CONSTRUCTION PLANS FOR SANITARY SEWER SYSTEM EXTENSIONS

SPENCER GARDENS 2ND ADDITION
TO
THE CITY OF WICHITA, KANSAS

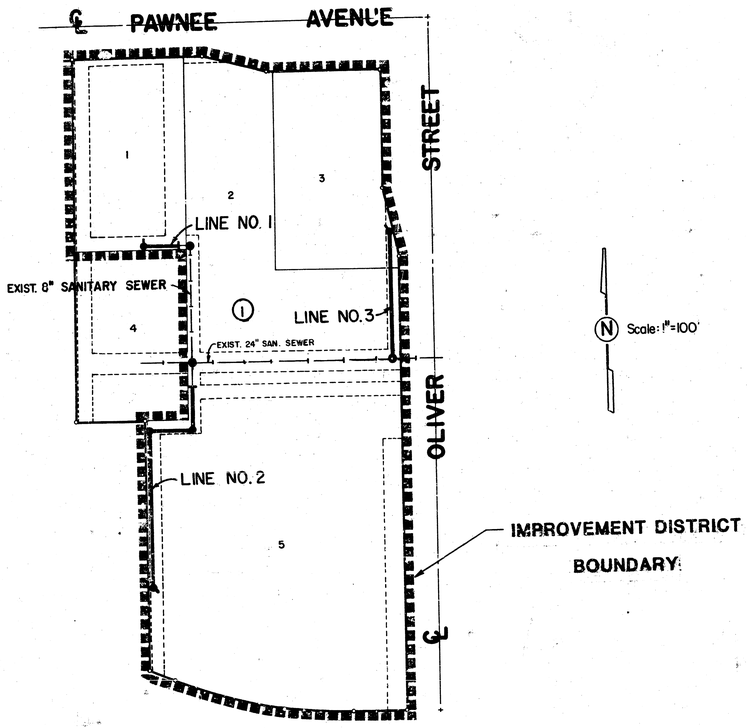
LATERAL 97, WAR INDUSTRIES SEWER

PROJECT NO. 468-76-245-81852-000-000-001

MICHAEL E. LINDEBAK, P.E.-CITY ENGINEER

GENERAL NOTES

1. 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.
2. The Contractor shall be responsible for maintaining continuous flow of sewage through construction. Contractor proposed method for maintaining sewage flow shall be approved by the Engineer. Cost of maintaining flow of sewage through construction will not be paid for directly and this cost shall be considered as subsidiary to the other pay items of work.
3. The Contractor shall be responsible for preserving property irons. The Contractor will be required to re-establish any property irons which are damaged or destroyed by his construction operations. Such irons shall be re-established by a licensed land surveyor or a licensed professional engineer in accordance with state laws.
4. The Contractor shall verify flo line elevations and alignment of the connection points to existing sewer lines before beginning construction.



INDEX

TITLE SHEET	SHEET 1
LINE NO. 1	SHEET 2
LINE NO. 2	SHEET 2
LINE NO. 3	SHEET 2
STANDARD MANHOLE TYPE "B"	SHEET 3
STANDARD MANHOLE TYPE "C"	SHEET 4
STANDARD MANHOLE TYPE "D"	SHEET 5
PLAT	SHEET 6

BENCH MARKS

B.M. #1 City of Wichita Std. Disc 52' N. and 42' E. of the centerlines of Oliver and Pawnee.
Elev. 121.146

B.M. #2 "+" cut in North side of KG&E Manhole Ring 15' Right of Sta. 0+40 Line No. 2.
Elev. 116.66

B.M. #3 Spike in Light Pole in West side of Oliver 415' S.of ℄ Pawnee.
Elev. 121.17

SEPTEMBER 1988

PLANS PREPARED

BY

POE & ASSOCIATES OF KANSAS INC.
CONSULTING ENGINEERS
434 N. Oliver, Suite 110 ■ Wichita, KS 67208 ■ 316/685-4114

KENNETH E. HALL
LICENSED
7690
KANSAS
PROFESSIONAL ENGINEER

STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS

OLIVER AVENUE

PAWNEE AVENUE

-LINE NO. 3-

-LINE NO. 1-

-LINE NO. 2-

UNDERGROUND POWER

KG & E MH

EXIST. CURB & GUTTER

EXIST. ASPHALT

20' UTILITY ESMT.

