

LATERAL 213, SOUTHWEST INTERCEPTOR

WALNUT CREEK 2ND ADDITION

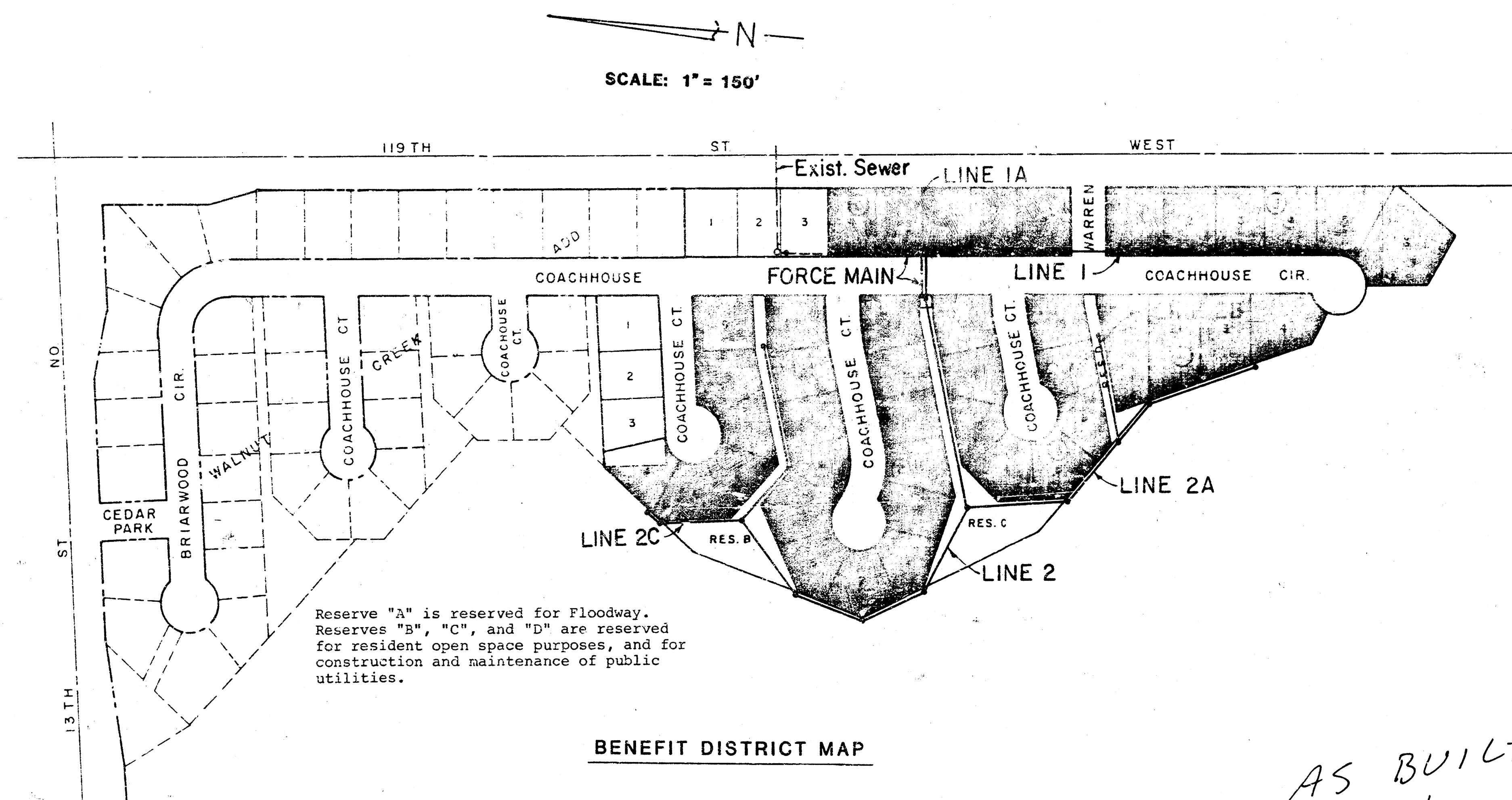
PROJECT NO. 468-76-245-81487-000-000-001

CITY OF WICHITA, KANSAS

MICHAEL E. LINDEBAK CITY ENGINEER

INDEX

1	Title and Benefit District Map
2-5	Plan and Profiles
6	Lift Station Site Plan
7-8	Lift Station Details
9	Plat of Walnut Creek 2nd Add.
10	Precast Manhole Detail



NOTES:

1. Contractor shall be responsible for preserving property irons. Any irons disturbed as a result of his operations shall be re-established at the contractor's expense. Any such work shall be performed by a licensed surveyor or professional engineer.
2. The contractor shall contact the utilities prior to any excavation to determine the location of existing or future underground utilities in the project area.
3. Construction of this project shall be coordinated with Water Main Extensions, proj. no. 440-76-245-88053-000-000-001, and Street Improvements, proj. no. 472-76-245-81489-000-000-001.
4. Compacted fill to "Existing" grade, as shown on the profiles, is to be placed by "others" prior to issuance of notice to proceed with this project. Any areas where existing grade does not provide sufficient pipe cover, contractor shall fill to a depth of 2.5' minimum over the top of sewer pipe. Such fill shall be subsidiary to L.F. of sewer pipe.

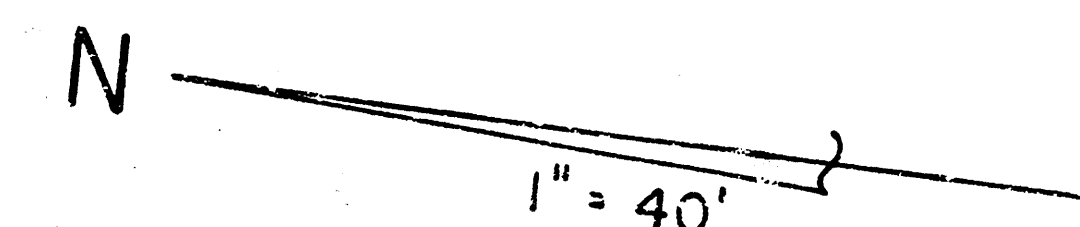
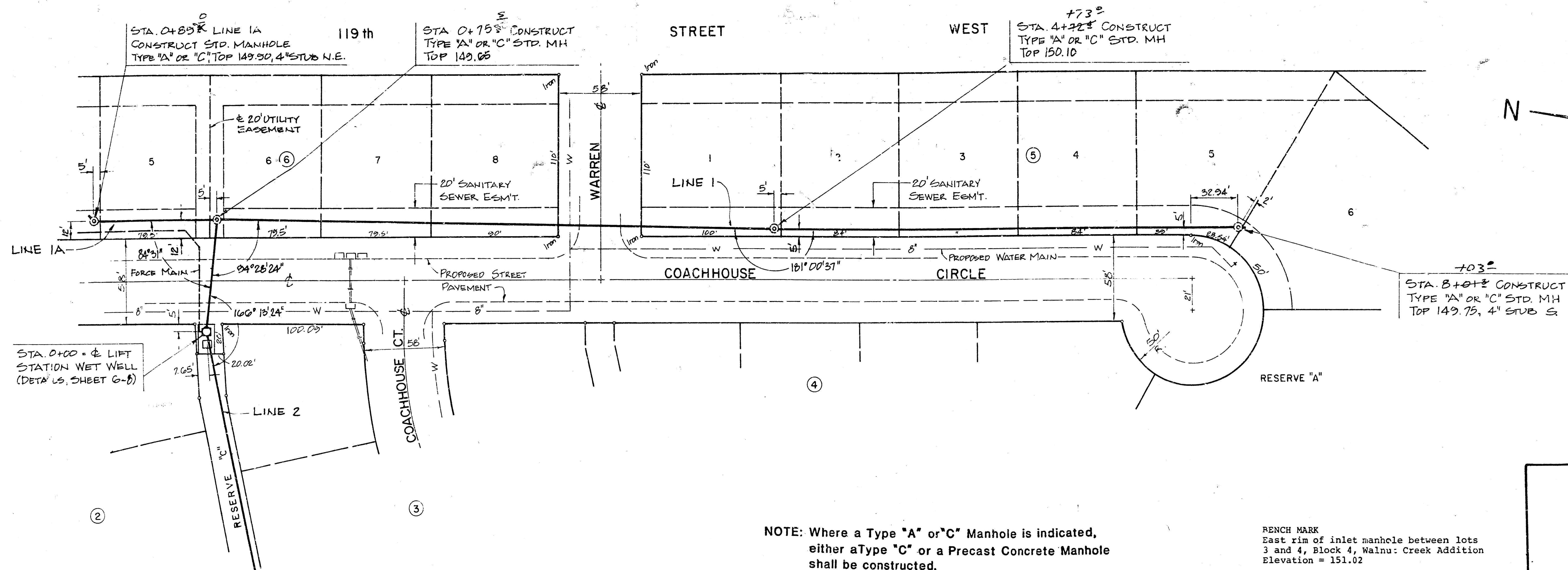
AS BUILT
RPL
11-86



MAY 1986

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NOTE: Where a Type "A" or "C" Manhole is indicated, either a Type "C" or a Precast Concrete Manhole shall be constructed.

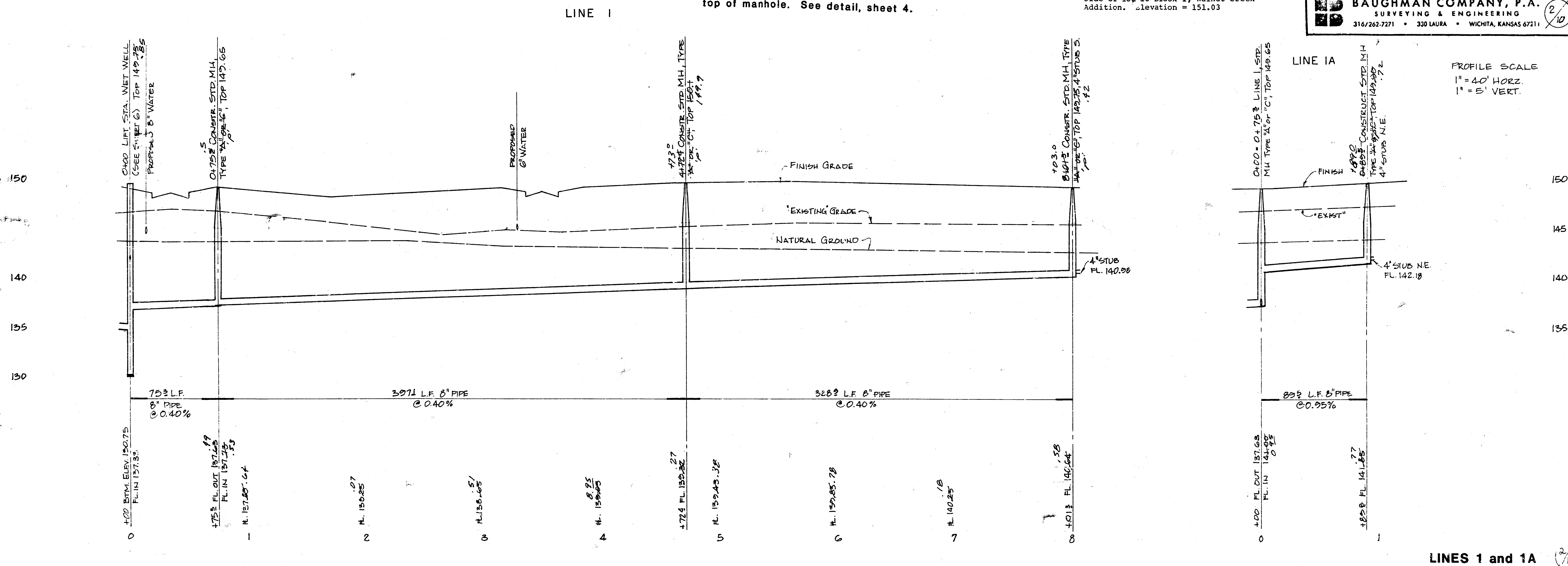
Area around manhole shall be filled to top of manhole. See detail, sheet 4.

