

GENERAL NOTES

1. ALL ELEVATIONS SHOWN ARE BASED ON MEAN SEA LEVEL.
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 687-2470

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

Cox Communications	262-4270 or 263-2061
SBC	1-800-870-8390
Kansas Gas Service	1-888-482-4950
Westar	1-800-383-1183
Aquila	1-800-303-0752
City of Wichita(Water & Sewer)	268-4555

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 ABUTTING 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 IRONS. THE CONTRACTOR WILL BE REQUIRED TO REESTABLISH ANY PROPERTY IRONS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS SUCH IRONS SHALL BE REESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.

7. THE CONTRACTOR SHALL RESTORE ALL DITCHES, SWALES, 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. LOCAL RESIDENTIAL TRAFFIC GENERATED WITHIN THE PROJECT AREA SHALL BE CARRIED THROUGH CONSTRUCTION AS FURTHER PROMULGATED BY PROJECT SPECIAL PROVISIONS.

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 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 WITH 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.

13. PRIOR TO LAYING THE NEW SEWER LINES THE CONTRACTOR SHALL EXPOSE AND VERIFY THE ELEVATION, GRADE AND ALIGNMENT OF THE EXISTING SANITARY SEWER AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES FROM THE PLAN.

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 ASSERT 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.

16. ALL PIPE JOINTS SHALL BE LAID AND PUSHED 'FULL HOME', WITH THE BEVELED END OF THE SPOUT MAKING FULL CONTACT WITH THE CHAMFERED AREA AT THE THROAT OF THE BELL OR SOCKET, WITH NO SEPARATION BETWEEN THEM. IF SEPARATION IS DETERMINED, THE PIPE SHALL BE EXCAVATED AND RE-LAID ACCORDING TO SPECIFICATIONS AT THE CONTRACTOR'S EXPENSE.

17. AT LEAST 24 HOURS BEFORE CONNECTING NEW SEWER PIPE TO THE EXISTING SEWAGE SYSTEM, THE CONTRACTOR SHALL CONTACT THE CITY OF WICHITA SEWER DEPARTMENT (268-4024). THE CONTRACTOR SHALL KEEP ANY CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER DURING CONSTRUCTION. TO PREVENT WATER OR DEBRIS FROM ENTERING THE EXISTING SEWER, A MECHANICAL PLUG SHALL BE INSTALLED AND MAINTAINED TO ISOLATE THE EXISTING SEWER FROM THE NEW CONSTRUCTION UNTIL THE NEW CONSTRUCTION IS CLEANED, TESTED AND HAS BEEN ACCEPTED. THE WATER USED FOR CLEANING SHALL NOT BE ADDED TO THE FLOW OF THE EXISTING SEWER. THE CLEANING OR OTHERWISE ACCUMULATED WATER SHALL BE PUMPED OR OTHERWISE REMOVED PRIOR TO TESTING.

18. 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.

19. ALL SODDING, SEEDING, AND EROSION CONTROL OF THE AREAS DISTURBED BY CONSTRUCTION OF THE SANITARY SEWER AS SHOWN ON THE PLANS, SHALL BE "SUBSIDIARY" TO "SITE CLEARING & RESTORATION".

20. THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AWAY FROM ALL MANHOLE COVERS.

STORM WATER SEWER IMPROVEMENTS

TO SERVE

DENNY'S AT KELLOGG & ROCK

WICHITA, SEGWICK COUNTY, KANSAS

CITY OF WICHITA PRIVATE PROJECT

NO. 1971 PPS (O.C.A. NO. 607861),

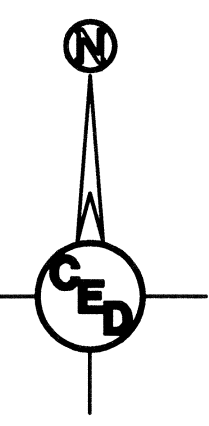
JAMES L. ARMOUR, P.E., CITY ENGINEER

DECEMBER 2008

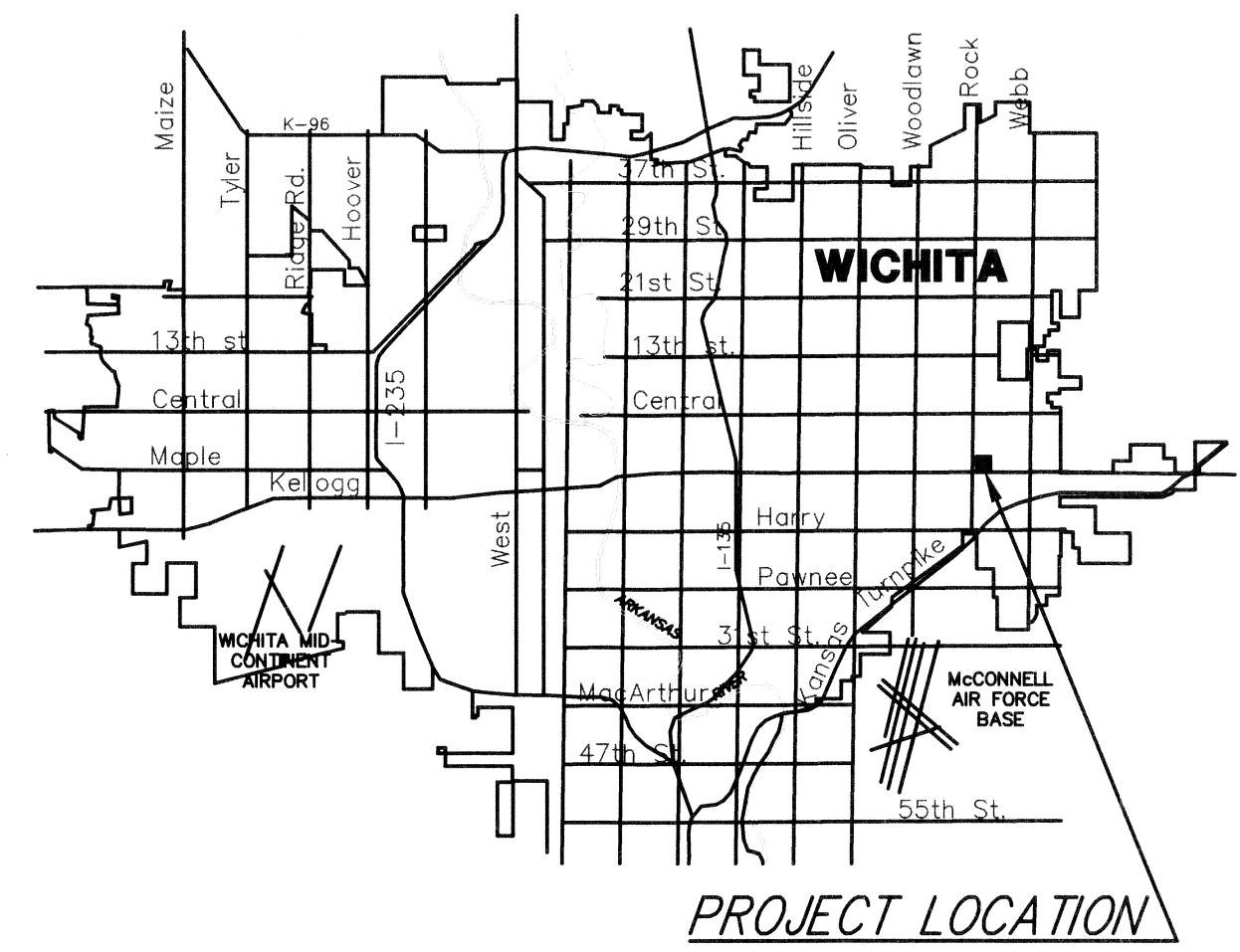


PROJECT LOCATED AT
8030 EAST KELLOGG DRIVE
IN THE
SW 1/4, SEC. 20, T27S, R1E
WICHITA, SEDGWICK COUNTY, KANSAS

HORIZONTAL CONTROL POINTS				
C.P. 1	N 20000.00	E 20000.00	1/2"	ReBar w/Brossmor Cap @ Prop. NW Cor.
C.P. 2	N 19868.49	E 20002.39	1/2"	ReBar w/Savoy Cap @ Prop. SW Cor.
C.P. 3	N 20004.07	E 20299.92	1/2"	ReBar w/GS & F Cap @ Prop. NE Cor.
C.P. 4	N 20008.34	E 20600.03	1/2"	Iron Pipe



- INDEX OF SHEETS**
1. Title Sheet
 2. Site Plan
 3. SWS Plan & Profile
 4. Standard Type 1 Inlet Detail
 5. Shallow Manhole Detail

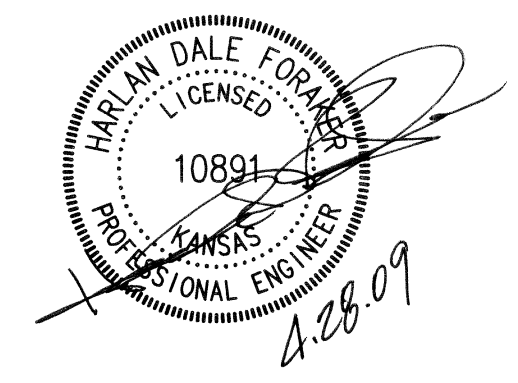


APPROVED AS NOTED
 By CITY ENGINEER OF WICHITA

Sanitary Sewers _____
 Storm Sewers Julianne Kellman 4-29-09
 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.



