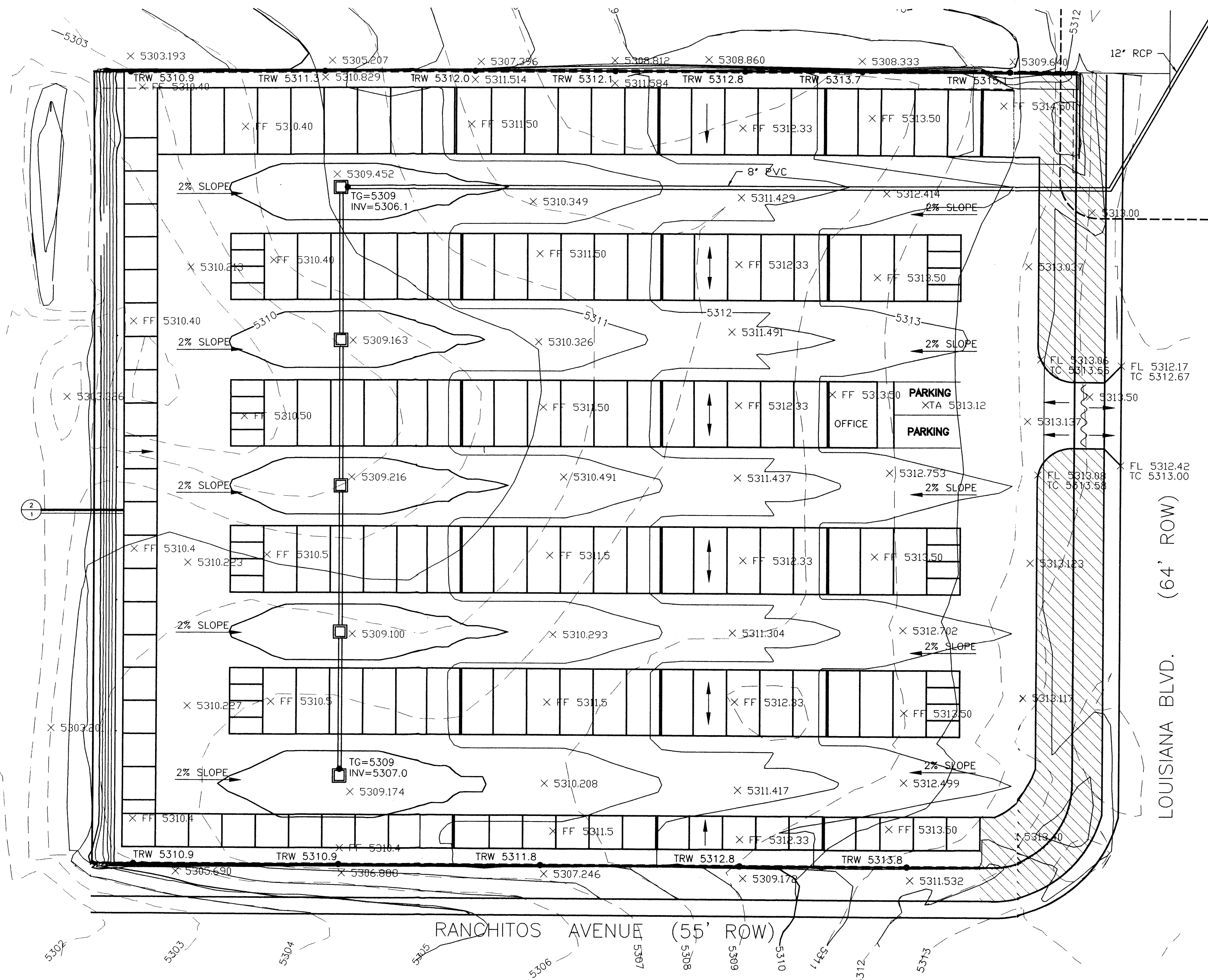


- NOTE:
1. THE CONTRACTOR SHALL ACQUIRE A TOPSOIL DISTURBANCE PERMIT PRIOR TO INITIATING GRADING, FILLING, EXCAVATION, OR OTHER SITE MODIFICATIONS.
 2. THE CONTRACTOR SHALL COMPLY WITH ALL CITY, COUNTY, STATE, AND FEDERAL DUST CONTROL MEASURES AND SHALL BE RESPONSIBLE FOR PREPARING AND OBTAINING NECESSARY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

$Q_p = Q_a \cdot A_a$ $A_a = 1.67$ ac, $A_b = A_c = A_d = 0$
 $Q_{100} = 1.87 \cdot 1.67 = 3.1$ 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.

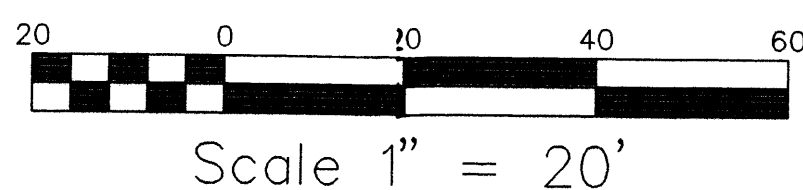
$Q_p = Q_d \cdot A_d$ $A_d = 1.67$ ac, $A_a = A_b = A_c = 0$
 $Q_{100} = 5.02 \cdot 1.67 = 8.4$ cfs (FROM TABLE A-9 DPM, PAGE A-9)
 $V_{100} = E \cdot A$ $E = 2.36$ (FROM TABLE A-8 DPM, PAGE A-7)
 $V_{100} = E \cdot A / 12 = 2.36 \cdot 1.67 / 12 = .34$ ac-ft
 0.34 ac-ft = 14810 cfs

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

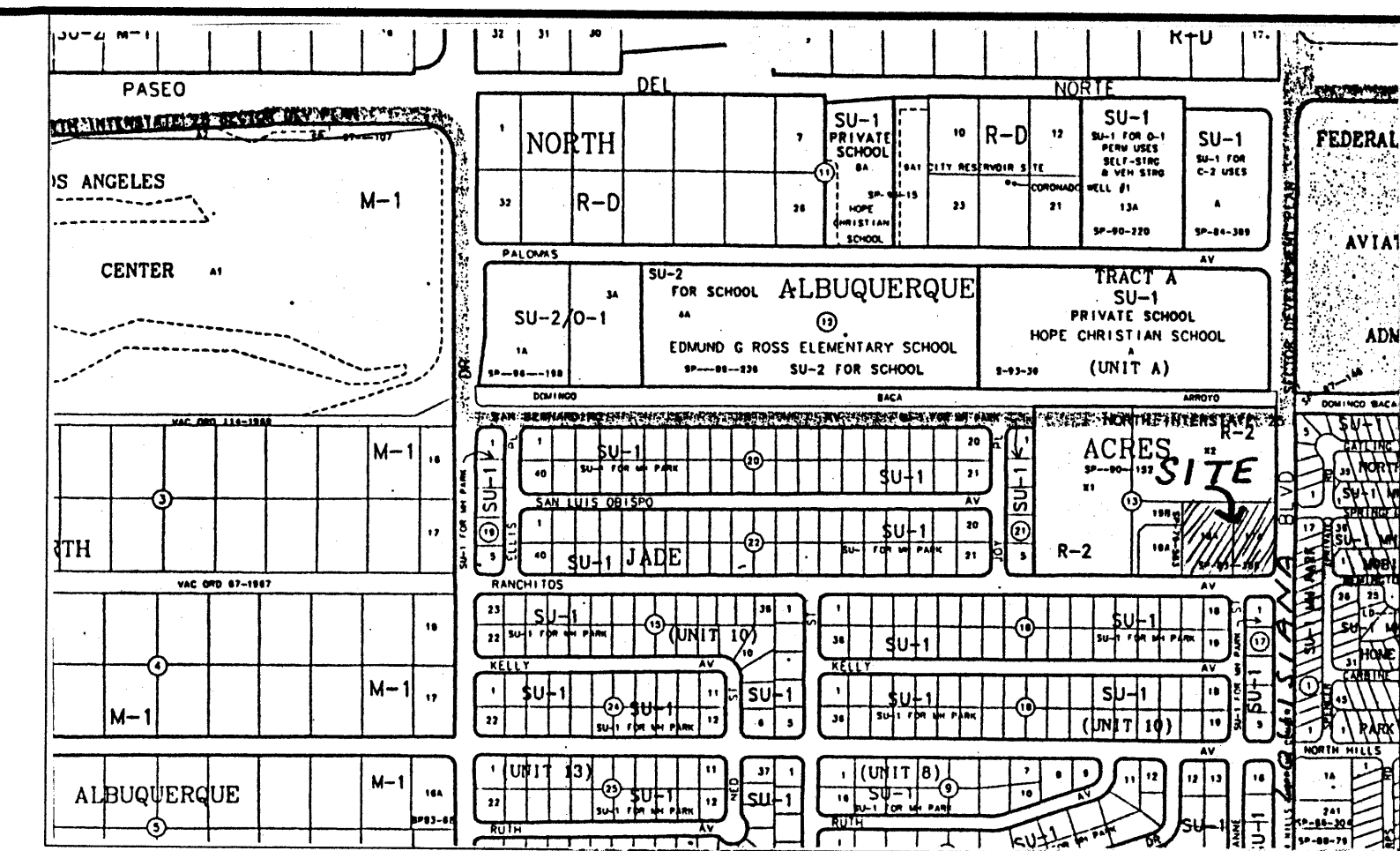


SEE DETAIL 1 THIS SHEET

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.

