·LEGEND·

MATERIALS

- CONCRETE
- RIP·RAP

LINES

- SUBDIVISION BOUNDARY
- PROPERTY LINE (PLAN)
- PROPERTY LINE (SECTION)
- CENTERLINE
- EASEMENT LINE
- MATCH LINE
- SECTION CUT LINE (A — A)

EARTHWORK

	EXISTING	NEW
CONTOUR LINE	25	25
SPOT ELEVATION	⊕	◆
PROJECT / PHASE BOUNDARY		
SWALE		
DIRECTION OF FLOW		

MISCELLANEOUS UTILITIES

- GAS LINE (G)
- UNDERGROUND TELEPHONE (UT)
- UNDERGROUND ELECTRICAL (UE)
- STORM DRAIN (SD)
- STORM DRAIN MANHOLE
- STORM DRAIN INLET

SANITARY SEWER

- SANITARY SEWER LINE (SAS)
- SANITARY SEWER MANHOLE
- SAS SERVICE CONNECTIONS
- SAS CAP OR PLUG
- ENCASEMENT

WATER

- WATER LINE (W)
- WATER SERVICE CONNECTIONS
- GATE VALVE
- FIRE HYDRANT
- BUTTERFLY VALVE
- REDUCER
- WATER PRESSURE ZONE BOUNDARY

WATER FITTINGS

- CAPS AND PLUGS
- ELBOW
- CROSS
- TEE

MISCELLANEOUS

- CHAINLINK FENCE
- FIELD FENCE
- COMMON YARD WALL
- RETAINING WALL
- POWER OR TELEPHONE POLE

CONSTRUCTION PLANS FOR THE IMPROVEMENTS OF THE

BEAR ARROYO

FROM MORRIS ST. N.E.

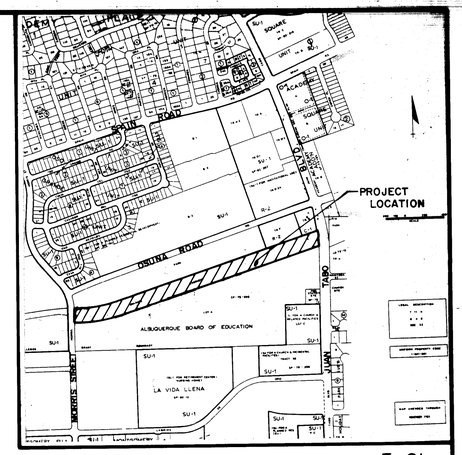
TO JUAN TABO BLVD. N.E.

ALBUQUERQUE, NEW MEXICO

JANUARY, 1987

INDEX OF DRAWINGS

SHEET NO.	TITLE
1	TITLE, LEGEND, VICINITY MAP, GENERAL NOTES, INDEX OF DRAWINGS
2	PLAT
3	CHANNEL IMPROVEMENTS – PLAN & PROFILE STA. 10+32 TO STA. 23+00
4	CHANNEL IMPROVEMENTS – PLAN & PROFILE STA. 23+00 TO STA. 35+36.5
5	WATER LINE RELOCATION – PLAN & PROFILE
6	TYPICAL CHANNEL SECTIONS
7	MISCELLANEOUS DETAILS & SECTIONS
8	CROSS-SECTIONS



VICINITY MAP F-21
SCALE: 1" = 800'

GENERAL NOTES:

1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED FOR HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS - PUBLIC WORKS CONSTRUCTION - 1985. (STANDARD SPECIFICATIONS)
2. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES. (STANDARD SPECIFICATION)
3. IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
4. SHOULD A CONFLICT EXIST BETWEEN THESE PLANS AND ACTUAL FIELD CONDITIONS, THE CONTRACTOR SHALL PROMPTLY NOTIFY THE ENGINEER IN WRITING SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY FOR ALL PARTIES.
5. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
6. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
7. THE CONTRACTOR MUST SUBMIT A CONSTRUCTION SIGNING AND BARRICADING PLAN TO TRAFFIC ENGINEERING TO RECEIVE A BARRICADING PERMIT 48 HOURS PRIOR TO CONSTRUCTION.
8. ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO PAVING.
9. BACKFILL COMPACTION SHALL BE ACCORDING TO SPECIFIED STREET USE.
10. TACK COAT REQUIREMENTS SHALL BE DETERMINED BY THE CITY ENGINEER.
11. SIDEWALKS AND WHEELCHAIR RAMPS WITHIN THE CURB RETURNS SHALL BE CONSTRUCTED WHEREVER A NEW CURB RETURN IS CONSTRUCTED.
12. IF CURB IS DEPRESSED FOR A DRIVEPAD OR A HANDICAP RAMP, THE DRIVEPAD OR RAMP SHALL BE CONSTRUCTED PRIOR TO ACCEPTANCE OF THE CURB AND GUTTER.
13. ALL STORM DRAINAGE FACILITIES SHALL BE COMPLETED PRIOR TO FINAL ACCEPTANCE.

1 2 3 4 5 6 7 8 9 10 11 12
2G | 29 | 30 | 87

APPROVAL OF AS BUILT DRAWINGS
CHIEF CONSTRUCTION ENGINEER
DATE 10-1-87

⚠ AS-BUILT CERTIFICATION

I, Thomas T. Mann, Jr., Registered Professional Engineer in the State of New Mexico, do hereby certify that these drawings represent the "as-built" conditions of this project to the best of my knowledge and belief.

All vertical and horizontal dimensions should be field verified prior to use on future projects.

Thomas T. Mann, Jr., NMPE & LS No. 3792 — Date 8-3-87

REV.	SHEETS	CITY ENGINEER	DATE	USER DEPARTMENT	DATE	USER DEPARTMENT	DATE

APPROVAL OF REVISIONS

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR — STATE OF NEW MEXICO — THOMAS T. MANN JR. — 3792

811 DALLAS, N.E.
ALBUQUERQUE · NEW MEXICO · 87110
ENGINEERS

APPROVED FOR CONSTRUCTION
12/23/86 C.E.

2913

JOB NO. 60461

SHEET 1 OF 8

D6-176

D6-176

ALBUQUERQUE PUBLIC SCHOOL TRACT No. 34

ANNEXATION PLAT FOR CITY OF ALBUQUERQUE

DESCRIPTION

A Parcel of land situate within the ELENA GALLEGOS GRANT, bounded on the south by the aforementioned grant south boundary, on the west by the center line Morris Street, on the north by Academy Place Annexation and zoning plat, on the east by the center line of Juan Tabo Boulevard, said parcel of land being more particularly described as follows:

Beginning for a point of beginning at the closing corner for Section 33 & 34 on the south boundary of ELENA GALLEGOS GRANT, thence along the south boundary of said Grant S89°56'00"W 2,640.46 feet thence along the center line of Morris Street, N00°08'00"W 450.00 feet, thence along the south boundary of the aforementioned Academy Place Plat, N89°56'00"E 67.73 feet, continuing along said south boundary along the arc of a curve whose chord bears S89°56'00"E 522.98 feet a distance of 538.59 feet, thence continuing along said south boundary of Academy Place Plat N71°56'00"E 2,148.84 feet, thence along the center line of Juan Tabo Boulevard along the arc of a curve whose chord bears S00°53'22"E 178.86 feet a distance of 178.98 feet, thence continuing along the center line of Juan Tabo Boulevard, S00°06'20"E 1,017.45 feet to the point of beginning containing 46.0000 acres more or less.

Above description based on a plat prepared by Ray Howard April 10, 1970.

