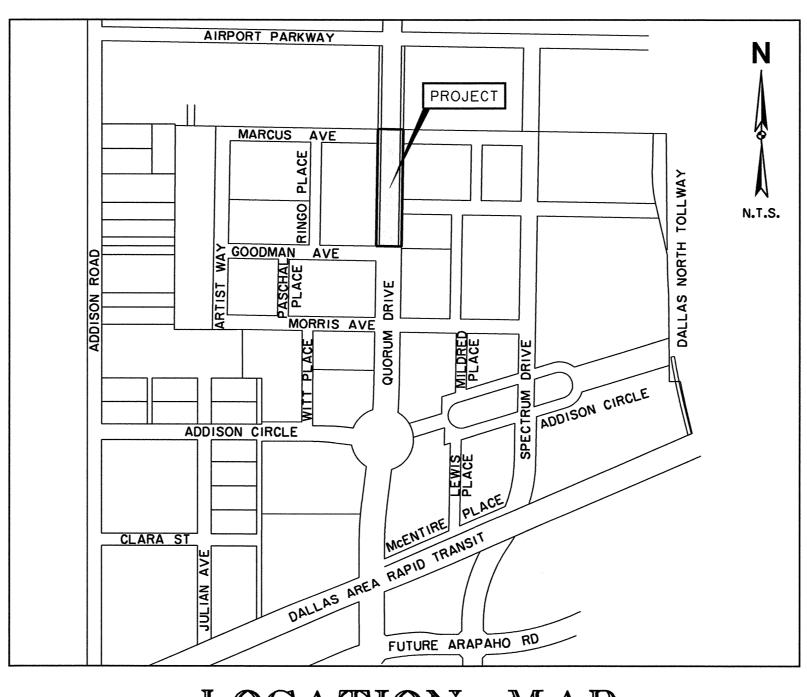
# CIVIL & LANDSCAPE PLANS FOR CONSTRUCTION OF PAVING, STREETSCAPE & UTILITY IMPROVEMENTS

# QUORUM DRIVE

JANUARY 15, 2009

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C3	RECOMMENDED UTILITY LOCATIONS
C4	SIGNAGE & STRIPING PLAN
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C7	STREETSCAPE PLAN
C8, C9	STREETSCAPE, LIGHT & SUBDRAIN DETAILS
CIO	DRAINAGE AREA MAP
CII	STORM WATER PLAN & PROFILE
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C22	IRRIGATION PLAN
C23	TOWN OF ADDISON IRRIGATION SPECS.
C24	IRRIGATION DETAILS



LOCATION MAP

# OWNER:

FAIRFIELD RESIDENTIAL, LLC 2045 N. HIGHWAY 360, SUITE 250 GRAND PRAIRIE, TEXAS 75050 (817) 307–8060

# **ENGINEER:**

HUITT-ZOLLARS, INC.
3131 McKINNEY AVE., SUITE 600
DALLAS, TEXAS 75204
(214) 871-3311 FAX (214) 871-0757
KEVIN N. CARLSON, P.E.
email: kcarlson@huitt-zollars.com
TX. REG. NO. 89232

## RECORD DRAWING

THIS DRAWING HAS BEEN MODIFIED FROM THE ORIGINAL TO SHOW ONLY THE FIELD CHANGES AND ADJUSTMENTS MADE DURING CONSTRUCTION BY THE CONTRACTOR WHICH WERE DOCUMENTED AND FURNISHED TO THE ENGINEER FOR THE PURPOSE OF PREPARING THESE RECORD DRAWINGS. FIELD INSPECTION OF CONSTRUCTION WAS PERFORMED BY OTHERS. TO THE BEST OF OUR KNOWLEDGE AND UNDERSTANDING THESE RECORD DRAWINGS REPRESENT THE "AS-BUILT" CONDITIONS.



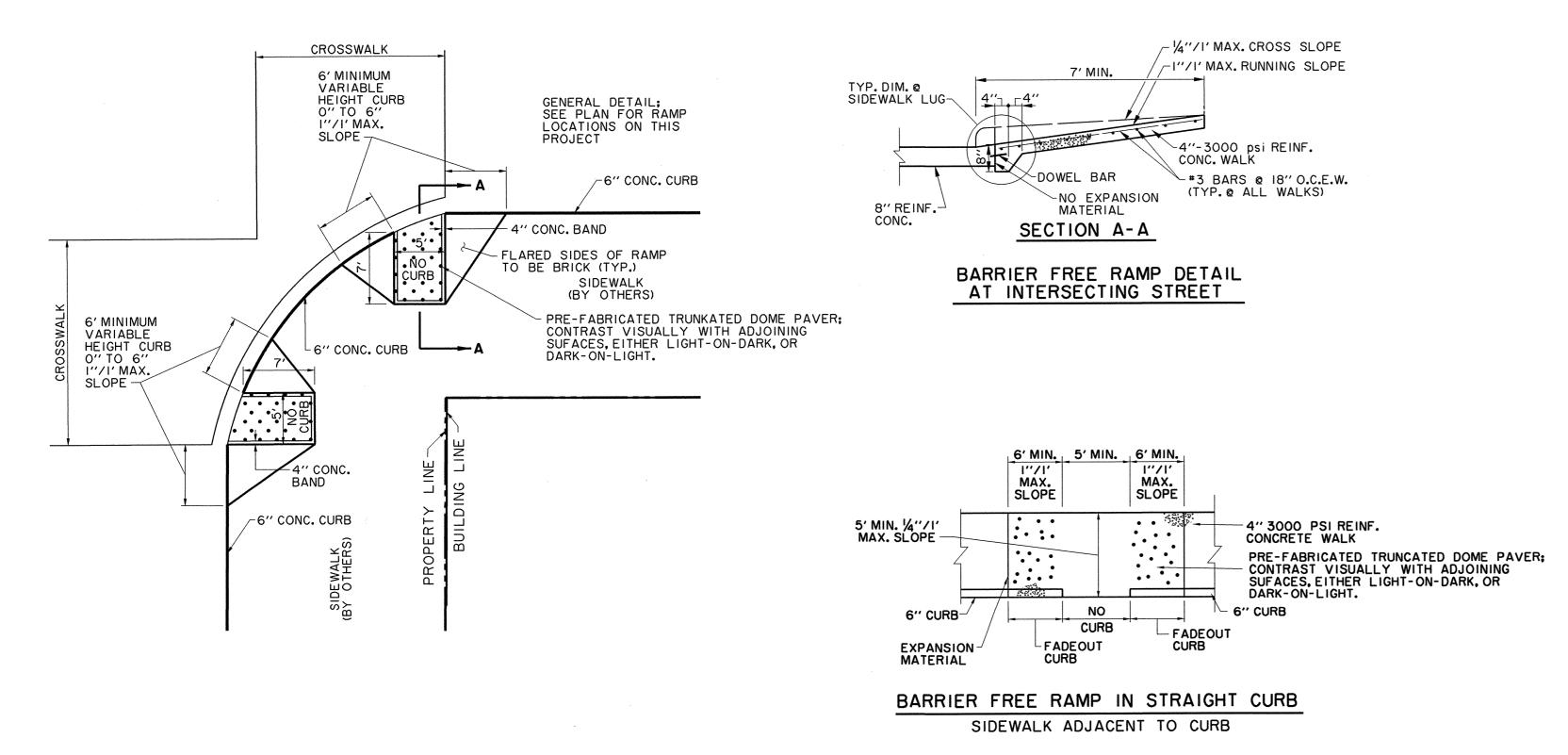
RECORD DRAWINGS 1/15/09

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# 4 LANE DIVIDED

QUORUM DRIVE

(LOOKING NORTH) (SEE PLAN VIEW FOR NECK-DOWN AREAS)



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# BARRIER FREE RAMP GENERAL NOTES

- I. ALL ADA FACILITIES MUST PASS INDEPENDENT INSPECTION, LETTER OF COMPLIANCE ACCEPTANCE IS REQUIRED PRIOR TO FINAL ACCEPTANCE BY THE TOWN OF ADDISON.
- 2. MAXIMUM RUNNING SLOPE ON BARRIER FREE RAMPS MUST NOT EXCEED I" PER FOOT @ ANY LOCATION.
- 3. DESIGNS SHOWN ARE FOR 6" CURBS. FOR CURBS WITH HEIGHT GREATER THAN 6" DIMENSIONS MUST BE INCREASED PROPORTIONATELY.
- 4. STREETS ON STEEP GRADE WILL REQUIRE LONGER TRANSITION ON UPGRADE SIDE.
- 5. LOCATION OF BARRIER FREE RAMP MAY BE SHIFTED TO CLEAR OBSTRUCTIONS.
- 6. CONC. TO HAVE MINIMUM 3000 psi COMPRESSIVE STRENGTH @ 28 DAYS.
- 7. REINFORCEMENT TO BE #3 DEFORMED BARS @ 18" O.C.E.W. & SUPPORTED BY APPROVED BAR CHAIRS ON 3'-0" CENTERS.

#### NOTES:

- I. BACKFILL MATERIAL IS NOT A SEPARATE PAY ITEM. MATERIAL ACQUIRED FROM EXCAVATION MAY BE USED IF APPROVED BY ENGINEER.
- 2. PAY LINE FOR UNCLASSIFIED STREET EXCAVATION IS THE RIGHT-OF-WAY LINE WHEN A BUILDING IS BEING CONSTRUCTED ADJACENT TO THE RIGHT-OF-WAY. EXCAVATION BEYOND THE RIGHT-OF-WAY LINE IS ACOUNTED FOR IN THE BUILDING EXCAVATION. PAY LINE FOR UNCLASSIFIED STREET EXCAVATION CAN BE BEYOND THE RIGHT-OF-WAY LINE WHEN ADJACENT TO UNDEVELOPED TRACTS.
- 3. SAWED DUMMY JOINTS SHALL MATCH EXISTING ON QUORUM DRIVE. SAWED JOINTS SHALL BE SPACED AT 12' INTERVALS ON PROPOSED RESIDENTIAL AND MEWS STREETS.
- 4. PROFILE GRADES SHOWN ON THE PAVING PLAN AND PROFILE SHEETS ARE TOP OF CURB AT BACK OF CURB FOR A NORMAL ROADWAY CROSS-SECTION AS INDICATED ON THE TYPICAL SECTIONS BY "PROFILE T.C.". PROFILE GRADES ON THE MEWS ARE EDGE OF PAVEMENT 12' LEFT AND RIGHT OF CENTERLINE AS INDICATED ON THE TYPICAL SECTION AS "PROFILE E.P."
- 5. THE 2% MAXIMUM CROSS-SLOPE IN SIDEWALKS IS REQUIRED IN ALL AREAS PER T.A.S. REQUIREMENTS. CONFIRMATION OF ADA/TAS COMPLIANCE IS REQUIRED FOR ENTIRE PROJECT. OBTAINED FROM T.D.L.R. BY CONTRACTOR PRIOR TO ACCEPTANCE OF PROJECT.
- 6. SIDEWALKS MAY CONTINUE INTO FRONT YARD UNDER SEPARATE CONTRACT. SEE STREETSCAPE PLANS FOR PAY LIMITS.

#### JOINT LEGEND:

- SAWED LONGITUDINAL DUMMY JOINT
- CONSTRUCTION JOINT (FULL WIDTH PVM'T. IS ALLOWED WHERE APPROVED BY THE TOWN OF ADDISON). FULL WIDTH PAVEMENT REQUIRES A SAWED LONGITUDINAL JOINT AT THE CENTERLINE OF THE PAVEMENT.
- EXPANSION JOINT
- ISOLATION JOINT
- LONGITUDINAL BUTT JOINT

# **BENCHMARKS:**

"CUT ON 8' INLET ON NORTH CURB LINE OF GOODMAN AVE. ±75'EAST OF PASCHAL PLACE. ELEV. 629.98

"CUT AT & OF 8' INLET AT THE SOUTHWEST CORNER OF MORRIS AVE. AND WITT PLACE. ELEV. 627.29

"CUT AT WEST CORNER OF ADDISON THEATRE CENTRE PARKING LOT, SECOND ENTRANCE NORTH OF ADDISON RD. ELEV. 637.66



# RECORD DRAWING

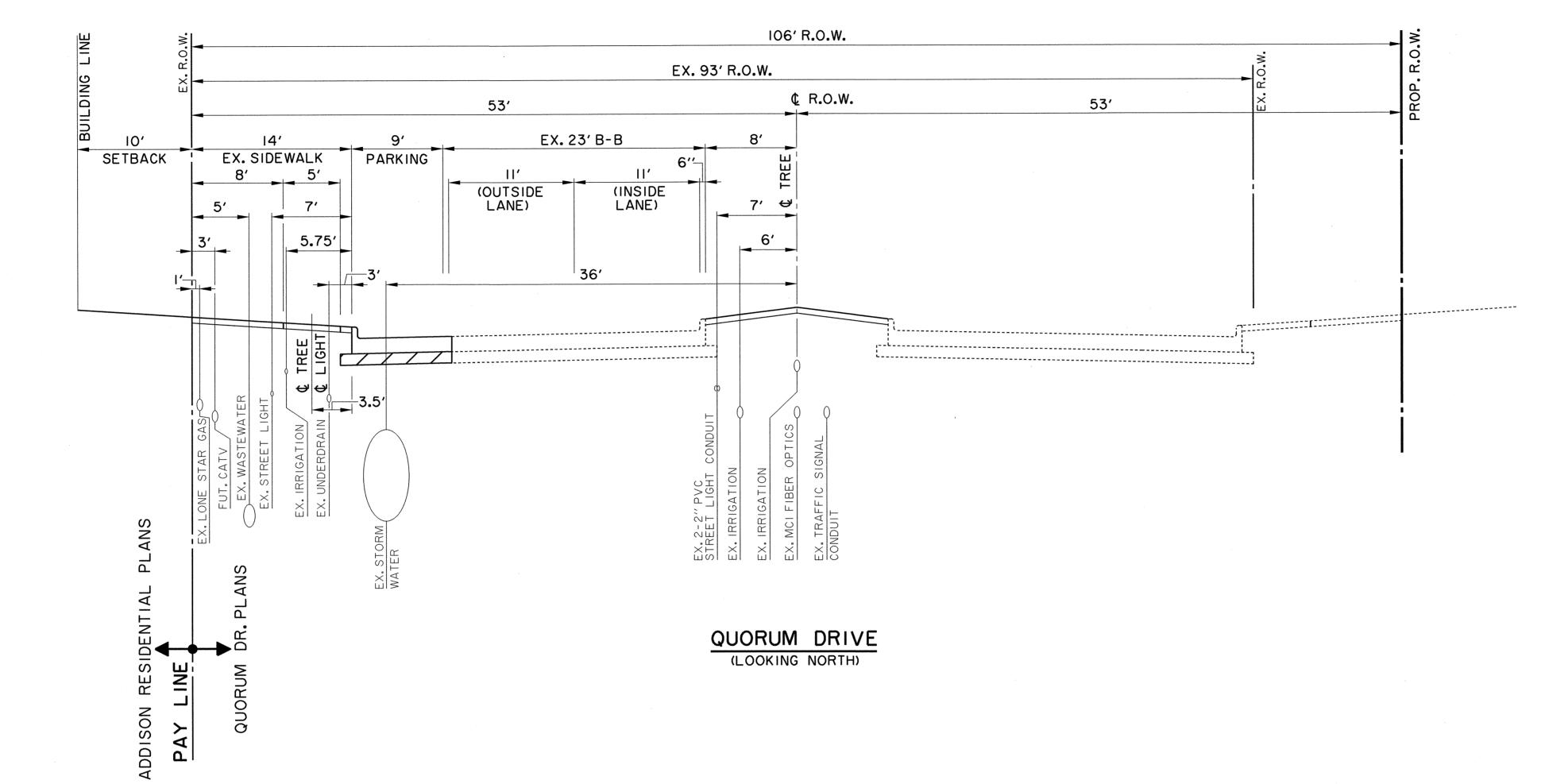
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PAVING TYPICAL SECTIONS									
QUORUM DRIVE									
	TOWN OF ADDISON, TEXAS								
	Huitt - Zollars, Inc. 3131 Mckinney Ave., Suite 600, Dallas, TX 75204 Phone (214) 871-3311/Fax (214) 871-0757								
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01/15/09



### BENCHMARKS:

BM\*5
" "CUT ON 8' INLET ON NORTH
CURB LINE OF GOODMAN AVE.
75' EAST OF PASCHAL PLACE.
ELEV. 629.98

BM#6
"E" CUT AT & OF 8' INLET AT THE SOUTHWEST CORNER OF MORRIS AVE. AND WITT PLACE. ELEV. 627.29

BM\*7
"[]" CUT AT WEST CORNER OF
ADDISON THEATRE CENTRE
PARKING LOT, SECOND ENTRANCE
NORTH OF ADDISON RD.
ELEV. 637.66

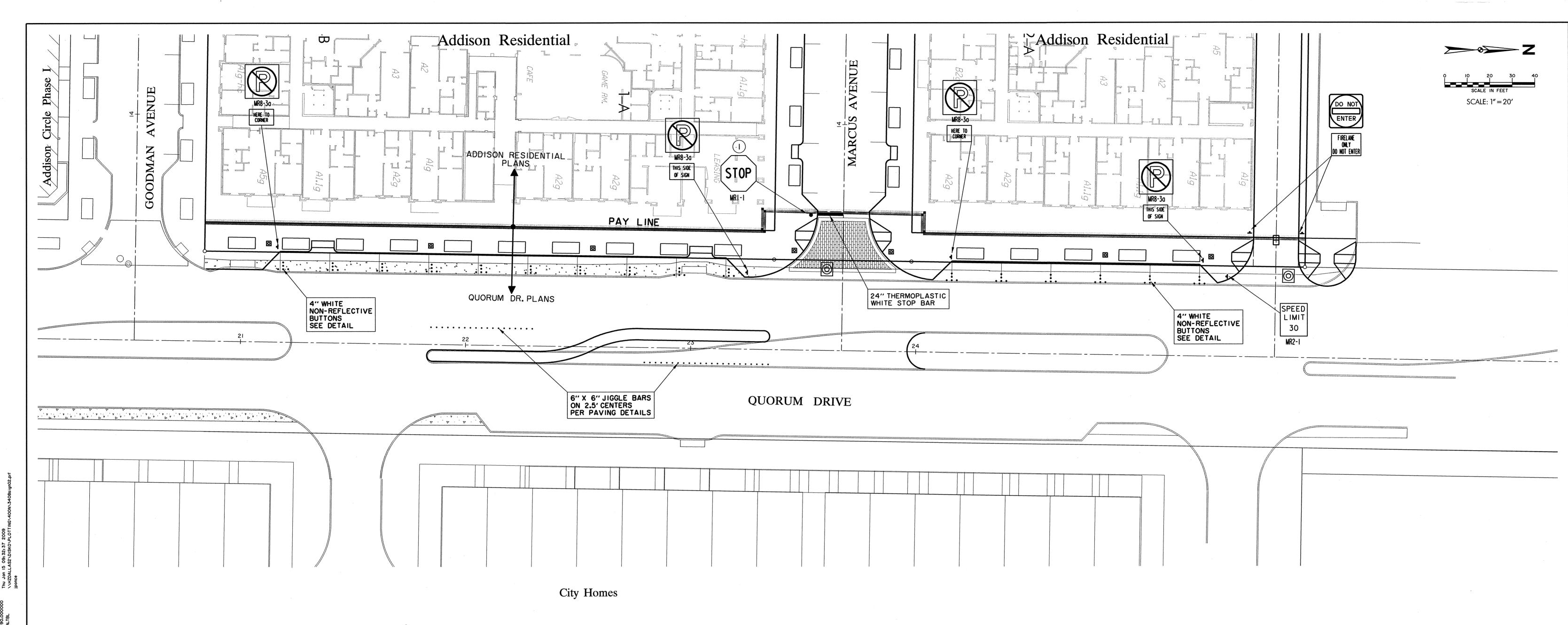
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RECO	OMMEI	NDED	UTIL	ITY I	LOCATI	ONS		
QUORUM DRIVE								
	TOWN	l OF	ADDI	SON,	TEXAS			
Huitt - Zollars, Inc. 3131 Mckinney Ave., Suite 600, Dallas, TX 75204 Phone (214) 871-3311/Fax (214) 871-0757								
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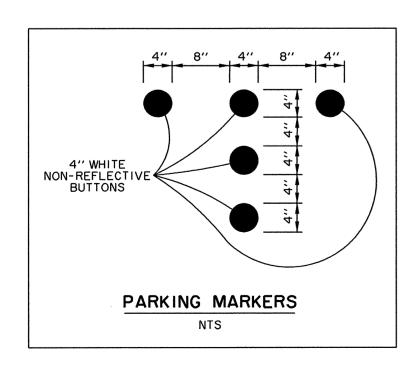
\*



STREET NAME SIGNS									
SIGN NO./ LOCATION	STREET NAME	MOUNTING							
1	MARCUS AVENUE	NEW SIGN POLE							
	QUORUM DRIVE	NEW GIGIT TOLL							

### NOTE:

EXACT SIGNAGE PLACEMENT TO BE DETERMINED IN THE FIELD BASED ON VISIBILITY CONCERNS.



### BENCHMARKS:

BM\*5
"" CUT ON 8' INLET ON NORTH
CURB LINE OF GOODMAN AVE.
±75' EAST OF PASCHAL PLACE.
ELEV. 629.98

BM\*6
"D" CUT AT & OF 8' INLET AT
THE SOUTHWEST CORNER OF
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""CUT AT WEST CORNER OF
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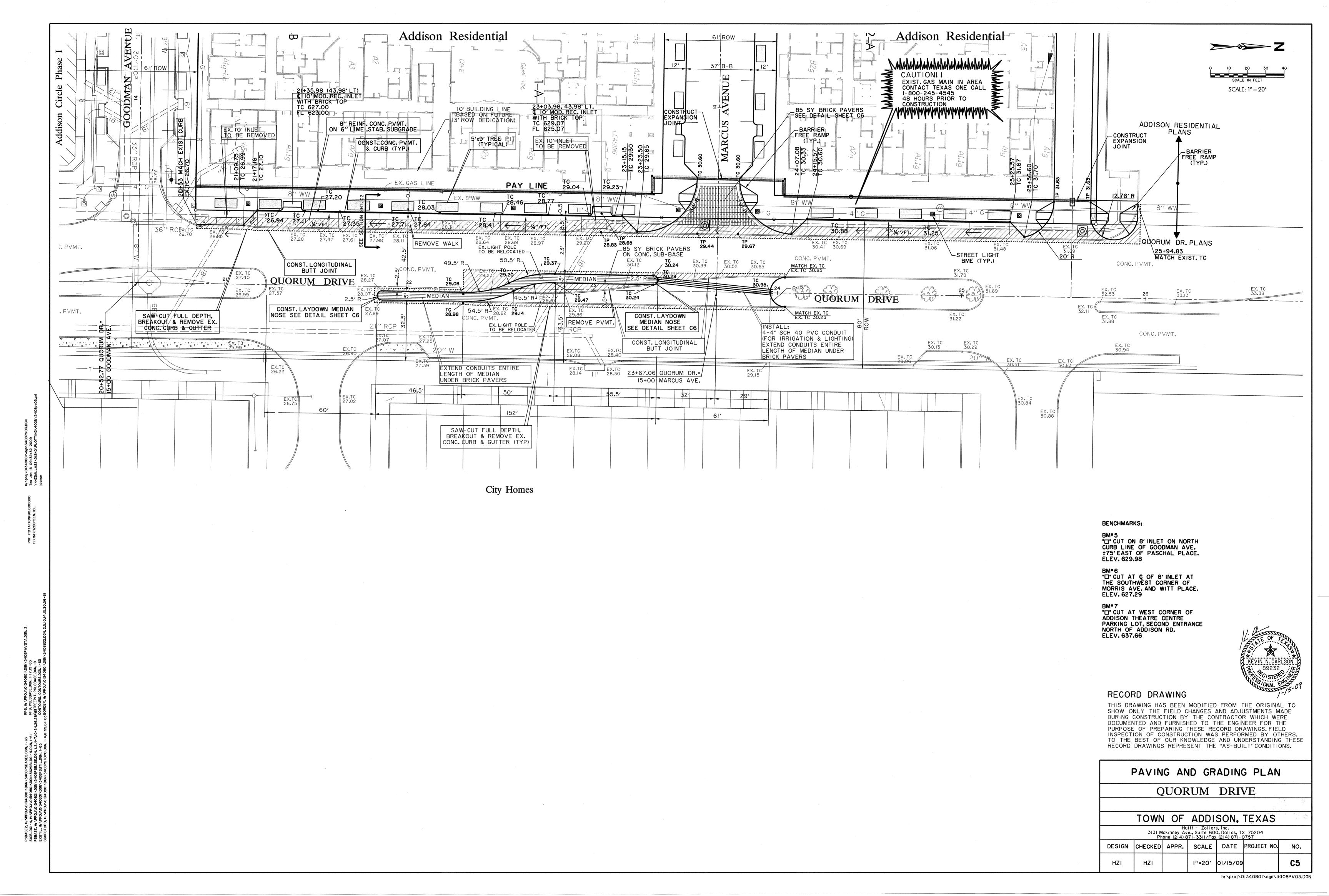
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QUORUM DRIVE									
	TOWN	I OF	ADDI	SON,	TEXA	S	·		
	Huitt - Zollars, Inc. 3131 Mckinney Ave., Suite 600, Dallas, TX 75204 Phone (214) 871-3311/Fax (214) 871-0757								
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1"=20' 01/15/09

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 $A \longrightarrow$ 

 $A \longrightarrow$ 

LAYDOWN CURB NOSE

N.T.S.