BENCH MARK
East rim of inlet manhole between lots 3 and 4, Block 4, Walnut Creek Addition
Elevation = 151.02

BENCH MARK
"O" cut in top of curb near the south side of lot 16 Block 1, Walnut Creek Addition.
Elevation = 151.03

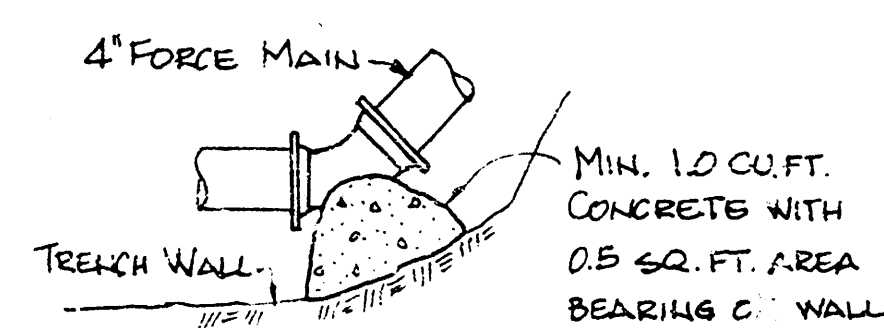
LATERAL 213, S.W.I.
WALNUT CREEK 2nd ADDITION
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 Project number:
 468-76-245-81487-000-000-1

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LINES 1 and 1A

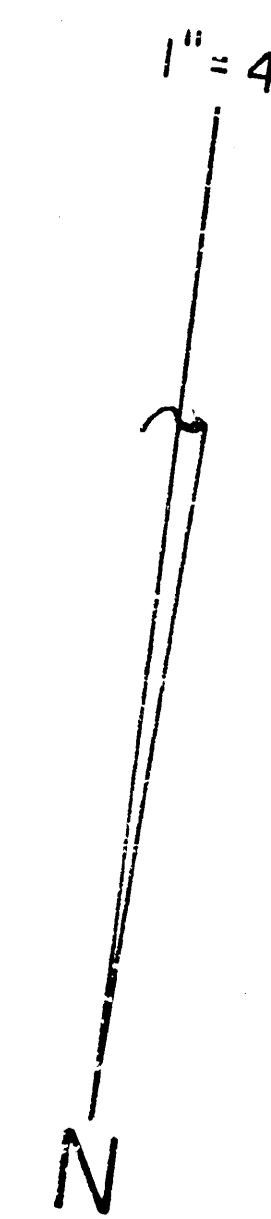
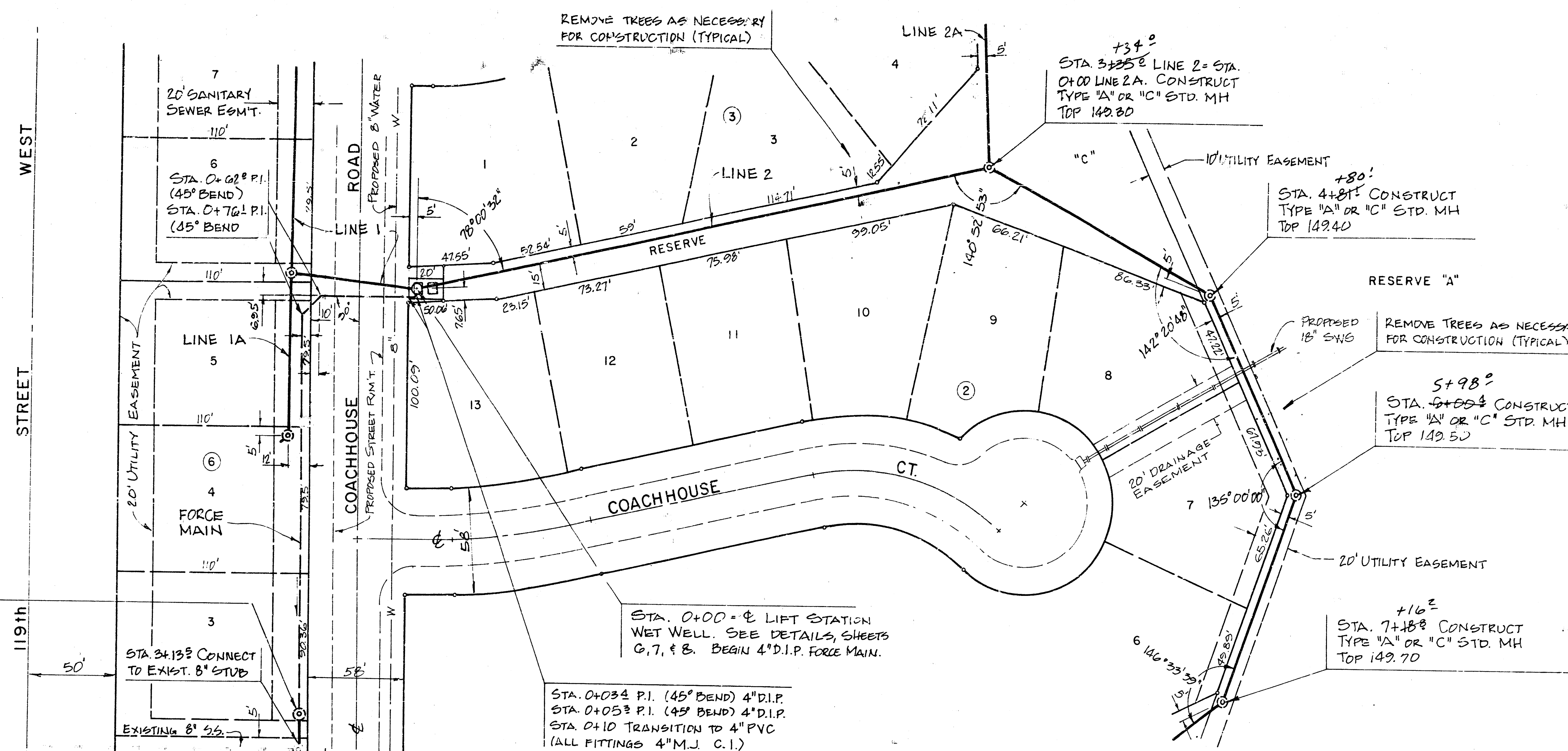
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THRUST BLOCK DETAIL

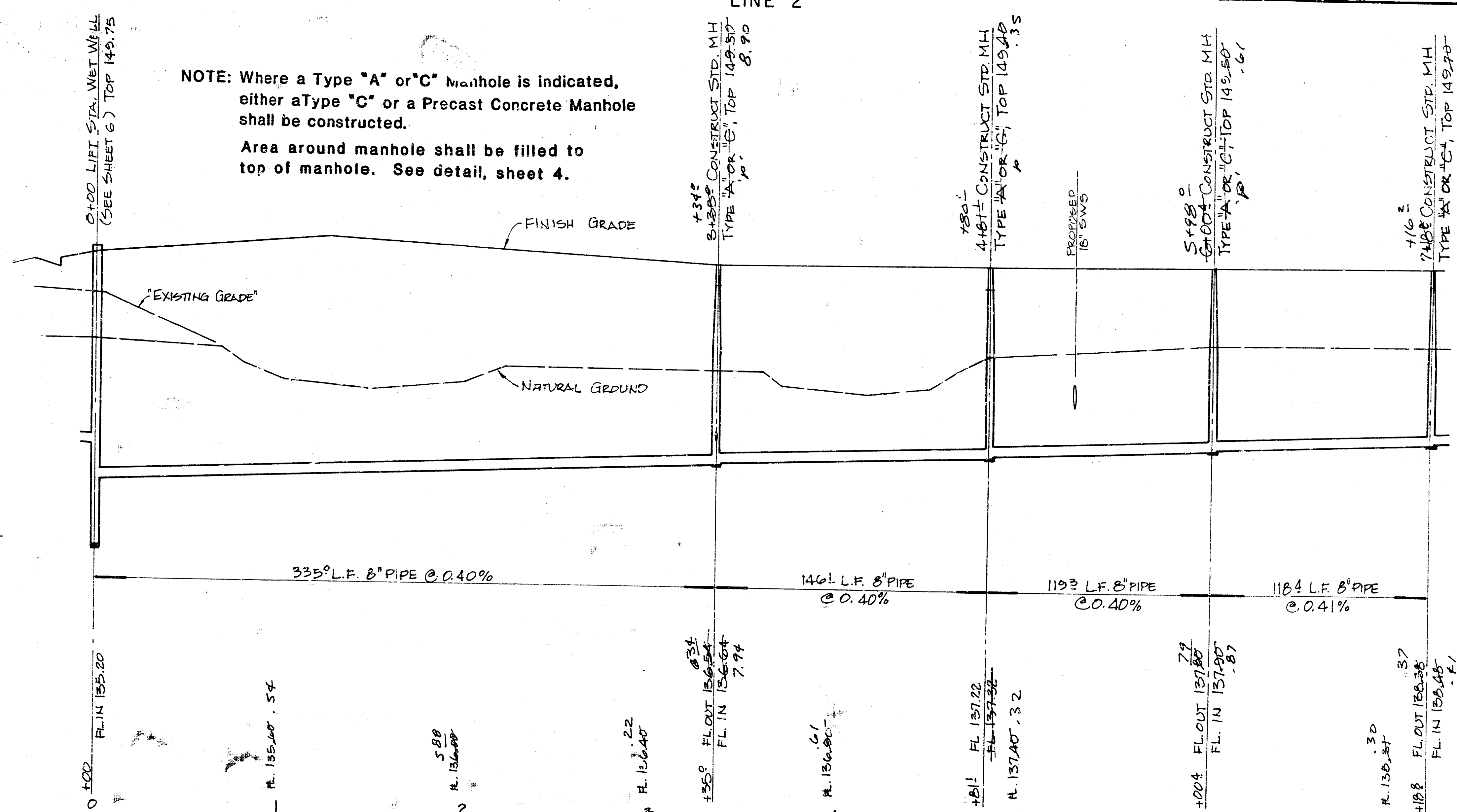
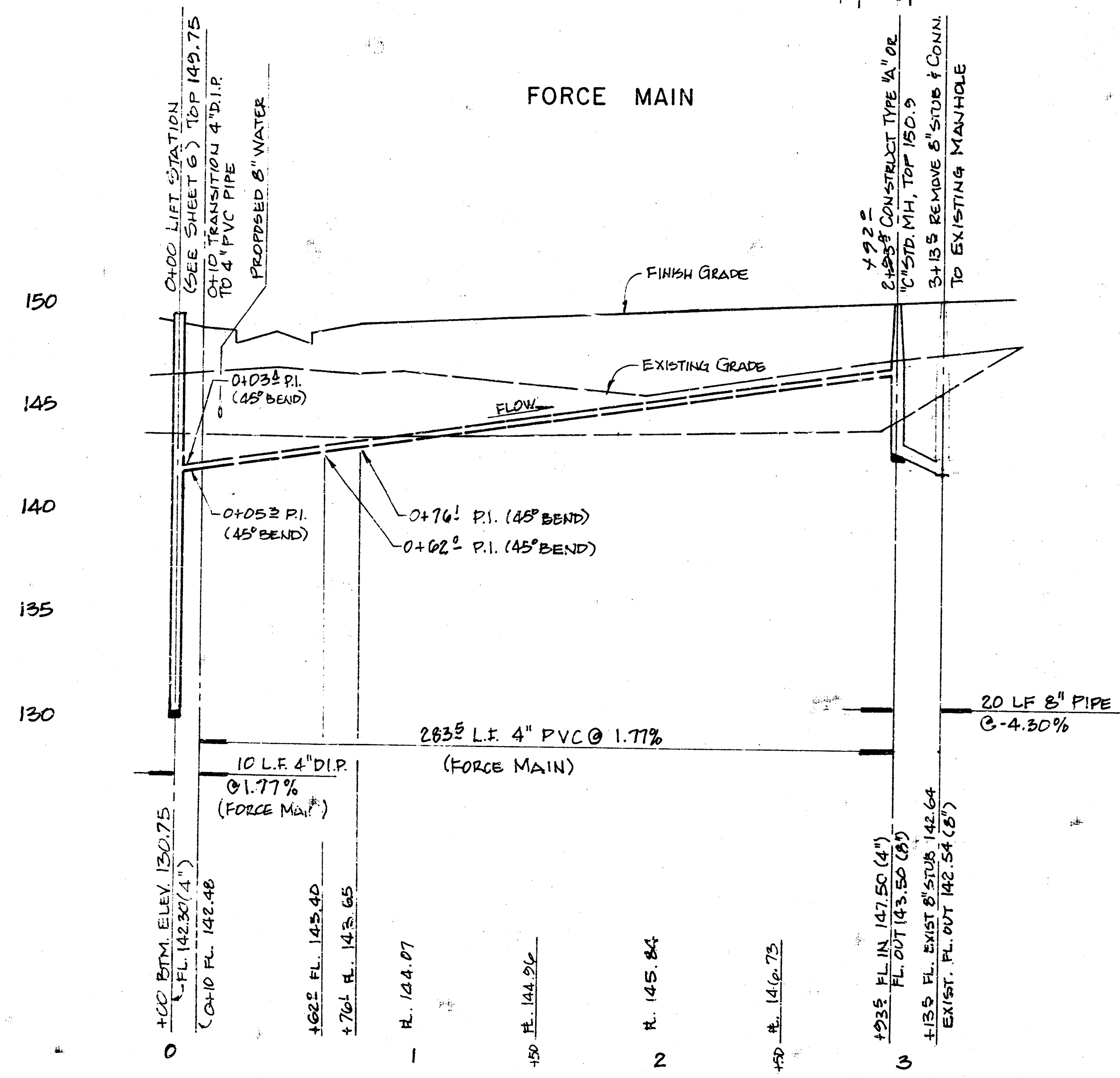
NOTE: THRUST BLOCK REQUIRED ON ALL FORCE MAIN BENDS.

