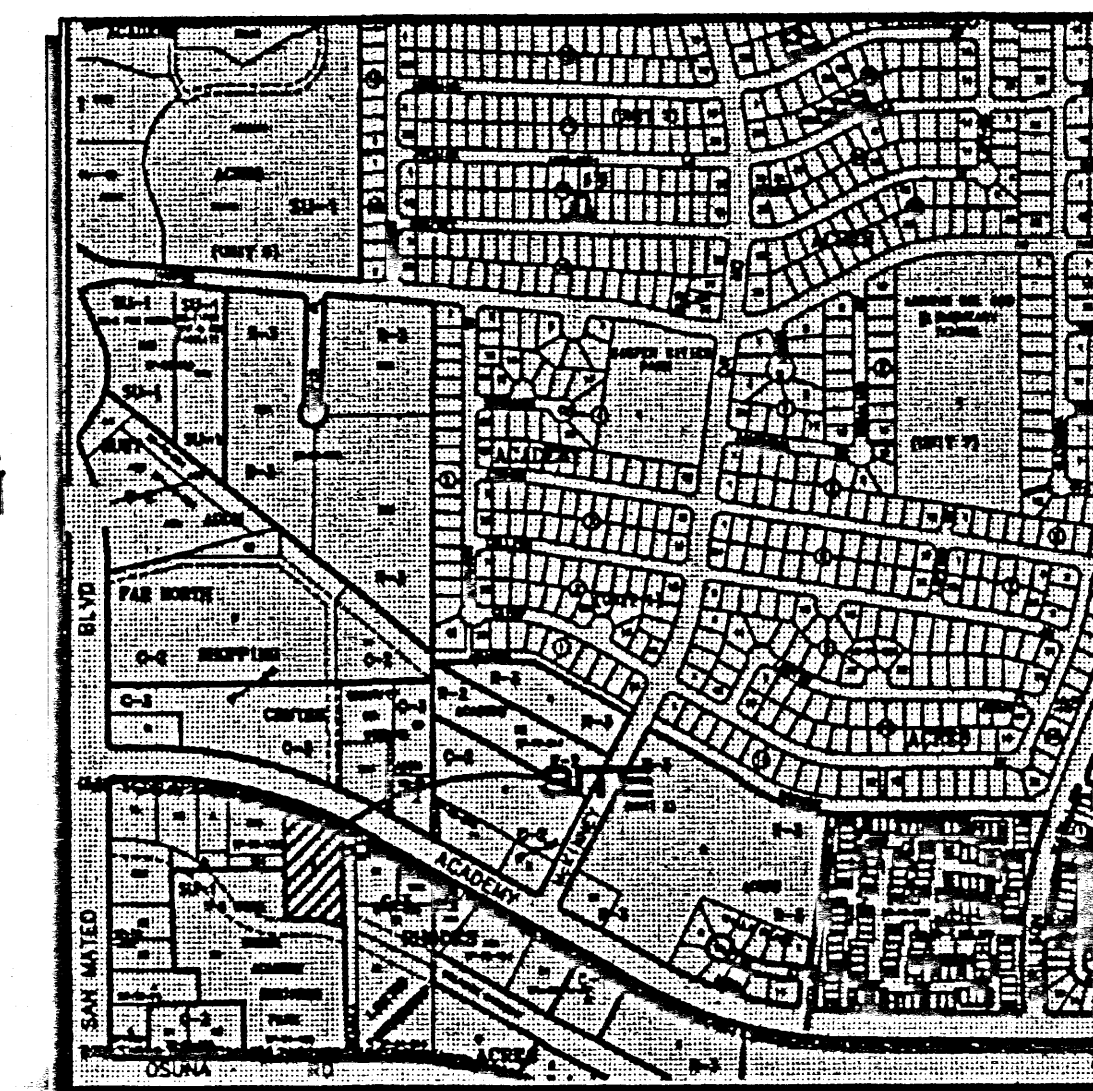


EXISTING HYDROLOGY:
PRECIPITATION ZONE: 3
TABLE A-8, DPM, EXCESS PRECIPITATION
PEAK RATES (cfs/ac) B = 2.60 C = 345 D = 5.02
E TREATMENTS: B = 0.92*, C = 1.29 D = 2.36
% TREATMENT B = 15% (0.3213 Ac), D = 85% (1.8207 Ac)
Q₁₀₀ = 9.53 cfs
V₁₀₀ = 18,257 cu.ft.

BASED ON THE PERCENT OF LAND TREATMENT DEFINED IN TH BASIN SUMMARY, THE FOLLOWING TABLE WAS FORMULATED TO PRESENT THE RESULTANT FLOW RATE AND VOLUMES.

