



Interoffice Communication

R U S H

To Plant Managers
From R. E. Lehmkuhl
Date November 7, 1983
Subject SALE OF CONOCO CHEMICALS TO VISTA CHEMICALS

Significant efforts are under way to complete negotiations on the Definitive Agreement to sell Conoco Chemicals' assets as announced on October 17, 1983 with the signing of the Letter of Intent. Each of you may be contacted for assistance, information, or documents to support the various teams' efforts toward completing this sizable task.

Each of you should put forth all reasonable efforts to assist those parties needing records, documents, or information, recognizing a very short time is allowed to complete various parts of the negotiations.

At this time, the attached letter represents an information request from the group(s) working on the inventory taking and data gathering procedure. Please fax requested information no later than 8:00 AM Thursday, November 10.

R. E. Lehmkuhl

R. E. Lehmkuhl

REL:dem

cc: G. E. Downing (Faxed Copy)
R. D. Gamblin (w/attachment)
G. G. Draper (w/attachment)

CCR 000015892

**Interoffice Communication**CC: JHB
JGC
MCM
JWW
RB
RAC

To R. E. Lehmkuhl
From Glen E. Downing
Date November 4, 1983
Subject INFORMATION REQUESTED BY PLANT FOR DEVELOPMENT OF THE INVENTORY
PROCEDURE EXHIBIT TO THE DEFINITIVE AGREEMENT

The following information is requested by 8 a.m. Thursday, November 10, 1983, from each plant or location having inventories of raw materials, finished product, and materials and supplies.

1. A copy of each plant's inventory taking procedure, sampling instructions, test counting, and frequency procedures, if applicable.
2. Master list of all storage tanks, bins, warehouses, and other areas showing tank/numbers meaningful to inventory control location. The storage tank list should contain shell capacity and type of service. Warehouse and other areas should include central warehouses, satellite storage areas, whether book inventory controlled or not, and for each area include estimated number of bins, estimate of the different number of items stocked, and estimated dollar value of items stored at that location.
3. Any procedure written for inventory control of offsite storage used by Conoco Chemicals, i.e., terminals--sales and export.
4. Each plant should indicate whether material, supplies, spare parts, etc., are controlled by Kardex inventory systems and how often actuals are taken and Kardex adjusted. If some are and others are not, please explain.

Please assist us in getting this request into the proper hands for a speedy, complete response. The material may be faxed Thursday morning if it will not arrive in that morning's mail.

Thanks,


GLEN E. DOWNING

js
cc:
R. A. Brennenman, Jr.
B. Ratliff
T. C. Robb
D. D. Tooman
R. L. Townsend

CCR 000015893

To: Distribution
From: John Tillman

Subject: Effluent Sewer From T-500 to NaOH Basin

This report addresses the problems that have been experienced w/ the subject sewer line. The general topics to be discussed are outlined below.

A. The Joint Design

B. The Bedding Design

C. The Basis of Bids

D. The Basis of Bids

I. In the attached Basis of Bids you'll find a copy of the data sheet on the Atlas "Chem-Proof Diaper Joint" that I'm recommending we use. It's the best design I've been able to locate and if installed properly should be virtually leakproof.

II. The ASME Code outlines the acceptable bedding designs according to the maximum loads they can handle. In summary, there is only one that is acceptable because of the fact that our sewer lines are relatively close to the existing grade (usually less than the minimum 12" required for most bedding designs). See attached "Load Calculation" summary for simplified description of the bedding design. Refer to the Basis of Bids for more information.

CCR 000015894

III. Realizing the importance of this project, I've attached a copy of the Basis of Bids for your review. The bidders will be asked to submit a firm bid exactly per the Basis of Bids.

Budget quality estimates are being performed for the following options.

1. Clay pipe installed in a trench (pipe would be visible)
2. Completely submerged acid brick lined trench (this will be the most expensive option but would eliminate most potential leak sources)

A firm bid will not be requested for these two options for the following reasons.

1. The design in the Basis of Bids is per code and should be good for the long haul.
2. The two alternatives will be very costly, and with a "code acceptable" option I don't believe they will be seriously considered.
3. To quote jobs of this magnitude requires (and myself) considerable time on the part of the contractors; I prefer to wait and compare the budget estimates w/ the bid price before requesting firm bids.

John Tillman

4/13/84

CC: RAC JWN TRH MLA HOA RB

CCR 000015895

Load Calculation

(in accordance w/ ASTM C12)

$$\text{max. allowable load on sewer line} = \frac{(\text{load factor}) \left(\frac{\text{three edge bearing test load}}{\text{safety factor}} \right)}{(\text{pipe not @ grade above pipe})}$$

The recommended design load is 10,000 #/ft.

The three edge bearing test load is the crushing strength; for 24" extra strength vitrified clay pipe the value is 4400 #/ft.

The load factor is dependant upon the bedding design.

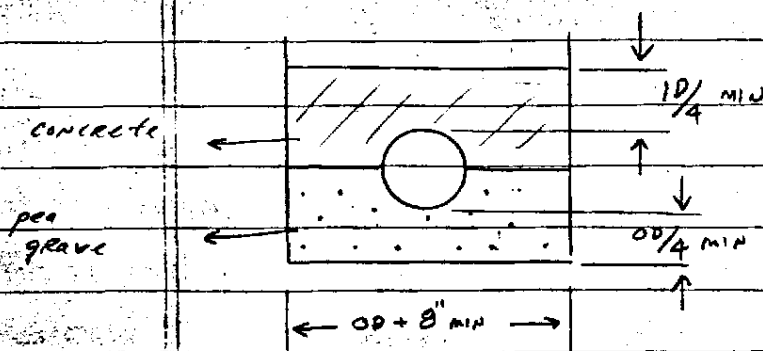
The recommended safety factor is 2.

★ Given that the top of the vc pipe is less than 12" from the top of the road there is only one recommended bedding design. This is the Class A1 design incorporating the concrete arch.