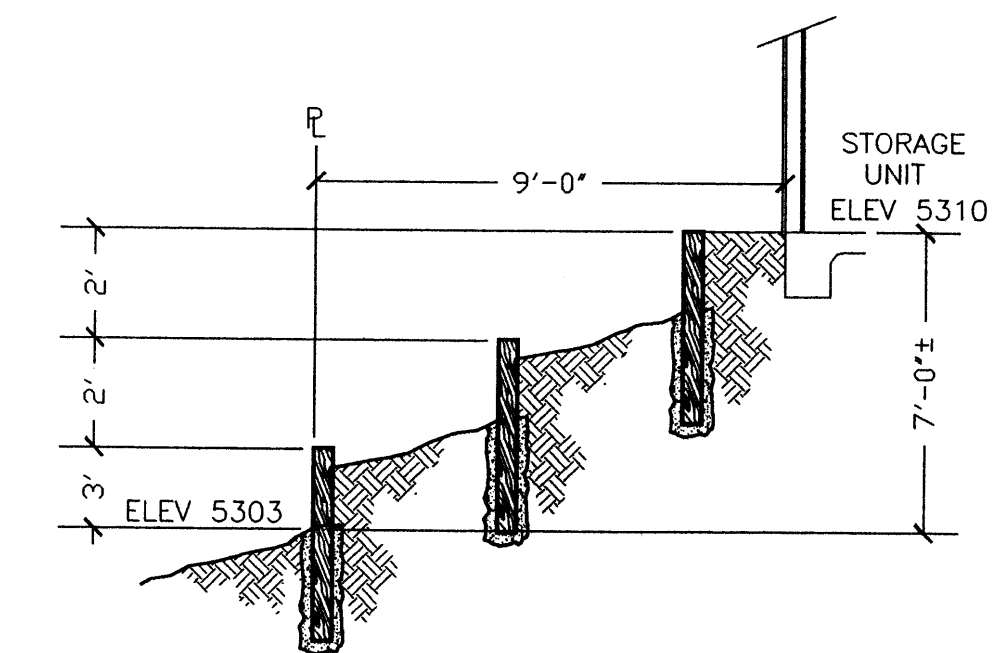


VICINITY MAP

D-18-Z

LEGEND

- EXISTING CONTOUR
- DEVELOPED CONTOUR
- CMU RETAINING WALL
- TOP OF RETAINING WALL ELEVATION
- TOP OF GRATE ELEVATION
- FINISHED FLOOR ELEVATION
- LANDSCAPE
- WATER BREAK
- EXISTING 48" SD
- PROPOSED 12" SD
- EXISTING SAS
- EXISTING SD MANHOLE
- EXISTING SAS MANHOLE
- STANDARD 45" CONNECTER



RETAINING WALL DETAIL

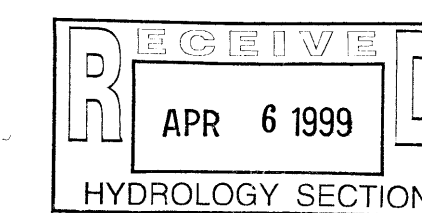
APPROVED FOR ROUGH GRADING, PLUS/MINUS ONE(1) FOOT

DRB-D39

SIGNATURE

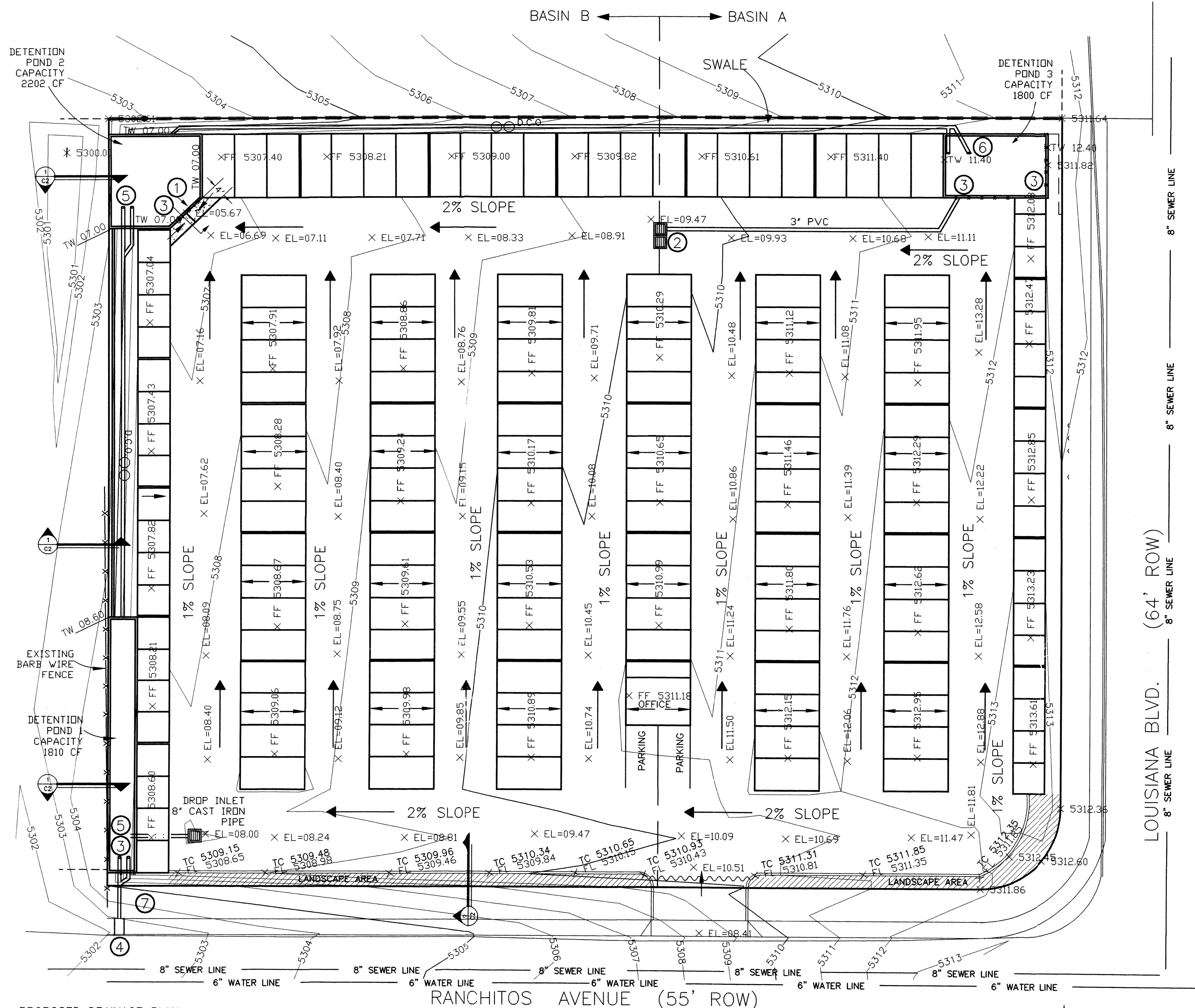
DATE

1/4



REV.	DATE	DESCRIPTION
PROJECT TITLE		
Sadler Mini--Storage		
Louisiana at Ranchitos		
Albuquerque, NM		
SHEET TITLE		
Preliminary Drainage Plan		
DRAWN BY		
CHK'D BY		
DATE: 04/06/99		

CAMI
 CONSTRUCTION ANALYSIS
 & MANAGEMENT, INC.



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" PVC PIPES. THE FLOW FROM THE ROOF SHALL BE SHED FLOW AS SHOWN ABOVE.

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.

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

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

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.