BASIN NO.	AREA		LAND TREATMENT		Q ₁₀₀	V ₁₀₀
	AC.	SF.	B	D	(cfs)	(cu.ft.)
100	1.119	48,756	18	82	5.82	8,536
200	0.8164	35,565	4	96	4.02	6,823
300	0.1867	8,134	100	0	0.49	624

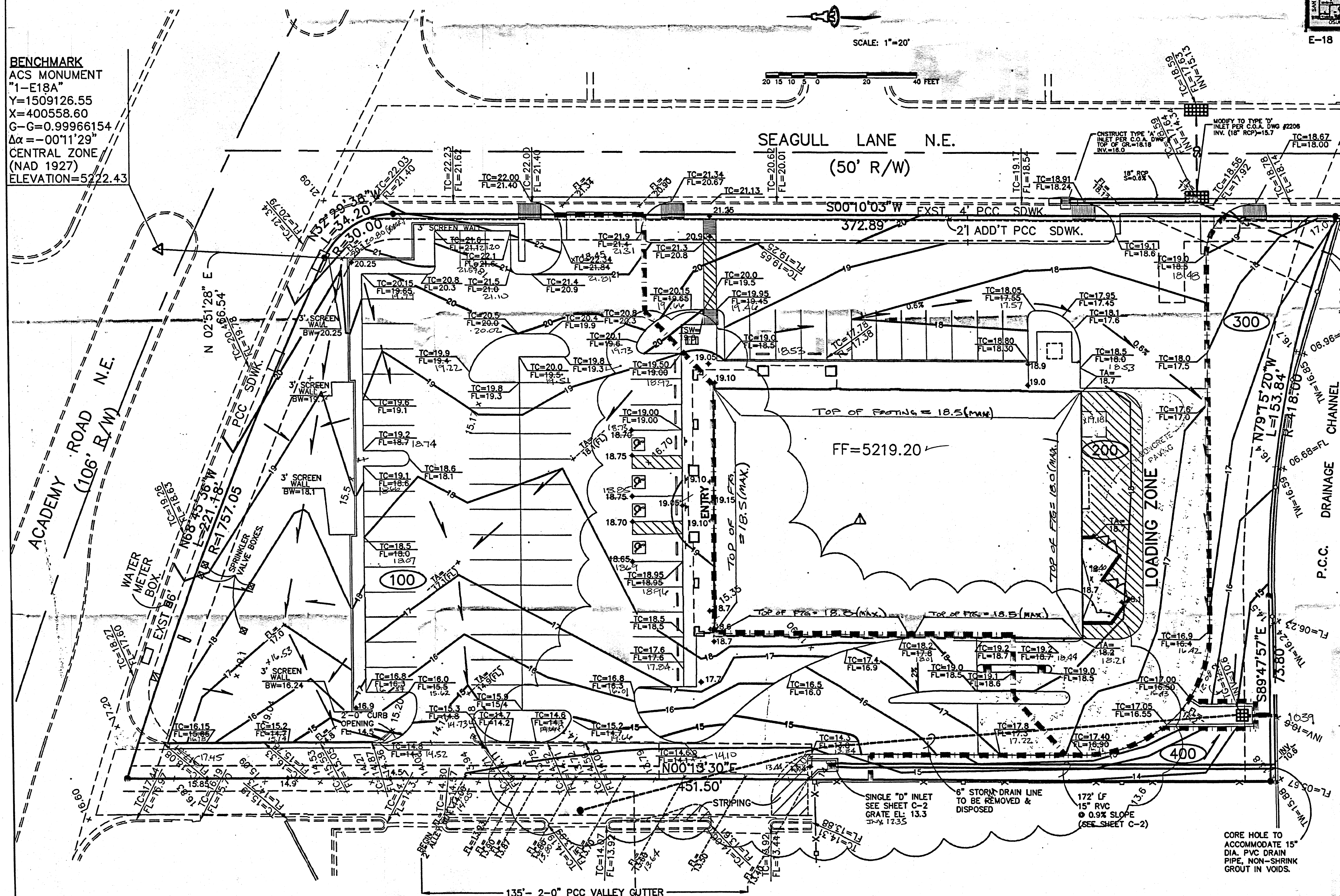
SOLVE FOR Q USING 8" ϕ PIPE, HEAD = 2 VF
 $Q_{max} = 10.33 \text{ cfs} > 4.02 \text{ cfs (O.K.)}$



