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J:\2011 Projects\11-99009 Rockwall, TX Hwy 276\Civil Dwg\Rev-8 (01-31-13) Record Drawings\11-99009 PROJ.dwg



THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

## GENERAL NOTES

- CONTRACTOR SHALL HAVE ONE SIGNED COPY OF THE APPROVED PLANS AND THE APPROPRIATE STANDARDS AND SPECIFICATIONS ALONG WITH A COPY OF ANY PERMITS AND AGREEMENTS NEEDED FOR THE JOB ON-SITE AT ALL TIMES.
- CONTRACTOR SHALL MEET OR EXCEED ALL SITE WORK SPECIFICATIONS AND APPLICABLE STATE AND FEDERAL REGULATIONS FOR ALL MATERIALS AND CONSTRUCTION AND CITY OF ROCKWALL STANDARDS AND NCTCOG 3RD EDITION. CONTRACTOR SHALL USE THE MOST CURRENT TXDOT SPECIFICATIONS FOR ALL WORK DONE IN THE TXDOT RIGHT OF WAY.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ASPECTS OF SAFETY DURING CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY SITUATION THAT IS NOT IDENTIFIED IN THE PLANS OR SPECIFICATIONS IS ENCOUNTERED.
- NO REVISION SHALL BE MADE TO THESE PLANS WITH OUT THE APPROVAL OF THE ENGINEER OF RECORD.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR KEEPING ROADWAYS FREE AND CLEAR OF ALL CONSTRUCTION DEBRIS AND DIRT TRACKED FROM THE SITE.
- ANY REFERENCE TO PUBLISHED STANDARDS SHALL REFER TO THE LATEST REVISION OF SAID STANDARD, UNLESS SPECIFICALLY STATED OTHERWISE.
- ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.

## FLOOD NOTE

THIS SITE IS NOT IN ANY PRESENTLY ESTABLISHED FLOODWAY OR FLOODPLAIN AS SHOWN IN THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP 48397C0045L DATED SEPTEMBER 26,2008.

# 7-ELEVEN

## JOHN KING BLVD & HWY 276

## ROCKWALL, TEXAS

## ROCKWALL COUNTY



## SHEET LIST

C0.0 COVER SHEET  
C0.1 DEMOLITION PLAN  
C1.0 SITE PLAN  
C1.1 PAVING PLAN  
C1.2 TRAFFIC CONTROL PLAN  
C1.3 TRAFFIC CONTROL DETAILS  
C2.0 GRADING PLAN  
C2.1 STORM SEWER PROFILES  
C2.2 PRE DEVELOPED DRAINAGE MAP  
C2.3 POST DEVELOPED DRAINAGE MAP  
C3.0 EROSION & SEDIMENT CONTROL PLAN  
C3.1 SWPPP  
C4.0 UTILITY PLAN  
C4.1 SANITARY SEWER PROFILES  
C7.0 DETAIL SHEET  
C7.1 DETAIL SHEET  
C7.2 DETAIL SHEET

TCP(1-1)-12  
SMD(TY G)-08  
PM(3)-12  
TSR(4)-08  
EC(1)-09  
EC(2)-93  
CC-CG (FW)

TXDOT CONVENTIONAL ROAD SHOULDER WORK  
TXDOT SIGN MOUNTING  
TXDOT PAVEMENT MARKINGS  
TXDOT SIGN REQUIREMENTS  
TXDOT EROSION & SEDIMENT CONTROL  
TXDOT EROSION & SEDIMENT CONTROL  
TXDOT CURB AND GUTTER

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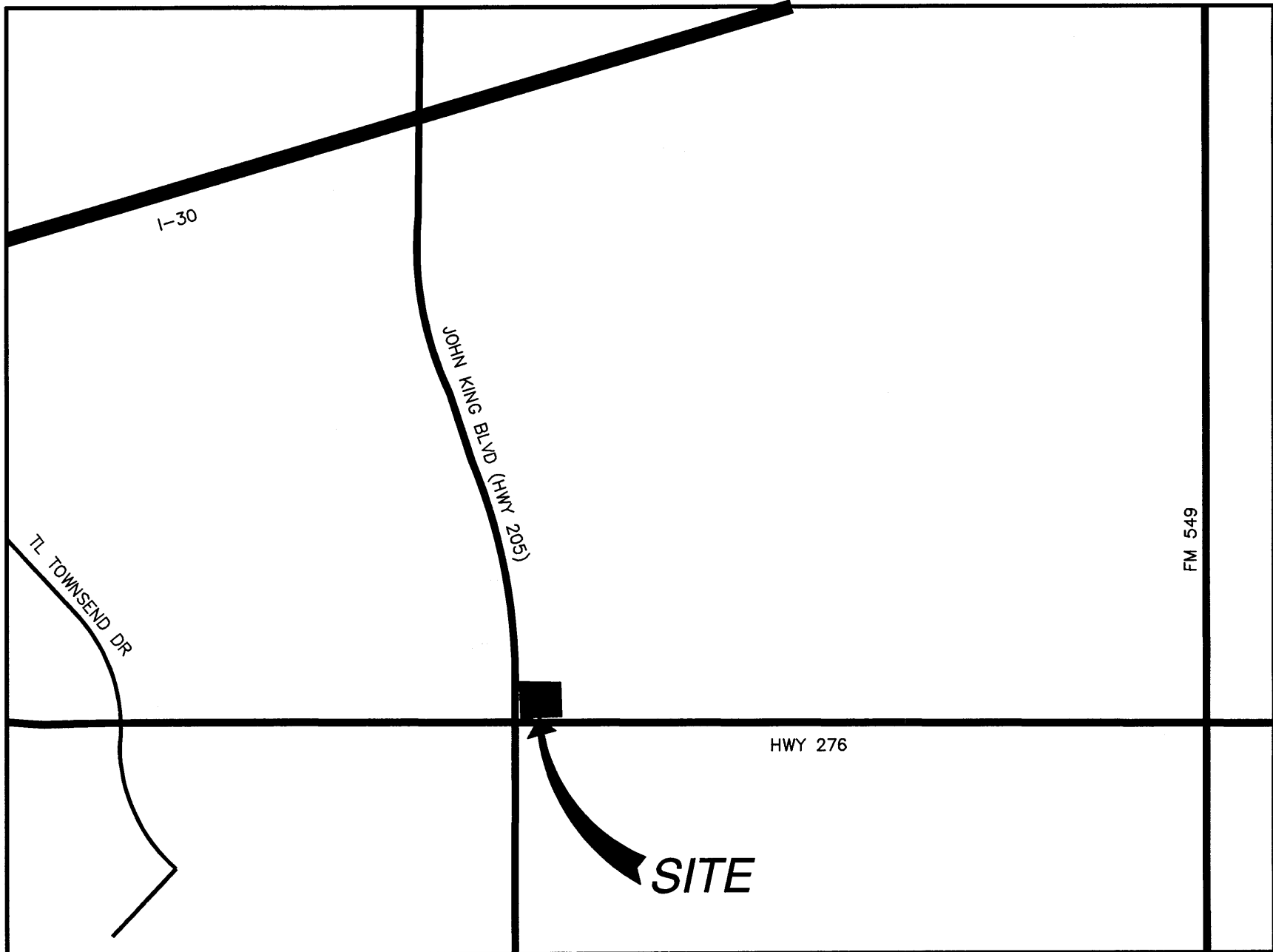
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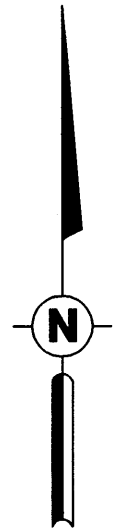
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VICINITY MAP  
NO SCALE



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TO THE BEST OF OUR KNOWLEDGE SMITH ENGINEERING, INC., HEREBY STATES THAT THIS PLAN IS AS-BUILT. THIS INFORMATION PROVIDED IS BASED ON SURVEYING AT THE SITE AND INFORMATION PROVIDED BY THE CONTRACTOR.



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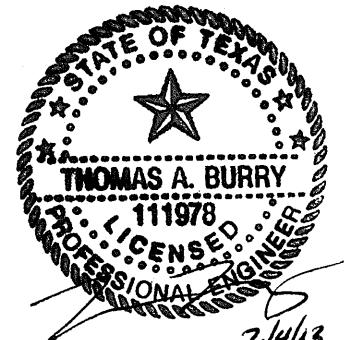


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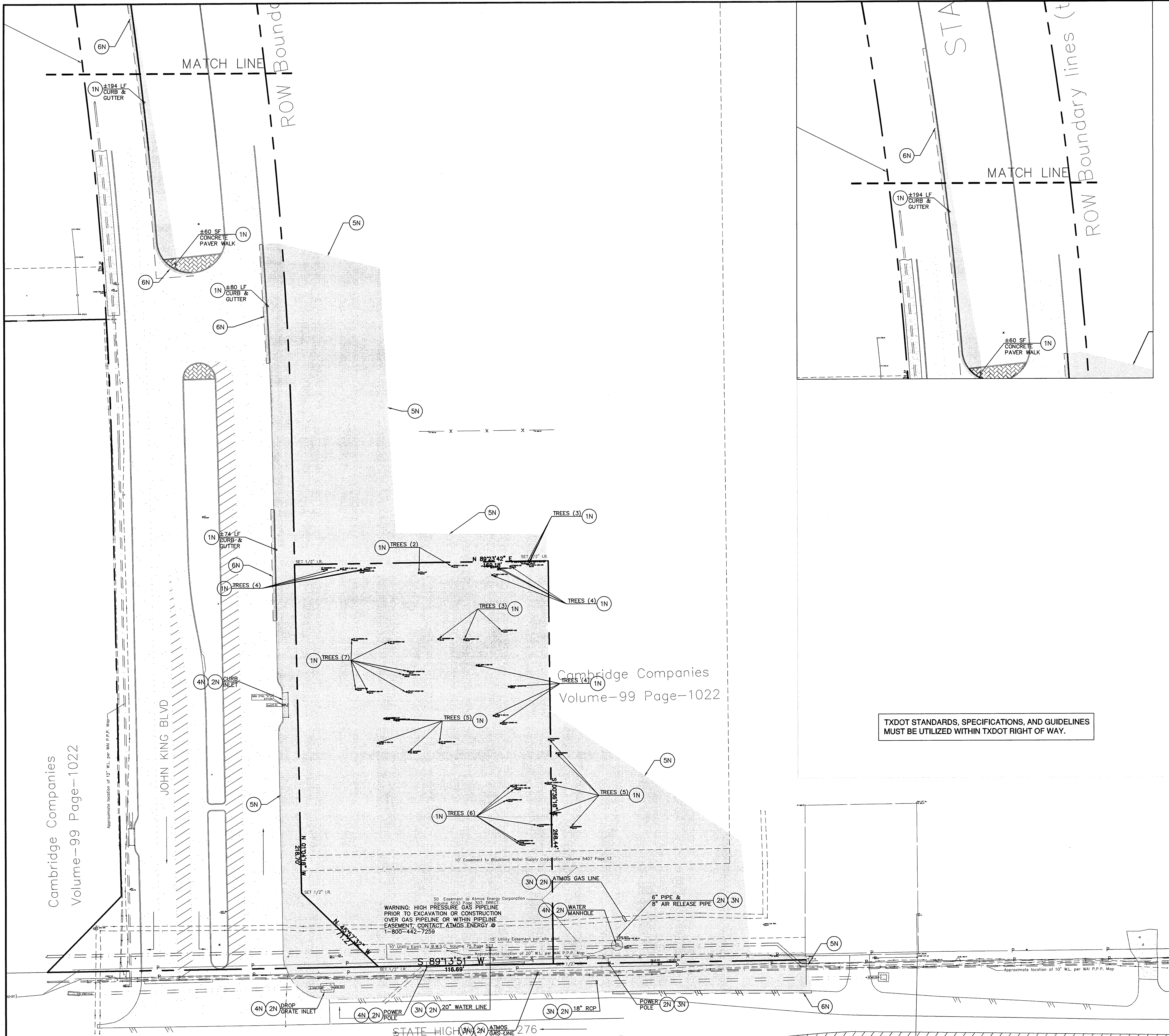
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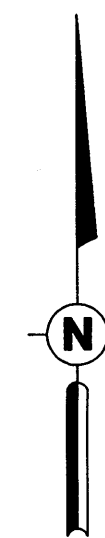
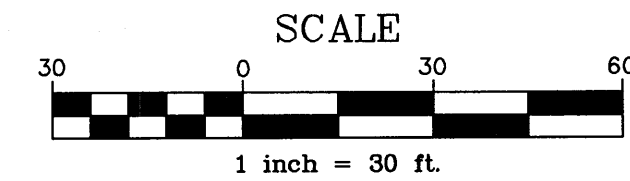
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TXDOT STANDARDS, SPECIFICATIONS, AND GUIDELINES  
MUST BE UTILIZED WITHIN TXDOT RIGHT OF WAY.



EXISTING LEGEND	
FFE	= FINISH FLOOR ELEVATION
LR	= IRON ROD
FND	= FOUND
P.P.	= PER PLAT
W.M.	= WATER METER
C.I.	= CURB INLET
FL	= FLARED END
---	= MAJOR CONTOUR LINE
---	= MINOR CONTOUR LINE
---	= CHAIN LINK FENCE
---	= WOOD FENCE
---	= WROUGHT IRON FENCE
---	= REINFORCED CONCRETE PIPE
---	= ASPHALT

#### GENERAL DEMOLITION NOTES

1. THE LOCATION OF THE UTILITIES SHOWN HAVE BEEN DETERMINED BY INFORMATION GATHERED AND SHALL NOT BE USED AS EXACT. CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANIES TO VERIFY EXACT LOCATIONS PRIOR TO DEMOLITION.
2. THE CONTRACTOR SHALL COORDINATE WITH THE PROPER UTILITY COMPANIES FOR REMOVAL AND RELOCATIONS OF THE RESPECTIVE UTILITY. THE CONTRACTOR SHALL VERIFY ANY WORK THAT MAY BE DONE BY THE UTILITY COMPANIES.
3. CONTRACTOR SHALL PROTECT THE PUBLIC WITH BEST MANAGEMENT PRACTICES.
4. CONTRACTOR SHALL PROTECT AND MAINTAIN ALL EXISTING STRUCTURES, PAVEMENT, AND VEGETATION THAT IS NOT TO BE DISTURBED AND IS RESPONSIBLE FOR ANY DAMAGES TO THEM.
5. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL MATERIALS RESULTING FROM OPERATION ACCORDING TO GOVERNING AUTHORITIES AND SHALL OBTAIN THE PROPER PERMITS REQUIRED FOR DISPOSAL AND DEMOLITION.
6. THE CONTRACTOR SHALL MAINTAIN CONTINUOUS ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION AND AVOID ANY PROPERTY DAMAGE DURING CONSTRUCTION.
7. THE CONTRACTOR SHALL INSTALL EROSION AND SEDIMENT CONTROL DEVICES PRIOR TO DEMOLITION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SERVICES TO ANY NECESSARY UTILITIES DURING CONSTRUCTION.
9. FOR ALL ITEMS NOTED TO BE REMOVED, REMOVE NOT ONLY THE ABOVE GROUND ELEMENTS, BUT ALSO REMOVE ALL UNDERGROUND ELEMENTS AS WELL INCLUDING, BUT NOT LIMITED TO; FOUNDATIONS, GRAVEL FILLS, TREE ROOTS, PIPES, TANKS, ETC.
10. BACKFILL ALL EXCAVATIONS RESULTING FROM THE DEMOLITION WORK MEETING THE REQUIREMENTS FOR FILL OUTLINED IN THE GEOTECHNICAL INVESTIGATION REPORT FOR THIS SITE.
11. ASBESTOS AND ANY OTHER HAZARDOUS MATERIAL SHALL BE PROPERLY PERMITTED AND REMOVED BY THE CONTRACTOR. CONTRACTOR SHALL SECURE ALL PERMITS FOR DEMOLITION AND REMOVAL OF MATERIALS FROM THE SITE.
12. LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE PLANS. ANY DAMAGE INCURRED TO ANY SURROUNDING AREAS SHALL BE REPAIRED / REPLACED AT THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL PROTECT EXISTING ADJACENT STRUCTURES, PAVEMENT, UTILITIES, LANDSCAPE, ETC. FROM DAMAGE DURING CONSTRUCTION. SAW CUT WITHIN TXDOT RIGHT OF WAY SHALL BE ALONG THE EDGE OF THE EXISTING ASPHALT PAVEMENT AND REMOVE ONLY MATERIAL NEEDED, IN ORDER TO PREPARE A CLEAN STRAIGHT EDGE TO ABUT DRIVEWAY.
13. DEMOLITION AND REMOVAL OF UNDERGROUND STORAGE TANKS, FUELING DISPENSERS, AND FUELING RELATED APPURTENANCES SUCH AS SUPPLY LINES SHALL BE REMOVED AND DISPOSED OF PER LOCAL, STATE, AND FEDERAL REQUIREMENTS. CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF SUPPLY LINES AND APPURTENANCES AND REMOVE PER REQUIREMENTS. CONTRACTOR SHALL SECURE ALL PERMITS FOR DEMOLITION AND REMOVAL OF MATERIALS FROM THE SITE.
14. CONTRACTOR SHALL ENSURE THAT SERVICES TO ALL UTILITIES TO BE REMOVED HAS BEEN DISCONTINUED AND SHUT OFF. ALL UTILITY LINES SHALL BE CAPPED PER UTILITY COMPANY STANDARDS.

#### NOTES

- 1N. EXISTING TO BE REMOVED
- 2N. EXISTING TO REMAIN
- 3N. PROTECT EXISTING UTILITIES
- 4N. PROTECT EXISTING STRUCTURES
- 5N. LIMITS OF DISTURBANCE (90,955.84 SF)
- 6N. SAWCUT LINE

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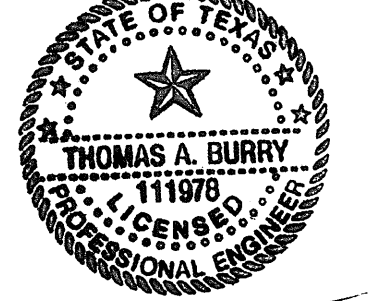
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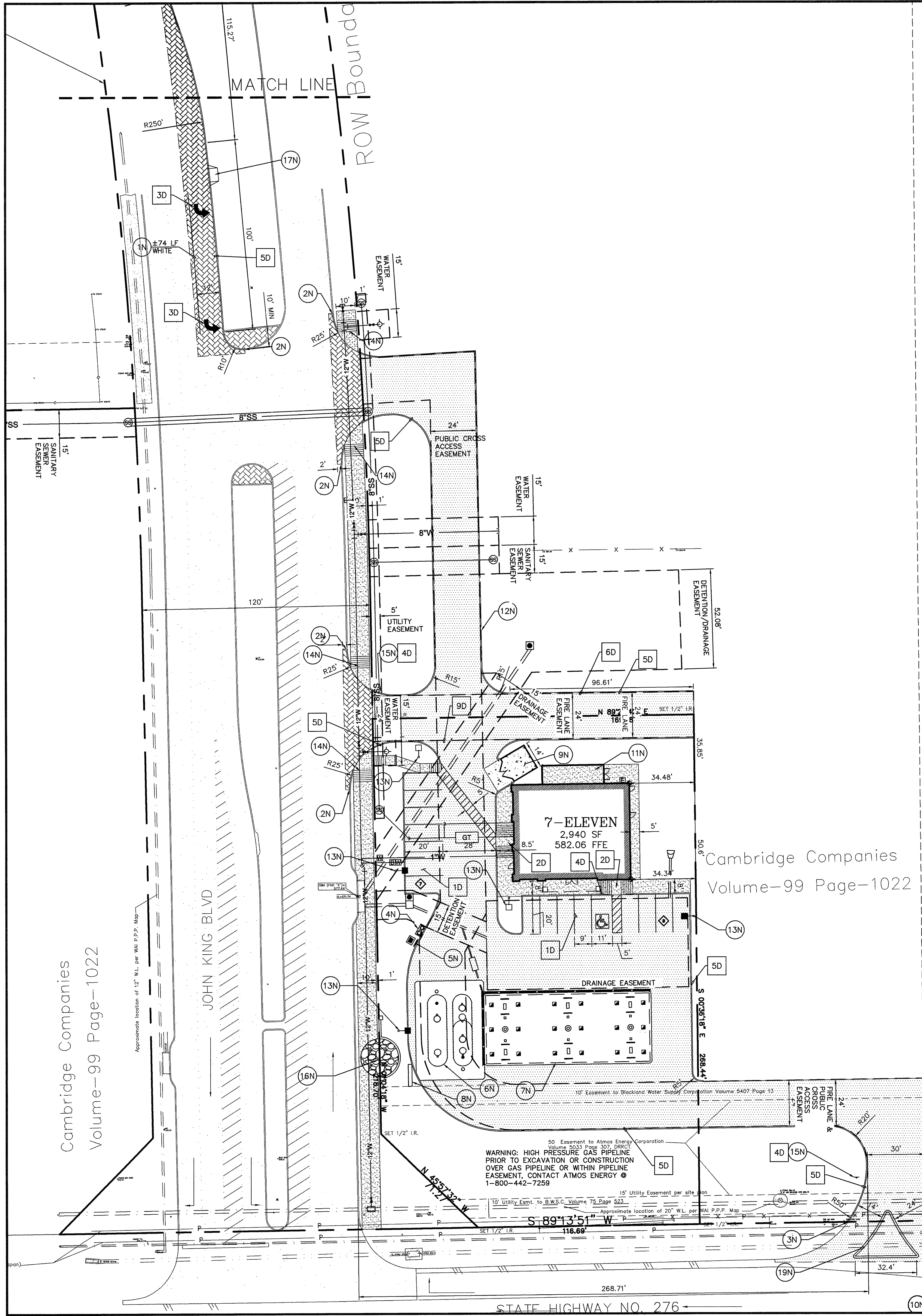
DEMOLITION  
PLAN

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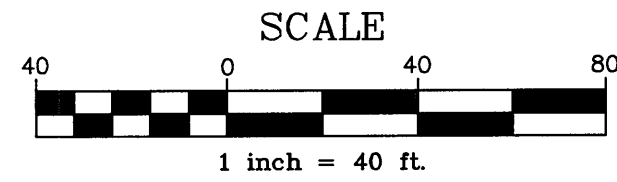
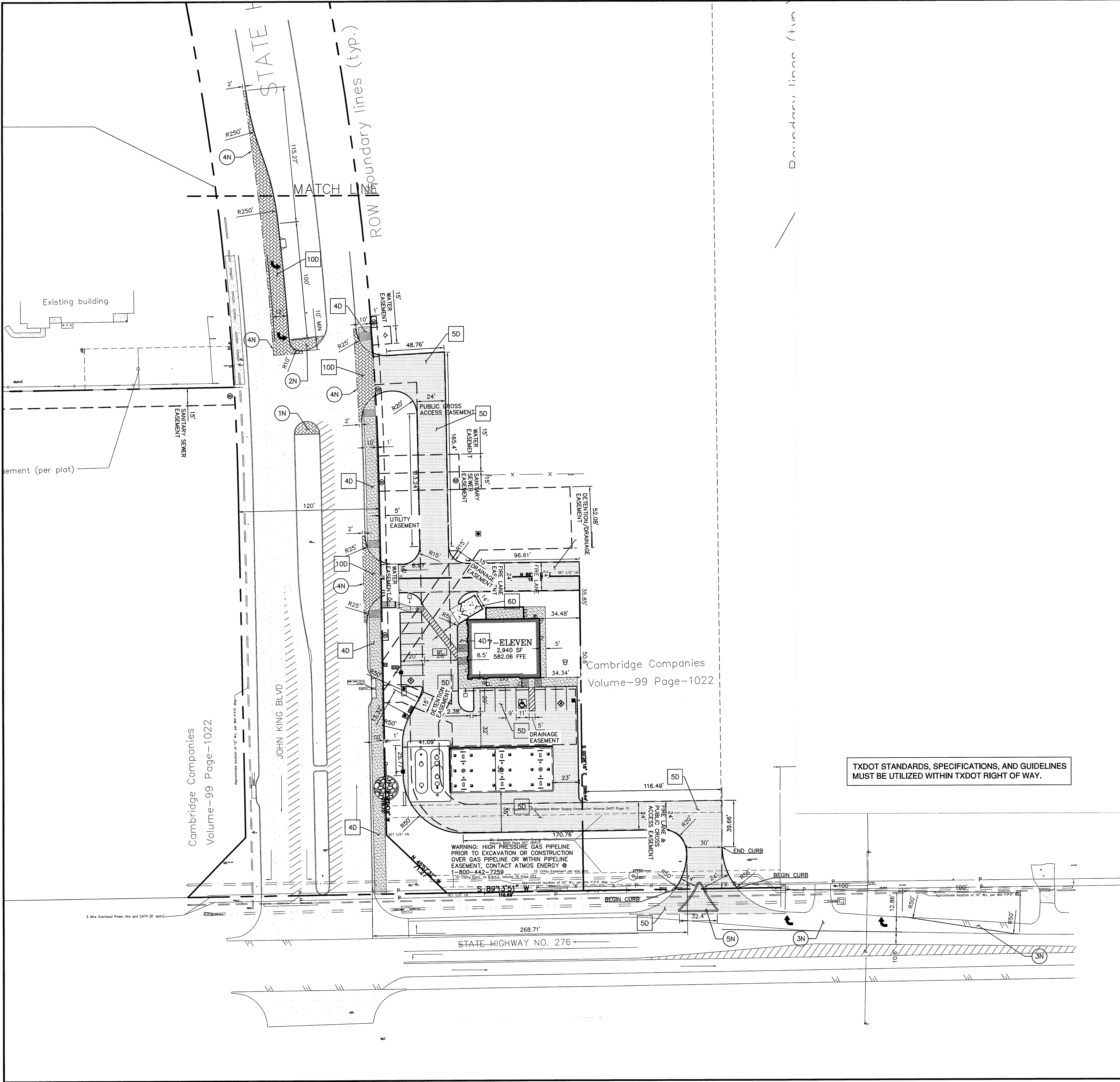
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Cambridge Companies  
Volume--99 Page--1022







#### PROPOSED

- PROPERTY LINE
- CURBING
- FIRE LANE
- BUILDING CONTROL POINT
- CURB INLET
- ELECTRIC METER
- FIRE HYDRANT
- PARKING COUNT
- FLARED END
- WATER METER
- GREASE TRAP

#### GENERAL SITE NOTES

- UNLESS OTHERWISE SHOWN, ALL CURB RADII SHALL BE 2' OR 10'.
- ALL DIMENSIONS ARE TO THE FACE OF CURB UNLESS OTHERWISE NOTED.
- ALL CURBING SHALL BE TYPE A PER DETAIL TYPE A CURB, UNLESS OTHERWISE NOTED.
- ALL WORK AND MATERIALS SHALL COMPLY WITH ALL LOCAL REGULATIONS AND DIMENSIONS AND UTILITY ENTRANCE LOCATIONS.
- CONTRACTOR SHALL REFER TO ARCHITECT PLANS FOR EXACT BUILDING LOCATION AND DIMENSIONS AND UTILITY ENTRANCE LOCATIONS.
- CONTRACTOR SHALL REFER TO SPECIFICATIONS AND GEOTECHNICAL REPORT DETAILS FOR PAVING DESIGN AND PROPER MATERIALS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SITE UNTIL WORK IS ACCEPTED BY THE OWNER.
- ALL SIGNS SHALL BE PER TMDOT, UNLESS WITHIN TXDOT RIGHT OF WAY. IN TXDOT RIGHT OF WAY USE APPLICABLE STANDARDS.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING AND MAINTAINING ADEQUATE TRAFFIC CONTROL THROUGHOUT THE PROJECT, INCLUDING PROPER TRAFFIC CONTROL DEVICES AND/OR PERSONNEL AS REQUIRED. THIS INCLUDES BOTH VEHICULAR AND PEDESTRIAN TRAFFIC CONTROL. TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH T.M.U.T.C.D.

#### NOTES

- EXISTING STONE PAVERS TO REMAIN
- MODIFY EXISTING STONE PAVERS AS NEEDED FOR TURN LANE. SEE STONE PAVEMENT DETAIL PER CITY OF ROCKWALL. PAVERS MUST MATCH EXISTING COLOR AND STYLE.
- EXISTING PAVING TO REMAIN. SEE PROPOSED STRIPING PER SITE PLAN.
- LONGITUDINAL BUTT JOINT NCTCOG 3RD EDITION AND ROCKWALL STANDARDS
- TYPE I CURB AS PER TXDOT STANDARD

#### DETAILS

- 4D. 4" THICK SIDEWALK, 3,000 PSI WITH A 5.5 SACK MIX MINIMUM
- 5D. 6" SURFACE COARSE AT 3,000 PSI ON 6" LIME STABILIZED SUBGRADE. FOR FIRE LANE AREAS USE A 6.5 SACK MIX MINIMUM.
- 6D. 7" SURFACE COARSE REINFORCED AT 3,000 PSI ON 6" LIME STABILIZED SUBGRADE.
- 10D. 10" THICK 5,000 PSI CONCRETE ON 8" LIME STABILIZED SUBGRADE USE A 7.5 SACK MIX MINIMUM

TXDOT STANDARDS, SPECIFICATIONS, AND GUIDELINES  
MUST BE UTILIZED WITHIN TXDOT RIGHT OF WAY.

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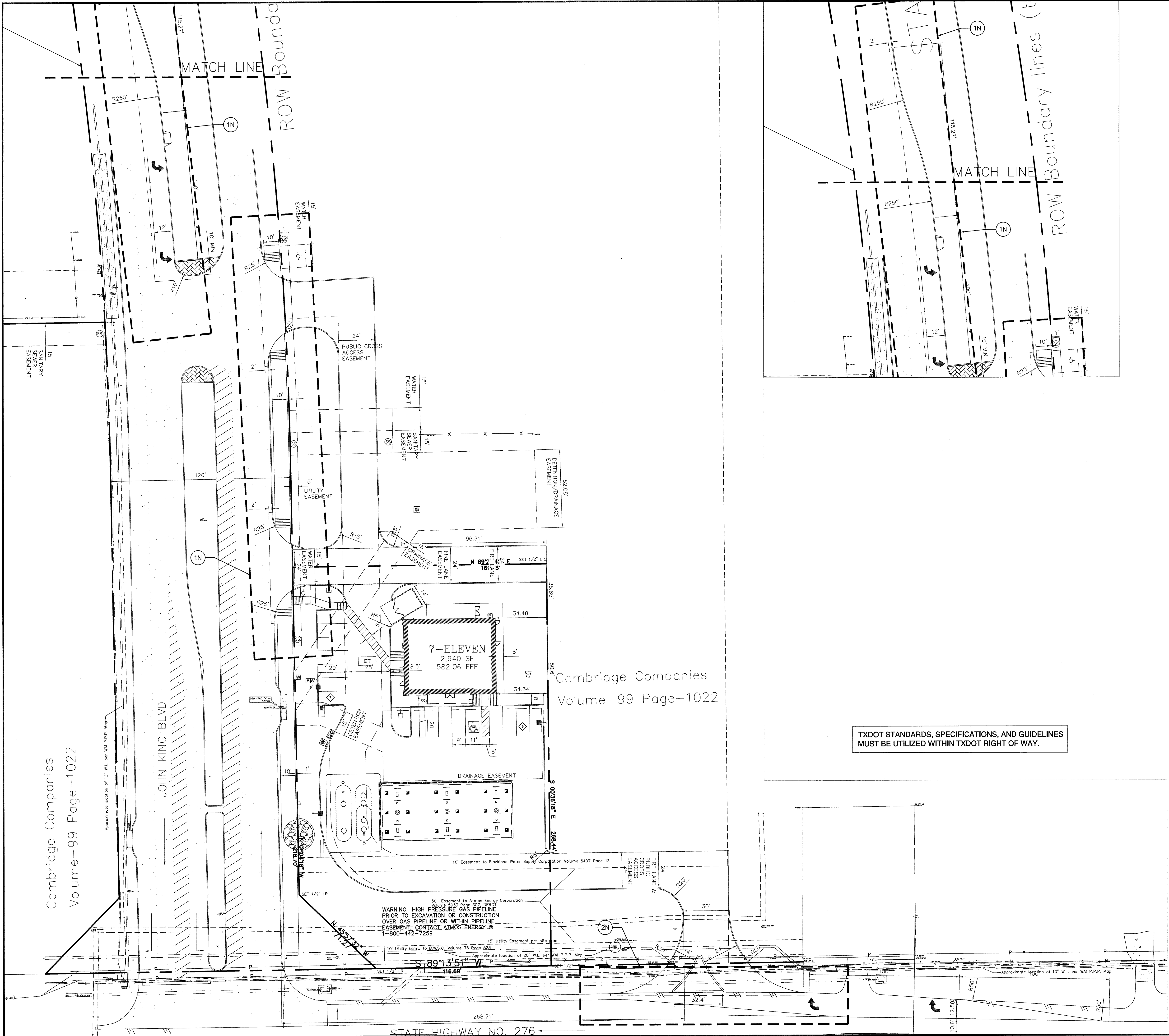
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PAVING  
PLAN

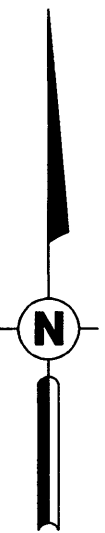
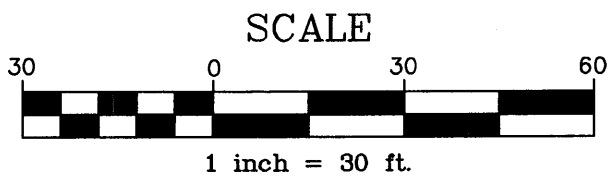
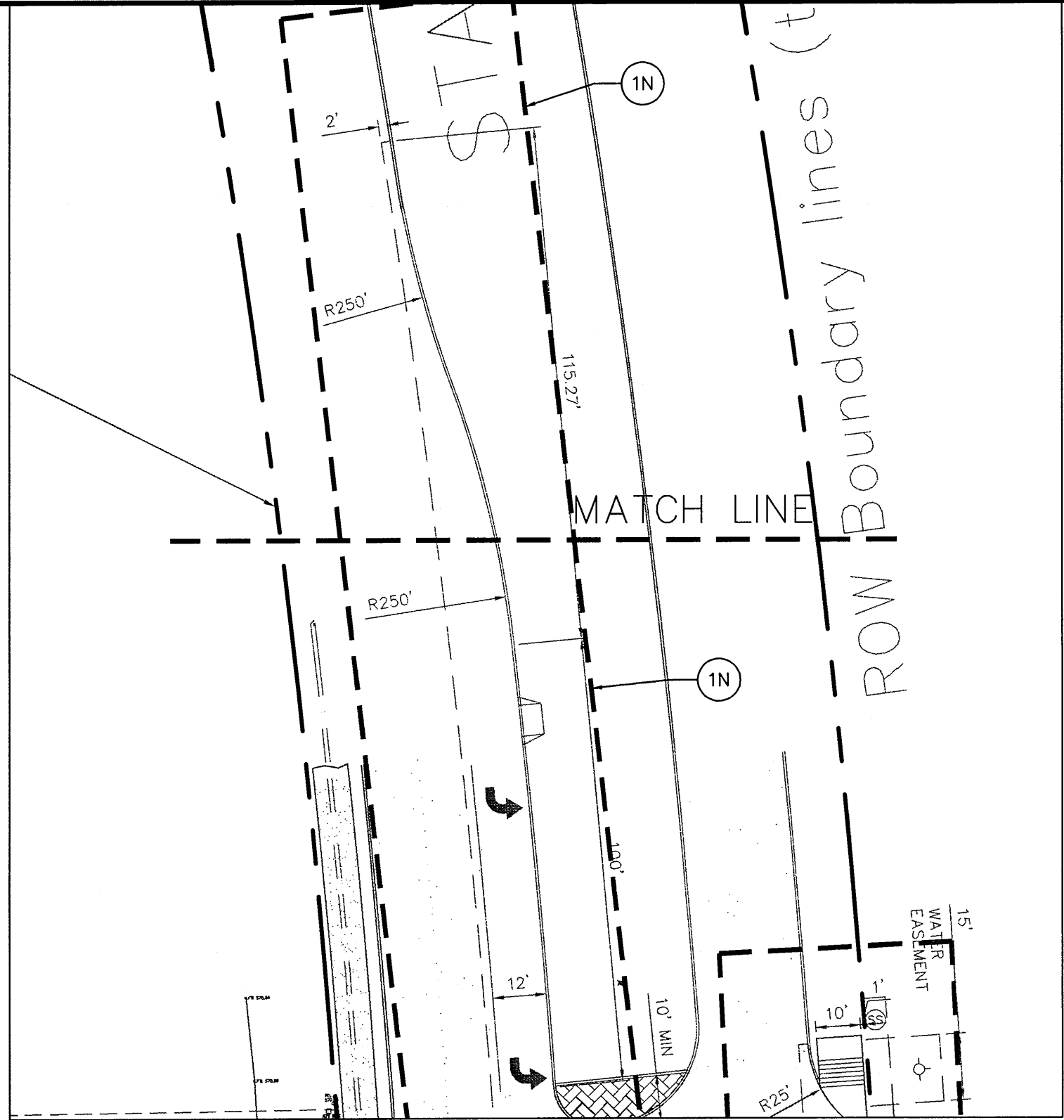
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TXDOT STANDARDS, SPECIFICATIONS, AND GUIDELINES  
MUST BE UTILIZED WITHIN TXDOT RIGHT OF WAY.



