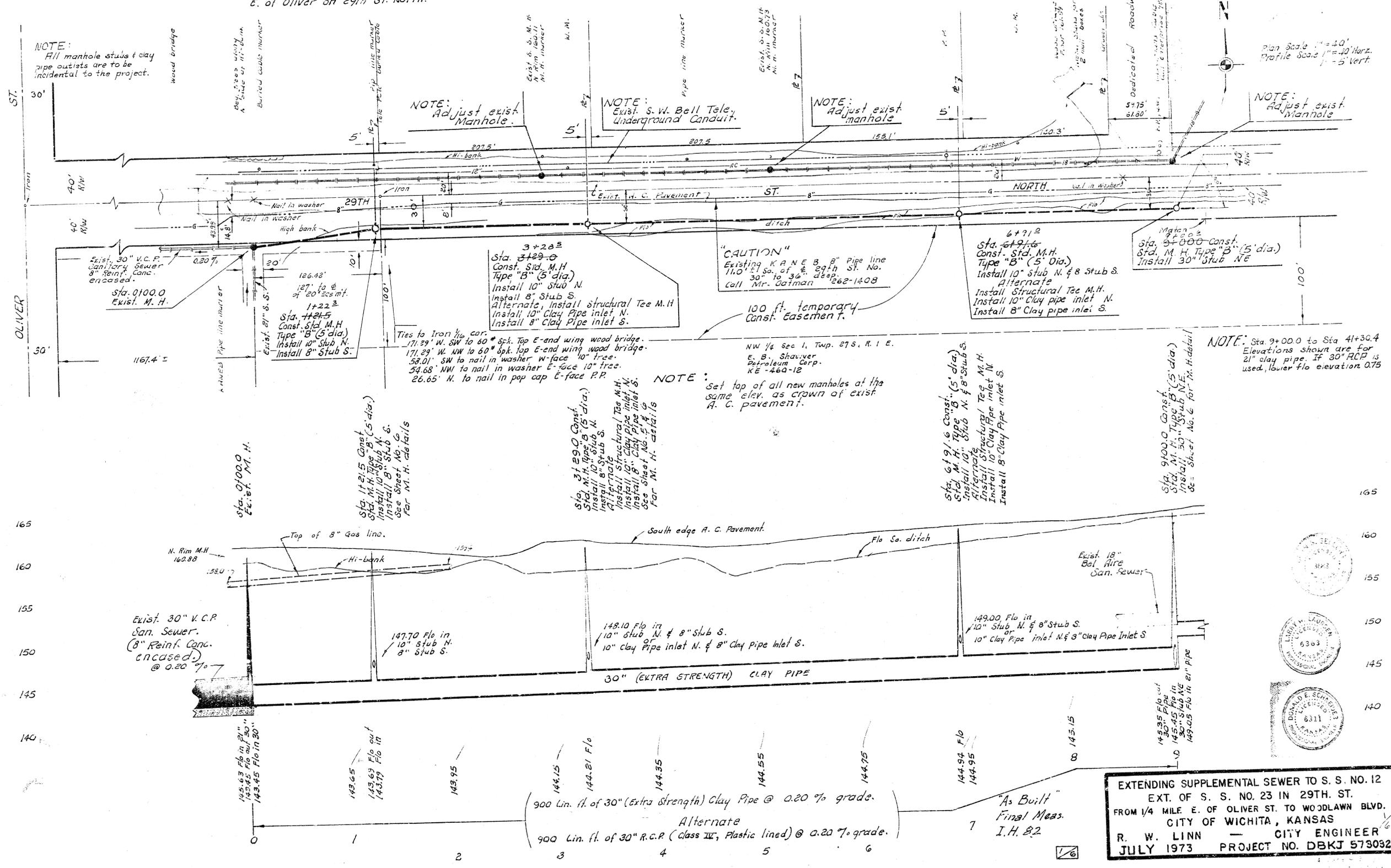


B. M. 165.37 R.R. spk. top east Post -  
N. banister wood bridge 1200 ft.  
E. of Oliver on 29th St. North.

B. M. 172.38 City Std. 29th - Edgemoor  
5.5' east of 370' N. of Iron.



NOTE:  
All manhole stubs & clay  
pipe outlets are to be  
incidental to the project.

NOTE:  
Adjust exist  
Manhole.

NOTE:  
Exist. S.W. Bell Tele.  
Underground Conduit.

NOTE:  
Adjust exist  
manhole

NOTE:  
Adjust exist  
Manhole

"CAUTION"  
Existing KANE 8" Pipe line  
110' S. of E. 29th St. No.  
30" to 36" deep  
Call Mr. Bateman 262-1408

