LATERAL 40, MAIN 24, WAR INDUSTRY SEWER

TO SERVE

THE WATERFRONT ADDITION

PROJECT NO. 468-83553

CITY OF WICHITA, KANSAS

NEIL D. CABLE, P.E., CITY ENGINEER

OCA 743974

GENERAL NOTES

1. 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 IN ACCORDANCE WITH STATE LAWS.

2. EXISTING UTILITIES AND THEIR LOCATIONS, 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 PLAN LOCATIONS SHOWN ARE NOT GUARANTEED. ADDITIONAL EXISTING UTILITIES MAY ALSO BE ENCOUNTERED.

3. 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	1-800-344-7233
	or 687-2470 (LOCAL WICHITA)

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

SOUTHWESTERN BELL TELEPHONE COMPANY	1-800-286-8313
COX CABLEVISION	1-316-262-0661
KG&E (GAS & ELECTRIC)	383-8600
CITY OF WICHITA WATER & SEWER MAINTENANCE	262-6000

4. 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 DIPOSAL SITES MUST BE APPROVED BY THE KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT. MATERIAL EITHER STOCKPILED OR DISPOSED OF IN A FLOOD PLAIN 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.

5. COST OF EXCAVATION, HAULING, AND DUMPING OF EXCESS EXCAVATION SHALL BE SUBSIDIARY TO THE PROJECT.

6. A PORTION OF EXCESS EXCAVATED MATERIAL SHALL BE MOUNDED AROUND MANHOLES WHICH EXTEND MORE THAN ONE (1) FOOT ABOVE THE EXISTING GROUND. SUCH MOUNDS SHALL BE CONSTRUCTED WITH A SIX (6) FOOT DIAMETER FLAT TOP WITH 4 TO 1 SIDE SLOPES DOWN TO THE ORIGINAL GROUND. THE ELEVATION OF THE FLAT TOP OF THE MOUND SHALL BE 0.4 FOOT BELOW THE TOP OF THE MANHOLE.

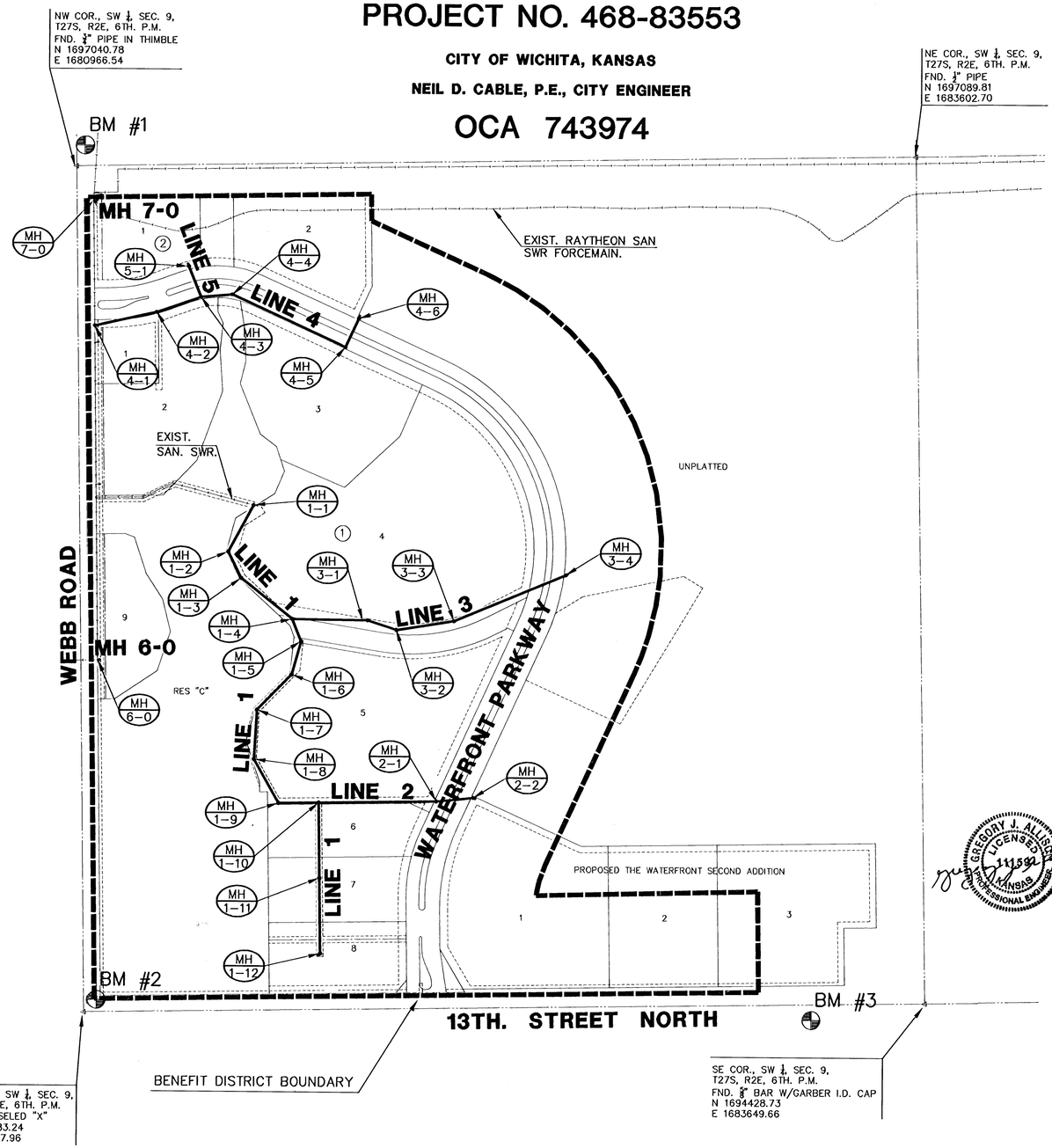
7. ALL STUBS AND PLUGGED PIPES SHALL BE LOCATED WITH GREEN PLASTIC TAPE IN THE SAME MANNER AS RISERS.

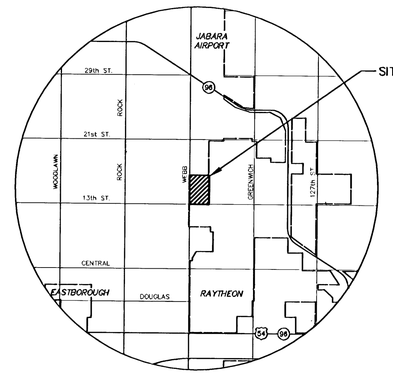
8. CONNECTING TO EXISTING MANHOLES:
PRIOR TO LAYING SEWER LINES USING EXISTING STUBS IN EXISTING MANHOLES, THE CONTRACTOR SHALL EXPOSE AND VERIFY THE ELEVATION, GRADE AND ALIGNMENT OF EXISTING STUBS AND NOTIFY THE ENGINEER OF ANY DEVIATION FROM THE PLAN. WHERE CONNECTION TO AN EXISTING MANHOLE THAT DOES NOT HAVE AN EXISTING STUB OR THE STUB IS UNUSABLE DUE TO ELEVATION GRADE OR ALIGNMENT, THE CONTRACTOR SHALL BORE CUT INTO EXISTING MANHOLE WALL TO MAKE CONNECTION USING APPROVED WATER STOP GASKET, AND RESHAPE THE EXISTING MANHOLE INVERT TO PROVIDE SMOOTH FLOW. THE COST OF CONNECTING TO EXISTING MANHOLES IS INCIDENTAL TO THE PROJECT.

9. TREES AND SHRUBS IN PUBLIC RIGHT-OF-WAY WHICH ARE IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE REMOVED BY THE CONTRACTOR WITH THE ENGINEER'S APPROVAL. TREES AND SHRUBS WHICH ARE NOT IN DIRECT CONFLICT WITH PROPOSED NEW CONSTRUCTION SHALL BE SAVED AND PROTECTED FROM DAMAGE.

10. ALL DISTURBED AREAS TO BE SEEDED WITH RYE GRASS AT A RATE OF 200 LBS. PER ACRE WITHIN 10 DAYS OF CONSTRUCTION. CONTRACTOR TO PREPARE GROUND PER CITY SPECIFICATIONS. COST IS SUBSIDIARY TO SITE PREPARATION AND RESTORATION.

11. ALL EXISTING TREES ARE IMPORTANT TO THE DEVELOPER. NO TREE OF ANY SIZE SHALL BE REMOVED UNLESS IT HAS BEEN DENOTED OTHERWISE. THE CONTRACTOR SHALL COORDINATE TREE REMOVAL WITH THE CITY OF WICHITA ENGINEER AND OWNER'S REPRESENTATIVE. REFER TO SHEET 4 FOR FURTHER INSTRUCTION.





LOCATION MAP

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SCALE: 1" = 100'

INDEX TO DRAWINGS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-3	MANHOLE DETAILS
4	TREE PRESERVATION NOTES & DETAILS
5	LINE 1
6	LINE 1 AND LINE 2
7	LINE 3
8	LINE 4
9	LINE 5, MH 6-0, AND MH 7-0
10-11	EROSION DETAILS
12	FINAL PLAT

BENCHMARKS

BM #1 "□" S.E. COR. HDWL 44' NORTH AND 42' EAST OF WEST 1/4 CORNER SEC. 9, T27S, R2E
ELEV. = 1380.13

BM #2 "□" SW CORNER SIGNAL LIGHT POLE BASE NORTHEAST CORNER WEBB AND 13TH. STREET
ELEV. = 1373.35

BM #3 "□" SW CORNER RCB ON NORTH END OF WINGWALL ON RCB UNDER 13TH. STREET WEST OF SOUTH 1/4, SEC. 9, T27S, R2E
ELEV. = 1377.32

GREGORY J. ALLISON LICENSED 11158 KANSAS PROFESSIONAL ENGINEER 12/22/03

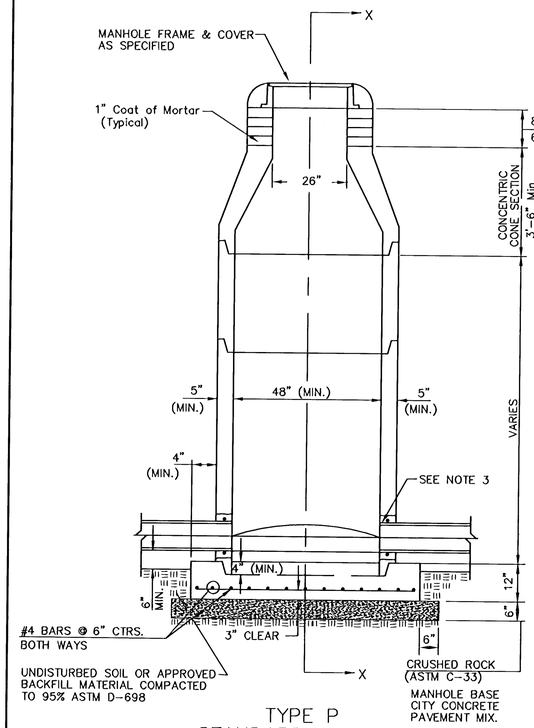
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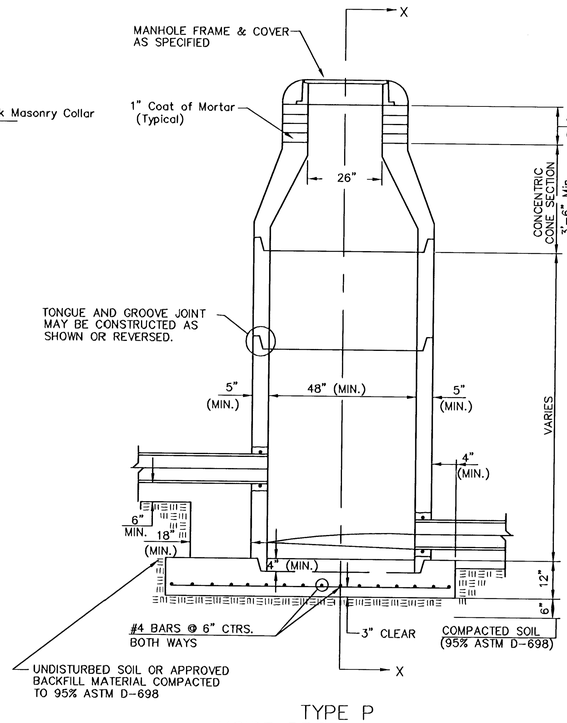
MKEC ENGINEERING CONSULTANTS
411 N. WEBB ROAD
WICHITA, KS. 87208
316-684-9600