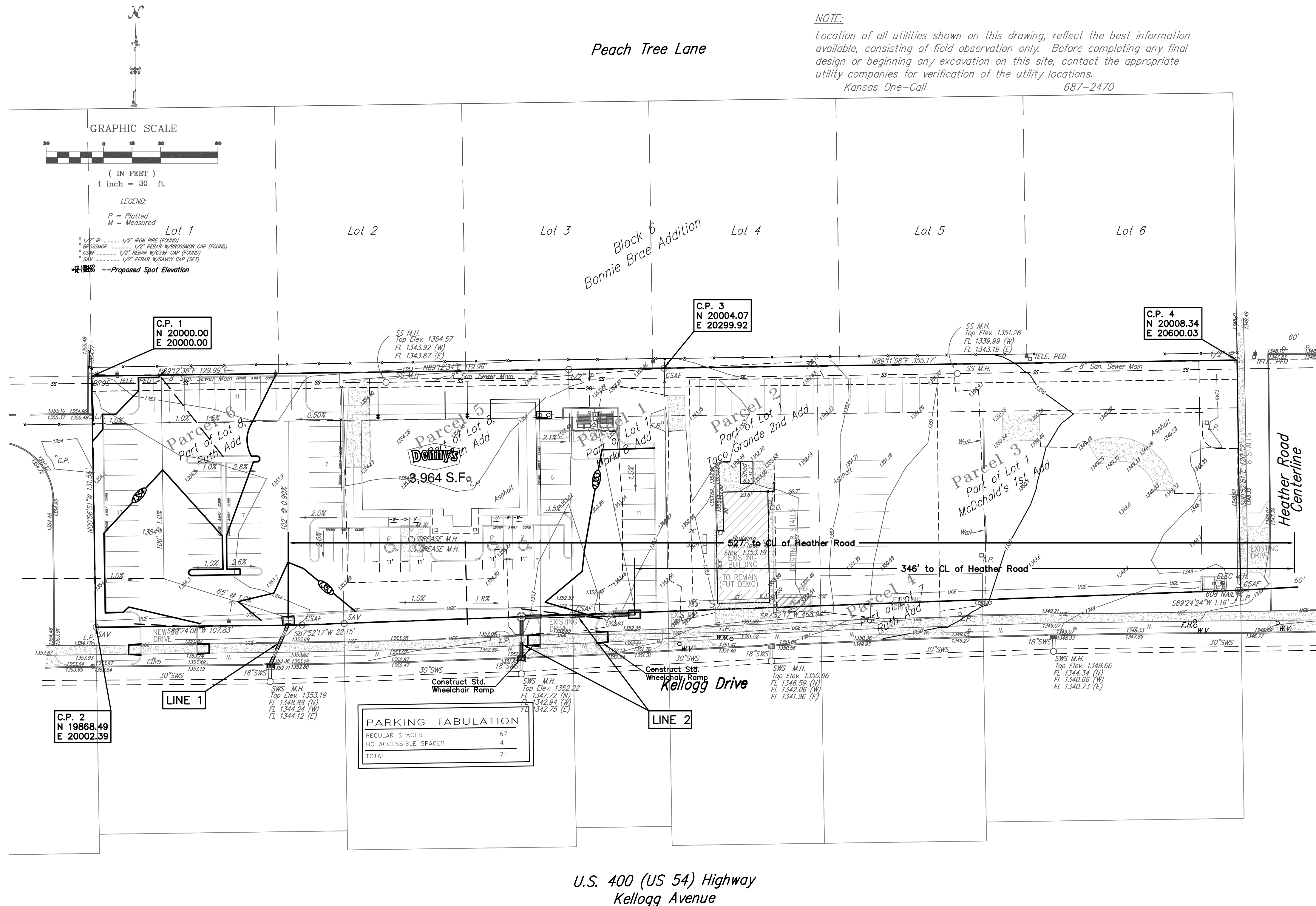
Bench Mark: Square Cut on top of north curb of Kellogg Drive, 20.4' S & 2' W of the S.W. Corner of that part of Lot 8, Ruth Addition lying north of US 54 Highway (said S.W. Corner being 131.56' S of the N.E. Corner of Lot 8 Ruth Addition: Elevation = 1363.67 NAVD88	CED PROJ. NO.: 20081663 CERTIFIED ENGINEERING DESIGN, P.A.	SHEET 1 TOTAL 5
	CED	810 WEST DOUGLAS, SUITE C WICHITA, KANSAS 67203 PH: (316) 262-8808 FAX: (316) 262-1669

GENERAL NOTES

- The Contractor shall provide a minimum advance notice of 72 hours to utility companies prior to starting construction as follows:
KANSAS ONE CALL 1-800-344-7233 or 687-2470 (LOCAL WICHITA)
- Pavement grades shown are to the top of pavement.
- Existing elevations were provided by others. Contractor shall verify existing grades and notify Engineer of any discrepancies. Elevations are based on Mean Sea Level Datum (NAVD88).
- Contractor shall be responsible for establishing and protecting Benchmark throughout construction.
- Contractor shall strip site of topsoil (6" min.) and stockpile this material to be used in grassed areas.
- All curb shall be Combined Curb & Gutter unless otherwise noted. Curb & Gutter shall be constructed to City of Wichita Standard Specifications.
- Compaction of fill material and subgrade stabilization shall comply with Geotechnical Engineering Report.
- Pavement type shall be A.C. Pavement. Pavement thickness and base stabilization shall be as specified in the Soils Engineer's Report.
- All soil used for overexcavation and for backfilling of excavations for basement, tank removal etc. shall be tested for compaction as required by an independent Soils Engineer's recommendations.
- The Contractor shall examine the construction site before bidding and be satisfied as to the work shown for completion. After bids have been received, the Contractor shall not assert that there was a misunderstanding of the quantities of work or of the nature of work to be completed.
- All proposed slopes and grades shall be in accordance with ADA Sec. 4.1.3(8)(a)(ii).
- The Contractor shall remove all existing asphalt and concrete to the property line. The new pavement shall be constructed to match the limit lines at the existing entrance.
- The Contractor shall remove the existing grease trap.
- Four Sidewalk ramps shall be constructed at the intersections of the drives and sidewalk.

NOTE:
Location of all utilities shown on this drawing, reflect the best information available, consisting of field observation only. Before completing any final design or beginning any excavation on this site, contact the appropriate utility companies for verification of the utility locations.
Kansas One-Call 687-2470

Peach Tree Lane



HORIZONTAL CONTROL POINTS			
C.P. 1	N 20000.00	E 20000.00	1/2" ReBar w/Brossmor Cap @ Prop. NW Cor.
C.P. 2	N 19868.49	E 20002.39	1/2" ReBar w/Savoy Cap @ Prop. SW Cor.
C.P. 3	N 20004.07	E 20299.92	1/2" ReBar w/CS & F Cap @ Prop. NE Cor.
C.P. 4	N 20008.34	E 20600.03	1/2" Iron Pipe

Bench Mark:
Square Cut on top of north curb of Kellogg Drive, 20.4' S & 2' W of the S.W. Corner of that part of Lot 8, Ruth Addition lying north of US 54 Highway (said S.W. Corner being 131.56' S of the N.E. Corner of Lot 8 Ruth Addition: Elevation = 1363.67 NAVD88)

SURVEY DISCLAIMER:
TOPOGRAPHIC SURVEY AND CONTOUR MAP USED IN PREPARING PLANS WAS PROVIDED BY SAVOY COMPANY, P.A., 535 S. EMPORIA, SUITE 104, 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.

DENNY'S
SITE PLAN
KELLOGG & ROCK ROAD
CED PROJ. NO.: 20081762
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" = 30'	SHEET
DRAWN: PDC	DATE: 12.10.08	2
CHECKED: HDF	CED FILE: DENNY-SGP	TOTAL 5

Parcel 1:
Part of Lot 1, Mark 8 Addition, Wichita, Kansas, Sedgwick County, Kansas, described as beginning at the N.W. Corner of said Lot 1; thence N89°11'59"E, a distance of 50.02 feet (measured), 50 feet (described) along the north line of said Lot 1 to the N.W. Corner of said Lot 1; thence S00°58'08"E, a distance of 127.44 feet along the east line of said Lot 1 to a point on the north right-of-way line of U.S. Highway 54, and said point being 203.46 feet north of the south line of the SW1/4 of Section 20, Twp. 27-S, R-2-E of the 6th P.M., Sedgwick County, Kansas; thence S87°52'17"W, a distance of 50.11 feet along the north right-of-way line to the west line of said Lot 1, and said point being 202.29 feet north of the south line of said SW1/4; thence N00°56'05"W, a distance of 128.60 feet along the west line of said Lot 1 to the point of beginning.

Parcel 5:
Part of the west 120 feet of the east 170 feet of Lot 8, Ruth Addition to Wichita, Kansas, Sedgwick County, Kansas, described as commencing at the N.W. Corner of said Lot 8; thence N89°12'38"E, a distance of 129.98 feet (measured), 130 feet (described) for the true point of beginning; thence continuing along said north line of said Lot 8, N89°12'34"E, a distance of 119.96 feet (measured), 120 feet (described); thence S00°56'05"E, a distance of 128.60 feet to a point on the north right-of-way line of U.S. Highway 54, and said point being 202.29 feet north of the south line of the SW1/4 of Section 20, Twp. 27-S, R-2-E of the 6th P.M., Sedgwick County, Kansas; thence S87°52'17"W along said north right-of-way line, a distance of 119.96 feet to a point that is 199.49 feet north of the south line of said SW1/4; thence N00°56'51"W, parallel with the west line of said Lot 8, a distance of 131.40 feet to the point of beginning.

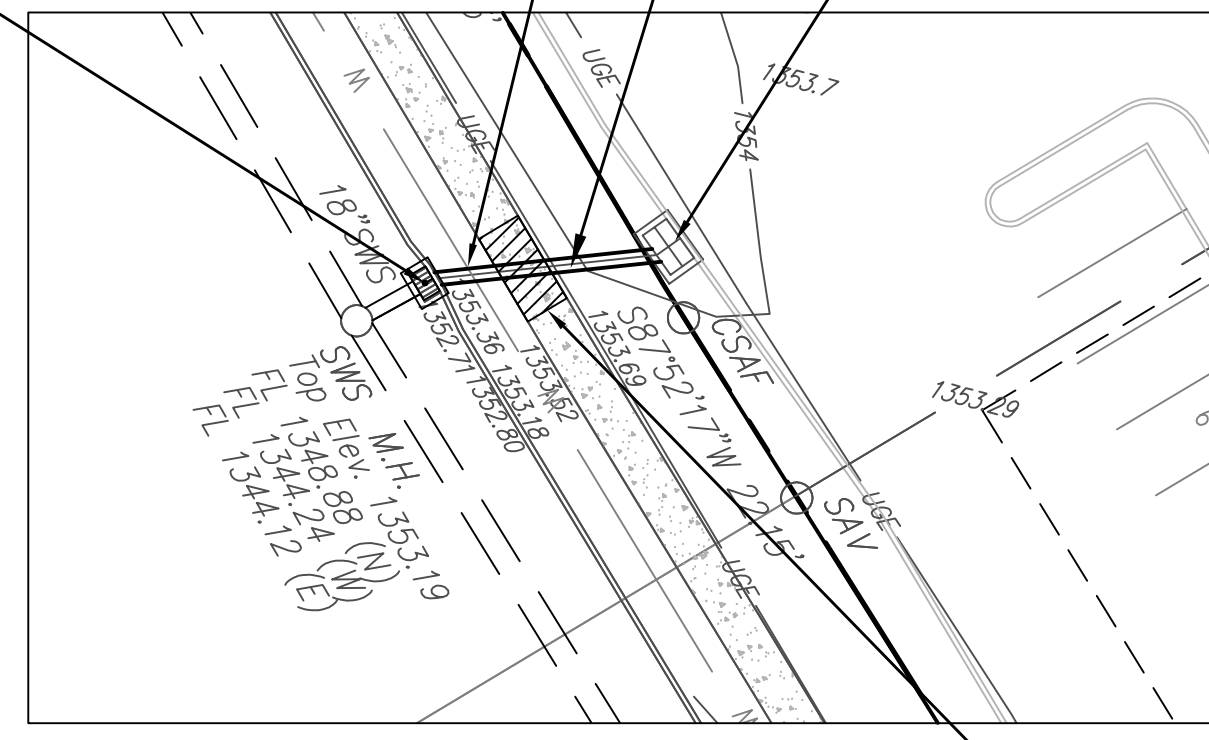
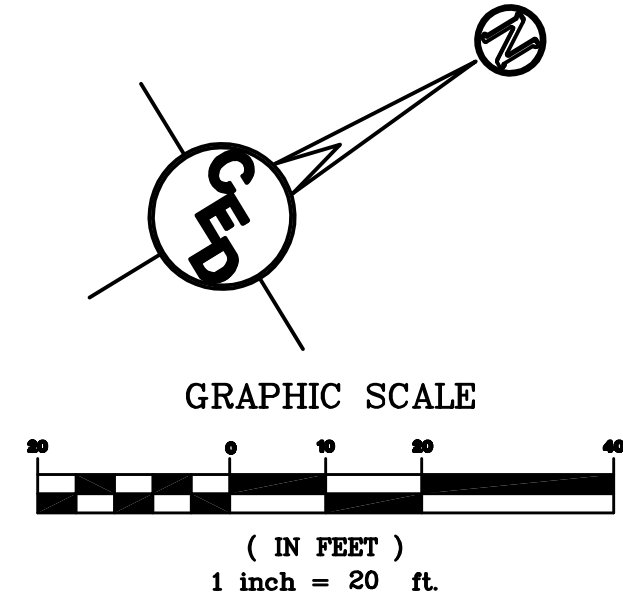
Parcel 6:
Part of the west 130 feet of Lot 8, Ruth Addition to Wichita, Sedgwick County, Kansas, described as beginning at the N.W. Corner of said Lot 8; thence N89°12'38"E, a distance of 129.98 feet (measured), 130 feet (described) along the north line of said Lot 8; thence S00°56'51"E, a distance of 131.40 feet to a point on the north right-of-way line of U.S. Highway 54, and said point being 199.49 feet north of the south line of the SW1/4 of Section 20, Twp. 27-S, R-2-E of the 6th P.M., Sedgwick County, Kansas; thence S87°52'17"W along the north line of said right-of-way, a distance 22.15 feet; thence S89°24'08"W along the north line of said right-of-way, a distance of 107.83 feet to a point on the west line of said Lot 8, and said point being 199.34 feet north of the south line of said SW1/4; thence N00°56'51"W along the west line of said Lot 8, a distance of 131.56 feet to the point of beginning.