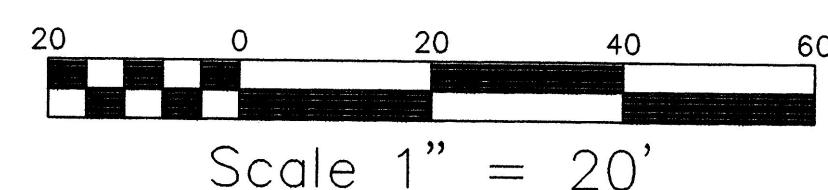
$$Q_p = Q_d * A_d \quad A_d = 1.67 \text{ ac}, A_a = A_b = A_c = 0$$

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

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

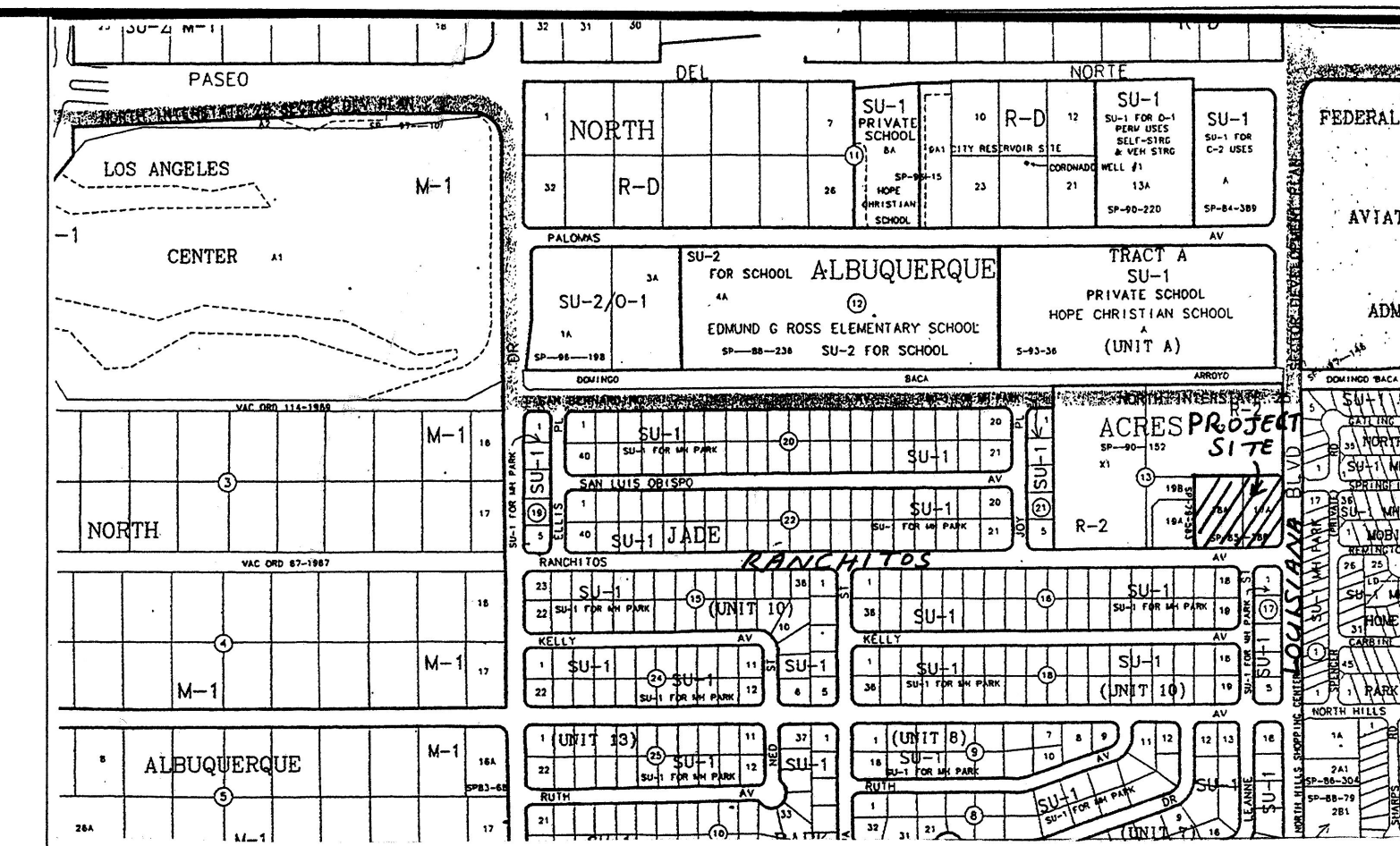
$$V_{100} = E * A / 12 = 2.36 * 1.67 / 12 = .34 \text{ ac-ft}$$

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



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



D-18-Z

GENERAL INFORMATION

LEGAL DESCRIPTION:

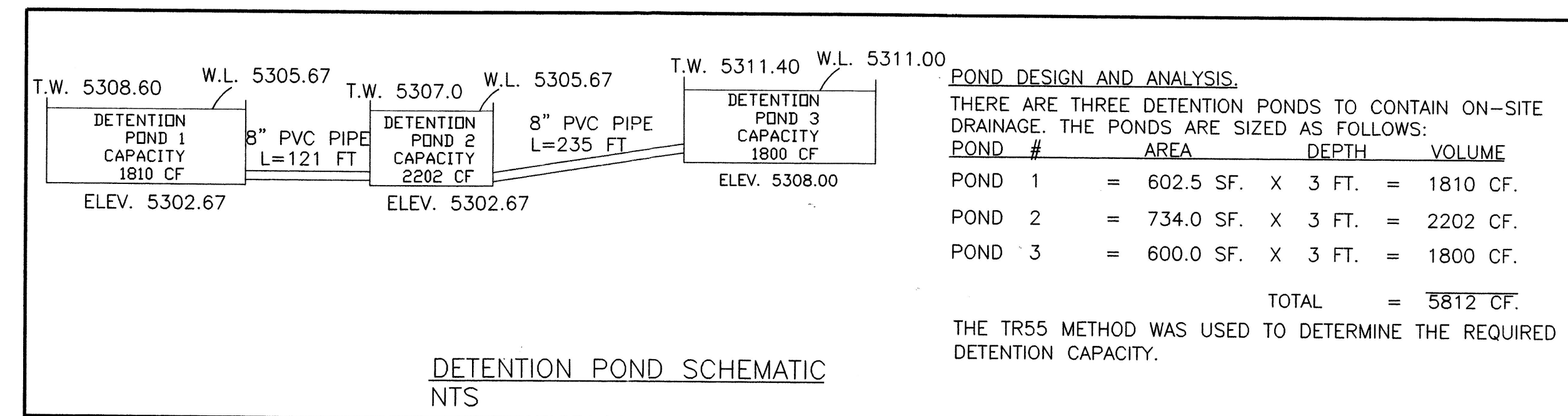
NORTH ALBUQUERQUE ACRES TRACT A UNIT A, BLOCK 13, LOT 17
 SURVEY: BOUNDARY AND TOPOGRAPHIC SURVEY DONE BY SOUTHWEST SURVEY CO.
 FLOOD HAZARD: PANEL 10 OF FLOOD INSURANCE RATE MAPS, SITE IS NOT IN FLOOD ZONE.

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.



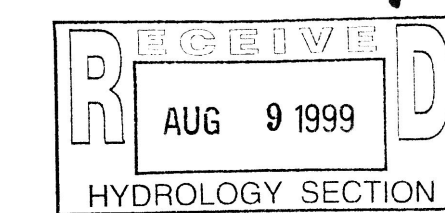
DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

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.