SURVEY

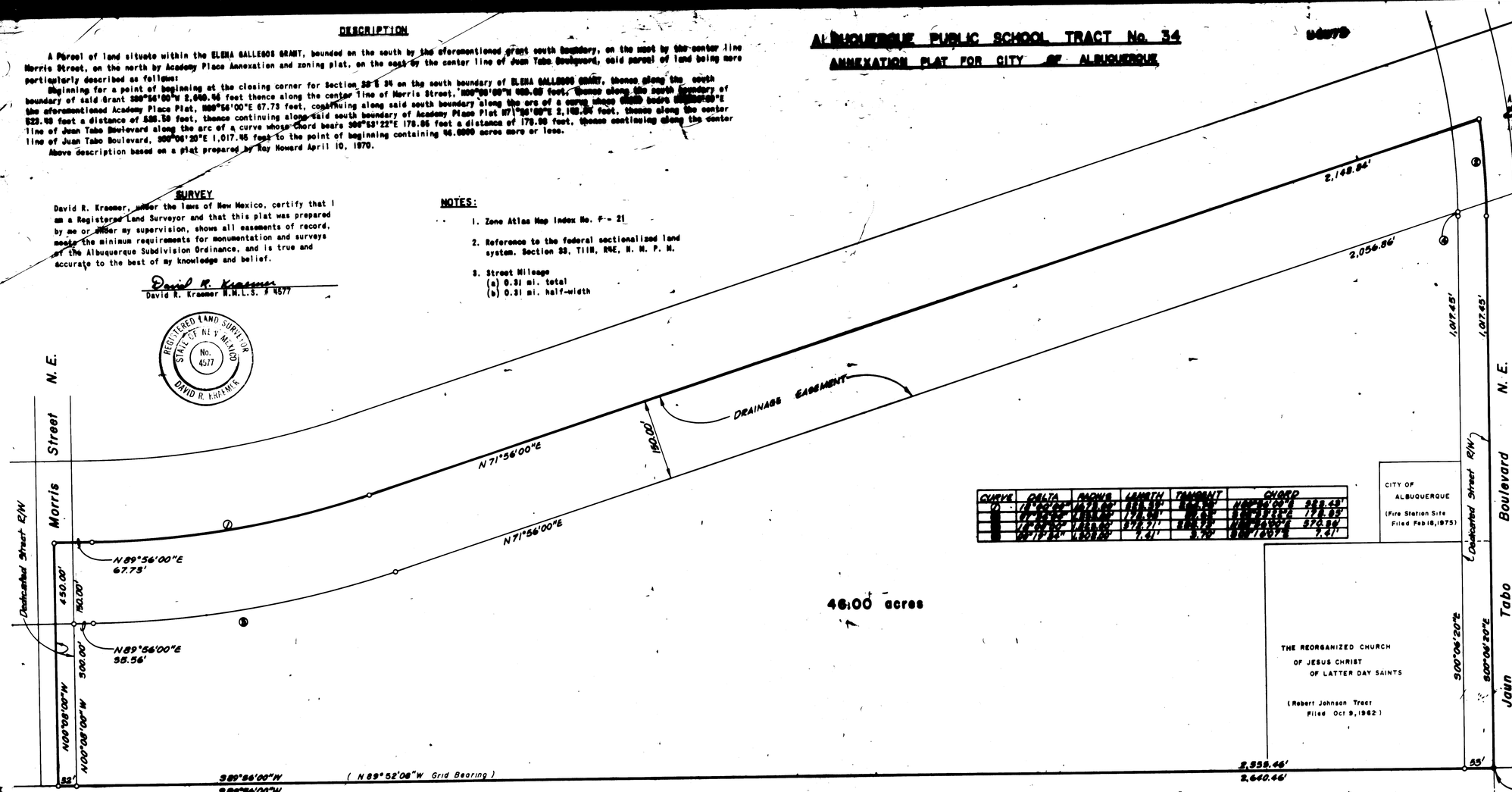
David R. Kraemer, under the laws of New Mexico, certify that I am a Registered Land Surveyor and that this plat was prepared by me or under my supervision, shows all easements of record, meets the minimum requirements for monumentation and surveys of the Albuquerque Subdivision Ordinance, and is true and accurate to the best of my knowledge and belief.

David R. Kraemer
David R. Kraemer N.M.L.S. # 4577

REGISTERED LAND SURVEYOR STATE OF NEW MEXICO No. 4577 DAVID R. KRAEMER

NOTES:

1. Zone Atlas Map Index No. F - 21
2. Reference to the federal sectionalized land system. Section 33, T11N, R4E, N. M. P. M.
3. Street Mileage
   (a) 0.31 mi. total
   (b) 0.31 mi. half-width



CURVE	DELTA	ARC	LENGTH	TANGENT	CHORD
1	14°57'28"	538.59'	537.11'	270.97'	N82°27'16"W 522.98'
2	3°12'54"	178.98'	178.94'	89.53'	S01°33'27"E 178.86'
3	0°17'24"	7.41'	7.41'	3.70'	S00°14'38"E 7.41'

State of New Mexico } ss
County of Bernalillo }
This instrument was filed for record on the 17 day of SEPT 1975 at 1:19 o'clock P.M. Recorded in Vol. D36 of Records of said County Folio 142
Clerk & Recorder
Deputy

N

SCALE: 1" = 100'

FEE CONSENT, DEDICATION

The subdivision of the land hereon described is with free consent and in accordance with the desires of the undersigned owner and proprietor thereof, and said owner and proprietor does hereby dedicate the public rights of way shown hereon, together with all easements shown on this plat. Power and communication easements are reserved where shown by dashed lines, being 14 feet in width centered on the rear lot lines and 10 feet in width centered on the side lot lines, except as noted, including the right of ingress and egress and the right to trim interferring trees. Any drainage easements shown hereon are also easements for underground sewer and water lines.

Fred F. Martinez
Albuquerque Public Schools

Charles E. Vanleuk, District President
The Reorganized Church of Jesus Christ of Latter Day Saints

City of Albuquerque, Chief Administrative Officer

STATE OF NEW MEXICO)
SS
COUNTY OF BERNALILLO)

On this 16 day of Sept. 1975 the foregoing instrument was acknowledged before me.

August 26, 1978
My commission expires

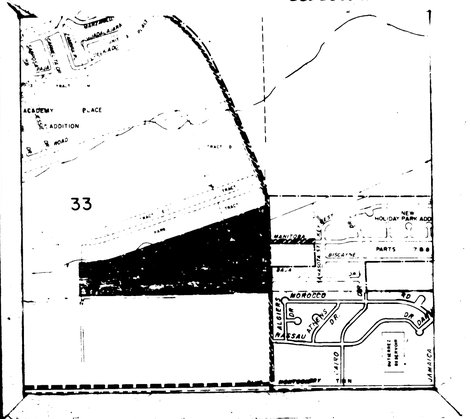
Rosalie King
Notary Public

NOTE:

State Plane Coordinates (Central Zone) for Closing Corner Sections 33 & 34, T11N, R4E, NMPM

X = 420,734.69
Y = 1,504,236.66
Δα = -0°09'09"

Ground to Grid Factor = 0.999632516
All Distances Shown Are Ground Distances



LOCATION MAP

INFORMATION

Outstanding pro rata charges for water and sewer installations are $-0- as of September 17 1975.

APPROVAL AND CONDITIONAL ACCEPTANCE,

as specified by Subsection 22.A.20. of the Albuquerque Subdivision Ordinance:

Planning Director, City of Albuquerque, N. M. — Date: Sept 16, 1975

SP-75-219

F-21 Co.

APPROVALS, as specified by Subsection 22.A of the Albuquerque Subdivision Ordinance:

MAPCO — 6-2-1975 Date

City Engineer, City of Albuquerque, N. M. — 9-17-75 Date

Traffic Engineer, City of Albuquerque, N. M. — 9-4-75 Date

Director of Parks & Recreation, City of Albuquerque, N. M. — 6-3-75 Date

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

26 12 9 1 3 0 2 8 7

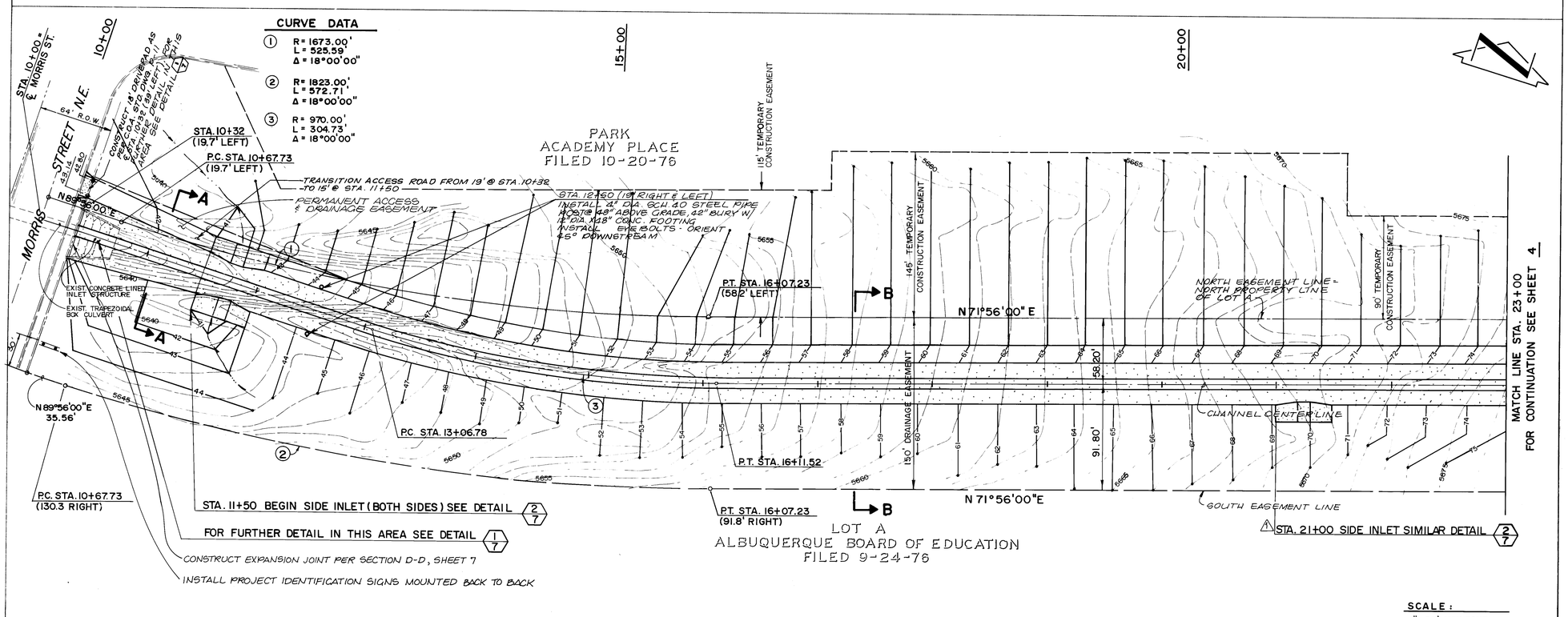
SHEET 2 OF 8

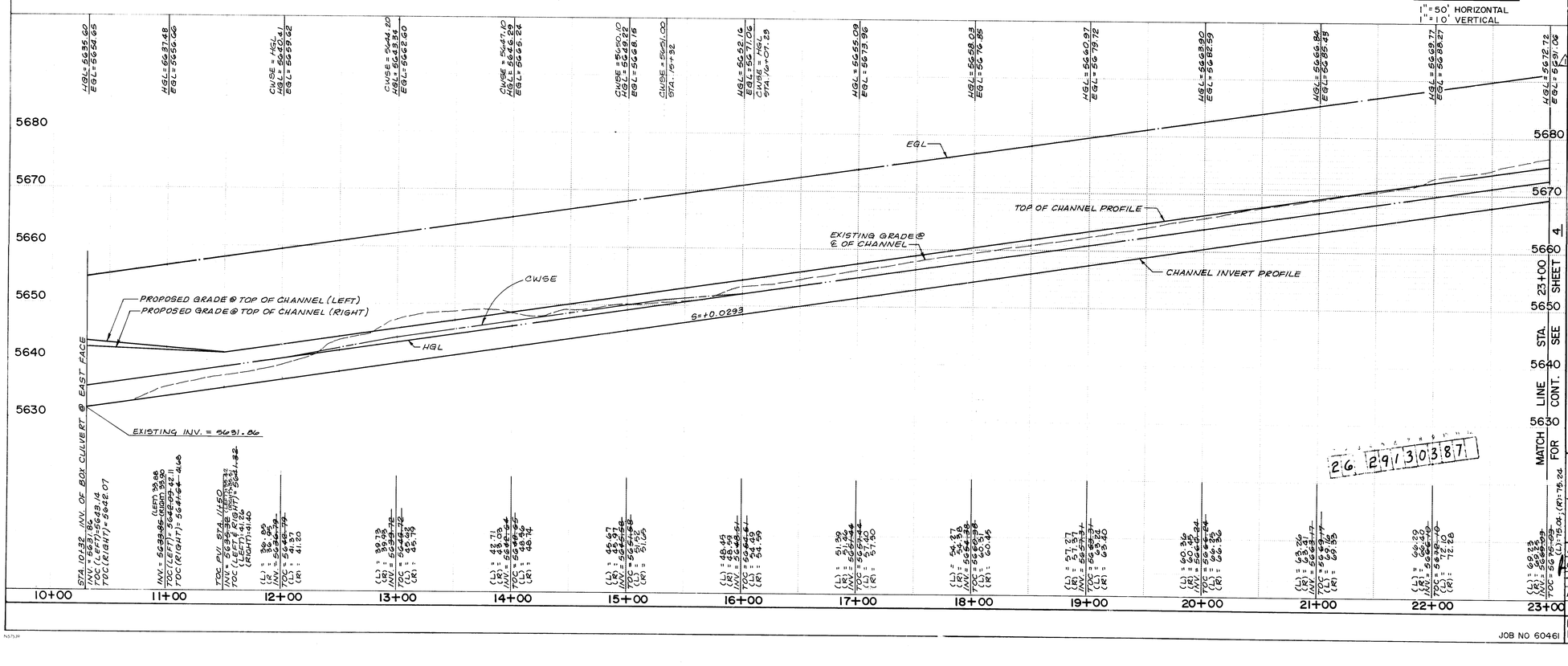
#2913

JOB No. 60461

D6-176

D6-176





NOTES:

1. STATIONING BASED UPON CENTERLINE OF CHANNEL.
2. ALL EXCESS CLEAN FILL SHALL BE REMOVED FROM THE SITE AND HAULED TO SPAIN N.E. AND WYOMING N.E. WHERE IT WILL BE STOCKPILED AT THE DIRECTION OF THE CITY OF ALBUQUERQUE LIQUID WASTE DIVISION.
3. ALL ROCKS LARGER THAN 6" AND BOULDERS SHALL BE STOCKPILED WITHIN THE PUBLIC DRAINAGE EASEMENT AT THE DIRECTION OF THE CITY OF ALBUQUERQUE STORM DRAIN MAINTENANCE DIVISION.
4. ALL DEBRIS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
5. THE 24" CONCRETE CYLINDER WATERLINE AT STA. 30+60 MUST BE RELOCATED, PRESSURE TESTED AND PLACED IN SERVICE PRIOR TO THE CONSTRUCTION OF THE NEW CONCRETE CHANNEL LINING.
6. THE CONNECTION TO THE JOHN ROBERT DAM OUTLET STRUCTURE AND ASSOCIATED WORK MUST BE COORDINATED WITH AMAFCA BY NOTIFICATION 48 HOURS IN ADVANCE OF ANY WORK IN THIS AREA SO THAT AN AMAFCA REPRESENTATIVE CAN BE PRESENT.
7. CHANNEL LINING SHALL BE CONTINUOUSLY REINFORCED WITH AN EXPANSION JOINT ALLOWED AT EACH END OF PROJECT PER SECTIONS A-A AND C-C.
8. THE OWNER WILL INSPECT SLAB THICKNESS BY OBTAINING CORE SAMPLES IN ACCORDANCE WITH SECTION 602.10 OF THE STANDARD SPECIFICATION. SAMPLES FOUND DEFICIENT IN THICKNESS MAY REQUIRE CHANNEL REMOVAL AND REPLACEMENT AT THE DIRECTION OF THE PROJECT ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.
9. ALL DISTURBED AREAS SHALL BE RE-SEEDED FOR SECTION 915 OF THE SUPPLEMENTAL TECHNICAL SPECIFICATIONS.

AS-BUILT CERTIFICATION

I, Thomas T. Mann, Jr., Registered Professional Engineer in the State of New Mexico, do hereby certify that these drawings represent the "as-built" conditions of this project to the best of my knowledge and belief.

All vertical and horizontal dimensions should be field verified prior to use on future projects.

Thomas T. Mann, Jr., NMPE & LS No. 3792 — Date 12-22-87

HYDRAULICS

Q_{100} = 2200 CFS (DESIGN FLOW)

V_{avg} = 35 fps

LEGEND

INV = CHANNEL INVERT
TOC = TOP OF CHANNEL
HGL = HYDRAULIC GRADE LINE
EGL = ENERGY GRADE LINE
CWSE = CROSS WAVE SUPERELEVATION

SURVEY INFORMATION
FIELD NOTES BY — DATE — NO.

AS BUILT INFORMATION
CONTRACTOR
WORK STARTED — DATE
INSPECTED BY — DATE
ACCEPTED BY — DATE
FINAL INSPECTION BY — DATE
DRAWINGS & SPECIFICATIONS BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE — NO.

BENCH MARKS
A GO-PENNY NAIL IN POWER POLE # NE-77 LOCATED N.A POWER LINE ALONG THE SOUTH BOUNDARY LINE OF THE ELENA GALLEGOS GRANT, 0.20 MILES WEST OF THE JUNCTION OF BAJA DRIVE & JUAN TABO BLVD.
BM # 10 F-21
ELEVATION = 5700.312 FEET (M.S.L.D.)