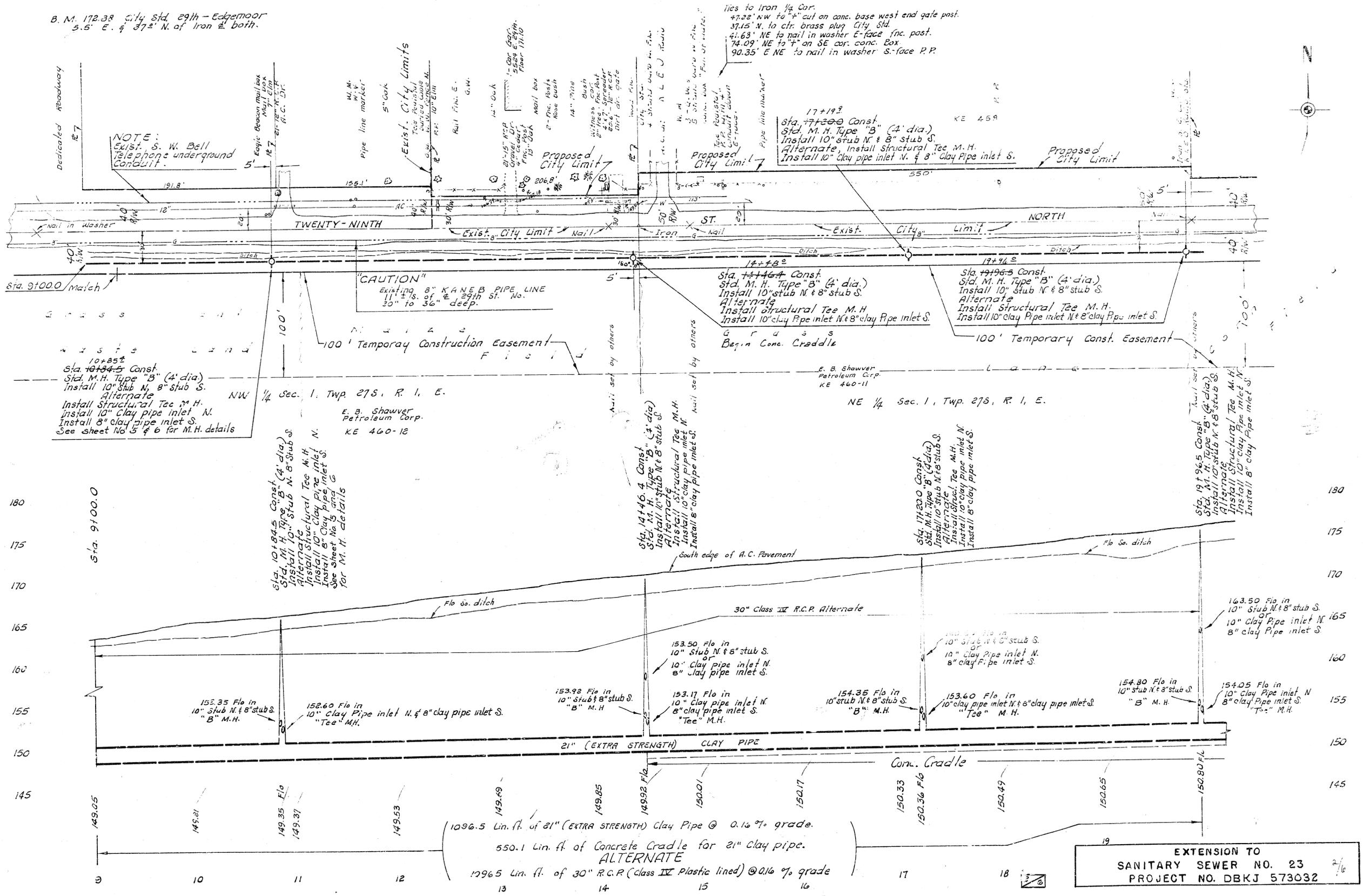
NOTE:  
Set top of all new manholes at the  
same elev. as crown of exist  
A.C. pavement.

NOTE:  
Sta. 9+00.0 to Sta. 41+30.4  
Elevations shown are for  
21" clay pipe. If 30" RCP is  
used, lower flo elev. 0.75

EXTENDING SUPPLEMENTAL SEWER TO S. S. NO. 12  
EXT. OF S. S. NO. 23 IN 29TH ST.  
FROM 1/4 MILE E. OF OLIVER ST. TO WOODLAWN BLVD.  
CITY OF WICHITA, KANSAS  
R. W. LINN — CITY ENGINEER  
JULY 1973 PROJECT NO. DBKJ 573032



B. M. 172.38 City Std. 29th - Edgemoor  
 5.5' E. & 37.2' N. of Iron & both.



17+19.3  
 Sta. 17+20.0 Const.  
 Std. M. H. Type "B" (4' dia.)  
 Install 10" stub N & 8" stub S.  
 Alternate, Install Structural Tee M. H.  
 Install 10" clay pipe inlet N. & 8" clay pipe inlet S.

14+4.2  
 Sta. 14+4.4 Const.  
 Std. M. H. Type "B" (4' dia.)  
 Install 10" stub N & 8" stub S.  
 Alternate  
 Install Structural Tee M. H.  
 Install 10" clay pipe inlet N & 8" clay pipe inlet S.  
 Begin Conc. Cradle

19+4.2  
 Sta. 19+4.5 Const.  
 Std. M. H. Type "B" (4' dia.)  
 Install 10" stub N & 8" stub S.  
 Alternate  
 Install Structural Tee M. H.  
 Install 10" clay pipe inlet N & 8" clay pipe inlet S.

10+85.2  
 Sta. 10+85.5 Const.  
 Std. M. H. Type "B" (4' dia.)  
 Install 10" stub N & 8" stub S.  
 Alternate  
 Install Structural Tee M. H.  
 Install 10" clay pipe inlet N.  
 Install 8" clay pipe inlet S.  
 See sheet No. 5 & 6 for M.H. details

10+84.5  
 Sta. 10+84.5 Const.  
 Std. M. H. Type "B" (4' dia.)  
 Install 10" stub N & 8" stub S.  
 Alternate  
 Install Structural Tee M. H.  
 Install 10" clay pipe inlet N.  
 Install 8" clay pipe inlet S.  
 See Sheet No. 5 and 6  
 for M. H. details

14+46.4  
 Sta. 14+46.4 Const.  
 Std. M. H. Type "B" (4' dia.)  
 Install 10" stub N & 8" stub S.  
 Alternate  
 Install Structural Tee M. H.  
 Install 10" clay pipe inlet N.  
 Install 8" clay pipe inlet S.

17+20.0  
 Sta. 17+20.0 Const.  
 Std. M. H. Type "B" (4' dia.)  
 Install 10" stub N & 8" stub S.  
 Alternate  
 Install Structural Tee M. H.  
 Install 10" clay pipe inlet N.  
 Install 8" clay pipe inlet S.