Load factor = 4.8 if reinforced w/ steel rebar
(rebar area equal to 1% of concrete area)

$$\text{max. load} = \frac{(4.8)(4,400)}{2} = 10,560 \text{ #/ft}$$

This is acceptable via code



CCR 000015896

TMT 4/13/84

Basis of Bids for
"Effluent Line Reconstruction
From T-500 to Caustic Box"

1. Submit a lump sum bid for materials, sales tax, labor, health & welfare benefits, insurance, payroll taxes, tools, equipment, expense items and supervision for reconstruction of the effluent line per the attached information. Option 1 $\rightarrow$ w/o grating Option 2 $\rightarrow$ w/ grating
2. A VCM safety orientation will be required for all contractor employees before commencing work ($\approx$ 1hr).
3. The Contractor Safety Manual, Plant Security and Safety Rules, and the VCM Appendix will become part of the final construction contract.
4. Submit your quote by Wed. May 2nd. Bring the quote to my office by 11 AM.
5. Include in your bid the number of calendar days to complete the job after you begin field construction and the number of calendar days to begin after I give formal notification to do so.
6. All contractors must quote to do the job exactly as this Basis of Bids specifies. However, you are welcome to submit alternatives.
7. Contractor must completely clean up the area after the job is complete. Likewise the area will be kept reasonably clean during execution of the work.

8. A $\frac{1}{2}$ " layer of limestone rock is to be
laid in the area that will be disturbed.
This will not necessarily be limited to
the excavated area and the area immediately
adjacent. It may extend further.
9. Contractor is to supply all materials.
10. Company will assist, in a reasonable
and customary manner, with the loading
and unloading of equipment & materials.
If "reasonable and customary" needs
clarification please ask.
11. Pipe and fittings shall be handled with
suitable slings to prevent damage during
installation. Handle w/ premium care.
12. The laying of pipe in the trench shall
commence at the lowest point with the
spigot ends pointing in the direction of flow.
13. During excavation proceed with caution
and contact the company representative
when you encounter an obstruction.
14. The contractor field foreman must contact
the company representative when he feels
he has had to or anticipates that he
will have to perform extra work that
will result in an additional cost. This
must be done promptly. Do not wait
until the job is complete to inform
the company representative of the "extra".
15. Back fill, on top of jet and concrete arch,
shall not contain organic matter, trash
or debris. To be lightly compacted w/ a
roller.

damaging jts. or pipe. Do not use mech. tampers!

16. When pipe laying is temporarily stopped, the open ends are to be covered.

17. All foreign material should be cleaned from the pipe.

18. ★ ★ All open trenches shall be provided
★ ★ w/ suitable barriers and signs
★ ★ sufficient to the extent that
★ ★ adequate protection is provided.

19. The trench subgrade beneath the pipe is to provide a uniform and continuous support beneath the pipe at all points between pipe jts. Compact the fill material.

Note: This refers only to the area between the jts. and does not refer the jt. area itself. The jt. area is not to carry the load and consequently it should be lightly backfilled w/ pea gravel sufficient only to eliminate any void space.

20. Deposit bedding material uniformly and simultaneously on each side of the pipe to prevent lateral displacement.

21. When pouring concrete pour it where it is needed and don't use vibration to move it. The vibration could damage the pipe.

22. All pipe is to be inspected and deemed acceptable by the company representative before it is installed in the trench.

CCR 000015899

23. Lay all pipe straight between changes in alignment and at uniform grade between $r=500$ and the NaOH box. When pointed in

trench, the pipe shall form a true and smooth line.

24. Excavate area around bells sufficient to facilitate the installation of the Chem-Put Diaper Joints exactly per the attached instructions.

25. After a joint has been made it is paramount that the pipe not be moved. Any relative movement between contiguous pipe sections will damage the joint. Your construction procedure must meet this requirement → No movement after joint has been made.

26. Also regarding pipe movement, the concrete must be poured w/care sufficient to prevent any movement.

27. Company will require a meeting w/ contractor's field foreman prior to commencing for the purpose of introducing him to requirements of the job. This will not occur the day the work is scheduled to begin; it will occur beforehand when the impetus to "get started" is not present.

CCR 000015900

28. Company will require that the field foreman have prior and verifiable experience in the installation of vitrified clay sewer lines.

In this particular situation, irrespective of the quality of the design and material, the quality of the end result will be largely dependant upon the quality of the field foreman. For this reason, the above mentioned will be required.

29. The old catch basin is to be filled w/ dirt

30. In areas where the new line will tie into the old line enough of the old line needs to be removed to ensure that the backfill for the new line will be adequately contained.

31. As much of the new line as possible should be installed before the old line is bypassed to allow the tie ins to be made.

32. When contractor is prepared to make tie ins he will have to blind the outlet of T-500 and the inlet of the NaOH box and pump around. Organize the work to minimize the pump around time. Attached you'll find the spec. sheet on a 6" pump that is available for rent that can handle HCL. Of course, the suction and discharge hose must also be suitable for HCL.

33. A When pumping around realize that we must always have the ability to move the acid from T-500 to the NaOH box. No downtime!

34. The contractor may reuse the short (if not damaged) sections of clay pipe that are presently encased in concrete @ T-500 and the NaOH box but all joints must be as specified in this Basis of Bids.

(CCR 000015901)

35. When routing the 15" surface drain line to the new basin you must block off the drain into this line (not difficult).

36. And brick must be subcontracted to any of following.

M.A. Knight (504) 664-6642 → Wayne LeBourgeois
Rentjes 625-5202 → Timmy Roberts
Southeast (409) 898-7059 → Dennis Davis
John Scott

37. If any items need clarification please ask.

(John Tillman - 491-5075...)

(John Tillman - 491-5075...)

