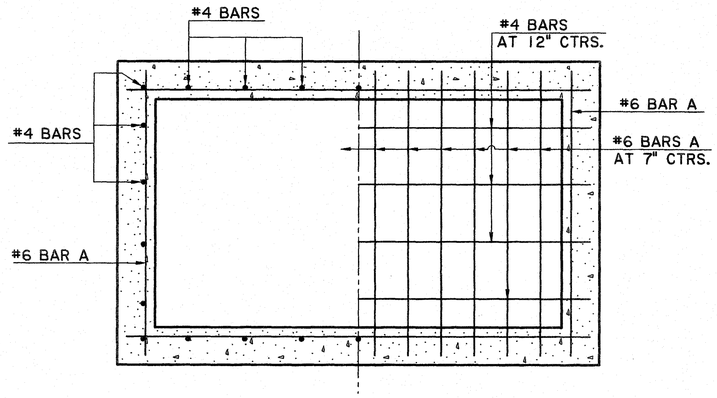
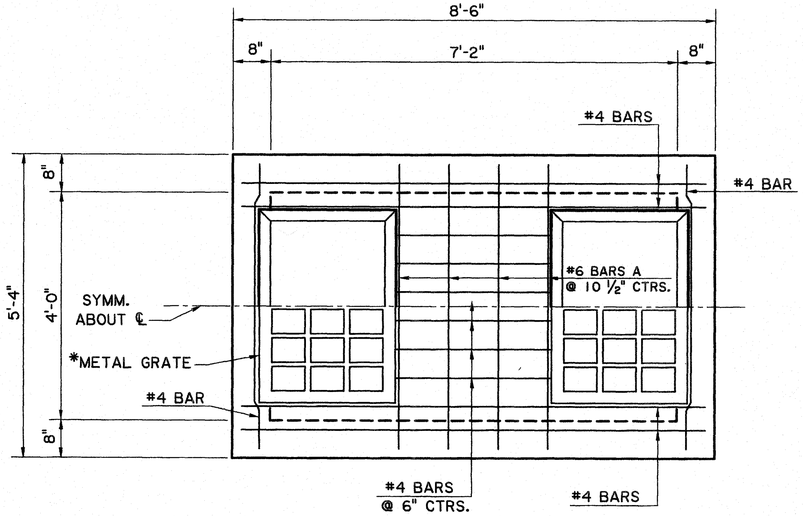


SECTIONAL PLAN

(SHOWING BOTTOM SLAB & WALLS)



PLAN

*GRATE TO BE TYPE "B" OR "C".
TYPE "B" SHOWN.
(SEE GENERAL NOTES.)

GENERAL NOTES:

1) THIS CATCH BASIN SHOULD ONLY BE USED OUTSIDE OF THE TRAVEL LANE.

2) CATCH BASIN IS DESIGNED ACCORDING TO 4TH ED. 2007 AASHTO LRFD PROCEDURES. SECTION 702 OF THE CURRENT DOTD STANDARD SPECIFICATIONS SHALL APPLY.

3) REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS ARE TO BAR CENTERS. MINIMUM COVER FOR REINFORCING BARS SHALL BE 2 IN. CLEAR UNLESS SHOWN OTHERWISE.

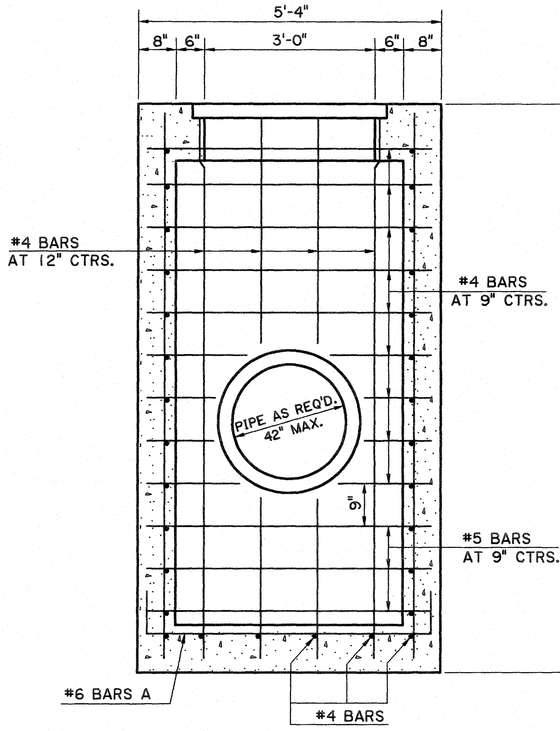
4) PIPE SIZE AND LOCATION VARIES. CUT REINFORCING STEEL TO CLEAR, AS REQUIRED.

5) TYPE "B" GRATE IS TO BE USED WHERE NO PEDESTRIAN TRAFFIC AND NO VEHICULAR TRAFFIC IS EXPECTED. (DITCHES, ETC.)

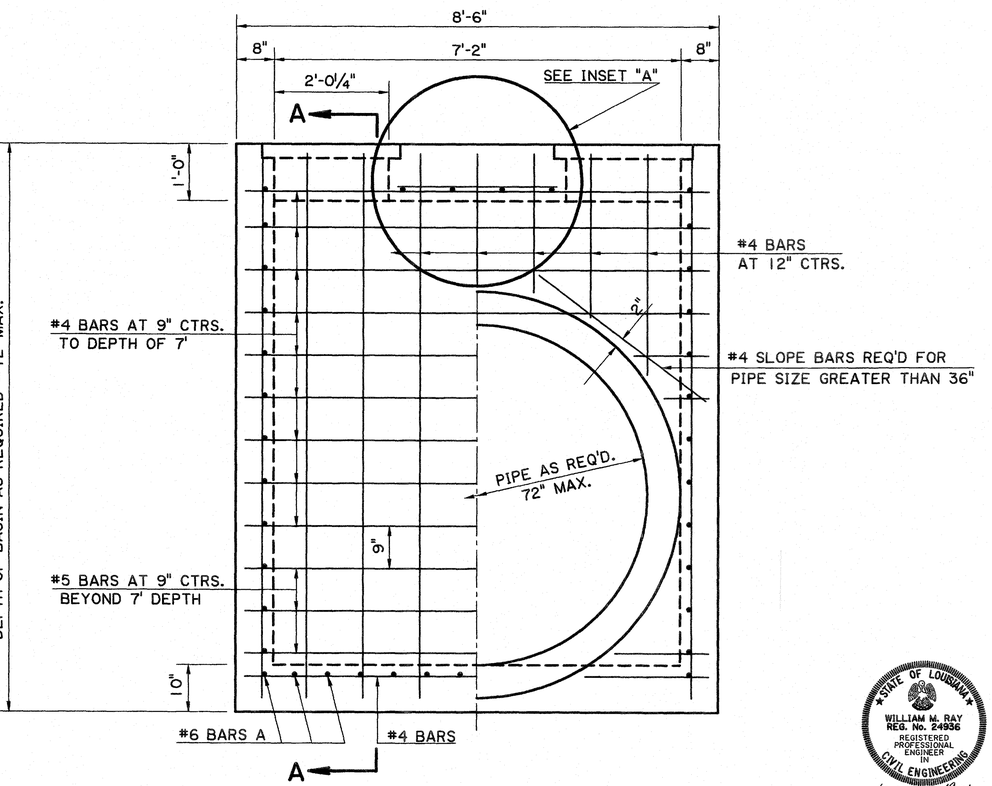
6) TYPE "C" GRATE IS TO BE USED WHERE PEDESTRIAN TRAFFIC AND/OR LIGHT VEHICULAR TRAFFIC IS EXPECTED. (DRIVEWAYS, SHOULDERS, ETC.)

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

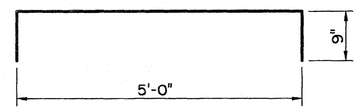
8) SEE PLANS FOR TYPE OF GRATE TO BE USED FOR EACH CATCH BASIN.



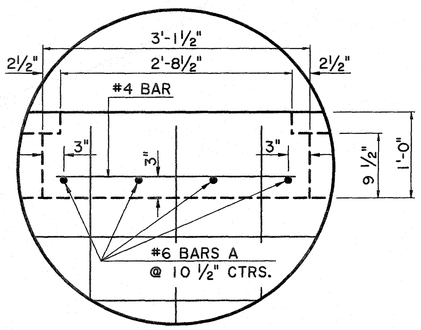
SECTION A-A



ELEVATION



#6 BARS A



INSET "A"

STATE OF LOUISIANA
WILLIAM M. RAY
REG. No. 24936
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/25/11

NO.	DATE	REVISION DESCRIPTION	BY
3	8-25-11	REDRAFTED, REV. TO AASHTO LRFD PROCEDURES.	WMR
2	1-17-06	NEW SHEET, GENERAL REVISIONS	JCM
1	3-23-98	SCANNED ORIGINAL & ADDED NAME	JCM

DESIGNED GMD
CHECKED
DETAILED KAJ
CHECKED GMD
DATE 5-15-84
SHEET 1 OF 1

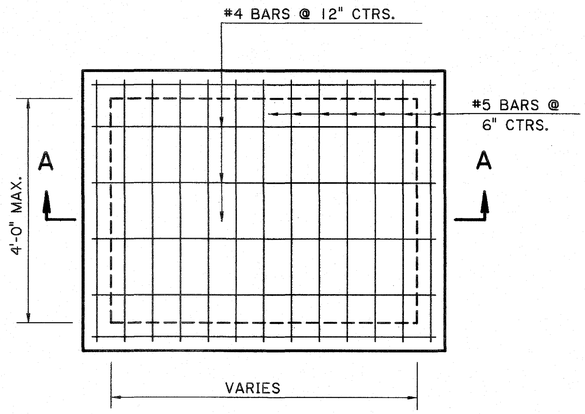
PARISH EAST BATON ROUGE
FEDERAL PROJECT
STATE PROJECT H.012232

SHEET NUMBER 201

DOUBLE OPEN TOP CATCH BASIN
Max. Size: 7'-2" X 4'-0"
Max. Depth: 12'
To be used with Std. Plan MC-01

SPECIAL DETAIL CB-2TOP02

HYDRAULICS SECTION

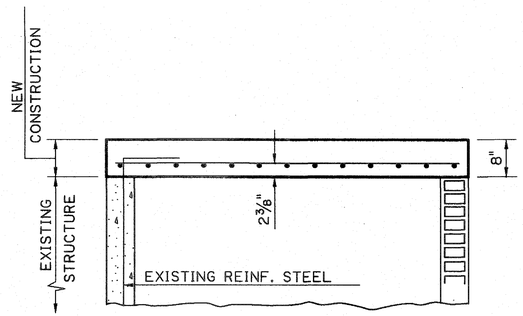


PLAN
SHOWING NEW CONSTRUCTION

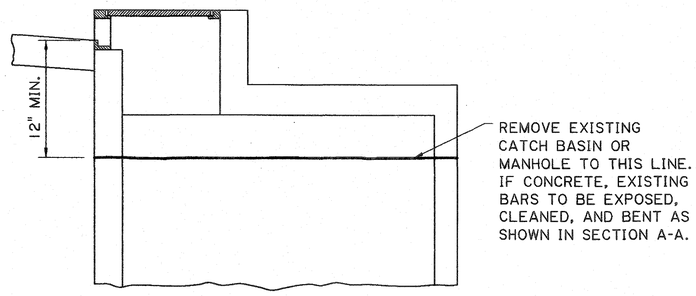
GENERAL NOTES:

DIMENSIONS RELATING TO REINFORCED STEEL ARE TO BARS CENTERS.

PROJECT SPECIFICATIONS FOR MANHOLES, JUNCTION BOXES AND CATCH BASINS SHALL APPLY.



SECTION A-A
SHOWING NEW CONSTRUCTION
(FOR CONCRETE OR BRICK WALL)



SECTION
EXISTING STRUCTURE

CAPPING EXISTING CATCH BASIN OR MANHOLE

FOR CAPPING AN EXISTING CATCH BASIN OR MANHOLE, THIS DETAIL SHOULD BE INCLUDED IN THE PLANS AND PAID FOR WITH APPROPRIATE PAY ITEM.

STATE OF LOUISIANA
MITRA HASHEMIEN
REG. No. 28546
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

5/20/2019

NO.	DATE	REVISION DESCRIPTION	BY
5	5-20-19	REVISED NOTES	TL
4	12-22-10	Revised 2 5/16" to 2 3/8" dimension in Section A A	WMR
3	9-24-09	REVISED PAY ITEM AND NOTES.	MH
2	7-10-08	REMOVED ITEM NUMBERS	MH
1	8-14-00	NEW SHEET ADDED	JCM

DESIGNED PAA | DETAILED KAJ | DATE 2-7-90
CHECKED PAA | CHECKED PAA | SHEET 1 OF 1

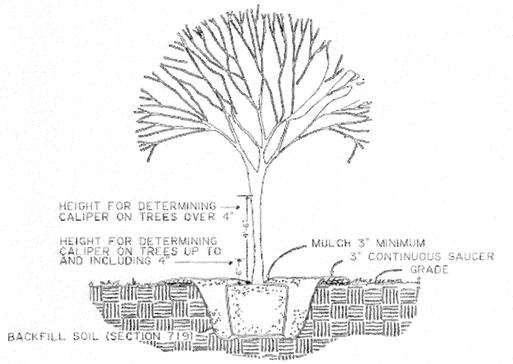
PARISH EAST BATON ROUGE | FEDERAL PROJECT | STATE PROJECT H.012232

SHEET NUMBER 202

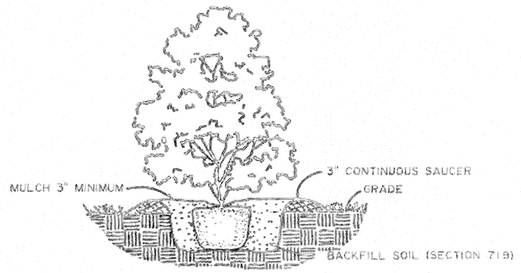
CAPPING EXISTING CATCH BASIN OR MANHOLE

SPECIAL DETAIL CB-CAP

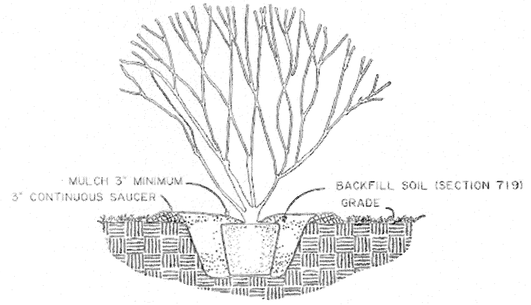
HYDRAULICS SECTION



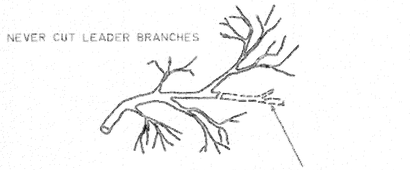
INDIVIDUAL TREE PLANTING DETAIL 1 / LD-1
NTS



INDIVIDUAL SHRUB PLANTING DETAIL 2 / LD-1
NTS



(Multi-trunk) TREE PLANTING DETAIL 3 / LD-1
NTS

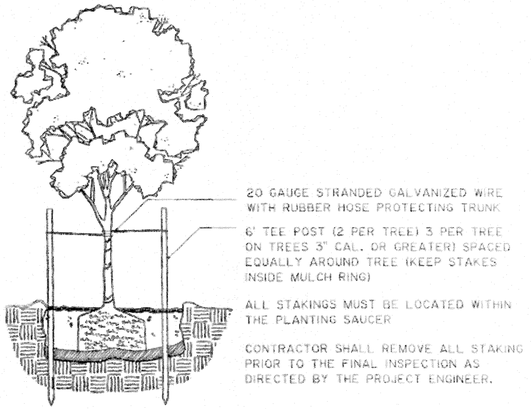


NOTES:
ROWS OR GROUPS OF SHRUBS OR TREES, SHALL HAVE A CONTINUOUS SAUCER ALONG THE PERIMETER OF THE PLANTING. THE COST OF THE MULCH TO COVER THE AREA SHALL BE FIGURED UNDER THE MULCH ITEM AND SHALL NOT BE INCLUDED IN THE COST OF THE PLANTS.

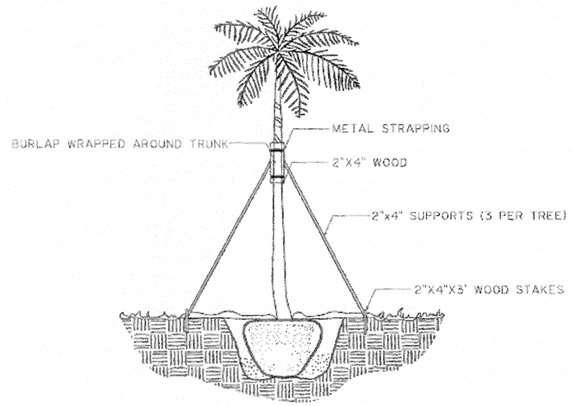
MULCH REQUIRED IN INDIVIDUAL TREE AND SHRUB PLANTINGS SHALL BE INCLUDED IN THE COST OF THE PLANT.

BACKFILL SOIL (SECTION 719) REQUIRED FOR INDIVIDUAL TREE AND SHRUB PLANTINGS SHALL BE INCLUDED IN THE COST OF THE PLANT. STAKING SHALL BE INCLUDED IN THE COST OF THE PLANT.

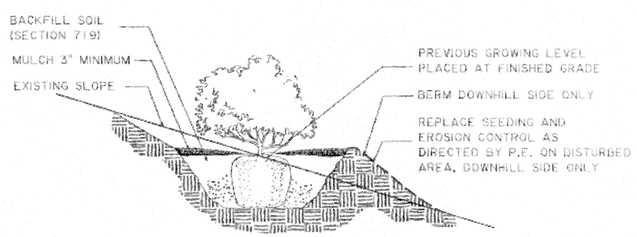
DETAILS SHOWN ON THIS SHEET ARE TYPICAL. MULTIPLE SITUATIONS CAN OCCUR THAT MAY NOT BE SHOWN ON THIS SHEET. PROPOSED VEGETATION SHALL BE LOCATED ON PLANS ACCORDING TO HORIZONTAL AND VERTICAL CLEARANCE DISTANCE FOUND IN THE (ENGLISH DESIGN STANDARDS). SIGHT DISTANCES AND VEGETATION MANAGEMENT TYPICAL SECTIONS ARE DESCRIBED IN THE "POLICY FOR ROADSIDE VEGETATION MANAGEMENT". THESE DOCUMENTS CAN BE ACCESSED AT WWW.DOTD.LA.GOV.



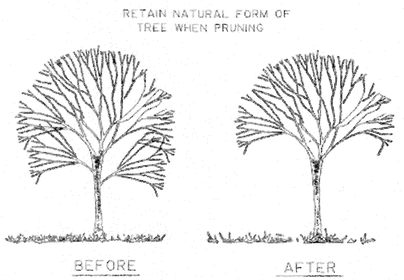
TREE STAKING DETAIL 4 / LD-1
NTS



PALM STAKING DETAIL 5 / LD-1
NTS



SLOPE PLANTING DETAIL 6 / LD-1
NTS



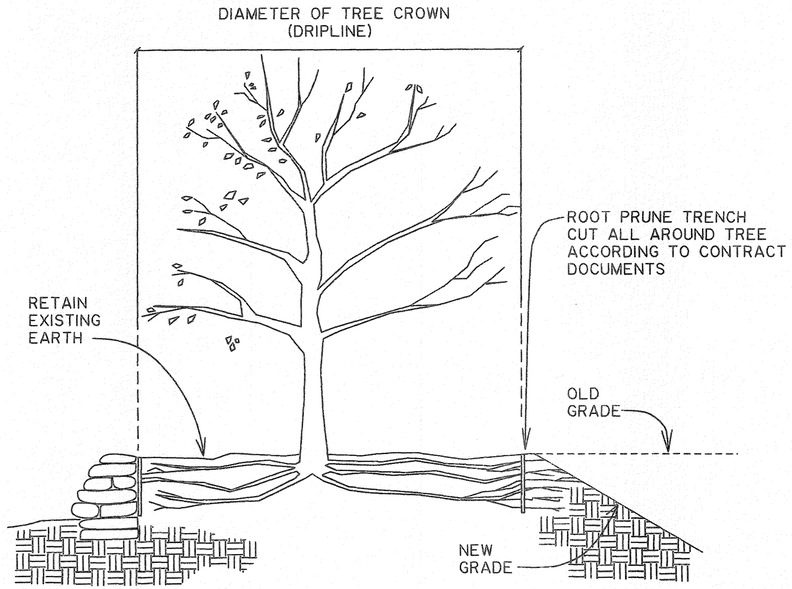
TREE PRUNING DETAIL 7 / LD-1
NTS

STATE OF LOUISIANA
HERBERT J. BRUCE
REG. NO. 27239
LICENSED LANDSCAPE ARCHITECT
3-23-2018

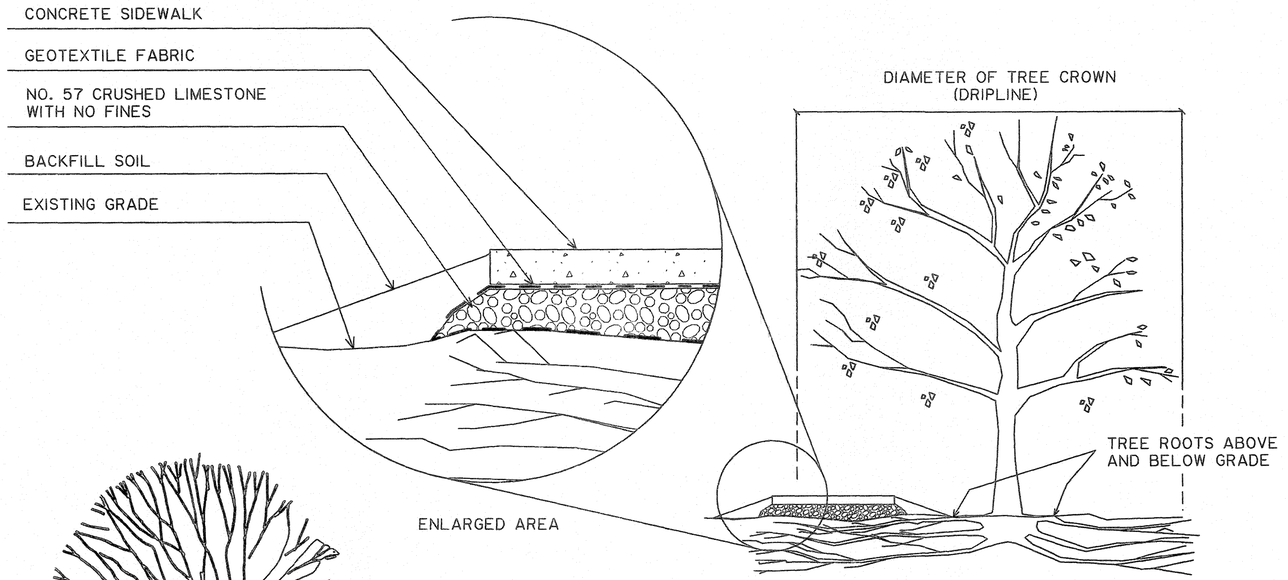
SHEET NUMBER 203
PARISH: EAST BATON ROUGE
CONTROL SECTION: 000-17, 258-33, 450-10
STATE PROJECT: H.012232
DESIGNED / CHECKED
DETAILED / CHECKED
SERIES NUMBER
NO. DATE BY REVISION OR CHANGE ORDER DESCRIPTION

TREE AND SHRUB PLANTING DETAILS
LD-01

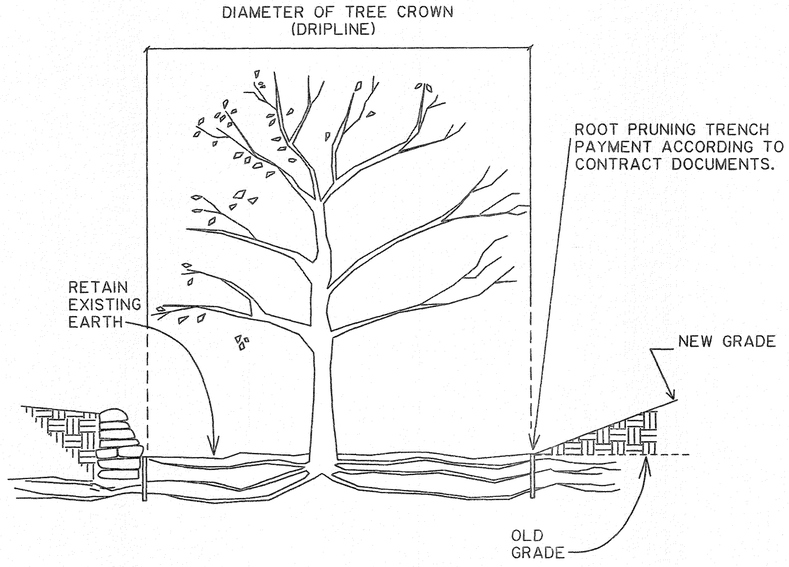
DOTD FACILITIES & LANDSCAPE MAINTENANCE



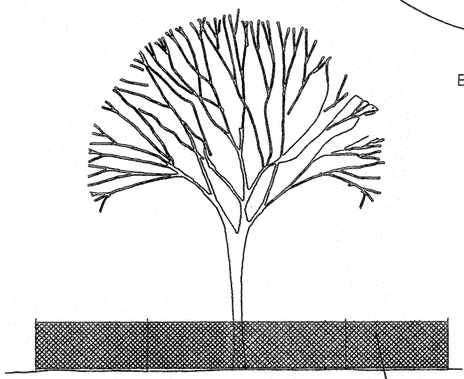
CUTTING GRADE AROUND EXISTING TREE

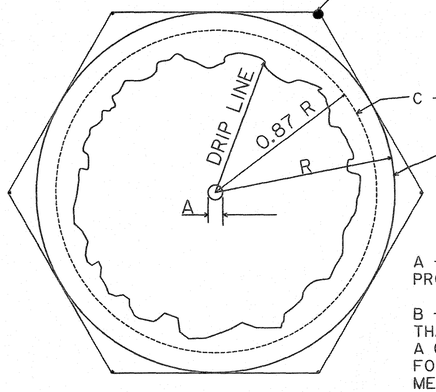


SIDEWALK WITHIN CRITICAL PROTECTION ZONE



FILLING GRADE AROUND EXISTING TREE





CONSTRUCTION / BARRIER FENCING TO BE MIN. 4' HT. AND ANCHORED WITH 'U' OR 'T' STYLE STEEL FENCE POSTS. THE BARRICADES SHALL BE PLACED TO ENCOMPASS THE CRITICAL PROTECTION ZONE (CPZ) OF THE TREE. (ALL LABOR, MATERIALS, AND INCIDENTALS SHALL BE INCLUDED IN THE COST OF CLEARING AND GRUBBING, SECTION 201)

C - MIN. BOUNDARY

B - BOUNDARY

A - DIAMETER IN INCHES 4'-6" ABOVE GRADE OF PROTECTED TREE

B - CRITICAL PROTECTION ZONE (CPZ) THAT AREA SURROUNDING A TREE WITHIN A CIRCLE INSCRIBED BY A RADIUS OF ONE FOOT FOR EACH INCH OF THE TREE'S DIAMETER MEASURED AT 4'-6" ABOVE GRADE

C - MIN. 75% OF B AREA

CONSTRUCTION FENCING FOR TREE PROTECTION

STATE OF LOUISIANA
HERBERT J. PRUDHOMME
REG. NO. P-229
LICENSED
LANDSCAPE ARCHITECT

4-30-2018

NOTE:

GREAT CARE MUST BE TAKEN NOT TO COMPACT, CUT, OR FILL THE EARTH WITHIN THE CROWN AREA OF EXISTING TREES. MOST TREE ROOTS ARE LOCATED IN THE TOP 6 TO 18 INCHES OF THE SOIL AND OFTEN SPREAD FARTHER THAN THE DRIP LINE OF THE TREE. COMPACTION CAN CAUSE SEVERE ROOT DAMAGE AND REDUCE THE MOVEMENT OF WATER AND AIR THROUGH THE SOIL. TO AVOID COMPACTING THE EARTH, DO NOT OPERATE EQUIPMENT OR STORE MATERIALS WITHIN THE DIAMETER OF THE TREE CROWN (DRIPLINE).

TREE PROTECTION DETAILS FOR CONSTRUCTION AROUND EXISTING TREES

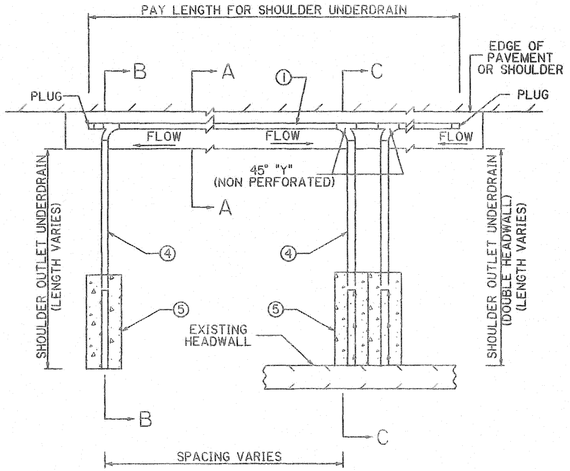
SHEET NUMBER	204
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232
DESIGNED / CHECKED	
DETAILED / CHECKED	HJP / RJD
SERIES NUMBER	2011

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

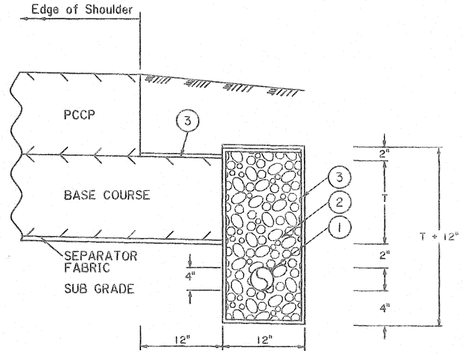
TREE PROTECTION DETAILS FOR CONSTRUCTION AROUND EXISTING TREES

LD - 02

DOTD FACILITIES & ASSET MANAGEMENT



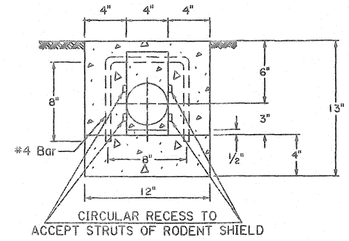
PLAN VIEW



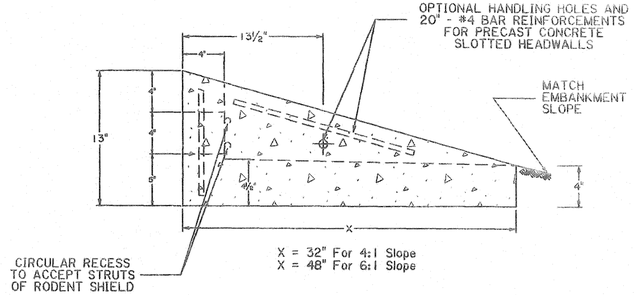
SECTION A-A

LEGEND

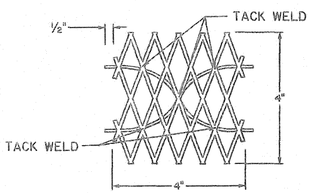
① REQ'D 4" PLASTIC UNDERDRAIN PIPE (PERFORATED)
② REQ'D AGGREGATE
③ REQ'D PLASTIC FILTER CLOTH
④ REQ'D 4" PLASTIC UNDERDRAIN PIPE (NON PERFORATED)
⑤ REQ'D CONCRETE SLOTTED HEADWALL



CONCRETE SLOTTED HEADWALL (FRONT VIEW)

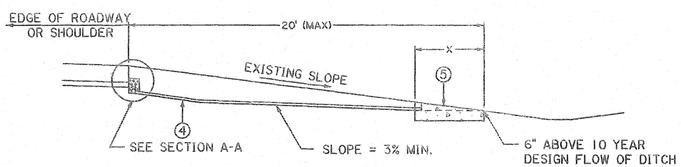


CONCRETE SLOTTED HEADWALL (SIDE VIEW)

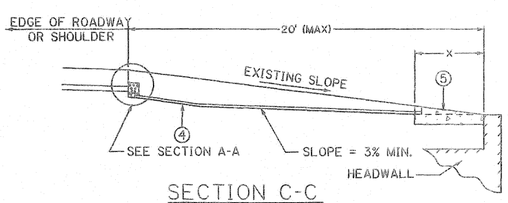


EXPANDED METAL SHIELD WITH TWO 6 GAGE STEEL WIRE STRUTS. STRUTS SHALL BE CUT FOR SNUG FIT INTO THE RECESSES IN THE CONCRETE SLOTTED HEADWALL. STRUTS SHALL NOT BE CAST IN TO THE CONCRETE

RODENT SHIELD DETAIL



SECTION B-B



SECTION C-C

(1) THE SHOULDER UNDERDRAIN SYSTEMS PAY ITEM SHALL INCLUDE ALL REQUIRED TRENCHING, PLASTIC UNDERDRAIN PIPE (PERFORATED), "Y" S, FITTINGS, PLUGS, PLASTIC FILTER CLOTH, AGGREGATE, AND BACKFILL.

(2) THE SHOULDER OUTLET UNDERDRAINS PAY ITEM (SINGLE OR DOUBLE HEADWALL) SHALL INCLUDE ALL REQUIRED TRENCHING, PLASTIC UNDERDRAIN PIPE (NON PERFORATED), CONCRETE SLOTTED HEADWALLS, RODENT SHIELD, EXCAVATION, AND BACKFILLING WITH SUITABLE MATERIAL REMOVED FROM TRENCHES.

(3) TRENCH DIMENSIONS SHALL BE AS REQUIRED TO PLACE UNDERDRAIN OR AS REQUIRED BY THE PROJECT ENGINEER.

(4) FOR MORE INFORMATION ON PAVEMENT STRUCTURE REFER TO THE TYPICAL SECTIONS.

(5) THE LAYOUT SHOWN ON THIS SHEET IS GENERAL. ACTUAL LAYOUTS SHALL BE AS DIRECTED BY THE PROJECT ENGINEER.

(6) THERE SHALL BE NO EXCAVATION LEFT OPEN AT THE END OF EACH DAY.

(7) THE CONCRETE SLOTTED HEADWALL CAN BE EITHER PRECAST OR CAST IN PLACE. THE UPPERMOST POINT OF THE HEADWALL SHALL BE FLUSH WITH THE ROAD WAY SLOPE. THE EARTHEN SIDE SLOPES ADJACENT TO THE HEADWALL SHALL THEN BE SHAPED TO CONFORM TO THE SIDES AND TOE OF THE HEAD WALL. IF A PRECAST HEADWALL IS USED, THE UNDERDRAIN PIPE WILL BE GROUTED AND SEALED TO THE HEADWALL WITH CEMENT MORTAR.

(8) FOR PLASTIC UNDERDRAIN PIPE SEE SECTION 1006.08 AND QPL 73.

(9) ALL SHOULDER UNDERDRAIN OUTLET LOCATIONS SHALL BE MARKED BY PLACING A NONREFLECTORIZED RAISED PAVEMENT MARKER ON THE SHOULDER. COST TO BE INCLUDED IN THE SHOULDER OUTLET UNDERDRAINS PAY ITEM.

STATE OF LOUISIANA
BENJAMIN C. THOMAS
License No. 29935
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

4-27-15

SHEET NUMBER 205

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED / CHECKED / DETAILED / CHECKED / SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

SHOULDER UNDERDRAINS
NEW CONSTRUCTION
LA 3064 TO LA 1248 PHASE II

DOTD ROAD DESIGN

1) **CONDUCTORS/CABLES**

A) ALL CONDUCTORS AND CABLES FROM SIGNAL HEADS AND DETECTORS SHALL BE RUN IN UNDERGROUND CONDUIT, RISERS, ON POLES, OR ON MESSENGER CABLE AND SHALL BE RUN IN THE MOST DIRECT ROUTE TO THE CONTROLLER CABINET IN ACCORDANCE WITH THE PLANS.

B) A SPARE LENGTH OF CABLE SHALL BE INSTALLED AS SHOWN ON LADOTD STANDARD DETAIL SHEETS LABELED "SPAN WIRE INSTALLATION DETAILS" AND "JUNCTION BOX AND PULL BOX". SIX FEET OF SPARE SIGNAL CABLE, LOOP LEAD-IN, COMMUNICATION, AND SERVICE CABLE, SHALL BE INSTALLED IN EACH BASE MOUNTED CABINET IN ACCORDANCE WITH LADOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

2) **CONDUIT**

A) ALL UNDERGROUND CONDUIT INCLUDING ELBOW SHALL BE HDPE OR PVC SCHEDULE 80.

B) USE AN E-LOC COUPLING WHEN CONNECTING HDPE TO PVC.

C) ALL ABOVE GROUND CONDUIT AND FITTINGS SHALL BE RIGID STEEL AND HOT DIP GALVANIZED ACCORDING TO ANSI C80.1.

D) SIGNAL CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 24".

E) FIBER OPTIC CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 36".

F) ALL CONDUIT SHALL BE INSTALLED AT THE DEPTHS LISTED ABOVE FOR DITCH INVERT.

G) ALL CONDUIT CONNECTIONS SHALL BE SEALED WITH A WATERPROOF SEALING COMPOUND.

H) ALL CABLE AND WIRE ENTRANCES SHALL BE DUCT SEALED IN CABINET AFTER INSTALLATION.

I) NO MORE THAN 270 DEGREES OF BENDS IN CONDUIT WITHOUT A JUNCTION BOX.

3) **FOUNDATIONS**

A) USE CLASS S CONCRETE WITH AN 8" SLUMP IN ACCORDANCE WITH SECTION 901.

4) **FOUNDATION DISPOSAL**

A) THE CONTRACTOR SHALL DISPOSE OF ALL EXISTING CONTROLLER AND POLE BASE FOUNDATIONS. POLE BASE FOUNDATIONS SHALL BE SHAVED 24" BELOW NATURAL GROUND AND BACK FILLED. REMOVAL OF FOUNDATIONS SHALL BE IN ACCORDANCE WITH SECTION 202 OF THE LADOTD STANDARD SPECIFICATIONS.

5) **INTERSECTION SPECIFIC NOTES**

A) SEE INDIVIDUAL INTERSECTION PLAN SHEETS.

6) **JUNCTION BOXES**

A) THE MAXIMUM DISTANCE BETWEEN SIGNAL JUNCTION BOXES SHALL BE 500 FEET.

B) THE MAXIMUM DISTANCE BETWEEN JUNCTION BOXES USED FOR COMMUNICATIONS CABLE SHALL BE 1000 FEET.

7) **PROPERTY DAMAGE**

A) ANY PROPERTY DAMAGED DURING CONSTRUCTION OPERATIONS SHALL BE THE CONTRACTORS RESPONSIBILITY.

8) **POWER SERVICE**

A) THE POWER SOURCE SHOWN ON THE DRAWINGS IS APPROXIMATE AND IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATION OF THE POWER SOURCE.

B) THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH AND PAY THE POWER COMPANY FOR TEMPORARY AND PERMANENT ELECTRICAL SERVICE. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION AND POINTS OF ATTACHMENT BEFORE INSTALLATION IN ACCORDANCE WITH LADOTD STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

C) FROM THE POWER DISCONNECT, A 1" CONDUIT WITH THREE #6 AWG-IC STRANDED COPPER, SHALL BE TURNED UP THE POWER COMPANY SERVICE POLE TO A HEIGHT DESIGNATED BY THE POWER COMPANY. THE CONTRACTOR SHALL TERMINATE THE CONDUIT WITH A THREADED SERVICE ENTRANCE FITTING (WEATHER HEAD) AND WIRES SHALL BE A MINIMUM OF 2 FEET BEYOND THE WEATHER HEAD TO ALLOW CONNECTION TO POWER COMPANY WIRING WITH A DRIP LOOP.

D) THE CONTRACTOR SHALL COORDINATE POWER SERVICE CONNECTION WITH UTILITY COMPANY.

9) **POWER DISCONNECT**

A) FROM THE POWER DISCONNECT TO THE CONTROLLER, A 2" CONDUIT WITH THREE #6 AWG-IC SHALL BE INSTALLED. MEASUREMENT FOR SIGNAL SERVICE PAYMENT WILL BE IN ACCORDANCE WITH SIGNAL SERVICE (PEDESTAL MOUNTED) FOR POWER DISCONNECT.

B) A POWER DISCONNECT MUST BE LOCATED WITHIN THE SAME QUADRANT AS THE SIGNAL CONTROLLER CABINET AND MUST BE ABLE TO BE ACCESSED SAFELY WITHOUT OBSTICLES BETWEEN THE DISCONNECT AND THE CONTROLLER. IF THIS CONDITION CANNOT BE MET, A SEPARATE SIGNAL SERVICE (PEDESTAL MOUNTED) POWER DISCONNECT SHALL BE PROVIDED AT THE CONTROLLER LOCATION FOR EMERGENCY POWER SHUT-OFF.

10) **RIGHT-OF-WAY**

A) THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE STATE RIGHT-OF-WAY LIMITS AND MAINTAINING ALL CONSTRUCTION WITHIN THESE LIMITS.

11) **SIGNAL CONTROLLER CABINET**

A) THE CONTROLLER CABINET SHALL BE ORIENTED SUCH THAT SIGNAL PERSONNEL CAN FACE THE INTERSECTION WHEN OPENING THE CABINET. THE BACK OF THE CABINET SHALL PARALLEL THE MAIN ROADWAY.

B) A 3' X 5' X 4" CONCRETE PAD SHALL BE POURED IN FRONT OF CONTROLLER CABINET FOR A TYPICAL BASE MOUNTED CABINET FOUNDATION AND NEXT TO THE CONTROLLER CABINET POLE FOR POLE MOUNTED CABINETS, PAD SHALL BE INSTALLED ABOVE GROUND LEVEL TO PROVIDE AN ALL WEATHER STANDING AREA FOR SERVICE PERSONNEL.

12) **SIGNAL DETECTORS – LOOPS**

A) THE PROJECT ENGINEER SHALL APPROVE THE DEPTH AND CLEANLINESS OF EACH DETECTOR LOOP SLOT BEFORE THE CONTRACTOR PLACES WIRE IN THE SLOT.

B) SHIELDED CABLE SHALL BE SPLICED TO LOOP WIRE AT A PULL BOX NEAREST THE LOOP (OR LOCATION SPECIFICALLY DESIGNATED ON THE PLANS) AND SHALL BE CONTINUOUS TO THE TERMINATION PANEL IN THE CONTROLLER CABINET. NO SPLICE SHALL BE PERMITTED BETWEEN THE LOOP LEAD-IN AND THE TERMINATION PANEL.

C) LOOPS OPERATING ON THE SAME PHASE SHALL BE WIRED IN SERIES. A SINGLE LOOP LEAD-IN WIRE SHALL BE RAN FROM THE JUNCTION BOX TO THE CONTROLLER.

13) **SIGNAL DETECTORS – VIDEO**

A) ADJUST CAMERA IMAGE 10 FEET TO 15 FEET BEFORE STOP BAR TO ALLOW COUNT DETECTION TO BE PROGRAMMED AT A LATER DATE.

14) **SIGNAL EQUIPMENT LOCATION**

A) LOCATIONS OF POLES, SIGNALS, LOOP DETECTORS, SYSTEM SENSORS, CONTROLLERS AND JUNCTION BOXES ARE APPROXIMATE. EXACT LOCATIONS SHALL BE APPROVED BY THE PROJECT ENGINEER.

B) THE CONTRACTOR SHALL STAKE THE RIGHT-OF-WAY, EDGE OF THE PAVEMENT/CURB, LANE LINES, UTILITY MARKUP, AND ELEVATION & LOCATION OF EACH POLE FOUNDATION FOR THE PROJECT ENGINEER'S APPROVAL DURING THE ASSEMBLY PERIOD. ANY EXCEPTION HAS TO BE APPROVED BY THE PROJECT ENGINEER. AFTER APPROVAL THE CONTRACTOR MAY PROCEED WITH THE INSTALLATION OF THE POLE FOUNDATION.

C) ONCE THE POLE FOUNDATION IS INSTALLED, MAST ARM LENGTHS SPECIFIED ON PLANS ARE TO BE VERIFIED TO ORDER THE MATERIALS. IF A TIME EXTENSION IS NEEDED, IT SHALL BE AT THE DISCRETION OF THE PROJECT ENGINEER TO GRANT THE EXTENSION.

15) **SIGNAL EQUIPMENT REMOVAL**

A) ALL EXISTING TRAFFIC SIGNAL EQUIPMENT, CONTROL DEVICES, AND COMMUNICATIONS AT EACH INTERSECTION SHALL BE REMOVED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER.

B) THE CONTRACTOR SHALL DELIVER ALL SALVAGEABLE EQUIPMENT TO THE OWNER.

C) THE REMOVAL AND DELIVERY OF EQUIPMENT TO THE OWNER SHALL BE PAID FOR UNDER ITEM FOR "REMOVAL OF TRAFFIC SIGNAL EQUIPMENT".

16) **SIGNAL POLE HEIGHT**

A) THE CONTRACTOR SHALL PROVIDE HEIGHTS THAT ARE SUFFICIENT TO ENSURE THAT THE BOTTOM OF THE LOWEST SIGNAL ON AN ASSEMBLY IS NOT LESS THAN 17' ABOVE THE PAVEMENT. FOR MAXIMUM HEIGHT REFER TO THE CURRENT ADOPTED EDITION OF THE MUTCD.

B) SIGNAL HEAD ALIGNMENT AND CLEARANCE SHALL BE IN ACCORDANCE WITH THE LADOTD TRAFFIC SIGNAL DESIGN MANUAL.

17) **SIGNAL POLE FINISH REPAIR**

A) IF HOT-DIPPED GALVANIZED STEEL POLES ARE DAMAGED, THE DAMAGED GALVANIZED AREA SHALL BE REPAIRED BY THE CONTRACTOR IN ACCORDANCE WITH SUBSECTION 811.12 OF THE LADOTD STANDARD SPECIFICATIONS.

18) **SIGNAL POLE ELECTRICAL CLEARANCES**

A) THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING PROPER CLEARANCES FROM EXISTING UTILITY LINES AND LUMINARIES IN ACCORDANCE WITH THE NATIONAL ELECTRICAL SAFETY CODE.

19) **TRAFFIC CONTROL – EXISTING SIGNALS**

A) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTINUAL OPERATION OF THE NEW, EXISTING, OR TEMPORARY TRAFFIC SIGNALS DURING THE PERIOD OF CONSTRUCTION. THIS INCLUDES RELOCATING POLES, DETECTORS, SIGNAL HEADS, AND OTHER ITEMS. PROVIDE TEMPORARY POLES OR OTHER MATERIALS AS NECESSARY TO ENSURE THE CONTINUAL OPERATION OF THE SIGNAL AND COMMUNICATION EQUIPMENT AT ALL TIMES. WHERE VEHICLE DETECTORS ARE PRESENT, VEHICLE DETECTION MUST BE MAINTAINED.

B) THE CHANGEOVER SHALL BE SCHEDULED DURING NON PEAK HOUR TRAFFIC CONDITIONS UNLESS DIRECTED OTHERWISE BY THE PROJECT ENGINEER, AS ADVISED BY THE OFFICE OF THE DISTRICT TRAFFIC OPERATIONS ENGINEER.

20) **UTILITIES**

A) UNDERGROUND UTILITIES MAY EXIST IN THE CONSTRUCTION AREAS. THE LOCATION AND TYPE IF SHOWN IS NOT GUARANTEED TO BE ACCURATE NOR ALL INCLUSIVE. THE INFORMATION IS SHOWN SOLELY FOR USE IN ESTABLISHING DESIGN CONTROLS FOR THE PROJECT. THE ENGINEER DOES NOT GUARANTEE ACCURACY OR GUARANTEE THAT ALL UTILITIES ARE SHOWN.

B) BEFORE ANY EXCAVATIONS, THE CONTRACTOR SHALL CONTACT "LOUISIANA ONE CALL", THE APPROPRIATE UTILITY COMPANY, AND LADOTD TRAFFIC OPERATIONS SECTION AT (225)935-0100 FOR LOCATION OF THE UNDERGROUND SERVICE A MINIMUM OF 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. THE "LOUISIANA ONE CALL" NUMBER IS 1-800-272-3020.

C) THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION, DEPTH, AND SIZE OF ALL UNDERGROUND UTILITIES AND STRUCTURES AND SHALL BE LIABLE FOR ANY DAMAGES CAUSED BY FAILURE TO COMPLY WITH THESE INSTRUCTIONS. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR MAKING INDEPENDENT INVESTIGATIONS, INCLUDING ANY SUBSURFACE INVESTIGATIONS AS NECESSARY.

21) **INSPECTION**

A) CONTRACTOR SHALL BE REQUIRED TO CALL LADOTD TRAFFIC OPERATIONS SECTION AT (225)935-0100 AT LEAST 7 DAYS BEFORE BEGINNING CONSTRUCTION ACTIVITIES.

B) CONTRACTOR SHALL BE REQUIRED TO CALL LADOTD TRAFFIC OPERATIONS SECTION AT (225)935-0100 AT LEAST 7 DAYS BEFORE SIGNAL TURN ON TO SCHEDULE FOR A FINAL INSPECTION AND TO SCHEDULE FOR AN INSPECTOR TO BE PRESENT AT SIGNAL TURN ON.

22) **COMMUNICATIONS – FIBER**

A) ANY FIBER OPTIC CABLE INSTALLED SHALL BE REQUIRED TO HAVE A 10 AWG, GREEN, 600V COPPER CONDUCTOR, STRANDED OR OTHER APPLICABLE TRACER WIRE IN THE SAME CONDUIT. PAYMENT WILL BE MADE UNDER THE FIBER OPTIC CABLE PAY ITEM.

23) **BRIDGE/RAILROAD PREEMPTION**

A) INSTALL ONE 120VAC RELAY IN THE SIGNAL CABINET. THE RELAY IS ENERGIZED IN ABSENCE OF BRIDGE/RAILROAD PREEMPTION CALLS AND IS DE-ENERGIZED WHEN PREEMPTION CALLS ARE PRESENT. THE RELAY IS ACTIVATED BY THE CONTROL DESK SWITCH THAT CONTROLS BRIDGE FLASHERS OR THE RAILROAD CONTROL HOUSE SWITCH.

B) RUN A #14 TWO CONDUCTOR WIRE IN A MIN 1" PVC CONDUIT BETWEEN TRAFFIC SIGNAL CABINET TO THE DESIGNATED TERMINAL BLOCKS INSIDE THE RAILROAD HOUSE, BRIDGE CONTROL HOUSE OR THE MAIN BRIDGE JUNCTION BOX WHERE SPARE TERMINAL BLOCKS ARE AVAILABLE. 6' SPARE WIRE IS REQUIRED WHEN CONNECTION IS MADE AT THE JUNCTION BOX. 15' SPARE WIRE IS REQUIRED WHEN CONNECTION IS MADE INSIDE THE BRIDGE OR RAILROAD CONTROL HOUSE.

C) DESIGNERS SHALL VERIFY BRIDGE CONTROL CONNECTION LOCATIONS WITH LA DOTD BRIDGE ELECTRICAL SECTION.

D) DESIGNERS SHALL VERIFY TRACK CLEARANCE TIME AND BRIDGE PREEMPTION SEQUENCE WITH THE DISTRICT TRAFFIC OPERATIONS ENGINEER.

E) BRIDGE OR RAILROAD CONTROL HOUSE PROVIDES NORMALLY-CLOSED CONTACT CONNECTION.

STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
4/12/2017

SHEET NUMBER	206		
PARISH	EAST BATON ROUGE	FEDERAL PROJECT	STATE PROJECT H.012232
DESIGNED S. MCCARROLL	CHECKED D. LORIO	DETAILED S. MCCARROLL	CHECKED L. WANG
DATE 04/12/2017	SHEET 1 of 14	BY	

REVISION DESCRIPTION

NO.	DATE

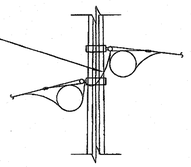
TRAFFIC SIGNAL STANDARD DETAILS
SIGN NOTES
TSD-00

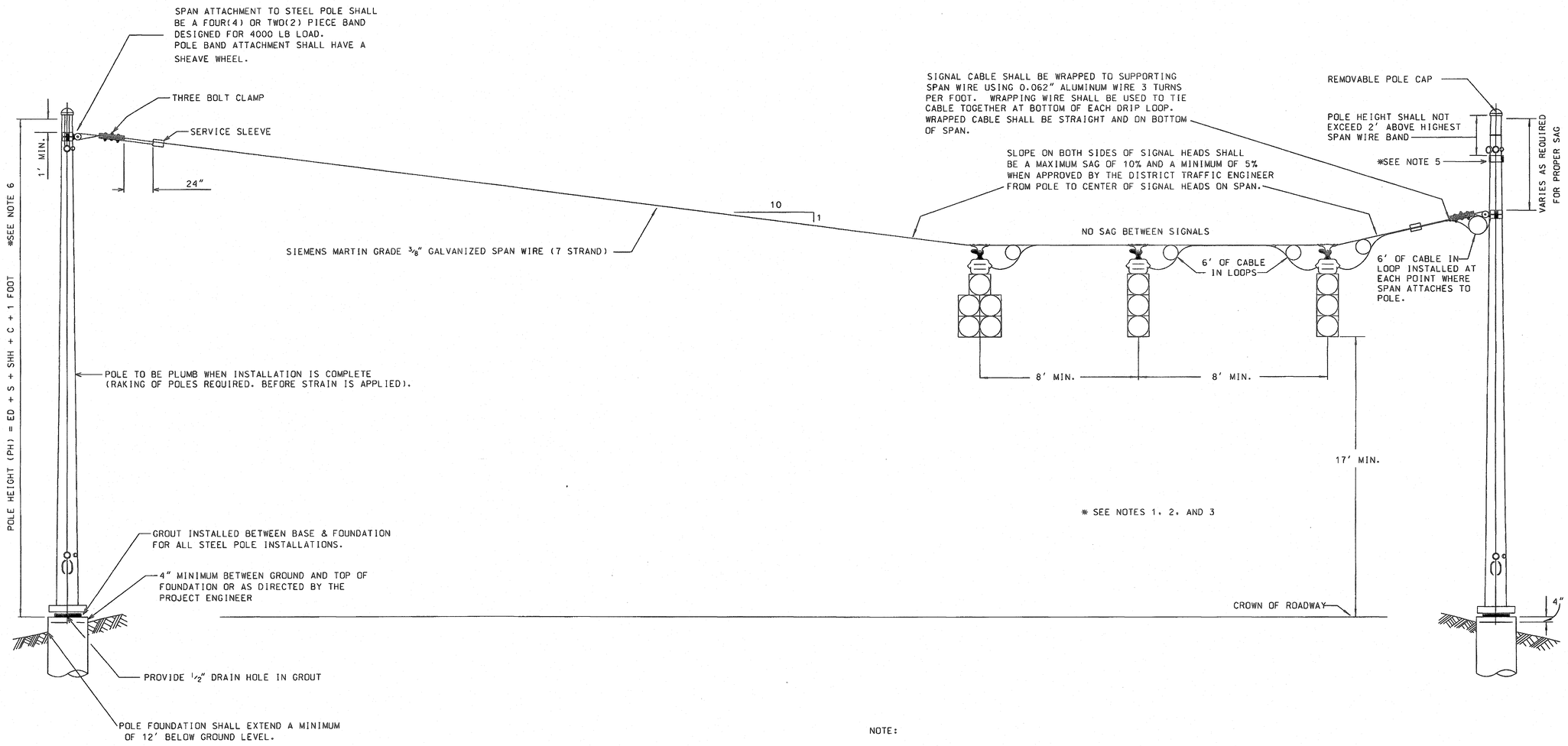
TRAFFIC ENGINEERING

SPAN WIRE SIGNAL INSTALLATION

LEGEND:
ED - ELEVATION DIFFERENCE BETWEEN ROADWAY & GRADE AT POLE BASE
S - SAG AS ILLUSTRATED
SHH - SIGNAL HEAD HEIGHT + SPAN WIRE ATTACHMENT AND DISCONNECT HANGER
C - REQUIRED. CLEARANCE 17' OR AS SPECIFIED
PH - POLE HEIGHT

STEEL POLE INSTALLATION SHOWN. ALSO APPLIES TO WOOD POLE INSTALLATION.





NOTE:

1. REFER TO THE PLANS FOR SIGNAL HEAD TYPE, NUMBER AND PLACEMENT.
2. ALL SIGNAL HEADS SHALL BE 17' MINIMUM HEIGHT. FOR MAXIMUM HEIGHT, REFER TO THE MUTCD CURRENT ADOPTED EDITION.
3. SIGNAL HEADS FOR PRIMARY MOVEMENT ON SPECIFIC APPROACH SHALL BE CENTERED OVER APPROACH. TURN LANE HEADS SHALL BE PLACED WITH ADEQUATE SPACING FROM LEFT MOST PRIMARY HEAD.
4. SIGNAL CABLE SHALL ENTER POLE BY WIRE WAY PROVIDED ON POLE. WEATHER HEAD SHALL BE SIZED ACCORDING TO THE NUMBER OF CABLES IN 3" BOSS PROVIDED WITH NECESSARY REDUCERS.
5. A SEPARATE POLE BAND MAY BE REQUIRED TO ATTACH PERPENDICULAR SPAN TO POLE MEETING THE REQUIREMENTS FOR SIGNAL HEIGHT AND SAG.
6. IN ALL CASES, THE MAXIMUM STRAIN POLE HEIGHT SHALL BE USED TO MEET THE 17' SIGNAL HEIGHT BEFORE ANY FOUNDATION ADJUSTMENTS ARE MADE. ADJUSTMENTS TO THE FOUNDATION MUST BE APPROVED BY THE PROJECT ENGINEER.

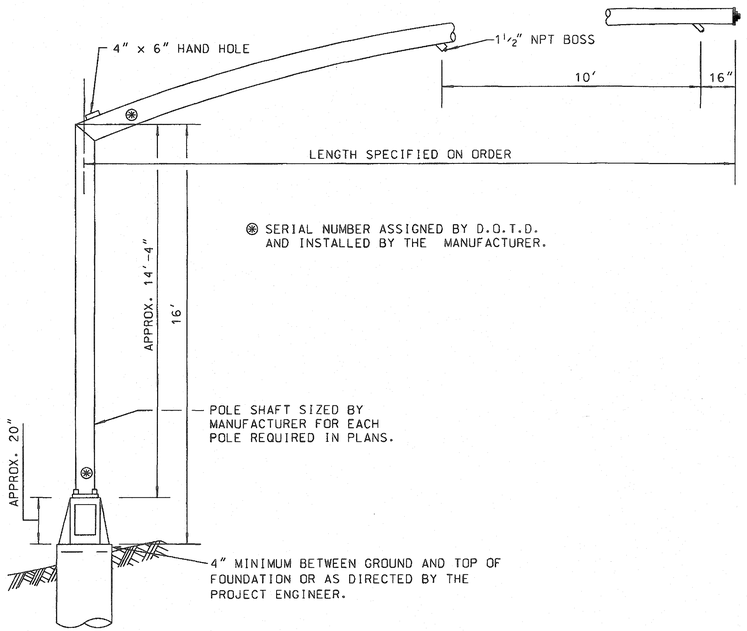
STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
11-21-2017

SHEET NUMBER 207
PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232
DESIGNED: S. MCCARROLL
CHECKED: D. LORIO
DETAILED: S. MCCARROLL
CHECKED: L. WANG
DATE: 04/12/2017
SHEET: 2 OF 14
NO. | DATE | REVISION DESCRIPTION | BY

TRAFFIC SIGNAL STANDARD DETAILS
SPAN WIRE INSTALLATION DETAILS
TSD-01

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
TRAFFIC ENGINEERING

50' SINGLE, 45'X40' DUAL, AND UNDER MAST ARM, STEEL STRAIN POLE STANDARD

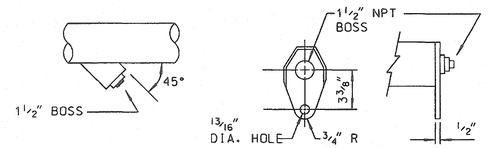


END OF ARM SHALL BE ELEVATED 5' ABOVE TOP OF SHAFT AND PROVIDE A 21' MINIMUM ELEVATION DIFFERENCE FROM THE BOTTOM OF TRANSFORMER BASE.

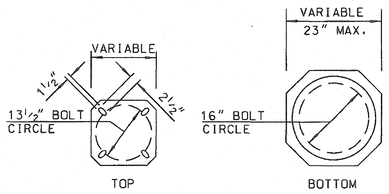
⊛ SERIAL NUMBER ASSIGNED BY D.O.T.D. AND INSTALLED BY THE MANUFACTURER.

NOTE:
1. ALL BOSSES SHALL BE PLUGGED WITH A 1½" GALVANIZED STEEL CONDUIT PLUG WITH A SQUARE HEAD HDG. WHEN CABLE IS ROUTED THROUGH THE BOSS A RUBBER COMPRESSION BUSHING SHALL BE USED TO SEAL AND HOLD CABLE IN BOSS. CABLE SHALL BE SECURED TO MAST ARM FROM BOSS TO SIGNAL HEAD WITH ½" WIDE WEATHER RESISTANT TIE WRAPS.
2. TEN (10) CONDUCTOR SIGNAL CABLE FROM CONTROLLER MAY BE SPLICED IN TRANSFORMER BASE TO TWO (2) - SIX (6) CONDUCTOR SIGNAL CABLES ROUTED TO TWO (2) - THREE (3)SECTION SIGNAL HEADS ON THE MAST ARM. NO OTHER SPLICING SHALL BE ALLOWED.
3. ALL SPLICES SHALL BE MADE WITH AN ALL COPPER OPEN-ENDED COMPRESSION SPLICE CAP INSTALLED TO THE MANUFACTURES RECOMMENDED METHOD AND INSULATED. (WIRE NUTS SHALL NOT BE ALLOWED)

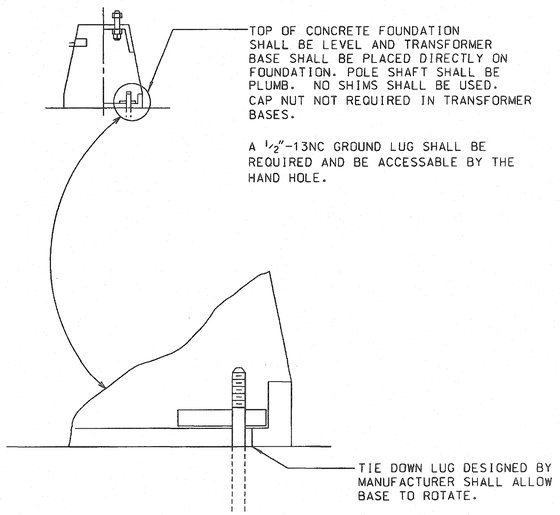
BOSS AND END PLATE DETAIL



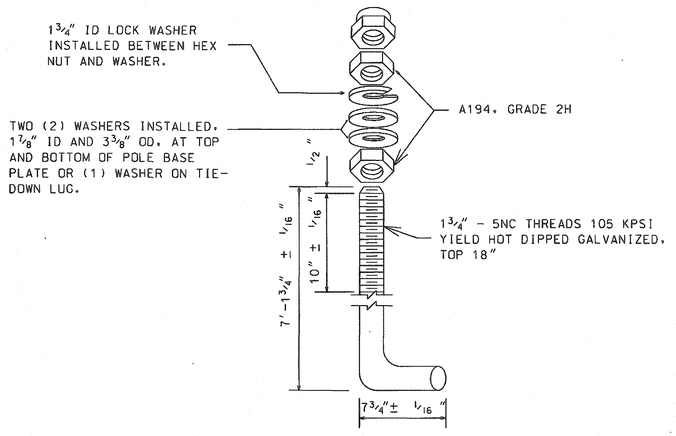
TRANSFORMER BASE DETAIL



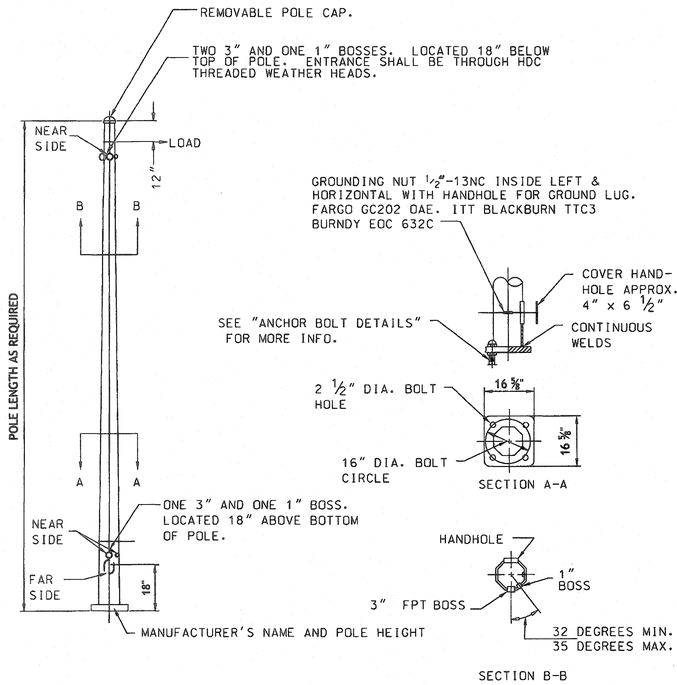
ROTATABLE BASE



ANCHOR BOLT DETAILS FOR STRAIN POLES AND MAST ARMS



STEEL STRAIN POLE



NOTE:
1. STEEL POLE BASEPLATES SHALL HAVE A 16" DIAMETER BOLT CIRCLE.
2. VENDORS SHALL BE AMERICAN INSTITUTE OF STEEL CONSTRUCTORS (AISC) CERTIFIED.

STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
4/12/2017

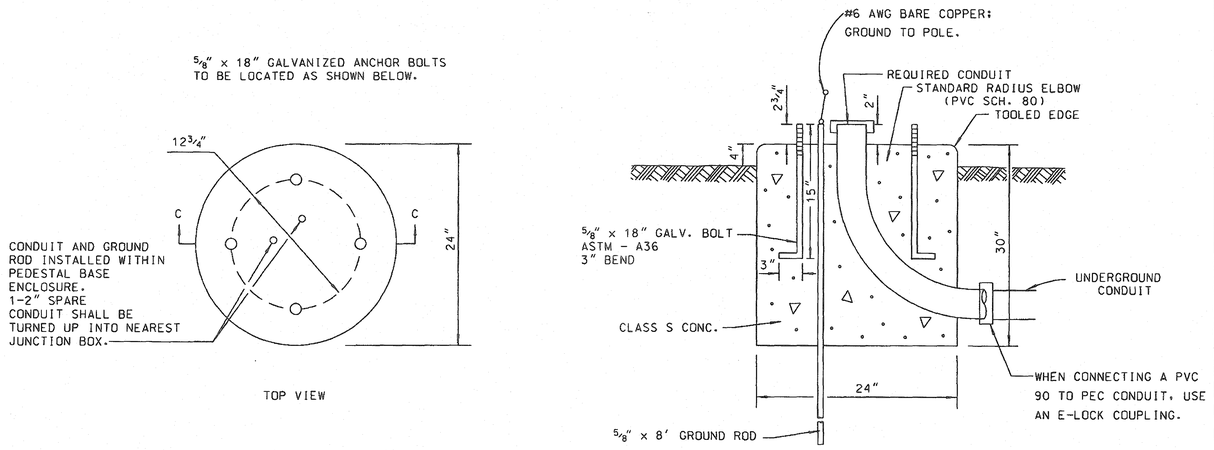
SHEET NUMBER	208
PARISH	EAST BATON ROUGE
FEDERAL PROJECT	
STATE PROJECT	H.012232
DESIGNED / CHECKED	S. MCCARROLL / D. LORIO
DETAILED / CHECKED	S. MCCARROLL / L. WANG
DATE / SHEET	04/12/2017 / 3 OF 14

REVISION DESCRIPTION | NO. | DATE

TRAFFIC SIGNAL STANDARD DETAILS
STRAIN POLE AND MAST ARMS 55' AND UNDER DETAIL
TSD-02

TRAFFIC ENGINEERING

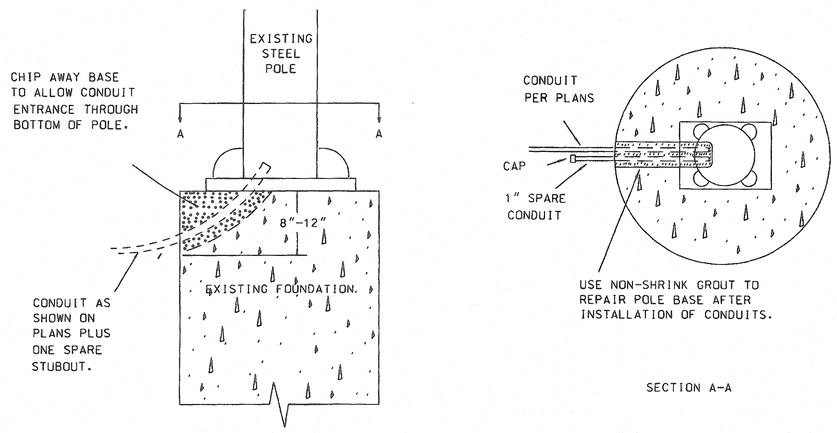
SIGNAL PEDESTAL FOUNDATION



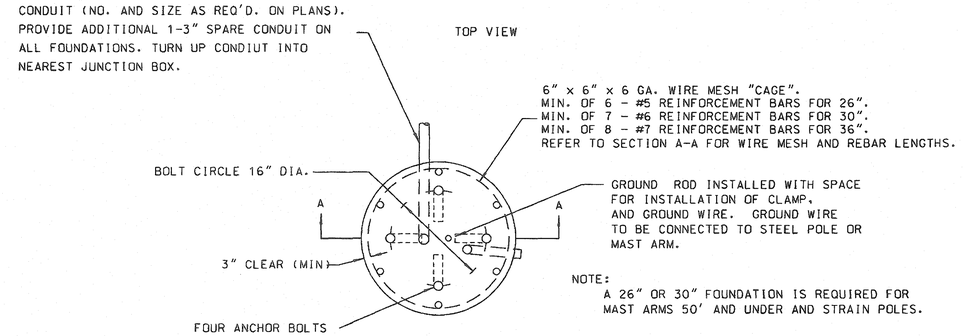
NOTES:

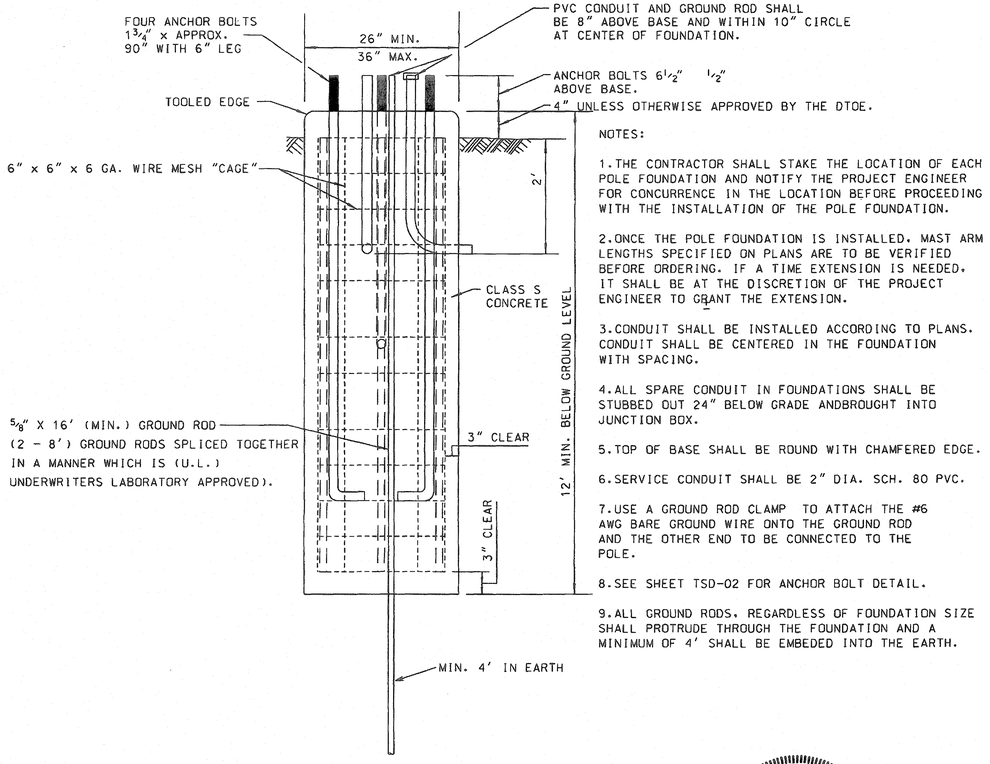
1. TRAFFIC SIGNAL ANCHOR BOLTS SHALL PROTRUDE 2 3/4" MIN. - 3" MAX. ABOVE FINISHED PEDESTAL FOUNDATION. CONDUIT AND GROUND RODS SHALL PROTRUDE 2" ABOVE FINISHED FOUNDATION.
2. BACKFILL OVER CONDUIT RUNS SHALL BE OF SOIL OR SAND AND SHALL NOT CONTAIN ROCKS OR CONCRETE.
3. ALL 90° ELLS TO BE STANDARD RADIUS.

CONDUIT ENTRANCE DETAIL TO EXISTING FOUNDATION



50' SINGLE, 45'X40' DUAL, AND UNDER MAST ARM, STEEL STRAIN POLE STANDARD





NOTES:

1. THE CONTRACTOR SHALL STAKE THE LOCATION OF EACH POLE FOUNDATION AND NOTIFY THE PROJECT ENGINEER FOR CONCURRENCE IN THE LOCATION BEFORE PROCEEDING WITH THE INSTALLATION OF THE POLE FOUNDATION.
2. ONCE THE POLE FOUNDATION IS INSTALLED, MAST ARM LENGTHS SPECIFIED ON PLANS ARE TO BE VERIFIED BEFORE ORDERING. IF A TIME EXTENSION IS NEEDED, IT SHALL BE AT THE DISCRETION OF THE PROJECT ENGINEER TO GRANT THE EXTENSION.
3. CONDUIT SHALL BE INSTALLED ACCORDING TO PLANS. CONDUIT SHALL BE CENTERED IN THE FOUNDATION WITH SPACING.
4. ALL SPARE CONDUIT IN FOUNDATIONS SHALL BE STUBBED OUT 24" BELOW GRADE ANDBROUGHT INTO JUNCTION BOX.
5. TOP OF BASE SHALL BE ROUND WITH CHAMFERED EDGE.
6. SERVICE CONDUIT SHALL BE 2" DIA. SCH. 80 PVC.
7. USE A GROUND ROD CLAMP TO ATTACH THE #6 AWG BARE GROUND WIRE ONTO THE GROUND ROD AND THE OTHER END TO BE CONNECTED TO THE POLE.
8. SEE SHEET TSD-02 FOR ANCHOR BOLT DETAIL.
9. ALL GROUND RODS, REGARDLESS OF FOUNDATION SIZE SHALL PROTRUDE THROUGH THE FOUNDATION AND A MINIMUM OF 4' SHALL BE EMBEDED INTO THE EARTH.

STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
4/12/2017

SHEET NUMBER	209
PARISH	EAST BATON ROUGE
FEDERAL PROJECT	
STATE PROJECT	H.012232
DESIGNED / CHECKED	S. MCCARROLL / D. LORIO
DETAILED / CHECKED	S. MCCARROLL / L. WANG
DATE / SHEET	04/12/2017 / 4 OF 14

NO.	DATE	REVISION DESCRIPTION	BY

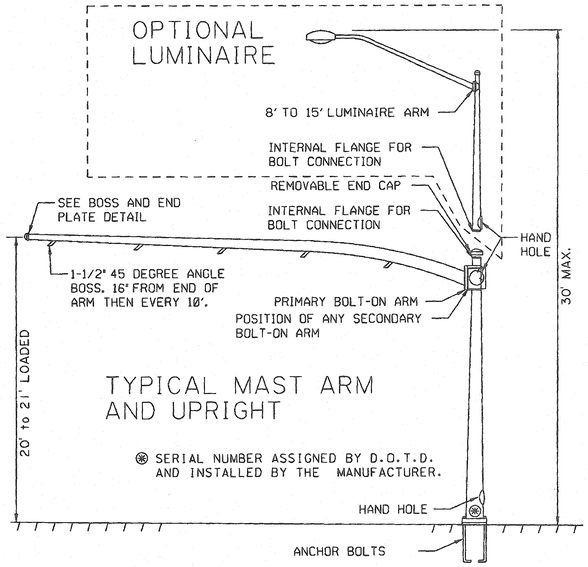
TRAFFIC SIGNAL STANDARD DETAILS

POLE FOUNDATION DETAILS

TSD-03

TRAFFIC ENGINEERING

55′ SINGLE, 50′X35′ DUAL, AND OVER MAST ARM DETAIL

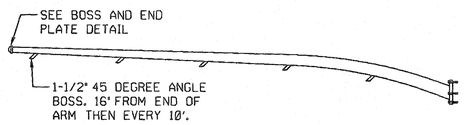


NOTE:

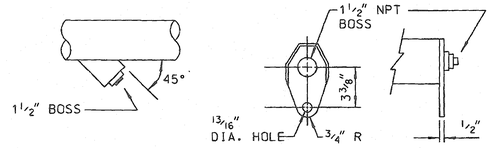
1. ALL BOSSES SHALL BE PLUGGED WITH A 1½" GALVANIZED STEEL CONDUIT PLUG WITH A SQUARE HEAD HDG. WHEN CABLE IS ROUTED THROUGH THE BOSS A RUBBER COMPRESSION BUSHING SHALL BE USED TO SEAL AND HOLD CABLE IN BOSS. CABLE SHALL BE SECURED TO MAST ARM FROM BOSS TO SIGNAL HEAD WITH ½" WIDE WEATHER RESISTANT TIE WRAPS.
2. TEN (10) CONDUCTOR SIGNAL CABLE FROM CONTROLLER MAY BE SPLICED IN POLE BASE TO TWO (2) - SIX (6) CONDUCTOR SIGNAL CABLES ROUTED TO TWO (2) - THREE (3)SECTION SIGNAL HEADS ON THE MAST ARM. NO OTHER SPLICING SHALL BE ALLOWED.
3. ALL SPLICES SHALL BE MADE WITH AN ALL COPPER OPEN-ENDED COMPRESSION SPLICE CAP INSTALLED TO THE MANUFACTURES RECOMMENDED METHOD AND INSULATED. (WIRE NUTS SHALL NOT BE ALLOWED)
4. A 1/2 "-13NC GROUND LUG SHALL BE REQUIRED AND BE ACCESSABLE BY THE HAND HOLE.

DUAL ARM (BOLT-ON)

SECONDARY ARM SHALL BE AT THE SAME MOUNTING HEIGHT AS THE PRIMARY BOLT-ON ARM AT THE OUTER TIP

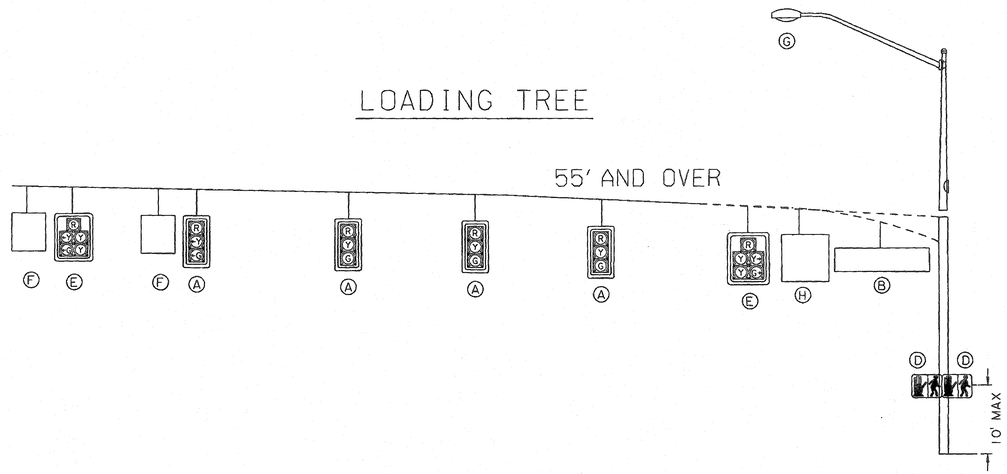


BOSS AND END PLATE DETAIL



LOADING TREE

55′ AND OVER



MAST ARM DESIGN CRITERIA:
THESE TRAFFIC SIGNAL SUPPORT STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH LOADING AND ALLOWABLE STRESS REQUIREMENTS OF 2009 AASHTO "STANDARDS SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", FOURTH EDITION. WIND LOADS ARE BASED ON A BASIC WIND SPEED OF 130 MPH WITH A RECURRENCE INTERVAL OF 50 YEARS AND A FATIGUE CATAGORY OF 2. FATIGUE LOADS ARE BASED ON THE REQUIREMENTS OF SECTION 11.7 AND THE FOLLOWING DESIGN LOADS.

- ✱ VORTEX SHEDDING: NOT APPLICABLE FOR STRUCTURES WITH A TAPER OF AT LEAST 0.14"/FT. PER AASHTO.
- ✱ NATURAL WIND GUSTS: THE YEARLY MEAN WIND SPEED FOR NATURAL WIND GUSTS WILL BE ASSUMED TO BE 11.2 MPH.
- ✱ GALLOPING: STRUCTURES ARE NOT DESIGNED TO RESIST PERIODIC GALLOPING FORCES.
- ✱ TRUCK-INDUCED GUST: STRUCTURES ARE NOT DESIGNED TO INCLUDE TRUCK-INDUCED GUSTS.
- ✱ ARMS MAY BE CURVED OR STRAIGHT.

NOTE:
(1) EFFECTIVE PROJECTED AREA

DEVICE	DESCRIPTION	PROJ AREA (SQ. FT)	WEIGHT (LBS)
(A) SIGNAL	12"-3 SEC. SIGNAL W/BACKPLATES	10.40(1)	56
(B) SIGN	72" X 18" STREET NAME SIGN	9.00	36
(C) SIGNAL	12"-3 SEC SIGNAL HEAD NO BACKPLATE	4.90(1)	50
(D) SIGNAL	DUAL 2 SECTION PEDESTRIAN SIGNAL	8.00(1)	80
(E) SIGNAL	12"-5 SEC SIGNAL WITH BACKPLATES	16.00(1)	85
(F) SIGN	24" X 30" REGULATORY SIGN	5.00	20
(G) LUMINAIRE	LUMINAIRE	3.30	75
(H) SIGN	36" X 36" BLANK OUT REGULATORY SIGN (40" X 40" OVERALL)	11.20	94
(I) SIGN	30" X 36" REGULATORY SIGN	7.50	30

STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
4/12/2017

SHEET NUMBER 210

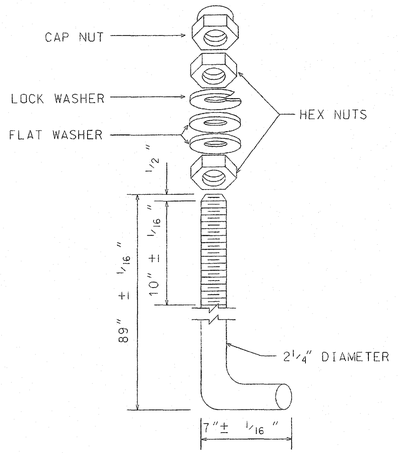
PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232

DESIGNED	S. MCCARROLL	
CHECKED	D. LORIO	
DETAILED	S. MCCARROLL	
CHECKED	L. WANG	
DATE	04/12/2017	
SHEET	5 OF 14	

NO.	DATE	REVISION DESCRIPTION	BY

TRAFFIC SIGNAL STANDARD DETAILS
55′ SINGLE, 50′X35′ DUAL, AND OVER MAST ARM DETAIL
TSD-04

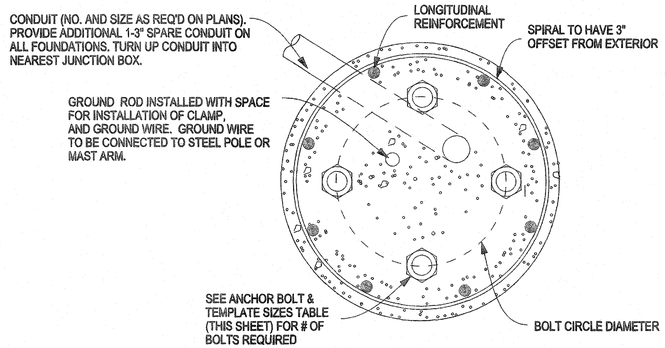
TRAFFIC ENGINEERING



ASTM 1554, 55KSI, 89" WITH 7" BENT HOOK

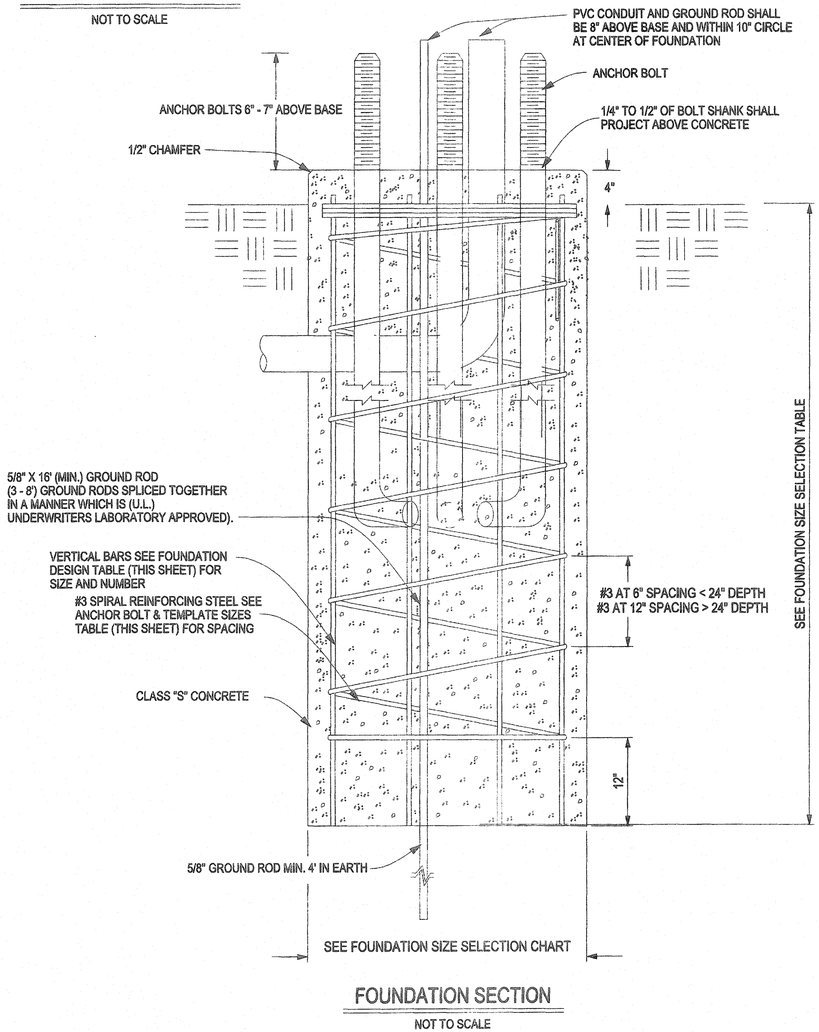
ANCHOR BOLT ASSEMBLY

NOT TO SCALE



FOUNDATION PLAN

NOT TO SCALE



FOUNDATION SECTION

NOT TO SCALE

FOUNDATION SIZE SELECTION TABLE

Mast Arm Length(s) (ft)	Bending Moment (ft-lb)	Torsion (ft-lb)	Shear (lb)	Axial Force (lb)	Foundation Size Selection (diameter in inches, depth in feet)							
					Zone 1 (Diameter/Depth)		Zone 2+ (Diameter/Depth)		Zone 3+ (Diameter/Depth)		Zone 4 (Diameter/Depth)	
55	125,120	121,100	5,500	5,862	*	*	42	18	36	14	*	*
60	141,805	128,940	5,930	6,561	*	*	42	19	36	15	*	*
65	161,259	150,480	6,130	6,965	*	*	48	17	36	16	*	*
70	182,103	169,590	6,620	7,377	*	*	48	19	36	17	*	*
50 & 35	142,210	101,630	5,860	7,572	54	18	36	20	36	13	*	*
50 & 40	147,540	101,610	5,860	7,798	54	18	36	20	36	13	*	*
55 & 40	159,408	119,900	5,910	8,195	*	*	42	18	36	14	*	*
55 & 45	165,981	119,870	5,910	8,425	*	*	42	18	36	14	*	*

*: Special Design Foundation Required

ANCHOR BOLT & TEMPLATE SIZE TABLE

DRILLED SHAFT DIA	REINFORCING STEEL		ANCHOR BOLT DESIGN		
	VERT BARS	SPIRAL SPACING	# OF ANCHOR BOLTS	ANCHOR BOLT DIA	BOLT CIRCLE DIA
36"	12 - #10	#3 AT 6" < 24" DEPTH #3 AT 12" > 24" DEPTH	4	2 1/4"	24"
42"	17 - #10	#3 AT 6" < 24" DEPTH #3 AT 12" > 24" DEPTH	6	2 1/4"	30"
48"	22 - #10	#3 AT 6" < 24" DEPTH #3 AT 12" > 24" DEPTH	6	2 1/4"	30"
54"	28 - #10	#3 AT 6" < 24" DEPTH #3 AT 12" > 24" DEPTH	6	2 1/4"	30"

GENERAL NOTES:

1. THREADS FOR ANCHOR BOLTS AND NUTS SHALL BE ROLLED OR CUT THREADS .
2. THE CONTRACTOR SHALL STAKE THE LOCATION OF EACH POLE FOUNDATION AND NOTIFY THE PROJECT ENGINEER FOR CONCURRENCE IN THE LOCATION BEFORE PROCEEDING WITH THE INSTALLATION OF THE POLE FOUNDATION.
3. ONCE THE POLE FOUNDATION IS INSTALLED, MAST ARM LENGTHS SPECIFIED ON PLANS ARE TO BE VERIFIED BEFORE ORDERING. IF A TIME EXTENSION IS NEEDED, IT SHALL BE AT THE DISCRETION OF THE PROJECT ENGINEER TO GRANT THE EXTENSION.
4. CONDUIT SHALL BE INSTALLED ACCORDING TO PLANS. CONDUIT SHALL BE CENTERED IN THE FOUNDATION WITH EVEN SPACING.
5. ALL SPARE CONDUIT IN FOUNDATIONS SHALL BE STUBBED OUT 24" BELOW GRADE AND BROUGHT INTO JUNCTION BOX.
6. TOP OF BASE SHALL BE ROUND WITH CHAMFERED EDGE.
7. SERVICE CONDUIT SHALL BE 2" DIA. SCH. 80 PVC.
8. USE A GROUND ROD CLAMP TO ATTACH THE #6 AWG BARE GROUND WIRE ONTO THE GROUND ROD AND THE OTHER END TO BE CONNECTED TO THE POLE.
9. ALL GROUND RODS, REGARDLESS OF FOUNDATION SIZE SHALL PROTRUDE THROUGH THE FOUNDATION AND A MINIMUM OF 4' SHALL BE EMBEDED INTO THE EARTH.

SPECIAL DESIGN FOUNDATION NOTES:

SPECIAL DESIGN FOUNDATION NOTES

1. FOUNDATIONS FOR MAST ARM LENGTHS REQUIRING A SPECIAL DESIGN FOUNDATION SHALL BE DESIGNED IN ACCORDANCE WITH THE LATEST EDITION OF THE AASTHO LRFD BRIDGE DESIGN SPECIFICATIONS.
2. FOUNDATION LOADS FOR THE CORRESPONDING MAST ARM LENGTH PROVIDED IN THE FOUNDATION SIZE SELECTION TABLE SHALL BE USED TO DESIGN THE FOUNDATION SIZE AND DEPTH. THE LOADS IN THE TABLE WERE PROVIDED BY THE MAST ARM MANUFACTURERS AND ARE BASED ON A 25-YEAR RECURRENCE INTERVAL AND A WIND SPEED OF 110 MPH. THESE LOADS SHALL ONLY BE USED FOR DESIGN OF THE FOUNDATION.
3. WHEN A SPECIAL DESIGN FOUNDATION IS REQUIRED THE FOUNDATION DESIGN SHALL BE BASED ON SITE SPECIFIC SUBSURFACE INFORMATION. IF SITE SPECIFIC DATA IS NOT MADE AVAILABLE BY DOTD THE DESIGNER SHALL BE RESPONSIBLE FOR OBTAINING SITE SPECIFIC SUBSURFACE INFORMATION.
4. DESIGN CALCULATIONS FOR THE FOUNDATION SHALL BE SUBMITTED TO THE TRAFFIC ENGINEERING SECTION FOR REVIEW.

STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
10/05/2017

SHEET NUMBER 211

PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232

DESIGNED: S. MCCARROLL
CHECKED: D. LORIO
DETAILED: S. MCCARROLL
CHECKED: L. WANG
DATE: 10/05/2017
SHEET: 6 OF 14

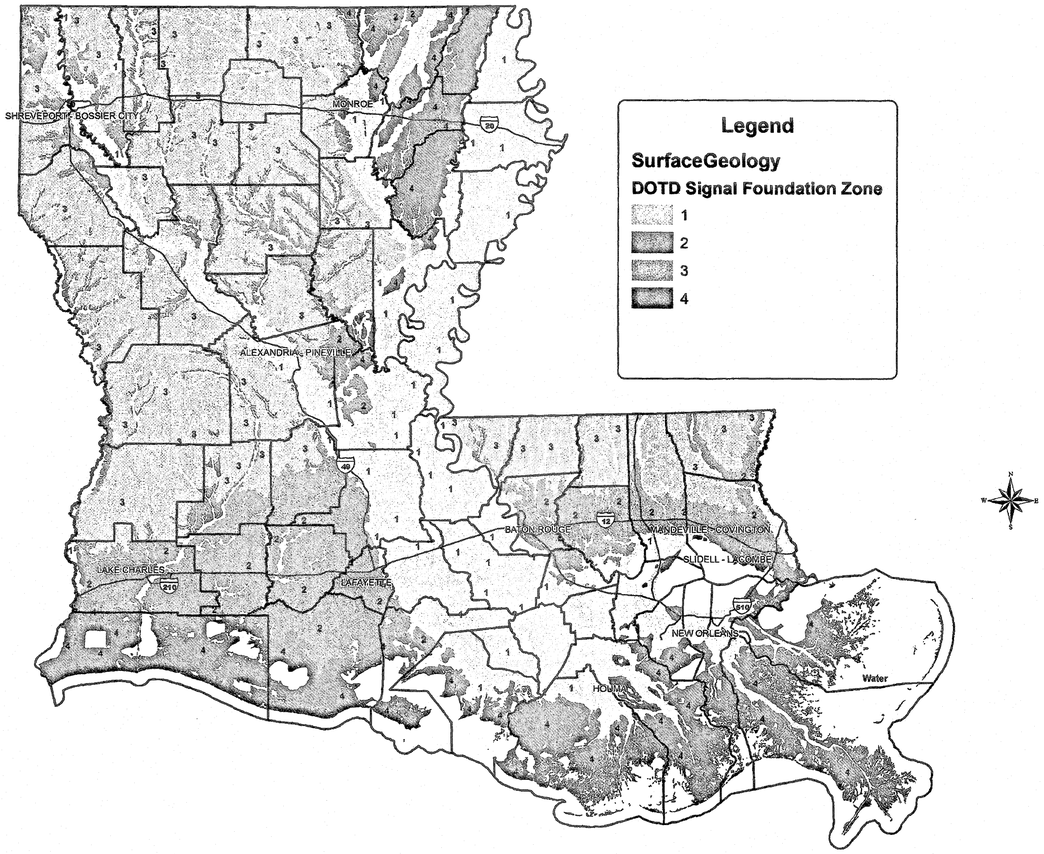
REVISION DESCRIPTION | NO. | DATE | BY

TRAFFIC SIGNAL STANDARD DETAILS
55' SINGLE, 50'X35' DUAL, AND OVER MAST ARM DETAIL FOUNDATION

TSD-05

TRAFFIC ENGINEERING

GENERAL STATIC MAP FOR FOUNDATION REQUIREMENTS SHOWN HERE.
SEE **http://goo.gl/QHv2o3** FOR LOCATION SPECIFIC CLASSIFICATION.
ALTERNATIVE: LADOTD WEBSITE/HOME/INSIDE LADOTD/DIVISIONS/OPERATIONS /TRAFFIC SERVICES/TRAFFIC OPERATIONS/APPROVED PRODUCT LIST/TOAPL 165.



FOUNDATION SIZE ZONING:

1. FOUNDATION ZONES ARE BASED ON THE 1984 GEOLOGICAL MAP OF LOUISIANA PUBLISHED BY THE LOUISIANA GEOLOGICAL SURVEY. LOCAL GEOLOGICAL VARIATIONS ARE LIKELY DUE TO HUMAN ACTIVITIES OR NATURAL EVENTS.
2. THE ZONING MAP IS INTENDED TO ASSIST IN SIZING FOUNDATION FOR SELECTED SIGNAL POLES AND SHOULD NOT BE VIEWED AS A SUBSTITUTE OF ENGINEERING JUDGMENT OR PROPER DESIGN.
3. SOME SOILS SUCH AS GRAVEL OR CEMENTED SOILS MAY NOT BE AMENABLE TO THE CONVENTIONAL DRILLED SHAFT CONSTRUCTION. EXERCISE CAUTION AND SEEK CONFIRMATION OF THE SOIL CONDITIONS DURING DESIGN AND/OR DURING SHAFT EXCAVATION.

ZONE 1 - ALLUVIAL SOILS FORMED BY THE RED RIVER, THE OUACHITA RIVER, THE ATCHAFALAYA RIVER, AND THE MISSISSIPPI RIVER. ASSUMED AVERAGE SOIL SHEAR STRENGTH IS AT LEAST 250 POUNDS PER SQUARE FOOT (PSF).

ZONE 2 - PLEISTOCENE AGE PRAIRIE TERRACES DEPOSITS. ASSUMED AVERAGE SOIL SHEAR STRENGTH IS AT LEAST 500 PSF.

ZONE 3 – PLEISTOCENE AGE OR OLDER DEPOSITS OTHER THAN ZONE 2. ASSUMED AVERAGED SHEAR STRENGTH IS AT LEAST 1,000 PSF.

ZONE 4 - MOSTLY COASTAL MARSH AND SAND/GRAVEL DEPOSITS. SPECIAL DESIGN IS REQUIRED FOR THE SIGNAL POLE WITHIN THIS ZONE.

CONSTRUCTION NOTES:

1. IF GROUNDWATER IS ENCOUNTERED DURING FOUNDATION EXCAVATION AND NO CAVE IN IS OBSERVED, THE GROUNDWATER SHOULD BE PUMPED OUT PRIOR TO STEEL CAGE PLACEMENT. THE WATER REMAINS IN THE EXCAVATION SHOULD BE NO MORE THAN ½ INCH.
2. IF GROUNDWATER IS ENCOUNTERED DURING FOUNDATION EXCAVATION AND CAVE IN IS OBSERVED, THE EXCAVATION SHOULD BE CEASED. CONTACT THE PROJECT ENGINEER IMMEDIATELY. SHOULD THE CAVING IS EXCESSIVE, BACKFILL THE EXCAVATION IMMEDIATELY.
3. FREE FALL CONCRETE IS ALLOWED FOR DRY HOLES ONLY. THE CONCRETE SHALL BE PLACED WITH A HOPPER OR A TREMIE. WHEN FREE FALL METHOD IS USED, CONTROL THE CONCRETE TO FALL VERTICALLY WITHOUT CONTACTING SHAFT WALL OR STEEL CAGE TO PREVENT SEGREGATION.
4. CONCRETE PLACEMENT WITH A TREMIE IS REQUIRED IF EXCESSIVE GROUNDWATER (MORE THAN 6 INCHES ACCUMULATION) IS ENCOUNTERED.
   WHEN THE SOIL CONDITIONS ARE SUSPECTED TO BE DIFFERENT THAN THOSE DESCRIBED IN THE FOUNDATION SIZE ZONING, CONTACT THE PROJECT ENGINEER IMMEDIATELY TO EVALUATE THE SUITABILITY OF THE FOUNDATION DESIGN.

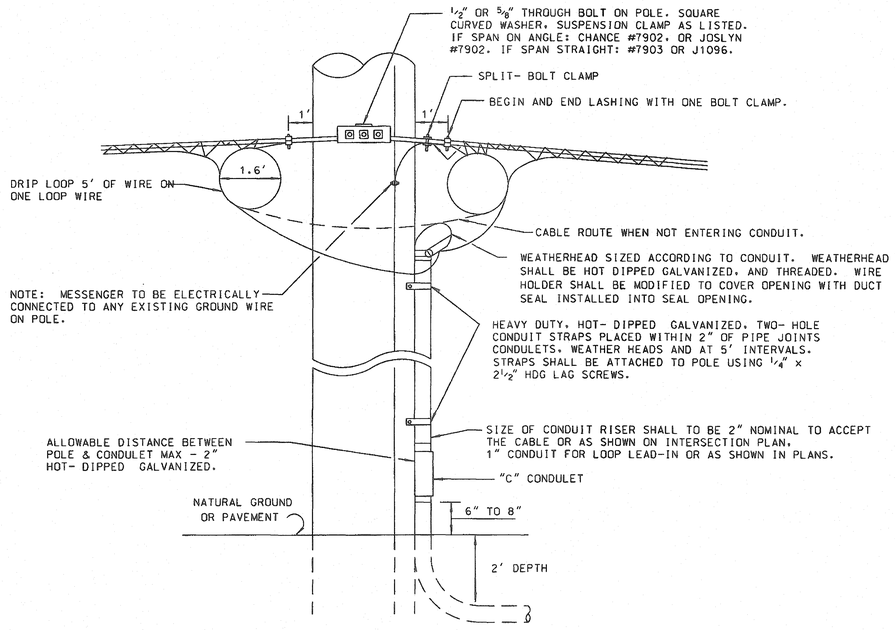
STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
4/12/2017

SHEET NUMBER 212
PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232
DESIGNED: S. MCCARROLL
CHECKED: D. LOFIO
DETAILED: S. MCCARROLL
CHECKED: L. WANG
DATE: 04/12/2017
SHEET: 7 OF 14
NO. | DATE | REVISION DESCRIPTION | BY

TRAFFIC SIGNAL STANDARD DETAILS
55' SINGLE, 50'X35' DUAL, AND OVER MAST ARM DETAIL FOUNDATION DETAILS POLE FOUNDATION DETAILS
TSD-06

TRAFFIC ENGINEERING

TYPICAL CONDUIT RISER ASSEMBLY & INTERCONNECT DETAIL

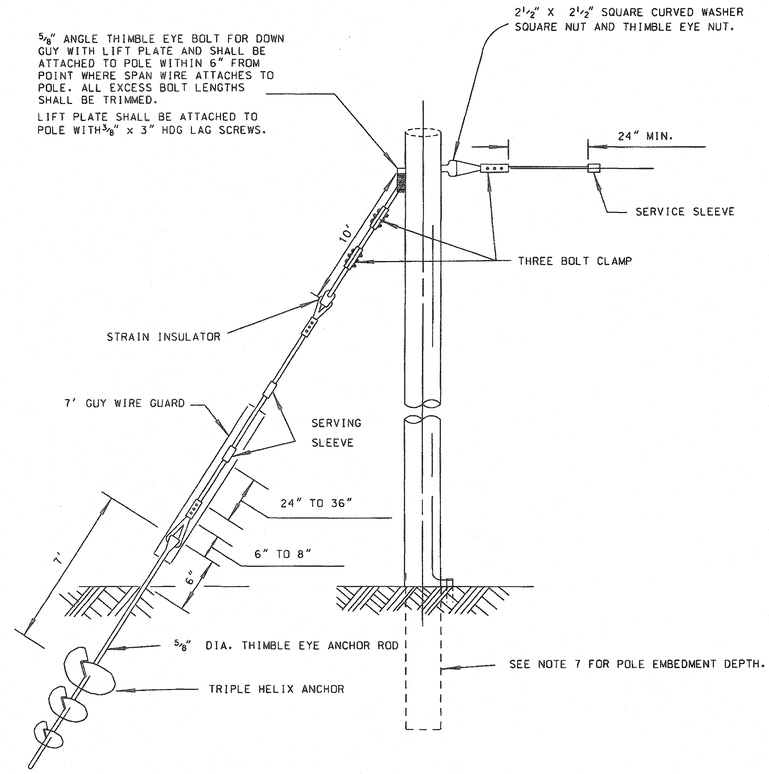


NOTES:

1. PROVIDE DRIP LOOPS ON BOTH SIDES OF SPLICE AND ON BOTH SIDES OF INTERSECTING STREETS.
2. 1/4" SIEMENS MARTIN GRADE GALVANIZED SPAN WIRE, ASTM 475.
3. STAINLESS STEEL LASHING WIRE 0.045" DIAMETER FOR INTERCONNECT TO HOLD CABLE TIGHT AGAINST THE SPAN.
4. MAXIMUM SAG FOR INTERCONNECT MESSENGER CABLE SHALL BE 2% WITH MINIMUM CLEARANCE ABOVE ROADWAY OF 18'.
5. SHOULD UNUSUAL CIRCUMSTANCES BE ENCOUNTERED, SPLICING SHALL BE APPROVED BY THE PROJECT ENGINEER.
6. WHEN INTERCONNECT IS DEAD ENDED AT POLE, HARDWARE AS SHOWN FOR WOOD POLE DETAIL SHALL BE USED.
7. INSTALLATION SHALL BE CLASSIFIED AS 120 VAC SECONDARY LOCATED BELOW POWER COMPANY EQUIPMENT ABOVE OTHER UTILITIES IN ACCORDANCE WITH NATIONAL ELECTRIC SAFETY CODE.

WOOD POLE DETAIL

FOR EXISTING AND NEW



NOTES:

1. TIEBACK ANCHORS MAY BE REQUIRED AS DIRECTED BY THE PROJECT ENGINEER.
2. TOP OF POLE SHALL BE CAPPED WITH MALLEABLE ALUMINUM 0.032" MATERIAL.
3. TOP OF POLE TRIMMED LEAVING A MAXIMUM OF 18" OF POLE ABOVE ATTACHMENT POINT OF SPAN.
4. THE ANCHOR ROD SHALL BE A MINIMUM OF 5/8" DIA. 7' LONG. ACCEPTABLE ANCHOR IS: TRIPLE-HELIX ANDHOR, 12"-10"-8", 7,000# CAPACITY, 1 1/2" ROD. ANY EXTENSION NEEDS TO MEET THE REQUIREMENTS IN THE LADOTD SPECIFICATIOND
5. ALL POLES INSTALLED SHALL HAVE A #6 AWG BARE COPPER WIRE INSTALLED THE LENGTH OF POLE WITH BUTT GROUND (APPROVED BY INSPECTOR PRIOR TO INSTALLATION OF POLE) OR CONNECT TO 5/8" X 8' GROUND ROD USING LUG.
6. CLASS 3 POLE SHALL BE USED AND CREOSOTED IN ACCORDANCE WITH LADOTD STANDARD SPECIFICATIONS.
7. GENERALLY, ANCHORS ARE 20' TO 30' BEHIND THE POLE IN LINE WITH THE SPAN. RESTRICTION TO THIS WILL BE PROPERTY LINES OR OBSTRUCTIONS. ALL ATTACHMENT FITTINGS SHALL BE HOT- DIPPED GALVANIZED UNLESS STATED OTHERWISE. POLES EMBEDDED IN GROUND AS FOLLOWS: 35' POLE - 6', 40' POLE - 7', 45' POLE - 8'.

STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
4/12/2017

SHEET NUMBER 213

PARISH: EAST BATON ROUGE | FEDERAL PROJECT: | STATE PROJECT: H.012232

DESIGNED	S. MCCARROLL
CHECKED	D. LORIO
DETAILED	S. MCCARROLL
CHECKED	L. WANG
DATE	04/12/2017
SHEET	8 OF 14

NO.	DATE	REVISION DESCRIPTION	BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

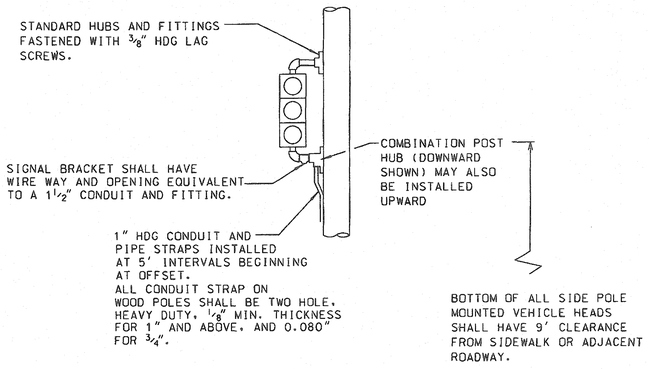
TRAFFIC SIGNAL STANDARD DETAILS

WOOD POLE AND CONDUIT RISER DETAIL

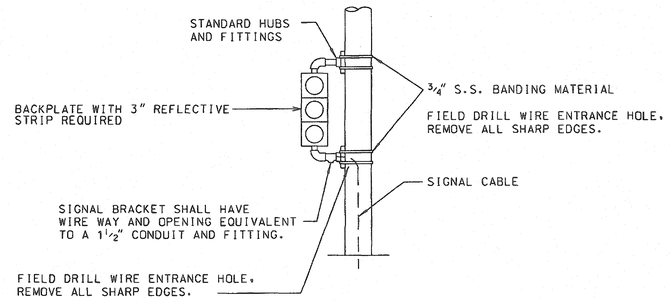
TSD-07

TRAFFIC ENGINEERING

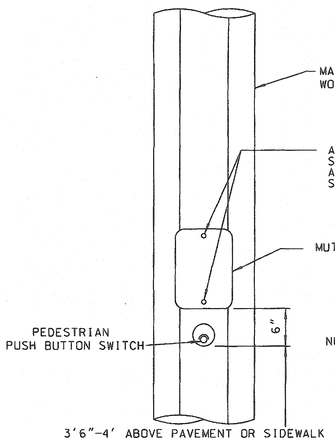
WOOD POLE



METAL POLE (STRAIN OR MAST ARM)



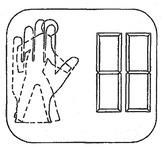
PEDESTRIAN SIGNAL



NOTES:

1. PEDESTRIAN PUSH BUTTONS SHALL BE FURNISHED AND INSTALLED WITH COUNTDOWN PEDESTRIAN SIGNALS AS SHOWN IN PLANS. PEDESTRIAN PUSH BUTTONS MAY ALSO BE REQUIRED AT OTHER INTERSECTIONS, AS DESIGNATED ON INTERSECTION LAYOUT SHEETS OF THE PLANS.
2. THE CONTRACTOR SHALL FURNISH AND INSTALL ABOVE EACH PEDESTRIAN PUSH BUTTON A R10-3E(L), R10-3E(R) SIGN AS APPROPRIATE FOR CIRCUMSTANCES. THE DIRECTIONAL ARROW SHALL BE PLACED IN THE DIRECTION OF CROSSWALK.
3. COUNTDOWN PEDESTRIAN SIGNALS MAY BE PLACED EITHER ON TOP OF PEDESTAL OR ON THE SIDE OF A MAST ARM OR STRAIN POLE AS REQUIRED BY PLANS.
4. CLEARANCE FROM THE BOTTOM OF PEDESTRIAN SIGNAL HEADS TO SIDEWALK OR NATURAL GROUND SHALL BE 8', OR SHALL CONFORM TO THE CURRENT ADOPTED EDITION OE THE MUTCD.
5. IF A PEDESTAL IS USED FOR A PUSH BUTTON ONLY, THE TOP OF THE POLE SHALL BE CAPPED.

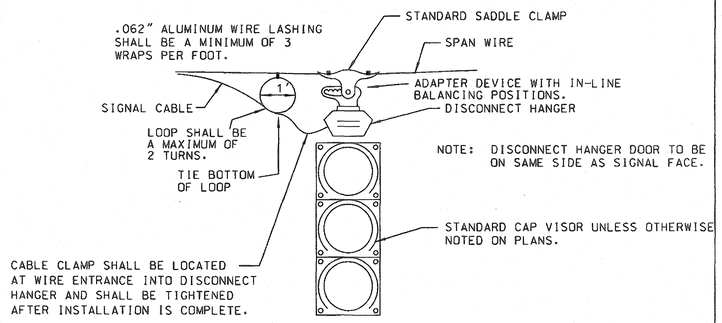
ONE-SECTION COUNTDOWN PEDESTRIAN SIGNAL (16" X 18" SYMBOL TYPE)



BRACKET MOUNTED TRAFFIC SIGNALS

SPAN WIRE SIGNAL MOUNT

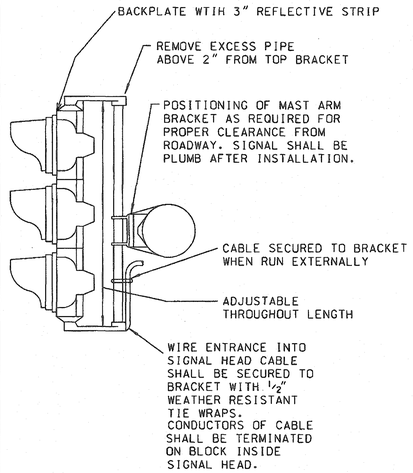
SIGNAL HEADS SHALL BE PLUMB. AN ADDITIONAL BALANCE ADJUSTER SHALL BE USED WHERE REQUIRED. TYPICAL SIGNAL SHOWN, ALSO APPLIES TO 2, 3 & 4-WAY ARRANGEMENT.



NOTE:
ALL UNUSED OPENINGS SHALL BE PLUGGED AND SEALED.

MAST ARM SIGNAL MOUNT

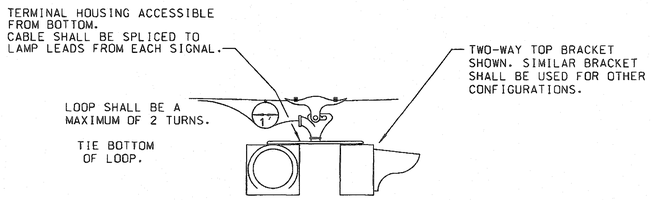
HEIGHT OF SIGNAL FACES SHALL CONFORM TO THE HEIGHTS SPECIFIED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, CURRENT ADOPTED EDITION.



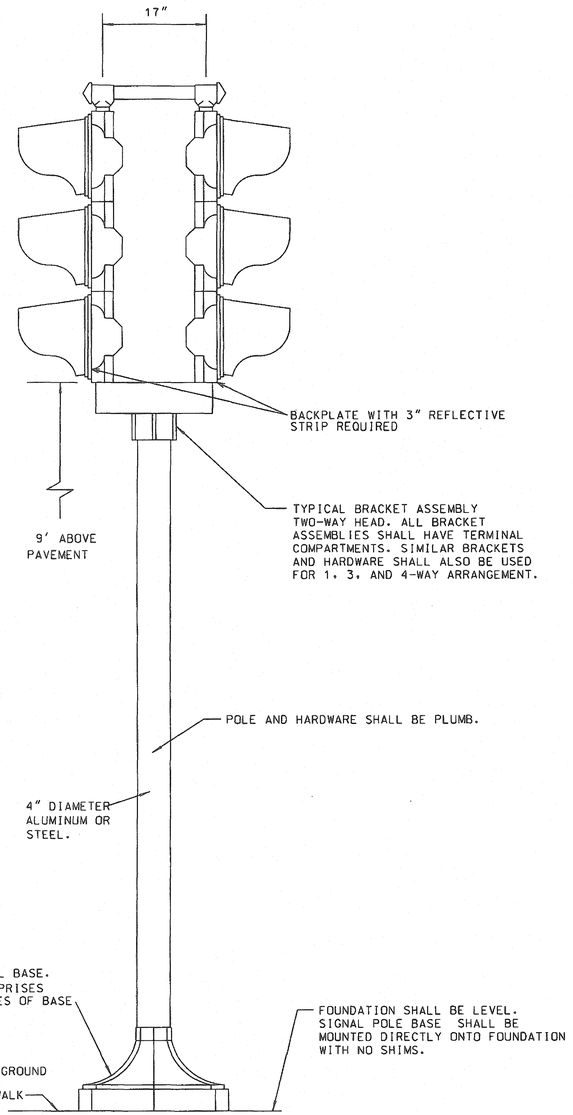
SPAN WIRE FLASHING BEACON MOUNT

ONE 2-WAY HEAD

ALL HEADS SHALL BE HORIZONTALLY ALIGNED



PEDESTAL MOUNTED SIGNAL INSTALLATION



NOTES:

1. FOR FOUNDATION SEE SIGNAL PEDESTAL FOUNDATION LOCATED ON SHEET 3 IN TRAFFIC SIGNAL AND INSTALLATION DETAILS.
2. TWO-WAY AND THREE-WAY SIGNAL HEADS SHALL BE SIMILARLY MOUNTED WITH APPROPRIATE HARDWARE. CLEARANCE FROM THE BOTTOM OF THE SIGNAL HEAD TO SIDEWALK OR NATURAL GROUND SHALL BE 9' OR SHALL CONFORM TO THE CURRENT ADOPTED EDITION OF THE MUTCD.

STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
4/17/2017

SHEET NUMBER 214

PARISH	FEDERAL PROJECT	STATE PROJECT
EAST BATON ROUGE		H.012232

DESIGNED	CHECKED	DETAILED	CHECKED	DATE	SHEET
S. MCCARROLL	D. LORIO	S. MCCARROLL	L. WANG	04/12/2017	9 OF 14

NO.	REVISION DESCRIPTION	BY	DATE

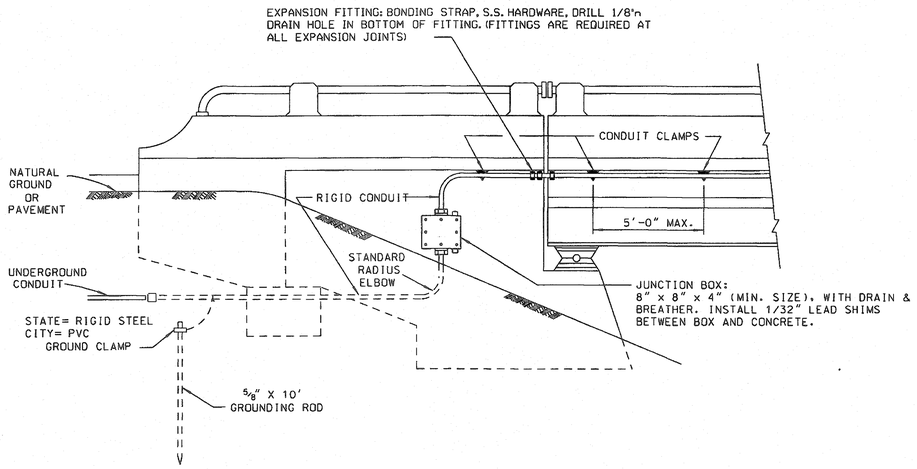
TRAFFIC SIGNAL STANDARD DETAILS

SIGNAL MOUNTING DETAILS

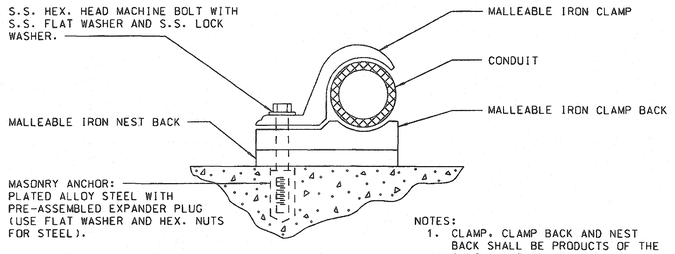
TSD-08

TRAFFIC ENGINEERING

TYPICAL CONDUIT INSTALLATION ON BRIDGE STRUCTURE



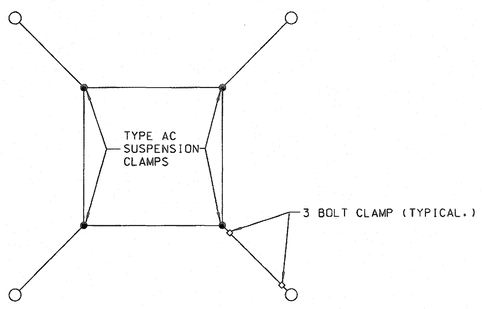
CONDUIT FASTENING DETAIL



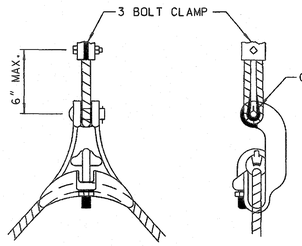
NOTES:
1. CLAMP, CLAMP BACK AND NEST BACK SHALL BE PRODUCTS OF THE SAME MANUFACTURER.
2. FLANGES OF STEEL BEAMS SHALL NOT BE DRILLED.
3. 5'-0" MAX. SPACING.
4. BOLT SCHEDULE:
   3/4" & 1" CLAMPS- - - - 1/4"ø BOLTS
   1-1/4" & 1-1/2" CLAMPS- - 3/8"ø BOLTS
   2" & LARGER CLAMPS- - - 1/2"ø BOLTS

SUSPENDED BOX INSTALLATION

ALSO USED ON BRIDLE SPAN INSTALLATION



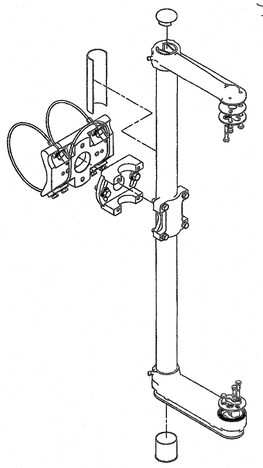
TYPE AC SUSPENSION CLAMP



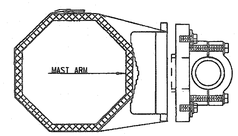
NOTES:
1. TYPE AC SUSPENSION CLAMPS SHALL BE CAPABLE OF WITHSTANDING A TENSILE LOAD OF 25,000 POUNDS AND SHALL BE GROOVED FOR 3/8" CABLE. TYPE AC SUSPENSION CLAMPS SHALL BE USED FOR ALL SUSPENDED BOX INSTALLATIONS.
2. CABLE SHALL HAVE 3' OF SPARE CABLE FORMED AS A LOOP ON EACH SIDE OF CLAMP.

INSTALLATION DETAIL OF MAST ARM ATTACHMENTS FOR SIGN AND SIGNAL BRACKETS

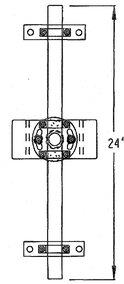
SIGNAL- ISOMETRIC VIEW



SIGN - SIDE VIEW

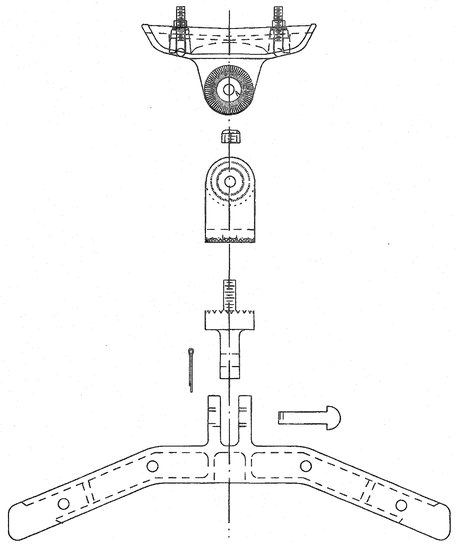


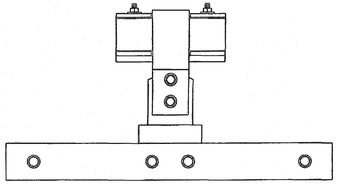
SIGN - FRONT VIEW



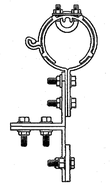
NOTE:
1. BRACKETS SHALL UTILIZE A STRANDED CABLE TO ATTACH BRACKET TO ARM.
2. ATTACHMENTS SHALL BE ADJUSTABLE TO PLUMB.
3. ADDITIONAL SIGN BACKING MAY BE REQUIRED FOR SIGNS LARGER THAN 36". APPROVAL OF PROJECT ENGINEER REQUIRED PRIOR TO INSTALLATION.

SPAN WIRE SIGN BRACKET





FRONT VIEW



SIDE VIEW

NOTES:

1. ALL MATERIAL FOR DEVICES SHOWN SHALL BE CAST ALUMINUM CONSTRUCTION WITH COATING TO PREVENT OXIDATION.
2. SIGN MOUNTING BRACKET PRE-DRILLED WITH 1/2" HOLES (SEE DRAWING).
3. BOTTOM OF SIGN SHALL BE WEIGHTED WITH STEEL BAR PAINTED TO RESIST CORROSION. BRACKET AND WEIGHT SHALL BE ATTACHED TO SIGN WITH HDG OR STAINLESS STEEL 3/8" BOLTS, WASHERS, AND NUTS.
4. SPAN WIRE SADDLE SHALL BE DESIGNED TO FIT A CABLE RANGE OF 3/8" - 1/2".
5. BRACKET SHALL BE INSTALLED SO THAT THE SIGN IS PLUMB AND PERPENDICULAR TO THE DRIVERS LINE OF VIEW.

STATE OF LOUISIANA
LET Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
4/12/2017

SHEET NUMBER 215

PARISH	FEDERAL PROJECT	STATE PROJECT
EAST BATON ROUGE		H.012232

DESIGNED	DETAILED	DATE	SHEET
S. MCCARROLL D. LOMIO	S. MCCARROLL L. WANG	04/12/2017	10 OF 14

NO.	DATE	REVISION DESCRIPTION	BY

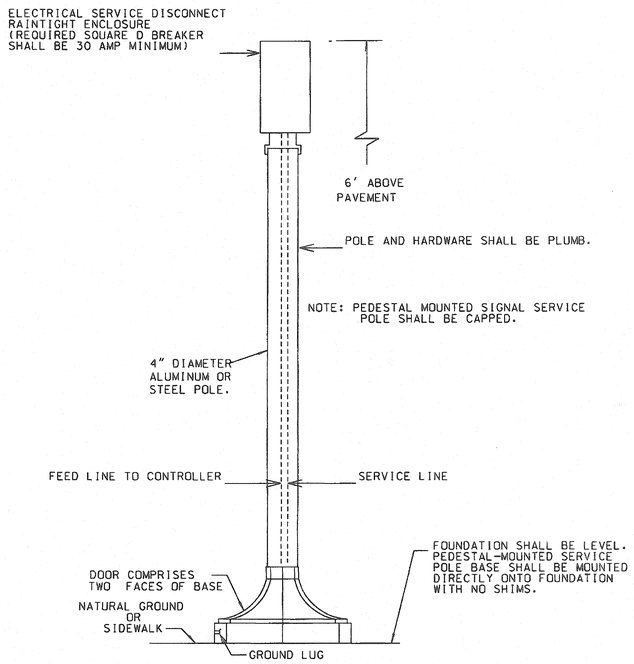
TRAFFIC SIGNAL STANDARD DETAILS

HARDWARE DETAILS

TSD-09

TRAFFIC ENGINEERING

PEDESTAL-MOUNTED SIGNAL SERVICE POLE INSTALLATION

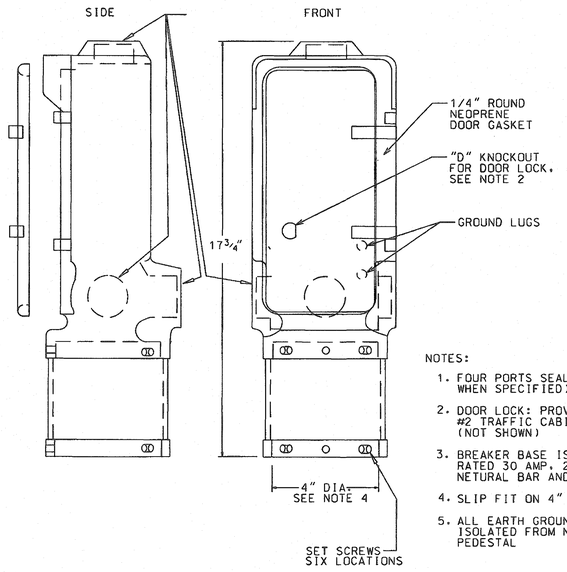


(FOR FOUNDATION USE STANDARD DETAIL FOR SIGNAL PEDESTAL FOUNDATION)

NOTES:

1. UNDERGROUND CONDUIT SHALL BE INSTALLED IN A STRAIGHT LINE FROM START TO FINISH. ANY DEVIATION FROM A STRAIGHT LINE WILL REQUIRE PRIOR APPROVAL BY THE PROJECT ENGINEER.
2. THE CONTRACTOR SHALL NOT RECEIVE DIRECT PAY FOR VERTICAL RUN AT THE START AND FINISH POINTS AS WELL AS ADDITIONAL CONDUIT DUE TO A DEVIATION FROM A STRAIGHT LINE INSTALLATION.
3. ALL CONCRETE SHALL BE "CLASS A" IN ACCORDANCE WITH SECT. 901 OF THE STD. SPEC'S.
4. ALL SERVICE POLES SHALL BE GROUNDED WITH #6 AWG BARE SOLID GROUNDING WIRE.
5. INSTALL NEW GROUND ROD. CONNECT GROUND ROD TO SIGNAL PEDESTAL BY NEW GROUND WIRE.
6. SERVICE SHALL BE120/240 V. AC AND WIRED WITH THHN-THWN OR XHHW #6 AWG. TWO BLACKS, AND ONE WHITE NEUTRAL, 3 CONDUCTOR, CONCENTRIC CABLE SHALL BE INSTALLED WHERE SERVICE WILL ATTACH TO OR ENTER STEEL SIGNAL POLE.
7. SERVICE CONDUCTORS SHALL BE RUN IN A SEPARATE CONDUIT TO CONTROLLER BASE.
8. ALL EXPOSED METAL SHALL BE PAINTED AS PER LADOTD STANDARD SPECIFICATIONS.

