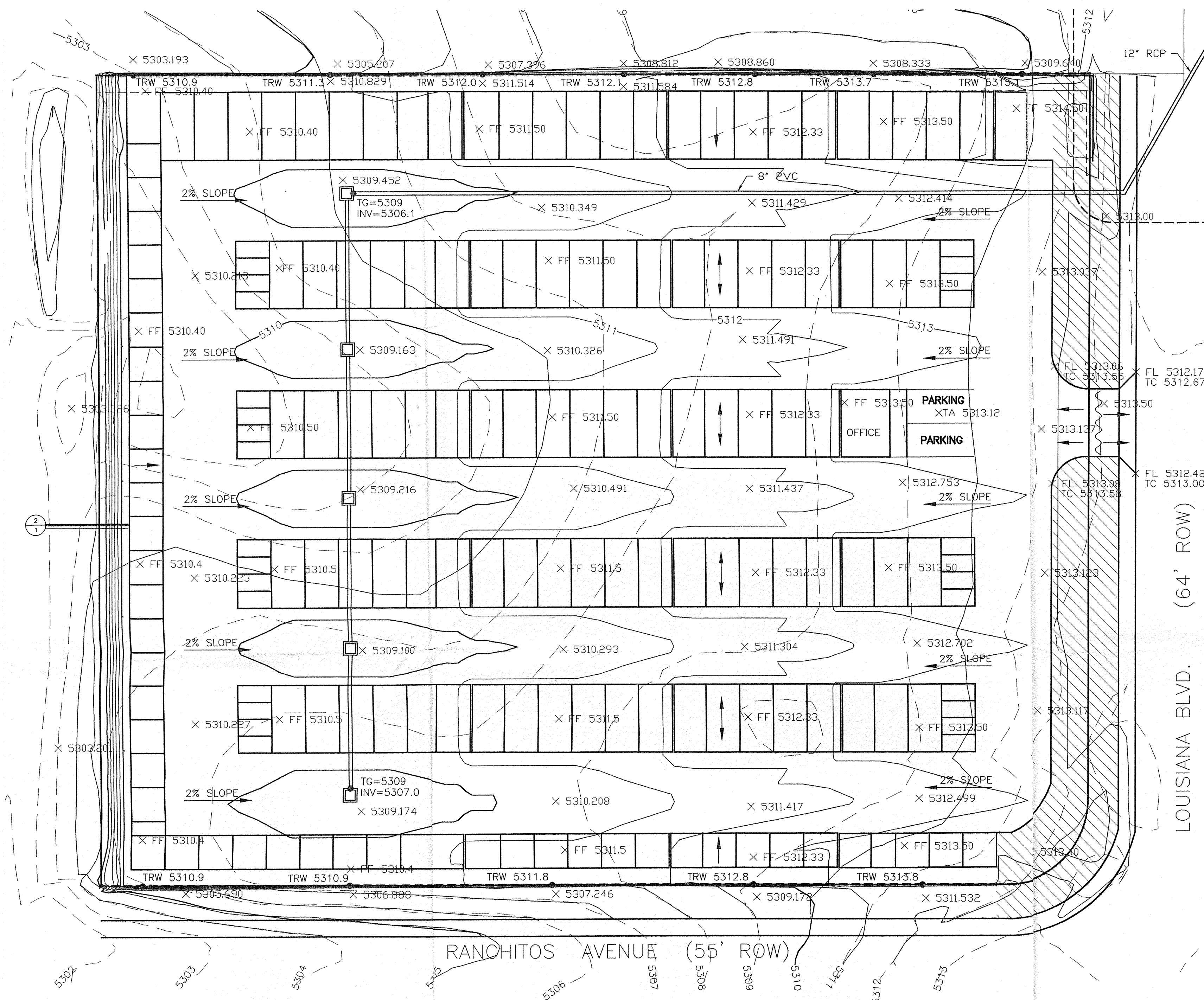


- NOTE:
1. THE CONTRACTOR SHALL ACQUIRE A TOPSOIL DISTURBANCE PERMIT PRIOR TO INITIATING GRADING, FILLING, EXCAVATION, OR OTHER SITE MODIFICATIONS.
 2. THE CONTRACTOR SHALL COMPLY WITH ALL CITY, COUNTY, STATE, AND FEDERAL DUST CONTROL MEASURES AND SHALL BE RESPONSIBLE FOR PREPARING AND OBTAINING NECESSARY APPLICATIONS AND APPROVALS.



PROPOSED DRAINAGE PLAN

THE SITE IS LOCATED ON THE NORTHWEST CORNER OF LOUISIANA AND RANCHITOS. AN 8" PVC PIPE WILL BE USED TO CARRY THE DISCHARGE FROM DRAIN TO 5 FT. FROM EAST PROPERTY LINE WHERE IT WILL BE CONNECTED TO A 12" RCP WITH A 45° CONNECTOR. THE 12" RCP WILL THEN BE EXTENDED 47' INTO LOUISIANA BLVD. (SEE DETAIL THIS SHEET). IN LOUISIANA BLVD. ANOTHER 45° CONNECTOR AND 124' RCP WILL BE USED TO CONNECT TO THE EXISTING STORM DRAIN.

DESIGN CRITERIA

THE DESIGN CRITERIA WAS BASED ON SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL VOLUME 2. JANUARY 1993

EXISTING DRAINAGE CONDITION

THE SITE IS LOCATED WITHIN THE PRECIPITATION ZONE 3. AT PRESENT THE RUNOFF FROM THE PROPERTY IS SHEET FLOW TO THE NORTHWEST.

$Q_p = Q_a * A_a$ $A_a = 1.67$ ac, $A_b = A_c = A_d = 0$
 $Q_{100} = 1.87 * 1.67 = 3.1$ cfs (FROM TABLE A-9, PAGE A-9)

PROPOSED DRAINAGE CONDITION

THE SITE HAS BEEN DEVELOPED SUCH THAT DRAINAGE WILL BE CONVEYED FROM SITE CATCH BASINS TO THE SOUTH DOMINGO BACA ARROYO VIA EXISTING STORM DRAIN LINE LOCATED IN LOUISIANA BLVD. NEW STORM DRAIN LINE WILL CONNECT TO THE EXISTING SYSTEM. THE LOCATION OF THE OF THE DRAIN INLETS ARE 74' FROM THE WEST SIDE WITH 2% SLOPE AND 222' FROM EAST SIDE WITH A 2% SLOPE.

