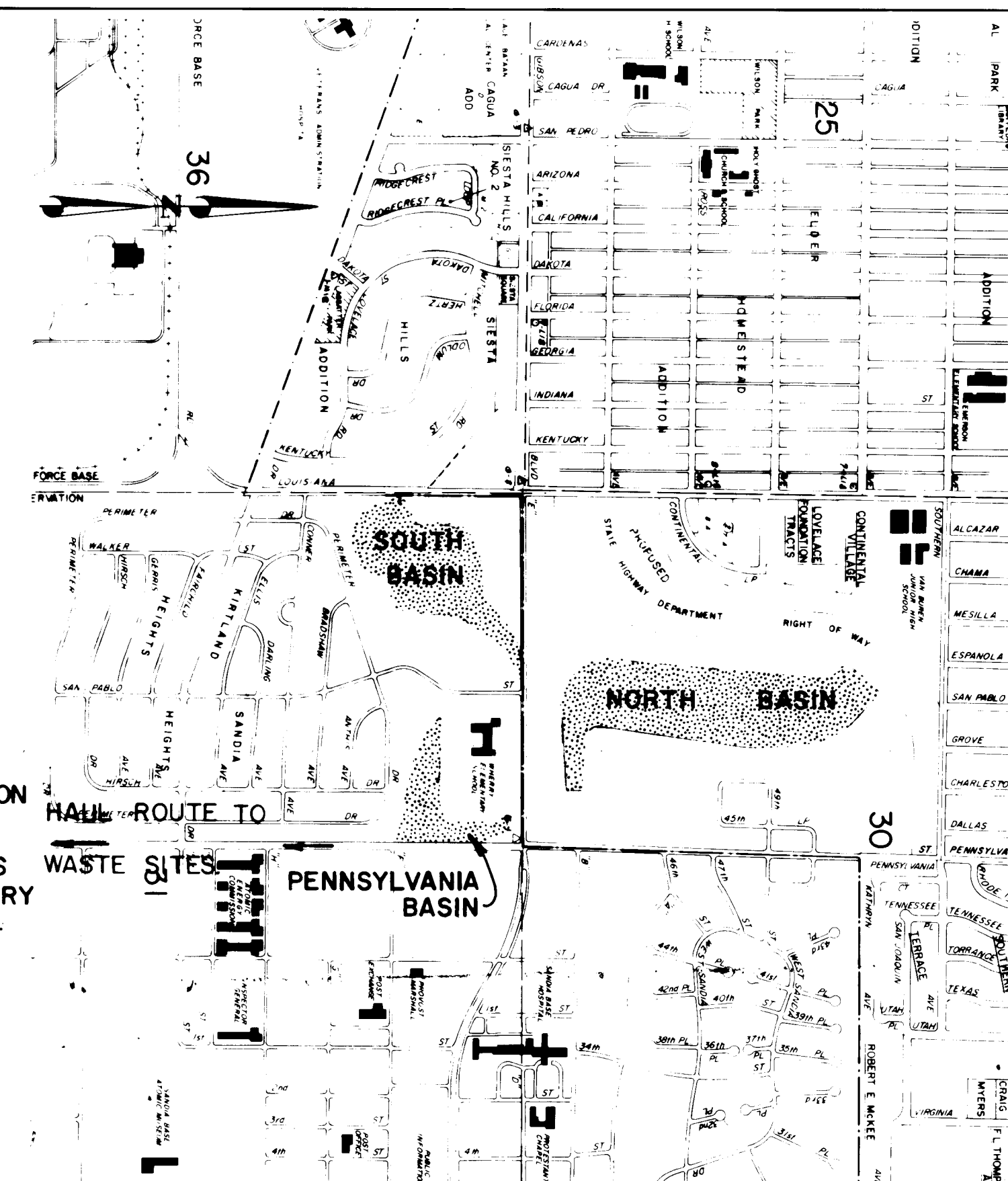


KIRTLAND AIR FORCE BASE DETENTION BASINS ALBUQUERQUE NEW MEXICO

JULY, 1984

LASON 1-505-344-9404
BEST COPY AVAILABLE

32 MILES
FOR EXCAVATION
DISPOSAL
38 MILES
TO SANITARY
LANDFILL



NOTE:
SOUTH BASIN
CONSTRUCTION IS
NOT PART OF THIS
CONTRACT- FUTURE
CONSTRUCTION

INDEX OF DRAWINGS

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3 OF 34	BASLINE LAYOUT, PROJECT REFERENCE AND SOIL LOG TEST HOLE LOCATIONS
4 OF 34	PLAN & PROFILE - 4" DRAIN LINE
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6 OF 34	" " " " " " " " " " " "
7 OF 34	" " " " " " " " " " " "
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10 OF 34	SOUTH BASIN DRAIN LINE
11 OF 34	" " " " " " " " " " " "
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13 OF 34	" " " " " " " " " " " "
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15 OF 34	SOUTH BASIN BIKE PATH LAYOUT AND SECTIONS
16 OF 34	PENNSYLVANIA BASIN LAYOUT
17 OF 34	EMERGENCY SPILLWAY DETAILS
18 OF 34	DRAIN INLET AND NORTH PENNSYLVANIA DRAIN DETAILS
19 OF 34	SOUTH PENNSYLVANIA DRAIN, DOUBLE CLEANOUT, RUNDOWN, RETAINING WALL, HEADWALL, WINGWALL AND CURB WALL DETAILS
20 OF 34	TYPICAL SECTIONS
21 OF 34	NORTH BASIN PROFILE
22 OF 34	SOUTH BASIN AND PENNSYLVANIA PROFILE
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25 OF 34	TRAFFIC PLAN PHASE 1
26 OF 34	" " " " PHASE 2
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28 OF 34	CROSS SECTIONS
29 OF 34	" " " " " " " " " " " "
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CONT. INDEX OF DRAWINGS

DELETED 31 OF 34	CROSS SECTIONS
32 OF 34	" " " " " " " " " " " "
33 OF 34	" " " " " " " " " " " "
34 OF 34	DRAINAGE AREA MAP AND HYDROGRAPHS
34A OF 34	CHANGE ORDER SHEET
34B OF 34	POWER POLE DETAILS (ADDENDUM # 1)

KIRTLAND AIR FORCE BASE DETENTION BASIN

CITY OF ALBUQUERQUE APPLICANT, LOCATED IN BERNALILLO COUNTY, STATE OF NEW MEXICO, HAS SOURCES TRULY THE UNDERSIGNED, CITY OF ALBUQUERQUE, NEW MEXICO, WHOSE POST OFFICE ADDRESS IS P.O. BOX 1000, ALBUQUERQUE, COUNTY OF BERNALILLO, STATE OF NEW MEXICO, HAS CAUSED TO BE DRAWN BY A LICENSED PROFESSIONAL ENGINEER THE KIRTLAND AIR FORCE BASE DETENTION BASINS AS HEREIN DESCRIBED AND INDICATED, HEREBY MAKES THESE SEVERAL STATEMENTS PERTAINING THERE TO AND OFFERS THIS MAP AND STATEMENTS FOR ACCEPTANCE AND FILING IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO.

THE CENTER OF THE NORTH BASIN DRAIN STRUCTURE IS SITUATED WITHIN THE SW 1/4, NW 1/4 OF SECTION 31, T. 10 N., R. 4 E., N.M.P.M., ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, AND BEARS NEW MEXICO STATE PLANE COORDINATES, CENTRAL ZONE OF 114° 09' 11" W., Y = 1,470,700.

THE CENTER OF THE SOUTH BASIN DRAIN STRUCTURE IS SITUATED WITHIN THE SW 1/4, NW 1/4 OF SECTION 31, T. 10 N., R. 4 E., N.M.P.M., ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, AND BEARS NEW MEXICO STATE PLANE COORDINATES, CENTRAL ZONE OF 114° 09' 11" W., Y = 1,470,700.

STATE OF NEW MEXICO
COUNTY OF BERNALILLO

I, WAYNE SHEPHERD, ON BEHALF OF THE CITY OF ALBUQUERQUE, DO HEREBY CERTIFY, UNDER MY OATH, STATE THAT I HAVE READ AND EXAMINED THE DRAWING MAPS AND STATEMENTS (MAPS AND STATEMENTS CONSISTING OF 34 SHEETS) AND KNOW THE CONTENTS THEREOF AND REPRESENTATIONS THEREON, AND STATE THAT THE SAME ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF.

OFFICIAL SEAL
KAREN M. ACEVES
NOTARY PUBLIC, STATE OF NEW MEXICO

My Commission Expires

September 10, 1985

RECORD DRAWING INFORMATION

CONTRACTOR:
KNC, Inc.
INSPECTOR'S ACCEPTANCE:
City of Albuquerque
Russell Givler
ACCEPTANCE DATE FOR BENEFICIAL OCCUPANCY:
September 10, 1985
WORK STATED BY: Leedshill-Herkenhoff, Inc.
Kim Stelzer
FIELD VERIFICATION BY: Leedshill-Herkenhoff, Inc.
Lucy Conley

APPROVED FOR CONSTRUCTION:

RECEIVED DURING THE
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JOB NO. 1867.31 & .32

LOCATION MAP

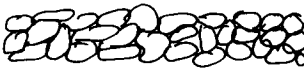
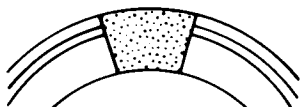
SCALE: 1" = 1000'

DETENTION BASIN PROPERTIES

	North Basin	South Basin
Length of berm	2910 ft.	1460 ft.
Top of berm width	20 ft.	20 ft.
Top of berm elevation	5360.80 ft.	5347.50 ft.
Slope of upstream face	4:1	4:1
Slope of downstream face	6:1 & 3:1	6:1
Maximum height of fill above natural ground	9.2 ft.	8.5 ft.
Maximum width of fill at base	110 ft.	105 ft.
Elevation at spillway crest	5355.50 ft.	5342.50 ft.
Width of spillway crest	250 ft.	220 ft.
Maximum WSEL upstream, at weir crest	5358.79	5345.62
Discharge capacity of spillway at maximum WSEL	4,636 cfs	4,074 cfs
Outlet conduit size and type	30" RCP	30" RCP
Outlet conduit invert elevation	5345.58 ft.	5333.70 ft.
Outlet conduit capacity, gravity flow	45.4	33.4 cfs
Orifice size	20" dia.	14" dia.
Orifice centerline elevation	5346.75 ft.	5334.95 ft.
Orifice capacity at weir crest elevation	31.0 cfs	14.1 cfs
Evacuation time, 90% volume out	26 hrs.	28 hrs.
Drainage area size	1,016 sq.mi.	0.945 sq.mi.
Surface area at maximum WSEL in basin	22.0 a.c.	7.6 a.c.
Storage capacity	508Aft.	21 A-ft.
PMP design rainfall	11.5" in 1 hr.	
PMF peak inflow	4636 cfs.	4074 cfs.
100-yr. design rainfall	2.4" in 6 hrs.	
100-yr. peak inflow	636 cfs	745 cfs
Hazard classification (SCS Definition)	C	

REV	SHEETS	CITY ENGINEER	DATE	USER DEPT	DATE	USER DEPT	DATE
APPROVAL OF REVISIONS							
FILING MAP, COVER SHEET AND MISCELLANEOUS DATA							
LEEDSHILL-HERKENHOFF, INC. Copper Square, 500 Copper Ave. N.W. P.O. Box 1217 Albuquerque, New Mexico 87103 (505) 247-0294							
APPROVED FOR CONSTRUCTION							
PROJECT NO. MDD NO. 1674							
SHEET 1 OF 34							

PROPOSED		EXISTING		DESCRIPTION	
NA				SANITARY SEWER MANHOLE	
				STORM DRAIN MANHOLE	
NA			TELE MH	TELEPHONE MANHOLE	
NA			SAS 8" CP	SANITARY SEWER LINE W/SIZE & TYPE	
	SD 48" RCP		SD 48" RCP	STORM DRAIN LINE W/SIZE & TYPE	
NA			W 6" CI	WATER LINE W/SIZE & TYPE	
NA			E	OVERHEAD ELECTRICAL LINES	
NA			UE	UNDERGROUND ELECTRICAL / TRAFFIC CONTROL	
NA			UT	UNDERGROUND TELEPHONE	
NA			G 2" H.P	GAS LINES W/SIZE & TYPE	
NA			CT	CABLE TELEVISION LINES	
NA				ENCASEMENT	
				STORM DRAIN INLETS (GRATE ELEVATION GIVEN IN PLANS IS EXTENDED FLOW LINE)	
NA				GATE VALVE	
NA				BUTTERFLY VALVE	
NA				FIRE HYDRANTS	
NA				REDUCERS	
NA				SAS SERVICE CONNECTION	
NA				WATER SERVICE CONNECTION	
NA				TEES	
NA				CROSSES	
				BENDS	
				CAPS & PLUGS	
NA			WM	WATER METER	
NA			VB	VALVE BOX	
NA			PP	POWER POLE	
NA			LP	LIGHT POLE	
NA			TL	TRAFFIC LIGHT	
NA			TC	TRAFFIC CONTROL BOX	
NA			PB	PULL BOX	
NA			TB	TELEPHONE BOOTH	
INDICATED ON PLANS				CURB & GUTTER	
INDICATED ON PLANS			4" SW	SIDEWALK	
NA				BLOCK WALL	
				CHAIN LINK FENCE	
NA				FIELD FENCE	
		NA		SPOT ELEVATIONS	
NA				PROJECT/PHASE BOUNDARY	
NA				RIGHT OF WAY LINES	
NA				PROPERTY LINES (SIDE)	
NA				PUBLIC EASEMENTS	
		NA		CONSTRUCTION THIS PROJECT SPECIFIED ON DIFFERENT SHEET	
NA		NA		LIGHT POLE BASE	

PROPOSED	EXISTING	DESCRIPTION
	NA	BERM AND/OR BASIN SLOPE
	NA	CONCRETE WALL
	NA	RIPRAP
	NA	WHEELCHAIR RAMPS
		SOIL LOG TEST HOLES

GENERAL NOTES

- ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER THIS CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREIN, BE CONSTRUCTED IN ACCORDANCE WITH THE NEW MEXICO STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION - 1979 AND THE PROJECT SPECIFICATIONS TITLED "KIRTLAND AIR FORCE BASE DETENTION BASINS".
- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH MINIMUM AMOUNT OF DELAY.
- ALL NEW STREET PAVING, DRIVEWAYS, SIDEWALKS, AND CURB AND GUTTERS ABUTTING EXISTING AREAS SHALL MATCH THE ELEVATION OF THOSE AREAS.
- PERMANENT PAVEMENT STRIPING AND MARKINGS WITHIN CITY AREA SHALL BE PLACED BY THE CITY AND ARE NOT A PART OF THIS CONTRACT.
- THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR ANY DAMAGE TO EXISTING CURB AND GUTTER DURING CONSTRUCTION, APART FROM THOSE SECTIONS INDICATED FOR REMOVAL ON THE PLANS, AND SHALL REPAIR OR REPLACE SAME AT HIS OWN EXPENSE. HE SHALL SUITABLY PROTECT THE CURB AND GUTTER FROM INCIDENTAL SPLASHING DURING THE TACK COAT APPLICATION AND SHALL BE RESPONSIBLE FOR CLEANING SAME AT HIS OWN COST SHOULD SPLASHING OCCUR.
- ALL REFERENCE TO CITY STANDARD DRAWINGS WILL BE PER CITY OF ALBUQUERQUE CONTRACT DOCUMENTS FOR PUBLIC WORKS CONTRACT NO. 84-1.
- PRESSURE MANHOLE COVERS AS SHOWN ON THE PLANS SHALL BE NEENAH 1916-C1 OR APPROVED EQUAL.
- CLEARING AND GRUBBING INCLUDING TREE REMOVAL SHALL EXTEND NOT LESS THAN 5' BEYOND THE EDGE OF THE ACTUAL CONSTRUCTION AREA AND NOT MORE THAN 15' BEYOND THE ACTUAL EDGE OF THE CONSTRUCTION AREA, UNLESS OTHERWISE AUTHORIZED BY THE ENGINEER. ALL AREAS DISTURBED BY THE CONSTRUCTION SHALL BE MULCHED AND SEEDED.
- WHILE ON KIRTLAND AIR FORCE BASE, ALL EXCAVATION FOR DISPOSAL SHALL BE HAULED TO AND DISPOSED OF AT A DESIGNATED SITE ON KAFB APPROXIMATELY 3.2 MILES FROM THE GIBSON GATE. TREES, VEGETATIVE MATERIAL AND OTHER WASTE MATERIAL NOT SALVAGEABLE SHALL BE DISPOSED OF AT A SANITARY LANDFILL ON KAFB, APPROXIMATELY 3.8 MILES FROM THE GIBSON GATE, AS DESIGNATED.
- WHERE FIELD CONDITIONS REVEAL DISCREPANCIES IN BERM OR BASIN SLOPE INTERSECTION WITH FINAL GRADING, DIMENSIONS OR GRADELINES, THE SPECIFIED DIMENSION AND FINAL GRADES SHALL TAKE PRECEDENCE OVER SLOPE GRADES. TOES AND TOPS OF SLOPES THAT TIE TO EXISTING GROUND MAY NOT BE SHOWN ACCURATELY, THESE WILL VARY WITH THE EXISTING GROUND CONTOURS.
- ALL MANHOLES SHALL HAVE STANDARD ALUMINUM STEP, ALCOA NO. 12653A OR APPROVED EQUAL. STEPS TO BE PRECAST IN PLACE OR SET IN EPOXY CEMENT. (HUNT PROCESS HB-230 OR APPROVED EQUAL) FIRST TWO STEPS TO PROTRUDE 4 INCHES INTO MANHOLE, ALL OTHERS 5 INCHES. SPACING BETWEEN STEPS TO BE 16 INCHES O.C., FIRST STEP TO BE 18 INCHES FROM MANHOLE RIM, LAST STEP TO BE 18 INCHES MAXIMUM FROM BOTTOM. SEE DRAWING K-18-1 FOR STEP DETAIL.
- ALL MANHOLE COVERS, WATER VALVES, CLEAN-OUTS, OR OTHER SERVICE ACCESS SHALL MATCH EXISTING GRADE OF PAVEMENT. ON UNPAVED SURFACES, THESE SHALL MATCH EXISTING GROUND SURFACES OR FINAL GRADES, WHICHEVER APPLIES.
- CONTRACTOR TO COORDINATE ALL WORK WITH KAFB REGARDING POWER AND TELEPHONE POLE ADJUSTMENTS AND RELOCATION OF UNDERGROUND TELEPHONE CABLE, FOR PROCEDURES AND REQUIREMENTS.

COMMUNICATIONS:
1960 COM SQUADRON 846-5198

ELECTRICAL:
BASE ELECTRICAL DIVISION 844-4517

15. CONTACTS FOR KAFB INCLUDE:
*BASE ENGINEERING: ALFREDO SANCHEZ, 1606 ABW/DEEV, 844-1155
BASE SAFETY (TRAFFIC): ROLIN DEROSE 1606/SE, 884-1772
VEHICLE ENTRY PASS: ELIZABETH COLLINS, AFCMP/PK8V, 844-2916
(FOR ONE DAY TO THIRTY DAY PASS, OBTAIN FROM ENTRY GATE)

*(MAIN CONTACT)

16. REFERENCES USED IN PREPARATION OF THESE PLANS INCLUDE THE ALBUQUERQUE MASTER DRAINAGE STUDY VOL. II, BOHANNAN-HUSTON, INC., JANUARY 1981; KIRTLAND DETENTION BASINS, DESIGN ANALYSIS REPORT, LEEDSHILL-HERKENHOFF, JUNE 1984 (INCLUDING APPENDIX "A"). THESE ARE ON FILE WITH THE CITY OF ALBUQUERQUE, ENGINEERING DIVISION.

17. SOUTH BASIN CONSTRUCTION IS NOT PART OF THIS CONTRACT. ALL REFERENCE TO

SOIL LOG TEST-HOLE LEGEND AND NOTES

	SAND, coarse to fine-grained, silty to very silty, medium dense to dense, dry to moist, occasional trace to slightly clayey, light brown to brown (SM)
	SAND, medium to fine-grained, silty to very silty, loose to dense, dry to moist, occasional trace to slightly clayey, light brown to brown (SM)
	SAND, coarse to fine-grained, slightly silty, loose to medium dense, dry to slightly moist, light brown to brown (SP-SM)
	CLAY, no sand to slightly sandy, no silt to slightly silty, medium stiff to hard, dry to moist, brown (CL)
	SAND, medium to fine-grained, clayey to very clayey, loose to medium dense, dry to slightly moist, light brown to brown (SC)
	SAND, medium to fine-grained, clean to trace silt, medium dense to dense, dry to slightly moist, light brown (SP)
	SAND AND GRAVEL, medium to fine-grained, clean to silty, medium dense to dense, dry to slightly moist, brown (SM-GM, SP-GP)
	SAND, very silty to SILT, very sandy, fine-grained, loose to medium dense, dry to slightly moist, light brown (SM-ML)
	SILT, slightly sandy, slightly clayey, stiff, dry, light brown (SM)
	CALICHE, SAND AND CLAY, fine-grained, medium dense to dense, dry, buff to white, tightly cemented
NR	Indicates no sample recovery

NOTES

- Test holes were drilled on July 3 and 5, 1984, with a 6-5/8 inch diameter hollowstem continuous flight power auger.
- (24/12) location of Standard Penetration Test; indicates that 24 blows with a 140-pound hammer, falling 30 inches, were required to drive a 2 inch diameter sampler 12 inches.
- The locations of borings were approximately determined by pace and compass measurement. Elevations of borings were approximately determined by interpolation between plan contours. The locations and elevations of the borings should be considered accurate only to the degree implied by the method used.
- The stratification lines represent the approximate boundary between soil types and the transition may be gradual.
- Neither bedrock nor groundwater were encountered in the test holes.

RECORD DRAWING

Date SEP 12 1985

These drawings have been revised based on field data. Every reasonable attempt has been made to depict construction as actually performed.

123456789101112 2616740285												ENGINEER'S SEAL REGISTERED PROFESSIONAL ENGINEER 243 STATE OF NEW MEXICO Robert J. Beckwith, P.E.										DESIGNED BY DATE DRAWN BY DATE CHECKED BY DATE			REVISIONS DESIGN			REMARKS BY			NO. DATE			NO. BY DATE			SURVEY INFORMATION FIELD NOTES			BENCH MARKS See Sheet 3 for Bench Mark Description			AS BUILT INFORMATION CONTRACTOR WORK STARTED BY DATE INSPECTED BY DATE ACCEPTED BY DATE FIELD DATE VERIFICATION BY DATE CORRECTED BY DATE MICRO-FILM INFORMATION RECORDED BY DATE NO.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
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SOUTH BASIN -
FUTURE CONSTRUCTION
NOT PART OF THIS
CONTRACT

STA. 0+00 @ NO. 6 =
OPP STA. 13+52.82 ~ 925' LT. @ NO. 1
REBAR W/CAP

SOUTH BASIN
FOR LAYOUT
SEE SHEETS
14 TO 15

30" RCP
SOUTH BASIN DRAIN

P.I. STA. 23+46.05 @ NO. 1
Δ=00°59'86" LT.

LANDSCAPING
SEE SHEET 23

STA. 10+47.20 @ NO. 6
(925.00)

STA. 0+00 @ NO. 7
REBAR W/CAP

STA. 0+00 @ NO. 6
REBAR W/CAP
EOS

P.O.T. STA. 0+00 @ NO. 7

STA. 28+19.75 @ NO. 1 =
STA. 0+00 @ NO. 2

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STA. 34+56.04 @ NO. 1

STA. 37+00 @ NO. 1

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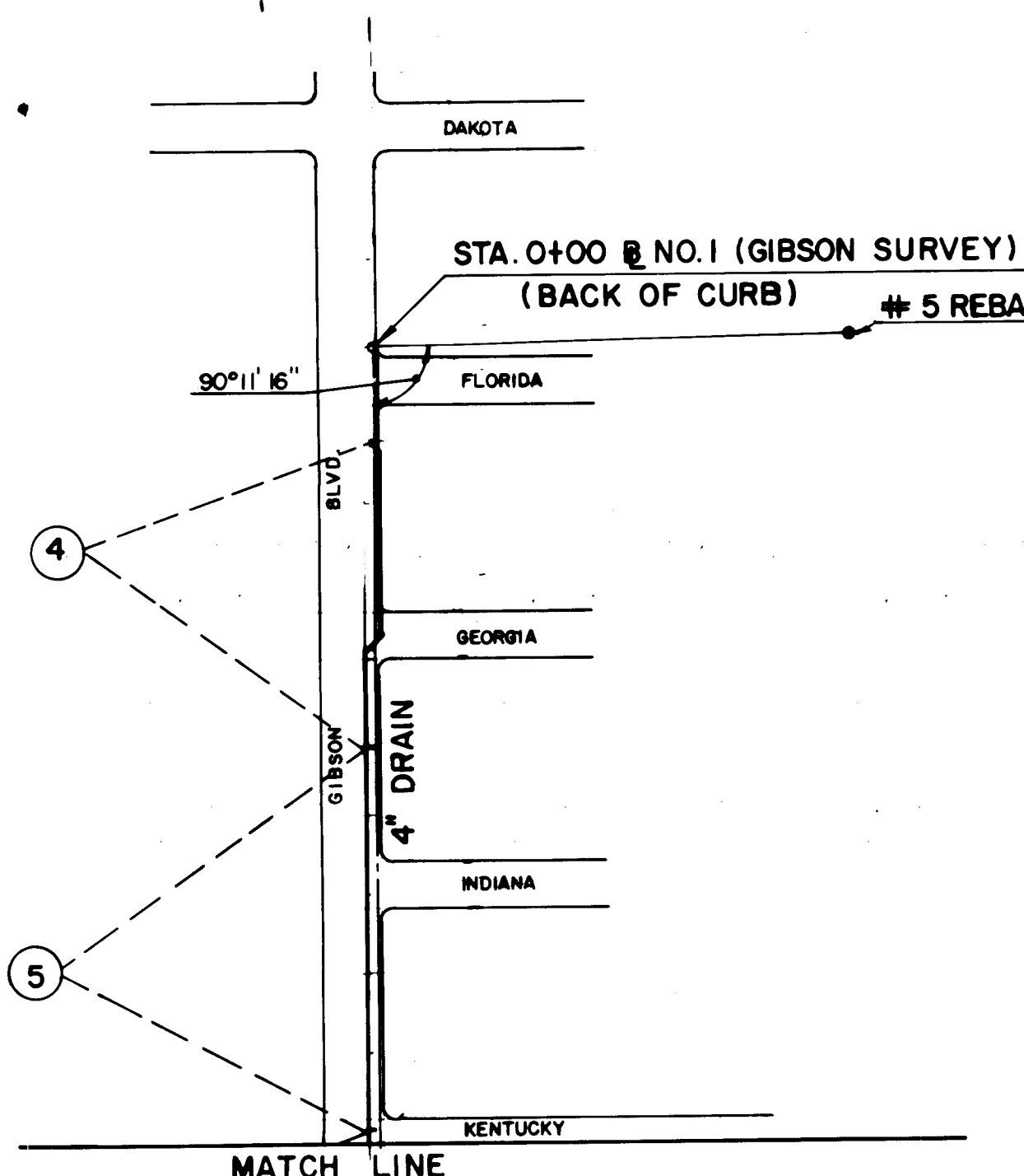
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LEGEND
● MANHOLE
■ INLET
— HEAWALL
— STORM DRAIN

RECORD DRAWING
Date SEP 12 1985

These drawings have been revised based
on field data. Every reasonable attempt
has been made to depict construction as
actually performed.

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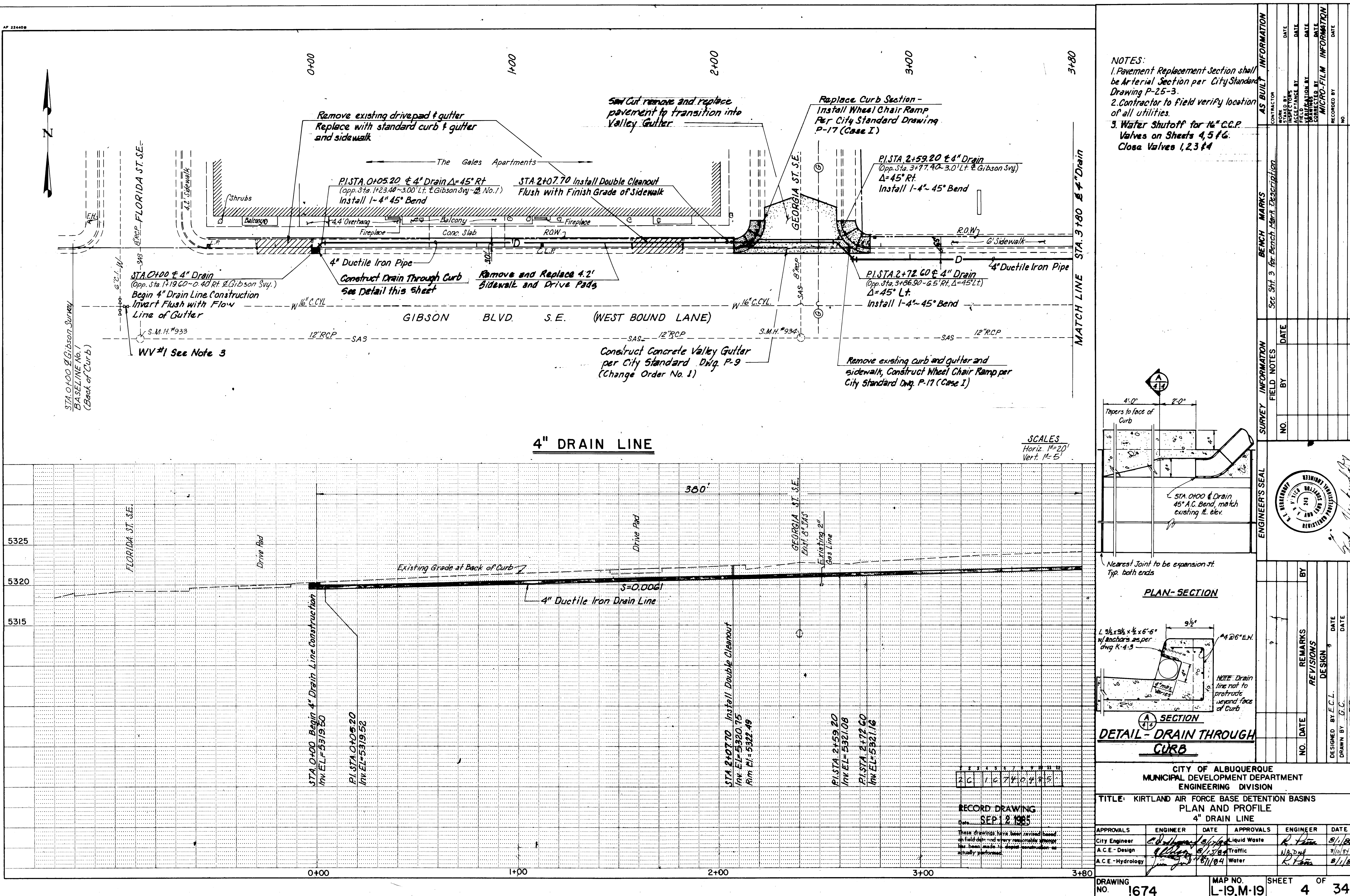
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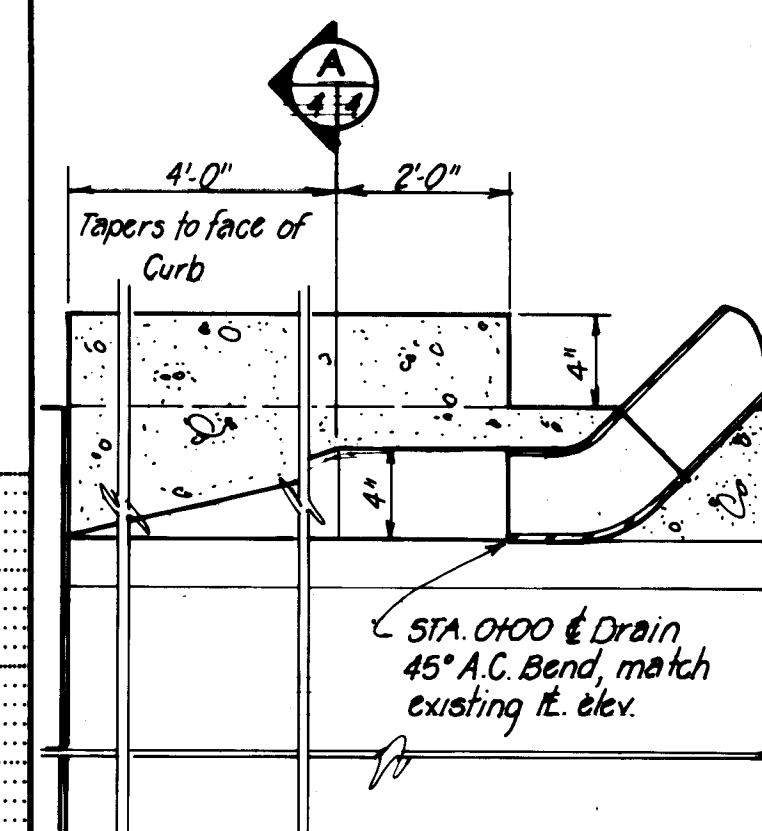
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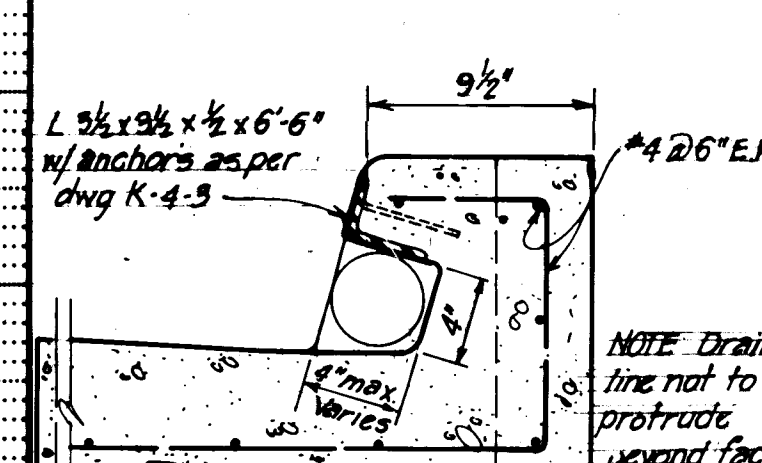
NO.	DATE	BY	REMARKS
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			



NOTES:
 1. Pavement Replacement Section shall be Arterial Section per City Standard Drawing P-25-3.
 2. Contractor to field verify location of all utilities.
 3. Water Shutoff for 16" C.C.P. Valves on Sheets 4, 5 & 6. Close Valves 1, 2, 3 & 4.

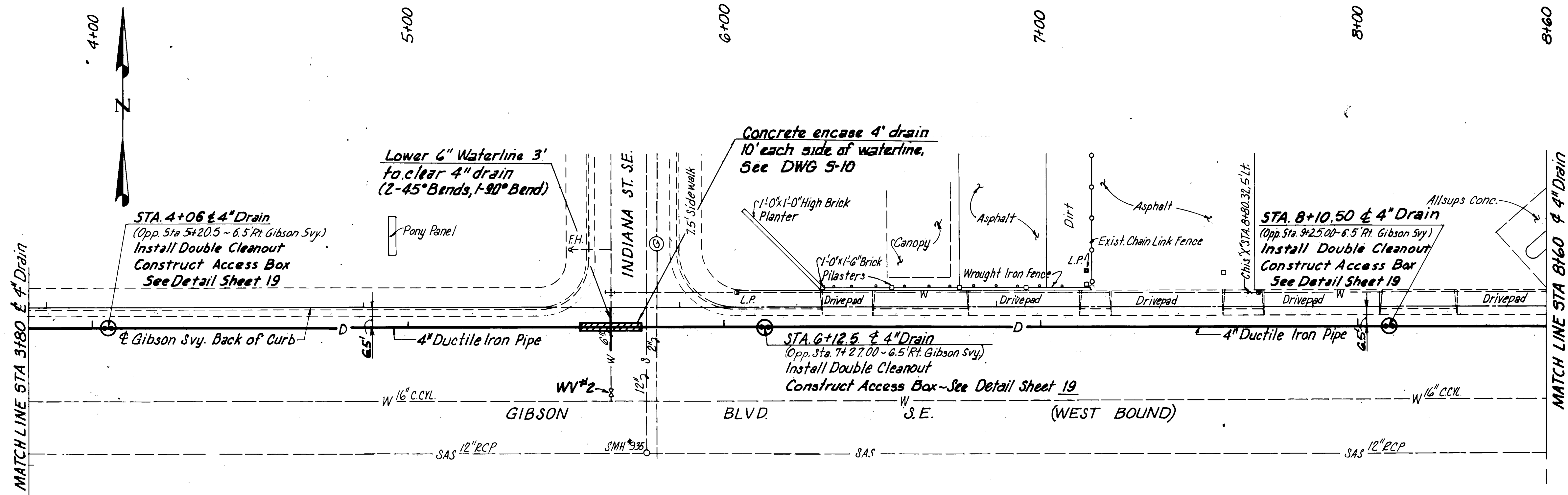


PLAN-SECTION



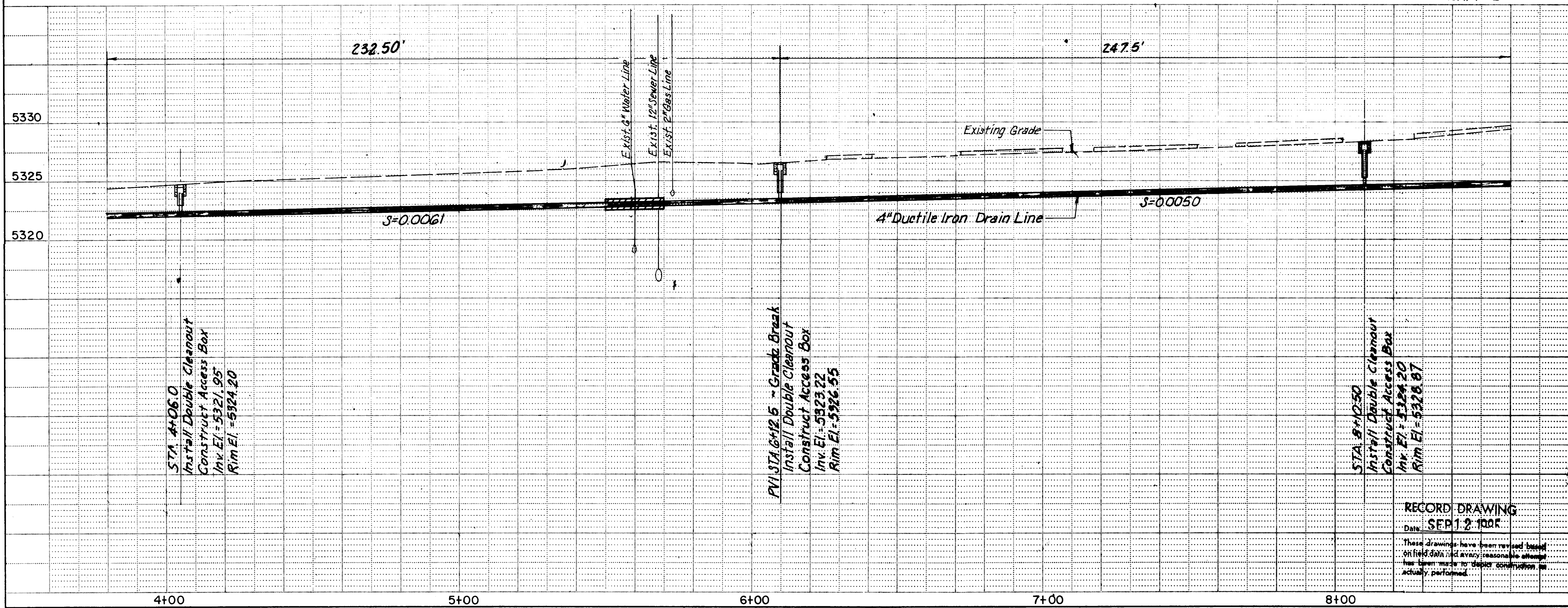
SECTION
 DETAIL - DRAIN THROUGH CURB

CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS PLAN AND PROFILE 4" DRAIN LINE					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>C. Williams</i>	8/1/84	Liquid Waste	<i>R. Pina</i>	8/1/84
A.C.E. - Design	<i>J. Williams</i>	5/1/84	Traffic	<i>N.B. Dwyer</i>	8/1/84
A.C.E. - Hydrology	<i>J. Williams</i>	8/1/84	Water	<i>R. Pina</i>	8/1/84
DRAWING NO. 1674 MAP NO. L-19, M-19 SHEET 4 OF 34					



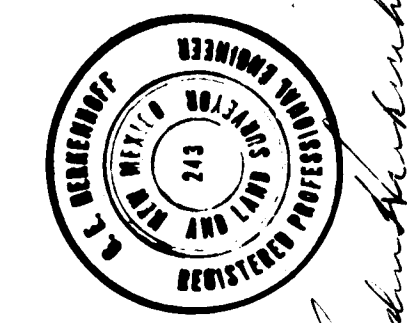
4" DRAIN LINE

SCALES
Horiz. 1"=20'
Vert. 1"=5'



- NOTES:
1. Pavement Replacement Section shall be Arterial Section per City Standard Drawing P-25-3.
 2. Contractor to field verify location of all utilities.
 3. Water Shut off for 16" CCP on Sheets 4, 5 & 6. Close Valves 1, 2, 3 & 4.