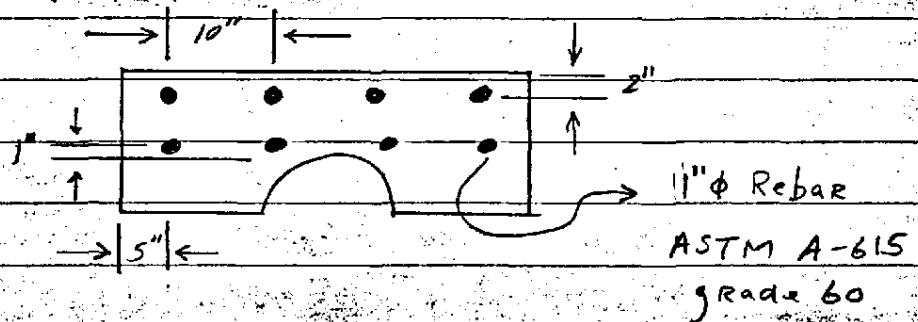
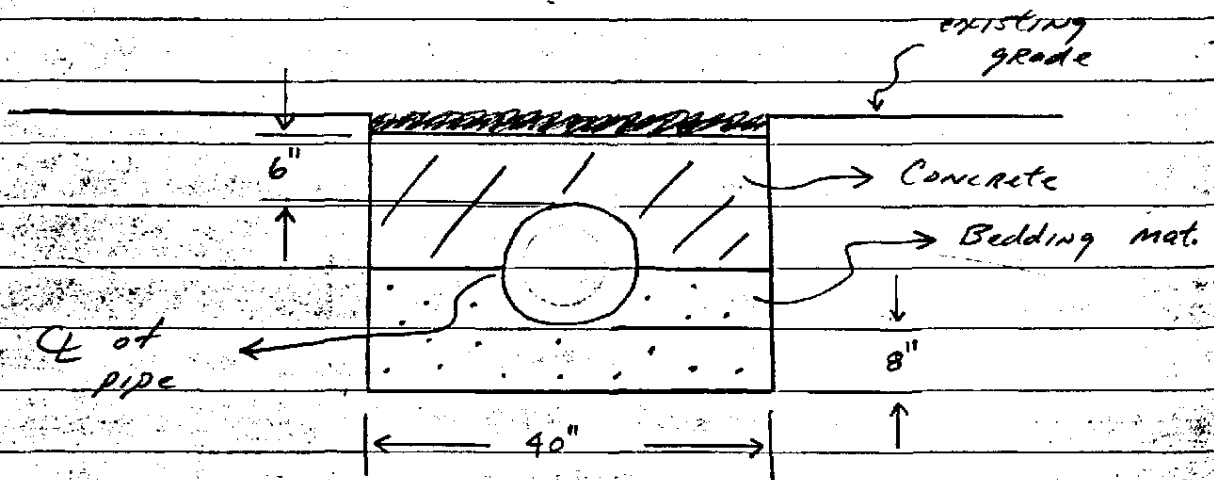
Refers to items to include in your written quote; items #1 & #5

Safety is a high priority @ VCM Plant. We do not take shortcuts at the expense of safety.

CCR 000015902

JMT 4/13/84

Bedding Design



Required rebar area = 1% concrete area

$$1.5 \text{ in}^2 \approx (0.1) (40) (20 \frac{1}{4}) = \frac{1}{2} \pi \left(\frac{20 \frac{1}{2}}{2} \right)^2$$

$$\frac{8 \pi (20 \frac{1}{2})^2}{5} = 1.25 \text{ or } 125\% \text{ of minimum}$$

CCR 000015904

MT 4/13/84

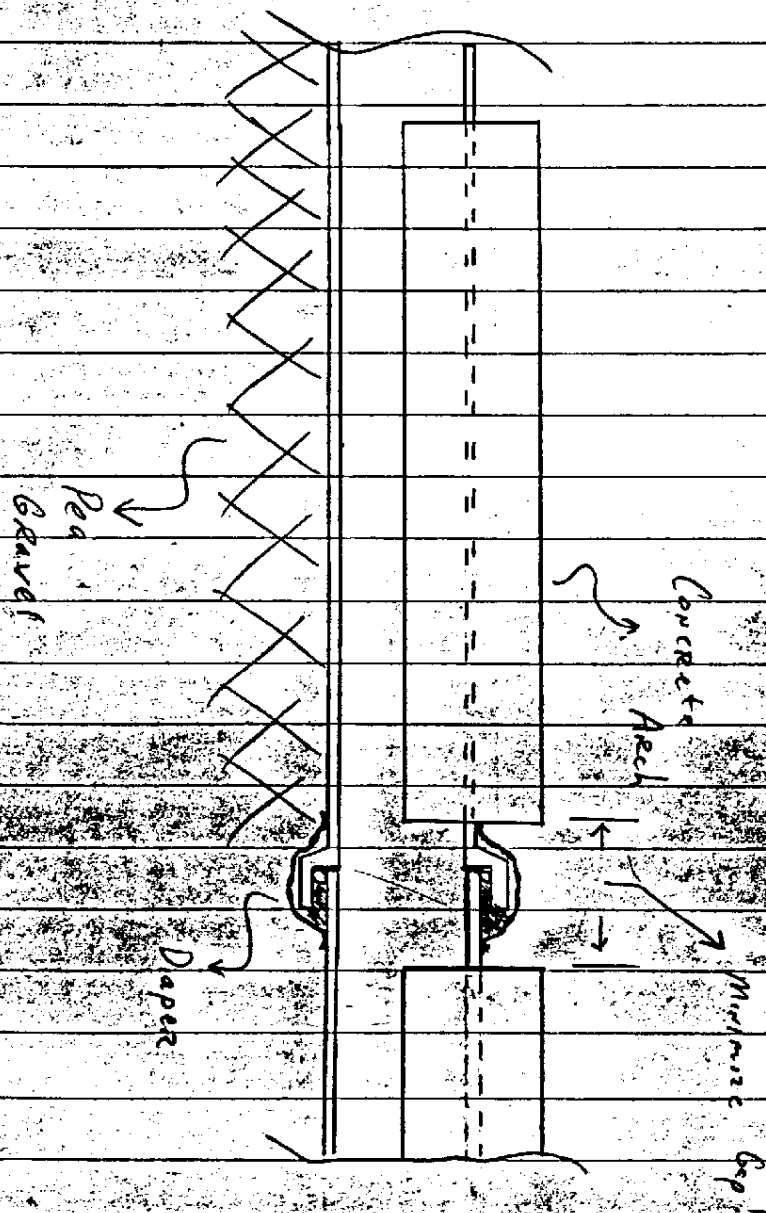
Bedding Mat. Spec.