ENGINEER'S SEAL
REGISTERED PROFESSIONAL ENGINEER — STATE OF NEW MEXICO — THOMAS T. MANN JR. — 12-21-87

NO	DATE	REMARKS	BY
1	8-87	AS BUILTS	L.P.U.
		REVISIONS	

DESIGNED BY L.P.U. & J.G.M. DATE 9-86
DRAWN BY S.G.H. DATE 9-86
CHECKED BY T.T.M. DATE 10-86

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

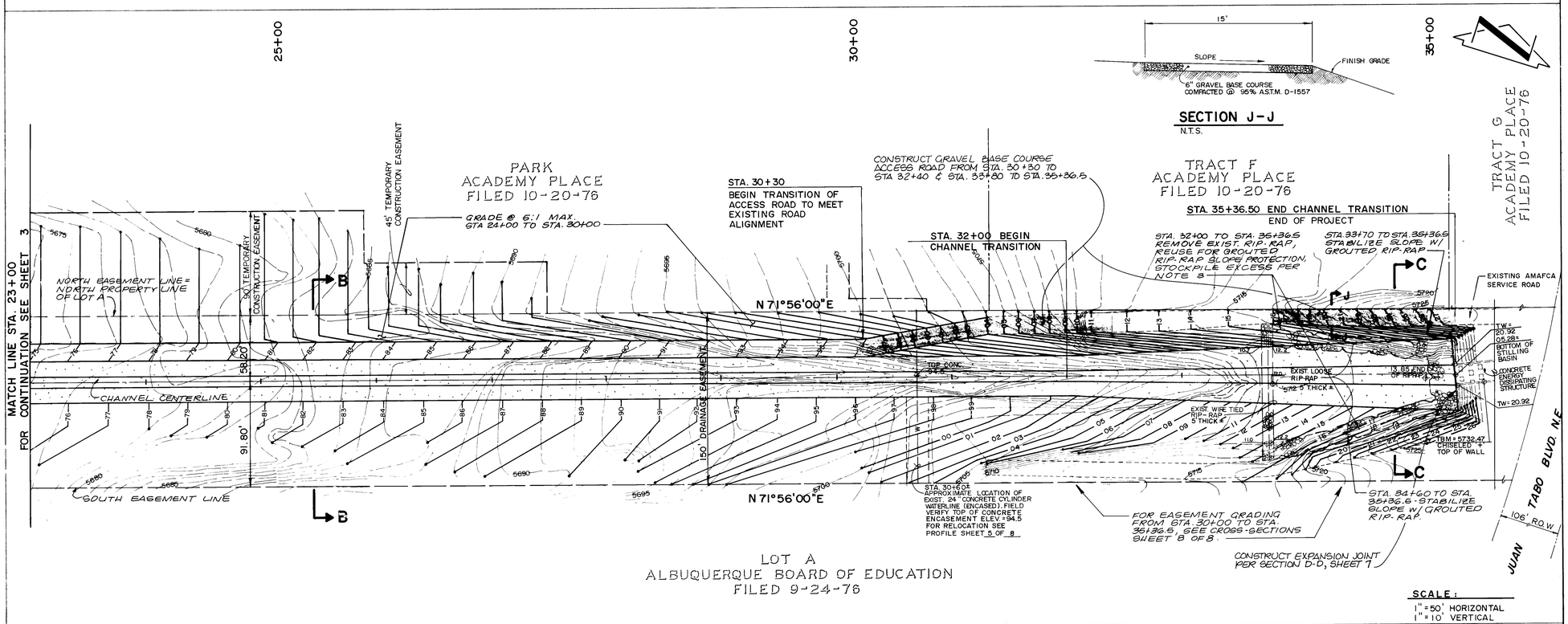
TITLE: BEAR ARROYO
CHANNEL IMPROVEMENTS PLAN & PROFILE
STATION 10+32 TO STATION 23+00

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer		12/22/87	Liquid Waste	W W	12-11-86
A C E - Design		12-22-86	Traffic	LADW H	12/2/86
A C E - Hydrology		12/22/86	Water	W W	12-11-86

DRAWING NO. 2913 — MAP NO. F-21 — SHEET 3 OF 8

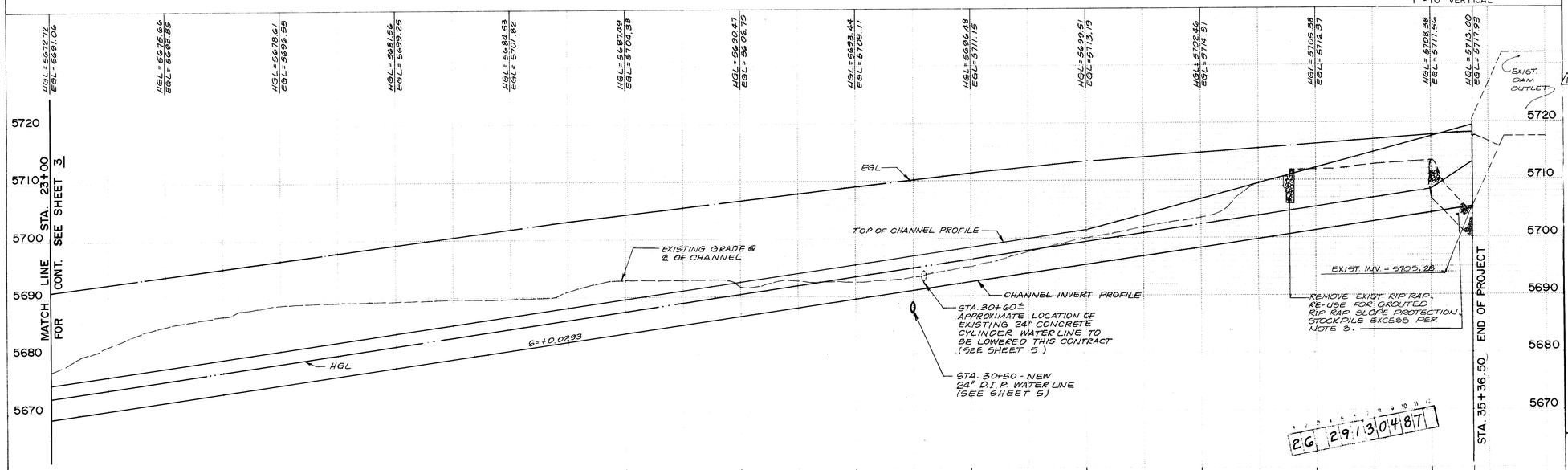
JOB NO. 60461

2.6 291 3038 7



SECTION J-J
N.T.S.

SCALE:
1" = 50' HORIZONTAL
1" = 10' VERTICAL



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6. THE CONNECTION TO THE JOHN ROBERT DAM OUTLET STRUCTURE AND ASSOCIATED WORK MUST BE COORDINATED WITH AMAFCA BY NOTIFICATION 48 HOURS IN ADVANCE OF ANY WORK IN THIS AREA SO THAT AN AMAFCA REPRESENTATIVE CAN BE PRESENT.
7. CHANNEL LINING SHALL BE CONTINUOUSLY REINFORCED WITH AN EXPANSION JOINT ALLOWED AT EACH END OF PROJECT PER SECTIONS A-A AND C-C.
8. THE OWNER WILL INSPECT SLAB THICKNESS BY OBTAINING CORE SAMPLES IN ACCORDANCE WITH SECTION 602.10 OF THE STANDARD SPECIFICATION. SAMPLES FOUND DEFICIENT IN THICKNESS MAY REQUIRE CHANNEL REMOVAL AND REPLACEMENT AT THE DIRECTION OF THE PROJECT ENGINEER AND AT NO ADDITIONAL COST TO THE OWNER.
9. ALL DISTURBED AREAS SHALL BE RE-SEEDED FOR SECTION 915 OF THE SUPPLEMENTAL TECHNICAL SPECIFICATIONS.

AS-BUILT CERTIFICATION

I, Thomas T. Mann, Jr., Registered Professional Engineer in the State of New Mexico, do hereby certify that these drawings represent the "as-built" conditions of this project to the best of my knowledge and belief.

All vertical and horizontal dimensions should be field verified prior to use on future projects.

Thomas T. Mann, Jr., NMPE & LS No. 3792 — Date 8-3-87

HYDRAULICS

Q_{100} = 2200 CFS (DESIGN FLOW)

V_{avg} = 35 fps

LEGEND

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TOC = TOP OF CHANNEL
HGL = HYDRAULIC GRADE LINE
EGL = ENERGY GRADE LINE
CWSE = CROSS WAVE SUPERELEVATION

AS BUILT INFORMATION
CONTRACTOR — DATE
WORK STAKED BY — DATE
INSPECTED BY — DATE
FIELD CHANGES BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO

BENCH MARKS
A 60-PENNY NAIL IN POWER POLE # NE-77 LOCATED IN A POWER LINE ALONG THE SOUTH BOUNDARY LINE OF THE ELENA GALLEGOS GRANT, 0.20 MILES WEST OF THE JUNCTION OF BAJA DRIVE & JUAN TABO BLVD.
BM # 10 F-21
ELEVATION = 5706.312 FEET (MSL.D)

SURVEY INFORMATION
FIELD NOTES

NO.	BY	DATE

ENGINEER'S SEAL
THOMAS T. MANN JR. 3792 REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR STATE OF NEW MEXICO

NO	DATE	REMARKS	BY
1	8-87	AS BUILTS	LPU

DESIGNED BY L.P.U. DATE 9-86
DRAWN BY L.A.H. DATE 9-86
CHECKED BY T.T.M. DATE 10-86

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: BEAR ARROYO
CHANNEL IMPROVEMENTS PLAN & PROFILE
STATION 23+00 TO STATION 36+36.5