THE WATERFRONT ADDITION		
PROJECT NAME		
TITLE SHEET		
SHEET TITLE		
RDH	RDH	DFL
DESIGN BY:	DRAWN BY:	CHECKED BY:
JANUARY 2003	02014_BT	1 / 12
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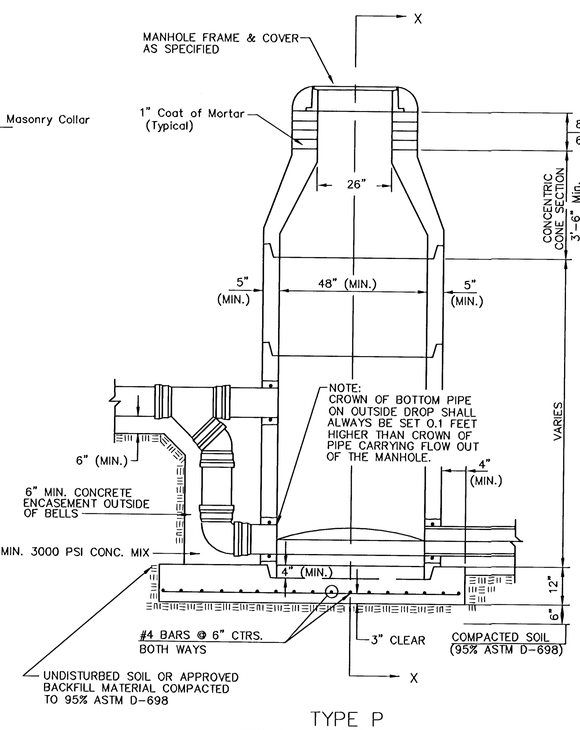
SEWER APPURTENANCES DETAILS



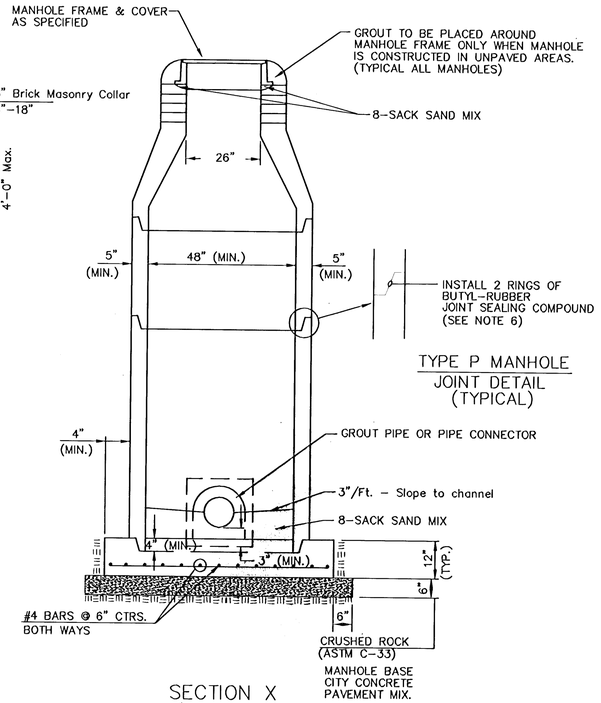
TYPE P
STANDARD MANHOLE



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 REVISIONS 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 FEET FROM THE MANHOLE WALL AND TO THE FIRST JOINT FOR V.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 TNEMEC SERIES 66 HI-BUILD EPOXOLINE, DRY THICKNESS OF 8 MILS (MIN.)
5. EXTERIOR MANHOLE WALLS SHALL BE COATED WITH 1 COAT MOBILARMA 633 BITUMINOUS 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 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.
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 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.
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 MAHOLE. 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.
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 2' 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. THE USE OF PRE-CAST CONCRETE SPACERS FOR MANHOLE TOP ADJUSTMENT IS ALSO ALLOWED.
19. CRUSHED ROCK CONFORMING TO ASTM C-33 WITH A GRADATION OF NO. 67 SHALL BE INSTALLED AT THE BASE OF THE MANHOLE TO A DEPTH OF NO LESS THAN 6", AND SHALL EXTEND NO LESS THAN 6" OUTSIDE THE DIAMETER OF THE CONCRETE FLOOR OF THE MANHOLE.
20. WALL THICKNESS SHALL BE 1" GREATER THAN MANHOLE DIAMETER IN FEET.
21. THE FULL DIAMETER OF THE MANHOLE SHALL EXTEND THE ENTIRE DEPTH OF THE MANHOLE TO THE CONE SECTION. NO REDUCTION IN MANHOLE DIAMETER WILL BE ALLOWED.

REV. 1/05/01, MCG

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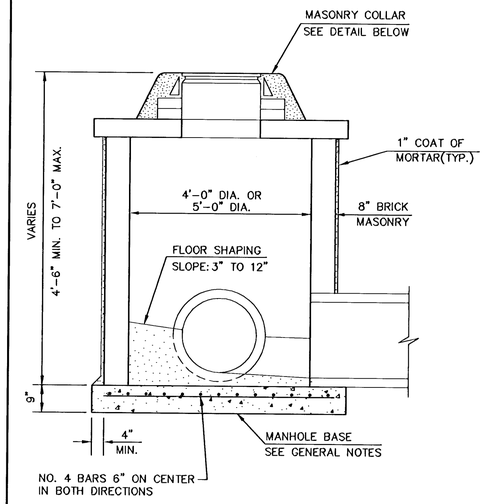
THE CITY OF WICHITA

CITY ENGINEER'S OFFICE
CITY HALL - SEVENTH FLOOR
455 NORTH MAIN STREET
WICHITA, KANSAS 67202
(316) 268-4501
(316) 268-4114 FAX

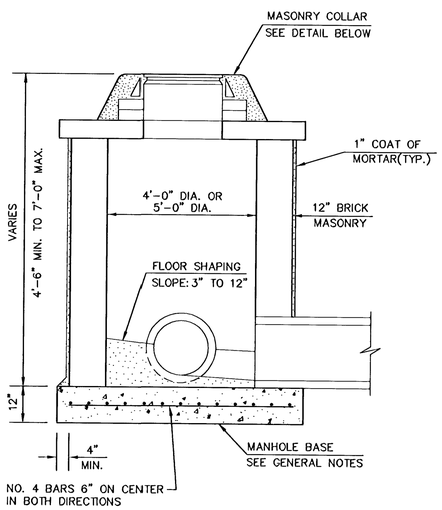
STANDARD TYPE 'P' MANHOLES

NEIL CABLE P.E. - CITY ENGINEER

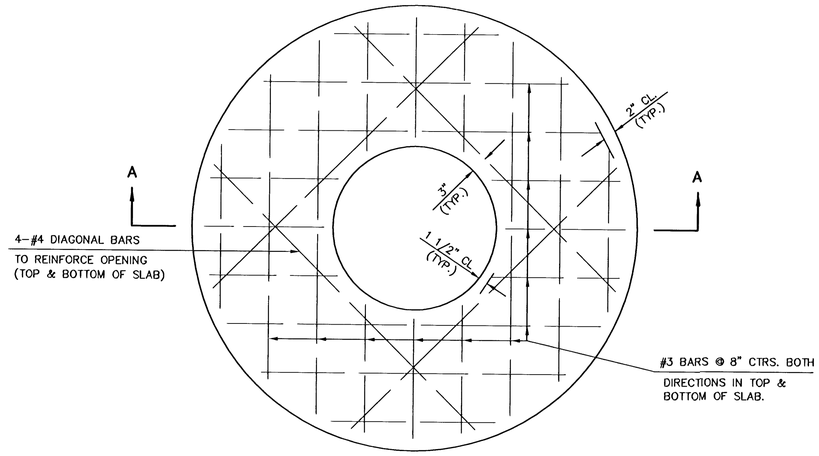
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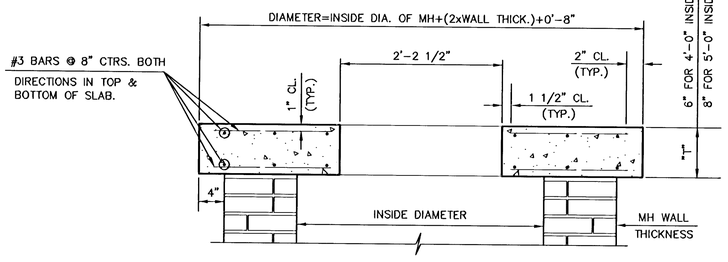
SHALLOW TYPE "A" MANHOLE



SHALLOW TYPE "B" MANHOLE

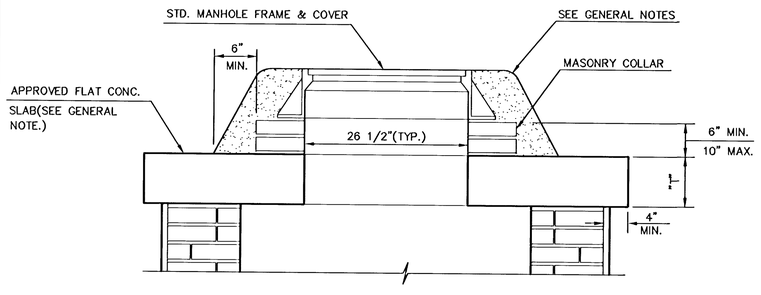


PLAN

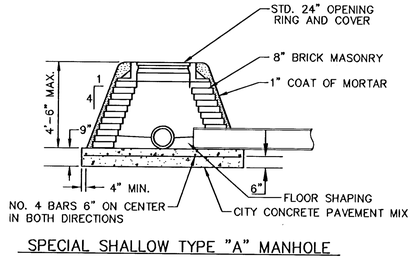


SECTION A-A

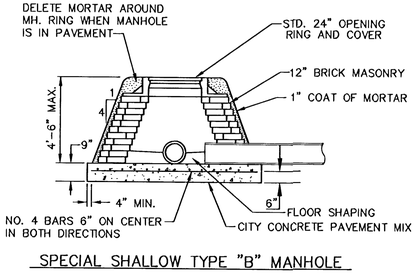
FLAT CONCRETE SLAB DETAILS



MASONRY COLLAR DETAIL



SPECIAL SHALLOW TYPE "A" MANHOLE



SPECIAL SHALLOW TYPE "B" MANHOLE

GENERAL NOTES

1. 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.