Concrete - Type I Portland
per ASTM C150 (3000# & 28 day min)

Bedding Mat. - pea gravel with not less than
95% passing $\frac{1}{2}$ " and not less than
95% to be retained on a #4
sieve

(Sand or a limestone based material
not acceptable; only pea gravel)
2

General Scheme - Options



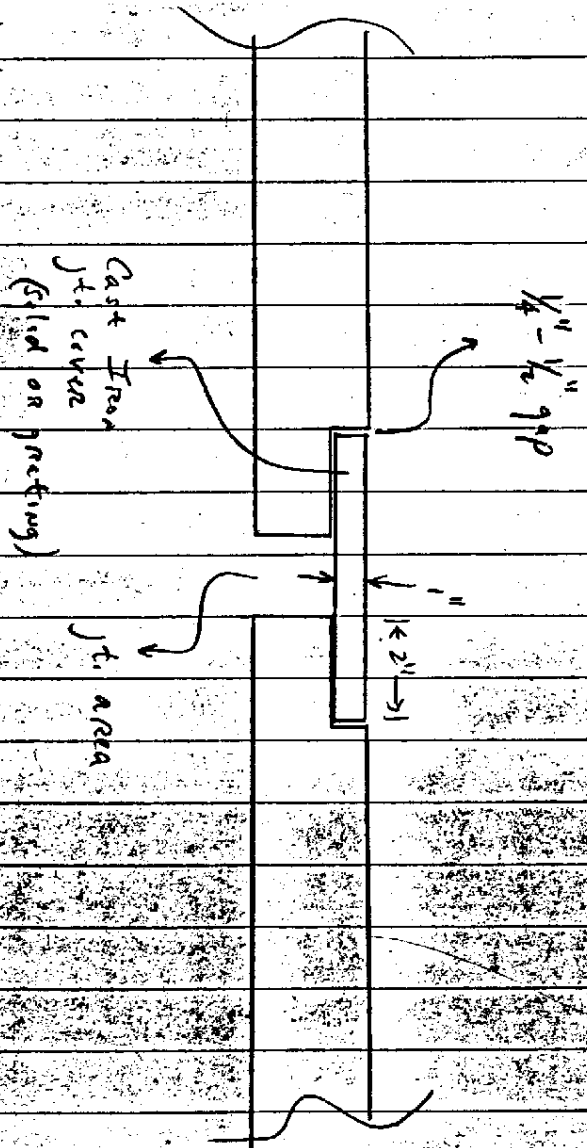
MT

9/13/89

General Scheme - Option 2

Option 2 - includes the cast iron cover over each j.t. area

(This will allow for concrete expansion and prevent joint area)



cover minimum
" maximum
" minimum
1" thick
2" lip on slab
30" width

Vulcan
(504) 665-6151
will handle

Vitrified Clay Pipe Specs.

Extra strength Vitrified Clay Pipe;
unglazed (this is an absolute requirement);
conforming to ASTM C-700; no/couplings

24" ϕ nominal (T-500 to Nook box)

15" ϕ nominal (surface drain)

Dickey Co. (in Bessemer, Alabama)

(205) 428-0131

contact Al

Pipe Joints

See attached data sheet for Chem-Proof
Diaper jt.

Atlas Repr. $\rightarrow$ Richard Houghton
(504) 291-2211

installation instructions to be followed
"to the letter"

Contractor must buy and use "stretcher
tool" provided by Atlas

CCR 000015908

JMT 2/13/84



DATA SHEET

NO. 8-48PI (5-77)
Supersedes 8-48PI (3-77)

CHEM-PRUF DIAPER JOINT

Description and Uses

The ATLAS Chem-Pruf Diaper Joint was specifically designed for the bell and spigot joint of vitrified clay pipe lines carrying corrosives. The Chem-Pruf Diaper Joint has proven to be especially useful when the liquid wastes consist of solvents and acids being conveyed simultaneously to a neutralization site. Chem-Pruf Diaper Joints combine the completely inert dual mortar joint using FURATHANE and VITROBOND 120 which has many years of field success with the equally proven and successful Ram-Nek Mar-Mac Diaper system. When properly installed this combination joint system is not only chemically inert, but has an added barrier which meets the TEN (10) STATE STANDARDS for infiltration of ground water and exfiltration of the chemicals in the line.

Joint Installation

The ideal temperature at time of construction must be 60 °F. to 90 °F., if different, consult ATLAS for specific installation instructions. All vitrified clay pipe must meet ASTM C-700 Specification.

Step No. 1

The bell and spigot of the pipe must be free of any glaze or coating, dry, and wiped clean to remove surface dirt. Coat the proper size asbestos or fiberglass rope using a fluid mix of FURATHANE Mortar, one part Powder to one part Resin. This can be done by dipping the rope in a container of mortar and removing the excess with your hand (protected by a rubber glove). The rope should be of the proper diameter and cut to the correct length to prevent loose ends from protruding. Use only one wrap of rope.

Step No. 2

Prepare a standard mix of FURATHANE Mortar (1.75 parts Powder to 1 part Resin, by weight). Butter a minimum bead of approximately 1/4" of FURATHANE Mortar on to both the leading edge of the spigot and the base of the bell. While the FURATHANE is soft, insert the spigot into the bell and pack the FURATHANE coated rope into the annular space to center the pipe. Make sure that the FURATHANE has exuded in a complete circle on the inside of the pipe. This is essential in order that the joint provide maximum corrosion resistance.

Step No. 3

Place the three strap diaper around the bell and spigot and tighten in the following manner using the stretcher tool, available from ATLAS at nominal cost:

- a. Tighten No. 1 strap around the bell
- b. Tighten No. 2 strap around pipe (center)
- c. Tighten No. 3 strap around barrel

CCR 000015909



Atlas Minerals & Chemicals, Inc.
Farmington Road, Meritztown, Pennsylvania 19539
Telephone 215-682-7171

CHEM-PRUF DIAPER JOINT



Buttering the spigot with FURATHANE Mortar.



Buttering the shoulder at the base of the bell with FURATHANE Mortar. Do not butter the sides of the bell.



