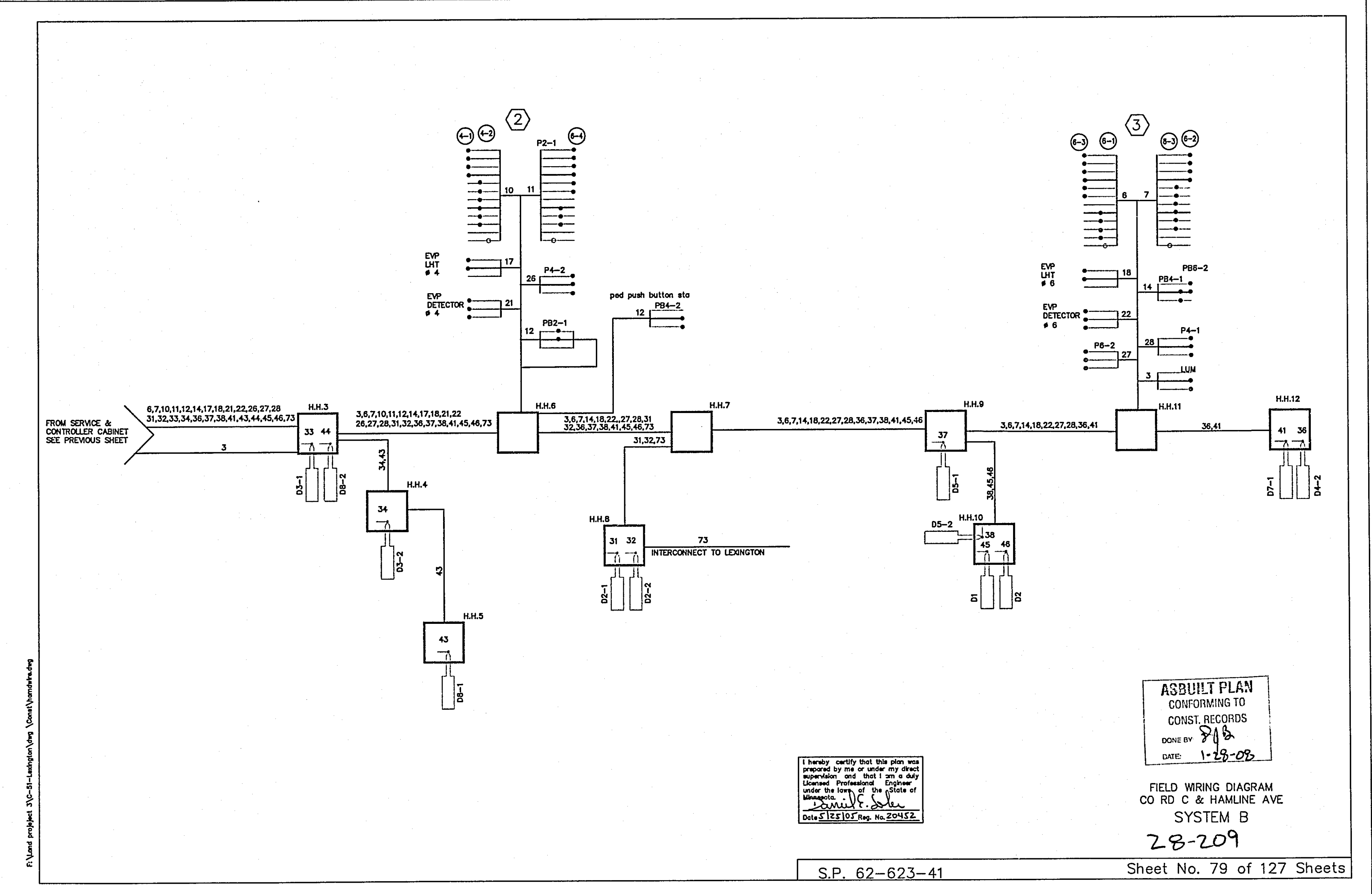
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- NOTES:**
- POLE AND DETECTOR LOCATIONS WILL BE VERIFIED IN THE FIELD BY THE TRAFFIC ENGINEER PRIOR TO INSTALLATION.
