

CITY OF ALBUQUERQUE

CONSTRUCTION PLANS FOR

ARROYO DEL OSO BIKE TRAIL

CLASS I

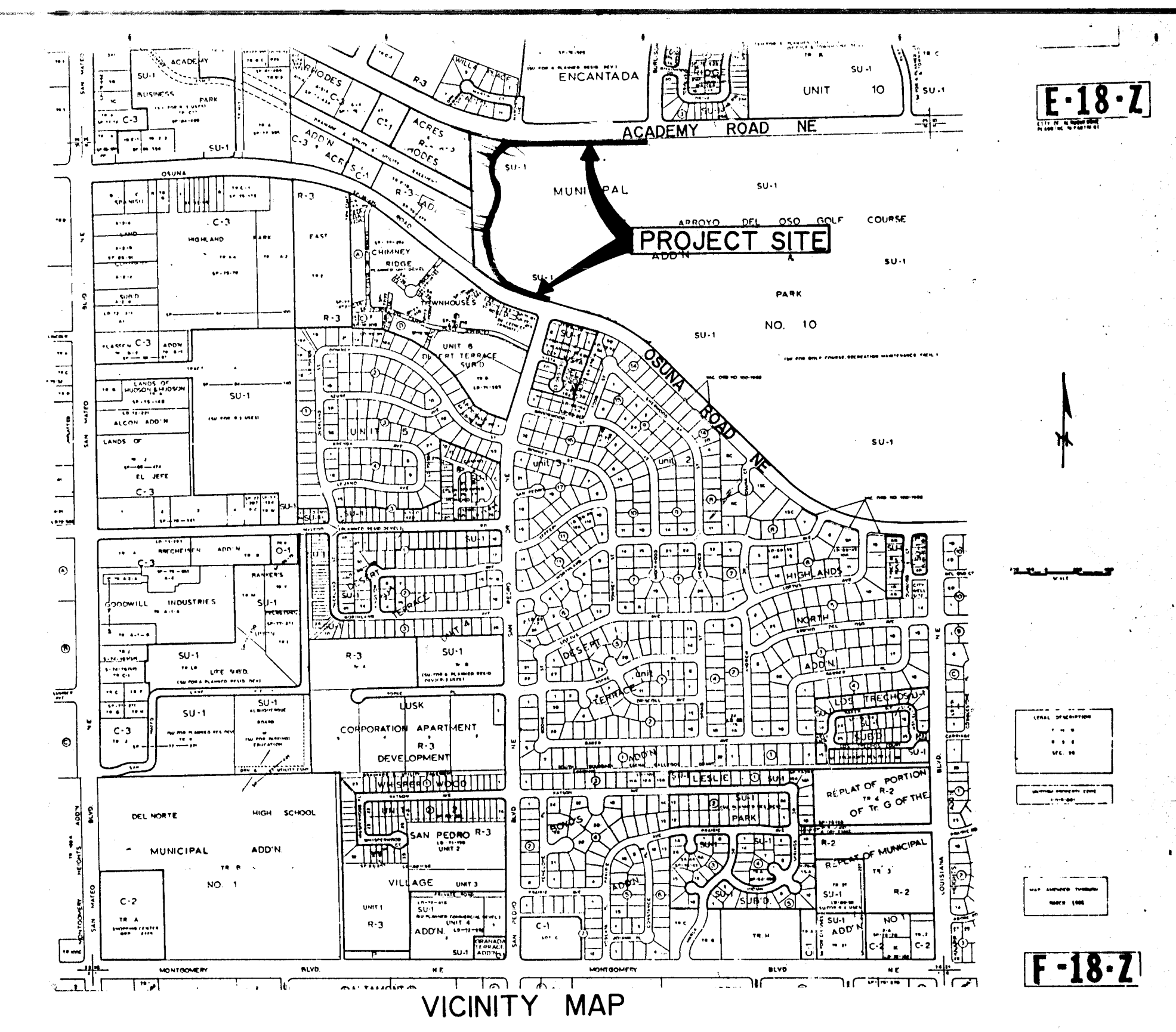
CONTRACTOR SHALL BE RESPONSIBLE FOR ASPHALT WORK, SUBBASE PREPARATION

CLASS II

CITY WILL PERFORM EARTHWORK, ROUGH GRADING, SUBGRADE PREPARATION, CURB AND GUTTER, SIDEWALK, CUTOFF WALL, CULVERT, BOLLARDS, BRIDGE FOOTINGS, BRIDGE INSTALLATION, LANDSCAPING, BALL BARRIER NETTING, AND IRRIGATION

INDEX TO DRAWINGS

1. TITLE SHEET, VICINITY MAP & GENERAL NOTES
2. P&P, STA. 0+00 TO STA. 9+60
3. P&P, STA. 9+60 TO STA. 13+00
4. P&P, STA. 0+00 TO STA. 6+80
5. P&P, STA. 6+80 TO STA. 9+85.40
6. BRIDGE DETAILS
7. PAVING SECTION DETAILS
8. LANDSCAPING & SITE FURNISHINGS

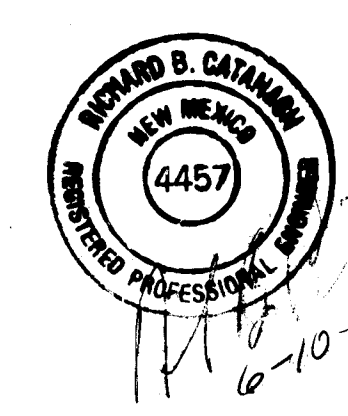


GENERAL NOTES

1. All work detailed on these drawings to be performed under contract shall, except otherwise stated or provided for hereon, be constructed in accordance with the "City of Albuquerque Standard Specifications for Public Works Construction, 1986."
2. Two working days prior to any excavation, Contractor must contact Line Locating Service, 260-1990, for the location of existing utilities.
3. Prior to construction, the Contractor shall excavate and verify the horizontal and vertical locations of all existing utilities and potential obstructions. Should a conflict exist, the Contractor shall notify the Engineer so that the conflict can be resolved with a minimum amount of delay.
4. 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.
5. Unless otherwise provided by OWNER as part of the construction documents, a complete signing and barricading detour plan shall be prepared by the CONTRACTOR when any portion of the work is in the public rights-of-way. The plan shall be submitted to the CONSTRUCTION COORDINATOR for approval three working days in advance of construction to receive a barricading permit.
6. Where removal of existing curb and gutter, sidewalk or pavement is required, the Contractor shall sawcut and/or remove to the nearest joint. Curb and gutter shown as existing and not to be removed under this contract which is damaged or displaced by the Contractor shall be removed and replaced by the Contractor at the Contractor's expense.
7. If curb is depressed for a driveway or a handicap ramp, the driveway or ramp shall be constructed prior to acceptance of the curb and gutter.

APPROVAL OF AS BUILT DRAWINGS
CHIEF CONSTRUCTION ENGINEER
DATE 12/13/91

C of A PWD Maps & Records
1 2 3 4 5 6 7 8 9 10 11 12
26 39 0 0 1 9 1 1

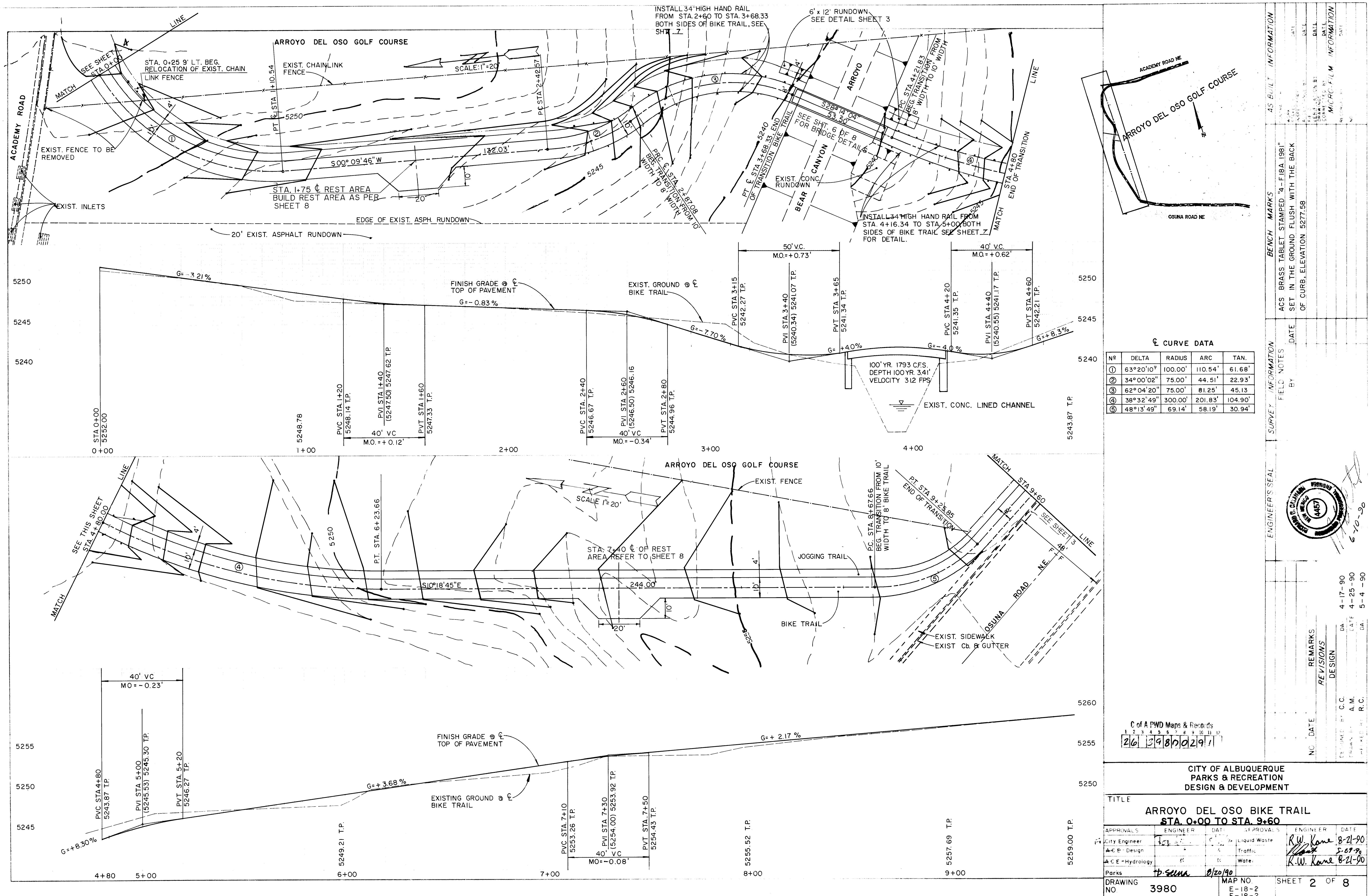


TEC TIERRA
ENGINEERING
CONSULTANTS
INC.
SANTA FE & ALBUQUERQUE N.M.

