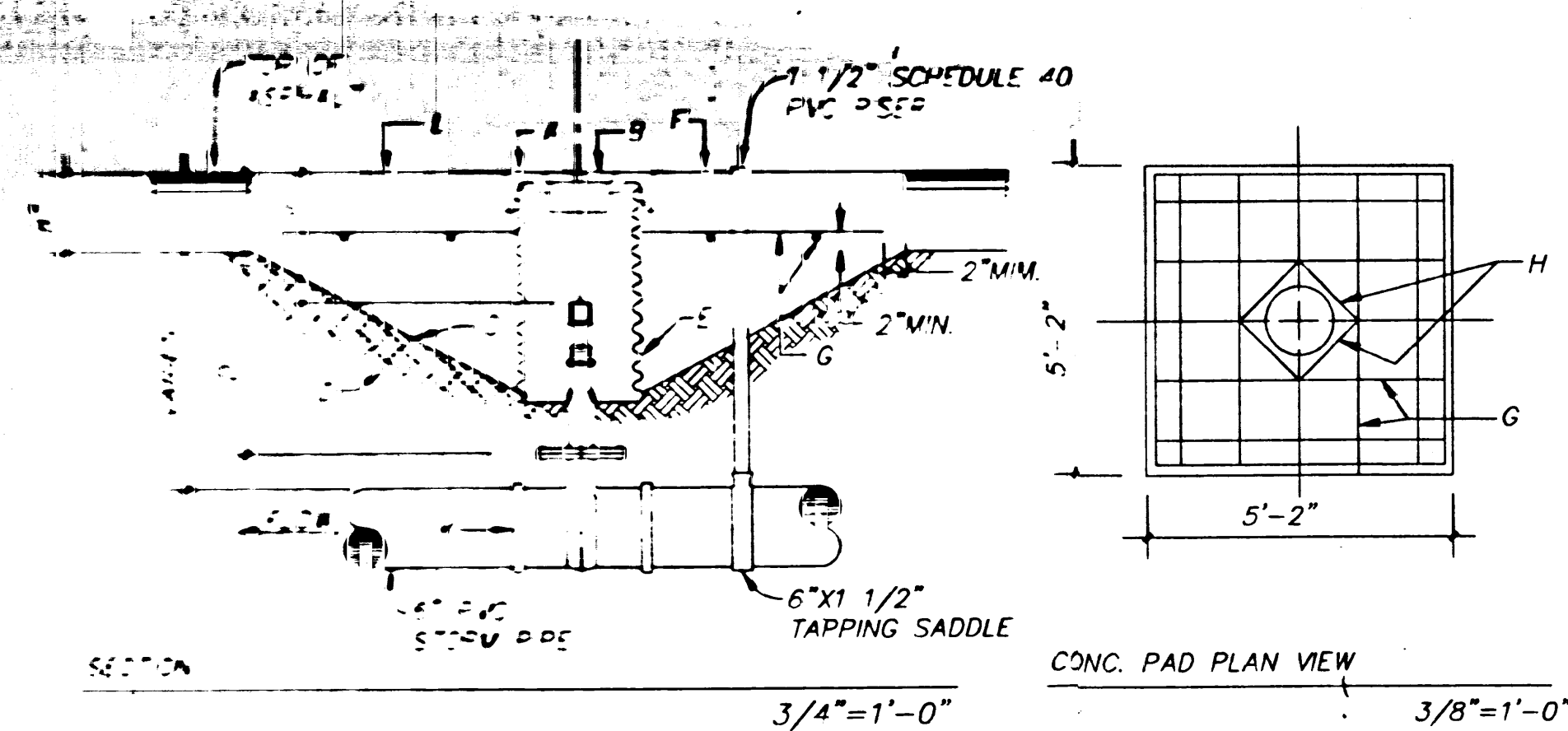
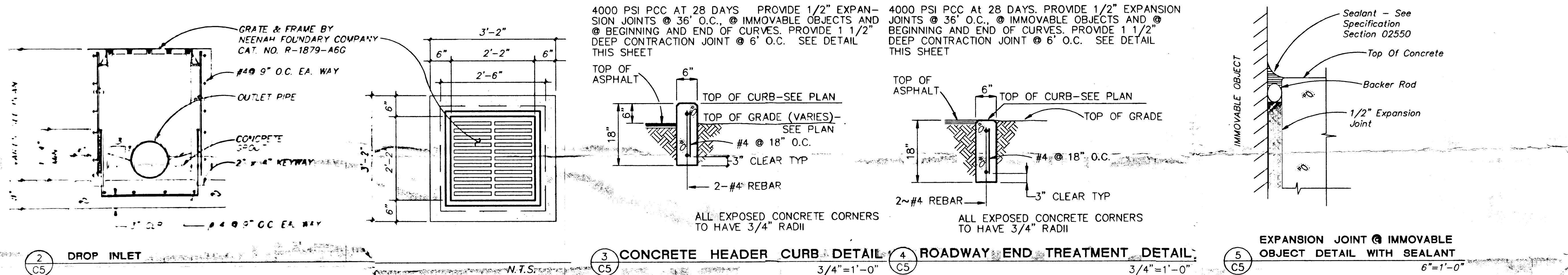


