

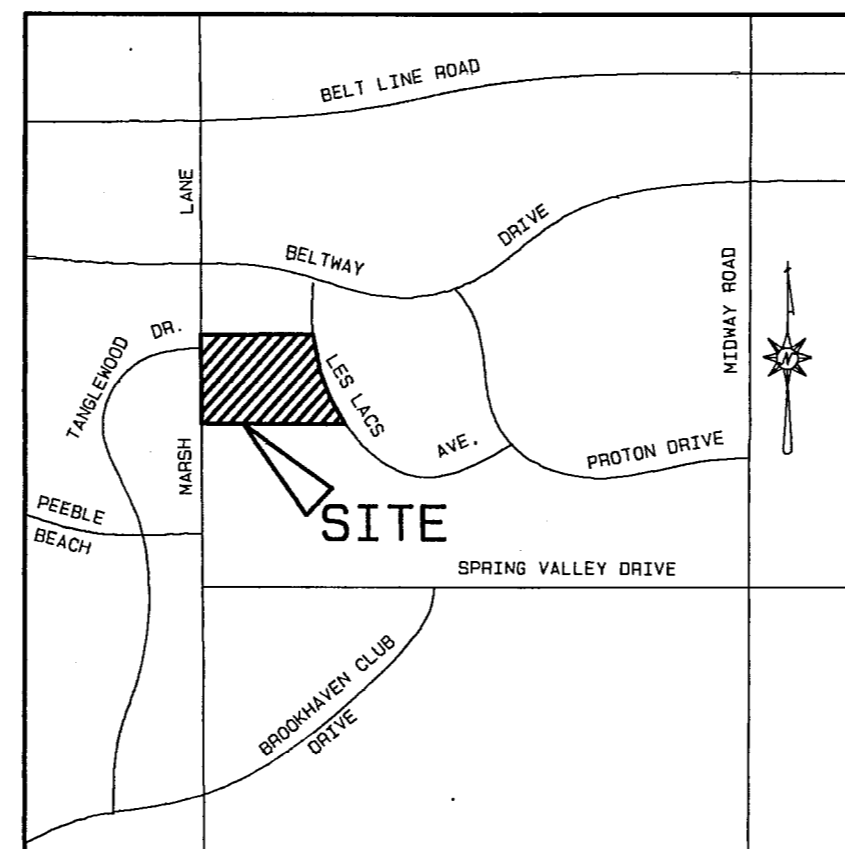
CONSTRUCTION PLANS

WATERFORD COURT APARTMENTS

TOWN OF ADDISON, TEXAS

GENERAL NOTES

- A. Prior to final acceptance by the Town of Addison.
- 1) A Texas Registered Professional engineer shall certify that the project was constructed in accordance with the plans and specifications approved by the Town of Addison.
- The owner shall provide 4 reproducible set of as-builts (sealed and certified by a Texas Registered Engineer) and 2 blue line sets.
- 2) A five foot sidewalk shall be installed along Les Lacs Avenue. See attached detail.
 - 3) A one year maintenance bond is required for all water improvements and all construction in the right-of-ways of Les Lacs Ave. and Marsh Lane.
 - 4) Contractor shall demonstrate that the water and sanitary sewer systems meet the proper pressure, bacteria, and mandrel tests. In addition, the owner shall provide a VHS format video tape of the sanitary sewer.
- B. Prior to starting construction, the contractor shall contact the utility companies to locate existing facilities. These include but may not be limited to the following:
- 1) Town of Addison
 - 2) Lone Star Gas
 - 3) Southwestern Bell
 - 4) Storer Cable
 - 5) Planned Cable Systems
 - 6) TU Electric
- C. Prior to beginning construction, the owner or his authorized representative shall convene a Pre-Construction Conference between the Town of Addison, Consulting Engineer, Contractor(s), utility companies and any other affected parties. Notify Bruce Ellis 450-2847 at least 48-hours prior to the time of the conference and 48-hours prior to beginning of construction.
- D. Any existing pavement, curbs, and/or sidewalks damaged or removed will be repaired by the contractor at their expense.
- E. Contractor shall obtain a right-of-way permit by the Town of Addison for working within the public right-of-way.
- F. The utility contractor shall submit to the Town of Addison for approval a trench safety plan sealed by a registered professional engineer for the installation of utilities greater than five (5) feet in depth.



LOCATION MAP

INDEX TO SHEETS FOR WATERFORD COURT APARTMENTS	
SHEET NO.	DESCRIPTION
1	FINAL PLAT
2	SITE PLAN
3	DIMENSION CONTROL & PAVING PLAN
4	DIMENSION CONTROL & PAVING PLAN
5	GRADING & EROSION CONTROL PLAN
6	GRADING & EROSION CONTROL PLAN
7	DRAINAGE AREA MAP & STORM DRAINAGE PLAN & PROFILES
8	WATER & SANITARY SEWER PLAN
9	SANITARY SEWER PROFILES
10	ROOF DRAIN PLAN
11	MEDIAN IMPROVEMENT PLAN
12-19	STANDARD CONSTRUCTION DETAILS

JANUARY 5, 1994

ENGINEER

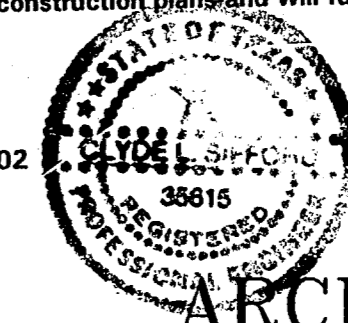
THE NELSON CORPORATION

5999 SUMMERSIDE DR., SUITE 202
DALLAS, TEXAS 75252
(214) 380-2805

AS BUILTS

Based on visual inspection of the completed improvements, it appears this project was constructed in general conformance with these construction plans and will function as designed.

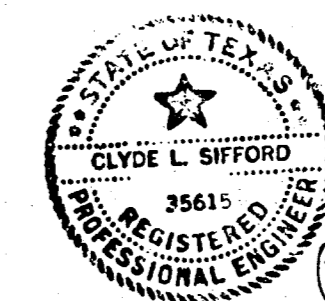
Clyde L. Sifford, P.E.
THE NELSON CORPORATION
5999 Summerside Drive, Suite 202
Dallas, Texas 75252



ARCHITECT

HUMPHREYS & PARTNERS ARCHITECTS, INC.

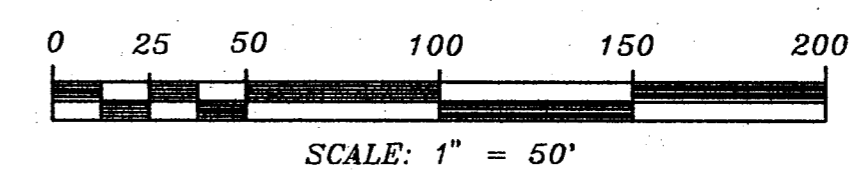
5350 ALPHA ROAD
DALLAS, TEXAS 75240
(214) 701-9636



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BROOKHAVEN HILLS ADDITION
CITY OF FARMER BRANCH
VOL. 51, PG. 51

REVISION	DATE	DESCRIPTION	DRAWN BY	CHECKED BY



AS BUILTS

Based on visual inspection of the completed improvements, it appears this project was constructed in general conformance with these construction plans and will function as designed.

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Dallas, Texas 75252



Clyde Sifford
8-25-94

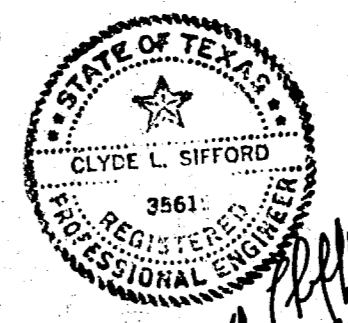
PARKING REQUIREMENTS - 196 UNITS X 1.9 = 373 SPACES
PARKING SPACES PROVIDED:

GARAGES	204
TANDEM SPACES	28
8 1/2' x 17' SPACES	129
HANDICAP	7
HANDICAP VAN	1
TOTAL	369

SITE PLAN

WATERFORD COURT APARTMENTS
TOWN OF ADDISON, TEXAS

Date: MAR. 17, 1994	Scale: 1" = 50'	Sheet: 2
Drawn By: TNC	Approved By: TNC	Project No.: 86126.10



Clyde Sifford
3-17-94

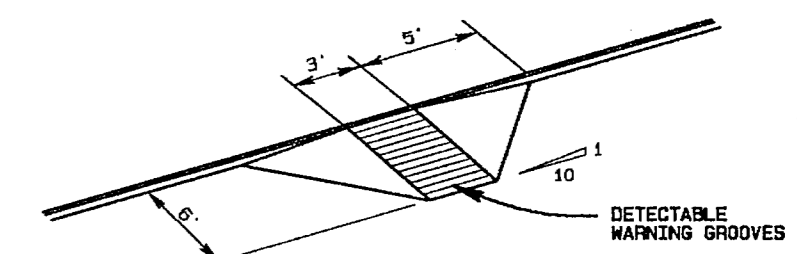
THE NELSON CORPORATION
PLANNING • ENGINEERING • SURVEYING
LANDSCAPE ARCHITECTURE • CONSTRUCTION MANAGEMENT

5999 SUMMERSIDE DRIVE SUITE 202 • DALLAS, TEXAS 75252 • (214) 380-2605

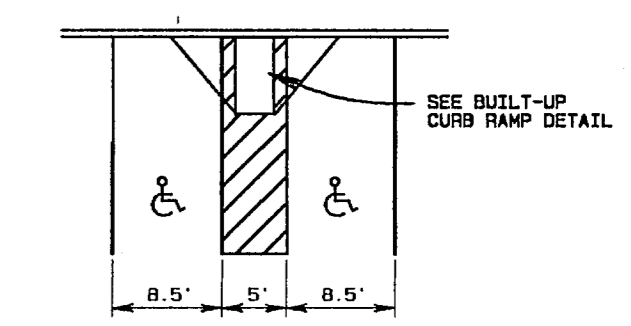
REVISION	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
Δ	05/11/94	REVISE NW ENTRANCE		

PAVING GENERAL NOTES:

- Unless otherwise noted all material and construction shall conform to the applicable specifications of the Town of Addison with amendments - The North Central Texas Council of Governments - Standards Specifications for Public Works Construction, Parts I and II, latest edition.
- All curb dimensions are to back of curb.
- Pavement reinforcing will be grade 60.
- All firelane and access drive concrete pavement will be 5' thick and have a minimum strength of 3600 PSI at 28 days. All driveway and parking stall pavement will be 4" thick and have a minimum compressive strength of 3600 psi at 28 days.
- Construct a barrier-free curb and ramp as shown on the plan.
- The Contractor will be responsible for field verifying the location of all existing utilities prior to his operations.
- Contraction Joints: Transverse contraction joints shall be sawed joints perpendicular to the centerline and surface of the pavement. Where sawed joints are used, contraction joints at 15 foot intervals shall be sawed as soon as sawing can be accomplished without damage to the pavement.
- Expansion Joints: Transverse expansion joints shall be formed perpendicular to the centerline and surface of the pavement and shall be constructed where shown on the plans.
- Dimensions of this type are from back of curb to face of brick of the garage. (Dimension is NOT to building envelope.)
- Install firelane markings in accordance with Town of Addison Fire Department requirements.
- Install sleeving prior to paving. Reference irrigation and electrical plans.



BUILT-UP CURB RAMP
WHERE APPLICABLE



HANDICAP PARKING
N.T.S.

CONSTR. 5' WIDE
4" THICK, 3000 PSI
CONCRETE SIDEWALK
SEE STANDARD DETAILS

PROPOSED 11.5' R.O.W.
DEDICATION TO THE
CITY OF ADDISON

BENCHMARKS:

- SQUARE CUT ON CENTERLINE OF 14' INLET AT THE N.E. CORNER OF THE INTERSECTION OF BELTWAY DRIVE AND MARSH LANE. ELEVATION 595.20
- SQUARE CUT IN CENTER OF THIRD INLET WEST OF THE EAST ADDITION LINE OF WATERFORD PARK II AND ON THE NORTH SIDE LES LACS AVENUE. ELEVATION 597.61

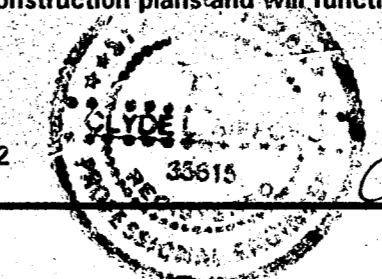
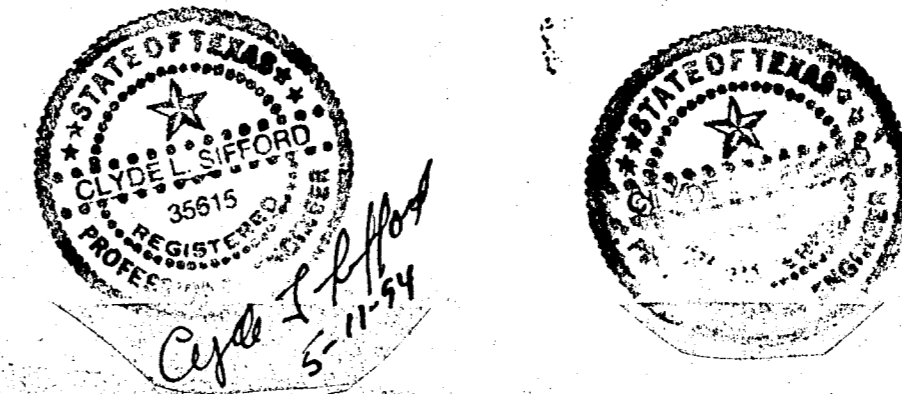
TURNING LANE GENERAL NOTES:

- Material & construction shall conform to the applicable Specifications of the City of Farmers Branch.
- Construction in Marsh Lane will only be allowed between the hours of 8:30 a.m. and 4:00 p.m. daily.
- All installations, materials, procedures, removals and maintenance of traffic control devices shall conform with the latest edition of the Texas Manual on Uniform Traffic Control Devices (TMUTCD) and be accepted by the City of Farmers Branch Transportation Department.
- The Contractor will be responsible for coordinating, submitting, preparing any barricade plan or permit application required by the City of Farmers Branch.
- Permits, insurance and bonding required by the City of Farmers Branch will be the responsibility of the Contractor.
- Call Mr. Greg Hilton with TU Electric at 323-9943 72 hours prior to starting paving operations to allow relocation of the existing street light. The contractor will only be responsible for removing the existing street light foundation.

AS BUILTS

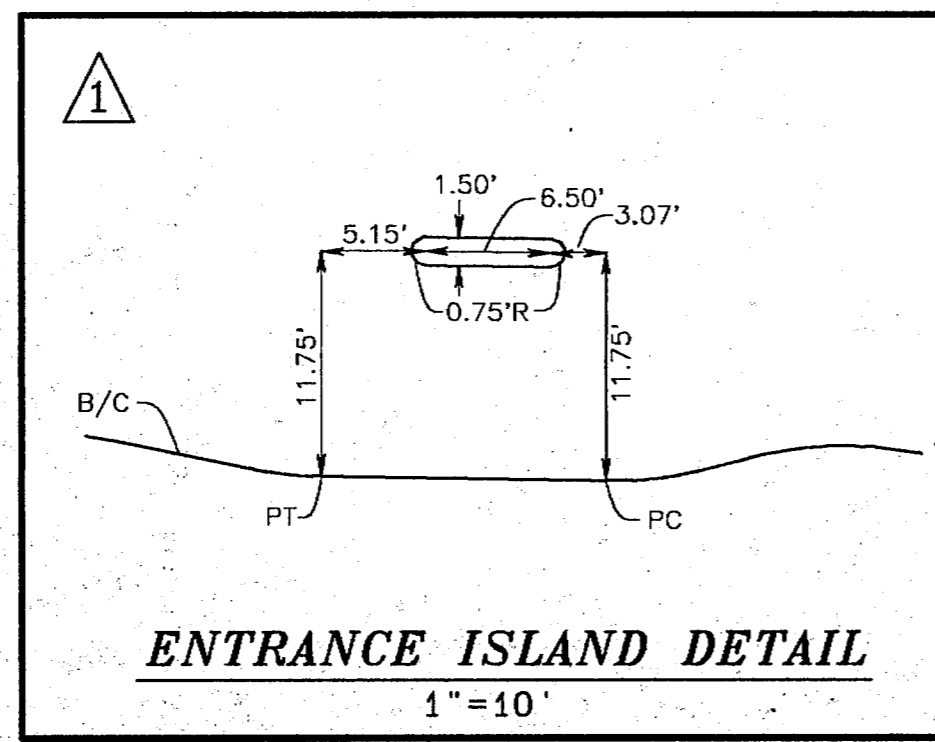
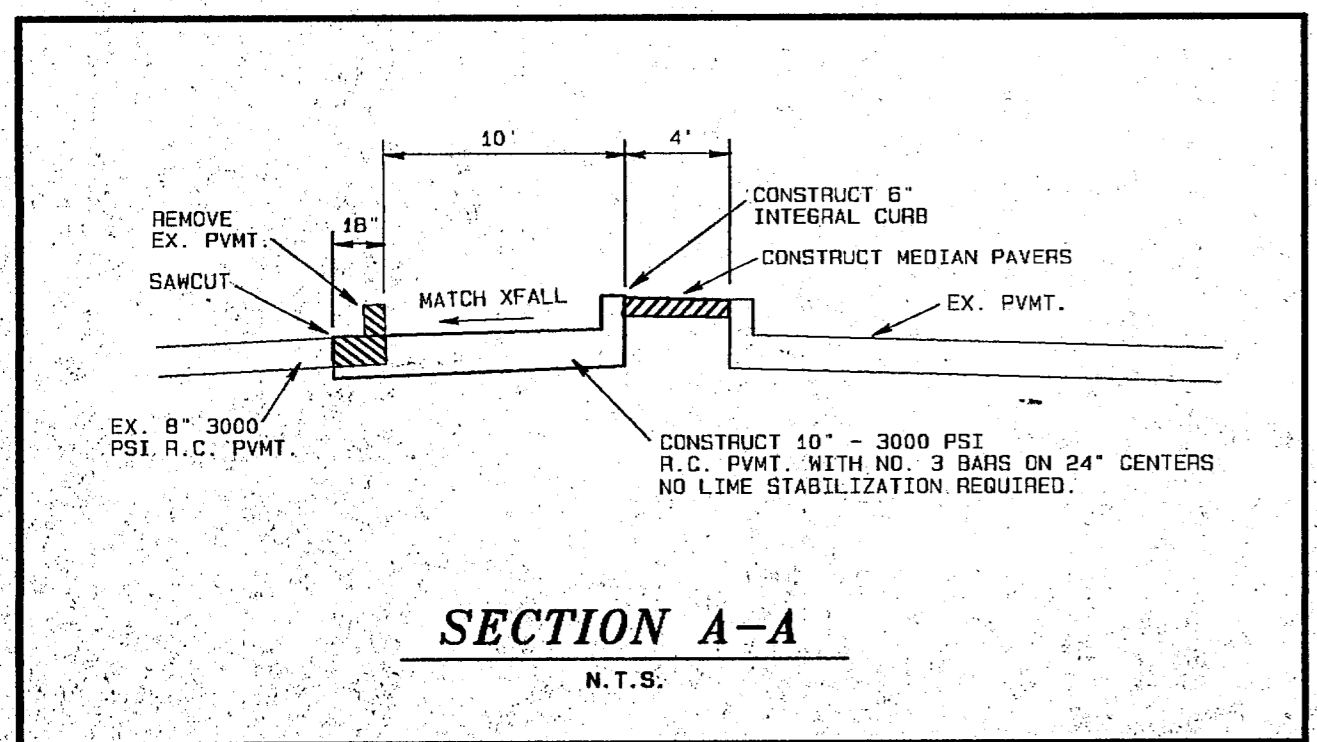
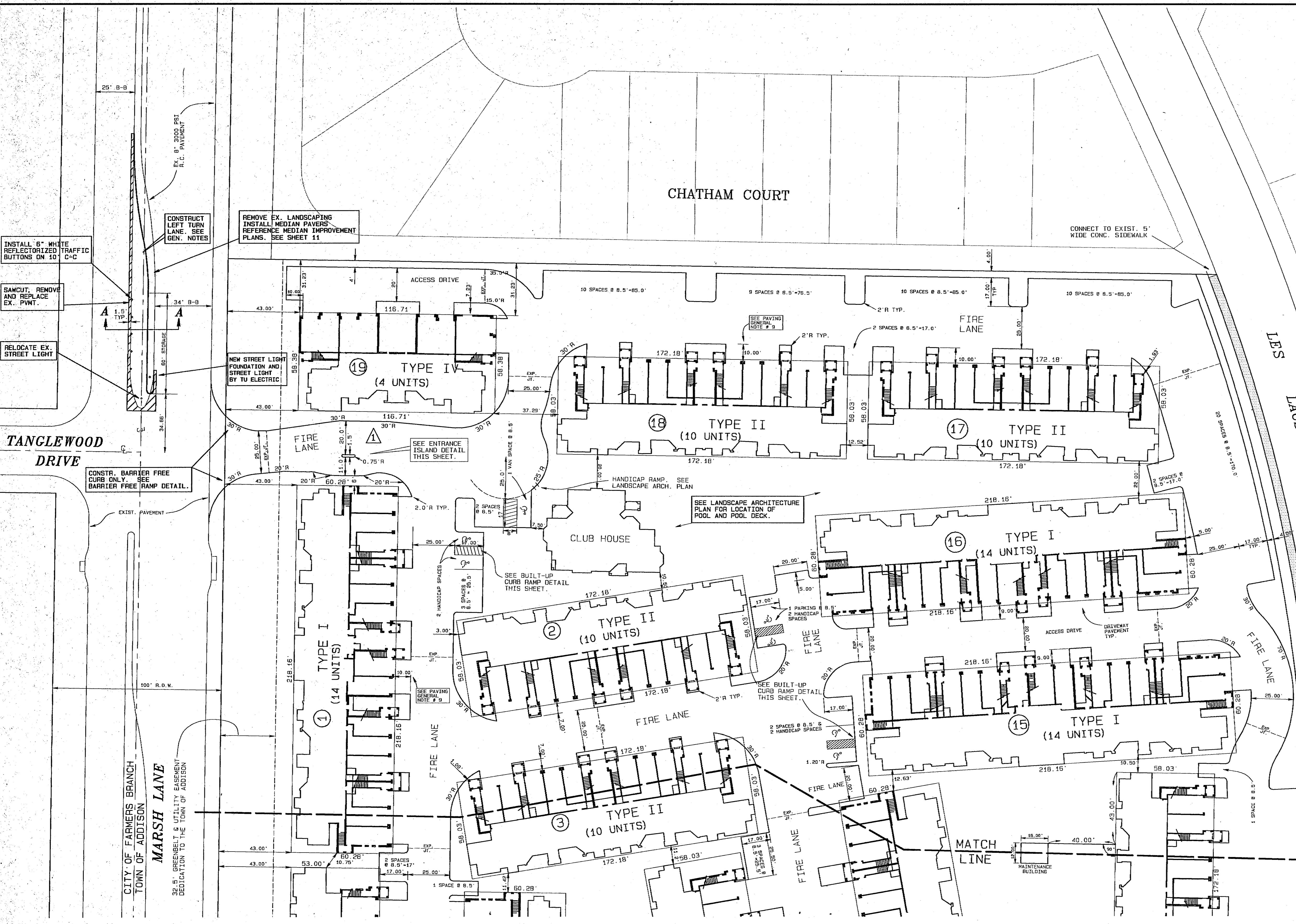
Based on visual inspection of the completed improvements, it appears this project was constructed in general conformance with these construction plans and will function as designed.

Clyde L. Sifford, P.E.
THE NELSON CORPORATION
5999 Summerside Drive, Suite 202
Dallas, Texas 75252



Clyde L. Sifford
5-11-94

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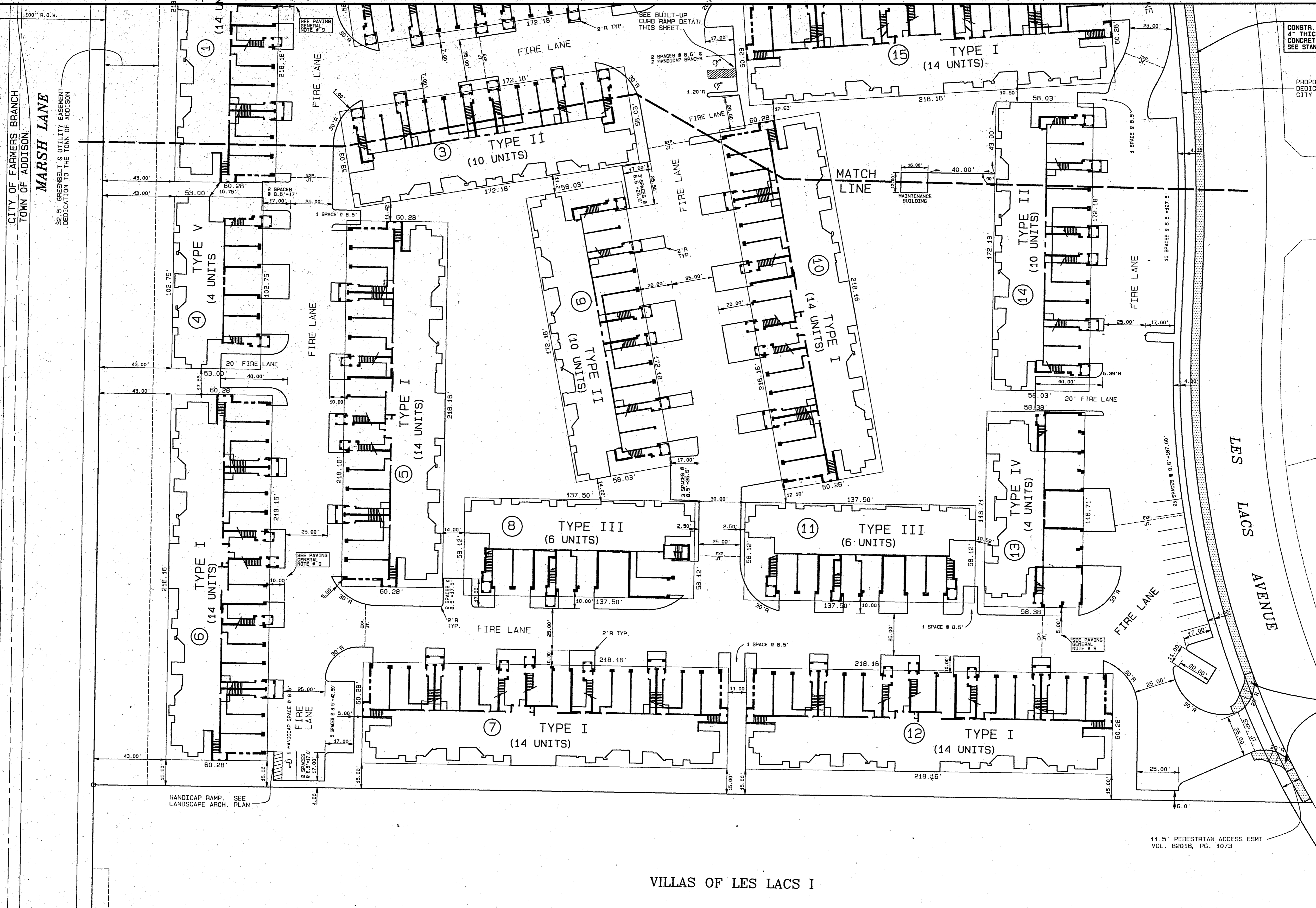


DIMENSION CONTROL & PAVING PLAN

WATERFORD COURT APARTMENTS
TOWN OF ADDISON, TEXAS

Date: MAY. 12, 1994 Scale: 1" = 30' Sheet: 3
Drawn By: TNC Approved By: TNC Project No.: 86126.10

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5999 SUMMERSIDE DRIVE SUITE 202 • DALLAS, TEXAS 75252 • (214) 390-2605



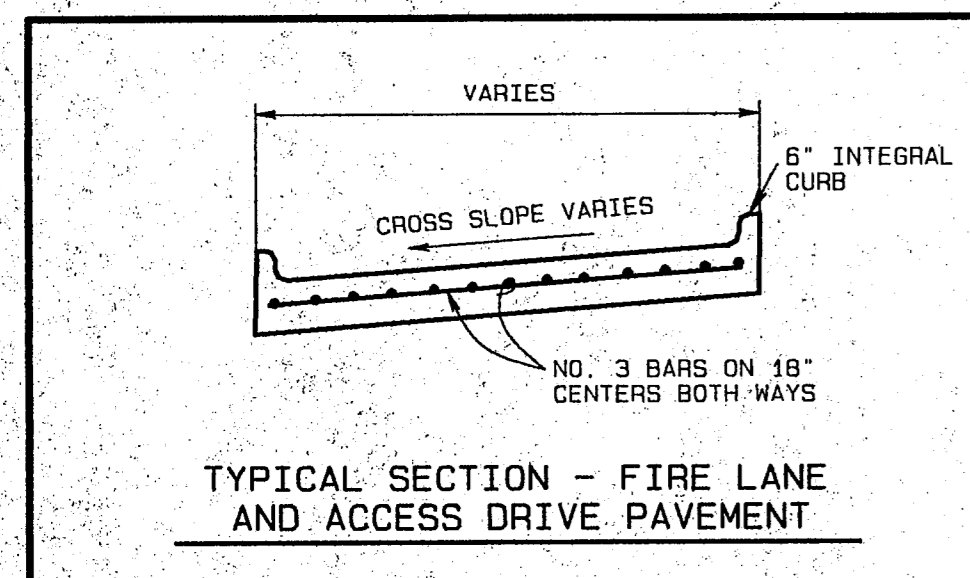
CONSTR. 5' WIDE
4" THICK, 3000 PSI
CONCRETE SIDEWALK
SEE STANDARD DETAILS

PROPOSED 11.5' R.O.W.
DEDICATION TO THE
CITY OF ADDISON

CONSTR. BARRIER
FREE RAMP. SEE
DETAILS.

11.5' PEDESTRIAN ACCESS ESMT
VOL. 82016, PG. 1073

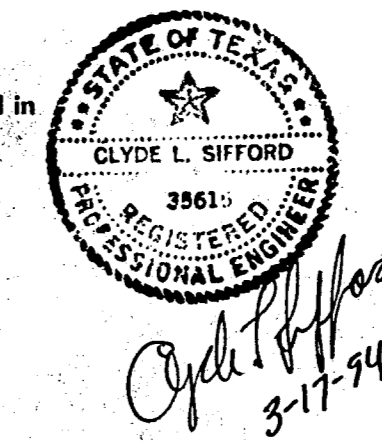
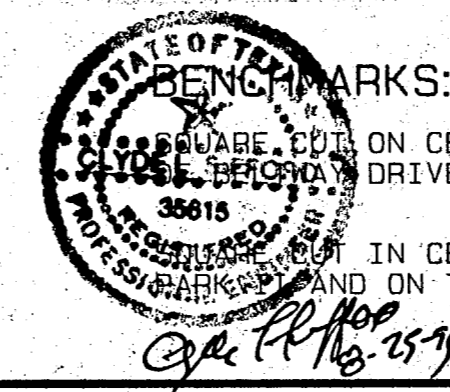
VILLAS OF LES LACS I



AS BUILTS

Based on visual inspection of the completed improvements, it appears this project was constructed in general conformance with these construction plans and will function as designed.

Clyde L. Sifford, P.E.
THE NELSON CORPORATION
5999 Summerside Drive, Suite 202
Dallas, Texas 75252



BENCHMARKS:
1. PERMANENT BENCHMARK ON CENTERLINE OF 14" INLET AT THE N.E. CORNER OF THE INTERSECTION OF WATERFORD COURT AND MARSH LANE. ELEVATION 585.20
2. PERMANENT BENCHMARK IN CENTER OF THIRD INLET WEST OF THE EAST ADDITION LINE OF WATERFORD COURT AND ON THE NORTH SIDE LES LACS AVENUE. ELEVATION 587.61

DIMENSION CONTROL & PAVING PLAN

WATERFORD COURT APARTMENTS
TOWN OF ADDISON, TEXAS

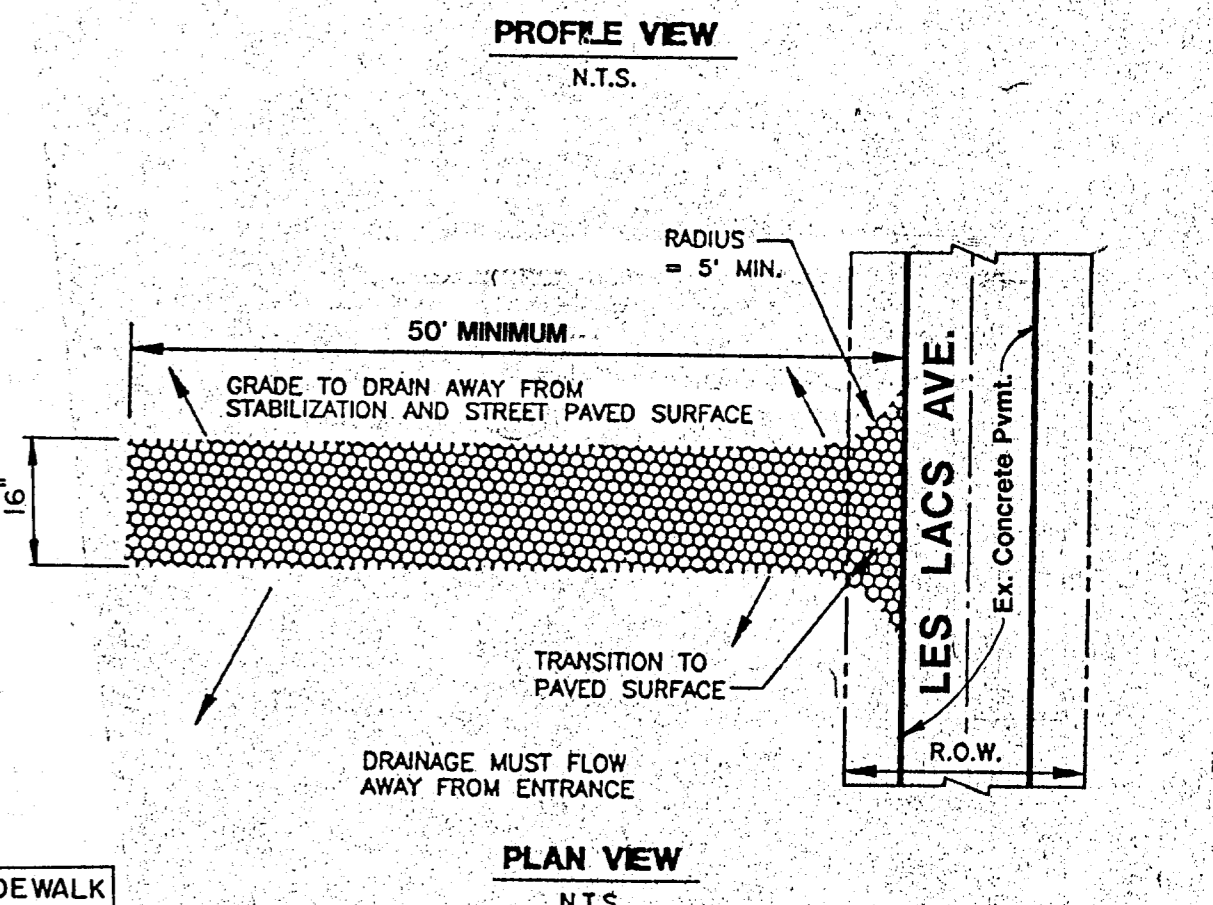
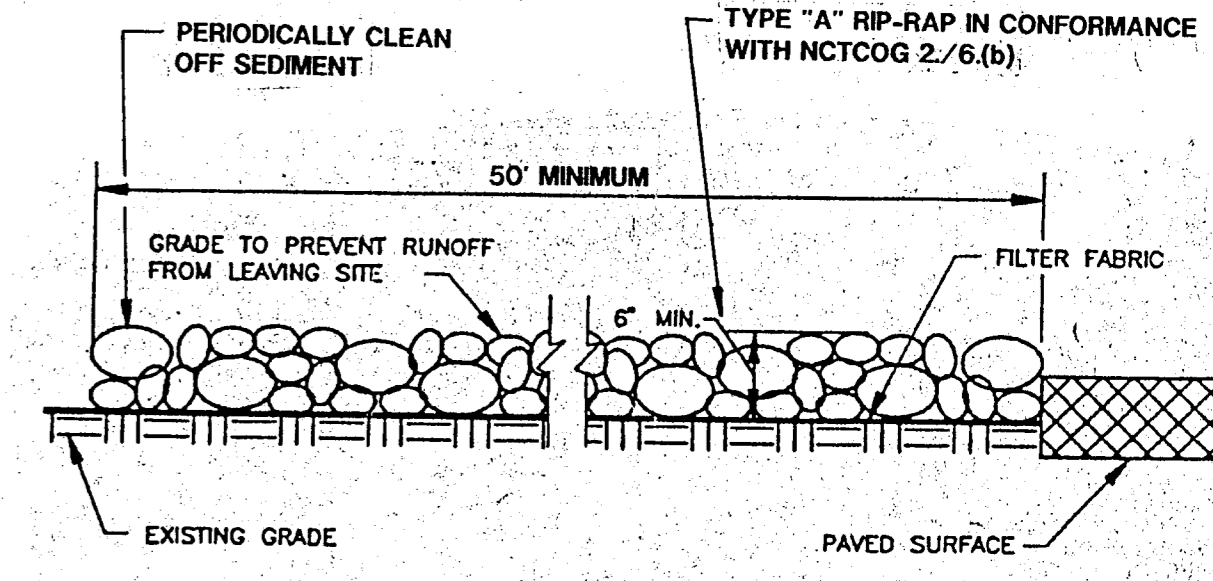
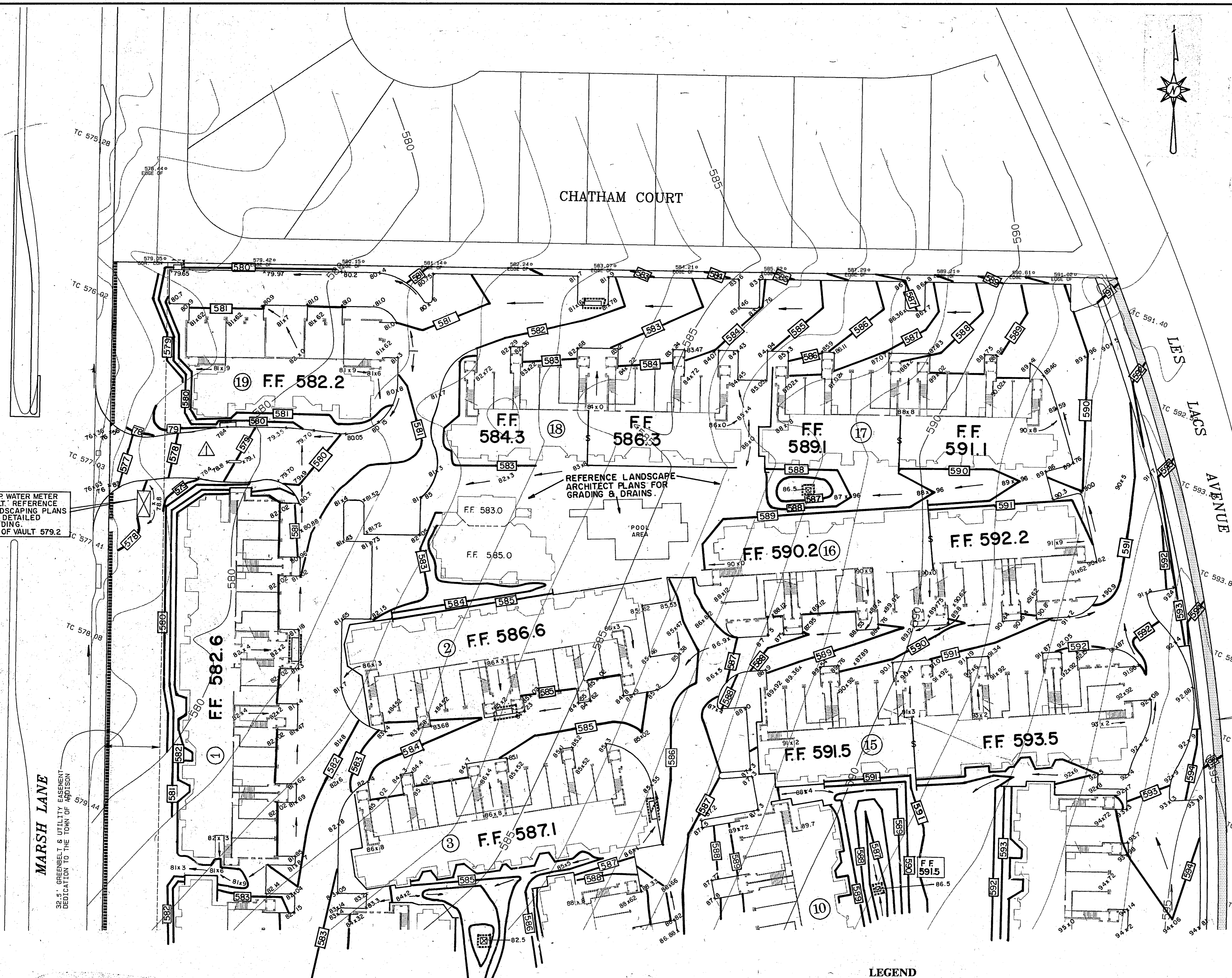
Date: MAR. 17, 1994	Scale: 1" = 30'	Sheet: 4
Drawn By: TNC	Approved By: TNC	Project No.: 86126.10

THE NELSON CORPORATION
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5999 SUMMERSIDE DRIVE SUITE 202 • DALLAS, TEXAS 75252 • (214) 380-2805

REVISION	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
△	6/27/94	Revise Entrance	BVD	CLS

GENERAL NOTES:

- All fill shall be placed in lifts of 6" and compacted to 95% Standard Proctor Density at a moisture content of 1 to 3% wet of optimum.
- Spot elevations in paved areas are proposed top of pavement elevations unless otherwise noted.
- Remove topsoil in paved and pad areas to a depth 4". Place topsoil in yard and berm areas at the direction of the owner's representative. Reference landscape architect plans.
- Approved surplus excavation can be utilized as directed by the owner's representative to complete landscaped berms along Marsh Lane. Reference landscape architect plans.
- Boulders and other excavated material considered unsuitable for fill will be disposed of legally offsite.
- Provide perimeter construction fence to control access to site. Provide one access point at Les Lacs Avenue only. Access to Marsh Lane is forbidden.
- Provide, maintain, and remove stabilized construction entrance at access point as detailed on this sheet. Remove stabilized construction entrance only upon permission of the Town of Addison.

