INDEX OF SHEETS

STANDARD DETAILS		REVISION DATE
301-302	BM-01	07/22/2021
303	CC-01	01/29/2024
304-305	EC-01	07/22/2021
306-315	GR-200	08/12/2021
316-317	GR-203	08/12/2021
318-337	TTC	02/06/2017
338	CB-02	06/17/2021
339-344	MC-01	06/10/2021

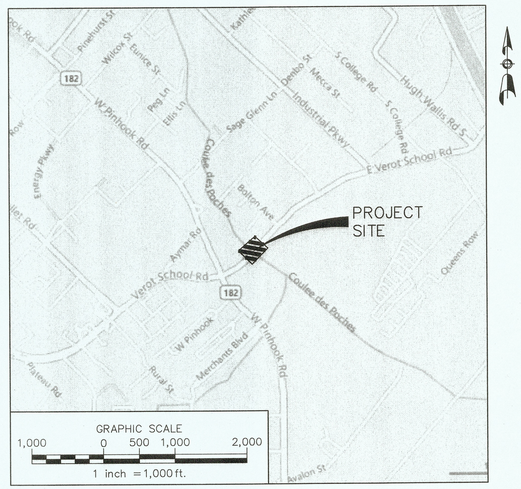
TOTAL SHEETS = 55

FINAL PLANS FOR
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

LCG PROJECT NO. 1956

Lafayette CONSOLIDATED GOVERNMENT

HUVAL Planning·Design·Construction·Management



LAYOUT MAP

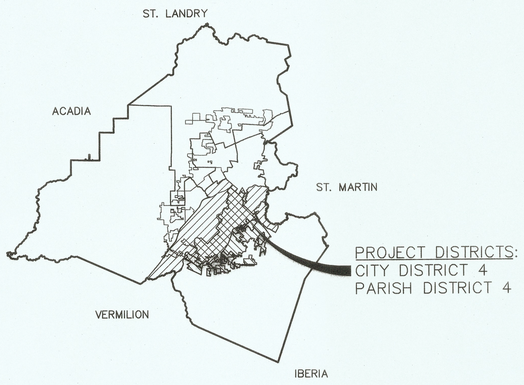
MAYOR–PRESIDENT
MONIQUE B. BOULET

CHIEF ADMINISTRATIVE OFFICER
RACHEL GODEAUX

LAFAYETTE CITY COUNCIL		LAFAYETTE PARISH COUNCIL	
ELROY BROUSSARD	DISTRICT 1	BRYAN TABOR	DISTRICT 1
ANDY NAQUIN	DISTRICT 2	DONALD RICHARD	DISTRICT 2
LIZ W. HEBERT	DISTRICT 3	KEN STANSBURY	DISTRICT 3
THOMAS R. HOOKS	DISTRICT 4	JOHN J. GUILBEAU	DISTRICT 4
KENNETH P. BOUDREAUX	DISTRICT 5	ABRAHAM "AB" RUBIN, JR.	DISTRICT 5

INTERIM DEPARTMENT OF PUBLIC WORKS DIRECTOR
WARREN ABADIE

LAFAYETTE CITY–PARISH CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS
CAPITAL IMPROVEMENT AND DEVELOPMENT DIVISION
LAFAYETTE, LOUISIANA



LAFAYETTE CITY–PARISH
VICINITY MAP

DATE	REVISION DESCRIPTION	DATE	RECOMMENDED	DATE	APPROVED

SCHEDULE OF REVISIONS

TRAFFIC DATA:
2024 A.D.T. = 17,391
2024 A.D.T. = 21,220
D = 53.0%
K = 11.0%
T = 12.8%
DESIGN SPEED = 45 M.P.H.
CLASSIFICATION = URBAN ARTERIAL

SURVEY DATA:
HORIZONTAL CONTROL:
LOUISIANA STATE PLANE COORDINATES
ZONE 1702 (NAD 83 (2011) EPOCH 2010.00

VERTICAL CONTROL:
NAVD 88 (GEOID12A)
GPS RTK 24 HELD FOR ELEVATION FOR PROJECT
REFERENCE SP NO. H.004273.5

TYPE OF CONSTRUCTION:
CLEARING AND GRUBBING, SUBSURFACE DRAINAGE, SOIL NAIL WALL, ABUTMENT REPAIR, APPROACH SLAB REPAIR, STRUCTURAL CONCRETE PATCHING.

NOTE:
THE 2023 EDITION OF THE LAFAYETTE CONSOLIDATED GOVERNMENT STANDARD SPECIFICATIONS FOR ROADS, DRAINAGE, BRIDGES, AND OTHER INFRASTRUCTURE (LSSRDB), AS AMENDED BY THE PROJECT SPECIFICATIONS, SHALL GOVERN ON THIS PROJECT.

AUGUST 2024

RECOMMENDED FOR APPROVAL

Devin Saltzman — CONSULTANT ENGINEER, HUVAL & ASSOCIATES — 8/14/2024 DATE

Alison Lopinto — PROJECT COORDINATOR, DEPARTMENT OF PUBLIC WORKS — 8/19/24 DATE

ENGINEERING AND POWER SUPPLY MANAGER, DEPARTMENT OF UTILITIES — 9/5/24 DATE

CHIEF COMMUNICATIONS ENGINEER, LUS FIBER — 9/6/24 DATE

ENVIRONMENTAL QUALITY MANAGER, DEPARTMENT OF PUBLIC WORKS — 9-9-24 DATE

CIVIL ENGINEERING SUPERVISOR – PROJECT CONTROL, DEPARTMENT OF PUBLIC WORKS — 9/9/24 DATE

DIRECTOR, DEPARTMENT OF DRAINAGE — 9/10/2024 DATE

DIRECTOR, DEPARTMENT OF TRAFFIC, ROADS & BRIDGES — 9-12-24 DATE

APPROVED

INTERIM DIRECTOR, DEPARTMENT OF PUBLIC WORKS — 9-12-24 DATE

SHEET 01

DESIGNED	D SALTZMAN	DETAILED	D SALTZMAN
CHECKED	M HELMINGER	CHECKED	M HELMINGER
DATE	AUGUST 2024	DWG. NO.	1 OF 1

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
DEVIN F. SALTZMAN
License No. 48591
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
8/16/2024

TITLE SHEET & LAYOUT MAP

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

HUVAL Planning·Design·Construction·Management

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	TOTAL QUANTITY
201-01-00100	Clearing and Grubbing	LUMP	LUMP
✳202-01-00100	Removal of Structures and Obstructions	LUMP	LUMP
202-02-06060	Removal of Concrete Catch Basin	EACH	1
202-11-14500	Removal of Guardrail	LNFT	180.2
202-11-32140	Removal of Pipe (Storm Drain)(Includes Cutting Pipe at Structures)	LNFT	268
204-02-00100	Temporary Hay or Straw Bales	EACH	28
204-05-00100	Temporary Sediment Check Dams (Hay)	EACH	1
204-06-00100	Temporary Silt Fencing	LNFT	299
204-07-00100	Temporary Stone Construction Entrance	EACH	1
✪ 502-03-00100	Superpave Asphaltic Concrete (Drives, Turns, and Miscellaneous)	TON	25.9
701-04-01060	Storm Drain Pipe (Outfall) (30" RPVCP)	LNFT	70
701-04-01100	Storm Drain Pipe (Outfall) (36" RPVCP)	LNFT	107
701-04-01081	Storm Drain Pipe (Outfall) (42" RPVCP)	LNFT	33
701-12-00100	Concrete Collar	EACH	4
702-03-00200	Catch Basins (CB-02)(Type B Grate)	EACH	1
⚠ 704-03-00100	Blocked Out Guard Rail	LNFT	50.0
704-08-00200	Guard Rail Transition (Double Thrie Beam)	LNFT	100.0
704-10-00105	Guard Rail End Treatment (Flared)(12'-6")	EACH	4
713-01-00100	Temporary Signs and Barricades	LUMP	LUMP
722-01-00100	Project Site Office Building (Equipped)	EACH	1
⊠ 726-01-00100	Aggregate Bedding Material	CUYD	11.5
727-01-00100	Mobilization	LUMP	LUMP
739-01-00100	Hydro-Seeding	ACRE	0.37
740-01-00100	Construction Layout	LUMP	LUMP
NS-1400-00011	Undersealing Approach Slab	LUMP	LUMP
❽ NS-1400-00012	Soil Nail Retaining Wall	EACH	2
NS-1400-00013	Structural Concrete Patching	SQFT	13.7

GENERAL NOTES:

1. INITIAL DEBRIS CLEANING WITHIN THE CHANNEL AND ANY ADDITIONAL CHANNEL CLEANING THAT MAY BE REQUIRED THROUGHOUT CONSTRUCTION SHALL BE INCLUDED WITH PAY ITEM 201-01-00100 "CLEARING AND GRUBBING".

✳ 2. PAY ITEM 202-01-00100 "REMOVAL OF STRUCTURES AND OBSTRUCTIONS" IS INCLUSIVE OF EXISTING TIMBER PILE CUTOFF AND REMOVAL OF EXISTING TIMBER HEADWALL.

⚠ 3. GUARDRAIL TO BE INSTALLED INTO AREAS OF BOTH EXISTING AND PROPOSED ASPHALT PAVEMENT. GUARDRAIL INSTALLATION TO FOLLOW STANDARD DETAIL GR-200 SHEET 10 OF 10 FOR GUARDRAIL INSTALLATIONS ON ASPHALT PAVEMENT. ANY ADDITIONAL MATERIALS NEEDED FOR INSTALLATION INCLUDING, BUT NOT LIMITED TO, GROUT FILL AND CUTTING ASPHALT PAVEMENT SHALL BE INCLUDED WITH THE COST OF PAY ITEM 704-03-00100 "BLOCKED OUT GUARDRAIL" AT NO DIRECT PAY.

❽ 4. IN-SITU MATERIAL HAS BEEN DETERMINED TO BE HIGHLY SUSCEPTIBLE TO EROSION. SOIL NAIL WALL CONTRACTOR/INSTALLER SHALL INCLUDE MICROPILES OR APPROVED EQUAL AS MEANS OF PROTECTING THE TOE OF THE SOIL NAIL WALL FROM EROSION. CONTRACTOR PROPOSED EROSION PROTECTION SHALL BE SUBMITTED TO THE PROJECT ENGINEER FOR APPROVAL. EROSION PROTECTION AT THE BASE OF THE SOIL NAIL WALL SHALL BE INCLUDED IN THE COST OF PAY ITEM NS-1400-00012 "SOIL NAIL WALL" AT NO DIRECT PAY.

✪ 5. ANY EMBANKMENT NEEDED TO CONSTRUCT ASPHALT EMBANKMENT WIDENING SHALL BE USEABLE SOIL AS DEFINED BY THE LSSRDB SECTION 203.06(A) AND SHALL BE INCLUDED WITH THE COST OF ITEM NO. 502-05-00300 "SUPERPAVE ASPHALTIC CONCRETE" AT NO DIRECT PAY.

6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL UTILITY LOCATIONS IN THE PROJECT AREA PRIOR TO CONSTRUCTION. EXACT UTILITY LOCATIONS NOT KNOWN, CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS AND COMPLY WITH UTILITY OWNER REQUIREMENTS WHEN WORKING IN THE VICINITY OF ALL UTILITIES. CONTACT LOUISIANA 811/ONE CALL (811 OR 800-272-3020).

7. CONTRACTOR SHALL NOTE EXISTING ATMOS GAS PIPELINES LOCATED IN CLOSE PROXIMITY TO THE NORTH SIDE OF THE EXISTING BRIDGE. HYDRO EXCAVATION SHALL BE USED TO EXPOSE EXISTING GAS LINES. CONTRACTOR SHALL COORDINATE WITH ATMOS TO ENSURE THAT AN ATMOS REPRESENTATIVE IS PRESENT ON SITE FOR ANY SUBSURFACE EXPLORATION OR CONSTRUCTION IN THIS AREA. THE USE OF MECHANIZED EQUIPMENT WILL BE PROHIBITED WITHIN 2 FEET OF ATMOS GAS LINES. COST OF HYDRO EXCAVATION SHALL BE INCLUDED WITH ITEM 201-01-00100 "CLEARING AND GRUBBING" AT NO DIRECT PAY.

CONSTRUCTION NOTES:

1. SOIL NAIL WALL TO BE DESIGNED BY SOIL NAIL CONTRACTOR/INSTALLER.
2. WATER LEVEL WILL OCCASIONALLY RISE ABOVE THE BRIDGE LOW CHORD ELEVATION. SOIL NAIL WALL DESIGN SHOULD CONSIDER SUBMERGED CONDITIONS.
3. EXISTING TIMBER HEADWALL UNDER SOUTHWEST BRIDGE END TO BE REMOVED. EXISTING CONCRETE HEADWALL TO REMAIN. HOLES SHALL BE DRILLED THROUGH CONCRETE HEADWALL FOR SOIL NAIL INSTALLATION.
4. ALL EXISTING BRIDGE GUARDRAIL TO BE REMOVED AND REPLACED AS SHOWN ON GENERAL PLAN-PROFILE SHEET.
5. OUTFALL PIPES SHALL BE MITERED 2' FROM FACE OF SOIL NAIL WALL. MITER ANGLE SHALL MATCH FACE OF WALL.
6. IF REQUIRED, CHANNEL DEWATERING PLAN TO BE PROVIDED BY CONTRACTOR FOR REVIEW PRIOR TO IMPLEMENTATION.
7. CONTRACTOR MUST BE ABLE TO REMOVE ANY EQUIPMENT OR TEMPORARY STRUCTURES CONSTRUCTED WITHIN THE CHANNEL WITHIN 24 HOURS NOTICE.

⊠ 8. QUANTITY SHOWN FOR PAY ITEM 726-01-00100 "AGGREGATE BEDDING MATERIAL" INCLUDED FOR ESTIMATING PURPOSES. QUANTITY ASSUMES AGGREGATE BEDDING MATERIAL (6" THICK) WILL BE REQUIRED FOR 50% OF ALL INSTALLED STORM DRAIN PIPE. AGGREGATE BEDDING MATERIAL (6" THICK) SHALL BE REQUIRED UNDER ALL CATCH BASINS. AGGREGATE BEDDING MATERIAL SHALL BE REQUIRED UNDER ALL STORM DRAIN PIPE AT THE DISCRETION OF THE PROJECT ENGINEER.

TRAFFIC CONTROL NOTES:

1. APPROACH SLAB REPAIR WORK SHALL BE CONDUCTED IN TWO PHASES AS SHOWN ON THE TEMPORARY TRAFFIC CONTROL SHEETS. THE PROVIDED TRAFFIC CONTROL ALLOWS FOR CONSTRUCTION ON ONE HALF OF THE APPROACH SLABS AT A TIME. ANY MODIFICATION TO THIS TRAFFIC CONTROL OR ANY ADDITIONAL TRAFFIC CONTROL REQUIRED SHALL BE SUBMITTED FOR APPROVAL A MINIMUM OF 2 WEEKS PRIOR TO IMPLEMENTATION.
2. SIGNAL TIMINGS MAY NEED TO BE MODIFIED DURING LANE CLOSURES. LCG WILL PROVIDE ALL SERVICES RELATED TO SIGNAL TIMING ADJUSTMENTS. CONTRACTOR SHALL COORDINATE WITH LCG A MINIMUM OF TWO WEEKS PRIOR TO ANY LANE CLOSURES.
3. CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE 12' LANE IN EACH DIRECTION AT ALL TIMES.
4. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL DRIVEWAYS LOCATED WITHIN THE PROJECT LIMITS AT ALL TIMES.
5. CHANNELIZATION DEVICE SPACING SHOWN REPRESENTS MAXIMUM ALLOWABLE DEVICE SPACING FOR DAY TIME OPERATIONS. IF LAYOUT IS LEFT IN PLACE DURING NIGHTTIME HOURS THE CONTRACTOR SHALL BE REQUIRED TO USE FLEX POSTS OR SUPER CONES TO SEPARATE HEAD-TO-HEAD (TWO-LANE TWO WAY TRAFFIC) SPACED AT 20 FEET IN TANGENT AND 10 FEET IN TAPER.
6. IF TRAFFIC CONTROL IS PLANNED TO BE IN PLACE FOR MORE THAN 3 DAYS, CONFLICTING PAVEMENT MARKING SHALL BE REMOVED AND TEMPORARY MARKINGS SHALL BE ADDED. IF TEMPORARY MARKING ARE ADDED THEY WILL BE INCLUDED IN THE COST OF ITEM 713-01-00100 "TEMPORARY SIGNS AND BARRICADES" AT NO DIRECT PAY.

SHEET 02

DESIGNED	D SALTZMAN	D SALTZMAN	AUGUST 2024
CHECKED	M HELMINGER	M HELMINGER	1 OF 1
		DETAILED	DATE
		CHECKED	DWG. NO.

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
DEVIN F. SALTZMAN
License No. 48591
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
8/16/2024

SUMMARY OF ESTIMATED QUANTITIES & GENERAL NOTES

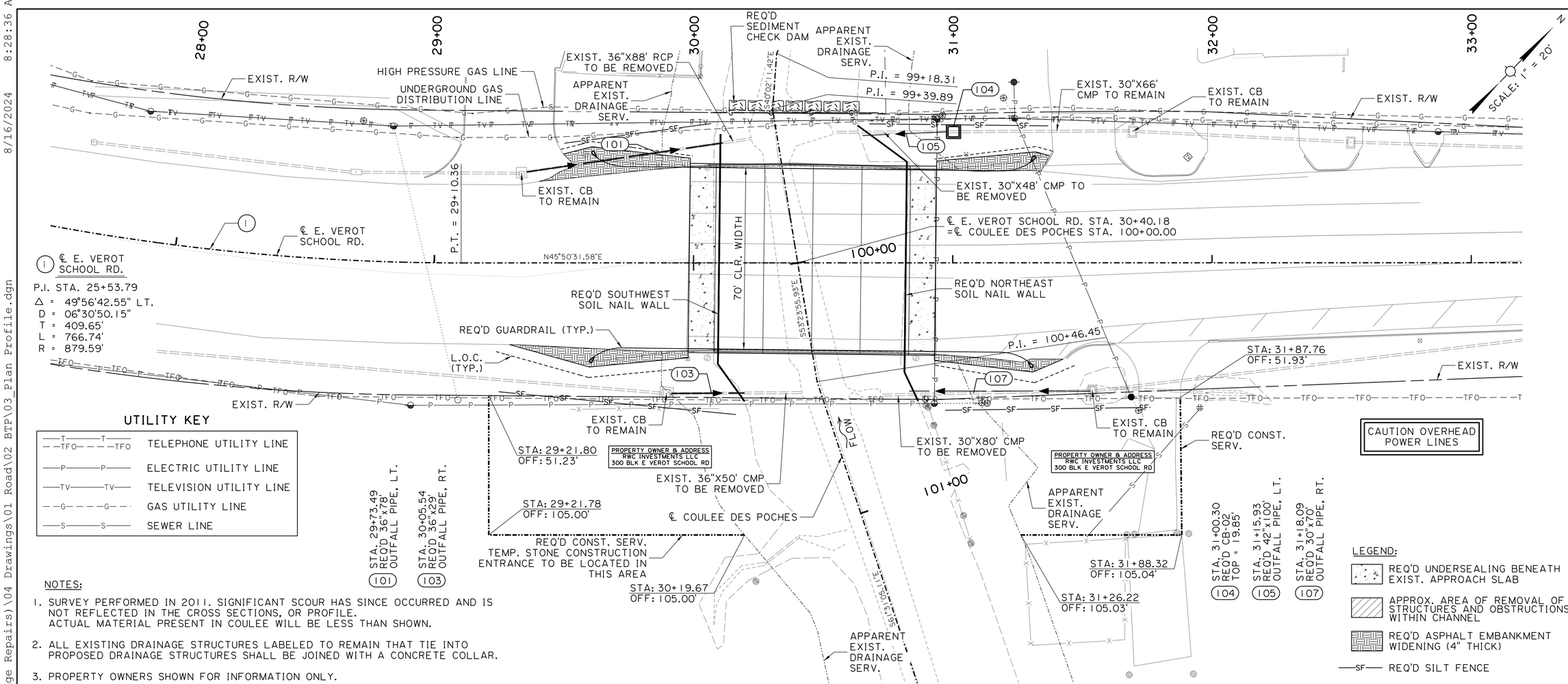
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

HUVAL

FINAL PLANS
S:\xdrive\HUVAL Projects\7507 (E. Verot School Rd. Bridge Repairs)\04 Drawings\01 Road\02 BTP\03_Plan Profile.dgn 8/16/2024 8:28:36 AM



UTILITY KEY

- TELEPHONE UTILITY LINE
- ELECTRIC UTILITY LINE
- TELEVISION UTILITY LINE
- GAS UTILITY LINE
- SEWER LINE

STA. 29+73.49
REQ'D 36"x78' OUTFALL PIPE, LT.
(101)

STA. 30+05.54
REQ'D 36"x29' OUTFALL PIPE, RT.
(103)

STA. 31+00.30
REQ'D CB-02 TOP = 19.85'
(104)

STA. 31+15.93
REQ'D 42"x100' OUTFALL PIPE, LT.
(105)

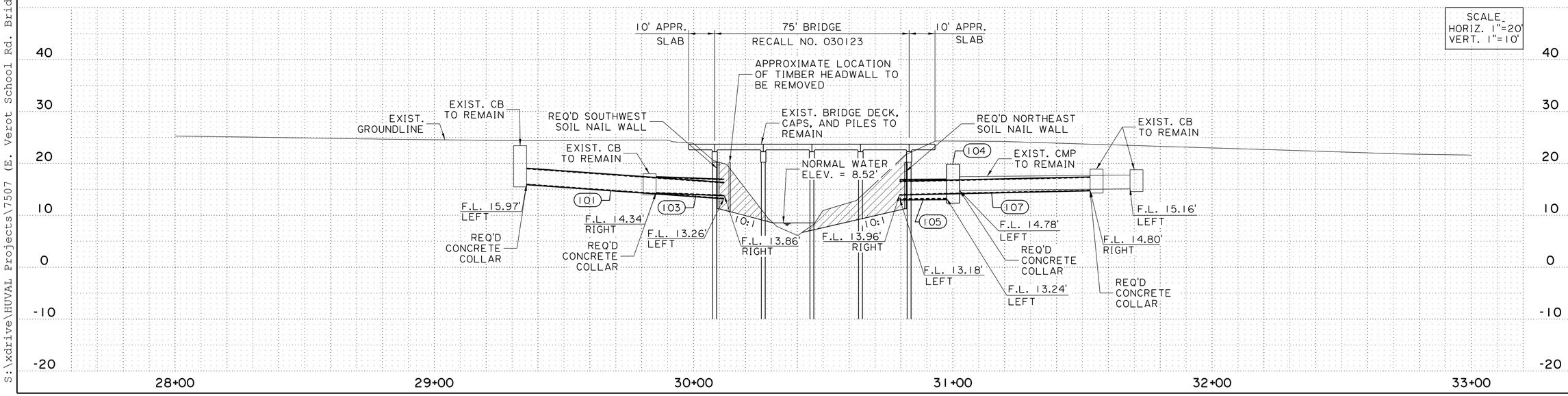
STA. 31+18.09
REQ'D 30"x70' OUTFALL PIPE, RT.
(107)

LEGEND:

- REQ'D UNDERSEALING BENEATH EXIST. APPROACH SLAB
- APPROX. AREA OF REMOVAL OF STRUCTURES AND OBSTRUCTIONS WITHIN CHANNEL
- REQ'D ASPHALT EMBANKMENT WIDENING (4" THICK)
- SF REQ'D SILT FENCE

NOTES:

1. SURVEY PERFORMED IN 2011. SIGNIFICANT SCOUR HAS SINCE OCCURRED AND IS NOT REFLECTED IN THE CROSS SECTIONS, OR PROFILE. ACTUAL MATERIAL PRESENT IN COULEE WILL BE LESS THAN SHOWN.
2. ALL EXISTING DRAINAGE STRUCTURES LABELED TO REMAIN THAT TIE INTO PROPOSED DRAINAGE STRUCTURES SHALL BE JOINED WITH A CONCRETE COLLAR.
3. PROPERTY OWNERS SHOWN FOR INFORMATION ONLY.



SHEET 03

DESIGNED	D SALTZMAN	DETAILED	D SALTZMAN	DATE	AUGUST 2024
CHECKED	M HELMINGER	CHECKED	M HELMINGER	DWG. NO.	1 OF 1

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
DEVIN F. SALTZMAN
License No. 48591
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
8/16/2024

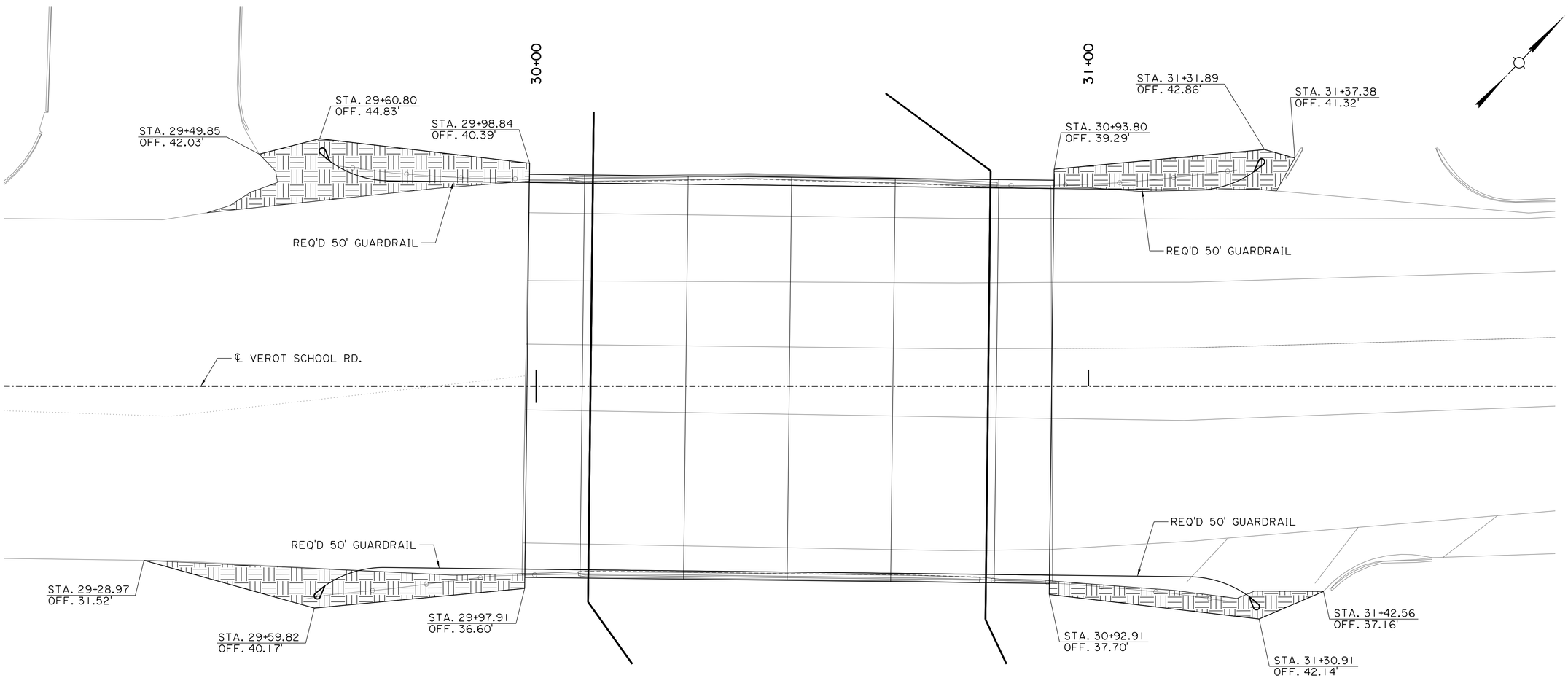
GENERAL PLAN–PROFILE

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

HUVAL Planning Bridge Construction Management



E. VEROT SCHOOL RD. GUARDRAIL AND EMBANKMENT WIDENING LAYOUT

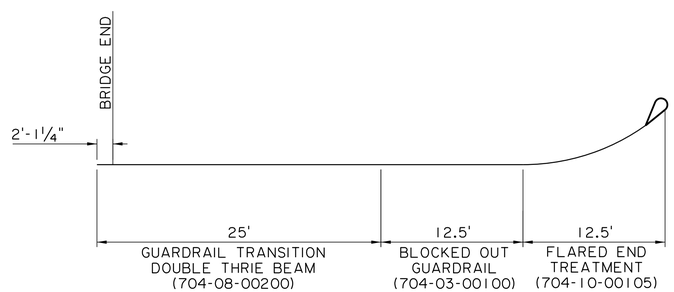
SCALE: 1"=10'

LEGEND:

ASPHALT EMBANKMENT WIDENING (4" THICK)
MAX SLOPE = 10:1

NOTES:

1. EXISTING OBJECT MARKERS (TYPE 3) TO REMAIN



TYPICAL 50' GUARDRAIL PAYMENT DETAIL

SCALE: N.T.S.

SHEET 04

DESIGNED	D SALTZMAN	DETAILED	D SALTZMAN	DATE	AUGUST 2024
CHECKED	M HELMINGER	CHECKED	M HELMINGER	DWG. NO.	1 OF 1

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
DEVIN F. SALTZMAN
License No. 48591
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
Devin F. Saltzman
8/16/2024

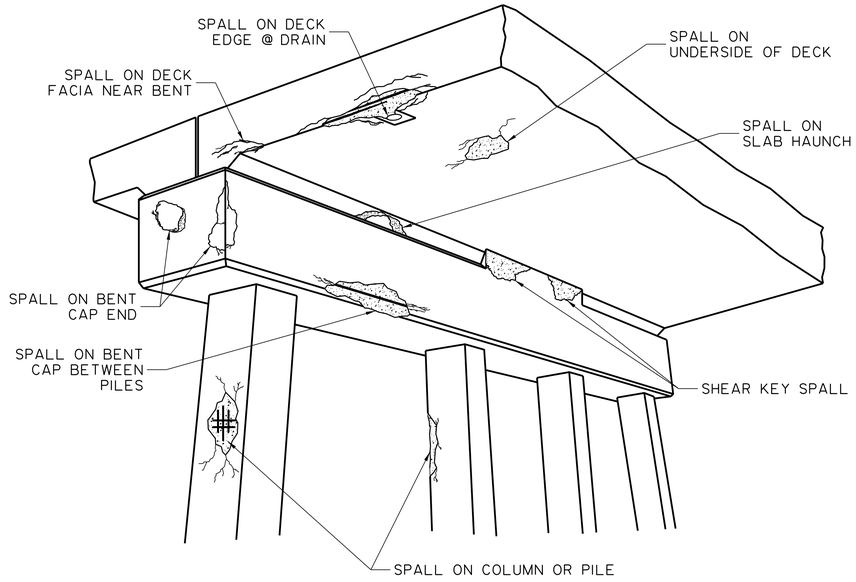
GUARDRAIL AND EMBANKMENT WIDENING LAYOUT

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

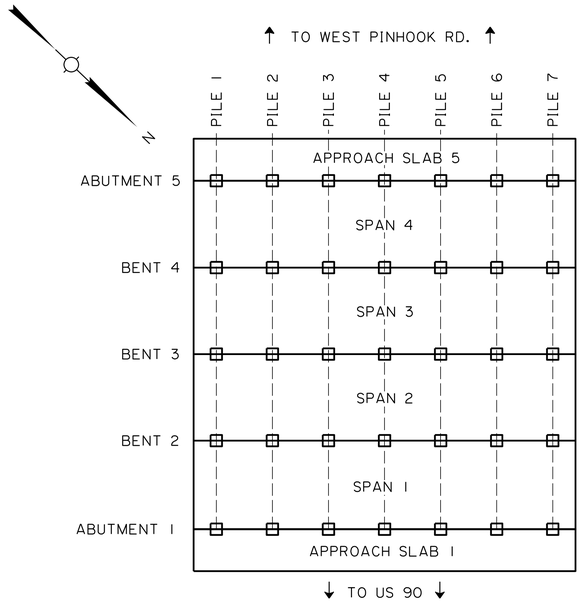
Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

HUVAL



TYPICAL SPALLS
SCALE: N.T.S.



BRIDGE LAYOUT
SCALE: N.T.S.

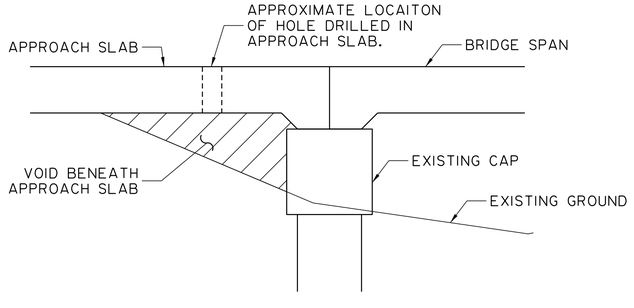
"CONCRETE REPAIR" NOTES: SPALLS WITH OR WITHOUT EXPOSED REINFORCING STEEL

1. FOR HORIZONTAL, VERTICAL, AND OVERHEAD SPALL REPAIRS, CHIP OUT ALL LOOSE, SOFT, HONEYCOMBED AND DISINTEGRATED CONCRETE. THE CONTRACTOR SHALL SOUND THE AREA ADJACENT TO THE SPALL AND DETERMINE EXTENTS OF SPALL TO SOUND CONCRETE. ADDITIONAL CONCRETE SHALL BE REMOVED WHERE NECESSARY TO PERMIT THE PLACEMENT OF THE MINIMUM SPECIFIED MORTAR THICKNESS. ADDITIONALLY, THE CONTRACTOR SHALL SCORE A MINIMUM ½" DEEP BOUNDARY CONTINUOUS AROUND THE SPALL AREA AND CHIP OUT TO THE SPALL FOR A DEFINING EDGE OF SOUND HARDENED CONCRETE SURROUNDING SPALL FOR PATCH TERMINATION AND ASSURED SPECIFIED THICKNESS. ALL WORK SHALL BE DONE IN SUCH A MANNER AS NOT TO DAMAGE OR SHATTER THE SOUND CONCRETE THAT IS TO REMAIN. THE CONCRETE SURFACE SHALL BE THOROUGHLY CLEANED OF ALL DIRT, DUST, RUST SCALE, AND OTHER FOREIGN MATERIALS.
2. IF DURING THE CONCRETE REMOVAL PROCESS, IF REINFORCING STEEL IS FOUND TO HAVE LOOSE RUST OR CORROSION PRODUCTS OR IS NOT BONDING WELL TO THE SURROUNDING CONCRETE, THEN THE CONCRETE REMOVAL SHALL CONTINUE TO CREATE A MINIMUM 1¾" CLEAR SPACE BEHIND THE REINFORCING STEEL. ALL EXPOSED SURFACES OF THE REINFORCEMENT SHALL BE THOROUGHLY CLEANED OF ALL LOOSE MORTAR, RUST, OIL AND OTHER CONTAMINANTS. PASSIVE CATHODIC PROTECTION SHALL BE APPLIED TO ALL EXPOSED REBAR.
3. SPALL REPAIRS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER OR FIELD INSPECTOR FOR CLEANLINESS PRIOR TO THE APPLICATION OF THE CEMENT-BASED REPAIR MORTAR FROM THE LA DOTD AML PRODUCT CATEGORY "PATCHING MATERIALS FOR CONCRETE" WHICH IS APPROPRIATE FOR VERTICAL OR OVERHEAD APPLICATIONS ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS. AN EXCEPTION IS MADE FOR PATCHING ANY BRIDGE DECK SPALLS, WHERE THE MATERIAL MAY BE CHOSEN FROM THE LA DOTD AML PRODUCT CATEGORY "PATCHING MATERIALS FOR CONCRETE".
4. AFTER THE MORTAR HAS BEEN PLACED TO DESIRED THICKNESS, ALL HIGH SPOTS SHALL BE CUT OFF WITH A SHARP TROWEL, OR SCREEDED TO A TRUE PLANE AS DETERMINED BY THE ENGINEER OR FIELD INSPECTOR. ALL SPALLS SHALL BE REPAIRED AND FINISHED TO MATCH THE AS-BUILT PLAN DIMENSIONS. AFTER CURING AND BEFORE FINAL ACCEPTANCE, ALL PATCH AREAS SHALL BE SOUNDED BY THE ENGINEER OR FIELD INSPECTOR.
5. THE REPAIR MORTAR SHALL BE PLACED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS.
6. FOR SPALLS IN THE DECK RIDING SURFACE WHICH HAVE BEEN PREVIOUSLY PATCHED WITH ASPHALT, THE ASPHALT SHALL BE COMPLETELY REMOVED. ONCE REMOVED, THE STEPS OUTLINED ABOVE SHALL BE FOLLOWED TO COMPELTE THE REPAIR.
7. THE COST ASSOCIATED WITH THESE REPAIRS SHALL BE INCLUDED IN ITEM NO. NS-1400-00013 "STRUCTURAL CONCRETE PATCHING".

*CONCRETE REPAIR LOCATIONS

BENT/SPAN NO.	REPAIR TYPE	LOCATION	SPALL REPAIR (SQ. FT.)
SPAN 1	SPALL	DECK HAUNCH OVER ABUTMENT 1 (ABOVE KEY & RIGHT OF PILE 3)	2.8
SPAN 1	SPALL	DECK HAUNCH OVER BENT 2 (BETWEEN PILES 3 & 4)	1.5
SPAN 2	SPALL	DECK HAUNCH OVER BENT 2 (BETWEEN PILES 3 & 4)	4.7
SPAN 3	SPALL	DECK HAUNCH OVER BENT 3 (AT KEY)	1.0
SPAN 4	SPALL	DECK HAUNCH OVER BENT 4 (RIGHT SIDE OF PILE 3)	0.6
SPAN 4	SPALL	DECK HAUNCH OVER BENT 4 (LEFT & RIGHT SIDE OF KEY)	0.3
SPAN 4	SPALL	DECK HAUNCH OVER BENT 4 (OVER PILE 4)	1.0
SPAN 4	SPALL	DECK HAUNCH OVER BENT 4 (4' RIGHT OF PILE 4)	1.0
BENT 2	SPALL	PILE 3 (EAST CORNER)	0.4
BENT 4	SPALL	PILE 2 (NORTH WEST CORNER)	0.4
		SUBTOTAL	13.7

*REPAIR QUANTITIES SHOWN ARE FOR ESTIMATING PURPOSES ONLY AND MAY NOT BE INCLUSIVE OF ALL LOCATIONS NEEDING REPAIR.
CONTRACTOR SHALL FIELD VERIFY LOCATION AND QUANTITY OF REPAIRS NEEDED.



APPROACH SLAB UNDERSEALING DETAL
SCALE: N.T.S.

APPROACHS SLAB UNDERSEALING NOTES:

1. A VOID OF APPROXIMATELY 35'X2.5'X1.5' CURRENTLY EXISTS AT APPROACH SLAB 1, AND A VOID OF APPROXIMATELY 74'X6'X65' CURRENTLY EXISTS AT APPROACH SLAB 5. THESE VOIDS SHALL BE FILLED WITH FLOWABLE FILL. VOID REPAIRS SHALL BE PAID AS ITEM NS-1400-00011 "UNDERSEALING APPROACH SLAB". VOID SIZE GIVEN FOR ESTIMATING PURPOSES ONLY, CONTRACTOR SHALL FIELD VERIFY THE TOTAL VOLUME OF FLOWABLE FILL REQUIRED TO REPAIR VOIDS.
2. THE CONTRACTOR SHALL BE ALLOWED TO DRILL 1½" DIAMETER HOLES THROUGH THE EXISTING APPROACH SLAB IF REQUIRED TO ADEQUATELY PUMP FLOWABLE FILL. HOLE LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND SUBMITTED TO THE PROJECT ENGINEER FOR APPROVAL.

SHEET 05

DESIGNED	D SALTZMAN
CHECKED	M HELMINGER
DETAILED	D SALTZMAN
CHECKED	M HELMINGER
DATE	AUGUST 2024
DWG. NO.	1 OF 1

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

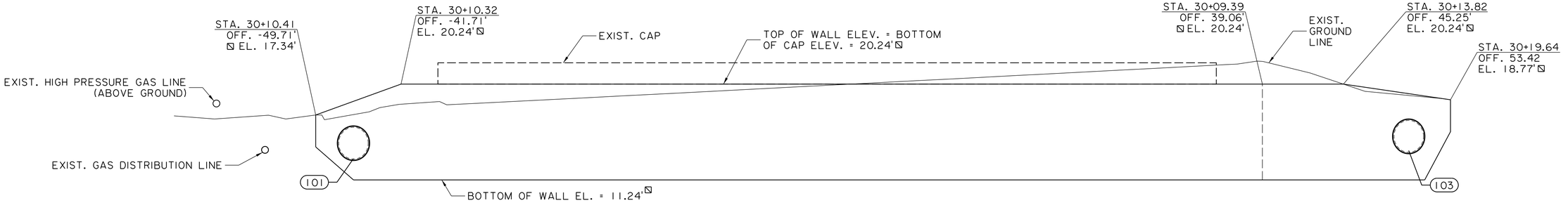
STATE OF LOUISIANA
DEVIN F. SALTZMAN
License No. 48591
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
Devin F. Saltzman
8/16/2024

TYPICAL CONCRETE REPAIRS

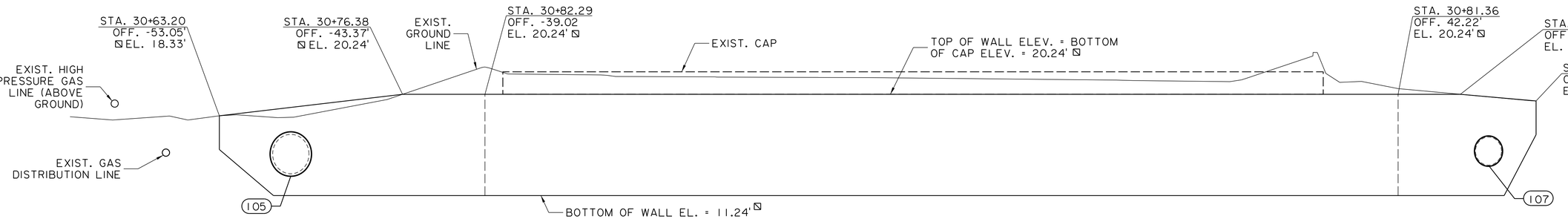
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

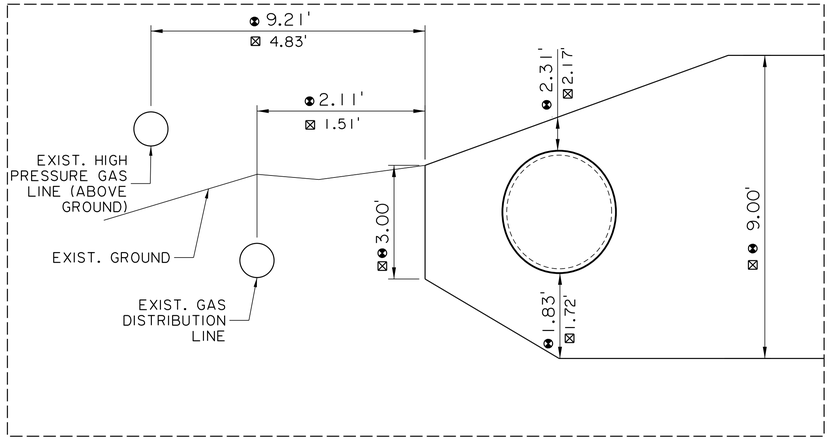
HUVAL
Planning Design Construction Management



SOUTHWEST SOIL NAIL WALL PROFILE
SCALE: 1" = 5'



NORTHEAST SOIL NAIL WALL PROFILE
SCALE: 1" = 5'



MINIMUM DIMENSIONS
NORTH OF BRIDGE
SCALE: N.T.S.

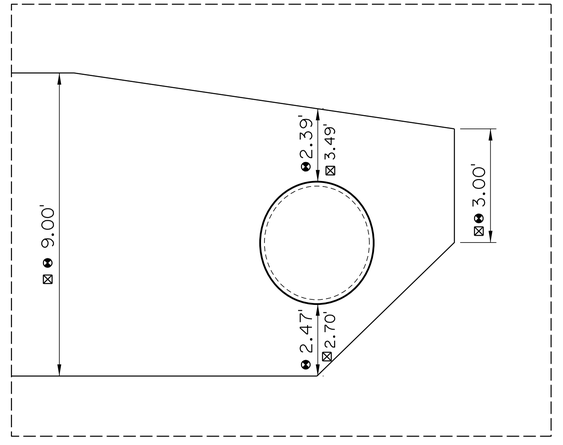
NOTES:

1. STATION/OFFSETS AND WALL GEOMETRY ARE MINIMUMS AND (WITH THE NOTED EXCEPTIONS) SHOWN FOR BIDDING PURPOSES ONLY. MINIMUM DIMENSIONS SHOWN IN INSETS ARE REQUIRED FOR GAS LINES AND DRAIN PIPES. SOIL NAIL WALL AND ALL ASSOCIATED COMPONENTS TO BE DESIGNED BY CONTRACTOR INSTALLING THE SOIL NAIL WALL.

● DENOTES DIMENSIONS ON SOUTHWEST WALL

⊠ DENOTES DIMENSIONS ON NORTHEAST WALL

⧅ CONTRACTOR TO FIELD VERIFY. ELEVATION MAY BE ADJUSTED TO MEET FIELD CONDITIONS.



MINIMUM DIMENSIONS
SOUTH OF BRIDGE
SCALE: N.T.S.