ELECTRICAL SERVICE DISCONNECT RAINTIGHT ENCLOSURE FOR PEDESTAL MOUNTED SIGNAL SERVICE POLE



NOTES:

1. FOUR PORTS SEALED. (1 1/2" FPT WHEN SPECIFIED)
2. DOOR LOCK: PROVIDE MATCHED #2 TRAFFIC CABINET KEY. (NOT SHOWN)
3. BREAKER BASE IS SQUARE D RATED 30 AMP, 240 VAC WITH NETURAL BAR AND GROUND LUG.
4. SLIP FIT ON 4" PEDESTAL POLE.
5. ALL EARTH GROUNDS SHALL BE ISOLATED FROM NEUTRAL BUS AT PEDESTAL

WIRING FOR FLASHING BEACON

HEADS SHALL BE WIRED FOR A SIMULTANEOUS FLASH FOR EACH APPROACH.

NO SPARE CONDUCTORS REQUIRED
RED - FLASH CIRCUIT #1
BLACK - FLASH CIRCUIT #2
WHITE- AC COMMON
GREEN - CASE GROUND

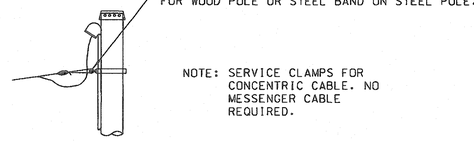
WIRING DETAIL FOR TRAFFIC SIGNAL HEADS & HANGERS

	INDICATIONS	TERMINAL BLOCK	2-6 CONDUCTOR CABLES		1-10 CONDUCTOR CABLE
HEAD 1	GREEN	1	GREEN	CABLE 1	GREEN
	AMBER	2	YELLOW	CABLE 1	YELLOW
	RED	3	RED	CABLE 1	RED
HEAD 2	GREEN	4	GREEN	CABLE 2	G/BLACK
	AMBER	5	YELLOW	CABLE 2	Y/BLACK
	RED	6	RED	CABLE 2	R/BLACK
	COMMON	7	WHITE	CABLE 1 & 2	WHITE
	GREEN ARROW	8	BLACK	CABLE 1	BLACK
	AMBER ARROW	9	BLACK	CABLE 2	W/ BLACK
		10			
		11			
	CASE GROUND	12	BLUE	CABLE 1 & 2	BLUE

NOTE: EIGHTEEN CIRCUIT DISCONNECT HANGERS SHALL BE SIMILARLY WIRED WITH SOLID INDICATIONS WIRED FIRST FOLLOWED BY ARROW INDICATIONS. ON SPAN MOUNTED SIGNAL INSTALLATIONS, ALL BULBS SHALL BE INDIVIDUALLY WIRED FROM CONTROLLER. ALL CABLES SHALL BE CONTINUOS RUN WITHOUT SPLICES EXCEPT AS SHOWN FOR MAST ARM INSTALLATIONS AT DISCONNECT HANGERS SHOWN ON PLANS OR WHERE JUNCTIONS ARE SHOWN ON THE PLANS. ALL WIRES SHALL BE TERMINATED IN HANGER. CONDUCTORS THAT ARE UNUSED IN SIGNAL THAT DO NOT HAVE INDICATIONS SHOWN ABOVE SHALL BE SPARE CONDUCTORS AND SHALL NOT BE USED. THE HARNESS FROM THE SIGNAL TERMINAL BLOCK SHALL BE WIRED IN ACCORDANCE TO THE ABOVE TABLE. UNUSED CONDUCTORS SHALL BE BONELESS IN HEAD WITH ENDS TAPED TO PREVENT GROUNDING TO CASES.

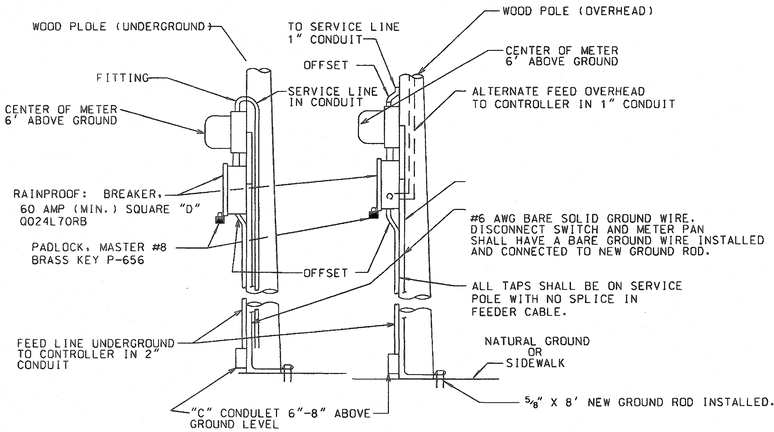
OVERHEAD SERVICE TO CONTROLLER

(AS CALLED FOR IN THE PLANS OR APPROVED BY PROJECT ENGINEER)



TYPICAL ELECTRICAL SERVICE

(BREAKER SIZED ACCORDING TO THE LOAD WITH MINIMUM BREAKER SIZE OF 60 AMP)



NOTES:

1. UNDERGROUND CONDUIT SHALL BE INSTALLED IN A STRAIGHT LINE FROM START TO FINISH. ANY DEVIATION FROM A STRAIGHT LINE WILL REQUIRE PRIOR APPROVAL BY THE PROJECT ENGINEER.
2. ALL SERVICE POLES SHALL BE GROUNDED WITH #6 AWG BARE SOLID GROUNDING WIRE.
3. INSTALL NEW GROUND ROD AND WIRE.
4. SERVICE SHALL BE 120/240 V. AC AND WIRED WITH THHN-THWN OR XHHW #6 AWG. TWO BLACKS, AND ONE WHITE NEUTRAL, 3 CONDUCTOR, CONCENTRIC CABLE SHALL BE INSTALLED WHERE SERVICE WILL ATTACH TO OR ENTER STEEL SIGNAL POLE.
5. SERVICE CONDUCTORS SHALL BE RUN IN A SEPARATE CONDUIT TO CONTROLLER BASE.
6. CONDUIT STRAPS SHALL BE 2 HOLE, HEAVY DUTY AND SHALL BE INSTALLED BEGINNING AT FITTING OFFSET OR COUPLING, SPACED AT 5' INTERVALS MAXIMUM ON EACH SIDE OF CONDULETS AND ADJACENT TO CABINET. 1/4" x 3" HDG LAG SCREWS SHALL BE USED ON STRAPS.
7. ALL EQUIPMENT SHALL BE ATTACHED TO POLE WITH HDG LAG SCREWS.
8. AN ELECTRICAL SERVICE SHALL NEVER BE BUILT ON A MAST ARM OR STRAIN POLE.

STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
4/12/2017

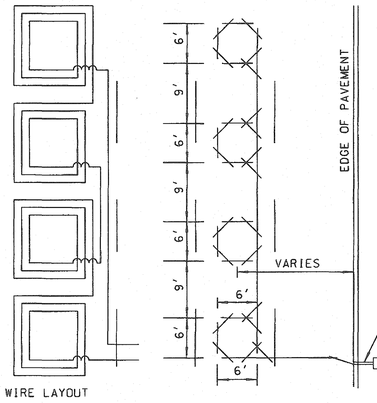
SHEET NUMBER	216
PARISH	EAST BATON ROUGE
FEDERAL PROJECT	
STATE PROJECT	H.012232
DESIGNED / CHECKED	S. MCCARROLL / D. LORIO
DETAILED / CHECKED	S. MCCARROLL / L. WANG
DATE / SHEET	04/12/2017 / 11 OF 14

NO.	DATE	REVISION DESCRIPTION	BY

TRAFFIC SIGNAL STANDARD DETAILS
ELECTRICAL SERVICE AND WIRING DETAILS
TSD-10

TRAFFIC ENGINEERING

TYPICAL SAW CUT LAYOUT



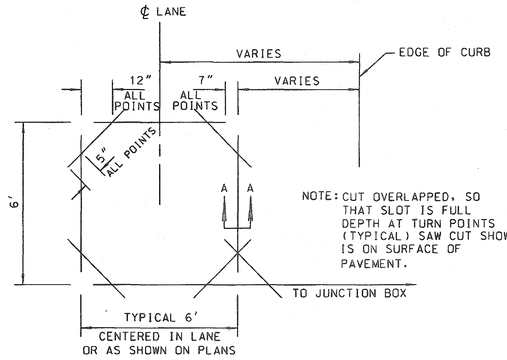
NOTES:

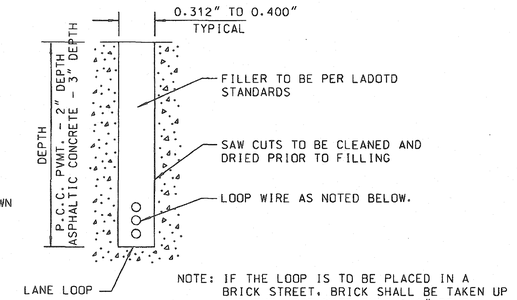
1. LOOPS SHALL CONSIST OF A CONTINUOUS LENGTH OF NO. 14 AWG, 19-STRAND WIRE, INSULATED BY A CROSS-LINKED THERMOSETTING BLACK POLYETHYLENE COMPOUND (ASTM D-2655-80).
2. THE CONDUCTOR SHALL BE COPPER AND SHALL, BEFORE INSULATING, CONFORM TO THE REQUIREMENTS OF ASTM B-3.
3. THE STRANDED CONDUCTOR SHALL UTILIZE EITHER CONCENTRIC OR BUNCH STRANDING AND SHALL CONFORM TO THE CIRCULAR MIL AREA AND PHYSICAL REQUIREMENTS SPECIFIED IN ASTM DESIGNATION B-8, OR ASTM DESIGNATION B-174, FOR BUNCH STRANDING.
4. THE INSULATION SHALL BE APPLIED CONCENTRICALLY ABOUT CONDUCTOR. THE THICKNESS OF THE INSULATION SHALL BE NOT LESS THAN 0.030 INCHES AT ANY POINT WITH A MINIMUM AVERAGE THICKNESS OF 0.035 INCHES. THE METHOD OF MEASUREMENT AND THE APPARATUS USED SHALL BE IN ACCORDANCE WITH UNDERWRITERS LABORATORIES, INCORPORATED STANDARD UL62 (ANSI C33.1).
5. THE INSULATION OF THE FINISHED CONDUCTOR SHALL WITHSTAND WITHOUT BREAKDOWN THE APPLICATION OF A 60 OR 3000 HERTZ, 7500 VOLT (RMS) ESSENTIALLY SINUSOIDAL SPARK TEST POTENTIAL IN ACCORDANCE WITH THE METHOD AND USING EQUIPMENT SPECIFIED IN UNDERWRITERS LABORATORIES, INCORPORATED STANDARD UL83 (ANSI C33.8).
6. LOOP WIRE SHALL CONFORM TO IMSA SPECIFICATION 51-7 EXCEPT WHERE MODIFIED BY THESE SPECIFICATIONS.
7. THE INSULATED CONDUCTOR SHALL BE COMPLETELY ENCASED IN A TUBE OF LOW DENSITY POLYETHYLENE CONFORMING TO THE FOLLOWING DIMENSIONS:

NOMINAL OUTSIDE DIAMETER	.24 INCH
MAXIMUM OUTSIDE DIAMETER	.25 INCH
NOMINAL INSIDE DIAMETER	.173 INCH
MAXIMUM INSIDE DIAMETER	.190 INCH
NOMINAL WALL THICKNESS	.030 INCH
MAXIMUM WALL THICKNESS	.035 INCH

   THE NAME OF THE MANUFACTURER, THE YEAR OF MANUFACTURE, AND ANY APPLICABLE PART NUMBER SHALL BE PRINTED ON THE ENCASING TUBE AT INTERVALS OF 27 INCHES OR LESS
8. SLOTS SHALL BE CLEANED OF LOOSE MATERIAL. THE WIRE SHALL BE CAREFULLY INSTALLED TO ENSURE THE INSULATION IS NOT DAMAGED.
9. LOOPS POSITIONED PART IN ASPHALT AND PART IN CONCRETE SHALL BE SEPARATED. SEPARATE LOOPS SHALL TERMINATE AT THE JUNCTION BOX AND SHALL BE WIRED IN SERIES.

LOOP SAW-CUT CONFIGURATION



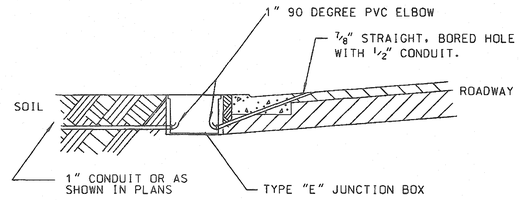


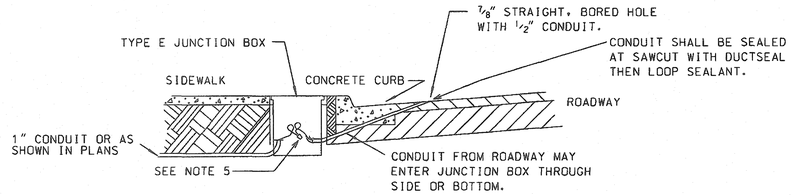
SECTION A-A

NOTE: IF THE LOOP IS TO BE PLACED IN A BRICK STREET, BRICK SHALL BE TAKEN UP AND THE LOOP WIRE PLACED 1" BELOW THE BRICK BEDDING SURFACE TO PREVENT ABRASION BETWEEN BRICK AND WIRE. BRICK SHALL BE REPLACED TO ORIGINAL GRADE UPON COMPLETION OF LOOP WIRE PLACEMENT.

NOTE: SAW CUTS DO NOT MEET AT CORNER OF RECTANGLE. DIMENSIONS SHOWN ARE REQUIRED FOR USING 12"SAW BLADE. LARGE BLADES REQUIRE LONGER DISTANCES THAN SHOWN AT CORNERS. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING CORRECT DEPTH REGARDLESS OF BLADE SIZE, UNLESS OTHERWISE NOTED IN PLANS.

TYPICAL LOOP LEAD-IN INSTALLATION



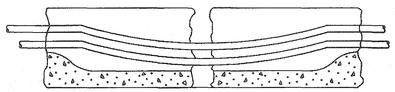


NOTES:

1. CONTRACTOR SHALL PROVIDE 1/2" CONDUIT FROM JUNCTION BOX AND TERMINATE BELOW GROUND SO THAT IT DIRECTLY RECEIVES LOOP LEAD-IN WIRE.
2. FOR A LOOP INSTALLATION IN PAVEMENT WITH OVERLAYS LESS THAN 3" OVER CONCRETE, A DEEPER DEPTH SAWCUT SHALL BE REQUIRED. THE DEPTH REQUIRED SHALL PRODUCE A 1" SAW CUT INTO THE CONCRETE AND SHALL BE DETERMINED AT THE JOB SITE. THE SAW CUT SHALL BE APPROVED BY THE PROJECT ENGINEER PRIOR TO THE WIRE INSTALLATION.
3. FOR LOOP INSTALLATIONS IN ROADWAY THAT HAS ASPHALT SHOULDERS, THE 1/2" CONDUIT SHOWN ABOVE SHALL BE EXTENDED THROUGH A TRENCH IN THE SHOULDER TO A JUNCTION BOX INSTALLED OUTSIDE THE SHOULDER.
4. IDENTIFY LOOP WIRES WITH PERMANENT LABEL MARKED WITH CONTROLLER PHASE.
5. LOOP SPLICE SHALL BE MADE INSIDE THE JUNCTION BOX WITH A COPPER OPEN ENDED COMPRESSION SPLICE CAP AND CRIMPED. THE LOOP SPLICE SHALL THEN BE SEALED WITH A SCOTCHCAST ELECTRICAL INSULATING RESIN SYSTEM OR A APPROVED EQUAL.

PAVEMENT JOINT & CRACK SECTION

LEAVE WIRE SLACK



NOTE: DROP SAW BLADE DOWN TO ALLOW SLACK IN CABLE FOR A JOINT LESS THAN 1/2". ALL OTHER JOINTS SHALL NOT BE CROSSED EXCEPT AS DIRECTED BY ENGINEER.

STATE OF LOUISIANA
LET Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
4/12/2017

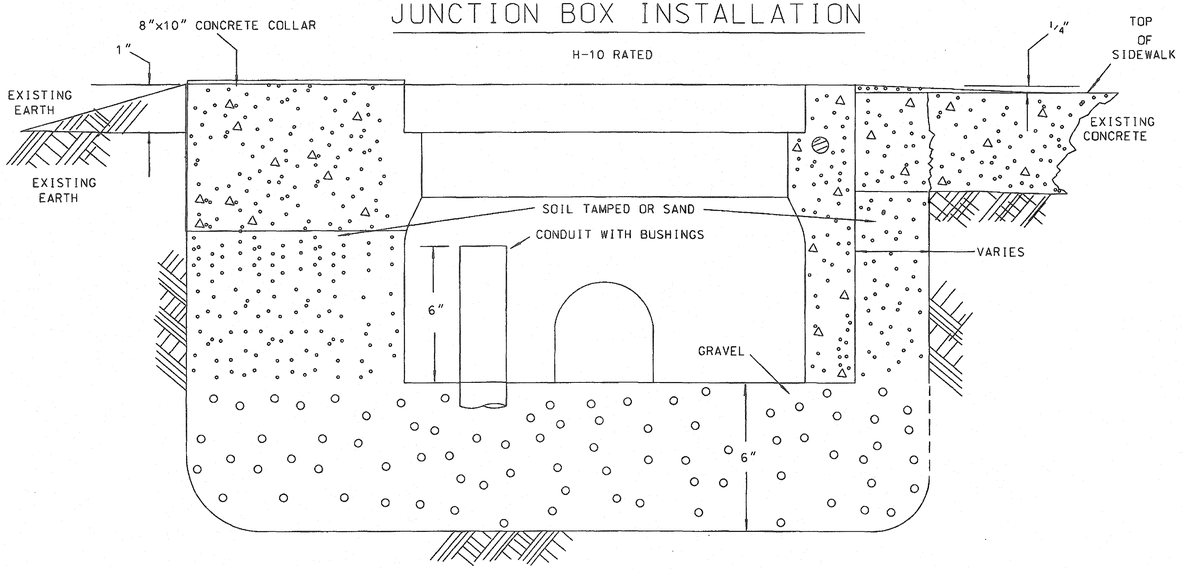
SHEET NUMBER	217
PARISH: EAST BATON ROUGE	
FEDERAL PROJECT	
STATE PROJECT	H.012232
DESIGNED S. MCCARROLL	
CHECKED D. LORIO	
DETAILED S. MCCARROLL	
CHECKED L. WANG	
DATE 04/12/2017	
SHEET 12 of 14	

NO.	DATE	REVISION DESCRIPTION	BY

TRAFFIC SIGNAL STANDARD DETAILS
SAW CUTTING PAVEMENT AND LOOP WIRE DETAILS
TSD-11

TRAFFIC ENGINEERING

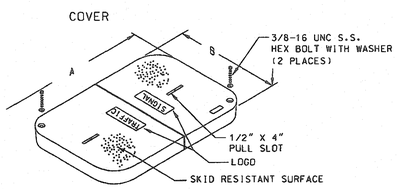
JUNCTION BOX INSTALLATION

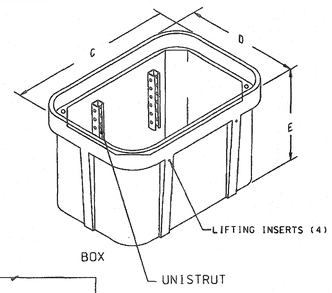


NOTE FOR ALL JUNCTION BOXES:

1. TOP OF BOX TO EXTEND 1/4" ABOVE EXISTING SIDEWALK WITH NEW SIDEWALK SLOPED UP TO TOP OF BOX.
2. DO NOT PLACE JUNCTION BOXES IN THE TRAVELED WAY OR ON SHOULDERS.
3. PROVIDE 8" X 10" CONCRETE COLLARS EXCEPT WITHIN CONCRETE PAVED AREAS. CONCRETE COLLARS SHALL BE PROVIDED AROUND THE TOP PERIMETER OF JUNCTION BOX. CONCRETE COLLAR SHALL BE PAID FOR UNDER THE JUNCTION BOX PAY ITEM.

JUNCTION BOX



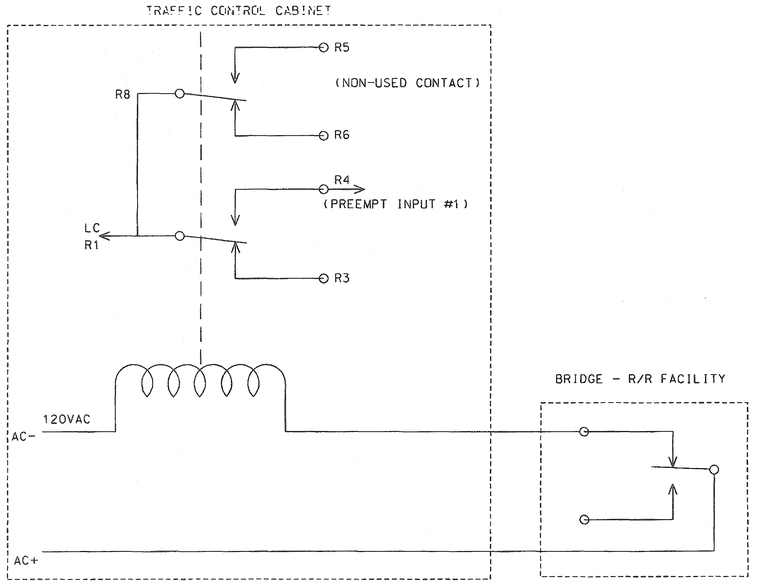


TYPE DIMENSION (IN.) (APPROX.)					
BOX	A	B	C	D	E
E	23 3/4	13 3/4	25	15 1/2	12
F	30 1/2	17 1/2	32 1/4	19 1/4	12
G	35 5/8	24	37 5/8	26	18
H	35 5/8	24	37 5/8	26	36
I	47 5/8	30 1/8	49 5/8	32 1/8	18
J	47 5/8	30 1/8	49 5/8	32 1/8	36

NOTE FOR ALL JUNCTION BOXES:
1. JUNCTION BOX SHALL BE AN APPROVED PRODUCT LISTED ON THE TRAFFIC OPERATIONS APPROVED PRODUCT LIST (TOAPL)USE THE TYPE JUNCTION BOX SHOWN IN PLANS.
2. A MINIMUM OF 6' OF SPARE SIGNAL, LOOP LEAD-IN, 6PR, AND SERVICE CABLE SHALL BE INSTALLED IN EACH JUNCTION BOX.
3. "TRAFFIC SIGNAL" SHALL BE IMPRINTED ON THE JUNCTION BOX BY THE MANUFACTURER.

* NOTE FOR TYPE G, H, I AND J JUNCTION BOXES:
1. TWO PIECE COVER.
2. TWO PIECES OF UNISTRUT MOUNTED ON INSIDE WALL.
3. LIFTING INSERTS ON OUTSIDE OF BOX.
4. PROJECTS WITH FIBER OPTIC COMMUNICATION: INSTALL A MINIMUM OF 50' SPARE FIBER IN TYPE "GG" AND 100' SPARE FIBER IN LARGER JUNCTION BOXES.

BRIDGE/RAILROAD PREEMPTION



NOTE:
1. RELAYS SHOWN IN NORMAL (NON-PREEMPT) CONDITION
2. PREEMPT RELAY - 2 POLE DOUBLE THROW
3. LC = LOGIC GROUND

STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
4/12/2017

SHEET NUMBER 218

PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232

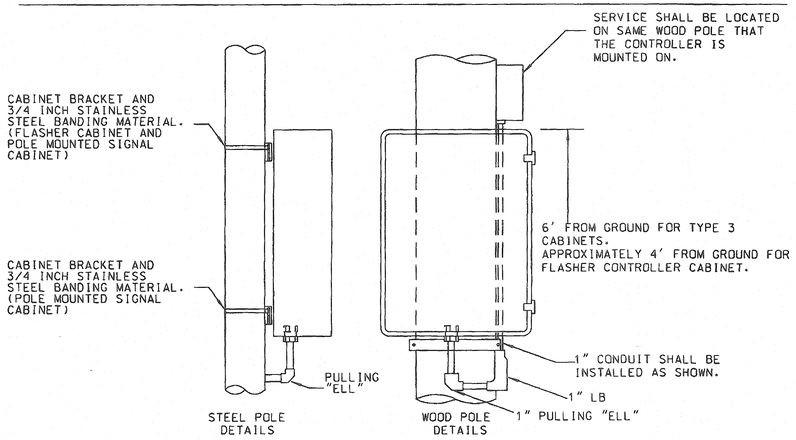
DESIGNED S. MCCARROLL
CHECKED D. LORIO
DETAILED S. MCCARROLL
CHECKED L. WANG
DATE 04/12/2017
SHEET 13 of 14
BY

REVISION DESCRIPTION | NO. | DATE

TRAFFIC SIGNAL STANDARD DETAILS
JUNCTION BOX AND PULL BOX
TSD-12

TRAFFIC ENGINEERING

STEEL POLE MOUNTING FOR: SIGNAL CABINET OR FLASHER CABINET

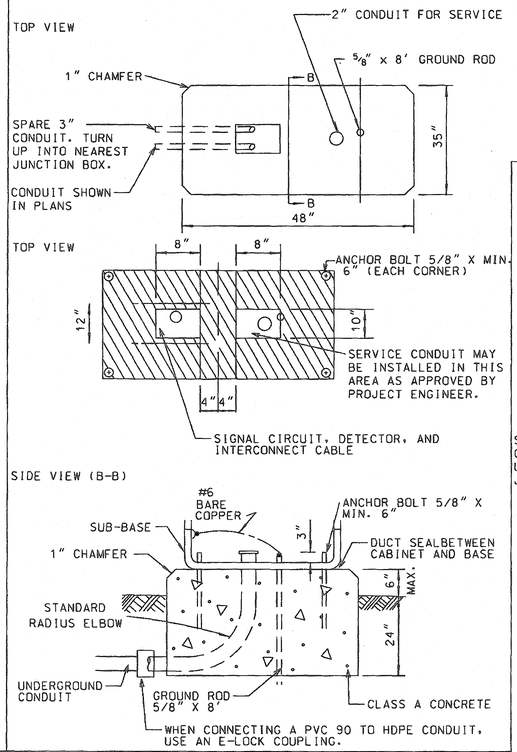


NOTES:

1. WIRE ENTRY INTO CABINET FROM STEEL POLE SHALL BE THROUGH BOSSES PROVIDED ON POLE. PULLING ELLS SHALL BE USED FOR SIGNAL CIRCUIT AND SERVICE CONDUIT. A MYERS HUB ATTACHMENT ON BOTTOM OF CABINET SHALL BE USED FOR SIGNAL CIRCUIT CONDUIT. A MYERS HUB SHALL BE INSTALLED ON CABINET FOR SERVICE ENTRANCE.
2. ALL SERVICE DISCONNECTS SHALL BE LOCATED ON THE CLOSEST WOOD PLOE AVAILABLE FOR SERVICE.
3. TOP AND BOTTOM OF CABINET SHALL BE ATTACHED TO WOOD POLES USING BRACKETS MOUNTED WITH CONDUIT HUBS. STANDARD BRACKET. AND ATTACHED TO POLE WITH ½" X 4" HDG LAG SCREWS.
4. CONDUIT FOR SIGNAL CIRCUIT SHALL BE 3".
5. POLE MOUNTED SIGNAL CABINET: A 3' X 5' X 4" CONCRETE PAD SHALL BE POURED NEXT TO THE CONTROLLER CABINET POLE AND SHALL BE ABOVE GROUND LEVEL.
6. USE A #6 AWG BARE GROUND WIRE TO ATTACH CABINET TO GROUND ROD.
7. ALL GROUND RODS, REGARDLESS OF FOUNDATION SIZE SHALL PROTRUDE THROUGH THE FOUNDATION AND A MINIMUM OF 4' SHALL BE EMBEDED INTO THE EARTH

TYPICAL CONTROLLER FOUNDATION

FOR TYPE 5, 6, AND 7 CABINETS (SEE LADOTD TCS# 18)

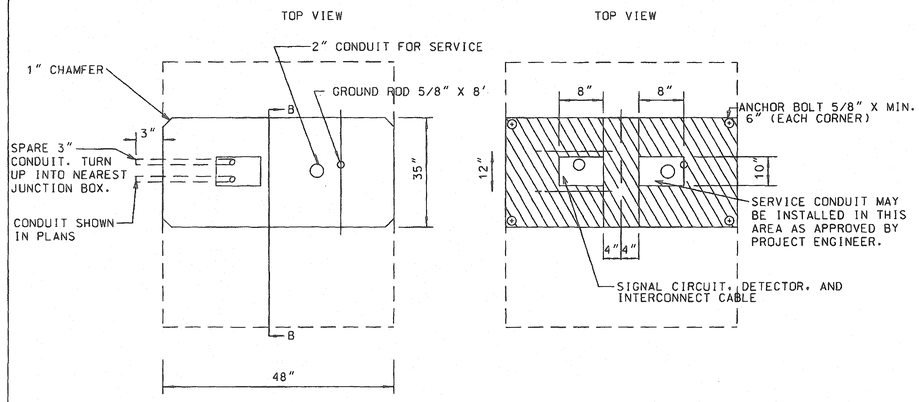


NOTES:

1. ALL GROUND MOUNTED CONTROLLERS SHALL HAVE A SPARE 3" CONDUIT RAN 24" BELOW GRADE TO JUNCTION BOX.
2. ALL EXPOSED CONCRETE EDGES SHALL HAVE A 1" CHAMFER.
3. ALL CONDUIT, GROUND ROD AND ANCHOR BOLTS SHALL PROTRUDE 2 3/4 " MIN. - 3" MAX. ABOVE FINISHED FOUNDATION.
4. FOUNDATION SHALL BE ORIENTED SO THAT THE DOOR IS FACING AWAY FROM TRAFFIC.
5. A #6 BARE SOLID COPPER WIRE SHALL BE REQUIRED TO CONNECT BETWEEN GROUND ROD AND GROUND LUG ON PANEL.

ALTERNATE STEP CONTROLLER FOUNDATION

FOR TYPE 6E CABINETS (SEE LADOTD TCS# 18)

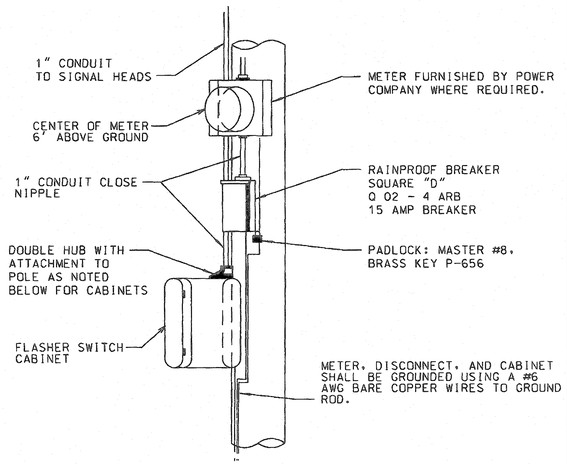


(NOTES FROM CONTROLLER FOUNDATION APPLY)

WOOD POLE MOUNTED FLASHER CONTROLLER SWITCH

(6½" x 12" x 16")

NOTE: USED FOR FLASHING HAZARD BEACONS AND CONTINUOUS FLASHING SIGNS. THIS ITEM SHALL BE INCLUSIVE WITH ELECTRICAL SERVICE.



NOTE: ALL EQUIPMENT SHALL BE ATTACHED TO POLE WITH HDG LAG SCREWS.

STATE OF LOUISIANA
LEI Q. WANG
License No. 33365
PROFESSIONAL ENGINEER
4/12/2017

SHEET NUMBER 219

PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232

DESIGNED: S. MCCARROLL
CHECKED: D. LORIO
DETAILED: S. MCCARROLL
CHECKED: L. WANG
DATE: 04/12/2017
SHEET: 14 OF 14

NO.	REVISION DESCRIPTION	BY	DATE

TRAFFIC SIGNAL STANDARD DETAILS
CONTROLLER MOUNTING AND FOUNDATION DETAILS
TSD-13

DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
DOTD
TRAFFIC ENGINEERING

GENERAL NOTES - OVERHEAD TRAFFIC SIGNS

CONSTRUCTION SPECIFICATIONS: CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT, STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES. LATEST EDITION EXCEPT AS SUPPLEMENTED OR AMENDED BY THE PLANS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS, 2001 AND INTERM SPECIFICATIONS UP TO 2006.

STEEL: MISCELLANEOUS STEEL SHALL CONFORM TO A.S.T.M. A-709, GRADE 36. STEEL TUBING FOR TRUSS AND POST MEMBERS SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF COLD-FORMED TUBING (A-500) GRADE "B" OR "C" (FY=42 KSI MIN.) UNLESS OTHERWISE NOTED.

ALUMINUM: ALL ALUMINUM EXCEPT SIGN PANELS SHALL CONFORM TO ASTM B-221, B-308, OR B-429 ALLOY 6061-T6 UNLESS OTHERWISE NOTED. SIGN PANELS SHALL BE .080" THICK ALUMINUM CONFORMING TO ASTM B-209 ALLOY 5052-H38 OR 6061-T6.

CONCRETE AND REINFORCING STEEL: CONCRETE USED IN FOOTINGS FOR OVERHEAD SIGN TRUSSES AND OVERHEAD CANTILEVER TRUSSES SHALL BE CLASS A1. CONCRETE FOR DRILLED SHAFTS SHALL BE CLASS "S". ALL OTHER CONCRETE MAY BE CLASS "M". DIMENSIONS RELATING TO REINFORCING STEEL FABRICATION ARE OUT TO OUT OF BAR UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO REINFORCING STEEL SPACING ARE CENTER TO CENTER OF BAR OR FACE OF CONCRETE TO CENTERLINE OF BAR. REINFORCING STEEL SHALL HAVE A MINIMUM COVERING OF 2" EXCEPT WHEN CONCRETE IS CAST AGAINST THE EARTH THEN THE COVERING WILL BE 3". ALL REINFORCING STEEL SHALL BE GRADE 60. THE FIRST DIGIT OF REINFORCING BAR NUMBER INDICATES THE BAR SIZE. THE TOP EDGES OF THE FOOTING SHALL BE CHAMFERED ¾".

CONCRETE FINISH: ALL PORTIONS OF THE FOOTINGS FOR CANTILEVERS AND TRUSSES ABOVE GROUNDLINE SHALL HAVE A FINISH IN ACCORDANCE WITH LOUISIANA SPECIFICATION. 805.08.3.

WELDING: ALL WELDING SHALL CONFORM TO THE LA. STANDARD SPECIFICATIONS-SECTION 809 AND SUPPLEMENTAL SPECIFICATIONS. WELDING OF GALVANIZED MEMBERS SHALL NOT BE ALLOWED WITHOUT THE PRIOR, WRITTEN APPROVAL OF THE FABRICATION ENGINEER.

NON-DESTRUCTIVE TESTING: ALL WELDS SHALL BE VISUALLY INSPECTED. MAGNETIC PARTICLE TESTING IS REQUIRED ON NOT LESS THAN 10% OF THE WELDS ON THE TRUSSES AND THEIR SUPPORT STRUCTURES.

SHOP DRAWINGS: SHOP DRAWINGS ARE REQUIRED FOR ALL OVERHEAD TRUSS, OVERHEAD CANTILEVER, FASCIA, AND ANY STRUCTURE MOUNTED SIGNS. SHOP DRAWINGS ARE NOT REQUIRED FOR EXTRUDED SIGN PANELS, UNLESS FABRICATOR INTENDS TO DEVIATE FROM THE DETAILS HEREIN. CONTRACTOR SHALL NOT INITIATE FABRICATION OF SIGNS OR SUPPORT STRUCTURES UNTIL ALL SHOP DRAWINGS ARE APPROVED BY THE ENGINEER.

GALVANIZING: ALL STRUCTURAL STEEL AND MISCELLANEOUS STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH A.S.T.M. DESIGNATION A-123. THICKNESS OF GALVANIZING SHALL PROVIDE A MINIMUM 20 YEAR PROTECTION. PROPER VENTING PRACTICES SHALL BE USED AND DETAILED ON THE SHOP DRAWINGS. DAMAGE TO GALVANIZED SURFACES THAT ARE NOT TO BE ENCASED IN CONCRETE SHALL BE REPAIRED IN ACCORDANCE WITH LA. STANDARD SPECIFICATIONS SUBSECTION 811.08. ALL BOLTS, NUTS, WASHERS, AND MISC. HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH A.S.T.M. DESIGNATION A-153. ALL FIELD HOLES IN GALVANIZED MATERIAL SHALL BE TREATED WITH A COLD GALVANIZING COMPOUND FROM THE A.M.L.

BOLTS: UNLESS NOTED, ALL THREADED CONNECTIONS SHALL INCORPORATE A LOCKING DEVICE AND HAVE A MINIMUM OF 3 THREADS BEYOND THE NUTS. ALL BOLTS SHALL BE HIGH STRENGTH BOLTS, A.S.T.M. A-325, UNLESS OTHERWISE NOTED. STAINLESS STEEL FOR BOLTS SHALL CONFORM TO A.S.T.M. DESIGNATION A-320 B8, CLASS 2 TYPE 304, OR A-193 B8, CLASS 2 TYPE 304, UNLESS OTHERWISE NOTED. STAINLESS STEEL NUTS SHALL CONFORM TO A.S.T.M. DESIGNATION A-194, GRADE 8, TYPE 304. ALUMINUM BOLTS SHALL CONFORM TO A.S.T.M. F-468 ALLOY 2024-T4 AND NUTS ARE A.S.T.M. F-467 ALLOY 6061-T6 OR 6262-T9. WHERE BOLTS ARE USED ON BEVELED SURFACES, BEVELED WASHERS SHALL BE PROVIDED TO GIVE FULL BEARING TO THE HEAD AND/OR THE NUT.

D.T.I. WASHERS: DIRECT TENSION INDICATING (D.T.I.) WASHERS SHALL BE USED ON ALL BOLTS WHERE TENSION VERIFICATION IS REQUIRED.

ANCHOR BOLTS: ANCHOR BOLTS SHALL CONFORM TO AASHTO M314, GRADE 55 (OR APPROVED EQUAL) AND BE HOT DIP GALVANIZED TO A.S.T.M. A-123. ANCHOR BOLT NUTS TO BE TIGHTENED A MINIMUM ROTATION OF 240° (2/3 TURNS) FROM THE SNUG TIGHT CONDITION. UNLESS OTHERWISE NOTED, ALL THREADED CONNECTIONS SHALL INCORPORATE A LOCKING DEVICE AND HAVE A MINIMUM OF 3 THREADS BEYOND THE NUTS.

RIVETS: ALL RIVETS SHALL BE ¼" DIAMETER BLIND RIVETS WITH POSITIVE MANDREL RETENTION. THE RIVET BODY AND MANDREL SHALL BE ALUMINUM WITH A ½" MAXIMUM DIAMETER DOME HEAD. THE RIVETS SHALL HAVE A MINIMUM ULTIMATE TENSILE STRENGTH = 875 LBS., AND CONFORM TO ASTM B-316 5056-H32.

SIGN SHEETING: UNLESS OTHERWISE NOTED, ALL SIGN MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 1015 IN THE STANDARD SPECIFICATIONS. IN ORDER TO OBTAIN AN ACCEPTABLE COLOR MATCH BETWEEN MULTIPLE PANELS ON A GUIDE SIGN, ALL OF THE BACKGROUND SHEETING FOR ANY GUIDE SIGN SHALL BE THE MINIMUM WIDTH OF THE LARGEST PANEL AND SHALL COME FROM THE SAME LOT OR RUN NUMBER FROM THE SHEETING MANUFACTURER UNLESS OTHERWISE APPROVED IN WRITING, RETRO-REFLECTIVE SHEETING SHALL BE APPLIED TO PANELS IN SUCH A MANNER THAT THERE ARE NO HORIZONTAL SPLICES.

MISCELLANEOUS: THE CONTRACTOR SHALL MARK THE DATE OF FABRICATION, SHEETING MANUFACTURER CODE, AND SIZE OF SIGN ON THE BACK OF EACH SIGN WITH AN APPROVED WEATHER RESISTANT PAINT STICK. SEE DETAIL "A", SHEET NO. 3 OF 16.

ALL DIMENSIONS REQUIRED FOR SATISFACTORY INSTALLATION SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE FABRICATION. ADJUSTMENTS SHALL BE MADE AS DIRECTED BY THE ENGINEER.

ALL ALUMINUM SURFACES PLACED IN CONTACT WITH, OR FASTENED TO UNGALVANIZED STEEL MEMBERS SHALL BE THROUGHLY COATED WITH AN APPROVED ALUMINUM IMPREGNATED CAULKING COMPOUND.

BEFORE SHIPPING A TRUSS, IT SHALL BE ASSEMBLED IN THE SHOP WITH ALL BOLTS IN PLACE. THE DISTANCE BETWEEN CENTER LINES OF BASE PLATES SHALL BE MEASURED AND CHECKED AGAINST FIELD MEASUREMENTS OF THE COLUMN SUPPORT SYSTEM PRIOR TO SHIPMENT.

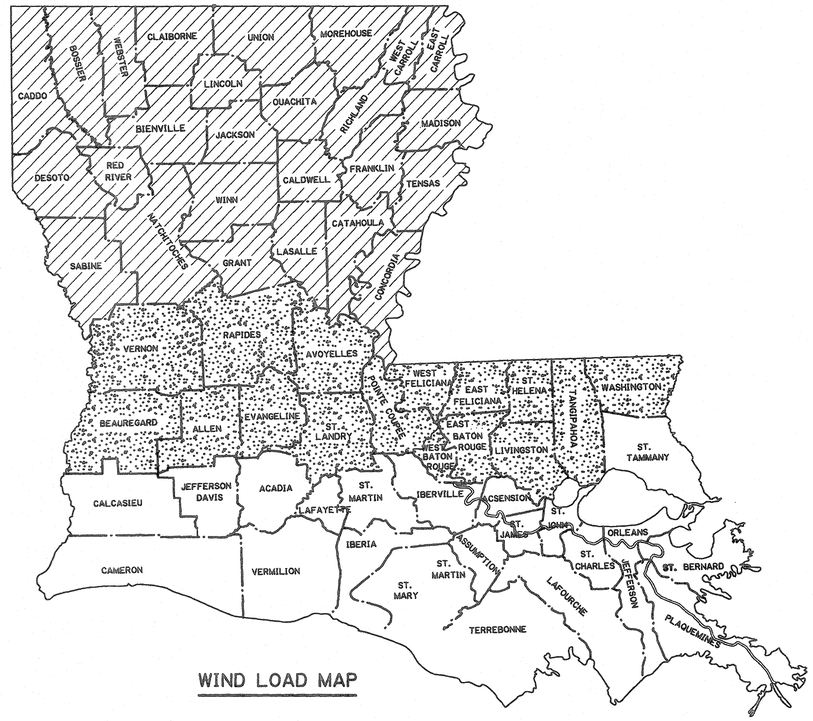
IN GENERAL, A STRUCTURE MOUNTED OVERHEAD SIGN SUPPORT SHOULD BE PLACED IN A LOW MOMENT AREA OF THE STRUCTURAL SPAN. THE IDEAL LOCATION IS WITHIN THE END 1/3 OF THE SPAN LENGTH FOR A SIMPLE SPAN STRUCTURE AND NEAR THE POINT OF CONTRAFLEXURE FOR A CONTINUOUS SPAN STRUCTURE. FOR OVERHEAD MOUNTED TYPE SIGNS, THE VERTICAL SUPPORT MEMBERS SHALL BE REPLACED WITH ONE PIECE FULL HEIGHT VERTICAL SUPPORT MEMBERS.

USE OF SECTIONS PROVIDING EQUAL OR GREATER STRENGTH THAN THE MEMBERS DESIGNATED BY THE PLANS SHALL BE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.

TREE TRIMMING: THE CONTRACTOR SHALL BE RESPONSIBLE FOR MISCELLANEOUS BRUSH AND TREE TRIMMING TO ALLOW FOR FULL SIGN PRESENTATION AS DIRECTED BY THE PROJECT ENGINEER.

GUARD RAIL REQUIREMENTS: A SITE SPECIFIC GUARD RAIL LAYOUT DETAIL SHALL BE PROVIDED FOR EACH GROUND MOUNTED SIGN TRUSS AND CANTILEVER. SEE GUARD RAIL STANDARD PLANS FOR ALL DESIGN CRITERIA AND DETAILS.

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30867
PROFESSIONAL ENGINEER IN
CIVIL ENGINEERING
2/22/18



WIND LOAD MAP

WIND LOAD MAP LEGEND		
SYMBOL	ZONE	DESIGN WIND VELOCITY (MPH)
	1	90
	2	110
	3	130

SHEET	BRIDGE STANDARD INDEX NO.	DESCRIPTION
1 OF 16	BD.2.7.1.0.1	INDEX, WIND LOAD MAP AND GENERAL NOTES
2 OF 16	BD.2.7.1.0.2	SIGN PANEL DETAILS
3 OF 16	BD.2.7.1.0.3	EXTRUDED ALUMINUM PANELS
4 OF 16	BD.2.7.1.0.4	EXTRUDED ALUMINUM PANELS
5 OF 16	BD.2.7.1.0.5	OVERHEAD SIGN TRUSS
6 OF 16	BD.2.7.1.0.6	MISCELLANEOUS DETAILS
7 OF 16	BD.2.7.1.0.7	OVERHEAD TRUSS DESIGN TABLES
8 OF 16	BD.2.7.1.0.8	PILE FOOTING DETAILS
9 OF 16	BD.2.7.1.0.9	GROUND MOUNTED CANTILEVER
10 OF 16	BD.2.7.1.0.10	STRUCTURE MOUNTED CANTILEVER
11 OF 16	BD.2.7.1.0.11	CANTILEVER DESIGN TABLES
12 OF 16	BD.2.7.1.0.12	OVERHEAD SIGN DATA TABLES
13 OF 16	BD.2.7.1.0.13	DRILL SHAFT FOOTING ALT.
14 OF 16	BD.2.7.1.0.14	DRILL SHAFT FOOTING ALT.
15 OF 16	BD.2.7.1.0.15	FASCIA MOUNTED BRACKETS
16 OF 16	BD.2.7.1.0.16	FASCIA MOUNTED BRACKETS

SHEET NUMBER 220

PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232

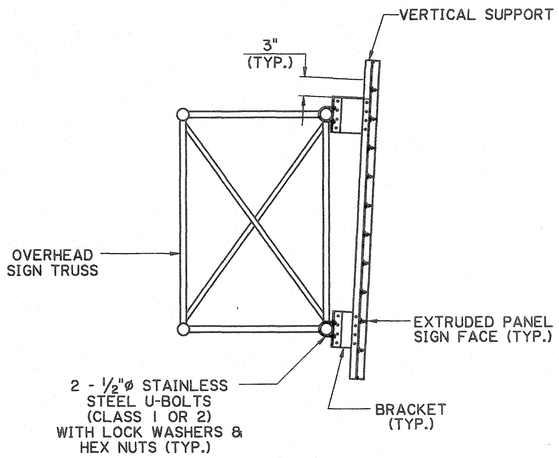
DESIGNED K. BRAUNER
CHECKED P. FOSSIER
DETAILED K. BRAUNER
CHECKED B. ALLEN
DATE FEB. 2018
SHEET 1 OF 16

NO.	DATE	REVISION DESCRIPTION	BY

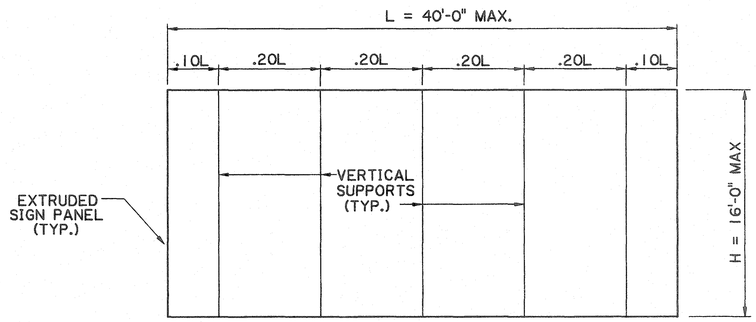
WIND LOAD MAP & GENERAL NOTES

BD.2.7.1.0.1 - OVERHEAD TRAFFIC SIGNS

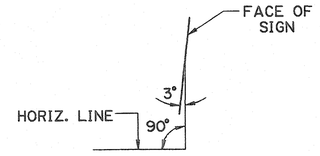
BRIDGE AND STRUCTURAL DESIGN



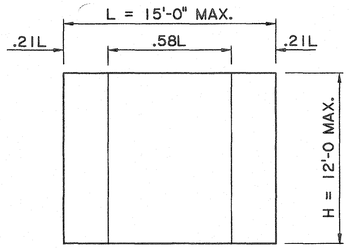
SIGN SUPPORT DETAIL



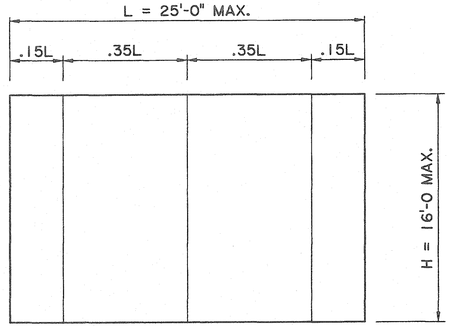
5 SUPPORTS



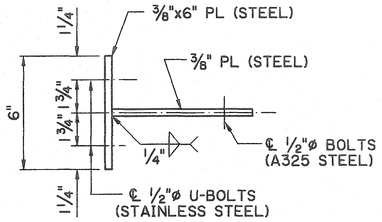
FINAL SIGN PANEL ORIENTATION



2 SUPPORTS

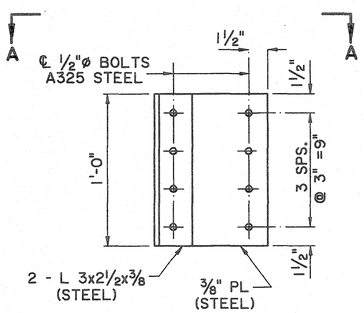


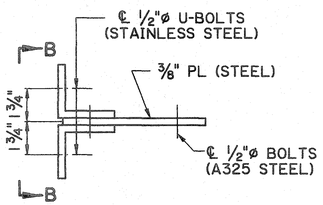
3 SUPPORTS



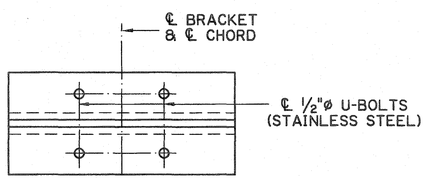
ALT. SECTION A-A

SPACING OF VERTICAL SUPPORTS FOR
OVERHEAD SIGN AND FASCIA SIGN INSTALLATIONS





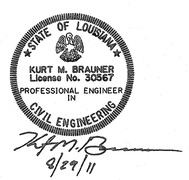
SECTION A-A



SECTION B-B

BRACKET DETAILS

NOTE: ALL STRUCTURAL STEEL SHALL BE GALVANIZED



NOTES:

VERTICAL SUPPORTS FOR OVERHEAD SIGNS SHALL BE 4x3x3/8 ALUMINUM ANGLE. TWO (2) ANGLES ARE REQUIRED FOR EACH VERTICAL SUPPORT.

FOR NEW OVERHEAD SIGN PANELS (INCLUDING FASCIA MOUNTED) INCORPORATING EXISTING STRUCTURE SUPPORTS (SIGN TRUSS, SIGN CANTILEVER, AND FASCIA), THE CONTRACTOR WILL PLACE NEW VERTICAL SUPPORT ANGLES WITHOUT SPLICES THAT EXTEND THE FULL HEIGHT OF THE PRIMARY SIGN PANEL. THESE SUPPORTS AND ALL OTHER MATERIALS REQUIRED TO CONNECT TO AN EXISTING MOUNT SHALL BE INCLUDED IN THE COST OF THE SIGN PANEL.

SHEET NUMBER 221

PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232

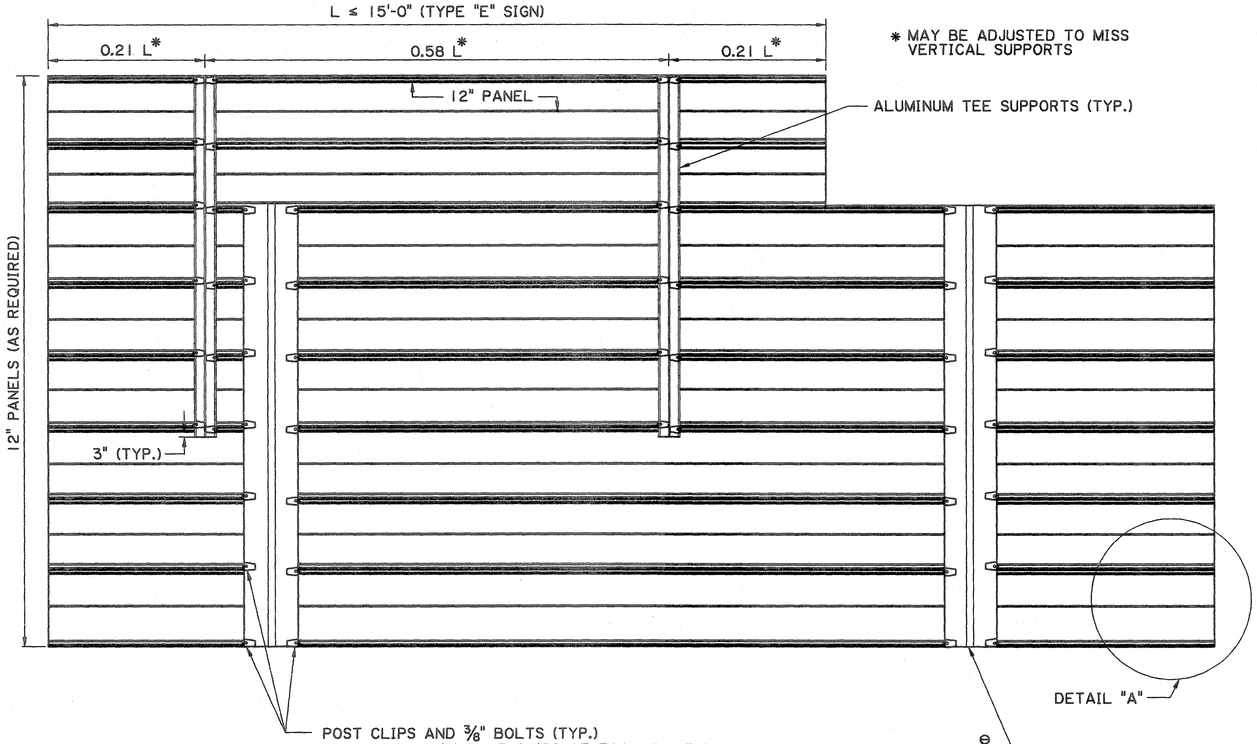
DESIGNED: K. BRAUNER
CHECKED: P. FOSSIER
DETAILED: I.KOURILOVA
CHECKED: K. BRAUNER
DATE: JAN. 2011
SHEET: 2 OF 16

REVISION DESCRIPTION | BY | DATE | NO.

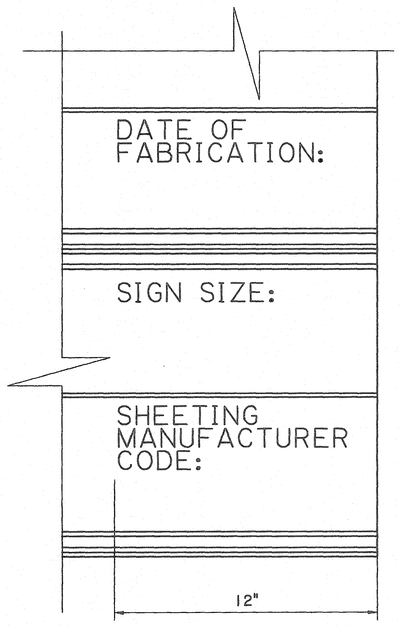
SIGN PANEL DETAILS

BD.2.7.1.0.2 - OVERHEAD TRAFFIC SIGNS

BRIDGE AND STRUCTURAL DESIGN

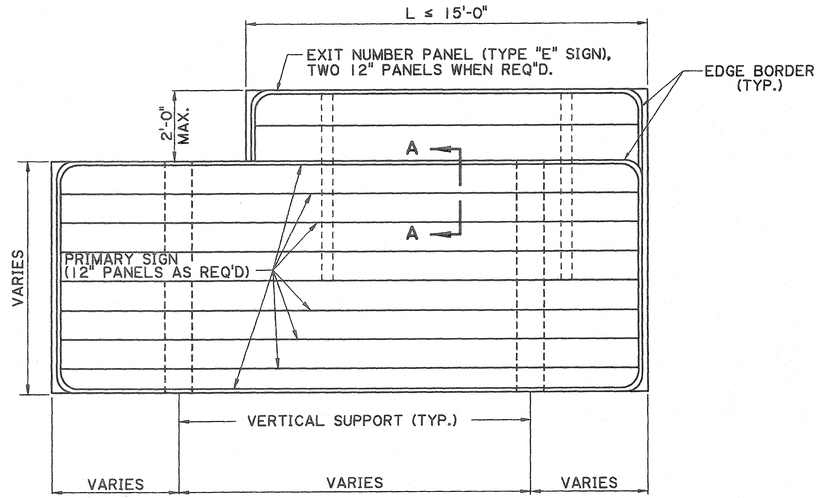


BACK ELEVATION



DETAIL "A"

2" LETTERING IN LAST 12" OF SIGN, SEE MISCELLANEOUS NOTE ON GENERAL NOTE SHEET.



FRONT ELEVATION ⊠

(SEE SHEET NO. 4 OF 16 FOR SECTION VIEW)

NOTES:

ALL 12" EXTRUDED ALUMINUM PANELS SHALL BE ALUMINUM ALLOY 6063-T6.
ALL POST CLIPS SHALL BE ALUMINUM ALLOY 356-T6.
ALL EXTRUDED PANEL BOLTS AND POST CLIP BOLTS SHALL BE ALUMINUM.
ALL HEX LOCK NUTS SHALL BE ALUMINUM ALLOY 2017-T4.
ALL POST CLIP BOLTS SHALL BE TORQUED TO A MINIMUM OF 175 IN.-LBS.
ALL POST CLIP BOLTS, SHALL HAVE HEADS DESIGNED TO FIT THE BOLT SLOTS IN THE PANELS.

TYPE "E" SIGNS SHALL BE ATTACHED TO PRIMARY SIGNS WITH ALUMINUM TEE SUPPORTS, [DOUBLE THE HEIGHT OF THE TYPE "E" SIGN PLUS ONE (1) FOOT, ONE (1) INCH FOR LENGTH OF TEE], POST CLIPS, POST CLIP BOLTS, AND HEX LOCK NUTS.

FOR NEW OVERHEAD SIGNS (INCLUDING FASCIA MOUNTED) INCORPORATING EXISTING MOUNTS, THE CONTRACTOR WILL PLACE VERTICAL SUPPORT ANGLES WITHOUT SPLICES THAT EXTEND THE FULL HEIGHT OF THE EXTRUDED PRIMARY SIGN PANEL.

FOR NEW TYPE "D" SIGNS INCORPORATING EXISTING MOUNTS, THE EXISTING POST MAY BE REUSED IF THE NEW SIGN PANEL DOES NOT EXTEND OVER 2'-0" ABOVE THE EXISTING POST. SUCH NEW SIGNS WILL BE MOUNTED TO ALUMINUM TEE SUPPORTS BEGINNING AT THE TOP OF THE SIGN AND EXTENDING DOWNWARD FROM THE TOP OF THE POST THE DISTANCE THE NEW SIGN IS ABOVE THE EXISTING POST PLUS 1'-0". ONE TEE IS REQUIRED ADJACENT TO EACH EXISTING POST AND ATTACHED WITH POST CLIPS AS SHOWN FOR NEW TYPE "E" SIGNS. IF THE NEW SIGN EXTENDS OVER 2'-0" ABOVE THE EXISTING POST, THE CONTRACTOR IS TO REPLACE THE EXISTING POST AND MEET DETAILS FOR NEW CONSTRUCTION.

REFLECTIVE SHEETING FOR EXTRUDED PANELS: ONLY SPLICES THAT OCCUR AS PART OF THE MANUFACTURING PROCESS SHALL BE PERMITTED. A MAXIMUM OF TWO VERTICAL SPLICES ON ANY ONE SIGN FABRICATED USING EXTRUDED PANELS, WITH ONE SPLICE PER EXTRUDED PANELS SHALL BE ALLOWED. ALL "EXIT ONLY" PANELS THAT ARE DETAILED WITH THE TOP AND/OR BOTTOM EDGE NOT AT AN EXTRUDED PANEL EDGE SHALL BE FABRICATED FROM .080" ALUMINUM AND ATTACHED AS AN OVERLAY. ALL OTHER "EXIT ONLY" PANELS SHALL BE FABRICATED BY APPLYING THE YELLOW REFLECTIVE SHEETING ON THE EXTRUDED PANELS. THE REFLECTIVE SHEETING APPLIED TO EXTRUDED PANELS SHALL EXTEND APPROXIMATELY 1/4" OVER EACH SIDE AND SHALL BE ADHERED TO THE SIDE OF THE PANEL.

THIS SHEET TO BE USED WITH WIND LOAD MAP AND GENERAL NOTES SHEET.

⊠ POSSIBLE LOWER MOUNTED TYPE "E" SIGN NOT SHOWN. WHEN LOWER MOUNT IS REQUIRED, IT SHALL BE CENTERED BETWEEN THE EDGES OF THE MAIN SIGN.

⊖ SPACING AND NUMBER OF SUPPORTS VARIES. (SEE SHT. NO. 2 OF 16)

SHEET NUMBER 222

PARISH: EAST BATON ROUGE | FEDERAL PROJECT: | STATE PROJECT: H.012232

DESIGNED K. BRAUNER | CHECKED P. FOSSIER | DETAILED I.KOURILOVA | CHECKED K. BRAUNER | DATE JAN. 2011 | SHEET 3 OF 16

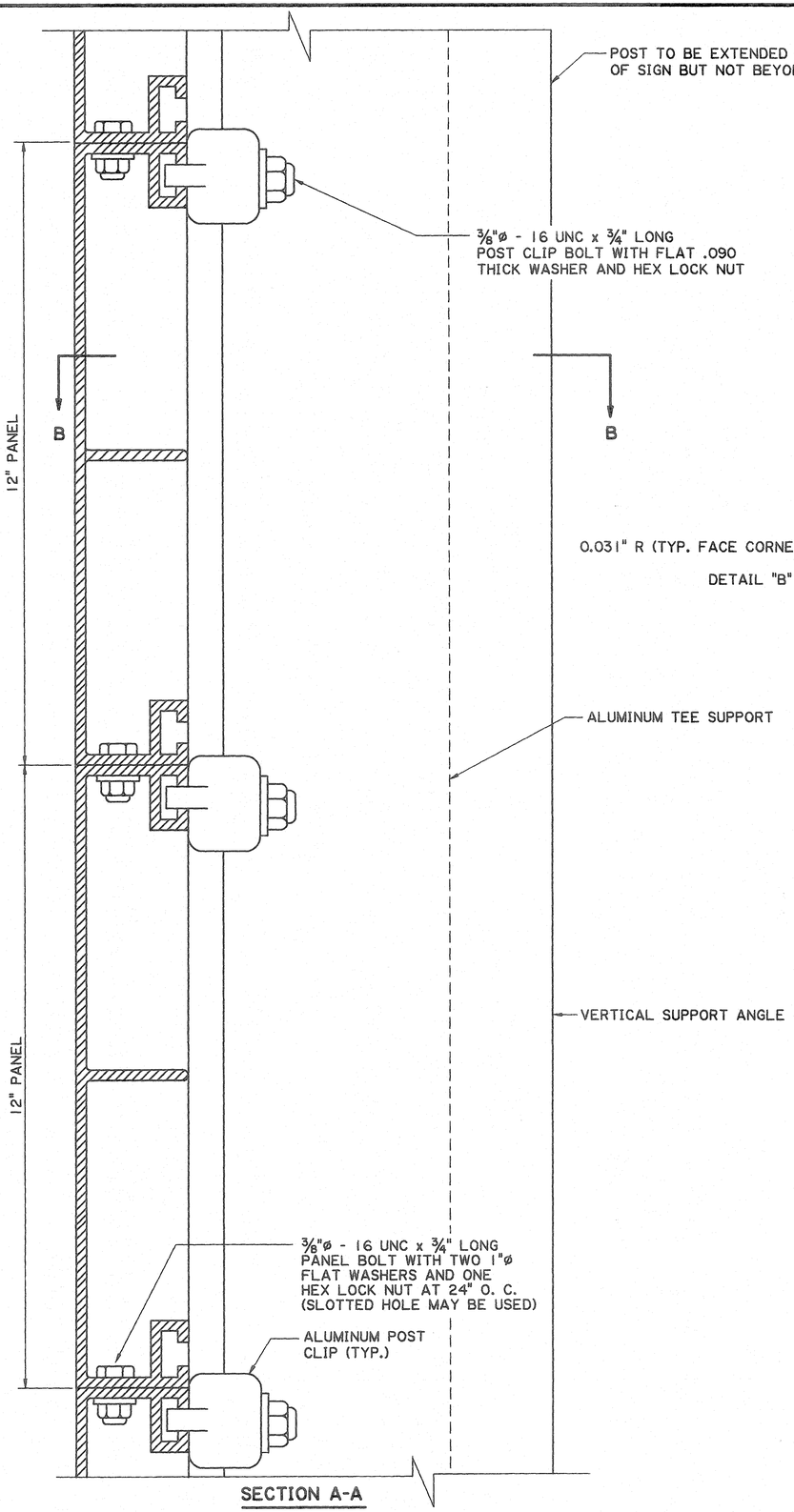
NO. | DATE | BY | REVISION DESCRIPTION

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

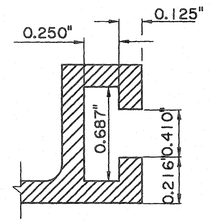
EXTRUDED ALUMINUM PANELS

BD.2.7.1.0.3 - OVERHEAD TRAFFIC SIGNS

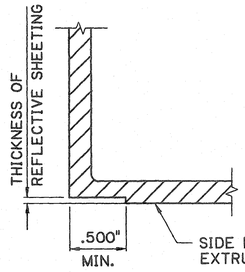
BRIDGE AND STRUCTURAL DESIGN



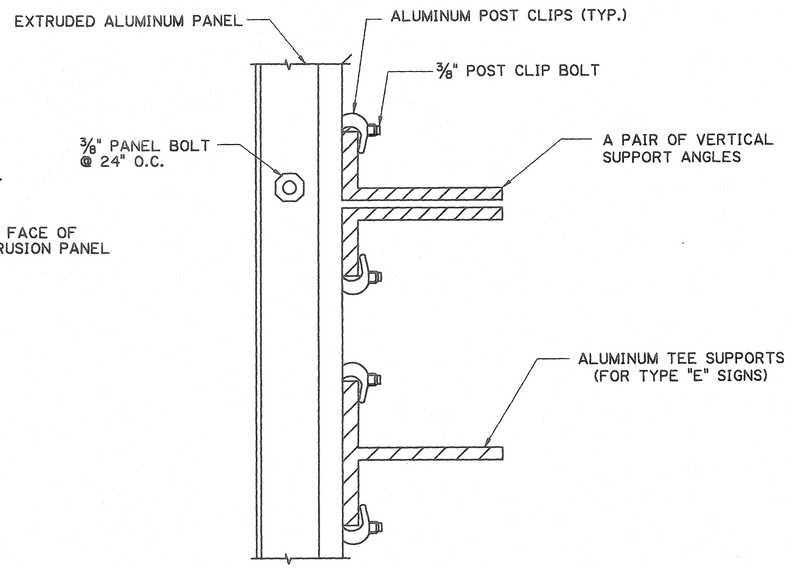
SECTION A-A



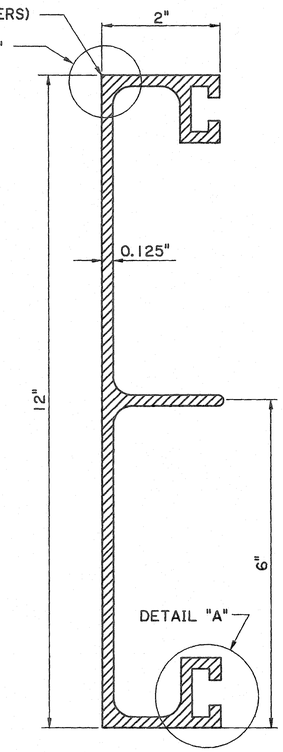
DETAIL "A"



DETAIL "B"

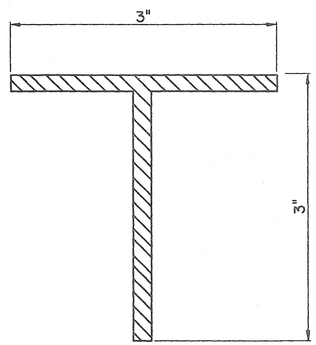


SECTION B-B

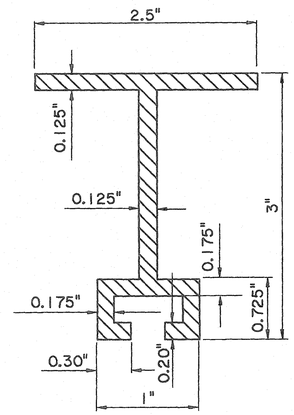


12" PANEL

MINIMUM WALL THICKNESS IS 0.080" UNLESS OTHERWISE SPECIFIED



3"x3"x3/8"



3"x2.5"

ALUMINUM TEE SUPPORTS
(FOR TYPE "E" SIGNS)

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6/29/11

SHEET NUMBER	223
PARISH	EAST BATON ROUGE
FEDERAL PROJECT	
STATE PROJECT	H.012232
DESIGNED K. BRAUNER / CHECKED P. FOSSIER	DETAILED I.KORILOVA / CHECKED K. BRAUNER
DATE JAN. 2011	SHEET 4 OF 16

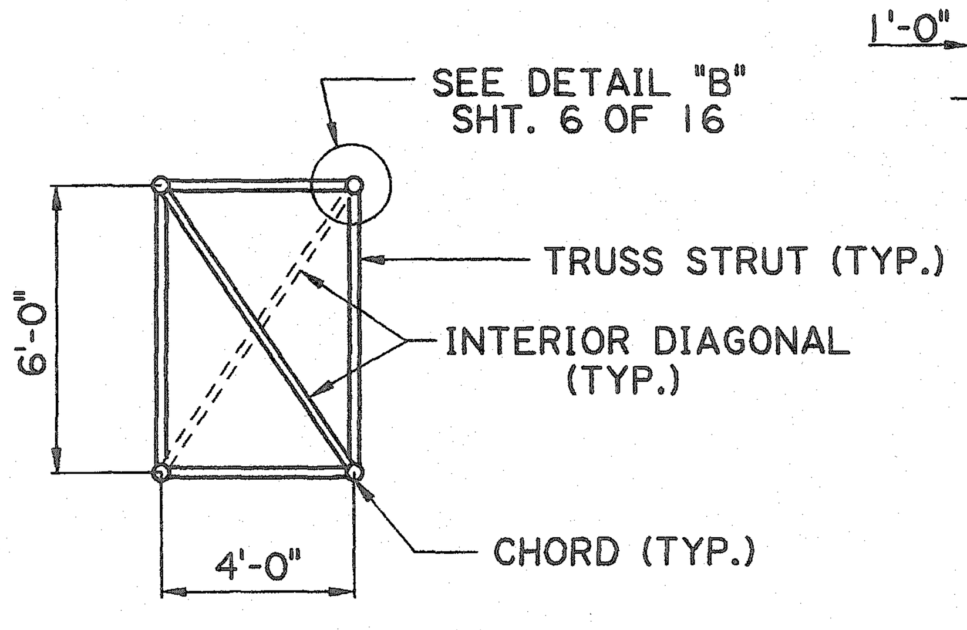
NO.	DATE	REVISION DESCRIPTION	BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

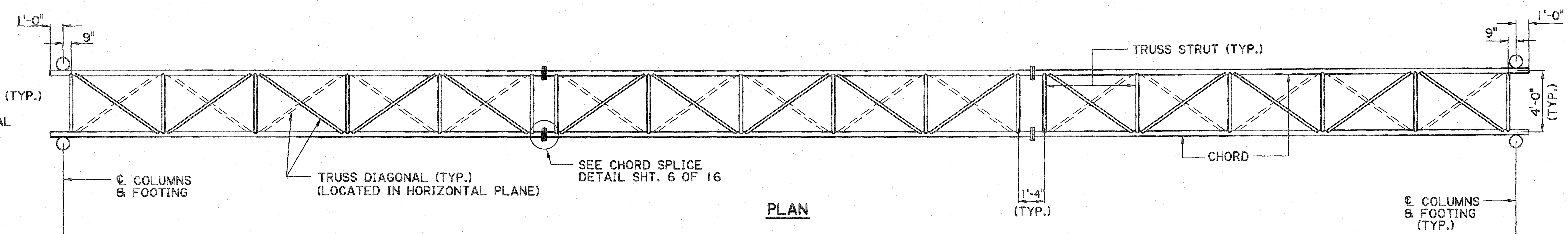
EXTRUDED ALUMINUM PANELS

BD.2.7.1.0.4 - OVERHEAD TRAFFIC SIGNS

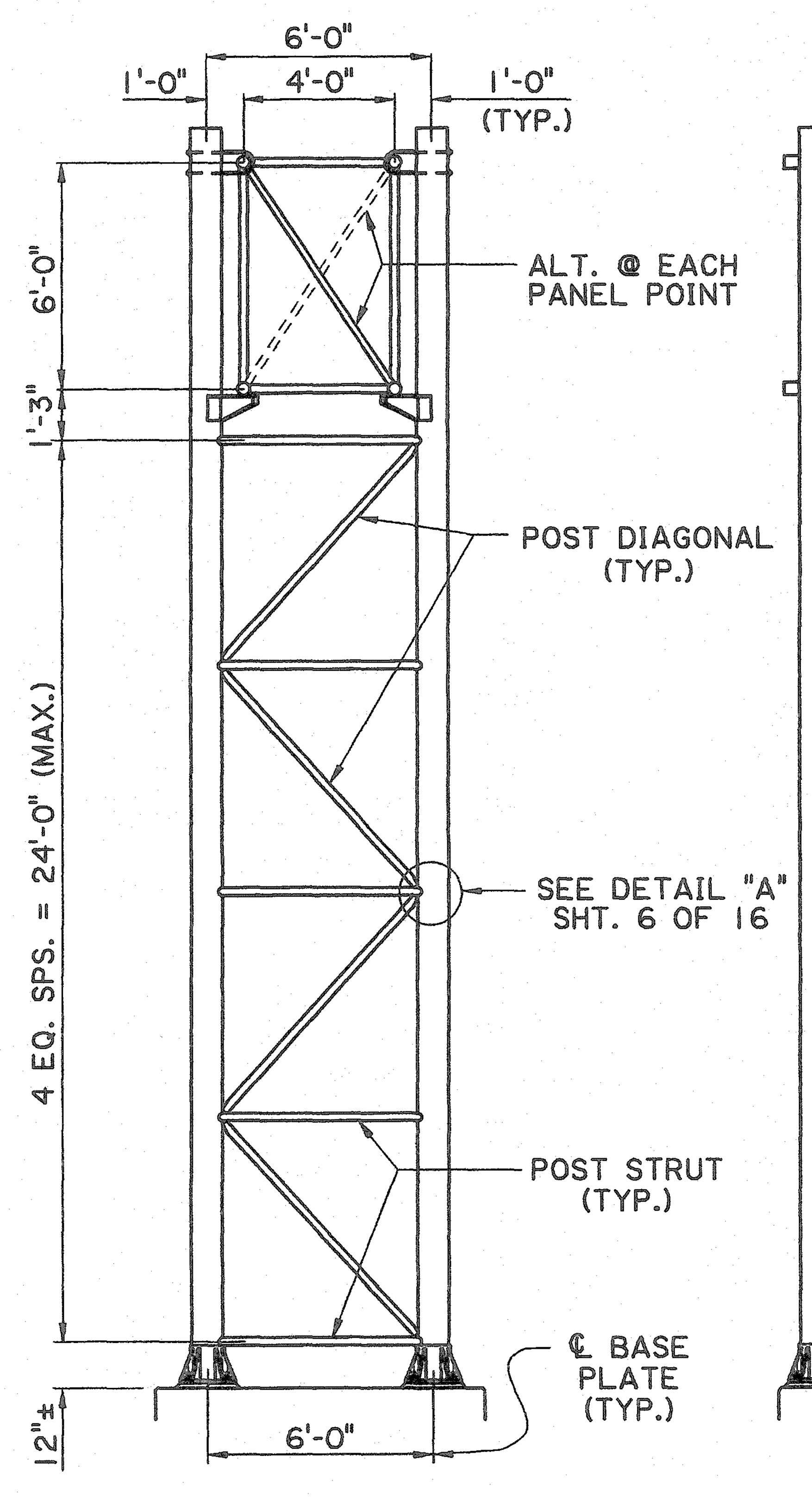
BRIDGE AND STRUCTURAL DESIGN



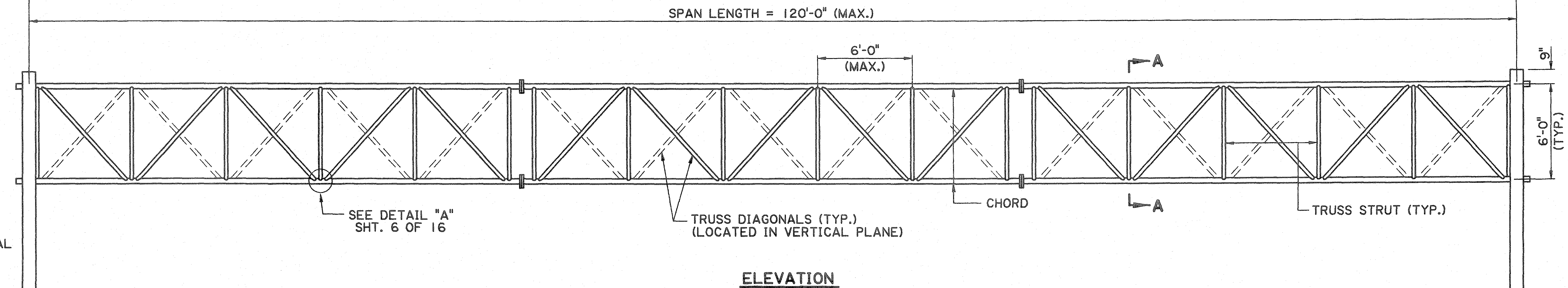
SECTION A-A



PLAN

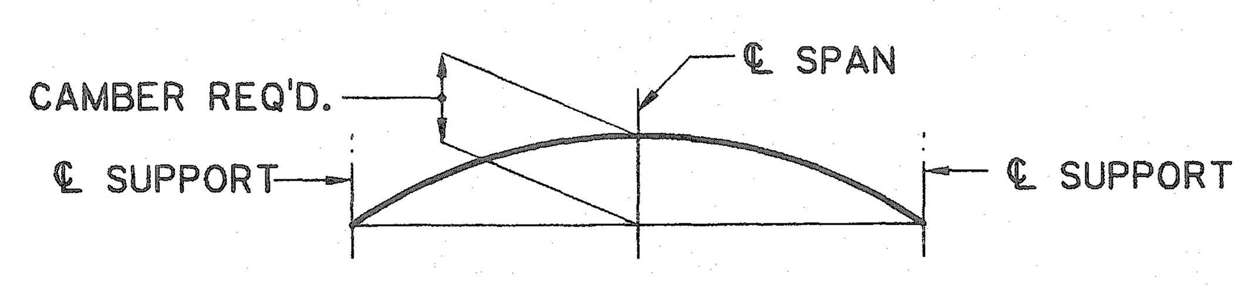


SIDE ELEVATION



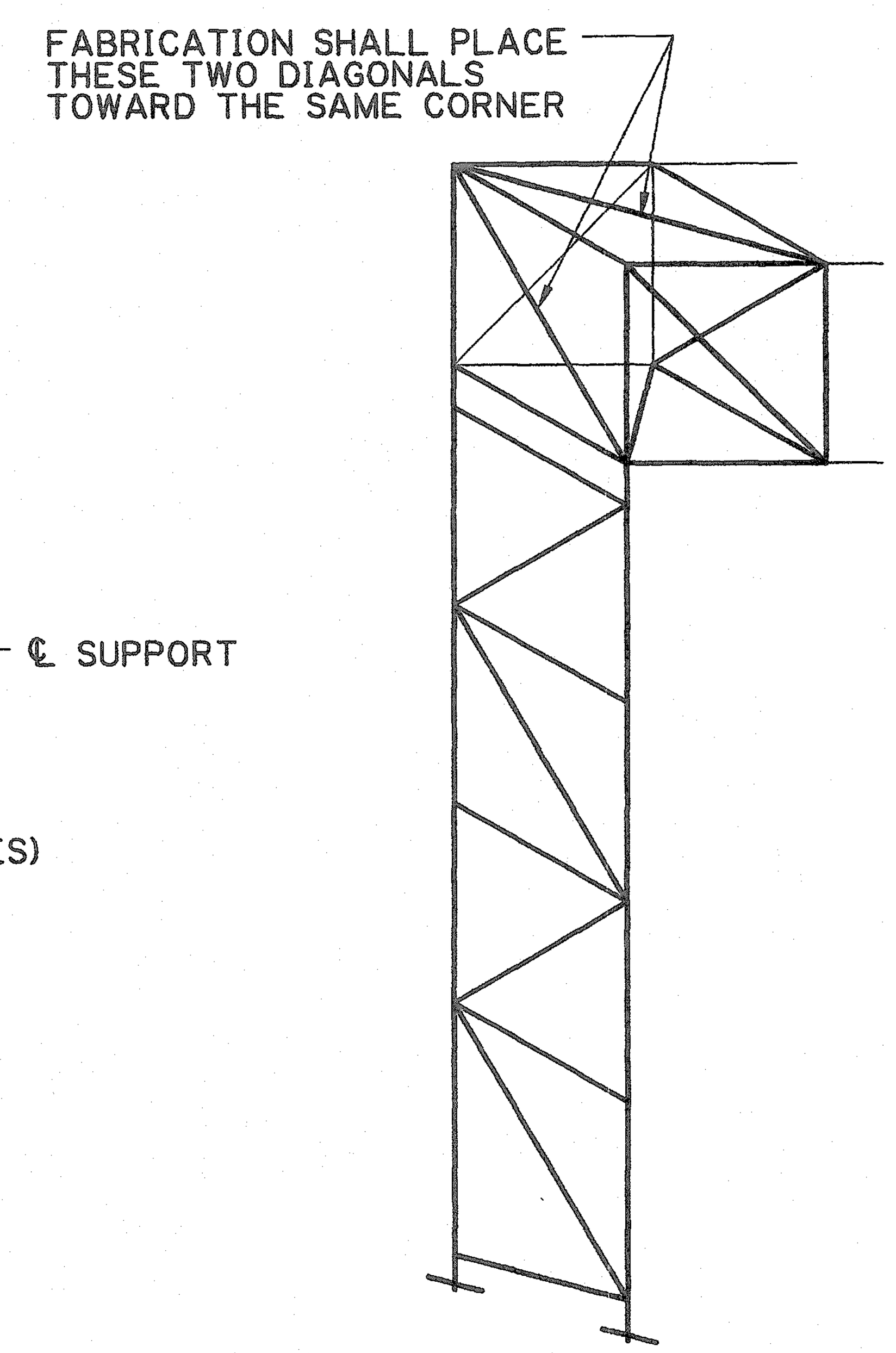
ELEVATION

ARRANGEMENT OF TRUSS SECTIONS		
SPAN LENGTH UP TO	TRUSS SECTIONS & NO. OF PANELS	ALTERNATE METHOD
60'-0"	2 @ 5	1 @ 10
66'-0"	1 @ 4 & 1 @ 7	1 @ 5 & 1 @ 6
72'-0"	3 @ 4	
78'-0"	2 @ 4 & 1 @ 5	
84'-0"	2 @ 5 & 1 @ 4	2 @ 4 & 1 @ 6
90'-0"	3 @ 5	2 @ 4 & 1 @ 7
96'-0"	2 @ 5 & 1 @ 6	
102'-0"	2 @ 5 & 1 @ 7	
108'-0"	3 @ 6	2 @ 7 & 1 @ 4
114'-0"	2 @ 6 & 1 @ 7	2 @ 7 & 1 @ 5
120'-0"	2 @ 7 & 1 @ 6	2 @ 6 & 1 @ 8



CAMBER DETAIL

(SEE SHT. NO. 7 OF 16 FOR VALUES)



ISOMETRIC OF COLUMN

NOTES:

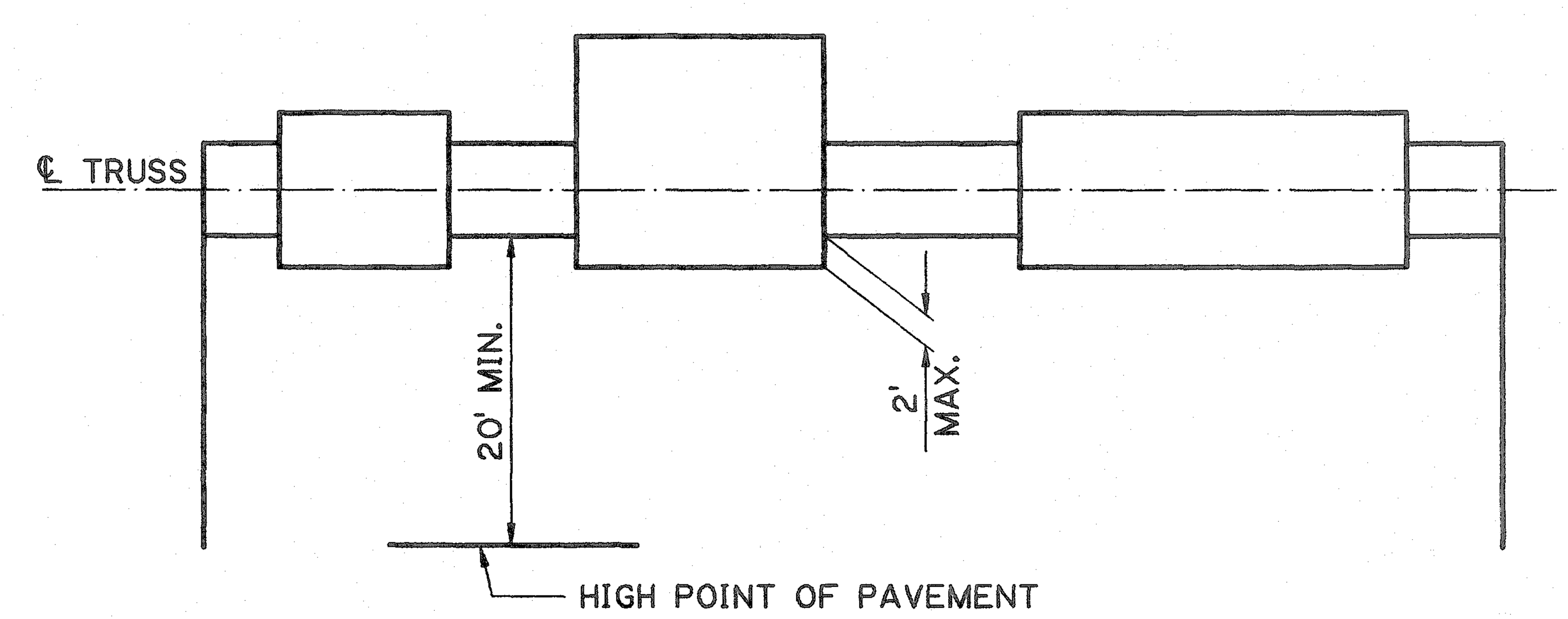
ALL TRUSS AND POST MEMBERS SHALL BE STEEL AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-123. STEEL FOR ANCHOR BOLTS SHALL HAVE MIN. Fy = 55 ksi AND SHALL BE GALVANIZED. ALL MISCELLANEOUS STEEL SHALL BE A- 36 AND GALVANIZED AS PER ASTM A- 123. ALL EXPOSED ENDS OF PIPE SHALL BE SEALED WITH EITHER A 1/4" PLATE, (MINIMUM THICKNESS WELDED AND GROUND SMOOTH) OR A FRICTION CAP. (SEE SHT. NO. 6 OF 16 FOR DETAILS).

GRINDING OF WELD ON SEAMED PIPE WILL NOT BE REQUIRED, HOWEVER, GOOD SHOP PRACTICES WILL BE FOLLOWED IN THE APPEARANCE OF THE WELD. FOR TRUSS MEMBER SIZES NOT SHOWN, SEE TRUSS DESIGN AND FOOTING DETAIL SHEET.

METHOD OF TRANSPORTATION OF TRUSS FROM POINT OF FABRICATION TO ERECTION LOCATION SHALL SUPPORT THE TRUSS AND NOT UTILIZE THE TRUSS TO CARRY LOAD.

THIS SHEET TO BE USED WITH THE OVERHEAD TRUSS DESIGN TABLES AND THE WIND LOAD MAP AND GENERAL NOTES SHEET.

* SIGN POSTS TO BE PROTECTED WITH GUARD RAIL OR BARRIER SYSTEM AS PER LADOTD GUARD RAIL STANDARD PLANS. GUARD RAIL LAYOUT DETAILS ARE TO BE INCLUDED IN THE PLANS.



LOCATION OF TRUSS AND SIGNS

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
8/29/11

SHEET NUMBER 224

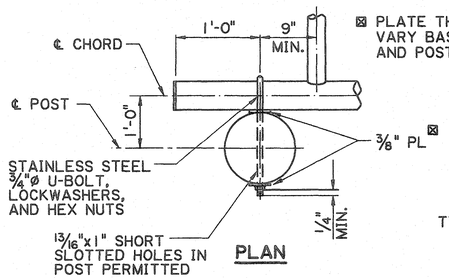
PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232

DESIGNED: C. PORTER
CHECKED: K. BRAUNER
DETAILED: I. KOURILOVA
CHECKED: K. BRAUNER
DATE: JAN. 2011
SHEET: 5 OF 16

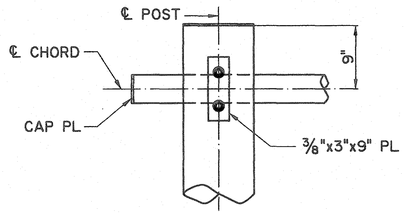
NO.	DATE	REVISION DESCRIPTION	BY

OVERHEAD SIGN TRUSS
(STEEL)
BD.2.7.1.0.5 - OVERHEAD TRAFFIC SIGNS

DOTD
BRIDGE AND STRUCTURAL DESIGN

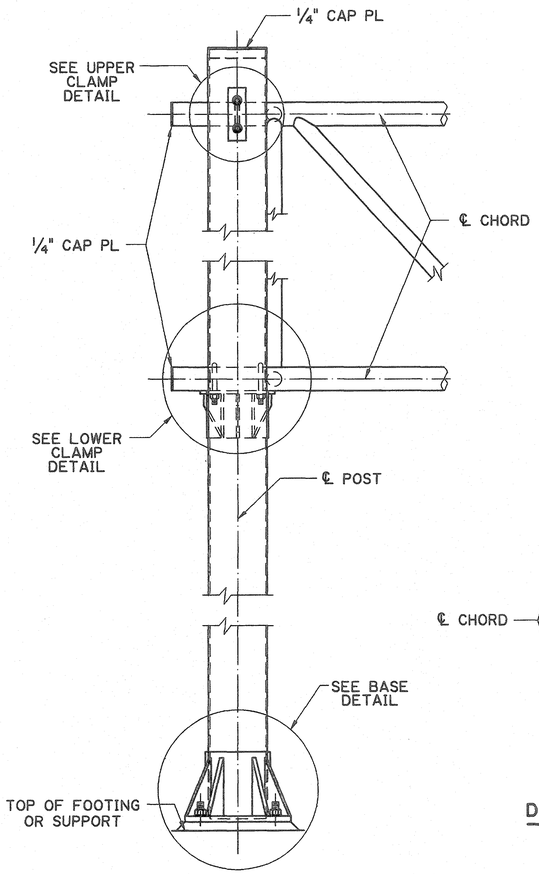


PLAN

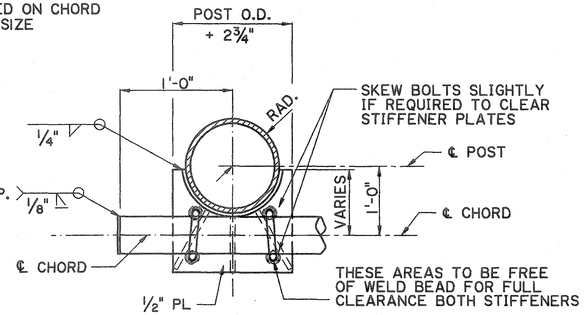


ELEVATION

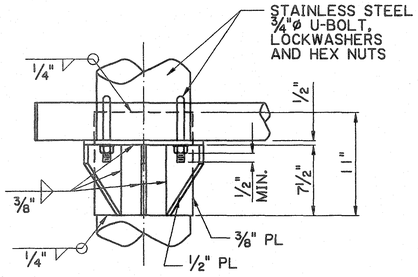
UPPER CLAMP DETAIL



POST ELEVATION

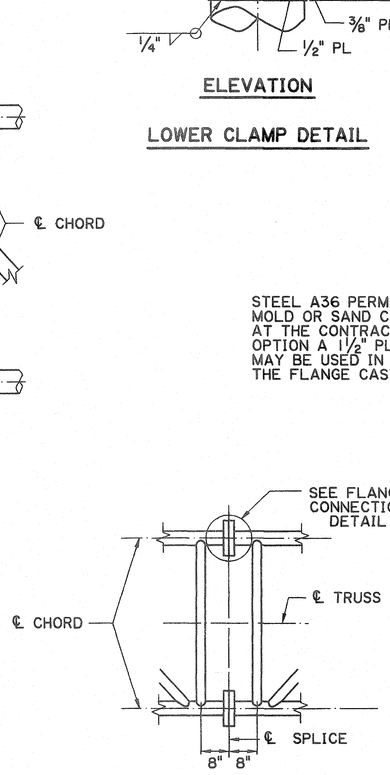


PLAN

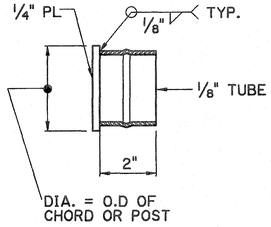


ELEVATION

LOWER CLAMP DETAIL



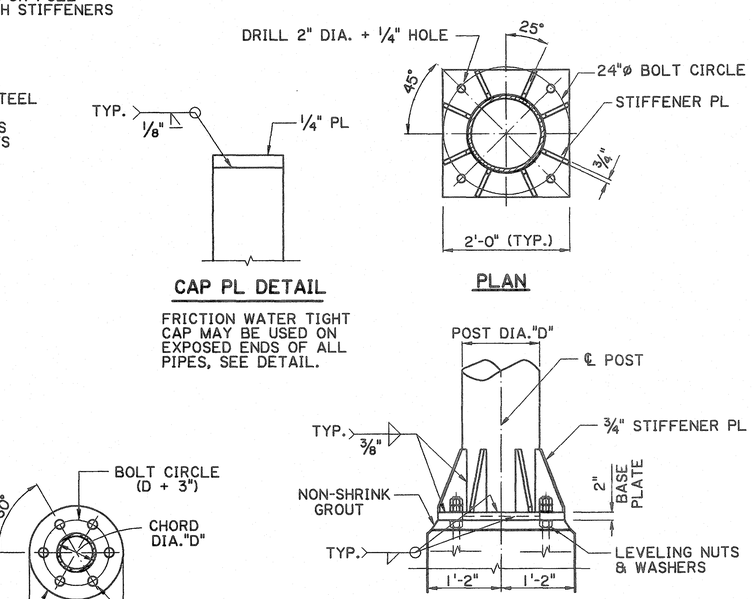
DETAIL OF CHORD SPLICE



FRICTION CAP DETAIL

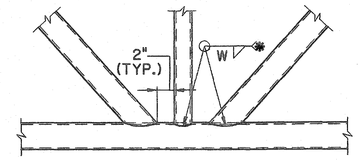
CAP PL DETAIL

FRICTION WATER TIGHT CAP MAY BE USED ON EXPOSED ENDS OF ALL PIPES, SEE DETAIL.



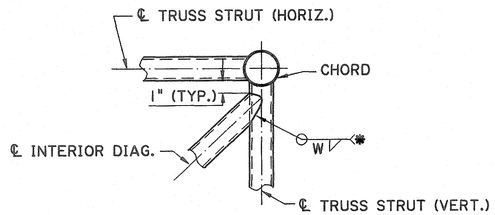
BASE DETAIL - ELEVATION ⊙

(PLATE "A")



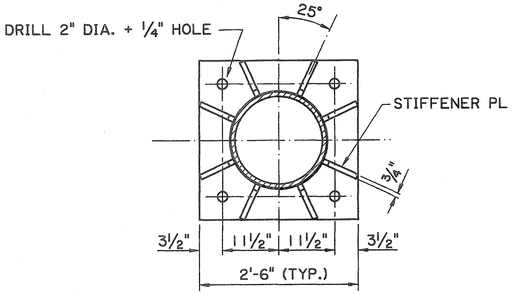
DETAIL "A"

* "W" WILL EQUAL THE WALL THICKNESS OF THE TRUSS STRUT OR TRUSS DIAGONAL WELDED TO THE CHORD. WELD SIZE NEED NOT EXCEED THE THICKNESS OF THE THINNER PART JOINED.

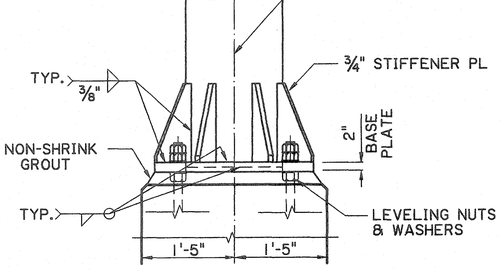


DETAIL "B"

PLAN



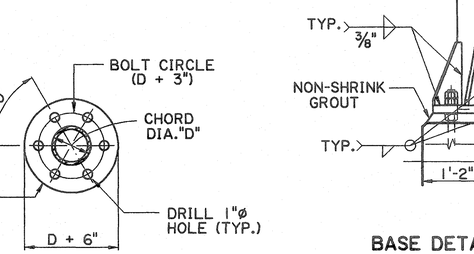
PLAN



BASE DETAIL - ELEVATION △

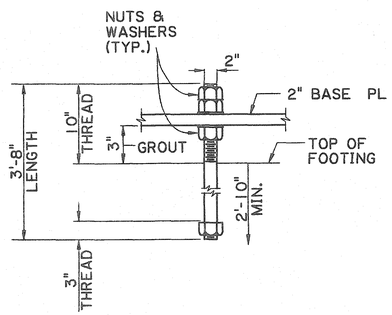
(PLATE "B")

FLANGE CONNECTION DETAIL

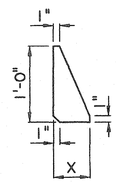


STEEL A36 PERMANENT MOLD OR SAND CASTING. AT THE CONTRACTOR'S OPTION A 1 1/2" PLATE MAY BE USED IN LIEU OF THE FLANGE CASTING.

SECTION A-A



2"ø ANCHOR BOLT DETAIL



"X" = $\frac{(2'\text{-}1\frac{3}{4}" - D)}{2}$ (PLATE "A")

"X" = $\frac{(2'\text{-}8\frac{1}{2}" - D)}{2}$ (PLATE "B")

3/4" STIFFENER PL

⊙ TO BE USED WITH FOOTING "A" ONLY. (SEE SHT. NO. 8 OF 16)

△ TO BE USED WITH FOOTING "B" ONLY. (SEE SHT. NO. 8 OF 16)

SHEET NUMBER 225

PARISH EAST BATON ROUGE | FEDERAL PROJECT | STATE PROJECT H.012232

DESIGNED K. BRAUNER
CHECKED C. PORTER
DETAILED I.KOURILOVA
CHECKED K. BRAUNER
DATE JAN. 2011
SHEET 6 OF 16

REVISION DESCRIPTION | DATE | NO. | BY

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

MISCELLANEOUS DETAILS (STEEL)

BD.2.7.1.0.6 - OVERHEAD TRAFFIC SIGNS

BRIDGE AND STRUCTURAL DESIGN

GROUND MOUNTED ☑ OVERHEAD SIGN TRUSS DESIGN TABLE

90 MPH WIND VELOCITY

SIGN PANEL AREA / SPAN	< 600 SQ.FT.		600-900 SQ.FT.		900-1100 SQ.FT.	
	GROUP NO.	REQ. CAMBER	GROUP NO.	REQ. CAMBER	GROUP NO.	REQ. CAMBER
< 60 FT	1	15/16"	N/A	N/A	N/A	N/A
60 - 84 FT	1	1 7/16"	2	1 9/16"	3	1 1/2"
84 - 96 FT	1	1 7/8"	3	1 15/16"	4	1 13/16"
96 - 120 FT	2	2 13/16"	4	2 3/4"	5	2 11/16"

110 MPH WIND VELOCITY

SIGN PANEL AREA / SPAN	< 600 SQ.FT.		600-900 SQ.FT.		900-1100 SQ.FT.	
	GROUP NO.	REQ. CAMBER	GROUP NO.	REQ. CAMBER	GROUP NO.	REQ. CAMBER
< 60 FT	1	15/16"	N/A	N/A	N/A	N/A
60 - 84 FT	3	1 7/16"	5	1 7/16"	6	1 7/16"
84 - 96 FT	3	1 13/16"	5	1 13/16"	6	1 3/4"
96 - 120 FT	5	2 1/2"	6	2 1/2"	8 *	2 1/2"

130 MPH WIND VELOCITY

SIGN PANEL AREA / SPAN	< 600 SQ.FT.		600-900 SQ.FT.		900-1100 SQ.FT.	
	GROUP NO.	REQ. CAMBER	GROUP NO.	REQ. CAMBER	GROUP NO.	REQ. CAMBER
< 60 FT	5	7/8"	N/A	N/A	N/A	N/A
60 - 84 FT	5	1 3/8"	8 *	1 3/8"	9 *	1 3/8"
84 - 96 FT	6	1 11/16"	8 *	1 11/16"	9 *	1 5/8"
96 - 120 FT	7	2 3/8"	10 *	2 3/8"	11 *	2 3/8"

STRUCTURE MOUNTED ⊗ OVERHEAD SIGN TRUSS DESIGN TABLE

90 MPH WIND VELOCITY

SIGN PANEL AREA / SPAN	< 600 SQ.FT.		600-900 SQ.FT.		900-1100 SQ.FT.	
	GROUP NO.	REQ. CAMBER	GROUP NO.	REQ. CAMBER	GROUP NO.	REQ. CAMBER
< 60 FT	1	15/16"	N/A	N/A	N/A	N/A
60 - 84 FT	2	1 7/16"	4	1 7/16"	4	1 7/16"
84 - 96 FT	2	1 13/16"	4	1 13/16"	5	1 3/4"
96 - 120 FT	4	2 9/16"	5	2 11/16"	7	2 1/2"

110 MPH WIND VELOCITY

SIGN PANEL AREA / SPAN	< 600 SQ.FT.		600-900 SQ.FT.		900-1100 SQ.FT.	
	GROUP NO.	REQ. CAMBER	GROUP NO.	REQ. CAMBER	GROUP NO.	REQ. CAMBER
< 60 FT	3	7/8"	N/A	N/A	N/A	N/A
60 - 84 FT	4	1 3/8"	7	1 3/8"	8	1 3/8"
84 - 96 FT	5	1 11/16"	7	1 11/16"	8	1 11/16"
96 - 120 FT	7	2 3/8"	8	2 1/2"	10	2 3/8"

130 MPH WIND VELOCITY

SIGN PANEL AREA / SPAN	< 600 SQ.FT.		600-900 SQ.FT.		900-1100 SQ.FT.	
	GROUP NO.	REQ. CAMBER	GROUP NO.	REQ. CAMBER	GROUP NO.	REQ. CAMBER
< 60 FT	6	7/8"	N/A	N/A	N/A	N/A
60 - 84 FT	7	1 5/16"	9	1 3/8"	10	1 5/16"
84 - 96 FT	8	1 5/8"	10	1 5/8"	11	1 5/8"
96 - 120 FT	10	2 1/4"	11	2 3/8"	N/A	N/A

OVERHEAD TRUSS MEMBER SIZES

MEMBER DIAMETER (IN.) x MEMBER THICKNESS (IN.)

GROUP NO.	POSTS	CHORDS	TRUSS STRUTS	TRUSS DIAGONALS	INTERIOR DIAGONALS	POST STRUTS	POST DIAGONALS
1	12.75 X 0.25	4.0 X 0.226	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154	3.5 X 0.216	3.5 X 0.216
2	12.75 X 0.25	4.5 X 0.237	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154	3.5 X 0.216	3.5 X 0.216
3	14.00 X 0.25	4.5 X 0.237	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154	3.5 X 0.216	3.5 X 0.216
4	14.00 X 0.25	5.563 X 0.258	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154	3.5 X 0.216	3.5 X 0.216
5	16.00 X 0.25	5.563 X 0.258	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154	3.5 X 0.216	3.5 X 0.216
6	18.00 X 0.25	5.563 X 0.258	2.875 X 0.203	2.875 X 0.203	2.875 X 0.203	3.5 X 0.216	4.0 X 0.226
7	18.00 X 0.25	5.563 X 0.375	2.875 X 0.203	2.875 X 0.203	2.875 X 0.203	3.5 X 0.216	4.0 X 0.226
8	18.00 X 0.312	5.563 X 0.375	2.875 X 0.203	3.5 X 0.216	2.875 X 0.203	3.5 X 0.216	4.5 X 0.237
9	18.00 X 0.375	5.563 X 0.375	2.875 X 0.203	3.5 X 0.216	2.875 X 0.203	3.5 X 0.216	5.563 X 0.258
10	18.00 X 0.375	5.563 X 0.50	2.875 X 0.203	3.5 X 0.216	2.875 X 0.203	3.5 X 0.216	5.563 X 0.258
11	18.00 X 0.438	5.563 X 0.50	2.875 X 0.203	4.0 X 0.226	2.875 X 0.203	3.5 X 0.216	6.625 X 0.432

HOW TO USE TABLES:

1. DETERMINE IF TRUSS IS GROUND MOUNTED OR STRUCTURE MOUNTED.
2. FIND WIND VELOCITY USING WIND MAP ON GENERAL NOTES SHEET (SHT. NO. 1 OF 16) AND CHOOSE APPROPRIATE SECTION IN TABLE.
3. DETERMINE DESIGN SIGN AREA AND SELECT THE APPROPRIATE COLUMN. (DESIGN SIGN AREA = SUM OF ACTUAL SIGN PANEL AREAS X 1.3)
4. DETERMINE SPAN LENGTH AND CHOOSE APPROPRIATE ROW.
5. FIND CORRESPONDING GROUP NUMBER IN THE "OVERHEAD TRUSS MEMBER SIZES" TABLE AND APPLY MEMBER SIZES ACCORDINGLY. FILL IN THE "OVERHEAD TRUSS DATA TABLE" WITH THE APPROPRIATE DESIGN INFORMATION (SEE SHT NO. 12 OF 16).

NOTES:

ALL MEMBERS LISTED IN THE OVERHEAD TRUSS MEMBER SIZES TABLE SHALL BE STEEL PIPE OR TUBE AND SHALL HAVE A MINIMUM YIELD STRENGTH (Fy) OF 42 KSI.

TUBE OR A.N.S.I. PIPE SECTIONS PROVIDING EQUAL OR GREATER STRENGTH THAN ANY MEMBER DESIGNATED IN THE TABLE MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

ALL DESIGNS MUST BE CONFIRMED ON THE FABRICATION DRAWINGS AND APPROVED BY LA DOTD BEFORE FABRICATION IS INITIATED.

ALL STRUCTURE MOUNTED TRUSSES SHALL USE PLATE "B". (SEE SHT. NO. 6 OF 16.)

* FOR GROUND MOUNTED TRUSSES, GROUP NOS. 8 THROUGH 11 SHALL USE PLATE "B" AND FOOTING "B" ONLY. (SEE SHT. NO. 8 OF 16)

☑ GROUND MOUNTED TRUSSES USED ON EMBANKMENTS ≥ 10 FT. HIGH SHALL BE DESIGNED USING THE STRUCTURE MOUNTED DESIGN TABLES.

⊗ A DESIGN REQUEST MUST BE SUBMITTED FOR ALL TRUSSES WHOSE SIGN CENTERS ARE MORE THAN 50 FT. ABOVE THE SURROUNDING GROUNDLINE.

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
9/29/11

SHEET NUMBER 226

PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232

DESIGNED: C. PORTER
CHECKED: K. BRAUNER
DETAILED: I.KOURILOVA
CHECKED: K. BRAUNER
DATE: JAN. 2011
SHEET: 7 OF 16

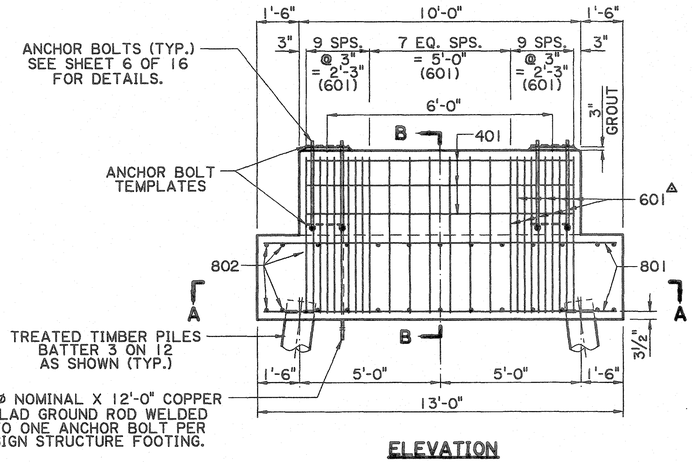
NO. | DATE | BY | REVISION DESCRIPTION

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

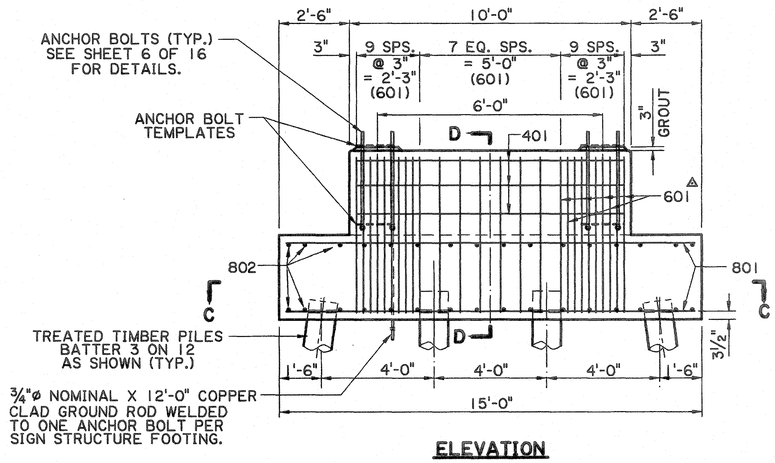
OVERHEAD TRUSS DESIGN TABLES (STEEL)

BD.2.7.1.0.7 - OVERHEAD TRAFFIC SIGNS

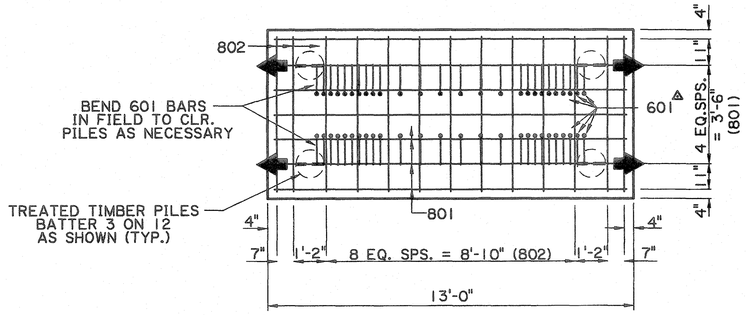
BRIDGE AND STRUCTURAL DESIGN



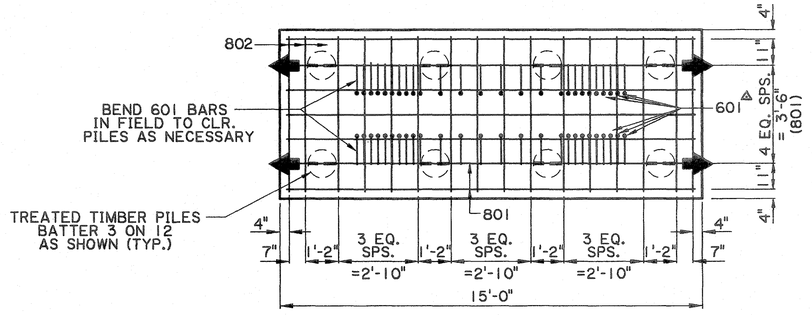
ELEVATION



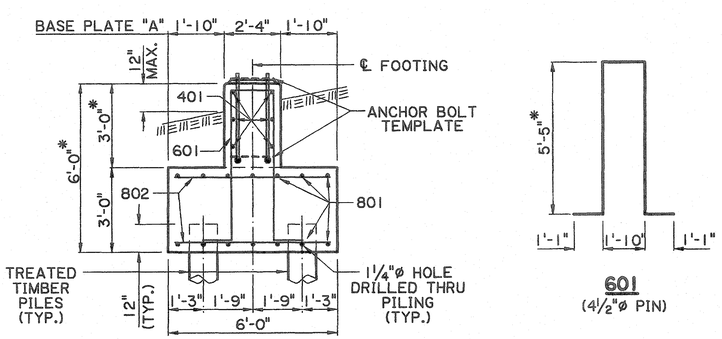
ELEVATION



SECTION A-A

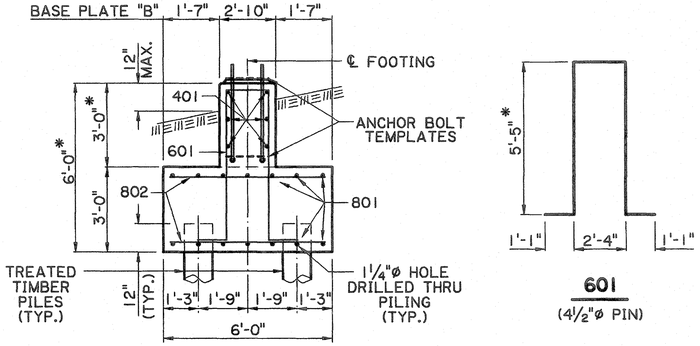


SECTION C-C



SECTION B-B

601 (4½"ø PIN)



SECTION D-D

601 (4½"ø PIN)

FOOTING "A" ⊠

FOOTING PILE DATA TABLE ⊠

WIND ZONE	FOOTING TYPE	PILE SIZE (IN.) BUTT	PILE SIZE (IN.) TIP	PILE LENGTH (FT.)
1	A	12.4	8	55
2	A	12.7	8	60
	B	11.9	8	50
3	A	13.9	8	75
	B	13.9	8	75

FOOTING "B" ⊠

ESTIMATED QUANTITIES (FOOTING "A")

BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	14	12'-6"	175'-0"	FOOTING
802	26	5'-6"	143'-0"	FOOTING
TOTAL NO. 8 BARS = 318'-0"			=	849 LBS.
601	26	14'-10"	385'-8"	STIRRUPS IN FOOTING & PED
TOTAL NO. 6 BARS = 385'-8"			=	579 LBS.
401	6	9'-6"	57'-0"	PEDESTAL
TOTAL NO. 4 BARS = 57'-0"			=	38 LBS.
TOTAL DEFORMED REINFORCING STEEL			=	1466 LBS.
TOTAL CLASS A1 CONCRETE			=	11.14 CU.YDS.
STRUCTURAL EXCAVATION			=	40.0 CU.YDS.
STRUCTURAL STEEL			=	(SEE A.B. DETAILS)
⊠ ⊖ TREATED TIMBER PILES			=	240 LIN. FT.

⊖ WIND ZONE 2 ASSUMED FOR PILE QUANTITIES. FOR OTHER WIND ZONES, ADJUST QUANTITIES ACCORDINGLY. SEE FOOTING PILE DATA TABLE.

ESTIMATED QUANTITIES (FOOTING "B")

BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	14	14'-6"	203'-0"	FOOTING
802	32	5'-6"	176'-0"	FOOTING
TOTAL NO. 8 BARS = 379'-0"			=	1012 LBS.
601	26	15'-4"	398'-8"	STIRRUPS IN FOOTING & PED
TOTAL NO. 6 BARS = 398'-8"			=	599 LBS.
401	6	9'-6"	57'-0"	PEDESTAL
TOTAL NO. 4 BARS = 57'-0"			=	38 LBS.
TOTAL DEFORMED REINFORCING STEEL			=	1649 LBS.
TOTAL CLASS A1 CONCRETE			=	12.92 CU.YDS.
STRUCTURAL EXCAVATION			=	45.0 CU.YDS.
STRUCTURAL STEEL			=	(SEE A.B. DETAILS)
⊠ ⊖ TREATED TIMBER PILES			=	400 LIN. FT.

⊖ WIND ZONE 2 ASSUMED FOR PILE QUANTITIES. FOR OTHER WIND ZONES, ADJUST QUANTITIES ACCORDINGLY. SEE FOOTING PILE DATA TABLE.

STATE OF LOUISIANA — KURT M. BRAUNER License No. 30567 — PROFESSIONAL ENGINEER IN CIVIL ENGINEERING — 8/29/11

STATE OF LOUISIANA — CHING-NIEN TSAI REG. No. 23092 — REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING — 8/29/11

FOR GEOTECHNICAL INFORMATION ONLY

NOTES:

THIS SHEET TO BE USED WITH WIND LOAD MAP AND GENERAL NOTES SHEET.

MAXIMUM PILE DESIGN LOAD IS 30 TONS PER PILE.

ANCHOR BOLTS SHALL BE FURNISHED IN A PREPOSITIONED ANCHOR BOLT ASSEMBLY. (TWO TEMPLATES REQUIRED)

FOR BASE PLATE DETAILS, SEE SHT. NO. 6 OF 16.

* THESE DIMENSIONS MAY BE VARIED ± ONE FOOT TO ADJUST ELEVATION FOR SITE CONDITIONS. ADJUST BARS 401 & 601 ACCORDINGLY.

△ NO. 601 BARS MAY BE MOVED TO CLEAR TRUSS ANCHOR BOLTS.

⊠ DRILLED SHAFT ALTERNATE ALLOWED. SEE SHT. NOS. 13 & 14 OF 16.

SHEET NUMBER 227

PARISH: EAST BATON ROUGE | FEDERAL PROJECT | STATE PROJECT: H.012232

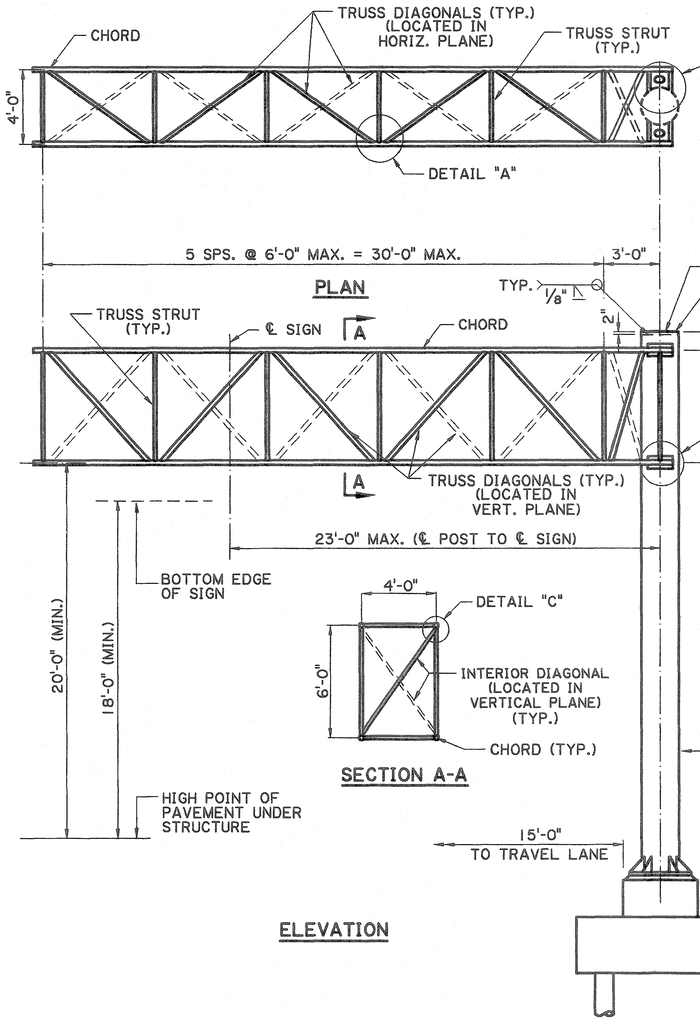
DESIGNED C. PORTER | CHECKED K. BRAUNER | DETAILED I.KOURILOVA | CHECKED K. BRAUNER | DATE JAN. 2011 | SHEET 8 OF 16 | BY K.M.B.

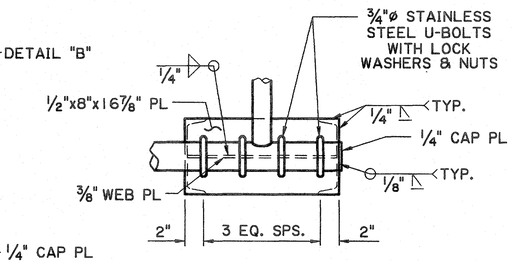
NO. 1 | DATE 02-13-17 | REVISION DESCRIPTION: UPDATED FOR 2016 SPECIFICATIONS

PILE FOOTING DETAILS

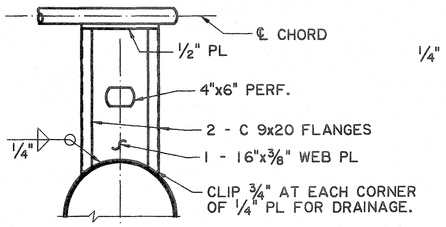
BD.2.7.1.0.8 - OVERHEAD TRAFFIC SIGNS

BRIDGE AND STRUCTURAL DESIGN

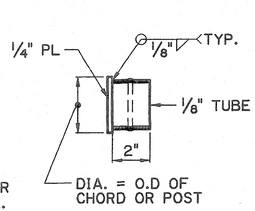




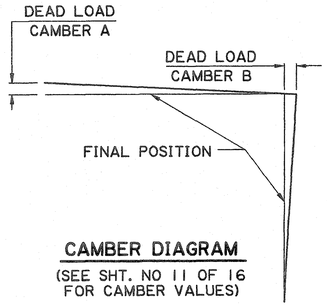
CHORD CONNECTION



DETAIL B

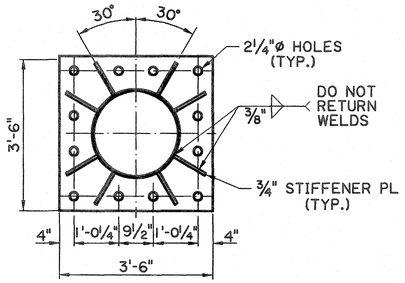


FRICTION CAP DETAIL

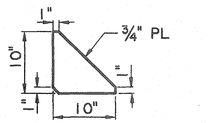


CAMBER DIAGRAM

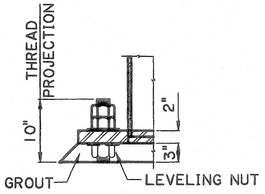
(SEE SHT. NO 11 OF 16 FOR CAMBER VALUES)



PLAN



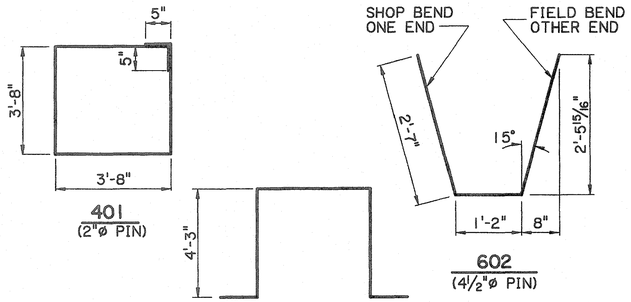
3/4" STIFFENER PLATE



ANCHOR CONNECTION

ESTIMATED QUANTITIES (ONE FOOTING)				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
601	72	7'-8"	552'-0"	FOOTING
602	8	6'-4"	50'-8"	FOOTING
TOTAL NO. 6 BARS = 602'-8" =				905 LBS.
401	4	15'-6"	62'-0"	STIRRUPS IN FOOTING
402	6	14'-0"	84'-0"	STIRRUPS IN FOOTING
TOTAL NO. 4 BARS = 146'-0" =				98 LBS.
TOTAL DEFORMED REINFORCING STEEL =				1003 LBS.
TOTAL CLASS A1 CONCRETE =				10.17 CU.YDS.
STRUCTURAL EXCAVATION =				34.7 CU.YDS.
STRUCTURAL STEEL (ANCHOR BOLTS) =				578 LBS.
⊠ ⊖ TREATED TIMBER PILES =				200 LIN.FT.

⊖ WIND ZONE 2 ASSUMED FOR PILE QUANTITIES. FOR OTHER WIND ZONES, ADJUST QUANTITIES ACCORDINGLY. SEE FOOTING PILE DATA TABLE.

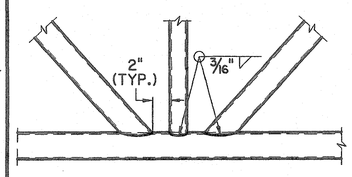


FOOTING PILE DATA TABLE ⊠			
WIND ZONE	PILE SIZE (IN.)		PILE LENGTH (FT.)
	BUTT	TIP	
1	11.6	8	45
2	11.9	8	50
3	13.9	8	75

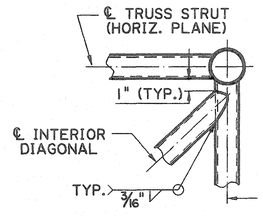
* IN SPECIAL CASES, WITH PRIOR APPROVAL FROM THE D.O.T.D. BRIDGE DESIGN ENGINEER, THIS DIMENSION MAY BE EXCEEDED.

△ ANCHOR BOLTS TO BE TIGHTENED ACCORDING TO SPECIAL PROVISIONS. ANCHOR BOLTS SHALL BE FURNISHED IN A PREPOSITIONED ANCHOR BOLT ASSEMBLY. (TWO TEMPLATES REQUIRED)

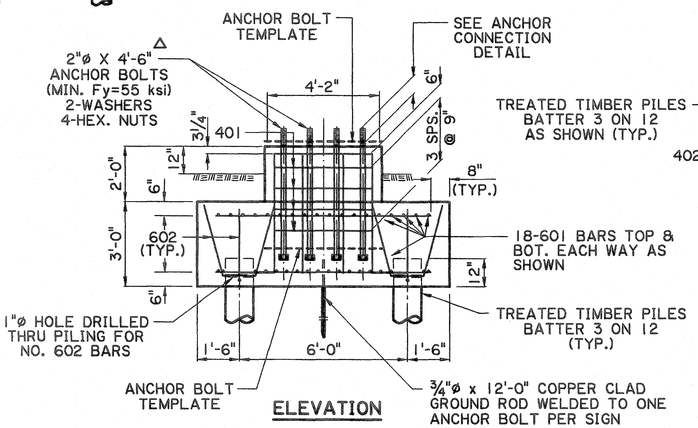
⊛ ALTERNATE CAP: FRICTION WATER TIGHT CAP MAY BE USED ON EXPOSED ENDS OF ALL PIPES. SEE DETAILS.



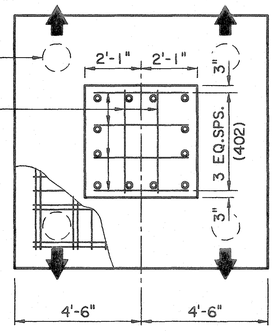
DETAIL A



DETAIL C



ELEVATION



PLAN

FOOTING DETAIL ⊠

DIRECTION OF TRAFFIC

NOTES:

ALL TRUSS AND POST MEMBERS SHALL BE STEEL AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-123.

THIS SHEET TO BE USED WITH THE CANTILEVER DESIGN TABLES AND THE GENERAL NOTES SHEET.

THE MAXIMUM PILE DESIGN LOAD IS 30 TONS PER PILE.

⊠ DRILLED SHAFT ALTERNATE ALLOWED. SEE SHT. NO. 13 OF 16.