2. 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.

3. 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.

4. 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.

5. 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.

6. THE CROWNS OF INFLOWNG PIPES SHALL NEVER BE SET LOWER THAN THE CROWN OF THE OUTFLOWING PIPE.

7. 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.

STANDARD SHALLOW MANHOLES TYPE "A" AND TYPE "B"

CITY OF WICHITA, KANSAS

Design C.O.W.	Checked by	Checked by	
Drawn by	Date	Date JULY 1996	SHEET 3 OF 12

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GENERAL TREE PROTECTION NOTES:

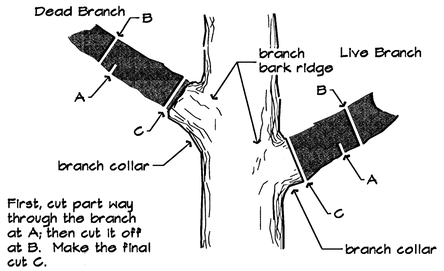
1. TREES ARE AN IMPORTANT ASSET TO THE DEVELOPER. EVERY EFFORT SHOULD BE MADE TO PRESERVE EACH AND EVERY TREE (UNLESS NOTED FOR REMOVAL) AS DIRECTED IN THESE PLANS & NOTES.

2. BEFORE ANY TYPE OF CONSTRUCTION BEGINS WITHIN THE PROJECT IMPROVEMENT AREA THE CONTRACTOR SHALL INSTALL PROTECTION FENCE AROUND ALL TREE MASSES & INDIVIDUAL TREES WITHIN 100 FEET OF SANITARY SEWER CONSTRUCTION CORRIDORS AND MATERIAL STORAGE AREAS. SOME FENCE MAY ALREADY BE PRESENT FROM PREVIOUS CONSTRUCTION OPERATIONS.

3. EQUIPMENT AND CONSTRUCTION MATERIALS SHALL REMAIN OUT OF AND AWAY FROM TREE DRIPLINES SO AS TO NOT COMPACT THE ROOT ZONE OR DAMAGE THE TREE. CHEMICAL SPILL DAMAGE SHALL BE PREVENTED BY FILLING GAS TANKS, CLEANING TOOLS & REPAIRING EQUIPMENT WELL OUTSIDE TREE PROTECTED ROOT ZONES. MIXING TRUCKS SHALL BE RINSED OUT OFF SITE. WHERE IT OCCURS THAT A CONSTRUCTION ROUTE OR A PROPOSED IMPROVEMENT OCCURS WITHIN A TREES (PRZ) IT MAY BE NECESSARY DEPENDENT UPON THE TYPE OF CONSTRUCTION AND EQUIPMENT USED, TO INSTALL A ROOT PROTECTION BRIDGE OR APPROVED EQUIVALENT, THIS MAY BE DETERMINED IN THE FIELD AT THE DIRECTION OF THE OWNERS REPRESENTATIVE (REFER TO DETAIL THIS SHEET).

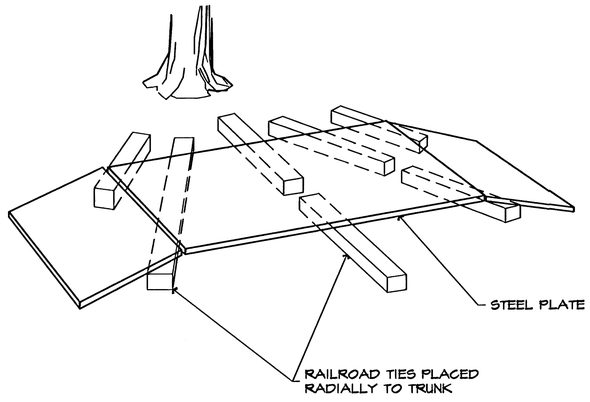
4. ANY TREE THAT MUST HAVE BRANCHES REMOVED SHALL BE TRIMMED WITH SHARP INSTRUMENT/TOOL THAT IS INTENDED FOR SUCH OPERATIONS. CONSULT LANDSCAPE ARCHITECT PRIOR TO TRIMMING. KNOCKING BRANCHES OFF WITH A BACKHOE OR OTHER SIMILAR MACHINE IS NOT ACCEPTABLE! REFER TO TREE TRIMMING DETAIL ON THIS SHEET FOR TRIMMING PROCEDURE.

5. THE COST OF ANY REQUIRED TREE TRIMMING AND TREE PROTECTION SHALL BE SUBSIDIARY TO THE COST OF SITE CLEARING AND RESTORATION.



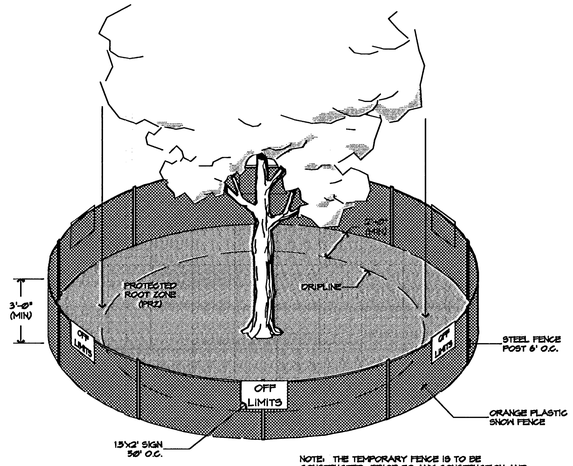
TREE TRIMMING DETAIL

NOT TO SCALE



ROOT BRIDGING DETAIL

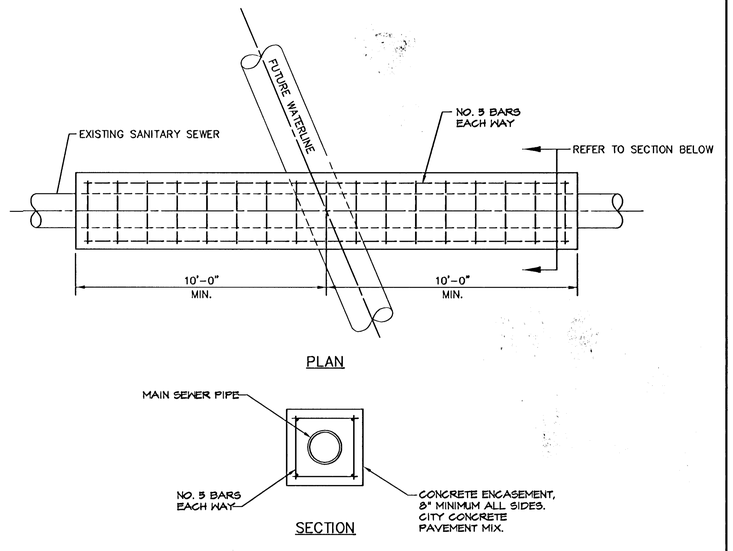
NOT TO SCALE



NOTE: THE TEMPORARY FENCE IS TO BE CONSTRUCTED PRIOR TO ANY CONSTRUCTION AND SHALL REMAIN UNTIL ALL CONSTRUCTION IS COMPLETE. CONSTRUCTION EQUIPMENT AND MATERIALS ARE NOT PERMITTED WITHIN THE (PRZ). THE FENCE PLACEMENT AROUND THE (PRZ) MAY ONLY BE ADJUSTED WITH PERMISSION FROM THE OWNER'S REPRESENTATIVE.

TEMPORARY TREE PROTECTION DETAIL

NOT TO SCALE



TYPICAL SANITARY SEWER ENCASEMENT DETAIL

NOT TO SCALE

H:\CIVIL\02014\DWG\SAN\PHASE2\02014dc3.dwg

MKEC ENGINEERING CONSULTANTS
411 N. WEBB ROAD
WICHITA, KS. 67206
316-684-9600

THE WATERFRONT ADDITION
PROJECT NAME

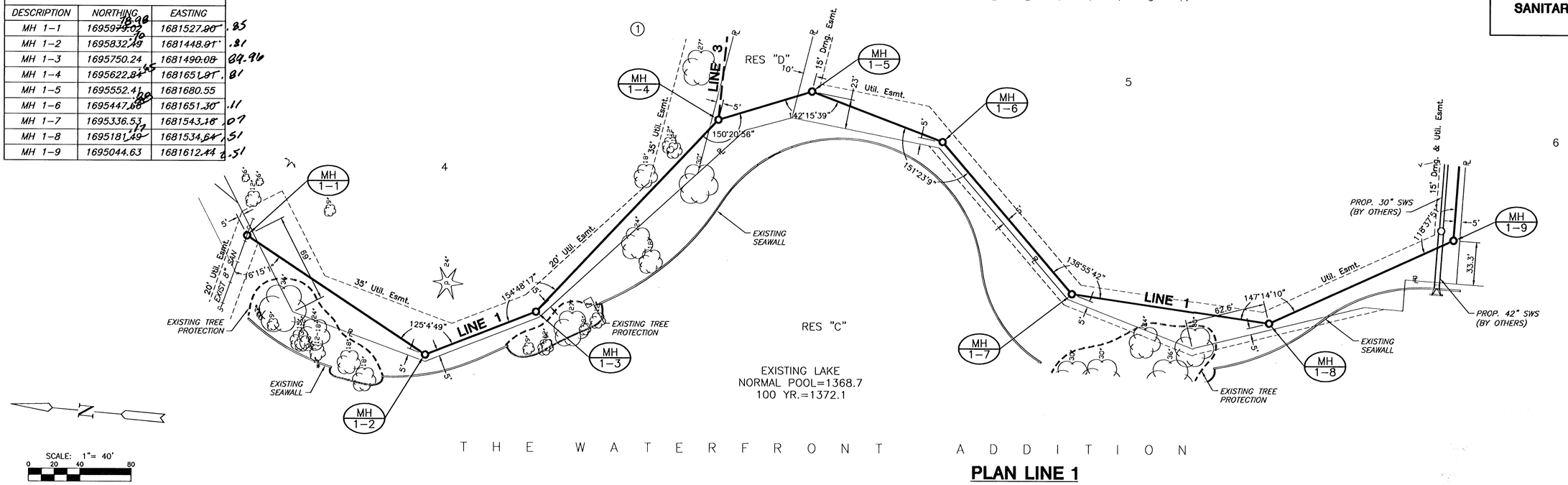
TREE PRESERVATION NOTES & DETAILS
SHEET TITLE

