

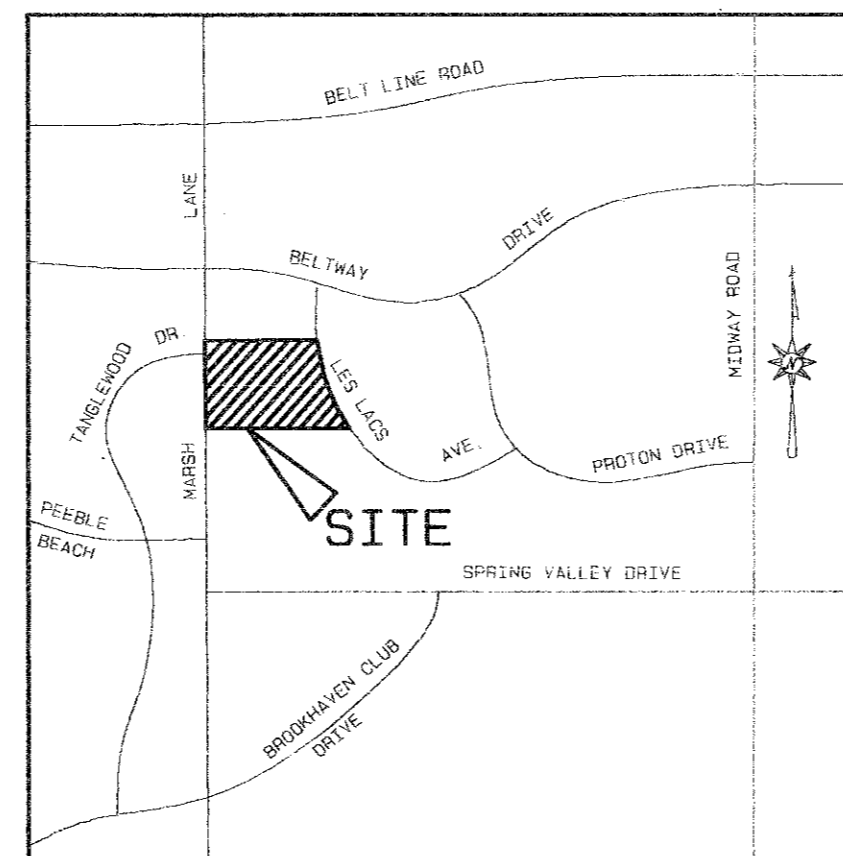
CONSTRUCTION PLANS

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

AS BUILTS

THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.

JANUARY 5, 1994

ENGINEER

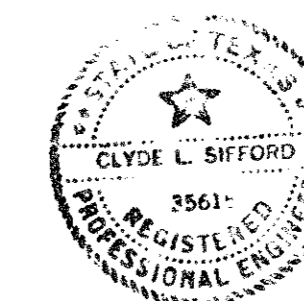
THE NELSON CORPORATION

5999 SUMMERSIDE DR., SUITE 202
DALLAS, TEXAS 75252
(214) 380-2605

ARCHITECT

HUMPHREYS & PARTNERS ARCHITECTS, INC.

5350 ALPHA ROAD
DALLAS, TEXAS 75240
(214) 701-9836



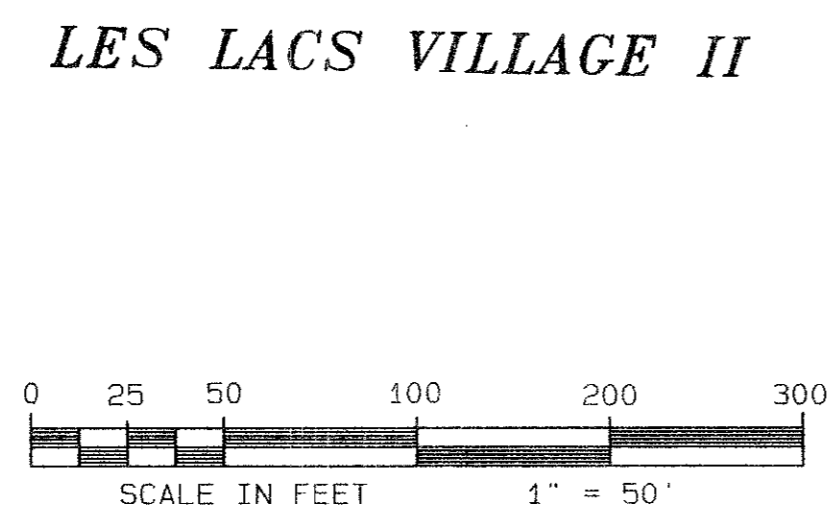
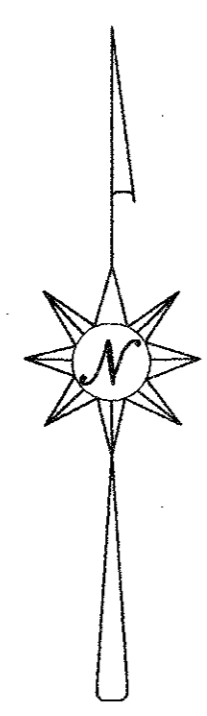
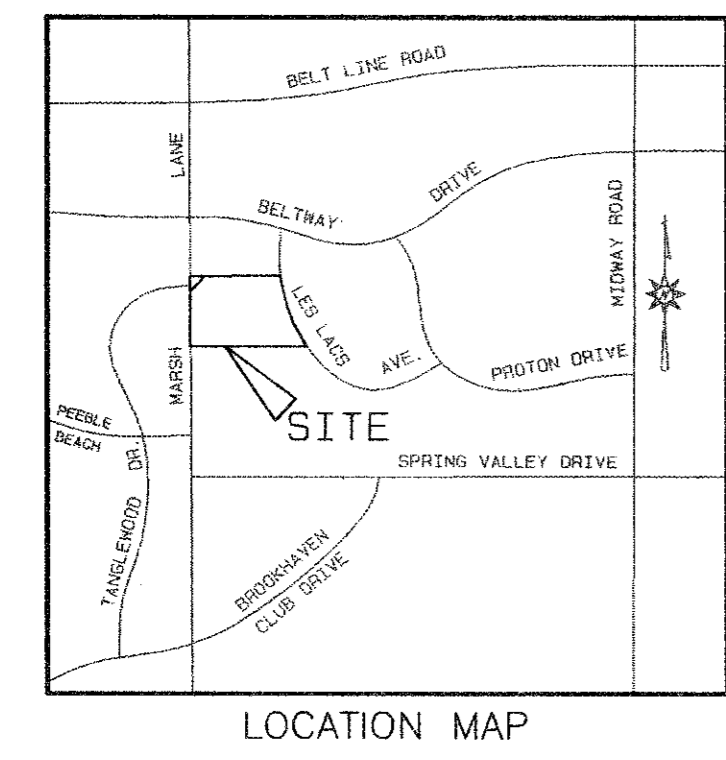
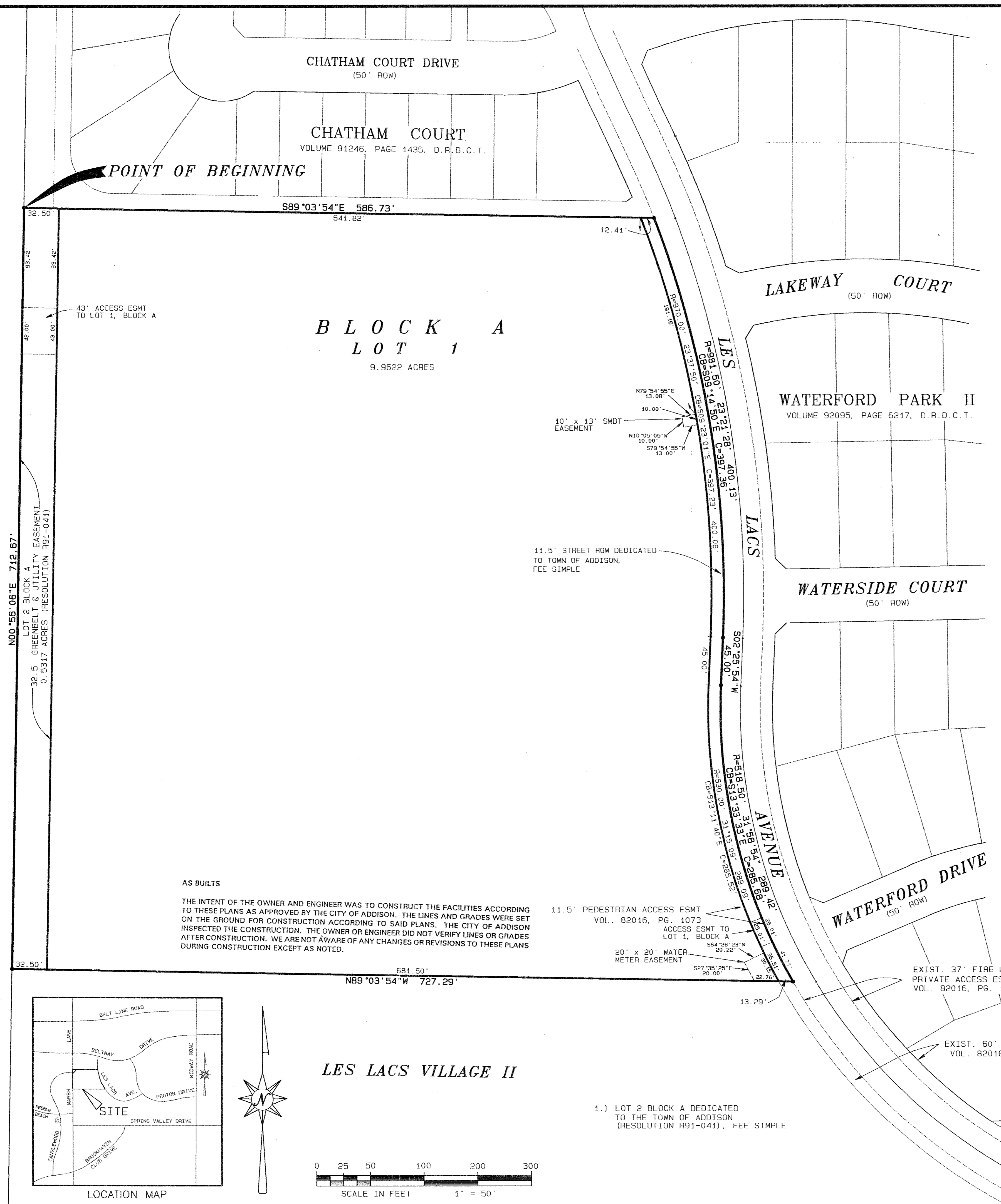
Clyde L. Sifford
3-14-94

THE NELSON CORPORATION • DALLAS, TEXAS

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

MARSH LANE
(100' ROW)

TANGLEWOOD DRIVE



OWNER CERTIFICATION

STATE OF TEXAS * *
COUNTY OF DALLAS

WHEREAS, WATERFORD COURT JOINT VENTURE is the owner of that certain tract of land situated in the City of Addison, Dallas County, Texas and being a part of the THOMAS L. CHENOWITH SURVEY, Abstract No. 273, in the Town of Addison, Dallas County, Texas and being the 10.6878 acre tract described in deed to the WATERFORD COURT JOINT VENTURE, recorded in Volume 92233, Page 1122 of the Deed Records of Dallas County, Texas and being more particularly described as follows:

BEGINNING at a 1/2" iron rod found replaced with a 1" iron rod in concrete in the easterly line of Marsh Lane (100 feet wide) for the southwest corner of CHATHAM COURT, an addition to the Town of Addison, Texas according to the plat thereof recorded in Volume 91246, Page 1435, Deed Records of Dallas County, Texas;

THENCE with the south line of the said addition, South 89° 03' 54" East, a distance of 586.73 feet to a 5/8" iron rod found in the westerly line of the 37' Fire Lane & Private Access Easement for Les Lacs Avenue recorded in Volume 82016, Page 1073, Deed Records of Dallas County, Texas, for the beginning of a non-tangent curve to the right, having a radius of 981.50 feet, a central angle of 23° 21' 28" and a chord bearing and distance of South 09° 14' 50" East, 397.36 feet;

THENCE southeasterly, with the said westerly line and the said curve, an arc distance of 400.13 feet to a 5/8" iron rod set for point of tangency of the said curve;

THENCE continuing with the westerly line of the 37' Fire Lane & Private Access Easement for Les Lacs Avenue, South 02° 25' 54" West, a distance of 45.00 feet to a 5/8" iron rod set for the beginning of a tangent curve to the left, having a radius of 518.50 feet, a central angle of 31° 58' 54" and a chord bearing and distance of South 13° 33' 33" East, 285.68 feet;

THENCE southerly, continuing with the said westerly line and the said curve, an arc distance of 289.42 feet to a 5/8" iron rod set for corner;

THENCE North 89° 03' 54" West, a distance of 727.29 feet to a 1/2" iron rod found for corner in the easterly right-of-way line of said Marsh Lane;

THENCE with said easterly right-of-way line, North 00° 56' 06" East, a distance of 712.67 feet to the POINT OF BEGINNING and containing 10.6878 acres.

NOW, THEREFORE, KNOW ALL MEN BY THESE PRESENTS:

That WATERFORD COURT JOINT VENTURE ("Owner") does hereby adopt this plat designating the hereinabove property as WATERFORD COURT APARTMENTS, an addition to the Town of Addison, Texas. Subject to the conditions, restrictions and reservations stated hereinafter, Owner dedicates and quitclaims all of Owner's right, title and interest in and to Block A, Lot 2 and the 11.5' Street ROW Dedication along Les Lacs Avenue, together with all and singular the rights, privileges, and appurtenances thereto in any manner belonging to Owner unto the Town of Addison, Texas, its successors and assigns forever.

The easements shown on this plat are hereby reserved for the purposes as indicated, but not limited to, the installation and maintenance of water, sanitary sewer, storm sewer, drainage, electric, telephone, gas and cable television. Owner shall have the right to use these easements, provided however, that it does not unreasonably interfere or impede with the provision of the services to others. Said utility easements are hereby being reserved by mutual use and accommodation of all public utilities using or desiring to use the same. An express easement of ingress and egress is hereby expressly granted on, over and across all such easements for the benefit of the provider of services for which easements are granted.

Water main and sanitary sewer easements shall also include additional area of working space for construction and maintenance of the systems. Additional easement area is also conveyed for installation and maintenance of manholes, cleanouts, fire hydrants, water service and sewer services from the main to curb or pavement line, and the descriptions of such additional easements herein granted shall be determined by their locations as installed.

This plat is approved subject to all platting ordinances, rules, regulations and resolutions of the Town of Addison, Texas.

WITNESS MY HAND at Dallas, Texas, this the _____ day of _____, 1994.

WATERFORD COURT JOINT VENTURE
By: JB SPARKES CO. I, Managing Venturer

By: JAY B. SPARKES, President

STATE OF TEXAS *
COUNTY OF _____

BEFORE ME, the undersigned, a Notary Public in and for the State of Texas, on this day personally appeared Jay B. Sparkes, President of JB SPARKES CO. I, Managing Venturer of WATERFORD COURT JOINT VENTURE known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein expressed on behalf of WATERFORD COURT JOINT VENTURE.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 1994.

SURVEYOR CERTIFICATION

Notary Public, State of Texas

THAT I, Brian Marcus, do hereby certify that I have prepared this plat from an actual survey of the land and that the corner monuments shown thereon actually exist, and their location, size and material described are correctly shown.

BRIAN MARCUS,
Registered Professional Land Surveyor #4695
THE NELSON CORPORATION
5599 Summerside Drive, Dallas, Texas 75252,
(214) 380-2605

STATE OF TEXAS *
COUNTY OF COLLIN

BEFORE ME, the undersigned, a Notary Public in and for the State of Texas, on this day personally appeared Brian Marcus, known to me to be the person whose name is subscribed to the foregoing instrument and acknowledged to me that he executed the same for the purposes and consideration therein expressed.

GIVEN UNDER MY HAND AND SEAL OF OFFICE this the _____ day of _____, 1994.

Notary Public, State of Texas

APPROVED AND ACCEPTED this the _____ day of _____, 1994, by the Planning and Zoning Commission of the Town of Addison, Texas.

City Secretary
Town of Addison, Texas

Mayor
Town of Addison, Texas

FINAL PLAT

WATERFORD COURT APARTMENTS

AN ADDITION TO THE TOWN OF ADDISON
BEING A 10.6878 ACRE TRACT (1 LOT)
OUT OF THE
THOMAS L. CHENOWITH SURVEY, ABSTRACT NO. 273
TOWN OF ADDISON, DALLAS COUNTY, TEXAS

OWNER-APPLICANT
WATERFORD COURT JOINT VENTURE
PREMIER PLACE, SUITE 1580
5910 N. CENTRAL EXPRESSWAY
DALLAS, TEXAS 75206
(214) 265-8091

PLANNER-ENGINEER-SURVEYOR
THE NELSON CORPORATION
5999 SUMMERSIDE DRIVE, SUITE 202
DALLAS, TEXAS 75252
(214) 380-2605
NC# 86126.10

APRIL 6, 1994

SCALE: 1" = 50'

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

PROPOSED LEFT
TURN LANE

TANGLEWOOD
DRIVE

MARSH LANE
(100' ROW)

32.5' GREENBELT & UTILITY EASEMENT
DEDICATION TO THE TOWN OF ADDISON



CHATHAM COURT DRIVE

CHATHAM COURT
VOL. 91246, PG. 1435

LAKEWAY COURT

WATERFORD PARK II
VOL. 92095, PG. 6217

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

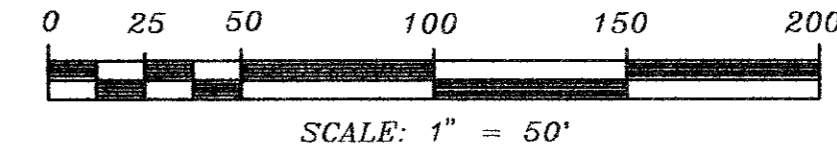
WATERSIDE COURT

LES LACS AVENUE

WATERFORD DRIVE

VILLAS OF LES LACS I

11.5' PEDESTRIAN ACCESS ESMT
VOL. 92016, PG. 1073



REVISION	DATE	DESCRIPTION	DRAWN BY	CHECKED BY

AS BUILTS

THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.

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

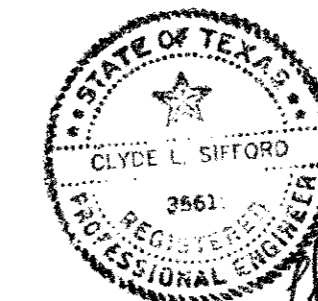
GARAGES	204
TANDEM SPACES	28
8 1/2' x 17' SPACES	129
HANDICAP	7
HANDICAP VAN	1
TOTAL	369

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 L. Sifford
3/17/94



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

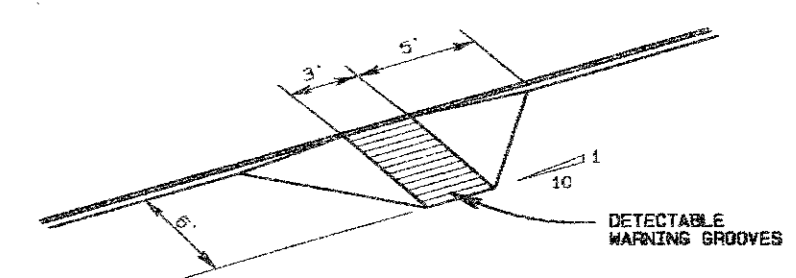
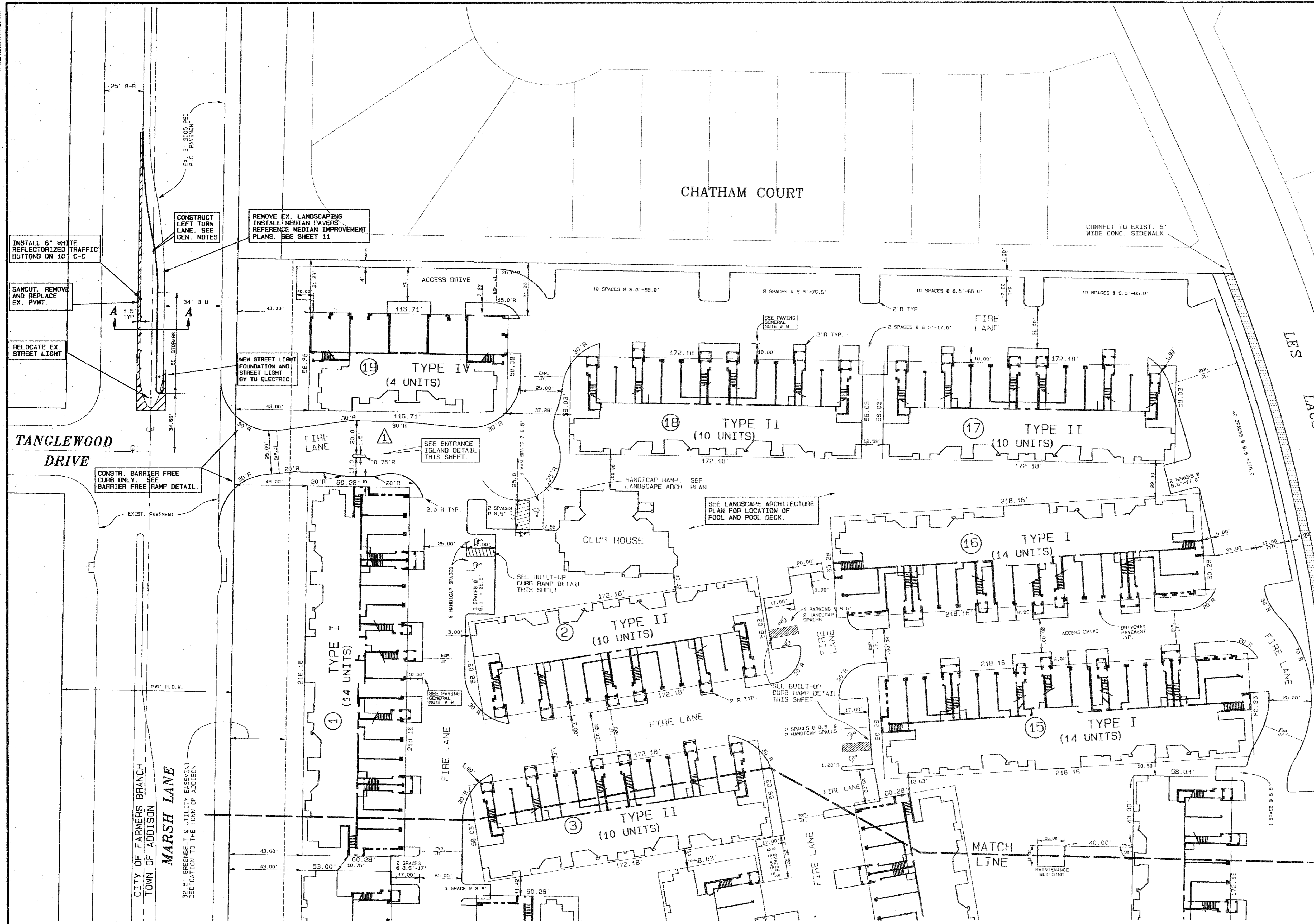
5999 SUMMERSIDE DRIVE SUITE 202 • DALLAS, TEXAS 75252 • (214) 390-2805

THE NELSON CORPORATION • DALLAS, TEXAS

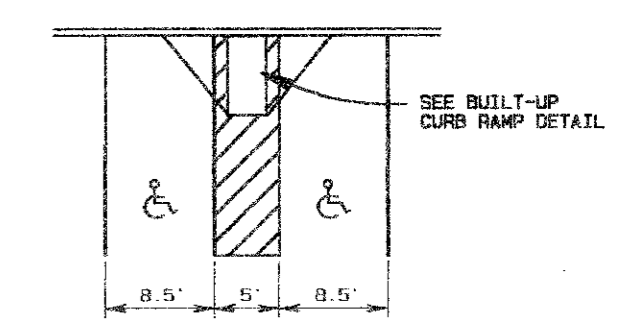
REVISION	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
Δ	05/11/94	REVISE NW ENTRANCE		

PAVING GENERAL NOTES:

1. 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 "Standard Specifications for Public Works Construction", Parts I and II, latest edition.
2. All curb dimensions are to back of curb.
3. Pavement reinforcing will be grade 60.
4. 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.
5. Construct a barrier-free curb and ramp as shown on the plan.
6. The Contractor will be responsible for field verifying the location of all existing utilities prior to his operations.
7. 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.
8. 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.
9. Dimensions of this type are from back of curb to face of brick of the garage. (Dimension is NOT to building envelope.)
10. Install firelane markings in accordance with Town of Addison Fire Department requirements.
11. Install sleeving prior to paving. Reference irrigation and electrical plans.



BUILT-UP CURB RAMP WHERE APPLICABLE



HANDICAP PARKING N.T.S.

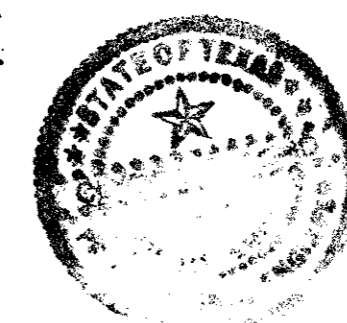
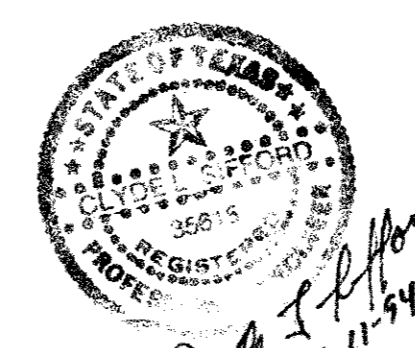
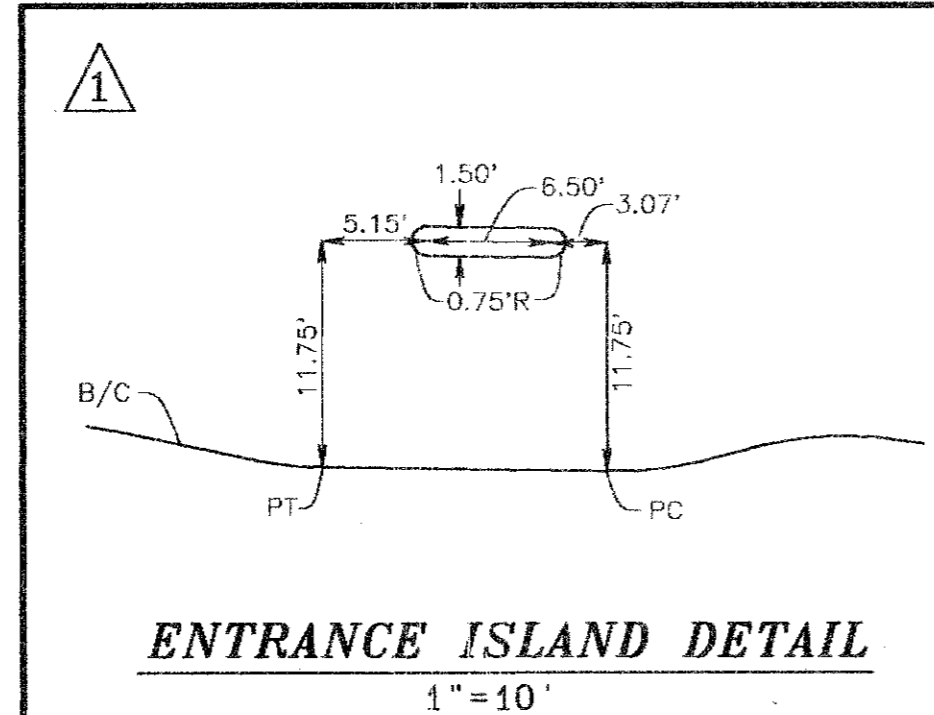
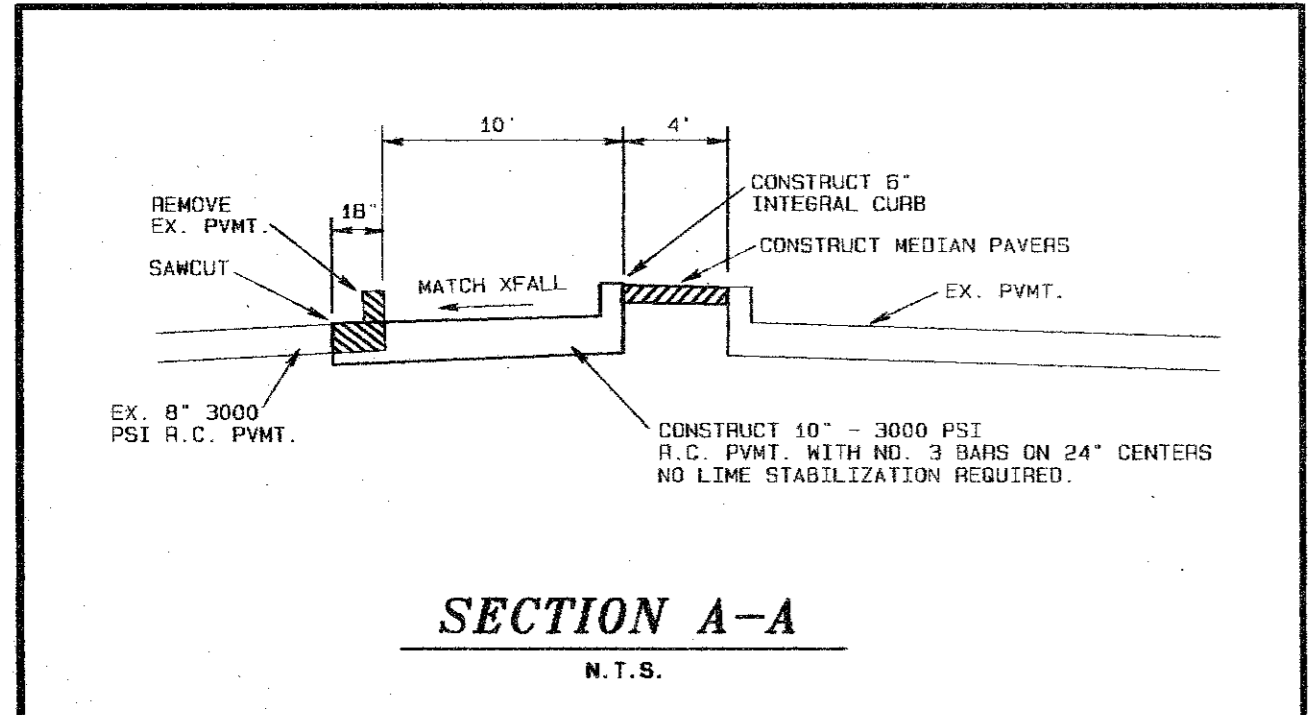
CONSTR. 5' WIDE 4" THICK, 3000 PSI CONCRETE SIDEWALK SEE STANDARD DETAILS

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 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. ELEVATION 587.61

TURNING LANE GENERAL NOTES:

1. Material & construction shall conform to the applicable Specifications of the City of Farmers Branch.
2. Construction in Marsh Lane will only be allowed between the hours of 8:30 a.m. and 4:00 p.m. daily.
3. 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.
4. The Contractor will be responsible for coordinating, submitting, preparing any barricade plan or permit application required by the City of Farmers Branch.
5. Permits, insurance and bonding required by the City of Farmers Branch will be the responsibility of the Contractor.
6. Call Mr. Greg Hilton with TU Electric at 323-8943 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

THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.