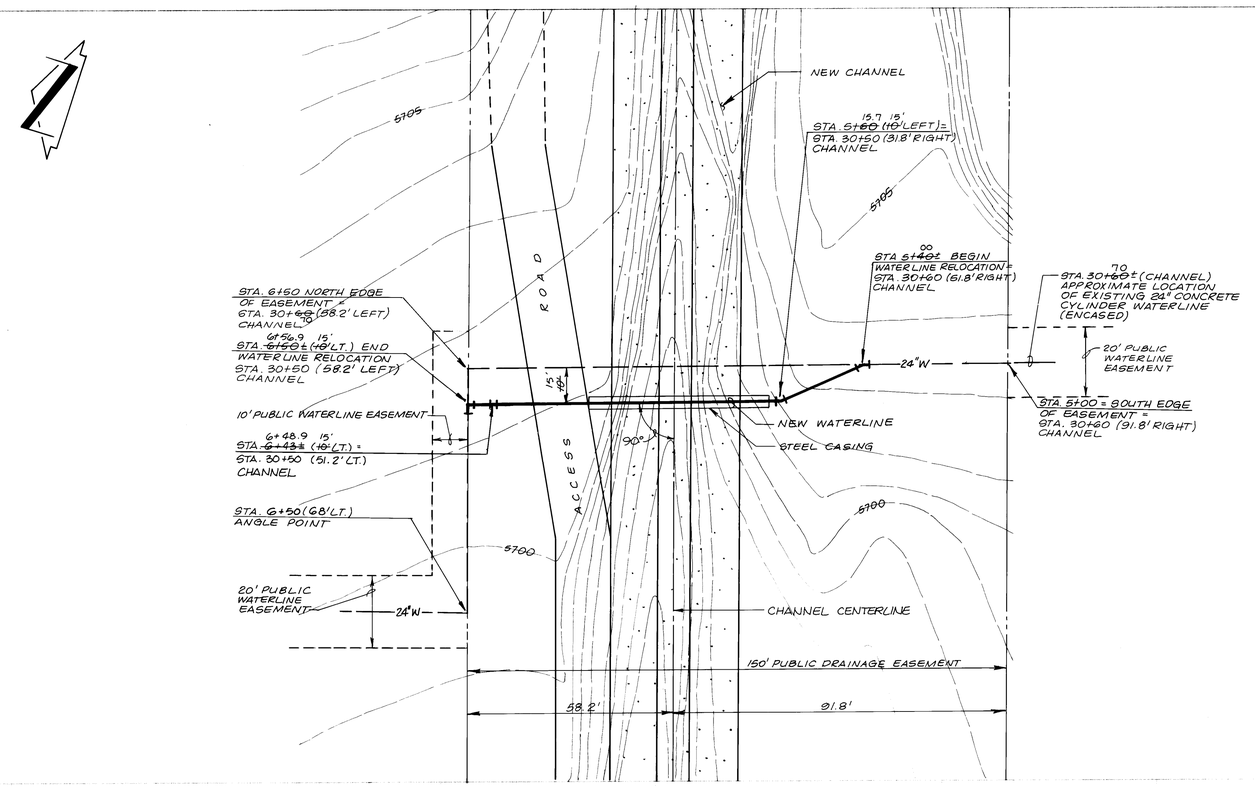
APPROVALS	ENGINEER	DATE
City Engineer		12/23/86
~~A C E~~ - Design		12-22-86
A C E - Hydrology		12-22-86

APPROVALS	ENGINEER	DATE
Liquid Waste	WJW	12-11-86
Traffic	NADWH	12/22/86
Water	WJW	12-11-86

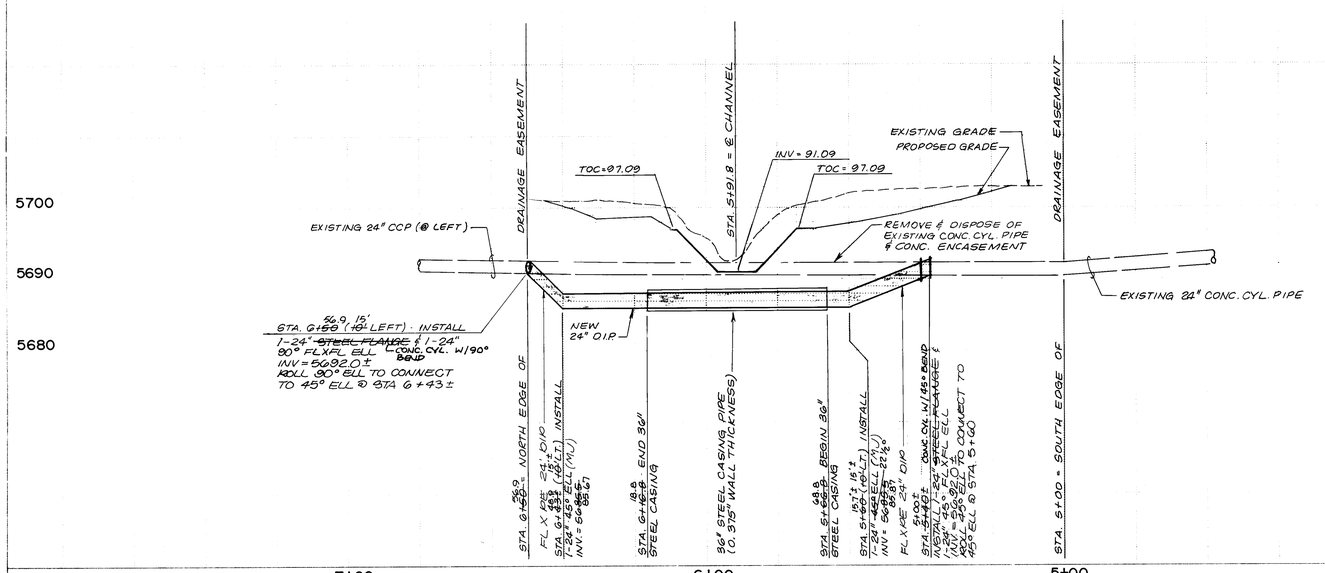
DRAWING NO. 2913
MAP NO. F-21
SHEET 4 OF 8

JOB NO. 60461

2G 29 13 04 87



SCALE :
1" = 20' HORIZONTAL
1" = 10' VERTICAL



WATER NOTES:

1. NEW WATER LINE SHALL BE DUCTILE IRON EXCEPT AS REQUIRED FOR CONNECTING TO EXISTING WATERLINE.

2. WHERE SEWER AND WATER LINES CROSS, IF VERTICAL CLEARANCE DOES NOT EXCEED 1'6", THE SEWER LINE SHALL BE CONCRETE ENCASED 10' EACH SIDE OF WATERLINE.

3. IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE MANNER ONLY, AND SUCH LINES MAY EXIST WHERE NONE ARE SHOWN. IF ANY SUCH EXISTING LINES ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE OWNER OF SAID UTILITY, AND THE INFORMATION MAY BE INCOMPLETE, OR MAY BE OBSOLETE BY THE TIME CONSTRUCTION COMMENCES. THE ENGINEER HAS UNDERTAKEN NO FIELD VERIFICATION OF THE LOCATION, DEPTH, SIZE, OR TYPE OF EXISTING UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES, MAKES NO REPRESENTATION PERTAINING THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE, OR UNDERGROUND UTILITY LINE IN OR NEAR THE AREA OF THE WORK IN ADVANCE OF AND DURING EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGE CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES, AND UNDERGROUND UTILITY LINES. IN PLANNING AND CONDUCTING EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.

4. THE STEEL CASING MUST CONFORM WITH SECTION 820 OF THE STANDARD SPECIFICATION.

5. ALL CONCRETE CYLINDER PIPE JOINTS SHALL BE RESTRAINED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PIPE MANUFACTURER AND THE STANDARD SPECIFICATION.

6. ALL DUCTILE IRON PIPE JOINTS SHALL BE RIGID. THE RESTRAINING SYSTEM SHALL CONFORM TO THE RECOMMENDATIONS OF THE PIPE MANUFACTURER.

7. THE NEW WATERLINE SHALL BE INSTALLED COMPLETELY PRIOR TO CONNECTION TO THE EXISTING WATERLINE TO MINIMIZE THE SHUTDOWN TIME OF THE EXISTING WATER SYSTEM.

8. THE SCHEDULING AND LENGTH OF WATER LINE SHUTDOWN, AND CONNECTION TO EXISTING WATERLINE SHALL BE COORDINATED AND SPECIFIED BY WATER SYSTEMS PRIOR TO THE COMMENCEMENT OF WATERLINE CONSTRUCTION.

⚠ AS-BUILT CERTIFICATION

I, Thomas T. Mann, Jr., Registered Professional Engineer in the State of New Mexico, do hereby certify that these drawings represent the "as-built" conditions of this project to the best of my knowledge and belief.

All vertical and horizontal dimensions should be field verified prior to use on future projects.

Thomas T. Mann, Jr., NMPE & LS No. 3792 — Date 8-3-87

SURVEY INFORMATION
FIELD NOTES

NO	BY	DATE

BENCH MARKS
A GO-PENNY NAIL IN POWER POLE # NE-77 LOCATED IN A POWER LINE ALONG THE SOUTH BOUNDARY LINE OF THE ELENA GALLEGOS GRANT, 0.20 MILES WEST OF THE JUNCTION OF BAJA DRIVE & JUAN TABO BLVD.
BM # 10 E-21
ELEVATION = 5706.3/2 FEET (M.S.L.D.)

AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY
ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO

ENGINEER'S SEAL
REGISTERED PROFESSIONAL ENGINEER — THOMAS T. MANN JR. — 6857 — STATE OF NEW MEXICO — REGISTERED LAND SURVEYOR

NO	DATE	REMARKS	BY
1	8-87	AS BUILTS	L.P.U.

REVISIONS
DESIGN — DATE 9-86 — J.G.M.
DRAWN BY — DATE 9-86 — L.A.H.
CHECKED BY — DATE 10-86 — T.T.M.