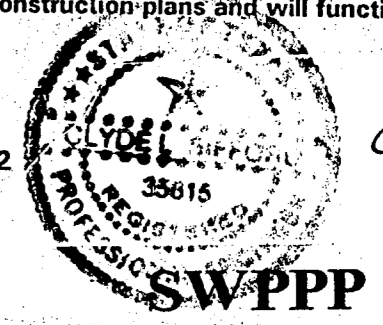


STABILIZED CONSTRUCTION ENTRANCE BY CONTRACTOR

AS BUILTS

Based on visual inspection of the completed improvements, it appears this project was constructed in general conformance with these construction plans and will function as designed.

Clyde L. Sifford, P.E.
 THE NELSON CORPORATION
 6999 SUMMERSIDE DRIVE, SUITE 202
 DALLAS, TEXAS 75252



Clyde L. Sifford
 8-25-95

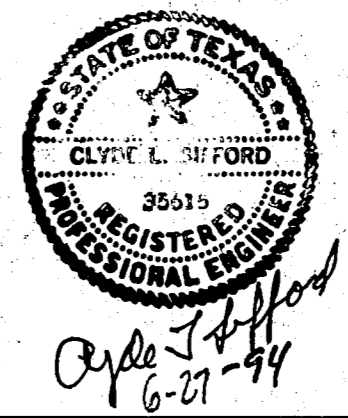
BENCHMARKS:
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 SQUARE CUT IN CENTER OF THIRD INLET WEST OF THE EAST ADDITION LINE OF WATERFORD PARK II AND ON THE NORTH SIDE LES LACS AVENUE. ELEV. 587.61

GRADING & EROSION CONTROL PLAN

WATERFORD COURT APARTMENTS
TOWN OF ADDISON, TEXAS

Date: 3/31/94	Scale: 1" = 30'	Sheet: 5
Drawn By: TNC	Approved By: TNC	Project No.: 86126.10

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 6999 SUMMERSIDE DRIVE SUITE 202 • DALLAS, TEXAS 75252 • (214) 380-2005

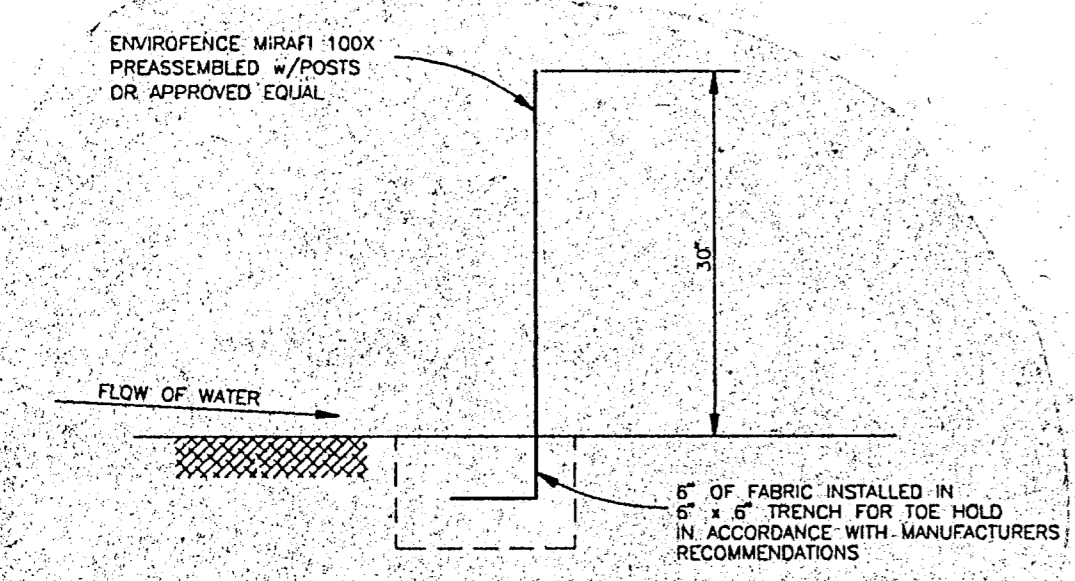


LEGEND

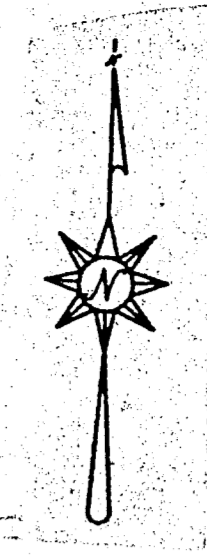
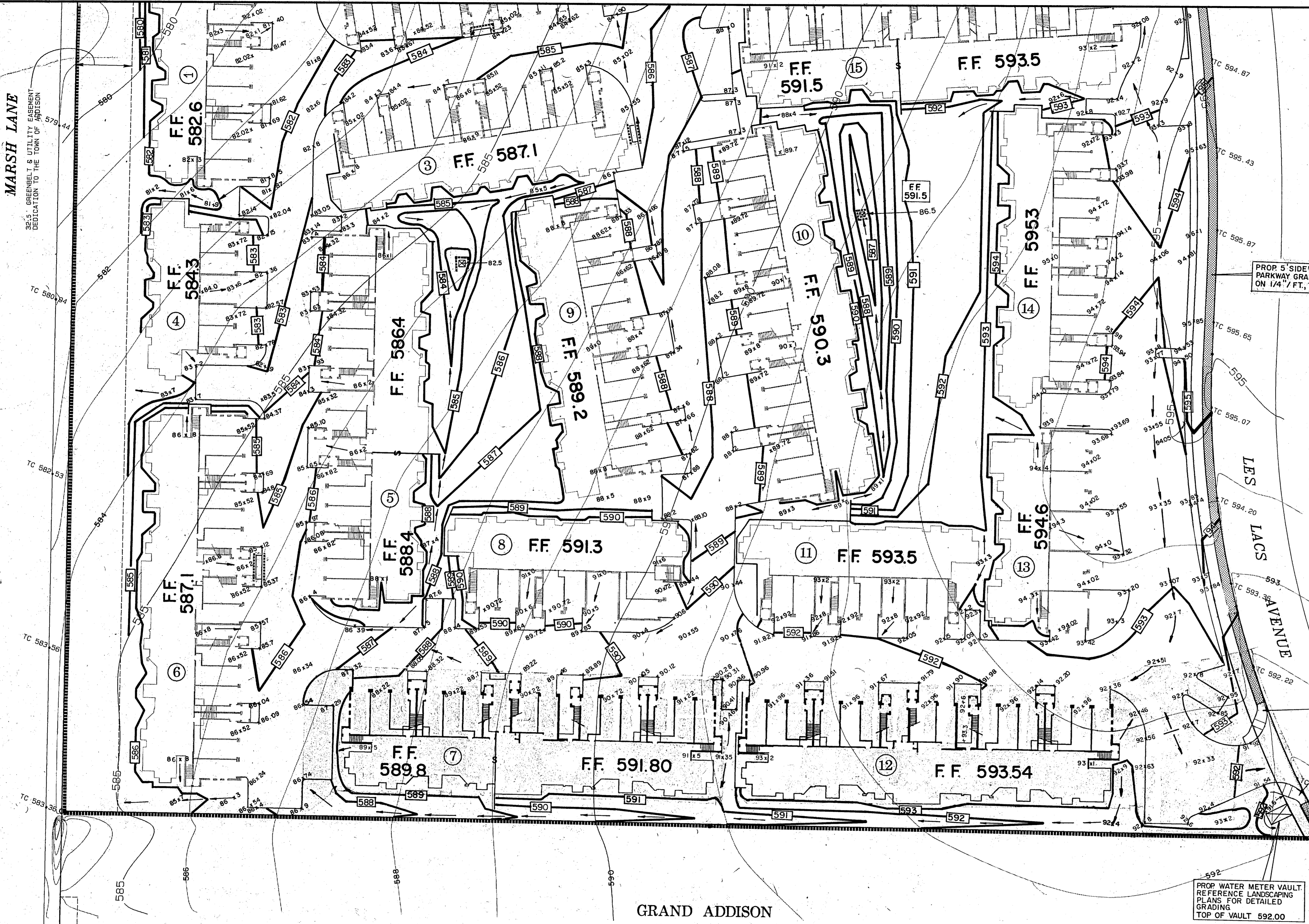
- EXISTING CONTOURS
- PROPOSED CONTOURS
- FLOW ARROW
- PROPOSED SPOT ELEVATION OR TOP OF PAVEMENT
- EROSION CONTROL DEVICE BY GRADING CONTRACTOR
- EROSION CONTROL DEVICE BY UTILITY CONTRACTOR
- PROBABLE WALL

GRADING QUANTITIES

EXCAVATION 10,300 C.Y.
 LESS FILL/SHINKAGE 8,800 C.Y.
 SURPLUS 1,500 C.Y.



SILTATION FENCE EROSION CONTROL DEVICE

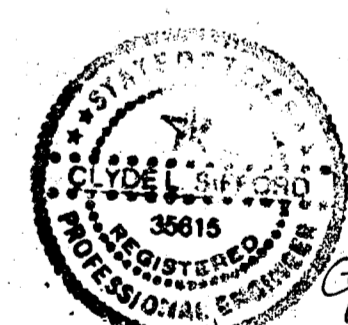


MARSH LANE
32.5' GREENBELT & UTILITY ELEMENT
DEDICATION TO THE TOWN OF ADDISON

PROP. 5' SIDEWALK
PARKWAY GRADED
ON 1/4" / FT. TYP.

CONSTRUCT BARRIER
FREE RAMP (TYP.)

PROP. WATER METER VAULT
REFERENCE LANDSCAPING
PLANS FOR DETAILED
GRADING
TOP OF VAULT 592.00



AS BUILTS
Based on visual inspection of the completed improvements, it appears this project was constructed in general conformance with these construction plans and will function as designed.

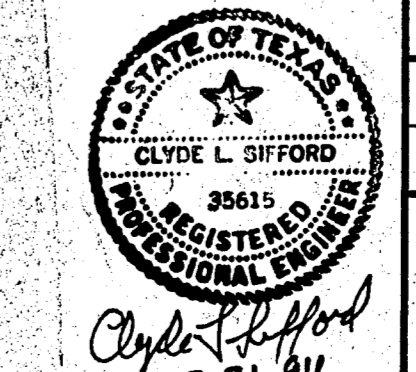
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Dallas, Texas 75252

SWPPP

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SQUARE CUT IN CENTER OF THIRD INLET WEST OF THE EAST ADDITION LINE OF WATERFORD PARK II AND ON THE NORTH SIDE LES LACS AVENUE. ELEV. 597.61

LEGEND

- EXISTING CONTOURS
- PROPOSED CONTOURS
- FLOW ARROW
- PROPOSED SPOT ELEVATION OR TOP OF PAVEMENT
- EROSION CONTROL DEVICE BY GRADING CONTRACTOR
- EROSION CONTROL DEVICE BY UTILITY CONTRACTOR
- PROBABLE WALL



GRADING & EROSION CONTROL PLAN

WATERFORD COURT APARTMENTS
TOWN OF ADDISON, TEXAS

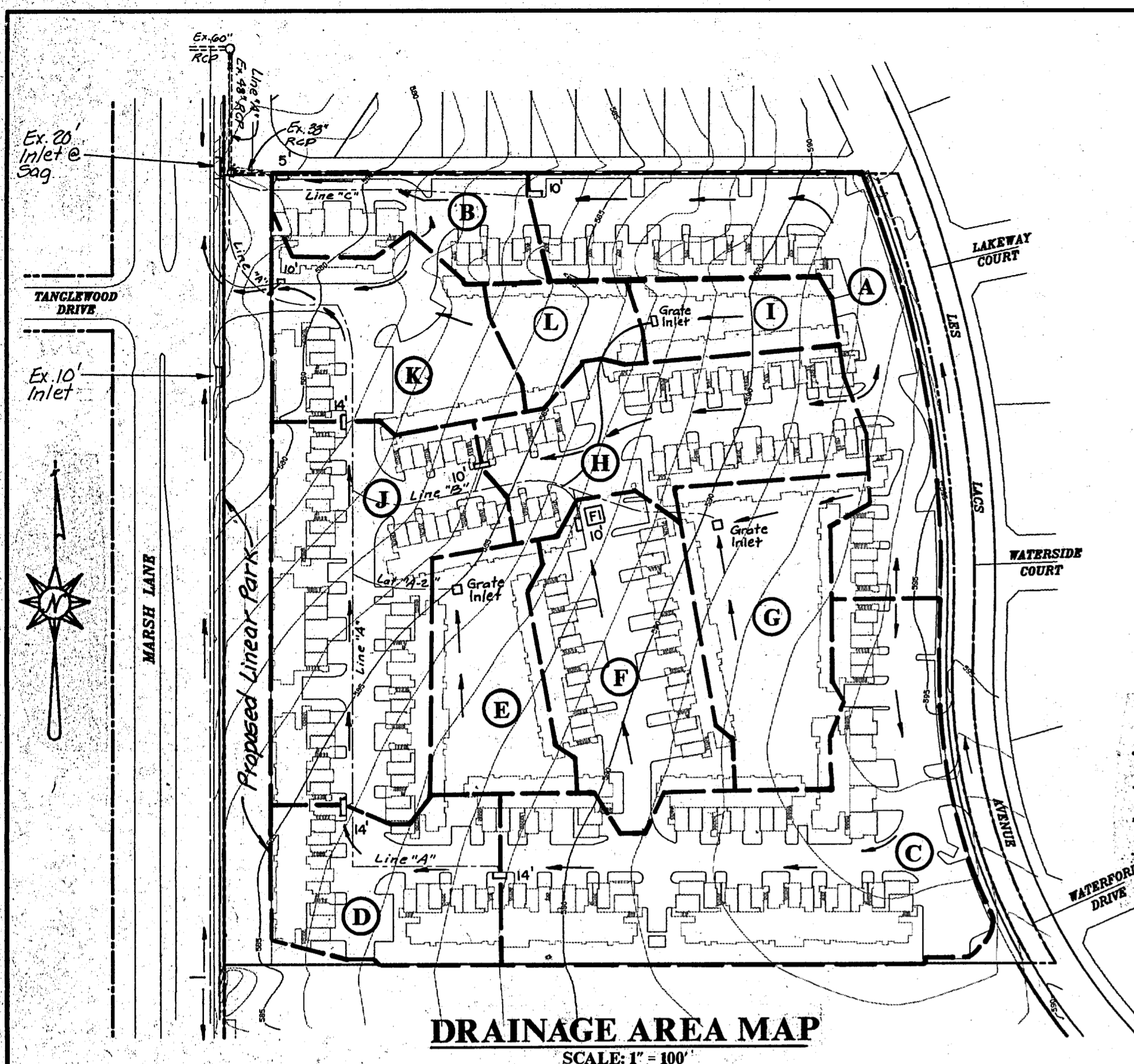
Date: 3/31/94 Scale: 1" = 30' Sheet: 6
Drawn By: TNC Approved By: TNC Project No.: 86126.10

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REVISION	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	01/20/94	Move Inlet	BVD	CLS

STORM SEWER CURVE DATA				
NO.	DELTA	RADIUS	TANGENT	LENGTH
1	80°50'55"	70'	70'	100.95'
2	30°00'00"	100'	26.79'	52.36'
3	30°56'06"	70'	25.43'	48.79'
4	30°00'00"	70'	18.76'	36.65'
5	18°25'08"	70'	11.35'	22.50'
6	17°25'08"	70'	10.72'	21.28'
7	30°00'00"	100'	26.79'	52.36'
8	30°00'00"	70'	18.76'	36.65'
9	50°10'24"	70'	32.77'	61.30'
10	13°49'05"	70'	8.48'	16.88'

DRAINAGE CALCULATIONS					
REGION	AREA (ac)	tc (min)	C	I _h (in/hr)	Q _h (cfs)
A	1.2	10	0.80	8.74	8.4
B	0.42	10	0.80	8.74	2.9
C	1.9	10	0.80	8.74	13.4
D	0.66	10	0.80	8.74	4.6
E	0.58	10	0.80	8.74	4.1
F	0.90	10	0.80	8.74	6.3
G	0.81	10	0.80	8.74	5.7
H	0.90	10	0.80	8.74	6.3
I	0.30	10	0.80	8.74	2.1
J	1.33	10	0.80	8.74	9.3
K	0.70	10	0.80	8.74	4.9
L	0.24	10	0.90	8.14	1.9



DRAINAGE AREA MAP
SCALE: 1" = 100'

DRAINAGE GENERAL NOTES:

- Unless otherwise noted all material and construction shall conform to the applicable specifications of the Town of Addison with amendments, the North Central Council of Governments "Standard Specifications for Public Works Construction", Parts II and III, latest edition.
- All reinforcement will be grade 60.
- Minimum compaction adjacent to and above storm sewers and drainage structures will be 95% with moisture 1% to 3% wet of optimum in all firelans. Compaction in other areas will be 90%. Lifts will not exceed 6" and results will be obtained by Ramex, hand-tamping or as approved in writing by the owner's representative.
- All curved storm sewers having a radius of less than 200 feet shall be constructed with factory beveled joints. No joint will be allowed to have a tongue exposed by more than one-half.
- Contractor will be responsible for field verifying the location of all existing utilities prior to his operations.
- All concrete will have a minimum compression strength of 3000 psi at 28 days.
- Drainage area L will be picked up by deck drains. See roof drain plans.
- Install storm sewer and appropriate roof drains prior to paving.
- Refer to roof drain plan for details of Type "A" and "B" manholes.

LEGEND

- DRAINAGE AREA LINE
- EXIST. CONTOUR LINE
- - - EXIST. STORM SEWER LINE
- PROP. STORM SEWER LINE
- BASIN NO.

1+95-End Line "A" @ Ex. MH. Remove & Dispose of Ex. MH. 100' LF of Ex. 48" RCP. Remove and reinstall just enough of the Ex. 33" pipe to construct. Manhole maintain grade of Ex. 33" pipe. Const. Type "B" MH

0+50-Begin Line "A" Connect to Ex. Manhole

1+51.74-End Line "C" RT = 03°01'39"

2+72.88-End Line "C"

Const. 10' Inlet T.C. = 582.67 E = 578.67

2+04.10-End Lat. "B-3" Const. Pre-cast Single Grate Inlet (By Brooks Product - Type 22-22-CB) Top = 586.5, E = 582.50 P.T. = 1+61.80-End Lat. "B-3"

Plug w/ Two Courses of Brick & Mortar. 1+38.40-End Lat. "B-3" Install Factory Wye

2+04.10-End Lat. "B-3" Const. Pre-cast Single Grate Inlet (By Brooks Product - Type 22-22-CB) Top = 586.5, E = 582.50 P.T. = 1+61.80-End Lat. "B-3"

Plug w/ Two Courses of Brick & Mortar. 1+38.40-End Lat. "B-3" Install Factory Wye

Const. 10' Inlet T.C. = 584.62 E = 580.62

2+00.74-End Lat. "B-2" Const. 10' Inlet T.C. = 586.28 E = 582.28

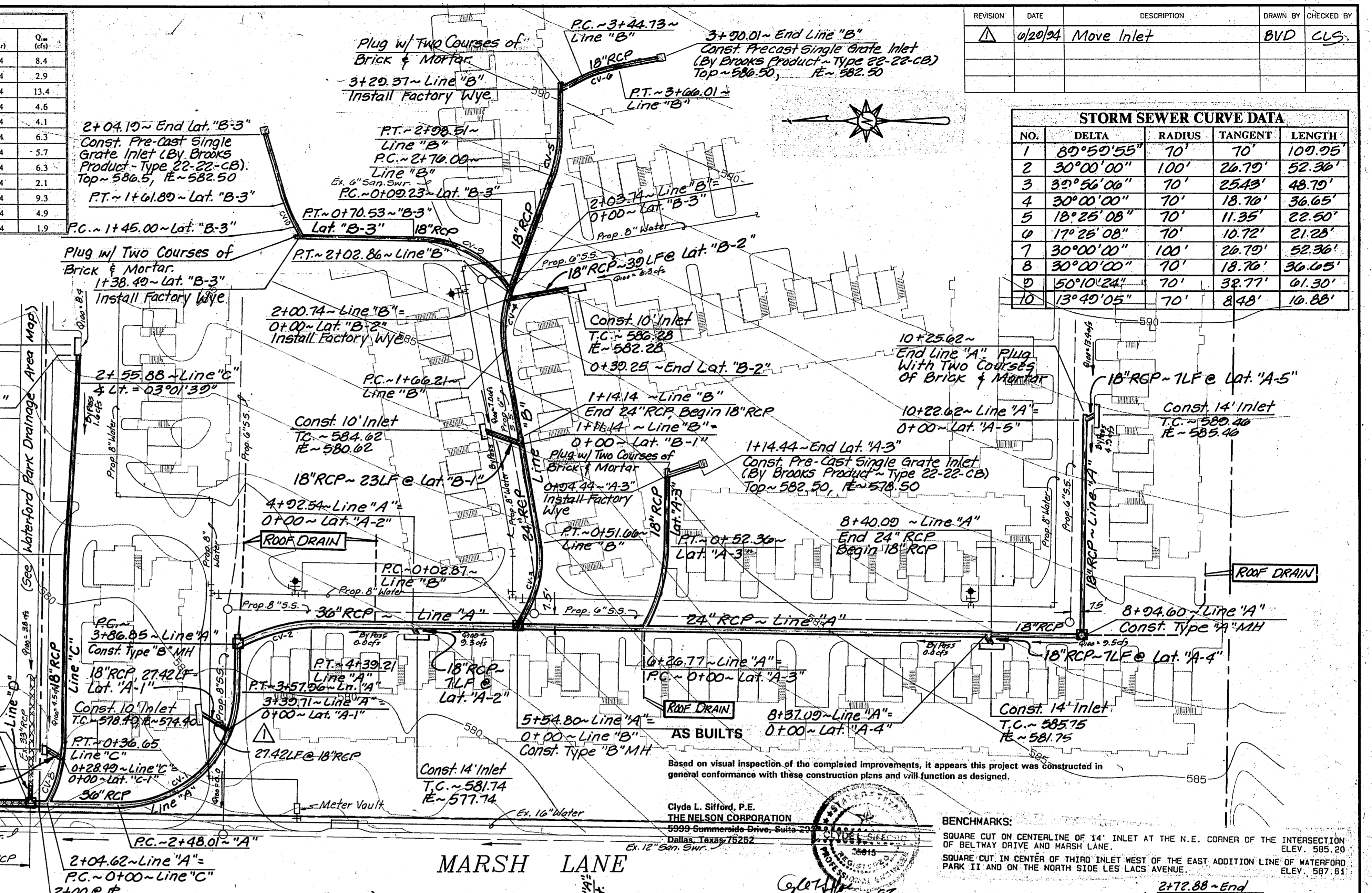
1+14.14-End Lat. "B-2" Const. 10' Inlet T.C. = 586.28 E = 582.28

1+14.44-End Lat. "A-3" Const. Pre-cast Single Grate Inlet (By Brooks Product - Type 22-22-CB) Top = 582.50, E = 578.50

8+40.09-End Lat. "A-4" Const. Type "A" MH

Const. 14' Inlet T.C. = 585.75 E = 581.75

Const. 14' Inlet T.C. = 581.74 E = 577.74

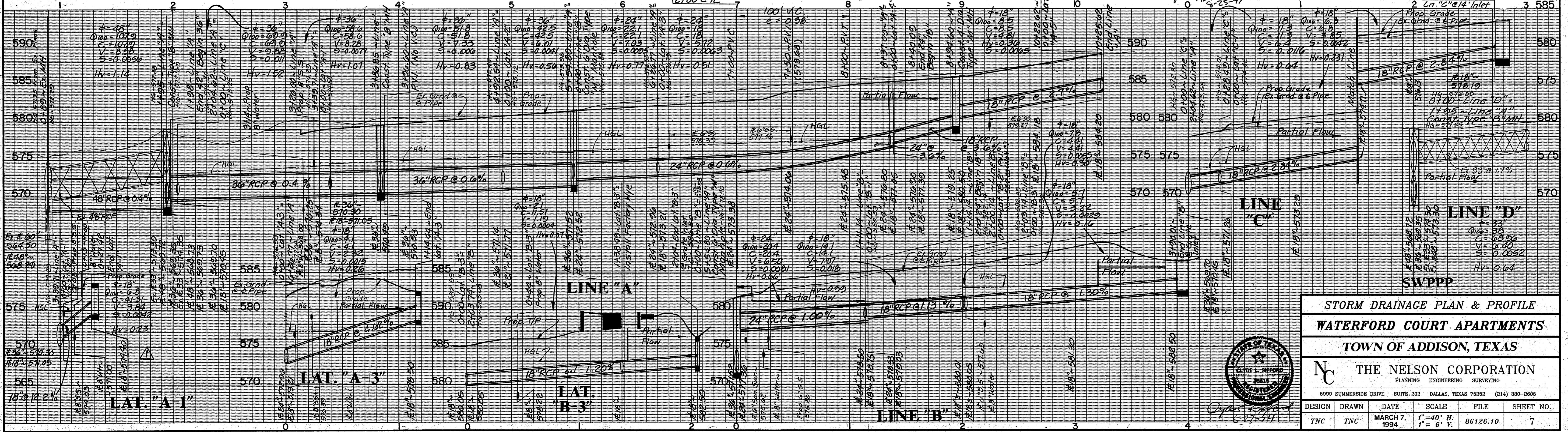


Based on visual inspection of the completed improvements, it appears this project was constructed in general conformance with these construction plans and will function as designed.

Clyde L. Sifford, P.E.
THE NELSON CORPORATION
5999 SUMMERSIDE DRIVE, SUITE 202
DALLAS, TEXAS 75222



BENCHMARKS:
SQUARE CUT ON CENTERLINE OF 34" INLET AT THE N.E. CORNER OF THE INTERSECTION OF BELTWAY DRIVE AND MARSH LANE. ELEV. 585.20
SQUARE CUT IN CENTER OF THIRD INLET WEST OF THE EAST ADDITION LINE OF WATERFORD PARK II AND ON THE NORTH SIDE LES LACS AVENUE. ELEV. 587.84



STORM DRAINAGE PLAN & PROFILE
WATERFORD COURT APARTMENTS
TOWN OF ADDISON, TEXAS

THE NELSON CORPORATION
PLANNING ENGINEERING SURVEYING
5999 SUMMERSIDE DRIVE SUITE 202 DALLAS, TEXAS 75222 (214) 360-2606

DESIGN	DRAWN	DATE	SCALE	FILE	SHEET NO.
TNC	TNC	MARCH 7, 1994	1" = 40' H. 1" = 6' V.	86126.10	7

CURVE NO.	DELTA	RADIUS	ARC	CHORD BEARING	CHORD
C1	14°02'46"	200.00'	49.03'	S89°58'31"E	48.91'
C2	09°56'06"	200.00'	34.68'	N85°58'03"E	34.64'
C3	33°19'58"	200.00'	119.35'	N69°47'28"E	114.72'
C4	09°19'24"	135.00'	87.01'	S00°13'48"E	86.98'
C5	04°45'06"	563.50'	46.73'	S00°03'21"W	46.72'

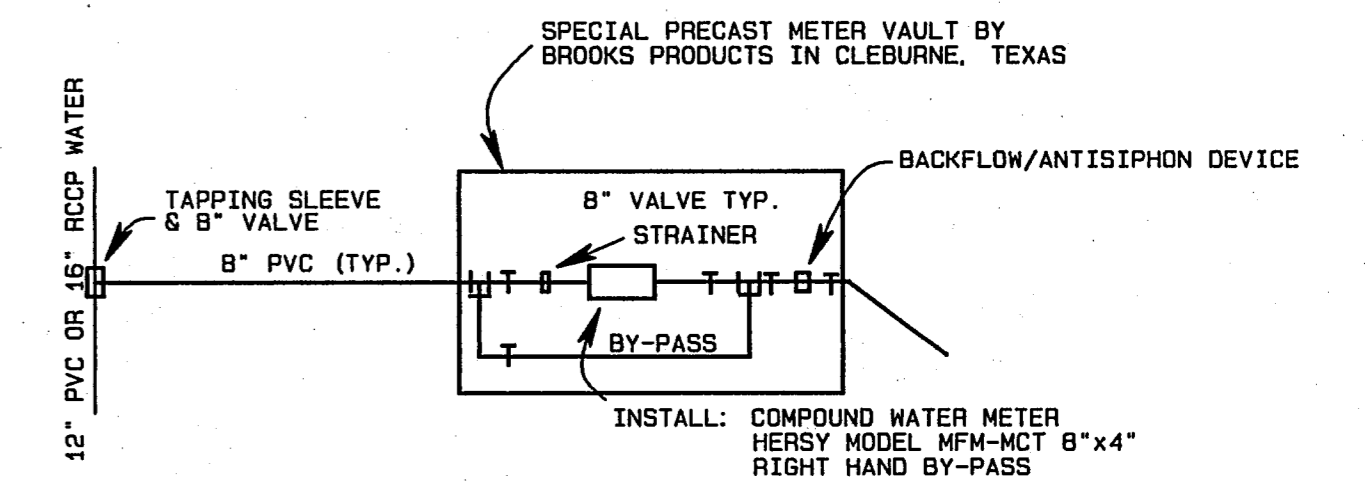
REVISION	DATE	DESCRIPTION	DRAWN BY	CHECKED BY

WATER & SANITARY GENERAL NOTES

- Unless otherwise noted all material and construction shall conform to applicable specifications of the Town of Addison with amendments - The North Central Texas Council of Governments "Standard Specifications for Public Works Construction", Parts I and II, latest edition.
- All water mains shall be PVC SDR-18 water pipe.
- Except as noted, all sanitary sewer mains shall be PVC SDR-35 and shall have integral wall bell and spigot joints.
- All water mains shall have a minimum cover below finished grades as follows: 6" & 8" - 48", 12" - 60", or as required to clear other utilities.
- The location of all existing utilities are taken from existing public records. The exact location must be determined by the Contractor. It is the responsibility of the contractor to ascertain whether any other facilities (additional), other than those shown on the plans are present.
- All utility and service laterals trenches shall be backfilled and compacted to 95% Standard Proctor Density.
- All manholes, cleanouts, valve boxes, fire hydrants, etc., must be adjusted to proper line and grade by the Contractor after placing of permanent paving.
- All fire hydrants shall be Mueller Centurion.
- No. 12 plastic coated wire shall be placed in the trench over all water lines. The wire will be tied to all valves and fire hydrants and attached directly to the top of pipe and extend to six (6") inches above finished grade along the outside of all valve stacks and fire hydrants.
- The utility Contractor shall be responsible for trench safety and details as required.
- All sanitary sewer laterals will be 6" PVC SDR-35. Sanitary sewer laterals will be constructed to a point 5 feet from the building and laid on a minimum 1.00% grade. The remaining lateral will be installed by the Plumber.
- Installation, maintenance and removal of traffic safety devices for all construction in Marsh Lane and Les Lacs Avenue will be at the expense of the contractor and will follow the Manual of Uniform Traffic Control Devices (Latest Edition). Notify the City of Addison 48 hours prior to commencing any work in Marsh Lane.
- Install 6" water service line to a point 5 feet from the building. Reference Mechanical Plans for domestic & fire service connection.
- All cleanouts shall be identified as Sanitary Sewer.
- All project water and sewer facilities within the boundary of Waterford Court Apartments are private and will be maintained by the owner.

WATER METER VAULT NOTES

- Size vault in accordance with meter manufacturer and City of Addison requirements. Submit vault meter and piping diagram for approval prior to fabrication to Bruce Ellis, City of Addison Water Department. (469-2073)
- Bico Spring Lid in the top of the vault will be 4'x4'. Lid painted with 43-38 TNEMC diffused aluminum paint or approved equal.
- All meters, valves, by-pass and backflow preventers will be installed inside the vault.
- All piping inside the vault will be ductile iron with flanged fittings. The outside dimension of the piping shall be within the following ranges: 8" Ductile Iron Pipe, 8.98-9.20 & 4" Ductile Iron Pipe, 4.74-4.90.
- Vault will have a gravel sump. Seal all joints to reduce seepage.
- Meter and all valves will have a concrete support.



TYPICAL WATER METER VAULT PLAN

N.T.S.

AS BUILTS

Based on visual inspection of the completed improvements, it appears this project was constructed in general conformance with these construction plans and will function as designed.

Clyde L. Sifford, P.E.
THE NELSON CORPORATION
5995 Summerside Drive, Suite 202
Dallas, Texas 75252

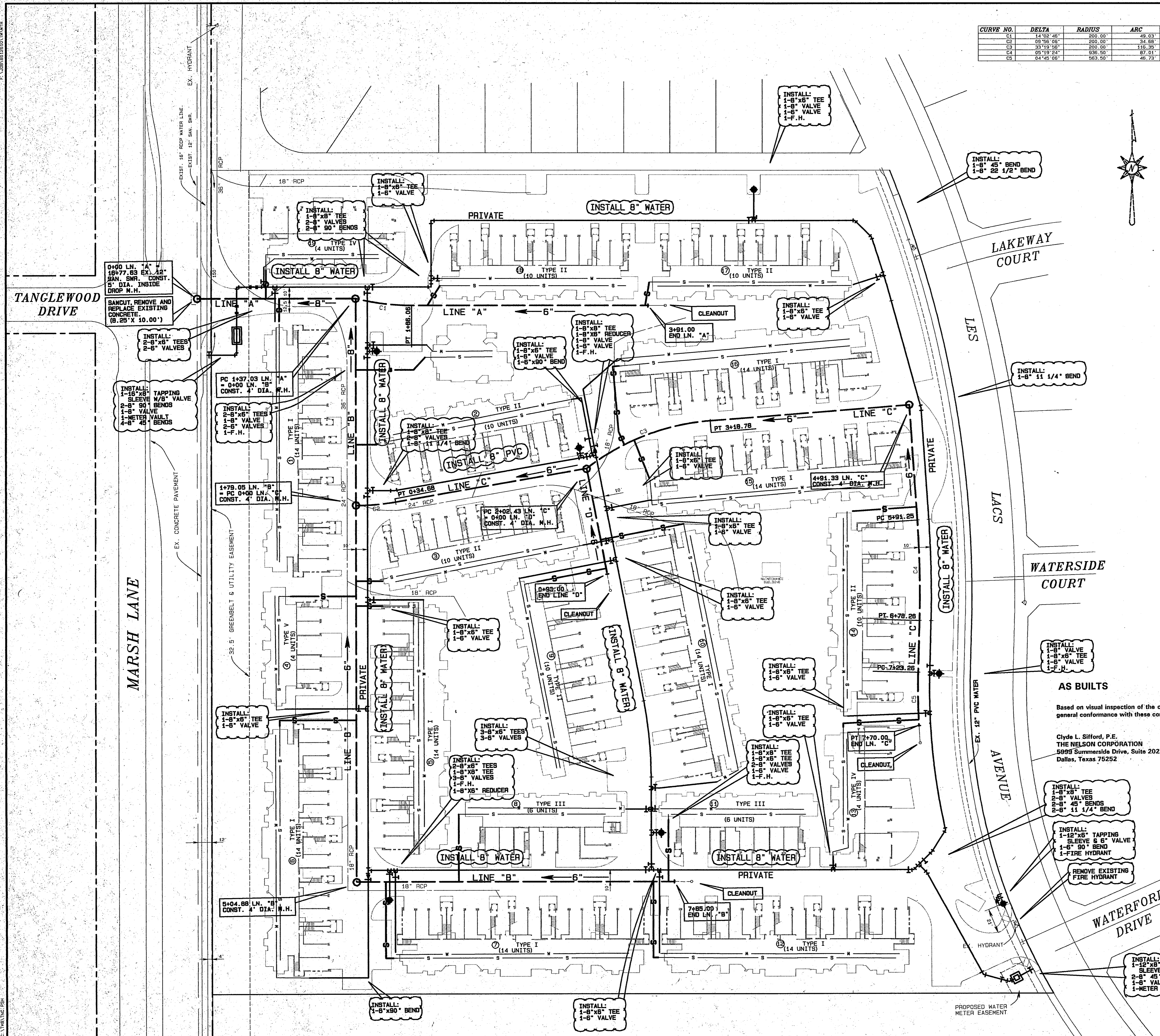


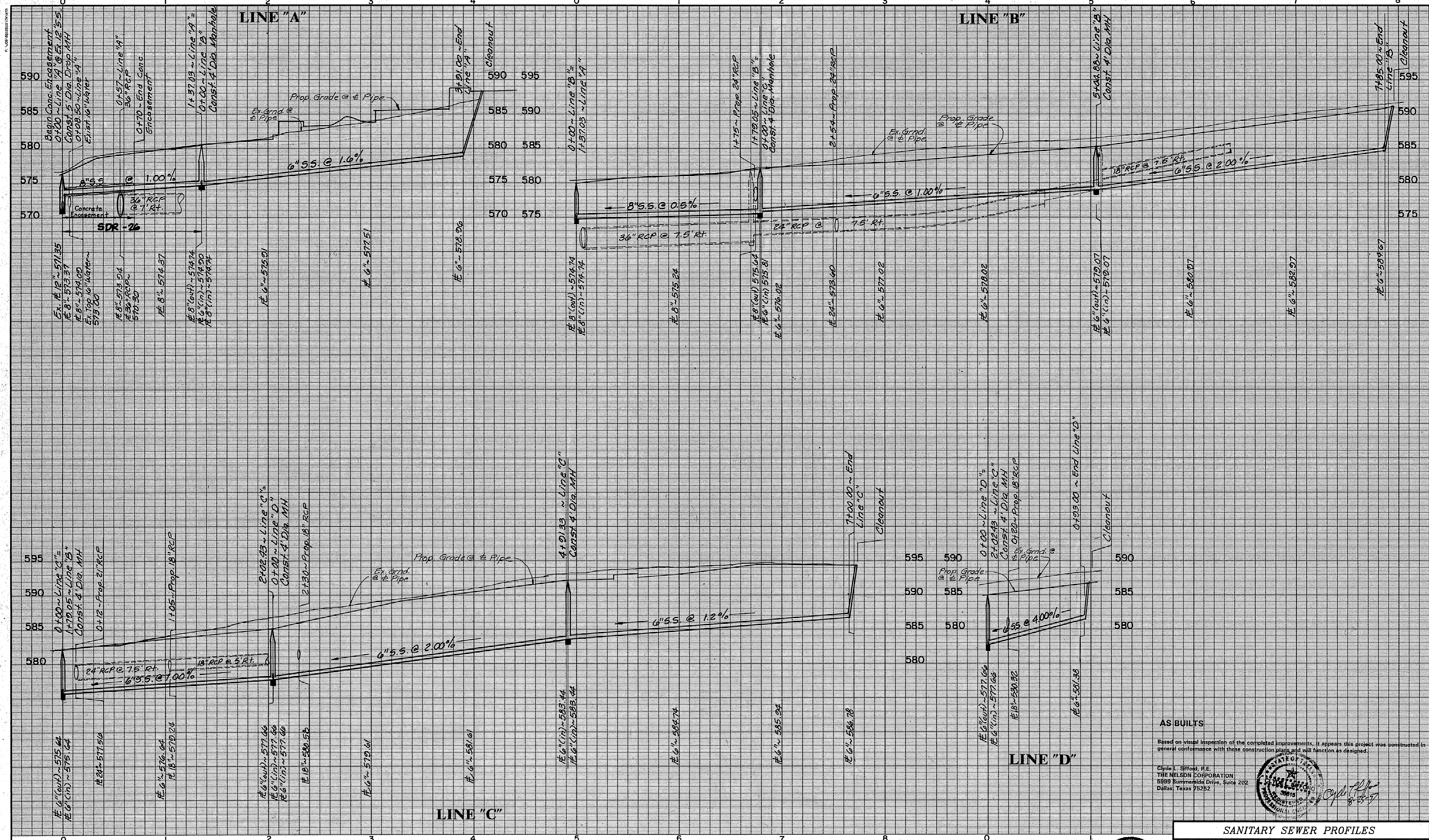
LEGEND

- WATER SERVICE
- PROPOSED WATER LINE
- PROPOSED SAN. SEWER
- PROPOSED STORM SEWER
- PROPOSED SAN. SWR. SER.