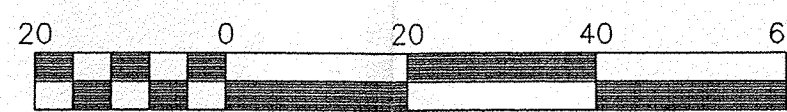
$Q_p = Q_d * A_d$ $A_d = 1.67$ ac, $A_a = A_b = A_c = 0$
 $Q_{100} = 5.02 * 1.67 = 8.4$ cfs (FROM TABLE A-9 DPM, PAGE A-9)
 $V_{100} = E * A$ $E = 2.36$ (FROM TABLE A-8 DPM, PAGE A-7)
 $V_{100} = E * A / 12 = 2.36 * 1.67 / 12 = .34$ ac-ft
 0.34 ac-ft = 14810 cfs

CHECK STORM DRAIN CAPACITY ON LOUISIANA

THE STORM DRAIN IS 48" DIAMETER RCP. SLOPING 0.7% FROM THE MANNINGS EQUATION:

$Q = 105$ cfs
THE DISCHARGE FROM THE MOBIL HOME SUBDIVISION, EAST OF LOUISIANA, IS 60 cfs, PLUS 1 cfs GENERATED BY LOUISIANA BLVD. STREET FLOWS AND THE CONTRIBUTION FROM THIS SITE OF APPROXIMATELY 10 CFS WILL NOT MAKE A SIGNIFICANT IMPACT.

PRISMOIDAL METHOD
CUT COMPACTION FACTOR 0.00 %
FILL COMPACTION FACTOR 0.00 %
RAW CUT VOLUME 77.91 CY
RAW FILL VOLUME 11772.42 CY



Scale 1" = 20'

SEE DETAIL 1 THIS SHEET

GENERAL INFORMATION

LEGAL DESCRIPTION:

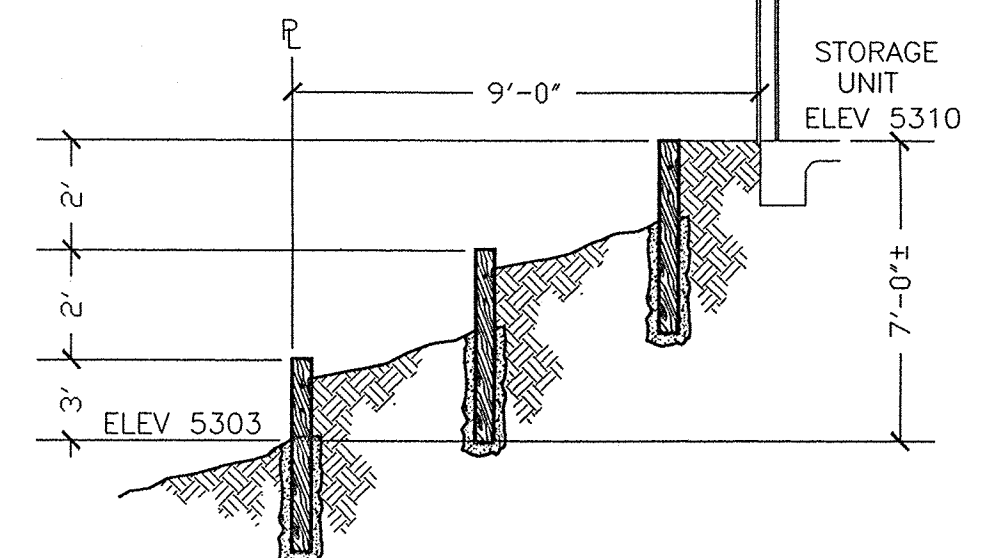
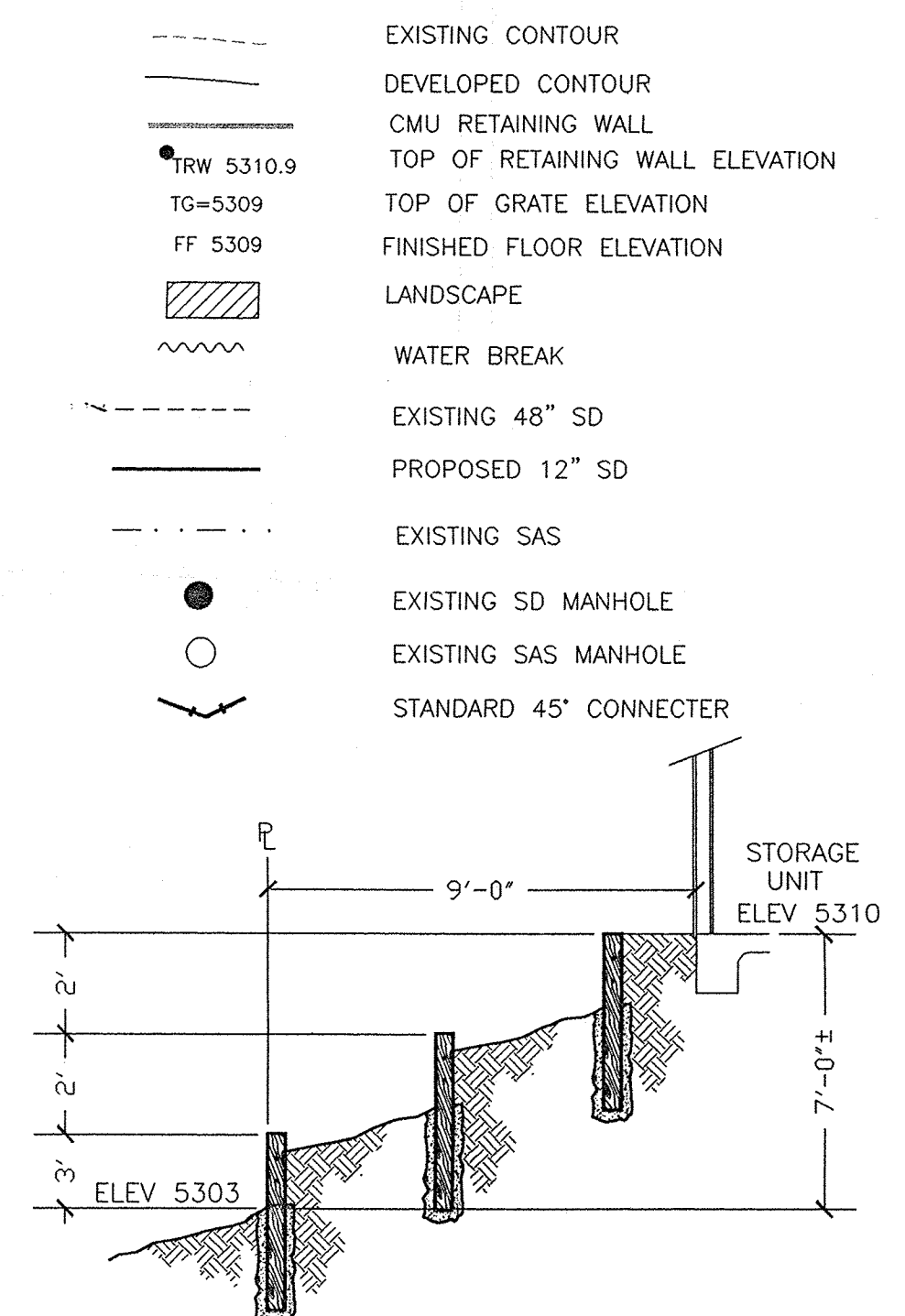
NORTH ALBUQUERQUE ACRES TRACT A UNIT A, BLOCK 13, LOT 17
SURVEY: BOUNDARY AND TOPOGRAPHIC SURVEY DONE BY SOUTHWEST SURVEY CO.