(END FORCE MAIN)
STA. 2+00.0 CONSTRUCT
TYPE "A" OR "C" STD. MH
TOP 150.5



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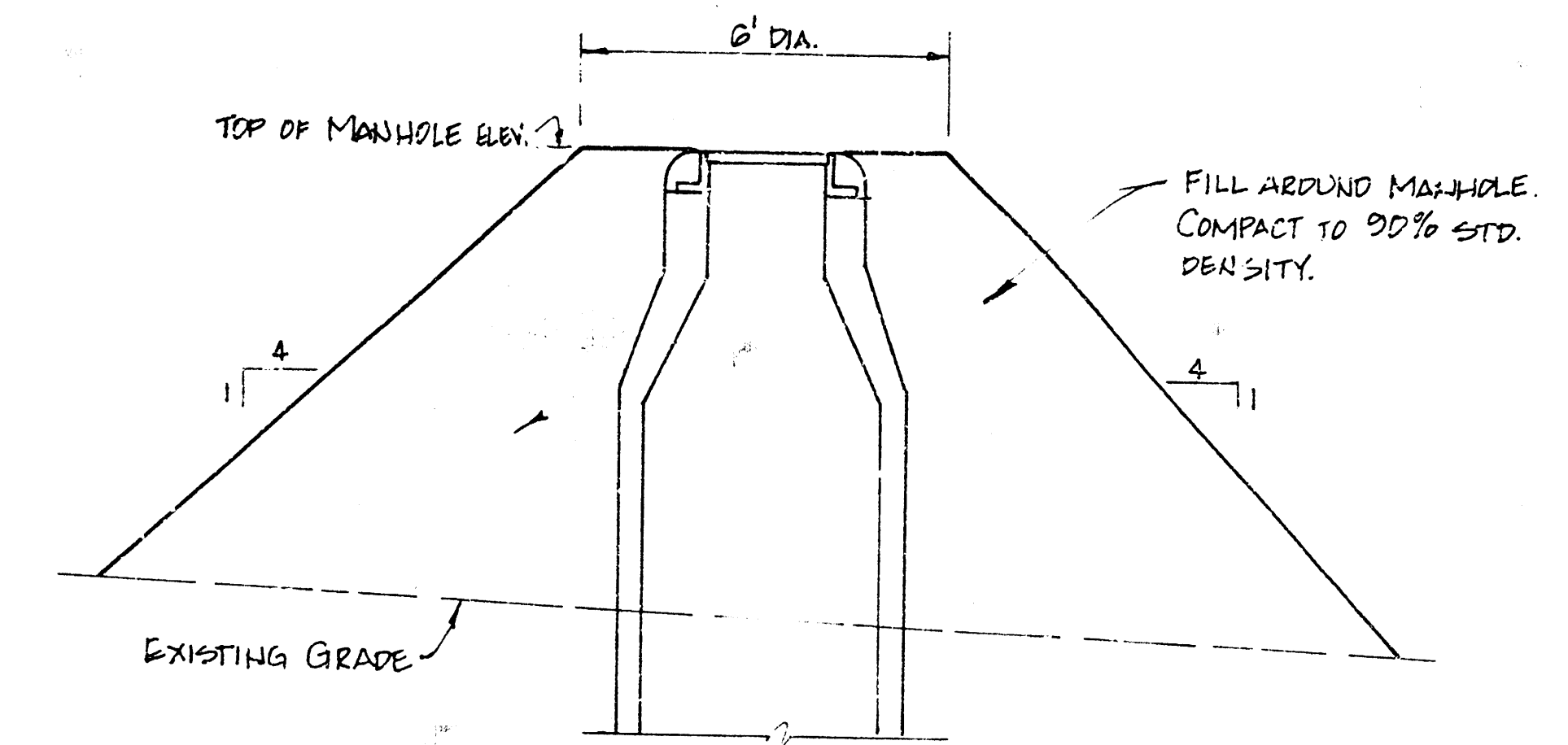
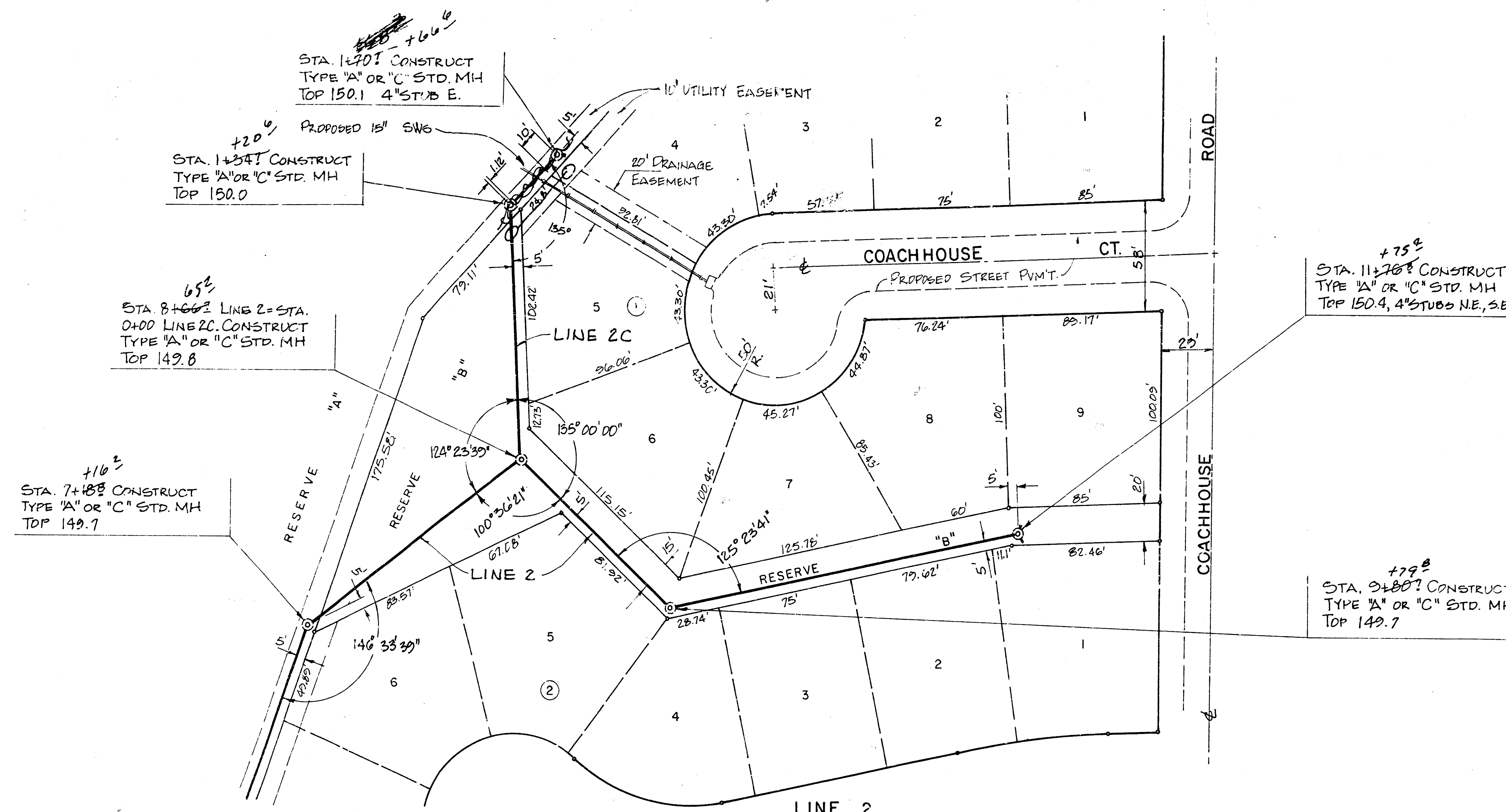
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NOTE: Where a Type "A" or "C" manhole is indicated, either a Type "C" or a Precast Concrete Manhole shall be constructed.
Area around manhole shall be filled to top of manhole. See detail, sheet 4.