Placing FURATHANE coated asbestos rope in the annular space.



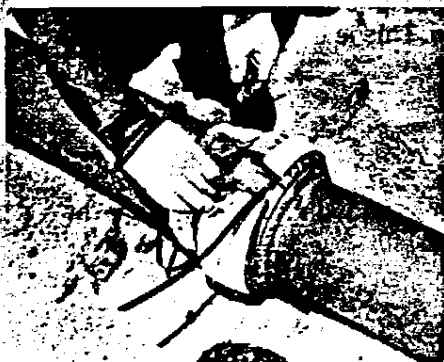
Placing the three strap diaper around the bell and spigot.



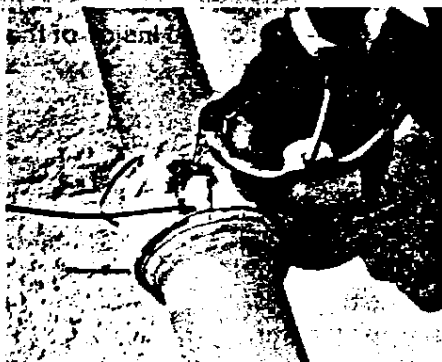
Tightening the No. 1 strap around the bell.



Secured diaper shows opening for the pouring gate.



Forming the mud pouring gate at the top of the joint using Plumber's Mud.



Pouring molten VITROBOND 120 into the completed pouring gate.



The finished joint with patch in place.

CCR 000015910

Step No. 4

Form a pouring gate at the top of the joint by using the patch supplied with each diaper or by the use of Plumber's Mud. Pour the joint with molten VITROBOND 120. The molten compound must be poured continuously at a steady rate until the joint is initially full. The pouring gate will have to be filled several times to compensate for cooling contraction. Check to be certain that no molten cement has flowed into the interior of the pipe. Such an entry indicates that the joint has been improperly prepared and it must be repaired for satisfactory service. Remove the mud pouring gate and place the patch over the unsealed pouring gate area of the pipe.

The pipe line should not be placed in service for at least two days after installation when the temperature is between 60 and 90 °F. IF THE TEMPERATURE AT THE TIME OF CONSTRUCTION IS LOWER THAN 60 °F. CONSULT ATLAS FOR SPECIFIC INSTRUCTIONS.

ESTIMATING DATA*FURATHANE MORTAR, ROPE AND VITROBOND 120REQUIRED PER JOINTASTM C700 EXTRA STRENGTH VITRIFIED CLAY PIPE

Pipe Size	Rope Size**	lbs. of Asbestos Rope per Joint	lbs. of Fiberglass Rope per Joint	FURATHANE Mortar per Joint	VITROBOND 120 per Joint	No. of Joints per 150 lb. unit of FURATHANE	No. of Joints per 50 lb. unit VITROBOND 120
4"	1/2"	.20 lbs.	.1 lbs.	.31 lbs.	2 lbs.	483 Joints	25 Joints
6"	1"	.65	.26	.32	5	468	10
8"	1"	.85	.29	.53	8	283	8
10"	1"	1.00	.35	.75	10	200	5
12"	1"	1.20	.42	1.10	16	136	3
* 15"	1"	1.50	.51	1.70	22	88	2
18"	1-1/4"	3.00	.91	2.55	33	58	1.5
21"	1-1/2"	4.20	1.75	3.55	47	42	1
* 24"	1-1/2"	4.70	2.00	4.50	64	33	.75
30"	1-3/4"	7.70	3.30	6.70	108	22	.40
36"	2"	12.00	5.90	18.50	166	8	.30

Furathane Units are supplied as 100 lb. bags of Powder and 50 lb. pails of Resin.

Vitrobond 120 Units are supplied as 50 lb. cartons.

Rope is available in quantities required.

* These calculations are the theoretical requirements based on standard pipe dimensions as published by the Clay Sewer Pipe Association, Inc. for EXTRA STRENGTH VITRIFIED CLAY PIPE MEETING ASTM C700 SPECIFICATION. Quantities may vary somewhat upon job conditions and pipe variations and cannot be guaranteed by ATLAS.

** Commercial Grade Twisted Asbestos or Fiberglass rope

Diaper Sizes

Pipe Size	Steel Strap Width	Diaper Dimensions
4"	3/8"	8" x 25"
6"	3/8"	8" x 31"
8"	3/8"	8" x 42"
10"	3/8"	8" x 47"
12"	5/8"	8" x 56"
15"	5/8"	8" x 66"
18"	5/8"	8" x 85"
21"	5/8"	8" x 94"
24"	5/8"	8" x 105"
27"	5/8"	8" x 117"
30"	5/8"	8" x 131"
36"	5/8"	8" x 148"

Additional Information

Instructions for the handling of FURATHANE and VITROBOND 120 can be found in the following ATLAS data sheets:

"FURATHANE" Data Sheet 5-33PI

"VITROBOND 120" Data Sheet 8-51PS

Technical Service

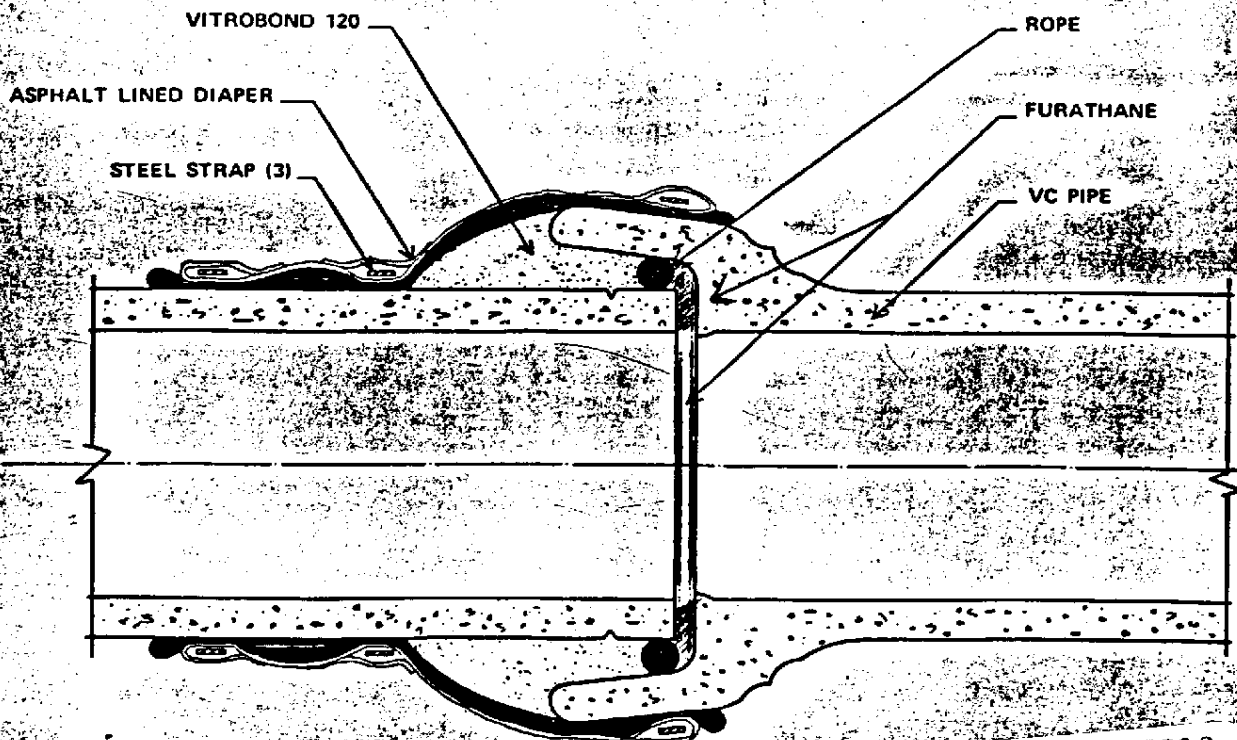
ATLAS maintains a staff of Technical Service Representatives who are available to assist you with the use of ATLAS products. In the event of any difficulty on any job with the use of ATLAS products, the job should be stopped immediately and ATLAS' Technical Service Department consulted for assistance.

Storage Materials

Store all materials in a cool, dry place and out of direct sunlight. FURATHANE Mortar, Powder and Resin must be at 60 - 90 °F. prior to use.

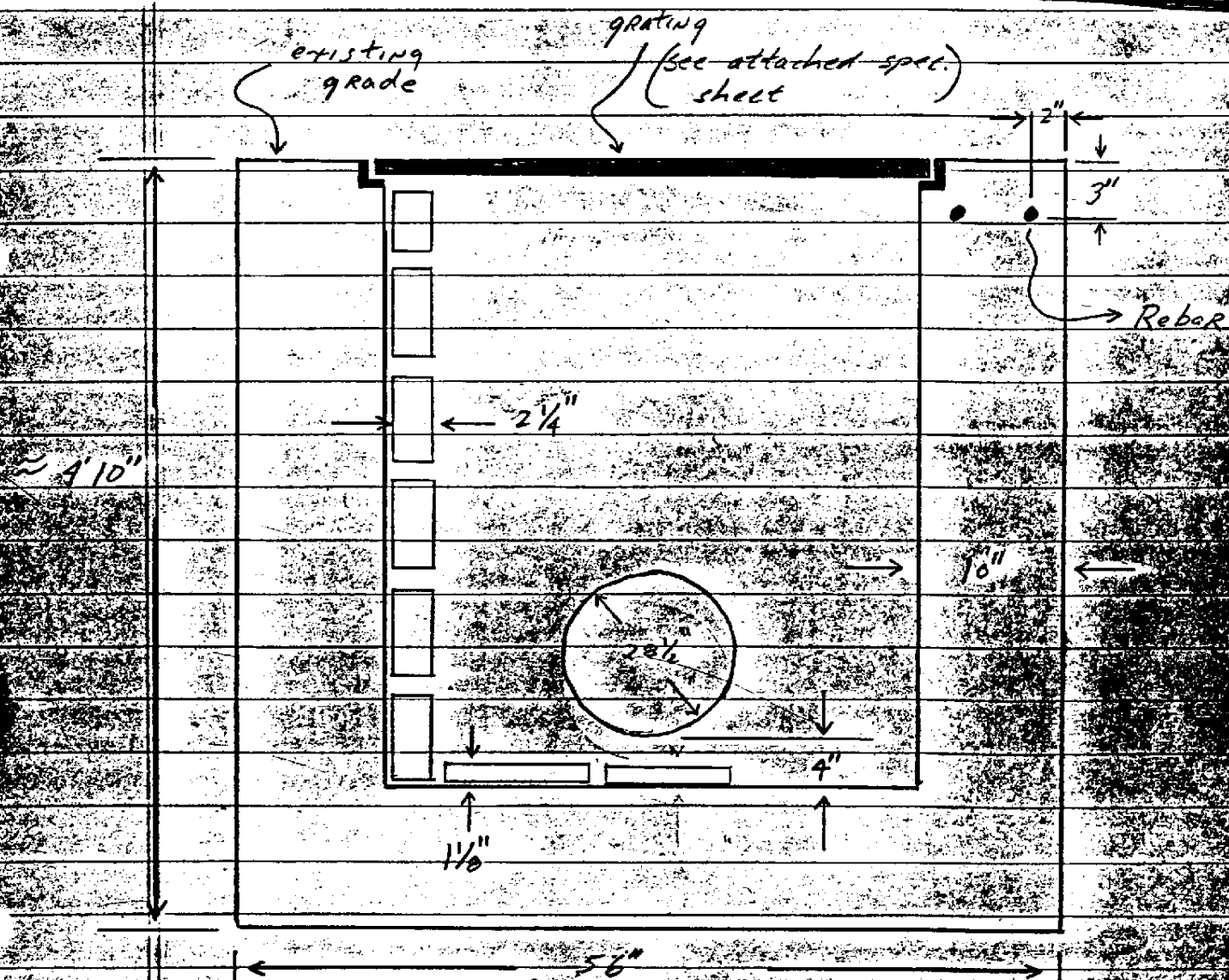
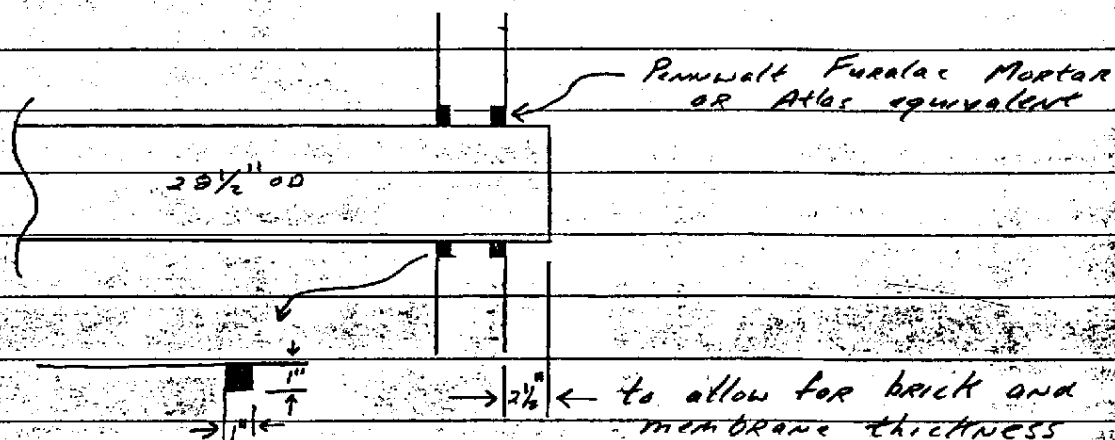
IMPORTANT