1 WATER SEPARATOR

AS SHOWN



2 WATER VALVE BOX AND VENT RISER

APPROVED FOR CONSTRUCTION BY A.M.A.F.C.A. DATE

Fueling Station
Ever Ready Oil
Osuna / Chappell NE
Albuquerque, New Mexico

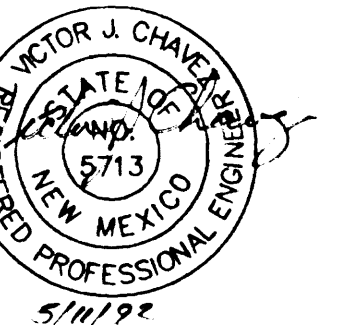
Project Title

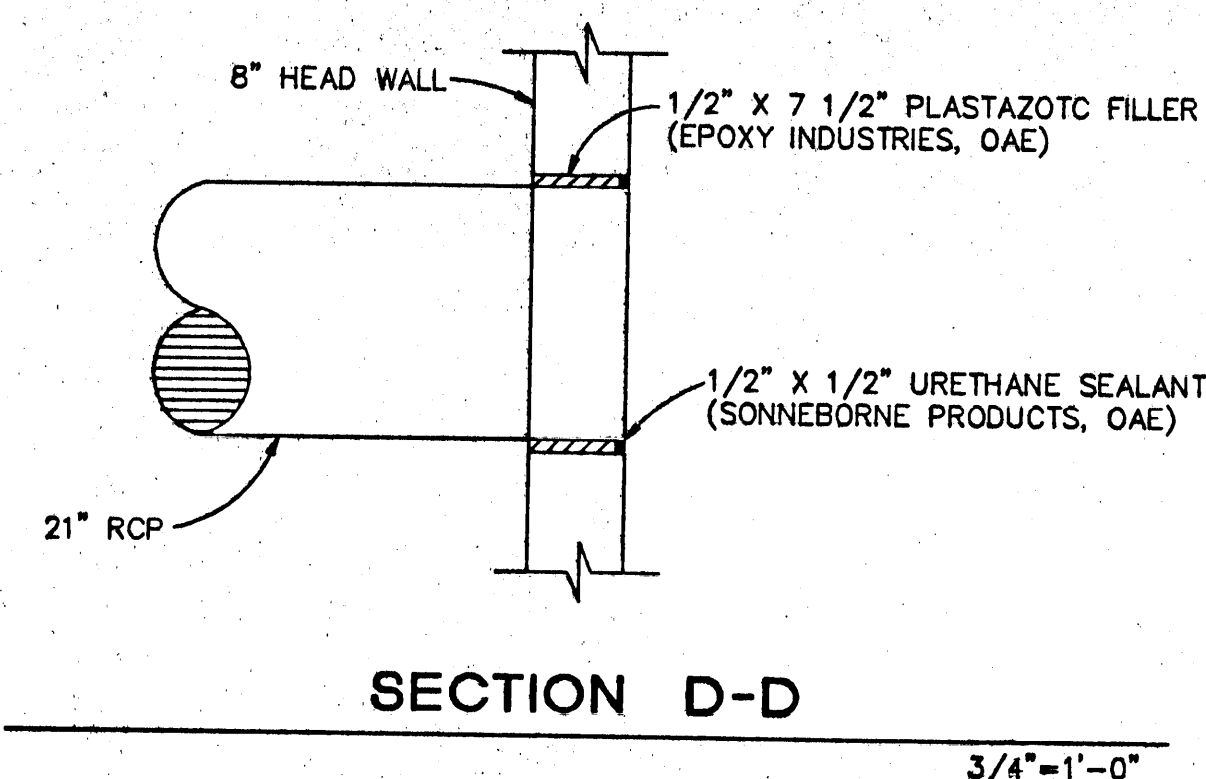
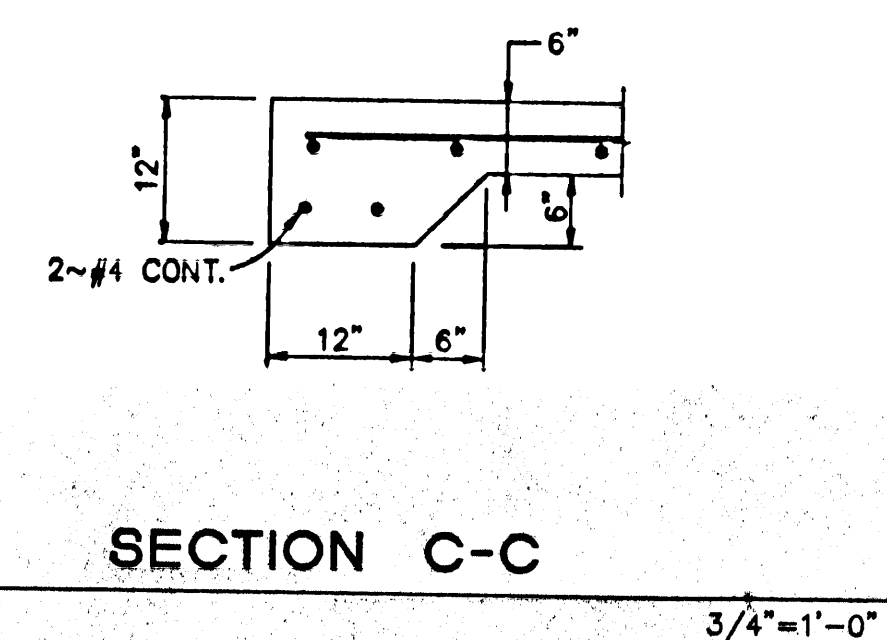
