

GENERAL NOTES

1. ALL ELEVATIONS SHOWN ARE BASED ON CITY OF WICHITA DATUM (MEAN SEA LEVEL ELEV. - 1187.4 = CITY DATUM).

2. CONTRACTOR WILL BE REQUIRED TO PROVIDE A MINIMUM ADVANCE NOTICE OF FORTY-EIGHT(48)HOURS TO UTILITY COMPANIES PRIOR TO STARTING ANY EXCAVATION AS FOLLOWS:

KANSAS ONE CALL 887-2470

THE CONTRACTOR MUST NOTIFY THE FOLLOWING IN CASE OF AN EMERGENCY:

Cox Communications 282-270 or 283-2081
SBG 1-800-870-3390
Kansas Gas Service 1-888-482-4900
Westar 1-800-333-1153
Aquila 1-800-303-0752
City of Wichita(Water & Sewer) 282-4555

THE CONTRACTOR SHALL NOTIFY PIPELINE COMPANIES AT LEAST 24 HOURS IN ADVANCE OF ANY WORK BEING PERFORMED ACROSS AND/OR ADJACENT TO PIPELINES.

3. COST OF EXCAVATION, HAULING AND DUMPING OF EXCESS EXCAVATION SHALL BE SUBSIDIARY TO OTHER ITEMS OF WORK.

4. THE CONTRACTOR SHALL NOTIFY THE INSPECTOR FOR THIS PROJECT 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. THE CONTRACTOR SHALL NOT START WORK ON THE PROJECT UNTIL THE PROJECT INSPECTOR ASSIGNED TO THE PROJECT IS PRESENT ON SITE. ANY WORK DONE WITHOUT INSPECTION WILL BE REQUIRED TO BE UNCOVERED FOR INSPECTION.

5. THE CONTRACTOR SHALL GIVE ALL PROPERTY OWNERS AND/OR TENANTS OF DEVELOPED PROPERTY DIRECTLY ADJUTING THE CONSTRUCTION OF THIS PROJECT A MINIMUM OF TEN (10) DAYS ADVANCE NOTICE PRIOR TO START OF CONSTRUCTION.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY FROM THE CONTRACTOR WILL BE REQUIRED TO REESTABLISH ANY PROPERTY ROADS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS SUCH ROADS SHALL BE REESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

7. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SHALES, ROAD SHOULDERS, ENTRANCES AND BANK LINES TO THEIR ORIGINAL SLOPES AND GRADES EXCEPT AS SHOWN OTHERWISE.

8. INTERURBAN TRAFFIC GENERATED OUTSIDE THE PROJECT AREA SHALL BE CARRIED THROUGH CONSTRUCTION.

9. UNDERGROUND UTILITY SERVICE LINES AND OVERHEAD UTILITY POLE LINES ARE TO BE ADJUSTED AS NECESSARY BY OTHERS PRIOR TO CONSTRUCTION UNLESS THE PLANS SPECIFICALLY CALL FOR THEIR ADJUSTMENT BY THE CONTRACTOR. UNLESS THE PLANS SPECIFICALLY IDENTIFY A UTILITY TO BE ADJUSTED BY ITS OWNER DURING CONSTRUCTION, EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION OBTAINABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WITHIN THE RIGHT-OF-WAY WHICH DO NOT CONFLICT WITH PROPOSED CONSTRUCTION.

10. RUBBLE FROM THE REMOVAL OF MISCELLANEOUS STRUCTURES AND EXCESS EXCAVATION WHICH IS TO BE WASTED SHALL BE DISPOSED OF ON SITES TO BE PROVIDED BY THE CONTRACTOR. THESE SITES SHALL BE APPROVED BY THE ENGINEER AS TO SUITABILITY, APPEARANCE AND SITE LOCATION. LOCATIONS, THAT IN THE OPINION OF THE ENGINEER, WILL LEAVE AN UNSIGHTLY APPEARANCE WILL NOT BE APPROVED. ALL DISPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOODPLAIN WOULD REQUIRE A KANSAS STATE BOARD OF AGRICULTURE PERMIT. ANY MATERIAL DUMPED IN WATERS OF THE UNITED STATES OR WETLANDS IS SUBJECT TO U.S. CORPS OF ENGINEERS PERMITTING REGULATIONS. ANY MATERIAL BURIED OR STOCKPILED BEYOND APPROVED CONSTRUCTION LIMITS WOULD REQUIRE ADDITIONAL ARCHAEOLOGICAL INVESTIGATIONS UNLESS BURIED IN A PREVIOUSLY APPROVED BORROW LOCATION.

11. PROPERTIES WITHIN THE PROJECT LIMITS MAY HAVE UNDERGROUND SPRINKLER SYSTEMS IN THE PUBLIC RIGHT-OF-WAY WHICH CONFLICT WITH NEW CONSTRUCTION. CONTRACTOR WILL BE REQUIRED TO REMOVE SUCH IMPROVEMENTS SHOULD THEY NOT BE REMOVED BY THEIR OWNER AT THE TIME OF CONSTRUCTION OF THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SALVAGE ALL SPRINKLER HEADS AND/OR VALVES AND GIVE SUCH MATERIAL TO THEIR OWNER. PORTIONS OF UNDERGROUND SPRINKLER SYSTEMS NOT IN CONFLICT WITH NEW CONSTRUCTION SHALL BE PROTECTED FROM DAMAGE AND SHALL REMAIN IN PLACE. ALL WORK IN CONNECTION WITH UNDERGROUND SPRINKLER SYSTEMS SHALL BE CONSIDERED AS SUBSIDIARY TO THE CONTRACT PAY ITEMS OF WORK.

12. ALL PROPOSED STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE.

14. THE CONTRACTOR MUST EXAMINE THE CONSTRUCTION SITE PRIOR TO BIDDING AND BE SATISFIED AS TO THE WORK SHOWN FOR COMPLETION. AFTER BIDS HAVE BEEN RECEIVED, THE CONTRACTOR SHALL NOT ASSEY THAT THERE WAS A MISUNDERSTANDING OF THE QUANTITIES OF WORK OR OF THE NATURE FOR THE WORK TO BE COMPLETED.

15. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THE PLANS, REPRESENT THE BEST INFORMATION AVAILABLE FOR DESIGN. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. THE PLAN LOCATIONS ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED. THE CONTRACTOR WILL BE REQUIRED TO WORK AROUND EXISTING UTILITIES WHICH ARE ENCOUNTERED ON THIS PROJECT. THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION DURING TRENCHING OPERATIONS TO AVOID DAMAGING THESE LINES. ANY LINES DAMAGED SHALL BE REPLACED OR REPAIRED IMMEDIATELY AS DIRECTED BY THE ENGINEER AT THE CONTRACTOR'S EXPENSE.

17. THE CONTRACTOR SHALL CONTAIN HIS OPERATIONS TO PERMIT TRAFFIC THROUGH AND ACROSS CONSTRUCTION AT EXISTING ROADWAYS AT ALL TIMES. THE CONTRACTOR SHALL ERECT WARNING SIGNS, FLASHING LIGHTS, AND BARRICADES IN COMPLIANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES TO ENSURE SAFETY AS DIRECTED IN THE GENERAL CONDITIONS. THE CONTRACTOR SHALL LIMIT THE EXTENT OF TRENCH TO REMAIN OPEN OVERNIGHT AND WEEKENDS TO LESS THAN 50 FEET.

18. ALL LAWN/TURF AREAS DISTURBED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS SHALL BE RESTORED WITH THE SAME GRASS/SOD AS EXISTING. RESTORATION OF DISTURBED AREAS SHALL INCLUDE, BUT NOT BE LIMITED TO, TOP SOIL PREPARATION, SEEDING, MULCH, AND/OR RESEEDING. ALL SEEDING/SODDING WORK SHALL BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD SPECIFICATIONS AND THE CITY OF WICHITA ADMINISTRATIVE REGULATION NO. AP78 WHICH GOVERNS CLEANUP AND RESTORATION OR REPLACEMENT FOLLOWING CONSTRUCTION. ALL COSTS FOR THIS WORK SHALL BE SUBSIDIARY TO THE LUMP SUM PRICE BID FOR "SITE RESTORATION".

19. CUTS MADE TO PAVED SURFACES ON PUBLIC PROPERTY WILL BE REPAIRED BY THE CITY'S CONTRACTOR AND CHARGED AGAINST THE OWNER/APPLICANT. UNIT REPAIR PRICES ARE AVAILABLE FROM THE CITY AT 286-4418. A SURCHARGE MAY BE APPLICABLE. CALL 286-4418 FOR DETAILS. REPAIR COSTS TO BE PAID PRIOR TO RELEASE OF WATER SERVICE IF WATER SERVICE IS AFFECTED.

STORM WATER SEWER IMPROVEMENTS

FOR

DONOVAN TRUCK SERVICE CENTER AND USED

CAR AND TRUCK SALES

LOCATED AT 5920 & 5980 W. HYNDRIX AVE.