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/29/11

STATE OF LOUISIANA
CHING-NIEN TSAI
REG. No. 23092
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/29/11

FOR GEOTECHNICAL INFORMATION ONLY

SHEET NUMBER 228

PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232

DESIGNED K. BRAUNER
CHECKED C. PORTER
DETAILED I.KORILOVA
CHECKED K. BRAUNER
DATE JAN. 2011
SHEET 9 OF 16

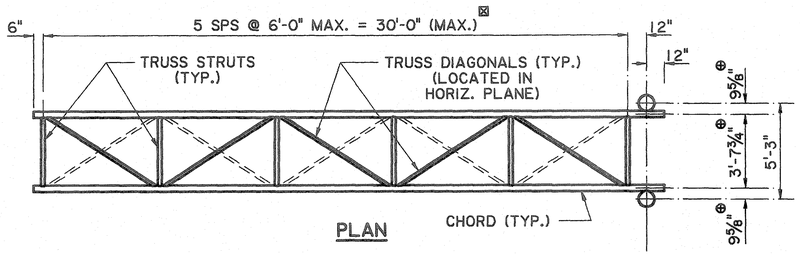
K.M.B. BY

NO. D
DATE 02-13-17
REVISION DESCRIPTION UPDATED FOR 2016 SPECIFICATIONS

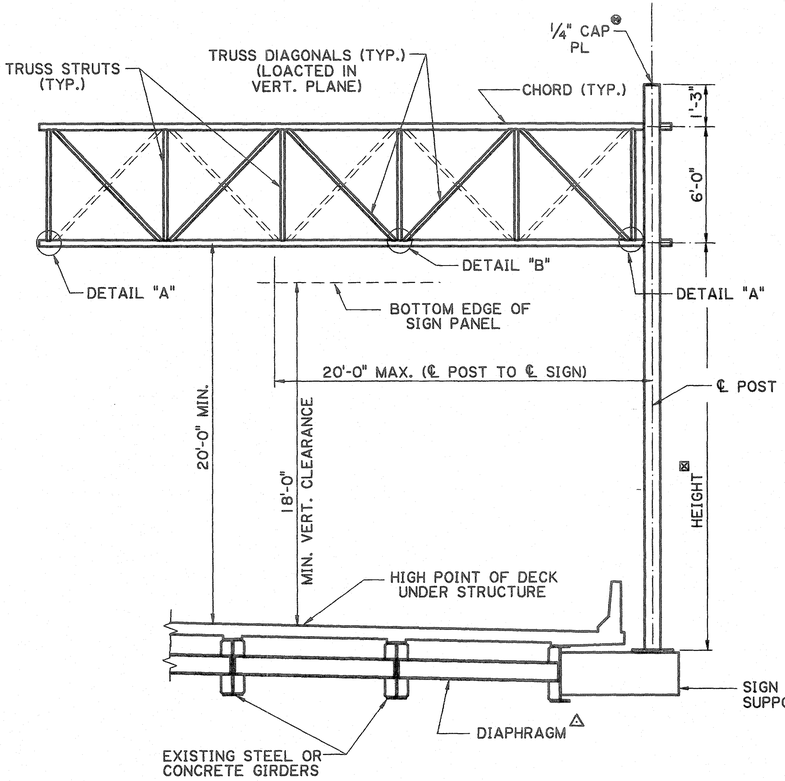
GROUND MOUNTED CANTILEVER (STEEL)

BD.2.7.1.0.9 - OVERHEAD TRAFFIC SIGNS

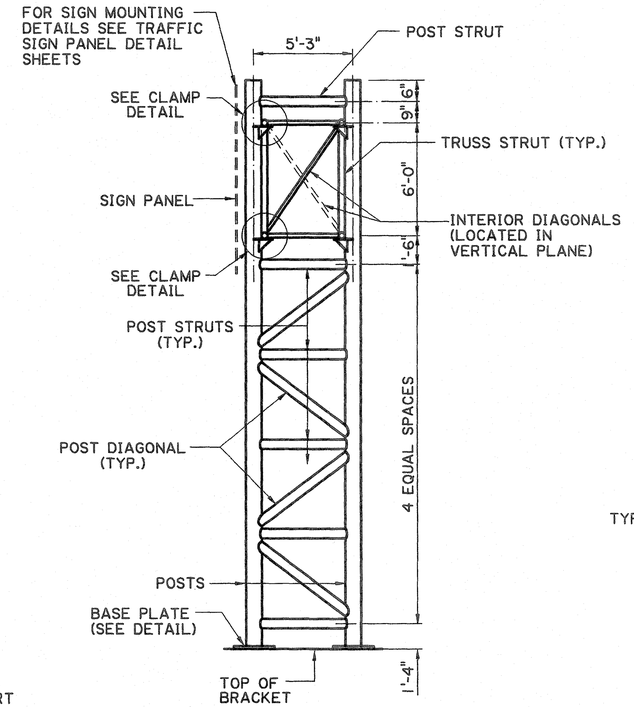
BRIDGE AND STRUCTURAL DESIGN



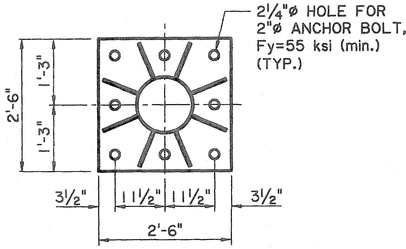
PLAN



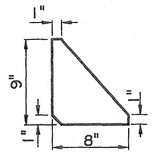
ELEVATION



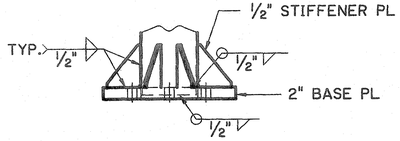
SIDE ELEVATION



PLAN

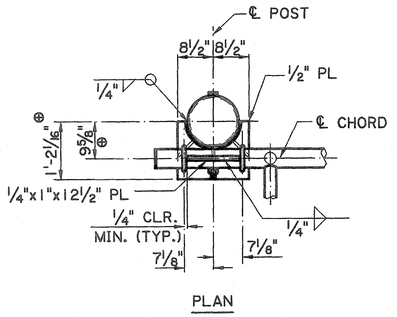


½" STIFFENER PL

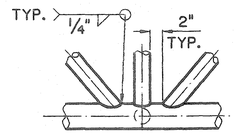


ELEVATION

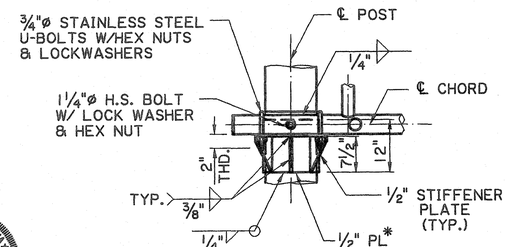
BASE PLATE DETAILS



PLAN

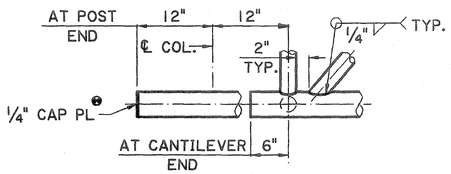


DETAIL "B"

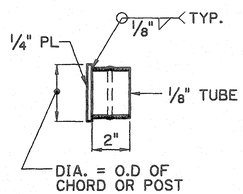


ELEVATION

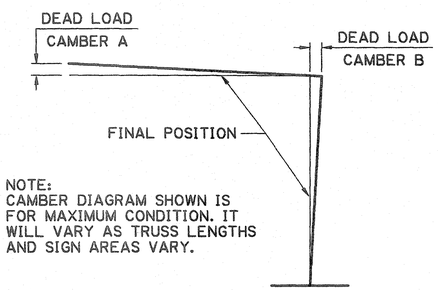
CLAMP DETAIL



DETAIL "A"



FRICTION CAP DETAIL
(ALTERNATE TO WELDED CAP PLATE)



CAMBER DIAGRAM

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
9/29/11

NOTES:

ALL TRUSS AND POST MEMBERS SHALL BE STEEL AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-123.

⊕ EXACT DIMENSION TO BE DETERMINED BY FABRICATOR PRIOR TO SUBMITTING SHOP DRAWINGS.

⊠ EXACT LENGTH TO BE DETERMINED IN THE FIELD BEFORE SHOP DRAWINGS ARE SUBMITTED FOR APPROVAL.

* TO PREVENT WALL DAMAGE TO POST DURING GALVANIZING, DRILL A HIGH & A LOW ¼" ø HOLE IN THE ½" THICK PLATE FOR VENTING.

△ SIGN SUPPORT MAY BE STEEL OR CONCRETE. IT MAY BE ATTACHED TO THE STRUCTURE (SHOWN) OR MAY BE ATTACHED TO THE SUBSTRUCTURE OR TO AN ADJACENT RETAINING WALL.

❻ SEE FRICTION CAP DETAIL FOR ALTERNATE TO WELDED CAP PLATE.

SHEET NUMBER 229

PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232

DESIGNED: K. BRAUNER
CHECKED: C. PORTER
DETAILED: I.KOURILOVA
CHECKED: K. BRAUNER
DATE: JAN. 2011
SHEET: 10 OF 16

REVISION DESCRIPTION | BY | NO. | DATE

STRUCTURE MOUNTED CANTILEVER (STEEL)

BD.2.7.1.0.10 - OVERHEAD TRAFFIC SIGNS

BRIDGE AND STRUCTURAL DESIGN

GROUND MOUNTED ⊕ CANTILEVER DESIGN TABLE

WIND SPEED	GROUP NO.	CAMBER A	CAMBER B	MAX. SIGN AREA
90 MPH	1	2 1/8"	3/4"	300 SQ.FT.
110 MPH	2	1 7/8"	5/8"	300 SQ.FT.
130 MPH	3	1 13/16"	5/8"	300 SQ.FT.

GROUND MOUNTED CANTILEVER MEMBER SIZES

MEMBER DIAMETER (IN.) X MEMBER THICKNESS (IN.)

GROUP NO.	POSTS	CHORDS	TRUSS STRUTS	TRUSS DIAGONALS	INTERIOR DIAGONALS
1	24.0 X 0.375	2.875 X 0.203	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154
2	24.0 X 0.50	3.5 X 0.216	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154
3	24.0 X 0.562	4.5 X 0.237	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154

STRUCTURE MOUNTED ⊡ CANTILEVER DESIGN TABLE

WIND SPEED	GROUP NO.	CAMBER A	CAMBER B	MAX. SIGN AREA
90 MPH	1	6"	3 3/4"	250 SQ.FT.
110 MPH	2	6"	3 3/4"	250 SQ.FT.
130 MPH	3	6"	3 3/4"	200 SQ.FT.

STRUCTURE MOUNTED CANTILEVER MEMBER SIZES

MEMBER DIAMETER (IN.) X MEMBER THICKNESS (IN.)

GROUP NO.	POSTS	CHORDS	TRUSS STRUTS	TRUSS DIAGONALS	INTERIOR DIAGONALS	POST STRUTS	POST DIAGONALS
1	12.75 X 0.375	5.563 X 0.258	2.875 X 0.203	2.875 X 0.203	2.375 X 0.154	6.625 X 0.280	6.625 X 0.280
2	14.00 X 0.50	5.563 X 0.375	2.875 X 0.203	2.875 X 0.203	2.875 X 0.203	6.625 X 0.432	6.625 X 0.432
3	14.00 X 0.50	5.563 X 0.375	2.875 X 0.203	2.875 X 0.203	2.875 X 0.203	6.625 X 0.562	6.625 X 0.562

HOW TO USE TABLES:

1. DETERMINE IF CANTILEVER IS GROUND MOUNTED OR STRUCTURE MOUNTED.
2. FIND WIND VELOCITY USING WIND MAP ON GENERAL NOTES SHEET (SHT. NO. 1 OF 16) AND CHOOSE APPROPRIATE ROW IN TABLE.
3. VERIFY THAT THE PROPOSED SIGN AREA DOES NOT EXCEED THE MAXIMUM ALLOWABLE AREA.
4. FIND CORRESPONDING GROUP NUMBER IN THE APPROPRIATE "CANTILEVER MEMBER SIZES" TABLE AND APPLY MEMBER SIZES ACCORDINGLY. FILL IN THE "CANTILEVER DATA TABLE" WITH THE APPROPRIATE DESIGN INFORMATION. (SHT NO. 12 OF 16)

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/29/11

NOTES:

ALL MEMBERS LISTED IN THE CANTILEVER MEMBER SIZES TABLE SHALL BE STEEL PIPE OR TUBE AND SHALL HAVE A MINIMUM YIELD STRENGTH (Fy) OF 42 KSI.

TUBE OR A.N.S.I. PIPE SECTIONS PROVIDING EQUAL OR GREATER STRENGTH THAN ANY MEMBER DESIGNATED IN THE TABLE MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

ALL DESIGNS MUST BE CONFIRMED ON THE FABRICATION DRAWINGS AND APPROVED BY LA DOTD BEFORE FABRICATION IS INITIATED.

THE CAMBER VALUES LISTED IN THE TABLES ARE THEORETICAL VALUES ONLY. THE CONTRACTOR SHALL ENSURE THAT AFTER ERECTION OF THE SIGN TRUSS AND INSTALLATION OF THE SIGN PANELS, THE TRUSS SPAN DOES NOT DEFLECT BELOW HORIZONTAL.

⊕ A DESIGN REQUEST MUST BE SUBMITTED FOR ALL GROUND MOUNTED CANTILEVERS USED ON EMBANKMENTS ≥ 10 FT. HIGH.

⊡ A DESIGN REQUEST MUST BE SUBMITTED FOR ALL STRUCTURE MOUNTED CANTILEVERS WHOSE SIGN CENTERS ARE MORE THAN 50 FT. ABOVE THE SURROUNDING GROUNDLINE.

SHEET NUMBER 230

PARISH: EAST BATON ROUGE | FEDERAL PROJECT: | STATE PROJECT: H.012232

DESIGNED: K. BRAUNER | CHECKED: C. PORTER | DETAILED: I.KOURILOVA | CHECKED: K. BRAUNER | DATE: JAN. 2011 | SHEET: 11 OF 16

REVISION DESCRIPTION | BY | DATE | NO.

CANTILEVER DESIGN TABLES (STEEL)

BD.2.7.1.0.11 - OVERHEAD TRAFFIC SIGNS

BRIDGE AND STRUCTURAL DESIGN

OVERHEAD TRUSS DATA TABLE

SIGN NO.	STA.	MOUNTING TYPE (GROUND OR STR.)	WIND SPEED (M.P.H.)	SPAN LENGTH (FT.)	DESIGN SIGN AREA (SQ. FT.)	GROUP NO.	CAMBER (IN.)

CANTILEVER DATA TABLE

SIGN NO.	STA.	MOUNTING TYPE (GROUND OR STR.)	WIND SPEED (M.P.H.)	SIGN AREA (SQ. FT.)	GROUP NO.	CAMBER (IN.)	
						A	B

SHEET INTENTIONALLY LEFT BLANK

MARY FRANCES BRATTON
REG. No. 41444

Mary Bratton
9/23/2022

SHEET NUMBER 231
PARISH EAST BATON ROUGE
FEDERAL PROJECT 000-17, 450-10, 258-33
STATE PROJECT H.012232
DESIGNED K. BRAUNER
CHECKED C. PORTER
DETAILED I.KOURILOVA
CHECKED K. BRAUNER
DATE JAN. 2011
SHEET 12 OF 16

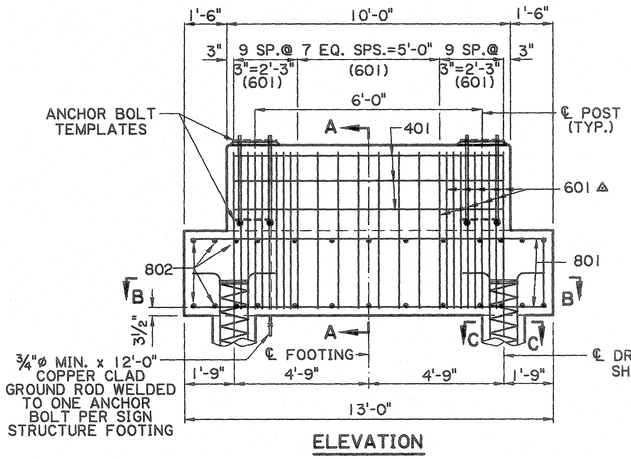
NO.	DATE	REVISION DESCRIPTION	BY

OVERHEAD SIGN DATA TABLES

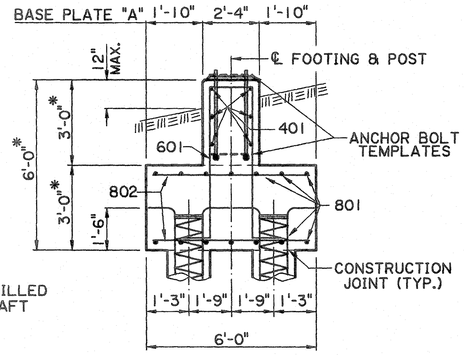
(STEEL)

2.1.0.12 - OVERHEAD TRAFFIC SIGNS

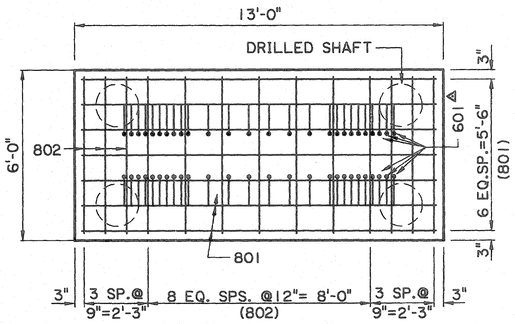
BRIDGE AND STRUCTURAL DESIGN



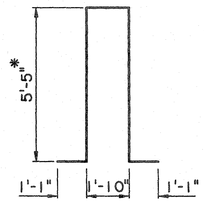
ELEVATION



SECTION A-A



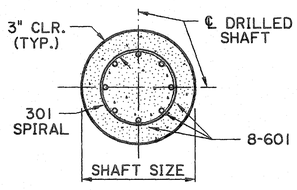
SECTION B-B



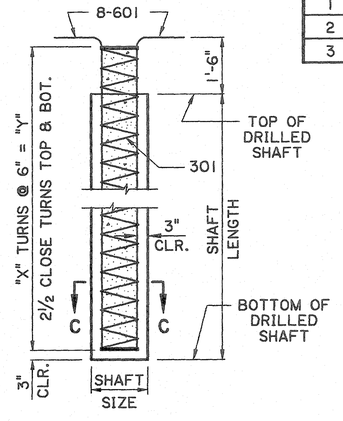
601
(4½"ø PIN)

DRILLED SHAFT FOOTING "A"
(OVERHEAD SIGN TRUSS)

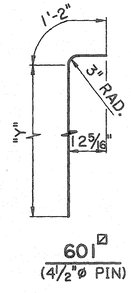
DRILLED SHAFT DATA TABLE (FOOTING "A")				
WIND ZONE	SHAFT SIZE (IN.)	SHAFT LENGTH (FT.)	X	Y (FT.)
1	18	30	62	31
2	18	35	72	36
3	18	60	122	61



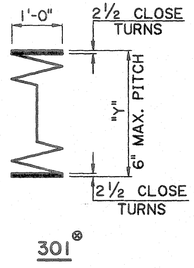
SECTION C-C



DRILLED SHAFT DETAIL



601 ☑
(4½"ø PIN)

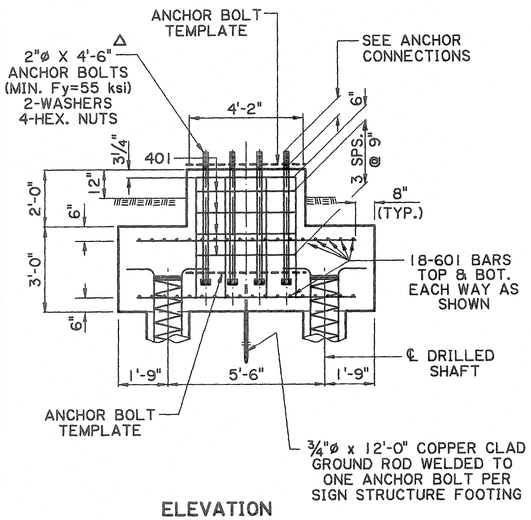


301 ⊗

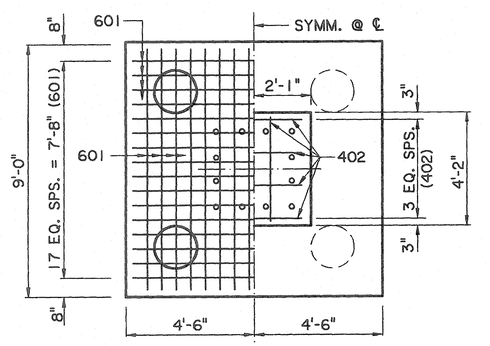
ESTIMATED QUANTITIES (DRILLED SHAFT FOOTING "A")				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	14	12'-6"	175'-0"	FOOTING
802	26	5'-6"	143'-0"	FOOTING
TOTAL NO. 8 BARS = 318'-0"			=	849 LBS.
601	26	14'-10"	385'-8"	STIRRUPS IN FOOTING & PED.
TOTAL NO. 6 BARS = 385'-8"			=	579 LBS.
401	6	9'-6"	57'-0"	PEDESTAL
TOTAL NO. 4 BARS = 57'-0"			=	38 LBS.
TOTAL DEFORMED REINFORCING STEEL			=	1466 LBS.
TOTAL CLASS A1 CONCRETE			=	11.26 CU.YDS.
STRUCTURAL EXCAVATION			=	40.0 CU.YDS.
STRUCTURAL STEEL			=	(SEE ANCHOR BOLT DETAILS)
⊖ DRILLED SHAFT			=	140 LIN. FT.

ESTIMATED QUANTITIES (CANTILEVER SIGN TRUSS ; ONE FOOTING)				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
601	72	7'-8"	552'-0"	FOOTING
TOTAL NO. 6 BARS = 552'-0"			=	829 LBS.
401	4	15'-6"	62'-0"	STIRRUPS IN FOOTING & PED.
402	6	14'-0"	84'-0"	STIRRUPS IN FOOTING & PED.
TOTAL NO. 4 BARS = 146'-0"			=	98 LBS.
TOTAL DEFORMED REINFORCING STEEL			=	927 LBS.
TOTAL CLASS A1 CONCRETE			=	10.29 CU.YDS.
STRUCTURAL EXCAVATION			=	34.7 CU.YDS.
STRUCTURAL STEEL			=	(SEE ANCHOR BOLT DETAILS)
⊖ DRILLED SHAFT			=	120 LIN.FT.

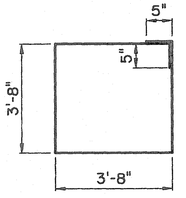
ESTIMATED QUANTITIES (ONE DRILLED SHAFT ; L = 35'-0") ⊖				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
☑ 601	8	37'-2"	297'-4"	DRILLED SHAFT
TOTAL NO. 6 BARS = 297'-4"			=	447 LBS.
⊗ 301	1	237'-3"	237'-3"	SPIRAL
TOTAL NO. 3 BARS = 237'-3"			=	89 LBS.
TOTAL DEFORMED REINFORCING STEEL			=	536 LBS.
TOTAL CLASS S CONCRETE			=	2.29 CU.YDS.



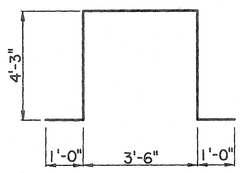
ELEVATION



PLAN



401
(2"ø PIN)



402
(2"ø PIN)

DRILLED SHAFT CANTILEVER FOOTING

DRILLED SHAFT DATA TABLE (CANTILEVER FOOTING)				
WIND ZONE	SHAFT SIZE (IN.)	SHAFT LENGTH (FT.)	X	Y (FT.)
1	18	30	62	31
2	18	30	62	31
3	18	60	122	61

NOTES:

THIS DRILLED SHAFT ALTERNATE IS ALLOWED IN LIEU OF TIMBER PILES AND IS A SUPPLEMENT TO PLAN SHEET NO. 8 OF 16.

FOR ANCHOR BOLT DETAILS, SEE TYPE II TRUSS & CANTILEVER DETAILS AND THE GENERAL NOTES.

ANCHOR BOLTS SHALL BE FURNISHED IN A PREPOSITIONED ANCHOR BOLT ASSEMBLY. (TWO TEMPLATES REQUIRED)

* THESE DIMENSIONS MAY VARY ± ONE FOOT TO ADJUST ELEVATION FOR SITE ADJUST 401 & 601 BARS ACCORDINGLY.

△ NO. 601 BARS MAY BE MOVED TO CLEAR TRUSS ANCHOR BOLTS.

⊖ WIND ZONE 2 ASSUMED FOR SHAFT QUANTITIES. FOR OTHER WIND ZONES, ADJUST QUANTITIES ACCORDINGLY. SEE DRILLED SHAFT DATA TABLES.

☑ IF A SPLICE IS REQUIRED, THE MINIMUM SPLICE LENGTH SHALL BE 2'-9".

⊗ IF A SPLICE IS REQUIRED, THE MINIMUM SPLICE LENGTH SHALL BE 1½ TURNS.

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/29/11

STATE OF LOUISIANA
CHING-NIEN TSAI
REG. No. 23092
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/29/2011

FOR GEOTECHNICAL INFORMATION ONLY

SHEET NUMBER 232

PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232

DESIGNED K. BRAUNER
CHECKED C. PORTER
DETAILED I. KOURILOVA
CHECKED K. BRAUNER
DATE JAN. 2011
SHEET 13 OF 16
BY K.M.B.

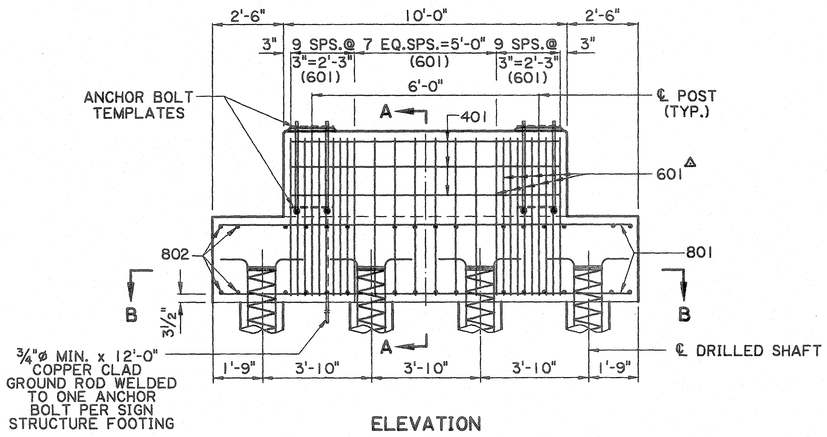
NO. 1 — 02-13-17 — UPDATED FOR 2016 SPECIFICATIONS

DRILLED SHAFT FOOTING ALT.

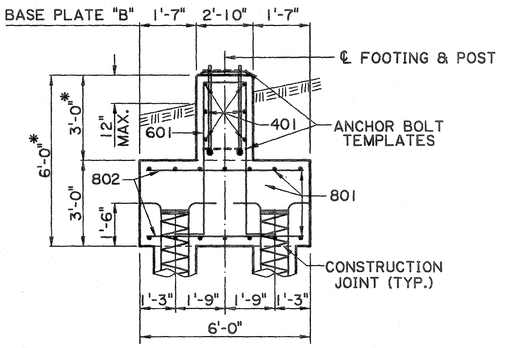
BD.2.7.1.0.13 - OVERHEAD TRAFFIC SIGNS

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT DOTD

BRIDGE AND STRUCTURAL DESIGN

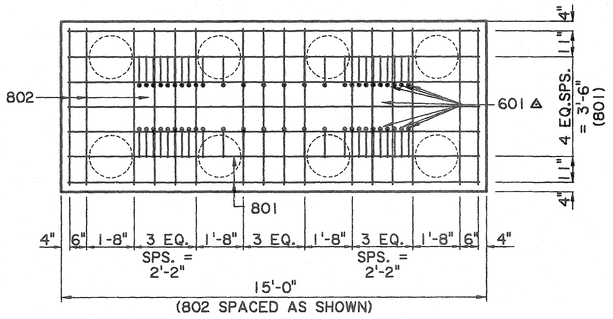


ELEVATION

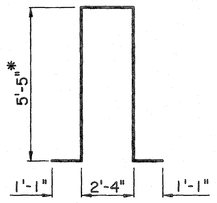


SECTION A-A

ESTIMATED QUANTITIES (DRILLED SHAFT FOOTING "B")				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
801	14	14'-6"	203'-0"	FOOTING
802	32	5'-6"	176'-0"	FOOTING
TOTAL NO. 8 BARS = 379'-0"			=	1012 LBS.
601	26	15'-4"	398'-8"	STIRRUPS IN FOOTING & PED.
TOTAL NO. 6 BARS = 398'-8"			=	599 LBS.
401	6	9'-6"	57'-0"	PEDESTAL
TOTAL NO. 4 BARS = 57'-0"			=	38 LBS.
TOTAL DEFORMED REINFORCING STEEL			=	1649 LBS.
TOTAL CLASS A1 CONCRETE			=	13.15 CU.YDS.
STRUCTURAL EXCAVATION			=	45.0 CU.YDS.
STRUCTURAL STEEL			=	(SEE ANCHOR BOLT DETAILS)
⊖ DRILLED SHAFT			=	240 LIN. FT.



SECTION B-B

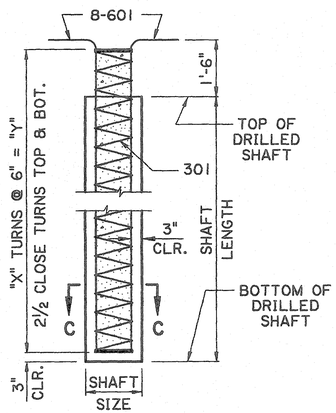


601
(4½"ø PIN)

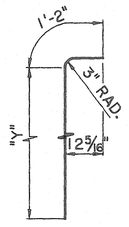
ESTIMATED QUANTITIES (ONE DRILLED SHAFT ; L = 30'-0") ⊖				
BAR	NO.	UNIT LENGTH	TOTAL LENGTH	LOCATION
☑ 601	8	32'-2"	257'-4"	DRILLED SHAFT
TOTAL NO. 6 BARS = 257'-4"			=	387 LBS.
⊗ 301	1	206'-5"	206'-5"	SPIRAL
TOTAL NO. 3 BARS = 206'-5"			=	78 LBS.
TOTAL DEFORMED REINFORCING STEEL			=	465 LBS.
TOTAL CLASS S CONCRETE			=	1.96 CU.YDS.

DRILLED SHAFT FOOTING "B"

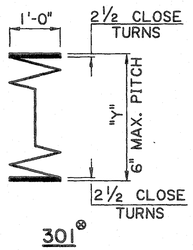
(OVERHEAD SIGN TRUSS)



DRILLED SHAFT DETAIL

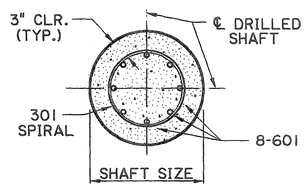


601 ☑
(4½"ø PIN)



301 ⊗

DRILLED SHAFT DATA TABLE (FOOTING "B")				
WIND ZONE	SHAFT SIZE (IN.)	SHAFT LENGTH (FT.)	X	Y (FT.)
1	N/A			
2	18	30	62	31
3	18	65	132	66



SECTION C-C

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/29/11

STATE OF LOUISIANA
CHING-NIEN TSAI
REG. No. 25092
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/29/11

FOR GEOTECHNICAL INFORMATION ONLY

NOTES:

THIS DRILLED SHAFT ALTERNATE IS ALLOWED IN LIEU OF TIMBER PILES AND IS A SUPPLEMENT TO PLAN SHEET NO. 8 OF 16.

FOR ANCHOR BOLT DETAILS, SEE TYPE II TRUSS & CANTILEVER DETAILS AND THE GENERAL NOTES.

ANCHOR BOLTS SHALL BE FURNISHED IN A PREPOSITIONED ANCHOR BOLT ASSEMBLY. (TWO TEMPLATES REQUIRED)

* THESE DIMENSIONS MAY VARY ± ONE FOOT TO ADJUST ELEVATION FOR SITE ADJUST 401 & 601 BARS ACCORDINGLY.

△ NO. 601 BARS MAY BE MOVED TO CLEAR TRUSS ANCHOR BOLTS.

⊖ WIND ZONE 2 ASSUMED FOR SHAFT QUANTITIES. FOR OTHER WIND ZONES, ADJUST QUANTITIES ACCORDINGLY. SEE DRILLED SHAFT DATA TABLES.

☑ IF A SPLICE IS REQUIRED, THE MINIMUM SPLICE LENGTH SHALL BE 2'-9".

⊗ IF A SPLICE IS REQUIRED, THE MINIMUM SPLICE LENGTH SHALL BE 1½ TURNS.

SHEET NUMBER 233

PARISH: EAST BATON ROUGE | FEDERAL PROJECT: | STATE PROJECT: H.012232

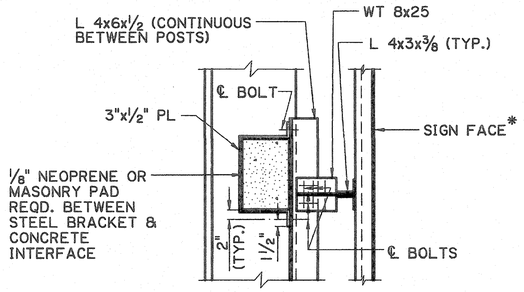
DESIGNED: K. BRAUNER | CHECKED: C. PORTER | DETAILED: T.KOURILOVA | CHECKED: K. BRAUNER | DATE: JAN. 2011 | SHEET: 14 OF 16 | BY: K.M.B.

NO. 0 | DATE: 02-13-17 | UPDATED FOR 2016 SPECIFICATIONS | REVISION DESCRIPTION

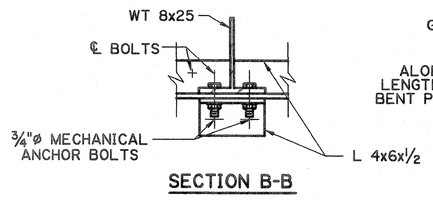
DRILLED SHAFT FOOTING ALT.

BD.2.7.1.0.14 - OVERHEAD TRAFFIC SIGNS

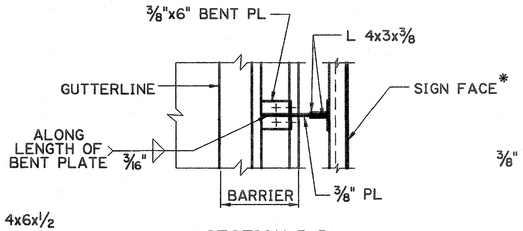
BRIDGE AND STRUCTURAL DESIGN



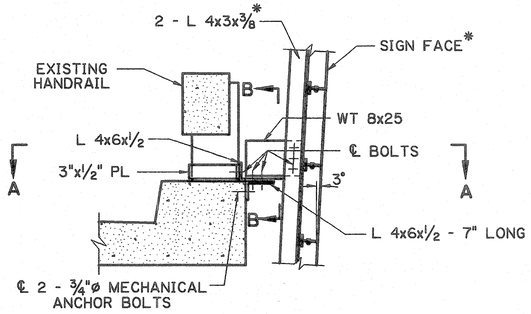
SECTION A-A



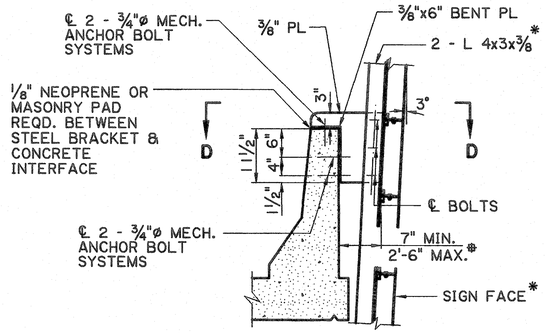
SECTION B-B



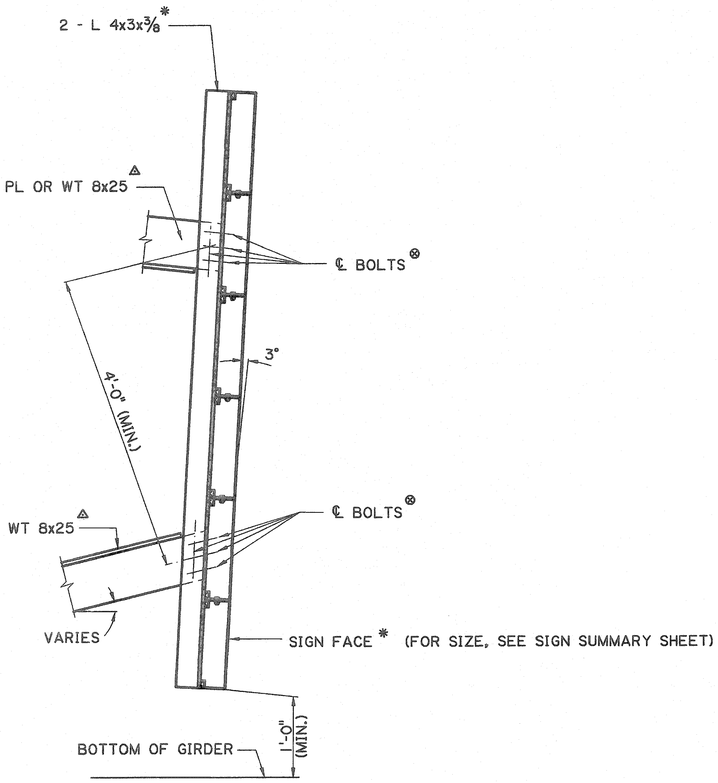
SECTION D-D



POST BRACKET

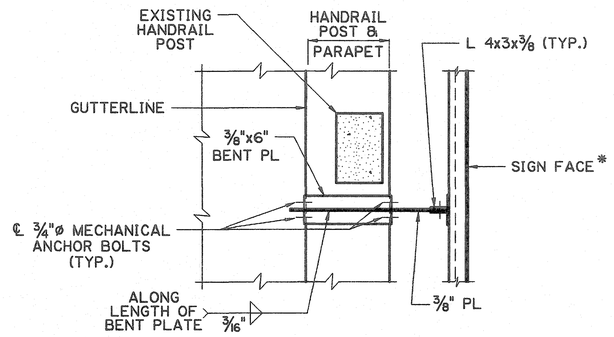


BARRIER RAIL BRACKET

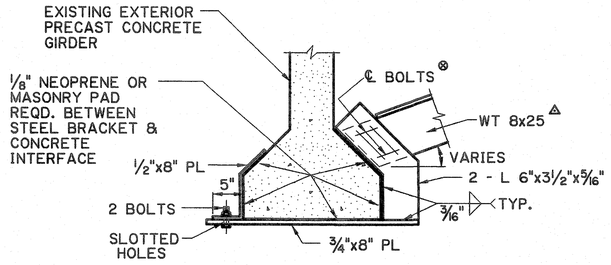


ELEVATION

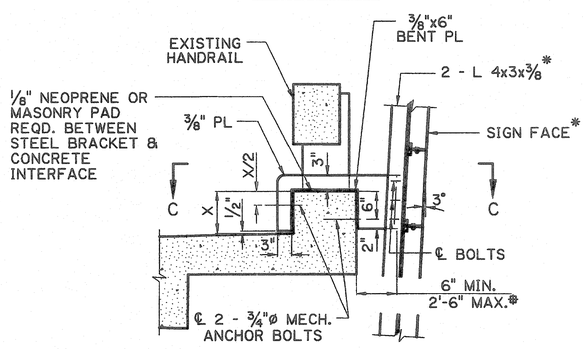
SIGN CONNECTION DETAIL



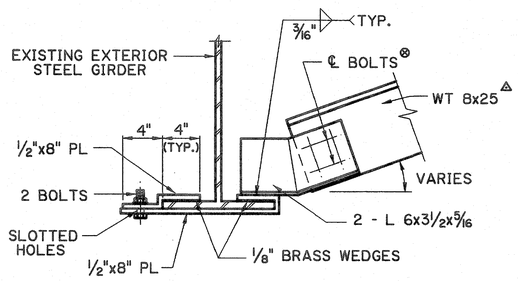
SECTION C-C



PRESTRESSED CONCRETE GIRDER BRACKET



SIDEWALK BRACKET



STEEL GIRDER BRACKET

NOTES:

THIS SHEET TO BE USED WITH WIND LOAD MAP AND GENERAL NOTES

ALL BRACKET MEMBERS SHALL BE STEEL (A-36), UNLESS OTHERWISE NOTED, BOLTS TO BE ¾" ASTM A-325 AND BE GALVANIZED. BOLTS SHALL HAVE TWO (2) FLAT WASHERS, ONE (1) LOCK WASHER & ONE (1) HEX NUT, ALL GALVANIZED.

DAMAGED GALVANIZED SURFACES SHALL BE REPAIRED IN ACCORDANCE WITH STA. SPECS. SUBSECTION 811.08.

DIMENSIONS OF EXISTING BRIDGE MEMBERS TO BE OBTAINED IN FIELD PRIOR TO FABRICATION OF MOUNTING BRACKET BY THE CONTRACTOR AND ADJUSTED AS DIRECTED BY THE PROJECT ENGINEER.

NUMBER OF POST, CURB OR GIRDER BRACKETS REQUIRED SHALL BE DETERMINED IN THE FIELD (WITH TWO (2) EACH MIN.) FOR EACH SIGN LOCATION, AS DIRECTED BY THE PROJECT ENGINEER.

UNLESS OTHERWISE NOTED, PAYMENT SHALL BE MADE UNDER ITEM 729-13-00100 "MOUNTING (BRIDGE FASCIA MOUNTED)" PER EACH.

MECHANICAL ANCHOR SYSTEM SHALL BE FROM THE APPROVED MATERIALS LIST AND SHALL BE GALVANIZED.

* PAYMENT TO BE UNDER ITEM 729-06-00100.
⊗ SLOT ONE HOLE AND FIELD DRILL THE OTHERS
△ LENGTH VARIES.
\# WHEN DIMENSIONS EXCEED 2'-6", SEE SIDEWALK BARRIER RAIL BRACKET DETAIL, SHEET 16 OF 16.

STATE OF LOUISIANA KURT M. BRAUNER License No. 30567 PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/29/11

SHEET NUMBER 234

PARISH: EAST BATON ROUGE | FEDERAL PROJECT: | STATE PROJECT: H.012232

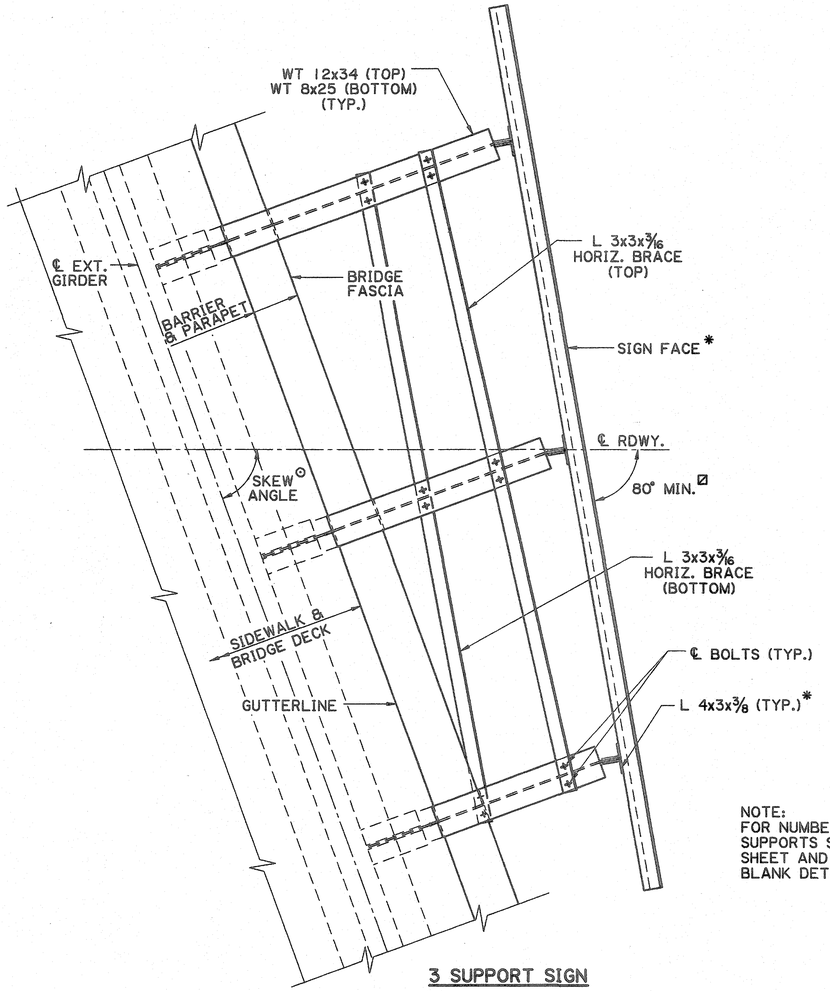
DESIGNED K. BRAUNER P. FOSSIER | DETAILED I.KOURILOVA | CHECKED K. BRAUNER | DATE JAN. 2011 | SHEET 15 OF 16 | BY K.M.B.

NO.	DATE	REVISION DESCRIPTION
1	02-13-17	UPDATED FOR 2016 SPECIFICATIONS

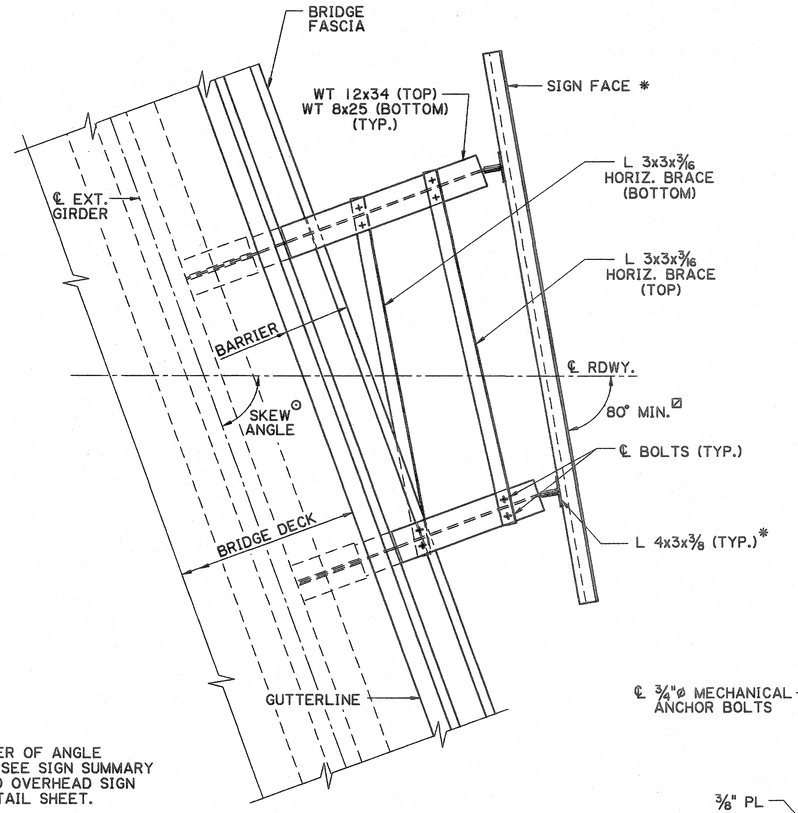
FASCIA MOUNTED BRACKETS (STEEL)

BD.2.7.1.0.15 - OVERHEAD TRAFFIC SIGNS

BRIDGE AND STRUCTURAL DESIGN

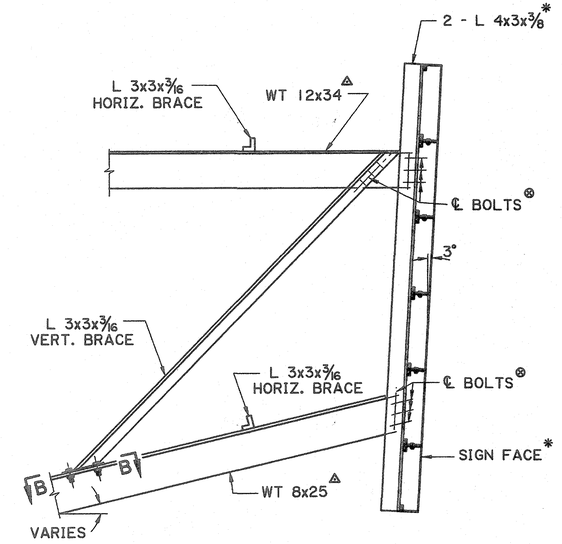


3 SUPPORT SIGN

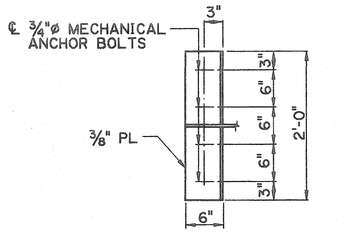


2 SUPPORT SIGN

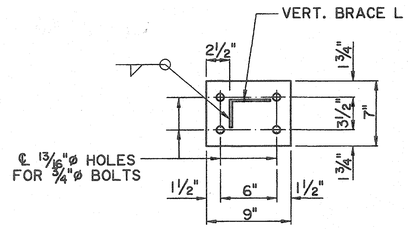
NOTE:
FOR NUMBER OF ANGLE SUPPORTS SEE SIGN SUMMARY SHEET AND OVERHEAD SIGN BLANK DETAIL SHEET.



SIGN CONNECTION DETAIL

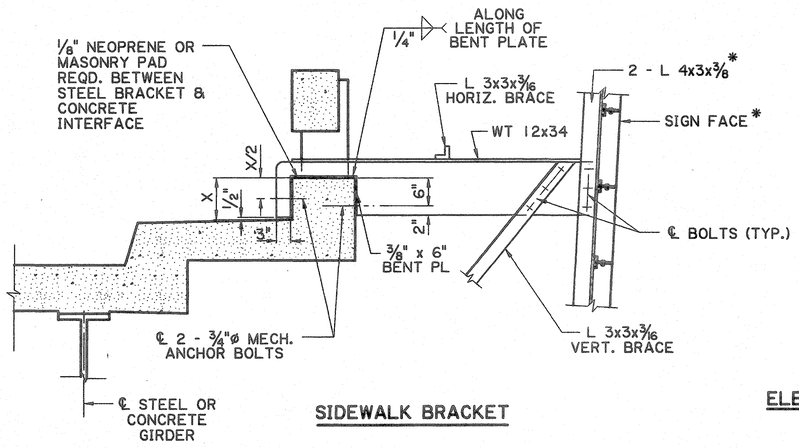


SECTION A-A



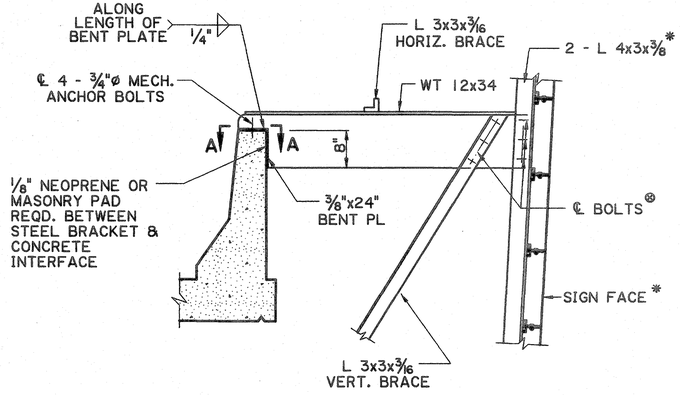
SECTION B-B

PLAN



SIDEWALK BRACKET

ELEVATION



BARRIER RAIL BRACKET

LATERAL AND VERTICAL BRACING DETAILS

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
8/24/11

NOTES:

THIS SHEET TO BE USED WITH WIND LOAD MAP AND GENERAL NOTE SHEET. ALL BRACKET MEMBERS SHALL BE STEEL (A36) AND GALVANIZED UNLESS OTHERWISE NOTED.

* PAYMENT TO BE UNDER ITEM 729-06-00100.

⊗ SLOT ONE HOLE AND FIELD DRILL THE OTHERS

△ LENGTH VARIES

⊙ 35° ≤ SKEW ANGLE ≤ 80°

☑ WHEN USED OVER A CURVED SECTION OF ROADWAY, THE ANGLE SHALL BE ADJUSTED TO PLACE SIGN PERPENDICULAR TO THE CURVE OR AS DIRECTED BY THE PROJECT ENGINEER.

SHEET NUMBER 235

PARISH EAST BATON ROUGE | FEDERAL PROJECT | STATE PROJECT H.012232

DESIGNED K. BRAUNER
CHECKED P. FOSSIER
DETAILED I. KOURILOVA
CHECKED K. BRAUNER
DATE JAN. 2011
SHEET 16 OF 16

REVISION DESCRIPTION | NO. | DATE | BY

FASCIA MOUNTED BRACKETS (STEEL)

BD.2.7.1.0.16 - OVERHEAD TRAFFIC SIGNS

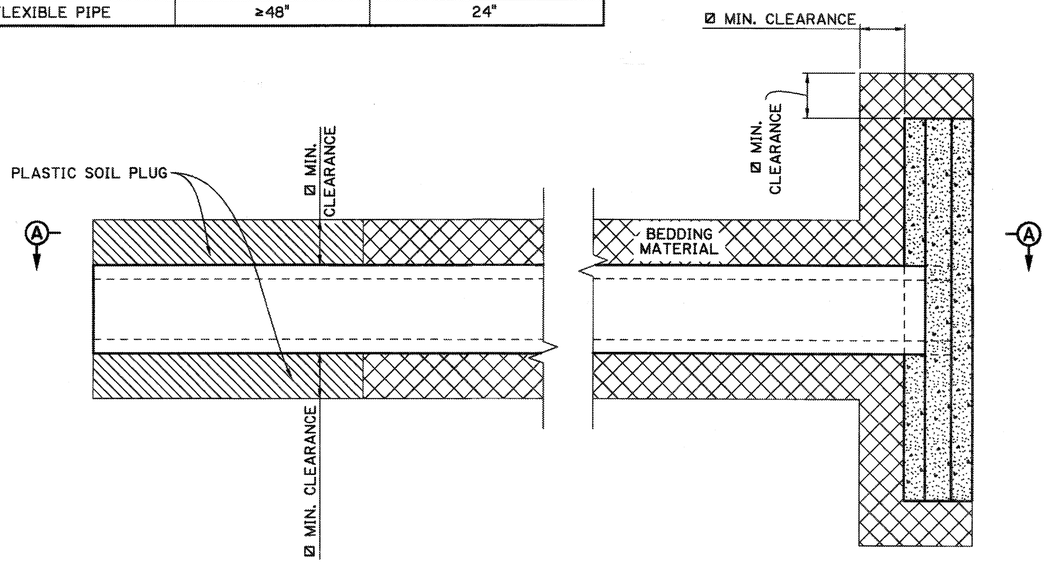
BRIDGE AND STRUCTURAL DESIGN

07:51
10/5/2021

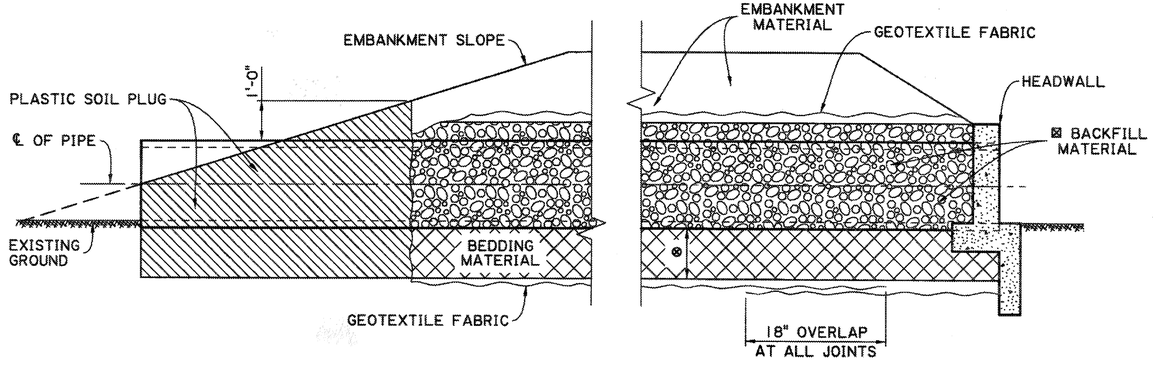
GENERAL NOTES :

1. REINFORCED CONCRETE PIPE AND FLEXIBLE PIPE ARE SHOWN AS TYPICAL STRUCTURES. DETAILS ALSO APPLY TO REINFORCED CONCRETE BOX CULVERT, REINFORCED CONCRETE PIPE ARCH, CORRUGATED METAL PIPE ARCH, AND CORRUGATED STRUCTURAL PLATE STRUCTURES.
2. CONSTRUCTION COVER REQUIREMENTS MAY EXCEED FINAL COVER. SEE SECTION 701 OF LADOTD STANDARD SPECIFICATIONS.
3. CROSS DRAIN DETAILS APPLY TO ALL REACHES OF PIPE UNDER RIGID OR FLEXIBLE ROADWAYS.
4. TRENCH SAFETY STANDARDS SHALL BE IN ACCORDANCE WITH SECTION 701 OF LADOTD STANDARD SPECIFICATIONS.

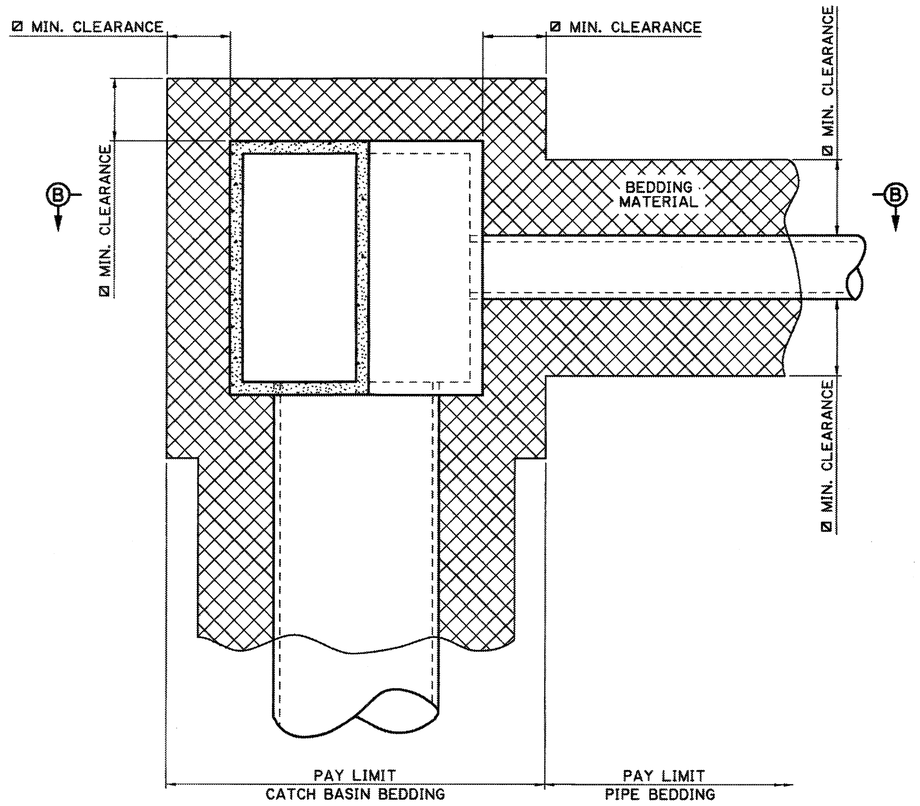
Ø MINIMUM TRENCH CLEARANCE		
TYPE OF PIPE	INSIDE DIAMETER	MIN. CLEARANCE
REINFORCED CONCRETE PIPE	ALL	18"
FLEXIBLE PIPE	<48"	18"
FLEXIBLE PIPE	≥48"	24"



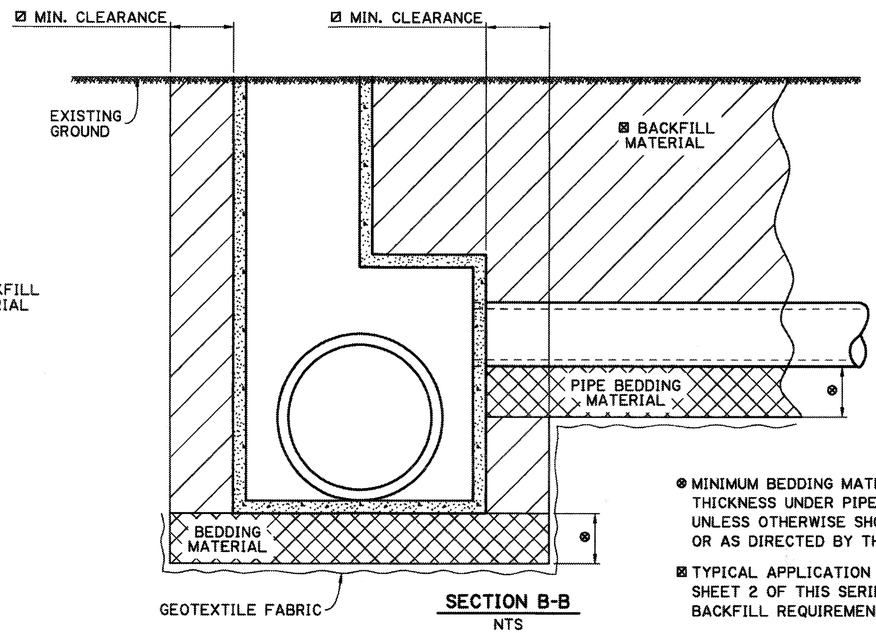
TYPICAL CROSS DRAIN INSTALLATION
WITH AND WITHOUT HEADWALL
(EMBANKMENT MATERIAL NOT SHOWN FOR CLARITY)
NTS



SECTION A-A
WITH AND WITHOUT HEADWALL
NTS



TYPICAL CATCH BASIN AND STORM SEWER PIPE INSTALLATION
NTS



SECTION B-B
NTS

⊗ MINIMUM BEDDING MATERIAL THICKNESS UNDER PIPE IS 6 INCHES UNLESS OTHERWISE SHOWN ON PLANS OR AS DIRECTED BY THE PE.

⊠ TYPICAL APPLICATION SHOWN. SEE SHEET 2 OF THIS SERIES FOR BACKFILL REQUIREMENTS.

SHEET NUMBER	300
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232
DESIGN	
CHECK	
DETAIL	LFH
CHECK	AMN
REVIEW	CJN
SERIES #	1 OF 2

STATE OF LOUISIANA
CHRISTOPHER J. NICKEL
License No. 32572
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
10/04/2021

APPROVED BY CHIEF ENGINEER:
DATE: 11/16/2021

DRAINAGE STRUCTURES
BEDDING & BACKFILL
STANDARD PLAN BM-01

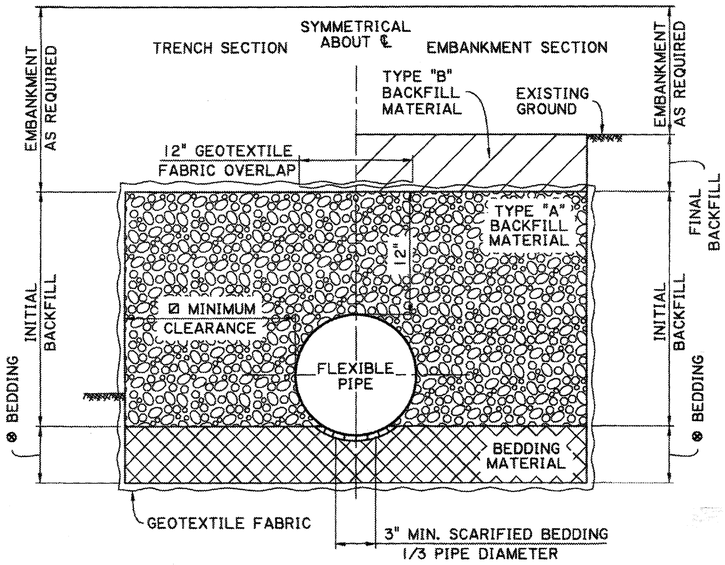
DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
PAVEMENT & GEOTECHNICAL SERVICES

⌀ MINIMUM TRENCH CLEARANCE		
TYPE OF PIPE	INSIDE DIAMETER	MIN. CLEARANCE
REINFORCED CONCRETE PIPE	ALL	18"
FLEXIBLE PIPE	<48"	18"
FLEXIBLE PIPE	≥48"	24"

⊗ MINIMUM BEDDING MATERIAL THICKNESS UNDER PIPE IS 6 INCHES UNLESS OTHERWISE SHOWN ON PLANS OR AS DIRECTED BY THE PE.

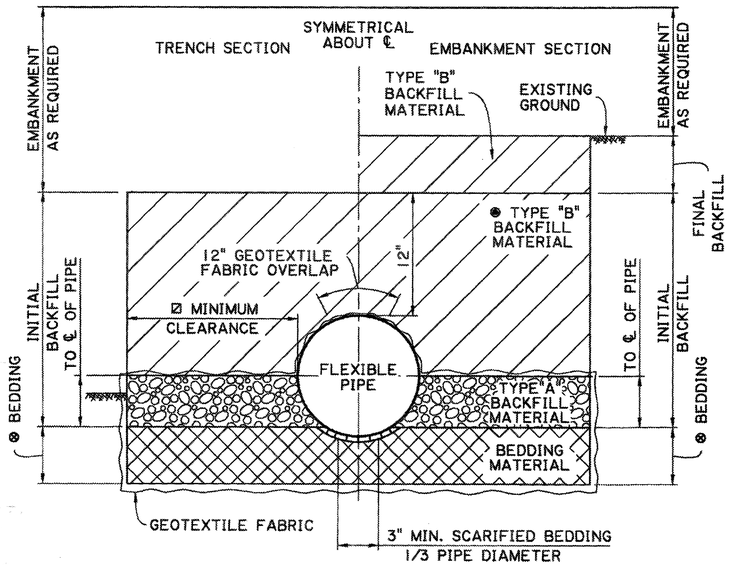
△ THE NEED FOR BEDDING MATERIAL SHALL BE EVALUATED BEFORE IT IS USED.

⊛ REFER TO NOTE 3 ON SHEET 1 OF THIS SERIES.



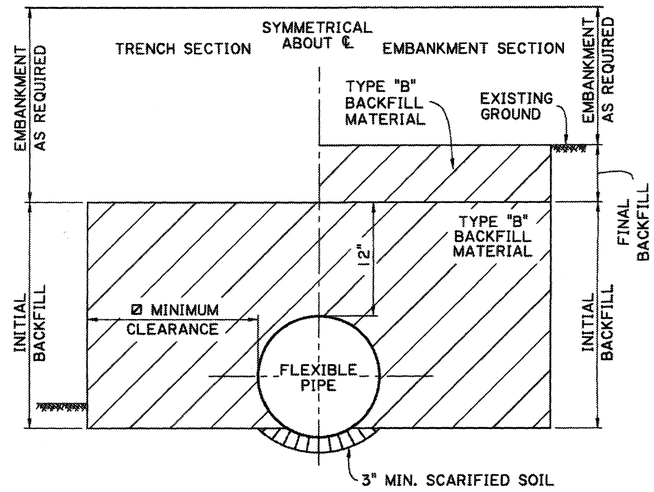
FLEXIBLE PIPE CROSS DRAIN

TRENCH AND EMBANKMENT INSTALLATIONS
SCALE: 1½"=1'-0"



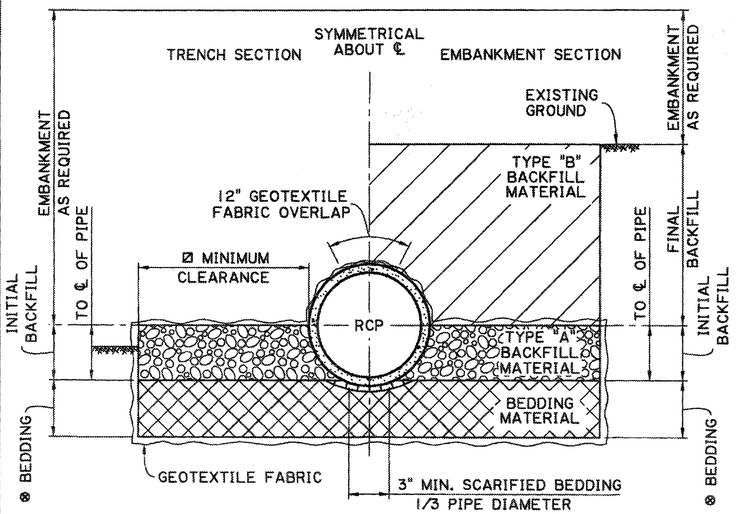
FLEXIBLE PIPE STORM DRAIN

TRENCH AND EMBANKMENT INSTALLATIONS
SCALE: 1½"=1'-0"



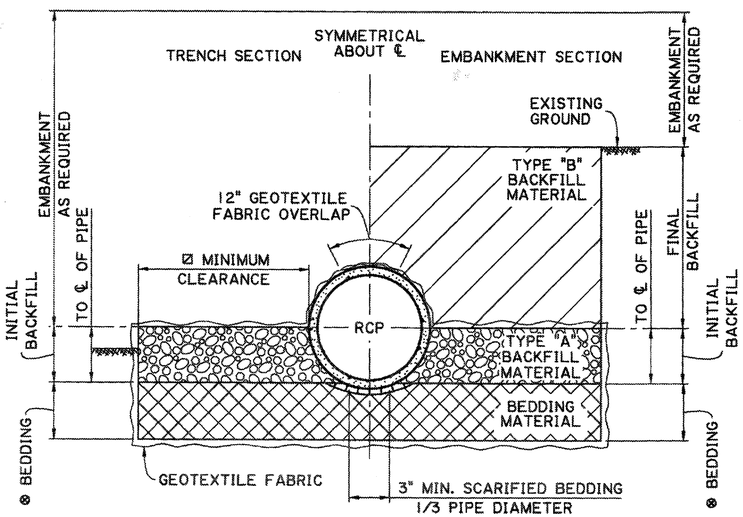
△ FLEXIBLE PIPE SIDE DRAIN

TRENCH AND EMBANKMENT INSTALLATIONS
SCALE: 1½"=1'-0"



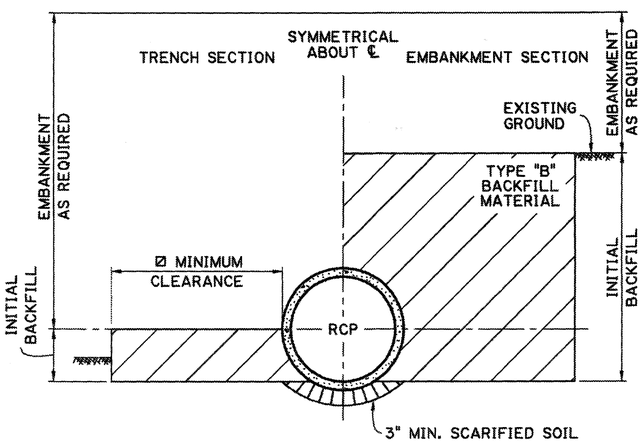
REINFORCED CONCRETE PIPE CROSS DRAIN

TRENCH AND EMBANKMENT INSTALLATIONS
SCALE: 1½"=1'-0"



REINFORCED CONCRETE PIPE STORM DRAIN

TRENCH AND EMBANKMENT INSTALLATIONS
SCALE: 1½"=1'-0"



△ REINFORCED CONCRETE PIPE SIDE DRAIN

TRENCH AND EMBANKMENT INSTALLATIONS
SCALE: 1½"=1'-0"

10/5/2021 07:50

SHEET NUMBER 301
PARISH: EAST BATON ROUGE
CONTROL SECTION: 000-17, 258-33, 450-10
STATE PROJECT: H.012232
DESIGN: LFH
CHECK: AMN
DETAIL: CJN
CHECK: CJN
REVIEW: CJN
SERIES # 2 OF 2

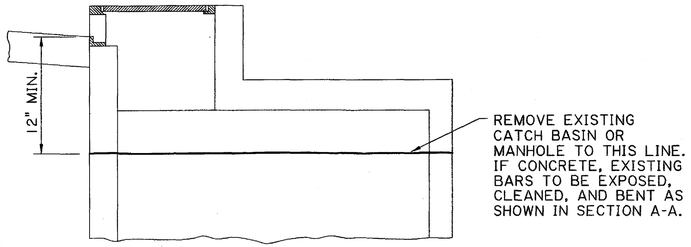
CHRISTOPHER J. NICKEL, License No. 30572, PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
10/08/2021

APPROVED BY CHIEF ENGINEER:
DATE: 11/16/2021

DRAINAGE STRUCTURES
TYPICAL SECTIONS FOR CROSS DRAINS & SIDE DRAINS

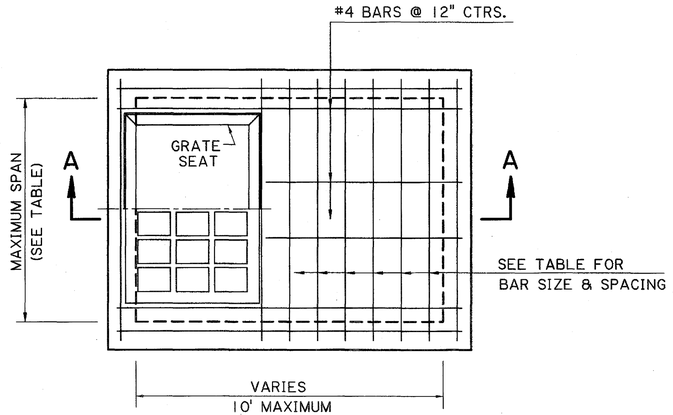
STANDARD PLAN BM-01

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
PAVEMENT & GEOTECHNICAL SERVICES



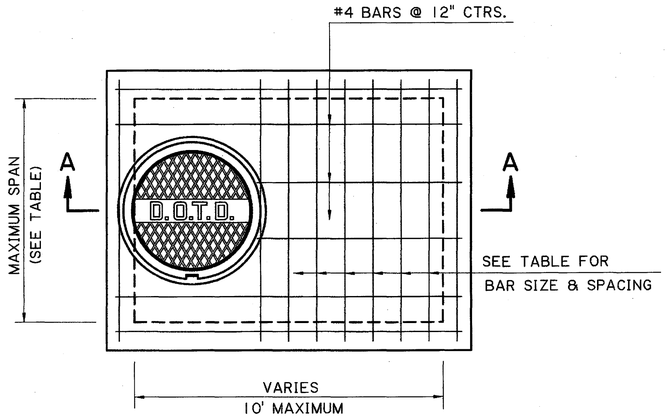
SECTION

EXISTING STRUCTURE



CATCH BASIN PLAN

SHOWING NEW CONSTRUCTION
GRATE TO BE TYPE "B" OR "C".
TYPE "B" SHOWN.*



MANHOLE PLAN

SHOWING NEW CONSTRUCTION

* TYPE "B" AND "C" GRATES SHOULD NOT BE USED IN THE TRAVEL LANE.

TYPE "B" GRATE IS TO BE USED WHERE NO PEDESTRIAN TRAFFIC AND NO VEHICULAR TRAFFIC IS EXPECTED. (DITCHES, ETC.)

TYPE "C" GRATE IS TO BE USED WHERE PEDESTRIAN TRAFFIC AND/OR LIGHT VEHICULAR TRAFFIC IS EXPECTED. (DRIVEWAYS, SHOULDERS, ETC.)

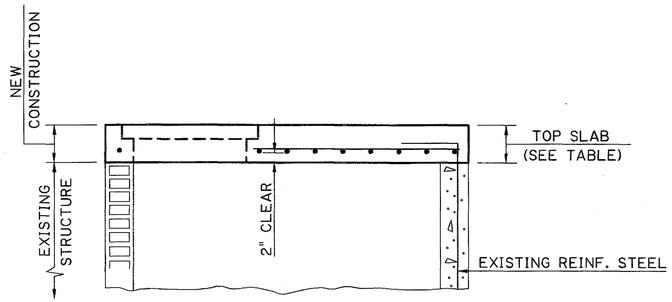
GENERAL NOTES:

DIMENSIONS RELATING TO REINFORCED STEEL ARE TO BARS CENTERS.

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

FOR DETAILS OF MANHOLE CAST IRON COVER AND SEAT, SEE STD. PLAN MC-01 (TYPE K OR K_1).

PROJECT SPECIFICATIONS FOR MANHOLES, JUNCTION BOXES AND CATCH BASINS SHALL APPLY.



SECTION A-A

SHOWING NEW CONSTRUCTION FOR CATCH BASIN OR MANHOLE
(FOR CONCRETE OR BRICK WALL)

MAXIMUM SPAN	TOP SLAB	BAR SIZE	BAR SPACING
4'	8"	#5	8"
6'	8½"	#5	6"
8'	9½"	#5	5"
9'	10½"	#5	4"

ADJUSTMENT/CONVERSION OF EXISTING CATCH BASINS OR MANHOLES

NOTE: 1) FOR ALL CATCH BASIN ADJUSTMENTS, THIS DETAIL SHOULD BE INCLUDED IN THE PLANS AND PAID FOR WITH APPROPRIATE PAY ITEMS.

2) FOR ALL CATCH BASIN AND MANHOLE CONVERSIONS (CATCH BASIN TOP TO MANHOLE TOP OR MANHOLE TOP TO CATCH BASIN TOP), THIS DETAIL SHOULD BE INCLUDED IN THE PLANS ALONG WITH THE APPROPRIATE STANDARD PLAN/SPECIAL DETAIL TO CONSTRUCT THE NEW TOP. IF NO STANDARD PLAN/SPECIAL DETAIL IS INCLUDED, THE TOP IS TO BE BUILT AS SHOWN ON THIS DETAIL. ALL CONVERSIONS SHOULD BE PAID FOR WITH APPROPRIATE PAY ITEMS.

3) FOR ALL MANHOLE ADJUSTMENTS GREATER THAN 7", THIS DETAIL SHOULD BE INCLUDED IN THE PLANS AND PAID FOR WITH APPROPRIATE PAY ITEMS.

4) FOR ALL MANHOLE ADJUSTMENTS LESS THAN OR EQUAL TO 7", MANHOLE ADJUSTMENT RINGS MAY BE USED. SHOULD BE PAID FOR WITH APPROPRIATE PAY ITEMS AND NO DETAIL IS NEEDED IN THE PLANS. REFER TO STANDARD PLAN MC-01.

5) FOR ALL CATCH BASIN/MANHOLE ADJUSTMENTS, CLEAN EXISTING GRATES/FRAMES AS PER PROJECT SPECIFICATIONS FOR MANHOLES, JUNCTION BOXES AND AND CATCH BASINS.

SHEET NUMBER 302

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES #
PAA	MH	KAJ	MH	5-7-19	1 OF 1

STATE OF LOUISIANA
MITRA HASHEMIEH
REG. No. 28546
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
5/7/2019

APPROVED BY CHIEF ENGINEER:
DATE: 10/30/19

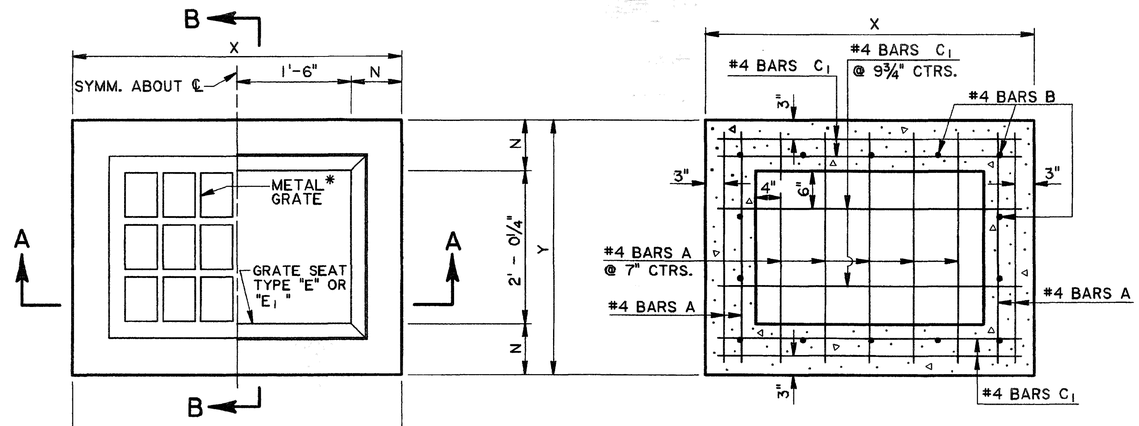
ADJUSTMENT/CONVERSION OF EXISTING CATCH BASINS OR MANHOLES

CB-ADJUST

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

HYDRAULICS DESIGN

DIMENSIONS			
DEPTH OF BASIN	N	X	Y
FT.	IN.	FT.- IN.	FT.- IN.
0 - 8	7	4-2	3-2¼
8.1 - 12	8	4-4	3-4¼



PLAN

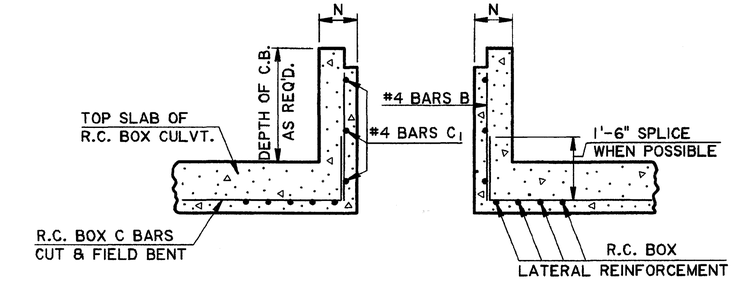
* GRATE TO BE TYPE "B" OR "C"
TYPE "B" SHOWN.

HORIZONTAL SECTION

SHOWING BOTTOM SLAB REINFORCING STEEL

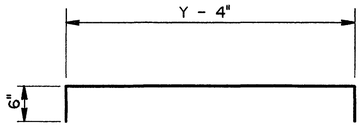
NOTE: TYPE "B" GRATE TO BE USED WHERE NO PEDESTRIAN TRAFFIC IS EXPECTED.

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

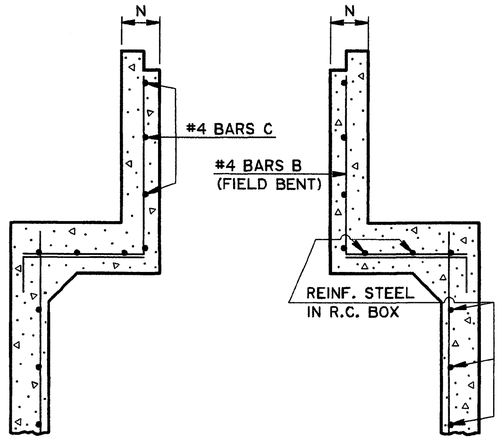


LONGITUDINAL SECTION

SHOWING CATCH BASIN
USED WITH R.C. BOX CULVERT.

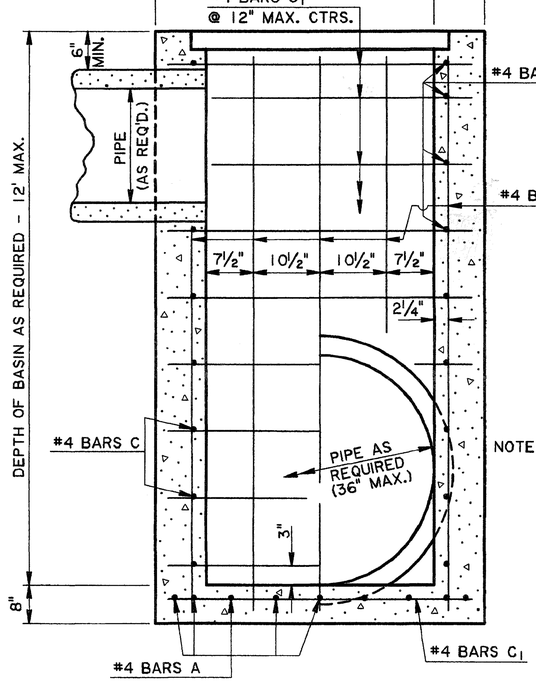


#4 BARS A



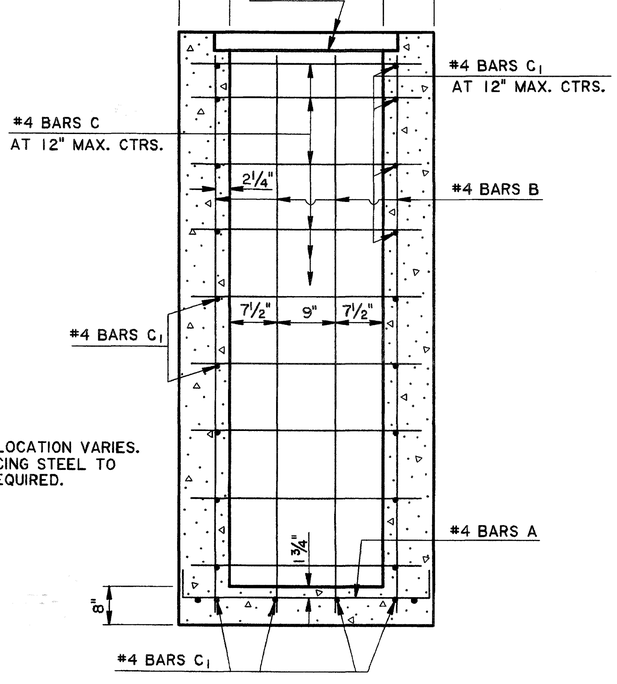
TRANSVERSE SECTION

SHOWING CATCH BASIN
USED WITH R.C. BOX CULVERT.



SECTION A-A

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



SECTION B-B

GENERAL NOTES:

SECTION 702 OF THE CURRENT DOTD 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 NUMBER 303

DISTRICT 61 | PARISH EAST BATON ROUGE | FEDERAL PROJECT | STATE PROJECT H.012232

DESIGNED PAA | DETAILED KAJ | DATE 1-31-97 | SHEET 1 OF 1
CHECKED | CHECKED WMR

BY	DATE	REVISION DESCRIPTION
JGM	11-2-00	Converted Metric CB-01M to English CB-01

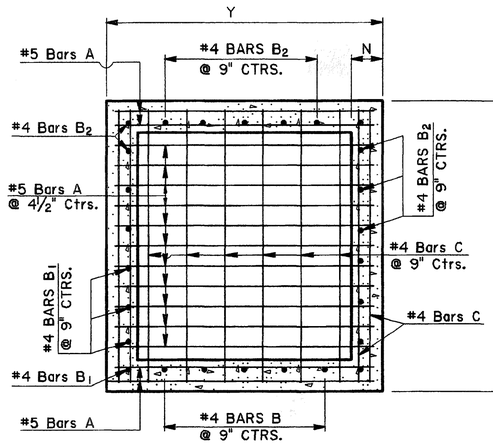
APPROVED BY CHIEF ENGINEER

DATE: 11-2-00

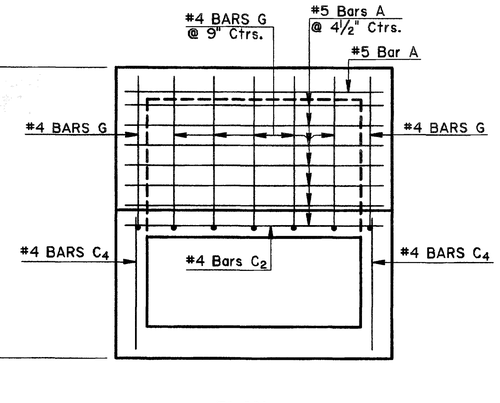
CONCRETE OPEN TOP CATCH BASIN
Max. Pipe: 36" x 24"
Max. Depth: 12'
To Be Used In Conjunction With Std. Plan MC-01

STANDARD PLAN NO. CB-01

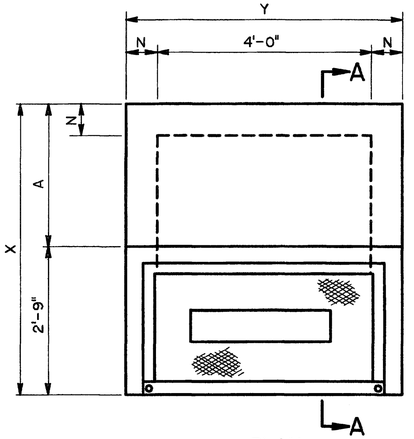
HYDRAULICS SECTION



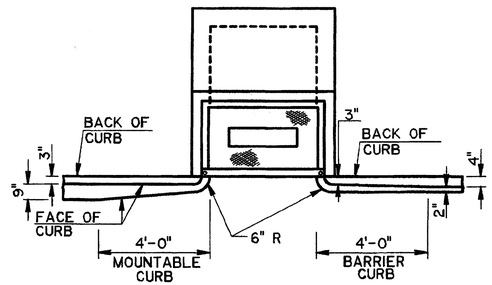
SECTION
SHOWING BOTTOM SLAB REINFORCING STEEL



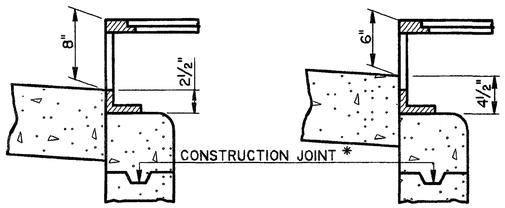
PLAN
SHOWING TOP SLAB REINFORCING STEEL



PLAN
FOR DETAILS OF METAL GRATE AND COVER, SEE STD. PLAN MC-01, TYPE "H".



TRANSITION IN CURB WIDTH
(TYPICAL)

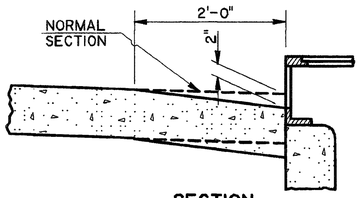


INLET CONFIGURATION

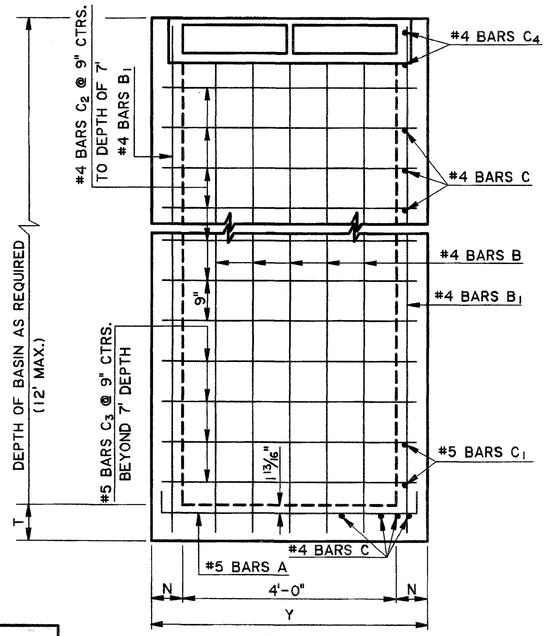
WHEN USED WITH 6" BARRIER CURB

WHEN USED WITH 4" MOUNTABLE CURB

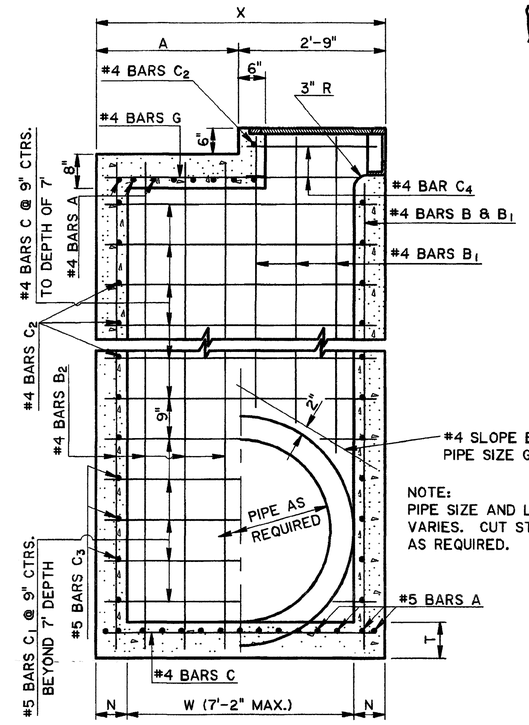
*NOTE:
THE BASIN SHALL NOT BE CONSTRUCTED ABOVE BOTTOM OF PAVEMENT ELEVATION UNTIL THE PAVING ADJACENT TO THE BASIN IS IN PLACE.



SECTION
SHOWING PAVEMENT SUMP
TYPICAL

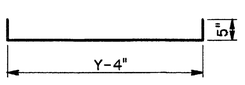


ELEVATION

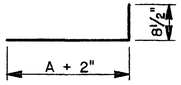


SECTION A-A

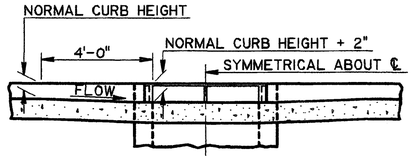
NOTE:
PIPE SIZE AND LOCATION VARIES. CUT STEEL TO CLEAR AS REQUIRED.



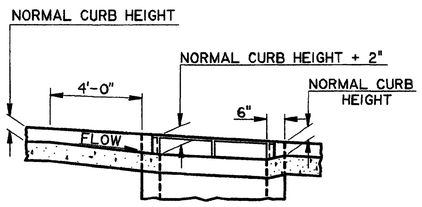
#5 BARS A



#4 BARS G



TRANSITION IN CURB HEIGHT
CATCH BASIN AT LOW POINT



TRANSITION IN CURB HEIGHT
CATCH BASIN ON A GRADE

CONCRETE CATCH BASIN

PIPE DIA. ①	W ②	T	DEPTH LESS THAN 8'				DEPTH FROM 8' TO 12'			
			X	Y	N	A	X	Y	N	A
In	Ft-In	In	Ft-In	Ft-In	In	Ft-In	Ft-In	Ft-In	In	Ft-In
15 to 24	2-6	8	3-8	5-2	7	0-11	3-10	5-4	8	1-1
30	3-1	8	4-3	5-2	7	1-6	4-5	5-4	8	1-8
36	3-8	8	4-10	5-2	7	2-1	5-0	5-4	8	2-3
42	4-3	8	5-5	5-2	7	2-8	5-7	5-4	8	2-10
48	4-10	8	6-0	5-2	7	3-3	6-2	5-4	8	3-5
54	5-5	9	6-7	5-2	7	3-10	6-9	5-4	8	4-0
60	6-0	9	7-2	5-2	7	4-5	7-4	5-4	8	4-7
72	7-2	9	8-4	5-2	7	5-7	8-6	5-4	8	5-9

① REFERS TO SIDEWALL PIPE OR "TRUNKLINE". FRONTWALL OR "CROSSING PIPE" MAY NOT EXCEED 42".

② W AND X DIMENSIONS MAY BE VARIED FOR SKEWED PIPE, BUT W SHALL NOT EXCEED 7'-2".

SHEET NUMBER 304

PARISH EAST BATON ROUGE | FEDERAL PROJECT | STATE PROJECT H.012232

DESIGNED CDJ | DETAILED KAJ | DATE 1-31-97
CHECKED HJB | CHECKED WMR | SHEET 1 OF 1

BY J.C.M.

DATE: 11-2-98

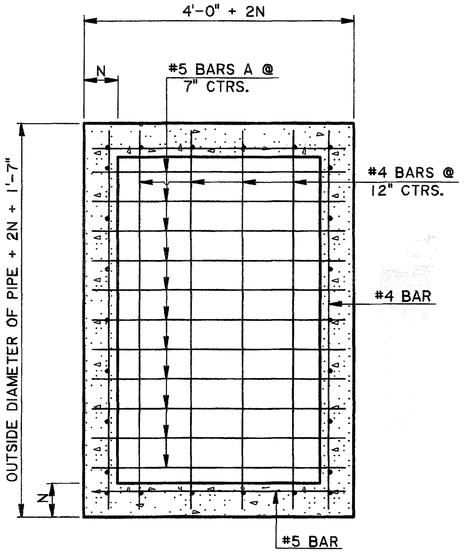
DATE	REVISION DESCRIPTION
11-2-00	Converted Metric CB-06 to English CB-06

APPROVED BY CHIEF ENGINEER

CONCRETE CATCH BASIN
CURB OPENING
4" MOUNTABLE OR 6" BARRIER CURB
MAX. PIPES: 42" X 72", MAX. DEPTH: 12'

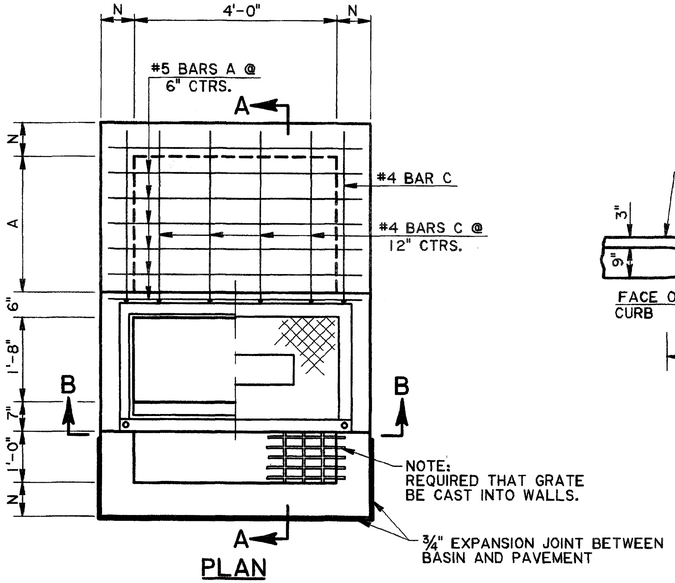
STANDARD PLAN CB-06

HYDRAULICS SECTION



SECTION

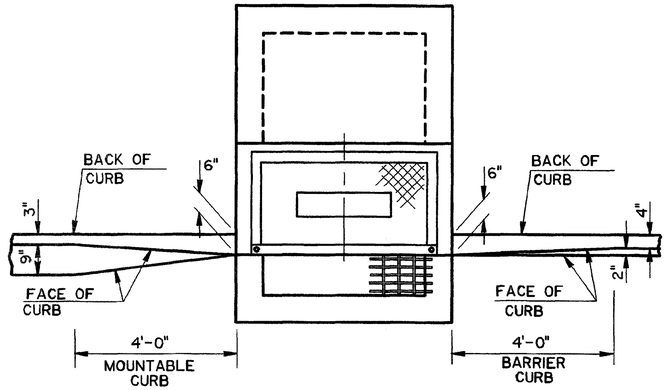
SHOWING BOTTOM SLAB REINFORCING STEEL



PLAN

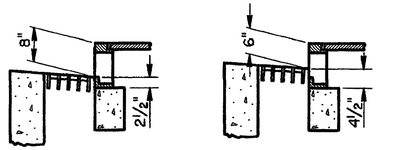
FOR DETAILS OF METAL COVER, FRAME AND GRATE, SEE STD. PLAN MC-01, TYPE H & TYPE I.

NOTE:
THE BASIN SHALL NOT BE CONSTRUCTED ABOVE BOTTOM OF PAVEMENT ELEVATION UNTIL PAVEMENT ADJACENT TO THE BASIN IS IN PLACE.



TRANSITION IN CURB WIDTH

(TYPICAL)



INLET CONFIGURATION

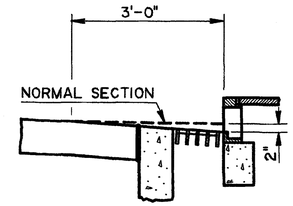
WHEN USED WITH 6" BARRIER CURB

WHEN USED WITH 4" MOUNTABLE CURB

DEPTH OF BASIN	N
FT	IN
LESS THAN 8	7
8 TO 12	8

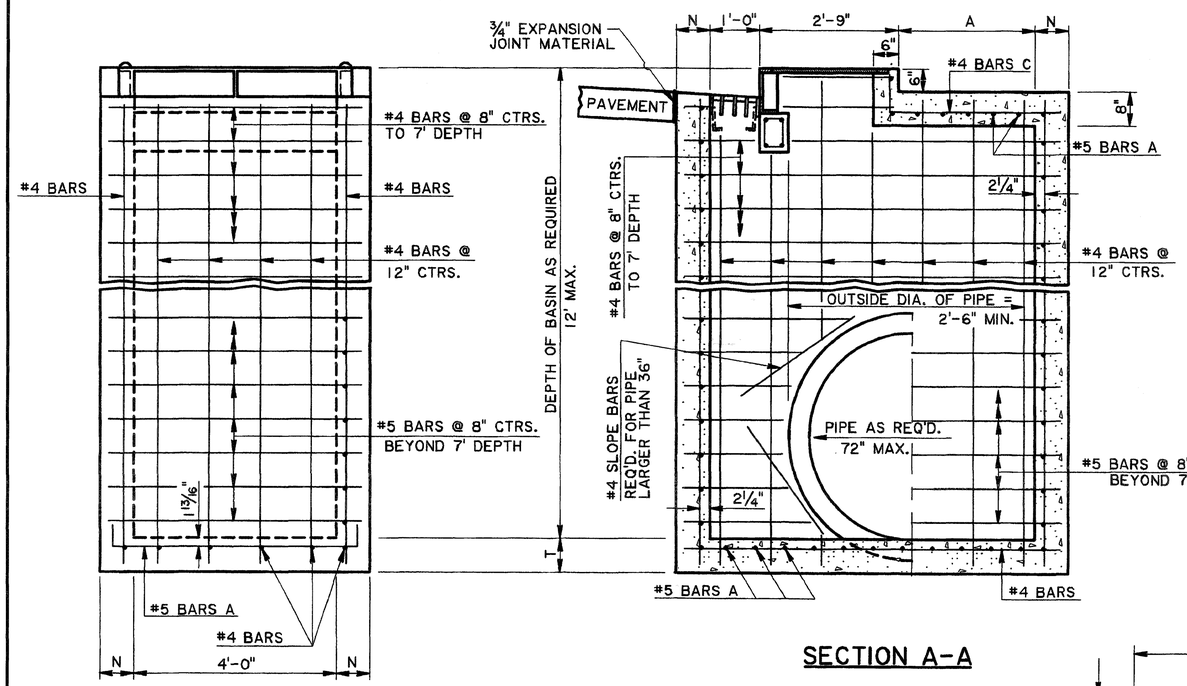
PIPE DIAMETER	A	T
IN	FT-IN	IN
15 TO 24	0-4	8
30	0-11	8
36	1-6	8
42	2-1	8
48	2-8	8
54	3-3	9
60	3-10	9
72	5-0	10

NOTE:
DIMENSION "A" MAY BE VARIED FOR SKEWED PIPE, BUT MAY NOT EXCEED 5'-0".



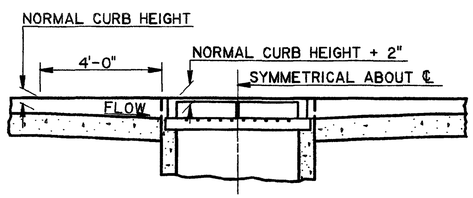
SECTION

(SHOWING PAVEMENT SUMP TYPICAL)

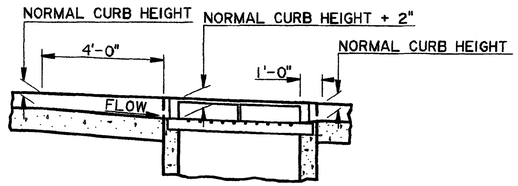


ELEVATION

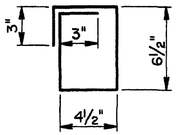
SECTION A-A



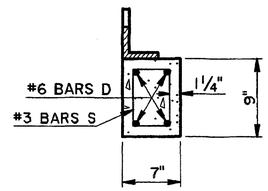
TRANSITION IN CURB HEIGHT CATCH BASIN AT LOW POINT



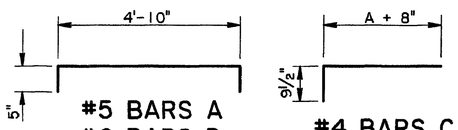
TRANSITION IN CURB HEIGHT CATCH BASIN ON A GRADE



#3 BARS S

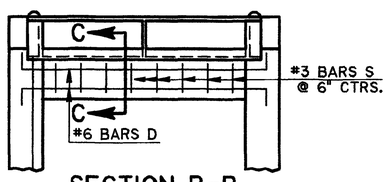


SECTION C-C



#5 BARS A
#6 BARS D

#4 BARS C



SECTION B-B

SHEET NUMBER	305
PARISH	EAST BATON ROUGE
FEDERAL PROJECT	H.012232
STATE PROJECT	
DESIGNED	CDJ
CHECKED	
DETAILED	KAJ
CHECKED	WMR
DATE SHEET	1-31-97 1 OF 1

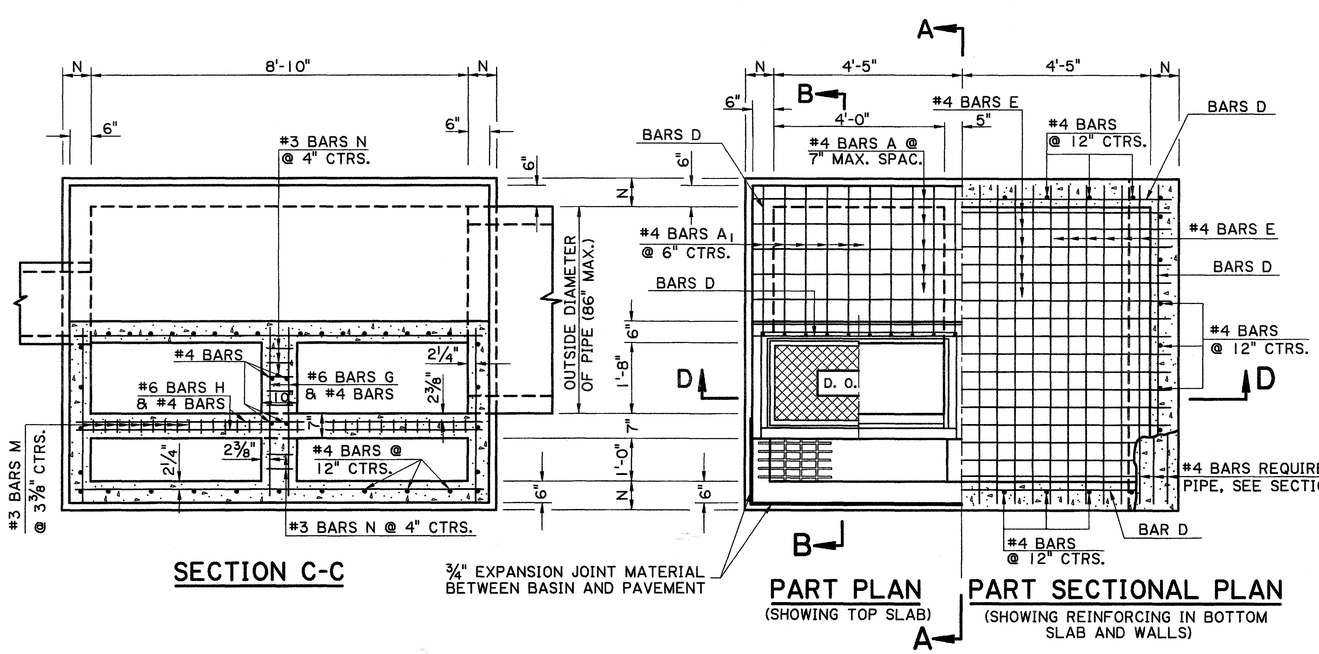
NO.	DATE	REVISION DESCRIPTION	BY
1	11-2-00	Redrafted & Converted Metric CB-07 to English CB-07	JCM

APPROVED BY CHIEF ENGINEER: [signature] DATE: 11-2-00

CONCRETE CATCH BASIN
CURB AND GUTTER OPENING
4" Mountable Or 6" Barrier Curb
Max. Pipes: 42" x 72", Max. Depth: 12'

STANDARD PLAN CB-07

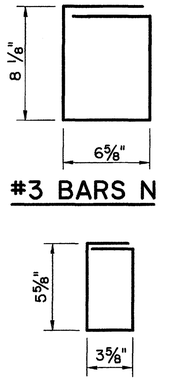
HYDRAULICS SECTION



SECTION C-C

PART PLAN
(SHOWING TOP SLAB)

PART SECTIONAL PLAN
(SHOWING REINFORCING IN BOTTOM SLAB AND WALLS)



#3 BARS N

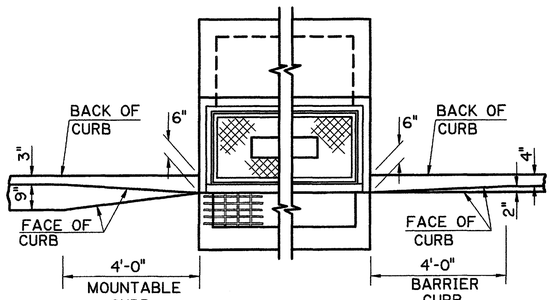
#3 BARS M

GENERAL NOTES:

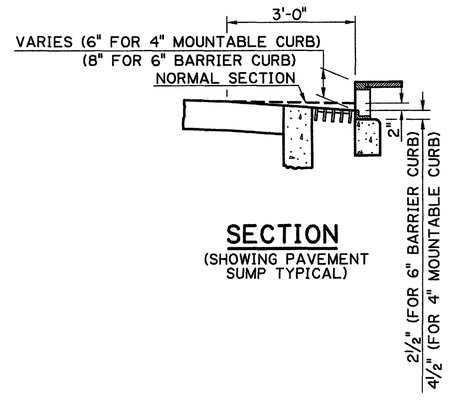
1. CATCH BASIN IS DESIGNED ACCORDING TO 4TH ED. 2007 AASHTO LRFD PROCEDURES. SECTION 702 OF THE DOTD STANDARD SPECIFICATIONS SHALL APPLY.
2. CONCRETE: ALL CONCRETE SHALL BE CLASS "M" MINOR STRUCTURE. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾ IN. EXCEPT AS NOTED.
3. REINFORCING STEEL: REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS ARE TO BAR CENTERS. MINIMUM COVER FOR REINFORCING BARS SHALL BE 2 IN. CLEAR UNLESS SHOWN OTHERWISE.
4. AS DEPTH INCREASES THE WALL AND SLAB THICKNESSES AND REINFORCEMENT SHOULD BE INCREASED AS SHOWN IN THE TABLE BELOW. THE CONTRACTOR HAS THE OPTION TO PROVIDE THE MAXIMUM REQUIRED WALL THICKNESS FOR THE FULL DEPTH OF THE STRUCTURE.

DEPTH RANGE	WALLS			BOTTOM SLAB		
	N	D BARS		T	E BARS	
	IN.	SIZE	SPAC.,IN.	IN.	SIZE	SPAC.,IN.
0' TO 7'	6.0	4	4.5	6.0	4	7.5
7'-1" TO 11'	7.0	4	5.0	6.5	4	5.5
11'-1" TO 18'	8.0	5	5.5	7.5	4	4.5
18'-1" TO 20'	8.5	5	5.5	8.0	4	4.0

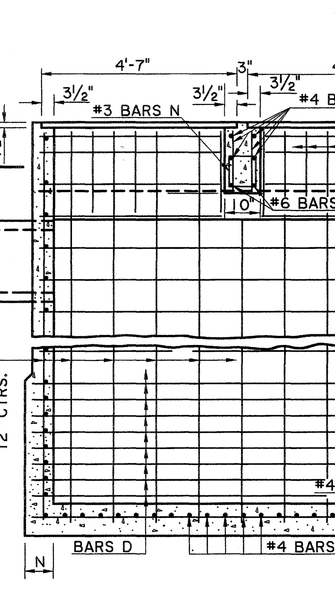
5. FOR DETAILS OF METAL COVER, FRAME, AND GRATE, SEE STD. PLAN MC-01, TYPE H & TYPE I.
6. THE CONTRACTOR WILL NOT POUR ABOVE THE BOTTOM OF THE SLAB UNTIL THE PAVING ADJACENT TO THE CATCH BASIN HAS BEEN COMPLETED.



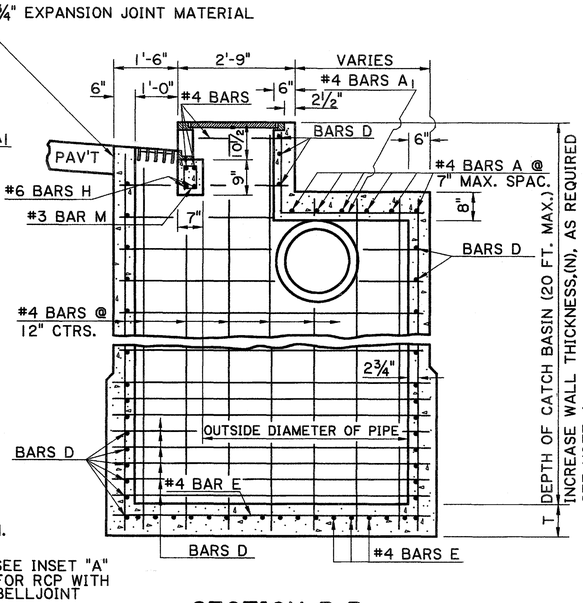
TRANSITION IN CURB WIDTH
(TYPICAL)



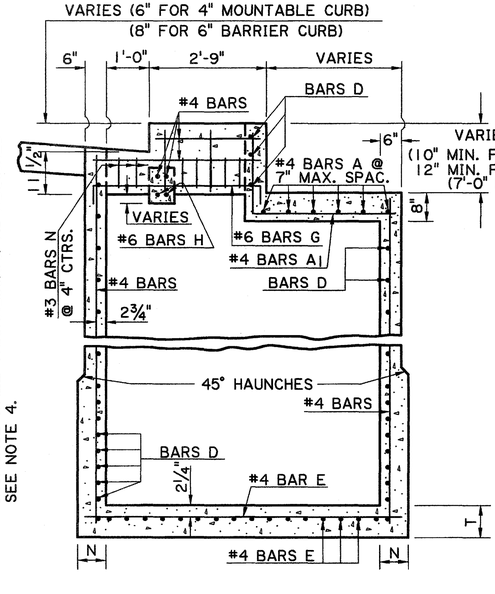
SECTION
(SHOWING PAVEMENT SUMP TYPICAL)



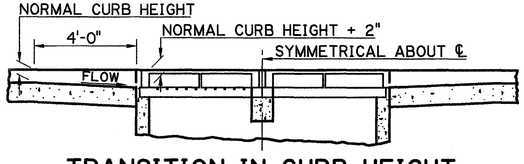
SECTION D-D



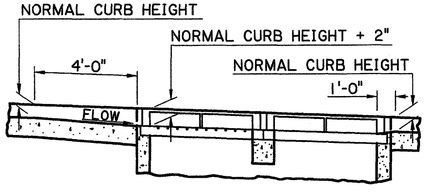
SECTION B-B



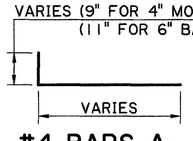
SECTION A-A
SHOWING MOUNTABLE CURB



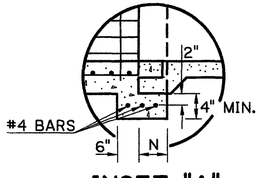
TRANSITION IN CURB HEIGHT
CATCH BASIN AT LOW POINT



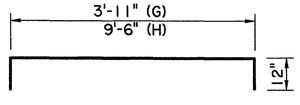
TRANSITION IN CURB HEIGHT
CATCH BASIN ON A GRADE



#4 BARS A1



INSET "A"
RCP WITH BELLJOINT



#6 BARS G & H

SHEET NUMBER 306

PARISH: EAST BATON ROUGE | FEDERAL PROJECT: | STATE PROJECT: H.012232

DESIGNED: PAA | DETAILED: KAJ | DATE: 7-16-97
CHECKED: | CHECKED: WMR | SHEET: 1 OF 1

BY	DATE	REVISION DESCRIPTION
MH	10-7-10	Revised To 2007 AASHTO LRFD Procedures
JCM	11-2-00	Converted Metric CB-08M to English CB-08

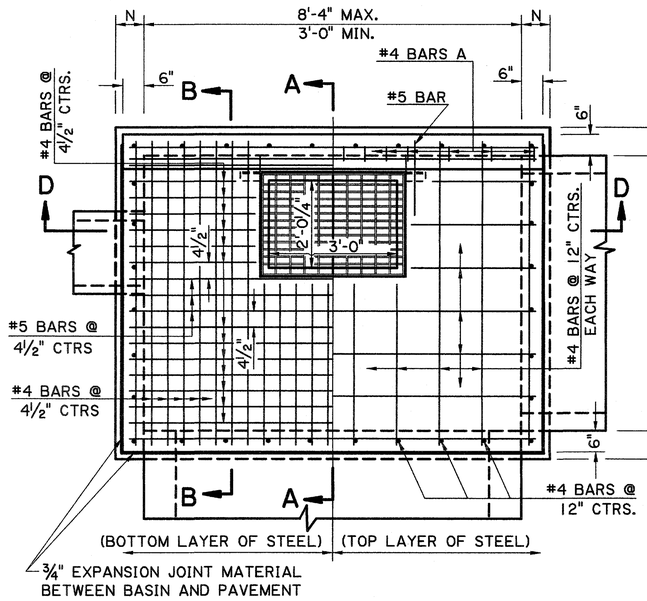
APPROVED BY CHIEF ENGINEER:

DATE: 10-7-10

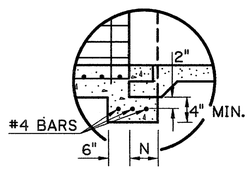
CONCRETE CATCH BASIN
DOUBLE COMBINATION TYPE
4" Mountable Or 6" Barrier Curb
Max. Pipes: 72"x 84" RCP, Max. Depth: 20'

STANDARD PLAN: CB-08

HYDRAULICS SECTION

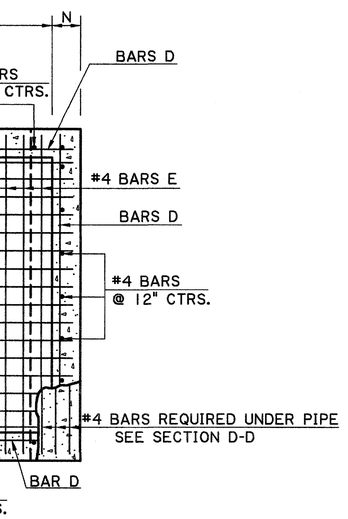


TOP SLAB PLAN



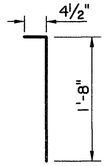
INSET "A"

RCP WITH BELLJOINT

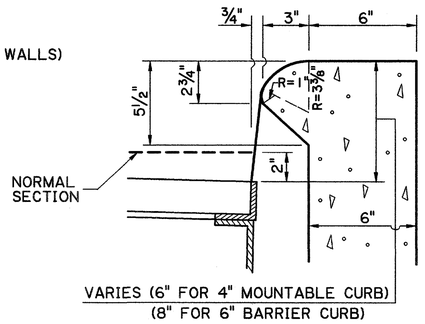


SECTIONAL PLAN

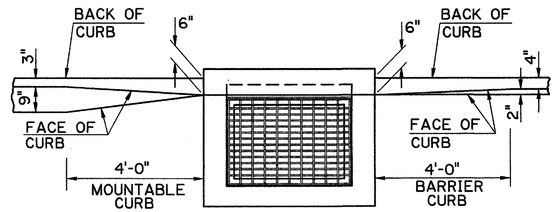
(SHOWING REINFORCING IN BOTTOM SLAB AND WALLS)



#4 BARS A



DETAIL OF OPENING IN CURB



TRANSITION IN CURB WIDTH

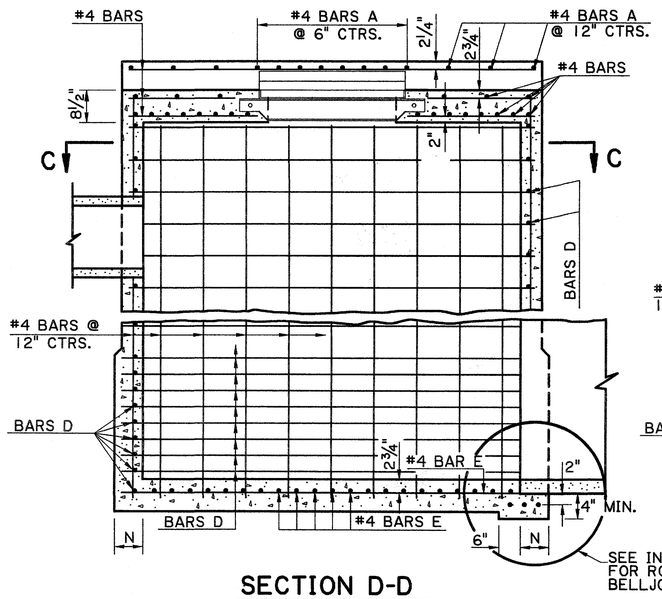
(TYPICAL)

GENERAL NOTES:

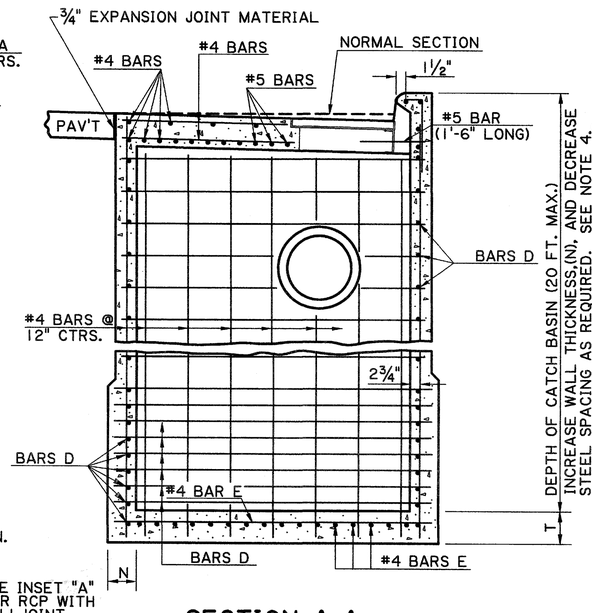
1. CATCH BASIN IS DESIGNED ACCORDING TO 4TH ED. 2007 AASHTO LRFD PROCEDURES. SECTION 702 OF THE DOTD STANDARD SPECIFICATIONS SHALL APPLY.
2. CONCRETE: ALL CONCRETE SHALL BE CLASS "M" MINOR STRUCTURE. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾ IN. EXCEPT AS NOTED.
3. REINFORCING STEEL: REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS ARE TO BAR CENTERS. MINIMUM COVER FOR REINFORCING BARS SHALL BE 2 IN. CLEAR UNLESS SHOWN OTHERWISE.
4. AS DEPTH INCREASES THE WALL AND SLAB THICKNESSES AND REINFORCEMENT SHOULD BE INCREASED AS SHOWN IN THE TABLE BELOW. THE CONTRACTOR HAS THE OPTION TO PROVIDE THE MAXIMUM REQUIRED WALL THICKNESS FOR THE FULL DEPTH OF THE STRUCTURE.

DEPTH RANGE	WALLS			BOTTOM SLAB		
	N D BARS			T E BARS		
	IN.	SIZE	SPAC.,IN.	IN.	SIZE	SPAC.,IN.
0' TO 9'	6.0	4	5.0	6.0	4	6.5
9'-1" TO 12'	6.5	4	4.5	6.5	4	6.0
12'-1" TO 16'	7.0	5	5.5	7.0	4	5.0
16'-1" TO 20'	7.5	5	5.0	7.5	4	4.5

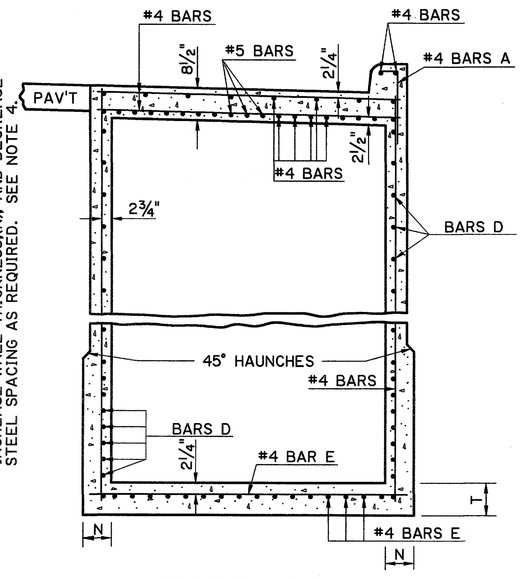
5. FOR DETAILS OF METAL GRATE AND GRATE SEAT, SEE STD. PLAN MC-01, TYPE C & TYPE F.
6. THE CONTRACTOR WILL NOT POUR ABOVE THE BOTTOM OF THE SLAB UNTIL THE PAVING ADJACENT TO THE CATCH BASIN HAS BEEN COMPLETED.



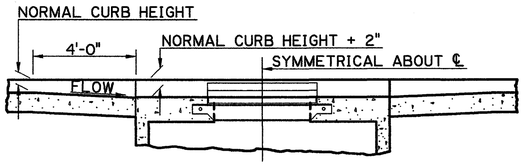
SECTION D-D



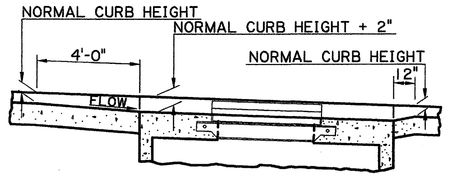
SECTION A-A



SECTION B-B



TRANSITION IN CURB HEIGHT CATCH BASIN AT LOW POINT



TRANSITION IN CURB HEIGHT CATCH BASIN ON A GRADE

SHEET NUMBER 307

PARISH: EAST BATON ROUGE | FEDERAL PROJECT | STATE PROJECT: H.012232

DESIGNED: PAA | DETAILED: KAJ | DATE: 8-22-97
CHECKED | CHECKED: WMR | SHEET: 1 OF 1

BY	REVISION DESCRIPTION	DATE
MH	Revised To 2007 AASHTO LRFD Procedures	10-7-10
JCM	Converted Metric CB-09M to English CB-09	11-2-00

APPROVED BY CHIEF ENGINEER:

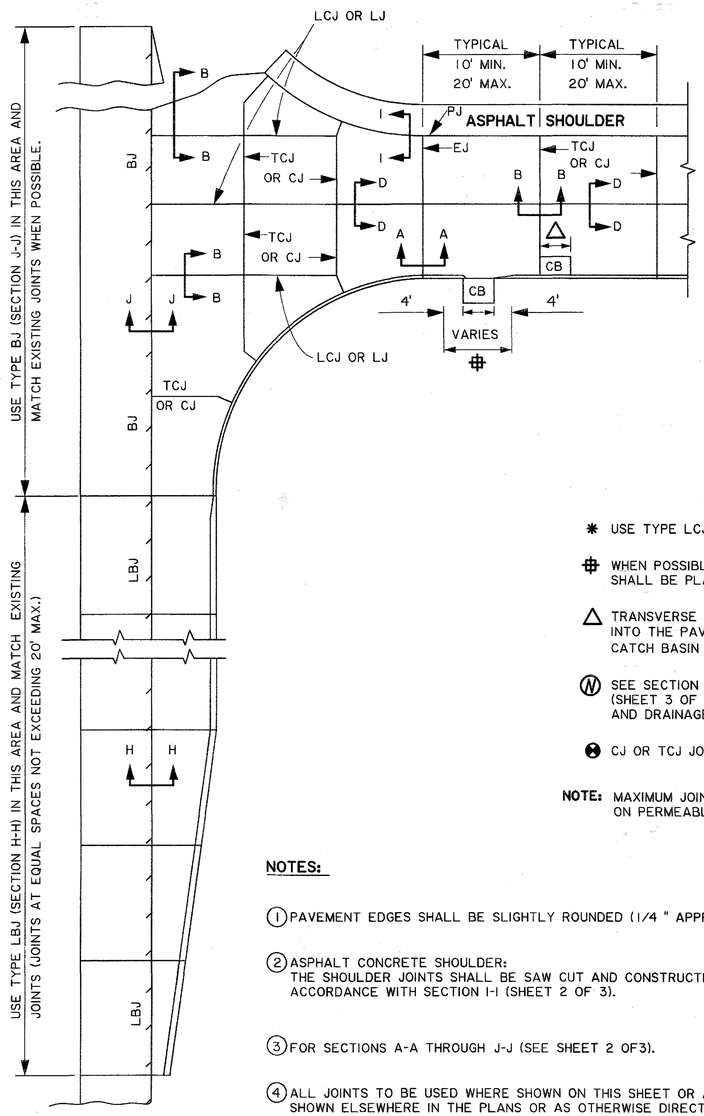
COMBINATION TYPE CATCH BASIN (TRUNKLINE UNDER PAVEMENT)
4" Mountable Or 6" Barrier Curb
Max. Pipe: 84"x 84" RCP, Max. Depth: 20'

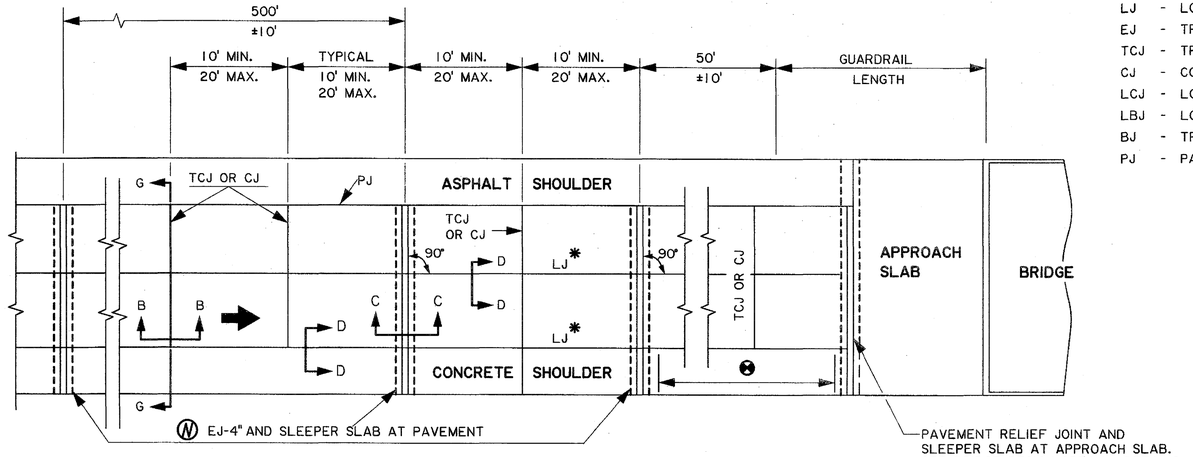
STANDARD PLAN CB-09

HYDRAULICS SECTION

PLAN VIEW

ROADWAY SHOWING JOINTS





JOINT ABBREVIATIONS:

- LJ - LONGITUDINAL JOINT
- EJ - TRANSVERSE EXPANSION JOINT
- TCJ - TRANSVERSE CONTRACTION JOINT
- CJ - CONSTRUCTION JOINT
- LCJ - LONGITUDINAL CONSTRUCTION JOINT
- LBJ - LONGITUDINAL BUTT JOINT
- BJ - TRANSVERSE BUTT JOINT
- PJ - PAVEMENT EDGE SEAL JOINT

✱ USE TYPE LCJ JOINT WITH SPLIT SLAB CONSTRUCTION.