 - * DENOTES SEPARATE PAY ITEM FOR INTERCONNECT. SEE PLAN QUANTITIES AND SPECIAL PROVISIONS.
 - SEE PLAN SHEETS FOR CONCRETE CURB & GUTTER, PEDESTRIAN RAMPS, PAVEMENT AND CROSSWALK MARKINGS, CONSTRUCTION AND REMOVALS.
 - CONTRACTOR SHALL VERIFY GROUND WATER LEVELS WHEN INSTALLING POLE FOUNDATIONS AND SHALL DE-WATER AS NECESSARY DURING FOUNDATION INSTALLATION AND SHALL BE INCIDENTAL TO THE FOUNDATION CONSTRUCTION.
 - NO OPEN CUT TRENCHING OF THE ROADWAYS OR ENTRANCES FOR CONDUIT RUNS ECT WILL BE ALLOWED OUTSIDE THE PROJECT CONSTRUCTION LIMITS.

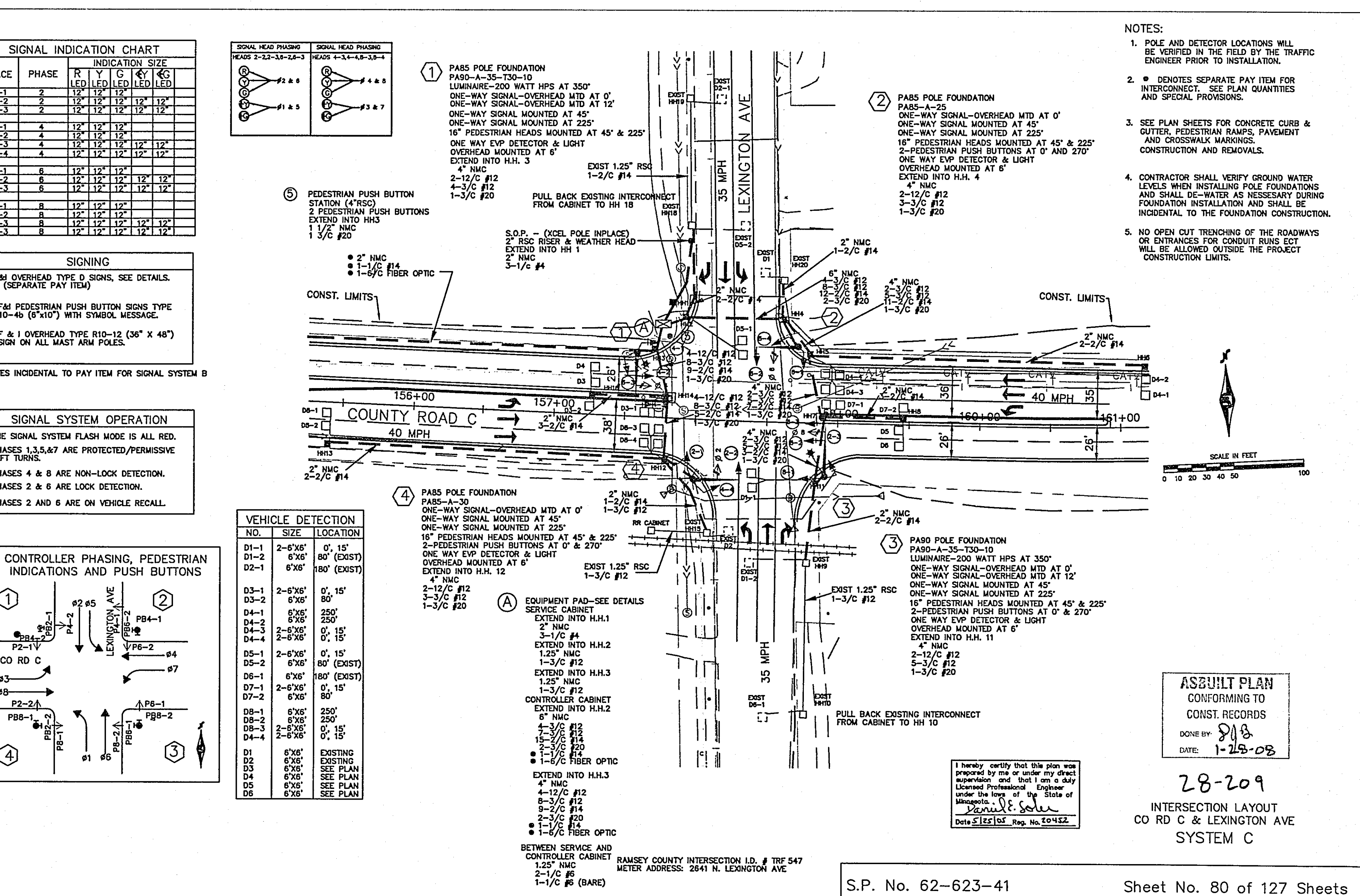
ASBUILT PLAN
CONFORMING TO
CONST. RECORDS
DATE: 1-28-08
28-209
INTERSECTION LAYOUT
CO RD C & HAMLINE AVE
SYSTEM B



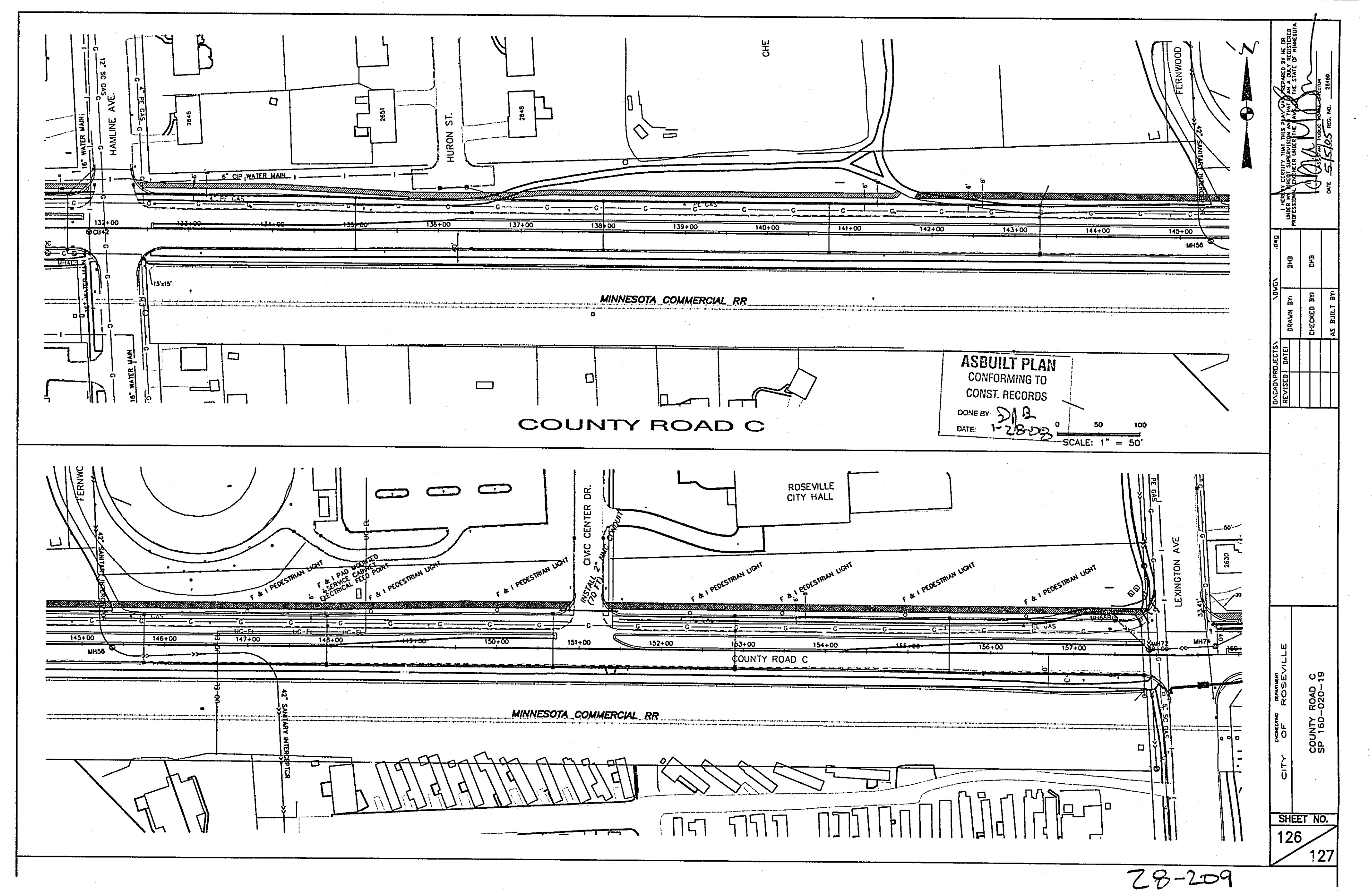
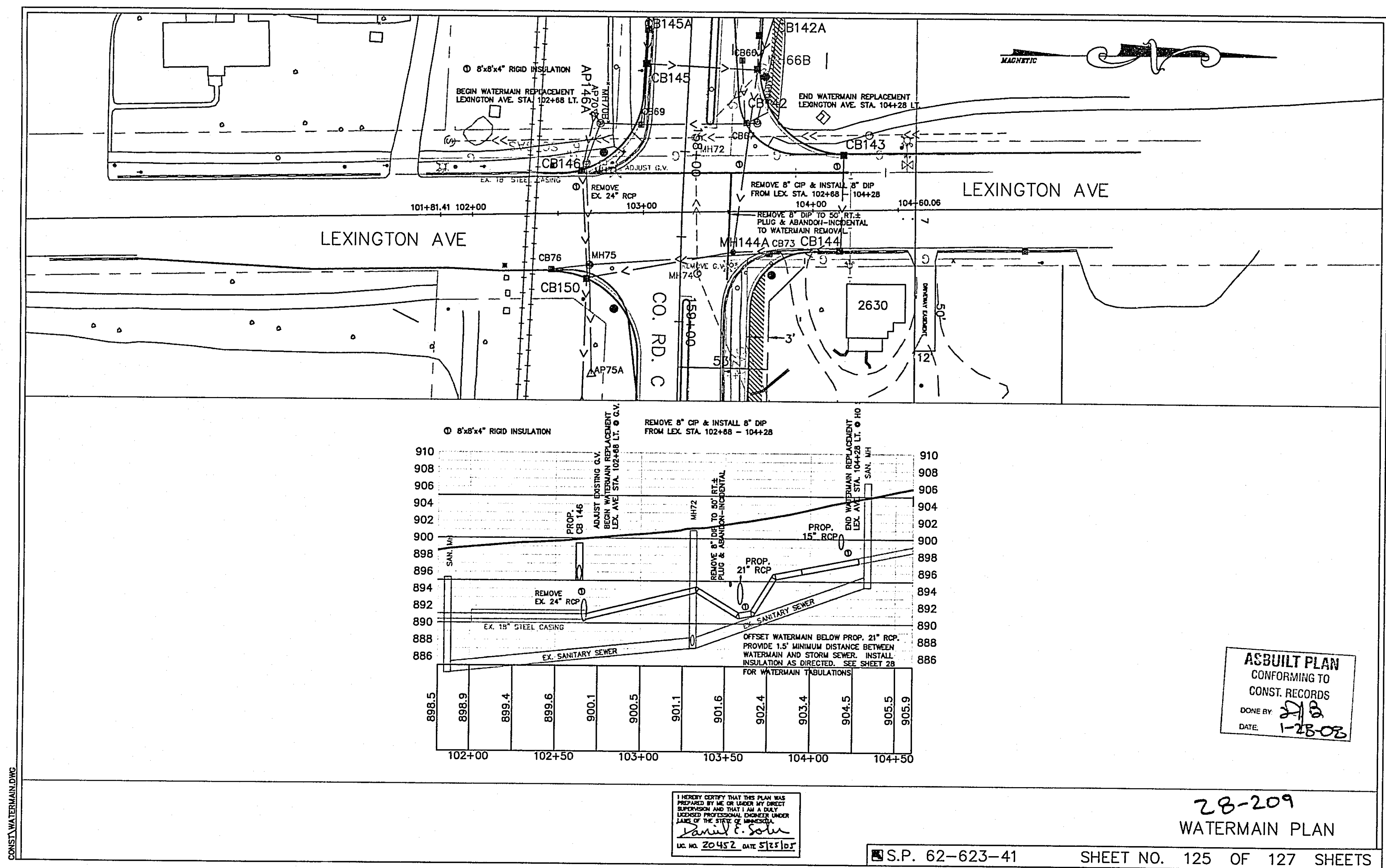
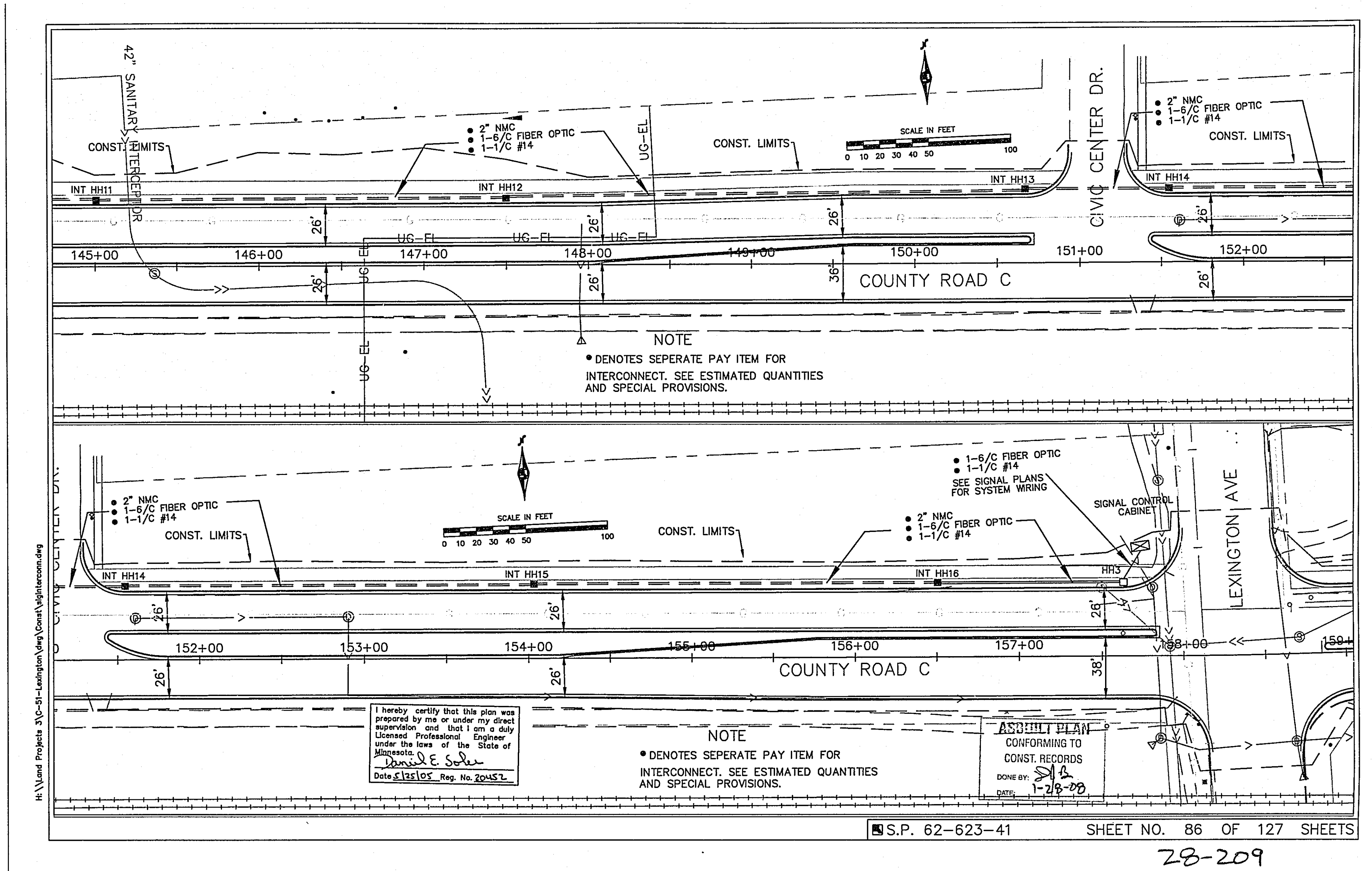
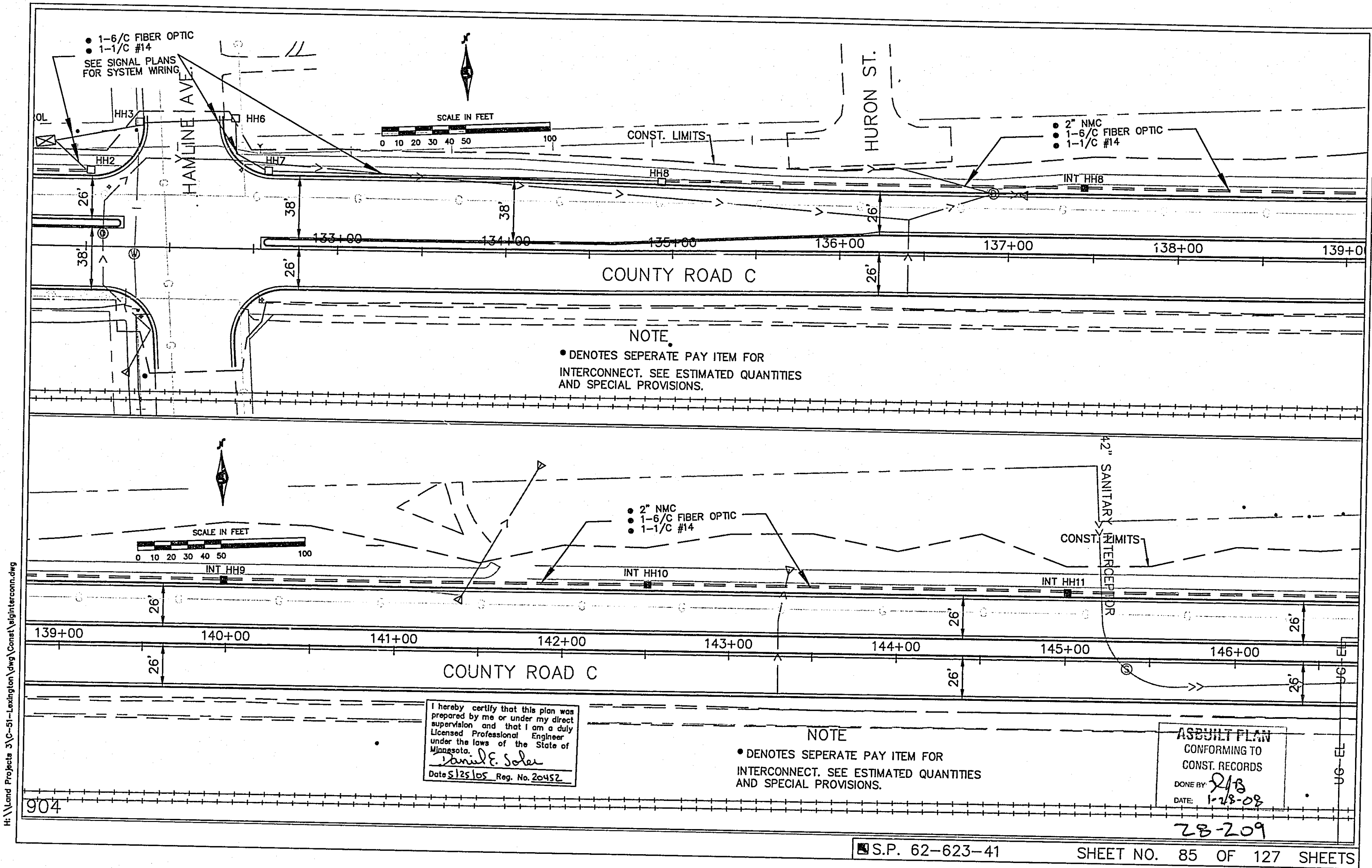
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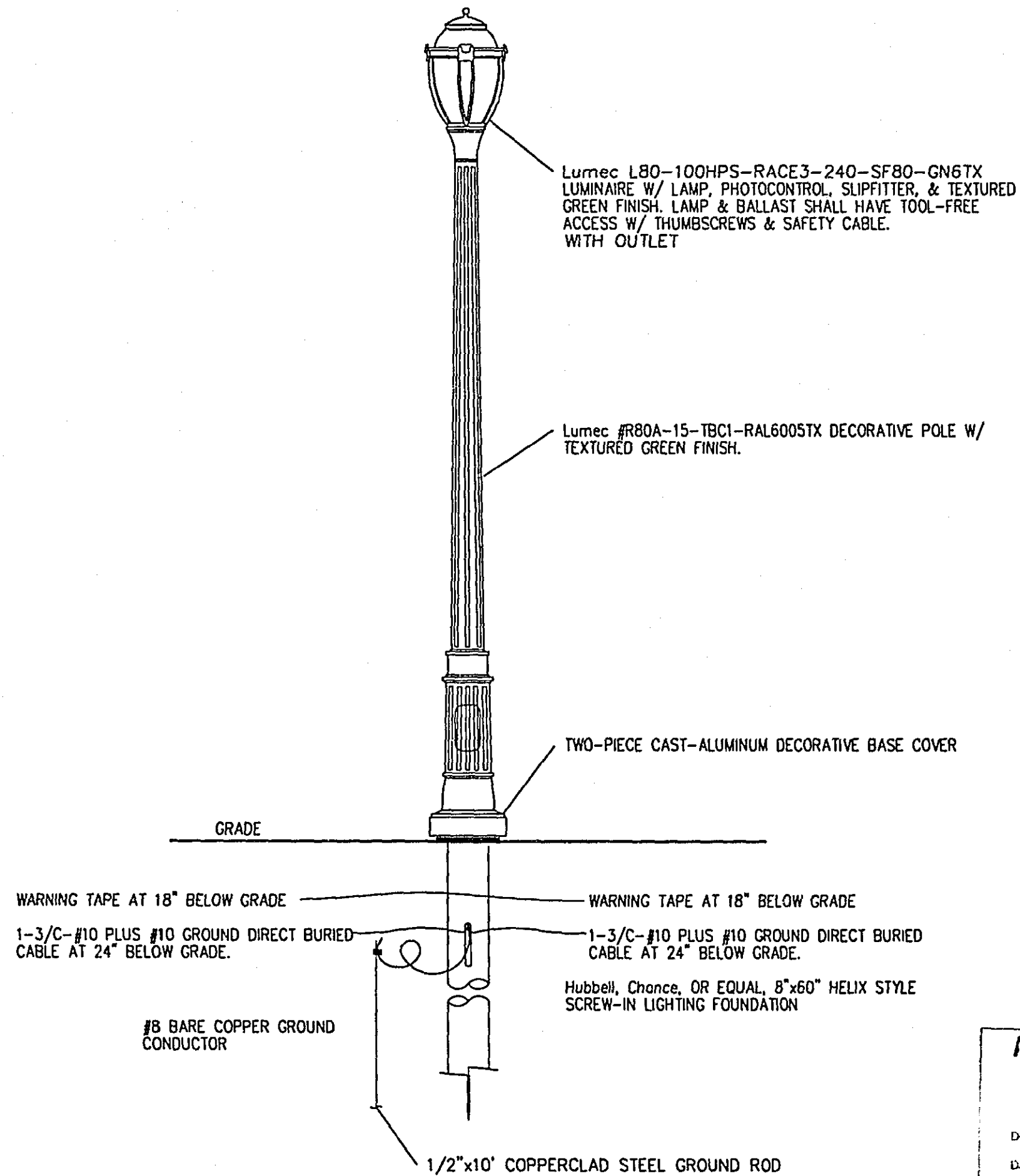


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ELECTRICAL SPECIFICATIONS

1. Construction shall conform with the contract special provisions.