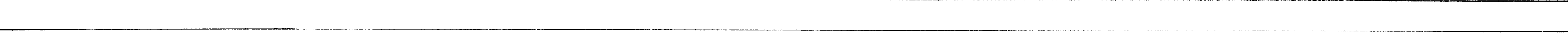
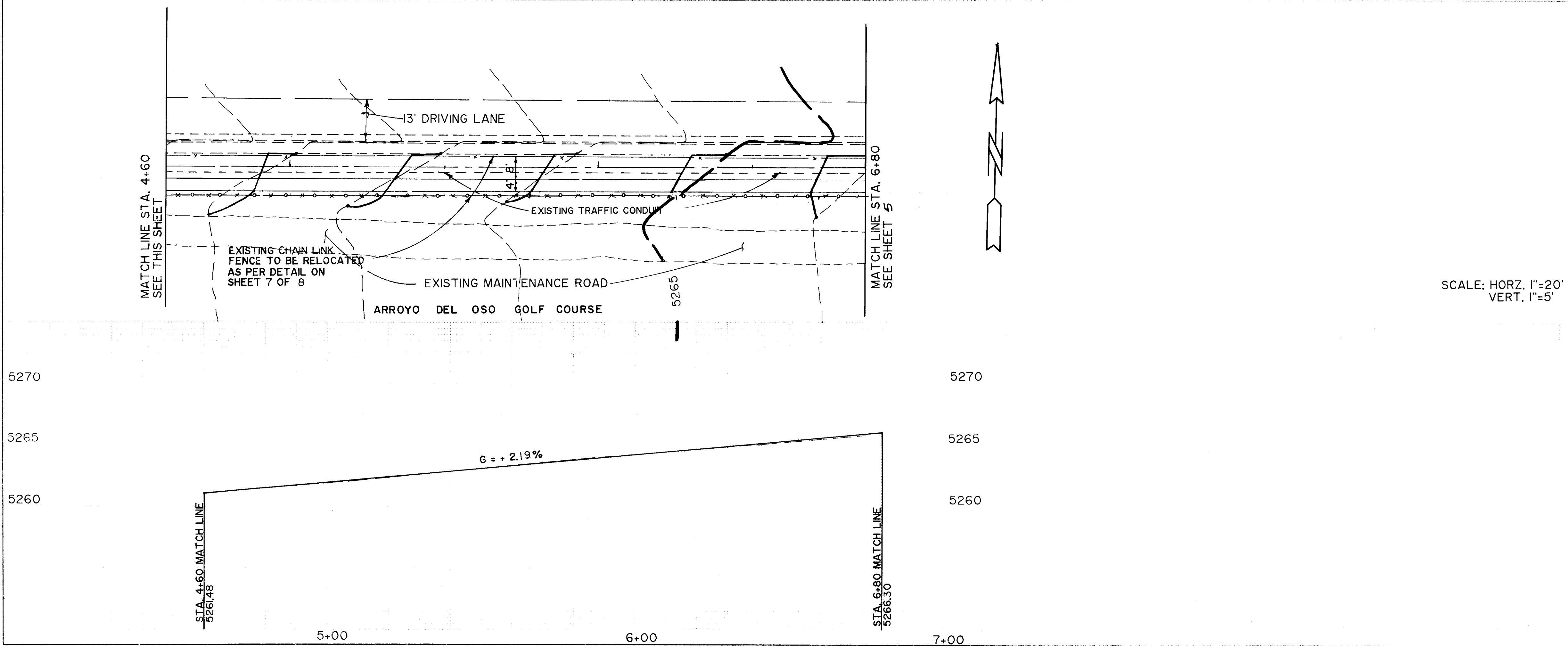
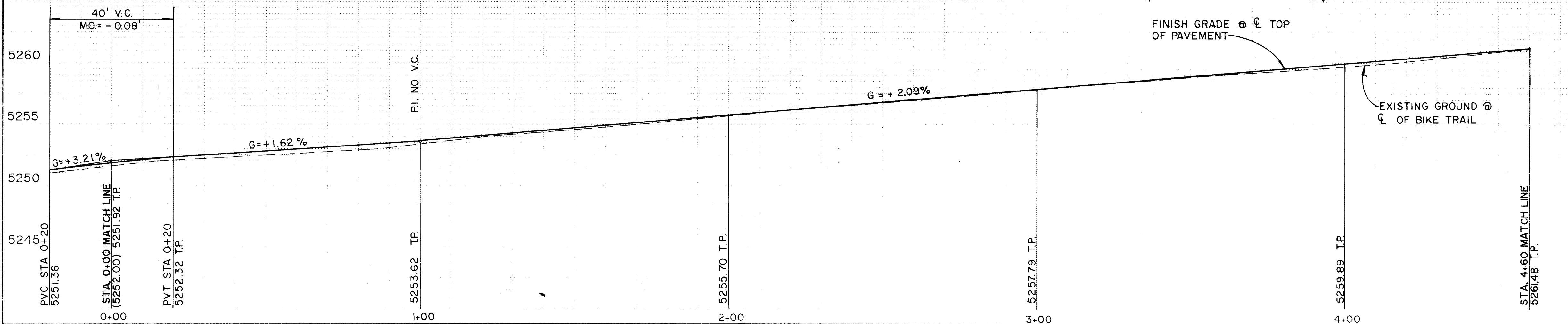
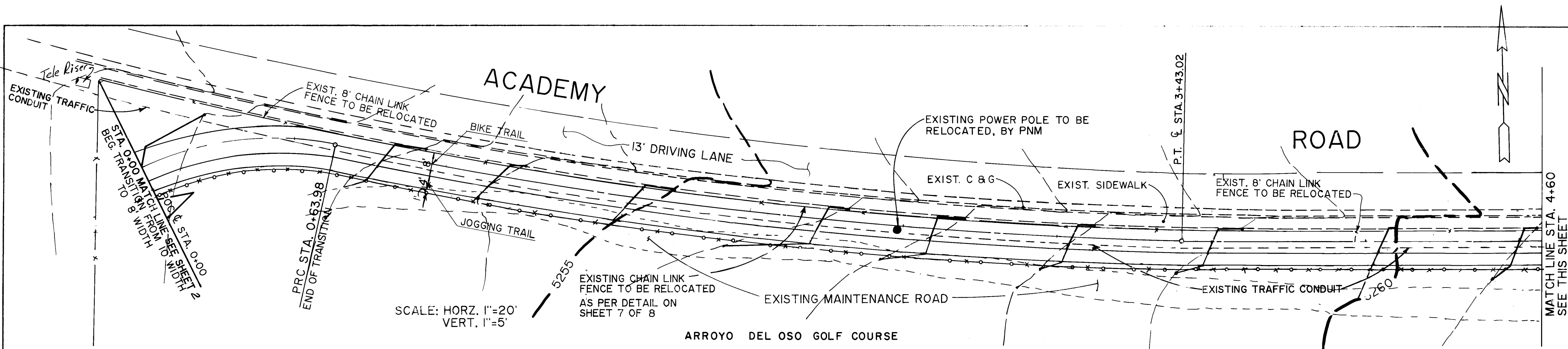
Signature: [Handwritten]
9-29-90

PROJECT NO. 3980

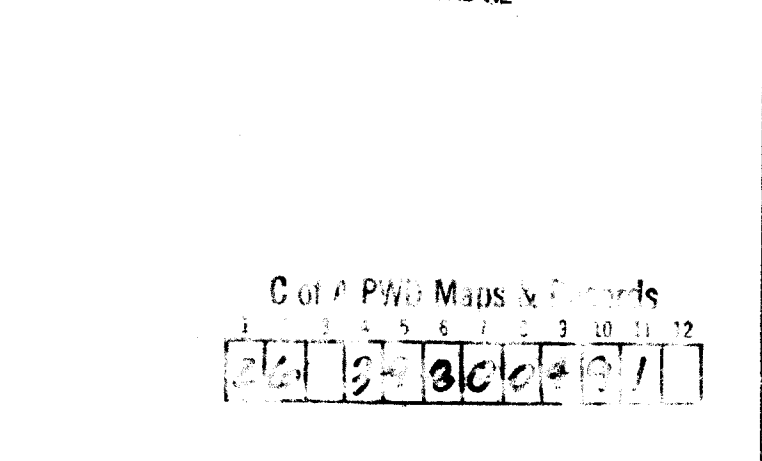
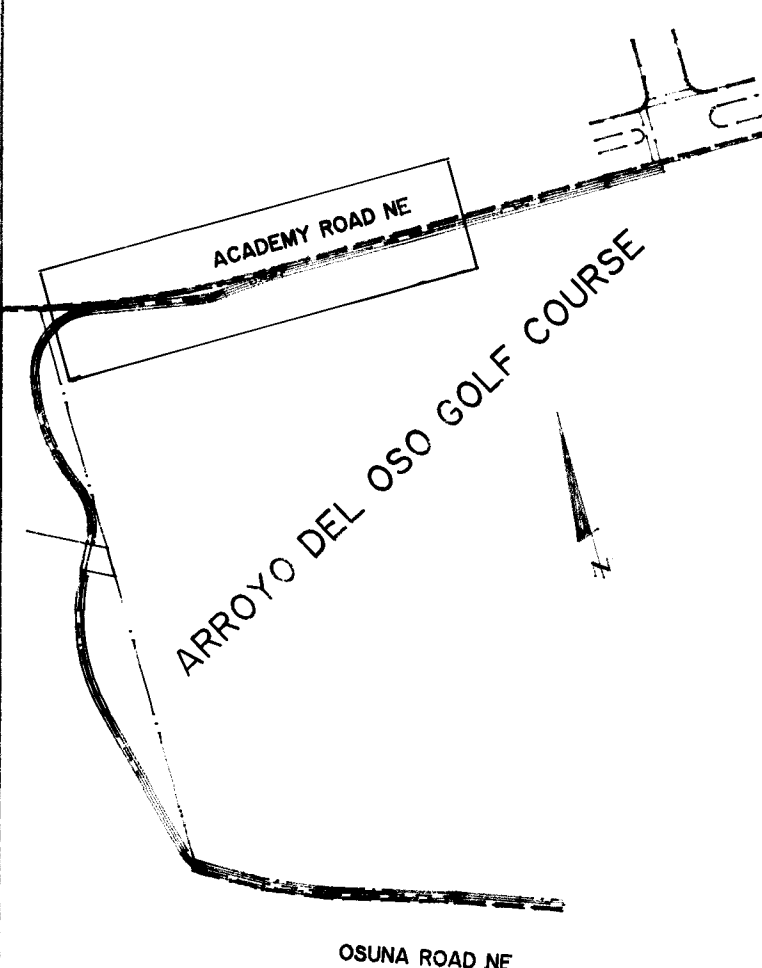
SHEET 1 OF 8