AS BUILT INFORMATION			BENCH MARKS			SURVEY INFORMATION			ENGINEER'S SEAL		
CONTRACTOR	DATE	NO.	5th St. 3 for Bench Mark Description	DATE	NO.	BY	DATE	NO.	DATE	REMARKS	BY
INSPECTOR'S	DATE	NO.		DATE	NO.		DATE	NO.	DATE	DESIGN	DATE
FIELD RANGE BY	DATE	NO.		DATE	NO.		DATE	NO.	DATE	DESIGNED BY F.C.L.	DATE
VERIFICATION BY	DATE	NO.		DATE	NO.		DATE	NO.	DATE	DRAWN BY G.C.	DATE
CORRECTED BY	DATE	NO.		DATE	NO.		DATE	NO.	DATE	CHECKED BY C.D.	DATE
MICRO-FILM INFORMATION	DATE	NO.		DATE	NO.		DATE	NO.	DATE		
RECORDED BY	DATE	NO.		DATE	NO.		DATE	NO.	DATE		



CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

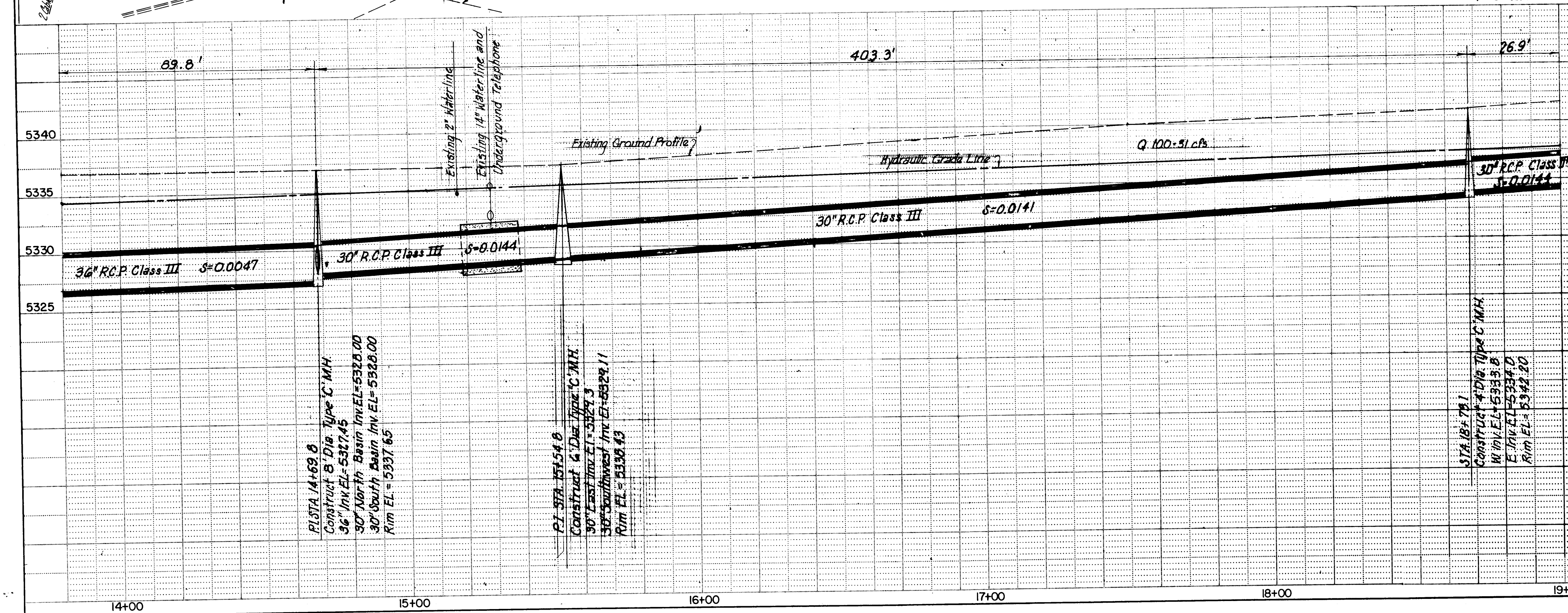
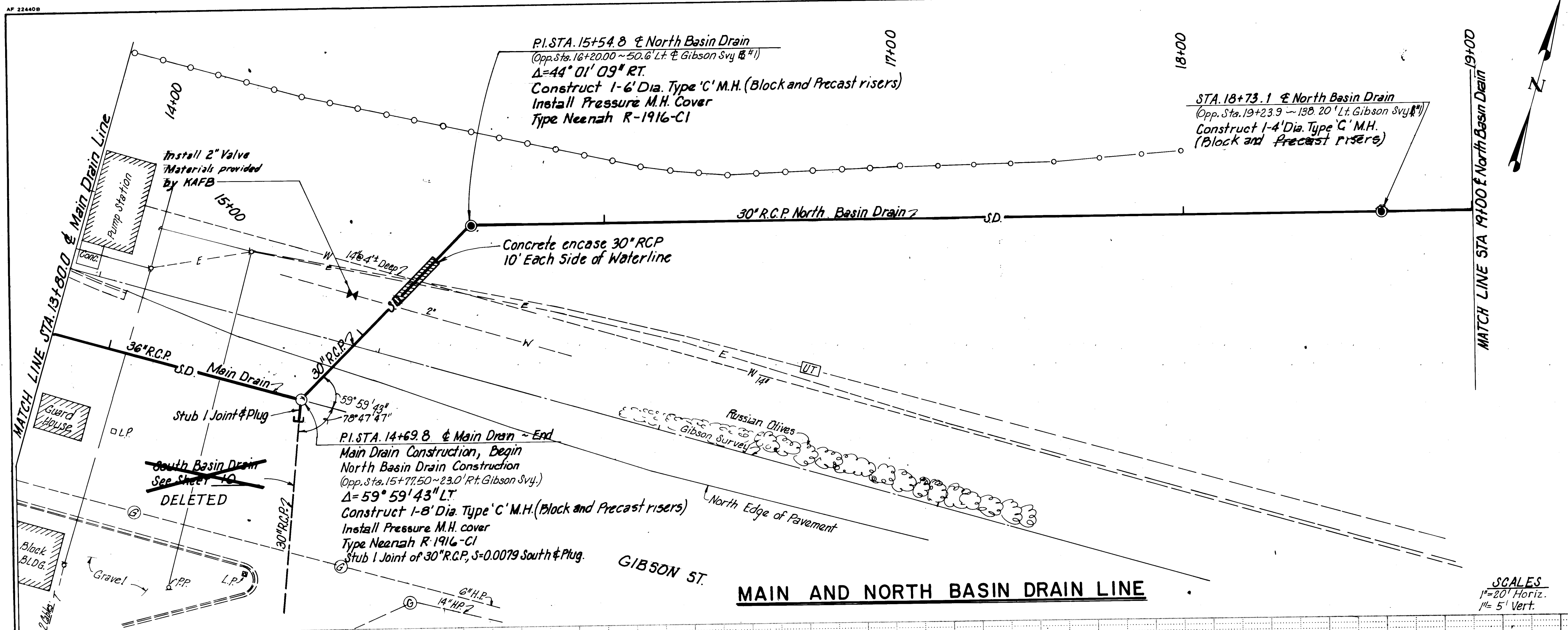
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS
PLAN AND PROFILE
4" DRAIN LINE

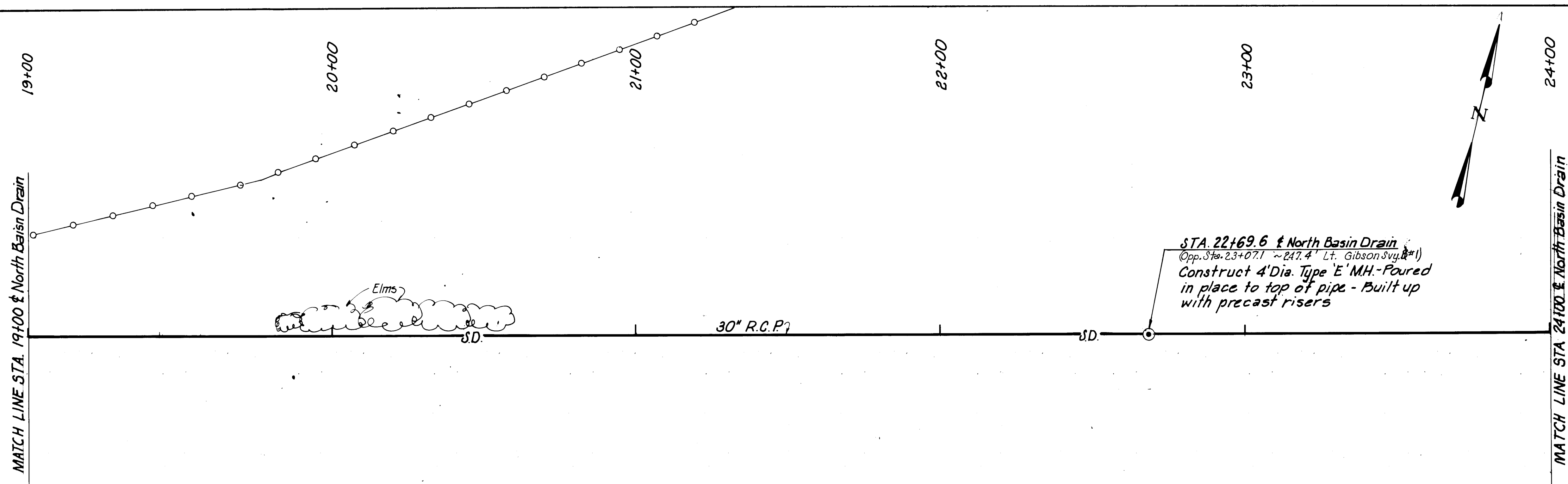
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	C. McQuinn	8/1/84	Liquid Waste	R. Pina	8/1/84
A.C.E. - Design	H. C. Lee	8/15/84	Traffic	N.A. Pina	8/10/84
A.C.E. - Hydrology	John Zink	8/1/84	Water	R. Pina	8/1/84

RECORD DRAWING
Date: SEP 12 1984

These drawings have been reviewed and found to be in accordance with the actual field data and every reasonable attempt has been made to depict construction as actually performed.

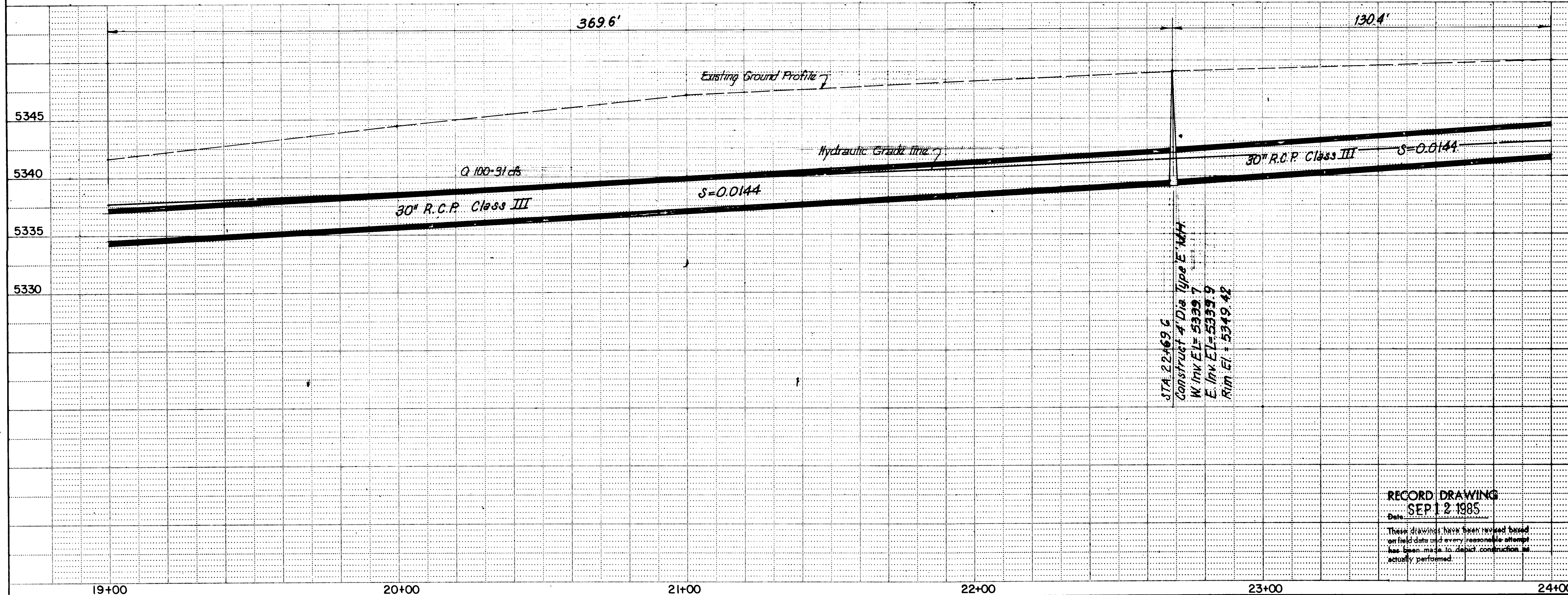
DRAWING NO. 1674 MAP NO. L-19, M-19 SHEET 5 OF 34





NORTH BASIN DRAIN LINE

SCALES:
1"=20' Horiz.
1"=5' Vert.



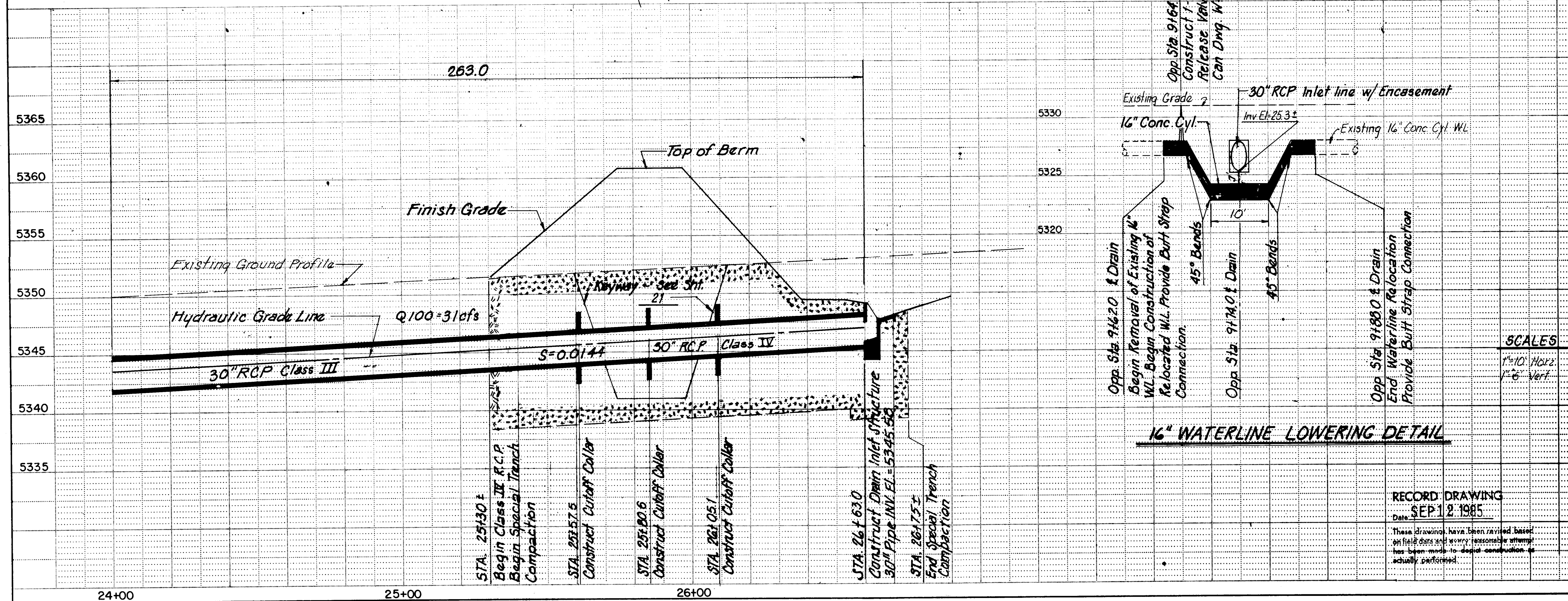
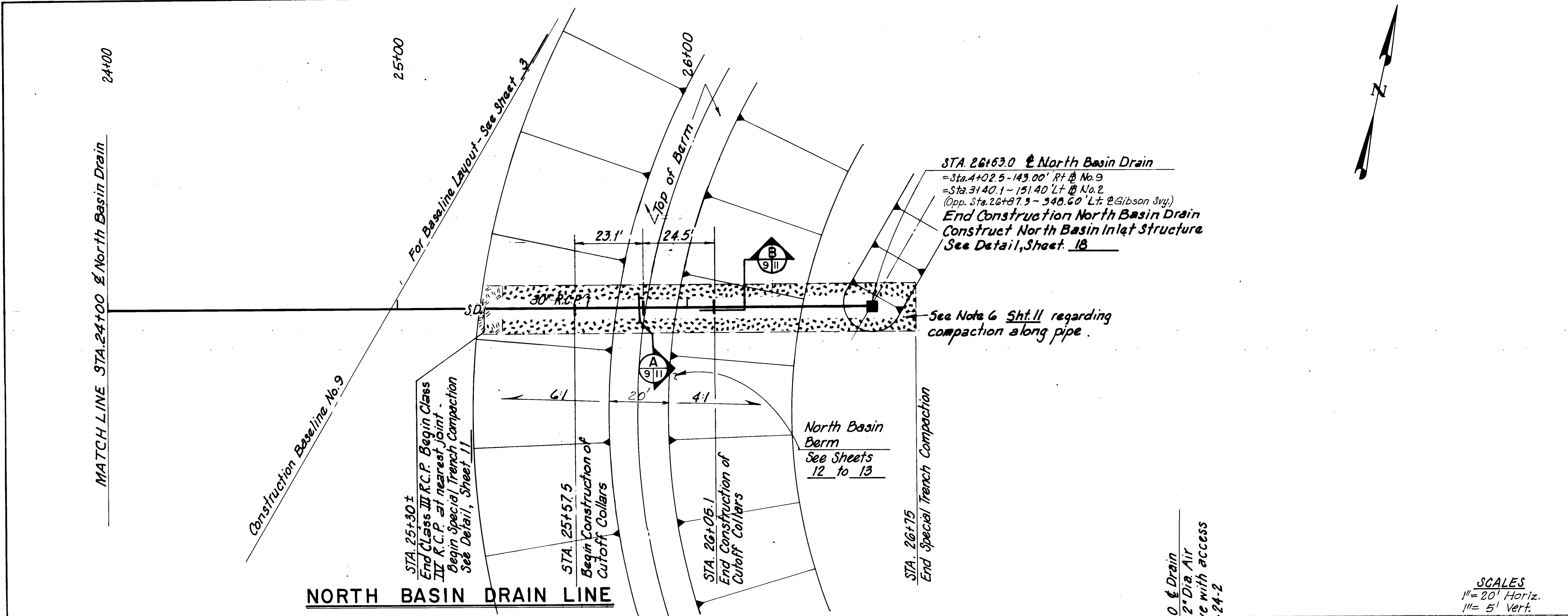
1 2 3 4 5 6 7 8 9 10 11 12
2 6 1 4 7 4 0 8 8 5

RECORD DRAWING
SEP 12 1985

These drawings have been reviewed based on field data and every reasonable attempt has been made to depict construction as actually performed.

CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS PLAN AND PROFILE NORTH BASIN DRAIN LINE					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>C. H. [Signature]</i>	8/1/84	Liquid Waste	<i>R. [Signature]</i>	8/1/84
A.C.E. - Design	<i>[Signature]</i>	8/1/84	Traffic	<i>NADAK</i>	8/1/84
A.C.E. - Hydrology	<i>[Signature]</i>	8/1/84	Water	<i>R. [Signature]</i>	8/1/84
DRAWING NO. 1674		MAP NO. L-19		SHEET 8 OF 34	

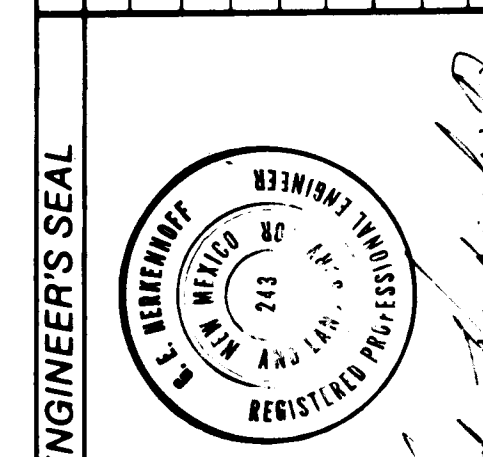
ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION	
		NO.	BY	DATE	CONTRACTOR	NO.	DATE
		REMARKS		DATE	NO.	DATE	
DESIGNED BY E.C.L.		REVISIONS		MICRO-FILM INFORMATION		NO.	
DRAWN BY G.C.		DATE		NO.		DATE	
CHECKED BY C.D.		DATE		NO.		DATE	



Notes:

1. Prior to fabrication of concrete cylinder pipe and connections to existing pipe, contractor shall field verify actual size, type, condition, location, and elevation of existing pipe. New pipe manufacturer shall manufacture complete connection to existing pipe.
2. All concrete cylinder pipe joints shall be joined by butt straps.
3. Backfill waterlines prior to pressurizing.
4. Cutoff collars can be circular or square.
5. Collars to be cast in place at mid-section of pipe joints. Adjust stationing if necessary.
6. All backfill adjacent to collars to be compacted to 95% Modified Proctor.
7. Collars will be placed in a vertical position.
8. Polyurethane Sealant will be two-component, non-sag type as specified in Section 103 of Technical Specifications.

CONTRACTOR		INSPECTOR		DATE	
NO.	BY	NO.	BY	DATE	DATE
SURVEY INFORMATION		FIELD NOTES		DATE	
NO.		BY		DATE	
BENCH MARKS		DATE		DATE	
NO.		BY		DATE	
AS BUILT INFORMATION		DATE		DATE	
NO.		BY		DATE	
MICRO-FILM INFORMATION		DATE		DATE	
NO.		BY		DATE	



REVISIONS		DATE	
NO.	DATE	REMARKS	BY
1	6/1/84	DESIGN	J. M. Harris
2	6/1/84	DESIGN	J. M. Harris
3	6/1/84	DESIGN	J. M. Harris
4	6/1/84	DESIGN	J. M. Harris
5	6/1/84	DESIGN	J. M. Harris
6	6/1/84	DESIGN	J. M. Harris
7	6/1/84	DESIGN	J. M. Harris
8	6/1/84	DESIGN	J. M. Harris
9	6/1/84	DESIGN	J. M. Harris
10	6/1/84	DESIGN	J. M. Harris
11	6/1/84	DESIGN	J. M. Harris
12	6/1/84	DESIGN	J. M. Harris

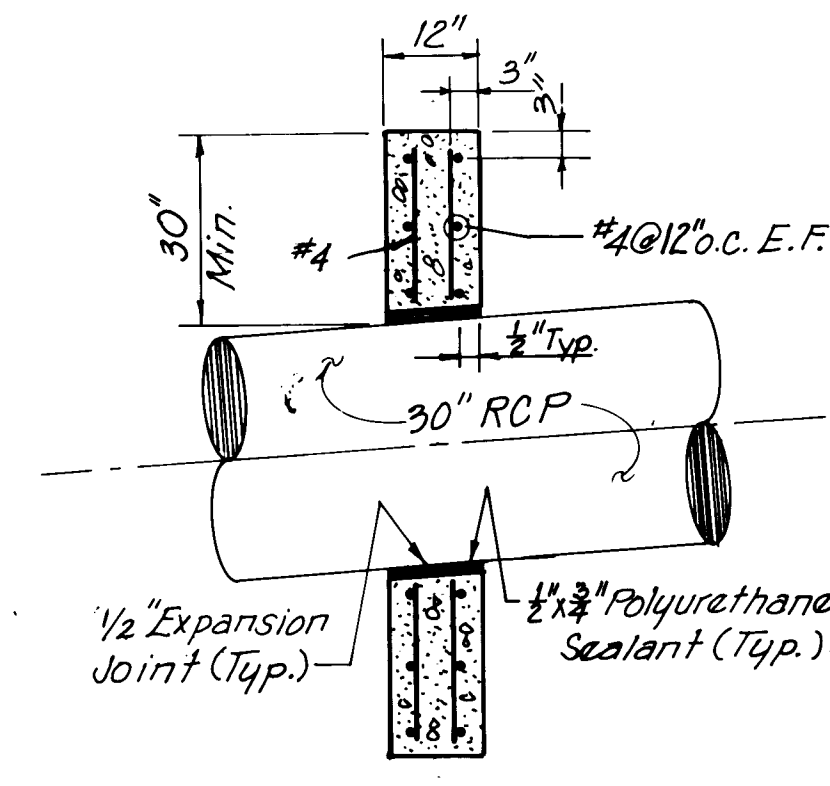
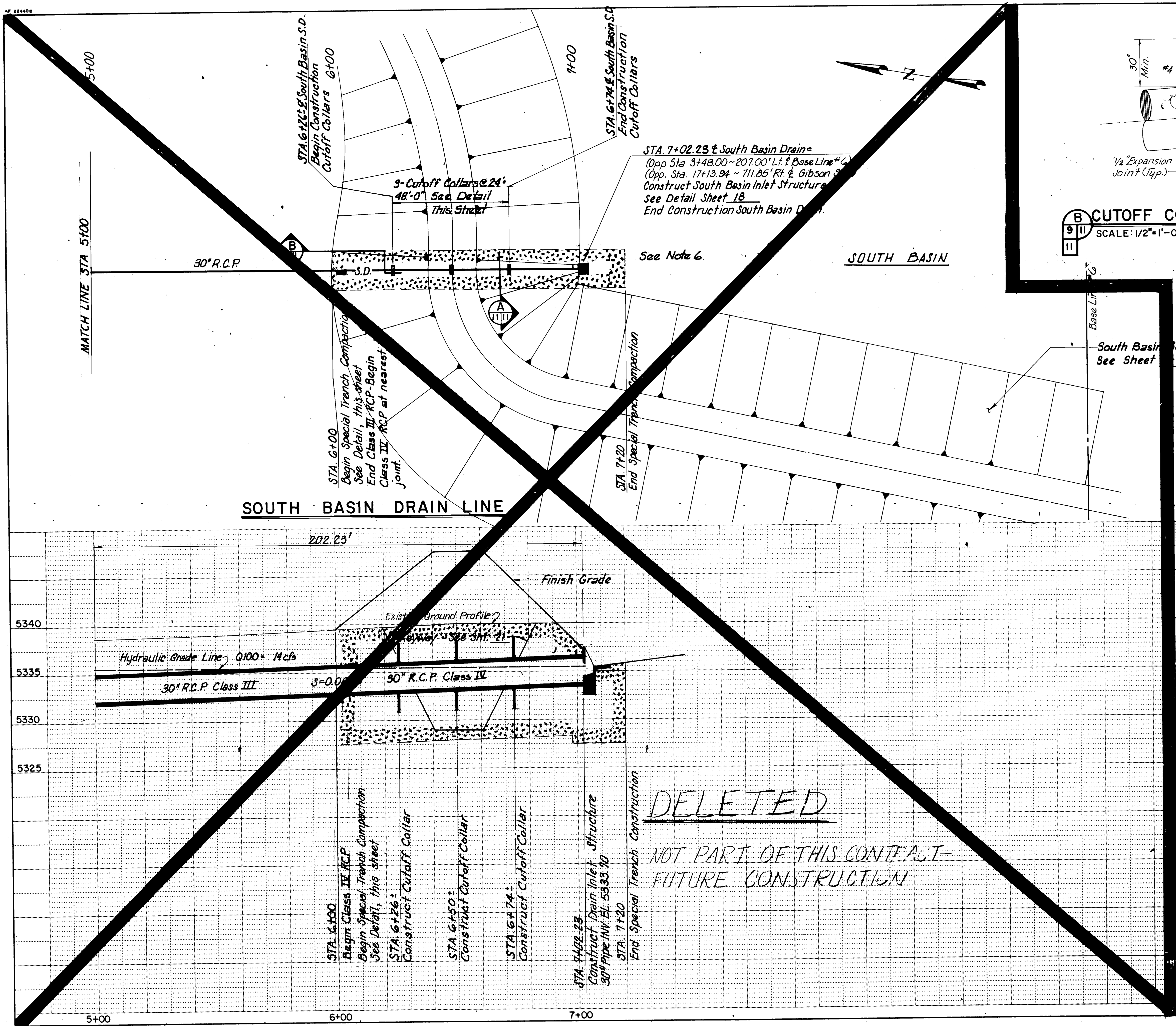
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS
PLAN AND PROFILE
NORTH BASIN DRAIN LINE

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	R. P. Pena	5/1/84	Liquid Waste	R. P. Pena	5/1/84
A.C.E. - Design	N. A. R. W. H.	5/1/84	Traffic	N. A. R. W. H.	5/1/84
A.C.E. - Hydrology	J. M. Harris	5/1/84	Water	R. P. Pena	5/1/84

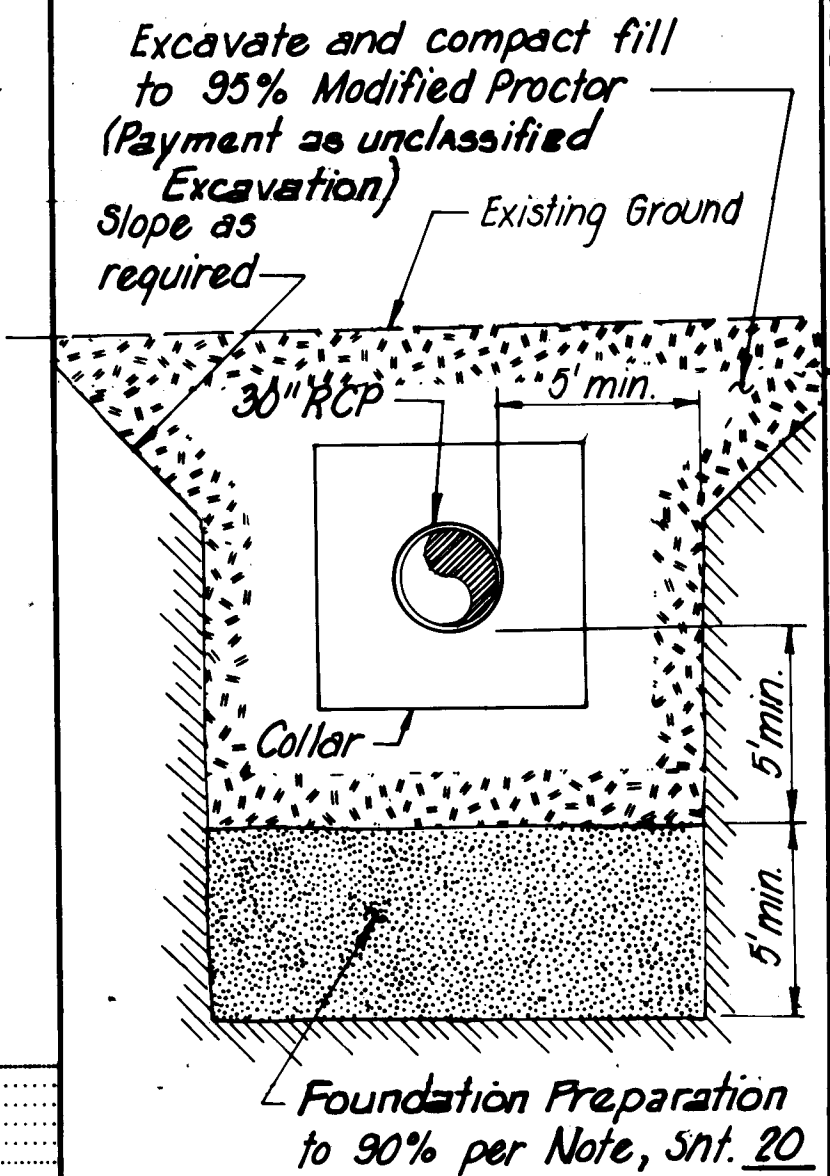
DRAWING NO. 1674 MAP NO. L-19 SHEET 9 OF 34

AP 22440B



B CUTOFF COLLAR DETAIL
SCALE: 1/2" = 1'-0"

- NOTES:**
- Collars can be Circular or Square
 - Collars to be Cast in Place at Mid-Section of Pipe Joints. Adjust Stationing if necessary.
 - All Backfill Adjacent to Collars to be Compacted to 95% Modified Proctor.
 - Collars will be placed in a Vertical Position.
 - Polyurethane Sealant shall be Two Component, Non-Sag Type as specified in Section 103. of Technical Specifications.
 - Fill and compaction operations above existing and newly installed lines must be performed with equipment and procedures which will not overload or otherwise damage the in-place pipes



A SPECIAL TRENCH COMPACTION DETAIL
SCALE: 1" = 5'-0"

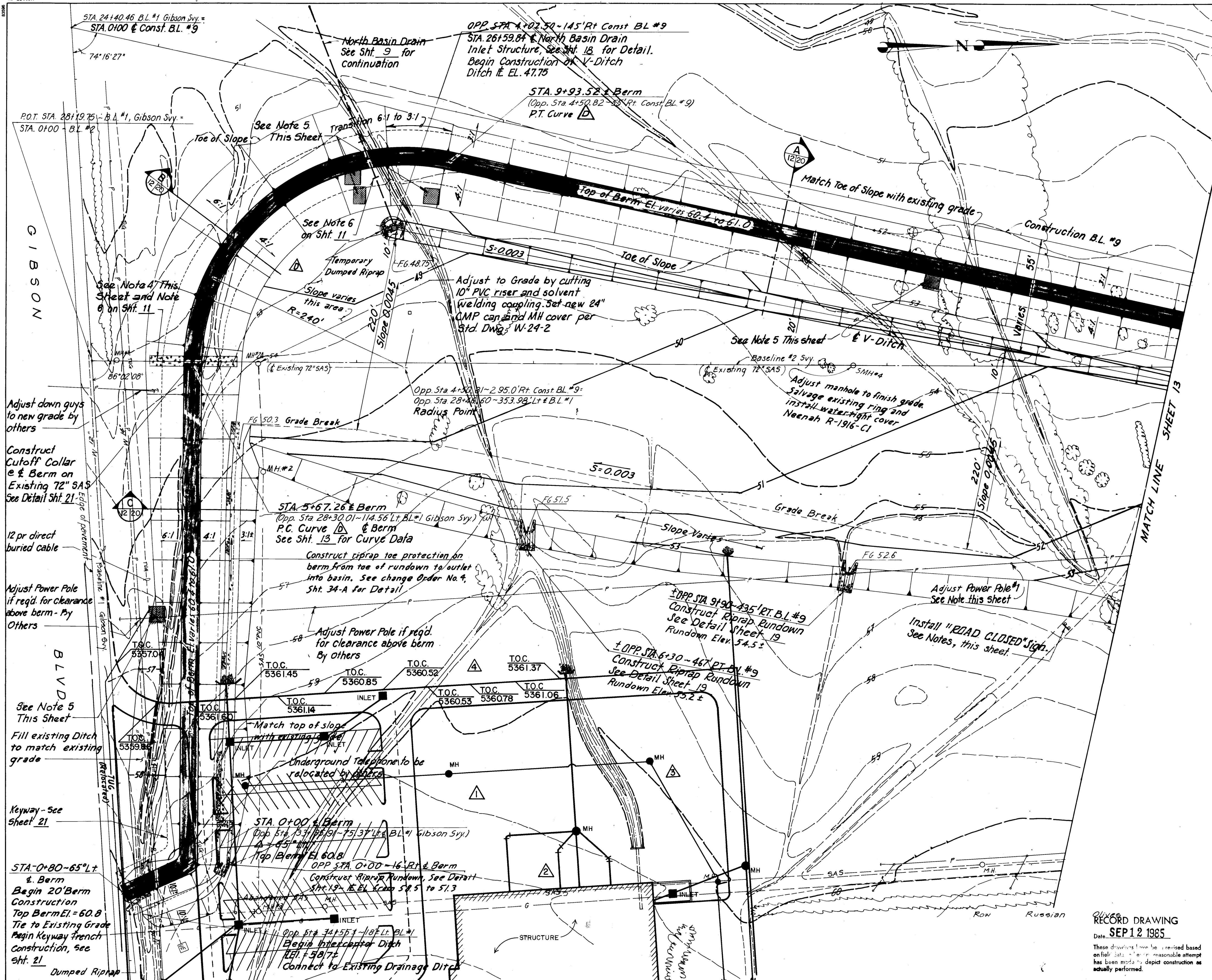
SCALES
1" = 20' Horiz.
1" = 5' Vert.