NOTES

- 1N. TRAFFIC CONTROL PER TMLTCD TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATION 33 PER FIGURE 6H-33 AND CORRESPONDING NOTES AND TABLES. SEE SHEET C1.3 THIS SET.
- 2N. TRAFFIC CONTROL PER TXDOT STANDARD TOP (1-1)-12

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TRAFFIC  
CONTROL  
PLAN

AS-BUILT

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**C1.2**



**Notes for Figure 6H-33—Typical Application 33  
Stationary Lane Closure on a Divided Highway**

**A. LONG-TERM PLAN**

- 200 ft (Work Zone)
- 100 ft (optional) (Buffer)
- Buffer space (optional)
- Temporary white edge line
- 5% (Shoulder Taper)
- 1000 ft (see Note 3)
- 1800 ft (AHEAD ROAD WORK)
- 2600 ft (ROAD WORK 2 MILE)
- see Note 4A

**B. SHORT-TERM PLAN**

- 500 ft (Work Zone)
- Buffer space (optional)
- 5% (Shoulder Taper)
- 1000 ft (see Note 3)
- 1800 ft (AHEAD ROAD CLOSED, ROAD WORK 2 MILE)
- 2800 ft (ROAD WORK 2 MILE)
- see Note 4A

**Note:** See Tables 6H-2, 6H-3 and 6H-4 for the meaning of the symbols and/or letter codes used in this figure.

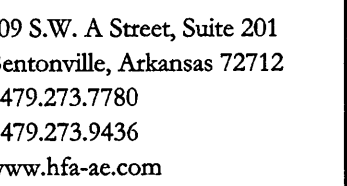
- Standard:**
1. This information also shall be used when work is being performed in the lane adjacent to the median on a divided highway. In this case, the **LEFT LANE CLOSED** signs and the corresponding **Lane Ends** signs shall be substituted.
  2. When a side road intersects the highway within the TTC zone, additional TTC devices shall be placed as needed.
- Guidance:**
3. When paved shoulders having a width of 8 feet or more are closed, channelizing devices should be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.
- Option:**
4. A truck-mounted attenuator may be used on the work vehicle and/or shadow vehicle.
  - 4A. For Short-Term applications, when post mounted signs are not used, the distance legend may be shown on the sign face rather than on a supplemental plaque.
- Support:**
5. Where conditions permit, restricting all vehicles, equipment, workers, and their activities to one side of the roadway might be advantageous.
- Standard:**
6. An arrow board shall be used when a freeway lane is closed. Where more than one freeway lane is closed, a separate arrow board shall be used for each closed lane.

Posted Speed	Formula	* Minimum Desirable Taper Lengths			Suggested maximum Spacing of Channelling Devices	
		10' Offset	1' Offset	12' Offset	On a taper	On a tangent
30	L = WS <sup>2</sup> 60	150'	165'	190'	30'	80'
35		200'	225'	245'	35'	70'
40		265'	295'	320'	40'	80'
45		450'	495'	540'	45'	90'
50	L = WS	500'	550'	600'	50'	100'
55		550'	605'	660'	55'	110'
60		600'	660'	720'	60'	120'
65		650'	715'	780'	65'	130'
70		700'	770'	840'	70'	140'
75		750'	825'	900'	75'	150'
80		800'	880'	960'	80'	160'

\* Taper lengths have been rounded off.  
L = Length of Taper (Feet) W = Width of Offset (Feet) S = Posted Speed (MPH)

### Typical Application 33

TXDOT STANDARDS, SPECIFICATIONS, AND GUIDELINES  
MUST BE UTILIZED WITHIN TXDOT RIGHT OF WAY.



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TORRE NO.: 1029049

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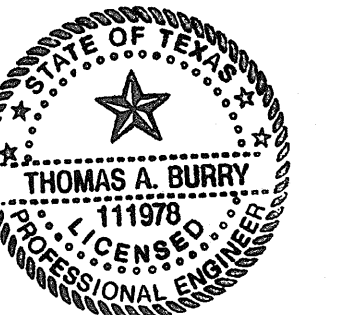
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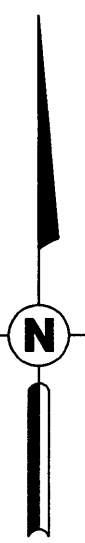
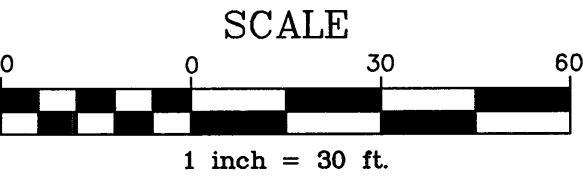
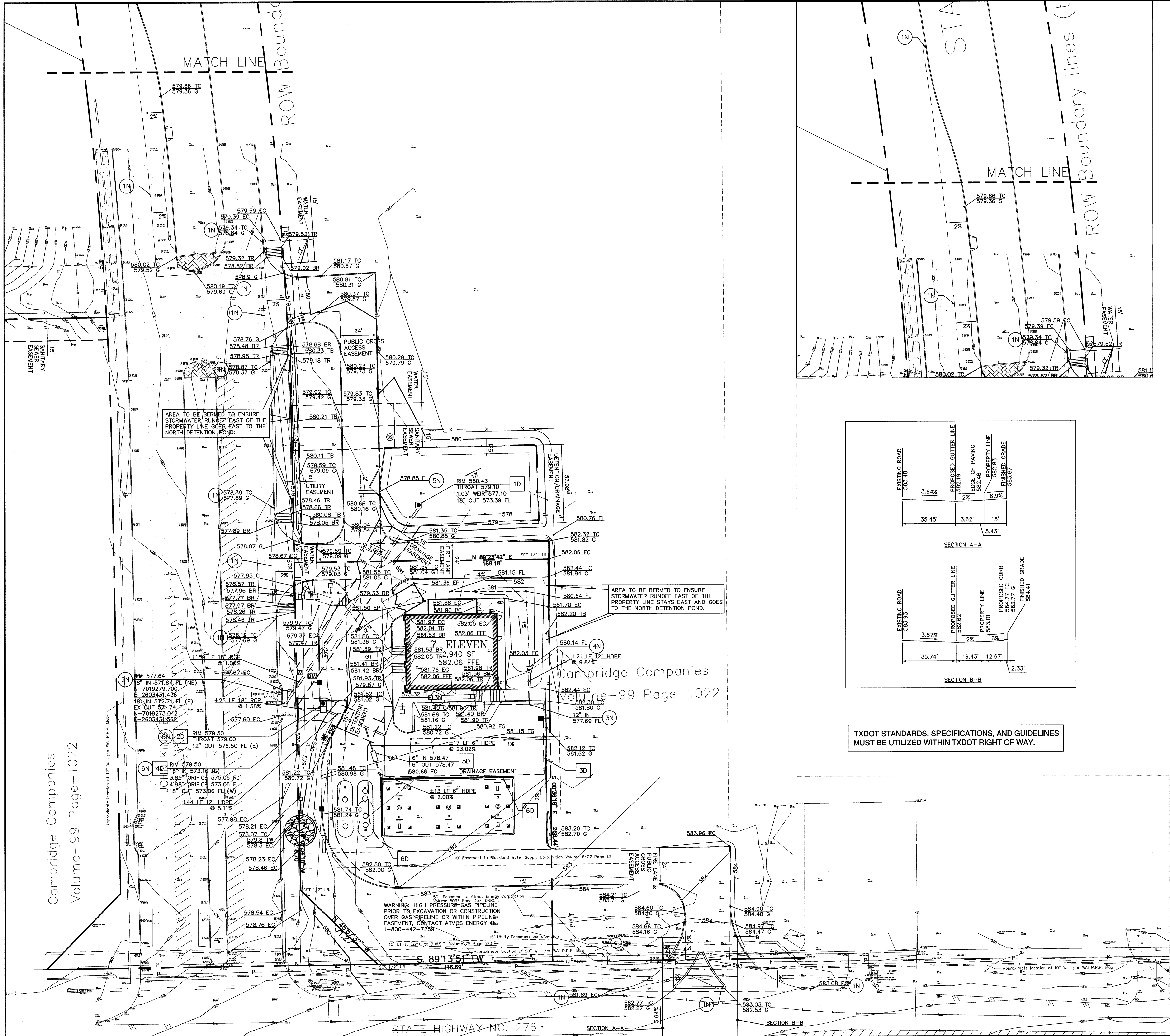
## TRAFFIC CONTROL DETAILS

AS-BUILT

SHEET: **C1.3**



Cambridge Companies  
Volume-99 Page-1022



#### PROPOSED

---	PROPERTY LINE
- - -	BREAKLINE
---	LIMITS OF PONDING
---	STORM SEWER
XXX.XX	SPOT ELEVATION
FFE	FINISHED FLOOR ELEVATION
FG	FINISHED GRADE
G	GUTTER
TC	TOP OF CURB
EP	EDGE OF PAD
EC	EDGE OF CONCRETE
TR	TOP OF RAMP
BR	BOTTOM OF RAMP
FL	FLOW LINE
TB	TOP OF BERM

#### GENERAL GRADING NOTES

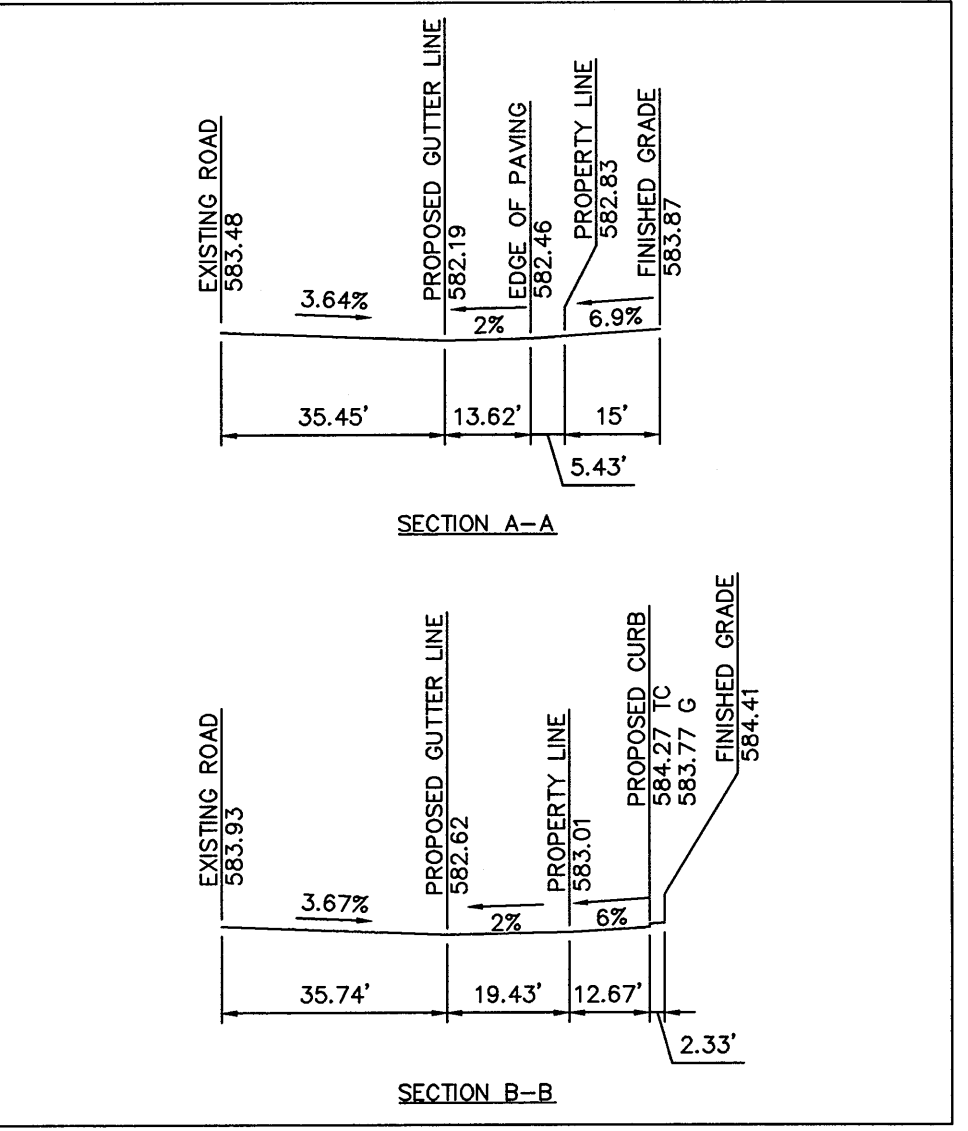
1. ALL STORM PIPE MATERIAL SHALL COMPLY WITH LOCAL REGULATIONS.
2. CONTRACTOR SHALL INSURE THAT ALL STORM PIPE CONNECTIONS ARE WATER TIGHT.
3. ALL STORM SEWER STRUCTURES PLACED IN A PAVED AREA SHALL BE FLUSH WITH FINISH GRADE AND SHALL HAVE A TRAFFIC BEARING FRAME AND LID. ALL STORM SEWER STRUCTURES PLACED IN UNPAVED AREAS SHALL BE 6 INCHES ABOVE FINISH GRADE, UNLESS OTHERWISE NOTED.
4. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR PAVED AND UNPAVED AREAS.
5. ALL STORM STRUCTURES SHALL HAVE A UNIFORM SMOOTH POURED MORTAR SLOPE FROM INVERT IN TO INVERT OUT.
6. ALL STORM SEWER TRENCHING AND BEDDING SHALL BE PER NCTCOG 3RD EDITION AND ROCKWALL STANDARDS.
7. ALL FILL TO BE COMPACTED TO MIN OF 95% STANDARD DENSITY USING A SHEEPS' FOOT ROLLER.
8. ALL STORM STRUCTURES TO BE MIN 4,200 PSI WITH A 6.5 SACK MIX MINIMUM.
9. ALL DETENTION TO BE INSTALLED AND FUNCTIONING AS DESIGNED PRIOR TO ANY PAVING. FOR ABOVE GROUND DETENTION THE SIDES AND BOTTOM MUST HAVE SOD OR ANCHORED CURLEX PRIOR TO PAVING.

#### NOTES

- 1N. SAWCUT LINE/ MATCH EXISTING ELEVATIONS. MINIMUM 2 FEET. LONGITUDINAL BUTT JOINT AT 12" LIMIT SAW-CUT AND PAVEMENT REMOVAL TO ONLY THOSE AREAS WHERE IT IS REQUIRED AS SHOWN ON THESE PLANS. ANY DAMAGE INCURRED TO ANY SURROUNDING AREAS SHALL BE REPAIRED / REPLACED AT THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL PROTECT EXISTING ADJACENT STRUCTURES, PAVEMENT, UTILITIES, LANDSCAPE, ETC. FROM DAMAGE DURING CONSTRUCTION. SAW CUT WITHIN TXDOT RIGHT OF WAY SHALL BE ALONG THE EDGE OF THE EXISTING ASPHALT PAVEMENT AND REMOVE ONLY MATERIAL NEEDED, IN ORDER TO PREPARE A CLEAN STRAIGHT EDGE TO ABUT DRIVEWAY.
- 2N. CONNECT TO EXISTING CURB INLET
- 3N. CONNECT TO EXISTING UNDERGROUND CMP STORAGE
- 4N. ADS FLARED END SECTION SEE DETAIL SHEET C7.1 FOR SPECIFICATIONS
- 5N. 2' CURB CUT
- 6N. 5' CURB INLET AND OUTFALL STRUCTURE SHALL SHARE A COMMON WALL WITH A 12" ORIFICE TO ALLOW STORM WATER CONVEYANCE.

#### DETAILS

- 1D. 4'-6" DROP INLET OUTFALL STRUCTURE
- 2D. 5' CURB INLET
- 3D. CONTECH CMP UNDERGROUND DETENTION
- 4D. 5' JUNCTION BOX OUTFALL STRUCTURE
- 5D. CONTECH VORTOLAREX OIL/WATER SEPARATOR
- 6D. ADS DRAINFLEX TRAFFIC RATED CHANNEL DRAIN



TXDOT STANDARDS, SPECIFICATIONS, AND GUIDELINES  
MUST BE UTILIZED WITHIN TXDOT RIGHT OF WAY.

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ARCHITECTS  
ENGINEERS  
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**HARRISON FRENCH**  
& ASSOCIATES, LTD.

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**7-ELEVEN**

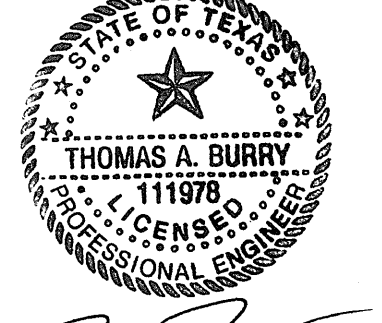
JOIN KING BLVD & HWY 276  
ROCKWALL, TEXAS

PROJ. NUMBER: 12-11-99009

ISSUE BLOCK


STORE NO.: 1029049  
DOCUMENT DATE: 2/1/2013  
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REAL ESTATE



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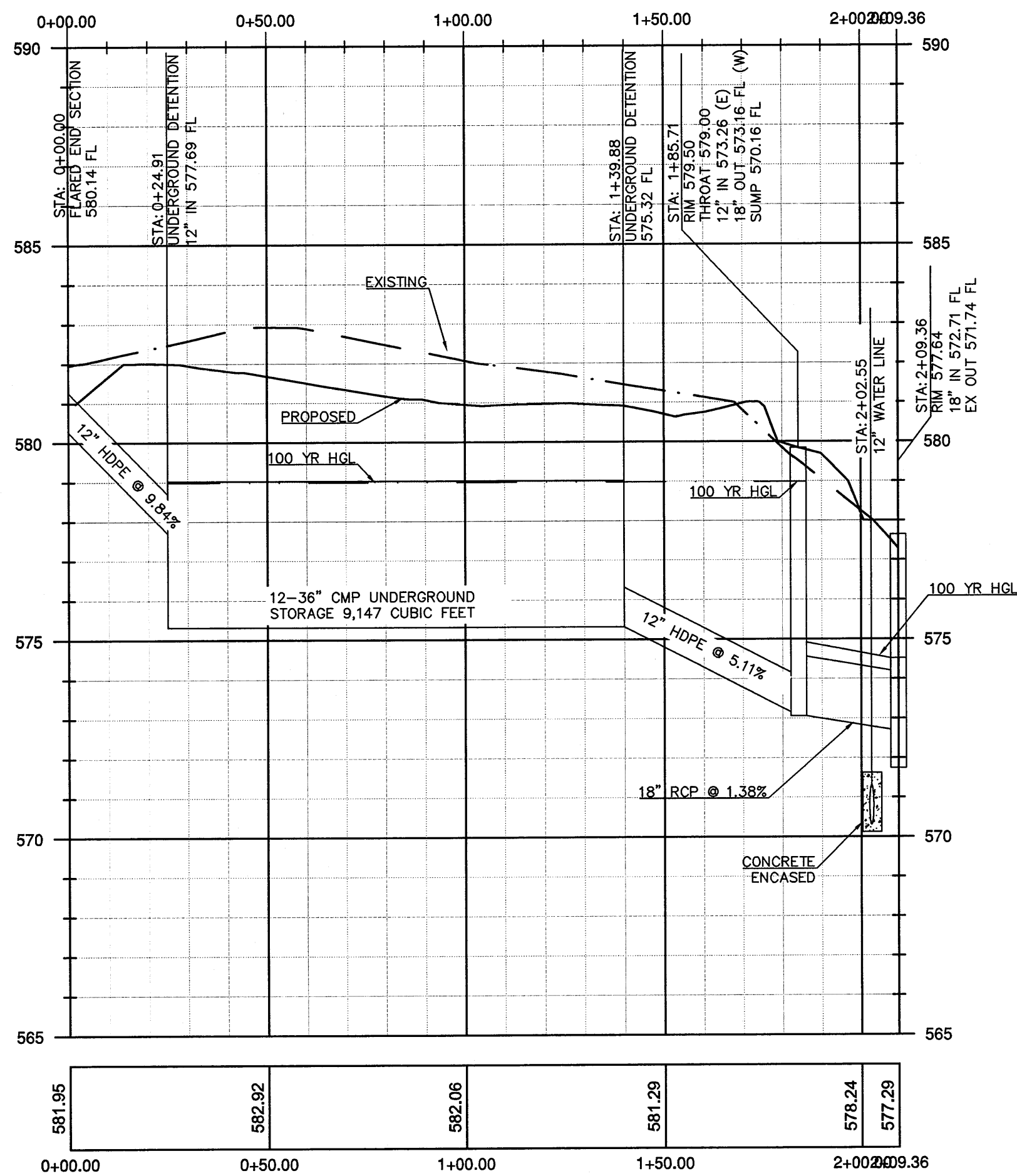
GRADING  
PLAN

AS-BUILT

SHEET:  
**C2.0**

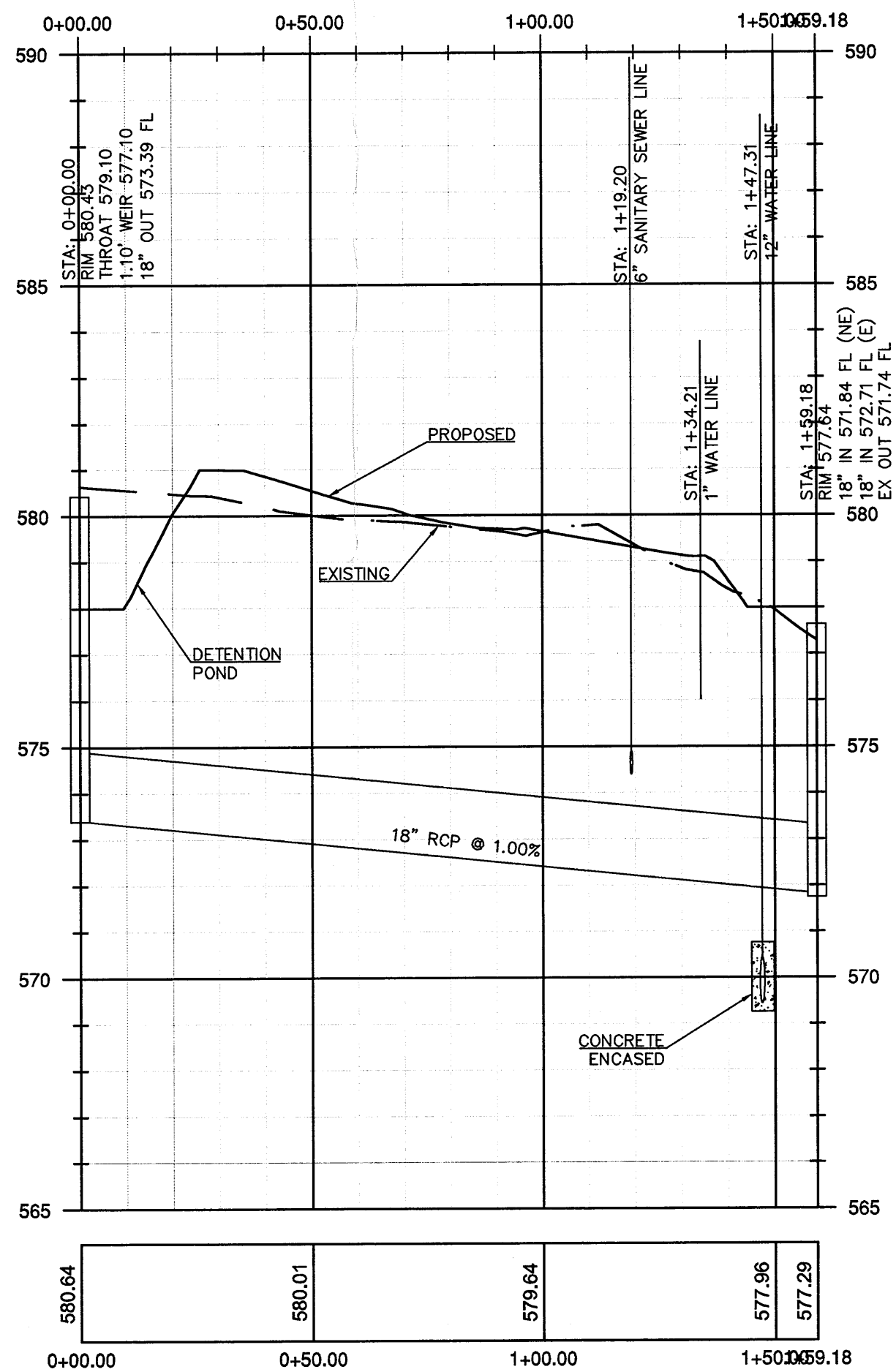
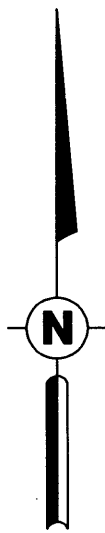
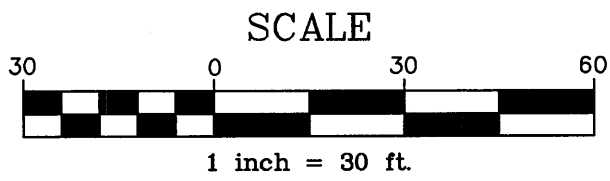


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NOTE: INITIAL HYDRAULIC GRADELINE WAS DETERMINED FROM  
PHASE I S.H. 205 BYPASS FROM S.H. 276 TO INTERSTATE 30  
PLANS, SHEET D110, PREPARED BY WER & ASSOCIATES, INC.  
DATED 11/30/07.

TXDOT STANDARDS, SPECIFICATIONS, AND GUIDELINES  
MUST BE UTILIZED WITHIN TXDOT RIGHT OF WAY.



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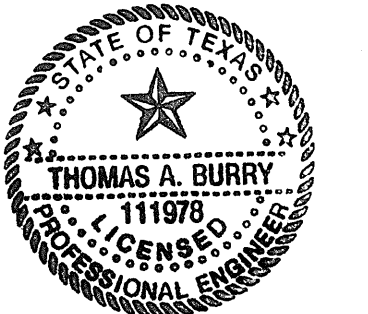
**7-ELEVEN**

JOHN KING BLVD & HWY 276  
ROCKWALL, TEXAS

PROJ. NUMBER: 12-11-99009

ISSUE BLOCK	

STORE NO.: 1029049
DOCUMENT DATE: 2/1/2013
CHECKED BY: JWK
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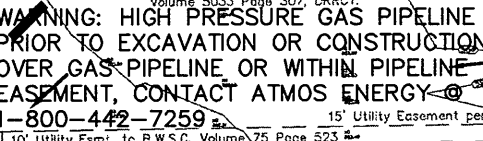
TEXAS COA  
#F-8576

STORM  
SEWER  
PROFILES

AS-BUILT


SHEET:  
**C2.1**





**PROPOSED**

---

 **PROPERTY LINE**  
**BASIN AREA**  
**FLOW ARROW**



### GENERAL DRAINAGE NOTES

1. DRAINAGE AREAS BASED ON THE S.H. 205 BYPASS PHASE I DRAINAGE MAP PREPARED BY WEIR & ASSOCIATES, INC. DATED AUGUST 31, 2006.

TXDOT STANDARDS, SPECIFICATIONS, AND GUIDELINES  
MUST BE UTILIZED WITHIN TXDOT RIGHT OF WAY.



7-ELEVEN  
JOHN KING BLVD & HWY 276  
ROCKWALL, TEXAS

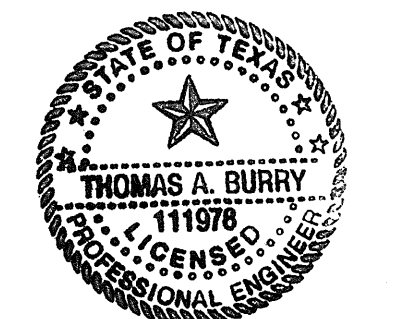
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REAL ESTATE

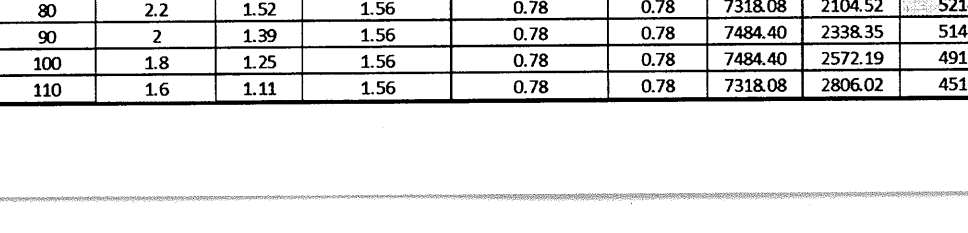
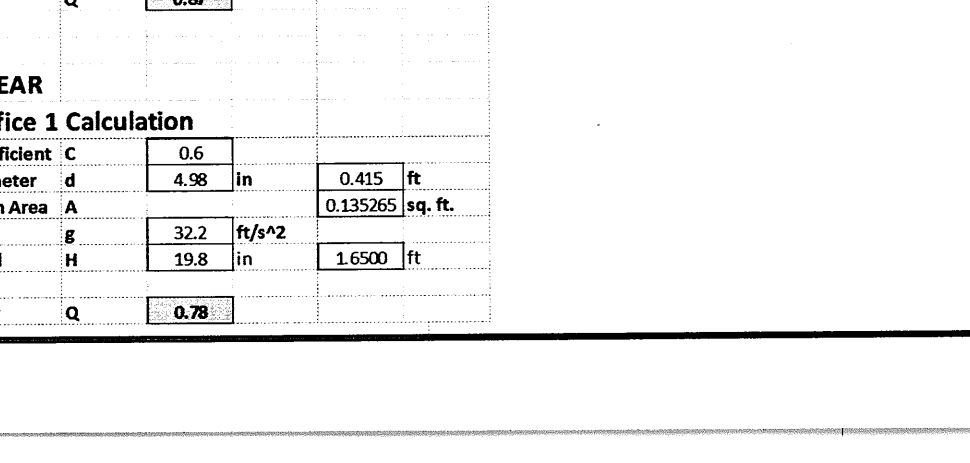


2/4/13  
TEXAS COA  
#F-8576

PRE  
DEVELOPED  
DRAINAGE  
MAP  
  
AS-BUILT

SHEET: C2.2





C2.3







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## STORM WATER POLLUTION PREVENTION PLAN NOTES

- ALL CONTRACTORS AND SUBCONTRACTORS SHALL OBTAIN A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN AND THE STATE OF TEXAS NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT, AND FAMILIARIZE THEMSELVES WITH ITS CONTENTS.
- PRIOR TO CONSTRUCTION, THE GENERAL CONTRACTOR SHALL COMPLETE THE NOTICE OF INTENT (NOI) FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY UNDER THE TPDES GENERAL PERMIT TXR150000, AND SUBMIT THE NOI TO THE TEXAS COMMISSION OF ENVIRONMENTAL QUALITY (TCEQ), AS OUTLINED ON THE NOI AND IN THE GENERAL PERMIT.
- UNLESS OTHERWISE NOTED IN THE GENERAL PERMIT AND ON THE NOI, PROVISIONAL COVERAGE UNDER THE GENERAL PERMIT BEGINS SEVEN (7) DAYS AFTER THE COMPLETED NOI IS POSTMARKED FOR DELIVERY, OR IMMEDIATELY IF THE COMPLETED NOI IS SUBMITTED ELECTRONICALLY.
- PRIOR TO BEGINNING CONSTRUCTION A COPY OF THE NOI AND A COPY OF THE SITE NOTICE, AS OUTLINED IN THE GENERAL PERMIT, SHALL BE POSTED AT THE CONSTRUCTION SITE IN A PUBLICLY VISIBLE LOCATION.
- UNLESS OTHERWISE NOTED IN THE GENERAL PERMIT, AN ACKNOWLEDGEMENT CERTIFICATE ACKNOWLEDGING COVERAGE UNDER THE GENERAL PERMIT WILL BE RECEIVED FOR THE PROJECT FROM TCEQ. CONTRACTOR SHALL THEN WRITE THE AUTHORIZATION NUMBER ASSIGNED IN THE "GENERAL PERMIT AUTHORIZATION NUMBER" SECTION OF THIS PLAN.
- THE GENERAL CONTRACTOR SHALL COMPLETE THE "GENERAL CONTRACTOR" SECTION OF THIS PLAN.
- ALL SUBCONTRACTORS THAT WILL IMPLEMENT AND MAINTAIN THE POLLUTION CONTROL MEASURES AND/OR ARE INVOLVED IN GROUND DISTURBING ACTIVITIES ON THE SITE SHALL BE LISTED IN THE "SUBCONTRACTOR" SECTION OF THIS PLAN.

## GENERAL PERMIT AUTHORIZATION NUMBER

## PROJECT DEVELOPER

VERDAD REAL ESTATE  
502 NORTH CARROLL AVE, SUITE 120  
SOUTH LAKE, TX 76082  
(817) 912-0524

## PROPERTY OWNER

VERDAD REAL ESTATE  
502 NORTH CARROLL AVE, SUITE 120  
SOUTH LAKE, TX 76082  
(817) 912-0524

## GENERAL CONTRACTOR

### Certification:

*"I certify that I understand the terms and conditions of the National Pollutant Discharge Elimination System (NPDES) General Permit that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification. The SWPPP and General Permit have been made available to me to review and I agree to stay in compliance with the permit."*

### COMPANY NAME

### TELEPHONE

### ADDRESS

### CONTACT

## SUBCONTRACTOR

### Certification:

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### COMPANY NAME

### TELEPHONE

### ADDRESS

### CONTACT

## I. INTRODUCTION & PROJECT DESCRIPTION

This SWPPP has been prepared for land disturbance activities associated with the construction of the following:

7-Eleven Site # 1029049  
John King Blvd and HWY 276  
Rockwall, Rockwall County, Texas

This SWPPP must be implemented prior to the start of construction.