Nº	DELTA	RADIUS	ARC	TAN.
①	63°20'10"	100.00'	110.54'	61.68'
②	34°00'02"	75.00'	44.51'	22.93'
③	62°04'20"	75.00'	81.25'	45.13
④	38°32'49"	300.00'	201.83'	104.90'
⑤	44°13'49"	69.14'	58.19'	30.94'

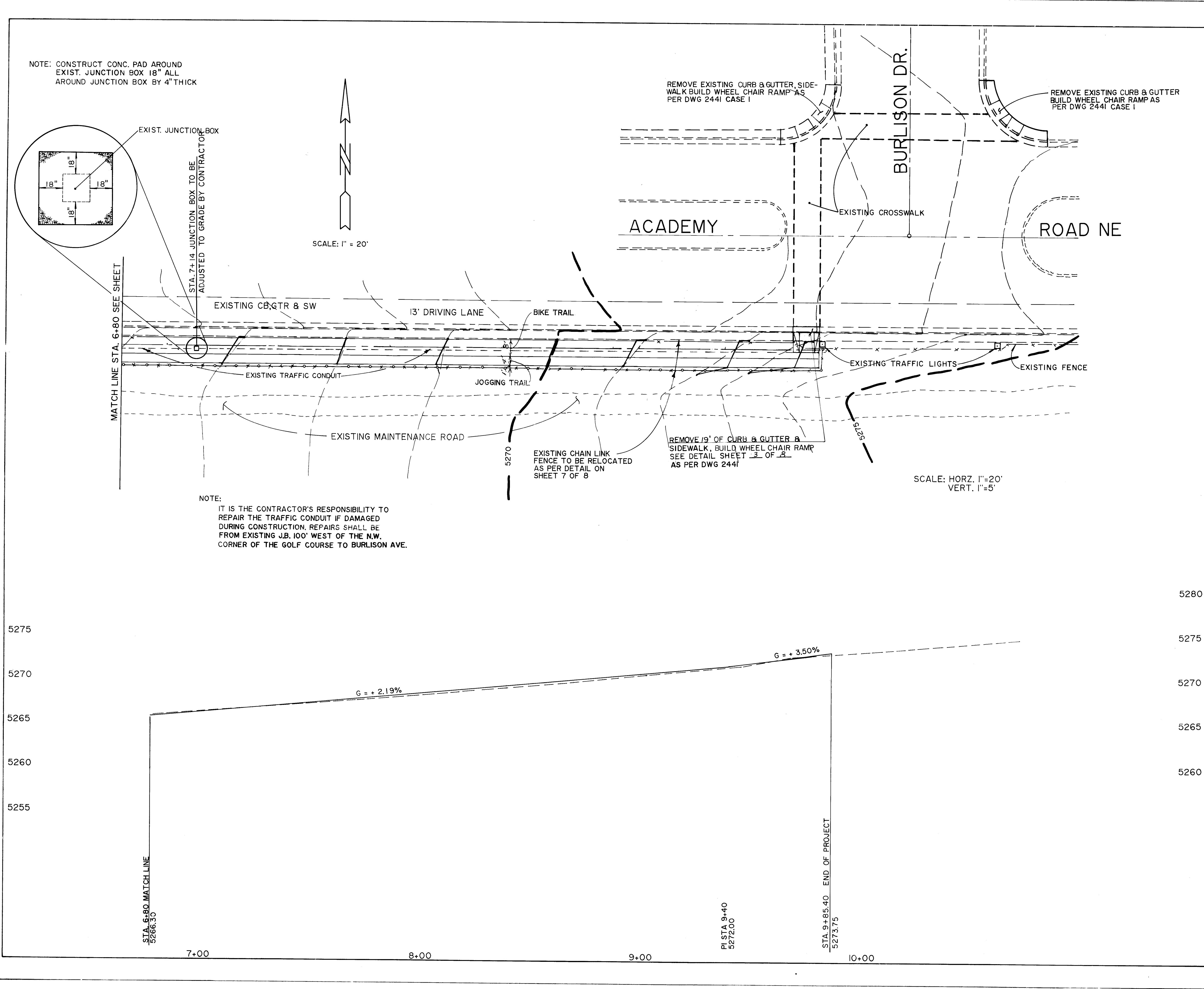


NOTE:
IT IS THE CONTRACTOR'S RESPONSIBILITY TO REPAIR THE TRAFFIC CONDUIT IF DAMAGED DURING CONSTRUCTION. REPAIRS SHALL BE FROM EXIST. J.B. 100' WEST OF THE N.W. CORNER OF THE GOLF COURSE TO BURLISON AVE.



REVISIONS			
NO.	DATE	REMARKS	BY
1	4-17-90	DESIGN	R.W. Kane
2	4-25-90		
3	5-4-90		

CITY OF ALBUQUERQUE PARKS & RECREATION DESIGN & DEVELOPMENT			
TITLE: ARROYO DEL OSO BIKE TRAIL STA. 0+00 TO STA. 6+80			
APPROVALS	ENGINEER	DATE	APPROVALS
City Engineer	R.W. Kane	8/21/90	Liquid Waste
ACE - Design			Traffic
ACE - Hydrology			Water
Parks	D. Selma	8/20/90	
DRAWING NO.	3980	MAP NO.	F-18-2
		SHEET 4 OF 8	



ENGINEER'S SEAL			SURVEY INFORMATION			BENCH MARKS			AS BUILT INFORMATION		
REVISIONS			FIELD NOTES			ACS BRASS TABLET STAMPED "4-FIBA 1981"			CONTRACTOR		
NO.	DATE	REMARKS	NO.	BY	DATE	NO.	DATE	SET IN THE GROUND FLUSH WITH THE BACK OF CURB ELEVATION 5277.58	NO.	DATE	NO.
1	2/19/90	DESIGN									
2	3/19/90	DESIGN									
3	8/21/90	DESIGN									
4	8/20/90	DESIGN									
5		DESIGN									
6		DESIGN									
7		DESIGN									
8		DESIGN									
9		DESIGN									
10		DESIGN									
11		DESIGN									
12		DESIGN									

CITY OF ALBUQUERQUE
PARKS & RECREATION
DESIGN & DEVELOPMENT

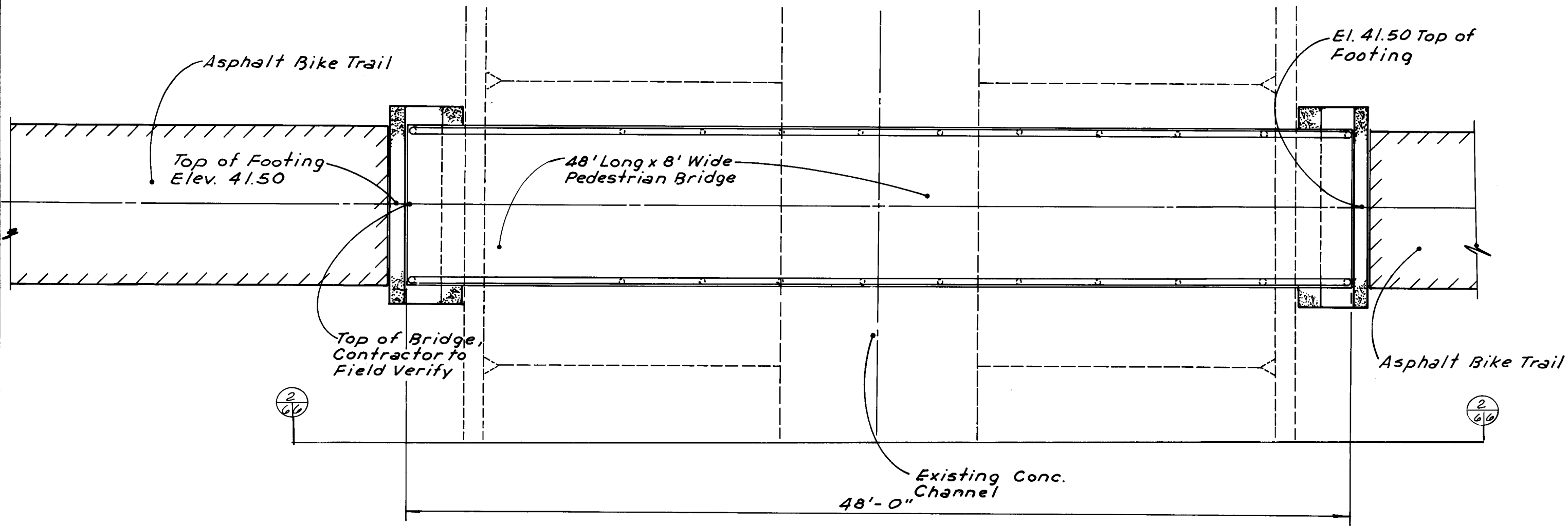
TITLE
ARROYO DEL OSO BIKE TRAIL
STA. 6+80 TO STA. 9+85.40

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
Trans. Dev.	R. W. Kane	8-21-90	Trans. Dev.	R. W. Kane	8-21-90
Utility Dev.	R. W. Kane	8-21-90	Utility Dev.	R. W. Kane	8-21-90
Parks	R. W. Kane	8-21-90	Parks	R. W. Kane	8-21-90