VICINITY MAP

 $1'' = 750'$

ELEVATION=5222.43



PUBLIC STORM DRAIN MODIFICATIONS
DELETED FROM THIS PLAN
SEE W.O. 731318

DRAINAGE CERTIFICATION

I, Fred C. Arfman, NMPE 7322, of the firm Isaacson & Arfman, P.A., hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 07/17/03. The record information edited onto the original design document has been obtained by Larry Medrano, NMPS 1993, of the firm Precision Surveys. I further certify that I have personally visited the project site on 02/22/06/04 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Permanent Certification of Occupancy.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on this record document are advised to obtain independent verification of its

accuracy before using it for any other purpose

Fred C. Arfman
Fred C. Arfman
NMPE 7322
Feb. 27, 2004
Date

FRED C. ARFMAN
STATE OF
7322
NEW MEXICO
REGISTERED

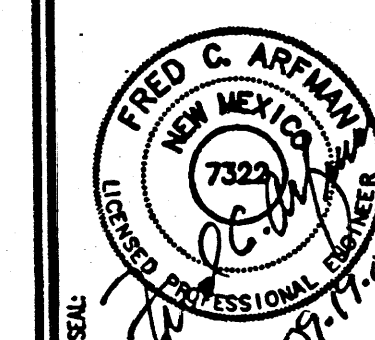
 EXISTING CONTOUR
 PROPOSED CONTOUR
 78.3 PROPOSED SPOT ELEVATION
 FLOW ARROW
FF = 6881.0 FINISH FLOOR ELEVATION

<u>TC 81.9</u>	<u>TOP OF CURB</u>	ELEVATION
FL 81.4	FLOWLINE	

INV=72.5 INVERT ELEVATION
 STORM DRAIN MANHOLE
 BASIN BOUNDARY

 **ISAACSON & ARFMAN, P.A.**
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque New Mexico
1289.3GRD.DWGRs 09/08/03

ARCHICON, L.C.
Architecture & Interiors
4041 N. CENTRAL, SUITE C-100
PHOENIX, ARIZONA 85012
(602) 722-4266
FAX (602) 729-4066



MARK	DATE	REVISION
------	------	----------

BECKERD DRUG STORE
SEC ACADEMY BLVD. & SEAGULL ST.
ALBUQUERQUE, NM

DATE	INITIAL	REVIEW
		PLANNING/ CIP
		CLIENT SUBMITTAL
		BUDG PERMIT
		PERMIT REV'S 1
		PERMIT REV'S 2
		GENERAL BID
		AUDITOR
		CONSTRUCTION
		DO NOT SIGN DRAWING

Scale: 1" = 20'
 Drawn:
 Checked:
 Drawing Start Date: 2/4
 ARCHNOON Job No.: 0310183
 Dwg File Name: 1269.3GRD.DWG

GRADING &
DRAINAGE PLAN

C-1

LEGAL DESCRIPTION:
TRACT B, NORTH ACADEMY BUSINESS PARK
(11-05-84, C25-108)

AREA: 2.1420 Ac (93,305 SF)

BENCHMARK: ACS MONUMENT SITUATED IN THE MEDIAN OF ACADEMY BLVD., WEST OF SEAGULL LANE.
ELEVATION=5222.43 (NAD 1927)

EXISTING CONDITIONS:

SITE IS CURRENTLY A FULLY DEVELOPED COMMERCIAL FACILITY (OLD SEAGULL ST. RESTAURANT) CONSISTING OF A SINGLE BUILDING, PARKING LOTS, PAVED ACCESSWAYS AND MATURE LANDSCAPING. THE SITE DOES NOT ACCEPT ANY OVERLAND OFFSITE STORMWATERS. ONSITE DEVELOPED STORM WATERS ARE ROUTED TO THE SOUTHWEST CORNER OF THE PROPERTY WHERE THEY ARE ACCEPTED BY A PRIVATE DROP INLET AND SUBSEQUENTLY DISCHARGED THROUGH THE SIDEWALL OF THE PUBLIC ARROYO DEL OSO DRAINAGE CHANNEL.

EXISTING HYDROLOGY:

PRECIPITATION ZONE: 3
TABLE A-8, DPM, EXCESS PRECIPITATION
PEAK RATES (cfs/ac) B = 2.60 C = 345 D = 5.02
% TREATMENTS: B = 0.92, C = 1.29 D = 2.36
% TREATMENT B = 15% (0.3213 Ac), D = 85% (1.8207 Ac)
Q₁₀₀ = 9.53 cfs
V₁₀₀ = 18,257 cu.ft.

REDEVELOPED CONDITIONS:

SITE WILL CONSIST OF A SINGLE COMMERCIAL RETAIL DRUGSTORE WITH DRIVE-UP PHARMACY DROPS, REQUIRED PARKING, ACCESSWAYS AND LANDSCAPING. THE PREVIOUSLY MENTIONED DROP INLET SHALL BE UTILIZED TO ACCEPT A PORTION OF THE GENERATED STORM WATERS. THE SITE WILL CONSIST OF THREE (3) DRAINAGE SUBBASINS.