5'-0"

3"

L#3 BARS @

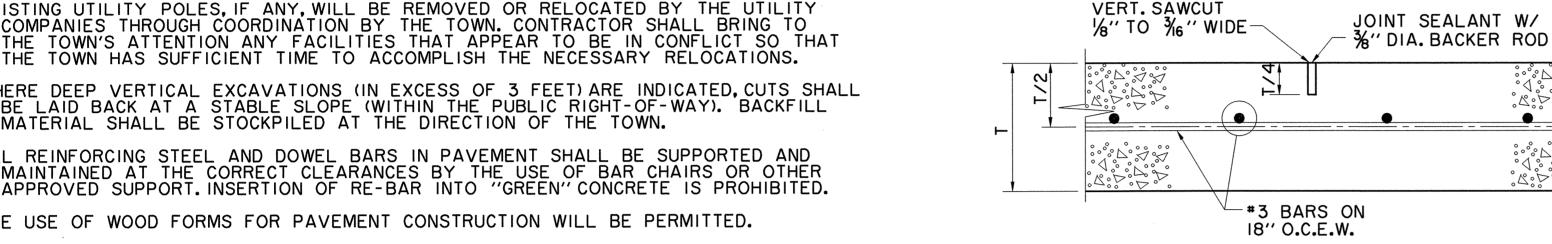
18" O.C.E.W.

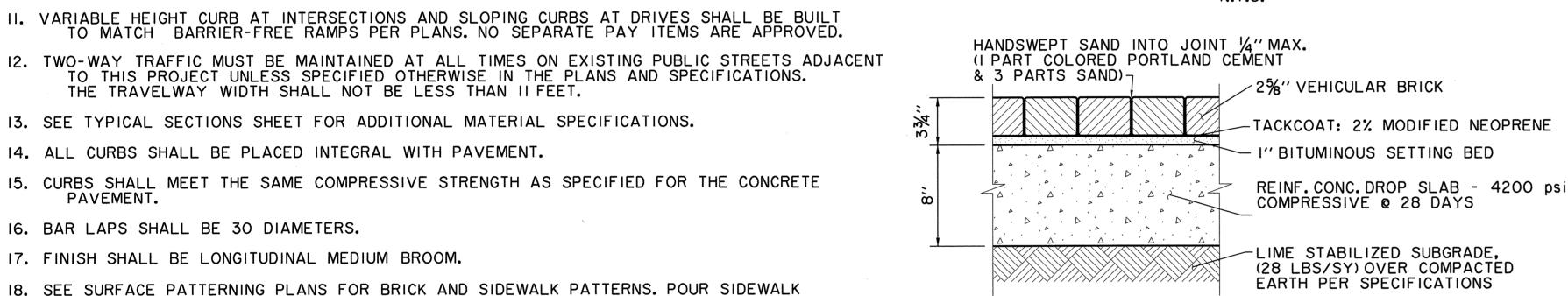
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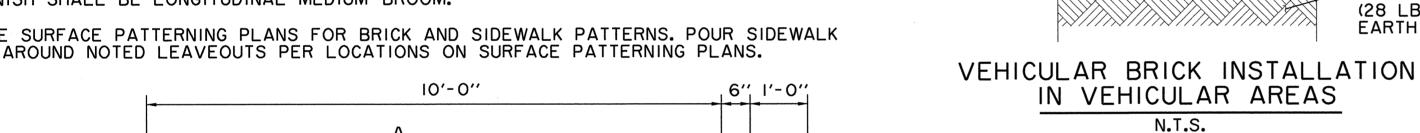
SECTION A-A

N.T.S.

- 2%" VEHICULAR







-KEYED CONST.

HAND SWEPT SAND INTO

CEMENT & 3 PARTS SAND)

JOINT

I" BITUMINOUS

SETTING BED

'BITUMINOUS EXPANSION JOINT

-KEYED CONSTRUCTION

#3 DOWEL @ 24"O.C.

#3 BARS

@ 18" O.C.

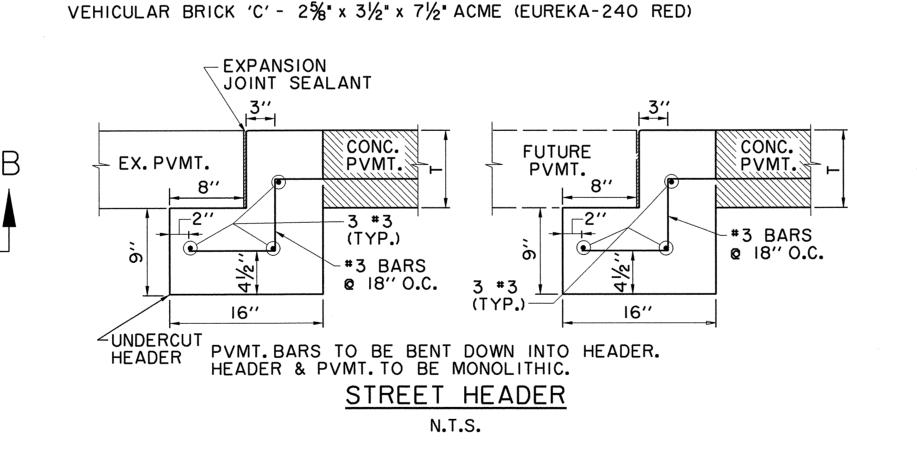
CONTACT BETWEEN WALK & CURB. STOP

EXPANSION JOINT AT 1/2" BELOW TOP OF

MATERIAL SHALL BE SUFFICIENT TO PREVENT

CURB. FILL WITH CONC. GRAY SEALANT. (TYPICAL)

-JOINT, ¼" MAX.(I PART COLORED PORTLAND



24" #6 SMOOTH DOWEL

TRANSVERSE EXPANSION JOINT

N.T.S.

MUST BE PERPENDICULAR TO FACE OF CONCRETE.

(SPACED 600 FT. MAX., LOCATE @ CURB

SUPPORTED BY AN APPROVED DEVICE.

SAWED DUMMY JOINT

RETURN OF INTERSECTIONS)

DOWELS & REINF. BARS SHALL BE

½" REDWOOD EXPANSION

JOINT FILLER

NOTE:

-JOINT SEALANT

" 11" 2" MIN.

W/%" DIA.

BACKER ROD

"MIN.

CLEARANCE

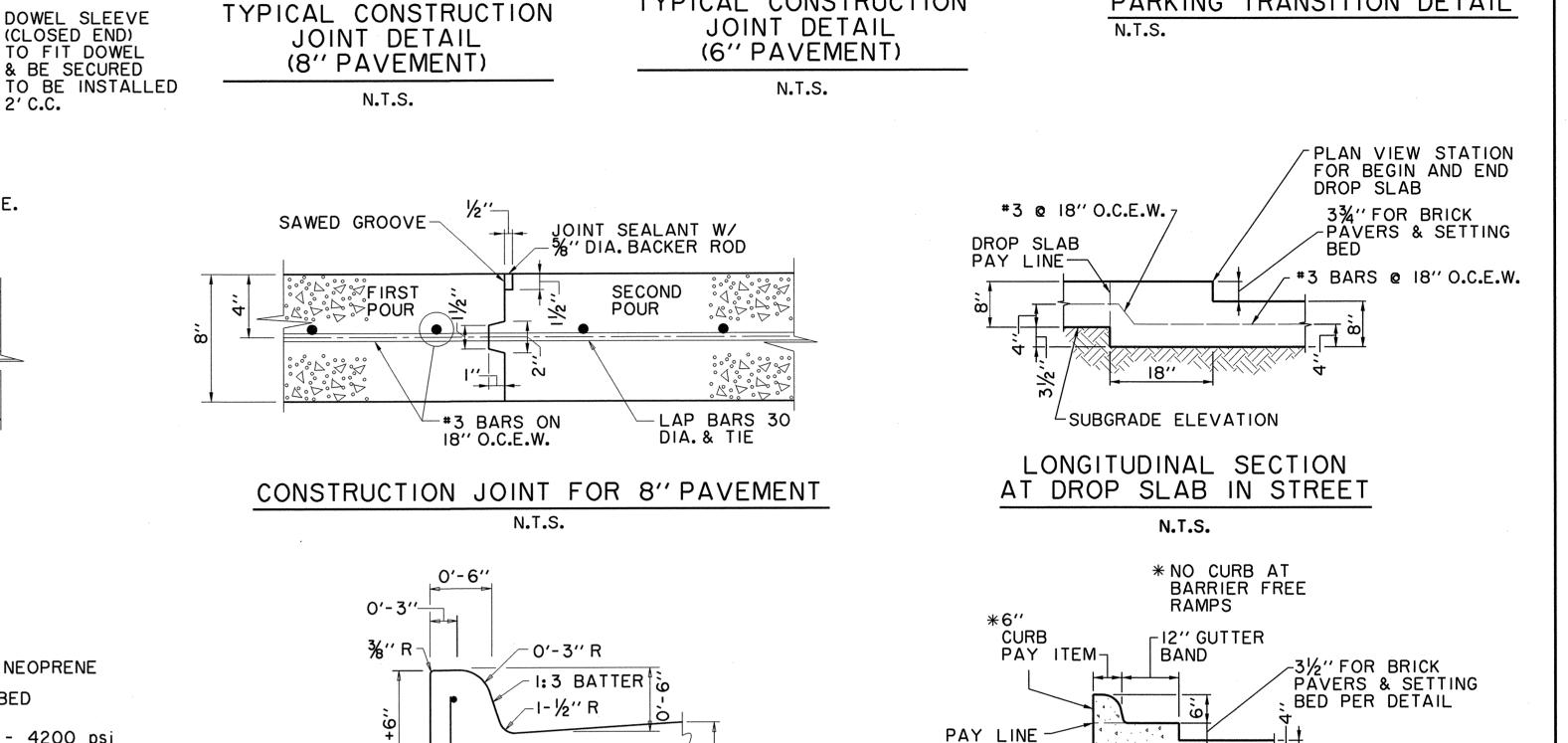
DOWEL SLEEVE

(CLOSED END)

TO FIT DOWEL

& BE SECURED

2' C.C.



DROP SLAB

PAY ITEM

- CONCAVE FINISH

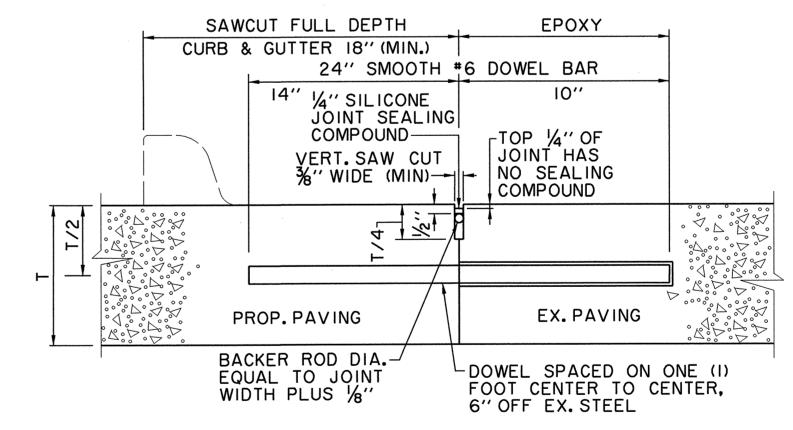
-SILICONE JOINT

(1/4" DEPTH)

SEALANT

BACKED ROD

TYPICAL CONSTRUCTION



- #3 BARS ON

18" O.C.E.W.

INTEGRAL CURB AND GUTTER

N.T.S.

- CONCAVE FINISH

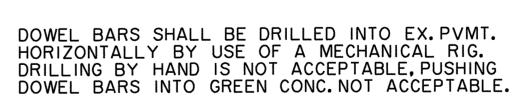
SILICONE JOINT

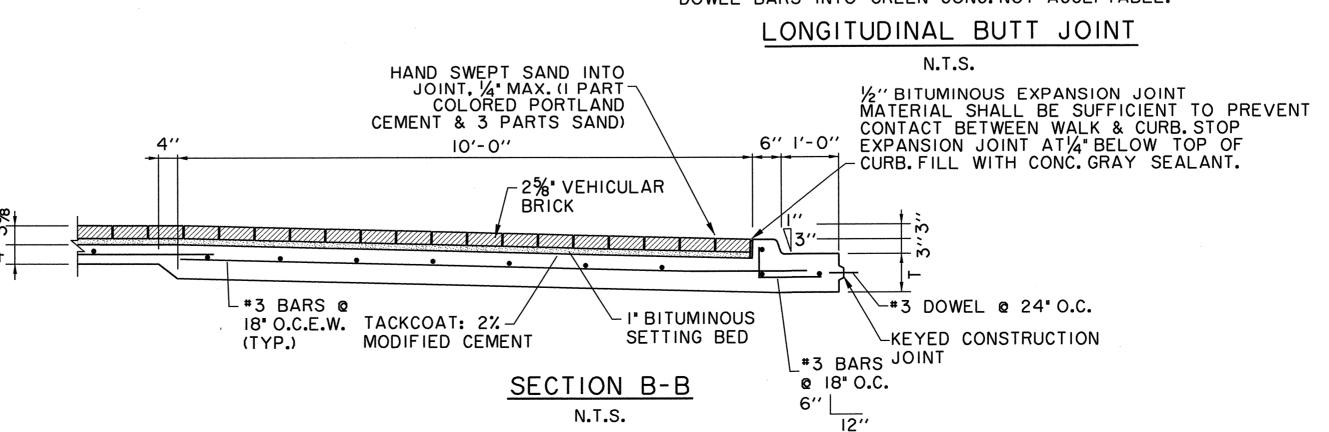
(¼" DEPTH)

SEALANT

- %" DIA. BACKED ROD

SAWCUT









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VARIES

PARKING TRANSITION DETAIL

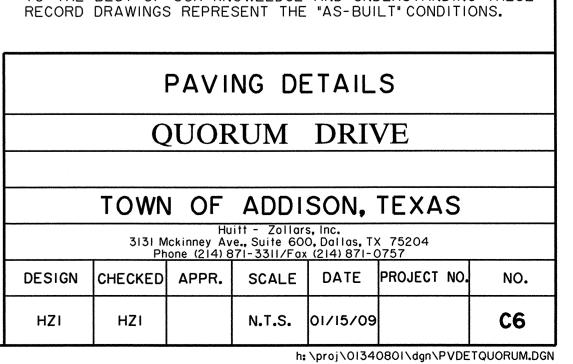
₩#3 BARS @

SECTION THRU CURB AT DROP SLAB

N.T.S.

SIDEWALK

PARKING BAY



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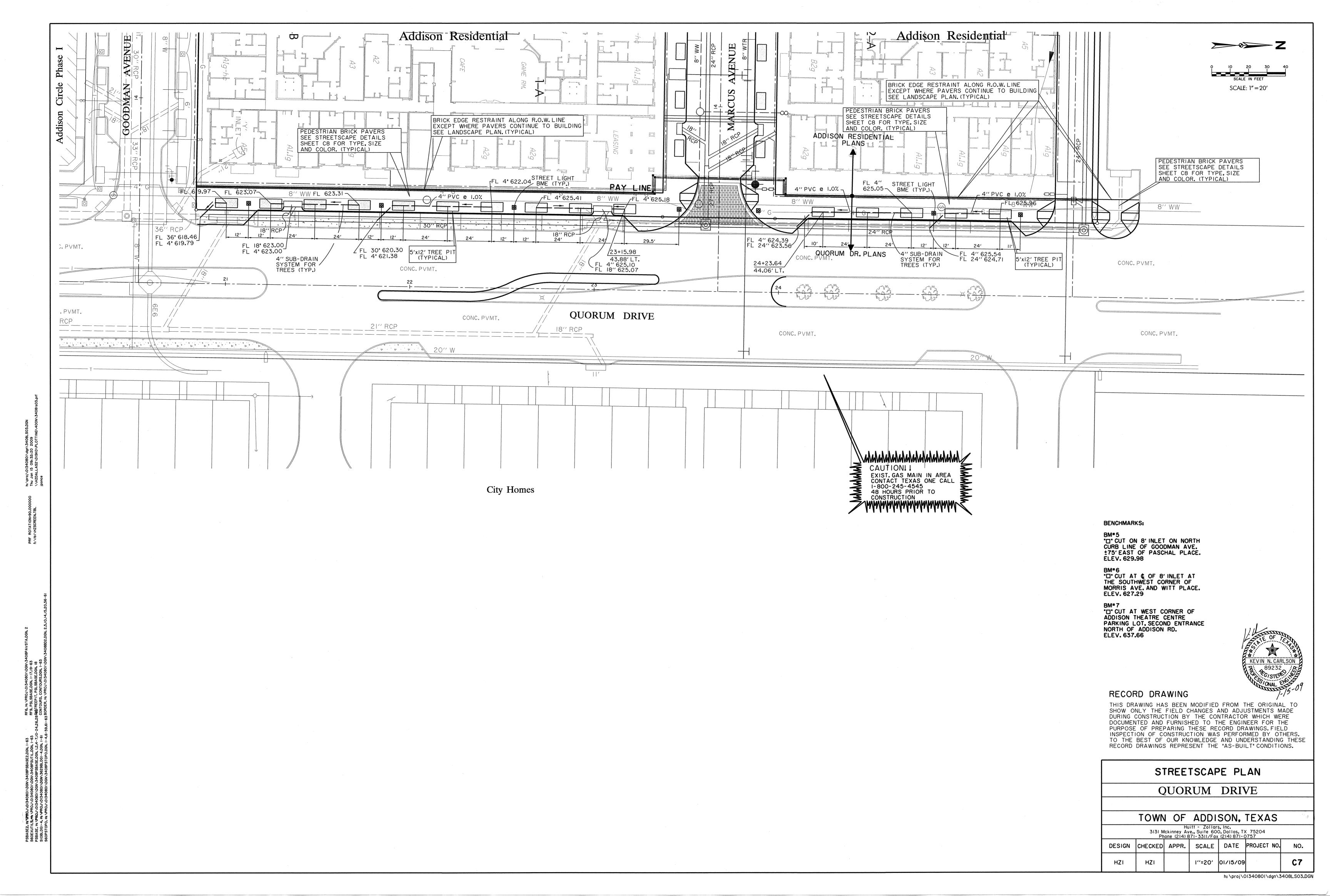
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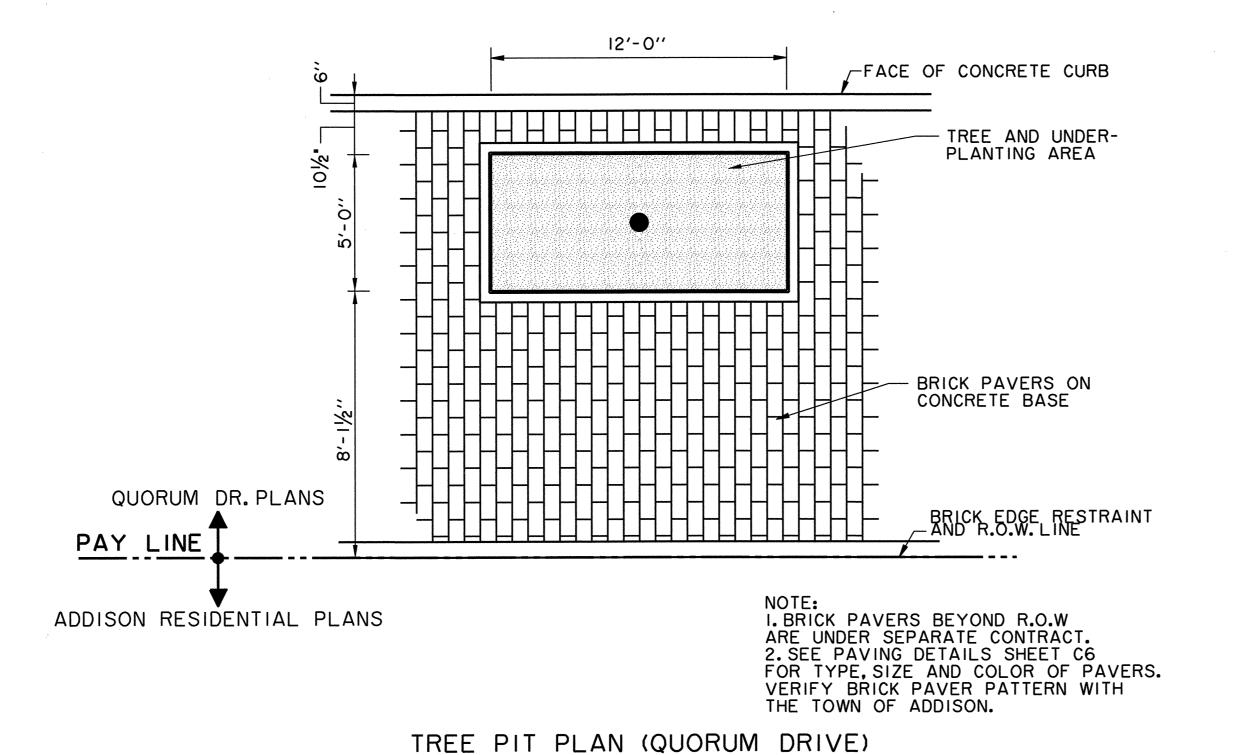
VARIES 3" TO 6" CURB HEIGHT (TYP)

1'-0" 6"

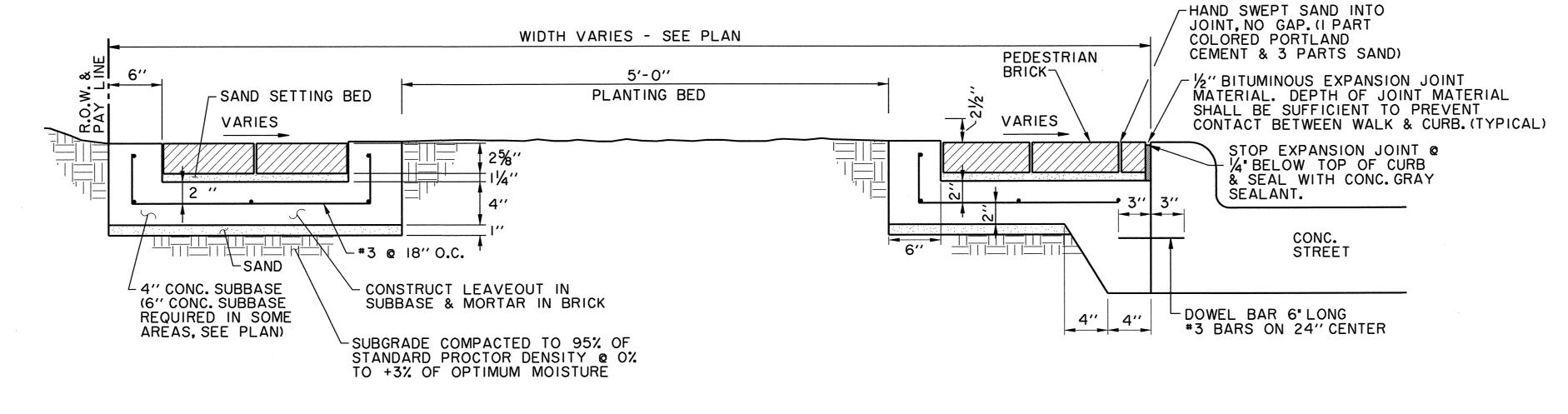
TACKCOAT: 2%-

MODIFIED CEMENT





N.T.S.