BENCHMARKS:
SQUARE CUT ON CENTERLINE OF 14" INLET AT THE N.E. CORNER OF THE INTERSECTION OF BELTWAY DRIVE AND MARSH LANE. ELEV. 565.20
SQUARE CUT IN CENTER OF THIRD INLET WEST OF THE EAST ADDITION LINE OF WATERFORD PARK II AND ON THE NORTH SIDE LES LACS AVENUE. ELEV. 567.61

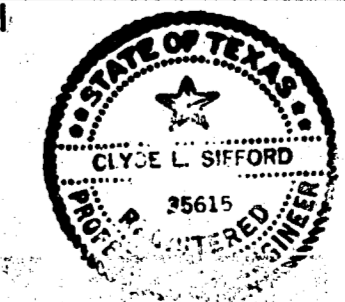
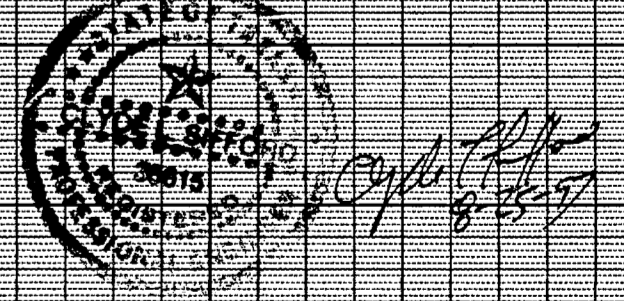
WATER & SANITARY SEWER PLAN					
WATERFORD COURT APARTMENTS					
TOWN OF ADDISON, TEXAS					
THE NELSON CORPORATION PLANNING • ENGINEERING • SURVEYING					
5999 SUMMERSIDE DRIVE SUITE 202 DALLAS, TEXAS 75252 (214) 390-2605					
DESIGN	DRAWN	DATE	SCALE	FILE	SHEET NO.
TNC	TNC	MAR. 31, 1994	1"=40'	86126.10	8





AS BUILTS
 Based on visual inspection of the completed improvements, it appears this project was constructed in general conformance with these construction plans and will function as designed.

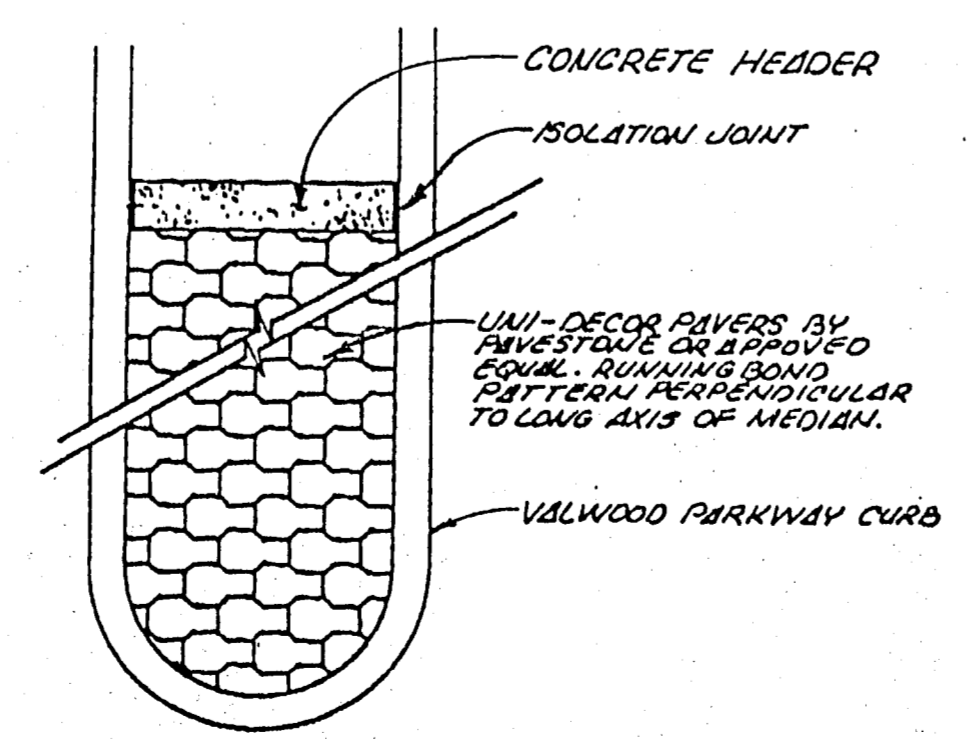
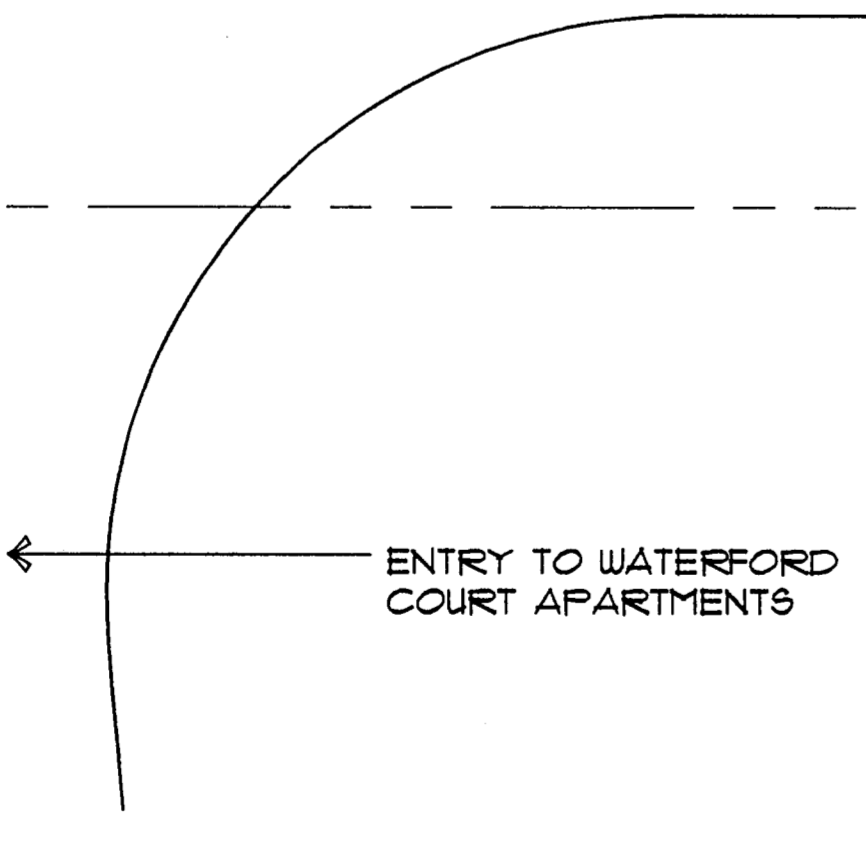
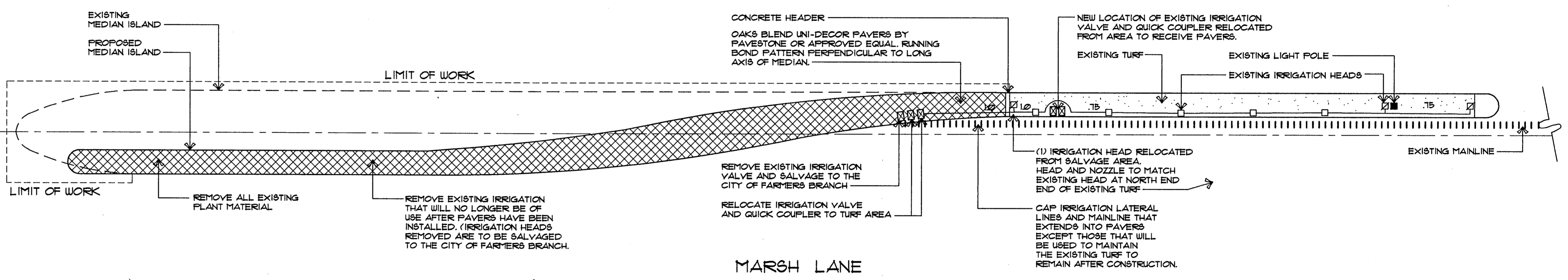
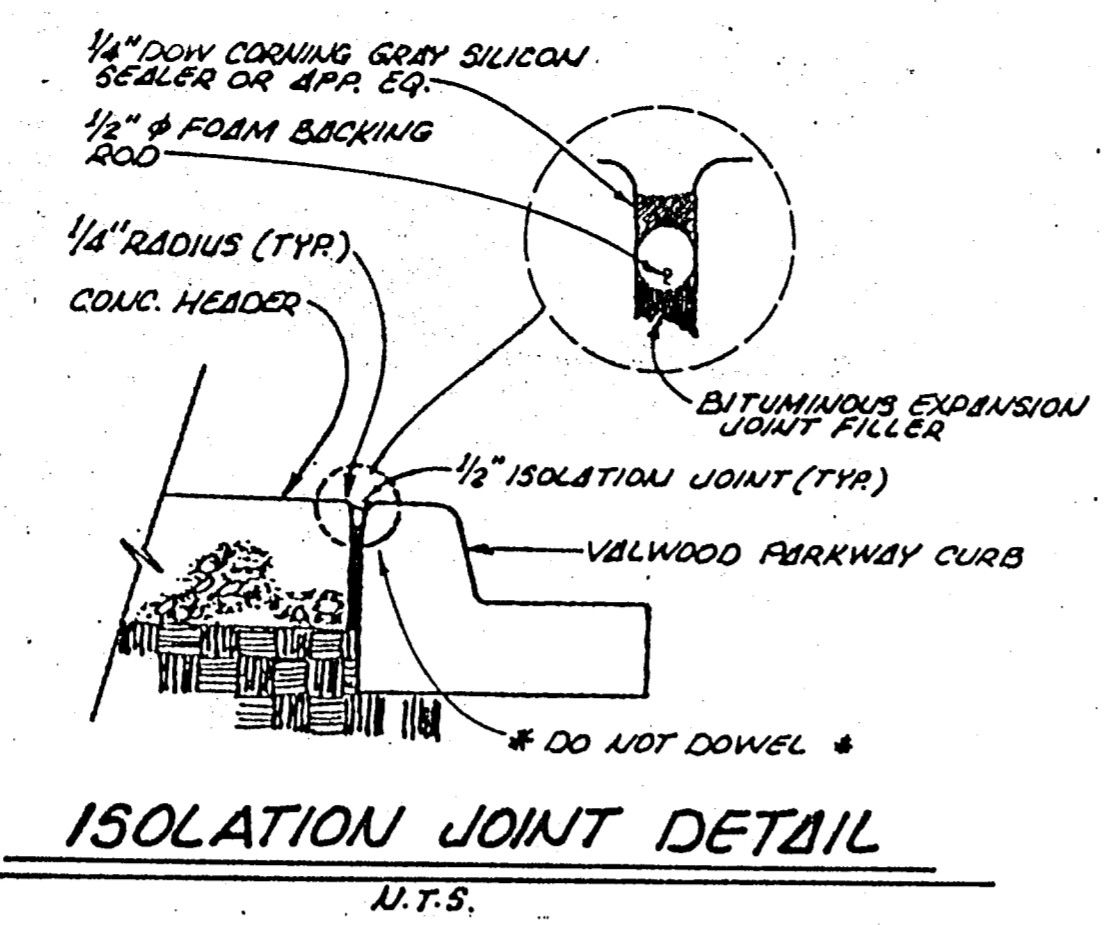
Clyde L. Sifford, P.E.
 THE NELSON CORPORATION
 5899 Summerside Drive, Suite 202
 Dallas, Texas 75222



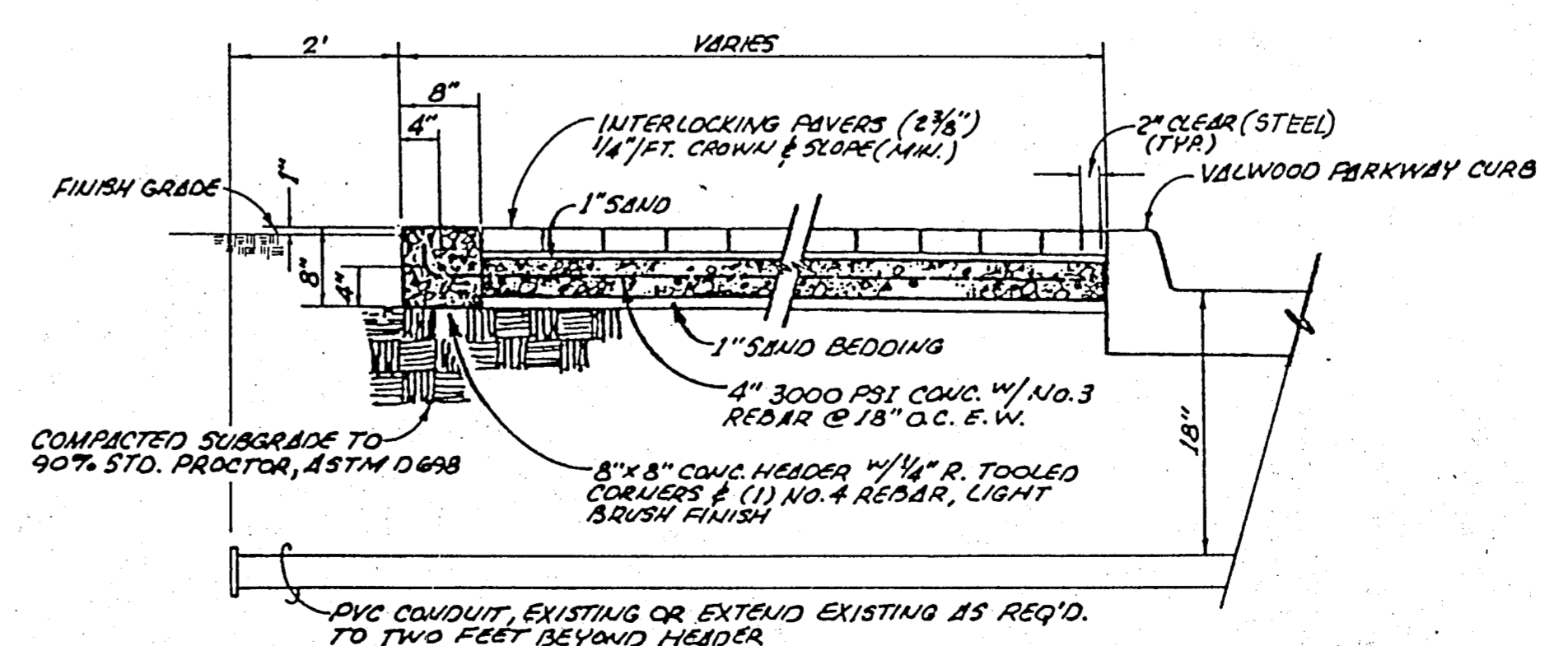
SANITARY SEWER PROFILES					
WATERFORD COURT APARTMENTS					
TOWN OF ADDISON, TEXAS					
THE NELSON CORPORATION PLANNING ENGINEERING SURVEYING					
5899 SUMMERSIDE DRIVE SUITE 202 DALLAS, TEXAS 75252 (214) 980-2805					
DESIGN	DRAWN	DATE	SCALE	FILE	SHEET NO.
TNC	TNC	MARCH 7, 1994	1" = 40' H 1" = 6' V	86126.10	9

BENCHMARKS:
 SQUARE CUT ON CENTERLINE OF 14" INLET AT THE N.E. CORNER OF THE INTERSECTION OF BELTWAY DRIVE AND MARSH LANE. ELEV. 585.20
 SQUARE CUT IN CENTER OF THIRD INLET WEST OF THE EAST ADDITION LINE OF WATERFORD PARK II AND ON THE NORTH SIDE LES LACS AVENUE. ELEV. 587.81

REVISION	DATE	DESCRIPTION	DRAWN BY	CHECKED BY



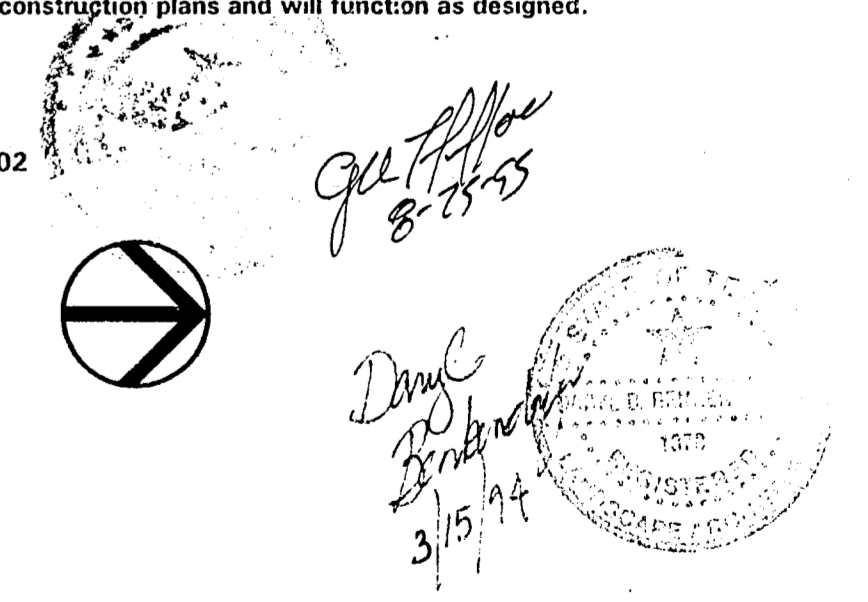
NOTE: CONCRETE HEADER SHALL HAVE AN "X" CHISELED WHERE EACH CONDUIT SLEEVE IS LOCATED.



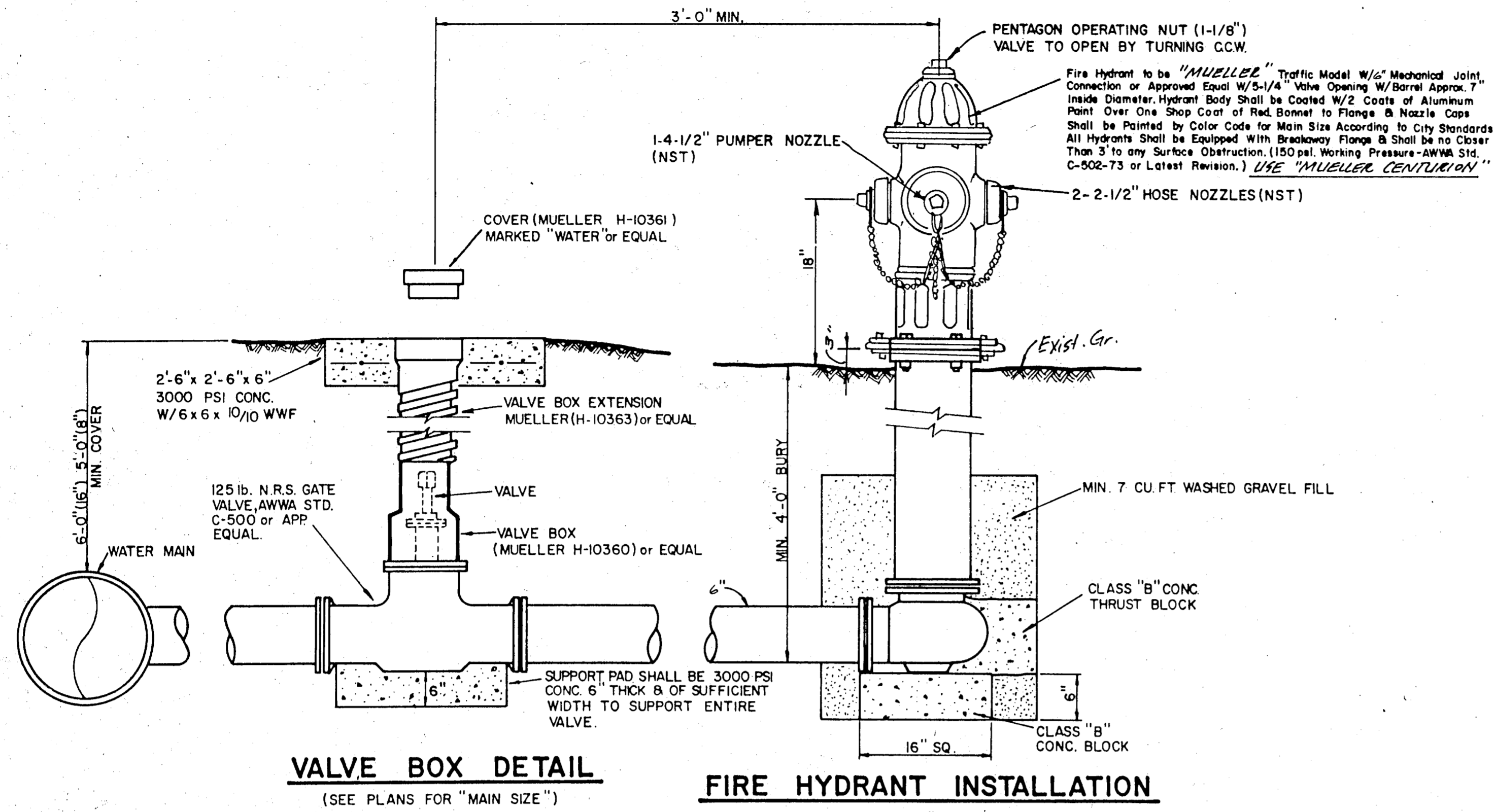
AS BUILTS

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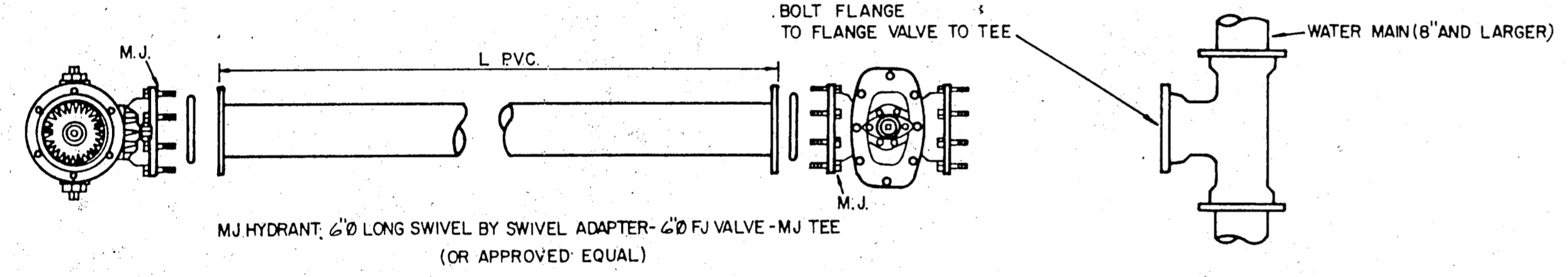
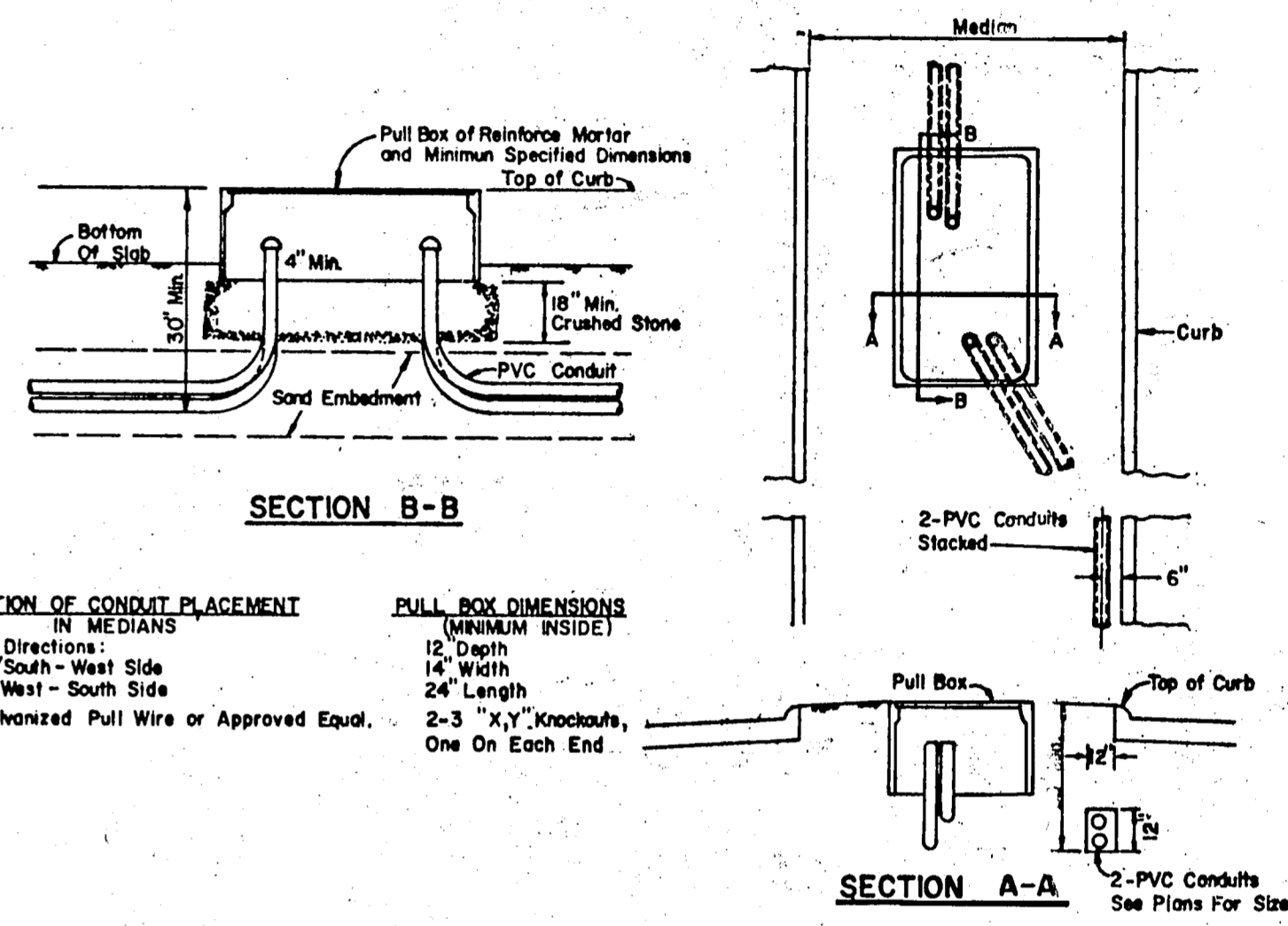
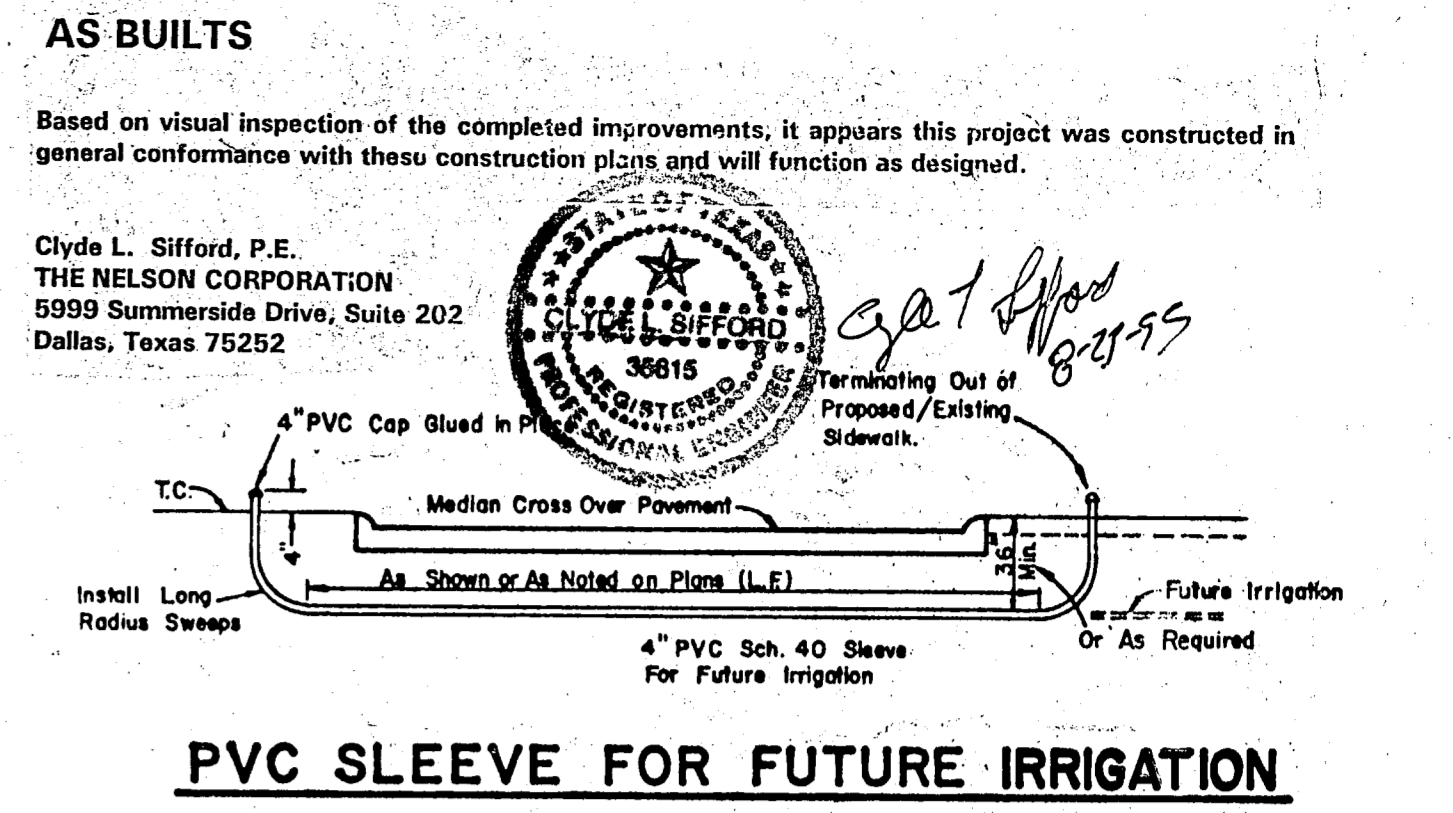
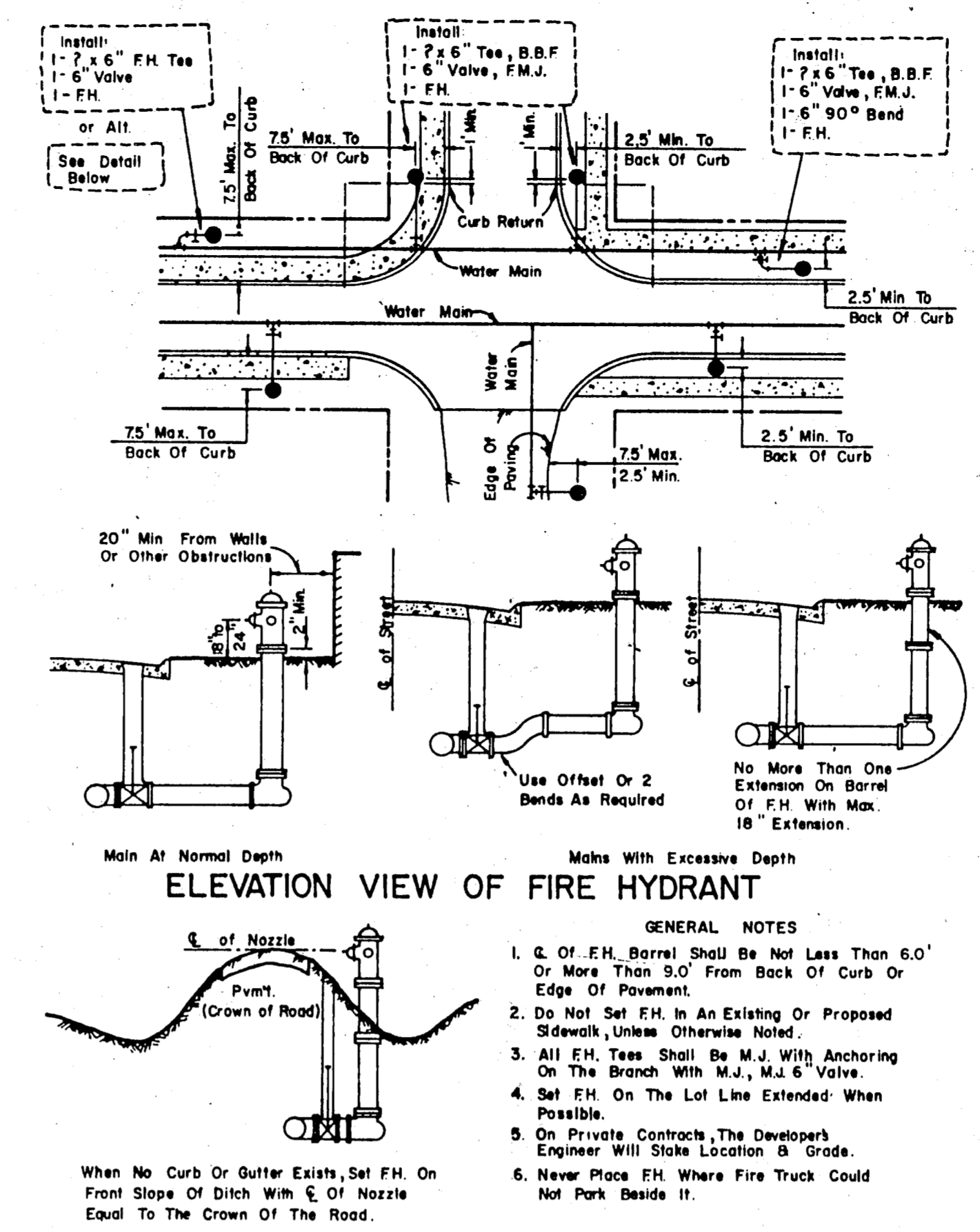
Clyde L. Sifford, P.E.
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5999 Summerside Drive, Suite 202
Dallas, Texas 75252



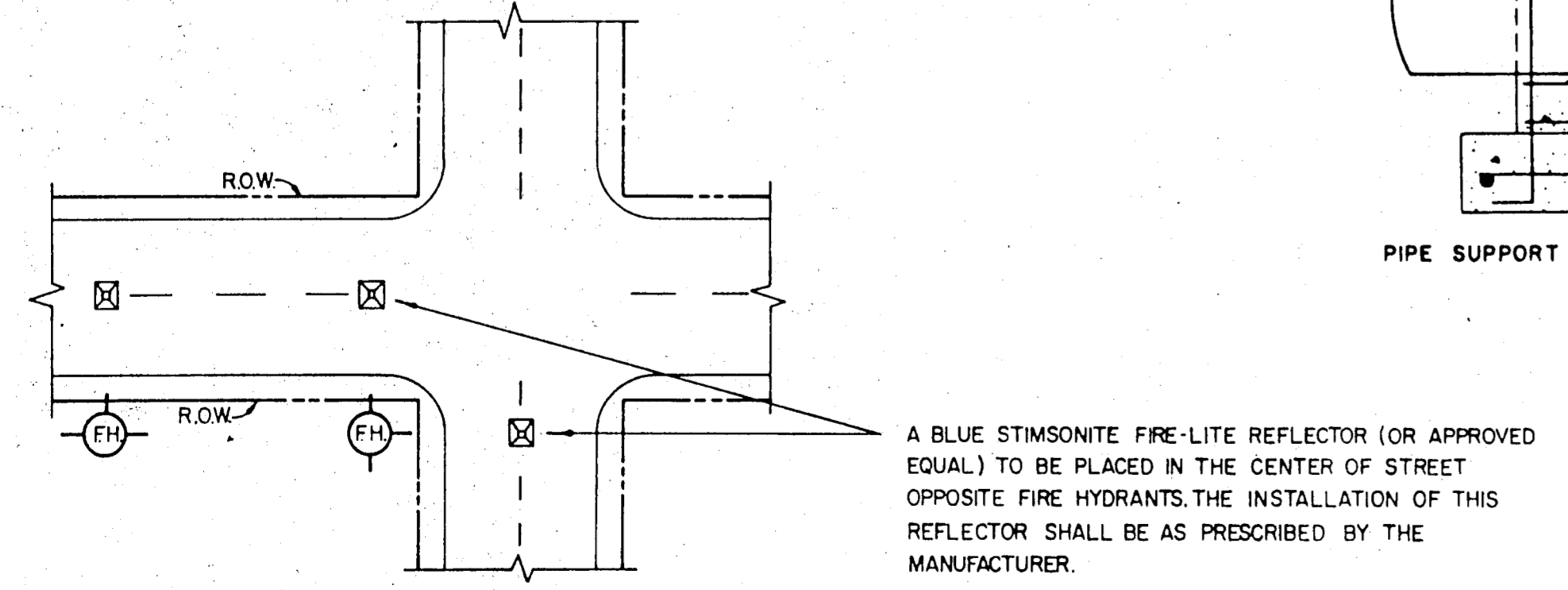
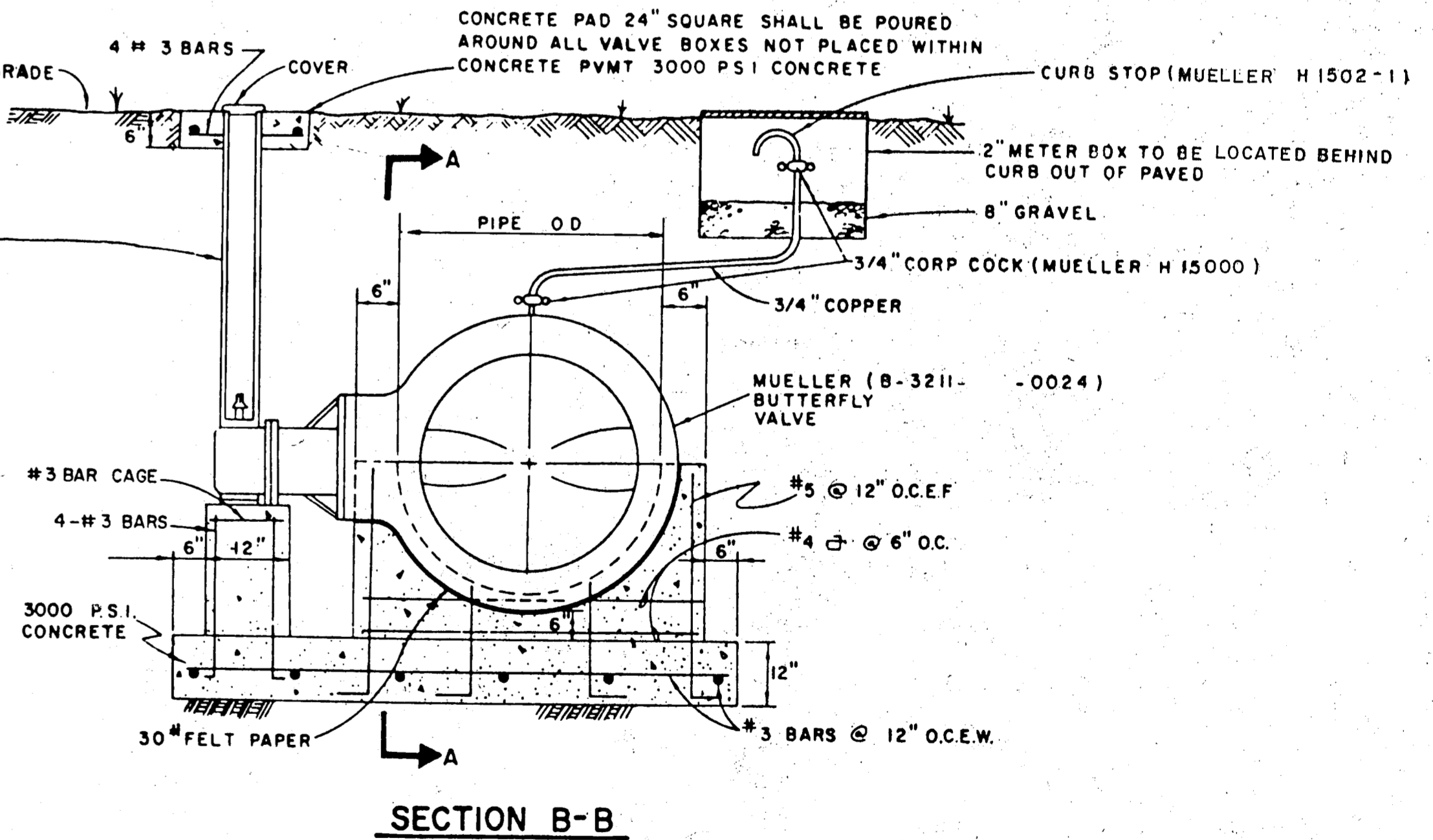
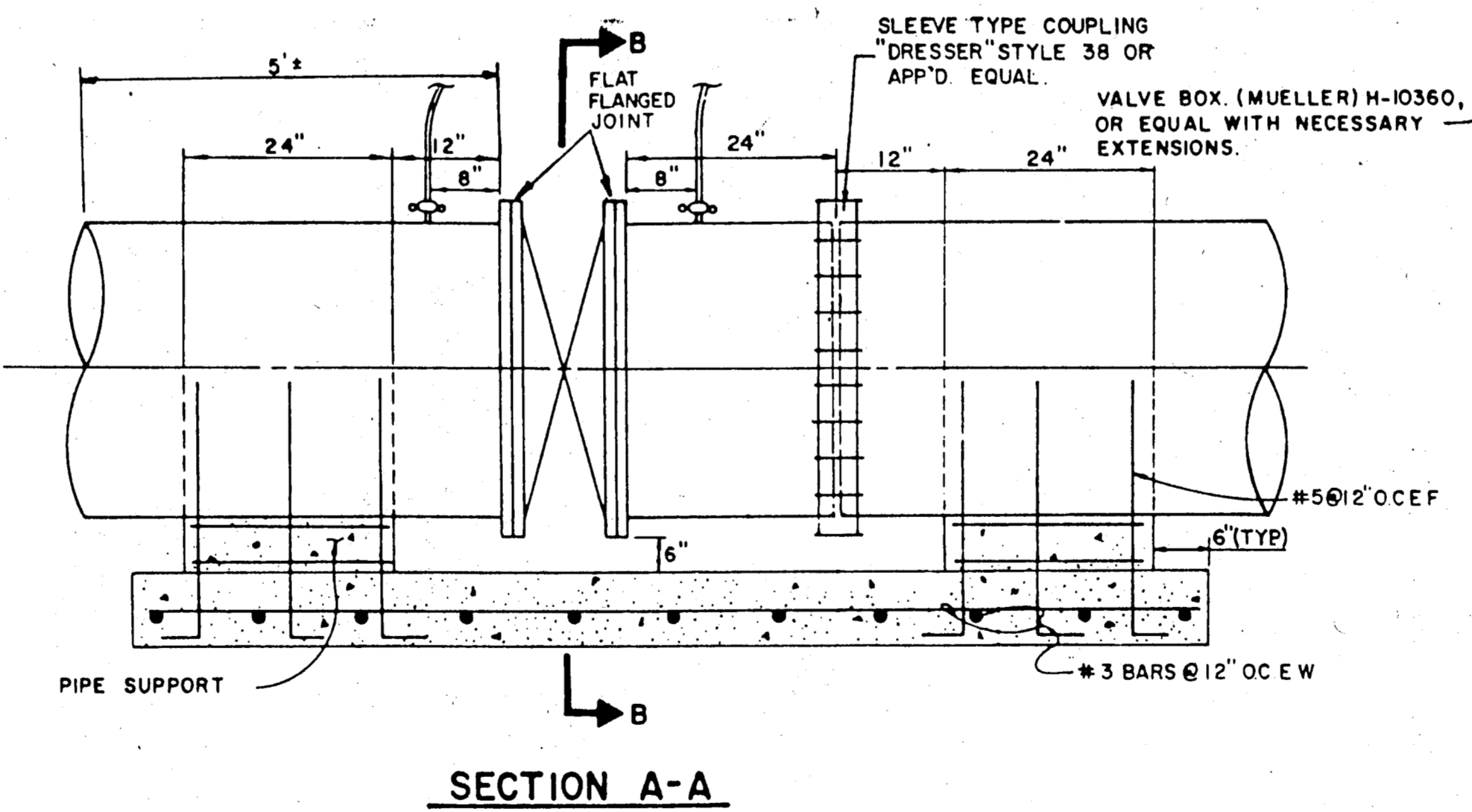
MEDIAN IMPROVEMENT PLAN					
WATERFORD COURT APARTMENTS					
CITY OF FARMERS BRANCH					
THE NELSON CORPORATION					
<small>PLANNING ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE CONSTRUCTION MANAGEMENT</small>					
<small>5999 SUMMERSIDE DRIVE SUITE 202 DALLAS, TEXAS 75252 (214) 390-2605</small>					
DESIGN	DRAWN	DATE	SCALE	FILE	SHEET NO.
TNC	TNC	DEC. 8, 1993	1"=10'-0"	68126.10	11