2. The Contractor shall furnish and install all items which are obviously and reasonably necessary to complete the installation.
3. All work and materials shall be in full accordance with the National Electric Code and state and local codes that apply.
4. The Contractor shall take out permits, procure certificates, and pay fees connected therewith.
5. Bidders shall visit the site and become familiar with existing conditions surrounding the project prior to bidding.
6. The Contractor is referred to construction plans and specifications. Such plans and specifications are contract documents.
7. Drawings are diagrammatic and intended to show approximate locations.
8. Unless noted otherwise, all materials shall be new and the best of their several kinds.
9. The Contractor shall touch-up or refinish the factory finish of equipment marred during shipment or installation.
10. Contractor shall be a licensed Master Electrician of the state in which the work is located.
11. No interruption of the site functions or electric service shall be permitted without approval of the Owner.
12. Electrical work shall not interfere with clearances required for general construction. Should electrical work be installed which interferes with work of other contractors, such work shall be changed at no additional cost to the Owner.
13. Grounding shall comply with the National Electric Code.
14. At the completion of the work, the Contractor shall remove all rubbish caused by the Contractor and shall thoroughly clean all electrical equipment and components.
15. All work shall be guaranteed free from defects for a period of one year from date of final acceptance.
16. All items of electrical equipment associated with the control of electrical components shall be identified with engraved plates to describe function or service.
17. Nominal mounting height of devices in exposed concrete block, tile, or brick walls shall all occur within a course. A minimum amount of block tile or brick shall be cut.
18. All electrical equipment shall be Specification Grade, unless noted otherwise.
19. Wiring devices shall meet NEMA performance standards.
20. The Contractor shall protect all his work done under this contract from injury during construction and protect all of his equipment from damage.
21. All conductors shall be copper with THHN or THWN insulation.
22. The Contractor shall pay all charges by Xcel Energy for serving this project and shall coordinate service mast installation and weatherhead height with Xcel Energy. Contact, at Xcel Energy is Mr. Paul Mueller (Telephone Number 651.229.2282).



LIGHT POLE DETAIL
NO SCALE TYPICAL 6

ASBUILT PLAN
CONFORMING TO
CONST. RECORDS

DONE BY *SLB*
DATE *1-28-08*

28-209

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

ASSISTANT PUBLIC WORKS DIRECTOR
DATE *12-01-03* REG. NO. *26469*