DELETED
NOT PART OF THIS CONTRACT
FUTURE CONSTRUCTION

RECORD DRAWING
Date: SEP 12 1985

These drawings have been revised based on field data and have been made to depict construction actually performed.

CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS PLAN AND PROFILE SOUTH BASIN DRAIN LINE					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	C. M. Thompson	8/1/84	Liquid Waste	R. Pina	8/1/84
A.C.E. - Design	J. Pina	8/1/84	Traffic	N. D. H.	8/1/84
A.C.E. - Hydrology	J. Pina	8/1/84	Water	R. Pina	8/1/84
DRAWING NO. 1674		MAP NO. M-19		SHEET 11 OF 34	



NOTES:

1. Contractor to Field Verify Location of All Utilities.
2. ROAD CLOSED Sign to be Standard R11-2 Mounted on Type III Barricade, as specified in Standard Drawing.
3. See Sheet 23 for Land-scaping Details.
4. Expose existing 72" SAs to spring-line 50' each side of E of Barrm and a minimum of 5' beyond edge of Pipe. Back fill at 95 %.
5. Prairie dog colony burrows under embankment or fill shall be excavated 5' deep minimum below existing ground or to depth of deepest burrow, whichever is greater, and to a minimum width of 5' beyond the colony boundaries. Foundation preparation shall be in accordance with note 1 on sheet 20, and backfilled to 95% Locations and number shown are approximate, and will be determined by field conditions and by the engineer. Payment as specified in Bid Proposal.
6. Indicated Power Lines to be Transferred to new poles and cross arms. New Poles will be set by KAFB along existing alignment, 4'10" from existing poles and will set down guy anchors. Contractor to mount Crossarms on new poles, including all connective hardware, and down guy cables. Contractor to Transfer existing conductor to new cross arms and poles, and salvage old Poles and Hardware to KAFB. All work to be in accordance with KAFB specifications and coordinated w/ KAFB Electrical Dept.

M.H. #1
 Rim *El.* = 5352.72
 10" N.E. Inv. *El.* = 5342.01
 72" Inv. *El.* = 5333.51

M.H. #2
 Rim *El.* = 5355.33
 10" Inv. *El.* = 5343.96

M.H. #3
 Rim *El.* = 5362.33
 10" Inv. *El.* = 5349.09

M.H. #4
 Rim *El.* = 5353.1
 72" Inv. *El.* = 5333.97

1 2 3 4 5 6 7 8 9 10 11 12

2	6	1	6	7	4	1	2	8	5		
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Scale: 1" = 50'

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS
NORTH BASIN LAYOUT & GRADING PLAN

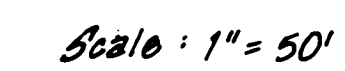
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>E. J. Thompson</i>	8/1/84	Liquid Waste	<i>R. J. Faria</i>	8/1/84
A.C.E.-Design	<i>W. J. Faria</i>	8/1/84	Traffic	<i>NA DWH</i>	8/1/84
A.C.E.-Hydrology	<i>W. J. Faria</i>	8/1/84	Water	<i>R. J. Faria</i>	8/1/84

DRAWING NO.	1674	MAP NO.	L-19	SHEET	12	OF	34
-------------	------	---------	------	-------	----	----	----

Olives
RECORD DRAWING

Date **SEP 12 1985**

These drawings have been revised based on field data. Every reasonable attempt has been made to depict construction as actually performed.



Existing Sanitary Sewer Manhole #5
Exist. Rim El. = 5353.8
Exist. 72" Inv. El. = 5334.43

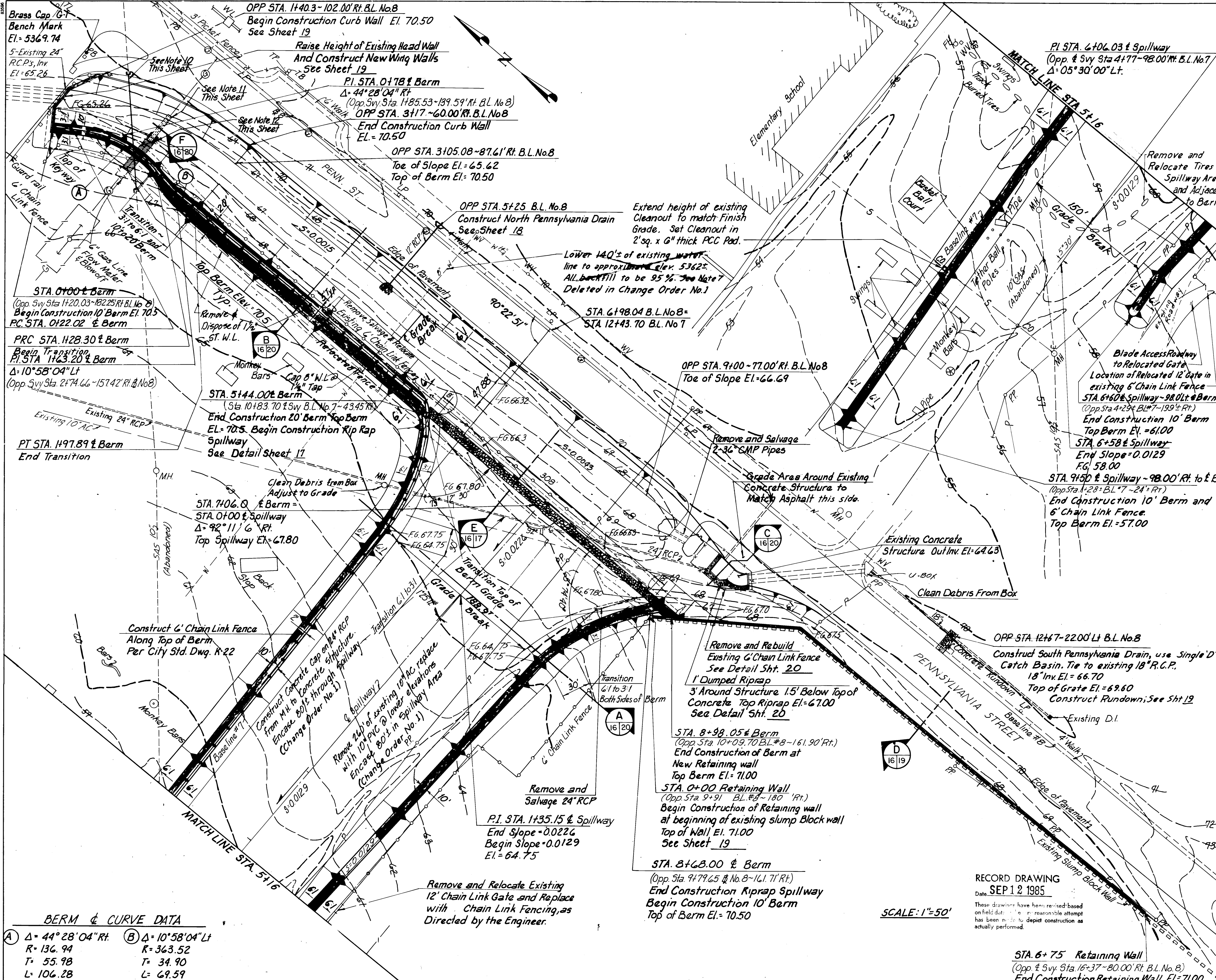
Scale: 1" = 50'

DRAWING NO.	1674	MAP NO.	L-19	SHEET	13	OF	34
----------------	------	---------	------	-------	----	----	----

ENGINEER'S SEAL		SURVEY INFORMATION		BENCH MARKS	AS BUILT INFORMATION
		FIELD NOTES			
		NO.	BY DATE		
				See Sheet 3 for Bench Mark Description	
					CONTRACTOR
					WORK STORED BY DATE
					INSPECTORS FIELD FRANK BY DATE
					VERIFICATION BY DATE
					CORRECTIONS BY DATE
					MICRO-FILM INFORMATION
					RECORDED BY DATE
					NO

Raymond J. Korman

DESIGN	
DESIGNED BY ECL	DATE July 1984
DRAWN BY D.C. # K.C.W.	DATE July 1984
CHECKED BY CD	DATE July 1984



Notes:

- All 6' Chain Link Fencing Removed Shall be Salvaged and reused.
- All Slopes are 6:1 except as shown.
- Existing Playground Equipment in Spillway to be relocated by Contractor, as directed by the Engineer. The Equipment Support Footings will be equal to existing.
- See Sheet 3 for Base Line Layout.
- Contractor to field verify location of all utilities.
- Power Poles and Downguys adjacent to Wall along Pennsylvania may be relocated. Support lines on temporary supports. Contact KAFB Electrical Dept.
- Refer to Note 6, Sheet 12 for Prairie Dog Colony backfill.
- See Note 6 on Sheet 11 for compaction over existing utilities. Contact Gas Co. of New Mexico prior to excavation or fill at gas line crossing at STA. 1+00±.
- 8" Waterline serves Whelp Elementary School. Shutoff must be coordinated with school in addition to KAFB.
- Remove abandoned 10" SAS in construction zone. Plug remaining pipe. Compact trench to 95%. (Unable to locate at time of construction).
- Construct Concrete Cap over existing 12" H.P. Gas Line, to extend Cap 8' beyond inside toe of Basin, each side. See Detail, Sheet 20.
- Compact Fill around existing 12" H.P. Gas Line to 95%, 5' each side of pipe, to a minimum of 30" above top of pipe. Use hand equipment. Support pipe during construction. Coordinate work with Gas Company of New Mexico.
- Change Order #1

ENGINEER'S SEAL

REGISTERED PROFESSIONAL ENGINEER
STATE OF NEW MEXICO
No. 16177
Exp. 12/31/94

REVISIONS

NO.	DATE	REMARKS
1	6-84	DESIGN
2	6-84	DESIGN
3	6-84	DESIGN

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS
PENNSYLVANIA BASIN LAYOUT

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>[Signature]</i>	8/1/84	Liquid Waste	<i>[Signature]</i>	8/1/84
A.C.E. - Design	<i>[Signature]</i>	8/1/84	Traffic	<i>[Signature]</i>	8/1/84
A.C.E. - Hydrology	<i>[Signature]</i>	8/1/84	Water	<i>[Signature]</i>	8/1/84

DRAWING NO. **1674** MAP NO. **M-19** SHEET **16** OF **34**

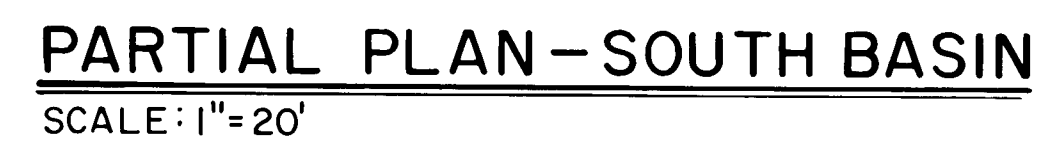
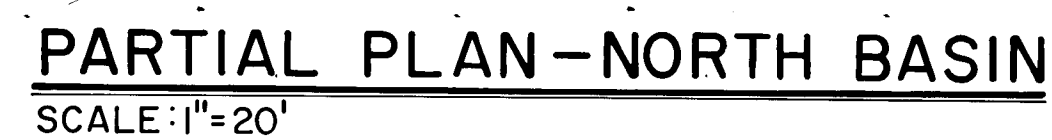
BERM & CURVE DATA

① Δ= 44° 28' 04" Rt. R= 136.94 T= 55.98 L= 106.28	② Δ= 10° 58' 04" Lt. R= 363.52 T= 34.90 L= 69.59
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SCALE: 1"=50'

RECORD DRAWING
Date: SEP 12 1985
These drawings have been revised based on field data. A reasonable attempt has been made to depict construction as actually performed.

STA. 6+75 Retaining Wall
(Opp. & Svy Sta. 16+37-80.00 Rt. B.L. No. 8)
End Construction Retaining Wall El.=71.00



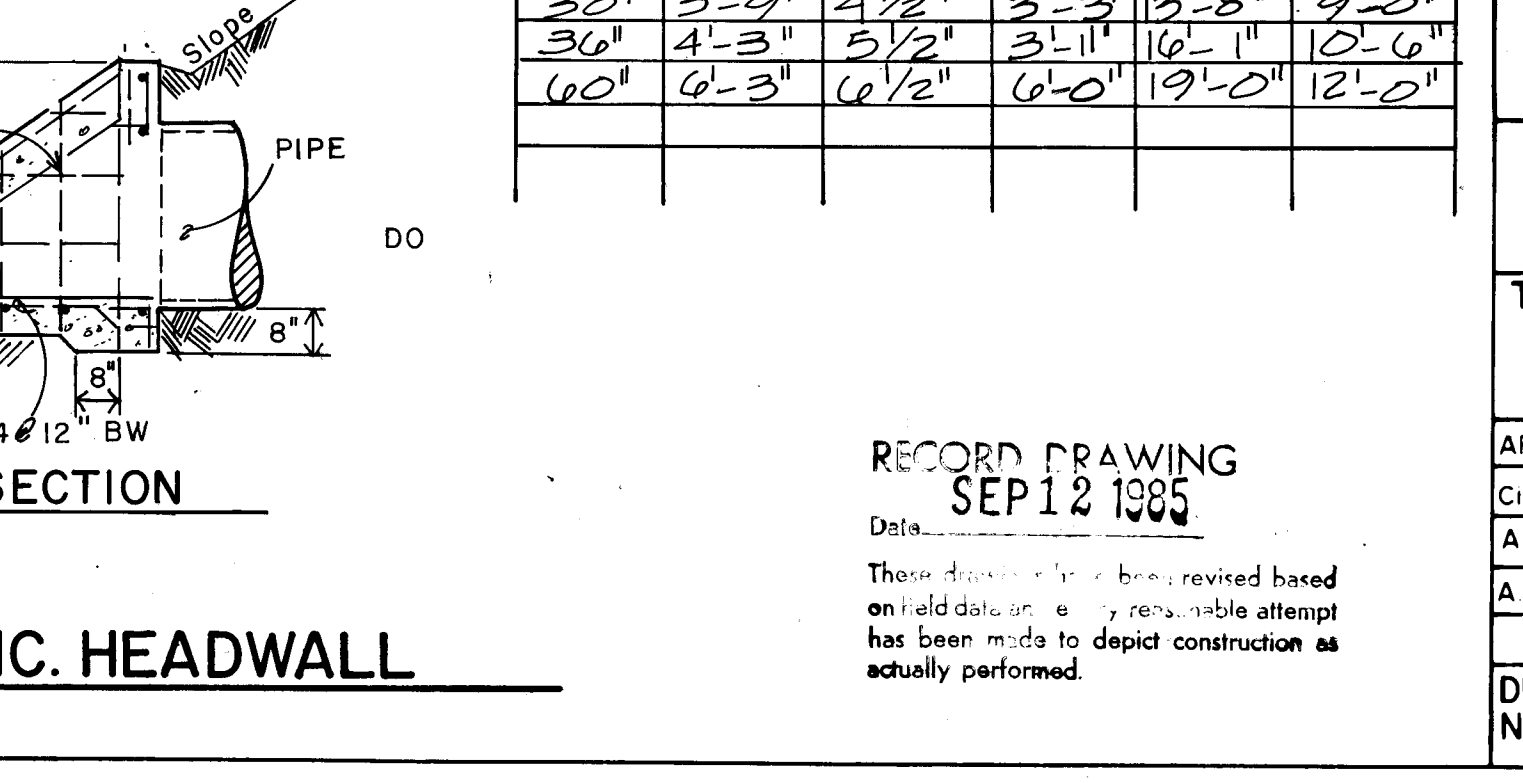
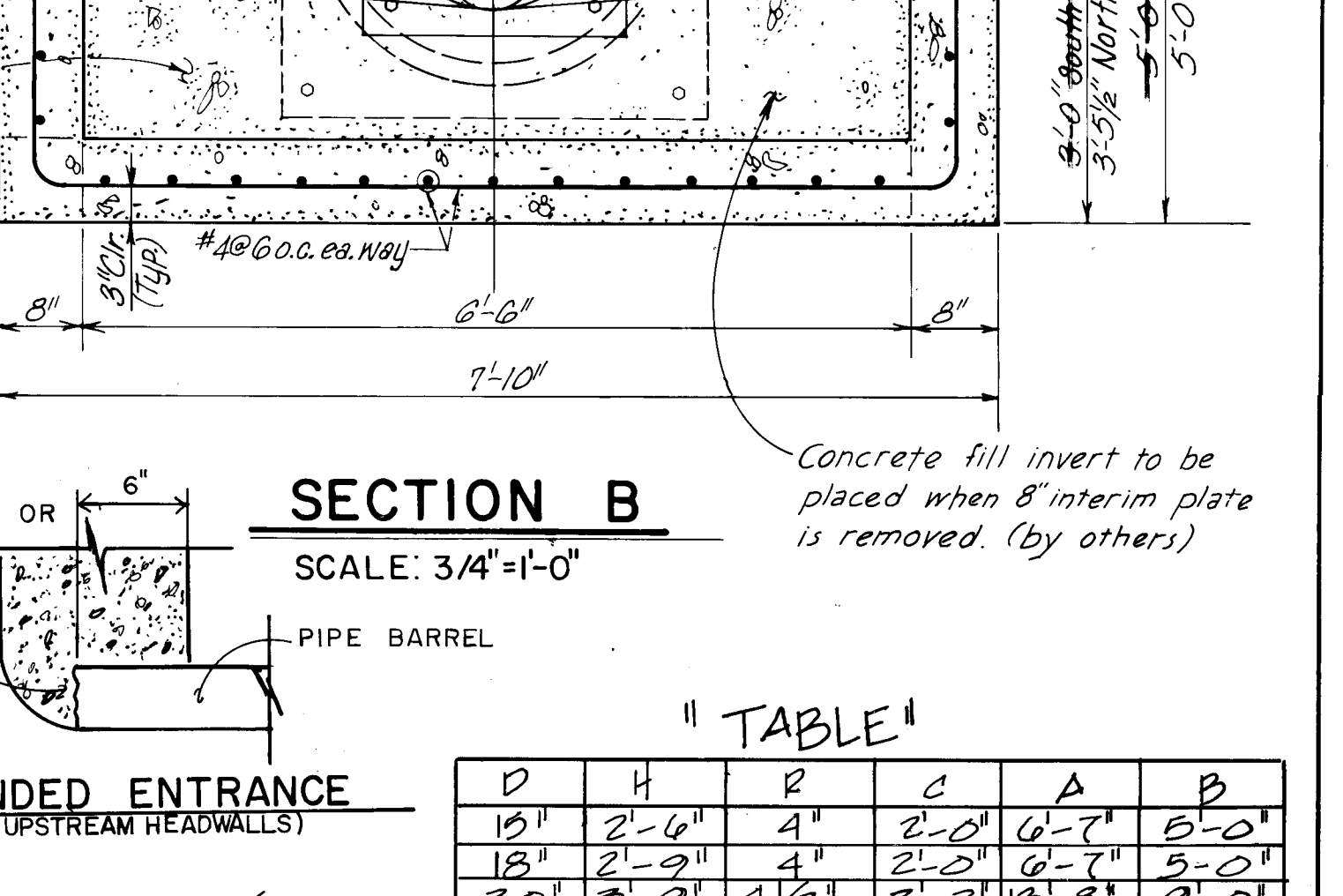
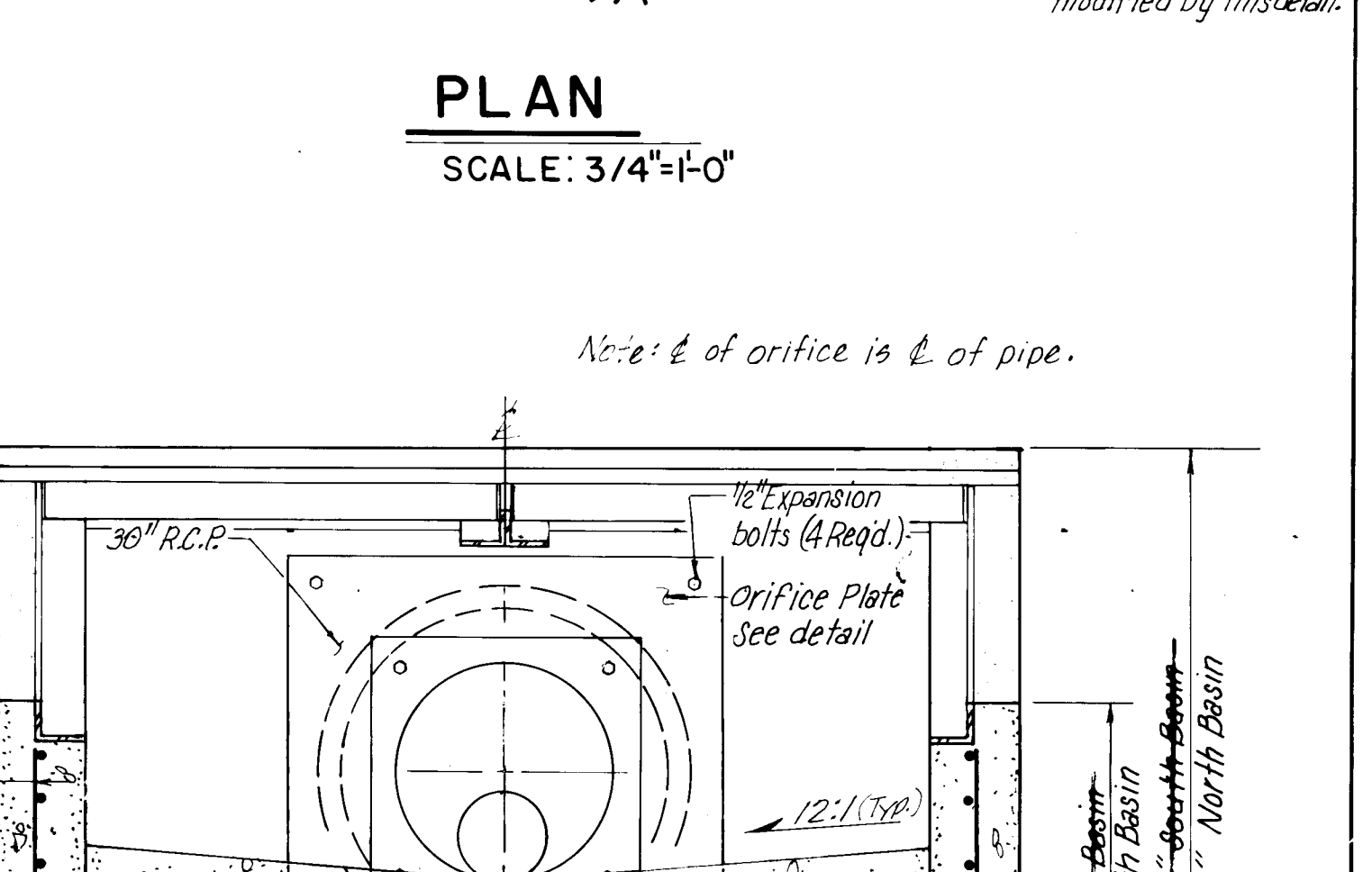
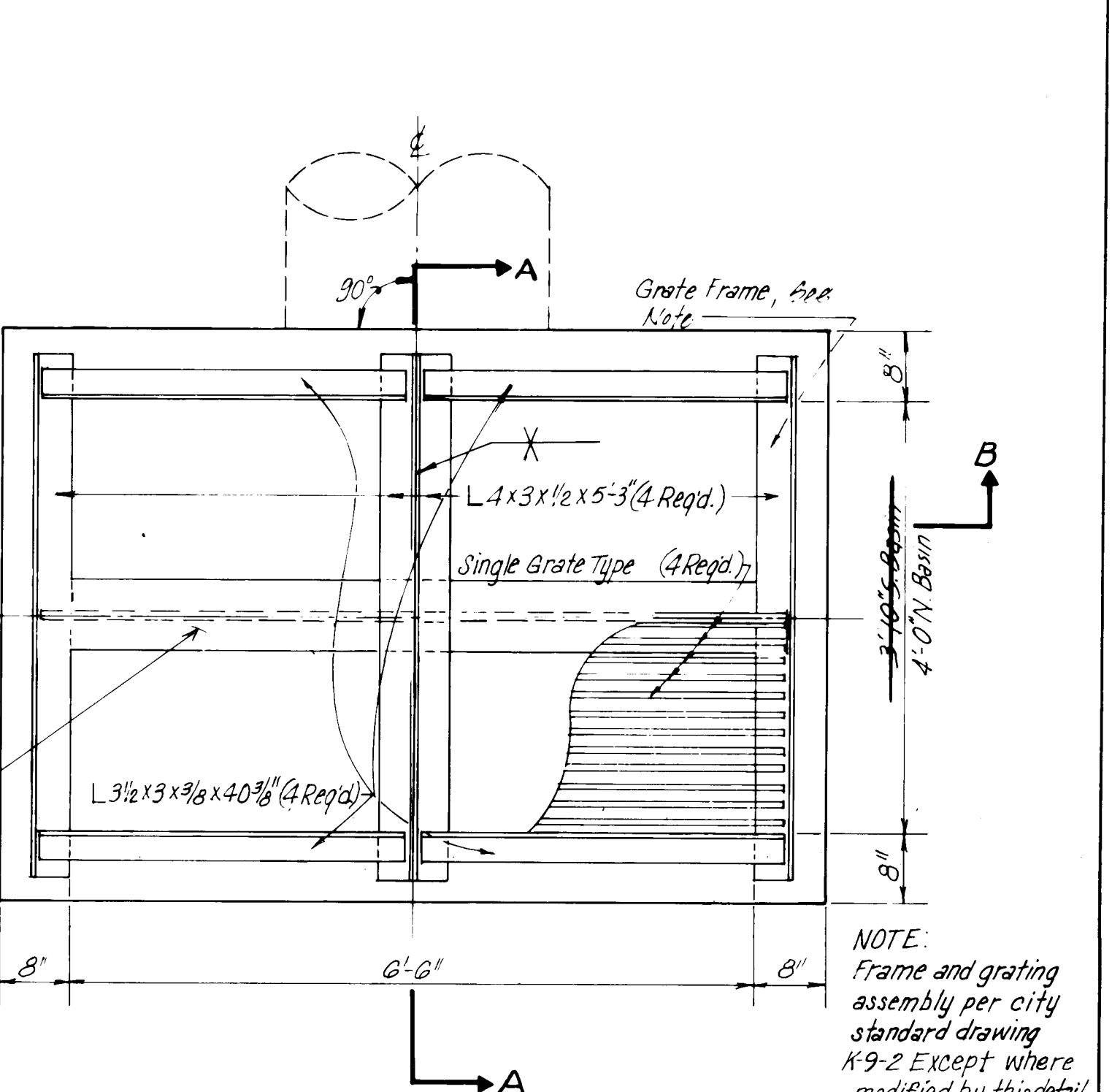
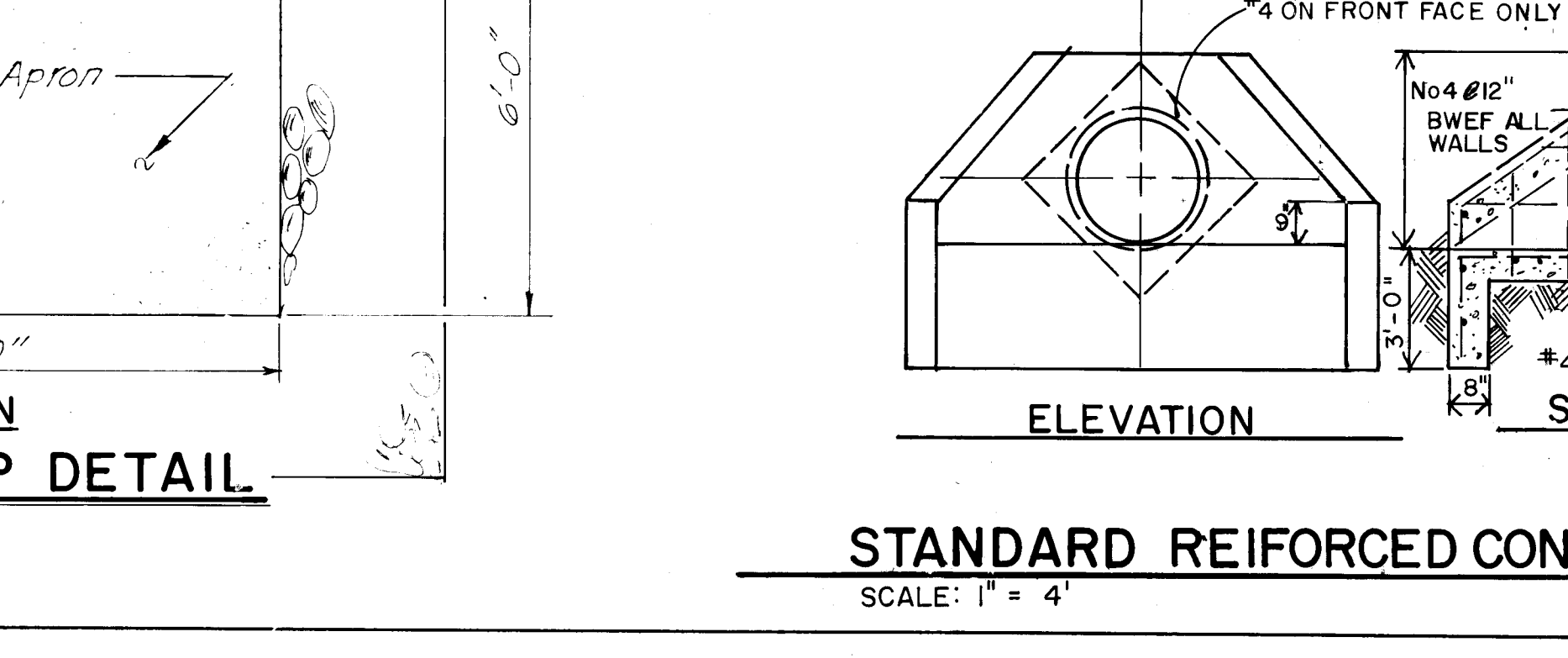
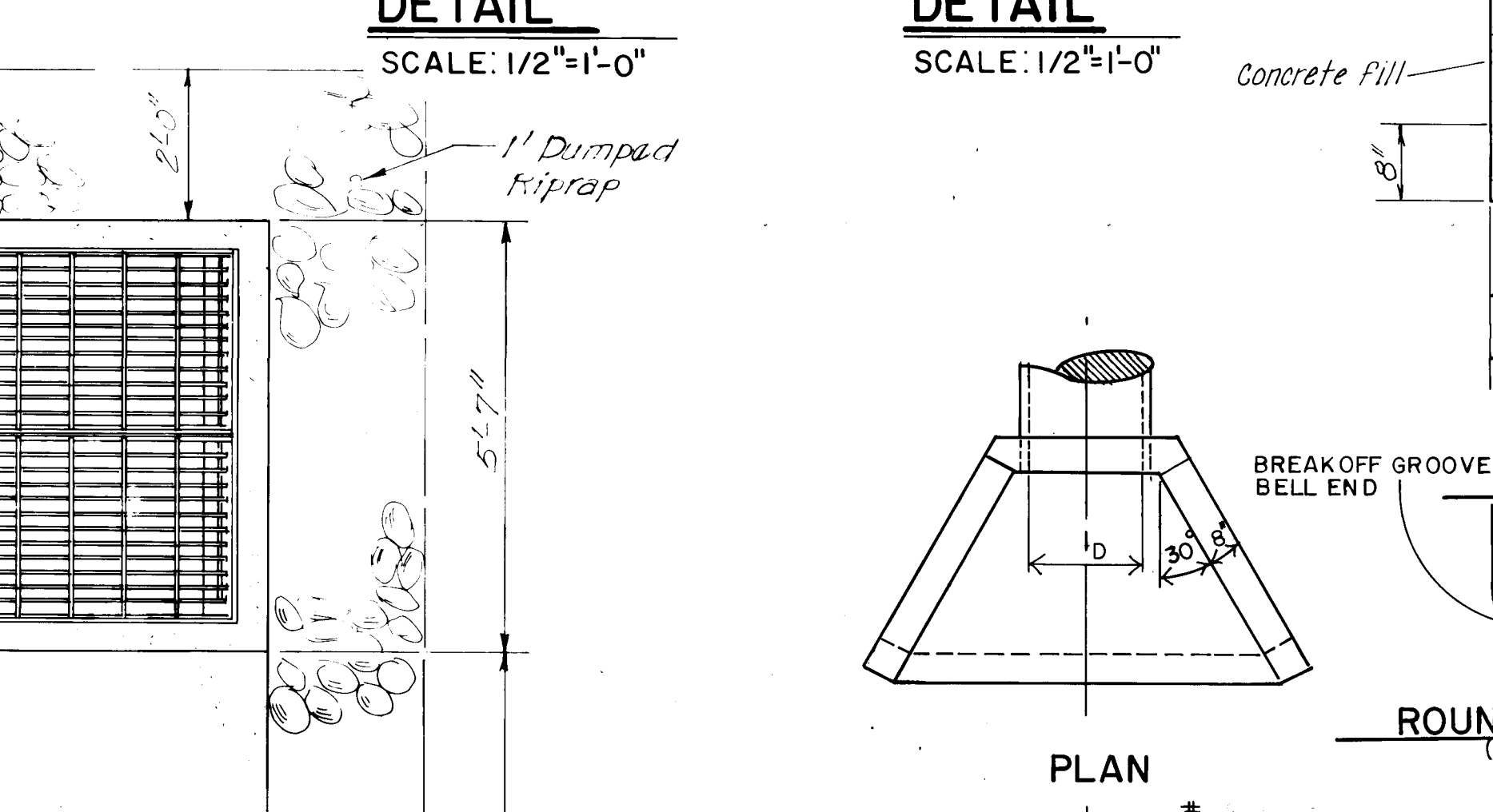
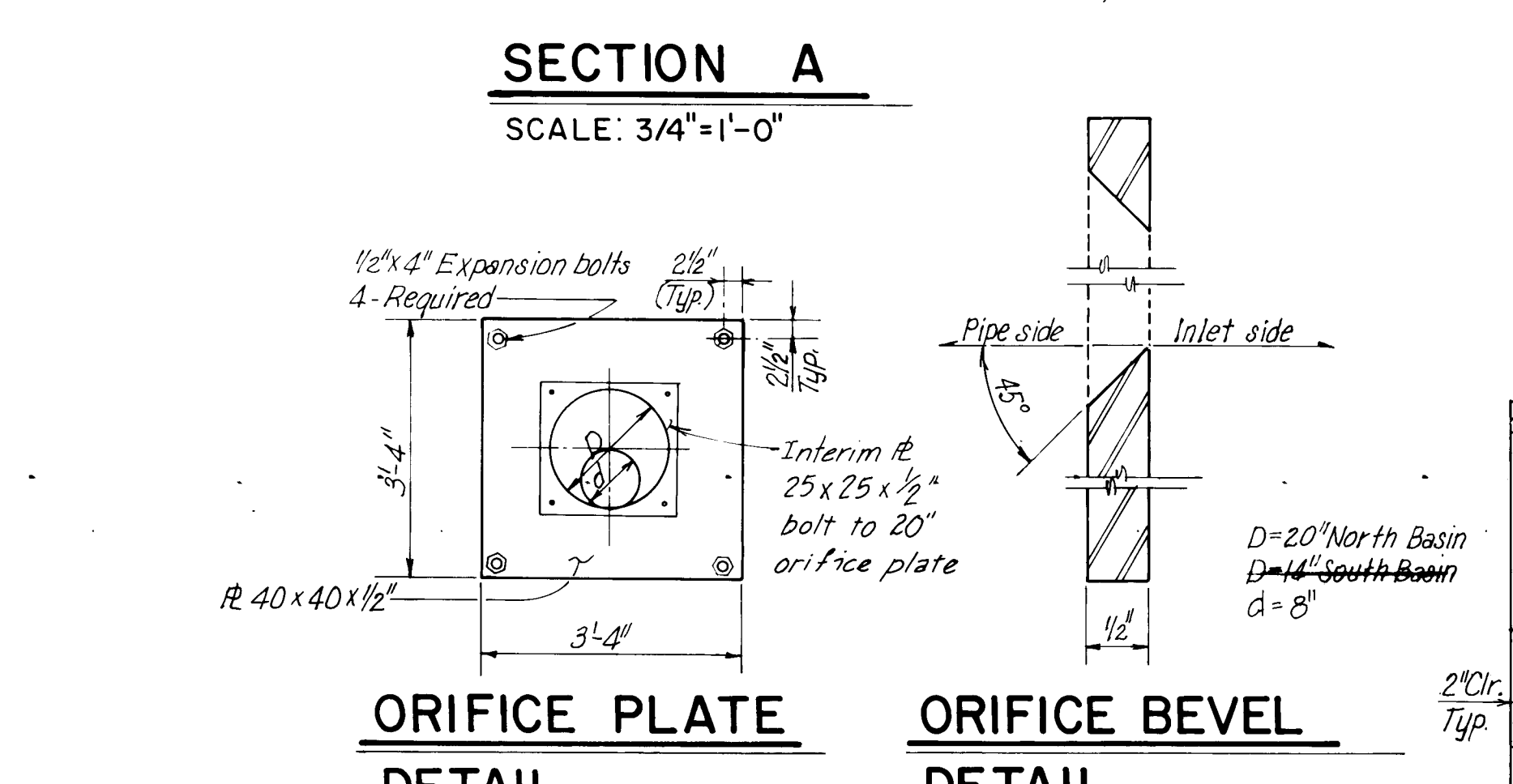
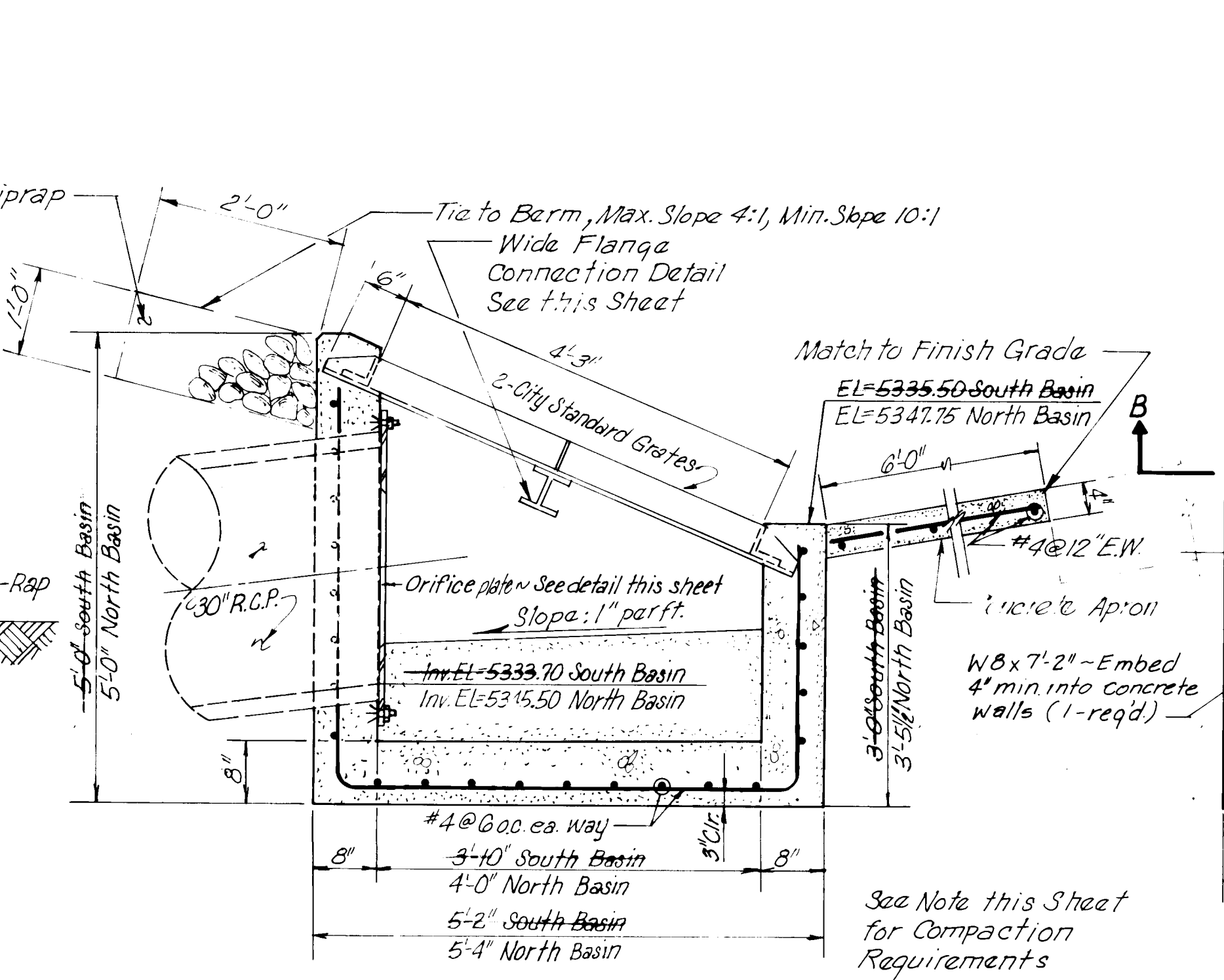
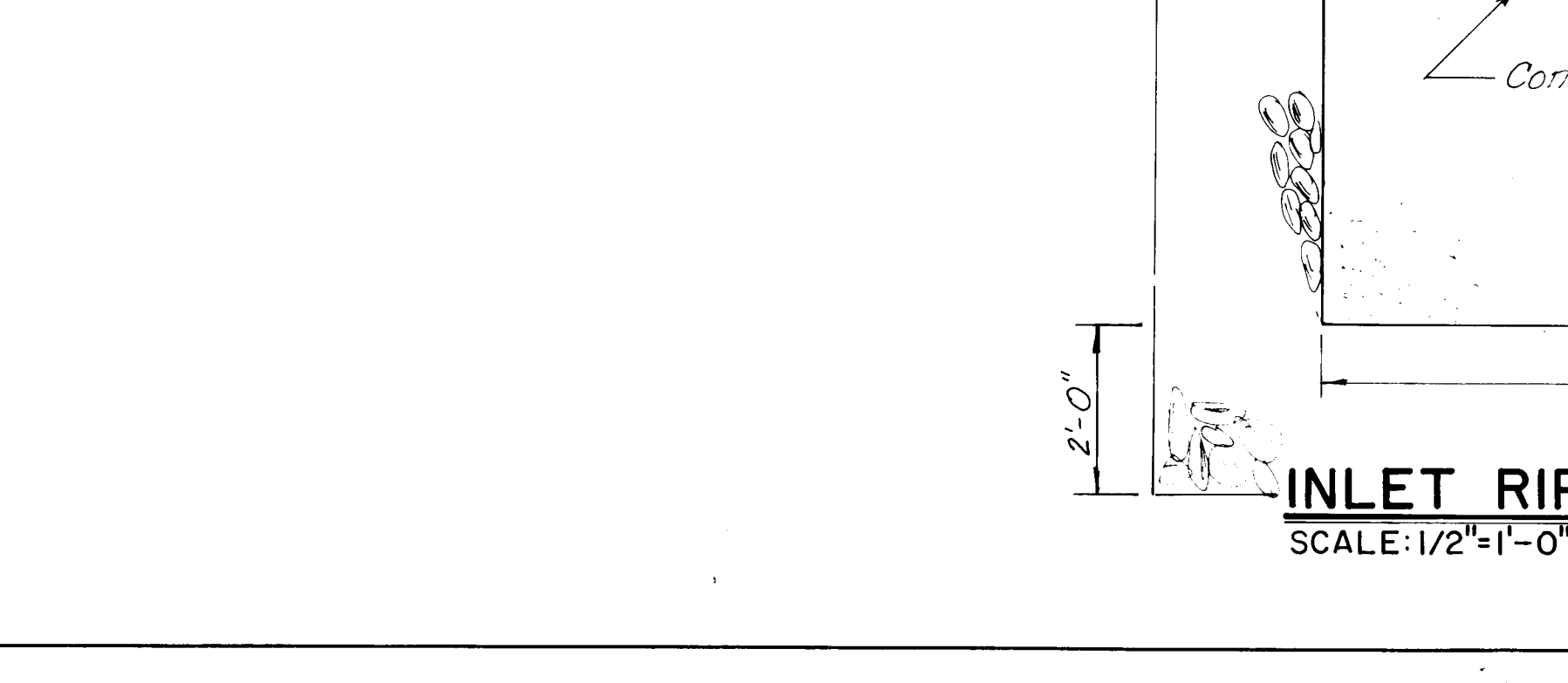
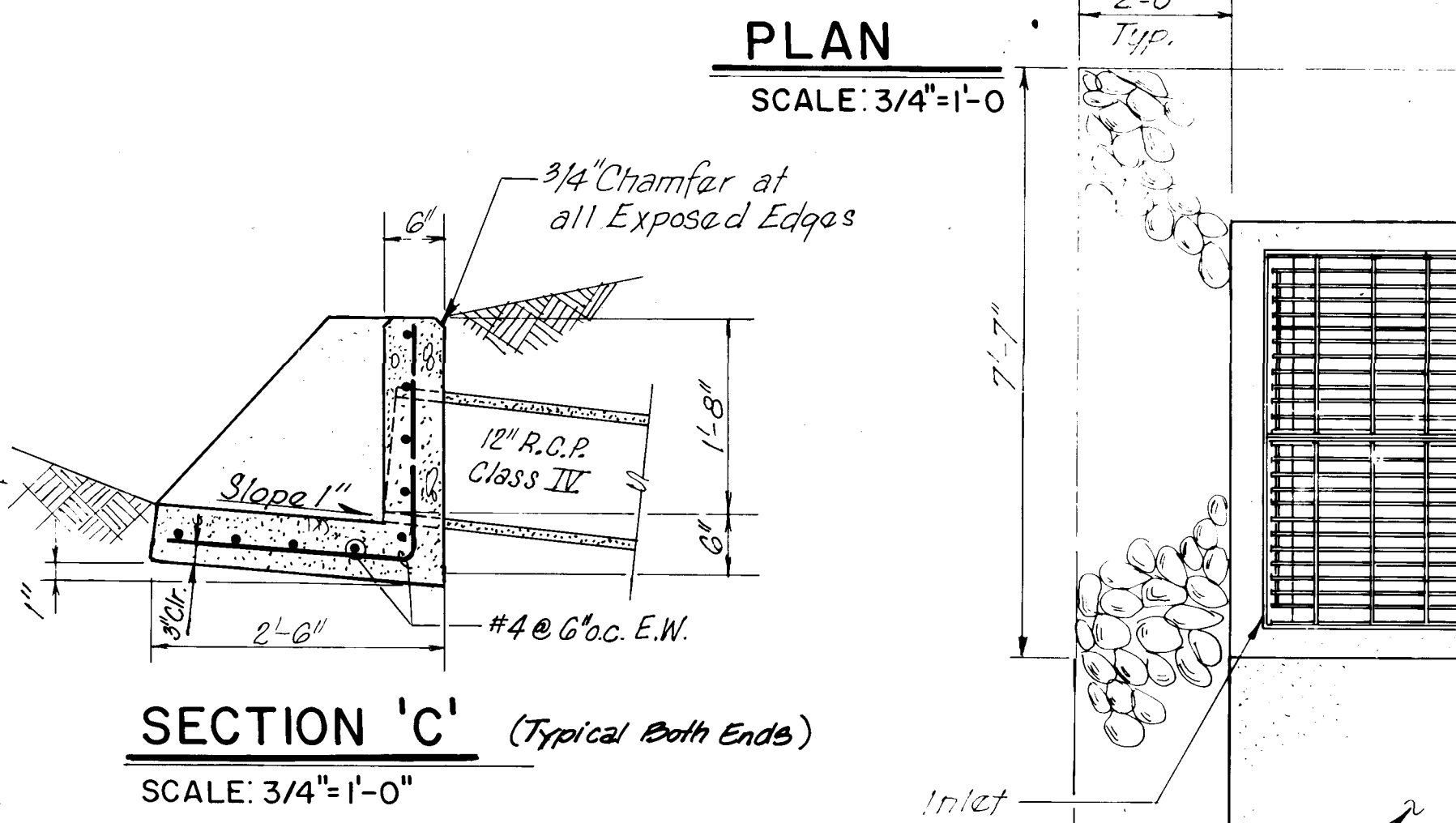
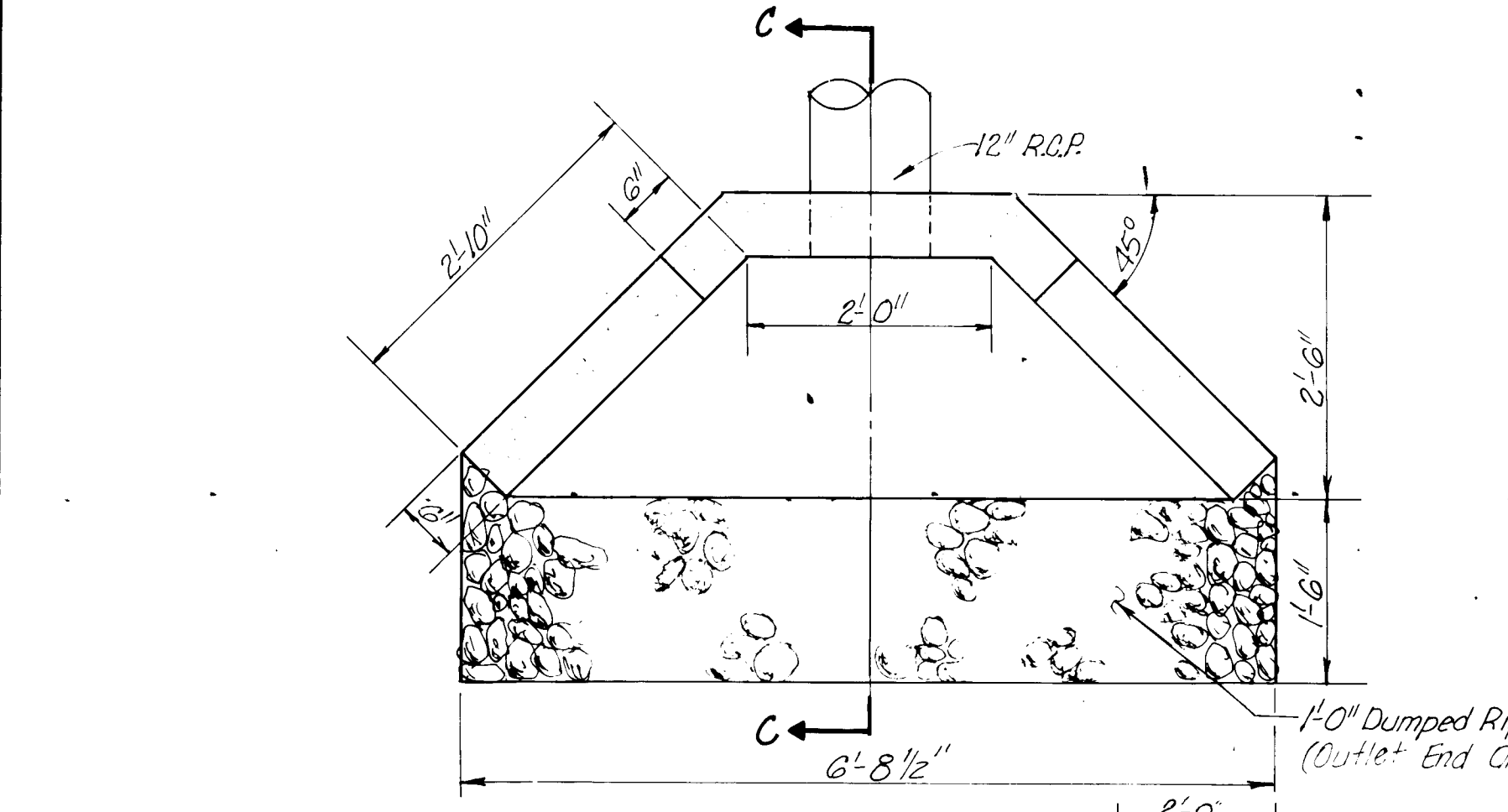
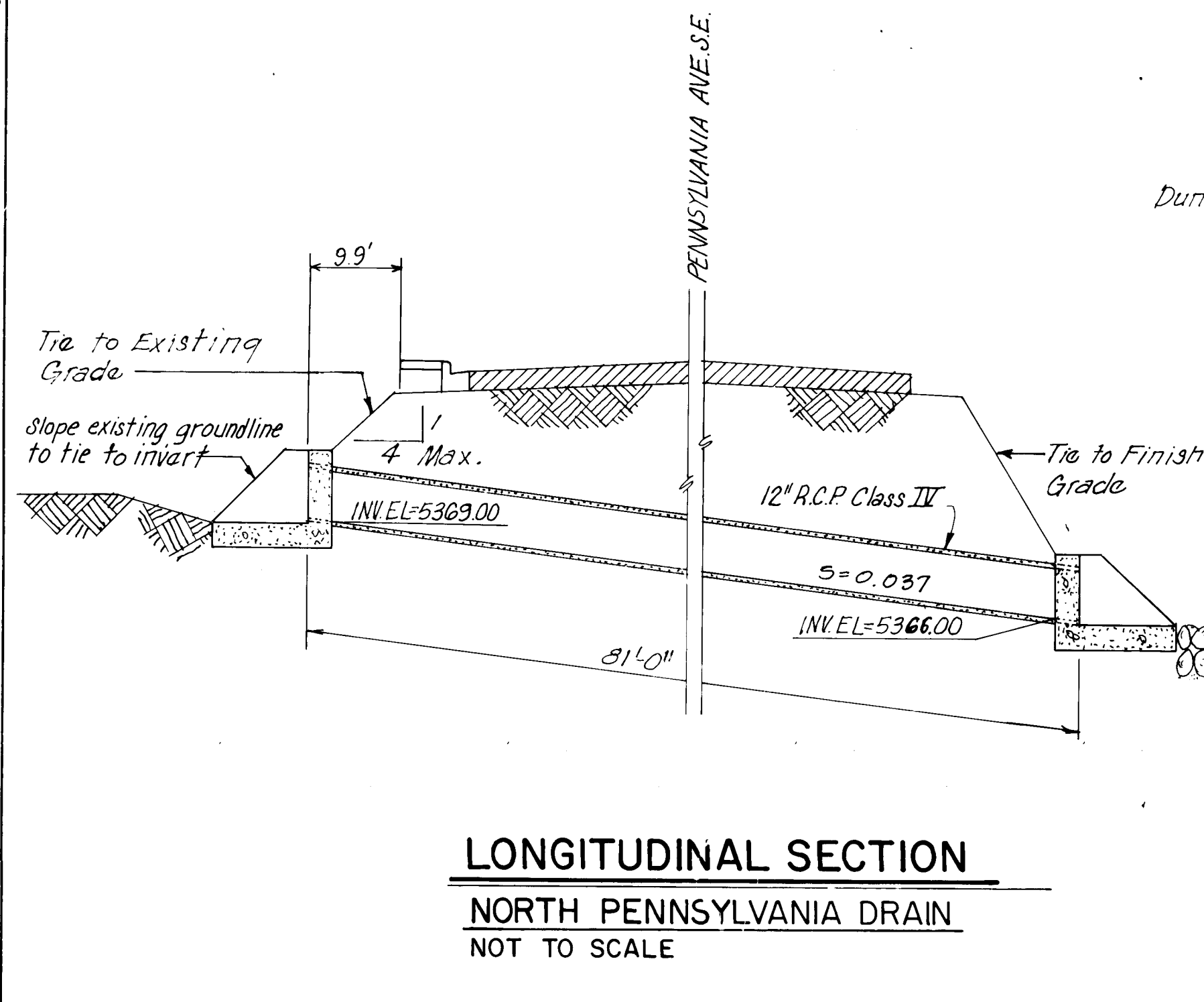
BASE OF KEYWAY TRENCH ELEV. (AT SPILLWAY)
 North Basin 5349.5
~~South Basin 5337.0~~
 Pennsylvania Basin 5363.0