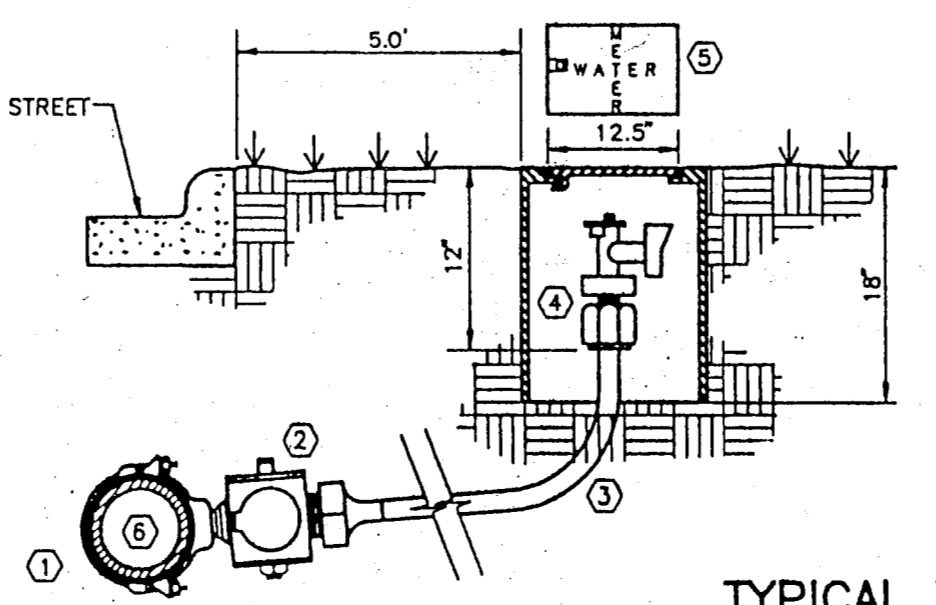
- GATE VALVES AND VALVE BOXES.**
- GATE VALVES SHALL BE IRON BODY, BRONZE OR BRASS MOUNTED, NON-RISING STEM, RESILIENT SEAT TYPE VALVES SHALL BE OF EQUAL OR GREATER PRESSURE CLASS THAN THE PIPING IN WHICH THEY ARE TO BE INSTALLED.
 - VALVE BOXES SHALL BE CAST IRON AND SHALL BE OF SUFFICIENT LENGTH AND DIAMETER TO OPERATE ALL VALVES BURIED IN THE GROUND. COVERS SHALL BE MARKED "WATER". THE BOXES SHALL REST ON THE VALVE AND BE ADJUSTED SO THAT THE COVER MAY BE SET FLUSH WITH THE FINISHED GRADE.



TYPICAL FIRE HYDRANT INSTALLATION



TYPICAL FIRE HYDRANT REFLECTOR INSTALLATION



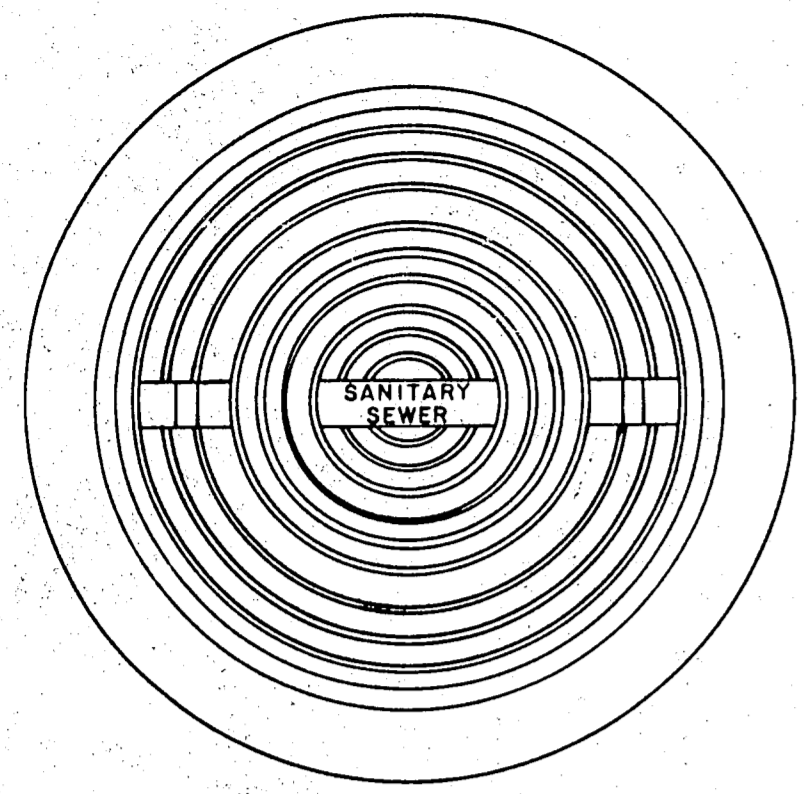
- DOUBLE STRAP BRONZE SADDLE W/CCW THREADS, MUELLER.
- CORPORATION STOP W/CCW THREADS, MUELLER.
- 3/4" TYPE "K" SOFT COPPER W/NO SPLICES.
- ANGLE STOP W/LOCK WING, MUELLER.
- H-14258 COMPRESSION OR H-14255 FLARED.
- WATER METER BOX (RECTANGULAR SHAPE ONLY) CONCRETE OR METAL SHELL CONSTRUCTION.
- WATER MAIN.
- PVC AWWA C900 SDR 14/18 INTEGRAL WALL BELL.

STANDARD CONSTRUCTION DETAILS

WATERFORD COURT
TOWN OF ADDISON, TEXAS

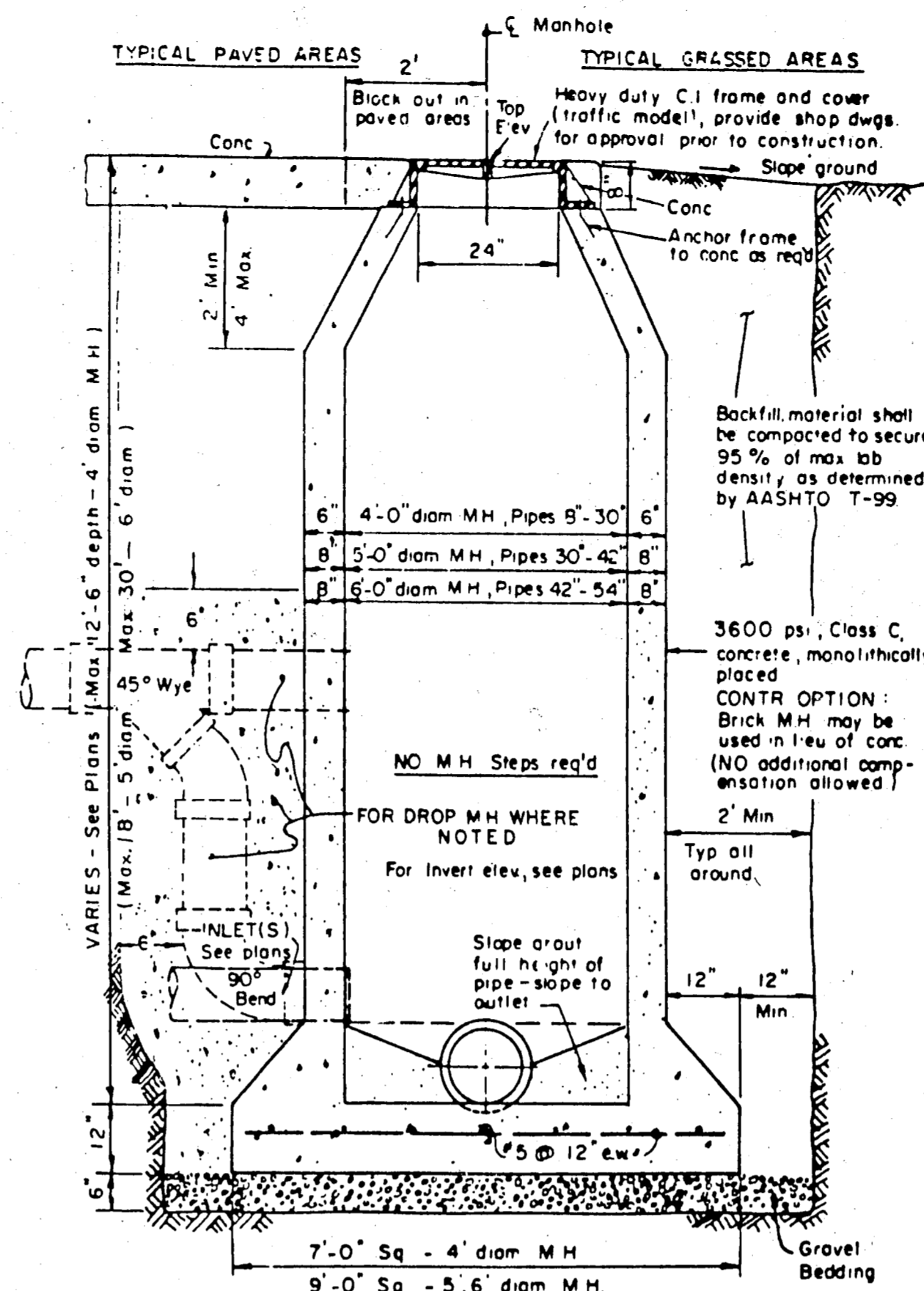
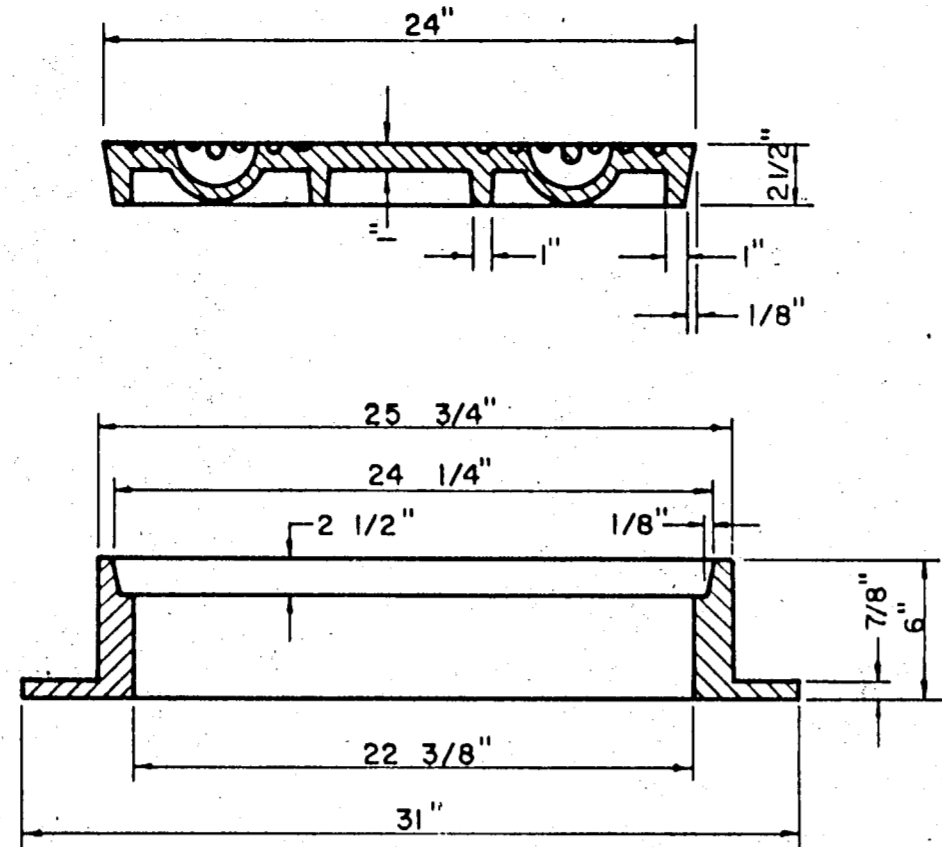
Date: NOV, 1993 Scale: AS SHOWN SHEET 12 OF 12 SHEETS
Drawn By: TNC Approved By: TNC

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LAND PLANNING • ENGINEERING • SURVEYING
5999 SUMMERSIDE DRIVE • SUITE 202 • DALLAS, TEXAS 75252 • (214) 380-2605



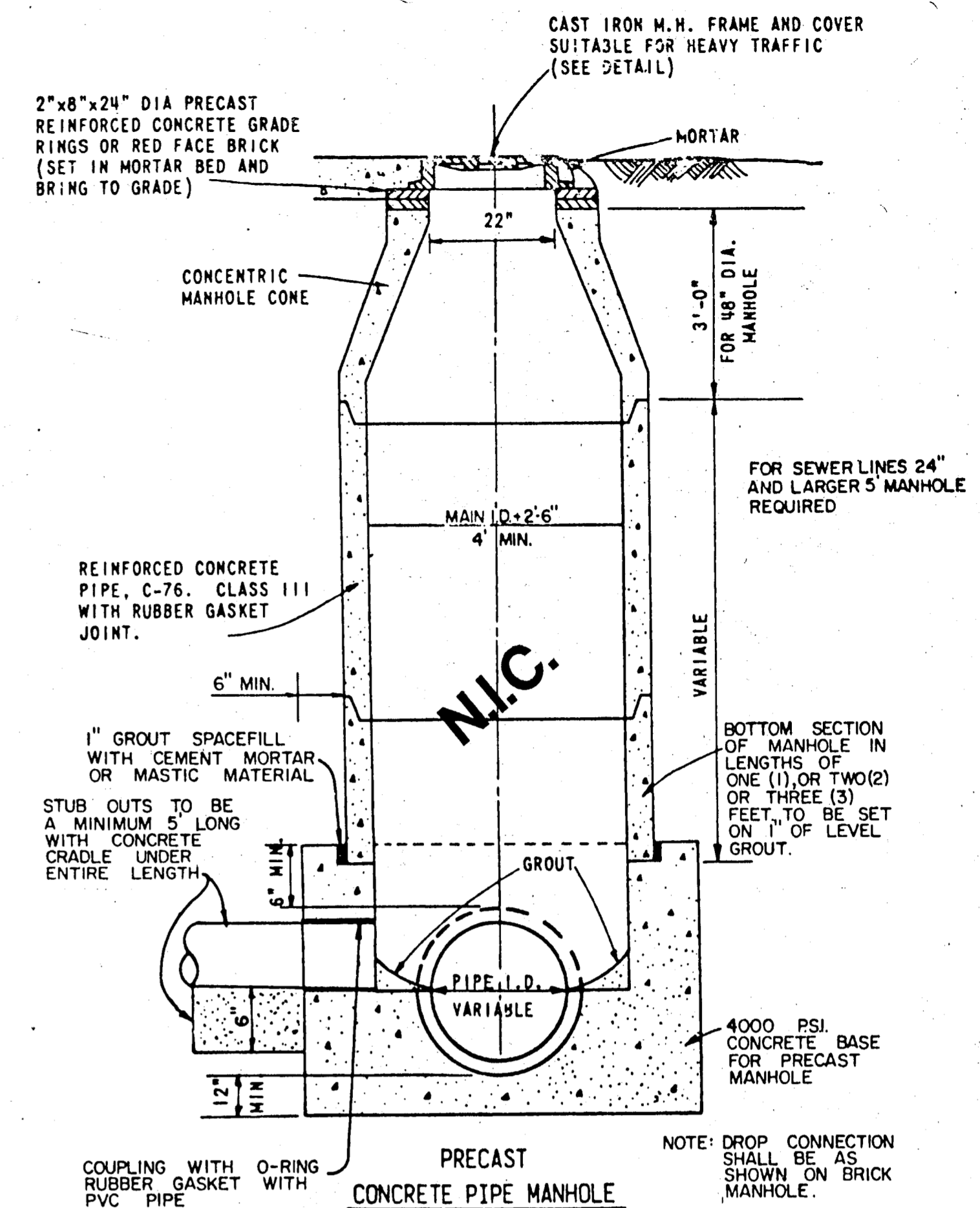
APPROX. WEIGHT RING AND COVER 385 LBS.

CAST IRON GRATE AND FRAME DETAIL

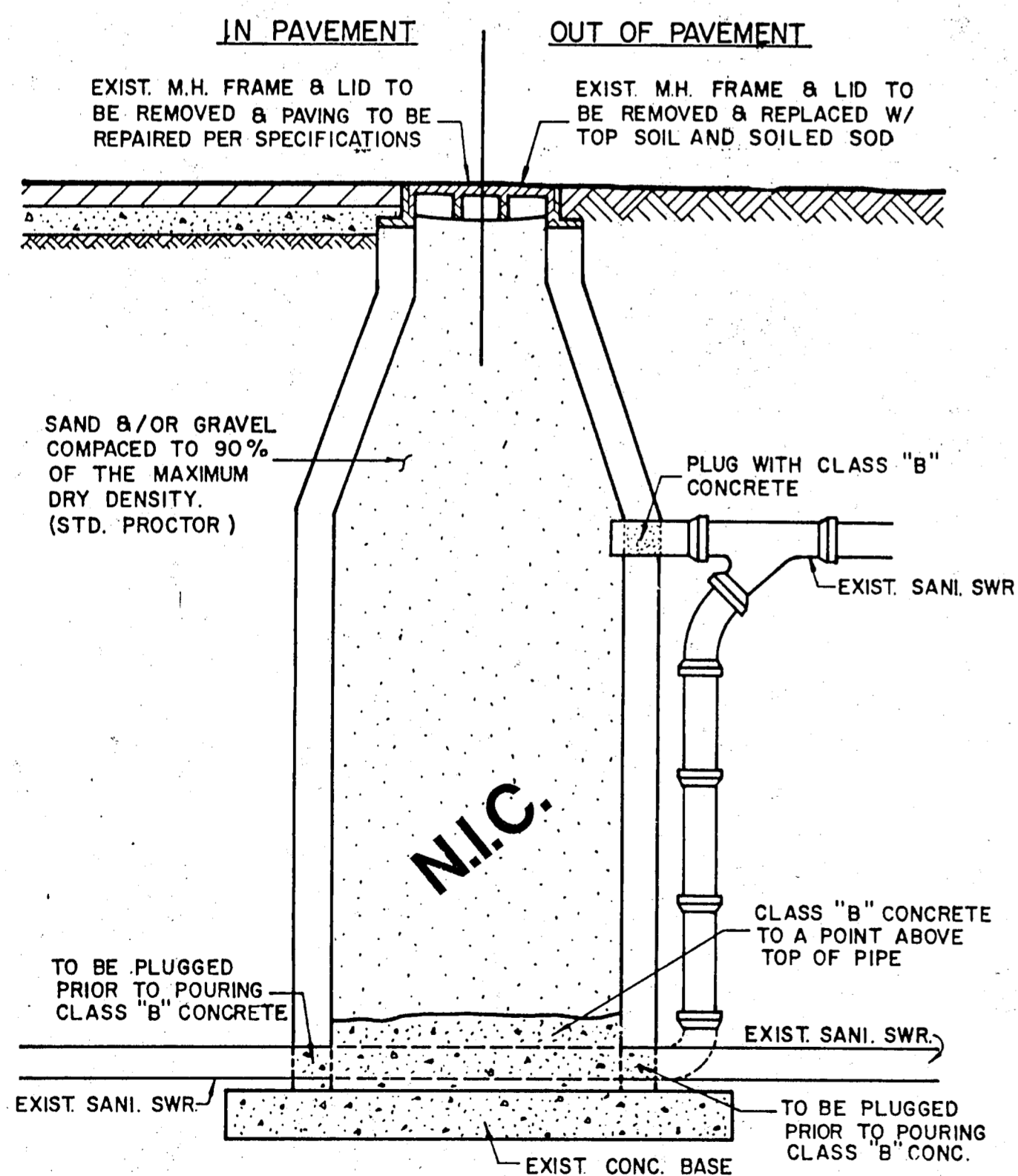


CAST IN PLACE MANHOLE

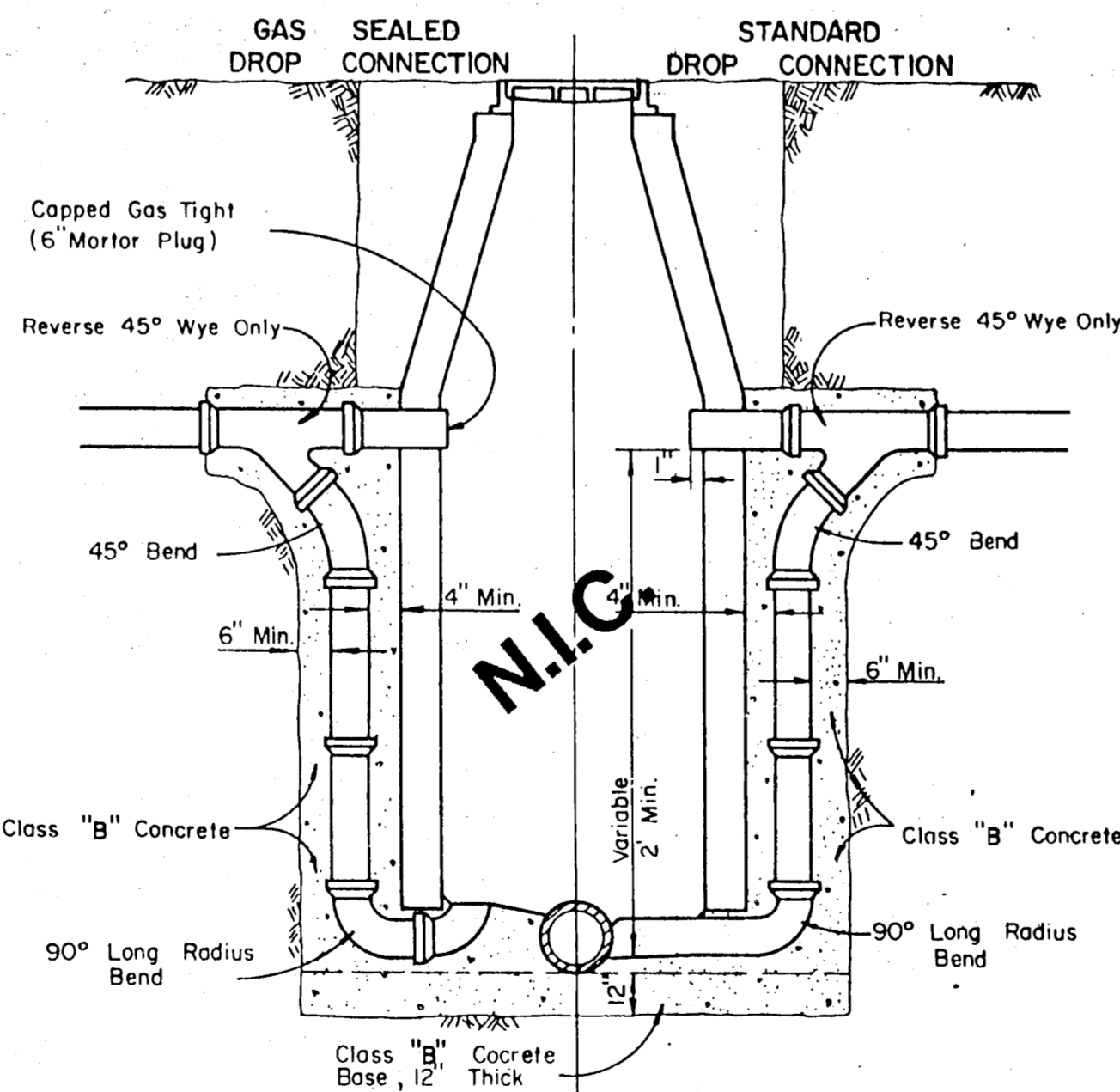
WHERE DROP M.H. IS REQUIRED, USE INSIDE DROP CONNECTION AS PER TOWN OF ADDISON STANDARDS.



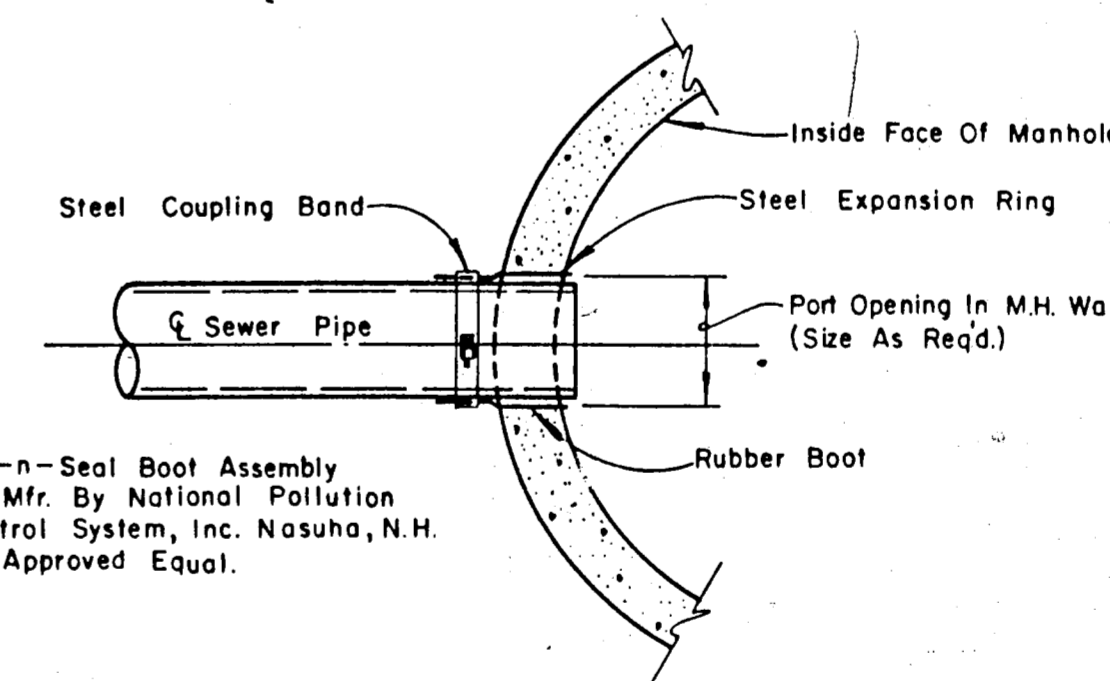
PRECAST MANHOLE



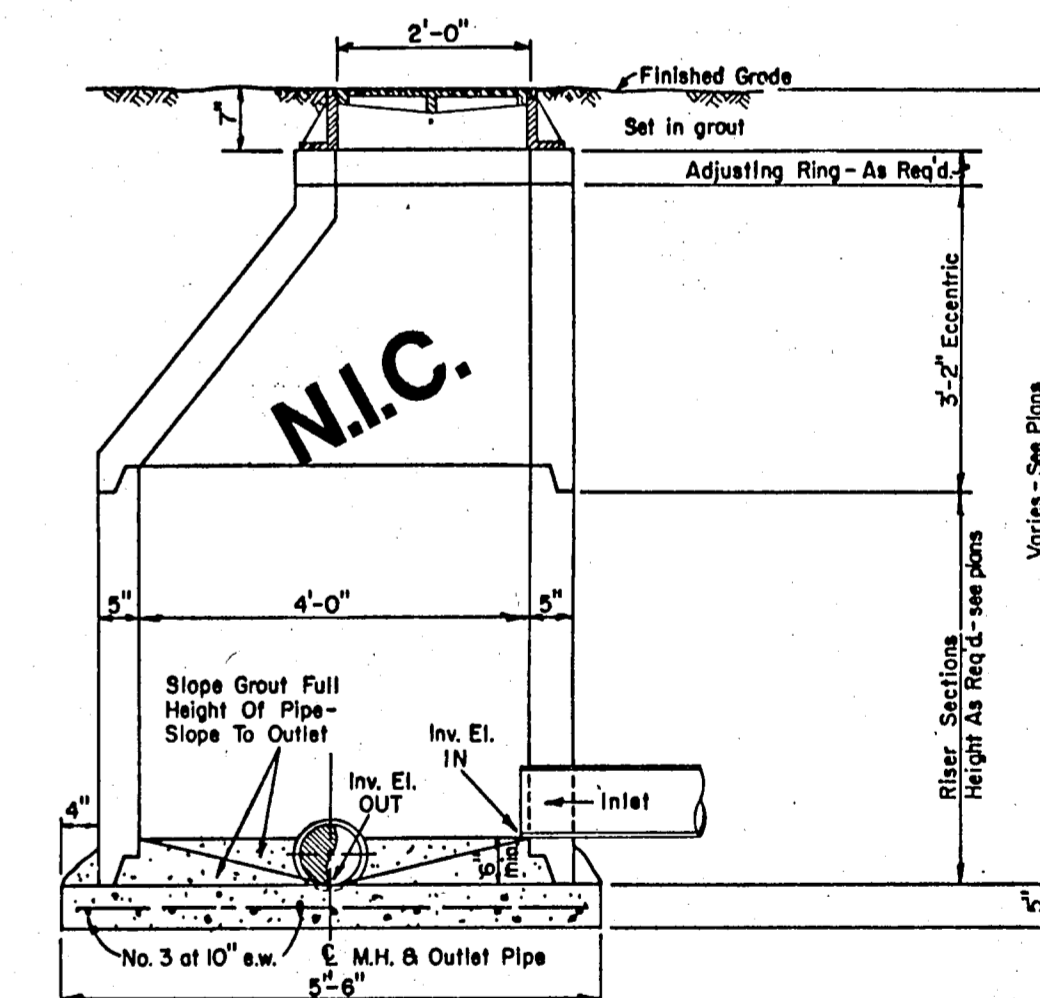
ABANDONMENT OF EXISTING MANHOLE IN AND OUT OF PAVEMENT



DROP CONNECTIONS FOR SANITARY SEWER MANHOLES



TYPICAL SEWER CONNECTION AT MANHOLE



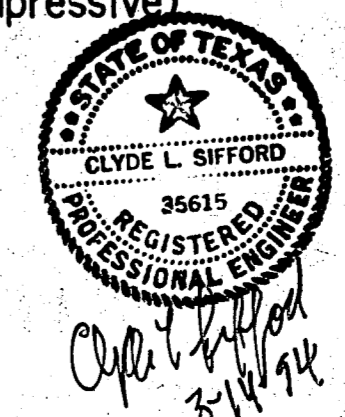
ECCENTRIC MANHOLE DETAIL

NOTE: Contractor To Install Kor-n-Seal Boot Assembly Per Mfr. Recommendations In A Neat And Workman-Like Manner.

AS BUILTS CLASS B Conc. - 2000psi at 28 days (Compressive)

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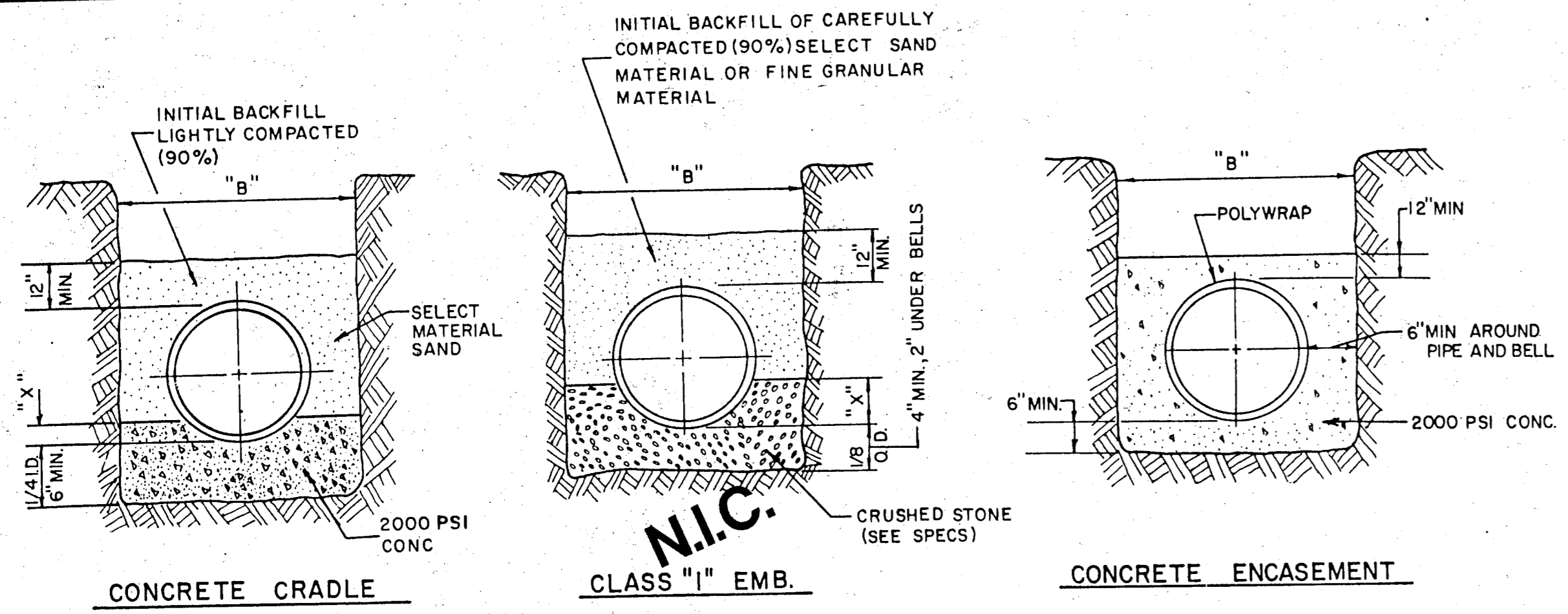
STANDARD CONSTRUCTION DETAILS

WATERFORD COURT
TOWN OF ADDISON, TEXAS

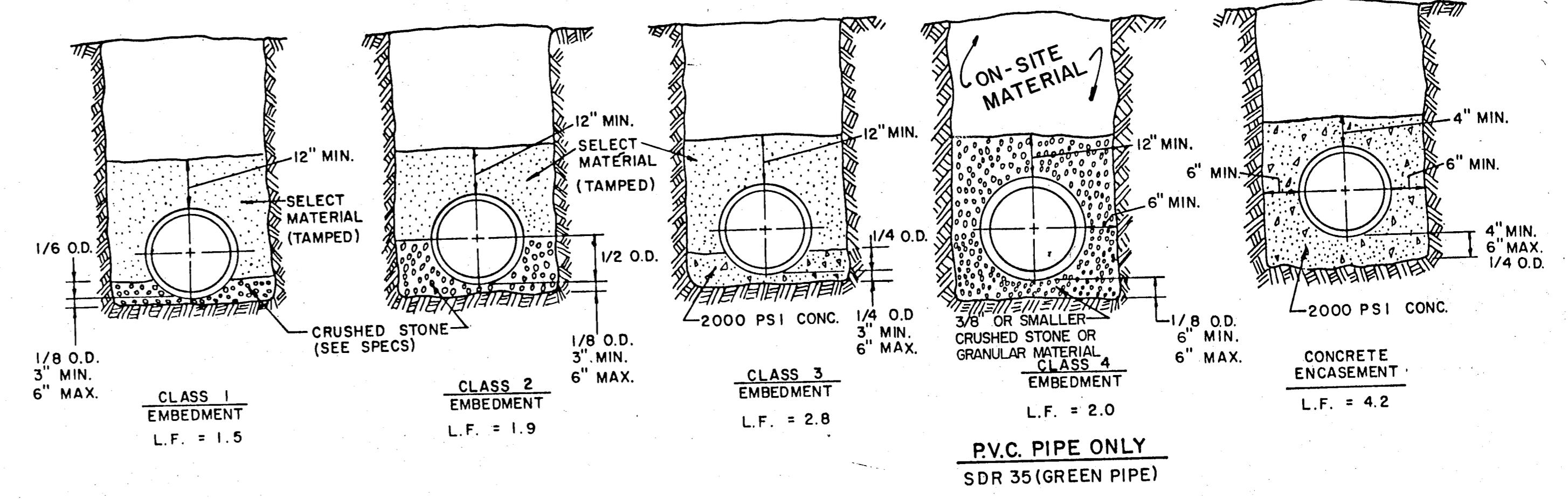
Date: NOV., 1993 Scale: AS SHOWN SHEET 13 OF
Drawn By: TNC Approved By: TNC SHEETS

THE NELSON CORPORATION
LAND PLANNING • ENGINEERING • SURVEYING
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TYPICAL NATIVE MATERIAL COMPACTED TO:
 95% OPTIMUM MOISTURE 0 TO ±3% UNDER PAVEMENT
 95% OPTIMUM MOISTURE 0 TO ±3% OUTSIDE CURB LINES
 JETTING IS NOT ALLOWED
 BACKFILL TO BE COMPACTED IN 6"± LIFTS