WHEN POSSIBLE, AT CATCH BASINS NO JOINTS SHALL BE PLACED IN THE LIMITS SHOWN.

△ TRANSVERSE JOINTS NEAR CATCH BASIN (CB-07, 08 & 09) THAT EXTEND INTO THE PAVEMENT SHALL BE ADJUSTED TO COINCIDE WITH ONE EDGE OF THE CATCH BASIN OR THE CENTER OF THE CATCH BASIN. SEE DETAIL E (SHEET 3 OF 3).

Ⓝ SEE SECTION C-C (SHEET 2 OF 3) AND DETAIL "G" (SHEET 3 OF 3) FOR EJ-4" JOINT, SLEEPER SLAB AND DRAINAGE DETAILS. (REQUIRED (3) PLACES.)

⊗ CJ OR TCJ JOINTS AT 20' MAX. CTRS.

NOTE: MAXIMUM JOINT SPACING AT 18' WHEN PAVEMENT IS PLACED ON PERMEABLE BASE. (SEE SECTION 307)

TABLE I - SCHEDULE OF DIMENSIONS

(ALL DIMENSIONS ARE IN INCHES)

SLAB THICKNESS	SMOOTH DOWEL ⊗ BARS			DEFORMED TIE ⊠ BARS			KEYWAY ⊛	
"T"	SIZE (DIA.)	LENGTH	SPACING	SIZE (DIA.)	LENGTH	SPACING	A ±¼"	B ±¼"
8	1¼	18	12	½	24	24	2½	1¼
9	1¼	18	12	½	24	24	2½	1¼
10	1½	18	12	½	24	24	2½	1¼
11	1½	18	12	⅝	30	24	2½	1¼
12	1½	18	12	⅝	30	24	3	1½
13	1½	18	12	⅝	30	24	3	1½
14	1½	18	12	⅝	30	24	3	1½

NOTES:

(1) PAVEMENT EDGES SHALL BE SLIGHTLY ROUNDED (1/4 " APPROX.).

(2) ASPHALT CONCRETE SHOULDER:
THE SHOULDER JOINTS SHALL BE SAW CUT AND CONSTRUCTED IN ACCORDANCE WITH SECTION I-I (SHEET 2 OF 3).

(3) FOR SECTIONS A-A THROUGH J-J (SEE SHEET 2 OF3).

(4) ALL JOINTS TO BE USED WHERE SHOWN ON THIS SHEET OR AS SHOWN ELSEWHERE IN THE PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER.

(5) ON TYPE EJ ALTERNATE JOINTS, SPOT WELD ALTERNATE ENDS OF DOWEL BARS TO DOWEL BASKETS AND PLACE EXPANSION TUBES ON FREE ENDS OF DOWEL BARS.

(6) FOR DESIGN SPEEDS GREATER THAN 45MPH:
SAW CUT AND CONSTRUCT THE TYPE LJ, TCJ, AND CJ JOINTS AS IN DETAILS "A, B OR C" TO A DEPTH OF T/3 INCHES. THOROUGHLY CLEAN THE JOINT FACES BY SANDBLASTING; FOLLOWED BY AN OIL-FREE AIR JET IMMEDIATELY PRIOR TO SEALING WITH A POURED OR EXTRUDED SEALANT CONFORMING TO SECTION 1005.

(7) FOR DESIGN SPEEDS OF 45MPH OR LESS:

A. SAW CUT AND SEAL TYPE LJ JOINTS AS DESCRIBED IN NOTE 6.

B. CONSTRUCT TYPE TCJ OR CJ JOINTS AS DESCRIBED IN NOTE 6 OR CONSTRUCT WITH A REMOVABLE FORMING DEVICE AS SPECIFIED IN DETAIL "C" (SHEET 3 OF 3). THOROUGHLY CLEAN THE JOINT FACES BY SAND-BLASTING; FOLLOWED BY AN OIL-FREE AIR JET IMMEDIATELY PRIOR TO SEALING WITH A POURED OR EXTRUDED SEALANT CONFORMING TO SECTIONS 601 AND 1005.
WITH A COMBINATION JOINT FORMER/SEALER AS SHOWN IN DETAIL "D" (SHEET 3 OF 3), THE SEALER SHALL CONFORM TO SECTION 1005 AND BE INSTALLED IN ACCORDANCE WITH SECTION 601 AND NO ADDITIONAL SEALANT IS REQUIRED.

(8) EXCEPT AS NOTED BELOW, DOWEL BARS & TIE BARS SHALL BE HELD IN PLACE BY SUPPORTS SIMILAR TO THE ONES SHOWN, OR APPROVED EQUALS. APPROVED MECHANICAL PLACEMENT OF DOWEL BARS AND TIE BARS WILL BE ALLOWED WITH ALL PAVING METHODS.

(9) INSTALL GEOTEXTILE FABRIC (TYPE B, C, OR D) UNDER ALL TCJ, CJ, AND EJ ALTERNATE JOINTS WHEN CONCRETE PAVEMENT IS PLACED ON PERMEABLE BASE. WHEN DOWEL BARS ARE MECHANICALLY IMPLANTED, THE GEOTEXTILE FABRIC SHALL BE ANCHORED TO THE BASE COURSE WITH PINS.

(10) WHEN CONSTRUCTING CONCRETE CURB AND GUTTER ADJACENT TO NEW P.C.C. PAVEMENT, USE TYPE LCJ JOINT. WHEN ADJACENT TO EXISTING P.C.C. PAVEMENT, USE TYPE LBJ JOINT. THE FIRST LOAD TRANSFER DEVICE SHALL BE INSTALLED 18" FROM THE PAVEMENT EDGE.

(11) TRANSVERSE EXPANSION JOINTS ARE NOT TO BE USED FOR CONSTRUCTION JOINTS.

(12) CONCRETE SHOULDERS:

A. CONSTRUCT TCJ JOINTS IN ACCORDANCE WITH SECTION B-B (SHEET 2 OF 3).

B. CONSTRUCT LCJ JOINTS IN ACCORDANCE WITH TYPE LCJ DETAIL AND LJ JOINTS IN ACCORDANCE WITH TYPE LJ DETAIL. SEE SECTION D-D (SHEET 2 OF 3).

C. USE THE MAXIMUM SHOULDER THICKNESS WHEN DETERMINING DOWEL BAR AND TIE BAR SIZES IN TABLE I.

D. WHEN SKEWED JOINTS ARE USED ON MAINLINE PAVING THE SHOULDER TCJ JOINTS MAY BE SKEWED OR CONSTRUCTED AT 90°.

E. SHOULDER JOINTS AND JOINT MATERIALS SHALL MATCH THE MAINLINE.

F. HEIGHT OF DOWEL BASKET SHALL BE BASED ON THE THINNEST SHOULDER THICKNESS. VARYING HEIGHT DOWEL BASKETS WILL BE ALLOWED TO KEEP THE DOWEL BAR LOCATED WITHIN TOLERANCE.

(13) TIE BARS SHALL NOT BE PLACED WITHIN 18" OF CONTRACTION OR EXPANSION JOINTS.

NOT TO SCALE

SHEET NUMBER 308

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	T. LAM
CHECK	D. SMITH
DETAIL	T. LAM
CHECK	D. SMITH
REVIEW	
SERIES #	1 OF 3

STATE OF LOUISIANA
DAVID S. SMITH
License No. 30565
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
10/1/21

APPROVED BY CHIEF ENGINEER: DATE: 10/13/2021

PORTLAND CEMENT CONCRETE PAVEMENT DETAILS

STANDARD PLAN CP-01

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ROAD DESIGN

NOTES:

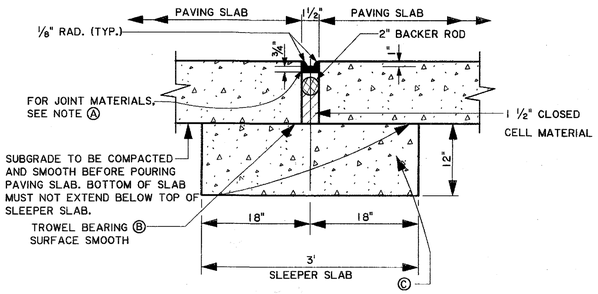
(A) ONE OR TWO COMPONENT SILICONE CONFORMING TO SECTION 1005.

(B) TAR PAPER EQUIVALENT TO 30 lbs./100 ft² SHALL BE PLACED BETWEEN THE SLEEPER SLAB AND THE PAVING SLAB.

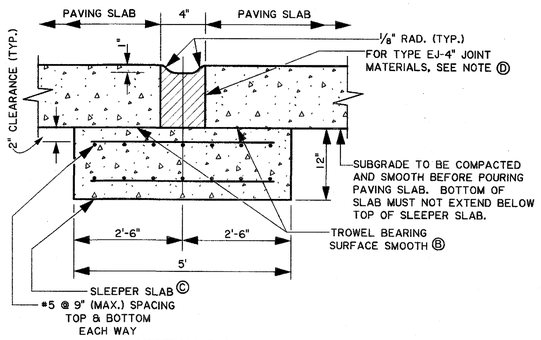
(C) SLEEPER SLAB SHALL BE CONSTRUCTED OF CLASS "A1" OR PAVEMENT TYPE CONCRETE AND INCLUDED IN THE COST OF THE PAVEMENT. PROVIDE DEFORMED GRADE 60 REINFORCING STEEL.

(D) JOINT SHALL BE FILLED WITH A PREFORMED POLYURETHANE FOAM TYPE FILLER CONFORMING TO SECTION 1005.

(E) SEE DETAIL "G" - EJ-4" BASE DRAIN OUTLET FOR UNDERDRAIN DETAILS (SHEET 3 OF 3)

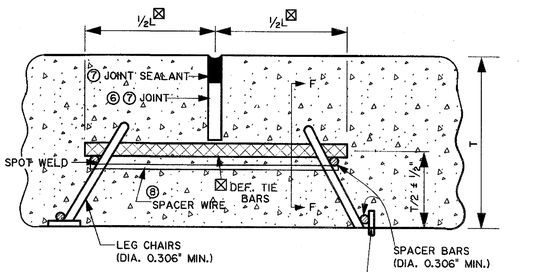


SECTION A-A
TYPE EJ-1½"

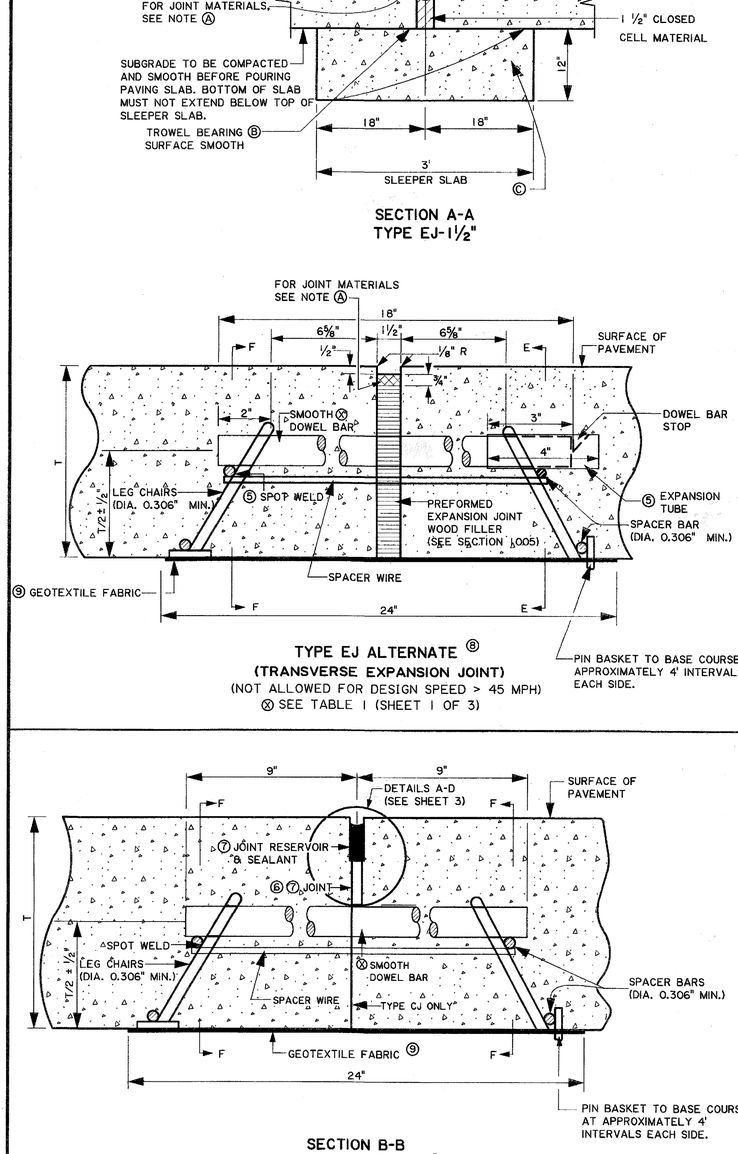


SECTION C-C
TYPE EJ-4" JOINT
AND SLEEPER SLAB

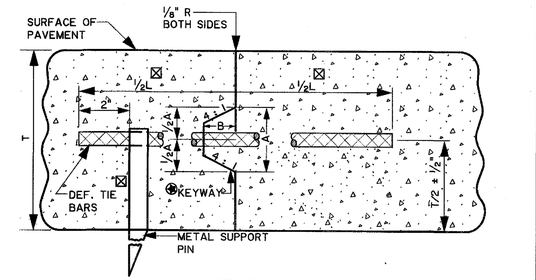
TYPE EJ ALTERNATE Ⓔ
(TRANSVERSE EXPANSION JOINT)
(NOT ALLOWED FOR DESIGN SPEED > 45 MPH)
Ⓧ SEE TABLE I (SHEET 1 OF 3)



SECTION D-D
TYPE LJ (WITHOUT KEYWAY)
(LONGITUDINAL JOINT)
(REQUIRED WHEN PAVEMENT WIDTH EXCEEDS 15') (SEE NOTE Ⓖ)
⊠ SEE TABLE I (SHEET 1 OF 3)



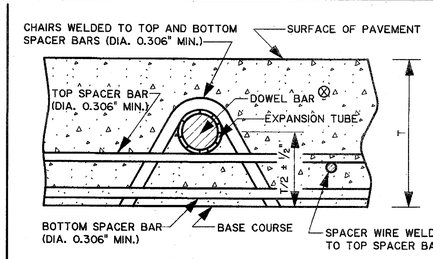
SECTION B-B
TYPE TCJ OR CJ Ⓔ
(TRANSVERSE CONTRACTION JOINT OR CONSTRUCTION JOINT)
Ⓧ SEE TABLE I (SHEET 1 OF 3)



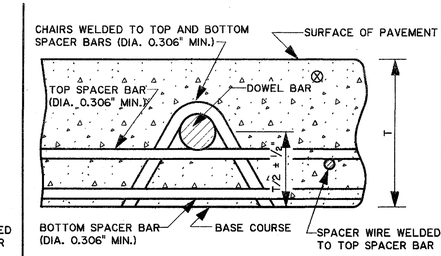
SECTION D-D
TYPE LCJ (WITH KEYWAY)
(LONGITUDINAL CONSTRUCTION JOINT)

⊛ FOR KEYWAY DIMENSIONS A & B SEE TABLE I. IN LIEU OF THE KEYWAY, ONE OF THE FOLLOWING OPTIONS WILL BE ALLOWED:
A. INSTALL TIE BARS OF THE SIZE SHOWN IN TABLE I, AT ½ THE SPACING.
B. INSTALL TIE BARS ¼" LARGER THAN THE TIE BAR DIAMETER SHOWN SHOWN IN TABLE I, AT THE SAME SPACING.

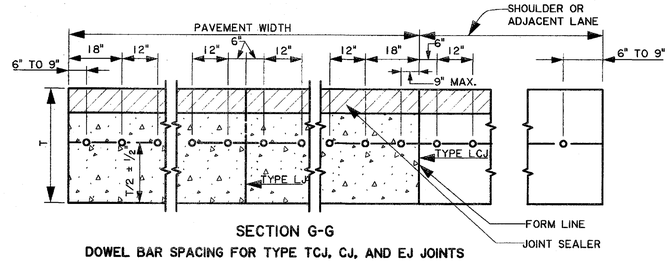
⊠ SEE TABLE I (SHEET 1 OF 3)



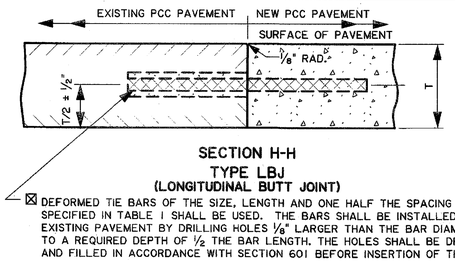
SECTION E-E
Ⓧ SEE TABLE I (SHEET 1 OF 3)



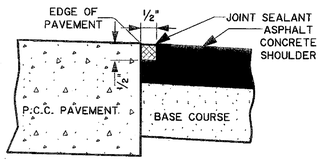
SECTION F-F
Ⓧ SEE TABLE I (SHEET 1 OF 3)



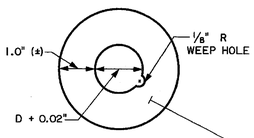
SECTION G-G
DOWEL BAR SPACING FOR TYPE TCJ, CJ, AND EJ JOINTS



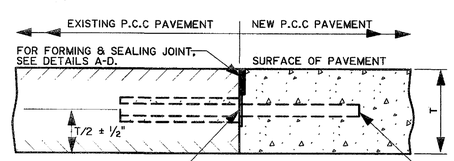
SECTION H-H
TYPE LBJ
(LONGITUDINAL BUTT JOINT)
⊠ DEFORMED TIE BARS OF THE SIZE, LENGTH AND ONE HALF THE SPACING SPECIFIED IN TABLE I SHALL BE USED. THE BARS SHALL BE INSTALLED IN EXISTING PAVEMENT BY DRILLING HOLES ⅛" LARGER THAN THE BAR DIAMETER TO A REQUIRED DEPTH OF ½ THE BAR LENGTH. THE HOLES SHALL BE DRILLED AND FILLED IN ACCORDANCE WITH SECTION 601 BEFORE INSERTION OF THE TIE BARS.



SECTION I-I
TYPE PJ
(HOT POURED SEALANT SECTION 1005)



GROUT RETENTION DISK
D = DOWEL DIAMETER (INCLUDING PROTECTIVE COATING)



SECTION J-J
TYPE BJ
(TRANSVERSE BUTT JOINT)
Ⓧ SMOOTH DOWEL BARS OF THE SIZE, LENGTH AND SPACING SPECIFIED IN TABLE I SHALL BE USED. THE BARS SHALL BE INSTALLED IN EXISTING PAVEMENT BY DRILLING HOLES ⅛" LARGER THAN THE BAR DIAMETER TO A REQUIRED DEPTH OF ½ THE BAR LENGTH. THE HOLES SHALL BE DRILLED AND FILLED IN ACCORDANCE WITH SECTION 601 BEFORE INSERTION OF THE DOWEL BARS.

NOT TO SCALE

SHEET NUMBER	309		
PARISH	EAST BATON ROUGE	CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232		
DESIGN	T. LAM	DETAIL	T. LAM
CHECK	D. SMITH	CHECK	D. SMITH
REVIEW		SERIES #	2 OF 3

STATE OF LOUISIANA
DAVID S. SMITH
License No. 30565
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
10/11/21

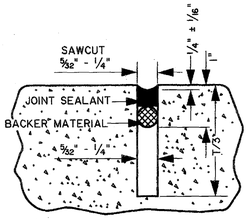
APPROVED BY CHIEF ENGINEER:
DATE: 10/13/2021

PORTLAND CEMENT CONCRETE PAVEMENT DETAILS

STANDARD PLAN CP-01

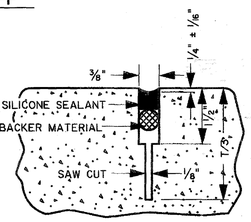
DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
ROAD DESIGN

DETAILS "A-F"

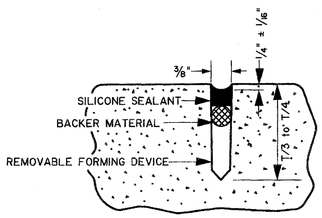


DETAIL "A"

USE THIS DETAIL IN CONJUNCTION WITH TYPE TCJ (SECTION B-B) AND TYPE LJ JOINT (SECTION D-D) AND NOTES ⑥ & ⑦ ON SHEET #1.



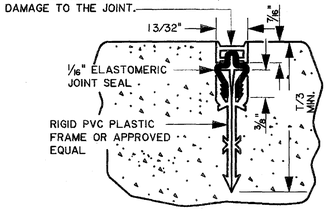
DETAIL "B"



DETAIL "C"

NOT ALLOWED FOR DESIGN SPEEDS GREATER THAN 45 MPH.

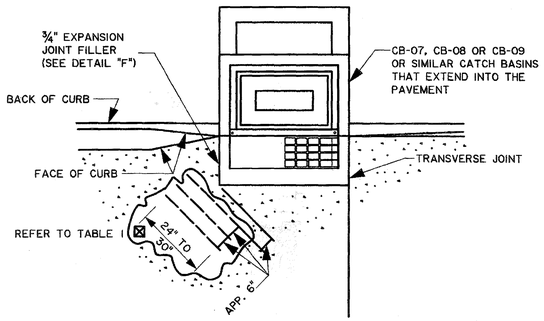
REMOVE CAP AFTER CONCRETE HAS HARDENED SUFFICIENTLY TO PERMIT REMOVAL WITHOUT DAMAGE TO THE JOINT.



DETAIL "D"

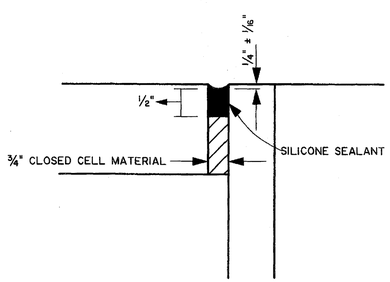
NOT ALLOWED WHEN THE PAVEMENT IS PLACED ON PERMEABLE BASES

NOT ALLOWED FOR DESIGN SPEEDS GREATER THAN 45 MPH.



DETAIL "E"

TRANSVERSE JOINT AT CATCH BASIN



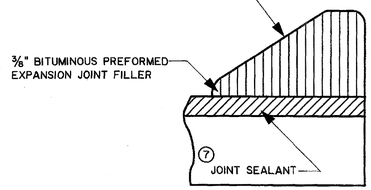
DETAIL "F"

AFTER CATCH BASIN TOP IS POURED, THE TOP OF THE 3/4 " JOINT FILLER IS TO BE REMOVED TO THE DEPTH SHOWN PRIOR TO SEALING. THE CURB FACES ADJACENT TO THE BASIN SHALL ALSO BE SEALED. JOINT FACES SHALL BE CLEANED IN ACCORDANCE WITH SECTION 601.

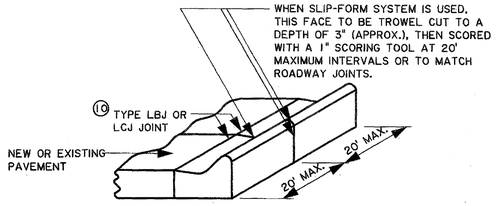
NOTE: SEE STANDARD PLAN DW-01 AND PLANS FOR CURB PLACEMENT DETAILS.

NOTE:

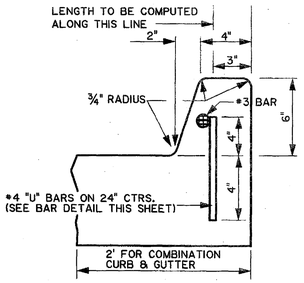
WHEN CURB IS POURED MONOLITHICALLY WITH PAVEMENT, THE BITUMINOUS PREFORMED EXPANSION JOINT FILLER SHALL EXTEND TO THE TOP OF JOINT INSERT. WHEN TRANSVERSE JOINTS ARE CONSTRUCTED BY SAWING, THE INITIAL SAW CUT SHALL EXTEND THRU THE CURBED SECTION (CURB AND UNDERLYING PAVEMENT). THE SUBSEQUENT WIDENING CUT FOR THE JOINT SEALANT RESERVOIR SHALL EXTEND INTO THE CURB FOR A DISTANCE NECESSARY TO ENSURE THE SPECIFIED RESERVOIR DEPTH IS BEING MAINTAINED AT THE GUTTER LINE. ALL CURB FACES REGARDLESS OF CURB TYPE SHALL BE SEALED WHEN TRANSVERSE JOINT IS SAWED THROUGH CURB.



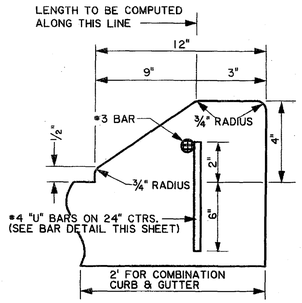
JOINT FILLER DETAIL FOR INTEGRAL CONCRETE CURB (MOUNTABLE OR BARRIER TYPE)



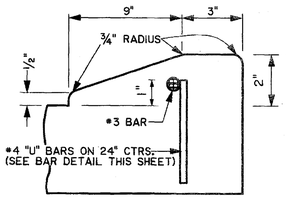
DETAIL SHOWING JOINTS IN CONCRETE CURB AND GUTTER (EXTEND ALL TCJ THROUGH CURB & GUTTER)



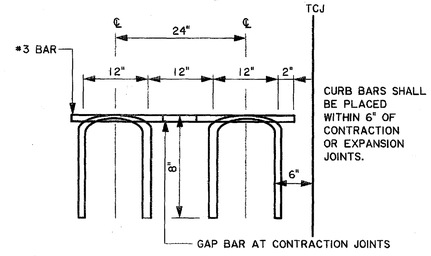
(BARRIER TYPE)



(MOUNTABLE TYPE)



MODIFIED BARRIER OR MOUNTABLE CURB THRU DRIVEWAY



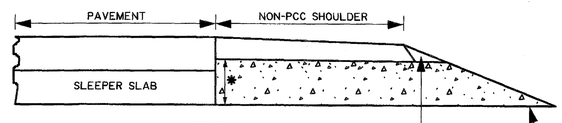
BAR DETAIL

SHOWING DIMENSIONS AND SPACING OF #4 "U" BARS AND LONGITUDINAL BARS FOR CONC. CURB

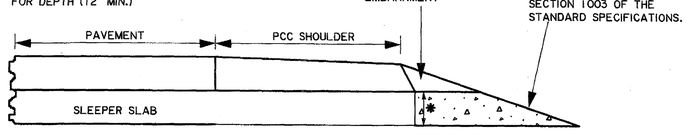
CURB DETAILS

NOTES:

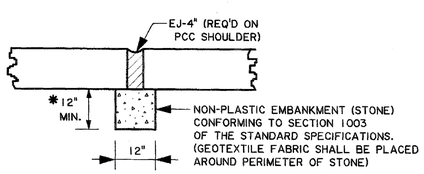
- POUR CURB INTEGRAL WITH PCC PAVEMENT OR GUTTER TO INSURE MONOLITHIC CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE ENGINEER. CURB BARS ARE NOT REQUIRED WHERE CURB IS CONSTRUCTED MONOLITHIC WITH THE PAVEMENT.
- ALL BARS SHOWN SHALL BE DEFORMED REINFORCING STEEL.
- WHEN REPLACING OR ADDING CONCRETE CURB TO EXISTING PAVEMENT, CONNECT THE NEW CONCRETE CURB TO THE PAVEMENT WITH THE DEFORMED REINFORCING STEEL SHOWN BY DRILLING HOLES INTO THE EXISTING PAVEMENT 1/8" LARGER THAN THE BAR DIAMETER. ANCHOR THE BARS WITH AN APPROVED EPOXY RESIN SYSTEM FROM THE DOTD AML. APPLY EPOXY ADHESIVE, COMPLYING WITH AASHTO M235, TYPE V, TO THE SURFACE AREA WHERE THE CONCRETE CURB WILL BE PLACED. INCLUDE ALL COST RELATED TO THE CONSTRUCTION OF THE CURB, INCLUDING THE DRILLED HOLES, DEFORMED REINFORCING BARS, AND EPOXY, IN THE UNIT PRICE FOR THE CURB ITEM.



SECTION K-K



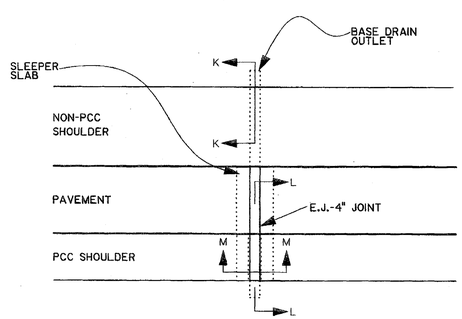
SECTION L-L (WITH CONCRETE SHOULDER)



SECTION M-M

(SLEEPER SLAB NOT SHOWN)

A BASE DRAIN OUTLET WILL BE REQUIRED AT E.J.-4" JOINTS UNLESS A SHOULDER UNDER DRAIN SYSTEM IS SPECIFIED ON THE PLANS, IN WHICH CASE, THE SHOULDER UNDER DRAIN FOR THE E.J. JOINT SHALL BE CONNECTED TO THE NEAREST STORM SEWER OR DISCHARGED THROUGH A HEADWALL. THE COST FOR THE BASE DRAIN OUTLET FOR THE E.J. JOINT IS TO BE INCLUDED IN THE COST OF THE PAVEMENT.



PLAN - BASE DRAIN OUTLET AT 4" E.J. EJ-4" JOINTS

DETAIL "G" - EJ-4" BASE DRAIN OUTLET

NOT TO SCALE

SHEET NUMBER	310
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232
DESIGN / CHECK	T. LAM / D. SMITH
DETAIL / CHECK	T. LAM / D. SMITH
REVIEW	SERIES # 3 OF 3

STATE OF LOUISIANA — DAVID S. SMITH, License No. 30565, PROFESSIONAL ENGINEER IN CIVIL ENGINEERING — 10/11/21

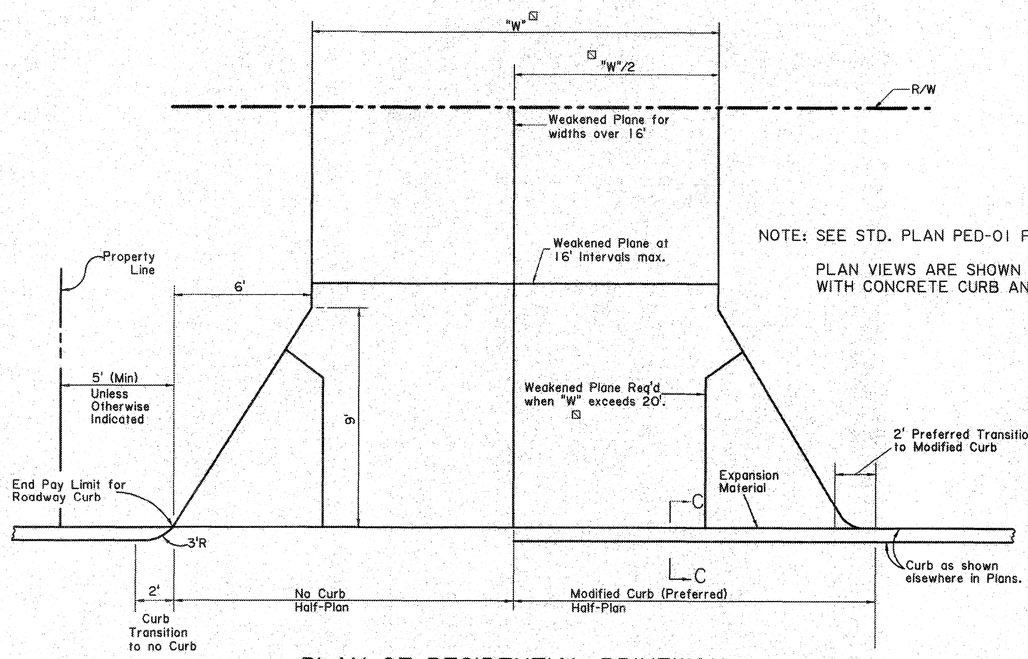
APPROVED BY CHIEF ENGINEER: DATE: 10/13/2021

PORTLAND CEMENT CONCRETE PAVEMENT DETAILS

STANDARD PLAN CP-01

DOTD — LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ROAD DESIGN



PLAN OF RESIDENTIAL DRIVEWAY

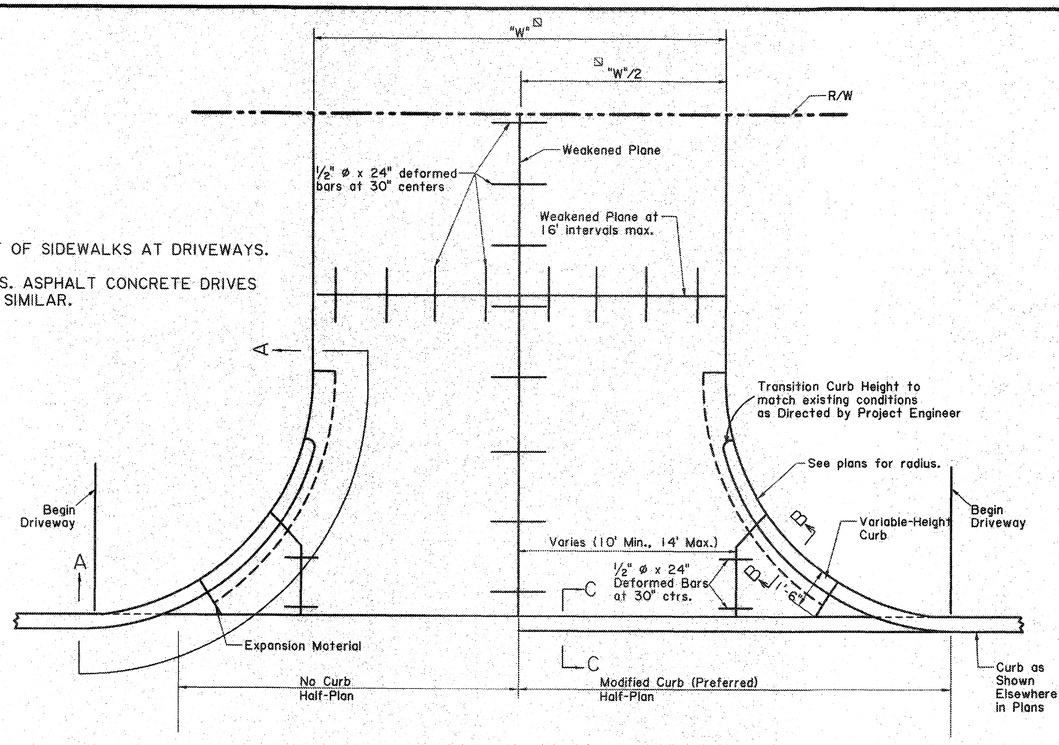
NOTE: SEE STD. PLAN PED-01 FOR TREATMENT OF SIDEWALKS AT DRIVEWAYS.

PLAN VIEWS ARE SHOWN FOR PCC DRIVES. ASPHALT CONCRETE DRIVES WITH CONCRETE CURB AND GUTTER ARE SIMILAR.

NOTE: MODIFIED CURB TO BE PAID FOR AS CURB AND WILL BE USED AS SHOWN IN THE PLANS OR WHEN DIRECTED BY THE PROJECT ENGINEER.

RADII TRANSITION SHAPE MAY BE USED IN LIEU OF A FLARE.

"W" = Width as per plans

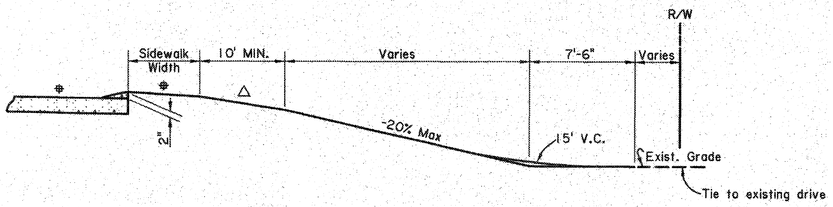


PLAN OF COMMERCIAL DRIVEWAY

NOTE: MODIFIED CURB TO BE PAID FOR AS CURB AND WILL BE USED AS SHOWN IN THE PLANS OR WHEN DIRECTED BY THE PROJECT ENGINEER.

WHEN CURB IS REQUIRED ALONG RADII OF DRIVEWAY, PAYMENT FOR TOE WALL AND CURB WILL BE INCLUDED IN THE PRICE FOR DRIVEWAY ITEMS.

WHEN CURB IS NOT REQUIRED ALONG RADII, TRANSITION CURB AS SHOWN ON RESIDENTIAL DRIVEWAY.



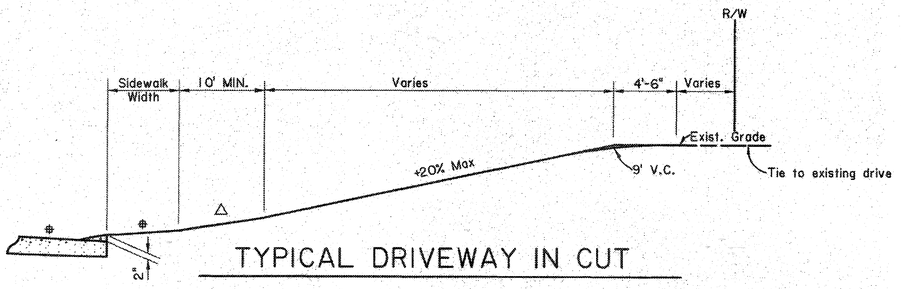
TYPICAL DRIVEWAY IN FILL

NOTES:

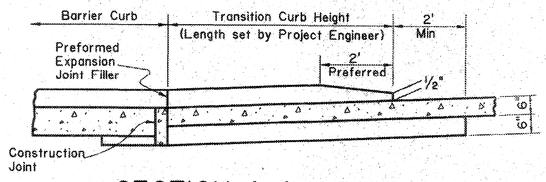
1. DRIVEWAY PROFILES SHOWN ASSUME A SIDEWALK ADJACENT TO THE CURB.

△ 2. MAXIMUM DRIVEWAY GRADE SHALL BE 20% (25% FOR SPECIAL CASES). MAXIMUM BREAK IN GRADE WITHOUT A VERTICAL CURVE SHALL BE 10% FOR CRESTS AND 9% FOR SAGS, AT NOT LESS THAN 10' INTERVALS.

⌖ 3. ROADWAY AND SIDEWALK SLOPES VARY AS PER PLANS.

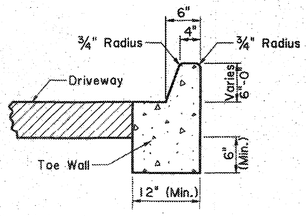


TYPICAL DRIVEWAY IN CUT



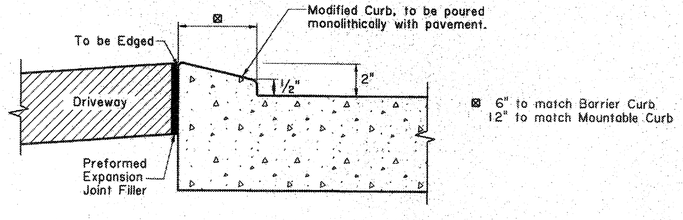
SECTION A-A

(Weakened Plane not shown.)



SECTION B-B

NOTE: For PCC Driveway, Curb, Toe Wall & Driveway to be poured monolithically.



SECTION C-C

NOTE: See Std. Plan CP-01 for Curb construction

SHEET NUMBER	311
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232
DESIGN	P. TONEY
CHECK	R. MCMILLAN
DETAIL	P. TONEY
CHECK	R. MCMILLAN
REVIEW	D. SMITH
SERIES #	1 OF 3

STATE OF LOUISIANA
AIDAN EYMARD
License No. 46220
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
8/2/2022

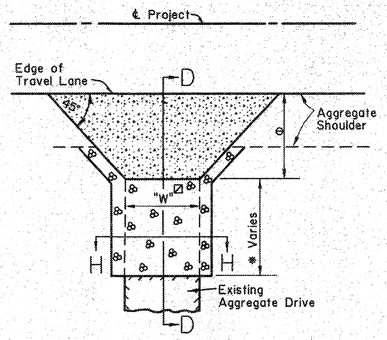
APPROVED BY CHIEF ENGINEER: DATE: 8/4/2022

DRIVEWAYS ON CURBED ROADWAYS

STANDARD PLAN DW-01

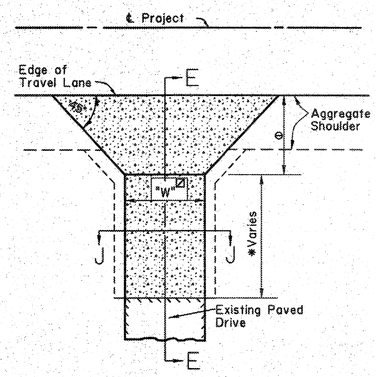
DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

STANDARD PLAN



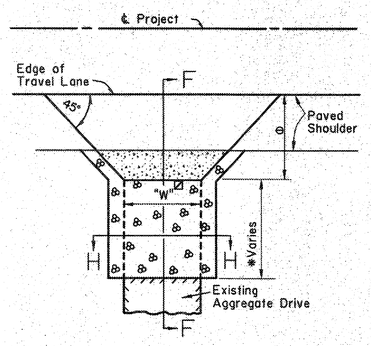
TYPE "A"

Paved Driveway Flare
Along Aggregate Shoulder



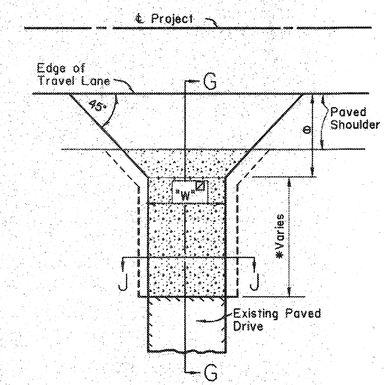
TYPE "B"

Paved Driveway Flare
Along Aggregate Shoulder
Connecting Existing Paved Drive



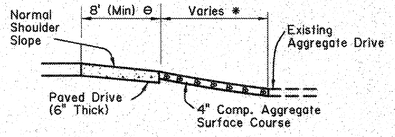
TYPE "C"

Paved Driveway Flare
Along Paved Shoulder

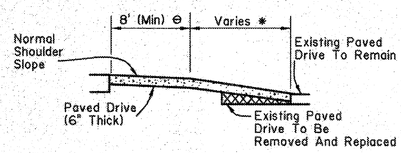


TYPE "D"

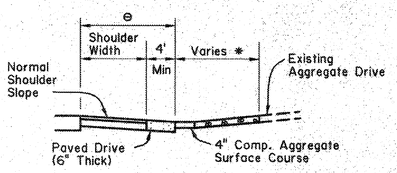
Paved Driveway Flare
Along Paved Shoulder
Connecting Existing Paved Drive



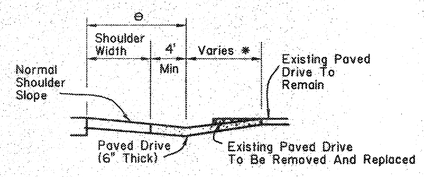
SECTION D-D



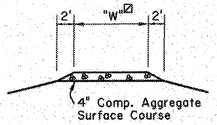
SECTION E-E



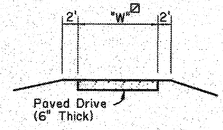
SECTION F-F



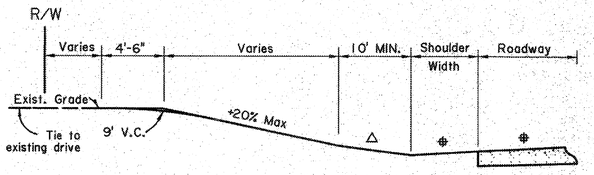
SECTION G-G



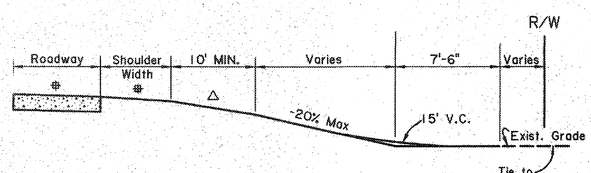
SECTION H-H



SECTION J-J



TYPICAL DRIVEWAY IN CUT



TYPICAL DRIVEWAY IN FILL

☑ "W" = Width as per plans

NOTES:

1. PORTLAND CEMENT CONCRETE DRIVES WILL BE CONSTRUCTED TO REPLACE OR CONNECT TO EXISTING CONCRETE DRIVES.

* 2. SEE PLANS: APPLIES WHERE EXISTING DRIVE IS TO BE REMOVED FOR ROADWAY CONSTRUCTION AND/OR TO ACHIEVE VERTICAL GEOMETRY REQUIREMENTS.

⊖ 3. PAVEMENT SHALL EXTEND 8' MINIMUM FROM EDGE OF PAVED ROADWAY SURFACE (TRAVEL LANE) FOR SINGLE-FAMILY RESIDENTIAL/NON-COMMERCIAL AGRICULTURE TYPE CONNECTIONS, AND 25' FOR TRAFFIC GENERATOR (COMMERCIAL) TYPE CONNECTIONS, OR AS PER THE PLANS. PAVED DRIVEWAY FLARE SHALL EXTEND 4' MINIMUM FROM EDGE OF PAVED SHOULDER. RADII TRANSITION SHAPE MAY BE USED IN LIEU OF FLARE.

4. COMPACTION OF SUBGRADE AND GRADING WORK FOR CONSTRUCTION OF DRIVES SHALL BE SATISFACTORY TO THE ENGINEER AND PAYMENT SHALL BE INCLUDED IN THE DRIVEWAY ITEMS.

△ 5. MAXIMUM DRIVEWAY GRADE SHALL BE 20% (25% FOR SPECIAL CASES). MAXIMUM BREAK IN GRADE WITHOUT A VERTICAL CURVE SHALL BE 10% FOR CRESTS AND 9% FOR SAGS, AT NOT LESS THAN 10' INTERVALS.

6. ROADWAY AND SHOULDER SLOPES VARY AS PER PLANS

LEGEND

ASPHALT

AGGREGATE

REMOVAL

SHEET NUMBER	312
PARISH: EAST BATON ROUGE	CONTROL SECTION: 000-17, 258-33, 450-10	STATE PROJECT: H.012232
DESIGN: P. TONEY	CHECK: R. MCMILLAN	DETAIL: P. TONEY	CHECK: R. MCMILLAN	REVIEW: D. SMITH	SERIES # 2 OF 3

STATE OF LOUISIANA
AIDAN EYMARD
License No. 46220
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
8/2/2022

APPROVED BY CHIEF ENGINEER: 8/4/2022 DATE:

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DRIVEWAYS ON NON-CURBED ROADWAYS

STANDARD PLAN DW-01

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

STANDARD PLAN

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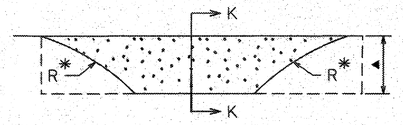
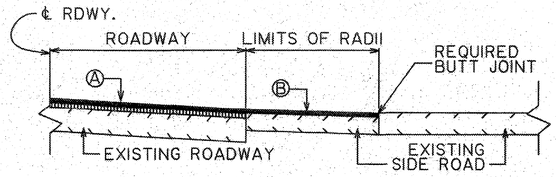
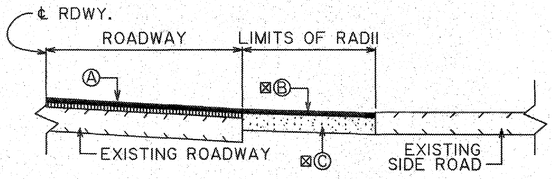
TURNOUT TIE-IN DETAILS FOR OVERLAY PROJECTS



DETAIL OF APRON AT TURNOUT (TYPICAL)



SECTION K-K (PAVED SIDE ROAD)



SECTION K-K (UNPAVED SIDE ROAD)

Ⓐ ASPHALT CONCRETE (COURSES AND TYPES SHOWN ON ROADWAY TYPICAL SECTION)

Ⓑ ASPHALT CONCRETE (THICKNESS SHALL MATCH ROADWAY WEARING SURFACE)

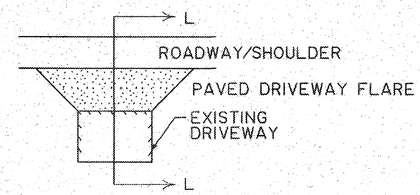
⊠Ⓒ ASPHALT CONCRETE BASE COURSE

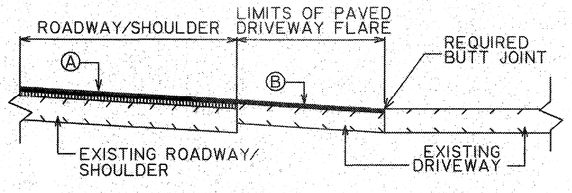
* MATCH EXISTING RADIUS

▲ VERTICAL TRANSITION FROM ROADWAY TO BUTT JOINT TIE-IN WHERE NEEDED

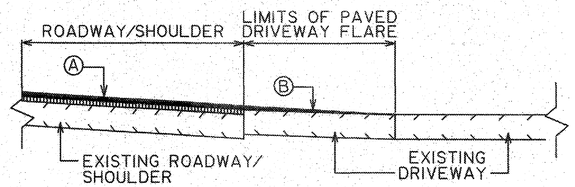
⊠ TOTAL THICKNESS OF WEARING COURSE AND BASE COURSE SHALL BE A MINIMUM OF 6"

DRIVEWAY TIE-IN DETAILS FOR OVERLAY PROJECTS





SECTION L-L (ALTERNATE 1)



SECTION L-L (ALTERNATE 2)

Ⓐ ASPHALT CONCRETE (COURSES AND TYPES SHOWN ON ROADWAY TYPICAL SECTION)

Ⓑ ASPHALT CONCRETE (THICKNESS SHALL MATCH ROADWAY WEARING COURSE)

NOTES:

1. DRIVE WIDTHS AND FLARE DIMENSIONS TO BE ADJUSTED TO MATCH EXISTING CONDITIONS AS DIRECTED BY THE PROJECT ENGINEER.
2. TYPE OF TIE-IN AND LENGTH OF OVERLAY TRANSITION TO BE SET BY PROJECT ENGINEER TO ACHIEVE A SUITABLE CONNECTION FOR EXISTING DRIVE.
3. REFER TO SHEET 2 OF DW-01 FOR SUGGESTED TIE-IN CRITERIA OF STEEP GRADES.

SHEET NUMBER 313

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	P. TONEY	DETAIL	P. TONEY
CHECK	R. MCMILLAN	CHECK	R. MCMILLAN
REVIEW	D. SMITH	SERIES #	3 OF 3

STATE OF LOUISIANA
AIDAN EYMARD
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3/2/2022

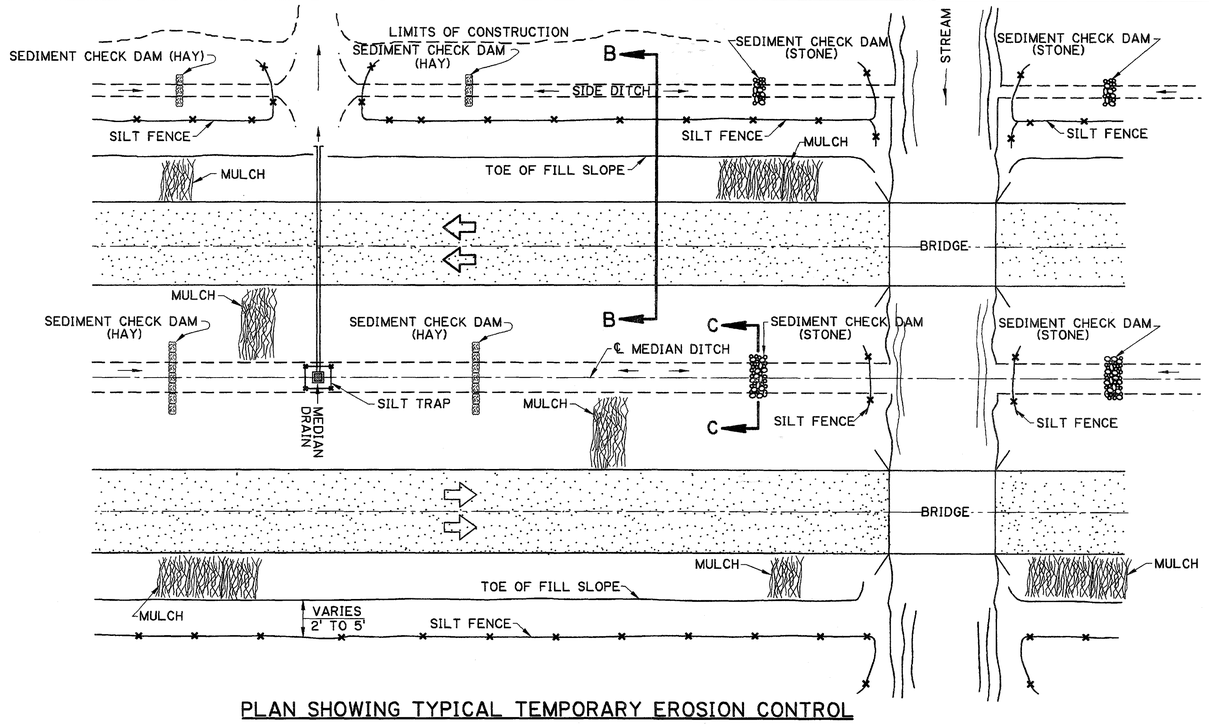
APPROVED BY CHIEF ENGINEER: DATE: 8/4/2022

TURNOUT AND DRIVEWAY TIE-IN DETAILS

STANDARD PLAN DW-01

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

STANDARD PLAN

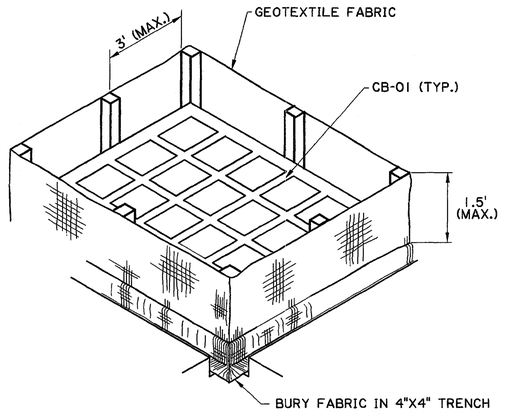


PLAN SHOWING TYPICAL TEMPORARY EROSION CONTROL

MULCHES

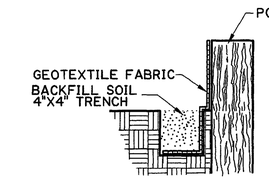
MULCHES ARE THE APPLICATION OF MATS OF MATERIAL PLACED ON THE SOIL SURFACE TO PREVENT EROSION BY PROTECTING THE SOIL SURFACE FROM RAINDROP IMPACT AND TO REDUCE THE VELOCITY OF OVERLAND FLOW. MULCHES CAN BE ORGANIC OR SYNTHETIC. MULCHES SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR TEMPORARY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

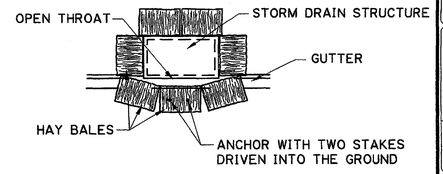


ISOMETRIC VIEW SHOWING GEOTEXTILE FABRIC

(BACKFILL SOIL NOT SHOWN)



SECTION THRU TRENCH SHOWING GEOTEXTILE FABRIC



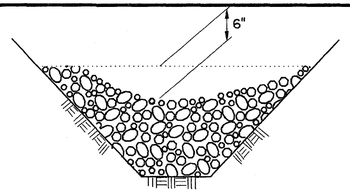
PLAN SHOWING HAY BALES

PAY ITEM: TEMPORARY HAY OR STRAW BALES

TEMPORARY INLET SILT TRAP

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 ½" 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.



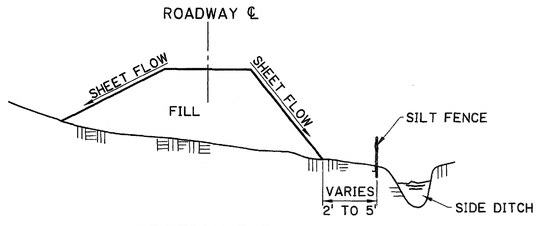
SECTION C-C

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:

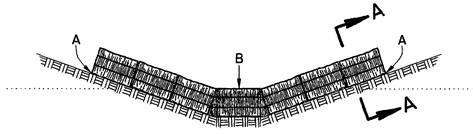
1. USE IN SMALL OPEN CHANNELS WHICH DRAIN 10 ACRES OR LESS
2. DO NOT USE IN A LIVE STREAM
3. USE IN A TEMPORARY DITCH OR SWALE WHICH, BECAUSE OF THEIR SHORT LENGTH OF SERVICE, CANNOT RECEIVE A NON- ERODIBLE LINING
4. USE IN PERMANENT DITCHES OR SWALES WHICH WILL NOT RECEIVE A PERMANENT LINING FOR AN 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

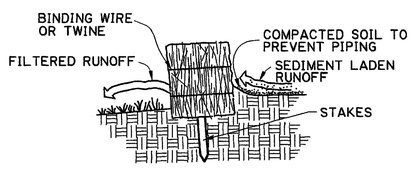
TEMPORARY SILT FENCE APPLICATION

(FOR CONSTRUCTION DETAILS AND SPECIFICATIONS SEE SHEET 2 OF 2.)



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 DAM 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 NUMBER 314

PARISH: EAST BATON ROUGE | FEDERAL PROJECT | STATE PROJECT: H.012232

DESIGNED JCM | DETAILED KAJ | DATE 1-14-94
CHECKED | CHECKED JCM | SHEET 1 OF 2

BY	DATE	REVISION DESCRIPTION
MH	10-1-08	REMOVE SPECIFIC PAY ITEM NOS., GENERAL REVISIONS

APPROVED BY CHIEF ENGINEER: William H. Temple III

DATE: 10-1-08

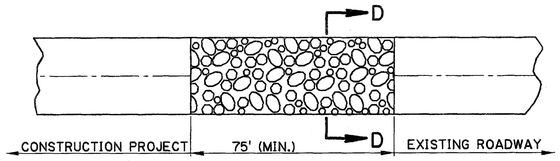
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TEMPORARY EROSION CONTROL DETAILS

STANDARD PLAN EC-01

DOTD DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

HYDRAULICS SECTION



PLAN

SECTION D-D

TEMPORARY STONE CONSTRUCTION ENTRANCE

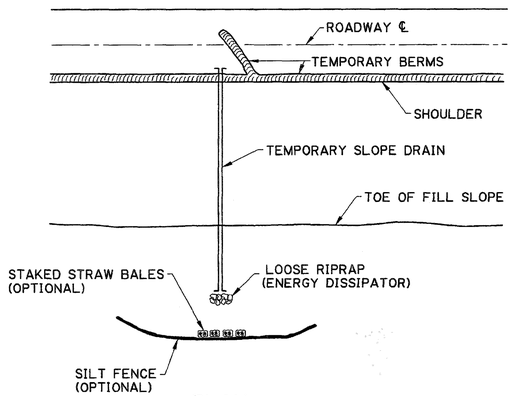
PAY ITEM: TEMPORARY STONE CONSTRUCTION ENTRANCE

NOTES:

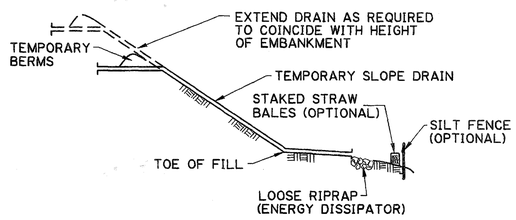
TEMPORARY STONE CONSTRUCTION ENTRANCE AND/OR WASH RACK

A STONE STABILIZED PAD LOCATED AT POINTS OF VEHICULAR INGRESS AND EGRESS ON THE CONSTRUCTION SITE TO 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 DESIGN GUIDELINES FOR THE USE OF A STONE ENTRANCE AND/OR WASH RACKS ARE:

1. THE STONE LAYER MUST BE AT LEAST 6 INCHES THICK.
2. THE STONE SHALL CONFORM TO PROJECT SPECIFICATIONS FOR RIPRAP (CLASS 2 LB).
3. THE LENGTH OF THE PAD MUST BE A LEAST 75 FEET AND IT MUST EXTEND THE FULL WIDTH OF THE VEHICULAR INGRESS AND EGRESS.
4. A GEOTEXTILE FABRIC UNDERLINER IS REQUIRED. THE GEOTEXTILE FABRIC SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS FOR GEOTEXTILE FABRIC (CLASS D).
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



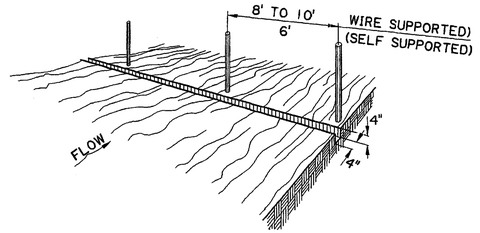
ELEVATION

TEMPORARY SLOPE DRAIN

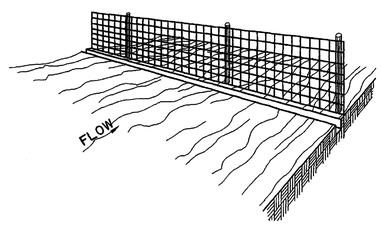
A TEMPORARY SLOPE DRAIN IS A DEVICE USED TO CARRY WATER FROM THE CONSTRUCTION WORK AREA TO A LOWER ELEVATION. SLOPE DRAINS MAY BE PLASTIC SHEET, METAL OR PLASTIC PIPE, STONE GUTTERS, FIBER MATS, OR CONCRETE OR ASPHALT DITCHES. A FEW BASIC DESIGN GUIDELINES FOR THE USE OF A TEMPORARY SLOPE DRAIN ARE:

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 - 3 MILS THICK MIN.
   CORRUGATED PIPE - 12" MINIMUM
   PLASTIC SHEETING - 4' WIDE MINIMUM
   PLASTIC SHEETING - 3 MILS THICK MIN.
3. PLASTIC SHEETING CAN BE STAKED DOWN OR WEIGHTED WITH ROCKS OR LOGS. 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, HAY BALES, OR OTHER APPROVED SEDIMENT CONTROL DEVICES.
5. TO INSURE PROPER OPERATION, TEMPORARY SLOPE DRAINS SHOULD BE INSPECTED REGULARLY AND AFTER EACH STORM, FOR CLOGGING OR DISPLACEMENT. EROSION AT THE OUTLET SHOULD BE CHECKED AND THE SILT TRAPS CLEANED IF NECESSARY.

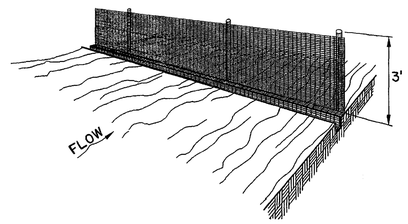
1. SET POSTS AND EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.



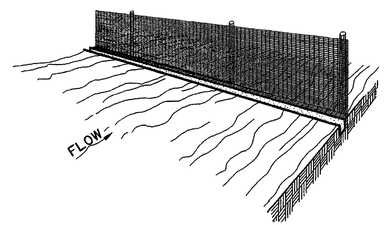
2. STAPLE WIRE FENCING TO THE POSTS.



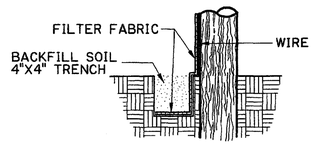
3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.



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 PROJECT SPECIFICATIONS FOR TEMPORARY EROSION CONTROL. A FEW BASIC 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 THERE 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 NUMBER 315

PARISH: EAST BATON ROUGE | FEDERAL PROJECT: | STATE PROJECT: H.012232

DESIGNED JCM | CHECKED | DETAILED KAJ | CHECKED JCM | DATE 1-14-94 | SHEET 2 OF 2

BY	DATE	REVISION DESCRIPTION
MH	10-1-08	REMOVE SPECIFIC PAY ITEM NOS., GENERAL REVISIONS

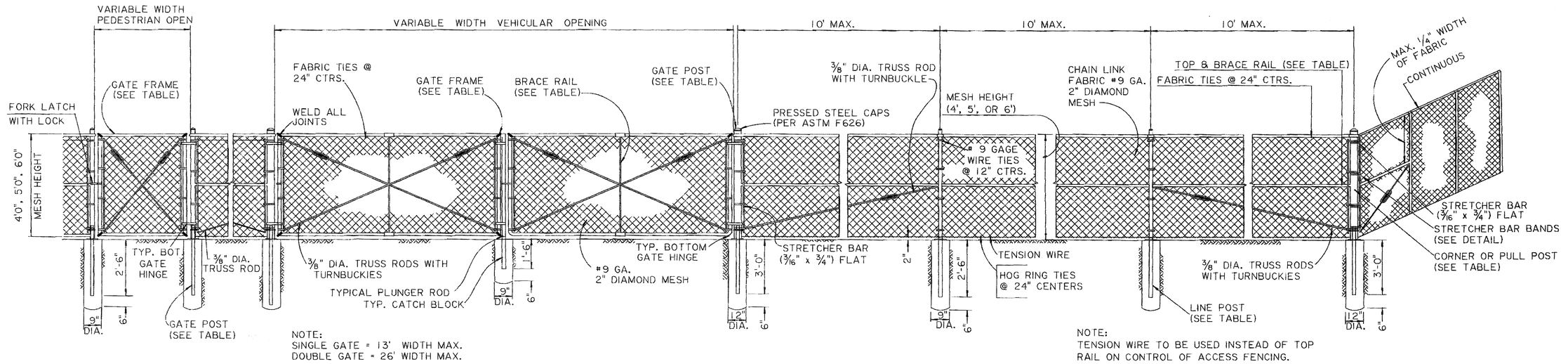
APPROVED BY CHIEF ENGINEER: [signature] DATE 10-1-08

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

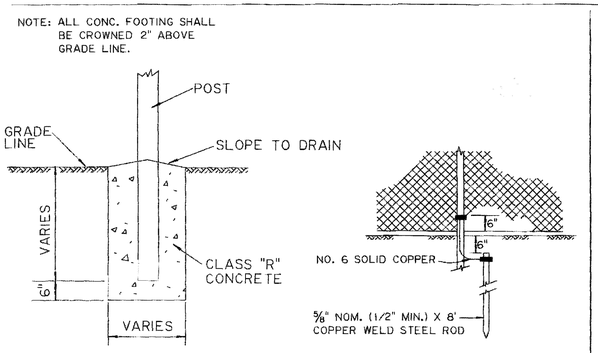
TEMPORARY EROSION CONTROL DETAILS

STANDARD PLAN EC-01

HYDRAULICS SECTION

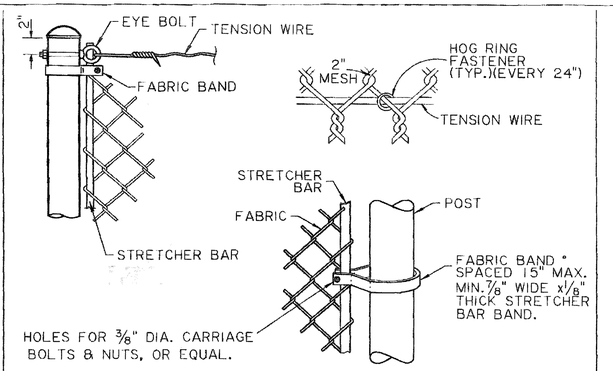


CHAIN LINK FENCE (4', 5', AND 6')

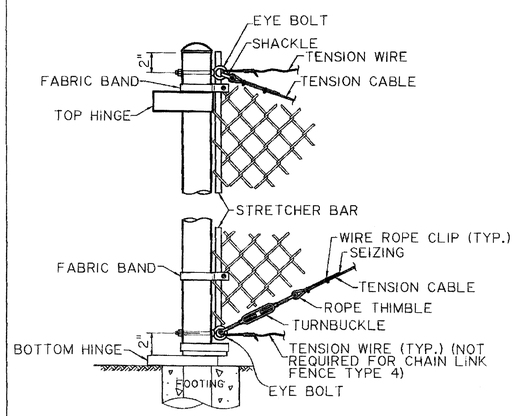


DETAIL OF POST FOOTING

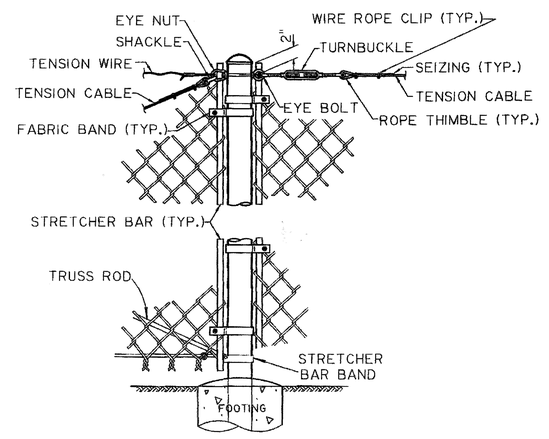
DETAIL OF GROUND WIRES FOR FENCES



FABRIC & TENSION WIRE DETAILS



GATE POST DETAIL



BRACE & TRUSS CONNECTION AT LINE POST

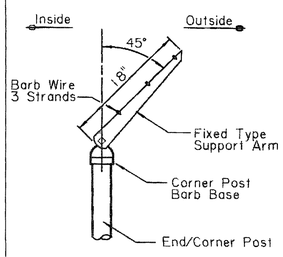
NOTES:

1. THE FENCE INSTALLATION AND DETAILS SHOWN ARE TYPICAL AND MAY VARY IN ACCORDANCE WITH DIFFERENT MANUFACTURERS, PROVIDED THEY MEET THE STANDARD SPECIFICATIONS.
2. TYPICAL INSTALLATION PLAN MAY VARY AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. LOCATION OF GATES TO BE SHOWN ON PLANS.
3. GROUNDING ROD ASSEMBLIES ARE TO BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.
4. ALL BOLTS TO BE UPSET TO DISCOURAGE VANDALISM.
5. ALL CONNECTION METHODS TO BE APPROVED BY THE PROJECT ENGINEER.
6. LOCATION OF GATES TO BE SHOWN ON PLANS.
7. LATERAL FENCE TO BE SAME CONSTRUCTION AS FRONTAL FENCE.
8. CONTROL OF ACCESS FENCE SHALL BE 5 FT IN HEIGHT UNLESS OTHERWISE NOTED IN THE PLANS.
9. AT EACH LOCATION WHERE AN ELECTRIC TRANSMISSION, DISTRIBUTION, OR SECONDARY LINE CROSSES A FENCE, THE CONTRACTOR SHALL FURNISH AND INSTALL A GROUND CONFORMING TO ARTICLE 250 OF THE NATIONAL ELECTRIC CODE. A GROUND SHALL ALSO BE INSTALLED AT A MAXIMUM SPACING OF 500 FT. ALONG THE FENCE. GROUNDING WILL NOT BE PAID FOR SEPERATELY BUT SHALL BE INCLUDED IN THE COST OF THE FENCE.
10. SEE AASHTO M-181 FOR ADDITIONAL REQUIREMENTS.

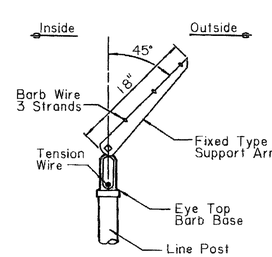
POST & RAIL TABLE

	STANDARD		ALTERNATES			
	OUTSIDE DIA. (INCHES)	LBS. (PER LIN.FT.)	DIMENSION (INCHES)	SECTION	LBS. (PER LIN.FT.)	ASTM F1043 GROUP
LINE POST	2 3/8	3.65	2.375	ROUND	3.12	
			2.25 X 1.70	H	3.26	III
			2.25 X 1.70	HEAVY C	2.78	II
			1.875 X 1.625	STD. C	2.40	II
BRACE RAIL	1 5/8	2.27	1.660	ROUND	1.84	
COR. POST	2 7/8	5.79	2.875	ROUND	4.64	
GATE POST	4.0	9.10	3.500	ROUND	5.71	IC
GATE FRAME	1 7/8	2.72	1.900	ROUND	2.28	

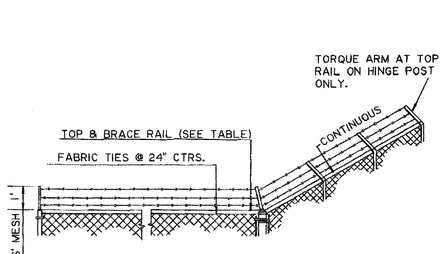
7 FT FENCE



CORNER POST SUPPORT ARM



LINE POST SUPPORT ARM



BARBED WIRE TOP

SHEET NUMBER 316

PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232

DESIGNED: ROAD DESIGN
CHECKED:
DETAILED: ROAD DESIGN
CHECKED:
DATE: 01-07-11
SHEET: 1 OF 1

REVISION DESCRIPTION
BY
DATE: 11-3-11

APPROVED BY CHIEF ENGINEER:
DATE

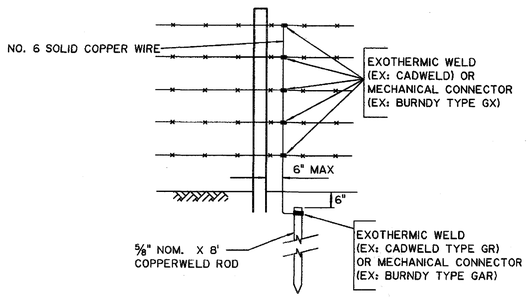
CHAIN LINK FENCE & GATES
4 FT., 5 FT., 6 FT. & 7 FT.

STANDARD PLAN: FN-01

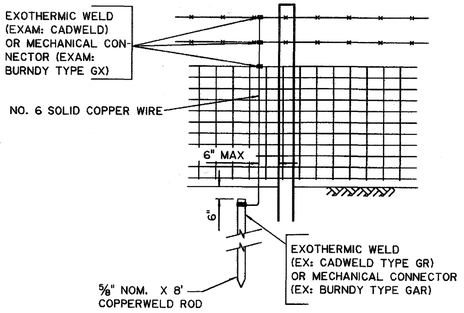
ROAD DESIGN

NOTE: GROUNDING DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

ALL CONNECTION METHODS TO BE APPROVED BY PROJECT ENGINEER.



5-STRAND BARBED WIRE



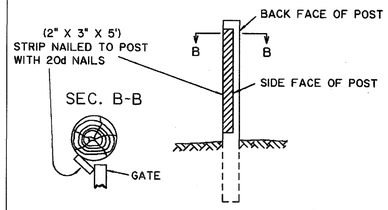
COMBINATION MESH & BARBED WIRE

GROUNDING DETAILS

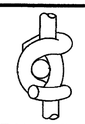
ALL POST DIAMETERS ARE MEAN DIAM. AT SMALL END

TREATED WOODEN LINE POST
(NOMINAL 4" DIA.)

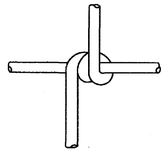
NOTE: GATES ARE TO OPEN AWAY FROM HIGHWAY UNLESS OTHERWISE DIRECTED BY ENGINEER.



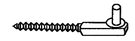
DETAIL AT STOP FOR WOODEN GATE POST



DETAIL OF STIFF STAY KNOT JOINT
NOMINAL DIAMETER OF ZINC-COATED WIRE, 0.099 In.
VARIATION ± 0.004 IN.
(DESIGN NO. 939-6-12½")

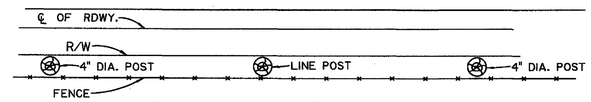


DETAIL OF HINGED JOINT
NOMINAL DIAMETER OF ZINC-COATED WIRE, 0.099 In.
VARIATION ± 0.004 IN.
(DESIGN NO. 939-6-12½")

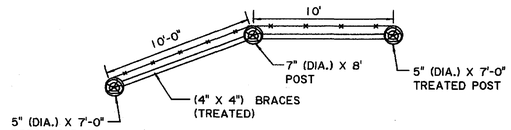


SUGGESTED TYPE SCREW HOOK HINGE FOR WOODEN POST
¾" X 7½" SCREW HOOK HINGE

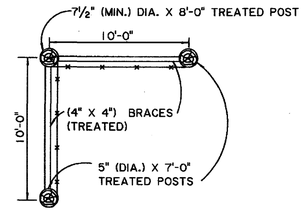
NOTE: LINE POST TO BE LOCATED OUTSIDE OF R/W LINE. WIRE TO BE PLACED ON OUTSIDE OF R/W, UNLESS OTHERWISE DIRECTED BY ENGINEER OR REQUESTED BY PROPERTY OWNER AND APPROVED BY ENGINEER.
FOR CONTROL OF ACCESS, LINE POST TO BE LOCATED WITHIN HIGHWAY R/W.



DETAIL SHOWING LOCATION OF FENCE IN RELATION TO THE R/W LINE



SHOWING BRACES AT OBLIQUE* ANGLE CORNERS

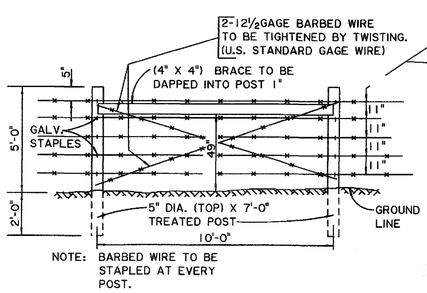


SHOWING BRACES AT RIGHT ANGLE CORNERS*

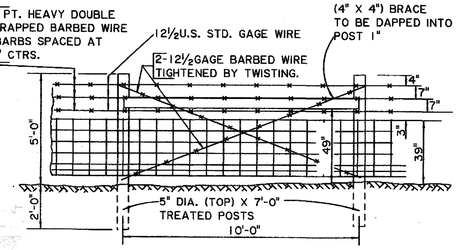
NOTE: METAL LINE POSTS MAY BE USED IN CONJUNCTION WITH WOODEN CORNER GATE AND BRACE POSTS, PROVIDED THAT METAL AND WOODEN POSTS ARE NOT MIXED BETWEEN CORNER POSTS.

*NOTE: FOR ALTERNATE METHOD OF BRACING, SEE SHT. 2 OF THIS STANDARD (FN-02).

1¾" GALV. STAPLES TO BE USED IN WOODEN POSTS.
GALV. STAPLES TO BE PLACED ON TOP AND BOTTOM STRANDS AND EVERY OTHER WIRE BETWEEN, ALTERNATING ON SUCCESSIVE POSTS.

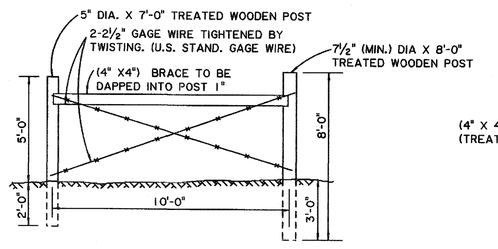


NOTE: BARBED WIRE TO BE STAPLED AT EVERY POST.

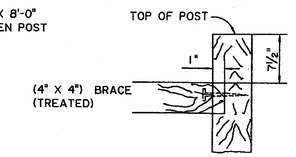


NOTE: ALL LINE POSTS TO BE 7'-0" (MIN.) LENGTH AND SPACED ON 10' CENTERS (MAX.)

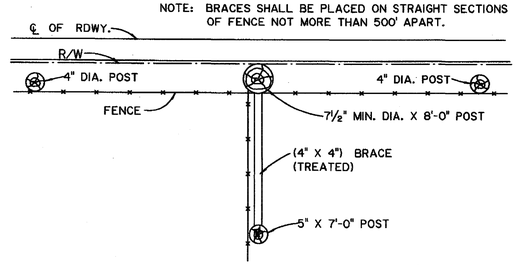
SHOWING BRACES IN STRAIGHT LINE OF FENCE*



SHOWING BRACES AT GATE* (BACK VIEW)
(FENCE NOT SHOWN)



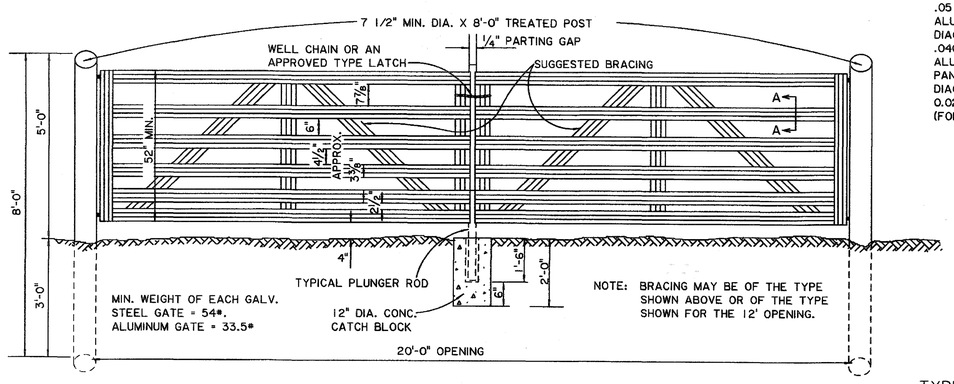
DETAIL OF BRACE DAPPED INTO POST



INTERSECTING BRACES ALONG R/W* TO BE INSTALLED IN FENCES

ALL INTERSECTING FENCES TO BE SECURELY ATTACHED TO FRONTAGE FENCE AS SHOWN HERE.

BRACING DETAILS

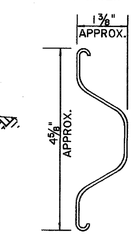


MIN. WEIGHT OF EACH GALV. STEEL GATE = 54*.
ALUMINUM GATE = 33.5*

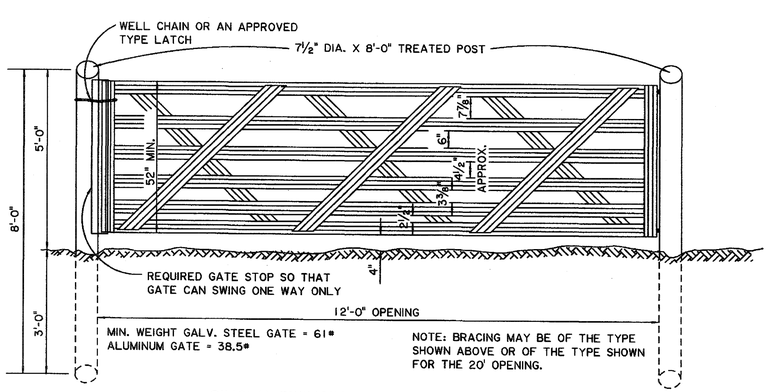
NOTE: BRACING MAY BE OF THE TYPE SHOWN ABOVE OR OF THE TYPE SHOWN FOR THE 12' OPENING.

DOUBLE SWINGING DRIVEWAY GATE (ALUMINUM OR GALVANIZED STEEL)
(SUGGESTED TYPE)

HORIZONTAL PANELS TO BE .051" THICK (MIN.) (FOR ALUM. GATE). VERTICAL AND DIAGONAL BRACES TO BE .040" THICK (MIN.) (FOR ALUM. GATE). HORIZONTAL PANELS, VERTICAL AND DIAGONAL BRACE TO BE 0.025" THICK (MIN.) (FOR GALV. GATE).



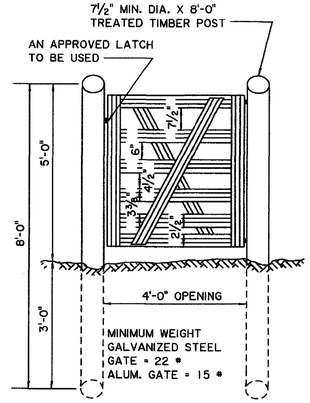
TYPICAL SECTION THRU PANEL SECTION A-A



MIN. WEIGHT GALV. STEEL GATE = 61*
ALUMINUM GATE = 38.5*

NOTE: BRACING MAY BE OF THE TYPE SHOWN ABOVE OR OF THE TYPE SHOWN FOR THE 20' OPENING.

SINGLE SWINGING DRIVEWAY GATE (ALUMINUM OR GALVANIZED STEEL)
(SUGGESTED TYPE)



MINIMUM WEIGHT GALVANIZED STEEL GATE = 22 *
ALUM. GATE = 15 *

SINGLE SWINGING WALKGATE (ALUMINUM OR GALVANIZED STEEL)
(SUGGESTED TYPE)

FN02-1.DGN

C:\Users\43411\Desktop\Christina Briggs\H.012232\Standard Plans\FN-02 (1 OF 2) REV 11-3-11.dgn

SHEET NUMBER	317
PARISH	EAST BATON ROUGE
FEDERAL PROJECT	
STATE PROJECT	H.012232
DESIGNED / CHECKED	ROAD DESIGN CW
DETAILED / CHECKED	ROAD DESIGN CW
DATE / SHEET	01-24-11 / 1 OF 2

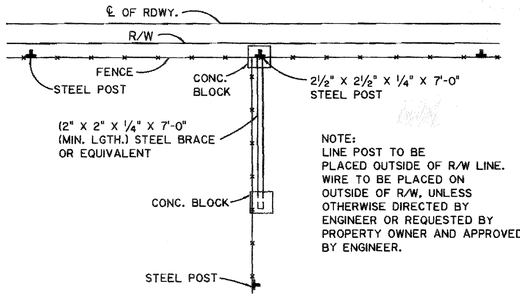
NO.	REVISION DESCRIPTION	BY	DATE:
			12-3-11

DATE / APPROVED BY CHIEF ENGINEER:

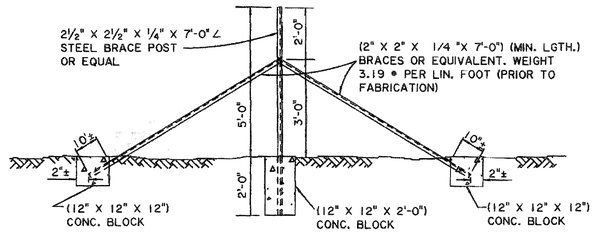
FIELD AND LINE TYPE FENCE (WOOD POST)

ROAD DESIGN STANDARD PLAN: FN-02

ROAD DESIGN



INTERSECTING BRACES ALONG R/W
TO BE INSTALLED IN FENCES *



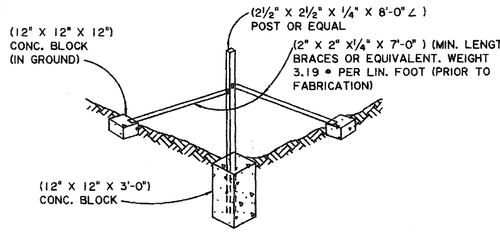
METHOD OF BRACING IN STRAIGHT LINE
FENCE (FENCE NOT SHOWN) *

NOTE: LINE POST TO BE PLACED OUTSIDE OF R/W LINE.

FOR CONTROL OF ACCESS, LINE POST TO BE LOCATED WITHIN HIGHWAY R/W.

DETAIL SHOWING LOCATION OF FENCE
IN RELATION TO THE R/W LINE

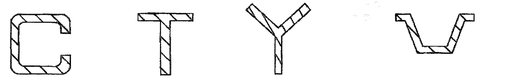
NOTE: FOR DETAILS OF GROUNDING SEE SHEET 1.
* FOR ALTERNATE METHOD OF BRACING SEE SHEET 1 OF THIS STANDARD.



STEEL POST AND BRACES
METHOD OF BRACING CORNERS
OBLIQUE & INTERSECTING FENCES *
NOMINAL WEIGHTS: CORNER END AND BRACING POSTS 4.10 * PER LIN. FOOT (PRIOR TO FABRICATION).

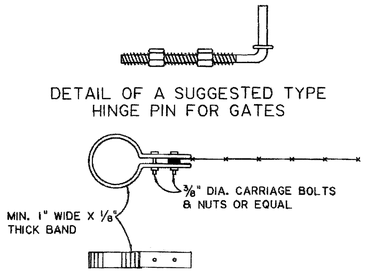
NOTE: WOODEN POSTS MAY BE USED IN CONJUNCTION WITH STEEL CORNER AND GATE POSTS, PROVIDED THAT WOODEN AND METAL POSTS ARE NOT MIXED BETWEEN CORNER POSTS.

* SEE ASTM A702 FOR DIMENSIONS AND DETAILS.



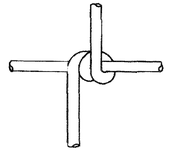
2.25" X 1.70"
2.73 LBS PER FOOT
MIN. YIELD ST. 45 KSI.

SUGGESTED TYPES OF STEEL FENCE POSTS



DETAIL OF A SUGGESTED TYPE
HINGE PIN FOR GATES

DETAIL OF SUGGESTED TYPE BAND
NOTE: FOR HOLDING BARBED WIRE AT GATE POSTS.



DETAIL OF HINGED JOINT

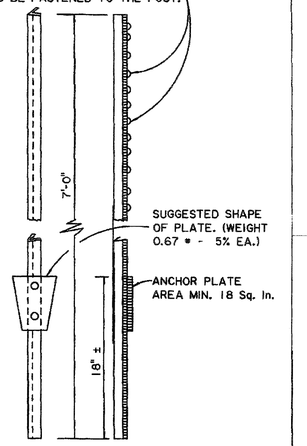
NOMINAL DIA. OF ZINC-COATED WIRE, 0.099 In.
(DESIGN NO. 939-6-12 ½)

DETAIL OF STIFF STAY KNOT JOINT

NOMINAL DIA. OF ZINC-COATED WIRE, 0.099 In.
(DESIGN NO. 939-6-12 ½)

LINE POST SHALL BE DRIVEN. TOP TO BE PROTECTED TO PREVENT BURRING. NOMINAL WEIGHT 1.33 * PER LINEAR FOOT (PRIOR TO FABRICATION).

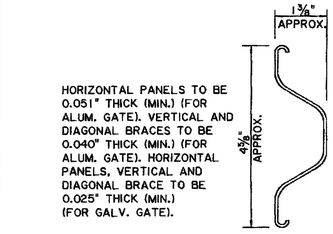
SLOTS, NOTCHES OR APPROVED DEVICE FOR FASTENING WIRE TO POST. A MIN. OF 4 HORIZONTAL WIRES TO BE FASTENED TO THE POST FOR THE MESH WIRE. EACH BARB WIRE TO BE FASTENED TO THE POST.



TYPICAL LINE POST

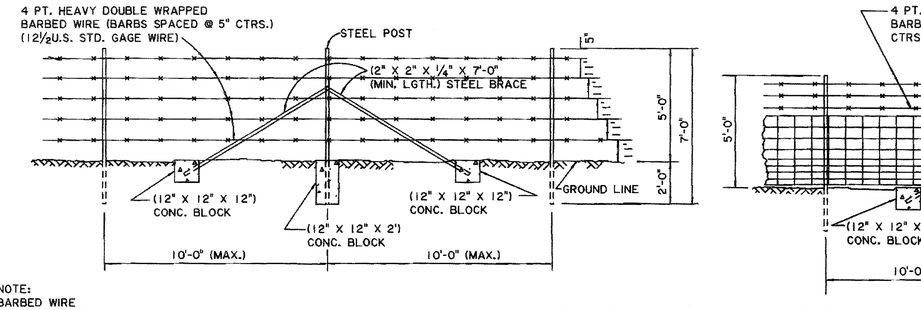
GENERAL NOTES:
GATES ARE TO OPEN AWAY FROM HIGHWAY UNLESS OTHERWISE DIRECTED BY ENGINEER.
ALL INTERSECTING FENCES TO BE SECURELY ATTACHED TO THE FRONTAGE FENCE AS SHOWN.
ALL STEEL POSTS, ANCHOR PLATES, BRACES AND HARDWARE SHALL BE GALVANIZED. (ASTM A 123)

BRACES SHALL BE PLACED ON STRAIGHT SECTIONS OF FENCE NOT MORE THAN 500' APART.
ALL LINE POSTS TO BE 7'-0" (MIN.) LENGTH AND SPACED ON 10' CENTERS (MAX.)

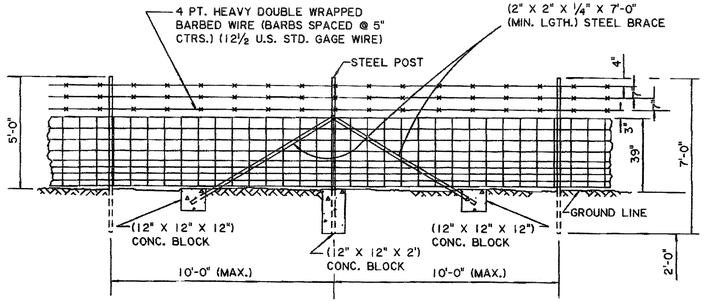


HORIZONTAL PANELS TO BE 0.051" THICK (MIN.) (FOR ALUM. GATE). VERTICAL AND DIAGONAL BRACES TO BE 0.040" THICK (MIN.) (FOR ALUM. GATE). HORIZONTAL PANELS, VERTICAL AND DIAGONAL BRACE TO BE 0.025" THICK (MIN.) (FOR GALV. GATE).

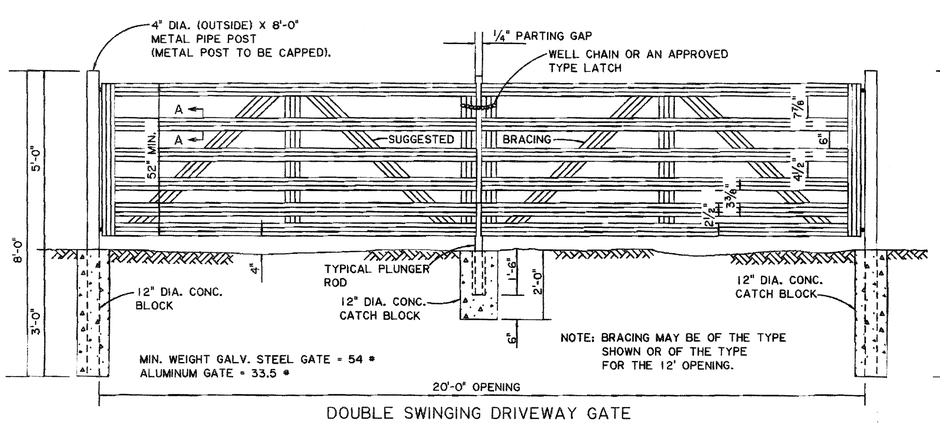
TYPICAL SECTION
THRU PANEL A-A



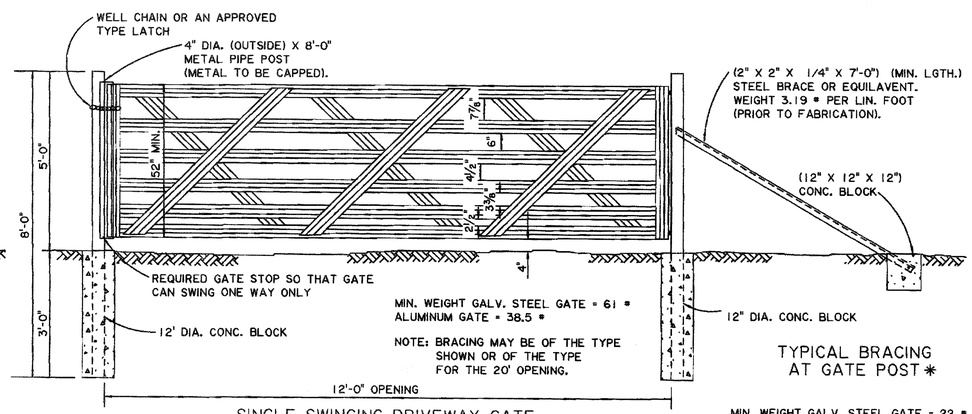
NOTE:
BARBED WIRE TO BE FASTENED AT EVERY POST.



SHOWING BRACE IN STRAIGHT LINE OF FENCE



DOUBLE SWINGING DRIVEWAY GATE
(ALUMINUM OR GALVANIZED STEEL)
(SUGGESTED TYPE)

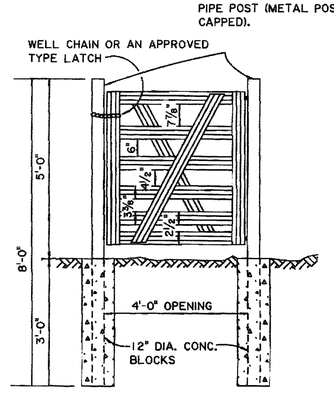


SINGLE SWINGING DRIVEWAY GATE
(ALUMINUM OR GALVANIZED STEEL)

TYPICAL BRACING
AT GATE POST *

MIN. WEIGHT GALV. STEEL GATE = 22 *
ALUMINUM GATE = 15 *

4" DIA. (OUTSIDE) 8'-0" METAL PIPE POST (METAL POST TO BE CAPPED).



SINGLE SWINGING WALKGATE
(ALUMINUM OR GALVANIZED STEEL)
(SUGGESTED TYPE)

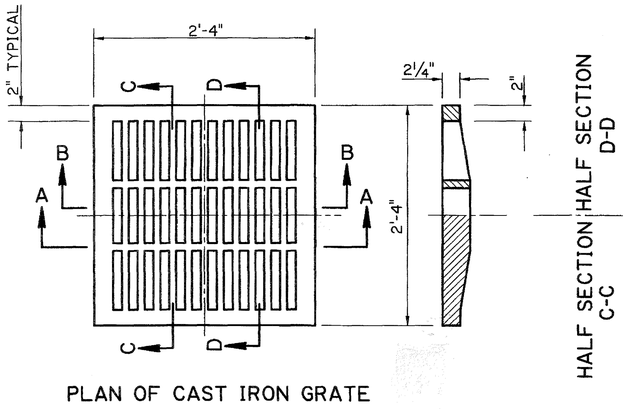
FN02-2.DGN

SHEET NUMBER 318
PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232
DESIGNED: ROAD DESIGN
CHECKED: CW
DETAILED: ROAD DESIGN
CHECKED: CW
DATE: 01-24-11
SHEET: 2 OF 2
BY
REVISION DESCRIPTION
DATE: 11-3-11
APPROVED BY CHIEF ENGINEER:
DATE

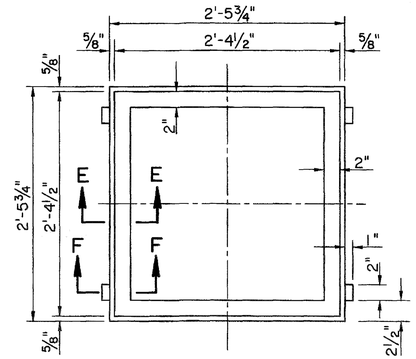
FIELD AND LINE TYPE FENCE
(STEEL POST)

ROAD DESIGN STANDARD PLAN: FN-02

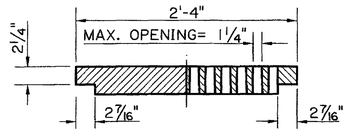
ROAD DESIGN



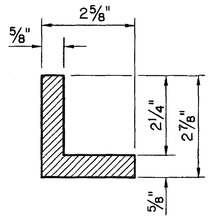
PLAN OF CAST IRON GRATE



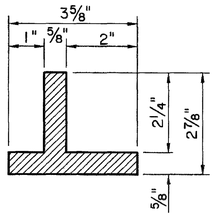
PLAN OF CAST IRON FRAME



HALF SECTION A-A | HALF SECTION B-B



SECTION E-E

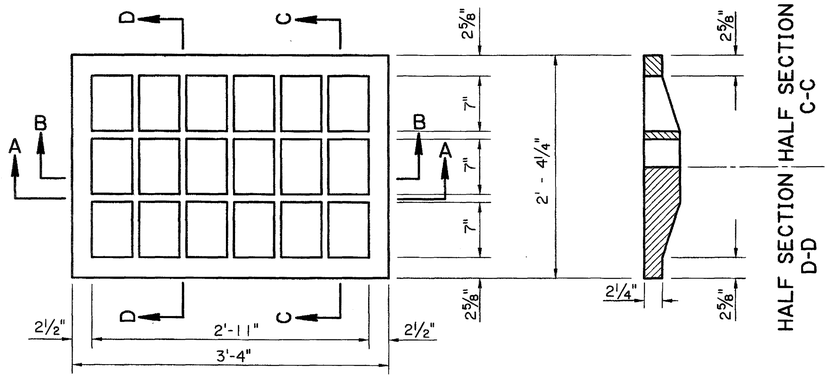


SECTION F-F

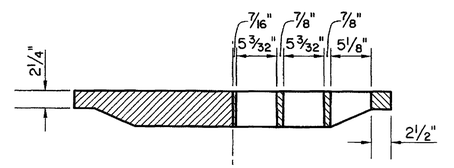
TYPE "A"

CAST IRON GRATE & FRAME

MIN. OPENING = 290 SQ. IN. AREA



PLAN OF CAST IRON GRATE



HALF SECTION A-A | HALF SECTION B-B

TYPE "B"

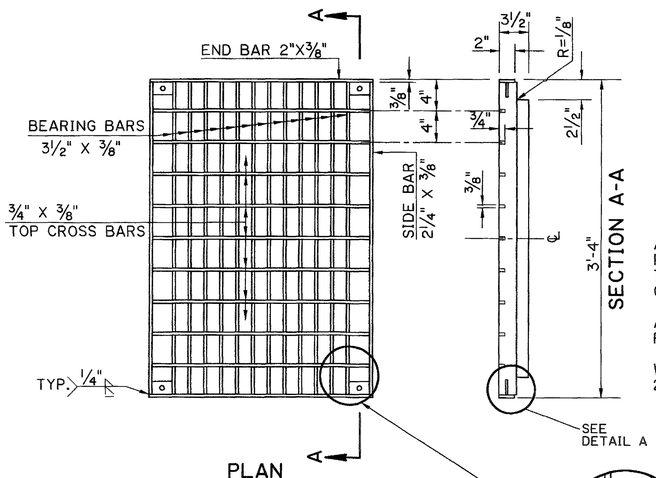
CAST IRON GRATE

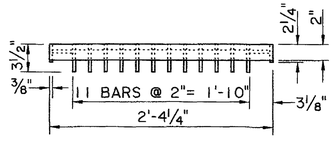
NOTE: UNLESS OTHERWISE STATED, TYPE "E" FRAME WILL BE USED WITH THIS GRATE.

TYPE "C"

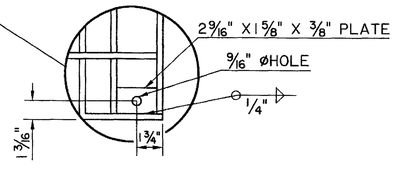
STEEL DRAIN GRATE

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.





ELEVATION



HOLD-DOWN PLATE

WELDED & SEALED DRAIN GRATE

ALL JOINTS FULL DEPTH ¼" FILLET WELDS WITH SEAL WELDS TOP AND BOTTOM UNLESS NOTED OTHERWISE.

ALL BEARING BARS TO BE SET FLUSH ON GRATE FRAME.

WEIGHT OF DRAIN GRATE = 233 LBS. ± 5%

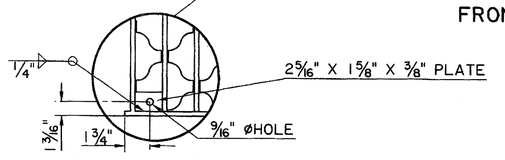
RIVETED RETICULINE DRAIN GRATE (ALTERNATE)

ALL JOINTS FULL DEPTH ¼" FILLET WELDS WITH SEAL WELDS TOP AND BOTTOM UNLESS NOTED OTHERWISE.

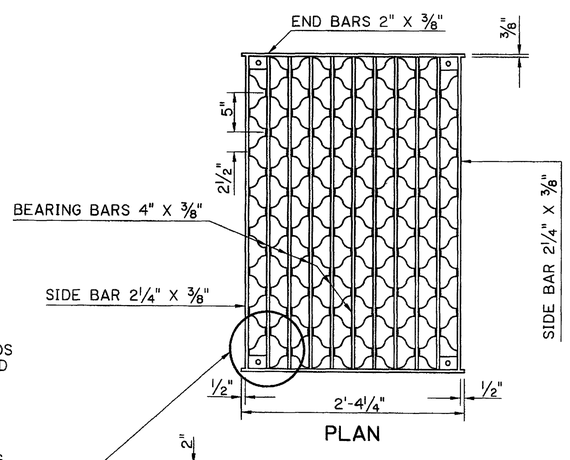
ALL BEARING BARS TO BE SET FLUSH ON GRATE FRAME.

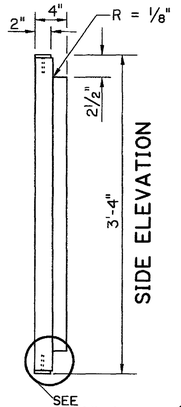
CENTER TO CENTER OF BEARING BARS EQUAL 2 5/16" PLUS BEARING BAR THICKNESS.

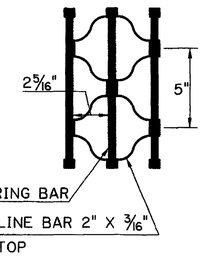
WEIGHT OF DRAIN GRATE = 266 LBS. ± 5%



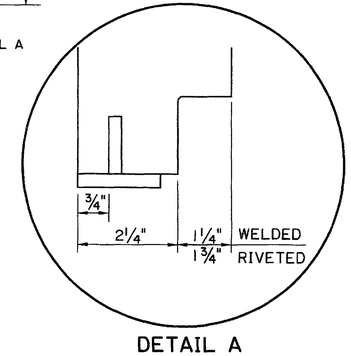
HOLD-DOWN PLATE







DRAIN GRATE DETAIL (ALTERNATE)



DETAIL A

STATE OF LOUISIANA
ALDEN M. ALLEN
REG. No. 20252
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
5-25-2018

SHEET NUMBER	319
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232
DESIGNED	AMA
CHECKED	AMA
DETAILED	TL
CHECKED	AMA
SERIES NUMBER	9/01/17
	1 OF 6

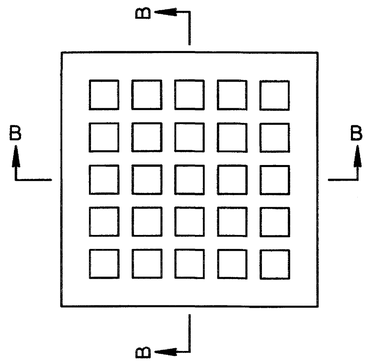
REVISION DESCRIPTION | BY | DATE: 5/25/18

APPROVED BY CHIEF ENGINEER

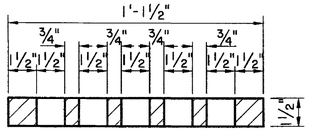
DETAILS OF GRATES, GRATE FRAMES AND COVERS FOR CATCH BASINS AND MANHOLES

STANDARD DWG. NO. MC-01

DOTD HYDRAULICS SECT.



PLAN

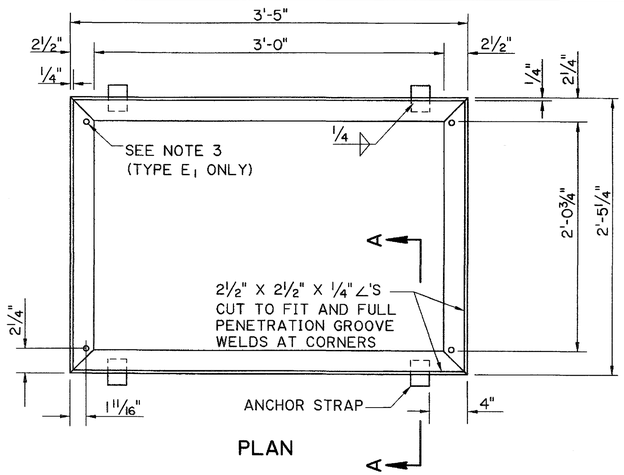


SECTION B-B

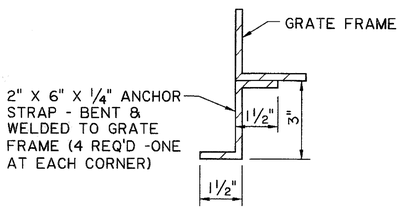
TYPE "D"

CAST IRON GRATE

WEIGHT OF CASTING = 49 LBS



PLAN

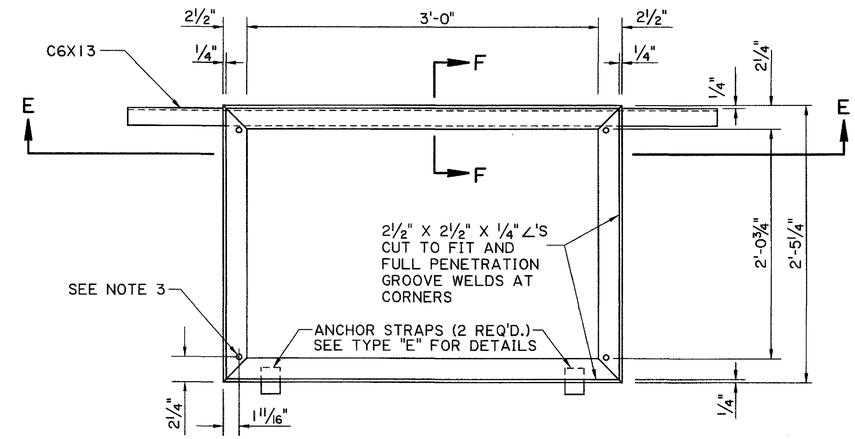


SECTION A-A

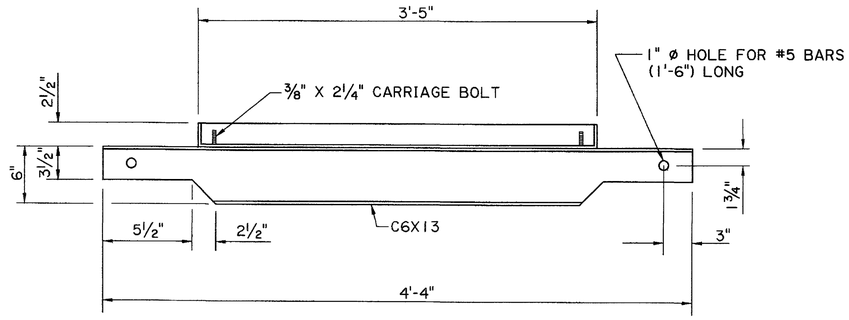
TYPE "E" AND "E₁"

STEEL GRATE FRAME

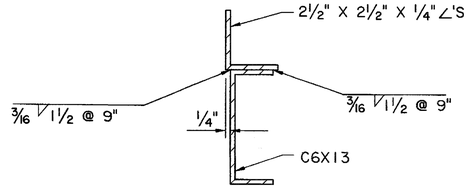
NOTES:
1. GRATE FRAME TO BE GALVANIZED AFTER FABRICATION
2. WEIGHT OF GRATE FRAME = 52 LBS
3. SQUARE PUNCH HOLE PRIOR TO GALVANIZING. ADD A ⅜ ø x 2¼" LONG -16 UNC ROUND HEAD SQUARE NECK CARRIAGE BOLT WITH JAM NUT, HEX HEAD NUT, AND FLAT WASHER (ALL STAINLESS STEEL) AFTER FRAME IS GALVANIZED.



PLAN



SECTION E-E



SECTION F-F

TYPE "F"

STEEL GRATE FRAME

NOTES:
1. GRATE FRAME TO BE GALVANIZED AFTER FABRICATION
2. WEIGHT OF GRATE FRAME = 52 LBS ± 5%
3. SQUARE PUNCH HOLE PRIOR TO GALVANIZING. ADD A ⅜ ø x 2¼" LONG -16 UNC ROUND HEAD SQUARE NECK CARRIAGE BOLT WITH JAM NUT, HEX HEAD NUT, AND FLAT WASHER (ALL STAINLESS STEEL) AFTER FRAME IS GALVANIZED.

STATE OF LOUISIANA
ALDEN M. ALLEN
REG. No. 20252
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
5-25-2018

SHEET NUMBER 320

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED	CHECKED	DETAILED	CHECKED	SERIES NUMBER
AMA	AMA	TL	AMA	9/01/17 2 OF 6

REVISION DESCRIPTION — BY — DATE: 5/25/18

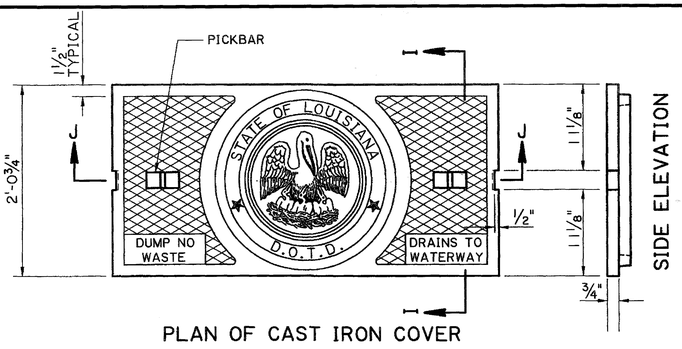
APPROVED BY: _____ DATE _____
CHIEF ENGINEER

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

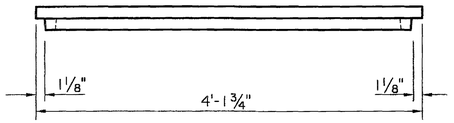
DETAILS OF GRATES, GRATE FRAMES AND COVERS FOR CATCH BASINS AND MANHOLES

STANDARD PLAN MC-01

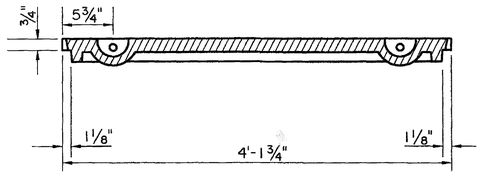
DOTD HYDRAULICS SECT.



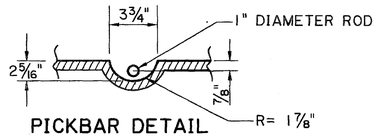
PLAN OF CAST IRON COVER



FRONT ELEVATION OF CAST IRON COVER



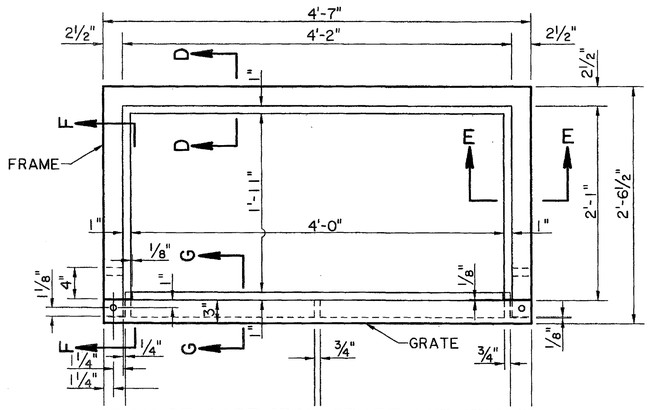
SECTION J-J



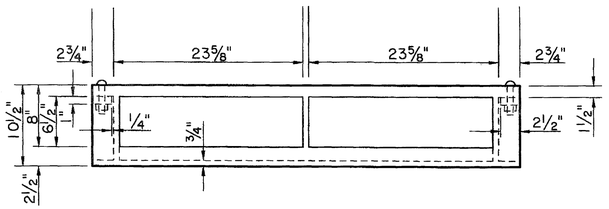
PICKBAR DETAIL

TYPE "H" AND "H$_1$"

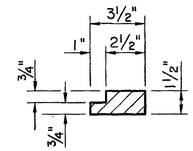
CAST IRON COVER, GRATE AND FRAME



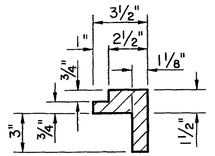
PLAN OF CAST IRON GRATE AND FRAME



FRONT ELEVATION OF CAST IRON GRATE

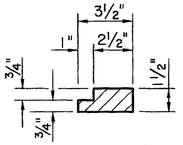


FOR CATCH BASIN "H"

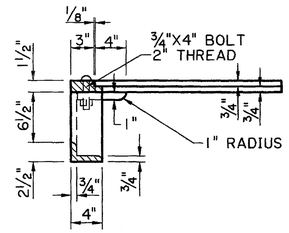


FOR PAVED GUTTER "H$_1$"

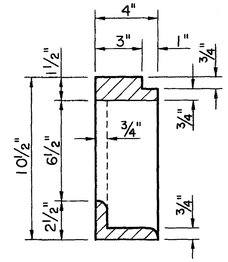
SECTION D-D



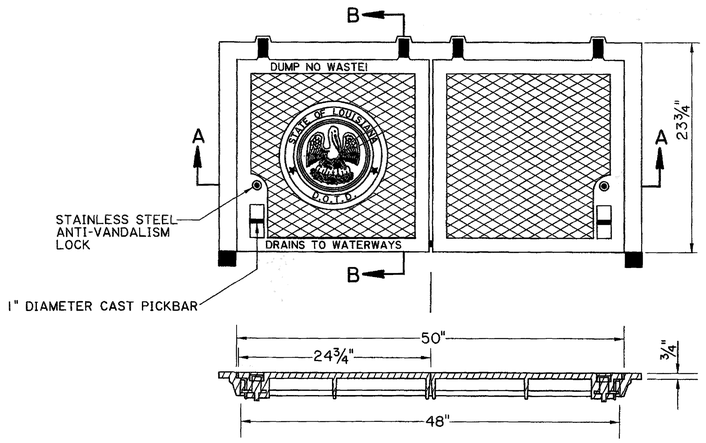
SECTION E-E



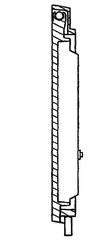
SECTION F-F



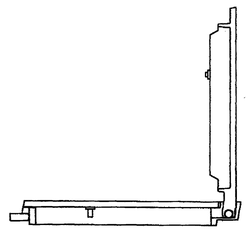
SECTION G-G



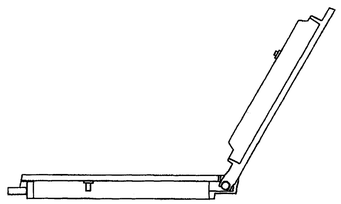
SECTION A-A



SECTION B-B



COVER AT 90 DEGREES
SAFETY STOP POSITION



COVER FULLY OPEN
TO 120 DEGREES

TYPE "H$_S$"

CAST IRON COVER AND FRAME SHOWN (SEE GRATE ABOVE)

STATE OF LOUISIANA
ALDEN M. ALLEN
REG. No. 29252
PROFESSIONAL ENGINEER
5-25-2018

SHEET NUMBER	321
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232
DESIGNED	AMA
CHECKED	AMA
DETAILED	TL
CHECKED	AMA
SERIES NUMBER	9/01/17
	3 OF 6

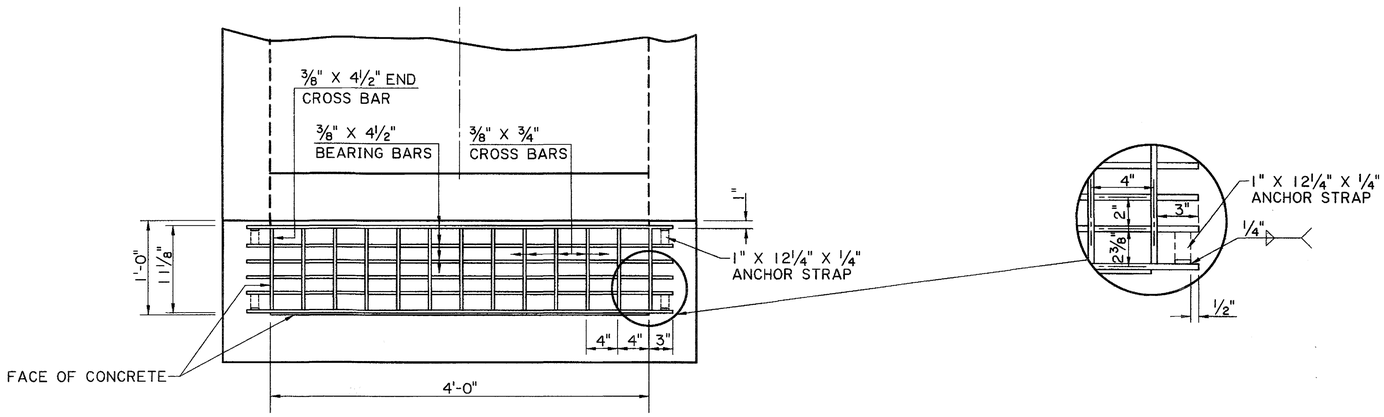
REVISION DESCRIPTION | BY | DATE: 5/25/18

APPROVED BY CHIEF ENGINEER: [signature]

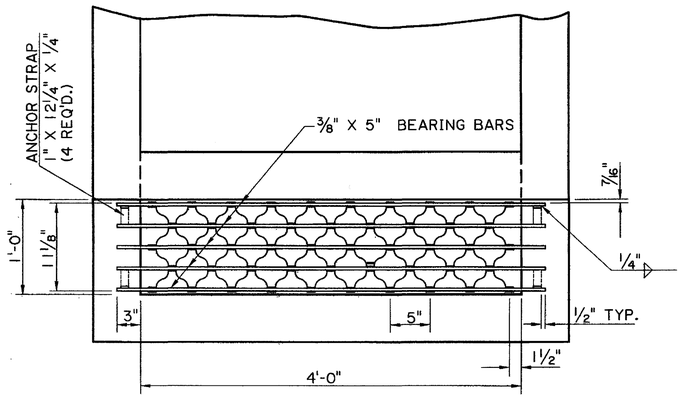
DETAILS OF GRATES, GRATE FRAMES AND COVERS FOR CATCH BASINS AND MANHOLES

STANDARD PLAN | MC-01

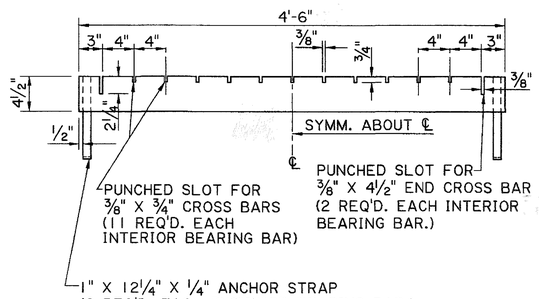
DOTD | HYDRAULICS SECT.



PLAN



PLAN

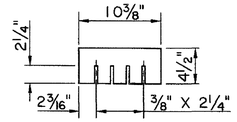


ELEVATION

WELDED & SEALED DRAIN GRATE

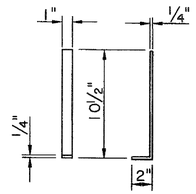
ALL JOINTS FULL DEPTH 1/4" FILLET WELDS WITH SEAL WELD TOP AND BOTTOM UNLESS NOTED OTHERWISE.

WEIGHT OF DRAIN GRATE = 185 LBS. ± 5%

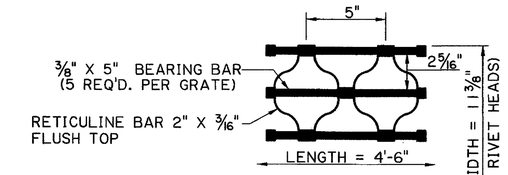


PUNCHED SLOTS @ 2" CTRS.

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



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



DRAIN GRATE DETAIL
(ALTERNATE)

RIVETED RETICULINE DRAIN GRATE (ALTERNATE)

CENTER TO CENTER OF BEARING BARS EQUAL 2 11/16".

WEIGHT OF DRAIN GRATE = 176 LBS. ± 5%

TYPE " I "

STEEL DRAIN GRATE

GRATE TO BE GALVANIZED AFTER FABRICATION.

STATE OF LOUISIANA
ALDEN M. ALLEN
REG. No. 20252
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
5-25-2018

SHEET NUMBER 322

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED	AMA
CHECKED	AMA
DETAILED	TL
CHECKED	AMA
SERIES NUMBER	9/01/17 4 OF 6

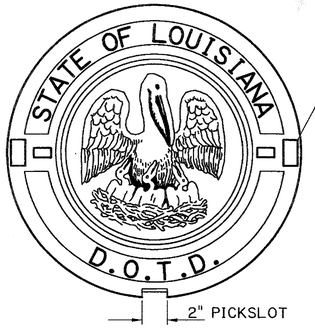
REVISION DESCRIPTION | BY | DATE: 5/25/18

DATE | APPROVED BY CHIEF ENGINEER:

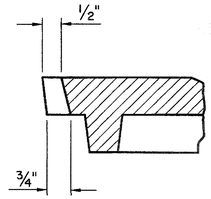
DOTD HYDRAULICS SECT.