DIMENSION CONTROL & PAVING PLAN

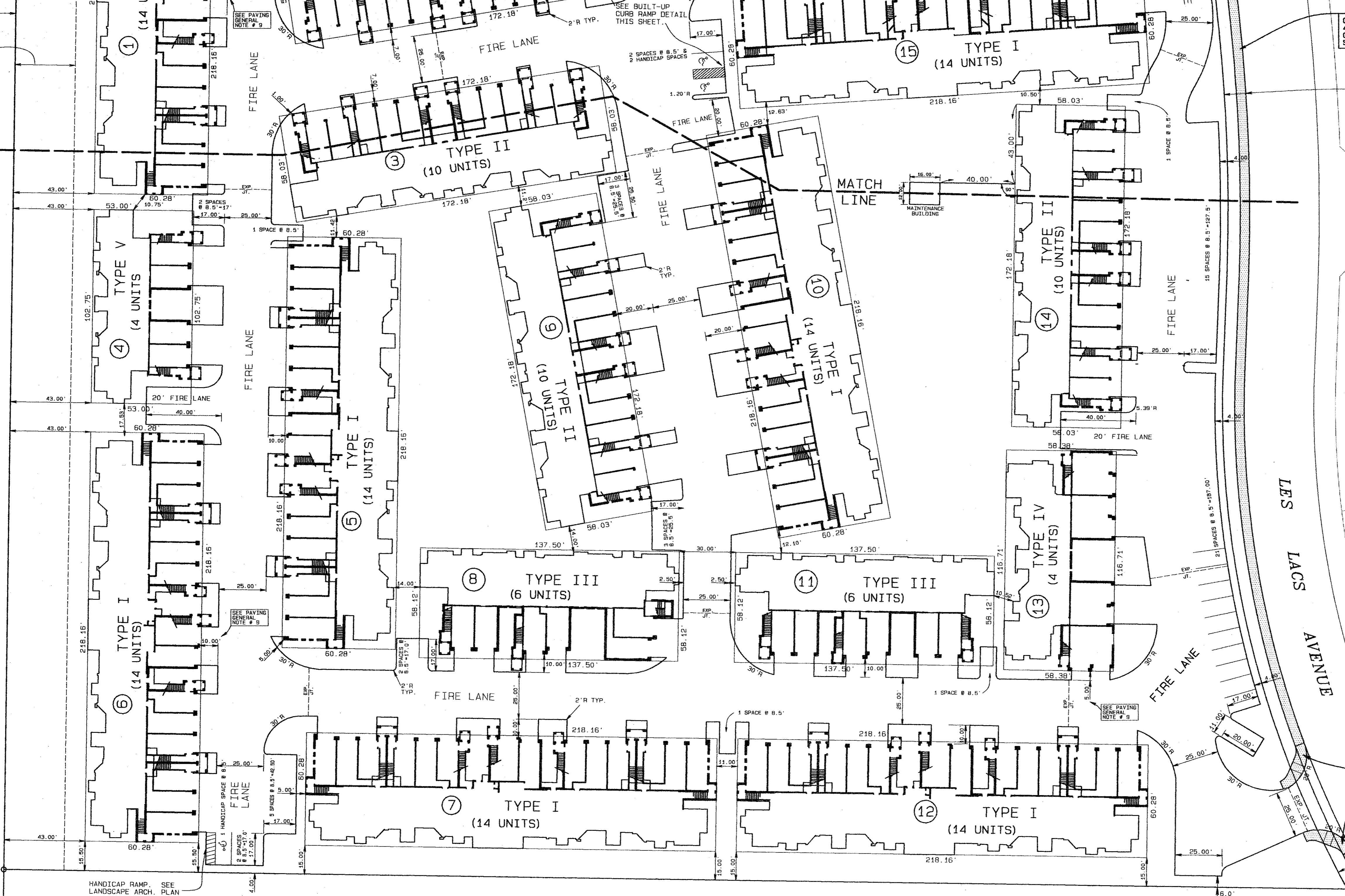
WATERFORD COURT APARTMENTS
 TOWN OF ADDISON, TEXAS

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

THE NELSON CORPORATION
 PLANNING • ENGINEERING • SURVEYING
 LANDSCAPE ARCHITECTURE • CONSTRUCTION MANAGEMENT
 5999 SUMMERSIDE DRIVE SUITE 202 • DALLAS, TEXAS 75262 • (214) 380-2605

PLAN NUMBERED INDICATION

CITY OF FARMERS BRANCH
TOWN OF ADDISON
MARSH LANE
32.5' GREENBELT & UTILITY EASEMENT
DEDICATION TO THE TOWN OF ADDISON



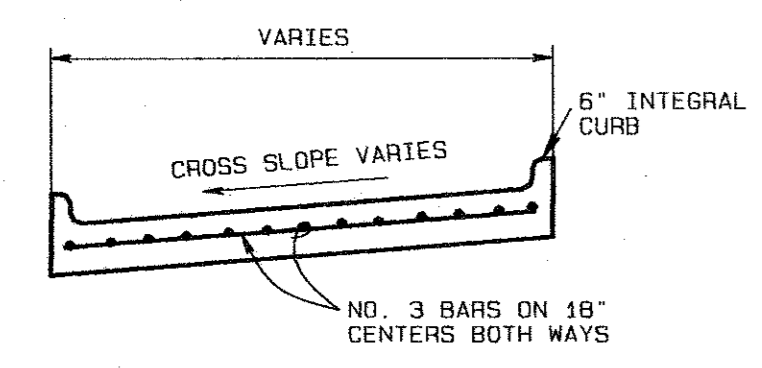
CONSTR. 5" WIDE
4" THICK, 3000 PSI
CONCRETE SIDEWALK
SEE STANDARD DETAILS

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



TYPICAL SECTION - FIRE LANE
AND ACCESS DRIVE PAVEMENT

AS BUILTS

THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.



BENCHMARKS:

SQUARE CUT ON CENTERLINE OF 14' INLET AT THE N.E. CORNER OF THE INTERSECTION OF BELTWAY DRIVE AND MARSH LANE. ELEVATION 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. 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
PLANNING • ENGINEERING • SURVEYING
LANDSCAPE ARCHITECTURE • CONSTRUCTION MANAGEMENT
6999 SUMMERSIDE DRIVE SUITE 202 • DALLAS, TEXAS 75262 • (214) 380-2805

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

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.

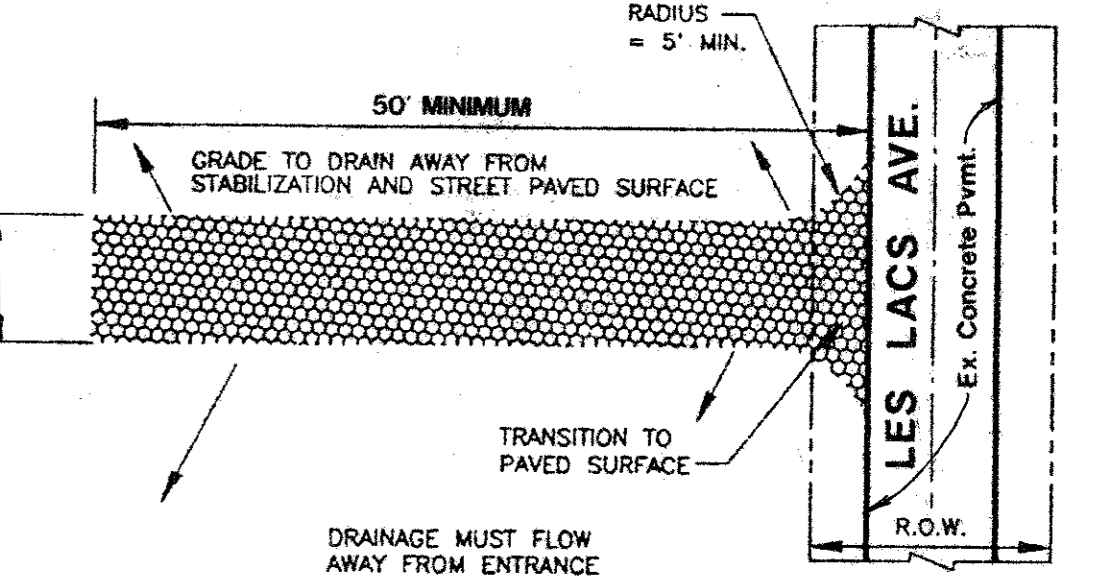
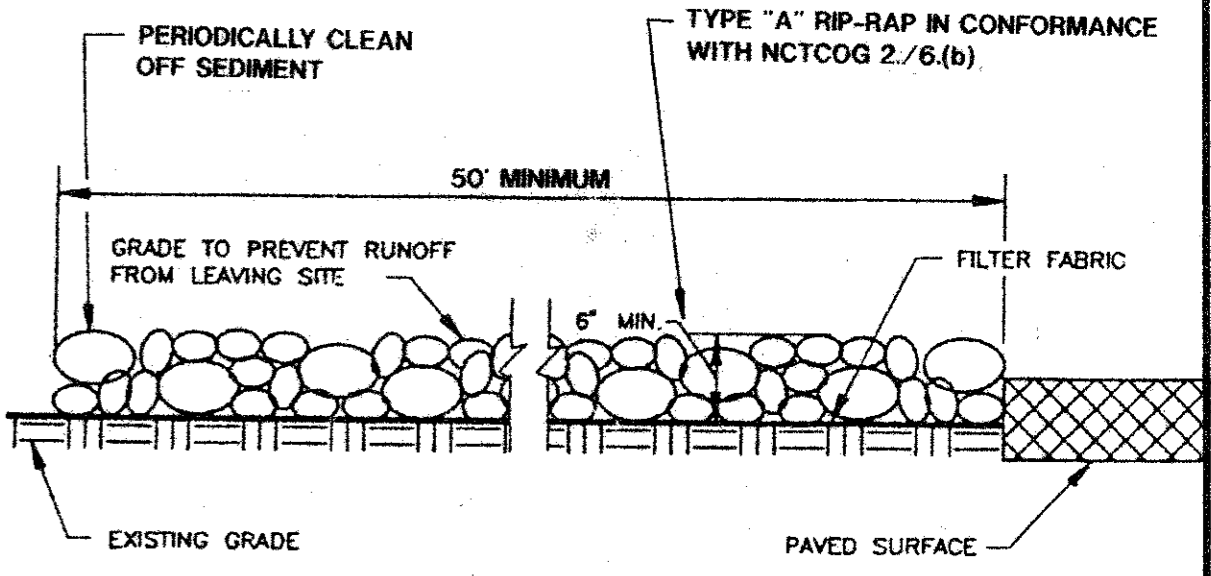


TANGLEWOOD DRIVE

MARSH LANE
32" Ø SCHEDULE 40 UTILITY FACED
DEDICATION TO THE TOWN OF ADDISON

CHATHAM COURT

LES LACS AVENUE



STABILIZED CONSTRUCTION ENTRANCE
BY CONTRACTOR

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

AS BUILTS

THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.

SWPPP

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. 587.61

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

THE NELSON CORPORATION
PLANNING • ENGINEERING • SURVEYING
LANDSCAPE ARCHITECTURE • CONSTRUCTION MANAGEMENT
5909 SUMMERSIDE DRIVE SUITE 202 • DALLAS, TEXAS 75262 • (214) 390-2805



PROP. WATER METER
VAULT REFERENCE
LANDSCAPING PLANS
FOR DETAILED
GRADING.
TOP OF VAULT 579.2

REFERENCE LANDSCAPE
ARCHITECT PLANS FOR
GRADING & DRAINS

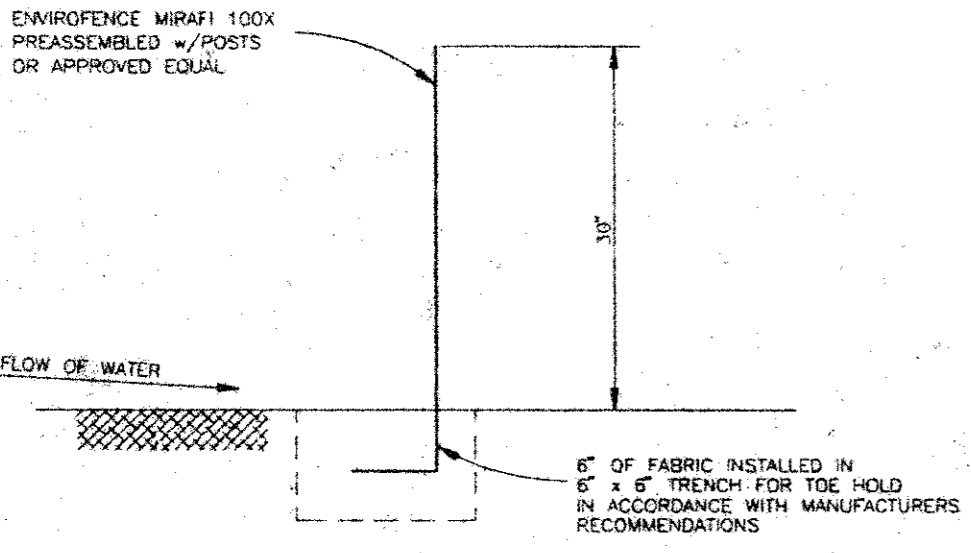
POOL AREA

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.

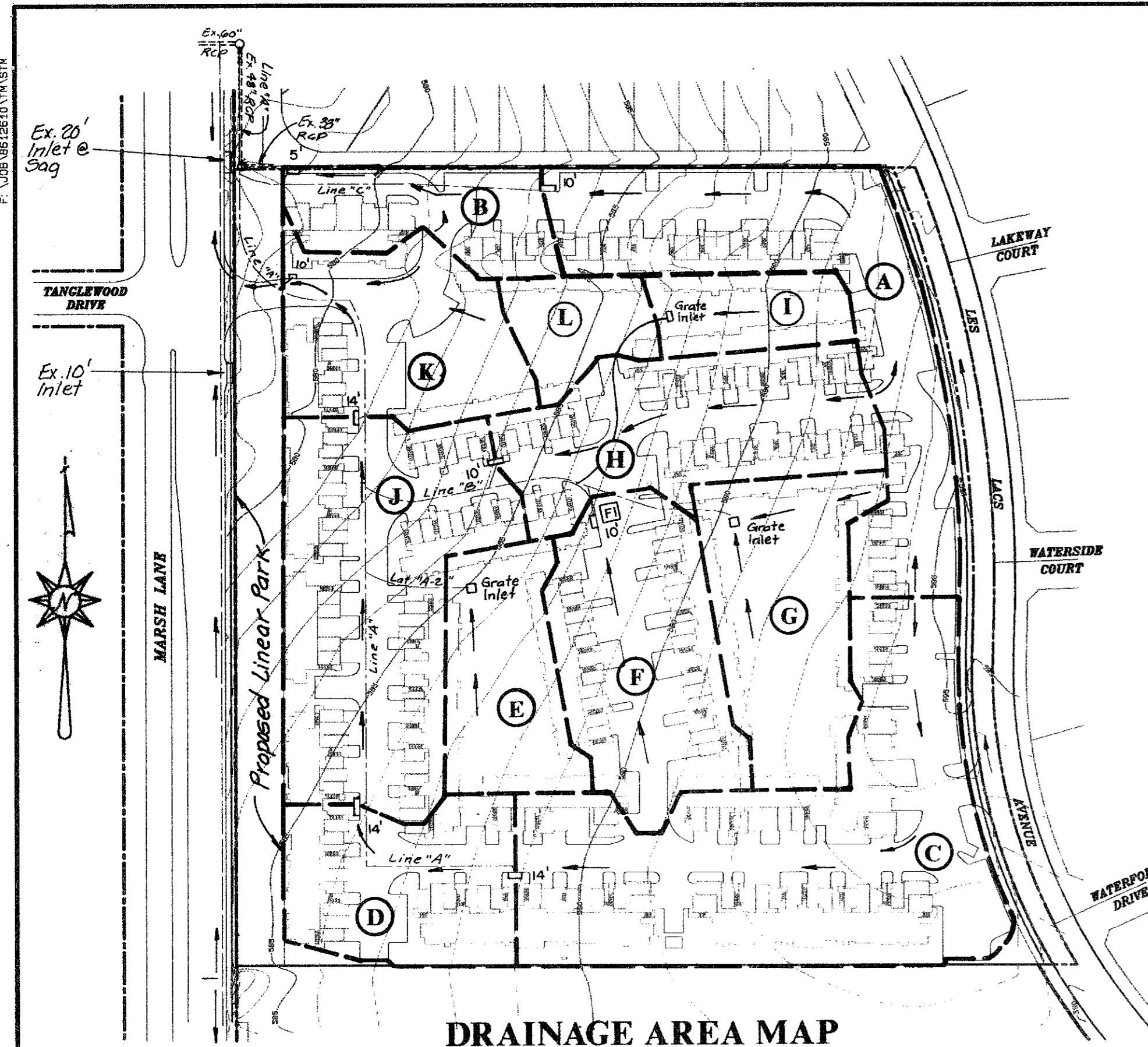


SILTATION FENCE EROSION CONTROL DEVICE

REVISION	DATE	DESCRIPTION	DRAWN BY	CHECKED BY
1	4/20/94	Move Inlet	BVD	CLS

REGION	AREA (ac)	Ic (in/hr)	C	I ₁₀ (in/hr)	Q ₁₀ (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

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'	25.49'	48.70'
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'	21.23'
7	30°00'00"	100'	26.79'	52.36'
8	30°00'00"	70'	18.76'	36.65'
9	50°10'24"	70'	38.77'	61.30'
10	13°40'05"	70'	8.48'	16.88'



DRAINAGE AREA MAP
SCALE: 1" = 100'

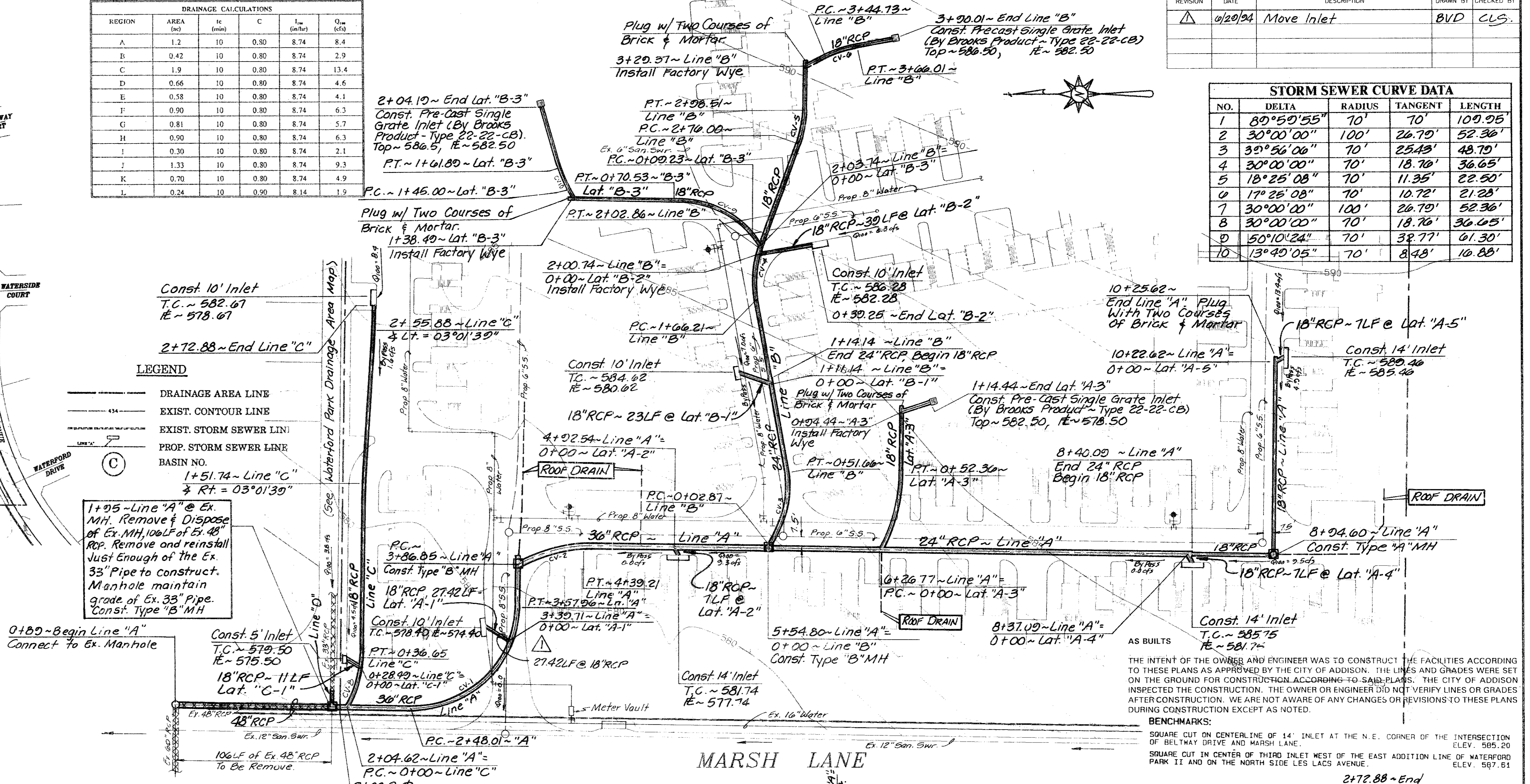
LEGEND

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

1+95-Line "A" @ Ex. MH. Remove & Dispose of Ex. MH, 106LF of 51.48" RCP. Remove and reinstall just enough of the Ex. 33" Pipe to construct. Manhole maintain grade of Ex. 33" Pipe. Const. Type "B" MH

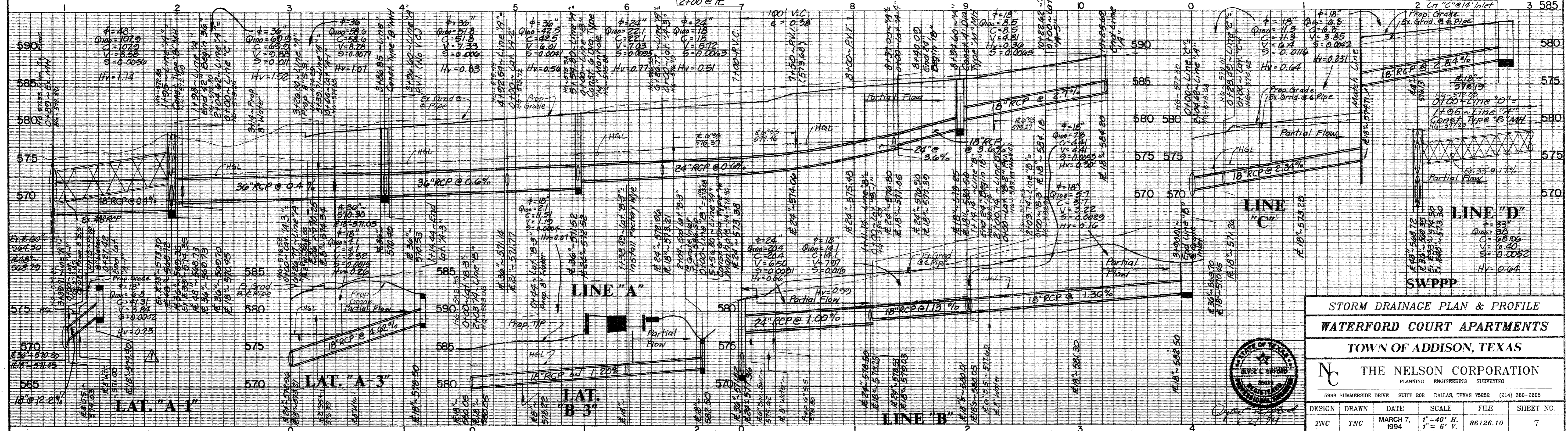
DRAINAGE GENERAL NOTES:

- 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.



AS BUILTS
THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.