EXIST. 24" SAN SEWER

℄ 30' SANITARY SEWER ESMT.

EXIST. 8" SAN. SEWER

EXIST. ROAD

EXIST. FENCE

IRON (TYP.)

RP

BM #2

Concrete Curb & Gutter or Asphalt Pavement damaged by Sewer Contractor shall be replaced by Contractor. Cost of replacement shall be incidental to Project Costs.

Sta. 0+CO Line No. 3
Const. Std. MH Type "A" or "B".(5' Dia.)
W/ Outside Drop

Sta. 1+87 Line No. 3
Const. Std. MH Type "A" or "C"
Install 1 - 6" Stub NW
F.L. 111.71

CAUTION!
6" PVC Water Line

CAUTION!
Underground Power & UGT

Sta. 0+47.7 Line No. 2
Connect to Exist. 8" Pipe

Sta. 0+CO Line No. 1
Sta. 0+00 Line No. 2
Exist. Std. MH Type "A" or "C"
W/ Outside Drop

Sta. 1+72.2 Line No. 1
Exist. Std. MH Type "A" or "C"

Sta. 0+97.8 Line No. 2
Const. Std. MH Type "A" or "C"

Sta. 1+62.8 Line No. 2
Const. Std. MH Type "A" or "C"

Sta. 2+42.3 Line No. 1
Const. Std. MH Type "A" or "C"
Install 1 - 6" Stub North
F.L. 110.23

Sta. 3+92.7 Line No. 2
Const. Std. MH Type "A" or "C"
Install 1 - 6" Stub SE
F.L. 107.14

Sta. 1+87.2 Line No. 1
Connect to Exist. 8" Pipe

B.M. #1 City of Wichita Std. Disc 52' N and 42' E of the centerlines of Oliver and Pawnee. Elev. 121.146

N

SCALE IN FEET
40 0 40 80
HORIZ.

5
0
VERT.

LINE NO. 1

Sta. 0+00 Line No. 1
Sta. 0+00 Line No. 2
Exist. Std. MH Type "A" or "C"
(Outside Drop)

Top MH Elev. 116.65

Finish Ground

Top MH Elev. 117.30

Exist. Ground Profile

Sta. 1+72.2 Line No. 1
Exist. Std. MH Type "A" or "C"

Sta. 1+87.2 Connect to Exist. 8" Pipe

Sta. 2+42.3 Line No. 1
Const. Std. MH Type "A" or "C"
Install 1 - 4" Stub N

Top MH Elev. 117.5

Exist. 8" Pipe

242.3 L.F. 8" Pipe @ 0.85% Grade

85.71	107.90	108.75	109.36	109.46	109.59	109.70	110.06				
0		1				2					

LINE NO. 2

Sta. 0+00 Line No. 1
Sta. 0+00 Line No. 2
(Outside Drop MH)

Top MH Elev. 116.65

Exist. 8" Pipe

Sta. 0+47.7 Connect to Exist. 8" Pipe

Top MH Elev. 115.8

Sta. 0+97.8 Line No. 2
Const. Std. MH Type "A" or "C"

Top MH Elev. 115.5

Sta. 1+62.7 Line No. 2
Const. Std. MH Type "A" or "C"

Finish Ground

Exist. Ground Profile

Sta. 3+92.7 Line No. 2
Const. Std. MH Type "A" or "C"
Install 1 - 6" Stub SE

Top MH Elev. 114.0

392.7 8" Pipe @ 0.4% Grade

85.71	105.20	105.39	105.59	105.69	105.95	106.05	106.20	106.60	106.97		
0				1			2	3		4	

LINE NO. 3

Sta. 0+00 Line No. 3
Const. Std. MH Type "A" or "B".(5' Dia.)
(Outside Drop)