FLOOD HAZARD: PANEL 10 OF FLOOD INSURANCE RATE MAPS, SITE IS NOT IN FLOOD ZONE.

VICINITY MAP

D-18-Z

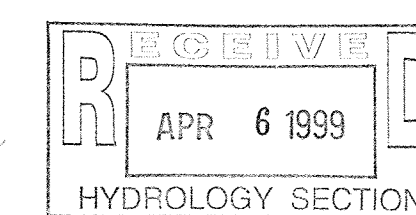
LEGEND



APPROVED FOR ROUGH GRADING, PLUS/MINUS ONE(1) FOOT

SIGNATURE

DATE



4001 JUAN TABO NE - SUITE 111
ALBUQUERQUE, NEW MEXICO 87111
(505)298-3477

REV.	DATE	DESCRIPTION

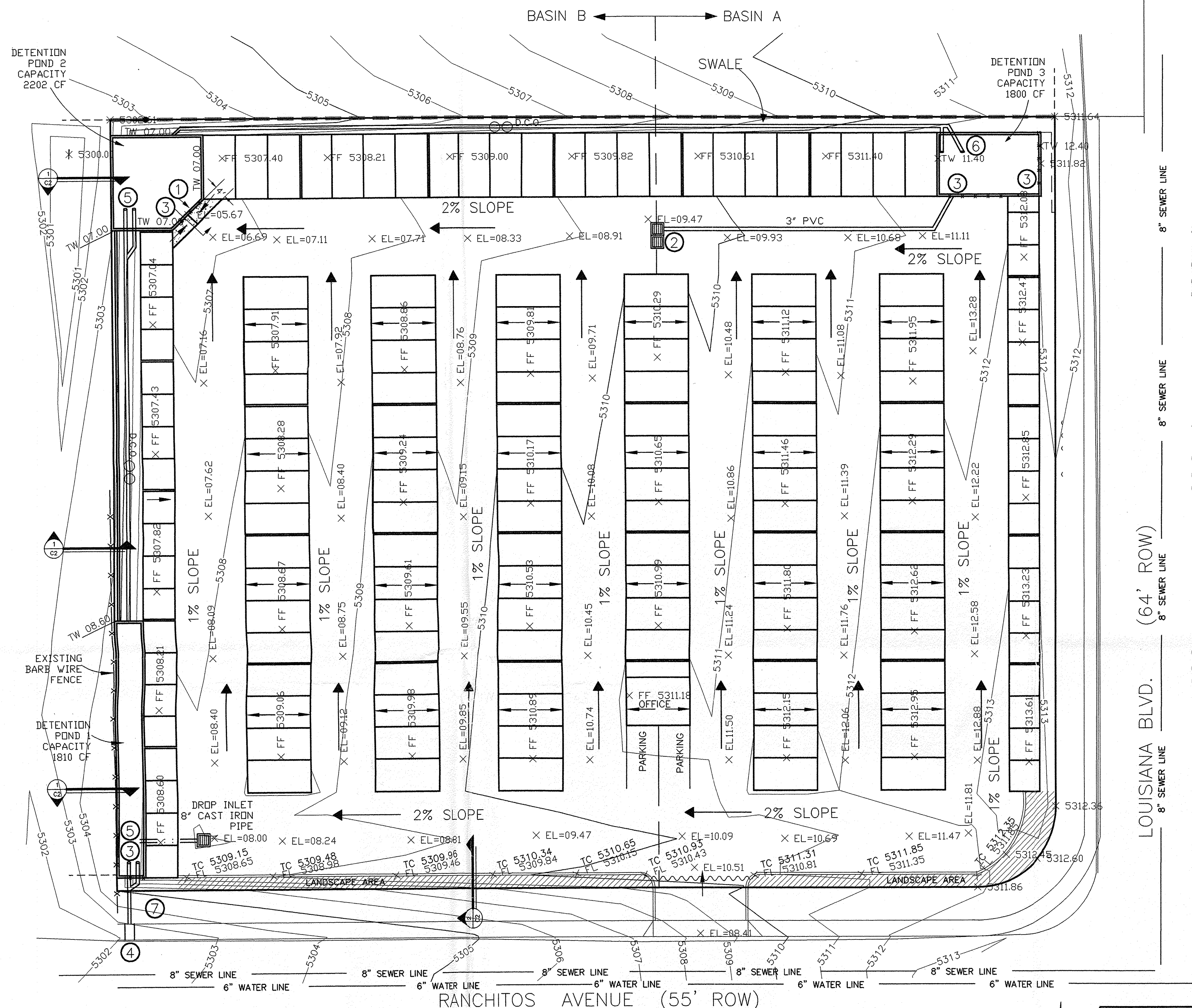
PROJECT TITLE
Sadler Mini--Storage
Lousiana at Ranchitos
Albuquerque, NM

SHEET TITLE
Preliminary Drainage Plan

CAMI
CONSTRUCTION ANALYSIS
& MANAGEMENT, INC.