FORCE MAIN and LINE 2

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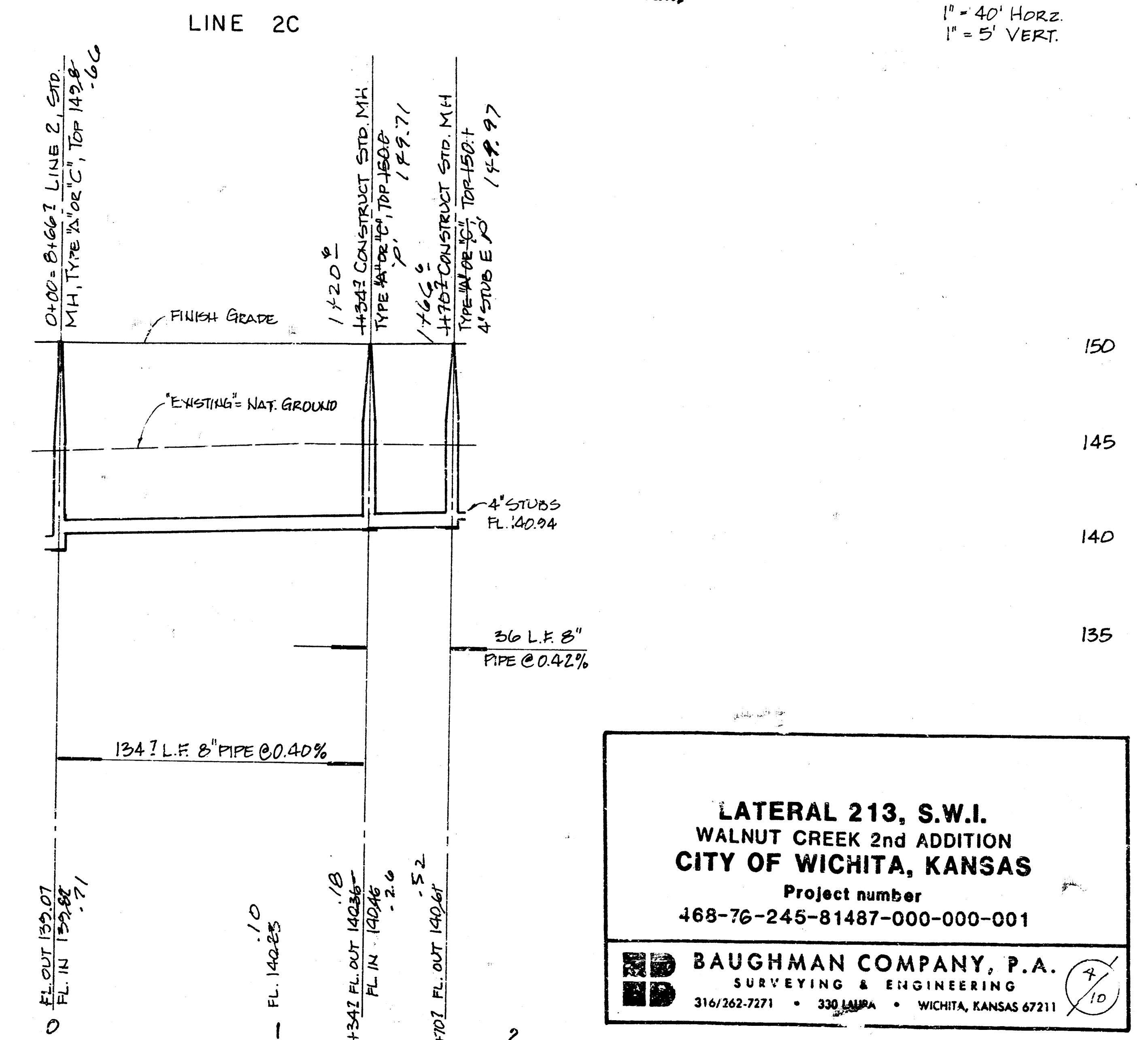
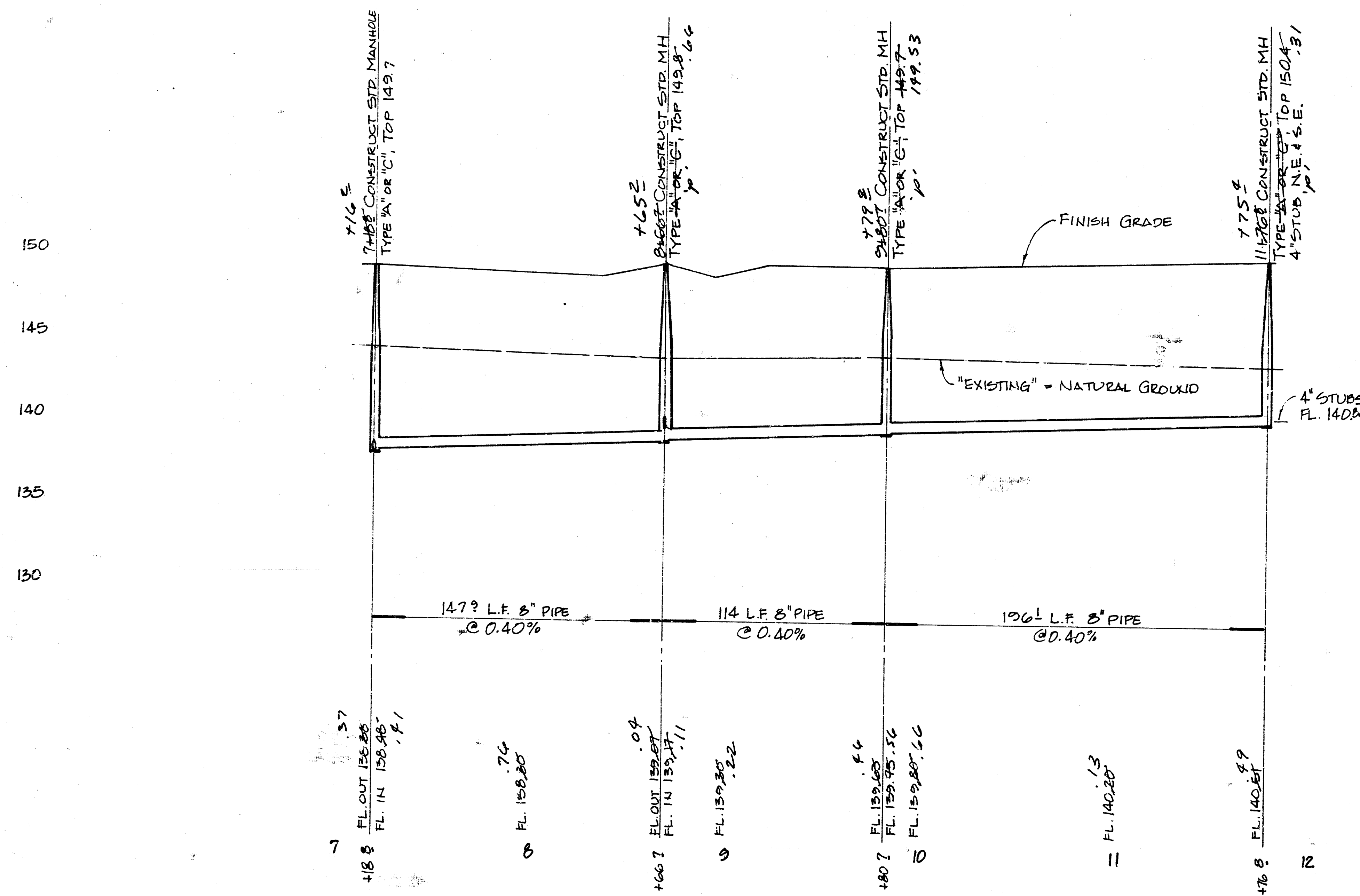


MINIMUM FILL REQUIREMENTS AROUND MANHOLE

NOTE: Where a Type "A" or "C" Manhole is indicated, either a Type "C" or a Precast Concrete Manhole shall be constructed.

Area around manhole shall be filled to top of manhole. See detail.

PROFILE SCALE
1" = 40' HORIZ.
1" = 5' VERT.

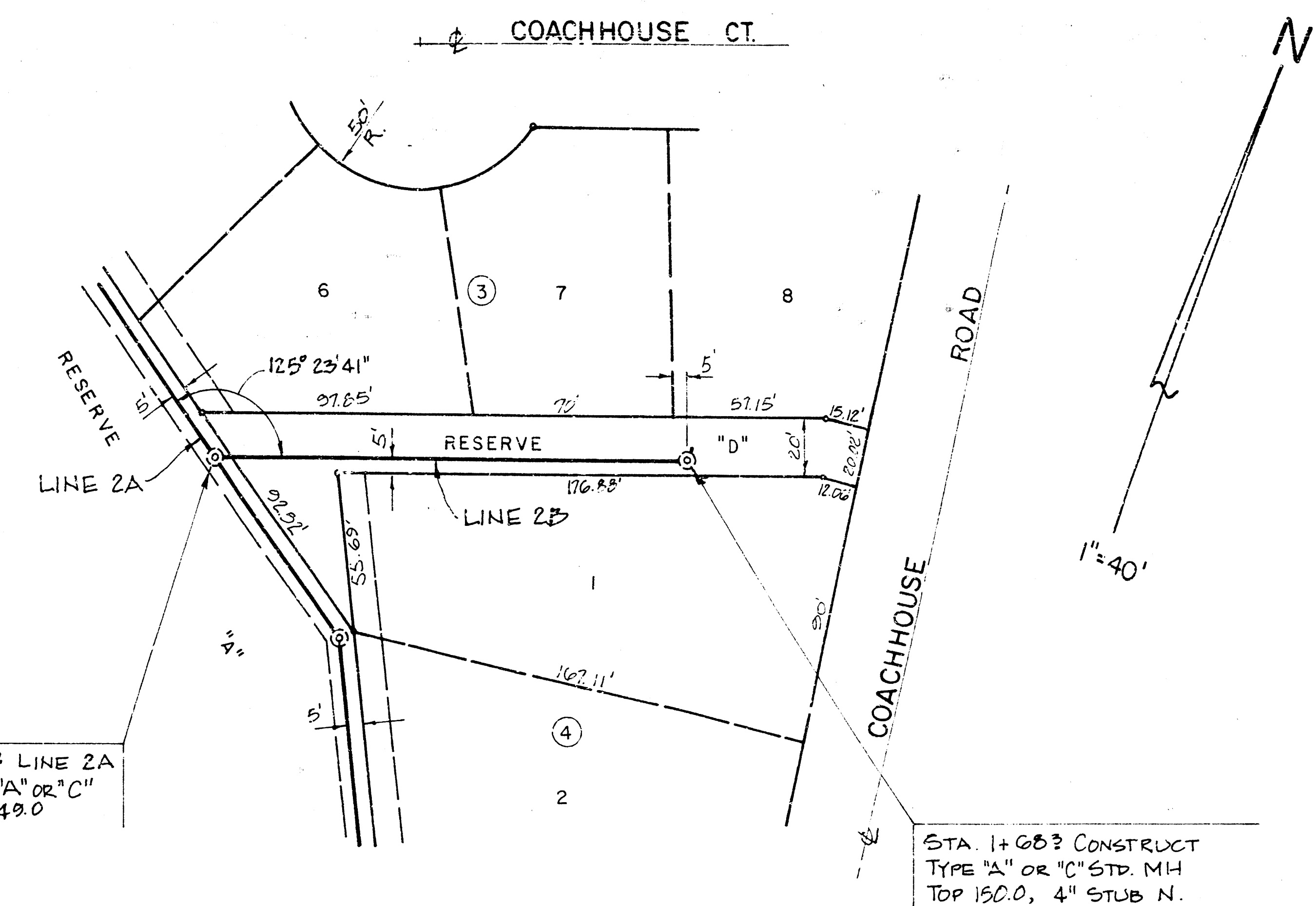
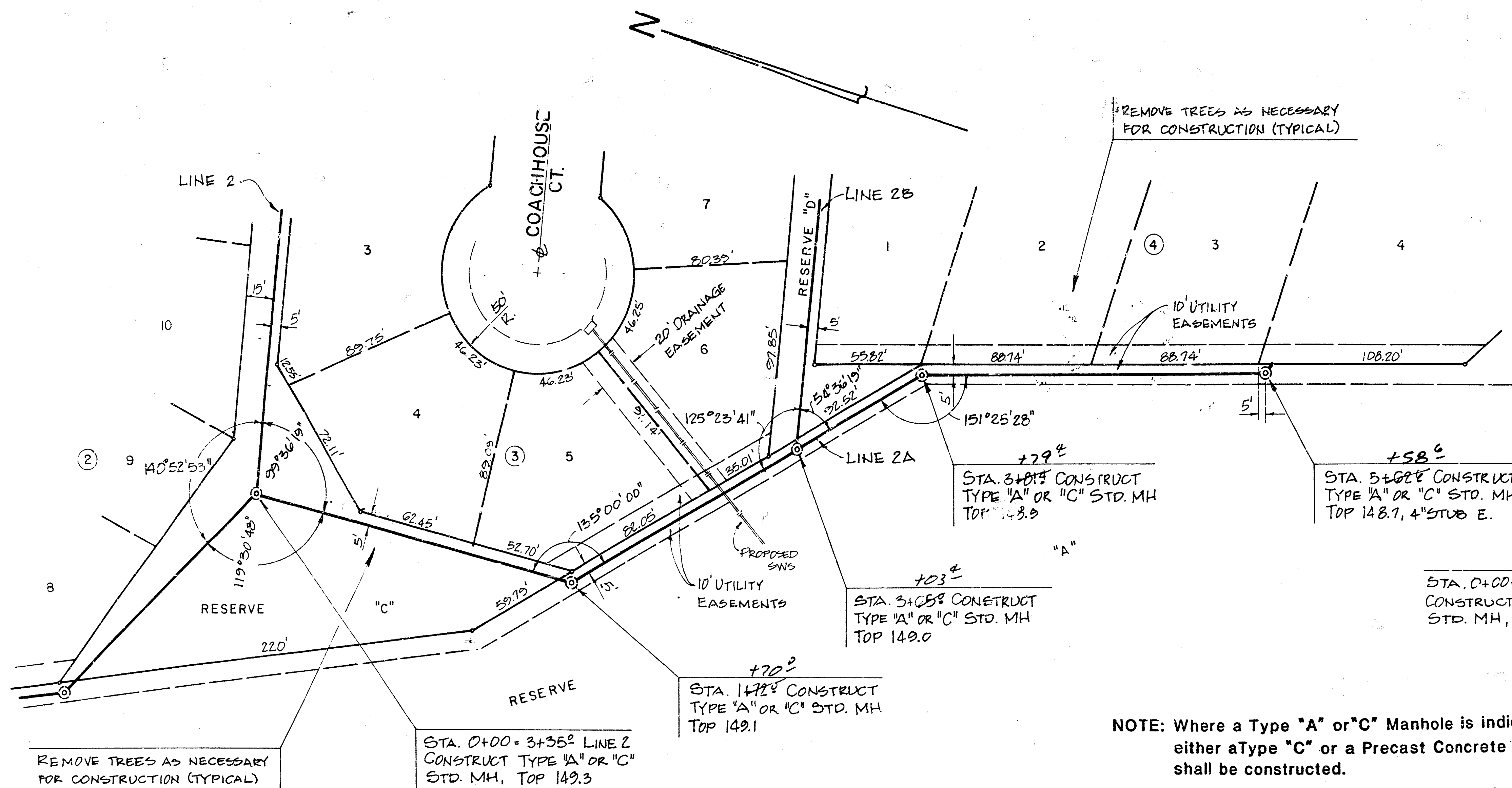