SHEET 06

DESIGNED	D SALTZMAN	DETAILED	D SALTZMAN	DATE	AUGUST 2024
CHECKED	M HELMINGER	CHECKED	M HELMINGER	DWG. NO.	1 OF 1

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
DEVIN F. SALTZMAN
License No. 48591
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
8/16/2024

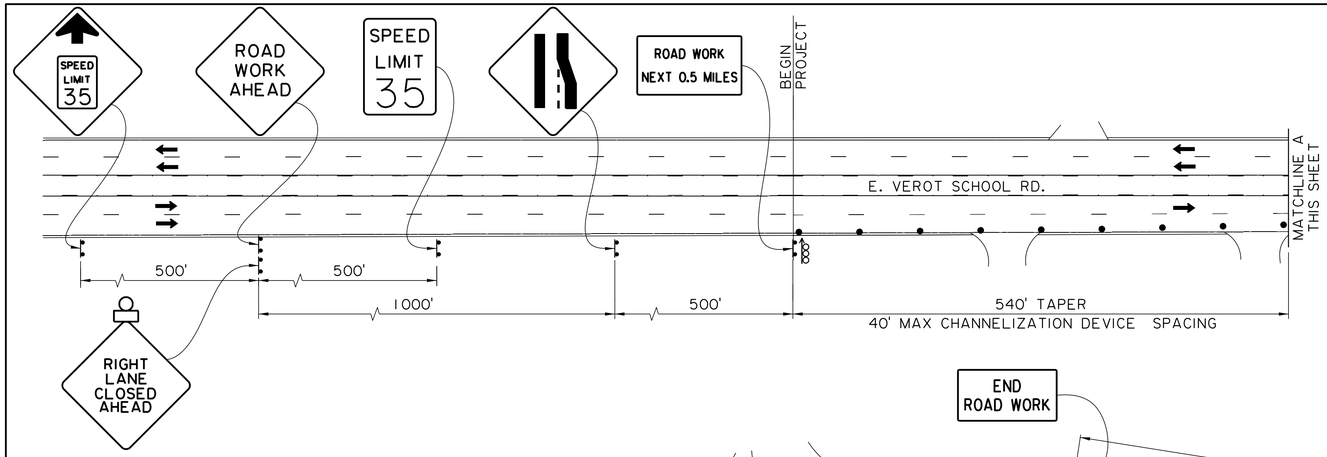
SOIL NAIL WALL DETAILS

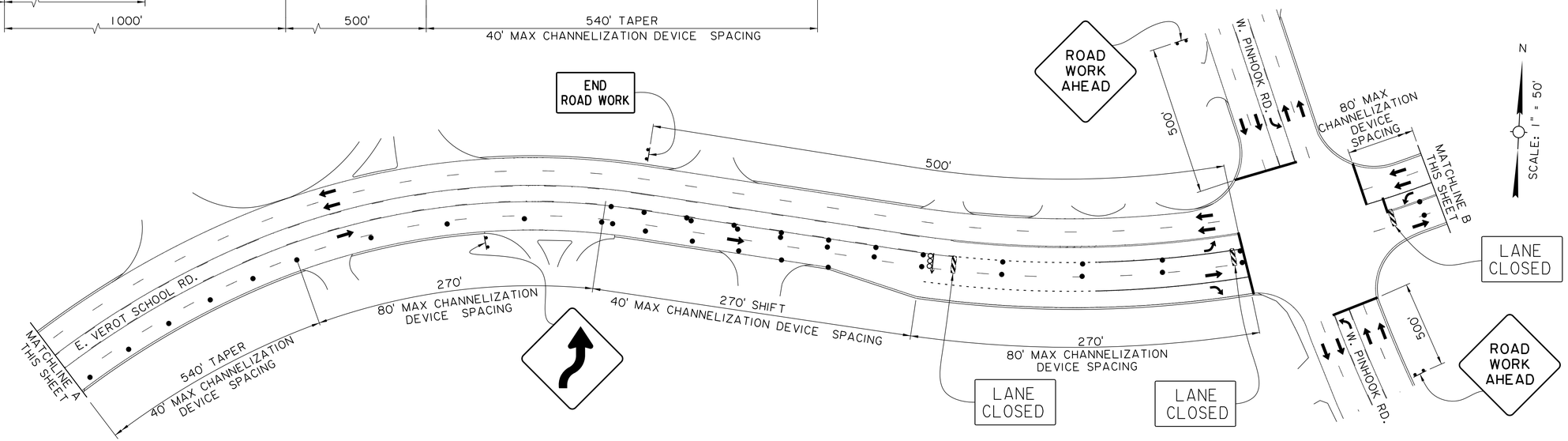
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

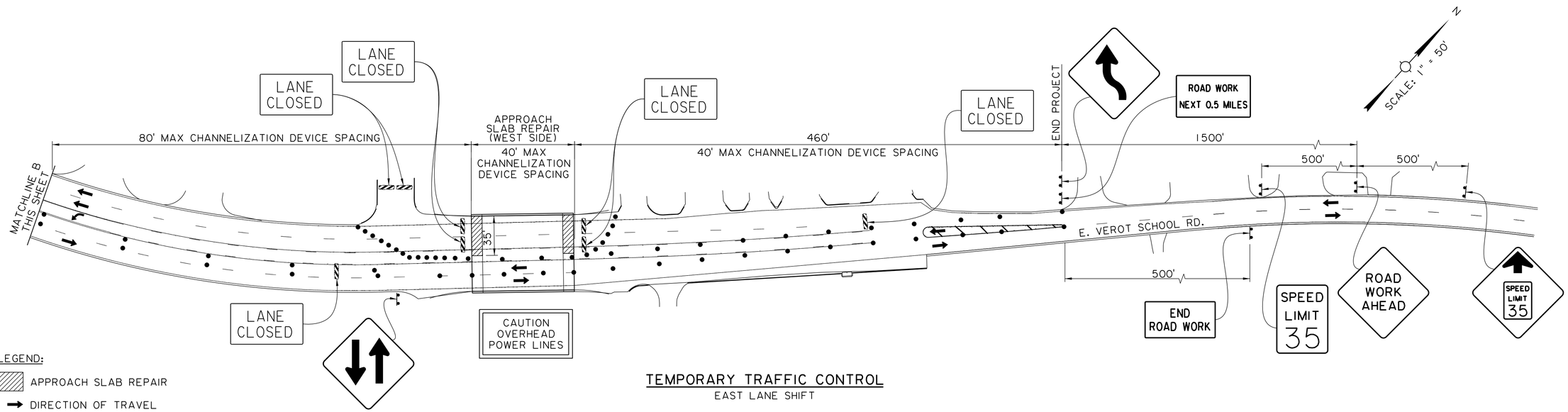
Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

HUVAL Planning Design Construction Management

FINAL PLANS
S:\xdrive\HUVAL Projects\7507 (E. Verot School Rd. Bridge Repairs)\04 Drawings\01 Road\02 BTP\06_Wall Details.dgn 8/16/2024 8:29:56 AM







LEGEND:

- APPROACH SLAB REPAIR
- DIRECTION OF TRAVEL
- CHANNELIZING DEVICES
- FLASHING ARROW BOARD (TYPE 'C')
- TYPE III BARRICADE
- TYPE B LIGHT

TEMPORARY TRAFFIC CONTROL
EAST LANE SHIFT

SHEET 07

DESIGNED	D SALTZMAN
CHECKED	M HELMINGER
DETAILED	D SALTZMAN
CHECKED	M HELMINGER
DATE	AUGUST 2024
DWG. NO.	1 OF 2

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

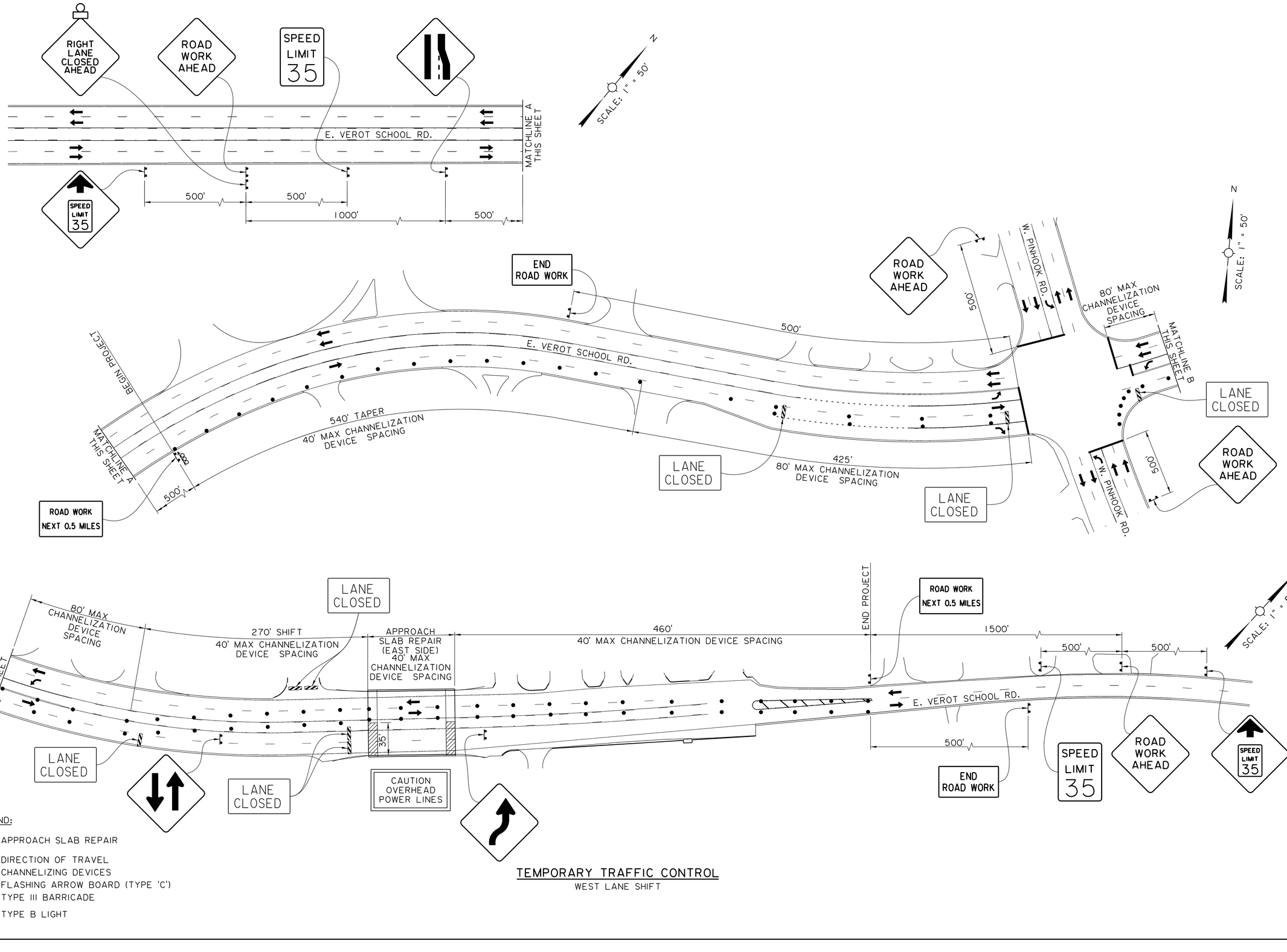
STATE OF LOUISIANA
DEVIN F. SALTZMAN
License No. 48591
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
8/16/2024

TEMPORARY TRAFFIC CONTROL
EAST LANE SHIFT

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

HUVAL



LEGEND:

- APPROACH SLAB REPAIR
- DIRECTION OF TRAVEL
- CHANNELIZING DEVICES
- FLASHING ARROW BOARD (TYPE 'C')
- TYPE III BARRICADE
- TYPE B LIGHT

TEMPORARY TRAFFIC CONTROL
WEST LANE SHIFT

SHEET 08

DESIGNED	D SALTZMAN	DETAILED	D SALTZMAN
CHECKED	M HELMINGER	CHECKED	M HELMINGER
DATE	AUGUST 2024	DWG. NO.	2 OF 2

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
DEVIN F. SALTZMAN
License No. 48591
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
8/16/2024

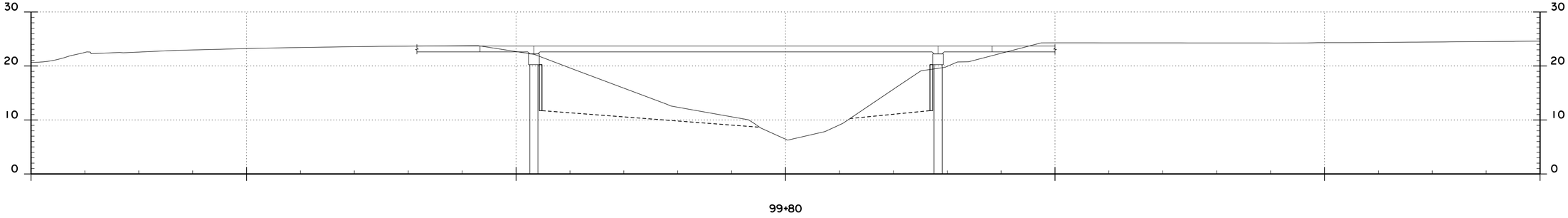
TEMPORARY TRAFFIC CONTROL
WEST LANE SHIFT

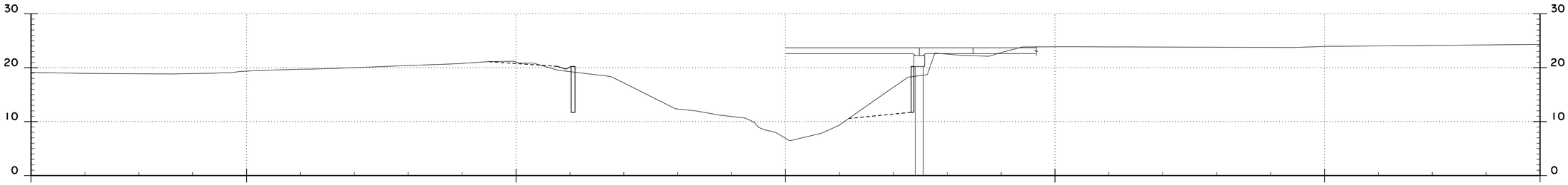
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

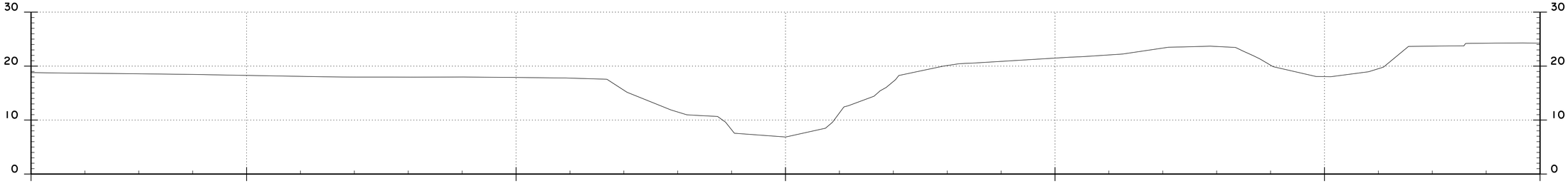
Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

HUVAL







NOTE:

SURVEY PERFORMED IN 2011. SIGNIFICANT SCOUR HAS SINCE OCCURRED AND IS NOT REFLECTED IN THE CROSS SECTIONS. ACTUAL MATERIAL PRESENT IN COULEE WILL BE LESS THAN SHOWN.

SCALE 1" = 10'

SHEET 201

DESIGNED	D SALTZMAN	DETAILED	D SALTZMAN
CHECKED	M HELMINGER	CHECKED	M HELMINGER
DATE	AUGUST 2024	DWG. NO.	1 OF 3

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
DEVIN F. SALTZMAN
License No. 48591
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
Devin F. Saltzman
8/16/2024

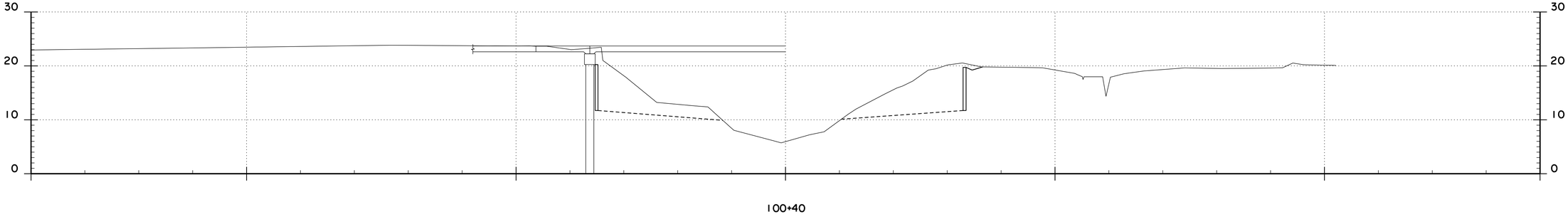
CROSS SECTIONS
COULEE DES POCHES

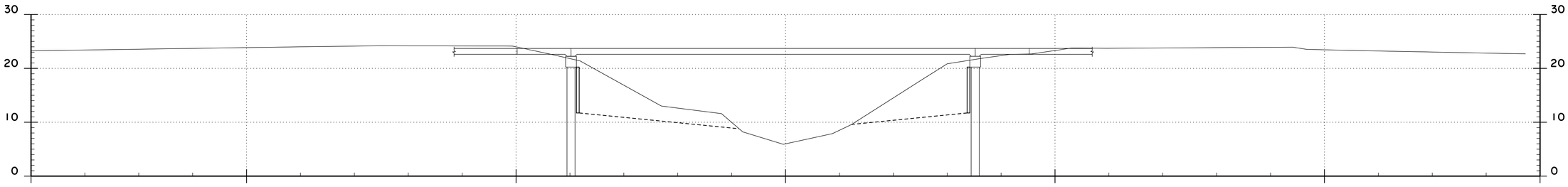
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

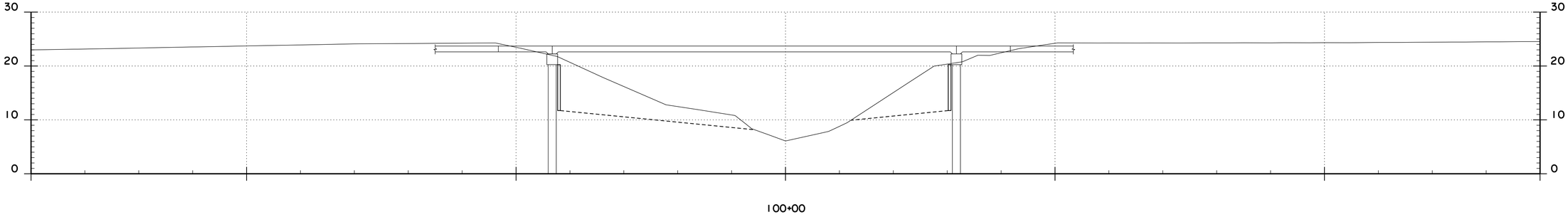
Lafayette
CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

HUVAL
Planning Bridge Construction Management







NOTE:

SURVEY PERFORMED IN 2011. SIGNIFICANT SCOUR HAS SINCE OCCURRED AND IS NOT REFLECTED IN THE CROSS SECTIONS. ACTUAL MATERIAL PRESENT IN COULEE WILL BE LESS THAN SHOWN.

SCALE 1" = 10'

SHEET 202

DESIGNED	D SALTZMAN
CHECKED	M HELMINGER
DETAILED	D SALTZMAN
CHECKED	M HELMINGER
DATE	AUGUST 2024
DWG. NO.	2 OF 3

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
DEVIN F. SALTZMAN
License No. 48591
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
8/16/2024

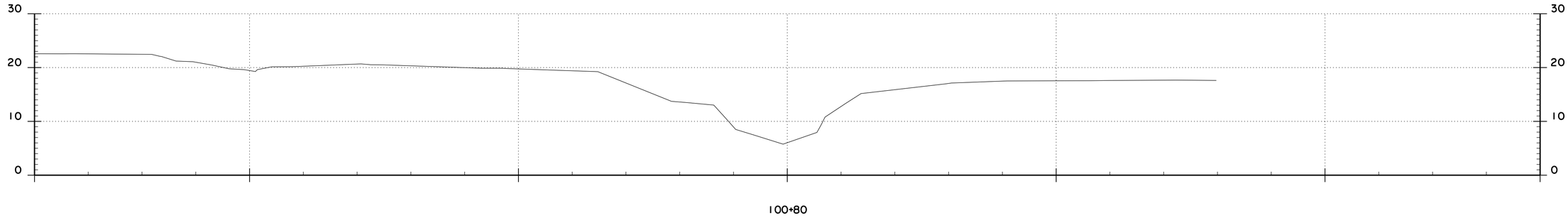
CROSS SECTIONS
COULEE DES POCHES

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

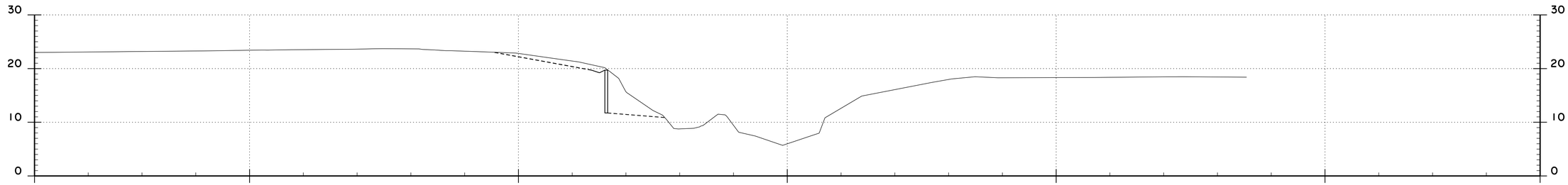
Lafayette
CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

HUVAL
Planning Bridge Construction Management



100+80



100+60

NOTE:

SURVEY PERFORMED IN 2011. SIGNIFICANT SCOUR HAS SINCE OCCURRED AND IS NOT REFLECTED IN THE CROSS SECTIONS. ACTUAL MATERIAL PRESENT IN COULEE WILL BE LESS THAN SHOWN.

SCALE 1" = 10'

SHEET 203

DESIGNED	D SALTZMAN
CHECKED	M HELMINGER
DETAILED	D SALTZMAN
CHECKED	M HELMINGER
DATE	AUGUST 2024
DWG. NO.	3 OF 3

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
DEVIN F. SALTZMAN
License No. 48591
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
Devin F. Saltzman
8/16/2024

CROSS SECTIONS
COULEE DES POCHES

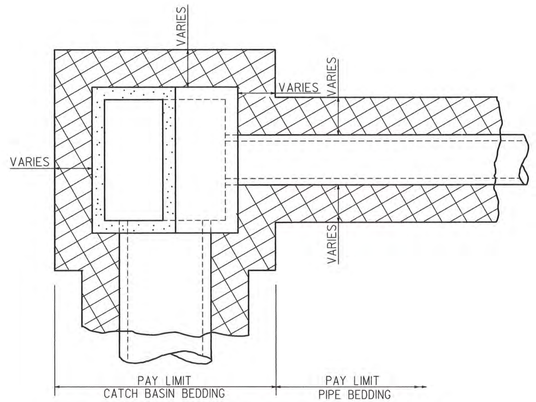
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette
CONSOLIDATED GOVERNMENT

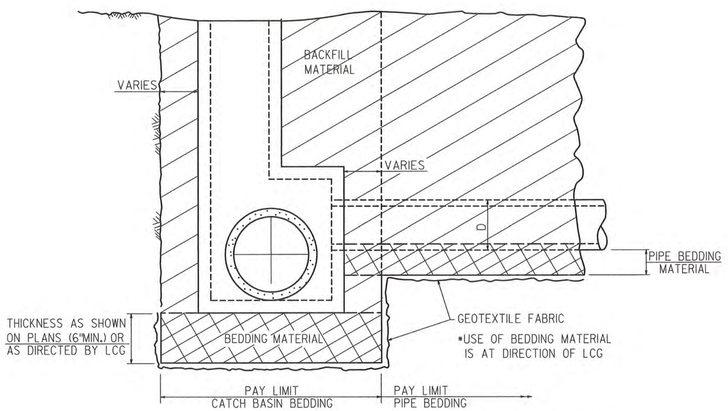
DEPARTMENT OF PUBLIC WORKS

HUVAL
Planning Design Construction Management

TYPICAL CATCH BASIN AND STORM DRAIN PIPE INSTALLATION WITH BEDDING MATERIAL



PLAN OF TYPICAL CATCH BASIN (MANHOLE OR JUNCTION BOX) AND PIPE



PROFILE OF TYPICAL CATCH BASIN (MANHOLE OR JUNCTION BOX) AND PIPE

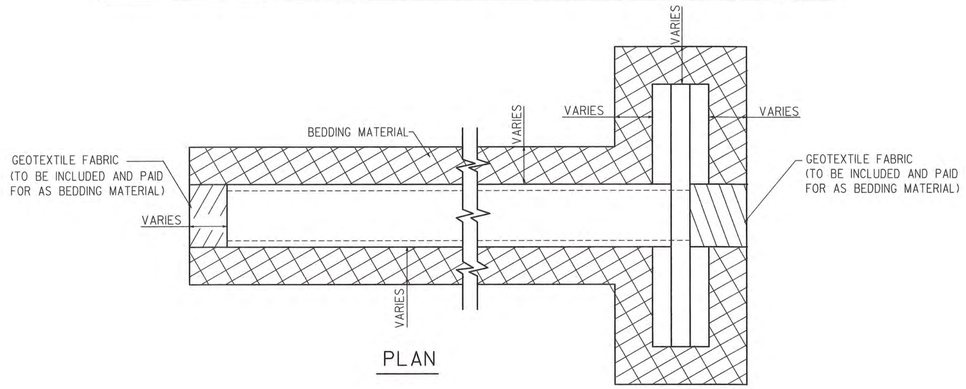
*DEDUCTION FROM BACKFILL QUANTITY		
R.C. PIPE		C.M. PIPE
PIPE DIAMETER	CU.YDS./LIN.FT.	CU.YDS./LIN.FT.
15"	0.0768	0.0455
18"	0.1068	0.0654
24"	0.1818	0.1164
30"	0.2765	0.1818
36"	0.3910	0.2618
42"	0.5254	0.3563
48"	0.6795	0.4654
54"	0.8534	0.5890
60"	1.0471	0.7272
72"	1.4940	1.0472
84"	2.0200	1.4253
96"	2.6252	1.8617
108"	3.3096	2.3562
120"	3.9593	2.9089
132"	4.7908	3.5197
144"	5.7014	4.1888

*DEDUCTION FROM BACKFILL QUANTITY			
R.C. PIPE ARCH		C.M. PIPE ARCH	
EQUIV. DIA.	CU.YDS./ LIN.FT.	EQUIV. DIA.	CU.YDS./ LIN.FT.
18"	0.0979	18"	0.0593
24"	0.1615	24"	0.1037
30"	0.2495	30"	0.1630
36"	0.3488	36"	0.2370
42"	0.4742	42"	0.3222
48"	0.6171	48"	0.4222
54"	0.7654	54"	0.5296
60"	0.9526	60"	0.6519
72"	1.3599	72"	0.9630
84"	1.8302	84"	1.2963
96"	2.6655	96"	1.7037
108"	3.3170	108"	2.1481

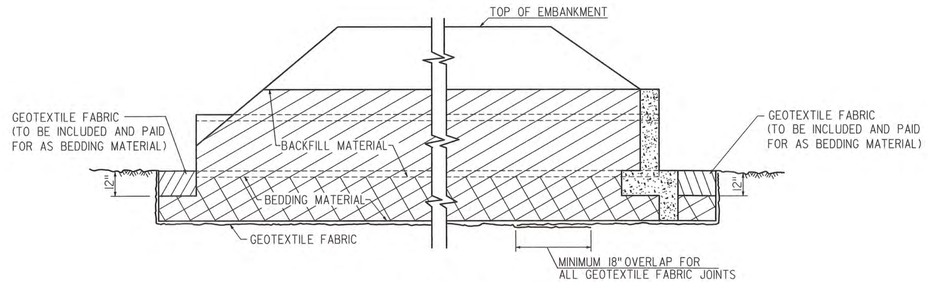
*FOR INFORMATIONAL PURPOSES ONLY. THE COST OF THE BACKFILL IS TO BE INCLUDED IN THE COST OF THE HYDRAULIC STRUCTURE FOR USE OF IN-SITU SOILS ONLY.

TYPE "A" OR "B" BACKFILL IS PAID FOR AS BORROW AS APPROVED BY THE ENGINEER.

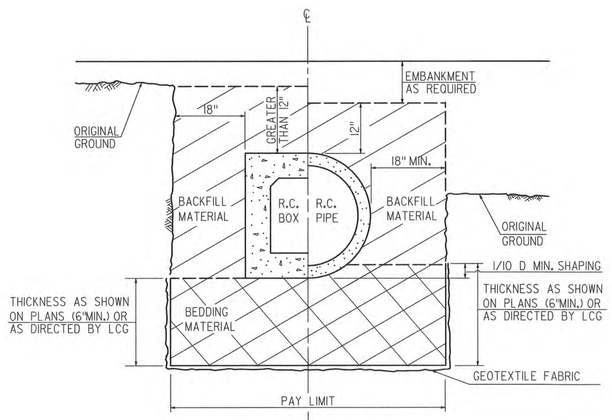
TYPICAL CROSS DRAIN INSTALLATION WITH BEDDING MATERIAL



PLAN



PROFILE



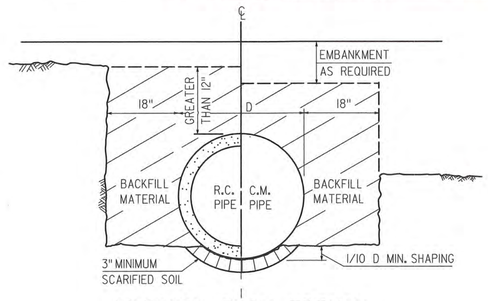
SECTION THRU TRENCH

HALF-SECTION SHOWING TOP OF BOX GREATER THAN 12" BELOW ORIGINAL GROUND (TRENCH INSTALLATION)

HALF-SECTION SHOWING TOP OF PIPE ABOVE ORIGINAL GROUND (EMBANKMENT INSTALLATION)

*USE OF BEDDING MATERIAL WITH PLASTIC FILTER CLOTH IS AT DIRECTION OF LCG.

TYPICAL PIPE INSTALLATION WITHOUT BEDDING MATERIAL



SECTION THRU TRENCH

HALF-SECTION SHOWING TOP OF PIPE GREATER THAN 12" BELOW ORIGINAL GROUND (TRENCH INSTALLATION)

HALF-SECTION SHOWING TOP OF PIPE ABOVE ORIGINAL GROUND (EMBANKMENT INSTALLATION)

1. STANDARD LAFAYETTE CONSOLIDATED GOVERNMENT PIPE INSTALLATION, BEDDING, AND BACKFILL ARE DEFINED IN LAFAYETTE CONSOLIDATED GOVERNMENT STANDARD SPECIFICATIONS.
2. THE NEED AND/OR THE THICKNESS OF BEDDING MATERIAL WILL BE DETERMINED BY THE GEOTECHNICAL SECTION AND WILL BE SHOWN ON THE PLANS. ADDITIONAL BEDDING MATERIAL MAY BE REQUIRED BY THE ENGINEER/OWNER.
3. THE DETAILS ON THIS SHEET DEPICT PAY LIMITS FOR BEDDING MATERIALS. THE BEDDING MATERIAL PAY QUANTITIES ARE TO BE BASED ON THE THEORETICAL NET SECTION WITH NO PIPE DEDUCTIONS. FULL PIPE DEDUCTIONS (SEE TABLES ON THIS SHEET) FOR BACKFILL QUANTITIES ARE FOR INFORMATIONAL PURPOSES ONLY. THE COST OF THE BACKFILL IS TO BE INCLUDED IN THE COST OF THE HYDRAULIC STRUCTURE WHEN USING IN-SITU SOILS ONLY.
4. REINFORCED CONCRETE PIPE, REINFORCED CONCRETE BOX AND CORRUGATED METAL PIPE ARE SHOWN AS TYPICAL STRUCTURES, DETAILS FOR REINFORCED CONCRETE PIPE ARCH, CORRUGATED METAL PIPE ARCH, AND CORRUGATED STRUCTURAL PLATE STRUCTURES ARE SIMILAR.
5. PLASTIC FILTER CLOTH SHALL BE REQUIRED WHEN BEDDING MATERIAL IS REQUIRED AND SHALL BE PLACED IN ACCORDANCE WITH DETAILS PRIOR TO PLACING BEDDING MATERIAL ADJACENT STRIPS OF FILTER CLOTH SHALL LAP EACH OTHER FOR AT LEAST 3 FEET. PLASTIC FILTER CLOTH WILL NOT BE MEASURED FOR PAYMENT.
6. BEDDING SHOWN ON THIS STANDARD PLAN CONFORMS TO THE REQUIREMENTS OF SECTION 726 OF THE LAFAYETTE CONSOLIDATED GOVERNMENT STANDARD SPECIFICATIONS.

SHEET 301

SCALE	NOT TO SCALE
DWG. NO.	R.V. / LA-DOTD
DRAWN BY	F.A.T.
CHECKED BY	F.A.T.
APPROVED BY	
DATE	JULY 22, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

JULY 22, 2021

DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

BEDDING AND BACKFILL FOR DRAINAGE STRUCTURES

STANDARD DETAIL BM-01

SHEET 1 OF 2

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT

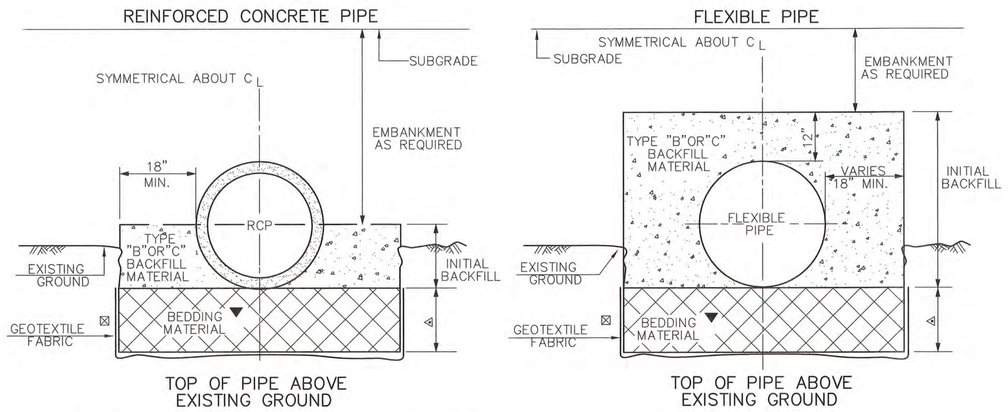
DEPARTMENT OF PUBLIC WORKS

SHEET 1 OF 2

TYPICAL PIPE INSTALLATION WITH BEDDING MATERIAL

EMBANKMENT INSTALLATION

① FOR RIGID PAVEMENTS, FLEXIBLE PAVEMENTS OR OTHER AREAS



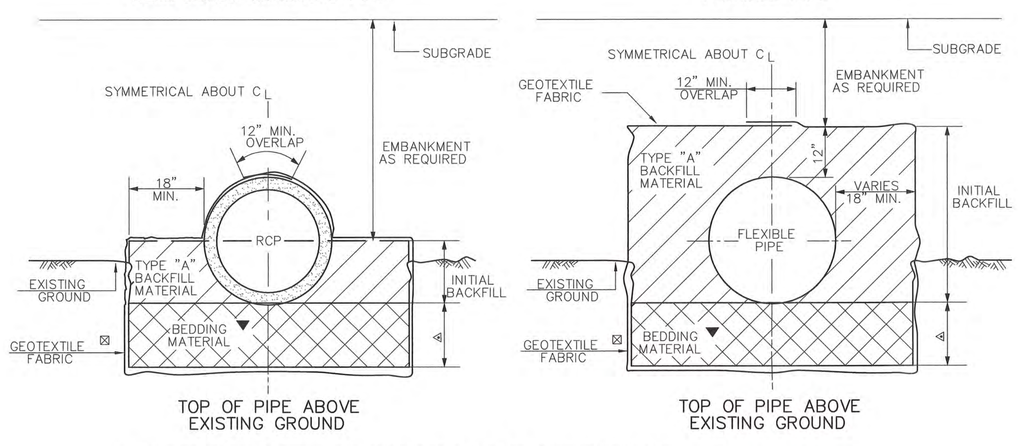
① FOR RIGID PAVEMENTS: APPLIES TO ALL PIPE UNDER RIGID PAVEMENT, EXCEPT AS NOTED FOR FLEXIBLE PAVEMENT NOTE ③ BELOW.

FOR FLEXIBLE PAVEMENTS: APPLIES TO PIPES THAT DO NOT CROSS THE CENTERLINE OF NEW OR EXISTING ROADWAY
FOR OTHER AREAS: APPLIES TO PIPES IN NONPAVED AREAS OR PAVED AREAS THAT SERVE AS DRIVEWAYS OR SHOULDERS

☒ IF DIRECTED BY THE PROJECT ENGINEER, GEOTEXTILE FABRIC WILL BE INSTALLED AROUND THE TYPE "B" BACKFILL AND PAID UNDER THE PAY ITEM FOR GEOTEXTILE FABRIC, SECTION 711 OR 203 OF THE LCG STANDARD SPECIFICATIONS OR BY CHANGE ORDER.

▼ USE OF BEDDING MATERIAL IS AT THE DIRECTION OF L.C.G.

②③ FOR FLEXIBLE PAVEMENTS



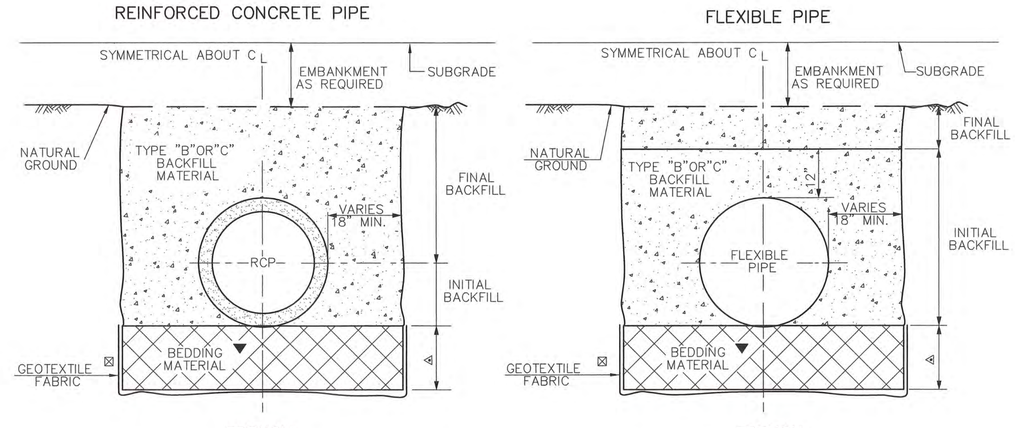
② APPLIES TO PIPE CROSSING THE CENTERLINE OF NEW OR EXISTING ROADWAYS

③ ALSO APPLIES UNDER RIGID PAVEMENTS FOR PIPES CROSSING THE CENTERLINE OF NEW OR EXISTING PAVEMENTS WHEN THE PROJECT IS BID USING A RIGID VS FLEXIBLE ALTERNATE (A + B + C) BID MODEL.

△ THICKNESS AS SHOWN ON PLANS (6" MIN.) OR AS DIRECTED BY L.C.G.

TRENCH INSTALLATION

① FOR RIGID PAVEMENTS, FLEXIBLE PAVEMENTS OR OTHER AREAS



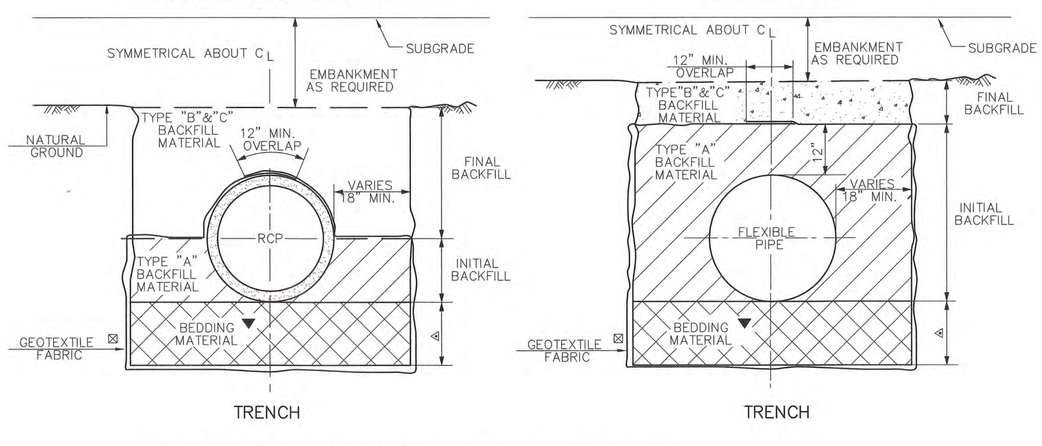
① FOR RIGID PAVEMENTS: APPLIES TO ALL PIPE UNDER RIGID PAVEMENT, EXCEPT AS NOTED FOR FLEXIBLE PAVEMENT NOTE ③ BELOW.

FOR FLEXIBLE PAVEMENTS: APPLIES TO PIPES THAT DO NOT CROSS THE CENTERLINE OF NEW OR EXISTING ROADWAY
FOR OTHER AREAS: APPLIES TO PIPES IN NONPAVED AREAS OR PAVED AREAS THAT SERVE AS DRIVEWAYS OR SHOULDERS

☒ IF DIRECTED BY THE PROJECT ENGINEER, GEOTEXTILE FABRIC WILL BE INSTALLED AROUND THE TYPE "B" BACKFILL AND PAID UNDER THE PAY ITEM FOR GEOTEXTILE FABRIC, SECTION 711 OR 203 OF THE LCG STANDARD SPECIFICATIONS OR BY CHANGE ORDER.

▼ USE OF BEDDING MATERIAL IS AT THE DIRECTION OF L.C.G.

②③ FOR FLEXIBLE PAVEMENTS



② APPLIES TO PIPE CROSSING THE CENTERLINE OF NEW OR EXISTING ROADWAYS

③ ALSO APPLIES UNDER RIGID PAVEMENTS FOR PIPES CROSSING THE CENTERLINE OF NEW OR EXISTING PAVEMENTS WHEN THE PROJECT IS BID USING A RIGID VS FLEXIBLE ALTERNATE (A + B + C) BID MODEL.

△ THICKNESS AS SHOWN ON PLANS (6" MIN.) OR AS DIRECTED BY L.C.G.

SHEET 302

SCALE	NOT TO SCALE
DWG. NO.	
DRAWN BY	R.V. / LA-DOTD
CHECKED BY	F.A.T.
APPROVED BY	F.A.T.
DATE	JULY 22, 2021

NO.	REVISION DESCRIPTION	DATE	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

JULY 22, 2021

DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

BEDDING AND BACKFILL FOR DRAINAGE STRUCTURES

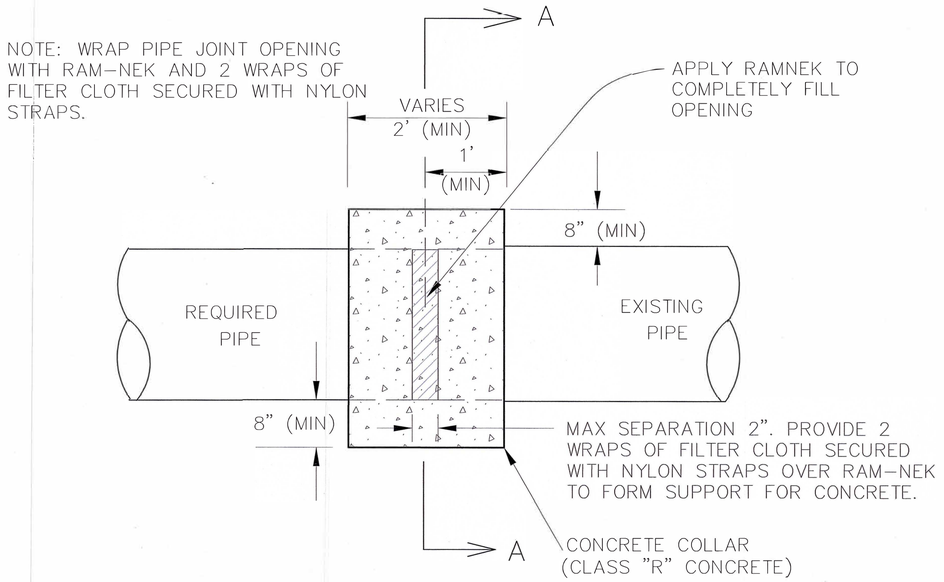
STANDARD DETAIL BM-01 SHEET 2 OF 2

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT

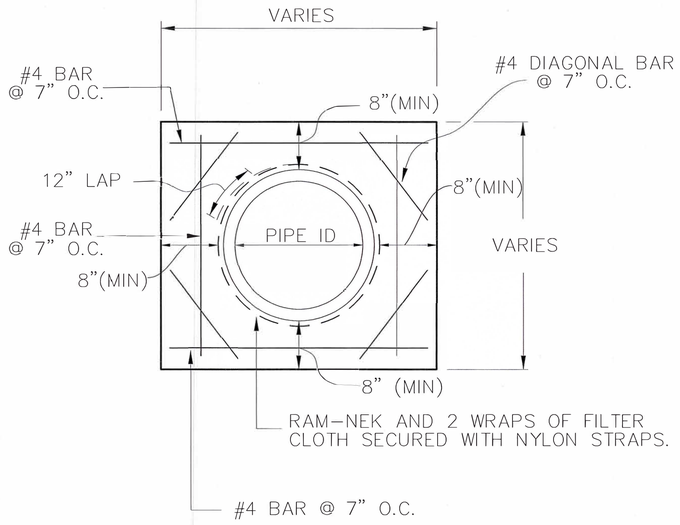
DEPARTMENT OF PUBLIC WORKS

SHEET 2 OF 2



CONCRETE COLLAR DETAIL
PIPE TO PIPE

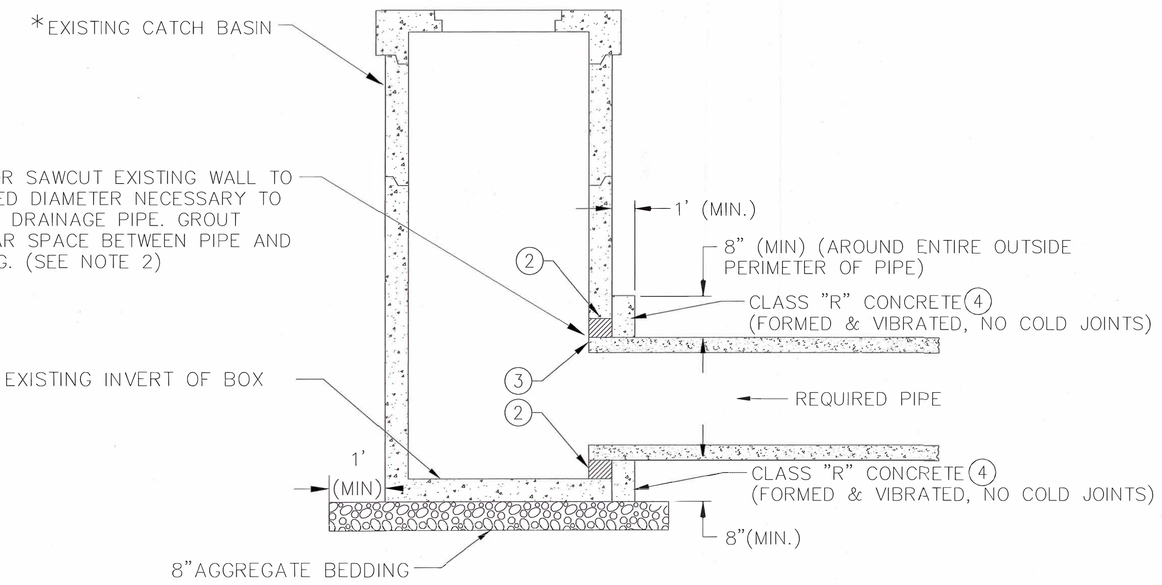
N.T.S.



SECTION A-A

NOTES FOR CONCRETE COLLAR DETAIL, PIPE TO EXISTING CONCRETE CATCH BASIN:

1) PAYMENT OF COLLARS TO BE AS PER SECTION 701 OF THE LAFAYETTE CONSOLIDATED GOVERNMENT STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.
2) PIPE TO BE GROUTED IN PRIOR TO INSTALLATION OF CONCRETE COLLAR WITH A NON-SHRINK GROUT LISTED ON THE LA-DOTD AML.
3) ALL PIPES TO BE CUT FLUSH WITH INSIDE OF DRAINAGE STRUCTURE ±½".
4) PAYMENT FOR THE CONCRETE COLLAR SHALL BE PER EACH INSTALLED. THE COLLAR MUST BE FORMED AND VIBRATED.



CONCRETE COLLAR DETAIL
PIPE TO EXISTING CONCRETE CATCH BASIN

N.T.S.

NOTE: CONCRETE COLLAR TO BE REINFORCED AS SHOWN IN SECTION A-A.

*DETAIL OF COLLAR AT TIE IN TO PRE-CAST CONCRETE DRAINAGE STRUCTURES SHALL BE AS SHOWN ON LCG STANDARD DETAIL PC-01.

SHEET **303**

SCALE	NOT TO SCALE
DWG. NO.	
DRAWN BY	M.P.
CHECKED BY	F.J.T.
APPROVED BY	F.J.T.
DATE	AUGUST 12, 2021

NO.	DATE	REVISION DESCRIPTION	BY
1	1/29/2024	ADDITION OF PIPE TO CATCH BASIN DETAIL	

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER
1/29/24
CIVIL ENGINEERING

DATE: 1/29/2024

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

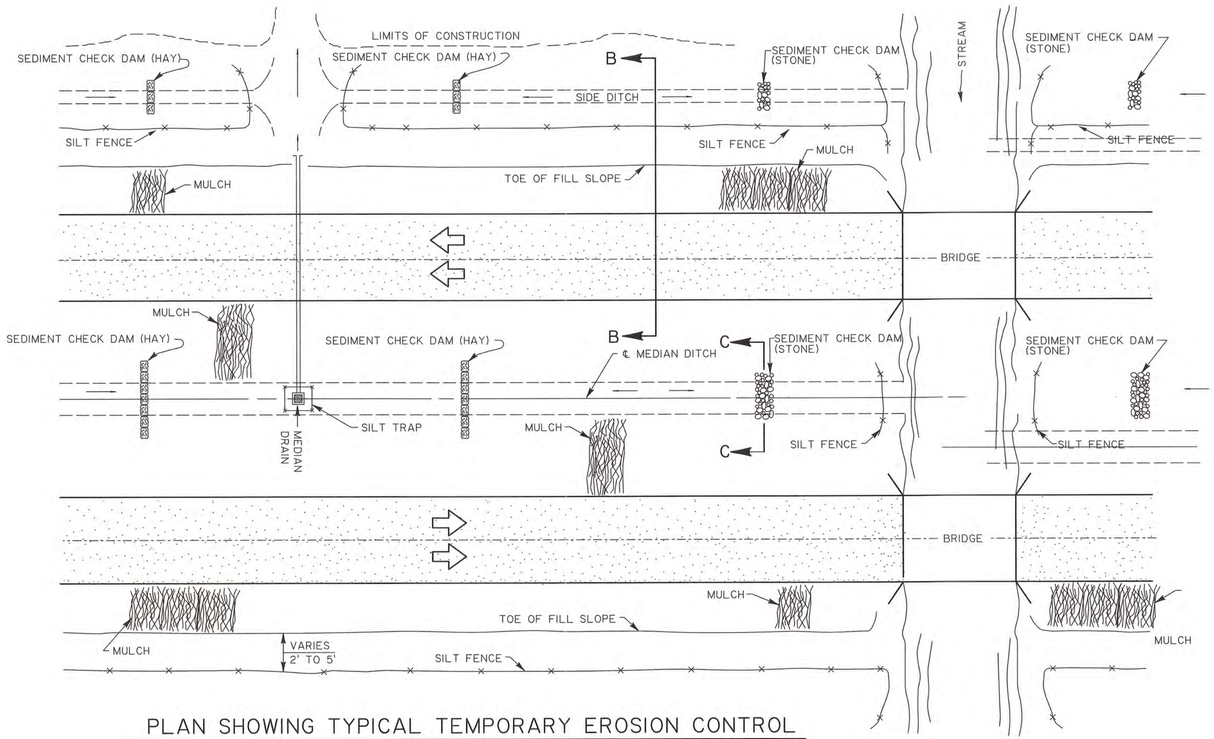
CONCRETE COLLAR DETAIL
TO REPAIR EXISTING PIPE JOINT SEPARATION AND/OR TO CONNECT DISSIMILAR PIPE TYPES AND/OR JOINTS
STANDARD DETAIL
SHEET 1 OF 1
CC-01

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

SHEET 1 OF 1

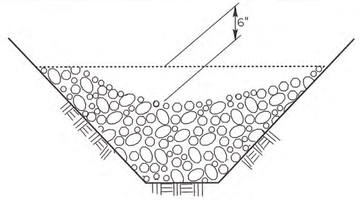


PLAN SHOWING TYPICAL TEMPORARY EROSION CONTROL

MULCHES

MULCHES ARE THE APPLICATION OF MATS OF MAERIAL PLACED ON THE SOIL SURFACE TO PREVENT EROSION BY PROTECTING THE SOIL SURFACE FROM RAINDROP IMPACT AND TO REDUCE THE VELOCITY OF OVERLAND FLOW. MULCHES CAN BE ORGANIC OR SYNTHETIC. MULCHES SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR TEMPORARY EROSION CONTROL. A FEW GUIDELINES FOR THE USE OF MULCH ARE:

1. USE ON CUT AND EMBANKMENT SLOPES WHICH HAVE NOT BEEN COMPLETED TO PLAN GRADE OR WHERE THE WEATHER OR SOIL CONDITIONS WILL NOT PERMIT COMPLETING THEM WITHIN A REASONABLE TIME.
2. USE ON CLEARED, GRUBBED, AND SCALPED AREAS WHERE SOIL EROSION IS LIKELY TO OCCUR.
3. USE WITH TEMPORARY SEEDING.



SECTION C-C

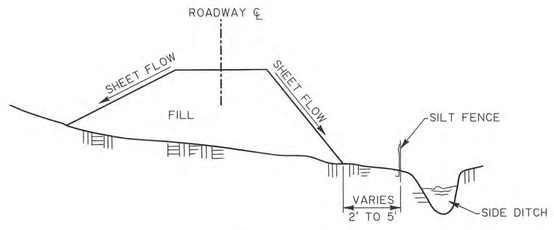
TEMPORARY SEDIMENT CHECK DAM (STONE)

PAY ITEM: TEMPORARY SEDIMENT CHECK DAM (STONE)

NOTES:

A STONE CHECK DAM IS A SMALL TEMPORARY DAM CONSTRUCTED ACROSS A SWALE OR DRAINAGE DITCH. THE PURPOSE OF THIS MEASURE IS TO REDUCE THE VELOCITY OF CONCENTRATED STORM WATER FLOWS, THEREBY REDUCING EROSION OF THE SWALE OR DITCH. THE STONE CHECK DAM WILL TRAP SMALL AMOUNTS OF SEDIMENTS GENERATED IN THE DITCH ITSELF. HOWEVER IT SHOULD NOT BE USED AS A SEDIMENT TRAPPING DEVICE. A FEW BASIC DESIGN GUIDELINES FOR THE USE OF STONE CHECK DAMS ARE:

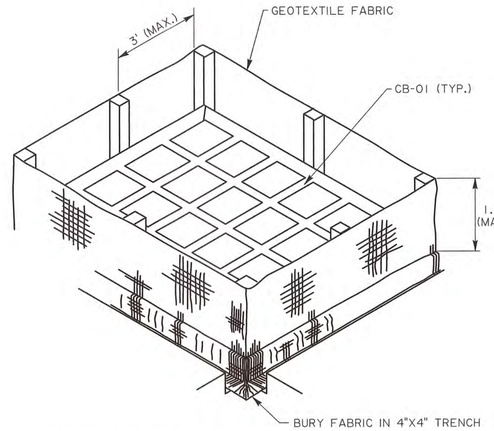
1. USE IN SMALL OPEN CHANNELS WHICH DRAIN 10 ACRES OR LESS.
2. DO NOT USE IN A LIVE STREAM.
3. USE IN A TEMPORARY DITCH OR SWALE WHICH, BECAUSE OF THEIR SHORT LENGTH OF SERVICE, CANNOT RECEIVE A NON-ERODIBLE LINING.
4. USE IN PERMANENT DITCHES OR SWALES WHICH WILL NOT RECEIVE A PERMANENT LINING FOR AN EXTENDED PERIOD OF TIME.
5. USE IN TEMPORARY OR PERMANENT DITCHES OR SWALES WHICH NEED PROTECTION DURING THE ESTABLISHMENT OF GRASS LININGS.
6. FOR STONE SPECIFICATIONS, SEE PROJECT SPECIFICATIONS FOR RIPRAP, (CLASS 2 LB).



SECTION B-B

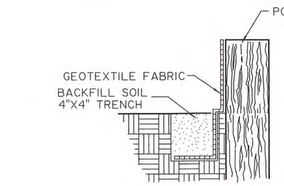
TEMPORARY SILT FENCE APPLICATION

(FOR CONSTRUCTION DETAILS AND SPECIFICATIONS SEE SHEET 35.)

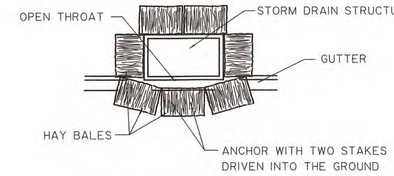


ISOMETRIC VIEW SHOWING GEOTEXTILE FABRIC

(BACKFILL SOIL NOT SHOWN)



SECTION THRU TRENCH SHOWING GEOTEXTILE FABRIC



PLAN SHOWING HAY BALES

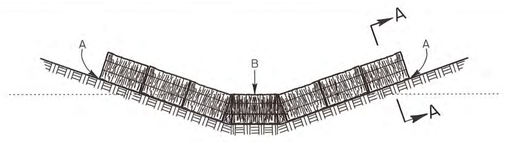
PAY ITEM: TEMPORARY BALED HAY OR STRAW

TEMPORARY INLET SILT TRAP

NOTES:

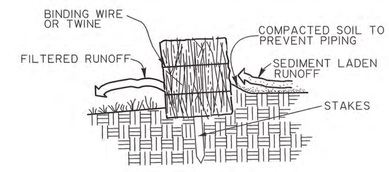
THE TEMPORARY DROP INLET SILT TRAP IS TO BE USED FOR SMALL DRAINAGE AREAS (LESS THAN 1 ACRE) WHERE THE STORM DRAIN IS FUNCTIONAL BEFORE THE AREA IS STABILIZED. THE TRAP CAN BE EITHER GEOTEXTILE FABRIC OR HAY BALES.

1. THE GEOTEXTILE FABRIC SHALL CONFORM TO PROJECT SPECIFICATIONS FOR GEOTEXTILE FABRIC (CLASS G).
2. WOODEN STAKES SUPPORTING THE FABRIC SHALL BE 2" X 2" OR 2" X 4" WITH A MINIMUM LENGTH OF 3 FEET. THE STAKES SHALL BE SPACED AROUND THE INLET AT A MAXIMUM SPACING OF 3 FEET.
3. THE HEIGHT OF THE FABRIC ABOVE THE INLET SHALL BE LIMITED TO 1.5' AND THE BOTTOM OF THE FABRIC SHALL BE BURIED IN A TRENCH APPROXIMATELY 4" WIDE BY 4" DEEP. THE FABRIC SHALL BE STAPLED TO THE POST WITH 1/2" STAPLES.
4. THE TRAP SHOULD BE INSPECTED REGULARLY AND AFTER EACH STORM. THE SEDIMENT SHOULD BE REMOVED AND EACH STAKE SHOULD BE FIRMLY IN THE GROUND.
5. HAY BALES SHALL BE PLACED SO THAT THE BINDING WIRE OR TWINE IS NOT IN CONTACT WITH THE GROUND.