BRICK SIDEWALK INSTALLATION IN PEDESTRIAN AREA

GENERAL NOTES CONCRETE SUBBASE FOR SIDEWALKS

- I. REINFORCED CONCRETE SIDEWALK SHALL BE A MINIMUM OF FOUR (4) INCHES THICK AND SHALL BE 3000 PSI AT 28 DAYS (5 SACK MIX) UNLESS NOTED OTHERWISE.
- 2. ALL BAR DIMENSIONS ARE GIVEN AS CENTER TO CENTER OF BARS AND ARE LOCATED AS SHOWN.
- 3. ALL REINFORCING STEEL SHALL BE NO. 3 ON 18" CENTERS LONGITUDINALLY, 18" CENTERS TRANSVERSELY AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-615, GRADE 60.
- 4. I" THICK MIN. FINE WASHED SAND CUSHION SHALL BE FREE FROM ORGANIC MATERIALS OR CLAYS AND SHALL BE USED FOR GRADE ADJUSTMENT.
- 5. SUBGRADE SHALL BE COMPACTED TO A DENSITY NOT LESS THAN 95% OF STANDARD PROCTOR DENSITY AT 0 TO +3% OF OPTIMUM MOISTURE.
- 6. TOOLED JOINTS (CONTRACTION JOINTS) SHALL BE ON FIVE (5) FOOT CENTERS AND SHALL BE ROUND ONE-FOURTH (1/4) INCH RADIUS.

PEDESTRIAN BRICK 'A' - 2%" x 3½" x 7½" ACME (EUREKA-231 BLEND)

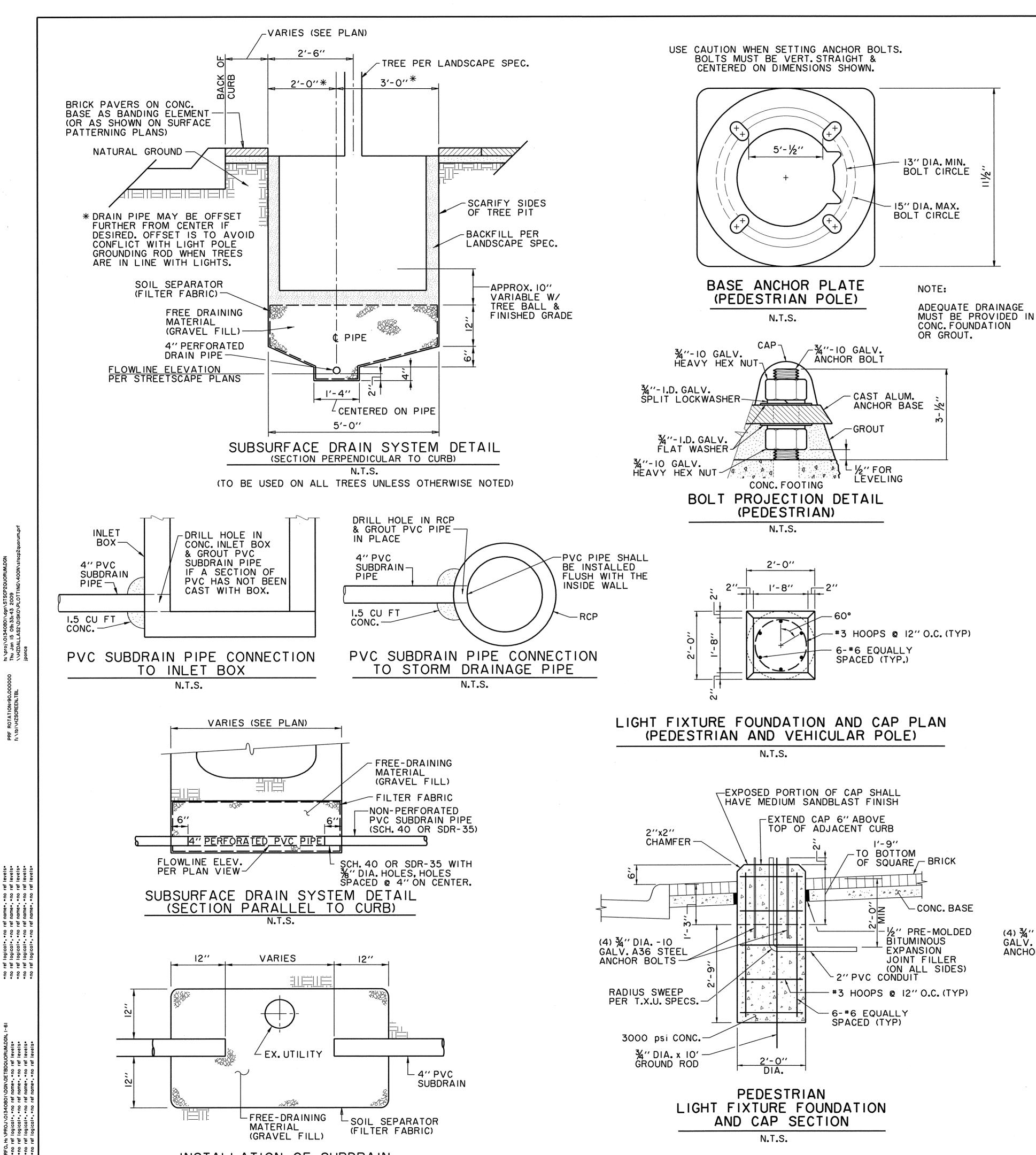
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STREETSCAPE DETAILS										
	QUORUM DRIVE									
	TOWN	I OF	ADDI	SON,	TEXAS					
	Huitt - Zollars, Inc. 3131 Mckinney Ave., Suite 600, Dallas, TX 75204 Phone (214) 871-3311/Fax (214) 871-0757									
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LIGHT FIXTURE FOUNDATION

AND CAP SECTION

N.T.S.

. . . .

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2 2 2 2 3

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2 2 2 2 2

FREE-DRAINING

INSTALLATION OF SUBDRAIN AT UTILITY CONFLICT

N.T.S.

MATERIAL (GRAVEL FILL)

SOIL SEPARATOR

(FILTER FABRIC)

#### STREET LIGHTING NOTES

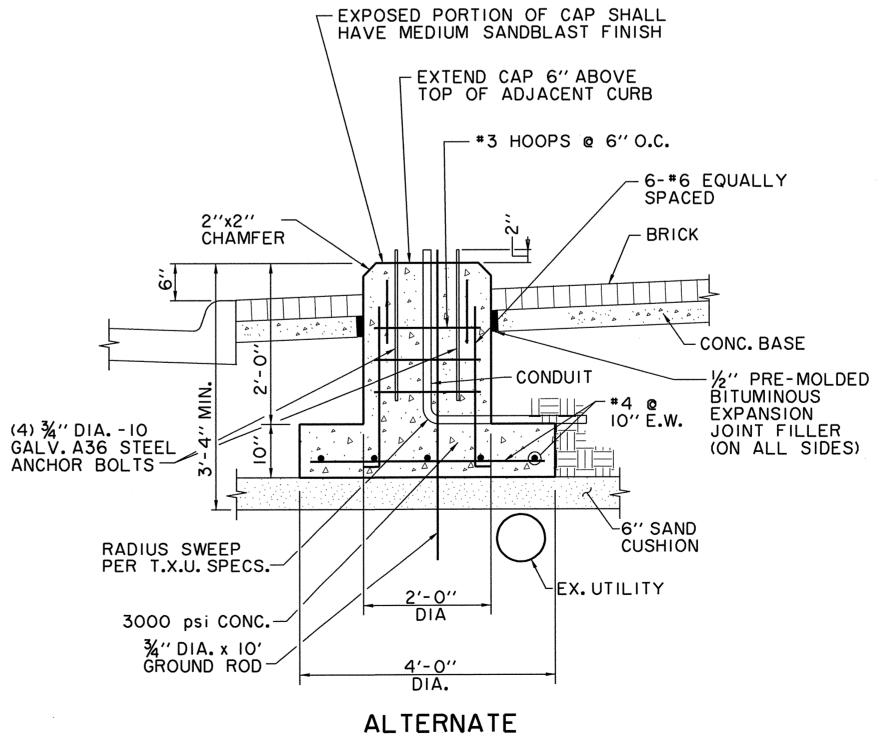
- I. THE PEDESTRIAN STREET LIGHTING FOR THIS PROJECT WILL CONSIST OF INSTALLATION OF 2" PVC CONDUIT, LIGHT POLE BASES, PULL BOXES (HANDHOLES) LIGHT POLES, LUMINAIRES, WIRING & CONNECTION TO POWER SOURCE AS A COMPLETE SYSTEM PER DETAILED SPECIFICATIONS.
- 2. ALL STREET LIGHTING CONDUIT IS TO BE INSTALLED WITH A MIN. OF 24 INCHES OF COVER TO THE TOP OF THE PIPE FROM FINISHED PVMT. TO AVOID CONFLICT WITH IRRIGATION LINES WHICH WILL BE @ 12" & 18" DEPTH. CONDUIT SHOULD BE NO DEEPER THAN 36" TO AVOID CONFLICT WITH OTHER UTILITIES.
- 3. FOR THE PURPOSES OF COORDINATION, PEDESTRIAN LIGHTS TO BE INTALLED PER THE STREETSCAPE PLANS FOR THIS PROJECT WILL BE THE FOLLOWING:

SEE SHEET C200 FOR POLE TYPES.

THIS POLE WILL BE INSTALLED WITH A 175 WATT METAL HALIDE BEGA 9801 ED-17MH/120V FIXTURE AND LUMINAIRE.

POLES WILL BE PRIMED AND PAINTED AT THE FACTORY.

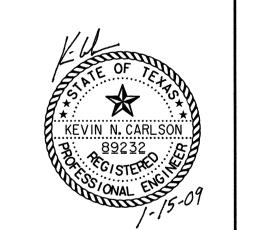
- 4. LOCATIONS OF ANY STREET LIGHTS MAY NOT BE ALTERED WITHOUT PERMISSION FROM THE ENGINEER.
- 5. THE LETTER "C" SHALL BE STAMPED OR CHISELED ON CURB AT ALL LOCATIONS OF CONDUIT UNDER STREETS, DRIVES AND INTERSECTIONS.



# PEDESTRIAN LIGHT FIXTURE FOOTING AT UTILITY CONFLICT

N.T.S.

(NOT TO BE USED FOR HANGING LIGHT FOUNDATION)

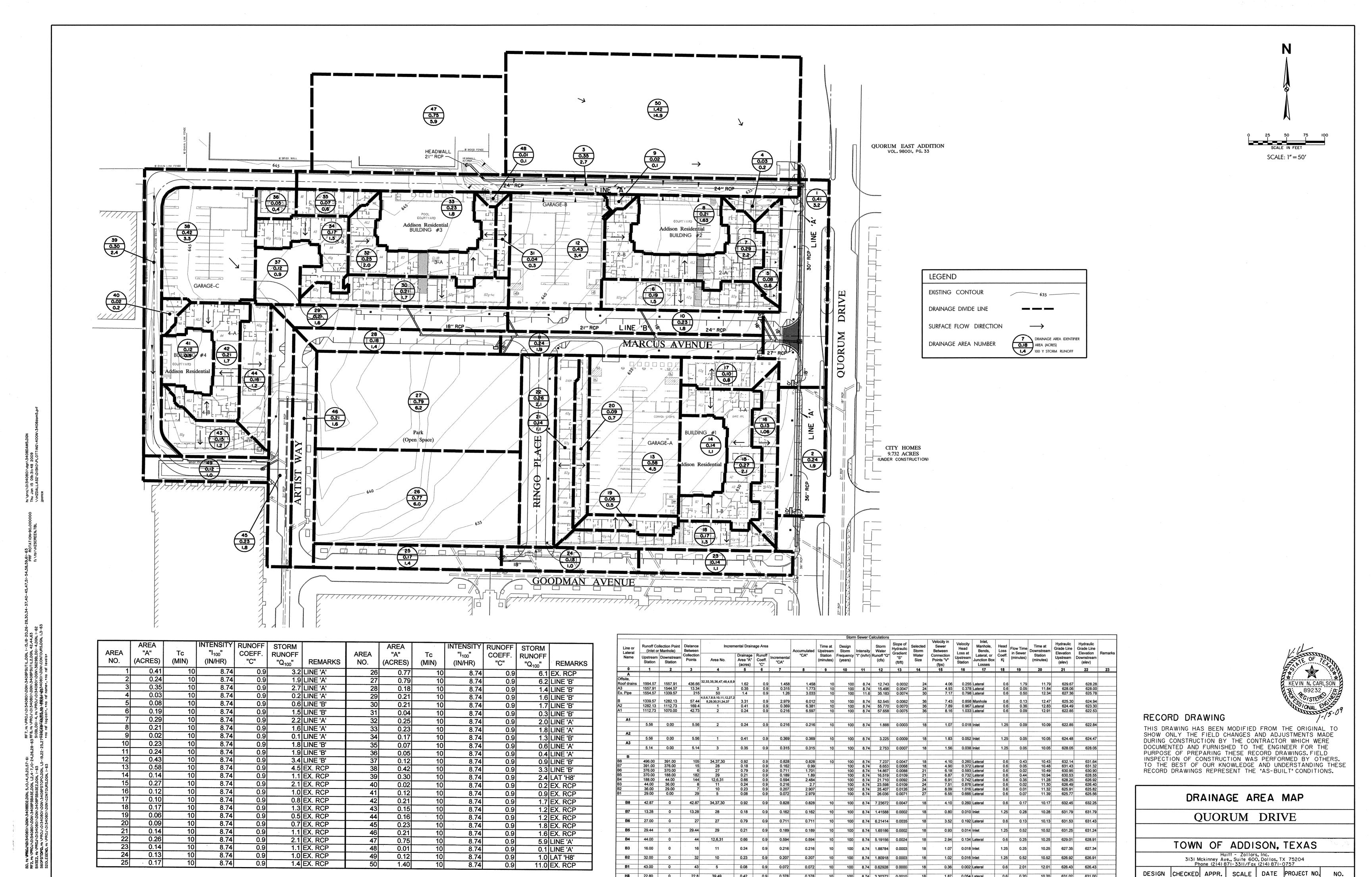


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STREETSCAPE DETAILS										
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	Huitt - Zollars, Inc. 3131 Mckinney Ave., Suite 600, Dallas, TX 75204 Phone (214) 871-3311/Fax (214) 871-0757									
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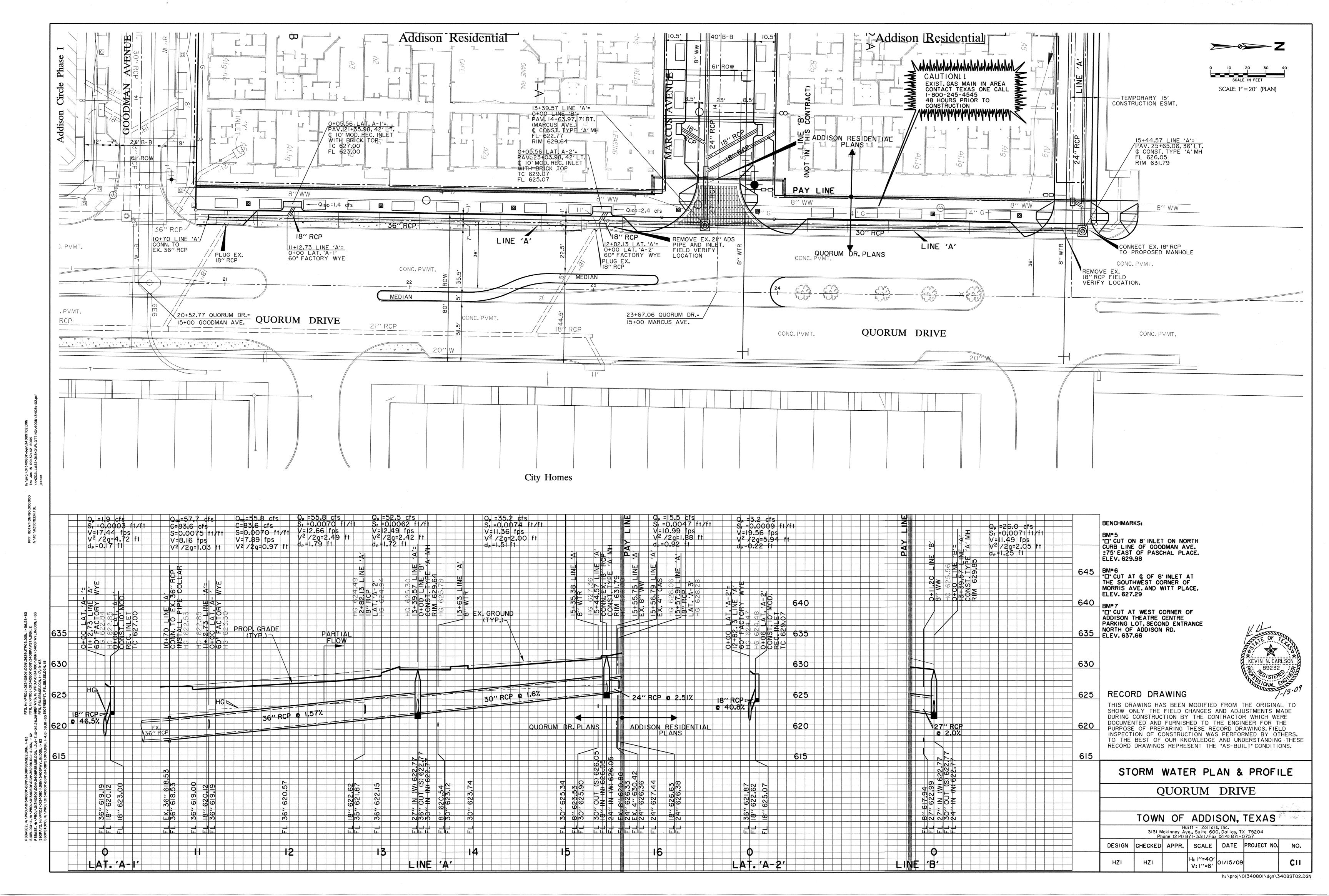