LINES 2 and 2C

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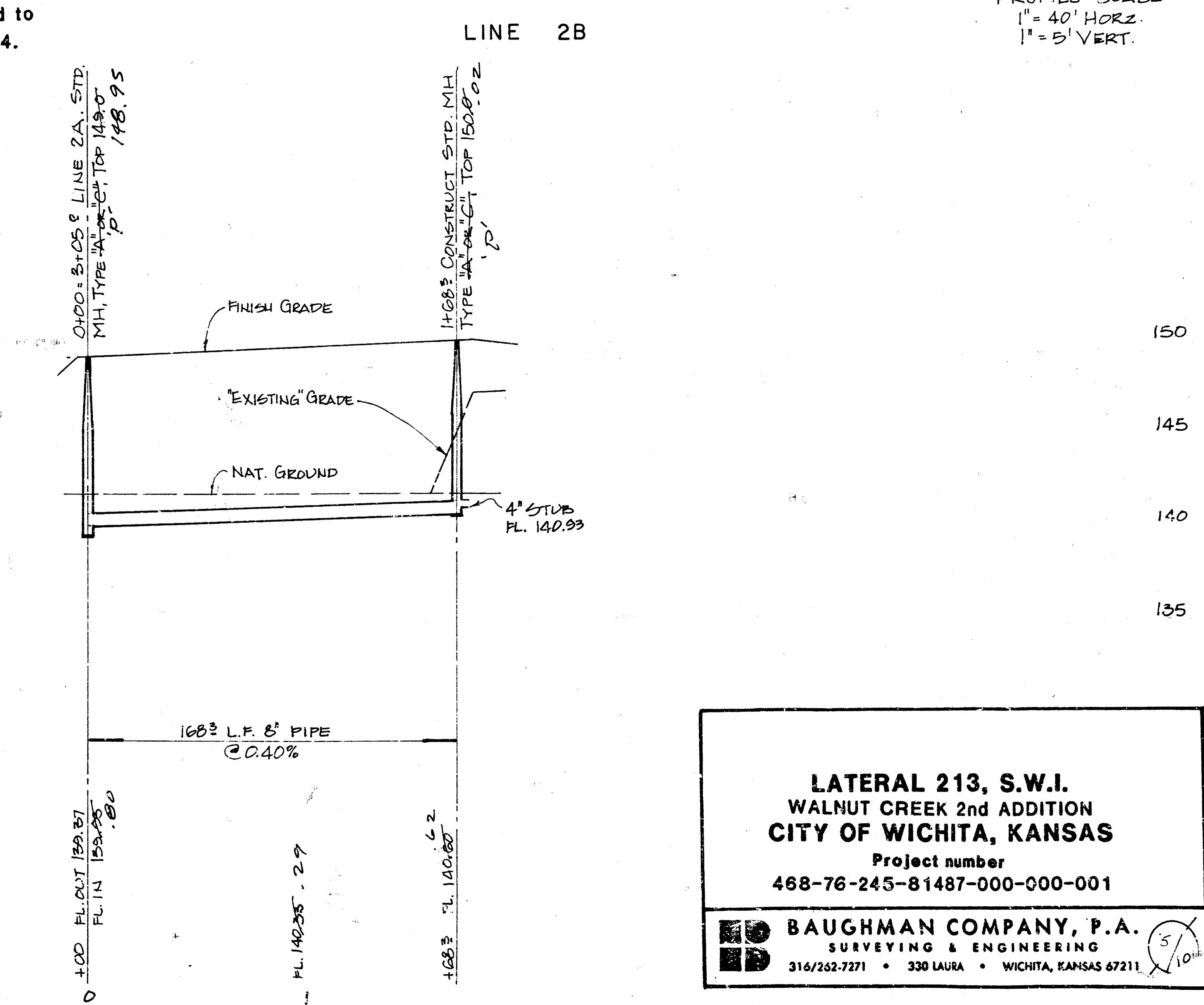
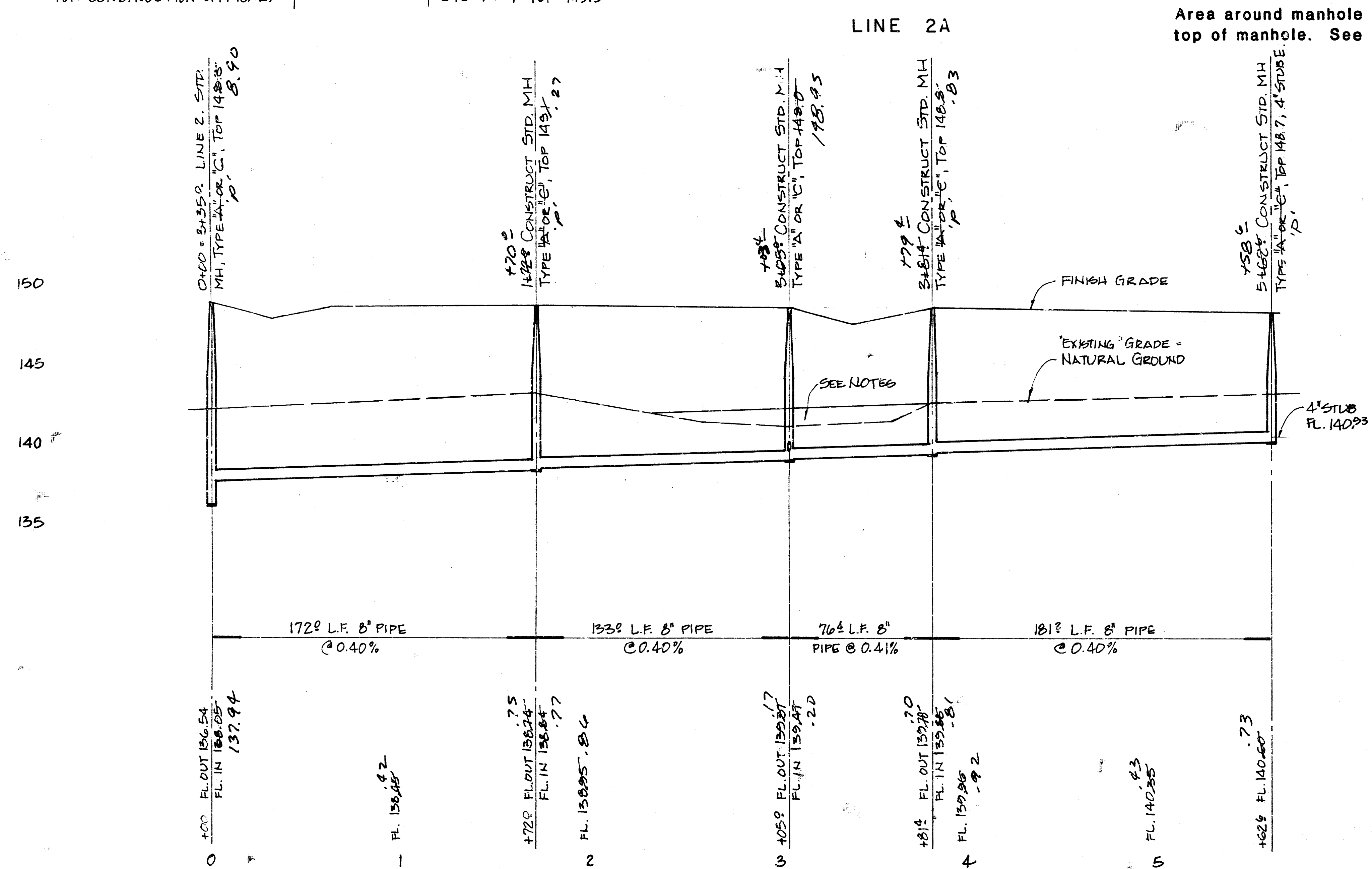
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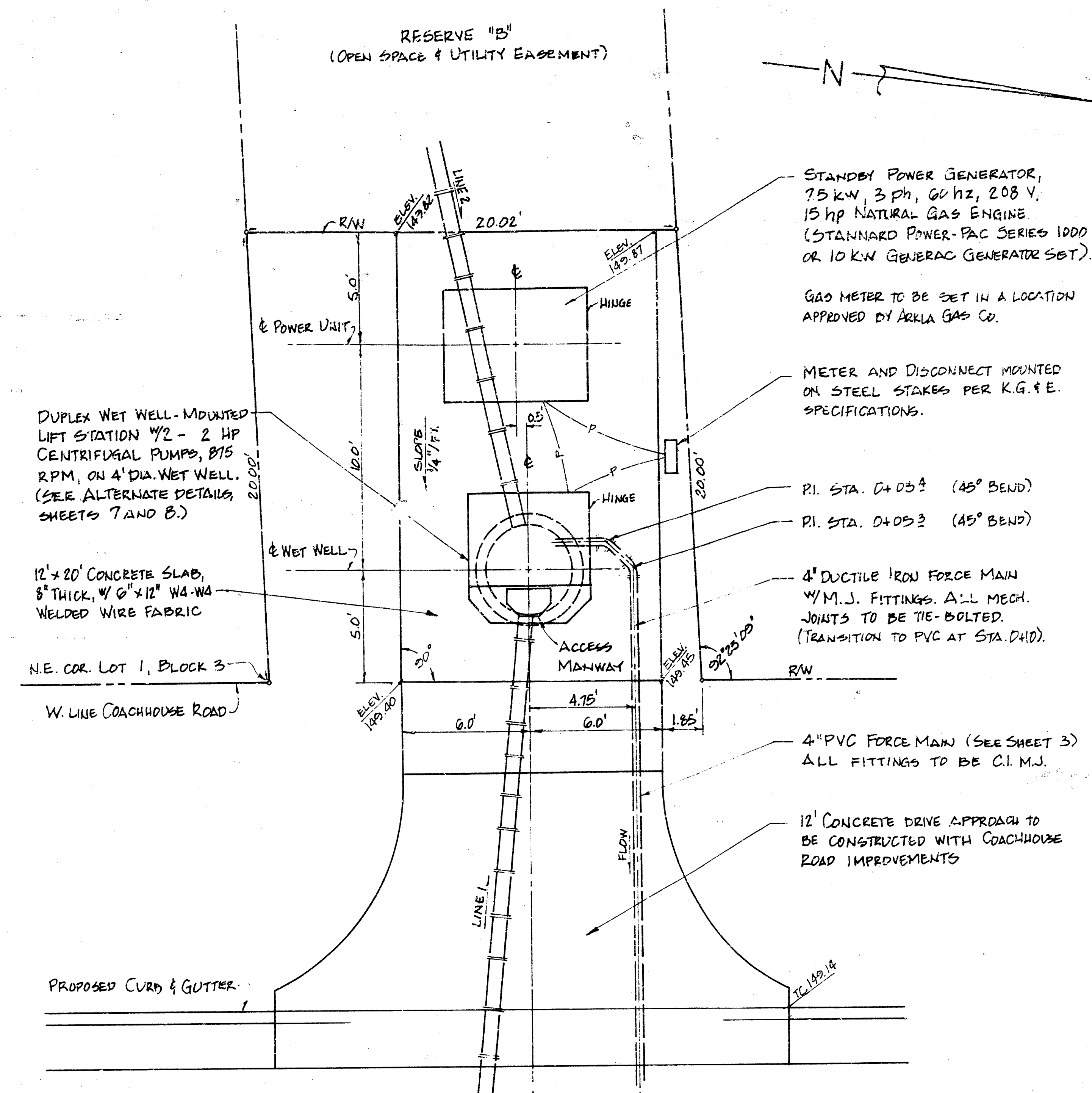
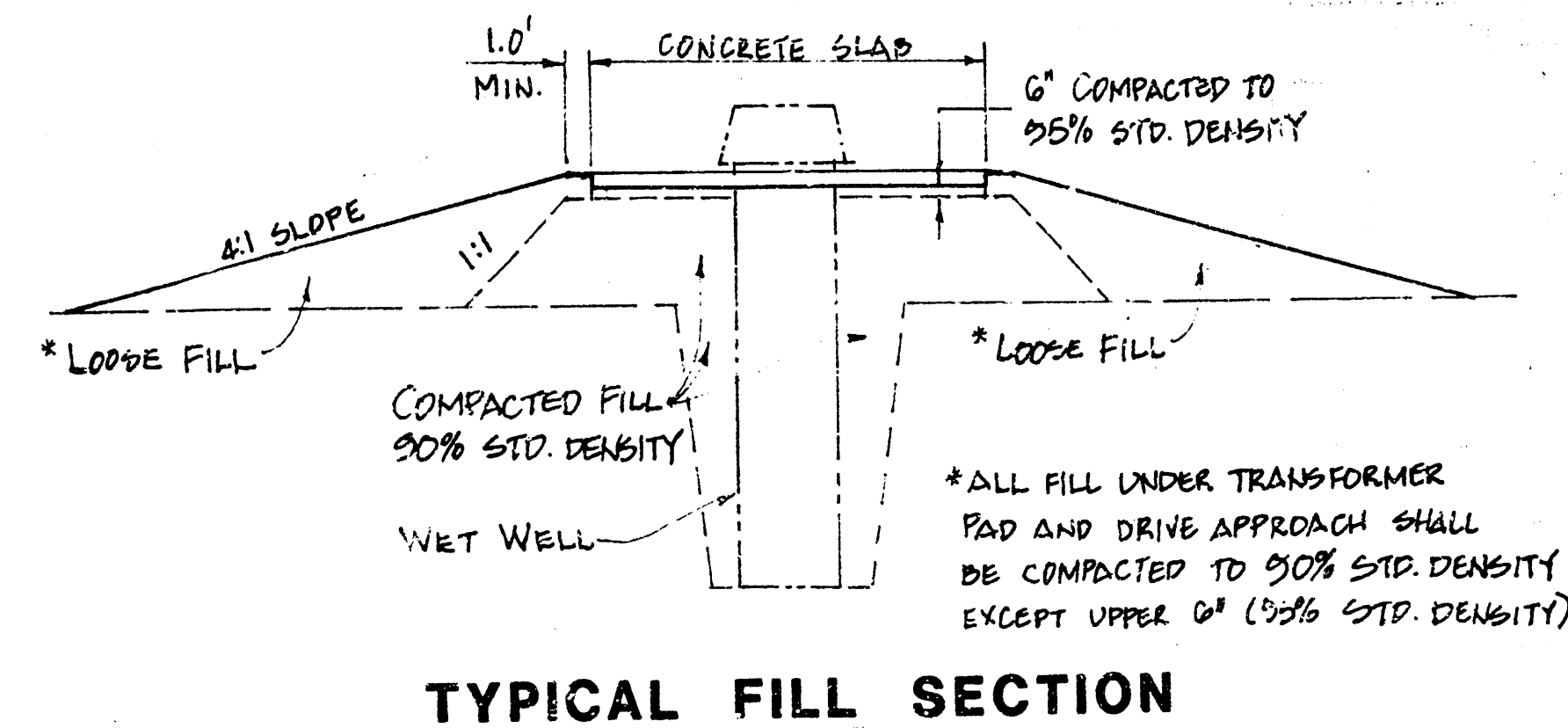