POINTS A SHOULD BE HIGHER THAN POINT B.

ELEVATION



SECTION A-A

TEMPORARY SEDIMENT CHECK DAM (HAY)

PAY ITEM: TEMPORARY SEDIMENT CHECK DAM (HAY)

NOTES:

A HAY BALE BARRIER IS A TEMPORARY SEDIMENT BARRIER CONSISTING OF A ROW OF ENTRENCHED AND ANCHORED BALES OF STRAW OR HAY. THE HAY BALE BARRIER IS ALSO USED AS A CHECK DAME TO REDUCE THE VELOCITY IN SMALL DITCHES OR SWALES. THE HAY BALES SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR TEMPORARY EROSION CONTROL. A FEW BASIC DESIGN GUIDELINES FOR THE USE OF A HAY BALE BARRIER ARE:

1. USE WHERE EROSION WOULD OCCUR IN THE FORM OF SHEET AND RILL EROSION.
2. USE IN MINOR SWALES OR DITCHES WHERE THE MAXIMUM DRAINAGE AREA IS 2 ACRES.
3. ONLY USE WHERE THE EFFECTIVENESS IS REQUIRED FOR LESS THAN 3 MONTHS.
4. DO NOT USE IN LIVE STREAMS OR IN SWALES OR DITCHES WHERE THERE IS A POSSIBILITY OF A WASHOUT.

SHEET 304

SCALE	NOT TO SCALE
DWG. NO.	R.V. / LA-DOTD
DRAWN BY	F.A.T.
CHECKED BY	F.A.T.
APPROVED BY	JULY 22, 2021
DATE	

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

JULY 22, 2021

DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

TEMPORARY EROSION CONTROL DETAILS

STANDARD DETAIL EC-01

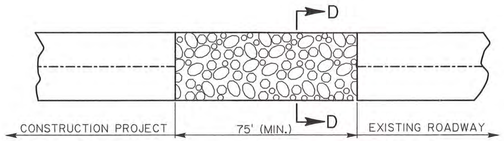
SHEET 1 OF 2

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

SHEET 1 OF 2



PLAN

SECTION D-D

TEMPORARY STONE CONSTRUCTION ENTRANCE

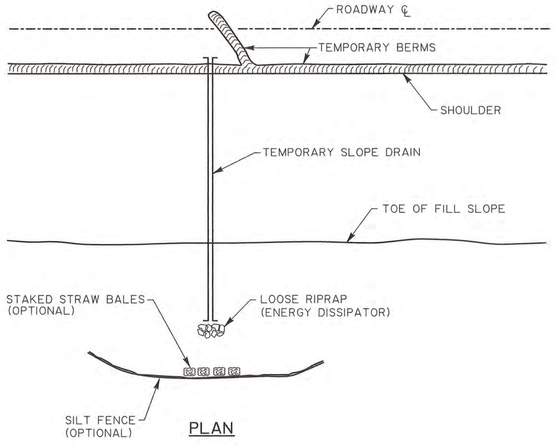
PAY AS TEMPORARY STONE CONSTRUCTION ENTRANCE

NOTES:

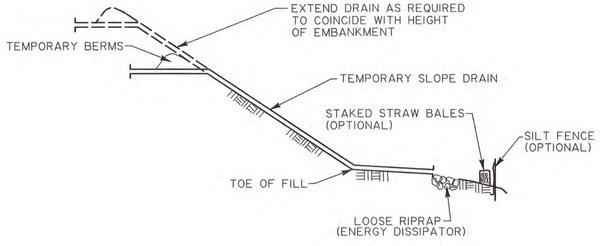
TEMPORARY STONE CONSTRUCTION ENTRANCE AND/OR WASH RACK

A STONE STABILIZED PAD LOCATED AT POINTS OF VEHICULAR INGRESS AND ERGRESS ON THE CONSTRUCTION SITE OT REDUCE THE AMOUNT OF MUD TRANSPORTED ONTO PUBLIC ROADS. IF THE ACTION OF THE VEHICLE TRAVELING OVER THE GRAVEL PAD IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF THE MUD, THEN THE TIRES MUST BE WASHED BEFORE THE VEHICLE ENTERS A PUBLIC ROAD. A FEW BASIC GUIDELINES FOR THE USE OF A STONE CONSTRUCTION ENTRANCE AND/OR WASH RACKS ARE:

1. THE STONE LAYER MUST BE AT LEAST 6 INCHES THICK.
2. THE STONE SHALL CONFORM TO SECTION 711 (02) (CLASS 2LB) OF THE LAFAYETTE CONSOLIDATED GOVERNMENT STANDARD SPECIFICATIONS.
3. THE LENGTH OF THE PAD MUST BE AT LEAST 75 FEET AND IT MUST EXTEND THE FULL WIDTH OF VEHICULAR INGRESS AND EGRESS.
4. A GEOTEXTILE FABRIC UNDERLINER IS REQUIRED. THE GEOTEXTILE FABRIC SHALL BE IN ACCORDANCE WITH SECTION 02271 (TYPE D) OF THE LAFAYETTE CONSOLIDATED GOVERNMENT STANDARD SPECIFICATIONS.
5. IF A WASH RACK IS NECESSARY, PROVISIONS MUST BE MADE TO INTERCEPT THE WASH WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF-SITE.



PLAN



ELEVATION

TEMPORARY SLOPE DRAIN

NOTES:

A TEMPORARY SLOPE DRAIN IS A DEVICE USED TO CARRY WATER FROM THE CONSTRUCTION WORK AREA TO A LOWER ELEVATION. SLOPE DRAINS MAY BE PLASTIC SHEETS, METAL OR PLASTIC PIPE, STONE GUTTERS, FIBER MATS, OR CONCRETE OR ASPHALT DITCHES. A FEW BASIC DESIGN GUIDELINES FOR THE USE OF A TEMPORARY SLOPE DRAIN ARE:

1. THE SPACING OF THE SLOPE DRAINS VARIES WITH THE ROAD GRADE.

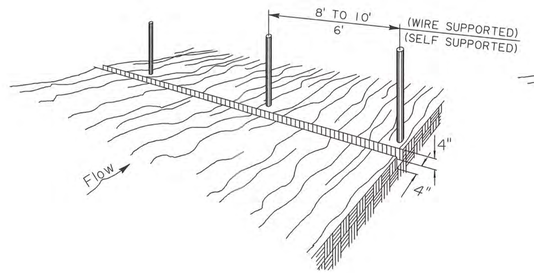
FOR GRADES:	
0.0% - 2.0%	USE 500' SPACING
2.1% - 5.0%	USE 200' SPACING
GREATER THAN - 5.0%	USE 100' SPACING

2. SLOPE DRAIN MATERIAL:

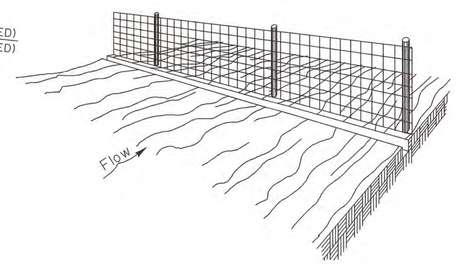
SMOOTH PIPE	8" MINIMUM
CORRUGATED PIPE	12" MINIMUM
PLASTIC SHEETING	4" WIDE MINIMUM
PLASTIC SHEETING	3 MILS THICK MINIMUM

3. PLASTIC SHEETING CAN BE STAKED DOWN OR WEIGHTED WITH ROCKS OR LOG. THE AREA UNDER THE SHEETING SHOULD BE SHAPED TO PROVIDE AN ADEQUATE CHANNEL.
4. THE OUTLET END SHOULD BE PROTECTED OR HAVE SOME MEANS OF DISSIPATING ENERGY. THE FLOW SHOULD BE DIRECTED THROUGH A SEDIMENT TRAP SUCH AS A SILT FENCE OR HAY BALES.
5. TO INSURE PROPER OPERATION, TEMPORARY SLOPE DRAINS SHOULD BE INSPECTED REGULARLY AND AFTER EACH STORM FOR CLOGGING DISPLACEMENT. EROSION AT THE OUTLET SHOULD BE CHECKED AND THE SILT TRAPS CLEANED IF NECESSARY.

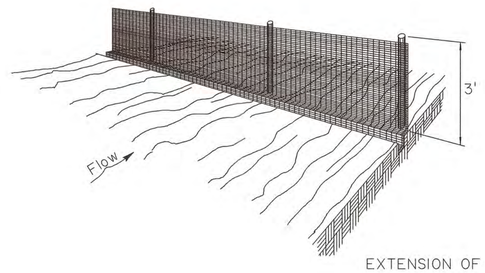
1. SET POSTS AND EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.



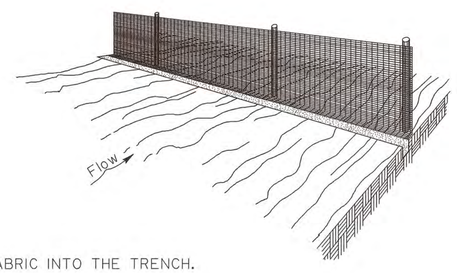
2. STAPLE WIRE FENCING TO THE POSTS.



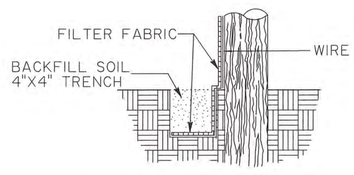
3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.



4. BACKFILL AND COMPACT EXCAVATED SOIL.



EXTENSION OF FABRIC INTO THE TRENCH.



CONSTRUCTION OF TEMPORARY SILT FENCING

(WIRE SUPPORTED SILT FENCE IS SHOWN. SELF SUPPORTED SILT FENCE WILL BE CONSTRUCTED ACCORDING TO MANUFACTURERS SPECIFICATIONS)

NOTES:

SILT FENCING IS A TEMPORARY SEDIMENT BARRIER CONSISTING OF A FILTER FABRIC SUPPORTED BY POSTS AND STRETCHED ACROSS AN AREA TO INTERCEPT AND DETAIN SMALL AMOUNTS OF SEDIMENT. THE SILT FENCING SHALL BE IN ACCORDANCE WITH SECTION 02270 OF THE LAFAYETTE CONSOLIDATED GOVERNMENT STANDARD SPECIFICATIONS. A FEW BASIC DESIGN GUIDELINES FOR THE USE OF SILT FENCING ARE:

1. USE WHERE EROSION WOULD OCCUR IN THE FORM OF SHEET AND RILL EROSION.
2. USE WHERE THE MAXIMUM DRAINAGE AREA BEHIND THE SILT FENCE IS 1/4 ACRE PER 100 FEET OF SILT FENCE LENGTH.
3. USE WHERE THE MAXIMUM SLOPE LENGTH BEHIND THE BARRIER IS 100 FEET.
4. USE WHERE THE MAXIMUM GRADIENT BEHIND THE BARRIER IS 2:1.
5. DO NOT USE SILT FENCES IN LIVE STREAMS OR IN DITCHES OR SWALES WHERE FLOWS EXCEED ONE CUBIC FOOT PER SECOND.

SHEET 305

SCALE	NOT TO SCALE
DWG. NO.	
DRAWN BY	R.Y. / LA-DOTD
CHECKED BY	F.A.T.
APPROVED BY	F.A.T.
DATE	JULY 22, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

JULY 22, 2021

DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

TEMPORARY EROSION CONTROL DETAILS

STANDARD DETAIL EC-01

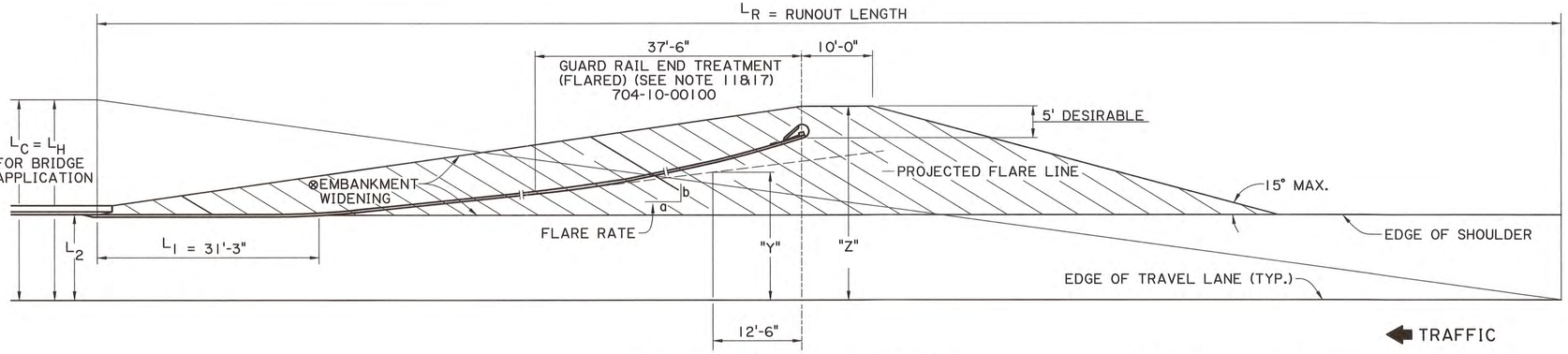
SHEET 2 OF 2

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

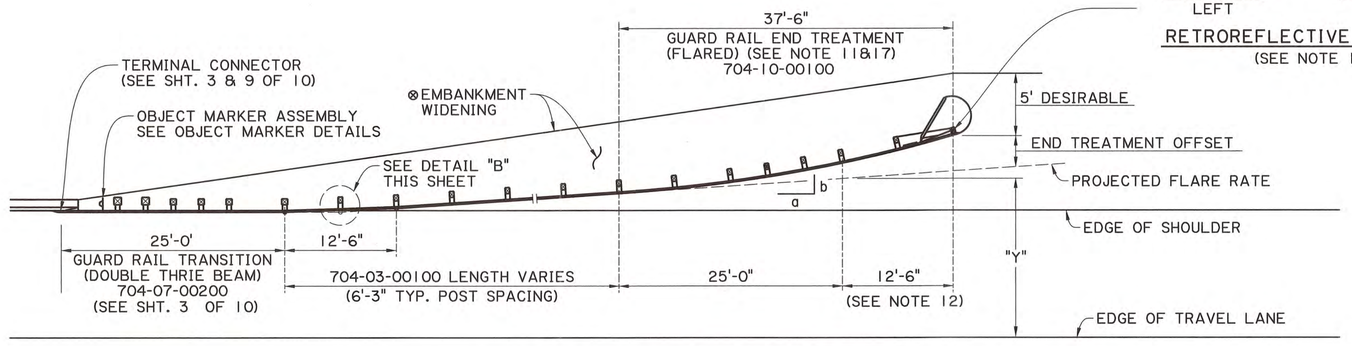
Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

SHEET 2 OF 2

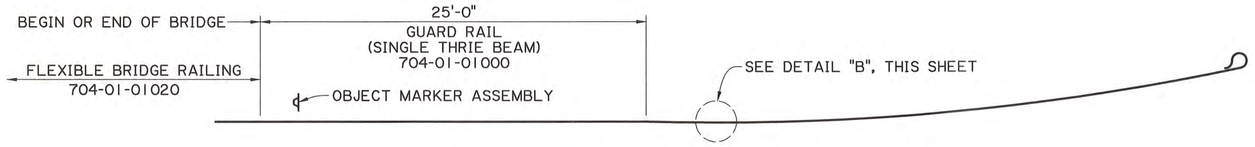


APPROACH GUARD RAIL VARIABLES-PLAN
N.T.S.

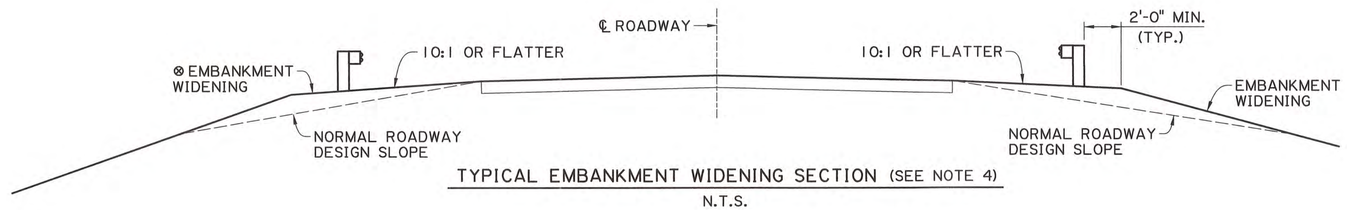


TYPICAL BRIDGE GUARD RAIL TREATMENT-PLAN
N.T.S.

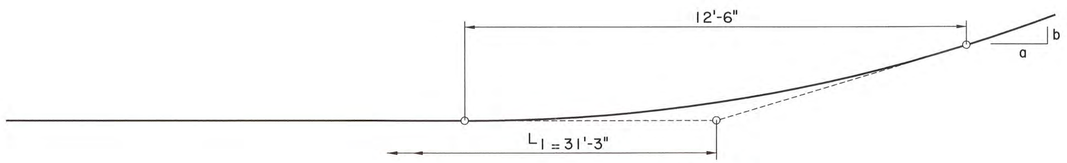
TRAFFIC



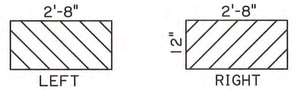
BEAM TRANSITION FOR FLEXIBLE BRIDGE RAILING-PLAN (SEE NOTE 15)
N.T.S.



TYPICAL EMBANKMENT WIDENING SECTION (SEE NOTE 4)
N.T.S.



DETAIL "B"



RETROREFLECTIVE SHEETING
(SEE NOTE 13)

GUARD RAIL PAY ITEMS

704-01-01000	GUARD RAIL (SINGLE THRIE BEAM) (3'-1 1/2" POST SPA.)
704-01-01020	GUARD RAIL (SINGLE THRIE BEAM) (6'-3" POST SPA.)
704-01-02000	GUARD RAIL (DOUBLE THRIE BEAM) (3'-1 1/2" POST SPA.)
704-01-02020	GUARD RAIL (DOUBLE THRIE BEAM) (6'-3" POST SPA.)
704-03-00100	BLOCKED OUT GUARD RAIL
704-05-00100	GUARD RAIL ANCHOR SECTIONS (TRAILING END)
704-05-00200	GUARD RAIL ANCHOR SECTIONS (TRAILING END) (SINGLE THRIE BEAM)
704-06-00200	GUARD RAIL BRIDGE ATTACHMENTS (SINGLE THRIE BEAM)
704-07-00200	GUARD RAIL TRANSITIONS (DOUBLE THRIE BEAM)
704-10-00100	GUARD RAIL END TREATMENT (FLARED)
704-10-00105	GUARD RAIL END TREATMENT (FLARED, 12'-6" LENGTH)
704-10-00200	GUARD RAIL END TREATMENT (TANGENT)
704-10-00300	GUARD RAIL END TREATMENT (BI-DIRECTIONAL)
810-06-00100	CONCRETE PIER PROTECTION SYSTEM (VEHICLE)

GENERAL NOTES

1. LENGTH OF NEED (X) AND OFFSETS "Y" & "Z" SHALL BE COMPUTED IN ACCORDANCE WITH THE EQUATION ON SHEETS 2 OF 10. (X) DIMENSIONS TO BE USED SHALL BE A MULTIPLE OF 6'-3". TO FIND THE REQUIRED LENGTH OF NEED (X) WHEN OFFSET "Y" HAS TO BE SET, USE THE EQUATION X = (LH-"Y") LR/LH.
2. MINIMUM LENGTH OF GUARD RAIL IN ANY CASE SHALL BE 75'-0" (LENGTH OF NEED X= 62'-6"), FOR END TREATMENT SYSTEMS LESS THAN 50'-0", THE REMAINING LENGTH TO MEET THE 75'-0" MIN. WILL BE BASED ON USING ADDITIONAL W-BEAM BLOCKED OUT GUARD RAIL 704-03-00100 PLACED BETWEEN THE TRANSITION AND END TREATMENT. THE COST OF ADDITIONAL W-BEAM GUARD RAIL SHALL BE PAID FOR UNDER THE END TREATMENT PAY ITEM.
3. SEE TYPICAL INSTALLATION ELSEWHERE IN THESE PLANS.
4. EMBANKMENT WIDENING TO PROVIDE SLOPES NOT STEEPER THAN 10:1 IS REQUIRED TO MAINTAIN PROPER RAIL TO VEHICLES POSITION. WIDENING MAY BE ACCOMPLISHED AS DETERMINED BY THE DESIGNER OR THE PROJECT ENGINEER.
5. SEE OPPOSING TRAFFIC GUARD RAIL REQUIREMENTS ON SHEET 2 OF 10 FOR METHOD OF CALCULATING LENGTH OF NEED (X) AND OFFSET (Y) OF RAIL LEFT SIDE WHEN TRAFFIC IS TWO WAY.
6. PAY ITEMS FOR ALL GUARD RAIL COMPONENTS ARE TO BE IN ACCORDANCE WITH LAYOUT DETAILS AND/OR QUANTITY TABLES FURNISHED WITH PROJECT PLANS. GUARD RAIL PAY ITEMS SHALL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT REQUIRED TO COMPLETE THE GUARD RAIL INSTALLATION AS SHOWN ON THE PLANS.
7. LONGITUDINAL DIMENSIONS FOR GUARD RAIL ARE MEASURED ALONG THE FACE OF RAILING
8. THE QUANTITY FOR THE EMBANKMENT WIDENING AT BRIDGE ENDS IS INCLUDED IN THE EMBANKMENT QUANTITY OF THE ROADWAY.
9. FOR BRIDGES WITH GUARD RAILS IN URBAN AREAS WITH DESIGN SPEED OF 45 mph OR LESS, SEE DOTD EDSM NO. II. 3.1.4 FOR DESIGN INFORMATION.
10. FOR GUARD RAIL INFORMATION FOR EXISTING HIGHWAYS, SEE DOTD EDSM No. II. 3.1.3 FOR DESIGN INFORMATION.
11. A TANGENT END TREATMENT (704-10-00200) MAY BE USED AS AN ALTERNATE TO THE FLARED END TREATMENT. A ZERO END TREATMENT OFFSET AND A ZERO FLARE RATE (A/B = 0) IS REQUIRED WHEN THE TANGENT END TREATMENT IS USED AND THE LENGTH OF NEED "X" SHALL BE CALCULATED BASED ON A "ZERO" FLARE RATE.
12. THE POINT WITHIN THE GUARD RAIL END TREATMENT WHERE LENGTH OF NEED TERMINATES MAY VARY WITH EACH TYPE OF GUARD RAIL END TREATMENT. THE 12'-6" LENGTH APPLIES TO MOST END TREATMENT. HOWEVER, REGARDLESS OF THE TYPE OF END TREATMENT USED, THIS POINT SHALL BE LOCATED AT THE SAME STATION ON THE ROADWAY.
13. THE RETROREFLECTIVE ADHESIVE SHEETING (12" X 2'-8") (TYPE III HIGH INTENSITY OBJECT MARKER PATTERN) SHALL BE APPLIED TO NOSE AFTER CURVING. SEE SECTION 1015 OF THE LATEST LA. STD. SPECS. FOR ROADS AND BRIDGES FOR SPECIFICATIONS AND THE SHEETING MANUFACTURERS RECOMMENDATIONS FOR INSTALLATION. FOR PATTERN DETAIL, SEE OBJECT MARKER DETAILS.
14. UNLESS OTHERWISE NOTED, ALL GUARD RAIL COMPONENTS SHALL CONFORM TO THE REQUIREMENTS OF THE AASHTO-AGC-ARTBA JOINT COOPERATIVE COMMITTEE, "A GUIDE TO STANDARDIZED HIGHWAY BARRIER RAIL HARDWARE", CURRENT EDITION.
15. 704-01-01000 IS USED IN LIEU OF 704-07-00200 FOR BRIDGES WITH FLEXIBLE BRIDGE RAILING (REINFORCED CONCRETE BRIDGE RAILING IS CONSIDERED TO BE RIGID.)
16. ⊗ GUARD RAIL INSTALLATIONS MAY BE PAVED BY USING INCIDENTAL CONCRETE PAVING (4"THICK) (706-03-00100) OR 4" MIN. ASPHALTIC CONCRETE. THE INCIDENTAL CONCRETE OR ASPHALT WILL BE USED IF A LAYOUT DETAIL, PAY ITEM AND QUANTITY IS INDICATED IN THE PLANS. SEE SHEET 10 FOR REQUIRED POST DETAILS WHEN PAVING IS USED AROUND POSTS.
17. GUARDRAIL END TREATMENT SHALL BE SELECTED FROM THE DOTD APPROVED MATERIALS LIST (AML) UNLESS OTHERWISE NOTED IN THE PLANS.

SHEET 306

SCALE	NOT TO SCALE	DRAWN BY	R.Y. / LA-DOTD	CHECKED BY	F.J.T.
DWG. NO.		APPROVED BY	F.J.T.	DATE	AUGUST 12, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AUGUST 12, 2021
DATE:

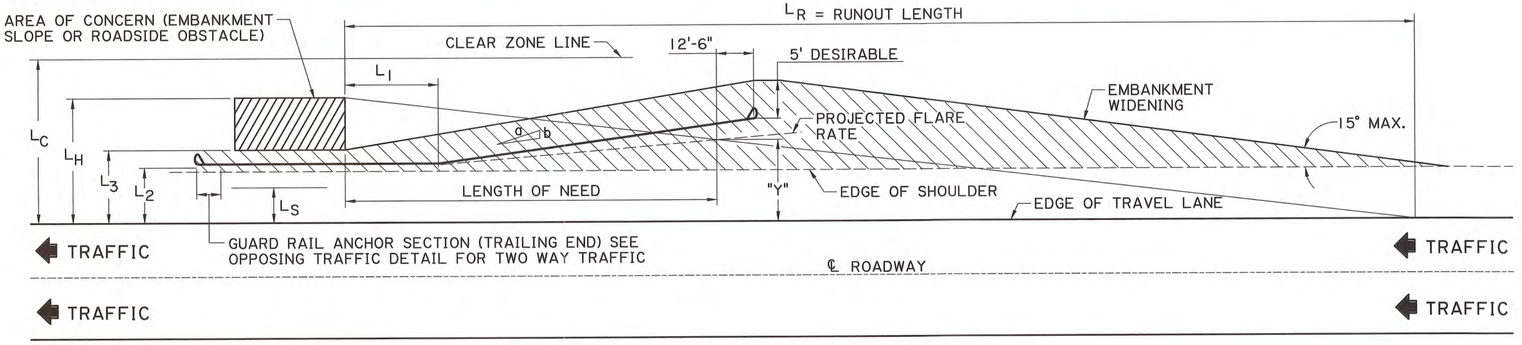
"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

HIGHWAY GUARD RAILS
(BRIDGE APPLICATION)
STANDARD DETAIL GR-200
SHEET 1 OF 10

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

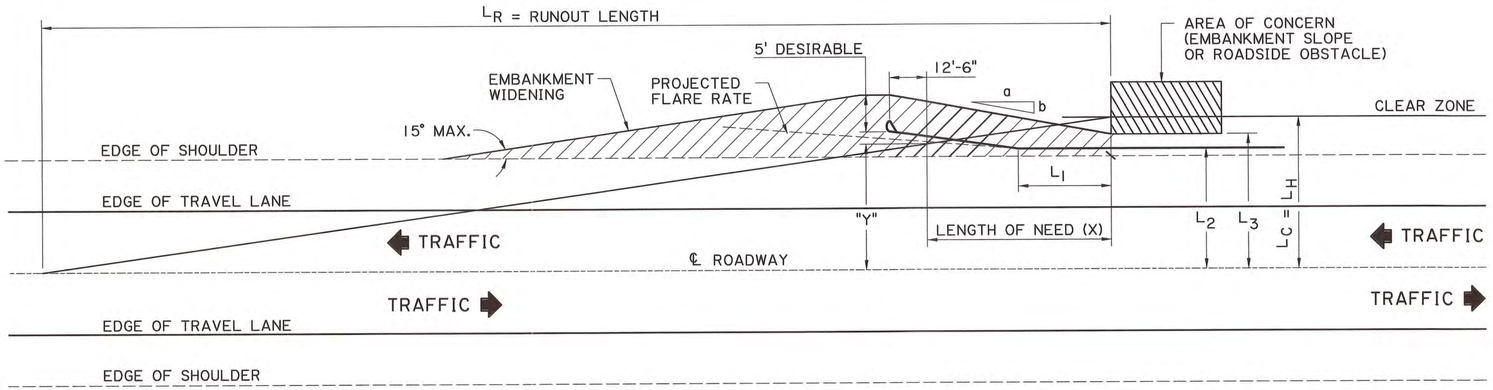
Lafayette
CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 1 OF 10



APPROACH TRAFFIC GUARD RAIL REQUIREMENTS-PLAN

N.T.S.



OPPOSING TRAFFIC GUARD RAIL REQUIREMENTS-PLAN

N.T.S.

NOTES:

1. ON TWO-WAY TRAFFIC "Y" IS MEASURED FROM THE CENTERLINE OF THE ROADWAY TO THE GUARD RAIL FOR THE OPPOSING TRAFFIC. THEREFORE, "Y" FOR GUARD RAIL ON THE LEFT SIDE OF A BRIDGE WITH TWO-WAY TRAFFIC IS MEASURED FROM THE CENTERLINE OF THE ROADWAY.
2. EQUATIONS FOR COMPUTING LENGTH OF NEED (X) AND OFFSETS (Y&Z). (ALL DIMENSIONS ARE IN FEET)

$$X = \frac{L_H + (\frac{b}{a})(L_1) - (L_2)}{(\frac{b}{a}) + (\frac{L_H}{L_R})} \qquad "Y" = L_H - (\frac{L_H}{L_R})(X)$$

$$"Z" = "Y" + \frac{b}{a}(12.5') + 9'$$

L_1 = LENGTH OF TANGENT SECTION OF RAIL IN ADVANCE OF HAZARD.

L_2 = DISTANCE FROM EDGE OF TRAVEL LANE TO TANGENT SECTION OF RAIL.

L_3 = DISTANCE FROM EDGE OF TRAVEL LANE TO OBSTACLE. IF $L_3 > L_C$ NO GUARD RAIL IS REQUIRED FOR ONCOMING TRAFFIC.

L_R = RUNOUT LENGTH

L_C = REQUIRED CLEAR ZONE (TABLE 1)

L_H = IS THE DISTANCE FROM THE EDGE OF THE TRAVELED WAY (EOP) TO THE LATERAL EXTENT OF THE HAZARD.

$L_H = L_C$ FOR BRIDGE APPLICATION, EXCEPT IN SPECIAL CASES SEE SHEET 1 OF 10 FOR DETAILS.

L_S = SHY LINE DISTANCE MEASURED FROM TRAVEL LANE.

⊞ 3. FLARE RATES SHOWN FOR BARRIERS INSIDE THE SHY LINE ARE DESIRABLE RATES AND MAY BE WAIVED IF THE GUARD RAIL LENGTH BECOMES TOO LONG FOR A GIVEN SITUATION.

⊕ 4. SEE SHEET NO. 5 OF 10 FOR FORMULAS FOR COMPUTING GUARD RAIL IN A CURVE.

5. FOR FURTHER INFORMATION CONCERNING TABLES 1-4, REFERENCE LATEST EDITION OF AASHTO ROADSIDE DESIGN GUIDE.

TABLE 1
CLEAR ZONE DISTANCE (Lc)
(IN FEET FROM EDGE OF TRAVELED LANE)

SPEED (MPH)	DESIGN ADT	⊗ FORESLOPE		⊗ BACKSLOPE		
		6H:1V OR FLATTER	5H:1V TO 4H:1V	3H:1V	4H:1V TO 5H:1V	6H:1V OR FLATTER
40 OR LESS	UNDER 750	7 - 10	7 - 10	7 - 10	7 - 10	7 - 10
	750-1500	10 - 12	12 - 14	10 - 12	10 - 12	10 - 12
	1500-6000	12 - 14	14 - 16	12 - 14	12 - 14	12 - 14
	OVER 6000	14 - 16	16 - 18	14 - 16	14 - 16	14 - 16
45 TO 50	UNDER 750	10 - 12	12 - 14	8 - 10	8 - 10	10 - 12
	750-1500	14 - 16	16 - 20	10 - 12	12 - 14	14 - 16
	1500-6000	16 - 18	20 - 26	12 - 14	14 - 16	16 - 18
	OVER 6000	20 - 22	24 - 28	14 - 16	18 - 20	20 - 22
55	UNDER 750	12 - 14	14 - 18	8 - 10	10 - 12	10 - 12
	750-1500	16 - 18	20 - 24	10 - 12	14 - 16	16 - 18
	1500-6000	20 - 22	24 - 30	14 - 16	16 - 18	20 - 22
	OVER 6000	22 - 24	*26 - 32	16 - 18	20 - 22	22 - 24
60	UNDER 750	16 - 18	20 - 24	10 - 12	12 - 14	14 - 16
	750-1500	20 - 24	*26 - 32	12 - 14	16 - 18	20 - 22
	1500-6000	26 - 30	*32 - 40	14 - 18	18 - 22	24 - 26
	OVER 6000	*30 - 32	*36 - 44	20 - 22	24 - 26	26 - 28
65 TO 70	UNDER 750	18 - 20	20 - 26	10 - 12	14 - 16	14 - 16
	750-1500	24 - 26	*28 - 36	12 - 16	18 - 20	20 - 22
	1500-6000	*28 - 32	*34 - 42	16 - 20	22 - 24	26 - 28
	OVER 6000	*30 - 34	*38 - 46	22 - 24	26 - 30	28 - 30

*WHERE A SITES SPECIFIC INVESTIGATION INDICATES A HIGH PROBABILITY OF CONTINUING ACCIDENTS OR SUCH OCCURRENCES ARE INDICATED BY ACCIDENT HISTORY, THE DESIGNER MAY PROVIDE CLEAR ZONE DISTANCES GREATER THAN SHOWN IN TABLE 1. CLEAR ZONES MAY BE LIMITED TO 30 FEET FOR PRACTICALITY AND TO PROVIDE A CONSISTENT ROADWAY TEMPLATE IF PREVIOUS EXPERIENCE WITH SIMILAR PROJECTS OR DESIGNS INDICATES SATISFACTORY PERFORMANCE.

⊗ BACKSLOPE MAY ALSO BE REFERRED TO AS A CUT SLOPE AND FORESLOPE AS A FILL SLOPE.

TABLE 3
L_R = RUNOUT LENGTH

DESIGN SPEED (MPH)	DESIGN TRAFFIC VOLUME (ADT)			
	OVER 10000 VPD	5000-10000 VPD	1000-5000 VPD	UNDER 1000 VPD
	RUNOUT LENGTH L_R (FT.)	RUNOUT LENGTH L_R (FT.)	RUNOUT LENGTH L_R (FT.)	RUNOUT LENGTH L_R (FT.)
70	360	330	290	250
60	300	250	210	200
50	230	190	160	150
40	160	130	110	100
30	110	90	80	70

TABLE 4
SHYLINE OFFSET & FLARE RATES

DESIGN SPEED (MPH)	L_S SHYLINE OFFSET (FT.)	⊞ MAXIMUM FLARE RATE (a:b) FOR BARRIER INSIDE SHYLINE	MAXIMUM FLARE RATE (a:b) FOR BARRIER BEYOND SHYLINE	
			⊠ RIGID BARRIERS	□ SEMI- RIGID BARRIERS
70	9	30:1	20:1	15:1
60	8	26:1	18:1	14:1
55	7	24:1	16:1	12:1
50	6.5	21:1	14:1	11:1
45	6	18:1	12:1	10:1
40	5	16:1	10:1	8:1
30	4	13:1	8:1	7:1

⊠ SUCH AS CONCRETE BARRIER UNITS
□ SUCH AS W BEAM OR THRIE BEAM GUARD RAIL SYSTEMS

TABLE 2
⊕ HORIZONTAL CURVE ADJUSTMENTS
$CZ_c = (L_c)(K_{cz})$

WHERE:
CZ_c = CLEAR ZONE ON OUTSIDE OF CURVATURE, FEET
L_c = CLEAR ZONE ON TANGENT SECTION, FEET (TABLE 1)
K_{cz}

K_{cz} = CURVE CORRECTION FACTOR

RADIUS (FT)	DESIGN SPEED (MPH)					
	40	45	50	55	65	70
2950	1.1	1.1	1.1	1.2	1.2	1.2
2300	1.1	1.1	1.2	1.2	1.2	1.3
1910	1.1	1.2	1.2	1.2	1.3	1.4
1640	1.1	1.2	1.2	1.3	1.3	1.4
1475	1.2	1.2	1.3	1.3	1.4	1.5
1315	1.2	1.2	1.3	1.3	1.4	
1150	1.2	1.2	1.3	1.4	1.5	
985	1.2	1.3	1.4	1.5	1.5	
820	1.3	1.3	1.4	1.5		
660	1.3	1.4	1.5			
495	1.4	1.5				
330	1.5					

SHEET 307

SCALE	NOT TO SCALE			AUGUST 12, 2021
DWG. NO.		R.V. / LA-DOTD		
DRAWN BY		F.A.T.		
CHECKED BY		F.A.T.		
APPROVED BY				
DATE				

NO.	REVISION DESCRIPTION	BY	DATE

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
AUGUST 12, 2021
DATE:

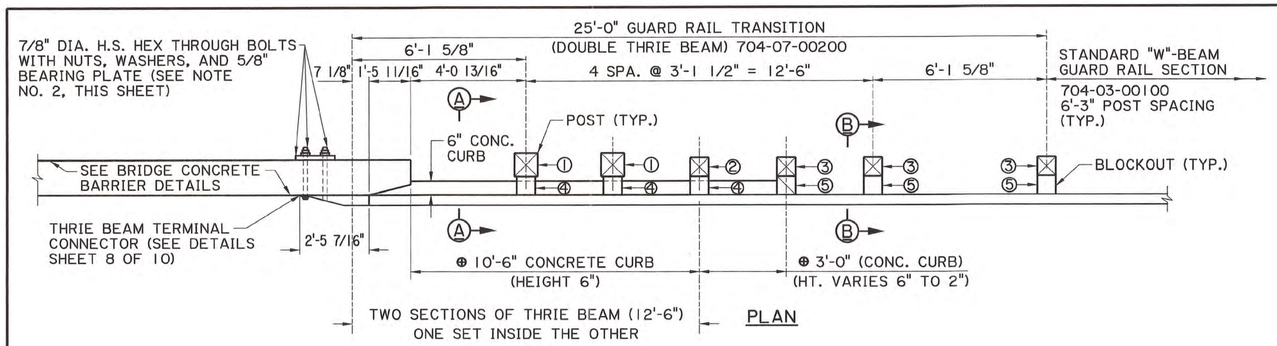
"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

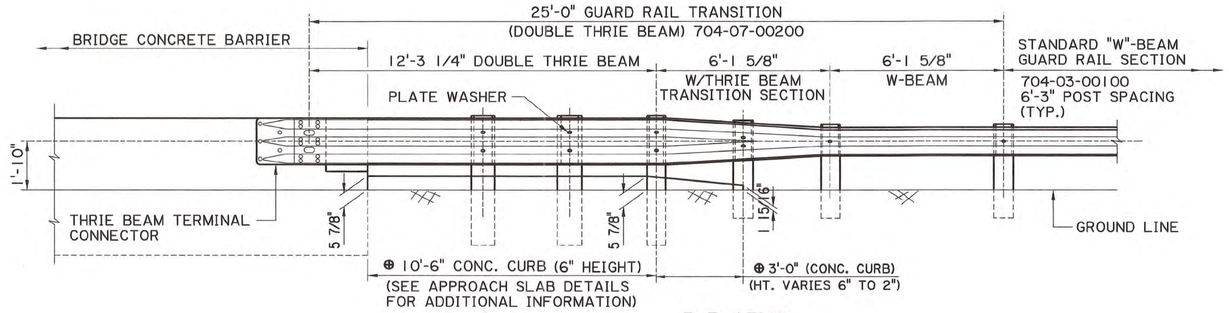
HIGHWAY GUARD RAILS
GUARD RAIL TABLES & LAYOUTS
STANDARD DETAIL GR-200
SHEET 2 OF 10

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 2 OF 10





ELEVATION

NOTES

1. THIS GUARD RAIL TRANSITION IS APPROPRIATE FOR CONNECTION TO THE CONCRETE BARRIER SHAPE AS SHOWN. SEE BRIDGE BARRIER SPECIAL DETAILS FOR INFORMATION.
2. 7/8" DIA. H.S. BOLTS FOR CONCRETE BARRIER AND THRIE BEAM TERMINAL CONNECTOR SHALL BE ASTM A449. FOR 5/8" STEEL BEARING PLATE, SEE SHEET 9 OF 10. GALVANIZING SHALL BE IN ACCORDANCE WITH ASTM A153.

*3. STEEL POST ALTERNATES: STEEL POSTS ARE ALLOWED AS AN ALTERNATE TO WOOD POSTS. USE W8 x 24 STEEL POST ALTERNATE FOR 10" x 10" WOOD POST. USE W6 x 25 STEEL POST ALTERNATE FOR 8" x 8" WOOD POST. USE SAME LENGTHS AS WOOD POSTS.

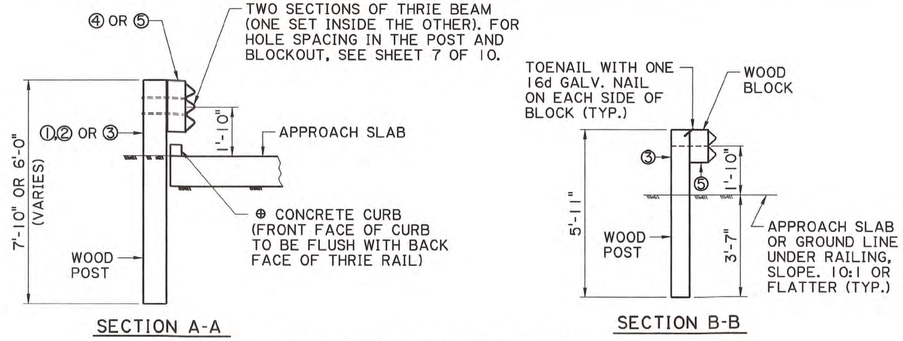
4. BLOCKOUTS: USE WOOD BLOCKOUTS ONLY, STEEL AND RECYCLED BLOCKOUTS ARE NOT PERMITTED FOR THE GUARDRAILTRANSITION. ALL WOOD BLOCKOUTS ARE REQUIRED TO BE ROUTED WHEN WHEN USED WITH STEEL POSTS.

5. INTERMIXING OF STEEL AND WOOD POST IN THE TRANSITION SECTION IS NOT ALLOWED.

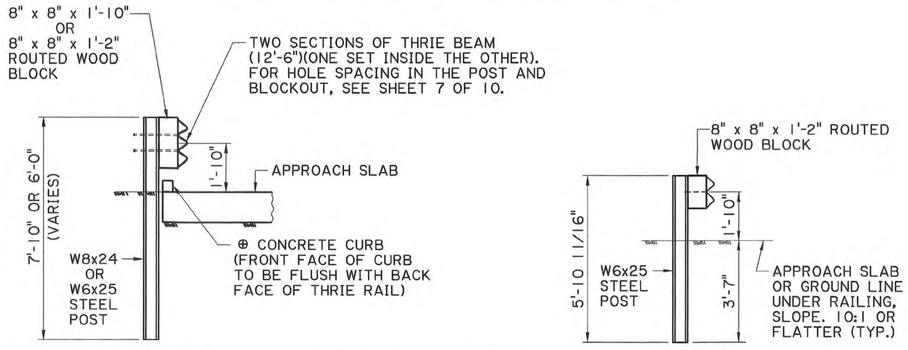
⊕6. FOR GUARD RAIL TRANSITION CONSTRUCTED WITH NEW APPROACH SLAB, CONCRETE CURB TO BE USED AND TO BE PAID FOR UNDER APPROACH SLAB PAY ITEM. FOR GUARD RAIL TRANSITION CONSTRUCTED WHEN APPROACH SLAB OR PAVEMENT IS EXISTING AND A NEW CURB IS NEEDED, THE NEW ASPHALT CURB ALTERNATE SHALL BE PAID UNDER AN ASPHALTIC CONCRETE PAY ITEM AS INDICATED IN THE PLANS.

*WOOD POST & WOOD BLOCKOUT FOR GUARDRAIL TRANSITION	
NO.	SIZE (WIDTH x DEPTH x LENGTH)
①	10" x 10" x 8'-0" POST
②	8" x 8" x 8'-0" POST
③	8" x 8" x 6'-0" POST
④	8" x 8" x 1'-10" BLOCKOUT
⑤	8" x 8" x 1'-2" BLOCKOUT

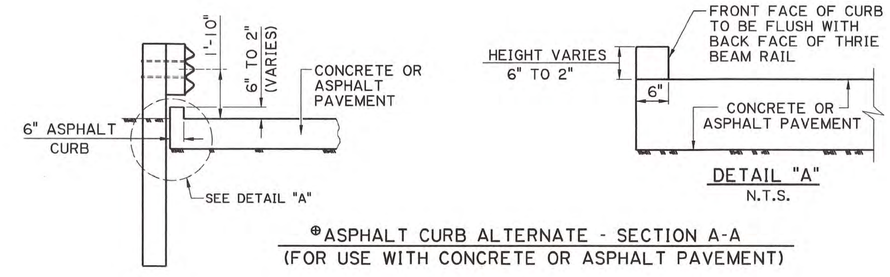
*SEE NOTE FOR STEEL POST ALTERNATE



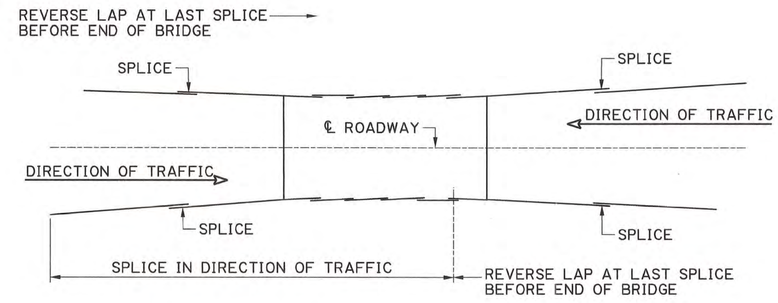
WOOD POST & WOOD BLOCKOUT
(POST & BLOCKOUT SIZE VARY IN TRANSITION, SEE PLAN VIEW)



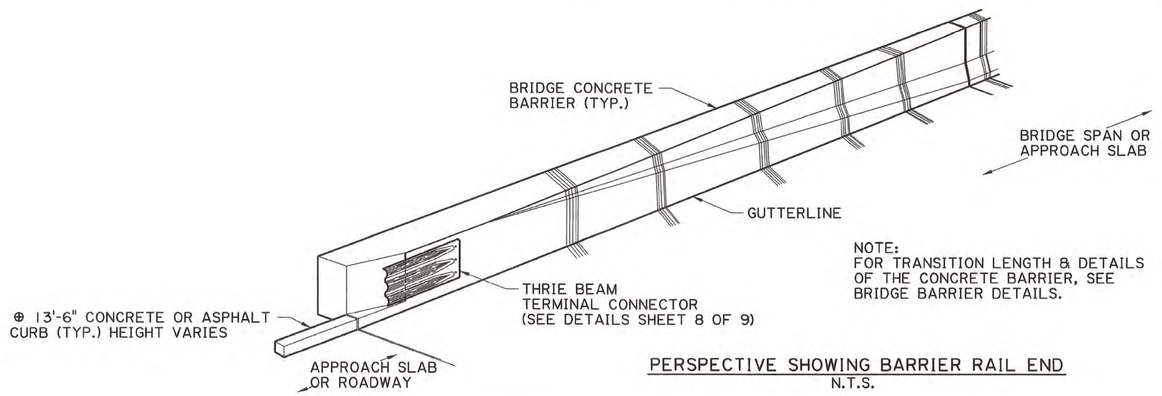
STEEL POST & ROUTED WOOD BLOCKOUT ALTERNATE
(POST & BLOCKOUT SIZE VARY IN TRANSITION, SEE PLAN VIEW)



⊕ASPHALT CURB ALTERNATE - SECTION A-A
(FOR USE WITH CONCRETE OR ASPHALT PAVEMENT)



LAYOUT SHOWING DIRECTION OF GUARD RAIL SPLICE FOR TWO WAY TRAFFIC
N.T.S.



NOTE:
FOR TRANSITION LENGTH & DETAILS OF THE CONCRETE BARRIER, SEE BRIDGE BARRIER DETAILS.

PERSPECTIVE SHOWING BARRIER RAIL END
N.T.S.

SHEET 308

SCALE	NOT TO SCALE
DWG. NO.	
DRAWN BY	R.Y. / LA-DOTD
CHECKED BY	F.J.T.
APPROVED BY	F.J.T.
DATE	AUGUST 12, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AUGUST 12, 2021
DATE:

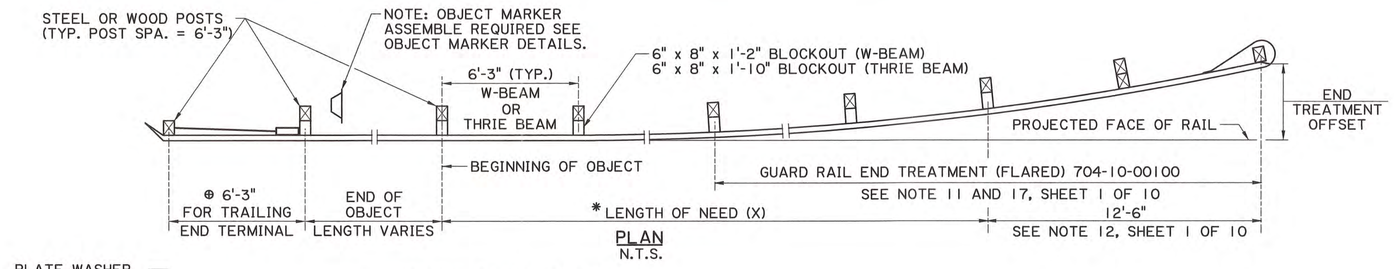
"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

HIGHWAY GUARD RAILS
THRIE BEAM GUARD RAIL TRANSITION TO BRIDGE RAIL
STANDARD DETAIL GR-200
SHEET 3 OF 10

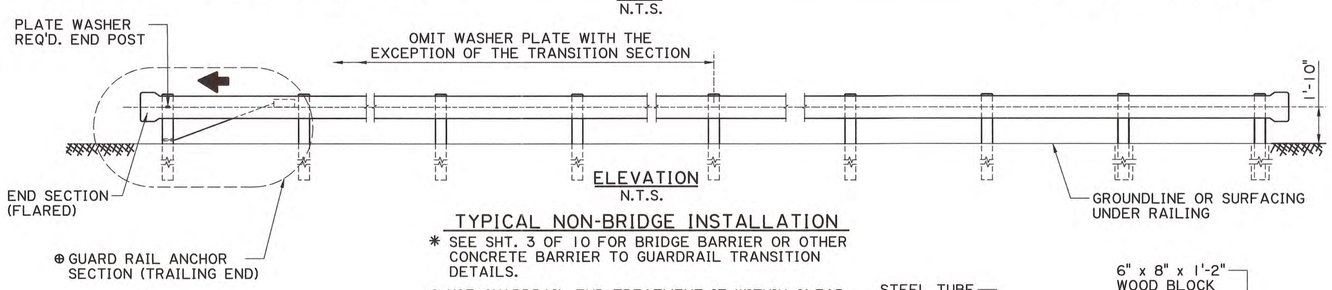
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 3 OF 10



PLAN
N.T.S.



ELEVATION
N.T.S.

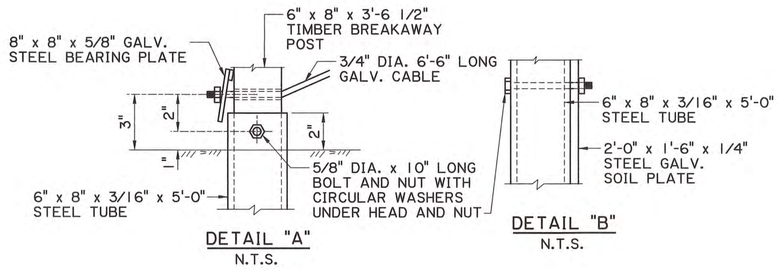
TYPICAL NON-BRIDGE INSTALLATION

* SEE SHT. 3 OF 10 FOR BRIDGE BARRIER OR OTHER CONCRETE BARRIER TO GUARDRAIL TRANSITION DETAILS.