Top MH Elev. 119.7

Finish Ground

Exist. Ground Profile

6" PVC Water Line
Top Elev. 114.26

Sta. 1+87 Line No. 3
Const. Std. MH Type "A" or "C"
Install 1 - 4" Stub NW

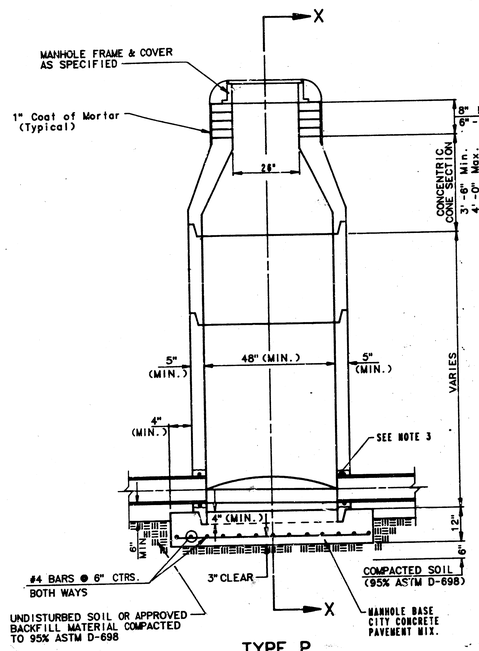
Top MH Elev. 120.4

187 L.F. 8" Pipe @ 0.6% Grade

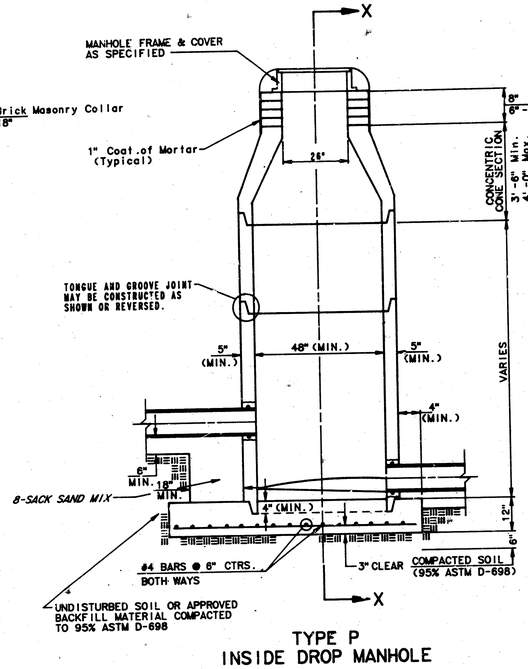
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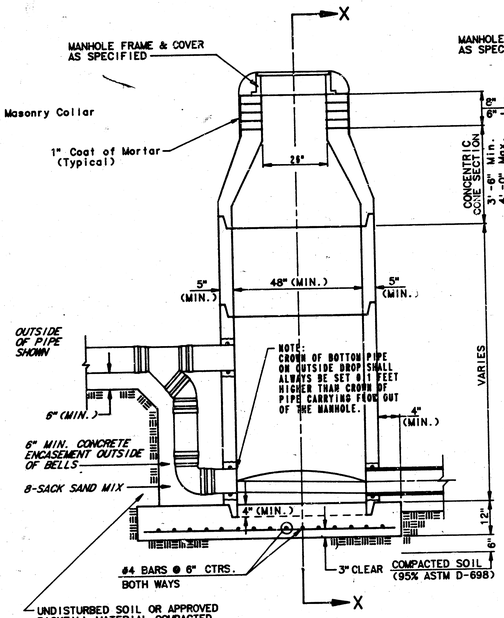
SEWER APPURTENANCES DETAILS
ADOPTED AS STANDARD DESIGN
BY
CITY OF WICHITA



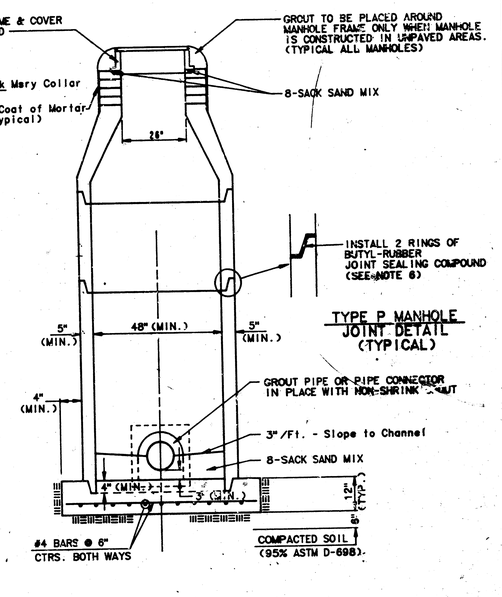
TYPE P
STANDARD MANHOLE



TYPE P
INSIDE DROP MANHOLE



TYPE P
OUTSIDE DROP MANHOLE

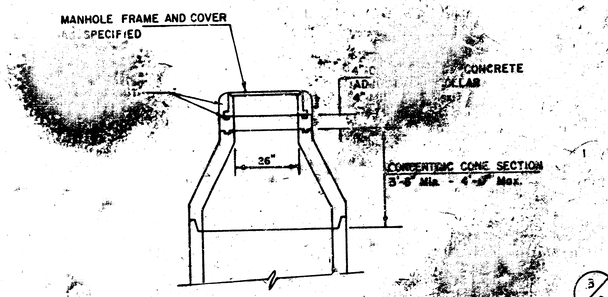


SECTION X
(TYPICAL)