DRAWN BY
REH
CHK'D BY
REH

DATE:
04/06/99



PROPOSED DRAINAGE PLAN

THE SITE IS LOCATED ON THE NORTHWEST CORNER OF LOUISIANA AND RANCHITOS. THE DISCHARGE FROM THE SITE WILL BE CONTAINED IN THE THREE DETENTION PONDS AS SHOWN ABOVE AND THEN GRADUALLY DISCHARGE TO RANCHITOS. POND 3 WILL ACCOMMODATE ABOUT 40% OF THE SURFACE DRAINAGE OF 1.3 CFS, AND A CAPACITY OF 1800 CF. FROM BASIN A, WITH THE USE OF A SUMP PUMP, (PLEASE REFER TO THE DRAWING ABOVE). A RESTRICTOR WILL BE PROVIDED TO POND 3 SO THAT IT WILL DISCHARGE TO POND 2 AT A RATE OF 1.3 CFS. EQUIVALENT PERCENTAGE CONTRIBUTED HISTORIC FLOW. POND 1 AND POND 2 WILL HAVE THE SAME BOTTOM ELEVATION AND WILL THUS COMBINE TO ACCOMMODATE 60% OF THE DRAINAGE FLOW FROM BASIN B. POND 1 WILL HAVE A RESTRICTOR AT ITS OUTLET WHICH WILL DISCHARGE 8600 CF AT A RATE OF 3.1 CFS, TO RANCHITOS. TOTAL HISTORIC FLOW. THE THREE PONDS WILL BE CONNECTED VIA 8\"/>

DESIGN CRITERIA

THE DESIGN CRITERIA WAS BASED ON SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL VOLUME 2, JANUARY 1993.

EXISTING DRAINAGE CONDITION

THE SITE IS LOCATED WITHIN THE PRECIPITATION ZONE 3 AT PRESENT THE RUNOFF FROM THE PROPERTY IS SHEET FLOW TO THE NORTHWEST.

$$Q_p = Q_a \cdot A_a \quad A_a = 1.67 \text{ ac}, A_b = A_c = A_d = 0$$

$$Q_{100} = 1.87 \cdot 1.67 = 3.1 \text{ cfs (FROM TABLE A-9, PAGE A-9)}$$

PROPOSED DRAINAGE CONDITION

THE SITE HAS BEEN DEVELOPED SUCH THAT DRAINAGE WILL BE CONVEYED FROM SITE CATCH BASINS TO THE THREE DETENTION PONDS. THE THREE DETENTION PONDS COMBINED HAVE A CAPACITY OF 5800 CF. THE LOCATION OF THE OF THE DRAIN INLETS ARE 74' FROM THE WEST SIDE WITH 2% SLOPE AND 222' FROM EAST SIDE WITH A 2% SLOPE.

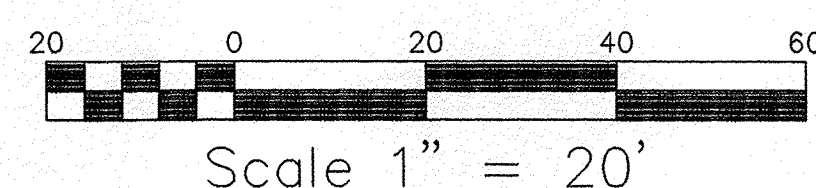
$$Q_p = Q_d \cdot A_d \quad A_d = 1.67 \text{ ac}, A_a = A_b = A_c = 0$$

$$Q_{100} = 5.02 \cdot 1.67 = 8.4 \text{ cfs (FROM TABLE A-9 DPM, PAGE A-9)}$$

$$V_{100} = E \cdot A \quad E = 2.36 \text{ (FROM TABLE A-8 DPM, PAGE A-7)}$$

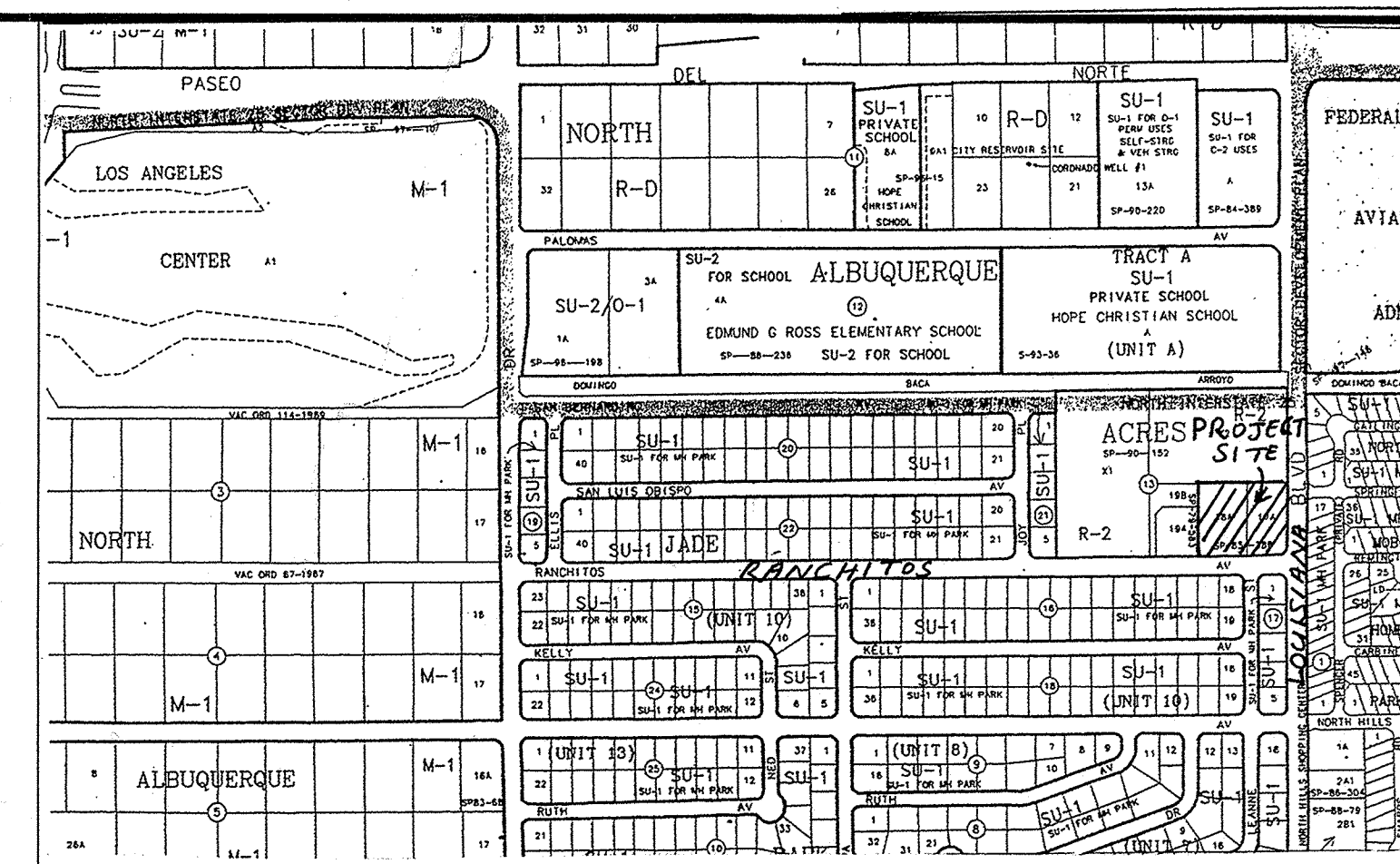
$$V_{100} = E \cdot A / 12 = 2.36 \cdot 1.67 / 12 = .34 \text{ ac-ft}$$