⊕ USE GUARDRAIL END TREATMENT IF WITHIN CLEAR ZONE OR AS SHOWN ON GUARDRAIL LAYOUT.

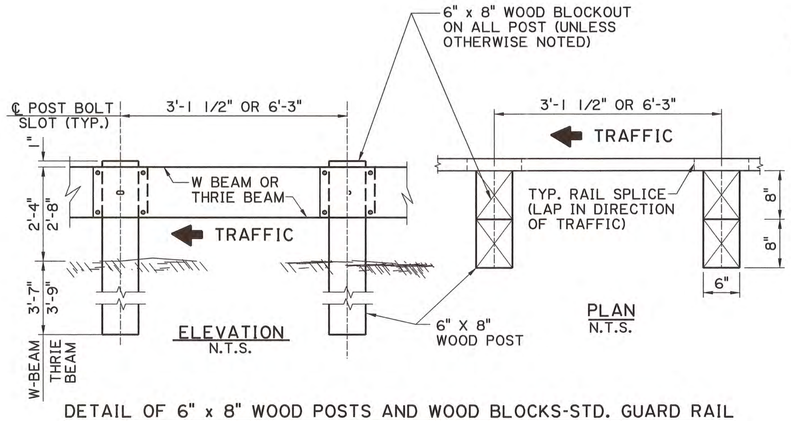
NOTES:

1. INTERMIXING OF STEEL AND WOOD POSTS IN ANY ONE SECTION OF THE GUARD RAIL SHALL NOT BE PERMITTED.
2. GUARD RAIL SHALL NOT BE PLACED CLOSER TO THE TRAVELED WAY THAN THE OUTSIDE EDGE OF THE SHOULDER. THE OFFSET TO THE FACE OF THE NOSE OF THE END TREATMENT SHALL BE AS PER THE MANUFACTURER'S RECOMMDATIONS, FROM THE PROJECTED FACE OF THE RAIL.
3. ALL MATERIAL DIMENSIONS ARE SUBJECT TO MANUFACTURING TOLERANCES.
4. WOOD POST AND BLOCKS: TREATMENT SHALL BE IN ACCORDANCE WITH DOTD STANDARD SPECTIFICATIONS SECTION 1014. POST AND BLOCKS SHALL EITHER BE ROUGH SAWED (UNPLANED) OR S4S WITH NOMINAL DIMENSION INDICATED.THE SIZE TOLERANCE OF ROUGH SAWED TIMBER IN THE DIRECTION OF THE BOLT HOLES SHALL NOT BE MORE THAN +1/4".
5. STEEL POST AND WOOD BLOCKS (THRIE BEAM ONLY): BLOCK MOUNTS TO POST WITH 2-BOLTS, RAIL MOUNTS TO BLOCK WITH BOLT ON APPROACHING TRAFFIC SIDE OF BLOCK AND POST WEB.
6. FOR DETAILS OF SOIL PLATE, ANCHOR PLATE, AND 3/4" CABLE, SEE SHT. 9 OF 10. FOR BREAKAWAY TIMBER POST AND GALV. STEEL TUBE, SEE SHT. 7 OF 10.



DETAIL "A"
N.T.S.

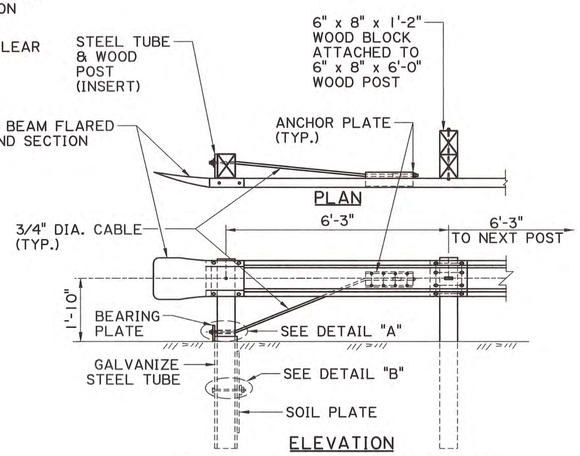
DETAIL "B"
N.T.S.



ELEVATION
N.T.S.

PLAN
N.T.S.

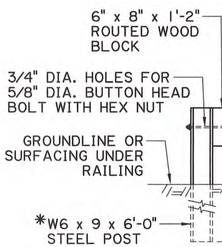
DETAIL OF 6" x 8" WOOD POSTS AND WOOD BLOCKS-STD. GUARD RAIL



PLAN

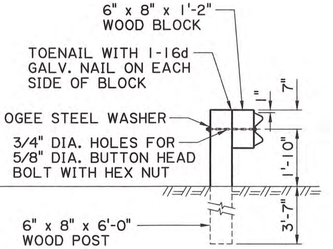
ELEVATION

TYPICAL W BEAM TRAILING END
N.T.S.

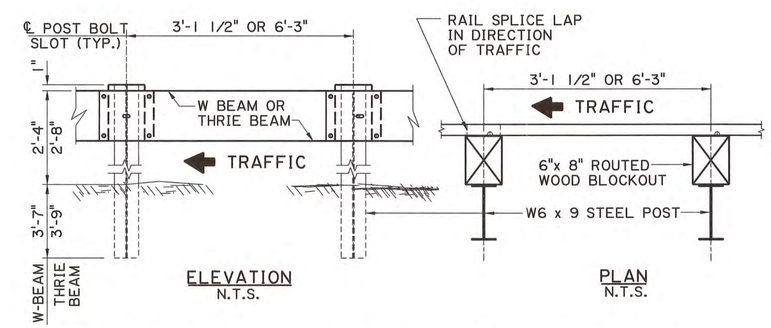


TYPICAL SECTION AT STEEL POST
& WOOD BLOCK (W-BEAM)

*W6x8.5 MAY BE USED AS AN ALTERNATE



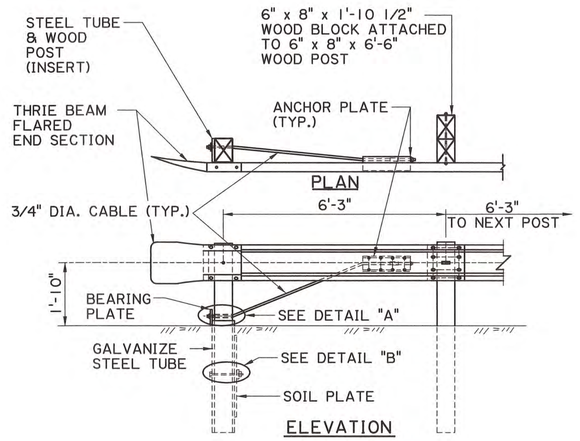
TYPICAL SECTION AT WOOD POST
& WOOD BLOCK (W-BEAM)
N.T.S.



ELEVATION
N.T.S.

PLAN
N.T.S.

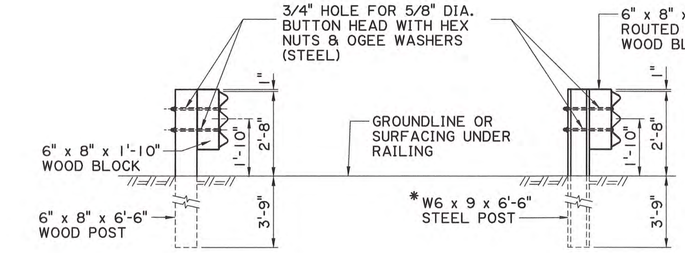
DETAIL OF W6 x 9 STEEL POSTS AND WOOD BLOCKS-STD. GUARD RAIL



PLAN

ELEVATION

TYPICAL THRIE BEAM TRAILING END
N.T.S.



TYPICAL SECTION AT WOOD POST
& WOOD BLOCK (THRIE BEAM)
N.T.S.

TYPICAL SECTION AT STEEL POST
& WOOD BLOCK (THRIE BEAM)

W6 x 8.5 MAY BE USED AS ALTERNATE
FOR STEEL POST ATTACHED TO CONCRETE,
SEE SHT. 10 OF 10.
N.T.S.

STANDARD W-BEAM & THRIE BEAM GUARD RAIL SECTIONS

(FOR BRIDGE CONCRETE BARRIER TO GUARD RAIL TRANSITION DETAILS, SEE SHT. 3 OF 10)

SHEET 309

SCALE	NOT TO SCALE
DWG. NO.	
DRAWN BY	R.Y. / LA-DOTD
CHECKED BY	F.A.T.
APPROVED BY	F.A.T.
DATE	AUGUST 12, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AUGUST 12, 2021

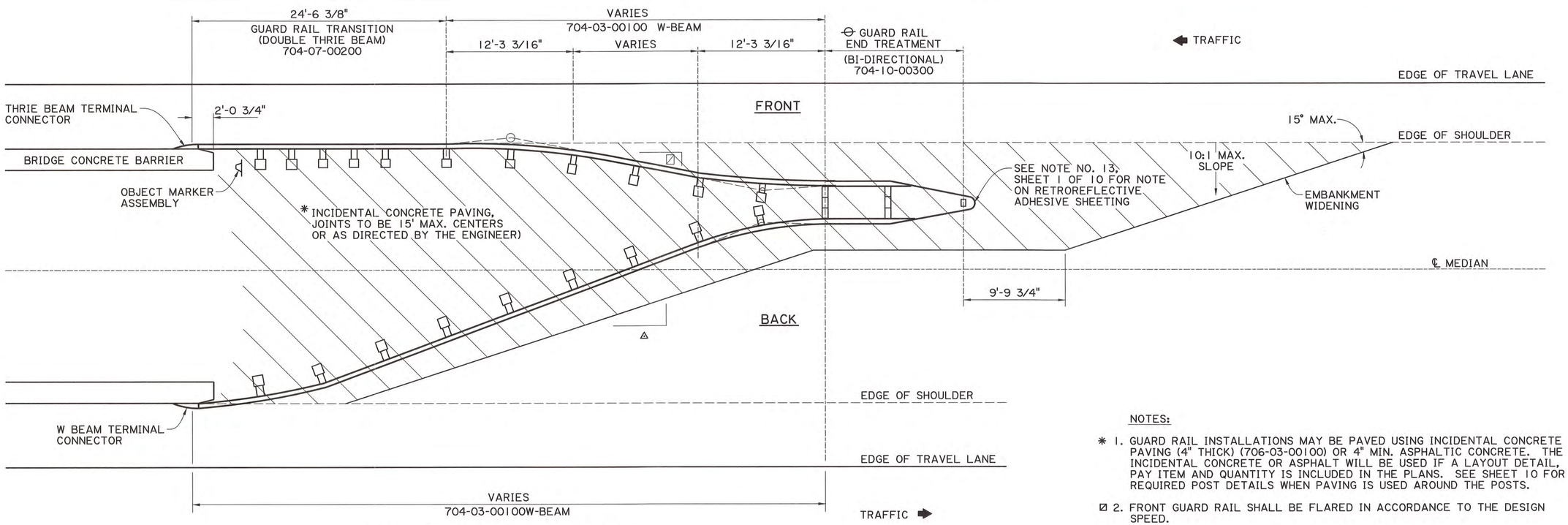
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

HIGHWAY GUARD RAILS
GUARD RAIL LAYOUT & SECTIONS
STANDARD DETAIL GR-200
SHEET 4 OF 10
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette
CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 4 OF 10



BRIDGE END GUARD RAIL ON MEDIAN SIDE

NOTES:

* 1. GUARD RAIL INSTALLATIONS MAY BE PAVED USING INCIDENTAL CONCRETE PAVING (4" THICK) (706-03-00100) OR 4" MIN. ASPHALTIC CONCRETE. THE INCIDENTAL CONCRETE OR ASPHALT WILL BE USED IF A LAYOUT DETAIL, PAY ITEM AND QUANTITY IS INCLUDED IN THE PLANS. SEE SHEET 10 FOR REQUIRED POST DETAILS WHEN PAVING IS USED AROUND THE POSTS.

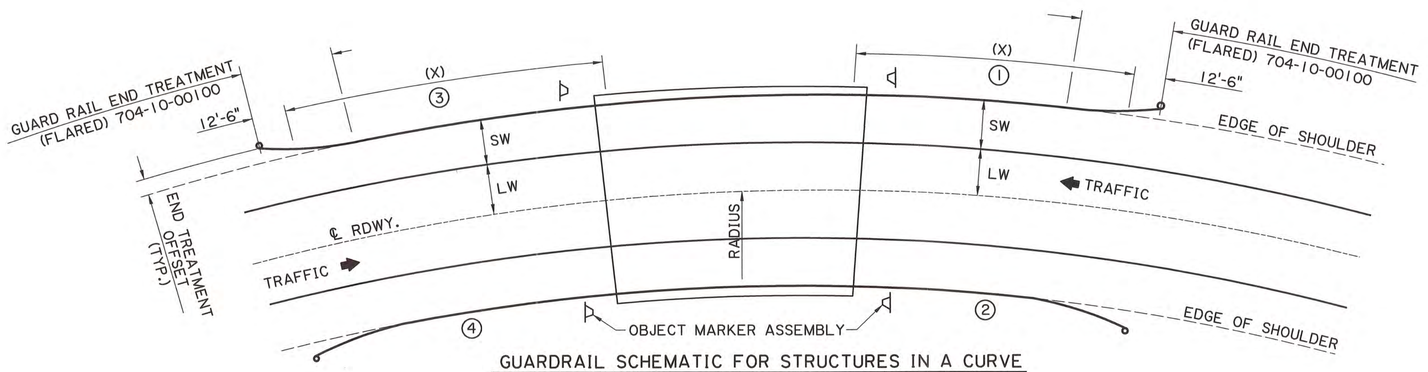
☑ 2. FRONT GUARD RAIL SHALL BE FLARED IN ACCORDANCE TO THE DESIGN SPEED.

△ 3. GUARD RAIL SHALL BE FLARED TO MEET THE FRONT GUARD RAIL.

⊖ 4. USE A GUARD RAIL END TREATMENT (BI-DIRECTIONAL), ITEM 704-10-00300.

5. THE BACKSIDE GUARD RAIL AND END TREATMENT MAY BE ELIMINATED AND A GUARD RAIL END TREATMENT (FLARED OR TANGENT) MAY BE UTILIZED INSTEAD ON THE ONCOMING END OF BRIDGE IF THE BACK OF THE GUARD RAIL END TREATMENT IS OUT OF THE CLEAR ZONE (Lc) FOR THE OPPOSING TRAFFIC.

6. BOLT HOLE LOCATIONS ON THE CONCRETE BARRIER STANDARD ARE FOR THE THRIE BEAM TERMINAL CONNECTOR. WHEN W BEAM TERMINAL CONNECTORS ARE USED THE LOCATION OF THESE HOLES SHALL BE ADJUSTED TO FIT THE BOLT HOLE PATTERN FOR THE W BEAM TERMINAL CONNECTOR AS SHOWN ON SHEET 8 OF 10.



GUARDRAIL SCHEMATIC FOR STRUCTURES IN A CURVE

N.T.S.

FORMULA FOR COMPUTING GUARD RAILS IN A CURVE

① ② $A=\cos^{-1}\left[\frac{R+LW}{R+LW+CZ_c}\right]-\cos^{-1}\left[\frac{R+LW}{R+LW+SW}\right]$ $\quad X=\frac{A\,(R+LW+SW)}{57.3}$

③ ④ $A=\cos^{-1}\left[\frac{R}{R+CZ_c}\right]-\cos^{-1}\left[\frac{R}{R+LW+SW}\right]$ $\quad X=\frac{A\,(R+LW+SW)}{57.3}$

NOTES:

1. GUARD RAILS COMPUTED IN ACCORDANCE WITH THE ABOVE EQUATIONS SHALL BE INSTALLED PARALLEL WITH THE CURVE OF THE ROADWAY. END TREATMENT SYSTEMS SHALL USE APPLICABLE OFFSETS WHEN REQUIRED.
2. LENGTH OF NEED (X) ON ONE WAY TRAFFIC SHALL USE THE EQUATION SHOWN FOR LOCATION ① & ②. WHEN A BRIDGE IS LOCATED IN A RADIUS > 2860 ft.; THE LENGTH OF NEED (X) SHALL BE COMPUTED AS STRAIGHT GUARD RAIL (USE X,Y,Z EQUATIONS ON SHEET 2 OF 10) WITH A FLARE RATE AS PER TABLE 4, SHEET 2 OF 10.

CZc : ADJUSTED CLEAR ZONE FOR HORIZONTAL CURVE, FT. SEE SHEET 2 OF 10.
R : RADIUS OF CURVE @ ℄ ROADWAY, FT
LW : LANE WIDTH, FT.
SW : SHOULDER WIDTH, FT.
X : LENGTH OF NEED, FT.
A : ANGLE AT CENTER FOR LENGTH OF NEED, DEGREE

SHEET 310

SCALE	NOT TO SCALE
DWG. NO.	R.V. / LA-DOTD
DRAWN BY	F.A.T.
CHECKED BY	F.A.T.
APPROVED BY	
DATE	AUGUST 12, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
AUGUST 12, 2021
DATE:

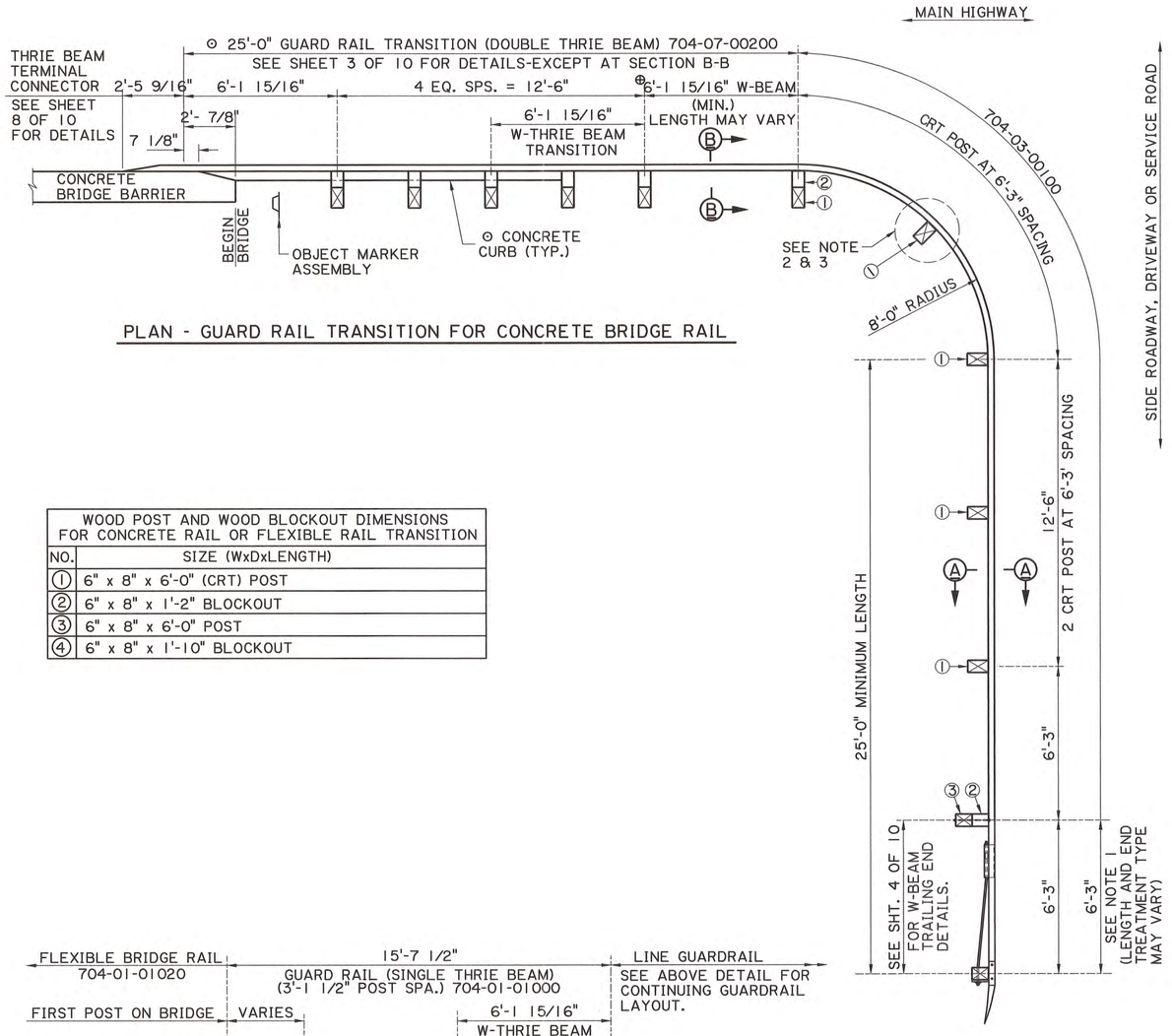
"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

HIGHWAY GUARD RAILS
BRIDGE MEDIAN GUARD RAIL AND CURVE GUARD RAIL LAYOUT
STANDARD DETAIL GR-200
SHEET 5 OF 10

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

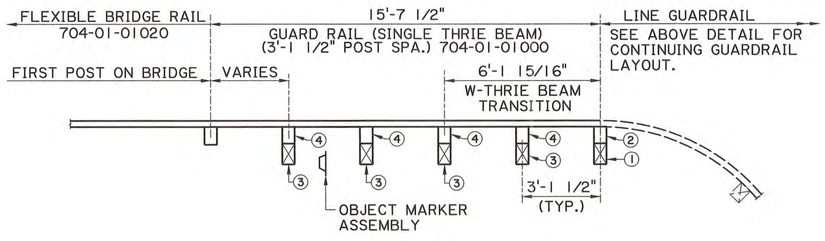
Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 5 OF 10



PLAN - GUARD RAIL TRANSITION FOR CONCRETE BRIDGE RAIL

WOOD POST AND WOOD BLOCKOUT DIMENSIONS FOR CONCRETE RAIL OR FLEXIBLE RAIL TRANSITION	
NO.	SIZE (WxDxLENGTH)
①	6" x 8" x 6'-0" (CRT) POST
②	6" x 8" x 1'-2" BLOCKOUT
③	6" x 8" x 6'-0" POST
④	6" x 8" x 1'-10" BLOCKOUT



PLAN - GUARD RAIL TRANSITIONS FOR FLEXIBLE BRIDGE RAILS

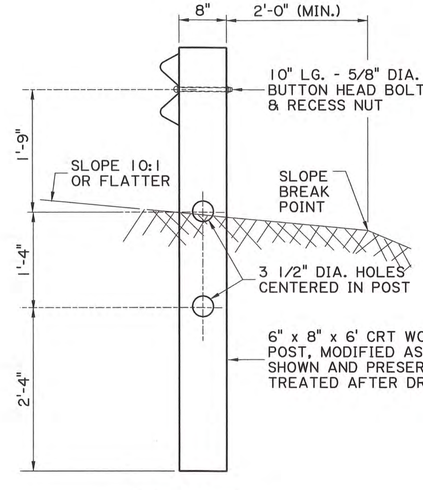
NOTES:

1. THE USE OF THE W-BEAM TRAILING END SHALL BE LIMITED TO THE APPROACH ROADWAY SUCH AS RESIDENTIAL OR BUSINESS DRIVEWAYS OR OTHER SERVICE ROADWAYS. IF THE APPROACH ROADWAY CARRIES NORMAL HIGHWAY TRAFFIC, A CRASHWORTHY END TREATMENT, PAY ITEM 704-10-00100, 704-10-00200, OR 704-10-00300, SHALL BE USED IN LIEU OF THE W-BEAM TRAILING END.
2. THE CURVED GUARD RAIL SECTION SHALL BE SHOP BENT.
3. THE RAIL IS NOT BOLTED TO THE CRT POST AT THE CENTER OF THE NOSE AS SHOWN.
4. NO WASHERS ARE USED ON THE 5/8" DIA. BUTTON HEAD BOLTS CONNECTING THE RAIL TO THE CABLE RELEASE TERMINAL (CRT) POSTS.
5. BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 307 AND NUTS TO THE REQUIREMENTS OF ASTM A 563, GRADE A OR BETTER, AND BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.
6. ALL ANGLES, CHANNELS AND PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 36 AND STRUCTURAL TUBING TO ASTM A 500. WELDING SHALL MEET THE CURRENT REQUIREMENTS OF THE ANSI/AASHTO/AWS, BRIDGE WELDING CODE. ALL STRUCTURAL STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123. NO PUNCHING, DRILLING, CUTTING OR WELDING WILL BE PERMITTED AFTER GALVANIZING.
7. THE WOOD BREAKAWAY POST SHALL BE S4S TIMBER WITH A STRESS GRADE OF 1200 PSI AND SHALL BE GRADE MARKED OR CERTIFIED BY A RECOGNIZED ASSOCIATION OR AGENCY WHICH IS CERTIFIED BY THE BOARD OF REVIEW, AMERICAN LUMBER STANDARDS COMMITTEE, TO GRADE THE SPECIES. SEE SHEET 7 OF 10 FOR DETAILS.
8. FOR BOLT DETAILS, SEE SHEET NO. 9 OF 10.
9. WOOD POST AND BLOCKS SHALL BE TREATED IN ACCORDANCE WITH SECTION 1014 OF DOTD STD. SPECIFICATIONS.

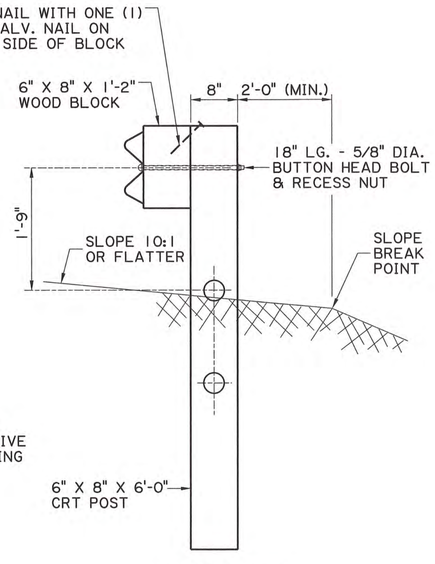
⊙ 10. 13'-6" LONG CURB REQUIRED, SEE SHEET 3 OF 10 FOR DETAILS.

11. THE SLOPE IN FRONT OF THE INSTALLATION SHOULD NOT EXCEED 10H:1V.
12. TOP OF GUARD RAIL TO BE INSTALL 27" ABOVE GROUND LINE.

⊕ 13. LENGTH OF W-BEAM SECTION MAY INCREASE TO MEET SITE CONSTRAINTS FROM 6'-3" (MIN.)



SECTION A - A
N.T.S.



SECTION B-B
N.T.S.

SHEET 311

SCALE	NOT TO SCALE
DWG. NO.	
DRAWN BY	R.Y. / LA-DOTD
CHECKED BY	F.A.T.
APPROVED BY	F.A.T.
DATE	AUGUST 12, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AUGUST 12, 2021
DATE:

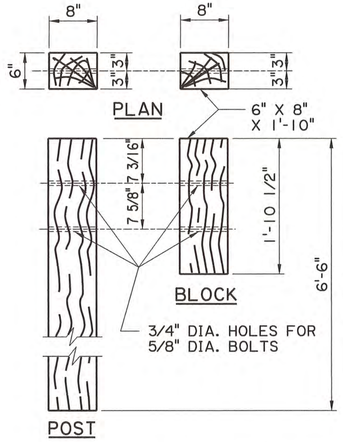
"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

HIGHWAY GUARD RAILS
BRIDGE ENDS (T-INTERSECTION)
STANDARD DETAIL GR-200
SHEET 6 OF 10

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

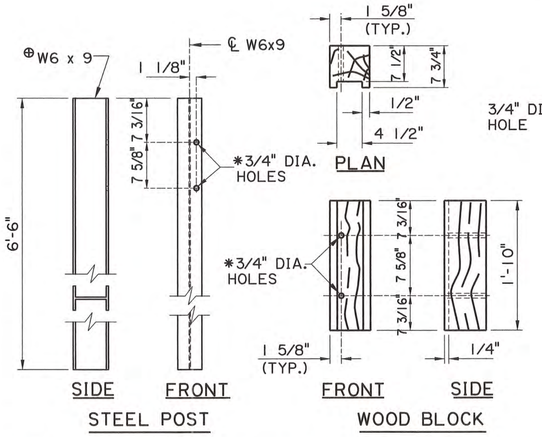
Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 6 OF 10



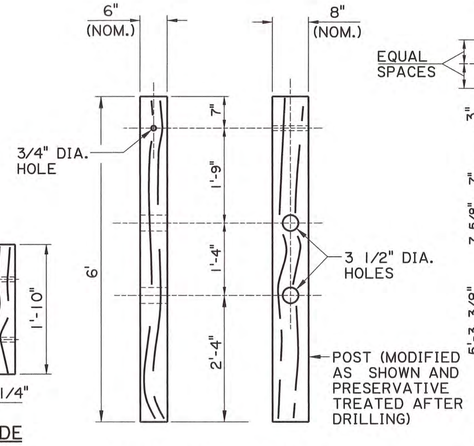
WOOD POST AND WOOD BLOCK FOR STANDARD THRIE BEAM GUARD RAIL

N.T.S.



STEEL POST AND ROUTED WOOD BLOCK FOR STANDARD THRIE BEAM GUARD RAIL

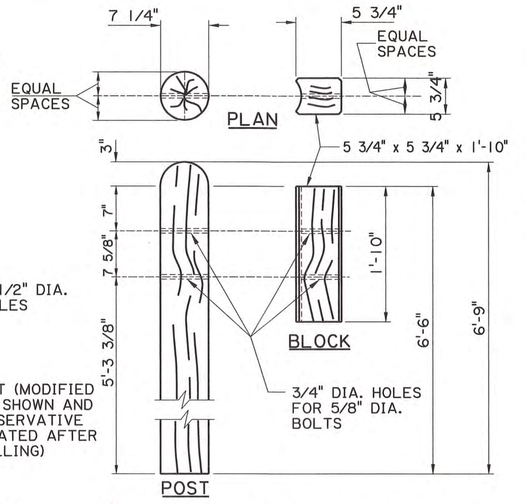
N.T.S.



CONTROL RELEASING TERMINAL (CRT) WOOD POST

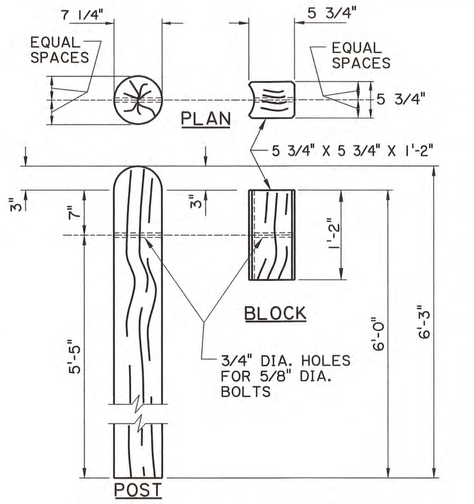
(USED AT T-INTERSECTION DETAILS, SEE SHT. 6 OF 10)

N.T.S.



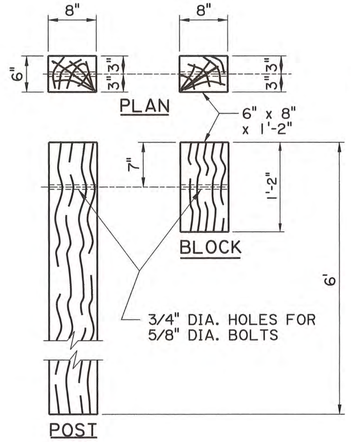
⊕ ROUND WOOD POST AND WOOD BLOCK FOR STANDARD THRIE BEAM GUARD RAIL

N.T.S.



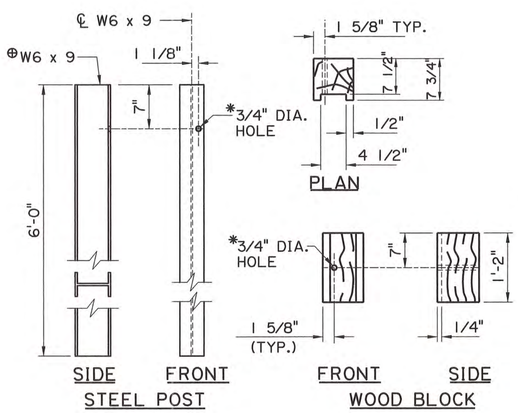
⊕ ROUND WOOD POST AND WOOD BLOCK FOR STANDARD W- BEAM GUARD RAIL

N.T.S.



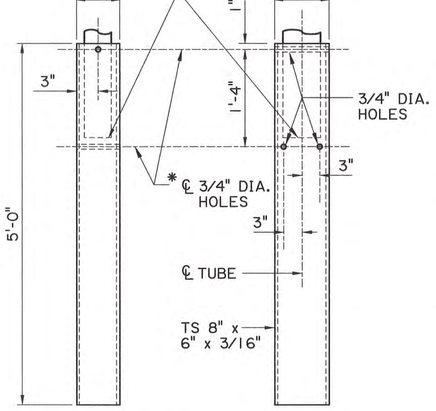
WOOD POST AND WOOD BLOCK FOR STANDARD W- BEAM GUARD RAIL

N.T.S.



STEEL POST AND ROUTED WOOD BLOCK FOR STANDARD W- BEAM GUARD RAIL

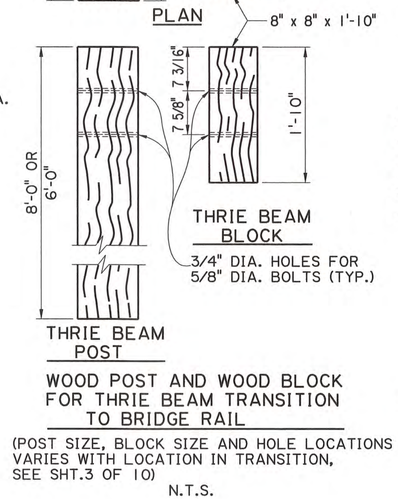
N.T.S.



GALVANIZED STEEL TUBE

(FOR TRAILING END SECTION, SEE SHT. 4 OR 6 OF 10.)

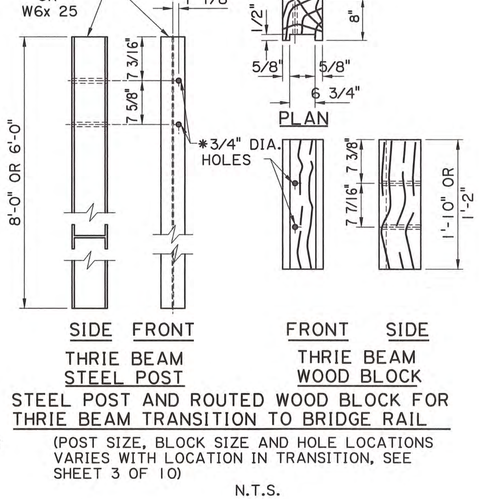
N.T.S.



WOOD POST AND WOOD BLOCK FOR THRIE BEAM TRANSITION TO BRIDGE RAIL

(POST SIZE, BLOCK SIZE AND HOLE LOCATIONS VARIES WITH LOCATION IN TRANSITION, SEE SHT.3 OF 10)

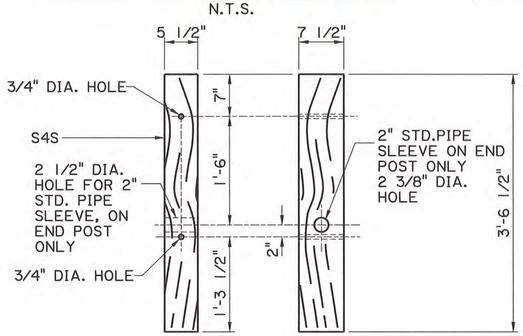
N.T.S.



STEEL POST AND ROUTED WOOD BLOCK FOR THRIE BEAM TRANSITION TO BRIDGE RAIL

(POST SIZE, BLOCK SIZE AND HOLE LOCATIONS VARIES WITH LOCATION IN TRANSITION, SEE SHEET 3 OF 10)

N.T.S.



TIMBER BREAKAWAY POST

(FOR TRAILING END SECTION, SEE SHT. 4 & 6 OF 10.)

NOTES:

⊕ 1. THE ROUND WOOD POST AND WOOD BLOCK IS ALLOWED TO REPLACE THE 6" x 8" STANDARD LINE POST AND BLOCKOUT FOR W BEAM AND THRIE BEAM GUARD RAIL. THE ROUND WOOD POST SHALL NOT BE USED AS AN ALTERNATE FOR THE CRT POST, AND THE THRIE BEAM TRANSITION POST SECTION FOR THE CONCRETE BRIDGE RAIL.

2. A RECYCLED BLOCK ALTERNATE IS ALLOWED AS A SUBSTITITE FOR THE WOOD BLOCK ON A 1 FOR 1 BASIS AT NO ADDITIONAL PAYMENT. THE RECYCLED BLOCK MUST HAVE FHWA APPROVAL AND MEET NCHRP 350 OR MASH REQUIREMENTS.

⊕ 3. A W6x 8.5 STEEL POST MAY BE USED AS AN ALTERNATE FOR A W6 x 9 POST.

* 4. POST AND BLOCK HOLES SHALL BE DRILLED ADJACENT TO THE DIRECTION OF THE TRAFFIC.

SHEET 312

SCALE	NOT TO SCALE
DWG. NO.	
DRAWN BY	R.Y. / LA-DOTD
CHECKED BY	F.A.T.
APPROVED BY	F.A.T.
DATE	AUGUST 12, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
AUGUST 12, 2021
DATE:

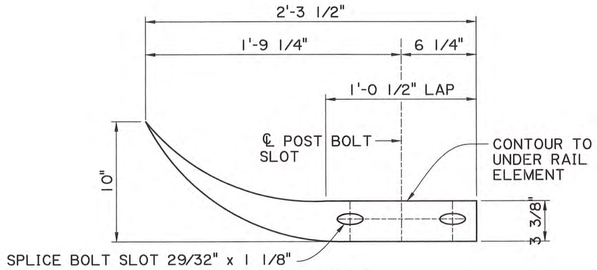
"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

HIGHWAY GUARD RAILS
GUARD RAIL POST & BLOCK
STANDARD DETAIL GR-200
SHEET 7 OF 10

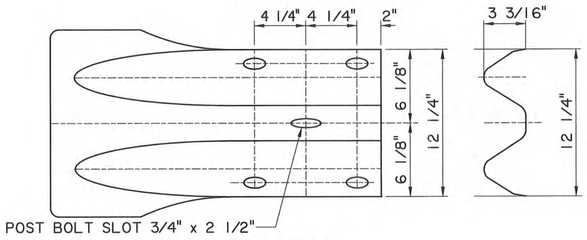
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 7 OF 10

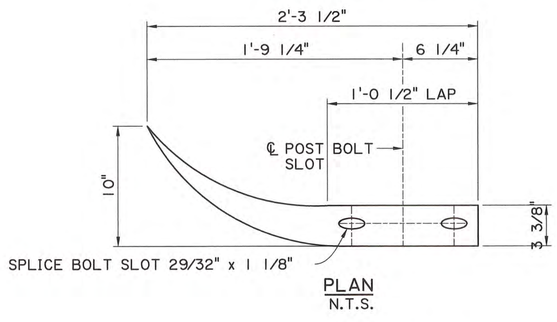


PLAN
N.T.S.

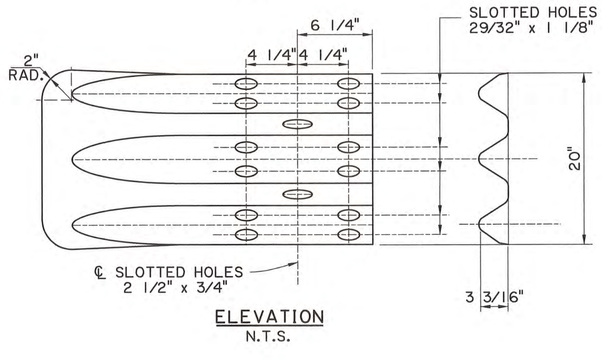


ELEVATION
N.T.S.

W BEAM END SECTION (FLARED)



PLAN
N.T.S.

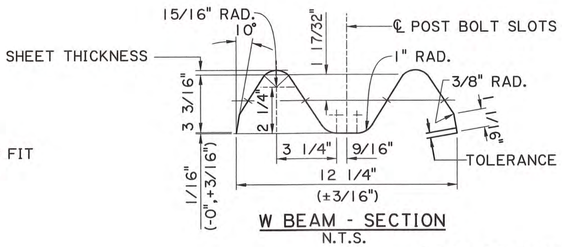


ELEVATION
N.T.S.

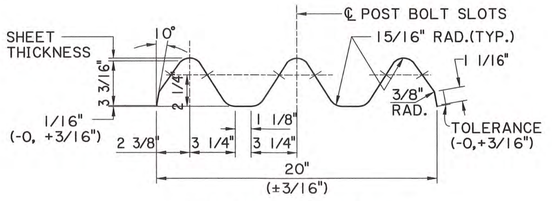
FLARED END SECTION FOR THRIE BEAM

NOTES:

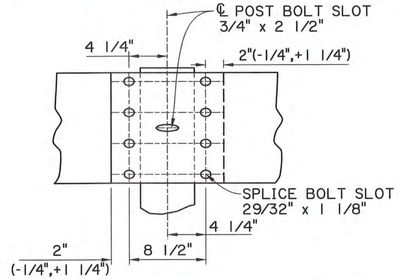
1. ALL RAIL COMPONENTS EXCEPT THE W AND THRIE BEAM TERMINAL CONNECTORS SHALL MEET AASHTO M 180, CLASS "A" METAL THICKNESS WITH A TYPE II COATING. THE W BEAM AND THRIE BEAM TERMINAL CONNECTORS SHALL BE CLASS "B" METAL THICKNESS WITH TYPE II COATING.



W BEAM - SECTION
N.T.S.



THRIE BEAM - SECTION
N.T.S.

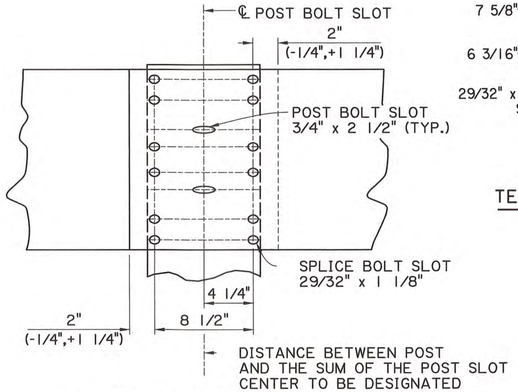


W-BEAM-SPLICE DETAIL-ELEVATION

5/8" DIA. x 1 1/4" BUTTON HEAD OVAL SHOULDER BOLTS WITH 5/8" DIA. RECESSED HEX NUTS-TOTAL 8 PER SPLICE AND 4 PER TERMINAL SECTION, LAP IN DIRECTION OF TRAFFIC.

W BEAM GUARD RAIL ELEMENT

N.T.S.

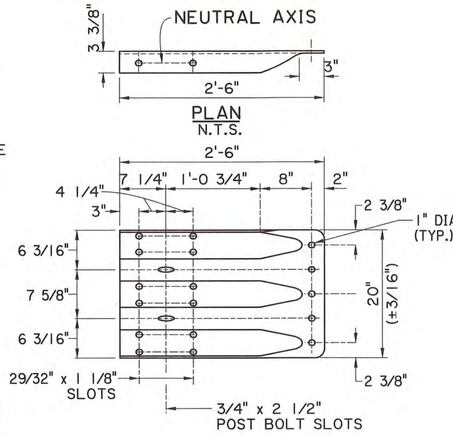


THRIE BEAM-SPLICE DETAIL-ELEVATION

5/8" DIA. x 1 1/4" BUTTON HEAD OVAL SHOULDER BOLTS WITH 5/8" DIA. RECESSED HEX NUTS-TOTAL 12 PER SPLICE AND 4 PER TERMINAL SECTION, LAP IN DIRECTION OF TRAFFIC.

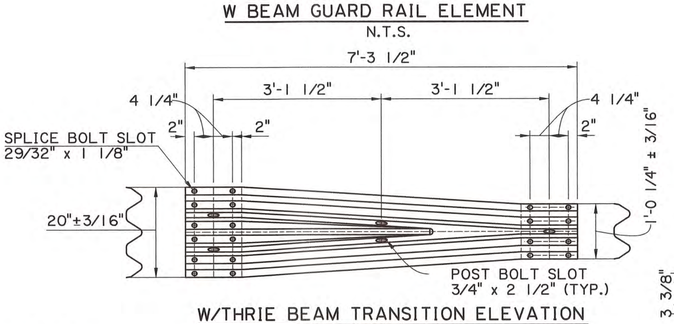
THRIE BEAM GUARD RAIL ELEMENT

N.T.S.

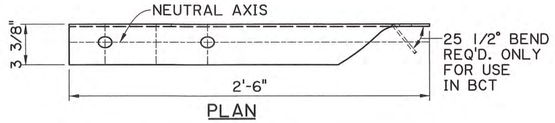


ELEVATION

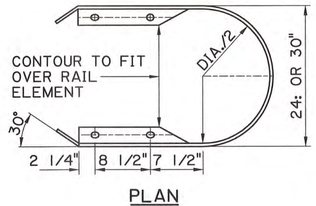
TERMINAL CONNECTOR (THRIE BEAM)
N.T.S.



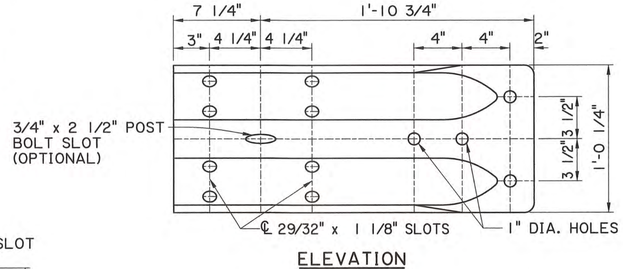
W/THRIE BEAM TRANSITION ELEVATION
N.T.S.



PLAN

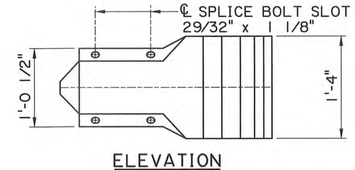


PLAN
N.T.S.



ELEVATION
N.T.S.

W BEAM TERMINAL CONNECTOR



ELEVATION
N.T.S.

W-BEAM END SECTION BUFFER

SHEET 313

SCALE	NOT TO SCALE		
DWG. NO.		R.V. / LA-DOTD	AUGUST 12, 2021
DRAWN BY		F.A.T.	
CHECKED BY		F.A.T.	
APPROVED BY			
DATE			

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER
IN CIVIL ENGINEERING

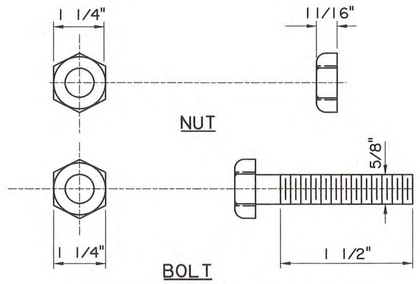
AUGUST 12, 2021
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

HIGHWAY GUARD RAILS
RAIL STRUCTURE DETAILS
STANDARD DETAIL GR-200
SHEET 8 OF 10
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

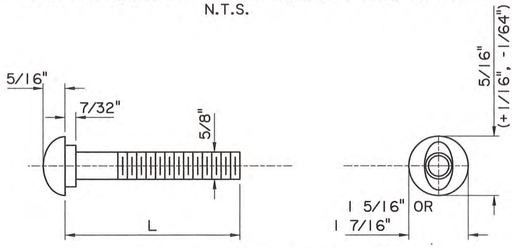
Lafayette
CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 8 OF 10

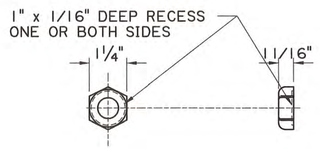


5/8" DIA. HEX BOLT & HEX NUT

(FOR FASTENING THE ANCHOR PLATE TO RAIL OR POST)
N.T.S.

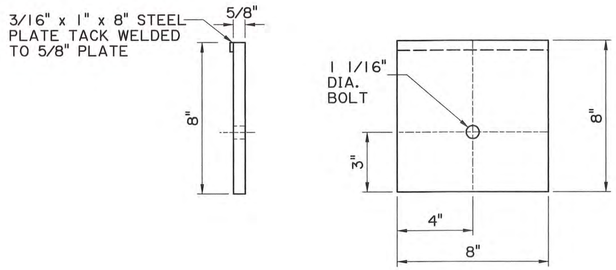


5/8" BUTTON HEAD BOLT
N.T.S.



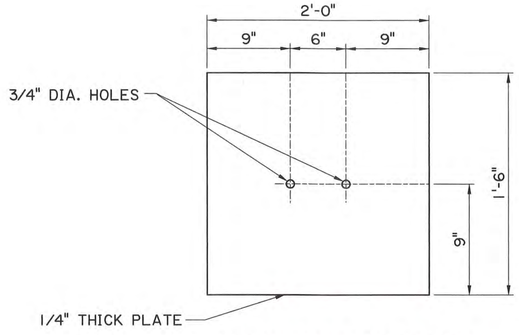
5/8" DIA. RECESS NUT
N.T.S.

5/8" BUTTON HEAD NUT	
L	THREAD LENGTH
1 1/4"	1 3/16"
2"	1 3/4"
10"	4"
1'-6"	4"
1'-8"	4"



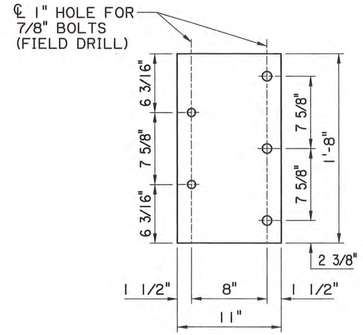
GALVANIZED STEEL BEARING PLATE

(FOR TRAILING END)
N.T.S.



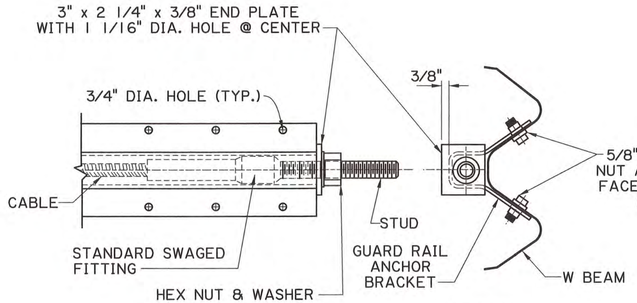
GALVANIZED SOIL PLATE

(FOR TRAILING END)
N.T.S.



5/8" BEARING PLATE

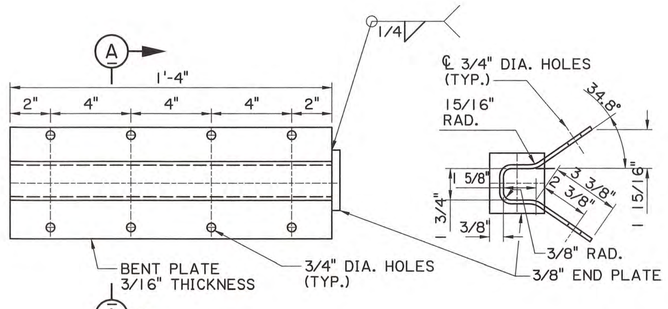
(FOR ANCHORING THRIE BEAM
TO CONCRETE BARRIER RAIL)
N.T.S.



ELEVATION

SECTION

ELEVATION-BRACKET & FITTING
N.T.S.

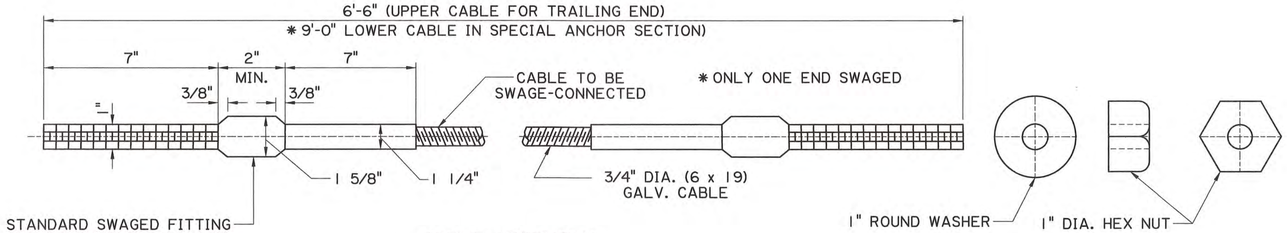


ELEVATION

SECTION A-A

GUARD RAIL ANCHOR PLATE
N.T.S.

ANCHOR PLATE ASSEMBLY DETAILS
(FOR TRAILING END



CABLE ASSEMBLY
(FOR TRAILING END)
N.T.S.