WICHITA, KANSAS

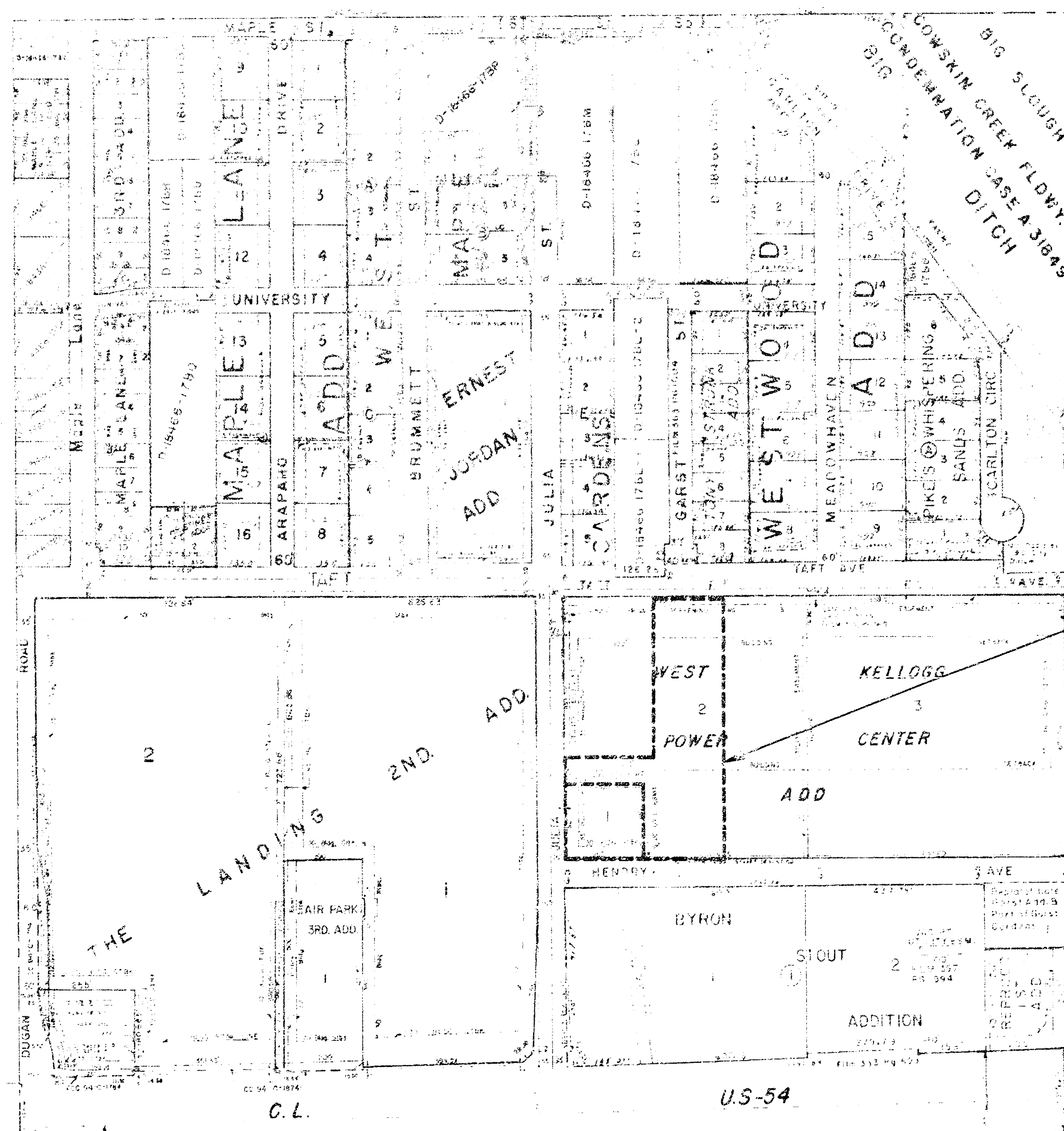
COW PRIV. PROJ. NO. 1616 PPS (607861)

JAMES L. ARMOUR, P.E., CITY ENGINEER

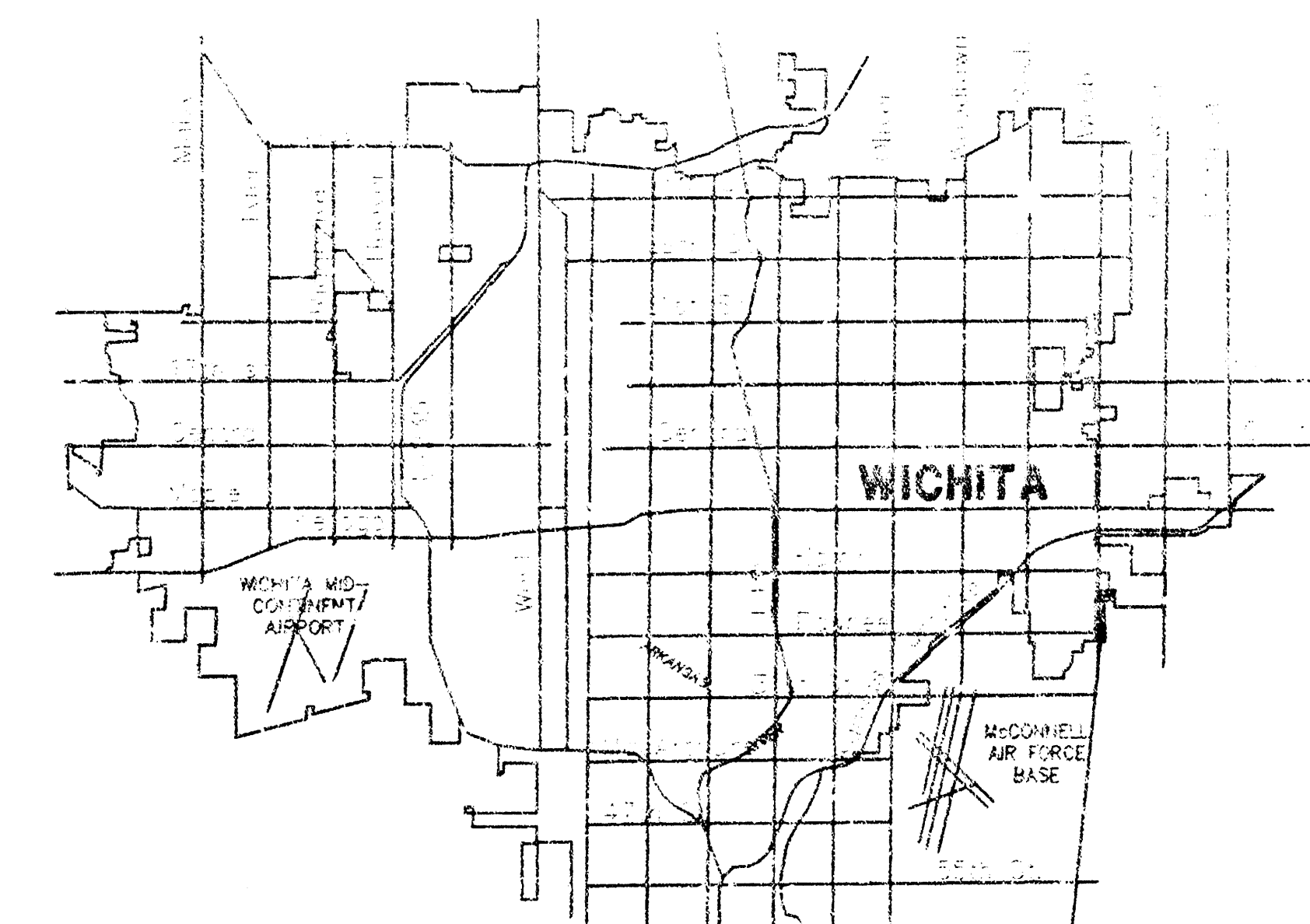
DECEMBER 2005

INDEX OF SHEETS

1. Title Sheet
2. Erosion Control & Site Plan
3. SWS No. 1 Plan/Profile
4. SWS No. 2 Plan/Profile
5. SWS No. 2A Plan/Profile
6. 2 1/4' Area in Set Detail
7. Special Shadow Type 'B' Vn. Detail



BENEFIT DISTRICT



LOCATION MAP

PROJECT LOCATION

APPROVED AS NOTED
By CITY ENGINEER OF WICHITA

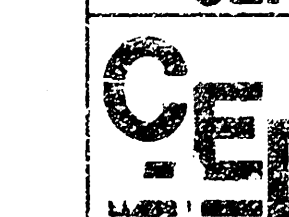
Sanitary Sewers _____
Storm Sewers _____
Driveway Approaches _____
Water Mains _____
Paving _____

NOTE TO CONTRACTOR

INSPECTION AND TESTING FOR THIS PROJECT IS TO BE PROVIDED BY A LICENSED CONSULTING ENGINEERING FIRM UNDER CONTRACT WITH THE OWNER/DEVELOPER. SAID INSPECTION TO BE IN ACCORDANCE WITH THE CITY OF WICHITA STANDARD CONSTRUCTION ENGINEERING PRACTICES AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER. NO WORK SHALL BE PERFORMED IN DEDICATED EASEMENTS OR THE PUBLIC RIGHT-OF-WAY BY THE CONTRACTOR WITHOUT SUCH INSPECTION NOR SHALL ANY WORK BE COMMENCED IN DEDICATED EASEMENTS OR PUBLIC RIGHT-OF-WAY WITHOUT WRITTEN AUTHORIZATION BY THE CITY ENGINEER.

AS CONSTRUCTED 2-01-06

COW PROJ. NO. _____ PPS (607861)
CERTIFIED ENGINEERING DESIGN, P.A.
810 WEST DOUGLAS, SUITE C
WICHITA, KANSAS 67203
PH: (316) 262-8808
FAX: (316) 262-1669



SHEET 1
TOTAL 6

PROJECT LOCATED IN THE
N.E.1/4, SEC. 27, T.27S., R.1W.
WICHITA, SEDGWICK COUNTY, KANSAS

Aerial Photograph

Aerial Photograph of the area around the beach at the mouth of the river, showing the area of the beach and the surrounding land. The area of the beach is marked with a large 'X' and the area of the surrounding land is marked with a large 'Y'.

Does water flow under the area inlet barrier?
Does water flow through spaces between abutting pipes?
Are any pipes dislodged?
Are pipes decomposing due to age and/or water damage?
Does sediment need to be removed from behind the area inlet barrier?

SUMMARY OF TEMPORARY SEEDING QUANTITIES		
NAME OF APP. CATION	DESCRIPTION	QUANTITY
How much been per acre		
45 lbs/Acre	1/2 5000 Seed	14 Required
125 lbs/Acre	1/2 5000 Seed	14 Required
	Mulching	As Required

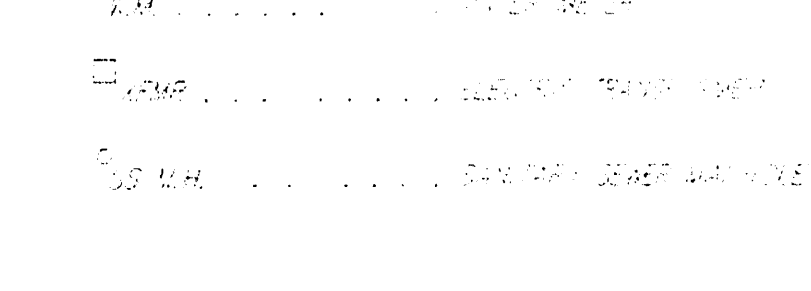
The amount of mulch in the bid quantities is estimated. The total mulch required shall be determined in the field. The bid item for mulching shall be paid for by one of the following ways.