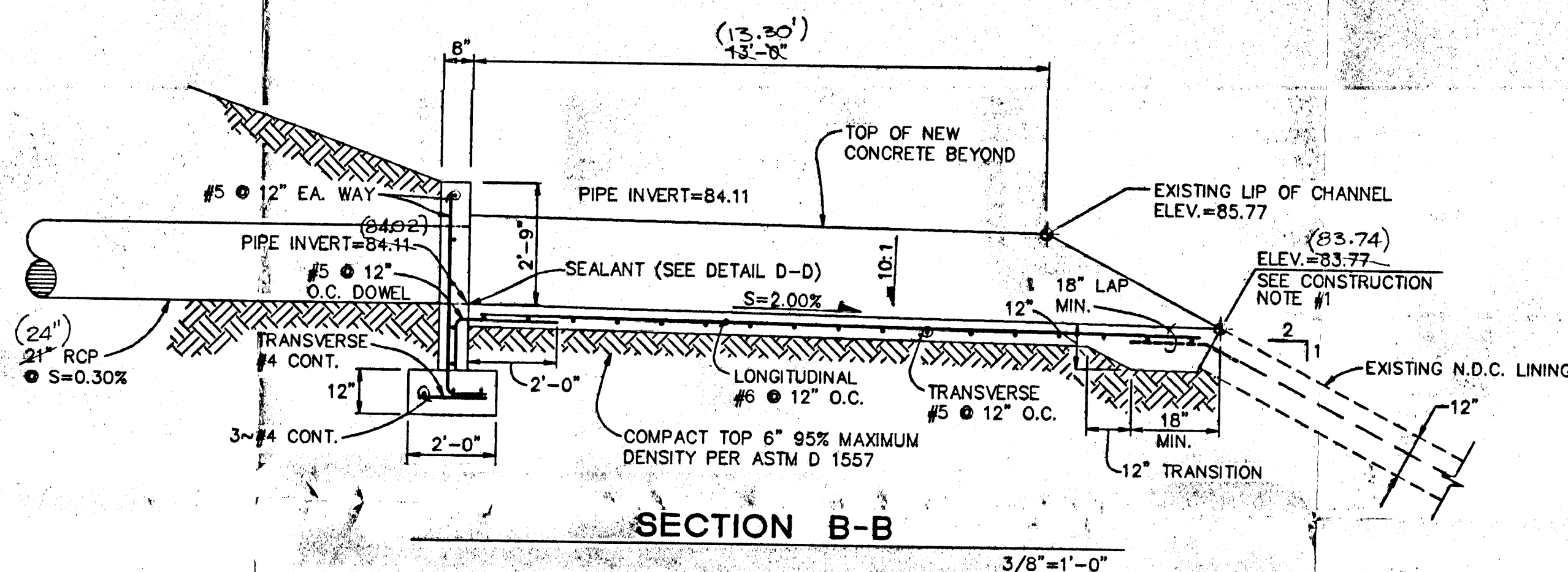
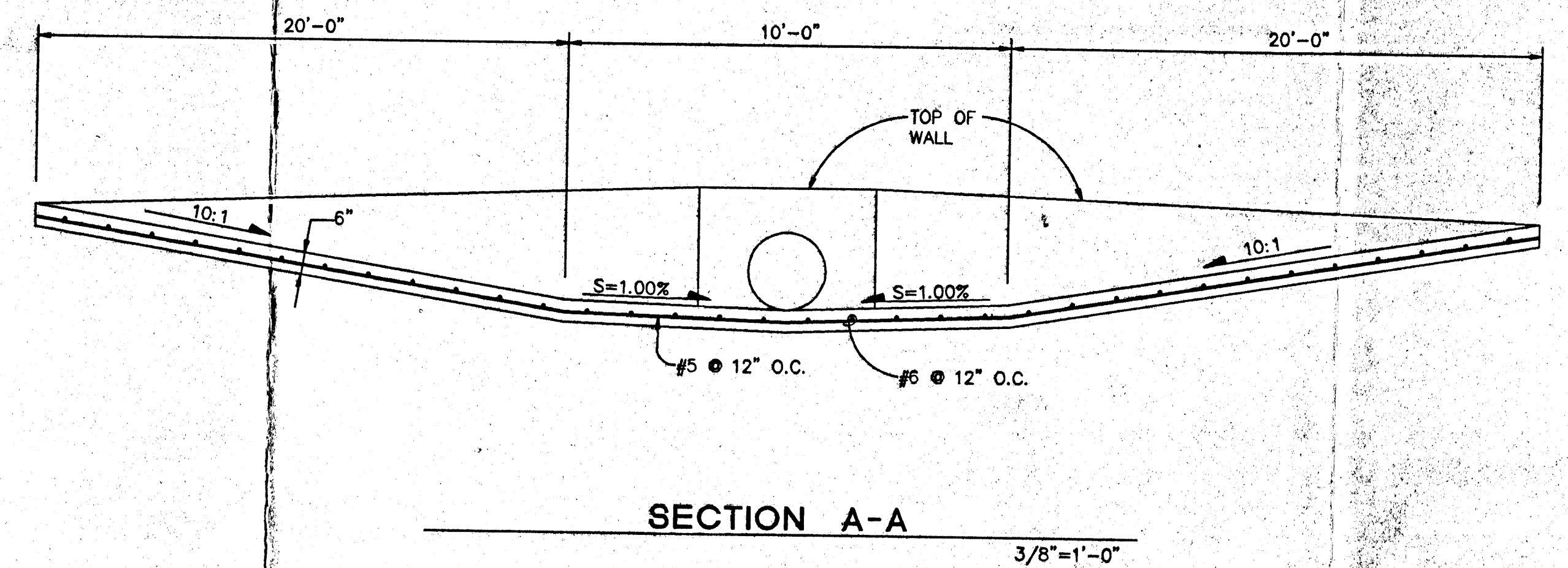
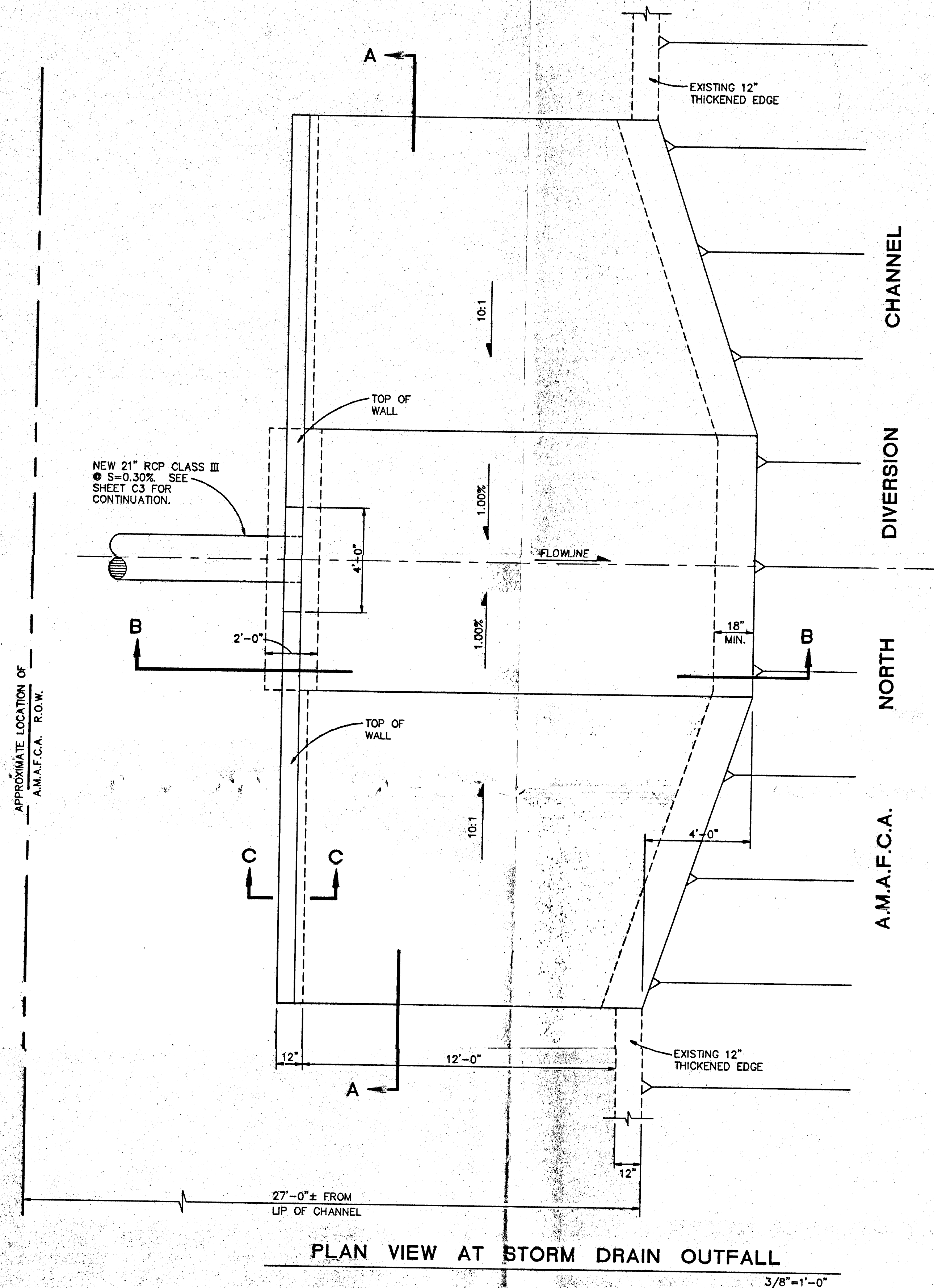
Drawn C-G Checked KEG
By By