BASIN 100: (48,756 SF, 1.119 Ac): NORTHERLY & WESTERLY PARKING (82%) AND LANDSCAPING (18%) WILL DISCHARGE OVERLAND STORM FLOWS TO THE NEW PRIVATE TYPE 'D' INLET AND PIPE SITUATED ADJACENT TO THE WESTERLY PROPERTY LINE.

BASIN 200: (35,565 SF, 0.8164 Ac): EASTERLY PARKING AND ACCESSWAY AND THE ENTIRE BUILDING (96 %) AND MINOR LANDSCAPE STRIP ALONG SEAGULL LANE WILL DISCHARGE STORM WATERS TO THE EXISTING DROP INLET NEXT TO THE ARROYO DEL OSO CHANNEL. INLET SHALL BE FORMED INTO A SUMP BY PCC WALLS FOR AN IMPROVED INLET CONDITION.

BASIN 300: (8,134 SF, 0.1867 Ac): FULLY LANDSCAPED AREA ADJACENT TO THE CHANNEL AND THE APARTMENTS TO THE WEST. STORM WATER SURFACE FLOW TO THE EXISTING DROP INLET.

PROPOSED HYDROLOGY:

BASED ON THE PERCENT OF LAND TREATMENT DEFINED IN THE BASIN SUMMARY, THE FOLLOWING TABLE WAS FORMULATED TO PRESENT THE RESULTANT FLOW RATE AND VOLUMES.

BASIN NO.	AC.	SF.	LAND TREATMENT B	D	Q ₁₀₀ (cfs)	V ₁₀₀ (cu.ft.)
100	1.119	48,756	18	82	5.82	8,536
200	0.8164	35,565	4	96	4.02	6,823
300	0.1867	8,134	100	0	0.49	624

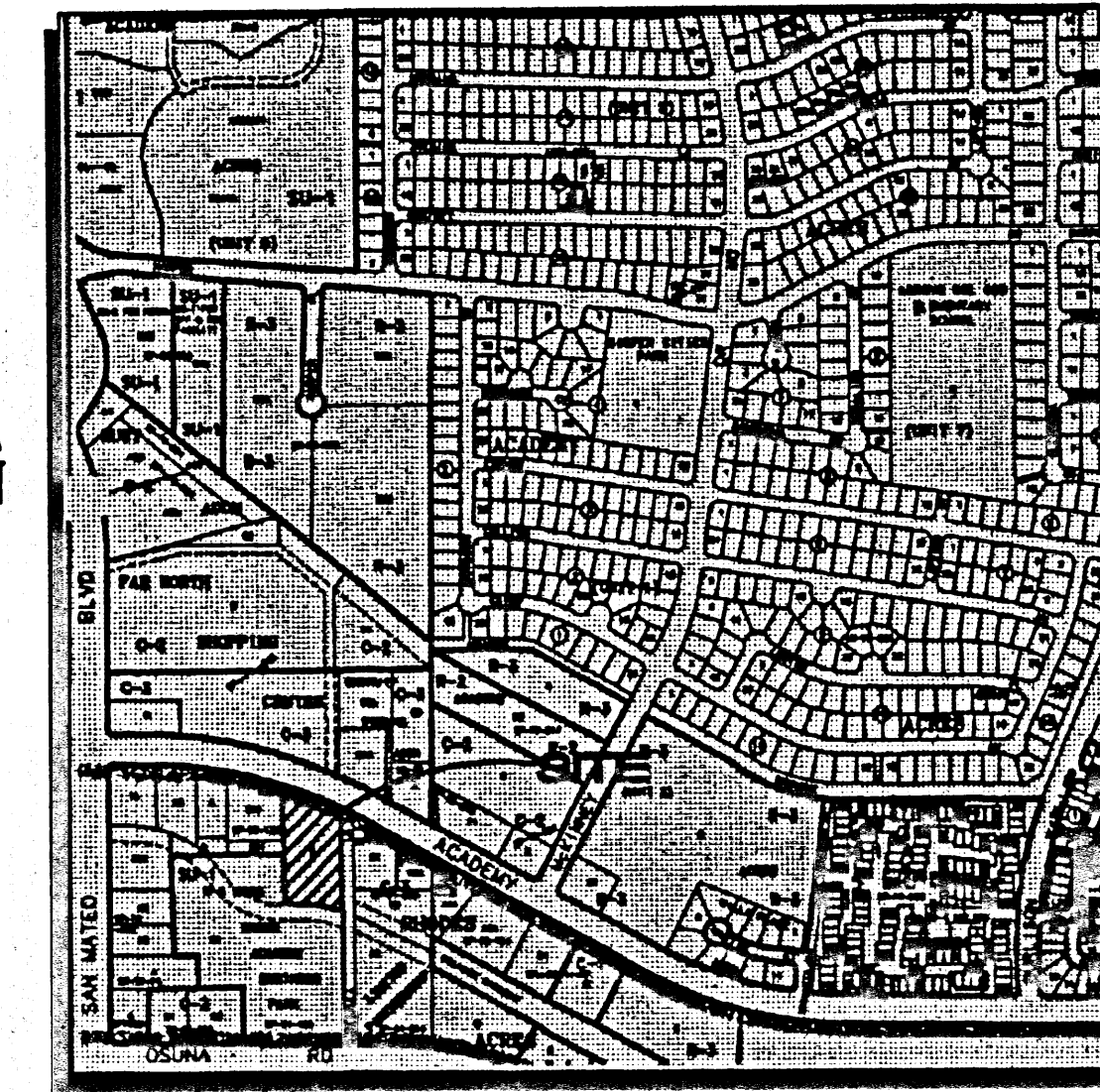
PIPE FLOW ANALYSIS (FROM FLOW MASTER VER 5.15)