GUARD RAIL SPLICE, POST BOLT AND RECESS NUT

NOTES:
5/8" DIA. BUTTON HEAD BOLTS:

(1 1/4" LENGTH): THIS BOLT IS USED TO SPLICE RAIL ELEMENTS USED IN THE STANDARD CORRUGATED SHEET STEEL BEAM GUARD RAIL.
(2" LENGTH): THIS BOLT IS FOR FASTENING RAILS TO STEEL POSTS WHEN USED IN THE STANDARD CORRUGATED SHEET BEAM GUARD RAIL.
(10" LENGTH): THIS BOLT IS USED FOR FASTENING RAILS TO WOOD POST IN THE STANDARD CORRUGATED SHEET STEEL BEAM GUARD RAIL.
(1'-6" LENGTH): THIS BOLT IS FOR FASTENING WOOD BLOCKS & POSTS IN THE STANDARD CORRUGATED SHEET STEEL BEAM.
(1'-8" LENGTH): THIS BOLT IS FOR FASTENING NESTED THRIE BEAM TO WOOD BLOCKS AND POST AT THE FIRST TWO POST LOCATIONS AT THE ENDS OF RIDGID (CONCRETE) STRUCTURE, UNLESS OTHERWISE SHOWN IN THE PLANS.

5/8" DIA. BOLTS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A 307 AND NUTS TO THE REQUIREMENTS IN ACCORDANCE WITH ASTM A 563 GRADE A OR BETTER. BOLTS AND NUTS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

STEEL POST & PLATES:

ALL STEEL POSTS AND PLATES SHALL CONFORM TO ASTM A 36 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM 123, NO PUNCHING, DRILLING OR CUTTING WILL BE PERFORMED AFTER GALVANIZING.

SHEET 314

SCALE	NOT TO SCALE
DWG. NO.	
DRAWN BY	R.Y. / LA-SOTD
CHECKED BY	F.A.T.
APPROVED BY	F.A.T.
DATE	AUGUST 12, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AUGUST 12, 2021
DATE:

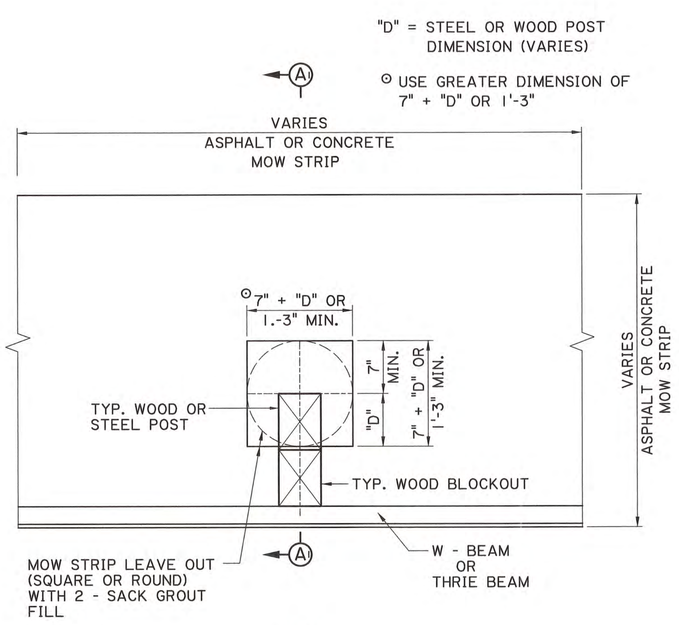
"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

HIGHWAY GUARD RAILS
STRUCTURE DETAIL
STANDARD DETAIL GR-200
SHEET 9 OF 10

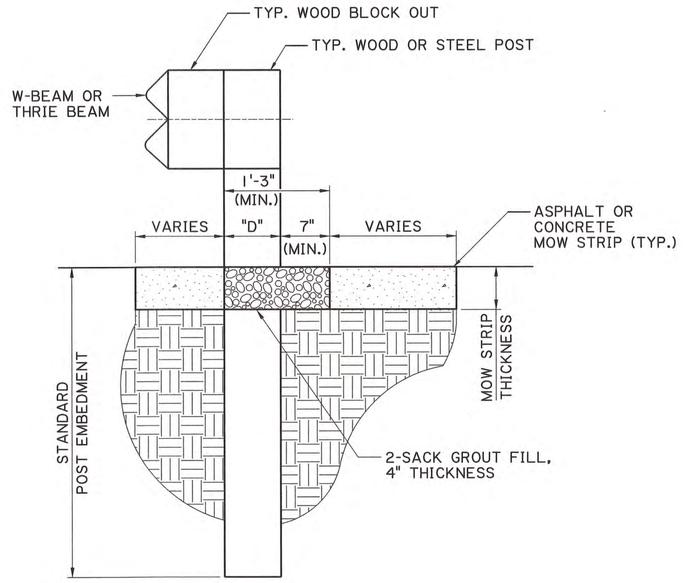
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 9 OF 10



PLAN



SECTION A-A

W-BEAM AND THRIE-BEAM GUARD RAIL INSTALLATIONS FOR CONCRETE OR ASPHALT PAVEMENT MOWING STRIPS

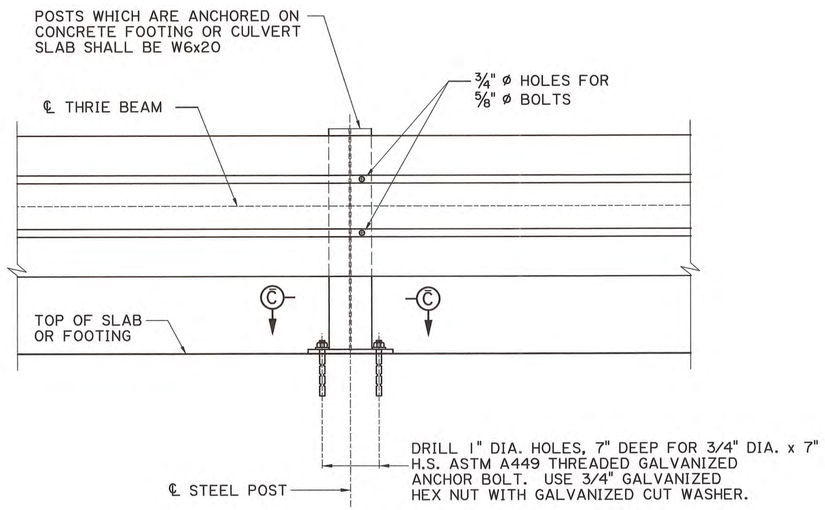
(FOR WOOD OR STEEL POSTS)

MOW STRIP NOTES:

1) ALL GUARDRAIL POSTS LOCATED WITHIN CONCRETE OR ASPHALT MOW STRIPS SHALL MEET INSTALLATION REQUIREMENTS SHOWN ON THIS SHEET.

2) USE A 2-SACK NON-SHRINK GROUT FILL WITH A MAXIMUM COMPRESSIVE STRENGTH OF 120 PSI

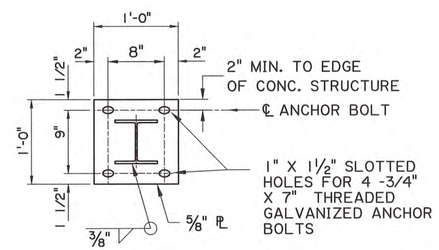
3) ALL LABOR AND MATERIALS TO PLACE 2-SACK GROUT FILL (4" THICKNESS) SHALL BE INCLUDED IN PAYMENT FOR CONCRETE OR ASPHALT PAVING PAY ITEMS.



STEEL POST ATTACHED TO CONCRETE

SPECIAL POST WITH BASE PLATE TO BE USED WHEN REQUIRED EMBEDMENT OF CONVENTIONAL POST IN SOIL CANNOT BE OBTAINED.

W6 X 20 STEEL POST TO USE 8" X 8" WOOD BLOCK AS SHOWN ON SHT. 7 OF 10 ON DETAIL FOR STEEL POST AND ROUTED WOOD BLOCK FOR THRIE BEAM TRANSITION TO BRIDGE RAIL DETAIL.



SECTION C-C - GALVANIZED STEEL BASE PLATE

ANCHOR BOLT INSTALLATION

ALL HOLES (VERTICAL OR HORIZONTAL) DRILLED INTO AN EXISTING CONCRETE STRUCTURE SHALL BE CLEANED WITH COMPRESSED AIR AND MAKE THEM FREE OF ANY OIL OR RESIDUE. HOLES SHALL BE FILLED WITH EPOXY INJECTION SYSTEM AS LISTED ON THE AML. PLACE ANCHOR BOLT IN HOLE IMMEDIATELY AND WAIT FOR THE MANUFACTURERS CURE TIME.

SHEET 315

SCALE	NOT TO SCALE
DWG. NO.	R.V. / LA-DOTD
DRAWN BY	F.A.T.
CHECKED BY	F.A.T.
APPROVED BY	
DATE	AUGUST 12, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

AUGUST 12, 2021

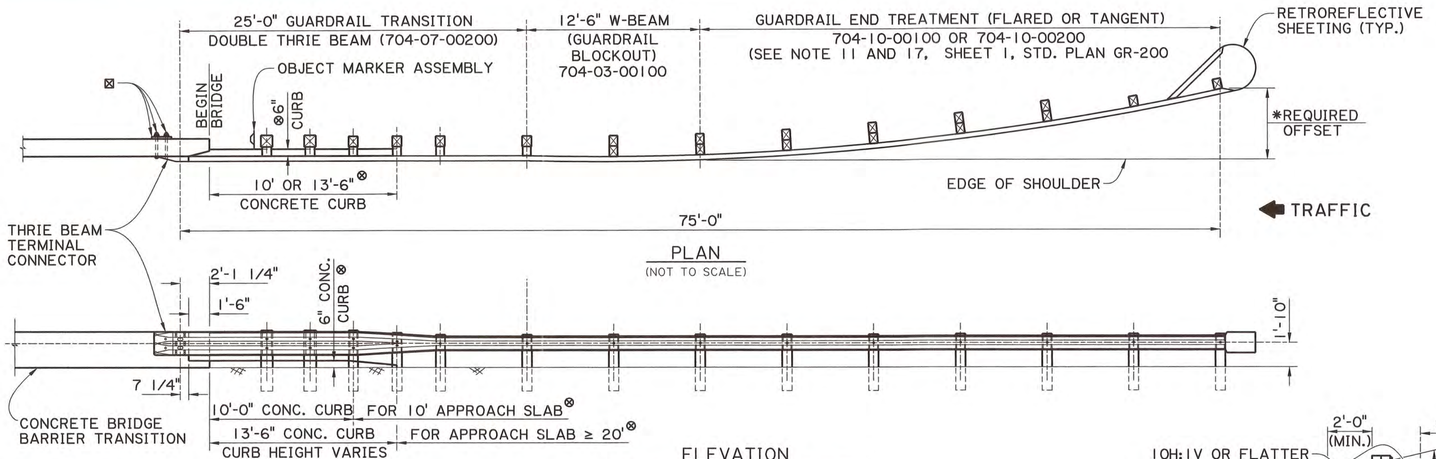
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

HIGHWAY GUARD RAILS
MISCELLANEOUS DETAILS
STANDARD DETAIL GR-200
SHEET 10 OF 10
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 10 OF 10



⊠7/8" DIA. H.S. HEX. BOLTS WITH 5/8" BEARING PLATE (SEE GR-200 STANDARD PLAN DETAILS).

NOTES

1) FOR ADDITIONAL GUARDRAIL DETAILS AND INFORMATION, SEE STANDARD PLAN GR-200.

2) FOR CONCRETE BRIDGE BARRIER TRANSITION DETAILS, SEE BRIDGE PLANS.

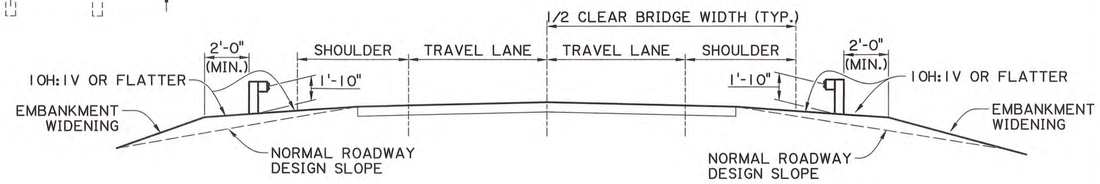
3) OBJECT MARKERS (TYPE 3) SHALL BE PAID UNDER ITEM 729-16-00300. THE QUANTITY FOR THE EMBANKMENT WIDENING AT BRIDGE ENDS SHALL BE INCLUDED IN THE EMBANKMENT QUANTITY FOR THE ROADWAY.

* 4) USE REQUIRED OFFSET AS PER GUARDRAIL END TREATMENT REQUIREMENTS. SEE DOTD APPROVED MATERIALS LIST (AML) FOR GUARDRAIL END TREATMENTS.

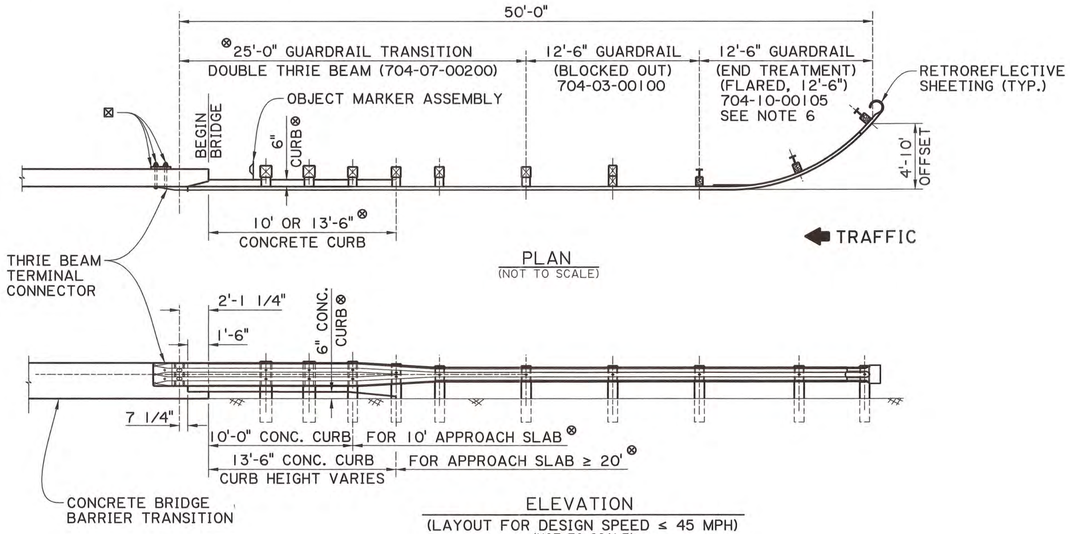
⊗ 5) USE 10'-0" LONG CONCRETE CURB AND 6" CURB HEIGHT FOR 10' APPROACH SLAB, SEE APPROACH SLAB DETAILS FOR FURTHER INFORMATION.

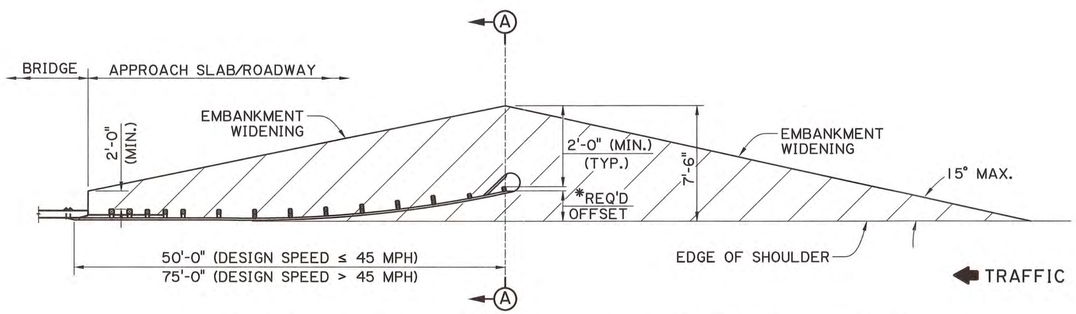
USE 13'-6" LONG CONCRETE CURB FOR ≥ 20' APPROACH SLAB, CURB HEIGHT VARIES FROM 6" TO 2", SEE APPROACH SLAB DETAILS FOR FURTHER INFORMATION.

6) FOR DETAILS OF GUARDRAIL END TREATMENT (FLARED, 12'-6") OR (FLARED, 18'-9"), SEE LCG SPECIAL GUARDRAIL DETAILS SHEETS, PAY ITEM 704-10-00105.

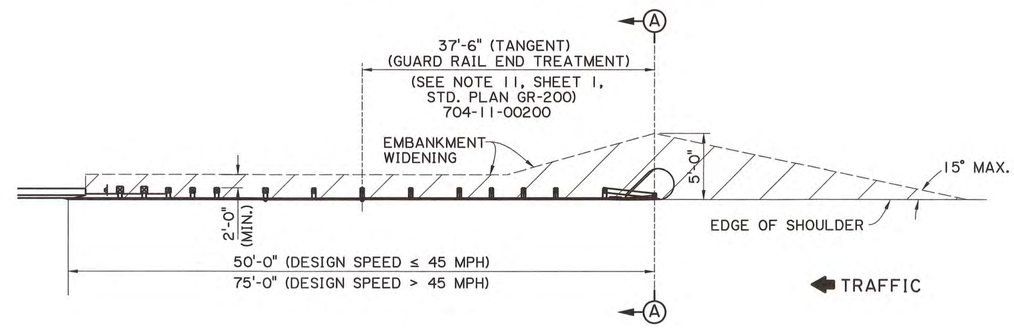


TYPICAL CROSS SECTION A-A EMBANKMENT WIDENING
(NOT TO SCALE)

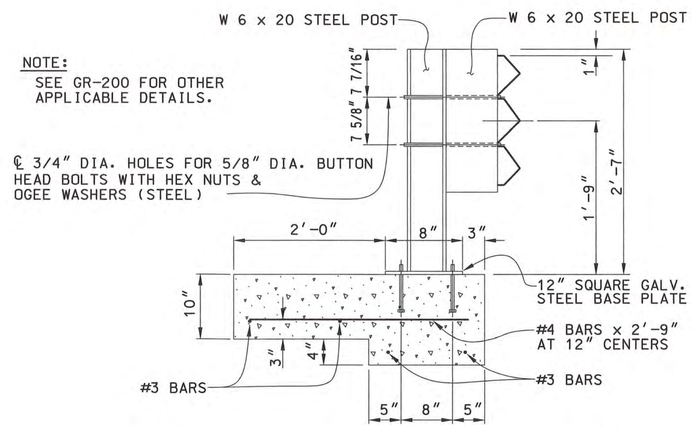




TYPICAL PLAN FOR EMBANKMENT WIDENING - FLARED END TREATMENT
(TYPICAL FOR EACH END OF BRIDGE)
(NOT TO SCALE)



TYPICAL PLAN FOR EMBANKMENT WIDENING-TANGENT END TREATMENT
(TYPICAL FOR EACH END OF BRIDGE)
(NOT TO SCALE)



ALTERNATE TYPICAL SECTION AT STEEL POST AND WOOD BLOCK (THRIE BEAM)
(FOR USE WITH GR-200 WHERE STANDARD GUARD RAIL POSTS CONFLICT WITH SUBSURFACE DRAINAGE)

SHEET 316

SCALE	NOT TO SCALE
DWG. NO.	R.Y. / LA-DOTD
DRAWN BY	F.A.T.
CHECKED BY	F.A.T.
APPROVED BY	
DATE	AUGUST 12, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER
IN CIVIL ENGINEERING

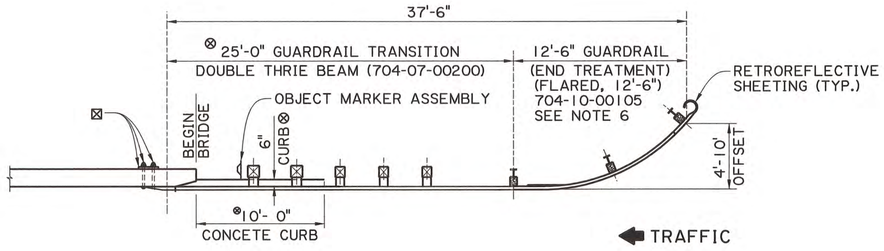
AUGUST 12, 2021
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

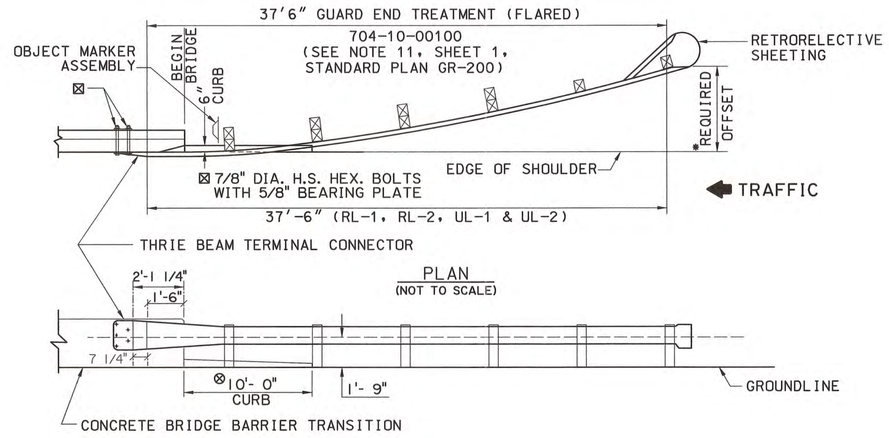
OFF-SYSTEM HIGHWAY GUARD RAIL
STANDARD DETAIL GR-203
SHEET 1 OF 2
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 1 OF 2

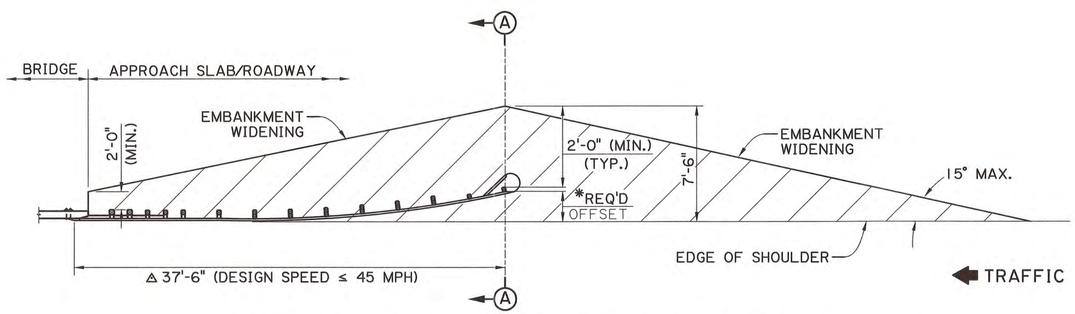


PLAN
(NOT TO SCALE)



PLAN
(NOT TO SCALE)

ELEVATION
(LAYOUT FOR DESIGN SPEED ≤ 45 MPH)
(NOT TO SCALE)



TYPICAL PLAN FOR EMBANKMENT WIDENING- FLARED END TREATMENT
(TYPICAL FOR EACH END OF BRIDGE)
(NOT TO SCALE)

NOTES

1) FOR ADDITIONAL GUARDRAIL DETAILS AND INFORMATION, SEE STANDARD PLAN GR-200.

2) FOR CONCRETE BRIDGE BARRIER TRANSITION DETAILS, SEE BRIDGE PLANS.

3) OBJECT MARKERS (TYPE 3) SHALL BE PAID UNDER ITEM 729-16-00300. THE QUANTITY FOR THE EMBANKMENT WIDENING AT BRIDGE ENDS SHALL BE INCLUDED IN THE EMBANKMENT QUANTITY FOR THE ROADWAY.

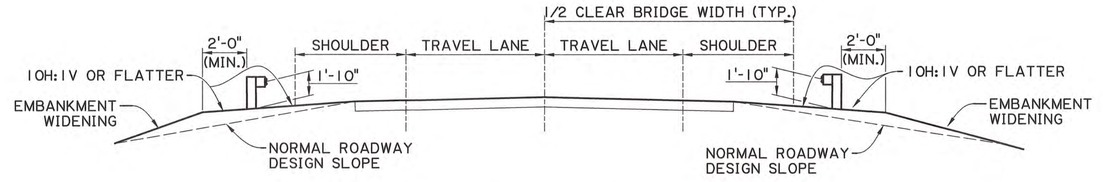
* 4) USE REQUIRED OFFSET AS PER GUARDRAIL END TREATMENT REQUIREMENTS. SEE DOTD APPROVED MATERIALS LIST (AML) FOR GUARDRAIL END TREATMENTS.

⊗ 5) USE 10'-0" LONG CONCRETE CURB AND 6" CURB HEIGHT FOR 10' APPROACH SLAB, SEE APPROACH SLAB DETAILS FOR FURTHER INFORMATION.

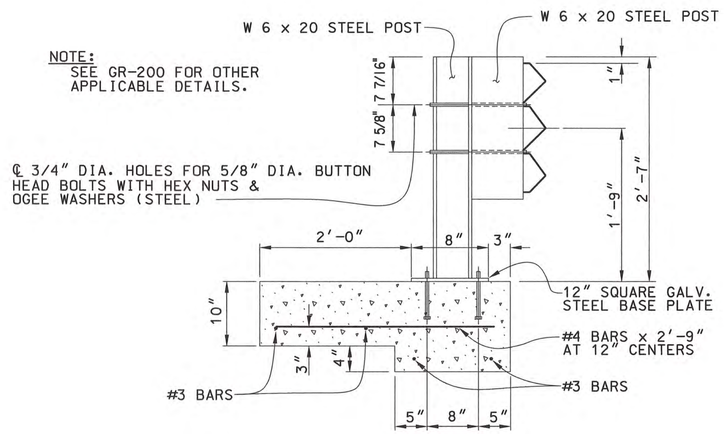
USE 13'-6" LONG CONCRETE CURB FOR ≥ 20' APPROACH SLAB, CURB HEIGHT VARIES FROM 6" TO 2", SEE APPROACH SLAB DETAILS FOR FURTHER INFORMATION.

6) FOR DETAILS OF GUARDRAIL END TREATMENT (FLARED, 12'-6") OR (FLARED, 18'-9"), SEE LCG SPECIAL GUARDRAIL DETAILS SHEETS, PAY ITEM 704-10-00105.

△ 7) USE 37'-6" GUARD RAIL/END TREATMENT (FLARED) ONLY WHEN 50'-0" GUARD RAIL IS NOT APPLICABLE.



TYPICAL CROSS SECTION A-A EMBANKMENT WIDENING
(NOT TO SCALE)



ALTERNATE TYPICAL SECTION AT
STEEL POST AND WOOD BLOCK (THRIE BEAM)
(FOR USE WITH GR-200 WHERE STANDARD GUARD RAIL POSTS CONFLICT WITH SUBSURFACE DRAINAGE)
(NOT TO SCALE)

SHEET 317

SCALE	NOT TO SCALE		
DWG. NO.		R.V. / LA-DOTD	AUGUST 12, 2021
DRAWN BY		F.A.T.	
CHECKED BY		F.A.T.	
APPROVED BY			
DATE			

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AUGUST 12, 2021
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

OFF-SYSTEM HIGHWAY GUARD RAIL
STANDARD DETAIL GR-203
SHEET 2 OF 2
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 2 OF 2

GENERAL PROVISIONS

- All temporary traffic control (TTC) devices used shall be in accordance with the Louisiana Standard Specifications for Roads and Bridges, the MUTCD, and shall meet the NCHRP Report 350 or MASH requirements for Test Level 3 devices where applicable.
- Materials used for TTC shall be in accordance with the Louisiana Standard Specifications for Roads and Bridges and, when applicable, the LADOTD QPL.
- No TTC shall be erected without the approval of the Engineer and until work is about to begin, unless they are covered.
- No lane closures, lane shifts, diversions, or detours shall occur without the approval of the Engineer.
- Responsibility is hereby placed upon the contractor for the installation, maintenance, and operation of all TTC devices called for in these plans or required by the Engineer for the protection of the traveling public as well as all LADOTD and construction personnel.
- The contractor shall also be responsible for the maintenance of all permanent signs, pavement markings, and traffic signals left in place as essential to the safe movement and guidance of traffic within the project limits unless noted in the plans.
- The DTOE shall serve as a technical advisor to the Engineer for all traffic control matters.
- The Chief Construction Engineer or his appointed designee shall approve all signs and situations not addressed in the plans based on the recommendations of the Project Engineer and the DTOE. All changes shall be noted in all project traffic control diaries.
- The Chief Construction Engineer or his appointed designee shall approve all design speeds of diversions or shifts if it differs from design plans, based on the recommendations of the Project Engineer and the DTOE.
- All temporary traffic control plans shall comply with the Transportation Management Plan.
- Any additional signs shown in the MUTCD and required by the Engineer shall be installed under Item 713-01-00100.
- Neither work activity nor storage of equipment, vehicles, TMAs, or materials shall occur within the buffer space.
- When a work area has been established on one side of the roadway only, there shall be no conflicting operations or parking on the opposite shoulder within 500 feet of the work area.
- A lighting plan shall be submitted to the Engineer 30 days prior to night work for approval. (See section 105.20 of the Louisiana Standard Specifications for Roads and Bridges.)
- Parking of vehicles or unattended equipment, or storage of materials, within the clear zone shall not be permitted unless protected by guard rail or barriers. If the clear zone is not defined on the plan sheets, the Engineer shall verify.
- Immediately upon removal of existing guard rail, the contractor shall install and maintain an NCHRP Report 350 or MASH approved device to protect the blunt end of the bridge or column until new guard rail is installed. After removal of the existing guard rail, new guard rail should be installed within seven (7) days. On non-NHS routes with shoulders less than 8 feet wide: If an NCHRP 350 Report Test Level 3 or MASH device is required but the field conditions of the roadway cannot support a Test Level 3 device, then a Test Level 2 device can be substituted in its place upon approval by the Engineer.
- All costs associated with crash devices are to be included in Item 713-01-00100.
- Sight distance should be considered when placing traffic control devices.
- On all mainline Interstate, a minimum of 1.5 feet of paved shoulder on the left and right side shall be maintained at all times.
- On Interstates, a minimum of 11 foot lanes shall be maintained. On all other roadways, a 10 foot minimum travel lane should be maintained where practical.
- TTC Standards are not drawn to scale.
- The contractor shall develop an internal traffic control plan approved by the Engineer prior to each phase.
- Truck restrictions such as (but not limited to) restricting lanes, oversize loads or times of travel, may be required for narrow lanes or other field conditions.

PAVEMENT MARKINGS (see QPL)

- All pavement markings within the limits of the project that are in conflict with the project signing or the required traffic movements shall be removed from the pavement by blast cleaning or grinding. (Existing striping shall not be painted over with black paint or covered with tape.)
- If special pavement markings are needed, they shall be reflectorized, removable, and accompanied by the proper signage.
- Temporary Raised Pavement Markers may be added to supplement temporary striping in areas of transition, in tapers, in diversions, and in other areas of need as shown in the plans or as directed by the Engineer.
- Materials and placement of temporary pavement markings shall conform to Section 713 of the Louisiana Standard Specifications for Roads and Bridges. If no pay item exists for temporary markings they shall be installed under item 713-01-00100.
- Temporary markings installed in the permanent configuration shall comply with LADOTD pavement marking standard plans, MUTCD, and/or the permanent striping plans.

PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS)

- PCMS shall be used on all Interstate Highways and on all other roadways (where space is available) with an ADT greater than 20,000.
- When used in advance of a lane closure or a lane shift, the PCMS should be placed on the right hand side of the road a minimum distance of 2 miles in advance of the taper for interstates and to be determined by the Engineer on other highways.
- For interstates and multi-lane highways, if vehicles are queuing beyond the 2 mile PCMS, an additional PCMS should be placed on the right hand side of the road approximately 5 miles in advance of the taper or at the end of the queue, whichever is greater.
- PCMS messages shall conform to EDSM VI.2.1.10 or shall be approved by the DTOE. Messages shall be no more than 3 lines and 2 screens.
- PCMS should be placed as far from the traveled lane as possible. They shall be shielded by guard rail or barriers. If this is not possible they shall be delineated with one drum at each corner.
- If the PCMS has to be placed on the shoulder then the contractor shall install a shoulder closure.
- When the PCMS is not displaying a work zone appropriate message pertaining to the ongoing construction project it shall be shielded by guard rail or barriers, or removed from the clear zone.

ABBREVIATIONS

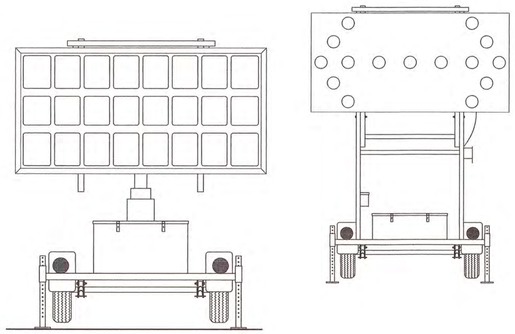
AASHTO	American Association of State Highway and Transportation Officials
ADT	Average Daily Traffic
AGCI	Associated General Contractors of America
ANSI	American National Standards Institute
ATSSA	American Traffic Safety Services Association
B.O.P.	Beginning of Project
DTOE	District Traffic Operations Engineer
E.O.P.	End of Project
LADOTD	Louisiana Department of Transportation and Development
MASH	AASHTO Manual for Assessing Safety Hardware
MUTCD	Manual on Uniform Traffic Control Devices
NCHRP	National Cooperative Highway Research Program
NHS	National Highway System
PCMS	Portable Changeable Message Sign
QPL	Qualified Products List
TMA	Truck Mounted Attenuator
TMC	Traffic Management Center
TTC	Temporary Traffic Control
TTC Standards	Temporary Traffic Control Standard Plans

SPEED LIMITS

- The Engineer may approve a 10 mph drop in the speed limit for posted speeds of 45 mph or greater and for any construction, maintenance, or utility operation that requires one or more of the following:
  - (A) The condition of the traveled way is degraded due to milled surfaces or uneven travel lane lines greater than 1.5 inches.
  - (B) Work is in progress in the immediate vicinity of the travel way requiring lane closures or lane width reductions less than 11 feet.
  - (C) Workers present on the shoulder within 2 feet of the edge of the traveled way without barrier protection.
- The reduced speed zone shall only apply to those portions of the project limits affected. The Engineer may allow SPEED LIMIT WHEN FLASHING signs to supplement reduced speed zones.
- If the speed limit is reduced, speed limit signs shall be placed:
  - (A) beyond major intersections;
  - (B) at one mile intervals in rural areas;
  - (C) at half mile intervals in urban areas.
- At the end of the reduced speed zone, a speed limit sign displaying the original speed limit prior to construction shall be installed.
- For all other speed limit reductions not listed above the Project Engineer and the DTOE shall recommend the speed reduction to the Chief Construction Engineer or his appointed designee for approval.
- If the speed limit is reduced more than 10 mph, placement of the signs shall be re-evaluated according to the MUTCD.

FLASHING ARROW BOARDS

- All Flashing Arrow Boards shall be 4 feet by 8 feet and Type C.
- Flashing Arrow Boards should be placed on the shoulder. When there is no shoulder or median area, the arrow board shall be placed within the closed lane behind the channelizing devices and as close to the beginning of the taper as practical.
- Flashing arrow boards shall be delineated with retroreflective TTC devices.
- At no time shall the arrow board encroach in the traveled way. When Flashing Arrow Board signs are not being used, they shall be shielded by guard rail or barriers, or removed.
- Arrow boards shall only be used for lane reduction tapers and shall not be used for lane shifts.



ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 318

SCALE	NOT TO SCALE
DWG. NO.	1 OF 20
DRAWN BY	J.C.V. / LADOTD
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
Reg. No. 26075
PROFESSIONAL ENGINEER

2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET
SPECIAL DETAIL TC-00 (A) SHEET 1 OF 20

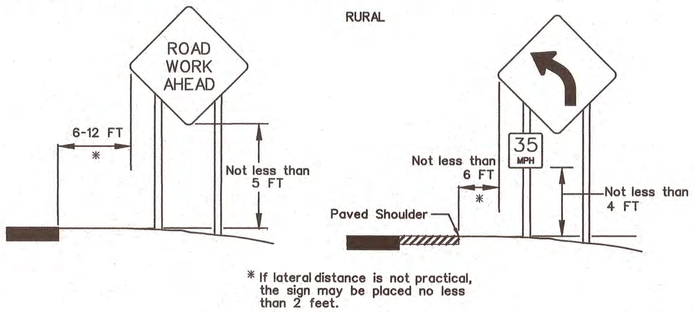
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

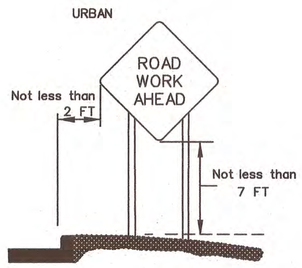
SHEET 1 OF 20

SIGNS

- All signs used for temporary traffic control shall follow the plans, the LADOTD TTC Standards, and the MUTCD.
- Signs shown in the TTC illustrations are typical and may vary with each specific condition.
- One Type B High Intensity light shall be used to supplement the first sign (or pair of signs) that gives warning about a lane closure during nighttime operations (see QPL).
- Mesh rollup signs shall not be allowed on any project.
- Contractor shall use caution not to damage existing signs which remain in place. Any LADOTD signs damaged by work operations shall be replaced by the contractor under item 713-01-00100.
- All signs (permanent and temporary) shall be removed or completely covered with a strong, lightweight, opaque material when no longer applicable. (Burlap is not an acceptable material to cover signs).
- At no time shall signs warning against a particular operation be left in place once the operation has been completed or where the condition has been removed.
- Warning signs used for temporary traffic controls shall meet the following guidelines unless otherwise noted in the plans:
  - (A) size shall be 48 inches by 48 inches.
  - (B) see the Louisiana Standard Specifications for Roads and Bridges and the QPL for sheeting information.
  - (C) lateral distance of signs shall be a minimum of 6 feet from the edge of shoulder or edge of pavement if no shoulder exists, and 2 feet from the back of curb in urban areas (see diagram).
- When portable sign frames are not in use they shall be moved to an area inaccessible to traffic and not visible to the driver.
- Left side mounted signs will not be required for roadways with a center left turn lane and for undivided roadways.
- Vinyl roll up signs may be used if work zone is in place for 12 hours or less, there are no more than 2 lanes in each direction and if signs meet all size, color, retroreflectivity, and NCHRP 350 Report or MASH requirements.
- All signs shall be visible to the drivers (i.e. no obstructions such as on street parking or other traffic control devices shall block the sign).
- On divided highways, signs shall be placed on the right and the left as shown on the TTC standards.
- 1 foot portable sign stands may be used if the work zone is in place for 12 hours or less, the preconstruction posted speed is less than 45 mph and there are no more than 2 lanes in each direction.
- Sign posts:
  - -Signs measuring 10 square feet or less shall be mounted on 1 rigid post
  - -Signs over 10 square feet shall be mounted on 2 rigid posts
  - -Signs over 20 square feet shall be mounted on at least 3 rigid posts
- Rigid sign supports shall be driven to a minimum depth of 3 feet. (If splicing is required, see Allowable Lap Splice U-channel post.)
- For sign height, see the Rural and Urban diagrams:



* If lateral distance is not practical, the sign may be placed no less than 2 feet.

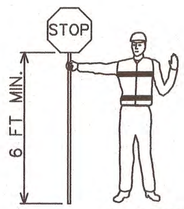


LANE CLOSURES

- All proposed lane, road, or shoulder closures shall be reviewed by the DTOE and approved by the Engineer.
- Two lane, two-way highways shall have a maximum work area of two miles; all other roadways shall have a four mile maximum work area.
- A queue analysis shall be performed prior to approval of lane closures on all Interstates according to EDSM VI.1.1.4.
- Closure plans and times shall be turned in to the Engineer for review according to the following:
  - (A) 5 working days minimum if traffic control plan has been approved or is contained in the plans.
  - (B) 10 working days minimum and a traffic control plan must be submitted for lane closures not addressed in the plans.
- Weekly updates to the DTOE, Project Engineer, the LADOTD TMC operator, and the regional TMC operator (if applicable) will be required for all ongoing lane closures to update the closure status.
- Daily updates to the DTOE, Project Engineer, and TMC operator (if applicable) will be required for all projects where active closures are in place.

FLAGGERS

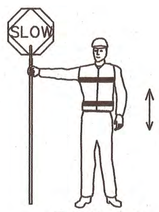
- All flaggers shall be qualified.
- The contractor shall be responsible for training or assuring that all flaggers are qualified to perform flagging duties.
- A Qualified Flagger is one that has completed courses such as those offered by ATSSA, AGC, or other courses approved by the LADOTD Work Zone Task Force. The contractor shall be responsible for getting the flagger course approved.
- When utilized, a flagger shall use a minimum 18 inch octagonal shape sign on a minimum 6 foot stop/slow paddle and wear ANSI Class 2 Lime Green vest during day time operations and ANSI Class 3 Lime Green ensemble during night operations.
- In all flagging operations, the flagger must be visible from the flagger advance warning sign.
- Flaggers shall not be used on the Interstate.



To STOP Traffic

Traffic Proceed

Use of Hand Sign



To Alert & SLOW Traffic

Use of Hand Sign

REFERENCES

- The contractor shall be responsible for understanding all rules and requirements in the current edition of the following documents:

1) Louisiana Standard Specifications for Roads and Bridges. http://www.dotd.la.gov/highways/specifications/
2) Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). http://mutcd.fhwa.dot.gov/
3) LADOTD Qualified Products List (QPL) Manual. http://www.dotd.la.gov/highways/construction/lab/qpl/tableofcontents.shtml
4) LADOTD Engineering Directives and Standards Manual (EDSM) VI.1.1.4 - Queue Analysis for Interstate Lane Closures. http://webmail.dotd.la.gov/ppmemos.nsf
5) National Cooperative Highway Research Program (NCHRP) Report 350: "Guidelines for Work Zones Traffic Control Devices". http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_350-a.pdf
6) NCHRP Report 475: "A Procedure for Assessing and Planning Nighttime Highway Construction and Maintenance". http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_475.pdf
7) NCHRP Report 476: "Guidelines for Design and Operation of Nighttime Traffic Control for Highway Maintenance". http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_476.pdf
8) NCHRP Report 498: "Illumination Guidelines for Nighttime Highway Work". http://onlinepubs.trb.org/Onlinepubs/nchrp/nchrp_rpt_498.pdf
9) American Association of State Highway and Transportation Officials (AASHTO) Roadside Design Guide.
10) American Traffic Safety Services Association (ATSSA) Quality Guidelines for Work Zone Traffic Control Devices and Features.
11) U.S. Department of Transportation Federal Highway Administration Traffic Control Handbook for Mobile Operations at Night. http://www.dot.state.il.us/blr/1023.pdf
12) LADOTD Engineering Directives and Standards Manual (EDSM) VI.2.1.10 - PCMS Approved Construction Message Policy. http://webmail.dotd.la.gov/ppmemos.nsf

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 319

SCALE	NOT TO SCALE
DWG. NO.	2 OF 20
DRAWN BY	J.C.V. / LADOTD
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
No. 35516
PROFESSIONAL ENGINEER

2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET
SPECIAL DETAIL TC-00 (B)
SHEET 2 OF 20

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

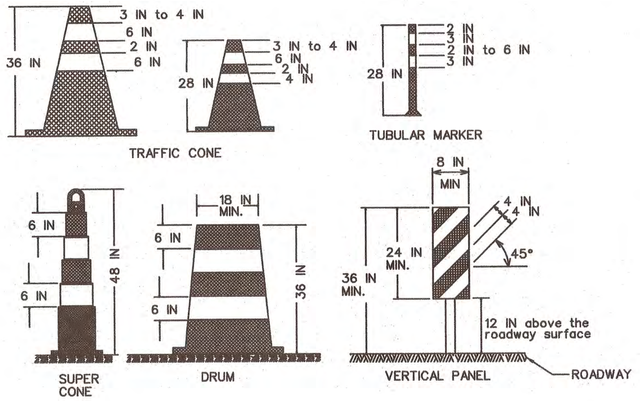
SHEET 2 OF 20

CHANNELIZING DEVICES

- The following devices may be used as channelizing devices: Tubular Markers, Vertical Panels, Cones, Drums, and Super Cones.
- 28 inch traffic cones are not allowed on:
  1) Interstates
  2) Highways with speeds greater than 40 mph.
- During nighttime operations 28 inch and 36 inch cones are not allowed.
- Retroreflective material pattern used on super cones shall match that used on drums.

- Tangent Areas:
  - A) Standard Spacing: See Standard Device Spacing and Buffer Space table.
  - B) Daylight Operations: Drums and super cones are spaced at standard spacing. All other devices are at ½ standard spacing.
  - C) Nighttime Operations: Drums and supercones at standard spacing are the only devices allowed.

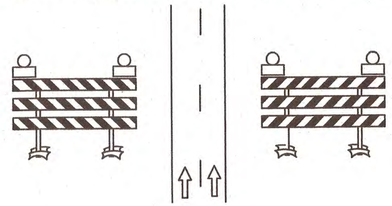
- Taper Areas:
  - A) Standard Spacing: See Standard Device Spacing and Buffer Space table.
  - B) Daylight Operations: Drums are spaced at standard spacing. All other devices are ½ standard spacing.
  - C) Nighttime Operations: Drums (at standard spacing) are the only devices allowed.
- Type C steady burn lights shall be used on all channelizing devices in the taper as well as the first two devices in the tangent at night, (see the QPL).
- Typical channelizing device lateral placement (do not include when it is used as a divider for opposing directions of traffic) shall be 2 feet off the lane line in the closed lane or shoulder.
- Devices may be adjusted laterally to accomodate ongoing work in the immediate vicinity but must be returned to the closed lane after the work activity has moved.
- Channelizing devices on the lane line shall be of the same type.
- Channelizing devices in each taper shall be of the same type.



ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

TYPE III BARRICADES

- Only Type III barricades shall be used.
- All barricades shall use Type 3 High Intensity Sheeting on both sides of the barricade.
- All barricades shall be a minimum of 8 feet in length and must meet NCHRP Report 350 or MASH requirements.
- When used for overnight closures, two Type B High Intensity lights shall supplement all barricades that are placed in a closed lane or that extend across a highway. Two Type A Low Intensity lights may be used in urban areas if approved by the Engineer (see QPL).
- When signs and lights are to be mounted to a barricade, they must meet NCHRP Report 350 or MASH requirements.
- A truck with a TMA may be substituted for a barricade when workers are present.
- Barricades shall be placed:
  - (A) at the beginning of a closed lane or shoulder and at 1,000 foot intervals where no active work is ongoing and the lane must remain closed. A minimum of 2 barricades shall be placed if the lane or shoulder closure is less than 2,000 feet. (One barricade shall be placed at the beginning of the lane closure after the buffer space and one shall be placed in the middle of the lane closure.)
  - (B) before each or group of unfilled holes or holes filled with temporary material.
  - (C) before uncured concrete.
  - (D) in the closed lane on each side of every intersection and crossover. (Do not block sight distance.)
  - (E) in front of piles of material (dirt, aggregate, broken concrete), culverts, and equipment which is near the work zone.



TTC for DROP-OFFS

NON-INTERSTATE

Average Drop-off	> 45 MPH	≤ 45 MPH
≤ 3 IN	Low Shoulder Sign (Optional)	Low Shoulder Sign (Optional)
> 3 IN ≤ 6 IN	Shoulder Drop Off Sign & Edge Lines or Shoulder Drop Off Sign & Channelizing Device	Shoulder Drop Off Sign
> 6 IN ≤ 10 IN	No Shoulder Sign, Edge Lines & Vertical Panel	No Shoulder Sign & Channelizing Device
> 10 IN	Concrete Barrier & Edge Lines	No Shoulder Sign & Vertical Panel

INTERSTATE

Average Drop-off	
≤ 2 IN	Low Shoulder Sign (Optional)
> 2 IN ≤ 6 IN	Shoulder Drop Off Sign & Edge Lines or Shoulder Drop Off Sign & Channelizing Device
> 6 IN	Shoulder Drop Off Sign, Concrete Barrier & Edge Lines

- If a portable concrete barrier will be required then the deflection shall be considered in the design.
- For Interstate ramps, refer to non-Interstate drop offs.

STANDARD DEVICE SPACING AND BUFFER SPACE

SPEED LIMIT (prior to construction)	MERGING TAPER LENGTH (L) Lane Width (FT)				STANDARD DEVICE SPACING IN FEET		BUFFER SPACE
MPH	9	10	11	12	Along Taper	Along Tangent	FT
25	94	105	115	125	20	40	155
30	135	150	165	180	40	80	200
35	184	205	225	245	40	80	250
40	240	267	294	320	40	80	305
45	405	450	495	540	40	80	360
50	450	500	550	600	40	80	425
55	495	550	605	660	40	80	495
60	540	600	660	720	40	80	570
65	585	650	715	780	40	80	645
70	630	700	770	840	40	80	730

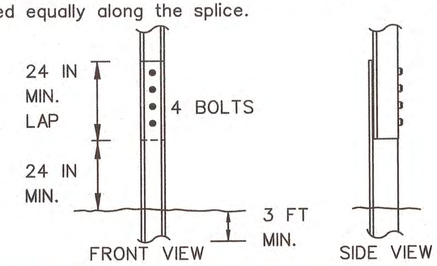
SPEED LIMIT (prior to construction)	SHIFTING TAPER LENGTH (1/2)(L) Lane Width (FT)				STANDARD DEVICE SPACING IN FEET		BUFFER SPACE
MPH	9	10	11	12	Along Taper	Along Tangent	FT
25	47	53	58	63	20	40	155
30	68	75	83	90	40	80	200
35	92	103	113	123	40	80	250
40	120	134	147	160	40	80	305
45	203	225	248	270	40	80	360
50	225	250	275	300	40	80	425
55	248	275	303	330	40	80	495
60	270	300	330	360	40	80	570
65	293	325	358	390	40	80	645
70	315	350	385	420	40	80	730

SPEED LIMIT (prior to construction)	SHOULDER TAPER LENGTH (1/3)(L) Lane Width (FT)				STANDARD DEVICE SPACING IN FEET		BUFFER SPACE
MPH	9	10	11	12	Along Taper	Along Tangent	FT
25	32	35	39	42	20	40	155
30	45	50	55	60	40	80	200
35	62	69	75	82	40	80	250
40	80	89	98	107	40	80	305
45	135	150	165	180	40	80	360
50	150	167	184	200	40	80	425
55	165	184	202	220	40	80	495
60	180	200	220	240	40	80	570
65	195	217	239	260	40	80	645
70	210	234	257	280	40	80	730

- All termination and flagger tapers are 100 feet per lane. (MIN. 6 channelizing devices per lane equally spaced 20 feet apart.)
- See TTC Standards for flagger taper.
- See MUTCD for taper formulas.

ALLOWABLE LAP SPLICE FOR U-CHANNEL POST

- U-Channel posts may be spliced where long lengths are required. The upper section shall overlap the lower section by at least 24 inches. The bottom edge of the upper section of the splice shall be a minimum of 24 inches above the ground. The spliced sections shall be secured with at least four 5/16 inch diameter hex bolts spaced equally along the splice.



SHEET 320

SCALE: NOT TO SCALE
DWG. NO.: 3 OF 20
DRAWN BY: J.C.V. / LADOTD
CHECKED BY: S.B.
APPROVED BY: W.A.
DATE: 09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REMOVED ENGINEER'S DISCLOSURE STATEMENT	R.V.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
Reg. No. 33626
PROFESSIONAL ENGINEER

DATE: 2-6-17

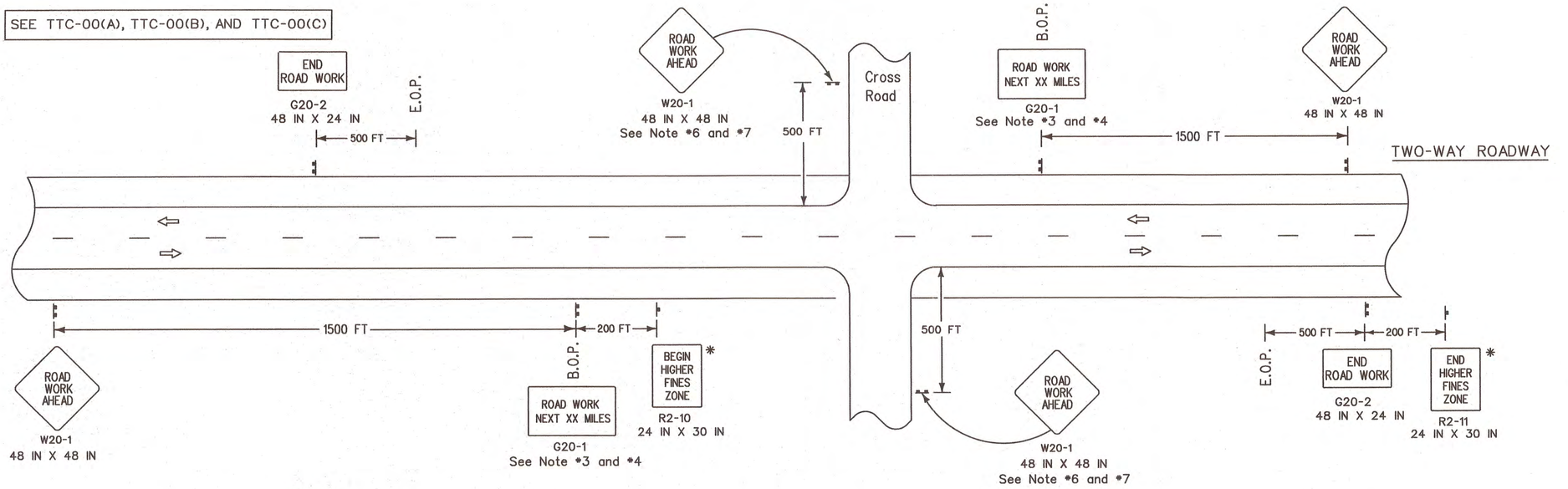
THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT.