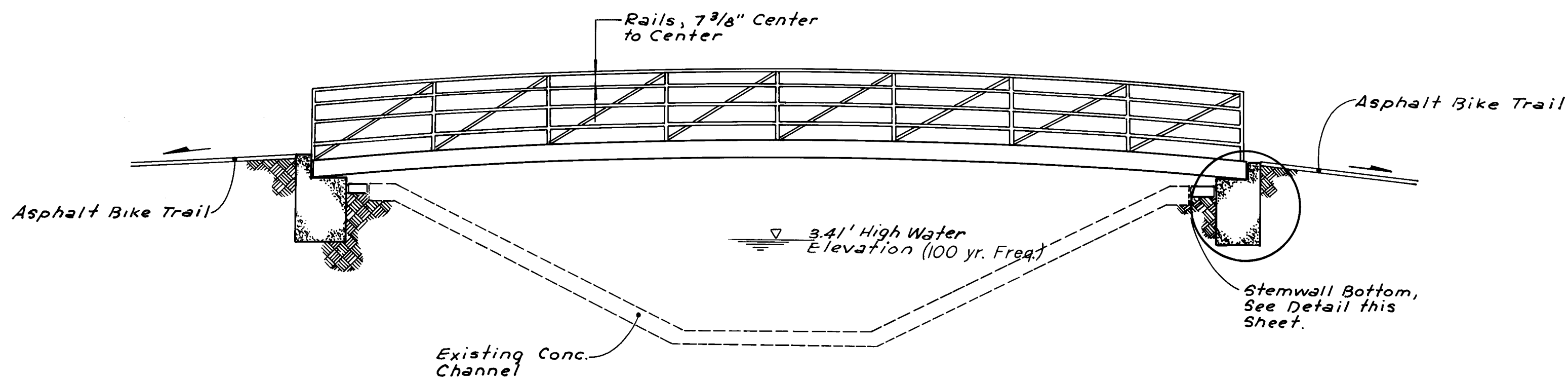
DRAWING NO. 3980

MAP NO. E-18-Z F-18-Z

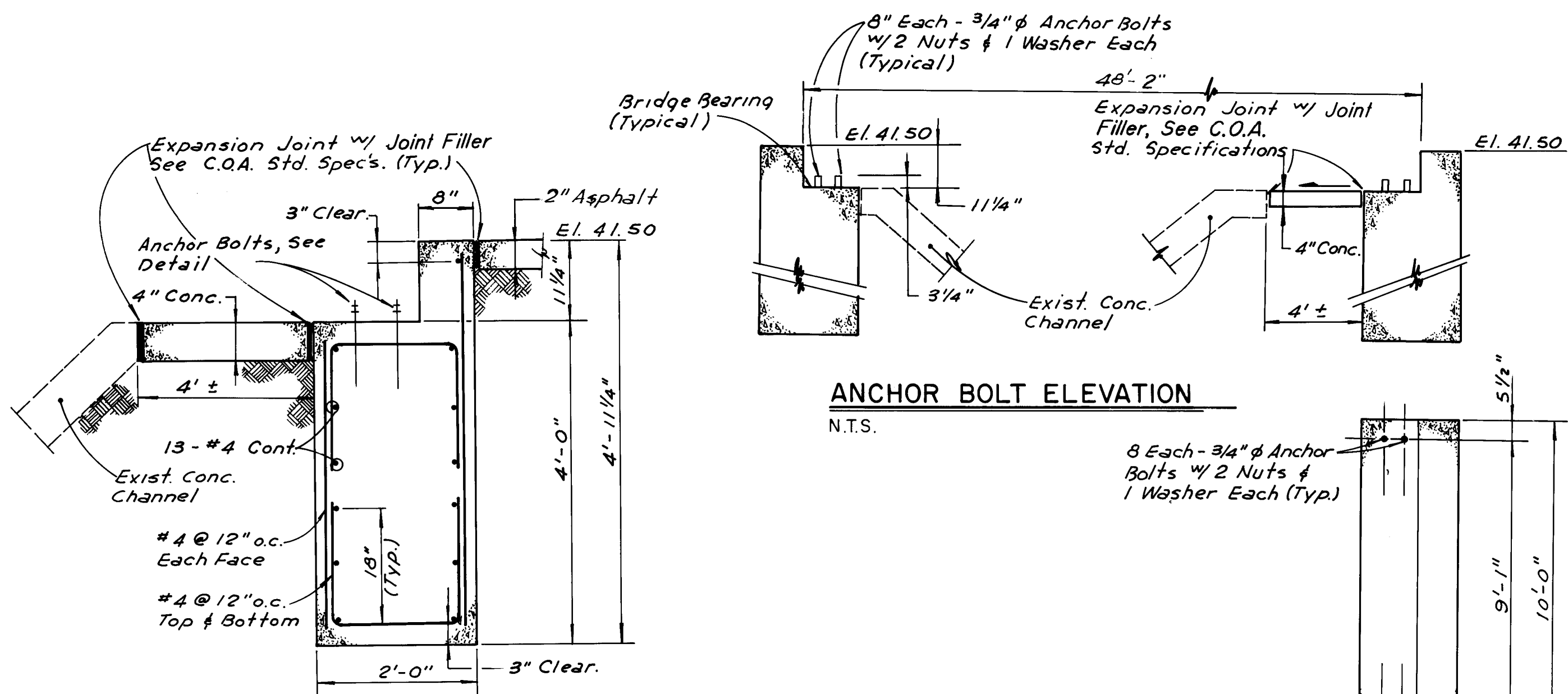
SHEET 5 OF 8



PLAN



SECTION 2/6/6



FOOTING DETAIL N.T.S.

ANCHOR BOLT DIAGRAM N.T.S.

BRIDGE SPECIFICATIONS

GENERAL

The Bridge shall be designed and manufactured by Continental Custom Bridge Company, Route 5, Box 178, Alexandria, Minnesota 56308 - Inside Minnesota 1-800-572-7002; Outside Minnesota 1-800-328-2047.

SPAN AND WIDTH

Clear span length (straight line dimension) shall be 48 feet 0 inches. Bridge inside deck width shall be 8 feet 0 inches.

ENGINEERING

The Bridge shall be designed for light recreation use (parks, bicycle crossing, trails, etc.). The bridges shall be designed for a minimum live load of 100 pounds per square foot.

Allowable Design Stresses:

All bridge applications shall be designed in accordance with the "Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings by the American Institute of Steel Construction" (AISC)-latest edition.

Welded tubular structure design shall be in accordance with the Structural Welding Code (ANSI/ANSI-8)- Chapter 10.

GEOMETRY

Low Profile Design.

Railing Height: Railing height (top of truss top chord) to be 42 inches above deck.

Diagonals: One diagonal per panel.

Camber: Bridge camber at center of bridge span shall be 2-1/2% of the total bridge span. This produces localized deck slopes that are approximately equal to the maximum handicap access slope of 8.33%.

MATERIALS

Bridges which are not to be painted shall be fabricated from high strength, self-weathering, low alloy, atmospheric corrosion-resistant ASTM A847 cold-formed welded square and rectangular tubing, and ASTM A588, ASTM A606, or ASTM A242 plate and structural shapes (Fy=50,000 psi).

Anchor bolts & nuts to be provided by bridge manufacturer.

Grease: Multi-Lube Lithium base.

All welding shall utilize E80 series electrodes which have the same weathering characteristics as corrosion-resistant steel.

Deckings: Wood decking shall be west coast region douglas fir select structural planks graded according to WCLB standard grading decking to be treated to AWPA standard P-5 preservative utilized shall be either ammoniacal copper arsenate (chemonite or ACA) or citromate copper arsenate (CCA). Decking shall be treated to a total absorption of 0.40 pounds per cubic foot of wood.

FABRICATION

Workmanship, fabrication and shop connections shall be in accordance with American Association of State Highway and Transportation Officials Specifications (AASHTO).

Welding operations shall be done by properly accredited experienced operators, each of whom shall submit satisfactory evidence of experience and skill in welding structural steel with the kind of welding to be used in the work and who has demonstrated the ability to make uniform good welds of the type required.

FINISHING

Self-Weathering Bridges: All exposed surfaces of self-weathering steel shall be cleaned in accordance with Steel Structures Painting Council Surface Preparation Specifications No. 6 Commercial Blast Cleaning, SSPC-SP 6-63.

DELIVERY AND ERECTION

Delivery of the bridge (bridges) will be made to a location nearest the site which is accessible to over-the-road trucks, unless otherwise specified.

The Contractor will be responsible for unloading the bridge from the truck at the time of arrival. Continental Custom Bridge Company will notify the Contractor in advance of the expected time of arrival at the site. Contractor is responsible for storing the bridge during construction.

The Manufacturer or his representative will instruct the Contractor or his representative in the proper lifting procedure for the unloading of the bridge. Care must be taken to prevent damage to the finish of the bridge.

The unloading, splicing (if required), and placement of the bridge will be the responsibility of the Contractor. The procedure for bolting field splices will be given to the Contractor by the manufacturer.