JAG	*DMU*	*DRK*
DESIGN BY:	DRAWN BY:	CHECKED BY:
JANUARY 2003	*02014_BT*	*4 / 12*
DATE	DRAWING NAME	SHEET / OF

COORDINATE TABLE		
DESCRIPTION	NORTHING	EASTING
MH 1-1	1695979.02	1681527.90
MH 1-2	1695832.49	1681448.91
MH 1-3	1695750.24	1681490.08
MH 1-4	1695622.84	1681651.91
MH 1-5	1695552.41	1681680.55
MH 1-6	1695447.68	1681651.30
MH 1-7	1695336.53	1681543.18
MH 1-8	1695181.49	1681534.64
MH 1-9	1695044.63	1681612.44

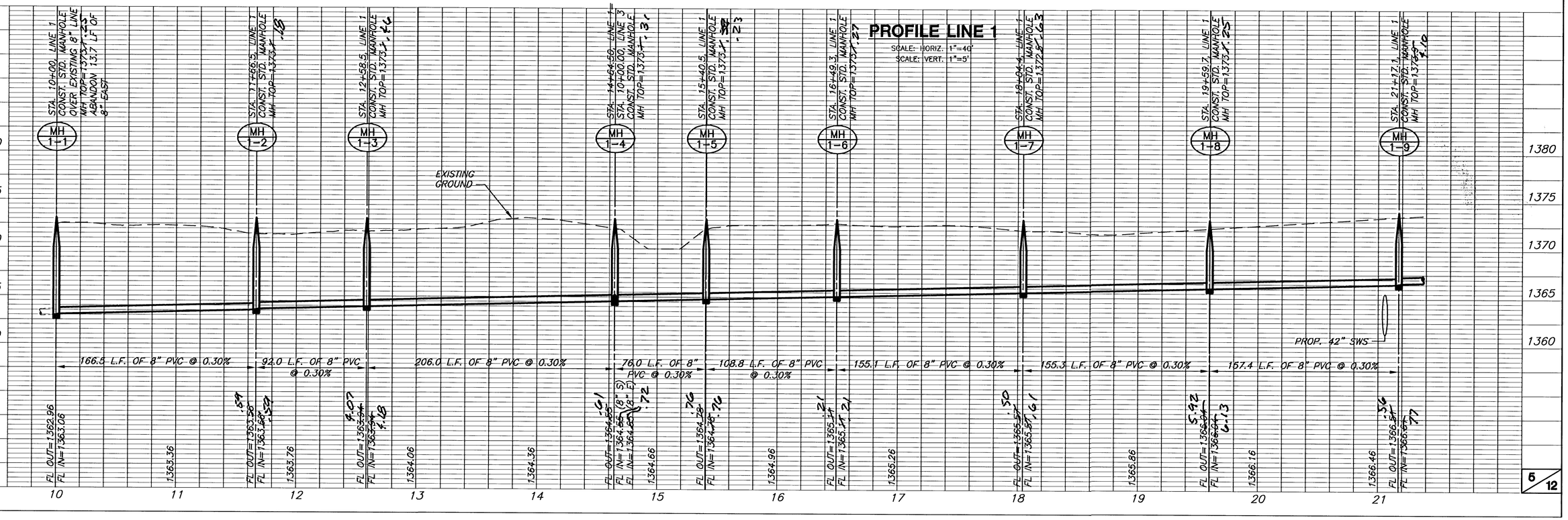
THE WATERFRONT ADDITION

THE WATERFRONT ADDITION
SANITARY SEWER PLANS
LINE 1



SCALE: 1"= 40'
0 20 40 80

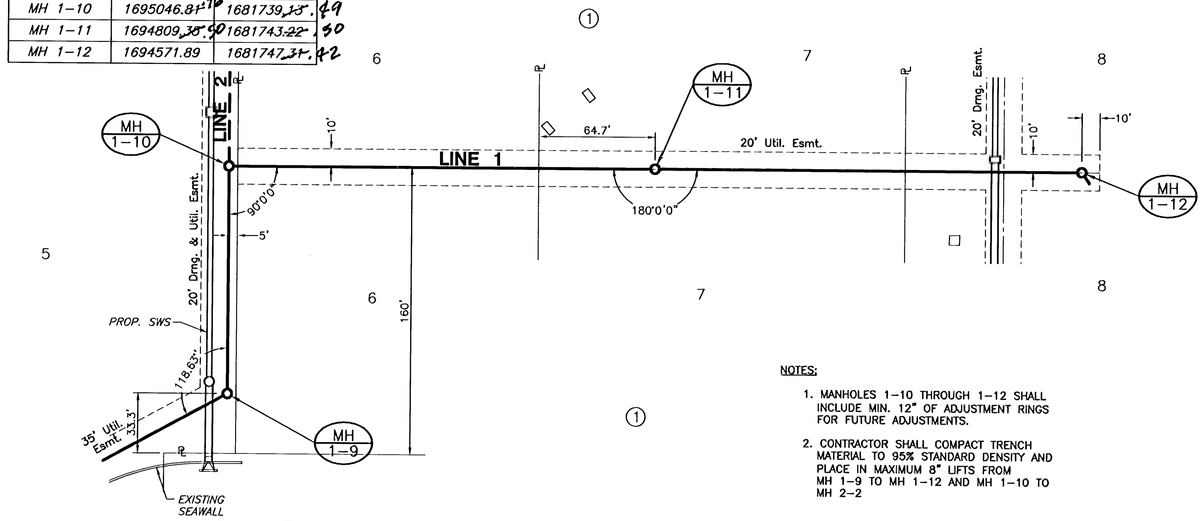
PLAN LINE 1



THE WATERFRONT ADDITION SANITARY SEWER PLANS LINE 1 & LINE 2

COORDINATE TABLE		
DESCRIPTION	NORTHING	EASTING
MH 1–9	1695044.63	1681612.44
MH 1–10	1695046.81	1681739.13
MH 1–11	1694809.50	1681743.22
MH 1–12	1694571.89	1681747.31

THE WATERFRONT ADDITION



NOTES:

1. MANHOLES 1–10 THROUGH 1–12 SHALL INCLUDE MIN. 12" OF ADJUSTMENT RINGS FOR FUTURE ADJUSTMENTS.
2. CONTRACTOR SHALL COMPACT TRENCH MATERIAL TO 95% STANDARD DENSITY AND PLACE IN MAXIMUM 8" LIFTS FROM MH 1–9 TO MH 1–12 AND MH 1–10 TO MH 2–2

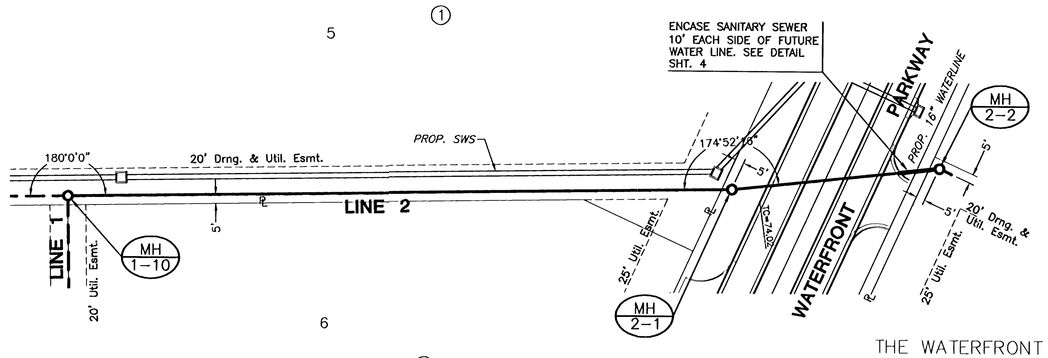
THE WATERFRONT ADDITION

SCALE: 1"= 40'
0 20 40 80

PLAN LINE 1

COORDINATE TABLE		
DESCRIPTION	NORTHING	EASTING
MH 1–10	1695046.81	1681739.13
MH 2–1	1695053.13	1682109.22
MH 2–2	1695065.57	1682224.79

THE WATERFRONT ADDITION



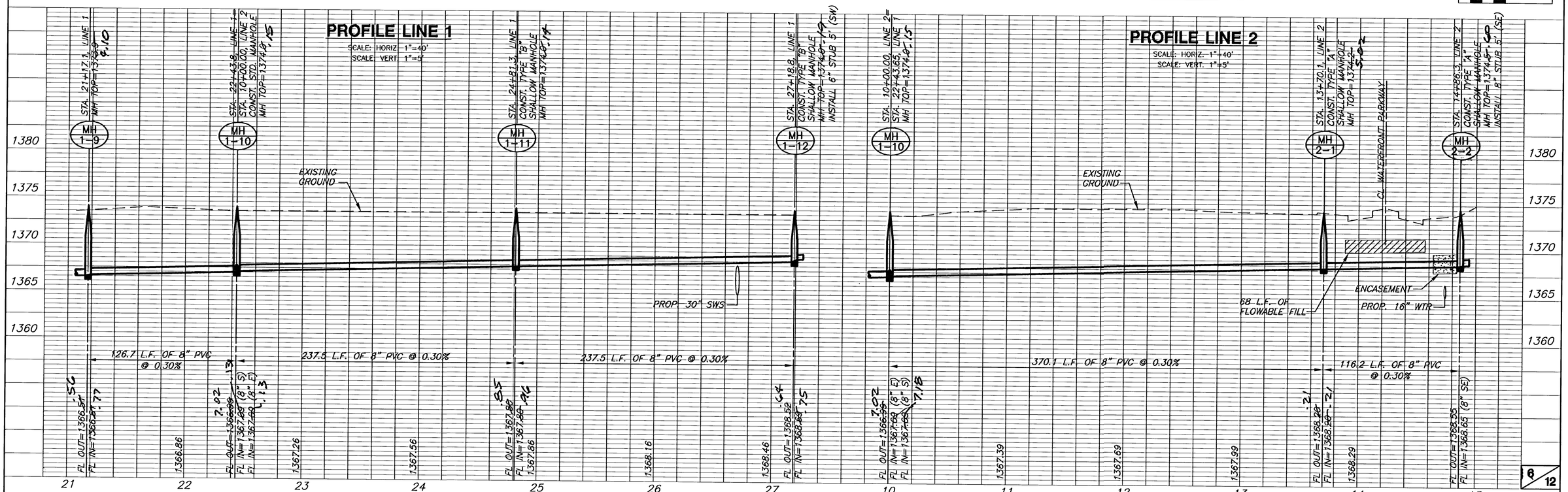
THE WATERFRONT SECOND ADDITION (PROPOSED)