GENERAL NOTES

PRECAST MANHOLE NOTES

1. ALL PRECAST CONCRETE MANHOLE SECTIONS SHALL CONFORM TO THE LATEST REVISION OF A.S.T.M. C478 AS MODIFIED BY THE SPECIFICATIONS.
2. NON-SHRINK GROUT SHALL BE NON-METALLIC TYPE.
3. 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 FEEY FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR Y.C.P. SUCH THAT THE JOINT REMAINS FLEXIBLE.
4. ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE COATED WITH 2 COATS THENEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINUS COATING.
6. JOINT SEALING COMPOUND SHALL BE KENT SEAL NO. 2 OR APPROVED EQUAL.
7. PRECAST MANHOLES SHALL BE SET AT LEAST 4 INCHES INTO THE MANHOLE BASE.
8. 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.
9. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT AND THE INTERIOR SURFACE COATED AS SPECIFIED.
10. 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 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.
11. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASES AND SHALL CONSIST OF NO. 4 BARS PLACED ON 8" 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.
12. 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 BITUMINOUS 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.
13. 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 THAT 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.
14. 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. ONE SIDE OF CRADLE WITHIN MANHOLE EXCAVATION OR TO CLAY PIPE JOINTS ADJACENT TO MANHOLE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.
15. 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.
16. 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.
17. 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.
18. 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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Revised: June 12, 1986

ALTERNATE CONSTRUCTION
IN UNPAVED AREAS

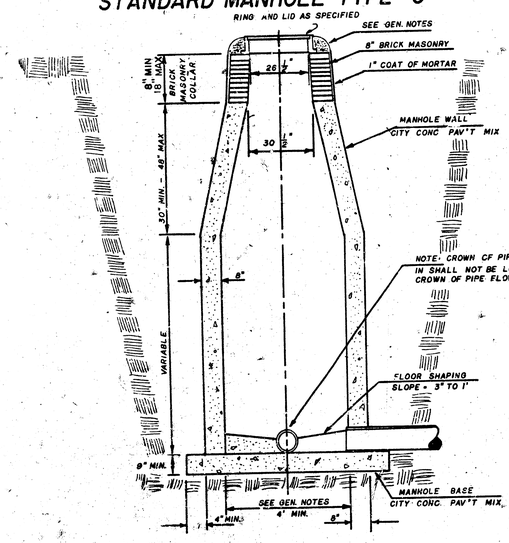
CITY OF WICHITA, KANSAS
SPENCER GARDENS 2ND ADDITION
SANITARY SEWER SYSTEM EXTENSIONS
PROJECT NO. 468-76-245-61852-000-000-001