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. 597.61



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

THE NELSON CORPORATION
 PLANNING ENGINEERING SURVEYING

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

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

REVISION	DATE	DESCRIPTION	DRAWN BY	CHECKED BY

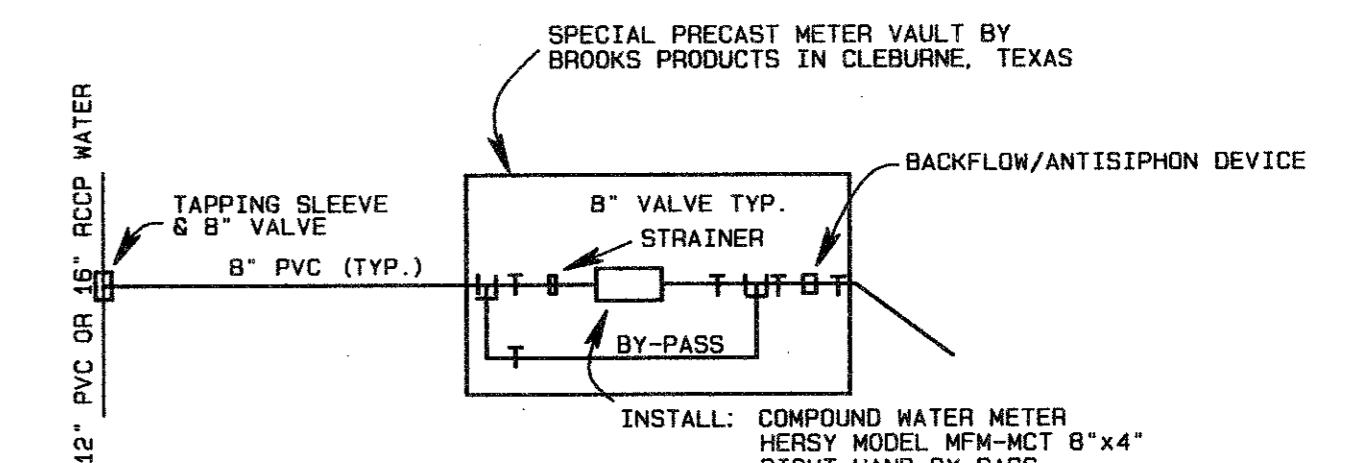
CURVE NO.	DELTA	RADIUS	ARC	CHORD BEARING	CHORD
C1	14°02'46"	200.00'	49.03'	S82°02'31"E	48.91'
C2	09°56'06"	200.00'	34.69'	N85°59'09"E	34.64'
C3	33°19'56"	200.00'	119.35'	N69°47'28"E	114.12'
C4	05°19'24"	936.50'	87.01'	S00°13'48"E	86.98'
C5	04°45'06"	963.50'	46.73'	S00°03'21"W	46.72'

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" - 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 as a guide "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. (450-2873)
- Bilco Spring Lid in the top of the vault will be 4'x4'. Lid painted with 43-38 TNEEC 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, 8.58-9.20 & 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.

LEGEND

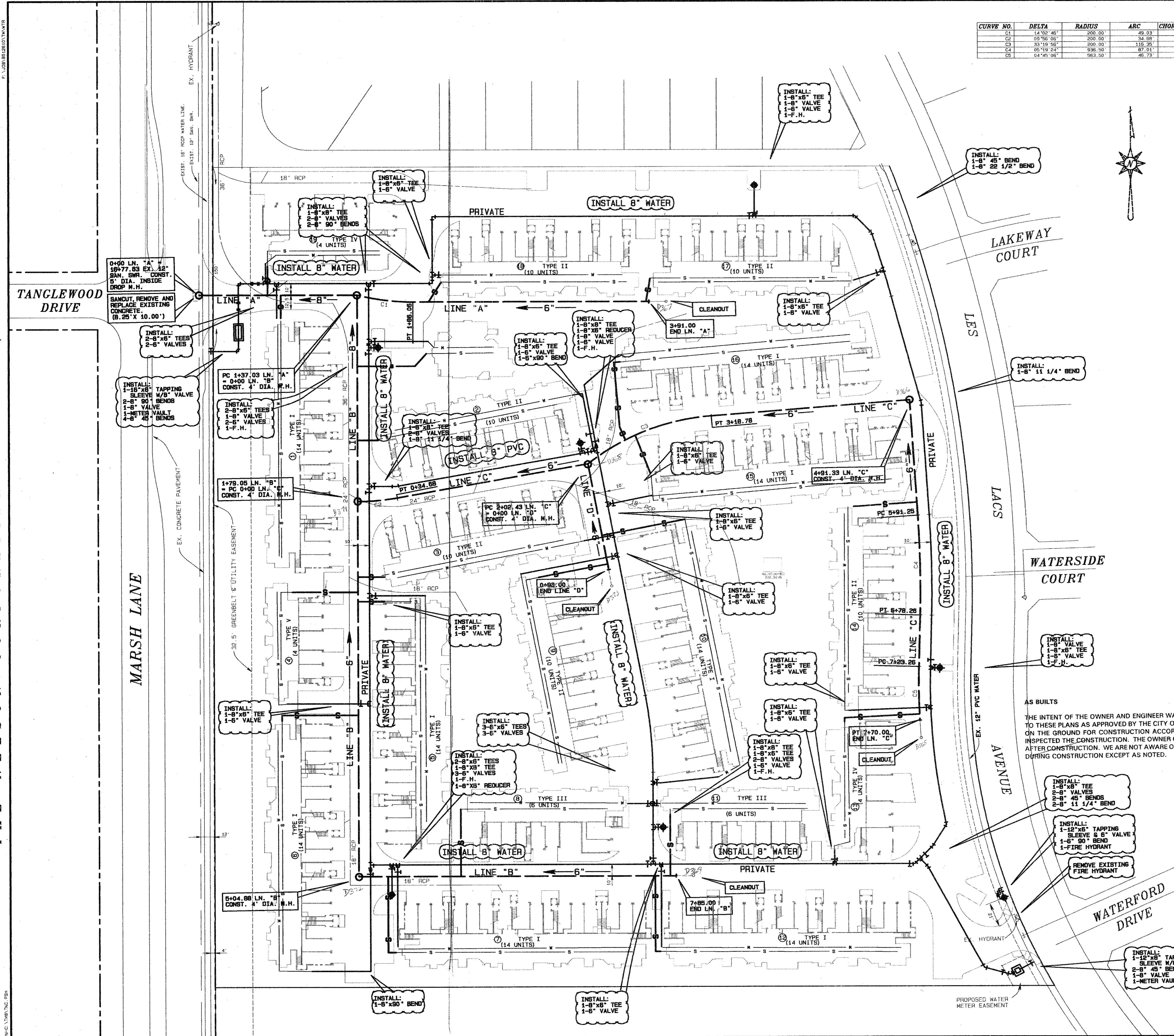
- WATER SERVICE
- PROPOSED WATER LINE
- PROPOSED SAN. SEWER
- PROPOSED STORM SEWER
- PROPOSED SAN. SWR. SER.

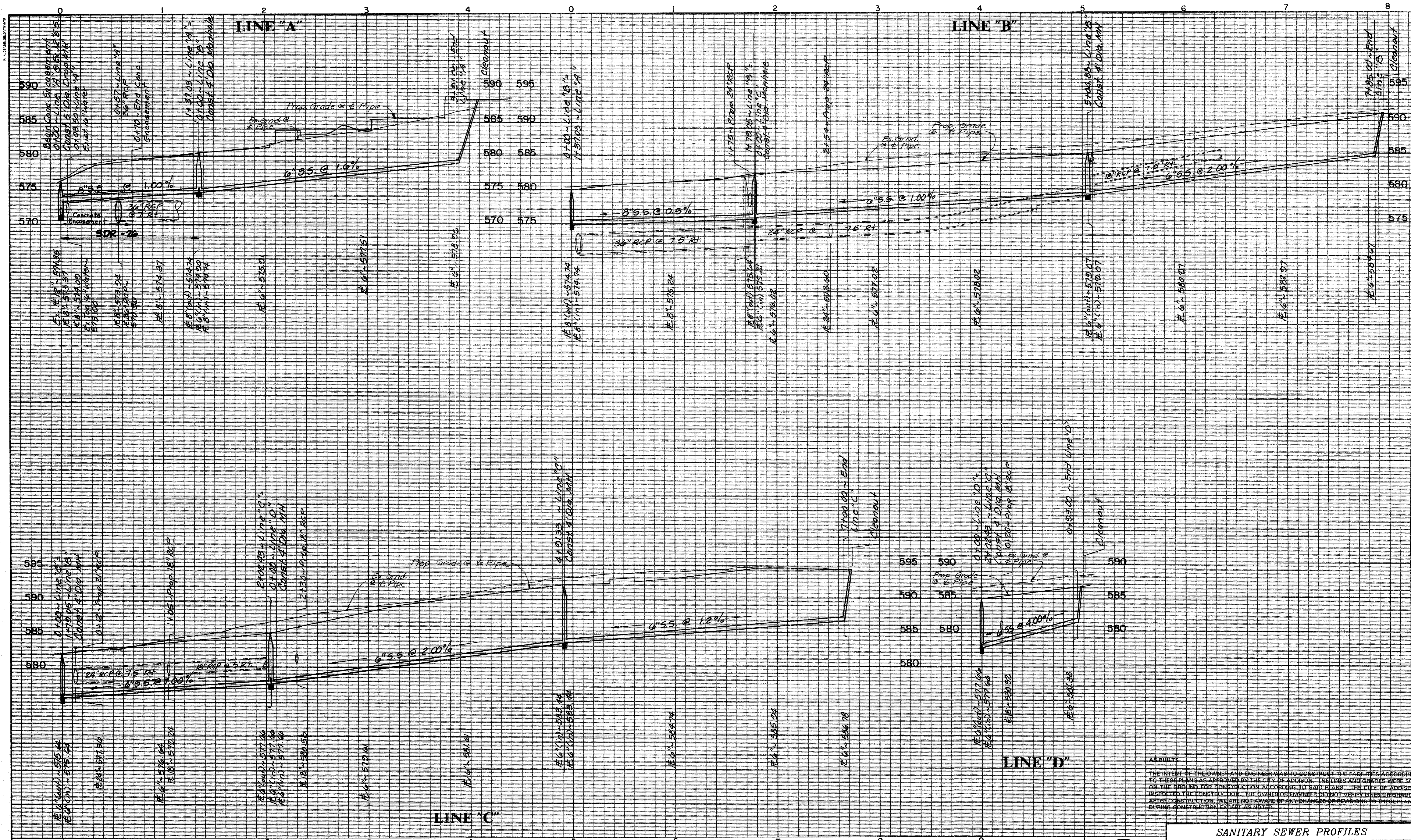
BENCHMARKS:

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) 380-2605					
DESIGN	DRAWN	DATE	SCALE	FILE	SHEET NO.
TNC	TNC	MAR. 31, 1994	1" = 40'	86126.10	8

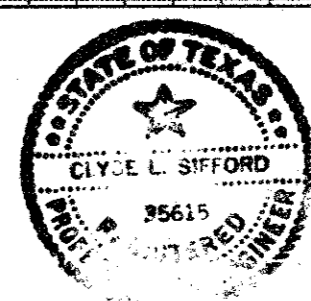




AS BUILT
 THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.

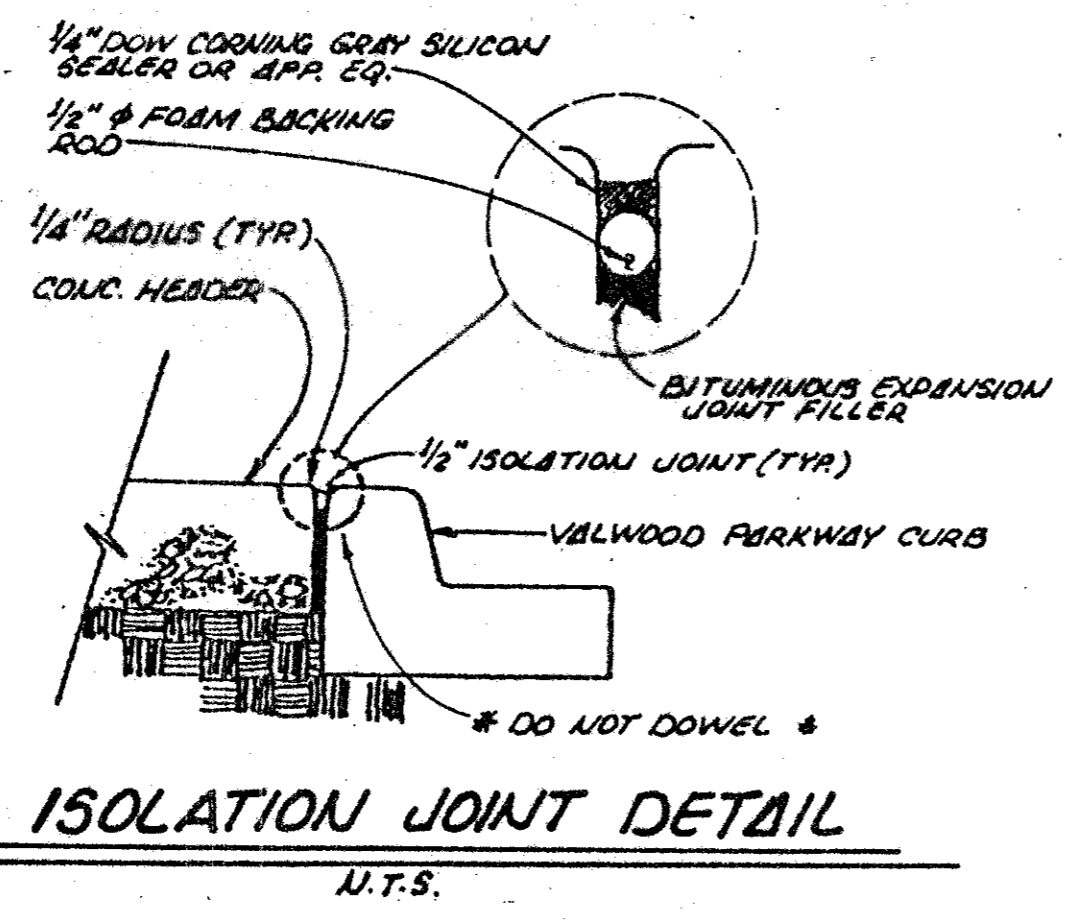
SANITARY SEWER PROFILES					
WATERFORD COURT APARTMENTS					
TOWN OF ADDISON, TEXAS					
 THE NELSON CORPORATION PLANNING ENGINEERING SURVEYING					
5999 SUMMERSIDE DRIVE SUITE 202 DALLAS, TEXAS 75252 (214) 380-2865					
DESIGN	DRAWN	DATE	SCALE	FILE	SHEET NO.
TNC	TNC	MARCH 7, 1994	1" = 40' H 1" = 6' 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. 587.61

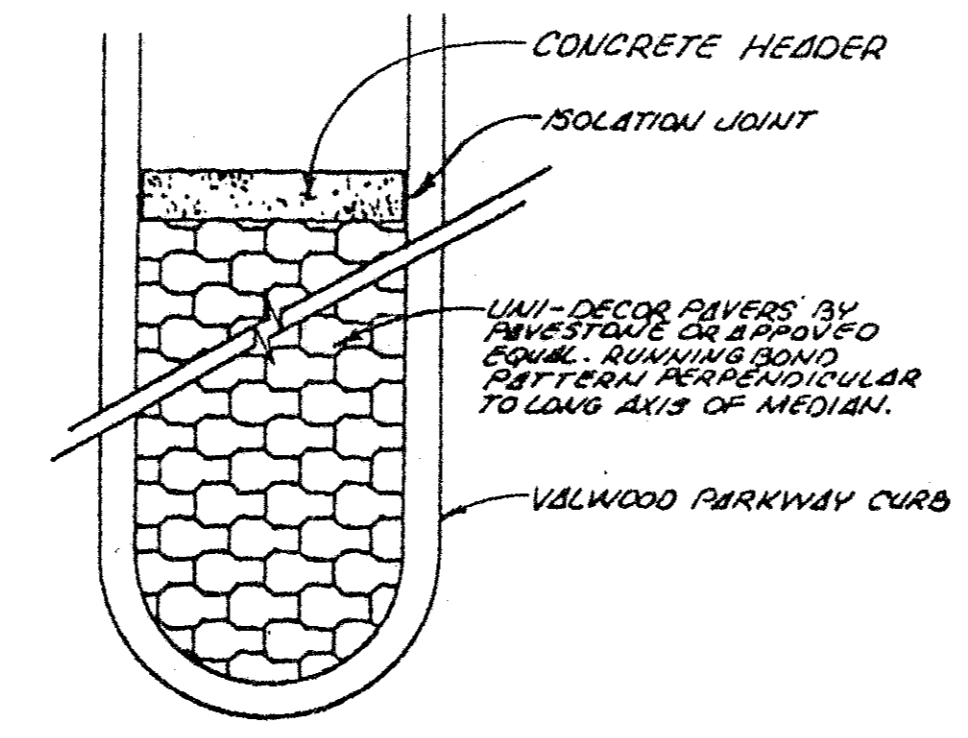
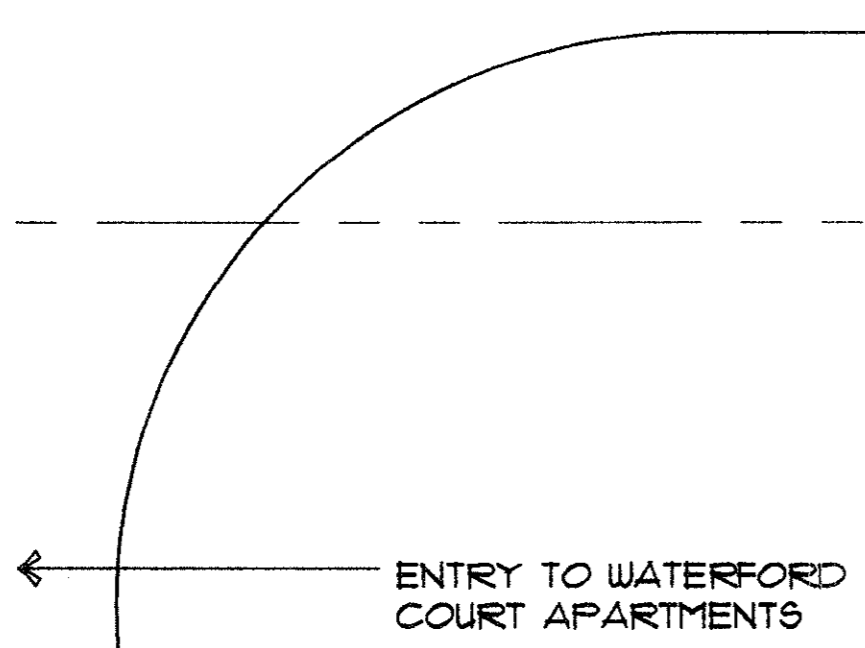
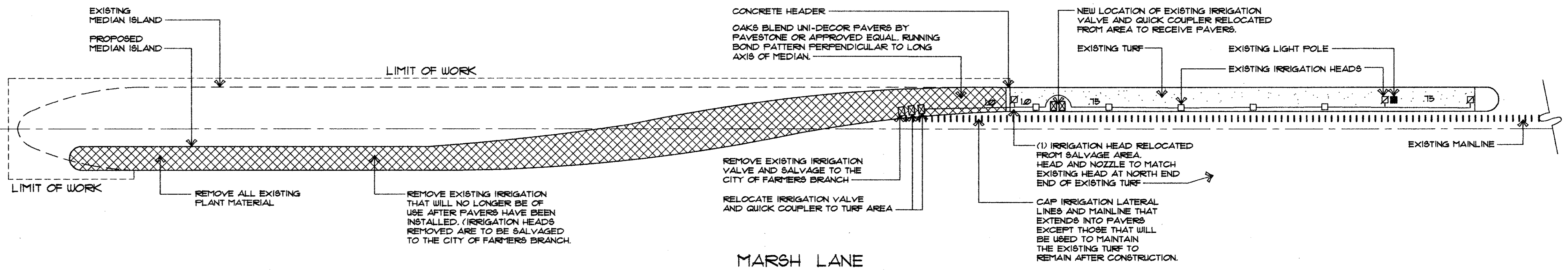


THE NELSON CORPORATION • DALLAS, TEXAS

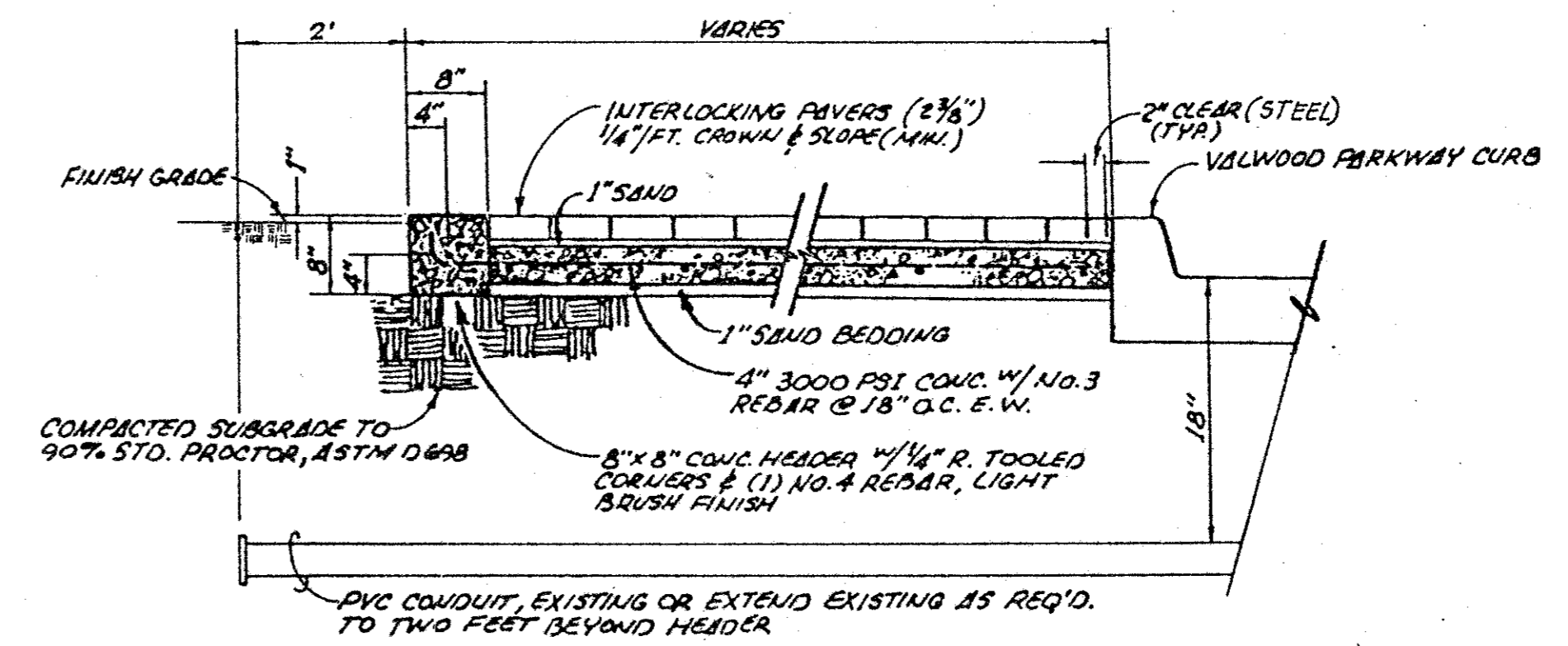
REVISION	DATE	DESCRIPTION	DRAWN BY	CHECKED BY



TANGLEWOOD DRIVE

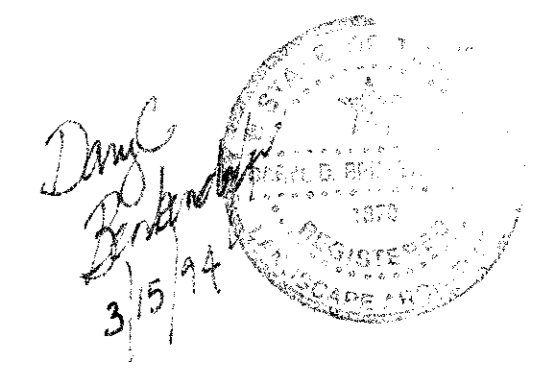
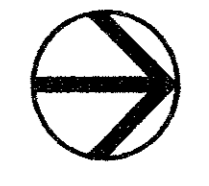


NOTE: CONCRETE HEADER SHALL HAVE AN "X" CHISELED WHERE EACH CONDUIT SLEEVE IS LOCATED.

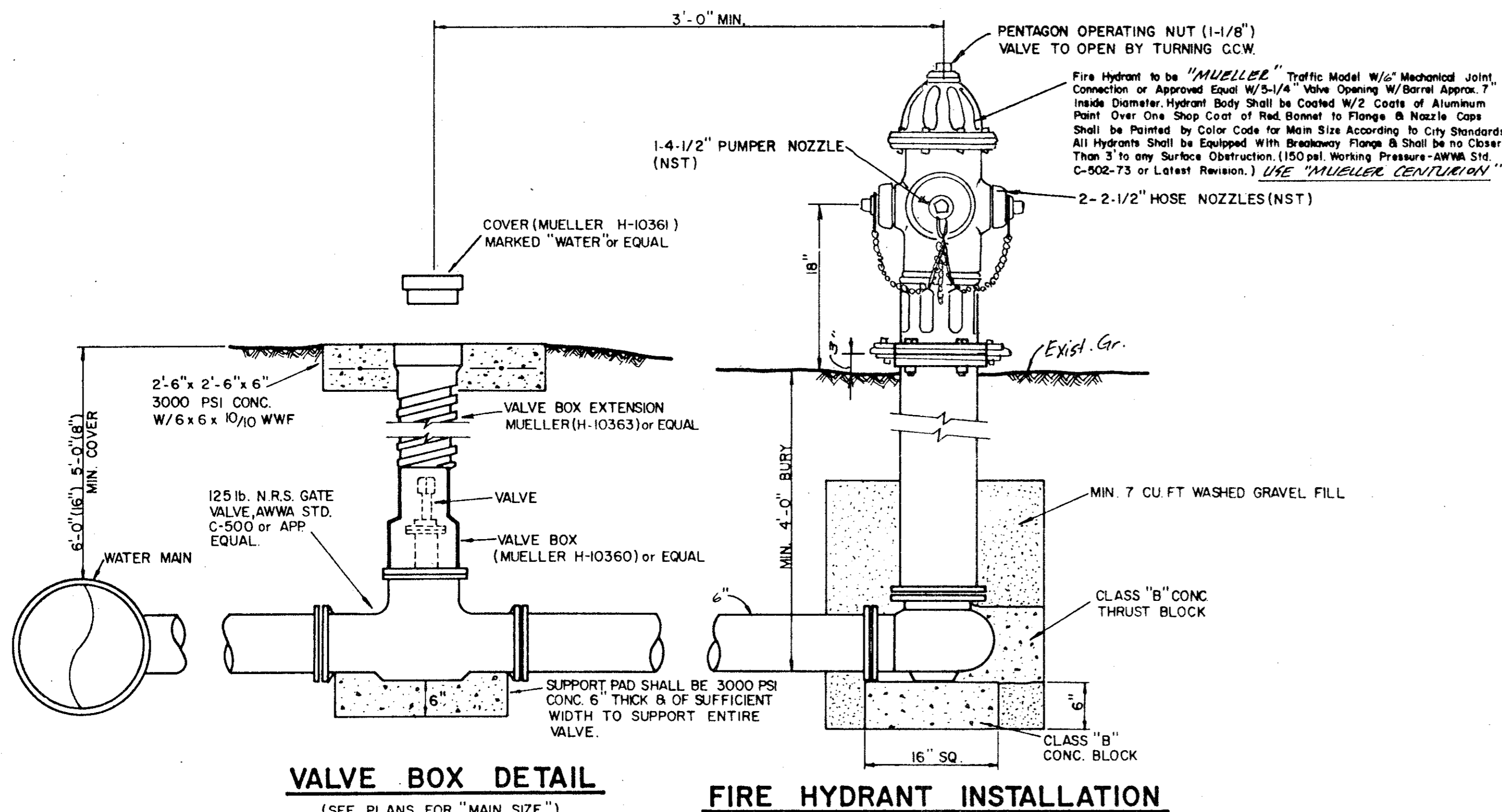


AS BUILTS

THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.