19+96.5  
 Sta. 19+96.5 Const.  
 Std. M. H. Type "B" (4' dia.)  
 Install 10" stub N & 8" stub S.  
 Alternate  
 Install Structural Tee M. H.  
 Install 10" clay pipe inlet N.  
 Install 8" clay pipe inlet S.

152.35 Flo in 10" stub N & 8" stub S. "B" M.H.

152.60 Flo in 10" Clay Pipe inlet N. & 8" clay pipe inlet S. "Tee" M.H.

153.92 Flo in 10" stub N & 8" stub S. "B" M.H.

153.17 Flo in 10" Clay pipe inlet N. & 8" clay pipe inlet S. "Tee" M.H.

154.35 Flo in 10" stub N & 8" stub S. "B" M.H.

153.60 Flo in 10" clay pipe inlet N & 8" clay pipe inlet S. "Tee" M.H.

154.80 Flo in 10" stub N & 8" stub S. "B" M.H.

154.05 Flo in 10" Clay Pipe inlet N & 8" clay pipe inlet S. "Tee" M.H.

149.05

149.21

149.35 Flo

149.37

149.53

149.69

149.85

149.92 Flo

150.01

150.17

150.33

150.36 Flo

150.49

150.65

150.80 Flo

149.05

149.21

149.35 Flo

149.37

149.53

149.69

149.85

149.92 Flo

150.01

150.17

150.33

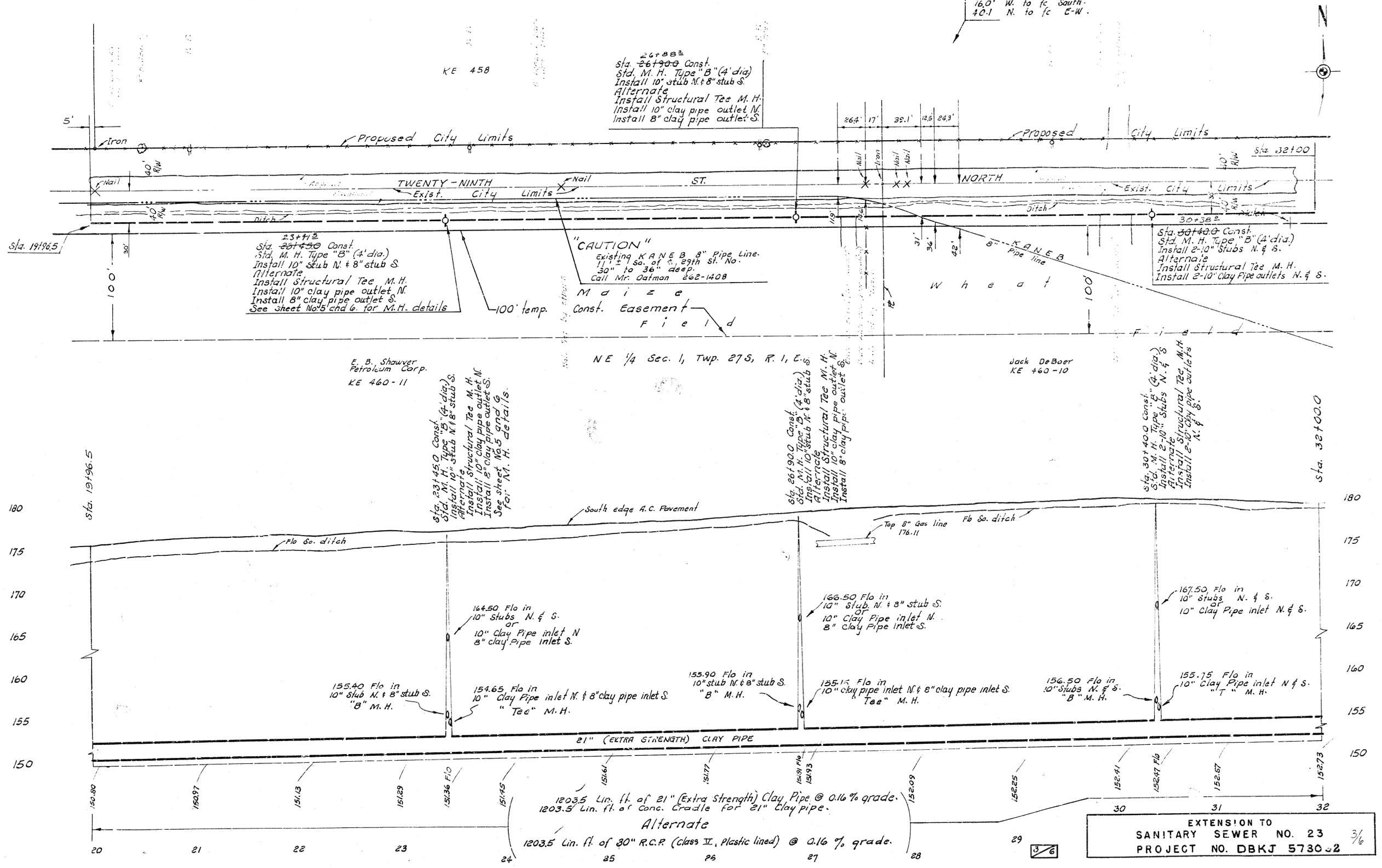
150.36 Flo

150.49

150.65

150.80 Flo

Ties to Iron 1/4 cor.  
 122.82' NW to 3 hollow point tacks 8-face R.P.  
 43.15' S. SW to 3 hollow point tacks N-face Inc. Post.  
 171.90' NE to 3 hollow point tacks SW face R.P.  
 16.0' W. to fc south.  
 40.1' N. to fc E-W.