BASIN 100:

SOLVE FOR Q USING 15" Ø PIPE @ 0.9% SLOPE
Q_{max} = 9.52 cfs > 5.82 cfs (O.K.)
Q₁₀₀ = 8.85 cfs > 5.82 cfs (O.K.)

BASIN 200:

SOLVE FOR Q USING 8" Ø PIPE, HEAD = 2 VF
Q_{max} = 10.33 cfs > 4.02 cfs (O.K.)

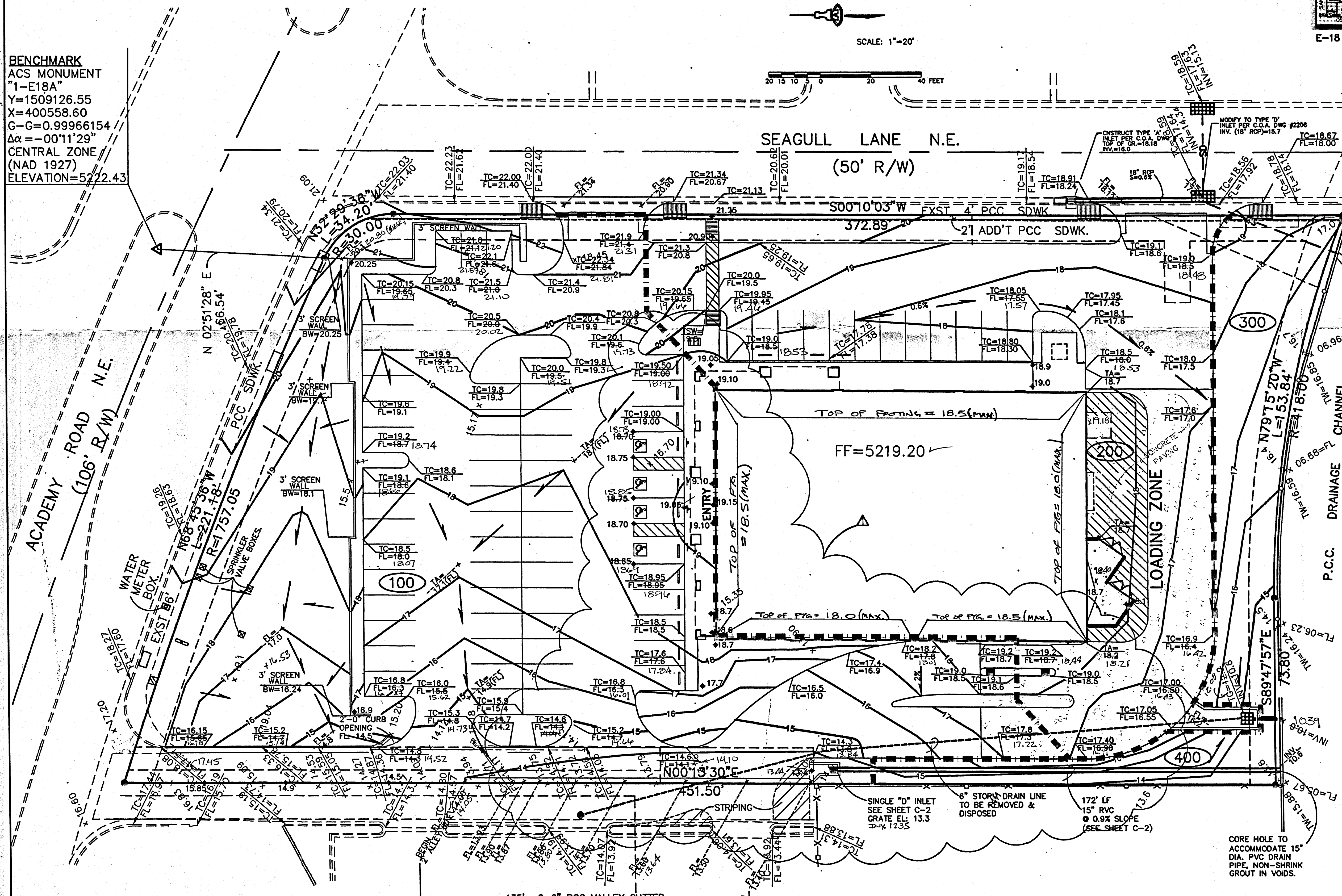


E-18

VICINITY MAP

1"=750'±

BENCHMARK
ACS MONUMENT
"1-E18A"
Y=1509126.55
X=400558.60
G-G=0.99966154
Δα=-00°11'29"
CENTRAL ZONE
(NAD 1927)
ELEVATION=5222.43



PUBLIC STORM DRAIN MODIFICATIONS
DELETED FROM THIS PLAN
SEE W.O. 731318

DRAINAGE CERTIFICATION

I, Fred C. Arfman, NMPE 7322, of the firm Isaacson & Arfman, P.A., hereby certify that this project has been graded and will drain in substantial compliance with and in accordance with the design intent of the approved plan dated 07/17/03. The record information edited onto the original design document has been obtained by Larry Medrano, NMPE 11993, of the firm Precision Surveys. I further certify that I have personally visited the project site on 02/26/04 and have determined by visual inspection that the survey data provided is representative of actual site conditions and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for Permanent Certification of Occupancy.

Offsite public storm drain modification was performed under a separate city work order (No. 731781) and is not a part of this certification. The record information presented herein is not necessarily complete and intended only to verify substantial compliance of the grading and drainage aspects of this project. Those relying on this record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

Fred C. Arfman, NMPE 7322
Date: Feb 27, 2004

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- FLOW ARROW
- FINISH FLOOR ELEVATION
- TOP OF CURB ELEVATION
- INVERT ELEVATION
- STORM DRAIN MANHOLE
- BASIN BOUNDARY

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque, New Mexico 87102
1289.3GRD.DWG
09/08/03

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ALBUQUERQUE, NEW MEXICO 87102
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WWW.ARCHICON.COM