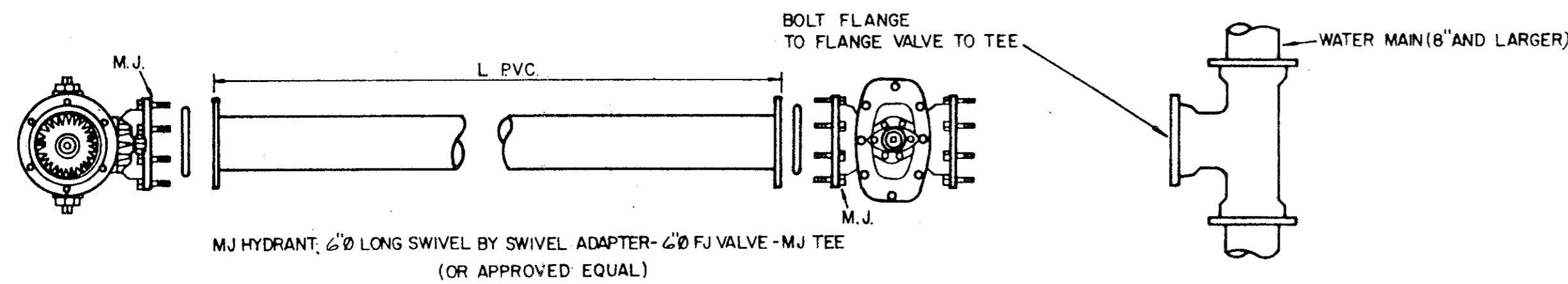


MEDIAN IMPROVEMENT PLAN					
WATERFORD COURT APARTMENTS					
CITY OF FARMERS BRANCH					
THE NELSON CORPORATION					
<small>PLANNING ENGINEERING SURVEYING LANDSCAPE ARCHITECTURE CONSTRUCTION MANAGEMENT</small>					
<small>5999 SUMMERSIDE DRIVE SUITE 202 DALLAS, TEXAS 75252 (214) 980-2605</small>					
DESIGN	DRAWN	DATE	SCALE	FILE	SHEET NO.
TNC	TNC	DEC. 8, 1993	1" = 10'-0"	68126.10	11

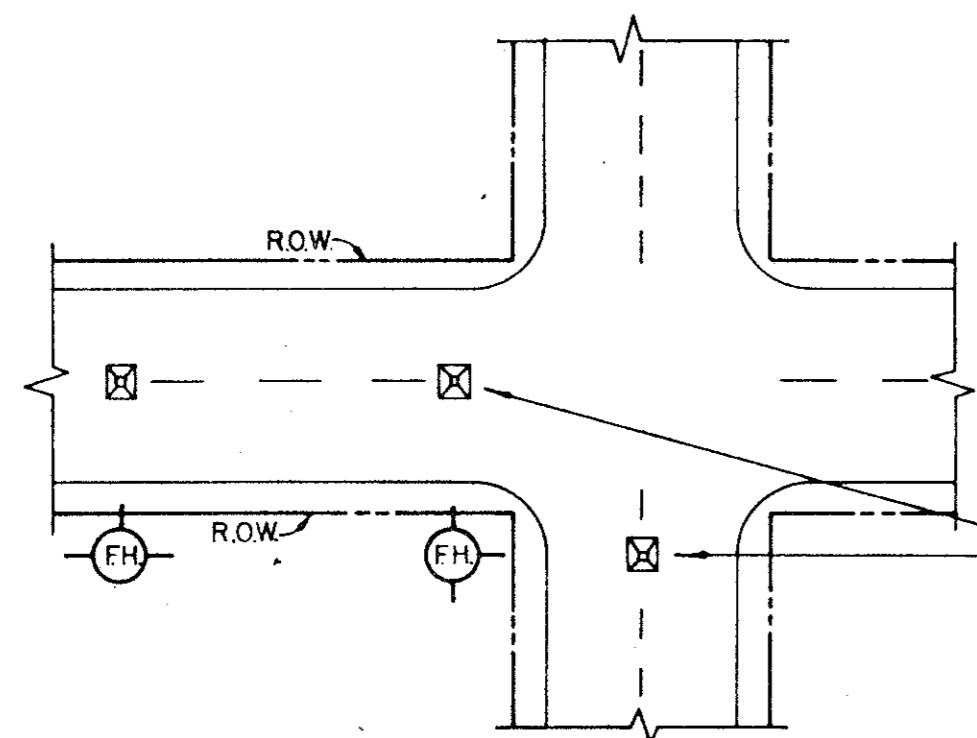


GATE VALVES AND VALVE BOXES.

- GATE VALVES SHALL BE IRON BODY, BRONZE OR BRASS MOUNTED, NON-RISING STEM, RASHLEIGH 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.

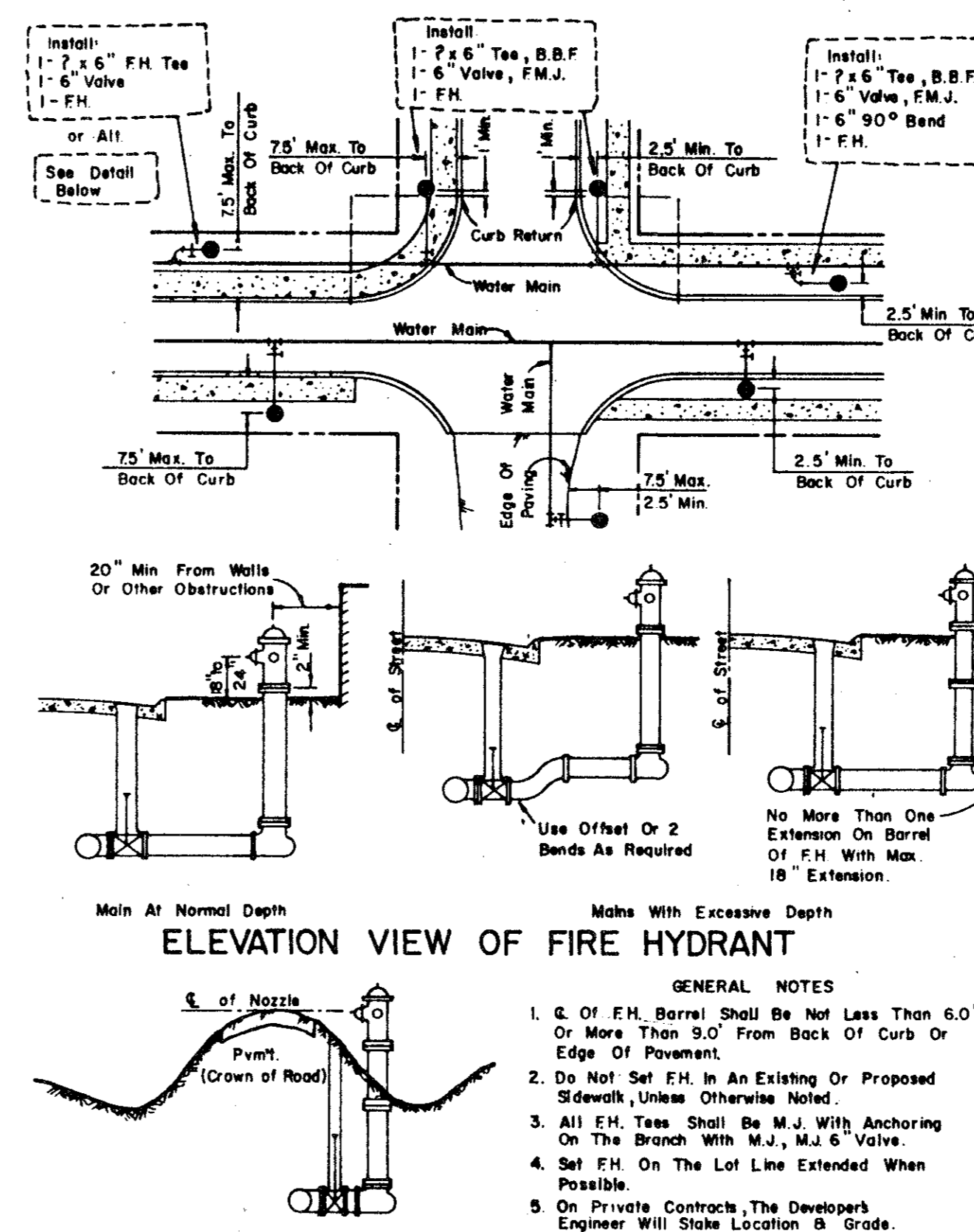


TYPICAL FIRE HYDRANT REFLECTOR INSTALLATION



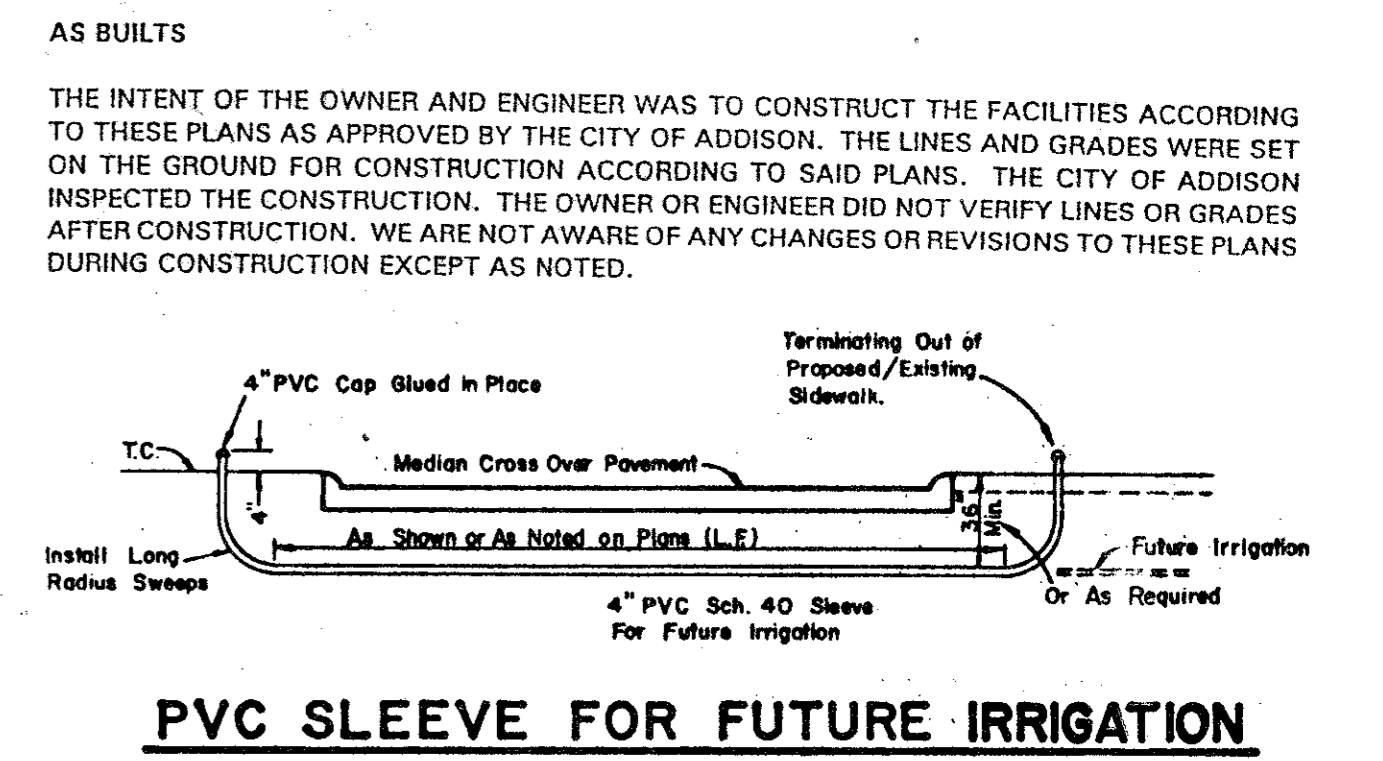
A BLUE STIMONITE FIRE-LITE REFLECTOR (OR APPROVED EQUAL) TO BE PLACED IN THE CENTER OF STREET OPPOSITE FIRE HYDRANTS. THE INSTALLATION OF THIS REFLECTOR SHALL BE AS PRESCRIBED BY THE MANUFACTURER.

TYPICAL FIRE HYDRANT REFLECTOR INSTALLATION

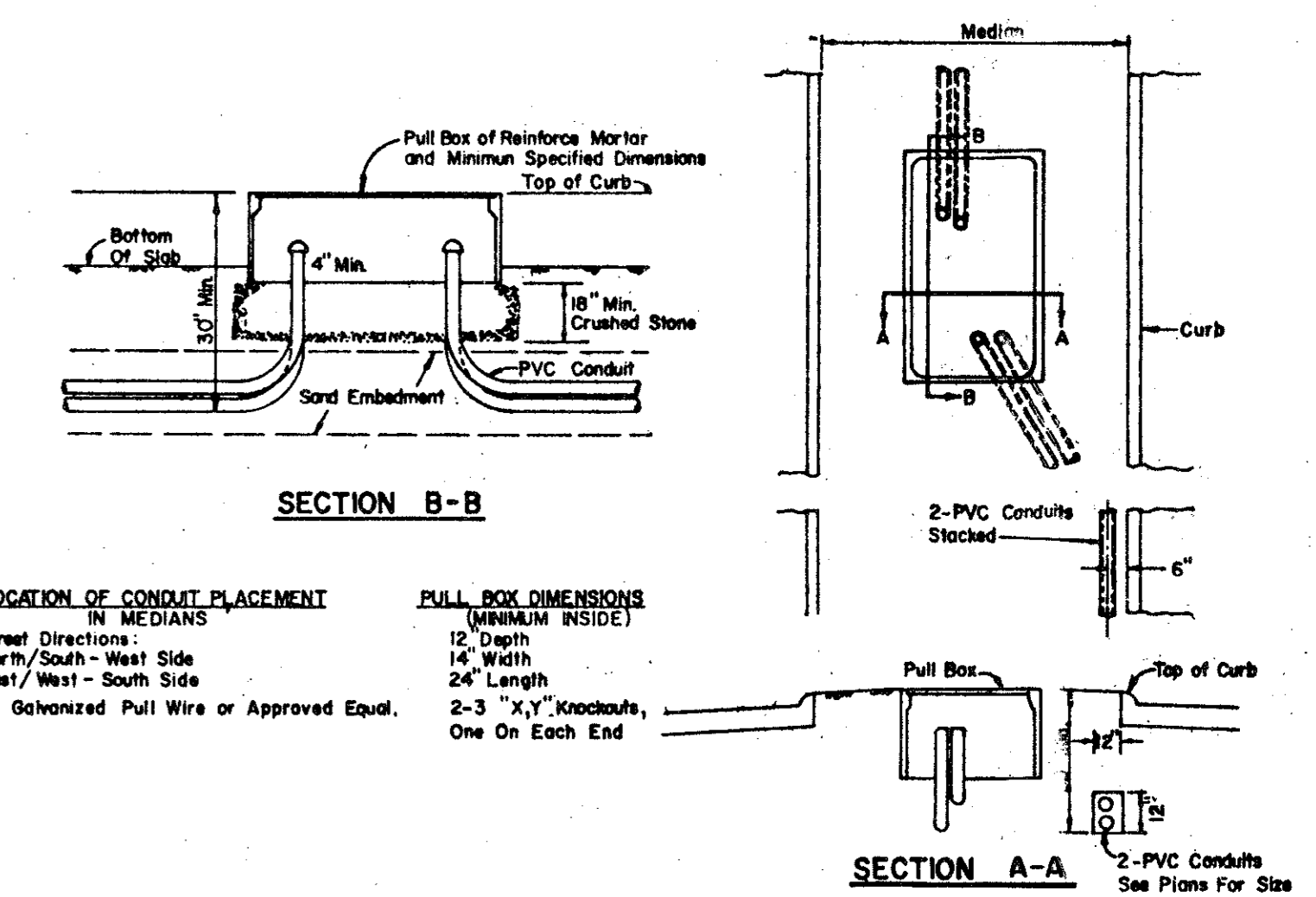


When No Curb Or Gutter Exists, Set F.H. On Front Slope Of Ditch With 6" Of Nozzle Equal To The Crown Of The Road.

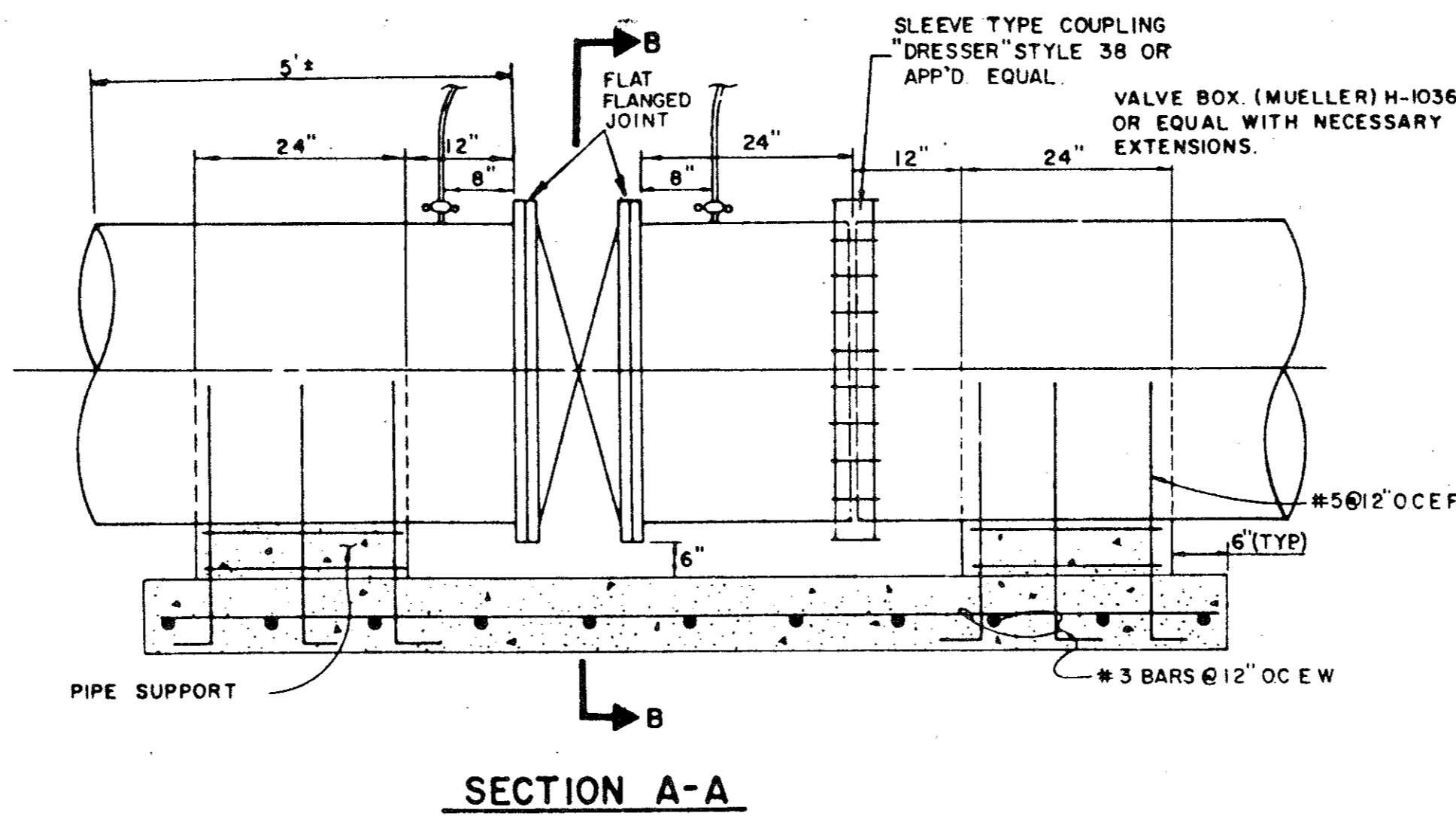
ELEVATION VIEW OF FIRE HYDRANT



PVC SLEEVE FOR FUTURE IRRIGATION

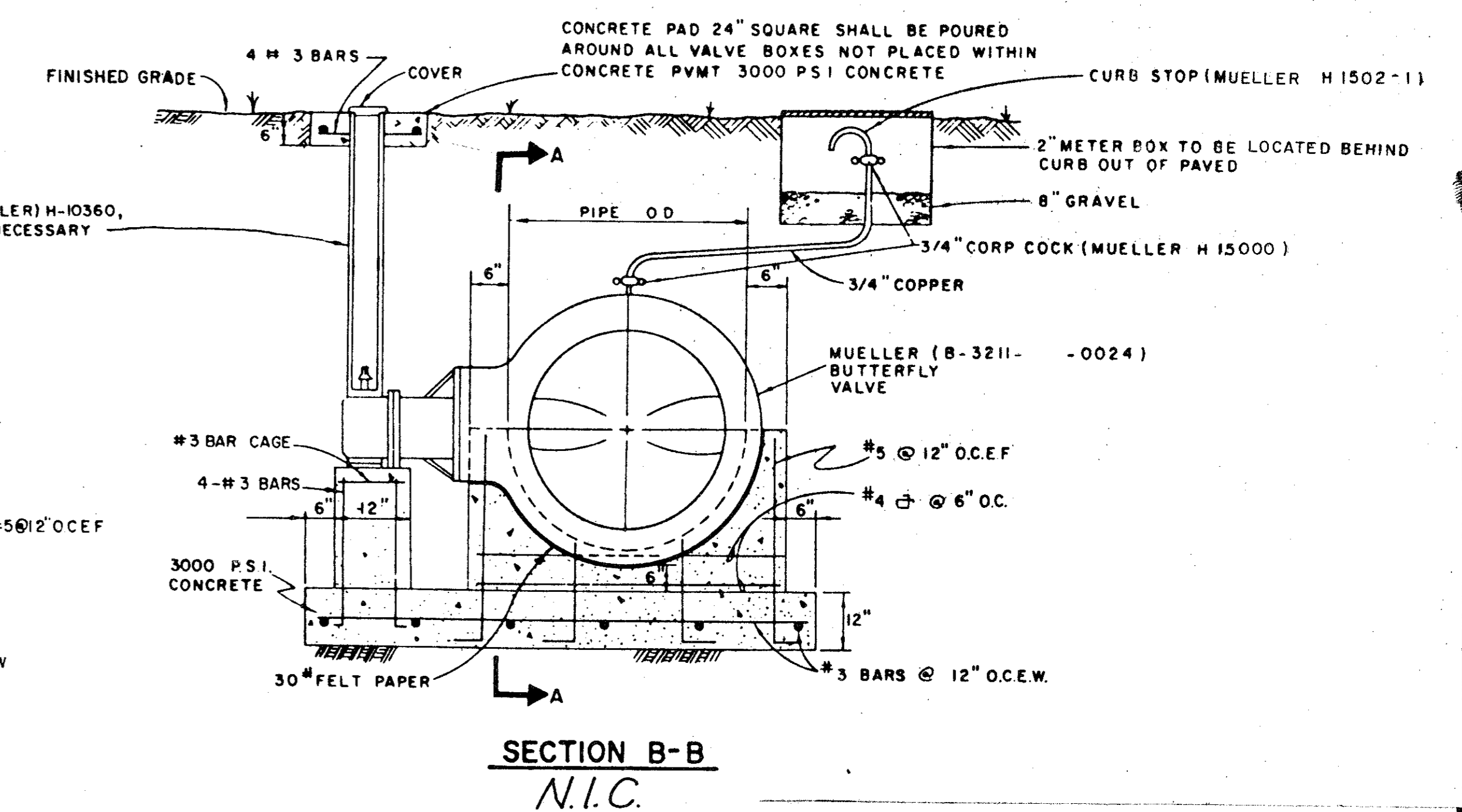


PULL BOX & CONDUIT DETAIL



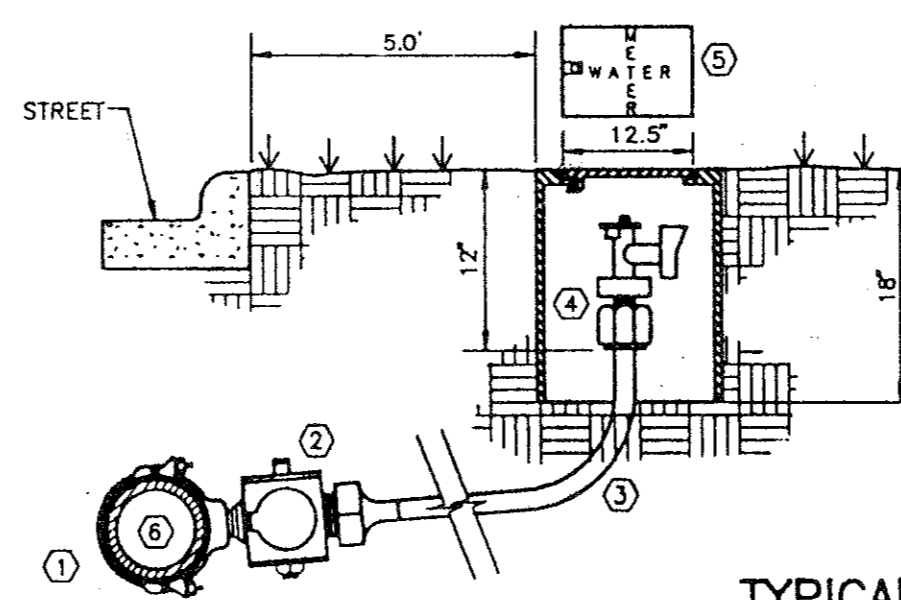
BUTTERFLY VALVE DETAIL

N.I.C.



BUTTERFLY VALVE DETAIL

N.I.C.



TYPICAL WATER SERVICE DETAIL

- DOUBLE STRAP BRONZE SADDLE W/CCW THREADS MUELLER.
- CORPORATION STOP W/CCW THREADS. MUELLER. H-15008 COMPRESSION OR H-15000 FLARED.
- 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

N.I.C.

AS BUILTS
THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.