N

THE WATERFRONT ADDITION

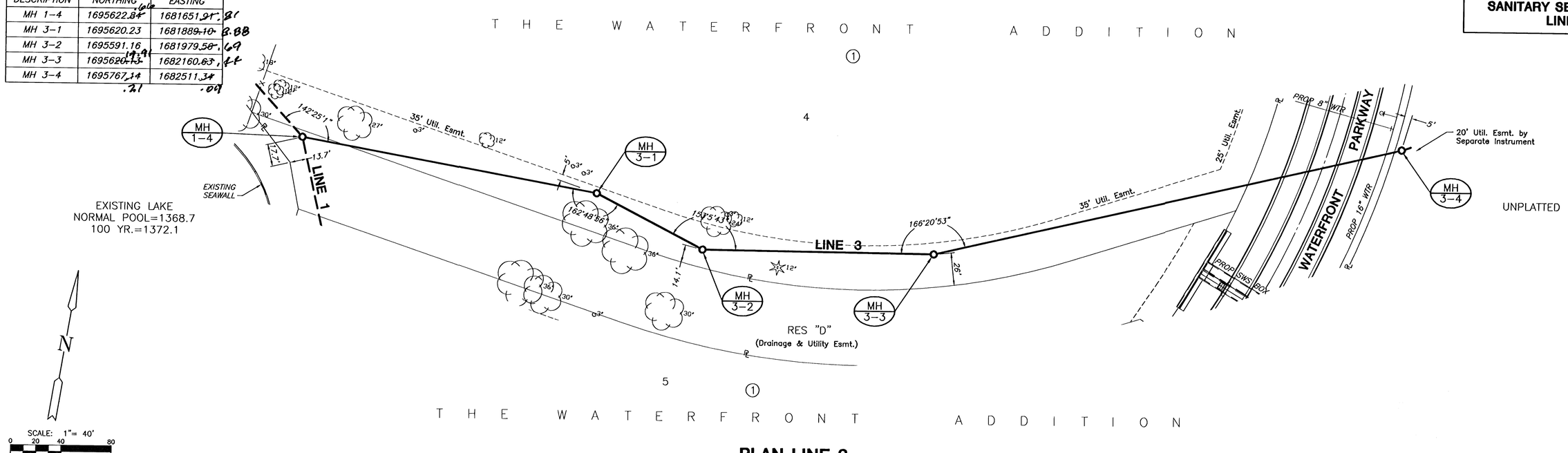
SCALE: 1"= 40'
0 20 40 80

PLAN LINE 2



THE WATERFRONT ADDITION
SANITARY SEWER PLANS
LINE 3

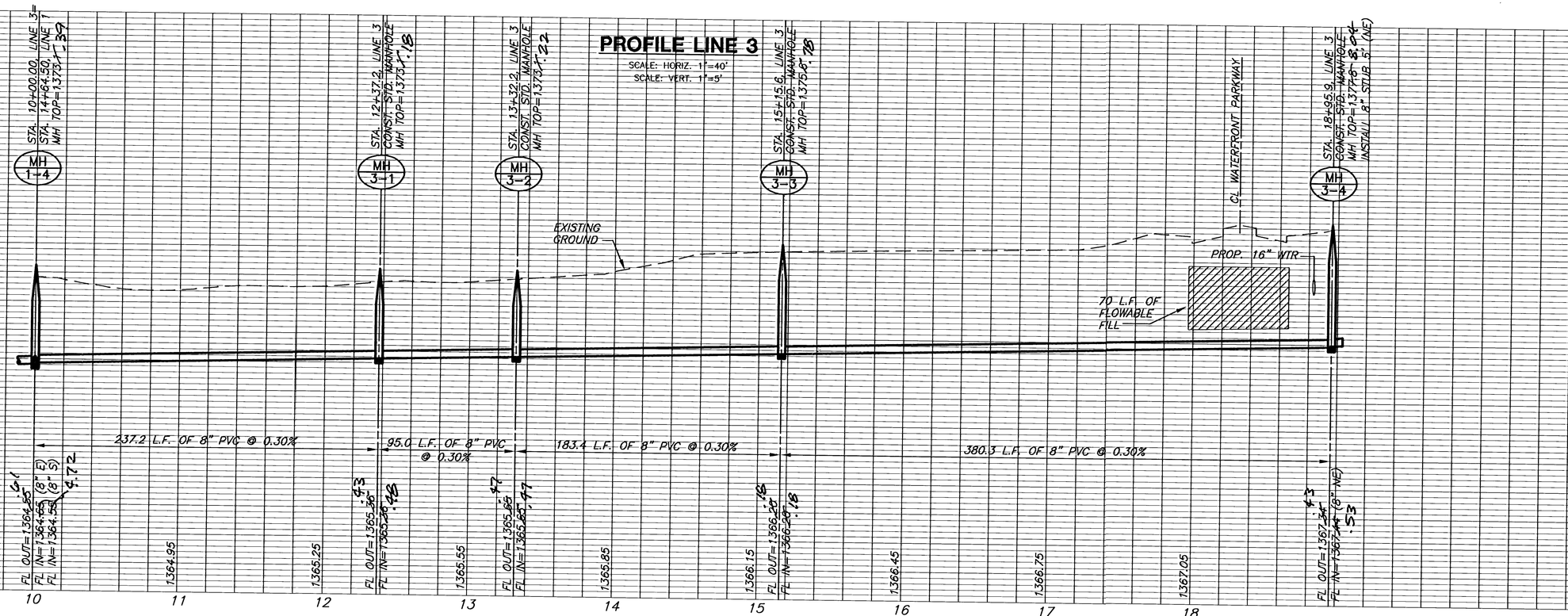
COORDINATE TABLE		
DESCRIPTION	*NORTHING*	*EASTING*
MH 1-4	1695622.84	1681651.91
MH 3-1	1695620.23	1681889.10
MH 3-2	1695591.16	1681979.58
MH 3-3	1695620.13	1682160.63
MH 3-4	1695767.14	1682511.34



PLAN LINE 3

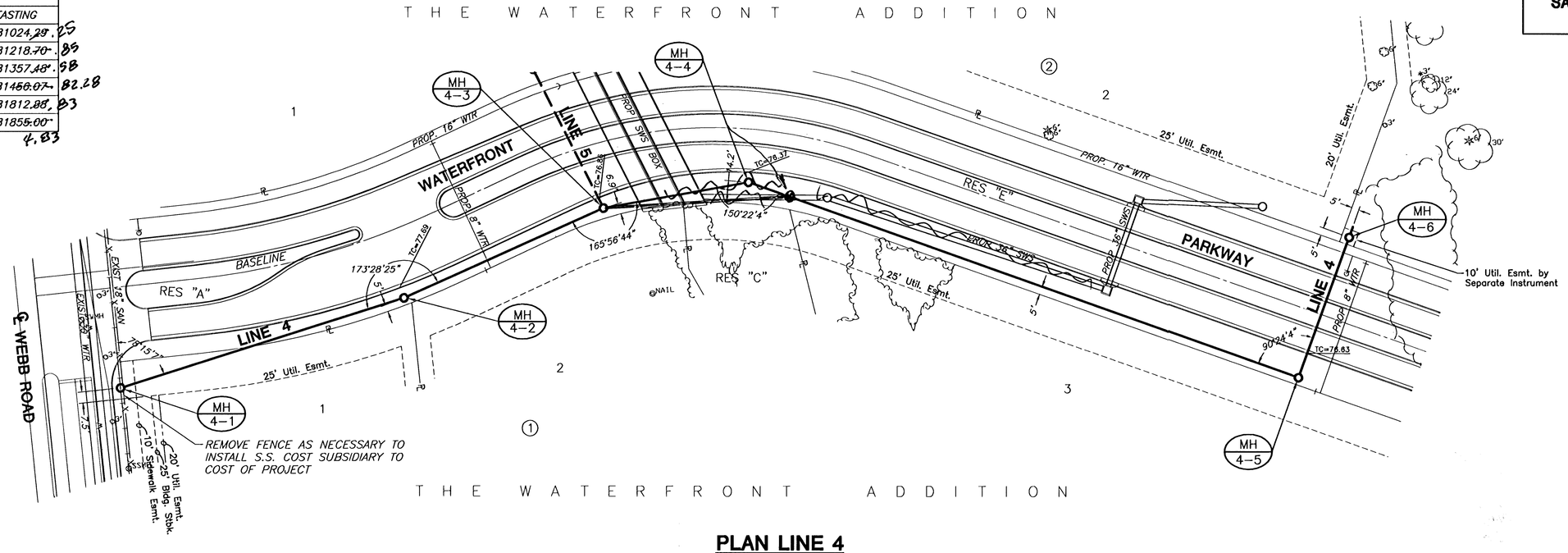
PROFILE LINE 3

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



THE WATERFRONT ADDITION
SANITARY SEWER PLANS
LINE 4

COORDINATE TABLE		
DESCRIPTION	*NORTHING*	*EASTING*
MH 4-1	1696539.34	1681024.28
MH 4-2	1696582.99	1681218.70
MH 4-3	1696631.22	1681357.48
MH 4-4	1696640.72	1681456.07
MH 4-5	1696477.47	1681812.88
MH 4-6	1696568.18	1681855.00