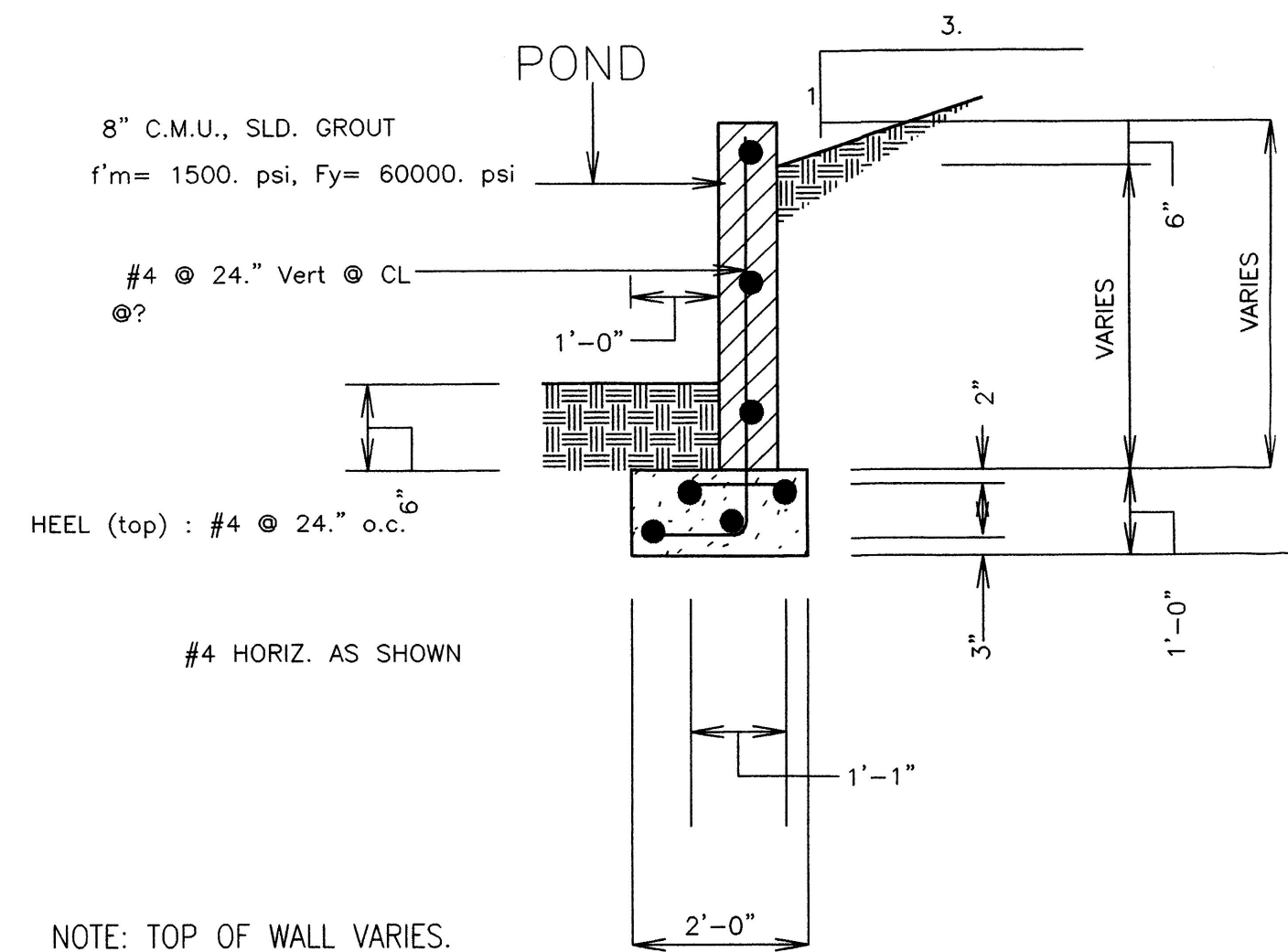
APPROVALS	NAME	DATE	TITLE: ENGINEERING CONSTRUCTORS, 517 VIRGINIA
HYDROLOGY			SIDEWALK CULVERTS
INSPECTOR			
A.C.E./FIELD			PERMIT NO. MAP NO. D18-Z

D18-D39 2/4



REV.	DATE	DESCRIPTION
PROJECT TITLE Sadler Mini--Storage		
Location at Ranchitos Albuquerque, NM		
SHEET TITLE Drainage Plan		
DRAWN BY REH		
CHK'D BY REH		
DATE: 08/03/99		
C1		

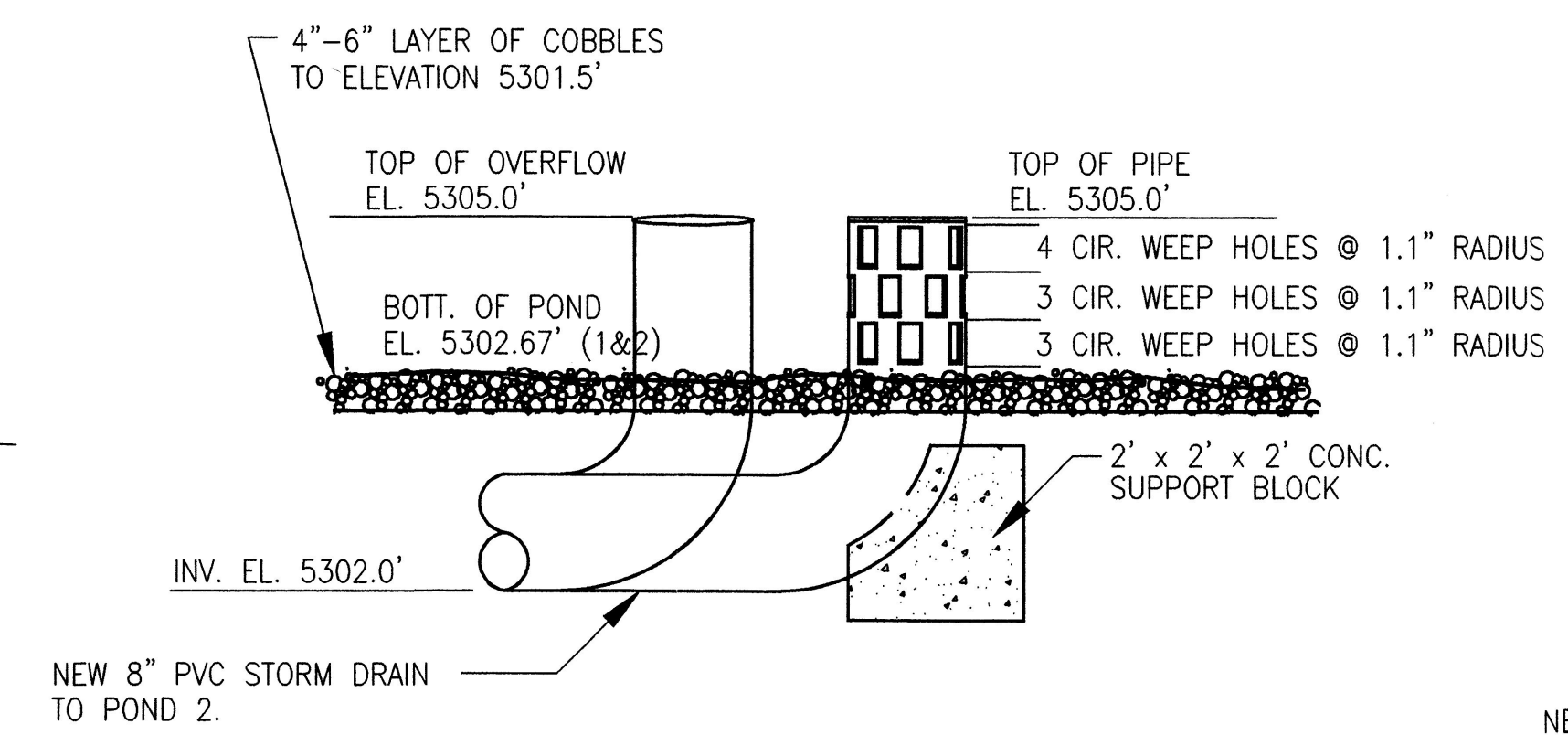
CONSTRUCTION ANALYSIS & MANAGEMENT, INC.



RETAINING WALL DETAIL

SCALE: 1" = 4' - 0"