FRED C. ARFMAN
NEW MEXICO
7322
REGISTERED PROFESSIONAL ENGINEER
02/26/04

REVISION	DATE	DESCRIPTION
1	02/26/03	SEE REVISION NOTE TO CONTRACTOR
2		
3		
4		
5		
6		
7		
8		
9		
10		

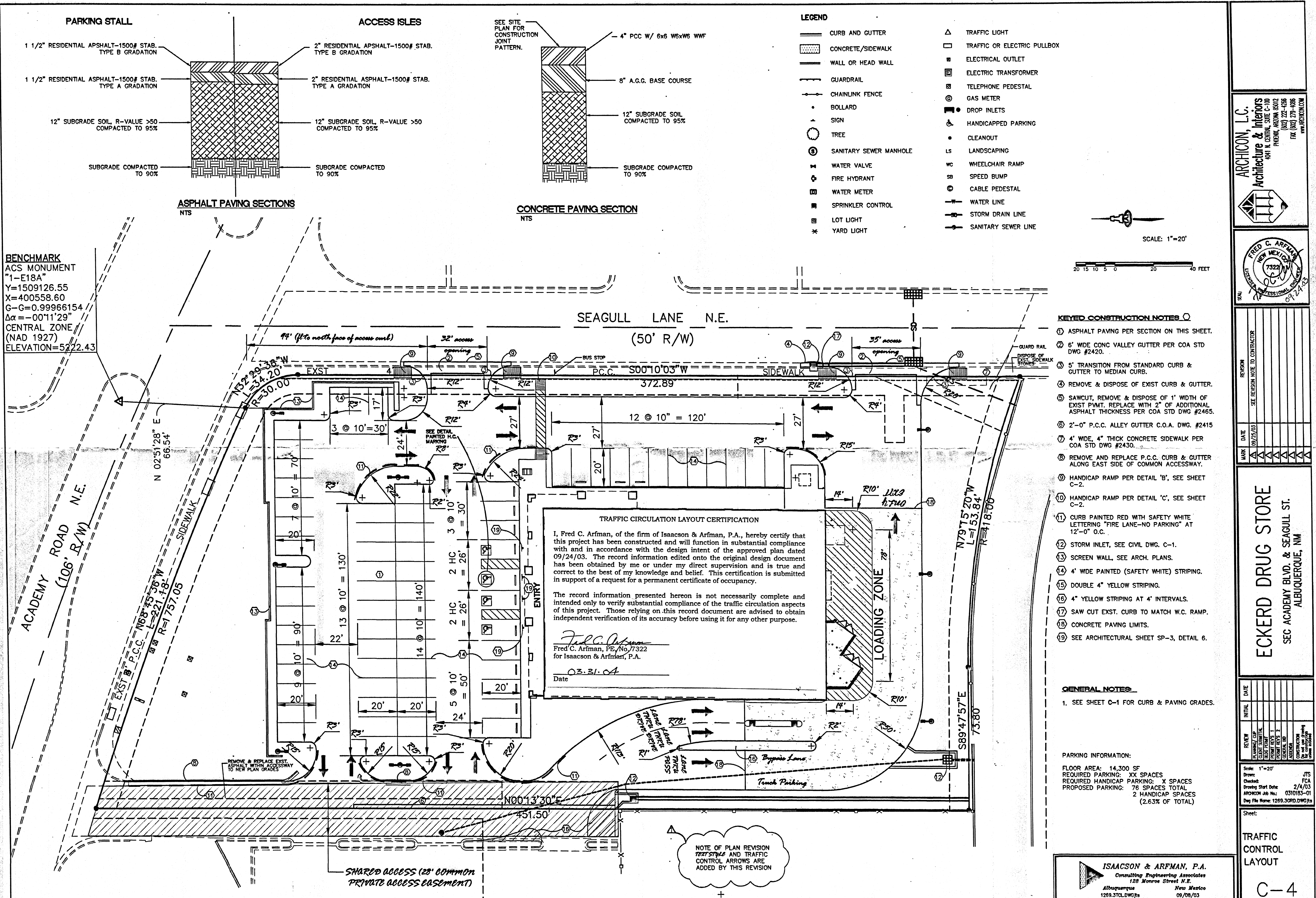
ECKERD DRUG STORE
SEC ACADEMY BLVD. & SEAGULL ST.
ALBUQUERQUE, NM

DATE	INITIAL	REVIEW	DATE
		DESIGNER	
		CHECKER	
		INTEGRITY	
		PERMIT	
		GENERAL	
		BY	
		DATE	

Scale: 1"=20'
Drawn: JTS
Checked: FSA
Drawing Start Date: 2/4/03
ARCHICON Job No.: 0310183-01
Day File Name: 1289.3GRD.DWG

Sheet:
GRADING & DRAINAGE PLAN

C-1

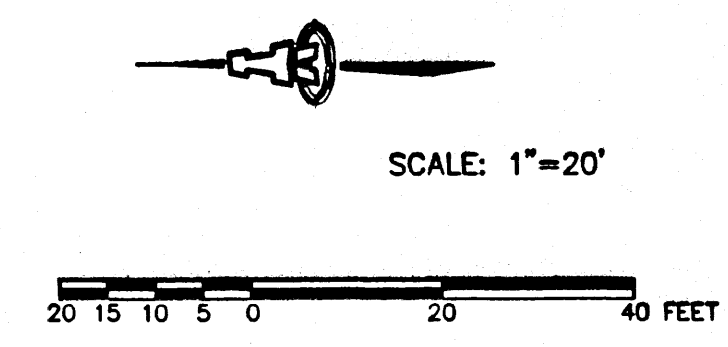


BENCHMARK
ACS MONUMENT
"1-E18A"
Y=1509126.55
X=400558.60
G-G=0.99966154
Δα=-00°11'29"
CENTRAL ZONE
(NAD 1927)
ELEVATION=5222.43

ASPHALT PAVING SECTIONS
NTS

CONCRETE PAVING SECTION
NTS

- LEGEND
- CURB AND GUTTER
 - CONCRETE/SIDEWALK
 - WALL OR HEAD WALL
 - GUARDRAIL
 - CHAINLINK FENCE
 - BOLLARD
 - SIGN
 - TREE
 - SANITARY SEWER MANHOLE
 - WATER VALVE
 - FIRE HYDRANT
 - WATER METER
 - SPRINKLER CONTROL
 - LOT LIGHT
 - YARD LIGHT
 - TRAFFIC LIGHT
 - TRAFFIC OR ELECTRIC PULLBOX
 - ELECTRICAL OUTLET
 - ELECTRIC TRANSFORMER
 - TELEPHONE PEDESTAL
 - GAS METER
 - DROP INLETS
 - HANDICAPPED PARKING
 - CLEANOUT
 - LANDSCAPING
 - WHEELCHAIR RAMP
 - SPEED BUMP
 - CABLE PEDESTAL
 - WATER LINE
 - STORM DRAIN LINE
 - SANITARY SEWER LINE