EMBEDMENT DETAILS FOR RCCP WATERLINE



EMBEDMENT DETAILS FOR SANITARY SEWER

TABLE OF QUANTITIES OF MATERIALS IN CUBIC YARDS PER 100 LINEAR FEET

INSIDE DIAMETER OF PIPE	APPROX. OUTSIDE DIAMETER OF PIPE	"X" IS A MINIMUM DEPTH	"B" TRENCH WIDTH FOR COMPUTATION OF QUANTITIES	CONCRETE		CRUSHED STONE FOR CLASS "1" EMBEDMENT
				FOR EMBEDMENT	FOR ENCASEMENT	
REINFORCED CONCRETE CYLINDER PIPE						
14"	17.25"	2.53"	3.4"	6.91	16.07	5.16
16"	19.38"	2.84"	3.6"	7.50	17.76	5.64
18"	21.78"	3.19"	3.8"	8.11	19.52	6.16
24"	27.75"	4.06"	4.4"	9.97	24.90	9.28

TABLE OF QUANTITIES OF 2000 PSI CONCRETE, GRAVEL OR CRUSHED STONE IN CUBIC YARDS PER 100 LINEAR FEET FOR EACH CLASS EMBEDMENT

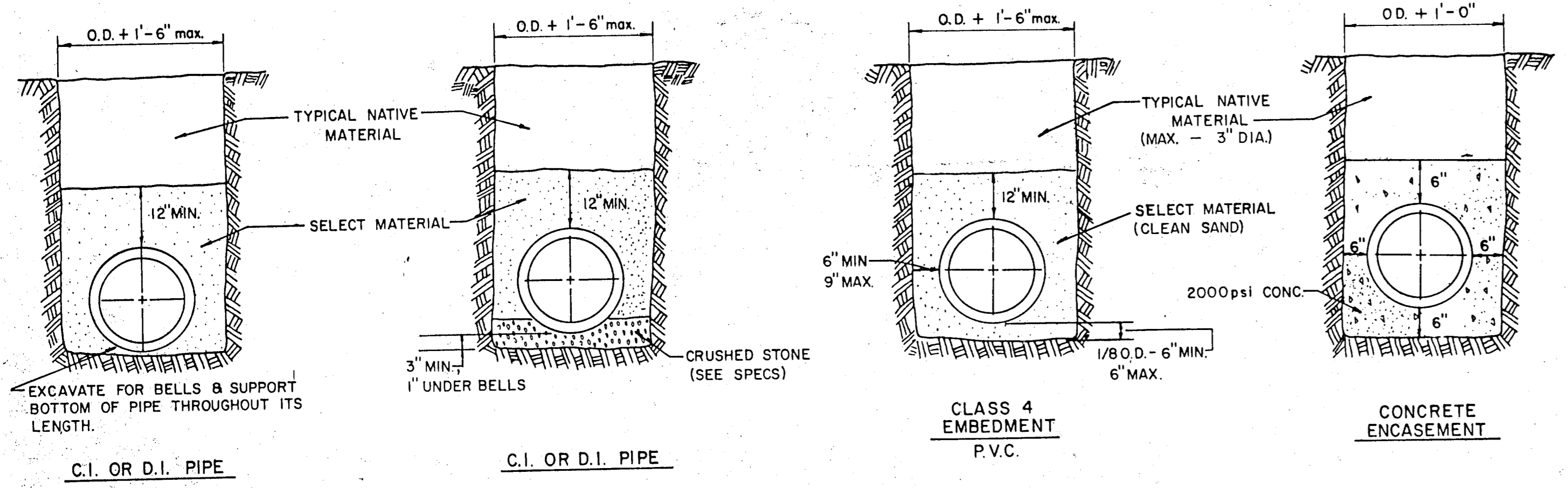
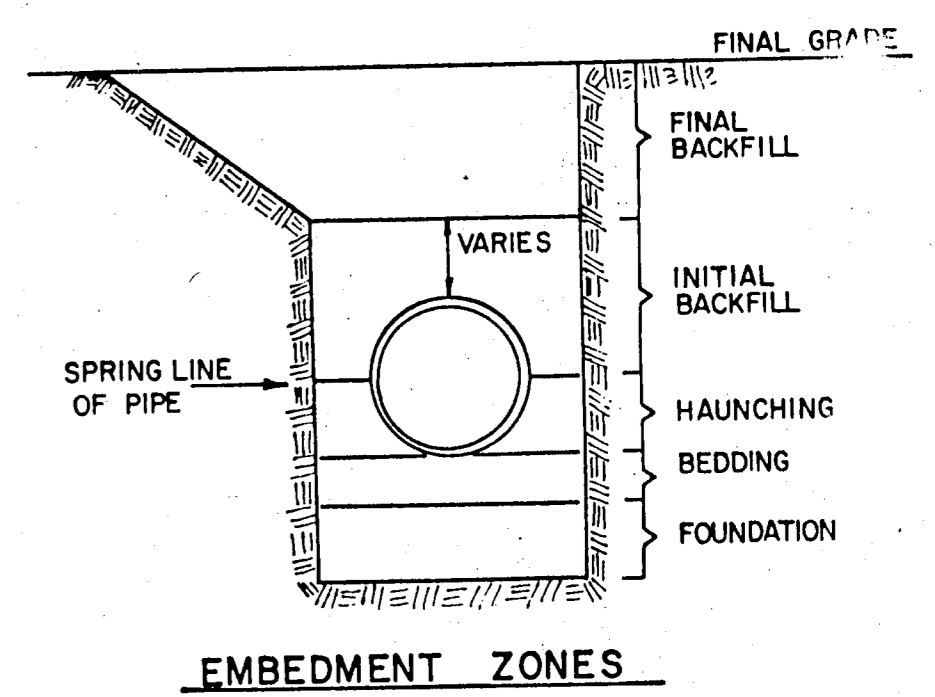
TABLE OF QUANTITIES PER 100 LINEAR FEET REINFORCED CONCRETE PIPE

SIZE OF PIPE IN INCHES I.D.	O.D. OF PIPE IN INCHES	TRENCH WIDTH IN INCHES	TRENCH WIDTH IN FEET	CLASS 1 EMBEDMENT CRUSHED STONE	CLASS 2 EMBEDMENT CRUSHED STONE	CLASS 3 EMBEDMENT CONCRETE	CONCRETE ENCASEMENT
12	16.00	32	2.67	4.1	6.5	4.8	15.8
15	19.50	36	3.00	4.8	7.8	6.4	19.2
18	23.00	39	3.25	5.7	9.2	8.2	24.9
21	26.50	43	3.58	6.9	11.0	10.2	28.7
24	30.00	46	3.83	8.3	13.1	12.4	32.8
27	33.50	51	4.25	10.3	16.1	14.4	34.8
30	37.00	57	4.75	12.7	20.1	17.0	39.2
33	40.50	62	5.17	15.1	23.8	19.3	43.8
36	44.00	67	5.58	18.0	28.6	22.1	43.8

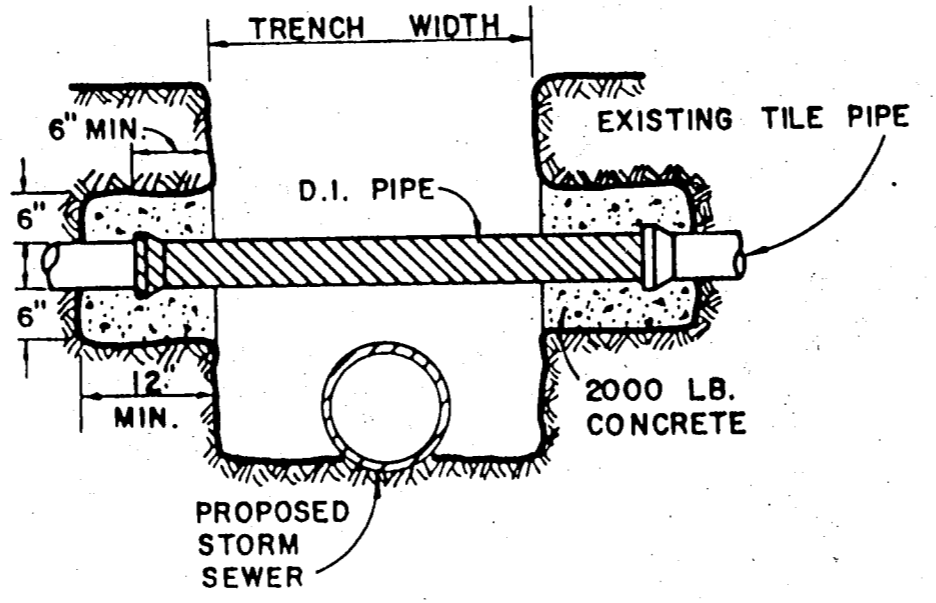
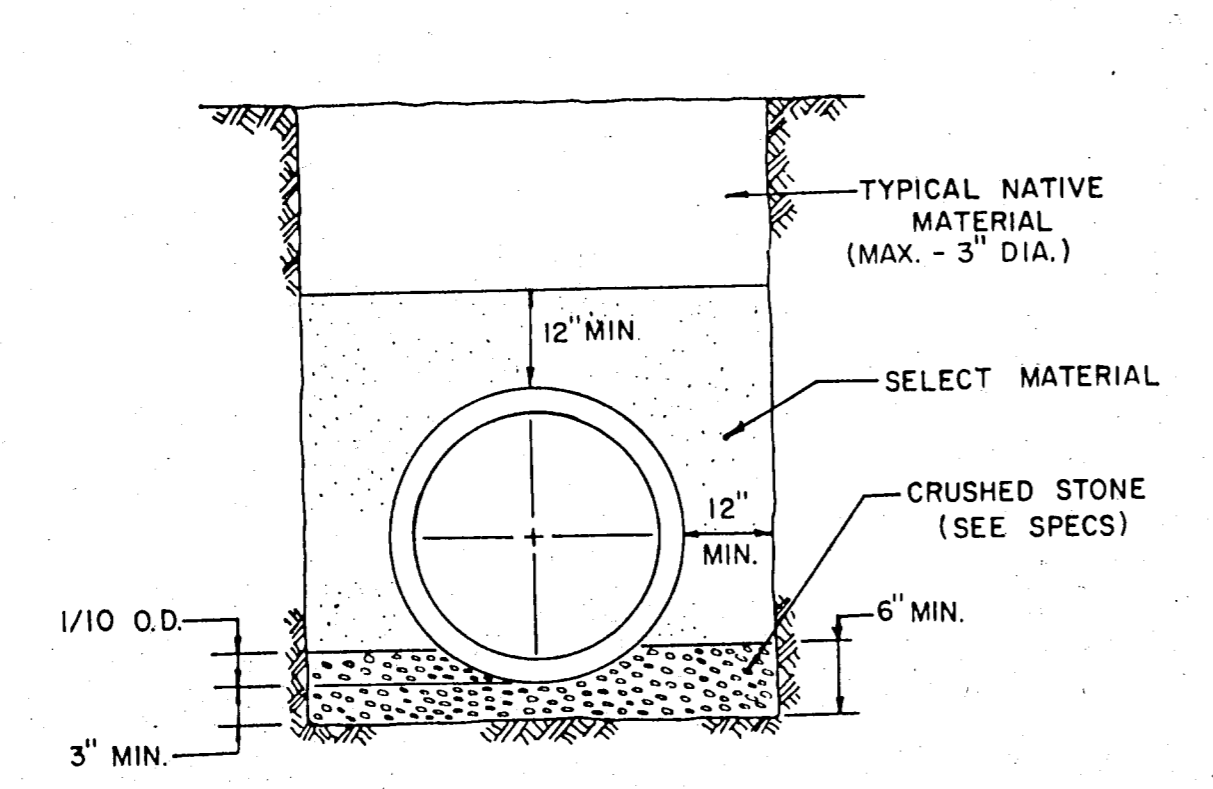
TABLE OF QUANTITIES PER 100 LINEAR FEET-PVC PIPE (IN CUBIC YARDS)

SIZE OF PIPE IN INCHES	O.D. OF PIPE IN INCHES	TRENCH WIDTH IN INCHES	TRENCH WIDTH IN FEET	CLASS 4 EMBEDMENT CRUSHED STONE	CONCRETE ENCASEMENT
6	6.28	24	2.00	8.0	11.7
8	8.16	24	2.00	8.7	12.4
10	10.20	26	2.18	10.2	14.2
12	12.24	28	2.35	11.7	15.9
16	15.30	31	2.61	14.0	18.8
24		36	3.0		
30		42	3.5		

NOTE: ALL SANITARY SEWER LINES THIS PROJECT SHALL HAVE CLASS 4 EMBEDMENT UNLESS OTHERWISE NOTED.



EMBEDMENT DETAILS FOR WATER MAIN



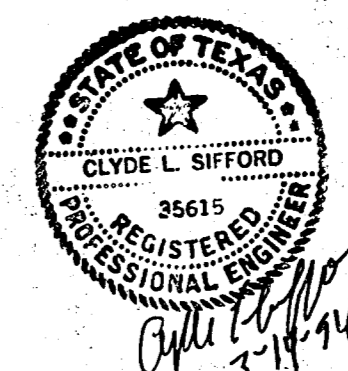
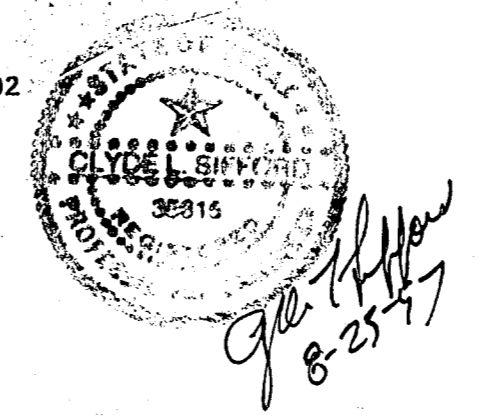
DETAIL OF UTILITY SUPPORT

EMBEDMENT DETAIL FOR STORM SEWER

AS BUILTS

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Clyde L. Sifford, P.E.
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 Dallas, Texas 75252

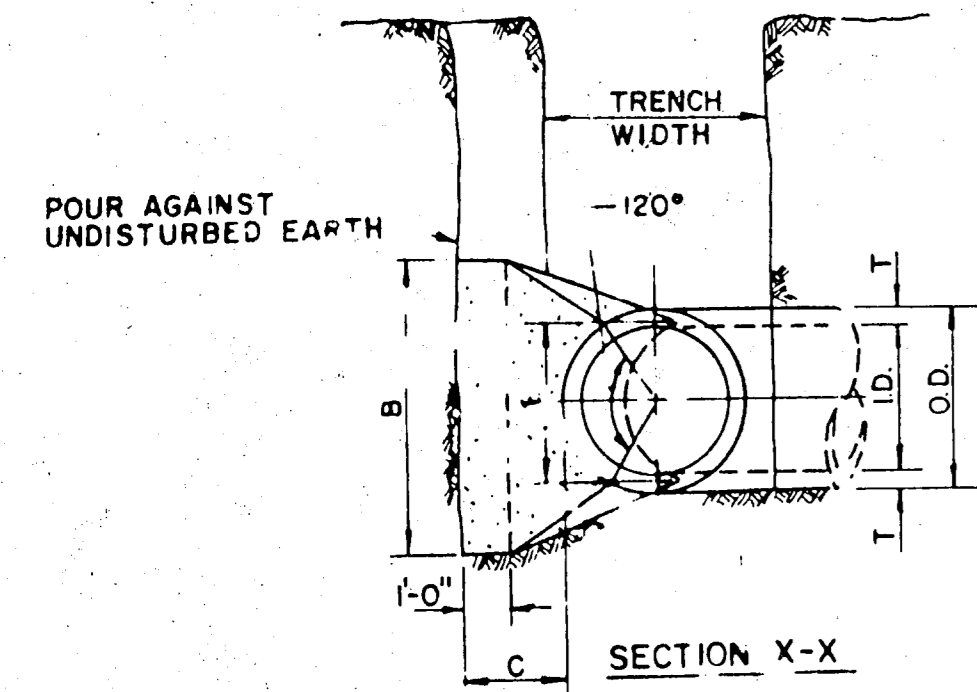
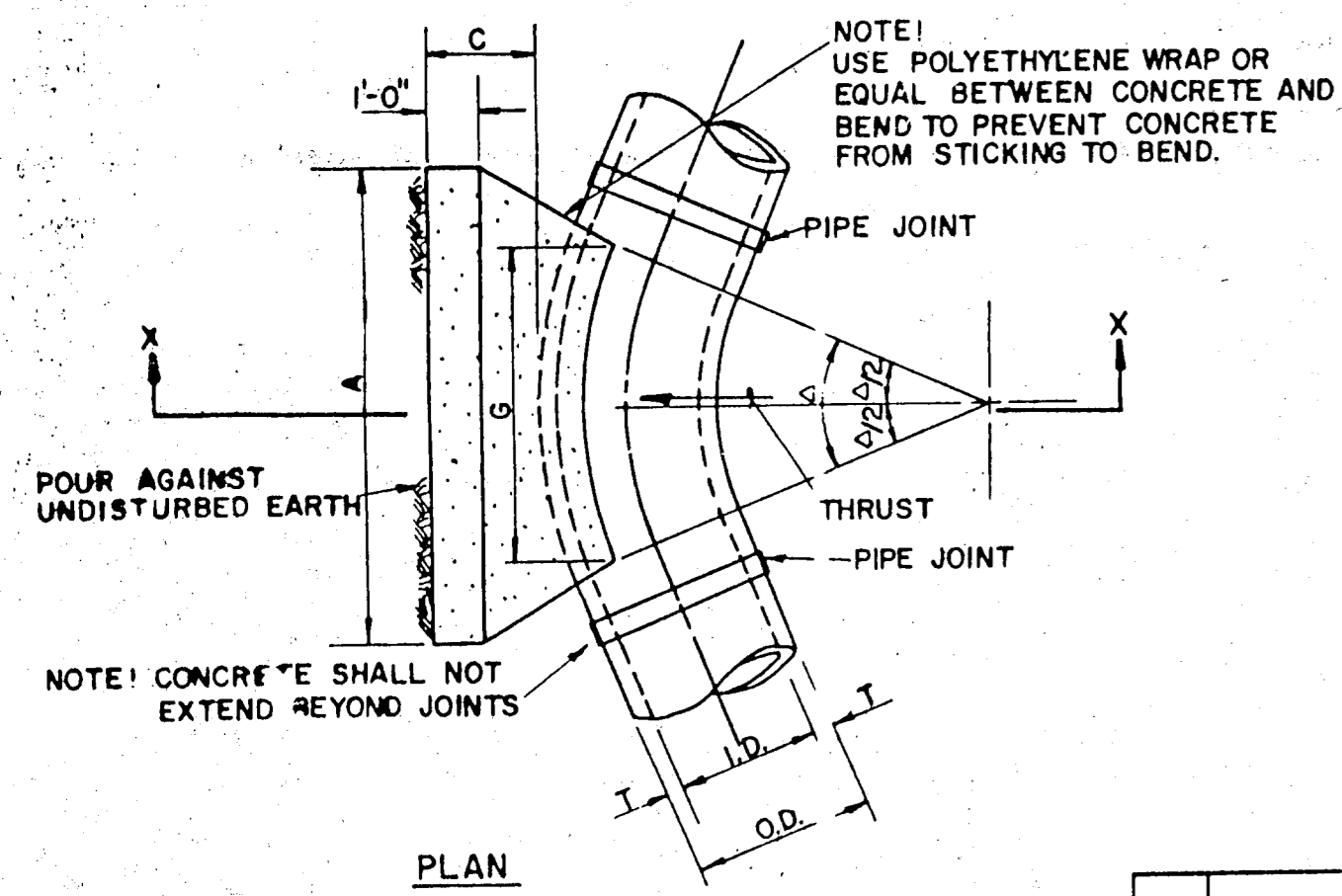


STANDARD CONSTRUCTION DETAILS

WATERFORD COURT
TOWN OF ADDISON, TEXAS

Date: NOV. 1993 Scale: AS SHOWN SHEET 14 OF
 Drawn By: TNC Approved By: TNC SHEETS

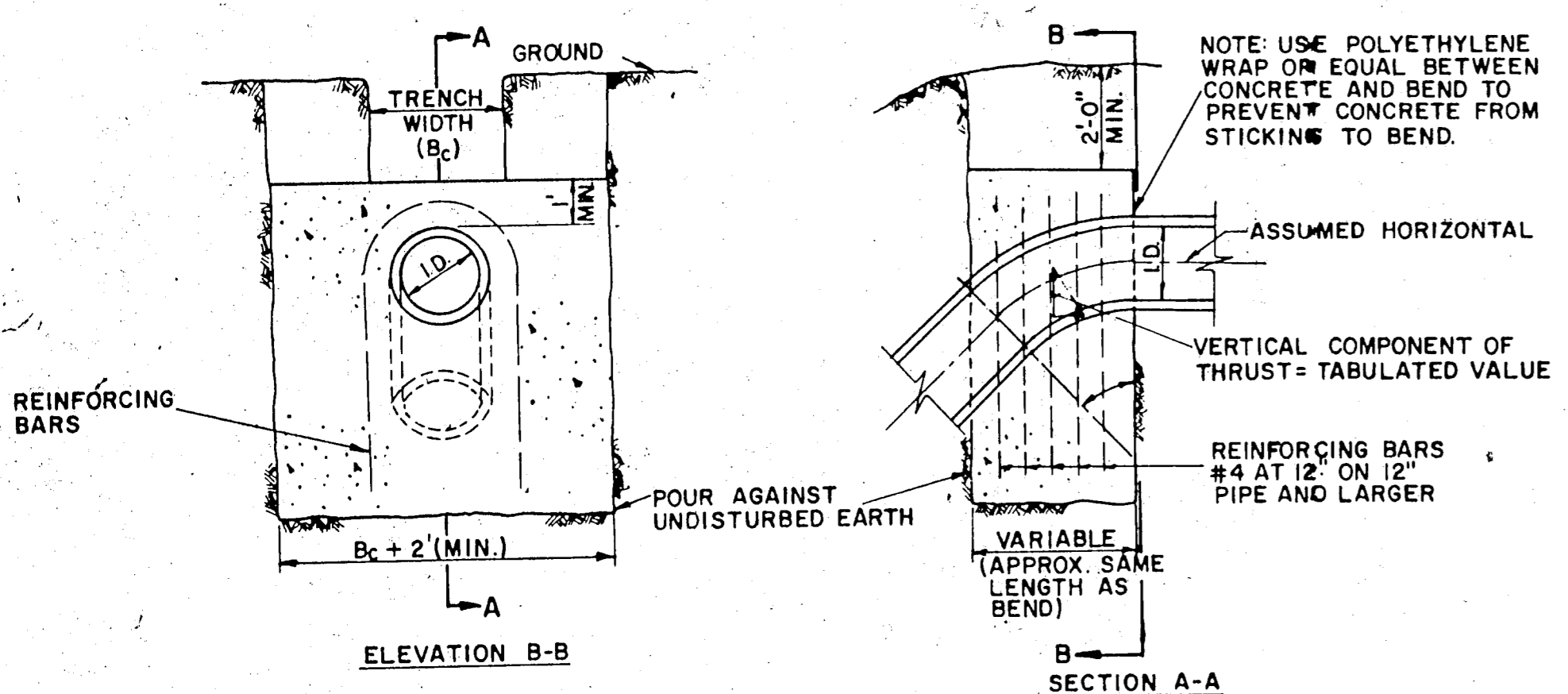
THE NELSON CORPORATION
 LAND PLANNING • ENGINEERING • SURVEYING
 5999 SUMMERSIDE DRIVE • SUITE 202 • DALLAS, TEXAS 75252 • (214) 380-2605



I.D. (IN.)	T (IN.)	C 11.25° FT.		C 22.50° FT.	
		A	B	A	B
4.6,8	0.4	1.5	1.5	0.9	
10,12	0.5	1.5	1.5	1.2	
16,18	0.6	1.5	1.5	1.8	
20	0.7	1.5	1.5	1.8	
24	0.9	1.5	1.5	2.1	
30	2.9	1.5	1.9	2.8	
36	4.5	1.5	2.3	3.3	
42	5.0	1.8	2.6	3.8	
48	5.3	2.0	3.0	4.3	
54	6.0	2.3	3.4	4.8	
60	6.5	2.5	3.8	5.3	
66	6.8	2.8	4.1	5.7	
72	7.5	3.0	4.5	6.3	
78	7.5	3.3	4.9	6.7	
84	8.0	3.5	5.3	7.2	
90	8.5	3.8	5.6	7.7	
96	9.0	4.0	6.0	8.2	

I.D. (IN.)	G (FT.)	EARTH			ROCK			I.D. (IN.)	G (FT.)	EARTH			ROCK				
		THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)			VOL. (C.Y.)	THRUST (TONS)	A (FT.)	B (FT.)	VOL. (C.Y.)	A (FT.)	B (FT.)	VOL. (C.Y.)
4.6,8	0.4	1.0	1.0	1.5	0.1	1.0	1.0	0.1	4.6,8	0.8	2.0	1.5	1.5	0.1	1.0	1.0	0.1
10,12	0.6	2.2	1.5	1.5	0.1	1.0	1.5	0.1	10,12	1.1	4.4	2.0	2.5	0.3	1.3	1.5	0.1
16,18	0.8	5.0	2.0	2.5	0.3	1.5	2.0	0.2	16,18	1.6	9.9	3.0	3.5	0.6	2.0	2.5	0.3
20	0.9	6.2	2.0	3.5	0.4	1.5	3.0	0.3	20	1.8	12.3	3.5	3.5	0.7	2.0	3.5	0.4
24	1.1	8.9	3.0	3.0	0.5	1.5	3.0	0.3	24	2.2	17.7	4.0	4.5	1.0	3.0	3.0	0.5
30	1.4	10.4	3.0	3.5	0.6	2.0	3.5	0.4	30	2.7	20.7	5.0	4.5	1.5	3.0	4.0	0.8
36	1.7	15.0	3.5	4.5	0.9	2.0	4.0	0.5	36	3.3	29.8	5.5	5.5	2.3	4.0	4.0	1.3
42	1.9	20.4	4.5	5.0	1.5	2.5	5.0	0.8	42	3.8	40.5	7.0	6.0	3.9	4.5	5.0	2.1
48	2.2	26.6	4.5	6.0	2.0	2.5	6.0	1.1	48	4.4	52.9	8.0	7.0	5.7	4.8	6.0	2.8
54	2.5	33.7	6.0	6.0	3.0	3.0	6.0	1.4	54	4.9	67.0	9.0	8.0	8.0	6.0	6.0	4.1
60	2.7	41.6	6.0	7.0	3.8	3.0	7.0	1.8	60	5.5	82.7	9.5	9.0	10.6	6.0	7.0	5.3
66	3.0	50.3	6.5	8.0	3.1	3.5	8.0	2.7	66	6.0	100.1	10.5	10.0	14.1	6.5	8.0	7.2
72	3.3	59.9	7.5	8.0	6.3	4.0	8.0	3.3	72	6.6	119.1	11.0	11.0	17.6	7.5	8.0	9.1
78	3.6	70.2	8.0	9.0	8.1	4.0	9.0	3.9	78	7.1	139.6	12.0	12.0	22.5	8.0	9.0	11.7
84	3.8	81.5	8.5	10.0	10.3	4.5	10.0	5.3	84	7.6	162.1	13.0	12.5	27.2	8.5	10.0	14.8
90	4.1	93.5	9.5	10.0	12.2	5.0	10.0	6.3	90	8.2	186.1	14.0	13.5	33.7	9.5	10.0	17.7
96	4.4	106.4	10.0	11.0	15.0	5.0	11.0	7.4	96	8.7	211.7	15.0	14.5	41.2	10.0	11.0	21.8

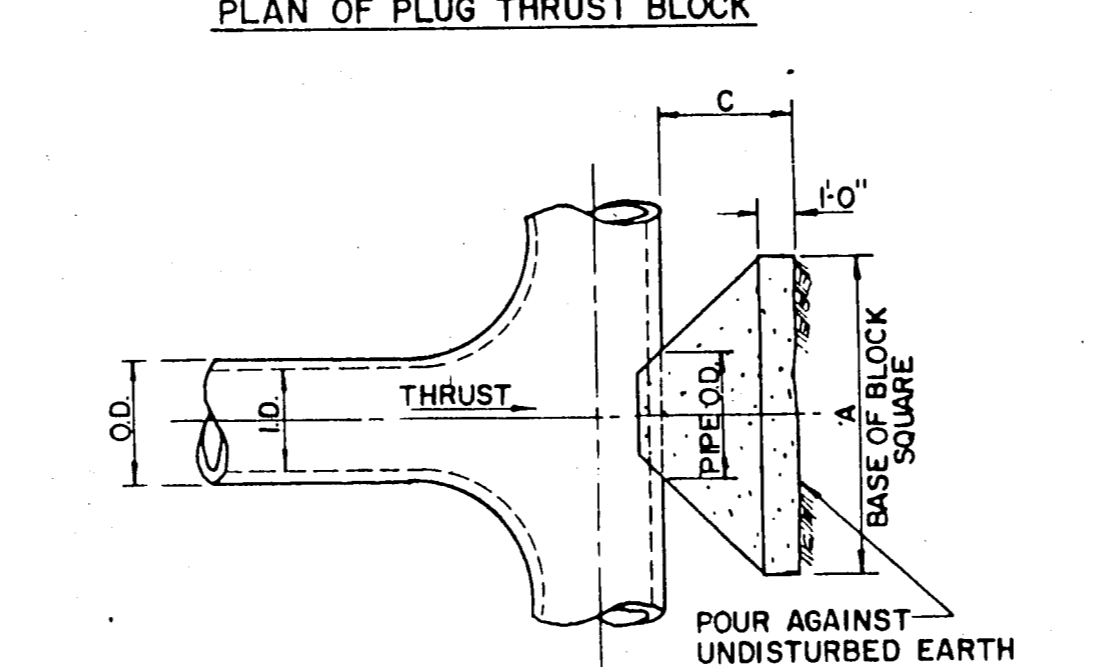
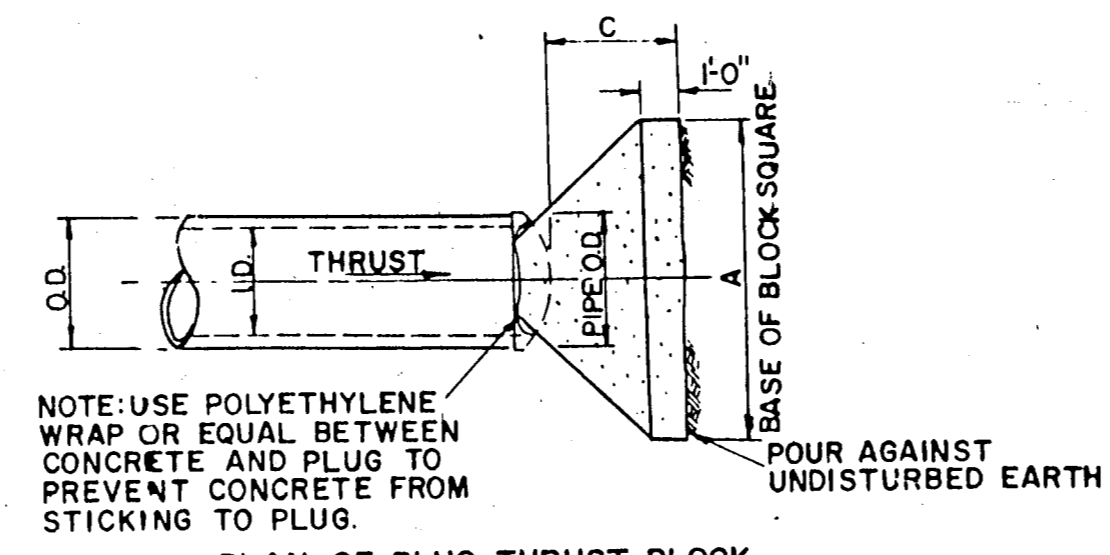
HORIZONTAL BEND THRUST BLOCK



I.D. (IN.)	11.25°		22.50°		30°		45°		67.50°		90°		I.D. (IN.)
	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	THRUST (TONS)	VOL. (C.Y.)	
4.6,8	1.0	0.5	2.0	1.0	2.5	1.3	3.6	1.8	4.6	2.3	5.0	2.5	4.6,8
10,12	2.2	1.1	4.3	2.2	5.7	2.8	8.0	4.0	10.5	5.2	11.3	5.7	10,12
16,18	5.0	2.5	9.7	4.9	12.7	6.4	18.0	9.0	23.5	11.8	25.5	12.7	16,18
20	6.1	3.1	12.0	6.0	15.7	7.9	22.2	11.1	29.2	14.5	31.4	15.7	20
24	8.2	4.4	17.3	8.7	22.6	11.3	32.0	16.0	41.8	20.9	45.2	22.6	24
30	10.5	5.2	20.3	10.1	26.5	13.3	37.5	18.8	49.0	24.5	53.1	26.5	30
36	14.9	7.5	29.2	14.6	38.2	19.1	54.0	27.0	70.5	35.3	76.4	38.2	36
42	20.3	10.1	39.8	19.9	52.0	26.0	73.5	36.7	96.0	48.0	104.0	52.0	42
48	26.5	13.2	51.9	26.0	67.9	33.9	96.0	48.0	126.0	62.7	136.0	67.9	48
54	33.5	16.8	65.7	32.9	85.9	42.9	122.0	60.7	159.0	79.4	172.0	85.9	54
60	41.4	20.7	81.2	40.6	106.0	53.0	150.0	75.0	196.0	98.0	212.0	106.0	60
66	50.1	25.0	98.2	48.1	128.0	64.2	182.0	90.7	237.0	119.0	257.0	128.0	66
72	59.6	29.8	117.0	58.4	153.0	76.3	216.0	108.0	282.0	141.0	305.0	153.0	72
78	69.9	35.0	137.0	68.6	179.0	90.0	254.0	127.0	331.0	166.0	358.0	179.0	78
84	81.1	40.5	159.0	79.5	208.0	104.0	294.0	147.0	384.0	192.0	416.0	208.0	84
90	93.1	46.5	183.0	91.3	239.0	119.0	337.0	169.0	441.0	221.0	477.0	239.0	90
96	110.6	53.0	208.0	104.0	272.0	136.0	384.0	192.0	502.0	251.0	543.0	272.0	96

GENERAL NOTES-FOR ALL THRUST BLOCKS
 1. All Calculations Are Based On Internal Pressure Of 200 P.S.I. For 24" I.D. Pipe And Smaller And 150 P.S.I. On 30" I.D. And Larger.
 2. Volumes Of Vertical Bend Thrust Blocks Are Net Volumes Of Concrete To Be Furnished. The Corresponding Weight Of The Concrete (Class F) Is Equal To Or Greater Than The Vertical Component Of Thrust On The Vertical Bend.
 3. Wall Thickness (T) Assumed Here For Estimating Purposes Only.
 4. Concrete For Blocking Shall Be Class B Concrete.
 5. Dimensions May Be Varied As Required By Field Conditions Where And As Directed By The Engineer. The Volume Of Concrete Blocking Shall Not Be Less Than Shown Here.

VERTICAL BEND THRUST BLOCK



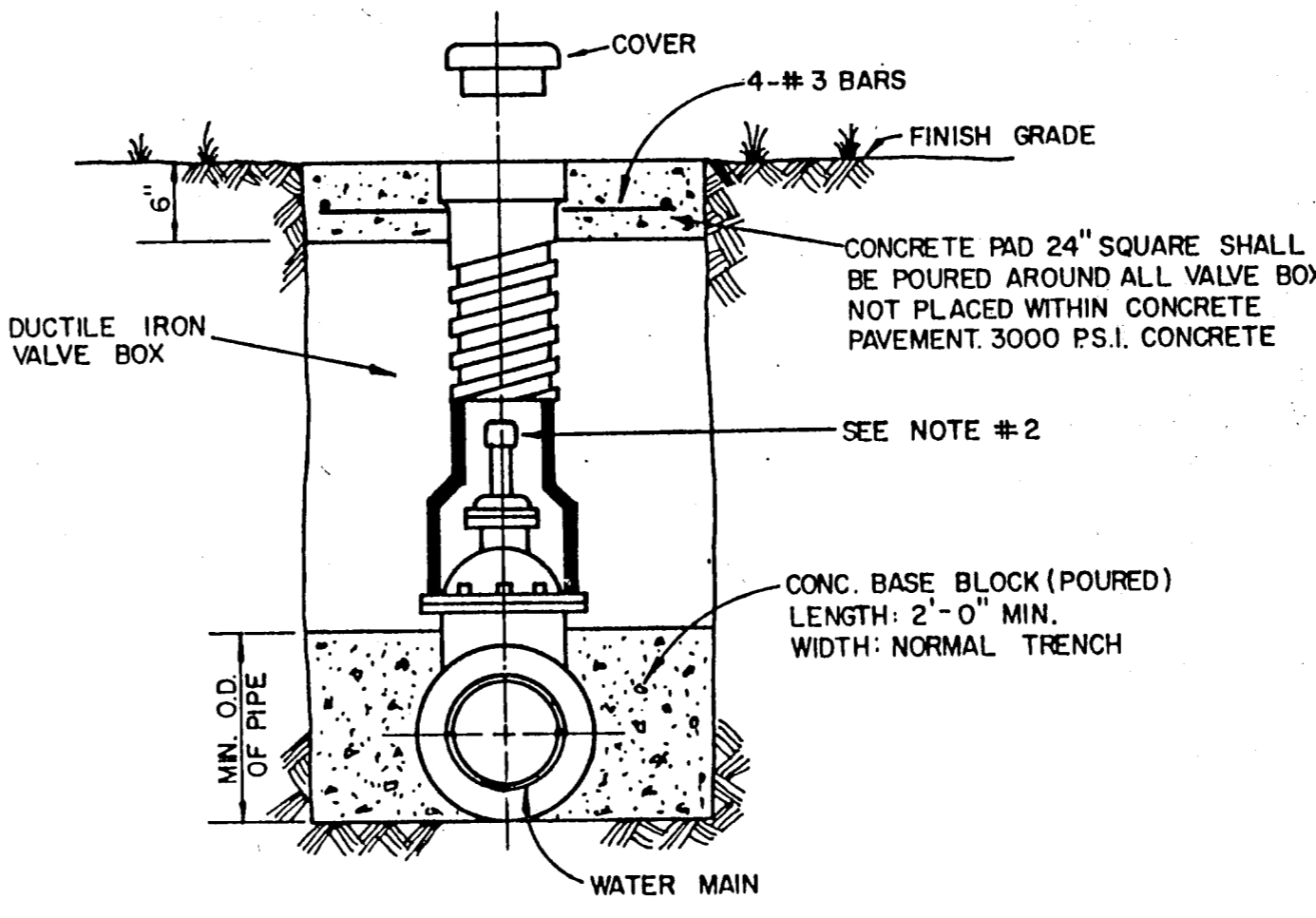
PLAN OF TEE THRUST BLOCK

I.D. (IN.)	THRUST (TONS)	EARTH		ROCK	
		C (FT.)	A VOL. (C.Y.)	A VOL. (C.Y.)	VOL. (C.Y.)
4.6,8	1.0	1.5	2.5	0.3	2.0
10,12	2.2	1.5	2.5	0.3	2.0
16,18	5.0	1.5	3.5	0.6	2.5
20	6.1	2.0	5.0	1.0	3.0
24	8.2	2.5	7.0	1.5	4.0
30	10.5	3.0	9.0	2.0	5.0
36	14.9	3.5	11.0	2.5	6.0
42	20.3	4.0	13.0	3.0	7.0
48	26.5	4.5	15.0	3.5	8.0
54	33.5	5.0	17.0	4.0	9.0
60	41.4	5.5	19.0	4.5	10.0
66	50.1	6.0	21.0	5.0	11.0
72	59.6	6.5	23.0	5.5	12.0
78	69.9	7.0	25.0	6.0	13.0
84	81.1	7.5	27.0	6.5	14.0
90	93.1	8.0	29.0	7.0	15.0
96	110.6	8.5	31.0	7.5	16.0

PLUG & TEE THRUST BLOCK



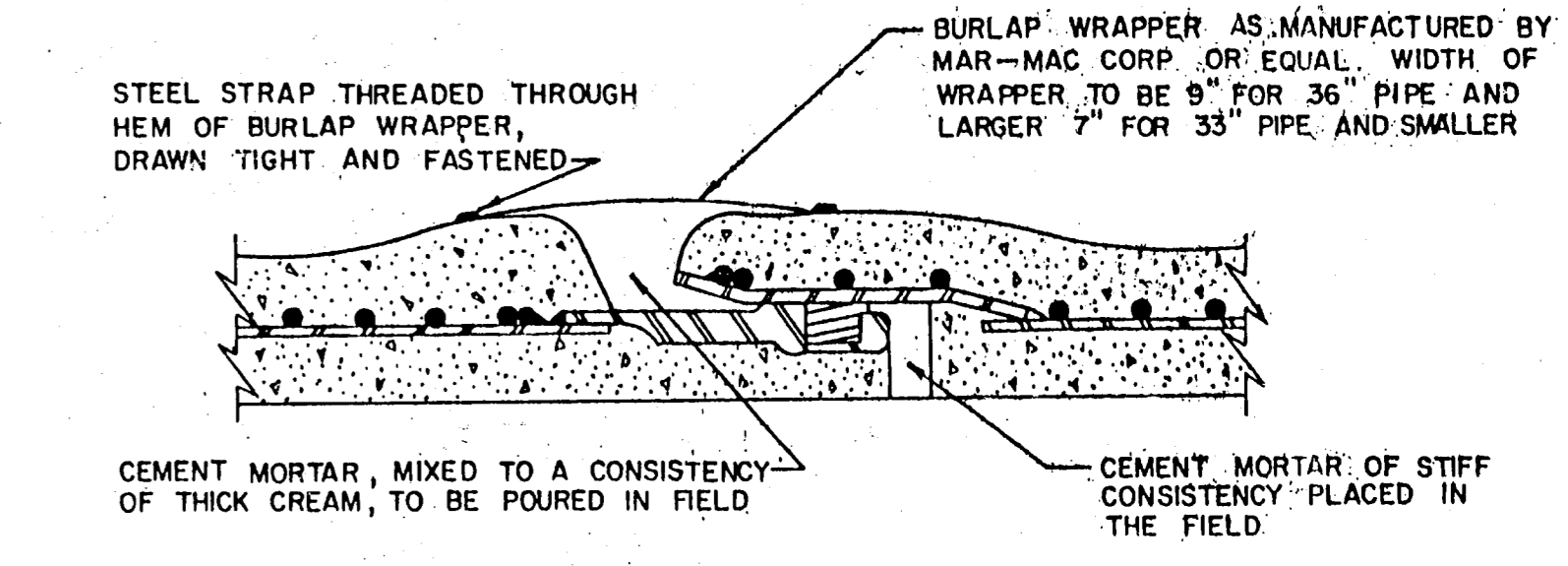
TYPICAL VALVE SETTING AND BOX



NOTE:
 1. GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C-509-80 OR LATEST THEREOF ALL VALVES SHALL BE "MULLER" OR APPROVED EQUAL.
 2. A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE THATS OPERATING NUT IS LOCATED IN EXCESS OF 4 FEET BELOW THE TOP OF VALVE BOX. THIS EXTENSION SHALL BE OF SUFFICIENT LENGTH TO INSURE THAT ITS TOP IS WITHIN 4" OF VALVE BOX I.D. MANUFACTURED VALVE STACK DUCTILE IRON PIPE TO BE USED FOR EXTENSION GREATER THAN 4'-0" BELL END OF STACK TO BE FITTED OVER VALVE. VALVE AND VALVE STACK IS TO BE POLY WRAPPED.
 3. VALVES SHALL BE OF DUCTILE IRON W/RUBBER ENCAPSULATED DISK BODY BOLTS SHALL BE STAINLESS STEEL OF SAME SIZE ON EACH VALVE.