EXTENSION TO  
 SANITARY SEWER NO. 23  
 PROJECT NO. DBKJ 5730-2 3/6

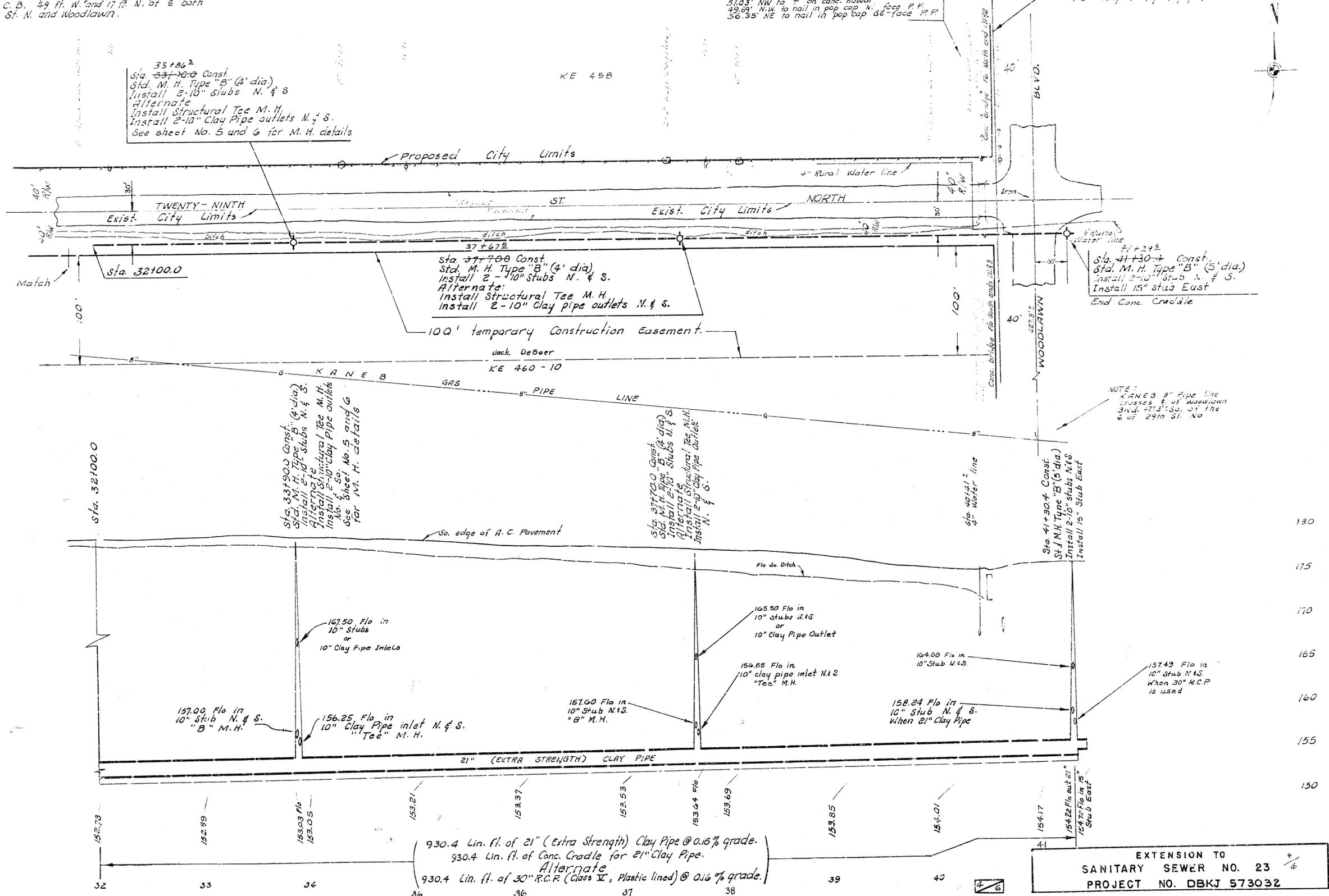
B. M. 175.85 City Sid. Square cut top N-Hdwl.  
to R.C.P. 49 ft. W. and 17 ft. N. of E both  
29th St. N. and Woodlawn.

Ties to Iron & 29th St. No. and E Woodlawn  
58.05' SE to 3" nail (#8) in W-face cor. post.  
57.00' SW to 4" on conc. Hdwall.  
57.03' NW to 4" on conc. Hdwall.  
49.69' NW to nail in pop cap N. face P.P.  
56.35' NE to nail in pop cap SE-face P.P.