Construction phase pollutant sources anticipated at the site are disturbed soil, vehicle fuels and lubricants, chemicals and coatings associated with pavement installation, construction generated litter and debris, and building materials.

The existing site consists of grass, several trees, and a few utilities, available for construction and is approximately 0.99 acres. Proposed construction will consist primarily of grading, paving, utility and landscape construction for a proposed 3,010 square foot convenience store building, associated fueling dispensers, canopy and underground storage tanks for public vehicle fueling operations.

This SWPPP must be implemented before construction begins on the site. Applicability of this SWPPP will terminate when disturbed areas area stabilized as outlined in the General Permit, permanent erosion and sediment controls are installed, temporary erosion and sediment controls are removed, construction activities covered herein have ceased, the Notice of Termination has been submitted, and the project is completed.

The General Permit for storm water discharges associated with construction activities prohibits most non-storm water discharges during the construction phase. Allowable non-storm water discharges that could occur during construction on this project, which are generally covered by the General Permit, include the following: (Contractor shall consult the General Permit to determine specific allowable discharges that are applicable to this specific project.

- Discharges from fire-fighting activities
- Fire hydrant flushing
- Water used to wash vehicles where detergents are not used
- Water used to control dust in accordance with the General Permit
- Potable water including uncontaminated water line flushings
- Routine external building washing where detergents are not used
- Uncontaminated air conditioning or compressor condensate
- Uncontaminated groundwater or spring water
- Limited landscape irrigation

Best Management Practices (BMPs) must be implemented for all non-storm water discharges for the duration of the project. Each non-storm water discharge shall be noted in the SWPPP and have proper erosion and sediment controls in place, with the possible exception of discharges from fire fighting activities.

## II. SUMMARY OF PERMIT AND PROGRAM REQUIREMENTS

The Storm Water Pollution Prevention Plan (SWPPP) includes, but is not limited to, this SWPPP with appendices, the Erosion and Sedimentation Control Plan(s) and Details included in the Construction Drawings, the General Permit, all records of inspections and activities which are created during the course of the project, and other documents as may be included by reference to this SWPPP. Changes, modifications, revisions, additions, or deletions shall become part of this SWPPP as they occur.

The General Contractor and all subcontractors involved with a construction activity that disturbs site soil or who implement a pollutant control measure identified in the SWPPP must comply with the following requirements of the National Pollutant Discharge Elimination System (NPDES) General Permit and any local or state governing agency having jurisdiction concerning NPDES, storm water, and erosion and sediment control.

### A. General Permit Information

All requirements as outlined by the Texas Commission on Environmental Quality (TCEQ) and under the TPDES Construction General Permit (TXR 150000) shall be followed by all contractors associated with this project.

### B. Agency Information for Storm Water Pre-Construction Meeting

A Pre-Construction Meeting is required for this project. The General Contractor shall invite the City Engineer, 7-Eleven Construction Manager, and ground-disturbing contractors to the Storm Water Pre-Construction meeting.

### C. Retention of Records

A complete copy of the SWPPP, including copies of all inspection reports, plan revisions, etc., must be retained at the project site at all times during the duration of the project.

### D. Contractor/Sub-Contractor List

The General Contractor must provide names and addresses of all subcontractors working on this project who will be involved with the major construction activities that disturb site soil or otherwise affect BMP implementation. This information must be kept at the project site at all times.

### E. Contractor/Sub-Contractor Certification Form

The General Contractor and all contractors and/or subcontractors that will implement, maintain and/or impact the pollution control measures in the SWPPP and/or are involved in ground-disturbing activities on the site must sign a copy of the Contractor certification included on this plan. An authorized representative from each company on the construction project must sign this form certifying that company representatives understand the SWPPP and General Permit requirements relating to storm water discharges. This information must be kept at the project site at all times.

### F. SWPPP Updates and Amendments

The General Contractor must update the SWPPP and Site Maps daily to reflect the progress of construction activities and general changes to the project site. SWPPP contact and contractor information and the record of site stabilization activities log must be maintained by the General Contractor throughout the project.

BMPs that do not impact the hydraulic design of the site may be modified or added by the General Contractor, and site maps updated accordingly, as needs arise. Examples of BMPs that do not typically impact the hydraulic design of the site include silt fence, silt ditch, wattles, construction exit and various forms of temporary and permanent erosion controls (blankets, nets, seed, soil, etc.). Examples of BMPs that commonly impact hydraulic design include storm water basins, diversions, check dams, inlet protection or any product, process, or system that changes the storm water flow path or storm water storage capacity of the site or is located in an area of concentrated flow.

Amending the SWPPP does not mean that it has to be reprinted. It is acceptable to add addenda, sketches, new sections, details, and/or revised drawings that are initiated and dated.

### G. Discharge of Petroleum Products or Hazardous Substances

Discharge of petroleum products or other hazardous substances into storm water or the storm water (storm sewer) system is subject to reporting and clean up requirements. Refer to the General Permit for additional information.

### H. Notice of Termination

Once construction has ended and the site has been stabilized as outlined in the General Permit. The General Contractor shall coordinate with the 7-Eleven Construction Manager for completion and submittal of the Notice of Termination (NOT).

### I. General Contractors Responsibility

This SWPPP intends to control water-borne, air-borne and liquid pollutant discharges by some combination of interception, sedimentation, filtration, and containment. The General Contractor and subcontractors implementing this SWPPP must remain alert to the need to periodically refine the update the SWPPP in order to accomplish the intended goals. The General Contractor is ultimately responsible for all site conditions and permit compliance.

### J. Log of Construction Activity

A record of dates must be maintained on site, until the NOT has been submitted, for the following:

- Major ground-disturbing activities including earthwork or grading
- Construction activities temporarily or permanently cease on any portion of the site
- Stabilization measures are initiated and/or completed
- BMPs are installed and/or permanently removed

### K. Agency Storm Water Inspections

A project Superintendent must walk the site with the regulatory inspector and document any deficiencies noted during the inspection. Deficiencies of any type, field or documentation-related, identified during the regulatory inspection must be reported to the 7-Eleven Construction Manager immediately and resolved within 48-hours unless State regulations require a shorter time period.

All storm water or erosion and sediment (E&S) agency visits to the jobsite, whether an official inspection occurred or not, must be reported to the 7-Eleven Construction Manager. Any agency inspector, including OSHA and utility inspectors, that comment on storm water BMPs (inlet protection, track out, etc.) must be reported to the 7-Eleven Construction Manager.

A log of all inspections by Federal, State, or local storm water or other environmental agencies shall be kept on site at all times.

## III. CONSTRUCTION SEQUENCE

Described below are the major construction activities that are the subject of this SWPPP. Also included in the sequence are BMP installation activities that must take place prior to construction activities. Down slope protective measures must always be in place before soil is disturbed.

Conduct pre-construction meeting with the city to discuss erosion and sediment controls and construction phasing.  
Install stabilized construction exit and post swppp and site compliance signage publicly visible.  
Install construction fences and temporary traffic and pedestrian control devices.  
Prepare temporary parking and storage areas.  
Install silt fence on the site as shown within the construction limits.  
Demo existing structures, pavement, and specified utilities.  
Undercut existing poor soils as indicated in the geotechnical report.  
Begin grading the site.  
Begin construction of utilities.  
Begin subgrade preparation and construction of structures.  
Begin installation of curb, gutter, and paving.  
Complete permanent stabilization on areas where construction has completed.  
Complete final grading and installation of permanent stabilization over all areas.  
Obtain concurrence from the owner and the city that the site has been fully stabilized.  
Remove all remaining temporary erosion and sediment control devices.  
Stabilize all areas disturbed by bmp removal.

Contractor may complete construction related activities concurrently only if all preceding BMPs have been completely installed.

The actual schedule for implementing pollutant control measures will be determined by project construction progress and recorded by the General Contractor on the Erosion and Sediment Control Plans.

## IV. SITE DESCRIPTION

### A. Site Location:

Address: John King Blvd and HWY 276  
Latitude: 96°25'84"  
Longitude: 32°54'41"

Adjacent surrounding properties include: Undeveloped property to the north, John King Blvd to the west, HWY 276 to the south, and undeveloped property to the east.

### B. Site Topography:

Lowest elevation on site: 584.90  
Highest elevation on site: 577.67  
Percent slope variation: Site generally slopes south to north at approximately 1.5%

### C. Site Soils:

Site soils consist of Houston Black Clay. The Hydrologic Soil Group rating for site soils is Group D.

### D. Total Site Area, Disturbed Area, and Runoff Coefficient:

Total Site Area: 0.99 Acres  
Total Disturbed Area: 2.09 Acres  
Runoff Coefficient: 0.90 (Impervious) 0.35 (Pervious)

### E. Receiving Surface Waters:

Receiving Water: Buffalo Creek  
Distance to Receiving Water: 1,200 feet

Storm water runoff from the site travels northwest to Buffalo Creek and then to the Rockwall Lake

Flood note: This site is not in any presently established roadway or floodplain as shown in the federal emergency management agency flood insurance map 48453C0260H dated September 26, 2008

### F. Threatened and Endangered Species:

Because the site is relatively small and in a developing area, it is not expected that any threatened or endangered species exist on this site that could be impacted by this project.

### G. Historic Properties:

Because the site is relatively small and in a developing area, it is not expected that any historically significant properties exist on this site that could be impacted by this project.

## V. STORM WATER POLLUTION PREVENTION MEASURES AND CONTROLS

A variety of storm water pollutant controls are recommended for this project. Some controls are intended to function temporarily and will be used as needed for pollutant control during the construction period. These include temporary sediment barriers. Permanent stabilization will be accomplished in all disturbed areas by covering the soil with pavement, building foundation, vegetation, or other forms of soil stabilization.

### A. Erosion and Sediment Controls

1. **Minimization of Disturbed Areas:** Contractor shall keep the areas of disturbance to a minimum during construction.

2. **Soil Stabilization:** Soil stabilization is proposed to be employed to prevent soil from eroding and leaving the site. The primary techniques to be used at this project for stabilizing site soils will be to provide a protective cover of grass, pavement and building structures.

3. **Temporary Seeding or Stabilization:** All disturbed areas that will be inactive for 7 days or more, shall be stabilized temporarily with the use of fast-germinating annual grass/grain varieties appropriate for site soil and climate conditions, straw/hay mulch, wood cellulose fibers, tackifiers, netting and/or blankets. Soil stockpiles and diversion ditches/berms shall be stabilized to prevent erosion and mud.

4. **Permanent Seeding, Sodding or Mulching:** All areas at final grade shall be seeded or sodded within 7 days after completion of work in that area. Seed immediately after final grade is achieved and soils are prepared to take advantage of soil moisture and seed germination. At the completion of ground disturbing activities the entire site must have permanent vegetative cover, that are not covered by impervious material such as building or pavement through. To minimize the potential for erosion and maximize seed germination and growth, the General Contractor shall evaluate the short and long-term local forecast prior to applying permanent seed or sod.

Final stabilization is achieved when perennial vegetative cover provides permanent stabilization with a density greater than 70 percent over the entire area to be stabilized by vegetative cover. This area is exclusive of areas that are covered with rock, landscape mulch, pavement, building or other permanent structure.

5. **Structural Controls:** Storm water runoff for this project will be handled by the use of structural controls such as sedimentation/silt fences and construction exit. Locations for and details of structural controls can be found on the Construction Plans. In the case there are questions regarding storm water runoff, the Contractor shall refer to the General Permit for requirements.

6. **Silt Fence:** Silt fence shall be a synthetic permeable woven or non-woven geotextile fabric incorporating metal support stakes at intervals sufficient to support the fence, water, and sediment retained by the fence. The fence is designed to retain sediment laden storm water and allow settlement of suspended soils before storm water flows through the fabric and discharges off site. Silt fence shall be located on the contour to capture overland, low velocity sheet flows and is installed with a wire fence backing for additional support. Silt fences shown on this site are to be used to prevent silt from leaving the construction site. If the Contractor uses silt fence in areas other than what is indicated on the Construction Plans, drainage areas shall be limited to 1/4 acre per 100 linear feet of fence for slopes less than 2 percent. Install silt fence at a fairly level grade above the contour with the ends curved uphill to provide sufficient upstream storage volume for the anticipated runoff.

7. **Construction Exit:** Construction exit shall consist of gravel material laid over geotextile fabric. Gravel shall be of adequate size to sufficiently disturb the action of vehicles traveling over the exit to dislodge soil from the vehicle. All site access must be confined to the construction exit. It may be necessary to install a wheel wash system to knock off excess soil from vehicles. If a wheel wash system is employed, a sediment trap shall be installed to treat wash water prior to it leaving the site.

8. **Storm Sewer Inlet Protection:** Curb and grated inlets are protected from the intrusion of sediment through a variety of measures as shown on the details included in the Construction Plans. The primary mechanism is to place controls in the path of flow sufficient to slow the sediment laden water to allow settlement of suspended solids before discharging into the storm sewer. It is possible that as construction progresses and storm sewer installation through to paving that the inlet protection devices will change. Care shall be taken in placement of inlet protection as many devices create ponding of storm water at inlets.

9. **Check Dams:** Defined channels subject to concentrated flows in larger quantities and higher velocities shall be protected with rock or other manufactured device that can be used as a check dam. The dams impound sediment laden water and allow for settlement of suspended soil before storm water flows over and through the device. At a minimum, dams shall be placed along the water course at linear intervals in which the elevation of the bottom of the upper most check dam is at the same elevation as the top of the check dam immediately below it. This will allow the most ponding capacity while not increasing velocity of water flowing through the channel.

### B. Other Controls

1. **Dust Control:** Construction traffic must enter and exit the site at the stabilized construction exit. The purpose is to trap dust and mud that would otherwise be carried off-site by construction traffic. Large areas of soil that are denuded of vegetation and have no protection from particles being picked up and carried by wind should be protected with a temporary cover or kept under control with water or other soil adhesion products to limit wind transported particles exiting the site perimeter.

Water trucks or other dust control agents will be used as needed during construction to minimize dust generated on the site. Tackifiers may be used to hold soil in place and prevent dust. Manufacturer recommendations for application locations and rates must be used for dust control applications. Dust control must be provided by the General Contractor to a degree that is in compliance with applicable local and state dust control regulations.

2. **Dewatering:** Verify discharges from dewatering activities are allowed non-storm water discharges under the General Permit. Obtain a dewatering permit according to state and local regulations, if discharges from dewatering activities are not allowed under the General Permit. Discharges from dewatering operations must be directed through an appropriate pollution prevention/treatment measure, such as a pump discharge filter bag, sediment trap or sediment basin prior to being discharged from the site or into a water body of the State. Under no circumstances are discharges from dewatering operations to be discharged directly into streams, rivers, lakes or other areas off-site. Likewise, discharges into storm sewer systems that do not drain to a suitable on-site treatment facility, such as a basin, are also prohibited. Discharges from dewatering operations must also be conducted in a manner sufficient to prevent erosion from the discharge runoff.

Use best management practices when dewatering. Place intake hose on a flotation or similar device and do not pump directly from the bottom of the basin, trench, etc. Always pump through a sediment control BMP and dewater within the permitted limits of disturbance to ensure discharge criteria are achieved. Do not discharge on a slope greater than three percent or within 20' of a surface water body. Dewatering should not occur during or immediately after precipitation events.

3. **Solid Waste Disposal:** No solid materials, including building materials, are allowed to be discharged from the site with storm water. All solid waste, including disposable materials incidental to the major construction activities, must be collected and placed in containers. The containers will be emptied as necessary by a contract trash disposal service and hauled away from the site. Covers for the containers will be provided as necessary to meet state and local requirements. Construct covers as practicable, or required, to prevent storm water contact and pollutant discharges from solid waste receptacles.

Substances that have the potential for polluting surface and/or groundwater must be controlled by whatever means necessary in order to ensure that they do not discharge from the site. As an example, special care must be exercised during equipment fueling and servicing operations. If a spill occurs, it must be contained and disposed of so that it will not flow from the site or enter groundwater, even if this requires removal, treatment, and disposal of soil. In this regard, potentially polluting substances should be handled in a manner consistent with the impact they represent.

4. **Sanitary Facilities:** All personnel involved with construction activities must comply with state and local sanitary or septic system regulations. Temporary sanitary facilities shall be provided at the site throughout the construction phase. They must be utilized by all construction personnel and shall be serviced by a commercial operator. Portable toilets must be securely anchored and are not allowed within 30' of inlets or permitted limit of disturbance or within 50' of a water of the State. Any secondary containment for portable toilets required by State or local regulations shall be provided by the Contractor.

5. **Non-Storm Water Discharges:** Non-storm water components of site discharges must be clean water. Water used for construction which discharges from the site must originate from a public water supply or private well approved by the State Health Department. Water used for construction that does not originate from an approved public supply must not discharge from the site. It can be used for construction purposes until it infiltrates and evaporates. Other non-storm water discharges would include ground water. Only uncontaminated ground water can be discharged from the site, as allowed by and in accordance with applicable local ground water dewatering permits/regulations. When non-storm water is discharged from the site, it must be done in a manner such that it does not cause erosion of the soil during discharge.

Process water such as power washing and concrete cutting must be collected for treatment and disposal. It is not to be flushed into the site storm drain system. If any dewatering permit is required then it will be the responsibility of this Contractor to obtain.

6. **Concrete Waste from Concrete Ready-Mix Trucks:** Discharge of excess or waste concrete and/or wash water from concrete trucks will be allowed on the construction site, but only in specifically designated lined and diked areas prepared to prevent contact between the concrete and/or wash water and storm water that will be discharged from the site. Alternatively, waste concrete can be placed into forms to make top up or other useful concrete products. The cured residue from the concrete washout diked areas shall be disposed in accordance with applicable state and federal regulations. This jobsite superintendent is responsible for assuring that these procedures are followed. Follow all applicable environmental regulations for concrete wash out pits.

7. **Masons' Areas:** To the extent practical, all masonry tools, material, including sand and sacked cement or mortar materials, and equipment shall be located within the area identified. Runoff control, such as berms or diversion ditches, silt fence, straw wattles, or other means of containment shall be provided to prevent the migration of storm water pollutants in runoff from the masons' area. Receptacles for debris and trash disposal shall also be provided.

8. **Fuel Tanks (not including permanent underground storage tanks):** Temporary on-site fuel tanks for construction vehicles shall meet all state and federal regulations. Tanks shall have approved spill containment with the capacity required by the applicable regulations. From NFPA 30: All tanks shall be provided with secondary containment (i.e. containment external to and separate from primary containment). Secondary containment shall be constructed of materials of sufficient thickness, density, and composition so as not to be structurally weakened as a result of contact with the fuel stored and capable of containing discharged fuel for a period of time equal to or longer than the maximum anticipated time sufficient to allow recovery of discharged fuel. It shall be capable of containing 110% of the volume of the primary tank if a single tank is used, or in the case of multiple tanks, 150% of the largest tank or 10% of the aggregate, whichever is larger.

The tanks shall be in sound condition free of rust or other damage which might compromise containment. Fuel storage areas shall meet all EPA, OSHA and other regulatory requirements for storage, caps, filler nozzles, and associated hardware shall be maintained in proper working condition at all times. The location of fuel tanks shall be shown on the Site Maps and shall be located to minimize exposure to weather and surface water drainage features.

A Spill Prevention, Control and Countermeasure (SPCC) Plan must be developed if aboveground oil storage capacity at the construction site exceeds amount specified by the state. Containers with a storage capacity of 55-gallons or less are not included when calculating site storage capacity. The General Contractor shall develop and implement a SPCC Plan in accordance with the Oil Pollution Prevention regulation.

9. **Hazardous Material Management and Spill Reporting Plan:** Any hazardous or potentially hazardous material that is brought onto the construction site shall be handled properly in order to reduce the potential for storm water pollution. All materials used on this construction site shall be properly stored, handled, dispersed and disposed of following all applicable label directions. Flammable and combustible liquids shall be stored and handled according regulations. Only approved containers and portable tanks shall be used for storage and handling of flammable and combustible liquids.

Material Safety Data Sheets (MSDS) information shall be kept on site for any and all applicable materials.

In the event of an accidental spill, immediate action shall be undertaken by the General Contractor to contain and remove the spilled material. All hazardous materials shall be disposed of by the Contractor in the manner specified by federal, state and local regulations and by the manufacturer of such products. As soon as possible, the spill shall be reported to the appropriate agencies. As required under the provisions of the Clean Water Act, any spill or discharge entering waters of the United States shall be properly reported. The General Contractor shall prepare a written record of any spill and associated clean-up activities of petroleum products or hazardous materials in excess of 1 gallon or reportable quantities, whichever is less. The General Contractor shall provide notice to Construction Manager immediately upon identification of a reportable spill.

Any spills of petroleum products or hazardous materials in excess of Reportable Quantities as defined by EPA or the state or local agency regulations, shall be immediately reported to the EPA National Response Center (1-800-424-8802) and appropriate State agency as listed in the General Permit.

In order to minimize the potential for a spill of petroleum product or hazardous materials to come in contact with storm water, the following steps will be implemented:

- All materials with hazardous properties (such as pesticides, petroleum products, fertilizers, detergents, construction chemicals, acids, paints, paint solvents, additives for soil stabilization, concrete, curing compounds and additives, etc.) shall be stored in a secure location, under cover, when not in use.
- The minimum practical quantity of all such materials shall be kept on the job site and scheduled for delivery as close to time of use as practical.
- A spill control and containment kit (containing for example, absorbent material such as Kitty litter or sawdust, acid neutralizing agent, brooms, dust pans, mops, rags, gloves, goggles, plastic and metal trash containers, etc.) shall be provided on the construction site.
- All of the product in a container shall be used before the container is disposed of. All such containers shall be triple rinsed, with water prior to disposal. The rinse water used in these containers shall be disposed of in a manner in compliance with state and federal regulations and shall not be allowed to mix with storm water discharges.
- All products shall be stored in and used from the original container with the original product label.
- All products shall be used in strict compliance with instructions on the product label.
- The disposal of excess or used products shall be in strict compliance with instructions on the products label.

## VI. LOCAL / STATE / FEDERAL PLANS

In addition to this SWPPP, construction activities associated with this project shall comply with any guidelines set forth by local, state, and federal regulatory agencies. The General Contractor shall maintain documents on the site.

## VII. INSPECTIONS AND SYSTEM MAINTENANCE

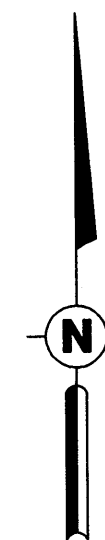
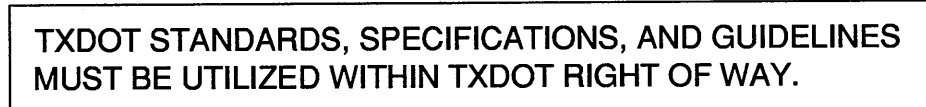
Between the time this SWPPP is implemented and the completion of the project, all disturbed areas and pollutant controls shall be inspected as noted below. The purpose of site inspections is to assess performance of pollutant controls. The inspections shall be conducted by the General Contractor. Based on these inspections, the General Contractor shall decide whether it is necessary to modify this SWPPP, add or relocate controls, or revise or implement additional Best management Practices in order to prevent pollutants from leaving the site via storm water runoff. The General Contractor has the duty to cause pollutant control measures to be repaired, modified, supplemented, or take additional steps as necessary in order to achieve effective pollutant control.

- Inspections shall be conducted by qualified personnel as outlined in the General Permit.
- Inspections shall be conducted at least every seven (7) calendar days or at least once every 14 calendar days and within 48 hours following any runoff producing storm event.
- Inspections shall include all areas of the site disturbed by construction activity, off-site areas covered by the permit, and areas used for storage of materials that are exposed to precipitation.
- Inspectors shall look for evidence of, or the potential for, pollutants entering a stormwater conveyance system. Measures shall be inspected for proper installation, maintenance, and operation. Discharge locations, where accessible, shall be inspected to ascertain whether control measures are effective in minimizing releases to receiving waters.

Examples of specific items to evaluate during site inspections are listed below. This is not intended to be a comprehensive list.

- Construction Exit:** Locations where vehicles enter and exit the site must be inspected for evidence of off-site sediment tracking. Contractor shall implement procedures and facilities, as needed, to prevent tracking of sediment onto roadways. Any sediment deposited on the roadway shall be swept and disposed of in an appropriate manner. Sediment shall not be washed into any storm water conveyance system.
- Erosion Control Devices:** Erosion control products and vegetative areas shall be inspected for the signs of filling, rutting, or other signs of erosion, indicating the erosion control device is not functioning properly and additional erosion control devices are warranted.
- Sediment Control Devices:** Sediment barriers, traps, and fences shall be inspected and must be cleaned out at such time as their original capacity has been reduced by 50 percent. All material excavated from behind sediment barriers or in traps and basins shall be incorporated into on-site soils or spread out on an upland portion of the site and stabilized. To minimize the potential for sediment releases from the project site perimeter control devices shall be inspected with consideration given to changing up-gradient conditions.
- Material Storage Areas:** Material storage areas should be located to minimize exposure to weather. Inspections shall evaluate disturbed areas and areas used for storing materials that are exposed to rainfall for evidence of, or the potential for, pollutants entering the drainage system or discharging from the site. If necessary, the materials must be covered or original covers must be repaired or supplemented. Also, protective berms must be constructed, if needed, in order to contain runoff from material storage areas. All state and local regulations pertaining to material storage areas shall be adhered to.
- Vegetation:** Consideration must be given to anticipated climate and seasonal conditions when specifying and planting seed. Seed shall be free of weedy species and appropriate for site soils and regional climate. Seed and mulch immediately after topsoil is applied and final grade is reached. Grassed areas shall be inspected to confirm that a healthy stand of grass is maintained. The site has achieved final stabilization once all areas are covered with building foundation or pavement, or have a stand of grass with a minimum of 70 percent density or greater of natural background cover over the entire vegetated area. Vegetated areas must be watered, fertilized, and reseeded as needed to achieve this requirement. The vegetative density must be maintained through project completion to be considered stabilized. Areas protected by erosion control blankets are not permanently stabilized until the requirement for final vegetative density is achieved.
- Discharge Points:** All discharge points must be inspected to determine whether erosion and sediment control measures are effective in preventing discharge of sediment from the site or





=====	PROPERTY LINE
-----X"W-----	WATERLINE
-----X"SS-----	SANITARY SEWER LINE
-----UGE&T-----	UNDERGROUND ELECTRIC AND TELEPHONE
=====	STORM SEWER

1. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND IS RESPONSIBLE TO REPAIR ANY DAMAGE TO EXISTING UTILITIES AND ADJUSTMENTS DUE TO CHANGE IN GRADE OF ALL EXISTING UTILITIES, INCLUDING DRAINAGE, DURING CONSTRUCTION AT NO COST TO THE OWNER.
2. ALL UTILITIES ARE SHOWN FROM INFORMATION GATHERED AND SHOULD NOT BE USED AS EXACT. CONTRACTOR SHALL VERIFY EXACT DEPTHS AND LOCATIONS PRIOR TO UTILITY INSTALLATION.
3. CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY COMPANY FOR INSTALLATION AND SPECIFICATION REQUIREMENTS.
4. ALL PIPE MATERIALS SHALL COMPLY WITH LOCAL REGULATIONS.
5. ALL TRENCHING AND BEDDING SHALL BE PER THE UTILITY TRENCH AND BEDDING DETAIL.
6. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS FOR ALL BUILDING UTILITY TIE INS.
7. ALL THRUST BLOCKING SHALL BE PER NCTCOG 3RD EDITION AND ROCKWALL STANDARDS.
8. WATER LINES CROSSING THE ATMOS EASEMENT WILL NEED TO BE PLACED AT LEAST 2 FEET BELOW THE TRANSMISSION LINE.
9. ALL WATER LINES SHALL BE CLASS 200
10. ALL DOMESTIC AND IRRIGATION TAPS TO HAVE BACKFLOW WITH DOUBLE CHECKS AT ALL METERS.
11. ALL MANHOLES TO BE RAVEN LINED OR APPROVED EQUAL.
12. INSTALL BLUE EMS DISKS ON THE WATER LINE AT EVERY CHANGE IN DIRECTION, VALVE, FIRE HYDRANT, OR SERVICE.
13. INSTALL GREEN EMS DISKS ON THE SANITARY SEWER LINE AT EVERY CHANGE IN DIRECTION, MANHOLE, CLEANOUT, AND SERVICE CONNECTION.
14. RIM ELEVATIONS FOR SANITARY SEWER MANHOLES TO THE WEST OF JOHN KING BLVD SHALL BE FIELD DETERMINED TO WORK WITH EXISTING GRADIES. TOPOGRAPHIC INFORMATION WAS NOT VERIFIED IN THIS AREA AND RIM ELEVATIONS HAVE BEEN ESTIMATED.

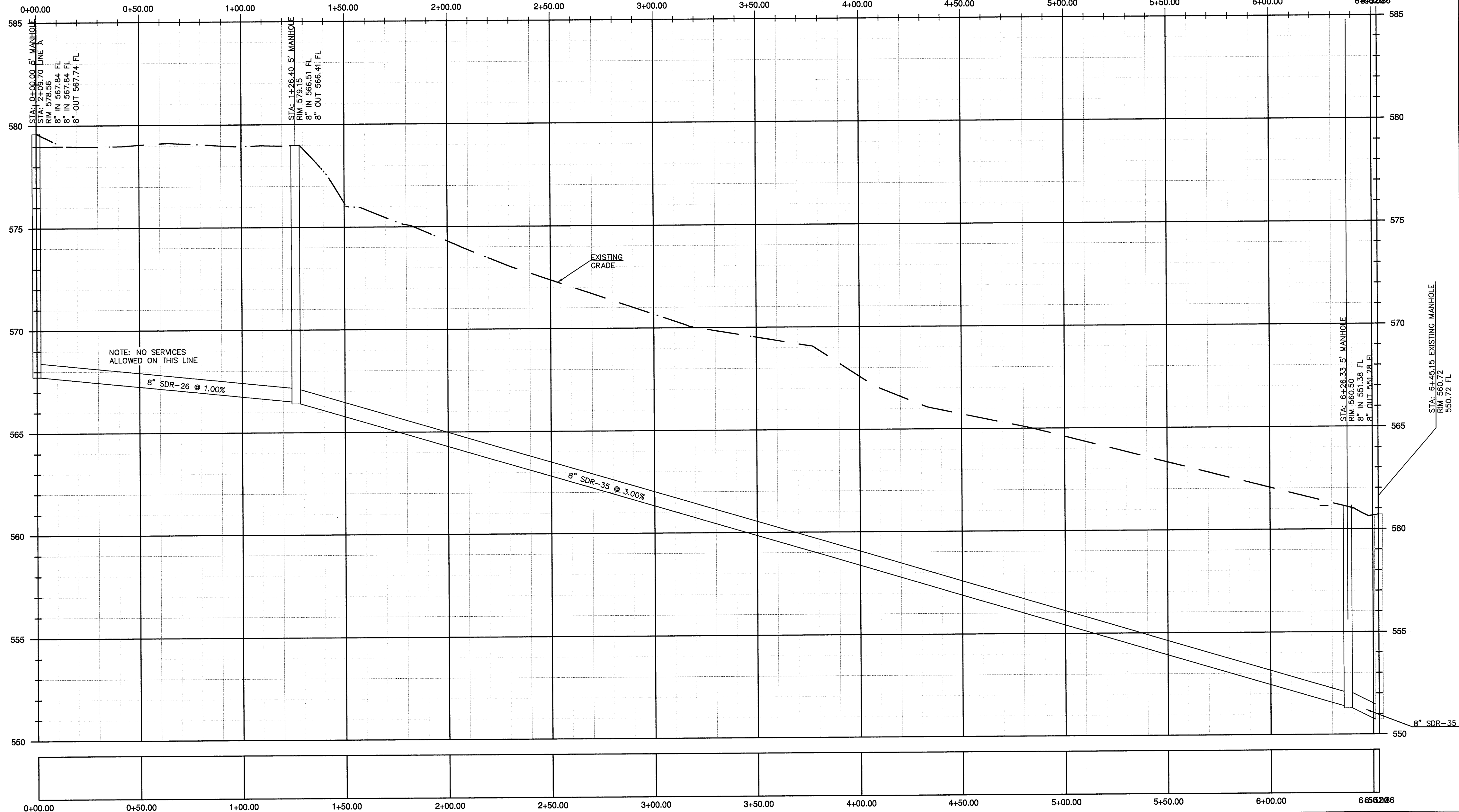
- 1N. M.J. TEE
- 2N. CAP AND PLUG
- 3N. CONNECT TO EXISTING MANHOLE
- 4N. CONNECT TO BUILDING PER MEP PLANS
- 5N. MAINTAIN 24" VERTICAL SEPARATION
- 6N. MAINTAIN 10" HORIZONTAL SEPARATION
- 7N. GATE VALVE
- 8N. CONNECT TO EXISTING 2" WATER LINE WITH TAPPING SLEEVE PER CITY OF ROCKWALL
- 9N. CONNECT TO EXISTING ELECTRICAL SERVICE PER ONCOR
- 10N. 1" WATER METER PER CITY OF ROCKWALL
- 11N. ELECTRIC METER PER ONCOR
- 12N. CONNECT TO EXISTING TELEPHONE SERVICE PER VERIZON
- 13N. GREASE TRAP PER MECHANICAL PLANS
- 14N. BACKFLOW PREVENTER PER IRRIGATION PLAN, SEE SHEET C6.0
- 15N. 45° BEND SEE PLAN FOR FLOW
- 16N. DIRECTIONAL BORE PER THE CITY OF ROCKWALL
- 17N. CONCRETE ENCASE WATER PIPE TO 10 FEET ON BOTH SIDES OF STORM SEWER CROSSING.