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

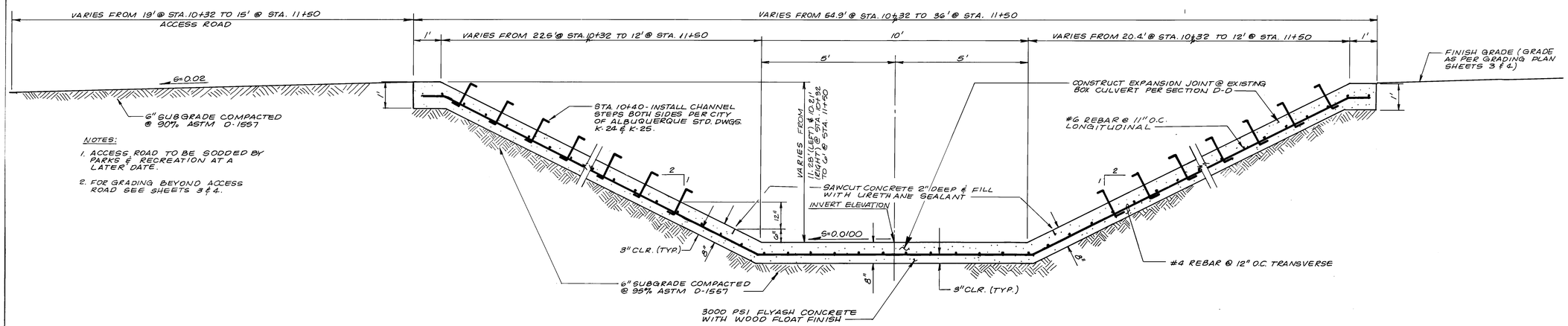
TITLE
BEAR ARROYO
CHANNEL IMPROVEMENTS
WATERLINE RELOCATION

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer		12/29/86	Liquid Waste		12-11-86
A.C.E. Design		12-22-86	Traffic		12/22/86
A.C.E. - Hydrology		12-22-86	Water		12-11-86

DRAWING NO.	MAP NO.	SHEET	OF
2913	F-21	5	8

JOB NO. 60461

2 6 1 2 9 1 3 0 5 8 7

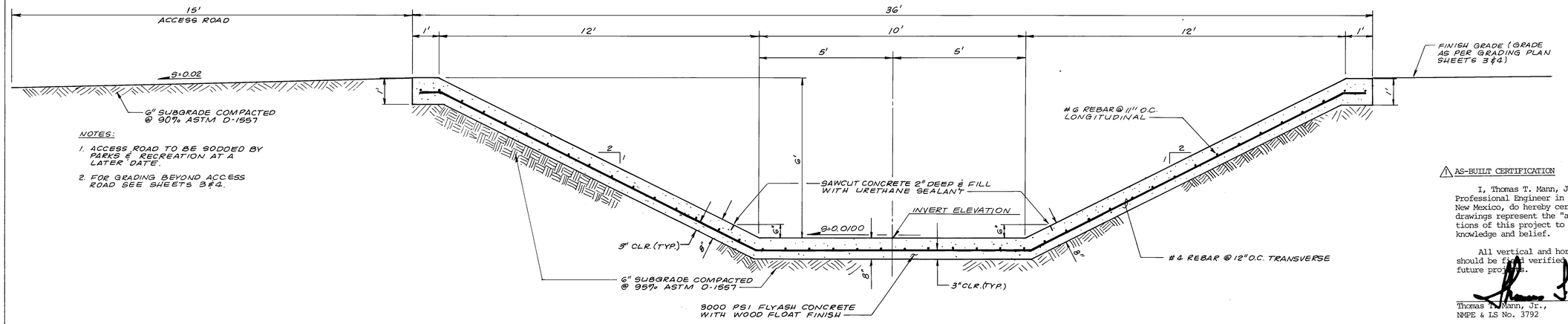


NOTES:

1. ACCESS ROAD TO BE SODDED BY PARKS & RECREATION AT A LATER DATE.
2. FOR GRADING BEYOND ACCESS ROAD SEE SHEETS 3 & 4.

SECTION A-A

SCALE 1" = 2'

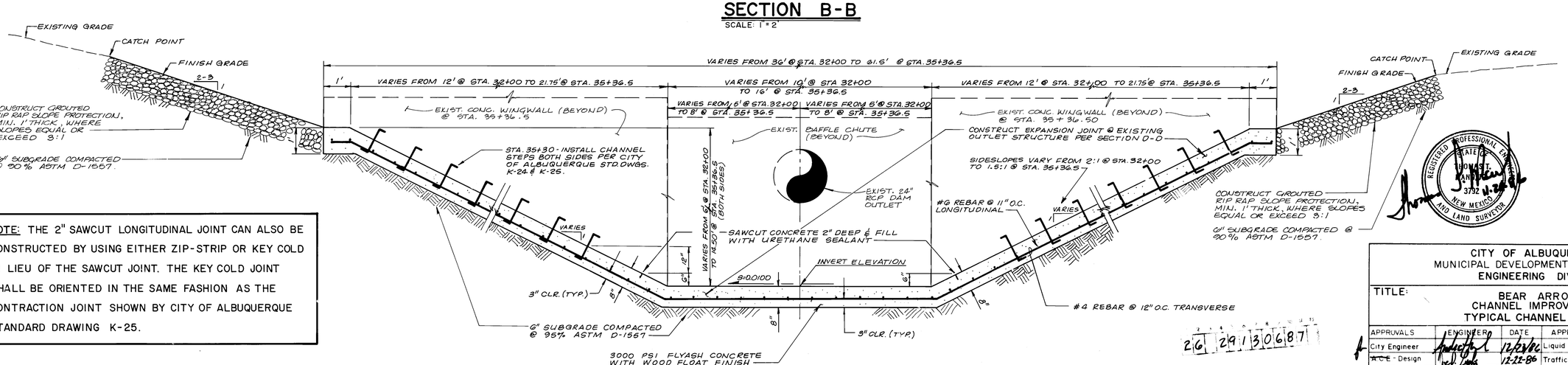


NOTES:

1. ACCESS ROAD TO BE SODDED BY PARKS & RECREATION AT A LATER DATE.
2. FOR GRADING BEYOND ACCESS ROAD SEE SHEETS 3 & 4.

SECTION B-B

SCALE: 1" = 2'



NOTE: THE 2" SAWCUT LONGITUDINAL JOINT CAN ALSO BE CONSTRUCTED BY USING EITHER ZIP-STRIP OR KEY COLD IN LIEU OF THE SAWCUT JOINT. THE KEY COLD JOINT SHALL BE ORIENTED IN THE SAME FASHION AS THE CONTRACTION JOINT SHOWN BY CITY OF ALBUQUERQUE STANDARD DRAWING K-25.

SECTION C-C

SCALE: 1" = 2'

AS-BUILT CERTIFICATION

I, Thomas T. Mann, Jr., Registered Professional Engineer in the State of New Mexico, do hereby certify that these drawings represent the "as-built" conditions of this project to the best of my knowledge and belief.

All vertical and horizontal dimensions should be field verified prior to use on future projects.

8-7-87
Thomas T. Mann, Jr., Date
NMPE & LS No. 3792

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR — STATE OF NEW MEXICO — THOMAS T. MANN JR. — 3792

AS BUILT INFORMATION
CONTRACTOR — DATE
WORK STAKED BY
INSPECTOR'S ACCEPTANCE BY — DATE
VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO

BENCH MARKS
A GO-PENNY NAIL IN POWER POLE # NE-77
· LOCATED IN A POWER LINE ALONG THE SOUTH BOUNDARY LINE OF THE ELENA GALLEGOS GRANT, 0.20 MILES WEST OF THE JUNCTION OF BAJA DRIVE & JUAN TABO BLVD.
BM # 10 F-21
ELEVATION = 5706.312 FEET (M.S.L.D.)

SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE

REFERENCES
MAP NO.
EST. NO.
W.O. NO.

NO.	DATE	BY	REMARKS
1	8-87	LPU	AS BUILTS

BOHANNAN-HUSTON INC. ALBUQUERQUE, NEW MEXICO 87110
ENGINEERS
ALBUQUERQUE · DALLAS, N.E.

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: BEAR ARROYO CHANNEL IMPROVEMENTS TYPICAL CHANNEL SECTIONS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer		12/29/86	Liquid Waste	W/W	12-11-86
A C E - Design		12-22-86	Traffic	WHDwH	12/22/86
A C E - Hydrology		12-22-86	Water	W/W	12-11-86