Proj. 9204.00 Date 5/11/92
No.

Revisions Architect Engineer

Civil Details
HYDROLOGICAL DIVISION
Sheet Title Sheet of





I HEREBY CERTIFY THIS DRAINAGE
PLAN IS IN SUBSTANTIAL COMPLIANCE
WITH THE APPROVED DRAINAGE PLAN.

SIGNED: *Charles J. Henry*
DATE: *8/2/92*

GENERAL NOTES:

1. CALL A.M.A.F.C.A. AT 884-2215 TWO (2) DAYS PRIOR TO BEGINNING OF CONSTRUCTION, AND AGAIN WHEN REINFORCING STEEL IS IN PLACE AND TIED PRIOR TO POURING CONCRETE.

CONSTRUCTION NOTES:

1. SAW CUT 1 1/2" DEEP EXISTING CONCRETE CHANNEL LINING RUNDOWN TO SURFACE TO A MAXIMUM DEPTH OF 24 INCHES (DO NOT CUT REINFORCING STEEL) AND BREAK OUT REMAINING THICKNESS OF CONCRETE REASONABLY EVEN WITH SAW CUT. BEND EXISTING TRANSVERSE STEEL TO A POSITION PARALLEL WITH THE NEW RUNDOWN SURFACE AND TIE TO NEW REINFORCING STEEL AS SHOWN ON THE DETAIL.
2. ALL MATERIAL EXCAVATED FROM THE RUNDOWN SHALL BE DISPOSED OF BY THE CONTRACTOR.
3. ALL CONCRETE USED IN CONSTRUCTING THE RUNDOWN SHALL BE 4000 PSI, 1" TO NUMBER 4 AGGREGATE, 5 SACK, 20% FLY ASH, 5% AIR ENTRAINMENT, CALMAT - (ALBUQUERQUE GRAVEL PRODUCTS) MIX 3907, OR APPROVED EQUAL.
4. USE CLASS "C" PIPE BEDDING FOR ALL STORM DRAIN PIPES.

John Kelly 14 MAY 92
APPROVED FOR CONSTRUCTION BY A.M.A.F.C.A. DATE

Fueling Station
Ever Ready Oil
Osuna / Chappell NE
Albuquerque, New Mexico

Project Title

Drawn By VRC Checked By KEG

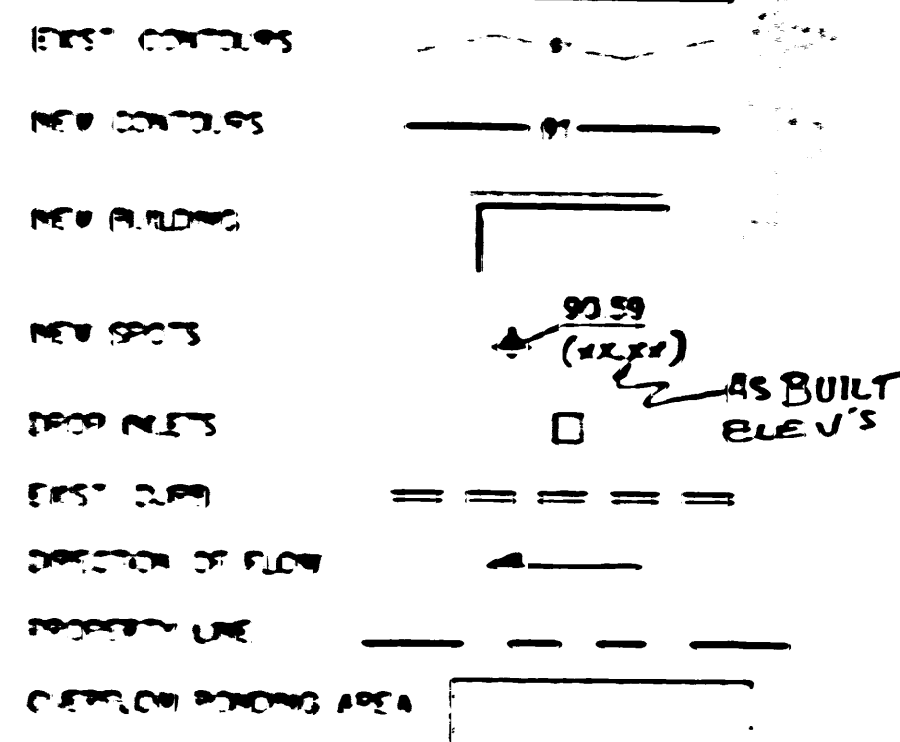
Proj. No. 9204.00 Date 4/29/92

Revisions Architect Engineer

Storm Drain Line
Connection To
North Diversion
Channel

C4

LEGEND



ABBREVIATIONS
 C = TOP OF CURB
 F.L. = TOP OF FLOOR/CONCRETE
 T.C. = TOP OF ASPHALT
 T.M. = TEMPORARY BENCHMARK
 S.D. = STORM DRAIN
 S.I. = TOP OF ISLAND

KEYED NOTES

- FOR OIL/WATER SEPARATOR DETAIL SEE 1/C5.
- FOR DROP INLET DETAIL SEE 2/C5.
- FOR CONCRETE HEADER CURB DETAIL SEE 3/C5.
- FOR ROADWAY END TREATMENT DETAIL SEE 4/C5.
- FOR EXPANSION JOINT AT IMMOVABLE OBJECT DETAIL SEE 5/C5.
- SEE SHEET C4 FOR STORM DRAIN LINE CONNECTION TO NORTH DIVISION CHANNEL. CONTACT AMAFCA, 884-2215, 2 (TWO) DAYS PRIOR TO CONSTRUCTION WITHIN DIVERSION CHANNEL R.O.W.
- INSTALL 6" GATE VALVE, VALVE BOX, AND VENT RISER PER CITY OF ALBUQUERQUE DRAWINGS 2328, 2333 AND DETAIL 6/C5.