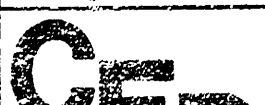
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT INTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE INTO PUBLIC RIGHT-OF-WAY.

3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE OR OTHER MATERIAL PROVED TO BE EFFECTIVE. THIS SHALL BE SHOWN ABOVE.

4. DRIVE ENTRANCES ON RESIDENTIAL LOTS WILL NOT BE REQUIRED TO HAVE THE SEDIMENT BARRIER SHOWN, BUT WHEEL WASHING MAY BE REQUIRED IF STABILIZED ENTRANCE IS NOT SUFFICIENT TO KEEP MUD FROM BEING TRACKED ON ADJACENT STREET. ENTRANCE SHALL BE BACK WASHED TO ROAD TO REMOVE MUD.

[illegible]

DOHOVAN TRUCK SERVICE CENTER		
EROSION CONTROL & SITE PLAN		
LOCATED AT 5920 AND 5980 W. HENDRY AVE., WICHITA, KS		
CED PROJ. NO.: 20051333		
CERTIFIED ENGINEERING DESIGN, P.A.		
	810 WEST DOUGLAS, SUITE C	
	WICHITA, KANSAS 67203	
PH.(316)262-8808 FAX.(316)262-1665		
DESIGNED: HOF	SCALE: 1"=20'	SHEET 2
DRAWN: CKW	DATE: 11/05	
CHLCKED: HOF	CED FILE: Do-hovan-Base.ewg	TOTAL 6

17 OCT 65

UTILITIES SHOWN REPRESENT THE BEST INFORMATION AVAILABLE FOR DESIGN. ADDITIONAL UTILITIES MAY BE PRESENT ON THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH AND SIZE OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE CAUSED BY THE FAILURE TO DO SO.

Install 109.21' L.F. of 24" RCP SWS @ 0.20% Slope.

Sta. 1+09.21, SWS No. 1, Construct 24" Area Inlet
Top Elev. = 115.91
FL in 18"(S)=112.94
FL Out 24"(N)=112.84
N 12656.24
E 19846.67

Sta. 0+00.00, Begin SWS No. 1, Begin 24" RCP @ Existing Curb Inlet. Contractor Shall Core Inlet, Nail and Seal New 24" TOP to Inlet with Quick/Set Hydraulic Cement.
FL in=112.82
N 19589.62
E 19542.50

Install 93.28' L.F. of 18" RCP SWS @ 0.30% Slope.

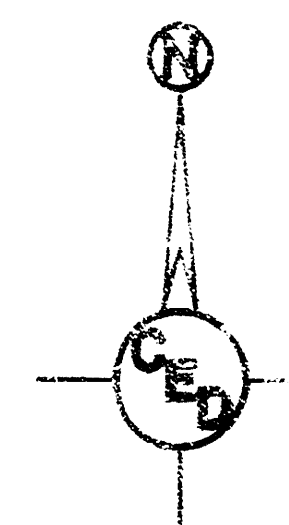
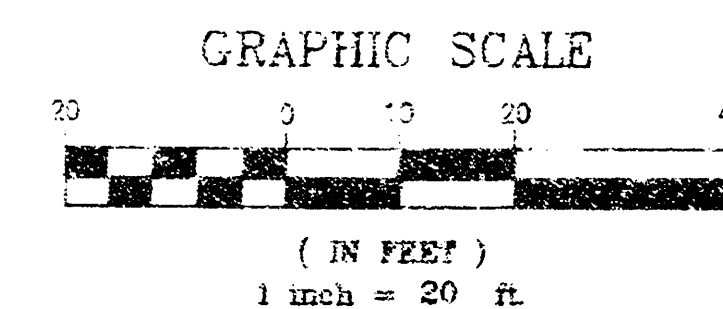
Sta. 2+02.49, SWS No. 1, Construct 24" Area Inlet
Top Elev. = 115.64
FL in 15"(E)=113.31
FL Out 18"(N)=113.21
N 19564.46
E 19862.22

Sta. 2+59.83, CAUTION!!!
Existing 8" Sanitary Sewer Line
FL Elev.=109.46
Top of Pipe Elev.=110.13

Sta. 2+77.19, CAUTION!!!
Existing Underground Telephone Line
Depth Unknown, Contractor Shall Coordinate Relocation with Utility Owner

SWS LINE 1

Sta. 4+02.54, End SWS No. 1, Construct 24" Area Inlet
Top Elev. = 115.33
FL Out 15"(W)=114.06
N 19583.38
E 19861.36



THIS DRAWING IS THE PROPERTY OF C.O.W. DESIGN, P.A. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREON. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF C.O.W. DESIGN, P.A.

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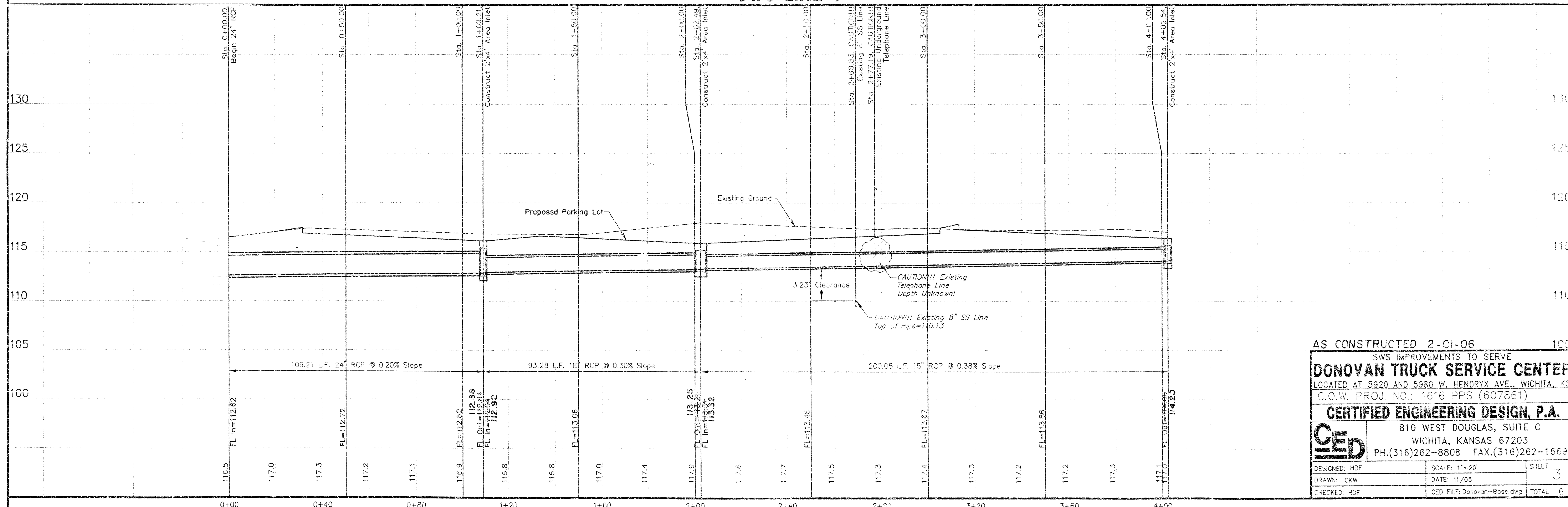
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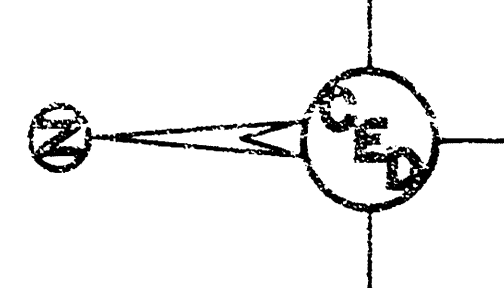
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SURVEY DISCLAIMER:

TOPOGRAPHIC SURVEY AND CONTOUR MAP USED IN PREPARING PLANS WAS PROVIDED BY PROFESSIONAL ENGINEERING CONSULTANTS, P.A., 303 S. TOPEKA, WICHITA, KS. ENGINEER DOES NOT GUARANTEE SURVEY ELEVATIONS FOR ACCURACY. CONTRACTOR SHALL VERIFY ELEVATIONS AND NOTIFY ENGINEER OF ANY DISCREPANCIES.



UTILITIES SHOWN REPRESENT THE BEST INFORMATION AVAILABLE FOR DESIGN. ADDITIONAL UTILITIES MAY BE PRESENT ON THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH AND SIZE OF ALL UNDERGROUND UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGE CAUSED BY THE FAILURE TO DO SO.