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

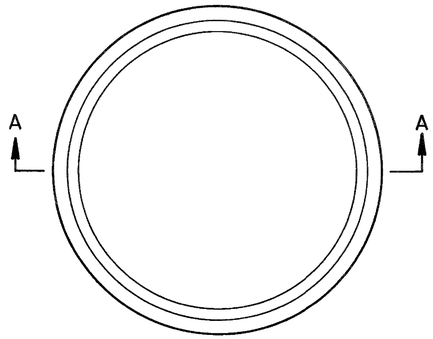
STANDARD PLAN MC-01



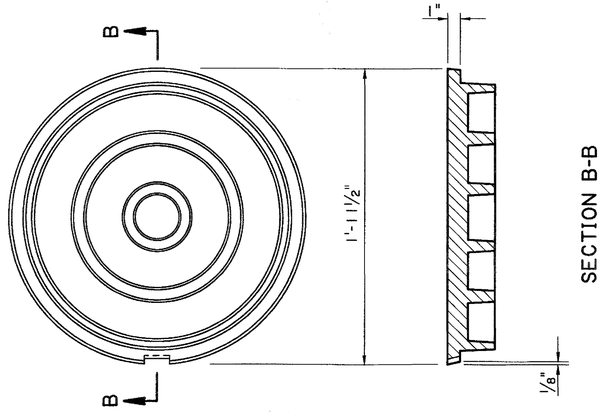
PLAN OF CAST IRON COVER



PICKSLOT DETAIL

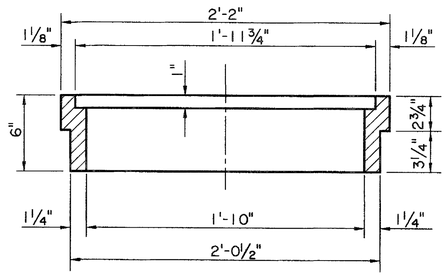


PLAN OF CAST IRON FRAME



BOTTOM OF CAST IRON COVER

SECTION B-B

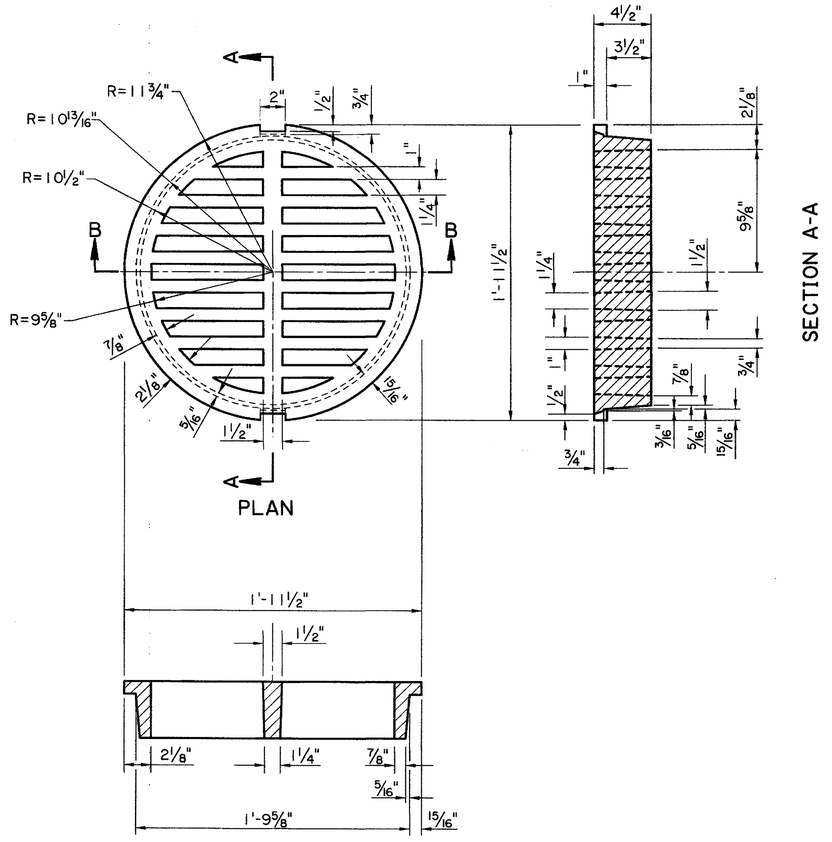


SECTION A-A

TYPE "K"

CAST IRON COVER & FRAME

PICKBAR DETAIL LEFT TO FABRICATOR

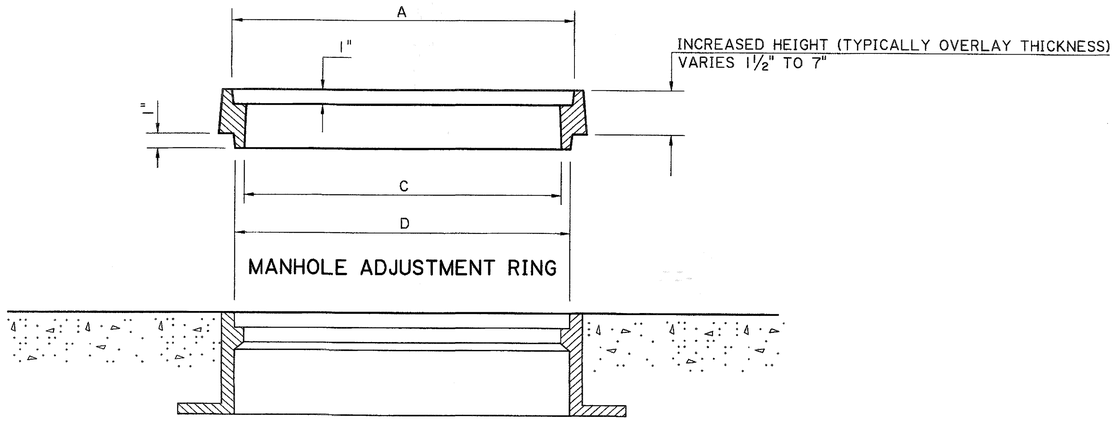


SECTION A-A

TYPE "K1"

CAST IRON GRATE

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



EXISTING GRATE SEAT

MANHOLE ADJUSTMENT RINGS		
A (IN.)	C (IN.)	D (IN.)
23½	22¼	23½
23¾	22½	23¾

MANHOLE ADJUSTMENT RING

CAST IRON OR STEEL

STATE OF LOUISIANA
ALDEN M. ALLEN
REG. No. 20252
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
5-25-2018

SHEET NUMBER	323
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232
DESIGNED	AMA
CHECKED	AMA
DETAILED	TL
CHECKED	AMA
SERIES NUMBER	9/01/17
	5 OF 6

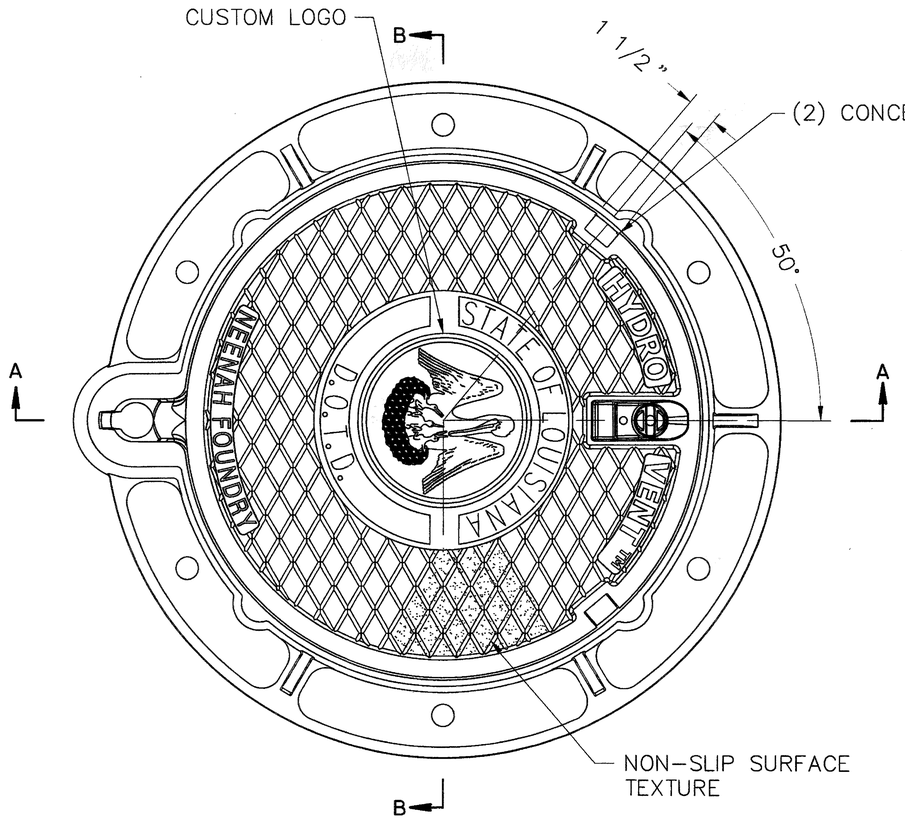
REVISION DESCRIPTION | BY | DATE: 5/25/18

DATE | APPROVED BY CHIEF ENGINEER:

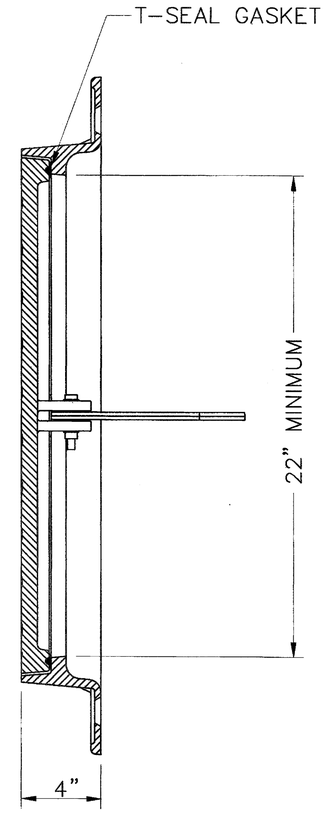
DETAILS OF GRATES, GRATE FRAMES AND COVERS FOR CATCH BASINS AND MANHOLES

STANDARD PLAN MC-01

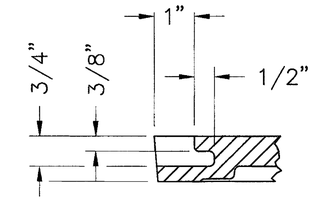
DOTD HYDRAULICS SECT.



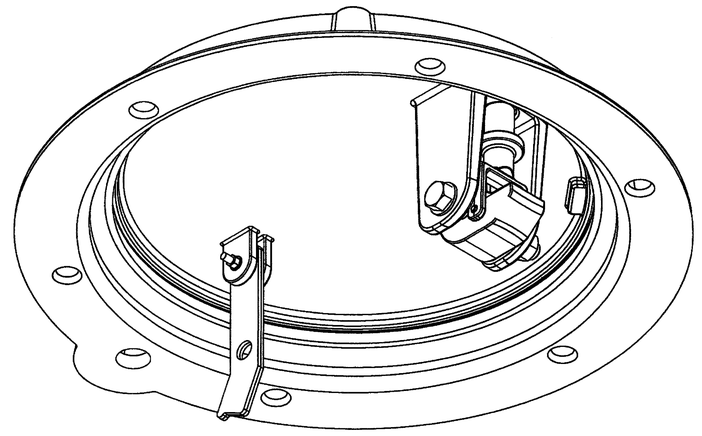
PLAN OF CAST IRON COVER



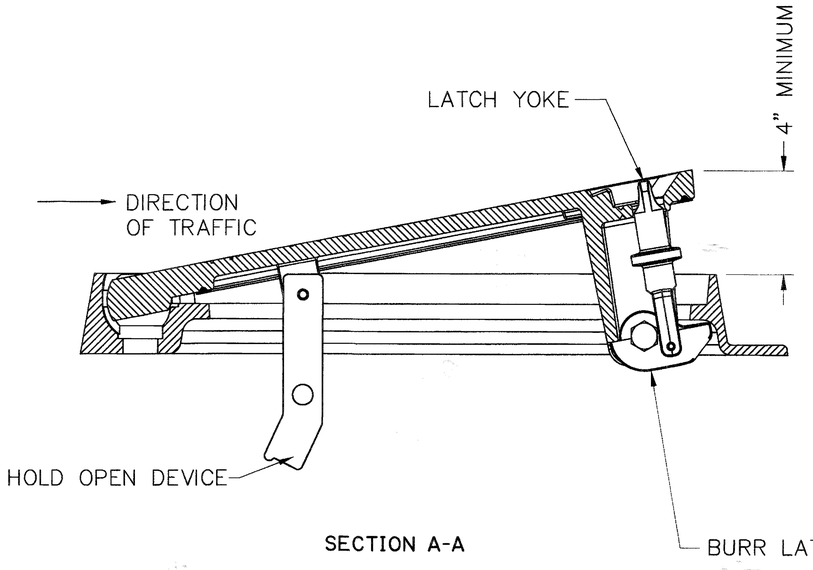
SECTION B-B



CONCEALED PICKHOLE DETAIL



ISOMETRIC BOTTOM VIEW



SECTION A-A

VENTING MANHOLE

CAST IRON COVER AND FRAME

NEENAH FOUNDRY 1650-HV SHOWN
EJ STORMSURGE 24 APPROVED BUT NOT SHOWN

STATE OF LOUISIANA
ALDEN M. ALLEN
REG. No. 20252
REGISTERED PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
5-25-2018

SHEET NUMBER	324
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232
DESIGNED	AMA
CHECKED	AMA
DETAILED	TL
CHECKED	AMA
SERIES NUMBER	12/01/17 6 OF 6

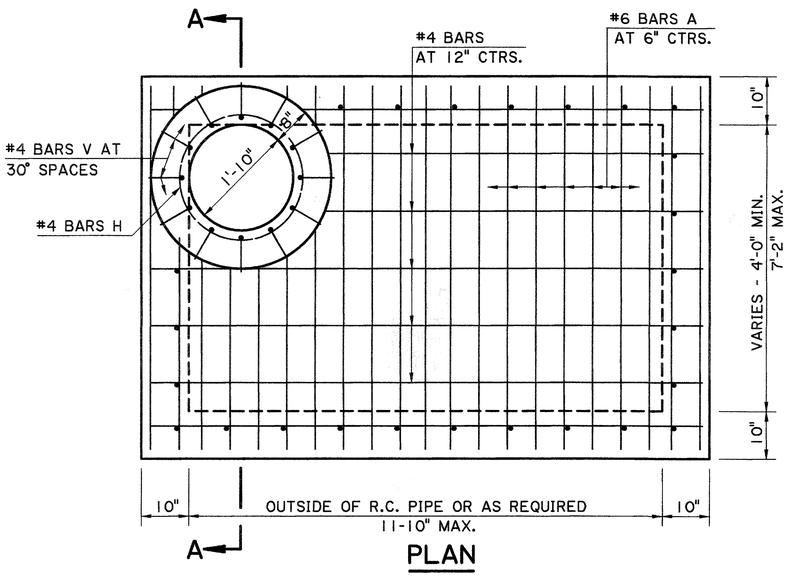
REVISION DESCRIPTION — BY — DATE: 5/25/18

APPROVED BY CHIEF ENGINEER: [signature] DATE

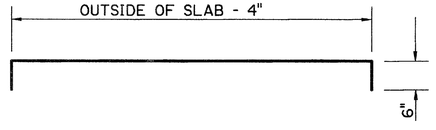
DETAILS OF GRATES, GRATE FRAMES AND COVERS FOR CATCH BASINS AND MANHOLES

STANDARD SHEET NO. MC-01

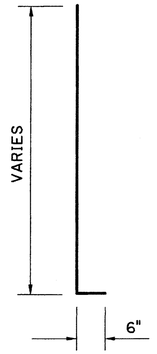
DOTD HYDRAULICS SECT.



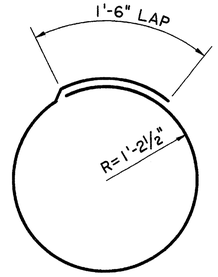
PLAN



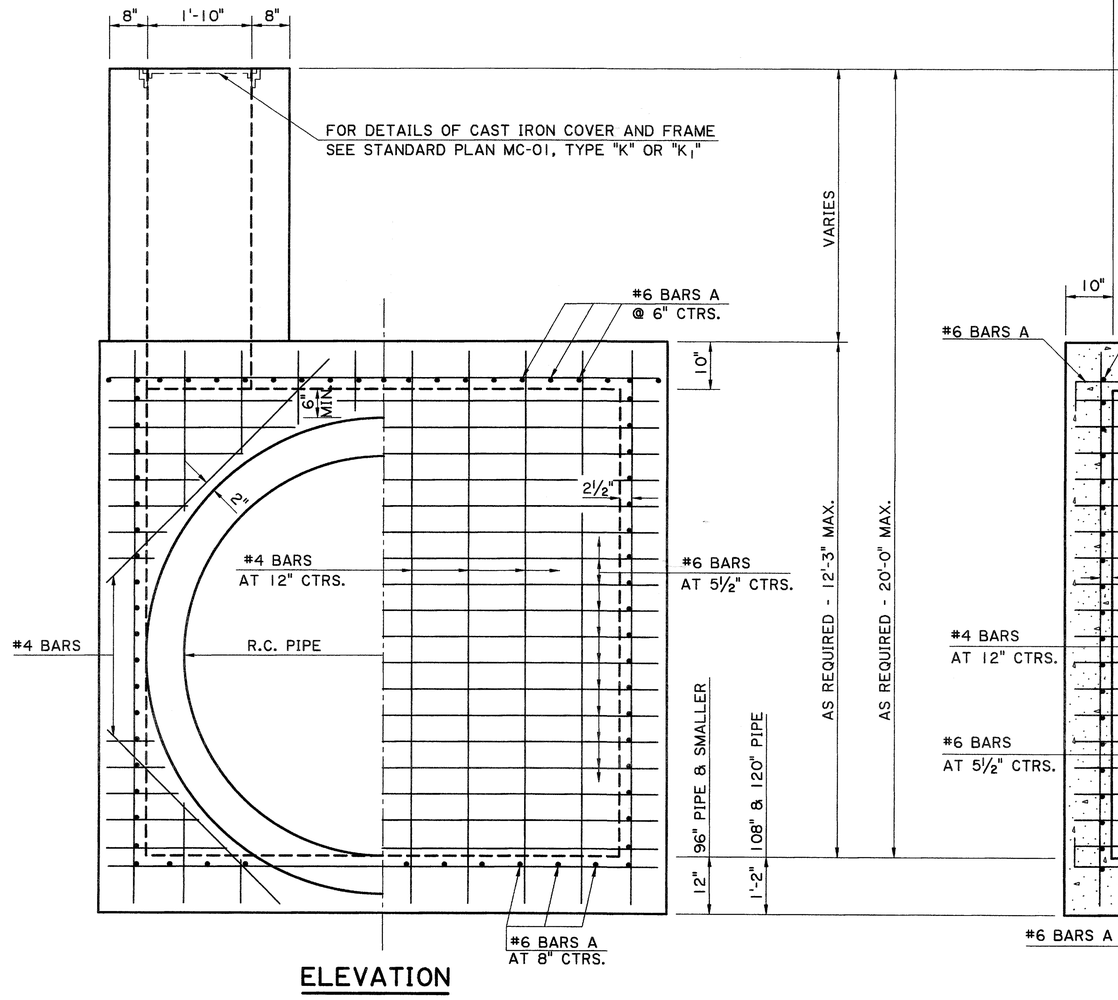
#6 BARS A



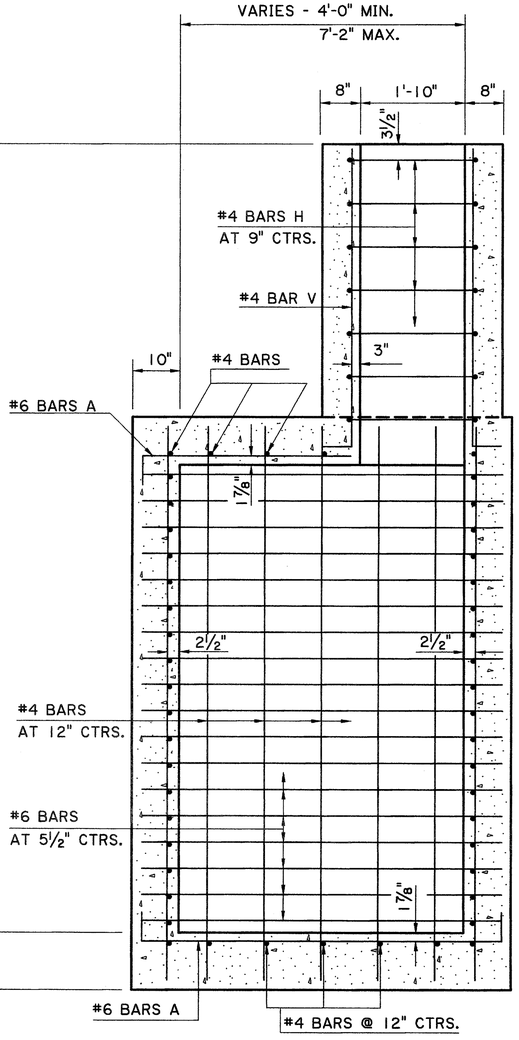
#4 BARS V



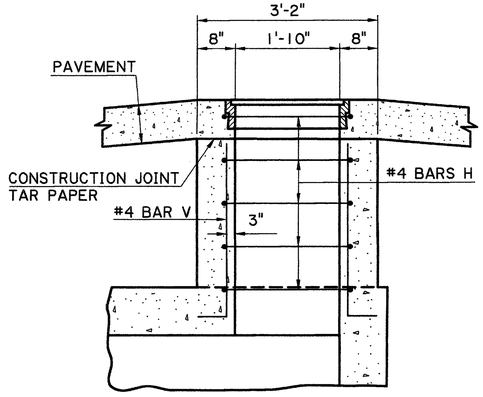
#4 BARS H



ELEVATION



SECTION A-A



DETAIL A

(MANHOLE IN PAVEMENT AREA)

GENERAL NOTES:

1. MANHOLE IS DESIGNED ACCORDING TO 4TH ED. 2007 AASHTO LRFD PROCEDURES. SECTION 702 OF THE DOTD STANDARD SPECIFICATIONS SHALL APPLY.
2. CONCRETE: ALL CONCRETE SHALL BE CLASS "M" MINOR STRUCTURE. ALL EXPOSED EDGES SHALL BE CHAMFERED ¾ IN. EXCEPT AS NOTED.
3. REINFORCING STEEL: REINFORCING STEEL SHALL BE GRADE 60. DIMENSIONS ARE TO BAR CENTERS. MINIMUM COVER FOR REINFORCING BARS SHALL BE 2 IN. CLEAR UNLESS SHOWN OTHERWISE.
4. SEE "DETAIL A" FOR DETAILS OF MANHOLE IN A PAVEMENT AREA.
5. THE CONTRACTOR WILL NOT POUR ABOVE THE BOTTOM OF THE SLAB UNTIL THE PAVING ADJACENT TO THE MANHOLE HAS BEEN COMPLETED.

REVISION DESCRIPTION	BY	DATE
CORRECTED DRAFTING ERROR OF BARS IN PLAN VIEW	WMR	5-18-11
REVISED TO 2007 AASHTO LRFD PROCEDURES	MH	11-22-10
REDRAFTED, REMOVED MANHOLE STEPS, NEW SHEET	JCM	10-22-08

APPROVED BY CHIEF ENGINEER: Richard J. Savoie DATE: 5-18-11

SHEET NUMBER	325
PARISH	EAST BATON ROUGE
FEDERAL PROJECT	
STATE PROJECT	H.012232
DESIGNED CDJ / CHECKED HJB	
DETAILED CDJ / CHECKED HJB	
DATE SHEET	10-12-81 / 1 OF 1

R.C. MANHOLE
MAXIMUM DIMENSIONS: 11'-10" X 7'-2"
MAXIMUM DEPTH: 20'

STANDARD PLAN MH-06

HYDRAULICS SECTION

GENERAL NOTES:

1) THIS STRUCTURE MEETS ALL DOTD HYDRAULIC PERFORMANCE CRITERIA WHEN USED IN ACCORDANCE WITH THE DOTD HYDRAULICS MANUAL AND ALL DOTD HYDRAULIC DESIGN POLICIES.

2) PROVIDE PRECAST UNITS AS THE LOWER PORTION OF A COMPOSITE STRUCTURE. PROVIDE CAST-IN-PLACE CONCRETE FOR THE TOP 1'-6" OF THE STRUCTURE, EXCEPT THAT STRUCTURES NOT EXPOSED TO TRAFFIC LOADS MAY BE COMPLETELY PRECAST.

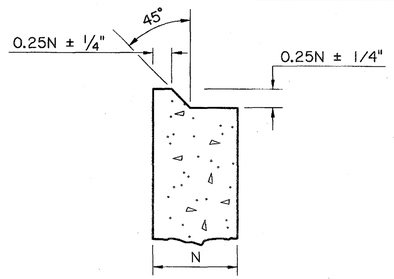
3) DESIGN IS TO BE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, EIGHTH EDITION, 2017, AND THE LATEST LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES.

4) CONFORM TO 1016.06 AND 805 FOR CONCRETE. USE DEFORMED REINFORCING STEEL AND CONFORM TO 806.

5) FINISH CAST-IN-PLACE CONCRETE IN ACCORDANCE WITH OTHER STANDARD PLANS AND 805.

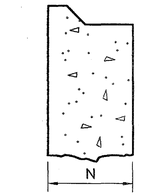
6) FORM PIPE OPENINGS ONLY AS REQUIRED FOR INTERSECTING PIPES. PROVIDE OPENING DIMENSIONS TO ACCOMMODATE PIPE DIAMETER AND SKEW ANGLE. PROVIDE OPENING DIMENSION THAT IS 4±1/2 INCH LARGER THAN OUTSIDE PIPE DIMENSION.

7) RESILIENT CONNECTORS OR CONCRETE COLLARS ARE REQUIRED FOR CONNECTIONS OF ALL PIPE SIZES (EXCEPT YARD DRAIN PIPE AND UNDERDRAINS) WITH COST TO BE INCLUDED IN THE COST OF THE PRECAST STRUCTURE.

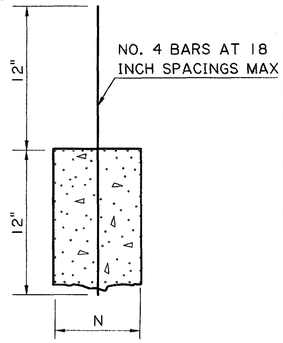


JOINT DETAIL A
PRECAST/PRECAST

1. SEAL JOINTS BETWEEN PRECAST UNITS WITH FLEXIBLE GASKET MATERIAL IN ACCORDANCE WITH 1016.
2. WRAP UNIT AT JOINT WITH A 12-INCH WIDTH OF GEOTEXTILE FABRIC IN ACCORDANCE WITH 1019.

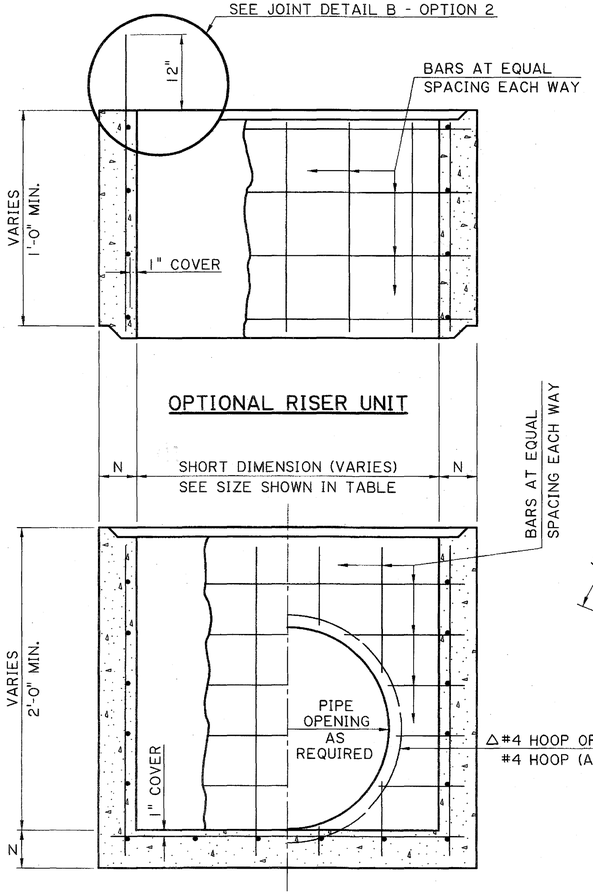


JOINT DETAIL B - OPTION 1
CAST-IN-PLACE/PRECAST

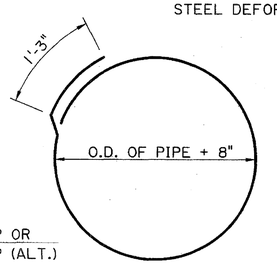


JOINT DETAIL B - OPTION 2
CAST-IN-PLACE/PRECAST

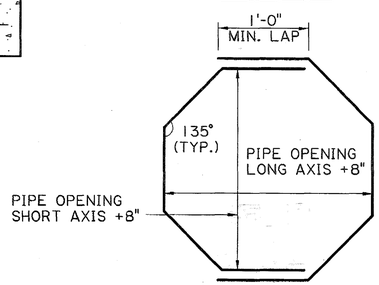
IN OPTIONS 1 AND 2, COAT PRECAST CONCRETE JOINT SURFACE AND A MAXIMUM OF 2 INCHES OF REINFORCING STEEL WITH TYPE V, GRADE 2 OR GRADE 3 RESIN CONFORMING TO 1017. APPLY RESIN AND PLACE CONCRETE IN ACCORDANCE WITH RESIN MANUFACTURER'S RECOMMENDATIONS.



△ #4 HOOP MAY BE USED WHEN PIPE IS CIRCULAR AND CONNECTS TO THE CATCH BASIN AT +/- 90 (DEGREE) ANGLE. #4 HOOP (ALT.) SHALL BE USED FOR NON-CIRCULAR (ELLIPTICAL) PIPES AND ALL PIPES THAT ENTER THE CATCH BASIN AT A SKEWED ANGLE.



△#4 HOOP

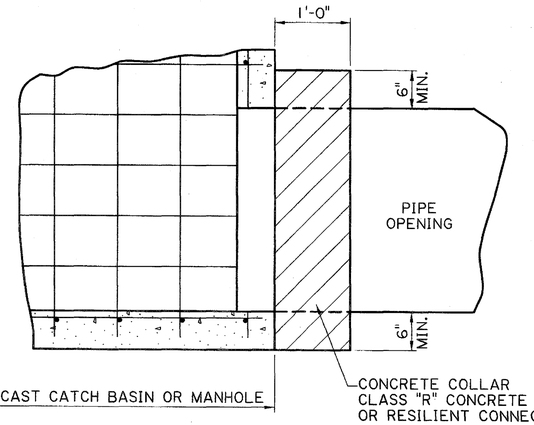


△#4 HOOP (ALT.)

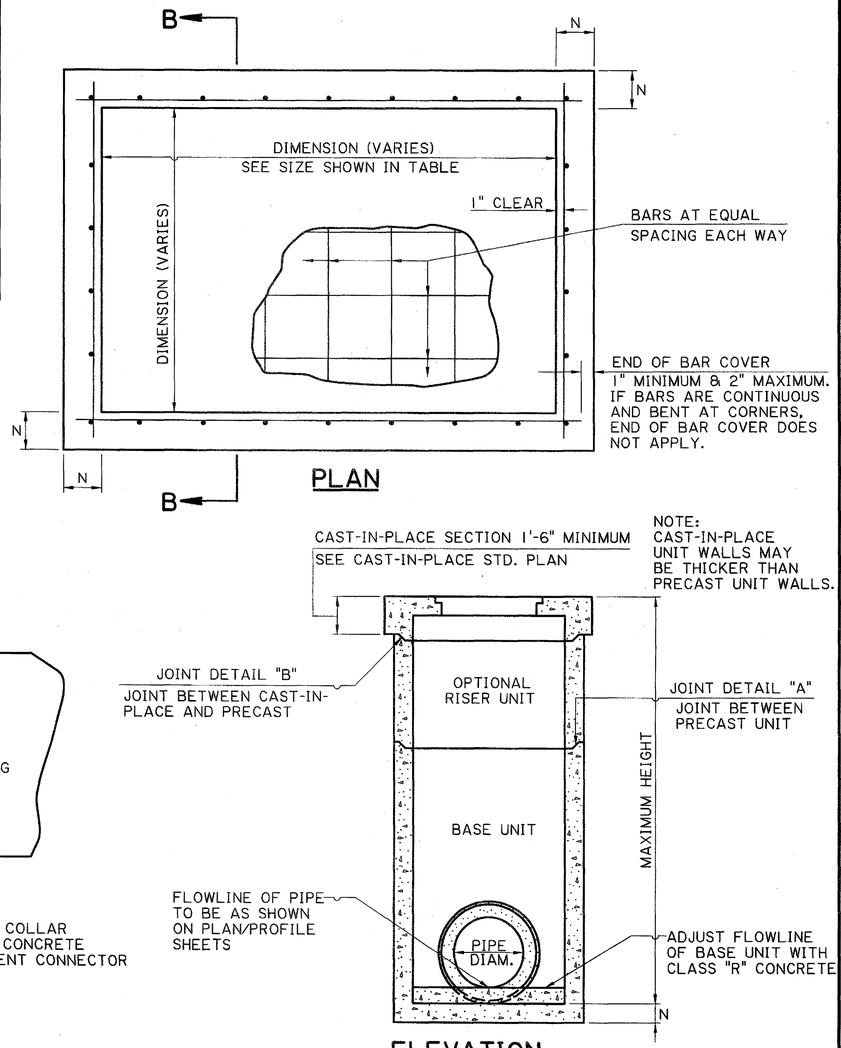
PRECAST UNITS FOR CATCH BASINS & MANHOLES

MAXIMUM HEIGHT	N	4' MAX. DIMENSION			6' MAX. DIMENSION			8' MAX. DIMENSION			10' MAX. DIMENSION		
		⊙TYPICAL SIZES 3'X3', 4'X4'			⊙TYPICAL SIZES 6'X4', 6'X6'			⊙TYPICAL SIZES 8'X4', 8'X6', 8'X8'			⊙TYPICAL SIZES 10'X4', 10'X6', 10'X8', 10'X10'		
FT.	IN.	BAR SIZE	SPAC.* IN.	As⊠ IN²/FT.	BAR SIZE	SPAC.* IN.	As⊠ IN²/FT.	BAR SIZE	SPAC.* IN.	As⊠ IN²/FT.	BAR SIZE	SPAC.* IN.	As⊠ IN²/FT.
8	4	4	6	0.40									
8	6	4	9	0.27	4	8	0.30	4	5.5	0.44	5	5.5	0.68
14	6	4	9	0.27	4	6	0.40	5	5	0.74	5	3.25	1.14
20	6	4	7	0.34	4	4.5	0.53						

⊙ OTHER SIZES ARE ACCEPTABLE AS LONG AS THE DIMENSIONS DO NOT EXCEED THE MAXIMUM DIMENSIONS.
* BAR SPACING APPLIES TO BOTH DIRECTIONS AND AT ALL LOCATIONS.
⊠ BAR SIZES AND SPACING MAY DIFFER FROM VALUES SHOWN, BUT THE AREA OF STEEL (A_s) SHALL BE EQUAL TO OR GREATER THAN VALUE SHOWN, AND BAR SPACING SHALL NOT EXCEED 1.5 TIMES THE WALL THICKNESS. THE AREA OF STEEL (A_s) MAY BE PROVIDED WITH STEEL DEFORMED WELDED WIRE FABRIC.



PIPE CONNECTION DETAIL



SHEET NUMBER 326

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES #

STATE OF LOUISIANA
MITRA HASHEMIEH
REG. No. 28546
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
7/20/2021
HYDRAULICS

STATE OF LOUISIANA
XUYONG WANG
REG. No. 32508
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
7/20/2021
STRUCTURAL

APPROVED BY CHIEF ENGINEER: DATE: 7/26/2021

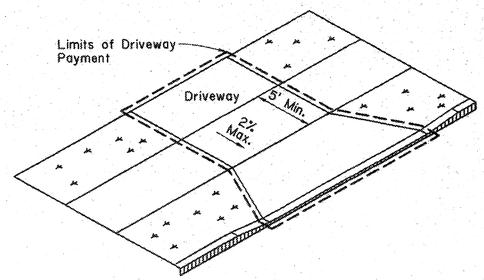
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

PRECAST CATCH BASINS AND MANHOLES

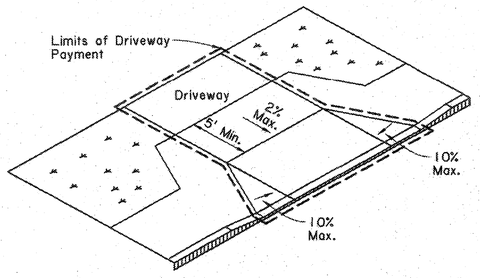
STANDARD PLAN PC-01

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
HYDRAULICS SECTION

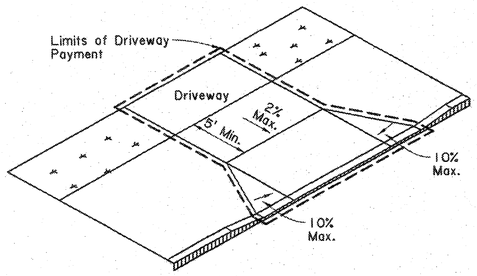
7/14/2022 12:04



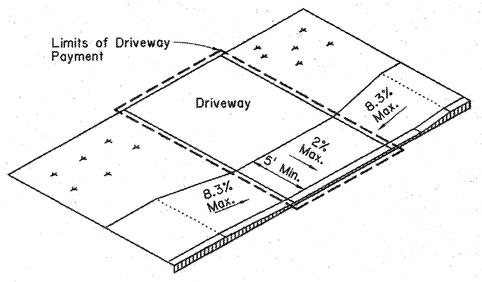
SETBACK SIDEWALK



APRON OFFSET SIDEWALK



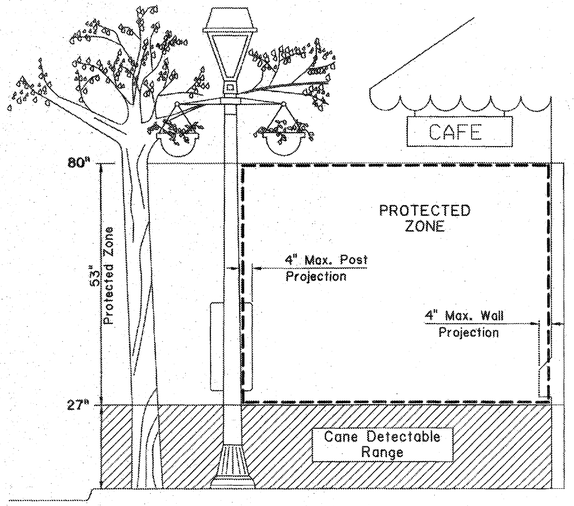
WIDE SIDEWALK



RAMP SIDEWALK

SIDEWALK TREATMENT AT DRIVEWAYS

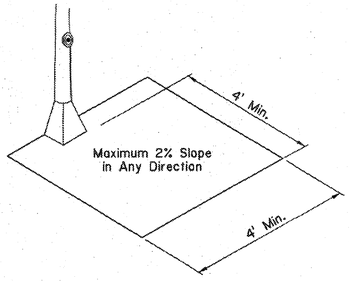
Refer to Driveway Standard Plans for further details.



PROTECTED ZONE

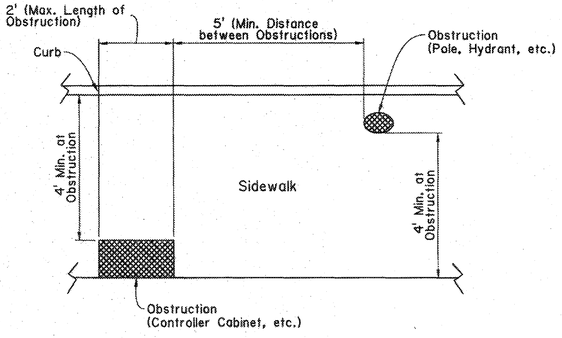
Notes:

1. In pedestrian circulation area, maximum 4" projection for post or wall mounted objects between 27" and 80" above the surface.
2. When an obstruction of a height greater than 27" from the surface would create a protrusion of more than 4" into the pedestrian circulation area, construct additional curb or foundation at the bottom to provide a maximum 4" overhang.
3. Protruding objects of a height less than 27" are detectable by cane and do not require additional treatment.



CLEAR GROUND SPACE ADJACENT TO PEDESTRIAN PUSH BUTTON

Minimum 4' x 4' clear space required at public use fixtures.



PLAN VIEW PLACEMENT OF OBSTRUCTIONS

Items not intended for public use.

PEDESTRIAN FACILITIES GENERAL NOTES

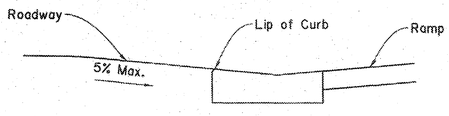
Curb Ramps

1. Maximum allowable cross slope of curb ramp surfaces is 2%; desired cross slope is 1.5%.
2. Theoretical pay areas for curb ramps are as shown on sheet 2, unless otherwise noted in the plans. These areas may be field adjusted as approved by the Project Engineer.
3. Grade breaks at the top and bottom of curb ramps runs shall be perpendicular to the direction of the ramp run.
4. Where curb ramps are located adjacent to a walking surface, a flare must be provided; otherwise a curb may be provided. For an example, refer to curb ramp Type 2 on sheet 2.
5. The landing dimensions are 5'x5' with a maximum 2% slope in any direction. The landing clear width shall be at least as wide as the widest ramp run leading to the landing.
6. Small raised channelization islands, which cannot provide a minimum of 5'x5' landing at the top of ramps, shall be cut through level with the surface of the street.
7. Raised medians should be 6' wide in the direction of pedestrian travel to serve as a pedestrian refuge area. Medians with pedestrian access routes through them shall be designed in accordance with Draft PROWAG.
8. Maneuvering space at the bottom of curb ramps shall be a minimum of 4'x4' completely contained within the crosswalk and completely outside the parallel vehicle travel lane.
9. It is desirable to provide a no-parking zone 50' from crosswalks on each intersection approach or provide a curb extension.
10. Drainage structures should be located on the upstream side of the ramp and located to prevent ponding near the curb ramp. Drainage structures should be placed outside the crosswalk.
11. Slopes of adjoining gutters and roadway surfaces immediately adjacent to the curb ramp shall not exceed 5%. Refer to the Transition from the Curb Ramp to Roadway Detail on sheet 1.
12. Curb ramps should be aligned with the direction of pedestrian travel on the crosswalk or theoretical crosswalk. Refer to sheet 3 for typical crossing layouts and refer to the pavement marking standards for crosswalk markings.
13. Crosswalk markings shall be placed a distance of 24" from the flare on each side of a diagonal curb ramp. Refer to sheet 3 for an example.
14. Curb ramps shall include detectable warning surfaces. Refer to sheet 4 for details of detectable warning surfaces.
15. Where a curb ramp is constructed within existing curb, curb and gutter and/or sidewalk, the existing curb or curb and gutter shall be removed to the nearest joint beyond the curb transition or the extent that no remaining section of curb or curb and gutter is less than 5' long or as directed by the Project Engineer. Existing sidewalks shall be removed to the nearest joint beyond the flare slope or to the extent that no remaining section of sidewalk is less than 5' long or as directed by the Project Engineer.

Sidewalks

1. Where a 5' sidewalk cannot be provided due to site constraints, 5'x5' passing areas at intervals not to exceed 200' are required.
2. Where sidewalks and crosswalks are contained within street or highway right-of-way, the grade of the sidewalk or crosswalk shall not exceed the grade of the adjacent street or highway. Where sidewalks are not contained within a street or highway right-of-way, the grade of the sidewalk shall be 5% maximum.
3. Maximum allowable cross slope of sidewalk surfaces is 2%; desired cross slope is 1.5%.
4. Vertical surface discontinuities along a sidewalk shall be 1/2" maximum. Discontinuities between 1/4" and 1/2" shall be beveled at a 1:2 maximum slope.
5. Where sidewalks intersect with streets, detectable warning surfaces are required. Refer to sheet 4 for details of detectable warning surfaces.
6. Traffic signal or illumination poles, ground boxes, controller boxes, signs, drainage facilities and other items shall be placed so as not to obstruct the accessible route.
7. When a sidewalk crosses a driveway and exceeds the 2% maximum cross slope, the driveway or driveway portion shall be reconstructed to meet the 2% maximum cross slope requirement. Refer to driveway standard plans for driveway details.
8. Handrails are not required on sidewalks within highway right-of-way, unless site specific conditions, such as a vertical drop-off, dictate. Where handrails are provided, they must comply with ADAAG 505.
9. To prevent tracking of gravel onto the sidewalk, gravel driveways should be paved from the roadway edge to a point 10' behind the sidewalk or the right-of-way, whichever is less.

ADA - Americans with Disabilities Act
ADAAG - Americans with Disabilities Act Accessibility Guidelines
Draft PROWAG - Draft Public Rights-of-Way Accessibility Guidelines



TRANSITION FROM CURB RAMP TO ROADWAY

SHEET NUMBER 327

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	MAL	DETAIL	MAL	REVIEW	SERIES # 1 OF 5
CHECK	BPW	CHECK	BPW		

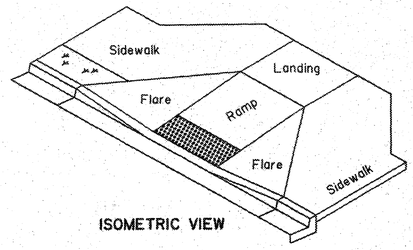
STATE OF LOUISIANA
MELISSA LEBAS
License No. 39111
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
7/14/2022

APPROVED BY CHIEF ENGINEER: DATE: 7/14/2022

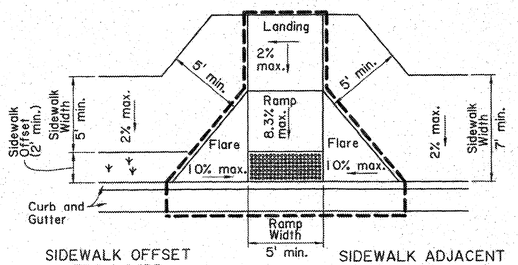
PEDESTRIAN FACILITIES
GENERAL NOTES AND MISC. DETAILS
PED-01

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
STANDARD PLAN

7/14/2022 12:04



ISOMETRIC VIEW



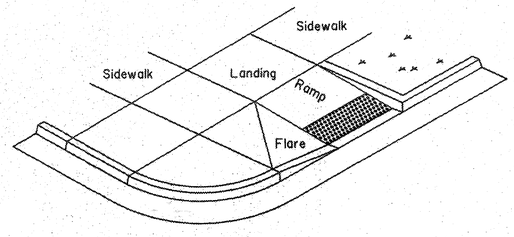
SIDEWALK OFFSET FROM CURB

SIDEWALK ADJACENT TO CURB

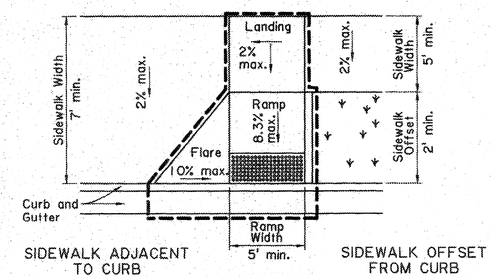
PLAN VIEW

TYPE 1

THEORETICAL PAY AREA = 12.8 SQ. YDS.



ISOMETRIC VIEW



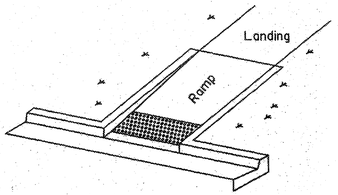
SIDEWALK ADJACENT TO CURB

SIDEWALK OFFSET FROM CURB

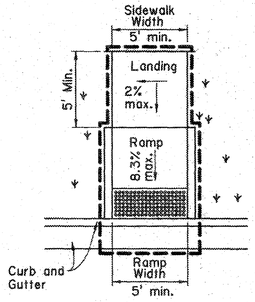
PLAN VIEW

TYPE 2

THEORETICAL PAY AREA = 10.4 SQ. YDS.



ISOMETRIC VIEW



PLAN VIEW

TYPE 3

THEORETICAL PAY AREA = 8.1 SQ. YDS.

PERPENDICULAR CURB RAMPS

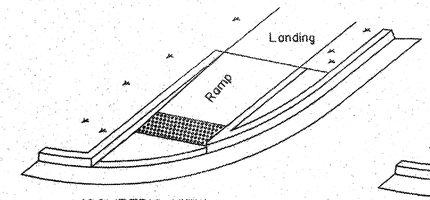
If a level landing of at least 3' cannot be provided, a perpendicular curb ramp should not be used.

LEGEND OF PATTERNS

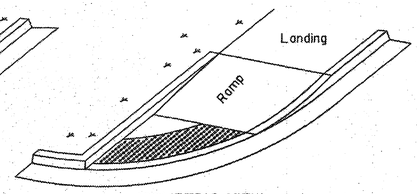
- Denotes Non-Walking Surface Not Part of Pedestrian Path
- Detectable Warning Surface
- Limits of Payment
- Slope

All slopes shown are maximum allowable. The least possible slope that will drain properly should be used.

Curb ramps shall be placed and designed where ponding does not occur at the bottom or on the curb ramp.



ISOMETRIC VIEW



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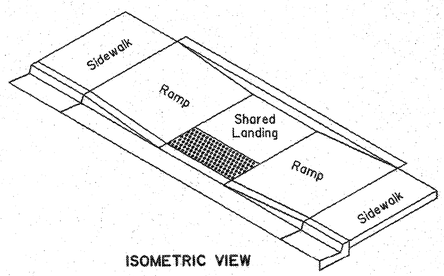

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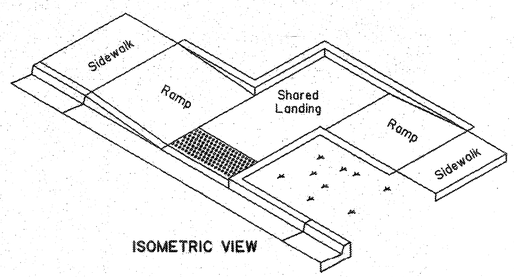

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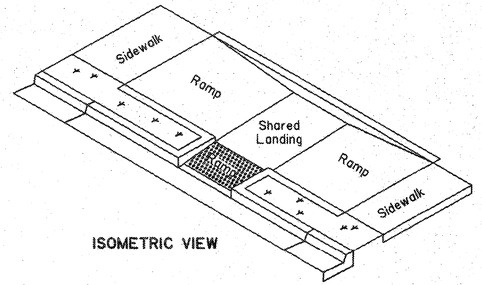

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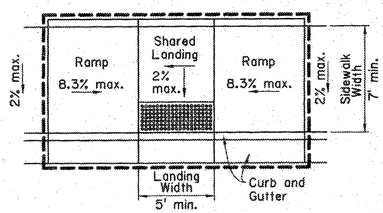
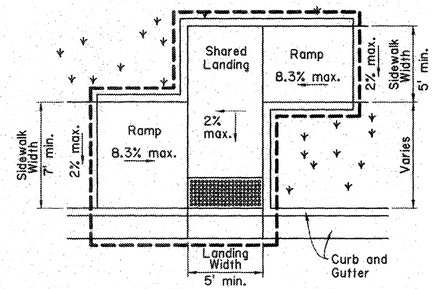


PLAN VIEW

TYPE 4

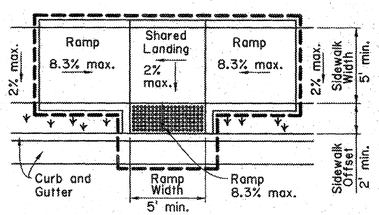
THEORETICAL PAY AREA = 17.9 SQ. YDS.



PLAN VIEW

TYPE 5

THEORETICAL PAY AREA = 19.1 SQ. YDS.



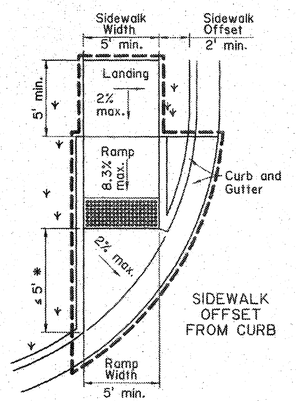
PLAN VIEW

TYPE 6

THEORETICAL PAY AREA = 13.7 SQ. YDS.

PARALLEL CURB RAMPS

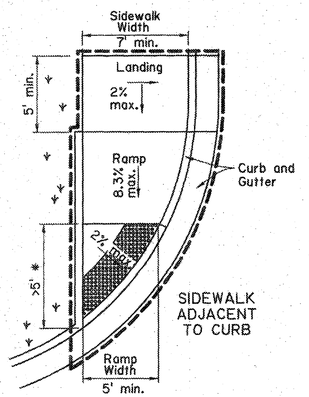
COMBINATION CURB RAMP



PLAN VIEW

TYPE 7

THEORETICAL PAY AREA = 13.3 SQ. YDS.



PLAN VIEW

TYPE 8

THEORETICAL PAY AREA = 15.5 SQ. YDS.

DIRECTIONAL CURB RAMPS

* Where the grade break is less than or equal to 5' from the back of curb, place detectable warning surface as shown in Type 7. Where grade break is greater than 5' from the back of the curb, place detectable warning surface as shown in Type 8.

SHEET NUMBER 328

PARISH: EAST BATON ROUGE | CONTROL SECTION: 000-17, 258-33, 450-10 | STATE PROJECT: H.012232

DESIGN: MAL | CHECK: BPW | DETAIL: MAL | CHECK: BPW | REVIEW: | SERIES # 2 OF 5

STATE OF LOUISIANA
MELISSA LEBAS
License No. 39111
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
Melissa LeBas
7/14/2022

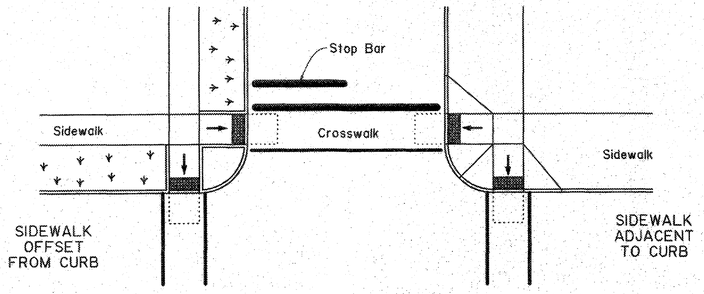
APPROVED BY CHIEF ENGINEER: DATE: 7/21/2022

PEDESTRIAN FACILITIES
CURB RAMPS AND DETECTABLE WARNING LOCATION
PED-01

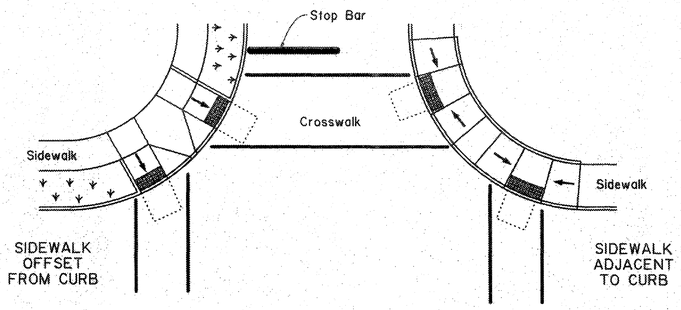
DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

STANDARD PLAN

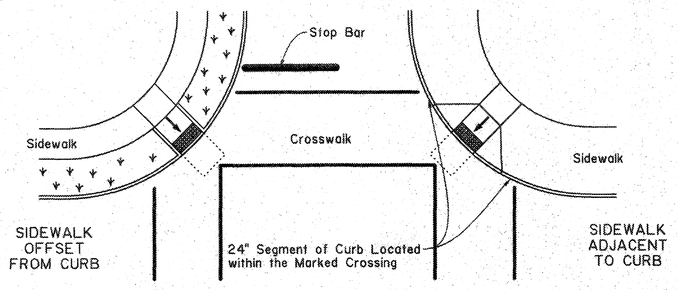
7/14/2022 12:04



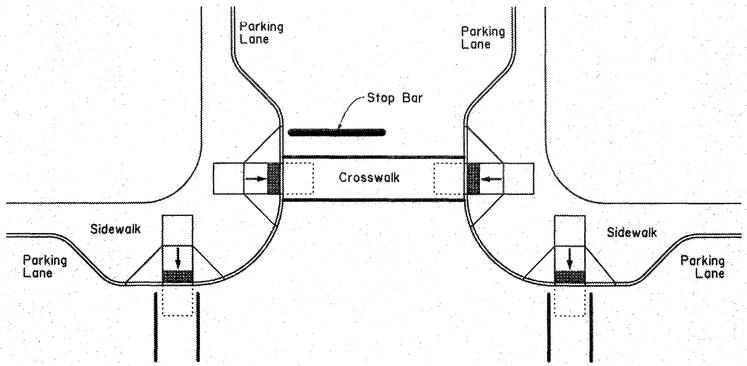
DETAIL A: CURB RAMPS PLACED OUTSIDE THE RADIUS OF A CURVE



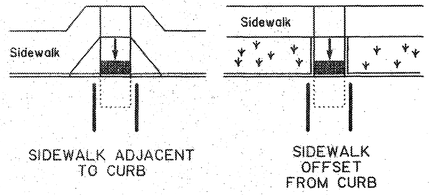
DETAIL B: PAIRED CURB RAMPS PLACED WITHIN THE RADIUS OF A CURVE



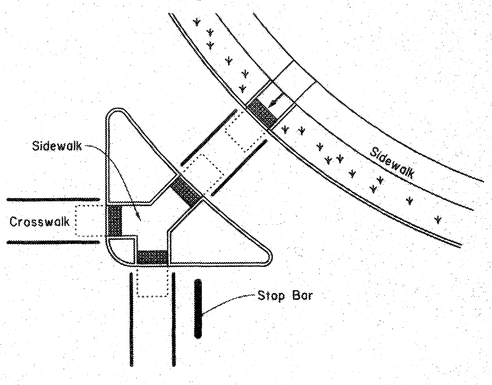
DETAIL C: SINGLE CURB RAMP PLACED ON APEX OF A CURVE (DIAGONAL CURB RAMPS)



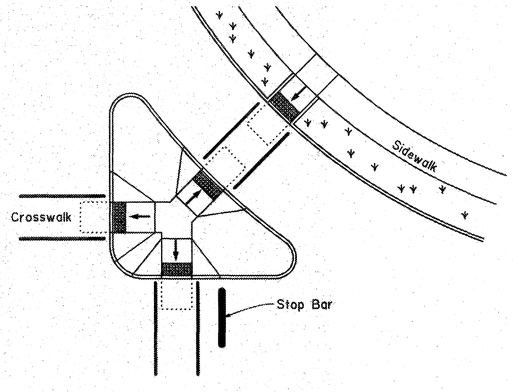
DETAIL D: CURB RAMPS PLACED ON CURB EXTENSION (BULB-OUTS)



DETAIL E: CURB RAMPS PLACED AT MID-BLOCK CROSSING

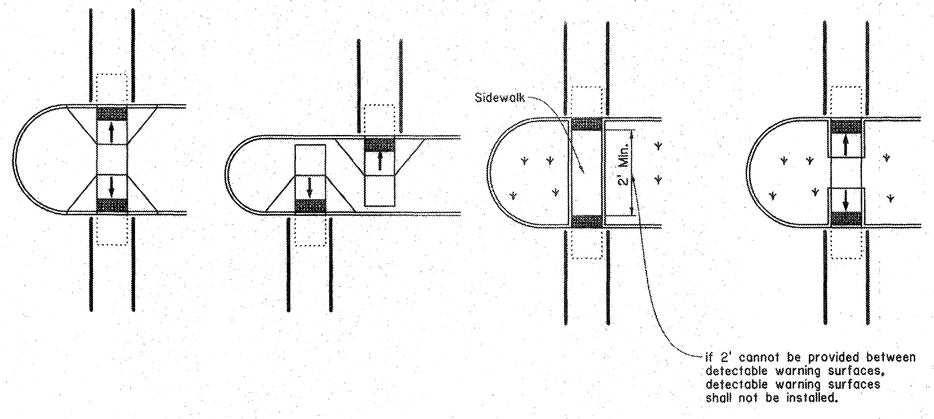


CUT-THROUGH ISLAND



RAISED ISLAND

DETAIL F: SIDEWALKS AND CURB RAMPS AT ISLANDS



DETAIL G: SIDEWALKS AND CURB RAMPS AT MEDIANS

GENERAL NOTES:

1. Curb ramps placed outside the radius of the curve are preferred. Paired curb ramps placed within the radius of a curve are acceptable. Single curb ramps placed on the apex of a curb should not be used unless site constraints, such as the location of drainage structures, require it.
2. Details and dimensions of curb ramps, sidewalks, and detectable warning surfaces are shown elsewhere.
3. Striping (crosswalks and stop bars) are shown for reference only. Refer to the pavement marking standard plans for striping details.

LEGEND

- Denotes non-walking surface not part of pedestrian path
- Detectable Warning Surface
- Maneuvering Space (4'x4' Min.)
- Ramp Surface

SHEET NUMBER 329

PARISH	CONTROL-SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	DETAIL	REVIEW
MAL	MAL	
CHECK	CHECK	SERIES # 3 OF 5
BPW	BPW	

STATE OF LOUISIANA
MELISSA LEBAS
License No. 39111
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
Melissa LeBas
7/14/2022

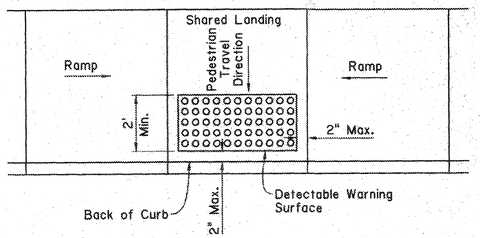
APPROVED BY CHIEF ENGINEER: DATE: 7/21/2022

PEDESTRIAN FACILITIES
TYPICAL CROSSING LAYOUTS
PED-01

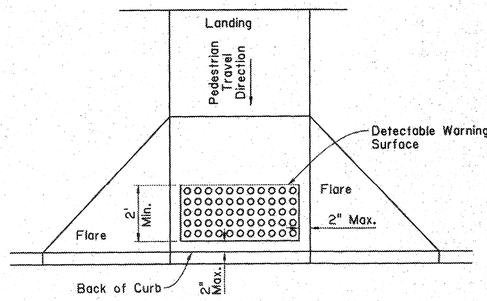
DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

STANDARD PLAN

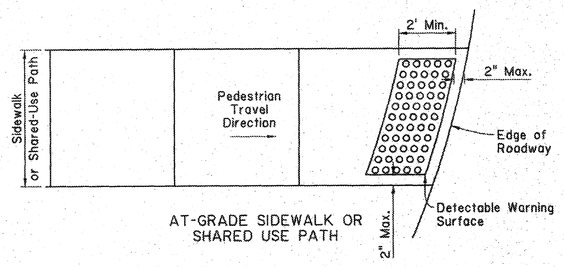
7/14/2022 12:04



PARALLEL CURB RAMP

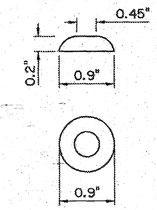


PERPENDICULAR CURB RAMP

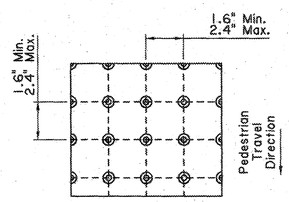


AT-GRADE SIDEWALK OR SHARED USE PATH

TYPICAL PLACEMENT OF DETECTABLE WARNING SURFACE



TRUNCATED DOME



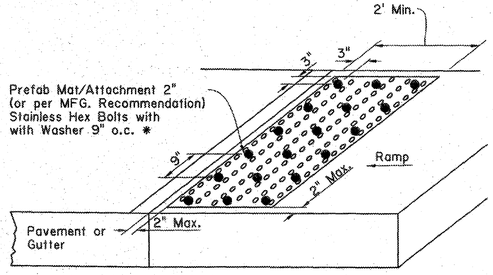
TRUNCATED DOME SPACING

Notes:

Domes shall be arranged in a square in-line pattern or radial pattern

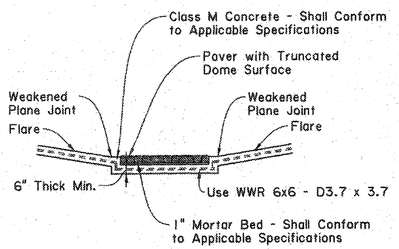
Color Fastness: Paver's composite coloring and ultra-violet stabilization must be homogeneous through the producted.

TRUNCATED DOME DETAILS

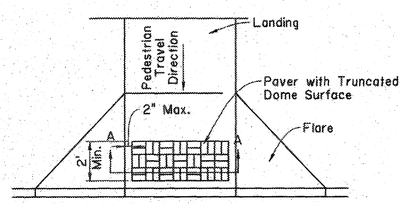


*Note: Retrofit application placed on top of existing ramp with drilled and epoxied bolts. Epoxy full surface area per manufacturer's recommendation.

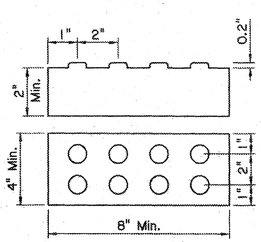
PREFABRICATED MAT OPTION (INLAID)



SECTION A-A



TRUNCATED DOME PATTERN CURB RAMP



PAVER WITH TRUNCATED DOME SURFACE

Notes: Paver units shall meet all requirements of the applicable ASTM Standards. Layout pattern shall be appropriate for size of paver used. 4"x8" pavers shall be laid out in a 2x2 basket weave pattern. 12"x12" pavers shall be laid out in a block pattern.

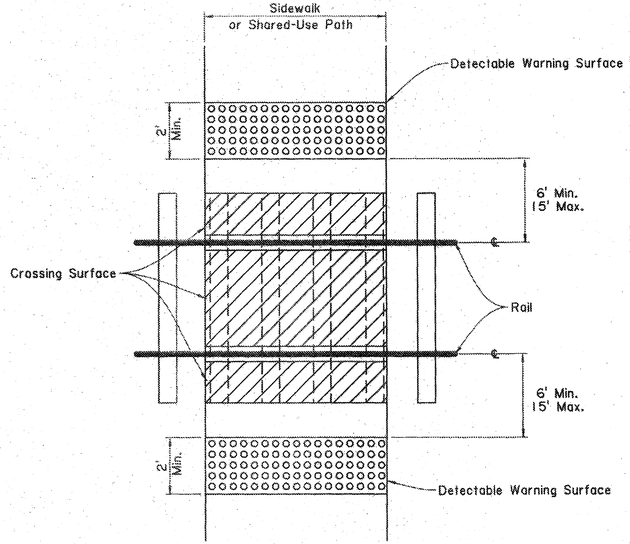
Paver units shall be saw cut only and any cut unit shall not be less than 25% of a full unit.

Installation should meet compliance with Draft PROWAG R302.7.2 (Vertical Surface Discontinuities). Vertical surface discontinuities shall be 1/2" maximum. Discontinuities between 1/4" and 1/2" shall be beveled at a 1:2 maximum slope.

DETECTABLE WARNING SURFACE PAVER OPTION

GENERAL NOTES:

1. For ADA compliance, detectable warning surfaces must be provided on all pedestrian curb ramps, medians and pedestrian refuge islands (width 6' or greater), railroad crossings and at-grade sidewalk and shared-use paths intersecting with roadways.
2. Curb ramps must contain a detectable warning surface that consists of raised truncated domes complying with ADA guidelines. The surface must contast visually with adjoining surfaces, including side flares, in accordance with Section 706 of the Standard Specifications. Color for detectable warning surface shall contrast visually with adjoining surfaces, either light-on-dark or dark-on-light.
3. Detectable warning surfaces must be slip resistant and not allow water to accumulate.
4. Truncated domes should be aligned perpendicular or radial to the grade break between the curb ramp or at-grade sidewalk and the street.
5. Detectable warning surfaces shall be a minimum of 24" in depth in direction of pedestrian travel and extend the full width of the ramp run or landing where the pedestrian access route enters the street. Some detectable warning products may require a concrete border. The concrete border should not exceed 2".
6. Detectable warning surfaces shall be placed at the back of curb or no greater than 5' from the back of curb. Detectable warning surfaces may be curved along the corner radius. Refer to sheet 2 for typical placement of detectable warning surfaces on curb ramp types.
7. Detectable warning surfaces may be stamped, constructed of brick pavers or inlaid prefabricated mats attached by epoxy adhesive and mechanical attachment. Other detectable warning installations may be installed with approval from the Project Engineer, provided that the detectable warning surface meets ADA guidelines. No painted surfaces will be allowed.
8. Any retrofit application of detectable warning surfaces must have beveled edges. The beveled edge shall not exceed a slope greater than 1:2.



PLAN VIEW

LOCATION OF DETECTABLE WARNING SURFACES AT RAILROAD CROSSINGS

Note: Rows of truncated domes should be aligned parallel with the direction of wheelchair travel.

SHEET NUMBER	330
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232
DESIGN	MAL
CHECK	BPW
DETAIL	MAL
CHECK	BPW
REVIEW	
SERIES #	4 OF 5

STATE OF LOUISIANA
MELISSA LEBAS
License No. 39111
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
Melissa LeBas
7/14/2022

APPROVED BY CHIEF ENGINEER: DATE: 7/21/2022

STATE OF LOUISIANA

PEDESTRIAN FACILITIES
DETECTABLE WARNING SURFACES

PED-01

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

STANDARD PLAN

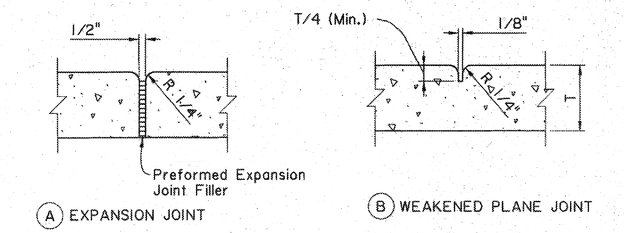
7/14/2022 12:04

GENERAL NOTES:

1. Weakened plane joints are required at all sidewalk ramps or driveways slope break lines.
2. Separate curb ramps and landing from adjacent sidewalk with preformed joint filler of 1/2".

JOINT LEGEND

- (A) 1/2" Expansion Joints (Preformed Joint Filler)
- (B) 1/8" Weakened Plane Joint
- (C) Construction Joint
- (D) Cold Joint with Bond Breaker



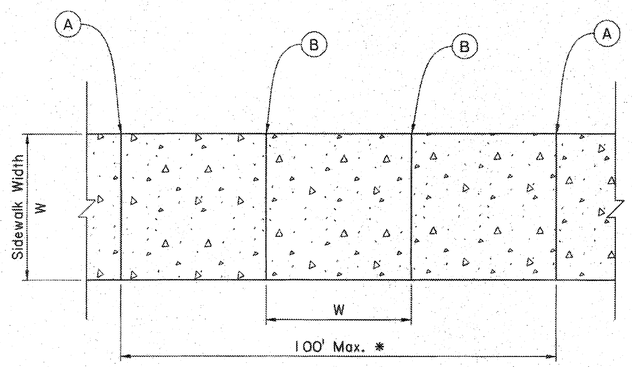
(A) EXPANSION JOINT

(B) WEAKENED PLANE JOINT

(C) CONSTRUCTION JOINT

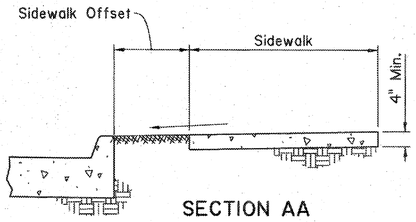
(D) COLD JOINT WITH BOND BREAKER

JOINT DETAILS

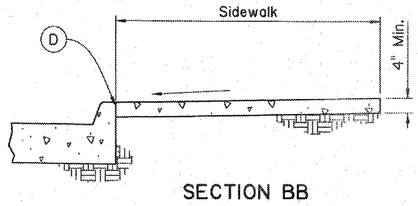


PLAN VIEW
SIDEWALK JOINT LAYOUT

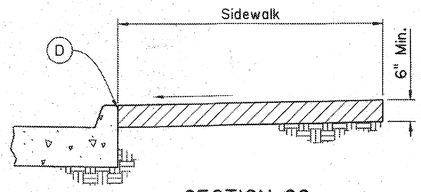
* Joint spacing to be approved by Project Engineer



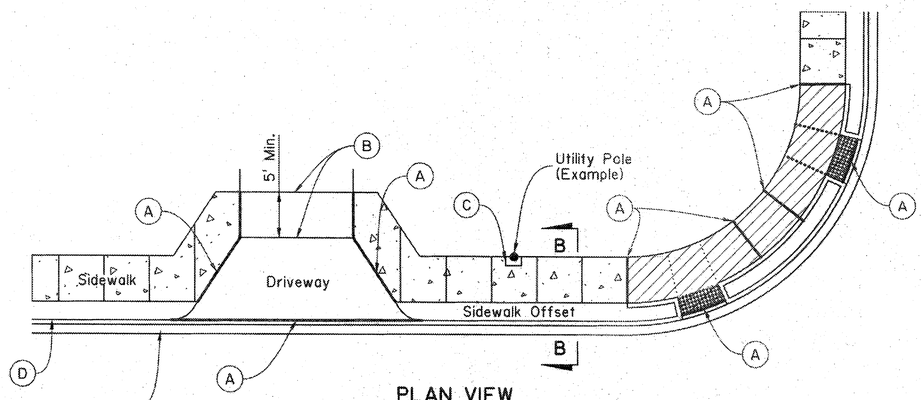
SECTION AA
OFFSET SIDEWALK



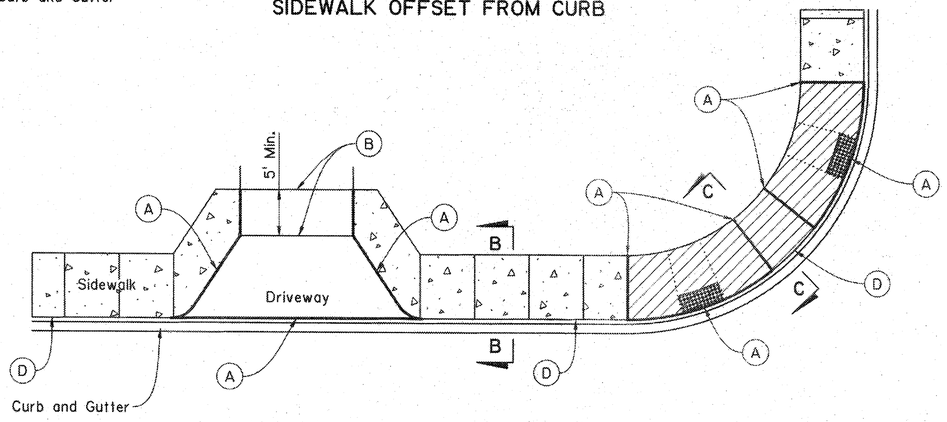
SECTION BB
SIDEWALK ADJACENT TO CURB



SECTION CC
SIDEWALK ADJACENT TO CURB
(WITHIN RADIUS OF TURNOUT)



PLAN VIEW
SIDEWALK OFFSET FROM CURB



PLAN VIEW
SIDEWALK ADJACENT TO CURB

4" Thick Concrete

6" Thick Concrete

Note: Driveways and curb ramps are shown for reference only. Refer to the driveway standard plans and curb ramp sheet for details.

SHEET NUMBER 331

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES #
MAL	BPW	MAL	BPW		5 OF 5

STATE OF LOUISIANA
MELISSA LEBAS
License No. 39111
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
Melissa LeBas
7/14/2022

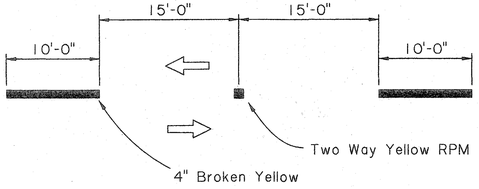
APPROVED BY CHIEF ENGINEER: DATE: 7/21/2022

PEDESTRIAN FACILITIES
JOINT DETAILS
PED-01

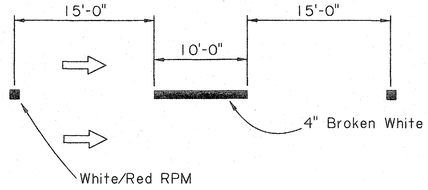
DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

STANDARD PLAN

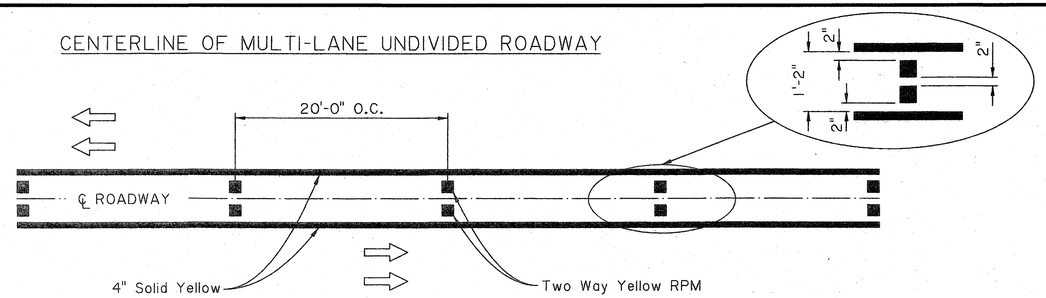
Ⓐ CENTERLINE OF TWO-LANE ROADWAY WITH TWO-WAY TRAFFIC



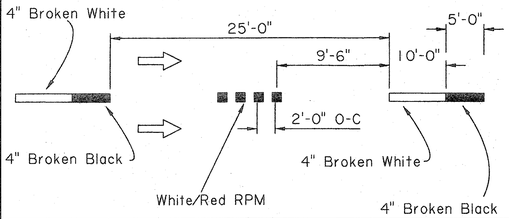
Ⓑ LANE LINE BETWEEN LANES OF TRAFFIC TRAVELING IN THE SAME DIRECTION



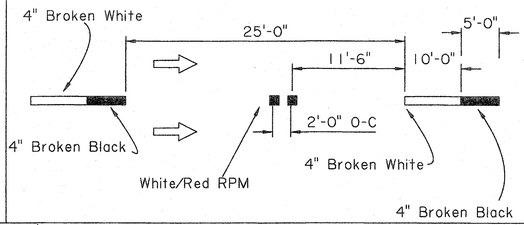
Ⓒ CENTERLINE OF MULTI-LANE UNDIVIDED ROADWAY



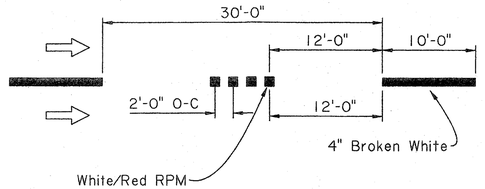
Ⓓ CONTRAST LANE LINE BETWEEN LANES ON PORTLAND CEMENT CONCRETE ADT ≥ 80,000



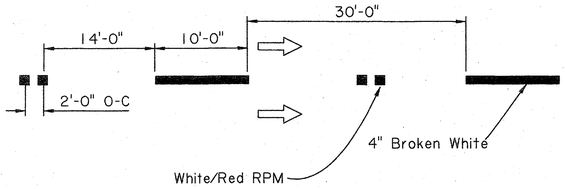
Ⓔ CONTRAST LANE LINE BETWEEN LANES ON PORTLAND CEMENT CONCRETE ADT < 80,000



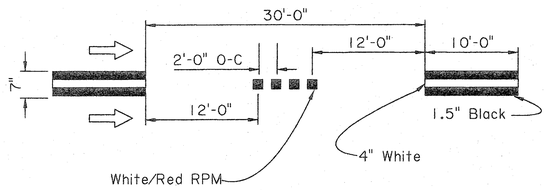
Ⓕ LANE LINE BETWEEN LANES ON ASPHALT CONCRETE WITH ADT ≥ 80,000



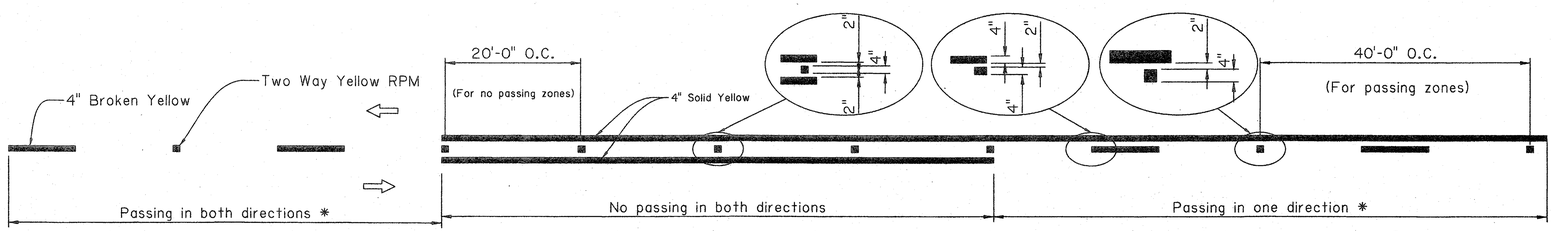
Ⓖ LANE LINE BETWEEN LANES ON ASPHALT CONCRETE WITH ADT < 80,000



Ⓗ CONTRAST LANE LINE BETWEEN LANES ON PORTLAND CONCRETE ADT ≥ 80,000

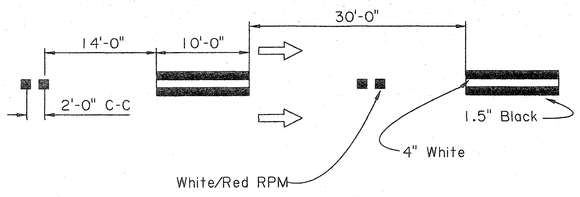


Ⓘ CENTERLINE OF TWO-LANE ROADWAY WITH TWO-WAY TRAFFIC WITH PASSING RESTRICTIONS



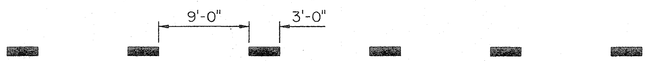
* See Ⓐ for broken line dimensions.

Ⓙ CONTRAST LANE LINE BETWEEN LANES ON PORTLAND CONCRETE ADT < 80,000



Ⓚ TYPE A DOTTED

Used for entrance, exit and auxiliary lanes, lane drop markings and shared use bicycle paths.



Note: Width and color shall match line extending unless otherwise noted.

Ⓛ TYPE B DOTTED

Used for lane line extensions through intersections, turn lane taper markings, edge line extensions and bulb outs.

Note: Width and color shall match line extending unless otherwise noted.

GENERAL NOTES:

1. 4" Edge lines shall be placed on all roadways.
2. Place edge lines, centerlines and lane lines to avoid longitudinal joints as directed by the project engineer.
3. Edge lines in a curb and gutter section should be kept out of the gutter and clear from debris.
4. If rumble strips are used, striping details remain unchanged.
5. Centerlines shall be placed on roadways with a traveled way width of 16 feet or greater.
6. Where the clear width of a bridge is less than the clear width of the roadway, reflectorized pavement markers shall be placed adjacent to the edge line at 20' centers.
7. ⇨ indicates the direction of travel (not a pavement marker).
8. For non-interstate striping, use one Raised Reflectorized Pavement Marker.
9. White Reflectorized Pavement Marker faces same direction traffic and red faces opposing traffic.

STATE OF LOUISIANA
GARY N. LeBLANC
REG. No. 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

Gary LeBlanc 2-27-19

SHEET NUMBER 332

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED	DETAILED	DATE
G. LEBLANC	K. WILLIAMS	
CHECKED J. COLVIN	CHECKED G. LEBLANC	SHEET

DATE 2/28/19

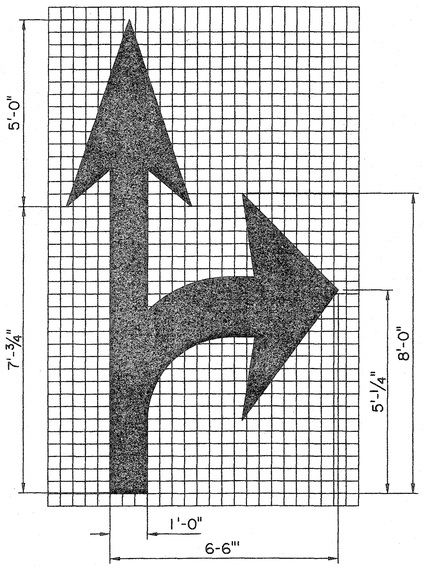
APPROVED BY CHIEF ENGINEER: Christopher P. Knotts

PM-01
Centerline and Edgeline Markings

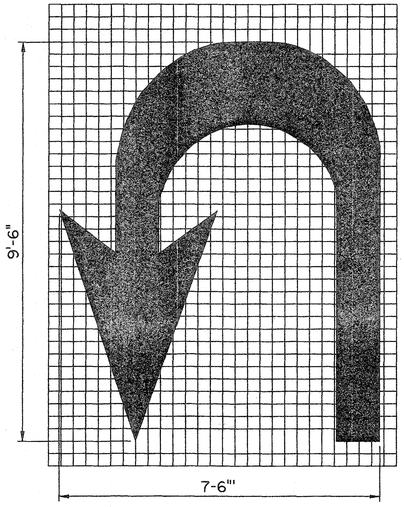
PAVEMENT MARKING DETAILS

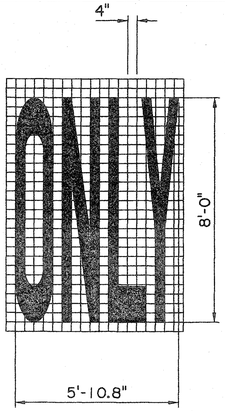
DOTD TRAFFIC ENGINEERING

(A) TURN ARROW AND ONLY WORD MARKING

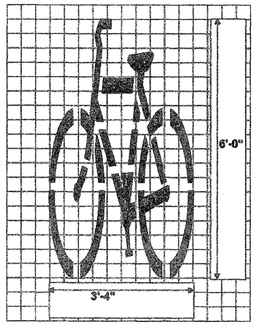


*For left turn arrow, use mirror image.

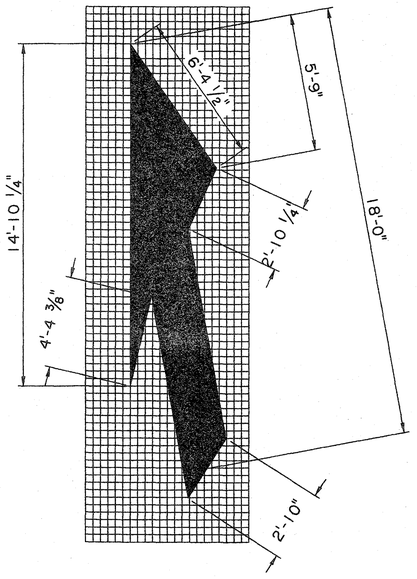




(B) BIKE SYMBOL

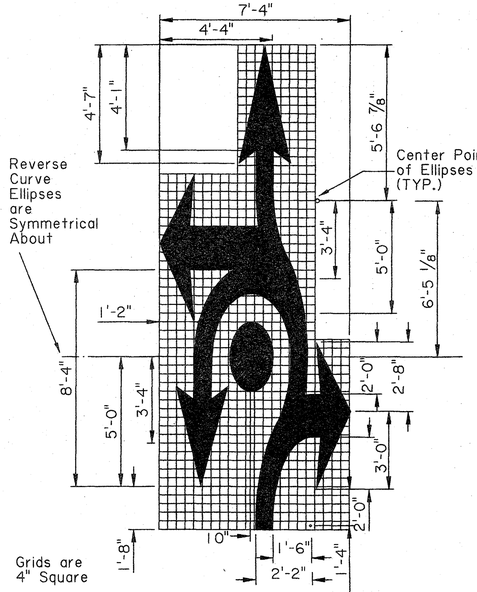


(C) LANE REDUCTION ARROW



*For left lane reduction, use mirror image.

(D) DIRECTIONAL ARROWS FOR ROUNDABOUTS (FISHHOOK)

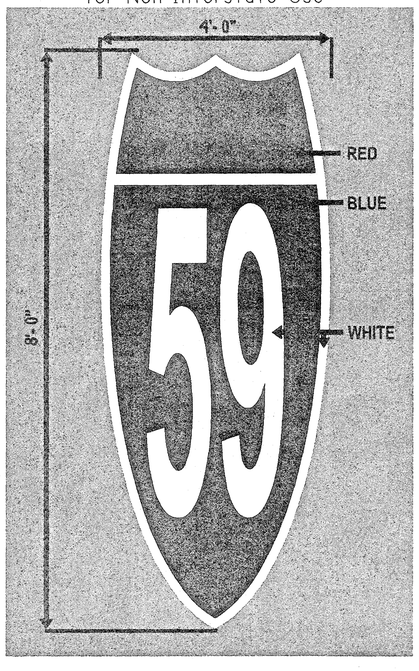


Grids are 4" Square

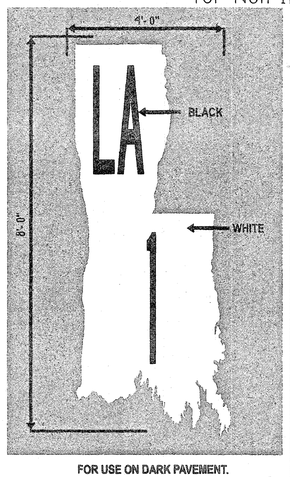
Assume Points Not Dimensioned to be Coincident with Grid Lines

Only Fishhook Combinations That Have Pay Items May Be Used.

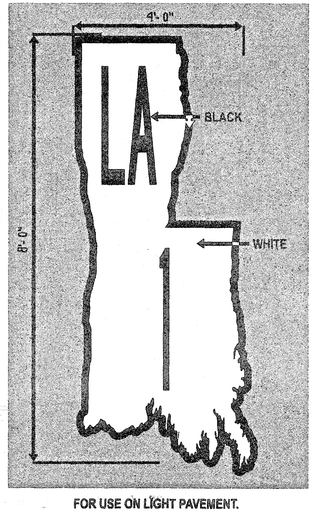
(E) INTERSTATE SHIELD for Non-Interstate Use



(F) STATE HIGHWAY SHIELDS for Non-Interstate Use

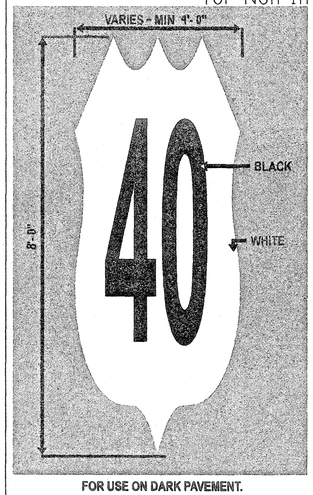


FOR USE ON DARK PAVEMENT.

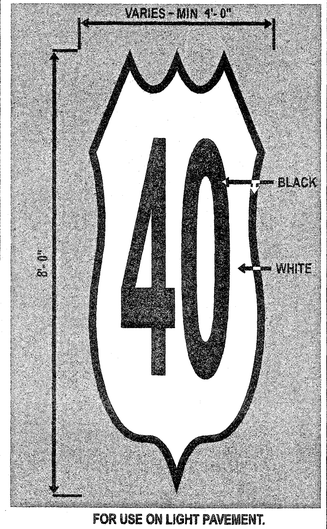


FOR USE ON LIGHT PAVEMENT.

(G) STATE HIGHWAY SHIELDS for Non-Interstate Use

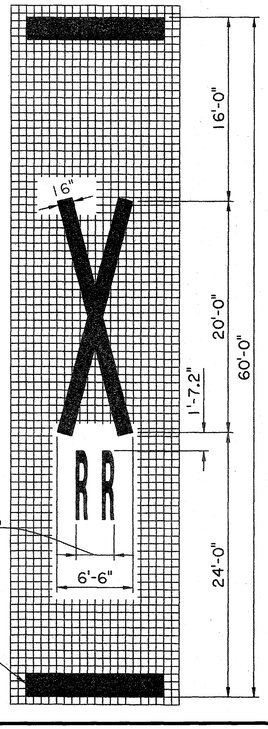


FOR USE ON DARK PAVEMENT.



FOR USE ON LIGHT PAVEMENT.

(H) RAILROAD CROSSING PAVEMENT MARKINGS



STATE OF LOUISIANA
GARY N. LeBLANC
REG. No. 26220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

2-27-19

SHEET NUMBER	333
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232
DESIGNED	G. LEBLANC
CHECKED	J. COLVIN
DETAILED	K. WILLIAMS
CHECKED	G. LEBLANC
DATE	2/28/19
SHEET	

APPROVED BY CHIEF ENGINEER:

PM-02
Pavement Word and Symbol Markings for Non-Interstate Use

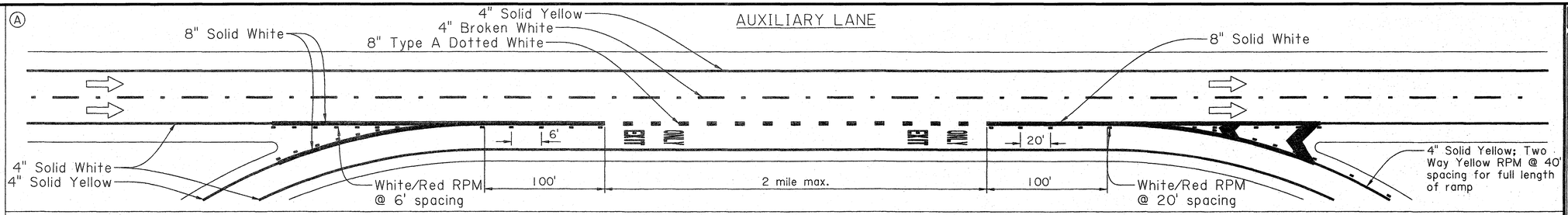
PAVEMENT MARKING DETAILS

TRAFFIC ENGINEERING

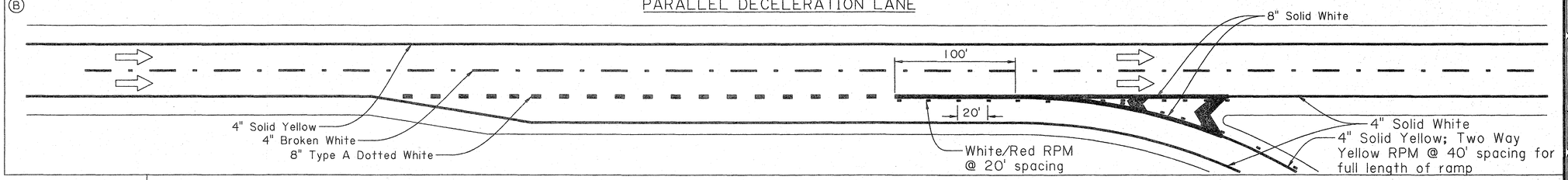
Note:

⇨ indicates the direction of travel (not a pavement marker).

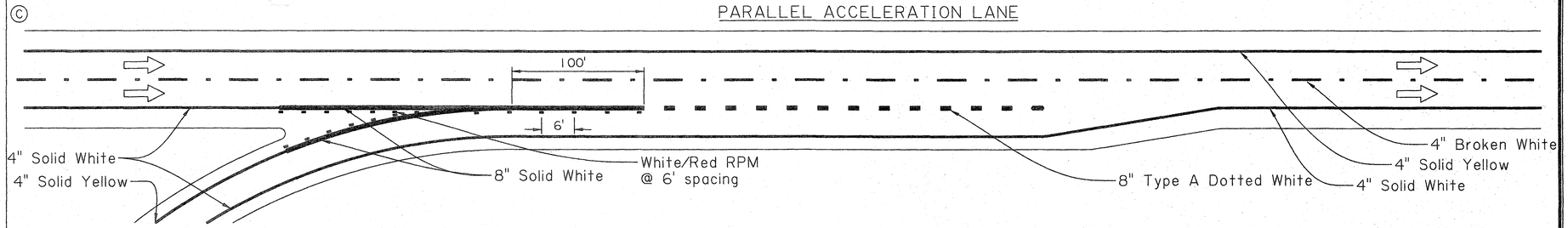
Ⓐ AUXILIARY LANE



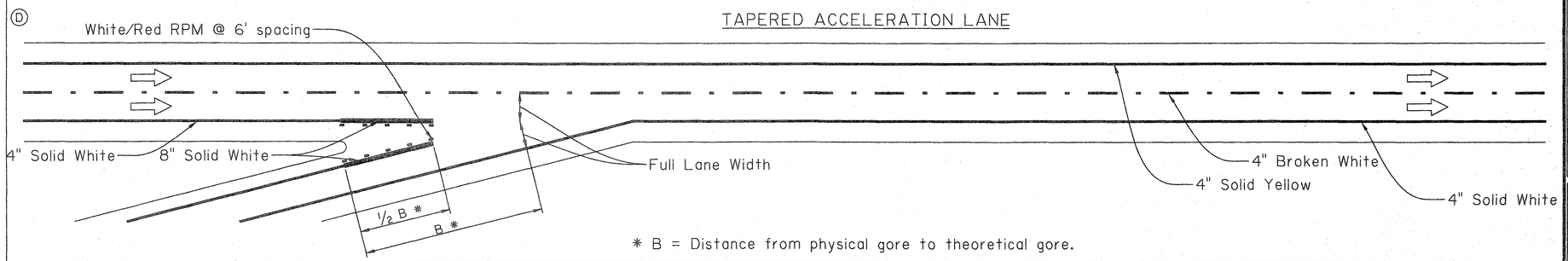
Ⓑ PARALLEL DECELERATION LANE



Ⓒ PARALLEL ACCELERATION LANE

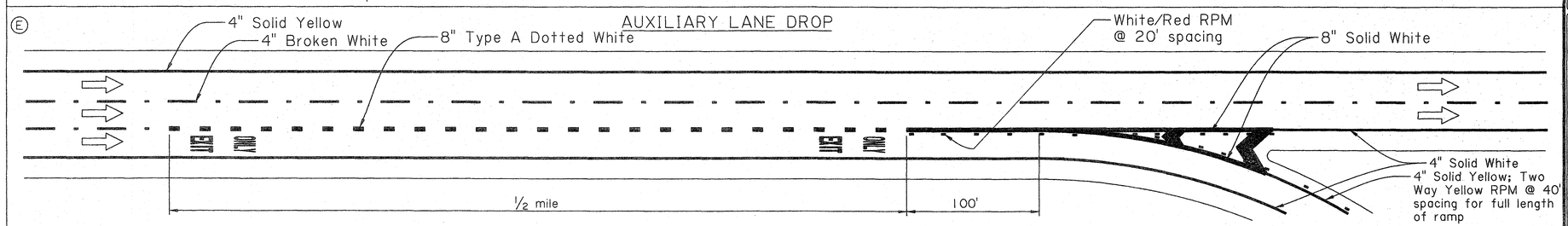


Ⓓ TAPERED ACCELERATION LANE

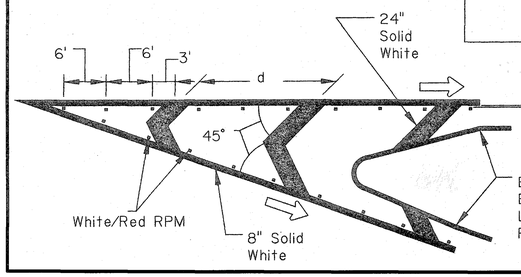


* B = Distance from physical gore to theoretical gore.

Ⓔ AUXILIARY LANE DROP



TYPICAL EXIT GORE MARKINGS



d	Mainline Speed
12'	45 MPH or Less
18'	50 or 55 MPH
24'	60 MPH or Above

STATE OF LOUISIANA
GARY N. LeBLANC
REG. No. 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

2-27-19

SHEET NUMBER 334

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED	G. LEBLANC
CHECKED	J. COLVIN
DETAILED	K. WILLIAMS
CHECKED	G. LEBLANC
DATE	
SHEET	

DATE 2/28/19

APPROVED BY CHIEF ENGINEER:

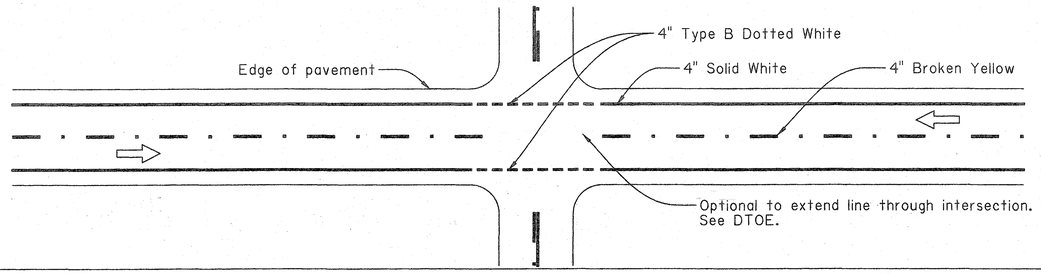
PM-04

Auxiliary, Deceleration and Acceleration Lanes and Gore Striping Layouts

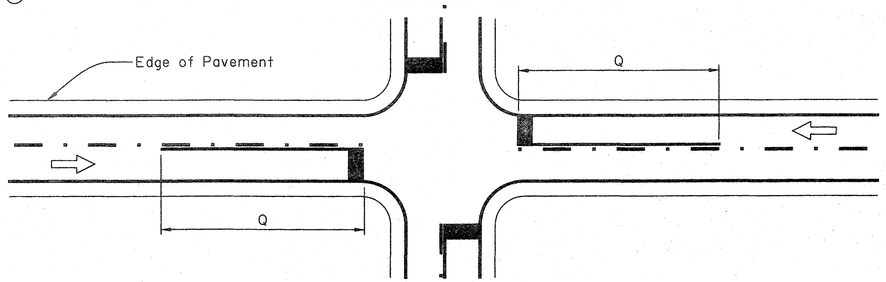
PAVEMENT MARKING DETAILS

TRAFFIC ENGINEERING

Ⓐ UNSIGNALIZED INTERSECTION ON TWO LANE ROADWAY

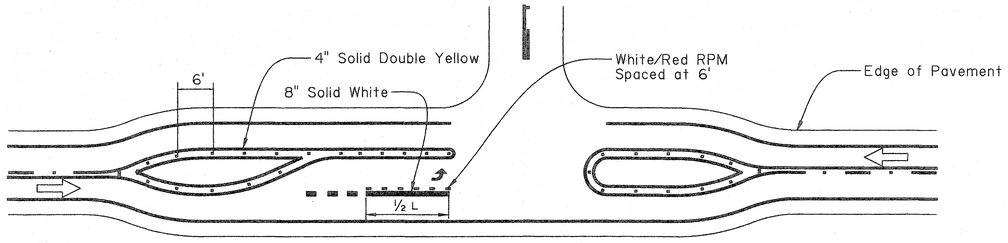


Ⓑ SIGNALIZED INTERSECTION ON TWO LANE ROADWAY

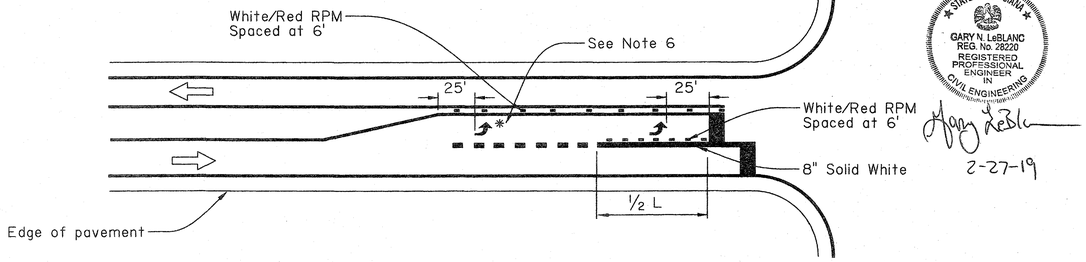


Speed Limit (mph)	Length Q (ft)
<40	100
40	125
45	175
50	250
55	325

Ⓒ UNSIGNALIZED APPROACH LEFT TURN LANE ON TWO LANE ROADWAY



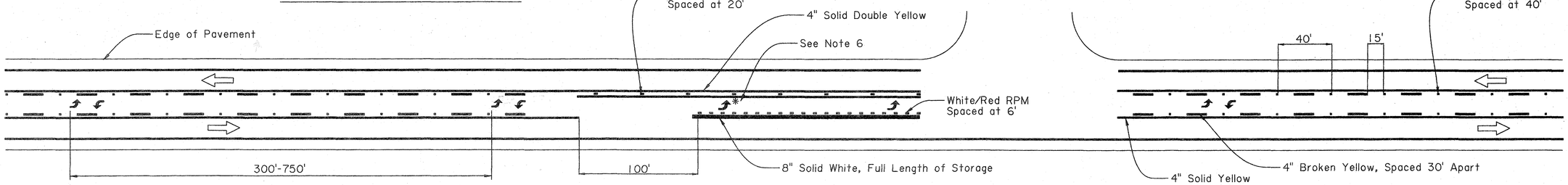
Ⓓ STOP OR SIGNALIZED APPROACH TURN LANE DETAILS



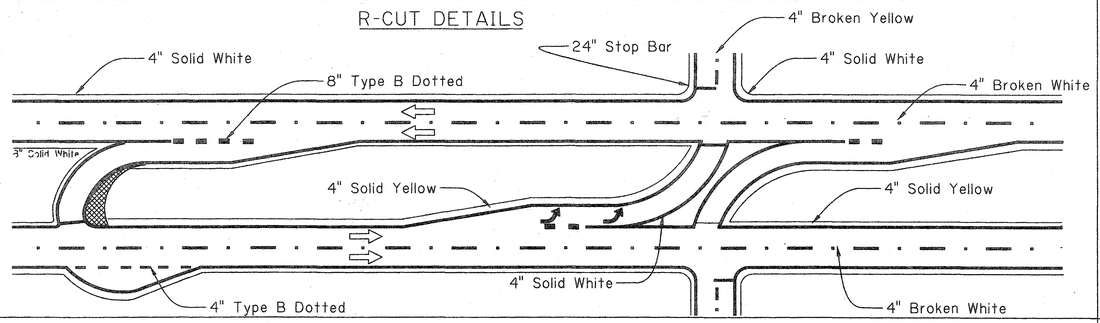
STATE OF LOUISIANA
GARY N. LeBLANC
REG. No 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING

2-27-19

Ⓔ TWO-WAY TURN LANE DETAILS

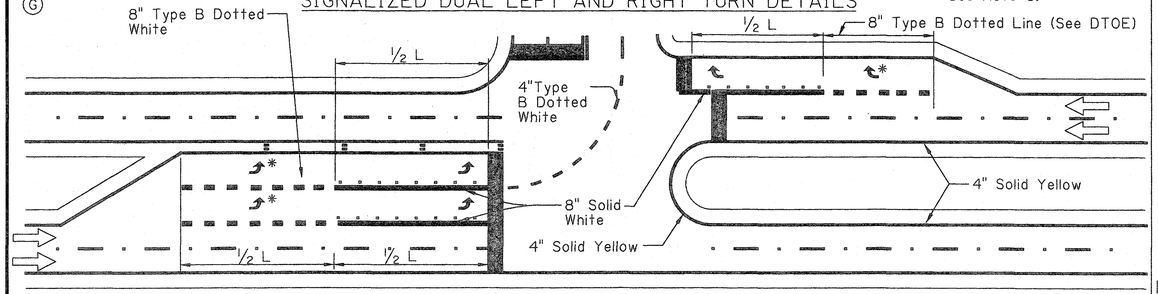


Ⓕ R-CUT DETAILS

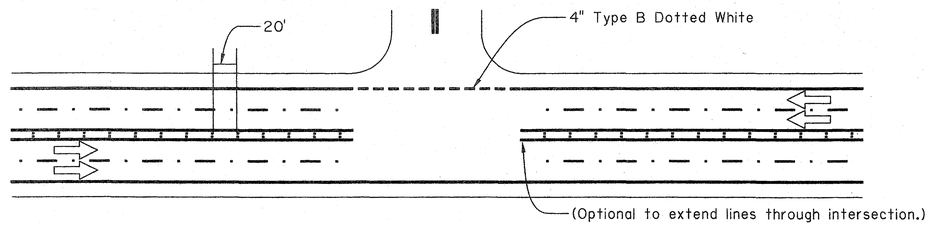


Ⓖ SIGNALIZED DUAL LEFT AND RIGHT TURN DETAILS

*See Note 6.



Ⓗ UNSIGNALIZED INTERSECTION ON A FOUR LANE UNDIVIDED ROADWAY



GENERAL NOTES:

1. If the minor street has edge lines, the edge lines on the major street shall wrap to meet the edge lines on the minor street.
2. Stop bars shall be 24". Stop bars shall not be placed at a distance greater than 30 feet or less than 4 feet from the nearest edge line. Stop bars at right turn lanes should be placed to provide adequate sight distance for right turning traffic.
3. The location of stop bars at left turn lanes should be determined by the turning radius needed by the side street vehicles.
4. See PM-01 for centerline and lane line details.
5. The ONLY word marking shall be used when a through lane terminates as a turn lane.
6. The asterisk (*) indicates that 2nd arrow is optional. If more than two arrows are used, minimum spacing should be 150'.
7. Edge lines should not be broken for driveways.
8. ⇨ indicates the direction of travel (not a pavement marker).
9. L equals the full length of turn lane.
10. Use of dotted lines require DTOE approval.

SHEET NUMBER 335

PARISH: EAST BATON ROUGE | CONTROL SECTION: 000-17, 258-33, 450-10 | STATE PROJECT: H.012232

DESIGNED: G. LEBLANC
CHECKED: J. COLVIN
DETAILED: K. WILLIAMS
CHECKED: G. LEBLANC
DATE: 2/28/19
SHEET

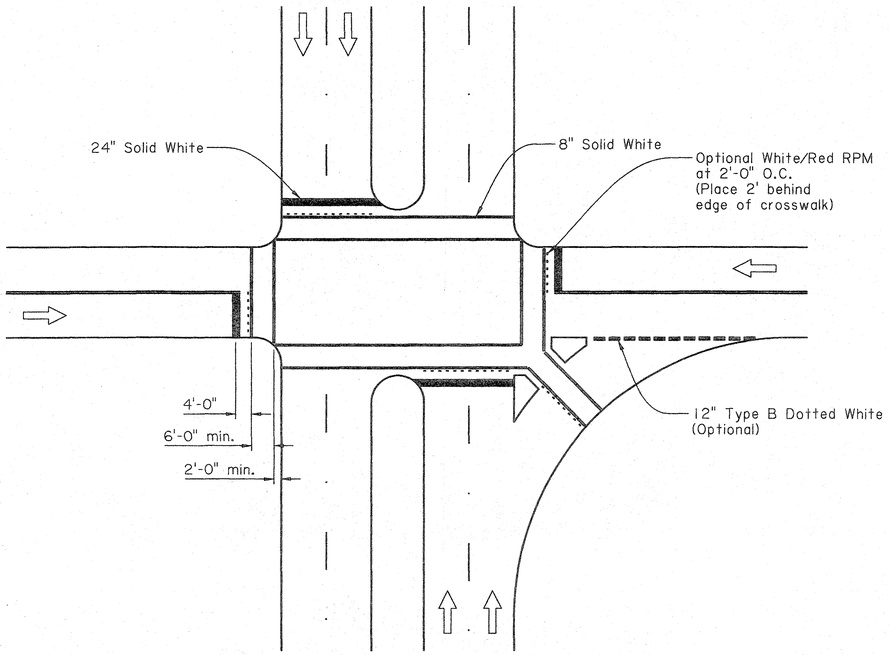
APPROVED BY CHIEF ENGINEER:

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

PM-05
Typical Intersection Striping Layouts
PAVEMENT MARKING DETAILS
TRAFFIC ENGINEERING

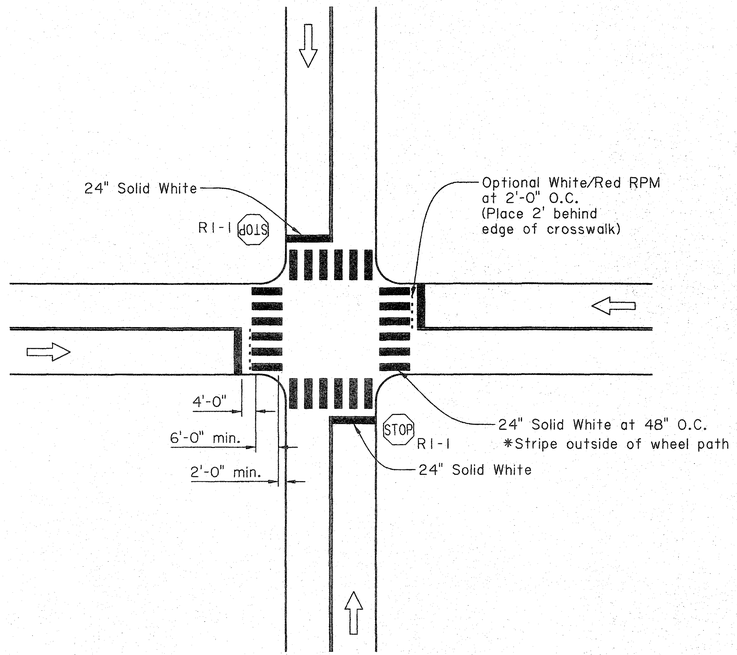
Ⓐ

CROSSWALK MARKINGS AT SIGNALIZED INTERSECTION



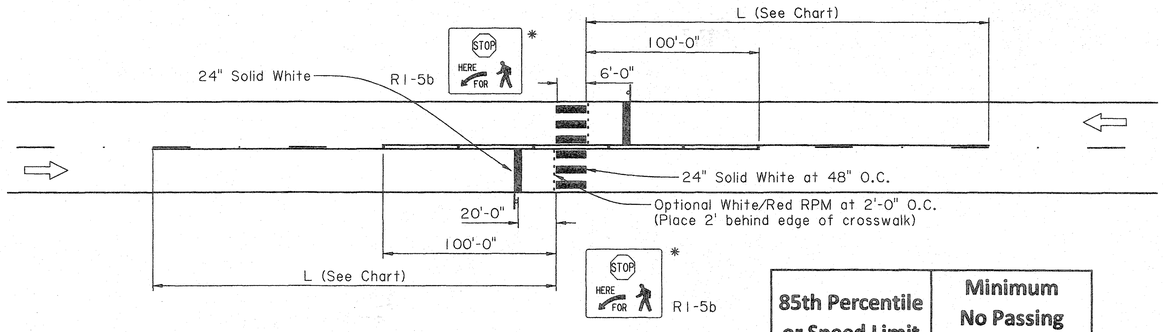
Ⓑ

CROSSWALK MARKINGS AT UNSIGNALIZED INTERSECTION



Ⓒ

MID-BLOCK CROSSWALK MARKINGS

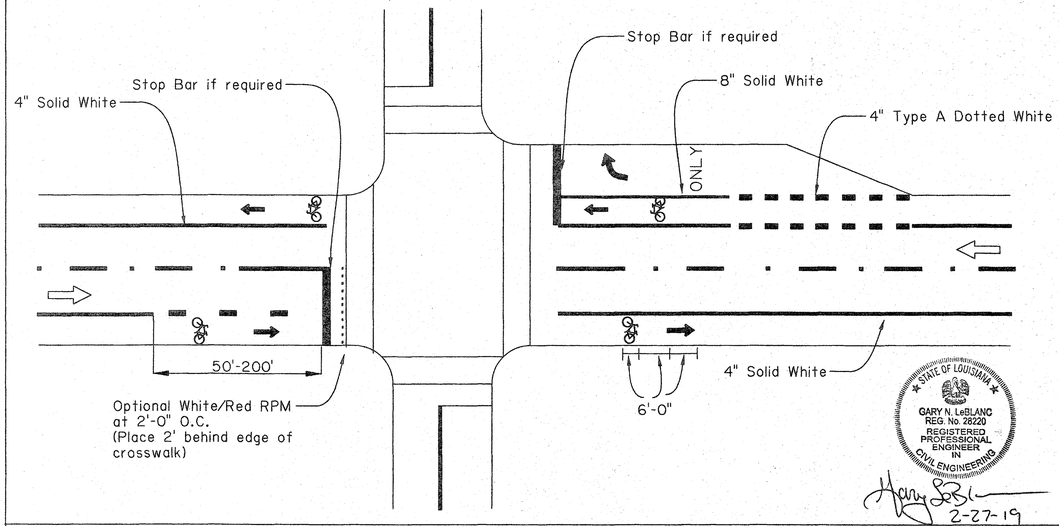


85th Percentile or Speed Limit (mph)	Minimum No Passing on Approach (L in feet)
25	100
30	100
35	100
40	125
45	175
50	250
55	325
60	400
65	475
70	550

*If within a school zone, sign may be changed to the In Street Schoolchildren Crossing (R1-6c) sign.

Ⓓ

BIKE LANE AT INTERSECTION WITH RIGHT TURN LANE



GENERAL NOTES:

1. All new and existing crosswalk placement shall require approval by the DTOE and justification through an engineering study.
2. If the width of the existing sidewalk is greater than 6 feet, the width of the crosswalk should match the width of the sidewalk.
3. ⇨ indicates direction of travel (not a pavement marker).
4. Bicycle pavement markings should be placed at the beginning of bike lanes, before and after each intersection with a minimum spacing of 100 ft in urban areas to a maximum of 1000 feet in suburban areas.

SHEET NUMBER 336

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED / CHECKED	DETAILED / CHECKED	DATE / SHEET
G. LEBLANC / J. COLVIN	K. WILLIAMS / G. LEBLANC	

DATE 2/28/19

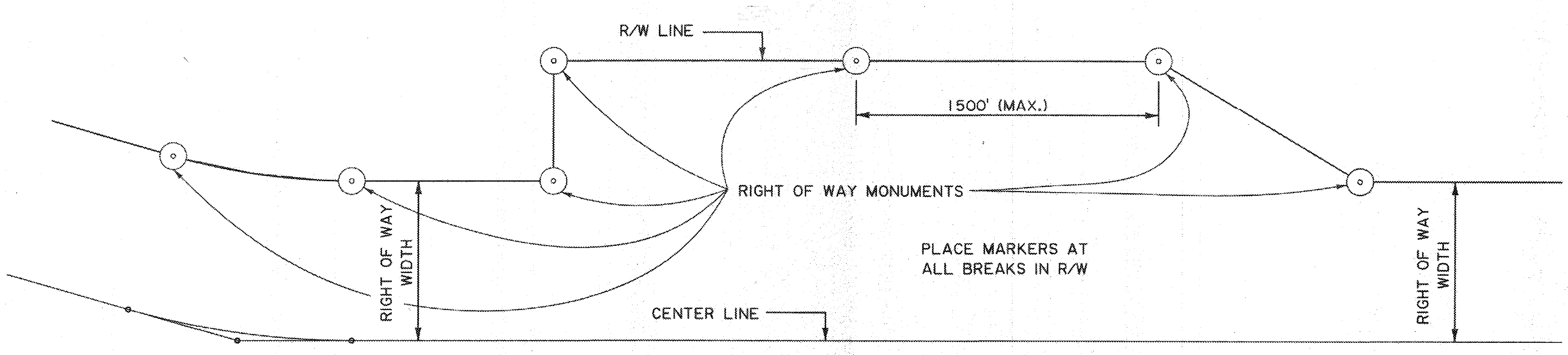
APPROVED BY CHIEF ENGINEER

PM-08

Pedestrian/Bike Striping Layout

PAVEMENT MARKING DETAILS

TRAFFIC ENGINEERING



STANDARD RIGHT OF WAY MONUMENT PLAN
MONUMENTS TO BE PLACED AT RIGHT OF WAY INTERSECTIONS

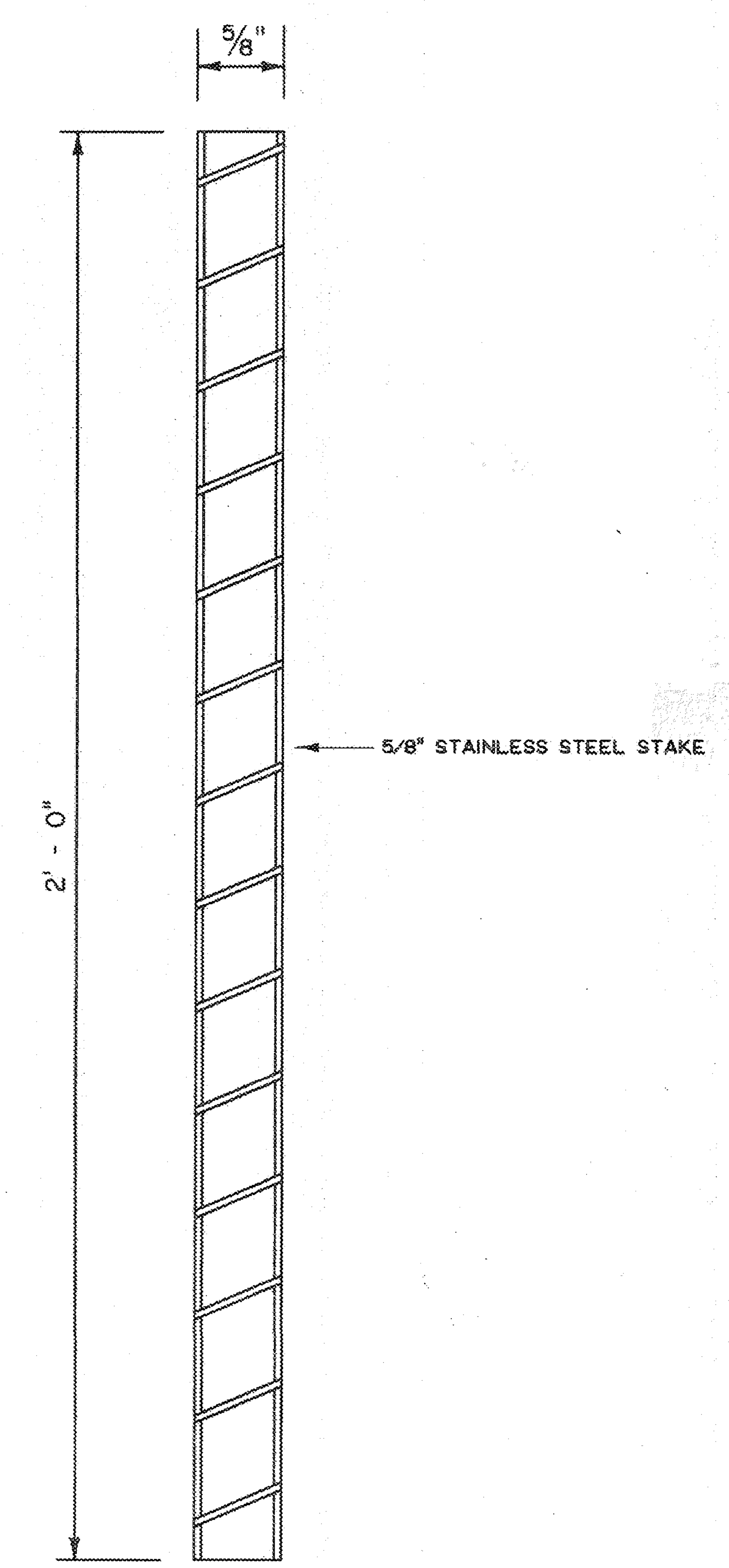
NOTES:

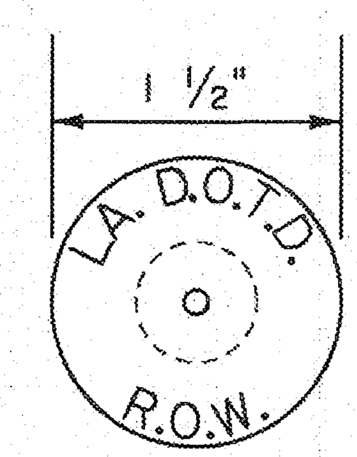
MONUMENTS ARE TO BE PLACED AT EVERY POINT WHERE BREAKS IN THE RIGHT OF WAY OCCUR: AT P.C.'S AND P.T.'S OF CURVES AND AT TOPS OF HILLS AND AT SUCH OTHER INTERMEDIATE POINTS AS ARE NECESSARY TO PROPERLY INDICATE THE RIGHT OF WAY. MONUMENTS SHOULD NOT BE MORE THAN ONE THOUSAND FEET (1000') APART ON CURVES, NOR MORE THAN FIFTEEN HUNDRED FEET (1500') APART ON TANGENTS.

MONUMENTS ARE INDICATED ON PLANS BY THE FOLLOWING SYMBOL. ⊠

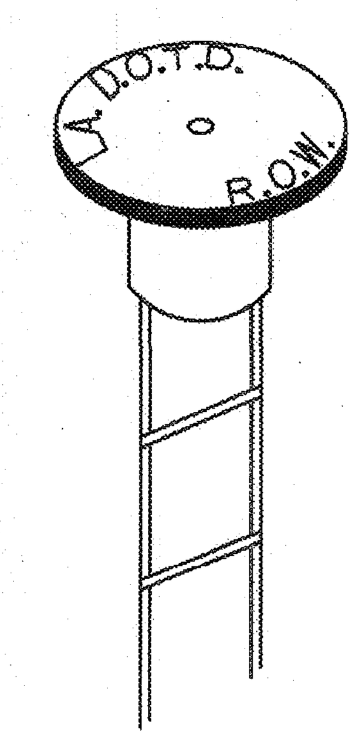
MONUMENTS SHALL BE A 1-1/2" STAINLESS STEEL CAP FASTENED TO A 5/8" (#5) STAINLESS STEEL REBAR BY A STAINLESS STEEL SLEEVE AS INDICATED BELOW.

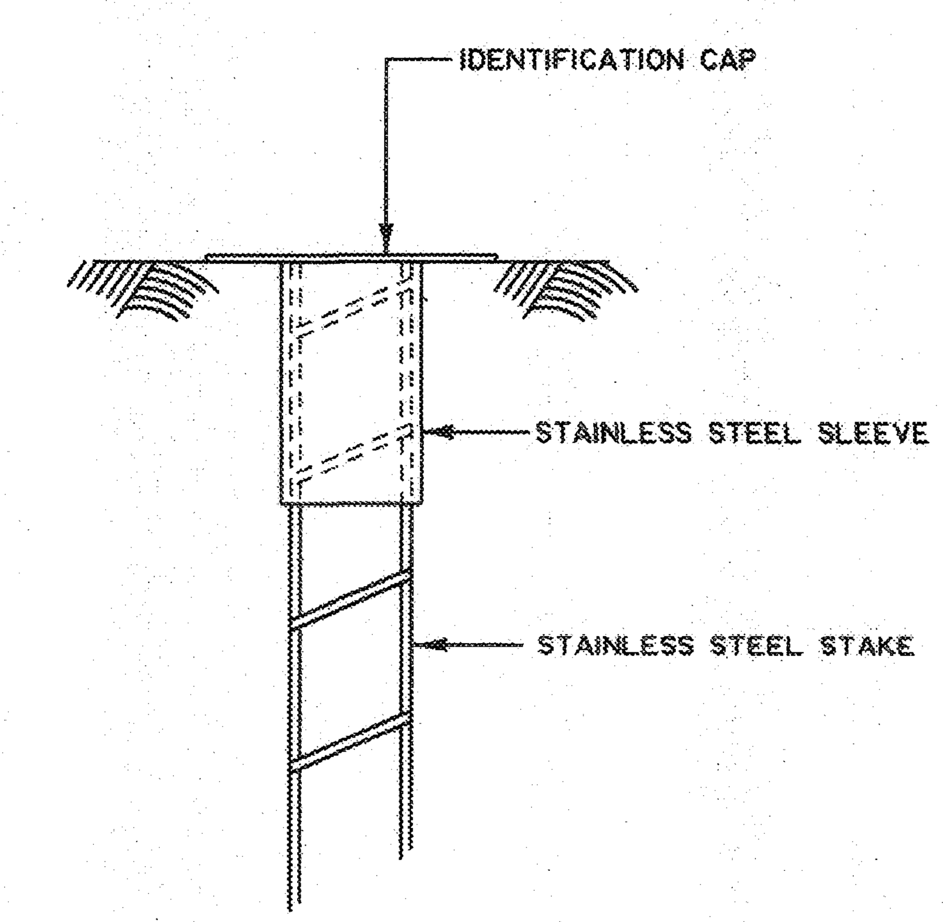
RIGHT OF WAY MONUMENTS SHALL BE SET BY, OR UNDER THE RESPONSIBLE CHARGE OF A LOUISIANA REGISTERED PROFESSIONAL LAND SURVEYOR IN CONFORMANCE WITH CHAPTER 29, TITLE 46 PART LXI, OF THE RULES OF THE LOUISIANA PROFESSIONAL ENGINEERING AND LAND SURVEYING BOARD.





STAINLESS STEEL
CAP/STAKE ASSEMBLY





SET BOTTOM OF IDENTIFICATION CAP FLUSH
WITH THE EXISTING GROUND

SHEET NUMBER	337
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232

DESIGN / CHECK / DETAIL / CHECK / REVIEW / SERIES #

ERIC R. LANIER, REG. No. 4884, REGISTERED PROFESSIONAL LAND SURVEYOR — STATE OF LOUISIANA

APPROVED BY CHIEF ENGINEER:

DATE: 2/1/2021

RIGHT OF WAY MONUMENTS

STANDARD PLAN RM-01

DOTD — LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

LOCATION AND SURVEY

GENERAL NOTES - ROADSIDE TRAFFIC SIGNS

CONSTRUCTION SPECIFICATIONS: CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT, STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES. LATEST EDITION EXCEPT AS SUPPLEMENTED OR AMENDED BY THE PLANS, SUPPLEMENTAL SPECIFICATIONS AND/OR SPECIAL PROVISIONS.

DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS, 1994 AND INTERM SPECIFICATIONS.

STEEL: STEEL SHALL CONFORM TO A.S.T.M. A-709, GRADE 36. STEEL TUBING SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF A.S.T.M. DESIGNATION A-36 OR HOT-FORMED TUBING (A-501) OR PIPE (A-53) TYPE "E" OR "S", GRADE "B" OR COLD-FORMED TUBING (A-500) GRADE "B" OR "C", UNLESS OTHERWISE NOTED.

ALUMINUM: ALL ALUMINUM EXCEPT SIGN PANELS SHALL CONFORM TO ASTM B-221, B-308, OR B-429 ALLOY 6061-T6 UNLESS OTHERWISE NOTED. SIGN PANELS SHALL BE .080" THICK ALUMINUM CONFORMING TO ASTM B-209 ALLOY 5052-H38 OR 6061-T6.

CONCRETE AND REINFORCING STEEL: CONCRETE SHALL BE CLASS "M", UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO REINFORCING STEEL FABRICATION ARE OUT TO OUT OF BAR UNLESS OTHERWISE NOTED. DIMENSIONS RELATING TO REINFORCING STEEL SPACING ARE CENTER TO CENTER OF BAR OR FACE OF CONCRETE TO CENTERLINE OF BAR. REINFORCING STEEL SHALL HAVE A MINIMUM COVERING OF 2" EXCEPT WHEN CONCRETE IS CAST AGAINST THE EARTH THEN THE COVERING WILL BE 3". ALL REINFORCING STEEL SHALL BE GRADE 60. THE FIRST DIGIT OF REINFORCING BAR NUMBER INDICATES THE BAR SIZE. THE TOP EDGES OF THE FOOTING SHALL BE CHAMFERED ¾".

CONCRETE FINISH: ALL PORTIONS OF THE FOOTINGS FOR CANTILEVERS AND TRUSSES ABOVE GROUNDLINE SHALL HAVE A FINISH IN ACCORDANCE WITH LOUISIANA SPECIFICATION. 805.08.3.

WELDING: ALL WELDING SHALL CONFORM TO THE LA. STANDARD SPECIFICATIONS, SECTION 809 AND SUPPLEMENTAL SPECIFICATIONS.

GALVANIZING: ALL STRUCTURAL STEEL AND MISCELLANEOUS STEEL SHALL BE GALVANIZED IN ACCORDANCE WITH A.S.T.M. DESIGNATION A-123. DAMAGE TO GALVANIZED SURFACES THAT ARE NOT TO BE ENCASED IN CONCRETE SHALL BE REPAIRED IN ACCORDANCE WITH LA. STANDARD SPECIFICATIONS, SECTION 811.08. ALL BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH A.S.T.M. DESIGNATION A-153 . ALL FIELD HOLES IN GALVANIZED MATERIAL SHALL BE TREATED WITH A COLD GALVANIZING COMPOUND FROM THE A.M.L.

BOLTS: UNLESS NOTED, ALL THREADED CONNECTIONS SHALL INCORPORATE A LOCKING DEVICE AND HAVE A MINIMUM OF 3 THREADS BEYOND THE NUTS. ALL BOLTS SHALL BE HIGH STRENGTH BOLTS, A.S.T.M. A-325, UNLESS OTHERWISE NOTED. ANCHOR BOLTS SHALL CONFORM TO AASHTO M314, GRADE 55 (OR APPROVED EQUAL) AND BE HOT DIP GALVANIZED TO A.S.T.M. A-153. STAINLESS STEEL FOR BOLTS SHALL CONFORM TO A.S.T.M. DESIGNATION A-320 B8, CLASS 2 TYPE 304, OR A-193 B8, CLASS 2 TYPE 304, UNLESS OTHERWISE NOTED. STAINLESS STEEL NUTS SHALL CONFORM TO A.S.T.M. DESIGNATION A-194, GRADE 8, TYPE 304. ALUMINUM BOLTS SHALL CONFORM TO A.S.T.M. F-468 ALLOY 2024-T4 AND NUTS ARE A.S.T.M. F-467 ALLOY 6061-T6 OR 6262-T9. WHERE BOLTS ARE USED ON BEVELED SURFACES, BEVELED WASHERS SHALL BE PROVIDED TO GIVE FULL BEARING TO THE HEAD AND/OR THE NUT.

RIVETS: ALL RIVETS SHALL BE ¼" DIAMETER BLIND RIVETS WITH POSITIVE MANDREL RETENTION. THE RIVET BODY AND MANDREL SHALL BE ALUMINUM WITH A ½" MAXIMUM DIAMETER DOME HEAD. THE RIVETS SHALL HAVE A MINIMUM ULTIMATE TENSILE STRENGTH = 875 LBS., AND CONFORM TO ASTM B-316 5056-H32.