- 1D. CLEANOUT PER NCTCOG 3RD EDITION AND ROCKWALL STANDARDS
- 2D. 5' SANITARY SEWER MANHOLE PER NCTCOG 3RD EDITION AND ROCKWALL STANDARDS
- 3D. FIRE HYDRANT

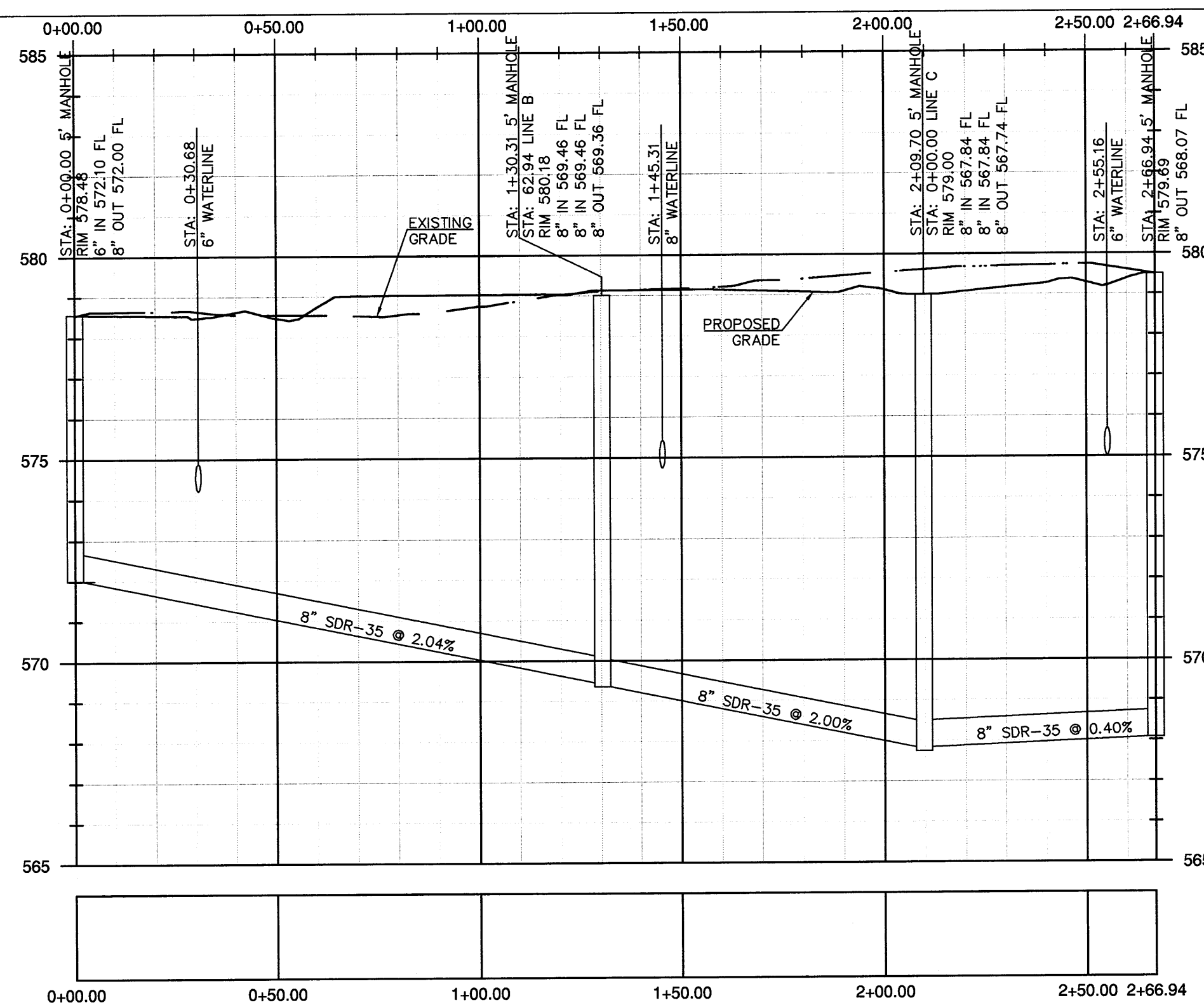
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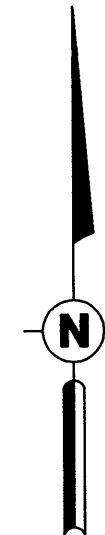
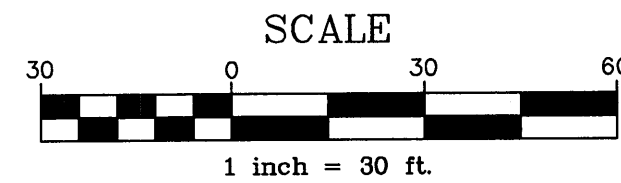
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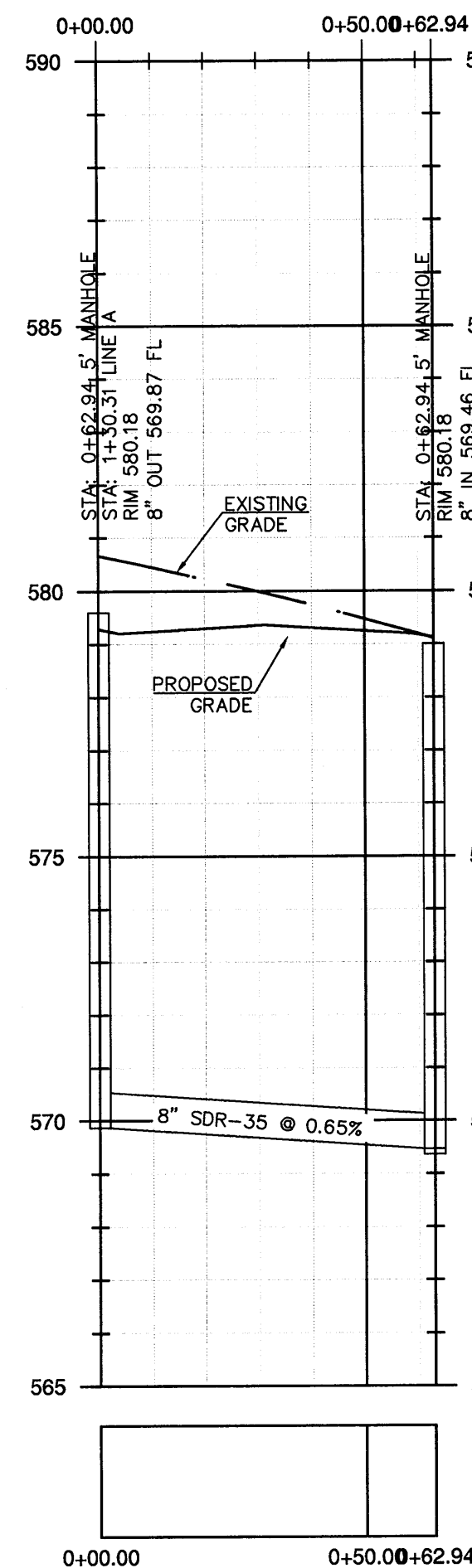
8 IN SANITARY SEWER C WEST  
Horizontal Scale - 1"=30'  
Vertical Scale - 1"=3'



8 IN SANITARY SEWER A NORTH  
Horizontal Scale - 1"=30'  
Vertical Scale - 1"=3'



TXDOT STANDARDS, SPECIFICATIONS, AND GUIDELINES  
MUST BE UTILIZED WITHIN TXDOT RIGHT OF WAY.



8 IN SANITARY SEWER B EAST  
Horizontal Scale - 1"=30'  
Vertical Scale - 1"=3'

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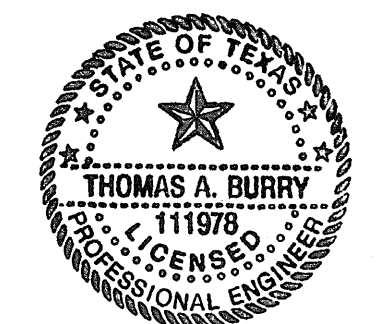
**7-ELEVEN**

JOHN KING BLVD & HWY 276  
ROCKWALL, TEXAS

PROJ. NUMBER: 12-11-99009

ISSUE BLOCK			

STORE NO.: 1029049  
DOCUMENT DATE: 2/1/2013  
CHECKED BY: JWK  
DRAWN BY: TAB



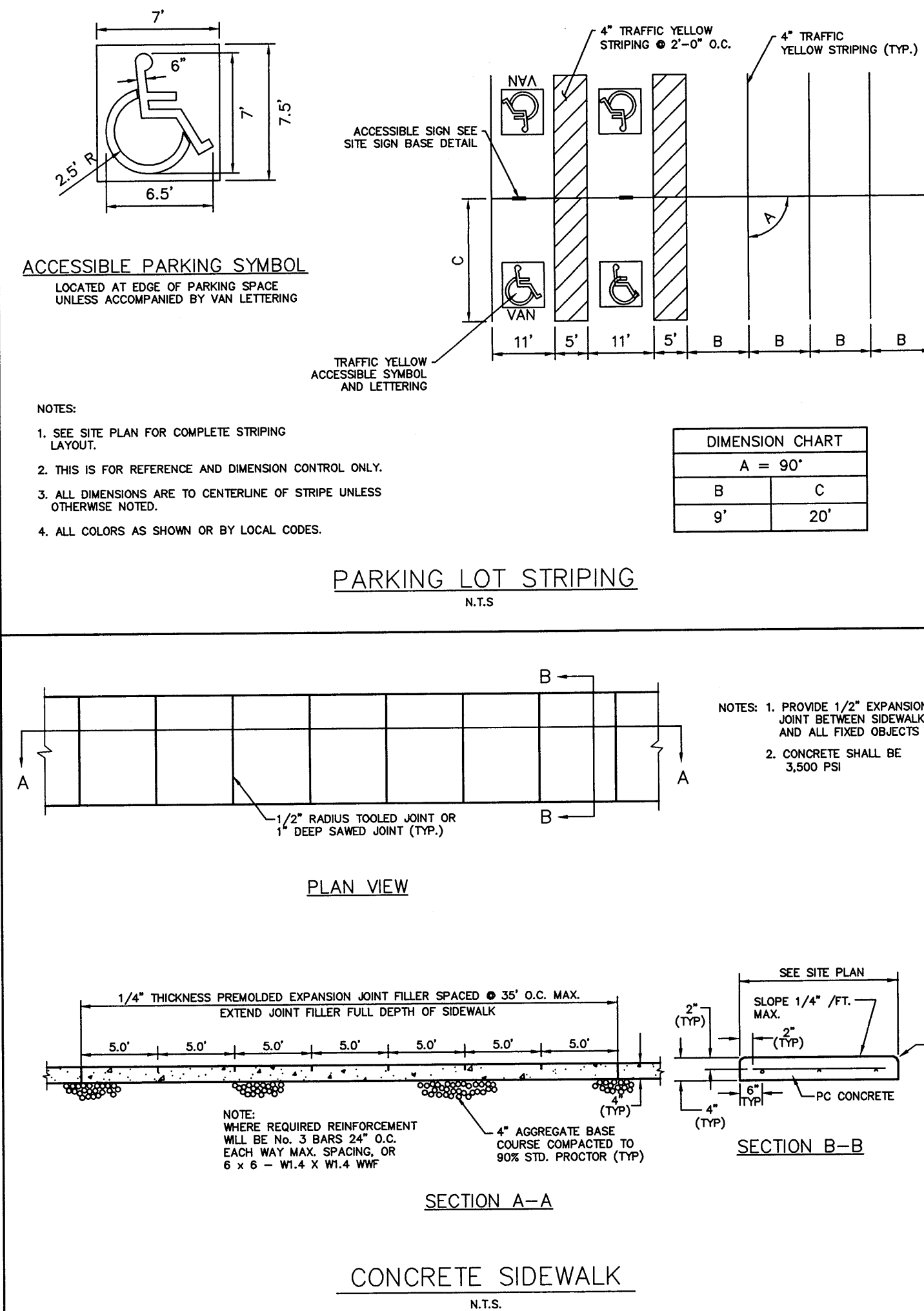
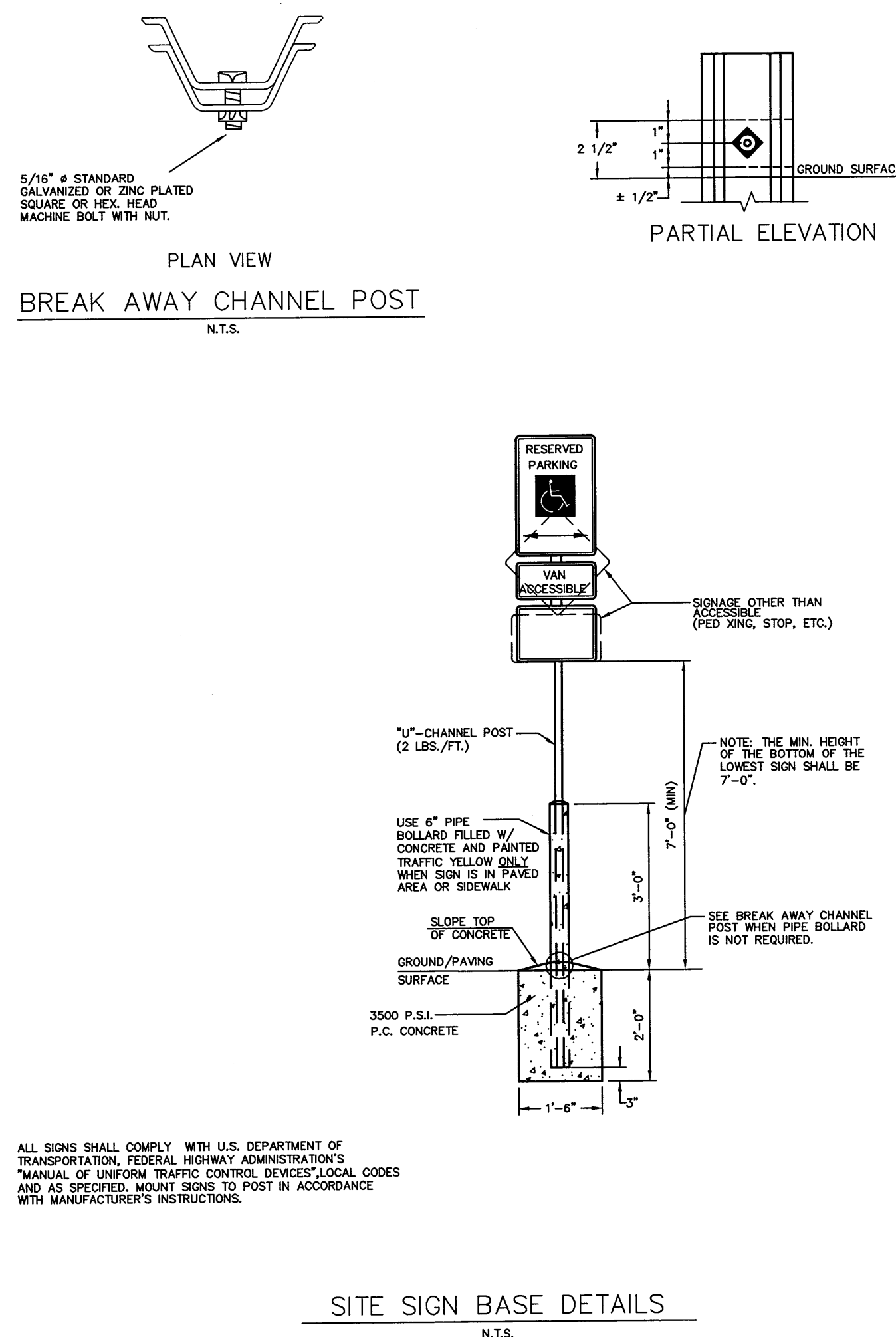
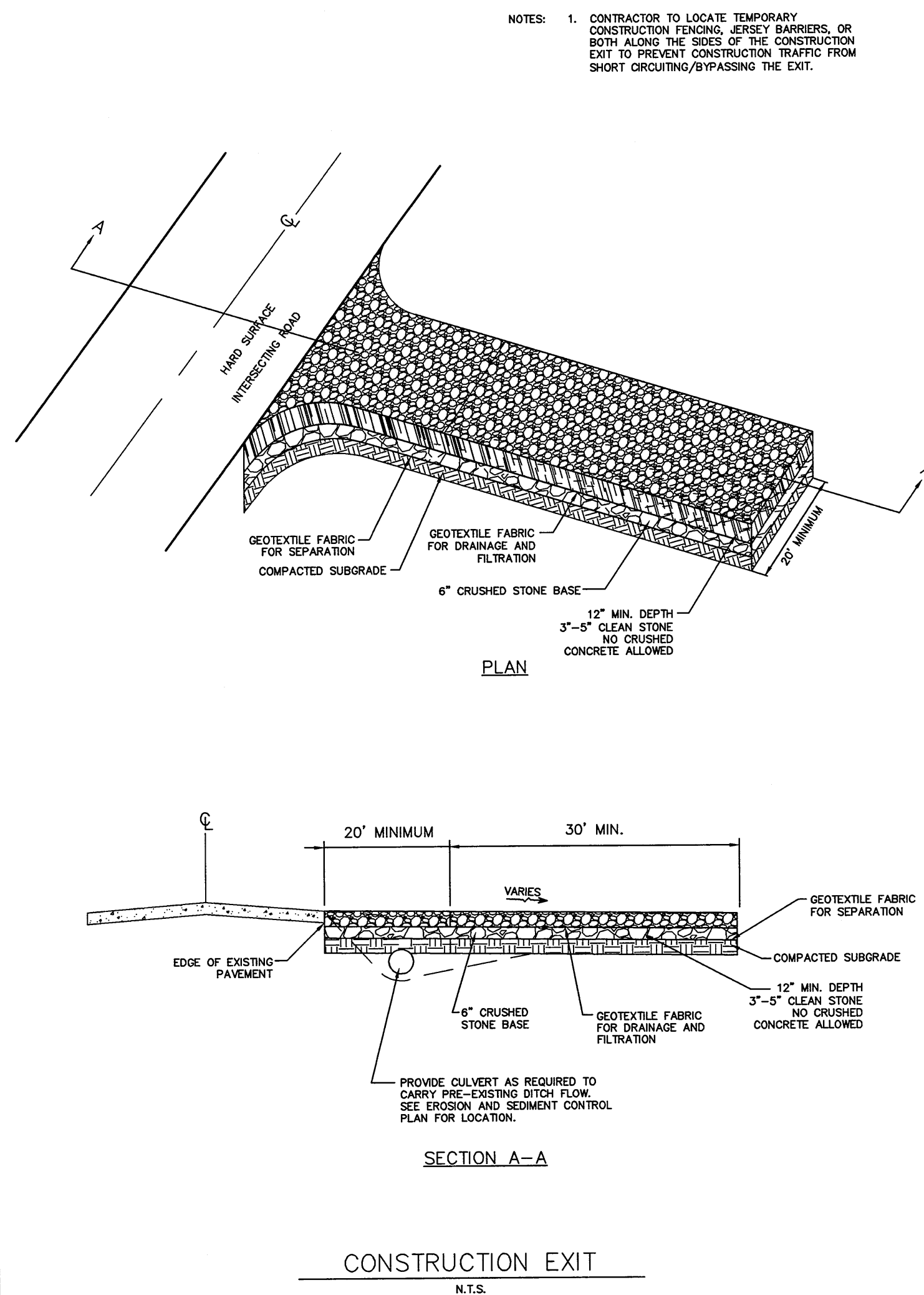
TEXAS COA  
#F-8576

SANITARY  
SEWER  
PROFILES

AS-BUILT

SHEET:  
**C4.1**






NON-WIRE BACKED SLICING METHOD FOR SILT FENCE INSTALLATION

# DYOS™

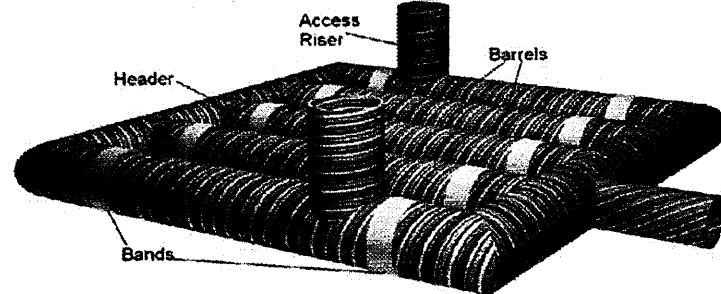
Design Your Own Detention System



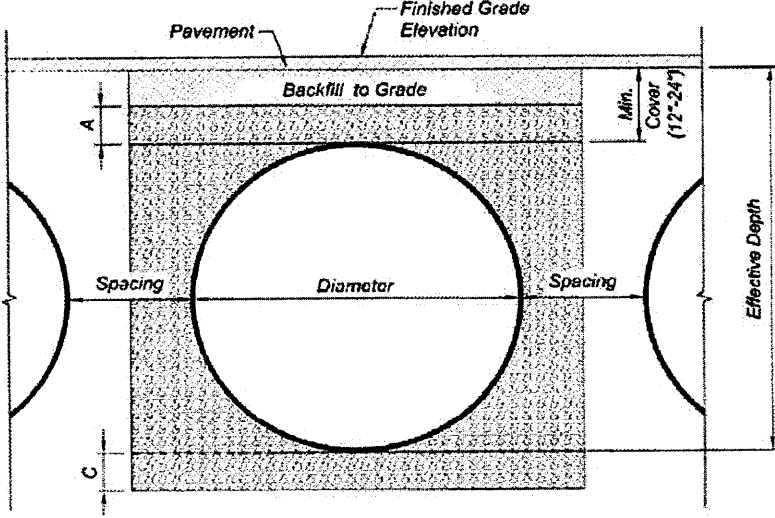
# CONTECH™

CMP DETENTION SYSTEMS

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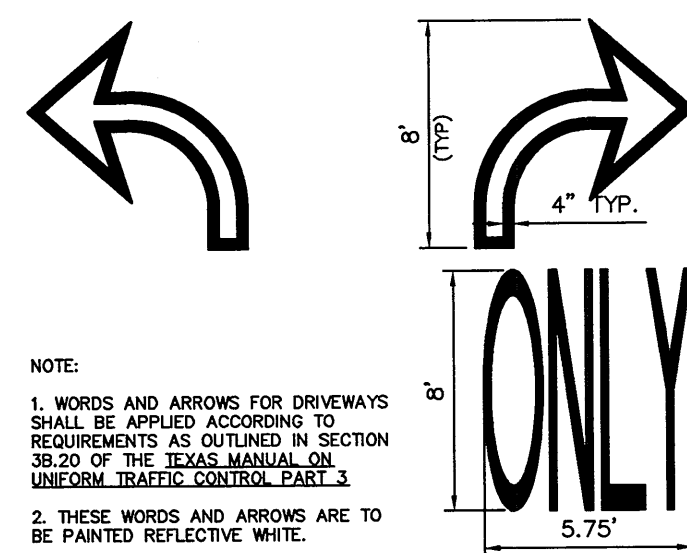
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Date:	8/16/2012		
Project Name:	7-Eleven		
City / County:	Rockwall / Rockwall		
State:	TX		
Designed By:	ITAB		
Company:			
Telephone:			
		Enter information in Blue Cells	
Constructed Metal Pipe Calculator			
Storage Volume Required (c):	9,073		
Limiting Width (ft):	47.00		
Insert Depth Below Asphalt (ft):	5.00		
Solid or Perforated Pipe:	Solid		
Shape Or Diameter (in):	36		
Number Of Headers:	2		
Spacing between Barrels (ft):	1.00		
Stone Width Around Perimeter of System (ft):	0		
Depth A: Porous Stone Above Pipe (in):	4		
Depth C: Porous Stone Below Pipe (in):	4		
Stone Porosity (0 to 40%):	40		
		7.07 ft <sup>2</sup> Pipe Area	
System Sizing			
Pipe Storage:	9,147 cf		
Porous Stone Storage:	0 cf		
Total Storage Provided:	9,147 cf	100.0% Of Required Storage	
Number of Barrels:	~2 barrels		
Length per Barrel:	100.0 ft		
Length Per Header:	47.0 ft		
Rectangular Footprint (W x L):	47. ft x 106. ft		
CONTECH Materials			
Total CMP Footage:	1,284 ft		
Approximate Total Pieces:	84 pcs		
Approximate Coupling Bands:	74 bands		
Approximate Truckloads:	7 trucks		
Construction Quantities**			
Total Excavation:	923 cy		
Porous Stone Backfill For Storage:	0 cy stone		
Backfill to Grade Excluding Stone:	584 cy fill		
**Construction quantities are approximate and should be verified upon final design			



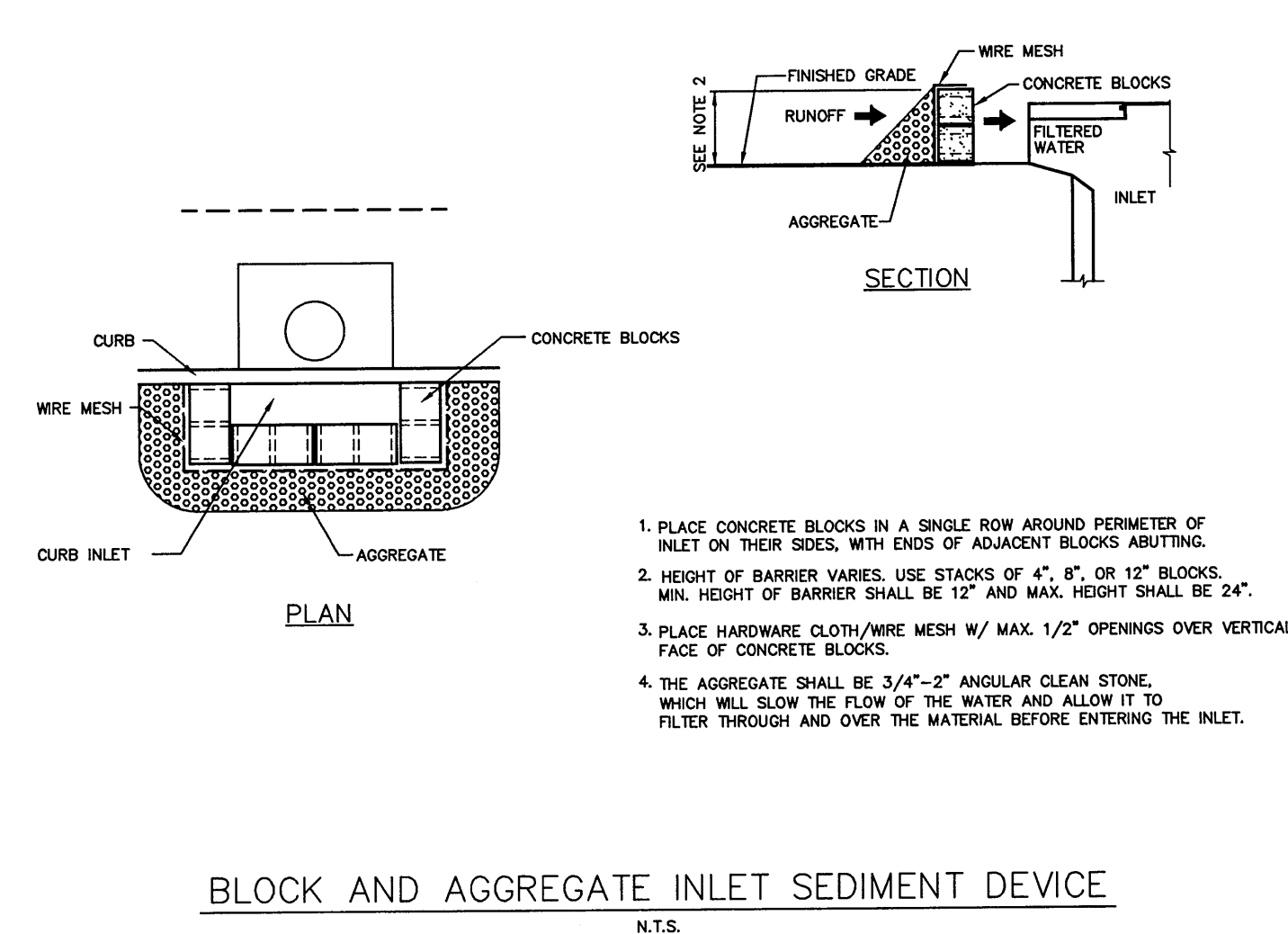
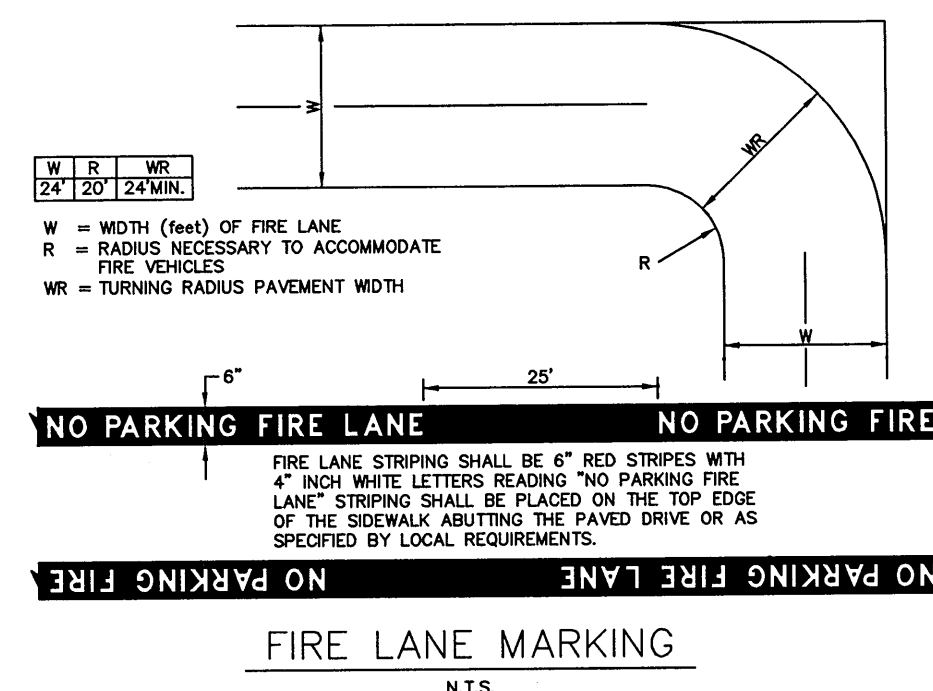
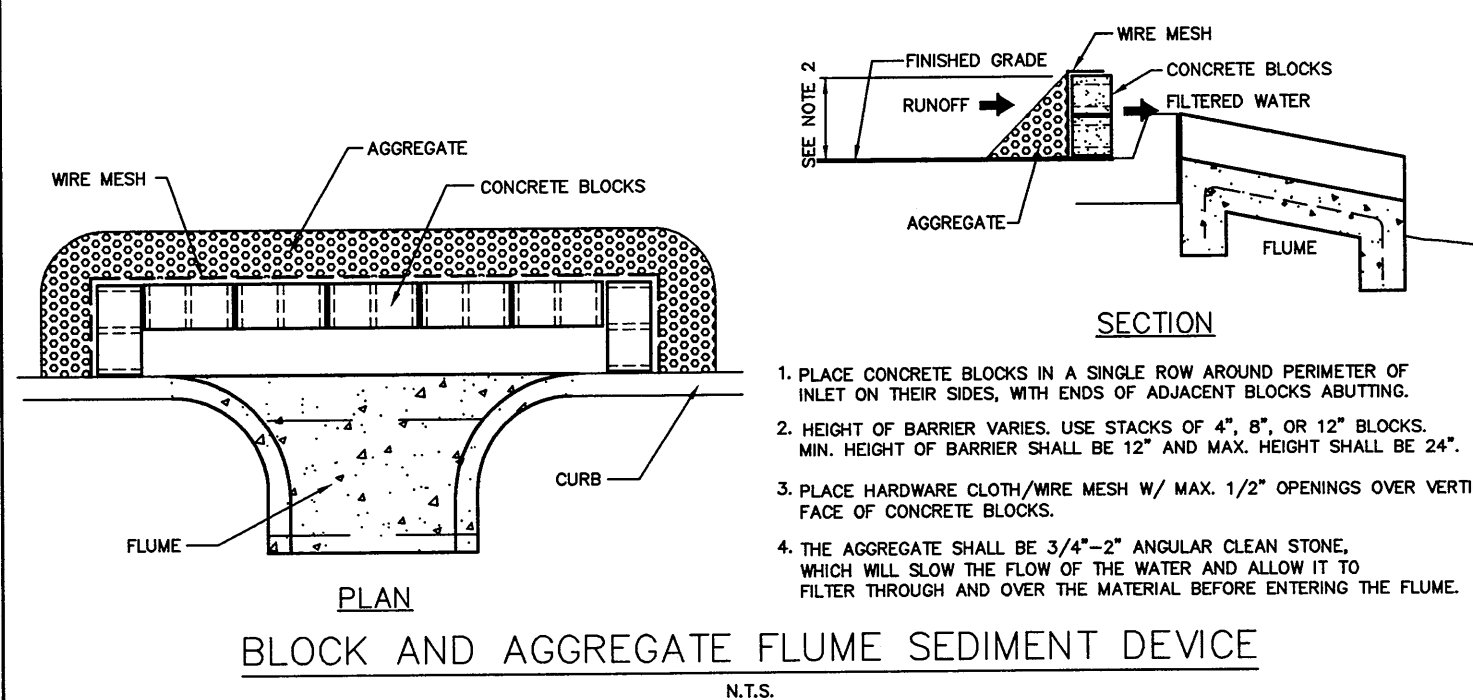
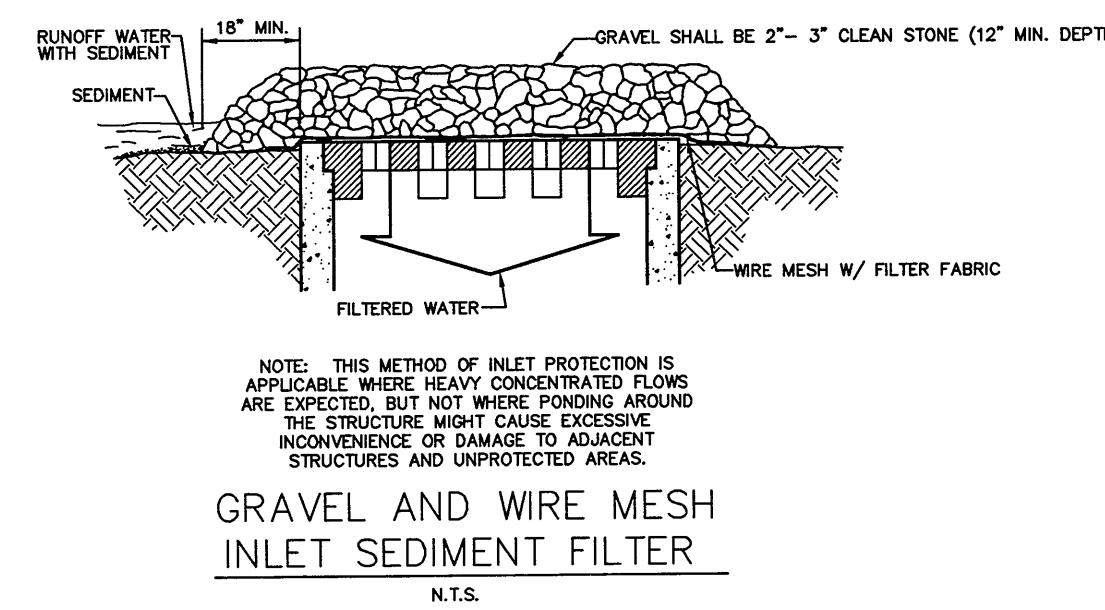
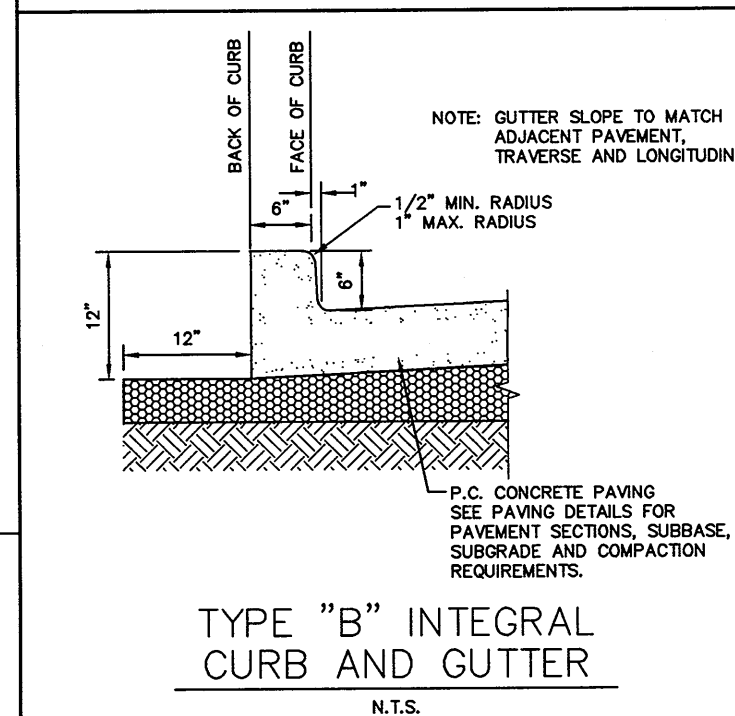
### System Layout