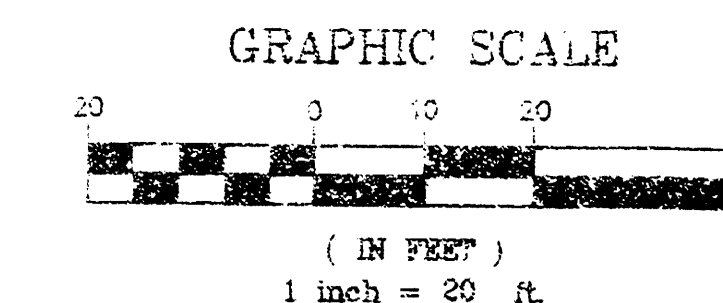
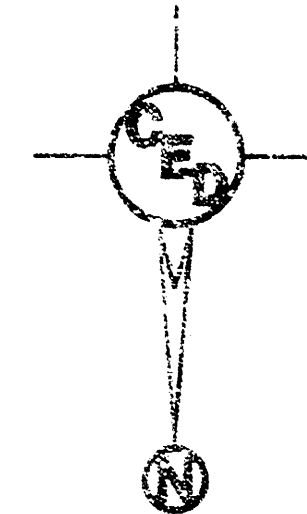
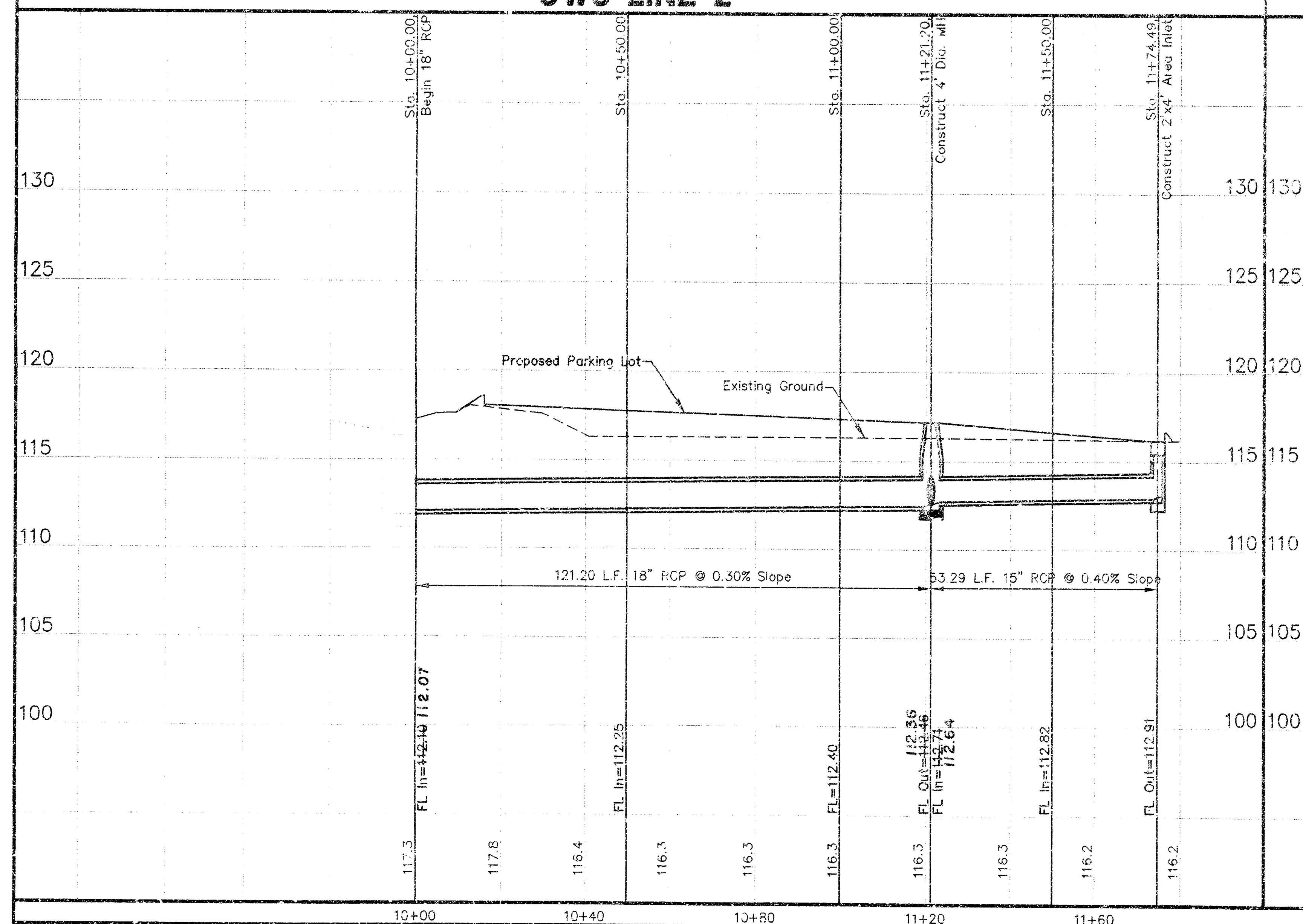


Sta. 11+74.49, End SWS No. 2,
Construct 2'x4' Area Inlet
Top Elev.=116.47/115.94
FL Out 15"(N)=112.91
N 19991.42
E 19949.54

Sta. 10+00.00, Begin SWS No. 2,
Begin 18" RCP @ Existing Curb
Inlet. Contractor Shall Core Inlet
Wall and Seal New 18" RCP to
Inlet Wall with Quick-Set
Hydraulic cement.
FL In=112.82
N 20112.65
E 19895.31

Sta. 11+21.20, SWS No. 2=
Sta. 20+00.00, SWS No. 2A
Construct Special Shallow
Typ. 2'x4' Dia. Wt.
Rim Elev.=117.23/117.23
FL In 15"(E)=112.71
FL Out 18"(N)=112.46
FL In 15"(N)=112.71
N 19991.45
E 19895.24

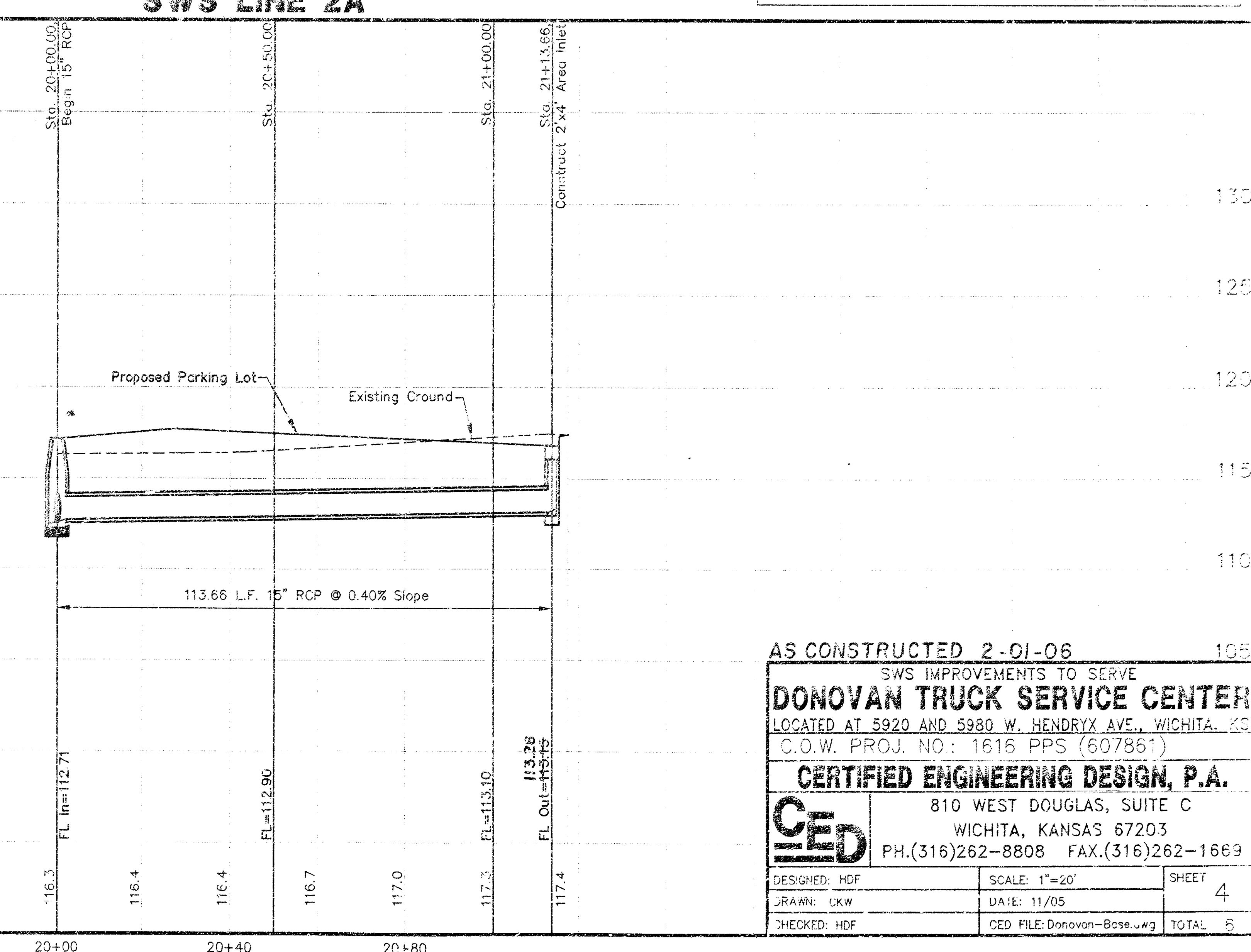
SWS LINE 2



Sta. 21+13.55, End SWS No. 2A,
Construct 2'x4' Area Inlet
Top Elev.=116.82/116.70
FL Out 15"(N)=113.15
N 19991.51
E 19782.59

Sta. 20+00.00, SWS No. 2A=
Sta. 11+00.21, SWS No. 2
Proposed Special Shallow Typ.
18" 4' Dia. Wt.
Rim Elev.=117.23/117.23
FL In 15"(E)=112.71
FL Out 18"(N)=112.46
FL In 15"(N)=112.71
N 19991.45
E 19895.24