These drawings have been revised based on field data and every reasonable attempt has been made to depict construction as actually performed.

[illegible]

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>C. N. Hyatt</i>	8/1/84	Liquid Waste	<i>R. Peña</i>	8/1/84
A.C.E - Design	<i>U. L. Kim</i>	8/5/84	Traffic	<i>NA DWH</i>	8/10/84
A.C.E - Hydrology	<i>U. L. Kim</i>	8/1/84	Water	<i>R. Peña</i>	8/1/84

DRAWING NO.	1674	MAP NO.	L-19-M-19	SHEET	17	OF	34
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NOTE:
Excavation under and adjacent to Inlet Structures at North and South Basins shall extend 5' below the Structures and 5' laterally from the Structures. All Backfill shall be in accordance with Fill Construction Section 203 to 95% Modified Proctor. The bottom of the Excavation shall be pre-wetted and vibratory compacted per Note on Sheet 20 to a depth of 5'.

ENGINEER'S SEAL

REVISIONS

NO.	DATE	REMARKS
1	8/1/84	DESIGN

DESIGNED BY: E.C.L. DATE: 6-84
DRAWN BY: G.C. DATE: 6-84
CHECKED BY: C.D. DATE: 6-84

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

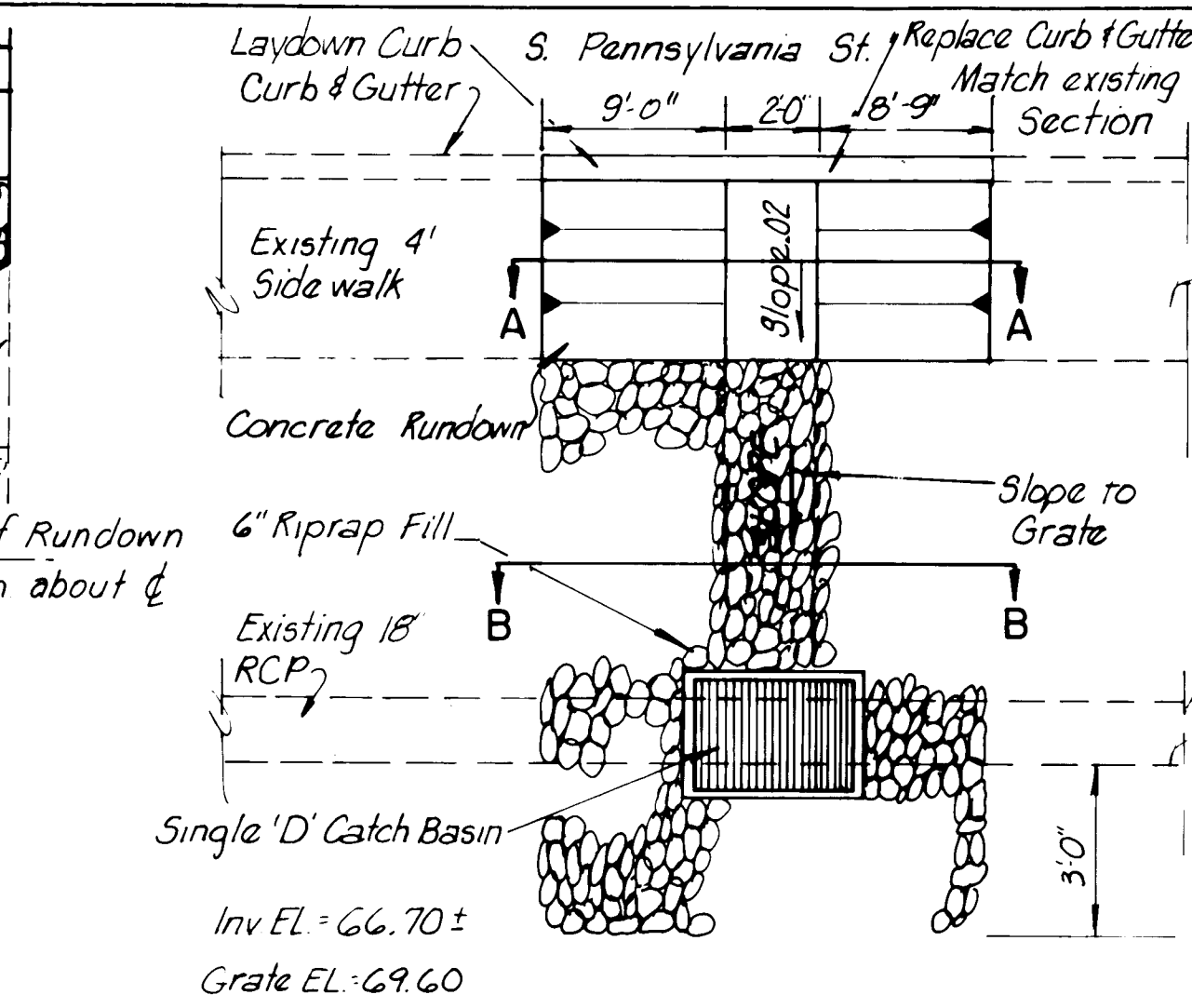
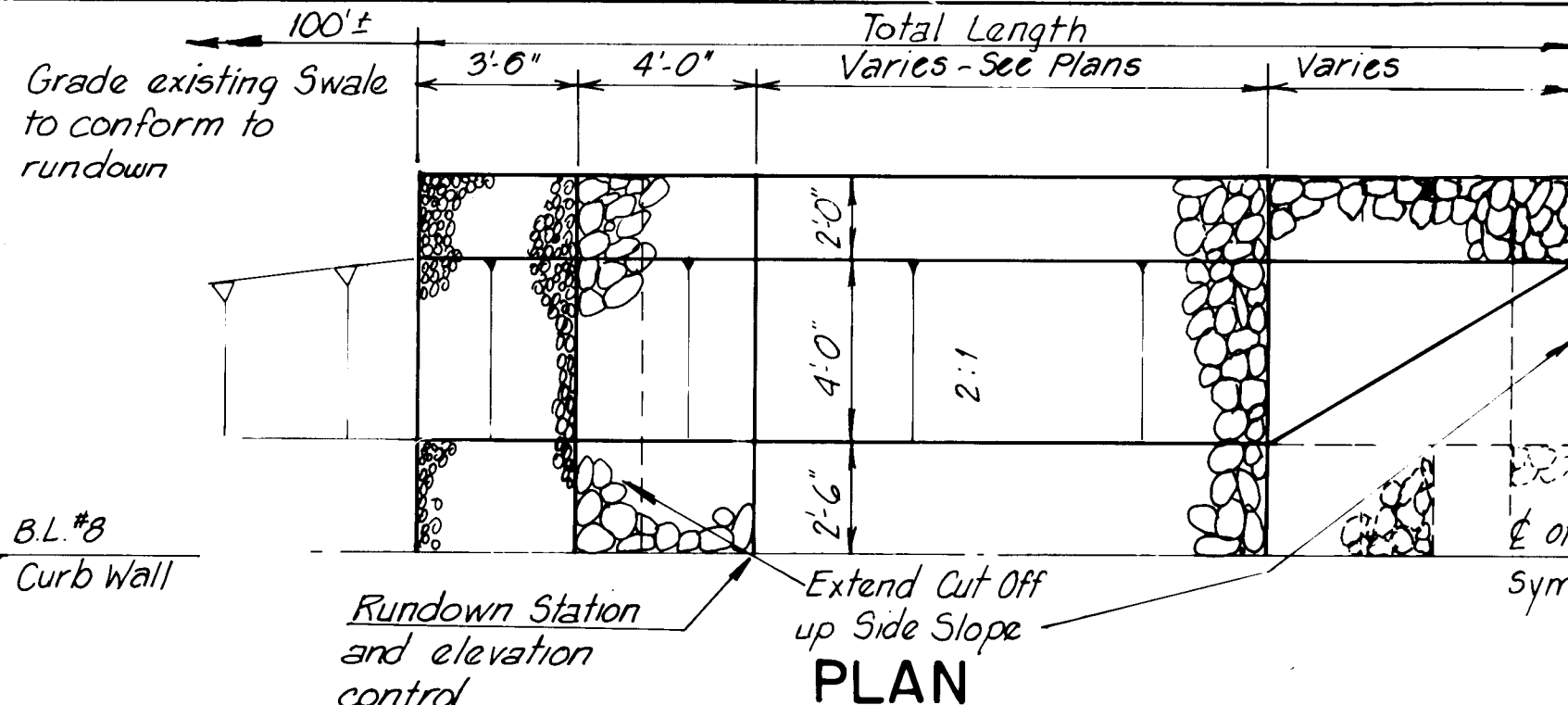
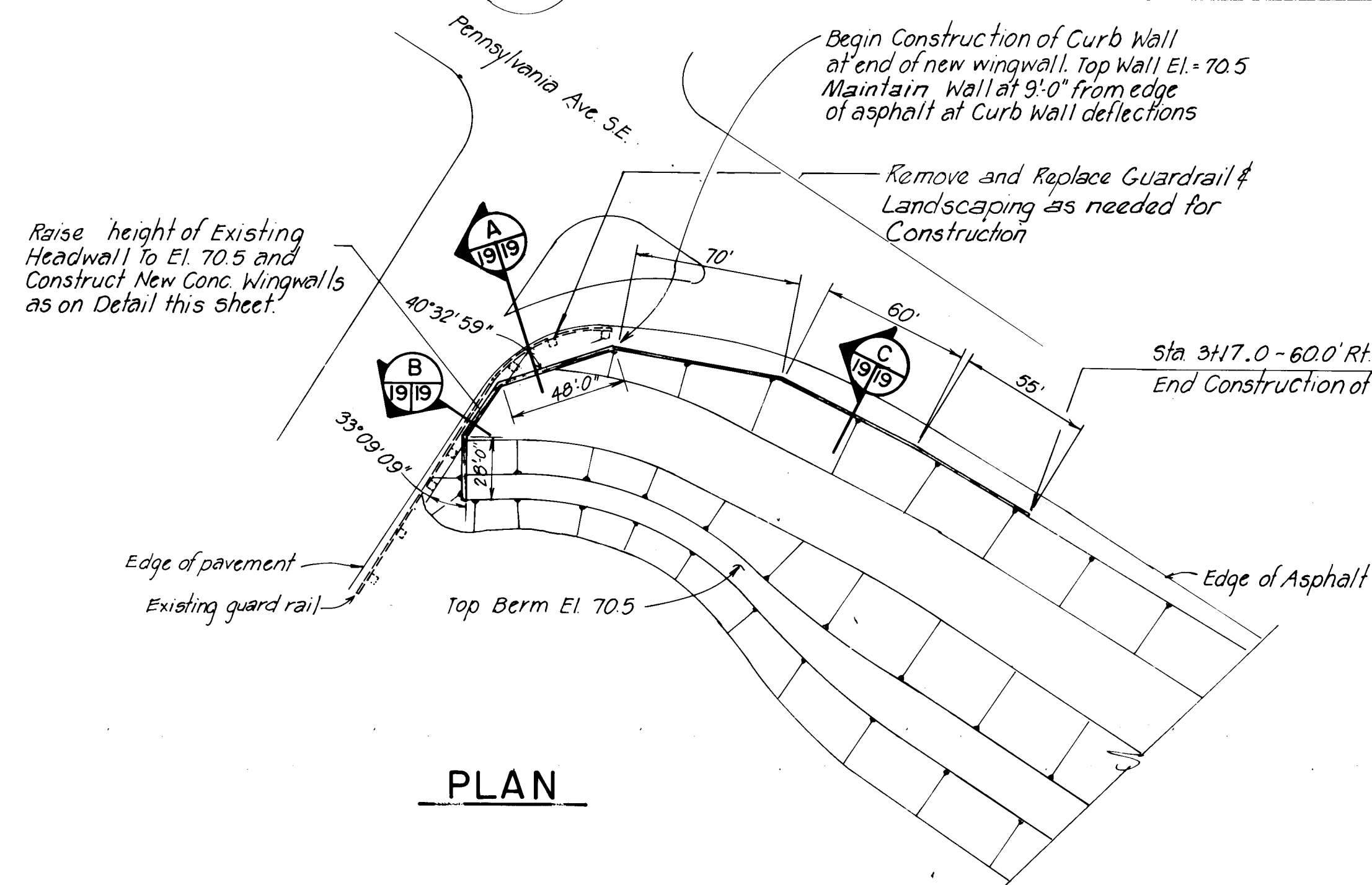
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS DRAIN INLET AND NORTH PENNSYLVANIA DRAIN DETAILS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	R. Tena	8/1/84	Liquid Waste	R. Tena	8/1/84
A.C.E. - Design	R. Tena	8/1/84	Traffic	R. Tena	8/1/84
A.C.E. - Hydrology	R. Tena	8/1/84	Water	R. Tena	8/1/84

RECORD DRAWING
SEP 12 1985

These drawings are to be revised based on field data and a reasonable attempt has been made to depict construction as actually performed.

DRAWING NO. 1674 **MAP NO. L-19, M-19** **SHEET 18 OF 34**



RIPRAP RUNDOWN DATA									
NORTH BASIN									
SEE SHEETS 12 AND 13									
SOUTH BASIN									
APPROX STA.	APPROX STA.	APPROX STA.	APPROX LENGTH	APPROX LENGTH	APPROX LENGTH	APPROX LENGTH	APPROX LENGTH	APPROX LENGTH	APPROX LENGTH
7 + 33.8	42.0	49'-1"							

CONTRACTOR INFORMATION

WORK ORDER NO. BY DATE

INSPECTOR'S ACCEPTANCE BY DATE

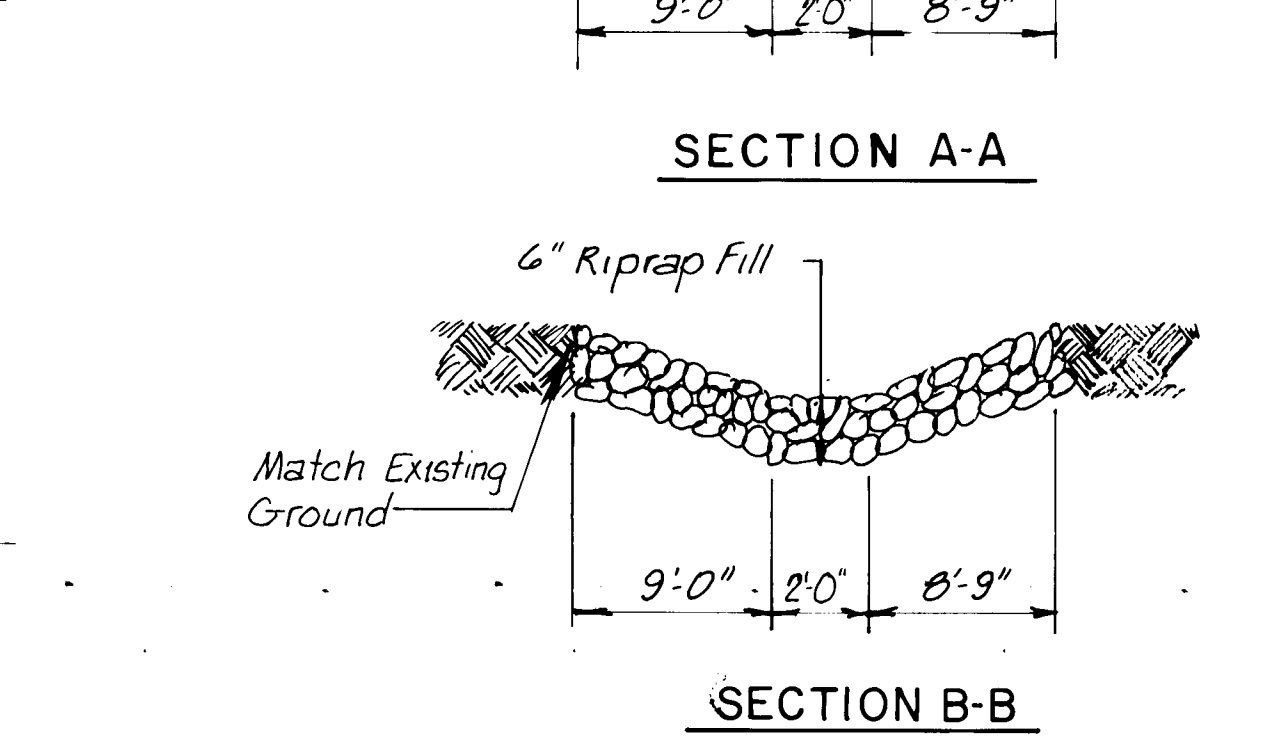
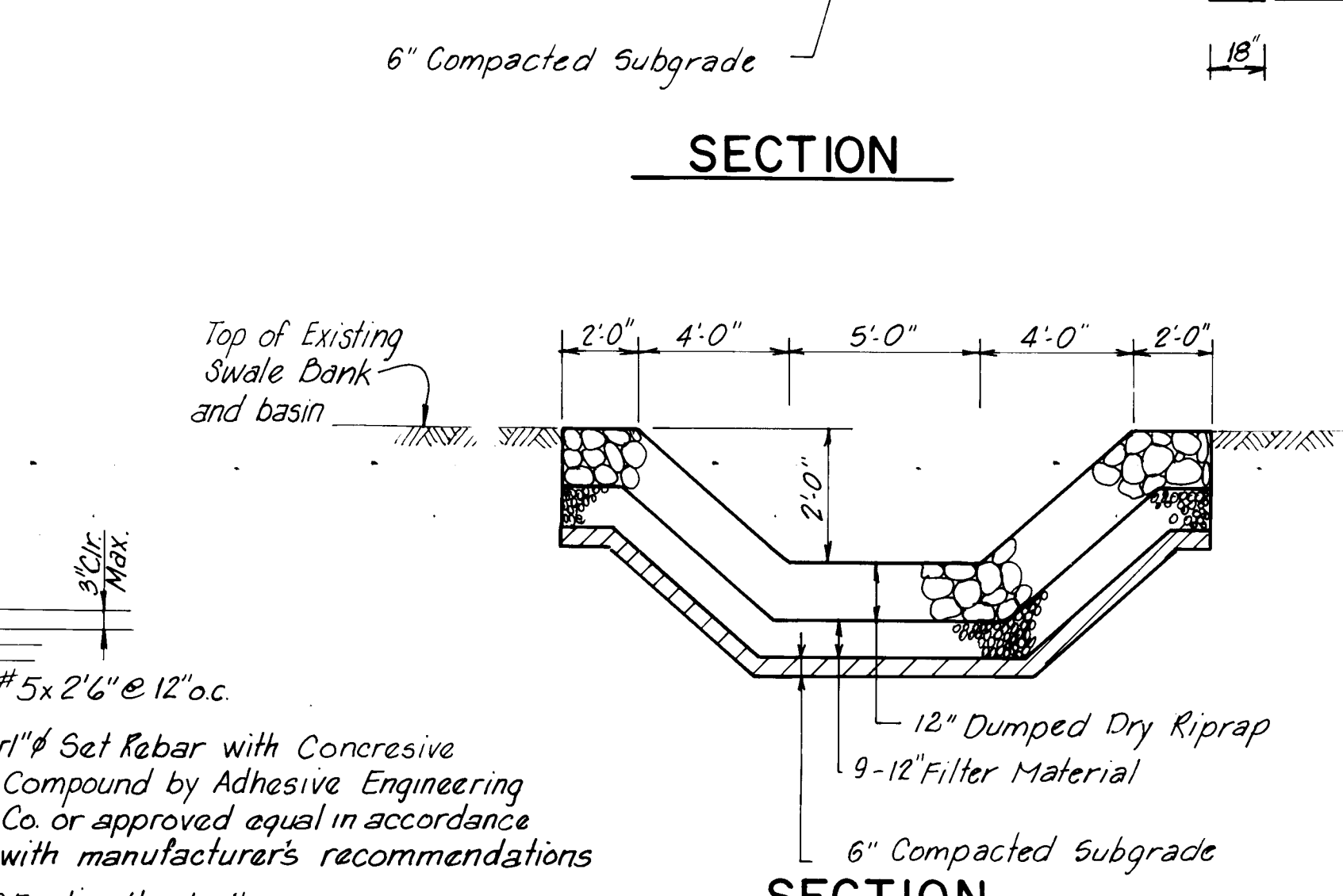
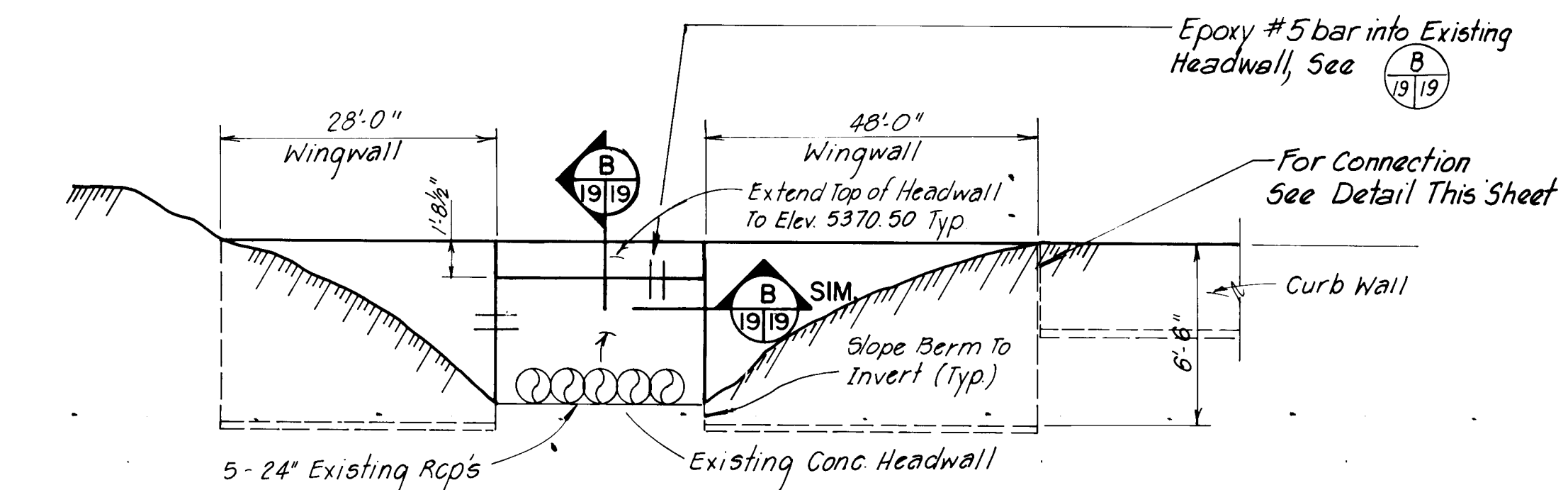
VERIFICATION BY DATE

DRAWINGS BY DATE

SCALE BY DATE

RECORDED BY DATE

NO.