Barrel 12	<p><b>Number Of Barrels Exceed Graph Limitations</b></p>
Barrel 11	
Barrel 10	
Barrel 9	
Barrel 8	
Barrel 7	
Barrel 6	
Barrel 5	
Barrel 4	
Barrel 3	
Barrel 2	
Barrel 1	

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RIGHT/LEFT TURN ONLY  
PAVEMENT MARKINGS







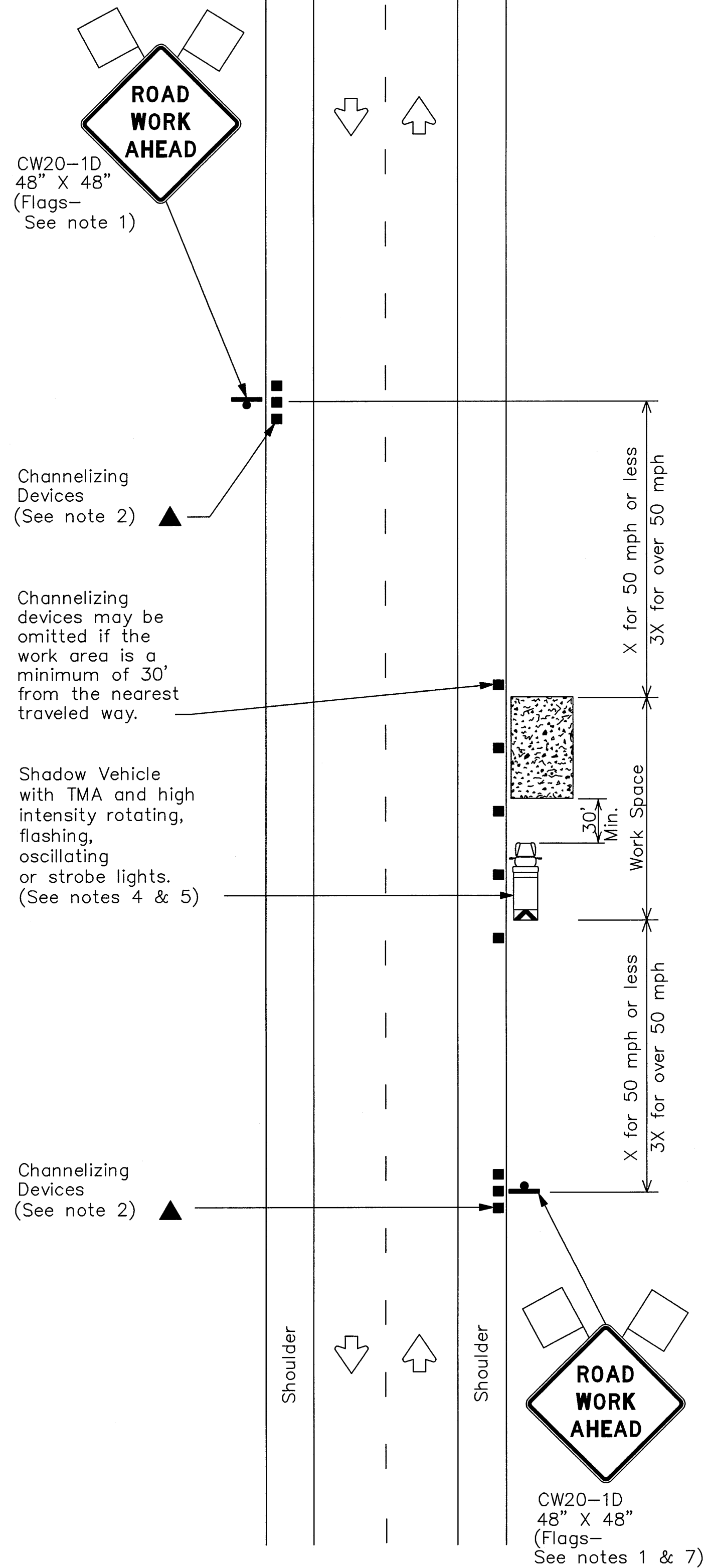






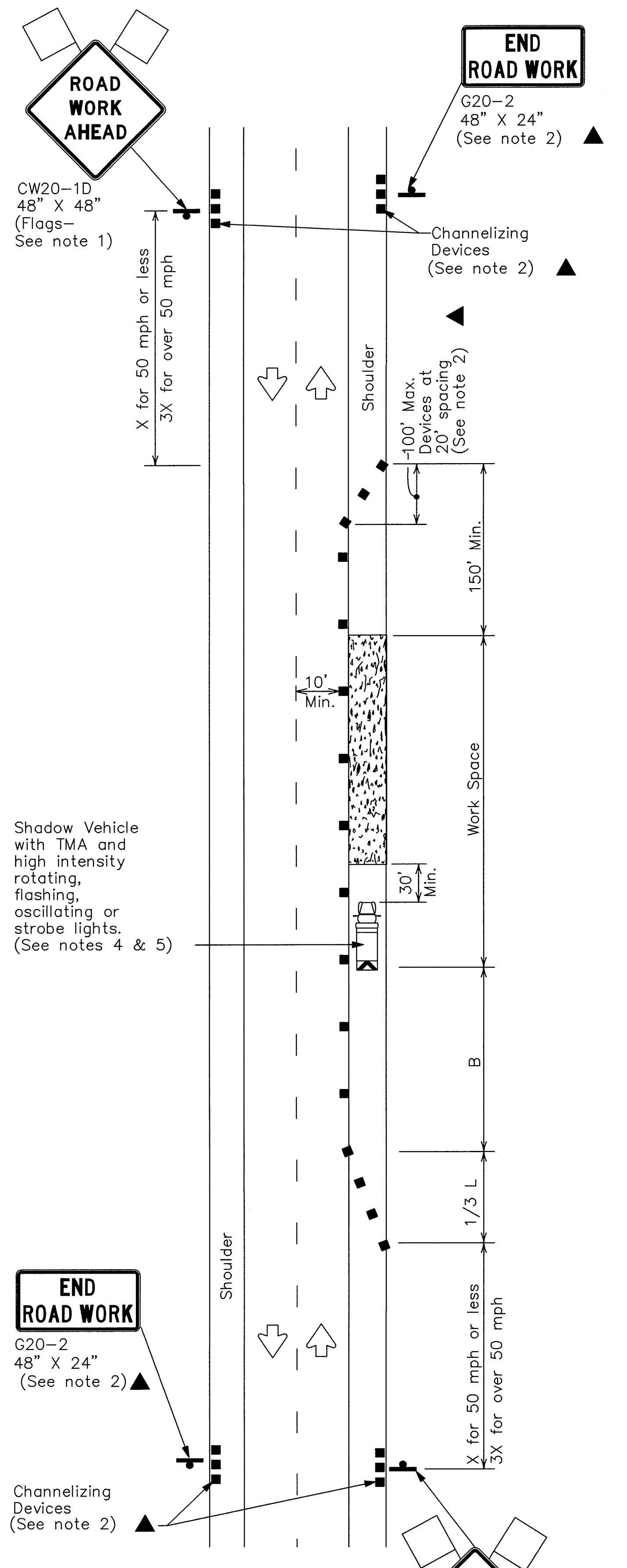
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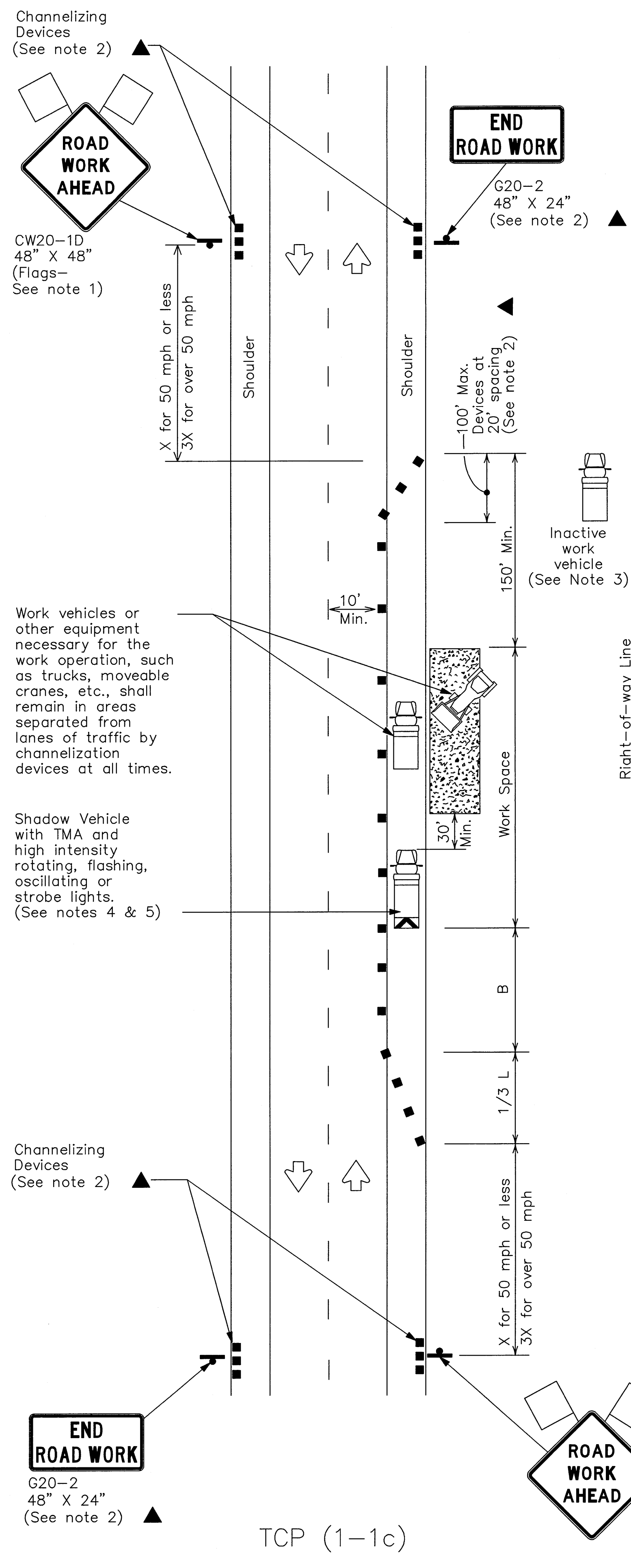
TCP (1-1a)

WORK SPACE NEAR SHOULDER  
Conventional Roads



TCP (1-1b)

WORK SPACE ON SHOULDER  
Conventional Roads



TCP (1-1c)

WORK VEHICLES ON SHOULDER  
Conventional Roads

LEGEND					
	Type 3 Barricade		Channelizing Devices		
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)		
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)		
	Sign		Traffic Flow		
	Flag		Flagger		

Posted Speed *	Formula	Minimum Desirable Taper Lengths * *			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45		450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55	L=WS	550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

\* Conventional Roads Only

\*\* Taper lengths have been rounded off.

L=Length of Taper(FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

#### GENERAL NOTES

- Flags attached to signs where shown are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
- Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
- CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

For construction or maintenance contract work, specific project requirements for shadow vehicles can be found in the project GENERAL NOTES for Item 502, Barricades, Signs and Traffic Handling.

Texas Department of Transportation  
Traffic Operations Division

## TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK

TCP(1-1)-12

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REVISIONS		CONT	SECT	JOB	HIGHWAY
2-94	2-12				
8-95					
1-97		DIST		COUNTY	SHEET NO.
4-98					

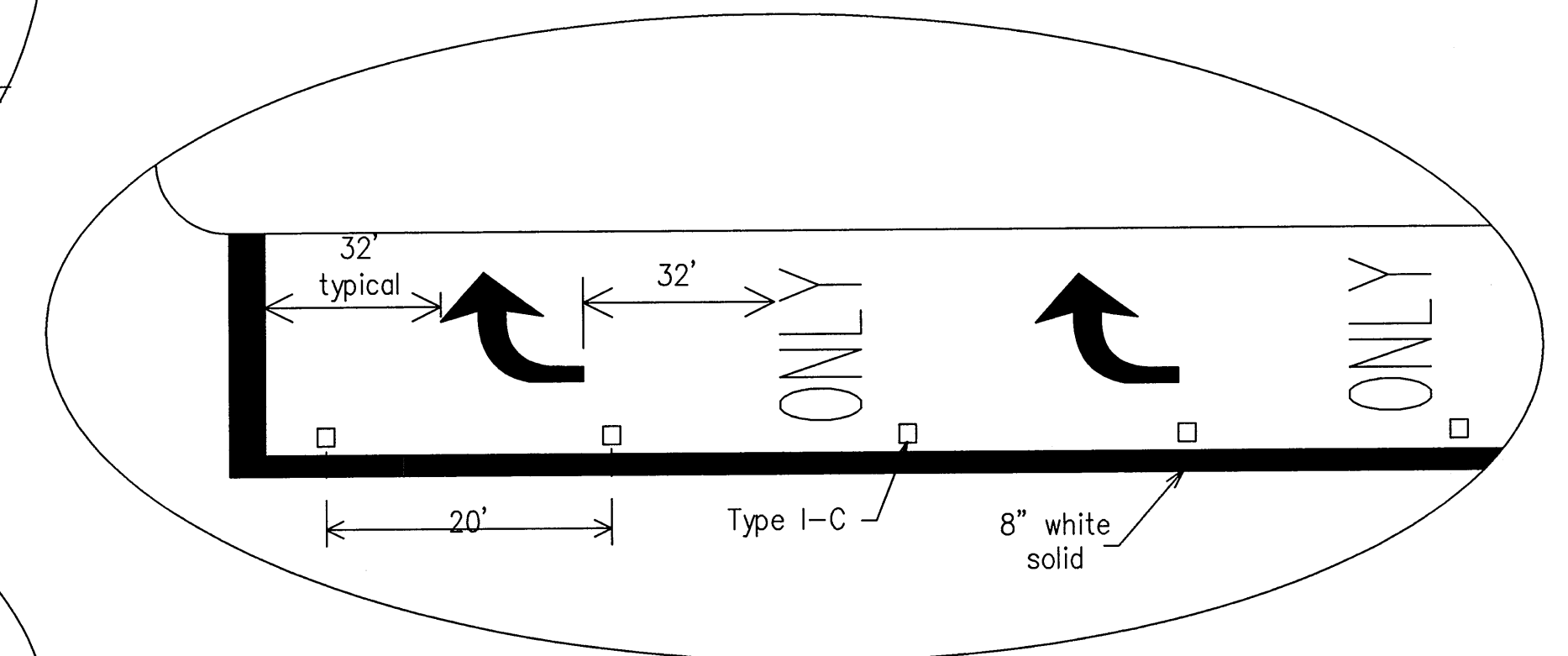
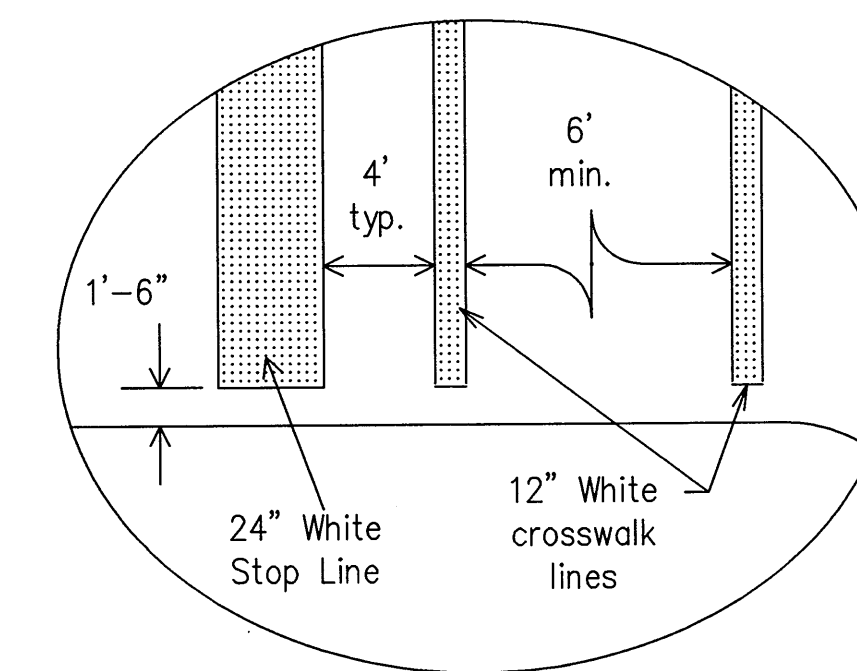
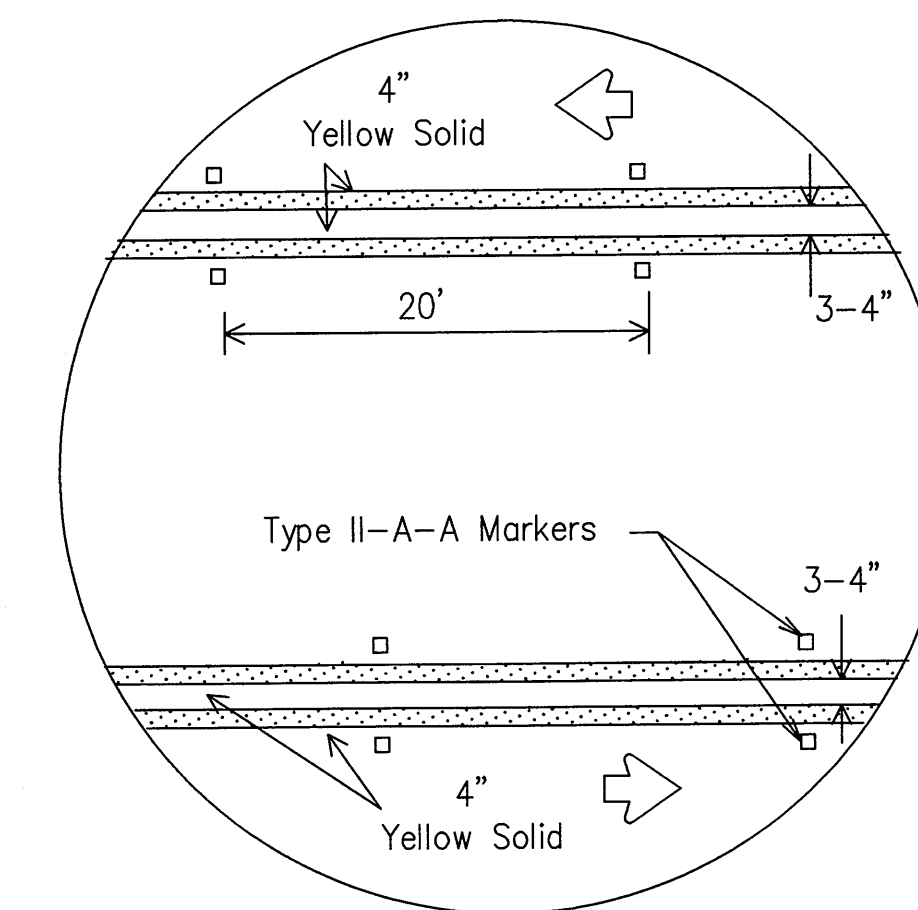
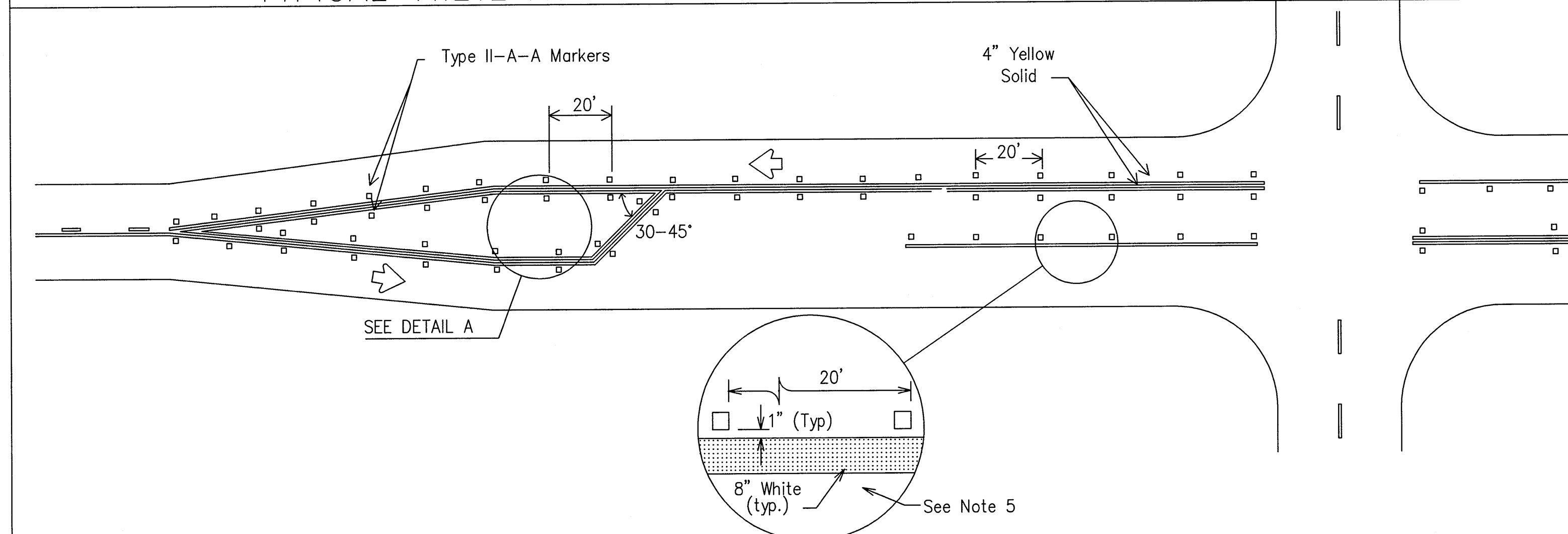
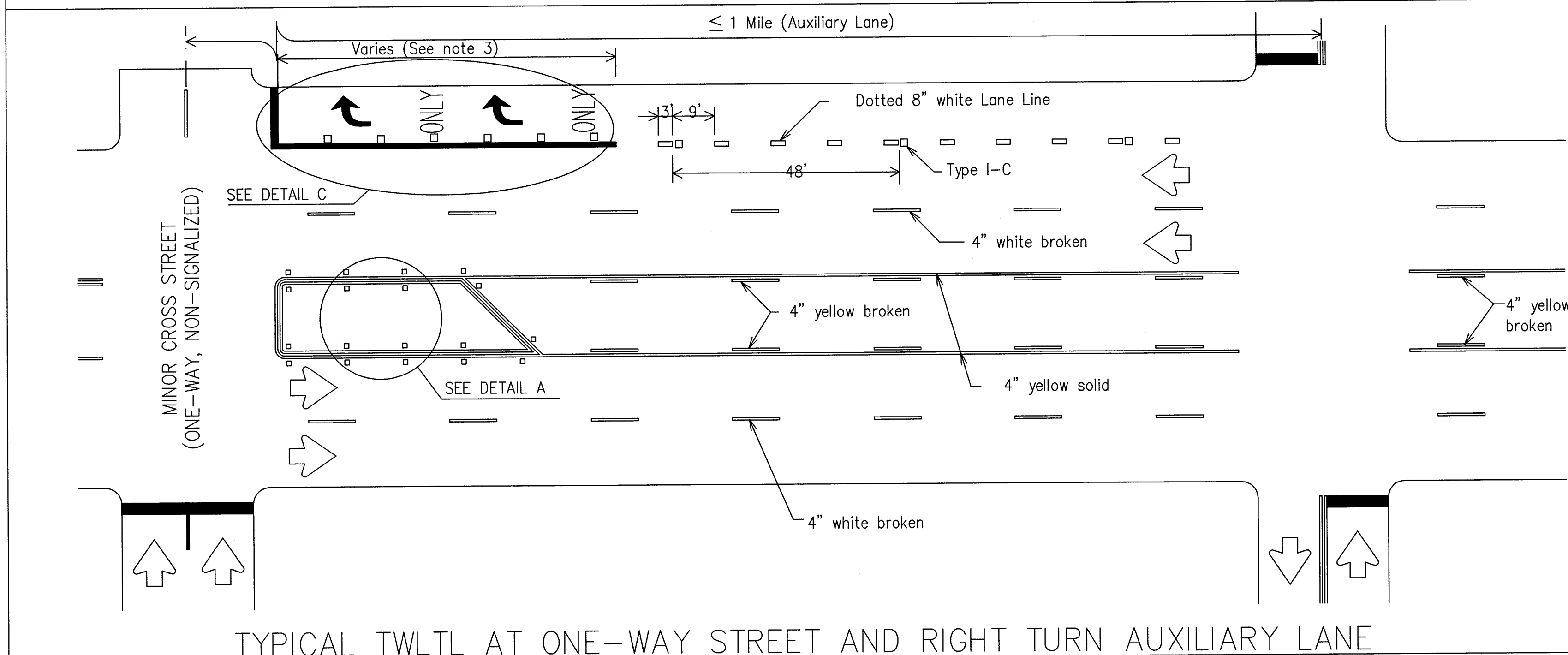
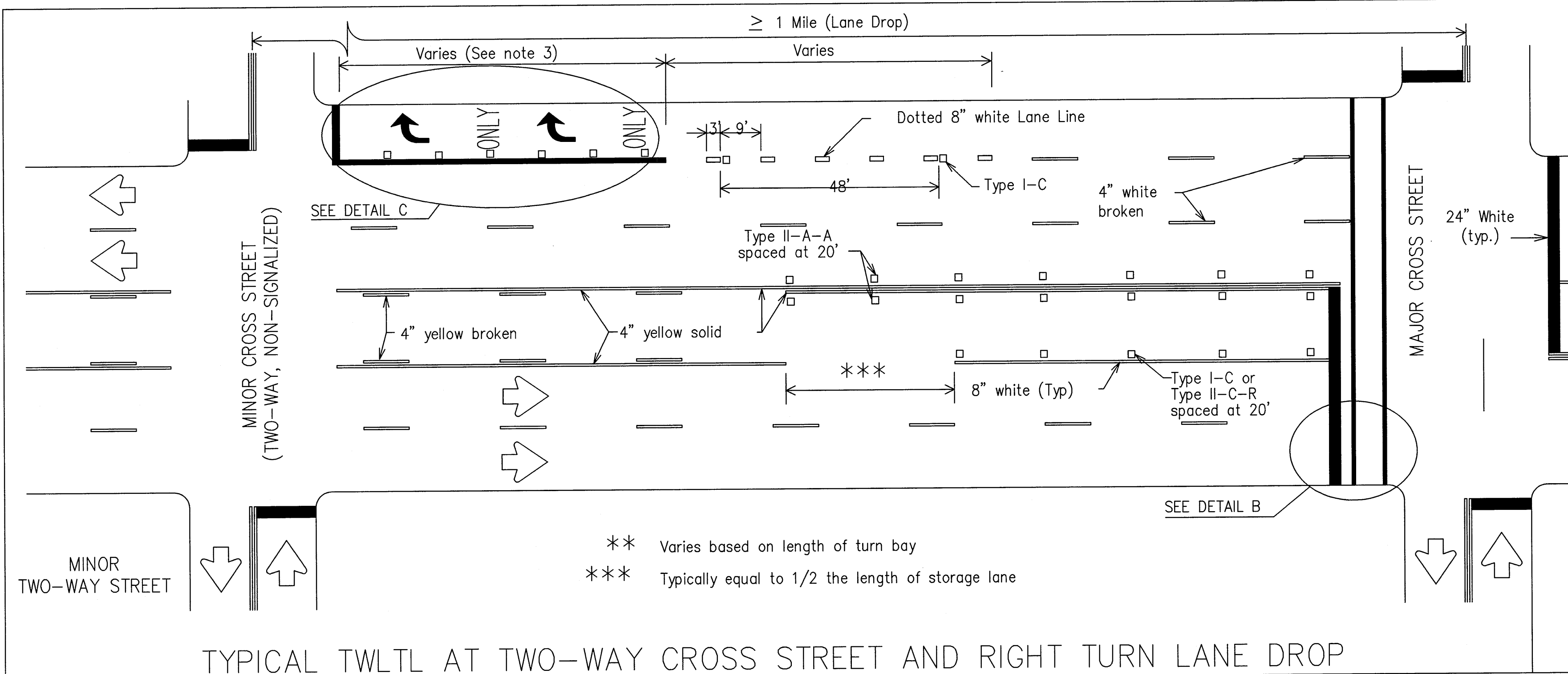


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1-97 REVISIONS 9-08		CONT		SECT		JOB		HIGHWAY	
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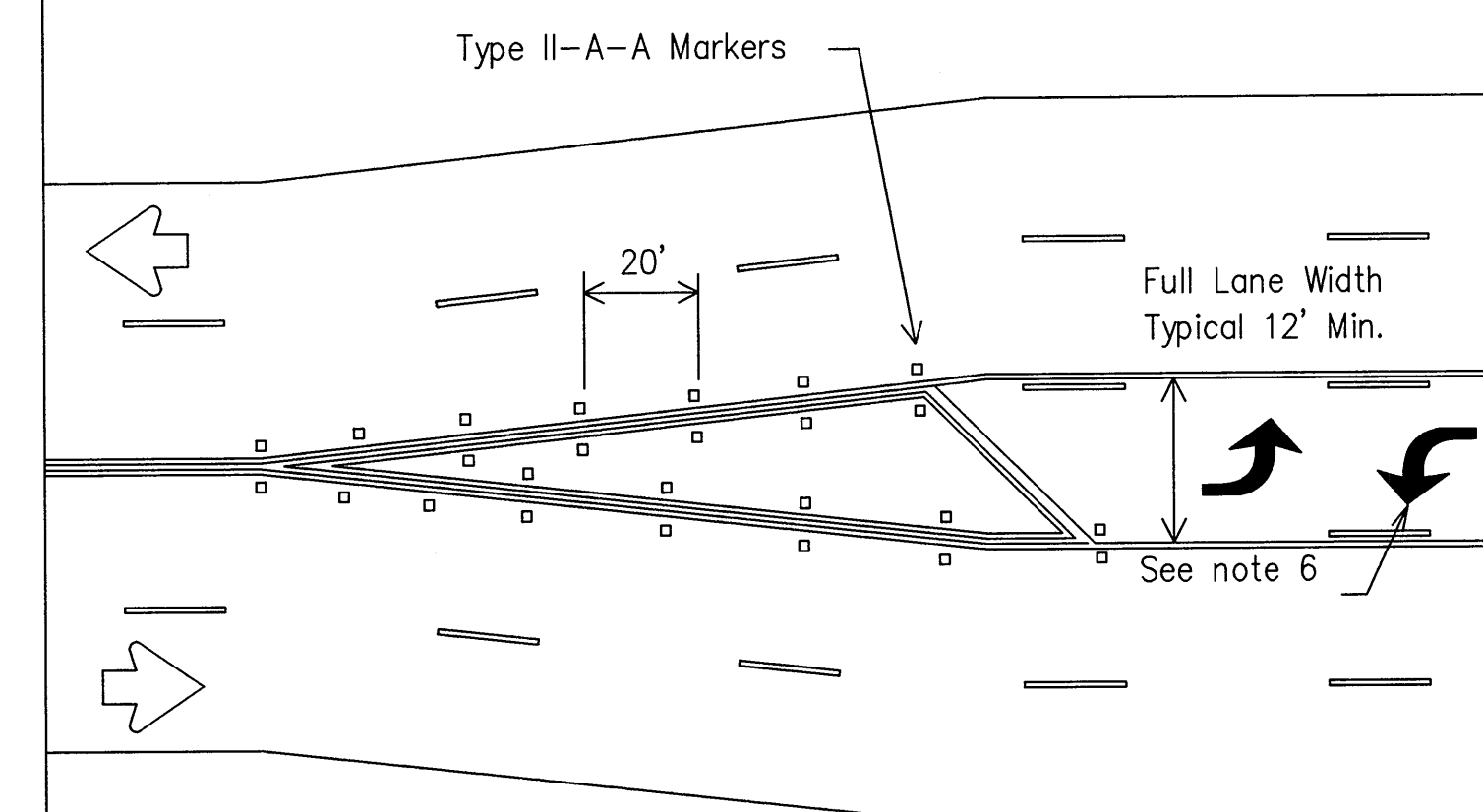
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Final placement of Stop Bar and Crosswalk shall be approved by the Engineer in the field.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-420
EPOXY AND ADHESIVES	DMS-610
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-613
TRAFFIC PAINT	DMS-820
HOT APPLIED THERMOPLASTIC	DMS-822
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-824

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



## GENERAL NOTES

1. Refer elsewhere in plans for additional RPM placement and details.
2. Lane use word and arrow markings shall be used where through lanes approaching an intersection become mandatory turn lanes. Lane use word and arrow markings should be used in auxiliary lanes of substantial length. Lane use arrow markings or word and arrow markings may be used in other lanes and turn bays for emphasis. Details for words and arrows as shown in the Standard Highway Sign Designs for Texas. 3. When lane used word and arrow markings are used, two sets of arrows should be used if the length of the bay is greater than 180 feet. When a single lane use arrow or word and arrow marking is used for a short turn lane, it should be located at or near the upstream end of the full-width turn lane.
4. Other crosswalk patterns as shown in the "Texas Manual on Uniform Traffic Control Devices" may be used.
5. Raised pavement marker Type I-C with undivided highways, flush medians and two way left turn lanes. Raised pavement marker Type II-C-R with divided highways and raised medians. 6. A two-way left-turn (TWLT) lane-use arrow pavement marking should be used at or just downstream from the beginning of a two-way left-turn lane within a corridor. Repeating the marking after each intersection or dedicated turn bay is not required unless stated elsewhere in the plans.