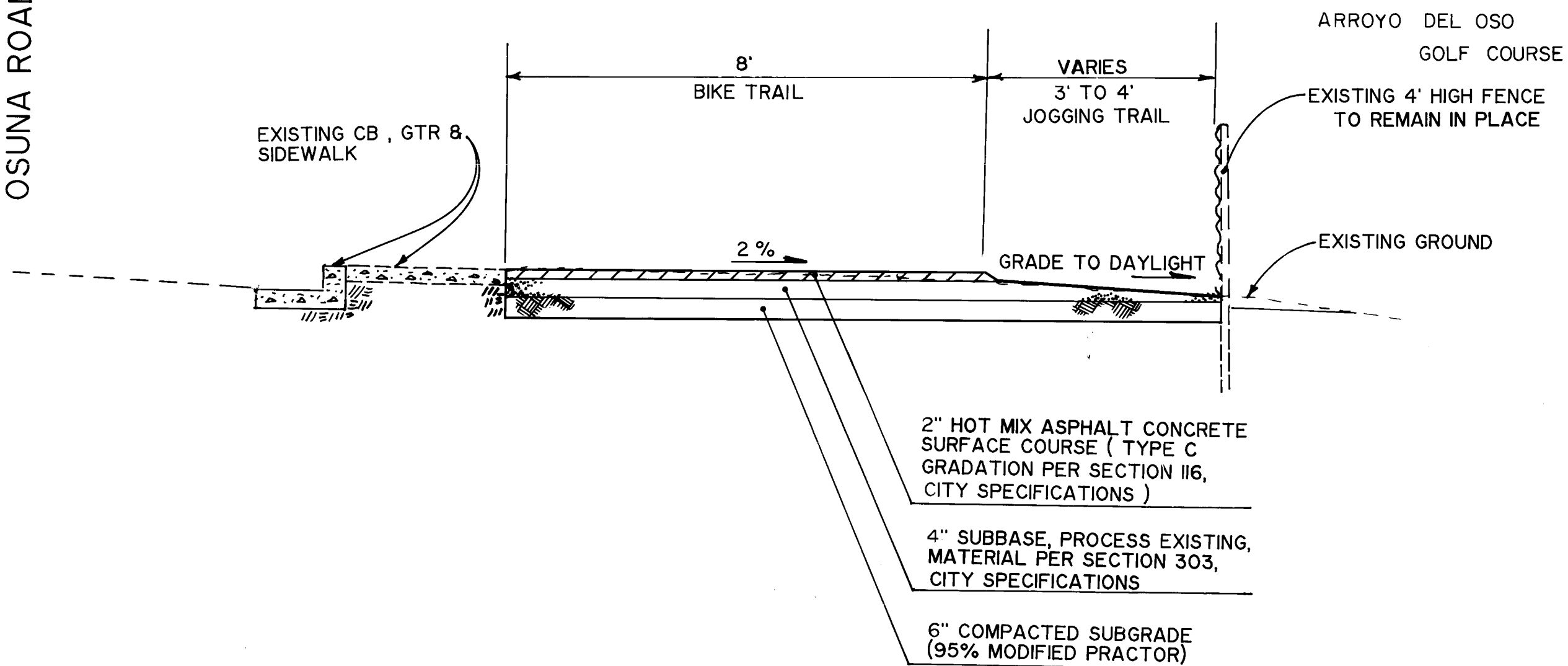
1' x 1' bearing plates with slotted holes will be included with the delivery of the bridge and are to be placed at the anchor bolt locations with grease between the plate and footing.

Install nuts on anchor bolts to bridge manufacturer's specifications.

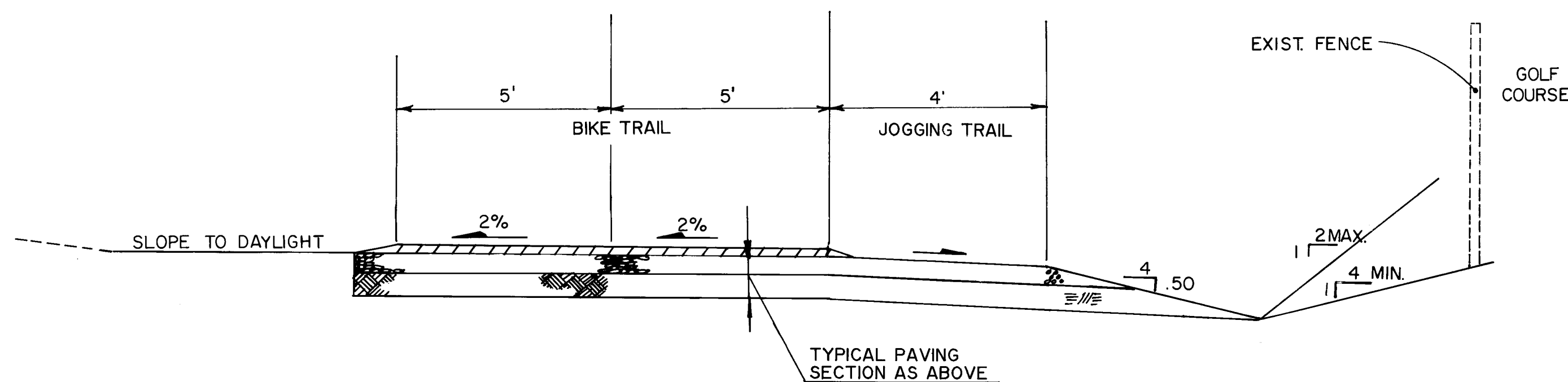
AS BUILT INFORMATION			BENCH MARKS			SURVEY INFORMATION			ENGINEER'S SEAL		
CONTRACTOR	DATE	NO.	DATE	BY	NO.	DATE	BY	NO.			
WORK ORDER	DATE	NO.	DATE	BY	NO.	DATE	BY	NO.			
INSPECTION	DATE	NO.	DATE	BY	NO.	DATE	BY	NO.			
ACCEPTANCE	DATE	NO.	DATE	BY	NO.	DATE	BY	NO.			
FIELD	DATE	NO.	DATE	BY	NO.	DATE	BY	NO.			
DRAWINGS	DATE	NO.	DATE	BY	NO.	DATE	BY	NO.			
CONTRACT	DATE	NO.	DATE	BY	NO.	DATE	BY	NO.			
RECORDS	DATE	NO.	DATE	BY	NO.	DATE	BY	NO.			
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE			
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE			
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE			
DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE	DATE			

CITY OF ALBUQUERQUE PARKS & RECREATION DESIGN & DEVELOPMENT					
TITLE: BRIDGE DETAILS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair	<i>[Signature]</i>	5-29-90	Trans. Dev	<i>[Signature]</i>	5-29-90
Utility Dev	<i>[Signature]</i>	8-21-90	Parks	<i>[Signature]</i>	8-21-90
DRAWING NO.	3980	MAP NO.	2-E-18	SHEET	6 OF 8

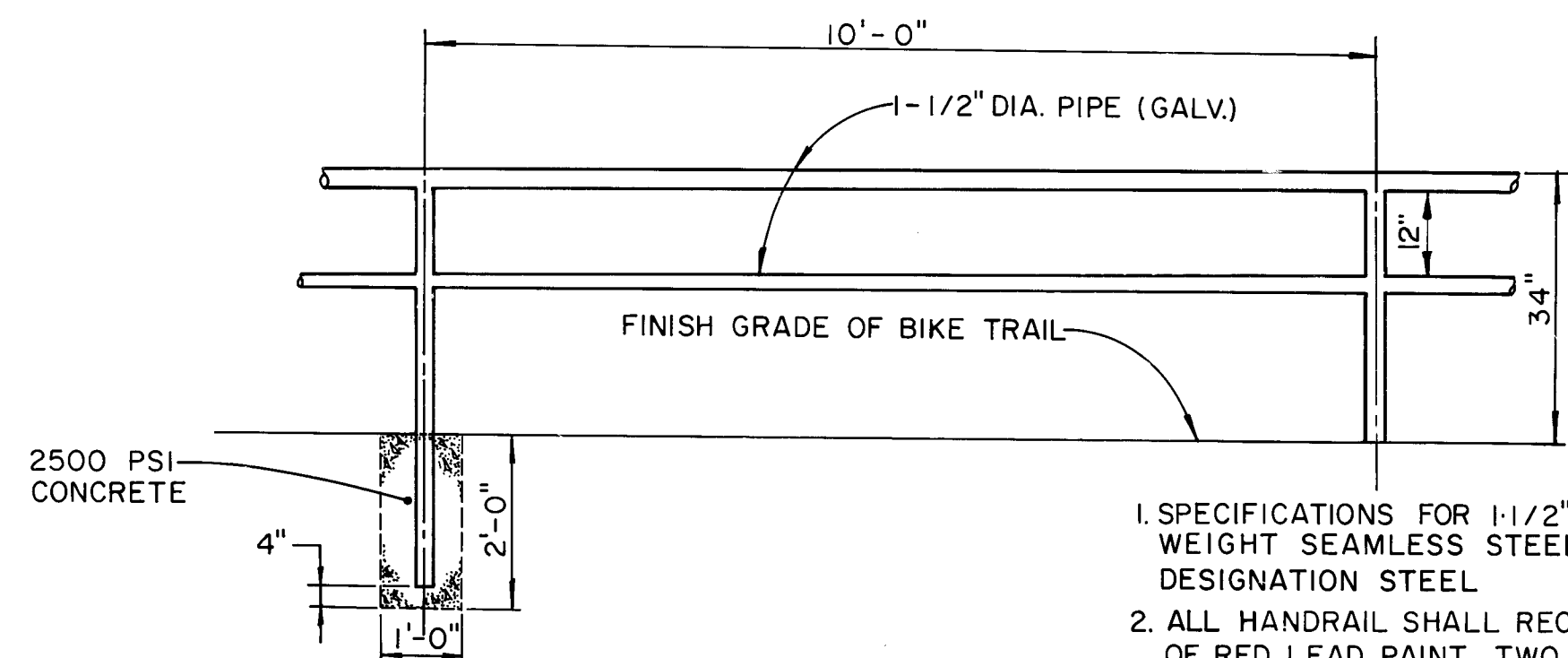
OSUNA ROAD NE



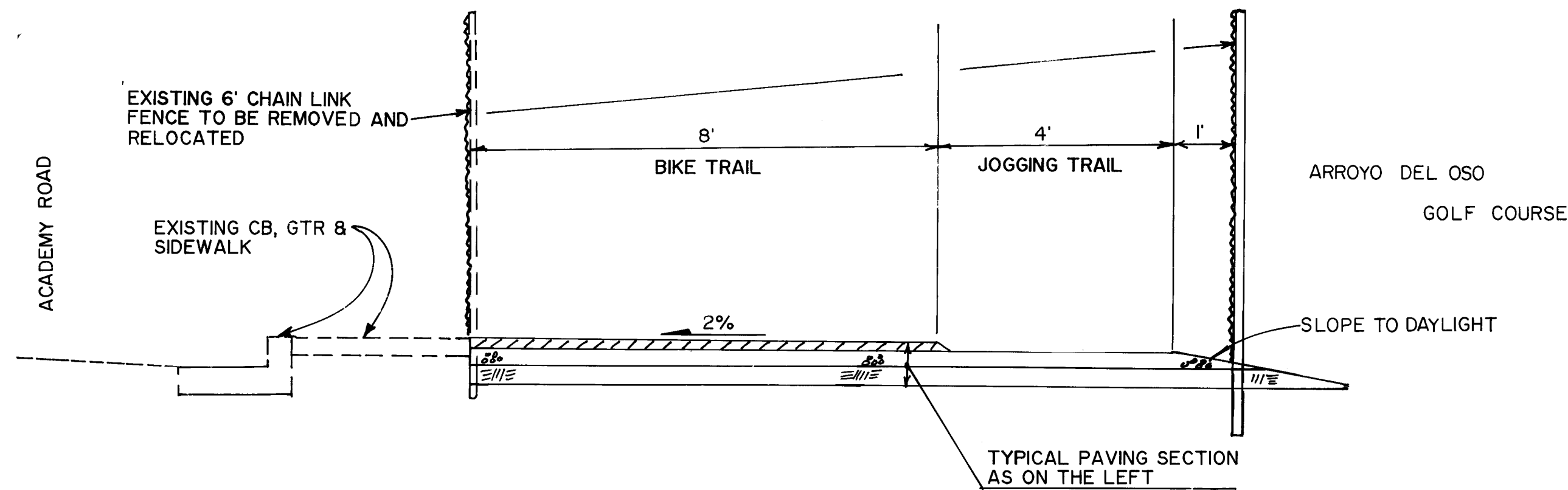
BIKE AND JOGGING TRAIL
TYPICAL PAVING SECTION
N.T.S. STA. 9+20 TO 13+00
OSUNA ROAD SECTION



BIKE AND JOGGING TRAIL
N.T.S. STA. 0+00 TO 9+20
BETWEEN ACADEMY BLVD. & OSUNA ROAD



TYPICAL HANDRAIL DETAIL
N.T.S.