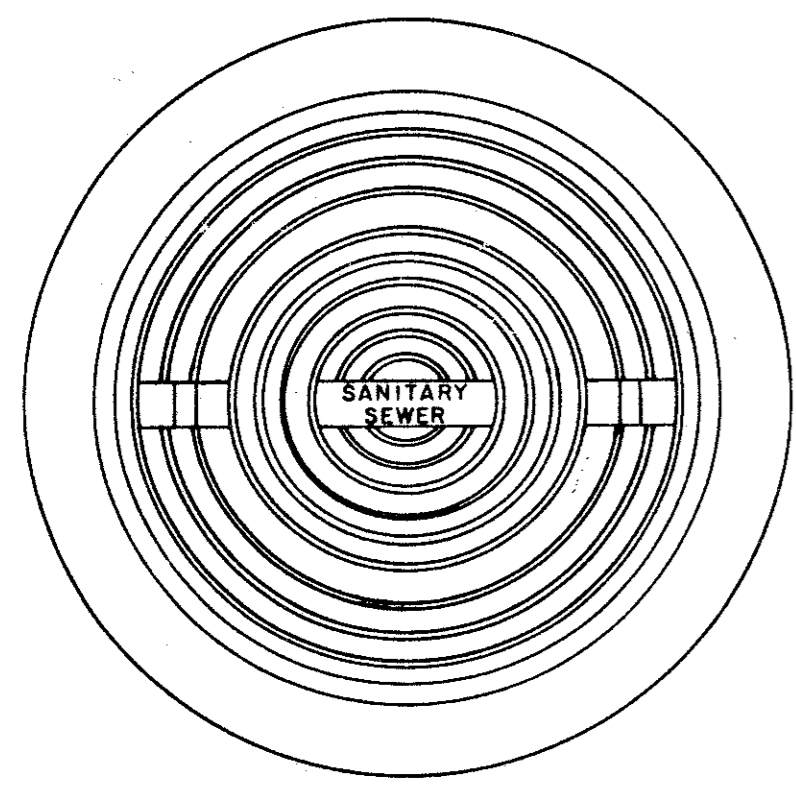
STANDARD CONSTRUCTION DETAILS

WATERFORD COURT
TOWN OF ADDISON, TEXAS

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

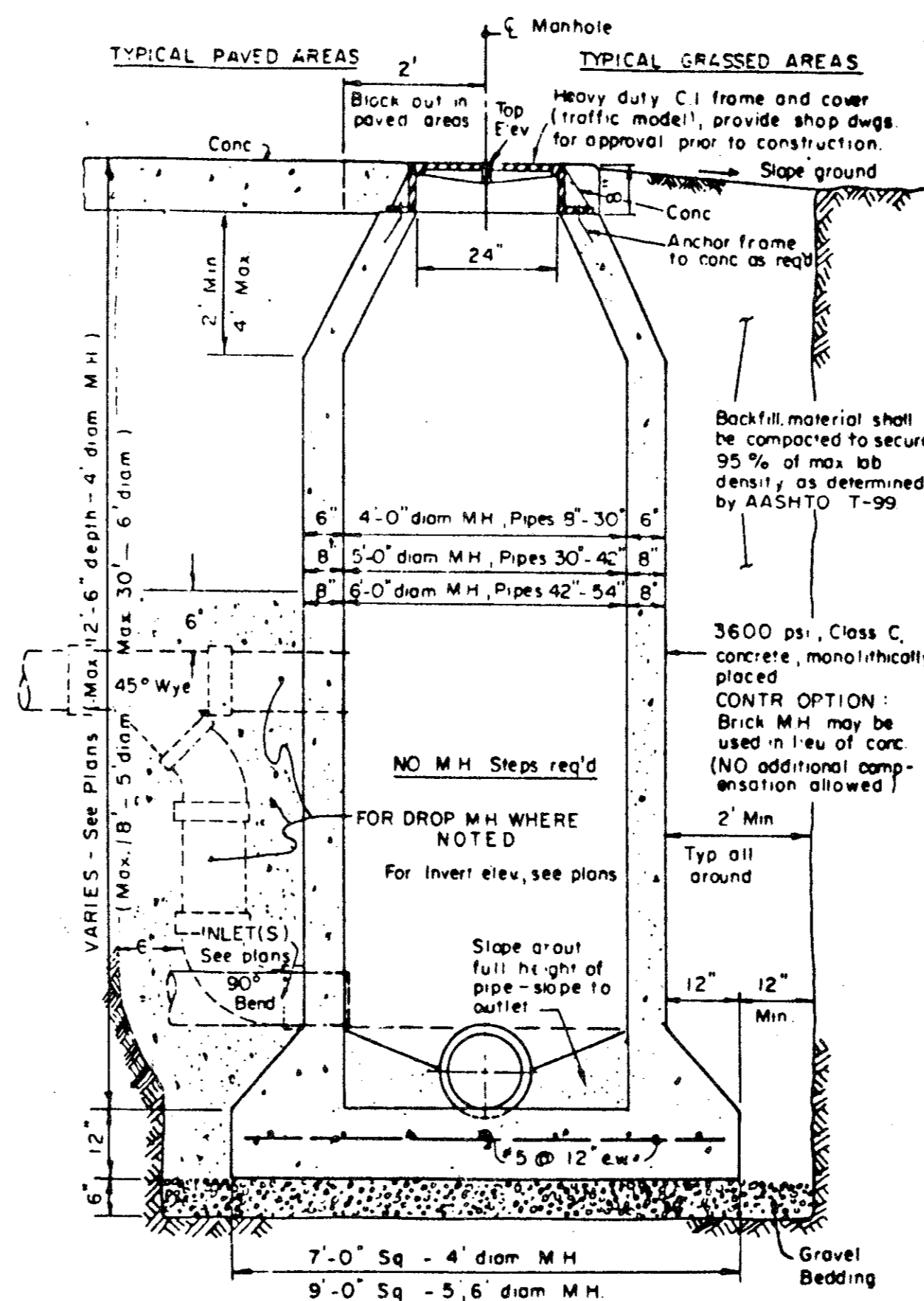
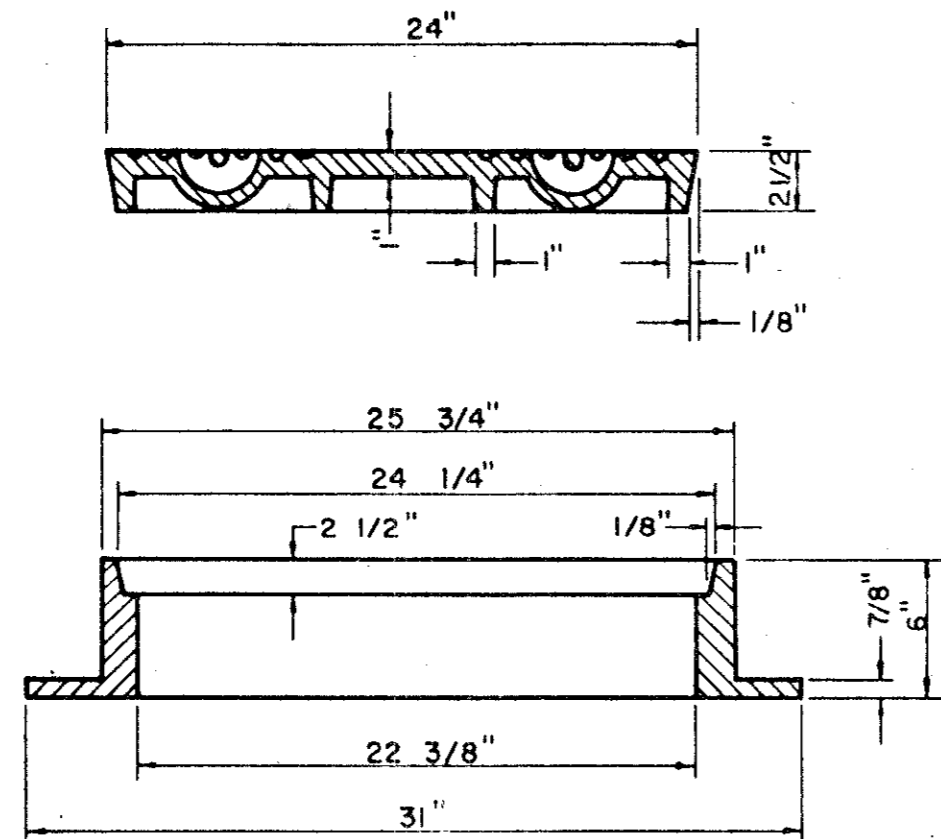
THE NELSON CORPORATION
LAND PLANNING • ENGINEERING • SURVEYING

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



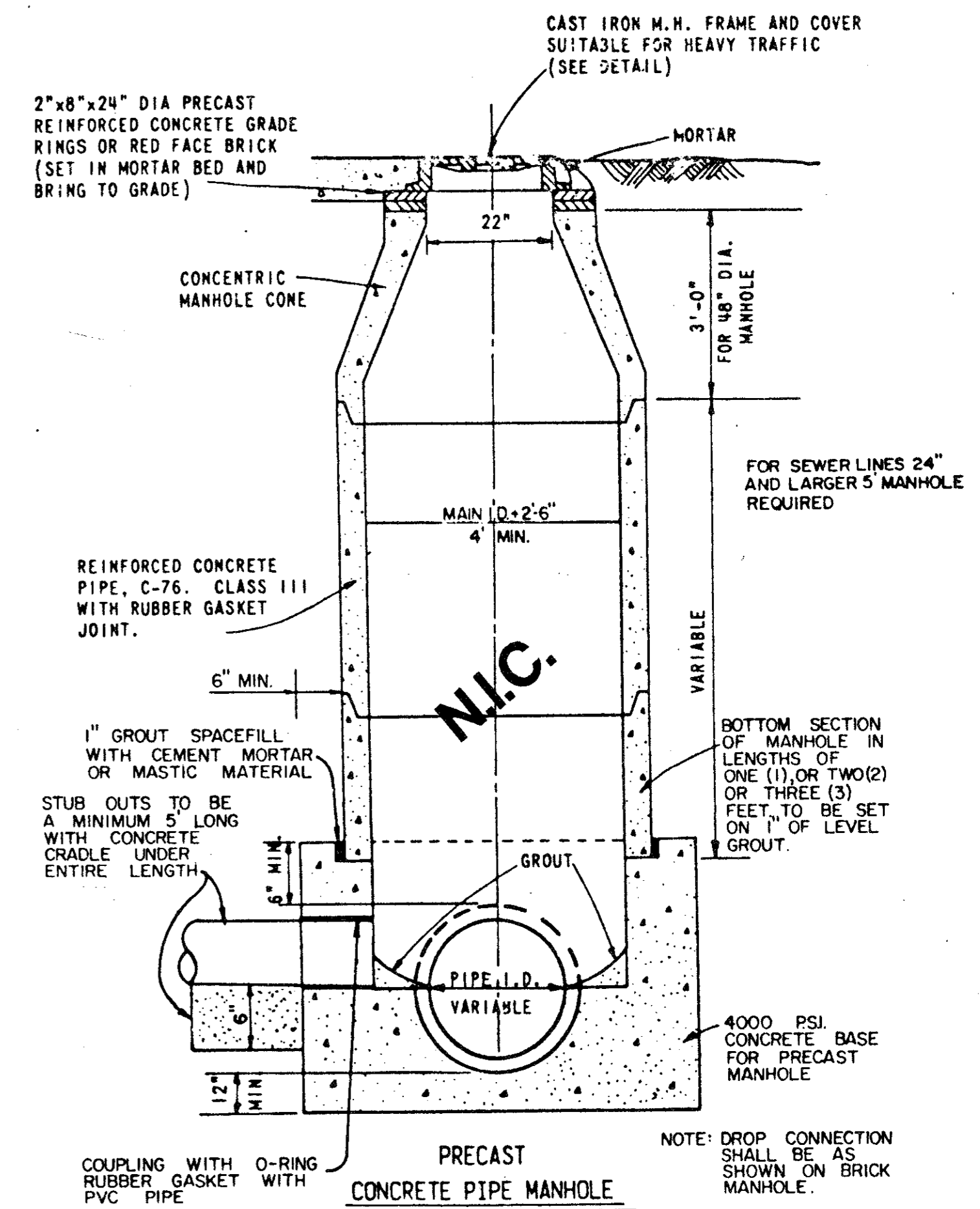
APPROX. WEIGHT RING AND COVER 385 LBS.

CAST IRON GRATE AND FRAME DETAIL

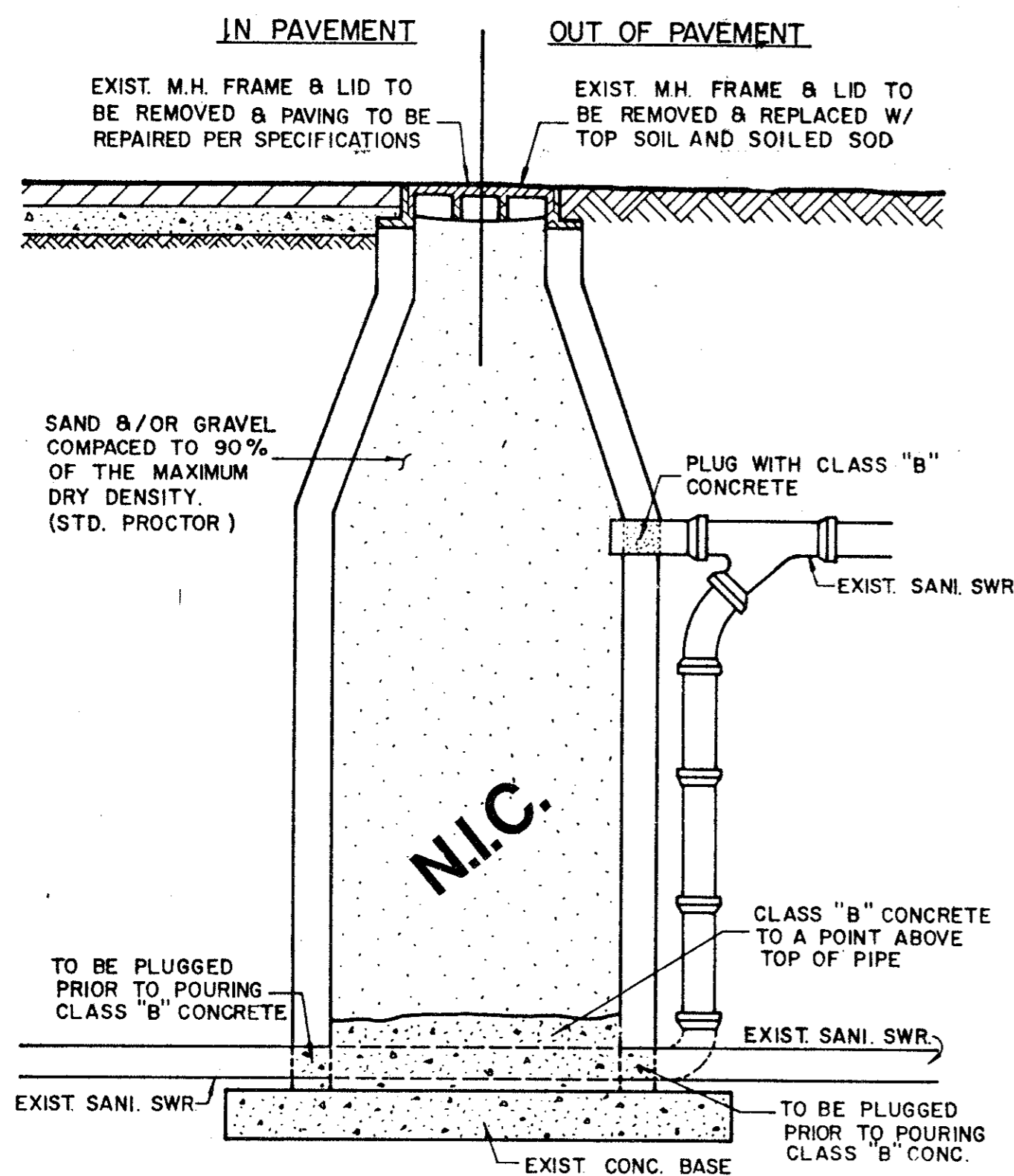


CAST IN PLACE MANHOLE

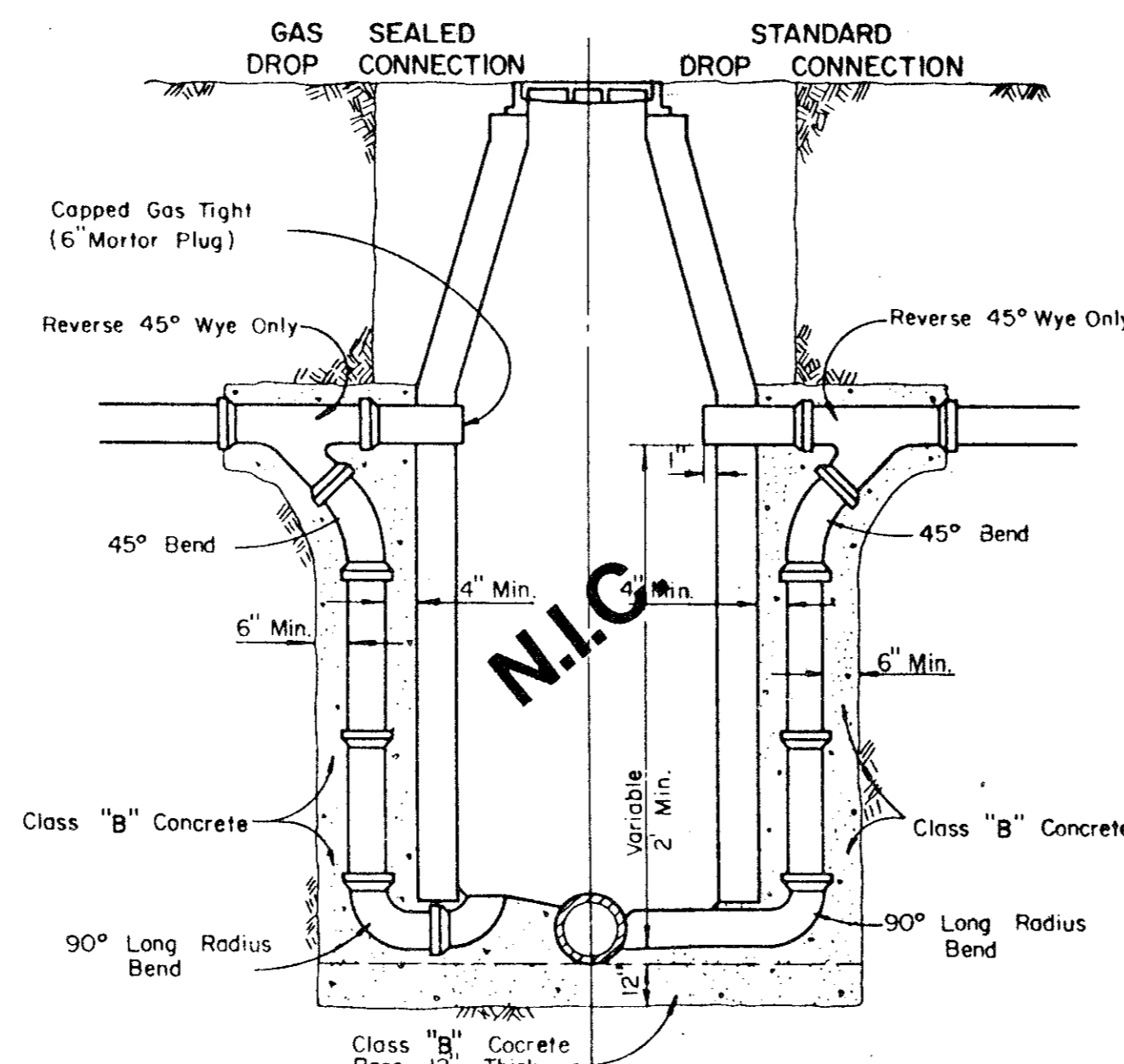
WHERE DROP M.H. IS REQUIRED, USE INSIDE DROP CONNECTION AS PER TOWN OF ADDISON STANDARDS.



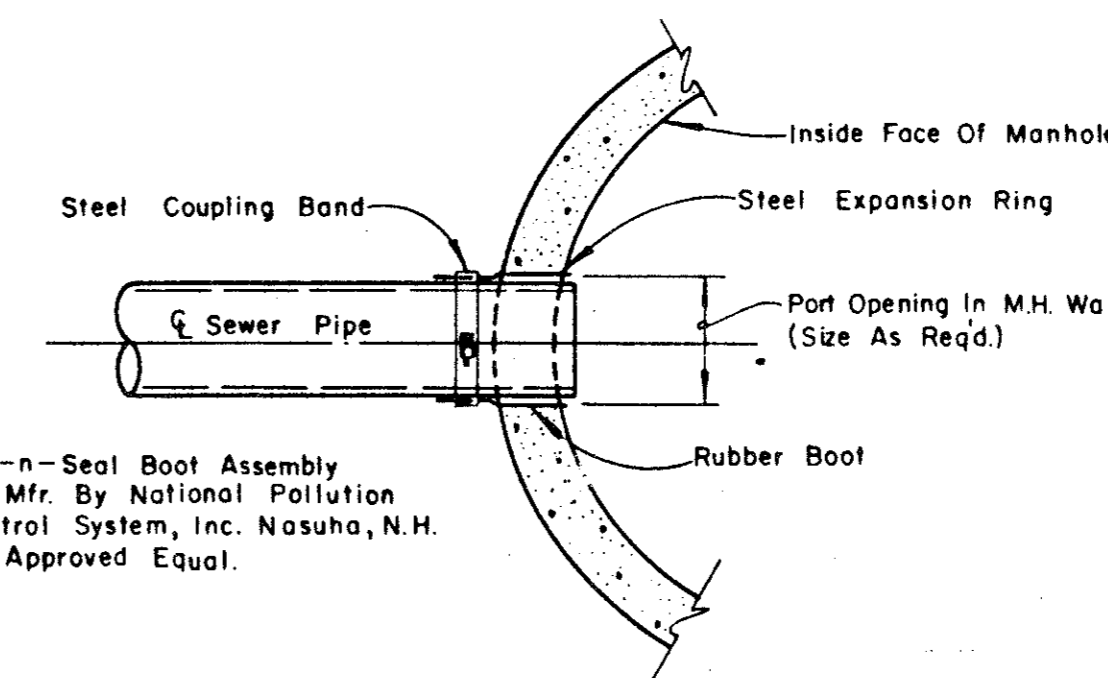
PRECAST MANHOLE



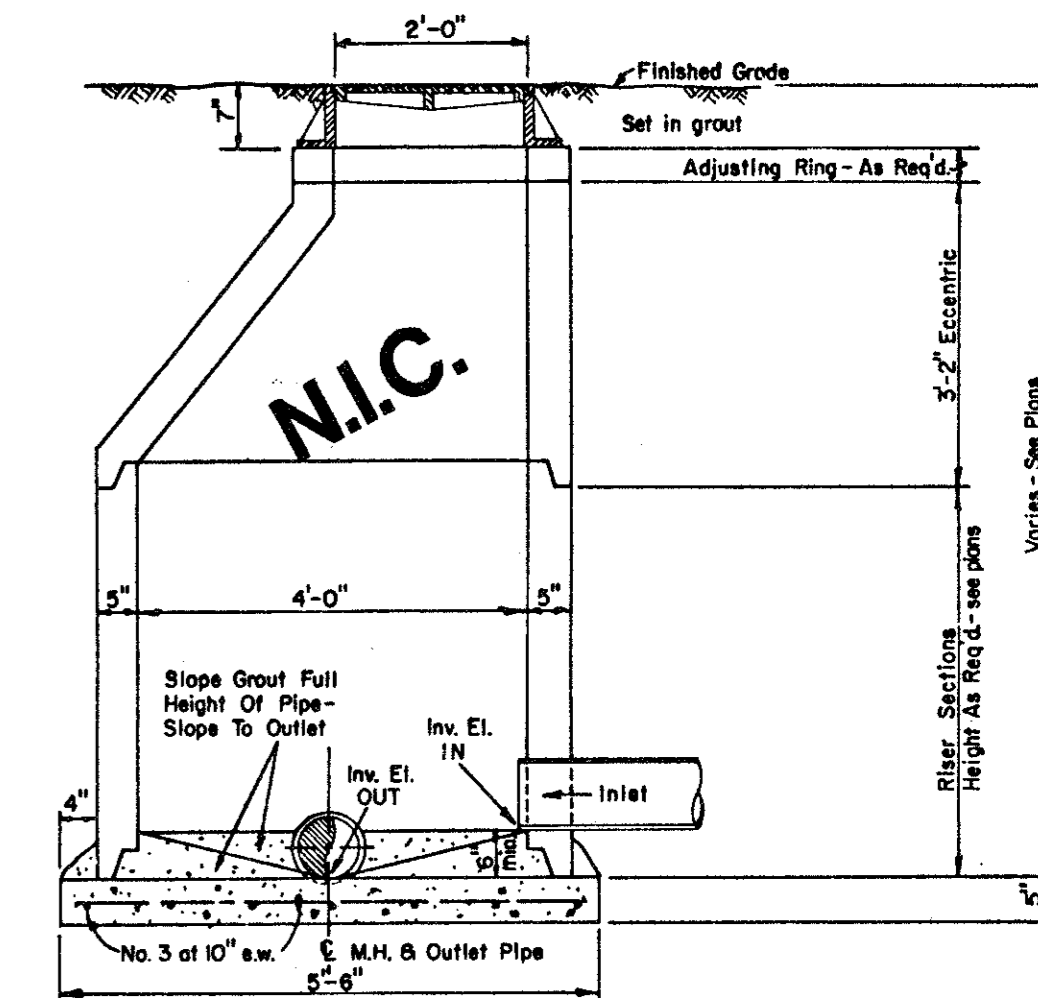
ABANDONMENT OF EXISTING MANHOLE IN AND OUT OF PAVEMENT



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.

STANDARD CONSTRUCTION DETAILS

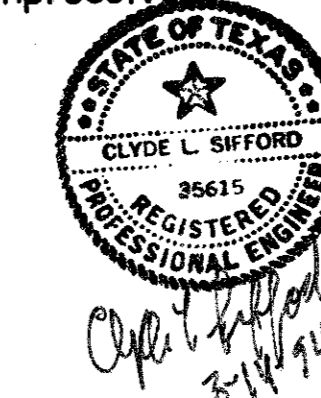
**WATERFORD COURT
TOWN OF ADDISON, TEXAS**

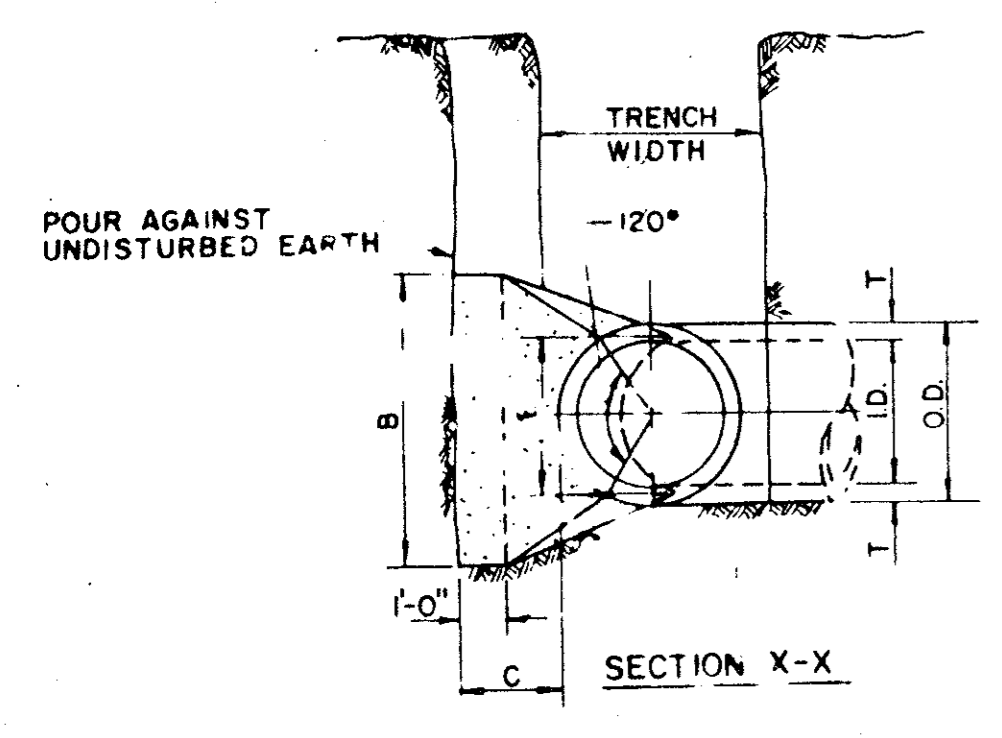
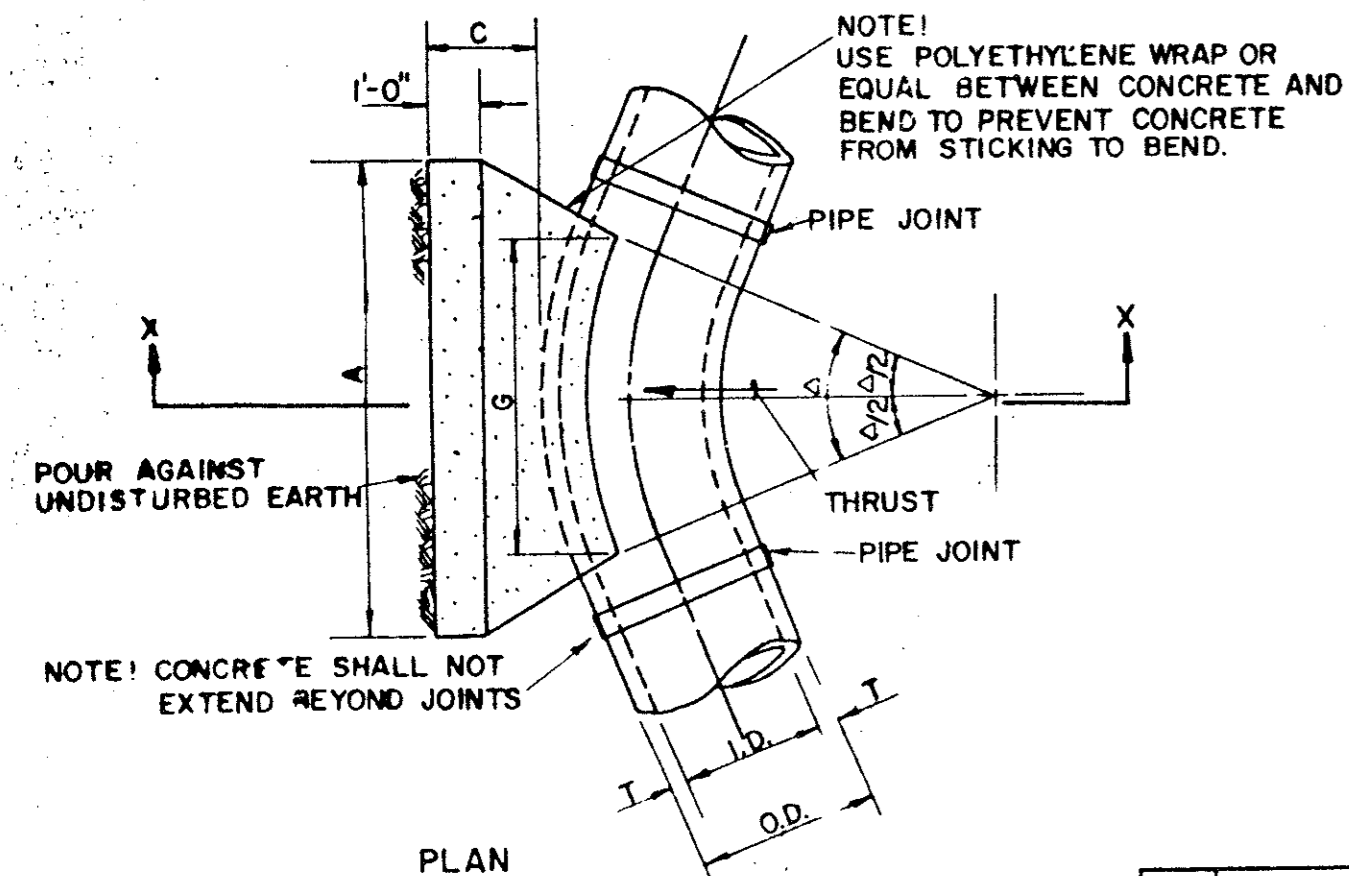
Date: NOV., 1993 Scale: AS SHOWN SHEET 13 OF
Drawn By: TNC Approved By: TNC SHEETS

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

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

THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.