BREAK-AWAY BASE: BASES FOR SIGNS LOCATED ADJACENT TO MORE THAN ONE ROADWAY (RAMP TERMINALS, INTERSECTIONS, ETC.) SHALL BE ORIENTED IN THE DIRECTION OF THE HIGHEST SPEED TRAFFIC. ALL MULTI-POST SIGNS WITH A DISTANCE BETWEEN POSTS OF 7'-0" CENTERS OR LESS SHALL HAVE BEVELED BASE CONNECTION. BASE CONNECTIONS SHALL BE WRAPPED PRIOR TO POURING THE FOOTING, WITH MATERIAL SUFFICIENT TO PREVENT CONCRETE SPLATTER ON THE BREAK-AWAY BASE ASSEMBLY.

ANCHOR BOLTS: ANCHOR BOLT NUTS TO BE TIGHTENED A MINIMUM ROTATION OF 240° (⅔ TURNS) FROM THE SNUG TIGHT CONDITION.

SIGN SHEETING: UNLESS OTHERWISE NOTED, ALL SIGN MATERIAL SHALL BE IN ACCORDANCE WITH SECTION 1015 IN THE STANDARD SPECIFICATIONS. IN ORDER TO OBTAIN AN ACCEPTABLE COLOR MATCH BETWEEN MULTIPLE PANELS ON A GUIDE SIGN, ALL OF THE BACKGROUND SHEETING FOR ANY GUIDE SIGN SHALL BE THE MINIMUM WIDTH OF THE LARGEST PANEL AND SHALL COME FROM THE SAME LOT OR RUN NUMBER FROM THE SHEETING MANUFACTURER UNLESS OTHERWISE APPROVED IN WRITING. RETRO-REFLECTIVE SHEETING SHALL BE APPLIED TO ALL PANELS IN SUCH A MANNER THAT THERE ARE NO HORIZONTAL SPLICES.

OVERLAY PANELS FULL SIGN OVERLAY PANELS SHALL BE IN ACCORDANCE WITH SECTION 729.05.3. PARTIAL SIGN OVERLAYS AND ALL SHIELDS SHALL HAVE SHIMS AT ALL RIVETS. SHIMS SHALL BE AT LEAST .080" THICK AND SIZED SO THEY WILL NOT EXTEND BEYOND EDGE OF OVERLAY. RIVETS SHALL BE AS SPECIFIED ON THIS STANDARD DETAIL SHEET.

SIGN LOCATIONS: FOR GROUND MOUNTED SIGN INSTALLATIONS, THE ENGINEER MAY ADJUST THE TYPE D AND E SIGN LOCATIONS INDICATED ON THE PLANS. THIS WILL BE ALLOWED TO AVOID PLACEMENT IN DEEP DITCHES, STEEP BACKSLOPES, TREE LINES, AND ANY OTHER UNACCOUNTED FOR FIELD CONDITIONS AND TO PROVIDE BETTER MESSAGE PRESENTATION. ANY ADJUSTMENTS MUST BE WITH THE CONCURRENCE OF THE GEOMETRIC DESIGN ENGINEER.

SIGN TYPES: TYPE A = SMALL SIGN WITH ONE POST; TYPE B = CLUSTER ASSEMBLY OF TYPE A SIGNS; TYPE D = LARGE RECTANGULAR SIGN ADJACENT TO TRAFFIC MOUNTED WITH MULTIPLE POSTS; TYPE E = SECONDARY SIGN (SUCH AS AN EXIT NUMBER PANEL) ATTACHED TO A LARGE RECTANGULAR PRIMARY SIGN; DELINEATOR, MILEPOST AND OBJECT MARKER SIGNS ARE NOT COVERED UNDER TRAFFIC SIGNS. SEE STANDARD PLAN HS-03.

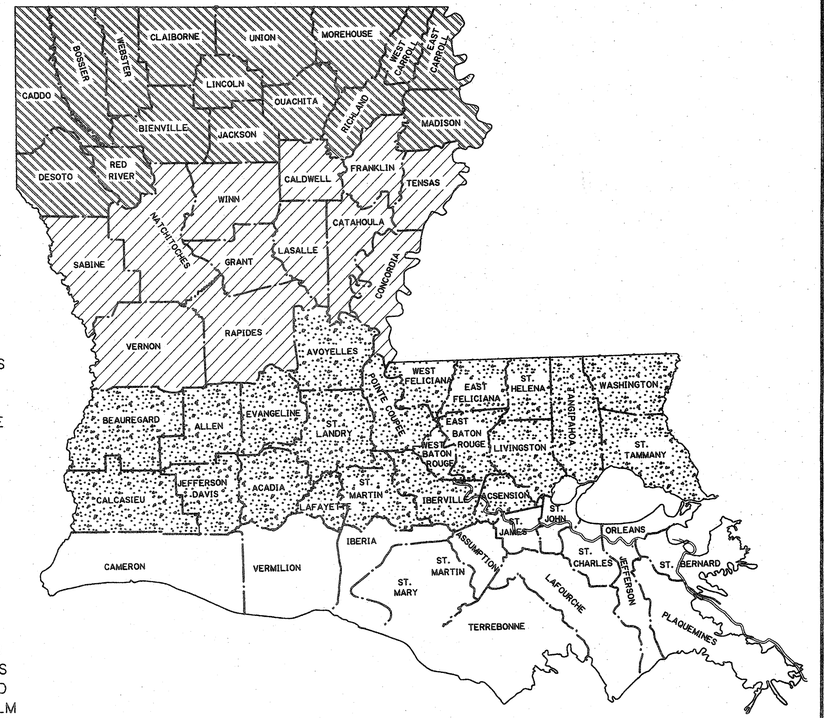
MISCELLANEOUS: THE CONTRACTOR SHALL MARK THE DATE OF FABRICATION, SHEETING MANUFACTURER CODE, AND SIZE OF SIGN ON THE BACK OF EACH SIGN. FOR EXTRUDED PANEL SIGNS THE LETTER HEIGHT SHALL BE 2". FOR ALL OTHER FLAT SHEETING SIGNS, THE LETTER HEIGHT SHALL BE ¾". THE SIGN ID NUMBERS SHALL FOLLOW THE ABOVE REQUIREMENTS BUT SHALL HAVE A BLUE BACKGROUND WITH WHITE NUMBERS. ALL MARKINGS SHALL HAVE A CLEAR UV PROTECTIVE FILM INSTALLED OVER THEM. SEE DETAIL "A" SHEET 5 OF 17.

POST HINGE SPLICE ON MULTI-POST SIGNS WITH ALL POSTS CONNECTED BY A SECONDARY SIGN SHALL BE LOCATED BELOW THE SECONDARY SIGN. STUB POST SHALL BE ASSEMBLED TO SIGN POST WITH REQUIRED BOLTS AND ONE FLAT WASHER ON EACH BOLT BETWEEN PLATES PRIOR TO SHIPMENT. POST SPLICE SLIP PLATE SHALL BE ASSEMBLED TO MINIMUM BOLT TENSION IN SHOP PRIOR TO SHIPMENT. SIGN POST SHALL BE SHIPPED TO JOB SITE ASSEMBLED WITH ALL HARDWARE REQUIRED IN PLACE AND SECURED. EXPOSED ENDS OF ALL PIPE SHALL BE CAPPED. USE OF SECTIONS PROVIDING EQUAL OR GREATER STRENGTH FOR ANY MEMBER DESIGNATED ON THE PLANS SHALL BE SUBMITTED TO THE BRIDGE ENGINEER FOR APPROVAL.

ALL DIMENSIONS REQUIRED FOR SATISFACTORY INSTALLATION SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE FABRICATION. ADJUSTMENTS SHALL BE MADE AS DIRECTED BY THE ENGINEER.

ALL ALUMINUM SURFACES PLACED IN CONTACT WITH, OR FASTENED TO UNGALVANIZED STEEL MEMBERS SHALL BE THOROUGHLY COATED WITH AN APPROVED ALUMINUM IMPREGNATED CAULKING COMPOUND. PAINT ALUMINUM SECTIONS IN CONTACT WITH CONCRETE WITH A HEAVY COAT OF AN ALKALI RESISTANT BITUMINOUS PAINT OR A COAT OF ZINC CHROMATE PAINT AND ALLOW TO DRY BEFORE PLACING. ALUMINUM ALLOYS SHALL NOT BE PLACED IN CONTACT WITH COPPER, COPPER BASED ALLOYS, LEAD, OR NICKEL.

SHOP DRAWINGS: NOT REQUIRED FOR SIGN BACKING AND SMALL GROUND MOUNTED SIGN SUPPORTS, UNLESS FABRICATOR INTENDS TO DEVIATE FROM THE DETAILS HEREIN. SHOP DRAWING ARE REQUIRED FOR ALL STRUCTURE MOUNTED SIGNS.



WIND LOAD MAP

WIND LOAD MAP LEGEND			
SYMBOL	ROADSIDE MOUNTED		
	ZONE	WIND VELOCITY (MPH)⊗	WIND LOAD (PSF) △
	1	70	20
	2	80	27

⊗ 25 YEAR MEAN RECURRENCE INTERVAL

△ INCLUDES C_d = 1.2

SHEET	BRIDGE STANDARD INDEX NO.	DESCRIPTION
1 OF 17	BD.2.7.2.0.1	WIND LOAD MAP & GENERAL NOTES
2 OF 17	BD.2.7.2.0.2	PANEL DETAILS (TYPE A & B SIGNS)
3 OF 17	BD.2.7.2.0.3	MOUNTING DETAILS (TYPE A & B SIGNS)
4 OF 17	BD.2.7.2.0.4	SPACING OF POSTS FOR GROUND MOUNTED SIGNS
5 OF 17	BD.2.7.2.0.5	EXTRUDED ALUMINUM SIGNS (TYPE D & E SIGNS)
6 OF 17	BD.2.7.2.0.6	EXTRUDED ALUMINUM PANELS (TYPE D & E SIGNS)
7 OF 17	BD.2.7.2.0.7	ROADSIDE MOUNTED SIGNS (TYPE A, B, & D SIGNS)
8 OF 17	BD.2.7.2.0.8	ROADSIDE MOUNTED SIGN DETAILS (TYPE A & B SIGNS)
9 OF 17	BD.2.7.2.0.9	ROADSIDE MOUNTED SIGN DETAILS (TYPE D SIGNS)
10 OF 17	BD.2.7.2.0.10	SQUARE TUBE SIGN DETAILS
11 OF 17	BD.2.7.2.0.11	Z - BRACKET SIGN SUPPORT (F - SHAPE BARRIER)
12 OF 17	BD.2.7.2.0.12	Z - BRACKET SIGN SUPPORT (F - SHAPE BARRIER)
13 OF 17	BD.2.7.2.0.13	Z - BRACKET SIGN SUPPORT (POST AND RAIL BARRIER)
14 OF 17	BD.2.7.2.0.14	Z - BRACKET SIGN SUPPORT (POST AND RAIL BARRIER)
15 OF 17	BD.2.7.2.0.15	CONTRAFLOW SIGNS (GROUND MOUNTED)
16 OF 17	BD.2.7.2.0.16	CONTRAFLOW SIGNS (F - SHAPE BARRIER)
17 OF 17	BD.2.7.2.0.17	CONTRAFLOW SIGNS (POST AND RAIL BARRIER)

SHEET NUMBER 338

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES # 1 OF 17
K. BRAUNER	C. GUIDRY	K. BRAUNER	C. GUIDRY	C. BOURGEOIS	

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30067
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER: DATE: 7/1/2022

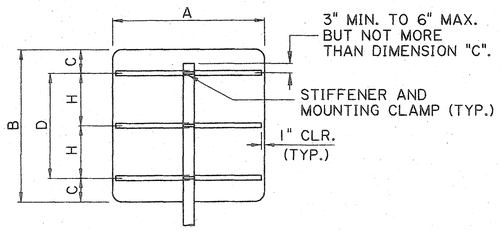
WIND LOAD MAP & GENERAL NOTES

ROADSIDE SIGNING STANDARDS

STANDARD PLAN

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

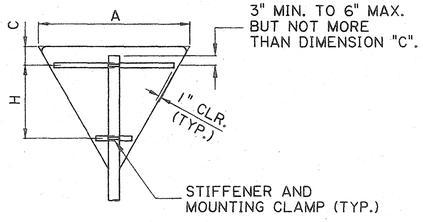
BRIDGE AND STRUCTURAL DESIGN



SQUARE, RECTANGLE, CIRCLE, OCTAGON AND ROUTE MARKERS

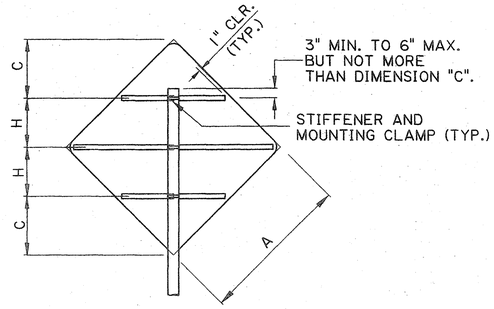
SQUARE, RECTANGLE, CIRCLE, OCTAGON AND ROUTE MARKERS					
A (IN.)	B (IN.)	C (IN.)	D (IN.)	H (IN.)	STIFFENER NUMBER REQUIRED
VARIABLE 12" TO 48"	6	3			1
	12	6			1
	15	7.5			1
	18	9			1
	24	6	12		2
	30	7.5	15		2
	36	7.5	21		2
	48	10	28		2
	60	9	42	21	3
	72	11	6 △	25	3
	84	10.5	6 △	21	4
48	96	12	6 △	24	4

△ LOCATION OF BORDER ANGLE FROM EDGE



EQUILATERAL TRIANGLE

EQUILATERAL TRIANGLE			
A (IN.)	C (IN.)	H (IN.)	STIFFENER NUMBER REQUIRED
24	8		1
30	6	10	2
36	6	12.5	2
48	6	23	2
60	6	33.5	2



DIAMOND

DIAMOND			
A (IN.)	C (IN.)	H (IN.)	STIFFENER NUMBER REQUIRED
24	10	6.97	1
30	12	9.21	2
36	14	11.46	2
48	18.5	15.44	3
60	22.5	19.93	3

NOTES:

NO BOLTS SHALL BE PLACED THROUGH FACE OF SIGN.

ALL TRACK HEAD BOLTS SHALL HAVE HEADS DESIGNED TO FIT AND TRANSMIT LOAD TO BOLT SLOTS IN THE STIFFENER.

STIFFENERS SHALL BE ALUMINUM EXTRUSIONS AS DETAILED ON THIS SHEET UNLESS OTHERWISE NOTED.

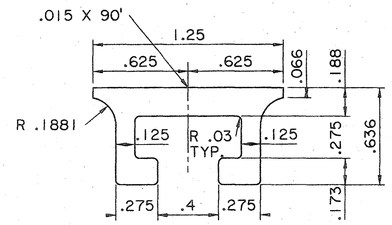
MOUNTING CLAMPS REQUIRED AT EACH HORIZONTAL STIFFENER.

SIGN PANELS AND POSTS SHALL BE THE SIZE REQUIRED ON THE PLANS AND SUMMARY SHEET.

SEE OTHER SHEETS FOR MOUNTING DETAILS.

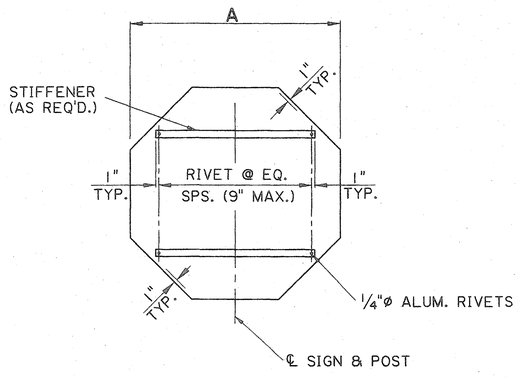
ALL SIGNS THAT REQUIRE BACKING SHALL BE INSTALLED WITH RIVETS.

THIS SHEET TO BE USED WITH WIND LOAD MAP AND GENERAL NOTES SHEET.

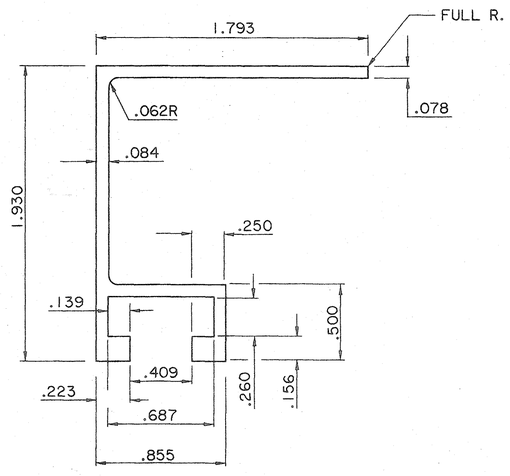


EXTRUDED CHANNEL DETAIL

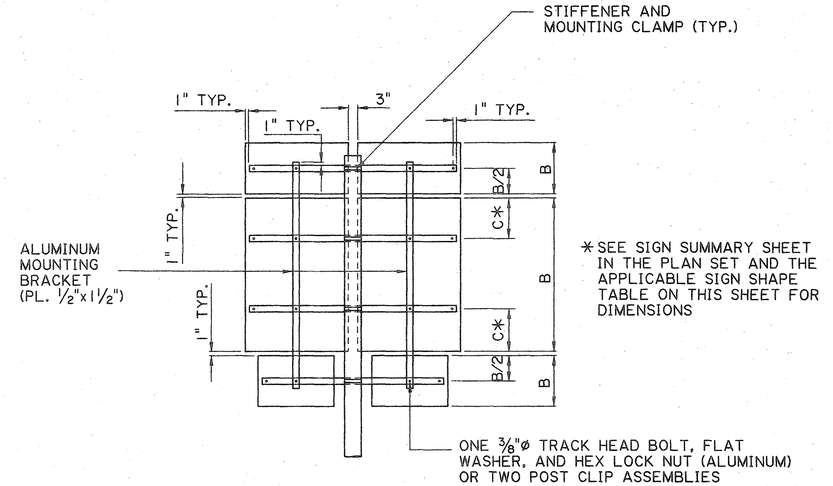
TYPE A SIGNS



TYPICAL SIGN BACKING DETAIL



EXTRUSION STIFFENER
THIS STIFFENER REQUIRES THE USE OF RIVETS



TYPE B SIGN
CLUSTER ASSEMBLY

SHEET NUMBER 339

PARISH: EAST BATON ROUGE
CONTROL SECTION: 000-17, 258-33, 450-10
STATE PROJECT: H.012232

DESIGN: K. BRAUNER
CHECK: C. GUIDRY
DETAIL: K. BRAUNER
CHECK: C. GUIDRY
REVIEW: C. BOURGEOIS
SERIES # 2 OF 17

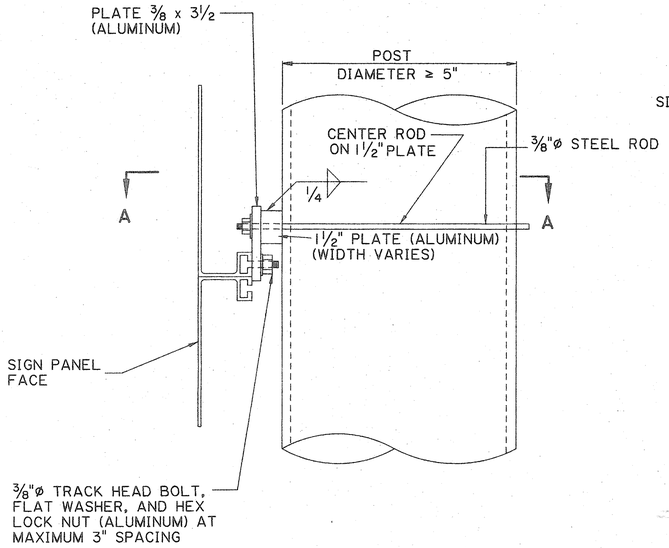
STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER:
DATE: 7/1/2022

PANEL DETAILS
(TYPE A & B SIGNS)

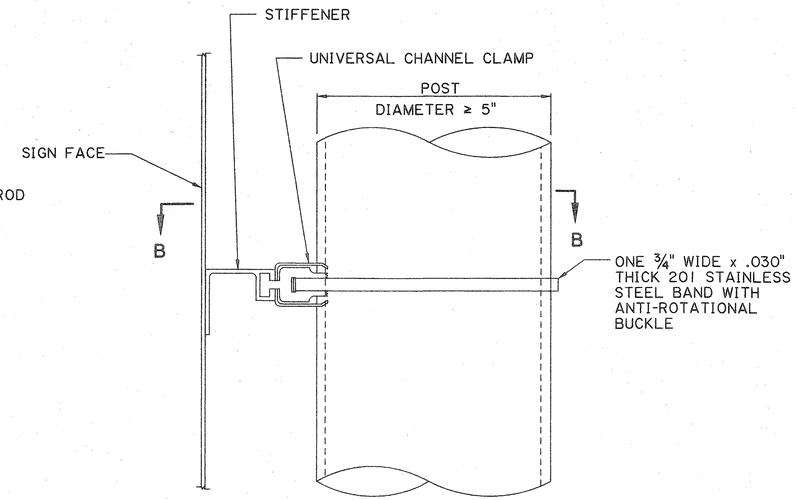
STANDARD SLAB
ROADSIDE SIGNING STANDARDS

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
BRIDGE AND STRUCTURAL DESIGN



ELEVATION

(TYPICAL AT EACH STIFFENER)



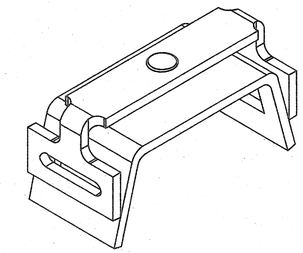
ELEVATION

TYPICAL AT EACH STIFFENER

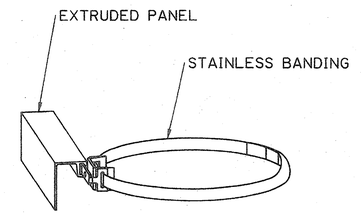
NOTES:
NO BOLTS SHALL BE PLACED THROUGH FACE OF SIGN.

ALL TRACK HEAD BOLTS SHALL HAVE HEADS DESIGNED TO FIT AND TRANSMIT LOAD TO BOLT SLOTS IN THE STIFFENER.

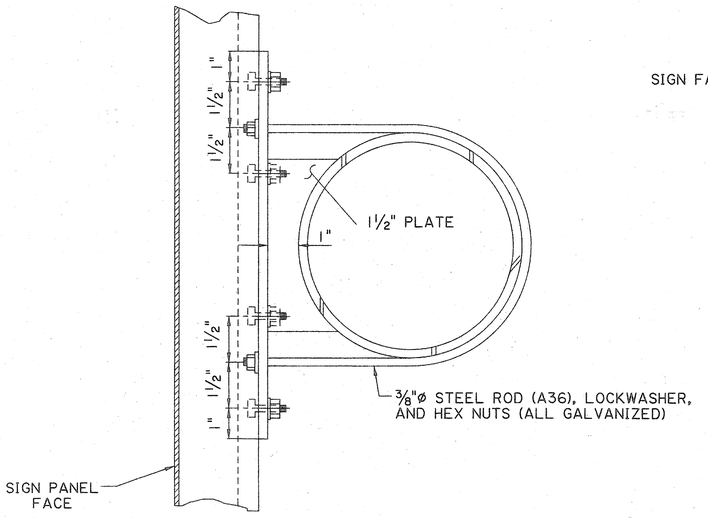
MOUNTING CLAMP REQUIRED AT EACH HORIZONTAL STIFFENER.



STAINLESS STEEL BANDING



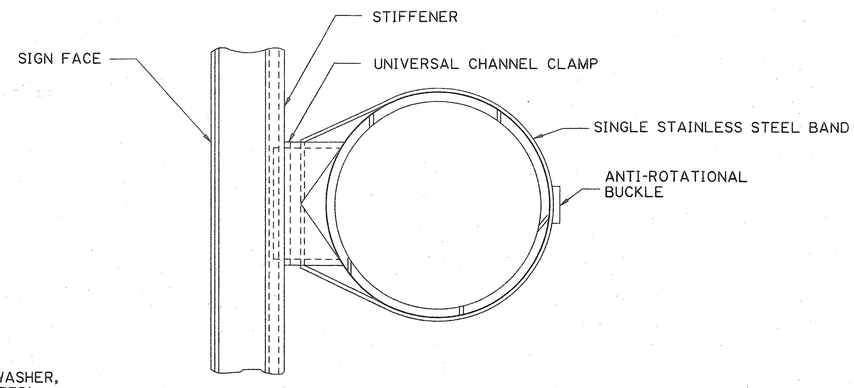
EXTRUDED PANEL BANDING CLIP



SECTION A-A

MOUNTING DETAIL (TYPE I)

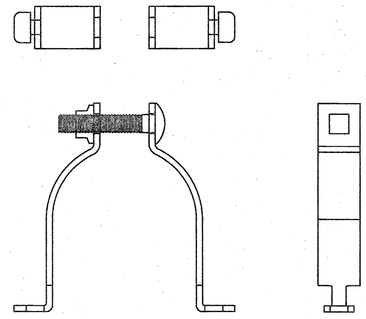
FOR NON-TAPERED ROUND METAL POST SIZES ≥ 5" DIAMETER AND SIGNS > 20 SQ. FT.



SECTION B-B

MOUNTING DETAIL (BAND TYPE)

FOR ALL POSTS ≥ 5" AND WITH SIGN AREAS ≤ 20 SQ. FT. OR LESS THAN 4 FEET WIDE



ROUND POST CLAMPS

SHEET NUMBER 340

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES
K. BRAUNER	C. GUIDRY	K. BRAUNER	C. GUIDRY	C. BOURGEOIS	3 OF 17

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER: DATE: 7/1/2022

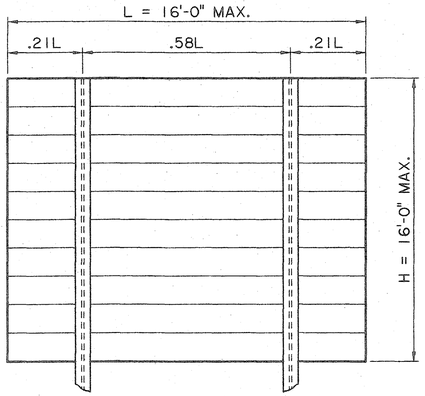
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

MOUNTING DETAILS (TYPE A & B SIGNS)

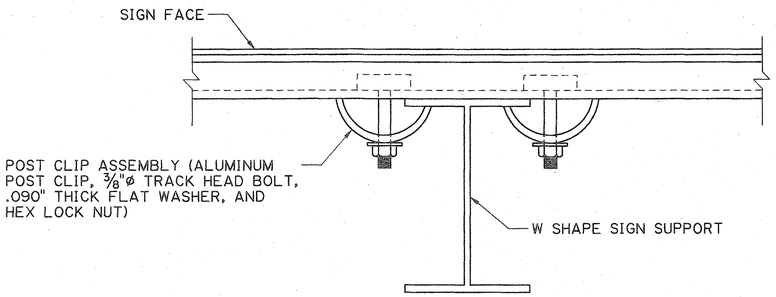
STANDARD PLAN: ROADSIDE SIGNING STANDARDS

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

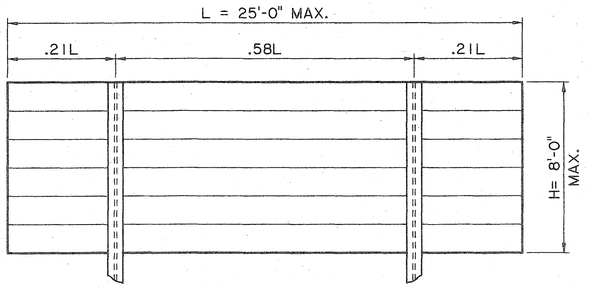
BRIDGE AND STRUCTURAL DESIGN



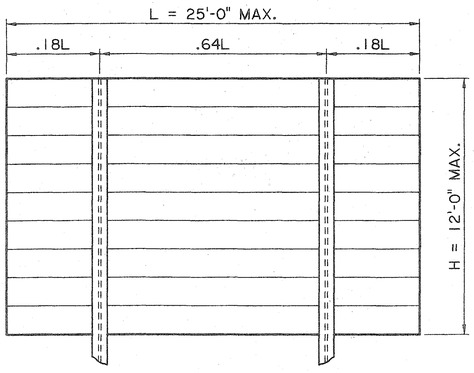
2 POSTS



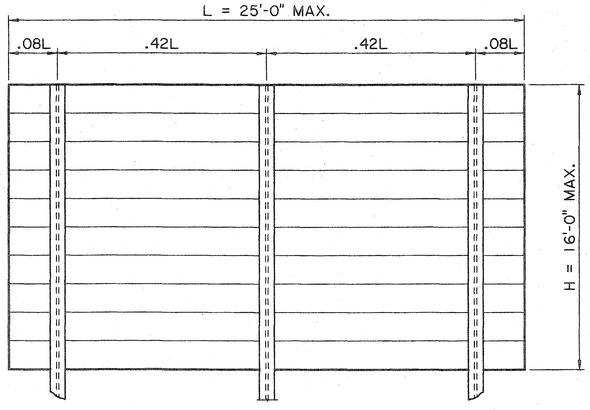
MOUNTING DETAIL (TYPE II)



2 POSTS



2 POSTS



3 POSTS

SHEET NUMBER 341

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	K. BRAUNER
CHECK	C. GUIDRY
DETAIL	K. BRAUNER
CHECK	C. GUIDRY
REVIEW	C. BOURGEOIS
SERIES #	4 OF 17

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

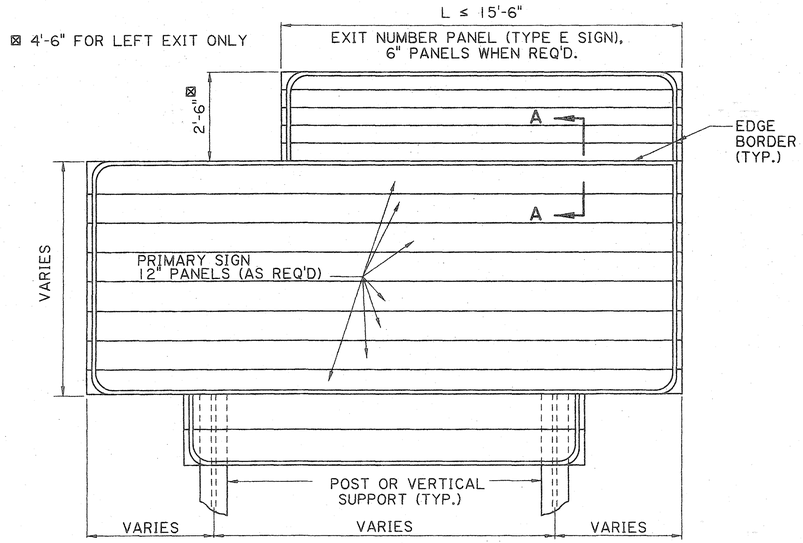
APPROVED BY CHIEF ENGINEER:
DATE: 7/1/2022

SPACING OF POSTS FOR GROUND MOUNTED SIGNS

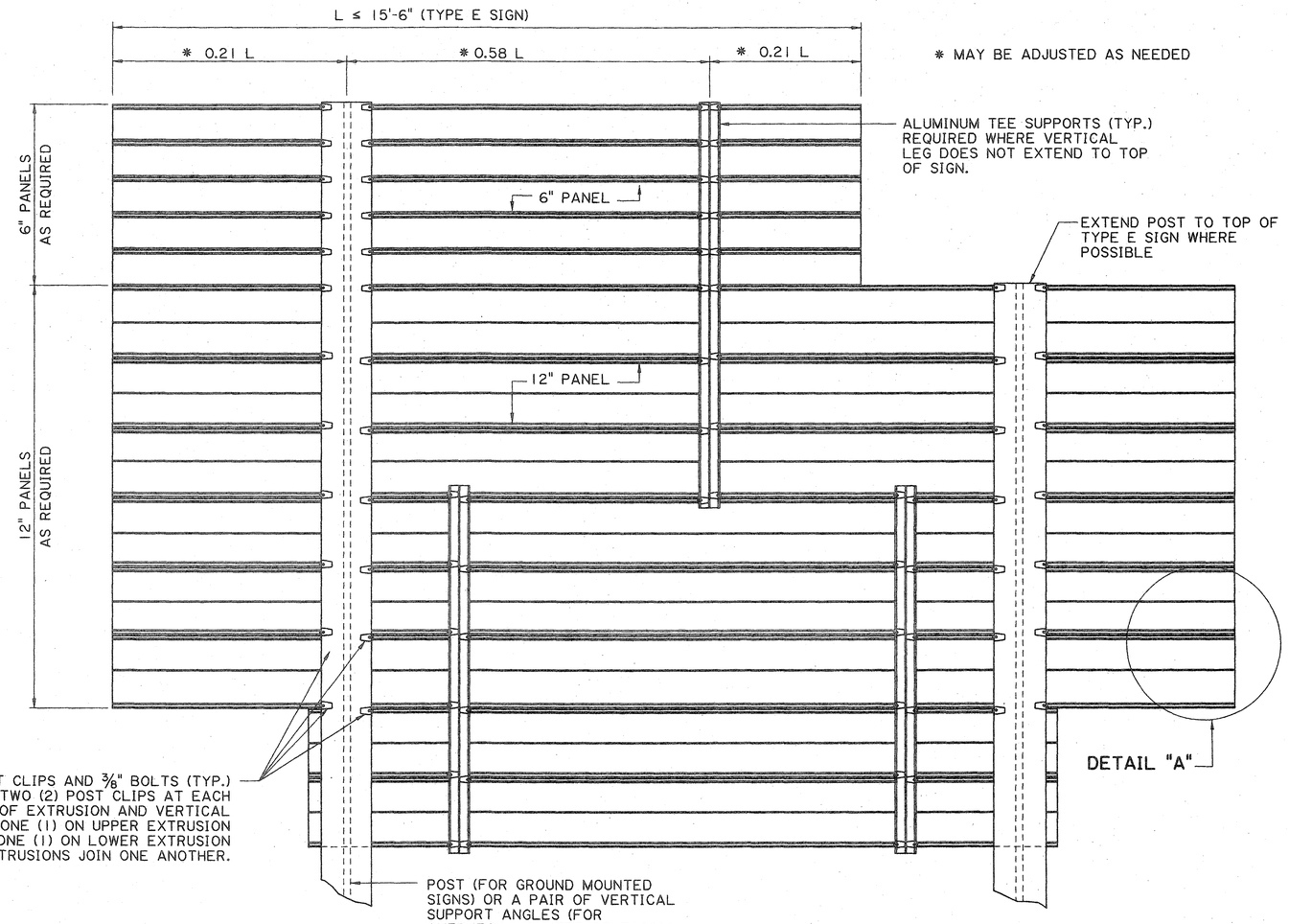
STANDARD PLAN # ROADSIDE SIGNING STANDARDS

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

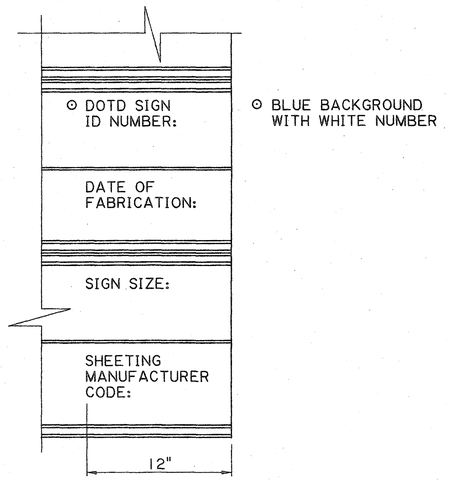
BRIDGE AND STRUCTURAL DESIGN



FRONT ELEVATION



BACK ELEVATION



DETAIL "A"

2" LETTERING IN LAST 12" OF SIGN, SEE MISCELLANEOUS NOTE ON GENERAL NOTE SHEET OF TRAFFIC SIGN DETAILS.

NOTES:

EXTRUDED ALUMINUM PANELS WILL BE ALLOWED AS AN ALTERNATE TO SIGN PANEL DETAILS FOR TYPE "D" AND "E" GROUND MOUNTED SIGNS ONLY. NUMBER AND SPACING OF POST SHALL MATCH THOSE SHOWN FOR PANEL DETAILS.

ALL 12" EXTRUDED ALUMINUM PANELS SHALL BE ALUMINUM ALLOY 6063-T6.
ALL POST CLIPS SHALL BE ALUMINUM ALLOY 356-T6.
ALL EXTRUDED PANEL BOLTS AND POST CLIP BOLTS SHALL BE ALUMINUM.
ALL HEX LOCK NUTS SHALL BE ALUMINUM ALLOY 2017-T4.
ALL POST CLIP BOLTS SHALL BE TORQUED TO A MINIMUM OF 175 IN-LBS.
ALL POST CLIP BOLTS SHALL HAVE HEADS DESIGNED TO FIT THE BOLT SLOTS IN THE PANELS.

TYPE E SIGNS SHALL BE ATTACHED TO PRIMARY SIGNS WITH ALUMINUM TEE SUPPORTS, (5'-1" LENGTH), POST CLIPS, POST CLIP BOLTS, AND HEX LOCK NUTS.

FOR NEW OVERHEAD SIGNS (INCLUDING FASCIA MOUNTED) INCORPORATING EXISTING MOUNTS, THE CONTRACTOR WILL PLACE VERTICAL SUPPORT ANGLES WITHOUT SPLICES THAT EXTEND THE FULL HEIGHT OF THE EXTRUDED PRIMARY SIGN PANEL.

FOR NEW TYPE D SIGNS INCORPORATING EXISTING MOUNTS, THE EXISTING POST MAY BE REUSED IF THE NEW SIGN PANEL DOES NOT EXTEND OVER 2'-0" ABOVE THE EXISTING POST. SUCH NEW SIGNS WILL BE MOUNTED TO ALUMINUM TEE SUPPORTS BEGINNING AT THE TOP OF THE SIGN AND EXTENDING DOWNWARD FROM THE TOP OF THE POST THE DISTANCE THE NEW SIGN IS ABOVE THE EXISTING POST PLUS 1'-0". ONE TEE IS REQUIRED ADJACENT TO EACH EXISTING POST AND ATTACHED WITH POST CLIPS AS SHOWN FOR NEW TYPE E SIGNS. IF THE NEW SIGN EXTENDS OVER 2'-0" ABOVE THE EXISTING POST, THE CONTRACTOR IS TO REPLACE THE EXISTING POST AND MEET DETAILS FOR NEW CONSTRUCTION.

REFLECTIVE SHEETING FOR EXTRUDED PANELS: ONLY SPLICES THAT OCCUR AS PART OF THE MANUFACTURING PROCESS SHALL BE PERMITTED. A MAXIMUM OF TWO VERTICAL SPLICES ON ANY ONE SIGN FABRICATED USING EXTRUDED PANELS, WITH ONE SPLICE PER EXTRUDED PANELS SHALL BE ALLOWED. ALL "EXIT ONLY" PANELS THAT ARE DETAILED WITH THE TOP AND/OR BOTTOM EDGE NOT AT AN EXTRUDED PANEL EDGE SHALL BE FABRICATED FROM .080" ALUMINUM AND ATTACHED AS AN OVERLAY. ALL OTHER "EXIT ONLY" PANELS SHALL BE FABRICATED BY APPLYING THE YELLOW REFLECTIVE SHEETING ON THE EXTRUDED PANELS. THE REFLECTIVE SHEETING APPLIED TO EXTRUDED PANELS SHALL EXTEND APPROXIMATELY 1/4" OVER EACH SIDE AND SHALL BE ADHERED TO THE SIDE OF THE PANEL.

THIS SHEET TO BE USED WITH WIND LOAD MAP AND GENERAL NOTE SHEET.

SHEET NUMBER 342

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

	DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES #
K. BRAUNER	K. BRAUNER				C. BOURGEOIS	5 OF 17
C. GUIDRY	C. GUIDRY					

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER: DATE: 7/1/2022

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

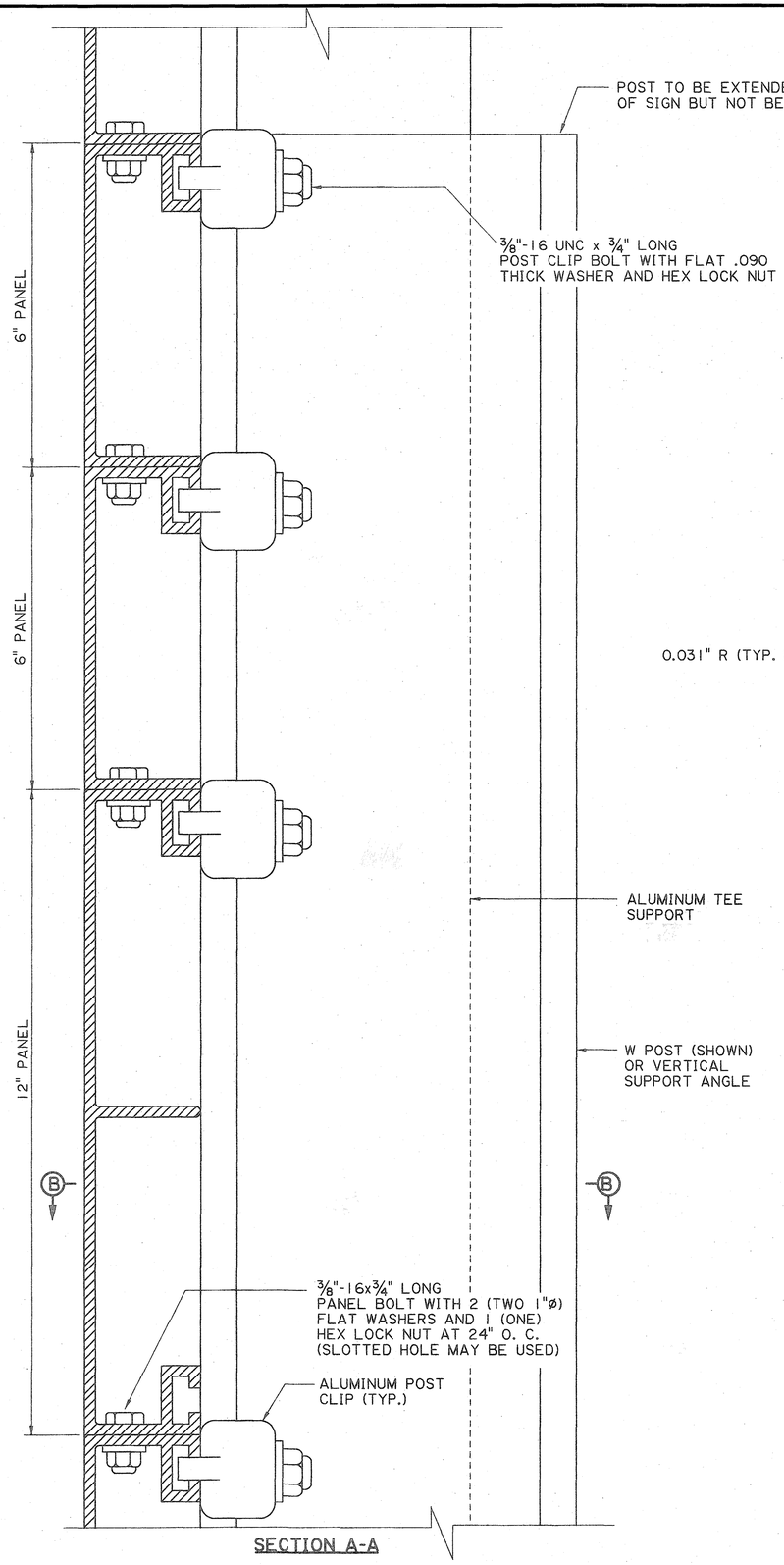
EXTRUDED ALUMINUM SIGNS (TYPE D & E SIGNS)

STANDARD SLA4

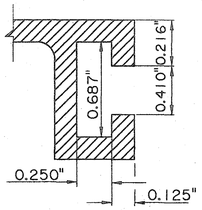
ROADSIDE SIGNING STANDARDS

DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

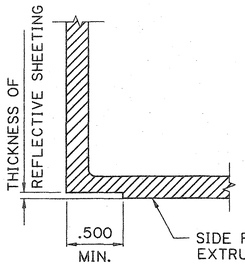
BRIDGE AND STRUCTURAL DESIGN



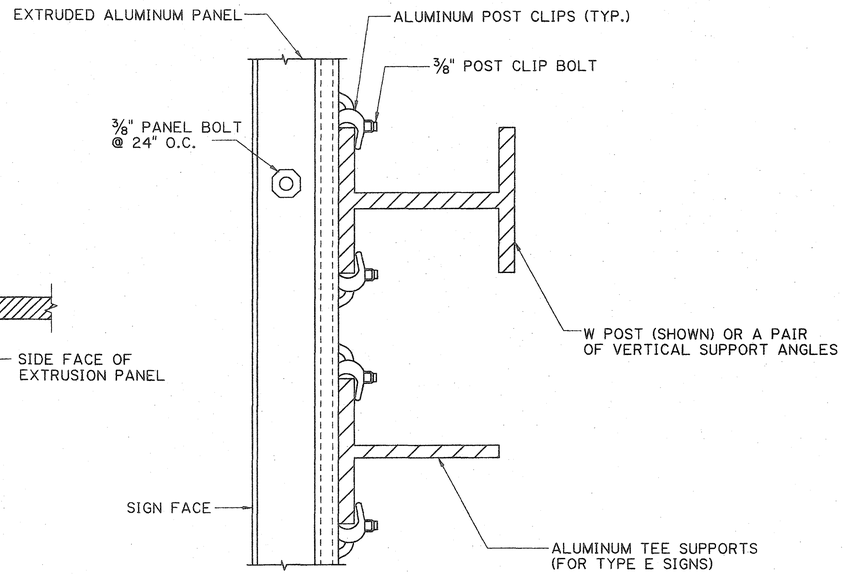
SECTION A-A



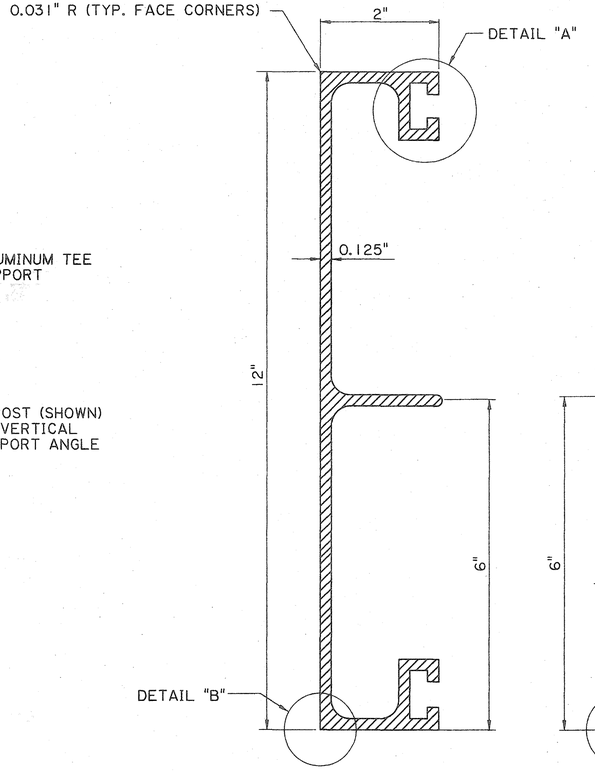
DETAIL "A"



DETAIL "B"

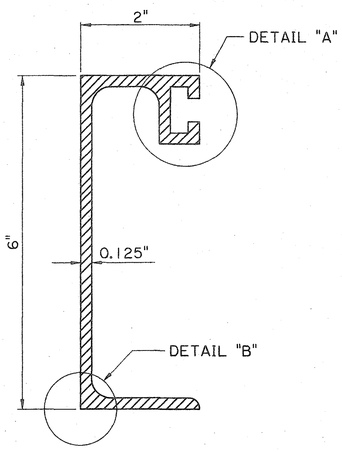


SECTION B-B



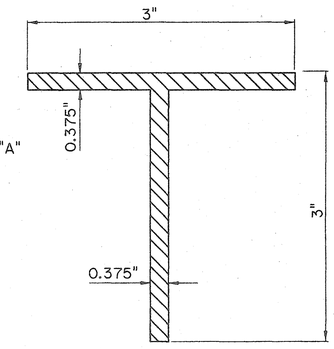
12" PANEL

MINIMUM WALL THICKNESS IS 0.080" UNLESS OTHERWISE SPECIFIED

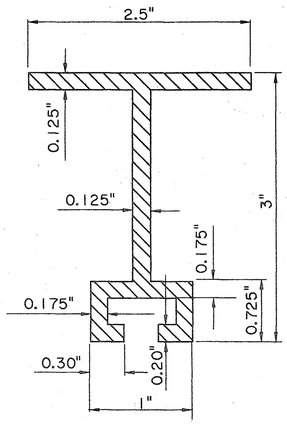


6" PANEL

MINIMUM WALL THICKNESS IS 0.080" UNLESS OTHERWISE SPECIFIED



3"x3"x3/8"



3"x2.5"

ALUMINUM TEE SUPPORTS

FOR TYPE E SIGNS

SHEET NUMBER 343

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	K. BRAUNER
CHECK	C. GUIDRY
DETAIL	K. BRAUNER
CHECK	C. GUIDRY
REVIEW	C. BOURGEOIS
SERIES #	6 OF 17

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER:

DATE: 7/1/2022

EXTRUDED ALUMINUM PANELS (TYPE D & E SIGNS)

ROADSIDE SIGNING STANDARDS

STANDARD PLAN

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

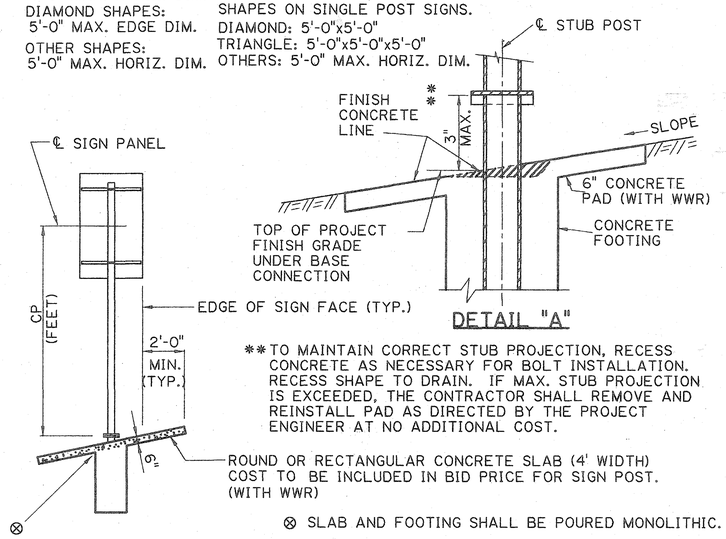
BRIDGE AND STRUCTURAL DESIGN

TYPE A SIGN

RECTANGULAR SHAPES:
4'-0" MAX. HORIZ. DIM.
DIAMOND SHAPES:
5'-0" MAX. EDGE DIM.
OTHER SHAPES:
5'-0" MAX. HORIZ. DIM.

TYPE B SIGN

CLUSTER ASSEMBLY
MAX. DIM. FOR DIFFERENT SIGN BLANK SHAPES ON SINGLE POST SIGNS.
DIAMOND: 5'-0"x5'-0"
TRIANGLE: 5'-0"x5'-0"x5'-0"
OTHERS: 5'-0" MAX. HORIZ. DIM.



DETAIL "A"

** TO MAINTAIN CORRECT STUB PROJECTION, RECESS CONCRETE AS NECESSARY FOR BOLT INSTALLATION. RECESS SHAPE TO DRAIN. IF MAX. STUB PROJECTION IS EXCEEDED, THE CONTRACTOR SHALL REMOVE AND REINSTALL PAD AS DIRECTED BY THE PROJECT ENGINEER AT NO ADDITIONAL COST.

⊗ SLAB AND FOOTING SHALL BE POURED MONOLITHIC.

SINGLE POST MOUNTS

CP	TOTAL SQ. FT. SIGN AREA — STEEL ALTERNATE — ZONE I								ZONE II							
	5	10	15	20	25	30	35		5	10	15	20	25	30	35	
7	1	1	1	2	2	2	3		1	1	2	2	3	3	3	
8			2			2				1						
9					3					2						
10				2								2				
11		1			3							3				
12	1	2							1							
13	2			2					2						3	
14				3							2				4	
15				3							3				4	
16	2	2	2	3	3	3	3		2	2	3	3	3	3	4	

SINGLE POST PIPE & TUBE SECTIONS

NO.	STEEL
1	2½" ø SCH. 40
2	3½" ø SCH. 40
3	5" ø SCH. 40
4	6" ø SCH. 40

NOTES:

W POST SECTIONS AND TABLE:
COLUMNS HEADED BY THE NUMBERS 27 AND 20 REPRESENT THE DESIGN WIND PRESSURE IN POUNDS PER SQUARE FOOT.
SEE ACCOMPANYING LOUISIANA WIND MAP TO DETERMINE THE DESIGN WIND PRESURE.
L - LENGTH OF SIGN PANEL DESIGNED.
H - HEIGHT OF SIGN PANEL DESIGNED.
ALL DIMENSIONS ARE IN INCREMENTS OF EVEN FEET.

THIS SHEET TO BE USED WITH WIND LOAD MAP AND GENERAL NOTE SHEET.

CONCRETE SLAB TO BE REINFORCED WITH A.S.T.M. A1064 WWR 4x4-W4.0 x W4.0 AND FINISHED IN ACCORDANCE WITH LA. STD. SPECS. 805.08.5.

✡ 30' MAX. (15' MIN.) FOR FREEWAYS AND EXPRESSWAYS. 15' FOR FRONTAGE ROADS, "BRIDGE ICES BEFORE ROAD" SIGNS, AND TYPE D RAMP SIGNS. SEE SIGN SUMMARY SHEETS. PROJECT ENGINEER MAY ADJUST ON A CASE-BY-CASE BASIS.

⊠ 7' MINIMUM FOR ROUTE MARKERS, WARNING AND REGULATORY SIGNS. 8' MINIMUM FOR GUIDE SIGNS WHEN SECONDARY SIGN MOUNTED BELOW.

⊙ MOUNTING HEIGHT SHALL BE 7'-0" MIN. UNLESS OTHERWISE NOTED ON THE SIGN SUMMARY SHEET. CHEVRON SIGNS (W1-8) MAY BE INSTALLED AT 4'-0" OR HIGHER.

W POST SECTIONS FOR DOUBLE & TRIPLE POST MOUNTINGS

PL	STEEL		PL	STEEL		PL	STEEL		PL	STEEL	
L	H	27	20	L	H	27	20	L	H	27	20	L	H	27	20
5	1	1	1	12	5	2	1	16	15	4	4	21	8	3	3
5	2	1	1	12	6	2	2	16	16	4	4	21	9	4	3
5	3	1	1	12	7	2	2	17	4	2	2	21	10	4	3
5	4	1	1	12	8	2	2	17	5	2	2	21	11	4	4
5	5	1	1	12	9	2	2	17	6	2	2	21	12	4	4
5	6	1	1	12	10	2	2	17	7	3	2	21	13	4	3
6	1	1	1	12	11	3	2	17	8	3	2	21	14	4	3
6	2	1	1	12	12	3	2	17	9	3	3	21	15	4	4
6	3	1	1	12	13	3	3	17	10	3	3	21	16	4	4
6	4	1	1	13	3	1	1	17	11	4	3	22	4	2	2
6	5	1	1	13	4	1	1	17	12	4	3	22	5	2	2
6	6	1	1	13	5	2	1	17	13	3	3	22	6	3	2
6	7	1	1	13	6	2	2	17	14	3	3	22	7	3	3
7	2	1	1	13	7	2	2	17	15	4	3	22	8	3	3
7	3	1	1	13	8	2	2	17	16	4	3	22	9	4	3
7	4	1	1	13	9	2	2	18	3	2	1	22	10	4	3
7	5	1	1	13	10	3	2	18	4	2	2	22	11	4	4
7	6	1	1	13	11	3	2	18	5	2	2	22	12	4	4
7	7	1	1	13	12	3	3	18	6	2	2	22	13	4	3
7	8	1	1	13	13	3	3	18	7	3	2	22	14	4	4
8	2	1	1	13	14	4	3	18	8	3	2	22	15	4	4
8	3	1	1	14	3	1	1	18	9	3	3	22	16	4	4
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8	5	1	1	14	5	2	2	18	11	4	3	23	5	3	2
8	6	1	1	14	6	2	2	18	12	4	3	23	6	3	3
8	7	1	1	14	7	2	2	18	13	3	3	23	7	3	3
8	8	2	1	14	8	2	2	18	14	4	3	23	8	4	3
8	9	2	1	14	9	3	2	18	15	4	3	23	9	4	3
9	2	1	1	14	10	3	2	18	16	4	3	23	10	4	4
9	3	1	1	14	11	3	3	19	3	2	1	23	11	4	4
9	4	1	1	14	12	3	3	19	4	2	2	23	12	4	4
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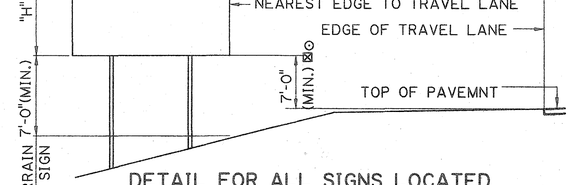
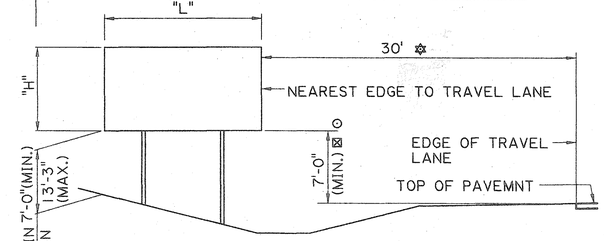
11	8	2	2	16	8	3	2	20	14	4	3	25	10	4	4
11	9	2	2	16	9	3	2	20	15	4	4	25	11	4	4
11	10	2	2	16	10	3	3	20	16	4	4	25	12	5	4
11	11	3	2	16	11	3	3	21	4	2	2	25	13	4	4
11	12	3	2	16	12	4	3	21	5	2	2	25	14	4	4
12	3	1	1	16	13	4	3	21	6	3	2	25	15	4	4
12	4	1	1	16	14	4	3	21	7	3	3	25	16	5	4

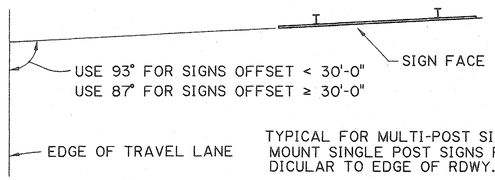
REAR ELEVATION OF SINGLE POST MOUNTING



DETAIL FOR ALL SIGNS LOCATED ON FORE SLOPE (TWO SUPPORTS SHOWN)



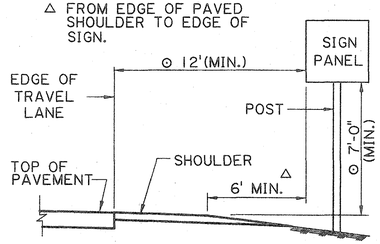
DETAIL FOR ALL SIGNS LOCATED ON BACK SLOPE (TWO SUPPORTS SHOWN)



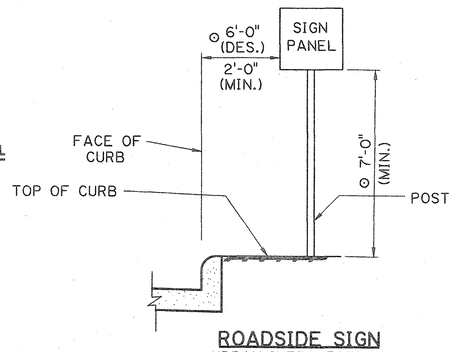
TYPICAL FOR MULTI-POST SIGNS. MOUNT SINGLE POST SIGNS PERPENDICULAR TO EDGE OF RDWY.

LOCATION OF ALL GROUND MOUNTED SIGN STRUCTURES (TWO SUPPORTS SHOWN)

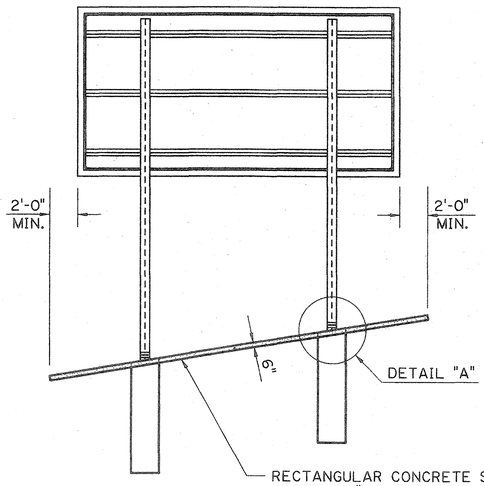
△ FROM EDGE OF PAVED SHOULDER TO EDGE OF SIGN.



ROADSIDE SIGN
RURAL INTERSECTIONS



ROADSIDE SIGN
URBAN INTERSECTIONS



REAR ELEVATION OF MULTI - POST MOUNTING

W SECTIONS	
NO.	STEEL
1	W6x12
2	W8x18
3	W8x24
4	W10x33
5	W12x40
6	W12x45

SHEET NUMBER 344

PARISH: EAST BATON ROUGE
CONTROL SECTION: 000-17, 258-33, 450-10
STATE PROJECT: H.012232

DESIGN: K. BRAUNER
CHECK: C. GUIDRY
DETAIL: K. BRAUNER
CHECK: C. GUIDRY
REVIEW: C. BOURGEOIS
SERIES # 7 OF 17

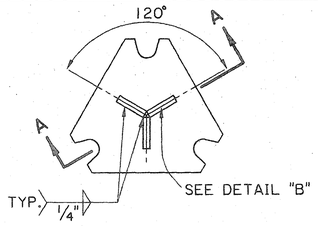
STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER:
DATE: 7/1/2022

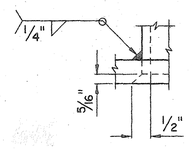
ROADSIDE MOUNTED SIGNS (TYPE A, B, & D SIGNS)

STANDARD PLAN NO.
ROADSIDE SIGNING STANDARDS

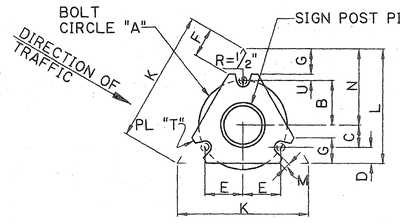
DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
BRIDGE AND STRUCTURAL DESIGN



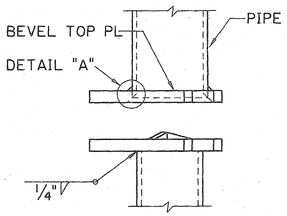
TOP VIEW STUB POST



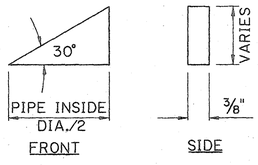
DETAIL "A"



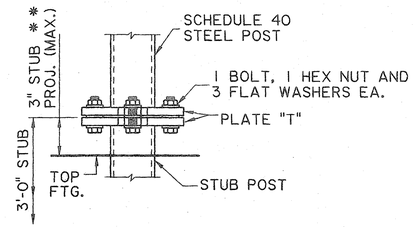
PLAN OF BASE



SECTION A-A



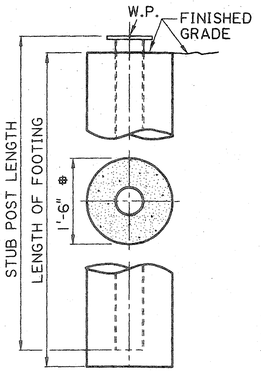
DETAIL "B"
3 REQ'D.



ELEVATION OF BASE CONNECTION
STEEL

MULTI-DIRECTIONAL BASE
SINGLE STEEL POST ONLY

** IF MAX. STUB PROJECTION IS EXCEEDED, CONTRACTOR SHALL REMOVE AND REINSTALL PAD AS DIRECTED BY THE PROJECT ENGINEER AT NO COST TO THE DEPARTMENT.



FOR 2½"ø (STEEL) POST SECTIONS, FOOTING DIAMETER SHALL BE 1'-0"

FOOTING DETAIL
PIPE SECTIONS

PROCEDURE FOR ASSEMBLY OF BASE CONNECTION:

SPECIAL CARE SHALL BE TAKEN TO SET THE BASE PLUM TO AVOID EXCESSIVE SHIMMING AT THE BREAK-AWAY FEATURE AFTER FINAL INSTALLATION. EXCESSIVE SHIMMING COULD IMPAIR THE BREAK-AWAY FEATURE FOR WHICH THIS INSTALLATION WAS DESIGNED.

1. BASE SHALL BE ALIGNED AND SET PLUM BEFORE OR IMMEDIATELY AFTER POURING CONCRETE FOOTING.
2. H.S. BOLTS IN BASE PLATE SHALL BE TIGHTENED TO THE PRESCRIBED TORQUE. CARE SHALL BE TAKEN TO AVOID OVERTIGHTING.

FRICTION CAPS:

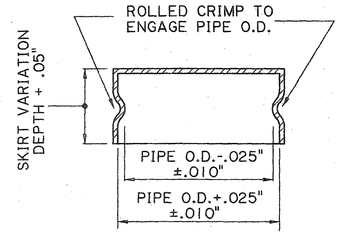
CAPS MAY BE MANUFACTURED FROM EITHER HOT ROLLED OR COLD ROLLED STEEL SHEETS. FOR PIPE SIZES 3½" AND SMALLER THE MINIMUM SHEET METAL THICKNESS SHALL BE 24 GAUGE. THE RIM EDGES SHALL BE REASONABLY STRAIGHT AND SMOOTH. CAPS SHALL BE SIZED AND FORMED IN SUCH A MANNER AS TO PRODUCE A DRIVE-ON FRICTION FIT AND HAVE NO TENDENCY TO ROCK WHEN SEATED ON THE PIPE. THE DEPTH SHALL BE SUFFICIENT TO GIVE POSITIVE PROTECTION AGAINST ENTRANCE OF RAINWATER. THEY SHALL BE FREE OF SHARP CREASES OR INDENTATIONS AND SHOW NO EVIDENCE OF METAL FRACTURE. CAPS SHALL HAVE A ELECTRODEPOSITED COATING OF ZINC IN ACCORDANCE WITH THE REQUIREMENTS OF A.S.T.M. SPECIFICATION B633 SC4, TYPE I.

THIS SHEET TO BE USED WITH WIND LOAD MAP AND GENERAL NOTE SHEET.

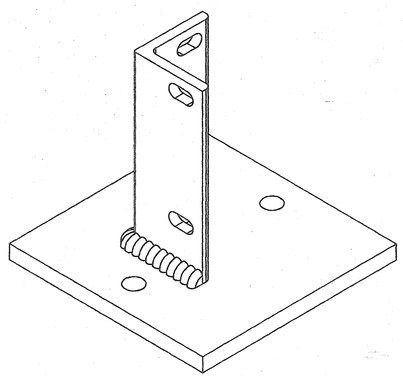
STEEL MULTI-DIRECTIONAL BASE CONNECTION DATA																	
NOMINAL PIPE SIZE	BOLT SIZE ⊙ & TORQUE	WELD SIZE	T	Y	A	B	C	D	E	F	G	K	L	M	N	U
2½" OR 3½" DIA.	⅝" T=226	⅜"	⅝"	7"	7"	3½"	1¾"	1¼"	3"	2⅝"	2"	10⅜"	9"	½"	6"	½"

FOR STUB POST LENGTH & FOOTING DIMENSION SEE TABLE BELOW AND FOOTING DETAIL.
⊙ TORQUE IN INCH-LBS., BOLTS ARE HIGH STRENGTH

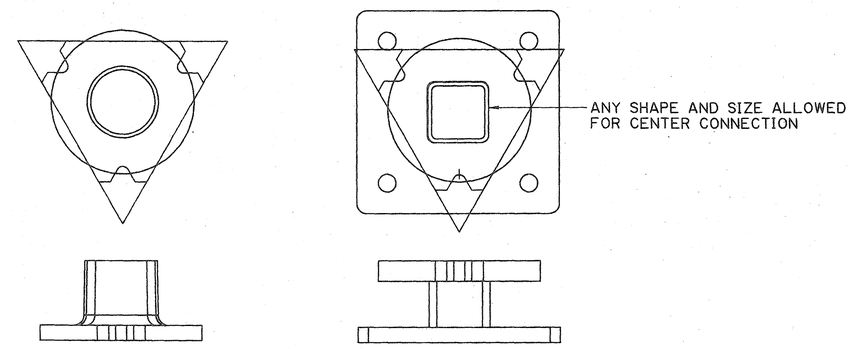
FOOTING DATA			
POST DIA.	STUB L	FOOTING L	CU.YD. CONC.
2½"	36"	36"	0.09
3½"	36"	36"	0.20
5"	48"	48"	0.26



FRICTION CAP DETAIL
USED AT TOP OF ALL POSTS



SURFACE MOUNT FOR MILE MARKERS
(SQUARE TUBE ONLY)



TYPICAL TOP ASSEMBLY

TYPICAL BOTTOM ASSEMBLY

CONCRETE SURFACE MOUNT

SHEET NUMBER 345

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES * 8 OF 17
K. BRAUNER	C. GUIDRY	K. BRAUNER	C. GUIDRY	C. BOURGEOIS	

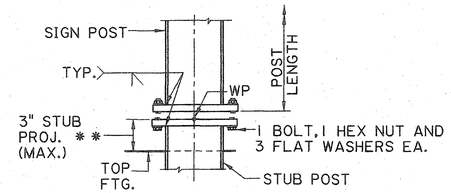
STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER: DATE: 7/1/2022

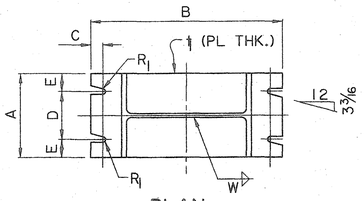
ROADSIDE MOUNTED SIGN DETAILS (TYPE A & B SIGNS)

STANDARD PLAN NO. ROADSIDE SIGNING STANDARDS

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
BRIDGE AND STRUCTURAL DESIGN

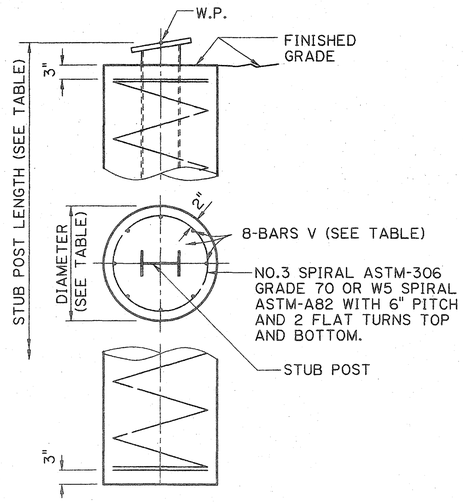


ELEVATION OF HORIZONTAL CONNECTION W SECTION



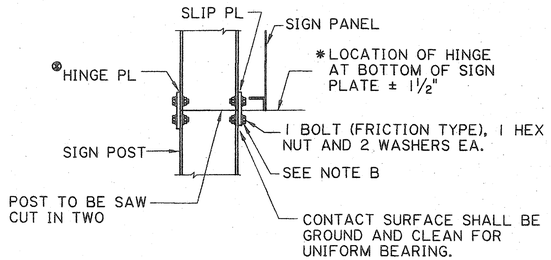
PLAN BASE PLATE AND POST

ADD 1/2" FOR BEVELED BASE PLATES



CONCRETE FOOTING DETAIL W SECTION

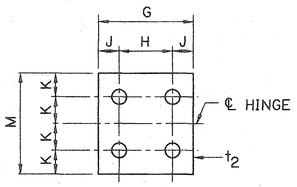
NOTE:
NO REINFORCING STEEL IS REQUIRED FOR 'S' SECTION.



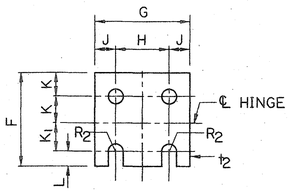
SLIP PLATE CONNECTION DETAIL

℄ WHEN SIGN IS LOCATED ON SIDE OF ROADWAY WITH TWO WAY TRAFFIC, A SLIP PLATE WILL BE USED ON BOTH SIDES OF THE POST IN LIEU OF THE HINGE PLATE SHOWN

* FOR EXTRUSION SIGN PANEL ALTERNATE, LOCATION OF ℄ HINGE SHALL BE 3 1/2" FROM BOTTOM OF SIGN PANEL.



HINGE PLATE DETAIL



SLIP PLATE DETAIL

BOLT HOLE DIAMETERS TO BE EQUAL TO BOLT DIA. + 1/16" IN POST FLANGE AND SLIP PLATE.

SLIP PLATE CONNECTION NOTES:

1. POST SHALL BE SAW CUT OR TORCH CUT PRIOR TO GALVANIZING.
2. SLIP PLATE SHALL BE INSTALLED WITH H.S. BOLTS AT MINIMUM BOLT TENSION.
3. TIGHTING SHALL BE OBTAINED BY
   (a) TURN OF NUT METHOD; OR
   (b) DIRECT TENSION INDICATOR METHOD USING LOAD INDICATOR WASHER. SEE NOTE A.
4. TIGHTING SHALL BE TO SUCH A DEGREE AS TO OBTAIN MINIMUM BOLT TENSION AS SPECIFIED IN STANDARD SPECIFICATIONS SUBSECTION 807.05, CURRENT AT TIME OF FABRICATION.
5. TIGHTEN BOLTS IN A SYSTEMATIC ORDER TO THE PRESCRIBED MINIMUM BOLT TENSION.

NOTE A:

WHEN HIGH STRENGTH BOLT IS TIGHTENED BY USE OF A DIRECT TENSION INDICATOR,THE INSTALLATION AND INSPECTION SHALL BE IN ACCORDANCE WITH SPECIFICATION FOR STRUCTURAL JOINTS, SECTION 5 AND 6 FOR ASTM A-325 BOLTS APPROVED BY THE RESEARCH COUNCIL ON RIVETED AND BOLTED STRUCTURAL JOINTS. FOR DETAILED INSTALLATION AND INSPECTION PROCEDURES FOLLOWED MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL BE REQUIRED TO SUBMIT BROCHURES TO THE BRIDGE DESIGN ENGINEER FOR APPROVAL.

NOTE B:

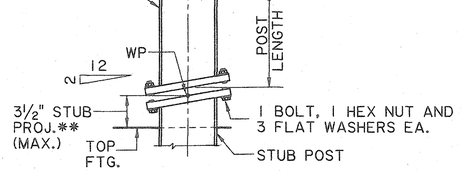
WHEN HIGH STRENGTH BOLT IS TIGHTENED BY USE OF A DIRECT TENSION INDICATOR METHOD, THE WASHER UNDER THE BOLT HEAD SHALL BE A LOAD INDICATOR WASHER.

PROCEDURE FOR ASSEMBLY OF BASE CONNECTION:

SPECIAL CARE SHALL BE TAKEN TO SET THE BASE PLUMB TO AVOID EXCESSIVE SHIMMING AT THE BREAK-AWAY FEATURE AFTER FINAL INSTALLATION. EXCESSIVE SHIMMING COULD IMPAIR THE BREAK-AWAY FEATURE FOR WHICH THIS INSTALLATION WAS DESIGNED. SHIM PACKS SHOWN ON THIS DRAWING SHOULD BE SUFFICIENT TO ALLOW FOR NORMAL MISALIGNMENT.

1. BASE SHALL BE ALIGNED AND SET PLUMB BEFORE OR IMMEDIATELY AFTER POURING CONCRETE FOOTING.
2. H.S. BOLTS IN BASE PLATE SHALL BE TIGHTENED TO THE PRESCRIBED TORQUE. CARE SHALL BE TAKEN TO AVOID OVERTIGHTING.

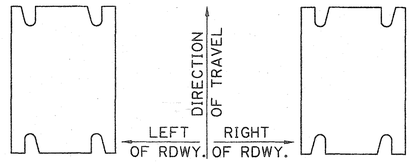
DIRECTION OF HIGHEST SPEED TRAFFIC



ELEVATION OF BEVELED CONNECTION W SECTION

TO BE USED ON ALL MULTI-POST SIGNS WITH DISTANCE BETWEEN POSTS 7'-0" ℄ TO ℄ OR LESS.

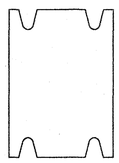
* * IF MAX. STUB PROJECTION IS EXCEEDED, CONTRACTOR SHALL REMOVE AND REINSTALL PAD AS DIRECTED BY THE PROJECT ENGINEER AT NO COST TO THE DEPARTMENT.



LEFT HAND SLOTS

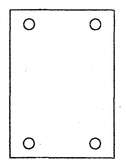
RIGHT HAND SLOTS

FOR ONE-WAY TRAFFIC LANES. FOR TWO-WAY TRAFFIC LANES, USE RIGHT HAND SLOTS ONLY.



TWO-WAY SLOTS

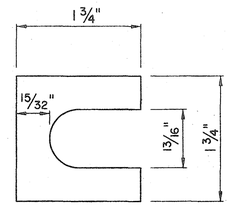
FOR GORE INSTALLATIONS



HOLES

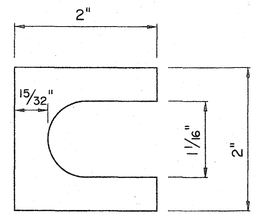
FOR BRIDGE MOUNTED SIGNS & SIGNS BEHIND GUARDRAIL

ORIENTATION AND USE OF SLOTS AND HOLES



* SHIM DETAIL

BOLTS UP TO 3/4" ø BOLTS



* SHIM DETAIL

BOLTS UP TO 1" ø BOLTS

* FURNISH 2 SHIMS 0.012"± THICK AND 2 SHIMS 0.032"± THICK PER POST. SHIMS SHALL BE BRASS CONFORMING TO A.S.T.M. SPEC. B-36 AND BE USED AS DIRECTED BY THE PROJECT ENGINEER.

DIMENSION (INCH) / SECTION	BASE CONNECTION DATA										SLIP PLATE & HINGE PLATE DATA											FOOTING DATA				
	BOLT SIZE & * TORQUE LIMITS	A	B	C	D	E	t_1	R	W	W (ALT.) SEE NOTE	F	G	H	J	K	K_1	L	M	t_2	R_2	H.S. BOLT DIA.	STUB LTH.	FTG. DIA.	LTH. OF FTG.	BARS V SIZE	CU. YD. CONC.
W6x12	5/8"ø T= 226-345	4	10	3/4	2	1	1 1/2	11/32	5/16	5/16	3 5/8	4	2 1/4	7/8	1	1 1/4	5/8	4 1/4	3/8	9/32	1/2	24	24	48	#5	0.46
W8x18		5 1/4	12	3/4	3	1 1/8	1 1/2	11/32	5/16	5/16	4 1/8	5 1/4	2 3/4	1 1/4	1 1/8	1 3/8	3/4	4 3/4	1/2	11/32	5/8	24	24	60	#6	0.58
W8x24	3/4"ø T= 369-554	6 1/2	12 1/2	7/8	3 1/4	1 5/8	1 3/4	13/32	3/8	7/16	4 1/8	6 1/2	3 1/2	1 1/2	1 1/8	1 3/8	3/4	4 3/4	1/2	11/32	5/8	30	24	72	#7	0.70
W10x33	1"ø T= 460-735	8	15 1/2	1 1/4	4 1/2	1 3/4	2	17/32	3/8	7/16	4 5/8	8	5 1/2	1 1/4	1 1/4	1 1/2	7/8	5 1/4	5/8	13/32	3/4	30	24	96	#9	0.93
W12x40		8	17 1/2	1 1/4	4 1/2	1 3/4	2	17/32	3/8	7/16	4 5/8	8	5 1/2	1 1/4	1 1/4	1 1/2	7/8	5 1/4	5/8	13/32	3/4	36	24	120	#10	1.16
W12x45		10	17 1/2	1 1/4	6	2	2	17/32	3/8	7/16	5 1/2	10	5 1/2	2 1/4	1 1/2	1 3/4	1	6 1/4	3/4	1 5/32	7/8	36	36	96	#9	2.09

* BASE PLATE TO POST WELD ALTERNATE (AS AN ALTERNATE TO WELDS SHOWN IN DETAILS, THE POST MEMBERS TABULATED MAY BE WELDED ALL AROUND WITH A FILLET WELD W(ALT.).) ALL BOLTS SHALL HAVE A MINIMUM OF 3 THREADS BEYOND THE NUT. BOLT TORQUE LIMITS ARE IN INCH POUNDS. (THE HIGH STRENGTH BOLTS AT THE BASE CONNECTION SHOULD BE TORQUED WITHIN THE LIMITS SPECIFIED, HOWEVER, THE LOWER LIMIT IS DESIRABLE). FOR NON-BREAKAWAY USE TORQUE LIMITS GIVEN IN THE STANDARD SPECIFICATIONS

SHEET NUMBER 346

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES # 9 OF 17
K. BRAUNER	C. GUIDRY	K. BRAUNER	C. GUIDRY	C. BOURGEOIS	

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER: DATE: 7/1/2022

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

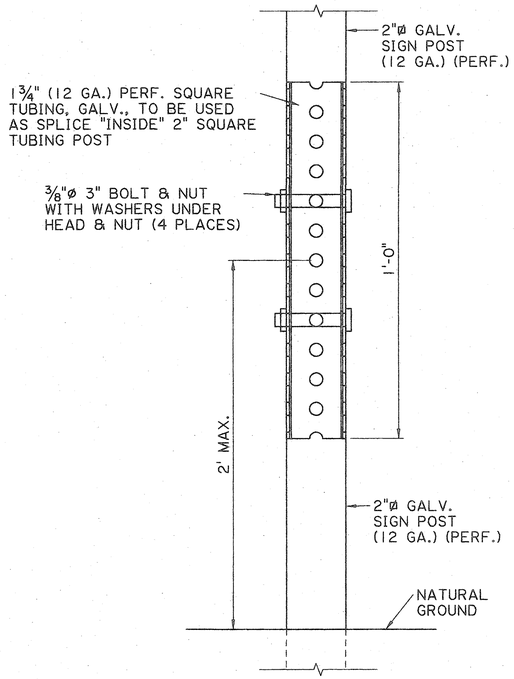
ROADSIDE MOUNTED SIGN DETAILS (TYPE D SIGNS)

ROADSIDE SIGNING STANDARDS

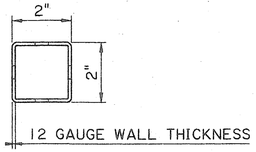
STANDARD PLAN

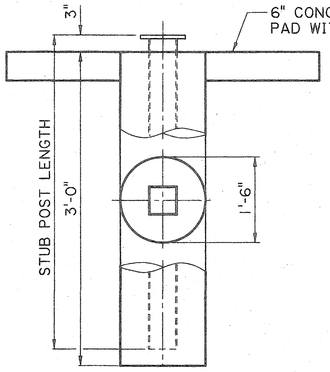
DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

BRIDGE AND STRUCTURAL DESIGN

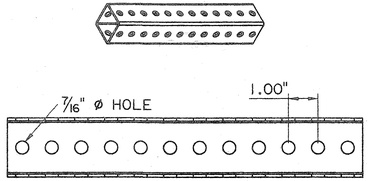


SPLICE JOINT
FOR SIGN 2" POST



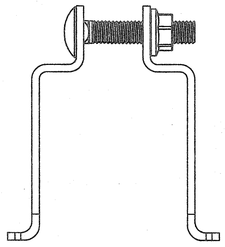


FOOTING DETAIL
SQ. TUBE SECTIONS



OD	GAUGE	WALL	WEIGHT PER FOOT
2.00"	12GA	0.105"	2.459#

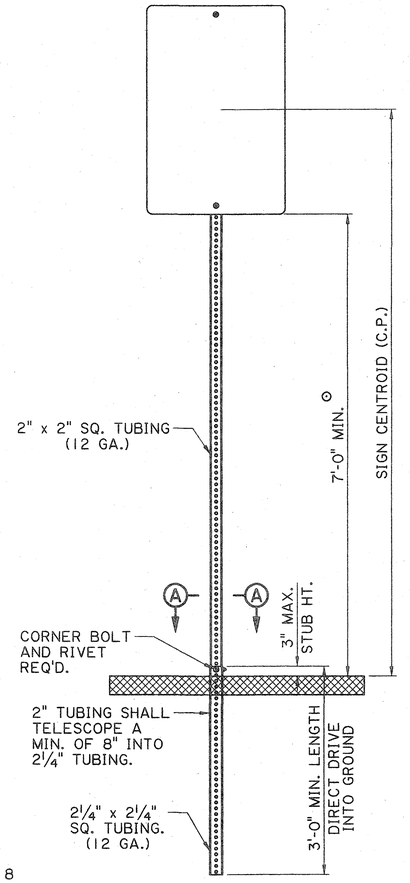
2" SQUARE TUBING



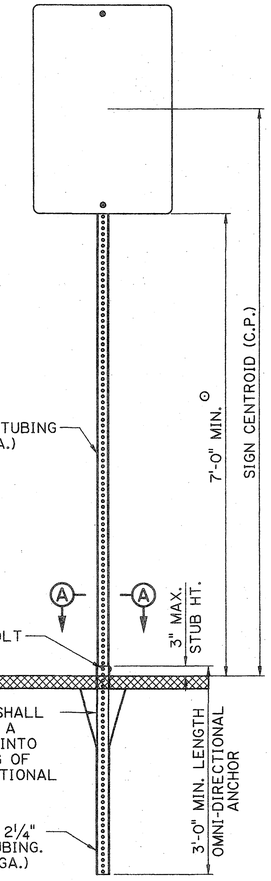
SIGN CLAMP FOR SQUARE POSTS

⅞" WIDE X 11GA. TYPE 304, #2B FINISHED STAINLESS STEEL INCLUDES ⅜" - 16 X 2" CARRIAGE BOLT AND CASE HARDENED FLANGE NUT.

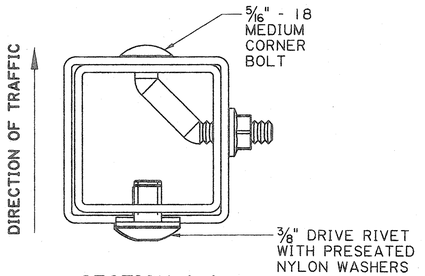
SIGN CENTROID (CP)	ALLOWABLE SIGN AREA (FT^2)			
	70 MPH + 30% GUST		80 MPH + 30% GUST	
	SINGLE POST (2" x 12GA PERF.)	DOUBLE POST (2" x 12GA PERF.)	SINGLE POST (2" x 12GA PERF.)	DOUBLE POST (2" x 12GA PERF.)
14'	3.99	7.98	2.99	5.97
13.5'	4.14	8.28	3.10	6.19
13'	4.30	8.59	3.21	6.43
12.5'	4.47	8.93	3.34	6.68
12'	4.65	9.30	3.48	6.96
11.5'	4.85	9.70	3.63	7.26
11'	5.07	10.14	3.79	7.59
10.5'	5.31	10.62	3.97	7.95
10'	5.57	11.15	4.17	8.34
9.5'	5.86	11.73	4.39	8.77
9'	6.19	12.37	4.63	9.26
8.5'	6.55	13.09	4.90	9.79
8'	6.95	13.90	5.20	10.40
7.5'	7.41	14.81	5.54	11.08
7'	7.93	15.86	5.93	11.86



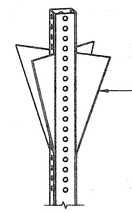
HARD SOIL LOCATIONS



SOFT SOIL LOCATIONS



SECTION A-A



OMNI-DIRECTIONAL ANCHOR

NOTES:

SEE SECTION 1015.02 IN THE STANDARD SPECIFICATIONS FOR INFORMATION RELATED TO THE ALLOWABLE MATERIALS.

SIGNS MOUNTED TO SINGLE SQUARE TUBE POSTS DO NOT REQUIRE STIFFENERS UNLESS THE SIGN HAS AT LEAST ONE SIDE GREATER THAN 36" LONG.

FOR DUAL POSTS, LOCATE POSTS AT 58% SPACING FROM CENTER OF SIGN, OR 21% FROM EACH EDGE OF SIGN. USE STIFFENERS ON BACK OF SIGNS MOUNTED ON DUAL POSTS.

SIGNS MAY BE MOUNTED BACK TO BACK ON THE POST.

⊙ MOUNTING HEIGHT SHALL BE 7'-0" MIN. UNLESS OTHERWISE NOTED ON THE SIGN SUMMARY SHEET. CHEVRON SIGNS (W1-8) MAY BE INSTALLED AT 4'-0" OR HIGHER.

SHEET NUMBER 347

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES #
K. BRAUNER	C. GUIDRY	K. BRAUNER	C. GUIDRY	C. BOURGEOIS	10 OF 17

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER: DATE: 7/1/2022

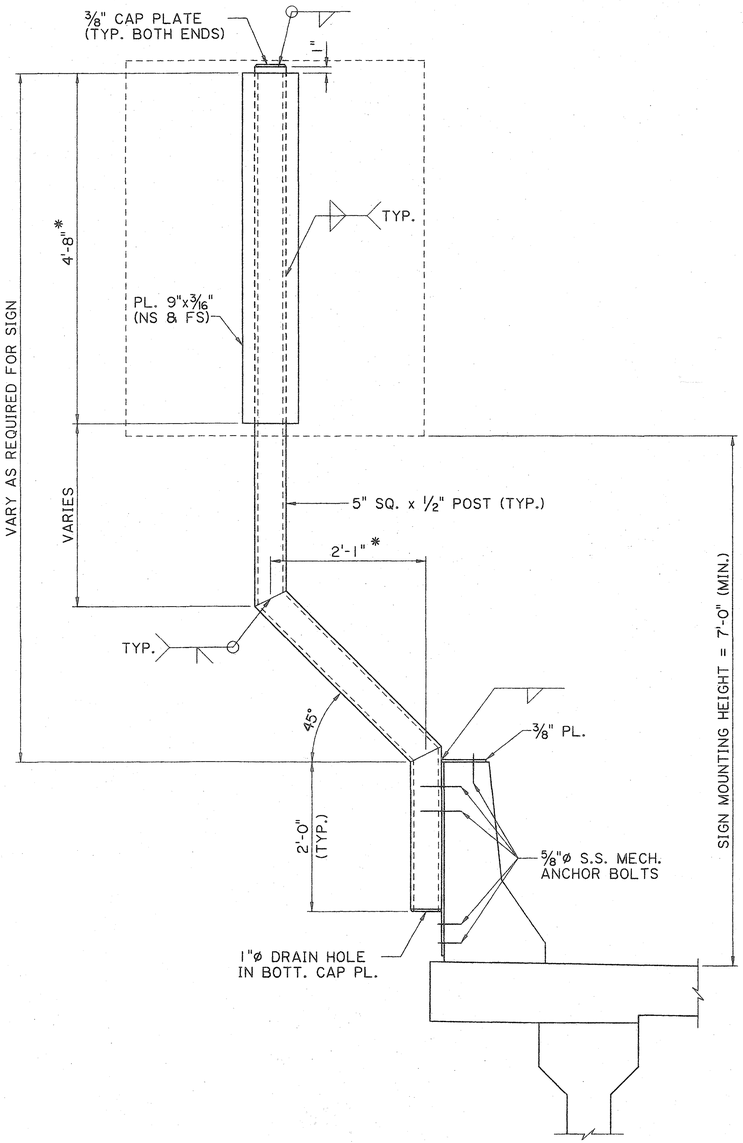
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

SQUARE TUBE SIGN DETAILS

STANDARD PLAN NO. ROADSIDE SIGNING STANDARDS

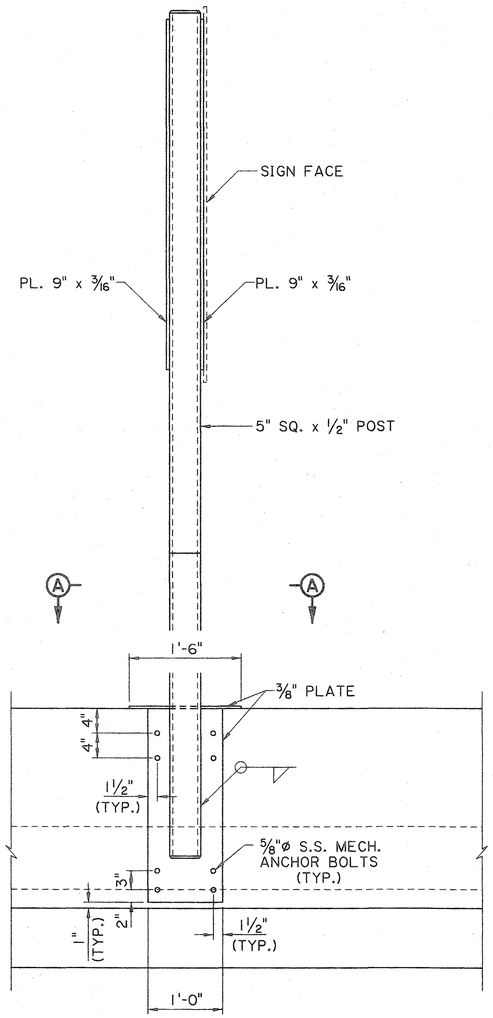
DOTD LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

BRIDGE AND STRUCTURAL DESIGN



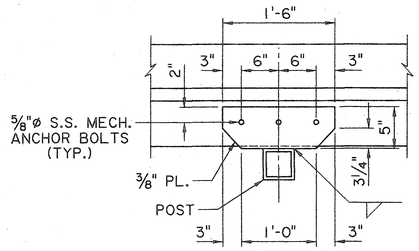
OFFSET SIGN SUPPORT

* DIMENSIONS ARE BASED ON A 5 FT. x 4 FT. SIGN.
ADJUST AS NEEDED FOR DIFFERENT SIGN SIZES.



OUTSIDE ELEVATION SHOWING BARRIER

(TYPICAL INSTALLATION)



SECTION A-A

NOTES:

STRUCTURAL MEMBERS SHALL BE AASHTO M270 GRADE 50 STEEL AND SHALL BE HOT DIPPED GALVANIZED PER ASTM A-123.

MECHANICAL ANCHOR BOLTS SHALL BE 5/8"ø STAINLESS STEEL (MIN. FY = 55 ksi) AND SHALL BE SELECTED FROM THE A.M.L. AND INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS. EACH ANCHOR SHALL HAVE AN ALLOWABLE CAPACITY OF 3 KIPS PULLOUT AND 3 KIPS SHEAR AFTER APPLICATION OF ANY REDUCTION FACTORS FOR ANCHOR SPACING AND EDGE DISTANCE.

WELDING SHALL BE IN ACCORDANCE WITH THE BRIDGE WELDING CODE OF THE AMERICAN WELDING SOCIETY (AWS D1.5-10), AND SECTION 809 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, 2016 EDITION.

NO PART OF ANY SIGN SHALL PROTRUDE INTO THE SHOULDER AREA. DIMENSIONS OF SUPPORT POST AND BRACKET SHALL BE ADJUSTED AS NEEDED PRIOR TO FABRICATION.

ANY PORTIONS OF THE EXISTING BARRIER THAT ARE DAMAGED SHALL BE REPAIRED TO THE SATISFACTION OF THE PROJECT ENGINEER.

DIMENSIONS RELATED TO THE BARRIER CONNECTION ARE BASED ON AS-BUILT DRAWINGS AND PREVIOUS STANDARDS. DIMENSIONS SHALL BE ADJUSTED AS NEEDED BASED ON FIELD MEASUREMENTS.

A 1/8" NEOPRENE PAD SHALL BE USED BETWEEN ALL STEEL AND CONCRETE CONTACT SURFACES.

MAX SIGN AREA = 20 SQFT.

SHEET NUMBER 348

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES
K. BRAUNER	V. TOURRES	K. BRAUNER	V. TOURRES	C. GUIDRY	11 OF 17

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER:
DATE: 7/1/2022

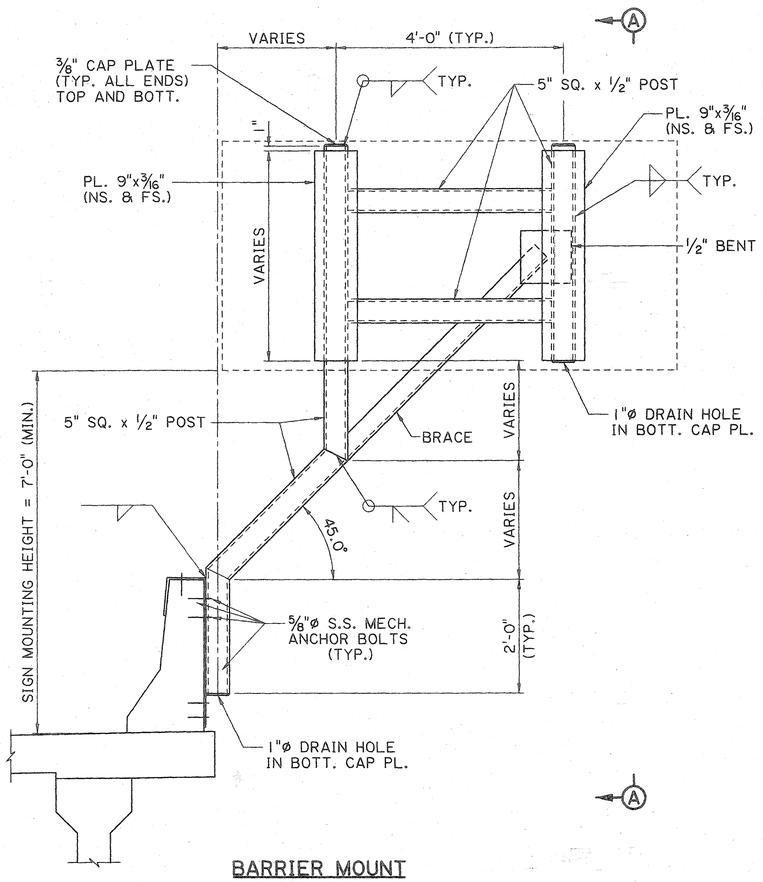
STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
ENGINEER

Z - BRACKET SIGN SUPPORT (F - SHAPE BARRIER)

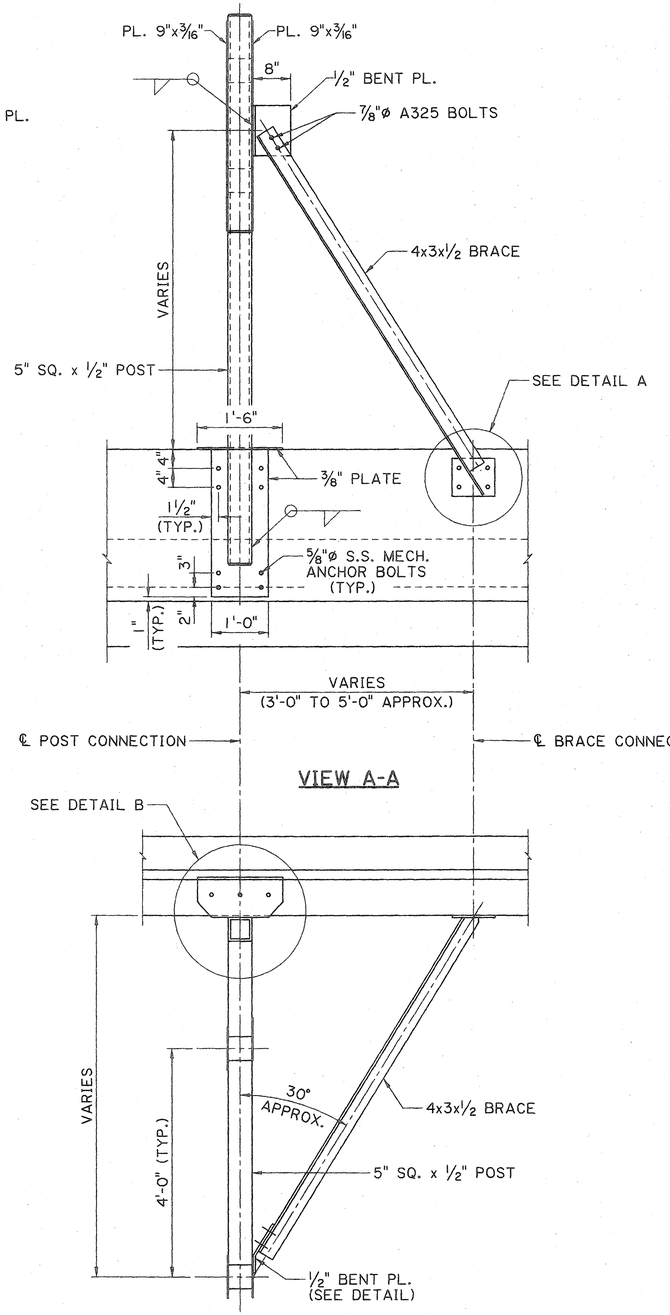
STANDARD PLAN | ROADSIDE SIGNING STANDARDS

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

BRIDGE AND STRUCTURAL DESIGN

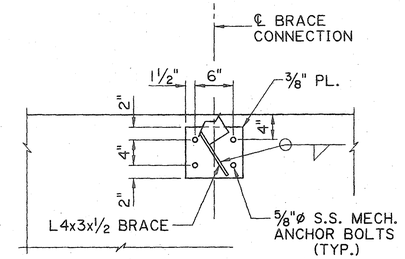


BARRIER MOUNT

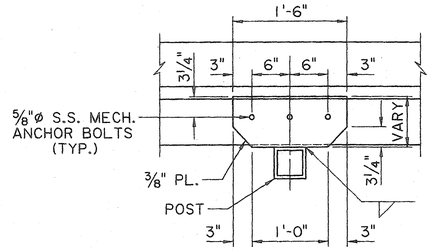


VIEW A-A

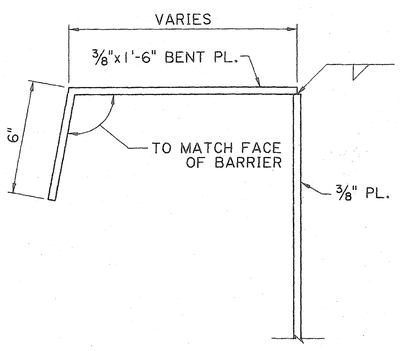
TOP VIEW



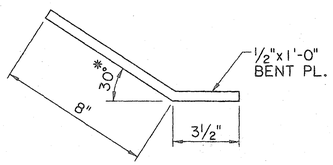
DETAIL A



DETAIL B



BARRIER CONNECTION DETAIL



1/2" BENT PLATE DETAIL

* ANGLE IS APPROXIMATE. VARY AS NEEDED.

NOTES:

STRUCTURAL MEMBERS SHALL BE AASHTO M270 GRADE 50 STEEL AND SHALL BE HOT DIPPED GALVANIZED PER ASTM A-123. A325 BOLTS TO BE GALVANIZED PER ASTM A-153.

MECHANICAL ANCHOR BOLTS SHALL BE 5/8"ø STAINLESS STEEL (MIN. FY = 55 ksi) AND SHALL BE SELECTED FROM THE A.M.L. AND INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS. EACH ANCHOR SHALL HAVE AN ALLOWABLE CAPACITY OF 3 KIPS PULLOUT AND 3 KIPS SHEAR AFTER APPLICATION OF ANY REDUCTION FACTORS FOR ANCHOR SPACING AND EDGE DISTANCE.

WELDING SHALL BE IN ACCORDANCE WITH THE BRIDGE WELDING CODE OF THE AMERICAN WELDING SOCIETY (AWS D1.5-10), AND SECTION 809 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, 2016 EDITION.

NO PART OF ANY SIGN SHALL PROTRUDE INTO THE SHOULDER AREA. DIMENSIONS OF SUPPORT POST AND BRACKET SHALL BE ADJUSTED AS NEEDED PRIOR TO FABRICATION.

ANY PORTIONS OF THE EXISTING BARRIER THAT ARE DAMAGED SHALL BE REPAIRED TO THE SATISFACTION OF THE PROJECT ENGINEER.

DIMENSIONS RELATED TO THE BARRIER CONNECTION ARE BASED ON AS-BUILT DRAWINGS AND PREVIOUS STANDARDS. DIMENSIONS SHALL BE ADJUSTED AS NEEDED BASED ON FIELD MEASUREMENTS.

A 1/8" NEOPRENE PAD SHALL BE USED BETWEEN ALL STEEL AND CONCRETE CONTACT SURFACES.

MAX SIGN AREA = 40 SQFT.

SHEET NUMBER 349

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	K. BRAUNER
CHECK	V. TOURRES
DETAIL	K. BRAUNER
CHECK	V. TOURRES
REVIEW	C. GUIDRY
SERIES #	12 OF 17

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER: DATE: 7/1/2022

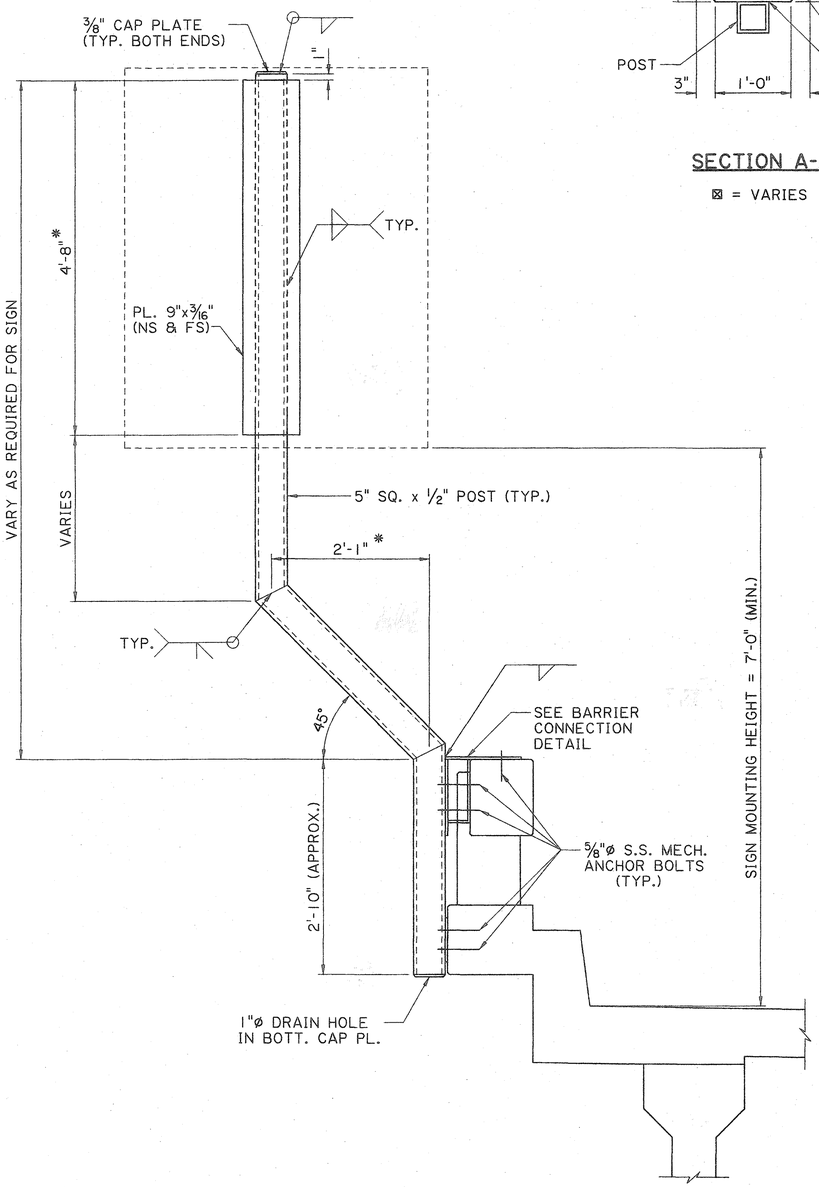
Z - BRACKET SIGN SUPPORTS (F - SHAPE BARRIER)

STANDARD ST.ABA

ROADSIDE SIGNING STANDARDS

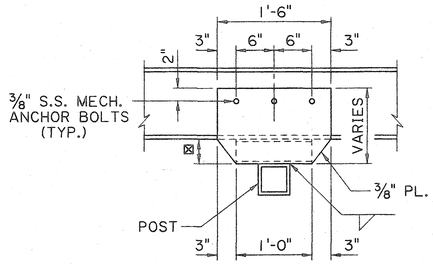
DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

BRIDGE AND STRUCTURAL DESIGN



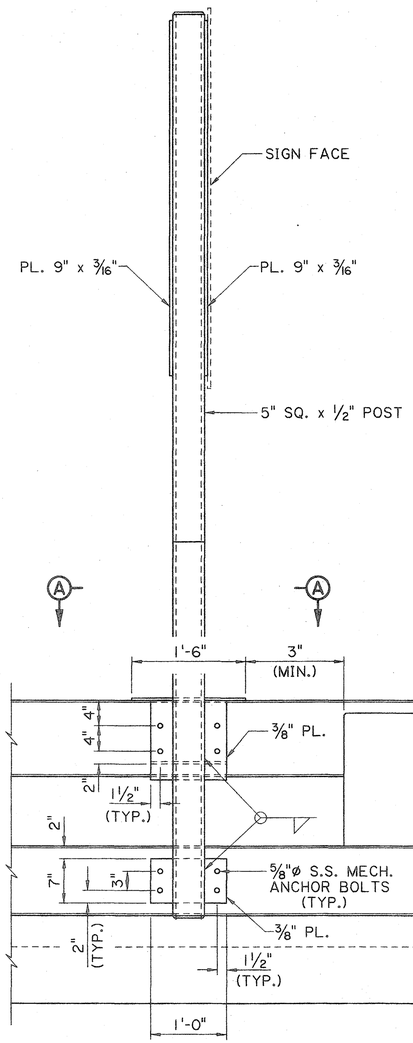
OFFSET SIGN SUPPORT

* DIMENSIONS ARE BASED ON A 5 FT. x 4 FT. SIGN.
ADJUST AS NEEDED FOR DIFFERENT SIGN SIZES.

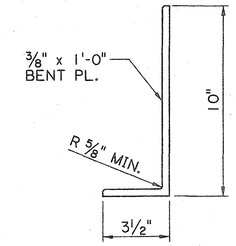


SECTION A-A

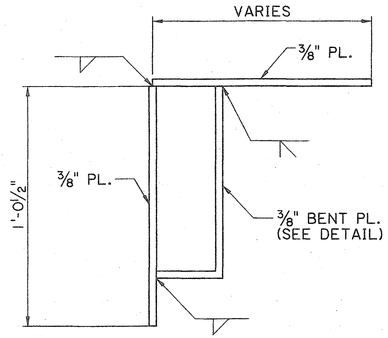
⊠ = VARIES



OUTSIDE ELEVATION SHOWING BARRIER



3/8" BENT PL. DETAIL



BARRIER CONNECTION DETAIL

NOTES:

STRUCTURAL MEMBERS SHALL BE AASHTO M270 GRADE 50 STEEL AND SHALL BE HOT DIPPED GALVANIZED PER ASTM A-123.

MECHANICAL ANCHOR BOLTS SHALL BE 5/8"ø STAINLESS STEEL (MIN. FY = 55 ksi) AND SHALL BE SELECTED FROM THE A.M.L. AND INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS. EACH ANCHOR SHALL HAVE AN ALLOWABLE CAPACITY OF 3 KIPS PULLOUT AND 3 KIPS SHEAR AFTER APPLICATION OF ANY REDUCTION FACTORS FOR ANCHOR SPACING AND EDGE DISTANCE.

WELDING SHALL BE IN ACCORDANCE WITH THE BRIDGE WELDING CODE OF THE AMERICAN WELDING SOCIETY (AWS D1.5-10), AND SECTION 809 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, 2016 EDITION.

NO PART OF ANY SIGN SHALL PROTRUDE INTO THE SHOULDER AREA. DIMENSIONS OF SUPPORT POST AND BRACKET SHALL BE ADJUSTED AS NEEDED PRIOR TO FABRICATION.

ANY PORTIONS OF THE EXISTING BARRIER THAT ARE DAMAGED SHALL BE REPAIRED TO THE SATISFACTION OF THE PROJECT ENGINEER.

DIMENSIONS RELATED TO THE BARRIER CONNECTION ARE BASED ON AS-BUILT DRAWINGS AND PREVIOUS STANDARDS. DIMENSIONS SHALL BE ADJUSTED AS NEEDED BASED ON FIELD MEASUREMENTS.

A 1/8" NEOPRENE PAD SHALL BE USED BETWEEN ALL STEEL AND CONCRETE CONTACT SURFACES.

MAX SIGN AREA = 20 SQFT.

SHEET NUMBER 350

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES #
K. BRAUNER	V. TOURRES	K. BRAUNER	V. TOURRES	C. GUIDRY	13 OF 17

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER: DATE: 7/1/2022

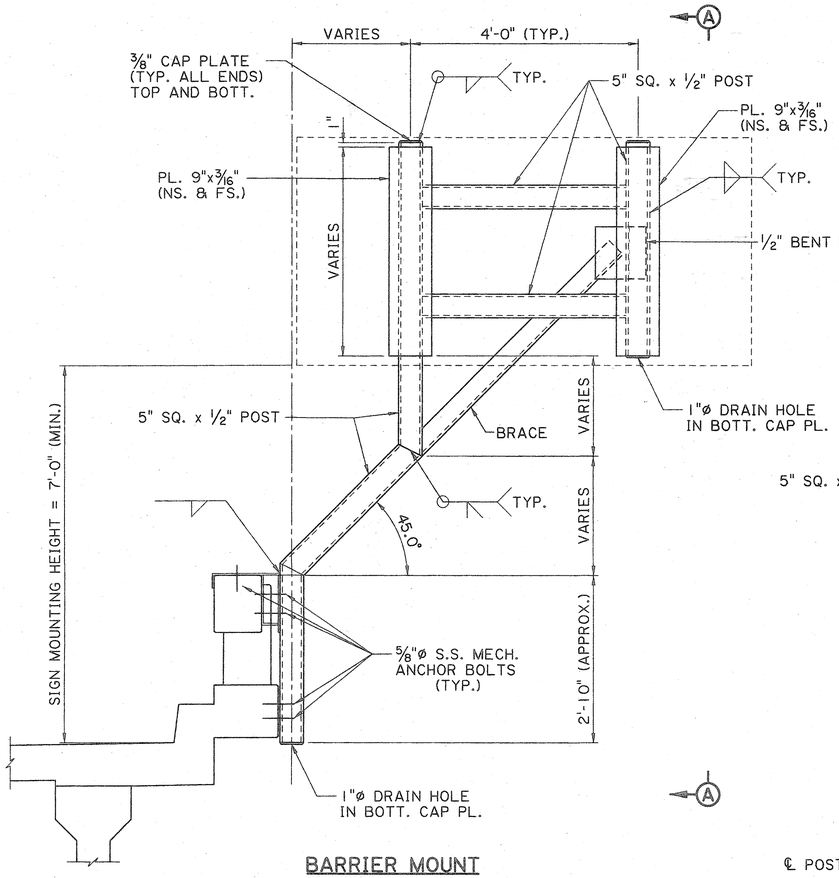
STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
CONSTRUCTION

Z - BRACKET SIGN SUPPORT (POST AND RAIL BARRIER)

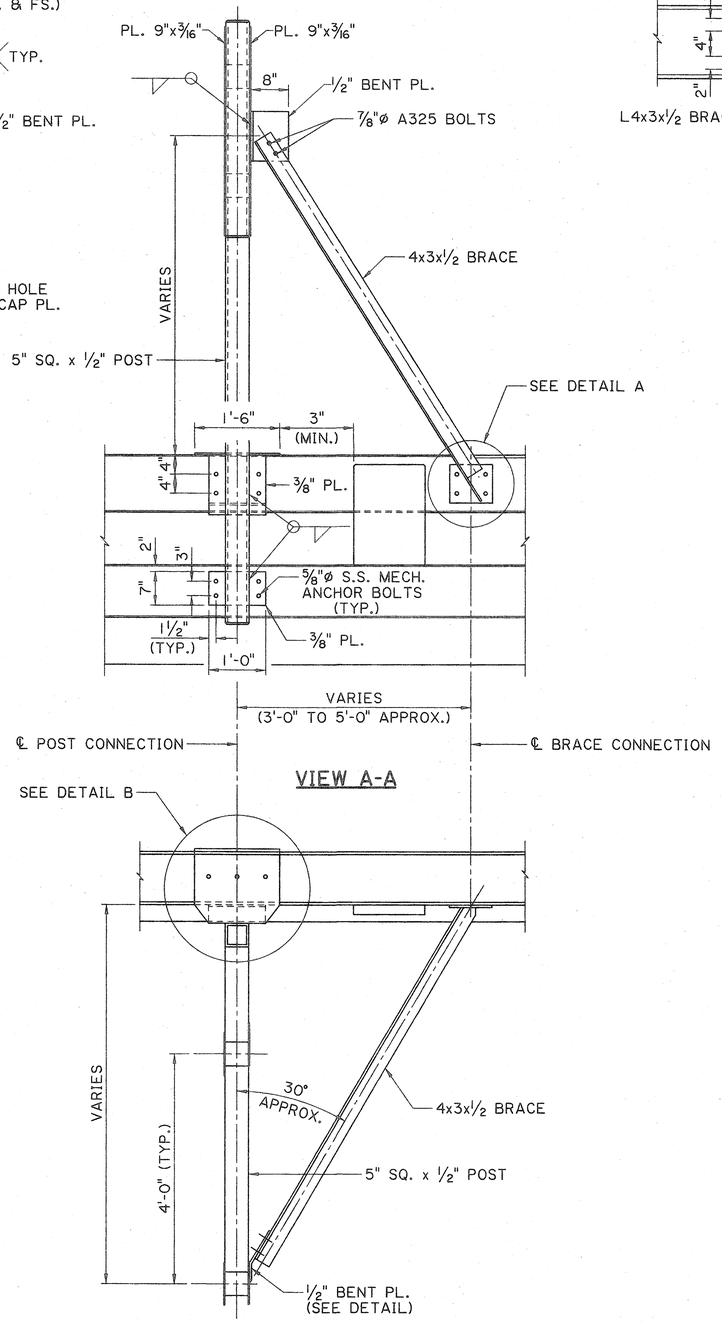
STANDARD PLAN | ROADSIDE SIGNING STANDARDS

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

BRIDGE AND STRUCTURAL DESIGN

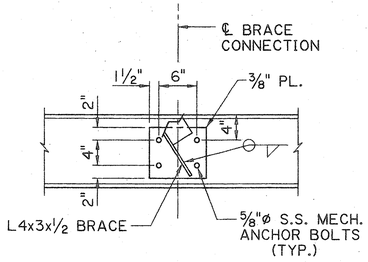


BARRIER MOUNT

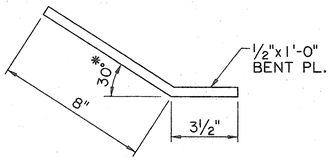


VIEW A-A

TOP VIEW

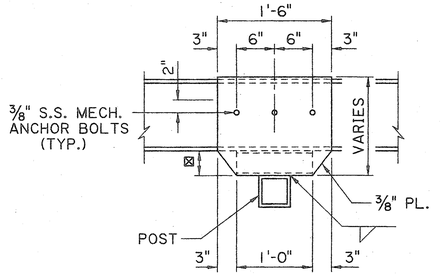


DETAIL A



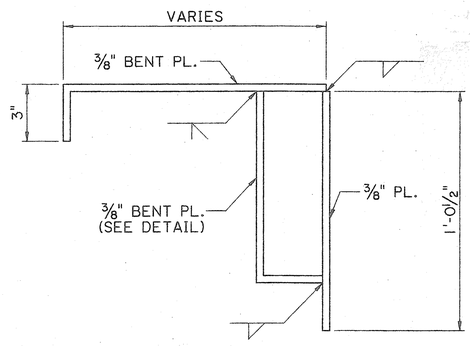
1/2" BENT PLATE DETAIL

* ANGLE IS APPROXIMATE. VARY AS NEEDED.

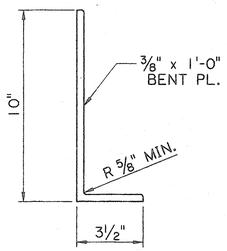


DETAIL B

⊠ = VARIES



BARRIER CONNECTION DETAIL



3/8" BENT PL. DETAIL

NOTES:

STRUCTURAL MEMBERS SHALL BE AASHTO M270 GRADE 50 STEEL AND SHALL BE HOT DIPPED GALVANIZED PER ASTM A-123. A325 BOLTS TO BE GALVANIZED PER ASTM A-153.

MECHANICAL ANCHOR BOLTS SHALL BE 5/8"ø STAINLESS STEEL (MIN. FY = 55 ksi) AND SHALL BE SELECTED FROM THE A.M.L. AND INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS. EACH ANCHOR SHALL HAVE AN ALLOWABLE CAPACITY OF 3 KIPS PULLOUT AND 3 KIPS SHEAR AFTER APPLICATION OF ANY REDUCTION FACTORS FOR ANCHOR SPACING AND EDGE DISTANCE.

WELDING SHALL BE IN ACCORDANCE WITH THE BRIDGE WELDING CODE OF THE AMERICAN WELDING SOCIETY (AWS D1.5-10), AND SECTION 809 OF THE LOUISIANA STANDARD SPECIFICATIONS FOR ROADS AND BRIDGES, 2016 EDITION.

NO PART OF ANY SIGN SHALL PROTRUDE INTO THE SHOULDER AREA. DIMENSIONS OF SUPPORT POST AND BRACKET SHALL BE ADJUSTED AS NEEDED PRIOR TO FABRICATION.

ANY PORTIONS OF THE EXISTING BARRIER THAT ARE DAMAGED SHALL BE REPAIRED TO THE SATISFACTION OF THE PROJECT ENGINEER.

DIMENSIONS RELATED TO THE BARRIER CONNECTION ARE BASED ON AS-BUILT DRAWINGS AND PREVIOUS STANDARDS. DIMENSIONS SHALL BE ADJUSTED AS NEEDED BASED ON FIELD MEASUREMENTS.

A 1/8" NEOPRENE PAD SHALL BE USED BETWEEN ALL STEEL AND CONCRETE CONTACT SURFACES.

MAX SIGN AREA = 40 SQFT.

SHEET NUMBER: 351

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES #
K. BRAUNER	V. TOURRES	K. BRAUNER	V. TOURRES	C. GUIDRY	14 OF 17

STATE OF LOUISIANA
KURT M. BRAUNER
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PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER: DATE: 7/1/2022

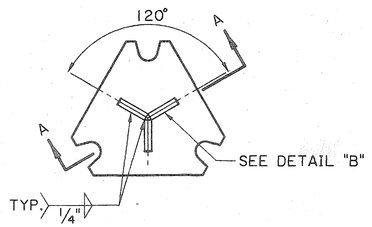
Z - BRACKET SIGN SUPPORT (POST AND RAIL BARRIER)

STANDARD SLM4

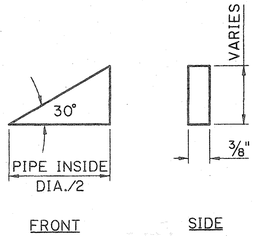
ROADSIDE SIGNING STANDARDS

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

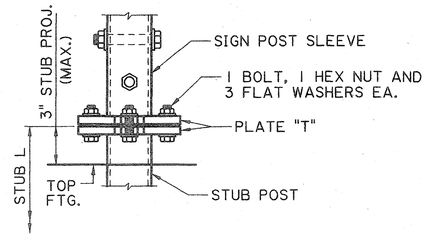
BRIDGE AND STRUCTURAL DESIGN



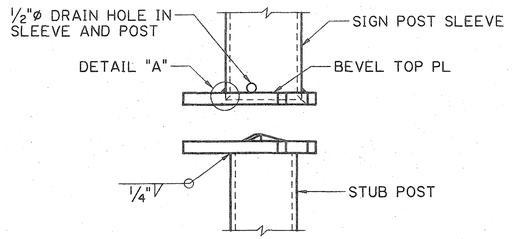
TOP VIEW STUB POST



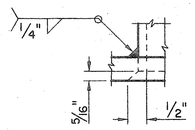
DETAIL "B"
3 REQ'D.



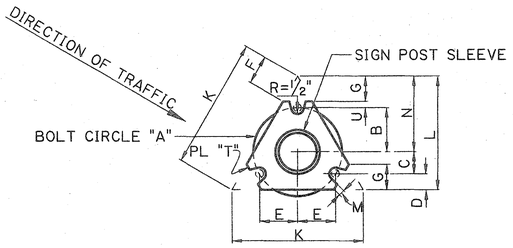
ELEVATION OF BASE CONNECTION
STEEL



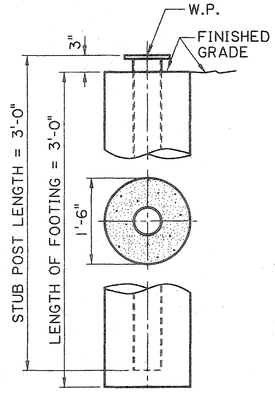
SECTION A-A



DETAIL "A"



PLAN OF BASE

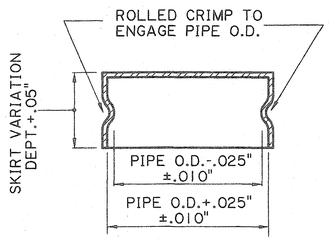


FOOTING DETAIL
PIPE SECTIONS

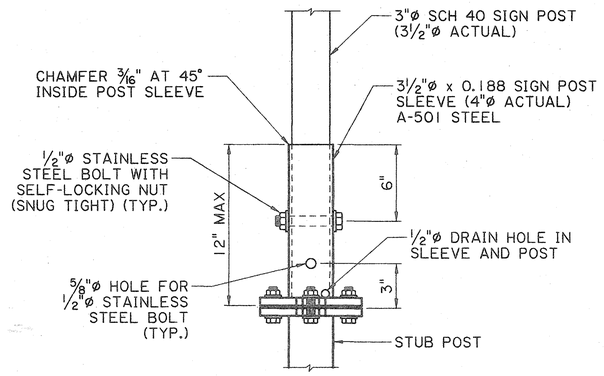
STEEL MULTI-DIRECTIONAL BASE CONNECTION DATA														
NOMINAL PIPE SIZE FOR POST SLEEVE	BOLT SIZE ⊙ & TORQUE	WELD SIZE	T	A	B	C	D	E	F	G	K	L	M	N	U
3½"ø SCH 40	5/8"ø T=226	3/8"	5/8"	7"	3½"	1¾"	1¼"	3"	2 5/16"	2"	10 3/8"	9"	½"	6"	½"

FOR STUB POST LENGTH & FOOTING DIMENSION SEE FOOTING DETAIL.

⊙ TORQUE IN INCH-LBS., BOLTS ARE HIGH STRENGTH



FRICTION CAP DETAIL
(USED AT TOP OF ALL POSTS)



POST SLEEVE DETAIL

PROCEDURE FOR ASSEMBLY OF BASE CONNECTION:

SPECIAL CARE SHALL BE TAKEN TO SET THE BASE PLUMB TO AVOID EXCESSIVE SHIMMING AT THE BREAK-AWAY FEATURE AFTER FINAL INSTALLATION. EXCESSIVE SHIMMING COULD IMPAIR THE BREAK-AWAY FEATURE FOR WHICH THIS INSTALLATION WAS DESIGNED. SHIM PACKS SHOWN ON THIS DRAWING SHOULD BE SUFFICIENT TO ALLOW FOR NORMAL MISALIGNMENT.

1. BASE SHALL BE ALIGNED AND SET PLUMB BEFORE OR IMMEDIATELY AFTER POURING CONCRETE FOOTING.
2. H.S. BOLTS IN BASE PLATE SHALL BE TIGHTENED TO THE PRESCRIBED TORQUE. CARE SHALL BE TAKEN TO AVOID OVERTIGHTING.

FRICTION CAPS:

CAPS MAY BE MANUFACTURED FROM EITHER HOT ROLLED OR COLD ROLLED STEEL SHEETS. THE MINIMUM SHEET METAL THICKNESS SHALL BE 24 GAUGE. THE RIM EDGES SHALL BE REASONABLY STRAIGHT AND SMOOTH. CAPS SHALL BE SIZED AND FORMED IN SUCH A MANNER AS TO PRODUCE A DRIVE-ON FRICTION FIT AND HAVE NO TENDENCY TO ROCK WHEN SEATED ON THE PIPE. THE DEPTH SHALL BE SUFFICIENT TO GIVE POSITIVE PROTECTION AGAINST ENTRANCE OF RAINWATER. THEY SHALL BE FREE OF SHARP CREASES OR INDENTATIONS AND SHOW NO EVIDENCE OF METAL FRACTURE. CAPS SHALL HAVE A ELECTRODEPOSITED COATING OF ZINC IN ACCORDANCE WITH THE REQUIREMENTS OF A.S.T.M. SPECIFICATION B633 SC4, TYPE 1.

GALVANIZING:

ALL STEEL POST, PLATE, AND SLEEVE MEMBERS SHALL BE GALVANIZED PER ASTM A-123.

ALL MISC. HARDWARE (EXCEPT FOR STAINLESS STEEL BOLTS) SHALL BE GALVANIZED PER ASTM A-153.