BIKE AND JOGGING TRAIL
N.T.S. STA. 0+00 TO 9+85.40
ACADEMY ROAD SECTION

GENERAL NOTES FOR BRIDGE SEE SHEET 6

GENERAL STRUCTURAL NOTES

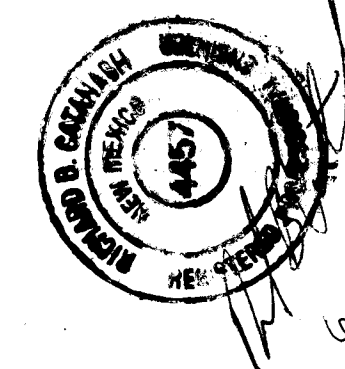
- GENERAL:
 - The Contractor shall verify all dimensions in the field.
 - Shop drawings shall be furnished and reviewed before any fabrications or erection is started. The Contractor shall review and approve shop drawings prior to submittal to the Architect for review. Poorly executed shop drawings will be rejected and shall be resubmitted.
 - The Contractor shall be responsible for providing safe and adequate shoring for all parts of the structure during construction.
 - Notching or cutting any structural member in the field is prohibited.
- MATERIALS:
 - Cast-in-place Concrete:
 - All concrete shall conform to the Specifications for Structural Concrete, AIC 301-84.
 - All exposed edges of concrete shall have a 3/4" chamfer unless noted otherwise.
 - Normalweight Concrete:
 - fc = 4000 psi @ 28 days (air entrained).
 - The Contractor shall not cast foundations against excavated vertical side surfaces unless approval is requested in writing from Architect with subsequent permission from Architect to Contractor. Permission will not be given unless the following minimum conditions are met and agreed to in writing from Contractor:
 - Side slopes of excavation shall be able to maintain vertical slope without sloughage of any kind.
 - Width of excavation shall be one inch wider on each side of vertical surface.
 - Side walls of excavation shall be battered approximately one inch horizontal to twelve inches vertical.
 - No permission will be given for sandy or loose material conditions.
 - Rebar shall be properly aligned and maintained.
 - The Contractor shall provide personnel to observe casting operation who shall remove any sloughage from wet concrete.
 - The Contractor shall agree to remove and recast footing if the above conditions are not met or adhered to.
 - Reinforcing Steel:
 - All reinforcing steel shall be fabricated and placed in accordance with the Building Code Requirements for Reinforced Concrete (ACI 318-83) and the Standard Manual (ACI 315-80).
 - All reinforcing steel shall conform to ASTM A615 Grade 60; except stirrups, ties field-bent bars which shall conform to ASTM A615 Grade 40.
 - Where lapped splices in reinforcing occur, the minimum lap shall be made as follows unless noted otherwise on drawings:
 - Vertical reinforcing: 30 bar dia. or 18" minimum
 - Horizontal reinforcing: 30 bar dia. or 18" minimum
 - All horizontal reinforcing in footings, walls and beams shall be size and spacing as the horizontal bars and lap a minimum of 30 bar diameters or 18 inches.
 - The Contractor shall be responsible to see that all rebar is accurately located and secured in place so that it remains in the correct position during the placement of the concrete. Any rebar found to be improperly installed shall be removed and replaced.
 - Concrete cover for reinforcing shall be as follows:
 - Concrete cast against and permanently exposed to earth 3"
 - Concrete exposed to earth or weather:
 - Bars larger than No. 5 2"
 - Bars No. 5 or smaller 1 1/2"
 - Form ties shall be either the threaded or snap-off type so that no metal will be left within 1 inch of the surface of the wall. Following removal of form ties, recesses are to be carefully filled and pointed with mortar.
 - Bar supports and spacers for reinforcing shall be provided in accordance with ACI 315-80. Chairs with 22 ga. sand plates or precast blocks shall be provided for all reinforcing of concrete in contact with grade.
 - Reinforcing shall not be tack welded or welded in any manner unless specifically detailed.

GENERAL FOUNDATIONS NOTES

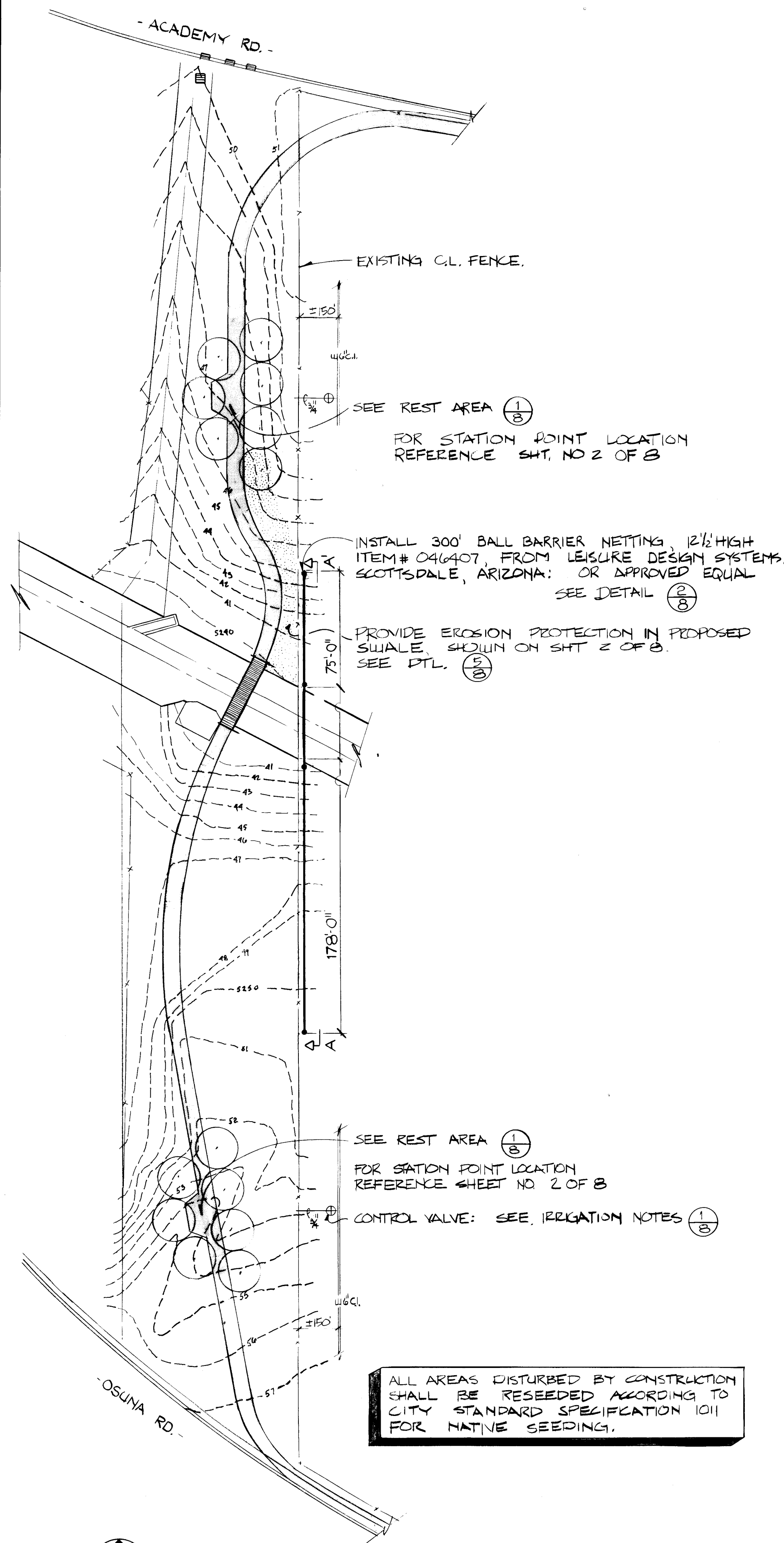
- CLEARING AND GRUBBING:
 - Remove all brush, rubbish, grass, and grass roots from the construction area.
 - Remove stumps, matted roots and roots larger than 2 inches in diameter within 6 inches of the surface of areas on which fill and/or footings are to be constructed.
 - Remove all topsoil from the construction area. This material shall not be used as fill material, but may be stockpiled and later used in the top 6 inches of fill outside the building pad.
- STRUCTURAL FILL REQUIREMENTS:
 - Gradation (ASTM D422):

Sieve Size	Percent Passing by Weight
3"	100
No. 4	50-100
No. 200	5-50
 - Plasticity Index (ASTM D4318) 15 max.
 - Material larger than 6 inches shall not be placed in the structural fill, and material larger than 4 inches shall not be placed within twelve inches of the bearing surfaces of slabs or foundations.
 - No brush, sod, frozen material or other unsuitable material shall be placed in the structural fill. Material shall be placed in such a manner as to result in a uniformly compacted fill.
- COMPACTION REQUIREMENTS:
 - Subgrade soils and structural fill materials shall be compacted to the following percentages of the ASTM D1557 maximum dry density at +/- 2% optimum moisture content.