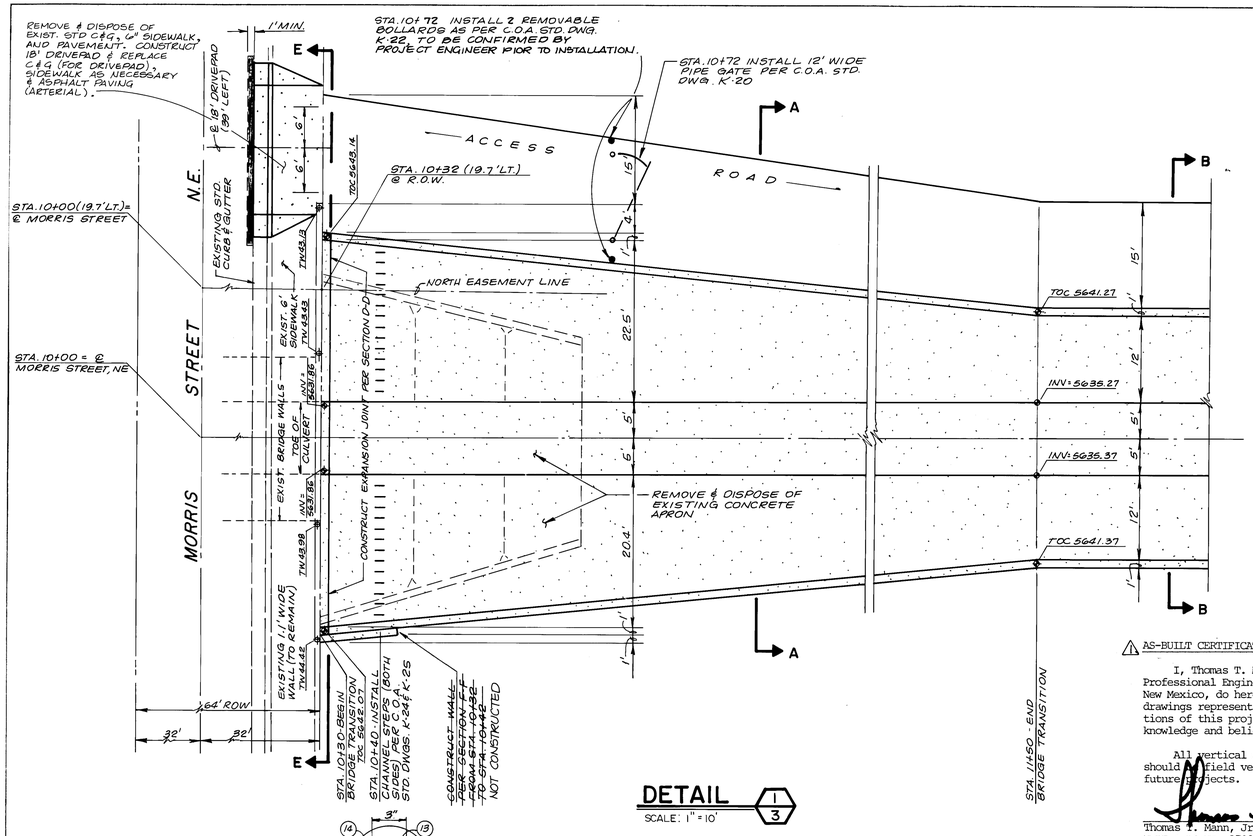
DRAWING NO. 2913 | MAP NO. F-21 | SHEET 6 OF 8

2 6 | 2 9 | 1 3 | 0 6 | 8 7

APPROVED FOR CONSTRUCTION
CITY ENGINEER — DATE

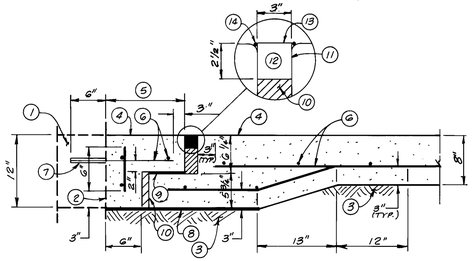
JOB NO. 60461

N08294



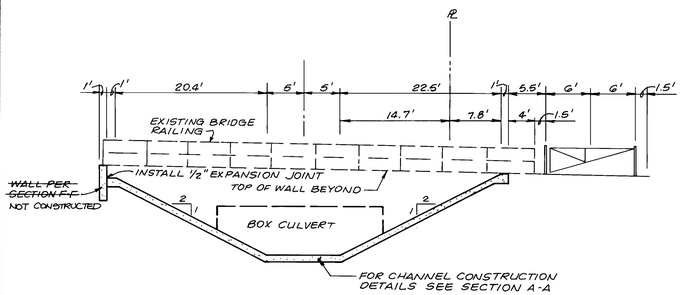
DETAIL

SCALE: 1" = 10'



SECTION D-D

SCALE: 1" = 1'-0"



SECTION E-E

SCALE: 1" = 10'

KEYED NOTES:

1. EXISTING CONCRETE CHANNEL STRUCTURE.
2. SANDBLAST EDGE OF EXISTING CONCRETE JUST PRIOR TO PLACING NEW CONCRETE.
3. COMPACT SUBGRADE TO MINIMUM 90% PER ASTM D-1557.
4. NEW CONCRETE CHANNEL LINING, POUR LOWER STEP SECTION FIRST, STEEL TROWEL FINISH ON STEP PARALLEL TO BOTTOM PLATE. DRY BROOM FINISH ON EXPOSED SURFACE.
5. 12" + BOTTOM JOINT WIDTH (10) = 14". TOTAL ANCHORED BAR LENGTH = (5) + 3" = 17".
6. STEEL SIZE AND SPACING PER SECTIONS A-A, B-B, AND C-C.
7. CORE DRILL 1-1/2" HOLES AT 12' O.C. 6" DEEP INTO EXISTING STRUCTURE WITH CONTINUOUS WATER LUBRICATION AND COOLANT. NOTE: DO NOT USE IMPACT DRILL. BOND REBAR INTO PLACE WITH SOLID 2 PART, QUICK SETTING EPOXY.
8. INSTALL LOW DENSITY POLYETHYLENE BEARING PLATE 1/4" X 24" (COMPACT ADJACENT EARTH TO TOP PLANE OF PLATE TO PREVENT LOCKING WITH CONCRETE FILLED DEPRESSIONS).
9. PLACE 1/4" X 6" LOW DENSITY POLYETHYLENE BEARING PLATE AS SHOWN BETWEEN THE TWO FILLER SECTIONS.
10. PLACE POLYETHYLENE FOAM FILLERS AS SHOWN, PLASTAZOTE OR APPROVED EQUAL. DO NOT ANCHOR WITH NAILS OR BONDING AGENT. KEEP IN PLACE WITH FRESH CONCRETE WHEN PLACING SECOND SECTION. DO NOT ALLOW FRESH CONCRETE BETWEEN FILLER AND PREVIOUSLY PLACED CONCRETE. SEE TABLE FOR BOTTOM AND TOP FILLER SIZES.
11. PREPARE VERTICAL NOSING FOR BONDER BY SANDBLASTING. BLOW ALL SAND OUT OF THE JOINT BEFORE APPLYING BONDING.
12. IMMEDIATELY INSTALL ETHYLENE VINYL ACETATE FOAM SEALANT, EVA-SEAL OF APPROVED EQUAL, AS SHOWN. DIMENSION OF FOAM SEALANT BEFORE INSTALLATION SHALL BE PER DIMENSION TABLE. FOAM SEALANT MUST BE COMPRESSED INTO JOINT. IMMEDIATELY REMOVE ALL BONDER FROM TOP SURFACE OF SEALANT. INSTALL WITH GRAY OR BLACK SIDE UP FOR ULTRA VIOLET PROTECTION. NO SUBSTITUTE MATERIALS WILL BE ALLOWED.
13. SAND SURFACE OF SEALANT FLUSH TO TOP OF CONCRETE. APPLY ULTRA VIOLET PROOFING, 2 COATS, FLEXCOAT 19 OR APPROVED EQUAL,
14. BONDER BEAD IN GROOVE BETWEEN TOOLED RADIUS AND SEALANT IS TO REMAIN.

FILLER AND SEALANT DIMENSION TABLE (INCHES)

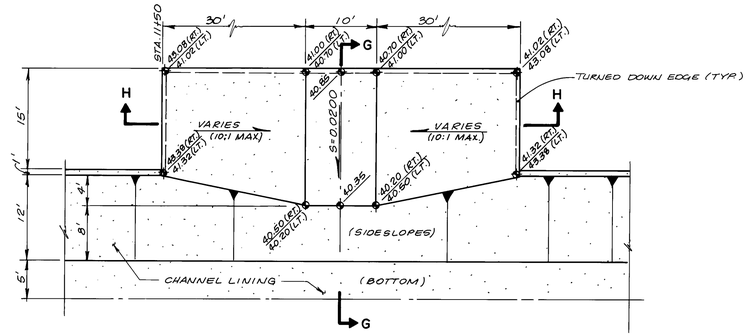
FILLER SIZE (10) BOTTOM WIDTH	BOTTOM DEPTH	TOP WIDTH	TOP DEPTH	SEALANT BLOCK-OUT WIDTH	SEALANT BLOCK-OUT DEPTH	SEALANT ORDER SIZE WIDTH	SEALANT ORDER SIZE DEPTH
1"	6"	2"	4 1/4"	2"	2"	2 1/2"	2"
2"	6"	3"	3 3/4"	3"	2 1/2"	3 3/4"	2 1/2"
3"	6"	4"	2 3/4"	4"	3 1/2"	5"	3 1/2"
4"	6"	5"	2 1/4"	5"	4"	6 1/4"	4"

⚠1 AS-BUILT CERTIFICATION

I, Thomas T. Mann, Jr., Registered Professional Engineer in the State of New Mexico, do hereby certify that these drawings represent the "as-built" conditions of this project to the best of my knowledge and belief.

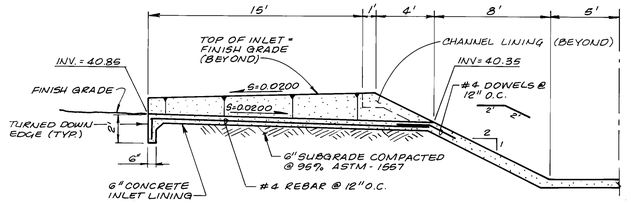
All vertical and horizontal dimensions should be field verified prior to use on future projects.