$$0.34 \text{ ac-ft} = 14810 \text{ cf}$$



LEGEND

- DEVELOPED CONTOUR
- CMU RETAINING WALL
- X TW 5310.9 TOP OF RETAINING WALL ELEVATION
- X TC 5310.95 TOP OF CURB ELEVATION
- W.L. 5305.67 WATER LEVEL IN THE POND
- X FF 5309 FINISHED FLOOR ELEVATION
- X FL 5309 FLOW LINE
- LANDSCAPE
- WATER BREAK
- EXISTING SAS
- EXISTING SD MANHOLE
- EXISTING SAS MANHOLE
- DIRECTION OF FLOW
- D.C.O. OO DOUBLE CLEAN OUT



VICINITY MAP

D-18-Z

GENERAL INFORMATION

LEGAL DESCRIPTION:

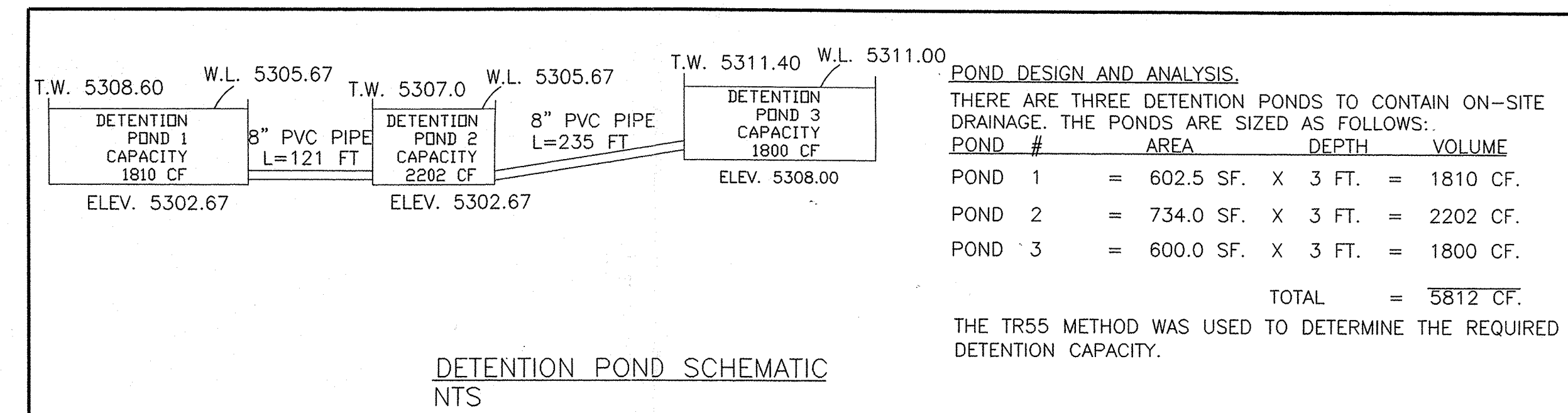
NORTH ALBUQUERQUE ACRES TRACT A UNIT A, BLOCK 13, LOT 17
 SURVEY: BOUNDARY AND TOPOGRAPHIC SURVEY DONE BY SOUTHWEST SURVEY CO.
 FLOOD HAZARD: PANEL 10 OF FLOOD INSURANCE RATE MAPS, SITE IS NOT IN FLOOD ZONE.

KEYNOTES

- SEE WEIR DETAIL 7-C1
- SUMP PUMP IN DROP INLET SEE DETAIL 9-C1
COORDINATE ELECT. POWER, WITH ELECT CONTRACTOR.
- CHAIN LINK FENCE WITH 3'-0" GATE & LOCK.
- SIDE WALK CULVERT SEE S019
& DETAIL SHEET 5/C2 COA STANDARD DWG 2236
- STAND PIPE & OVERFLOW SEE DETAIL 2/C1.
- STAND PIPE & OVERFLOW SEE DETAIL 3/C1.
- DISPERSION BASIN SEE DETAIL 4/C1.

GENERAL NOTES

CHAIN LINK FENCES AROUND EACH POND WITH LOCKING GATE FOR MAINTENANCE ACCESS.



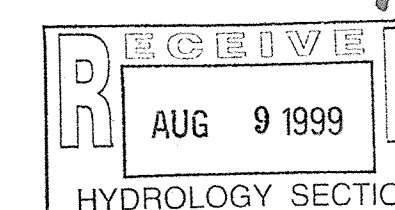
DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

NOTICE TO CONTRACTOR

- An excavation/construction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
- All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with City of Albuquerque Interim Standard Specifications for Public Works Construction, 1985.
- Two working days prior to any excavation, contractor must contact Line Locating Service, 260-1990 for location of existing utilities.
- Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all constructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be with a minimum amount of delay.
- Backfill compaction shall be according to commercial street use.
- Maintenance of these facilities shall be the responsibility of the Owner of the property served.