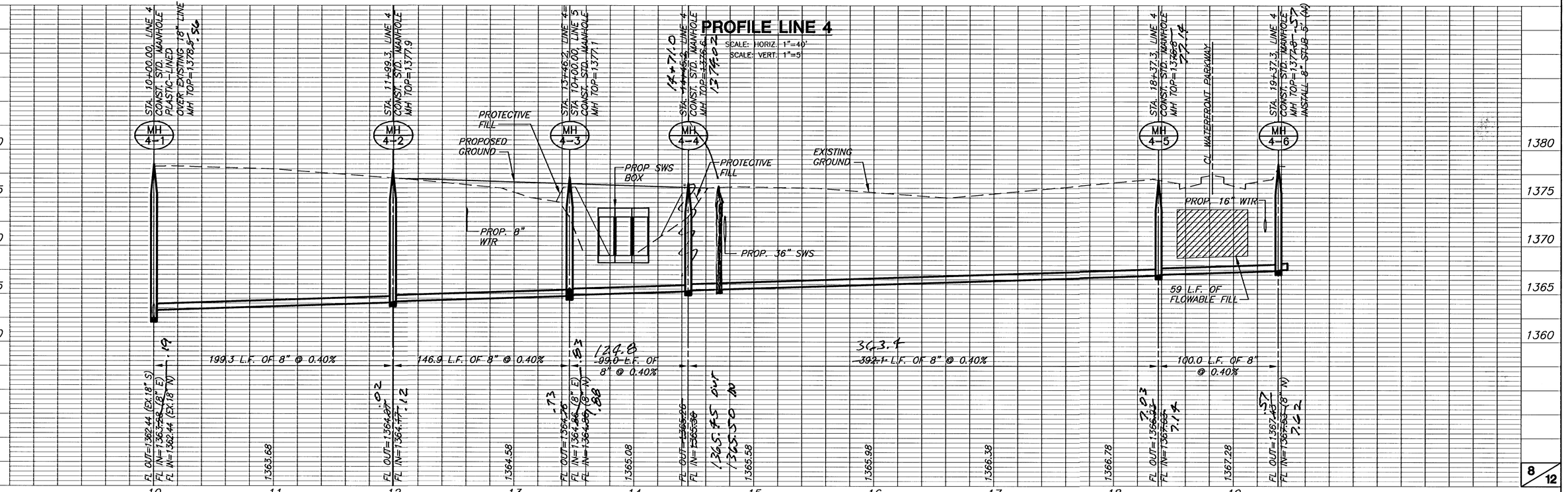
N

SCALE: 1"= 40'
0 20 40 80

PLAN LINE 4

PROFILE LINE 4

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

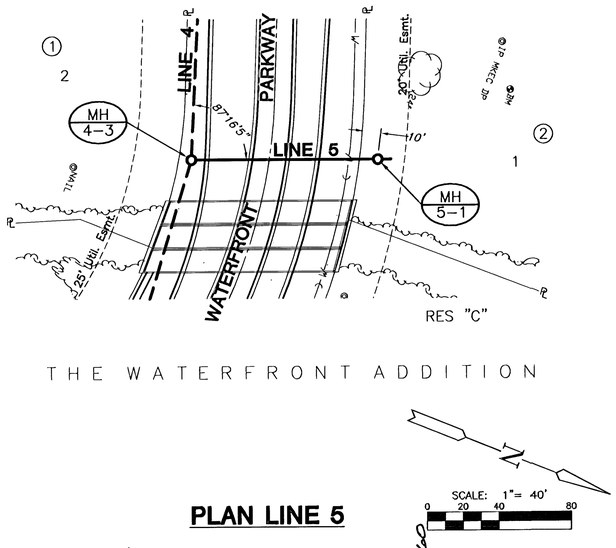


THE WATERFRONT ADDITION
SANITARY SEWER PLANS
LINE 5, MH 6-0, & MH 7-0

COORDINATE TABLE		
DESCRIPTION	NORTHING	EASTING
MH 4-3	1696631.27	1681357.48
MH 5-1	1696728.00	1681318.57

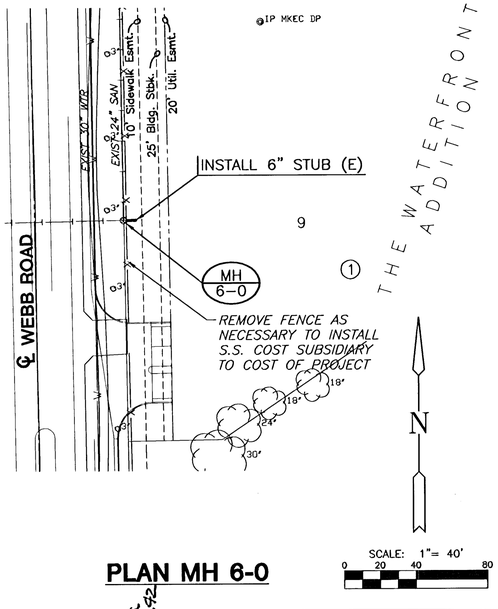
COORDINATE TABLE		
DESCRIPTION	NORTHING	EASTING
MH 6-0	1695489.53	1681040.46

COORDINATE TABLE		
DESCRIPTION	NORTHING	EASTING
MH 7-0	1696931.92	1681018.09



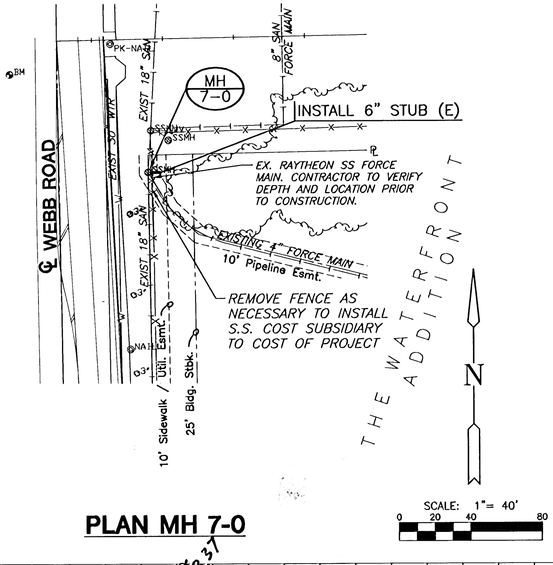
PLAN LINE 5

SCALE: 1"= 40'
0 20 40 80



PLAN MH 6-0

SCALE: 1"= 40'
0 20 40 80

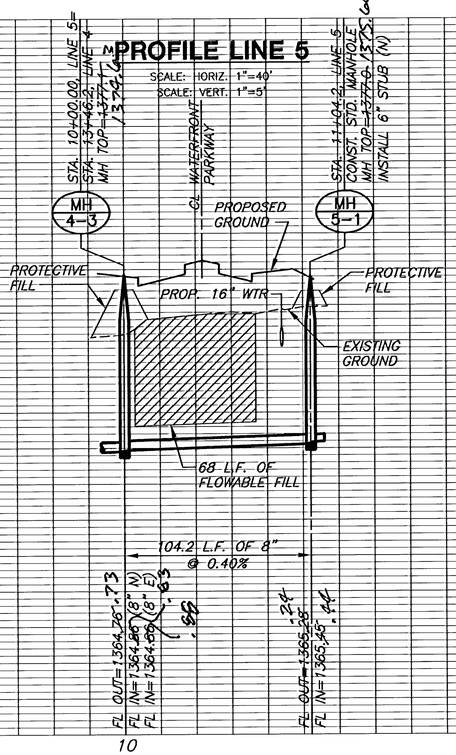


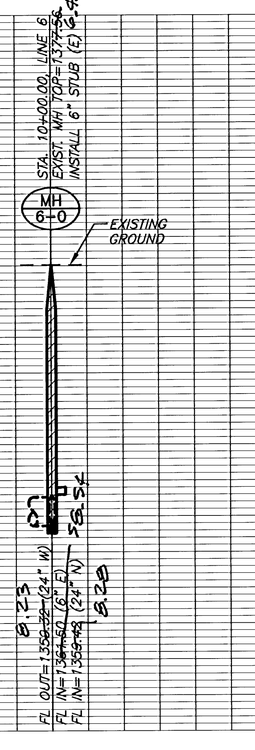
PLAN MH 7-0

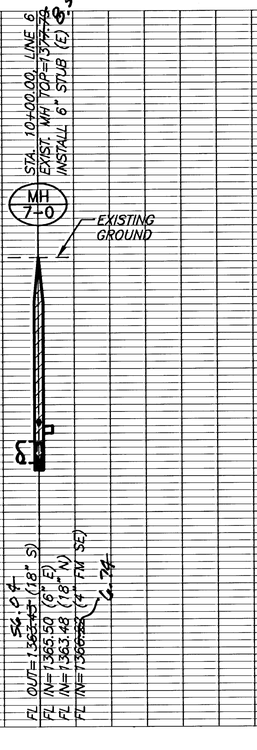
SCALE: 1"= 40'
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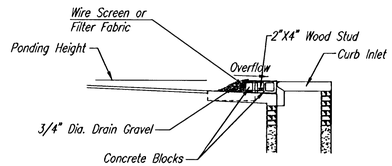
PROFILE LINE 5

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

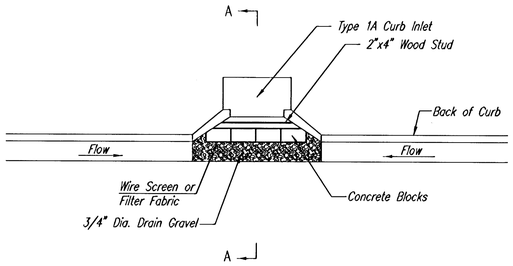








SECTION A-A



CURB INLET GRAVEL FILTERS
(INLET PROTECTION-RESIDENTIAL STREETS ONLY)

NOTE: Other types of curb inlet protection may be approved by the city so long as equal protection is provided.

A gravel inlet filter shall be installed at sump locations on residential streets. This type of protection is not to be used on arterial or collector streets at any time that it would pose an undue traffic hazard.

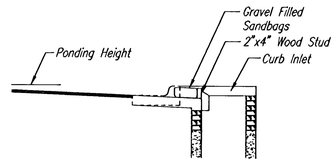
Instructions for Installing:

STEP 1: Place concrete blocks around the inlet as shown on drawing. Insert 2x4 board as shown.
STEP 2: Wrap 1/2" mesh wire screen around the concrete blocks.
STEP 3: Place 1" to 1-1/2" diameter rock around the blocks and wire screen. Be sure the rock extends down from the top of the concrete block.
STEP 4: To prevent damage to vehicles, signs warning drivers about the structures may be necessary. An alternative installation is the use of gravel bags supported by a 2"x4" board to prevent collapsing.

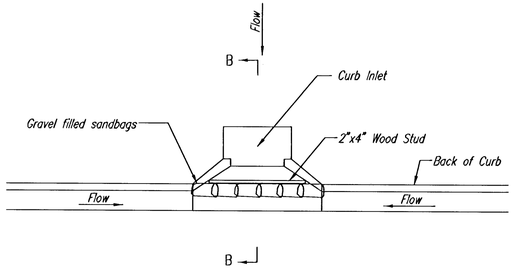
Use of rock with diameters smaller than 1" in the bag may result in clogging of pores and reduce the amount of water flowing into an inlet.

Maintenance:

All curb inlet gravel filters shall be inspected and repaired after each runoff event. Sediment deposits are to be removed once material is within 8 cm (3 inches) of the top of any block. Periodically, the gravel shall be raked to increase infiltration and filtering of runoff waters. Accumulated sediment is to be removed immediately from roads and streets.

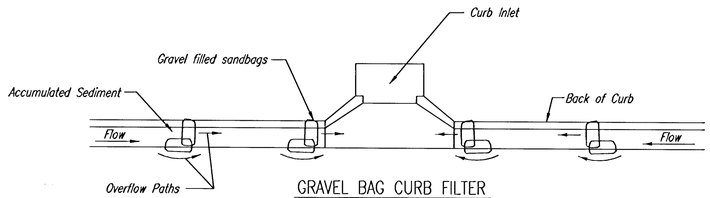


SECTION B-B



CURB INLET SANDBAG FILTERS
(INLET PROTECTION)

NOTE: Other types of curb inlet protection may be approved by the City so long as equal protection is provided.



GRAVEL BAG CURB FILTER
(INLET PROTECTION)

NOTE: Place two or more sets of bags in a manner that results in maximum support. The flow line bag must be lower than top of curb.

CURB SEDIMENT TRAPS

When inlets are located on streets having a grade (i.e., sump conditions do not exist), installing gravel (or sand) bags in the gutter flow line to create small sediment traps can be considered. Gravel bags are recommended over sand bags to allow for drainage.

If the spacing between bags becomes too large, little sediment may be trapped. Spacing of bags should be completed using the table or graph that illustrates placement distances based upon street slope. When installed in the gutter, bag tops must be lower than the sidewalk.

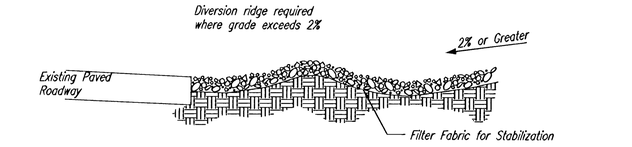
Spacing:

Gravel bags are to be placed according to street grades using the following table or graph that appears below.

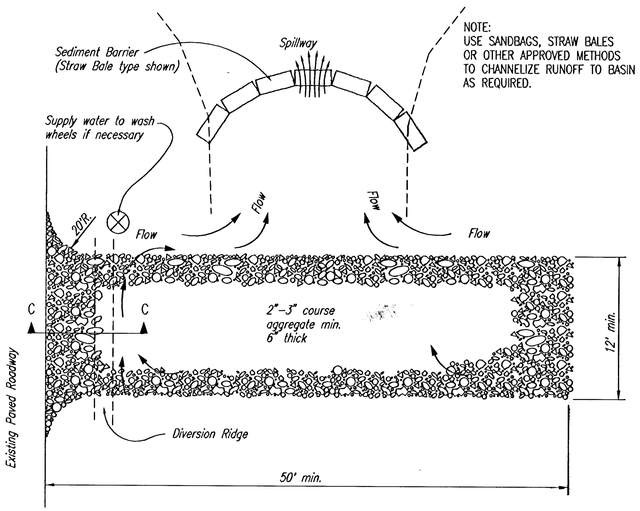
GRADE (%)	SPACING (FEET)
0.5	75
1.0	45
2.0	18
3.0	12
4.0	9
5.0	6

Maintenance:

Collected sediment shall be removed after every runoff event. Bags that are destroyed by vehicular traffic or through natural deterioration are to be immediately replaced.