PARKING TABULATION	
REGULAR SPACES	67
HC ACCESSIBLE SPACES	4
TOTAL	71

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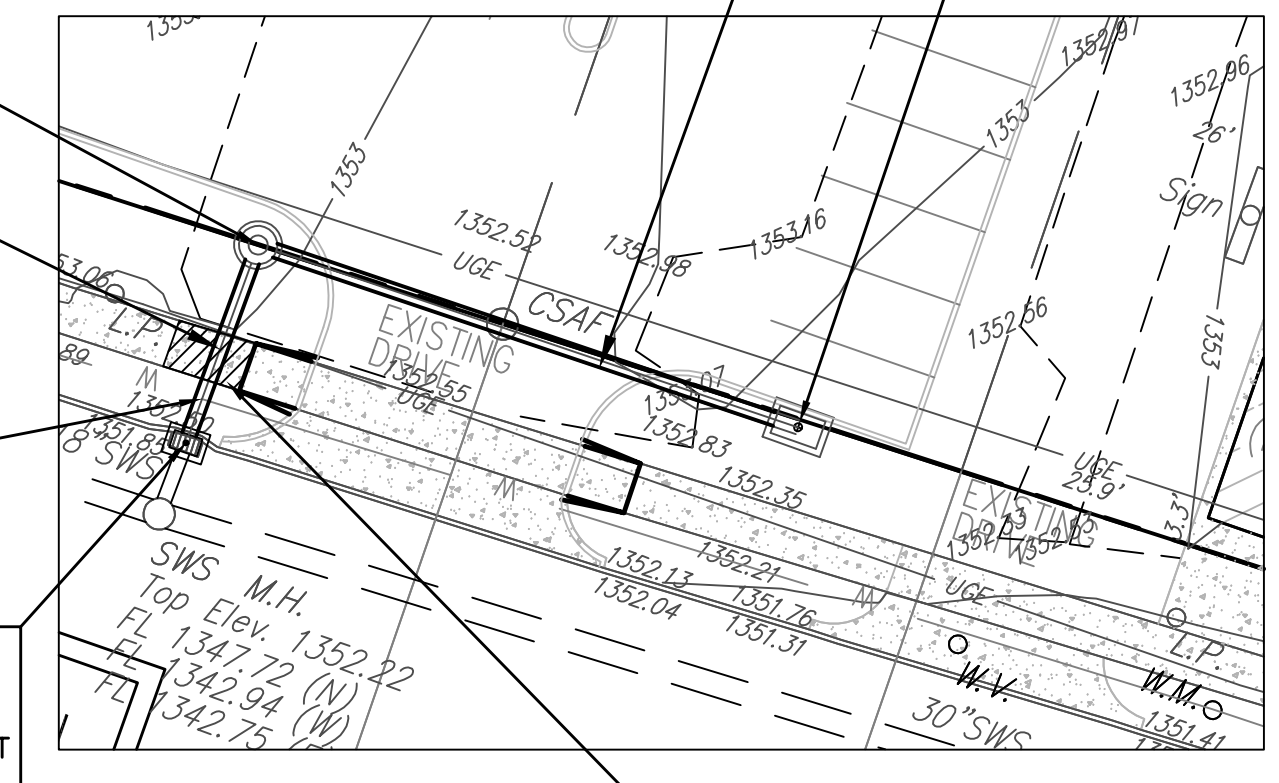
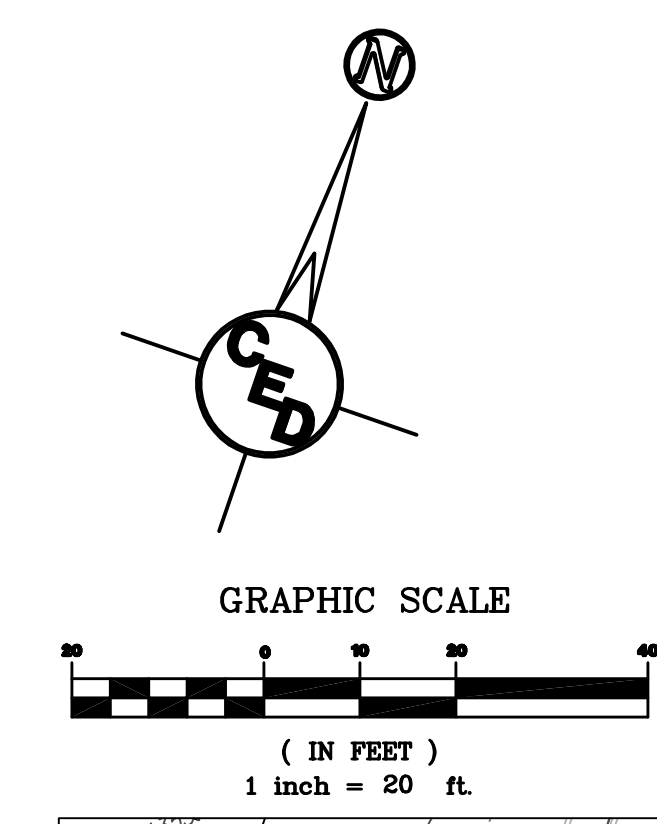
CAUTION!!! 8" PVC WATERLINE!
 THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF THE WATERLINE PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

Install 25.61 L.F. 18" RCP SWS @ Slope=1.0%

STA 10+25.61
 THE CONTRACTOR SHALL CONSTRUCT TYPE 1 INLET
 TOP ELEV.= 1353.28
 18" FL (S) (OUT) = 1349.66
 N 19870.45 (SOUTH CENTER
 E 20103.17 INSIDE FACE)

STA 10+07.70 TO STA 10+12.90
 10 LIN. FT. OF SIDEWALK TO BE REMOVED. SIDEWALK TO BE REPLACED BY CITY OF WICHITA'S CONTRACTOR.

SWS Line 1



STA 20+21.91
 THE CONTRACTOR SHALL CONSTRUCT SHALLOW TYPE A MANHOLE.
 TOP ELEV.= 1353.43
 18" FL (E)(IN) = 1349.09
 18" FL (S)(OUT) = 1348.99
 N 19873.86 (CENTER)
 E 20225.24

Install 21.91 L.F. 18" RCP SWS @ Slope=0.30%

CAUTION!!! 8" PVC WATERLINE!
 THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION AND DEPTH OF THE WATERLINE PRIOR TO CONSTRUCTION AND NOTIFY ENGINEER OF ANY DISCREPANCIES.

STA. 20+00
 CONTRACTOR SHALL CORE EXISTING STORM INLET. INSTALL AND SEAL 18" RCP TO INLET W/QUICK SET HYDRAULIC CEMENT. FILL ALL IMPERFECTIONS W/HYDRAULIC CEMENT.
 EXISTING TOP ELEV. = 1352.71
 EXISTING 18" FL (S) (OUT) =1348.83
 PROPOSED 18" FL (N) (IN)=1348.93
 N 19851.94 (NORTH CENTER INSIDE
 E 20226.72 FACE)