Note: Double Cleanout in Sidewalk: Cast cleanout risers in place in sidewalk. Use recessed socket plugs.

CONTRACTOR INFORMATION

WORK ORDER NO. BY DATE

INSPECTOR'S ACCEPTANCE BY DATE

VERIFICATION BY DATE

DRAWINGS BY DATE

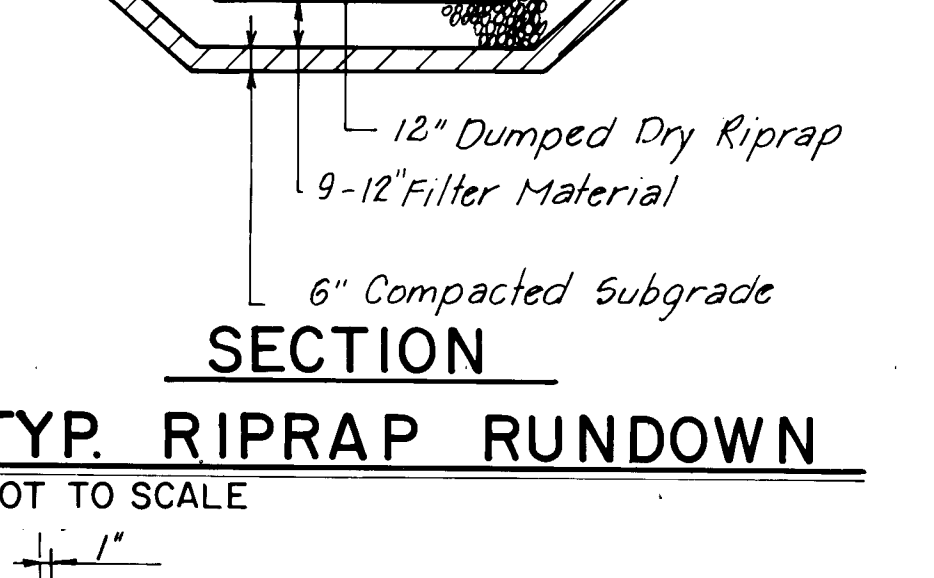
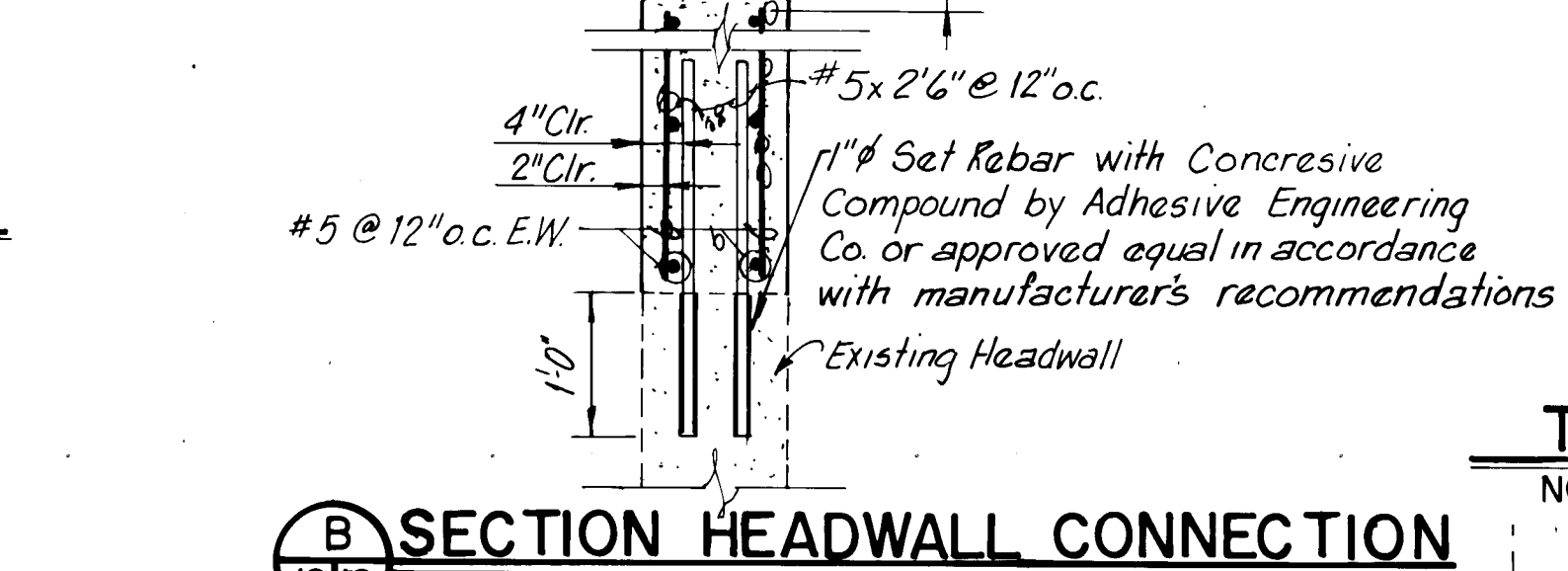
SCALE BY DATE

RECORDED BY DATE

NO.

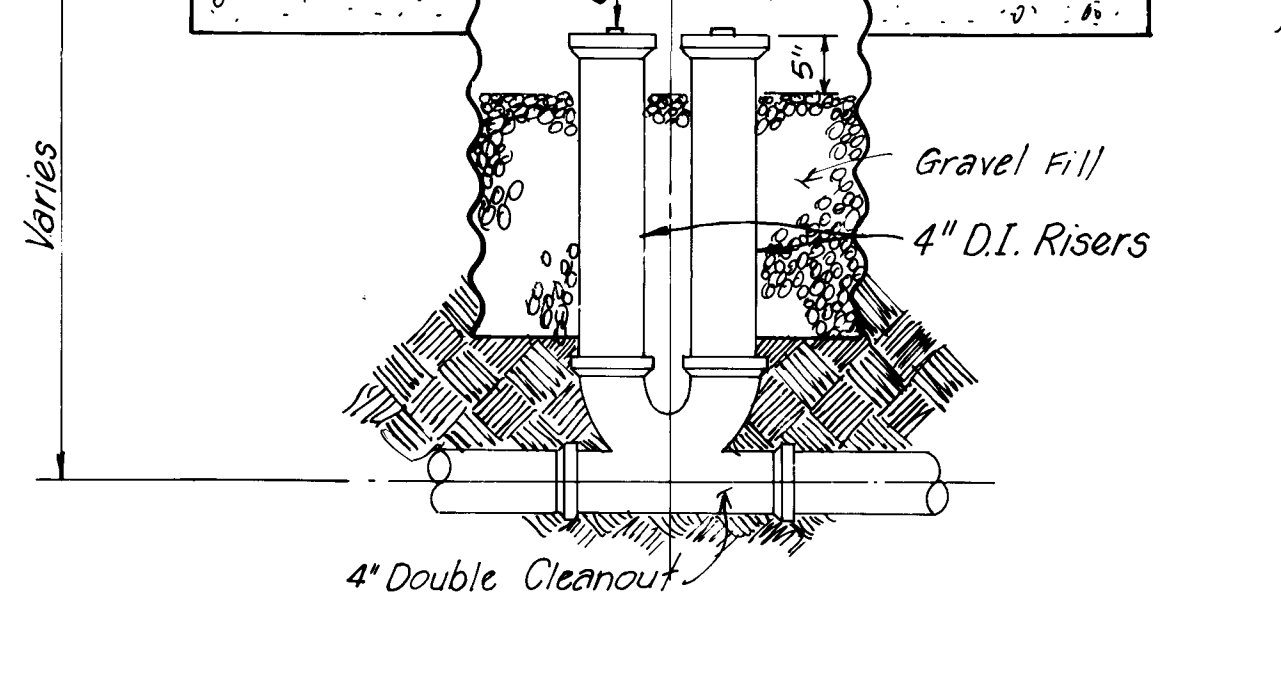
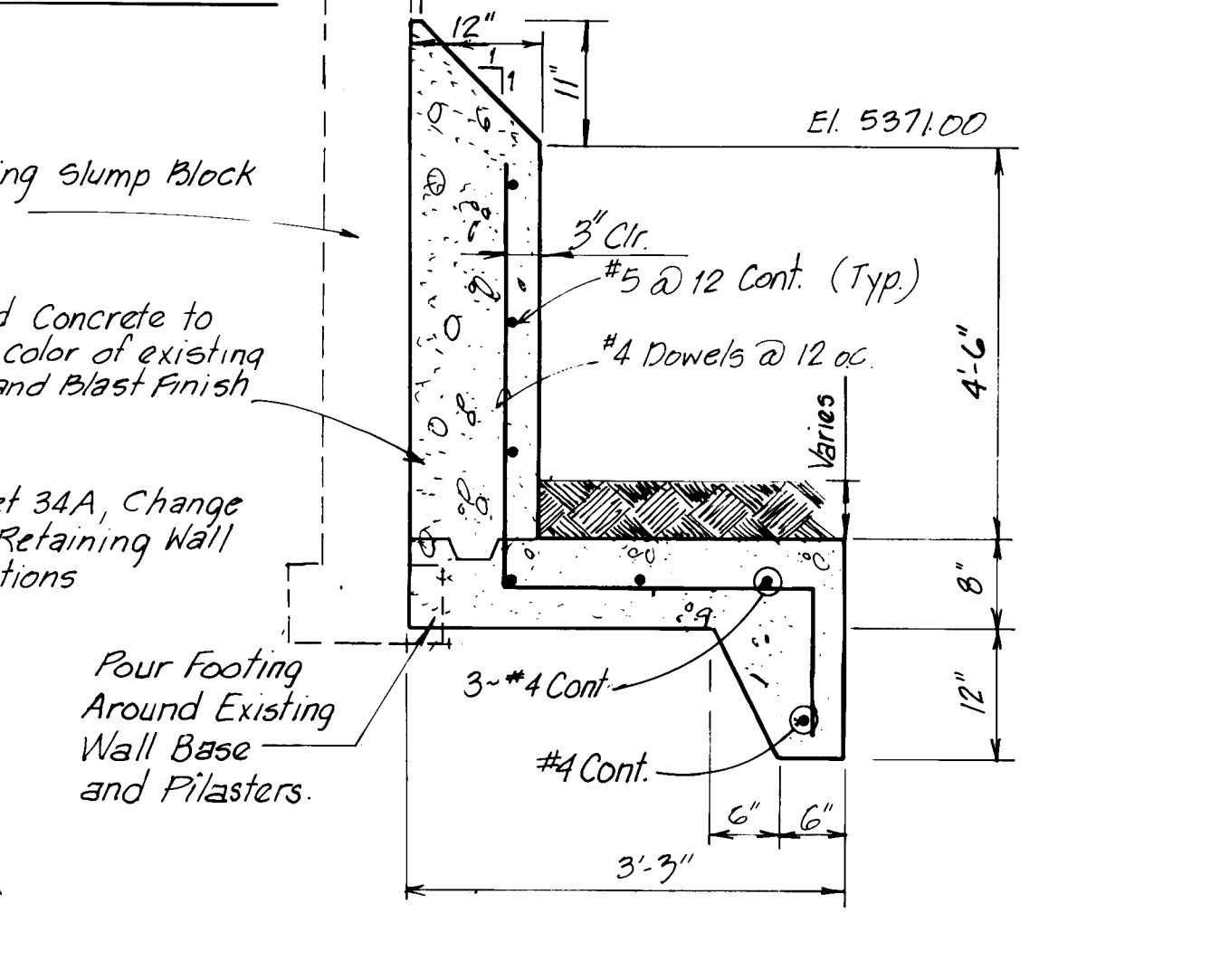
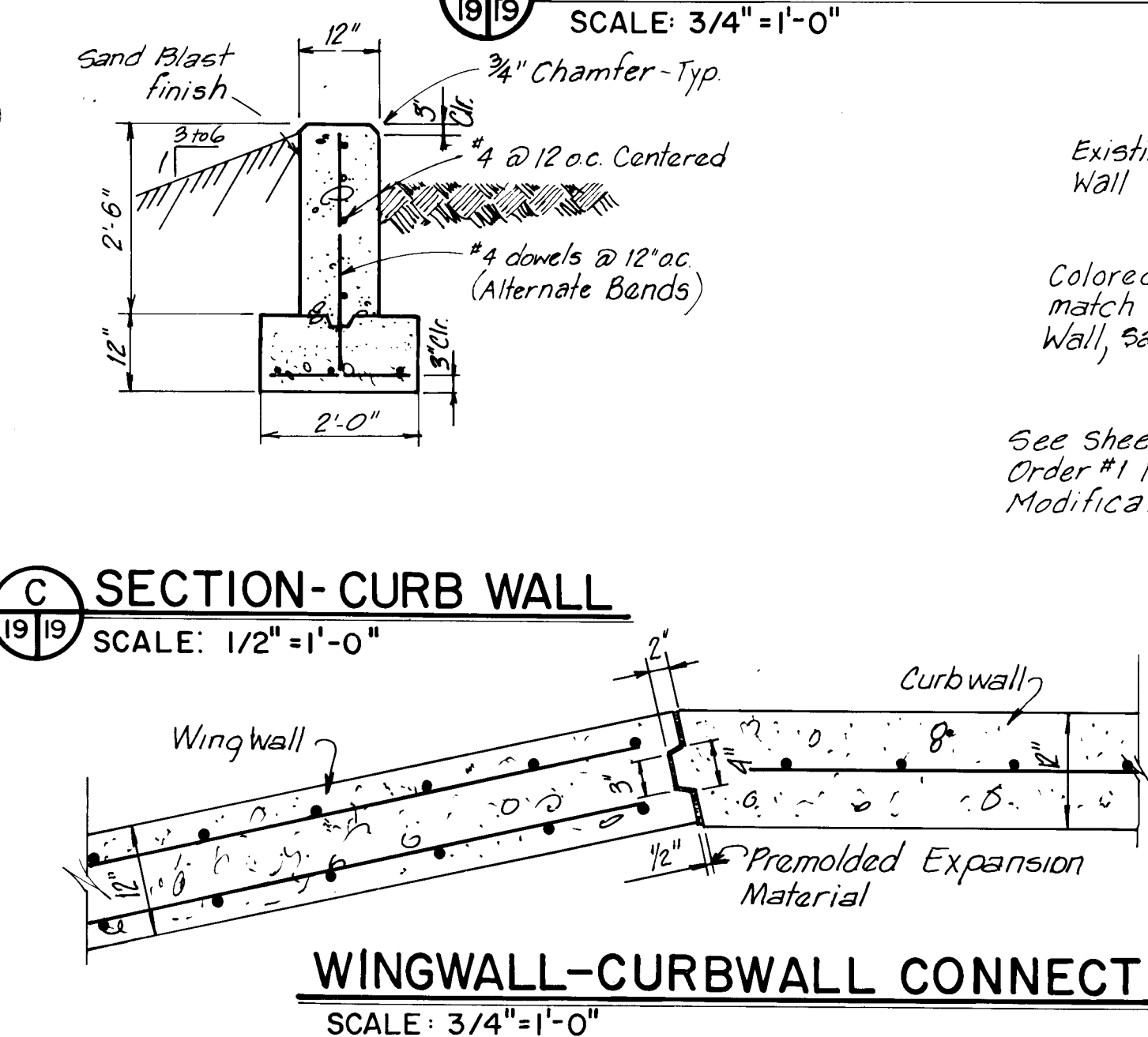
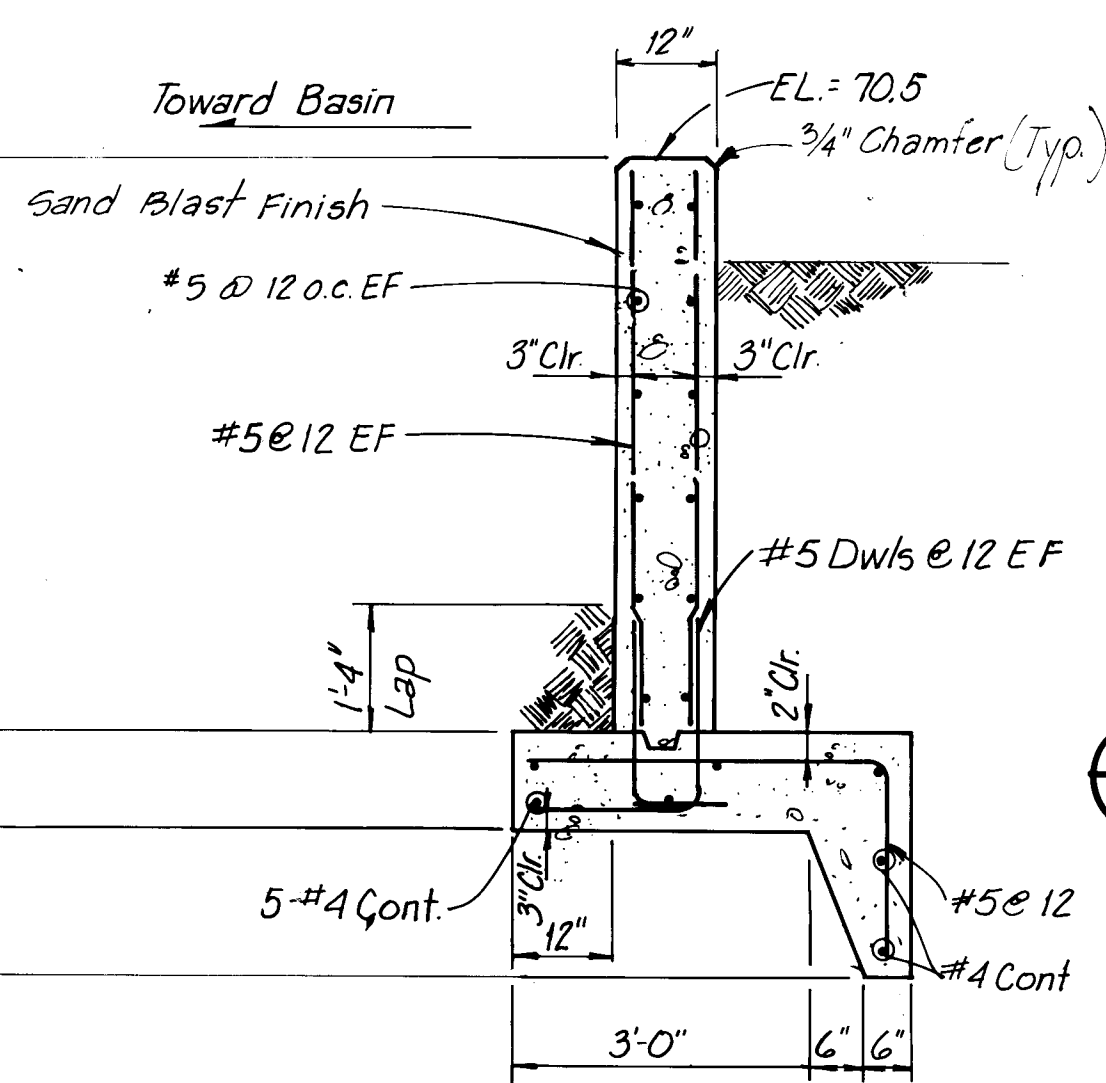
PENNSYLVANIA BASIN - HEADWALL

NOT TO SCALE



SOUTH PENNSYLVANIA DRAIN

NOT TO SCALE



NOTE: Double Cleanout Access Manhole As per City Std Dwg W-24-2 except as modified by the Detail - Pavement locations only. See Note, this Sheet.

RECORD DRAWING

Date: SEP 12 1985

These drawings were prepared based on field data and a reasonable attempt has been made to depict construction as actually performed.

REVISIONS

NO. DATE

DESIGNED BY E.C.L.

DRAWN BY D.C.

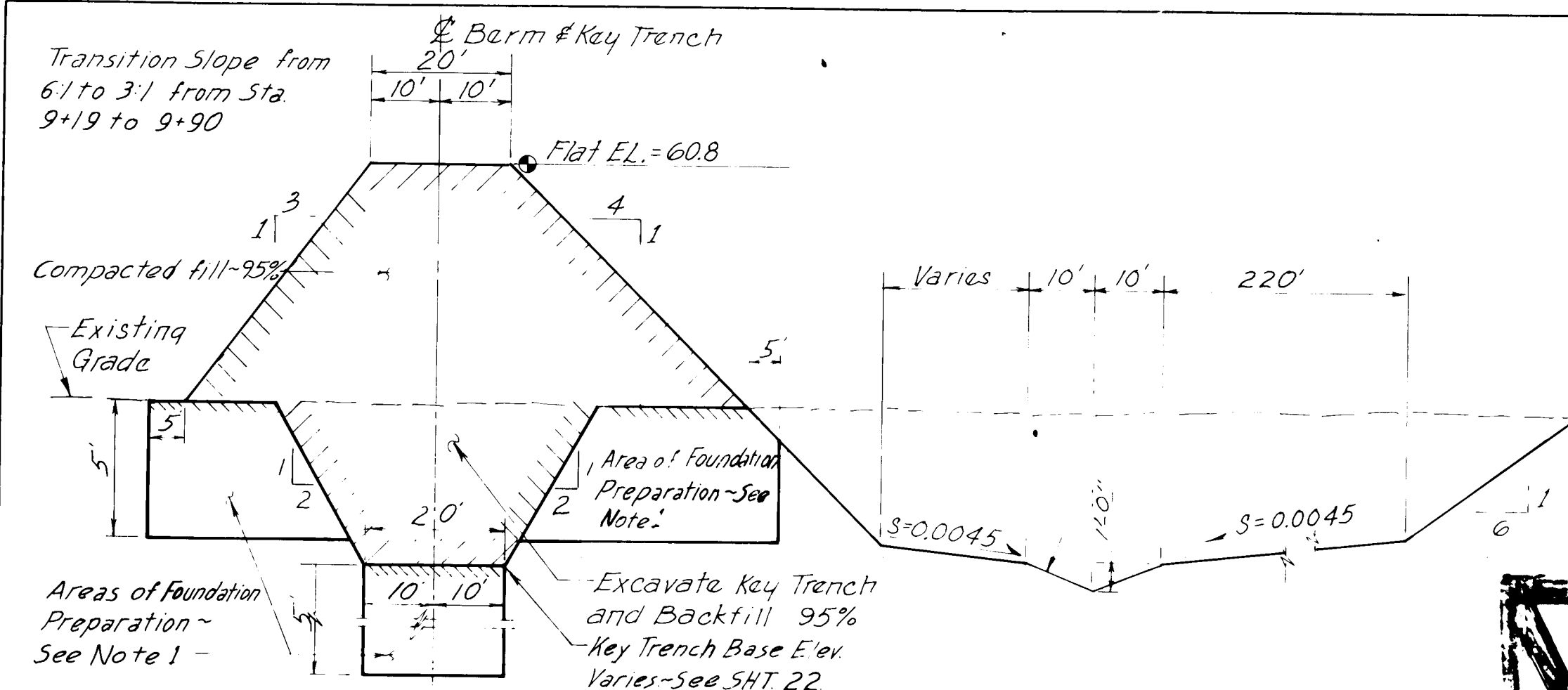
CHECKED BY C.D.

DATE 6-84

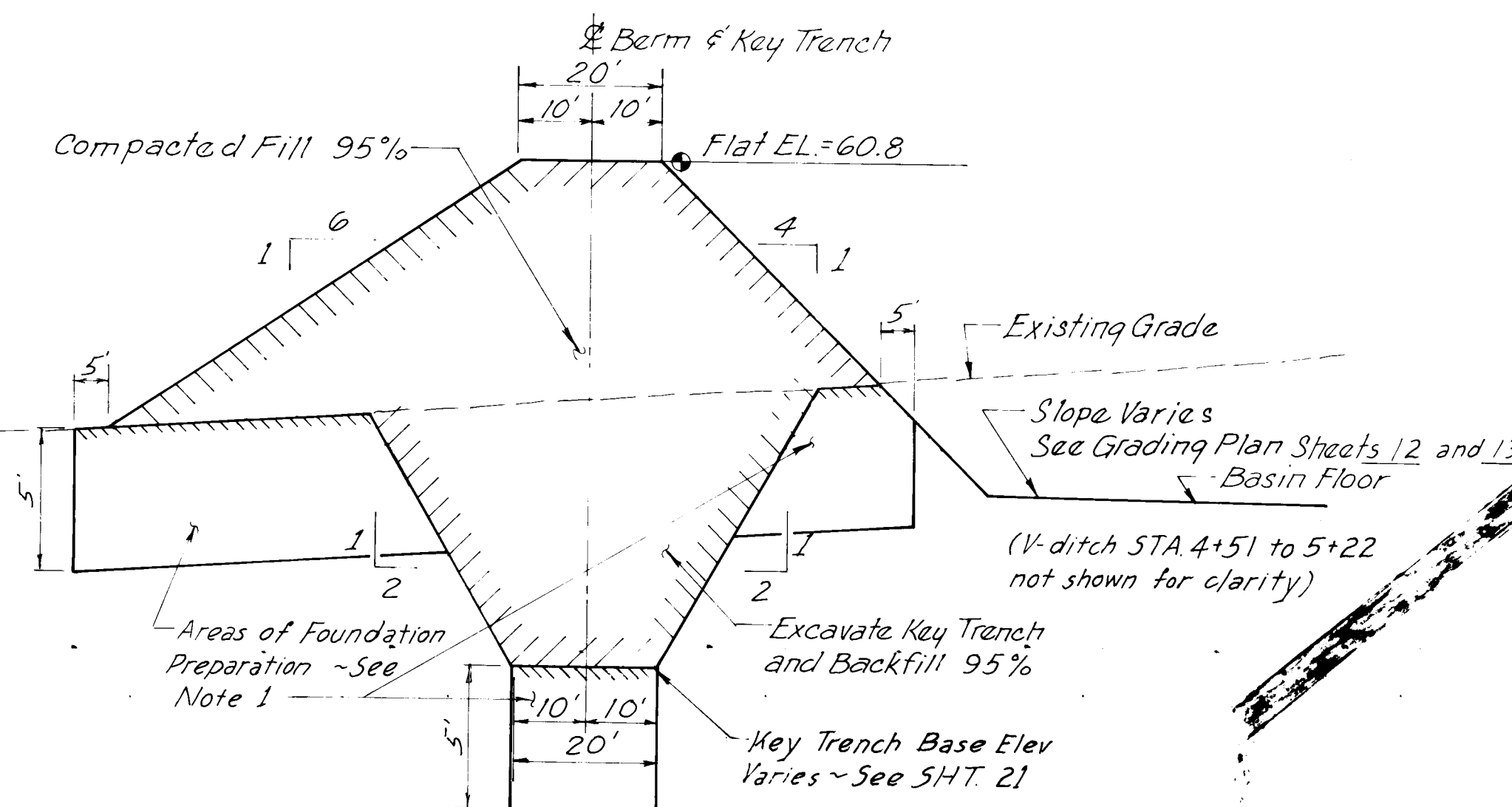
DATE 6-84

DATE 6-84

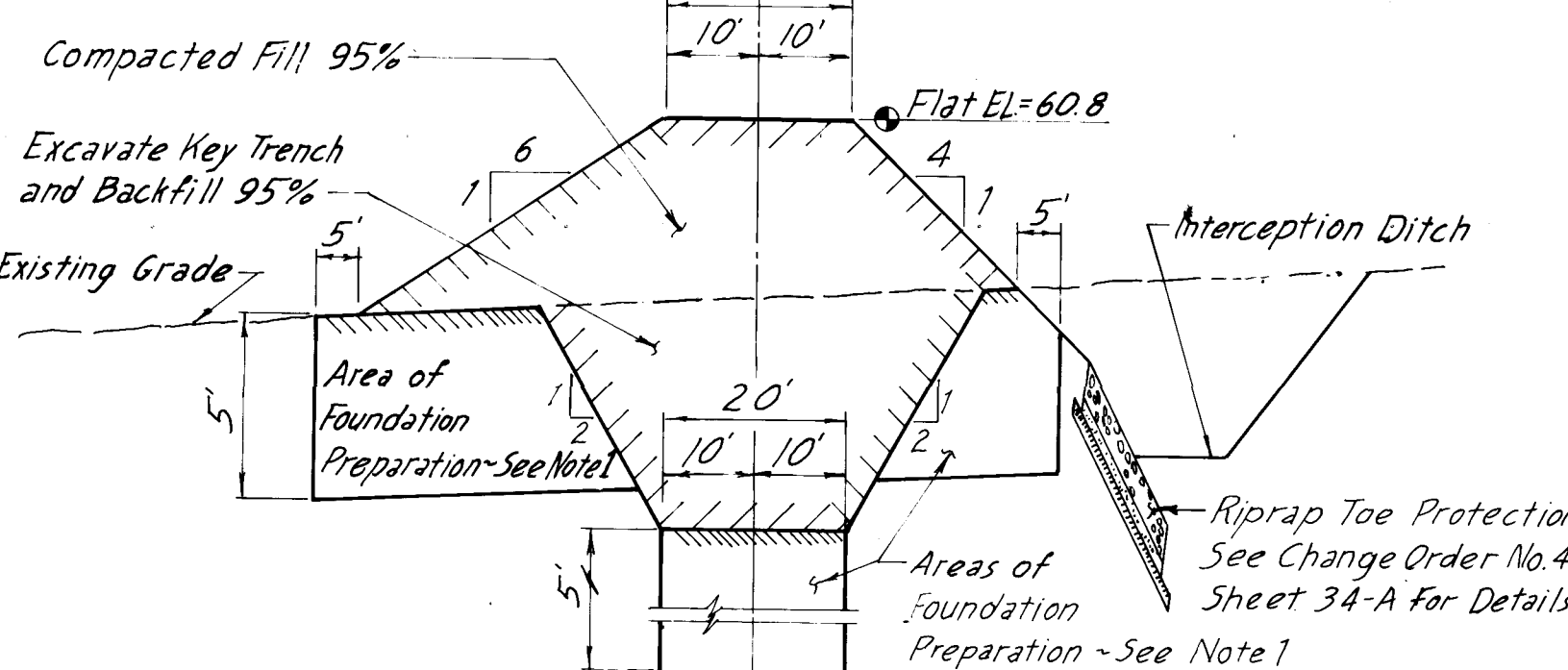
CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION									
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS SOUTH PENNSYLVANIA DRAIN, DOUBLE CLEANOUT, RUNDOWN, RETAINING WALL, HEADWALL, WINGWALL AND CURB WALL DETAILS									
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE				
City Engineer	C. L. Orsmond	8/1/84	Liquid Waste	R. Pina	8/1/84				
A.C.E. - Design	H. L. G. G.	8/1/84	Traffic	N. B. D.	8/1/84				
A.C.E. - Hydrology	J. J. F.	8/1/84	Water	R. Pina	8/1/84				
DRAWING NO.	1674	MAP NO.	L-19, M-19	SHEET	19	OF 34			



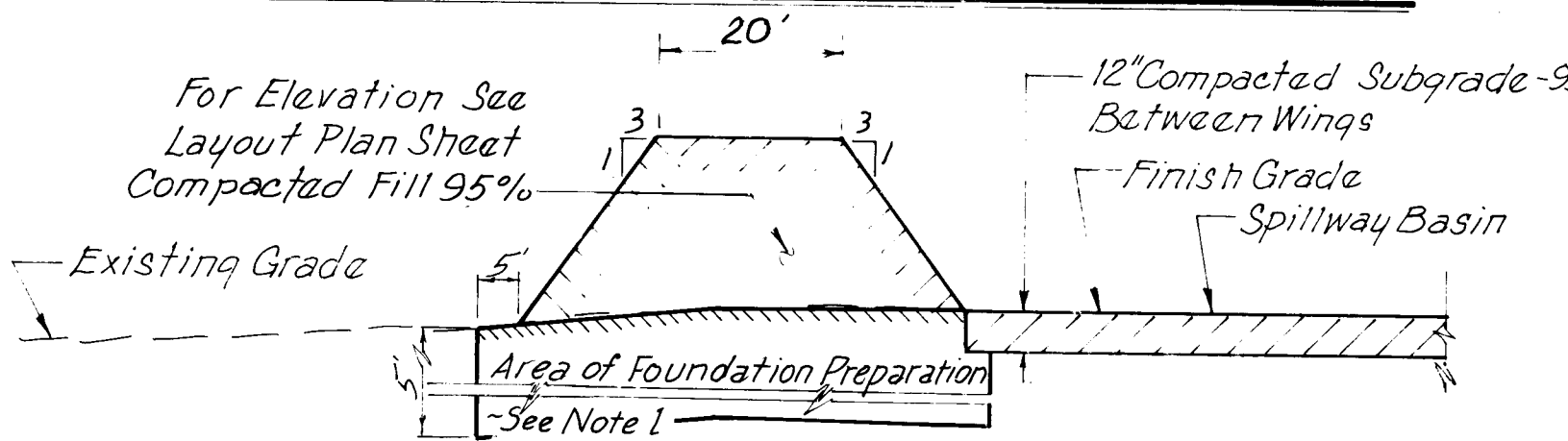
SECTION - STA. 9+19 TO 23+42.70
(NOTE: STA. 23+42.70 TO 24+00.30 AND STA. 27+02.30 TO 28+06+ SIMILAR)