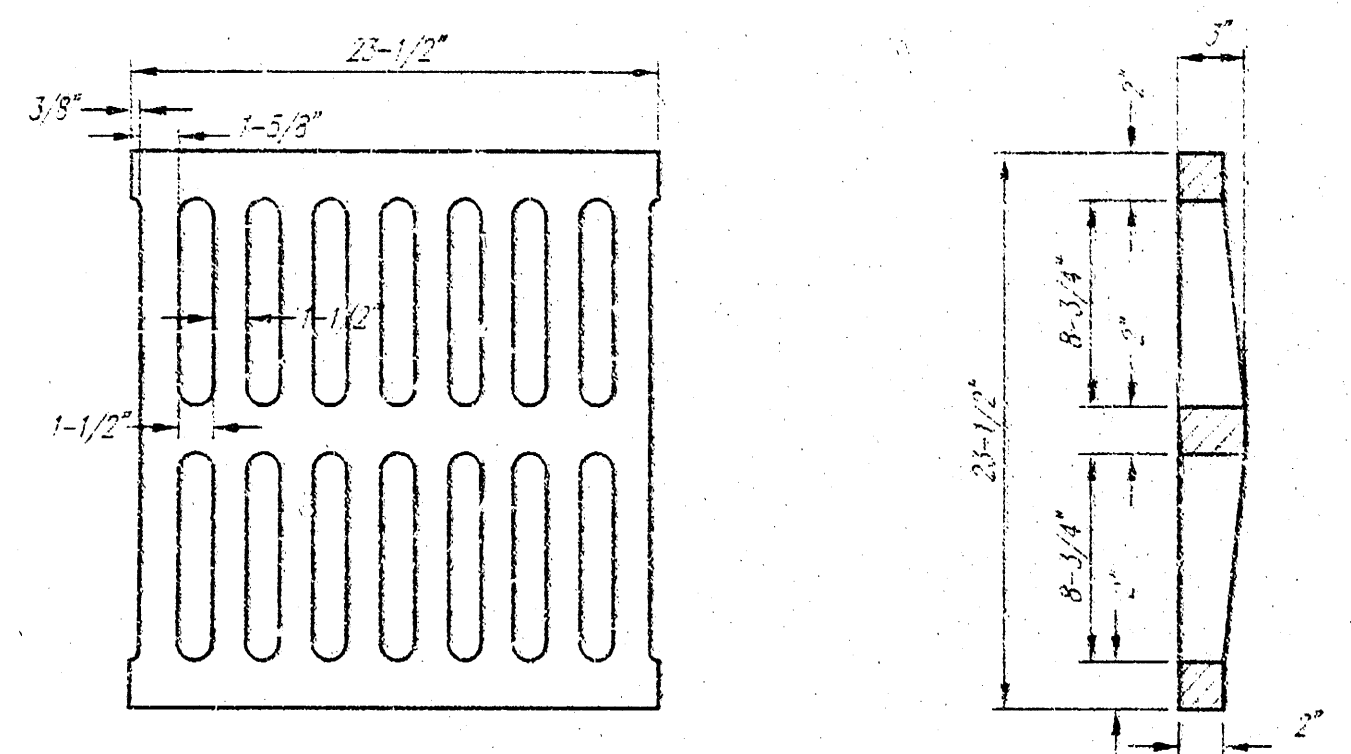
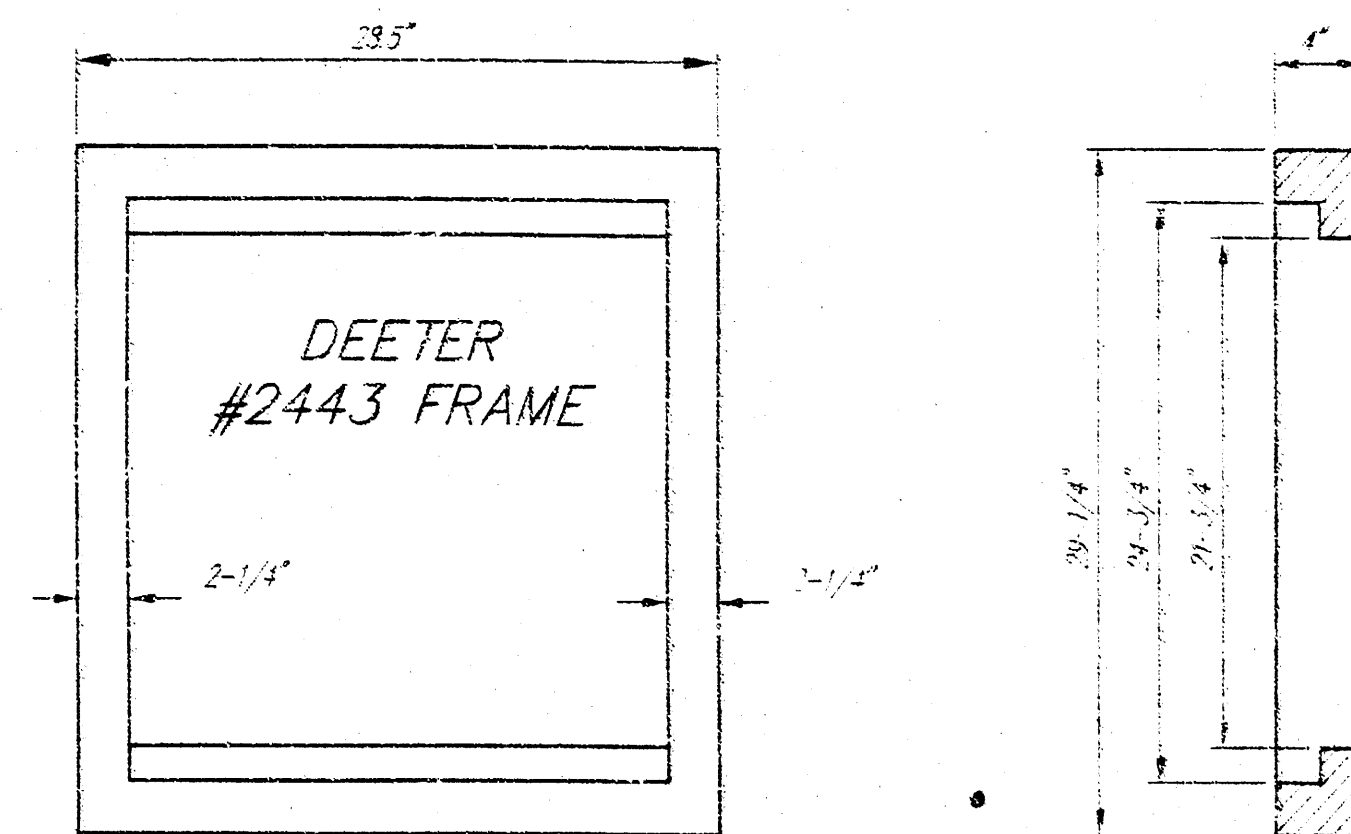
SWS LINE 2A



AS CONSTRUCTED 2-01-06

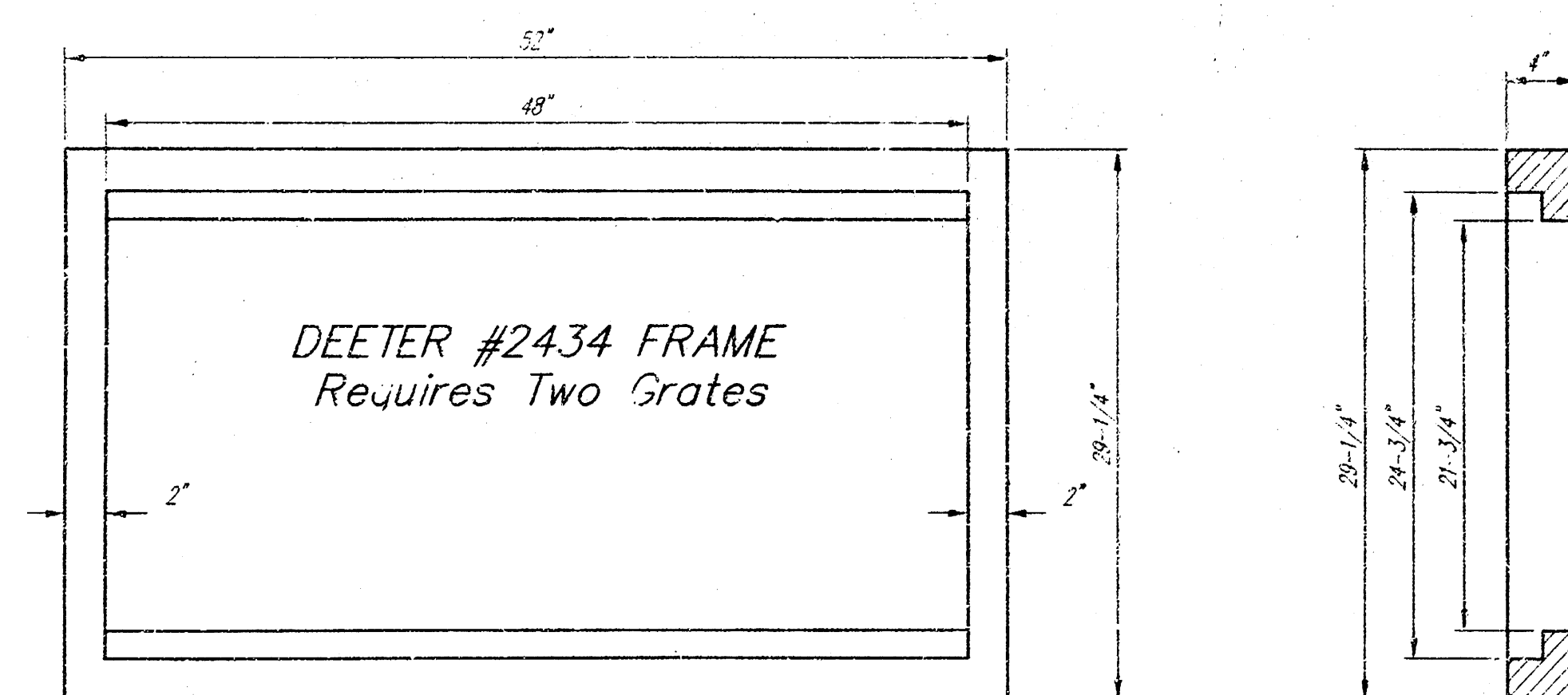
SWS IMPROVEMENTS TO SERVE
DONOVAN TRUCK SERVICE CENTER
LOCATED AT 5920 AND 5980 W. HENDRYX AVE., WICHITA, KS
C.O.W. PROJ. NO.: 1616 PPS (607861)
CERTIFIED ENGINEERING DESIGN, P.A.
810 WEST DOUGLAS, SUITE C
WICHITA, KANSAS 67203
PH.(316)262-8808 FAX.(316)262-1669