Install 59.33 L.F. 18" RCP SWS @ Slope=0.30%

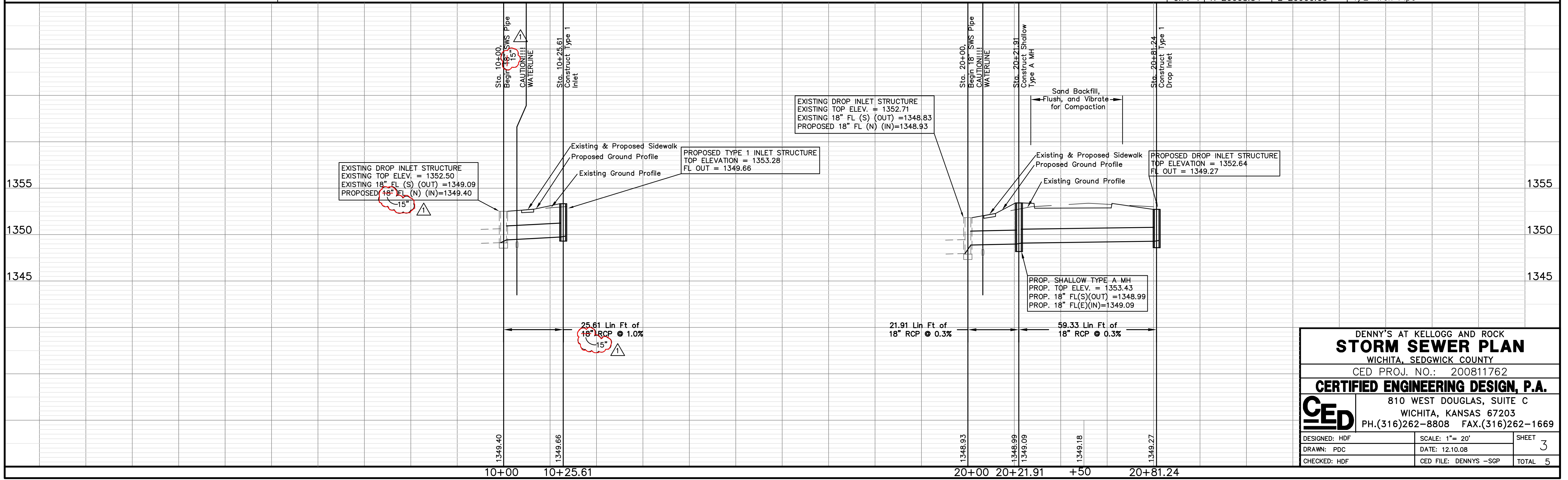
STA 20+81.24
 THE CONTRACTOR SHALL CONSTRUCT TYPE 1 INLET.
 TOP ELEV.= 1352.64
 18" FL (S)(OUT) = 1349.27
 N 19875.25 (WEST CENTER
 E 20282.05 INSIDE FACE)

STA 10+06.86 TO STA 10+11.86
 8.4 LIN. FT. OF SIDEWALK TO BE REMOVED. SIDEWALK TO BE REPLACED BY CITY OF WICHITA'S CONTRACTOR.