PROJECT BENCHMARK

STATION IS A STANDARD BLM BRASS CAP SET IN CONCRETE. MONUMENT STAMPED SC 27/25 34/35

WHICH PROJECTS 1.0' ABOVE GROUND THE STATION IS LOCATED 5.1 MILES NORTHEAST OF DOWNTOWN ALBUQUERQUE EAST OF THE NORTH DIVISION CHANNEL & SOUTH OF OSUNA RD. N.E. TO REACH THE STATION FROM THE INTERCHANGE @ I-25 & OSUNA RD. N.E., GO WEST ON OSUNA 1.0 MILES TO ANOTHER DIRT ROAD. THE STATION IS LOCATED LEFT OF THIS POINT. ELEVATION = 5110.406 FEET (M.S.L.D.)

TEMPORARY BENCHMARK

T.B.M. = CHISELED "T" ON TOP OF CURB, @ END OF CURB AS SHOWN BELOW. ELEVATION = 5093.23 FEET (M.S.L.D.)

LEGAL DESCRIPTION

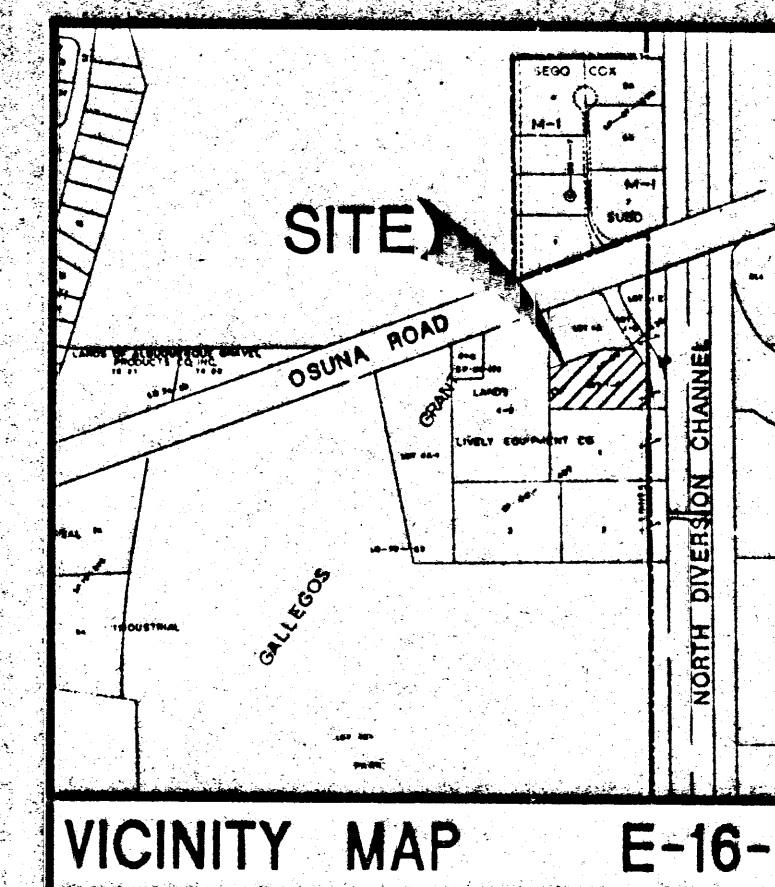
LOT 1-B, LAND OF LIVELY EQUIPMENT CO., INC. FILED DECEMBER 5, 1986, C32-57.

NOTES

- A TOPOGRAPHIC SURVEY WAS PERFORMED ON JANUARY 17, 1992.
- SITE LOCATED WITHIN SECTION 27, TOWNSHIP 11 NORTH, RANGE 3 EAST, N.M.P.M.
- BEARINGS AND DISTANCES ARE BASED UPON THE PLAT OF LOTS 1-A THROUGH 1-D, LANDS OF LIVELY EQUIPMENT CO., INC. FILED DECEMBER 5, 1986, C32-57. A BOUNDARY SURVEY WAS NOT PERFORMED.

CONSTRUCTION NOTES

- USE CLASS "C" PIPE BEDDING FOR ALL STORM DRAIN PIPES.