DESIGNED: HDF	SCALE: 1"=20'	SHEET: 4
DRAWN: CKW	DATE: 11/05	
CHECKED: HDF	FILE: Donovan-Bosseng	TOTAL: 5



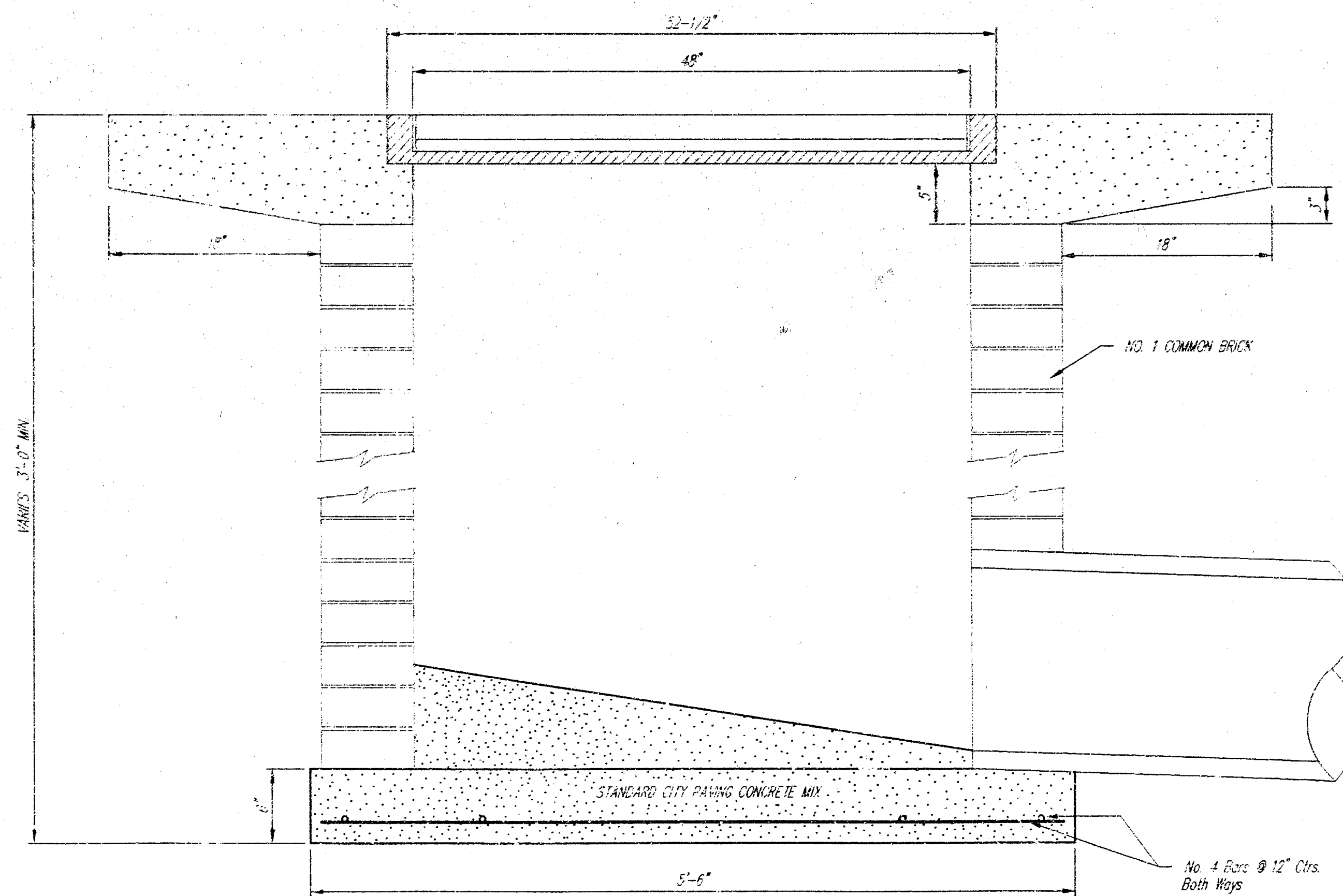
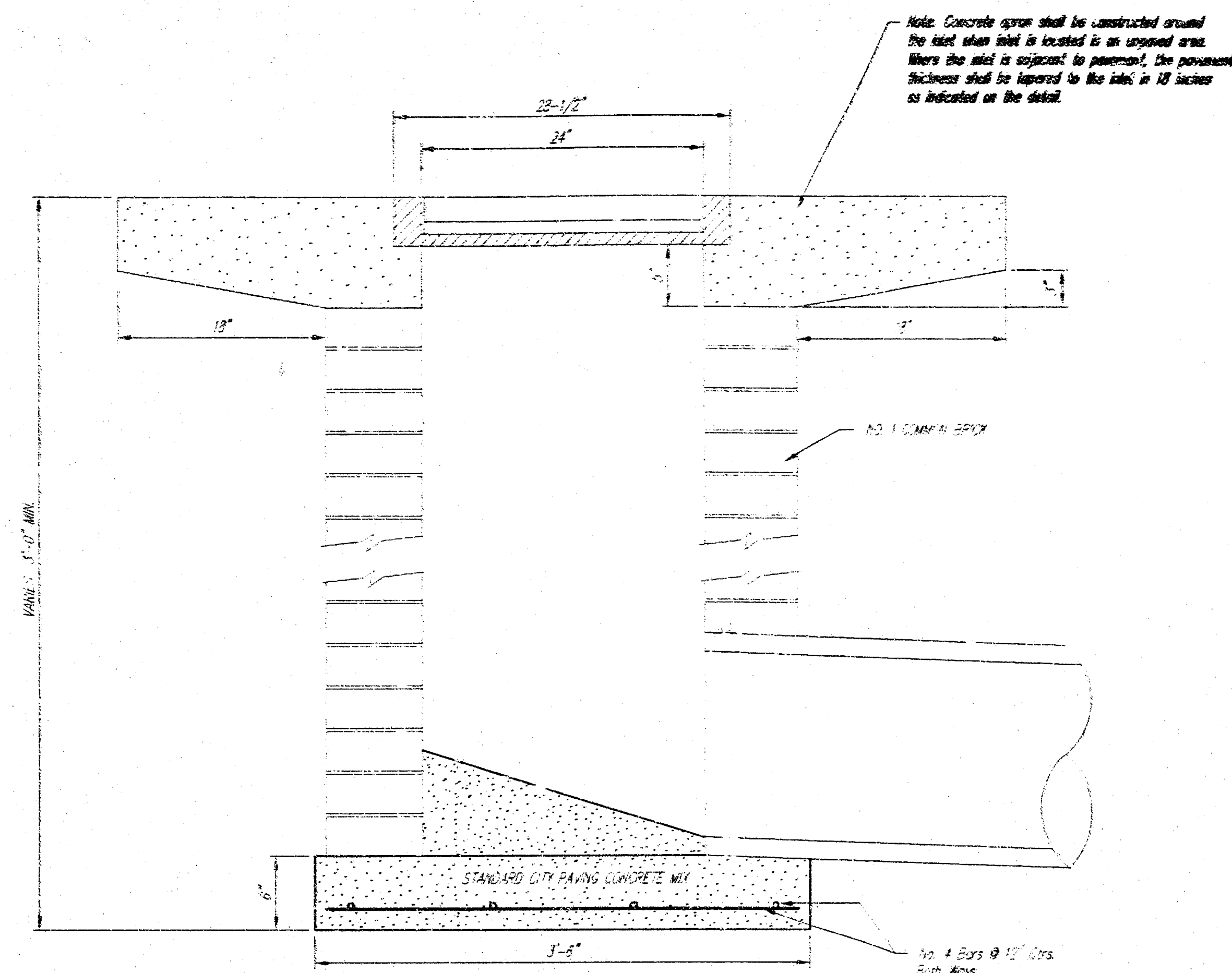
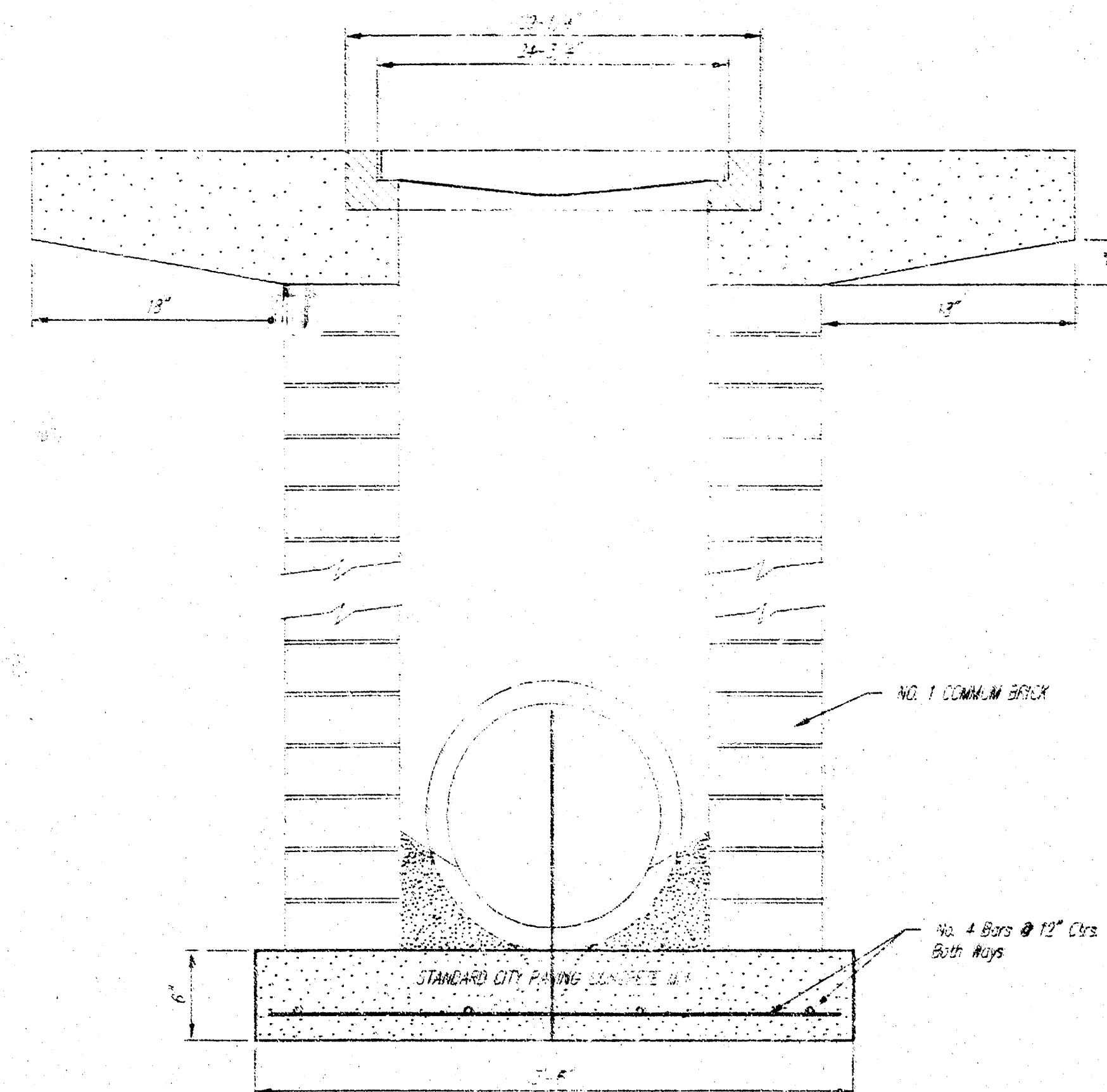
DEETER #2433 GRATE