TEMPORARY TRAFFIC CONTROL GENERAL NOTES SHEET
SPECIAL DETAIL TC-00 (C)
SHEET 3 OF 20
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 3 OF 20

SEE TTC-00(A), TTC-00(B), AND TTC-00(C)



*For divided roadways with speeds ≥ 50 mph use larger sign, 36 IN X 48 IN.

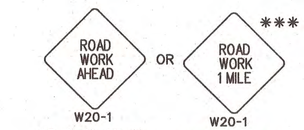
NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and other Temporary Traffic Control Sheets as appropriate.

1. This layout represents the minimum traffic controls required for placement of "Road Work Next XX Miles" and "End Road Work" signs.
2. This layout does not replace other TTC Standard Sheets, but is intended as a supplement to the required signing.
3. The "Road Work Next XX Miles" sign shall be required on all projects. The distance on the "Road Work Next XX Miles" sign shall be stated to the nearest whole mile. This sign shall be placed at the Beginning of Project (B.O.P.) limits.
4. The "Road Work Next XX Miles" sign shall be a minimum of 60 inches by 36 inches for all multi-lane roadways and a minimum of 48 inches by 24 inches for two-lane roadways unless otherwise noted.
5. The "End Road Work" sign shall be placed 500 feet past the End of Project (E.O.P.) limits.
6. If "Road Work Ahead" sign is used on a cross road to warn of road work on another route, then "End Road Work" sign is not required.
7. When projects are separated by less than 1 mile, they shall be signed as one project; this may require coordination.

LEGEND

- Traffic Sign
- ⇨ Direction of Travel



*** Speed limit > 45 mph use "Road Work 1 Mile"
Speed limit ≤ 45 mph use "Road Work Ahead"

SPEED LIMIT (prior to construction)	SPACING 'A'
≤ 40 mph	1500 FT
45 mph	2640 FT
> 45 mph	5280 FT

- Sign spacing to be adjusted for Horizontal and Vertical curves.
- For work outside of the traveled way, see TTC-01 and TTC-02.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 321

SCALE: NOT TO SCALE
DWG. NO.: 4 OF 20
DRAWN BY: J.C.V. / LADOTD
CHECKED BY: S.B.
APPROVED BY: W.A.
DATE: 09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.T.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
Regr No. 35075
PROFESSIONAL ENGINEER
2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

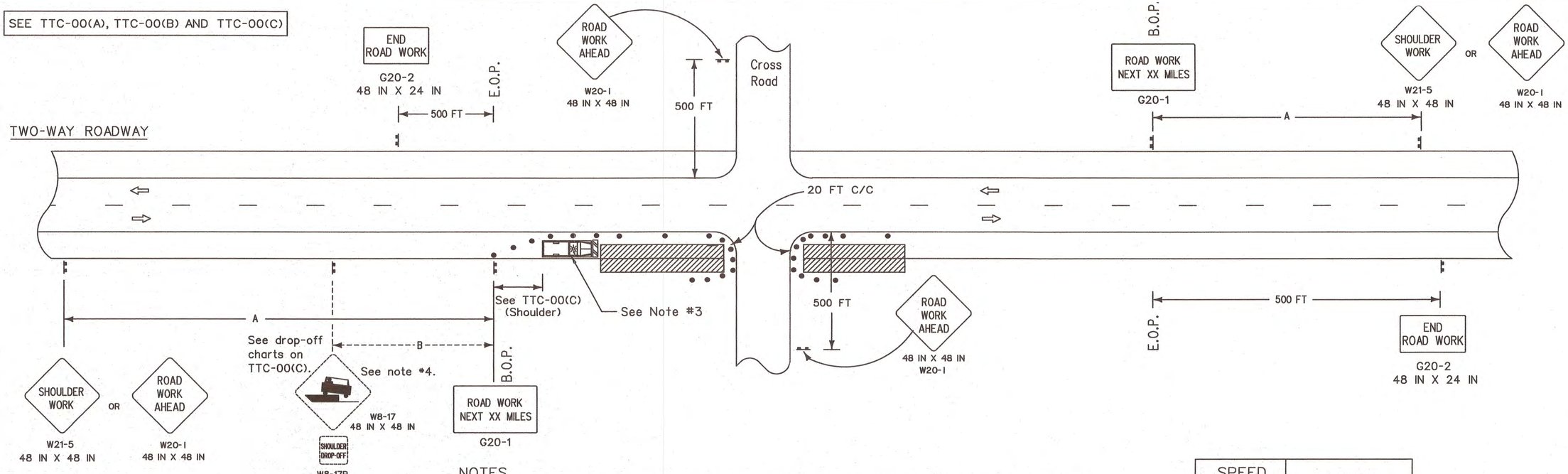
TEMPORARY TRAFFIC CONTROL
LAYOUT FOR PLACEMENT OF ROAD WORK NEXT XX MILES AND END OF ROAD WORK SIGNS
SPECIAL DETAIL TC-00 (D) SHEET 4 OF 20

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 4 OF 20

SEE TTC-00(A), TTC-00(B) AND TTC-00(C)



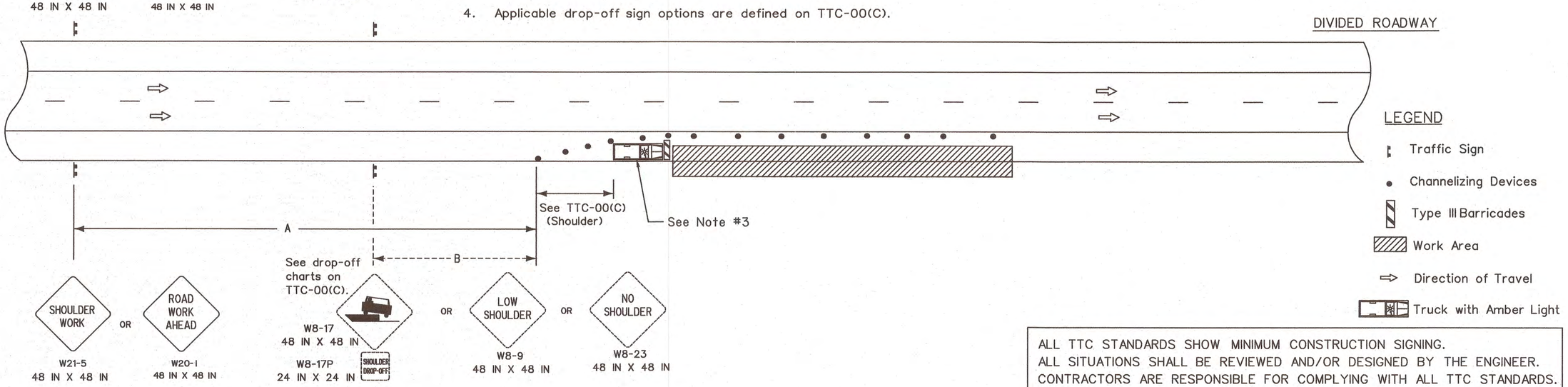
NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B) and TTC-00(C).

1. This layout represents the minimum traffic controls required for workers and equipment operating less than 15 feet from the traveled way for more than one hour. Less than one hour, see figure TA-4 of the MUTCD.
2. No signs or barricades are required for equipment operating or work in progress greater than 15 feet from the traveled way. (See TTC-01).
3. Work or equipment confined to a spot location (less than 200 feet) shall be marked by channelizing devices spaced at 25 feet or by a vehicle with an amber light visible to traffic. Work extending more than 200 feet of roadway length shall be marked with appropriate devices spaced as noted on TTC-00(C).
4. Applicable drop-off sign options are defined on TTC-00(C).

SPEED LIMIT (prior to construction)	SPACING	
	'A'	'B'
≤ 40 mph	500 FT	250 FT
45-50 mph	1000 FT	350 FT
≥ 55 mph	1500 FT	500 FT

- See TTC-00(C) for minimum taper length and maximum device spacing for shoulder closure tapers.
- If horizontal curve radius is less than 300 feet, devices spacing shall be 25 feet.



ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 322

SCALE	NOT TO SCALE
DWG. NO.	5 OF 20
DRAWN BY	J.C.Y. / LADOTD
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
NO. 36075
PROFESSIONAL ENGINEER

2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

TEMPORARY TRAFFIC CONTROL LAYOUT FOR WORK GREATER THAN 15 FEET FROM THE TRAVELED WAY
SPECIAL DETAIL TC-01
SHEET 5 OF 20

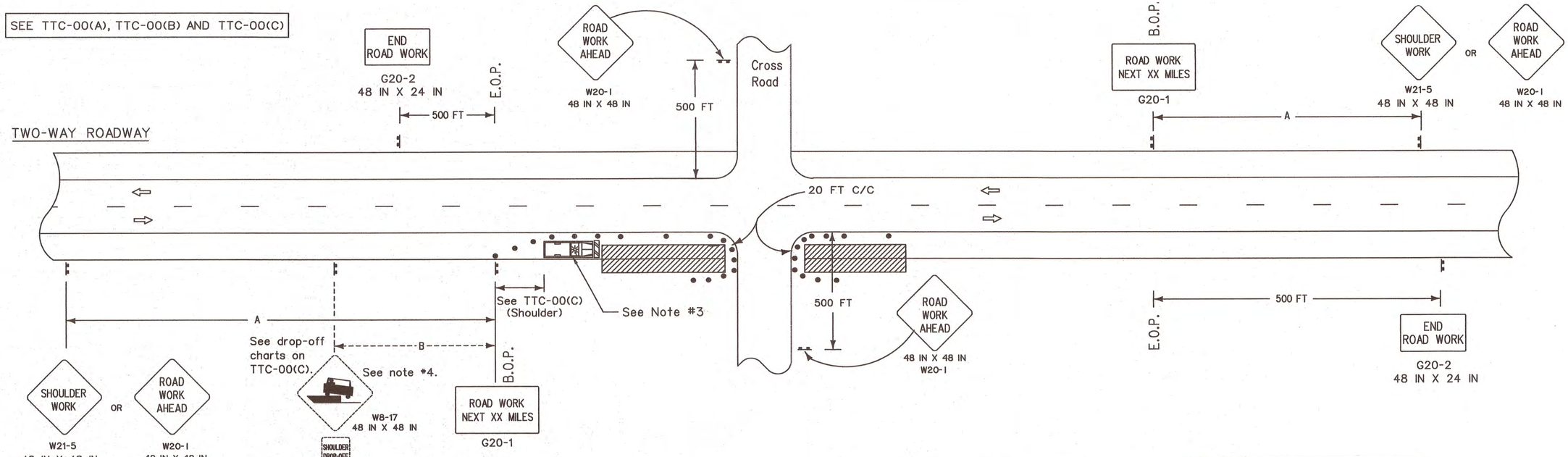
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 5 OF 20

SEE TTC-00(A), TTC-00(B) AND TTC-00(C)

TWO-WAY ROADWAY



NOTES

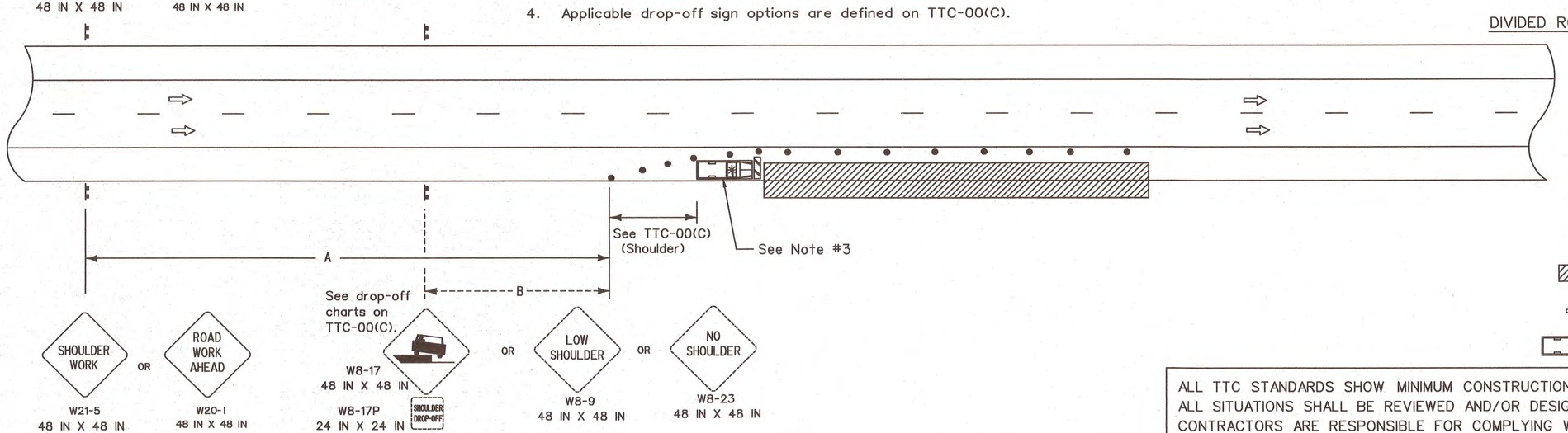
This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B) and TTC-00(C).

1. This layout represents the minimum traffic controls required for workers and equipment operating less than 15 feet from the traveled way for more than one hour. Less than one hour, see figure TA-4 of the MUTCD.
2. No signs or barricades are required for equipment operating or work in progress greater than 15 feet from the traveled way. (See TTC-01).
3. Work or equipment confined to a spot location (less than 200 feet) shall be marked by channelizing devices spaced at 25 feet or by a vehicle with an amber light visible to traffic. Work extending more than 200 feet of roadway length shall be marked with appropriate devices spaced as noted on TTC-00(C).
4. Applicable drop-off sign options are defined on TTC-00(C).

SPEED LIMIT (prior to construction)	SPACING	
	'A'	'B'
≤ 40 mph	500 FT	250 FT
45-50 mph	1000 FT	350 FT
≥ 55 mph	1500 FT	500 FT

- See TTC-00(C) for minimum taper length and maximum device spacing for shoulder closure tapers.
- If horizontal curve radius is less than 300 feet, devices spacing shall be 25 feet.

DIVIDED ROADWAY



LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Work Area
- Direction of Travel
- Truck with Amber Light

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 323

SCALE	NOT TO SCALE
DWG. NO.	6 OF 20
DRAWN BY	J.C.Y. / L.A.D.T.D.
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
Reg. No. 35077
PROFESSIONAL ENGINEER

2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

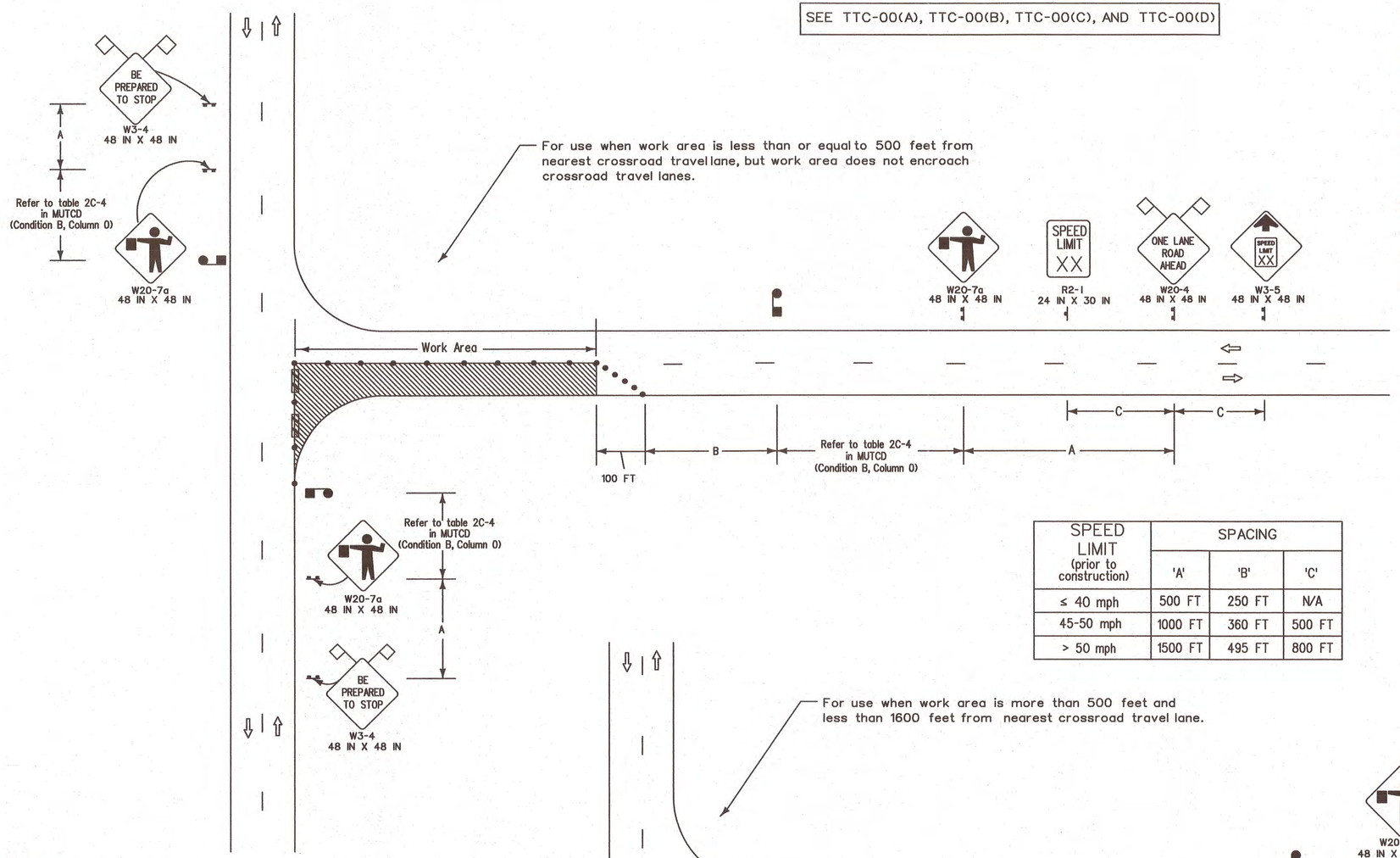
TEMPORARY TRAFFIC CONTROL
LAYOUT FOR WORK LESS THAN 15 FEET FROM THE TRAVELED WAY
SPECIAL DETAIL TC-02
SHEET 6 OF 20

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 6 OF 20

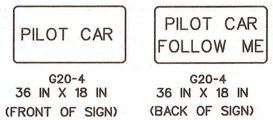
SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)



SPEED LIMIT (prior to construction)	SPACING		
	'A'	'B'	'C'
≤ 40 mph	500 FT	250 FT	N/A
45-50 mph	1000 FT	360 FT	500 FT
> 50 mph	1500 FT	495 FT	800 FT

PILOT CAR

- If used, a pilot car shall guide a queue of vehicles through the work zone or diversion.
- It shall be used in restricted visibility operations such as lime or cement stabilization, chip seals, or operations in hilly or curvy terrains, where flaggers cannot see each other (no clear line-of-sight).
- The operation of the pilot vehicle shall be coordinated with flagging operations or other controls at each end of the one-lane section and all major driveways and street intersections.
- The pilot car sign should be mounted 7 feet above roadway in a position visible to oncoming and following traffic.
- The pilot car shall have an amber beacon light.
- The sign mounted on the vehicle shall be two-sided.



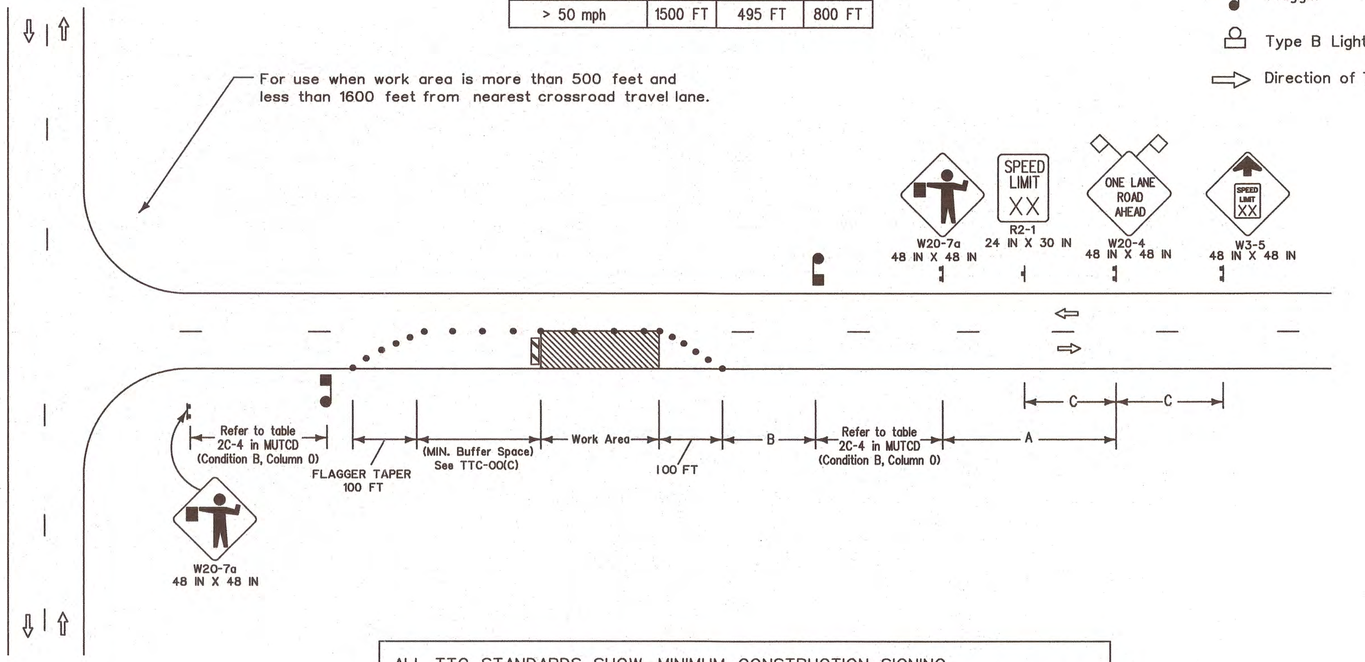
LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Work Area
- Flagger
- Type B Light
- Direction of Travel

NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for lane closures on two-lane roads with two-way traffic less than 1600 feet from an intersection. For advance signing see TTC-00(D).
2. Visual or radio contact shall be required between flaggers at all times. The flagger shall be visible from flagger sign.
3. Only law officers shall direct traffic against a traffic signal indication.
4. If work area is greater than 1600 feet see TTC-04.
5. If a pilot car is required then the contractor is not required to have channelizing devices in the tangent section.



ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 324

SCALE: NOT TO SCALE
DWG. NO.: 7 OF 20
DRAWN BY: J.C.V. / LADOTD
CHECKED BY: S.B.
APPROVED BY: W.A.
DATE: 09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
Reg. No. 35[illegible]
PROFESSIONAL ENGINEER

2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

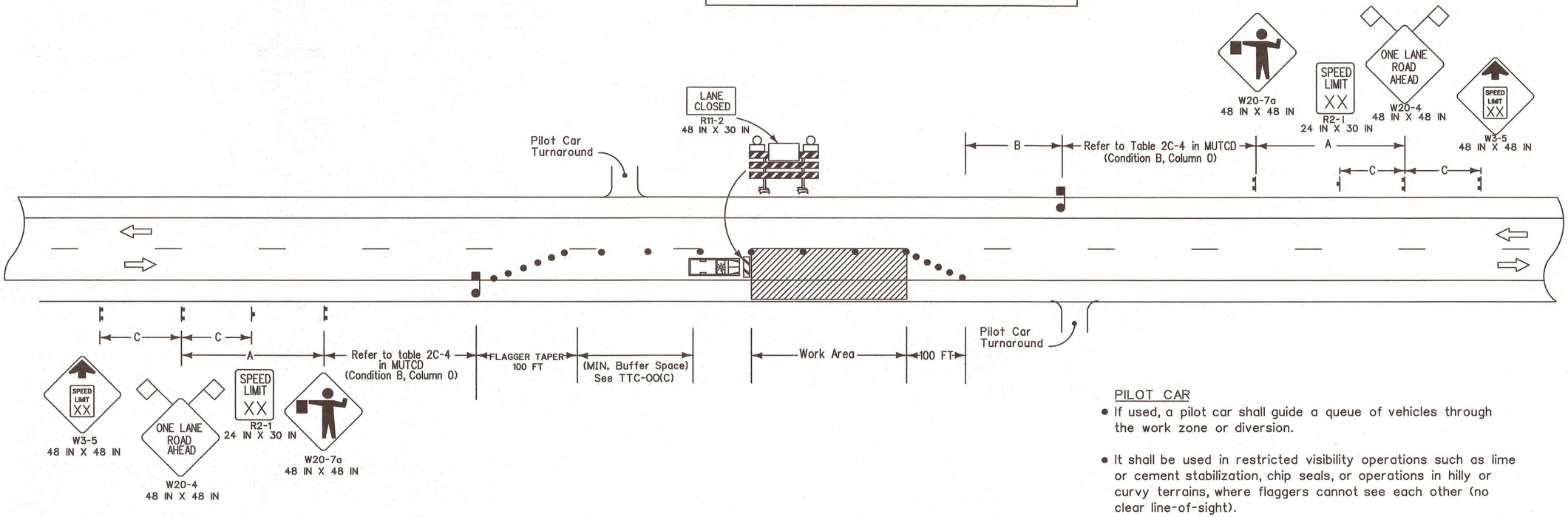
TEMPORARY TRAFFIC CONTROL
LAYOUT FOR LANE CLOSURES ON TWO LANE ROADS WITH TWO-WAY TRAFFIC NEAR INTERSECTIONS
SPECIAL DETAIL
SHEET 7 OF 20
TC-03

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 7 OF 20

SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)



NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C) and TTC-00(D).

1. This layout represents the minimum traffic controls required for lane closures on two-lane roads with two-way traffic greater than 1600 feet from an intersection. For this type of closure either a flagger or a pilot car will be required. For advance signing see TTC-00(D).
2. To prevent vehicles from entering the work area against the flow of traffic, an additional flagger shall be stationed at each intersection, major driveway, railroad crossing, or crossing within the work area.
3. For projects in rural areas the distance between flaggers shall not exceed:
   (A) 2.5 miles for ADT<2,500
   (B) 2.0 miles for 2,500<ADT<5,000
   (C) 1.5 miles for ADT>5,000
4. The flagger station shall be near the beginning of the taper and shall have adequate sight distance to be visible to oncoming traffic. If sight distance cannot be achieved, the distance between flaggers may be extended for a short duration.
5. Visual or radio contact shall be required between flaggers at all times. The flagger shall be visible from the flagger sign.
6. If a pilot car is required then the contractor is not required to have channelizing devices in the tangent section.
7. If work zone is less than 1600 feet from an intersection see TTC-03.

SPEED LIMIT (prior to construction)	SPACING		
	'A'	'B'	'C'
≤ 40 mph	500 FT	250 FT	N/A
45-50 mph	1000 FT	360 FT	500 FT
≥ 55 mph	1500 FT	495 FT	800 FT

Sign spacing to be adjusted for Horizontal and Vertical curves.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

PILOT CAR

- If used, a pilot car shall guide a queue of vehicles through the work zone or diversion.
- It shall be used in restricted visibility operations such as lime or cement stabilization, chip seals, or operations in hilly or curvy terrains, where flaggers cannot see each other (no clear line-of-sight).
- The operation of the pilot vehicle shall be coordinated with flagging operations or other controls at each end of the one-lane section and all major driveways and street intersections.
- The pilot car sign should be mounted 7 feet above roadway in a position visible to oncoming and following traffic.
- The pilot car shall have an amber beacon light.
- The sign mounted on the vehicle shall be two-sided.

PILOT CAR
G20-4
36 IN X 18 IN
(FRONT OF SIGN)

PILOT CAR FOLLOW ME
G20-4
36 IN X 18 IN
(BACK OF SIGN)

LEGEND

- Traffic Sign
- Flagger
- Channelizing Devices
- Type III Barricades
- Work Area
- Type B Light
- Direction of Travel
- Truck with Amber Light

SHEET 325

SCALE	NOT TO SCALE
DWG. NO.	8 OF 20
DRAWN BY	J.C.V. / LADOTD
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.V.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
PROFESSIONAL ENGINEER
2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

TEMPORARY TRAFFIC CONTROL
LAYOUT FOR LANE CLOSURES ON TWO LANE ROADS WITH TWO-WAY TRAFFIC (FLAGGING OPERATIONS)
SPECIAL DETAIL TC-04
SHEET 8 OF 20

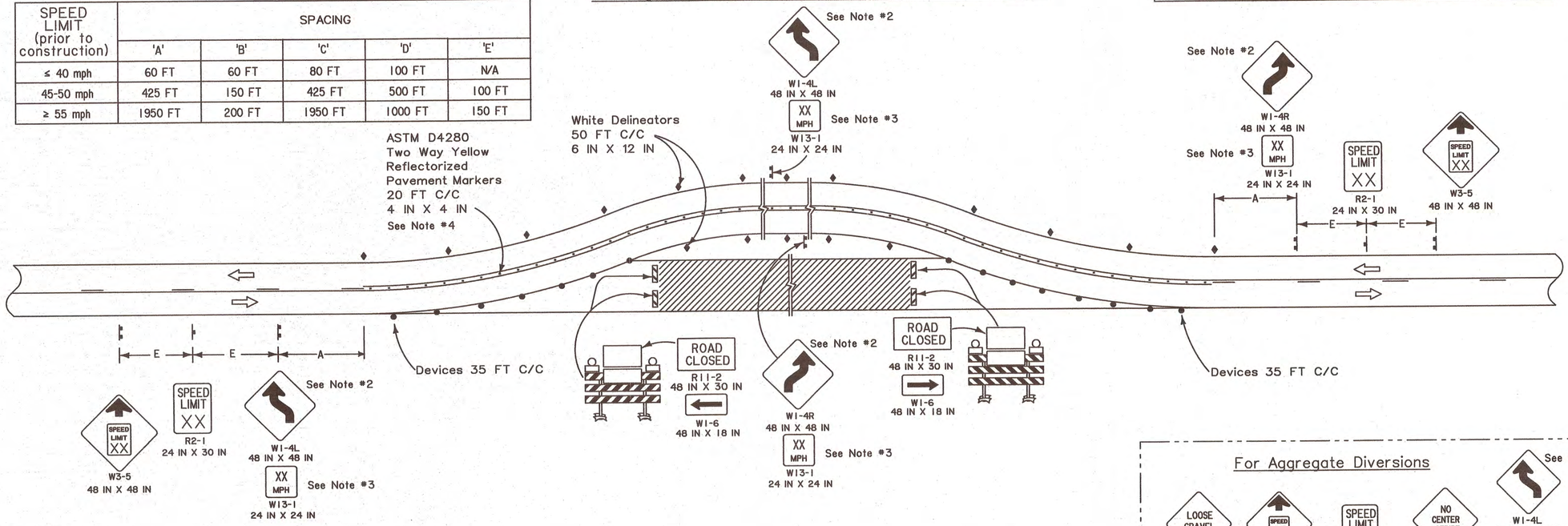
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 8 OF 20

SPEED LIMIT (prior to construction)	SPACING				
	'A'	'B'	'C'	'D'	'E'
≤ 40 mph	60 FT	60 FT	80 FT	100 FT	N/A
45-50 mph	425 FT	150 FT	425 FT	500 FT	100 FT
≥ 55 mph	1950 FT	200 FT	1950 FT	1000 FT	150 FT

For tangent distances along the diversion greater than 600 FT

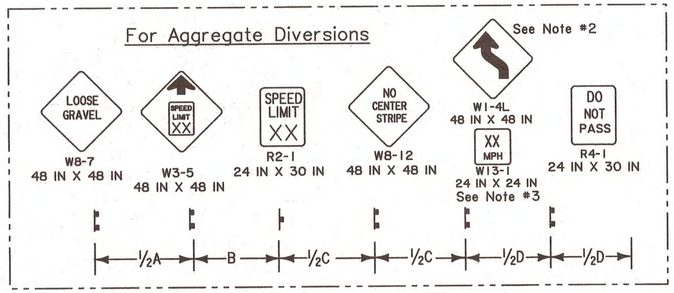


SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Single White Delineators (6IN X 12 IN)
- Reflectorized Pavement Markers
- Type B Light
- Direction of Travel

For Aggregate Diversions

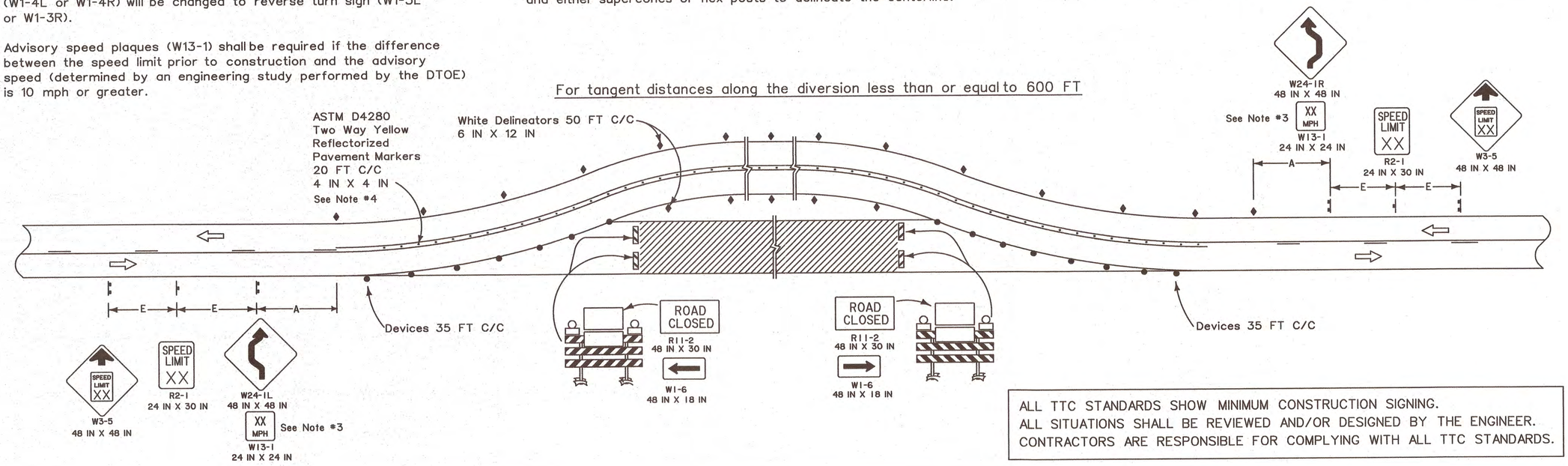


NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for a paved or aggregate diversion. For advance signing see TTC-00(D).
2. If advisory speed is less than 35 mph, the reverse curve signs (W1-4L or W1-4R) will be changed to reverse turn sign (W1-3L or W1-3R).
3. Advisory speed plaques (W13-1) shall be required if the difference between the speed limit prior to construction and the advisory speed (determined by an engineering study performed by the DTOE) is 10 mph or greater.
4. Paved Diversions shall be striped with double yellow solid lines and raised pavement markings as per LADOTD Pavement Marking Standards.
5. Aggregate Diversions shall include "Do Not Pass" (R4-1) signs, "Loose Gravel" (W8-7) signs, and "No Center Stripe" (W8-12) signs and either supercones or flex posts to delineate the centerline.

For tangent distances along the diversion less than or equal to 600 FT



ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 326

SCALE	NOT TO SCALE
DWG. NO.	9 OF 20
DRAWN BY	J.C.V. / LADOTD
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	08-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED TO LATEST LADOTD ENGINEER'S DIRECTIVE & STANDARDS	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
Reg. No. 35676
PROFESSIONAL ENGINEER
2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

TEMPORARY TRAFFIC CONTROL FOR ON SITE DIVERSION WITH TWO-WAY TRAFFIC

SPECIAL DETAIL TC-05

SHEET 9 OF 20

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

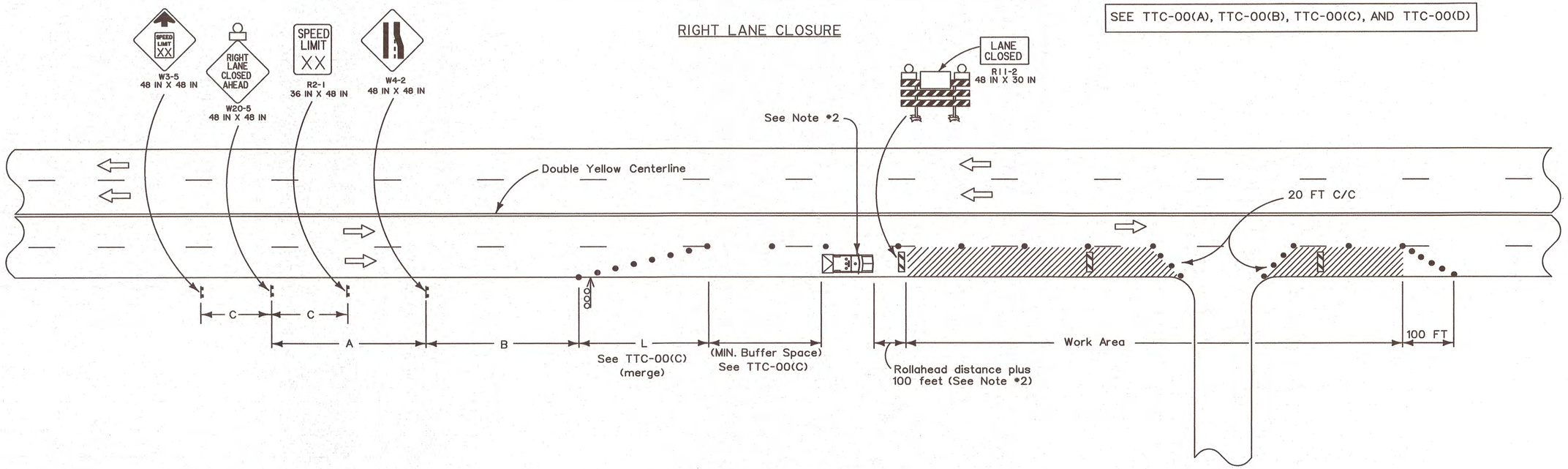
Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

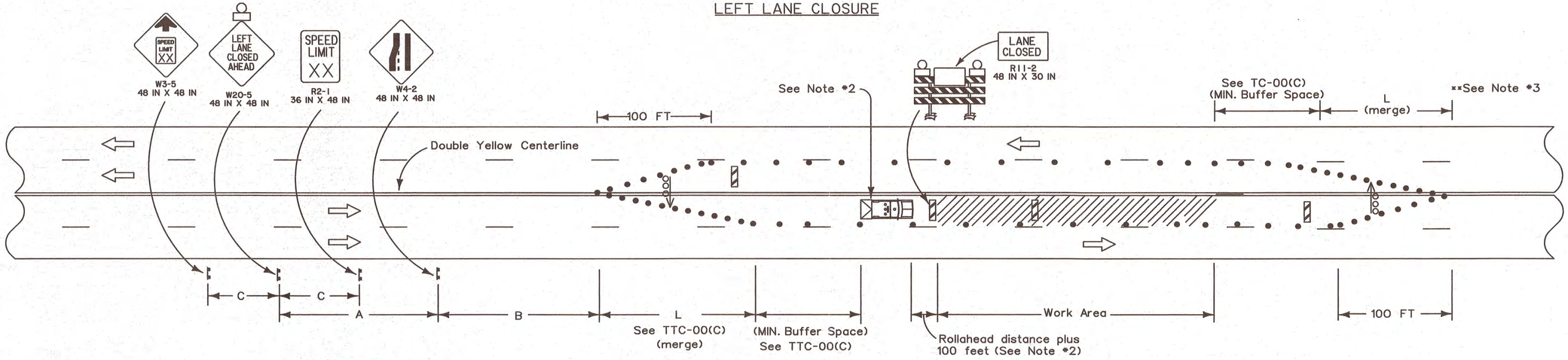
SHEET 9 OF 20

SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)

RIGHT LANE CLOSURE



LEFT LANE CLOSURE



LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Panel
- Work Area
- Type B Light
- Direction of Travel
- Truck with Amber Light and TMA

NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for lane closures on a four-lane undivided highway or a roadway with two-way left turn lanes. This is not for roadways with a speed limit of 55 mph or greater prior to construction. For advance signing see TTC-00(D).
2. A vehicle with a flashing amber light and a truck mounted attenuator shall be used on all roadways with an ADT greater than 20,000 and a pre-construction speed greater than or equal to 40 mph. This vehicle shall move with work operations not to exceed the rollahead distance required by the manufacturer plus 100 feet.
3. Advance signing shall match that shown for opposite direction.

SPEED LIMIT (prior to construction)	SPACING		
	'A'	'B'	'C'
≤ 40 mph	500 FT	250 FT	N/A
45-50 mph	1000 FT	360 FT	500 FT

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 327

SCALE	NOT TO SCALE
DWG. NO.	10 OF 20
DRAWN BY	J.C.V. / LADOTD
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
Reg. No. 35978
PROFESSIONAL ENGINEER

2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

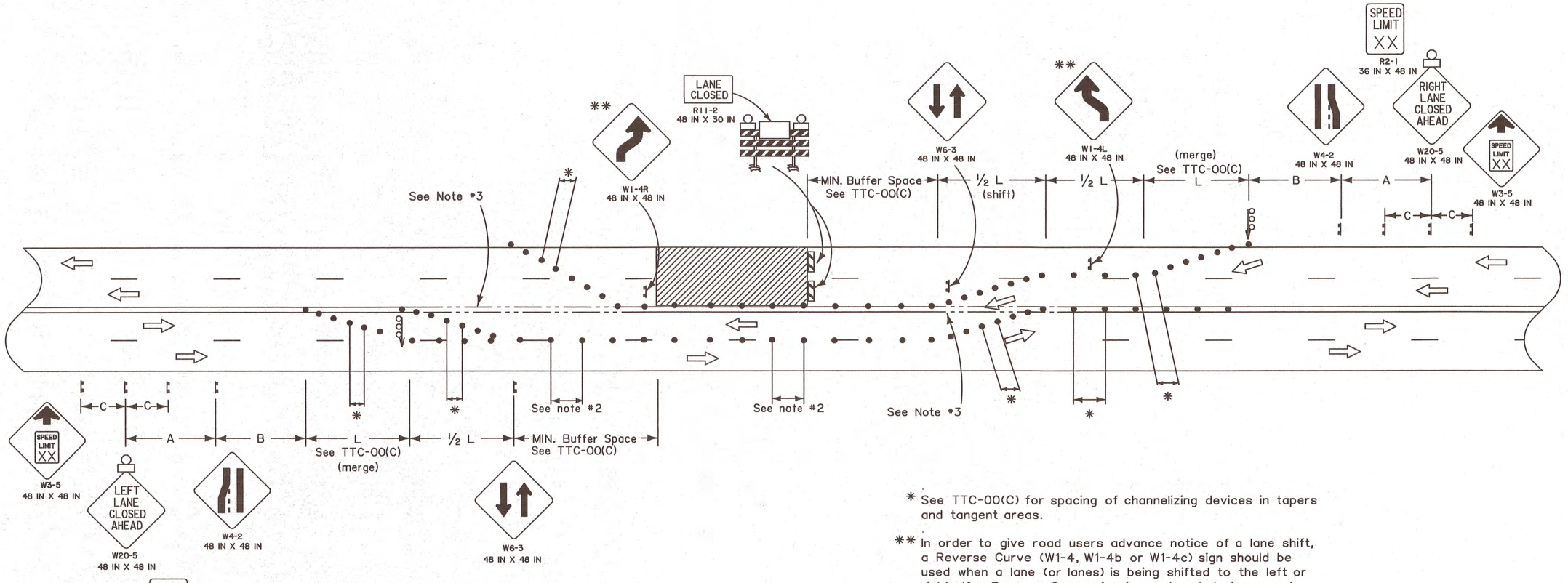
TEMPORARY TRAFFIC CONTROL FOR LANE CLOSURE ON FOUR-LANE UNDIVIDED HIGHWAYS
SPECIAL DETAIL TC-06
SHEET 10 OF 20

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 10 OF 20

SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)



* See TTC-00(C) for spacing of channelizing devices in tapers and tangent areas.

** In order to give road users advance notice of a lane shift, a Reverse Curve (W1-4, W1-4b or W1-4c) sign should be used when a lane (or lanes) is being shifted to the left or right. If a Reverse Curve sign is used and design speed of the curves is 30 mph or less, a Reverse Turn (W1-3) sign shall be used.

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Panel (Type 'C')
- Work Area
- Type B Light
- Direction of Travel

NOTES

This sheet shall be used with the Temporary Traffic Control General Notes sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for closure of two adjacent lanes on a four-lane undivided highway. For advance signing see TTC-00(D).
2. During daytime operations, traffic cones may be used to seperate traffic lanes. When this layout is authorized to be used during nighttime hours or if the width of the traffic lanes are less than 11 feet, the contractor shall be required to use flex posts or super cones to separate head-to-head (two-lane two way traffic) spaced at 20 feet in tangent and 10 feet in taper.
3. When traffic control is planned to be in place for more than 3 days, conflicting pavement markings shall be removed and temporary markings added.