SWS Line 2

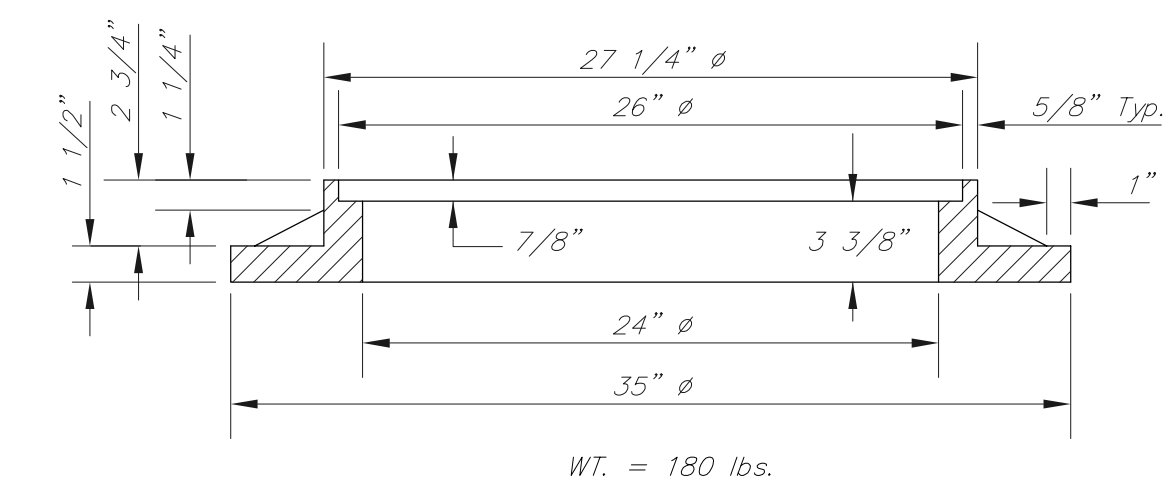
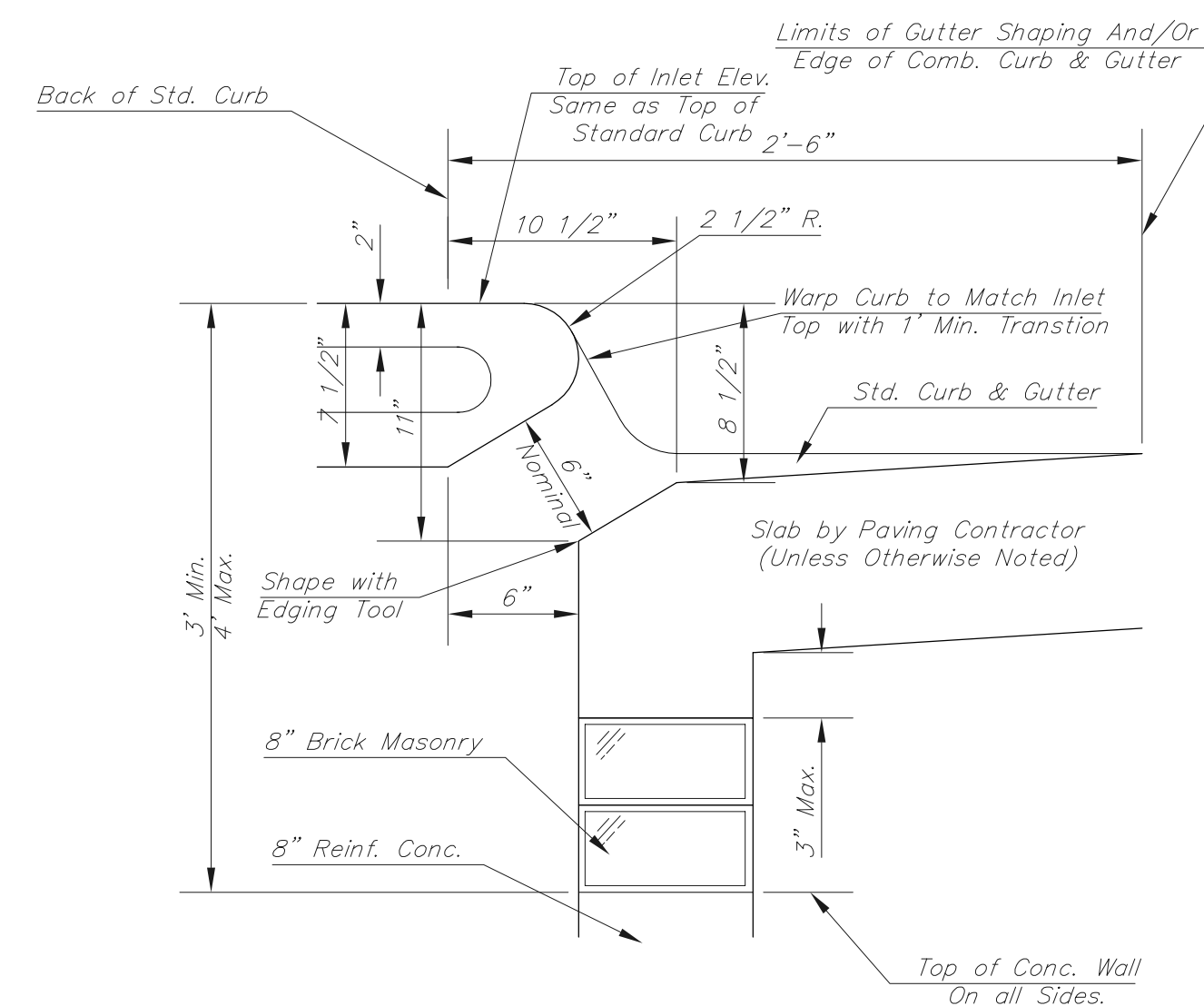
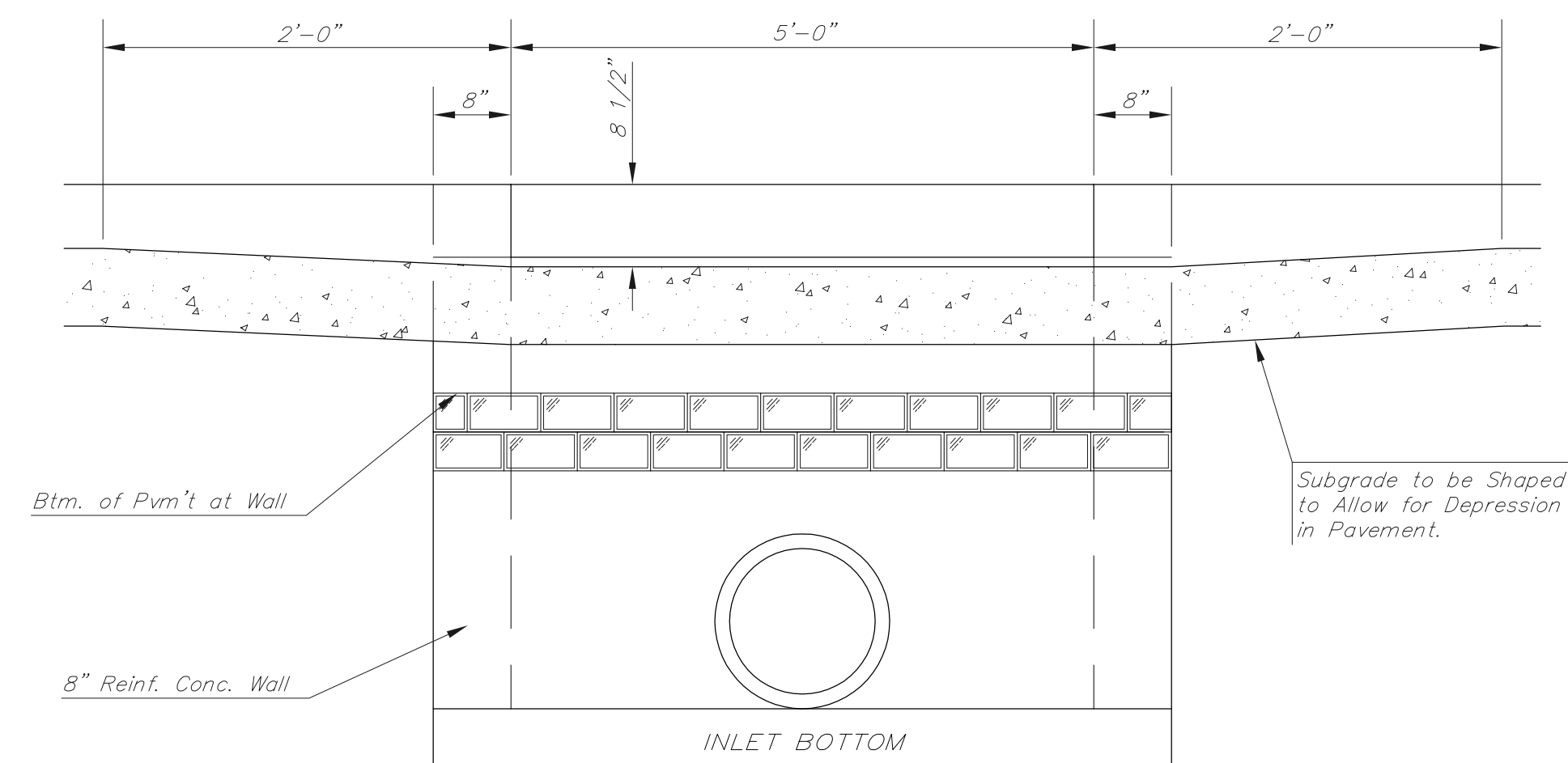
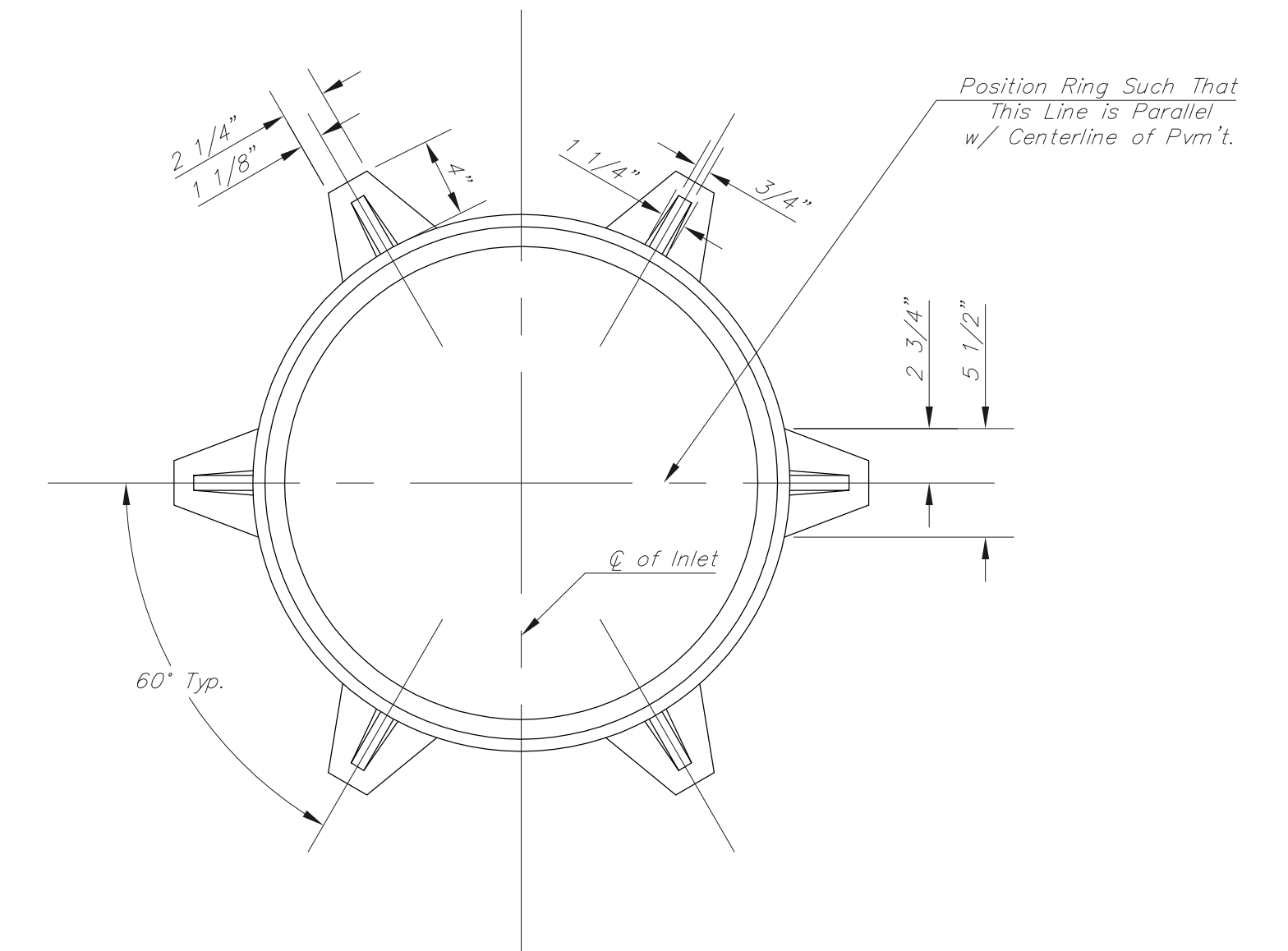
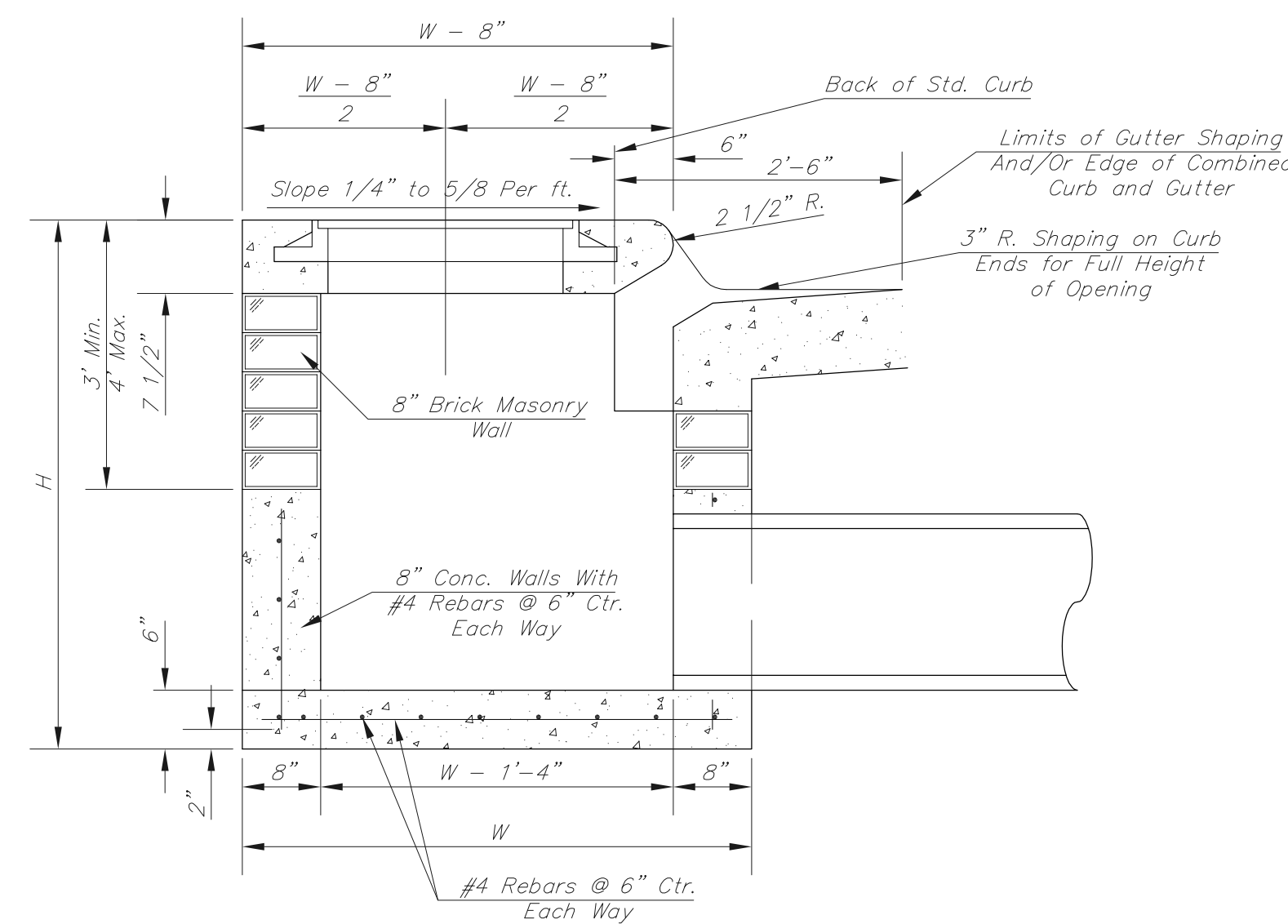
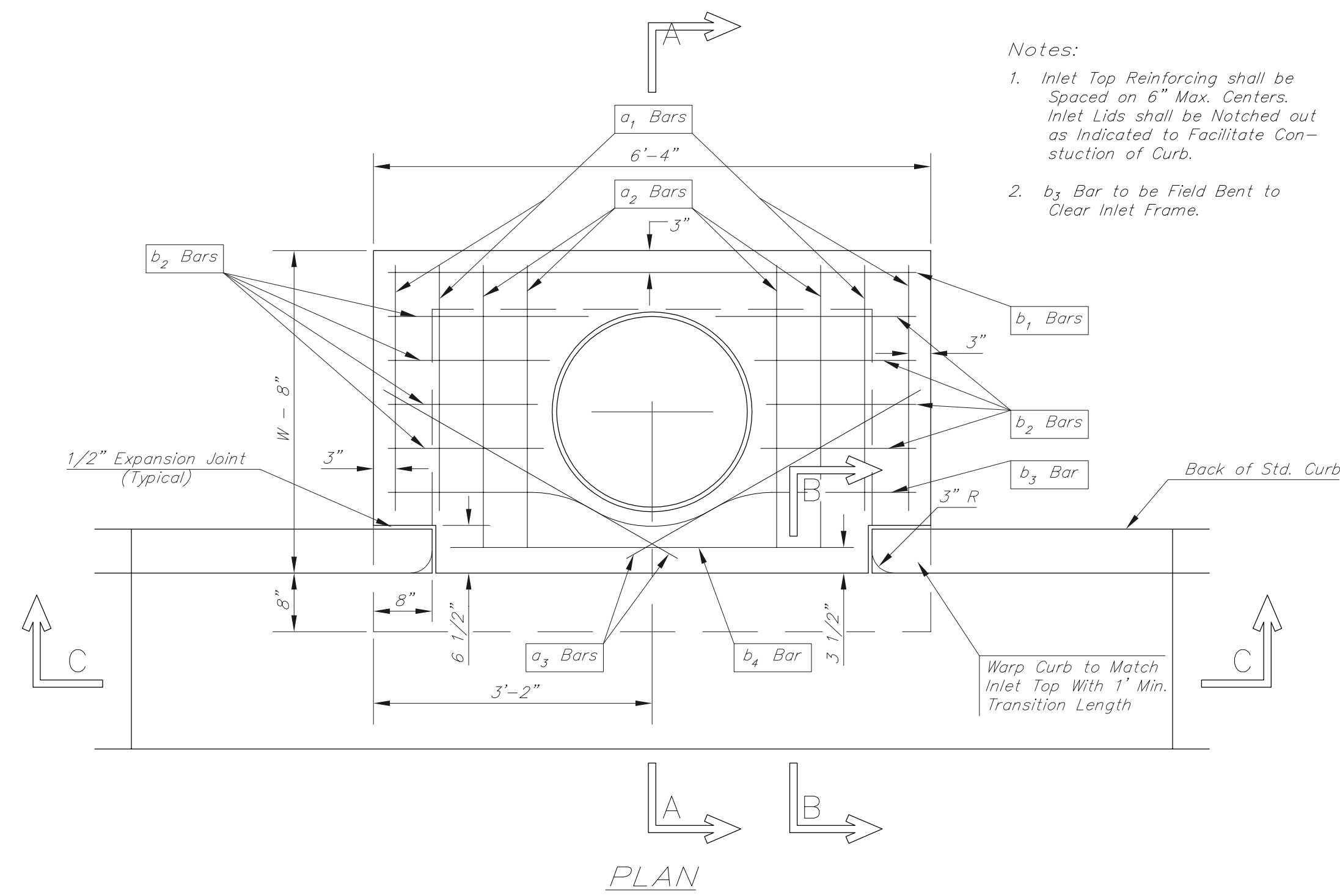
HORIZONTAL CONTROL POINTS			
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AS - BUILT CHANGES 07/14/09