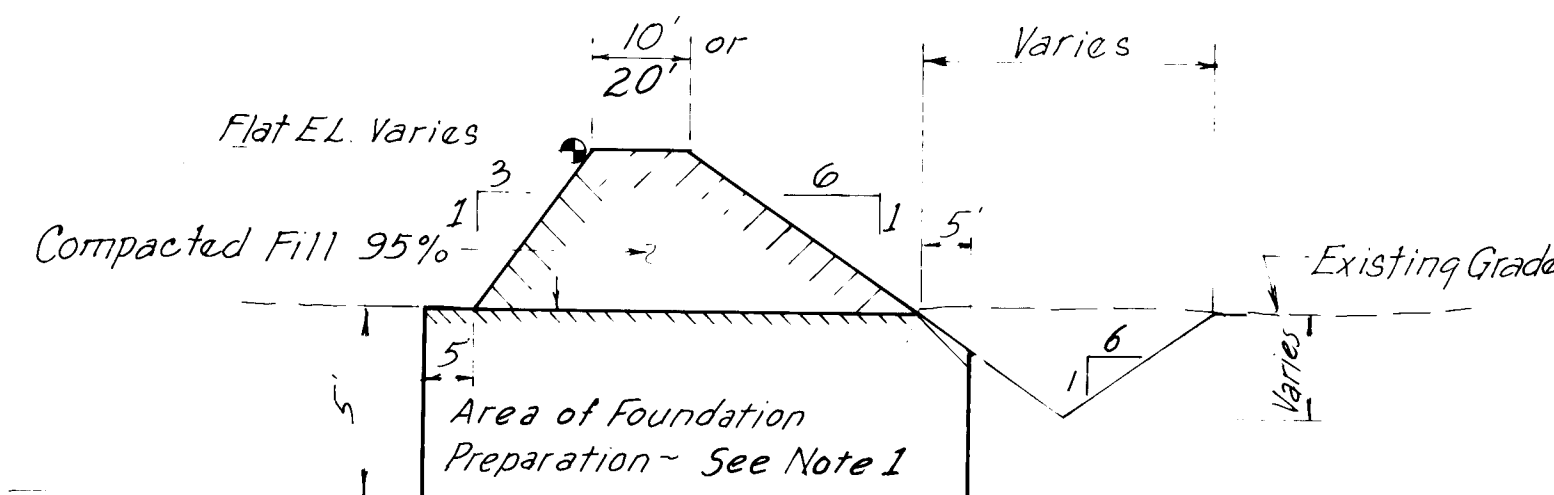
SECTION - STA. 4+80+ TO 9+19



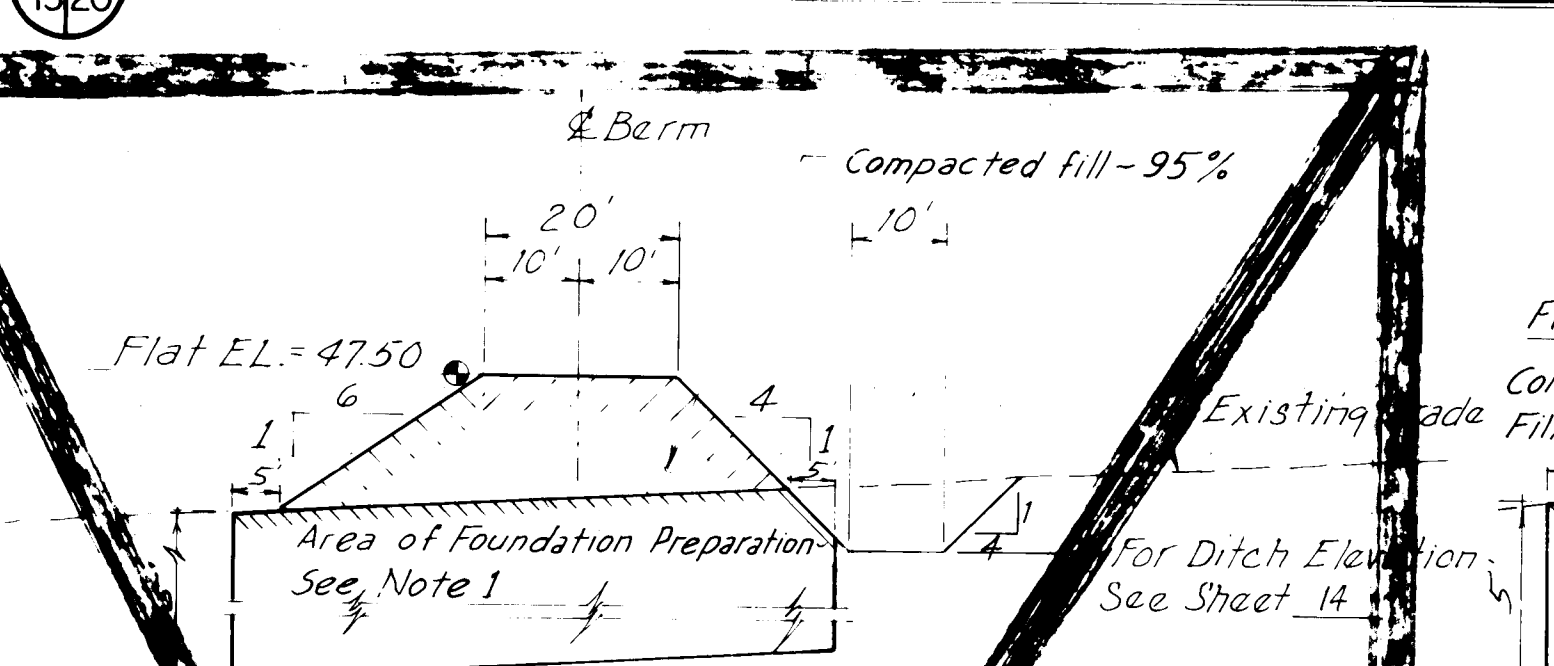
SECTION - STA. -0+80 TO 4+51+
TYPICAL BERM SECTIONS-NORTH BASIN



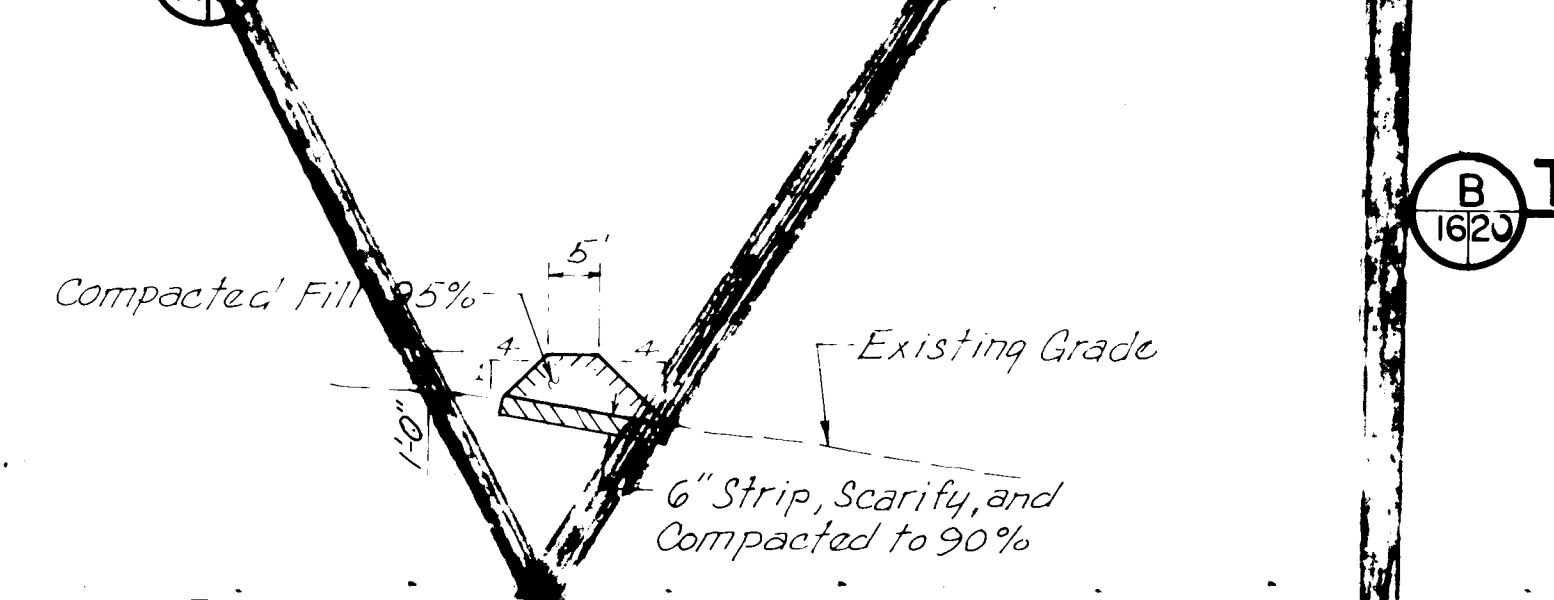
TYPICAL WING SECTION-NORTH BASIN
SCALES:
HORIZ. 1" = 20'
VERT. 1" = 5'



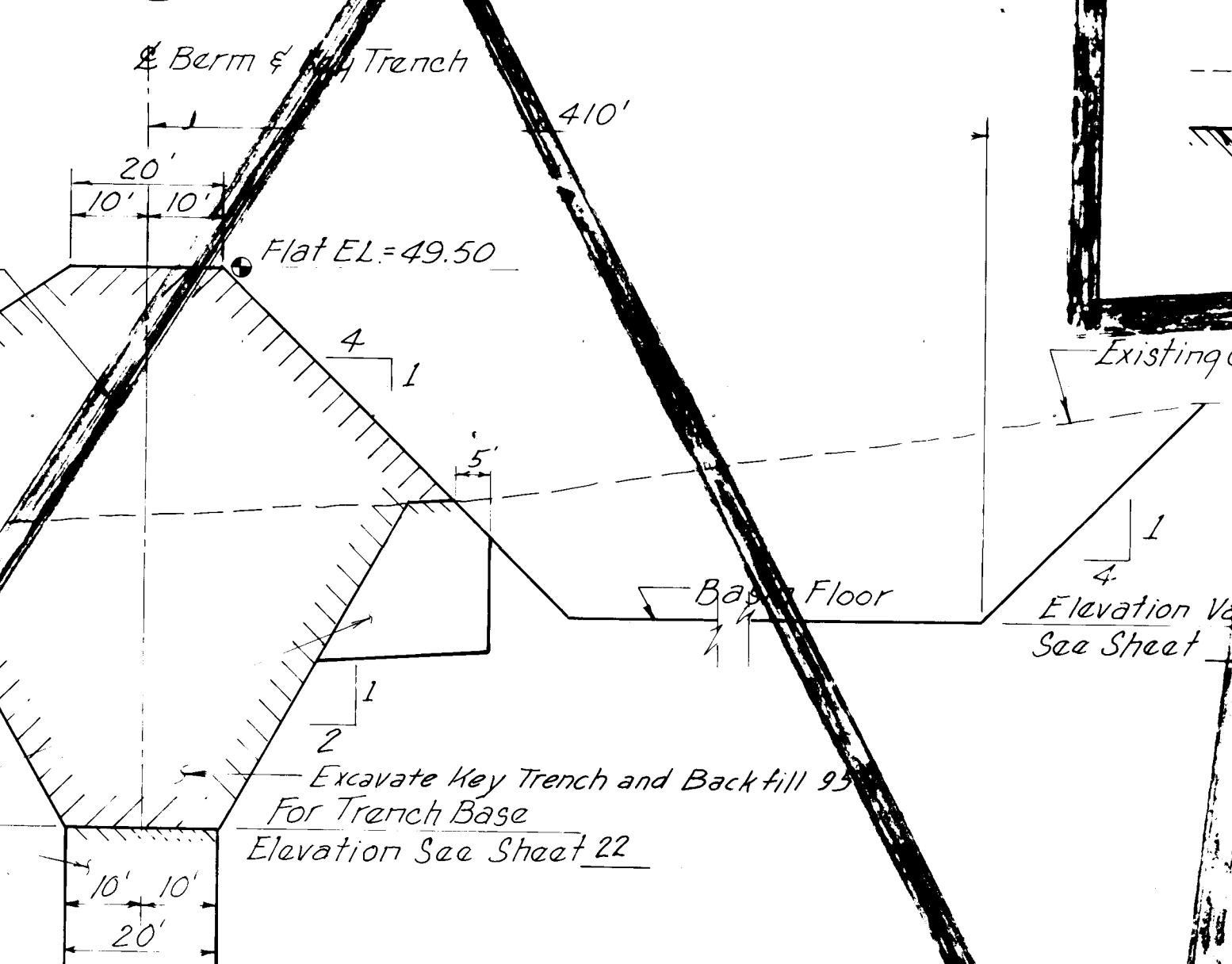
TYPICAL DITCH/DIKE SECTION-NORTH BASIN



SECTION - STA. 8+04 TO STA. 14+58



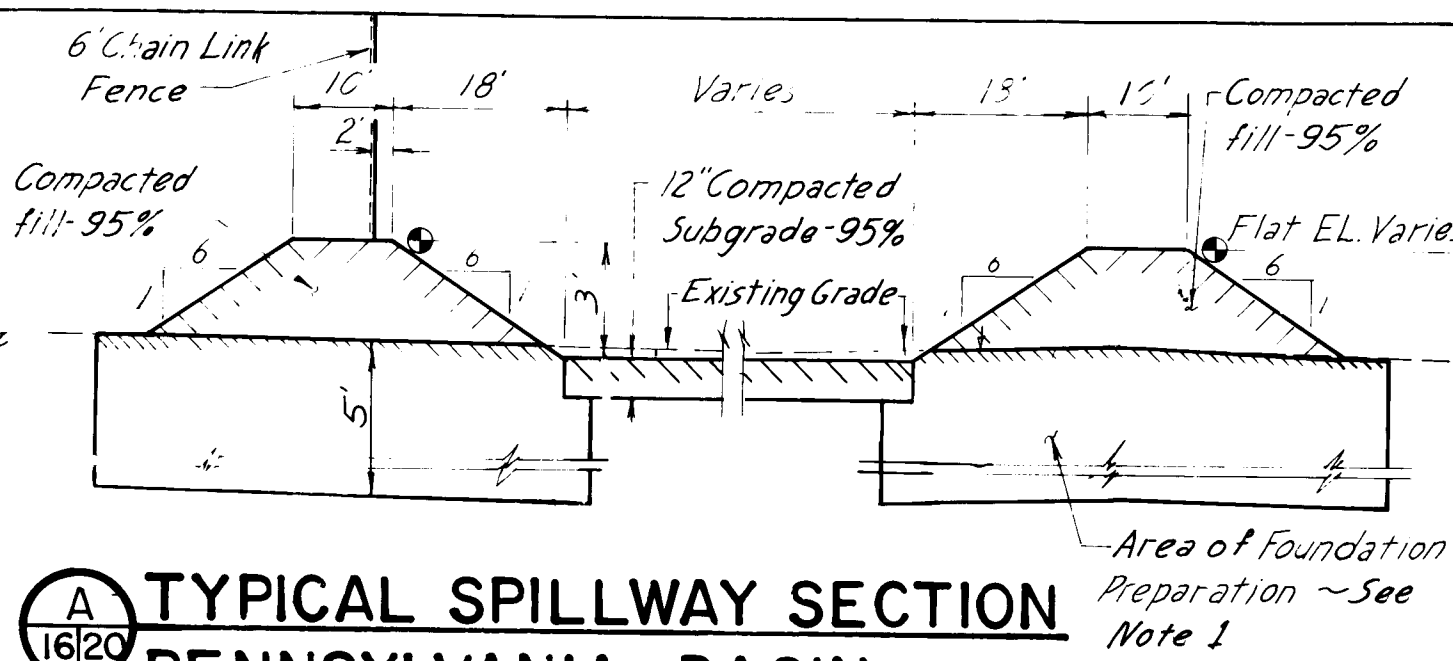
SECTION - 5' BERM



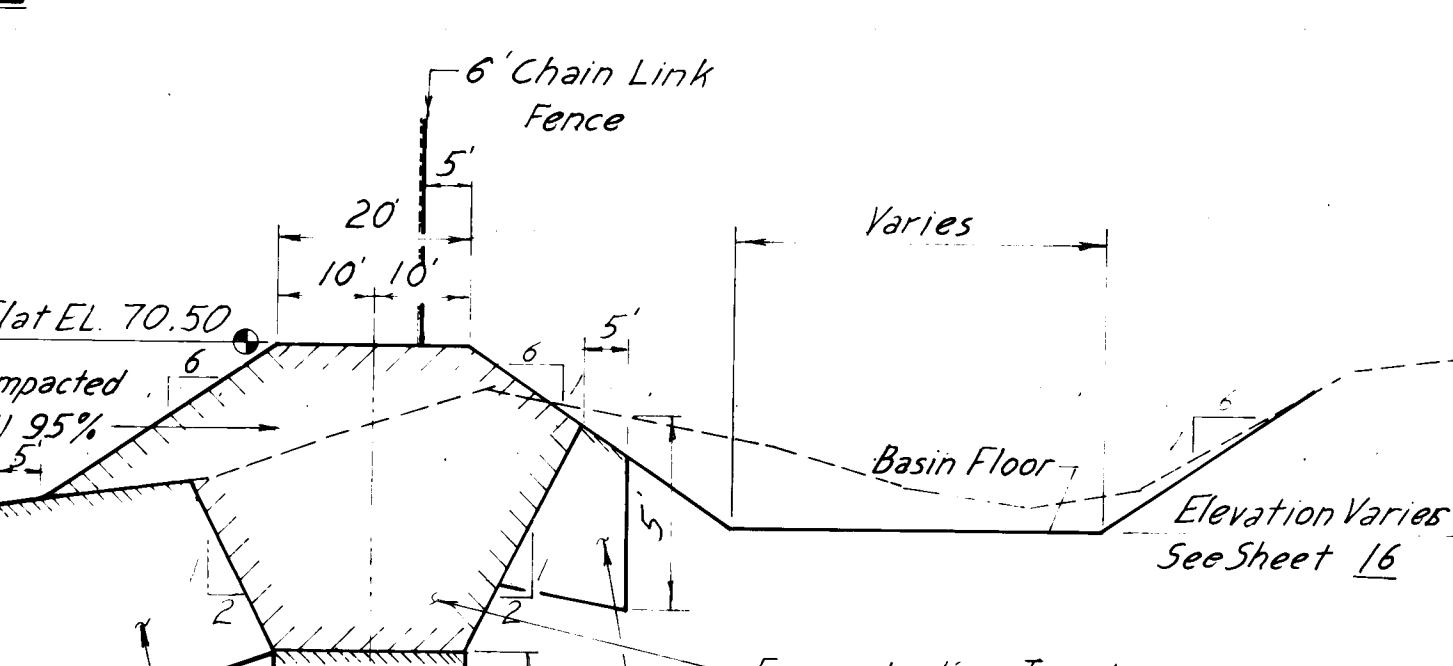
SECTION - STA. -0+10 TO STA. 8+04

TYPICAL BERM SECTIONS-SOUTH BASIN

SCALES:
HORIZ. 1" = 20'
VERT. 1" = 5'



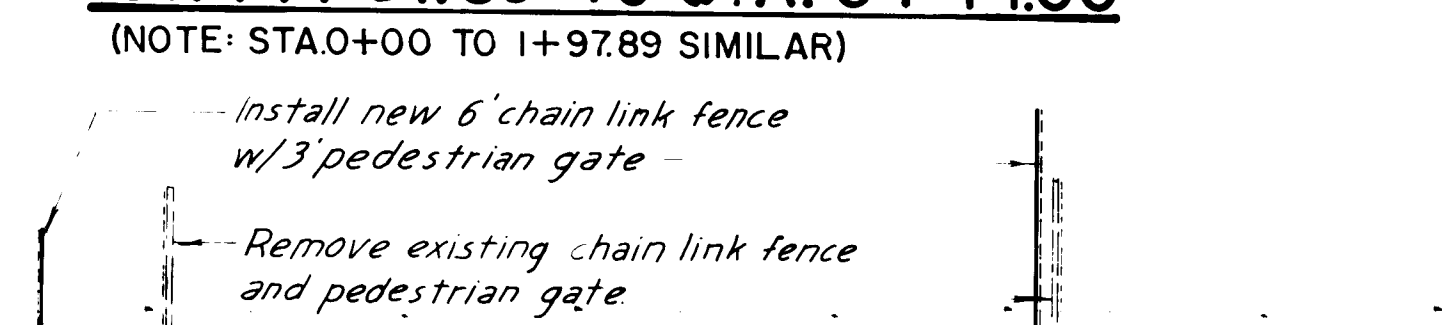
TYPICAL SPILLWAY SECTION-PENNSYLVANIA BASIN



TYPICAL BERM SECTION-PENNSYLVANIA BASIN

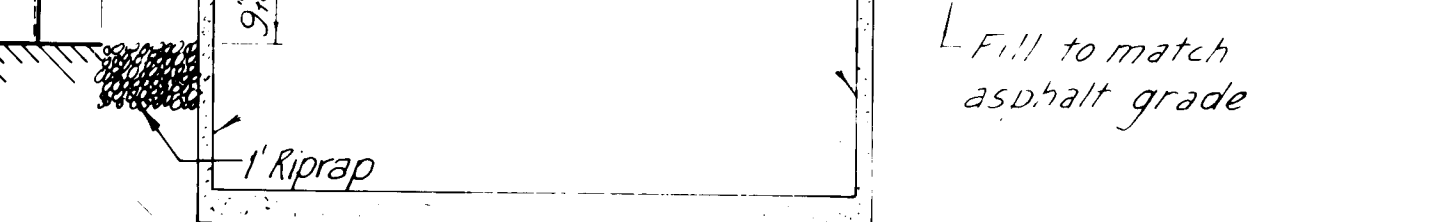
STA. 1+97.89 TO STA. 5+44.00
(NOTE: STA. 0+00 TO 1+97.89 SIMILAR)

TRANSITION STRUCTURE
NOT TO SCALE



TRANSITION STRUCTURE

NOT TO SCALE



GASLINE CAP DETAIL

NOT TO SCALE

TRANSITION STRUCTURE
NOT TO SCALE

TRANSITION STRUCTURE

NOT TO SCALE

TRANSITION STRUCTURE
NOT TO SCALE

TRANSITION STRUCTURE

NOT TO SCALE

TRANSITION STRUCTURE
NOT TO SCALE

TRANSITION STRUCTURE

NOT TO SCALE

TRANSITION STRUCTURE
NOT TO SCALE

TRANSITION STRUCTURE

NOT TO SCALE

NOTES:

- Foundation Preparation: Prior to the placement of any key trench or berm fill, the ground surfaces resulting from stripping and key trench excavations shall be moistened to optimum moisture content (5%±) for a minimum of 5 feet, or for as deep as practicable. The entire foundation area and bottom of the key trench shall then be compacted to a minimum of 90% of maximum density as determined by ASTM D-1557, with a minimum of 20 passes of a 10 Ton or heavier vibratory sheepfoot roller. If vibratory compaction poses a threat to the structural integrity of nearby structures, an equivalent static roller may be used. The resulting compacted foundation shall be smooth and free of ruts, boulders and other uneven features. (See Specifications Section 203.0310).
- All minor variations within a section station may not be shown. See grading plan for transitions, grade changes, etc.
- Soil in existing berm at Pennsylvania Basin may not be suitable for fill-use in fill or dispose of as directed by Engineer.

RECORD DRAWING
SEP 12 1995
These drawings were prepared based on field data and are not to be used for construction unless actually performed.

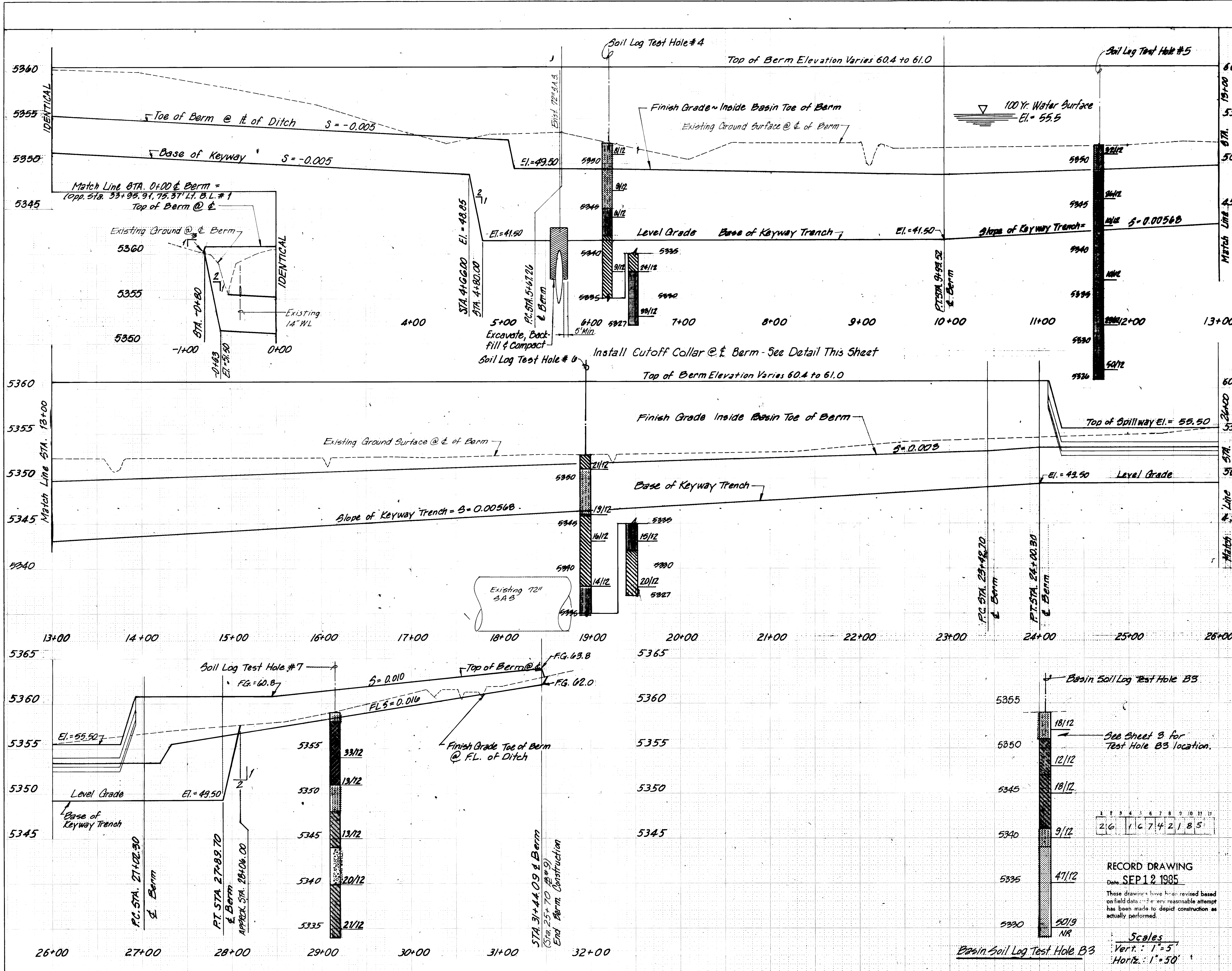
CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS

TYPICAL SECTIONS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	R. J. J. J.	8/1/84	Liquid Waste	R. J. J. J.	5/1/84
A.C.E. Design	J. J. J. J.	8/1/84	Traffic	J. J. J. J.	8/1/84
A.C.E. Hydrology	J. J. J. J.	8/1/84	Water	J. J. J. J.	5/1/84

DRAWING NO. 1674 **MAP NO. L-19,M-19** **SHEET 20 OF 34**



Notes:

- The Profile shown is along the centerline of berm.
- Finish Grade shown is inside Basin along Toe of Berm.
- Centerline Keyway Trench equals centerline of berm.
- For Basin Grading, See Sheet 12 & Sheet 13.
- See Sheet 3 for Soil Log Test Hole Locations.
- See Sheet 2 for Soil Type Legend for Soil Log Test Holes.

PLAN

Existing 72" Sanitary Sewer

Base of Keyway Trench

Keyed Const. joint See Detail This Sheet

Limit of required excavation and recompaction

Cutoff collar cast in place against existing pipe & undisturbed earth at mid point of joint below springline

Cutoff collar above springline per detail (B) including 1/2" expansion material and joint filler

ELEVATION

CUTOFF COLLAR DETAIL

NTS

72" min.

#4E 12" o.c.

#4 Hoops

CONSTRUCTION

JOINT DETAIL

SCALE: 3/4" = 1'-0"

RECORD DRAWING

Date: SEP 12 1985

These drawings have been revised based on field data and every reasonable attempt has been made to depict construction as actually performed.

Scales

Vert.: 1" = 5'

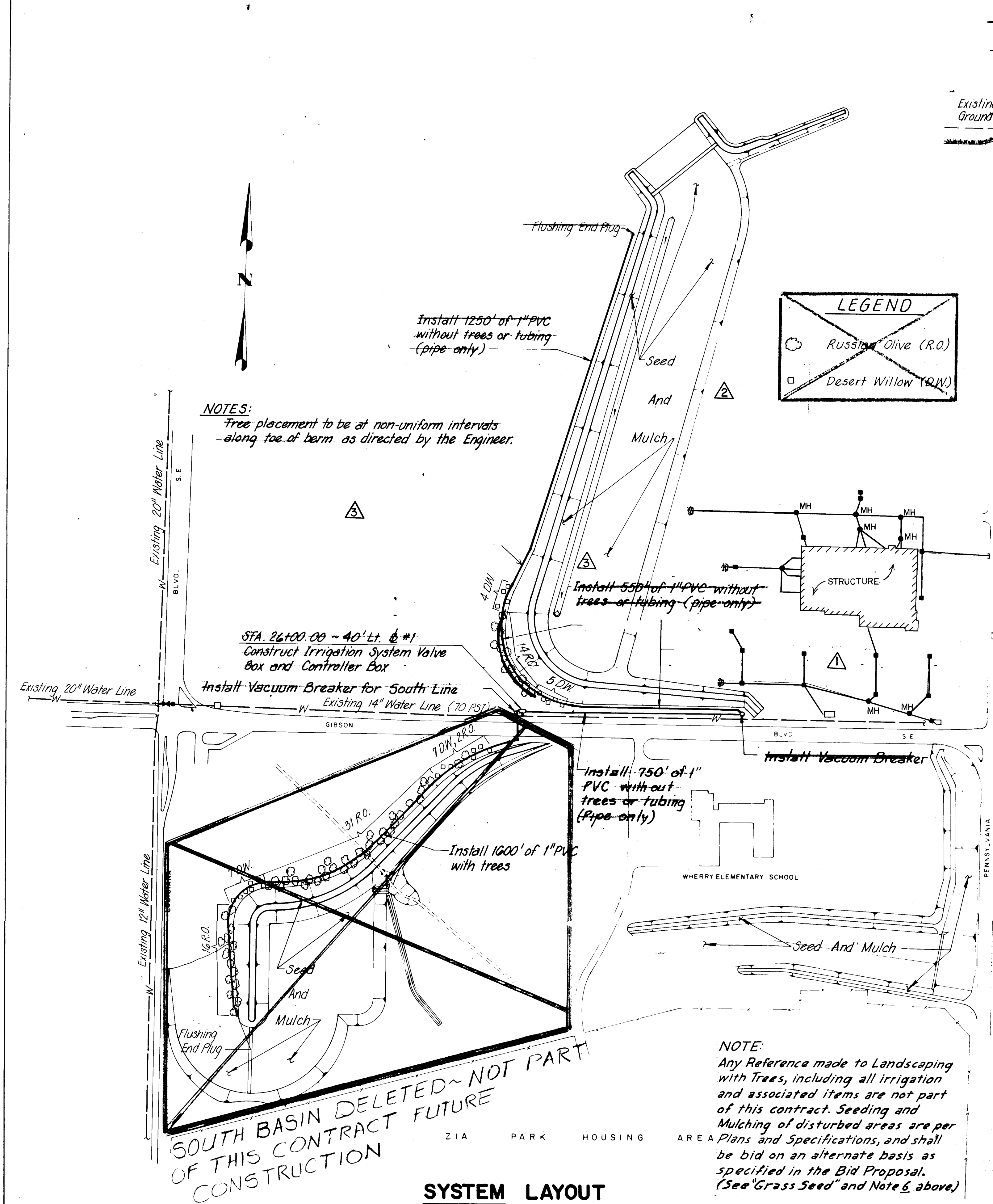
Horiz.: 1" = 50'

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS
NORTH BASIN PROFILE

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	C. V. Shupert	9/1/84	Liquid Waste	R. Pena	8/1/84
A.C.E. - Design	W. J. H. H. H.	8/15/84	Traffic	N. P. DuH	8/15/84
A.C.E. - Hydrology	Jim Zink	8/11/84	Water	R. Pena	8/1/84

DRAWING NO. 1674 **MAP NO. L-19** **SHEET 21 OF 34**



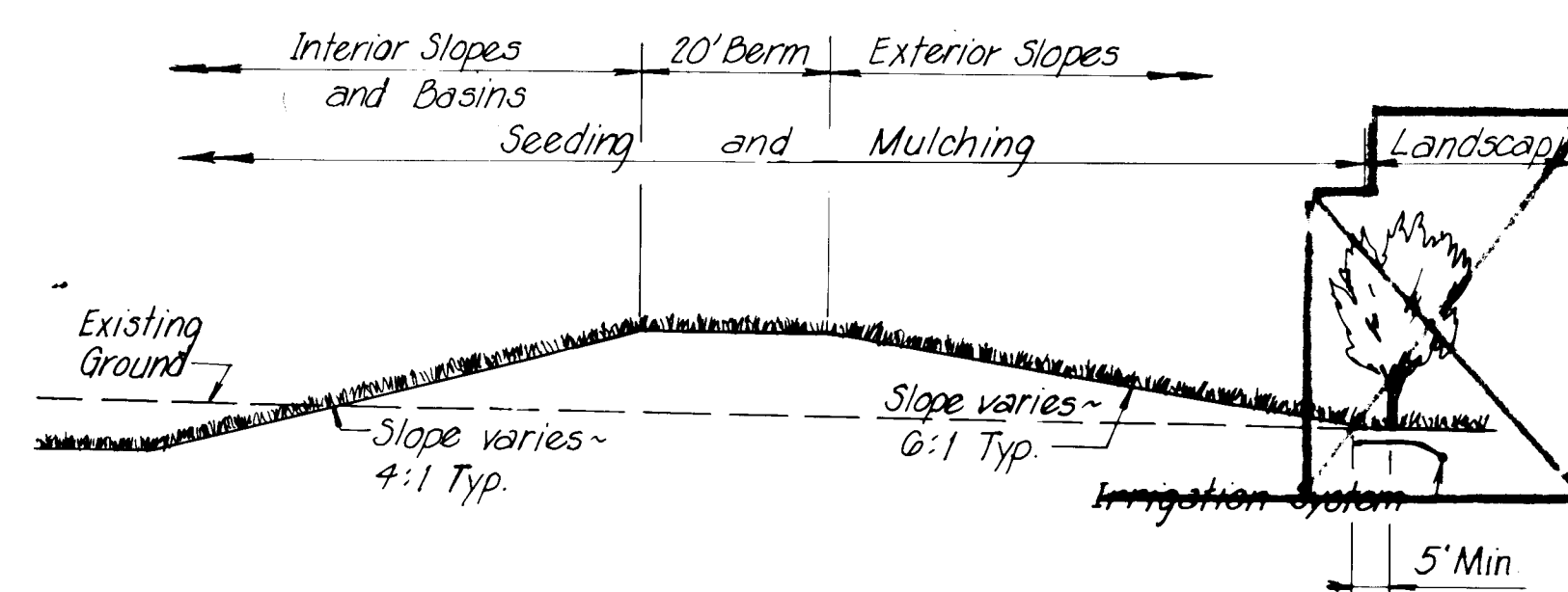
SYSTEM LAYOUT

Scale: 1" = 200'

NOTE:
Any Reference made to Landscaping with Trees, including all irrigation and associated items are not part of this contract. Seeding and Mulching of disturbed areas are per ^A Plans and Specifications, and shall be bid on an alternate basis as specified in the Bid Proposal. (See "Grass Seed" and Note 6 above)

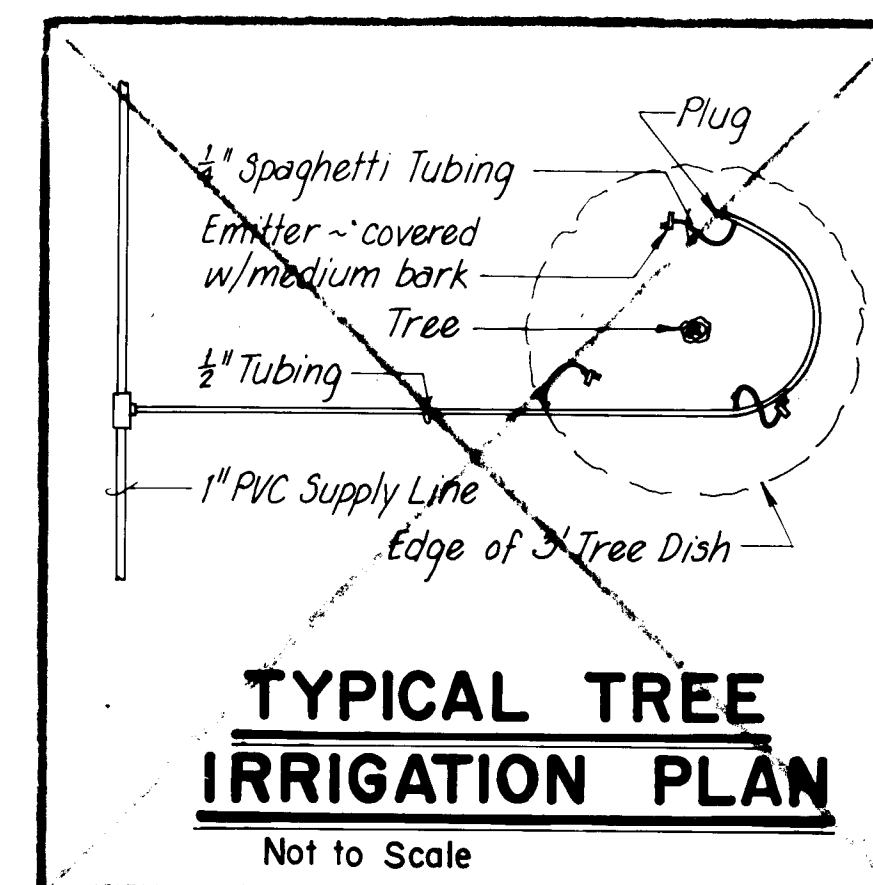
RECORD DRAWING
Date SEP 12 1985

These drawings have been revised based on field data. It is a reasonable attempt has been made to depict construction as actually performed.