APPROVALS	NAME	DATE	TITLE: ENGINEERING CONSTRUCTORS, 517 VIRGINIA
HYDROLOGY			SIDEWALK CULVERTS
INSPECTOR			PERMIT NO.
A.C.E./FIELD			MAP NO. D18-Z

D18-D39
2/4



REV.	DATE	DESCRIPTION

PROJECT TITLE
Sadler Mini--Storage
 Louisiana at Ranchitos
 Albuquerque, NM

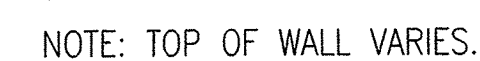
SHEET TITLE

Drainage Plan

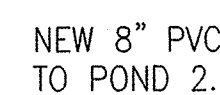


CONSTRUCTION ANALYSIS
 & MANAGEMENT, INC.

DRAWN BY
 CHK'D BY
 DATE: 08/03/99
 C1



SCALE: 1" = 4' - 0"



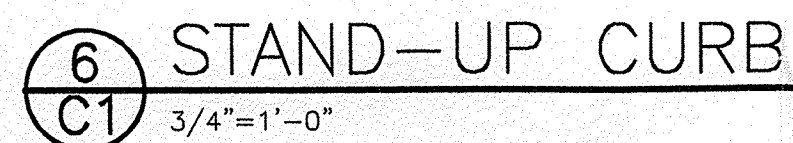
SCALE : 1" = 2'-0"



SCALE : 1" = 2'-0"



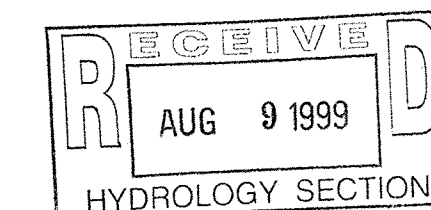
SCALE : 1" = 4'-0"



PUMPS

- HIGH/LOW ON/OFF FLOAT ACTIVATED SWITCHES
- INTEGRAL CHECK VALVE
- SELF PRIMING
- 300 GPM EACH

D18-D39
3/4



REV.	DATE	DESCRIPTION

PROJECT TITLE

SADLER MINI-STORAGE

MARKET STREET

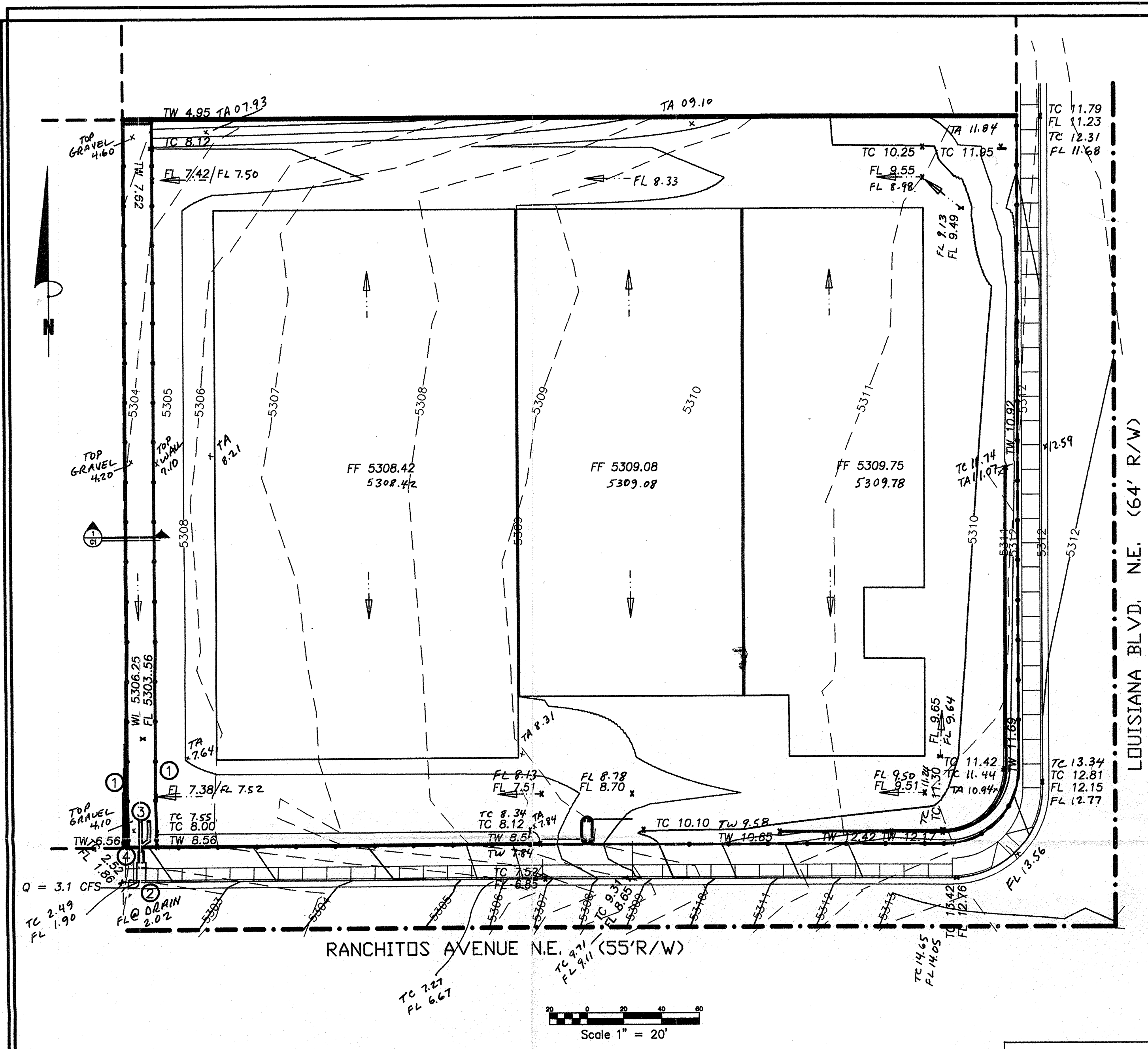
WALL, STANDPIPE, AND POND DETAILS

CAMI
CONSTRUCTION ANALYSIS
MANAGEMENT, INC.