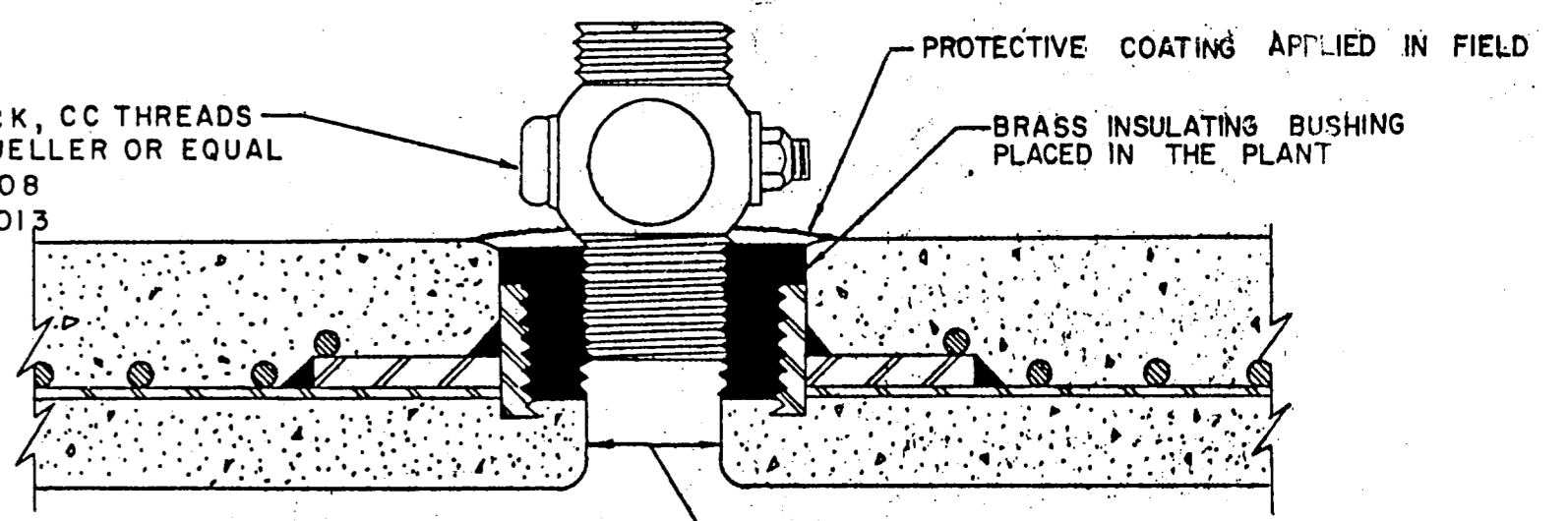
TYPICAL VALVE SETTING AND BOX

NOTE:
 PROVIDE 1" MINIMUM THICKNESS CONCRETE OR CEMENT MORTAR COATING IN THE FIELD FOR THE PROTECTION OF ALL EXPOSED STEEL SUCH AS FLANGES, GAULKED JOINTS, THREADED OUTLETS, CLOSURES, ETC. THE CEMENT MORTAR USED SHALL CONSIST OF ONE PART PORTLAND CEMENT TO TWO AND ONE-HALF PARTS OF FINE, SHARP (PLASTER) SAND. WHERE SHOWN, COATING IS TO BE REINFORCED WITH WIRE MESH.



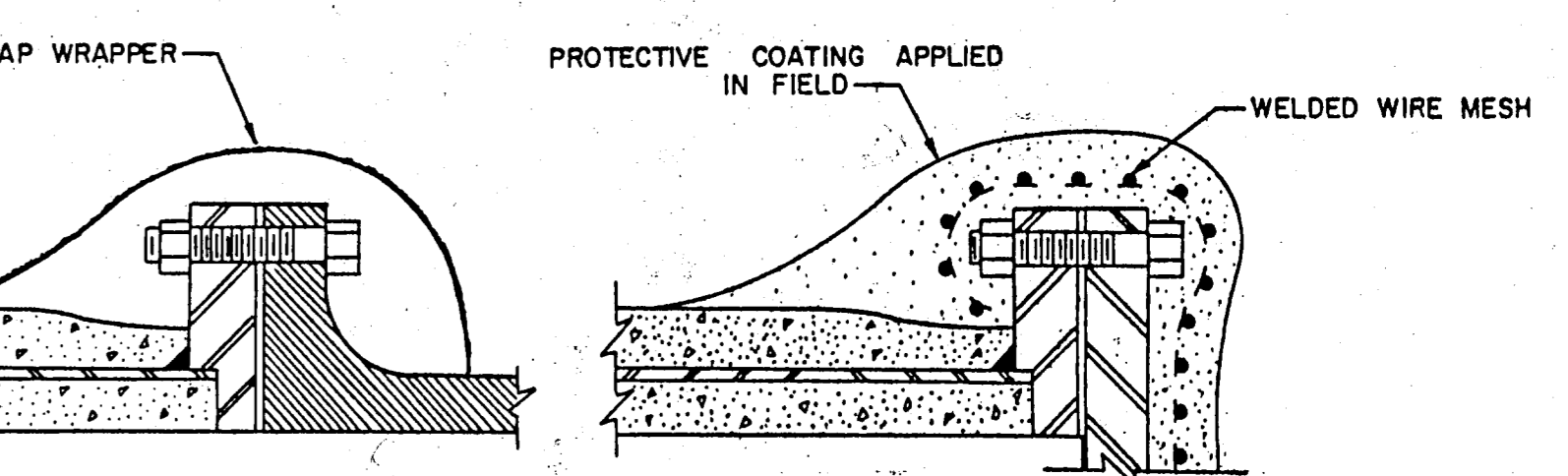
STANDARD RUBBER GASKET JOINT

NOTE: ALL CLOSURE SECTIONS SHALL BE FABRICATED WITH HAND TOOLS TO ALLOW WIPING INSIDE OF JOINTS AFTER CLOSURE IS IN PLACE



NOTE: IF CORPORATION COCK IS NOT PROVIDED IN FIELD, THEN STEEL PLUG SHALL BE COVERED WITH CEMENT MORTAR.

THREADED CONNECTION



FLANGED CONNECTIONS

REINFORCED CONCRETE CYLINDER PIPE DETAILS

AS BUILTS
 Based on visual inspection of the completed improvements, it appears this project was constructed in general conformance with these construction plans and will function as designed.

Clyde L. Sifford, P.E.
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 Dallas, Texas 75252

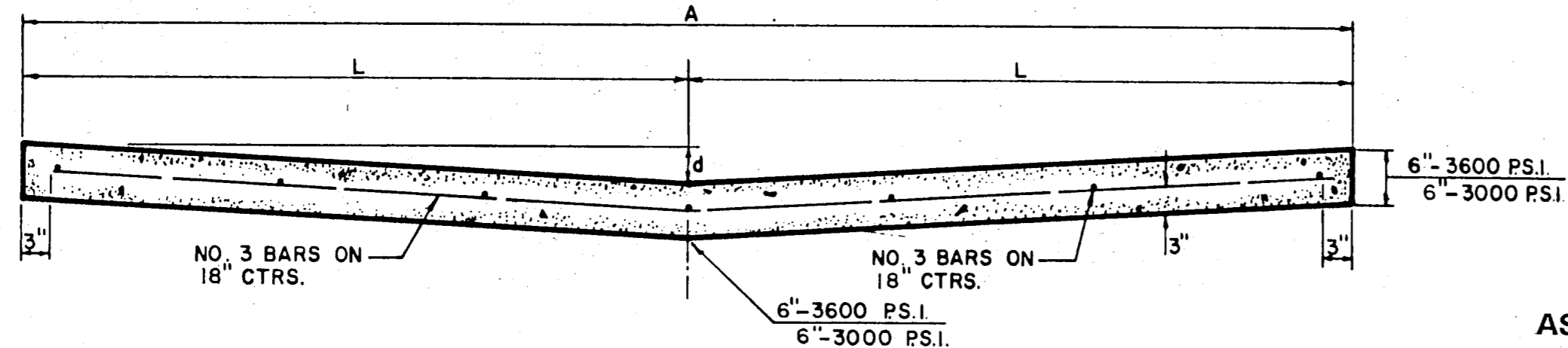
STANDARD CONSTRUCTION DETAILS

WATERFORD COURT
 TOWN OF ADDISON, TEXAS

Date: NOV., 1993 Scale: AS SHOWN SHEET 15 OF
 Drawn By: TNC Approved By: TNC SHEETS

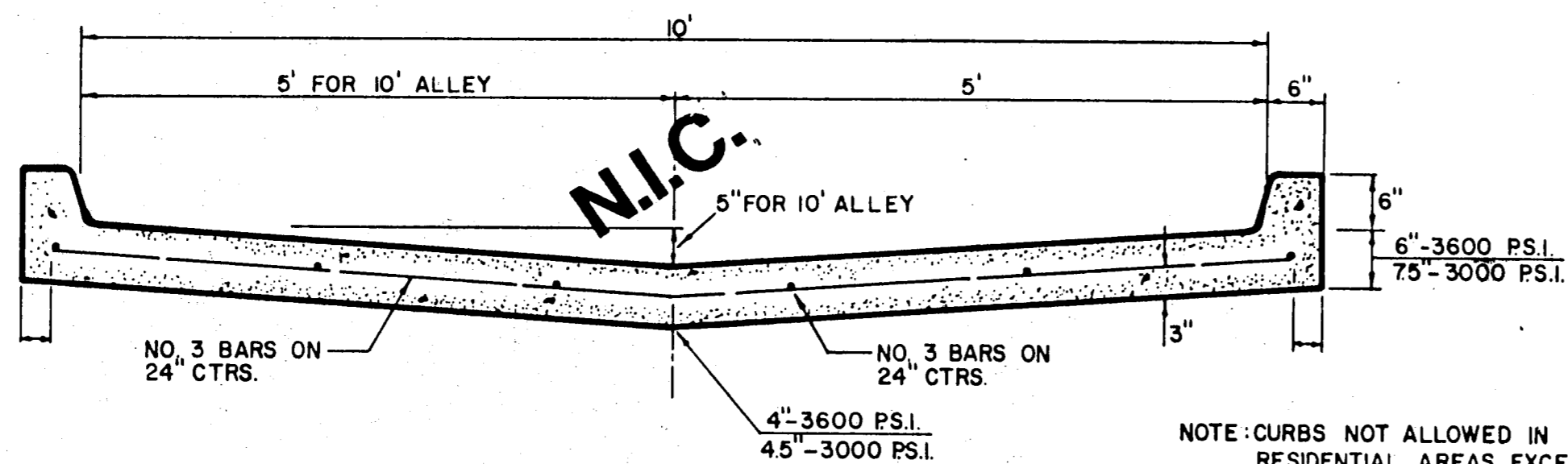
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ALLEY WIDTH (A)	HALF SECTION WIDTH (L)	INVERT DEPTH (d)
10'	5'	4"
12'	6'	6"
16'	8'	6"
20'	10'	6"



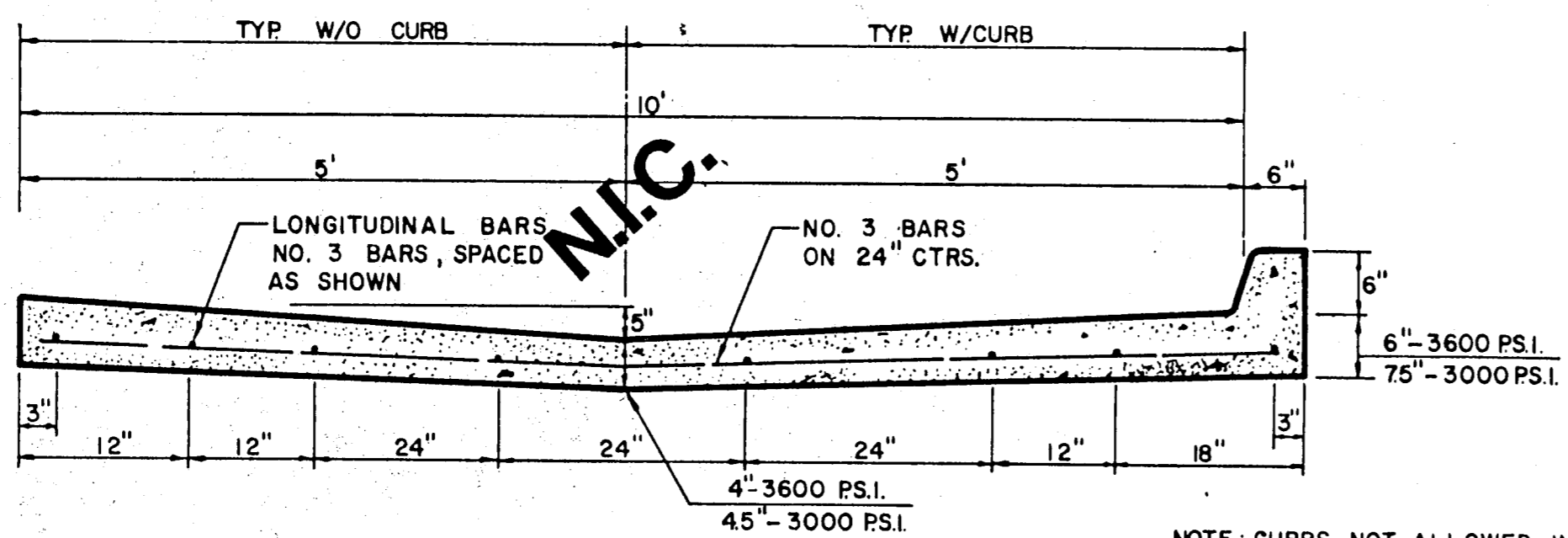
STANDARD 10', 12', 16', & 20' ALLEY SECTION

N.I.C.



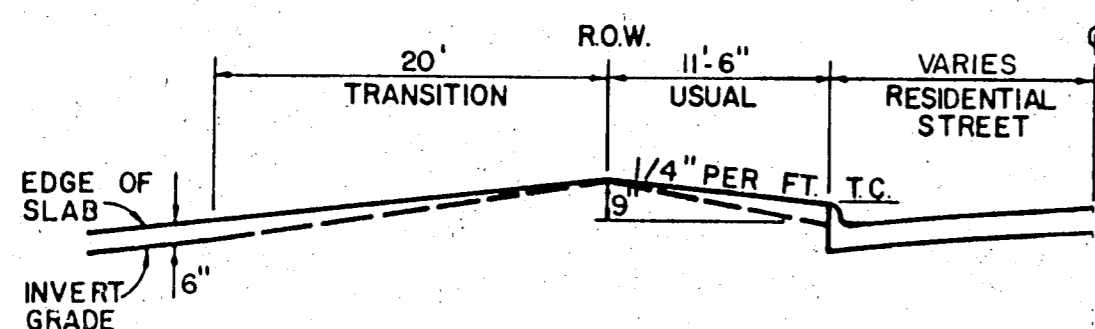
STANDARD ALLEY SECTION WITH CURBS

NOTE: CURBS NOT ALLOWED IN RESIDENTIAL AREAS EXCEPT AS APPROVED BY THE ENGINEER.



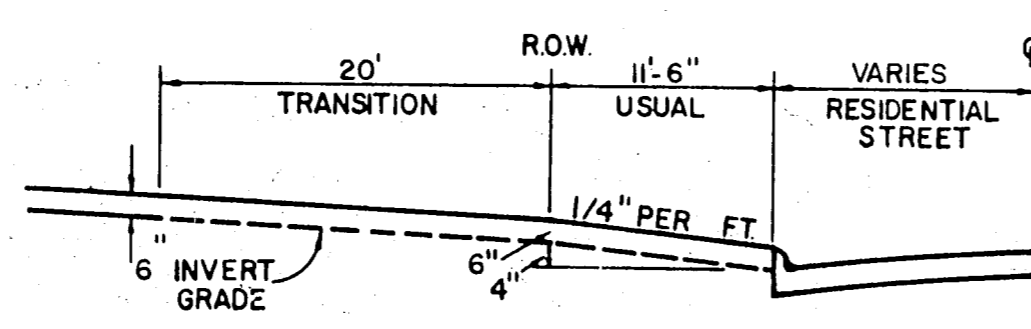
ALTERNATE 10' ALLEY SECTION / CURB

NOTE: CURBS NOT ALLOWED IN RESIDENTIAL AREAS EXCEPT AS APPROVED BY THE ENGINEER



TYPE I ALLEY ENTRANCE

N.I.C.



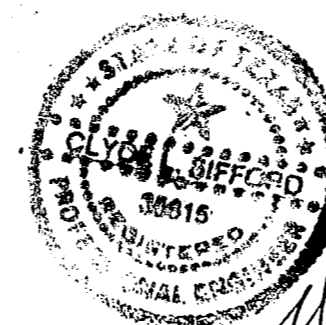
TYPE II ALLEY ENTRANCE

ALLEY WIDTH	A	B	C	D	E	F
10'	10'	2'-6"	15'	1'-6"	12'	8.6'
12'	12'	1'-6"	15'	1'-6"	12'	8.5'
16'	16'	2'-0"	20'	2'-0"	16'	8.0'
20'	20'	0	20'	0	20'	10.0'

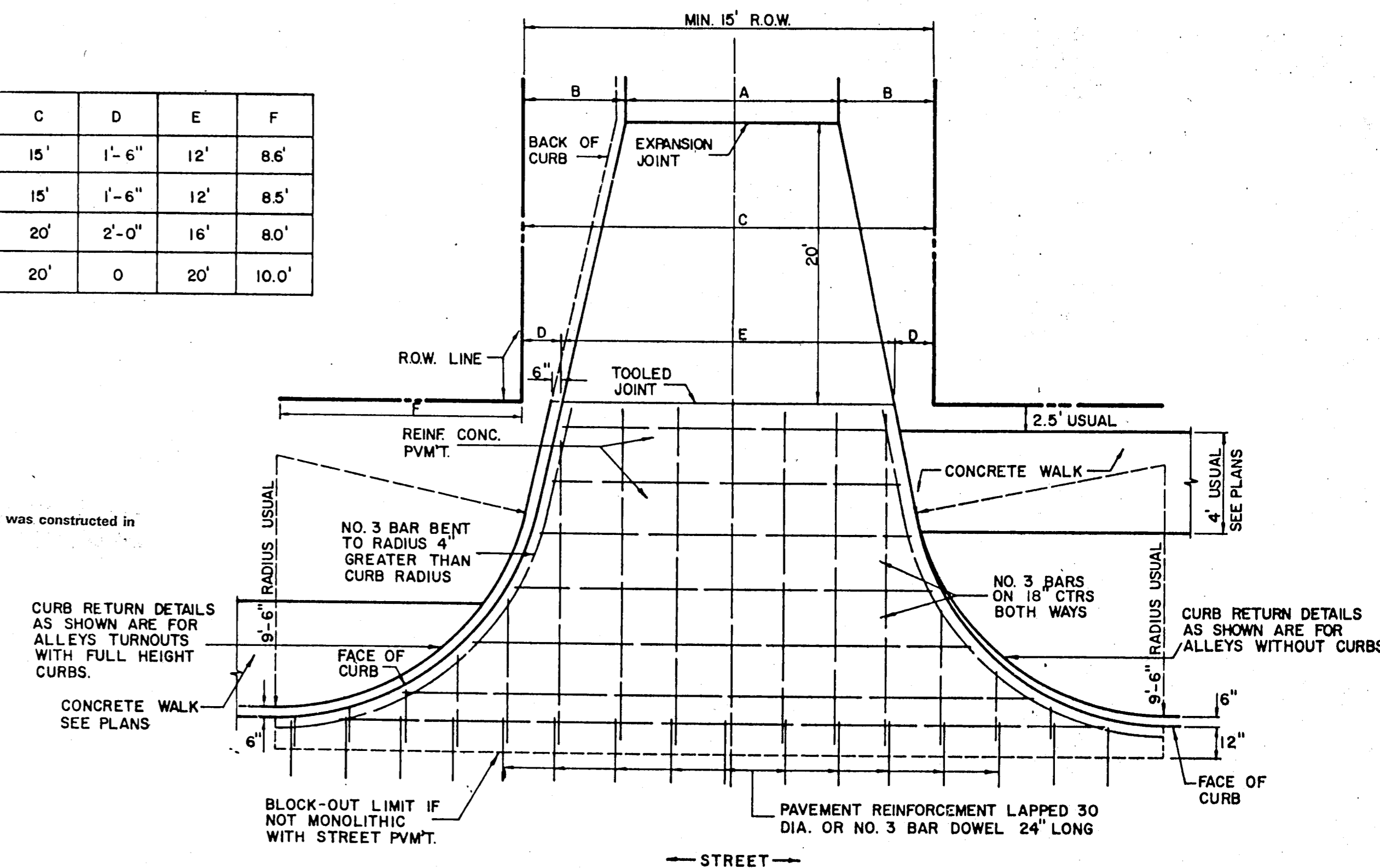
AS BUILTS

Based on visual inspection of the completed improvements, it appears this project was constructed in general conformance with these construction plans and will function as designed.

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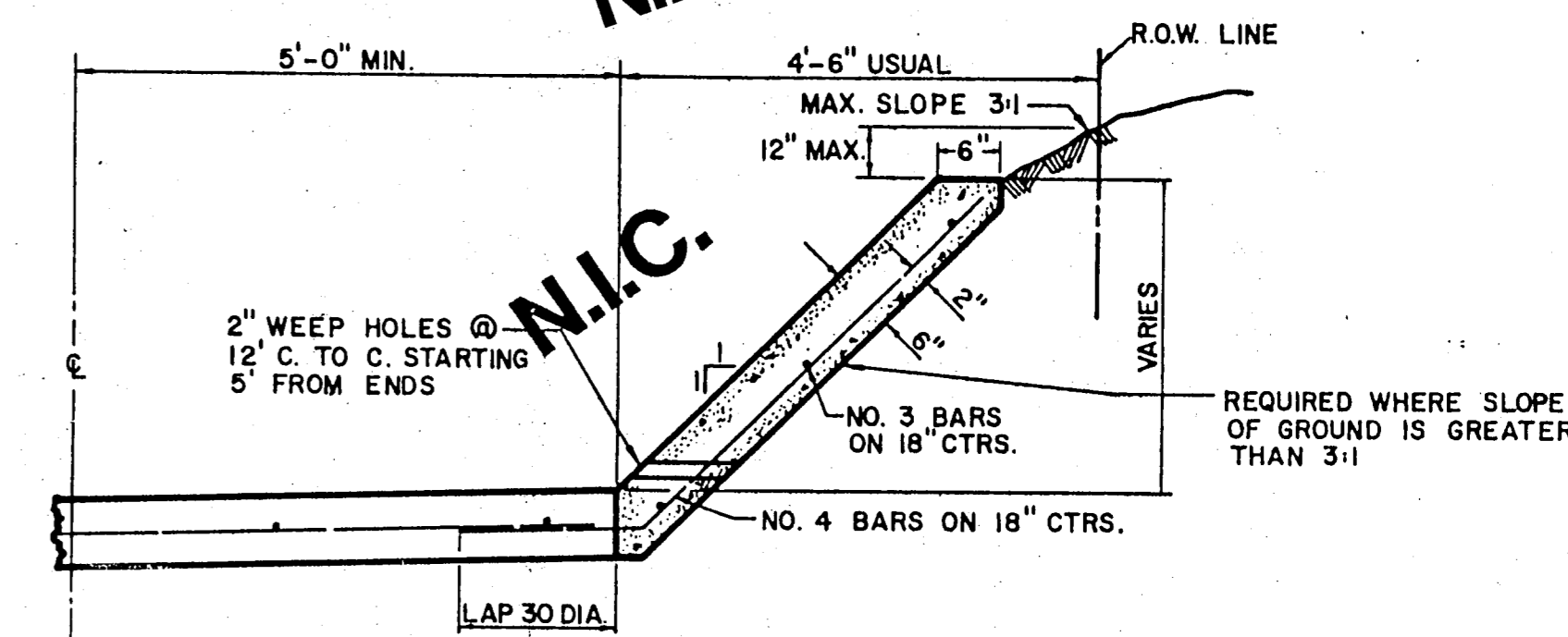


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3-14-94

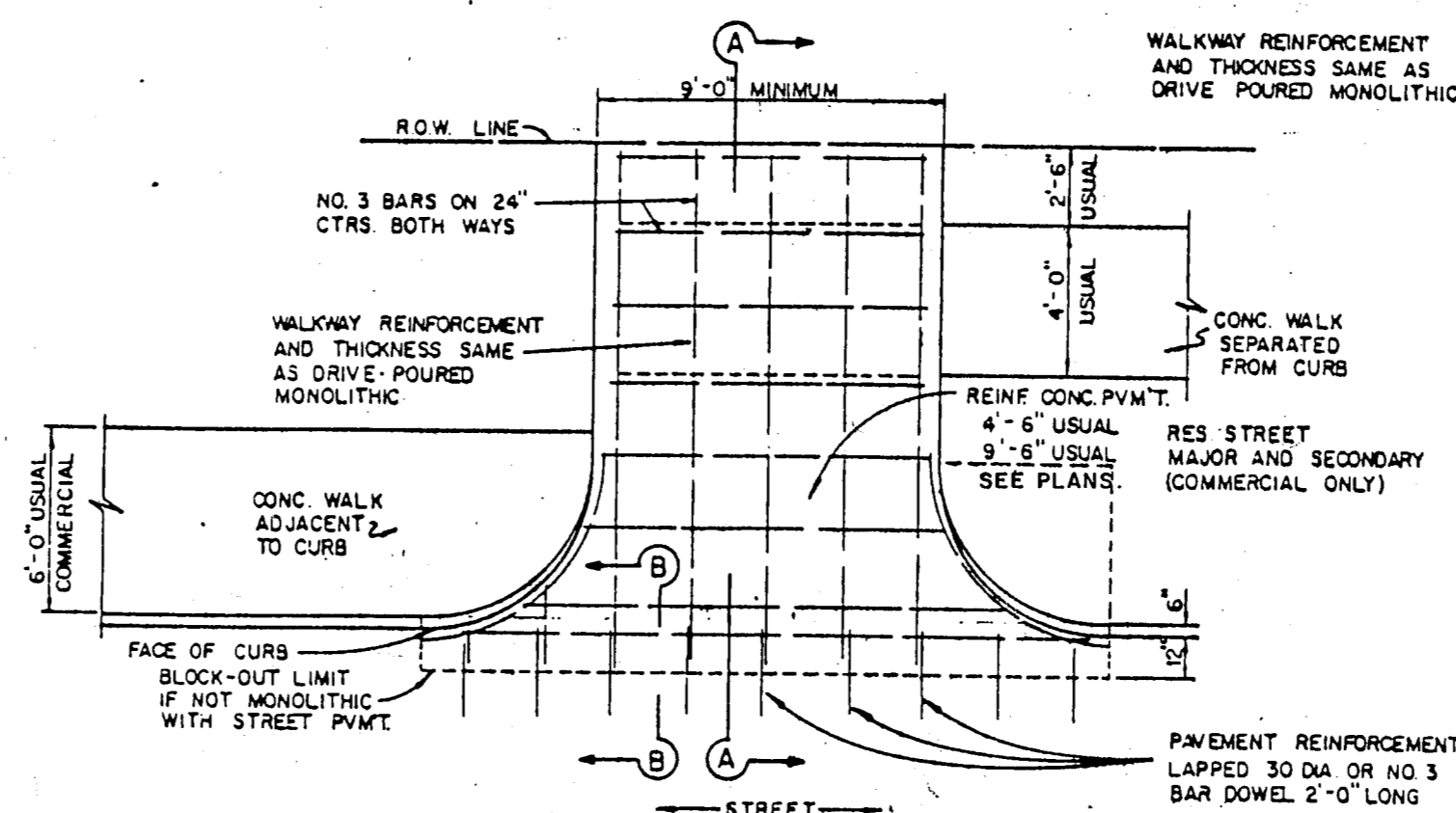


ALLEY RETURN DETAILS
FOR DETAILS ONLY - SEE PLAN FOR DIMENSIONS

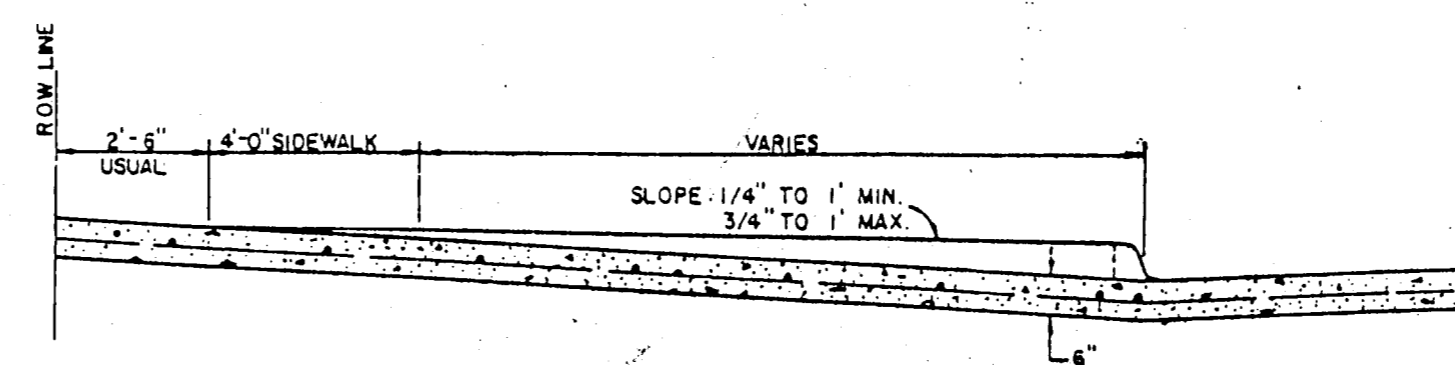
N.I.C.



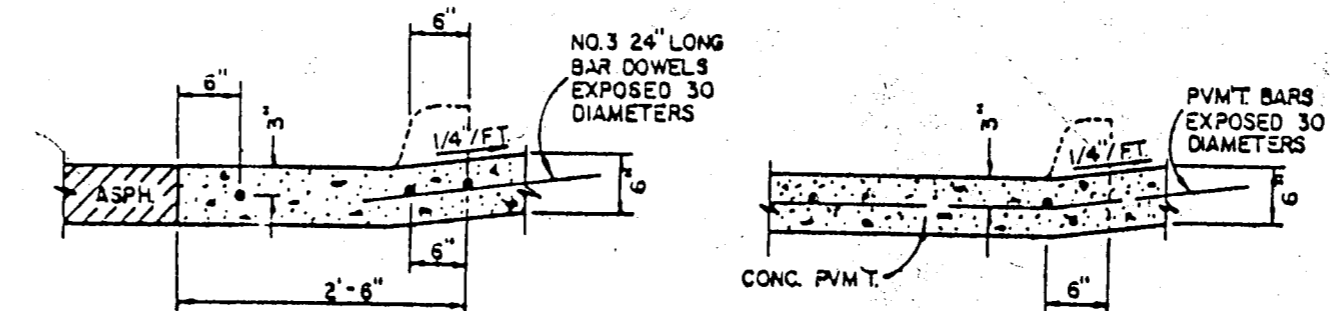
ALLEY SLOPE PROTECTION



DRIVEWAY RETURN TO STREET



SECTION A-A



SECTION B-B
DRIVEWAY RETURN DETAILS

GENERAL NOTES FOR ALLEYS AND DRIVEWAYS

1. CONCRETE FOR ALLEY RETURNS AND DRIVEWAYS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS IDENTICAL TO THAT SPECIFIED FOR THE STREET PAVEMENT OR BASE WHEN BUILT AS COMPONENTS OF A CONCRETE PAVING PROJECT WHEN BUILT SEPARATELY, THE STRENGTH SHALL BE AS SPECIFIED ON THE CONSTRUCTION PLANS.
2. CONCRETE FOR ALLEY PAVEMENT SHALL BE OF THE STRENGTH SPECIFIED ON THE CONSTRUCTION PLANS. (3000 P.S.I. OR 3600 P.S.I. MINIMUM COMPRESSIVE)
3. SPACING AND CONSTRUCTION OF JOINTS SHALL CONFORM TO STREET PAVEMENT DETAILS.

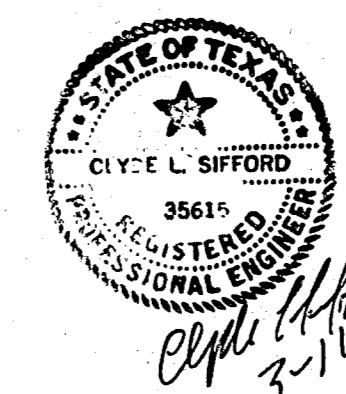
STANDARD CONSTRUCTION DETAILS

WATERFORD COURT
TOWN OF ADDISON, TEXAS

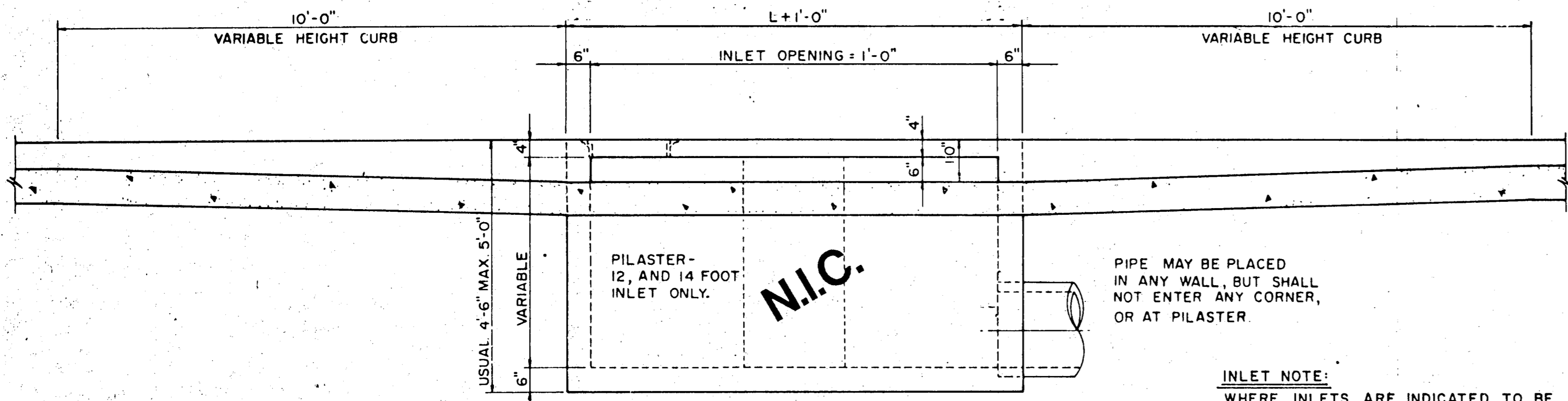
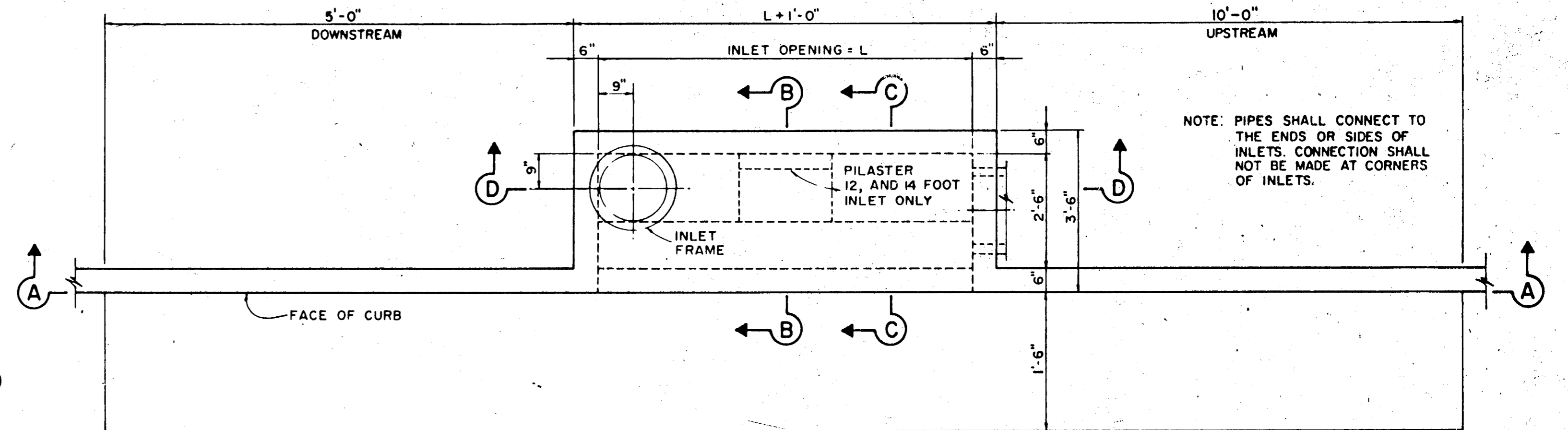
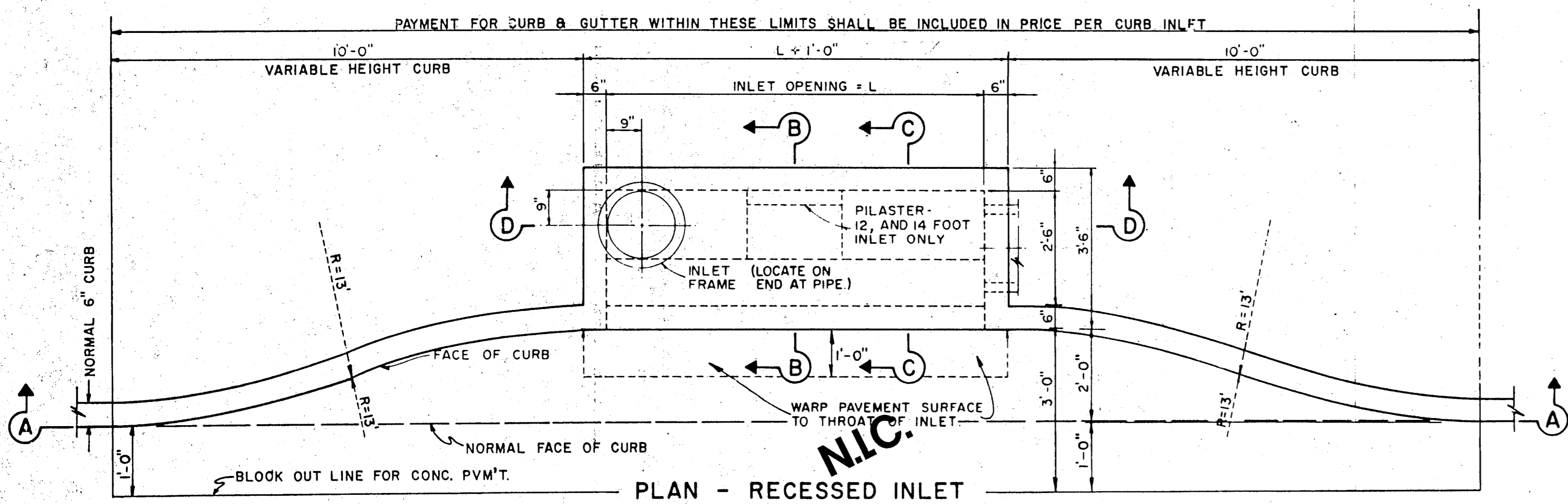
Date: NOV., 1993 Scale: AS SHOWN SHEET 16 OF
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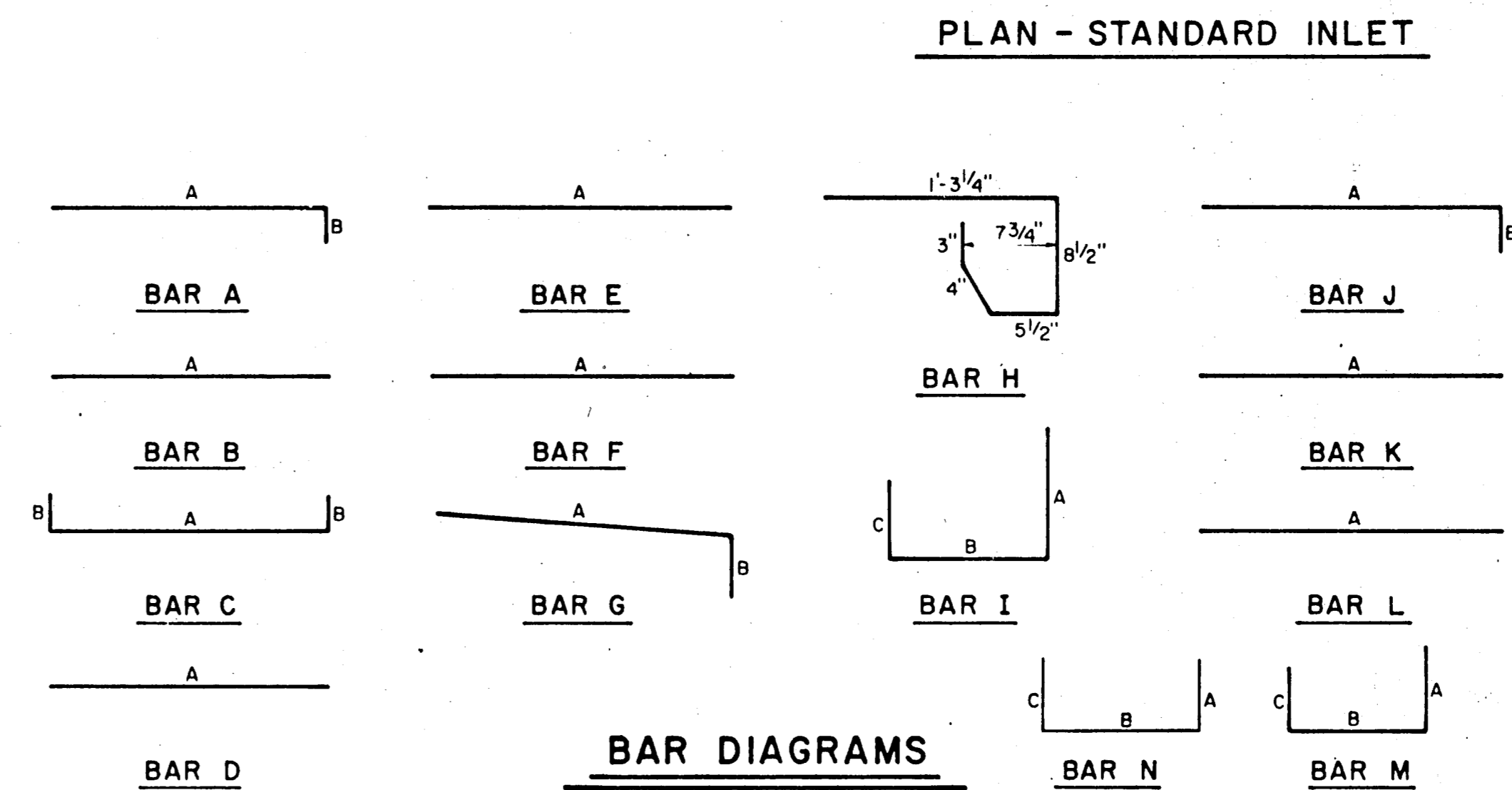