24" x 24" Frame and Grate Detail

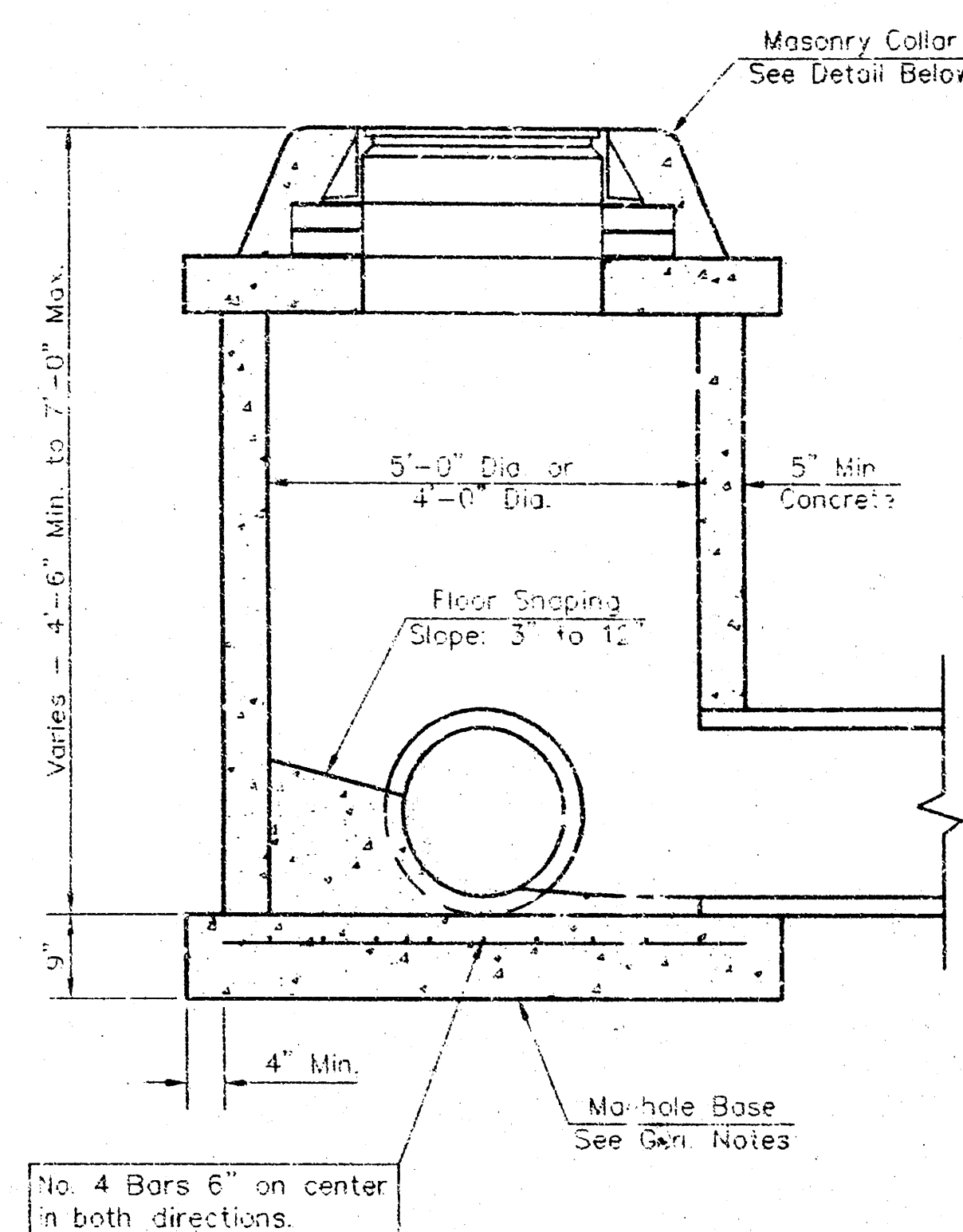


Double 24" x 24" Frame Detail

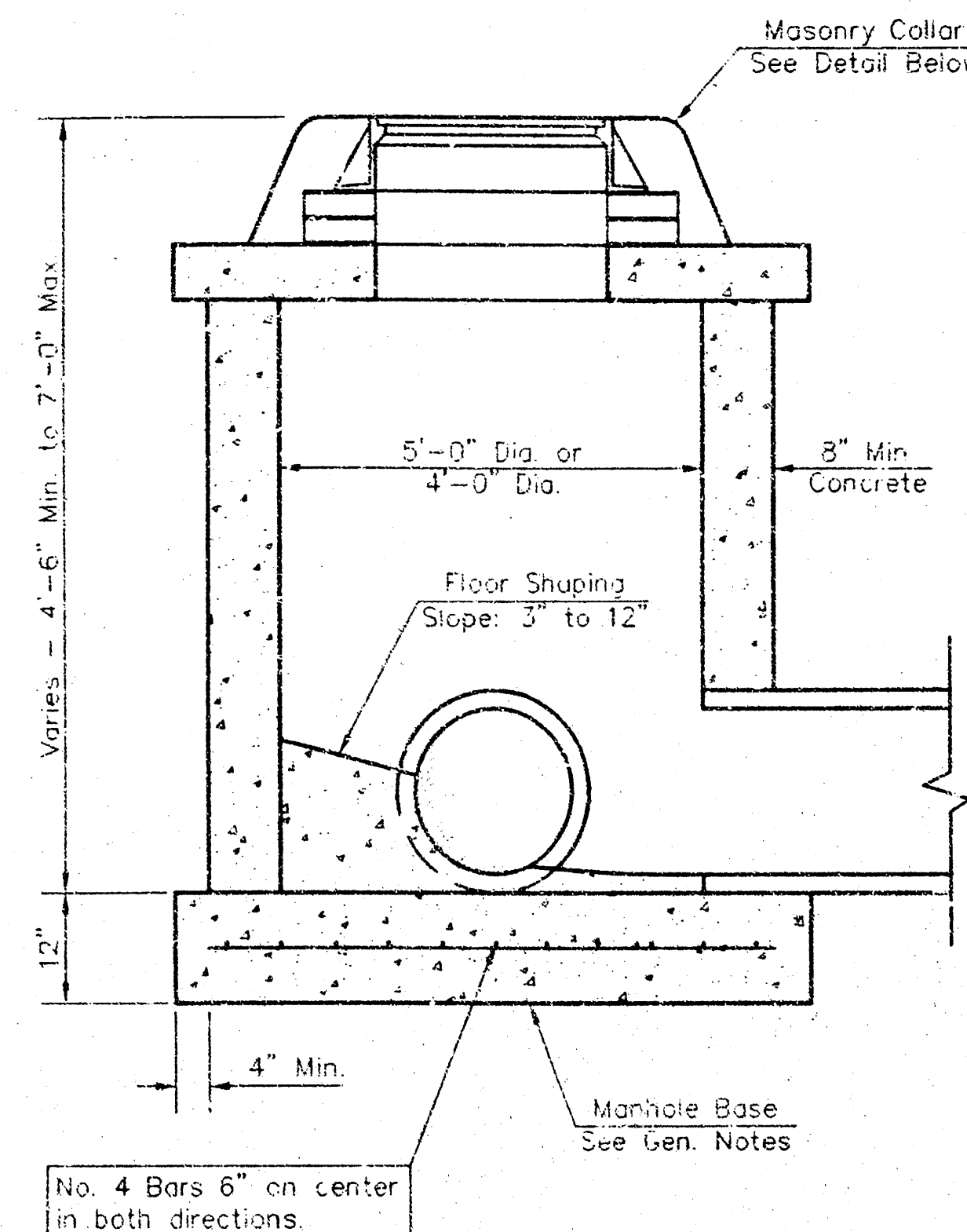
NOTE: Grates shall be imprinted on the top surface with "CITY OF WICHITA" using letters at least 1" in height. Other marking methods may be approved by the engineer.