ADHERENCE TO THE STATED PROCEDURE IS STRICTLY REQUIRED IF THE JOINT IS TO PERFORM IN THE PROPER MANNER. UNDER NO CIRCUMSTANCES SHOULD MORE THAN ONE STRAND OF ROPE BE USED OR SHOULD ANY BACKING FILLERS BE USED TO FILL THE ANGULAR SPACE OF THE BELL OTHER THAN VITROBOND 120.



CCR 000015912

Distribution Box



CCR 000015913

1/11/84 7/13/84

Material Specs. for Dist. Box

* Concrete - Type III High Early-Strength Portland
per ASTM C150 (3000# 28 day min)

Note: minimum cure time before acid brick
lining is 72 hrs., Company representative
must approve surface condition of concrete
before lining can commence.

* Grating - Vulcan Model VFG-36 x 36
(see attached)

* Acid Brick - 1) Red Shale Brick type L by
Belden Brick Comp.

(wall brick $8" \times 3\frac{3}{4}" \times 2\frac{1}{4}"$)
(floor brick $8" \times 3\frac{3}{4}" \times 1\frac{1}{8}"$)

2) two coats asphaltic primer
Pennprime 101

3) membrane Penncoat 101 w/ Pennply 101

4) Green Panel Furalac mortar

Note: An Atlas equivalent to the above Pennwalt
spec. is acceptable (M.A. Knight spec. acceptable)

Atlas repr. → Richard Houghton (504) 291-2311

Pennwalt repr. → Frank Breshears (713) 691-4600

* Rebar - $\frac{3}{4}" \phi$ ASTM A-615 grade 60
(do not weld rebar)

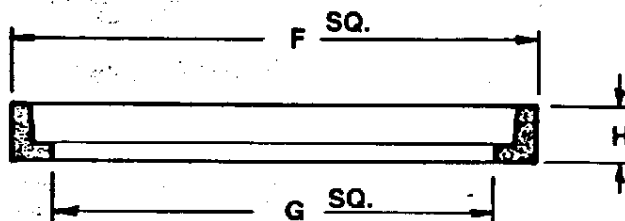
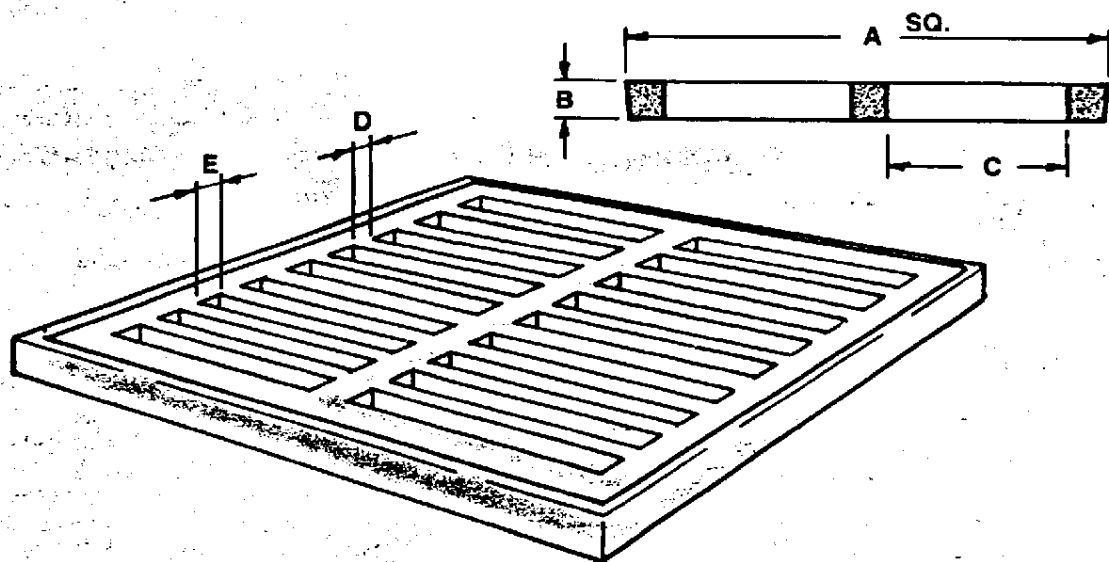
CCR 000015914

JMT 1/13/84



VULCAN FOUNDRY

P.O. BOX 905 • DENHAM SPRINGS, LA. 70726 • AREA 504, 665-6151



CCR 000015915

VFG-Series . . . Square Frame and Grate

(Also Available With Solid Covers)