Clyde L. Sifford
3-14-94



SECTION A-A - RECESSED AND STANDARD INLETS
4, 6, 8, 10, 12, AND 14 FOOT INLETS

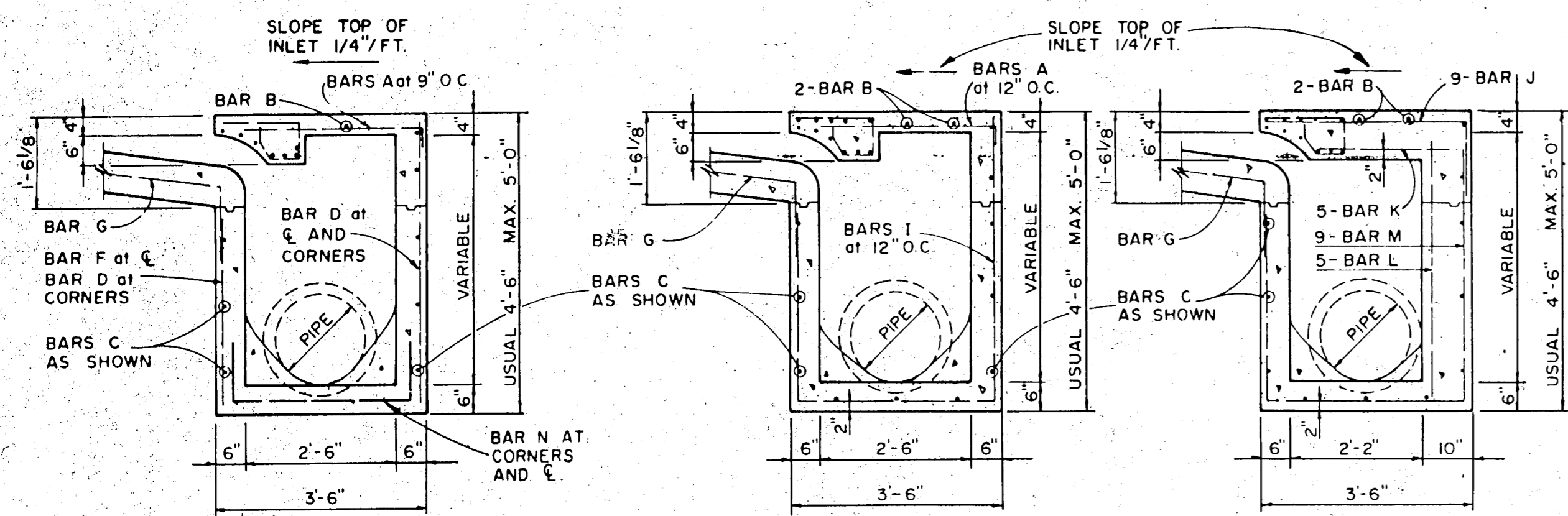
INLET NOTE:
WHERE INLETS ARE INDICATED TO BE MODIFIED, REFER TO PLAN/PROFILE SHEETS FOR ELEV., DIFFERENT SIZES OR MODIFICATIONS. ALL OTHER ITEMS SHALL REMAIN AS SHOWN ON THIS STANDARD DETAIL SHEET.



REINFORCING STEEL SCHEDULE

DIMENSIONS SHOWN ARE FOR MAXIMUM SIZE INLETS

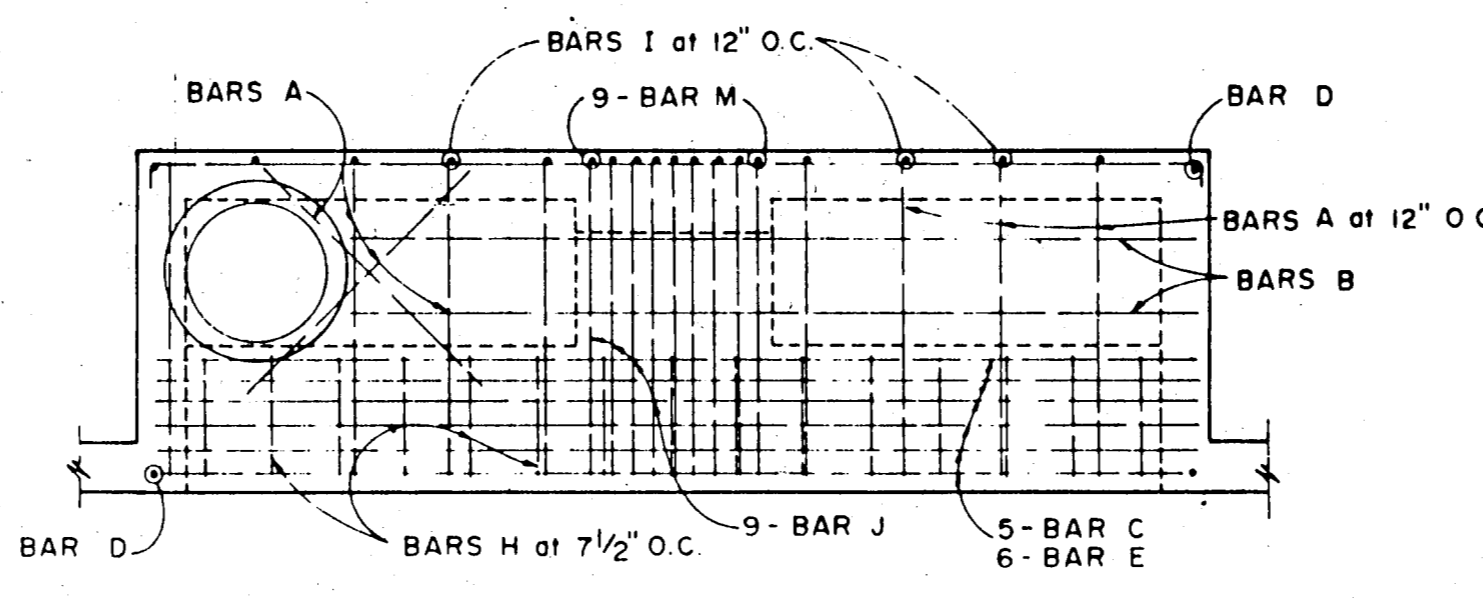
INLET LENGTH	BAR TYPE	BAR DIA (1/8 IN.)	NO. REQ'D	BAR DIMENSIONS		
				A	B	C
4	A	3	6	3'-2"	0'-3"	-
	B	3	1	2'-10"	-	-
	C	4	15	4'-8"	0'-6"	-
	D	4	5	4'-8"	-	-
	F	4	1	3'-2"	-	-
	G	3	5	2'-0"	1'-3"	-
6	H	3	4	*	*	*
	N	3	3	3'-2"	3'-2"	3'-2"
	A	3	9	3'-2"	0'-3"	-
	B	3	1	4'-10"	-	-
	C	4	15	6'-8"	0'-6"	-
	D	4	5	4'-8"	-	-
8	F	4	1	3'-2"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	6	*	*	*
	N	3	3	3'-2"	3'-2"	3'-2"
	A	3	12	3'-2"	0'-3"	-
	B	3	1	6'-10"	-	-
10	C	4	15	8'-8"	0'-6"	-
	D	4	5	4'-8"	-	-
	F	4	1	3'-2"	-	-
	G	3	5	2'-0"	1'-3"	-
	H	3	8	*	*	*
	N	3	3	3'-2"	3'-2"	3'-2"
12	A	3	10	3'-2"	0'-3"	-
	B	3	2	8'-10"	-	-
	C	4	16	10'-8"	0'-6"	-
	D	4	4	4'-8"	-	-
	E	5	6	10'-8"	-	-
	G	3	5	2'-0"	1'-3"	-
14	H	3	18	*	*	*
	I	4	10	4'-8"	3'-2"	3'-2"
	J	5	9	3'-2"	1'-3"	-
	K	4	5	2'-3"	-	-
	L	4	5	4'-3"	-	-
	M	5	9	4'-3"	3'-2"	3'-9"



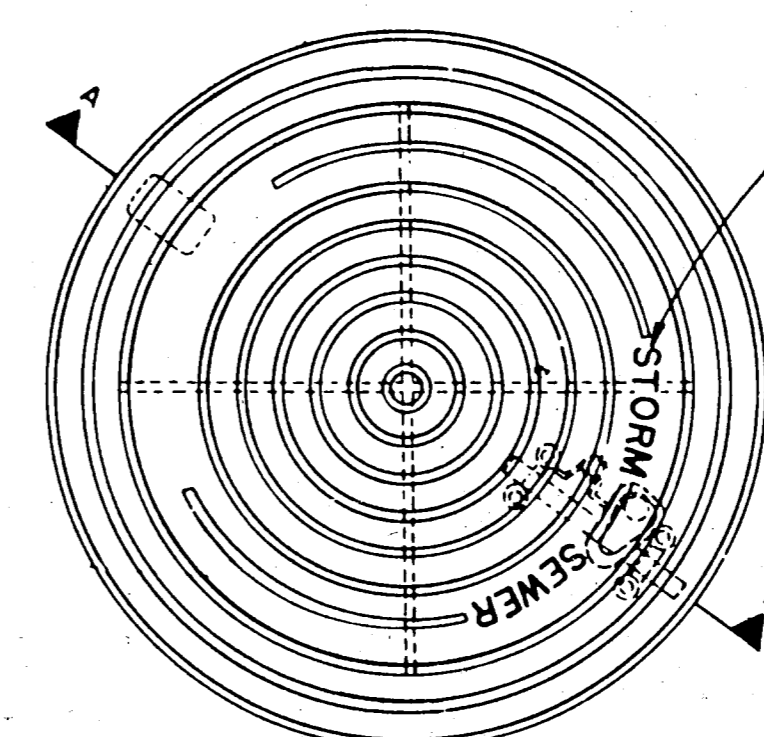
SECTION B-B

SECTION C-C

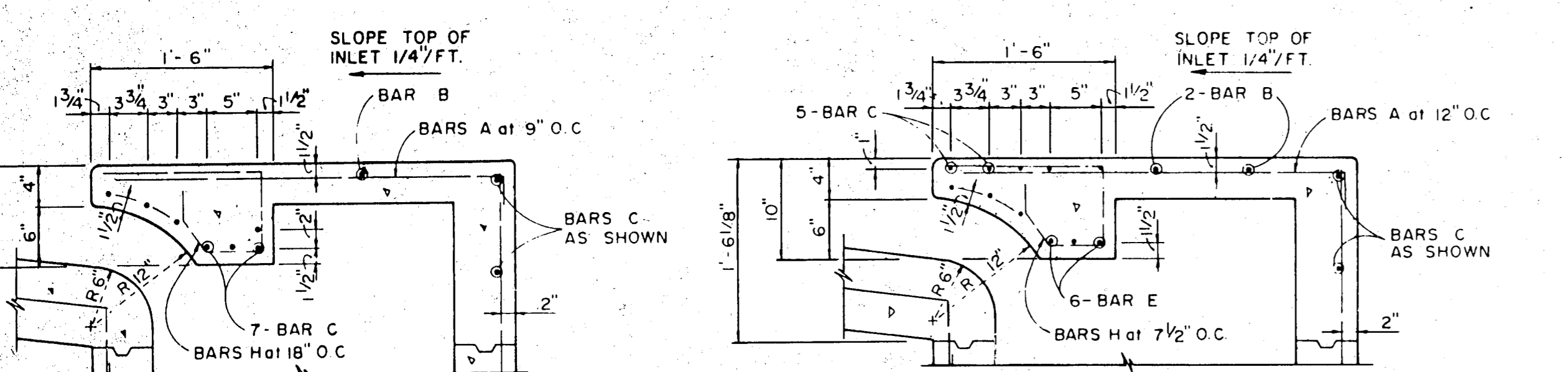
SECTION B-B



PLAN AS BUILT

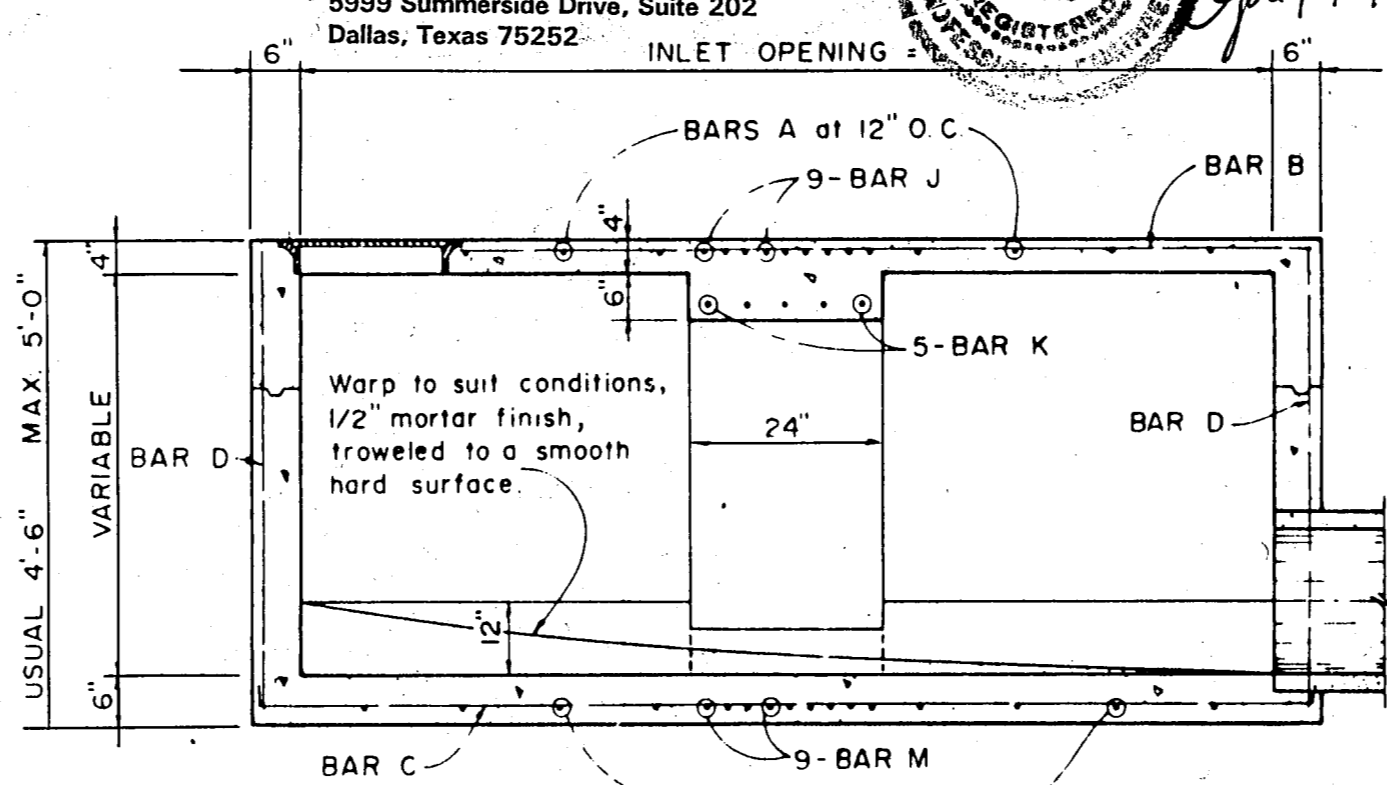


PLAN OF FRAME

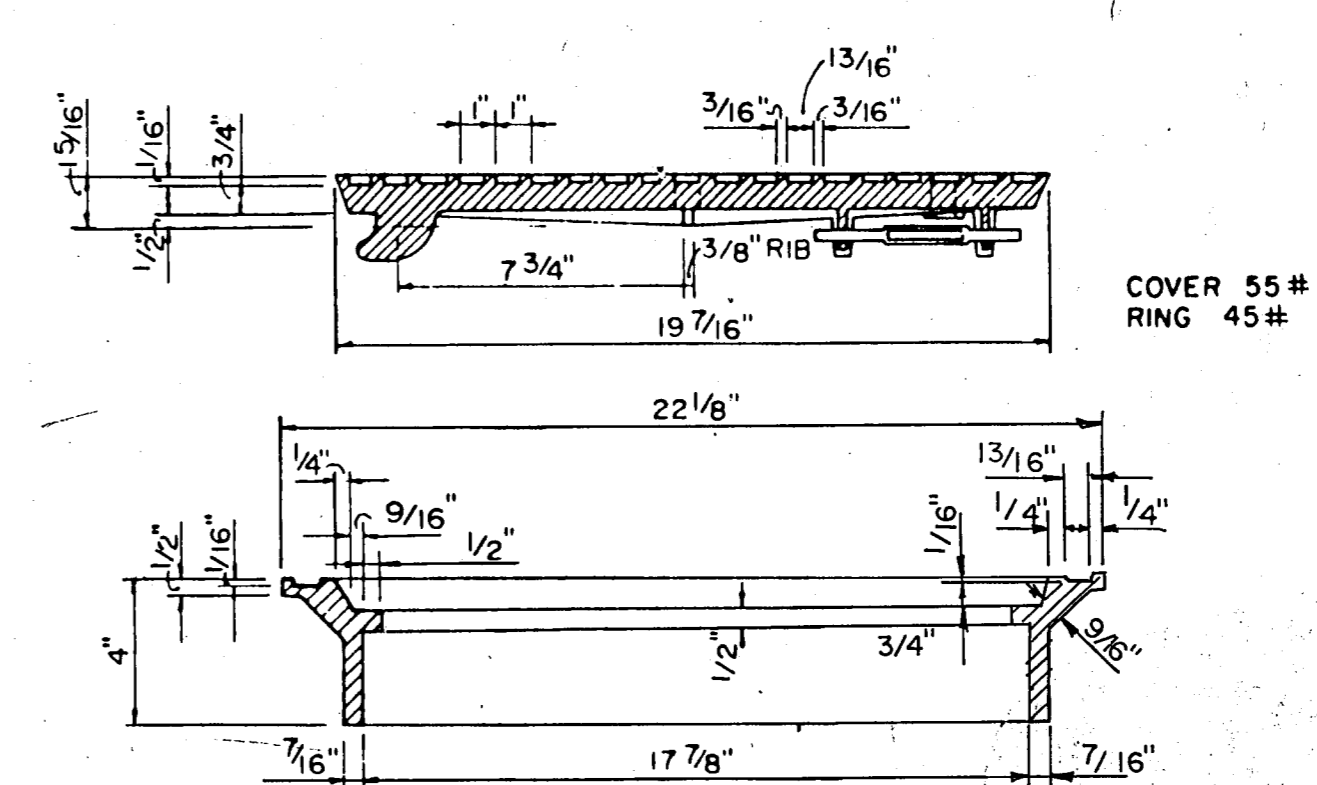


SECTION C-C

SECTION C-C



SECTION D-D FOR 12' & 14' ONLY

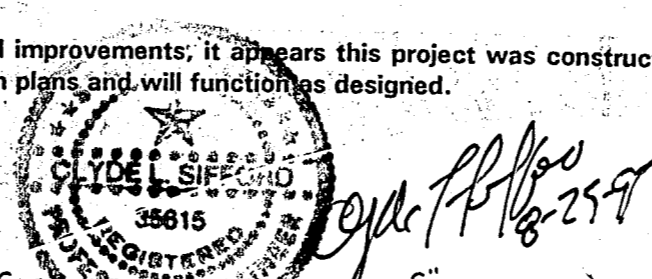


SECTION OF FRAME AND COVER
INLET FRAME AND COVER

4, 6, AND 8 FOOT INLETS

10, 12, AND 14 FOOT INLETS

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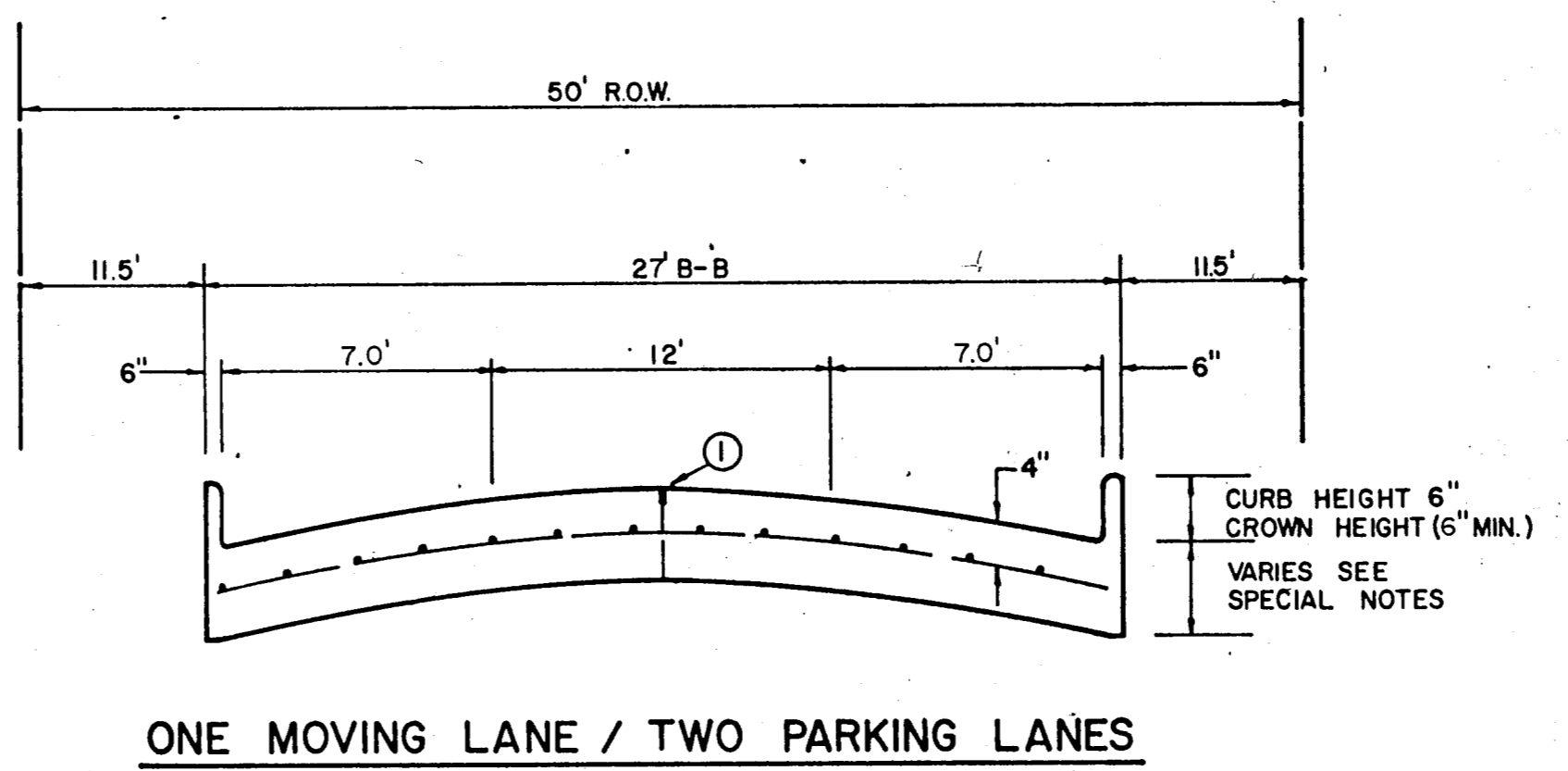
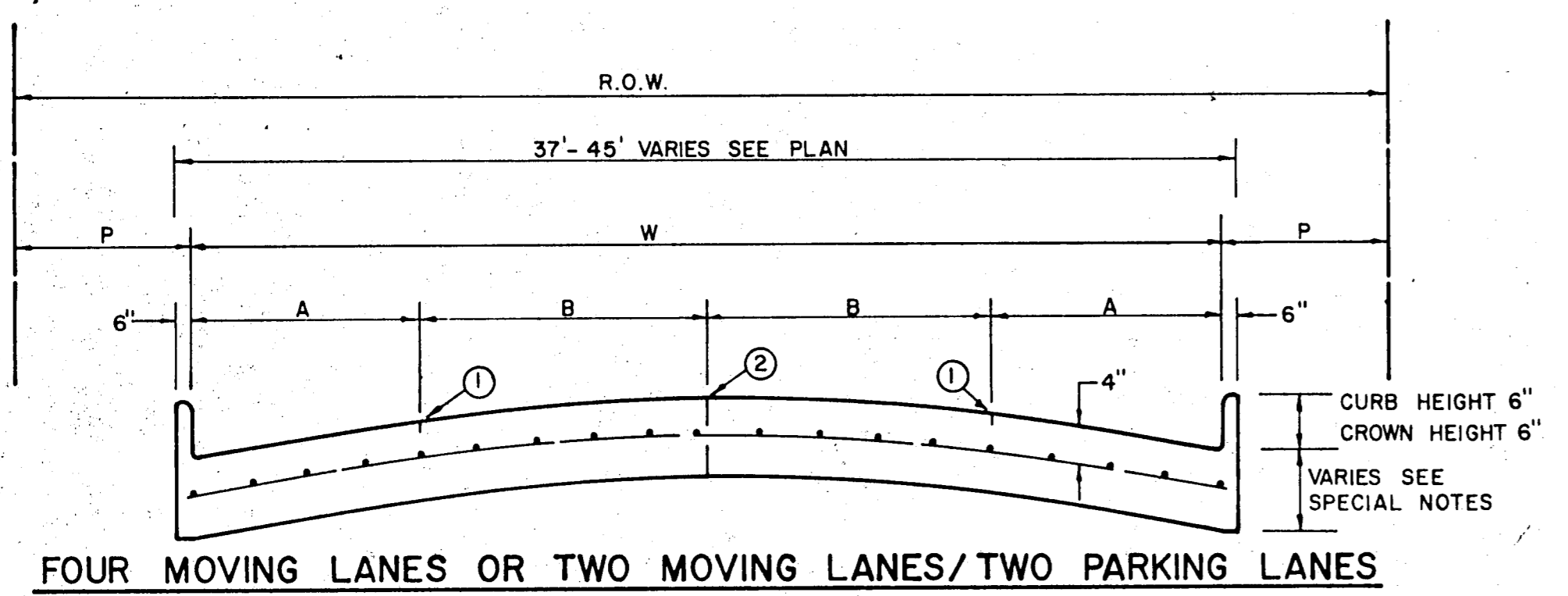
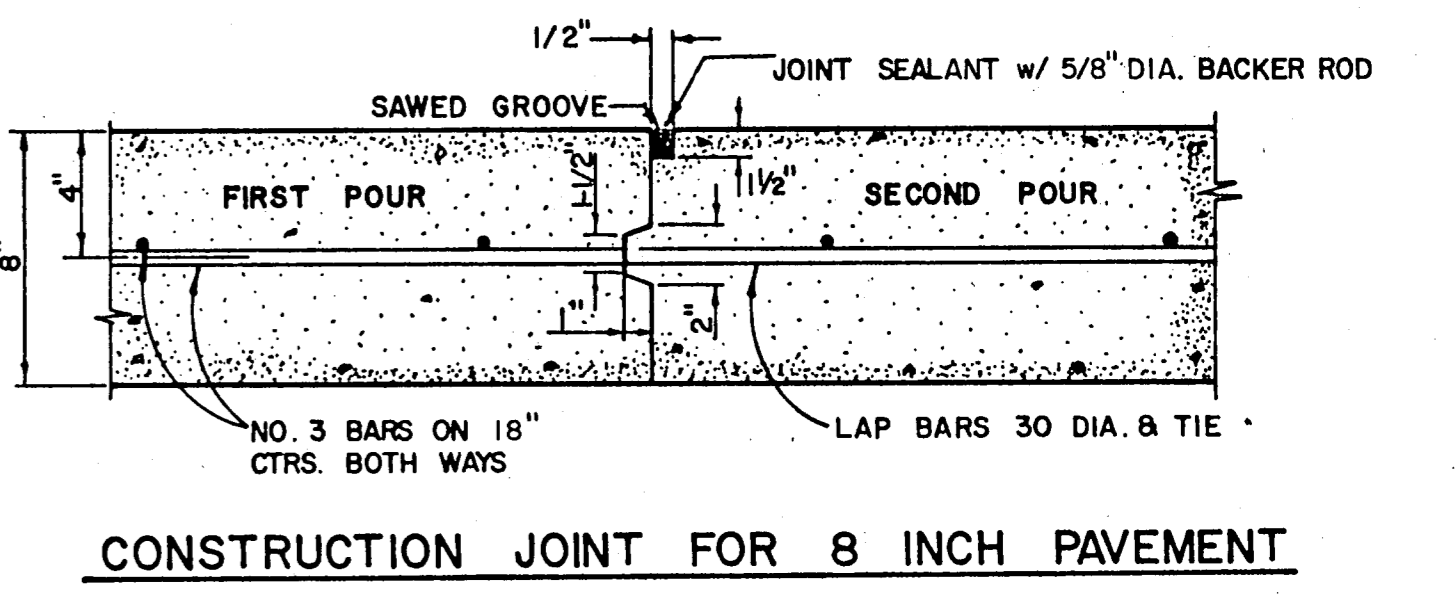
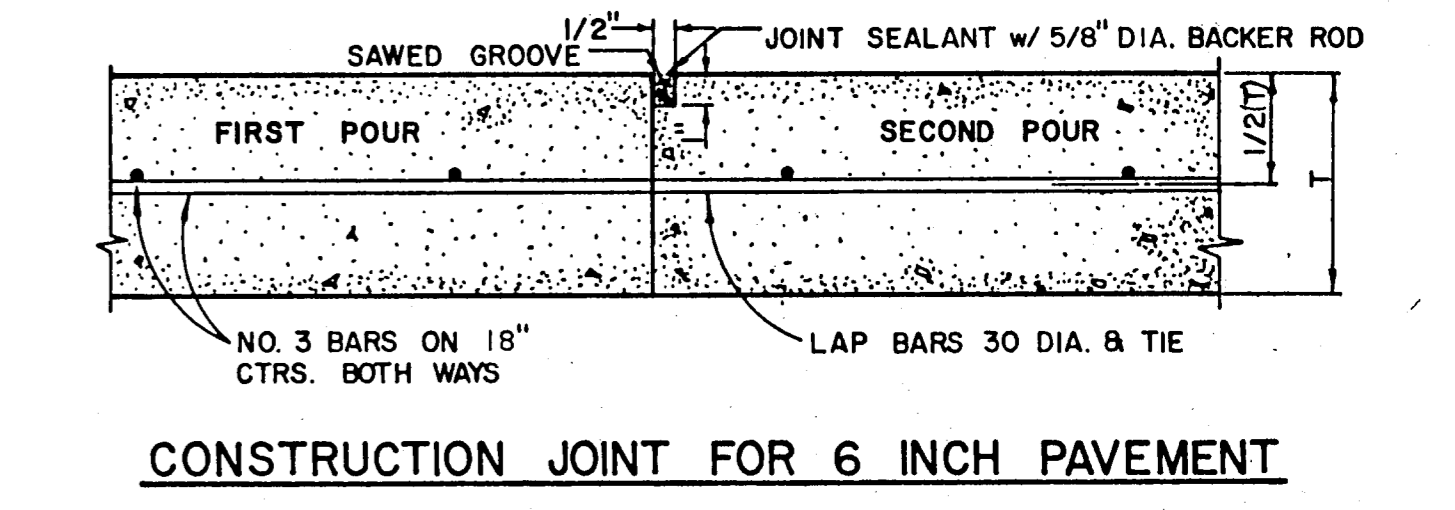
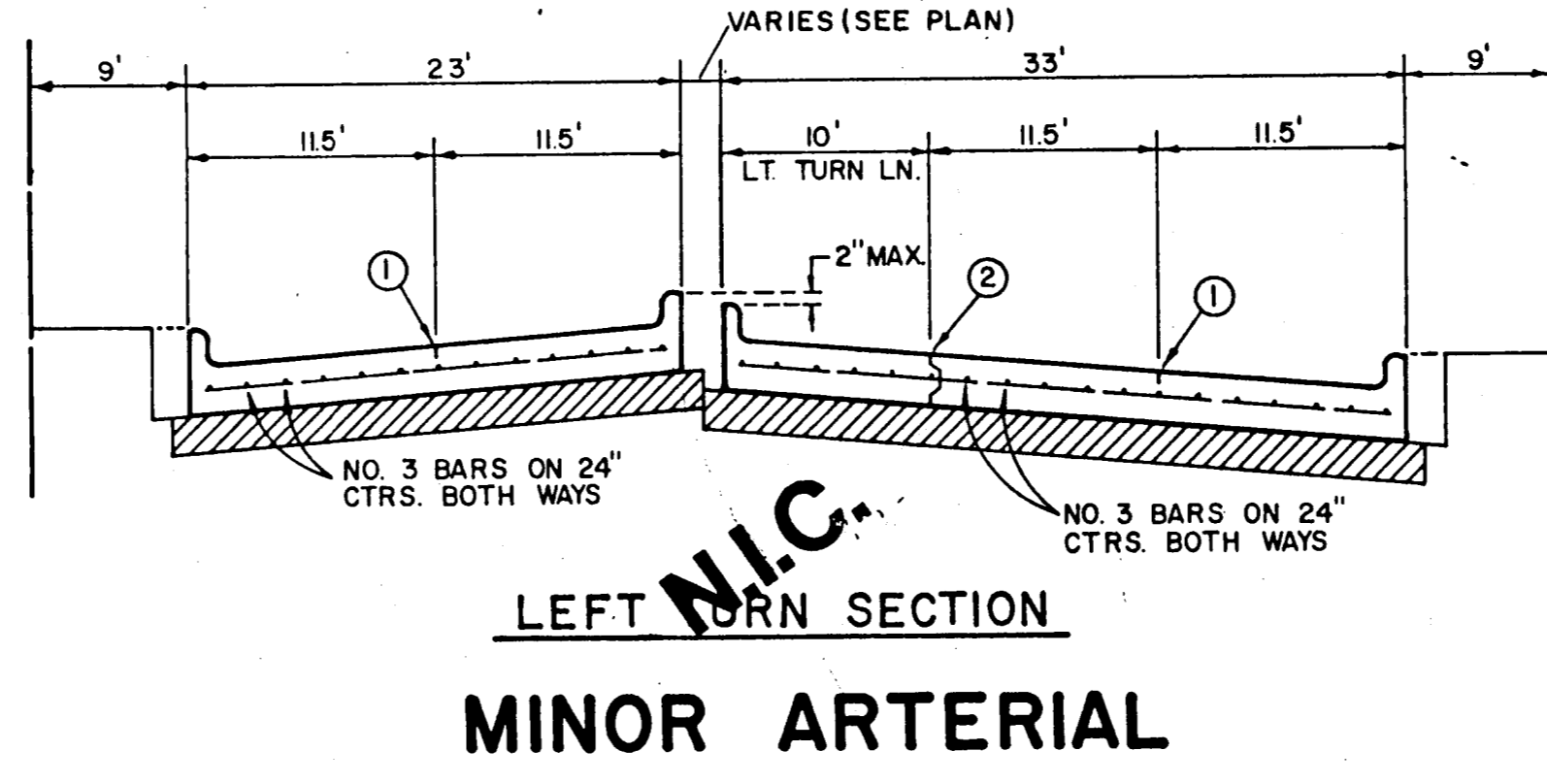
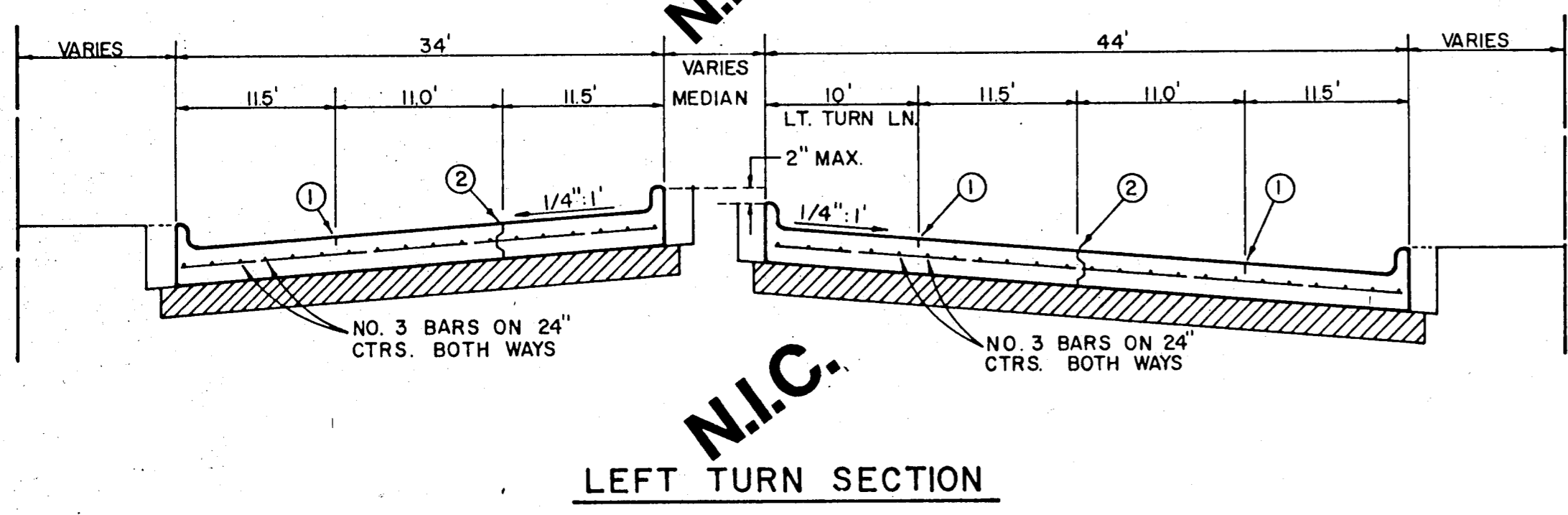
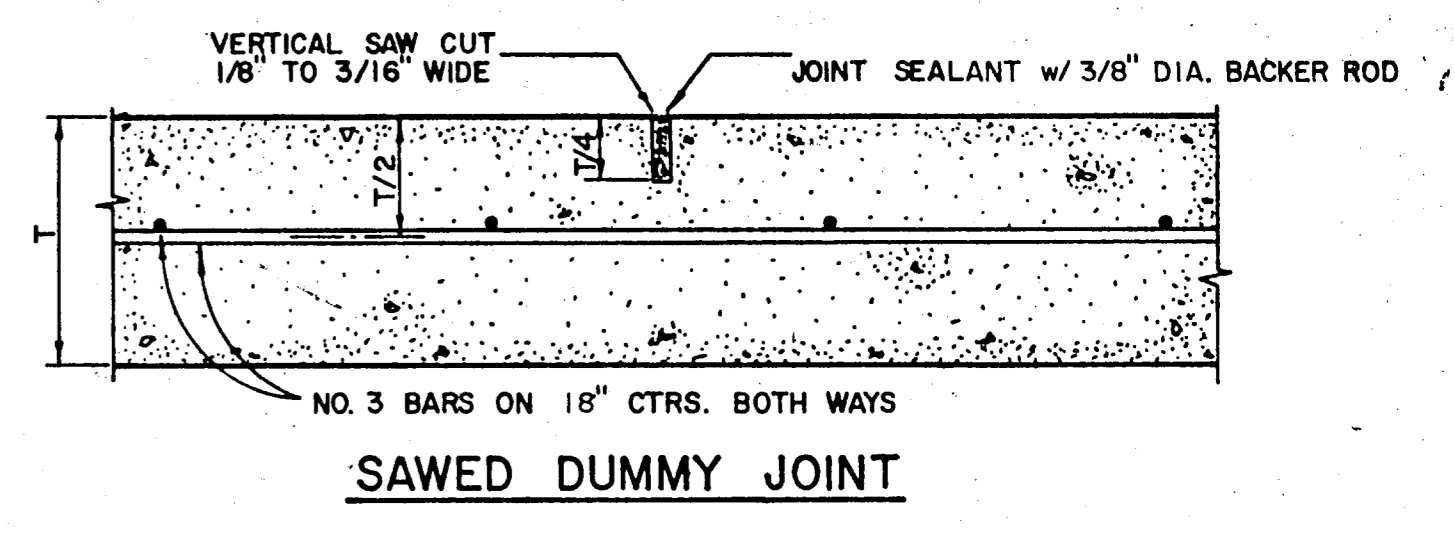
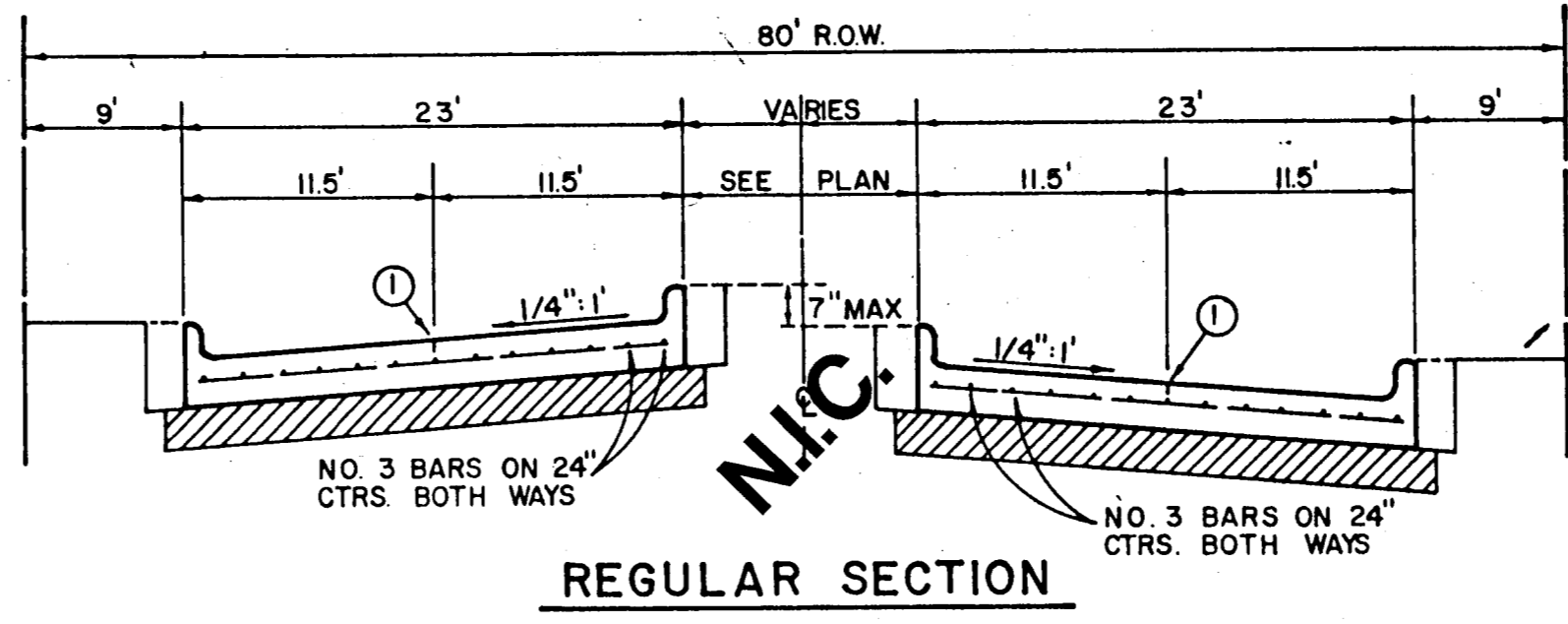
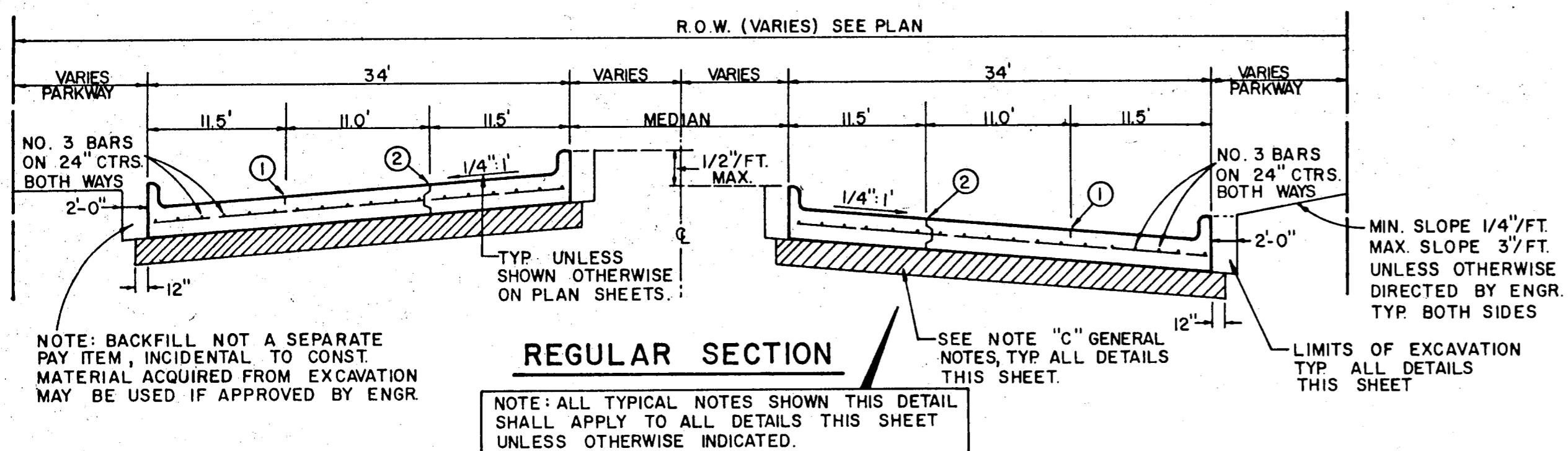