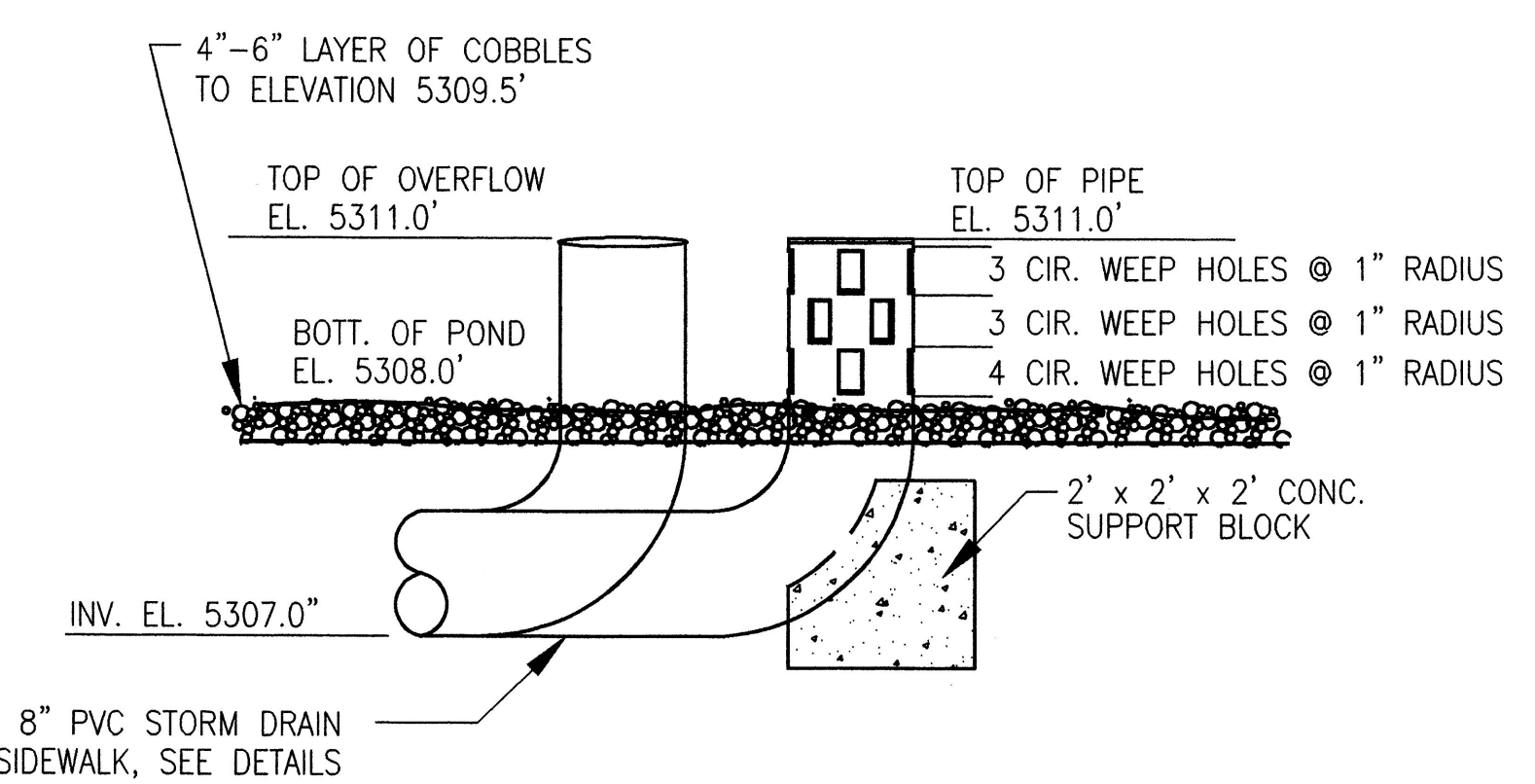
1
C1



STANDPIPE DETAIL FOR POND 1

SCALE: 1" = 2' - 0"

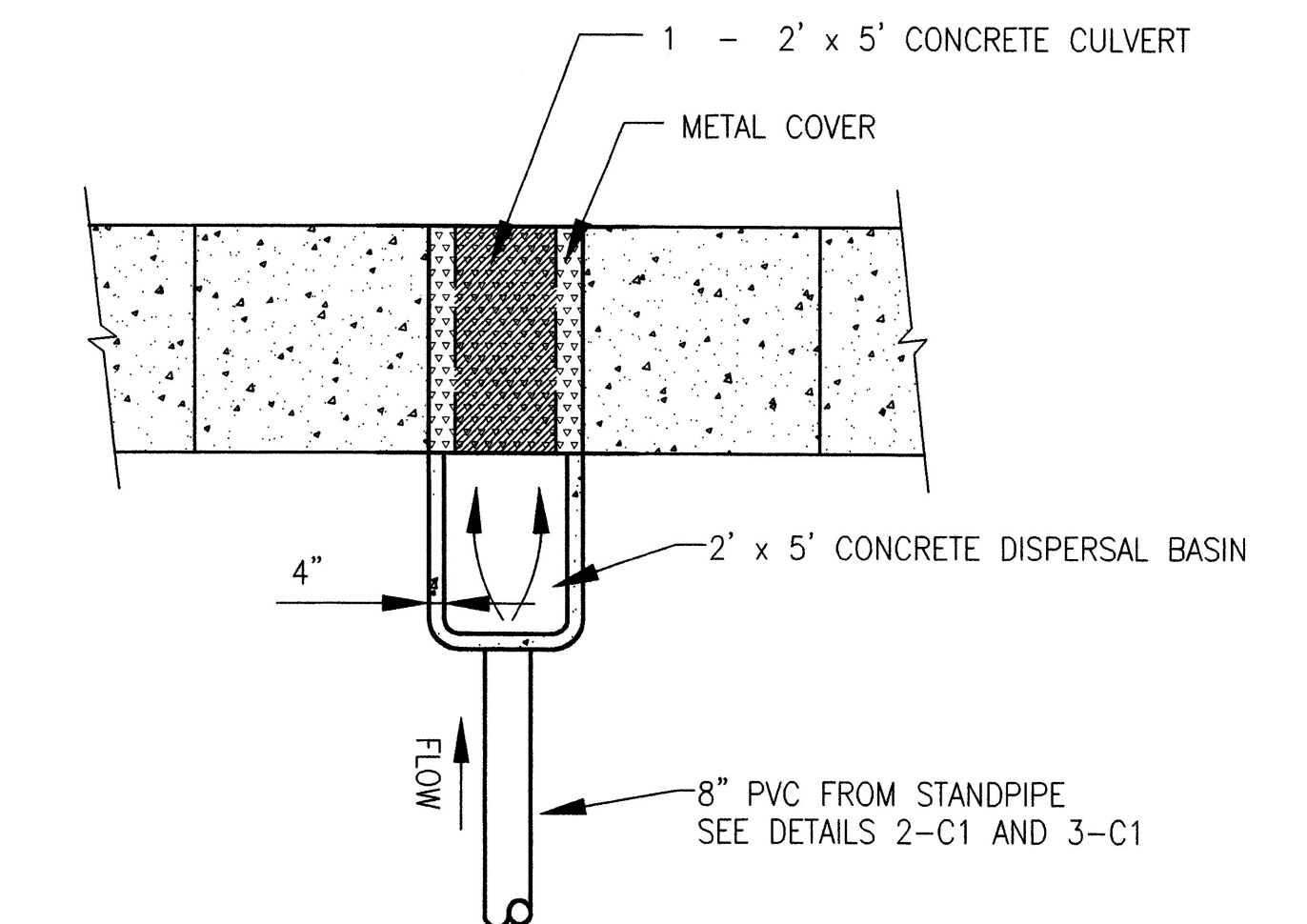
2
C1



STANDPIPE DETAIL FOR POND 3

SCALE: 1" = 2' - 0"