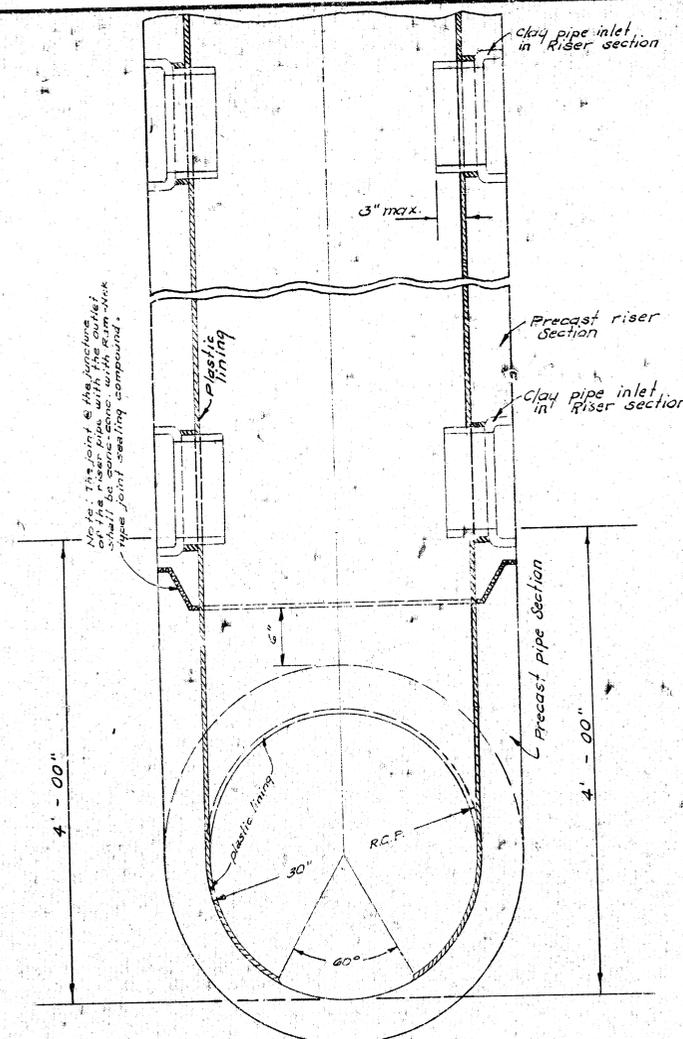
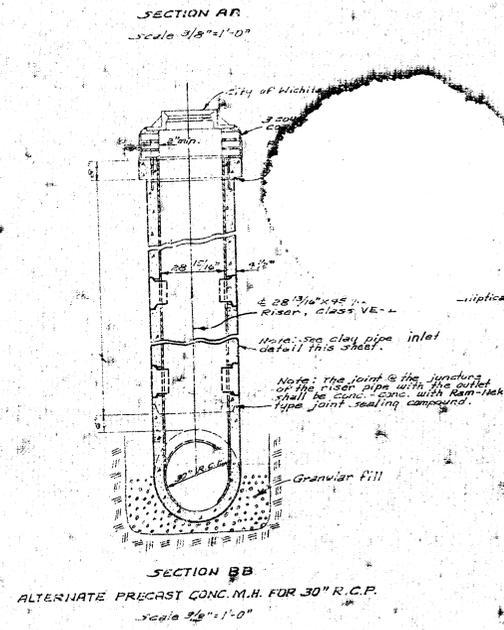
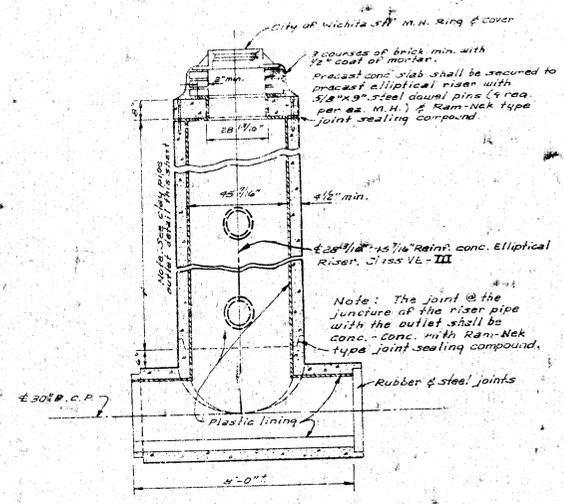
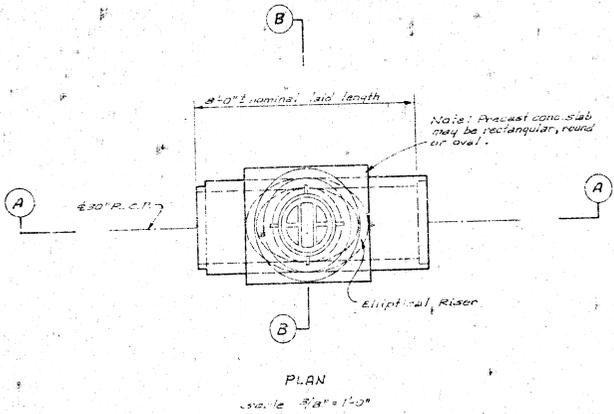
NOTE:  
Proposed 30" Water line.  
4.5' deep to top of pipe.

35+84.2  
Sta. 33+20.0 Const.  
Std. M. H. Type "B" (4' dia)  
Install 2-10" stubs N. & S.  
Alternate  
Install Structural Tee M. H.  
Install 2-10" Clay Pipe outlets N. & S.  
See sheet No. 5 and 6 for M. H. details