SPEED LIMIT (prior to construction)	SPACING		
	'A'	'B'	'C'
25 mph	250 FT	250 FT	N/A
30 mph	250 FT	250 FT	N/A
35 mph	500 FT	350 FT	N/A
40 mph	500 FT	350 FT	N/A
45 mph	1000 FT	500 FT	500 FT
50 mph	1640 FT	1000 FT	800 FT
55 mph	1640 FT	1000 FT	800 FT

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 328

SCALE	NOT TO SCALE
DWG. NO.	11 OF 20
DRAWN BY	J.C.Y. / LADOTD
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
Reg. No.
PROFESSIONAL ENGINEER

2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

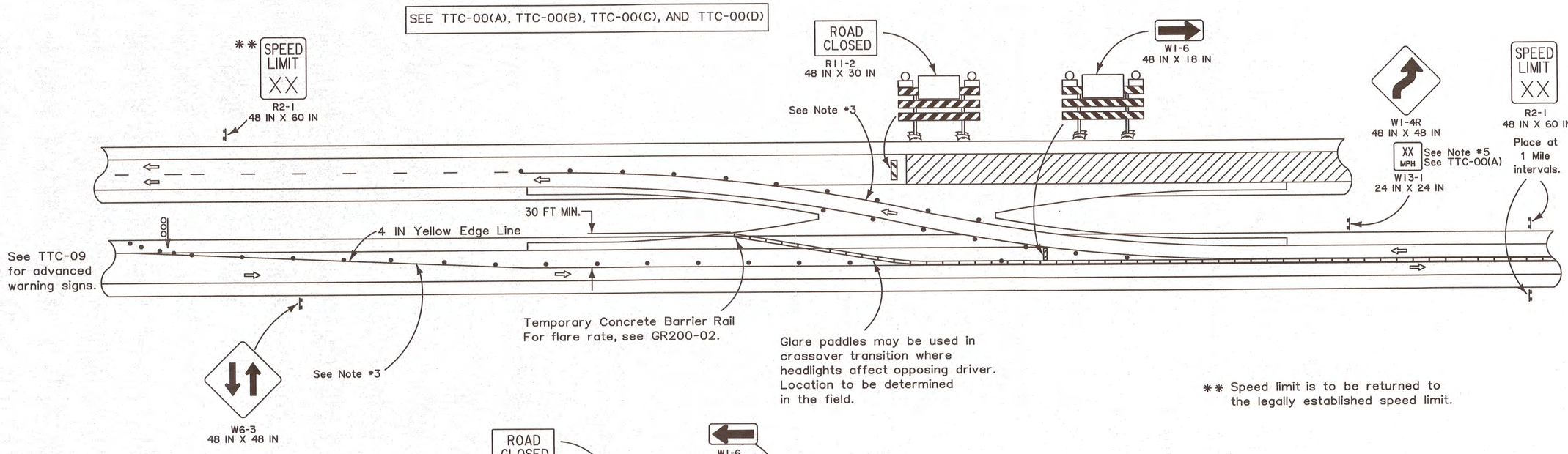
TEMPORARY TRAFFIC CONTROL FOR CLOSURE OF TWO ADJACENT LANES ON FOUR-LANE UNDIVIDED HIGHWAYS
TC-07
SPECIAL DETAIL
SHEET 11 OF 20

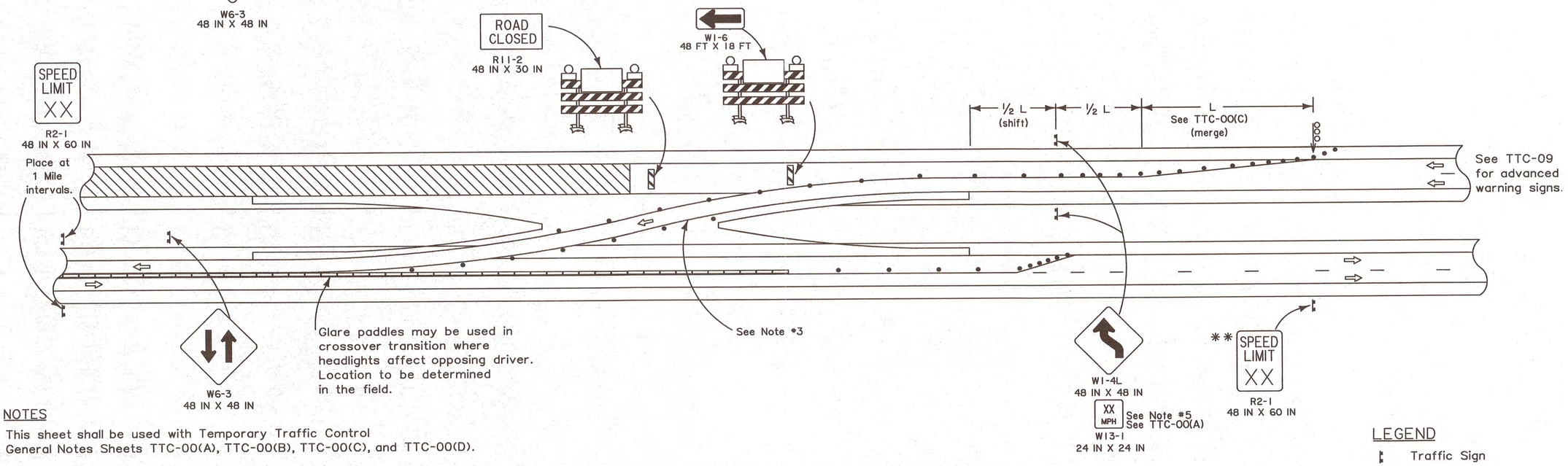
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 11 OF 20

SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)





NOTES

This sheet shall be used with Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for median crossovers on non-interstate divided highways. For advance signing see TTC-00(D) and TTC-09.
2. For posted speed limits prior to construction that are greater than 45 mph, concrete barriers shall be required to separate the lanes of travel. For posted speed limits prior to construction that are 45 mph or less, concrete barriers may be substituted by tubular markers or flexposts.
3. Temporary raised pavement markers spaced at 15 FT C/C shall be used to supplement the white and yellow temporary edge lines through the reverse curves of the crossover. All temporary edge lines between the barrier rail and the beginning of the lane reduction taper shall have temporary raised pavement markers spaced at 15 FT C/C.
4. When traffic control is planned to be in place for more than 3 days, conflicting pavement markings shall be removed and temporary markings added.
5. Advisory speed plaques (W13-1) shall be required if the difference between the speed limit prior to construction and the advisory speed (determined by an engineering study performed by the DTOE) is 10 mph or greater.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Panel
- Work Area
- Concrete Barrier
- Type B Light
- Direction of Travel

SHEET 329

SCALE: NOT TO SCALE
DWG. NO.: 12 OF 20
DRAWN BY: J.C.Y. / LADOTD
CHECKED BY: S.B.
APPROVED BY: W.A.
DATE: 09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / NEW LADED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
Reg. No. 35[illegible]
PROFESSIONAL ENGINEER
2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

TEMPORARY TRAFFIC CONTROL FOR CLOSURE OF TWO ADJACENT LANES ON FOUR-LANE UNDIVIDED HIGHWAYS
SPECIAL DETAIL TC-08
SHEET 12 OF 20

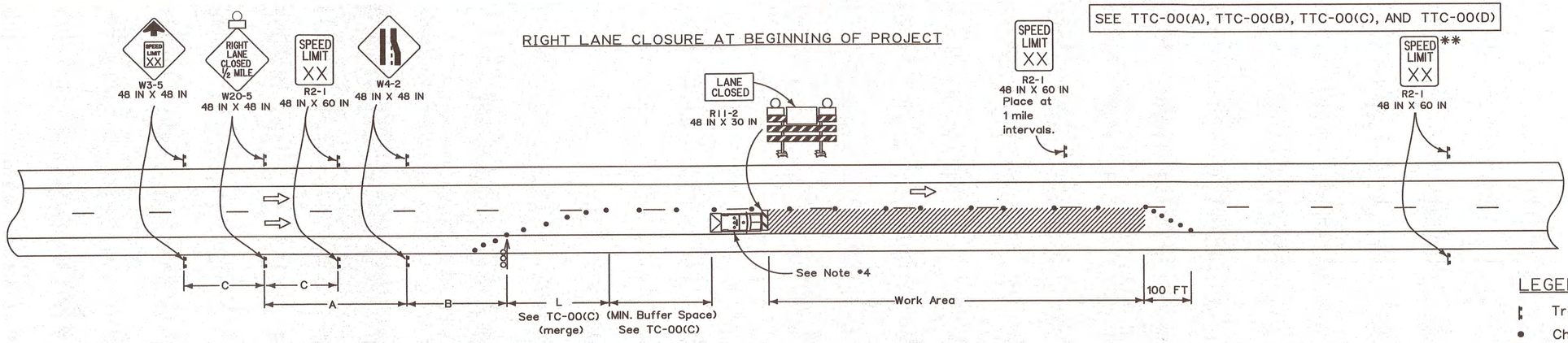
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 12 OF 20

SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)

RIGHT LANE CLOSURE AT BEGINNING OF PROJECT



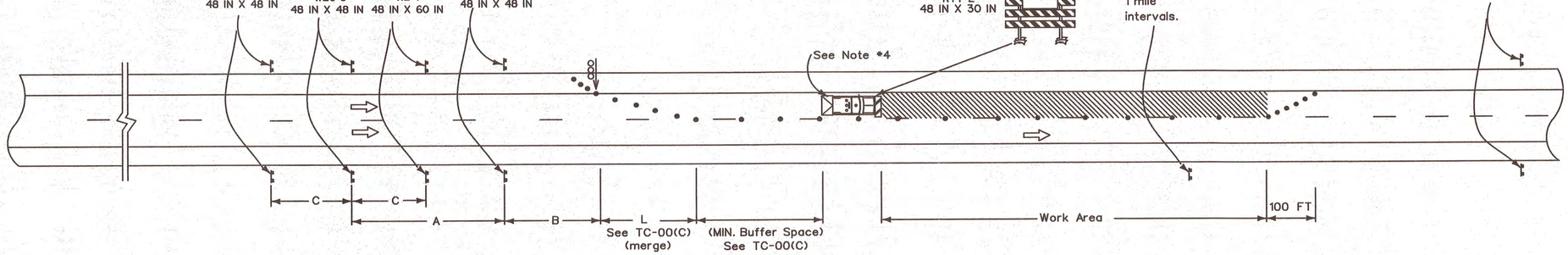
SPEED LIMIT (prior to construction)	SPACING		
	'A'	'B'	'C'
45 mph	1000 FT	500 FT	500 FT
50 mph	1000 FT	500 FT	500 FT
≥ 55 mph	1640 FT	1000 FT	800 FT

** Speed limit is to be returned to legally established speed limit.

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Panel
- Work Area
- Type B Light
- Direction of Travel
- Truck with Amber Light and TMA

LEFT LANE CLOSURE WITHIN LIMITS OF PROJECT



NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for lane closures on divided highways with speed limits greater than 40 mph. This layout does not cover roadwork where a ramp entrance or an exit taper falls within the work area. For advance signing see TTC-00(D).
2. This layout does not illustrate roadwork near a signal or a major intersection.
3. For interstate work, a minimum of two PCMS per direction shall be placed in advance of the lane closure. Guidance as to placement is shown on TTC-00(A); however, specific distances are to be set by the Engineer.
4. A vehicle with a flashing amber light and a truck mounted attenuator shall be used on all interstate projects and on all roadways with an ADT greater than 20,000 and a pre-construction speed greater than or equal to 45 mph. This vehicle shall move with work operations not to exceed the rollahead distance required by the manufacturer plus 100 feet.
5. A flagger shall be used to alert motorists when equipment or workers encroach within 2 feet of an open lane. The flagger shall be posted adjacent to the open travel lane and immediately upstream of each operation. Encroachment shall be held to a minimum.
6. A "Road Work Ahead" sign shall be placed within 1000 feet ahead of the entrance ramp nose for any ramp within the area of traffic control signing.
7. Sign spacing may be adjusted due to access conditions of the corridor.
8. If speed limit is less than 45 mph, see TTC-10.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SCALE	NOT TO SCALE
DWG. NO.	13 OF 20
DRAWN BY	J.C.Y. / LADOTD
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
Reg. No. 36878
PROFESSIONAL ENGINEER

2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

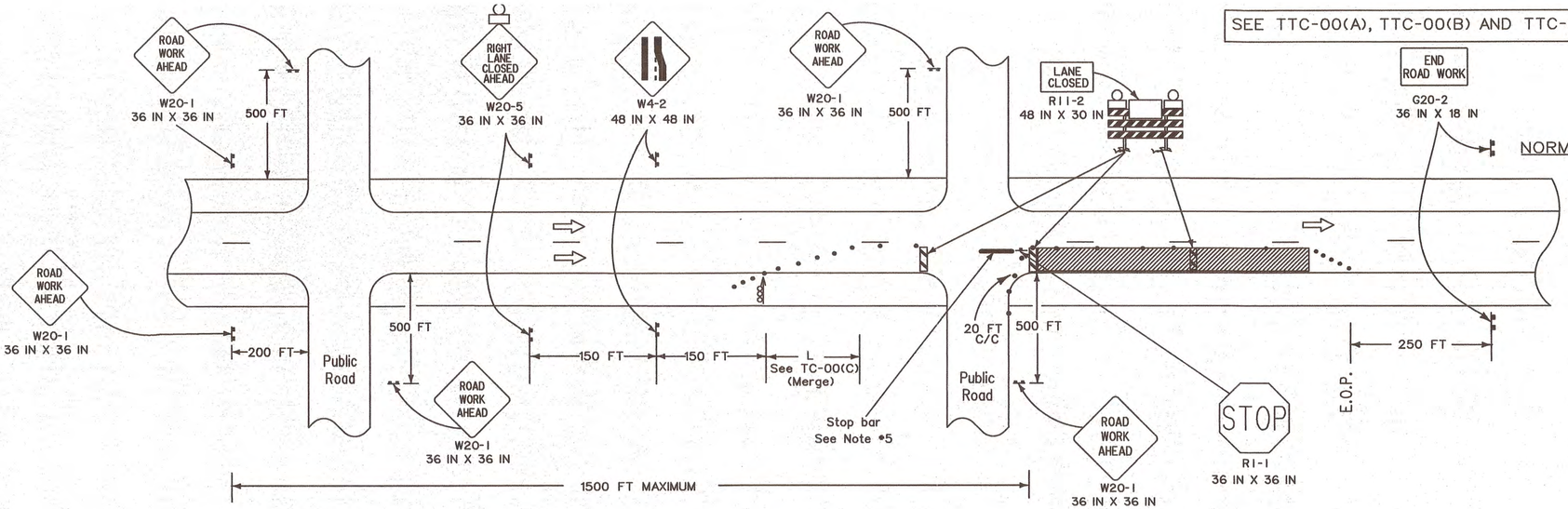
TEMPORARY TRAFFIC CONTROL FOR LANE CLOSURES ON DIVIDED HIGHWAYS (does not include ramp entrance of exit tapers)
SPECIAL DETAIL TC-09
SHEET 13 OF 20

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

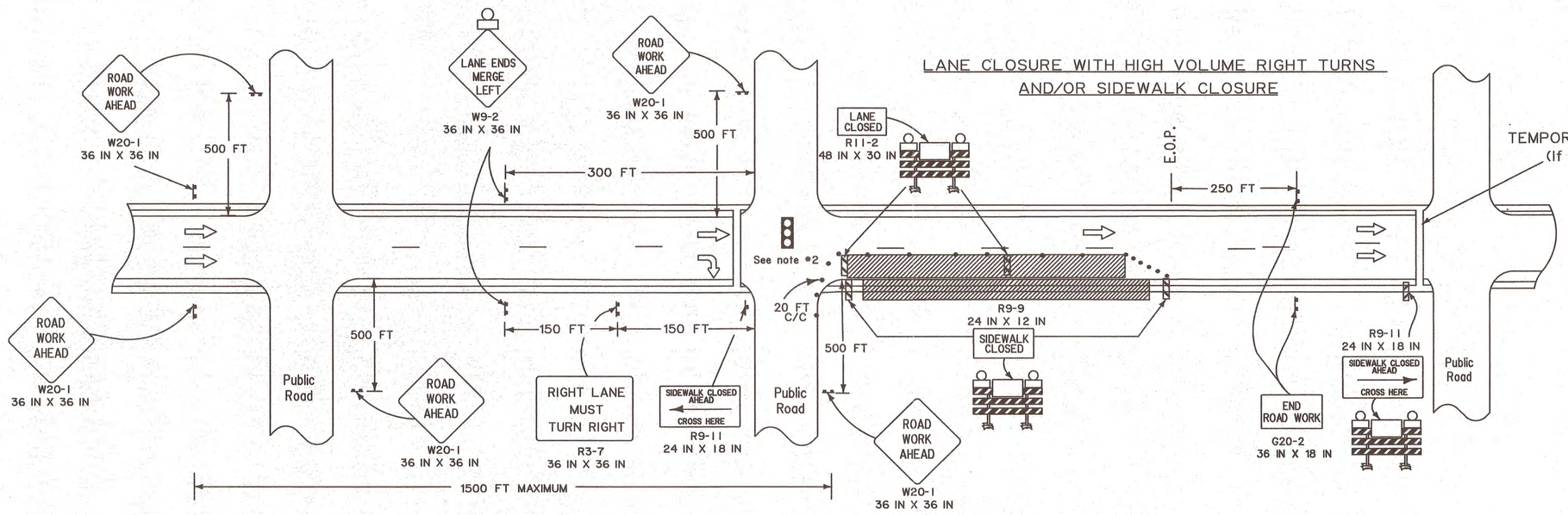
SHEET 13 OF 20

SEE TTC-00(A), TTC-00(B) AND TTC-00(C)



LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Panel
- Work Area
- Type B Light
- Direction of Travel



NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B) and TTC-00(C).

1. This layout represents the minimum traffic controls required for lane closures in areas with a grid layout and with speed limits of 40 mph and below. This layout illustrates roadwork near a signal or a major intersection with or without sidewalks.
2. If a signal is involved in the construction zone, a specific temporary traffic signal timing and phasing plan for each phase of construction shall be developed.
3. Bicyclists and pedestrians, including those with disabilities, should be provided with access and reasonably safe passage through the TTC zone.
4. The sign height shall be at least 7 feet in business, commercial, and residential areas and also near parking, pedestrians, bicyclists, or other obstructions.
5. Place Stop bars if work duration is greater than 3 days.
6. Place "Road Work Ahead" sign prior to an intersecting alternate route, no more than 1500 feet from the work area.
7. When crosswalks or other pedestrian facilities are closed or relocated, temporary facilities shall be detectable and shall include accessibility features consistent with the features in the existing pedestrian facility as defined in the MUTCD.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 331

SCALE: NOT TO SCALE
DWG. NO.: 14 OF 20
DRAWN BY: J.C.H. / LADOTD
CHECKED BY: S.B.
APPROVED BY: W.A.
DATE: 09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
No. 35662
PROFESSIONAL ENGINEER

DATE: 2-6-17

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

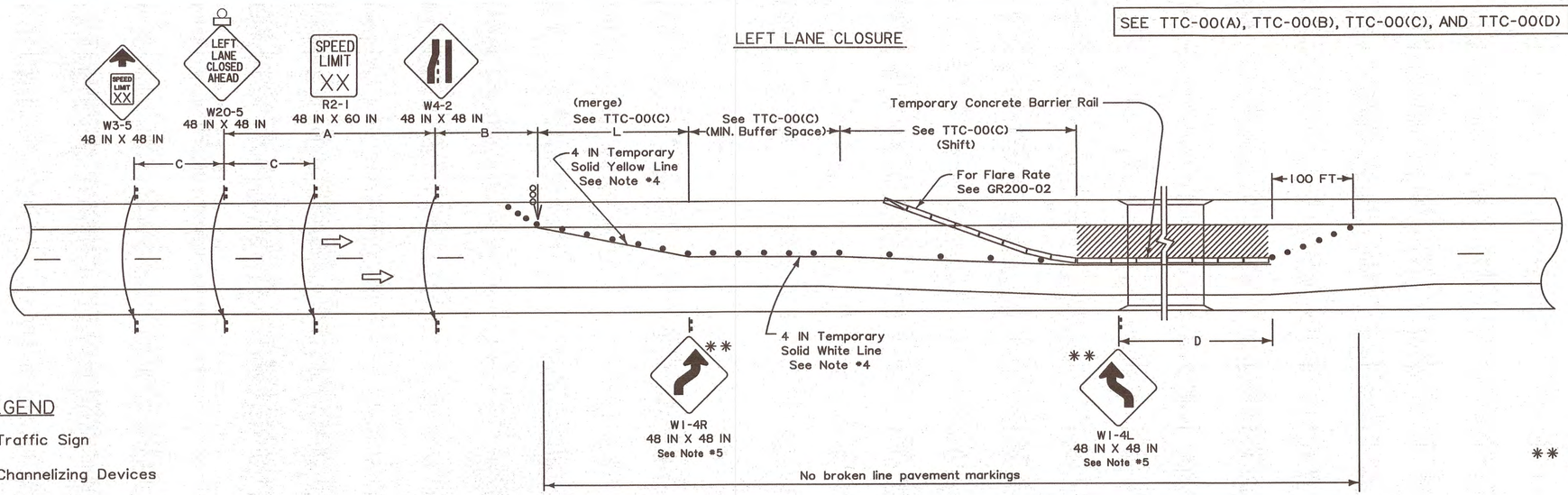
TEMPORARY TRAFFIC CONTROL FOR LANE AND SIDEWALK CLOSURES
SPECIAL DETAIL TC-10
SHEET 14 OF 20
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

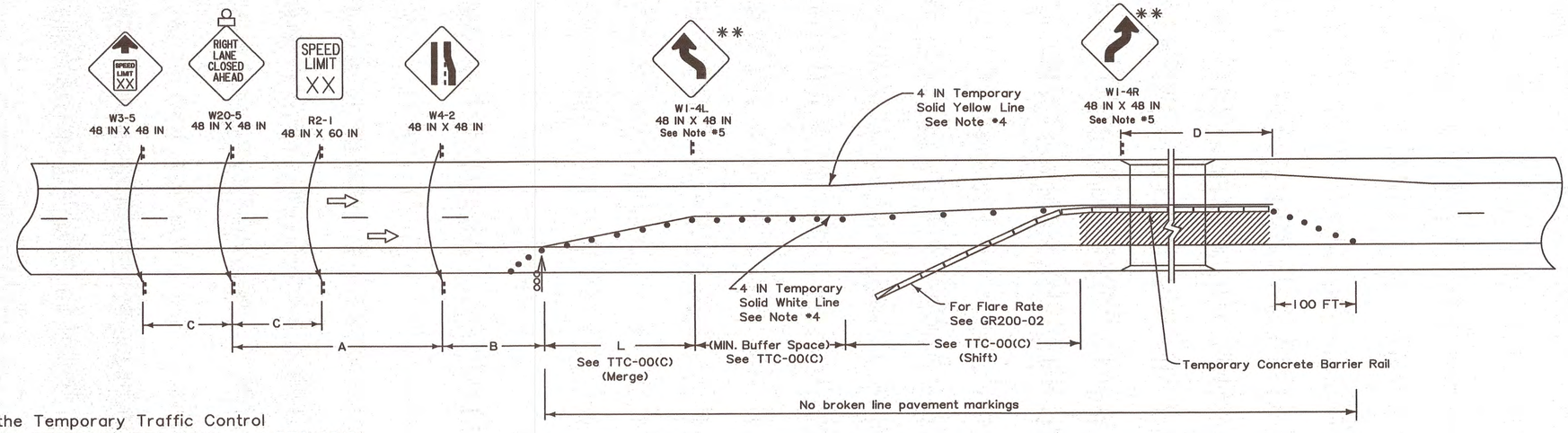
SHEET 14 OF 20

SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)

LEFT LANE CLOSURE



RIGHT LANE CLOSURE



LEGEND

- Traffic Sign
- Channelizing Devices
- Flashing Arrow Panel (Type 'C')
- Work Area
- Type B Light
- Concrete Barrier
- Direction of Travel

** To be used only when a lane shift is utilized.

NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for lane closures using temporary barrier rail on divided highways. This includes freeways. For advance signing see TTC-00(D).
2. If a ramp entrance or exit taper falls within the work area, refer to standard road plan TTC-12 for traffic control details.
3. When traffic control is planned to be in place for more than 3 days, conflicting pavement markings shall be removed and temporary markings added. Existing broken line pavement marking shall be removed from the W4-2 sign through the work area.
4. For work lasting more than 3 days, a temporary edgeline shall be installed from the start of the merging taper to the far end of the downstream taper.
5. If the lane shift occurs on new pavement or existing shoulder, then W1-4R or W1-4L is required.

SPEED LIMIT (prior to construction)	SPACING		
	'A'	'B'	'C'
45 mph	1000 FT	500 FT	500 FT
50 mph	1000 FT	500 FT	500 FT
≥ 55 mph	1640 FT	1000 FT	800 FT

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 332

SCALE	NOT TO SCALE
DWG. NO.	15 OF 20
DRAWN BY	J.C.V. / LADOTD
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.V.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
Reg. No. 35078
PROFESSIONAL ENGINEER
1-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

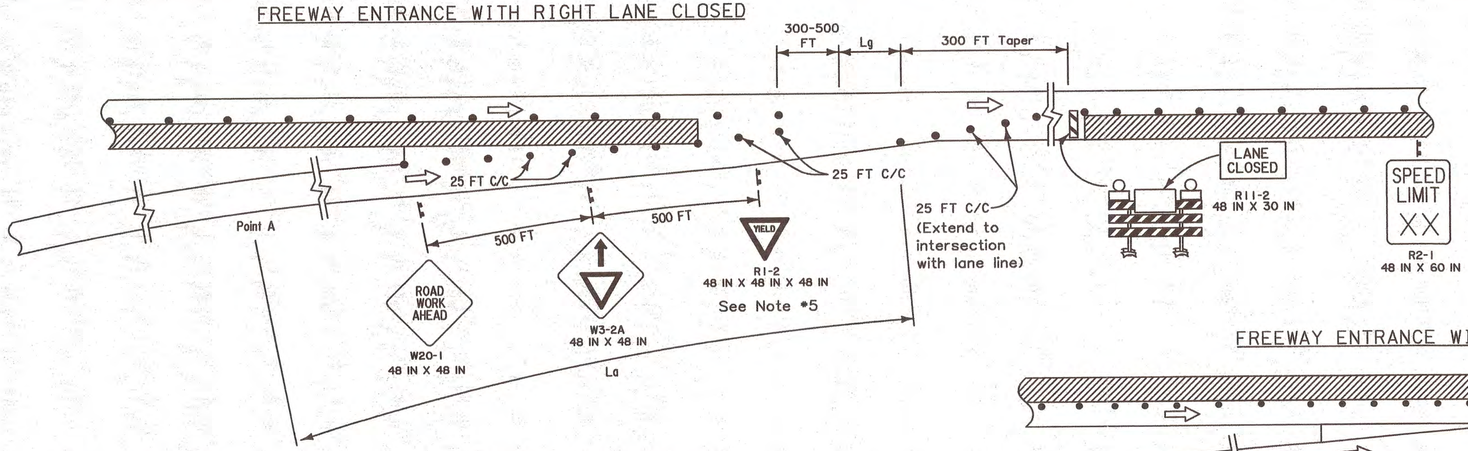
TEMPORARY TRAFFIC CONTROL FOR LANE CLOSURES USING TEMPORARY BARRIER RAIL ON DIVIDED HIGHWAYS (INCLUDES FREEWAYS)
SPECIAL DETAIL TC-11
SHEET 15 OF 20

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 15 OF 20

FREEWAY ENTRANCE WITH RIGHT LANE CLOSED



Point A controls the speed of the ramp, which is the PC or PCC of the curve. Assume that 45 mph is achieved at this point on diagonal ramps and 20 mph is achieved for loop ramps.

The Minimum Radius prior to Lg should be a minimum of 1000 feet. Anything less than 1000 feet shall be approved by the Engineer.

SEE TTC-00(A), TTC-00(B), TTC-00(C), AND TTC-00(D)

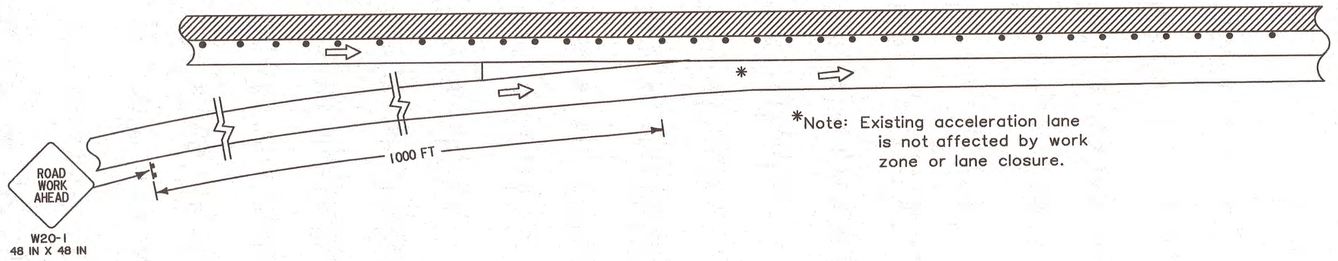
These charts assume a grade of less than 3%.

Diagonal Ramps	Speed Limit (prior to construction)	La (acceleration length)
	70 mph	820 FT
	65 mph	600 FT
	60 mph	600 FT

Loop Ramps	Speed Limit (prior to construction)	La (acceleration length)
	70 mph	1520 FT
	65 mph	1310 FT
	60 mph	1100 FT

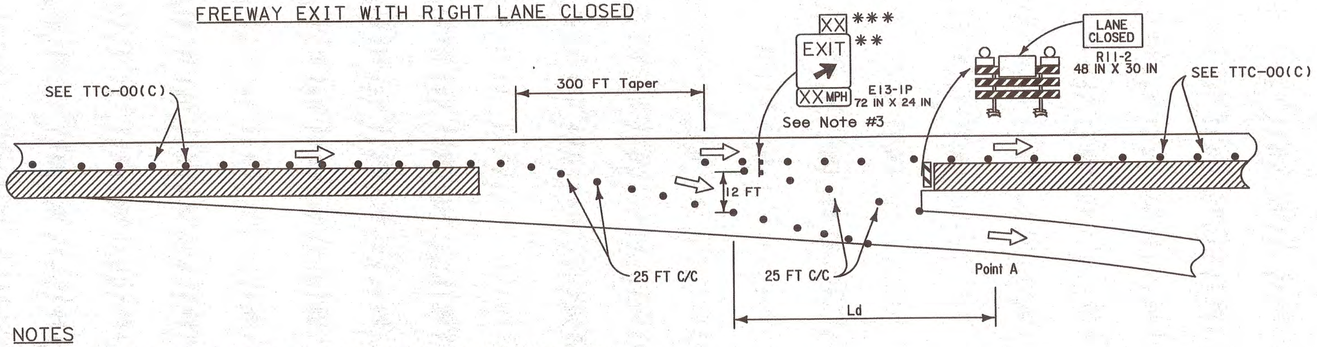
For more information, see Chapter 10 of the AASHTO Green Book.

FREEWAY ENTRANCE WITH LEFT LANE CLOSED



*Note: Existing acceleration lane is not affected by work zone or lane closure.

FREEWAY EXIT WITH RIGHT LANE CLOSED



This chart assumes a grade of less than 3%.

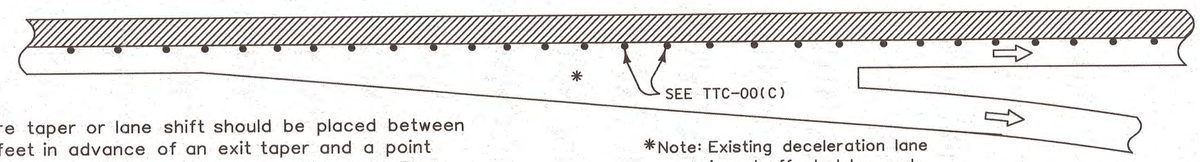
Exit Curve Speed	Ld (deceleration length)
20 mph	500 FT
45 mph	300 FT

For more information, see Chapter 10 of the AASHTO Green Book.

**The temporary green and white "Exit" sign (E5-1) shall be 72 IN X 60 IN with a letter height of 12 IN.

***The Exit Number plate (E5-1bP) shall be a MIN 42 IN X 30 IN with a letter height of 10 IN.

FREEWAY EXIT WITH LEFT LANE CLOSED



*Note: Existing deceleration lane is not affected by work zone or lane closure.

NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), TTC-00(C), and TTC-00(D).

1. This layout represents the minimum traffic controls required for a temporary work area with lane closures through ramp entrances and exit tapers on a freeway. For advance signing see TTC-00(D).
2. For mainline lane closures see TTC-09, TTC-10 or TTC-11.
3. The mounting height of the temporary "Exit" sign (E5-1) shall be a minimum of 7 feet from the pavement surface to the bottom of the sign. The existing green and white "Exit" sign shall be covered. If the temporary "Exit" sign will be in place for more than one day, an Exit Number plate (E5-2) displaying the proper exit number shall be placed above the temporary "Exit" sign. An advisory speed plaque (E13-1P) shall be placed under the temporary "Exit" sign to emphasize a low advisory ramp speed.
4. If acceleration distance (La) and/or gap acceptance (Lg) of 300 feet cannot be achieved, the ramp shall be closed.
5. No lane closure taper or lane shift should be placed between a point 1000 feet in advance of an exit taper and a point 100 feet past the striped gore point of an exit ramp. The Engineer can reduce the 1000 feet distance requirement if field conditions justify the reduction.
6. No lane closure taper or lane shift should be placed between a point 100 feet in advance of the striped gore point of an on ramp and a point that is a distance of 2L from the end of the acceleration lane taper. See TTC-00(C) for taper lengths.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Work Area
- Type B Light
- Direction of Travel

SHEET 333

SCALE: NOT TO SCALE
DWG. NO.: 16 OF 20
DRAWN BY: J.C.V. / LADOTD
CHECKED BY: S.B.
APPROVED BY: W.A.
DATE: 09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / DELINEATED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
REG. NO. 33[illegible]
PROFESSIONAL ENGINEER
DATE: 2-6-17

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

TEMPORARY TRAFFIC CONTROL FOR CLOSURE ON TWO LANES ON A MULTI-LANE HIGHWAY
SPECIAL SHEET TC-12 16 OF 20

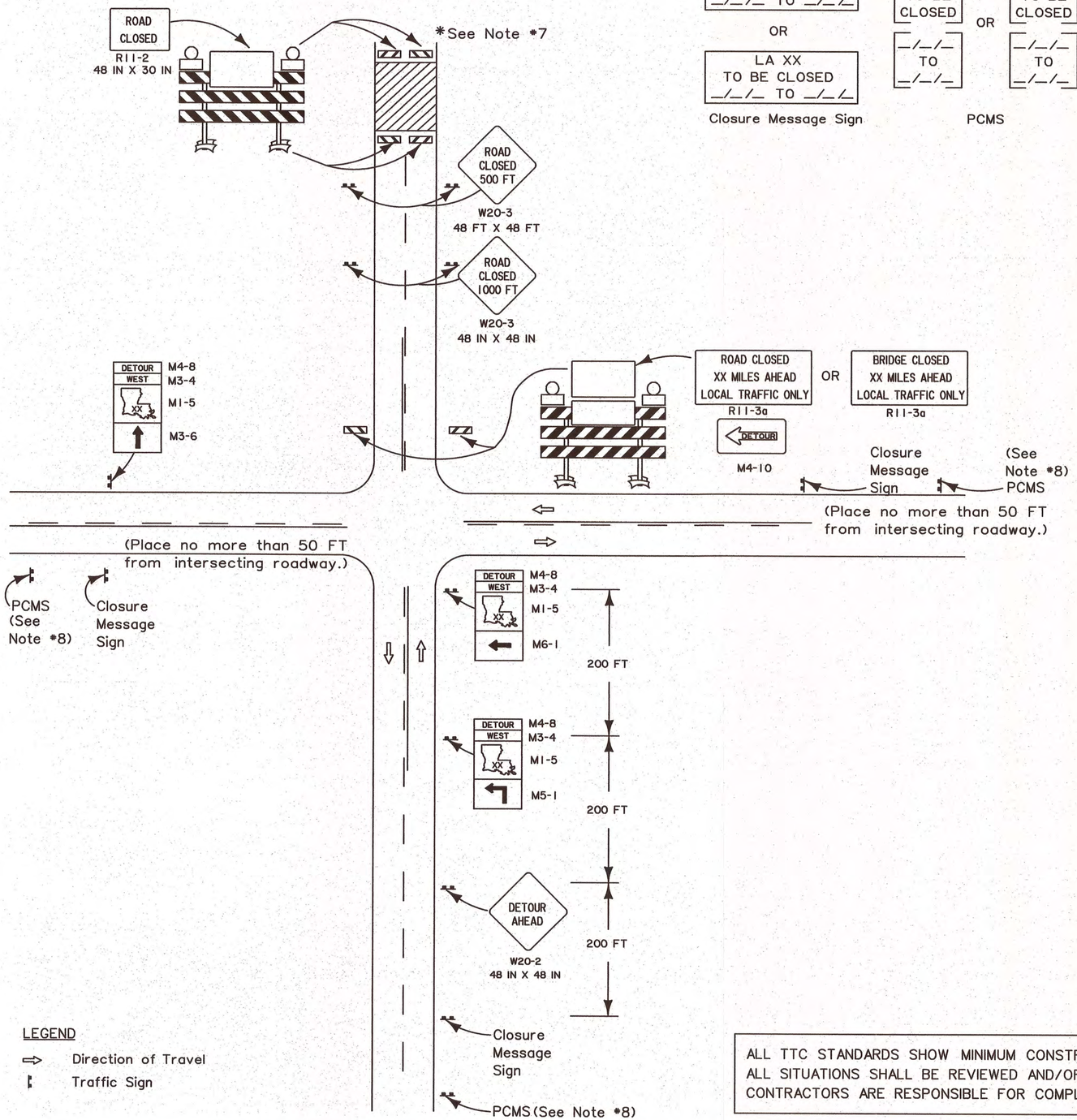
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 16 OF 20

SEE TTC-00(A), TTC-00(B) AND TTC-00(C)

ADVANCE WARNING SIGN DURING ROAD CLOSURE



LEGEND

⇨ Direction of Travel

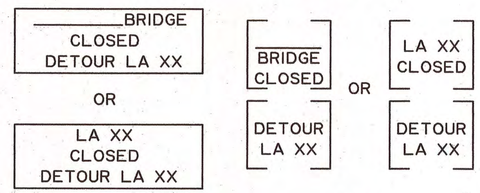
Traffic Sign

7 DAYS PRIOR TO ROAD CLOSURE

See Note *4 and *8

DURATION OF ROAD CLOSURE

See Note *4 and *8



NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B) and TTC-00(C).

1. This layout represents the generic traffic controls required for road closure on a two-lane roadway. A specific detour plan with all required signs and routes is required for all detours.
2. Any signs in conflict with detour signing shall be removed or covered.
3. Closure Message Sign or PCMS shall be placed 7 days prior to road closure on all approaches to the closure. This sign shall be placed no farther than 50 FT from the work area to be closed.
4. Closure Message Sign or PCMS shall be placed on all approaches to the closure for the duration of the road closure. Minimum letter size on static signs shall be 8 inches.
5. Detour routes shall only be state-maintained routes, unless the project manager has made an agreement with the road owner.
6. Not all detour signs are shown. The DTOE shall approve all detours. The contractor shall be responsible for placing and maintaining all detour signs. There should be a sign at every decision point.
7. The signing is to be mirrored in the opposite direction.
8. PCMS shall be used in addition to the closure message sign on all highways with an ADT greater than 20,000. Place at a location approved by the Engineer.
9. A complete detour map shall be included with the set of plans. If there are changes in the routing, then the contractor will need to submit to the Engineer for approval.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 334

SCALE: NOT TO SCALE
DWG. NO.: 17 OF 20
DRAWN BY: J.C.V. / L.DOYD
CHECKED BY: S.B.
APPROVED BY: W.A.
DATE: 09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN C. ARMAND
Reg. No. 25075
PROFESSIONAL ENGINEER
2-23-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

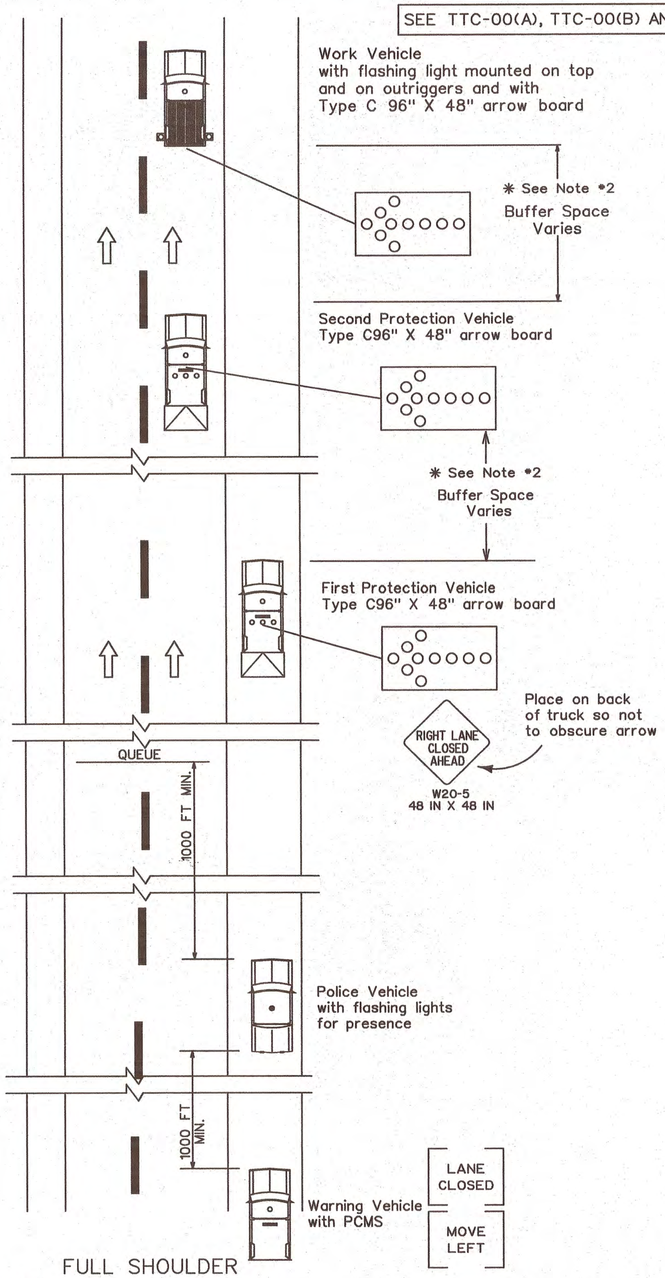
TEMPORARY TRAFFIC CONTROL FOR ROAD CLOSURES
SPECIAL DETAIL TC-13
SHEET 17 OF 20

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

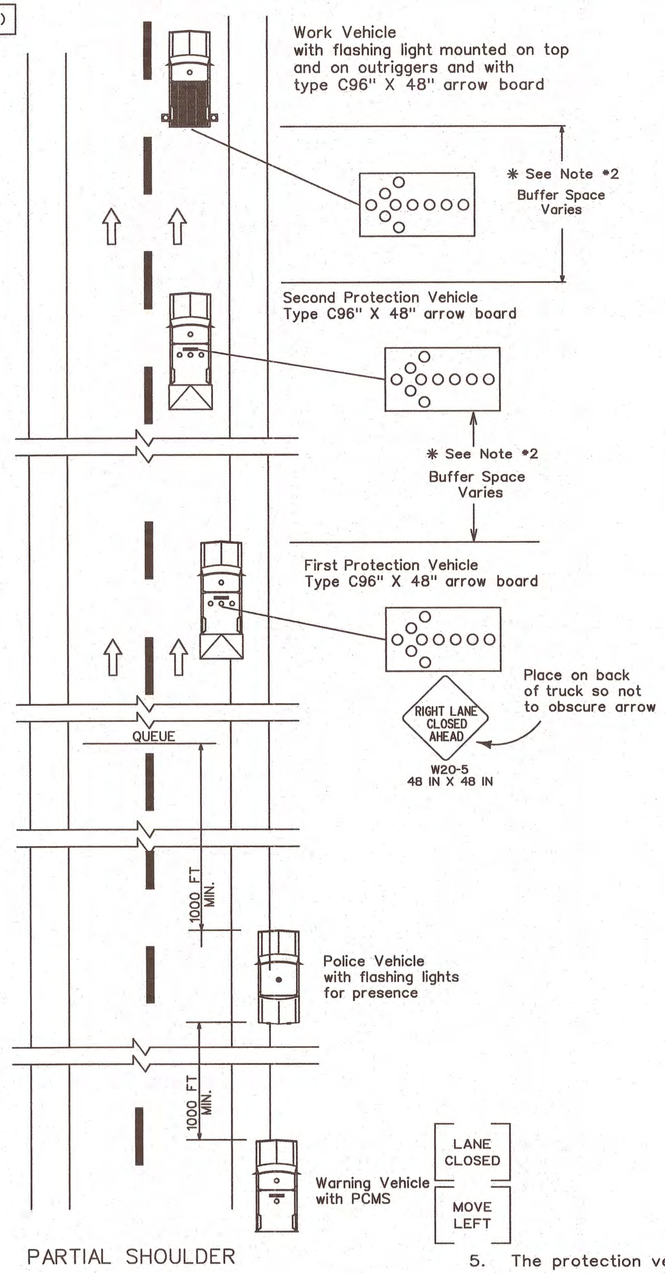
Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 17 OF 20

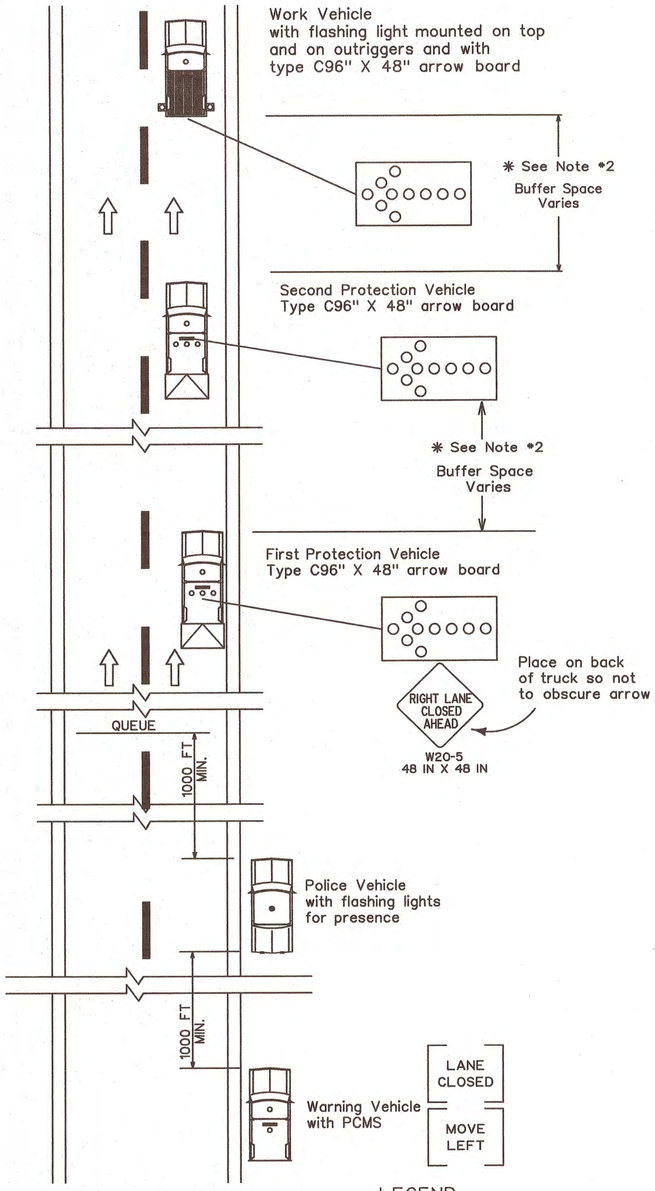
SEE TTC-00(A), TTC-00(B) AND TTC-00(C)



FULL SHOULDER



PARTIAL SHOULDER



NO SHOULDER

NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B) and TTC-00(C).

1. This layout represents the minimum traffic controls required for moving operations, such as striping on interstates and multi-lane roadways. This layout shall not be used for placing signs or pavement legends along the roadway.
2. Distances between vehicles shall vary and should be adjusted due to drying time and sign obstructions such as overpasses and hills.
3. Striping operation is shown for the right lane. Left lane operation is the same, but opposite. If the roadway is greater than 2 lanes, a traffic control plan will be designed.
4. If a queue greater than 30 minutes (about 2 miles) exists, the contractor shall cease operations and pull over to the shoulder until the queue dissipates.
5. The protection vehicles shall be equipped with a flashing amber light and a truck mounted attenuator. This vehicle shall move with work operations not to exceed the rollahead distance required by the manufacturer plus 100 feet.
6. The police vehicle shall move along with the queue, staying 1000 feet prior to the end of the queue. The warning vehicle shall stay 1000 feet from the police vehicle.

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

LEGEND

- Flashing Arrow Panel
- Work Area
- Direction of Travel
- Work Vehicle
- Police Vehicle with Flashing Amber Lights
- Truck with Amber Light and TMA
- Warning Vehicle with PCMS

SHEET 335

SCALE	NOT TO SCALE
DWG. NO.	18 OF 20
DRAWN BY	J.C.V. / LADOTD
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.T.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ARABIE
Reg. No. 35087
PROFESSIONAL ENGINEER

2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

TEMPORARY TRAFFIC CONTROL
MOVING OPERATIONS FOR
MULTI-LANE ROADWAYS
SPECIAL DETAIL TC-14 SHEET 18 OF 20

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 18 OF 20

SEE TTC-00(A), TTC-00(B), AND TTC-00(C)

NOTES

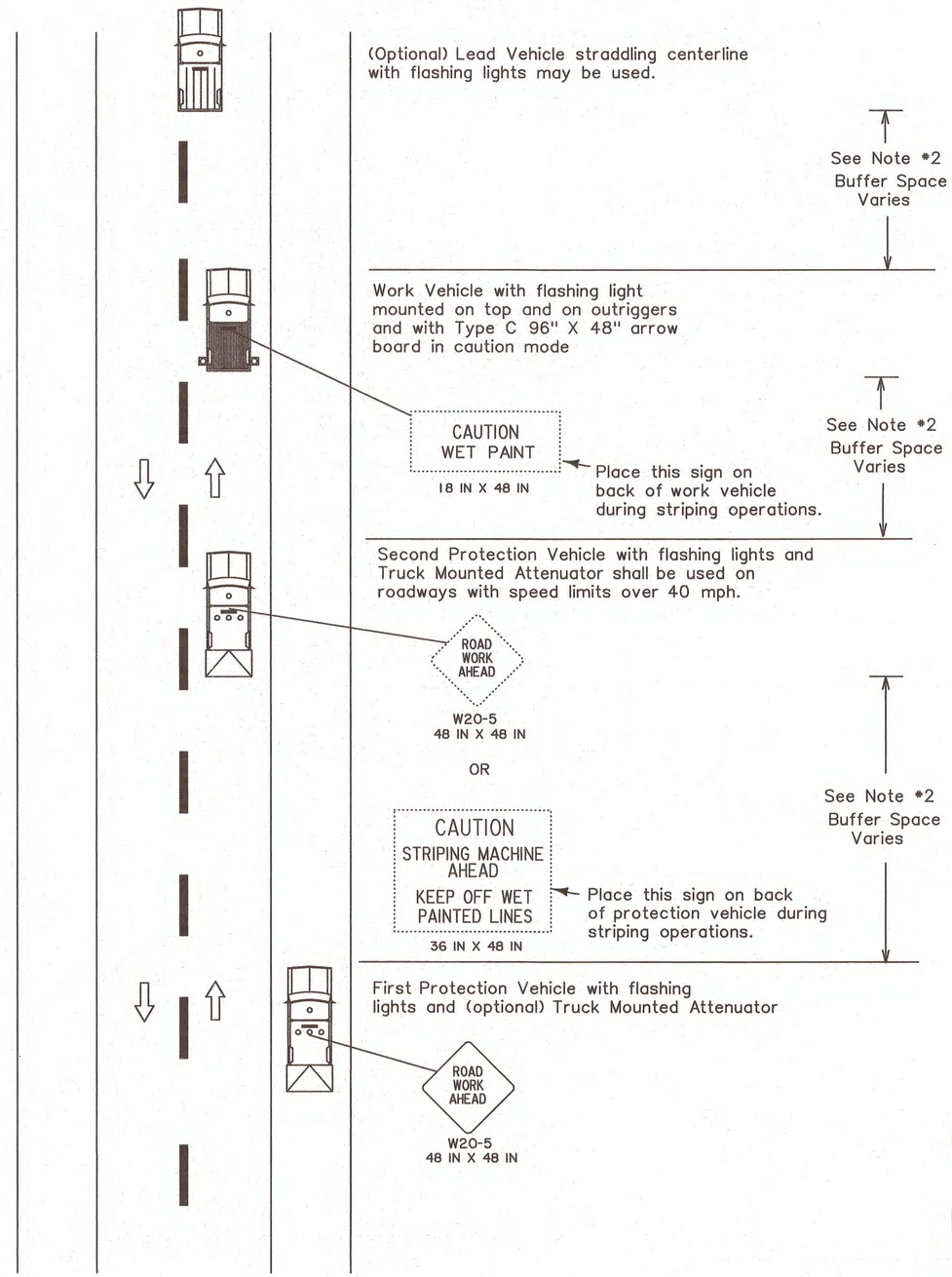
This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), and TTC-00(C).

1. This layout represents the minimum traffic controls required for moving operations on two-lane roads with two-way traffic, such as striping and placement of raised pavement markers.

2. Distances between vehicles may vary and should be adjusted due to drying time and sight obstructions such as overpasses and hills. Vehicles with attenuators shall move with work operations. Buffer space shall not exceed rollahead distance required by the manufacturer plus 100 feet.

3. If a queue greater than 5 minutes (about 1000 feet) exists, the contractor shall cease operations and pull over to the shoulder until the queue dissipates.

4. Flaggers may be used with this layout, if needed. See TTC-00(B).



LEGEND

- Direction of Travel
- Work Vehicle
- Lead Vehicle
- Protection Vehicle

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 336

SCALE	NOT TO SCALE
DWG. NO.	19 OF 20
DRAWN BY	J.C.V. / LADOTD
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.T.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ABADIE
Reg. No. 35077
PROFESSIONAL ENGINEER

2-6-17
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

TEMPORARY TRAFFIC CONTROL
MOVING OPERATIONS FOR
TWO-WAY TWO-LANE ROADWAYS
SPECIAL DETAIL TC-15 SHEET 19 OF 20

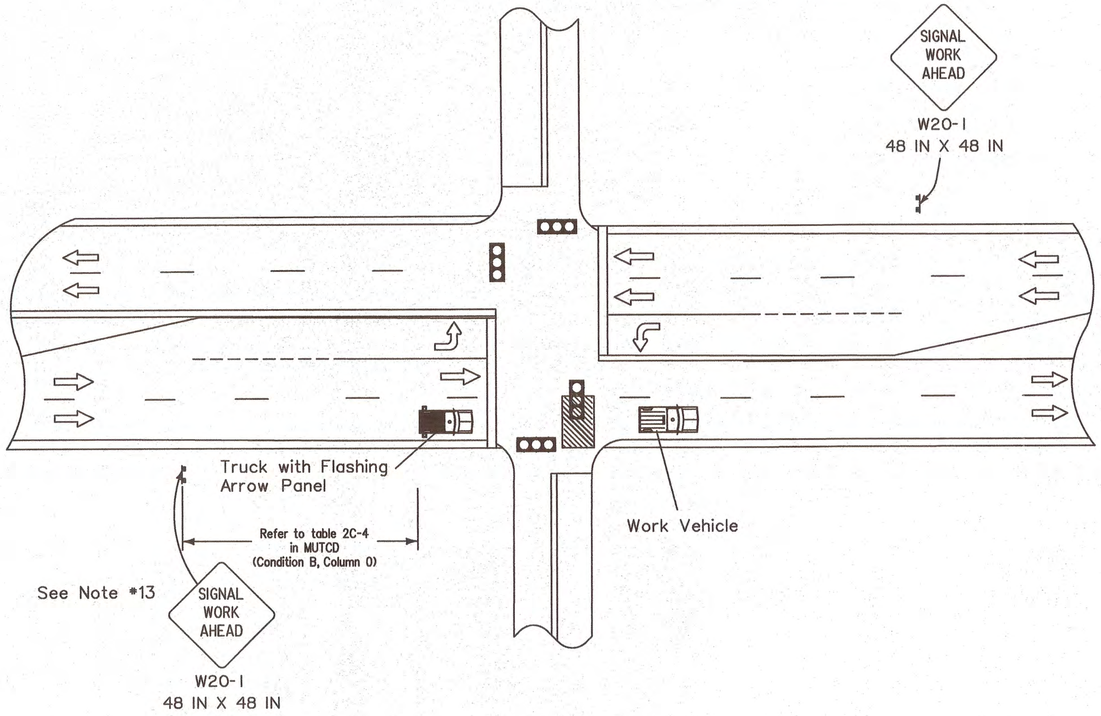
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

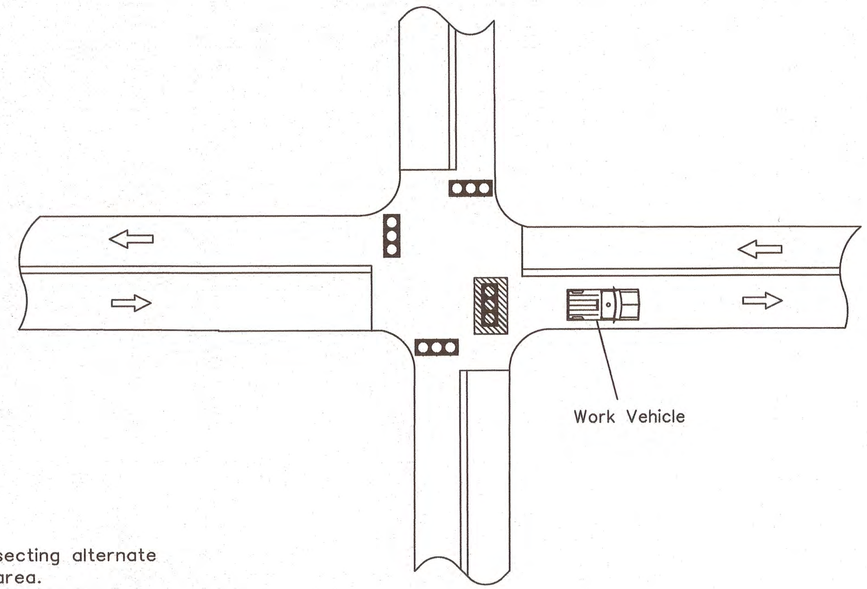
SHEET 19 OF 20

SEE TTC-00(A), TTC-00(B), AND TTC-00(C)

SIGNAL WORK ON A MULTI-LANE ROADWAY FOR UP TO ONE HOUR



SIGNAL WORK ON A TWO-LANE TWO-WAY ROADWAY



NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), and TTC-00(C).