SEWER APPURTENANCES DETAILS

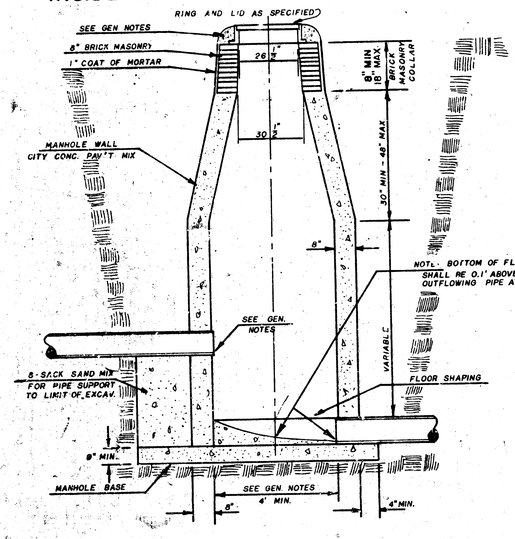
ADOPTED AS STANDARD DESIGN
BY

City of Wichita, Kansas

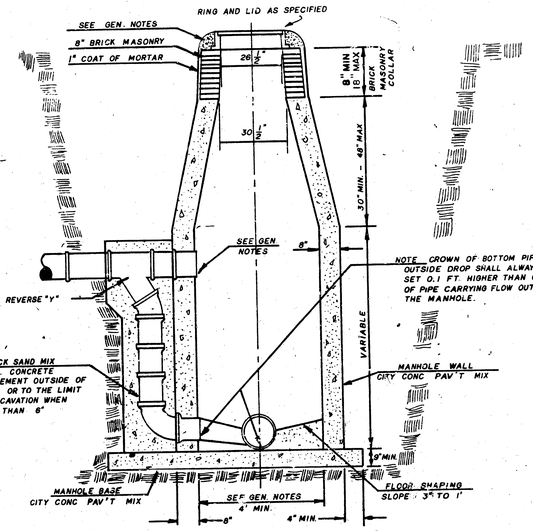
STANDARD MANHOLE TYPE "C"



INSIDE DROP MANHOLE TYPE "C"



OUTSIDE DROP MANHOLE TYPE "C"



GENERAL NOTES

1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE WALLS AND 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. TYPE "C" MANHOLES CAN BE CONSTRUCTED ONLY WHERE PIPE SIZES ARE 8" OR SMALLER. THE INSIDE DIAMETER OF TYPE "C" MANHOLES SHALL BE 4'. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.

2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. REINFORCING STEEL SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE MANHOLE BASE. COST OF FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

3. AN OPENING SHALL BE CUT IN THE MANHOLE WALL FOR THE UPPER INLET PIPE FOR INSIDE AND OUTSIDE DROP MANHOLES. THE UPPER INLET PIPE SHALL BE GROUTED INTO THIS OPENING WITH NON-SHRINK GROUT. THE EXTERIOR OF THIS COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT.

4. 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 MANHOLE 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.

5. 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.

6. 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.

7. 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.

8. STANDARD MANHOLES TYPE "C" AND STANDARD INSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES TYPE "C" SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.

4/6

CITY OF WICHITA, KANSAS
SPENCER GARDENS 2ND ADDITION
SANITARY SEWER SYSTEM EXTENSIONS
PROJECT NO. 468-78 285-81852-000-000-001

JNL JAN. 1982

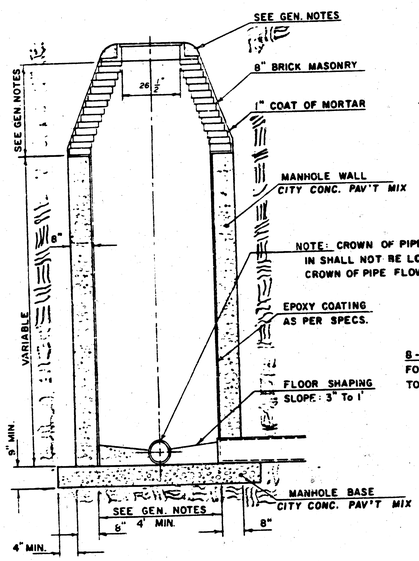
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SEWER APPURTENANCES DETAILS