KE 458

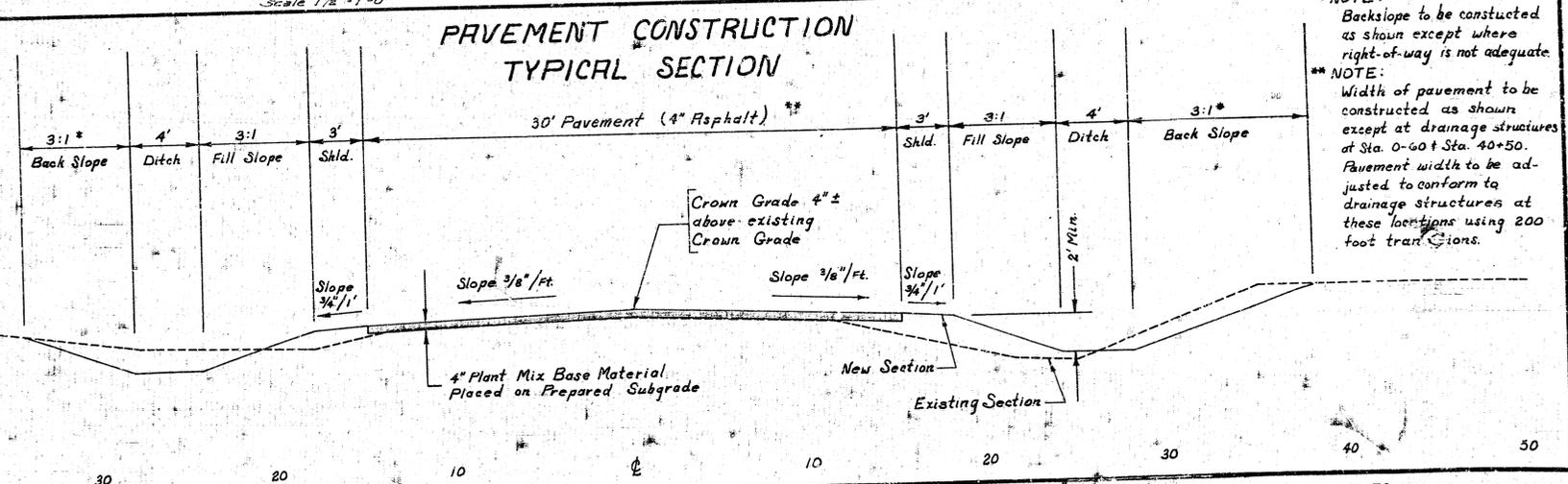


EXTENSION TO  
SANITARY SEWER NO. 23  
PROJECT NO. DBKJ 573032



- GENERAL NOTES**
- ALL 8" AND 10" STUBS OR 8" AND 10" INLETS INTO MANHOLES SHALL BE PLACED SUCH THAT THE BELL END OF THE PIPE STUB IS FLUSH WITH THE OUTSIDE DIAMETER OF THE MANHOLE.
  - REINFORCED CONCRETE PIPE FURNISHED FOR THIS PROJECT SHALL BE LINED WITH PLASTIC EXCEPT FOR THE BOTTOM SEGMENT SUBTENDED BY A 60° ANGLE. PLASTIC LINING SHALL BE AMER-PLATE T-LOCK AS MANUFACTURED BY AMERSON CORPORATION, LOK RIB KOROSEAL AS MANUFACTURED BY B. F. GOODRICH, OR OTHER APPROVED EQUAL.
  - SAND BACKFILLING AND OTHER RELATED BACKFILL WORK THAT IS NORMALLY PAID FOR ON A TONNAGE BASIS SHALL BE MEASURED AND PAID FOR BY THE LINEAL FOOT.
  - SHOP DRAWINGS OF STRUCTURAL TEE MANHOLES FOR THIS PROJECT SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
  - 
  - THE USE OF WYO-BOND BENTONITE AS MANUFACTURED BY ASCHER DANIELS MILLS AND COMPANY, OR AN APPROVED EQUAL, WILL BE REQUIRED AS A MIXTURE WITH THE BACKFILL MATERIAL AT THE LOCATION OF ALL BRICK MANHOLES. THE AMOUNT OF BENTONITE REQUIRED SHALL RANGE BETWEEN 40 TO 80 POUNDS PER MANHOLE LOCATION AS DIRECTED BY THE ENGINEER. NO DIRECT PAYMENT SHALL BE MADE FOR THIS AND SUCH COST SHALL BE INCLUDED IN THE PRICE BID FOR BRICK MANHOLES.
  - THE OUTSIDE SURFACES OF ALL BRICK MANHOLES AND PRECAST CONCRETE RISERS SHALL BE COATED WITH A JUMP-PROOFING MATERIAL SUCH AS BITUMASTIC SUPER SERVICE BLACK OR BITUMASTIC NO. 50 AND PRIMER, AS MANUFACTURED BY KOPPERS CHEMICALS AND COATINGS OR AN APPROVED EQUAL. THE COST FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE MANHOLE.
  - FURNISHING AND INSTALLING 8" AND 10" STUBS OR 8" AND 10" INLETS AT LOCATIONS SHOWN BY PLANS WILL NOT BE PAID FOR DIRECTLY. THE COST OF FURNISHING ALL 8" AND 10" STUBS OR 8" AND 10" INLETS SHALL BE INCLUDED IN THE PRICE BID FOR THE MANHOLE.
  - REINFORCED CONCRETE PIPE SHALL BE CLASS IV OR V AS SHOWN BY PLANS. REINFORCED CONCRETE RISERS FOR STRUCTURAL TEE MANHOLES SHALL BE CLASS III. THE ABSORPTION OF REINFORCED CONCRETE PIPE AND RISERS SHALL NOT EXCEED 7.2 PERCENT.
  - THE ENDS OF ALL REINFORCED CONCRETE PIPE INSTALLED IN BRICK MANHOLES SHALL BE PROTECTED BY PLASTIC LINING AS APPROVED BY THE ENGINEER.
  - SAND BACKFILL SHALL BE PLACED AND VIBRATED IN 6 FOOT LIFTS.
  - FIELD ENGINEER TO TAKE TIES TO ALL IRONS AND REPLACE THOSE THAT ARE DISTURBED.
  - ALL 8" AND 10" STUBS OR 8" AND 10" INLETS AT MANHOLE LOCATIONS SHALL BE PLUGGED WITH TEMPORARY PLUGS. THIS WORK WILL NOT BE PAID FOR DIRECTLY AND THE COST FOR THIS WORK SHALL BE INCLUDED IN THE PRICE BID FOR THE MANHOLES.
  - NOTE 14: GRANULAR EMBEDMENT MATERIAL SIX (6) INCHES IN DEPTH SHALL BE REQUIRED FOR CLAY PIPE OF ALL SIZES WHERE CONCRETE CRADLE IS NOT SPECIFIED. THE COST OF THIS GRANULAR EMBEDMENT SHALL BE INCLUDED IN THE PRICE BID PER LINEAL FOOT OF PIPE ALL SIZES.
  - NOTE 15: SIX (6) INCH EMBEDMENT MATERIAL REQUIRED FOR REINFORCED CONCRETE PIPE SHALL BE INCLUDED IN PRICE BID PER LINEAL FOOT OF PIPE ALL SIZES.