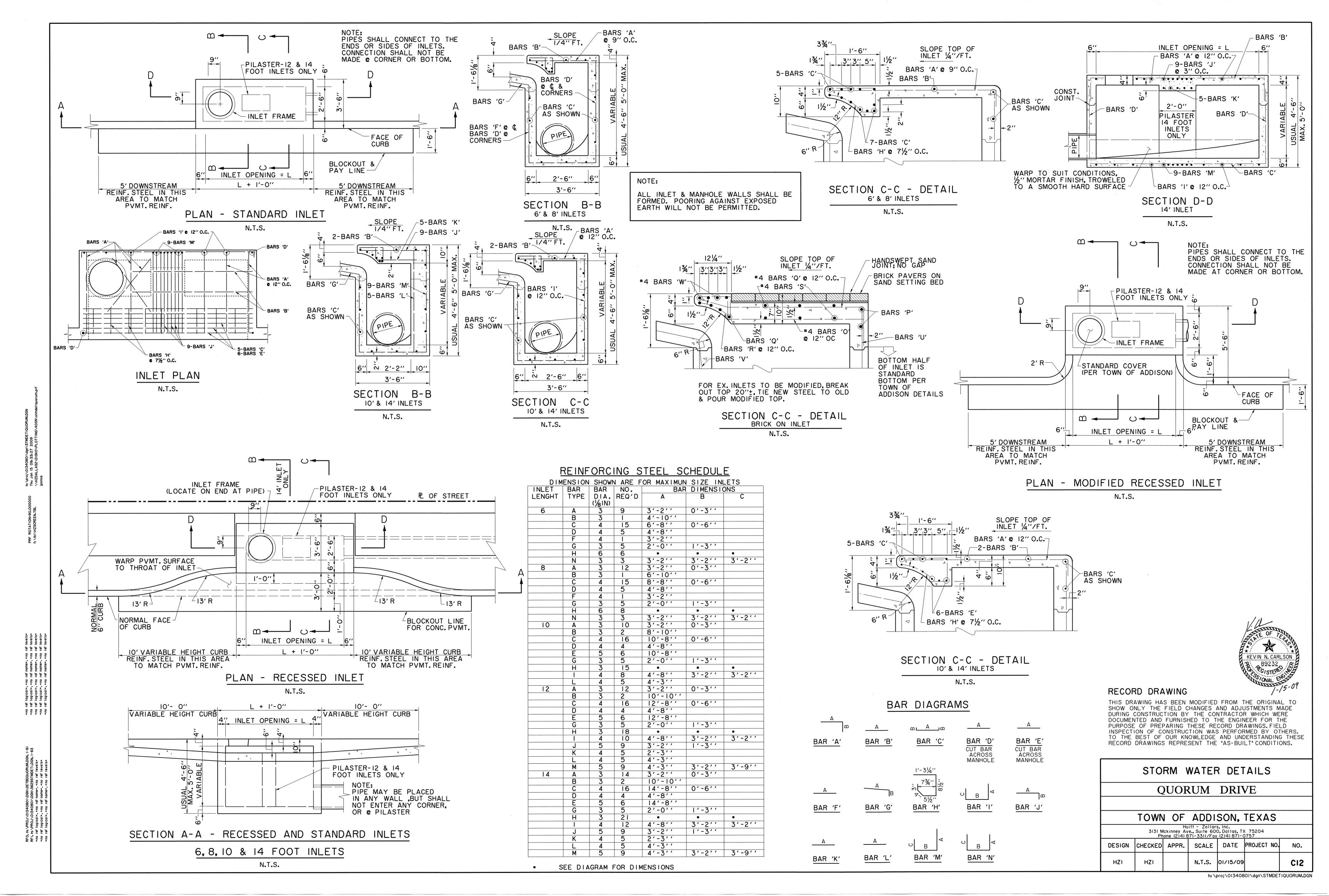
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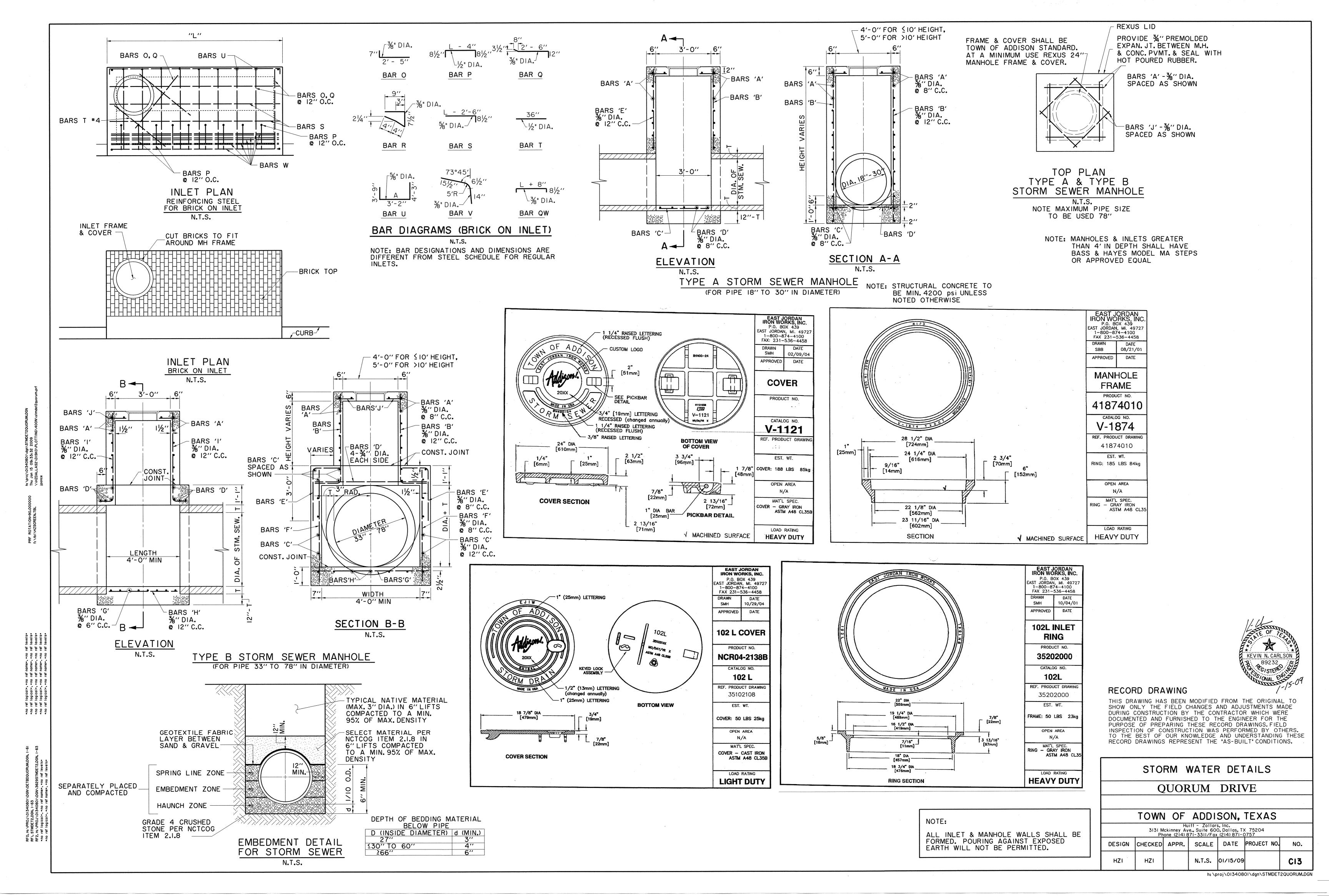
1"=50" 01/15/09

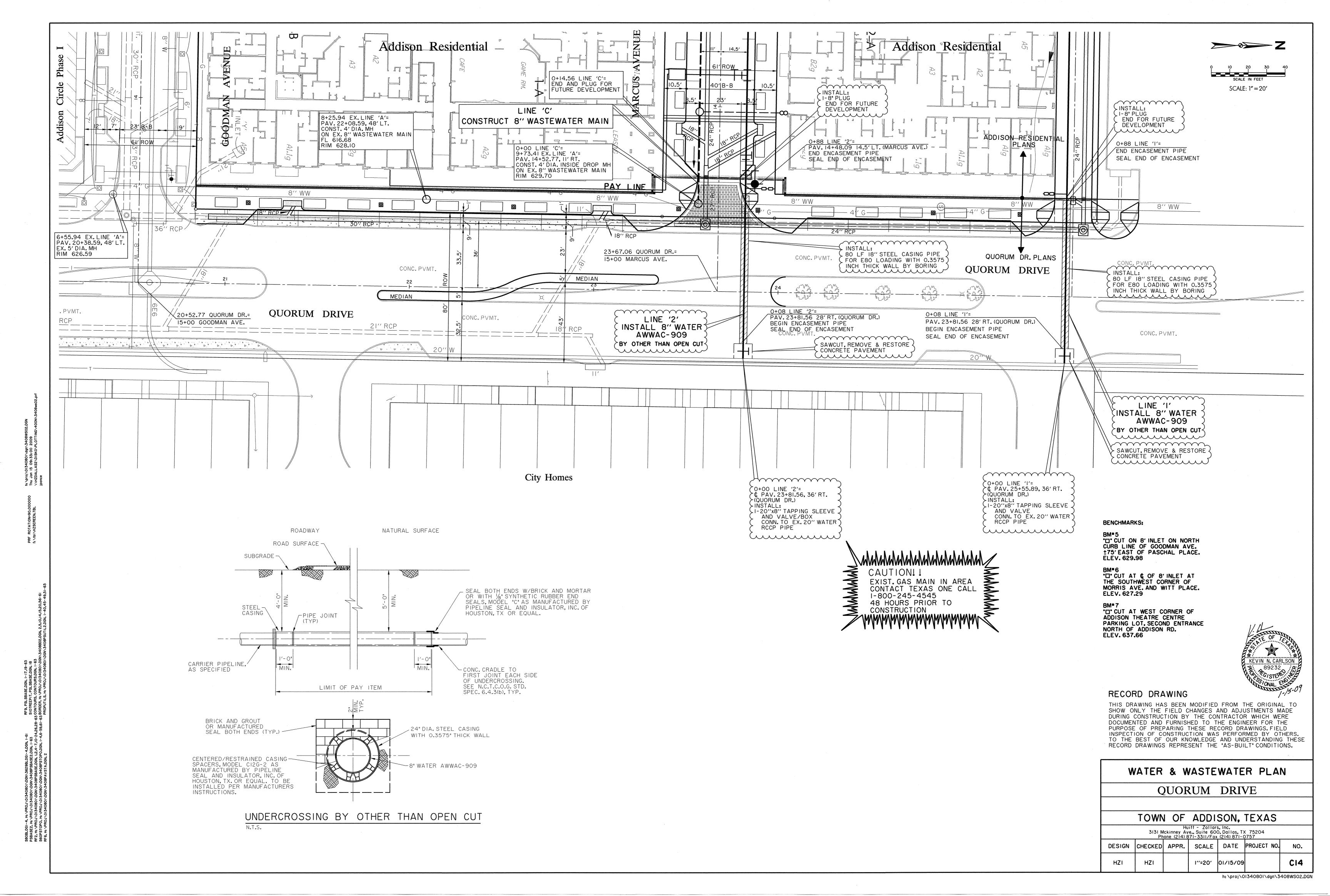
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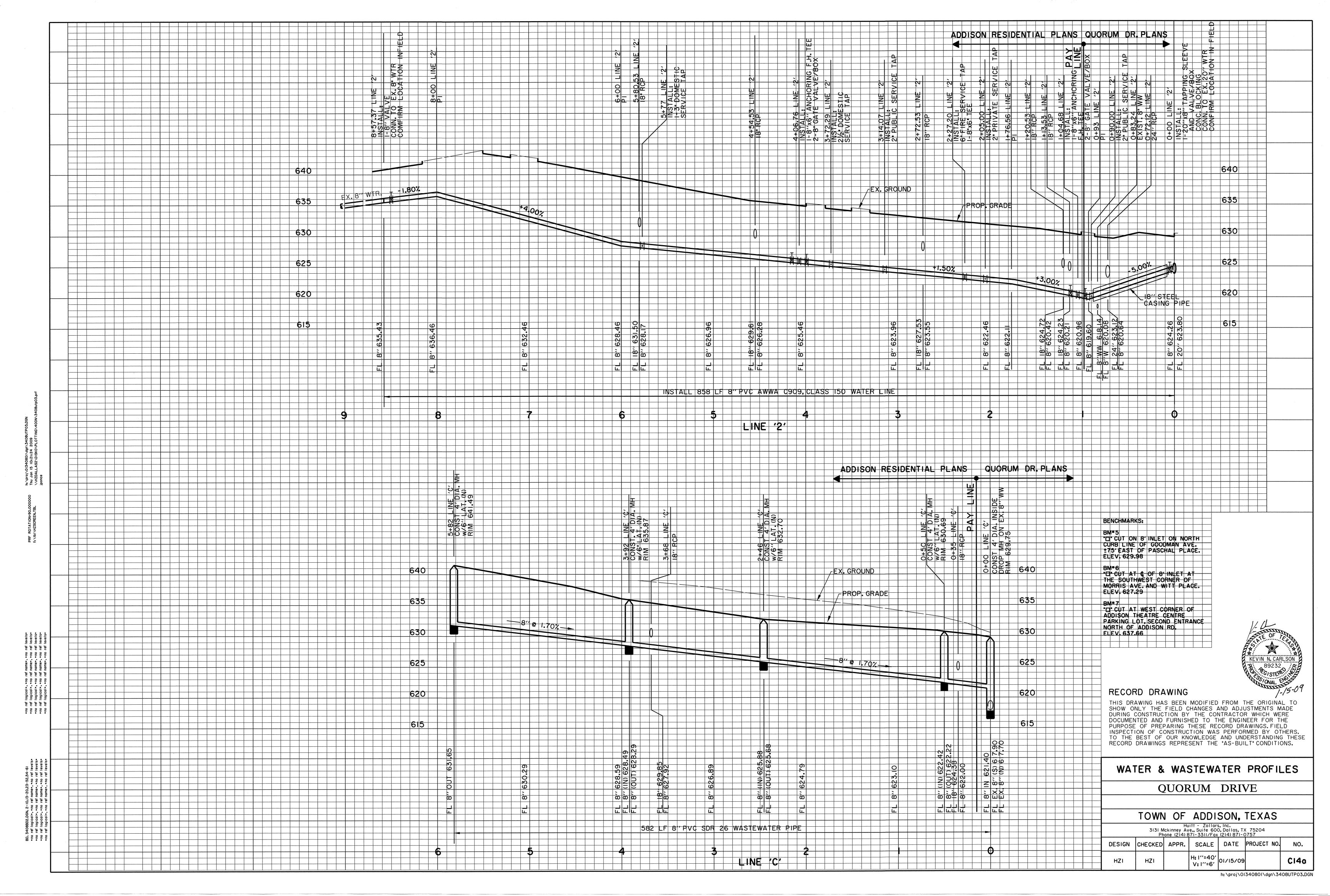
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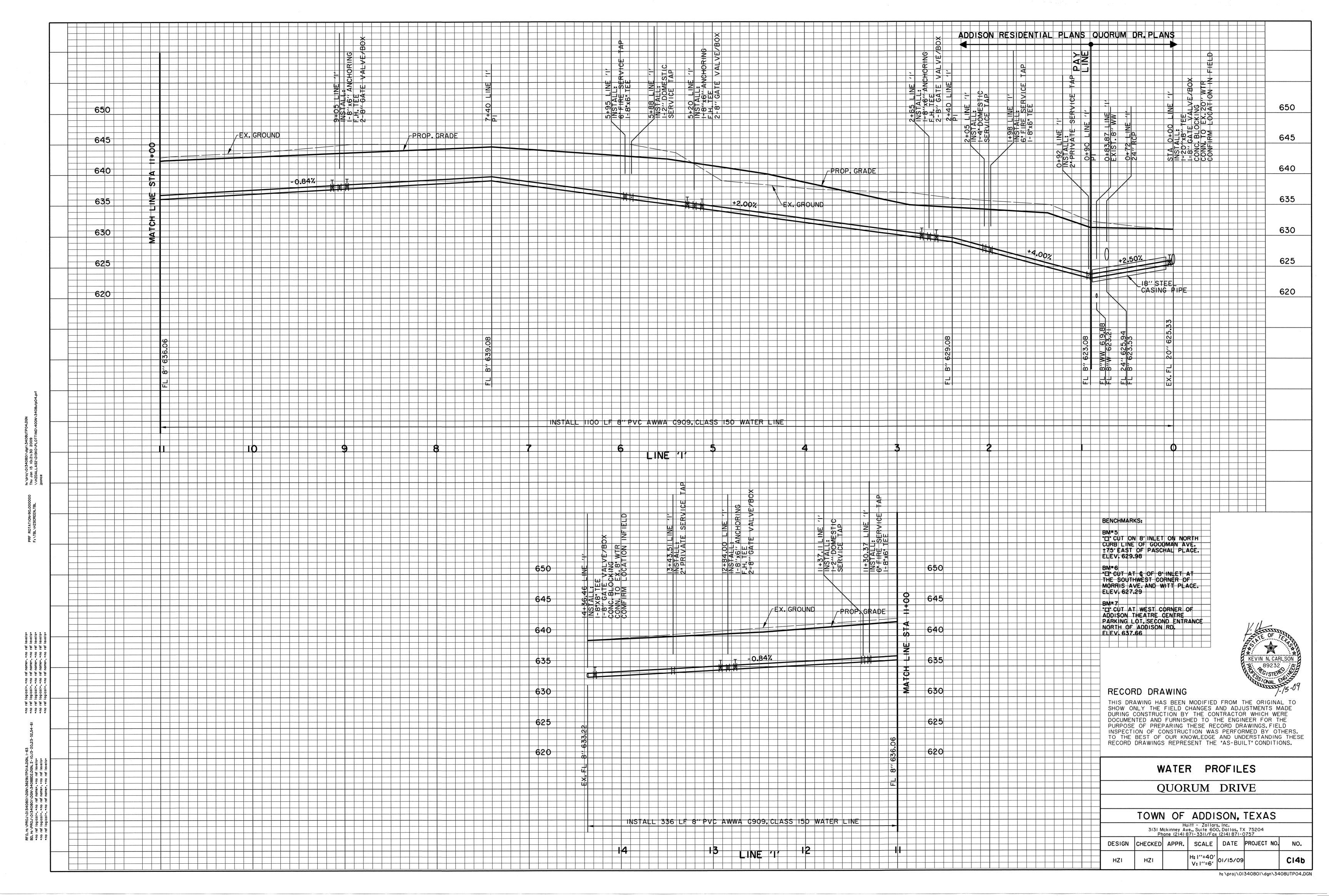












TYPICAL NATIVE MATERIAL
(MAX 3" DIA.) IN 6" LIFTS
COMPACTED TO A MIN.
95% OF MAX. DENSITY

2000 psi
CONC.

6" MIN. AROUND
PIPE & BELL

CONC. ENCASEMENT WATER MAIN

N.T.S.

ALL BRONZE ONE PIECE

THE TAPPING SADDLE & CORPORATION STOP MUST BE POLY-WRAPPED (8 MIL) & HAND BACKFILLED WITH SAND TO A DEPTH OF 12". CAUTION II INSPECTION MUST BE CALLED FOR & COMPLETED PRIOR TO BACKFILL OR TAP MUST BE RE-EXPOSED BY THE CONTRACTOR FOR INSPECTION BY THE TOWN.

TYPICAL WATER SERVICE DETAIL UP TO 2" METER

N.T.S.

PENTAGON OPERATING MIN. 3'-0" TO VALVE BOX NUT I-1/4" FROM POINT TO FLAT & AT LEAST FIRE HYDRANT TO BE "MUELLER" TRAFFIC MODEL W/6" MECHANICAL JOINT CONNECTION OR APPROVED EQUAL I¼''IN HEIGHT. VALVE W/54" VALVE OPENING W/BARREL APPROX. 7" INSIDE TO OPEN BY TURNING DIAMÈTER. HYDRANT BODY SHALL BE COATED W/2 COATS C.C.W. OF ALUMINUM PAINT OVER TWO COATS OF PRIMER. BONNET TO FLANGE & NOZZLE CAPS SHALL BE PAINTED BY COLOR CODE FOR MAIN SIZE ACCORDING TO CITY STANDARDS. ALL HYDRANTS SHALL BE EQUIPPED WITH A BREAKAWAY 2-21/2" NOZZLES (NST) FLANGE & SHALL BE NO CLOSER THAN 3'TO ANY SURFACE OBSTRUCTION. (150 psi WORKING PRESSURE - AWWA STD. I - 4" PUMPER C-502-73 OR LATEST REVISION) USE "MUELLER CENTURION" NOZZLE COVER (MUELLER H-10361) MARKED "WATER" OR EQUAL HYDRANT VALVES FLANGED TO TEE. EX. GROUND 6" MAX. MEGA-LUG FOR ALL MECH. JOINT FITTINGS. 2'x2'x6" 6'-0" (16") 5'-0" (18") MIN. COVER - VALVE BOX EXTENSION 3000 (MUELLER H-10363) OR psi CONC. EQUAL 125 lb. N.R.S. GATE VALVE, -VALVE AWWA STD. MIN. 7 CUBIC FEET OF C-500 OR APP. WASHED GRAVEL FILL -VALVE BOX (MUELLER **EQUAL** H-103630) OR EQUAL M.J. WTR. MAIN--CLASS 'B' CONC. PER NCTCOG ITEM 7.4.5 USE 'GRADE-LOK THRUST BLOCK OR EQUAL 6" THICK CLASS 'B' CONC. PER NCTCOG SUPPORT PAD SHALL BE 3000 psi CONC. 6" THICK & OF SUFFICIENT ITEM 7.4.5 BLOCK 16" SQ. WIDTH TO SUPPORT ENTIRE VALVE-

# VALVE BOX DETAIL N.T.S.

(SEE PLANS FOR "MAIN SIZE"

### GATE VALVES AND VALVE BOXES:

\* \* \* \* \* \* \*

2 2 2 2 3

2 2 2 2 3

3 5 5 5

2 2 2 2 3

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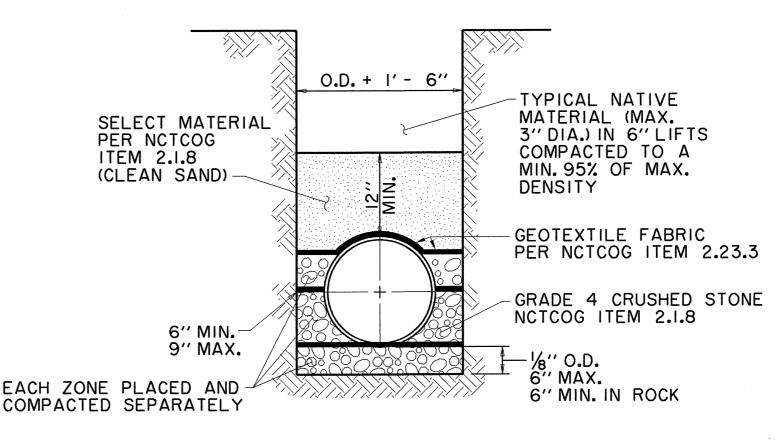
RFO, H; •no ref •no ref

- I. GATE VALVES SHALL BE DUCTILE IRON BODY, BRONZE OR BRASS MOUNTED, NON-RISING STEM, RESILIENT WEDGE TYPE (SUCH AS MUELLER A-2360). VALVES SHALL BE OF EQUAL OR GREATER PRESSURE CLASS THAN THE PIPING IN WHICH THEY ARE TO BE INSTALLED.
- 2. VALVE BOXES SHALL BE U.S.A. 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 SET FLUSH WITH THE FINISHED GRADE.
- 3. VALVE DEPTH GREATER THAN 4 FEET REQUIRES VALVE EXTENSION STEM.

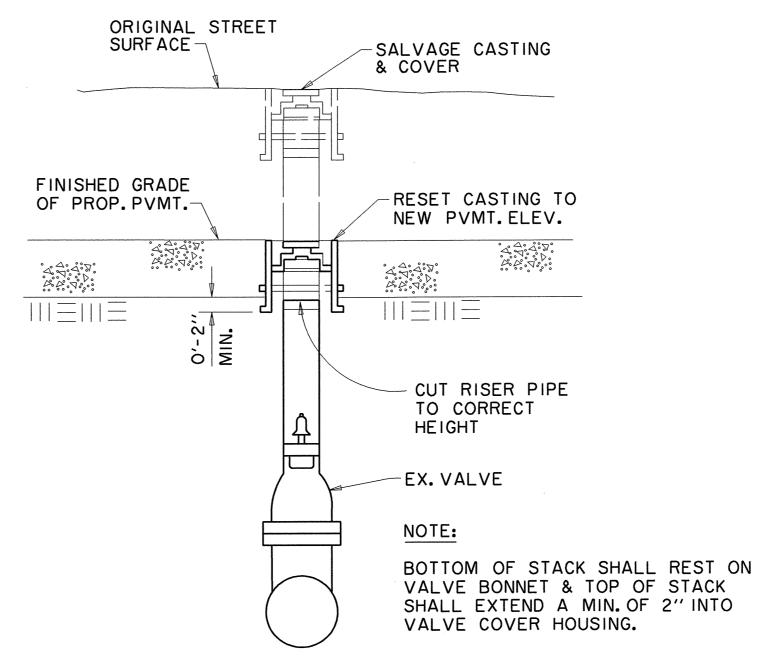
# TYPICAL FIRE HYDRANT INSTALLATION N.T.S.

### GENERAL NOTES:

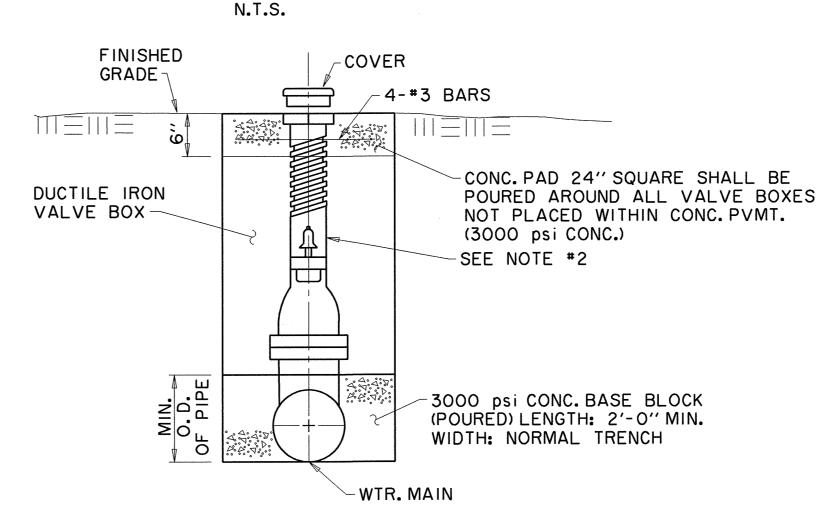
- I. ¢ OF F.H. BARREL SHALL BE NOT LESS THAN 6.0' OR MORE THAN 9.0' FROM BACK OF CURB OR EDGE OF DRIVING LANE.
- 2. DO NOT SET F.H. IN AN EXISTING OR PROPOSED SIDEWALK, UNLESS OTHERWISE NOTED.
- 3. ALL F.H. TEES SHALL BE FLANGED TEE WITH ANCHORING ON THE BRANCH WITH FLANGED x M.J., M.J. 6'' VALVE. RESTRAINING GLANDS EBAA SERIES 2000 OR EQUAL.
- 4. SET F.H. ON THE LOT LINE EXTENDED WHEN POSSIBLE. (NOT APPLICABLE TO THIS PROJECT)
- 5. SEE SPECIFICATION FH-95-1 FOR ADDITIONAL REQUIREMENTS.