SECTION C-C



STABILIZED CONSTRUCTION ENTRANCE

NOTES:

1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO 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 ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABLIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN, AS SHOWN ABOVE.
4. DRIVE ENTRANCES ONTO 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 ONTO ADJACENT STREET. ENTRANCE SHALL EXTEND FROM BACK OF CURB TO DWELLING.

CITY OF WICHITA

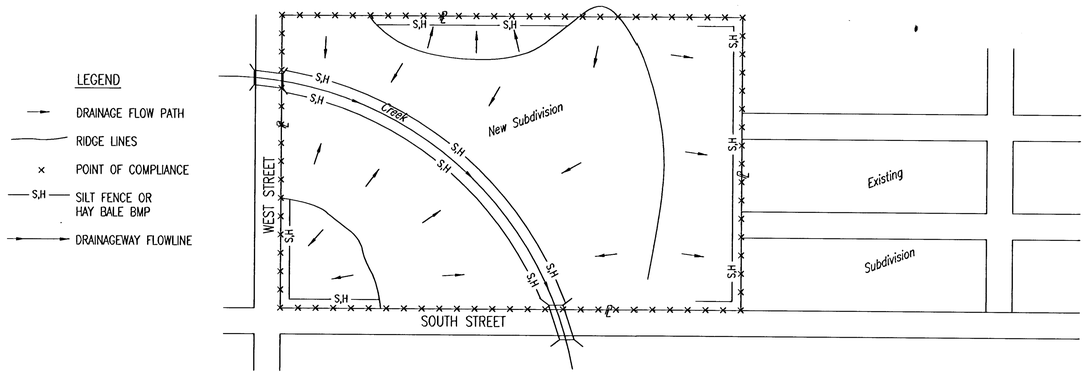
SOIL EROSION BMP DETAILS

CHRISTOPHER M. CARRIER, P.E.
STORM WATER ENGINEER

PROJECT NUMBER 468-83553
OCA NO.
DATE MAY 2001

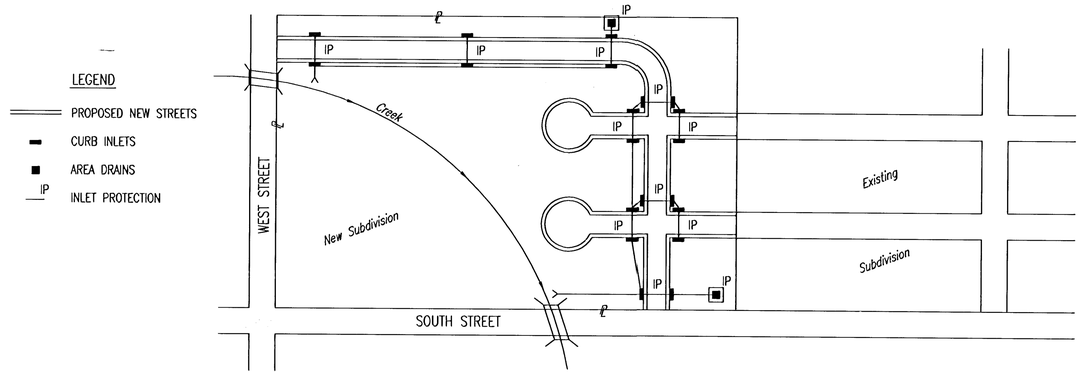
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JSNR DEP OPER: DEP SCALE: 1=1.00
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PHASE 1 – INITIAL EARTHWORK AND UTILITIES (EXCEPT STORM SEWER)



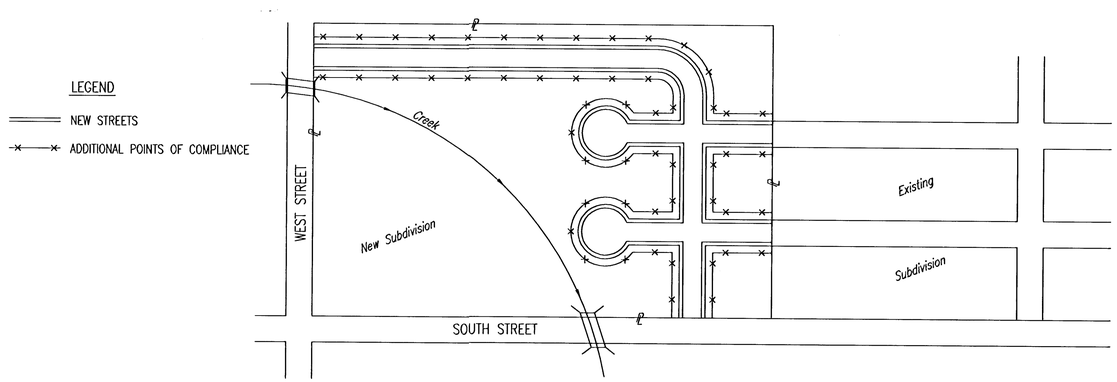
1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, THE POINTS OF COMPLIANCE ARE THE PERIMETER BOUNDARIES AND ANY DRAINAGE WAYS OR STORM SEWERS DRAINING THROUGH OR FROM THE SITE. SHOULD LAKES BE CONSTRUCTED WITHIN THE SUBDIVISION THAT WILL DISCHARGE DURING STORMS, THEY ARE ALSO A POINT OF COMPLIANCE.
2. HAYBALES OR SILT FENCE MUST BE CONSTRUCTED ALONG THE PROPERTY LINE WHERE ON SITE WATER CAN DRAIN OFF THE PROPERTY. THESE BMP'S WILL ALSO BE INSTALLED ALONG ANY DRAINAGE DITCH OR LAKE THAT CAN DISCHARGE.
3. SHOULD SILT OR SEDIMENT ENTER THE DITCHES OR GUTTERLINES ON THE ADJACENT BOUNDRY STREETS, APPROPRIATE BMP'S WILL BE PLACED WITHIN THE SUBDIVISION TO PREVENT THIS.
4. ANY MUD TRACKED ONTO ADJACENT STREETS WILL BE REMOVED AT THE END OF EACH WORK DAY.
5. CONTRACTORS WORKING WITHIN THE SITE WILL NOT BE REQUIRED TO USE INDIVIDUAL BMP'S AS LONG AS THOSE SPECIFIED ABOVE ARE IN PLACE AND EFFECTIVE. CONTRACTORS WORKING ON THE BOUNDRY LINE STREETS OR ON ADJACENT PROPERTIES TO EXTEND UTILITIES ARE EXPECTED TO USE BMP'S AT THEIR WORK LOCATIONS, AS NEEDED.
6. UTILIZE STABILIZED CONSTRUCTION ENTRANCE AT ENTRANCE AND EXIT ONTO ANY EXISTING PUBLIC STREETS.
7. THE SUBDIVISION DEVELOPER (OWNER) SHALL INSTALL AND MAINTAIN THE ON-SITE BMP'S.

PHASE 2 – INSTALLATION OF STORM SEWER

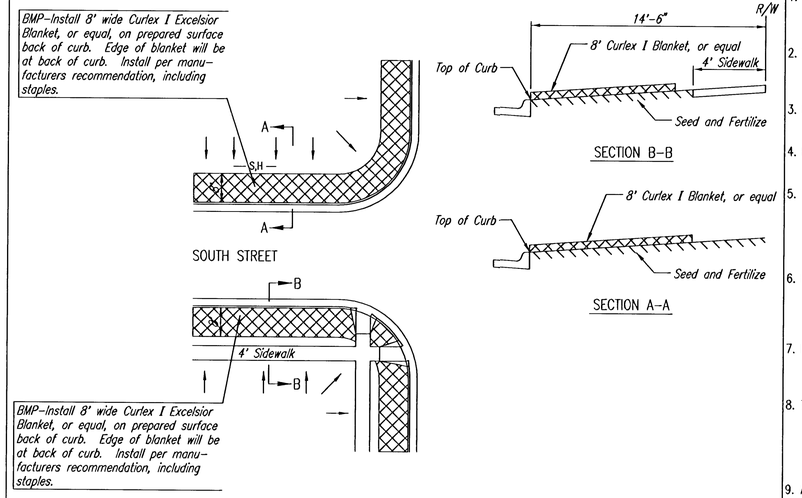


1. DURING THIS PHASE OF SUBDIVISION DEVELOPMENT, ALL BMP'S REQUIRED IN PHASE 1 SHALL REMAIN IN PLACE AND BE MAINTAINED.
2. AS NEW STORM SEWERS, WITH INLETS, ARE INSTALLED, THE STORM SEWERS MUST NOW BE PROTECTED SO ALL NEW INLETS BECOME POINTS OF COMPLIANCE.
3. AREA DRAINS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, HAYBALE OR SILT FENCE PROTECTION WILL BE INSTALLED AROUND THEM.
4. CURB OPENING INLETS – AS SOON AS WATER CAN FLOW INTO THESE DRAINS, INLET PROTECTION BMP'S MUST BE INSTALLED. SEE PHASE 3 – STREET CONSTRUCTION.
5. THE STORM SEWER CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING THESE BMP'S. IF WATER CANNOT FLOW INTO CURB INLETS UNTIL STREET CONSTRUCTION IS COMPLETE, THEN STREET CONTRACTOR WILL INSTALL INLET PROTECTION.
6. THE SUBDIVISION DEVELOPER WILL MAINTAIN THESE BMP'S ONCE INSTALLED.
7. ONCE ALL DISTURBED GROUND DRAINING TO AN INLET HAS BEEN RESTABILIZED WITH GRASS OR SOD, THE SUBDIVISION DEVELOPER WILL BE RESPONSIBLE FOR PERMANENTLY REMOVING THE INLET PROTECTION.