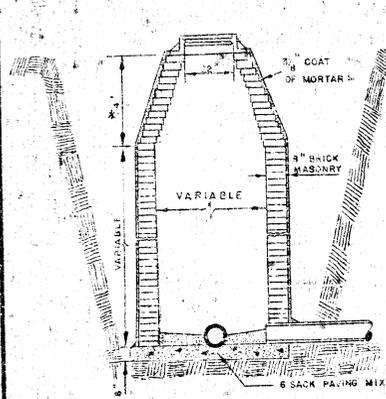
**NOTE:**  
Grading of ditch & shoulder shall be paid for at the price bid per lineal foot of ditch & shoulder along centerline of the pavement, which price shall include all cost for constructing the ditch and shoulder on both sides of the pavement. Contractor to work around existing utilities.



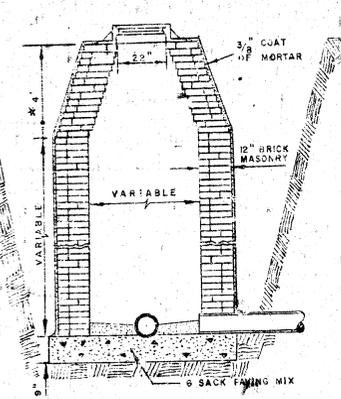
**NOTE:**  
Backslope to be constructed as shown except where right-of-way is not adequate.

**NOTE:**  
Width of pavement to be constructed as shown except at drainage structures at Sta. 0+60 to Sta. 40+50. Pavement width to be adjusted to conform to drainage structures at these locations using 200 foot transitions.

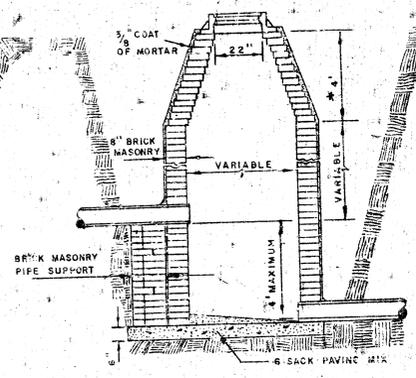
EXTENSION TO  
SANITARY SEWER NO. 23  
PROJECT NO. DBKJ 573032



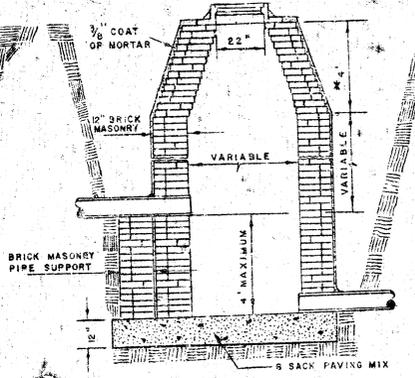
STANDARD MANHOLE TYPE "A"



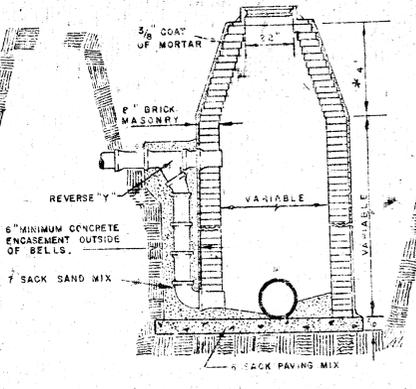
STANDARD MANHOLE TYPE "B"



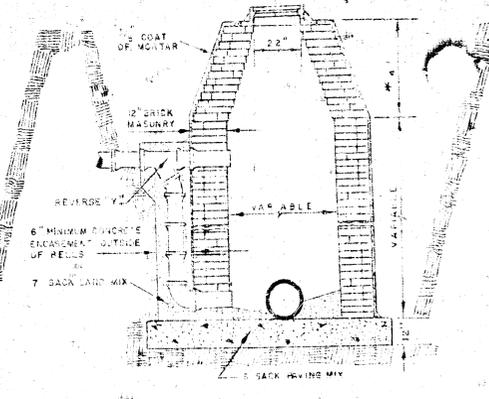
DROP MANHOLE TYPE "A"



DROP MANHOLE TYPE "B"

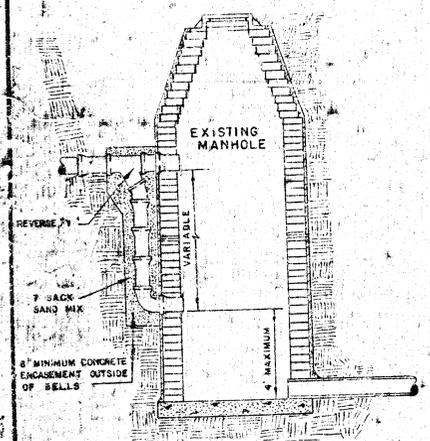


OUTSIDE DROP MANHOLE TYPE "A"

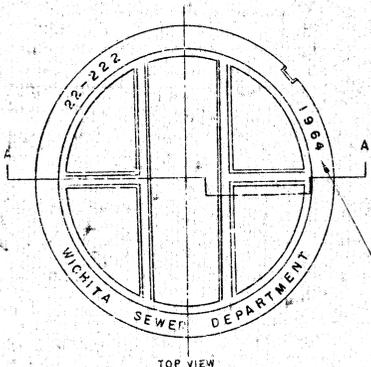


OUTSIDE DROP MANHOLE TYPE "B"