# PVC EMBEDMENT N.T.S.



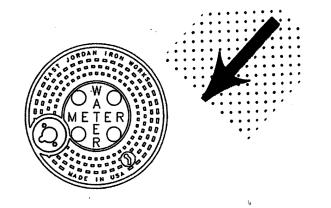
# VALVE COVER & RISER PIPE ADJUSTMENT



# TYPICAL VALVE SETTING & BOX

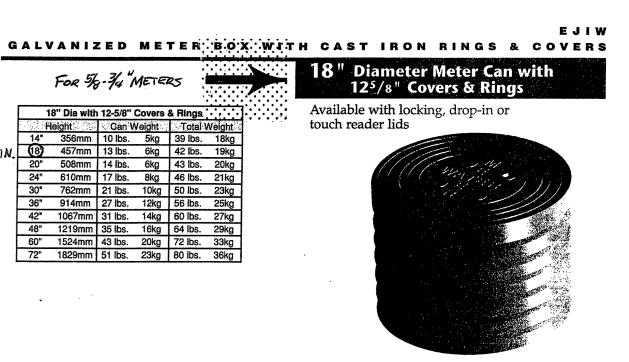
## NOTES:

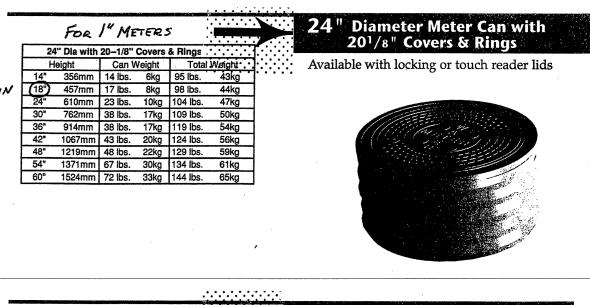
- I. GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C-509-80 OR LATEST THEREOF. ALL VALVES SHALL BE ''MUELLER'' OR APPROVED EQUAL.
- 2. A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE ON WHICH THE OPERATING NUT IS LOCATED IN EXCESS OF 4 FEET BELOW THE TOP OF VALVE BOX. 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 WRAPED.
- 3. VALVES SHALL BE OF DUCTILE IRON W/RUBBER ENCAPSULATED DISK. BOLTS SHALL BE STAINLESS STEEL OF SAME SIZE ON EACH VALVE.
- 4. ALL WATER COVERS SHALL BE MARKED ''WATER''.

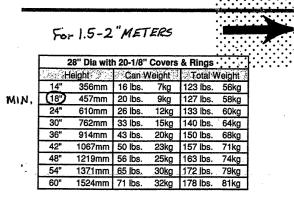


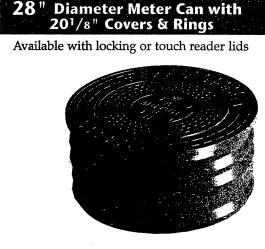
20 1/8° DIA (51 Inm)
2 1/8° | 18 3/8° (54mm) | 18 497mm)

#5 Texas Special for Reader Cover











# RECORD DRAWING

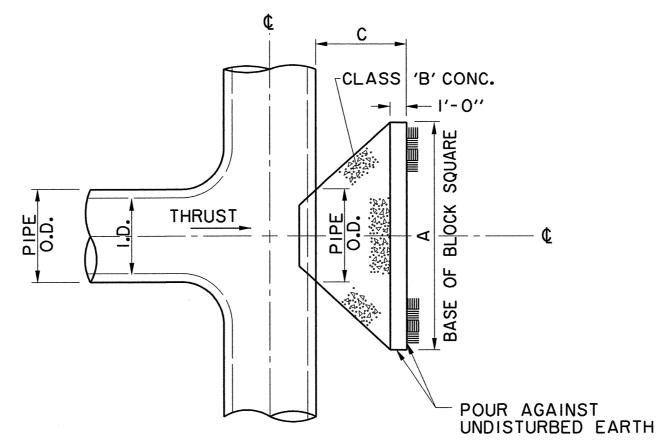
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WATER DE	ETAILS
QUORUM	DRIVE

	TOWN	1 OF	ADDI	SON,	TEXAS	
		ickinney Av	itt – Zollars e <b>.,</b> Suite 600 371–3311/Fax	O, Dallas, TX		
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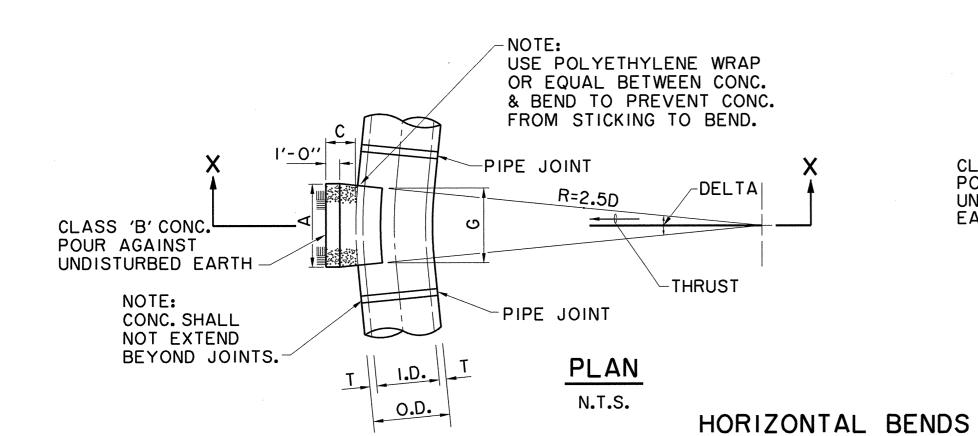
# PLAN OF PLUG THRUST BLOCK

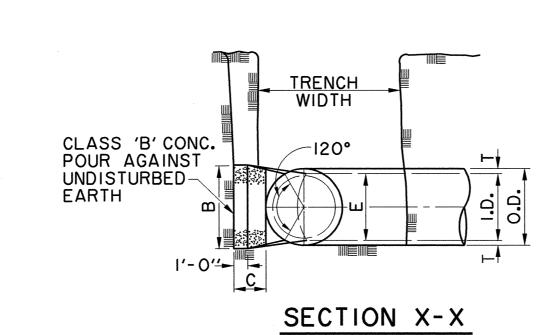
N.T.S.

PLAN OF TEE THRUST BLOCK

N.T.S.

			EA	RTH	ROCK		
I.D. (IN.)	THRUST TONS	C. FT.	A. FT.	VOL. C.Y.	A. FT.	VOL.	
4, 6, 8	5.1	1.5	2.5	0.3	2.0	0.2	
10, 12	11.3	1.5	3.5	0.6	2.5	0.3	
16, 18	25.5	2.0	5.5	1.6	4.0	0.9	
24	45.2	2.5	7.0	3.1	5.0	1.7	





N.T.S.

I.D. (IN.)	T. IN.	C II.25° FT.	C 22.50°+ FT.	E. FT.
4, 6, 8	0.4	1.5	<u>1.5</u>	0.9
10, 12	0.5	! <b>.</b> 5	1.5	1.2
16, 18	0.6	1.5	<u>!.5</u>	<u>1.6</u>
24	0,9	1.5	1.5	2.1

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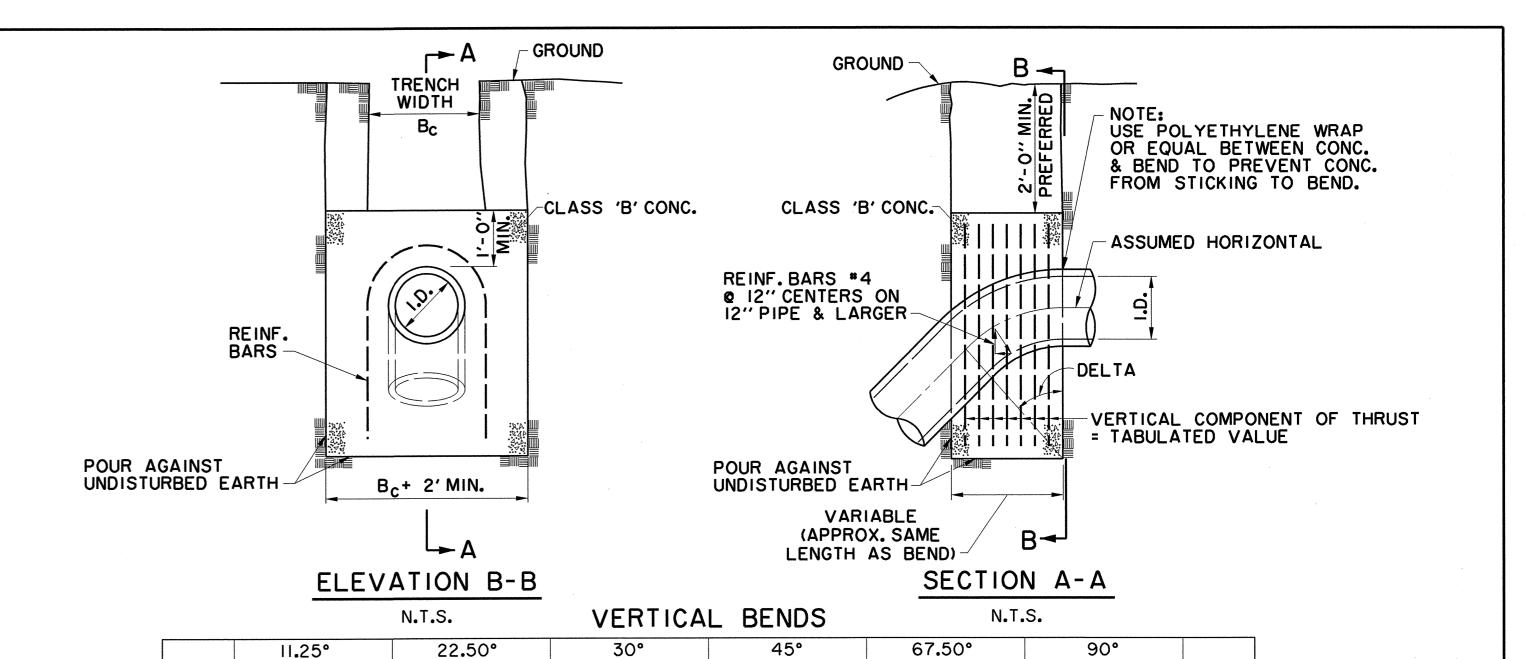
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DELTA				11.25	)°							22.5	0°				DELTA
				EARTH			ROCK					EARTH			ROCK		
I.D. (IN.)	G. FT.	THRUST TONS	A. FT.	B. FT.	VOL. C.Y.	A. FT.	B. FT.	VOL. C.Y.	G. FT.	THRUST TONS	A. FT.	B. FT.	VOL. C.Y.	A. FT.	B. FT.	VOL.	I.D. (IN.)
4, 6, 8	0.4	_1.0	1.0	1.5	Q.I	1 <b>.</b> Q	<u>I.O</u>	0.1	0.8	_2.0	<u>!.5</u>	1.5	<u>Q.I</u>	<u>I.Q</u>	<u>I.O</u>	<u>Q.l</u>	4, 6, 8
10, 12	0.6	_2.2	<u>1.5</u>	1.5	0.1	1.0	1.5	Q. <u>l</u>	1.1	_4.4	2.0	2.5	0.3	<u>!.5</u>	1.5	Q. <u>l</u>	10, 12
16, 18	0.8	_5.0	2.0	2.5	0.3	1.5	2.0	0.2	<u>1.6</u>	_9.9	3.0	3.5	0.6	2.0	2.5	0.3	16, 18
24	1.1	8.9_	3.0	3.5	0.5	1.5	3.0	0.3	2.2	17.7	4.0	4.5	1.0	3.0	3.5	0.5	24
DELTA				45	0				90°						DELTA		
4, 6, 8	0.4	_3.9	2.0	2.0	0.2	1.5	1.5	0.1	0.4	5.0_	5.0	1.5	0.4	2.0	2.0	0.2	4, 6, 8
10, 12	0.5	_8.7	3.5	2.5	0.5	2.0	2.5	0.3	0.5	6.5_	6.5	2.5	<u>1.0</u>	3.5	2.5	0.5	10, 12
16, 18	0.6	19.5	4.5	4.5	1.2	3.0	3.5	0.6	0.6	9.0_	9.0	4.0	2.4	4.5	4.0	<u>I.O</u>	16, 18
24	0.9	34.6	8,0	4.5	2.3	4.5	4.0	1.1	0.9	<u>14.5</u>	14.5	4.5	5.0	8.0	4.0	2.1	24

### GENERAL NOTES

- I. UNPLASTICIZED POLYVINYL CHLORIDE (PVC) WATER PIPE SHALL MEET OR EXCEED REQUIREMENTS OF AWWA C909 PVC PIPE WITH CAST IRON OUTSIDE DIMENSIONS. PIPE SHALL BE LISTED BY UNDERWRITER LABORATORIES AND SHALL BE APPROVED FOR USE IN CITIES AND TOWNS OF THE STATE OF TEXAS BY THE STATE BOARD OF INSURANCE.
- 2. PVC WATER PIPE SHALL BE FURNISHED WITH A RUBBER RING AT EACH JOINT AND AN INTEGRAL THICKENED BELL AS A PART OF EACH JOINT. THE PIPE CLASS SHALL BE MINIMUM CLASS 150 DR 18 WHICH REFERS TO THE MAXIMUM HYDROSTATIC PRESSURE IN NORMAL OPERATIONS. LAYING LENGTHS SHALL BE 20 FEET+/-. PIPE AND FITTINGS MUST BE ASSEMBLED WITH A NONTOXIC LUBRICANT.
- 3. FITTINGS FOR PVC WATER PIPE SHALL BE GRAY IRON OR DUCTILE IRON OF THE BELL AND SPIGOT, OR MECHANICAL JOINT TYPE AND SHALL BE CLASS 250 IN ACCORDANCE WITH AWWA CIIO-77 (ANSI.10).
- 4. UNLESS OTHERWISE SPECIFIED ON PLANS OR SHOWN IN PROFILES, PVC WATER PIPE SHALL BE INSTALLED TO CLEAR ALL UTILITY LINES AND SHALL HAVE A MINIMUM COVER OF 36 INCHES BELOW THE LOWEST GRADE OF THE STREET AS PER CITY CODE.
- 5. 4''-12'' R S GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA STANDARD C-500.
- 6. A PERMANENTLY ATTACHED VALVE EXTENSION STEM SHALL BE REQUIRED FOR ANY VALVE WHOSE 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.
- 7. DUCTILE IRON OR C-900 PVC PIPE SHALL BE USED FOR VALVE STACKS WITH VALVE BOX CASTING.
- 8. ALL ANCHOR BOLTS SHALL BE GALVANIZED.
- 9. ALL WATEWR MAINS WILL BE INSTALLED WITH A LOCATION WIRE PER THE TOWN OF ADDISON REQUIREMENTS.
- 10. POLYWRAP ALL IRON FITTINGS AND VALVES.



THRUST VOL. TONS C.Y. THRUST TONS THRUST VOL. VOL. VOL. C.Y. TONS C.Y. TONS C.Y. (IN.) TONS 2.5 3.6 4.6 2.3 5.0 1.0 1.8 2.5 | 4, 6, 8 1.0 0.5 2.0 5.7 8.0 4.0 10.5 5.7 | 10, 12 23.5 25.5 12.7 | 16, 18 12.7 18.0 9.0 22.6 41.9 | 20.9 | 45.2 | 22.6 | 24 16.0 11.3 32.0

## GENERAL NOTES FOR ALL THRUST BLOCKS

- I. 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.

THRUST | VOL.

THRUST | VOL.

5. DIMENSIONS MAY BE VARIED AS REQUIRED BY FIELD CONDITIONS AND AS DIRECTED BY THE

THRUST

ENGINEER. THE VOLUME OF CONCRETE BLOCKING SHALL NOT BE LESS THAN SHOWN HERE. 6. CONCRETE BLOCKING SHALL BE IN PLACE A MINIMUM OF 4 DAYS PRIOR TO TESTING THE PIPELINE.

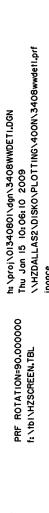
# \* KEVIN N. CARLSON 89232 C/STERE

## RECORD DRAWING

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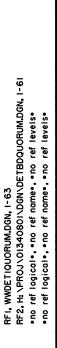
WATER DETAILS								
QUORUM DRIVE								
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TOWN OF ADDISON, TEXAS								
Huitt - Zollars, Inc. 3131 Mckinney Ave., Suite 600, Dallas, TX 75204 Phone (214) 871-3311/Fax (214) 871-0757								
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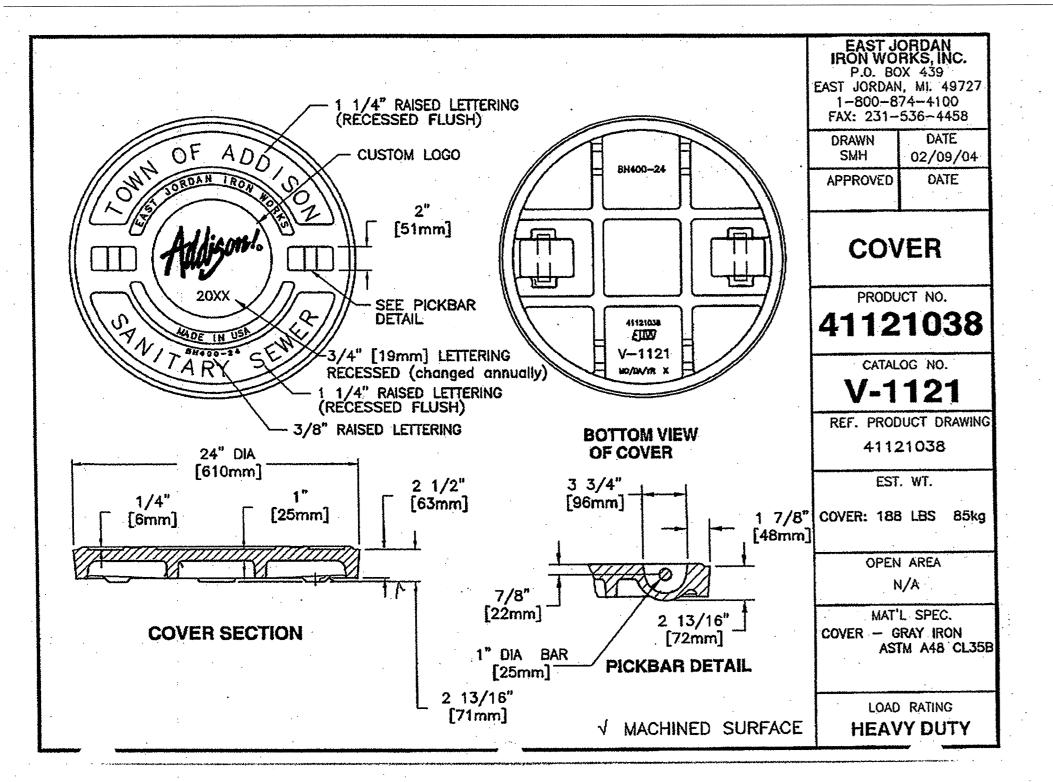
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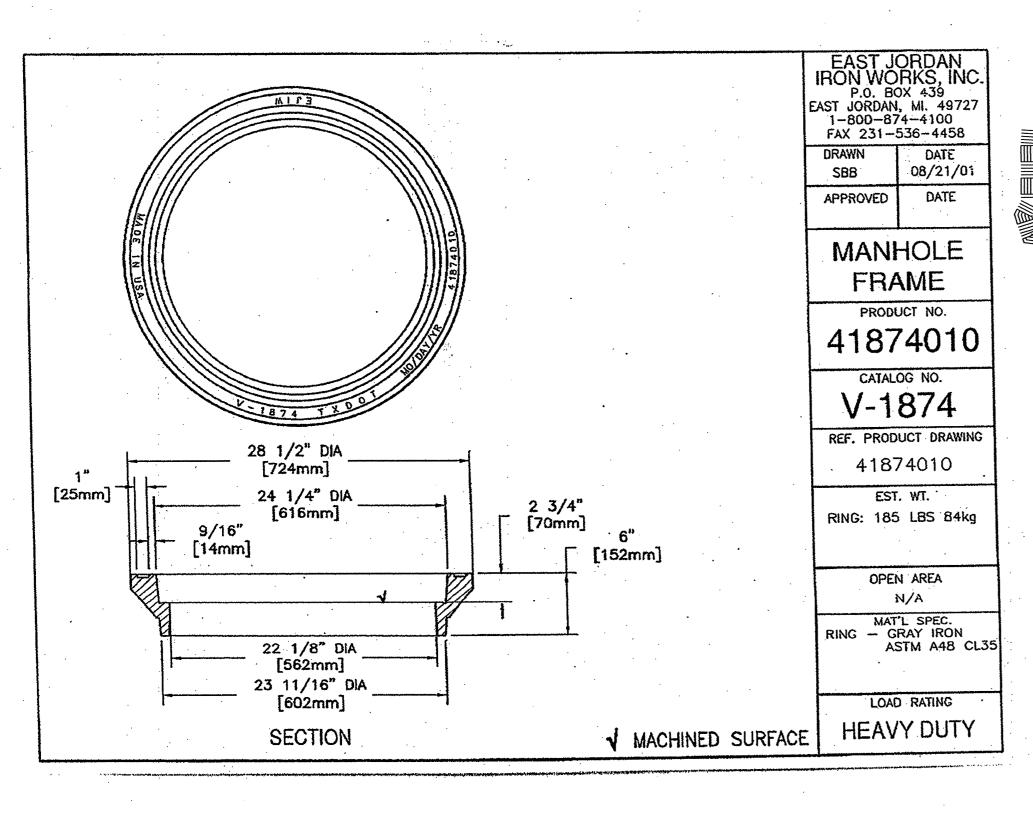


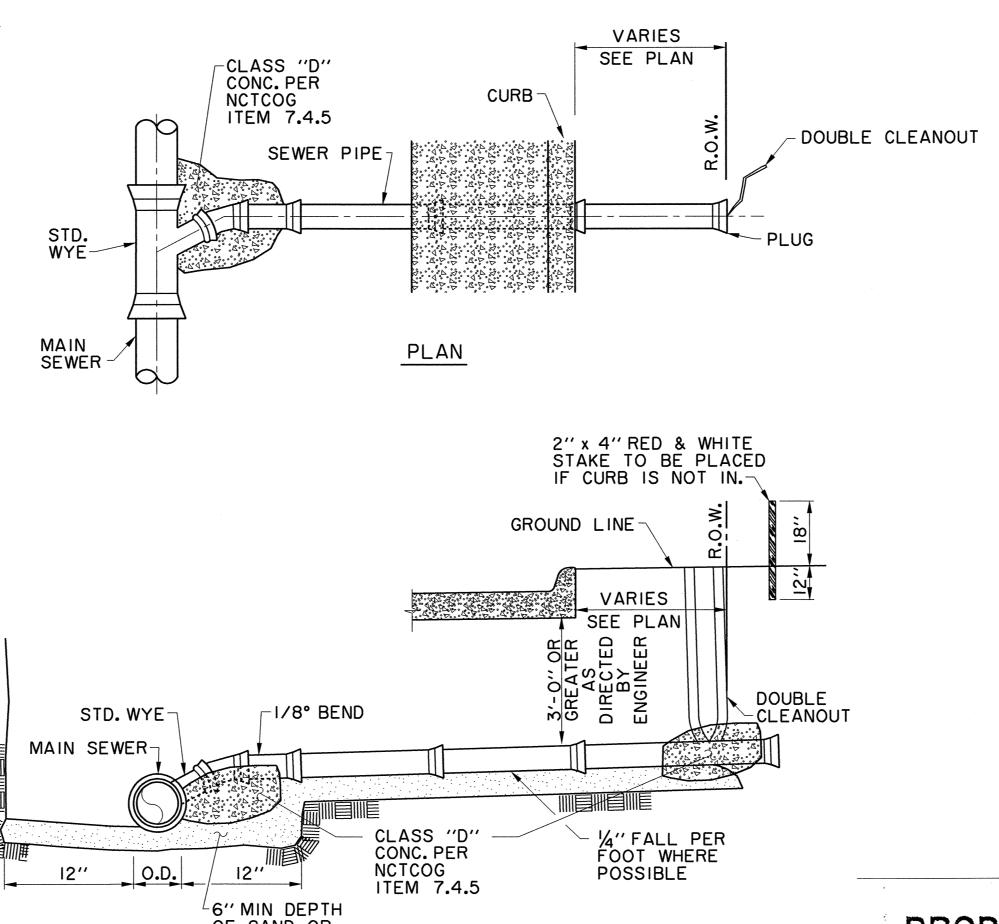












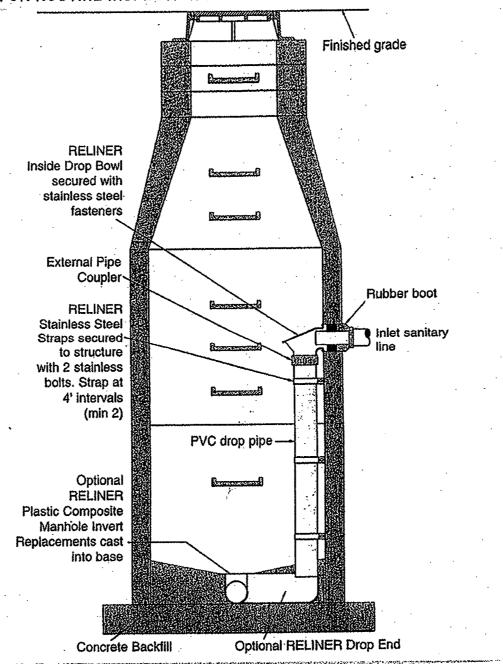
# INSIDE DROP SYSTEM by RELINER® / Duran Inc.