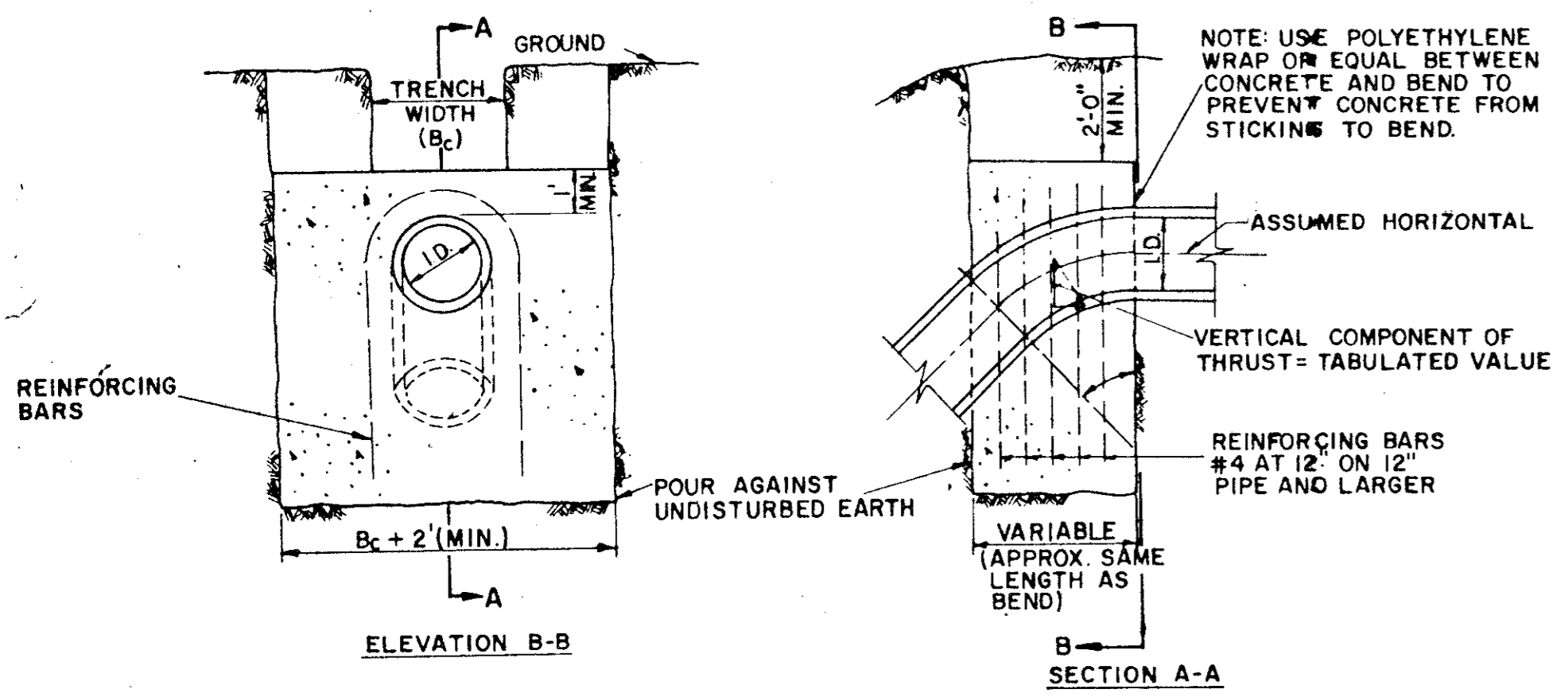




I.D. (IN.)	T (IN.)	C 11.25°		C 22.50°		E (FT.)
		FT.	FT.	FT.	FT.	
4.6, 8	0.4	1.5	1.5	0.9		
10.12	0.5	1.5	1.5	1.2		
16.18	0.6	1.5	1.5	1.6		
20	0.7	1.5	1.5	1.8		
24	0.9	1.5	1.5	2.1		
30	2.9	1.5	1.5	2.8		
36	4.5	1.5	2.3	3.3		
42	5.0	1.8	2.6	3.8		
48	5.5	2.0	3.0	4.3		
54	6.0	2.3	3.4	4.8		
60	6.5	2.5	3.8	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.)	THRUST (TONS)	EARTH			ROCK			I.D. (IN.)	G (FT.)	THRUST (TONS)	EARTH			ROCK		
			A (FT.)	B (FT.)	VOL. (CY.)	A (FT.)	B (FT.)	VOL. (CY.)				A (FT.)	B (FT.)	VOL. (CY.)	A (FT.)	B (FT.)	VOL. (CY.)
4.6, 8	0.4	10	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	1.5	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	67.2	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	6.3	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

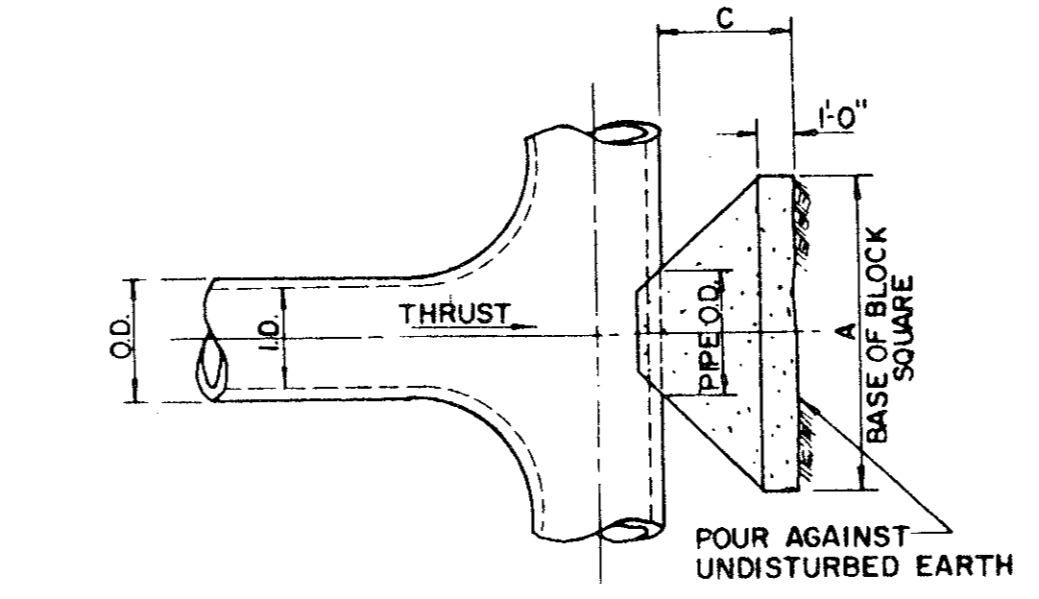
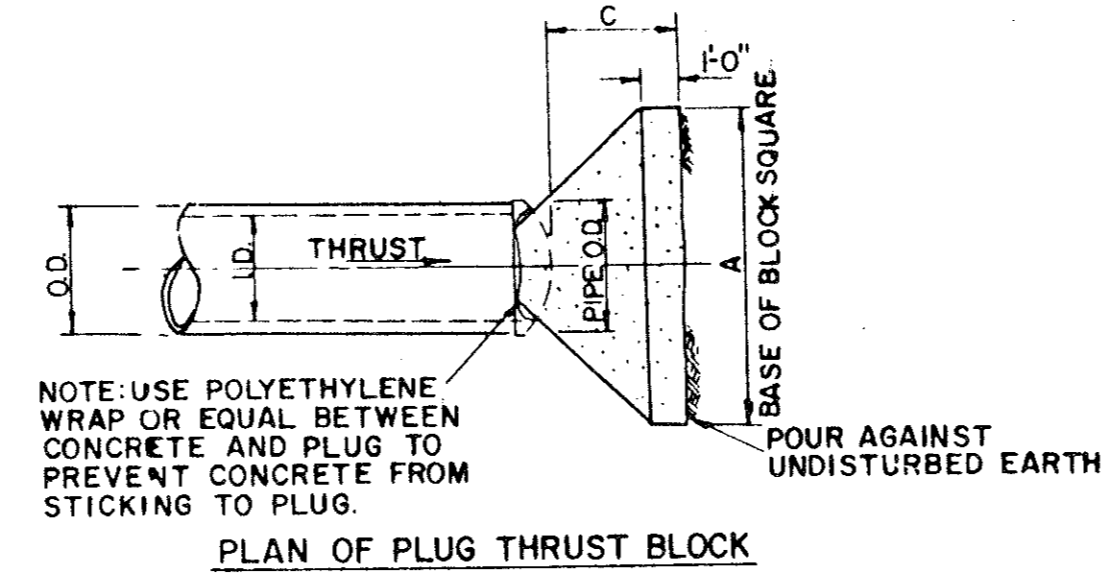


I.D. (IN.)	THRUST (TONS)	VOL. (CY.)	11.25°		22.50°		30°		45°		67.50°		90°		I.D. (IN.)
			THRUST (TONS)	VOL. (CY.)	THRUST (TONS)	VOL. (CY.)	THRUST (TONS)	VOL. (CY.)	THRUST (TONS)	VOL. (CY.)	THRUST (TONS)	VOL. (CY.)	THRUST (TONS)	VOL. (CY.)	
4.6, 8	1.0	0.5	2.0	1.0	2.5	1.3	3.6	1.8	4.6	2.3	5.0	2.5	4.6, 8		
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	70.3	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	49.1	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	164.0	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	106.0	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

- 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.
- 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.
- Wall Thickness (T) Assumed Here For Estimating Purposes Only.
- Concrete For Blocking Shall Be Class B Concrete.
- 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.

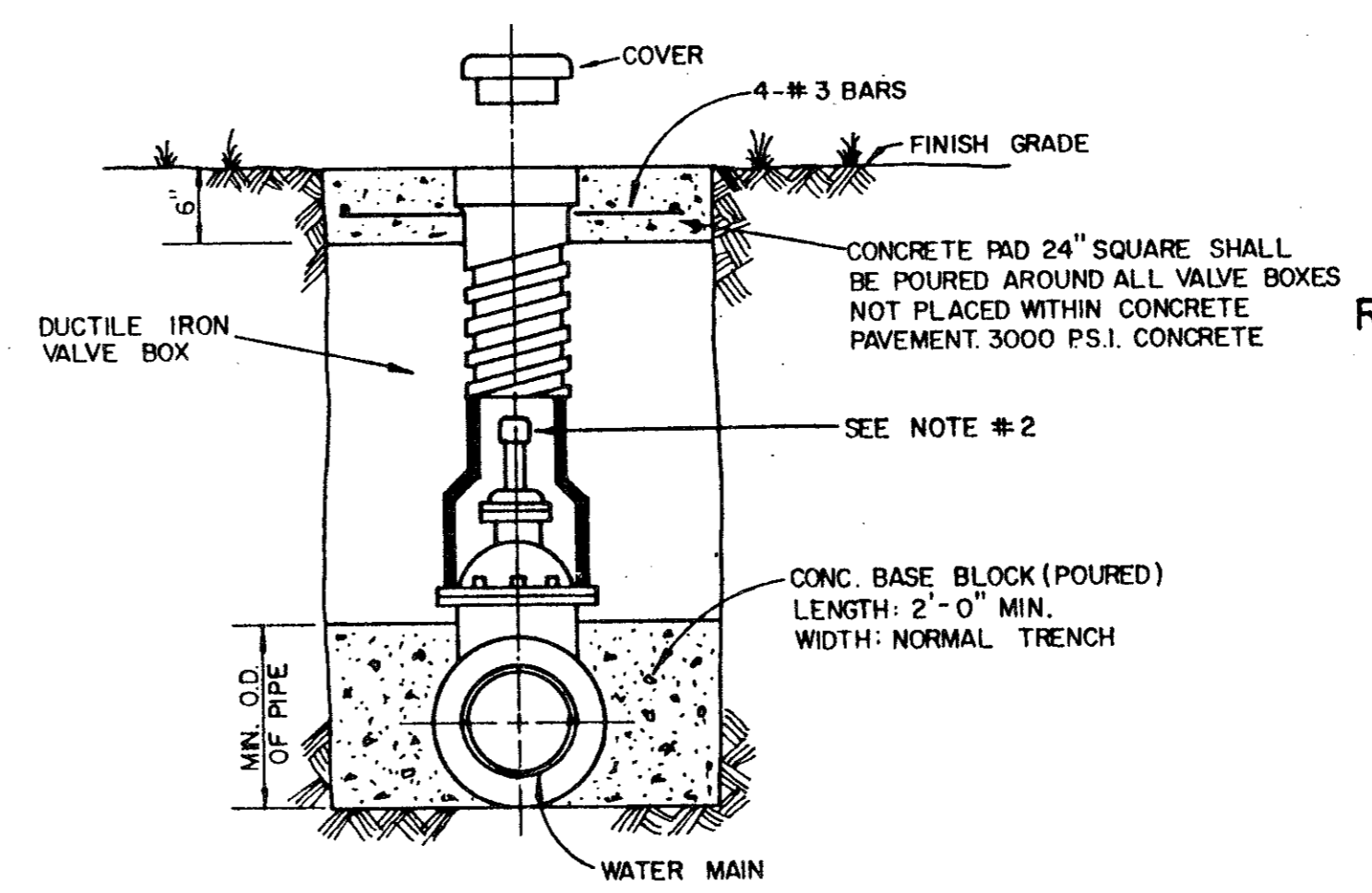
VERTICAL BEND THRUST BLOCK



I.D. (IN.)	THRUST (TONS)	EARTH		ROCK	
		C (FT.)	VOL. (CY.)	A (FT.)	VOL. (CY.)
4.6, 8	5.1	1.5	0.3	2.0	0.2
10.12	11.3	1.5	0.6	2.5	0.3
16.18	25.5	2.0	0.5	1.6	0.9
20	31.5	2.0	0.6	1.9	0.4
24	45.2	2.5	0.7	3.1	0.1
30	53.0	3.0	0.7	4.1	0.5
36	76.3	4.0	0.9	7.3	6.5
42	104.0	4.5	1.0	11.0	7.5
48	136.0	5.0	1.0	15.6	8.7
54	172.0	5.5	1.3	21.4	9.5
60	212.0	6.0	1.5	28.4	10.5
66	257.0	6.5	1.6	36.8	11.5
72	305.0	7.5	1.7	47.2	12.5
78	358.0	8.0	1.9	58.9	13.5
84	416.0	8.5	2.0	72.3	14.5
90	477.0	9.0	2.2	87.7	15.5
96	543.0	9.5	2.3	104.8	16.5

PLUG & TEE THRUST BLOCK

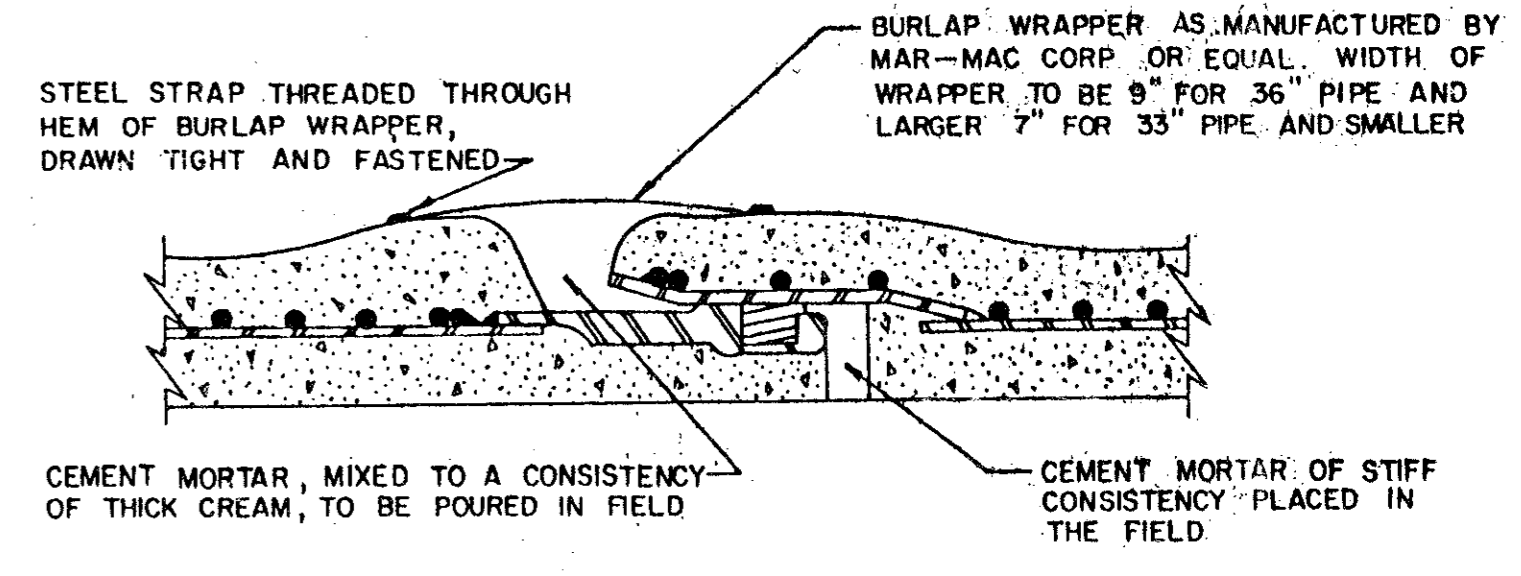
TYPICAL VALVE SETTING AND BOX



NOTE:

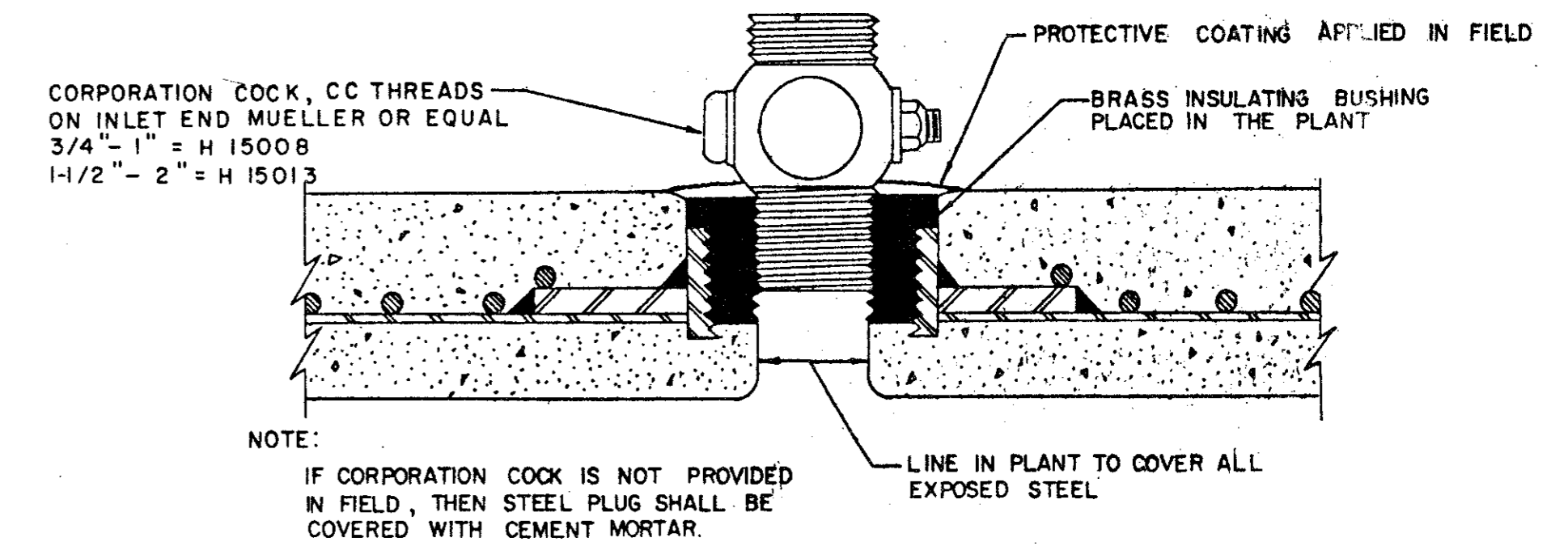
- GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C-509-80 OR LATEST THEREOF. ALL VALVES SHALL BE "MUELLER" OR APPROVED EQUAL.
- A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE THATS OPERATING NUT IS LOCATED IN EXCESS OF 4 FEET BELOW THE TOP OF VALVE BOX. THIS EXTENSION SHALL BE OF SUFFICIENT LENGTH TO INSURE THAT ITS TOP IS WITHIN 4" OF VALVE BOX LID. 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.
- VALVES SHALL BE OF DUCTILE IRON W/RUBBER ENCAPSULATED DISK BODY BOLTS SHALL BE STAINLESS STEEL OF SAME SIZE ON EACH VALVE.

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.

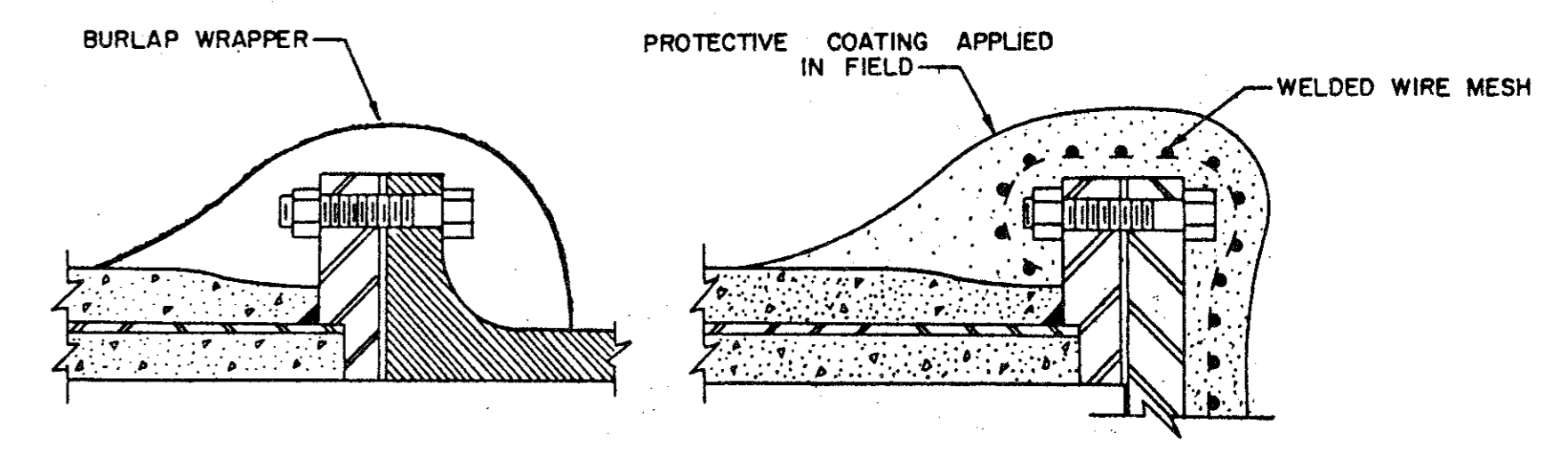


STANDARD RUBBER GASKET JOINT

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



THREADED CONNECTION



FLANGED CONNECTIONS

REINFORCED CONCRETE CYLINDER PIPE DETAILS

AS BUILTS

THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.

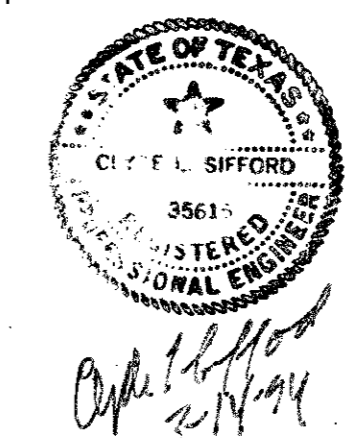
STANDARD CONSTRUCTION DETAILS

WATERFORD COURT
TOWN OF ADDISON, TEXAS

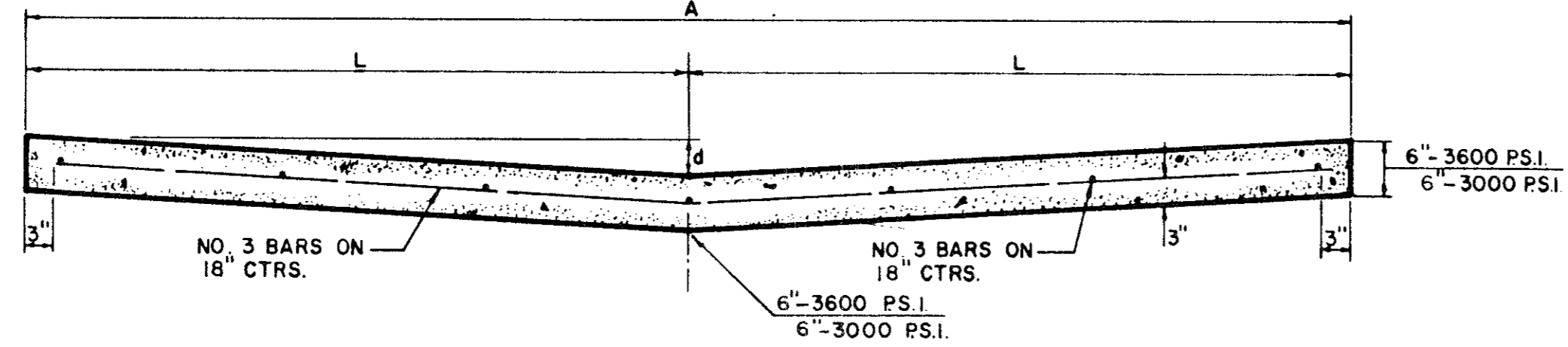
Date: NOV., 1993 Scale: AS SHOWN SHEET 15 OF

Drawn By: TNC Approved By: TNC SHEETS

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

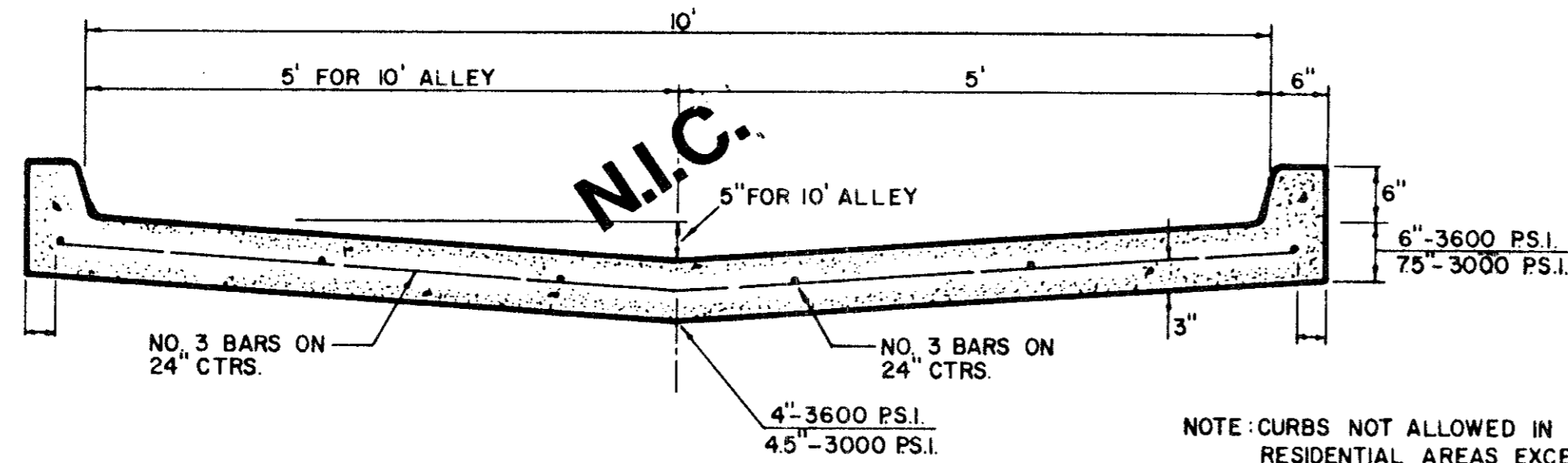


ALLEY WIDTH (A)	HALF SECTION WIDTH (L)	INVERT DEPTH (d)
10'	5'	4"
12'	6'	6"
16'	8'	6"
20'	10'	6"



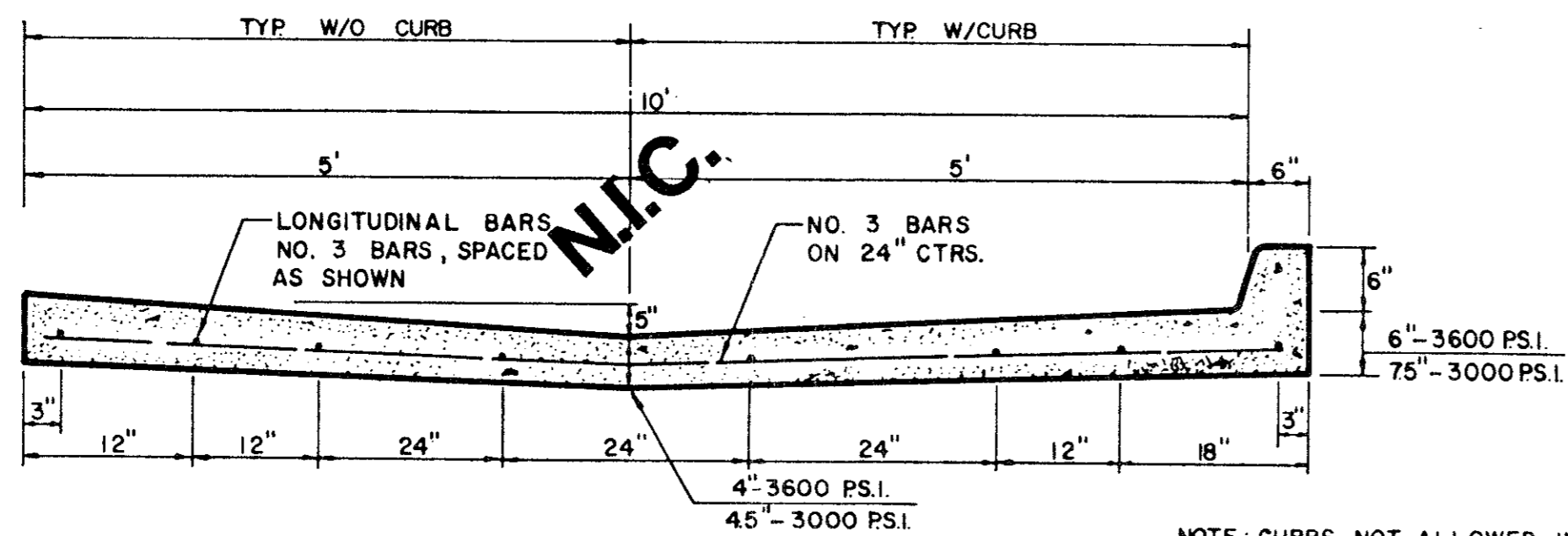
STANDARD 10', 12', 16', & 20' ALLEY SECTION

N.I.C.