OIL SEPARATOR CAPACITY

Runoff from the site is equally divided such that the quantity to each separator is one-half the total site runoff.

$$Q = 1/2 Q2 = 1/2 (2.2 \text{ cfs}) = 1.1 \text{ cfs/separator}$$

$$V = 1/2 V2 = 1/2 (2891 \text{ cf}) = 1445 \text{ cf/separator}$$

The capacity of the separator is controlled by the outlet pipe size. A 6-inch diameter outlet pipe is used.

$$Q_{cap} = CA [2gh]^{1/2} \quad (\text{Orifice Equation})$$

$$\text{Where } C = 0.6$$

$$H = 0.75' (\text{Pond Depth}) + 1.25' (\text{T.G. to Center of Pipe})$$

$$A = \pi (0.25')^2 = 0.196 \text{ sf}$$

$$Q_{cap} = (0.6)(0.196 \text{ sf}) \{2(32.2)(2.0)\}^{1/2} = 1.33 \text{ cfs}$$

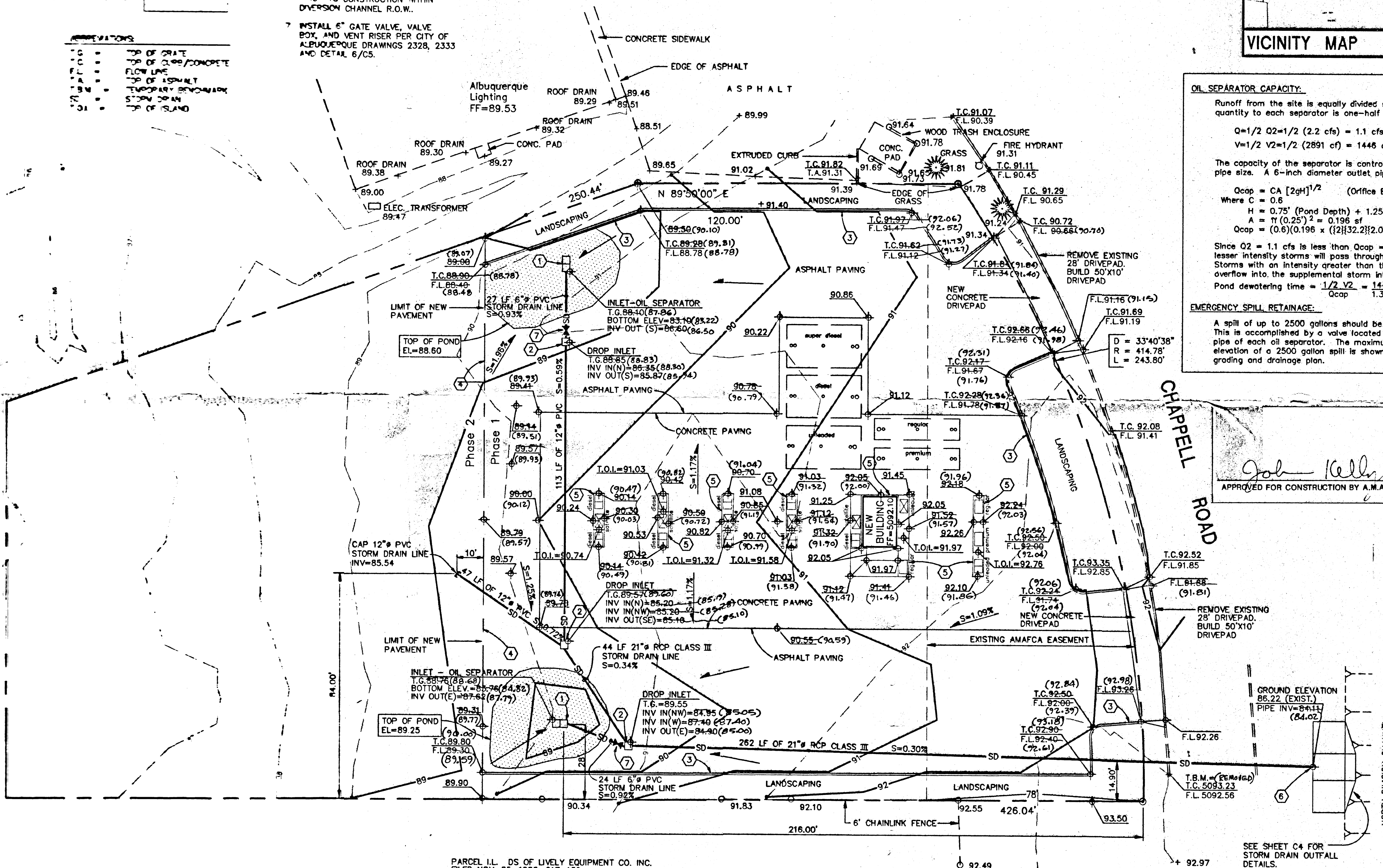
Since $Q2 = 1.1 \text{ cfs}$ is less than $Q_{cap} = 1.3 \text{ cfs}$, the 2-year and lesser intensity storms will pass through the oil separators. Storms with an intensity greater than the 2-year storm will overflow into the supplemental storm inlets.

$$\text{Pond dewatering time} = \frac{1/2 V2}{Q_{cap}} = \frac{1445 \text{ cf}}{1.33 \text{ cfs}} = 18 \text{ min.}$$

EMERGENCY SPILL RETAINAGE

A spill of up to 2500 gallons should be retained onsite. This is accomplished by a valve located on the outlet pipe of each oil separator. The maximum ponding surface elevation of a 2500 gallon spill is shown shaded on the grading and drainage plan.

Job Kelly 14 MAY 92
 APPROVED FOR CONSTRUCTION BY A.M.A.F.C.A. DATE



PARCEL I.L. DS. OF LIVELY EQUIPMENT CO. INC. FILED NOV. 25, 1980, C17-136.