U.S. Patents # 6074130 and 5553973. Add. Patents Pending STOP ENTERING YOUR MANHOLES FOR ROUTINE INSPECTION & CLEANING OF INSIDE DROPS

ELEVATION

SANITARY SEWER SERVICE CONNECTION

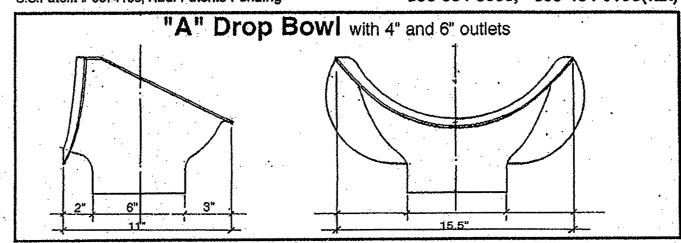
GRAVEL



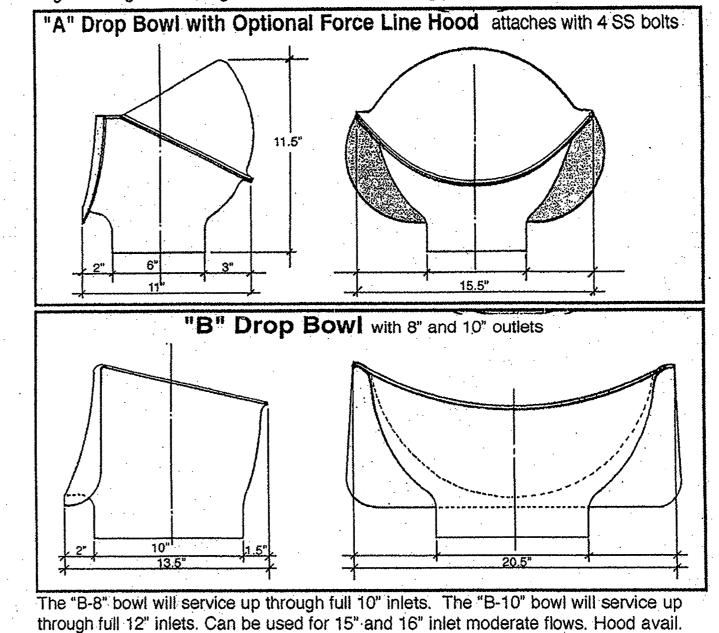
# DROP BOWLS

Sanitary Manhole Inside Drop Bowl U.S.Patent # 6074130, Add. Patents Pending

Reliner - Duran Inc. 53 Mt. Archer Rd. Lyme CT 06371 800-504-8008, 860-434-3195(fax)



The "A-4" bowl will service up through full 6" inlets. The "A-6" bowl will service up through full 8" inlets. Can be used for 10" and 12" inlet moderate flows. All sizes are for retrofit or new construction--fabricated in marine grade fiberglass and finished in bright white gel coat. Larger sizes and flat wall configerations also available.





# RECORD DRAWING

- USE APPROVED GRADE RINGS & NON

TO GRADE.

- CLASS "F" CONCRETE

MONOLITHIC POUR

SHRINK GROUT AS

(MIN. 4 COURSES)

REQUIRED TO RAISE

AS SPECIFIED BY OWNER

FRAME CAST IN CONC.

STD. M.H. FRAME & COVER-AS SPECIFIED BY OWNER

5'-0" & 6'-0"

TRANSITION DETAIL FOR

5' & 6' DIA. M.H.'S

APPROVED RESILIENT PIPE-TO-

STUBOUT CONNECTION

North Central Texas Council of Covernmen

MANHOLE CONNECTOR OR GASKET

REQUIRED FOR PIPE OTHER THAN CLAY OR CONCRETE.

STUBOUT TO BE FITTED

WITH WATERTIGHT STOPPER OR CAP

STUBOUTS TO BE A MIN. OF 5' LONG

WITH CONC. CRADLE

(FROM SAME POUR)

UNDER ENTIRE LENGTH

STANDARD SPECIFICATION REFERENCE

502.1

OCT. '04

5030

ADJUSTABLE FRAME

SEE TRANSITION DETAIL

5'-0" & 6'-0"

ROCK FOUNDATION

1/2" NON SHRINK -

GEOTEXTILE -

TOP OF CURB.

1. WHERE M.H.'S ARE IN "PROPOSED" PAVING, FRAME & COVER SHALL BE SET 23" BELOW THE PROPOSED

THEY SHALL BE CONSTRUCTED,

INSTALLED AND REMOVED.

PER STD. DWG. NO. 5100.

3. WHERE M.H.'S ARE OUTSIDE OF

PAVEMENT, FRAME & COVER

CLASS "A" CONCRETE, 4" THICK

ENTIRE LENGTH.

2. IF FALSE M.H. BOTTOMS ARE REQUIRED

SHALL BE CENTERED IN 5'x5' CONCRETE PAD

WASTEWATER MANHOL

CAST-IN-PLACE

FIRST MAIN LINE JOINT TO BE A

(FROM SAME POUR AS BASE) UNDER

MATERIAL

THIS DRAWING HAS BEEN MODIFIED FROM THE ORIGINAL TO SHOW ONLY THE FIELD CHANGES AND ADJUSTMENTS MADE DURING CONSTRUCTION BY THE CONTRACTOR WHICH WERE DOCUMENTED AND FURNISHED TO THE ENGINEER FOR THE PURPOSE OF PREPARING THESE RECORD DRAWINGS. FIELD INSPECTION OF CONSTRUCTION WAS PERFORMED BY OTHERS. TO THE BEST OF OUR KNOWLEDGE AND UNDERSTANDING THESE RECORD DRAWINGS REPRESENT THE "AS-BUILT" CONDITIONS.

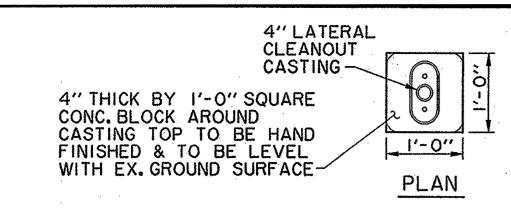
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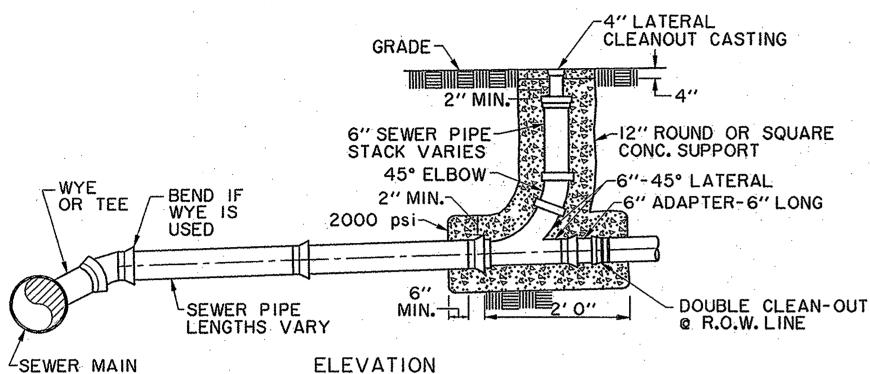
QUORUM DRIVE

TOWN OF ADDISON, TEXAS

Huitt - Zollars, Inc. 3131 Mckinney Ave., Suite 600, Dallas, TX 75204 Phone (214) 871-3311/Fax (214) 871-0757 DATE PROJECT NO. DESIGN CHECKED APPR. SCALE HZI N.T.S. 01/15/09 HZI

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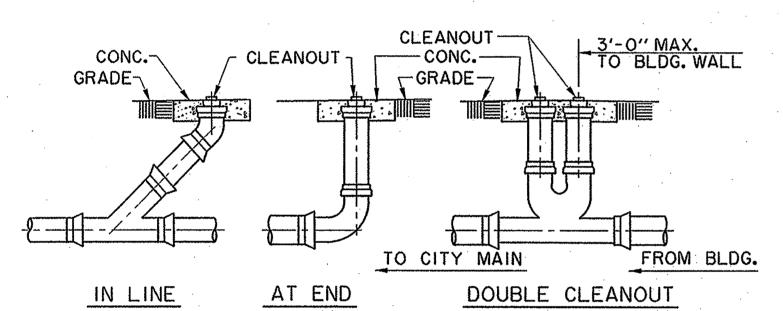




# SANITARY SEWER CLEANOUT DETAIL

PVC SANITARY SEWER PIPE TO BE SDR 35 OR SDR 26 (AS NOTED ON PLANS) WITH INTEGRAL BELL. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE HORIZONTALLY EACH SERVICE IN RELATION TO THE SANITARY SEWER STATIONING.

FIELD TIES ARE TO BE INCLUDED & RECORDED ON ALUMINIZED SANITARY SEWER TAPE. THIS TAPE, GREEN OR RED IN COLOR IS TO BE ATTACHED TO THE 6" SERVICE AT THE R.O.W. LINE AND BROUGHT TO THE SURFACE TO BE USED AS A PERMANENT MARKER.



TYPICAL CLEANOUTS

USE CLASS 2 EMBEDMENT UNLESS OTHERWISE NOTED

1 1/4" BORE 3/8" DEEP —

SECTION "A-A"-

7 3/8"

5 11/16"

CLEANOUT FRAME BOTTOM

1. THE WORDS "WASTEWATER LATERAL CLEANOUT" SHALL BE

2. MATERIALS TO BE CAST IRON, P.V.C. OR ABS PLASTIC.

WASTEWATER LATERAL

**CLEANOUT FRAME & COVER** 

CAST INTO TOP OF COVER.

GEO-TEXTILE

-1/8 O.D. 3" MIN.

6" MAX.

3/16" DIA. RUBBER "O-RING" GASKET-

NATIVE BACKFILL MATERIAL (MAXIMUM

3" DIAMETER) IN 6" LIFTS COMPACTED

TO A MIN. 95% OF

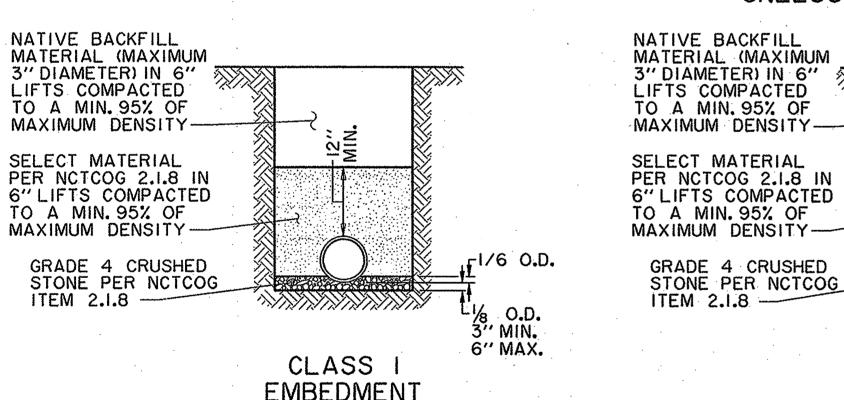
MAXIMUM DENSITY

SELECT MATERIAL PER NCTCOG 2.1.8 IN

6" LIFTS COMPACTED

2000 PSI CONCRETE

TO A MIN. 95% OF MAXIMUM DENSITY



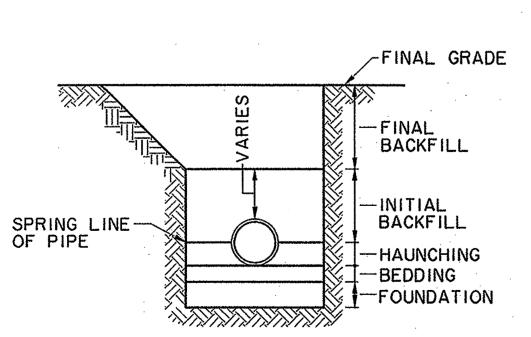
**EMBEDMENT** LOAD FACTOR = 1.5

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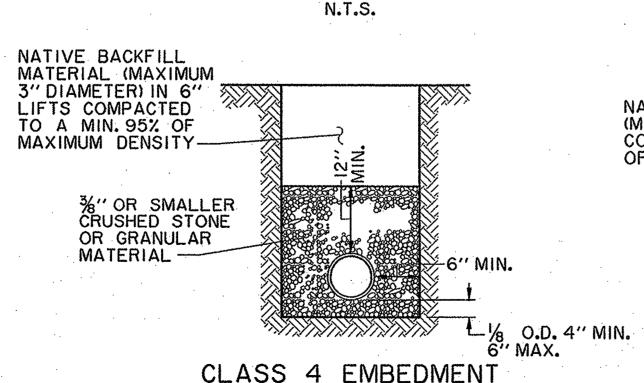
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EMBEDMENT ZONES

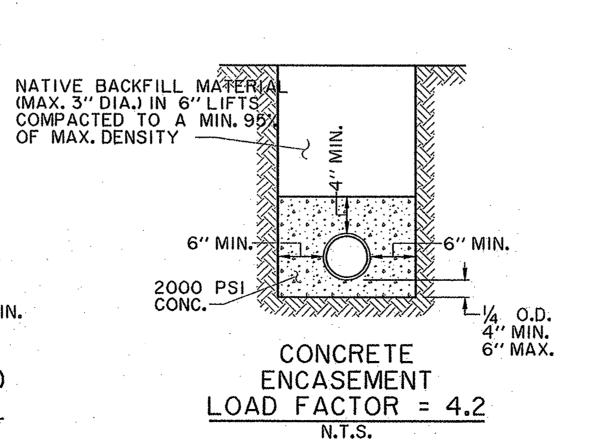


CLASS 2

**EMBEDMENT** 

LOAD FACTOR = 1.9

CLASS 4 EMBEDMENT (SDR35 AND SDR26 P.V.C. PIPE ONLY) LOAD FACTOR = 2.0



**CLEANOUT FRAME TOP** 

7 3/4"

7 1/2"

5 11/16"

4 1/4" - 0"

4 21/32" - 0" 4 7/8"

ASSEMBLY VIEW N.T.S.

North Central Texas Council of Governments

2-REQ'D. (STAINLESS

STANDARD SPECIFICATION REFERENCE

CLASS 3

**EMBEDMENT** 

LOAD FACTOR = 2.8

-¼ O.D. 3" MIN.

6" MAX.

TYPICAL NATIVE MATERIAL COMPACTED TO:
95% OF STANDARD PROCTOR DENSITY @ OPTIMUM MOISTURE O TO +3% UNDER PVMT.
95% OF STANDARD PROCTOR DENSITY @ OPTIMUM MOISTURE O TO +3% OUTSIDE CURB
LINES JETTING IS NOT ALLOWED BACKFILL TO BE COMPACTED IN 6"+/- LIFTS
TYPICAL NATIVE MATERIAL (MAX. 3" DIA.)

# EMBEDMENT DETAILS FOR SANITARY SEWER

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

SIZE OF	O.D. OF	TRENCH	TRENCH	CLASS I	CLASS 2	CLASS 3	CONCRETE
PIPE IN	PIPE IN	WIDTH IN	WIDTH IN	EMBEDMENT	EMBEDMENT	EMBEDMENT	ENCASEMENT
INCHES I.D.	INCHES	INCHES	FEET	CRUSHED STONE	CONCRETE	CONCRETE	
. 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	21.2
21	26.50	43	3.58	6.9	11.0	10.2	24.9
24	30.00	46	3.83	8.3	13.1	12.4	28.7
27	33.50	51	4.25	10.3	16.1	14.4	32.8
30	37.00	57	4.75	12.7	20.1	17.0	34.8
33	40.50	62	5.17	15.1	23.8	19.3	39.2
36	44.00	67	5.58	18.0	28.6	22.1	43.8

				·	
	TABLE OF QUA	ANTITIES PER	100 LINEAR	FEET-PVC PIPE	
		(IN CUBI	C YARDS)	,	
SIZE OF	O.D. OF	TRENCH	TRENCH	CLASS 4	CONCRETE
PIPE IN	PIPE IN	WIDTH IN	WIDTH IN	EMBEDMENT	ENCASEMENT
INCHES I.D.	INCHES	INCHES	FEET	CRUSHED STONE	
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		

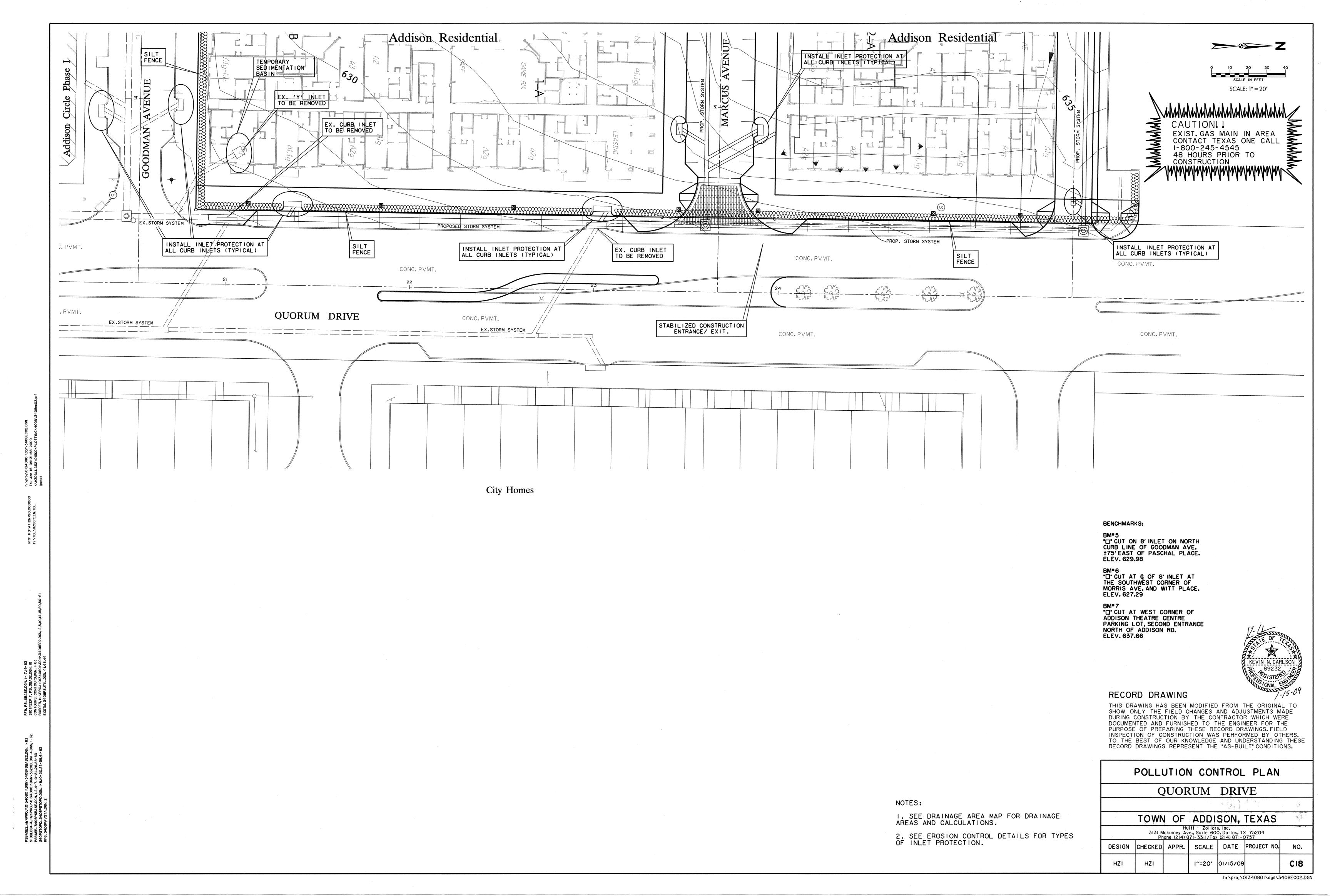
# STATE OF TEXAS N. UARLS 89232 CONAL ENG S 1-14-09

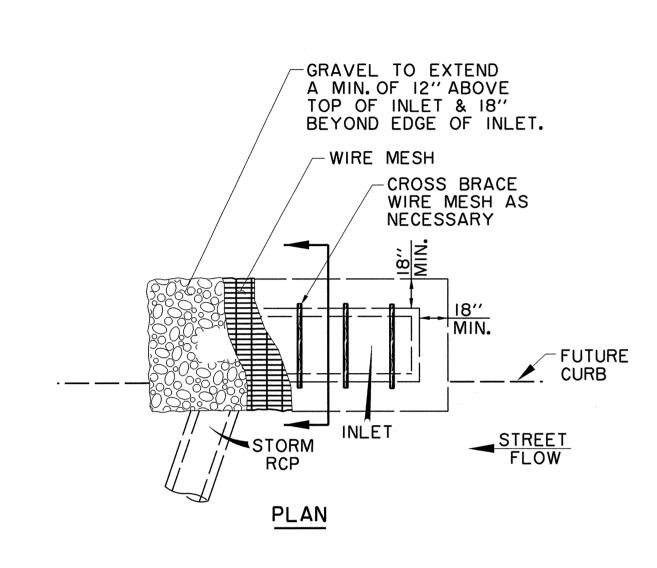
# RECORD DRAWING

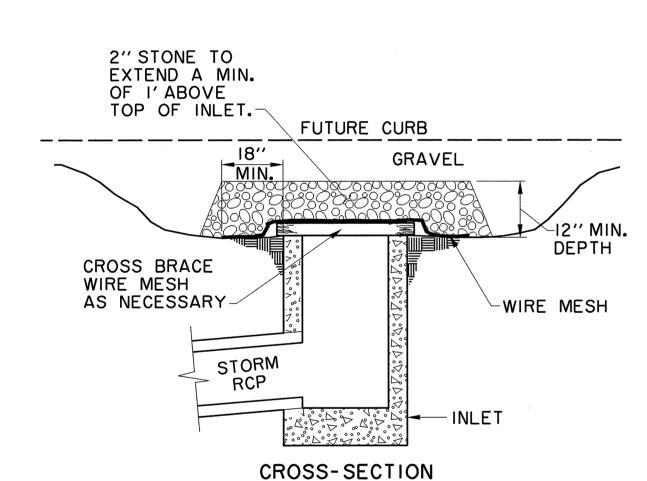
THIS DRAWING HAS BEEN MODIFIED FROM THE ORIGINAL TO SHOW ONLY THE FIELD CHANGES AND ADJUSTMENTS MADE DURING CONSTRUCTION BY THE CONTRACTOR WHICH WERE DOCUMENTED AND FURNISHED TO THE ENGINEER FOR THE PURPOSE OF PREPARING THESE RECORD DRAWINGS. FIELD INSPECTION OF CONSTRUCTION WAS PERFORMED BY OTHERS. TO THE BEST OF OUR KNOWLEDGE AND UNDERSTANDING THESE RECORD DRAWINGS REPRESENT THE "AS-BUILT" CONDITIONS.