PAVEMENT MARKINGS FOR  
TWO-WAY LEFT TURN LANES  
DIVIDED HIGHWAYS AND  
RURAL LEFT TURN BAYS  
PM(3)-12

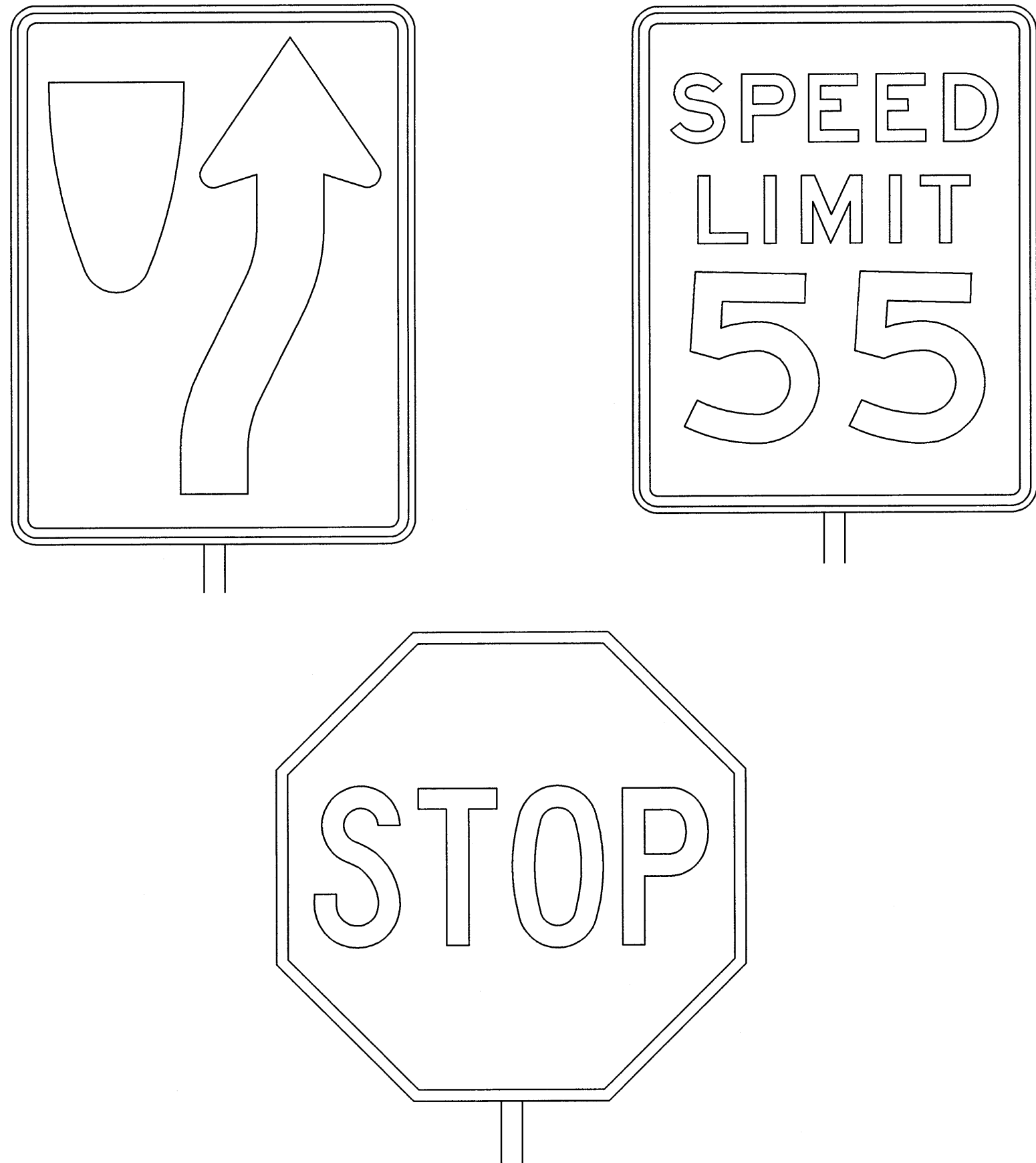
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8-00						
3-03		DIST	COUNTY			SHEET NO.
2-10						



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## REQUIREMENTS FOR REGULATORY SIGNS

### TYPICAL EXAMPLES



#### DEPARTMENTAL MATERIAL SPECIFICATIONS

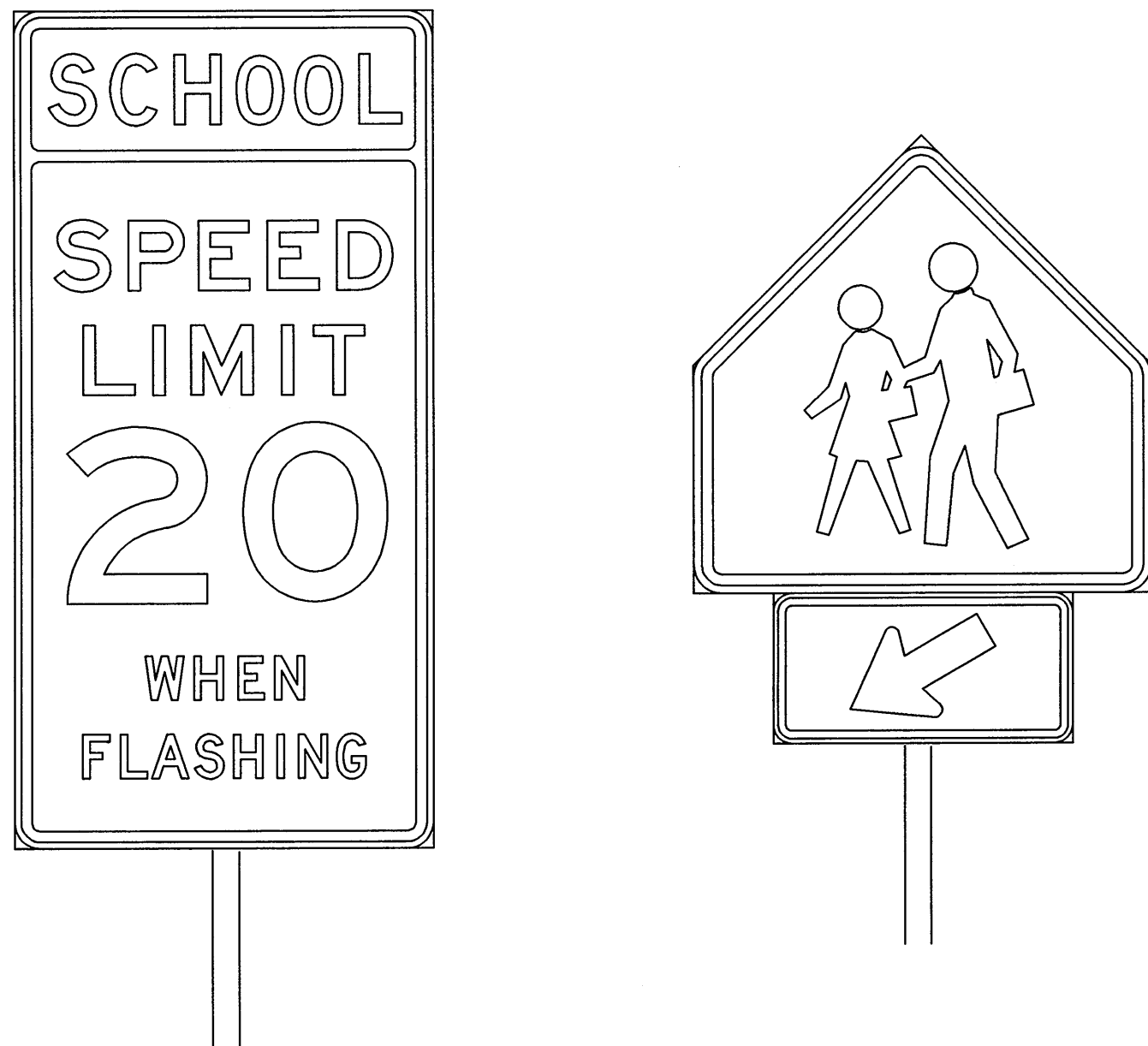
ALUMINUM SIGN BLANKS		DMS-7110
Square Ft.	Min. Thickness	
Less than 7.5	0.080	
7.5 to 15	0.100	
Greater than 15	0.125	
SIGN FACE MATERIALS		DMS-8300
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	ALL	TYPE C SHEETING
LEGEND & BORDERS	WHITE	TYPE C SHEETING
LEGEND & BORDERS	BLACK	ACRYLIC NON-REFLECTIVE FILM

#### GENERAL NOTES:

- Signs to be furnished shall be as detailed elsewhere in the plans and/or as shown on sign tabulation sheet. Standard sign designs and arrow dimensions can be found in the "Standard Highway Sign Designs for Texas" (SHSD).
- Regulatory sign legend shall use the Federal Highway Administration (FHWA) Standard Highway Alphabets (B, C, D, E, Emod or F).
- Lateral spacing between letters and numerals shall conform with the SHSD, and any approved changes thereto. Lateral spacing of legend shall provide a balanced appearance when spacing is not shown.
- Black legend and borders shall be applied by screening process or cut-out acrylic non-reflective black film to white background sheeting, or combination thereof.
- White legend and borders shall be applied by screening process with transparent colored ink, transparent colored overlay film to white background sheeting or cut-out white sheeting to colored background sheeting, or combination thereof.
- Colored legend shall be applied by screening process with transparent colored ink, transparent colored overlay film or colored sheeting to background sheeting, or combination thereof.
- Sign substrate shall be any material that meets the Departmental Material Specification requirements of DMS-7110.
- Mounting details for roadside mounted signs are shown in the "SMD series" Standard Plan Sheets.

## REQUIREMENTS FOR SCHOOL SIGNS

### TYPICAL EXAMPLES



#### DEPARTMENTAL MATERIAL SPECIFICATIONS

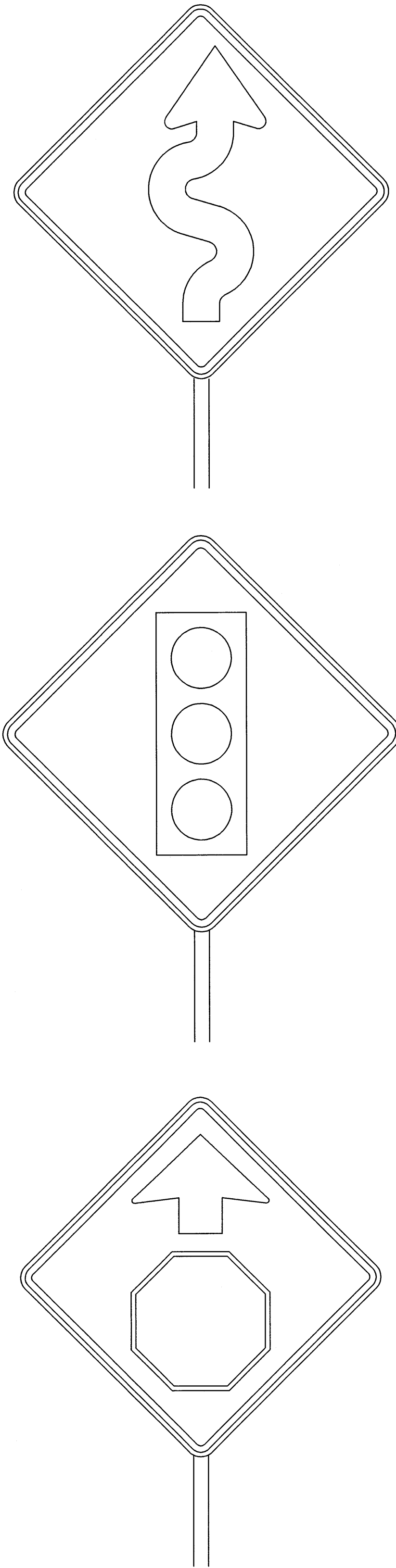
ALUMINUM SIGN BLANKS		DMS-7110
Square Ft.	Min. Thickness	
Less than 7.5	0.080	
7.5 to 15	0.100	
Greater than 15	0.125	
SIGN FACE MATERIALS		DMS-8300
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	WHITE	TYPE C SHEETING
BACKGROUND	FLOR.YEL.GRN.	TYPE E SHEETING
LEGEND & BORDERS	BLACK	ACRYLIC NON-REFLECTIVE FILM

#### GENERAL NOTES:

- Signs to be furnished shall be as detailed elsewhere in the plans and/or as shown on sign tabulation sheet. Standard sign designs and arrow dimensions can be found in the "Standard Highway Sign Designs for Texas" (SHSD).
- School sign legend shall use the Federal Highway Administration (FHWA) Standard Highway Alphabets (B, C, D, E, Emod or F).
- Lateral spacing between letters and numerals shall conform with the SHSD, and any approved changes thereto. Lateral spacing of legend shall provide a balanced appearance when spacing is not shown.
- Black legend and borders shall be applied by screening process or cut-out acrylic non-reflective black film to background sheeting, or combination thereof.
- Sign substrate shall be any material that meets the Departmental Material Specification requirements of DMS-7110.
- Mounting details for roadside mounted signs are shown in the "SMD series" Standard Plan Sheets.

## REQUIREMENTS FOR WARNING SIGNS

### TYPICAL EXAMPLES



#### DEPARTMENTAL MATERIAL SPECIFICATIONS

ALUMINUM SIGN BLANKS		DMS-7110
Square Ft.	Min. Thickness	
Less than 7.5	0.080	
7.5 to 15	0.100	
Greater than 15	0.125	
SIGN FACE MATERIALS		DMS-8300
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	YELLOW	TYPE E SHEETING
LEGEND & BORDERS	BLACK	ACRYLIC NON-REFLECTIVE FILM
LEGEND & SYMBOLS	ALL OTHER	TYPE D SHEETING

#### GENERAL NOTES:

- Signs to be furnished shall be as detailed elsewhere in the plans and/or as shown on sign tabulation sheet. Standard sign designs and arrow dimensions can be found in the "Standard Highway Sign Designs for Texas" (SHSD).
- Warning sign legend shall use the Federal Highway Administration (FHWA) Standard Highway Alphabets (B, C, D, E, Emod, or F).
- Lateral spacing between letters and numerals shall conform with the SHSD, and any approved changes thereto. Lateral spacing of legend shall provide a balanced appearance when spacing is not shown.
- Black legend and borders shall be applied by screening process or cut-out acrylic non-reflective black film to yellow background sheeting, or combination thereof.
- Colored legend and symbols shall be applied by screening process with transparent colored ink, transparent colored overlay film, or colored sheeting to white sheeting, or combination thereof. The colored legend or symbol is then applied to the yellow background sheeting.
- Sign substrate shall be any material that meets the Departmental Material Specification requirements of DMS-7110.
- Mounting details for roadside mounted signs are shown in the "SMD series" Standard Plan Sheets.

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website.

<http://www.txdot.gov/publications/traffic.htm>



Texas Department of Transportation  
Traffic Operations Division

### TYPICAL SIGN REQUIREMENTS

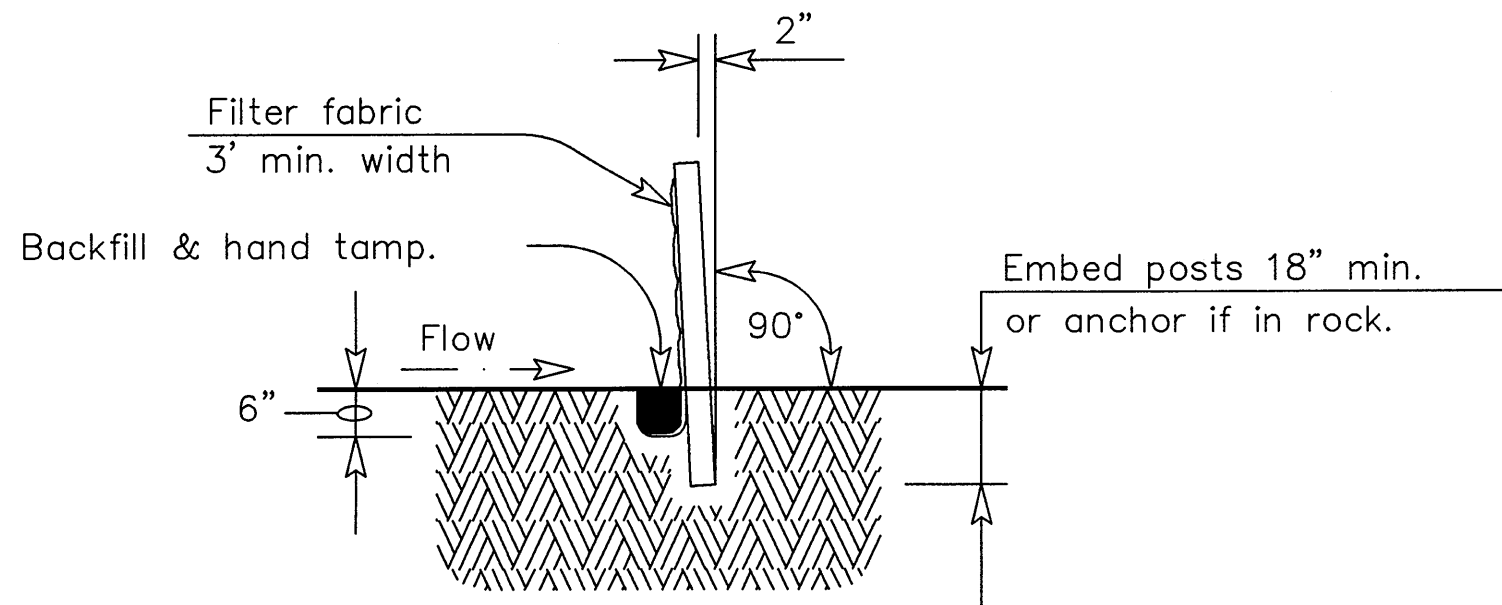
TSR(4)-08

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REVISIONS		CONT	SECT	JOB	HIGHWAY
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9-08					
		DIST	COUNTY		SHEET NO.



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SECTION A-A

GENERAL NOTES

1. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

PLAN SHEET LEGEND

Sediment Control Fence

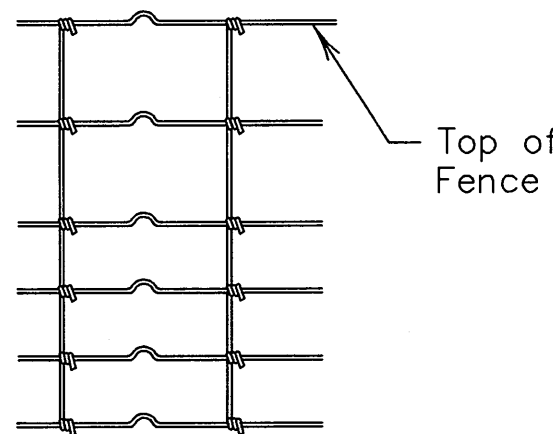
SCF

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

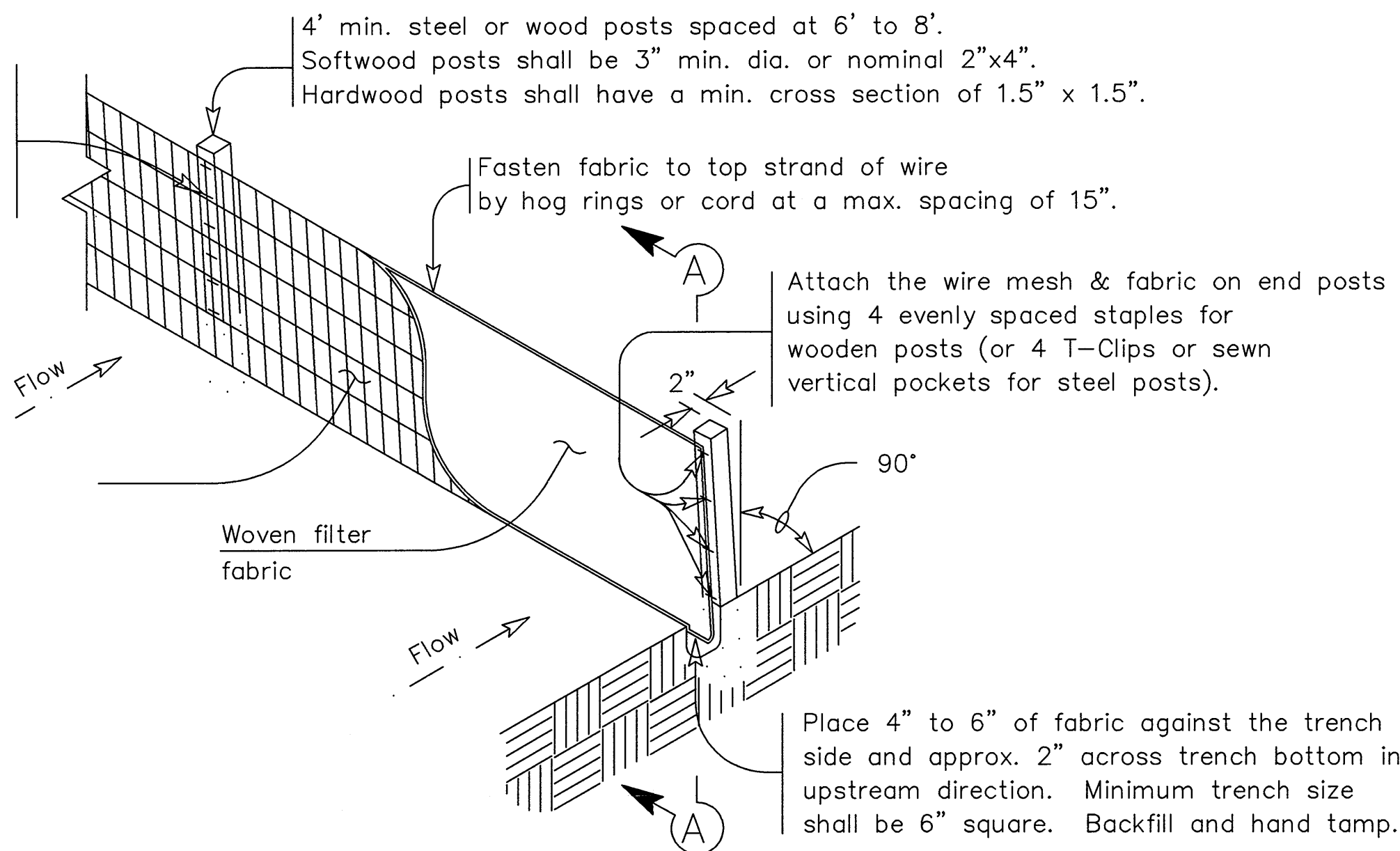
Sediment control fence should be sized to filter a max. flow through rate of 100 GPM/FT. Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

Galv. Hinge joint knot woven mesh (12.5 Ga. Min.) requires a minimum of five horizontal wires spaced at a max. 12 inches apart and all vertical wires spaced at a max. 12 inches apart.



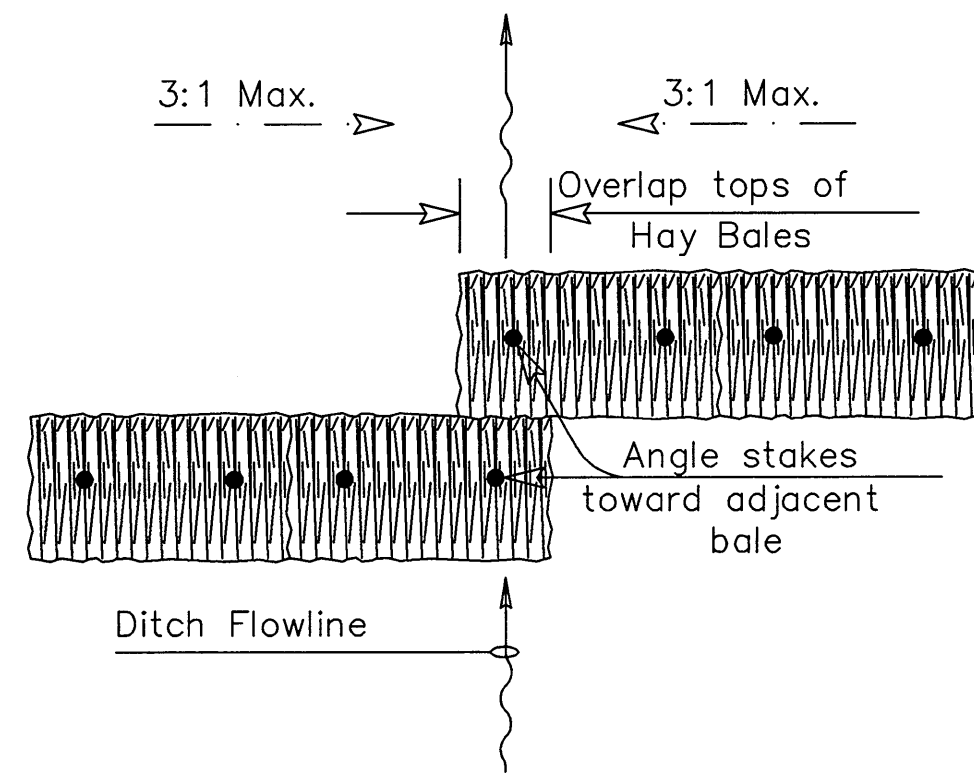
Hinge Joint Knot Woven Mesh (Option)

Connect the ends of successive reinforcement sheets or rolls a min. of 6 times with hog rings.

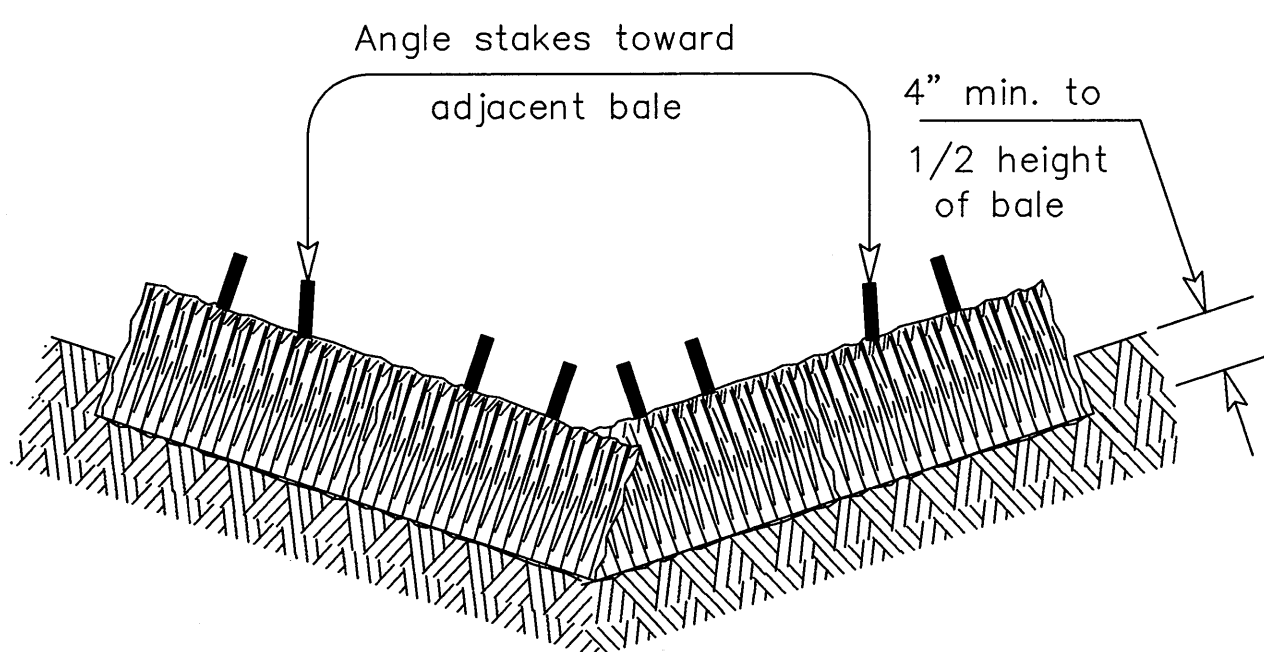


TEMPORARY SEDIMENT CONTROL FENCE

SCF



PLAN VIEW



PROFILE VIEW

PLANS SHEET LEGEND

Baled Hay

BH

BALED HAY USAGE GUIDELINES

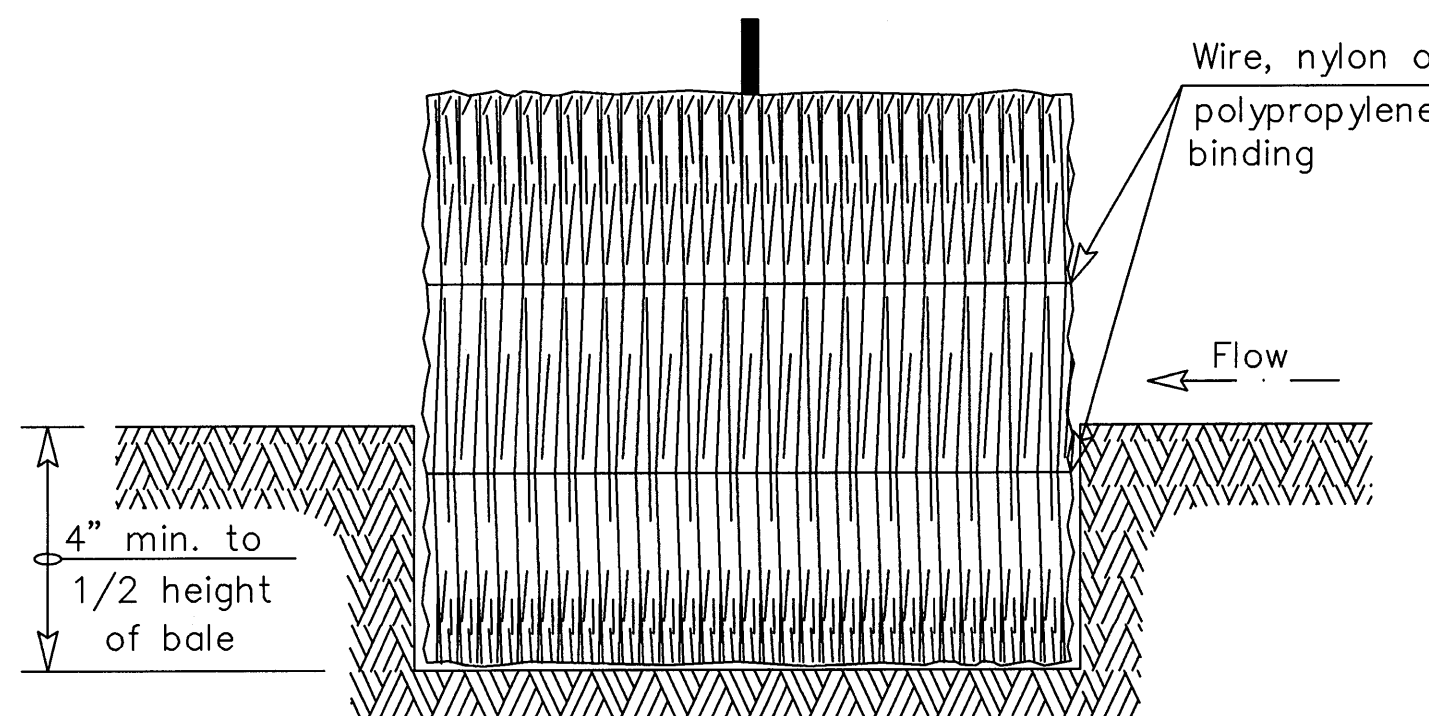
A Baled Hay installation may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A two year storm frequency may be used to calculate the flow rate to be filtered. The installation should be sized to filter a maximum flow thru rate of 5 GPM/FT<sup>2</sup> of cross sectional area. Baled hay may be used at the following locations:

1. Where the runoff approaching the baled hay flows over disturbed soil for less than 100'. If the slope of the disturbed soil exceeds 10%, the length of slope upstream the baled hay should be less than 50'.
2. Where the installation will be required for less than 3 months.
3. Where the contributing drainage area is less than 1/2 acre.

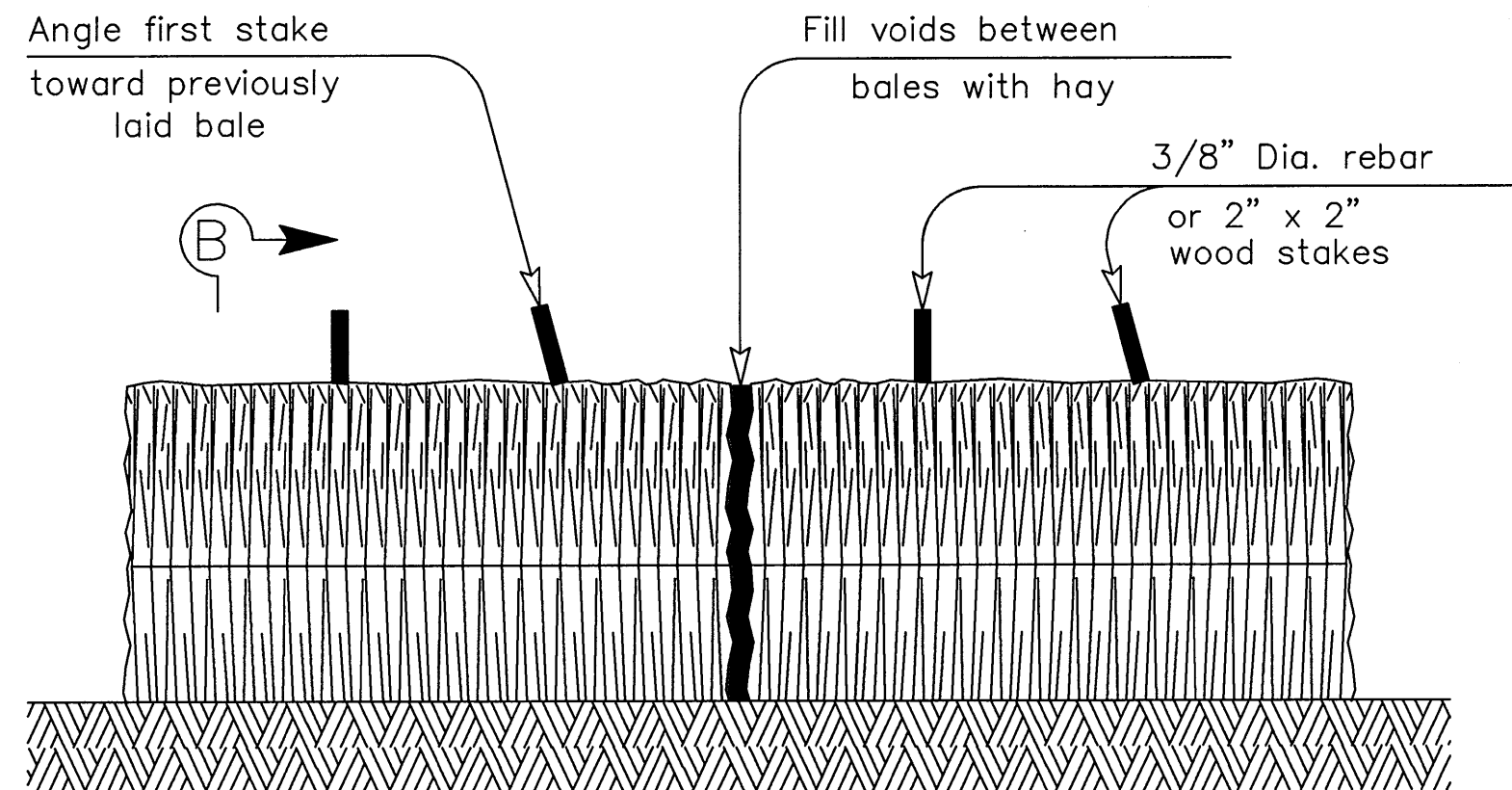
For Baled Hay installations in small ditches, the additional following considerations apply:

1. The ditch sideslopes should be graded as flat as possible to maximize the drainage flowrate thru the hay.
2. The ditch should be graded large enough to contain the overtopping drainage when sediment has filled to the top of the baled hay.

Bales should be replaced usually every 2 months or more often during wet weather when loss of structural integrity is accelerated.



SECTION B-B



BALED HAY FOR EROSION CONTROL

BH

GENERAL NOTES

1. Hay bales shall be a minimum of 30" in length and weigh a minimum of 50 Lbs.
2. Hay bales shall be bound by either wire or nylon or polypropylene string. The bales shall be composed entirely of vegetative matter.
3. Hay bales shall be embedded in the soil a minimum of 4" and where possible 1/2 the height of the bale.
4. Hay bales shall be placed in a row with ends tightly abutting the adjacent bales. The bales shall be placed with bindings parallel to the ground.
5. Hay bales shall be securely anchored in place with 3/8" Dia. rebar or 2" x 2" wood stakes, driven through the bales. The first stake shall be angled towards the previously laid bale to force the bales together.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.