PATTERN NR.	A	B	C	D	E	F	G	H
VFG- 8 x 8	9½	1	8	¾	1	10¾	8	1½
VFG-10x10	12	2	4½	1	1¼	13¾	10	2¾
VFG-12x12	12	¾	5	⅝	1	13⅞	10½	1⅞
VFG-14x14	14⅞	1	6	¾	1	15⅞	13¼	1⅝
VFG-16x16	15¾	1⅞	6¾	⅞	1	17½	14⅞	1¾
VFG-18x18	18⅞	1½	7⅞	⅞	1⅝	19½	16¾	2
VFG-20x20	19¾	1½	8¼	1	1¼	21¼	17⅞	2
VFG-22x22	23⅞	1½	10	1	1⅝	25⅞	22	2¼
VFG-24x24	24	1⅞	10½	1	1½	25¾	22¼	2⅝
VFG-26x26	28	2	8	1	1¼	29¾	26	2¾
VFG-30x30	31½	2	9	1⅞	1⅝	33½	30	2¾
* VFG-36x36	38	2	11	1⅞	1½	40	36	2¾

Treco handles



10 SERIES SELF-PRIMING CENTRIFUGAL PUMPS

FOR HEAVY DUTY INSTALLATIONS HANDLING SOLIDS
AND CORROSIVE LIQUIDS.

For thrifty operation in heavy-duty use and long, trouble free service, the solids handling 10 Series is ideal. The only moving parts are the shaft and impeller, so the potential for clogging is minimal. And the parts that usually receive the most wear, i.e., the wear plate, impeller and the seal, are easy to remove and replace through the removable coverplate.

Seal options for the 10 Series are the double mechanical grease lubricated seal, packing gland type, self-lubricated mechanical seal and Gorman-Rupp's exclusive tungsten titanium carbide double floating, self-aligning, oil lubricated seal. 10 Series pumps will move up to 1300 gpm and pump at heads to 115 ft. Handle spherical solids up to 3"

"A" VERSION OF 10 SERIES PUMPS

Sizes: 1½, 2, 3, 4, and 6 inches.

Number of models: 36.

Construction: Standard gray iron, bronze fitted, all bronze, stainless steel, multiple seal choices.

Impeller: semi open two vane, handles spherical solids up to 2½ inches.

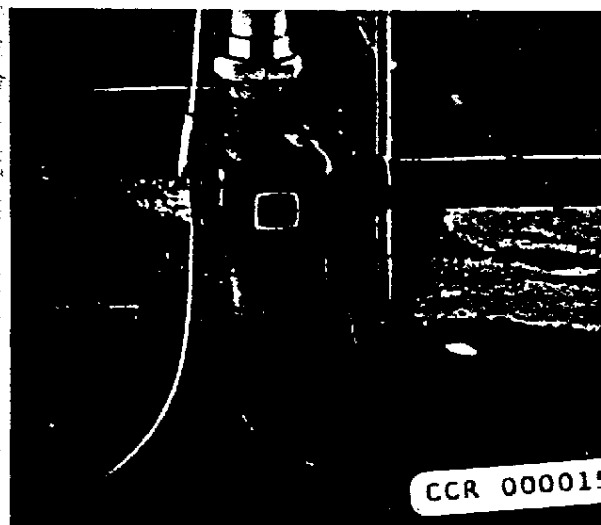
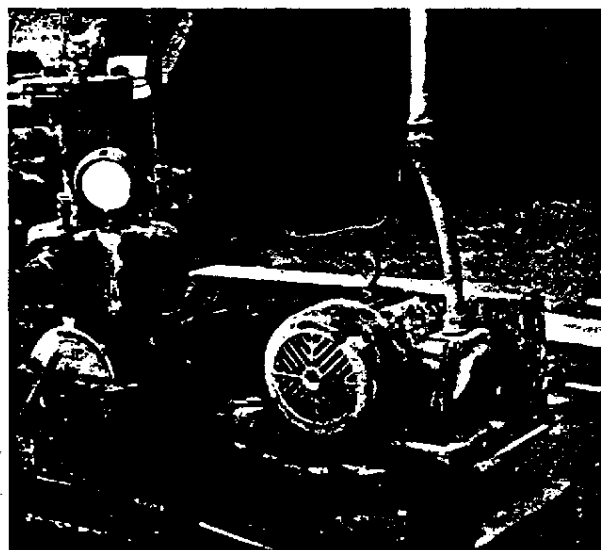
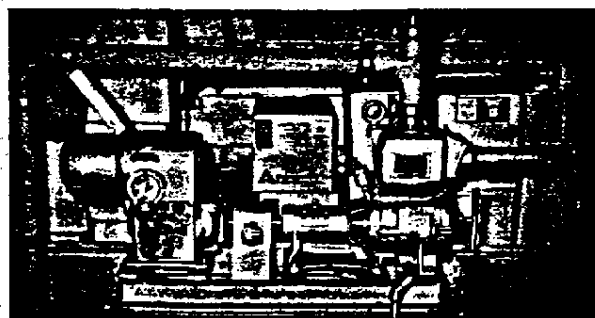
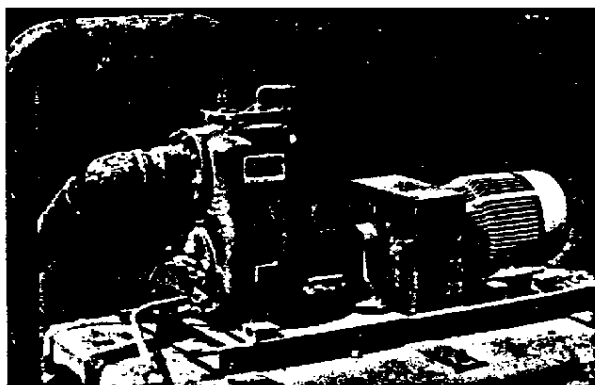
"C" VERSION OF 10 SERIES PUMPS

Sizes: 2, 3, 4, and 6 inches.

Number of models: 12

Construction: Gray iron, multiple seal choices.

Impeller: semi open two vane, handles spherical solids up to 3 inches.



CCR 000015916