STANDARD ALLEY SECTION WITH CURBS

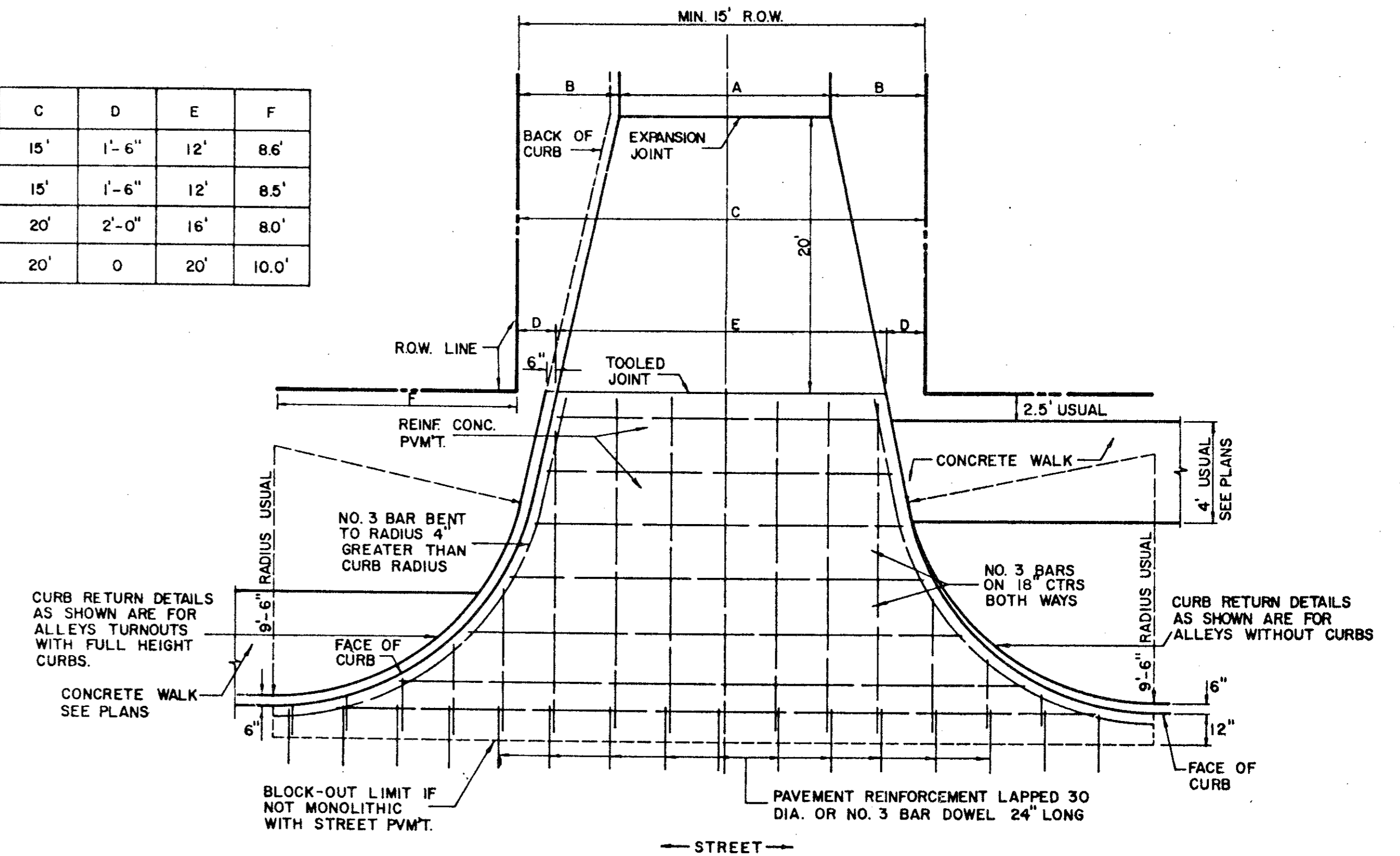
NOTE: CURBS NOT ALLOWED IN RESIDENTIAL AREAS EXCEPT AS APPROVED BY THE ENGINEER.



ALTERNATE 10' ALLEY SECTION / CURB

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

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'

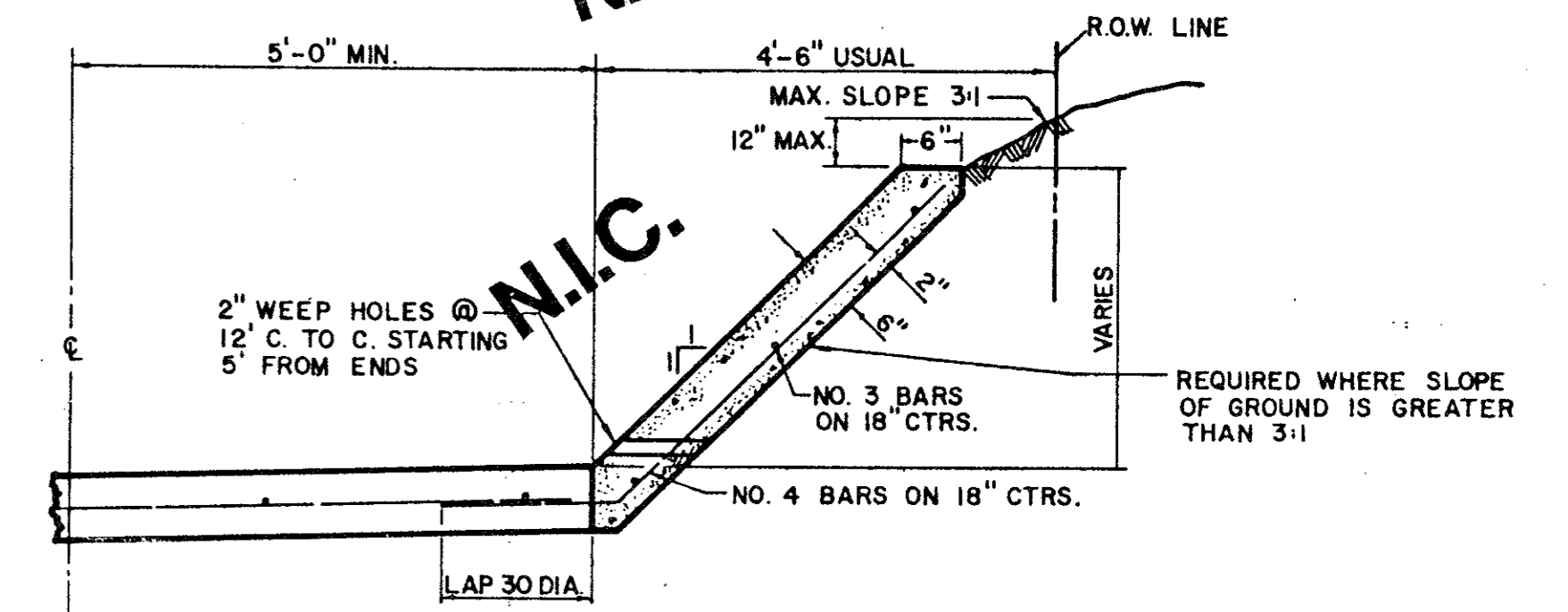


ALLEY RETURN DETAILS
FOR DETAILS ONLY-SEE PLAN FOR DIMENSIONS

N.I.C.

AS BUILT

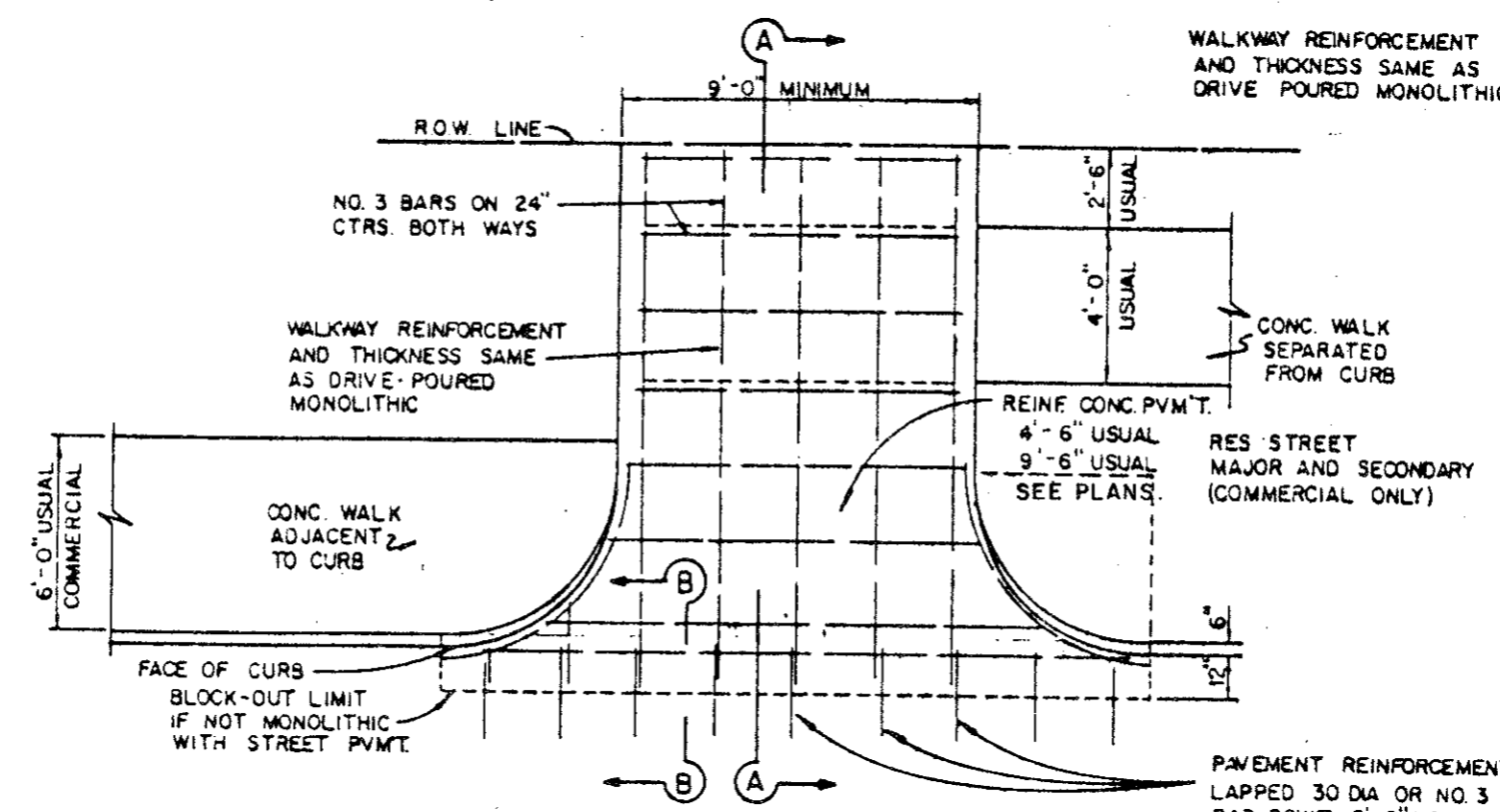
THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.



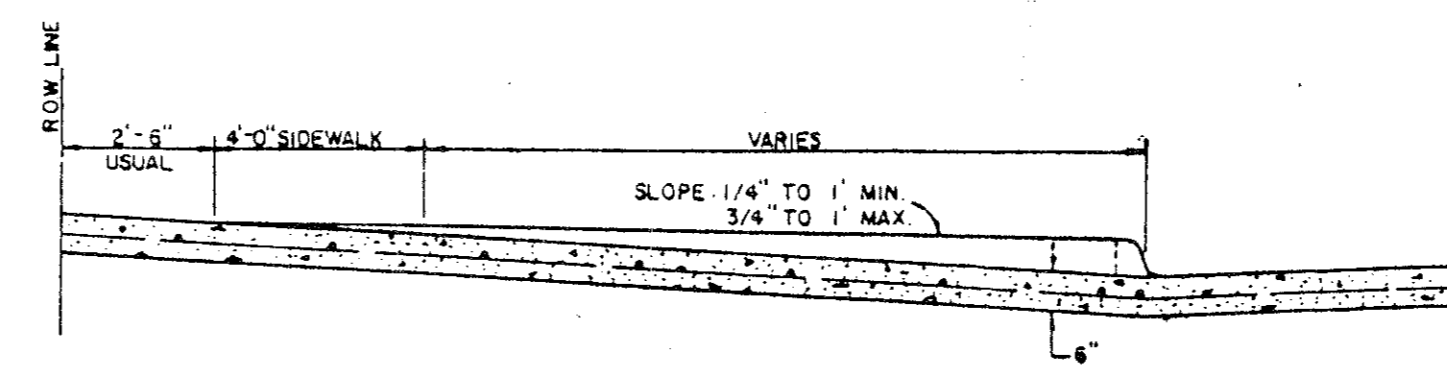
ALLEY SLOPE PROTECTION

GENERAL NOTES FOR ALLEYS AND DRIVEWAYS

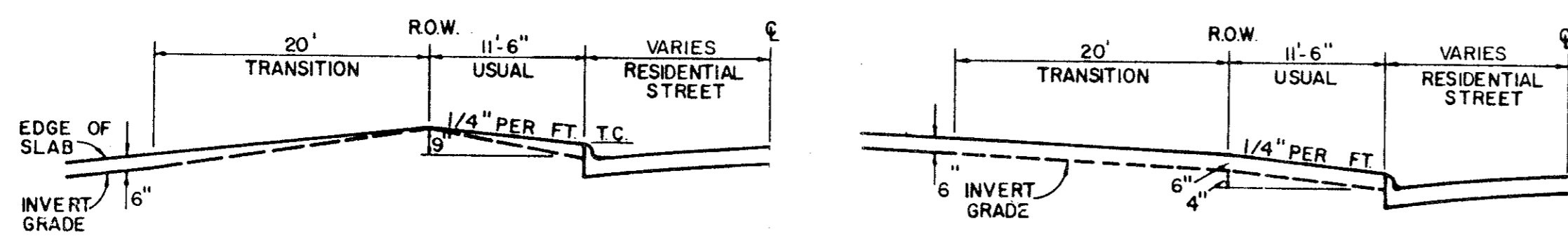
1. CONCRETE FOR ALLEY RETURNS AND DRIVEWAYS SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS IDENTICAL TO THAT SPECIFIED FOR THE STREET PAVEMENT OR BASE WHEN BUILT AS COMPONENTS OF A CONCRETE PAVING PROJECT. WHEN BUILT SEPARATELY, THE STRENGTH SHALL BE AS SPECIFIED ON THE CONSTRUCTION PLANS.
2. CONCRETE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



DRIVEWAY RETURN TO STREET



SECTION B-B
DRIVEWAY RETURN DETAILS



TYPE I ALLEY ENTRANCE

N.I.C.