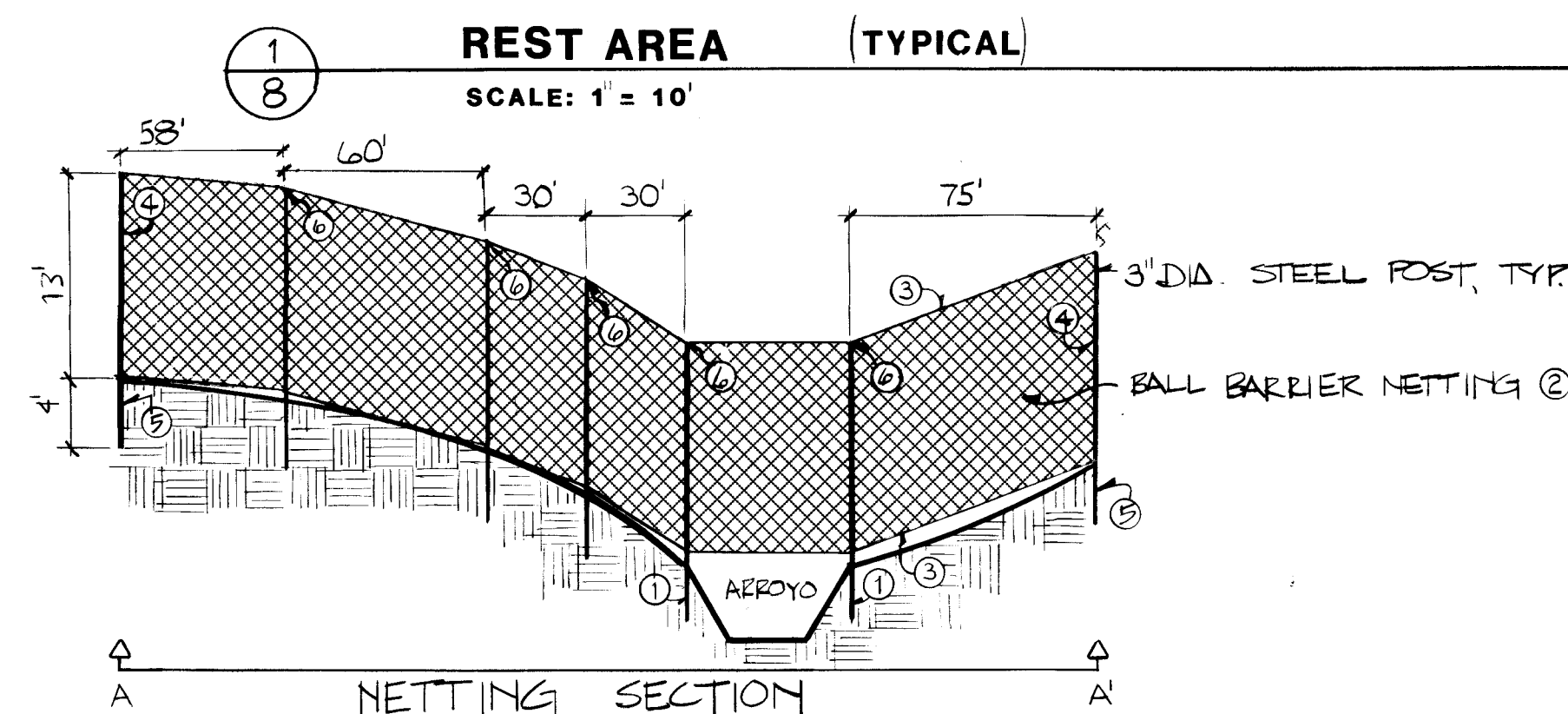
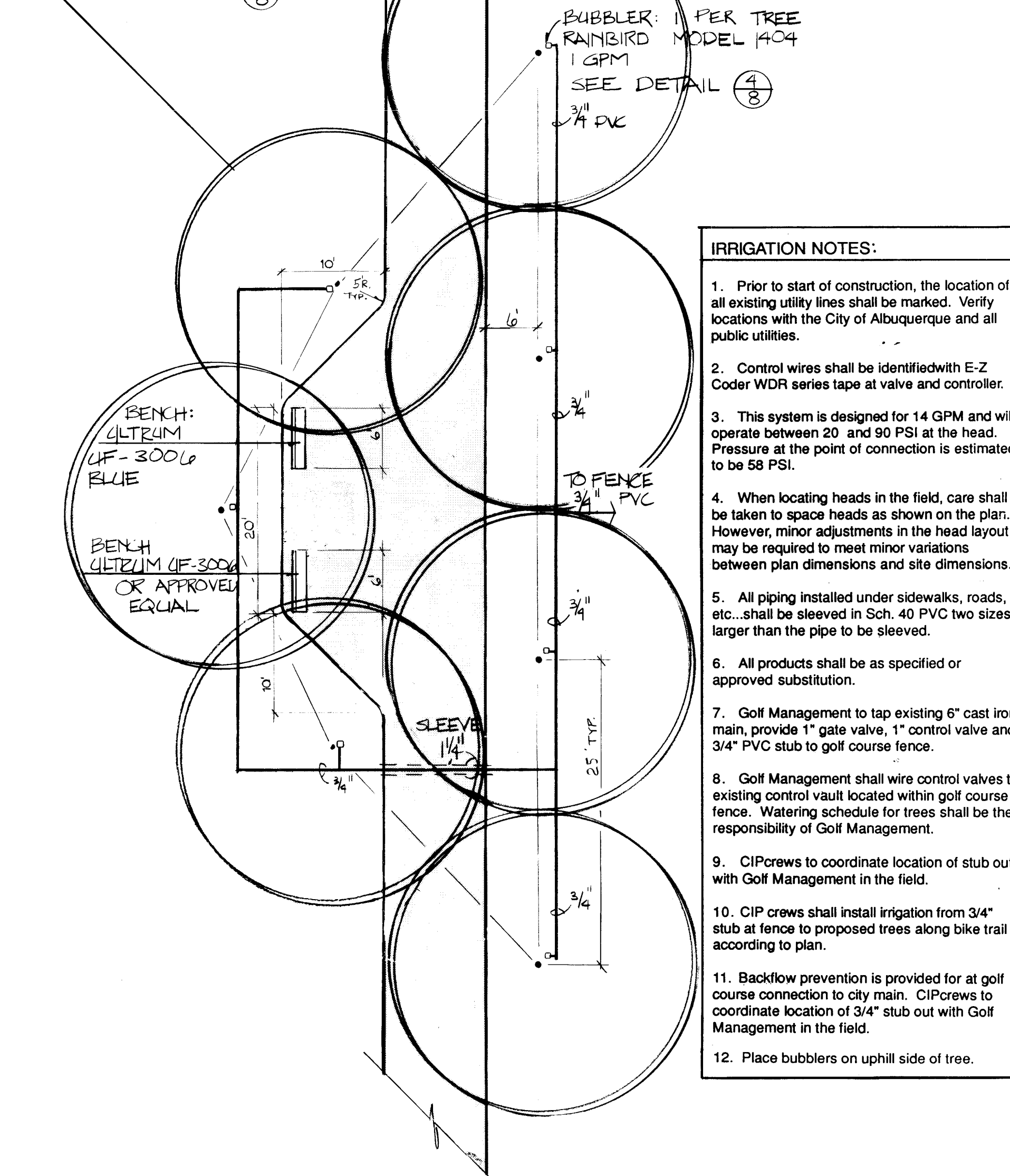
Material	Percent Compaction
Structural Fill	95
Miscellaneous Backfill	90
- Bridge concrete foundation to cure a minimum of 7 days prior to installing Bridge Super Structure.

AS BUILT INFORMATION				BENCH MARKS				SURVEY INFORMATION				ENGINEER'S SEAL			
CONTRACTOR	DATE	DATE	DATE	CONTRACTOR	DATE	DATE	DATE	NO	BY	DATE	DATE				
WORK	DATE	DATE	DATE	ACCS BRASS TABLET STAMPED "4-FIBA 1981" SET IN THE GROUND FLUSH WITH THE BACK OF CURB. ELEVATION 5277.58	DATE	DATE	DATE	NO	BY	DATE	DATE				
FIELD	DATE	DATE	DATE		DATE	DATE	DATE	NO	BY	DATE	DATE	REVISIONS			
ACCEPTANCE BY	DATE	DATE	DATE		DATE	DATE	DATE	NO	BY	DATE	DATE				
DATE	DATE	DATE	DATE		DATE	DATE	DATE	NO	BY	DATE	DATE	DESIGN			
DATE	DATE	DATE	DATE		DATE	DATE	DATE	NO	BY	DATE	DATE				
DATE	DATE	DATE	DATE		DATE	DATE	DATE	NO	BY	DATE	DATE	REMARKS			
DATE	DATE	DATE	DATE		DATE	DATE	DATE	NO	BY	DATE	DATE				

CITY OF ALBUQUERQUE PARKS & RECREATION DESIGN & DEVELOPMENT					
TITLE: PAVING SECTION DETAILS STRUCTURAL & FOUNDATION GENERAL NOTES					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
D.R.C. Chair	R. W. Kane	5-29-90	Trans. Dev	R. W. Kane	5-29-90
Utility Dev	R. W. Kane	5-29-90	Parks	R. W. Kane	5-29-90
DRAWING NO.	3980	MAP NO.	2-F-18	SHEET	7 OF 8