Grading And Drainage Plan

SCALE: 1"=20'

I HEREBY CERTIFY THIS DRAINAGE PLAN IS IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED DRAINAGE PLAN.

SIGNED: [Signature]
 DATE: 8/1/92

Kevin Georges & Associates
 Architecture & Planning

127 Jefferson Street NE - Suite A Albuquerque, New Mexico 87108-1218 505/755-4875

LOCATION AND DESCRIPTION

The site is located on the west side of Chappell Road, approximately 300 feet south of the Chappell Road and Osuna Road intersection. The site, containing approximately 1.913 acres, is presently undeveloped. Existing contours indicate the project site slopes from southeast to northwest averaging one percent. The site is not located within a flood plain.

EXISTING CONDITIONS

Presently, runoff from the site is allowed to sheet flow into the adjacent property, Lot 4-b, located to the west. Lot 4-b is presently being used as a construction yard and is not paved. Located to the north is Albuquerque Lighting. A portion of the drainage from this development is retained in a pond located on the west end of the building due to restricted downstream capacity on Osuna Road. Located east of the project site is Chappell Road. Chappell Road slopes north to Osuna Road. Located south of the project site is Western Mobile. Drainage from this development is conveyed west and will not affect the Every Ready Fueling Station.

PROPOSED CONDITIONS

Proposed development of the site will be done in two phases. The area being developed as part of Phase I includes a small building, landscaping, and paving. Drainage from the site will be conveyed to new drop inlets located on the project site, and discharged to a new concrete roundabout abutting the North Division Channel. Two oil separators will be installed in the Phase I development to help isolate hydrocarbons. Future scheduled development is not known; however it is anticipated it will include asphalt paving.

CALCULATIONS

$$\text{Area} = 1.913 \text{ acres (Phase I} = 1.1541 \text{ Ac., Future} = 0.7572 \text{ Ac.)}$$

$$I = 2.15 \text{ inches}$$

$$6\text{-hour, } 100\text{-year Rainfall} = 2.35 \text{ inches}$$

$$\text{Precipitation Zone} = 2$$

EXISTING ON-SITE CONDITIONS

LAND TREATMENT	"C" VALUE	A(ACRES)	"C" x A	COMPOSITE "C" = CxA/A
A	0.31			
B	0.45			
C	0.62	1.1541	0.7155	
D	0.93			
		1.1541	0.7155	0.62

$$Q_{100} = (0.62)(5.05)(1.1541) = 3.6 \text{ cfs}$$

$$Q_{10} = (0.667)(3.6) = 2.4 \text{ cfs}$$

$$Q_2 = (0.434)(3.6) = 1.6 \text{ cfs}$$

$$V_{100} = (1.13)(1.1541) + 12 = 0.1087 \text{ Ac-ft (4734 cf)}$$

$$V_{10} = (0.667)(0.1087) = 0.0725 \text{ Ac-ft (3158 cf)}$$

$$V_2 = (0.434)(0.1087) = 0.0472 \text{ Ac-ft (2055 cf)}$$

PROPOSED ON-SITE CONDITIONS

LAND TREATMENT	"C" VALUE	A(ACRES)	"C" x A	COMPOSITE "C" = CxA/A
A	0.31			
B	0.45	0.1483	0.0667	
C	0.62	1.0058	0.9354	
D	0.93	1.1541	1.0021	0.87

$$Q_{100} = (0.87)(5.05)(1.1541) = 5.1 \text{ cfs}$$

$$Q_{10} = (0.667)(5.1) = 3.4 \text{ cfs}$$

$$Q_2 = (0.424)(5.1) = 2.2 \text{ cfs}$$

$$\text{Weighted "E100"} = \frac{(0.78)(0.1483) + (2.12)(1.0058)}{1.1541} = 1.95$$

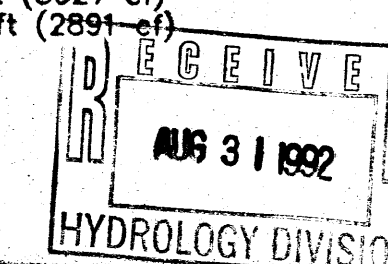
$$\text{Weighted "E10"} = \frac{(0.28)(0.1483) + (1.34)(1.0058)}{1.1541} = 1.20$$

$$\text{Weighted "E2"} = \frac{(0.02)(0.1483) + (0.79)(1.0058)}{1.1541} = 0.69$$

$$V_{100} = (1.95)(1.1541) + 12 = 0.1875 \text{ Ac-ft (8,169 cf)}$$

$$V_{10} = (1.20)(1.1541) + 12 = 0.1154 \text{ Ac-ft (5027 cf)}$$

$$V_2 = (0.69)(1.1541) + 12 = 0.0664 \text{ Ac-ft (2891 cf)}$$



Fueling Station
 Ever Ready Oil
 Osuna / Chappell NE
 Albuquerque, New Mexico

Project Title

Drawn By: VRC/RFC Checked By: KEG

Proj. 9204.00 Date: 5/11/92

No. 3713

5/11/92

Revistons

Architect

Engineer

CE16-D1A

Grading And

Drainage Plan

Sheet Title

Sheet

of

C3