Texas Department of Transportation  
Design Division Standard

TEMPORARY EROSION,  
SEDIMENT AND WATER  
POLLUTION CONTROL MEASURES

FENCE & BALED HAY

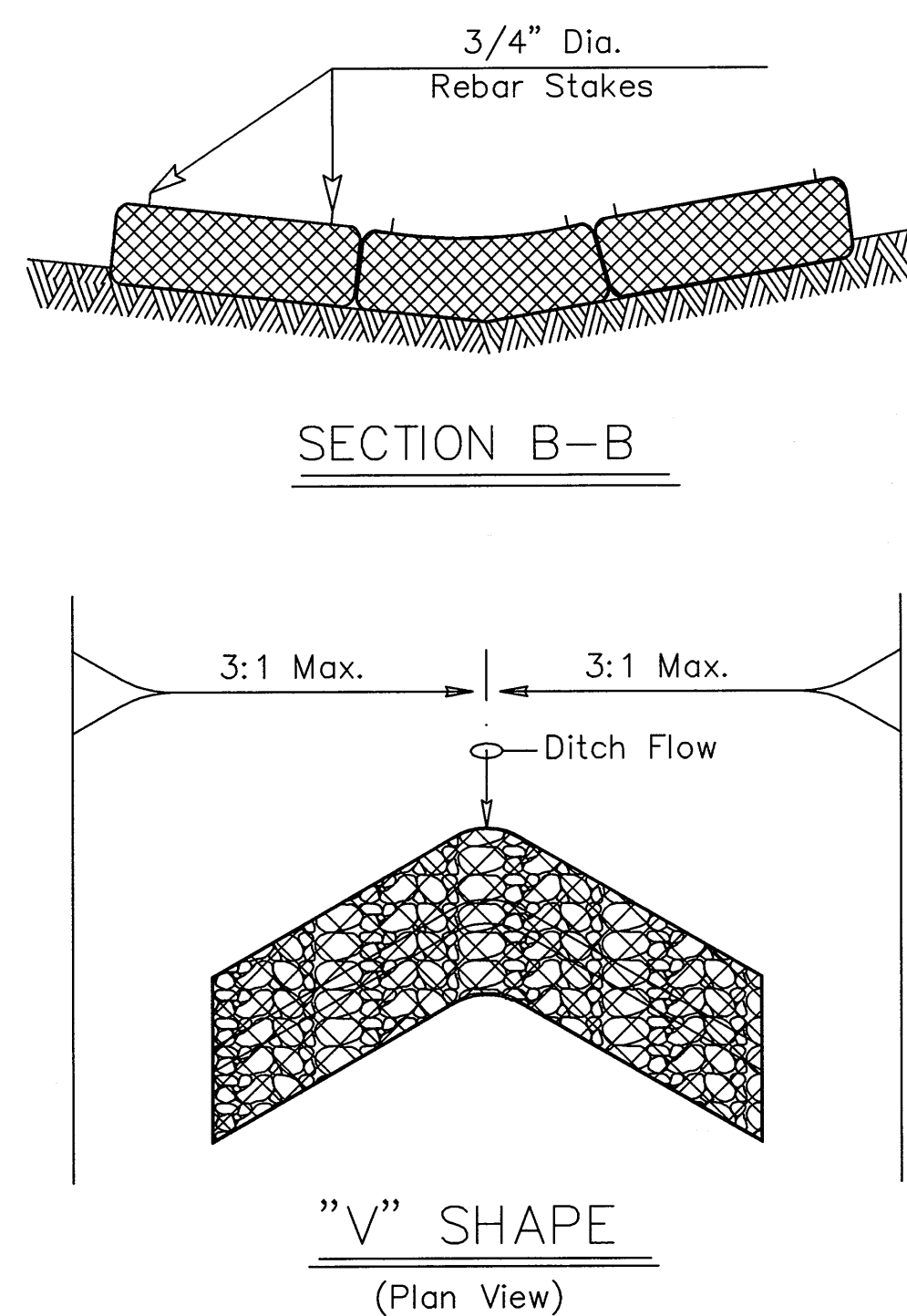
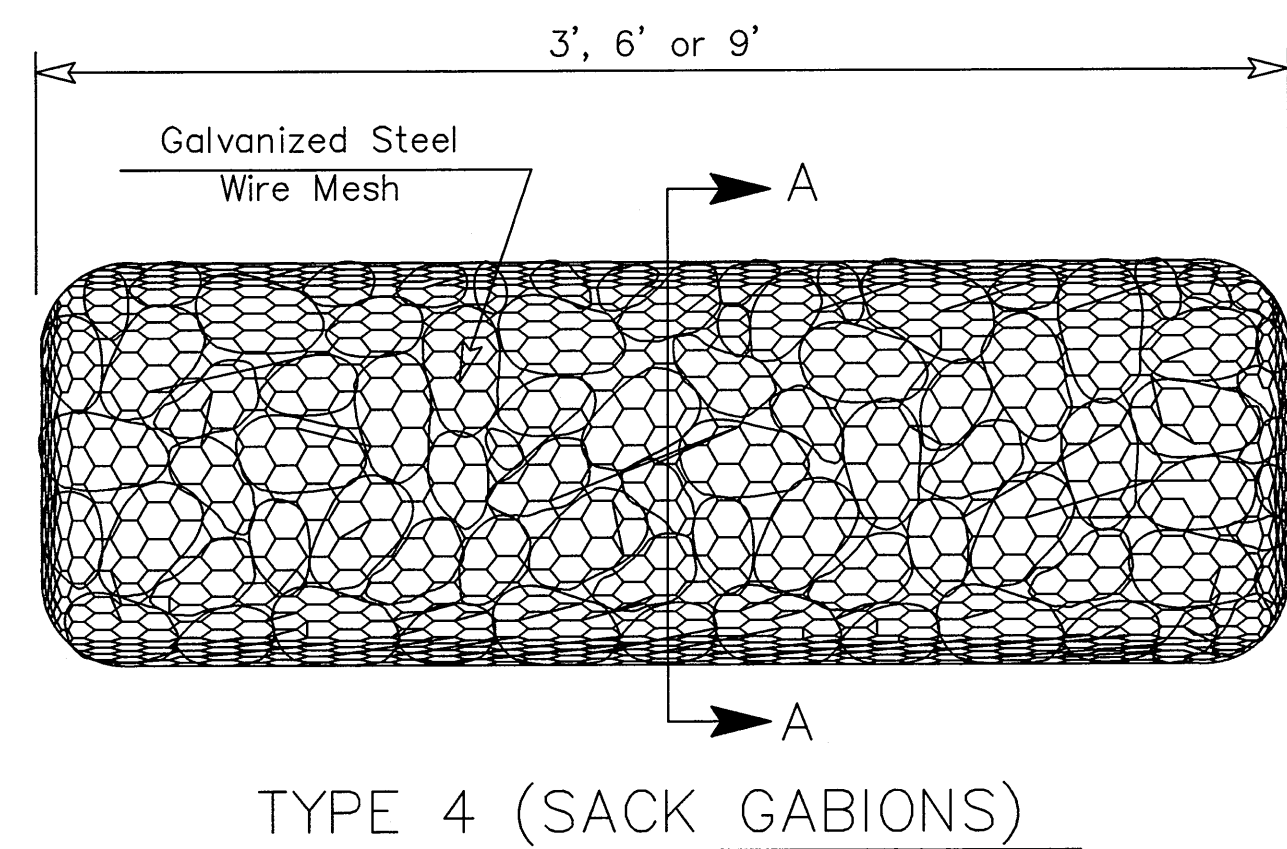
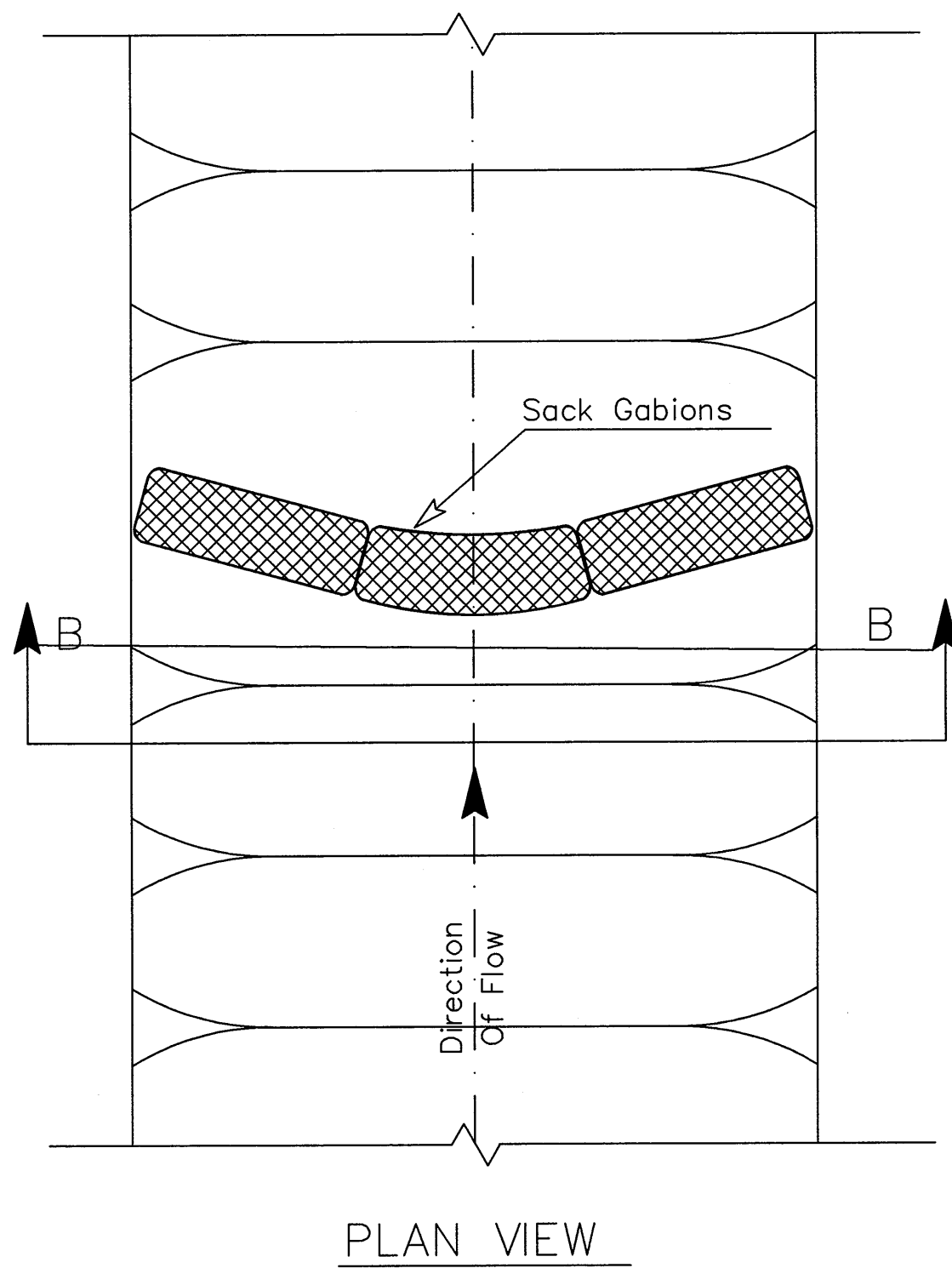
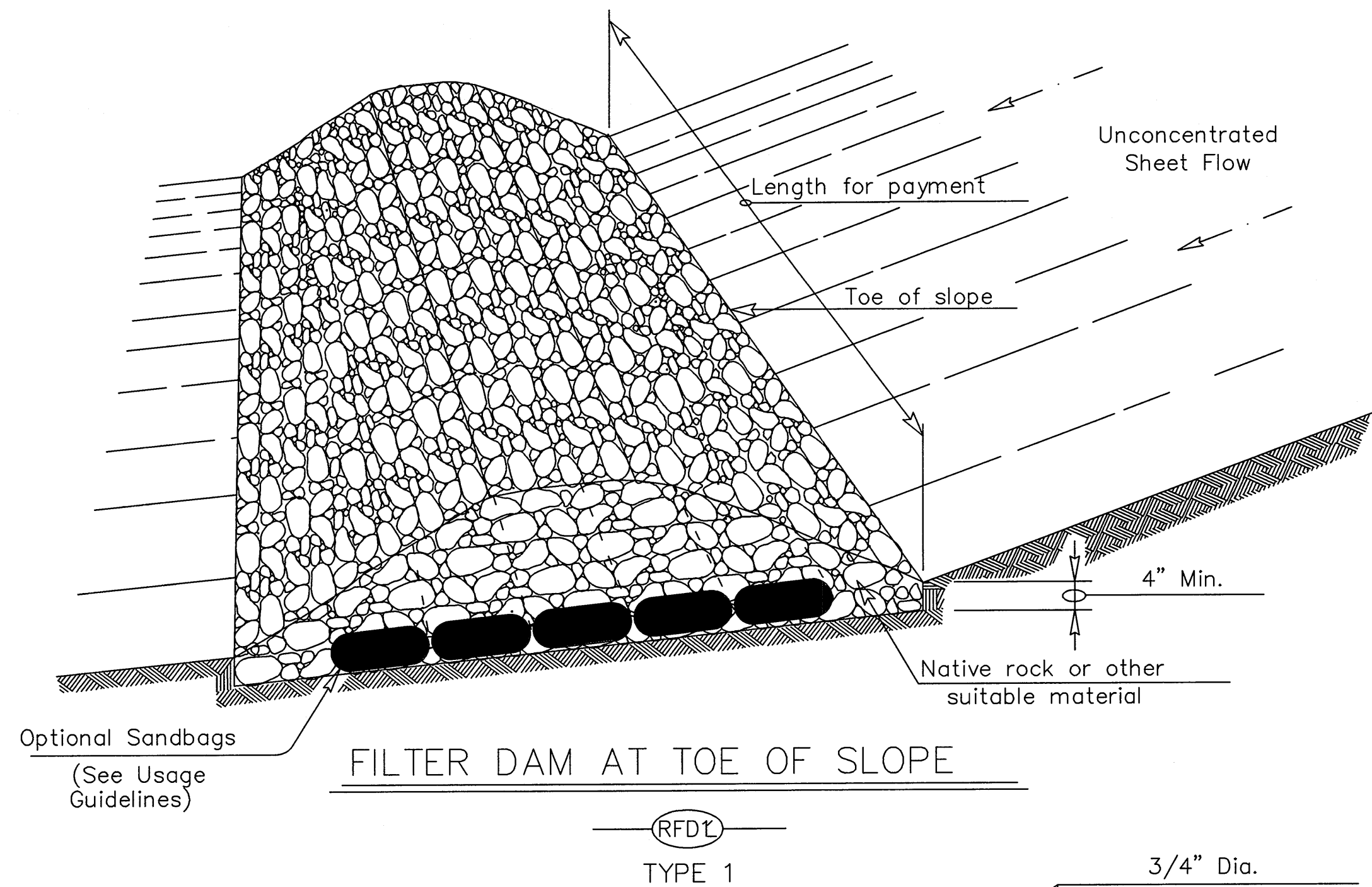
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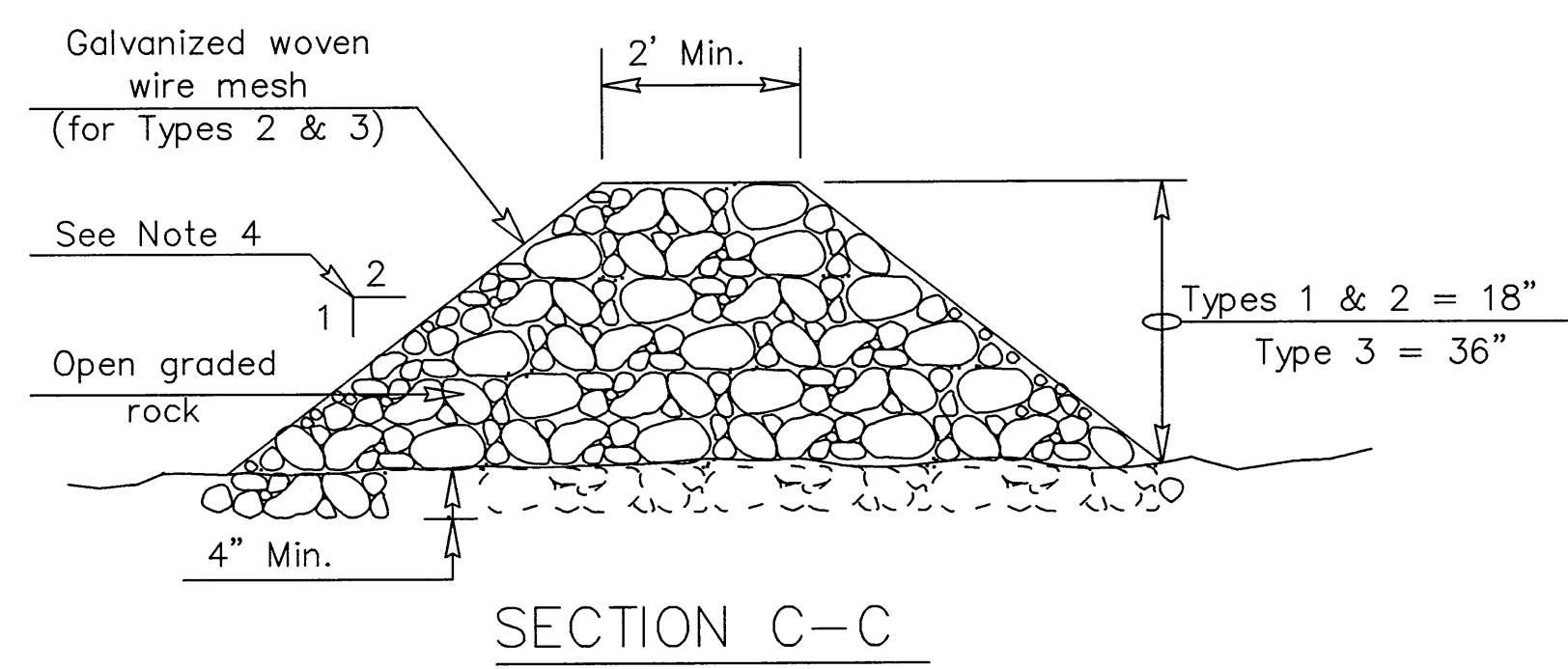
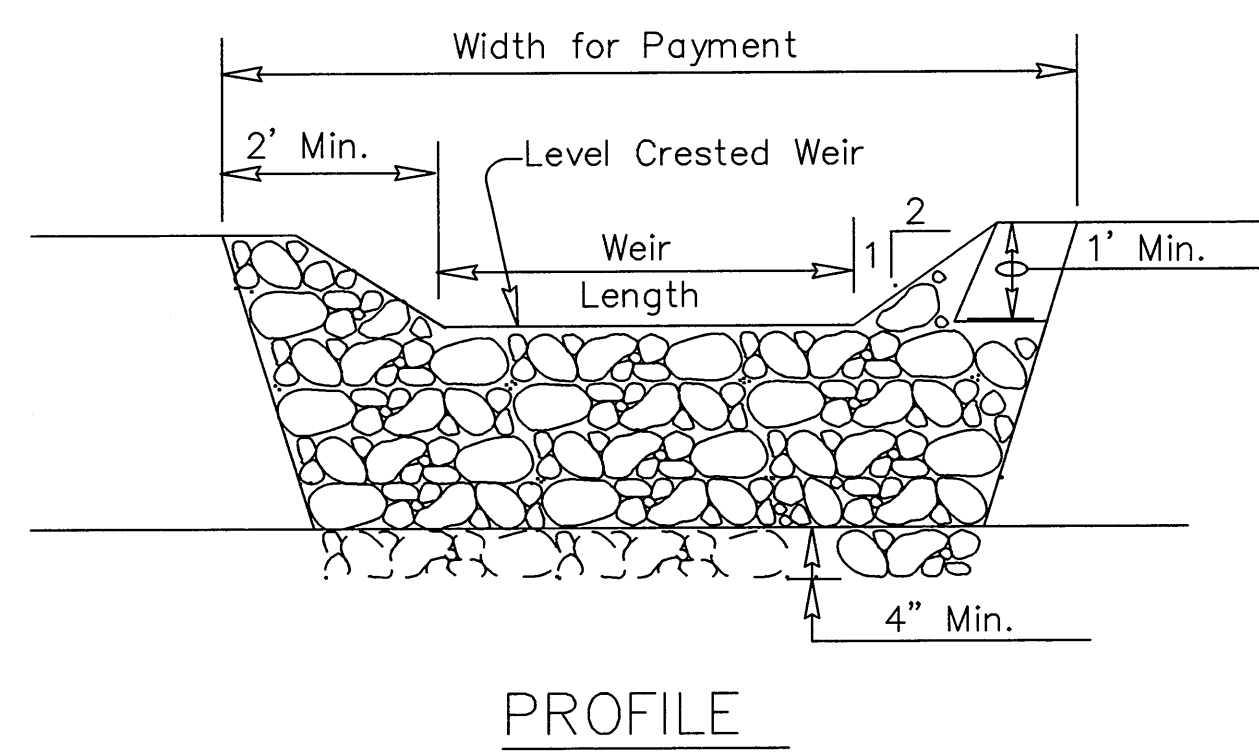
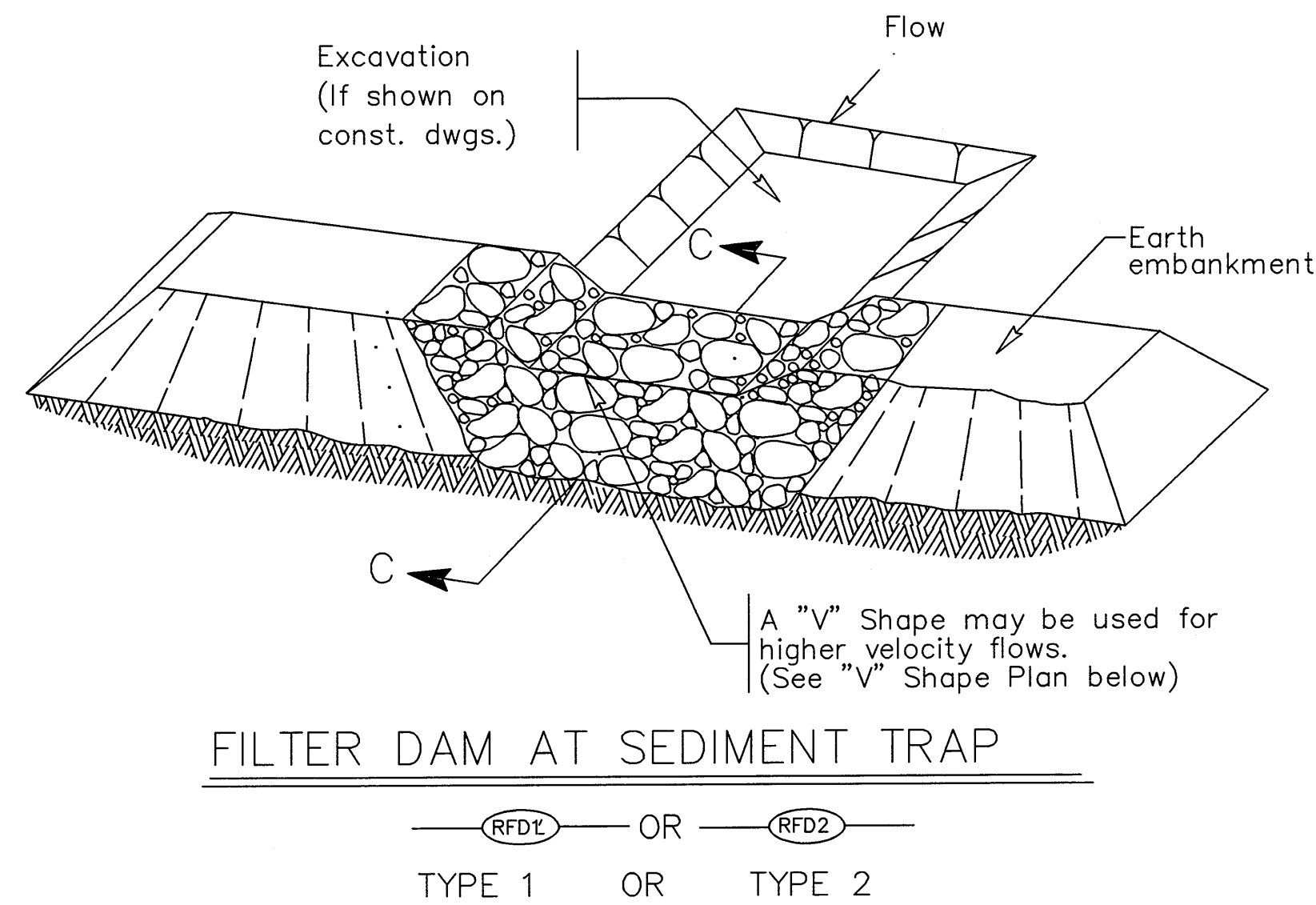
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#### PLANS SHEET LEGEND

- Type 1 Rock Filter Dam — RFD1  
Type 2 Rock Filter Dam — RFD2  
Type 3 Rock Filter Dam — RFD3



#### ROCK FILTER DAM USAGE GUIDELINES

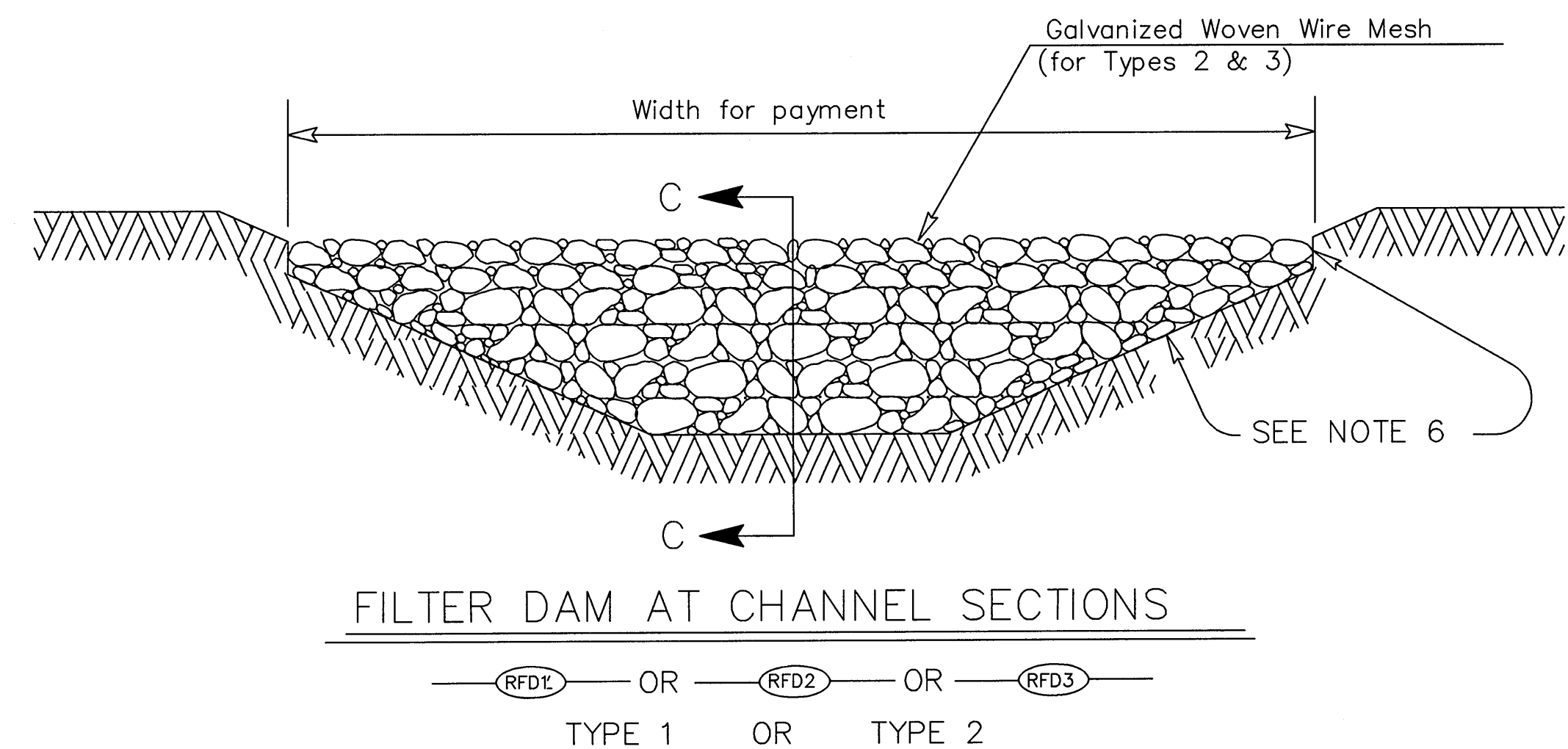
Rock Filter Dams should be constructed downstream from disturbed areas to intercept sediment from overland runoff and/or concentrated flow. The dams should be sized to filter a maximum flow through rate of 60 GPM/FT of cross sectional area. A 2 year storm frequency may be used to calculate the flow rate.

**Type 1 (18" high with no wire mesh):** Type 1 may be used at the toe of slopes, around inlets, in small ditches, and at dike or swale outlets. This type of dam is recommended to control erosion from a drainage area of 5 acres or less. Type 1 may not be used in concentrated high velocity flows (approx. 8 Ft/Sec or more) in which aggregate wash out may occur. Sandbags may be used at the embedded foundation (4" deep min.) for better filtering efficiency of low flows if called for on the plans or directed by the Engineer.

**Type 2 (18" high with wire mesh):** Type 2 may be used in ditches and at dike or swale outlets.

**Type 3 (36" high with wire mesh):** Type 3 may be used in stream flow and should be secured to the stream bed.

**Type 4 (Sack gabions):** Type 4 May be used in ditches and smaller channels to form an erosion control dam.



#### GENERAL NOTES

- If shown on the plans or directed by the Engineer, filter dams should be placed near the toe of slopes where erosion is anticipated, upstream and/or downstream at drainage structures, and in roadway ditches and channels to collect sediment.
- Materials (aggregate, wire mesh, sandbags, etc.) shall be as indicated by the specification for "Rock Filter Dams for Erosion and Sedimentation Control".
- The rock filter dam dimensions shall be as indicated on the SW3P plans.
- Side slopes should be 2:1 or flatter. Dams within the safety zone shall have sideslopes of 6:1 or flatter.
- Maintain a minimum of 1' between top of rock filter dam weir and top of embankment for filter dams at sediment traps.
- Filter dams should be embedded a minimum of 4" into existing ground.
- The sediment trap for ponding of sediment laden runoff shall be of the dimensions shown on the plans.
- Rock filter dam types 2 & 3 shall be secured with 20 gauge galvanized woven wire mesh with 1" diameter hexagonal openings. The aggregate shall be placed on the mesh to the height & slopes specified. The mesh shall be folded at the upstream side over the aggregate and tightly secured to itself on the downstream side using wire ties or hog rings. In stream use the mesh should be secured or staked to the stream bed prior to aggregate placement.
- Sack Gabions should be staked down with 3/4" dia. rebar stakes.
- Flow outlet should be onto a stabilized area (vegetation, rock, etc.).
- The guidelines shown hereon are suggestions only and may be modified by the Engineer.