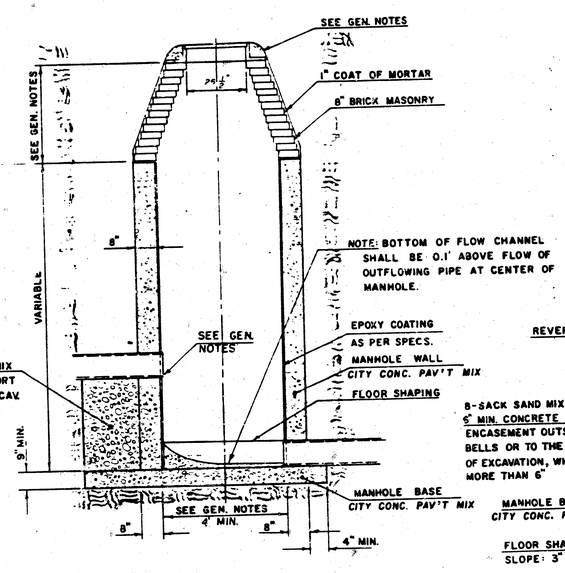
ADOPTED AS STANDARD DESIGN BY

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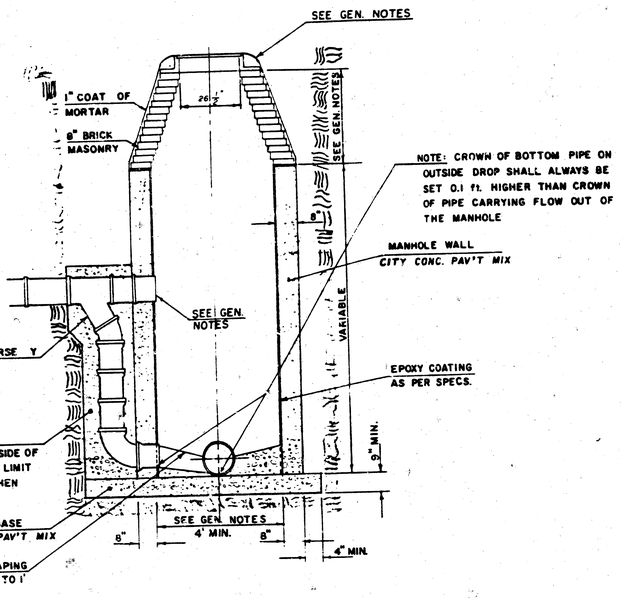
TYPE "D" MANHOLE



TYPE "D" INSIDE DROP MANHOLE



TYPE "D" OUTSIDE DROP MANHOLE



GENERAL NOTES

1. MORTAR USED IN MASONRY CONSTRUCTION SHALL CONTAIN 8 SACKS OF CEMENT PER CUBIC YARD. CONCRETE USED IN MANHOLE WALLS AND 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 AR. CONSTRUCTED IN UNPAVED AREAS.

   ALL INSIDE SURFACES OF THE CONCRETE MANHOLE WALL WHICH WOULD BE EXPOSED TO SEWER GAS SHALL BE PROTECTED BY AN APPROVED EPOXY COATING. TYPE "D" MANHOLES MAY BE USED ON PIPE SIZES 8" TO 36" WHEN THE MANHOLE DEPTH EXCEEDS THE REQUIRED CORBEL HEIGHT BY 1' PLUS THE OUTSIDE DIAMETER OF THE LARGEST PIPE IN THE MANHOLE.

   MANHOLES CONSTRUCTED WHERE PIPE SIZES ARE SMALLER THAN 24" SHALL HAVE A DIAMETER OF 4'. MANHOLES CONSTRUCTED WHERE THE PIPE SIZES ARE 24" OR LARGER SHALL HAVE A DIAMETER OF 5'. THE HEIGHT OF THE CORBELS ON 4' DIAMETER MANHOLES SHALL BE 4' MANHOLES HAVING A DIAMETER OF 5' SHALL HAVE CORBELS 6' IN HEIGHT. COMPLETED MANHOLE SHALL BE WITHOUT LEAKS AND WATER TIGHT.

2. REINFORCING STEEL SHALL BE INSTALLED IN THE MANHOLE BASE. REINFORCING STEEL SHALL CONSIST OF NO. 4 BARS PLACED ON 6" CENTERS IN BOTH DIRECTIONS. REINFOMCING STEEL SHALL BE PLACED 6" ABOVE THE BOTTOM OF THE MANHOLE BASE. COST OF FURNISHING AND INSTALLING REINFORCING STEEL SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE MANHOLE.

3. AN OPENING SHALL BE CUT IN THE MANHOLE WALL FOR THE UPPER INLET PIPE FOR INSIDE AND OUTSIDE DROP MANHOLES. THE UPPER INLET PIPE SHALL BE GROUTED INTO THIS OPENING WITH NON-SHRINK GROUT. THE EXTERIOR OF THIS COMPLETED CONNECTION SHALL BE SEALED WITH AN APPROVED BITUMINOUS COATING SUCH THAT THE CONNECTION WILL BE WATER TIGHT. THE INTERIOR PLASTIC LINING SHALL BE SEALED AROUND THE INLET PIPE OPENING IN SUCH A MANNER THAT WILL EFFECTIVELY MAINTAIN THE INTEGRITY OF THE PROTECTIVE PLASTIC LINER.

4. 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. PIPE USED IN INSIDE DROP MANHOLES SHALL HAVE THE TOP HALF REMOVED TO NEAT LINE 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.

5. 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.

6. MANHOLE COVER CASTINGS AND MANHOLE FRAME CASTINGS SHALL CONFORM TO THE REQUIREMENTS AS INDICATED IN THE STANDARD SPECIFICATIONS AS SHOWN IN THE STANDARD DETAIL DRAWING.