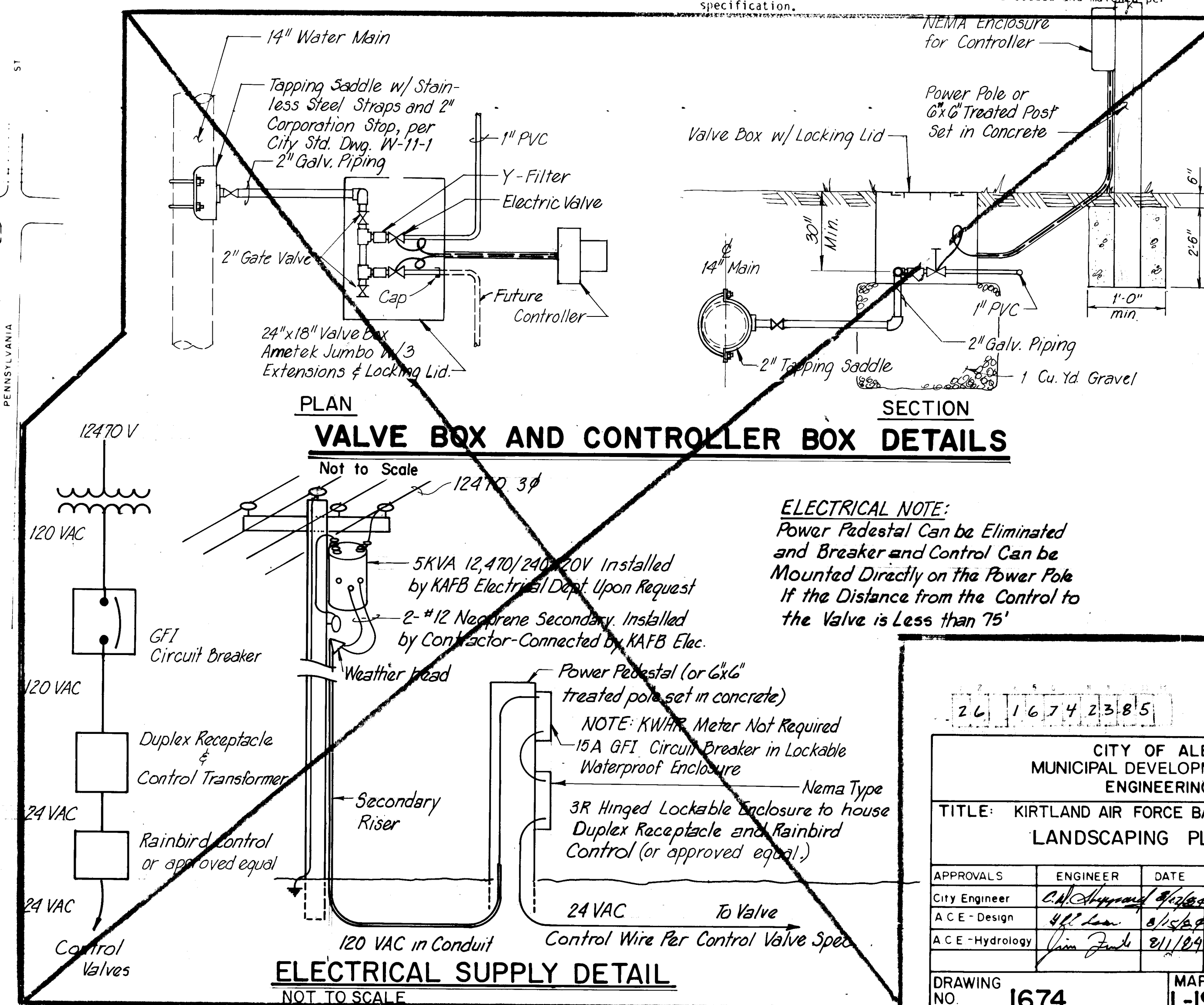
LANDSCAPING DETAIL

Not to Scale



TYPICAL TREE IRRIGATION PLAN

Not to Scale



ELECTRICAL SUPPLY DETAIL

NOT TO SCALE

<u>Botanical Name</u>	<u>PLAI</u> <u>Comm</u>	<u>ST</u> <u>me</u>	<u>Size</u>	<u>Amount</u>
<i>Medicago angustifolia</i>	Kuvsar	ze "King Red"	5 gal.	14
<i>Chilopsis linearis</i>	Desert	De	5 gal.	9
<u>Grass Seed</u>				
<i>Bouteloua gracilis</i>	Black	"Austin"		4 lbs. *PLS
<i>Eriogonum hymenoides</i>	Insar	"Pink "Palana"		2 lbs
<i>Buchloe dactyloides</i>	Hyatt	" "		3 lbs
<i>Ammophan desertorum</i>	Crusted	"Grass		3 lbs
		TOTAL		12 lbs PLS

LANDSCAPE NOTES

1. 1" PVC shall have 30" cover min
least 12 inches and spaghetti tu
dish and emitters covered with i
tree.
 2. The dishes around trees shall be
medium bark. Tree dishes are 3'
 3. Flushing end plugs are to be ins
the plan. These two lines shall
pipe with lid and 6" of gravel
 4. The following equipment shall be
CRC-4 computer controller m
below).
2 - Valves, 100-EFA-PRS
1 - Atmospheric vacuum bre.
2 - Y Filters 39-0.
1 - Valve Box, Ametek Jumb
filters.
350' of 1/2" drip tubing, R
69 emitters EM-M10-Rainbug
160' of 1/4" tubing
23 - 1" x 1" x 1/2" tees
23 - 1/2" end plugs
1 - 1" Flushing end plugs
- Additional Equipment
- 3250' of 1" Schedule 40 PVC
1 - 2" Corporation Stop
1 - Nema Type 3R Enclosure
mounted
2 - 2" Bronze Body Gate Val
5. Water pressure shall be regulate
40 psi in the 1" Schedule 40 lines.
6. All areas disturbed by construct
sification shall be seeded and mulched per

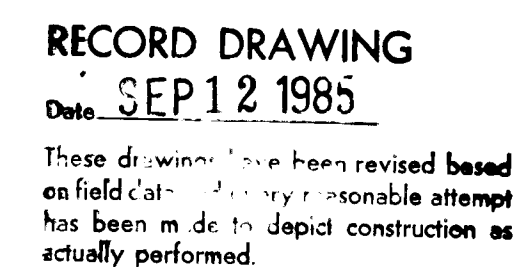
PLAN SECTION

VALVE BOX AND CONTROLLER BOX DETAILS

ELECTRICAL NOTE:
Power Pedestal Can be Eliminated
and Breaker and Control Can be
Mounted Directly on the Power Pole
If the Distance from the Control to
the Valve is Less than 75'

ENGINEER'S SEAL				SURVEY INFORMATION		BENCH MARKS		AS BUILT INFORMATION		
REGISTERED PROFESSIONAL ENGINEER STATE OF NEW YORK NO. 10888 R.M. SMITH				FIELD NOTES		<i>See Sheet 3 For Bench Mark Description</i>		CONTRACTOR		
				NO.	BY					DATE
REVISIONS				DRAWINGS		DATE		MICRO-FILM INFORMATION		
				NO.		BY				
				DATE		DATE				
DESIGN				DESIGNED BY R.M.		DATE June 1984				
				DRAWN BY P.A.P.		DATE JUNE 1984				
				CHECKED BY C.D.		DATE June 1984				

CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS LANDSCAPING PLAN AND DETAILS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>C. L. Thompson</i>	<i>8/1/84</i>	Liquid Waste	<i>R. L. Tena</i>	<i>8/1/84</i>
A C E - Design	<i>W. L. Tena</i>	<i>8/1/84</i>	Traffic	NA T & H	<i>8/1/84</i>
A C E - Hydrology	<i>John J. J. J.</i>	<i>8/1/84</i>	Water	<i>R. L. Tena</i>	<i>8/1/84</i>
DRAWING NO.		MAP NO.		SHEET OF	
1674		L-19. M-19		23 34	

[illegible]

CITY OF ALBUQUERQUE									
MUNICIPAL DEVELOPMENT DEPARTMENT									
ENGINEERING DIVISION									
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS									
TYPICAL TRAFFIC PLANS AND DETAILS									

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>W. H. [Signature]</i>	5/1/84	Liquid Waste	<i>R. [Signature]</i>	5/1/84
A.C.E - Design	<i>W. H. [Signature]</i>	5/1/84	Traffic	<i>Daniel [Signature]</i>	5/1/84
A.C.E -Hydrology	<i>Jim [Signature]</i>	5/1/84	Water	<i>R. [Signature]</i>	5/1/84
DRAWING NO. 1674		MAP NO. L-19,M-19		SHEET 24 OF 34	



SCALE : 1" = 100'

SCALE 1" = 50'

These drawings have been revised based on field data and every reasonable attempt has been made to depict construction as actually performed.

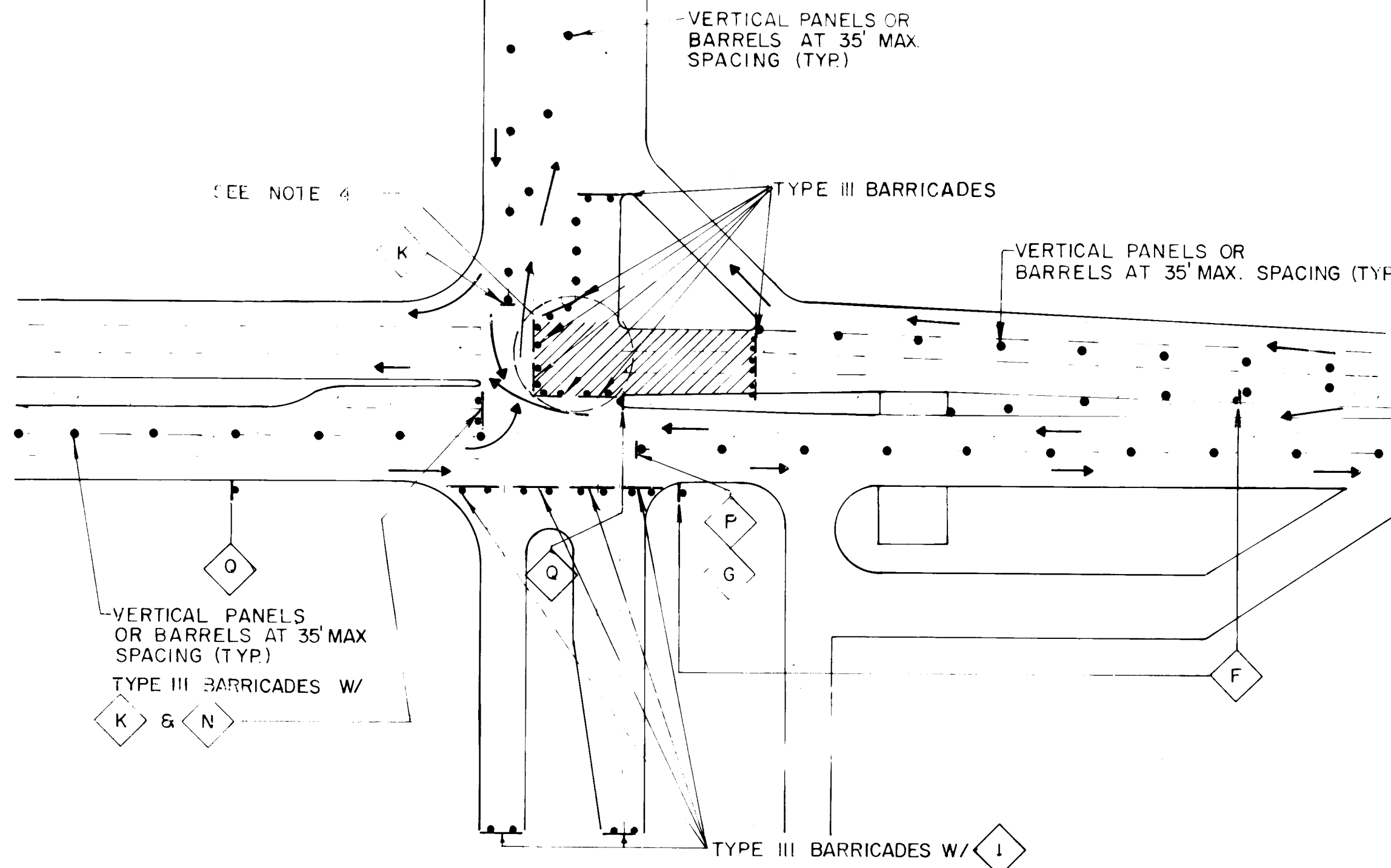
AS BUILT INFORMATION	
CONTRACT NO.	
WORK ORDER NO.	
CREATED BY	DATE
INSPECTED BY	DATE
ASSISTANCE BY	DATE
FIELD NO.	DATE
CERTIFICATION BY	DATE
CORRECTED BY	DATE
MICRO-FILM INFORMATION	
RECORDED BY	DATE
NO.	

SURVEY INFORMATION	\$
FIELD NOTES	



<i>REVIEWS</i>			<i>DESIGN</i>
BY	REMARKS	DATE	
		DATE	JULY 1984
		DATE	JULY 1984
		DATE	JULY 1984

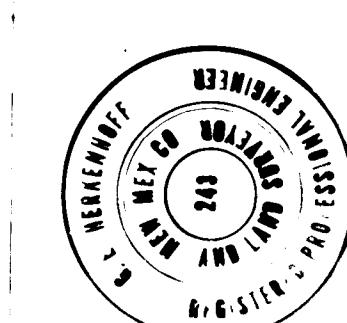
CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS					
TRAFFIC PLAN PHASE I					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>E. H. Haggard</i>	<i>8/1/84</i>	Liquid Waste	<i>R. J. Pena</i>	<i>8/1/84</i>
A C E - Design	<i>A. J. Lister</i>	<i>8/1/84</i>	Traffic	<i>Daniel W. Hannon</i>	<i>8/10/84</i>
A C E - Hydrology	<i>Jim Zwick</i>	<i>8/1/84</i>	Water	<i>R. J. Pena</i>	<i>8/1/84</i>
DRAWING NO. 1674		MAP NO. L-19.M-19		SHEET 25 OF 34	



AS BUILT INFORMATION

SURVEY INFORMATION

ENGINEER'S SEAL

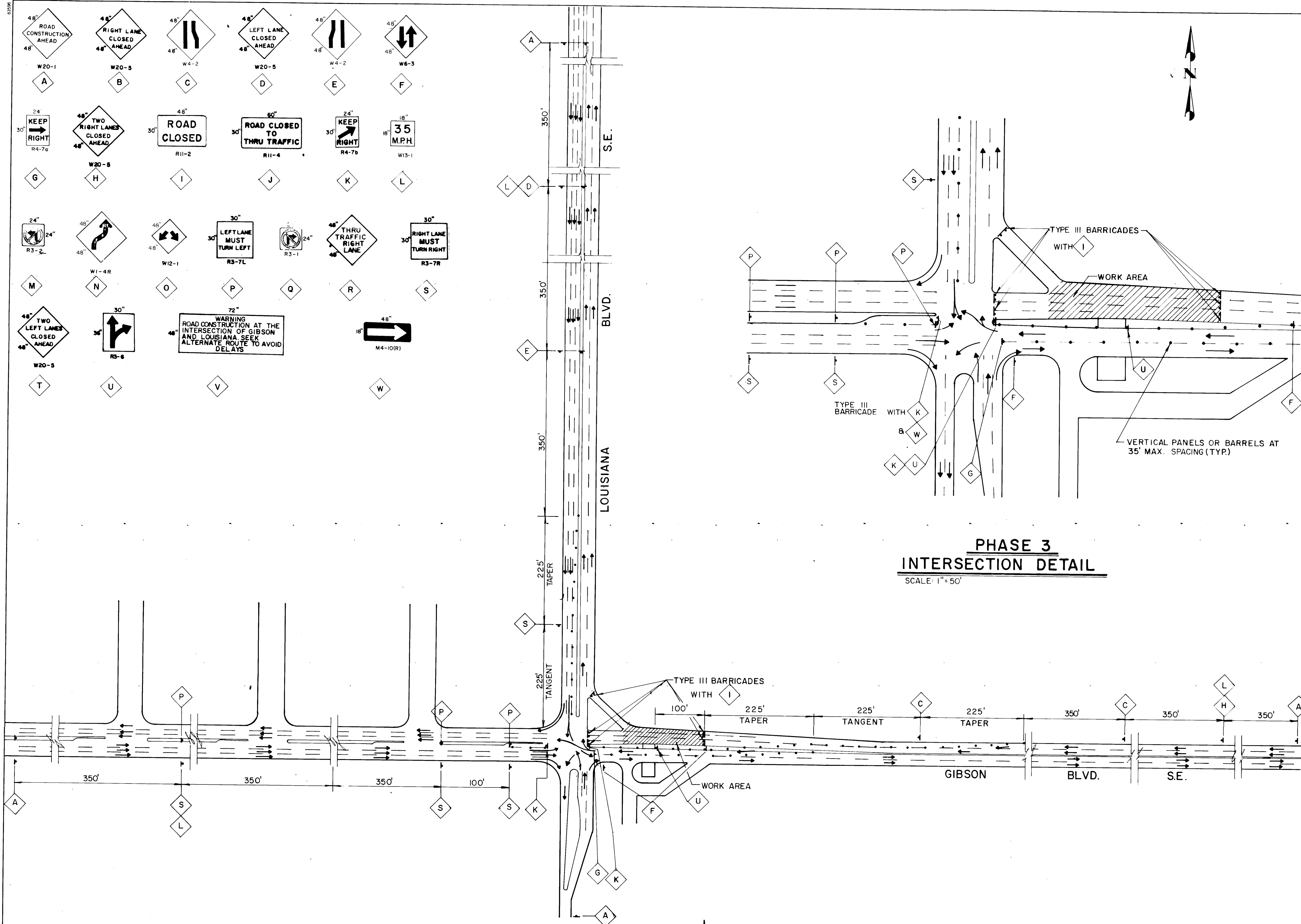
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TITLE KIRTLAND AIR FORCE BASE DETENTION BASINS
TRAFFIC PLAN PHASE 2

DATE	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>Carl H. [Signature]</i>	8/1/84	Q & WSP	<i>K. J. [Signature]</i>	8/1/84
A & E Design			Traffic	<i>David W. [Signature]</i>	8/10/84
A & E Hydrology		8/1/84	Water	<i>K. J. [Signature]</i>	8/1/84

DRAWING NO	1674	MAP NO	L-19M-19	SHEET	26	OF	34
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RECORD DRAWING
 Date SEP 12 1985
 These drawings have been revised based on field data and every reasonable attempt has been made to depict construction as actually performed.

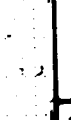
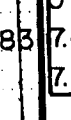
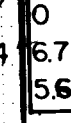
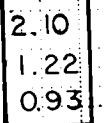
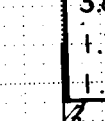
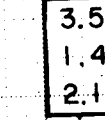
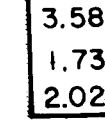
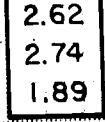
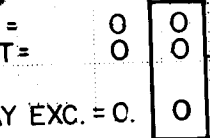
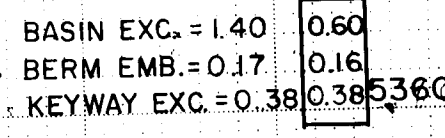
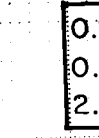
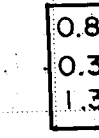
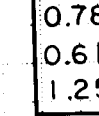
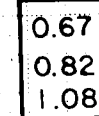
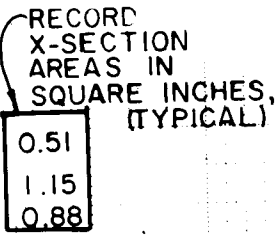


Note
1. All Signing will be in Accordance with notes on Sheet 24 of 34.
2. Advance Warning Sign Locations at San Pedro Blvd. and Gibson Blvd. S.E. Wyoming Blvd. S.E. and Gibson Blvd. S.E. and at Louisiana Blvd. S.E. and Zuni St. S.E. will be Located by the Project Engineer. Signs shall be Located Approximately 400' prior to and after the specified Intersection.
6 Signs total required.

[illegible]

CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS					
TRAFFIC PLAN PHASE 3					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>[Signature]</i>	8/1/89	Liquid Waste	<i>[Signature]</i>	5/1/89
A.C.E. - Design	<i>[Signature]</i>	8/1/89	Traffic	<i>[Signature]</i>	8/10/89
A.C.E. - Hydrology	<i>[Signature]</i>	8/1/89	Water	<i>[Signature]</i>	8/1/89
DRAWING NO. 1674		MAP NO. L-19.M-19		SHEET 27 OF 34	

RECORD DRAWING
SEP 12 1985
Date _____
These drawings have been revised based on field data and every reasonable attempt has been made to depict construction as actually performed.



BASIN EXC.= 0
BERM EMB= 3.48
KEYWAY EXC= 2.49

0
3.38
2.49

0.93

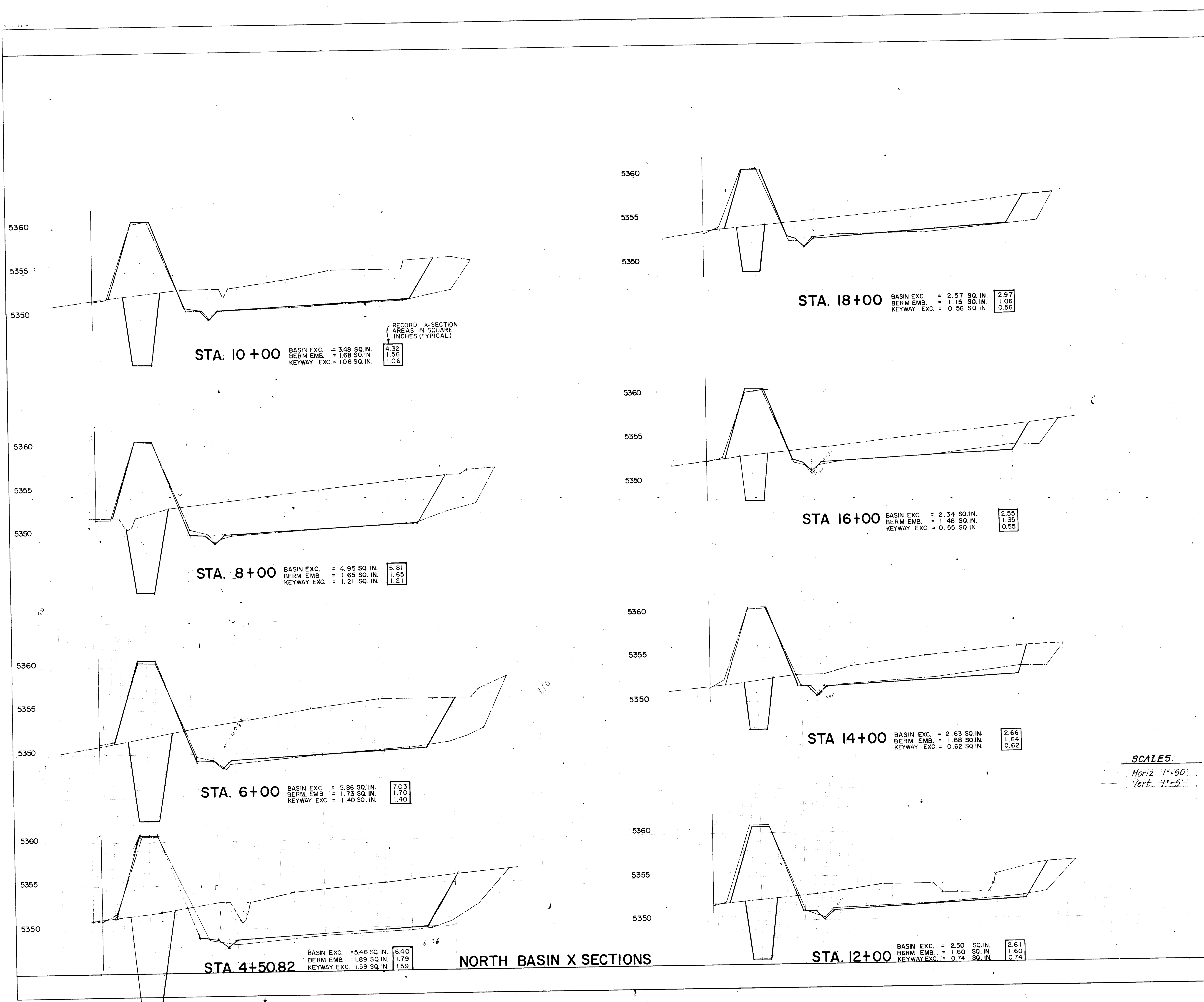
NOTES:
1. Stationing is Δ #1
2. Sections cut looking West

LEGEND
 --- EXISTING GROUND
 ————— DESIGN
 - - - - - RECORD

[illegible]

CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS NORTH BASIN X-SECTIONS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>C.D. Hughes</i>	<i>9/1/84</i>	Liquid Waste	<i>R. Perna</i>	<i>8/1/84</i>
ACE - Design	<i>W. L. L...</i>	<i>8/1/84</i>	Traffic	<i>W. D. W...</i>	<i>8/10/84</i>
ACE - Hydrology	<i>J. J. J...</i>	<i>8/1/84</i>	Water	<i>R. Perna</i>	<i>8/1/84</i>
DRAWING NO.		MAP NO.		SHEET OF	
1674		L-19, M-19		28 34	

DRAWING NO.	1674	MAP NO.	L-19, M-19	SHEET	28	OF	34
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NOTES:
1. Stationing is $\frac{1}{4}$ #9

LEGEND
--- EXISTING GROUND
--- DESIGN
--- RECORD

RECORD DRAWING
Date: SEP 12 1985
These drawings have been revised based on field data and every reasonable attempt has been made to depict construction as actually performed.

SCALES:
Horiz: 1"=50'
Vert: 1"=5'

**CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION**

**TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS
NORTH BASIN X- SECTIONS**

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>[Signature]</i>	8/1/84	Liquid Waste	<i>[Signature]</i>	8/1/84
ACE - Design	<i>[Signature]</i>	8/15/84	Traffic	<i>[Signature]</i>	8/10/84
ACE - Hydrology	<i>[Signature]</i>	8/11/84	Water	<i>[Signature]</i>	8/1/84

REVISIONS

NO.	DATE	REMARKS
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		

DESIGNED BY E.C.L. **DATE** 6-84
DRAWN BY J.B. **DATE** 6-84
CHECKED BY C.D. **DATE** 6-84

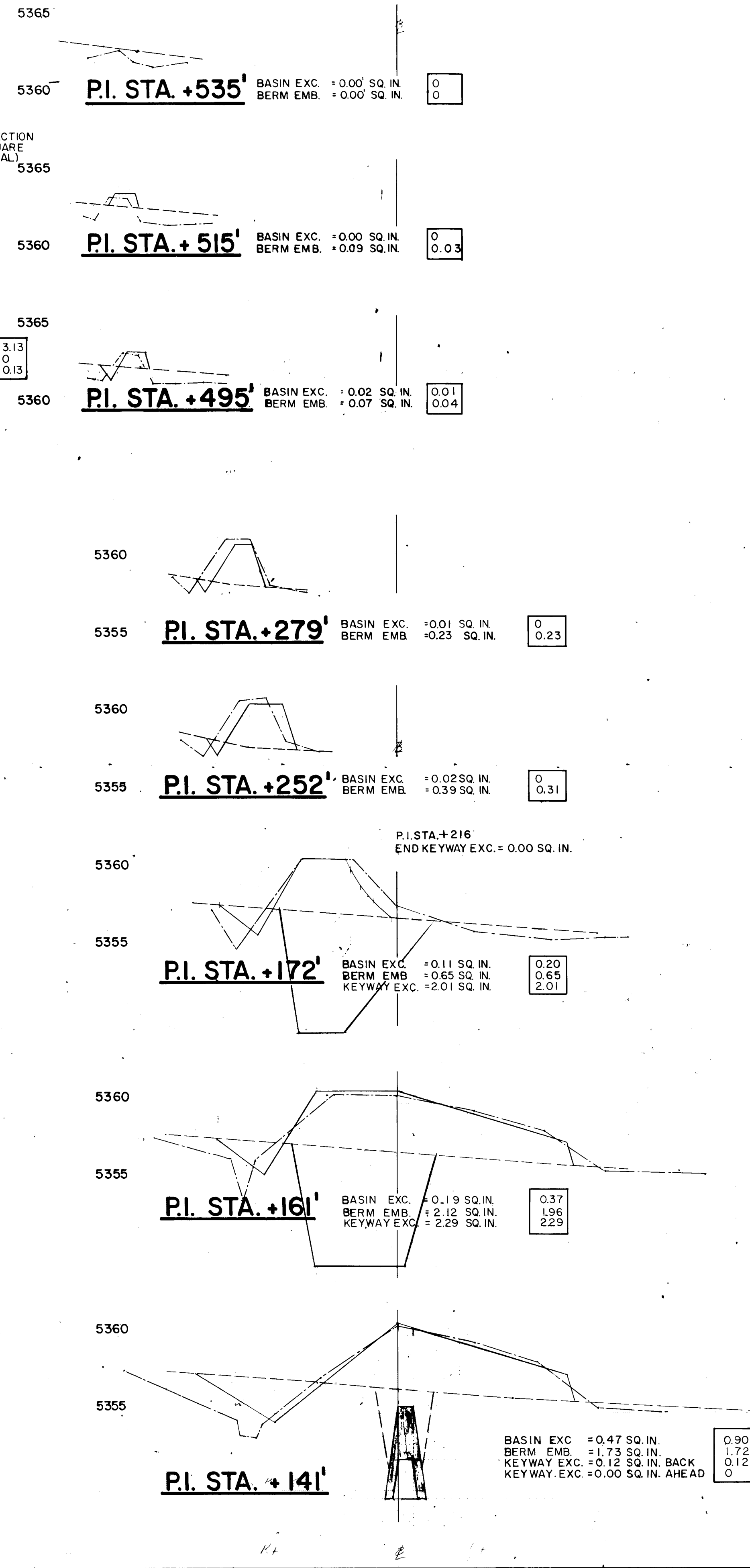
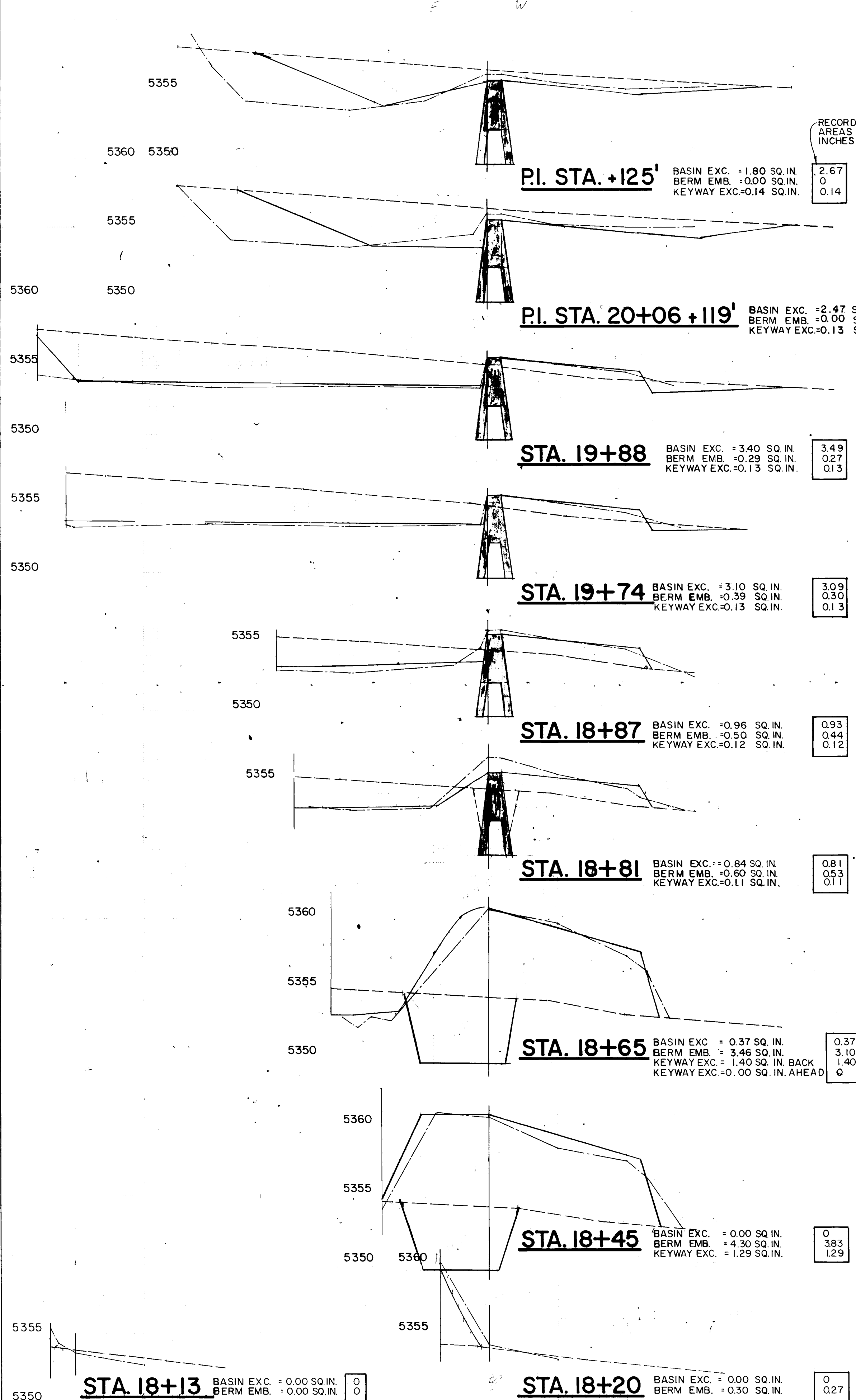
ENGINEER'S SEAL
L. L. WILSON
REGISTERED PROFESSIONAL ENGINEER
No. 219
State of New Mexico

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

BENCH MARKS
See Shit. 3 for Bench Mark Description

AS BUILT INFORMATION
CONTRACT NO. DATE
WORK ORDER BY INSPECTOR DATE
ACCELERATION BY DATE
VELOCITY BY DATE
DRAWING NO. DATE
RECORDED BY DATE
MICRO-FILM INFORMATION

DRAWING NO. L19-M-19 **SHEET** 29 **OF** 34



SCALES:
 Horiz: 1"=50'
 Vert: 1"=5'

RECORD DRAWING
 Date: SEP 12 1985

These drawings have been revised based on field data and every reasonable attempt has been made to depict construction as actually performed.

NOTE:
 X-SECTIONS are taken on Construction Baseline #9 and on the Back Tangent extended of P.I. STA. 20+06.
 All X-SECTIONS on this sheet are looking Westerly.

LEGEND
 --- EXISTING GROUND
 --- DESIGN
 --- RECORD

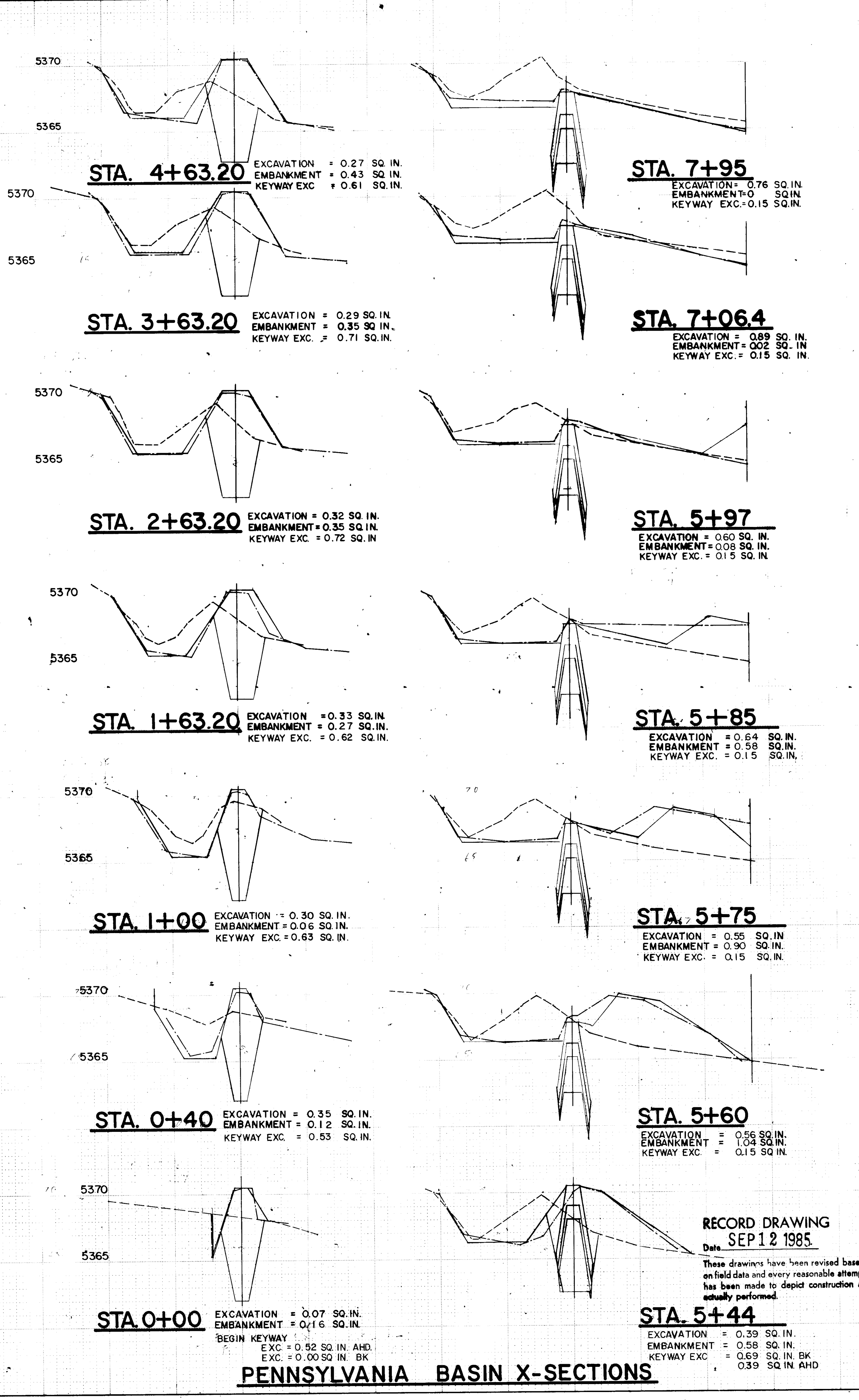
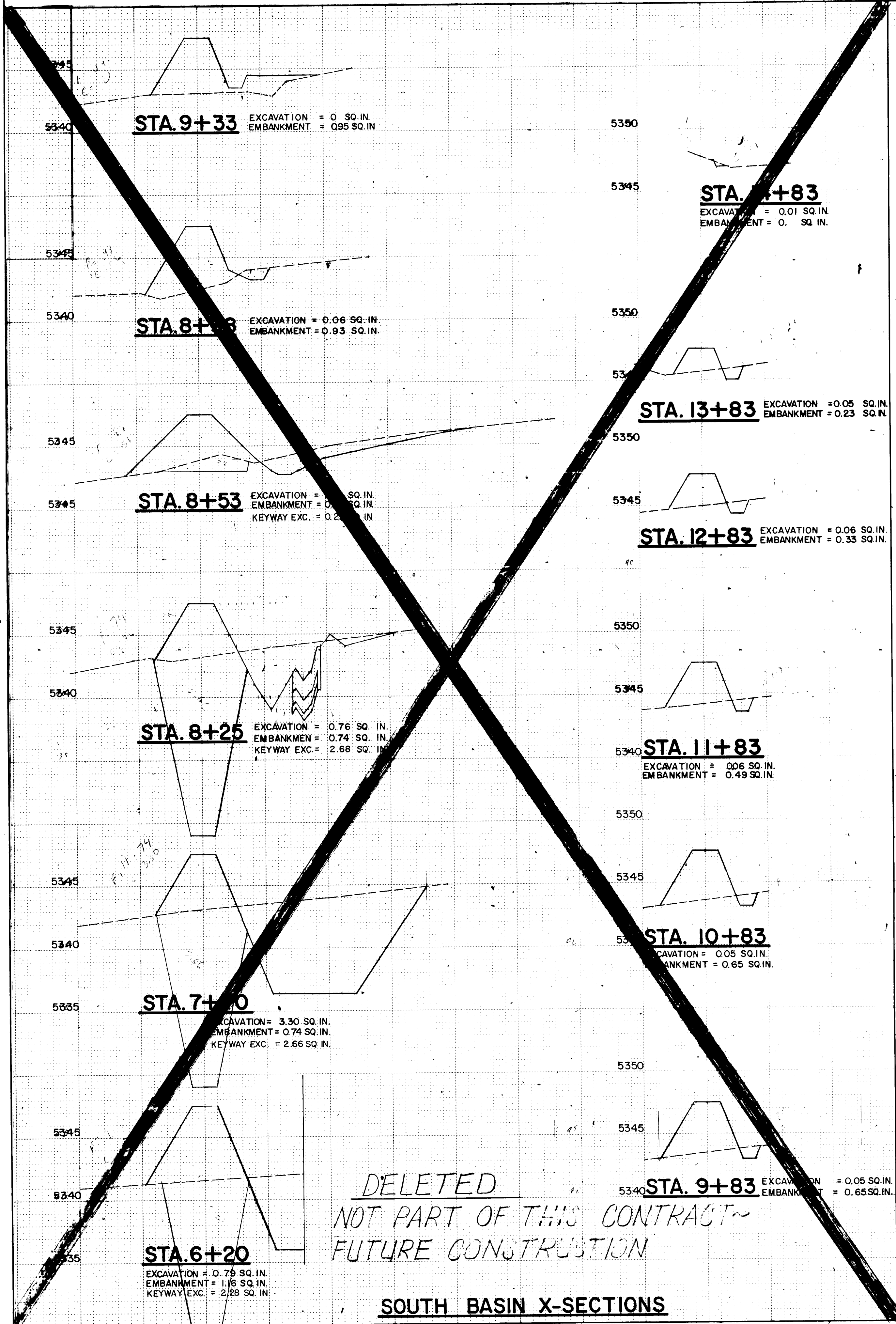
ENGINEER'S SEAL			SURVEY INFORMATION			BENCH MARKS			AS BUILT INFORMATION		
			FIELD NOTES			See Sht. 3 for Bench Mark Description			DATE		
NO.			BY			DATE			DATE		
REVISIONS			REMARKS			NO. <td colspan="3">DATE </td>			DATE		
DESIGN			DESIGN			NO. <td colspan="3">DATE </td>			DATE		
DRAWN BY E.C.L.			DATE 6-84			NO. <td colspan="3">DATE </td>			DATE		
CHECKED BY C.D.			DATE 6-84			NO. <td colspan="3">DATE </td>			DATE		

CITY OF ALBUQUERQUE
 MUNICIPAL DEVELOPMENT DEPARTMENT
 ENGINEERING DIVISION

TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS
 NORTH BASIN X-SECTIONS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>[Signature]</i>	8/1/84	Liquid Waste	<i>[Signature]</i>	8/1/84
A.C.E. - Design	<i>[Signature]</i>	8/1/84	Traffic	<i>[Signature]</i>	8/1/84
A.C.E. - Hydrology	<i>[Signature]</i>	8/1/84	Water	<i>[Signature]</i>	8/1/84

DRAWING NO. 1674 MAP NO. L-19, M-49 SHEET 30 OF 34



NOTES
1. Pennsylvania Basin:
X-Sections are taken along E Berm Stationing, looking South
2. Spillway:
X-Sections are taken along E Spillway Stationing, looking West
3. X-Section areas given are record information.