STANDARD CONSTRUCTION DETAILS

WATERFORD COURT
TOWN OF ADDISON, TEXAS

Date: NOV., 1993 Scale: AS SHOWN SHEET 17 OF
Drawn By: TNC Approved By: TNC SHEETS

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STREET TYPE	STREET WIDTH (W)	A	B	R.O.W. WIDTH	P
COLLECTOR	36'	8'	10'	60'	11.5'
COLLECTOR	40'	8' OR 10'	10' OR 12'	60'	9.5'
COLLECTOR	44'	11'	11'	65'	10.0'

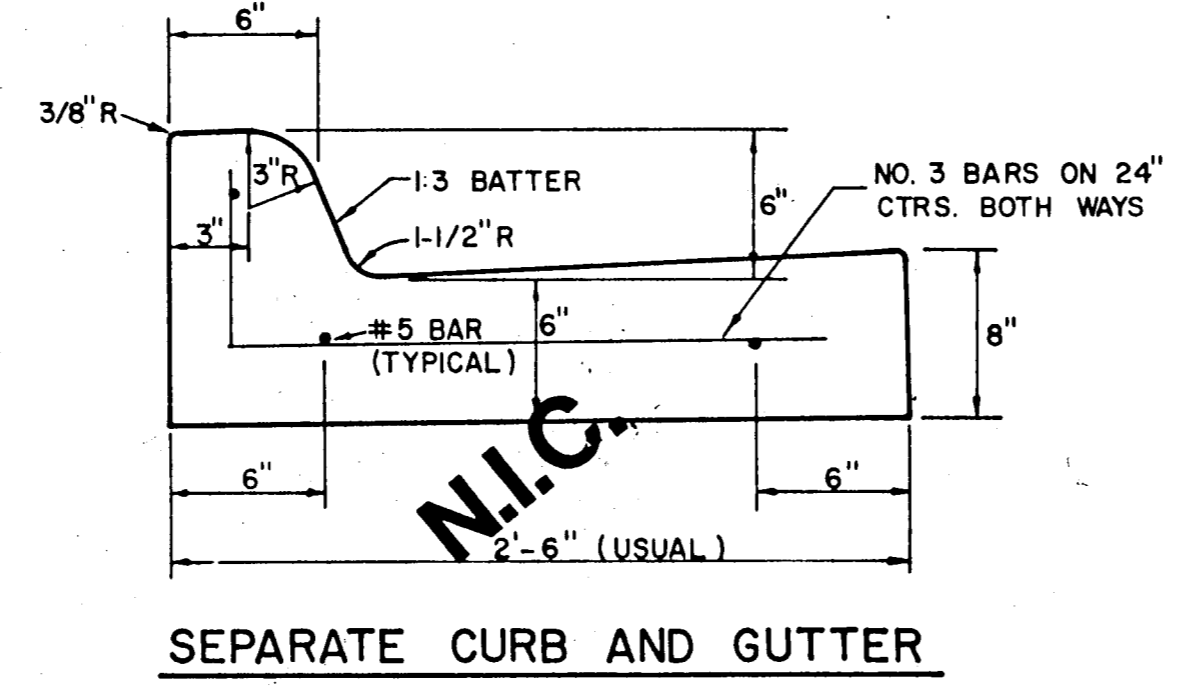
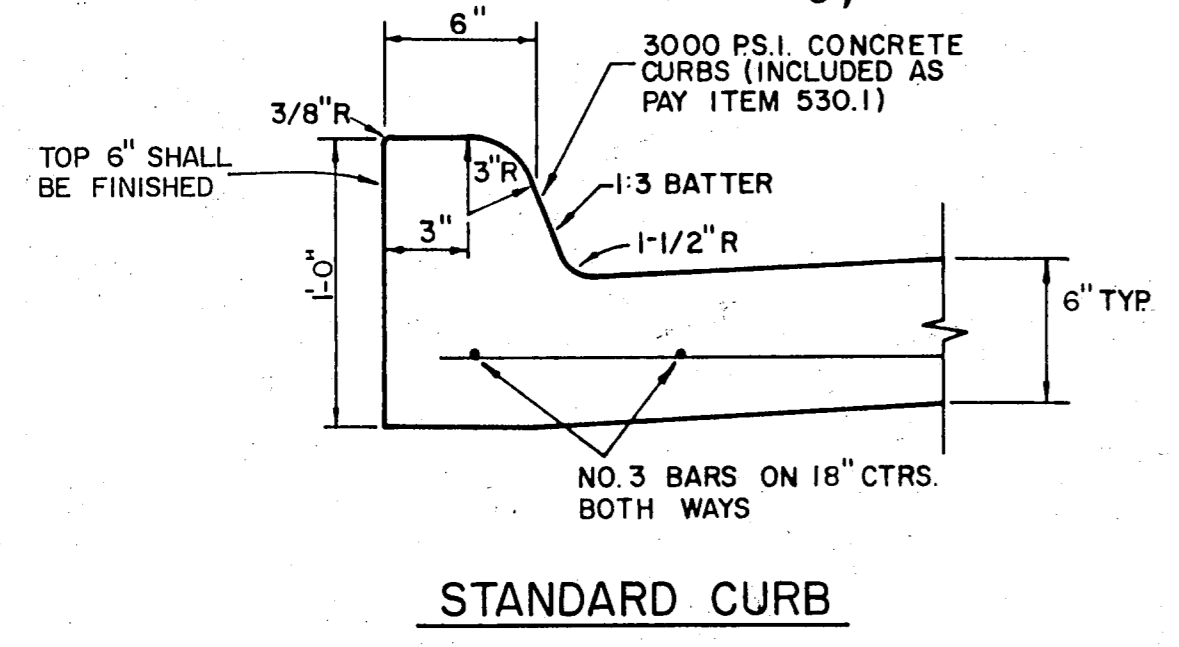
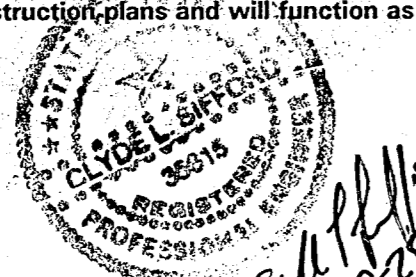
* FULL WIDTH PAVEMENT OF 36' WIDTH STREETS IS ALLOWED WHERE APPROVED BY THE ENGINEER.

COLLECTOR STREET

AS BUILTS

Based on visual inspection of the completed improvements, it appears this project was constructed in general conformance with these construction plans and will function as designed.

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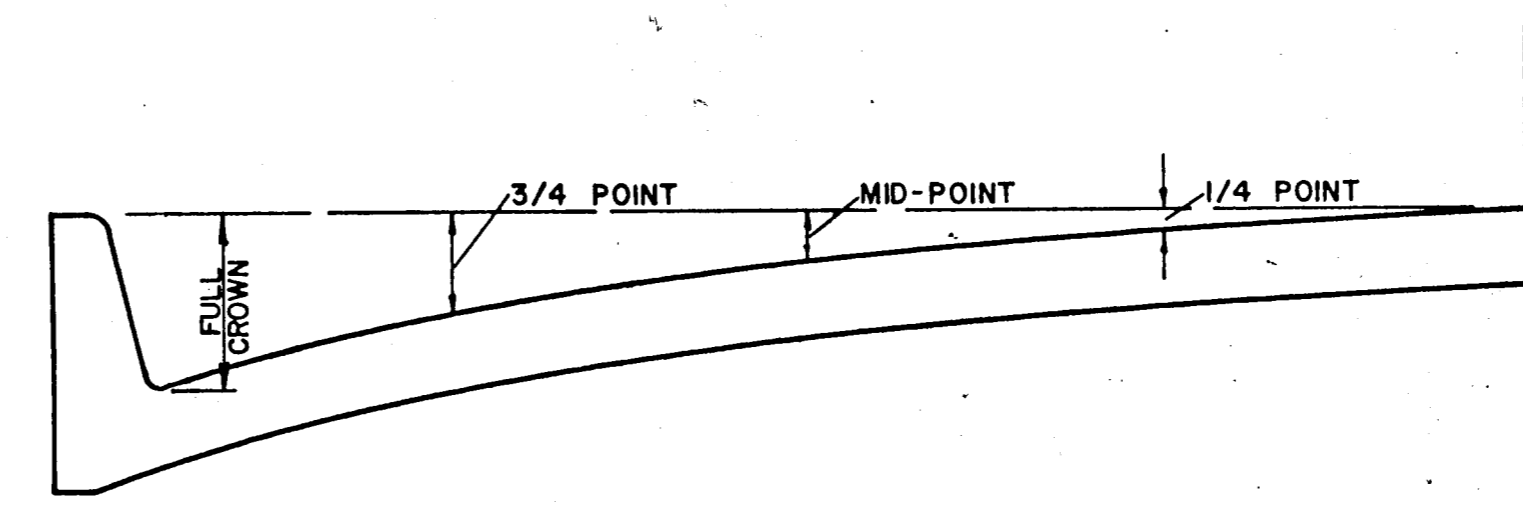


REINFORCED CONCRETE PAVEMENT

ALL REINFORCING BARS SHALL BE NO. 3 TRANSVERSE BARS TO BE SPACED ON 1'-6" CENTERS; LONGITUDINAL BARS TO BE SPACED ON 1'-6" EXCEPT WHERE NOTED.
UNDIVIDED STREETS-PROVIDE 4" DBL.-REF YELLOW & BUTTON P-117-Y PATTERNS TO BE ESTABLISHED BY ENGINEER. SEE DETAIL SHEET
① SAWED LONGITUDINAL DUMMY JOINT.
② CONSTRUCTION JOINT (FULL WIDTH P.V.M.T. IS ALLOWED WHERE APPROVED BY ENGINEER).
③ FINISH SHALL BE TRANSVERSE WITH TRAFFIC LANES AND SHALL BE STEEL TINED BROOM FINISH.

LOCAL STREET

N.I.C.

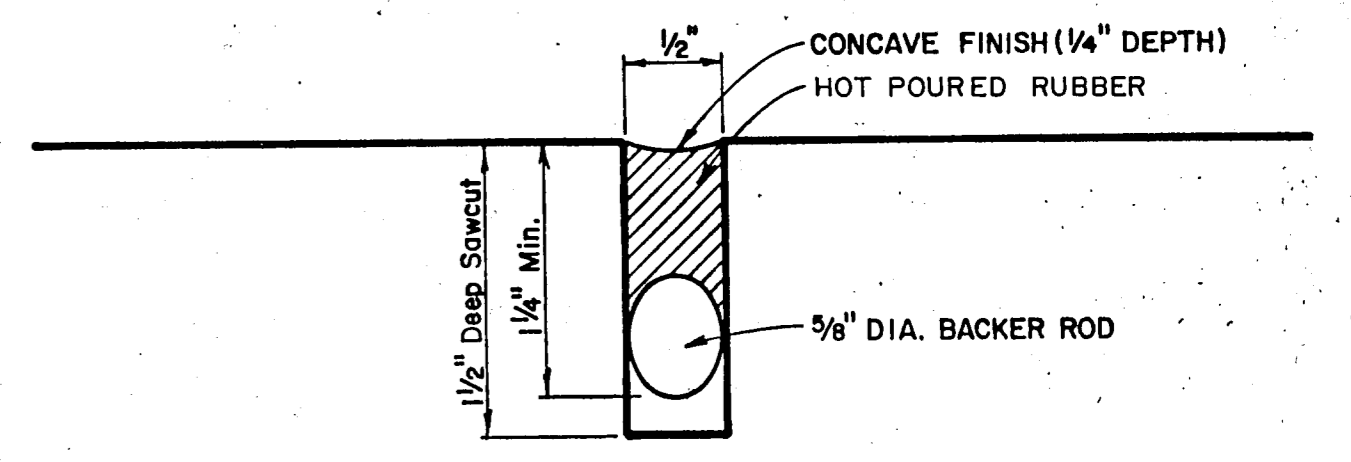


ROADWAY WIDTH (W)	TOTAL CROWN HEIGHT	3/4 POINT	MID-POINT	1/4 POINT
26'	6"	3-3/8"	1-1/2"	3/8"
36'	6"	3-3/8"	1-1/2"	3/8"
44'	6"	3-3/8"	1-1/2"	3/8"
48'	6"	3-3/8"	1-1/2"	3/8"

TABLE OF CROWN HEIGHTS AND ORDINATES FOR VARIOUS PARABOLIC SECTIONS

GENERAL NOTES

- A. GENERAL PAVEMENT THICKNESS FOR STREETS SHALL BE AS SPECIFIED BELOW IN SPECIAL NOTES.
- B. STANDARD SPECIFICATIONS REINFORCED CONCRETE PAVEMENTS
 1. ALL CURBS SHALL BE PLACED INTEGRAL WITH PAVEMENT
 2. CURBS SHALL MEET THE SAME COMPRESSIVE STRENGTH AS SPECIFIED FOR THE CONCRETE PAVEMENT.
 3. DETAIL AND ARRANGEMENT OF JOINTS, ALL TYPES, SHALL BE AS SHOWN ON THE STANDARD CONSTRUCTION DETAILS, OR AS APPROVED BY ENGINEER.
 4. BAR LAPS SHALL BE 30 DIAMETERS.
- C. BAR CHAIRS OR AN APPROVED SUPPORTING DEVICE SHALL BE FURNISHED.



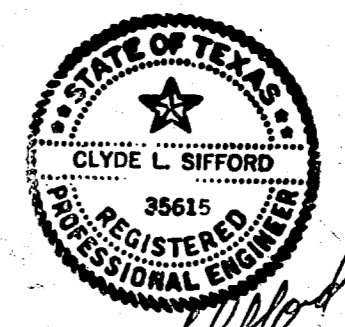
TYPICAL JOINT DETAIL

STANDARD CONSTRUCTION DETAILS

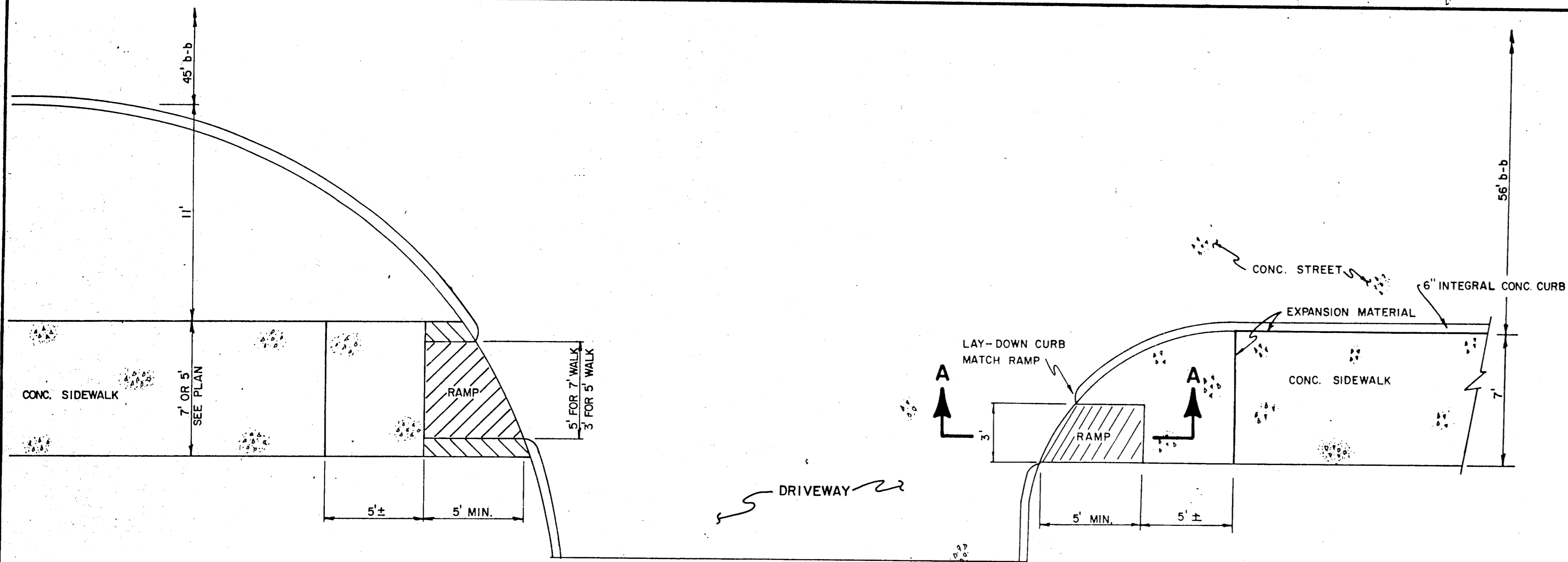
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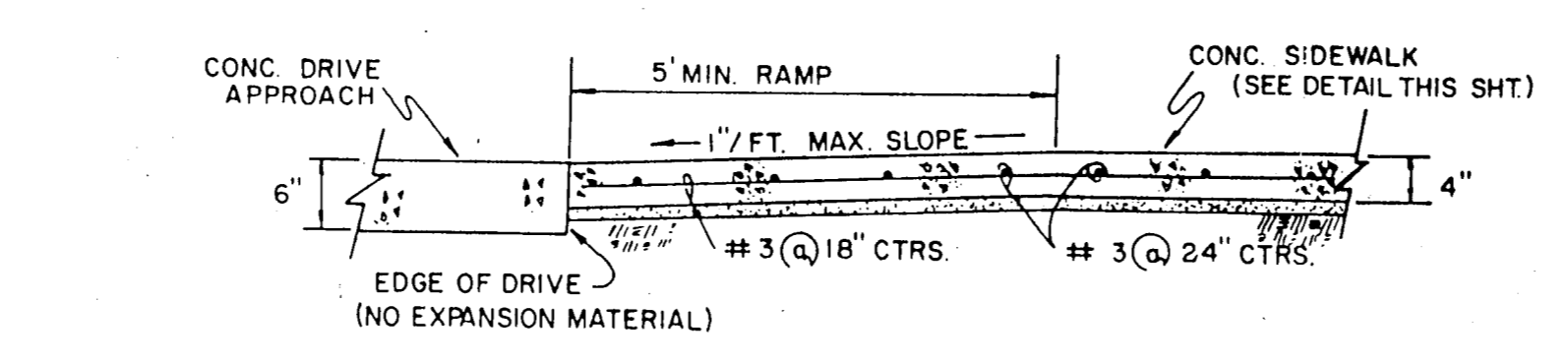


Clyde L. Sifford
11/14/94



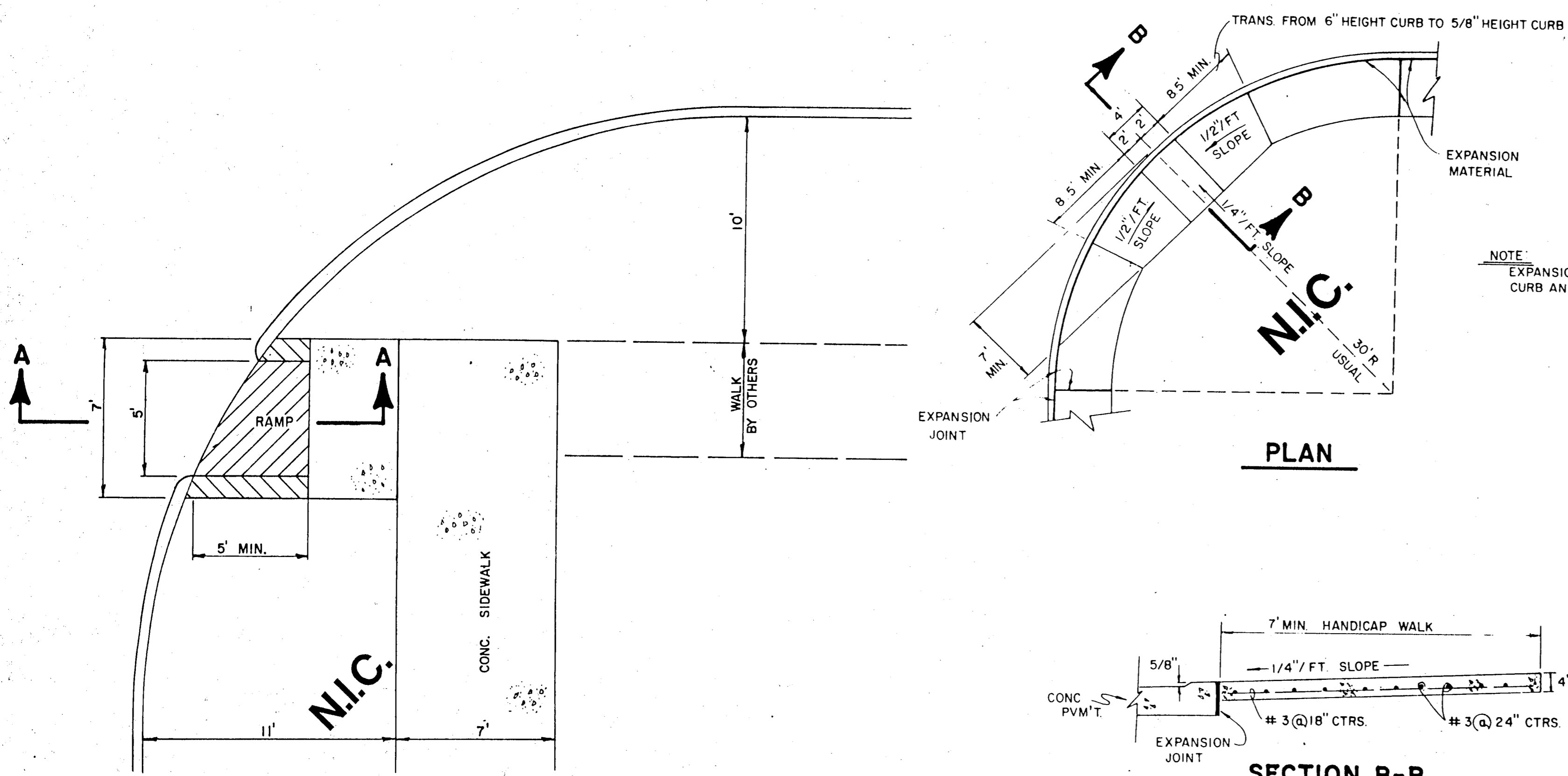
PLAN

NOTE:
MODIFY RAMP TO
FIT DIFFERENT RADIUS



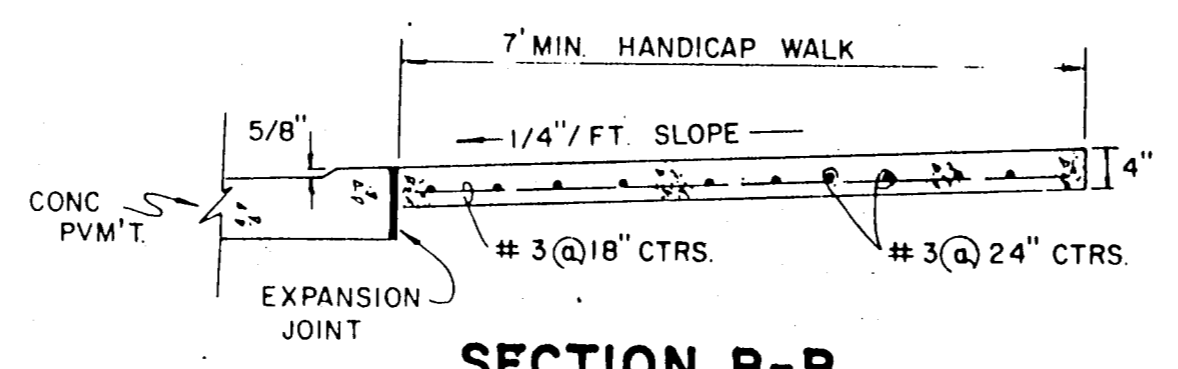
SECTION A-A

**BARRIER FREE RAMP DETAIL
WITH WALK ADJACENT TO CURB**



PLAN

NOTE:
EXPANSION MATERIAL ALONG
CURB AND AT CURB RETURNS



SECTION B-B

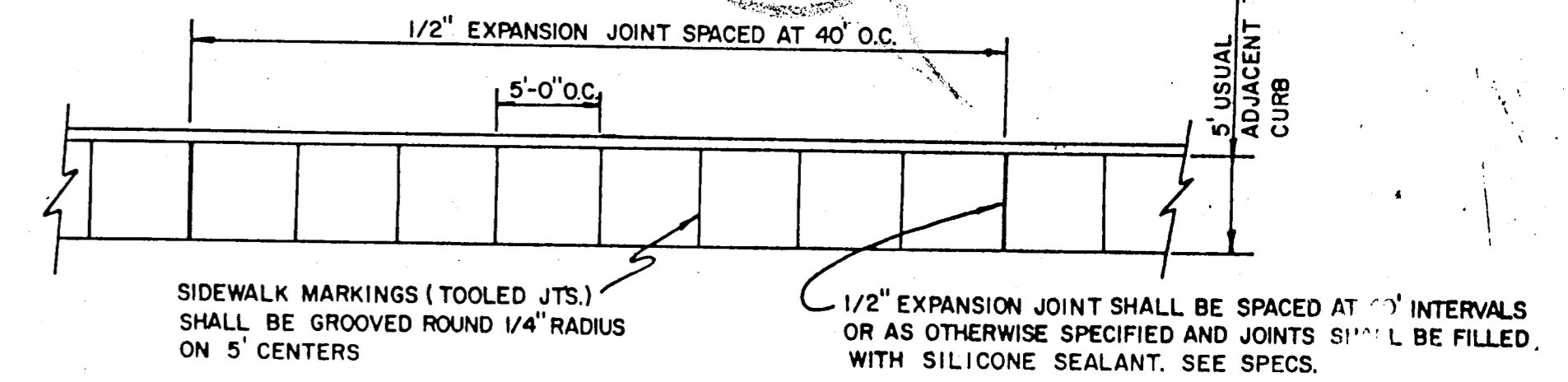
HANDICAP ROLL-DOWN CURB DETAIL

**BARRIER FREE RAMP DETAIL
WITH WALK SEPARATE FROM CURB**

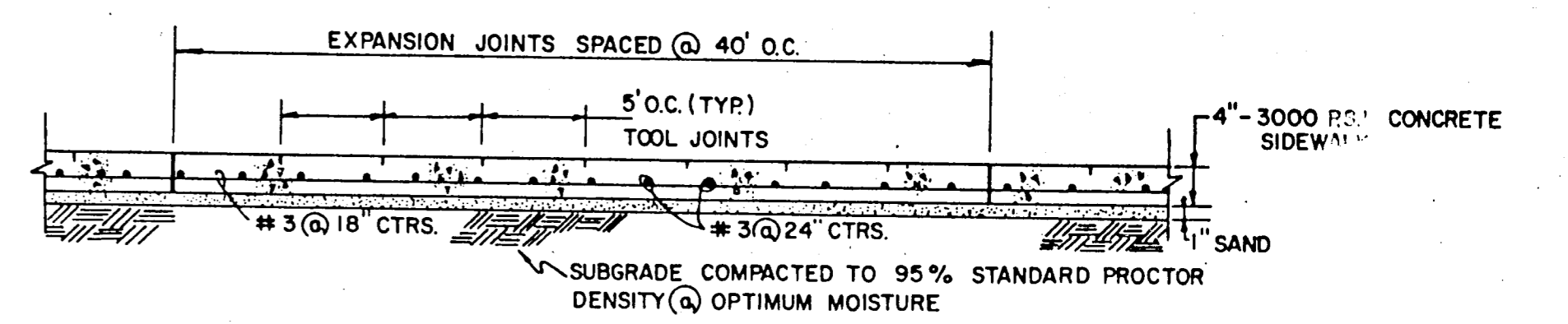
AS BUILTS

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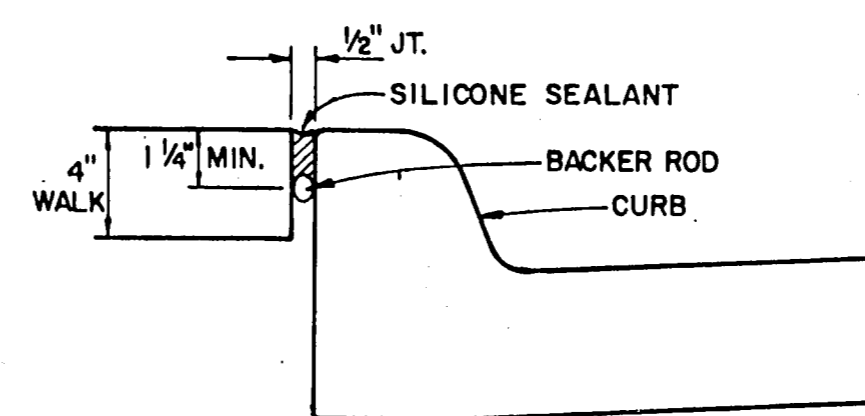
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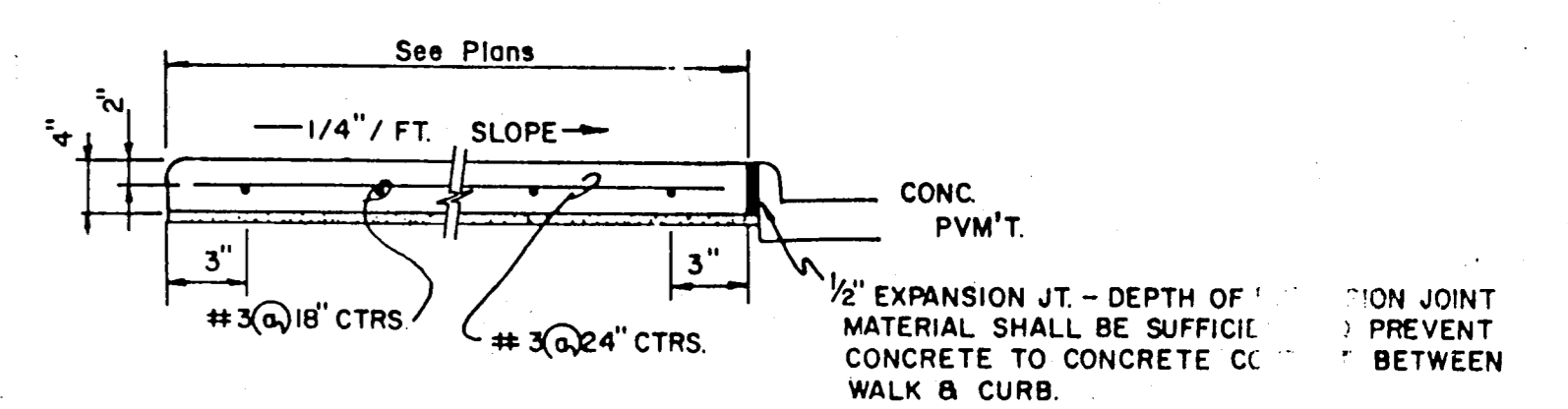
PLAN



SIDE ELEVATION



EXPANSION JOINT DETAIL

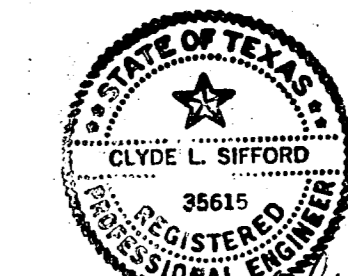


SECTION

CONCRETE SIDEWALK DETAIL

GENERAL NOTES

- Reinforced concrete sidewalk shall be 5 or 7 feet wide, a minimum of four (4) inches thick and shall be 3000 psi at 28 days (5 sack mix). Unless noted otherwise.
- Chamfer all exposed edges of concrete (1/4) inch.
- All bar dimensions are given as center to center of bars and are located as shown.
- All reinforcing steel shall be No. 3 on 18 inch centers longitudinally, 24 inch centers transversely and shall conform to the requirements of ASTM A-615, Grade 60.
- 1" thick min. fine, washed sand cushion shall be free from organic materials or clays and shall be used for grade adjustment.
- Subgrade shall be compacted to a density not less than 95% at optimum moisture.
- Tooled joints (contraction joints) shall be on five (5) foot centers and shall be round one-fourth (1/4) inch radius.
- A one-half (1/2) inch expansion joint shall be placed every eight (8) tooled joints, and where works abut old work, or where new work is constructed adjacent to other concrete, a one-half inch expansion joint shall be used where sidewalk is adjacent to curb, the expansion joint shall be made of pre-molded bituminous expansion joint filler or redwood with silicone sealant. See Specs.
- Sidewalks shall be finished by lightly brooming surface transversely to direction of main traffic or where adjacent sidewalks differ from this standard, new sidewalks shall conform to adjacent sidewalk (e.g. exposed aggregate).
- Cross slope walk one-fourth (1/4) inch per foot towards curb or as shown on the drawings to provide drainage.



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