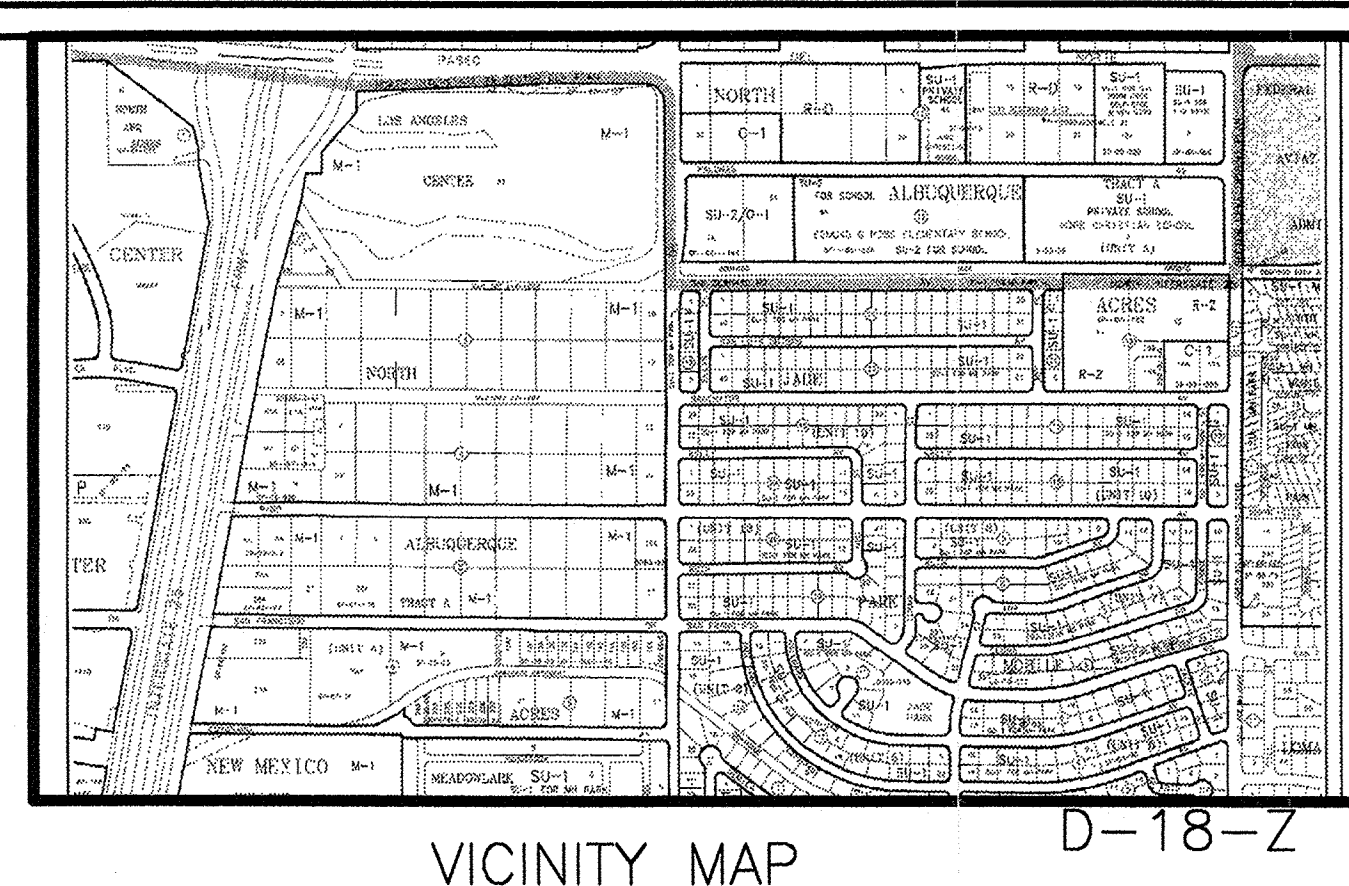
DRAWN BY
SAR
DESIGN BY
SAR
CHK'D BY
REH

DATE: 08/04/99

C2



- LEGEND**
- DEVELOPED CONTOUR
 - CMU RETAINING WALL
 - TOP OF RETAINING WALL ELEVATION
 - TOP OF CURB ELEVATION
 - WATER LEVEL IN THE POND
 - FINISHED FLOOR ELEVATION
 - FLOW LINE
 - LANDSCAPE
 - WATER BREAK
 - EXISTING SAS
 - EXISTING SD MANHOLE
 - EXISTING SAS MANHOLE
 - DIRECTION OF FLOW
 - D.C.O. DOUBLE CLEAN OUT



GENERAL INFORMATION

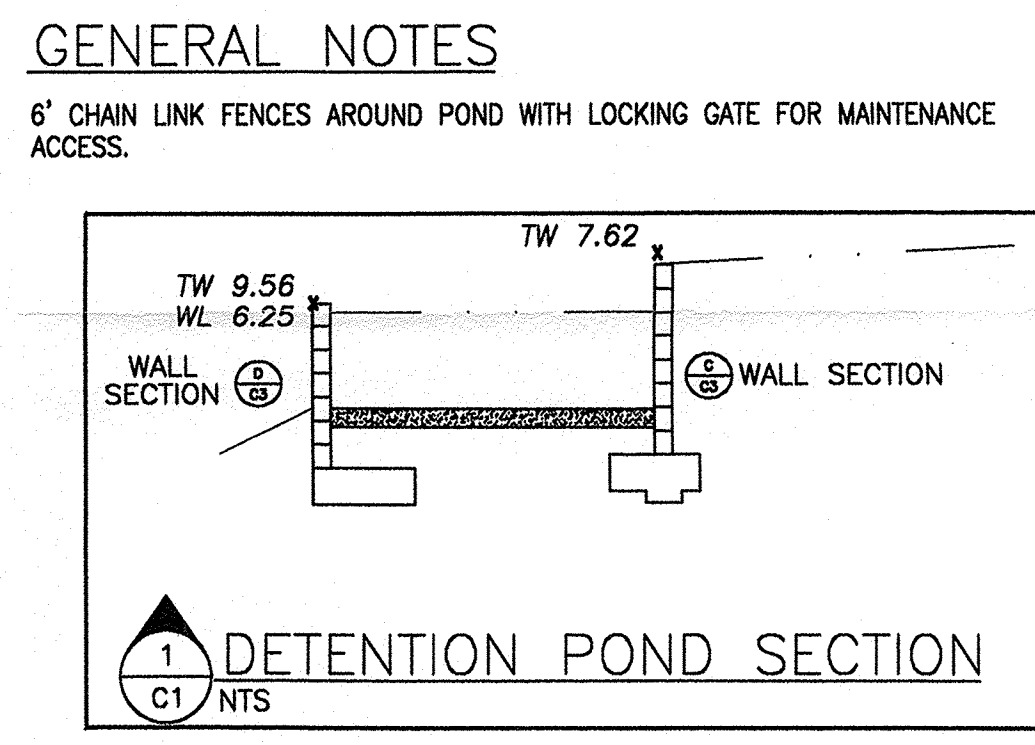
LEGAL DESCRIPTION
NORTH ALBUQUERQUE ACRES TRACT A UNIT A, BLOCK 13, LOT 17A-1

SURVEY
BOUNDARY AND TOPOGRAPHIC SURVEY DONE BY SOUTHWEST SURVEY CO.