SHEET NUMBER 352

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	K. BRAUNER
CHECK	C. GUIDRY
DETAIL	K. BRAUNER
CHECK	C. GUIDRY
REVIEW	C. BOURGEOIS
SERIES #	15 OF 17

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER:
DATE: 7/1/2022

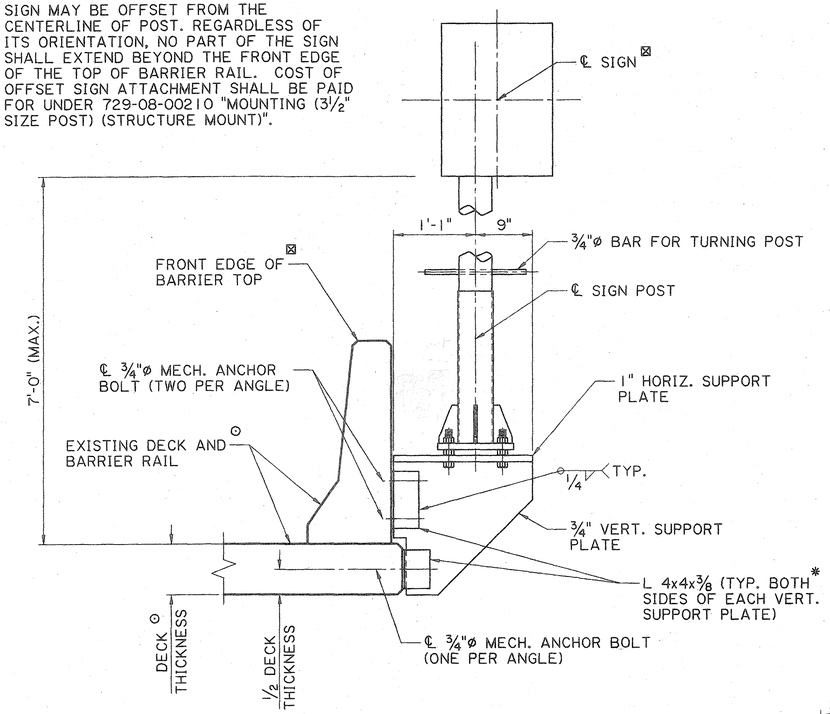
CONTRAFLOW SIGNS (GROUND MOUNTED)

STANDARD SLM4

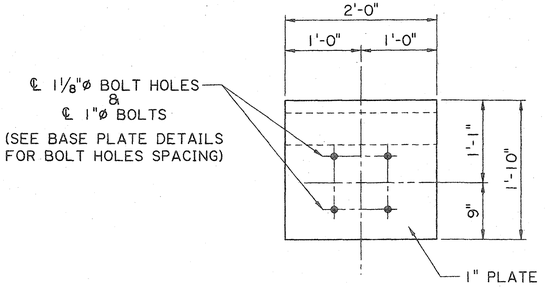
ROADSIDE SIGNING STANDARDS

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
BRIDGE AND STRUCTURAL DESIGN

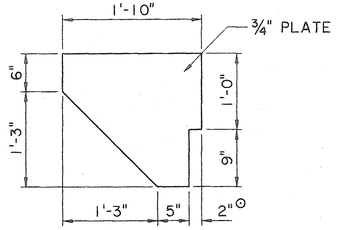
⊠ SIGN MAY BE OFFSET FROM THE CENTERLINE OF POST. REGARDLESS OF ITS ORIENTATION, NO PART OF THE SIGN SHALL EXTEND BEYOND THE FRONT EDGE OF THE TOP OF BARRIER RAIL. COST OF OFFSET SIGN ATTACHMENT SHALL BE PAID FOR UNDER 729-08-00210 "MOUNTING (3½" SIZE POST) (STRUCTURE MOUNT)".



ELEVATION



1" HORIZ. SUPPORT PLATE



¾" VERT. SUPPORT PLATE

SIGN SUPPORT BRACKET DETAILS

NOTES:

STRUCTURAL MEMBERS SHALL BE AASHTO M270 GRADE 50 STEEL AND SHALL BE HOT DIPPED GALVANIZED PER ASTM A-123. ALL MISC. HARDWARE (EXCEPT STAINLESS STEEL BOLTS) SHALL BE GALVANIZED AS PER ASTM A-153.

⊙ ALL EXISTING DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION. ANY ADJUSTMENTS TO SUPPORT BRACKET DIMENSIONS SHALL BE APPROVED BY THE ENGINEER.

* EQUIVALENT BENT PLATES MAY BE USED. ADJUST ANGLE OF BEND AS NEEDED TO ATTACH TO BARRIER RAIL.

PAYMENT FOR THE TYPE "A" SIGN POST AND SUPPORT BRACKET SHALL BE UNDER ITEM NO. 729-08-00210, "MOUNTING (3½" SIZE POST) (STRUCTURE MOUNT)".

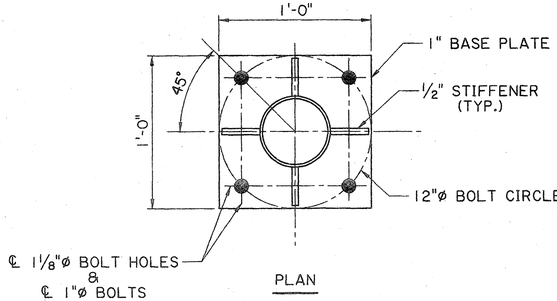
MECHANICAL ANCHOR BOLTS SHALL BE ¾"ø STAINLESS STEEL (MIN. FY = 55 ksi) AND SHALL BE SELECTED FROM THE A.M.L. AND INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS. EACH ANCHOR SHALL HAVE AN ALLOWABLE CAPACITY OF 3 KIPS PULLOUT AND 3 KIPS SHEAR AFTER APPLICATION OF ANY REDUCTION FACTORS FOR ANCHOR SPACING AND EDGE DISTANCE.

A ⅛" NEOPRENE PAD SHALL BE USED BETWEEN ALL STEEL AND CONCRETE CONTACT SURFACES.

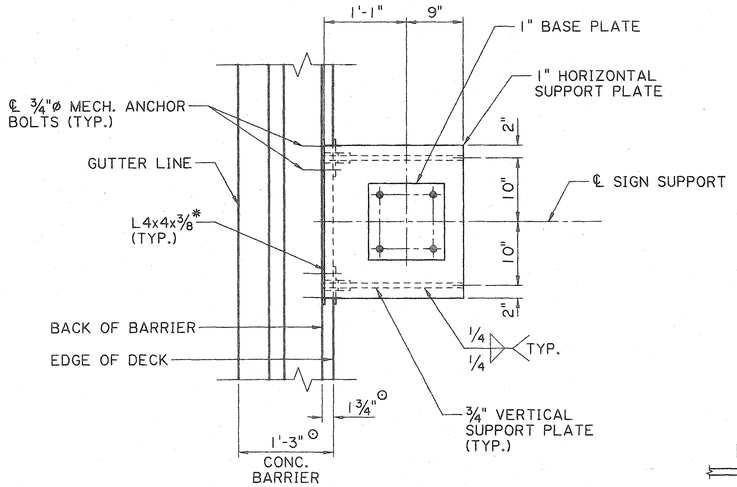
ANY PORTIONS OF THE EXISTING BARRIER THAT ARE DAMAGED SHALL BE REPAIRED TO THE SATISFACTION OF THE PROJECT ENGINEER.

REGARDLESS OF ITS ORIENTATION, NO PART OF ANY SIGN SHALL EXTEND BEYOND THE FRONT EDGE OF THE TOP OF BARRIER RAIL. DIMENSIONS OF SUPPORT POST AND BRACKET SHALL BE ADJUSTED AS NEEDED PRIOR TO FABRICATION.

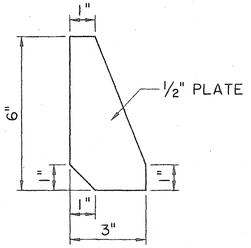
MAXIMUM ALLOWABLE SIGN AREA = 20 SQ. FT.



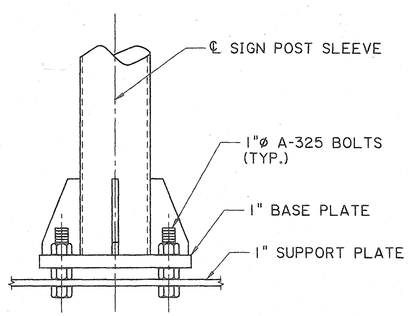
PLAN



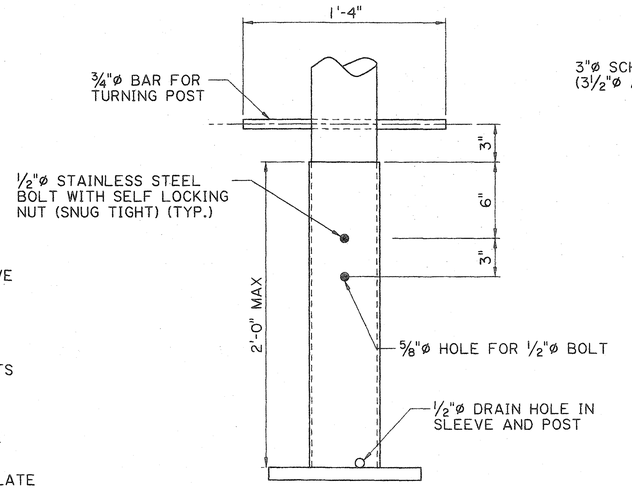
PLAN



½" STIFFENER

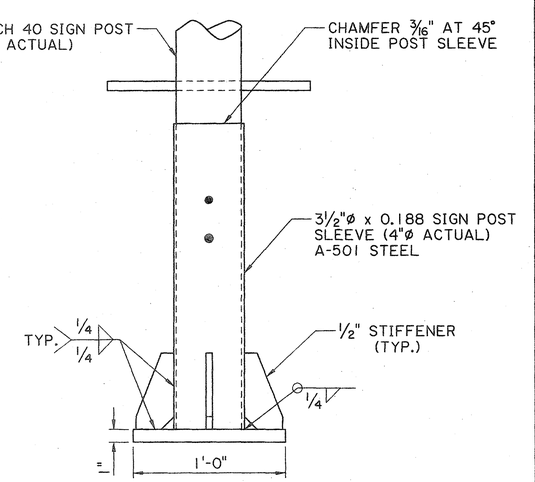


1"ø BOLT DETAIL



⅝"ø BOLT DETAIL

(STIFFENERS NOT SHOWN FOR CLARITY)



ELEVATION

1" BASE PLATE & SIGN POST SLEEVE DETAILS

SHEET NUMBER 353

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES #
K. BRAUNER	C. GUIDRY	K. BRAUNER	C. GUIDRY	C. BOURGEOIS	16 OF 17

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER: DATE: 7/1/2022

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

CONTRAFLOW SIGNS (F - SHAPE BARRIER)

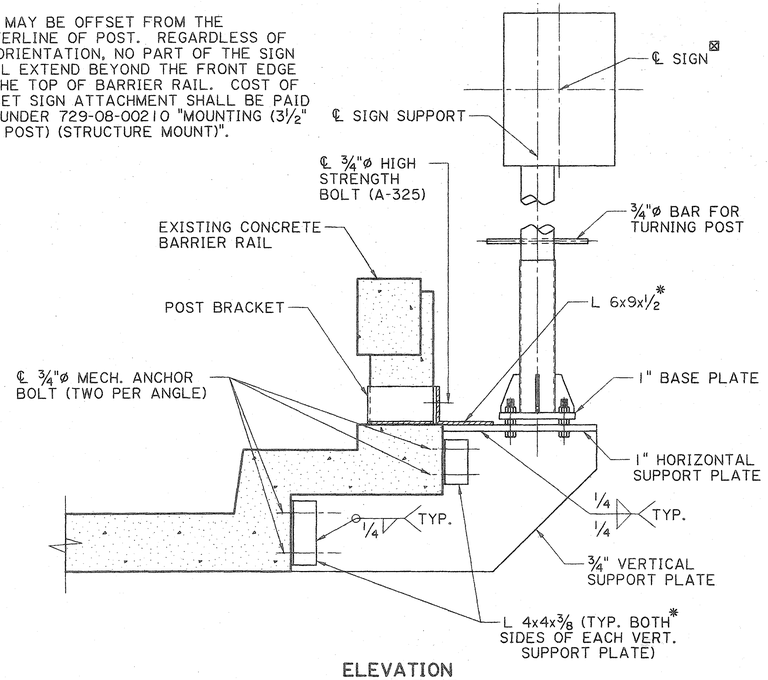
ROADSIDE SIGNING STANDARDS

STANDARD PLAN

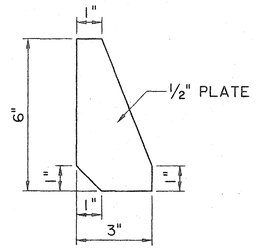
DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

BRIDGE AND STRUCTURAL DESIGN

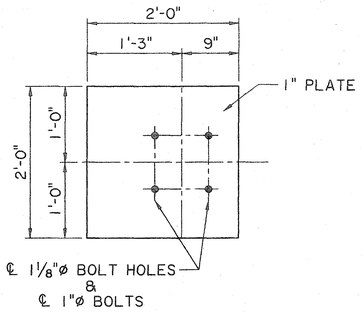
⊠ SIGN MAY BE OFFSET FROM THE CENTERLINE OF POST. REGARDLESS OF ITS ORIENTATION, NO PART OF THE SIGN SHALL EXTEND BEYOND THE FRONT EDGE OF THE TOP OF BARRIER RAIL. COST OF OFFSET SIGN ATTACHMENT SHALL BE PAID FOR UNDER 729-08-00210 "MOUNTING (3½" SIZE POST) (STRUCTURE MOUNT)".



ELEVATION

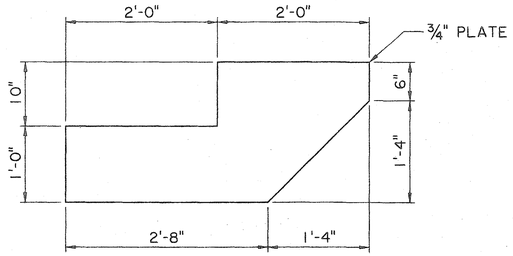


½" STIFFENER



1" HORIZONAL SUPPORT PLATE

(SEE BASE PLATE DETAILS FOR BOLT HOLES SPACING)



¾" VERT. SUPPORT PLATE ⊙

SIGN SUPPORT BRACKET DETAILS

NOTES:

STRUCTURAL MEMBERS SHALL BE AASHTO M270 GRADE 50 STEEL AND SHALL BE HOT DIPPED GALVANIZED PER ASTM A-123. ALL MISC. HARDWARE (EXCEPT STAINLESS STEEL BOLTS) SHALL BE GALVANIZED AS PER ASTM A-153.

⊙ ALL EXISTING DIMENSIONS ARE TO BE VERIFIED BY THE CONTRACTOR PRIOR TO FABRICATION. ANY ADJUSTMENTS TO SUPPORT BRACKET DIMENSIONS SHALL BE APPROVED BY THE ENGINEER.

* EQUIVALENT BENT PLATES MAY BE USED. ADJUST ANGLE OF BEND AS NEEDED TO ATTACH TO BARRIER RAIL.

PAYMENT FOR THE TYPE "A" SIGN POST AND SUPPORT BRACKET SHALL BE UNDER ITEM NO. 729-08-00210, "MOUNTING (3½" SIZE POST) (STRUCTURE MOUNT)".

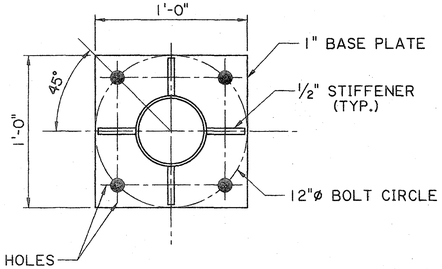
MECHANICAL ANCHOR BOLTS SHALL BE ¾"ø STAINLESS STEEL (MIN. FY = 55 ksi) AND SHALL BE SELECTED FROM THE A.M.L. AND INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATIONS. EACH ANCHOR SHALL HAVE AN ALLOWABLE CAPACITY OF 3 KIPS PULLOUT AND 3 KIPS SHEAR AFTER APPLICATION OF ANY REDUCTION FACTORS FOR ANCHOR SPACING AND EDGE DISTANCE.

A ⅛" NEOPRENE PAD SHALL BE USED BETWEEN ALL STEEL AND CONCRETE CONTACT SURFACES.

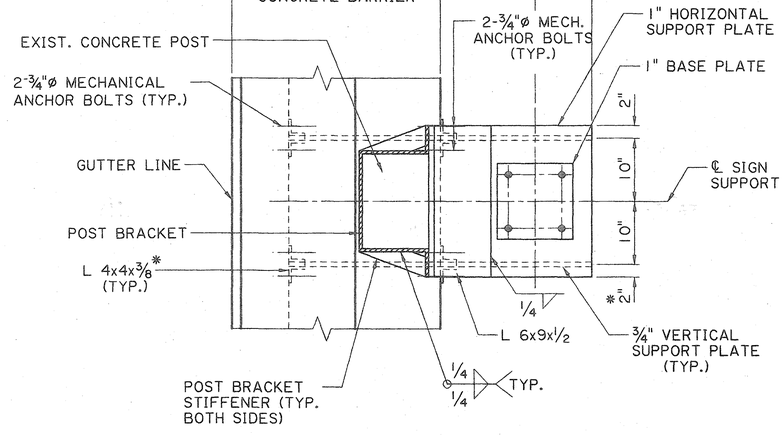
ANY PORTIONS OF THE EXISTING BARRIER THAT ARE DAMAGED SHALL BE REPAIRED TO THE SATISFACTION OF THE PROJECT ENGINEER.

REGARDLESS OF ITS ORIENTATION, NO PART OF ANY SIGN SHALL EXTEND BEYOND THE FRONT EDGE OF THE TOP OF BARRIER RAIL. DIMENSIONS OF SUPPORT POST AND BRACKET SHALL BE ADJUSTED AS NEEDED PRIOR TO FABRICATION.

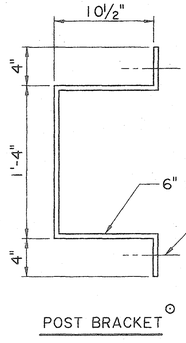
MAXIMUM ALLOWABLE SIGN AREA = 20 SQ. FT.



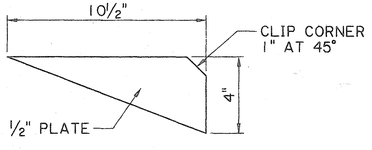
PLAN



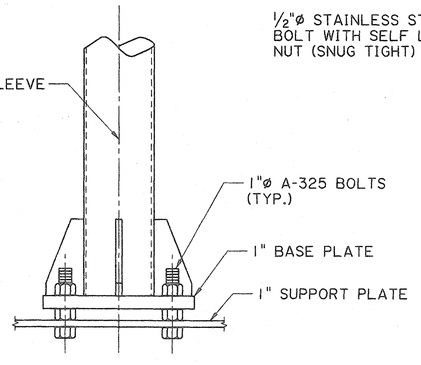
PLAN



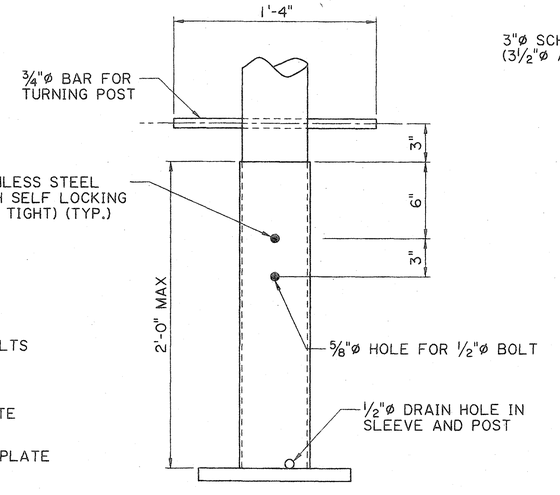
POST BRACKET ⊙



POST BRACKET STIFFENER ⊙

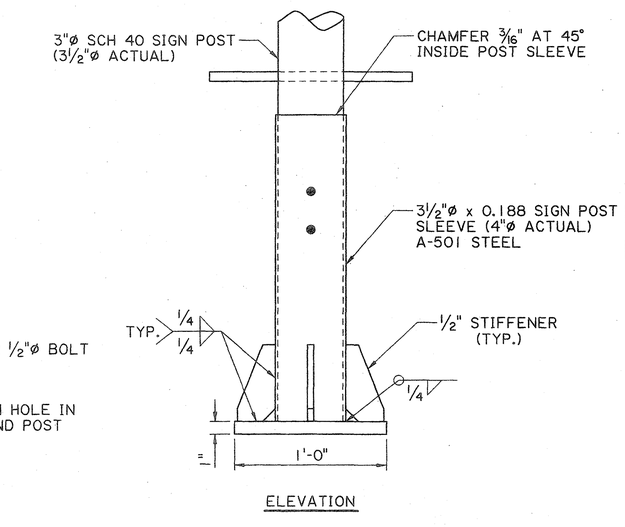


1"ø BOLT DETAIL



⅝"ø BOLT DETAIL

(STIFFENERS NOT SHOWN FOR CLARITY)



ELEVATION

1" BASE PLATE & SIGN POST SLEEVE DETAILS

SHEET NUMBER	354
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17, 258-33, 450-10
STATE PROJECT	H.012232
DESIGN K. BRAUNER / CHECK C. GUIDRY	DETAIL K. BRAUNER / CHECK C. GUIDRY / REVIEW C. BOURGEOIS / SERIES * 17 OF 17

STATE OF LOUISIANA
KURT M. BRAUNER
License No. 30567
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
6/24/22

APPROVED BY CHIEF ENGINEER:
DATE: 7/1/2022

CONTRAFLOW SIGNS (POST AND RAIL BARRIER)

ROADSIDE SIGNING STANDARDS

STANDARD SIGN NO.

DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
BRIDGE AND STRUCTURAL DESIGN

TABLE 1

CORRUGATED STEEL PIPE
(2 2/3 INCH X 1/2 INCH CORRUGATION)

PIPE DIAMETER INCHES	HEIGHT OF FILL ABOVE TOP OF PIPE IN FEET								MIN. COVER INCHES
	1-10	10.1-15	15.1-20	20.1-25	25.1-30	30.1-35	35.1-40	40.1-50	
8 OR LESS	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	9
10	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	9
12	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	9
15	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	9
18	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	9
21	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	9
24	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	12	9
30	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	12	8	9
36	14 (16)	14 (16)	14 (16)	14 (16)	14	14	10	--	9
42	14 (16)	14 (16)	14 (16)	14 (16)	14	14	12	--	9
48	14 (16)	14 (16)	14 (16)	14 (16)	14	14	12	--	9
54	14	14	14	14	14	12	12	--	9
60	12	12	12	12	12	12	12	--	9
66	10	10	10	10	10	10	10	--	9
72	10	10	10	10	10	10	10	--	9
78	8	8	8	8	8	8	--	--	9
84	8	8	8	8	8	8	--	--	9

DOUBLE LINE RIVETS — SINGLE LINE RIVETS

TABLE 2

CORRUGATED STEEL PIPE
(5 INCH X 1 INCH CORRUGATION AND 3 INCH X 1 INCH CORRUGATION)

PIPE DIAMETER INCHES	HEIGHT OF FILL ABOVE TOP OF PIPE IN FEET								MIN. COVER INCHES
	1-10	10.1-15	15.1-20	20.1-25	25.1-30	30.1-35	35.1-40	41.1-50	
36	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	9
42	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	9
48	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	12	9
54	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	12	12	9
60	14 (16)	14 (16)	14 (16)	14 (16)	14	14	12	10	9
66	14 (16)	14 (16)	14 (16)	14 (16)	14	12	12	8	9
72	14 (16)	14 (16)	14 (16)	14	12	12	12	--	9
78	14 (16)	14 (16)	14 (16)	14	12	12	12	--	9
84	14 (16)	14 (16)	14 (16)	14	12	12	10	--	9
90	14 (16)	14 (16)	14	12	12	12	10	--	12
96	14	14	14	12	12	10	8	--	12
102	14	14	14	12	12	10	8	--	12
108	12	12	12	12	10	8	--	--	12
114	12	12	12	12	10	8	--	--	12
120	12	12	12	12	10	8	--	--	12
126	10	10	10	10	10	--	--	--	12
132	10	10	10	10	8	--	--	--	12
138	10	10	10	10	8	--	--	--	12
144	8	8	8	8	--	--	--	--	12

TABLE 3

CORRUGATED STEEL PIPE ARCH
(5 INCH X 1 INCH CORRUGATION AND 3 INCH X 1 INCH CORRUGATION)

EQUIV. PIPE DIAMETER INCHES	C.M. PIPE ARCH SPAN X RISE INCHES	HEIGHT OF FILL ABOVE TOP OF ARCH (FEET)		MIN. COVER INCHES
		1-4	4.1-9	
36	40 X 31	14 (16)	14 (16)	9
42	46 X 36	14 (16)	14 (16)	9
48	53 X 41	14 (16)	14 (16)	9
54	60 X 46	14 (16)	14 (16)	9
60	66 X 51	14 (16)	14 (16)	9
66	73 X 55	14	14	9
72	81 X 59	14	14	9
78	87 X 63	14	14	9
84	95 X 67	14	14	9
90	103 X 71	12	12	12
96	112 X 75	12	12	12
102	117 X 79	12	12	12
108	128 X 83	10	10	12
114	137 X 87	10	10	12
120	142 X 91	8	8	12

TABLE 4

CORRUGATED STEEL PIPE ARCH
(2 2/3 INCH X 1/2 INCH CORRUGATION)

EQUIV. PIPE DIAMETER INCHES	C.M. PIPE ARCH SPAN X RISE INCHES	HEIGHT OF FILL ABOVE TOP OF ARCH (FEET)		MIN. COVER INCHES
		1-4	4.1-9	
15	17 X 13	14 (16)	14 (16)	9
18	21 X 15	14 (16)	14 (16)	9
21	24 X 18	14 (16)	14 (16)	9
24	28 X 20	14 (16)	14 (16)	9
30	35 X 24	14 (16)	14 (16)	9
36	42 X 29	14 (16)	14 (16)	9
42	49 X 33	14	14	9
48	57 X 38	12	12	9
54	64 X 43	12	12	9
60	71 X 47	10	10	9
66	77 X 52	8	8	9
72	83 X 57	8	8	9

TABLE 5

CORRUGATED ALUMINUM PIPE
(2 2/3 INCH X 1/2 INCH CORRUGATION)

PIPE DIAMETER INCHES	HEIGHT OF FILL ABOVE TOP OF PIPE IN FEET								MIN. COVER INCHES
	1-10	10.1-15	15.1-20	20.1-25	25.1-30	30.1-35	35.1-40	40.1-50	
8 OR LESS	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	9
10	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	9
12	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	12	9
15	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	12	12	9
18	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	12	12	12	9
21	14 (16)	14 (16)	14 (16)	14 (16)	12	12	12	--	9
24	14 (16)	14 (16)	14	12	12	12	10	--	9
30	14 (16)	14 (16)	12	12	12	--	--	--	9
36	14	14	12	12	--	--	--	--	9
42	14	14	14	14	12	12	12	--	9
48	14	14	12	12	12	12	10	--	9
54	12	12	12	12	12	12	--	--	9
60	10	10	10	10	10	--	--	--	9
66	10	10	10	10	10	--	--	--	9
72	8	8	8	8	--	--	--	--	9

TABLE 6

CORRUGATED ALUMINUM PIPE
(3 INCH X 1 INCH CORRUGATION)

PIPE DIAMETER INCHES	HEIGHT OF FILL ABOVE TOP OF PIPE IN FEET								MIN. COVER INCHES
	1-10	10.1-15	15.1-20	20.1-25	25.1-30	30.1-35	35.1-40	40.1-50	
36	14 (16)	14 (16)	14 (16)	14 (16)	14 (16)	14	14	14	9
42	14 (16)	14 (16)	14 (16)	14 (16)	14	14	14	10	9
48	14 (16)	14 (16)	14 (16)	14	14	14	14	8	9
54	14 (16)	14 (16)	14	14	14	14	12	--	9
60	14 (16)	14 (16)	14	14	14	14	12	--	9
66	14 (16)	14 (16)	14	14	14	12	12	--	9
72	14	14	14	14	12	12	12	--	9
78	14	14	14	14	12	12	12	--	9
84	12	12	12	12	12	12	10	--	9
90	12	12	12	12	12	12	10	--	12
96	12	12	12	12	12	10	8	--	12
102	10	10	10	10	10	10	8	--	12
108	10	10	10	10	10	10	--	--	12
114	8	8	8	8	8	8	--	--	12
120	8	8	8	8	8	8	--	--	12

TABLE 7

CORRUGATED ALUMINUM PIPE
(6 INCH X 1 INCH CORRUGATION)

PIPE DIAMETER INCHES	HEIGHT OF FILL ABOVE TOP OF PIPE IN FEET								MIN. COVER INCHES
	1-10	10.1-15	15.1-20	20.1-25	25.1-30	30.1-35	35.1-40	40.1-50	
30	14 (16)	14 (16)	14 (16)	14 (16)	14	14	12	12	9
36	14 (16)	14 (16)	14 (16)	14	14	14	12	10	9
42	14 (16)	14 (16)	14 (16)	14	14	12	12	10	9
48	14 (16)	14 (16)	14 (16)	14	12	12	10	--	9
54	14 (16)	14 (16)	14 (16)	12	12	10	8	--	9
60	14 (16)	14 (16)	14 (16)	12	10	10	8	--	9
66	14 (16)	14 (16)	14	12	10	8	--	--	9
72	12	12	12	10	8	--	--	--	9
84	10	10	10	10	--	--	--	--	9
96	8	8	8	8	--	--	--	--	12

TABLE 8

CORRUGATED ALUMINUM PIPE ARCH
(2 2/3 INCH X 1/2 INCH CORRUGATION)

EQUIV. PIPE DIAMETER INCHES	C.A. PIPE ARCH SPAN X RISE INCHES	HEIGHT OF FILL ABOVE TOP OF ARCH (FEET)		MIN. COVER INCHES
		1-4	4.1-9	
15	17 X 13	14 (16)	14 (16)	9
18	21 X 15	14 (16)	14 (16)	9
21	24 X 18	14 (16)	14 (16)	9
24	28 X 20	14 (16)	14 (16)	9
30	35 X 24	14	14	9
36	42 X 29	14	14	9
42	49 X 33	12	12	9
48	57 X 38	10	10	9
54	64 X 43	10	10	9
60	71 X 47	8	8	9
66	77 X 52	8	8	9

GENERAL NOTES

1) MINIMUM PIPE WALL THICKNESS AND COATING REQUIREMENTS FOR ALL METAL PIPE WILL BE AS SHOWN ON THE PROJECT PLANS UNDER " SUMMARY OF DRAINAGE STRUCTURES ".

2) JOINT TYPES FOR ALL CIRCULAR AND ARCH METAL PIPE SHALL CONFORM TO CURRENT LA DOTD STANDARD SPECIFICATIONS AND SHALL BE AS SHOWN ON THE SUMMARY OF DRAINAGE STRUCTURE PLAN SHEETS.

GAGE NO.	16	14	12	10	8	
THICKNESS (IN.)	0.060	0.075	0.105	0.135	0.164	ALUMINUM
	0.064	0.079	0.109	0.138	0.168	GALVANIZED STEEL

3) PIPE WALL THICKNESS SHOWN ON PROJECT PLANS MAY VARY FROM PIPE WALL THICKNESS SHOWN IN TABLES DUE TO LOCAL PH, RESISTIVITY AND ABRASIVE CONDITIONS.

4) MINIMUM COVER IS MEASURED FROM TOP OF PIPE TO THE TOP OF THE SUBGRADE. MINIMUM COVER SHOWN IS ADEQUATE FOR H-20 LOADING WHEN PAVEMENT IS IN PLACE. DURING CONSTRUCTION, WHEN HEAVY LOADS MAY BE DRIVEN OVER OR CLOSE TO BURIED STRUCTURE, IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE ADDITIONAL COVER NEEDED TO PROTECT THE PIPE.

5) MAXIMUM FILL HEIGHT IS MEASURED FROM TOP OF PIPE TO TOP OF SURFACING.

6) SEE STANDARD SPECIFICATIONS AND STANDARD PLAN BM-01 FOR DETAILS OF BACKFILL PROCEDURES. SPECIAL CARE SHOULD BE TAKEN TO THOROUGHLY COMPACT BACKFILL UNDER PIPE HAUNCHES.

7) FOR CIRCULAR PIPE, THE AVERAGE INSIDE DIAMETER SHALL NOT VARY MORE THAN 1% OR 1/2", WHICHEVER IS GREATER, FROM THE NOMINAL DIAMETER.

8) FOR ARCH PIPE A TOLERANCE OF 1" ± OR 2% OF EQUIVALENT CIRCULAR DIAMETER, WHICHEVER IS GREATER, WILL BE PERMISSIBLE IN SPAN AND RISE.

9) GAGES SHOWN IN PARENTHESES MEET AASHTO REQUIREMENTS AND ARE THE GAGE WHICH WOULD NORMALLY BE USED. THE HEAVIER GAGES (NOT IN PARENTHESES) SHOULD BE USED ON DOTD PROJECTS.

DATE	REVISION DESCRIPTION	BY
10-5-05	Eliminated all reference to Plastic Pipe and Table 9	JDK
7-3-02	Redrafted, Added Plastic Pipe Table, General Revisions	WMR
3-27-84	Fill Height Tables - Connecting Bands	HJB

APPROVED BY CHIEF ENGINEER: Will H. Temple DATE: 10-5-05

SHEET NUMBER 355

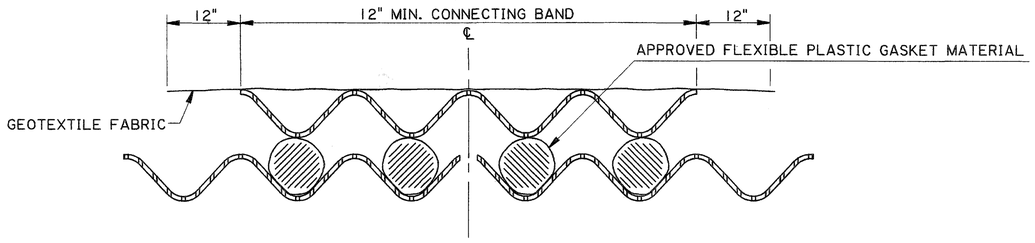
PARISH: EAST BATON ROUGE — FEDERAL PROJECT — STATE PROJECT H.012232

DESIGNED CDJ — CHECKED HJB — DETAILED KAJ — CHECKED WMR — DATE — SHEET 1 OF 2

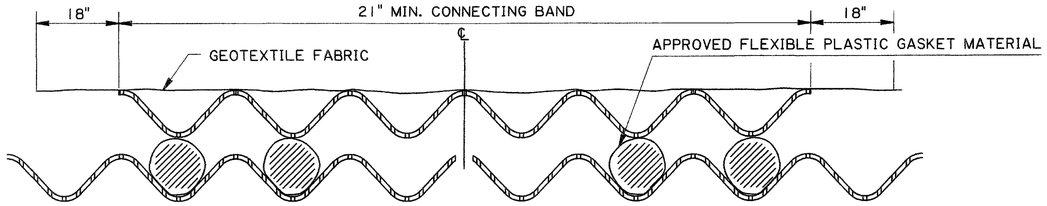
METAL PIPE WALL THICKNESS AND CONNECTING BANDS, FILL HEIGHT FOR METAL PIPE

STANDARD PLAN SAM-1

HYDRAULICS SECTION



FOR PIPES LESS THAN OR EQUAL TO 36" ROUND OR EQUIVALENT ARCH

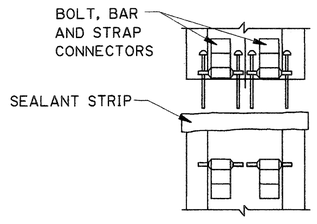


FOR PIPES GREATER THAN 36" ROUND OR EQUIVALENT ARCH
AND FOR ALL SIZES OF 6 X 1 AND 5 X 1 CORRUGATIONS

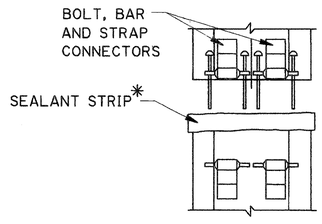
METHOD OF SEALING ANNULAR JOINT AT CONNECTING BAND WHERE TWO PIPE SECTIONS ARE JOINED

FLEXIBLE PLASTIC GASKET SYSTEM

T2 & T3 JOINTS AS SHOWN (WITH RODS & LUGS).
T1 JOINT SIMILAR, EXCEPT REQUIRES ONLY ONE STRIP OF PLASTIC GASKET MATERIAL IN SECOND CORRUGATION EACH SIDE OF JOINT.

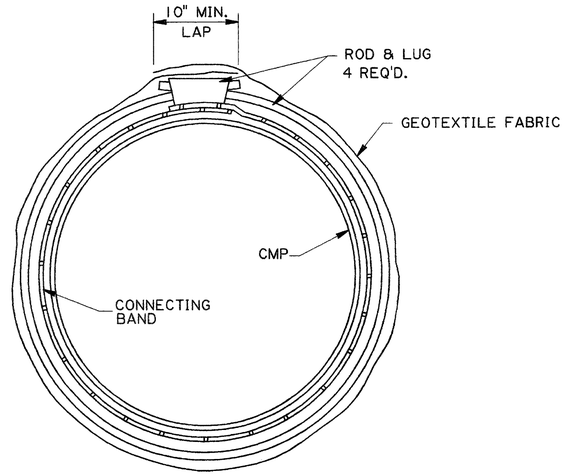


CONNECTION DETAIL
DOUBLE HARNESS

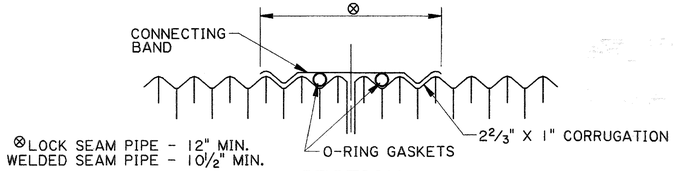


CONNECTION DETAIL
DOUBLE HARNESS

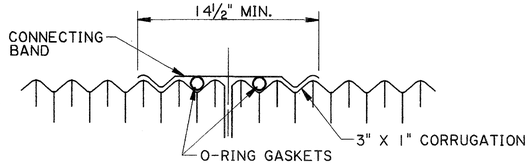
*BAND LAP SEALANT TO BE FLEXIBLE PLASTIC GASKET MATERIAL. REQUIRED THICKNESS IN TABLE. REQUIRED WIDTH IS BAND WIDTH PLUS 2".



CONNECTING BAND WITH ROD & LUG
(FLEXIBLE PLASTIC GASKET SYSTEM)



SECTION



SECTION

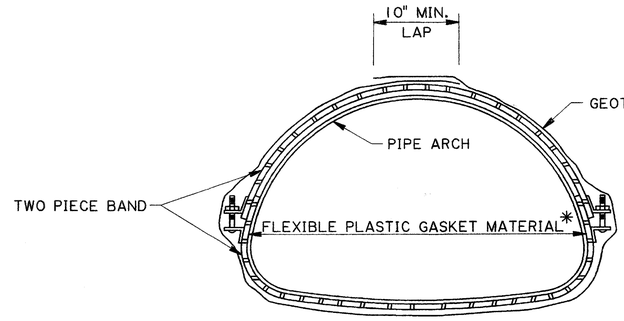
ALTERNATE CONNECTING BANDS
O-RING SYSTEM

GEOTEXTILE FABRIC CLOTH REQUIRED - SAME AS SHOWN ABOVE.

O-RING AND FLEXIBLE GASKET THICKNESS			
PIPE SIZE	CORRUGATION DEPTH	O-RING THICKNESS	FLEXIBLE GASKET THICKNESS
36" & UNDER	½"	13/16"	1"
LARGER THAN 36"	½"	⅞"	1"
ALL SIZES	1"	1⅜"	1½"

GENERAL NOTES:

1) O-RING GASKETS WILL BE REQUIRED WHENEVER O-RING SYSTEM CONNECTING BANDS ARE USED. O-RING GASKETS SHALL BE IDENTIFIED BY SIZE, DIAMETER, BATCH OR REEL NUMBER AND PLANT.
2) HELICAL ENDS SHALL BE RE-ROLLED AS PER CURRENT LA DOTD STANDARD SPECIFICATIONS.
3) FOR O-RING JOINT SYSTEMS, BOLTS SHALL BE TORQUED TO A MINIMUM OF 40 FT.LBS.
4) FOR FLEXIBLE PLASTIC GASKET SYSTEM ROUND PIPE, A MINIMUM OF 4 GALVANIZED ½" DIAMETER STEEL RODS AND LUGS SHALL BE PLACED OVER THE CONNECTING BAND. RODS MAY BE 2 PIECE FOR PIPE LARGER THAN 48".
5) GEOTEXTILE FABRIC SHALL CONFORM TO CURRENT LA DOTD STANDARD SPECIFICATIONS.
6) ARCH PIPE SHALL USE THE FLEXIBLE PLASTIC GASKET SYSTEM WITH APPROVED ANGLES OR STRAPS.
7) ALL GASKET MATERIAL SHALL BE APPROVED PRODUCTS ON CURRENT LA DOTD QUALIFIED PRODUCTS LIST.
8) PIPE JOINTS TO BE IN ACCORDANCE WITH CURRENT LA DOTD STANDARD SPECIFICATIONS.



METHOD OF SEALING LONGITUDINAL JOINTS AT TWO PIECE CONNECTING BAND
(FLEXIBLE PLASTIC GASKET SYSTEM)

SHEET NUMBER 356
PARISH: EAST BATON ROUGE
FEDERAL PROJECT:
STATE PROJECT: H.012232
DESIGNED: CDJ
CHECKED: HJB
DETAILED: KAJ
CHECKED: WMR
DATE: 10-5-05
SHEET: 2 OF 2
JDK
WMR
HJB
BY
DATE: 10-5-05

DATE	REVISION DESCRIPTION
10-5-05	Eliminated all reference to Plastic Pipe and Table 9
7-3-02	Redrafted, Added Plastic Pipe
3-27-84	Fill Height Tables - Connecting Bands, General Revisions

APPROVED BY CHIEF ENGINEER: Wilbur H. Temple

METAL PIPE WALL THICKNESS AND CONNECTING BANDS, FILL HEIGHT FOR METAL PIPE

STANDARD PLAN: SAM-1

HYDRAULICS SECTION

GENERAL PROVISIONS

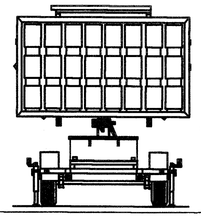
- All temporary traffic control (TTC) devices used shall be in accordance with the Louisiana Standard Specifications for Roads and Bridges, the MUTCD, and shall meet the NCHRP Report 350 or MASH requirements for Test Level 3 devices where applicable.
- Materials used for TTC shall be in accordance with the Louisiana Standard Specifications for Roads and Bridges and, when applicable, the LADOTD AML.
- Placement of TTC devices shall not commence 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 guardrail or barriers. If the clear zone is not defined on the plan sheets, the Engineer shall verify.
- Immediately upon removal of existing guardrail, 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 guardrail is installed. After removal of the existing guardrail, new guardrail 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. If utilized, a TMA is allowed for a maximum of 72 hours.
- 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 Interstates, 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.

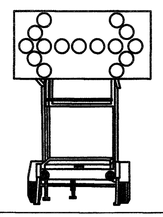
PAVEMENT MARKINGS (see AML)

- All pavement markings within the limits of the project or adjacent to the project limits 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. PCMS shall be used 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 be approved by the DTOE. Messages shall be no more than 3 lines and 2 screens.
- Messages shall display only traffic operational, regulatory, warning, and guidance information. PCMS messages shall not display advertising or safety messages. Messages should only convey information concerning the problem/situation, location, and recommended driver action.
- PCMS should be placed as far from the traveled lane as possible. They shall be shielded by guardrail or barriers. If this is not possible they shall be delineated with a min. 3 drum taper spaced at 20ft with a 4th drum alongside the PCMS.
- If the PCMS encroaches on the improved 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.





STATE OF LOUISIANA
GARY N. LeBLANC
REG. No. 25220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

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.

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.

ABBREVIATIONS

AASHTO	American Association of State Highway and Transportation Officials
ADT	Average Daily Traffic
AGCI	Associated General Contractors of America
AML	Approved Materials List
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
TMA	Truck Mounted Attenuator
TMC	Traffic Management Center
TTC	Temporary Traffic Control
TTC Standards	Temporary Traffic Control Standard Plans

SHEET NUMBER 357

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED / CHECKED	DETAILED / CHECKED	SERIES NUMBER
G. LEBLANC / J. COLVIN	C. FAKOURI / G. LEBLANC	

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DATE: 7/2/18

APPROVED BY CHIEF ENGINEER

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

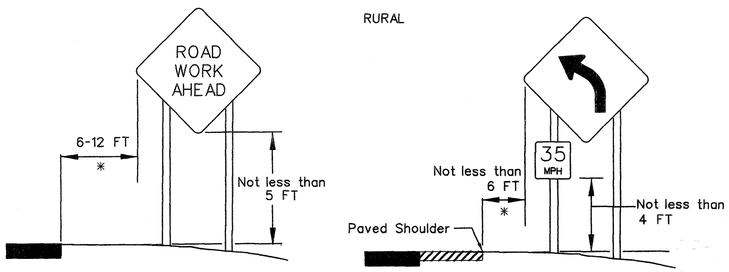
TEMPORARY TRAFFIC CONTROL
GENERAL NOTES SHEET

TTC-00 (A)

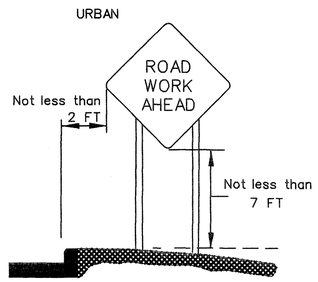
DOTD TRAFFIC ENGINEERING

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 AML).
- 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 AML 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 14 hours or less 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.

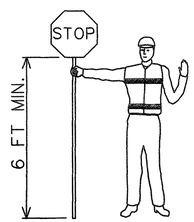


LANE CLOSURES

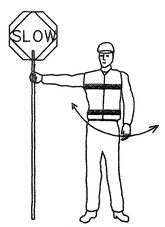
- All proposed lane, road or shoulder closures shall be reviewed by the DTOE and approved by the Engineer.
- Two lane, two-way highways shall have a maximum work area of two miles; all other roadways shall have a four mile maximum work area.
- A queue analysis shall be performed prior to approval of lane closures on all Interstates according to Section 6A.1 of the Traffic Engineering Manual.
- 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

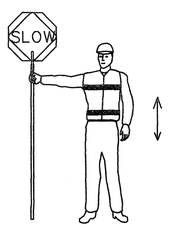
- All flaggers shall be qualified.
- The contractor shall be responsible for training or assuring that all flaggers are qualified to perform flagging duties.
- A Qualified Flagger is one that has completed courses such as those offered by ATSSA or other courses approved by the LADOTD Work Zone Task Force. 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



To Alert & SLOW Traffic

Use of Hand Sign

Use of Hand Sign

PEDESTRIAN CONSIDERATIONS

- If the TTC zone affects the movement of pedestrians, adequate pedestrian access and walkways shall be provided either through the TTC zone or a designated alternate route.
- Pedestrians should be provided with a convenient and accessible path that replicates as nearly as practical the most desirable characteristics of the existing sidewalk(s) or footpath(s).
- Advance notification of sidewalk closures shall be provided by the maintaining agency.

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 Approved Materials List (AML) Manual. http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Materials_Lab/Pages/Menu_QPL.aspx
4) LADOTD Traffic Engineering Manual http://wwwsp.dotd.la.gov/Inside_LaDOTD/Divisions/Engineering/Traffic_Engineering/Misc%20Documents/Traffic%20Engineering%20Manual.pdf
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

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CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET NUMBER 358

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED	DETAILED	SERIES NUMBER
G. LEBLANC	C. FAKOURI	
CHECKED J. COLVIN	CHECKED G. LEBLANC	

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DATE: 7/2/18

APPROVED BY: CHIEF ENGINEER:

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TEMPORARY TRAFFIC CONTROL
GENERAL NOTES SHEET

TTC-00 (B)

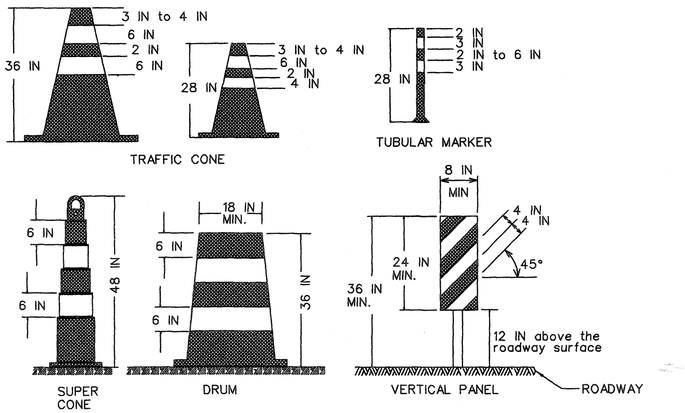
DOTD TRAFFIC ENGINEERING

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 AML).
- 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.



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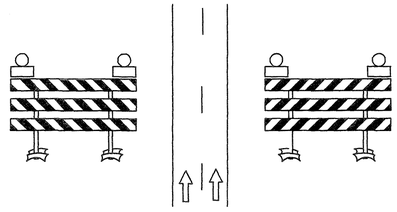
TYPE III BARRICADES

- 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 AML).
- 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	Current Posted Speed (Prior to Construction)	
	> 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 (if drop off is < 12 FT from edge of travel lane) & 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	Concrete Barrier (if drop off is < 12 FT from edge of travel lane), Shoulder Drop Off Sign, & 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.

STATE OF LOUISIANA
GARY N. LEBLANC
REG. No. 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

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	30	60	200
35	184	205	225	245	35	70	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
75	675	750	825	900	40	80	820

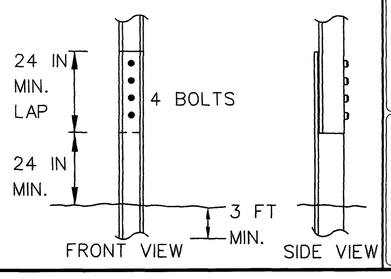
SPEED LIMIT (prior to construction)	SHIFTING TAPER LENGTH (1/2)(L) Lane Shift (FT)						STANDARD DEVICE SPACING IN FEET		BUFFER SPACE
MPH	2	4	6	8	10	12	Along Taper	Along Tangent	FT
25	11	21	32	42	52	63	20	40	155
30	15	30	45	60	75	90	30	60	200
35	21	41	62	82	102	123	35	70	250
40	27	54	80	107	134	160	40	80	305
45	45	90	135	180	225	270	40	80	360
50	50	100	150	200	250	300	40	80	425
55	55	110	165	220	275	330	40	80	495
60	60	120	180	240	300	360	40	80	570
65	65	130	195	260	325	390	40	80	645
70	70	140	210	280	350	420	40	80	730
75	75	150	225	300	375	450	40	80	820

SPEED LIMIT (prior to construction)	SHOULDER TAPER LENGTH (1/3)(L) Shoulder Width (FT)						STANDARD DEVICE SPACING IN FEET		BUFFER SPACE
MPH	2	4	6	8	10	12	Along Taper	Along Tangent	FT
25	7	14	21	28	35	42	20	40	155
30	10	20	30	40	50	60	30	60	200
35	14	28	41	55	68	82	35	70	250
40	18	36	54	72	89	107	40	80	305
45	30	60	90	120	150	180	40	80	360
50	34	67	100	134	167	200	40	80	425
55	37	74	110	147	184	220	40	80	495
60	40	80	120	160	200	240	40	80	570
65	44	87	130	174	217	260	40	80	645
70	47	94	140	187	234	280	40	80	730
75	50	100	150	200	250	300	40	80	820

- All termination and flagger tapers are 100 feet. (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 NUMBER 359

DESIGNED	G. LEBLANC
CHECKED	J. COLVIN
DETAILED	C. FAKOURI
CHECKED	G. LEBLANC
SERIES NUMBER	

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

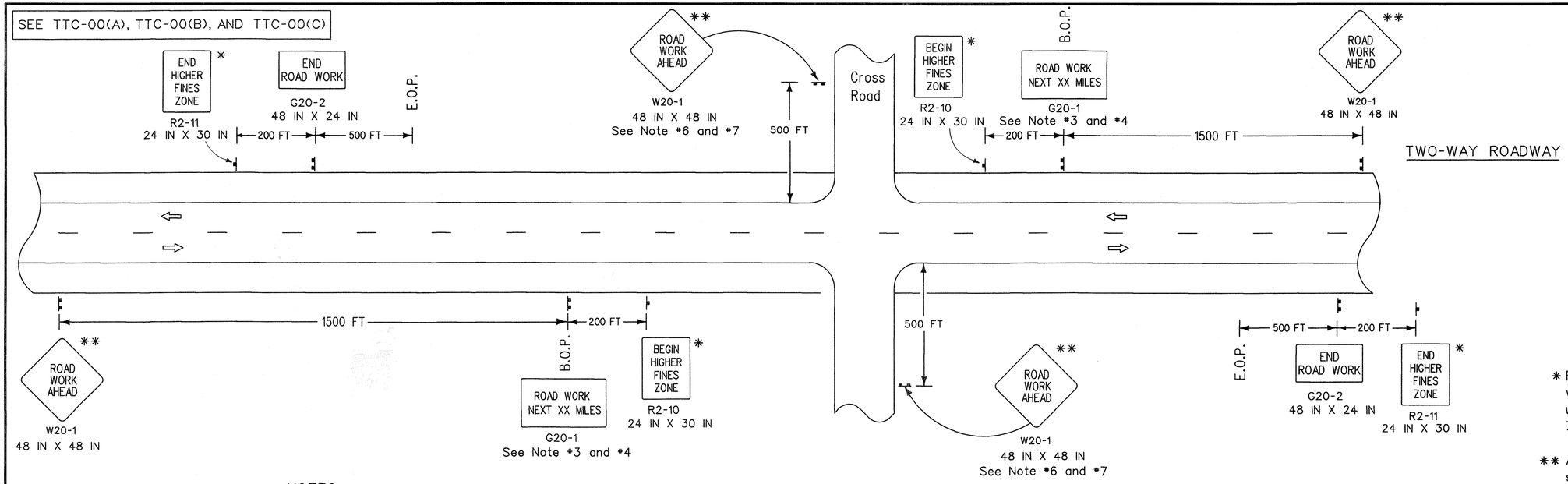
NO.	DATE	APPROVED BY CHIEF ENGINEER	REVISION OR CHANGE ORDER DESCRIPTION	BY	DATE: 7/2/18

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TEMPORARY TRAFFIC CONTROL
GENERAL NOTES SHEET
TTC-00 (C)

DOTD TRAFFIC ENGINEERING

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.

** Any sign of the W20-1 series may be used.

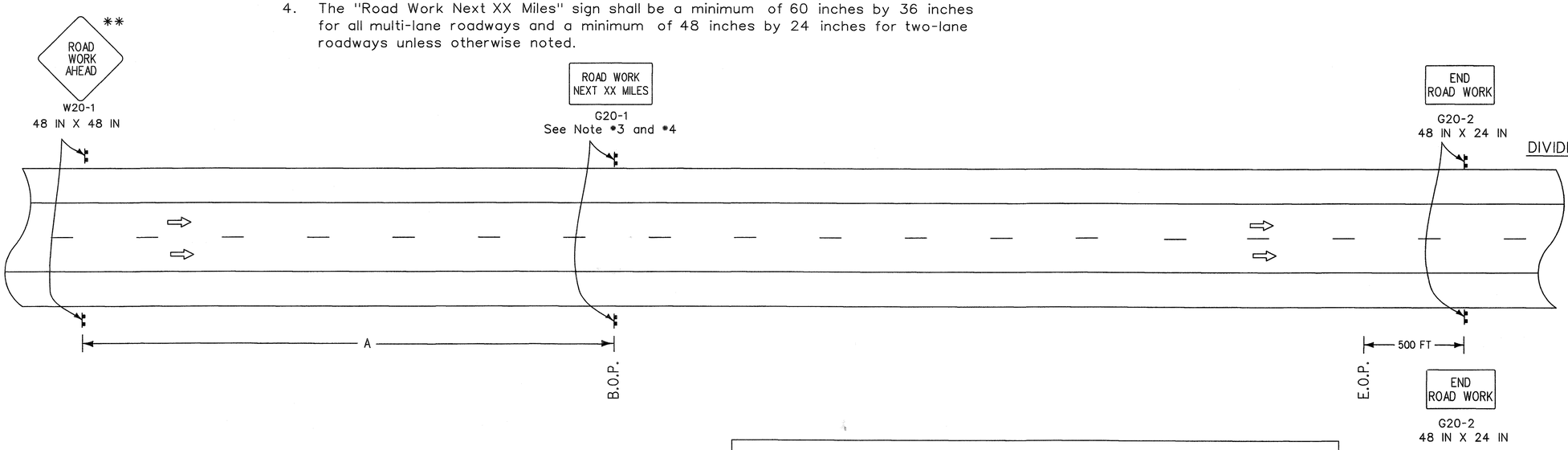
NOTES

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 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. This sign may be omitted if work zone is less than 0.5 miles.
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 (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.

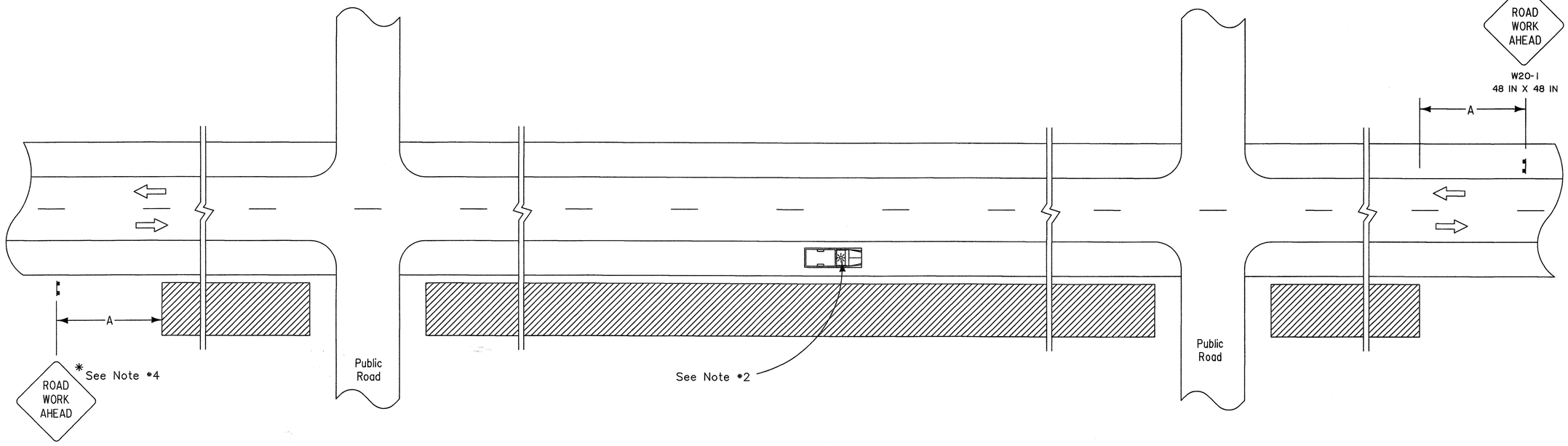
STATE OF LOUISIANA
GARY N. LeBLANC
REG. No. 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

SHEET NUMBER 360
PARISH: EAST BATON ROUGE
CONTROL SECTION: 000-17, 258-33, 450-10
STATE PROJECT: H.012232
DESIGNED: G. LEBLANC
CHECKED: J. COLVIN
DETAILED: C. FAKOURI
CHECKED: G. LEBLANC
SERIES NUMBER
NO. | DATE | REVISION OR CHANGE ORDER DESCRIPTION | BY
DATE: 7/2/18
APPROVED BY CHIEF ENGINEER:

TEMPORARY TRAFFIC CONTROL
LAYOUT FOR PLACEMENT OF ROAD WORK NEXT XX MILES AND END ROAD WORK SIGNS
TTC-00 (D)

DOTD TRAFFIC ENGINEERING

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



LEGEND

- Traffic Sign
- Work Area
- Direction of Travel
- Truck with Amber Light

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

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 more than 15 feet from the travel way.
2. If the operation results in equipment or other vehicles being parked closer than 15 feet to the travel way, but not within the roadway, each vehicle shall have an amber light.
3. When a work area has been established on one side of the roadway only, there shall be no parking on the opposite shoulder within 500 feet of the work area.
4. Other signs may be used in place of the "Road Work Ahead" sign, such as W21-8 (Mowing), W21-7 (Utility), or W21-6 (Survey) when applicable.

* Any sign of the W20-1 series may be used.

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CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

STATE OF LOUISIANA
GARY N. LeBLANC
REG. No. 26220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

SHEET NUMBER 361

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED G. LEBLANC
CHECKED J. COLVIN
DETAILED C. FAKOURI
CHECKED G. LEBLANC
SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

APPROVED BY CHIEF ENGINEER:
DATE: 7/2/18

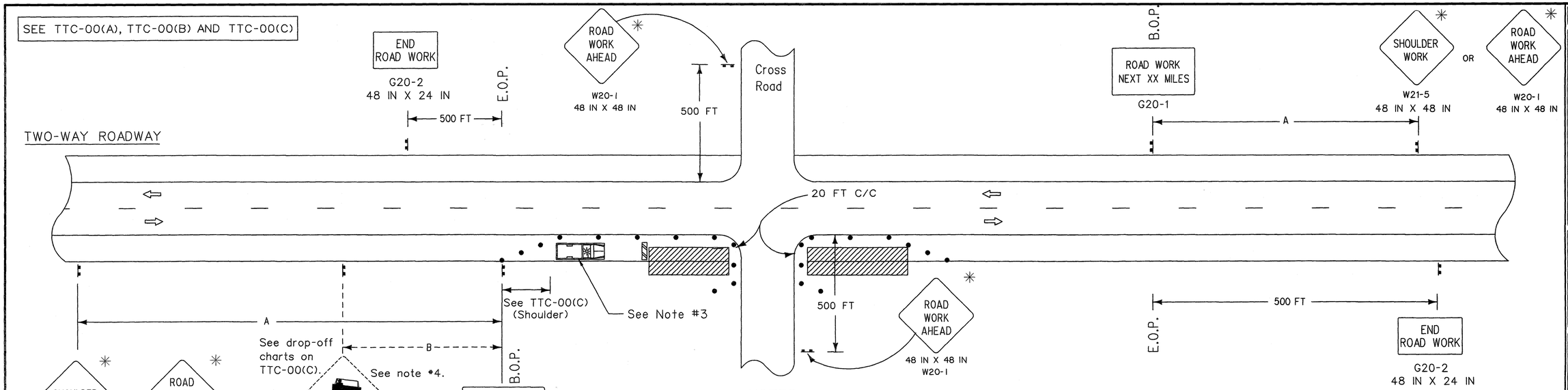
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TEMPORARY TRAFFIC CONTROL FOR WORK GREATER THAN 15 FEET FROM THE TRAVELED WAY

TTC-01

DOTD TRAFFIC ENGINEERING

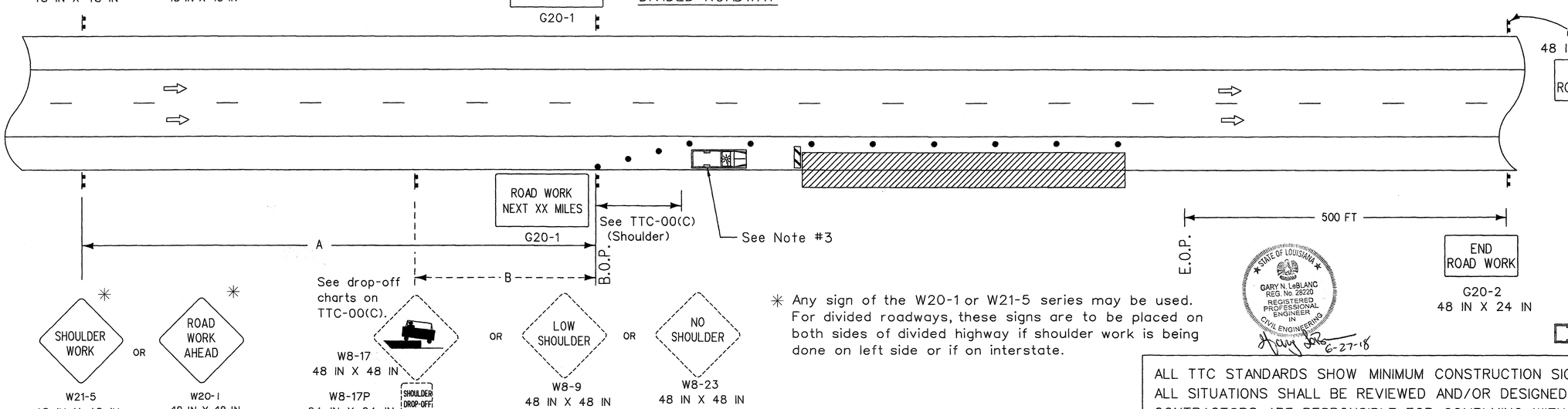
SEE TTC-00(A), TTC-00(B) AND TTC-00(C)



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
Expressway/Interstate	2500 FT	1000 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, device spacing shall be 25 feet.

DIVIDED ROADWAY



✳ Any sign of the W20-1 or W21-5 series may be used. For divided roadways, these signs are to be placed on both sides of divided highway if shoulder work is being done on left side or if on interstate.

NOTES

This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), 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).
5. 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. This sign may be omitted if work zone is less than 0.5 miles.
6. 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 roll-ahead distance required by the manufacturer plus 100 feet.

LEGEND

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

STATE OF LOUISIANA
GARY N. LeBLANC
REG. No. 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

ALL TTC STANDARDS SHOW MINIMUM CONSTRUCTION SIGNING.
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CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET NUMBER 362

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED / CHECKED	DETAILED / CHECKED	SERIES NUMBER
G. LEBLANC / J. COLVIN	C. FAKOURI / G. LEBLANC	

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

APPROVED BY CHIEF ENGINEER: DATE: 7/2/18

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

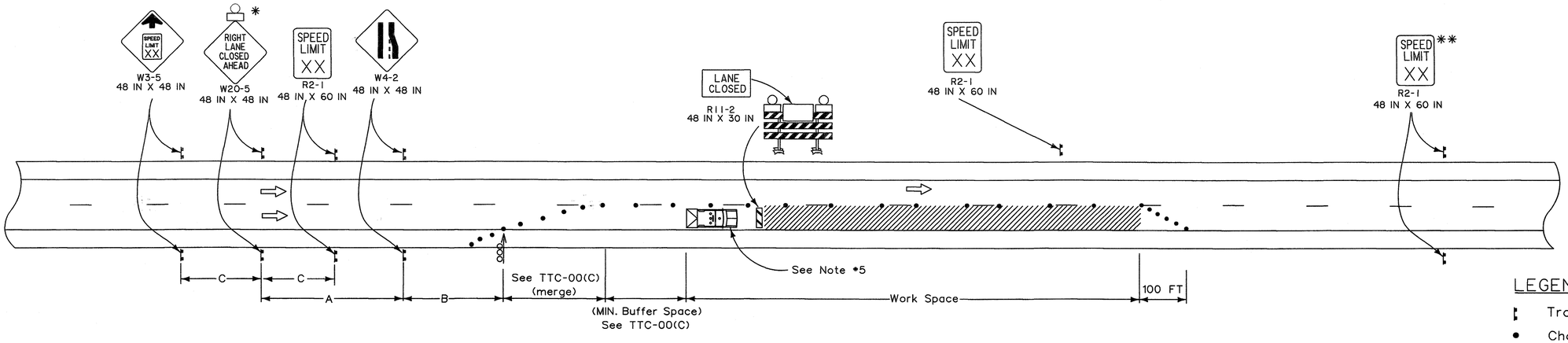
TEMPORARY TRAFFIC CONTROL
LAYOUT FOR WORK LESS THAN 15 FEET FROM THE TRAVELED WAY

TTC-02

DOTD TRAFFIC ENGINEERING

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

RIGHT LANE CLOSURE



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

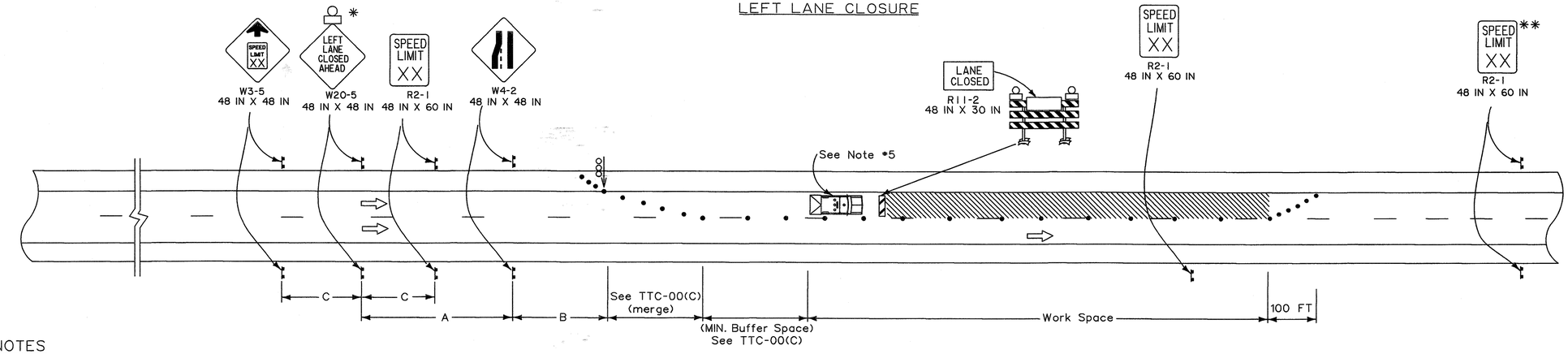
* Any sign of the W20-5 series may be used.

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

LEGEND

- Traffic Sign
- Channelizing Devices
- Type III Barricades
- Flashing Arrow Board (Type 'C')
- Work Area
- Type B Light
- Direction of Travel
- Truck with Amber Light and TMA

LEFT 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 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. Sign spacing may be adjusted due to access conditions of the corridor.
4. If speed limit is less than 45 mph, see TTC-10.
5. A vehicle with a flashing amber light and a truck mounted attenuator shall be used on all interstate projects or 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 roll-ahead distance required by the manufacturer plus 100 feet.
6. 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 inside the work zone, adjacent to the open travel lane, and immediately upstream of each operation to facilitate ingress/egress of construction equipment and vehicles. Encroachment shall be held to a minimum.
7. 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.

STATE OF LOUISIANA
GARY N. LeBLANC
REG. No. 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

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CONTRACTORS ARE RESPONSIBLE FOR COMPLYING WITH ALL TTC STANDARDS.

SHEET NUMBER 363

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED G. LEBLANC
CHECKED J. COLVIN
DETAILED C. FAKOURI
CHECKED G. LEBLANC
SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY	DATE:
				7/2/18

APPROVED BY CHIEF ENGINEER:

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

TEMPORARY TRAFFIC CONTROL FOR LANE CLOSURES ON DIVIDED HIGHWAYS ON (Does not include ramp entrance or exit tapers)

TTC-09

DOTD TRAFFIC ENGINEERING

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

NOTES

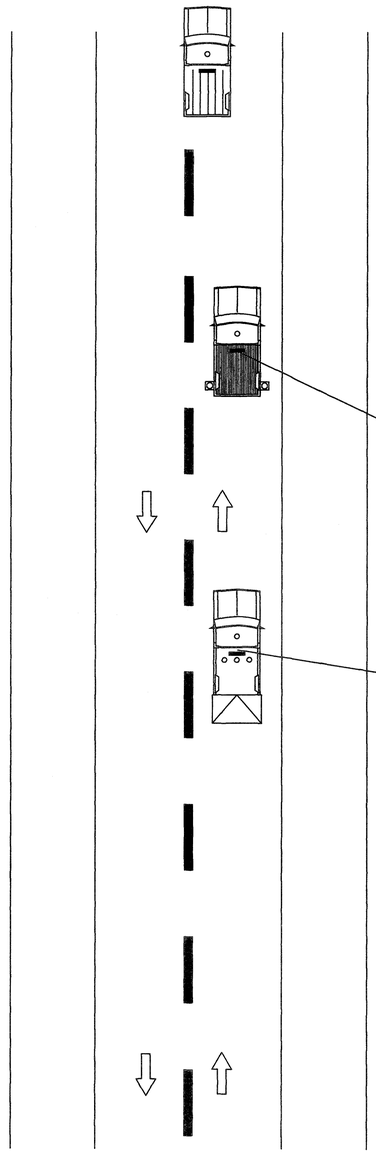
This sheet shall be used with the Temporary Traffic Control General Notes Sheets TTC-00(A), TTC-00(B), and TTC-00(C).

1. This layout represents the *minimum* traffic controls required for moving operations on two-lane roads with two-way traffic, such as striping, street sweeping, 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).



(Optional) Lead Vehicle straddling centerline with flashing lights may be used.

Work Vehicle with flashing light mounted on top and on outriggers and with Type C 96" X 48" arrow board in caution mode

CAUTION
WET PAINT
18 IN X 48 IN

Place this sign on back of work vehicle during striping operations.

First Protection Vehicle with flashing lights and Truck Mounted Attenuator.

ROAD WORK AHEAD *
W20-1
48 IN X 48 IN

OR

CAUTION
STRIPING MACHINE AHEAD
KEEP OFF WET PAINTED LINES
36 IN X 48 IN

Place this sign on back of protection vehicle during striping operations.

LEGEND

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

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* Any sign of the W20-1 series may be used.

STATE OF LOUISIANA
GARY N. LeBLANC
REG. No. 28220
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
6-27-18

SHEET NUMBER 364

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED G. LEBLANC
CHECKED J. COLVIN
DETAILED C. FAKOURI
CHECKED G. LEBLANC
SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

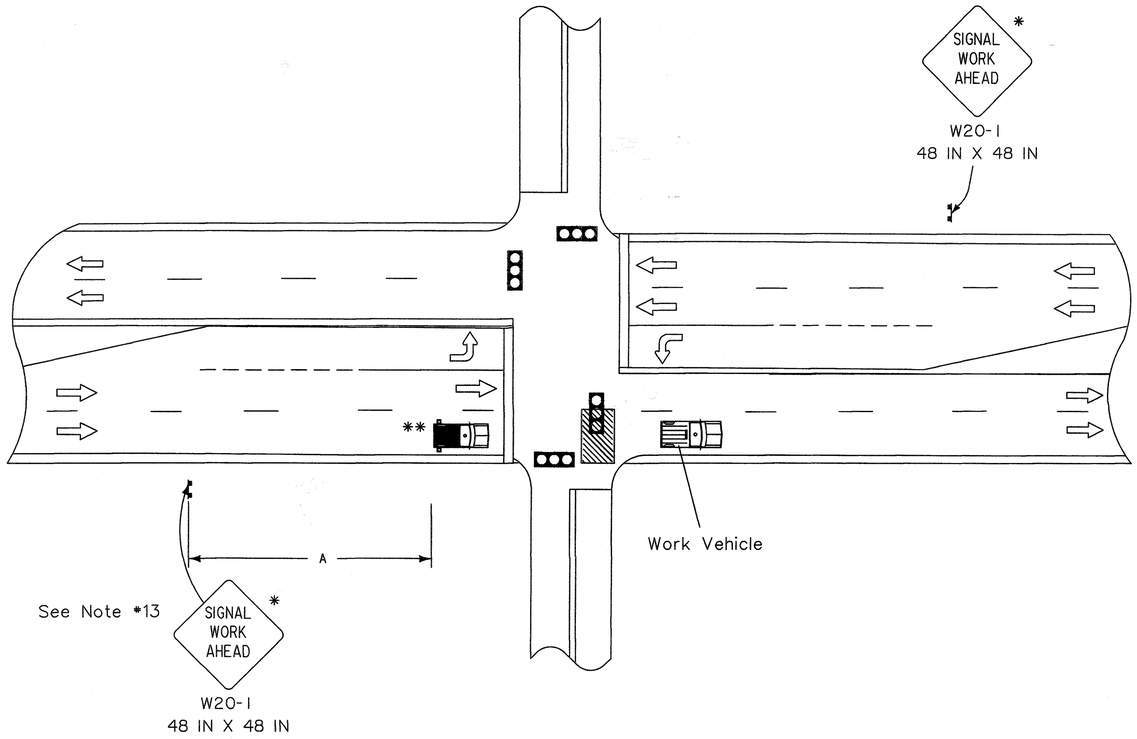
APPROVED BY: CHIEF ENGINEER:
DATE: 7/6/18

TEMPORARY TRAFFIC CONTROL
FOR MOVING OPERATIONS ON
TWO-WAY TWO-LANE ROADWAYS
TTC-18

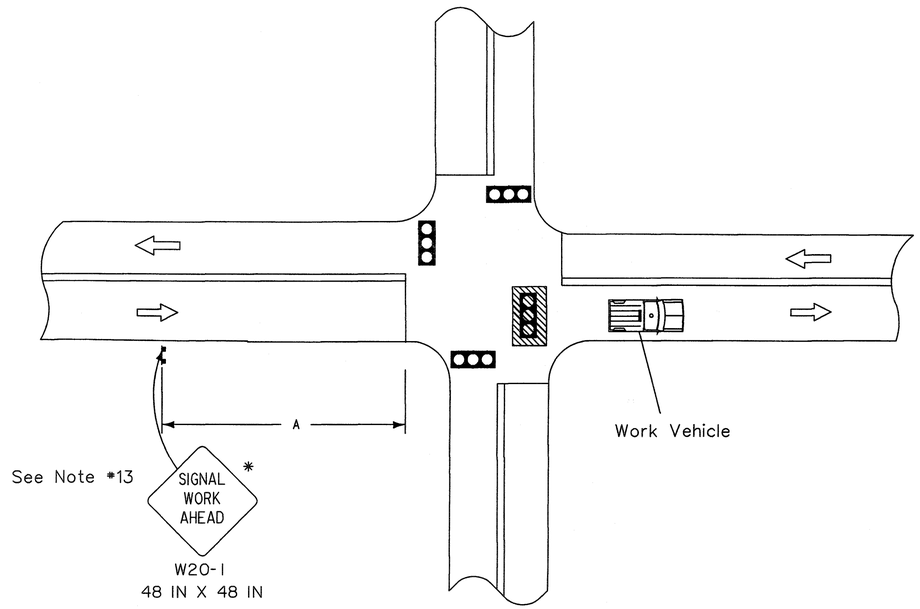
DOTD TRAFFIC ENGINEERING

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



* Any sign of the W20-1 series may be used.

** For posted speed over 45 mph, use TMA.

SPEED LIMIT (prior to construction)	SPACING 'A'
≤ 40 mph	125 FT
45-50 mph	350 FT
> 50 mph	500 FT

LEGEND

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

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 and signal turn-ons.
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.
15. Left turn lanes shall be closed whenever work is being performed in path of left hand turner.
16. Position of work vehicle may vary according to work required.

STATE OF LOUISIANA
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6-27-18

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SHEET NUMBER 365

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	000-17, 258-33, 450-10	H.012232

DESIGNED G. LEBLANC
CHECKED J. COLVIN
DETAILED C. FAKOURI
CHECKED G. LEBLANC
SERIES NUMBER

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

APPROVED BY CHIEF ENGINEER:
DATE: 7/2/18

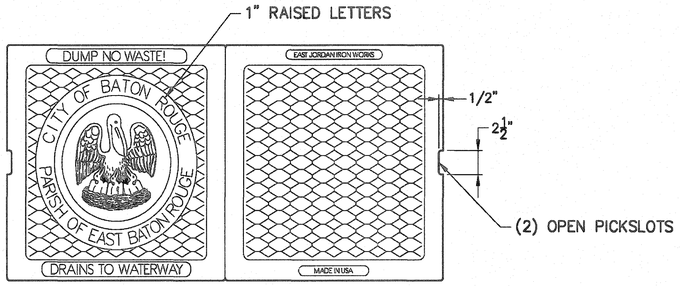
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

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

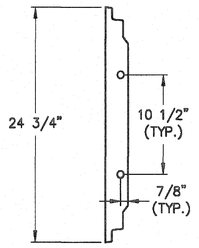
TTC-19

DOTD TRAFFIC ENGINEERING

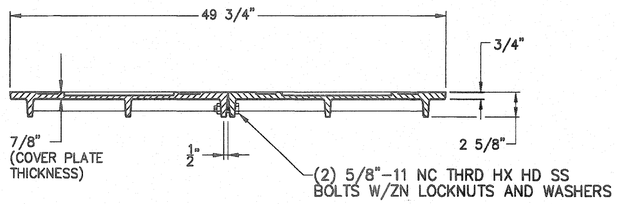
PROJECT NO.	SHEET
H.012232	366



PLAN OF DUCTILE IRON COVER
SCALE: 1 1/2"=1'-0"



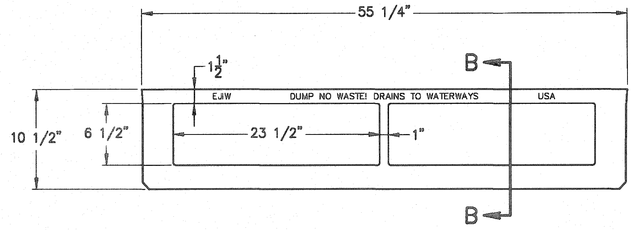
SIDE VIEW



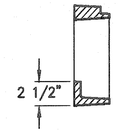
FRONT VIEW

EJIW PRODUCT #44300209
USF 5188 (ITEM 8015665 & 8015666)
OR APPROVED EQUAL

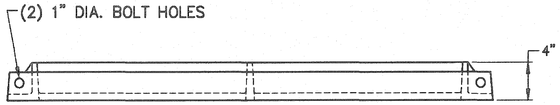
EJIW PRODUCT #44302030
USF 5188 (ITEM 8070063)
OR APPROVED EQUAL



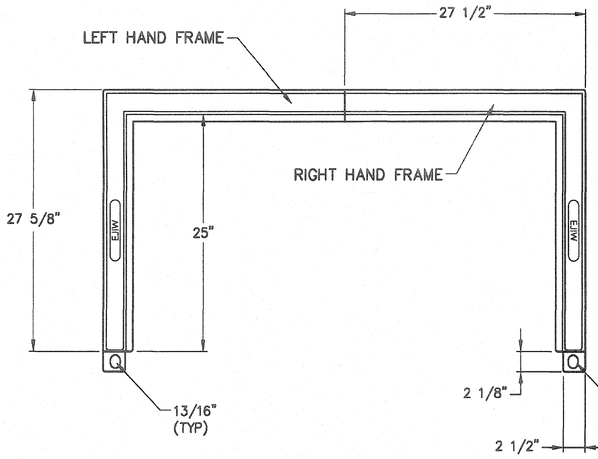
FRONT VIEW



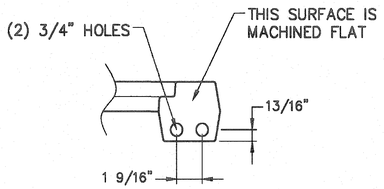
SECTION B-B



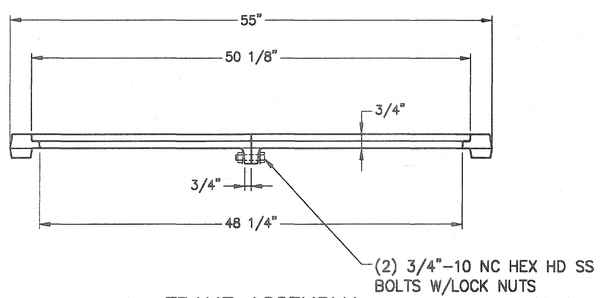
TOP VIEW



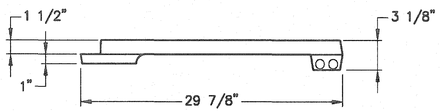
EJIW PRODUCT #44300016
USF 5188 (ITEM 8060020)
OR APPROVED EQUAL

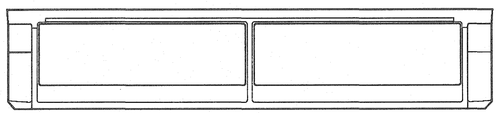


BOLT FLANGE DETAIL
(TYP, BOTH HALVES)



FRAME ASSEMBLY
SCALE: 1 1/2"=1'-0"





BACK VIEW
SCALE: 1 1/2"=1'-0"

* NOTES: WEIGHT OF DUCTILE IRON COVER = 314 LBS.
WEIGHT OF DUCTILE IRON FRAME = 128 LBS.
WEIGHT OF GREY IRON GRATE = 140 LBS.
* (WEIGHTS SHOWN ARE FOR EJIW PRODUCTS.
WEIGHTS OF APPROVED EQUAL PRODUCTS MAY VARY.)

GENERAL NOTE:
ALL CAST IRON FRAME, GRATES, AND COVERS SHALL BE TRAFFIC BEARING AND BE OF DOMESTIC ORIGIN OR COMPLY WITH SECTION 6-11. FRAME, GRATES, AND COVERS SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE AASHTO DESIGNATION: M306 STANDARD SPECIFICATION FOR DRAINAGE, SEWER, UTILITY, AND RELATED CASTINGS.

DATE	DESCRIPTION REVISION	BY
3/28/12	UPDATE USF PRODUCT NUMBER.	G. L. P.
12/06/10	ADD NOTES FOR PRODUCT WEIGHTS.	G. L. P.
3/17/10	ADD USF PRODUCT NUMBER.	G. L. P.

STANDARD PLAN No.	DATED	SHT. No.
702-99	AUGUST 11, 2008	1 OF 3

FRAMES, GRATES AND COVERS FOR INLETS AND MANHOLES (TYPE 1)

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

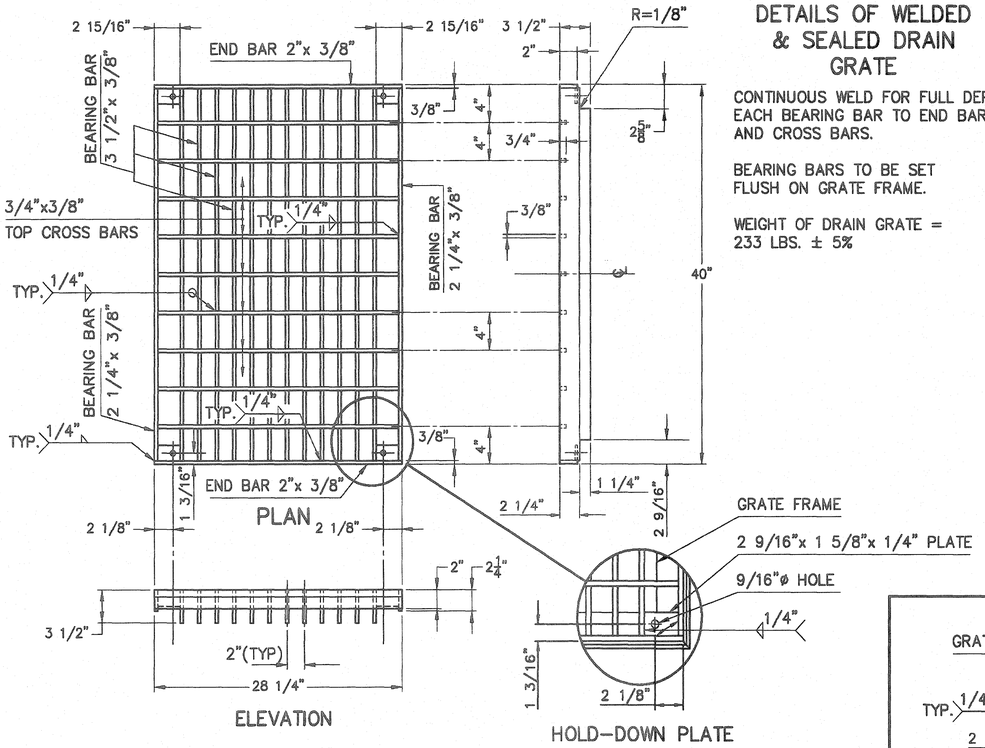
PROJECT NO.	SHEET
H.012232	367

DETAILS OF WELDED & SEALED DRAIN GRATE

CONTINUOUS WELD FOR FULL DEPTH EACH BEARING BAR TO END BARS AND CROSS BARS.

BEARING BARS TO BE SET FLUSH ON GRATE FRAME.

WEIGHT OF DRAIN GRATE = 233 LBS. ± 5%



FABRICATED BAR
SCALE: 1 1/2"=1'-0"

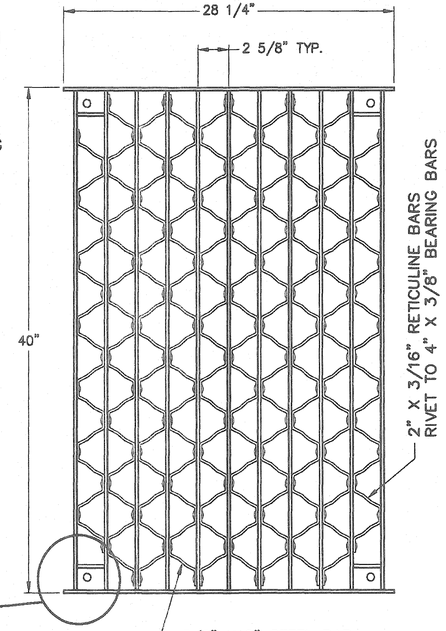
DETAILS OF RIVETED RETICULINE DRAIN GRATE

CONTINUOUS WELD FOR FULL DEPTH EACH BEARING BAR TO END BARS.

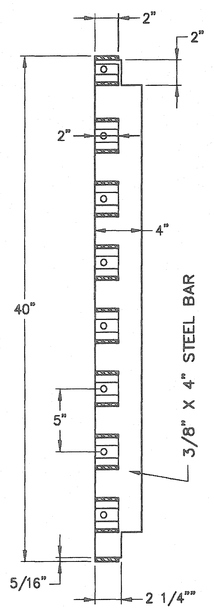
BEARING BARS TO BE SET FLUSH ON GRATE FRAME.

CENTER TO CENTER OF BEARING BARS EQUALS 2 5/16" PLUS BEARING BAR THICKNESS.

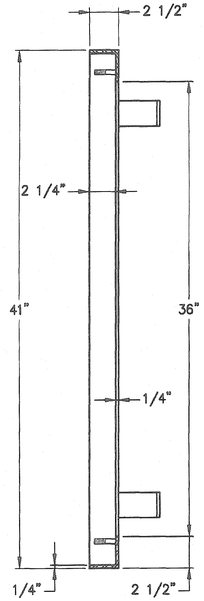
WEIGHT OF DRAIN GRATE = 266 LBS. ± 5%



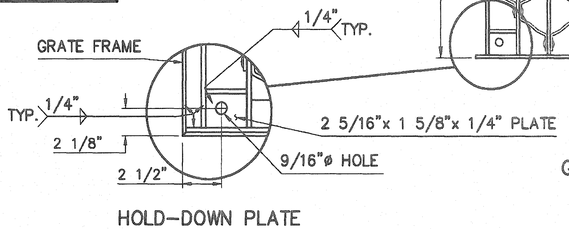
GRATE TOP VIEW



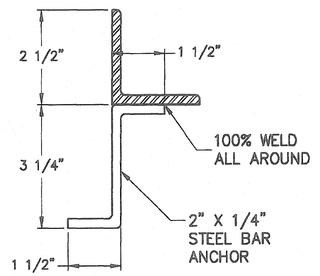
GRATE SECTION



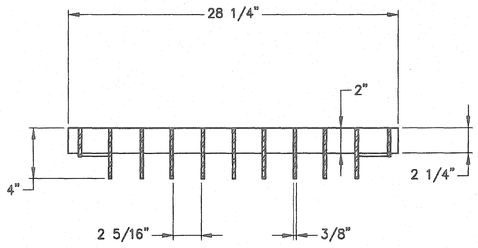
FRAME SECTION



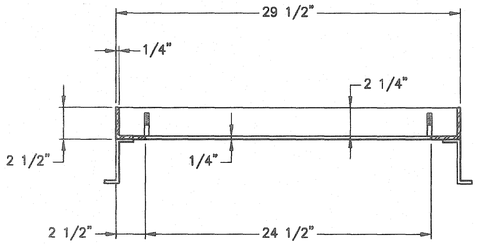
HOLD-DOWN PLATE



ANCHOR DETAIL

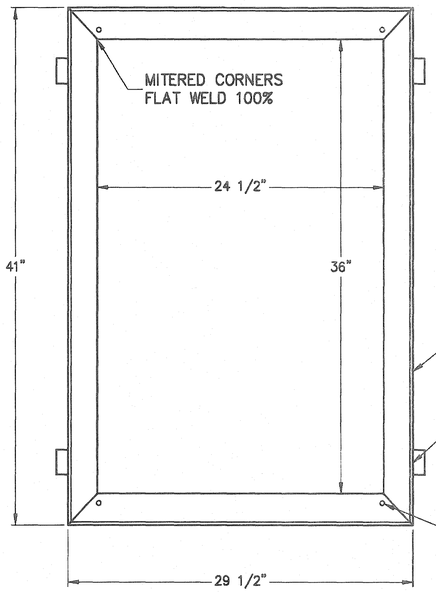


GRATE SECTION



FRAME SECTION

RETICULINE GRATE AND FRAME
SCALE: 2"=1'-0"



FRAME TOP VIEW

NOTE:
FRAME AND GRATE: ASTM A36 STEEL, WELDED CONSTRUCTION. HOT DIP GALVANIZED AFTER FABRICATION. (GALVANIZE PER ASTM A123)

EJIW PRODUCT #44863061
USF 6672-6673
OR APPROVED EQUAL

STANDARD PLAN No.	DATED	SHT. No.
702-99	AUGUST 11, 2008	2 OF 3

FRAMES, GRATES AND COVERS FOR INLETS AND MANHOLES (TYPE 2)

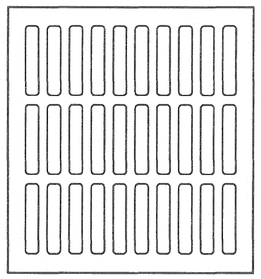
DATE	DESCRIPTION	BY
3/28/12	ADD USF PRODUCT NUMBER.	G. L. P.

REVISION

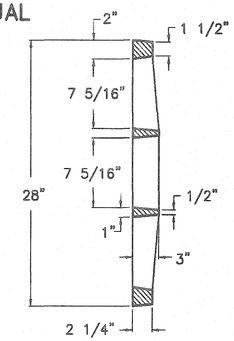
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

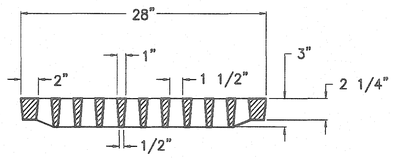
EJIW PRODUCT #45775030, USF 6278 OR APPROVED EQUAL



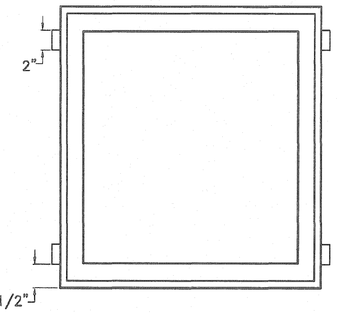
GRATE TOP VIEW



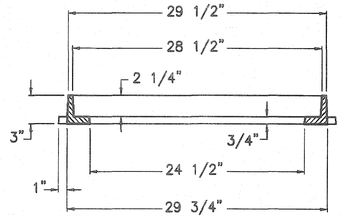
GRATE SECTION



GRATE SECTION



FRAME TOP VIEW

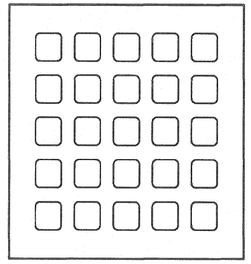


FRAME SECTION

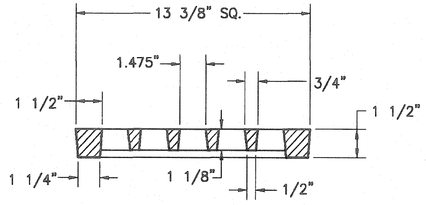
"TYPE 3"
SCALE: 1-1/2"=1'-0"

EJIW PRODUCT #45775010
USF 4650
OR APPROVED EQUAL

EJIW PRODUCT #45913130, USF 6279 OR APPROVED EQUAL



GRATE TOP VIEW

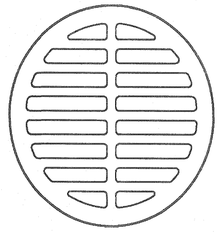


GRATE SECTION

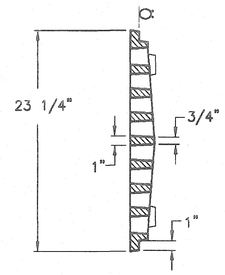
"TYPE 4"
SCALE: 3"=1'-0"

DETAILS OF CAST IRON GRATE
WEIGHT OF CASTING = 38 LBS.

EJIW PRODUCT #43501030, USF 5685 OR APPROVED EQUAL

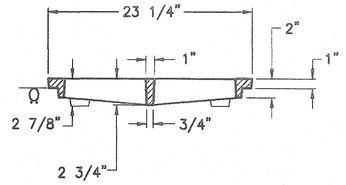


GRATE TOP VIEW



GRATE SECTION

Ø MACHINED SURFACE

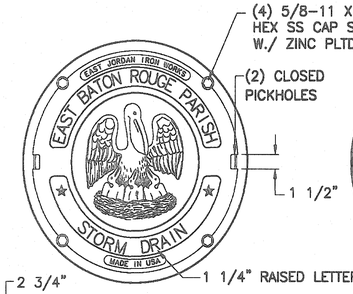


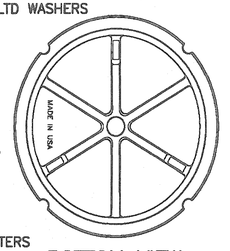
GRATE SECTION

"TYPE 5"
SCALE: 1-1/2"=1'-0"

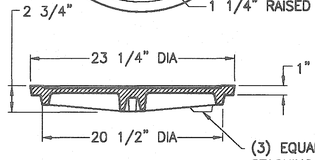
EJIW PRODUCT #41886007 USF 1346 BZ BLT OR APPROVED EQUAL

PROJECT NO.	SHEET
H.012232	368

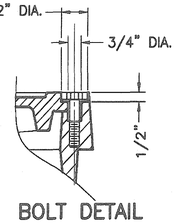




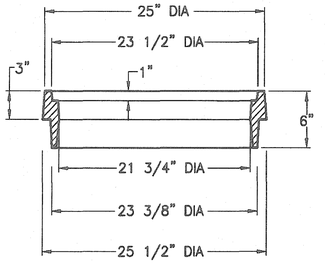
BOTTOM VIEW
OF COVER



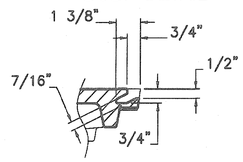
COVER SECTION



BOLT DETAIL



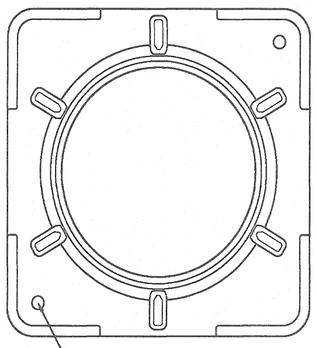
RING SECTION

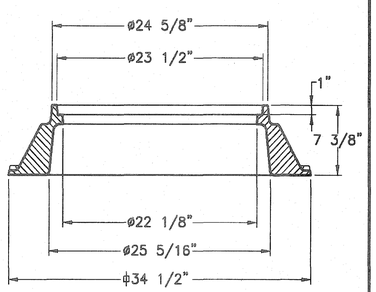


PICKHOLE DETAIL

"TYPE 6"
SCALE: 1-1/2"=1'-0"

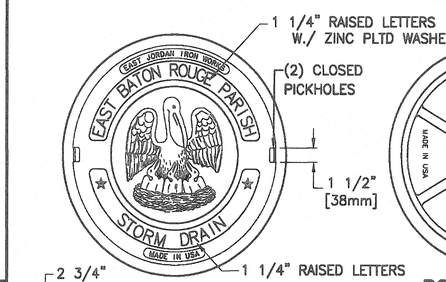
EJIW PRODUCT #41301211, USF 678 BZ OR APPROVED EQUAL

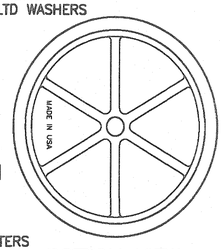




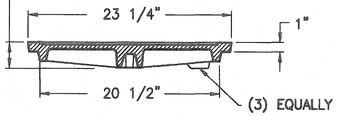
NOTE:
FRAME TO BE USED WITH TYPE 7 COVER.

"TYPE 9"
SCALE: 1-1/2"=1'-0"

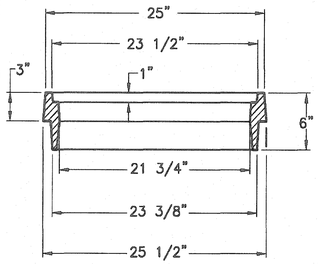




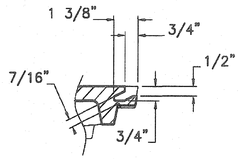
BOTTOM VIEW
OF COVER



COVER SECTION



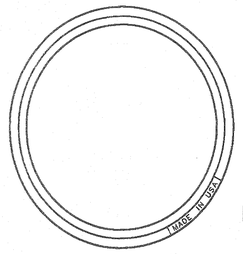
RING SECTION



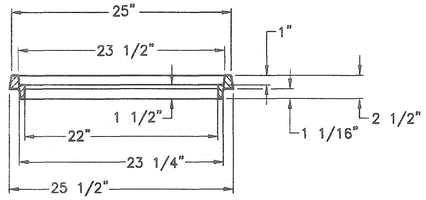
PICKHOLE DETAIL

EJIW PRODUCT #41886010
USF 1346 BZ
OR APPROVED EQUAL

"TYPE 7"
SCALE: 1-1/2"=1'-0"



EJIW PRODUCT #41901110
USF 2337
OR APPROVED EQUAL



RING SECTION

"TYPE 8"
DETAILS OF MANHOLE
ADJUSTMENT RING
SCALE: 1 1/2"=1'-0"

DATE	DESCRIPTION REVISION	BY
3/28/12	ADD USF PRODUCT NUMBER.	G. L. P.

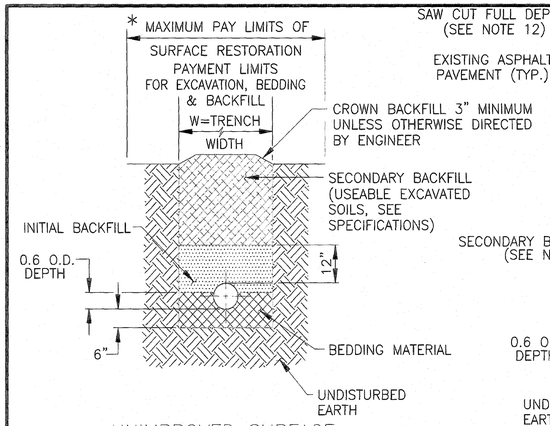
STANDARD PLAN No.	DATED	SHT. No.
702-99	AUGUST 11, 2008	3 OF 3

FRAMES, GRATES AND COVERS FOR INLETS AND MANHOLES

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

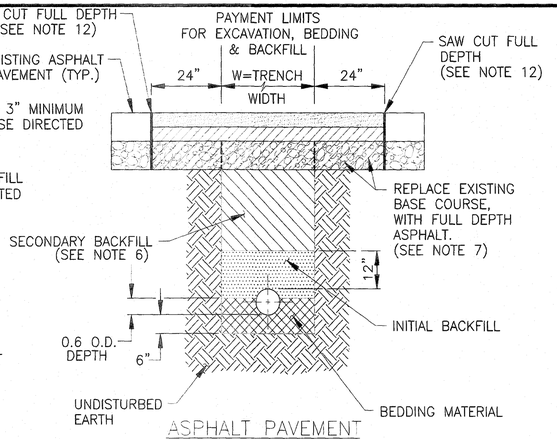
DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

PROJECT NO.	SHEET
H.012232	369



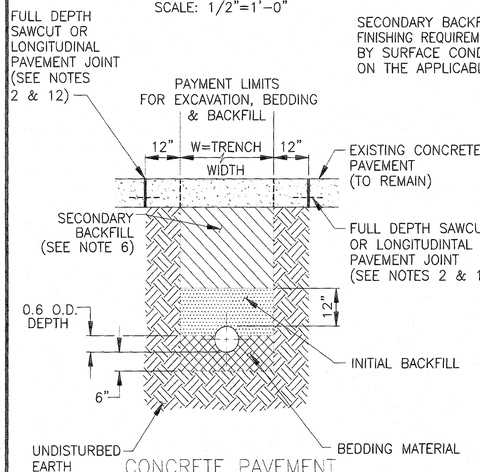
UNIMPROVED SURFACE

SCALE: 1/2"=1'-0"



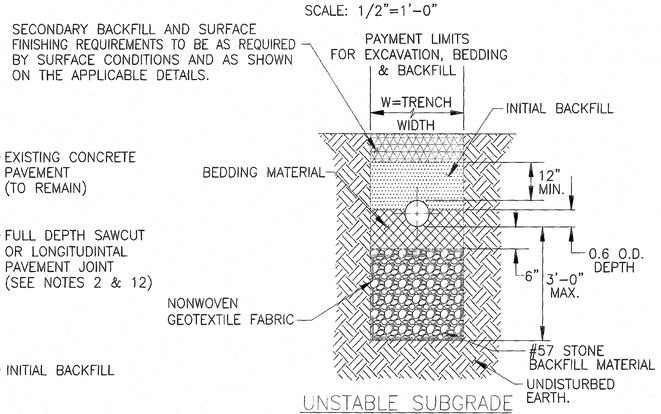
ASPHALT PAVEMENT

SCALE: 1/2"=1'-0"



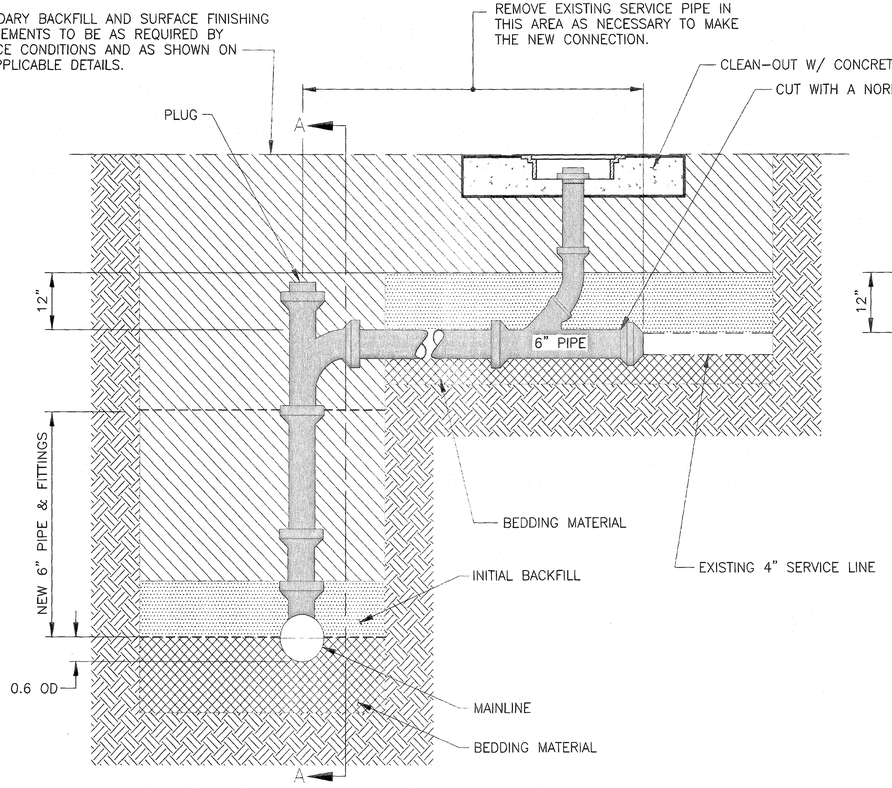
CONCRETE PAVEMENT

SCALE: 1/2"=1'-0"



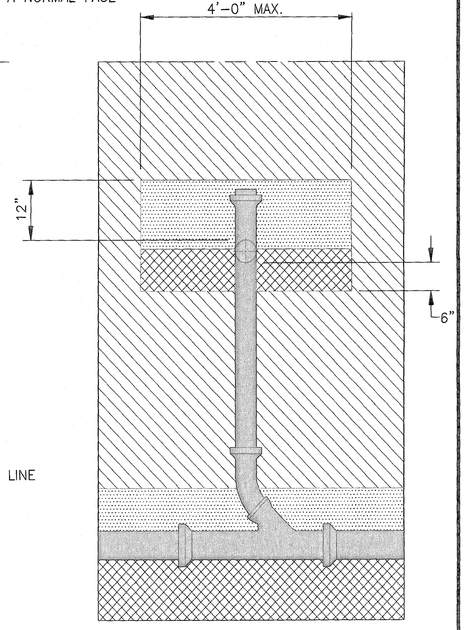
UNSTABLE SUBGRADE

SCALE: 1/2"=1'-0"



SEWER SERVICE LATERAL CONNECTION STACK

SCALE: 3/4"=1'-0"



SECTION "A-A"

SCALE: 3/4"=1'-0"

NOTES:

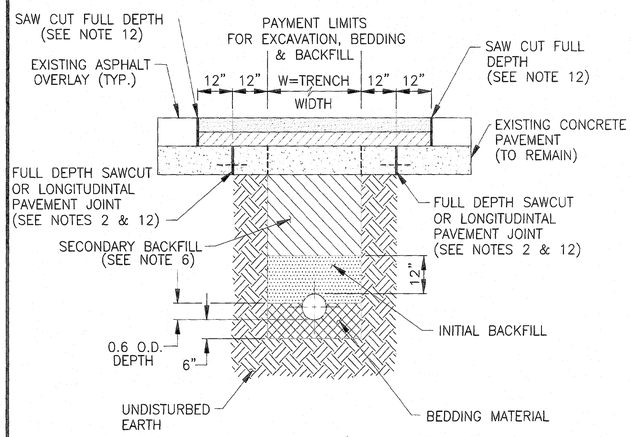
1. TRENCH WIDTH (W) SHALL BE AS SHOWN IN THE TABLE BELOW. PIPE SHALL BE CENTERED IN TRENCH.

NOMINAL PIPE SIZE	"W"
UP TO 36"	36" + O.D.
OVER 36"	48" + O.D.

2. CONTRACTOR TO REMOVE AND REPLACE CONCRETE PAVEMENT SLABS AS SHOWN. IF CONCRETE PAVEMENT JOINT (OR EDGE OF ROAD/BACK OF CURB) IS WITHIN 2', REMOVE PAVEMENT TO JOINT LINE. PAVEMENT TO CONFORM TO STANDARD CPS 502-01(STANDARD PAVEMENT DETAILS). REUSE EXISTING DOWELS IF NOT DAMAGED DURING PAVEMENT REMOVAL. REPLACE ALL DAMAGED DOWEL WITH ½" x 2'-0" DEFORMED BARS ON 2'-0" CENTERS WITH EPOXY.
3. WATER SHALL NOT BE PERMITTED IN TRENCH DURING CONSTRUCTION. DEWATER AS NECESSARY.
4. USE OF THE UNSTABLE SUBGRADE PIPE BEDDING DETAIL IS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
5. GEOTEXTILE FABRIC SHALL BE OVERLAPPED 8" MINIMUM.
6. IF LIMITS OF THE PIPE TRENCH FALL UNDER EXISTING ASPHALTIC OR PCC ROADWAYS AND/OR EXISTING PARKING LOTS, THE SECONDARY BACKFILL SHALL BE #610 STONE OR AS SPECIFIED IN SECTION 801 OF THE SPECIFICATIONS.

   IF LIMITS OF THE PIPE TRENCH FALL OUTSIDE OF, BUT WITHIN 10 FT. OF THE EDGE OF AN EXISTING ROADWAY, OR UNDER THE LIMITS OF A FUTURE ROADWAY TO BE CONSTRUCTED SUBSEQUENT TO SANITARY SEWER INSTALLATION; THE SECONDARY BACKFILL SHALL BE THE SAND-AGGREGATE MIXTURE. REFER TO SECTION 801 OF THE SPECIFICATIONS FOR SPECIFIC REQUIREMENTS.

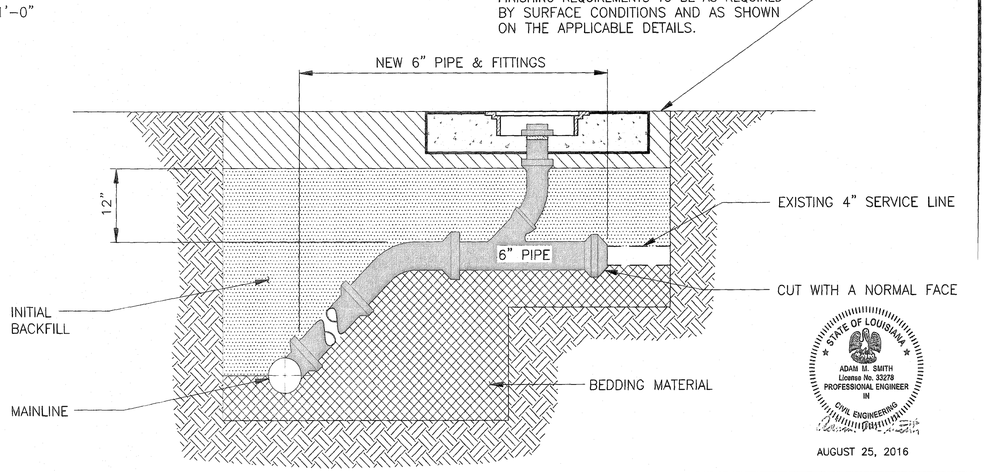
   IN AREAS OUTSIDE THOSE DESCRIBED ABOVE, SECONDARY BACKFILL MATERIAL SHALL CONSIST OF USABLE EXCAVATED SOILS.
7. ASPHALTIC CONCRETE PAVEMENT SHALL BE REPLACED WITH FULL DEPTH ASPHALT CONSISTING OF A MINIMUM 7" THICKNESS OF MIX TYPE B BASE COURSE AND 2" THICKNESS OF WEARING COURSE FOR CITY/PARISH STREETS IN ACCORDANCE WITH THE SPECIFICATIONS. MINIMUM 4" MIX TYPE B (PG64-22) FOR PARKING LOTS AND DRIVEWAYS.
8. ASPHALT OR CONCRETE PAVEMENT OR UNIMPROVED GRANULAR SURFACE REMOVED IN EXCESS OF LIMITS SHOWN SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
9. BEDDING AND BACKFILL NEEDED IN EXCESS OF LIMITS SHOWN SHALL BE PROVIDED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
10. MAXIMUM PAYMENT LENGTHS FOR REMOVAL AND RESTORATION OF SURFACES SHALL BE THE SAME AS FOR THE EXCAVATION, BEDDING AND BACKFILL.
11. *PAY LIMITS OF SURFACE RESTORATION ON UNIMPROVED SURFACES SHALL BE LIMITED TO THE WIDTH OF THE SEWER SERVITUDE OR AS SPECIFIED ON THE DRAWINGS AND MUST BE APPROVED BY THE ENGINEER.
12. FINAL EDGES ALONG PAVEMENT REMOVAL LIMITS SHALL BE STRAIGHT, CLEAN, SOLID, VERTICAL FACES FREE FROM LOOSE MATERIAL PRIOR TO PAVEMENT RESTORATION. SAWCUTTING AT LIMITS SHOWN SHALL BE PAID ONLY ONCE PER TRENCH PATCH. ANY ADDITIONAL SAWCUTS FOR THE CONVENIENCE OF THE CONTRACTOR SHALL BE AT NO ADDITIONAL COST TO THE OWNER.
13. IMPROVED GRANULAR SURFACE LIMITS SIMILAR TO CONCRETE PAVEMENT LIMITS.



CONCRETE PAVEMENT W/ASPHALT OVERLAY

SCALE: 1/2"=1'-0"

TYPICAL TRENCH EXCAVATION & FINAL PAVEMENT REPLACEMENT DETAILS



SEWER SERVICE LATERAL CONNECTION

SCALE: 3/4"=1'-0"

BACKFILL FOR SERVICE LINE RECONNECTION

STATE OF LOUISIANA
ADAM M. SMITH
License No. 33278
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AUGUST 25, 2016

STANDARD PLAN NO.	DATED	SHEET NO.
801-01	APRIL 17, 2015	1 OF 1

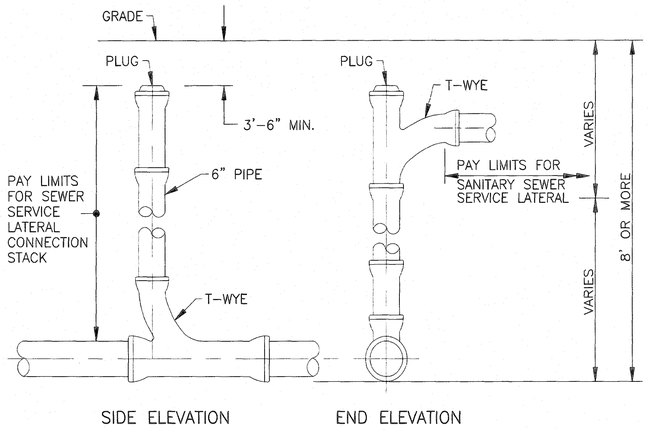
BEDDING AND BACKFILL DETAILS FOR SANITARY SEWER PIPE, FORCE MAINS AND SERVICE LINES

DATE	REVISIONS	BY
5/16	REVISED TITLE OF UNSTABLE SUBGRADE DETAIL	A.M.S.
4/15	DELETED GEOTEXTILE FABRIC EXCEPT FOR USE WITH #57 STONE AND REVISED GENERAL NOTES.	A.M.S.
4/13	REVISED STACK DETAILS AND REVISED GENERAL NOTES.	A.S.
10/12	ADDED GEOTEXTILE FABRIC ON SEC. BACKFILL	A.S.

SEWER ENGINEERING DIVISION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

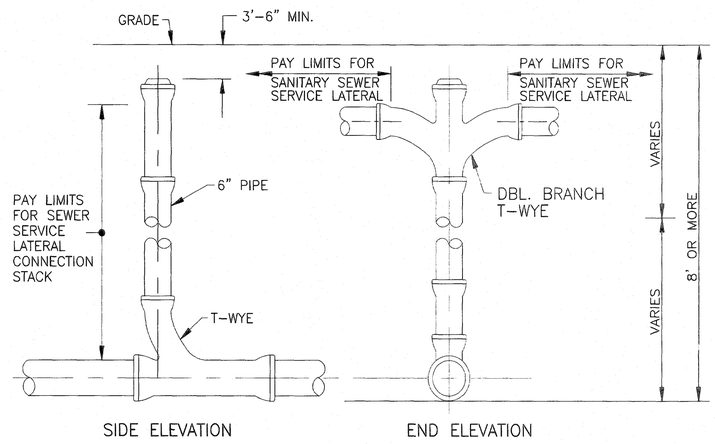
DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	N. COBB	A. SMITH

PROJECT NO.	SHEET
H.012232	370



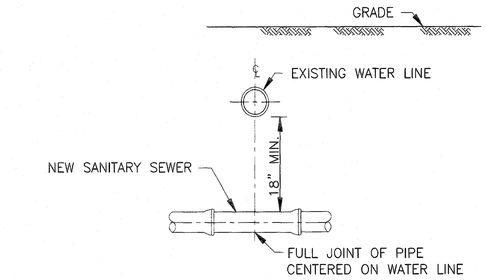
SEWER SERVICE LATERAL SINGLE CONNECTION STACK

SCALE: 3/4"=1'-0"



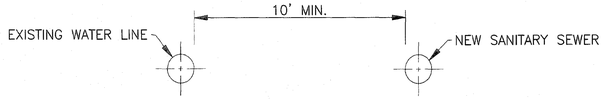
SEWER SERVICE LATERAL DOUBLE CONNECTION STACK

SCALE: 3/4"=1'-0"



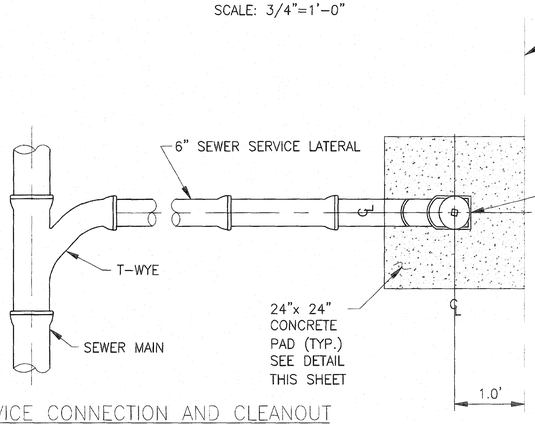
NEW SANITARY SEWER CROSSING EXISTING WATER LINE

SCALE: 3/4"=1'-0"



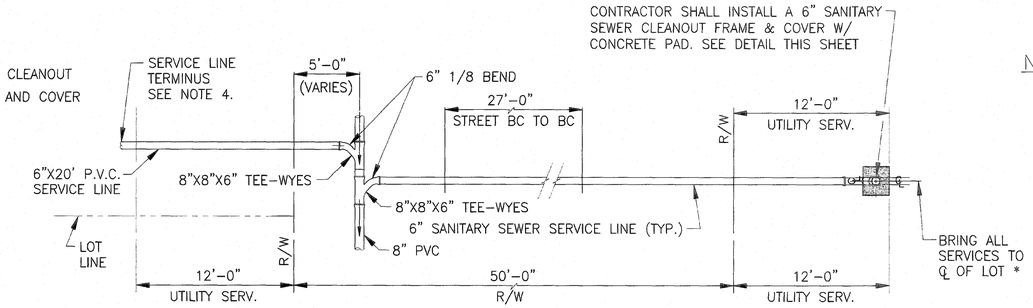
NEW SANITARY SEWER PARALLEL EXISTING WATER LINE

SCALE: 1/2"=1'-0"



SERVICE CONNECTION AND CLEANOUT PLAN

SCALE: 1"=1'-0"

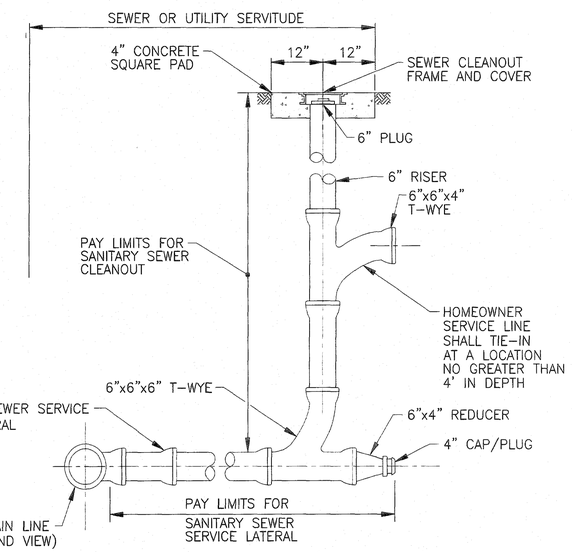


TYPICAL LOT SERVICE DETAIL

SCALE: 3/16"=1'-0"

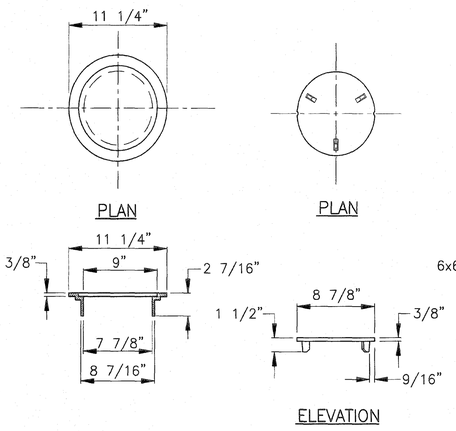
NOTES:

1. DEPARTMENT OF HEALTH AND HOSPITALS MUST APPROVE INSTALLATION METHOD IF VERTICAL AND HORIZONTAL SEPARATIONS BETWEEN SEWER AND WATER LINES CANNOT BE MET.
2. SEPARATION REQUIREMENTS SHOWN HERE DO NOT APPLY TO SERVICE CONNECTIONS – REFER TO PLUMBING CODE FOR APPLICABLE REQUIREMENTS.
3. SEWER CLEANOUT FRAME AND COVER SHALL MEET THE LATEST EDITION OF AASHTO M306.
4. IN NEW SUBDIVISIONS OR IN NEW SEWER SERVICE AREAS WHERE NEW SERVICE LATERAL CONNECTIONS ARE REQUIRED, THE SEWER SERVICE LATERAL TERMINATION SHALL BE STUBBED ABOVE GROUND AT THE BACK EDGE OF ALL SERVITUDES. PRIOR TO FINAL PLUMBING INSPECTION AND ACCEPTANCE, THE PLUMBING CONTRACTOR FOR EACH LOT SHALL INSTALL THE CLEANOUT AS SHOWN.
5. DOUBLE WYES ARE ONLY ALLOWED ON LOTS 50' WIDE OR LESS AND SHALL ONLY BE ON THOSE SERVICES CROSSING THE STREET. SERVICES NOT CROSSING THE STREET AND ON LOTS GREATER THAN 50' WIDE SHALL HAVE SINGLE WYES TO THE CENTER OF THE LOTS AS SHOWN.



SANITARY SEWER CLEANOUT (TO GRADE)

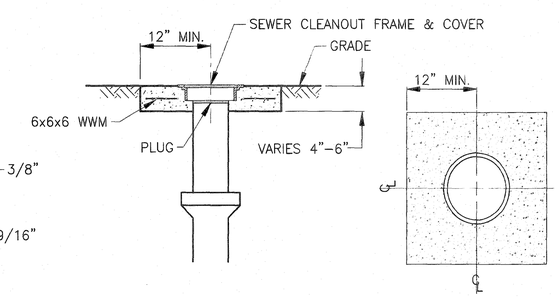
SCALE: 3/4"=1'-0"



SEWER CLEANOUT FRAME AND COVER

EJIW V-8503 OR APPROVED EQUAL

SCALE: 1 1/2"=1'-0"



24"X24" CONCRETE PAD

(PRECAST CONCRETE PAD ACCEPTABLE)

SCALE: 1"=1'-0"

STATE OF LOUISIANA
ADAM M. SMITH
License No. 33278
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

AUGUST 25, 2016

STANDARD PLAN NO.	DATED	SHEET NO.
802-01	AUGUST 1, 2011	1 OF 2

SANITARY SEWER PIPE AND CLEANOUT DETAILS

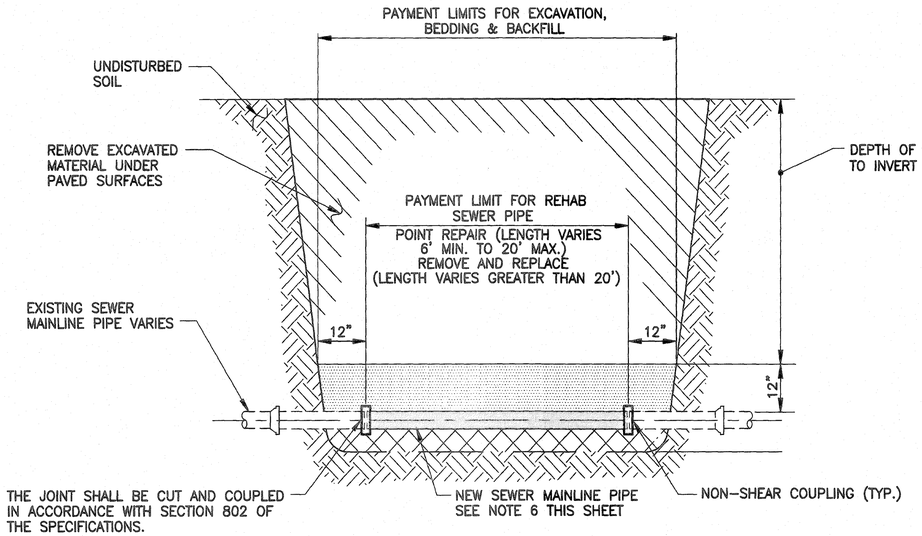
SEWER ENGINEERING DIVISION

DEPARTMENT OF ENVIRONMENTAL SERVICES

CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

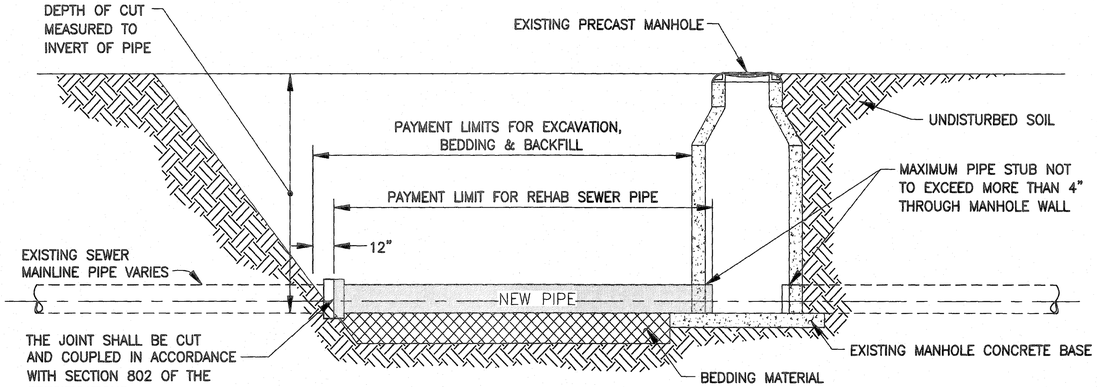
DATE	DESCRIPTION REVISIONS	BY	DESIGNED	DRAWN	CHECKED	APPROVED
5/16	REVISED LATERAL STACK DIMENSION & ADDED PAY LIMITS	A.M.S.	A. SCHULZE	G. VANNICE	N. COBB	A. SMITH

PROJECT NO.	SHEET
H.012232	371



STANDARD TYPICAL SEWER
PIPE REPLACEMENT AT MID SEGMENT

N.T.S.