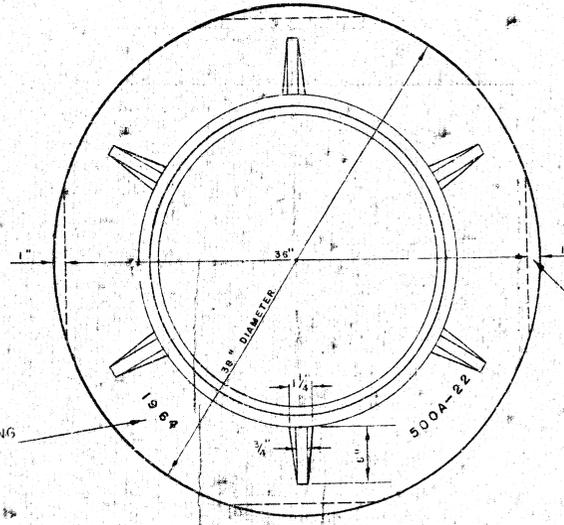
\* DRAW = 6' ON 5' DIA. M.H.



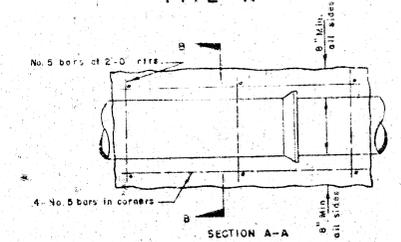
DETAIL OF DROP STACK FOR EXISTING MANHOLES IN GROUND WATER



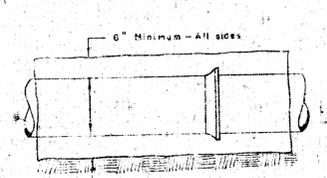
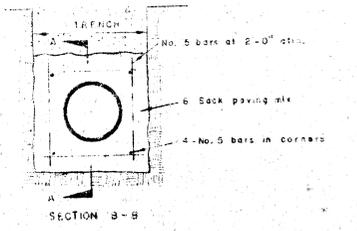
MANHOLE COVER WEIGHT 110 lbs.



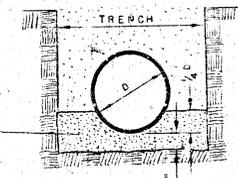
MANHOLE RING WEIGHT 355 lbs.



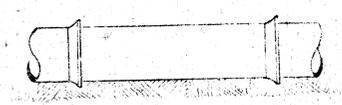
REINFORCED CONCRETE ENCASEMENT FOR STRENGTH



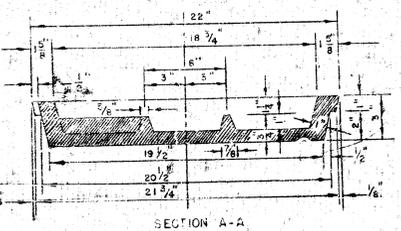
CONCRETE ENCASEMENT FOR COVER



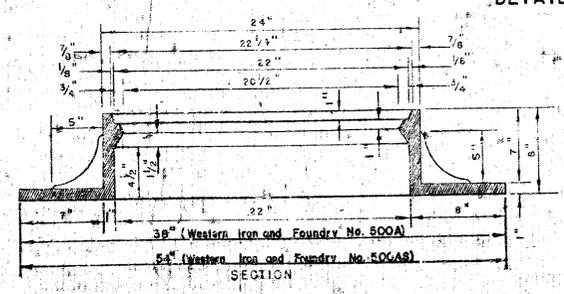
DETAIL OF CONCRETE CRADLE



ORDINARY BEDDING METHOD FOR CLAY PIPE

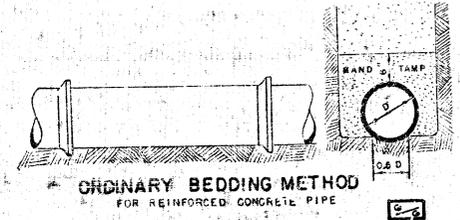


MANHOLE COVER



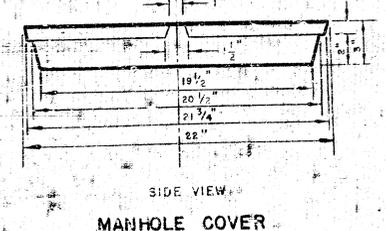
MANHOLE RING

OUTSIDE CIRCUMFERENCE OF COVER AND THE INNER FACE AND SEAT OF RING TO BE MACHINE FIT



ORDINARY BEDDING METHOD FOR REINFORCED CONCRETE PIPE

**MANHOLES**  
 THE CONCRETE USED FOR MORTAR IN MANHOLES SHALL CONTAIN 6 SACKS OF CEMENT PER CUBIC YARD.  
 STANDARD MANHOLES, AND DROP MANHOLES, REGARDLESS OF DIAMETER, SHALL BE BID AT ONE PRICE AS STANDARD MANHOLES.  
 SINGLE OR DOUBLE OUTSIDE DROP MANHOLES SHALL BE BID AT ONE PRICE AS OUTSIDE DROP MANHOLES.  
 ALL MANHOLES WITH PIPES LARGER THAN 24" SHALL BE 5' DIAMETER UNLESS OTHERWISE SPECIFIED ON PLAN, ALL M.H.'S WITH PIPES 24" & SMALLER SHALL BE 4' DIA.



MANHOLE COVER

DETAILS OF  
**SEWER APPURTENANCES**  
 ADOPTED AS STANDARD DESIGN  
 BY  
 ENGINEERING DIVISION  
 CITY OF WICHITA, KANSAS  
 R. W. LINN CITY ENGINEER  
 PROJ. NO. 1964 DBKI 573032