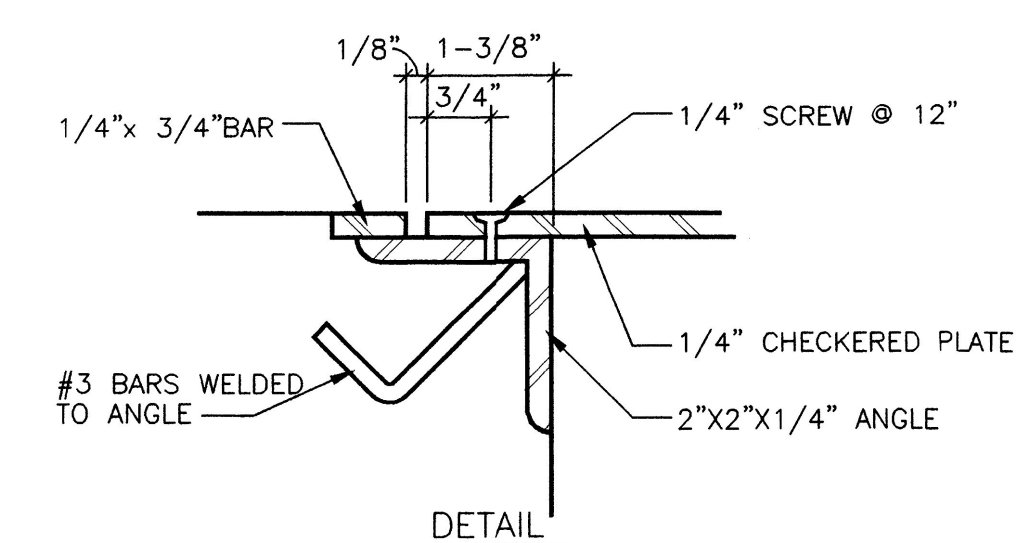
3
C1



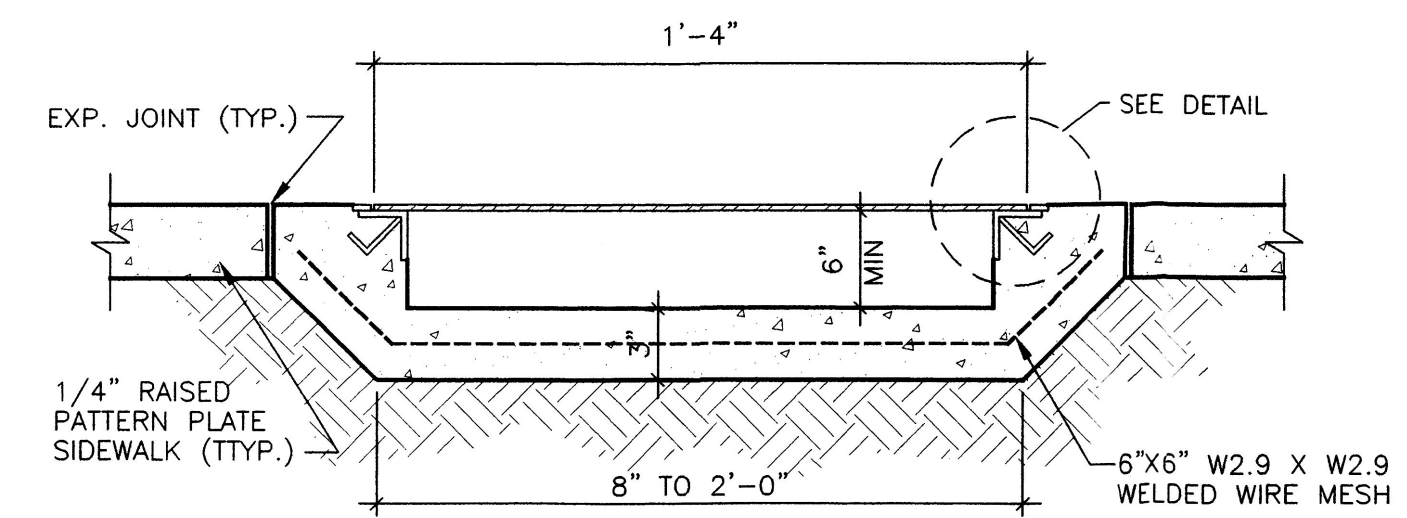
DISPERSAL BASIN DETAIL

SCALE: 1" = 4' - 0"

4
C1



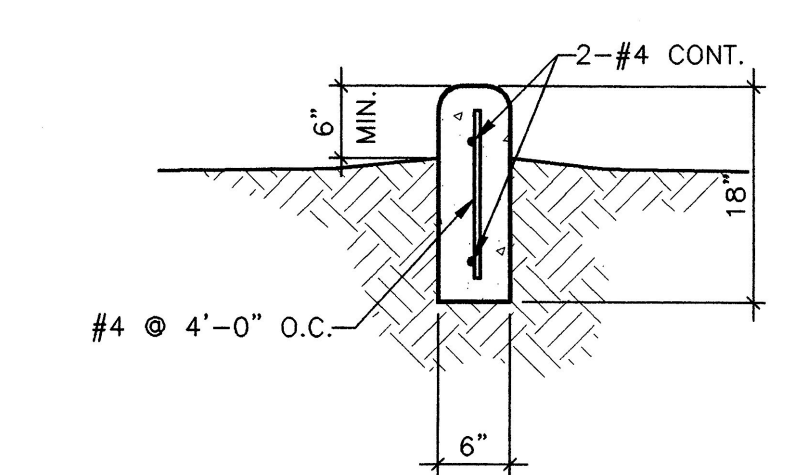
DETAIL



SECTION

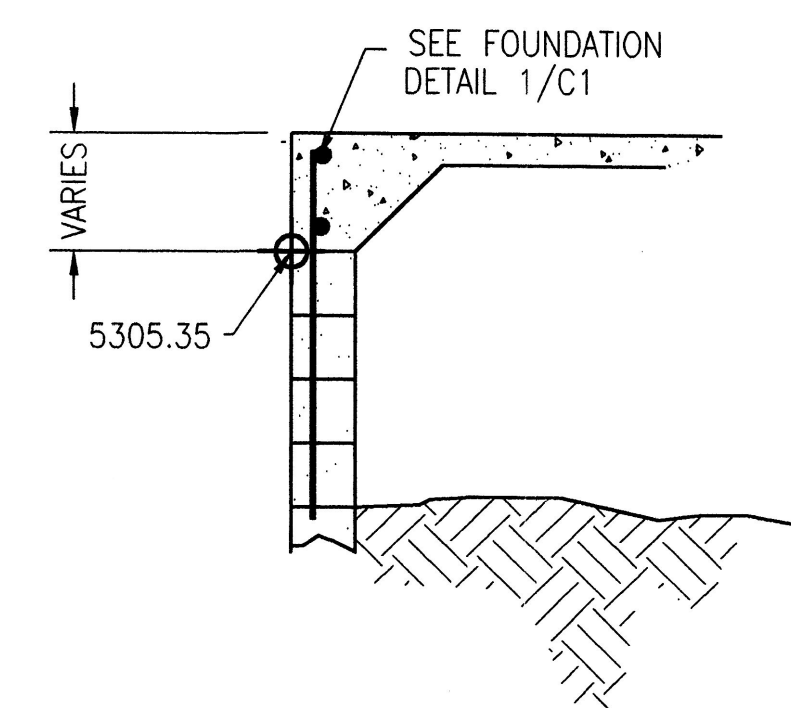
5 SIDEWALK DRAIN DETAIL

NO SCALE



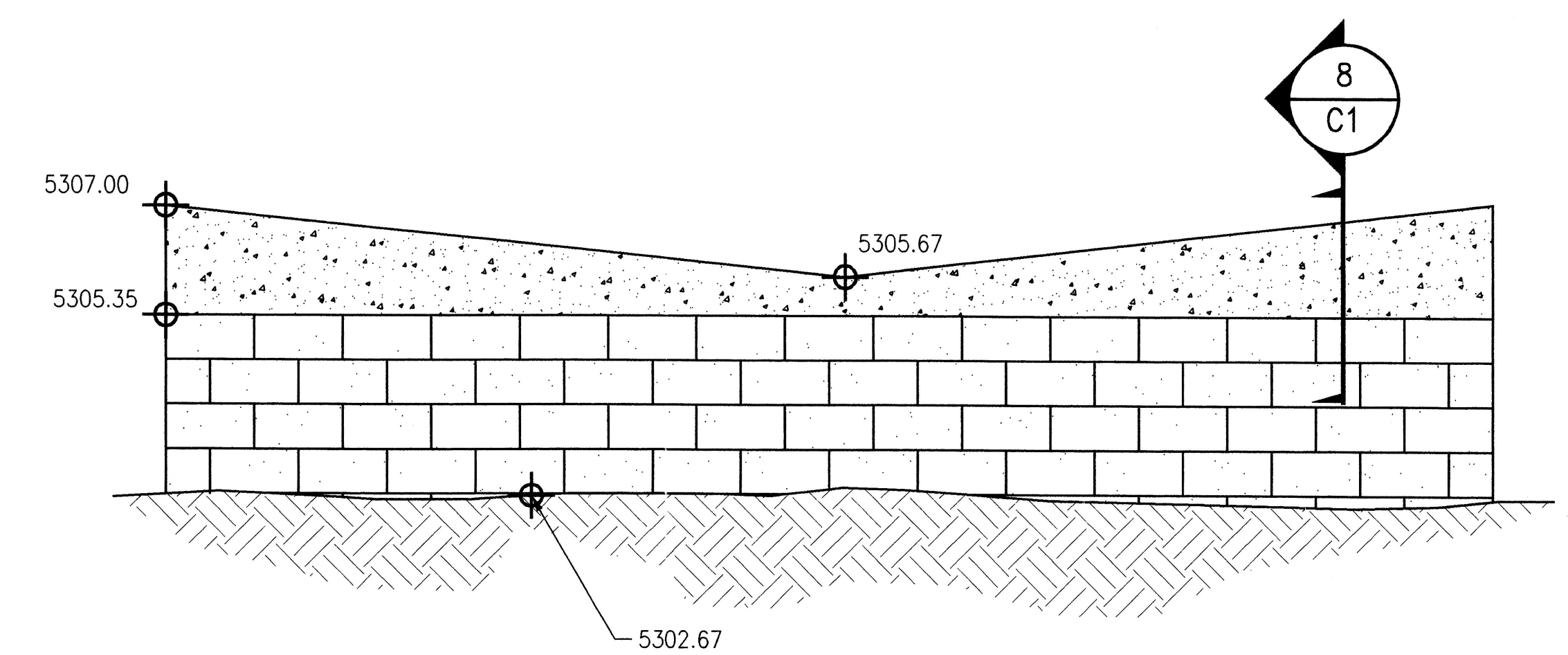
6 STAND-UP CURB

3/4" = 1' - 0"