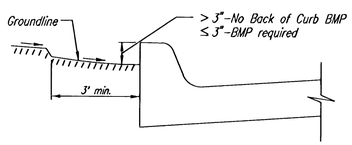
PHASE 3 – STREET CONSTRUCTION



1. DURING THIS PHASE OF SUBDIVISION CONSTRUCTION, NEW STREETS ARE INSTALLED. ALL BMP'S INSTALLED DURING PHASE 1 AND 2 MUST STILL BE MAINTAINED. THE POINT OF COMPLIANCE NOW SHIFTS TO THE BACK OF CURB ALONG EACH STREET.
2. CURB OPENING INLET PROTECTION:
   A. SUMP AREAS – INLET PROTECTION SHALL BE PROVIDED WHEN STREET SUBGRADE WORK IS COMPLETED.
   B. NON-SUMP LOCATIONS – PROVIDE INLET PROTECTION AS SOON AS BASE COURSE ASPHALT IS INSTALLED, BEFORE THE SURFACE COURSE LIFT.
3. BMP'S WILL BE REQUIRED BACK OF CURB WHEREVER WATER CAN FLOW OVER THE CURB AND THE CURB HAS BEEN BACKFILLED TO WITHIN 3" OR LESS OF THE TOP OF CURB (SEE CURB BACKFILL DETAIL). FOR CURBS NOT YET ENTIRELY BACKFILLED (3" OR MORE BELOW TOP OF CURB), BMP'S WILL BE REQUIRED AT POINTS WHERE WATER BREAKS OVER CURB WHICH COULD RESULT IN THE PLACEMENT OF SEDIMENT IN THE GUTTER.
4. SEE DETAIL THIS SHEET ON BACK OF CURB PROTECTION.
5. THE BACK OF CURB PROTECTION SPECIFIED ON THIS PLAN MAY HAVE TO BE SUPPLIMENTED WITH HAYBALE OR SILT FENCE BMP'S AT LOCATIONS WHERE CONCENTRATED FLOW RESULTS IN SEDIMENT BEING CARRIED OVER THE EXCELSIOR MATS.
6. THE STREET CONTRACTOR WILL BE RESPONSIBLE FOR INSTALLING BACK OF CURB BMP'S.
7. THE INDIVIDUAL LOT OWNERS WILL BE RESPONSIBLE FOR MAINTAINING THE BACK OF CURB BMP'S IN FRONT OF THEIR LOTS UNTIL SUCH TIME AS ADJACENT DISTURBED EARTH IS STABILIZED WITH GRASS OR SOD.



BACK OF CURB PROTECTION DETAIL



CURB BACKFILL DETAIL

GENERAL NOTES:

1. THE INTENT OF ALL BEST MANAGEMENT PRACTICES (B.M.P.'S) IS TO PREVENT ERODED SOIL FROM ENTERING DITCHES, STORM SEWERS, OR ANY OTHER DRAINAGE FEATURE.
2. THIS SHEET IS INTENDED TO PROVIDE GUIDELINES AS TO WHAT TYPE OF BMP'S WILL BE INSTALLED DURING THE CONSTRUCTION PROCESS. CONTRACTORS ARE EXPECTED TO BID PROJECTS ACCORDINGLY.
3. BMP'S SHALL BE MAINTAINED DURING THE CONSTRUCTION PROCESS TO REMAIN EFFECTIVE. MAINTENANCE SHALL BE AS INDICATED ON THE BMP DETAIL SHEETS.
4. PERSONS DESTROYING BMP'S SHALL BE RESPONSIBLE FOR IMMEDIATELY REPAIRING THEM OR INSTALLING SUITABLE REPLACEMENT BMP'S.
5. THE DEVELOPMENT OF ANY SUBDIVISION THAT DISTURBS 5 ACRES OR MORE WILL REQUIRE A FEDERAL/STATE NPDES STORMWATER PERMIT. THE PREPARATION OF A STORMWATER POLLUTION PREVENTION PLAN IS REQUIRED. EROSION CONTROL BMP'S ARE REQUIRED. THE DETAILS SHOWN ON THIS SHEET ARE THE MINIMUM STANDARDS TO BE SHOWN ON POLLUTION PREVENTION PLAN.
6. FOR SUBDIVISIONS SMALLER THAN 5 ACRES, SOIL EROSION BMP'S ARE REQUIRED. ALSO, DEVELOPERS AND CONTRACTORS ARE ENCOURAGED TO DEVELOP POLLUTION PREVENTION PLANS FOR EACH PROJECT PRIOR TO CONSTRUCTION.
7. FAILURE TO USE AND MAINTAIN BMP'S IS A VIOLATION OF SECTION 16.32 OF THE CITY CODE AND WILL SUBJECT THE SUBDIVISION DEVELOPER AND CONTRACTORS TO THE PENALTIES PROVIDED THEREIN.
8. THE APPLICATION OF BMP'S SHOWN ON THIS SHEET IS FOR SITUATIONS NORMALLY ENCOUNTERED. FROM TIME TO TIME, SITUATIONS WILL ARISE THAT MAY REQUIRE A DIFFERENT BMP OTHER THAN THAT SHOWN. BMP'S, OTHER THAN THOSE SHOWN, MAY BE UTILIZED SO LONG AS THEY ARE EFFECTIVE AND MAINTAINED.
9. A STABILIZED EARTH SURFACE IS DEFINED AS ONE THAT IS HARD SURFACED WITH CONCRETE, ASPHALT, OR THE LIKE, OR ONE ON WHICH 70% OF THE GRASS HAS GERMINATED ON THE ENTIRE SURFACE.

CITY OF WICHITA

SOIL EROSION BMPS SUBDIVISION DEVELOPMENT PROCESS

CHRISTOPHER M. CARRIER, P.E.
STORM WATER ENGINEER

PROJECT NUMBER	OCA NO.
468-83553	
DATE: MAY 2001	SHEET 11 OF 12

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DSNR: DEP OPER: DEP SCALE: 1=1.00
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FINAL PLAT

THE WATERFRONT ADDITION

AN ADDITION TO WICHITA, SEDGWICK COUNTY, KANSAS

SW. Cor., SW. ¼, Sec. 9, T27S, R2E, 6th P.M. Fnd. chiseled "X"

P.O.B. Fnd. 5/8" bar w/ MKEC CLS #39 cap

NW. Cor., SW. ¼, Sec. 9, T27S, R2E, 6th P.M. Fnd. ¾" pipe in thimble

Road Right of Way Film 594, Page 1559

℄ N. WEBB RD.

BASIS OF BEARING: KANSAS SOUTH ZONE GRID BEARING OF N00°53'35"W(M) 2657.86'

N46°04'58"W 28.33'

S89°00'49"W 104.93'

S00°59'11"E 10.00'

N00°59'11"W 10.00'

N00°53'35"W 2222.86'

2497.92'

932.18'

518.39'

120.00'

351.61'

200.75'

285.00'

435.00'

N31°15'06"W 23.75'

N00°53'35"W 9.80'

COMPLETE ACCESS CONTROL 932.18'

ACCESS CONTROL EXCEPT 2 OPENINGS SEE ACCESS CONTROL NOTE FOR DETAILS

COMPLETE ACCESS CONTROL 120.00'

ACCESS CONTROL EXCEPT ONE OPENING SEE ACCESS CONTROL NOTE FOR DETAILS

COMPLETE ACCESS CONTROL 200.75'

COMPLETE ACCESS CONTROL 285.25'

10' KG&E ESMT. (MISC. BOOK 603, PAGE 485)
10' STREET DEDICATION

25' STREET VACATION

N89°00'49"E 85.01'

S00°59'11"E 25.00'

S89°00'49"W 200.00'

S89°00'49"W 532.40'

COMPLETE ACCESS CONTROL 532.40'

COMPLETE ACCESS CONTROL 371.76'

S89°00'49"W(M) 2642.09'(M)

837.82'

1577.92'

664.11'

S01°00'39"E(M) 2661.49'(M)

S88°56'04"E(M) 2636.62'(M)

883.52'

1713.31'

308.53'

S24°32'00"W 722.04'

S65°37'40"E 308.53'

S24°54'21"W 113.12'

S00°53'35"E 289.69'

48.08'

S30°32'19"E 168.18'

S00°53'35"E 125.00'

Δ=25°25'35" R=600.00' L=266.26' Chd.=264.08' Bearing=S11°49'12"W

Δ=90°09'40" R=650.00' L=1022.85' CHD.=920.53' BEARING=S20°32'50"E

Δ=180°00'02" R=9.50' L=29.85'

Δ=25°25'35" R=450.00' L=199.70'

Δ=180°00'00" R=9.50' L=29.85'

Δ=44°30'22" R=300.00' L=233.03'

Δ=36°09'37" L=378.67' R=600.00'

Δ=90°09'40" R=600.00' L=944.18'

RESERVE "C" FLOODWAY EASEMENT

RESERVE "D" FLOODWAY EASEMENT

RESERVE "E"

RES. "A" SEE DETAIL SHT 2/2

RES. "B" SEE DETAIL SHT 2/2

RES. "E" SEE DETAIL SHT 2/2

RES. "F" SEE DETAIL SHT 2/2

RES. "G" SEE DETAIL SHT 2/2

RES. "H" SEE DETAIL SHT 2/2

℄ WATERFRONT PARKWAY

℄ 13TH ST. N.

100.00' RAILROAD R/W BY CONDEMNATION DEED BOOK "I" PAGE 191

ST. LOUIS AND SAN FRANCISCO RAILROAD R/W

30'x83' WTR. WELL ESMT. FILM 2442, PAGES 778-784

60'x15' KG&E Guy and Anchor Esmt. (FILM 421, PAGE 485)

10' KG&E ESMT. (MISC. BOOK 603, PAGE 485)
10' STREET DEDICATION

10' KG&E ESMT. (MISC. BOOK 603, PAGE 485)
10' STREET DEDICATION

10' EASEMENT AGREEMENT FOR PIPELINE FILM 2442, PAGES 785-792

SCALE: 1" = 100'

100 0 100 200

LEGEND

- △ = SECTION CORNER MONUMENT FOUND
- ◉ = FOUND PROPERTY CORNER REBAR
- ● = SET 5/8" REBAR W/ MKEC CLS #39 CAP
- B.S. = BUILDING SETBACK
- U.E. = UTILITY EASEMENT
- (M) = MEASURED DIMENSION
- = STREET DEDICATION
- = STREET VACATION

BENCHMARKS

BM#1 Square cut SE. corner headwall 44' N. and 42' E. of W. ¼ cor., Sec. 9, T27S, R2E ELEV. = 192.73'(City Datum) 1380.13 NGVD

BM#2 Square cut SW. corner signal light pole base NE. corner Webb and 13th. ELEV. = 185.945'(City Datum) 1373.345' NGVD

MINIMUM PAD ELEVATIONS (LOWEST OPENINGS)			
LOT	BLOCK	ELEVATION (CITY DATUM)	ELEVATION (NGVD)
2	1	188.1	1375.5
3	1	188.1	1375.5
4	1	187.6	1375.0
5	1	187.6	1375.0
6	1	187.0	1374.4
7	1	187.0	1374.4
8	1	187.0	1374.4
9	1	187.0	1374.4
1	2	189.1	1376.5
2	2	189.1	1376.5

ACCESS CONTROL NOTE

Webb Road – Two access points for Lots 9, Block 1 and One access point for Lot 2, Block 1 shall be placed accordingly. The minimum distance between full turning movement drives shall be 400'. The minimum distance between a right-in/right-out drive and either another right-in/right-out drive or a full movement drive shall be 200'.

Fnd. ⅝" bar w/ MKEC CLS #39 cap

Fnd. ¾" pipe 50' South of ℄ Track, 91.6' From Ctr. Section

NE. Cor., SW. ¼, Sec. 9, T27W, R2E, 6th P.M. Fnd. ½" pipe

NE. Cor., SE. ¼, Sec. 9, T27W, R2E, 6th P.M. Fnd. RR Spike

SE. Cor., SW. ¼, Sec 9, T27S, R2E, 6th P.M. Fnd. ⅝" bar w/ Garber Id. cap

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