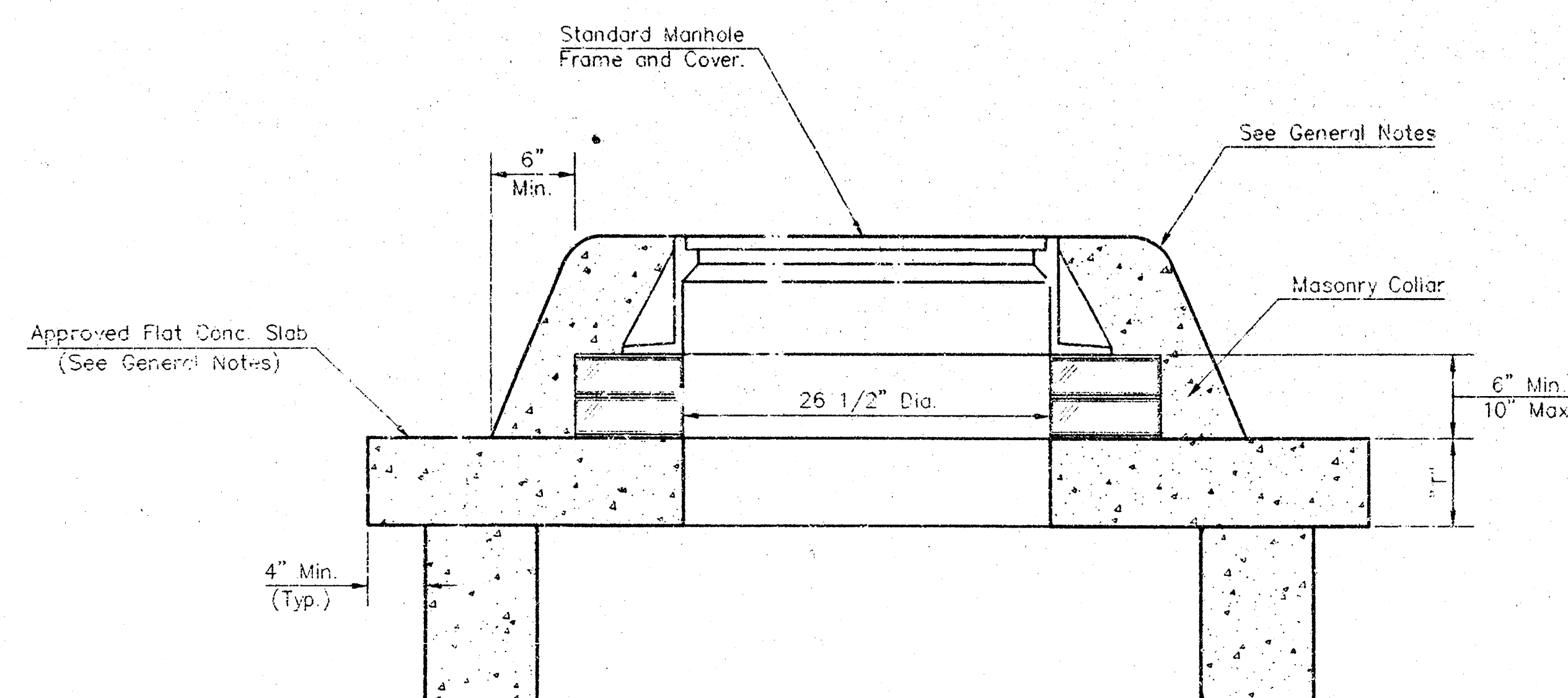
THE CITY OF WICHITA CITY ENGINEER'S OFFICE CITY HALL, SEVENTH FLOOR 400 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 268-3114 FAX	DROP INLET 2' X 2 1/2' X 4'	
	JAMES L. ARMOUR P.E. - CITY ENGINEER	
	PROJECT NUMBER 1616	INDEX CODE 607861
	DATE NOV 05	SHEET 5 OF 6



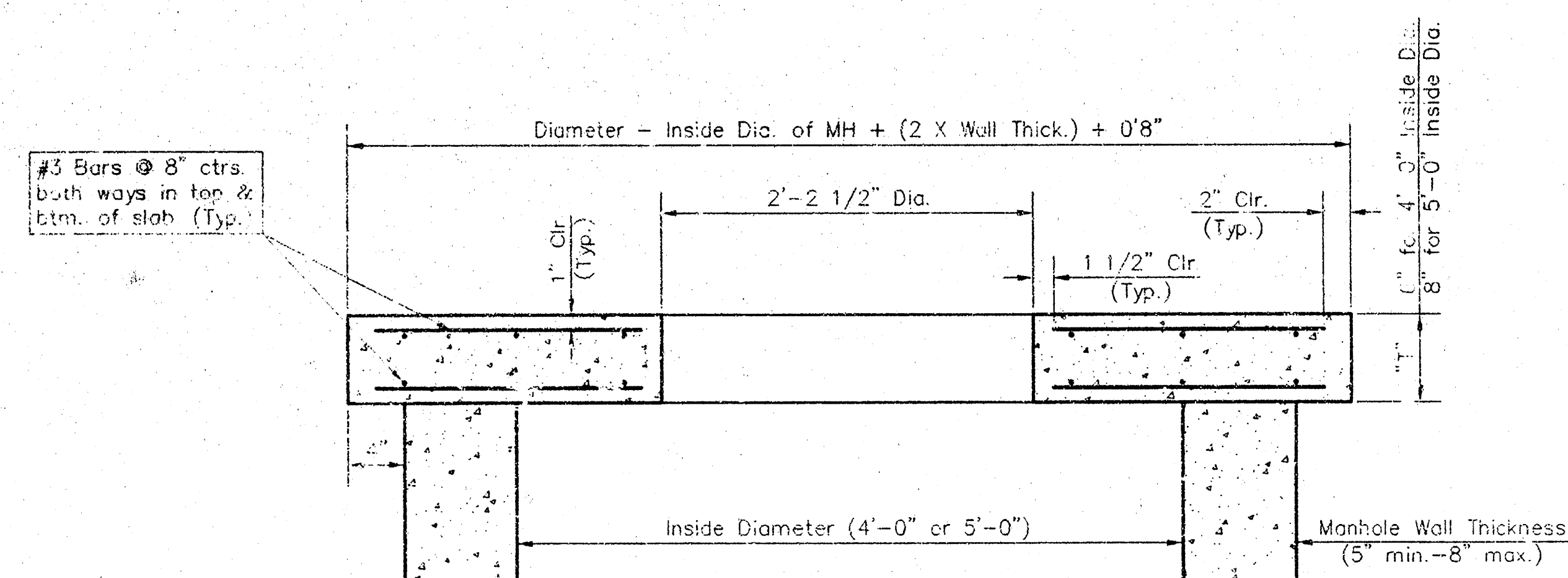
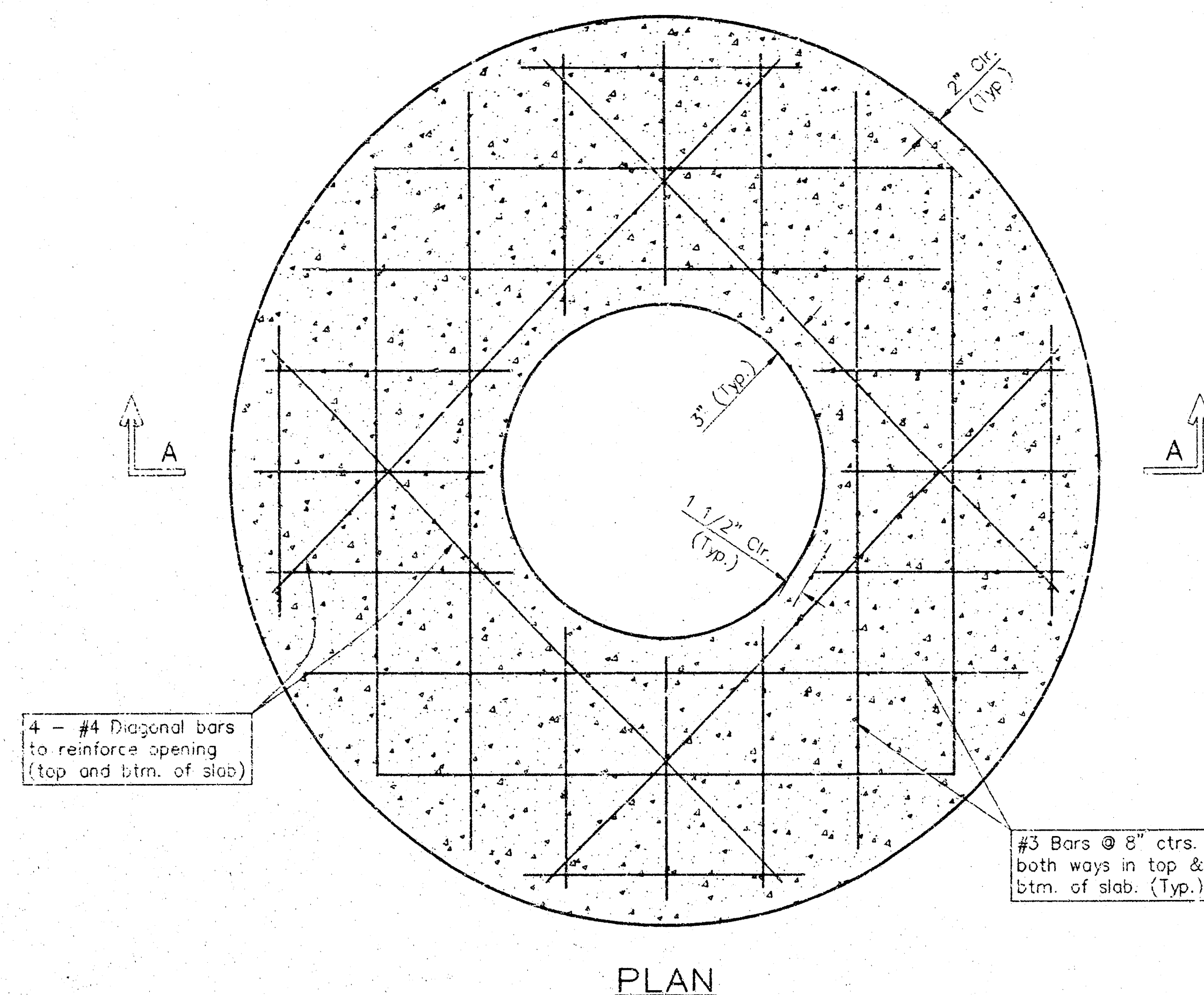
SHALLOW TYPE "P" MANHOLE



SHALLOW TYPE "C" MANHOLE



MASONRY COLLAR DETAIL



SECTION A-A
FLAT CONCRETE SLAB DETAILS

GENERAL NOTES

- Mortar used in masonry construction shall contain 3 sacks 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 cement 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 6" 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.
- The floors of all manholes shall be sloped 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. 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 neat 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 drawings.
- The crowns of inflowing pipes shall never be set lower than the crown of the outflowing pipe.
- Standard shallow manholes type "P" and "C" shall be paid for at the unit price bid per each for the type and diameter indicated. All standard shallow manhole diameters will be 4' unless indicated otherwise.
- All brick used in manhole construction shall meet Grade SW of ASTM C652 or C62-87.

THE CITY OF WICHITA W CITY ENGINEER'S OFFICE CITY HALL - SEVENTH FLOOR 405 NORTH MAIN STREET WICHITA, KANSAS 67202 (316) 255-2400 (316) 255-1114 FAX		SHALLOW MANHOLES TYPE 'P' & 'C' JAMES L. ARMOUR P.E. - CITY ENGINEER PROJECT NUMBER: 1616 INDEX CODE: (607861) DATE: NOV 05 SHEET 6 OF 6	
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