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LINES 2A and 2B

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LIFT STATION SITE PLAN
1" = 2'

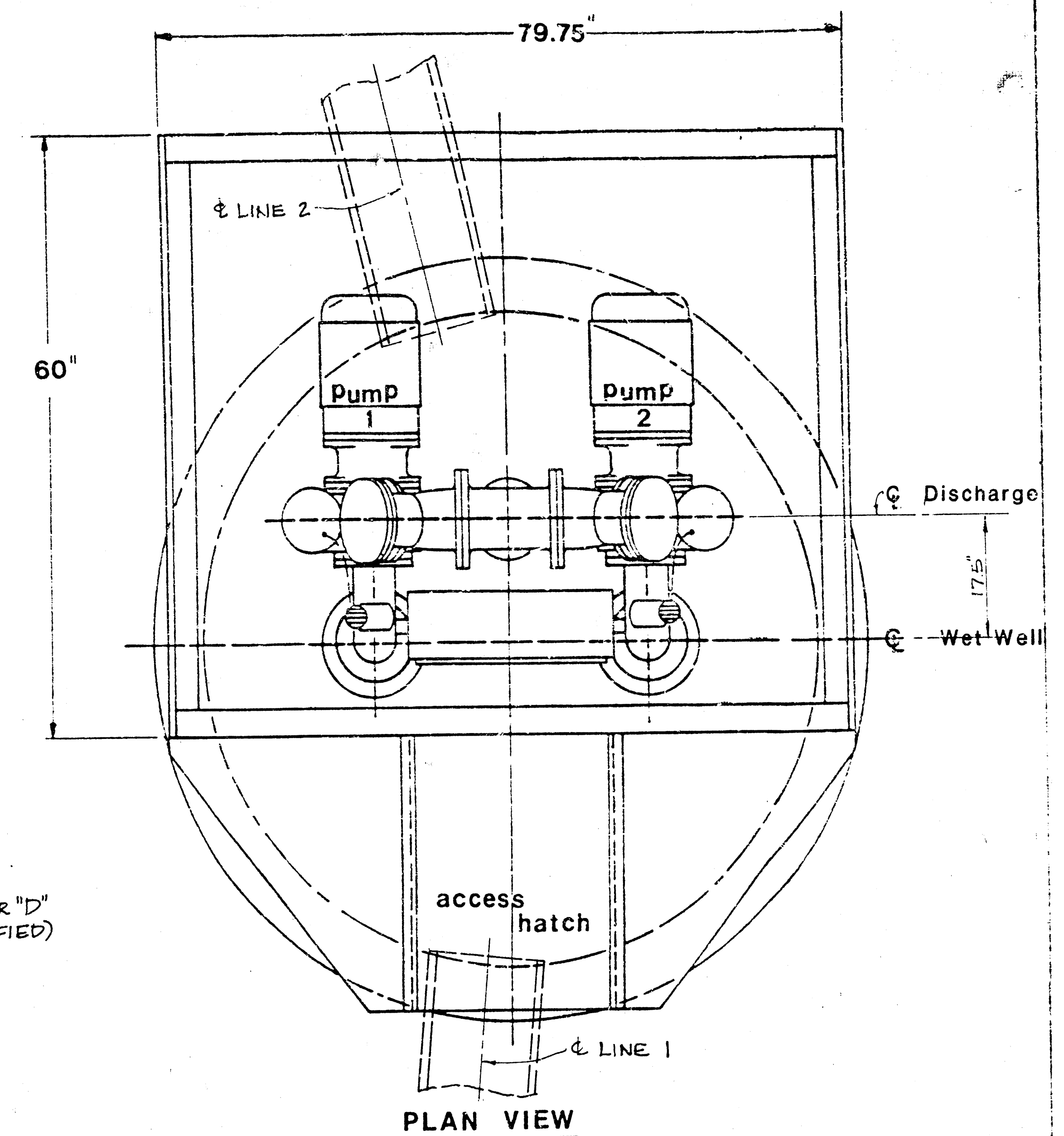
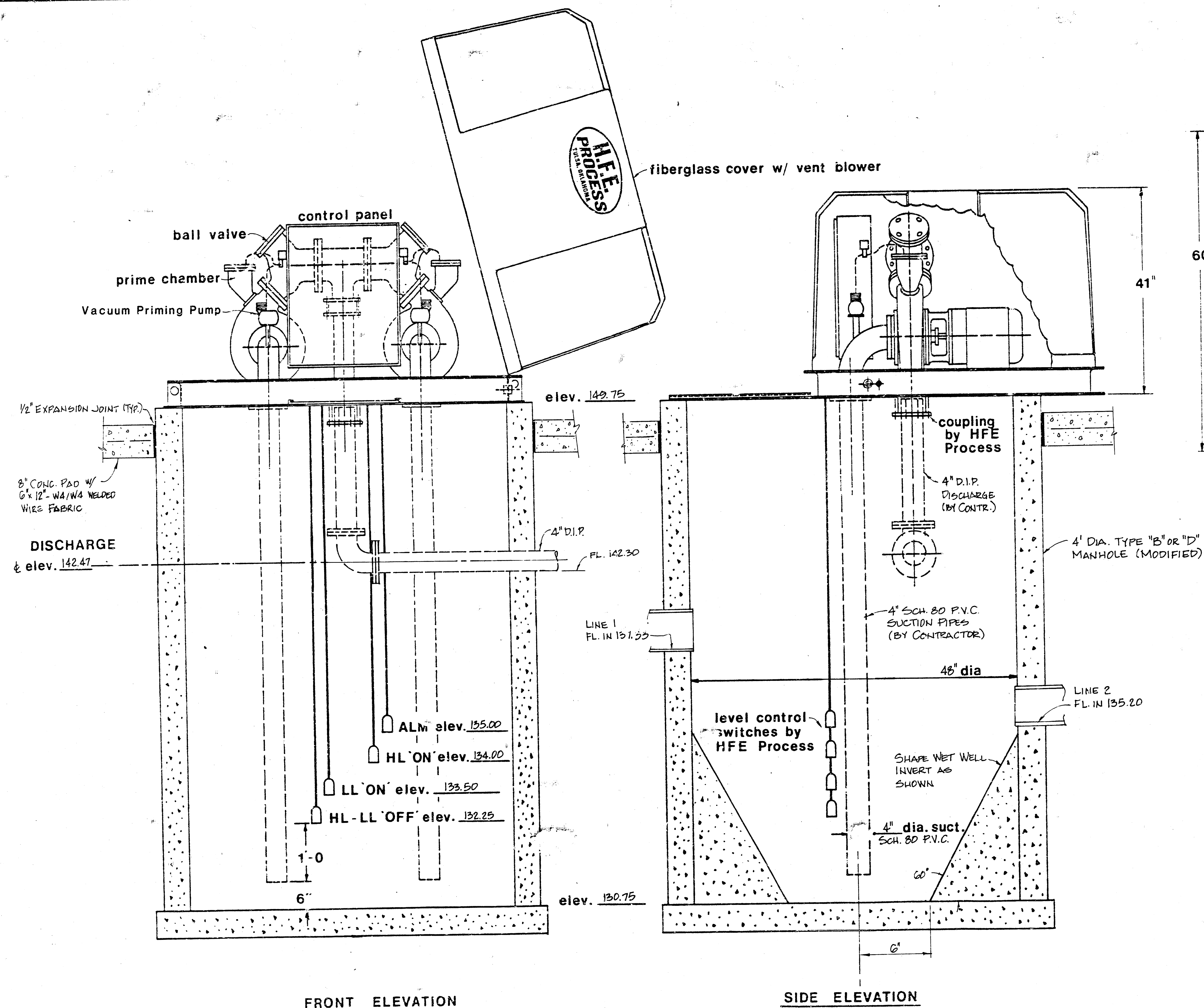
NOTES:

1. The lump sum price for furnishing and installing the lift station with standby power and miscellaneous appurtenances complete in place shall include all costs for furnishing and installing the lift station, wet well, and standby power module as indicated on the site plan, complete in place and in operation. Such lump sum bid shall include the cost of constructing and/or installing compacted subgrade, concrete pad, meter setting, disconnect switch, electrical conduit and wiring, electrical power supply, natural gas fuel supply, finished grading, and any other incidentals necessary to complete the work.
2. Contractor shall install meter setting and disconnect switch in the location indicated on the site plan, and shall construct a concrete pad for K.G.&E. transformer in a location approved by the Engineer. All electric service equipment shall conform to K.G.&E. requirements.
3. A 1 1/2" conduit shall be installed underground from the lift station to the power unit and from the power unit to the disconnect switch. A 3/4" conduit shall be installed underground from the lift station to the telephone system service location, for connection to alarm system.
4. A UL listed lightning arrestor shall be installed after the disconnect switch for voltage surge protection of the automatic transfer switch and all secondary wiring.
5. Concrete drive approach to lift station is to be constructed as part of Coach house Road pavement improvements. Contractor shall fill and compact area under lift station concrete pad to 90% std. density. Area surrounding pad shall be graded to meet existing ground at 4:1 maximum slope. (See Typical Fill Section.)
6. Contractor shall install or arrange installation of gas meter and service connection to standby power unit in a location approved by the Engineer. Meter setting and service equipment shall conform to Arkla Gas Company requirements.