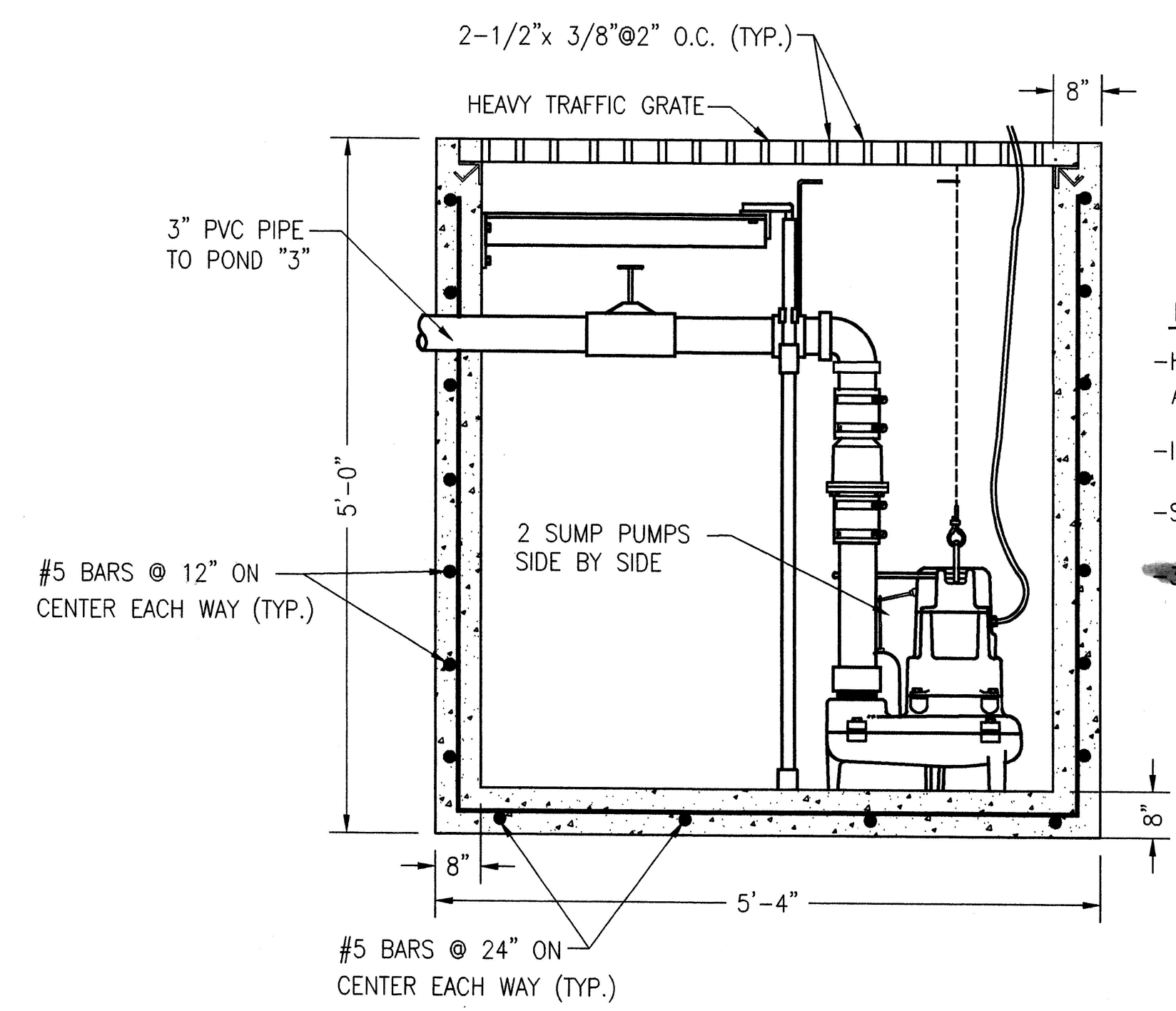
8 WIER SECTION

NO SCALE



7 WIER AT POND "2" DETAIL

NO SCALE



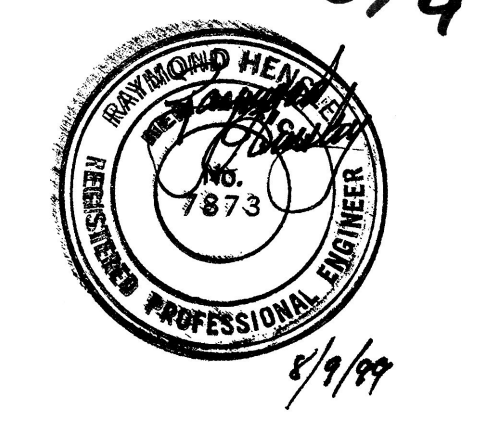
9 SUMP PUMP DETAIL

NO SCALE

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

D18-D39
3/4

RECEIVED
AUG 9 1999
HYDROLOGY SECTION



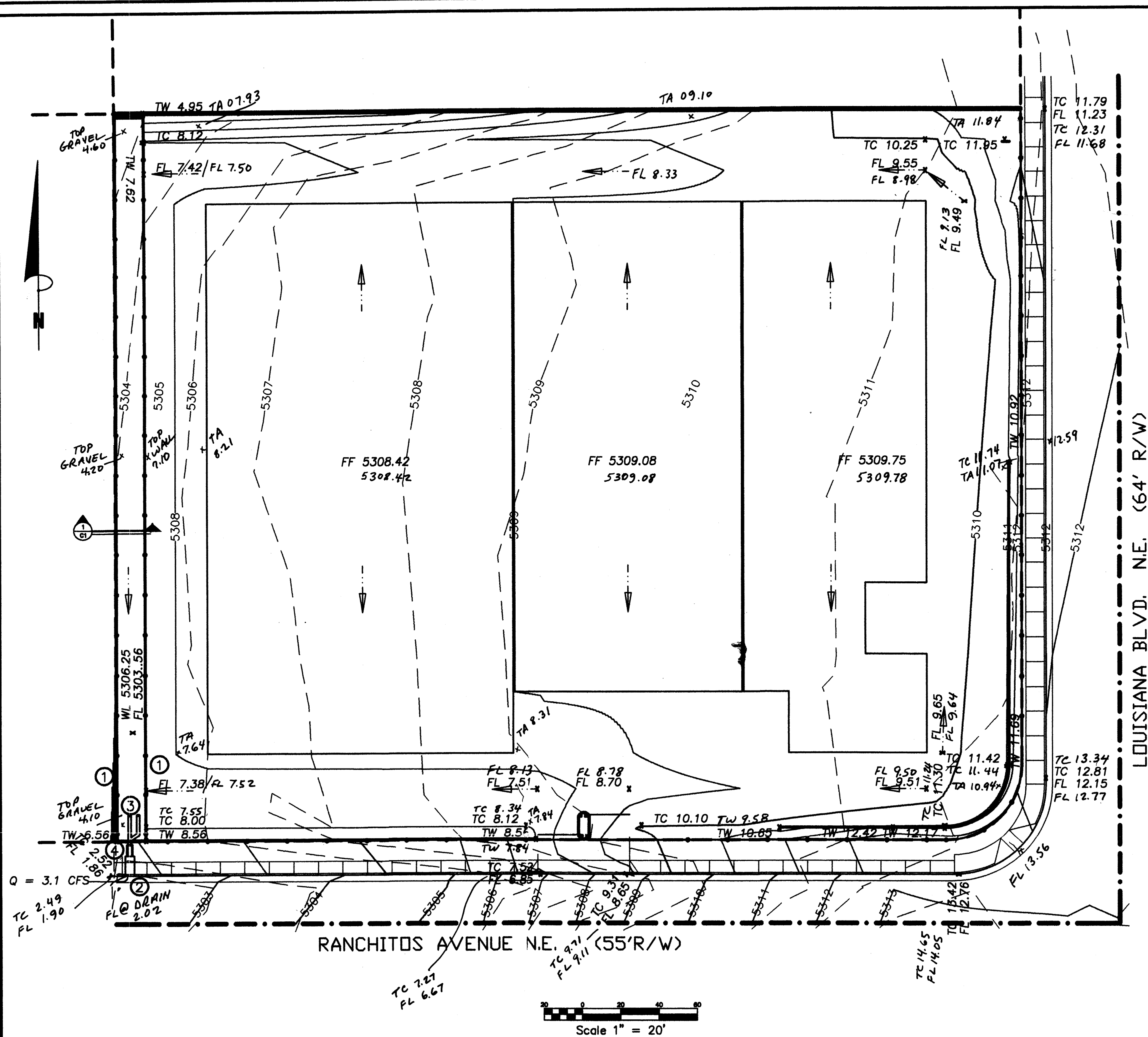
REV.	DATE	DESCRIPTION
PROJECT TITLE		
SADLER MINI-STORAGE		
MARKET STREET		ALBUQUERQUE, NEW MEXICO
SHEET TITLE		
WALL, STANDPIPE, AND POND DETAILS		
DRAWN BY SAR		DATE: 08/04/99
DESIGN BY SAR		C2
CHK'D BY REH		