7. 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.

8. STANDARD MANHOLES TYPE "D" AND STANDARD INSIDE DROP MANHOLES TYPE "D" SHALL BE BID AS STANDARD MANHOLES FOR THE TYPE AND DIAMETER INDICATED. OUTSIDE DROP MANHOLES TYPE "D" SHALL BE BID AS STANDARD OUTSIDE DROP MANHOLES FOR THE TYPE AND DIAMETER INDICATED. ALL MANHOLE DIAMETERS WILL BE 4' UNLESS INDICATED OTHERWISE.

NOTE: EPOXY COATING ON INTERIOR CONCRETE SURFACES MAY BE DELETED WHEN TYPE "D" MANHOLES ARE CONSTRUCTED ON SEWERS WITH DIAMETERS SMALLER THAN 10".

5/6

CITY OF WICHITA, KANSAS 5/6

SPENCER GARDENS 2ND ADDITION

SANITARY SEWER SYSTEM EXTENSIONS

PROJECT NO. 468-76-245-81852-000-000-001

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STATE OF KANSAS }
COUNTY OF SEDGWICK } SS.

We, Kenny E. Hill, and William P. Fox, being duly licensed respectively as a Professional Engineer and Land Surveyor in said County and State, do hereby certify that we have platted and surveyed SPENCER GARDENS 2nd ADDITION to Wichita, Sedgwick County, Kansas, being a replat of Lot 3, Lot 5 and part of Lots 2 and 4, Block A, SPENCER GARDENS ADDITION to Wichita, Sedgwick County, Kansas, being described as follows:

Beginning at the Northeast Corner of Lot 5, Block A, SPENCER GARDENS ADDITION to Wichita, Sedgwick County, Kansas; thence S 89°38'37" W for a distance of 175 feet; thence N 76°19'12" W for a distance of 103.08 feet; thence S 89°38'37" W for a distance of 201.72 feet; thence S 00°16'20" W for a distance of 530.04 feet; thence N 89°38'37" E for a distance of 107.00 feet; S 00°16'20" W for a distance of 368.15 feet; thence S 69°17'40" E for a distance of 37.92 feet; thence on a circular curve to the left having a radius of 786.73 feet and a central angle of 20°26'00" for an arc distance of 280.57 feet; thence S 89°43'40" E for a distance of 84.78 feet; thence N 00°16'20" E for a distance of 664.94 feet; thence N 13°45'50" W for a distance of 103.08 feet; thence N 00°16'20" E for a distance of 175.00 feet to the point of beginning, containing 9.61 acres more or less. The accompanying plat is a true and correct exhibit of property surveyed. The bearing of the centerline of Oliver is assumed to be S 00°16'20" W.

Dated this 16TH day of DECEMBER, 1987.

Kenny E. Hill
Kenny E. Hill, P.E.

William P. Fox
William P. Fox, L.S.

KENNY E. HILL LICENSED 7690 PROFESSIONAL ENGINEER

WILLIAM P. FOX REGISTERED LS-738 KANSAS LAND SURVEYOR

KNOW ALL MEN BY THESE PRESENTS:

That we, the undersigned property owners of the land described in the Engineer's Certificate, have caused this land to be replatted into lots and a block. Easements are hereby granted as indicated for the construction and maintenance of drainage and utilities. Development of this property shall be in accordance with SPENCER GARDENS Commercial Community Unit Plan DP-163, a copy of which is on file in the Metropolitan Area Planning Department. Special provisions for building setback lines between Lots 2 and 3 are indicated on the DP-163 C.U.P. All abutters rights of access to and from Pawnee Avenue and Oliver Street over and across the North and East line of Block A are hereby granted to the City of Wichita, except for the 30 foot wide opening to Pawnee between Lot 2 and Lot 3 and except for two additional openings to Pawnee from Lot 1 or one opening to Pawnee per lot from Lot 1 and Lot 2, and except that Lots 2 and 3 shall have access control to Oliver except for one opening South of the North 150 feet of these lots and except that Lot 5 shall have access to Oliver at 3 locations, said locations of all openings to be approved by the City Engineer of Wichita, Kansas. Platted easements, building setback lines, access control or other public reservations shall be vacated by this replat by virtue of K.S.A. 12-512(b) amended.