LEGEND
--- EXISTING GROUND
--- DESIGN
--- RECORD

AS BUILT INFORMATION
CONTRACTOR: _____
STATIONED BY: _____ DATE: _____
ACCEPTED BY: _____ DATE: _____
FIELD CHECKED BY: _____ DATE: _____
CORRECTED BY: _____ DATE: _____
RECORDED BY: _____ DATE: _____

ENGINEER'S SEAL
REGISTERED PROFESSIONAL ENGINEER
STATE OF NEW MEXICO
No. 713
Name: R. F. FINE
Exp. 12/31/84

REVISIONS

NO.	DATE	REMARKS
1	8/1/84	DESIGN

DESIGNED BY: E.C.L.
DRAWN BY: R.K.
CHECKED BY: C.D.

DATE: 6-84
DATE: 6-84
DATE: 6-84

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS
SOUTH BASIN AND PENNSYLVANIA BASIN X-SECTIONS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	C.D. Humphrey	8/1/84	Liquid Waste	R. F. Fine	8/1/84
A.C.E. - Design	M. J. J. J.	8/1/84	Traffic	R. F. Fine	8/1/84
A.C.E. - Hydrology	J. J. J.	8/1/84	Water	R. F. Fine	8/1/84

DRAWING NO. 1674 **MAP NO. L-19, M-19** **SHEET 32 OF 34**

RECORD DRAWING
Date: SEP 12 1985
These drawings have been revised based on field data and every reasonable attempt has been made to depict construction as actually performed.

EXCAVATION = 0.13 SQ. IN.
EMBANKMENT = 0.12 SQ. IN.
KEYWAY EXC. = 0

EXCAVATION = 0.35 SQ. IN
EMBANKMENT = 0.32 SQ. IN
KEYWAY EXC. = 0.39 SQ. IN

EXCAVATION = 0.50 SQ. IN.
EMBANKMENT = 0.25 SQ. IN.
KEYWAY EXC. = 0.40 SQ. IN.
BK.
0.62 SQ. IN.

EXCAVATION = 0.57 SQ. IN
EMBANKMENT = 0.35 SQ. IN
KEYWAY EXC. = 0.15 SQ. IN

EXCAVATION = 0.69 SQ
EMBANKMENT = 0.24 SQ
KEYWAY EXC. = 0.15 SQ

EXCAVATION = 0.71 SQ IN
EMBANKMENT = 0.35 SQ IN
KEYWAY EXC = 0.15 SQ IN

EXCAVATION = 0.62 \$
EMBANKMENT = 0.33 \$
KEYWAY EXC. = 0.15 \$

PENNSYLVANIA BASIN X-SECTIONS

EXCAVATION = 0.21 SQ. IN.
EMBANKMENT = 0.62 SQ. IN.

EXCAVATION = 0.26 SQ. M
EMBANKMENT = 0.61 SQ. M

EXCAVATION = 0.40 SQ. IN.
EMBANKMENT = 0.55 SQ. IN.

EXCAVATION = 0.38 SQ. IN.
EMBANKMENT = 0.63 SQ. IN.

PENNSYLVANIA SPILLWAY X-SECTIONS

EXCAVATION = 0 SQ. IN
EMBANKMENT = 0.02 SQ. IN

CAVATION = 0.06 SQ. IN.
BANKMENT = 0 SQ. IN.

EXCAVATION = 0 SQ. IN.
EMBANKMENT = 0 SQ. IN.

EXCAVATION = 0 SQ. IN.
EMBANKMENT = 0.33 SQ. IN.

EXCAVATION = 0 SQ. IN.
EMBANKMENT = 0.35 SQ. IN.

EXCAVATION = 0.21 SQ. IN.
EMBANKMENT = 0.60 SQ. IN.

CAVATION = 0.19 SQ. IN.
BANKMENT = 0.79 SQ. IN.

RECORD DRAWING
SEP 12 1985

These drawings have been revised based on field data and every reasonable attempt has been made to depict construction as actually performed.

- NOTES:
1. Basin Stationing is E of Berm looking South.
 2. Spillway Stationing is E of Spillway looking West.
 3. X-section areas given are Record Information.

LEGEND

----- EXISTING GROUND
 _____ DESIGN
 _____ RECORD

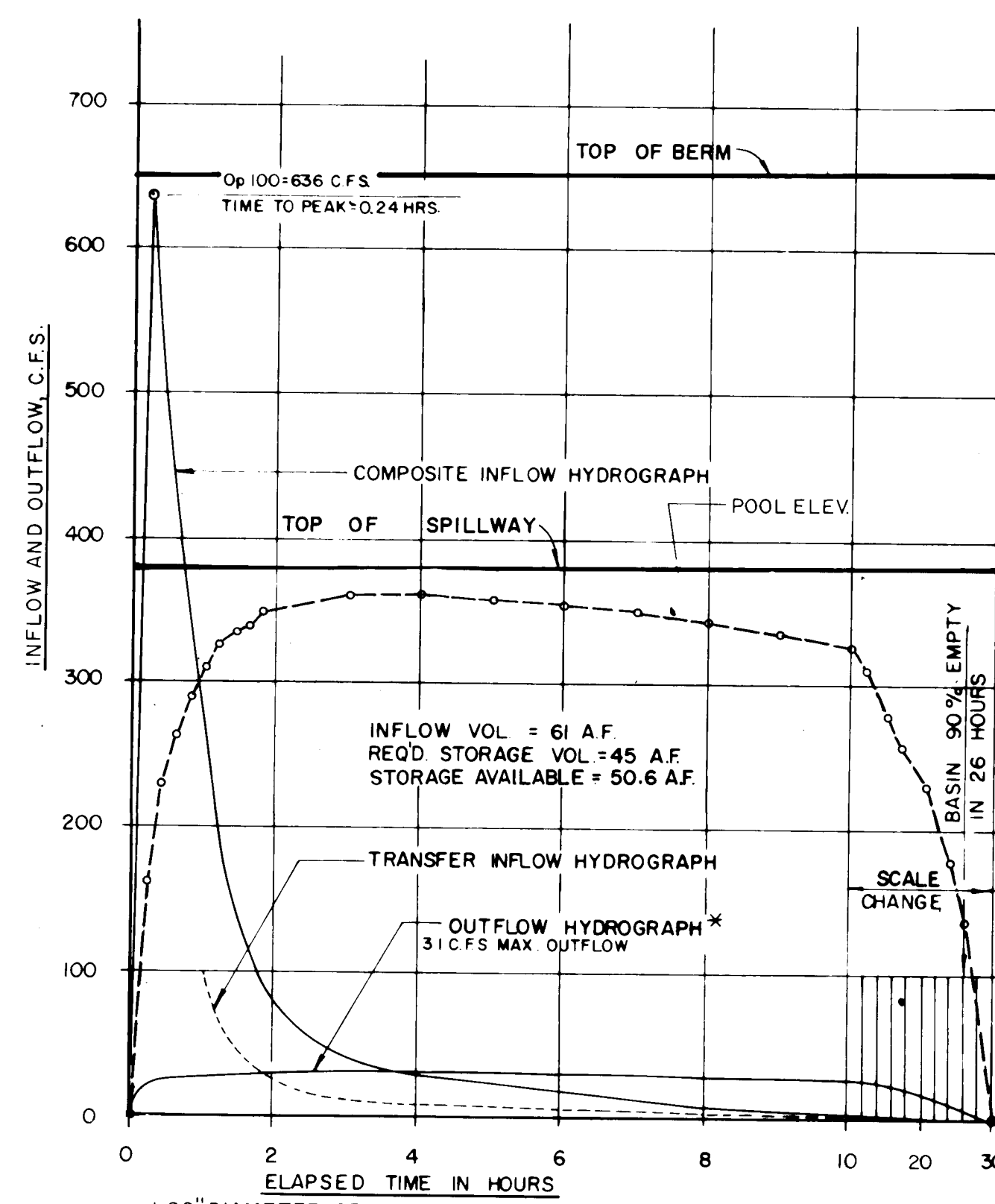
ENGINEER'S SEAL						SURVEY INFORMATION	BENCH MARKS	AS BUILT INFORMATION
						FIELD NOTES	<i>See Sht. 3 for Bench Mark Description</i>	CONTRACTOR
						NO.		WORK STARTED BY DATE
						BY		DATE
								ACCEPTANCE BY DATE
								FIELD CORRECTION BY DATE
								REGISTERED BY DATE
								CHECKED BY DATE
						MICRO-FILM INFORMATION		
								RECORDED BY DATE
								NO



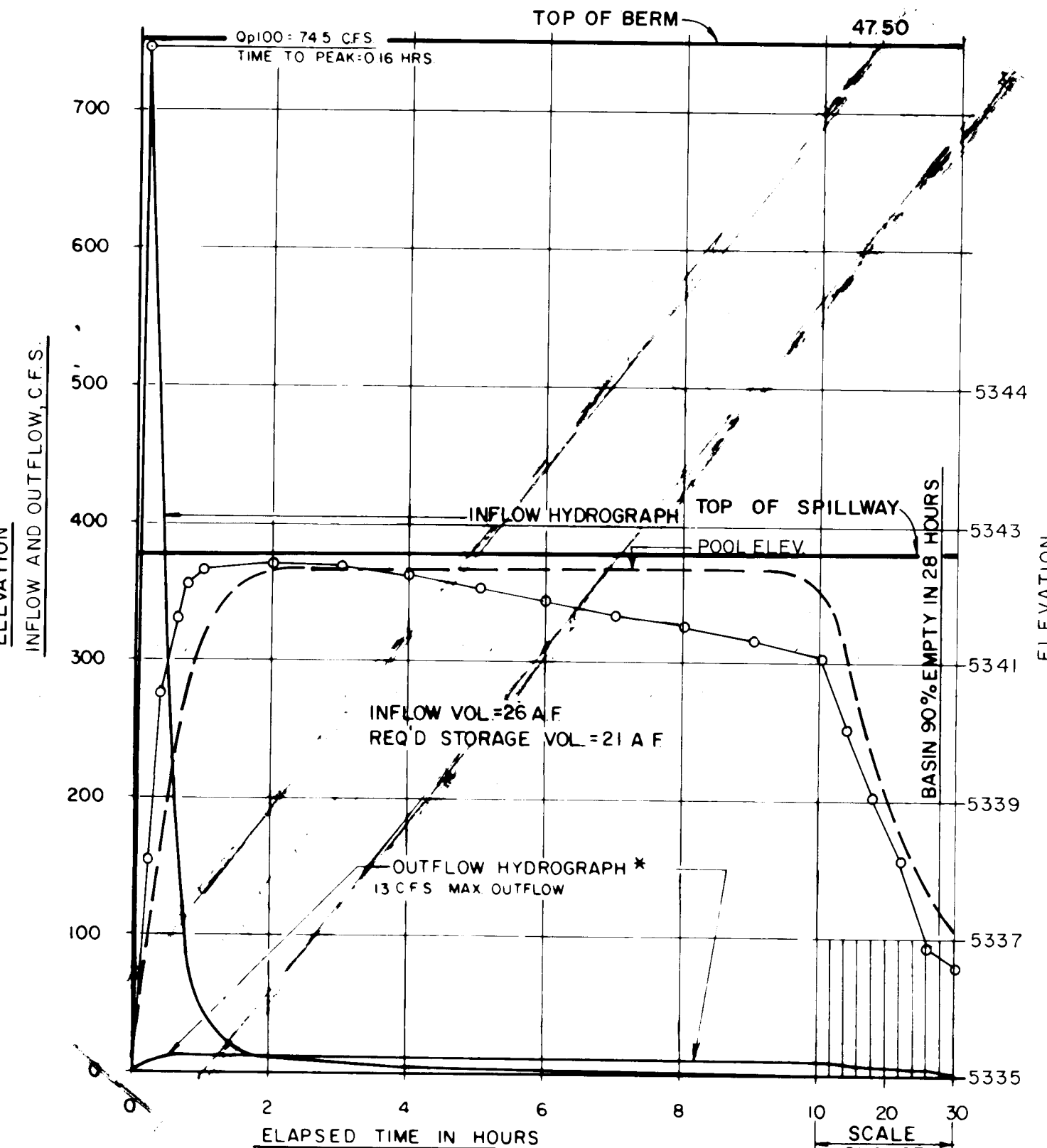
E.L. Kernberger P.E.

DESIGNED BY *ECL* DATE *6-84*
 DRAWN BY *RK* DATE *6-84*
 CHECKED BY *CO* DATE *6-84*

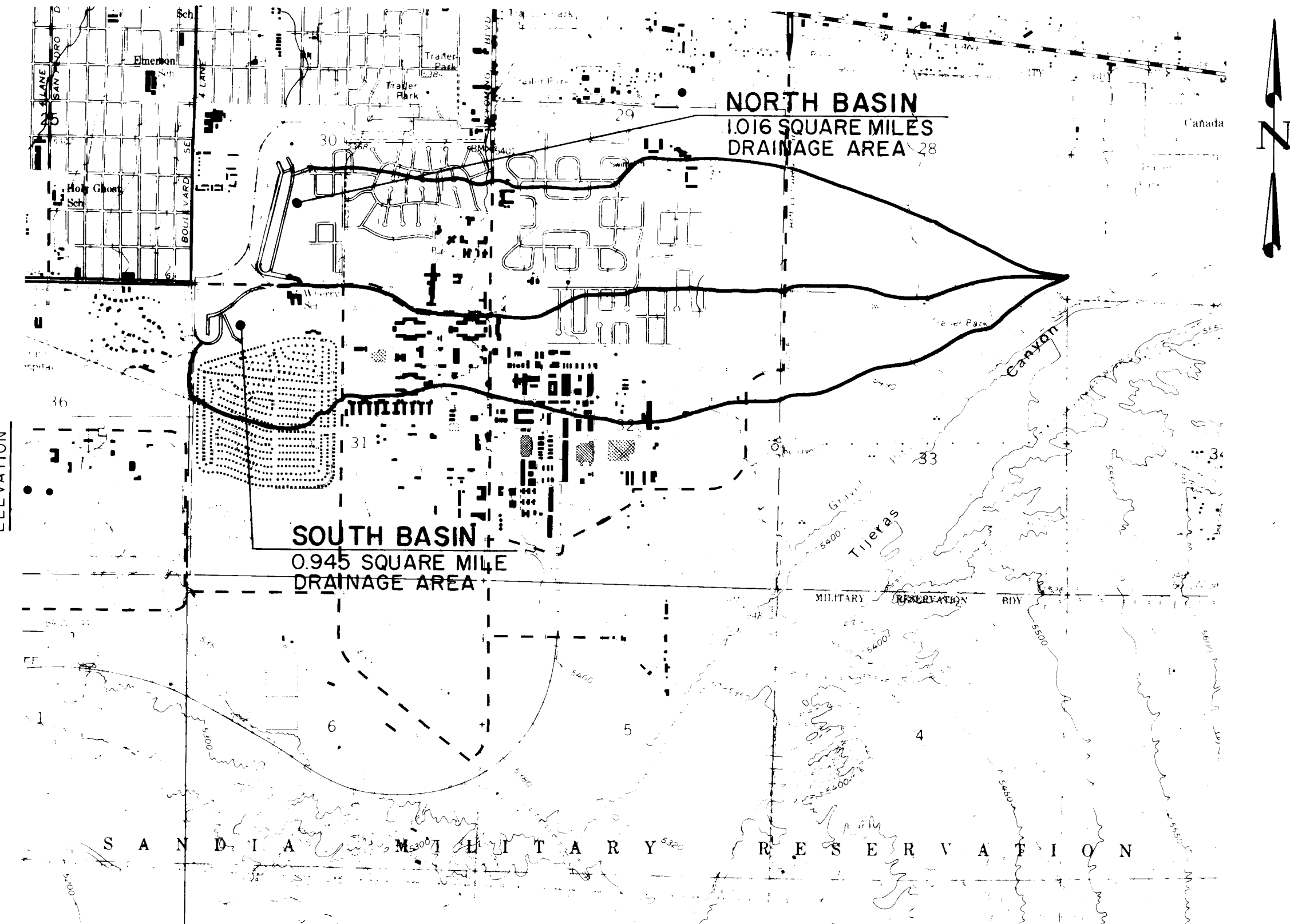
CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS PENNSYLVANIA BASIN AND SPILLWAY X- SECTIONS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>E. H. [Signature]</i>	8/1/64	Liquid Waste	<i>R. [Signature]</i>	8/1/64
A.C.E - Design	<i>[Signature]</i>	8/1/64	Traffic	N/A DWH	8/1/64
A.C.E - Hydrology	<i>Jim Zwick</i>	8/1/64	Water	<i>R. [Signature]</i>	8/1/64
DRAWING NO. 1674		MAP NO. L-19 M-19		SHEET 33 OF 34	



NORTH BASIN



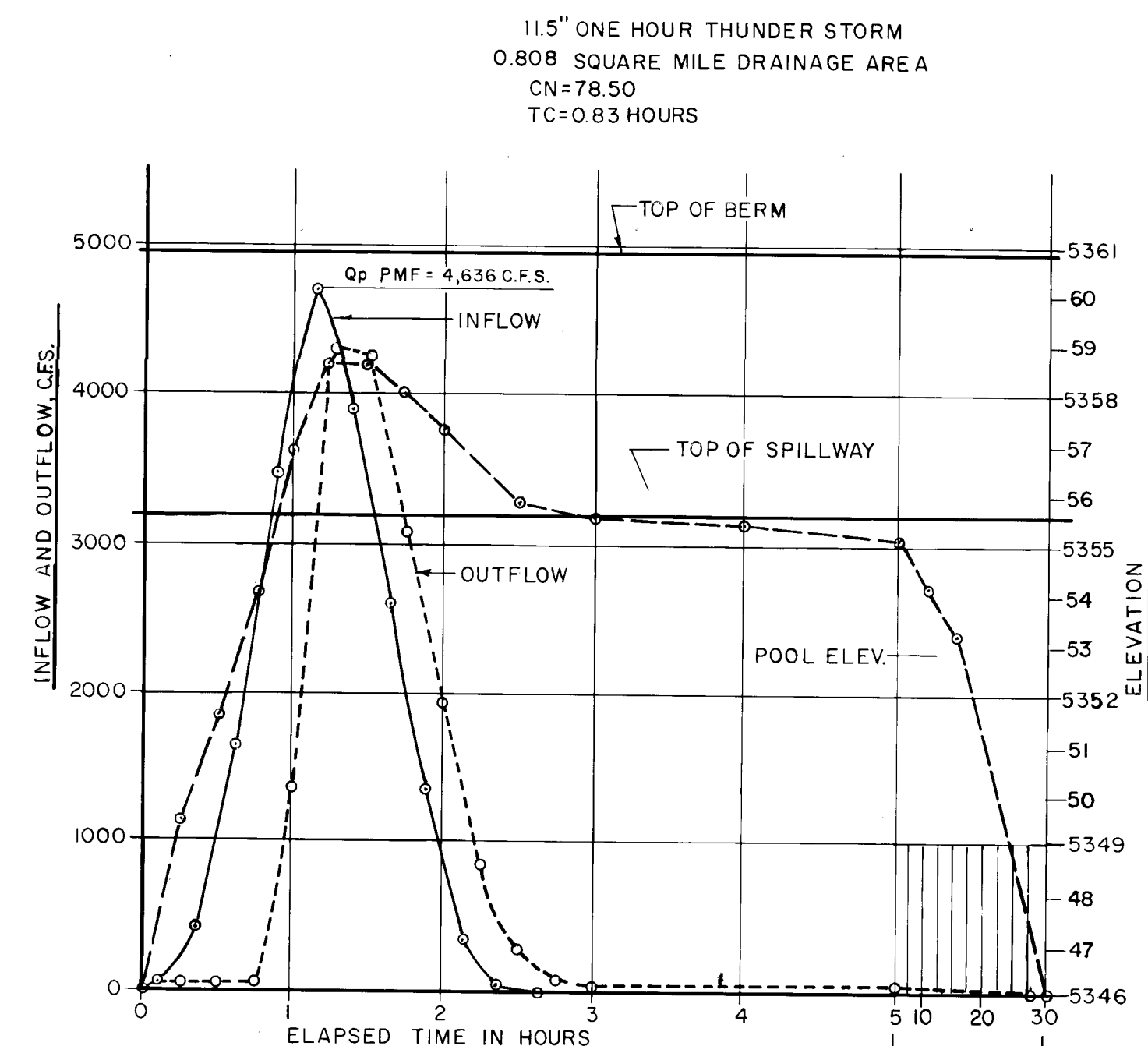
SOUTH BASIN



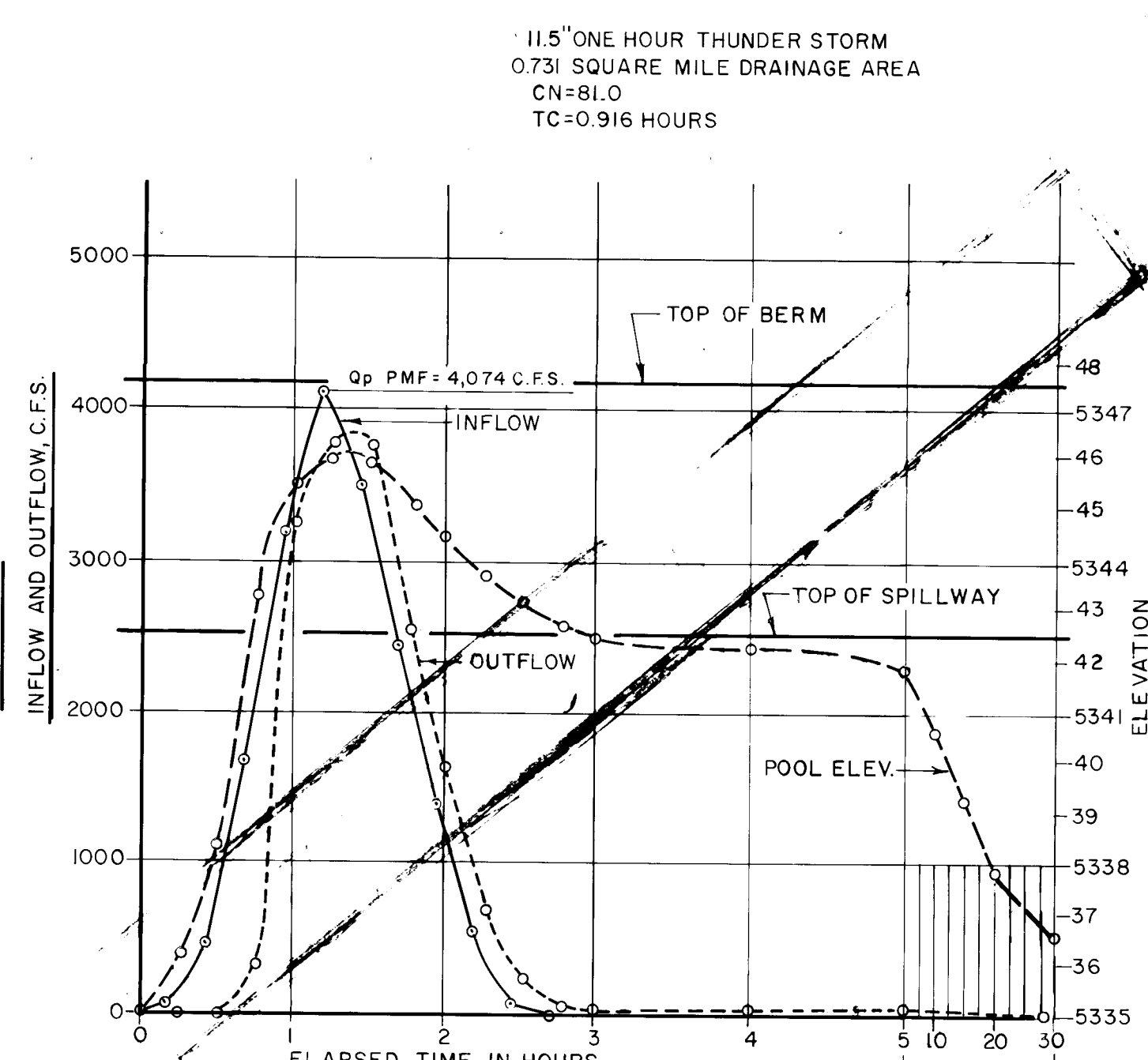
DRAINAGE MAP

SCALE: 1" = 2000'

100 YEAR INFLOW AND OUTFLOW

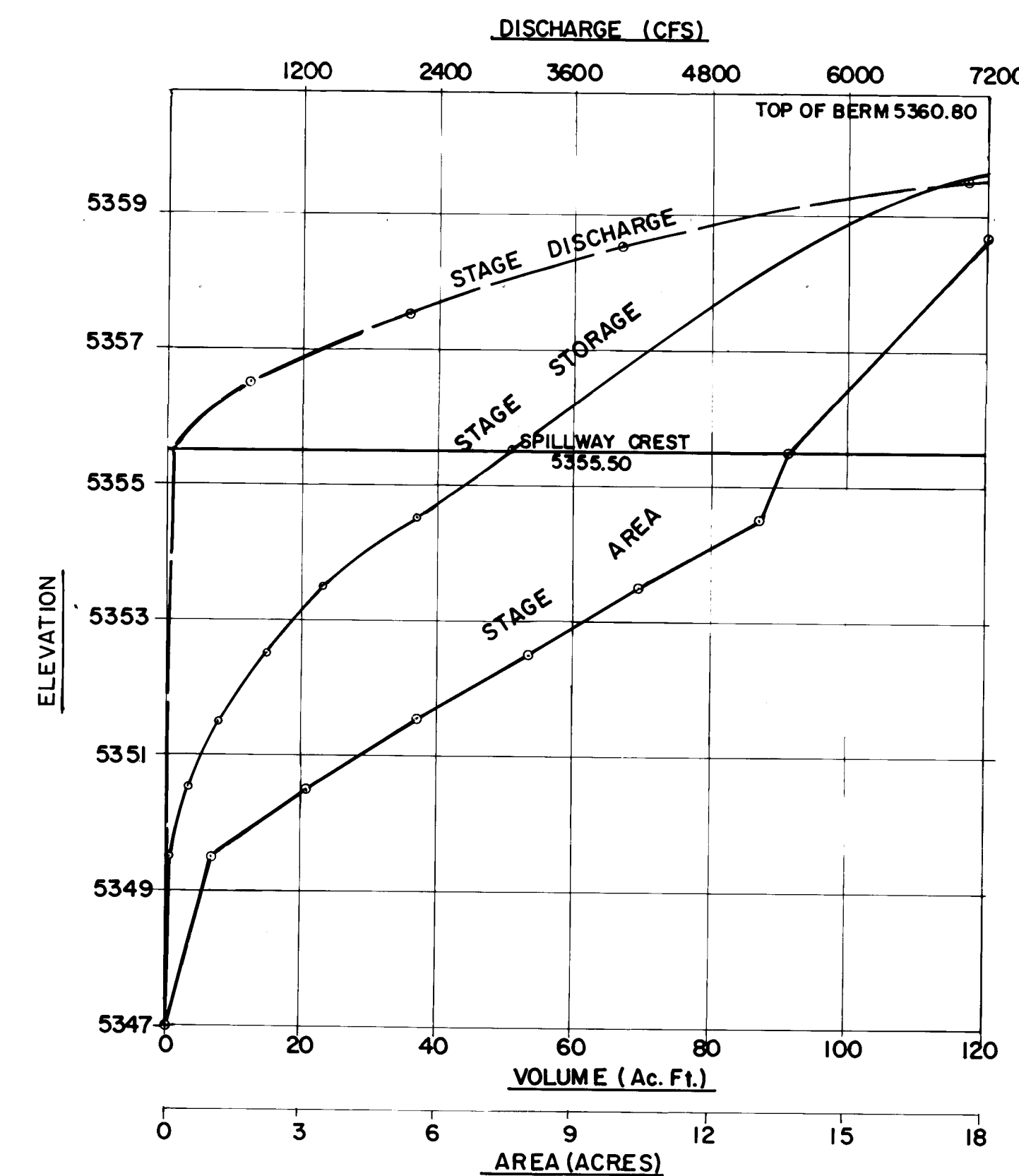


NORTH BASIN



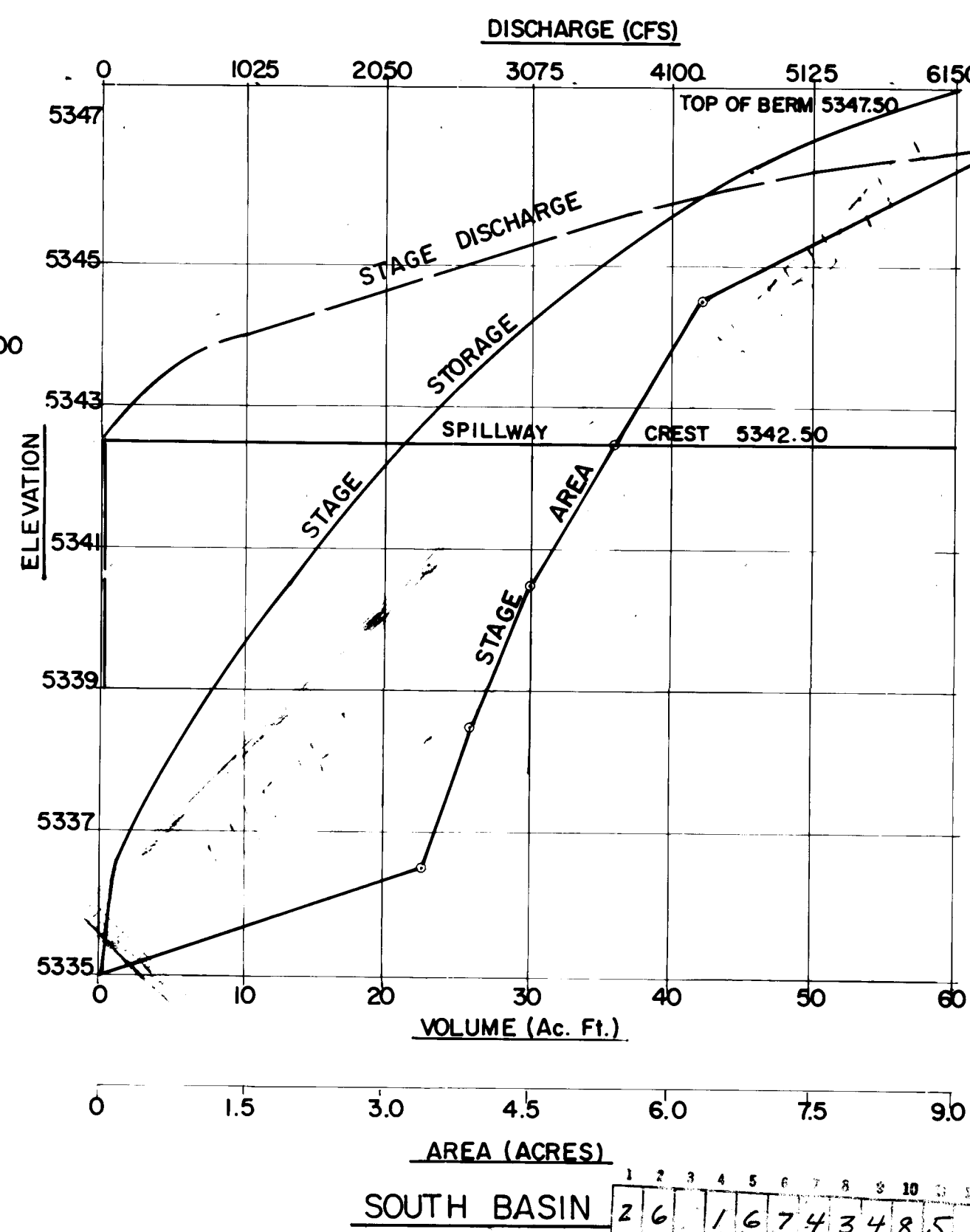
SOUTH BASIN

PMF INFLOW AND OUTFLOW



NORTH BASIN

RATING CURVES



RECORD DRAWING
SEP 12 1985

These drawings have been revised based on field data and every reasonable attempt has been made to depict construction as actually performed.

CITY OF ALBUQUERQUE MUNICIPAL DEVELOPMENT DEPARTMENT ENGINEERING DIVISION					
TITLE: KIRTLAND AIR FORCE BASE DETENTION BASINS DRAINAGE MAP AND HYDROGRAPHS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer	<i>[Signature]</i>	8/1/84	Liquid Waste	<i>[Signature]</i>	8/1/84
A.C.E.-Design	<i>[Signature]</i>	8/1/84	Traffic	N.A. DWH	8/10/84
A.C.E.-Hydrology	<i>[Signature]</i>	8/1/84	Water	<i>[Signature]</i>	8/1/84
DRAWING NO. 1674		MAP NO. L-19,M-19		SHEET 34 OF 34	



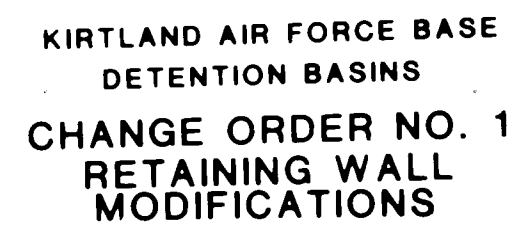
REVISIONS	
NO.	DATE
1	8/1/84
2	8/10/84
3	8/1/84

AS BUILT INFORMATION	
CONTRACTOR	DATE

BENCH MARKS	
See Sheet 3 for Bench Mark Description	DATE

SURVEY INFORMATION	
FIELD NOTES	DATE

MICRO-FILM INFORMATION	
RECORDED BY	DATE



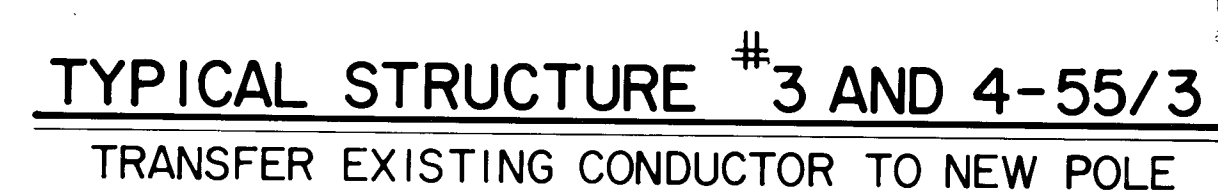
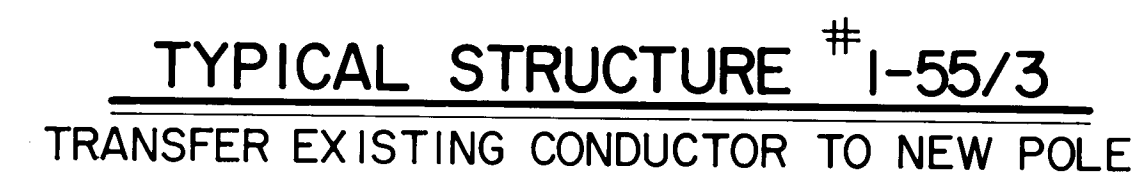
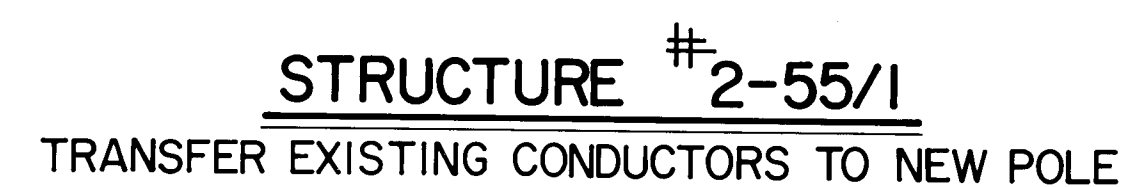
1	2	3	4	5	6	7	8	9	10	11
2	6		1	6	7	4	3	4	8	5 A

DRAWING NO	1674	MAP NO	SHEET 34A OF 34
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[illegible][illegible]

ENGINEER'S SEAL

NO		DATE	REMARKS	BY
DESIGN				
DESIGNED BY			<i>ECL</i>	<i>7-85</i>
DRAWN BY			<i>KLP</i>	<i>7-85</i>
CHECKED BY			<i>CC</i>	<i>7-85</i>



AS BUILT INFORMATION

These drawings have been revised based on field data and every reasonable attempt has been made to depict construction as actually performed.



DISTRIBUTION POLE LINE MATERIAL			
MARK NUMBER	QUANTITY PER STRUCTURE	DESCRIPTION	MANUFACTOR'S * NUMBER, OR EQUAL
12	1	Two Phase Angle Bracket	Shakespeare #5B5-36
13	3	Tie Wrap for # 4/0 Copper	
14	2	Guy Strain Insulator	Joslyn # L506
15	2	Guy Hook	
16	8	Pre-formed Guy Grips, 5/16"	
17	2	Lag Screw, 1/2" x 4"	
18	1	Ground Moulding, 1/2", Wood or Plastic	
19	1	5/8" x 8' Copper Clad Ground Rod	

1. New poles and anchors will be furnished and installed by KAFB.
2. New pole hardware to be furnished and installed by contractor
3. Contractor to remove old poles and accessories.
4. Conductor spacing shown is minimum required.
5. Where no specific manufacturer is listed, any first class product made by a reputable manufacturer may be used.

PROJECT NO 1867.34

CITY ENGINEER 04T

ENGINEERING DIVISION

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER
City Engineer			Liquid Waste	
A.C.E. Design			Traffic	
A.C.E. Hydrology			Water	

DRAWING NO 1674

SHEET 34P OF 34