- KEYED CONSTRUCTION NOTES
- ASPHALT PAVING PER SECTION ON THIS SHEET.
 - 6" WIDE CONC VALLEY GUTTER PER COA STD DWG #2420.
 - 5' TRANSITION FROM STANDARD CURB & GUTTER TO MEDIAN CURB.
 - REMOVE & DISPOSE OF EXIST CURB & GUTTER.
 - SAWCUT, REMOVE & DISPOSE OF 1' WIDTH OF EXIST PWT. REPLACE WITH 2" OF ADDITIONAL ASPHALT THICKNESS PER COA STD DWG #2465.
 - 2'-0" P.C.C. ALLEY GUTTER C.O.A. DWG. #2415
 - 4' WIDE, 4" THICK CONCRETE SIDEWALK PER COA STD DWG #2430.
 - REMOVE AND REPLACE P.C.C. CURB & GUTTER ALONG EAST SIDE OF COMMON ACCESSWAY.
 - HANDICAP RAMP PER DETAIL 'B', SEE SHEET C-2.
 - HANDICAP RAMP PER DETAIL 'C', SEE SHEET C-2.
 - CURB PAINTED RED WITH SAFETY WHITE LETTERING "FIRE LANE-NO PARKING" AT 12'-0" O.C.
 - STORM INLET, SEE CIVIL DWG. C-1.
 - SCREEN WALL, SEE ARCH. PLANS.
 - 4' WIDE PAINTED (SAFETY WHITE) STRIPING.
 - DOUBLE 4" YELLOW STRIPING.
 - 4" YELLOW STRIPING AT 4' INTERVALS.
 - SAW CUT EXST. CURB TO MATCH W.C. RAMP.
 - CONCRETE PAVING LIMITS.
 - SEE ARCHITECTURAL SHEET SP-3, DETAIL 6.

GENERAL NOTES

- SEE SHEET C-1 FOR CURB & PAVING GRADES.

PARKING INFORMATION:

FLOOR AREA: 14,300 SF
REQUIRED PARKING: XX SPACES
REQUIRED HANDICAP PARKING: X SPACES
PROPOSED PARKING: 76 SPACES TOTAL
2 HANDICAP SPACES (2.63% OF TOTAL)

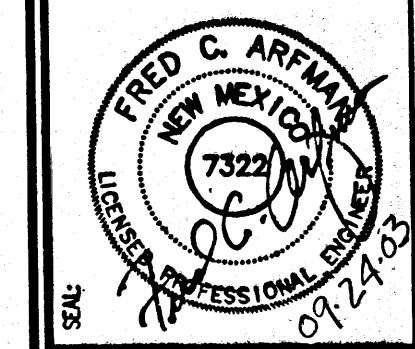
TRAFFIC CIRCULATION LAYOUT CERTIFICATION

I, Fred C. Arfman, of the firm of Isaacson & Arfman, P.A., hereby certify that this project has been constructed and will function in substantial compliance with and in accordance with the design intent of the approved plan dated 09/24/03. The record information edited onto the original design document has been obtained by me or under my direct supervision and is true and correct to the best of my knowledge and belief. This certification is submitted in support of a request for a permanent certificate of occupancy.

The record information presented hereon is not necessarily complete and intended only to verify substantial compliance of the traffic circulation aspects of this project. Those relying on this record document are advised to obtain independent verification of its accuracy before using it for any other purpose.

Fred C. Arfman
Fred C. Arfman, PE, No. 7322
for Isaacson & Arfman, P.A.
Date 03.31.04

ARCHICON, L.C.
Architecture & Interiors
401 N. CENTRAL, SUITE C-100
PHOENIX, ARIZONA 85012
(602) 722-1055
FAX (602) 275-1055
WWW.ARCHICON.COM



REVISION	DATE	MARK	DESCRIPTION
1	09/25/03		SEE REVISION NOTE TO CONTRACTOR

ECKERD DRUG STORE
SEC ACADEMY BLVD. & SEAGULL ST.
ALBUQUERQUE, NM

DATE	INITIAL	REVIEW	DATE	INITIAL	REVIEW
		PLANNING/DESIGN			PLANNING/DESIGN
		CLIENT SUBMIT			CLIENT SUBMIT
		BLDG PERMIT			BLDG PERMIT
		PERMIT REV'S 1			PERMIT REV'S 1
		PERMIT REV'S 2			PERMIT REV'S 2
		GENERAL NO			GENERAL NO
		ASSEMBLY			ASSEMBLY
		CONSTRUCTION			CONSTRUCTION
		NO AND THE SHOWN			NO AND THE SHOWN
		UNDER REVISION			UNDER REVISION

Sheet: C-4

TRAFFIC CONTROL LAYOUT

ISAACSON & ARFMAN, P.A.
Consulting Engineering Associates
128 Monroe Street N.E.
Albuquerque New Mexico
1289.3TOL.DWG 09/05/03