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NOTES: 500 watt heater - std.
250 cfm vent fan - std.
1.5 & .75" service conn.

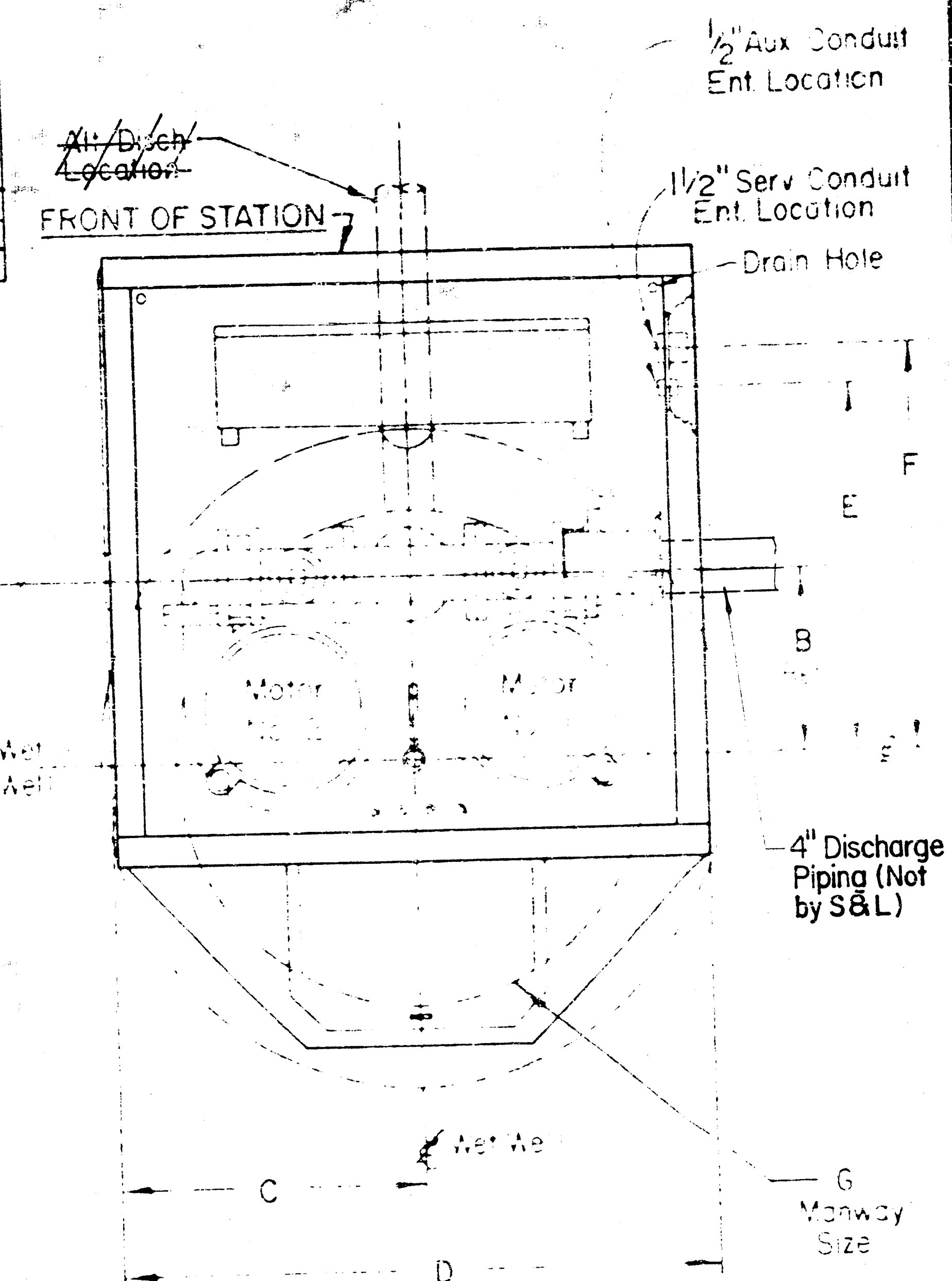
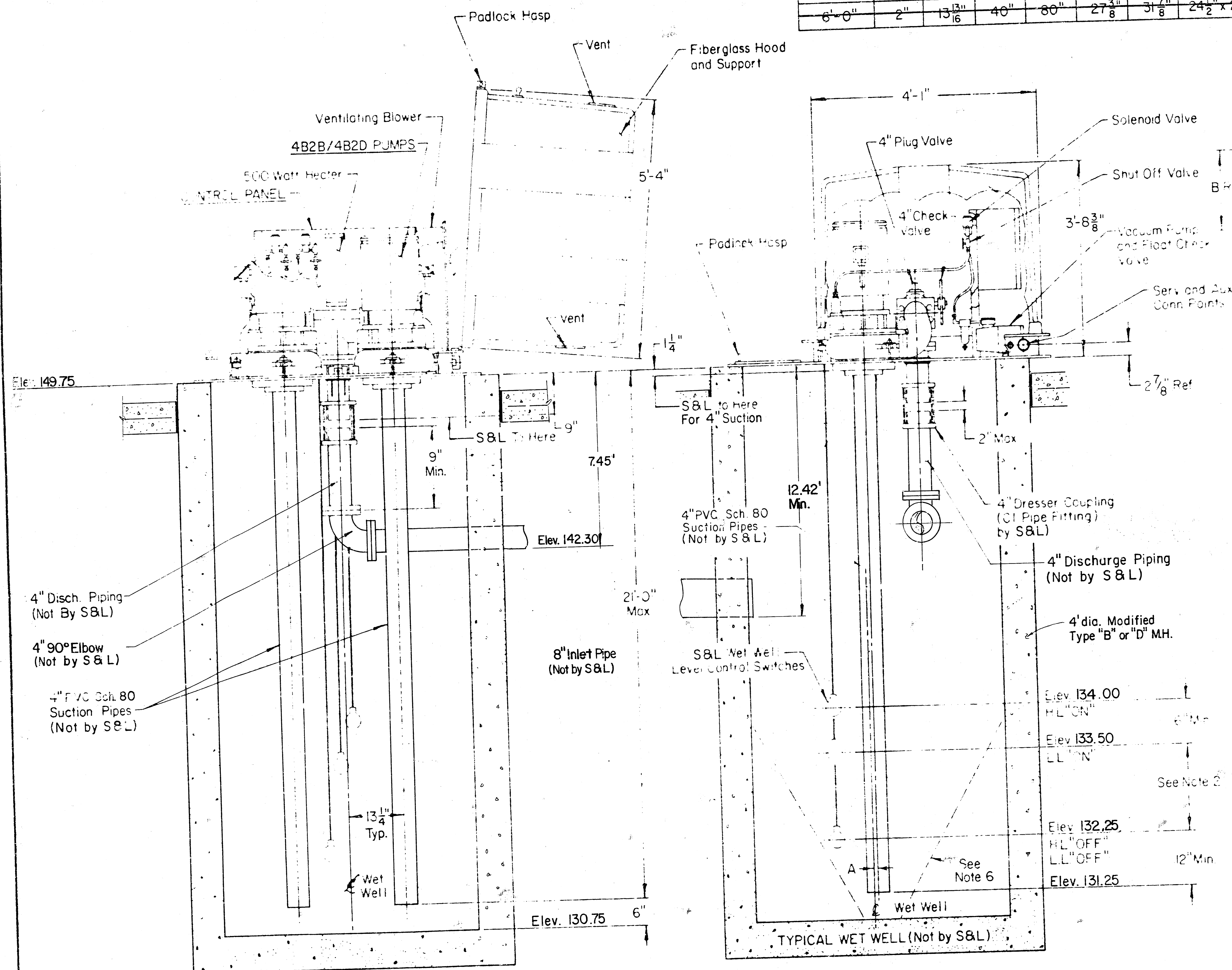
NO SCALE

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H.F.E. PROCESS
TULSA, OKLAHOMA
A HARDISON COMPANY - TULSA

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WET WELL DIAMETER	DIM. A	DIM. B	DIM. C	DIM. D	DIM. E	DIM. F	MANWAY G
4'-0"	4"	15 $\frac{13}{16}$ "	33"	66"	27 $\frac{7}{8}$ "	32 $\frac{3}{8}$ "	14" x 24"
5'-0"	8"	19 $\frac{13}{16}$ "	34"	68"	33 $\frac{3}{8}$ "	37 $\frac{7}{8}$ "	24 $\frac{1}{2}$ x 28"
6'-0"	2"	13 $\frac{13}{16}$ "	40"	80"	27 $\frac{3}{8}$ "	31 $\frac{7}{8}$ "	24 $\frac{1}{2}$ x 28"



NOTES:

- Maximum Capacity - 400 G.P.M.
- Volume in Gallons Between L.L. "ON" and L.L. "OFF" Should Equal Pumping Rate in G.P.M.
- If End of Discharge Line is Below Elevation of Discharge Line at Point of Leaving Wet Well, Consult Factory.
- If Discharge Line is Less than 200 Feet in Length a Check Valve May be Required - Consult Factory.
- Pump Motors - 20 H.P. Maximum.
- Provide 60° Slope in Wet Well - As Required.

Alternate "B"

Lat. 213, Southwest Interceptor
Proj. no. 468-76-245-81487-000-000-001

4B2B/4B2D PUMPS				87D196	
THE DESIGN AND DETAIL OF THIS DRAWING IS THE PROPERTY OF SMITH & LOVELESS, INC. AND IS NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF SMITH & LOVELESS, INC.				Smith & Loveless, Inc.	
DESIGNED BY	D. Fisher	2-79		WET WELL MOUNTED PUMP LIFT STA. - MODEL "S" 4" PIPING - Eq. 1-1	
ENGINEERED BY	M.E.W.	2-79			
CHECKED BY	C.V.	3-79			
SCALE	none			87D196	
DATE	N78-16	9			

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WICHITA, SEDGWICK COUNTY, KANSAS.

7-9-85
Date

Beaumont Company, P.A.
William L. Korber Surveyor
William L. Korber

Barbed Wire Associates, a Kansas General Partnership

Leonard E. Marotte
Larry E. Bottenberg

bearing $305^{\circ}00'36''E$, 897.06'
from the N.W. Cor., $E\frac{1}{2}$, NE $\frac{1}{4}$,
Sec. 13 Twp. 27S R-2-W

Bearing N 65°00'36"W, 140.5'
from the S.W. Cor. E 1/2, NE 1/4
Sec 13, Twp. 27-S, R-2-W

Dated this 5 day of April, 1985.
Wichita-Sedgewick County Metropolitan Area Planning Commission.