FLOOD HAZARD
PANEL 10 OF FLOOD INSURANCE RATE MAPS, SITE IS NOT IN FLOOD ZONE.

KEYNOTES

- CHAIN LINK FENCE WITH 3'-0" GATE & LOCK.
- SIDE WALK CULVERT SEE S019 & DETAIL 3/C2 COA STANDARD.
- STAND PIPE & OVERFLOW SEE DETAIL 1/C2.
- DISPERSION BASIN SEE DETAIL 2/C2.



PROPOSED DRAINAGE PLAN

THE SITE IS LOCATED ON THE NORTHWEST CORNER OF LOUISIANA AND RANCHITOS. THE DISCHARGE FROM THE SITE WILL BE CONTAINED IN A POND AS SHOWN ABOVE AND THEN GRADUALLY DISCHARGE TO RANCHITOS. THE POND WILL HAVE A RESTRICTOR AT ITS OUTLET WHICH WILL DISCHARGE 8600 CF AT A RATE OF 3.1 CFS, TO RANCHITOS, TOTAL HISTORIC FLOW (STAND PIPE CALCULATIONS ARE ATTACHED). THE FLOW FROM THE ROOF SHALL BE SHED FLOW AS SHOWN ABOVE. (PLEASE REFER TO PREVIOUS BUILDING PERMIT HYDROLOGY SUBMITTAL FOR THIS SITE.)

DESIGN CRITERIA

THE DESIGN CRITERIA WAS BASED ON SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL VOLUME 2, JANUARY 1993.

EXISTING DRAINAGE CONDITION

THE SITE IS LOCATED WITHIN THE PRECIPITATION ZONE 3 AT PRESENT THE RUNOFF FROM THE PROPERTY IS SHEET FLOW TO THE NORTHWEST.

$Q_p = Q_a * A_a$ $A_a = 1.67$ ac, $A_b = A_c = A_d = 0$
 $Q_{100} = 1.87 * 1.67 = 3.1$ cfs (FROM TABLE A-9, PAGE A-9)

PROPOSED DRAINAGE CONDITION

THE SITE HAS BEEN DEVELOPED SUCH THAT DRAINAGE WILL BE CONVEYED ACROSS THE SITE CATCH TO A DETENTION POND. THE DETENTION POND HAS A CAPACITY OF 6200 CF.

$Q_p = Q_d * A_d$ $A_d = 1.67$ ac, $A_a = A_b = A_c = 0$
 $Q_{100} = 5.02 * 1.67 = 8.4$ cfs (FROM TABLE A-9 DPM, PAGE A-9)
 $V_{100} = E * A$ $E = 2.36$ (FROM TABLE A-8 DPM, PAGE A-7)
 $V_{100} = E * A / 12 = 2.36 * 1.67 / 12 = .34$ ac-ft
 0.34 ac-ft = 14810 cf

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

NOTICE TO CONTRACTOR

- An excavation/construction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
- All work detailed on these plans to be performed, except as otherwise stated or provided herein, shall be constructed in accordance with City of Albuquerque Interim Standard Specifications for Public Works Construction, 1985.
- Two working days prior to any excavation, contractor must contact Line Locating Service, 280-1990 for location of existing utilities.
- Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all constructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be with a minimum amount of delay.
- Backfill compaction shall be according to commercial street use.
- Maintenance of these facilities shall be the responsibility of the Owner of the property served.

APPROVALS	NAME	DATE	TITLE: SADLER MINI-STORAGE, RANCHITOS AND LOUISIANA SIDEWALK CULVERTS
HYDROLOGY			
INSPECTOR			
A.C.E./FIELD			

PERMIT NO. MAP NO. D18-Z

RECEIVED
MAY 07 2001
HYDROLOGY SECTION

Sadler Mini-Storage
Louisiana at Ranchitos
Albuquerque, NM

Drainage Plan

CAMI
CONSTRUCTION ANALYSIS & MANAGEMENT, INC.

4001 JUAN TABO NE - SUITE A
ALBUQUERQUE, NEW MEXICO 87111
(505) 268-3477

DATE: 02/02/00
D1

CAMI
CONSTRUCTION ANALYSIS & MANAGEMENT, INC.

Engineering, Construction & Management Consultants and Management Support Services

4001 JUAN TABO NE, SUITE A
ALBUQUERQUE, NEW MEXICO 87111
Phone: (505) 268-3477 FAX: (505) 268-3471

DRAINAGE CERTIFICATION

I, Raymond Hensley, of Construction Analysis & Management, Inc. (CAMI) NMPE#7873 hereby certify that the As-Built drainage conditions of the site are in substantial compliance with the approved grading and drainage plan, to the best of my knowledge and belief. As-Built elevations have been handwritten upon the plan by the independent surveyor alongside the original design elevation along with additional spot elevations.

Raymond Hensley
Date: 5/3/01

CAMI
CONSTRUCTION ANALYSIS & MANAGEMENT, INC.

I, Gary E. Gritsko, a duly qualified Registered Professional Land Surveyor under the laws of the State of New Mexico, do hereby certify that the field data as collected on April 16, 2001 is true and correct.

Gary E. Gritsko
Gary E. Gritsko
N.M. Professional Surveyor #8686

Apr. 23, 2001
Date



CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DEVELOPMENT GROUP

GRADING PLAN
LOUISIANA & RANCHITOS IMPROVEMENTS
SADLER MINI-STORAGE

Design Review Committee City Engineer Approval Mo./Day/Yr. Mo./Day/Yr.

City Project No. 624781 Zone Map No. Sheet 4 of 8