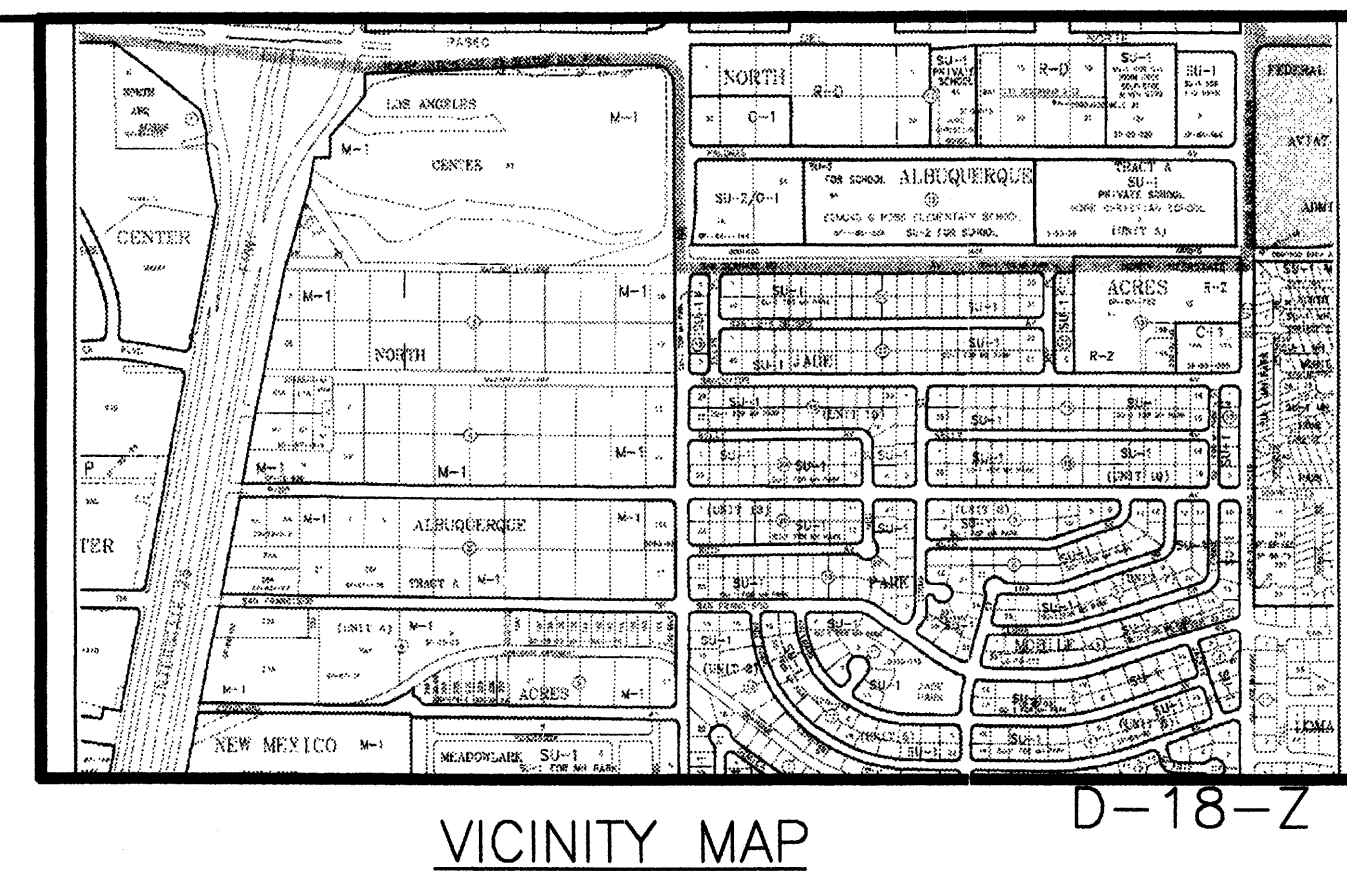
**INSTRUCTION ANALYSIS
& MANAGEMENT, INC.**

CAMI
CONSTRUCTION ANALYSIS
& MANAGEMENT, INC.

4001 JUAN TABO NE - A, ALB. NM
(505) 298-3477



- LEGEND**
- DEVELOPED CONTOUR
 - CMU RETAINING WALL
 - TOP OF RETAINING WALL ELEVATION
 - TOP OF CURB ELEVATION
 - W.L. 5305.67
 - FINISHED FLOOR ELEVATION
 - FLOW LINE
 - LANDSCAPE
 - WATER BREAK
 - EXISTING SAS
 - EXISTING SD MANHOLE
 - EXISTING SAS MANHOLE
 - DIRECTION OF FLOW
 - D.C.O. OO 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.

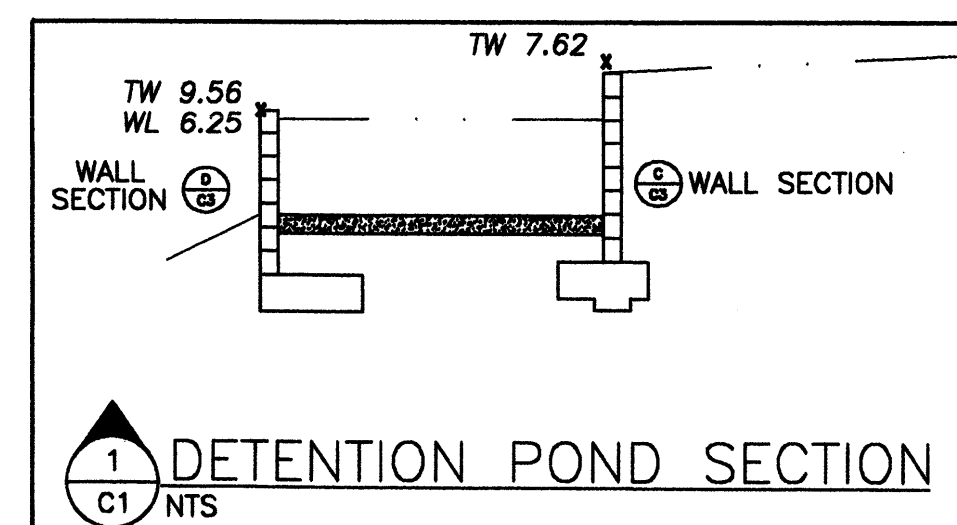
FLOOD HAZARD
PANEL 10 OF FLOOD INSURANCE RATE MAPS, SITE IS NOT IN FLOOD ZONE.

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.

GENERAL NOTES

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



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

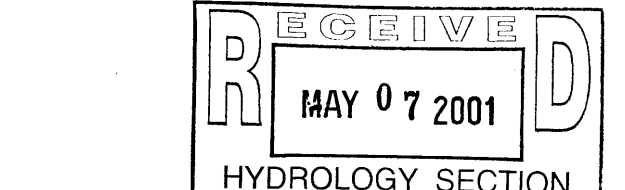
NOTICE TO CONTRACTOR

- 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 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, 280-1980 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			MAP NO. D18-Z

4401 JUAN TABO N.E. - SUITE A
ALBUQUERQUE, NEW MEXICO 87111
(505)268-3477

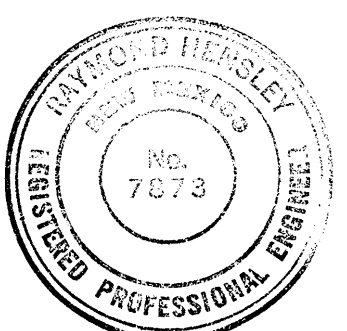
REV.	DATE	DESCRIPTION
1	02/28/00	PROJECT TITLE: Sadler Mini-Storage Louisiana at Ranchitos Albuquerque, NM
2	02/28/00	SHEET TITLE: Drainage Plan
3	02/28/00	DRAWN BY: [Signature]
4	02/28/00	CHK'D BY: [Signature]
5	02/28/00	DATE: 02/28/00
6	02/28/00	D1



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



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			
TITLE: GRADING PLAN LOUISIANA & RANCHITOS IMPROVEMENTS SADLER MINI-STORAGE			
Design Review Committee	City Engineer Approval	Mo./Day/Yr	Mo./Day/Yr
Approved @	DRS		
City Project No.	Zone Map No.	Sheet	of
624781		4	8