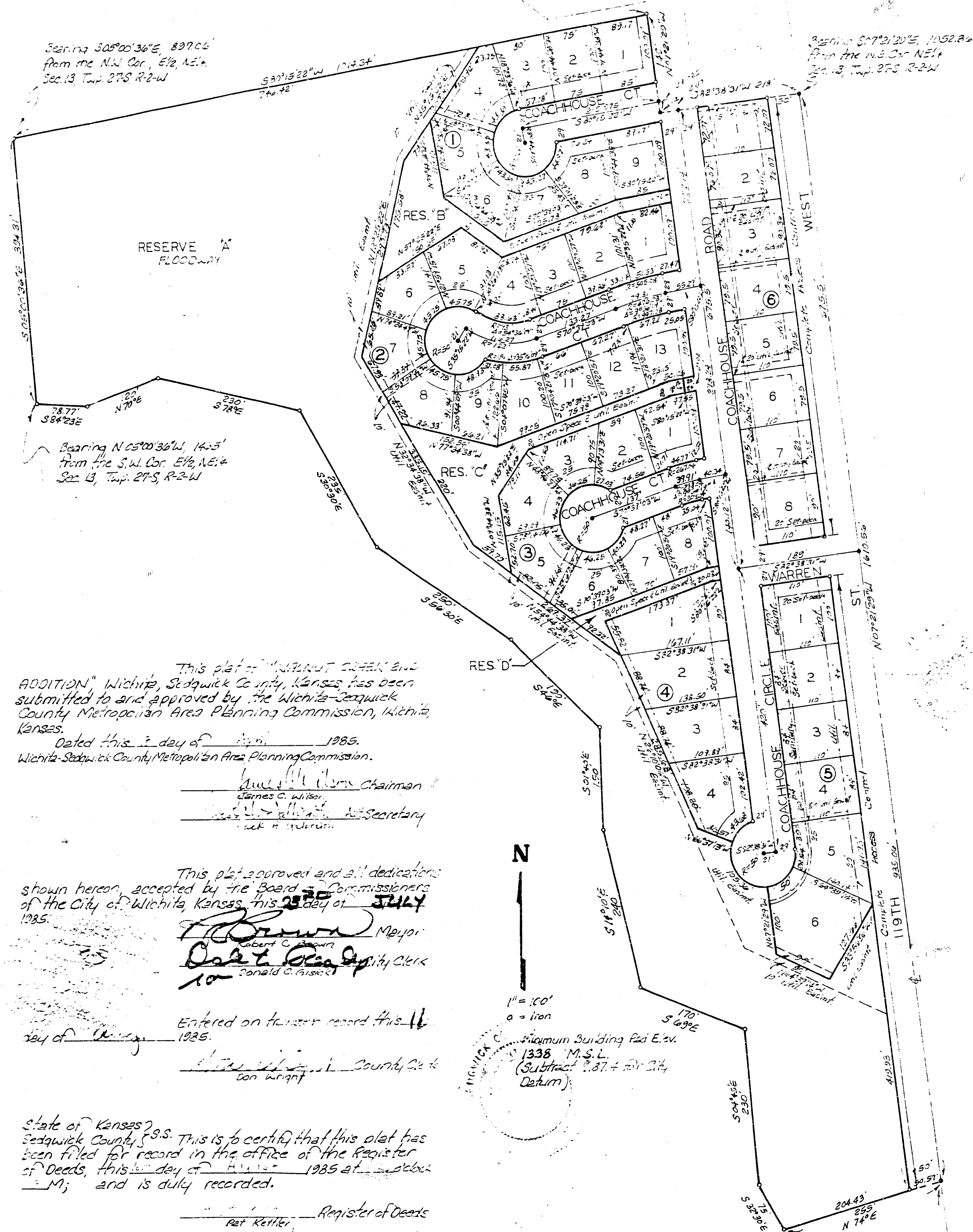
James C. Wilson Chairman
Robert H. Wilson Secretary

Robert C. Brown Mayor
Donald C. Gistke Deputy Clerk

Copy of County Entered on transfer record this 16
1925
Don Wright County Clerk

State of Kansas,
Seawick County, S.S. This is to certify that this plat has
been filed for record in the office of the Register
of Deeds, this 10th day of August 1985 at Seawick
Mo; and is duly recorded.

Pat Kettler Register of Deeds
Ed. Ross Deputy



BAUGHMAN COMPANY, P.A.
SURVEYING & ENGINEERING
316/262-7271 • 330 LAURA • WICHITA, KANSAS 67211

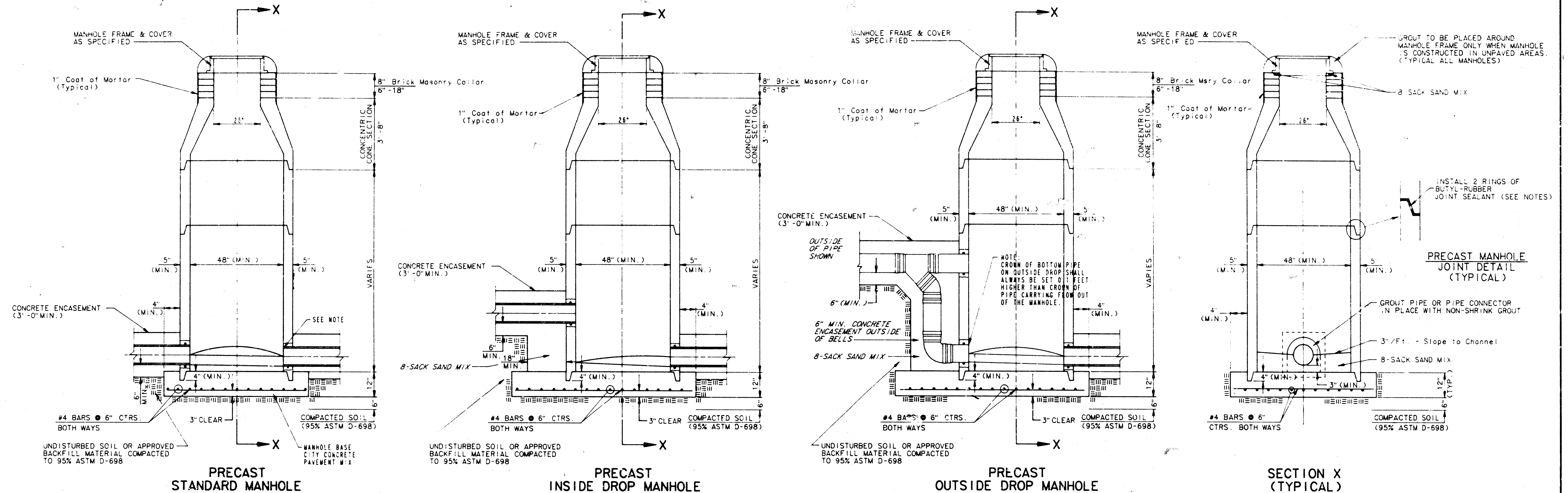
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SEWER APPURTENANCES DETAILS

ADOPTED AS STANDARD DESIGN

BY

CITY OF WICHITA



GENERAL NOTES

PRECAST MANHOLE NOTES

- ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
- NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
- APPROVED FLEXIBLE WATERSTOP GASKETS SHALL BE INSTALLED TO JOIN THE SEWER TO THE MANHOLE WALL WHEN A.B.S. COMPOSITE PIPE OR P.V.C. PIPE IS USED. FOR OTHER TYPES OF PIPE THE SEWER SHALL BE GROUTED IN PLACE WITH NON-SHRINK GROUT. THE SEWER PIPE SHALL BE SUPPORTED WITH CONCRETE ENCASEMENT A MINIMUM OF 3 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
- ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS THEWEC SERIES 66 HI-BUILD EPOXYLINE, DRY THICKNESS OF 8 MILS (MIN.).
- EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINUS COATING.
- JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
- PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
- TOP OF MANHOLE FLOOR SLAB SHALL BE AT LEAST 3 INCHES BELOW THE FLOW LINE OF THE OUTLET PIPE TO INSURE SUFFICIENT MINIMUM THICKNESS OF SHAPED INVERT.
- LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
- MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 BAGS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE BASES SHALL CONFORM TO THE REQUIREMENTS OF CONCRETE FOR CONCRETE PAVEMENT CONSTRUCTION AS SPECIFIED IN THE CITY STANDARD PAVING SPECIFICATIONS USING CITY CONCRETE PAVEMENT MIX WITHOUT AIR ENTRAINING ADMIXTURE. MORTAR SHALL BE PLACED AROUND THE MANHOLE RING AS SHOWN ON THE DRAWINGS WHEN MANHOLES ARE CONSTRUCTED IN UNPAVED AREAS. MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE AN INSIDE DIAMETER OF 4". MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE 24" OR LARGER SHALL HAVE AN INSIDE DIAMETER OF 5". COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.
- REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. THE MANHOLE BASE REINFORCEMENT SHALL BE PLACED AT LEAST 3" ABOVE THE BOTTOM OF THE MANHOLE BASE. ALL COSTS FOR FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- OPENINGS SHALL BE CUT INTO THE MANHOLE WALL WHEN OUTSIDE DROPS ARE CONSTRUCTED ON EXISTING MANHOLES. SUCH OPENINGS CUT INTO EXISTING MANHOLES SHALL BE AS SMALL AS PRACTICAL TO FACILITATE INSTALLING AND GROUTING THE NEW PIPE IN PLACE. WATERSTOP GASKETS SHALL BE USED WITH P.V.C. AND A.B.S. COMPOSITE PIPE. THE NEW PIPE SHALL BE GROUTED INTO THE OPENING USING AN APPROVED NONSHRINK GROUT FOR THE FULL MANHOLE WALL THICKNESS. THE EXTERIOR OF THE COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. FLOOR OF MANHOLE SHALL BE MODIFIED TO FORM NEW FLOW CHANNEL FOR THE NEW CONNECTION AS INDICATED BY THE DRAWING. THIS WORK, INCLUDING MODIFICATION OF MANHOLE FLOOR, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR OUTSIDE DROP STACK CONSTRUCTED ON EXISTING MANHOLE.
- THE FLOORS OF ALL MANHOLES SHALL BE SHAPED WITH FLOW CHANNELS SUCH THAT THE MANHOLES WILL BE SELF-CLEANING AND FREE OF AREAS WHERE SOLIDS COULD BE DEPOSITED AS SEWAGE FLOWS THROUGH THE MANHOLE FROM ALL INLET PIPES TO THE OUTLET PIPE. FLOW CHANNELS SHALL BE FORMED TO MATCH THE BOTTOM HALVES OF THE INFLOWING PIPES AND THE OUTFLOWING PIPE AS SHOWN BY THE DRAWINGS EXCEPT FOR INSIDE DROP MANHOLES. FLOW CHANNELS FOR INSIDE DROP MANHOLES SHALL BE CONSTRUCTED AS INDICATED BY THE DRAWING. MANHOLE FLOORS SHALL HAVE SLOPES OF 3 INCHES PER FOOT IN THE AREAS OUTSIDE OF THE FLOW CHANNELS SLOPED TOWARD THE FLOW CHANNELS. PIPES LAID THROUGH MANHOLES SHALL HAVE THE TOP HALF REMOVED TO REAR LINES FOR THE FULL INSIDE DIAMETER OF THE MANHOLE. MANHOLE FLOORS SHALL THEN BE SHAPED AROUND THE BOTTOM HALF OF THE PIPE WHICH FORMS THE FLOW CHANNEL.
- PIPES INSTALLED WITHIN THE EXCAVATION MADE FOR THE MANHOLE SHALL BE CRADLED WITH CONCRETE TO THE LIMITS OF THE MANHOLE EXCAVATION. WHEN CLAY PIPE IS USED, THE CRADLE SHALL EXTEND TO THE FIRST JOINT OUTSIDE THE MANHOLE. THE CRADLE SHALL BE TERMINATED AT THE CLAY PIPE JOINT IN A MANNER WHICH WILL MAINTAIN THE FLEXIBILITY OF THE JOINT. COST OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
- MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AND AS SHOWN IN THE STANDARD DETAIL DRAWING.
- THE VERTICAL DROP IN INSIDE DROP MANHOLES SHALL NOT EXCEED 4' FOR INFLOWING PIPES SIZED 12" OR SMALLER AND 2' FOR INFLOWING PIPES LARGER THAN 12". THE CROWNS OF INFLOWING PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.
- STANDARD MANHOLES AND STANDARD INSIDE DROP MANHOLES SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.
- A BRICK MASONRY COLLAR SHALL BE INSTALLED BETWEEN THE CAST IRON FRAME AND THE CONCENTRIC CONE. THE COLLAR WILL HAVE 8" WALLS AND A VERTICAL HEIGHT OF 6" MINIMUM AND 18" MAXIMUM. A 1" COAT OF MORTAR WILL BE PLASTERED ON THE OUTSIDE OF THE COLLAR.

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