Thomas T. Mann, Jr., NMPE & LS No. 3792 — Date 8-3-87



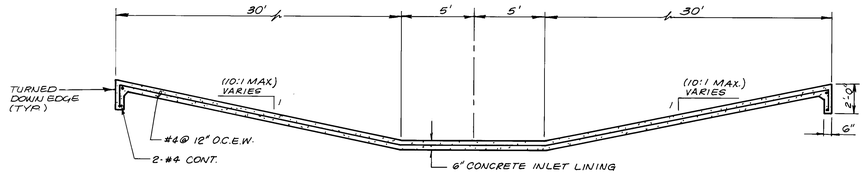
TYPICAL SIDE INLET DETAIL

SCALE: 1" = 10'



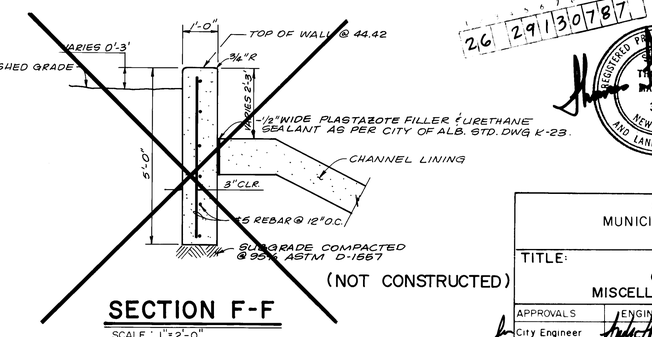
SECTION G-G

SCALE: 1" = 5'



SECTION H-H

SCALE: 1" = 5'



(NOT CONSTRUCTED)

SECTION F-F

SCALE: 1"=2'-0"

26 291 30787

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR — THOMAS T. MANN, JR. — 3792 — NEW MEXICO — 11-26-86

APPROVED FOR CONSTRUCTION

CITY ENGINEER — DATE

JOB NO. 6046I

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: BEAR ARROYO CHANNEL IMPROVEMENTS MISCELLANEOUS DETAILS & SECTIONS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer		12/23/86	Liquid Waste		12-1(-86
~~A.C.E.~~ - Design		12-22-86	Traffic	N/A	12/22/86
A.C.E. -Hydrology		12-22-86	Water		12-1(-86

DRAWING NO. 2913 — MAP NO. F-21 — SHEET 7 OF 8

AS BUILT INFORMATION
CONTRACTOR
WORK STARTED BY — DATE
INSPECTOR'S ACCEPTANCE BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO

BENCH MARKS
A 60 PENNY NAIL IN POWER POLE # NE 7?? LOCATED IN A POWER LINE ALONG THE SOUTH BOUNDARY LINE OF THE ELENA GALLEGOS GRANT, 0.20 MILES WEST OF THE JUNCTION OF BAJA DRIVE & JUAN TABO BLVD.
B.M. # 10 F-21
ELEVATION = 5706.312 FEET (M.S.L.D.)

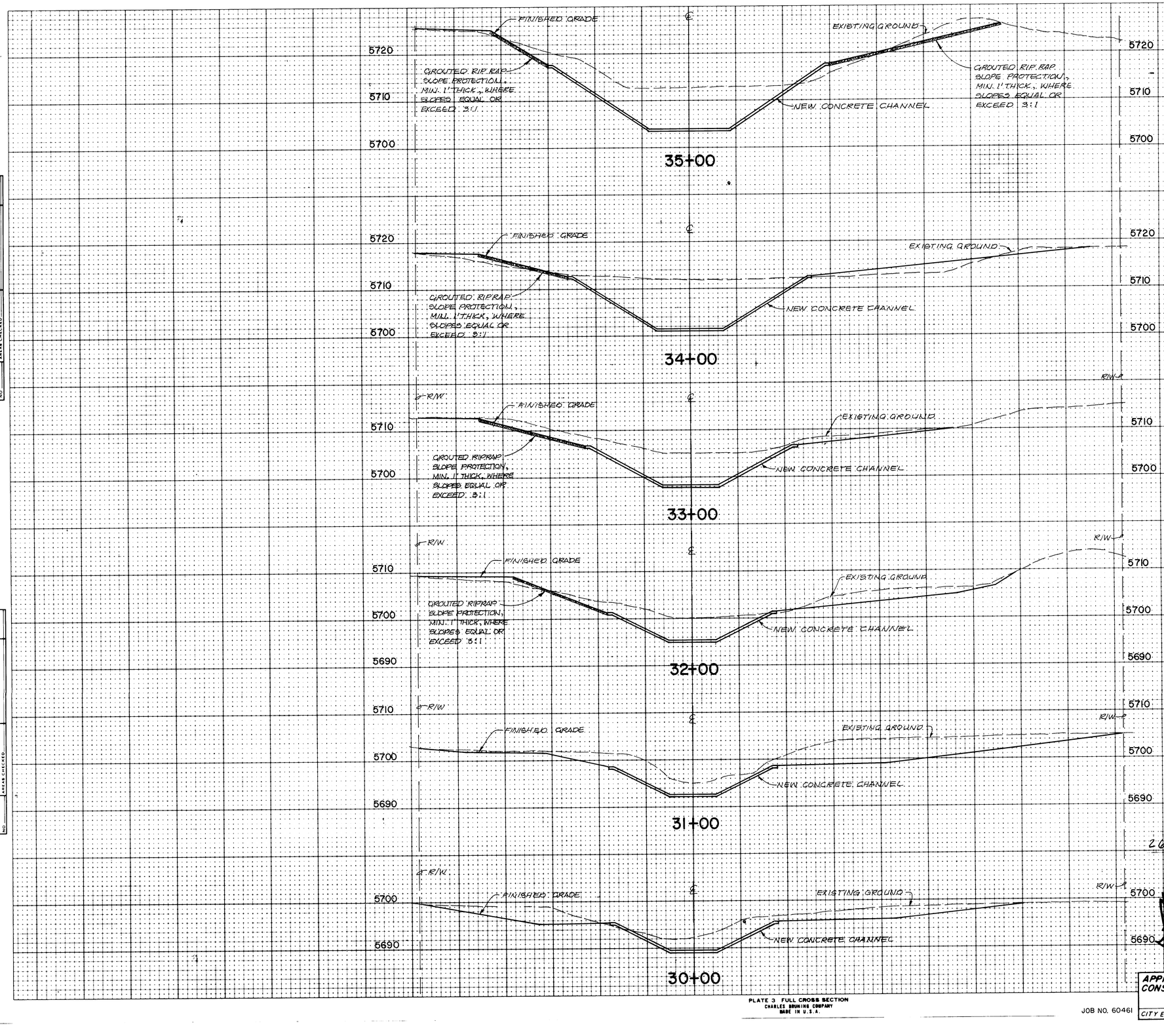
SURVEY INFORMATION
FIELD NOTES
NO. — BY — DATE

REFERENCES
MAP NO.
EST. NO.
W.O. NO.

NO.	DATE	AS BUILTS / REMARKS	BY
1	8-87		LPU

81 DALLAS, N.E. - ALBUQUERQUE - NEW MEXICO - 87110
ENGINEERS
CONTRAVISION ASSOCIATES

N08274



FINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, NOTE BOOK, AREAS CHECKED, NO, BY, DATE

ORIGINAL SURVEY — SURVEYED, PLOTTED, TEMPLATE, AREAS, NOTE BOOK, AREAS CHECKED, NO, BY, DATE

PLATE 3 FULL CROSS SECTION
CHARLES BRUNING COMPANY
MADE IN U.S.A.

JOB NO. 60461

AS BUILT INFORMATION
UTMA "M"
WORK ACCEPTANCE BY — DATE
INSPECTOR — DATE
ACCEPTANCE BY — DATE
FIELD LOCATION BY — DATE
DRAWINGS CHECKED BY — DATE
MICRO-FILM INFORMATION
RECORDED BY — DATE
NO

BENCH MARKS
A 60-PENNY NAIL IN POWER POLE # NE-17 LOCATED IN A POWER LINE ALONG THE SOUTH BOUNDARY LINE OF THE ELENA GALLEGOS GRANT, 0.20 MILES WEST OF THE JUNCTION OF BAJA DRIVE & JUAN TABO BLVD.
BM # 10 F-21
ELEVATION = 5706.312 FEET (MSLD)

SURVEY INFORMATION
FIELD NOTES — NO. — BY — DATE

REFERENCES
MAP NO. — W.O. NO.
EST. NO.

REVISIONS

NO.	DATE	REMARKS	BY
1	6-87	AS BUILTS	LPU

DESIGNED BY — DATE
DRAWN BY — DATE
CHECKED BY — DATE

⚠ AS-BUILT CERTIFICATION

I, Thomas T. Mann, Jr., Registered Professional Engineer in the State of New Mexico, do hereby certify that these drawings represent the "as-built" conditions of this project to the best of my knowledge and belief.

All vertical and horizontal dimensions should be field verified prior to use on future projects.

Thomas T. Mann, Jr., NMPE & LS No. 3792 — Date 8-3-87

SCALE: 1" = 10' (H. & V.)

26 29 13 0887

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR — STATE OF NEW MEXICO — THOMAS T. MANN, JR. — 3792

APPROVED FOR CONSTRUCTION
CITY ENGINEER — DATE

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

TITLE: BEAR ARROYO CHANNEL IMPROVEMENTS CROSS-SECTIONS

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer		12/23/86	Liquid Waste	WJW	12-11-86
A C E - Design		12-22-86	Traffic	NADwH	12/22/86
A C E - Hydrology		12-22-86	Water	WJW	12-11-86

DRAWING NO. 2913 — MAP NO. F-21 — SHEET 8 OF 8