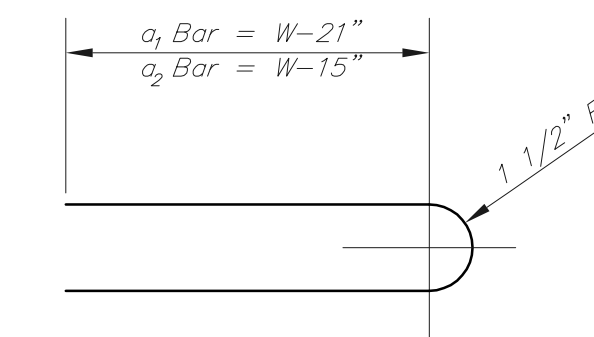
DENNY'S AT KELLOGG AND ROCK
STORM SEWER PLAN
 WICHITA, SEDGWICK COUNTY
 CED PROJ. NO.: 200811762
CERTIFIED ENGINEERING DESIGN, P.A.
 810 WEST DOUGLAS, SUITE C
 WICHITA, KANSAS 67203
 PH.(316)262-8808 FAX.(316)262-1669

DESIGNED: HDF	SCALE: 1" = 20'	SHEET 3
DRAWN: PDC	DATE: 12.10.08	
CHECKED: HDF	CED FILE: DENNY'S -SGP	TOTAL 5



MANHOLE RING AND COVER

*See City of Wichita Standard Manhole Ring and Cover Detail Sheet for Cover Details to Be Used With Inlet Frame.



STEEL SCHEDULE

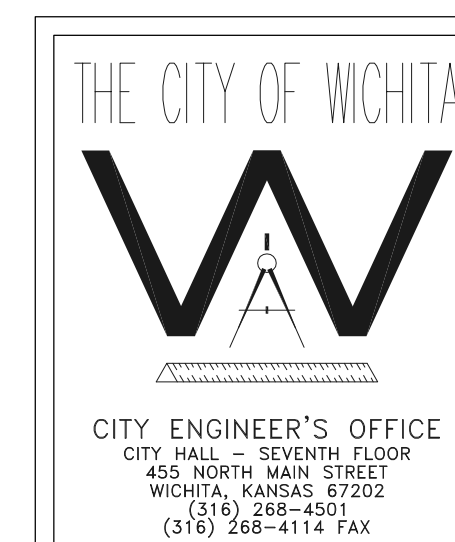
BAR	b ₁								b ₂	b ₃	b ₄	Wt. Lbs.
	a ₁	a ₂	a ₃	W=4'-4"	W=5'-4"	W=6'-4"	W=7'-4"	W=8'-4"				
NUMBER	4	4	2	1	3	5	7	9	6	1	1	
SIZE	#4	#4	#4	#4	#4	#4	#4	#4	#4	#4	#6	
LENGTH	W=4'-4"	5'-7"	6'-7"	4'-0"	6'-1"	-	-	-	1'-9"	6'-2"	4'-8"	60±
	W=5'-4"	7'-7"	8'-7"	5'-0"	6'-1"	-	-	-	1'-9"	6'-2"	4'-8"	81±
	W=6'-4"	9'-7"	10'-7"	6'-0"	-	6'-1"	-	-	1'-9"	6'-2"	4'-8"	101±
	W=7'-4"	11'-7"	12'-7"	7'-0"	-	-	6'-1"	-	1'-9"	6'-2"	4'-8"	121±
	W=8'-4"	13'-7"	14'-7"	8'-0"	-	-	-	6'-1"	1'-9"	6'-2"	4'-8"	141±

Note: a₃ Bars to be Placed Approx. 2" Below Top of Inlet Cover.

STANDARD CURB INLET PRECAST TOPS			
W	PRE-CAST TOP SIZE	PIPE SIZE	CU. YD. CONC.
4'-4"	3'-8" 6'-4" 7 1/2"	21" & SMALLER	0.38±
5'-4"	4'-8" 6'-4" 7 1/2"	24" & 30"	0.51±
6'-4"	5'-8" 6'-4" 7 1/2"	36" & 42"	0.64±
7'-4"	6'-8" 6'-4" 7 1/2"	48" & 54"	0.77±
8'-4"	7'-8" 6'-4" 7 1/2"	60" & 66"	0.90±

GENERAL NOTES

- Concrete tops to be installed on thin mortar cushion to insure full support along brick walls. Concrete tops may be cast in place or precast. Concrete used for inlet construction shall be concrete pavement mix.
- Contractor shall have the option of constructing 8" brick masonry walls between the concrete inlet base and top on this inlet when W=6'-4" and H=7'-0" or less.
- Inlet invert shall be shaped with 8 sack sand mix concrete to create flow channels and to increase hydraulic efficiency such that the inlet will be self cleaning between all inlet and/or outlet pipes.
- The ends of all pipes installed in inlets shall be cut off flush with the inside face of the inlet wall.

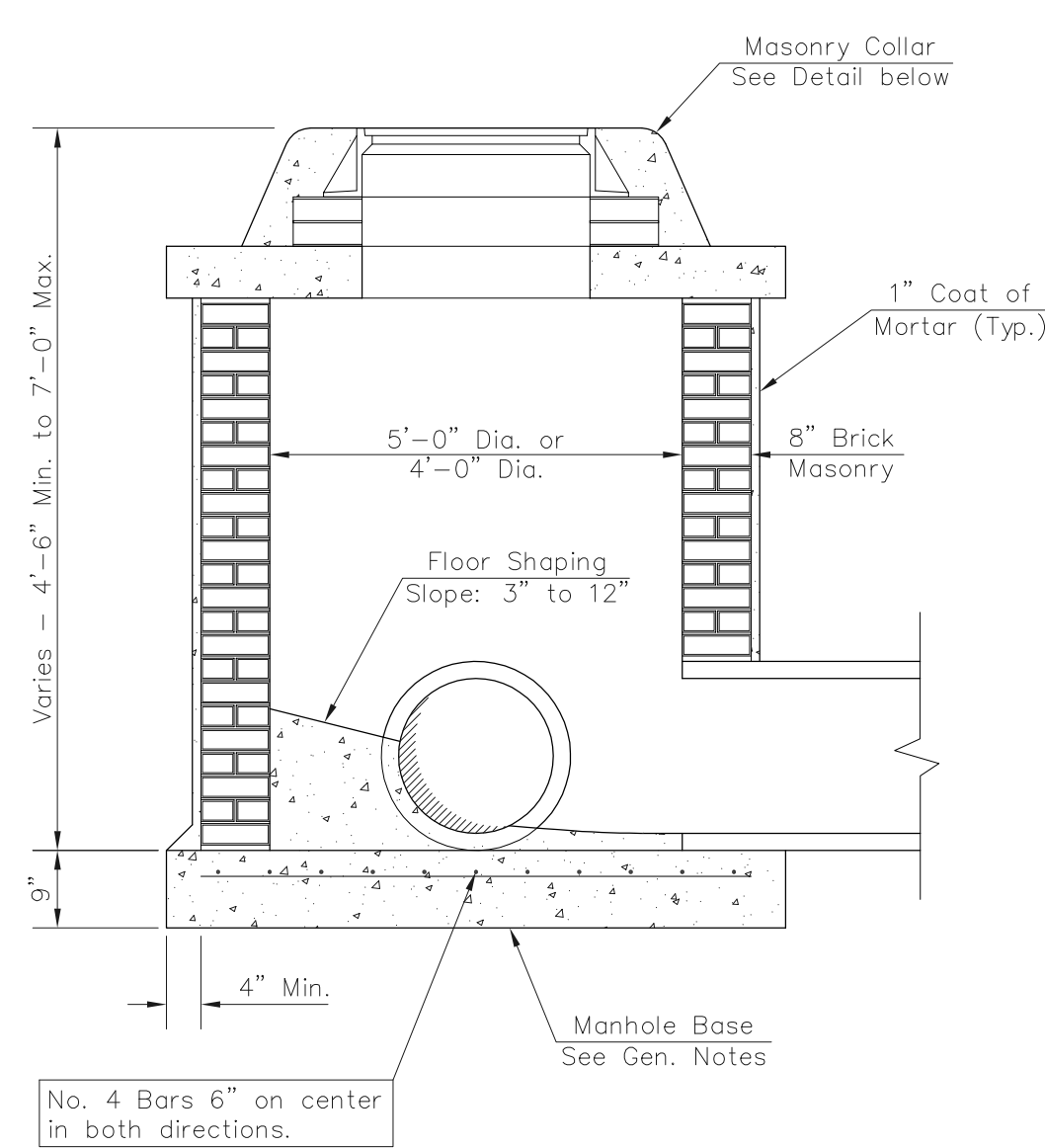


STANDARD TYPE 1
CURB INLET
OPENING = 6" x 5'-0"