WASTEWATER DETAILS								
QUORUM DRIVE								
TOWN OF ADDISON, TEXAS								
Huitt - Zollars, Inc. 3131 Mckinney Ave., Suite 600, Dallas, TX 75204 Phone (214) 871-3311/Fax (214) 871-0757								
DESIGN	CHECKED	APPR.	SCALE	DATE	PROJECT NO.	NO.		
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INLET PROTECTION
WIRE MESH & GRAVEL
NCTCOG 02270.G
STORM WATER QUALITY
BEST MANAGEMENT PRACTICES

DETAIL 'E'

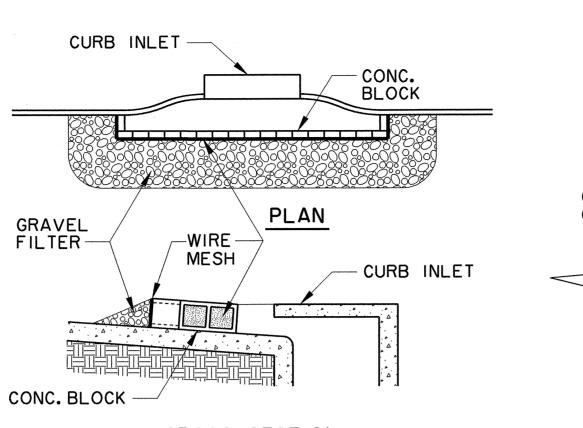
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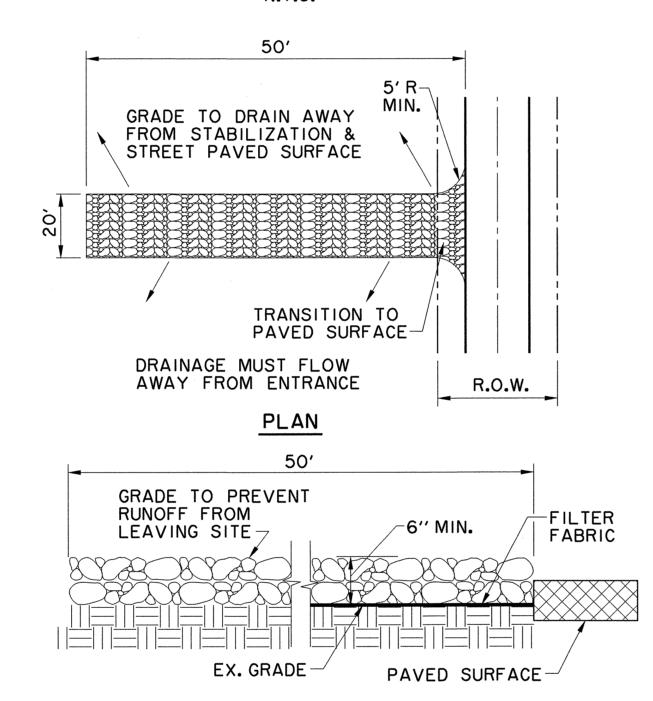
RFI, H: \PROJ\OI34080I\DGN\DETI •no ref logical•, •no ref name•, •n •no ref logical•, •no ref name•, •n •no ref logical•, •no ref name•, •n FOR CONSTRUCTION ACTIVITIES



INLET PROTECTION
BLOCK & GRAVEL

NCTCOG 02270.G
STORM WATER QUALITY
BEST MANAGEMENT PRACTICES
FOR CONSTRUCTION ACTIVITIES

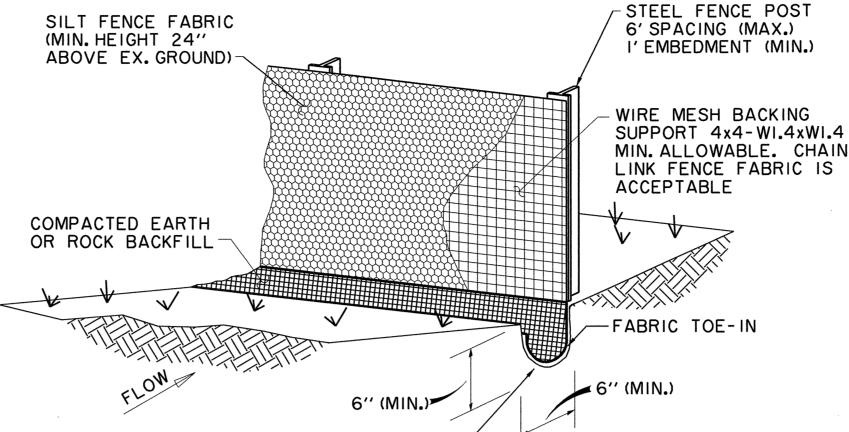
DETAIL 'G'



STABILIZED CONSTRUCTION
ENTRANCE / EXIT

NCTCOG 02270.G STORM WATER QUALITY BEST MANAGEMENT PRACTICES FOR CONSTRUCTION ACTIVITIES

DETAIL 'A'



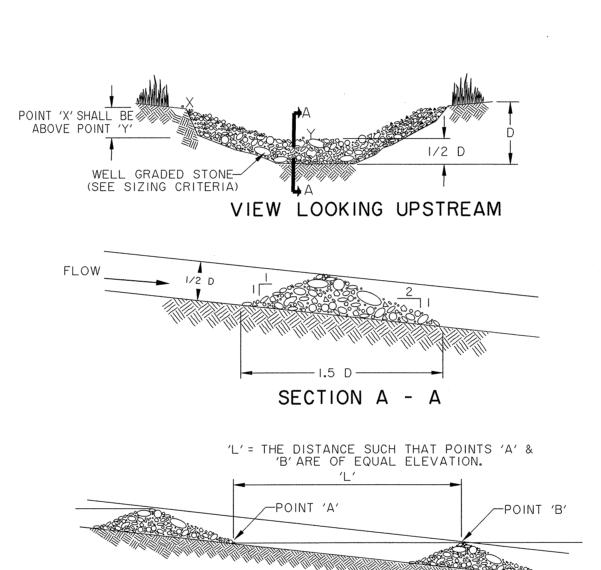
SILT FENCE SHOULD BE SECURELY FASTENED TO BACKING SUPPORT AND POSTS.

SILT FENCE

NCTCOG 02270.B

STORM WATER QUALITY
BEST MANAGEMENT PRACTICES
FOR CONSTRUCTION ACTIVITIES

DETAIL 'B'



SPACING BETWEEN CHECK DAMS

ROCK CHECK DAM

#### NOTES:

- I. A NOTICE OF INTENT (N.O.I.) WILL BE PREPARED BY THE CONTRACTOR FOR THIS PROJECT IN ACCORDANCE WITH THE REQUIREMENTS OF THE N.P.D.E.S. GENERAL PERMIT FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION.
- ALL CONTRACTORS WILL COMPLY WITH THE REQUIREMENTS AND INTENT OF THE N.P.D.E.S. GENERAL PERMIT FOR STORM WATER DISCHARGES.
- 3. EACH CONTRACTOR SHALL SUBMIT A NOTICE OF INTENT (N.O.I.)
  FOR STORM WATER DISCHARGE PERMIT COVERAGE. THIS SUBMITTAL
  SHALL BE COORDINATED WITH THE TOWN AND SHALL OCCUR NO
  LESS THAN 48 HOURS PRIOR TO THE COMMENCEMENT OF ANY
  CONSTRUCTION ACTIVITY.
- 4. EACH CONTRACTOR SHALL OBTAIN AND SUBMIT TO TOWN A POLLUTION PREVENTION CERTIFICATION FROM EACH SUBCONTRACTOR WHOSE WORK IMPACTS THE STORM WATER POLLUTION PREVENTION PLAN (S.W.P.P.P.) PRIOR TO THE PERFORMANCE OF ANY WORK BY SAID SUBCONTRACTOR. THESE CERTIFICATIONS SHALL BECOME A PART OF THE STORM WATER POLLUTION PREVENTION PLAN.
- INDICATED ON THE PLANS AND AS FIELD CONDITIONS WARRANT, PRIOR TO COMMENCING ANY CONSTRUCTION ACTIVITY. REPAIRS OR MODIFICATIONS TO THE MEASURES WILL BE MADE BY THE CONTRACTOR IF THE CONTROL MEASURES PROVE INEFFECTIVE OR IF ADDITIONAL CONTROL MEASURES ARE NECESSARY.
- 6. CONTRACTOR SHALL TAKE APPROPRIATE MEASURES TO PREVENT TRACKING OF MUD AND/OR SOILS ONTO EXISTING AND/OR NEW PAVEMENT. ANY TRACKING THAT OCCURS SHALL BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
- 7. CONTRACTOR SHALL CONSTRUCT INLET PROTECTION FOR ALL INCOMPLETE CURB INLETS AND SHALL TAKE EVERY MEASURE TO KEEP SOILS AND SEDIMENTS FROM ENTERING THE STORM SEWER SYSTEM.
- 8. CONTRACTOR SHALL CONSTRUCT DROP INLET PROTECTION FOR ALL INCOMPLETE DROP INLETS AND SHALL TAKE EVERY MEASURE TO KEEP SOILS AND SEDIMENTS FROM ENTERINGTHE STORM SEWER SYSTEM.
- 9. AT A MINIMUM, PERIMETER CONTROLS SUCH AS SILT FENCE OR STRAW BALES SHALL BE INSTALLED AT ALL DOWN SLOPE BOUNDARIES AND AS WARRANTED WHERE PAVEMENT REMOVAL, UTILITY CONSTRUCTION, GRADING, OR OTHER CONSTRUCTION ACTIVITIES ARE TO BE PERFORMED. THE CONTRACTOR SHALL AT ALL TIMES TAKE SUCH MEASURES AS NECESSARY TO MINIMIZE OFFSITE TRACKING OR TRANSPORT OF SEDIMENT AND DEBRIS.
- DAMAGE TO ADJACENT PROPERTY AND/OR TO RECEIVING WATERS CAUSED BY IMPROPERLY INSTALLED OR POORLY MAINTAINED EROSION CONTROL MEASURES WILL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- II. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ANY SILTATION CAUSED BY HIS OPERATIONS AND/OR FAILURE OF THE EROSION CONTROL MEASURES.
- 12. CONTRACTOR SHALL REMOVE AND PROPERLY DISPOSE OF ACCUMULATED SILT AND SEDIMENT FROM EROSION CONTROL MEASURES WHEN IT REACHES A DEPTH OF SIX (6) INCHES OR IMPAIRS THE EFFECTIVENESS OF THE MEASURES.
- 13. THE TOWN'S REPRESENTATIVE MAY INSPECT THE PROJECT EVERY SEVEN DAYS, AT A MINIMUM, AND AFTER EVERY RAINFALL OF ONE-HALF INCHES OR GREATER TO DETERMINE THE INTEGRITY AND EFFECTIVENESS OF THE EROSION CONTROL MEASURES. A WRITTEN INSPECTION REPORT MAY BE FILED WITH THE POLLUTION PREVENTION PLAN. THIS INSPECTION DOES NOT RELIEVE THE CONTRACTOR'S RESPONSIBILITY FOR INSPECTION AND MAINTENANCE OF THE EROSION CONTROL MEASURES OR HIS DUTY TO COMPLY WITH THE INTENT AND CONDITIONS OF THE N.P.D.E.S. GENERAL PERMIT.
- 14. ALL STOCKPILED SOILS WILL BE SURROUNDED BY A STRAW BALE DIKE, SILT FENCE, SEDIMENT CONTROL SWALE, OR EQUIVALENT MEASURE TO PROPERLY CONTROL SEDIMENT RUNOFF, AS APPROVED BY THE TOWN.
- 15. CONTRACTOR SHALL STABILIZE ANY AREA WHERE CONSTRUCTION ACTIVITY IS TO BE TEMPORARILY OR PERMANENTLY CEASED FOR MORE THAN 14 DAYS.
- 16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MINIMIZATION OF DUST PER NCTCOG BEST MANAGEMENT PRACTICES AND NPEDS..

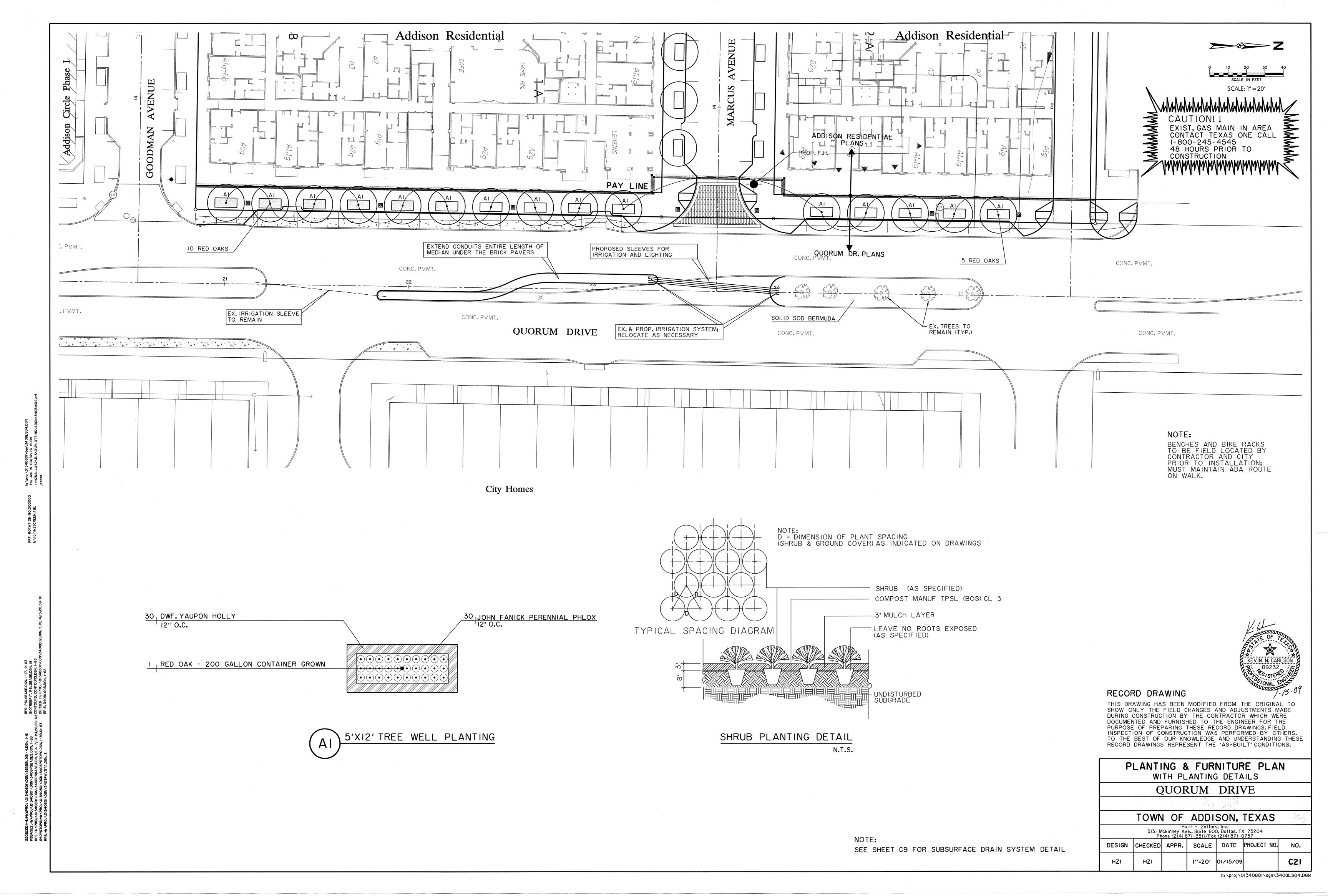
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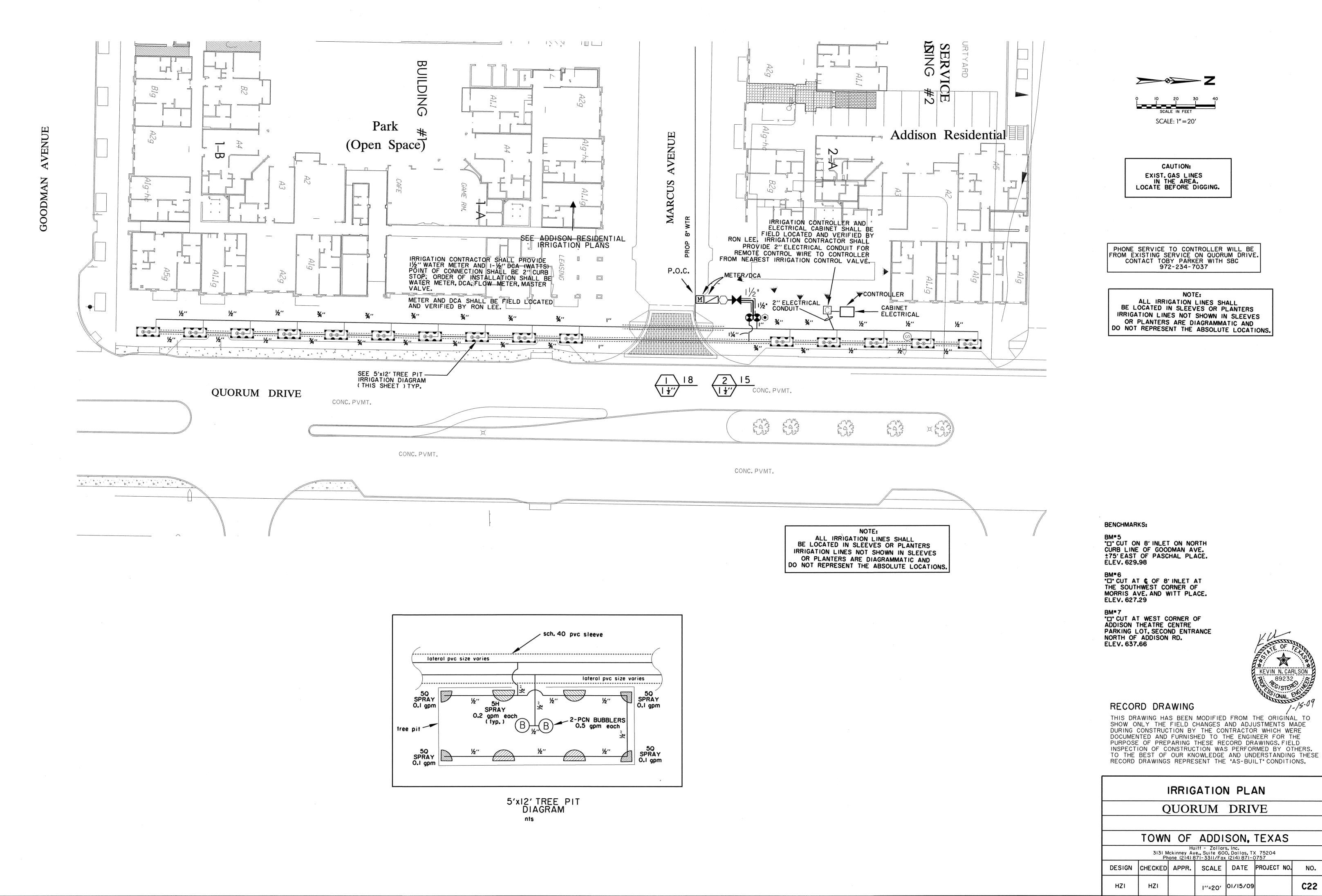
### RECORD DRAWING

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POLLUTION CONTROL DETAILS								
	QUORUM DRIVE							
	TOWN OF ADDISON, TEXAS							
Huitt - Zollars, Inc. 3131 Mckinney Ave., Suite 600, Dallas, TX 75204 Phone (214) 871-3311/Fax (214) 871-0757								
DESIGN	CHECKED		SCALE		PROJECT NO.	NO.		
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C22

# Town of Addison Irrigation Specifications Revised 04/22/04

These revised specifications supersede any and all others. However, any discrepancies between the approved construction plans and those of the Town MUST be brought to the attention of the Town's designated representative for a final determination. The contractor will present the Town's representative an as-built plan at the final walk-through, along with three Bucker VO75 quick coupling keys with hose-end swivels.

I. All work is to be accomplished by or directly supervised at all times by an on-site Irrigator licensed by the State of Texas.