Texas Department of Transportation  
Design Division Standard

### TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

#### ROCK FILTER DAMS

EC(2)-93

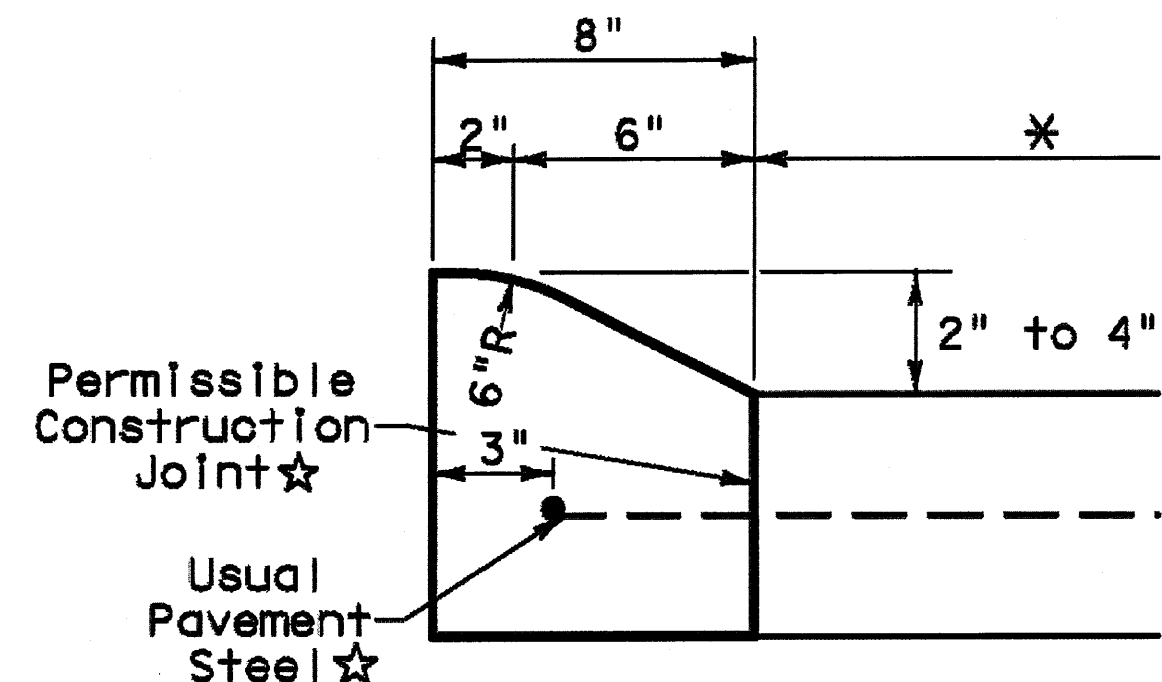
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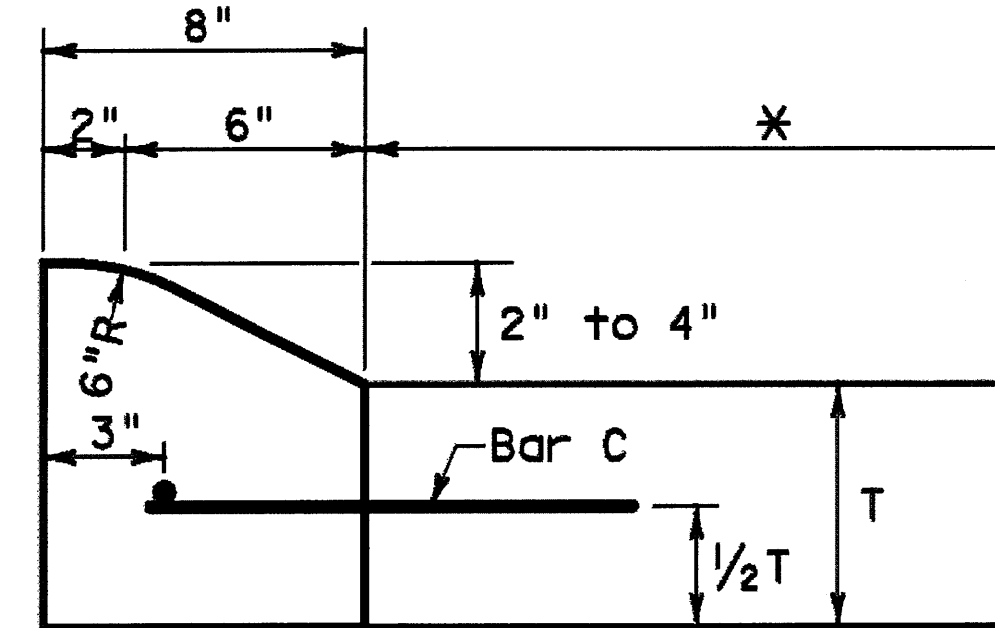
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https://www.dot.state.tx.us/ftp/specinfo/standard.htm

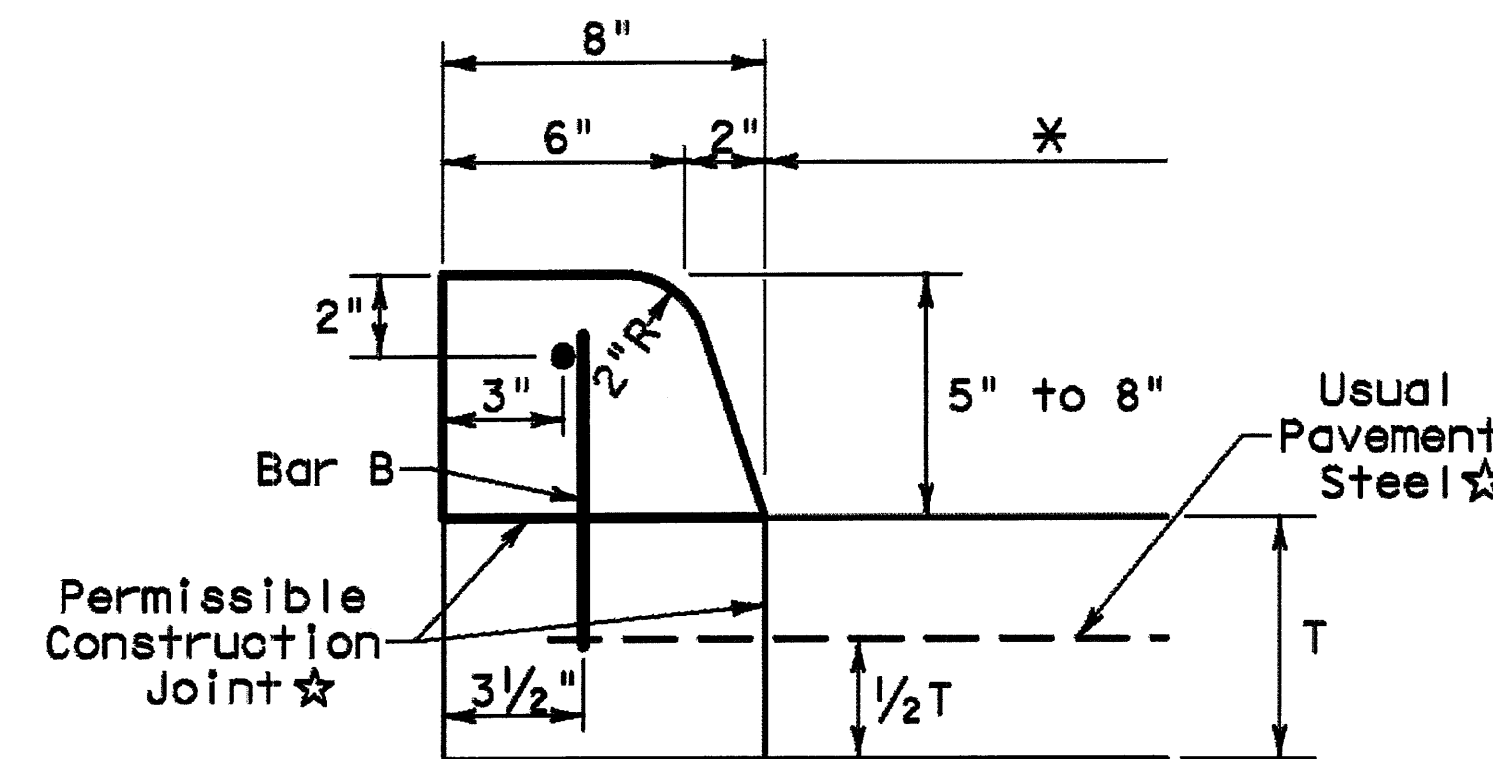
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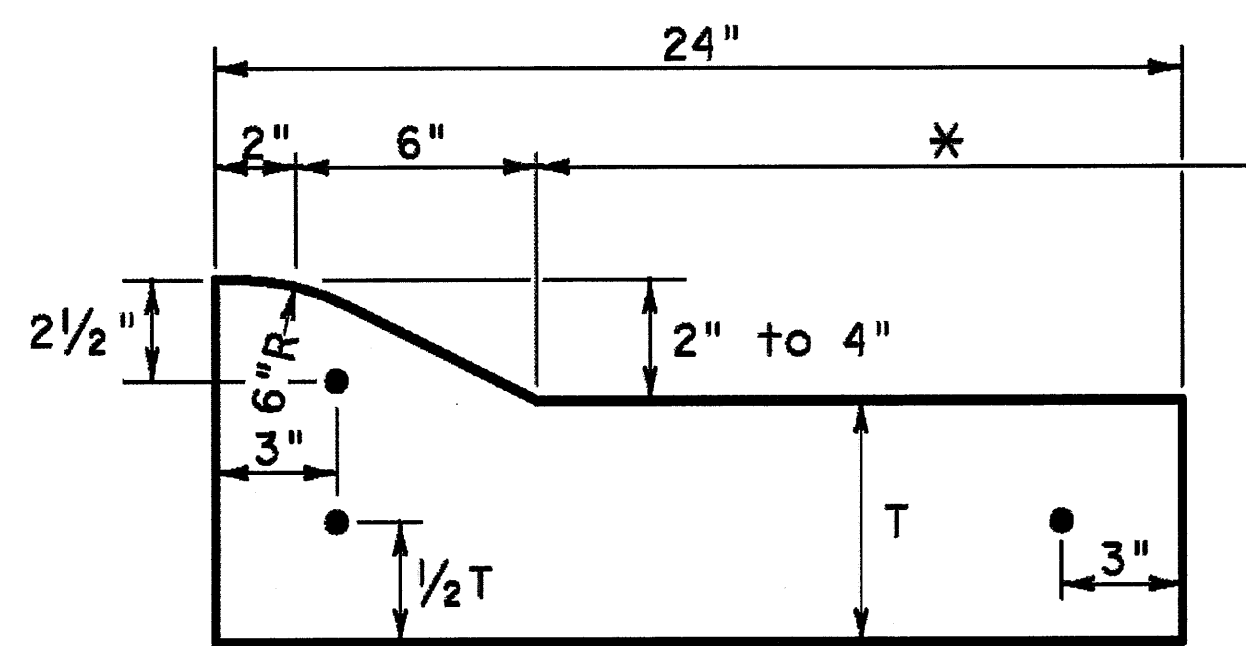
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2" - 4" HEIGHT



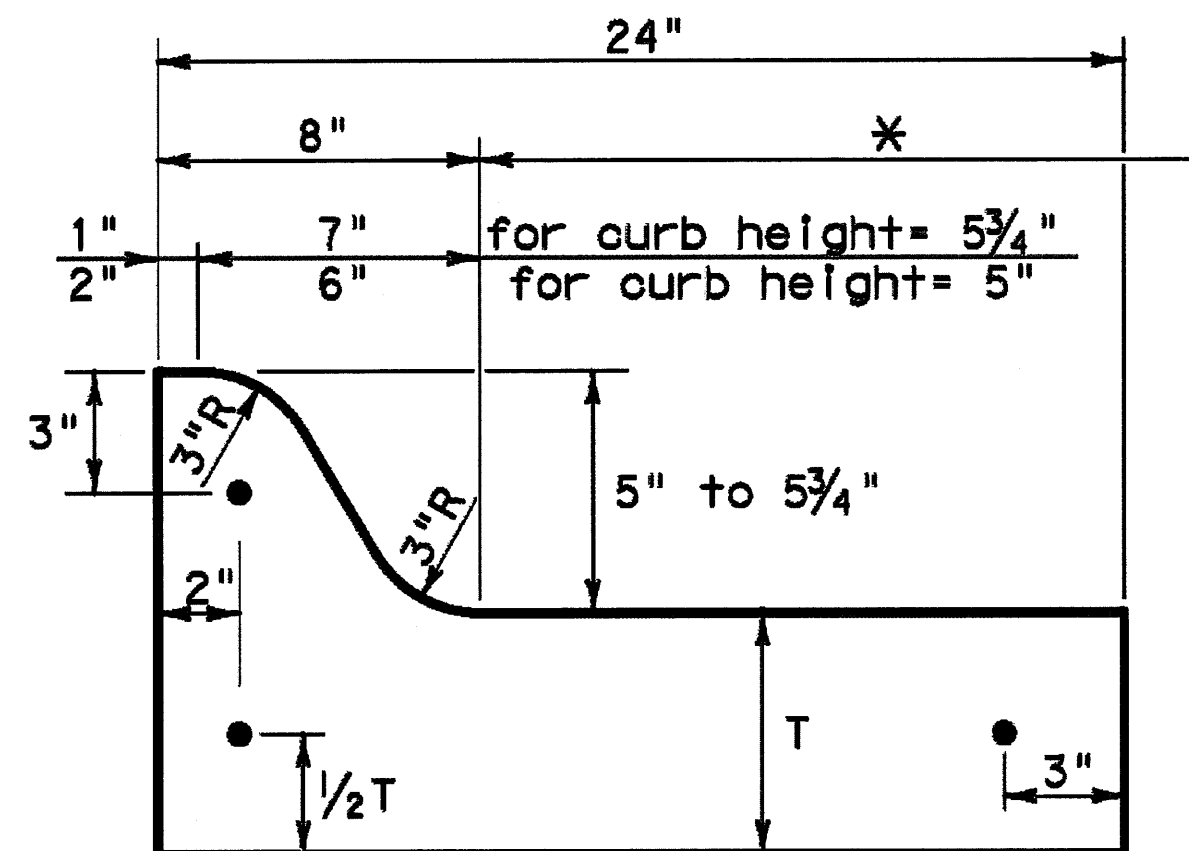
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2" - 4" HEIGHT



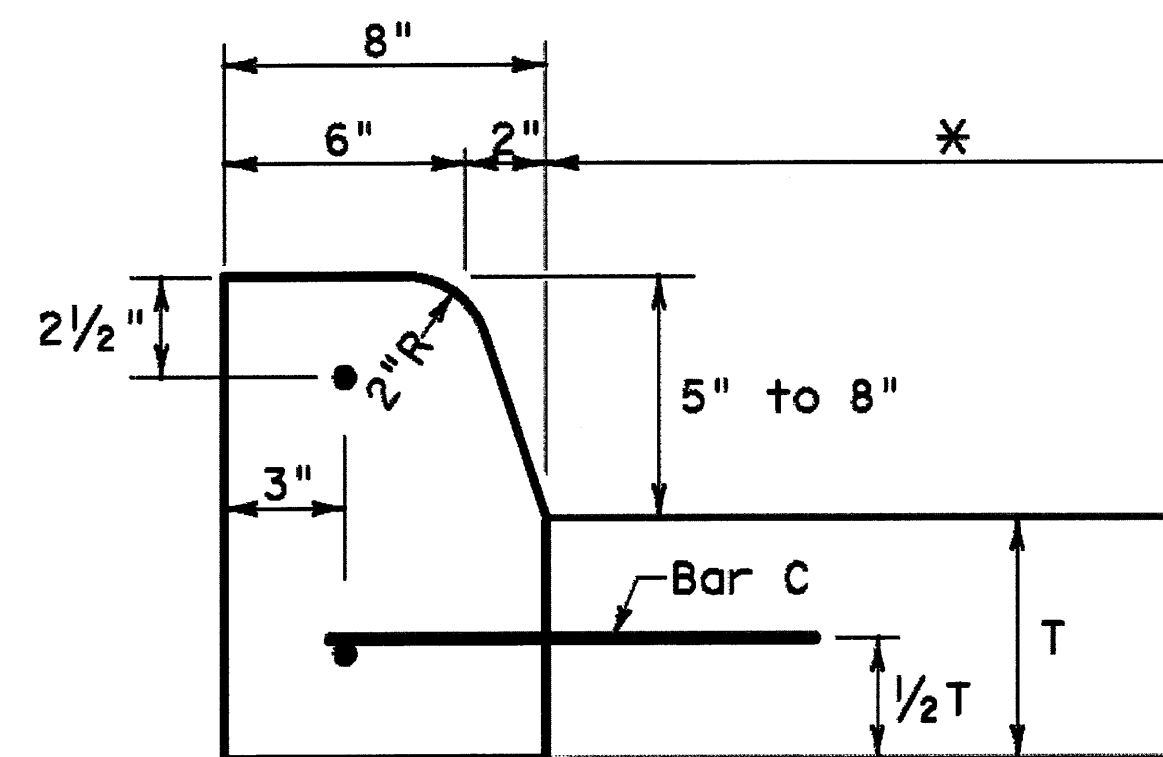
TYPE II CURB (MONOLITHIC)  
5" - 8" HEIGHT



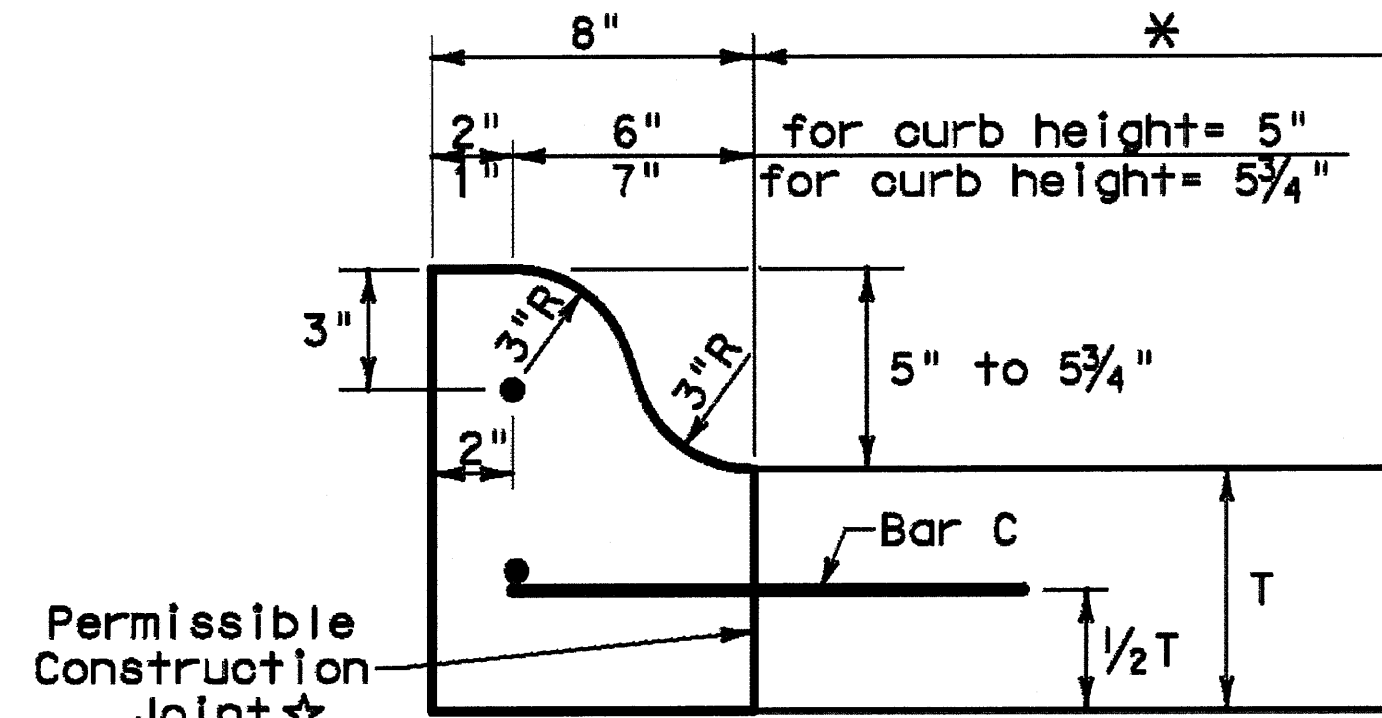
TYPE I CURB AND GUTTER  
2" - 4" HEIGHT



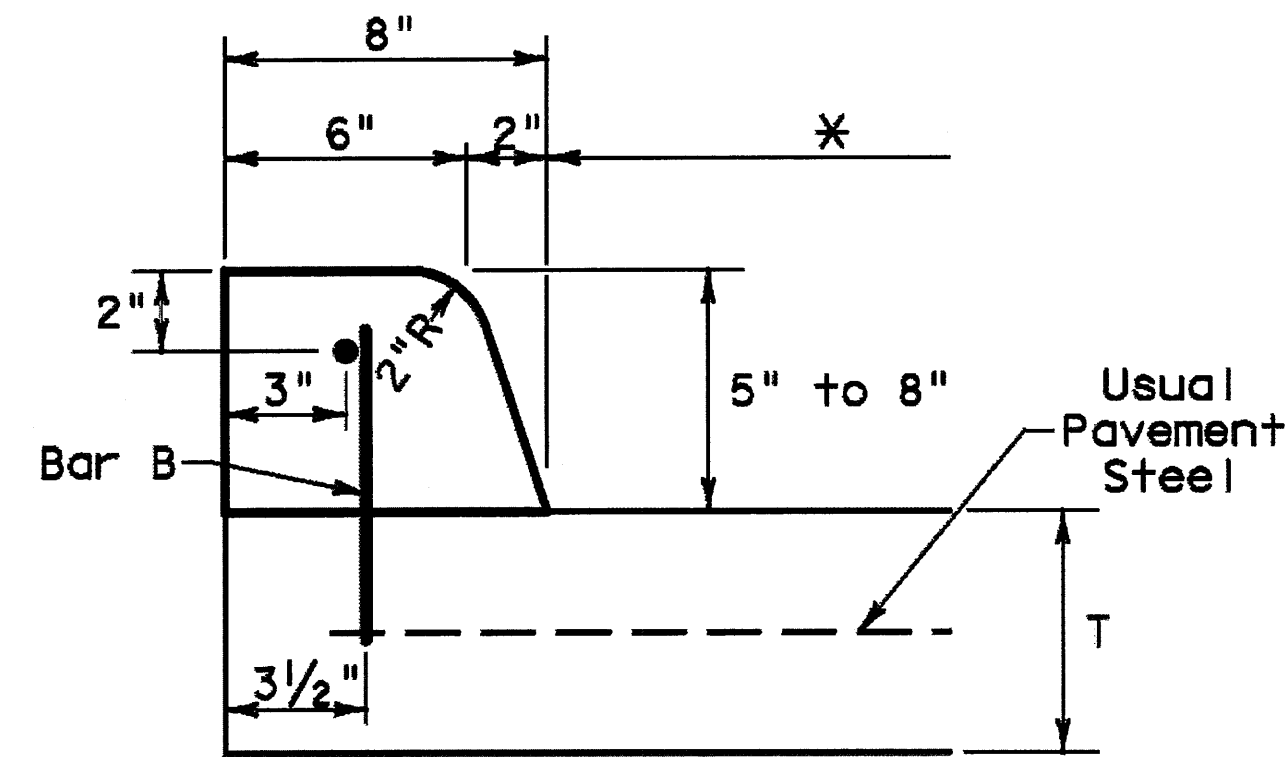
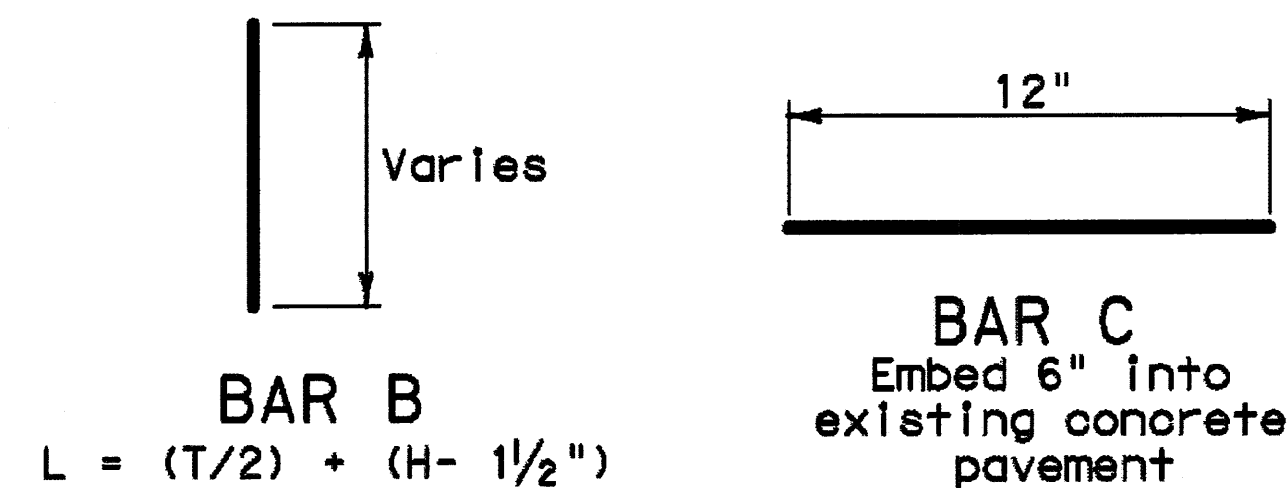
TYPE I CURB AND GUTTER  
5" - 5 3/4" HEIGHT



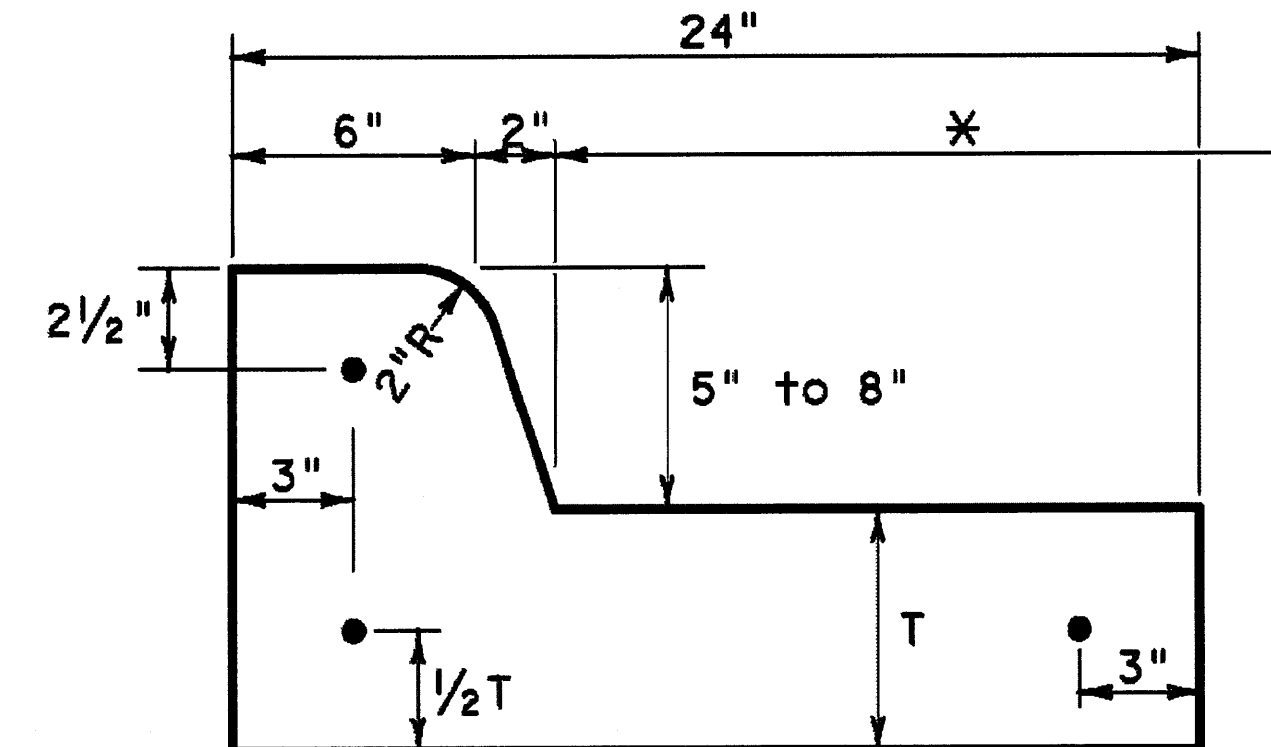
TYPE II CURB  
5" - 8" HEIGHT  
SHOWING DOWELED VERTICAL JOINT



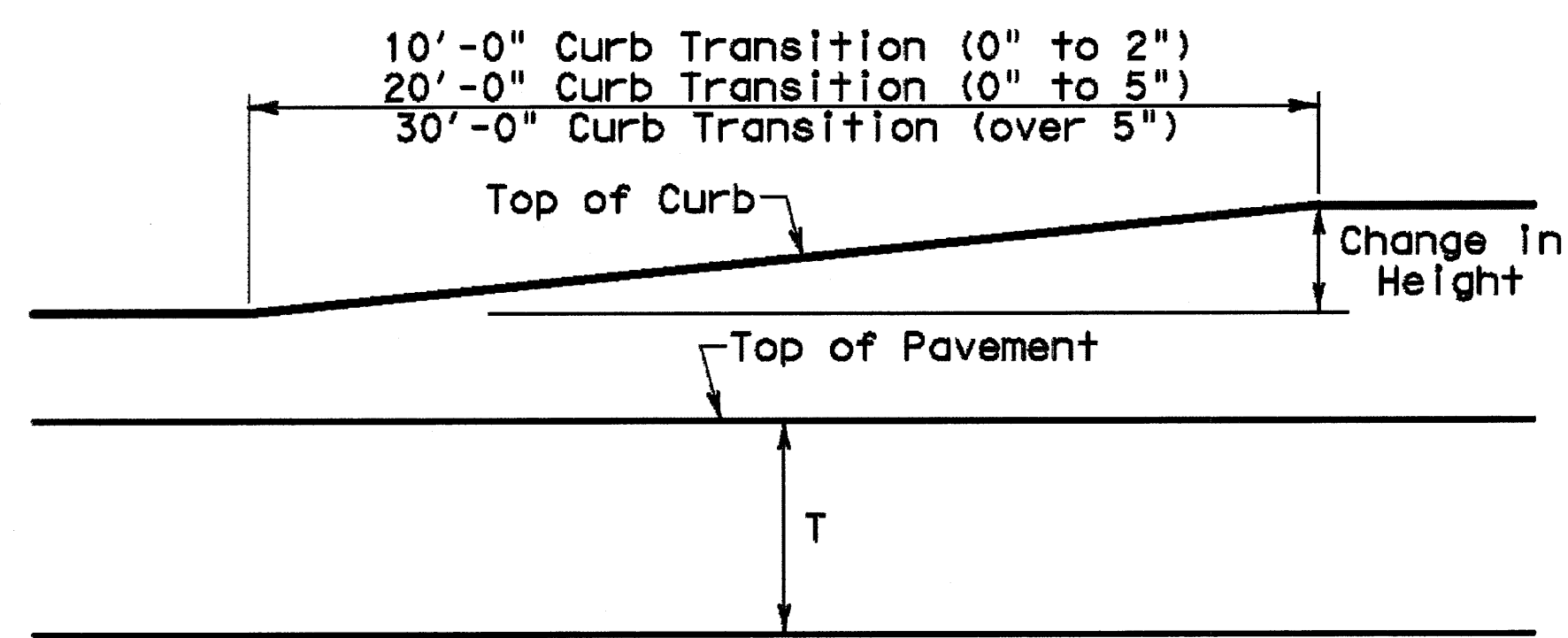
TYPE I CURB  
5" - 5 3/4" HEIGHT



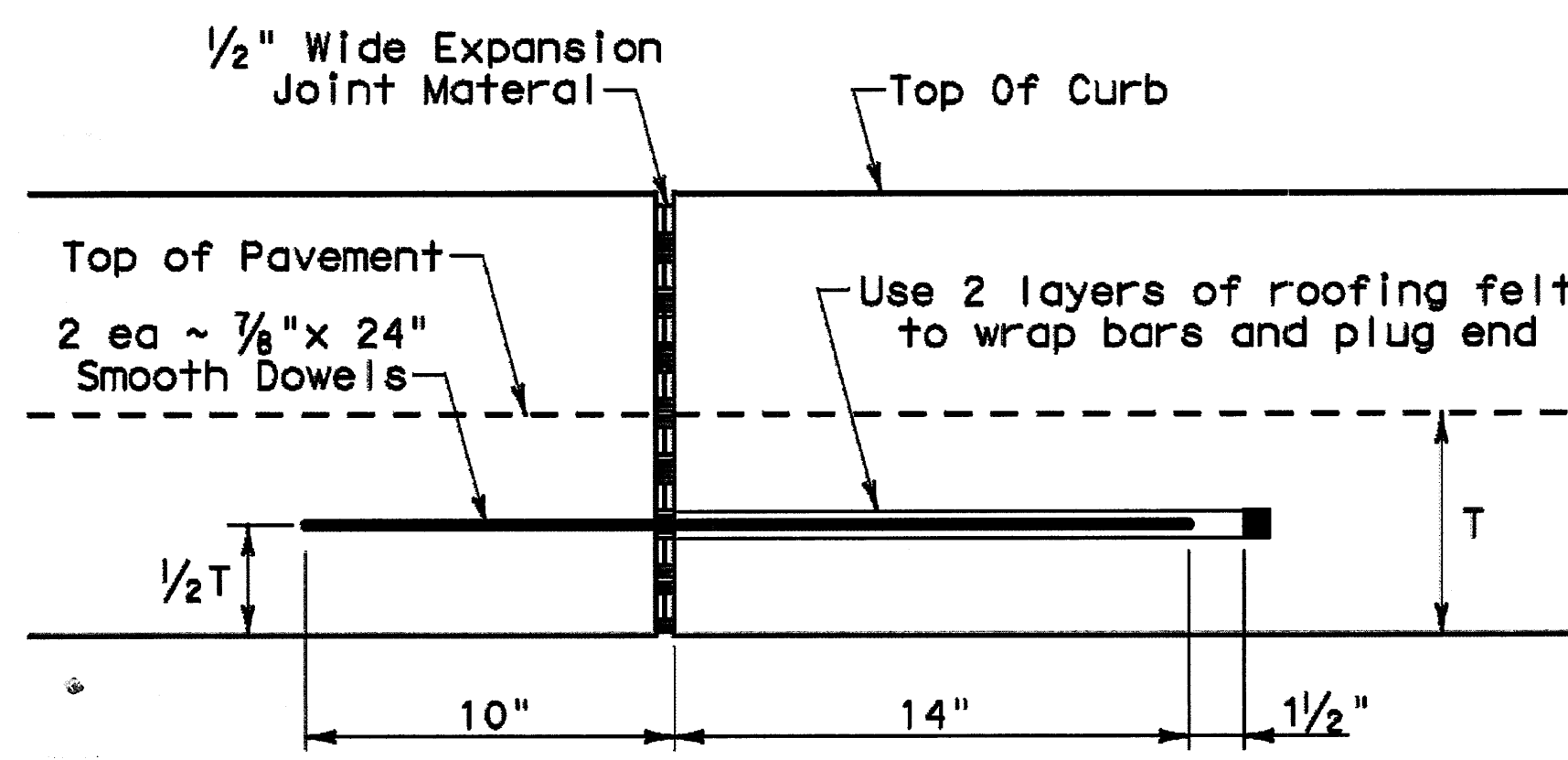
TYPE II CURB  
5" - 8" HEIGHT  
SHOWING DOWELED HORIZONTAL JOINT



TYPE II CURB AND GUTTER  
5" - 8" HEIGHT



CURB TRANSITION  
Note: To be paid for as Highest Curb



EXPANSION JOINT DETAIL

- |                          |                                |
|--------------------------|--------------------------------|
| TYPE I-A = 2" HEIGHT     | TYPE II-A = 5" - 5 3/4" HEIGHT |
| TYPE I-B = 3" HEIGHT     | TYPE II-B = 6" - 6 3/4" HEIGHT |
| TYPE I-C = 4" HEIGHT     | TYPE II-C = 7" - 7 3/4" HEIGHT |
| TYPE I-D = 5" HEIGHT     | TYPE II-D = > 7 3/4" HEIGHT    |
| TYPE I-E = 5 3/4" HEIGHT |                                |
- (See General Notes)

General Notes

Maximum height for Type I curb or curb and gutter shall be 5 3/4".

All existing curbs and driveways to be removed shall be sawed or removed at existing joints.

Where concrete curb is placed on existing concrete pavement, the pavement shall be drilled (5/8" dia.) and the reinforcing bars grouted in place or secured with Epoxy conforming to Departmental Material Specification DMS 6100, "Epoxy and Adhesives", Class III.

Expansion and contraction joints shall be constructed to match pavement joints in all curbs and curb and gutter adjacent to jointed concrete pavement. Where placement of curb or curb and gutter is not adjacent to concrete pavement, expansion joints shall be provided at structures, curb returns at streets, and at locations directed by The Engineer.

All reinforcing bars shall be No.4 unless otherwise shown.

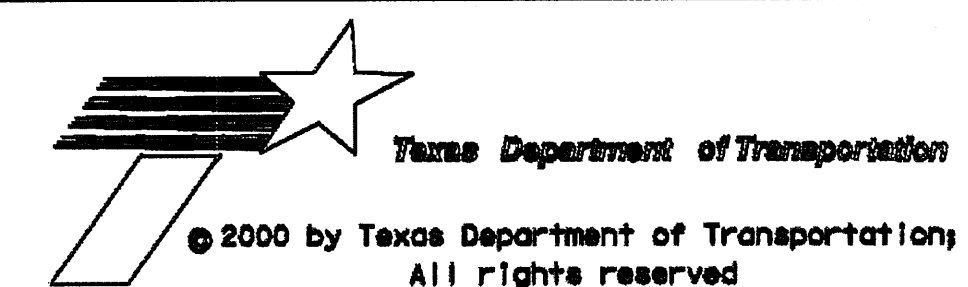
Vertical and horizontal dowel bars and transverse reinforcing bars shall be placed at four feet C-C.

Dimension 'T' shown above is the thickness of concrete pavement or flexible base and surface (8" maximum).

\* Usual profile grade line. Refer to typical sections and plan-profile sheets for exact locations.

One-half inch expansion joint material shall be provided where curb or curb and gutter is adjacent to sidewalk or riprap.

☆ When vertical permissible construction joints are used, resulting in a longitudinal construction joint in the pavement, the longitudinal pavement steel shall be placed in accordance with pavement details shown elsewhere in the plans for longitudinal construction joints. Reinforcing steel for curb section shall then conform to that required for concrete curb.



CONCRETE CURB  
AND  
CURB AND GUTTER  
DETAILS  
CC-CG (FW)

ORIG DRAW MAR 2000	REV. NO.	PROJECT NO.	SHEET NO.
REVISIONS:	6		
March 2002 - Revised curb types to comply with statewide standards.		STATE	COUNTY
Oct 2005 - Added sub-type for heights, to comply with 2004 Specs Book clarified construction methods.		TEXAS	FTW
January 2008 - Epoxy Type		CONT.	JOB HIGHWAY NO.