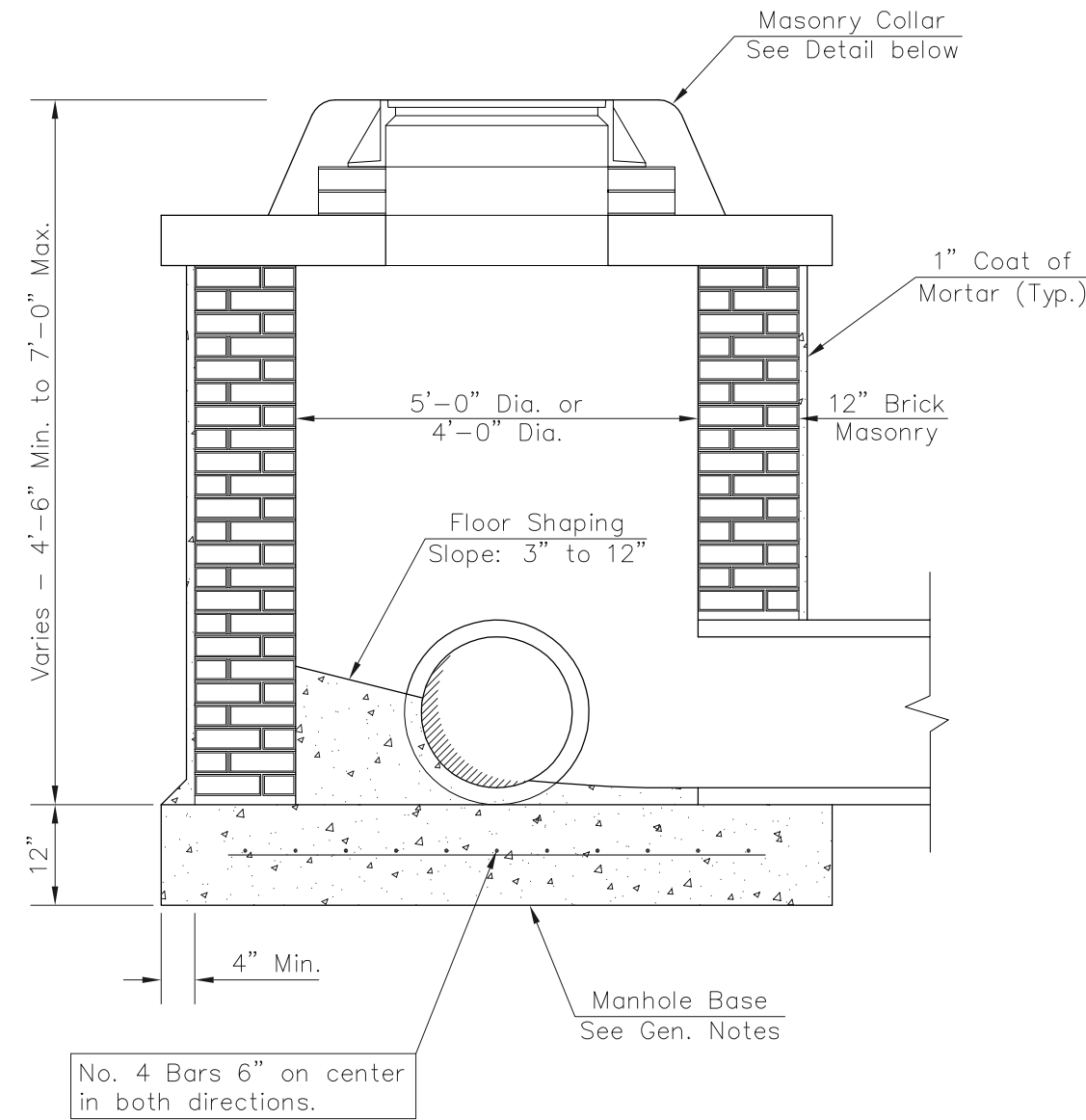
JAMES ARMOUR P.E. - CITY ENGINEER

PROJECT NUMBER XXX-XXXX INDEX CODE PPS(607861)