- 2. The contractor shall verify the water pressure before the installation begins. If the static pressure is different than that of the design pressure, contact the designer and Town's representative immediately so changes can be made. Send a cax tp the Parks dept. at 972-450-2834 with the current dated and timed static pressure reading. Design head to head with no single head coverage. Use appropriate size nozzles for a given landscape area so as not to spray onto or over paved surfaces or structures. Do not exceed manufacturer's recommendations.
- 3. The irrigation installer is responsible for resetting head and/or box height due to settling and after turf, groundcover, shrubs, trees, and mulch is added to the landscape areas. The irrigation contractor must supply a workmanship warranty for (I) year from date of acceptance.
- 4. Plans are diagrammatic and field adjustments are often necessary. For this reason, prior to trenching, valve locations and head layout with flags needs to be done and approved by the Town's irrigation inspector. Not doing so may result in the relocation of heads and/or valves at the irrigation contractor's expense.
- 5. Water Taps: Water taps will be 2" in size. All parts must conform to the Town of Addison Water Department specifications and are the responsibility of the irritation contractor to provide. Inspection of taps by the Water Department Representative must occur. Excavation and tap permits are required. Contact the Town of Addison Water Department at (972) 450-2871.
- 6. Water Meters: Only Master or Hersey meters with two (2) brass flanges are acceptable. Meter lay lengths must be in accordance with the Town of Addison Water Department's specifications, housed in appropriate size (to be determined by the Town's Irrigation Inspector) concrete box with Iid. New stainless steel bolts and nuts must be used in the installation along with new neoprene gaskets. The box should be level with the final grade using concrete pavers to support and prevent sinking. Backfill inside the box, 3" below meter base with at least 6" of fine (I/2") pea gravel. Connection to main must be approved and inspected by the Town's Water Department Inspector and all tap materials are to be purchased at the expense of the contractor and must comply with the Town of Addison's specifications.
- 7. Backflow Devices: Only Watts OO7 M series inline check valve assemblies with the stainless steel ball valve handles and nuts are to be used. Irrigation contractor shall provide and install brass plugs for the test cocks. Connect to the flange using teflon taped copper nipple of sufficient length to center the DCA within its housing. The device will be housed in an appropriate size, (to be determined by the Town's Irrigation Inspector) rectangular concrete box with lid using concrete pavers for proper stability and height adjustment. The irrigation contractor shall be responsible for the DCA testing in accordance with State of Texas law, using a Licensed Backflow Assembly Tester registered with the Town of Addison Water Department.
- 8. Sleeves: All paving must have Town approved sleeve sizes and quantities present. It is the responsibility of the irrigation contractor to notify the Town's Irrigation Inspector of any area where sleeves should be present but are not and provide such materials at his cost. Any paving installed without sleeves will necessitate a bore and subsequent materials at the irrigation contractor's expense. All sleeves 2" and smaller will be Schedule 40 PVC with size and location noted on the plan. Larger sizes will be Class 200. All piping underneath paving, including sidewalks, must be sleeved. All sleeves are to be belled end PVC pipe. A minimum length of 12 inches of sleeve material must extend beyond the pavement.
- 9. Glue and Primer: Use Turftite brand glue on laterals and IPS Grey Heavy Body on main lines and a good quality purple primer on all. Avoid excessive use and wipe excess glue off of all joints and fittings with a clean rag.
- 10. Pipe: All main line pipe 2 inches and smaller is to be Schedule 40 belled PVC; larger sizes are to be Class 200 belled PVC with a minimum depth of I4" and a maximum depth of I6". Put not more than two (2) pipes in any one trench and separate the main line from the lateral line with at least two (2) inch of cover. Class 200 belled PVC lateral piping is to be used with a minimum depth of I2" and a maximum depth of I4".

II. Fittings: No crosses are permitted. Separate tees, 45's, elbows and other fittings by at least 12 inches. Reduction tees are preferred over use of single reducer bushings. Multiple reducer bushings will not be accepted. Only Spears and/or Lasco fittings are permitted. Allow 18 inches outside of sleeve before the first fitting. No 45 degree elbows on I inch and larger pipe are allowed.

12. Valves:

A. Master Valves: Every point of connection to the water supply system shall have a Weathermatic IIOOO FCR series valve as the Master Valve, housed in a standard (large) Ametek rectangular plastic valve box with 4 to 6 inches of small (I/2") pea gravel placed underneath the valve in such a manner as to prevent soil infiltration into the box. Use concrete pavers or ricks plaed under edges of valve box for stability. Note: Valve box must not rest on pipe. Blue wire shall be used as the station wire for the Master Valve.

- B. Station Valves: Only Weathermatic IIOOO FCR series valves are permitted. A Ball Valve will be installed before every station or zone valve. They are to be located within a standard (large) Ametek rectangular plastic valve boxes with 4 to 6 inches of (I/2") pea gravel placed underneath the valve in such a manner as to prevent soil infiltration into the box. The pea gravel should be 2 inches from the bottom of the valve body. A minimum of 3" 's of valve box must extend below bottom of valve. If necessary use valve box extensions.
- C. Ball Valves: Female threaded plastic Spears or Lasco ball valves with positive T-handle cut off must be installed on every 200 feet of mainline for isolation purposes. A ball valve is also required to be installed before every station valves. Use IO" Ametek valve box with a minimum of 3" extending below bottomof valve and fill to bottom of valve with 1/2" pea gravel. Use bricks or concrete box.
- D. Quick Coupler Valves: Use only Buckner VO75 single lug¾" quick coupling valves with a metal top. They are to be connected to a threaded fitting. Teflon tape and appropriate length of gray schedule 80 nipples and schedule 40 fittings are to be used for the swing joint. Secure to 18 inch by½ inch steel rebar with a stainless steel worm screw clamp. House QCV in a 10 inch round plastic Ametek valve box. Install Spears ball valve prior to each QCV. Bricks or pavers need to be installed under edges of valve boxes for stability. Backfill bottom of box with½" pea gravel half way up body of valve.
- E. Flowmeters: Purchase from a Rain Master supplier and install appropriately sized Data Industrial flowmeter. Follow all installation instructions as approved by Rain Master. The irrigation contractor must also purchase from Rain Master and install shielded Rain Master EV-Cab-Sen flow meter cable and install within continuous ¼" or larger gray PVC conduit with 6 inch or larger J-boxes placed every 200 feet or where 360 degrees of fittings are installed; only sweep fittings are permitted. Only a continuous run of cable is allowed; no splices will be allowed except at the point of connection to the flow meter. Connections at the flow meter must first be soldered and then water proofed within a 3-M DBY connector. Note: certain Rain Master requirements must also be met regarding installation order and distances of separation between DCA, flow meter, master valve and the first fitting. It is the responsibility of the irrigation contractor to adhere to these requirements. At final walk through, proper operation of the flow meter at the Rain Master controller must be demonstrated by the irrigation contractor.
- 13. Heads: All heads will be installed using polyethylene green nipples (3/4"x6") for rotors and  $\frac{1}{2}"x6"$  for pop-ups) screwed into threaded fittings unless noted otherwise. No swing joints on 4" pop-ups or rotors will be allowed.
- A. Pop-ups Only Rainbird 1800 series are permitted. Install % inch above the finished grade.
- a. 4 inch pop-ups: turf, tree bubblers within turf areas (use Hunter PCN 10 bubbler nozzles on spray heads.
- b. 6 inch pop-ups with no side inlet: very low ground cover (less than 6 inches at mature height).
- c.12 inch pop-ups with side inlet: Ground cover and low growing shrubs. The ground cover and shrubs should not be more than 12" at maturity. The Town Inspector reserves the right to determine if and when side inlets installed using funny pipe verses the bottom inlet will be allowed. When authorized, use Hardie Blue Line Pipe with Toro barb fittings.
- d. Use½" Sch 80 risers with schrub adapter and Hunter PCN 10 bubbler nozzles for all tree wells with tree grates. Risers shall be a minimum of 2" below bottom of tree grates with nozzle 2" above mulch-
- B. Rotors Only Hunter I-20 Series are permitted, unless noted otherwise. Install 3/4" above finished arade.

14. Risers: Use Sch 80 PVC with Weathermatic LXS Series shrub head adapters with a  $\frac{1}{2}$ "x6" green poly cut-off nipple screwed into the threaded fitting in the ground. The irrigation inspector reserves the right to determine placement of risers versus pop-ups.

- 15. Wiring: All wires will be 14 gauge UF. Station wires will be red. Common wires will be white. Master valve wire will be blue. Anytime the wiring changes direction, such as at an elbow or a tee, allow a loop of at least 12 inches alongside the fitting at that location. Only continuous wire runs are permissible. Wire should follow the main line where possible and lay along a single side not crossing over lateral lines. Wire is to be placed under mainline with 2" of dirt between wire and pipe.
- 16. Wire Connectors: Use only DBY connectors for all field wire splices other than at the valves themselves. Allow at least 36 inches of pigtailed wire at each splice. Use King One Step tan colored connectors for all valve splices. All valve box splices are to be housed in standard (large) Ametek rectangular plastic valve boxes. All field splices are to be in 10 inch round Ametek plastic valve boxes or standard, large rectangular Ametek plastic valve boxes at the discretion of the Town's representative.
- 17. Backfilling: Prior to any backfilling of trenches, an inspection by the Town's irrigation representative must take place and any necessary changes implemented; otherwise manual excavation to enable proper inspection will be necessary. Use clean and
- approved topsoil to backfill all pipe to a depth. All heads and boxes are to be backfilled to grade with clean topsoil. No rocks greater than I inch are allowed. Compact trenches to alleviate settling. Minimal depth of coverage is 12 inches.
- 18. Valve sequencing must be performed by the contractor and in an order approved by the Town Irrigation Inspector. At least 12 inches of extra station wiring within the bottom of the pedestal is necessary for each zone and must be of neat and orderly appearance.
- 19. Any deficiencies in coverage noted by the Town's irrigation inspector will be rectified at the cost of the contractor.
- 20.Controller: A Town irrigation representative will determine the type of controller to be used. All controllers shall have a concrete pad of 36"x36"x6". Pad will be set at 3" above final grade. Install the controller after the concrete pad is completely cured (two days). Use only appropriately sized stainless steel bolts, washers and nuts to secure the controller to the concrete pad. All wiring is to enter the pedestal via appropriately sized PVC sweep elbows extending at least I" thru and 6" out from under the pad. Control/master valve wiring, flow meter wiring and I20-V service wiring are to be separated with each having its own access elbow. An additional spare 4" sweep elbow for phone service is to be installed as well. All national and local codes must be followed during the installation.
- A. A/C controller Only Irritrol MC Plus controllers will be acceptable. Both Mini-click rain and freeze sensors will be installed and placed where they can operate properly. All non-Rain Master controllers must be permanently wired for quick attachment to a Rain Master remote control unit.
- B. Battery and/or Solar Operated Controllers Only LEIT controllers will be acceptable. Install rain or freeze sensors on these controllers with SKIT882I-4 installation kit. Install on galvanized thick wall poles and set controller panel to height above finished grade to be determined by Town's representative.
- C. Rain Master: Only an approved size Rain Master Evolution DX-2 controller with a stainless steel pedestal and heavy duty transient protection is permitted. The controller must include all necessary hardware to ensure reliable communication and operation with the Town's central control located at 16801 Westgrove. Installation must include the following Rain Master hardware, purchased only from a Rain Master supplier: DX-03 sensor board. DX-PH phone communication option, Data Industrial flow meter (same size as the mainline), and shielded EV-CAB-SEN flow meter cable. It is the irrigation contractor's responsibility to entail the cost of and work in conjunction with South Western Bell Telephone to establish a dedicated phone service and install an interface within the pedestal at each controller location via direct burial cable within I"PVC conduit. The entire installation must conform to Rain Master specifications and be approved by the Town's irrigation inspector prior to and be inspected during installation. Such specifications will include grounding and pad configurations and distances of separation from water meter to DCA to master valve to flow meter and the first fitting. A functional Mini-clik freeze and rain sensor with a Hunter bypass switch must be installed in an approved location and by an approved method. For part numbers and pricing of any Rain Master equipment, contact Mark Stricker of John Deere Landscapes at 972-881-0205. For technical questions, call John DuBose of RainMaster at 214-632-2289.
- 21. Communication is the key. If you are unsure, CALL Ron Lee, the Operations Manager of the Addison Parks Department (972) 450-2863.

### BENCHMARKS:

"D" CUT ON 8' INLET ON NORTH CURB LINE OF GOODMAN AVE. ±75' EAST OF PASCHAL PLACE. ELEV. 629.98

BM\*6
""CUT AT & OF 8' INLET AT
THE SOUTHWEST CORNER OF
MORRIS AVE. AND WITT PLACE.
ELEV. 627.29

BM\*7
"D" CUT AT WEST CORNER OF
ADDISON THEATRE CENTRE
PARKING LOT, SECOND ENTRANCE
NORTH OF ADDISON RD.
ELEV. 637.66

### RECORD DRAWING

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# TOWN OF ADDISON IRRIGATION SPECS.

QUORUM DRIVE

TOWN OF ADDISON, TEXAS

Huitt - Zollars, Inc.
3131 Mckinney Ave., Suite 600, Dallas, TX 75204
Phone (214) 871-3311/Fax (214) 871-0757

DESIGN CHECKED APPR. SCALE DATE PROJECT NO. NO.

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HEAD TO BE 2"
ABOVE SOIL GRADE

FINISHED GRADE

MULCH

SPECIFIED SPRAY NOZZLE & BODY

CLASS 200 PVC LATERAL LINE

S x S x T PVC SCHEDULE 40
PVC OUTLET TEE OR ELL

MALE ADAPTER (MIPT x S)

HIGH RISER ASSEMBLY

QUICK-COUPLING VALVE

VALVE BOX FLUSH WITH FINISH GRADE;
I"ABOVE MULCH LEVEL IN TREEWELLS

6"PEA GRAVEL

REMOTE CONTROL VALVE WITH
24"LONG LOOP OF CONTROL WIRE

NO 45°S ALLOWED

SCHEDULE 40 PVC FITTINGS

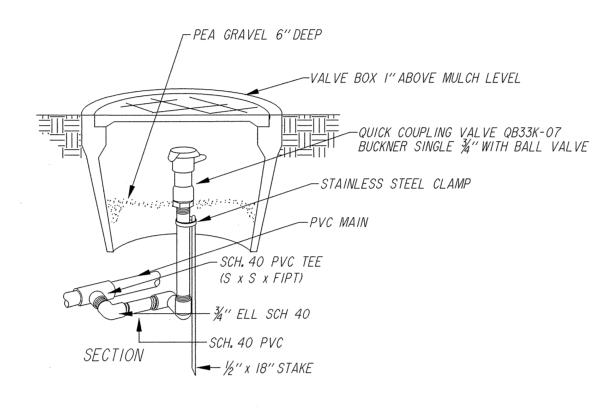
MAIN LINE

BALL VALVE SPEARS OR LASCO

ISOMETRIC

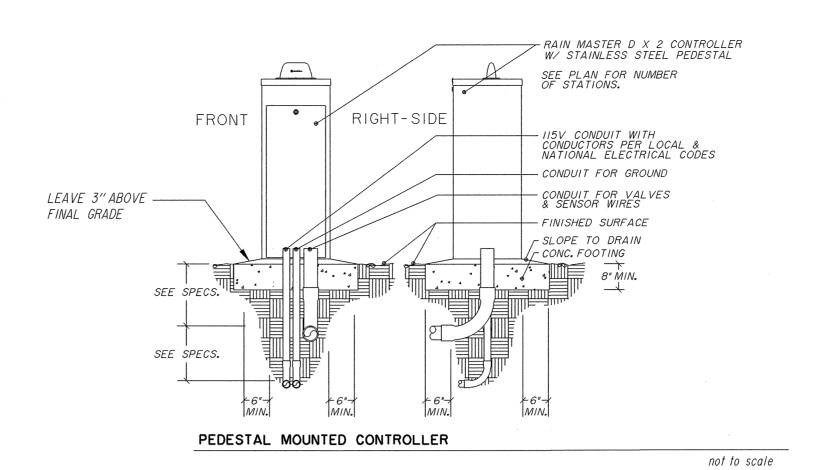
REMOTE CONTROL AND BALL VALVE

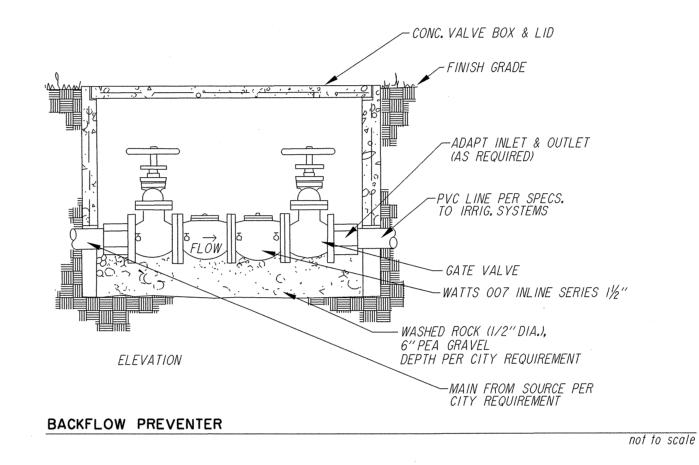
not to scale



not to scale

not to scale





# IRRIGATION LEGEND

RAINBIRD 1800 POP-UP WITHOUT SIDE INLET. 5' QUARTER NOZZLE (O.1 apm)

RAINRIRD IROO POP-LIP WITHOUT SIDE INLET

RAINBIRD 1800 POP-UP WITHOUT SIDE INLET. 5'HALF NOZZLE (0.2 gpm)

SCHEDULE 40 PVC MAINLINE

HUNTER PCN BUBBLER NOZZLE (O.5 gpm).
USE APPROPRIATE SIZED ½" SCH. 80 RISER SO NOZZLE
WILL NOT TOUCH BOTTOM OF GRATE AND NOZZLE WILL

WILL NOT TOUCH BOTTOM OF GRATE AND NOZZLE WIL BE 2" ABOVE MULCH.

CLASS 200 PVC LATERAL LINE NOTE: (ALL DIRECTLY BURIED LINE BENEATH PAVING SHALL BE SLEEVED IN SCHEDULE 40 PVC, ALL LINES UNDER PAVING SHALL BE SLEEVED; NO DIRECT

BURIAL ALLOWED.)

GPM THROUGH VALVEVALVE SEQUENCING NUMBERSIZE OF VALVE

BUCKNER VO75 QUICK COUPLING VALVE

BOOMEN VOTO GOTON GOOD ENTO VALVE

RAIN MASTER FLOW METER

WEATHERMATIC 11000 FCR SERIES STATION VALVE
WITH LASCO OR SPEARS BALL VALVE UP STREAM OF VALVE

(PROVIDE 1-1/2" IRRIGATION METER WITH

WITH LASCO OR SPEARS BALL VALVE UP STREAM OF VALVE.

MASTER VALVE WEATHERMATIC 11000 FCR SERIES

IRRIGATION WATER METER (MASTER OR HERSEY BRAND) WITH TWO (2) BRASS FLANGES

> WATTS DOUBLE CHECK VALVE: I-1/2' \*007 M SERIES IN LINE QT. IN FLUSH VALVE BOX WITH 2" TAP.

RAIN MASTER EVOLUTION DX-2 CONTROLLER

P.O.C. POINT OF CONNECTION TO BE VERIFIED WITH

# IRRIGATION NOTES

- I. LINE LAYOUT IS DIAGRAMMATIC-ADJUST HEAD AND LINE LOCATIONS ON SITE TO ACCOMMODATE EXISTING JOB CONDITIONS, SLEEVE LOCATIONS AND TO ACHIEVE COMPLETE COVERAGE.
- 2. ALL MAIN LINE PIPING SHALL BE BURIED TO HAVE A MINIMUM COVER OF 14". ALL LATERAL PIPING DOWNSTREAM OF THE MAIN LINE SHALL BE BURIED TO HAVE A MINIMUM COVER OF 12".
- 3. ALL VALVE BOXES SHALL BE GREEN LID AND BLACK BODY (AMETEK)
  TEN(10") INCHES BY FOUTEEN(14") INCHES (RECTANGULAR) FOR
  REMOTE CONTROL VALVES AND TEN(10") INCHES (ROUND) FOR
  QUICK COUPLER VALVES.
- 4. CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT, IF THE STATIC PRESSURE IS LESS THAN THE DESIGN STATIC PRESSURE OF 65 PSI. PRESSURE REGULATION AT THE SOURCE SHALL BE REQUIRED IF PRESSURE IS GREATER THAN 75 PSI.
- 5. ALL WIRING FROM THE IRRIGATION CONTROLLER TO THE REMOTE CONTROL VALVES SHALL BE UF-14/I DIRECT BURIAL CABLE. (WHITE FOR COMMON, RED FOR STATIONS AND BLUE FOR MASTER VALVE) ALL WIRE SPLICES SHALL BE MADE IN VALVE BOXES ONLY USING KING CONNECTORS AND SEALANT. PROVIDE SCHEDULE 40 SLEEVES FOR WIRE UNDER PAVED AREAS AS REQUIRED.
- 6. CONTRACTOR SHALL NOT TRENCH IN CRITICAL ROOT ZONE AREA FOR EXISTING TREES.
- 7. CONTRACTOR SHALL PROVIDE FOR RAINMASTER REMOTE CONTROL SYSTEM.
- 8. CONTRACTOR SHALL PROVIDE PHONE SERVICE AND ELECTRICAL SERVICE TO THE CONTROLLER.
- 9. NO FITTINGS WILL BE ALLOWED UNDER PAVED SURFACES WITHOUT SLEEVES.
- 10. ALL IRRIGATION INSTALLATION SHALL CONFORM TO THE LOCAL CODES AND REGULATIONS.
- II. IRRIGATION SYSTEM SHALL BE INSTALLED AND FULLY OPERATIONAL BEFORE LANDSCAPING INSTALLATION.
- 12. IRRIGATION HEADS SHALL BE PLACED AND ADJUSTED SO AS NOT TO SPRAY ON ANY STRUCTURE, SIDEWALK OR STREET.
- 13. IRRIGATION HEADS SHALL BE PLACED AND SIZED SO AS NOT TO BE SUSCEPTIBLE TO DAMAGE BY AUTOMOBILE OVERHANGES.
- 14. IRRIGATION CONTRACTOR SHALL PLACE ADJUSTABLE ARC NOZZLES
  IN PLACE OF FIXED ARC NOZZLE AS NEEDED TO ELIMINATE OVERSPRAY
  ON TO PAVEMENT.
- 15. TOWN OF ADDISON'S SPECIFICATIONS SUPERSEDE ALL OTHER SPECIFICATIONS.

### BENCHMARKS:

BM\*5
"[ CUT ON 8' INLET ON NORTH
CURB LINE OF GOODMAN AVE.
±75' EAST OF PASCHAL PLACE.
ELEV. 629.98

BM\*6
"" CUT AT & OF 8' INLET AT
THE SOUTHWEST CORNER OF
MORRIS AVE. AND WITT PLACE.
ELEV. 627.29

BM\*7
"" CUT AT WEST CORNER OF ADDISON THEATRE CENTRE PARKING LOT, SECOND ENTRANCE NORTH OF ADDISON RD. ELEV. 637.66

## RECORD DRAWING

HZI

HZI

THIS DRAWING HAS BEEN MODIFIED FROM THE ORIGINAL TO SHOW ONLY THE FIELD CHANGES AND ADJUSTMENTS MADE DURING CONSTRUCTION BY THE CONTRACTOR WHICH WERE DOCUMENTED AND FURNISHED TO THE ENGINEER FOR THE PURPOSE OF PREPARING THESE RECORD DRAWINGS. FIELD INSPECTION OF CONSTRUCTION WAS PERFORMED BY OTHERS. TO THE BEST OF OUR KNOWLEDGE AND UNDERSTANDING THESE RECORD DRAWINGS REPRESENT THE "AS-BUILT" CONDITIONS.

IRRIGATION DETAILS								
QUORUM DRIVE								
TOWN OF ADDISON, TEXAS								
Huitt - Zollars, Inc. 3131 Mckinney Ave., Suite 600, Dallas, TX 75204 Phone (214) 871-3311/Fax (214) 871-0757								
DESIGN	CHECKED	APPR.	SCALE	DATE	PROJECT NO.	NO.		

1"=20" 01/15/09

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