1. This layout represents the minimum traffic controls required during signal construction and maintenance.
2. For projects with multiple signals, the contractor shall construct only one signal at a time.
3. If the signal at an intersection is turned off, the intersection may operate as a 4-way stop with approval by the Engineer and the DTOE. The contractor shall be responsible for installing and removing all stop signs at the intersection.
4. A detour plan is required if the road will be closed to through traffic at all approaches.
5. A uniformed police officer shall direct traffic for short duration lane closures.
6. The turn lane may be used as a through lane if a minimum 10-foot lateral clearance can be maintained and opposing traffic is not impeded.
7. A signal timing and phasing plan shall be developed for each phase of construction.
8. Place "Road Work Ahead" sign prior to an intersecting alternate route, no more than 1500 feet from the work area.
9. The sign height shall be at least 7 feet in business, commercial, and residential areas and also near parking, pedestrians, bicyclists, or other obstructions.
10. All work must be done during off-peak hours.
11. The contractor shall not work on both through lanes at the same time.
12. For signal work on a multi-lane roadway greater than 1 hour, see TTC-09 or TTC-10.
13. If the expected or actual queue length exceeds the distance in Table 2C-4 in the MUTCD, place an additional "Signal Work Ahead" sign (W20-1) at the end of the queue.
14. For two-lane two-way roadways, a police car with flashing lights and 2 police officers will be required for intersection traffic control.

LEGEND

- Traffic Sign
- Work Vehicle
- Truck with Flashing Arrow Panel
- Work Area
- Direction of Travel
- Traffic Signal

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
ALL SITUATIONS SHALL BE REVIEWED AND/OR DESIGNED BY THE ENGINEER.
CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET 337

SCALE	NOT TO SCALE
DWG. NO.	20 OF 20
DRAWN BY	J.C.V. / LADOTD
CHECKED BY	S.B.
APPROVED BY	W.A.
DATE	09-01-2015

NO.	DATE	REVISION DESCRIPTION	BY
1	JAN. 30, 2017	UPDATED / REPLACED ENGINEER'S DISCLOSURE STATEMENT	R.Y.

CERTIFICATION

STATE OF LOUISIANA
WARREN G. ARMAND
35870
PROFESSIONAL ENGINEER

DATE: 2-6-17

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

TEMPORARY TRAFFIC CONTROL FOR TRAFFIC SIGNAL INSTALLATION AND MAINTENANCE AT AN INTERSECTION

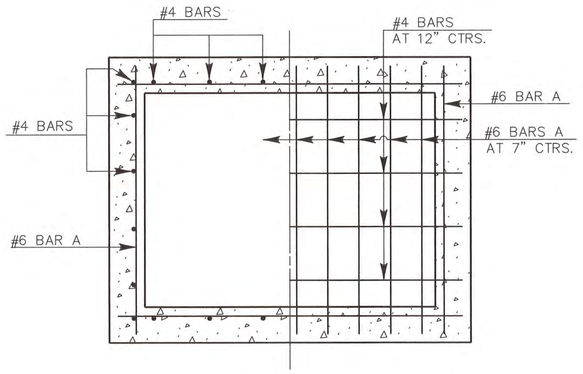
SPECIAL DETAIL TC-16 SHEET 20 OF 20

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

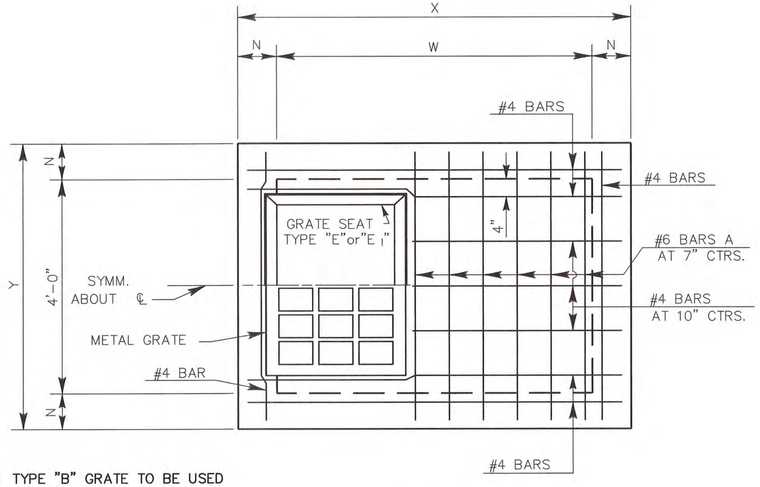
Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

SHEET 20 OF 20



SECTIONAL PLAN
(SHOWING BOTTOM SLAB & WALLS)



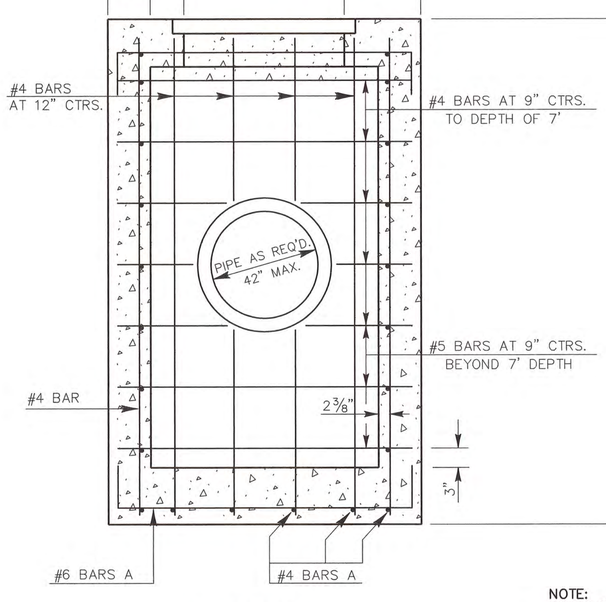
NOTE: TYPE "B" GRATE TO BE USED WHERE NO PEDESTRIAN TRAFFIC IS EXPECTED.

TYPE "C" GRATE TO BE USED WHERE PEDESTRIAN TRAFFIC IS EXPECTED.

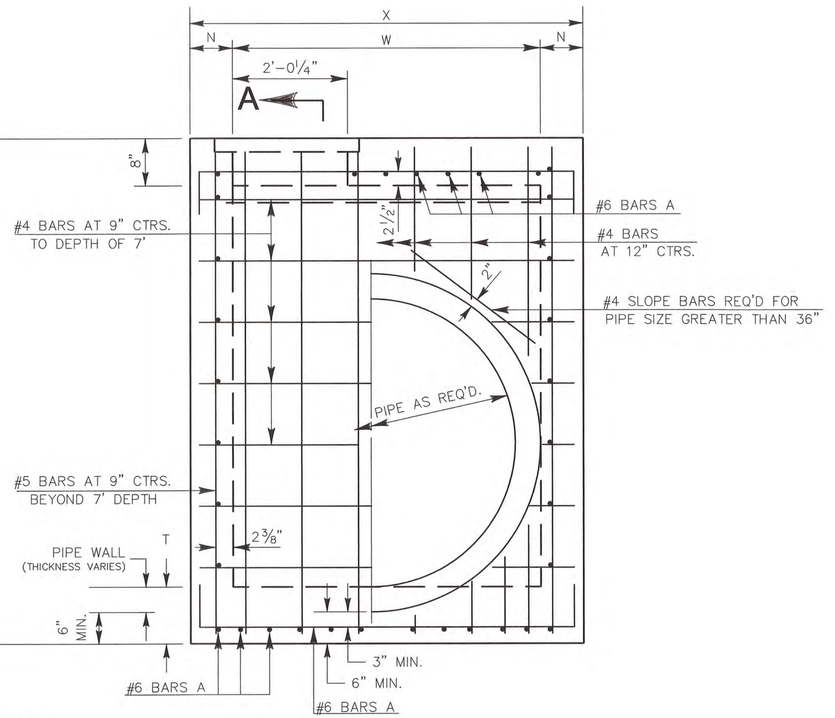
PLAN
GRATE TO BE TYPE "B" or "C".
TYPE "B" SHOWN.

DIMENSIONS										
TRUNK PIPE	DEPTH TO 8'					DEPTH 8' TO 12'				
	N	T	W	X	Y	N	T	W	X	Y
INCH	INCH (MIN.)	INCH (MIN.)	FT-IN	FT-IN	FT-IN	INCH (MIN.)	INCH (MIN.)	FT-IN	FT-IN	FT-IN
42	7	9	4-3	5-5	5-2	8	9	4-3	5-7	5-4
48	7	9	4-10	6-0	5-2	8	9	4-10	6-2	5-4
54	7	9	5-5	6-7	5-2	8	9	5-5	6-9	5-4
60	7	10	6-0	7-2	5-2	8	10	6-0	7-4	5-4
66	7	10	6-7	7-9	5-2	8	10	6-7	7-11	5-4
72	7	10	7-2	8-4	5-2	8	10	7-2	8-6	5-4
84	7	10	8-4	9-6	5-2	8	10	8-4	9-8	5-4
96	7	10	9-6	10-8	5-2	8	10	9-6	10-10	5-4

NOTE: X AND W DIMENSIONS MAY BE VARIED FOR SKEWED PIPE, BUT W SHALL NOT EXCEED 9'-6".

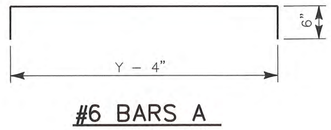


SECTION A-A



NOTE:
PIPE SIZE & LOCATION VARIES.
CUT REINFORCING STEEL TO CLEAR, AS REQUIRED.

ELEVATION



#6 BARS A
(4 1/2" DIA. PIN)

GENERAL NOTES:

SECTION 702 OF THE CURRENT LAFAYETTE CONSOLIDATED GOVERNMENT STANDARD SPECIFICATIONS SHALL APPLY.

DIMENSIONS RELATING TO REINFORCING STEEL ARE TO BAR CENTERS.

VERTICAL REINFORCING STEEL MAY BE SPLICED. SPLICE LENGTH IS 35 DIAMETERS.

FOR DETAILS OF GRATE AND SEAT, SEE STD. PLAN MC-01 (TYPE B or C).

SEE PLANS FOR TYPE OF GRATE TO BE USED FOR EACH CATCH BASIN.

SHEET 338

SCALE: NOT TO SCALE
DWG. NO.:
DRAWN BY: R.V. / LA-DOTD
CHECKED BY: F.A.T.
APPROVED BY: F.A.T.
DATE: JUNE 17, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
JUNE 17, 2021
DATE:

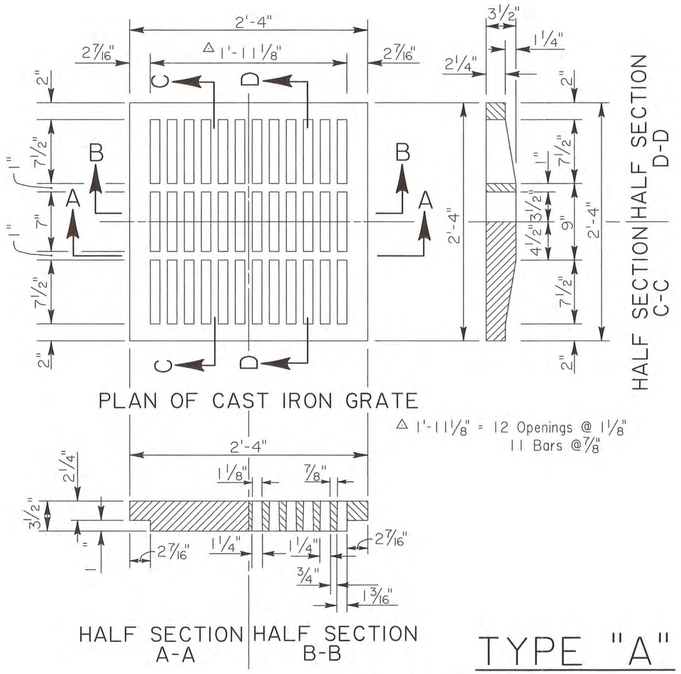
"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

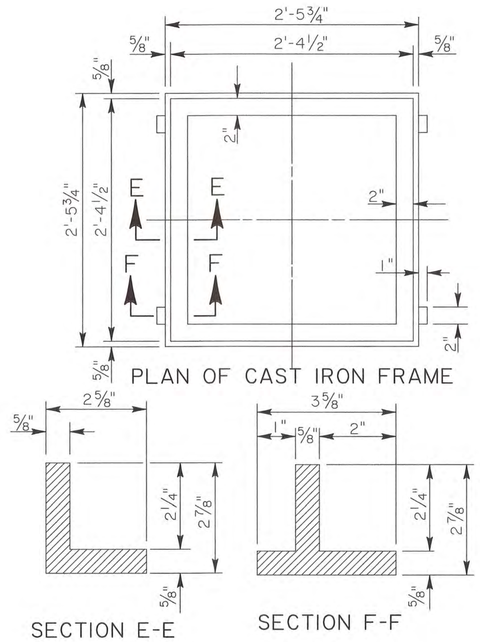
CONCRETE OPEN TOP CATCH BASIN
MAX. PIPE: 96" x 42" TO BE USED IN CONJUNCTION WITH STD. PLAN MC-01
MAX. DEPTH: 12'
STANDARD DETAIL CB-02
SHEET 1 OF 1

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

SHEET 1 OF 1

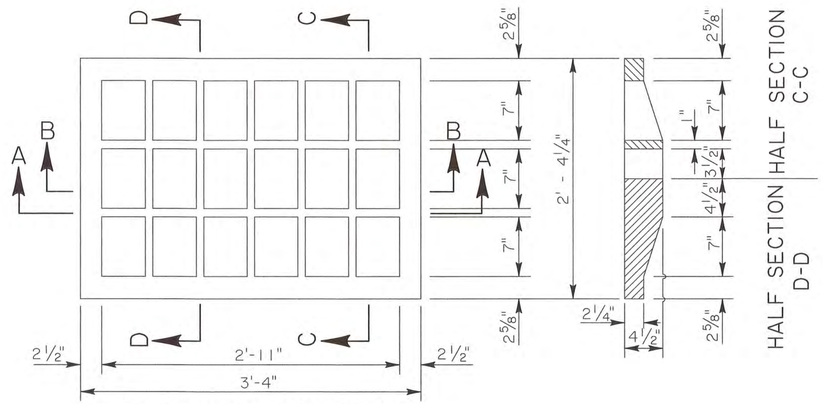


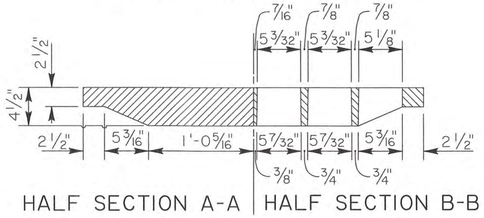


TYPE "A"

DETAILS OF CAST IRON GRATE & FRAME

Notes: 1. Weight of Cast Iron Grate = 334lbs
2. Weight of Cast Iron Frame = 90lbs





TYPE "B"

DETAILS OF CAST IRON GRATE

Notes: 1. Weight of Cast Iron Grate = 350lbs
2. Unless otherwise stated, TYPE "E" frame will be used with this Grate.

SHEET 339

SCALE	NOT TO SCALE
DWG. NO.	R.T. / LA-DOTD
DRAWN BY	F.A.T.
CHECKED BY	F.A.T.
APPROVED BY	
DATE	JUNE 10, 2021

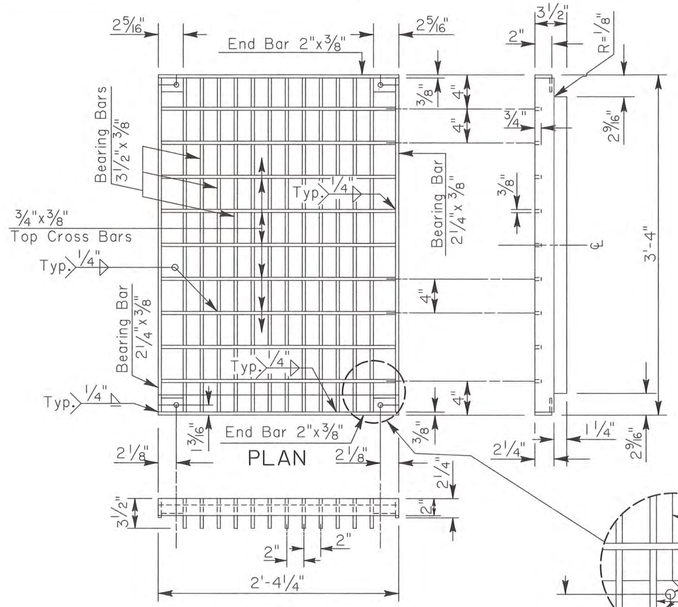
NO.	DATE	REVISION DESCRIPTION	BY

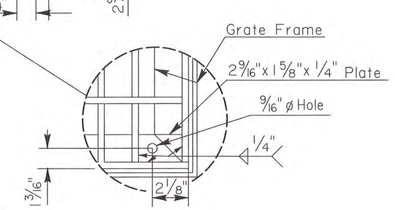
CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER
IN CIVIL ENGINEERING

JUNE 10, 2021
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."





TYPE "C"

Notes:
1. Grates to be galvanized after fabrication.
2. Unless otherwise stated, TYPE "E1" Frame is to be used with these grates. (See Sheet 2)
3. Supplier of Grate also is to furnish Pre-Fitted Grate Frame.
4. Galvanized reticuline grate able to withstand traffic loading to be used for this project.

DETAILS OF WELDED & SEALED DRAIN GRATE

Continuous Weld for full depth each Bearing Bar to End Bars and Cross Bars.

All Bearing Bars to be set flush on Grate Frame.

Weight of Drain Grate = 233 lbs.± 5%

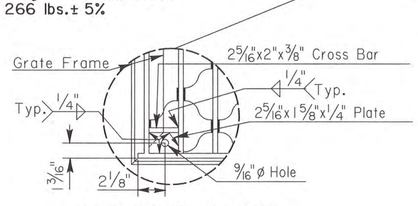
DETAILS OF RIVETED RETICULINE DRAIN GRATE ALTERNATE

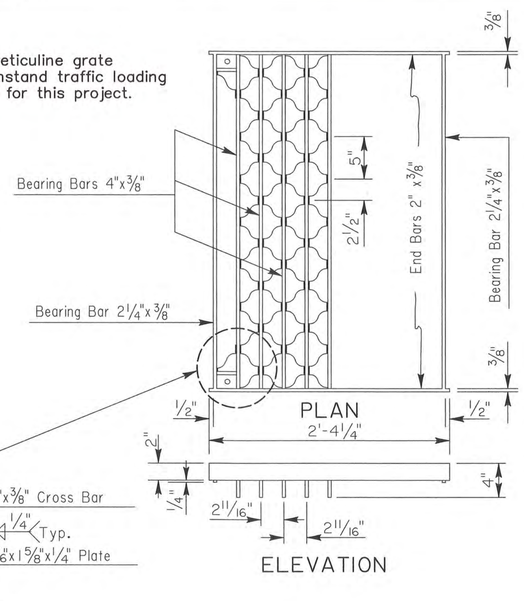
Continuous Weld for full depth each Bearing Bar to End Bars.

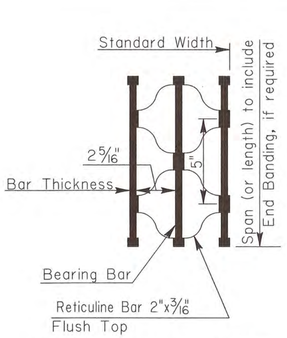
All Bearing Bars to be set flush on Grate Frame.

Center to Center of Bearing Bars equal 2 5/16" plus Bearing Bar Thickness.

Weight of Drain Grate = 266 lbs.± 5%







DETAILS OF GRATES, GRATE FRAMES & COVERS FOR CATCH BASINS AND MANHOLES

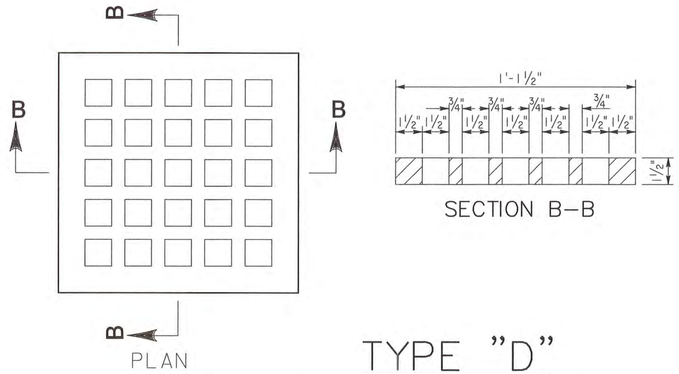
STANDARD DETAIL MC-01 SHEET 1 OF 6

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

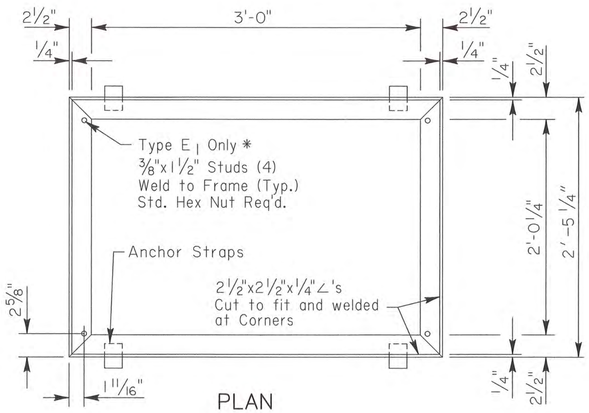
SHEET 1 OF 6

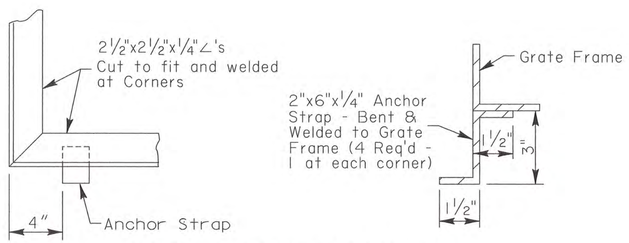


TYPE "D"

DETAILS OF CAST IRON GRATE

Notes: 1. Casting to be A.S.T.M. Class 30
2. Weight of Casting = 49lbs



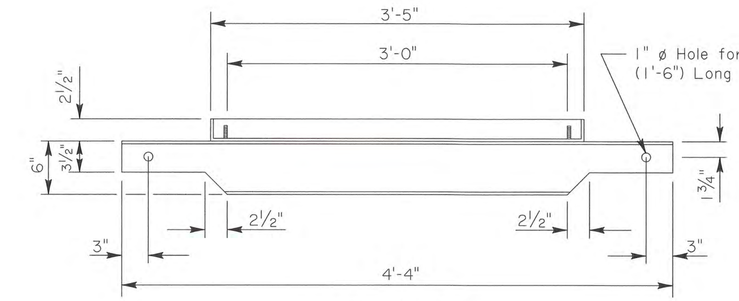


ANCHOR STRAP DETAILS

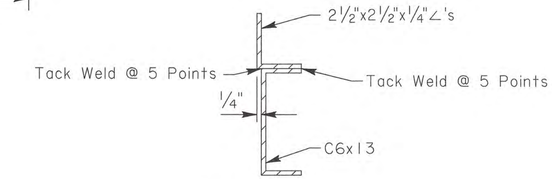
TYPE "E" or "E₁"

DETAILS OF GRATE FRAME

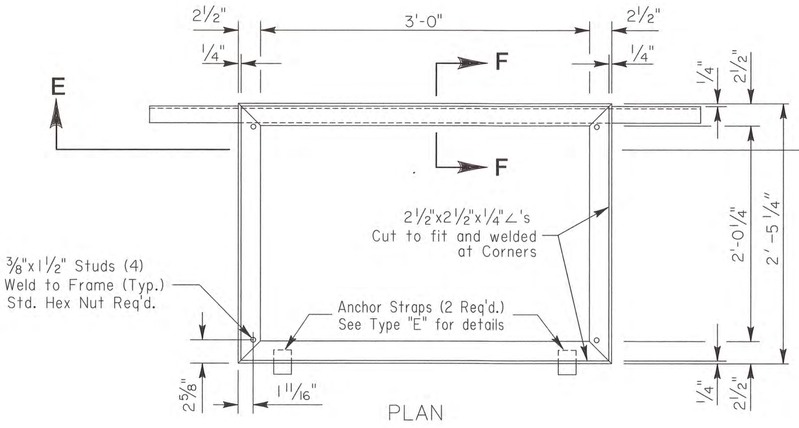
Notes: 1. Grate Frame to be galvanized after fabrication.
2. Weight of Grate Frame = 52lbs



SECTION E-E



SECTION F-F



TYPE "F"

DETAILS OF GRATE FRAME

Notes: 1. Grate Frame to be galvanized after fabrication.
2. Weight of Grate Frame =52 lbs.±5%

SHEET 340

SCALE	NOT TO SCALE
DWG. NO.	R.V. / LA-DOTD
DRAWN BY	F.A.T.
CHECKED BY	F.A.T.
APPROVED BY	
DATE	JUNE 10, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

JUNE 10, 2021

DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

DETAILS OF GRATES, GRATE FRAMES & COVERS FOR CATCH BASINS AND MANHOLES

STANDARD DETAIL MC-01

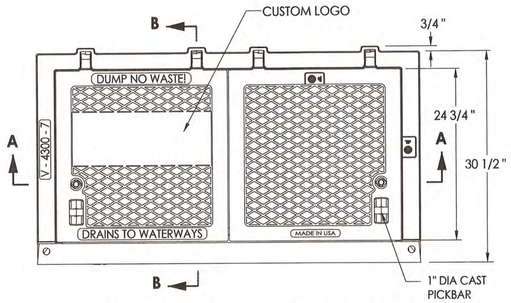
SHEET 2 OF 6

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

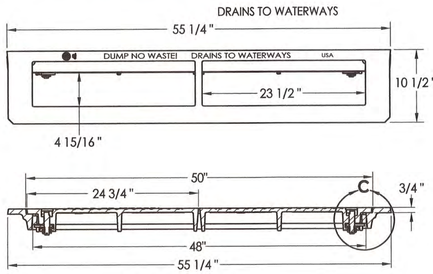
Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

SHEET 2 OF 6

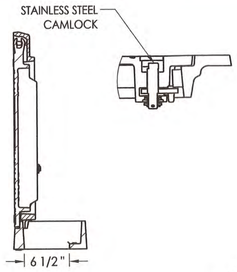


PLAN OF CAST IRON COVER

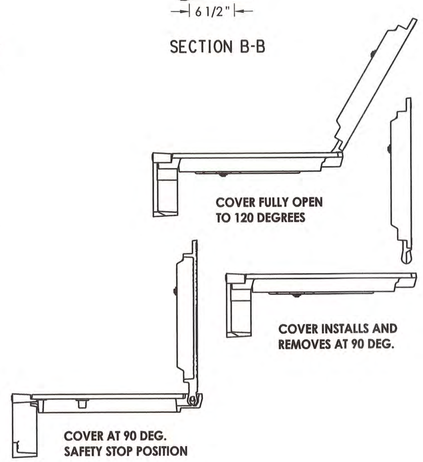


SECTION A-A

V4302 V4300-7 Set

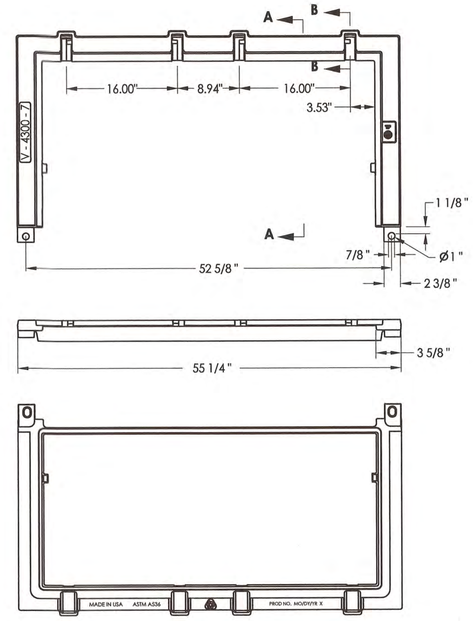


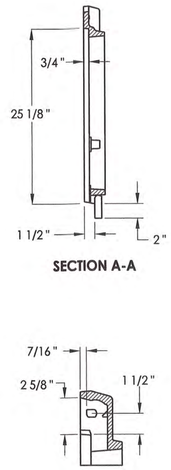
SECTION B-B



TYPE "H"

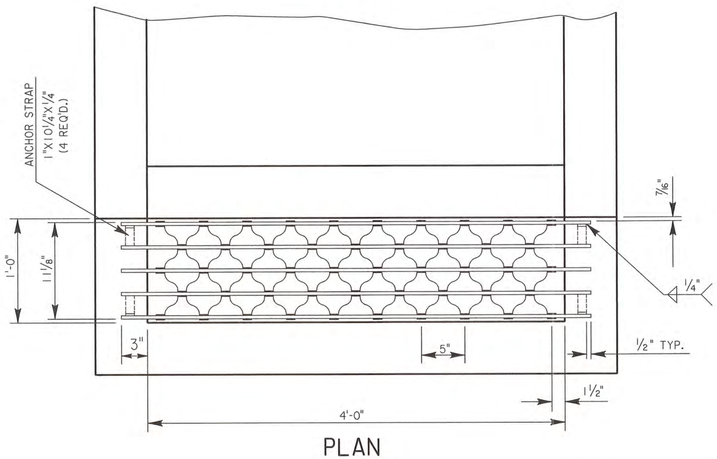
NOTES:
CASTINGS TO BE ASTM A536
WEIGHT OF CAST IRON COVER (2) = 125 LBS/EACH
WEIGHT OF CAST IRON FRAME = 134 LBS
WEIGHT OF UNIT = 384 LBS



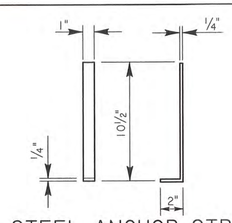


SECTION A-A

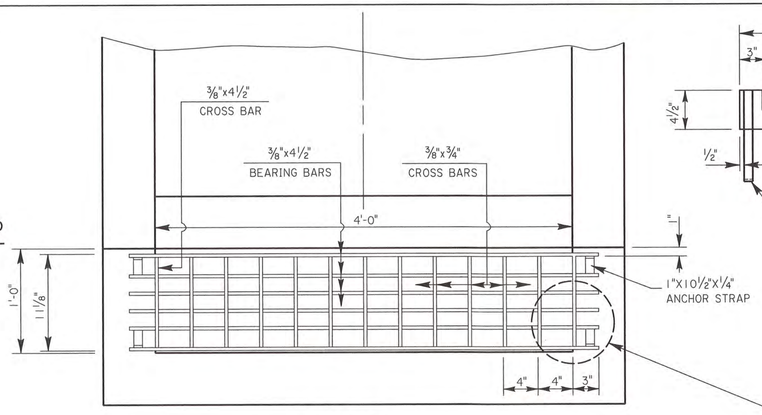
V4300-7 Frame



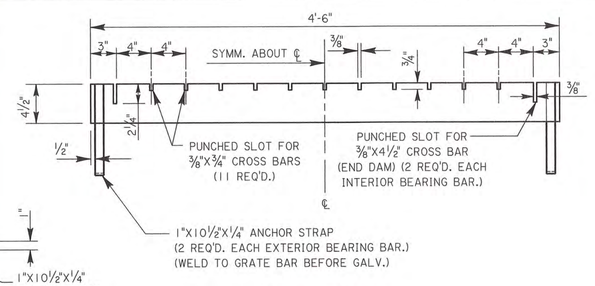
PLAN



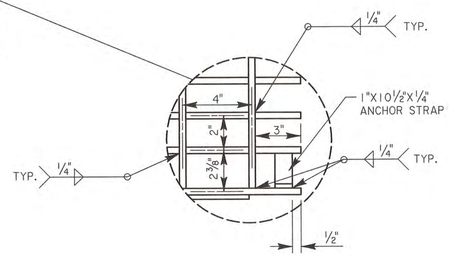
STEEL ANCHOR STRAP
(4 REQ'D. PER GRATE)

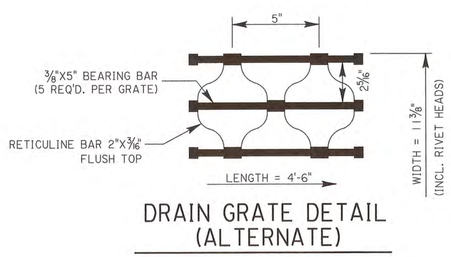


PLAN



ELEVATION





DRAIN GRATE DETAIL (ALTERNATE)

DETAILS OF RIVETED RETICULINE DRAIN GRATE (ALTERNATE)

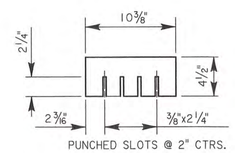
CENTER TO CENTER OF BEARING BARS EQUAL 2 11/16".
WEIGHT OF DRAIN GRATE = 176 LBS. ± 5%

DETAILS OF WELDED & SEALED DRAIN GRATE

WELD FULL DEPTH. SEAL AFTER STRENGTH WELD IS COMPLETED.
WEIGHT OF DRAIN GRATE = 185 LBS. ±5%

TYPE " I "

GRATE TO BE GALVANIZED AFTER FABRICATION.



WELDED AND SEALED STEEL GRATE

3/8"X4 1/2" END CROSS BAR.
(2 REQ'D. PER GRATE)

SHEET 341

SCALE	NOT TO SCALE
DWG. NO.	R.Y. / LA-DOTD
DRAWN BY	
CHECKED BY	F.J.T.
APPROVED BY	F.J.T.
DATE	JUNE 10, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER
IN CIVIL ENGINEERING

JUNE 10, 2021
DATE:

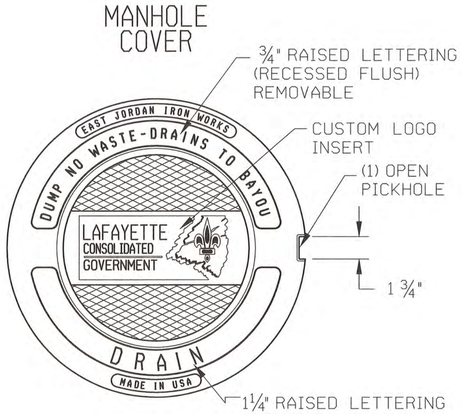
"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

DETAILS OF GRATES, GRATE FRAMES & COVERS FOR CATCH BASINS AND MANHOLES
STANDARD DETAIL MC-01
SHEET 3 OF 6

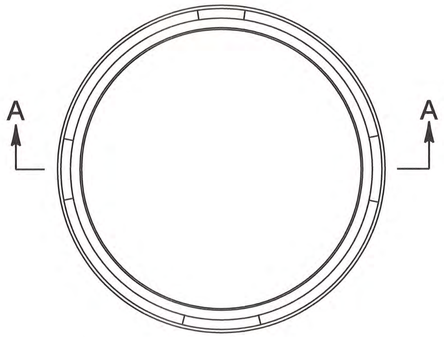
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT
DEPARTMENT OF PUBLIC WORKS

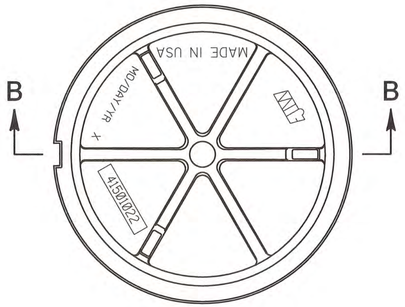
SHEET 3 OF 6



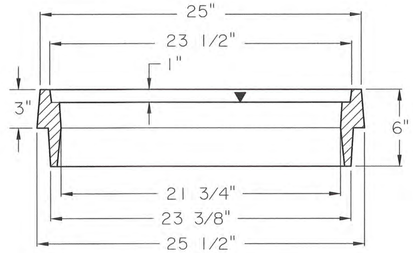
PLAN OF CAST IRON COVER



PLAN OF CAST IRON FRAME
RING TOP VIEW

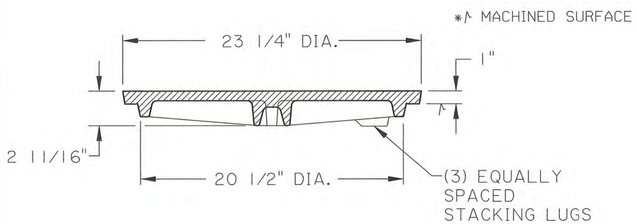


BOTTOM OF CAST IRON COVER

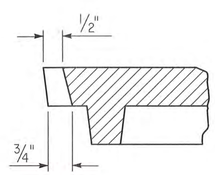


SECTION A-A

▼ MACHINED BEARING SURFACE



SECTION B-B



PICKSLOT DETAIL

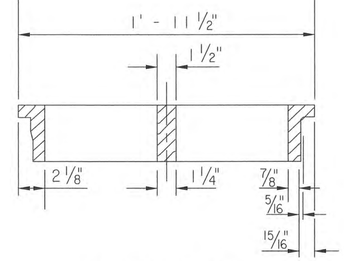
TYPE "K"

DETAILS OF CAST IRON COVER & FRAME

NOTES:
1. APPROX. WEIGHT OF CAST IRON COVER = 115 LBS.
2. APPROX. WEIGHT OF CAST IRON FRAME = 130 LBS.

PLAN

SECTION A-A



SECTION B-B

TYPE "K_1"

CAST IRON GRATE

NOTES:
1. APPROX. WEIGHT OF CAST IRON COVER = 250 LBS.
2. TO BE USED WITH TYPE "K" CAST IRON FRAME

NOTE: Details and Specs provided by Manufacturer

DRAWING NOT TO SCALE

SHEET 342

SCALE	NOT TO SCALE
DWG. NO.	
DRAWN BY	R.V. / LA-DOTD
CHECKED BY	F.J.T.
APPROVED BY	F.J.T.
DATE	JUNE 10, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
JUNE 10, 2021

DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

DETAILS OF GRATES, GRATE FRAMES & COVERS FOR CATCH BASINS AND MANHOLES

STANDARD DETAIL MC-01

SHEET 4 OF 6

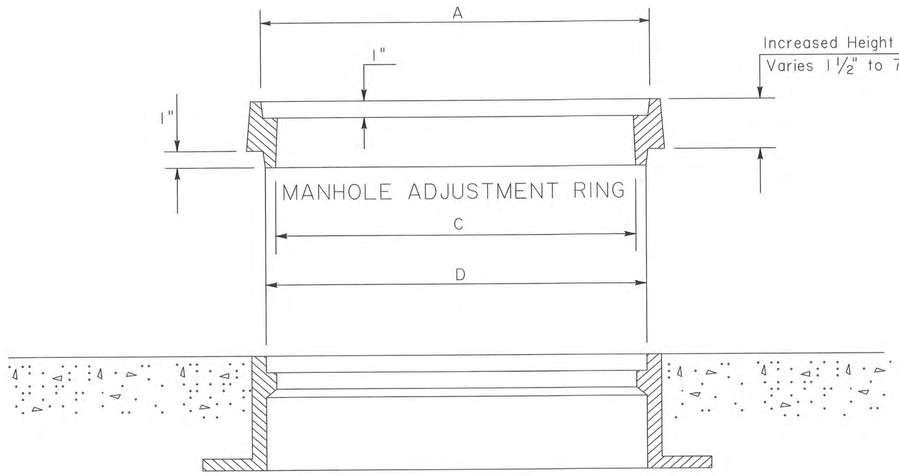
E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

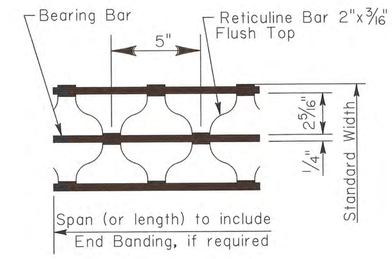
SHEET 4 OF 6

MANHOLE ADJUSTMENT RING



EXISTING GRATE SEAT

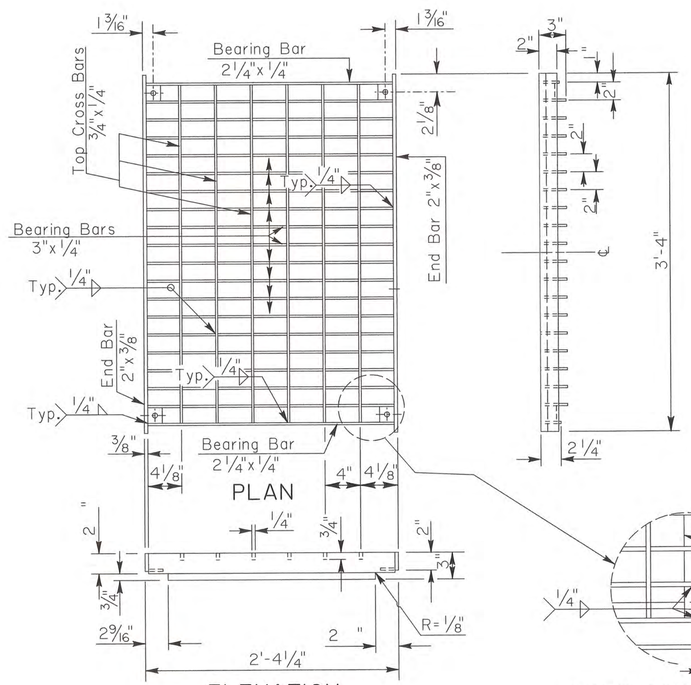
MANHOLE ADJUSTMENT RINGS		
A (IN.)	C (IN.)	D (IN.)
23 1/2	22 1/4	23 1/2
23 3/4	22 1/2	23 3/4

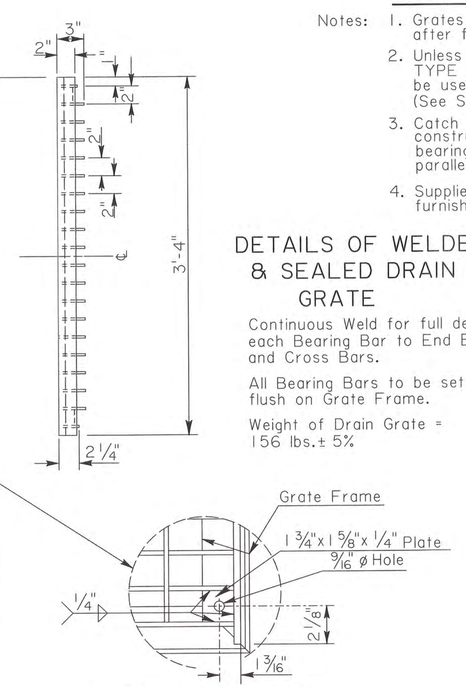


DRAIN GRATE DETAIL

TYPE "N"

Notes:
1. Grates to be galvanized after fabrication.
2. Unless otherwise stated, TYPE "E1" Frame is to be used with these grates. (See Sheet 2)
3. Catch basin to be constructed so that bearing bars are parallel to traffic.
4. Supplier of Grate also is to furnish Pre-Fitted Grate Frame.





DETAILS OF WELDED & SEALED DRAIN GRATE

Continuous Weld for full depth each Bearing Bar to End Bars and Cross Bars.

All Bearing Bars to be set flush on Grate Frame.

Weight of Drain Grate = 156 lbs.± 5%

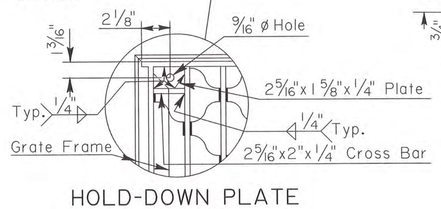
DETAILS OF RIVETED RETICULINE DRAIN GRATE ALTERNATE

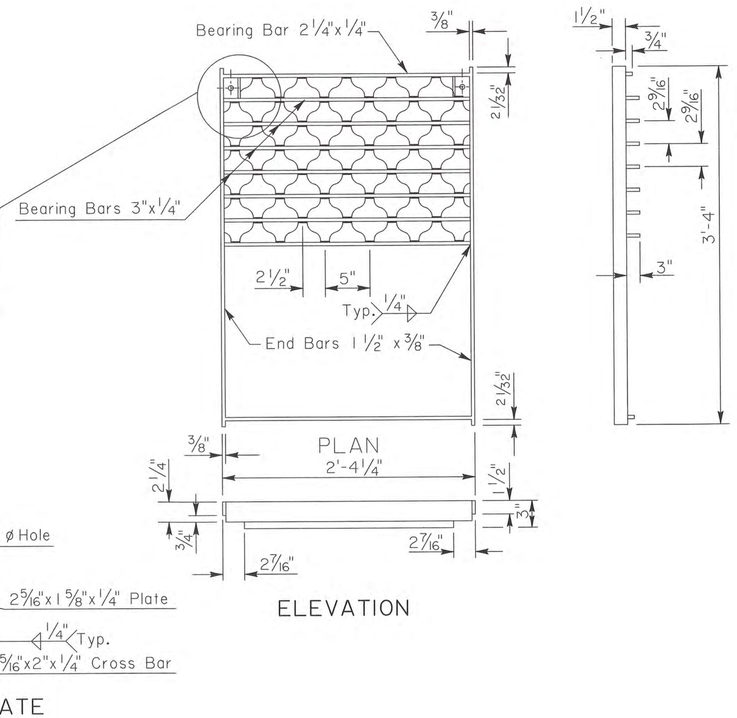
Continuous Weld for full depth each Bearing Bar to End Bars.

All Bearing Bars to be set flush on Grate Frame.

Center to Center of Bearing Bars equal 2 5/16" plus Bearing Bar Thickness.

Weight of Drain Grate = 160 lbs.± 5%





SHEET 343

SCALE	NOT TO SCALE
DWG. NO.	R.T. / LA-DOTD
DRAWN BY	F.J.T.
CHECKED BY	F.J.T.
APPROVED BY	JUNE 10, 2021
DATE	

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER
IN CIVIL ENGINEERING

JUNE 10, 2021

DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

DETAILS OF GRATES, GRATE FRAMES & COVERS FOR CATCH BASINS AND MANHOLES

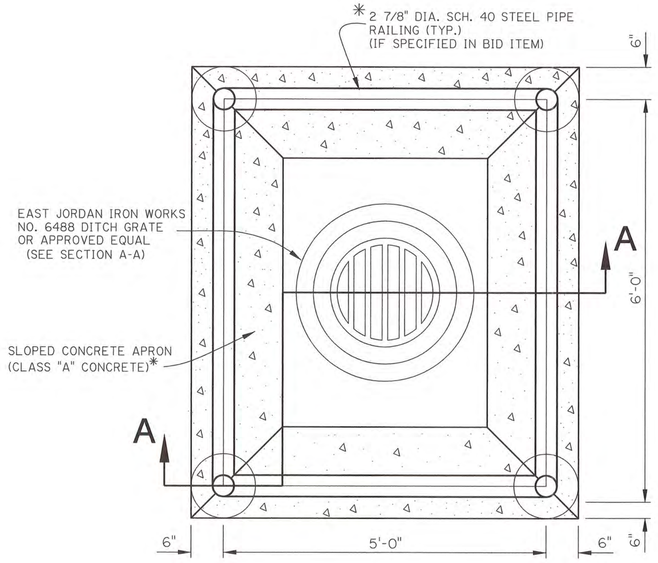
STANDARD DETAIL MC-01 SHEET 5 OF 6

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

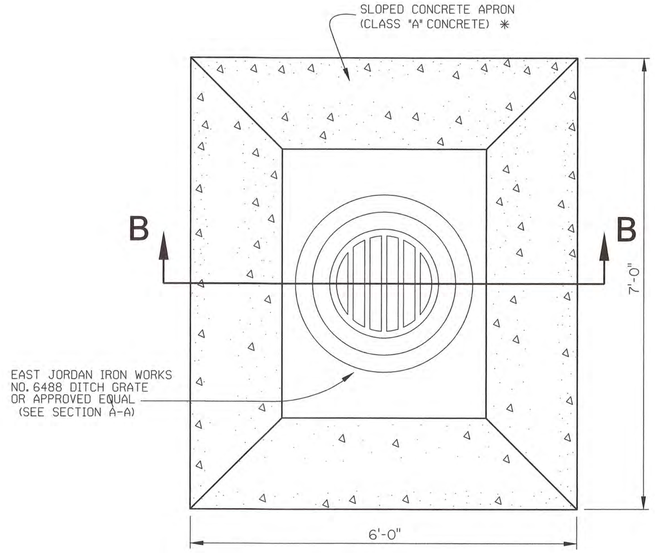
Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

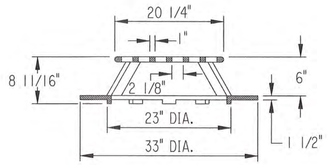
SHEET 5 OF 6



PLAN DETAIL
WITH PIPE RAILING



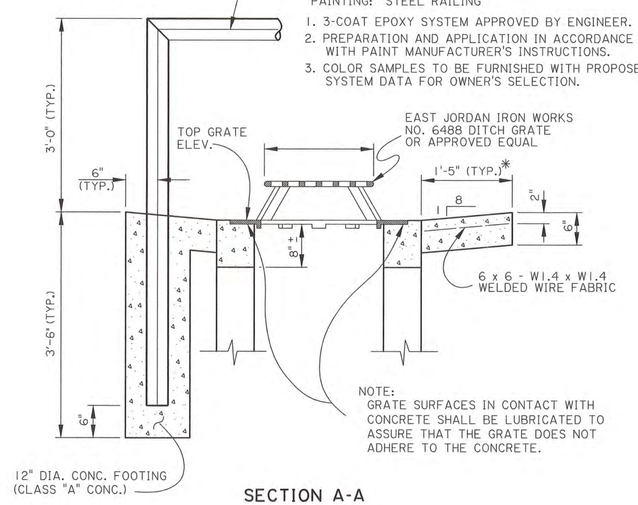
PLAN DETAIL
WITHOUT PIPE RAILING



EAST JORDAN IRON WORKS
NO. 6488 DITCH GRATE DETAIL

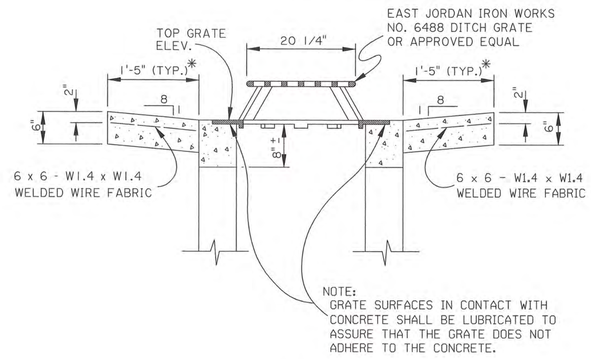
NOTE:
APPROVED EQUAL: NEENAH R-4341-A DITCH GRATE.

PAINTING:
1. 3-COAT EPOXY SYSTEM APPROVED BY ENGINEER.
2. PREPARATION AND APPLICATION IN ACCORDANCE WITH PAINT MANUFACTURER'S INSTRUCTIONS.
3. COLOR SAMPLES TO BE FURNISHED WITH PROPOSED SYSTEM DATA FOR OWNER'S SELECTION.



SECTION A-A
TYPE "R"

NOTE:
CONCRETE APRON, WELDED WIRE FABRIC, STEEL POST & RAILING, AND CONCRETE FOOTINGS, TO BE PAID UNDER "CATCH BASIN ITEM," IF SPECIFIED IN BID ITEM.



SECTION B-B
TYPE "P"

* SLOPED CONCRETE APRON IS NOT INCLUDED OR NECESSARY IF THE STEEL PIPE RAILING IS NOT CONSTRUCTED.

SHEET 344

SCALE	NOT TO SCALE
DWG. NO.	
DRAWN BY	R.Y. / LA-DOTD
CHECKED BY	F.A.T.
APPROVED BY:	F.A.T.
DATE	JUNE 10, 2021

NO.	DATE	REVISION DESCRIPTION	BY

CERTIFICATION

STATE OF LOUISIANA
FREDERICK J. TRAHAN
REG. No. 23471
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
JUNE 10, 2021
DATE:

"THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY THE UNDERSIGNED. I HAVE DETERMINED THAT THEY COMPLY WITH ALL APPLICABLE CODES, AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT."

DETAILS OF GRATES, GRATE FRAMES & COVERS FOR CATCH BASINS AND MANHOLES
STANDARD DETAIL MC-01
SHEET 6 OF 6

E. VEROT SCHOOL ROAD BRIDGE REPAIRS

Lafayette CONSOLIDATED GOVERNMENT

DEPARTMENT OF PUBLIC WORKS

SHEET 6 OF 6