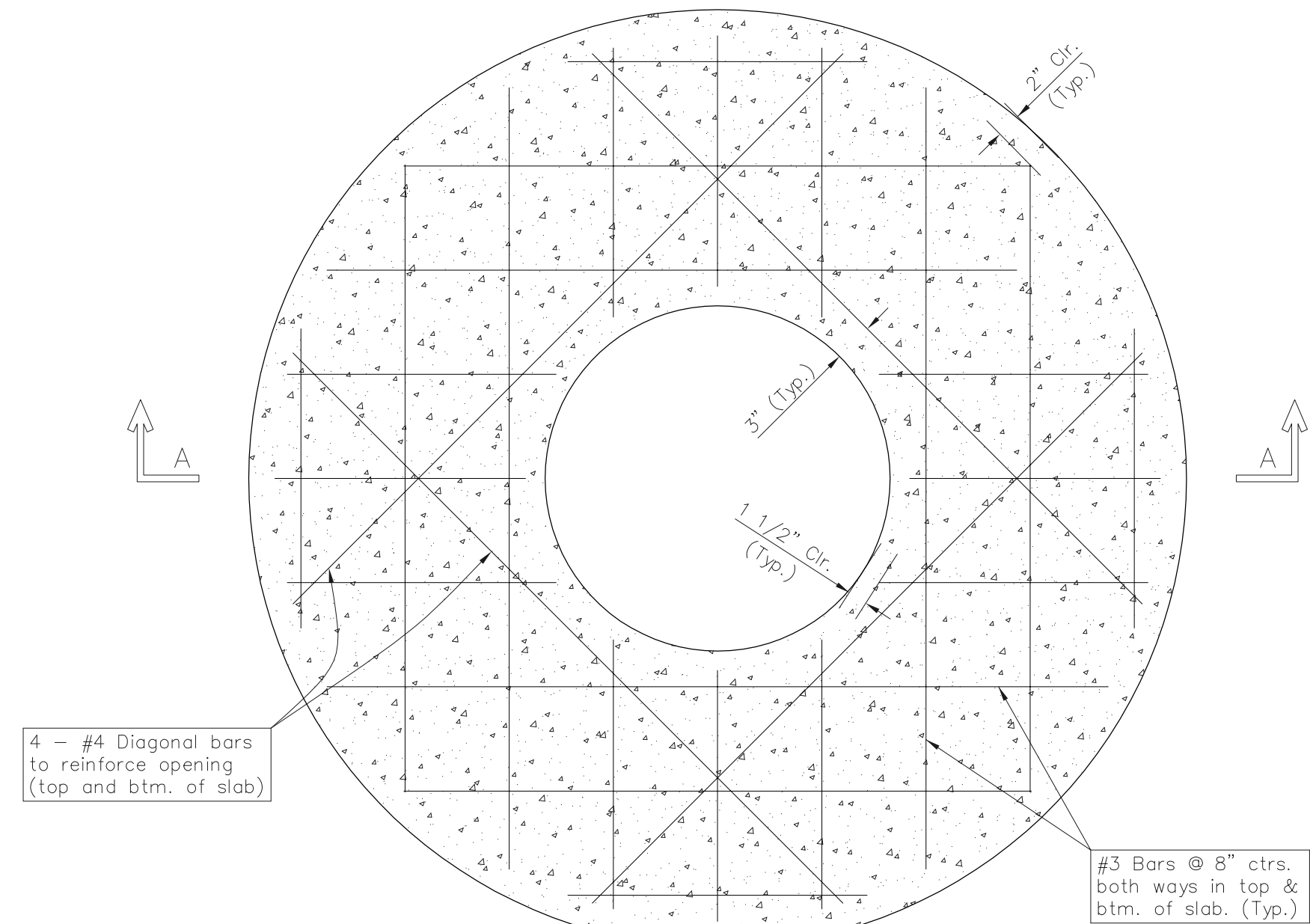
DATE NOV 00 SHEET 4 OF 5



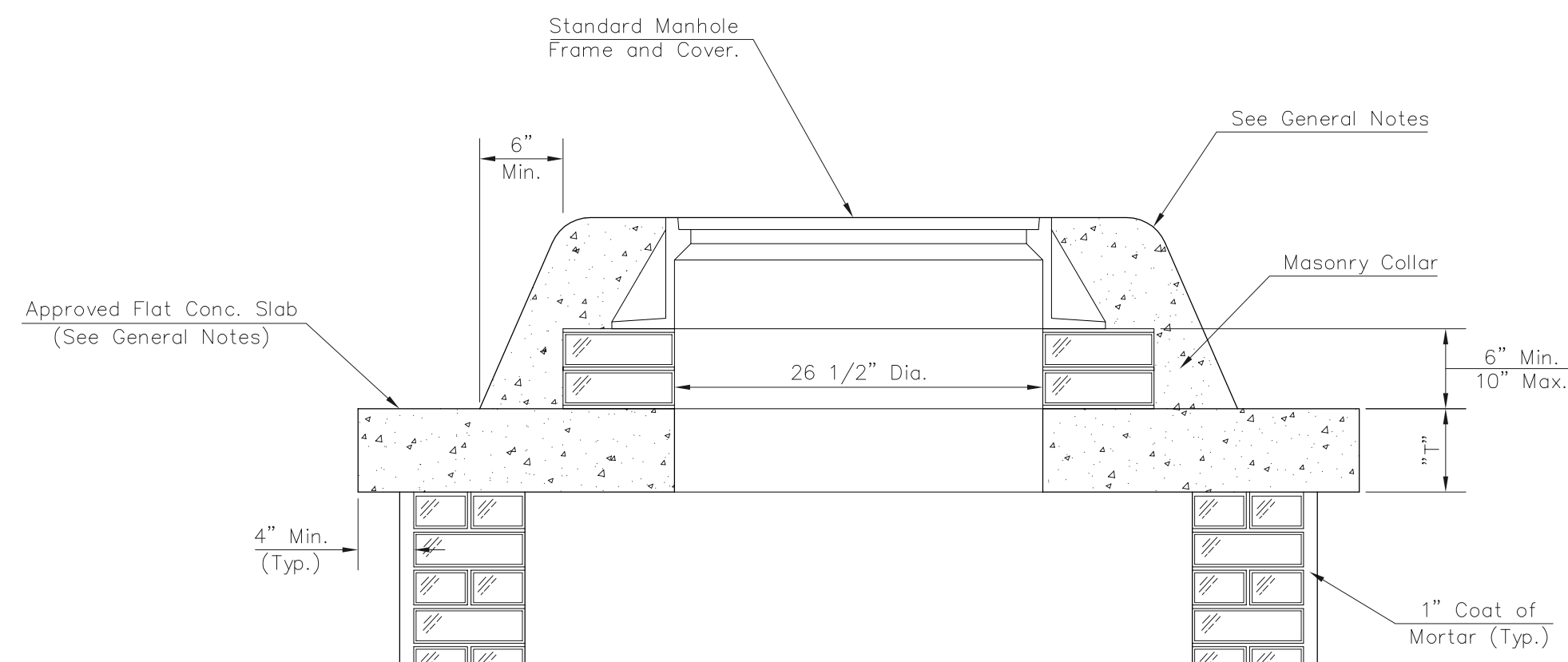
SHALLOW TYPE "A" MANHOLE



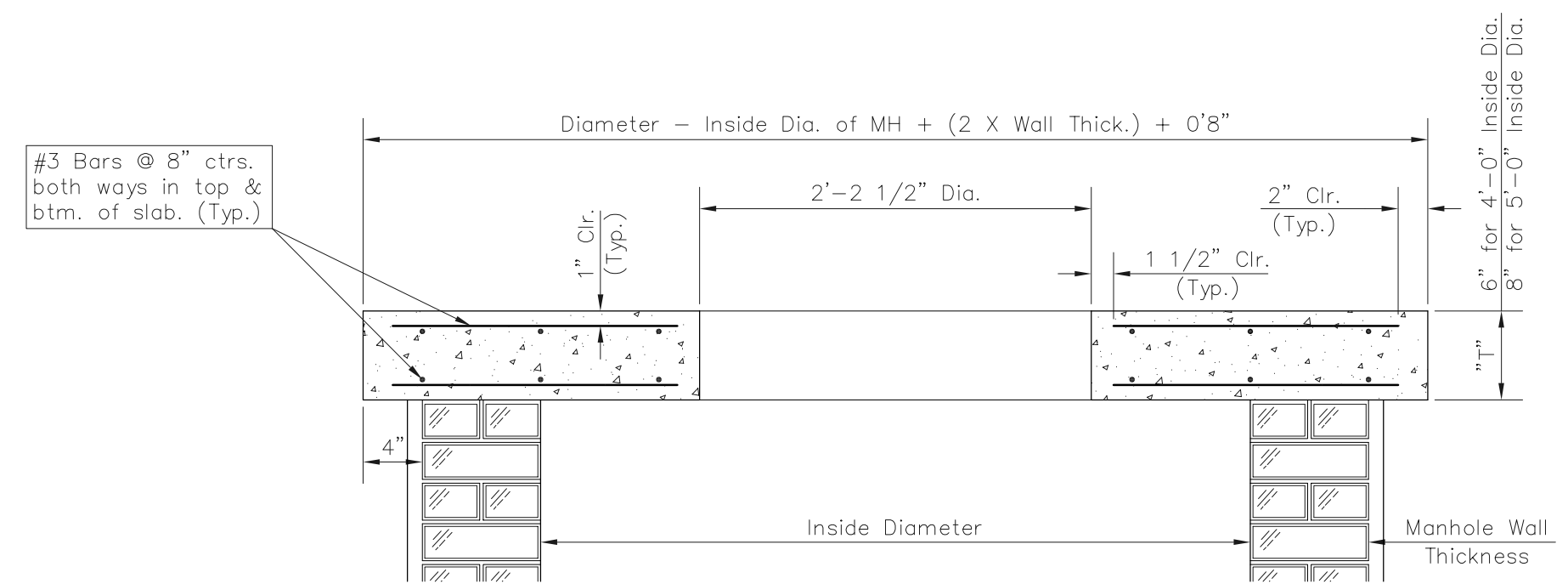
SHALLOW TYPE "B" MANHOLE



PLAN



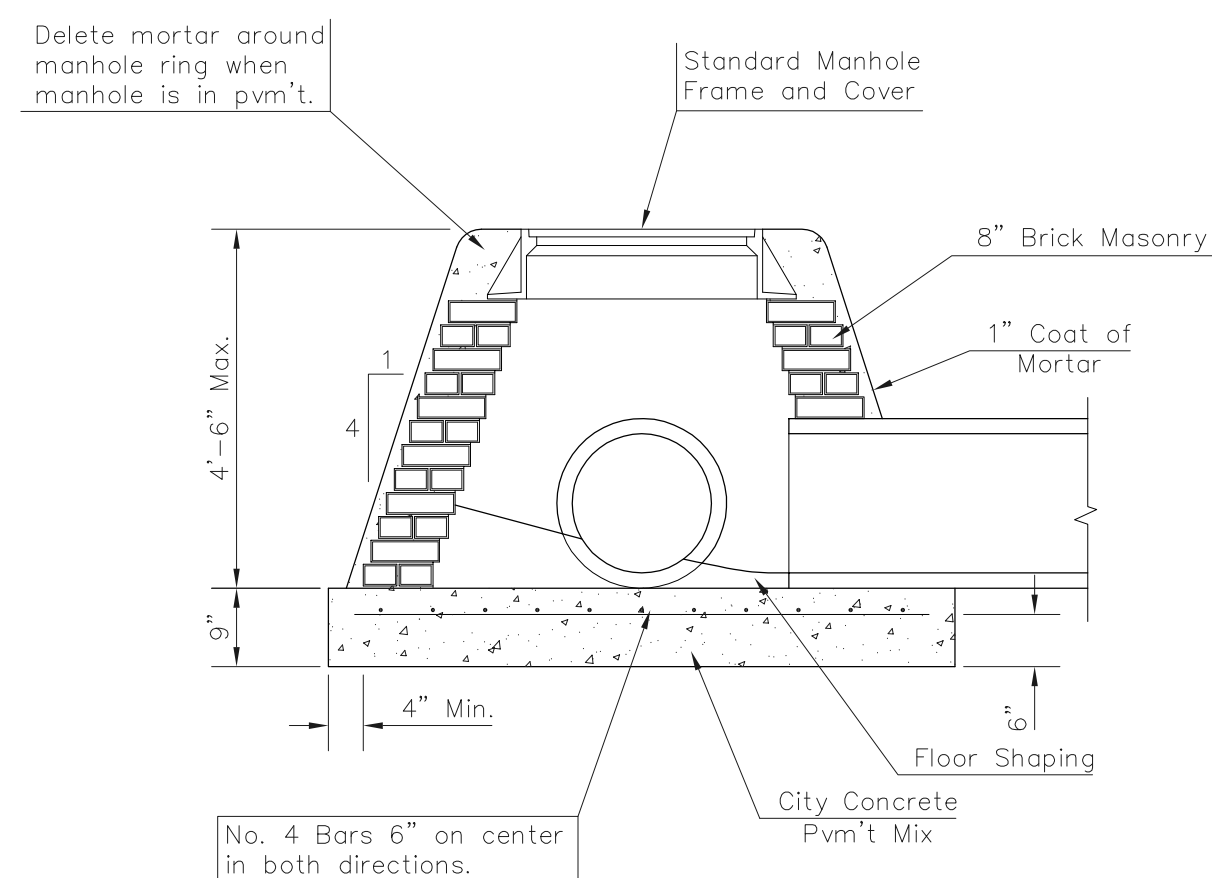
MASONRY COLLAR DETAIL



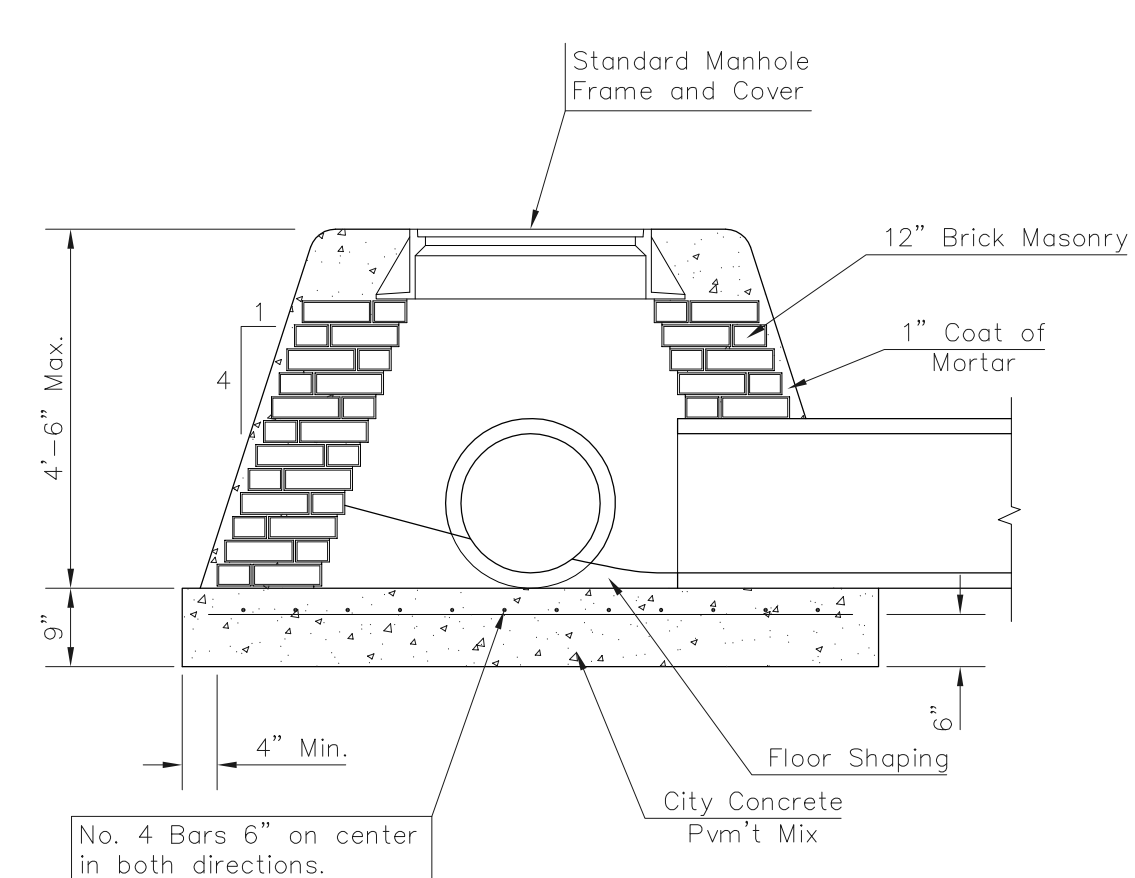
SECTION A-A

FLAT CONCRETE SLAB DETAILS

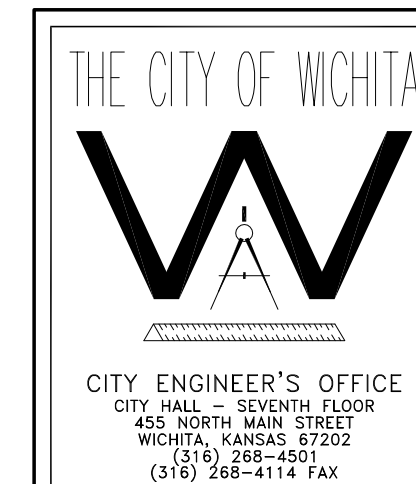
- GENERAL NOTES**
- Mortar used in masonry construction shall contain 8 sacks of cement per cubic yard. Concrete used in manhole bases shall conform to the requirements of concrete for concrete pavement construction as specified in the city standard paving specifications using city concrete cement mix without air entraining admixture. Mortar shall be placed around the manhole ring as shown on the drawings when manholes are constructed in unpaved areas. Type "A" shallow manholes can be used on sewers when the manhole is not located within public street pavement. 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 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. 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 "A" and "B" shall be paid for at the unit price bid per each for the type and diameter indicated. Standard special shallow manholes type "A" and "B" shall be paid for at the unit price bid per each for the type 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.



SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE



STANDARD/SPECIAL
SHALLOW MANHOLES
TYPE 'A' & 'B'

NEIL D. CABLE P.E. - CITY ENGINEER

PROJECT NUMBER XXX-XXXXX INDEX CODE XXXXXX

DATE JAN 03 SHEET 5 OF 5

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