MODESTO ASH (7) 25'-0" O.C.
Fraxinus velutina 'Modesto'
SEE DETAIL ③/⑧



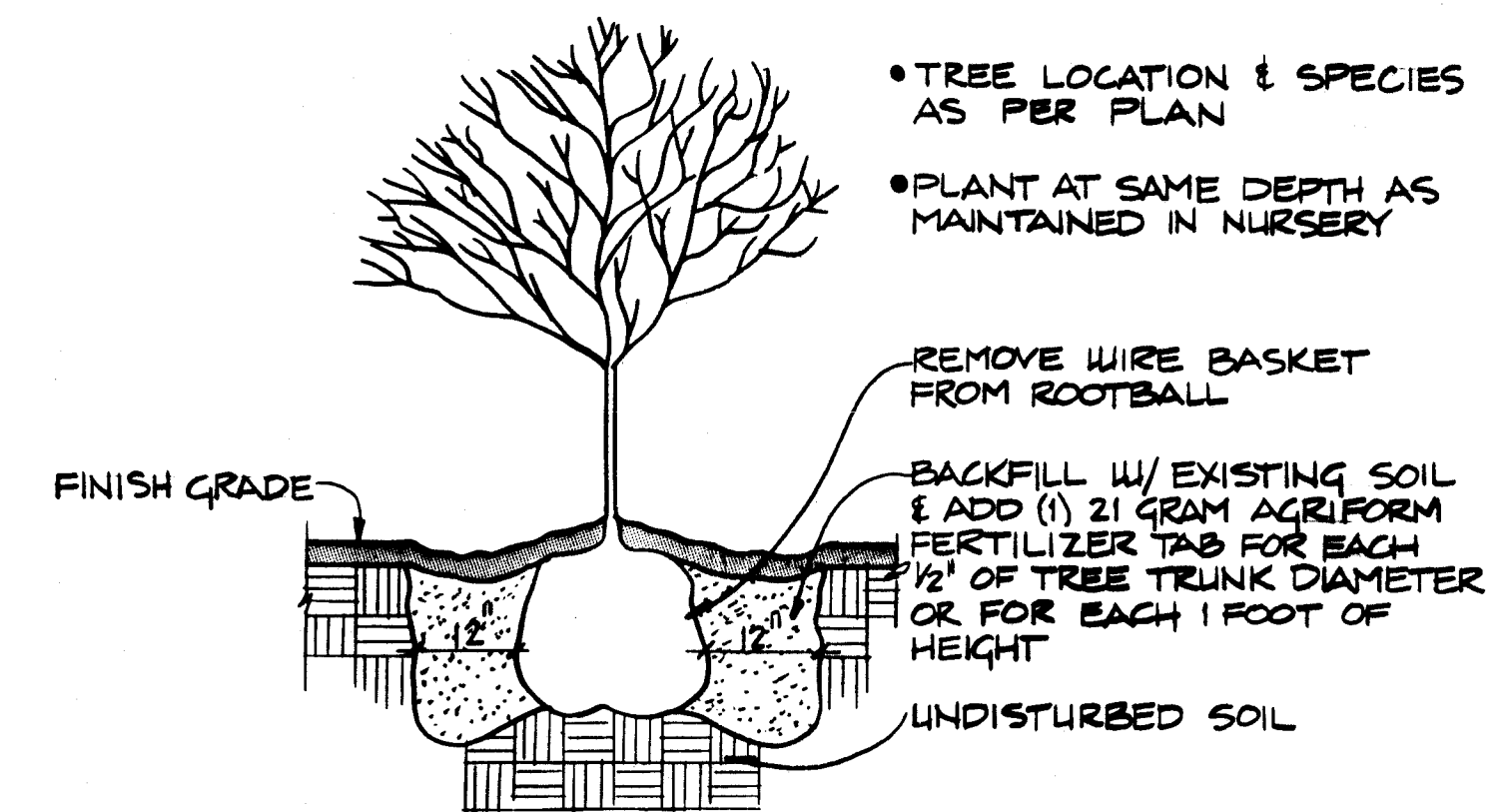
KEYED NOTES:

- ALLOW 6" CLEARANCE BETWEEN CHANNEL LINING AND FOOTING OF POST.
- ALLOW 6" CLEARANCE BETWEEN EXISTING CHAINLINK FENCE AND BALL BARRIER NETTING WITH NETTING ON GOLF COURSE SIDE OF FENCE.
- 3/8" STEEL CABLE WEEVED THROUGH TOP AND BOTTOM OF NET SO THAT NET IS STRETCHED TIGHTLY AND WILL NOT SAG. CLAMP AT ENDPOST.
- ATTACH NETTING TO END POST WITH PLASTIC TIES, 8" LONG, 50 LB. TEST, AVAILABLE FROM LEISURE DESIGN, VICTORY SPORTS PRODUCTS, ITEM # 2523.
- SUPPORT POST SHALL BE PLACED IN CONCRETE FOOTING, 8" DIA. X 4' DEEP CONCRETE SHALL BE 3000 PSI.
- WELD EYE BOLT TO POST. USE 3/8" HOOK TO ATTACH CABLE TO EYE BOLT. CRIMP & HOOK CLOSED.

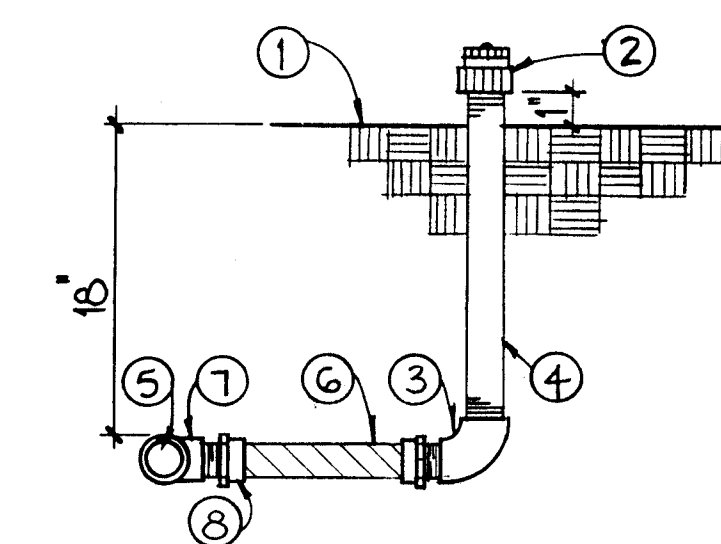
②/⑧

BALL BARRIER NETTING DTL.

N.T.S.



PLANT LIST				
QTY.	COMMON NAME	BOTANICAL NAME	CONTAINER	COMMENTS
14	Modesto Ash	Fraxinus velutina 'Modesto'	2 1/2"	



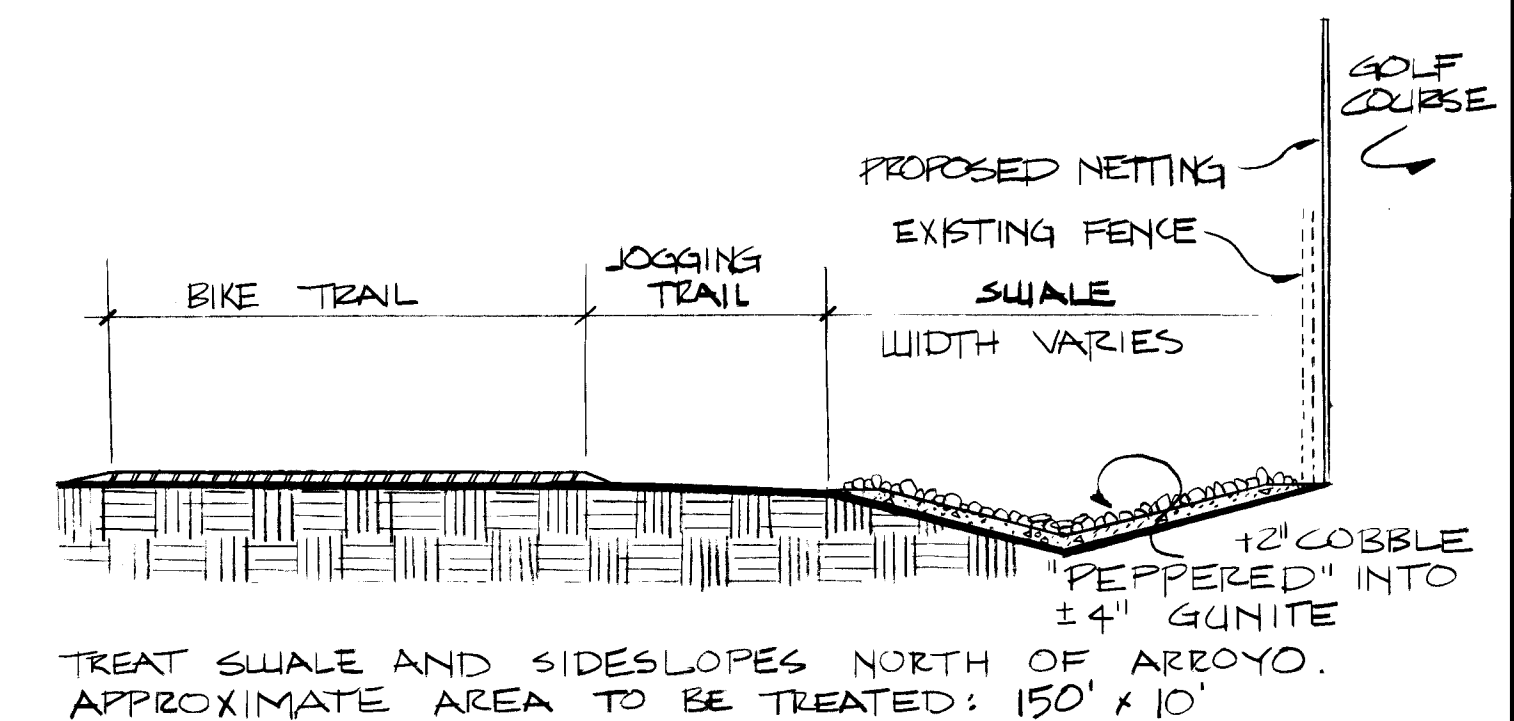
KEYED NOTES:

- FINISH GRADE
- BUBBLER 1" ABOVE GRADE OR BARK MULCH
- SCH. 40 PVC SxT ELL
- SCH. 80 PVC RISER
- PVC LATERAL PIPING
- PVC FLEXIBLE VINYL PIPE, STD. IPS FROM: AGRICULTURAL PRODUCTS INC. 1-818-768-3303
- SCH. 40 PVC SxSxT TEE OR SxT ELL 2" AND SMALLER (6x6xT OR 6xT 2 1/2" & LARGER)
- SCH. 40 PVC MIP ADAPTER

④/⑧

BUBBLER DETAIL

N.T.S.



⑤/⑧

EROSION PROTECTION DTL.

N.T.S.

CITY OF ALBUQUERQUE PARKS & RECREATION DESIGN & DEVELOPMENT					
TITLE: ARROYO DEL OSO BIKE TRAIL LANDSCAPING AND SITE FURNISHINGS					
APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
DRC CHAIRMAN	R.W. Kane	8-21-90	WATER	R.W. Kane	8-21-90
TRANSPORTATION	R.W. Kane	8-21-90	WASTE WATER	R.W. Kane	8-21-90
HYDROLOGY	R.W. Kane	8-21-90			
PARKS	R.W. Kane	8-21-90			
PROJECT NO.	3980	MAP NO.			
			SHEET 8 OF 8		