TYPE II ALLEY ENTRANCE

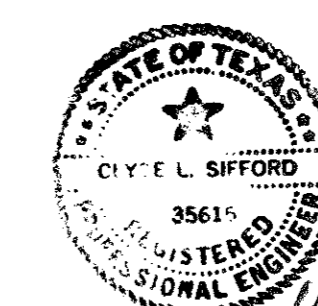
STANDARD CONSTRUCTION DETAILS

WATERFORD COURT
TOWN OF ADDISON, TEXAS

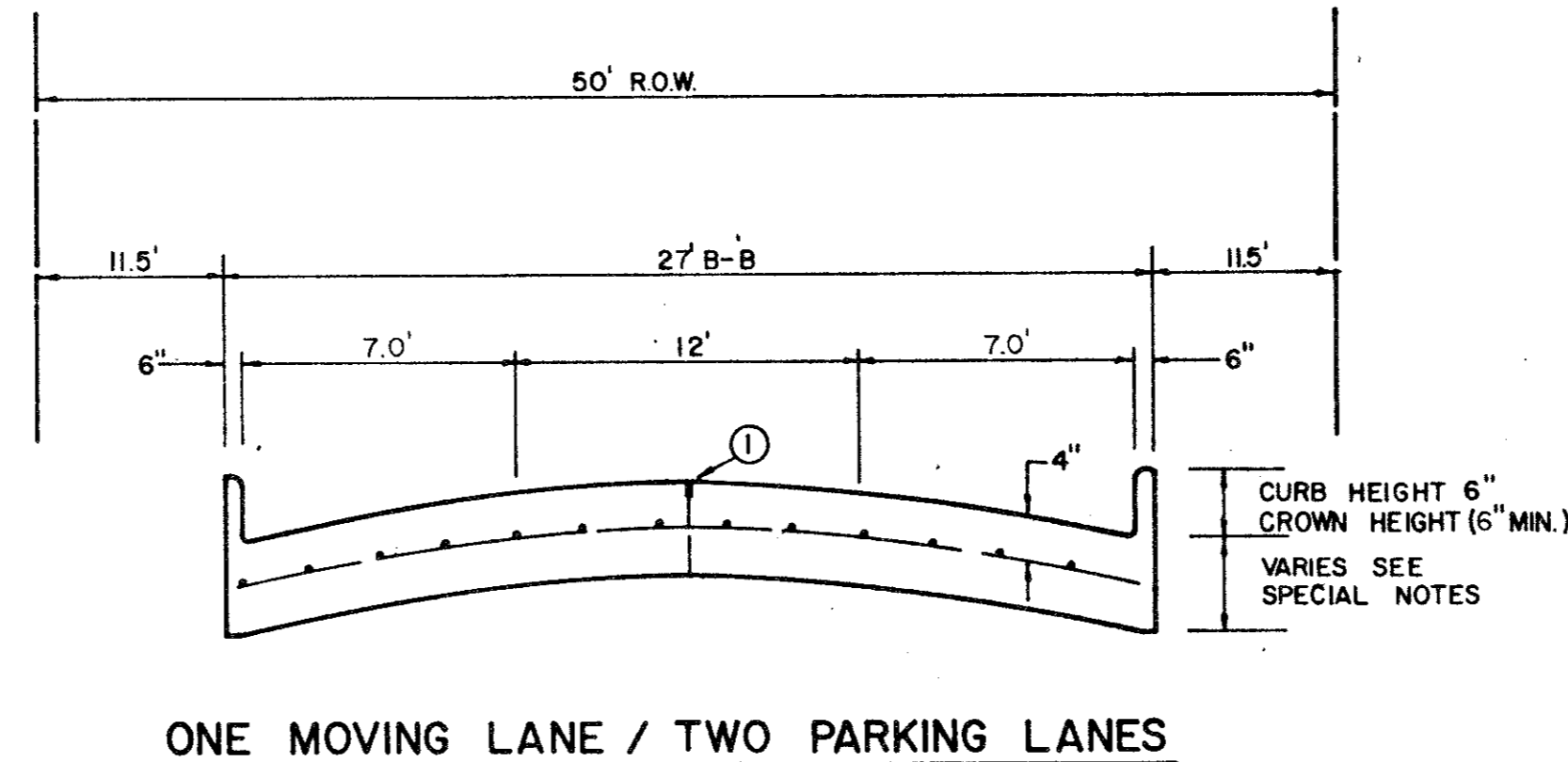
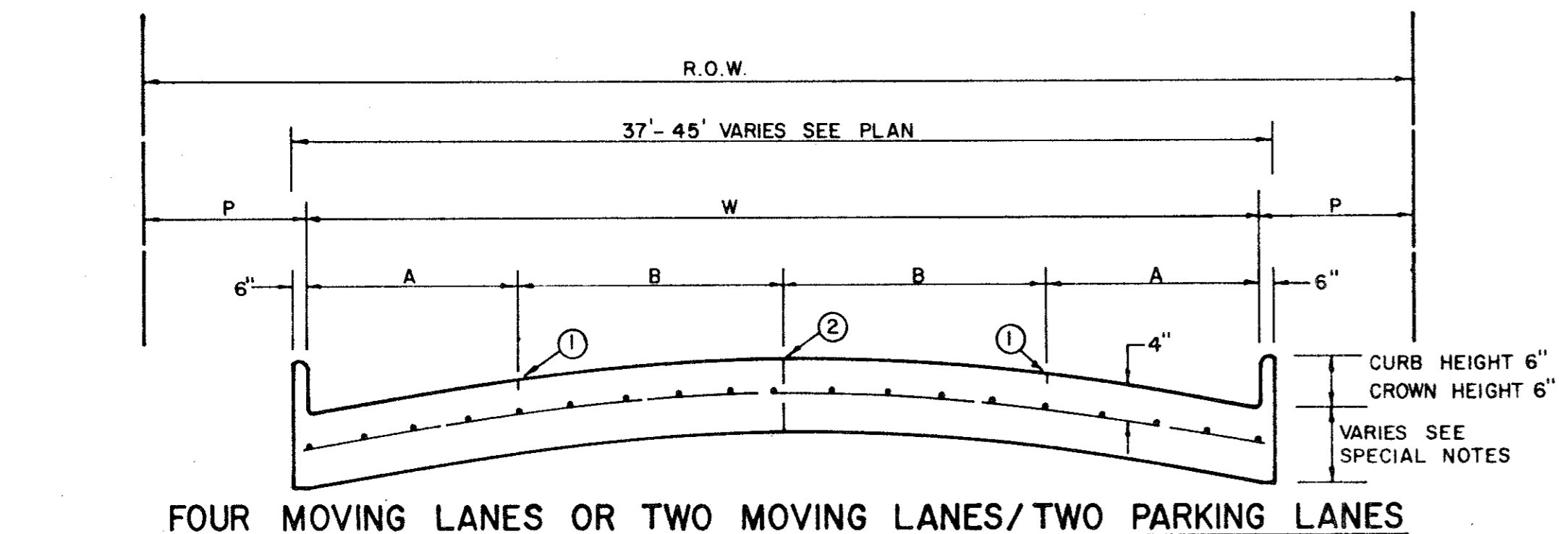
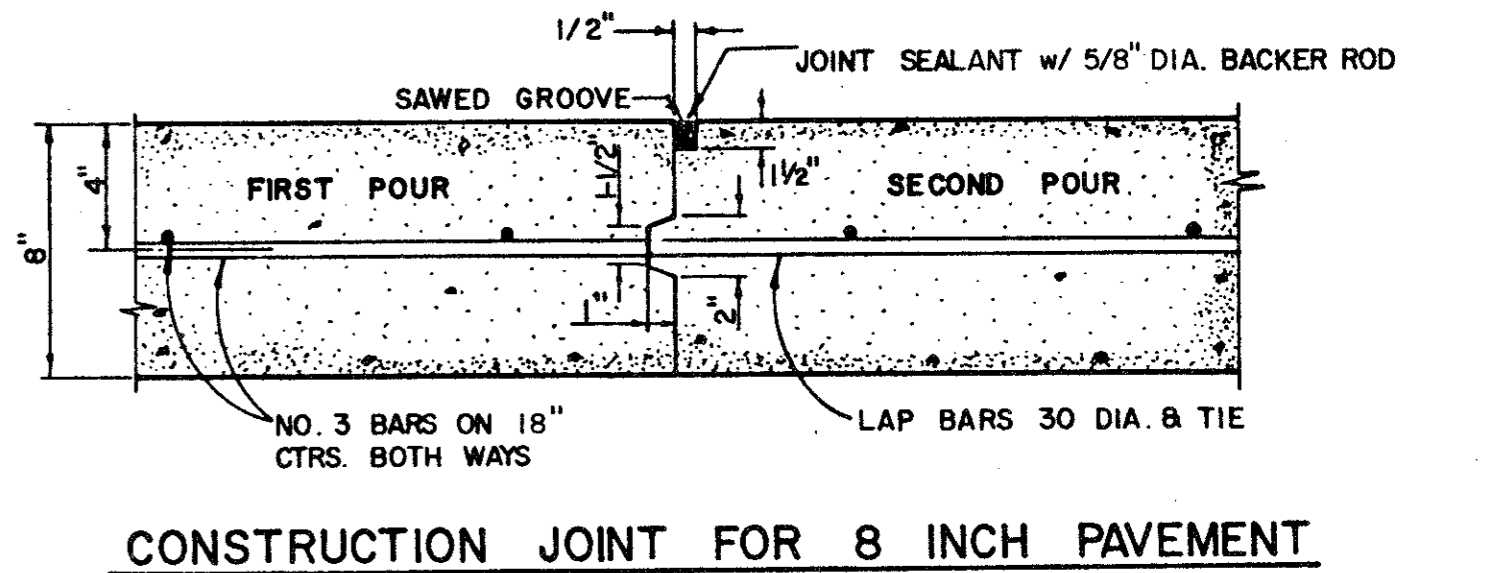
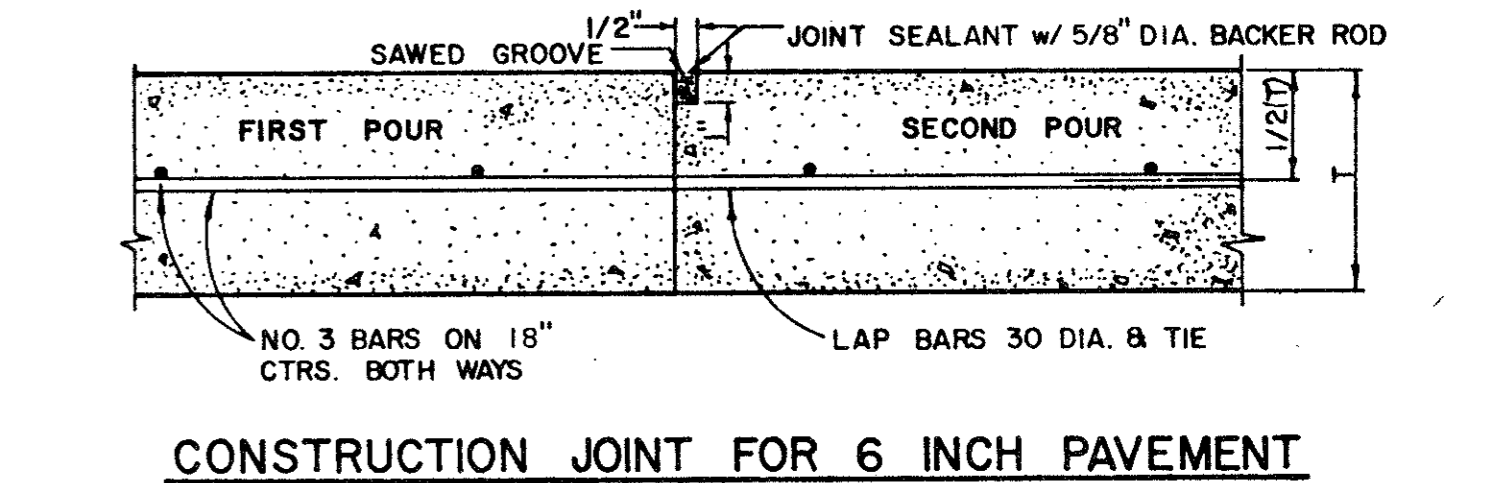
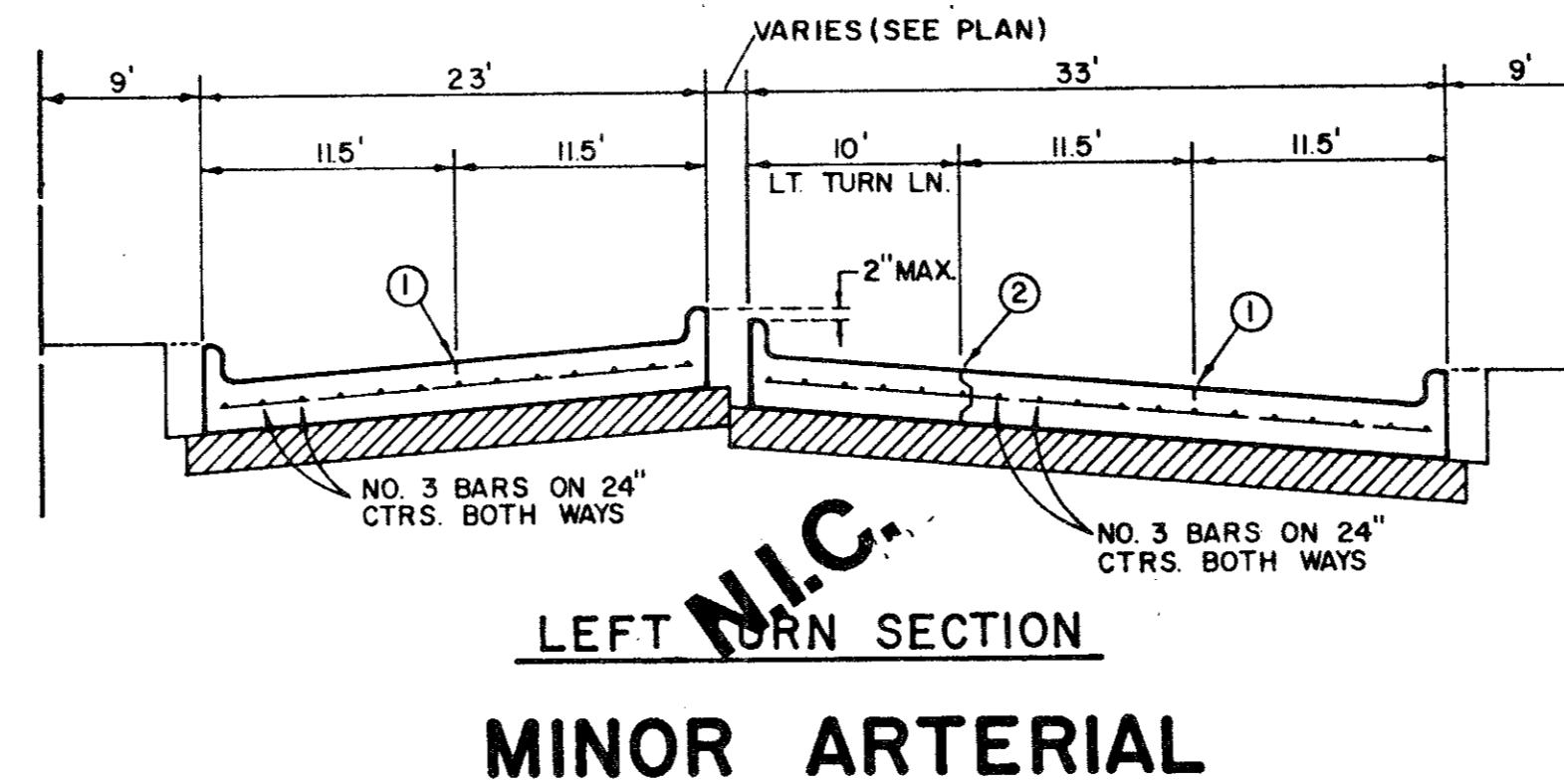
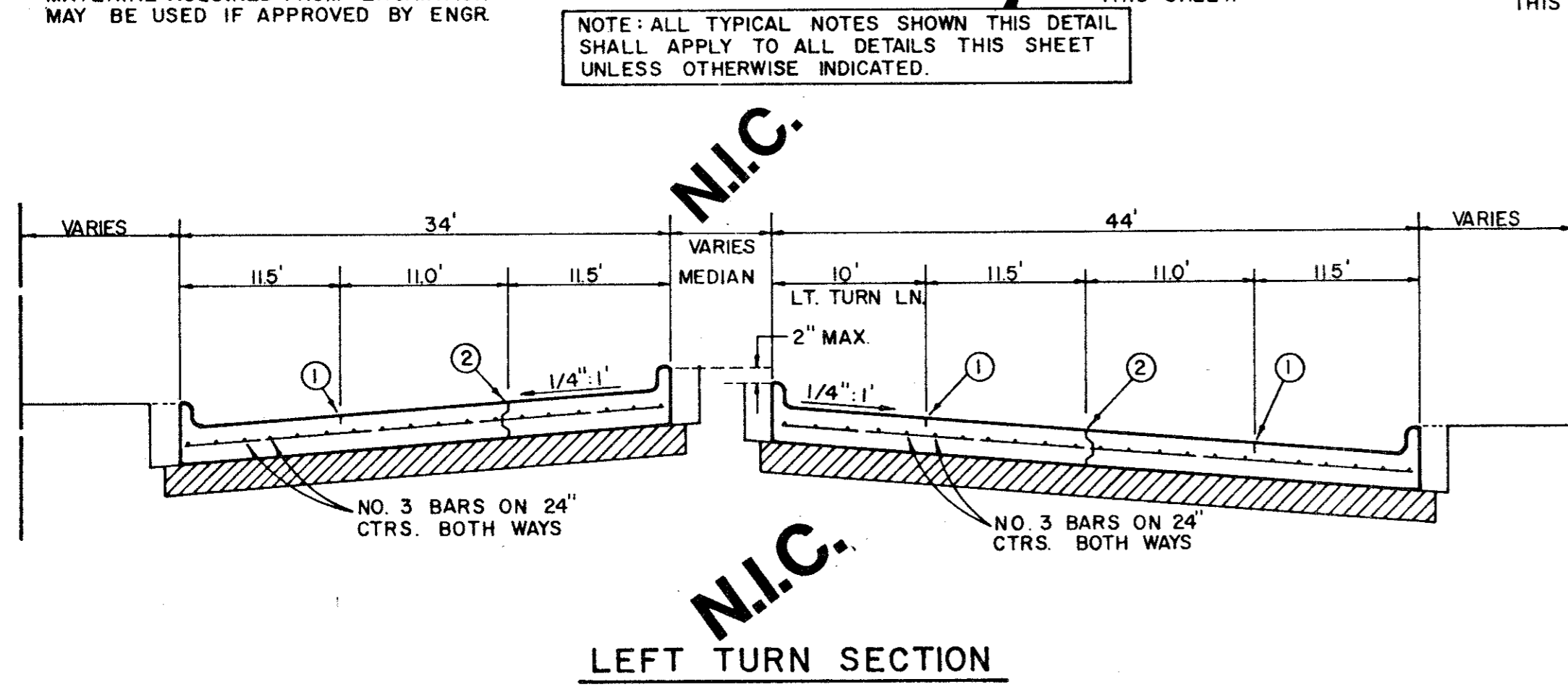
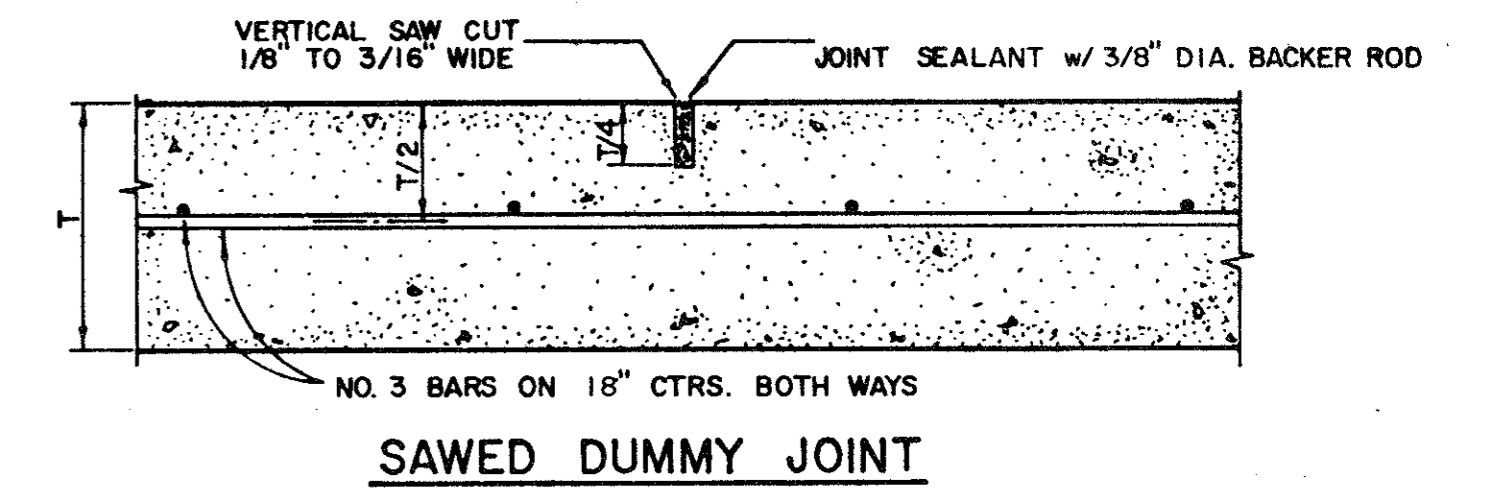
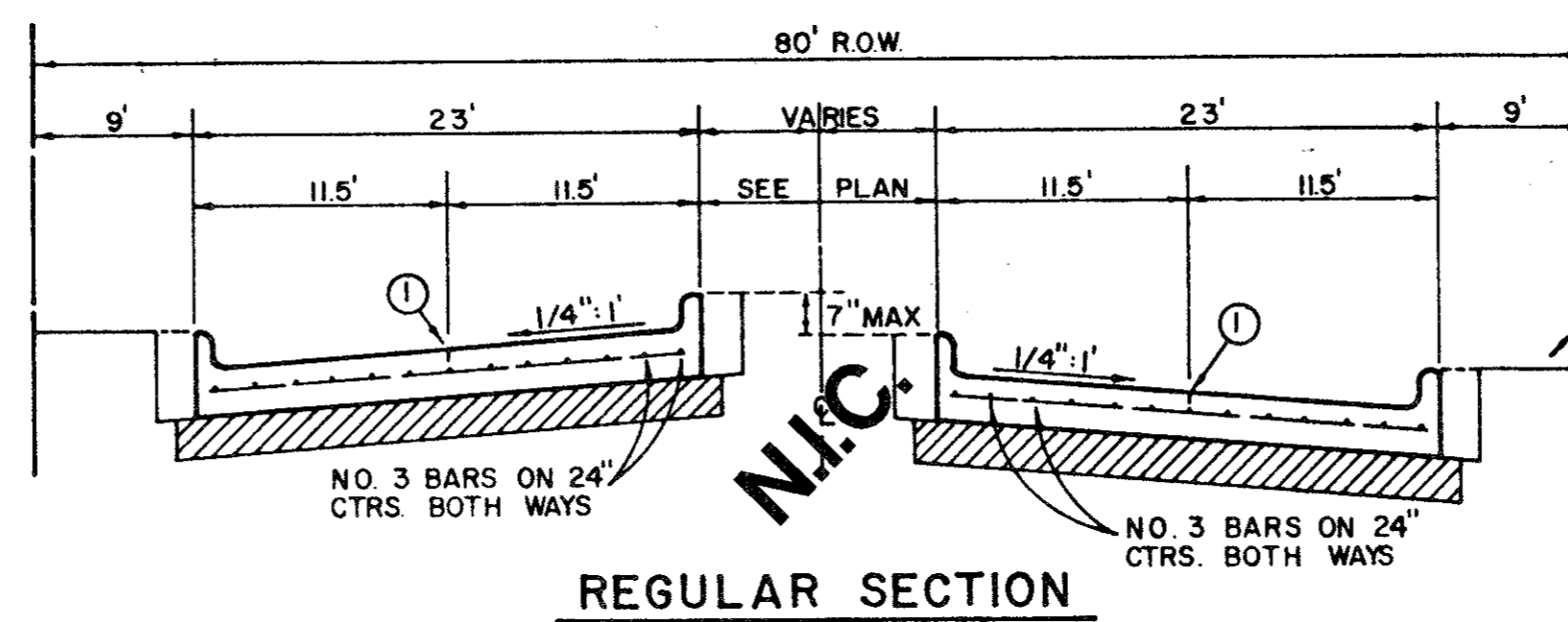
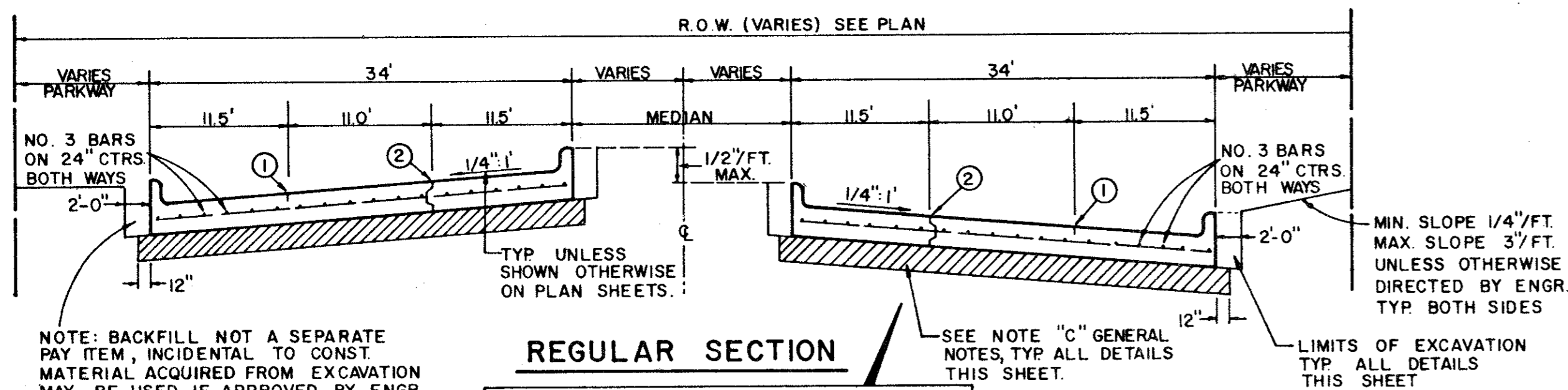
Date: NOV., 1993	Scale: AS SHOWN	SHEET 16 OF
Drawn By: TNC	Approved By: TNC	SHEETS

THE NELSON CORPORATION
LAND PLANNING • ENGINEERING • SURVEYING

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



3-14-94



STREET TYPE	STREET WIDTH (W)	A	B	R.O.W. WIDTH	P
COLLECTOR	36'	8'	10'	60'	11.5'
COLLECTOR	40'	8'	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.

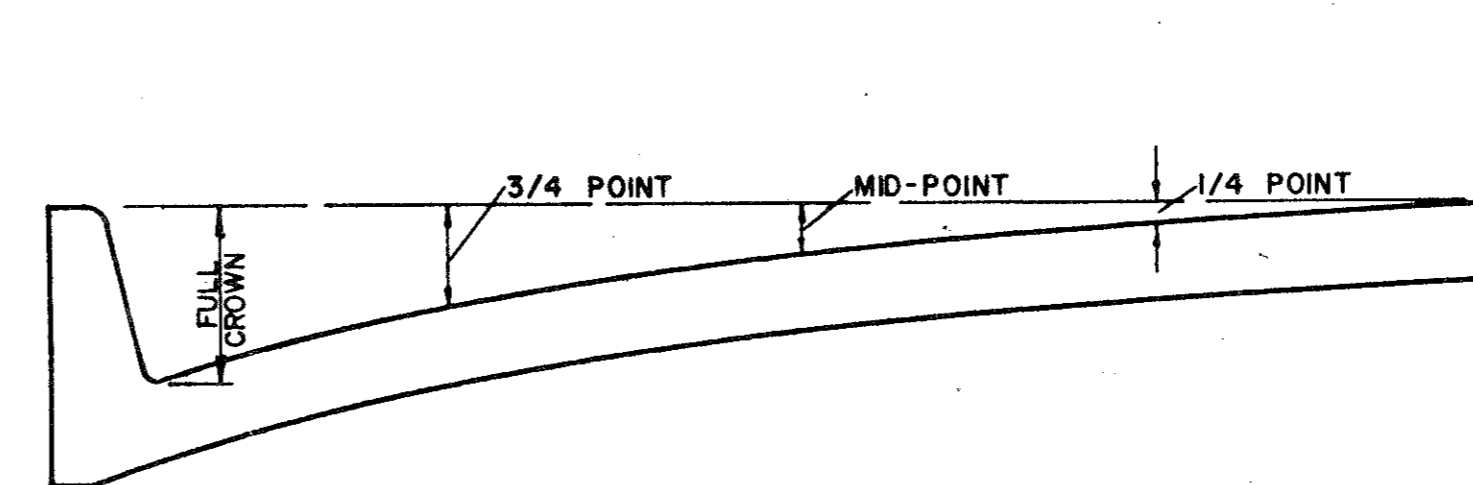
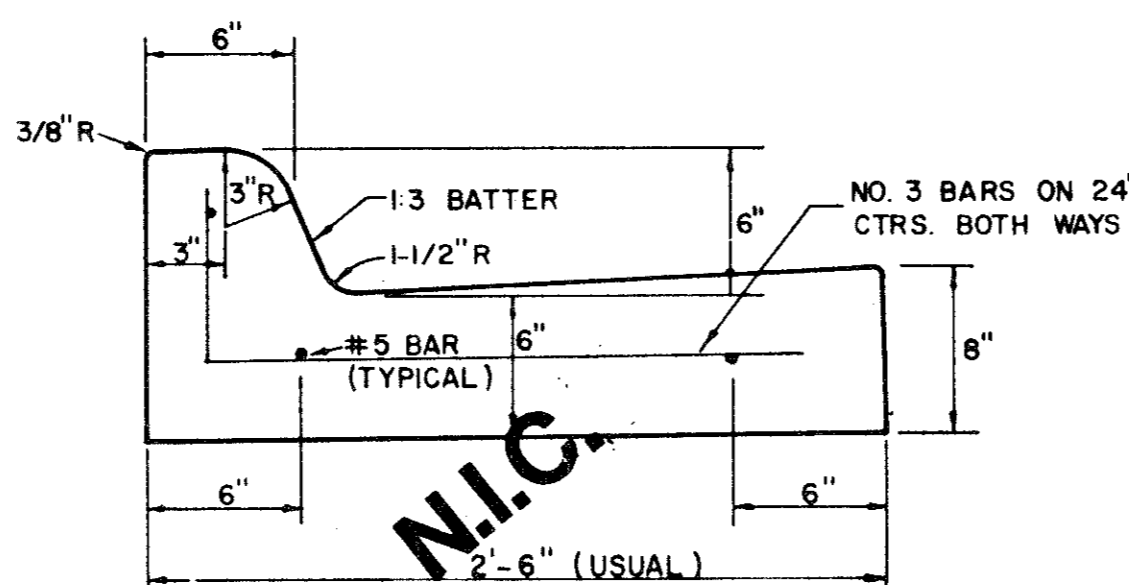
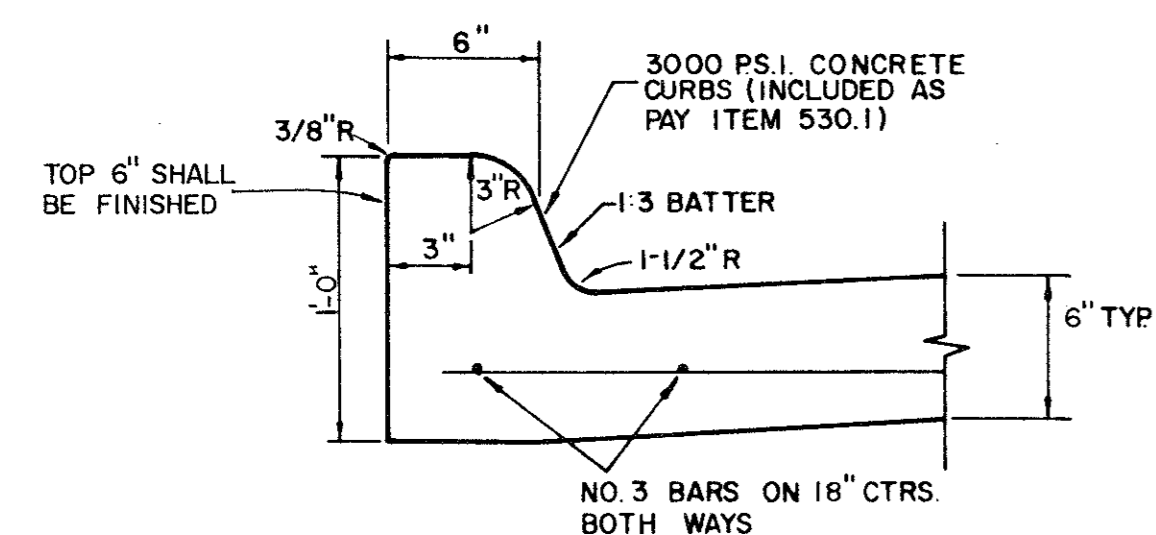
COLLECTOR STREET

AS BUILT

THE INTENT OF THE OWNER AND ENGINEER WAS TO CONSTRUCT THE FACILITIES ACCORDING TO THESE PLANS AS APPROVED BY THE CITY OF ADDISON. THE LINES AND GRADES WERE SET ON THE GROUND FOR CONSTRUCTION ACCORDING TO SAID PLANS. THE CITY OF ADDISON INSPECTED THE CONSTRUCTION. THE OWNER OR ENGINEER DID NOT VERIFY LINES OR GRADES AFTER CONSTRUCTION. WE ARE NOT AWARE OF ANY CHANGES OR REVISIONS TO THESE PLANS DURING CONSTRUCTION EXCEPT AS NOTED.

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 & BUTON P-117-Y PATTERNS TO BE ESTABLISHED BY ENGINEER. SEE DETAIL SHEET
- ① SAWED LONGITUDINAL DUMMY JOINT.
- ② CONSTRUCTION JOINT (FULL WIDTH PVMT IS ALLOWED WHERE APPROVED BY ENGINEER.
- ③ FINISH SHALL BE TRANSVERSE WITH TRAFFIC LANES AND SHALL BE STEEL TINED BROOM FINISH.

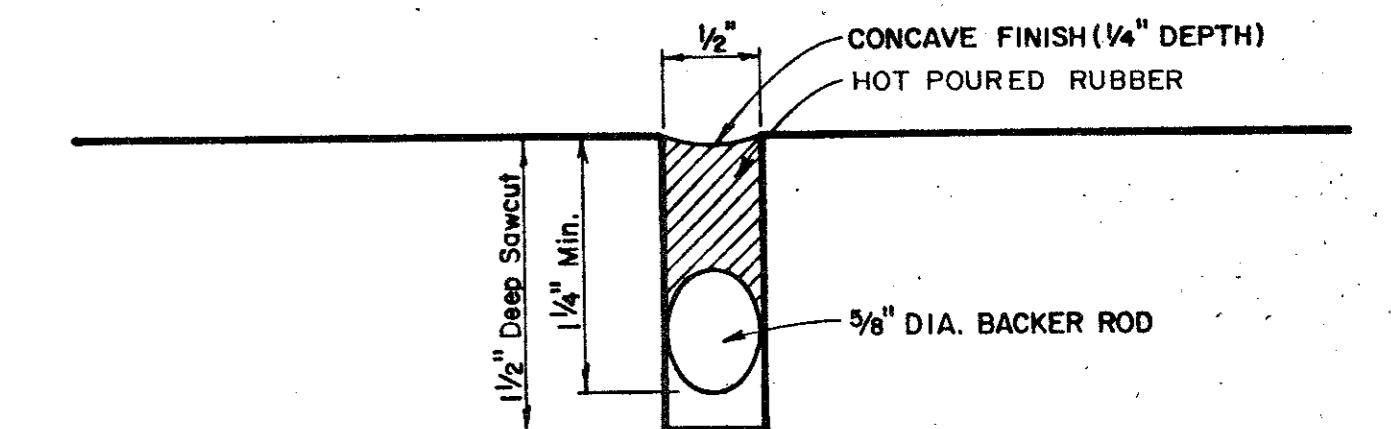


ROADWAY WIDTH (W)	TOTAL CROWN HEIGHT	3/4 POINT	MID-POINT	1/4 POINT
26'	6"	3-3/8"	1-1/2"	3/8"
36'	6"	3-3/8"	1-1/2"	3/8"
44'	6"	3-3/8"	1-1/2"	3/8"
48'	6"	3-3/8"	1-1/2"	3/8"

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
 - ALL CURBS SHALL BE PLACED INTEGRAL WITH PAVEMENT
 - CURBS SHALL MEET THE SAME COMPRESSIVE STRENGTH AS SPECIFIED FOR THE CONCRETE PAVEMENT
 - DETAIL AND ARRANGEMENT OF JOINTS, ALL TYPES, SHALL BE AS SHOWN ON THE STANDARD CONSTRUCTION DETAILS, OR AS APPROVED BY ENGINEER.
 - BAR LAPS SHALL BE 30 DIAMETERS.
- C. BAR CHAIRS OR AN APPROVED SUPPORTING DEVICE SHALL BE FURNISHED.



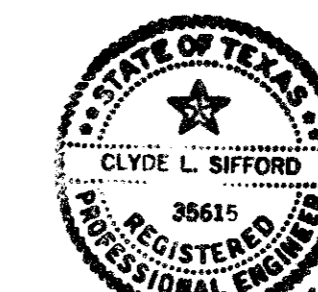
STANDARD CONSTRUCTION DETAILS

WATERFORD COURT
TOWN OF ADDISON, TEXAS

Date: NOV., 1993 Scale: AS SHOWN SHEET 18 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



Clyde L. Sifford
3-14-94