Nancy L. Taylor — NANCY L. TAYLOR
Joe L. Guyot — JOE L. GUYOT
Chester A. Hupp — CHESTER A. HUPP
Robert L. Wilson — ROBERT L. WILSON
James E. Taylor — JAMES E. TAYLOR
James E. Taylor II — JAMES E. TAYLOR, II
Vicki D. Lee — VICKI D. LEE
Sandra J. Pouncey — SANDRA J. POUNCEY

Ruth J. Love — RUTH J. LOVE
Lila L. Guyot — LILA L. GUYOT
Olive H. Hupp — OLIVE H. HUPP
Mabel N. Wilson — MABEL N. WILSON
Margaret L. Wilson — MARGARET L. WILSON
Jeffrey E. Taylor — JEFFREY E. TAYLOR
Pam Taylor — PAM TAYLOR
Robert E. Lee — ROBERT E. LEE
Michael Pouncey — MICHAEL POUNCEY

KNOW ALL MEN BY THESE PRESENTS:

That we, Industrial State Bank, holders of a mortgage on the property described in the Engineer's Certificate do hereby consent to the plat of SPENCER GARDENS 2nd ADDITION.

INDUSTRIAL STATE BANK
By W.N. Hook
W.N. Hook, President

ATTEST: Michael L. Cooney
Michael L. Cooney, Secretary

STATE OF KANSAS }
COUNTY OF SEDGWICK } SS.

Be it remembered, that on this 14TH day of DECEMBER, 1987, before me a Notary Public in aforesaid County and State, came Industrial State Bank, by its President, W.N. Hook, to me known to be the same person who executed the foregoing instrument on behalf of the corporation, duly acknowledged by me.

In testimony whereof, I have hereunto set my hand and affixed my Notarial Seal the day and year above written.

Marcia Reardon
Notary Public MARCIA REARDON (SEAL)

My Appointment Expires: 9/11/90

This Plat of SPENCER GARDENS 2nd ADDITION to Wichita, Sedgwick County, Kansas has been submitted and approved by this WICHITA-SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION, Wichita, Kansas.

Dated this 3rd day of September, 1987

WICHITA SEDGWICK COUNTY METROPOLITAN AREA PLANNING COMMISSION

John Terry Moore, Chairman
Marvin S. Krout, Secretary (SEAL)

This Plat approved and all dedications shown hereon accepted by the City Council of the City of Wichita, Kansas, this 10TH day of MAY, 1988.

Sheldon Kamen, Mayor
Dale E. Rea, Deputy City Clerk (SEAL)

Entered on transfer record this 6 day of June, 1988.

Don Wright, County Clerk

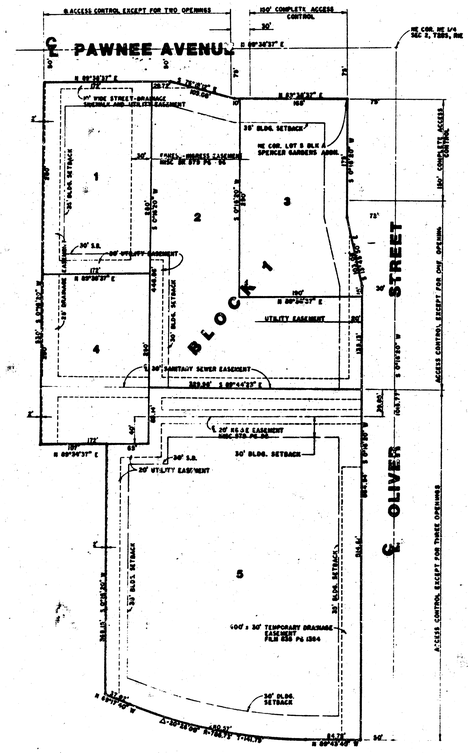
STATE OF KANSAS }
COUNTY OF SEDGWICK } SS.

This is to certify that this instrument was filed for record in the Register of Deeds office at 11:00 A.M. on the 6TH day of JUNE, 1988.

Pat Kettler, Register of Deeds
Ed Reed, Chief Deputy

950928

(SEE PLATTORS TEXT)



N SCALE: 1" = 100'

LEGEND
- o FOUND PROPERTY IRONS
- • SET PROPERTY IRONS

SPENCER GARDENS 2ND ADDITION

TO WICHITA, SEDGWICK COUNTY, KANSAS

20.00 L

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6/6

PROJECT NO. 468-76-245-81852-000-000-001

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