STANDARD TYPICAL SEWER PIPE REPLACEMENT AT MANHOLE

N.T.S.

NOMINAL PIPE DIA. (INCHES)	MINIMUM GRADE (%)	MAX. ALLOWABLE SAG DEPTH (D)* IN INCHES OF WATER EQUAL OR LESS THAN MINIMUM GRADE	MAXIMUM SAG LENGTH (L)**	MIN. ALLOWABLE DIST. BETWEEN SAGS W/ 10% OR GREATER DEPTH (X)***
8	0.400	0.8"	6 FT	36 FT
10	0.280	1"	6 FT	36 FT
12	0.220	1.1"	9 FT	54 FT
15	0.150	1.5"	9 FT	54 FT
16	0.140	1.5"	9 FT	54 FT
18	0.120	1.5"	9 FT	72 FT
21	0.100	1.5"	9 FT	72 FT
24	0.080	1.5"	9 FT	72 FT
27	0.067	2"	9 FT	72 FT
30	0.058	2"	9 FT	72 FT
36	0.046	2"	9 FT	72 FT
42	0.037	2"	9 FT	72 FT

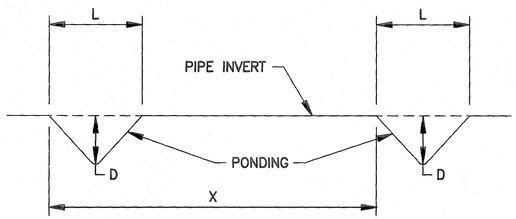
SANITARY SEWER GRADE TOLERANCE/
ACCEPTABLE SAG LIMITS

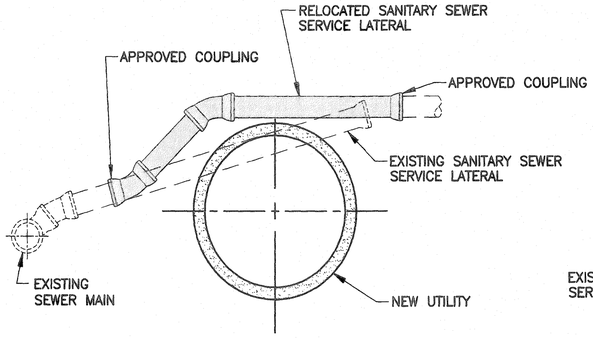
N.T.S.

*D = MAX. ALLOWABLE SAG DEPTH =ALLOWABLE DEPTH OF POOLED WATER AS MEASURED FROM WATER SURFACE TO INVERT OF PIPE BY USE OF SAG GAUGE.

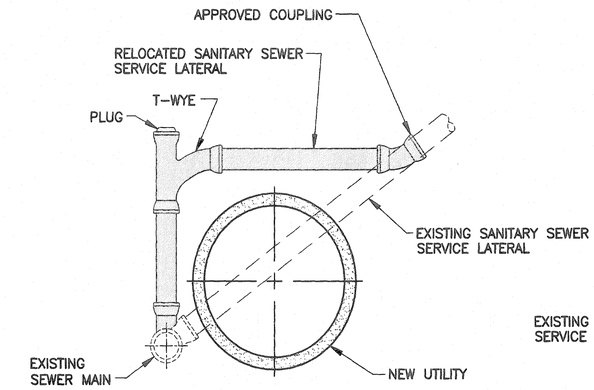
**L = SAG LENGTH = LENGTH OF POOLED WATER SURFACE AS MEASURED FROM UPSTREAM EDGE OF POOLED WATER SURFACE TO DOWNSTREAM EDGE OF POOLED WATER SURFACE.

***X = DISTANCE BETWEEN SAGS, AS MEASURED FROM UPSTREAM EDGE OF POOLED WATER SURFACES BETWEEN CONSECUTIVES SAGS.

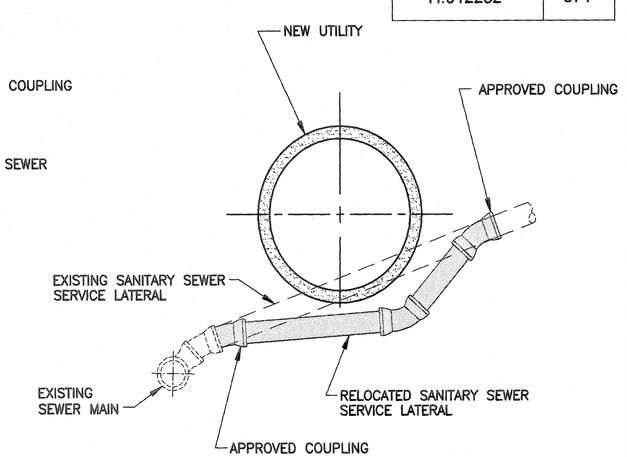




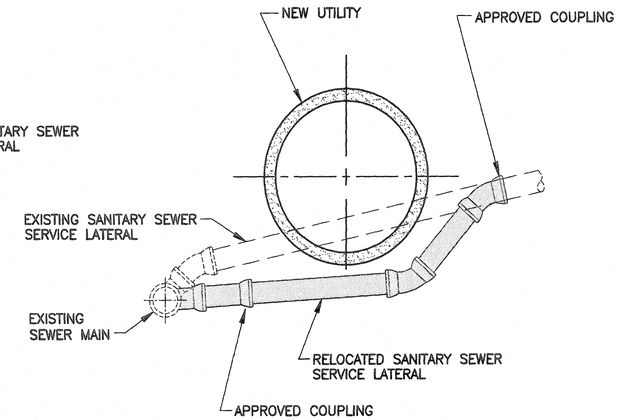
CASE "A"



CASE "B"



CASE "C"



CASE "D"

LEGEND

= RELOCATED SANITARY SEWER SERVICE LATERAL

= EXISTING SANITARY SEWER SERVICE LATERAL

ADJUSTED SANITARY SEWER SERVICE
LATERAL CONNECTION DETAILS

N.T.S.

NOTES:

1. THE RELOCATED SANITARY SEWER SERVICE LATERAL SHALL BE CONSTRUCTED OF POLYVINYL CHLORIDE (PVC) PIPE EXCEPT WHERE THE SANITARY SEWER SERVICE LATERAL IS BELOW THE UTILITY OR HAS LESS THAN 3 FEET OF COVER TO FINISH GRADE. IN THESE CASES THE PIPE MATERIAL SHALL BE DUCTILE IRON.
2. THE RELOCATED SANITARY SEWER SERVICE LATERAL SHALL BE CONNECTED TO THE EXISTING PIPE WITH APPROVED NON-SHEAR COUPLINGS.
3. USE OF CASE "D" TYPE REROUTING DEPENDS ON THE LEVEL OF FLOW (PRESENT AND FUTURE) WITHIN MAINLINE SEWER – SUBJECT TO CASE APPROVAL BY ENGINEER.
4. MINIMUM SLOPE ON ANY REROUTED SEGMENT OF SANITARY SEWER SERVICE LATERAL TO BE 1.00%.
5. NEW SEWER PIPE LENGTH & TYPE TO BE DEFINED BY ENGINEER.
6. BEDDING, SECONDARY BACKFILL, INITIAL BACKFILL, AND SURFACE RESTORATION SHALL BE IN ACCORDANCE WITH SECTION 801 OF THE SPECIFICATION AND STANDARD PLAN 801-01.

STATE OF LOUISIANA
ADAM M. SMITH
License No. 33278
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

JUNE 28, 2017

STANDARD PLAN NO.	DATED	SHEET NO.
802-01	AUGUST 1, 2011	2 OF 2

SANITARY SEWER PIPE AND
CLEANOUT DETAILS

DATE	DESCRIPTION REVISIONS	BY
6/17	ADDED SAG LIMIT DETAIL	AMS
7/16	REVISED NOTE 2 & DIMENSION	AMS

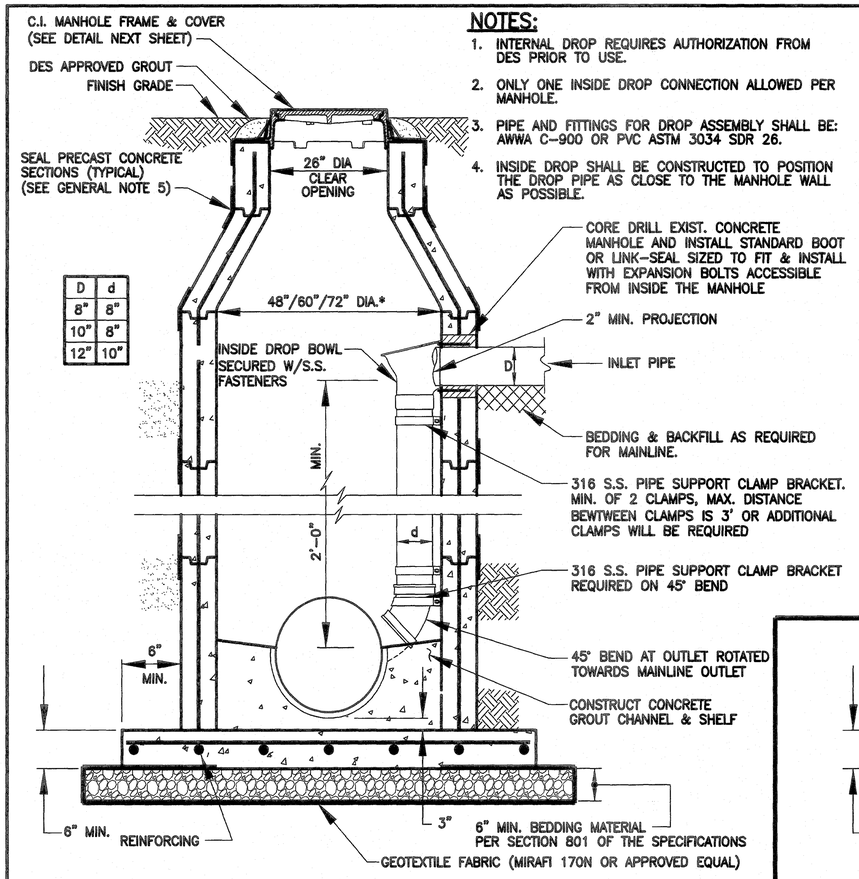
SEWER ENGINEERING DIVISION
DEPARTMENT OF ENVIRONMENTAL SERVICES
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	N. COBB	A. SMITH

PROJECT NO.	SHEET
H.012232	372

NOTES:

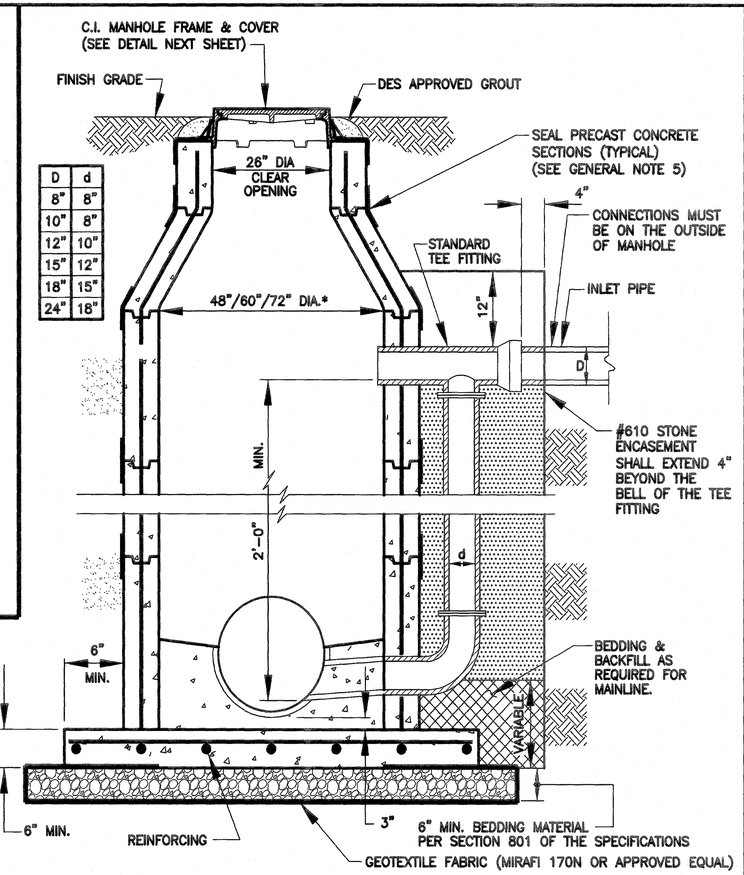
1. INTERNAL DROP REQUIRES AUTHORIZATION FROM DES PRIOR TO USE.
2. ONLY ONE INSIDE DROP CONNECTION ALLOWED PER MANHOLE.
3. PIPE AND FITTINGS FOR DROP ASSEMBLY SHALL BE: AWWA C-900 OR PVC ASTM 3034 SDR 26.
4. INSIDE DROP SHALL BE CONSTRUCTED TO POSITION THE DROP PIPE AS CLOSE TO THE MANHOLE WALL AS POSSIBLE.



D	d
8"	8"
10"	8"
12"	10"

STANDARD GRAVITY SEWER INTERNAL DROP MANHOLE

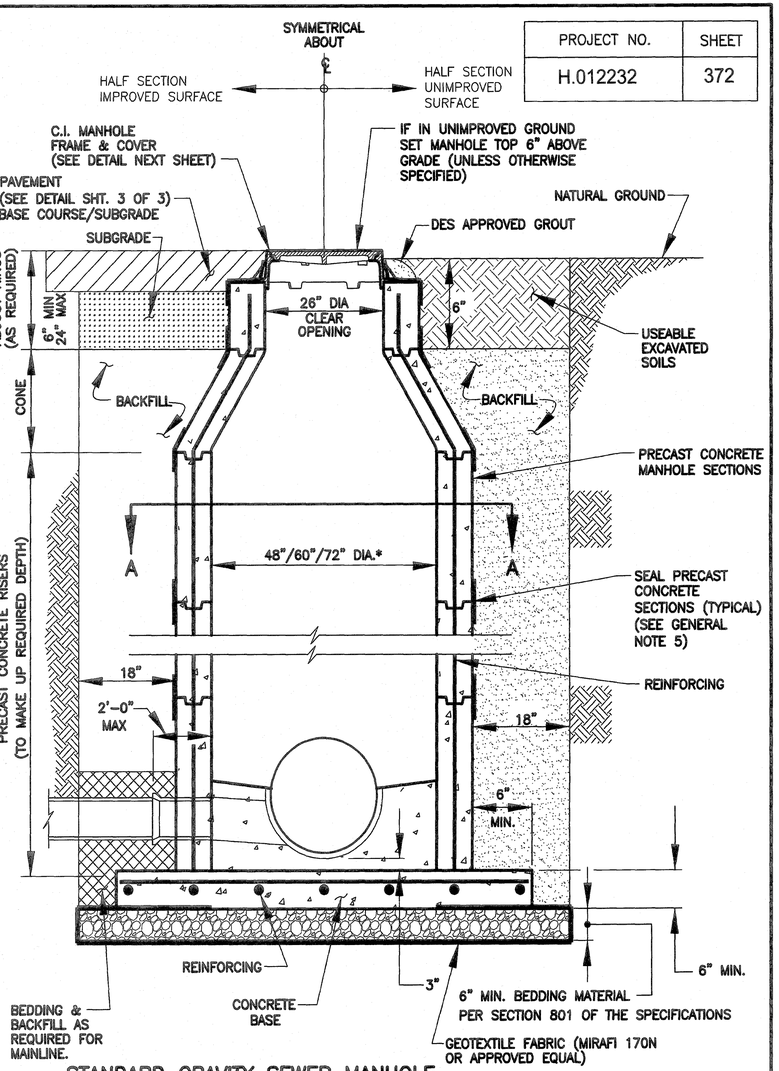
N.T.S.



D	d
8"	8"
10"	8"
12"	10"
15"	12"
18"	15"
24"	18"

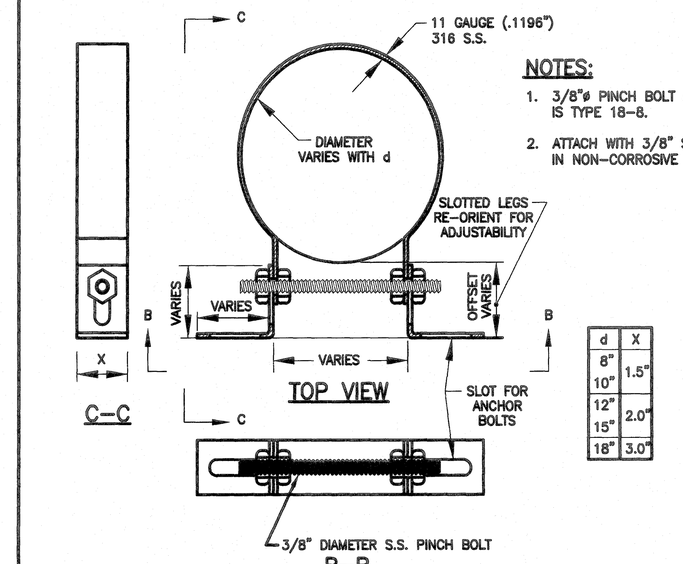
STANDARD GRAVITY SEWER DROP MANHOLE

N.T.S.



STANDARD GRAVITY SEWER MANHOLE

N.T.S.



d	X
8"	1.5"
10"	
12"	2.0"
15"	
18"	3.0"

NOTES:

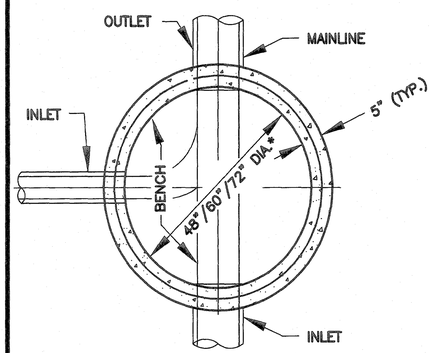
1. 3/8"ø PINCH BOLT AND NUTS IS TYPE 18-8.
2. ATTACH WITH 3/8" S.S. BOLTS IN NON-CORROSIVE SHIELDS.

CLAMP BRACKET DETAIL

N.T.S.

MANHOLE GENERAL NOTES:

1. ALL STUBS FROM MANHOLES AND ENDS OF PIPE TO WHICH CONNECTIONS ARE TO BE MADE UNDER THIS CONTRACT SHALL BE PROVIDED WITH TEMPORARY WATER TIGHT PLUGS OR CAPS. ALL STUBS FOR CONNECTIONS TO OTHER CONTRACTS SHALL BE PROVIDED WITH WATER TIGHT PLUGS PLACED FROM INSIDE OF MANHOLE. SEWERS WHICH ARE TO BE CONNECTED TO MANHOLES WHICH WILL BE BUILT UNDER OTHER CONTRACTS SHALL BE PROVIDED WITH WATER TIGHT PLUGS AND CAPS. STUBS SHALL BE A MAXIMUM OF 2FT. INLENGTH. SUCH PLUGS LOCATED AT JUNCTIONS OF TWO CONTRACTS SHALL REMAIN IN PLACE SHALL BE REMOVED BY OTHERS.
2. THE BENCH SHALL SLOPE TOWARD THE INVERT CHANNEL AT THE RATE OF (1.5"/FT.), BUT MINIMUM OF 3" DIFFERENCE SHALL BE MAINTAINED FROM THE TOP OF CHANNEL TO THE WALL.
3. ALL CAST IRON FRAME COVERS SHALL BE TRAFFIC BEARING. FRAME AND COVERS SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE LATEST AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS DESIGNATION: M308 STANDARD SPECIFICATION FOR DRAINAGE, SEWER, UTILITY, AND RELATED CASTINGS. THEY SHALL HAVE AN ENVIRONMENTALLY SAFE, WATER-BASE ASPHALTIC COATING WHICH IS NONTOXIC, NONFLAMMABLE, COLORLESS, AND DRIES TO A HARD BLACK FINISH.
4. THE DEPTH OF THE INVERT CHANNEL SHALL BE EQUAL TO HALF THE DIAMETER OF THE LARGEST DIAMETER SEWER PIPE IN THE MANHOLE.
5. MANHOLE SECTIONS SHALL BE JOINED TOGETHER WITH FLEXIBLE WATERTIGHT RUBBER GASKETS AND EXTERNALLY SEALED AT THE JOINTS IN ACCORDANCE WITH THE SPECIFICATIONS.
6. ALL MANHOLES ARE TO BE CONSTRUCTED OF PRECAST CONCRETE (BASE, RISERS AND CONE). NO BRICK MANHOLES WILL BE ACCEPTED UNLESS APPROVED IN WRITING.
7. BEDDING AND BACKFILL SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS. SEE SPECIFICATIONS FOR MATERIAL REQUIREMENTS AND PLACEMENT AND COMPACTION OF PIPE BEDDING MATERIALS.
8. PIPE PENETRATIONS SHALL CONFORM TO THE SPECIFICATIONS.
9. REINFORCING FOR PRE-CAST MANHOLES AS PER ASTM C-478.
10. FOR SEWERS 16" DIA. OR LESS CONSTRUCT 48" DIA. MANHOLE, FOR SEWERS LARGER THAN 16" UP TO 24" DIA. CONSTRUCT 60" DIA. MANHOLE, AND FOR SEWERS LARGER THAN 24" DIA. CONSTRUCT 72" DIA. MANHOLE. MANHOLE DIA. SIZING, HOWEVER IS CONTINGENT UPON THE LIMITATIONS OF THE MANUFACTURER DUE TO PIPE SIZE AND ORIENTATION AT THE MANHOLE. THE DESIGN ENGINEER MUST VERIFY THAT THE PROPER MANHOLE DIA. IS PROVIDED.
11. MANHOLE SHALL NOT INCLUDE STEPS.



SECTIONAL A-A

N.T.S.

JANUARY 21, 2021

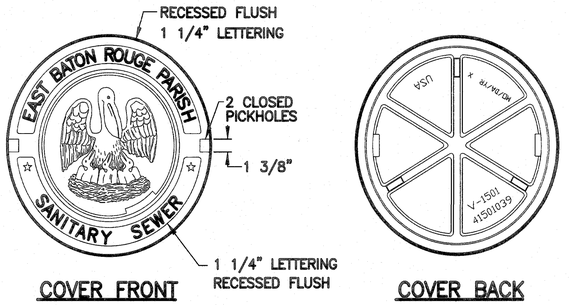
NO.	DATE	DESCRIPTION REVISIONS	BY
1-21		ADDED NEW SHEET TO SET	A.M.S.
1-20		ADDED INTERNAL DROP MANHOLE & CLAMP BRACKET DETAIL	A.M.S.

STANDARD PLAN NO.	DATED	SHEET NO.
803-01	AUGUST 1, 2011	1 OF 4

SANITARY SEWER MANHOLES

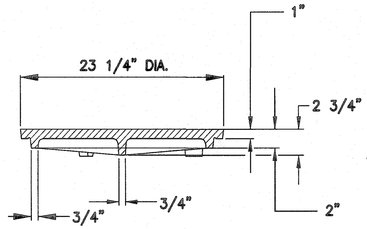
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	R. WRIGHT	A. SMITH

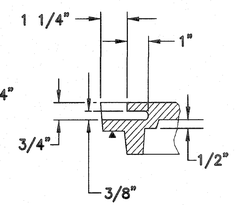


COVER FRONT

COVER BACK



COVER SECTION

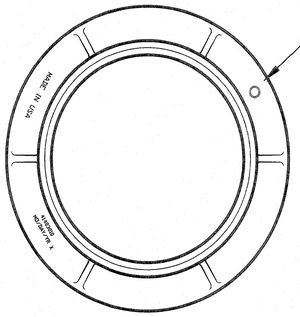


(2) TYPE TWO NON-PENETRATING PICKHOLES

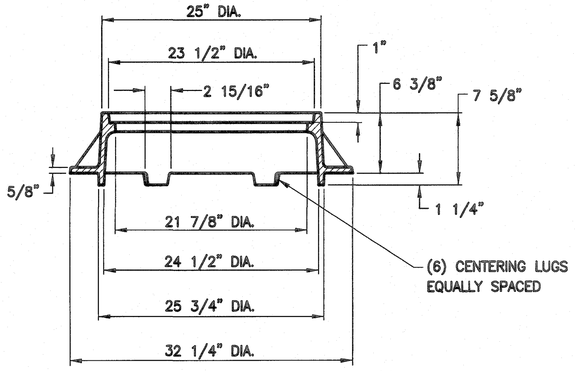
PICKHOLE DETAIL

STANDARD HEAVY DUTY MANHOLE COVER

EJ MODEL V-1501 OR APPROVED EQUAL

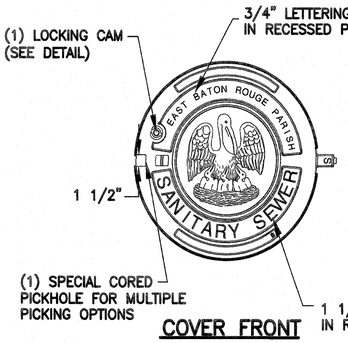


TOP

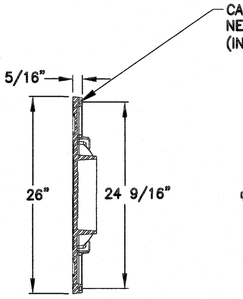


STANDARD MANHOLE FRAME WITH LUGS

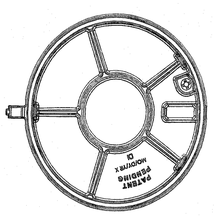
EJ MODEL V-1403 OR APPROVED EQUAL



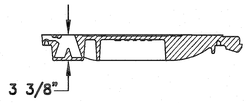
COVER FRONT



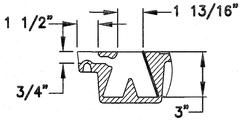
COVER SIDE VIEW



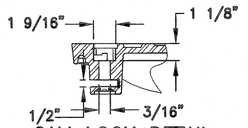
COVER BACK



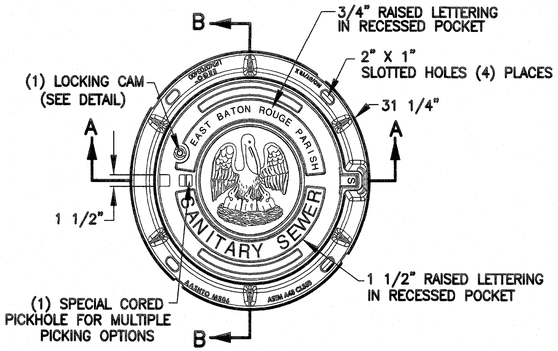
COVER SECTION



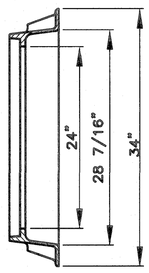
PICKHOLE DETAIL



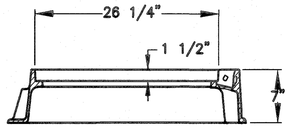
CAM LOCK DETAIL



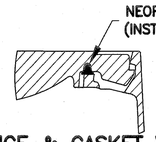
PLAN VIEW



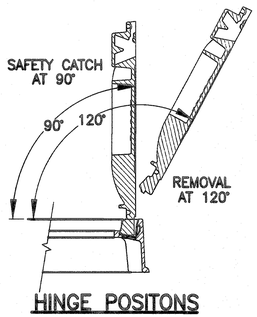
FRAME SECTION B-B



FRAME SECTION A-A



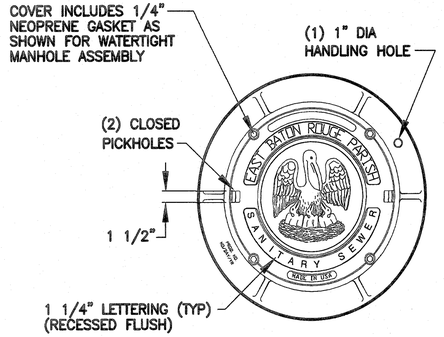
HINGE & GASKET VIEW

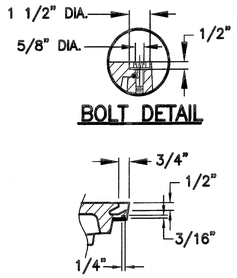


HINGE POSITONS

HINGED MANHOLE ASSEMBLY

EJ MODEL 24" ERGO OR APPROVED EQUAL



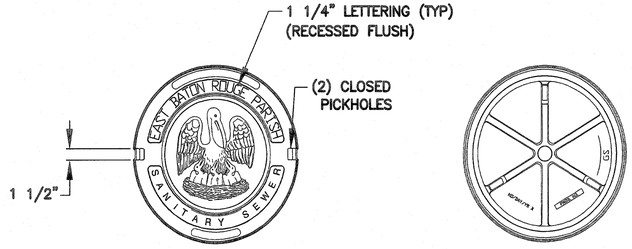


BOLT DETAIL

GASKET GROOVE & PICKHOLE DETAIL

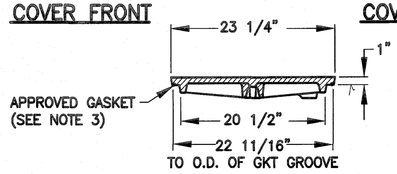
WATERTIGHT & BOLT DOWN MANHOLE ASSEMBLY

EJ MODEL V-1501GS OR APPROVED EQUAL (COVER)
EJ MODEL V-1403 OR APPROVED EQUAL (FRAME)



COVER FRONT

COVER BACK



COVER SECTION

WATERTIGHT MANHOLE ASSEMBLY

EJ MODEL V-1501 OR APPROVED EQUAL (COVER)
EJ MODEL V-1403 OR APPROVED EQUAL (FRAME)

GENERAL NOTE:

1. TYPE OF FRAME AND COVER TO BE USED SHALL BE AS SHOWN ON PLANS OR AS DIRECTED BY PROJECT ENGINEER.
2. WATERTIGHT & BOLT DOWN MANHOLE ASSEMBLY SHALL HAVE INTEGRAL GASKET INSTALLED ON COVER BY CASTING MANUFACTURER.
3. WATERTIGHT MANHOLE ASSEMBLY SHALL REQUIRE AN APPROVED NEOPRENE OR EPDM RUBBER GASKET MATERIAL TO BE INSTALLED ON STANDARD HEAVY DUTY MANHOLE COVER OR FRAME IN ACCORDANCE WITH GASKET MANUFACTURERS INSTRUCTIONS.

PROJECT NO.	SHEET
H.012232	373

STANDARD PLAN NO.	DATED	SHEET NO.
803-01	AUGUST 1, 2011	2 OF 4

SANITARY SEWER MANHOLES

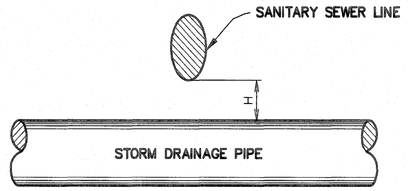
STATE OF LOUISIANA
ADAM M. SMITH
License No. 32370
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

JANUARY 21, 2021

DATE	DESCRIPTION OF REVISIONS	BY
1-21	REVISED WATERTIGHT & BOLTDOWN COVER DETAIL AND ADDED NEW SHEET TO THE SET	A.M.S.

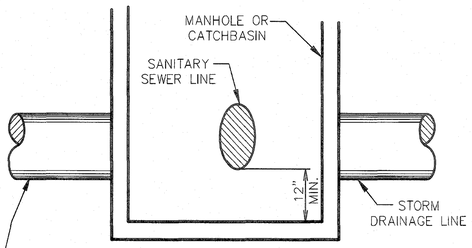
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	R. WRIGHT	A. SMITH



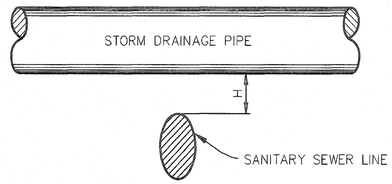
- H ≥ 12" SANITARY SEWER MAY BE LEFT AS IS
- 3"≤ H < 12" REPLACE 12' OF SANITARY SEWER WITH DUCTILE IRON SEWER PIPE CENTERED AT THE CROSSING
- H < 3" CONFLICT MANHOLE REQUIRED (SEE CASE 2)

CASE 1



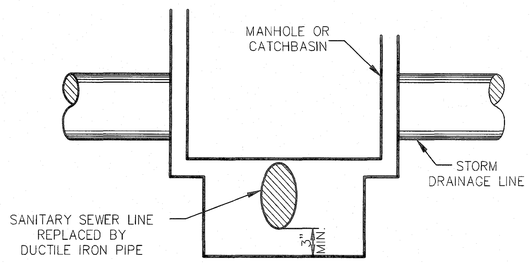
THIS PIPE COULD BE HIGHER THAN F.L. OF MANHOLE BUT F.L. OF MANHOLE SHOULD BE AT LEAST 12" LOWER THAN F.L. OF EXISTING SANITARY SEWER LINE, AND SANITARY SEWER LINE SHOULD BE REPLACED WITH DUCTILE IRON SEWER PIPE (SEE NOTE BELOW).

CASE 2



- H ≥ 12" SANITARY SEWER MAY BE LEFT AS IS
- 3"≤ H < 12" REPLACE 12' OF SANITARY SEWER WITH DUCTILE IRON SEWER PIPE CENTERED AT THE CROSSING
- H < 3" CONFLICT MANHOLE REQUIRED (SEE CASE 4)

CASE 3



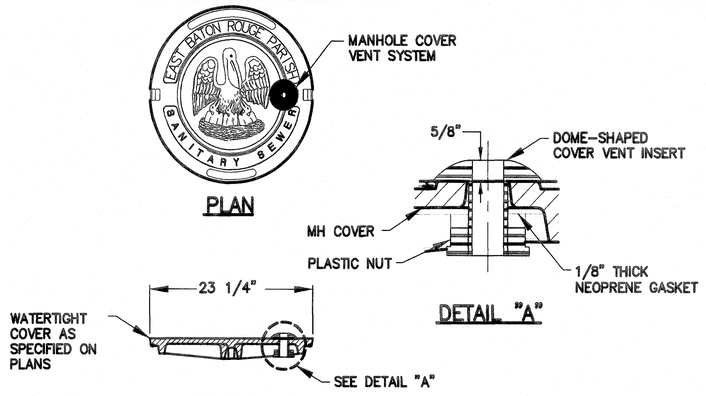
A SANITARY SEWER LINE MAY BE ALLOWED TO PASS THROUGH THE BOTTOM SLAB OF A MANHOLE OR CATCH BASIN, BUT DUCTILE IRON SEWER PIPE SHOULD BE USED (SEE NOTE BELOW), AND ENOUGH CONCRETE ADDED TO PROVIDE 3" COVER AROUND THE SANITARY SEWER LINE.

CASE 4

CONFLICTS BETWEEN STORM DRAIN AND SANITARY SEWER LINES

NOTE:

DUCTILE IRON PIPE SHALL BE USED FOR LOCATIONS WHERE SEWER PIPE WILL PASS THROUGH A MANHOLE OR CATCHBASIN. DUCTILE IRON PIPE OF SUFFICIENT LENGTH TO ENSURE APPROXIMATELY 2' OF BEARING ON COMPACTED SOIL BEYOND THE WALLS OF THE MANHOLE SHOULD BE REQUIRED IN SUCH CASES.

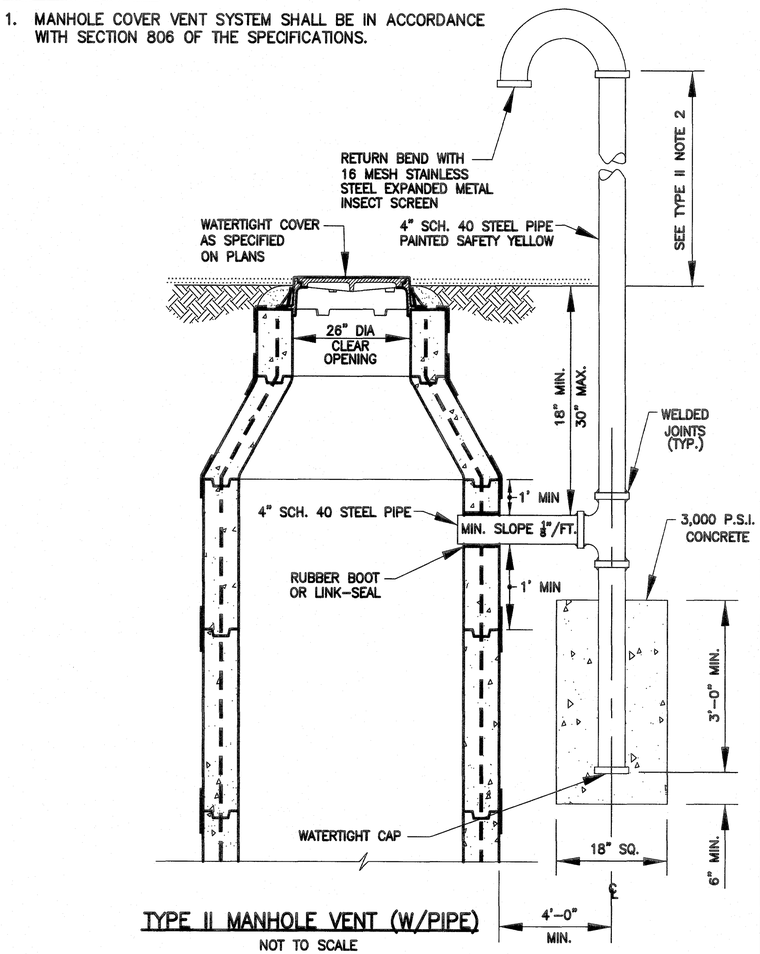


TYPE I MANHOLE VENT (W/ INSERT)

N.T.S.

TYPE I NOTES:

1. MANHOLE COVER VENT SYSTEM SHALL BE IN ACCORDANCE WITH SECTION 806 OF THE SPECIFICATIONS.



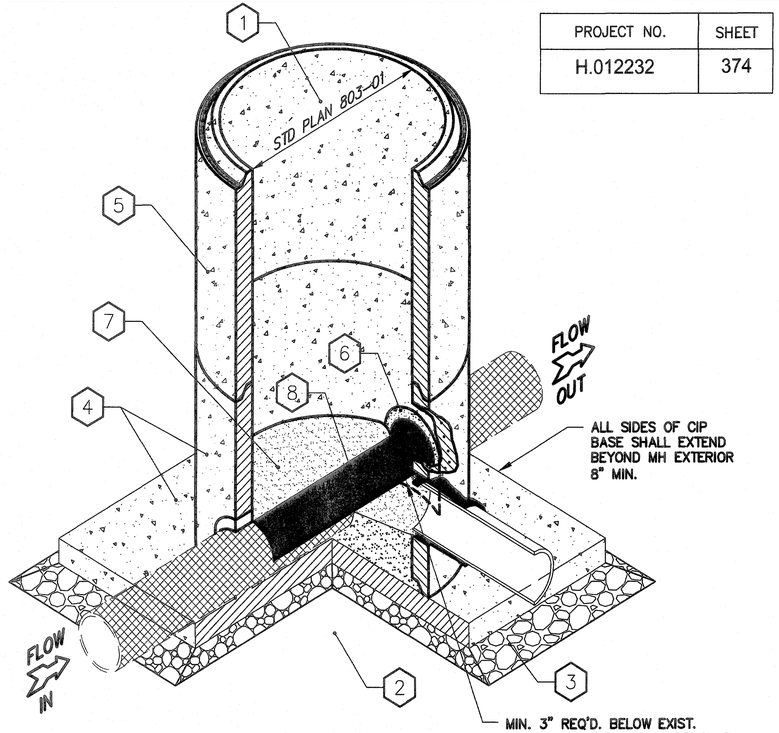
TYPE II MANHOLE VENT (W/PIPE)

NOT TO SCALE

TYPE II NOTES:

1. PIPE TO BE PAINTED IN ACCORDANCE W/SECTION 822.
2. TOP OF VENT TO BE MIN. OF 1' ABOVE BASE FLOOD ELEVATION OR HIGHER AS SHOWN ON PLANS.
3. MANHOLE VENT TO BE UTILIZED ONLY WHEN STIPULATED ON PLANS.

PROJECT NO.	SHEET
H.012232	374



DOGHOUSE MANHOLE CONSTRUCTION

DOGHOUSE MANHOLE NOTES:

1. MANHOLE CONSTRUCTION SHALL BE IN ACCORDANCE WITH STANDARD PLAN 803-01 AND PROJECT SPECIFICATION SECTION 803.
2. CONTRACTOR SHALL SAFELY EXCAVATE AROUND AND BENEATH THE EXISTING SEWER LINE AT THE PROPOSED LOCATION AS INDICATED IN THE CONSTRUCTION PLANS. CONTRACTOR TO CONFIRM THE LOCATION WITH THE PROJECT ENGINEER PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL PREPARE A 6" MINIMUM #57 STONE PER SECTION 801 OF THE SPECIFICATIONS AND WRAPPED IN GEOTEXTILE FABRIC BELOW THE EXISTING SEWER.
4. CONTRACTOR SHALL PLACE CAST-IN-PLACE BASE AND LOWERMOST PRE-CAST RISER WITH PREPARED DOGHOUSE OPENINGS. DOGHOUSE OPENINGS SHALL BE SIZED ADEQUATELY AS TO BE INSTALLED OVER THE EXISTING SEWER LINE WITHOUT AFFECTING THE EXISTING PIPE. LOWERMOST PRE-CAST RISER SHALL BE SET IN PLACE AT THE TIME THE CAST-IN-PLACE BASE IS POURED. REFER TO PROJECT SPECIFICATIONS SECTION 803 FOR ADDITIONAL INFORMATION. CIP BASE SHALL BE MIN. 8" THICK.
5. ADDITIONAL PRE-CAST UNITS SHALL NOT BE PLACED UNTIL 24 HOURS AFTER CAST-IN-PLACE BASE HAS BEEN POURED.
6. CONTRACTOR SHALL NEATLY FILL DOGHOUSE OPENING WITH DPW APPROVED GROUT AND ASSURE AN AIRTIGHT SEAL AROUND THE JOINTS.
7. CONTRACTOR SHALL CONSTRUCT CONCRETE BENCH AND INVERT CHANNEL AROUND EXISTING PIPE PER STANDARD PLAN 803-01.
8. CONTRACTOR SHALL CUT AND REMOVE TOP OF PIPE WITHIN THE LIMITS OF THE DOGHOUSE MANHOLE AFTER INVERT AND SHELF HAVE BEEN FORMED, ALL EXCESS MATERIALS HAVE BEEN REMOVED, AND REQUIRED SEWER SEGMENTS HAVE BEEN COMPLETELY TESTED AND APPROVED.

STATE OF LOUISIANA — ADAM M. SMITH — License No. 33278 — PROFESSIONAL ENGINEER IN — CIVIL ENGINEERING

JANUARY 21, 2021

STANDARD PLAN NO.	DATED	SHEET NO.
803-01	January 21, 2021	3 OF 4

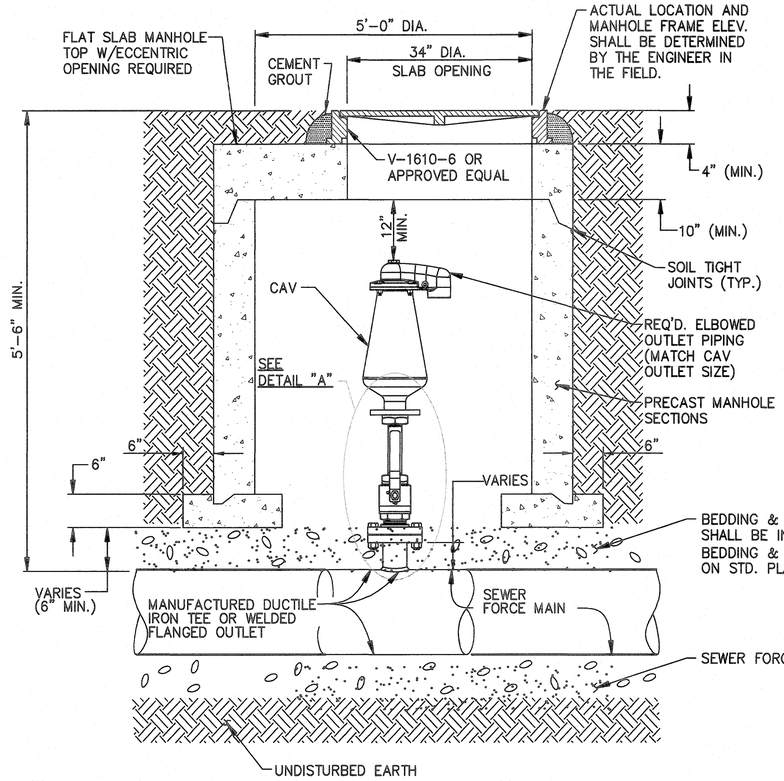
SANITARY SEWER MANHOLES

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	R. WRIGHT	A. SMITH

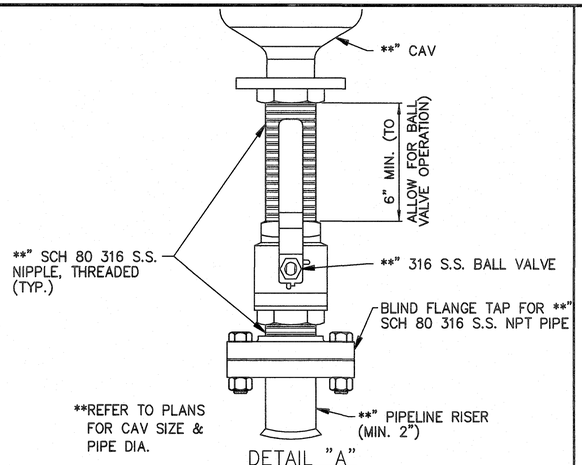
DATE	DESCRIPTION REVISIONS	BY

PROJECT NO.	SHEET
H.012232	375



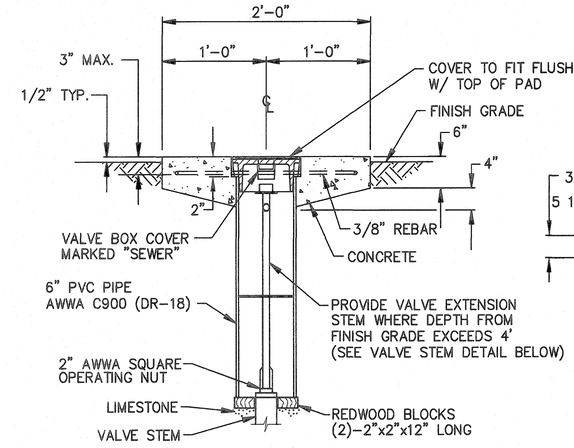
FORCE MAIN COMBINATION AIR RELEASE/VACUUM VALVE ASSEMBLY

N.T.S.

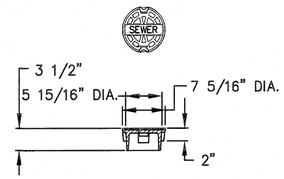


2" COMBINATION AIR/VACUUM ASSEMBLY

N.T.S.



SECTION B-B



VALVE BOX COVER

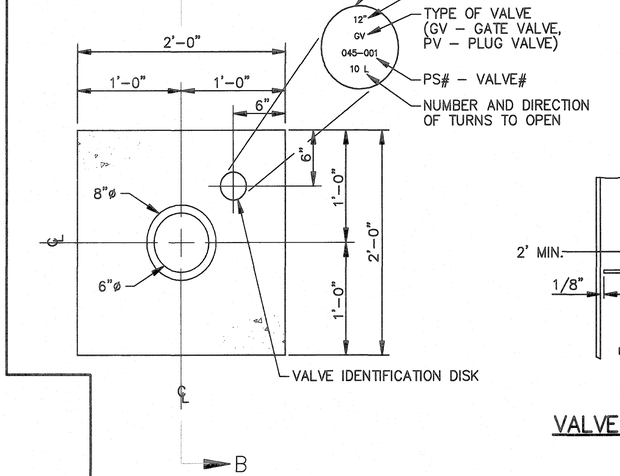
SCALE: 1"=1'-0"

NOTES:

PROVIDE PROTECTIVE COATING TO EXTERIOR SURFACE OF VALVE BODY IN ACCORDANCE WITH SPECS.

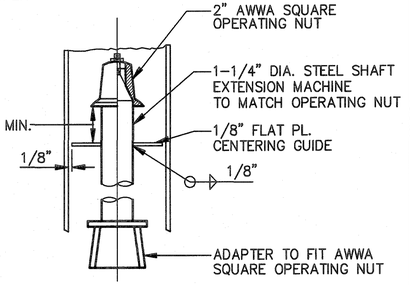
DETAIL OF VALVE BOX

SCALE: 1 1/2"=1'-0"



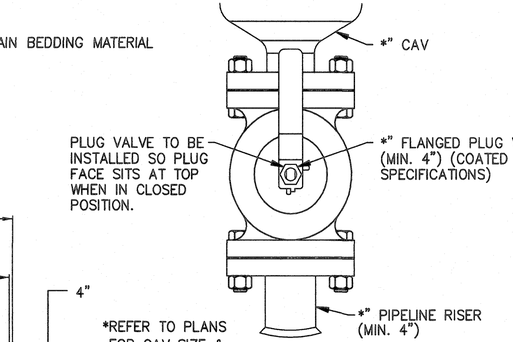
PLAN

SCALE: 1 1/2"=1'-0"



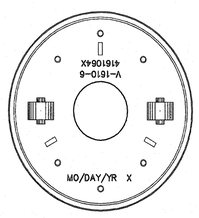
VALVE STEM DETAIL

N.T.S.

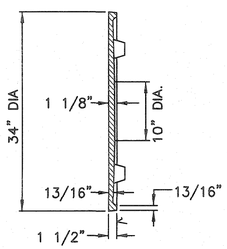


3" OR LARGER COMBINATION AIR/VACUUM ASSEMBLY

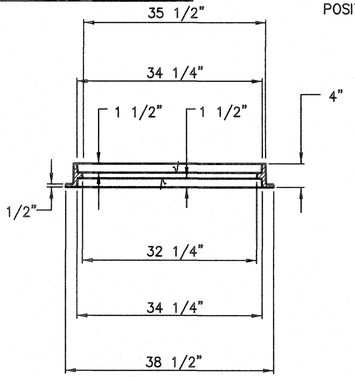
N.T.S.



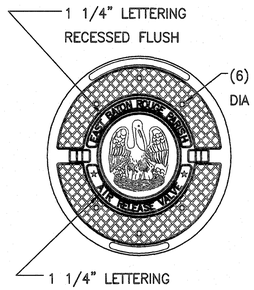
COVER BACK



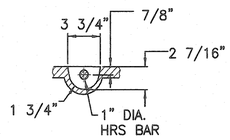
COVER SECTION



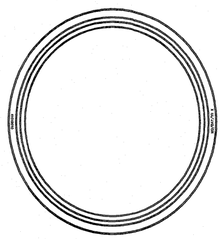
RING SECTION



COVER FACE



PICKBAR DETAIL



RING BOTTOM FLANGE

NOTE:

ALL CAST IRON FRAME AND COVERS SHALL BE TRAFFIC BEARING FRAME AND COVERS SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS DESIGNATION : M306-05 STANDARD SPECIFICATION FOR DRAINAGE, SEWER, UTILITY, AND RELATED CASTINGS. THEY SHALL HAVE AN ENVIRONMENTALLY SAFE, WATER-BASE ASPHALTIC COATING WHICH IS NONTOXIC, NONFLAMMABLE, COLORLESS, AND DRIES TO A HARD BLACK FINISH.

AIR RELEASE / VACUUM VALVE MANHOLE COVER W/ VENT HOLES & LOGO

AIR RELEASE / VACUUM VALVE MANHOLE FRAME REVERSIBLE RING TYPE

STATE OF LOUISIANA
ADAM M. SMITH
License No. 33278
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

SEPTEMBER 19, 2019

DATE	DESCRIPTION REVISIONS	BY
9/19	REVISED VALVE BOX & COMBINATION AIR/VACUUM ASSEBLY DETAILS	A.M.S.

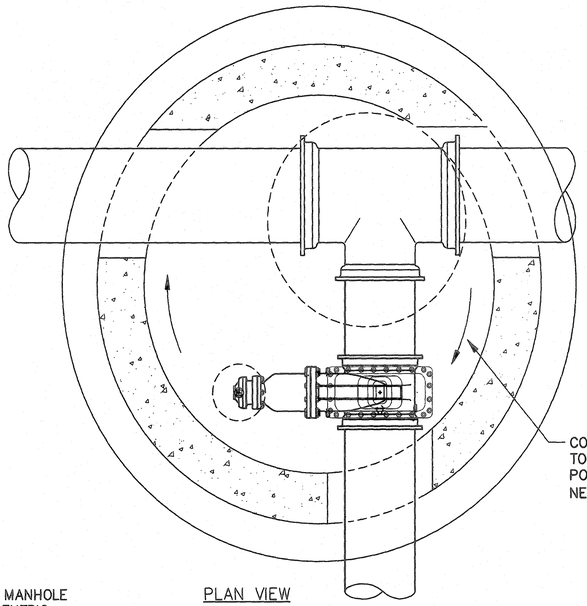
STANDARD PLAN NO.	DATED	SHEET NO.
804-01	AUGUST 1, 2011	1 OF 3

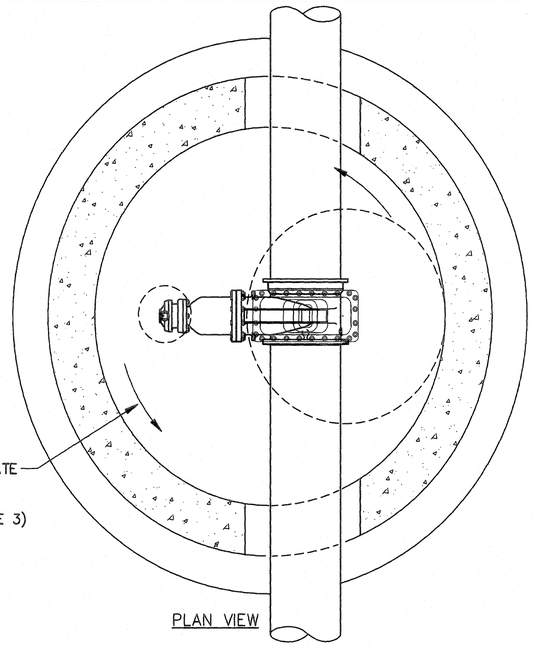
FORCE MAIN DETAILS

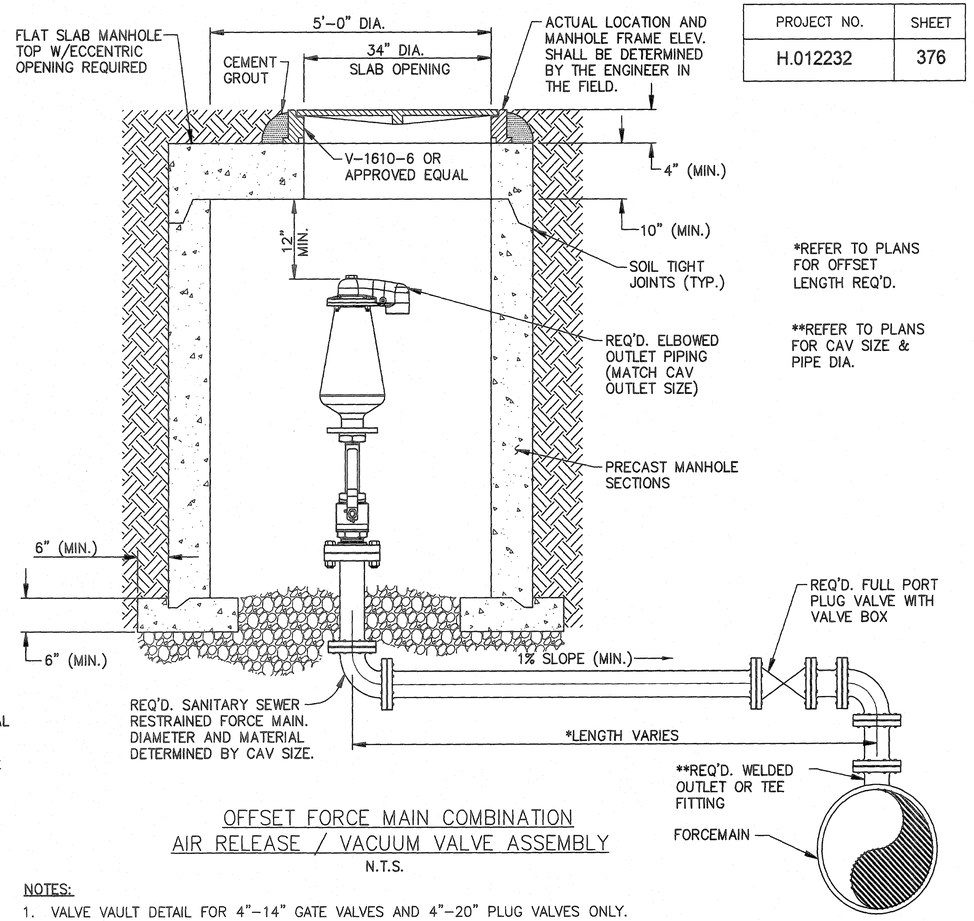
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	N. COBB	A. SMITH

PROJECT NO.	SHEET
H.012232	376





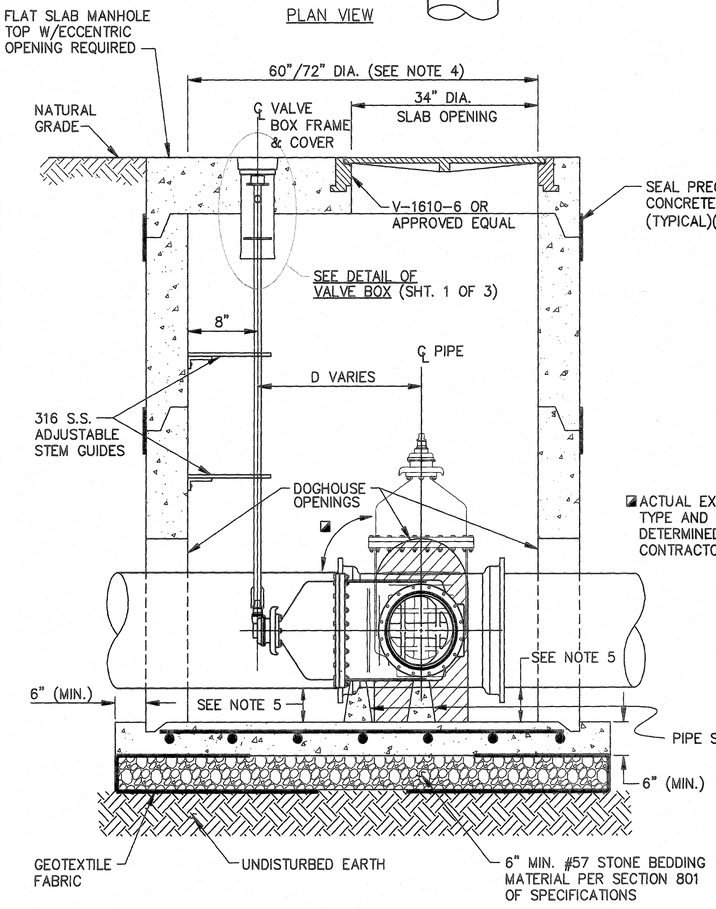


*REFER TO PLANS FOR OFFSET LENGTH REQ'D.

**REFER TO PLANS FOR CAV SIZE & PIPE DIA.

OFFSET FORCE MAIN COMBINATION AIR RELEASE / VACUUM VALVE ASSEMBLY

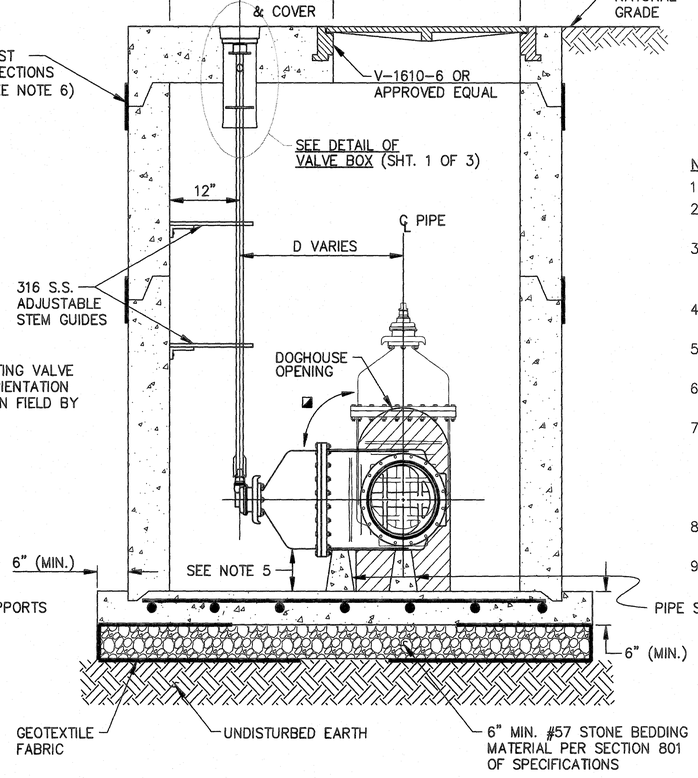
N.T.S.



SECTION VIEW

ISOLATION VALVE VAULT (TEE BRANCH CONFIGURATION)

N.T.S.



SECTION VIEW

ISOLATION VALVE VAULT (IN-LINE CONFIGURATION)

N.T.S.

NOTES:

1. VALVE VAULT DETAIL FOR 4"–14" GATE VALVES AND 4"–20" PLUG VALVES ONLY.
2. PIPE OFFSET DISTANCE "D" IS BASED ON VALVE TYPE, SIZE, AND MANUFACTURER. CONTRACTOR IS RESPONSIBLE FOR COORDINATING VALVE MEASUREMENTS WITH PRECASTER FOR PROPER FINAL DIMENSIONS.
3. CONTRACTOR SHALL LOCATE VAULT OVER VALVE BASED ON ACTUAL VALVE ORIENTATION AND LINE CONFIGURATION TO ACHIEVE REQUIRED DISTANCE SHOWN FROM INTERIOR WALL TO THE CENTERLINE OF VALVE EXTENSION STEM. CONTRACTOR MAY ROTATE TOP SLAB AS NECESSARY TO HAVE VALVE STEM CENTERED IN VALVE BOX FRAME.
4. CONSTRUCT 60" DIA. VAULT FOR FORCE MAINS LESS THAN 24" DIA. AND FOR FORCE MAINS 24" AND LARGER CONSTRUCT 72" DIA. VAULT.
5. CLEARANCE FROM PIPE TO VAULT INVERT SHALL BE AS NECESSARY TO PROVIDE PROPER SUPPORTS FOR PIPE AND VALVE. CONTRACTOR MAY CHOOSE EITHER CONCRETE OR ADJUSTABLE SUPPORTS.
6. VAULT SECTIONS SHALL BE JOINED TOGETHER WITH FLEXIBLE GASKETS AND EXTERNALLY SEALED AT THE JOINTS IN ACCORDANCE WITH THE SPECIFICATIONS. REINFORCING FOR PRE-CAST SECTIONS AS PER ASTM C-478.
7. ALL CAST IRON FRAME AND COVERS SHALL BE TRAFFIC BEARING. FRAME AND COVERS SHALL MEET OR EXCEED ALL REQUIREMENTS OF THE LATEST AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS DESIGNATION: M306 STANDARD SPECIFICATION FOR DRAINAGE, SEWER, UTILITY, AND RELATED CASTINGS. THEY SHALL HAVE AN ENVIRONMENTALLY SAFE, WATER-BASE ASPHALTIC COATING WHICH IS NON-TOXIC, NONFLAMMABLE, COLORLESS, AND DRIES TO A HARD BLACK FINISH. CAST-IRON FRAMES SHALL BE CAST INTO AND FLUSH WITH THE VAULT FLAT TOP SLAB SURFACE.
8. VAULT BEDDING, BACKFILL, AND COMPACTION SHALL BE IN ACCORDANCE WITH THE SAME REQUIREMENTS FOR MANHOLES IN THE SPECIFICATIONS AND STANDARD PLAN 803-01.
9. CONTRACTOR SHALL NEATLY FILL DOGHOUSE OPENING AROUND PIPES WITH BRICK AND APPROVED NON-SHRINK GROUT TO ASSURE A WATERTIGHT SEAL.

STATE OF LOUISIANA
ADAM M. SMITH
License No. 33278
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

MAY 24, 2018

DATE	DESCRIPTION REVISIONS	BY

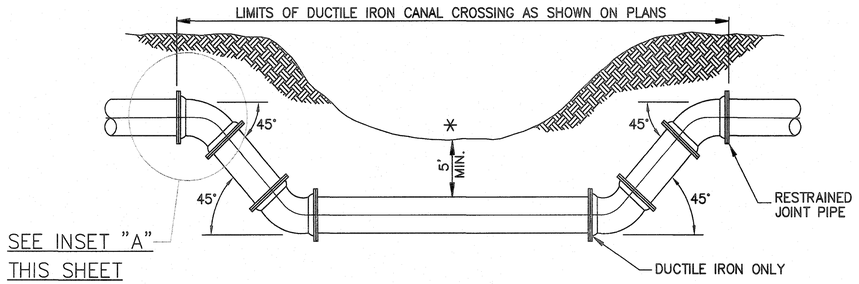
STANDARD PLAN NO.	DATED	SHEET NO
804-01	MAY 24, 2018	2 OF 3

FORCE MAIN DETAILS

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
J. CRAIN	S. CORTEZ	R. LAMBERT	A. SMITH

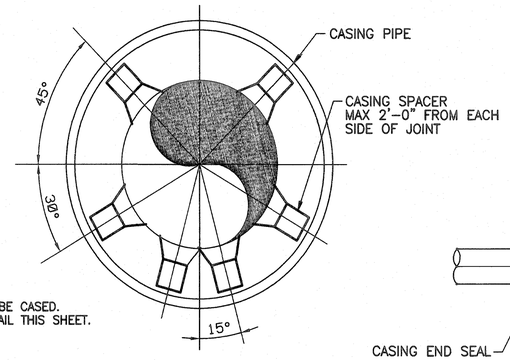
PROJECT NO.	SHEET
H.012232	377

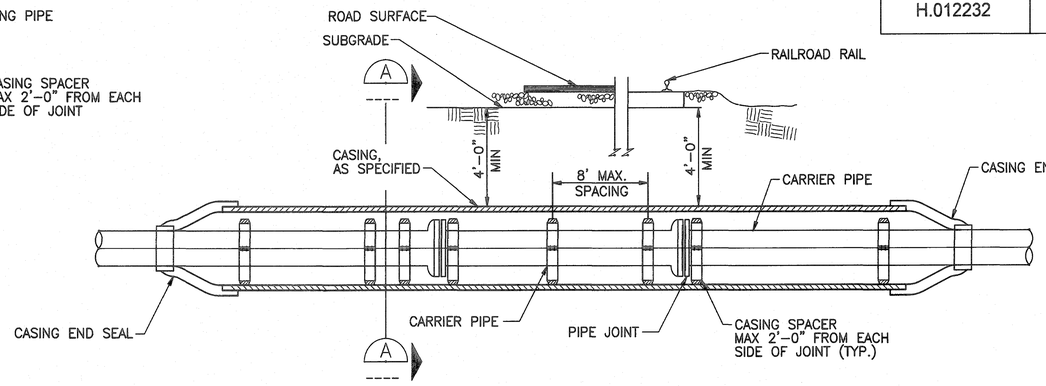


TYPICAL CANAL &/OR UTILITY CROSSING

N.T.S.

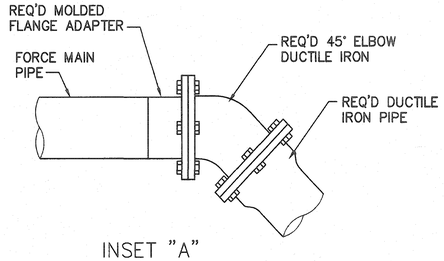
* IF COVER IS LESS THAN 5', THE PIPE SHOULD BE CASED. REFER TO THE JACKED AND BORED CASING DETAIL THIS SHEET.





JACKED AND BORED CASING DETAIL

N.T.S.

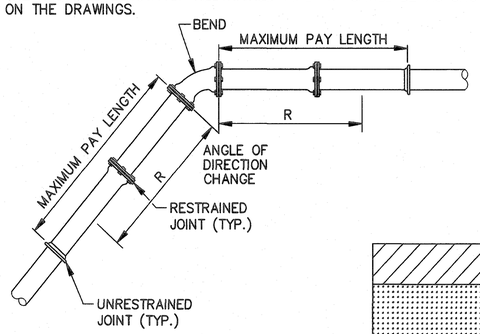


INSET "A"

DUCTILE IRON PIPE TO POLYETHYLENE PIPE CONNECTION

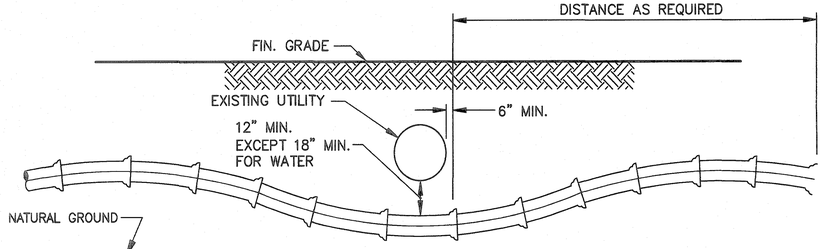
RESTRAINED JOINT NOTES:

1. RESTRAINED JOINT PIPE SHALL BE USED AT ALL BENDS.
2. THE REQUIRED LENGTH OF RESTRAINED PIPE "R" SHALL BE AS SHOWN ON THE DRAWINGS.



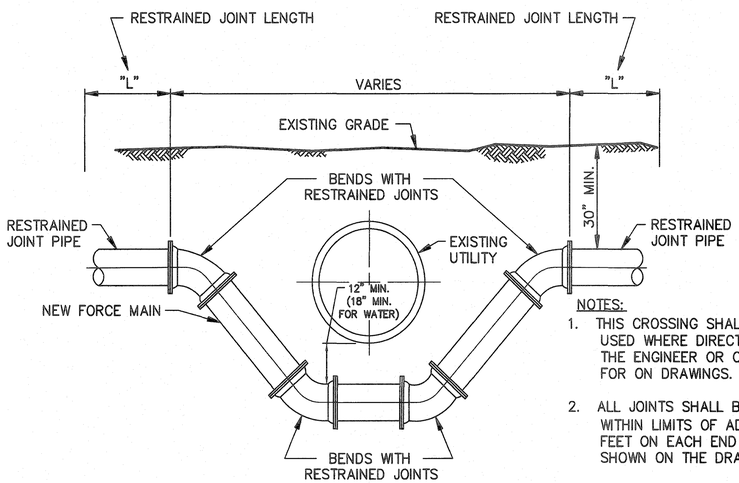
FORCE MAIN BENDS

N.T.S.



DEFLECTION TYPE UTILITY CROSSING

N.T.S.

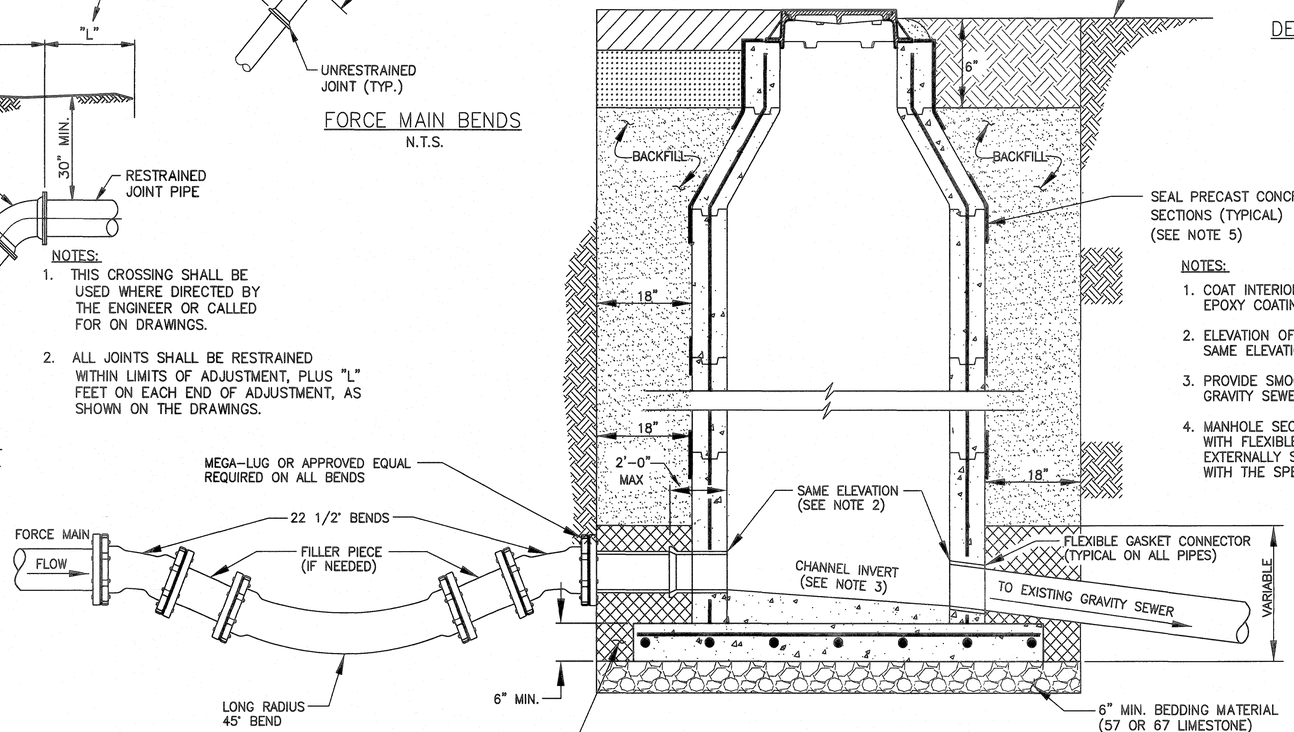


NOTES:

1. THIS CROSSING SHALL BE USED WHERE DIRECTED BY THE ENGINEER OR CALLED FOR ON DRAWINGS.
2. ALL JOINTS SHALL BE RESTRAINED WITHIN LIMITS OF ADJUSTMENT, PLUS "L" FEET ON EACH END OF ADJUSTMENT, AS SHOWN ON THE DRAWINGS.

TYPICAL FORCE MAIN ADJUSTMENT

N.T.S.



FORCE MAIN TO MANHOLE CONNECTION

N.T.S.

NOTES:

1. COAT INTERIOR OF MANHOLE WITH APPROVED EPOXY COATING PER SPECIFICATION SECTION 822.
2. ELEVATION OF FORCE MAIN CROWN SHALL BE AT SAME ELEVATION AS THE GRAVITY SEWER CROWN.
3. PROVIDE SMOOTH CHANNEL FROM FORCE MAIN TO GRAVITY SEWER.
4. MANHOLE SECTIONS SHALL BE JOINED TOGETHER WITH FLEXIBLE WATERTIGHT RUBBER GASKETS AND EXTERNALLY SEALED AT THE JOINTS IN ACCORDANCE WITH THE SPECIFICATIONS.

STATE OF LOUISIANA
ADAM M. SMITH
License No. 33270
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

MAY 24, 2018

STANDARD PLAN NO.	DATED	SHEET NO.
804-01	AUGUST 1, 2011	3 OF 3

FORCE MAIN DETAILS

DATE	DESCRIPTION REVISIONS	BY
5/24	REVISED SHEET NUMBER AND TITLE	A.M.S.
7/13	FORCE MAIN BEND REVISION	A.S.

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
A. SCHULZE	G. VANNICE	R. WRIGHT	A. SMITH

PROJECT NO.	SHEET
H.012232	378

TRAFFIC SIGNAL WORK

GENERAL

THE TRAFFIC SIGNAL WORK, EQUIPMENT, AND MATERIALS INDICATED WITHIN THESE NOTES UNLESS SPECIFIED OTHERWISE SHALL BE PERFORMED BY THE CONTRACTOR IN ADDITION AND ACCORDING TO THE WORK REQUIREMENTS WITHIN THE CONTRACT DOCUMENTS.

THE FOLLOWING NOTES ARE TYPICAL FOR THE REMOVAL AND INSTALLATION OF TRAFFIC SIGNAL EQUIPMENT WORK FOR THE CITY/PARISH OF EAST BATON ROUGE DEPARTMENT OF TRANSPORTATION AND DRAINAGE..

Emergency Contacts. THE CONTRACTOR SHALL FURNISH THE CITY-PARISH WITH TWO LOCAL TELEPHONE NUMBERS FOR EMERGENCY USE IN CONTACTING THE IMSA LEVEL TWO (2) EMPLOYEES OF THE CONTRACTOR REGARDING INCIDENTS INVOLVING THE CONTRACTOR'S CONSTRUCTION. THE CONTRACTOR SHALL RESPOND TO ANY EMERGENCY CALL IN ACCORDANCE WITH THE SCHEDULE DETAILED BELOW. SHOULD THE CITY-PARISH OR LADOTD BE REQUIRED TO TAKE OVER THIS DUTY DUE TO DELAYED RESPONSE, THE CONTRACTOR SHALL BE BILLED FOR ALL CITY-PARISH OR LADOTD EXPENSES INCURRED IN DOING SO. THE CONTRACTOR SHALL MAINTAIN AN ADEQUATE SUPPLY OF COMPONENT PARTS FOR THE SPECIFIC TYPE OF TRAFFIC SIGNALS BEING MAINTAINED DURING CONSTRUCTION. THE CITY-PARISH TRAFFIC ENGINEERING DIVISION WILL NOT FURNISH MATERIALS (EXCEPT AT THE DISCRETION OF THE CHIEF TRAFFIC ENGINEER) FOR USE ON THE CONTRACTOR MAINTAINED TRAFFIC SIGNALS.

PRIORITY ITEM	TIME OF OCCURRENCE	REQUIRED RESPONSE
NO SIGNAL INDICATION	6AM-6PM MON. THRU FRI.	TWO (2) HOURS
NO SIGNAL INDICATION	6PM-6AM AND WEEKENDS	FOUR (4) HOURS
SIGNAL HUNG UP, CONFLICT	6AM-6PM MON. THRU FRI.	ONE (1) HOUR
SIGNAL HUNG UP, CONFLICT	6PM-6AM AND WEEKENDS	TWO (2) HOURS
SIGNAL KNOCKDOWN	6AM-6PM MON. THRU FRI.	ONE (1) HOUR
SIGNAL KNOCKDOWN	6PM-6AM AND WEEKENDS	TWO (2) HOURS

Traffic Flow and Safety. THE CONTRACTOR SHALL MAINTAIN TRAFFIC FLOW DURING CONSTRUCTION AND SHALL COMPLY WITH ALL GOVERNING LAWS, ORDINANCES AND REGULATIONS REGARDING SAFETY, SO AS TO INSURE SAFETY OF THE WORKMEN AND THE TRAVELING PUBLIC DURING CONSTRUCTION.

Police Supervision. THE CONTRACTOR SHALL PROVIDE POLICE SUPERVISION (225-389-3874) OF TRAFFIC AT ANY TIME THE TRAFFIC SIGNAL SYSTEM IS NOT IN OPERATION AT NO DIRECT PAY. POLICE SUPERVISION SHALL CONTINUE UNTIL ALL EQUIPMENT HAS BEEN INSTALLED AND MADE OPERATIONAL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

Infrastructure Protection. THE CONTRACTOR SHALL PROTECT ALL EXISTING SIDEWALKS, CURB, AND DRIVEWAYS FROM DAMAGE DURING INSTALLATION OF SIGNAL EQUIPMENT AT NO DIRECT PAY. THE CONTRACTOR SHALL REPLACE AT NO DIRECT PAY-WITH AN APPROVED QUALITY EQUAL TO OR BETTER THAN THE ORIGINAL, ANY SIDEWALK, CURB, OR OTHER ITEMS DAMAGED DURING THE CONSTRUCTION. REPLACEMENT OF DAMAGED CURBS, SIDEWALKS AND DRIVEWAYS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS OF THE AGENCY OR OWNER HAVING JURISDICTION AND TO THE AGENCY'S OR OWNERS SATISFACTION.

UTILITIES

Underground and Overhead Utilities. THE LOCATION AND TYPE OF EXISTING UTILITIES SHOWN ON THE PLANS ARE NOT GUARANTEED TO BE ACCURATE NOR ALL INCLUSIVE. BEFORE PERFORMING ANY EXCAVATIONS, THE CONTRACTOR SHALL CONTACT (AT A MINIMUM) THE ENTITIES LISTED BELOW TO VERIFY THE EXACT LOCATION, DEPTH OR HEIGHT OF ALL UNDERGROUND OR OVERHEAD UTILITIES IN THE CONSTRUCTION ZONE:

"LOUISIANA ONE CALL" (DOTTIE).....TELEPHONE NO. 811 OR 1-800-272-3020
CITY-PARISH DPW TRAFFIC ENGINEERING DIVISION.....TELEPHONE NO. (225) 389-3246
CITY-PARISH DPW SANITARY SEWER DIVISION.....TELEPHONE NO. (225) 389-4858
CITY-PARISH DPW DRAINAGE.....TELEPHONE NO. (225) 389-3196
NORTH MAINTENANCE LOT.....TELEPHONE NO. (225) 389-5187
SOUTH MAINTENANCE LOT.....TELEPHONE NO. (225) 389-3250
EAST MAINTENANCE LOT.....TELEPHONE NO. (225) 389-4880
LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
TRAFFIC SERVICES DIVISION.....TELEPHONE NO. (225) 935-0100

THE CITY-PARISH AND LADOTD ARE NOT "LOUISIANA ONE CALL" MEMBERS AND MUST BE CONTACTED INDEPENDENTLY FOR UTILITY LOCATIONS. OTHER APPROPRIATE INDIVIDUAL UTILITY COMPANIES MAY ALSO NEED TO BE CONTACTED AND IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DO SO. NOTICE SHALL BE GIVEN AND SHALL INCLUDE A SPECIFIC LOCATION REQUEST FOR EXCAVATION OR DEMOLITION WORK TO BE PERFORMED AT LEAST FORTY-EIGHT (48) HOURS, BUT NOT MORE THAN ONE HUNDRED (100) HOURS, EXCLUDING WEEKENDS AND HOLIDAYS, IN ADVANCE OF ACTUAL WORK COMMENCEMENT. THE CONTRACTOR SHALL BE SOLELY LIABLE FOR ANY DAMAGES CAUSED BY FAILURE TO COMPLY WITH THESE INSTRUCTIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING INDEPENDENT INVESTIGATIONS, INCLUDING SUBSURFACE INVESTIGATIONS, AS NECESSARY (AT NO DIRECT PAY).

TRAFFIC SIGNAL EQUIPMENT REMOVAL

GENERAL

Salvageable Equipment. CITY-PARISH TRAFFIC SIGNAL EQUIPMENT AND CONTROL DEVICES AS DESIGNATED BY THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER SHALL BE DELIVERED BY THE CONTRACTOR TO THE CITY-PARISH TRAFFIC ENGINEERING DIVISION, 329 CHIPPEWA ST. (OR AS DIRECTED BY CITY-PARISH TRAFFIC ENGINEER), BATON ROUGE LA. STATE TRAFFIC SIGNAL EQUIPMENT AND CONTROL DEVICES SHALL BE DELIVERED TO LADOTD TRAFFIC SERVICES SECTION, 7686 TOM DRIVE, BATON ROUGE, LA. DISPOSAL OF NON-SALVAGEABLE ITEMS SHALL BE AS DIRECTED BY THE PROJECT ENGINEER.

Foundations. THE CONTRACTOR SHALL DISPOSE OF EXISTING TRAFFIC SIGNAL CONTROLLER AND POLE BASE FOUNDATION AS DIRECTED BY THE PROJECT ENGINEER. POLE BASE FOUNDATION SHALL BE REMOVED TO A MINIMUM DEPTH OF 24" BELOW FINAL GROUND ELEVATION AND BACKFILLED WITH SUITABLE MATERIAL.

Detector loops. THE CONTRACTOR SHALL CONTACT CITY-PARISH TRAFFIC ENGINEER AT 389-3246, A MINIMUM FOURTY-EIGHT (48) HOURS, EXCLUDING WEEKENDS AND HOLIDAYS, PRIOR TO THE DESTRUCTION OF EXISTING TRAFFIC SIGNAL DETECTORS.

TRAFFIC SIGNAL SYSTEM CONSTRUCTION

GENERAL

Match Existing. NEW EQUIPMENT FURNISHED INCLUDING BUT NOT LIMITED TO POLES, MAST ARMS, SIGNAL HEADS, PEDESTRIAN HEADS, RAISED FOUNDATIONS, ETC. SHALL MATCH, INCLUDING COLOR, OR BE AESTHETICALLY EQUAL TO, THAT WHICH EXISTS IN THE AREA AND IS SCHEDULED TO REMAIN, UNLESS STATED OTHERWISE IN THE PLANS AND/OR SPECIFICATIONS.

Incidental Items. THE CONTRACTOR SHALL FURNISH AND INSTALL ALL INCIDENTAL ITEMS INCLUDING, BUT NOT LIMITED TO NUTS, BOLTS, INSULATORS, FASTENINGS, TEMPORARY TRAFFIC CONTROL DEVICES, ETC. THAT IS NECESSARY FOR THE PROPER CONSTRUCTION OF THE TRAFFIC SIGNAL PROJECT BUT NOT SPECIFICALLY CALLED FOR, AS DIRECTED BY THE PROJECT ENGINEER, AT NO DIRECT PAY. ALL INCIDENTAL METALLIC HARDWARE SHALL BE HOT-DIPPED GALVANIZED STEEL OR STAINLESS STEEL.

Excavation Caution. ANY EXCAVATION PERFORMED BY THE CONTRACTOR IN PROXIMITY TO EXISTING TRAFFIC SIGNAL POLES OR DOWN GUYS MUST BE DONE WITHOUT UNDERMINING THEIR STABILITY. ALL RESTORATION WORK TO PRE-EXISTING CONDITIONS SHALL BE PERFORMED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE AGENCY HAVING JURISDICTION.

Field Locations. THE LOCATIONS OF POLES, SIGNALS, LOOP DETECTORS, SYSTEM SENSORS, CONTROLLERS AND JUNCTION BOXES AS SHOWN ON PLANS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED IN THE FIELD. THE CONTRACTOR SHALL MAKE ADJUSTMENTS IN LOCATIONS TO CONFORM TO EXISTING FIELD CONDITIONS.

SIGNAL POLE & FOUNDATION

Location. THE PROPOSED LOCATION OF EACH SIGNAL POLE FOUNDATION SHALL BE APPROVED BY THE TRAFFIC ENGINEERING DIVISION PRIOR TO INSTALLATION. THE CONTRACTOR SHALL INSTALL THE FOUNDATION AS SOON AS POSSIBLE AFTER APPROVAL AND SHALL NOT ORDER POLES UNTIL FOUNDATION INSTALLATION IS COMPLETED. CONTRACTOR SHALL NOTIFY TRAFFIC ENGINEERING IMMEDIATELY IF CONFLICTS ARE FOUND AT THE APPROVED LOCATION.

Inspection. POLE INSTALLATIONS SHALL BE INSPECTED AT SEVERAL STAGES, INCLUDING BUT NOT LIMITED TO FOUNDATION EXCAVATION, BOLT, REBAR AND CONDUIT INSTALLATIONS, POLE SET FOR PROPER RAKE, LUMINAIRE INSTALLATIONS, WIRING, GROUNDING AND BONDING. CONTRACTOR SHALL COORDINATE WORK WITH PROJECT ENGINEER FOR APPROVAL OF INSTALLATION. INSPECTION OF ANY WORK ITEM SHALL NOT RELIEVE THE CONTRACTOR OF ANY OBLIGATION TO PROPERLY FULFILL THE CONTRACT REQUIREMENTS.

CONDUCTORS/CABLES

Installation Methods. CONDUCTORS AND CABLES FROM SIGNAL HEADS AND DETECTORS SHALL BE RUN IN UNDERGROUND CONDUIT, ON POLES OR ON MESSENGER CABLE, AND SHALL FOLLOW THE MOST DIRECT ROUTE TO THE CONTROLLER CABINET. UNDERGROUND CONDUIT SHALL BE A MINIMUM OF THREE (3') FEET DEEP.

Traffic Control Cable. ON ALL INSTALLATIONS TRAFFIC CONTROL CABLE SHALL BE CONTINOUS (NO SPLICES) FROM THE CONTROLLER CABINET TO EACH OF THE FOLLOWING (WHERE APPLICABLE) : SERVICE DISCONNECT, EACH LOOP JUNCTION BOX AND TO EACH SIGNAL HEAD.

Fiber Optic Cable. FIBER OPTIC CABLE SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS STANDARDS ASSOCIATION (IEEE-SA) AND NATIONAL ELECTRIC CODE (NEC) REQUIREMENTS.

CONDUIT

Underground Conduit Installation.

- SHALL BE HDPE OR PVC SCHEDULE 80.
- USE AN E-LOC COUPLING TO CONNECT HDPE TO PVC.
- INSTALLED (36") BELOW GRADE.
- ALL FIBER AND EMPTY CONDUITS SHALL HAVE A TRACE WIRE INSTALLED
- EACH SIGNAL POLE SHALL HAVE (3") CONDUIT RACEWAY FOR CONDUCTORS.

Boring Method. CONDUIT INSTALLED WITHIN DRIP LINE OF TREES OR UNDER EXISTING PAVED DRIVEWAYS, THAT ARE NOT SCHEDULED TO BE RECONSTRUCTED AS PART OF THE PROJECT, SHALL BE INSTALLED BY BORING METHODS THAT HAVE BEEN REVIEWED AND APPROVED BY THE PROJECT ENGINEER. MINIMUM DEPTH IS THIRTY-SIX (36") INCHES BELOW GRADE, WHETHER NEW OR EXISTING GRADE.

Cleaning. CONDUITS SHALL BE CLEANED BY COMPRESSED AIR AND A PROPERLY SIZED CONDUIT PISTON OR MANDREL PRIOR TO CABLE INSTALLATION.

Conduit Capacity. PRIOR TO CONDUIT INSTALLATION, THE CONTRACTOR SHALL VERIFY THAT NO MORE THAN FORTY PERCENT (40%) OF THE CAPACITY AREA IS REQUIRED FOR THE PROPOSED CONDUCTORS. ANY CONDUITS FOUND INADEQUATE SHALL BE BROUGHT TO THE ATTENTION OF THE PROJECT ENGINEER PRIOR TO INSTALLATION. THE CONTRACTOR WILL BE REQUIRED TO REMOVE AND REPLACE INSTALLED CONDUIT WITH APPROPRIATE SIZED CONDUIT IF CONTRACTOR FAILS TO NOTIFY PROJECT ENGINEER.

PAVEMENT MARKINGS

Marking Layout. THE LAYOUT OF NEW PAVEMENT MARKINGS FOR ALL INTERSECTIONS SHALL BE APPROVED PRIOR TO COMMENCEMENT OF THE WORK.

STATE OF LOUISIANA
INGOLF A. PARTENHEIMER
REG. No. 28190
REGISTERED PROFESSIONAL ENGINEER IN ELECTRICAL ENGINEERING

September 10, 2020

DATE	DESCRIPTION REVISIONS	BY
9/4/2019	MINOR CLARIFICATIONS.	

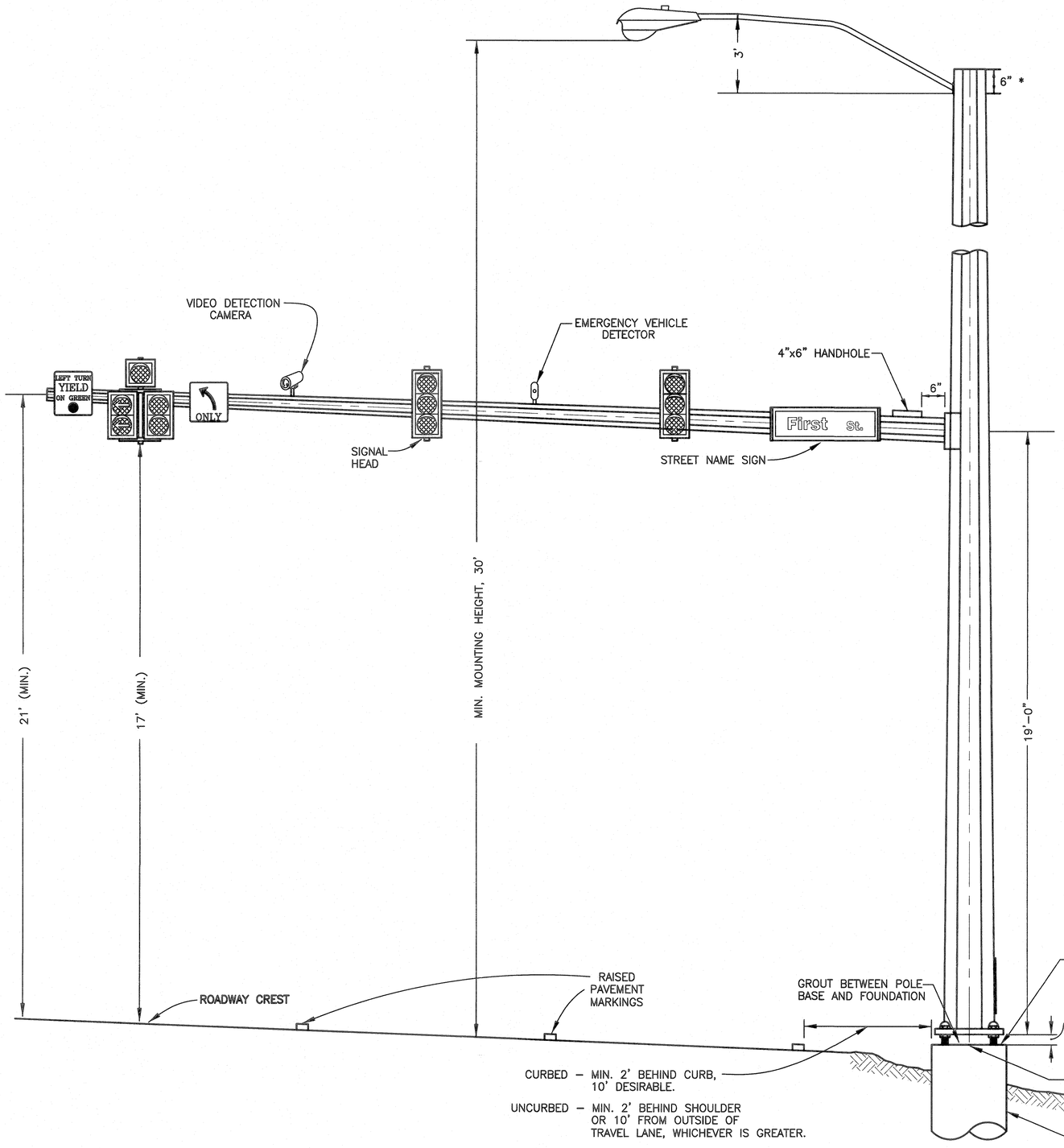
STANDARD PLAN NO.	DATED	SHEET NO.
906-01	September 10, 2019	1 OF 1

GENERAL NOTES

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
T.E.D.	G. VANNICE	S. EDEL	I. PARTENHEIMER

PROJECT NO.	SHEET
H.012232	379



SINGLE ARM SHOWN (DOUBLE ARM SIMILAR)

* PROPER CLEARANCES BETWEEN UTILITIES AND MAST ARM IN ACCORDANCE WITH THE NATIONAL ELECTRICAL SAFETY CAODE.

GENERAL NOTES

1. MATERIAL SHALL CONFORM TO THE FOLLOWING:
   (A) SHAFT – A1011 – 50 KSI MIN.
   (B) BASE PLATE – A36 MIN.
   (C) ANCHOR BOLTS – ASTM F1554
   (D) ANCHOR NUTS – A563 FINISH PATTERN
   (E) ALL OTHER BOLTS – A325 OR A307
2. FINISH:
   (A) ENTIRE ASSEMBLY SHALL BE GALVANIZED PER ASTM A123.
   (B) THREADED FASTENERS SHALL BE GALVANIZED PER ASTM A153.
3. COUPLINGS LOCATED IN THE ARMS FOR WIRE ENTRANCE SHALL HAVE CONDUIT THREADS WITH REMOVABLE GALVANIZED STEEL PIPE PLUGS.
4. SHAFT AND ARM SHALL BE STAMPED TO IDENTIFY "FIT" SIDE.
5. ARMS OVER 40'–0" WILL BE MADE FROM TWO SECTIONS.
6. THE STRUCTURAL DESIGH SHALL BE STAMPED AND SIGNED BY A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF LOUISIANA AND IN ACCORDANCE WITH THE PROVISIONS OF THE ASSHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES, AND TRAFFIC SIGNALS (LATEST EDITION) USING THE FOLLOWING PARAMETERS.
   (A) BASIC WIND SPEED : 130 MPH
   (B) WIND IMPORTANCE FACTOR 1.00
   (C) FATIGUE CATEGORY : II
   (D) GALLOPING AND TRUCK INDUCED FATIGUE : NO
   (E) NATURAL WIND GUST FATIGUE : YES
7. THE MAXINUM DEFLECTION AT THE TOP OF THE POLE UNDER DEAD LOAD CONDITIONS SHALL NOT EXCEED 2% OF POLE HEIGHT.
8. STENCIL MATCHING SERIAL NUMBERS ON POLE SHAFTS AND MAST ARMS AND LUMINAIRE ARMS LOCATIONS PROVIDED BY TRAFFIC ENGINEERING DIVISION, LEGIBLE AFTER GALVANIZING.
9. SERIAL NUMBER ASSIGNED BY CITY–PARISH AND INSTALLED BY MANUFACTURER.
10. POLE SHAFT SIZED BY MANUFACTURER.

NOTE:

1. MUTCD. SIGNS, SIGNALS, PAVEMENT MARKINGS AND TEMPORARY TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) LATEST ADOPTED EDITION AND ALL SUBSEQUENT REVISIONS THERETO.
2. HORIZONTAL ALIGNMENT. EACH SIGNAL HEAD SHALL BE AIMED WITHIN A MAXIMUM OF 3 DEGREES OF BEING PARALLEL TO THE APPROACH LANE TO WHICH IT APPLIES, UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER.
3. WORKING LOAD CAPACITY. METAL STRAIN POLES SHALL HAVE A MINIMUM WORKING LOAD CAPACITY OF 4,000 POUNDS APPLIED ONE (1) FOOT BELOW TOP OF POLE, UNLESS OTHERWISE SPECIFIED.
4. SIGNAL HEAD ALIGNMENT FOR MULTI THROUGH LANES SHALL BE CENTERED OVER EACH TRAVEL LANE.
5. SIGNAL HEAD ALIGNMENT FOR EXCLUSIVE LEFT TURN LANES SHALL BE 2.5' TO THE LEFT OF CENTER.
6. SIGNAL HEAD ALIGNMENT FOR SINGLE THROUGH LANES SHALL BE SPACED A MIN. OF 8' OR AS APPROVED BY THE PROJECT ENGINEER.
7. SIGNAL HEAD ALIGNMENT FOR EXCLUSIVE RIGHT TURN LANES SHALL BE 2.5' TO THE RIGHT OF CENTER.
8. IF THE LANES BELOW THE SIGNAL HEAD DO NOT ALIGN WITH THE APPROACH LANE, THEN SIGNAL HEADS SHALL BE POSITIONED TO SERVE AS AN ALIGNMENT GUIDE FOR THE CONTINUATION OF THE LANE IN ACCORDANCE WITH THE MUTCD.
9. ALL EXPOSED WIRING SHALL BE NEAT AND CONSISTENT THROUGHOUT INTERSECTION.

STATE OF LOUISIANA
INDOLF A. PARTENHEIMER
REG. No. 28180
REGISTERED PROFESSIONAL ENGINEER IN ELECTRICAL ENGINEERING
September 10, 2020

DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
906–02	September 10, 2019	1 OF 6

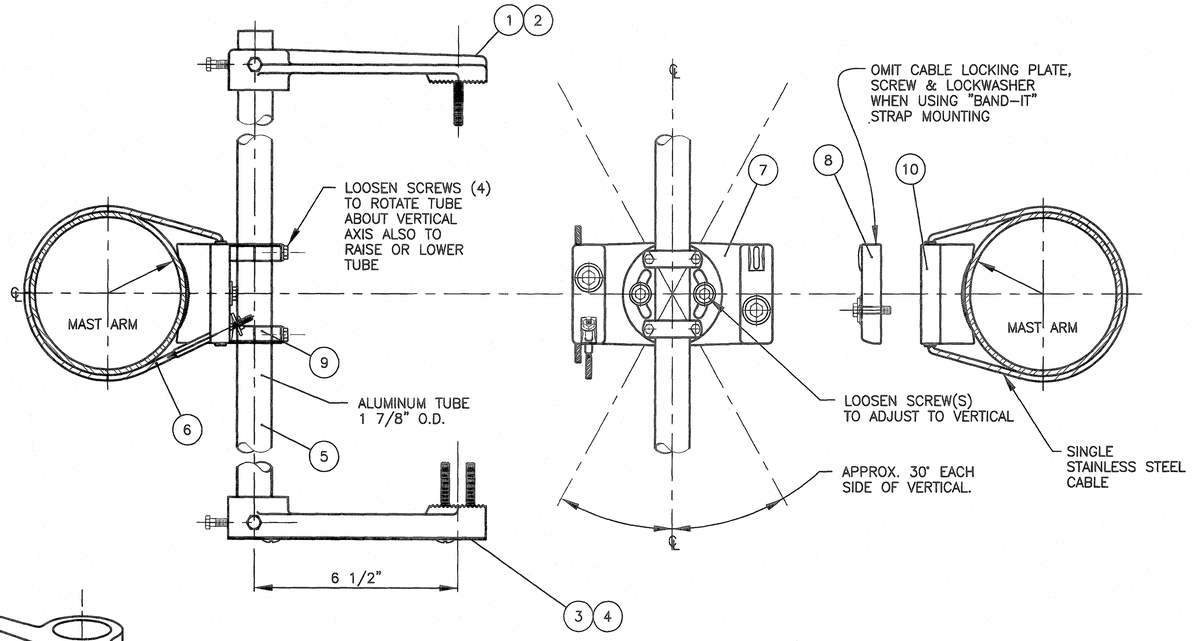
SIGNAL SUPPORT DETAILS (MAST ARM TYPICAL LAYOUT)

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
T.E.D.	G. VANNICE	S. EDEL	I. PARTENHEIMER

PROJECT NO.	SHEET
H.012232	380

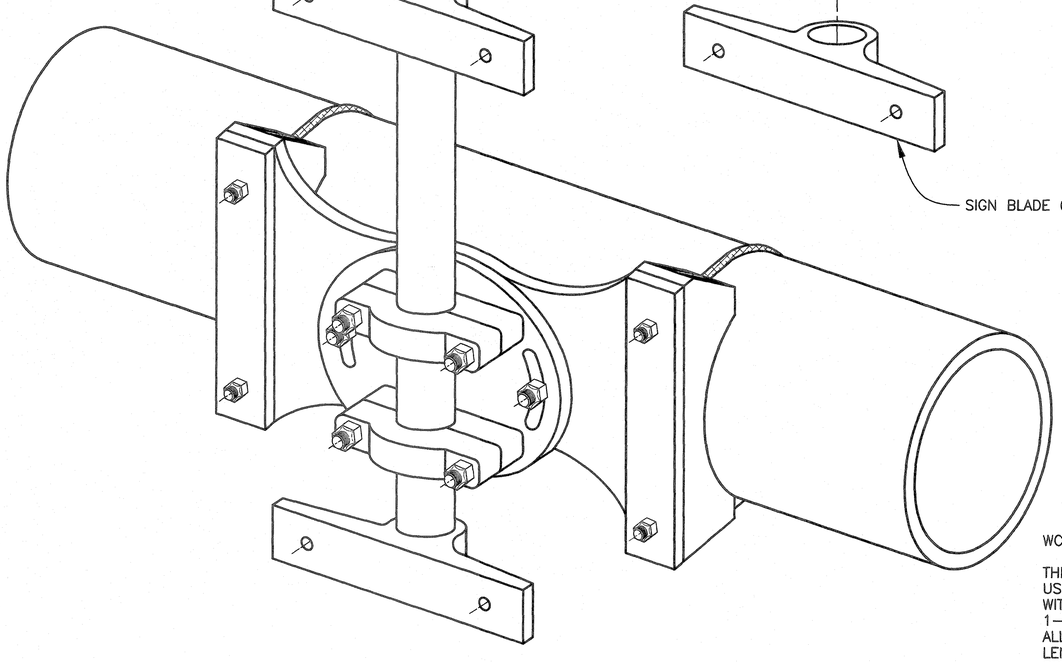
ITEM NO.	DESCRIPTION
1	Signal Mounting Arm Top – 6 1/2"
2	Signal Mounting Arm Top – 14" Used On 3M Signal
3	Signal Mounting Arm Bottom – 6 1/2"
4	Signal Mounting Arm Bottom – 14" Used On 3M Signal
5	Aluminum Tube – 60" Long
6	Cable Assembly
7	CM–42 Main Mtg. Assembly Less Cables & Tube
8	Cable Locking Plate
9	Tube Lock Down Bar
10	SM–42 Main Mtg. Assembly Less Tube
11	Mast Arm Mount Assembly Complete
12	Mast Arm Assembly Complete
13	Aluminum Tube – 48" Long
14	Aluminum Tube – 30' Long



MAST ARM
SIGNAL MOUNT
ASSEMBLY

N.T.S.

NOTE :
MOUNTING TUBE SHALL INCLUDE VINYL INSERT OR OTHER MEANS TO PROVIDE U.V. RESISTANCE FOR SIGNAL WIRING.



MAST ARM
SIGNAL MOUNT
ASSEMBLY

N.T.S.

WCM–SERIES

THE MAST–O–SIGN MOUNT USES THE SAME MAIN MOUNT WITH 2 SIGN BLADES AND A 1–1/2" ALUMINUM TUBE FOR ALL SIZE SIGNS. THE TUBE LENGTHS CHANGE AS SIGNS GET BIGGER OR SMALLER.

PART NO. WCM 24–24" TUBE
WCM 30–30" TUBE
OR APPROVED EQUAL

STATE OF LOUISIANA
INGOLF A. PARTENHEIMER
REG. No. 28190
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEER

September 10, 2020

DATE	DESCRIPTION REVISIONS	BY

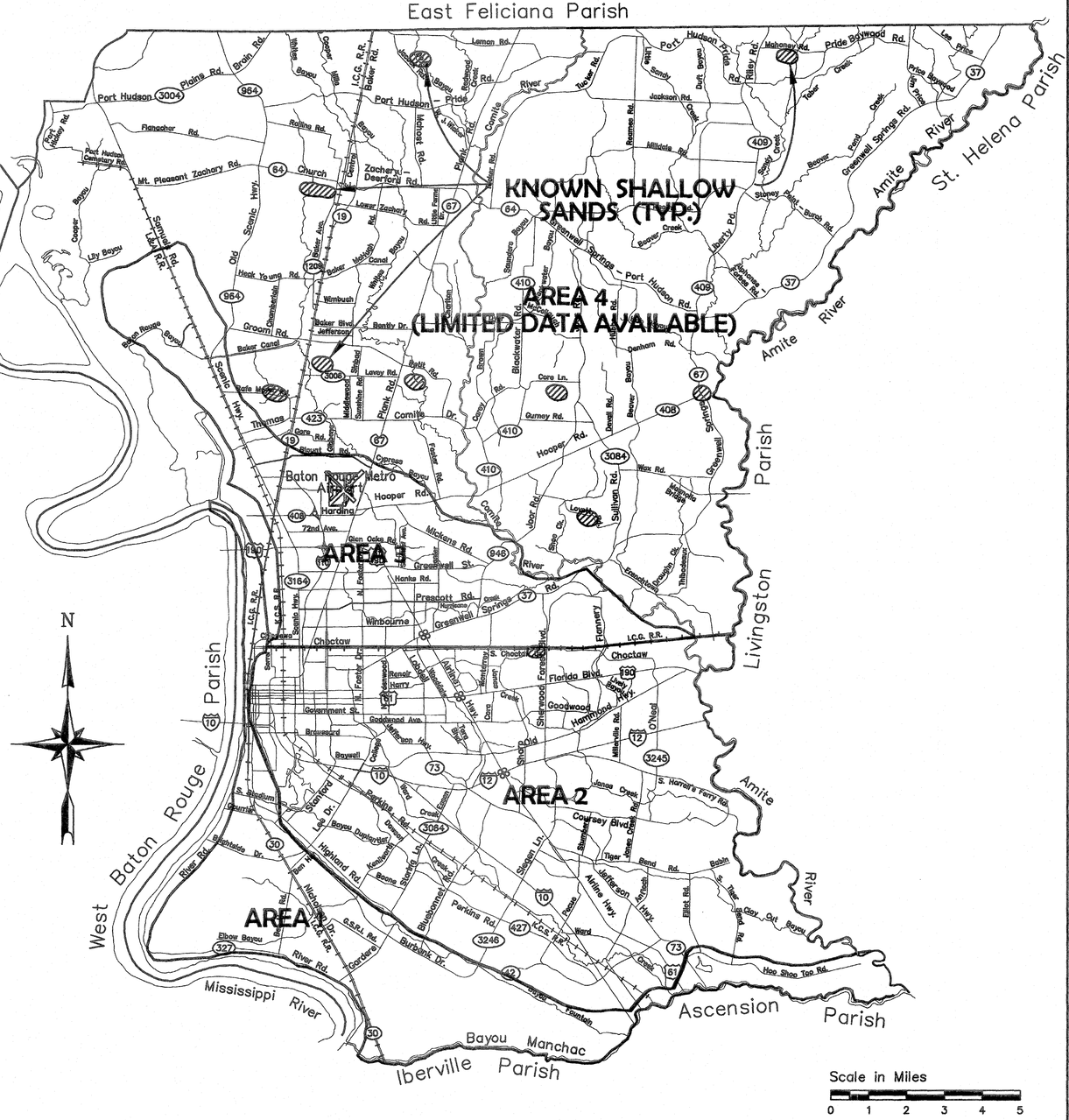
STANDARD PLAN NO.	DATED	SHEET NO.
906–02	September 10, 2019	2 OF 6

SIGNAL SUPPORT DETAIL

MAST ARM SIGN AND SIGNAL MOUNT DETAILS

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
T.E.D.	G. VANNICE	S. EDEL	I. PARTENHEIMER



SOIL MAP OF EAST BATON ROUGE PARISH

PROJECT NO.	SHEET
H.012232	381

SOIL AREA DESCRIPTIONS:

AREA 1: THIS AREA CONSISTS OF RECENT MISSISSIPPI RIVER DEPOSITS AND IS BOUNDED BY THE MISSISSIPPI RIVER, BAYOU MANCHAC AND THE PLEISTOCENE TERRACE BLUFFS. ON THE NORTH EDGE OF THESE DEPOSITS, HIGHLAND ROAD IS GENERALLY THE BOUNDARY FROM MYRTLE AVENUE TO SIEGEN LANE.

AREA 2: THIS IS AN AREA OF THE PLEISTOCENE TERRACE LOCATED GENERALLY NORTH AND EAST OF HIGHLAND ROAD. IT IS BOUNDED ON THE WEST BY THE MISSISSIPPI RIVER BLUFF, ON THE EAST BY THE AMITE RIVER, AND ON THE NORTH BY THE ICG RAILROAD TRACKS.

AREA 3: THIS IS AN AREA OF THE PLEISTOCENE TERRACE BOUNDED ON THE SOUTH BY THE ICG RAILROAD TRACKS, ON THE WEST BY THE MISSISSIPPI RIVER BLUFF, ON THE NORTH BY LILLY BAYOU AND U.S. HWY. 61 (FROM IRENE TO ALSEN), AND ON THE NORTH AND EAST BY CYPRESS BAYOU AND THE COMITE RIVER. LIMITED DATA IS AVAILABLE IN THE EASTERN PART OF THIS AREA.

AREA 4: THIS AREA IS THE REMAINDER OF THE PARISH TO THE NORTH OF AREA 3 BETWEEN THE MISSISSIPPI RIVER ON THE WEST AND THE AMITE RIVER ON THE EAST. IN THIS AREA ONLY VERY LIMITED GEOTECHNICAL DATA IS AVAILABLE. SHALLOW SANDS CAN OFTEN BE ENCOUNTERED IN THIS AREA.

DESIGN NOTES:

1. FOUNDATION LOADS WERE CALCULATED IN ACCORDANCE WITH THE 2006 INTERIM TO THE AASHTO "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS." LOADS ARE BASED ON A 110 MPH WIND WITH GUST FACTOR OF 1.14.
2. BROM'S METHOD WAS USED TO CALCULATE THE ULTIMATE LATERAL BEARING CAPACITY OF THE SOILS.
3. ALL POLE LOCATIONS WHERE THE NATURAL GROUND IS BELOW ELEVATION 20 SHOULD BE INVESTIGATED WITH SITE SPECIFIC BORINGS, AS SHOULD SIGNALS FOUNDED IN ROADWAY FILLS.
4. ANY SIGNAL TO BE PLACED IN THE FLOOD PLAIN OF AN EXISTING OR OLD CREEK OR RIVER SHOULD BE INVESTIGATED WITH SITE SPECIFIC BORINGS.
5. SIGNALS LOCATED IN THE REGIONS DESIGNED AS LIMITED DATA ON THE ATTACHED PARISH MAP SHOULD BE INVESTIGATED WITH SITE SPECIFIC BORINGS.

CONSTRUCTION NOTES:

6. DEPENDING ON FIELD CONDITIONS, GROUND WATER MAY BE ENCOUNTERED DURING THE CONSTRUCTION OF THESE DRILLED SHAFT FOUNDATIONS. PRIOR TO COMMENCEMENT OF DRILLING OPERATIONS THE CONTRACTOR SHALL BE REQUIRED TO HAVE ON SITE THE PROPER TEMPORARY CASING TO BE USED IF NECESSARY.
7. IF THE SOIL CONDITIONS DIFFER FROM THE SOIL PROFILE SHOWN, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER.
8. NO EXCAVATION AROUND DRILLED SHAFT SHALL BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
9. ALL CONCRETE SHALL HAVE MINIMUM 4,000 PSI 28 DAY STRENGTH. MAST ARMS SHALL NOT BE ERECTED ON POLES BEFORE CONCRETE DESIGN STRENGTH HAS REACHED 3,000 PSI.
10. CONCRETE SHALL BE PLACED BY MEANS OF TREMIE PIPE OR DEPOSITED NEAR THE BOTTOM OF THE HOLE BY MEANS OF A PUMP. WHEN TEMPORARY CASING IS USED, THE TOP SURFACE OF WET CONCRETE MUST BE KEPT A MINIMUM OF TWO FEET ABOVE THE BOTTOM OF THE CASING.
11. TOP OF FOUNDATION SHALL BE ROUND WITH CHAMFERED EDGE.
12. ALL REINFORCING STEEL SHALL BE ASTM A615, GRADE 60.
13. SPLICES IN HOOP TIES SHALL BE ALTERNATED BETWEEN QUARTER POINTS.
14. ANCHOR BOLTS SHALL BE FABRICATED FROM ASTM F1554, GRADE 55 STEEL AND HOT DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153.
15. ANCHOR BOLTS SHALL BE HELD IN PLACE WITH A TEMPLATE CAPABLE OF SECURING BOLTS IN THE PROPER LOCATION, ORIENTATION, ELEVATION AND PLUMB.
16. ANCHOR BOLT ACCESSORIES SHALL BE AS FOLLOWS:
    NUTS – ASTM A563
    WASHERS – ASTM F436
    STRUCTURAL STEEL PLATES – ASTM A36
    HOT DIP GALVANIZING – ASTM A153
17. CONDUIT SHALL BE SCHEDULE 80 PVC AND BE INSTALLED ACCORDING TO THE PLANS ALL CONDUITS SHALL BE CENTERED IN THE FOUNDATION WITH SPACING TO ALLOW THE INSTALLATION OF GROUNDING BUSHINGS.
18. ALL STEEL POLE FOUNDATIONS TO HAVE A SPARE CONDUIT INSTALLED AND SEALED (IN THE SAME DIRECTION AS THE OTHER CONDUIT BEING USED) BELOW GRADE AND BROUGHT TO THE NEAREST JUNCTION BOX.
19. SERVICE CONDUIT SHALL BE MIN. 1" DIAMETER.
20. ONLY SPARE CONDUITS ARE SHOWN, REFER TO EACH STEEL POLE SHOWN IN PLANS FOR COMPLETE CONDUIT REQUIREMENT.
21. CAD WELD #6 AWG BARE COPPER GROUND WIRE ON GROUND ROD IN A "T" ARRANGEMENT, WITH ONE SIDE TO BE CONNECTED TO POLE AND THE OTHER SIDE CONNECTED TO ALL CONDUIT GROUNDING BUSHINGS.
22. FOR DETAILS NOT SHOWN HERE SEE POLE MANUFACTURER'S DETAILS FOR EACH POLE TYPE.

SOIL PROFILE LEGEND *

AREA NO.	DEPTH (FT.)	SHEAR STRENGTH (KSF)	VISUAL DESCRIPTION
1	5–20	0.40	SOFT GRAY CLAY & SILTY CLAY
2	5–10 10–16 16–20	0.50 0.60 1.00	MEDIUM BROWN, TAN & GRAY CLAY & SILTY CLAY STIFF TAN & GRAY CLAY & SILTY CLAY
3	5–10 10–20	0.50 1.20	MEDIUM BROWN, TAN & GRAY CLAY & SILTY CLAY STIFF TAN & GRAY CLAY & SILTY CLAY
4	5–9 9–20	0.35 1.20	SOFT TAN & GRAY SILTY CLAY STIFF TAN & GRAY CLAY & SILTY CLAY

* LOWER STRENGTH OR WATER BEARING SANDS OR SILTS REQUIRE SPECIAL DESIGN

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
10/30/2012

DATE	DESCRIPTION REVISIONS	BY

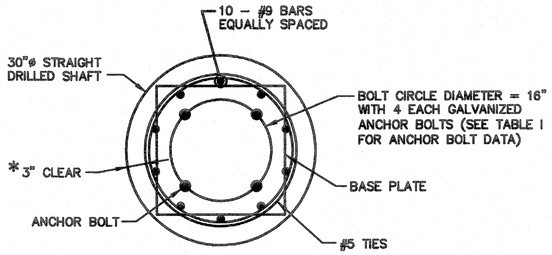
STANDARD PLAN NO.	DATED	SHEET NO.
906–04	DECEMBER 2, 2008	1 OF 4

SIGNAL POLE FOUNDATION DETAILS (GENERAL INFORMATION)

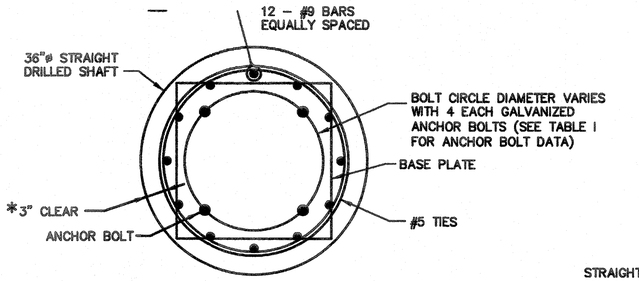
ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
H. THOM	D. KNOTT	D. ROSENQUIST	T. STEPHENS

PROJECT NO.	SHEET
H.012232	382



SECTION "A–A"
30"ø DRILLED SHAFT
1" = 1'–0"



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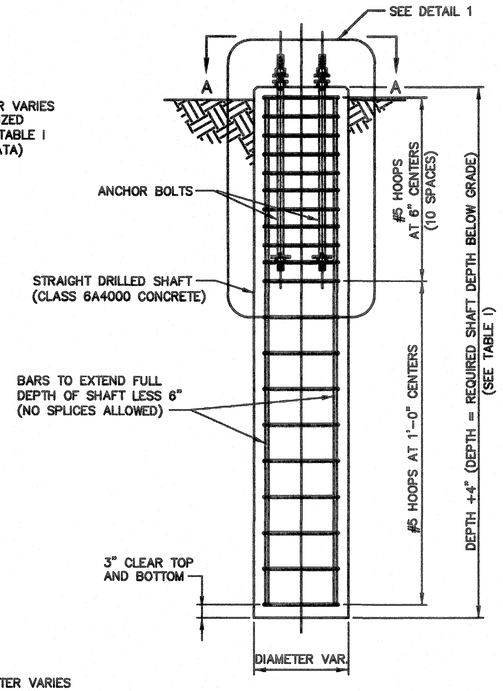
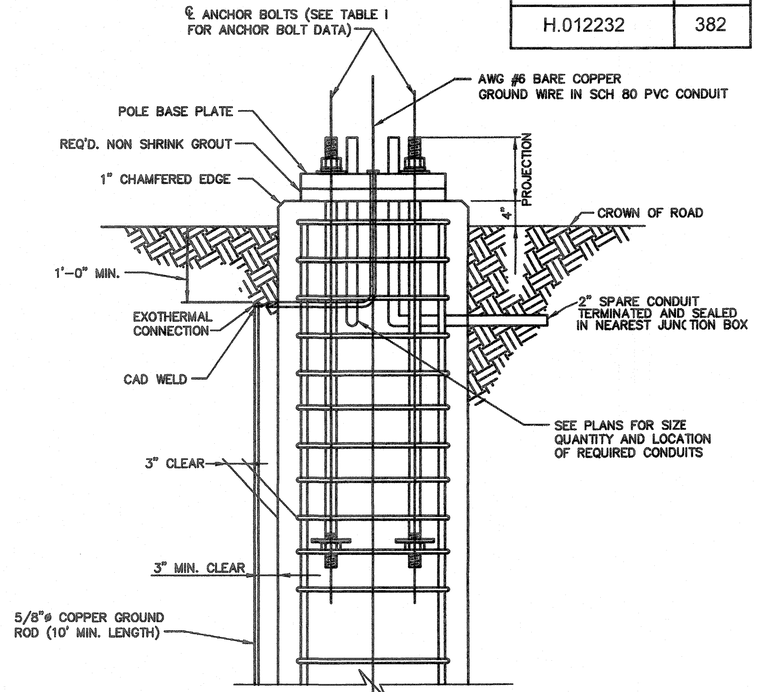
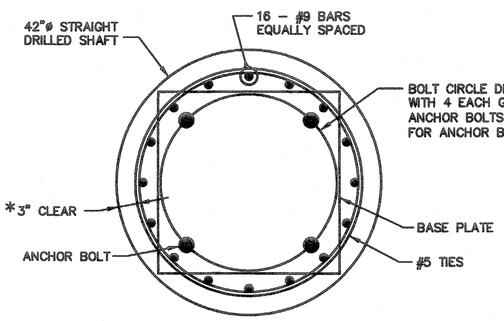


ELEVATION OF DRILLED SHAFT FOUNDATION
N.T.S.

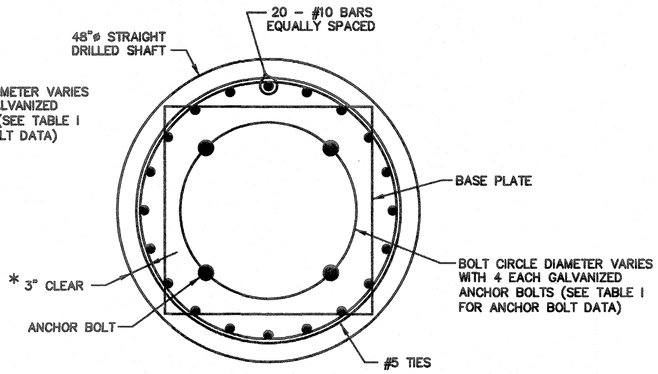
NOTE:
COMPLETE REINFORCEMENT NOT SHOWN FOR CLARITY



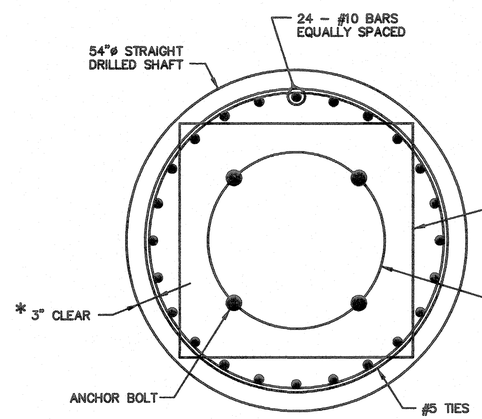
DETAIL 1
N.T.S.



SECTION "A–A"
42"ø DRILLED SHAFT
1" = 1'–0"

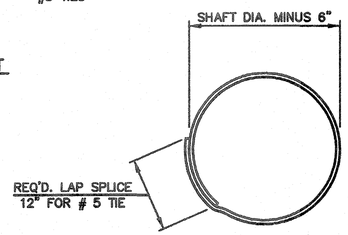


SECTION "A–A"
48"ø DRILLED SHAFT
1" = 1'–0"

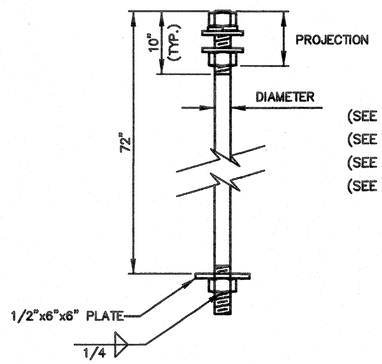


SECTION "A–A"
54"ø DRILLED SHAFT
1" = 1'–0"

* CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING A STANDOFF SYSTEM TO ENSURE THAT CLEARANCE AROUND REINFORCING STEEL CAGE IS MAINTAINED AT ALL TIMES. SYSTEM MUST BE APPROVED BY THE ENGINEER PRIOR TO DRILLING OF SHAFT.



#5 – HOOP TIE
N.T.S.



ANCHOR BOLT DETAIL
N.T.S.

NOTE:
EACH BOLT SHALL BE SUPPLIED WITH (3) HEX NUTS, (2) FLAT WASHERS, (1) LOCK WASHER, AND (1) PLATE (1/2"x6"x6").

TABLE I – DRILLED SHAFT AND ANCHOR BOLT SIZE (SINGLE MAST ARM FOUNDATIONS)

MAST ARM LENGTH feet	BOLT CIRCLE DIAMETER inches	BOLT DIAMETER inches	MINIMUM PROJECTION inches	AREA 1		AREA 2		AREA 3		AREA 4	
				SHAFT DIAMETER inches	SHAFT DEPTH feet	SHAFT DIAMETER inches	SHAFT DEPTH feet	SHAFT DIAMETER inches	SHAFT DEPTH feet	SHAFT DIAMETER inches	SHAFT DEPTH feet
20	16	1.75	7	30	16	30	16	30	14	30	14
25	16	1.75	7	30	19	30	16	30	14	30	14
30	16	1.75	7	36	19	30	17	30	15	30	15
35	22	2.00	7	36	20	36	19	36	16	36	16
40	22	2.00	7	42	17	36	20	36	17	36	17
45	22	2.00	7	42	20	36	19	36	16	36	16
50	22	2.00	7	48	20	36	20	36	20	36	18
55	28	2.00	7	54	19	42	19	42	17	42	17
(SEE NOTE 5) 60	28	2.25	8	SPECIAL DESIGN REQ'D		48	19	42	19	42	19
(SEE NOTE 5) 65	28	2.25	8	SPECIAL DESIGN REQ'D		48	20	48	18	42	20
(SEE NOTE 6) 70	28	2.50	9	SPECIAL DESIGN REQ'D		54	20	48	20	48	20
(SEE NOTE 6) 75	28	2.50	10	SPECIAL DESIGN REQ'D		SPECIAL DESIGN REQ'D		54	18	54	19

TABLE I NOTES:

1. SEE SHEET 1 OF 4 FOR LOCATION AND DESCRIPTION OF SOIL PROFILE AREAS.
2. SITE SPECIFIC SOIL BORINGS AND FOUNDATION DESIGN ARE REQUIRED FOR THE DRILLED SHAFTS INDICATED AS "SPECIAL DESIGN REQUIRED".
3. SOILS IN AREAS 3 AND 4 ARE VARIABLE AND ONLY LIMITED DATA IS AVAILABLE. CIRCLES IN AREAS 3 AND 4 ON SHEET 1 OF 4 DENOTE AREAS IN WHICH SHALLOW SANDS ARE KNOWN. A SITE SPECIFIC SPT BORING OR CPT SOUNDING SHOULD BE MADE IN AREAS 3 AND 4 TO DETERMINE IF SHALLOW SANDS WILL BE ENCOUNTERED, IN WHICH CASE, SITE SPECIFIC DESIGN OF FOUNDATIONS WILL BE REQUIRED.
4. FOR 48" AND 54" DIAMETER DRILLED SHAFTS, THE CONTRACTOR MAY INCREASE THE BOLT CIRCLE TO 34" IF NECESSARY TO ACCOMMODATE THE POLE BASE DIAMETER.
5. IN LIEU OF THE 4–BOLT PATTERN SHOWN, THE CONTRACTOR MAY SUBSTITUTE 6 EQUALLY SPACED 2.00" DIAMETER BOLTS.
6. IN LIEU OF THE 4–BOLT PATTERN SHOWN, THE CONTRACTOR MAY SUBSTITUTE 8 EQUALLY SPACED 2.00" DIAMETER BOLTS.

STATE OF LOUISIANA
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10/30/2008

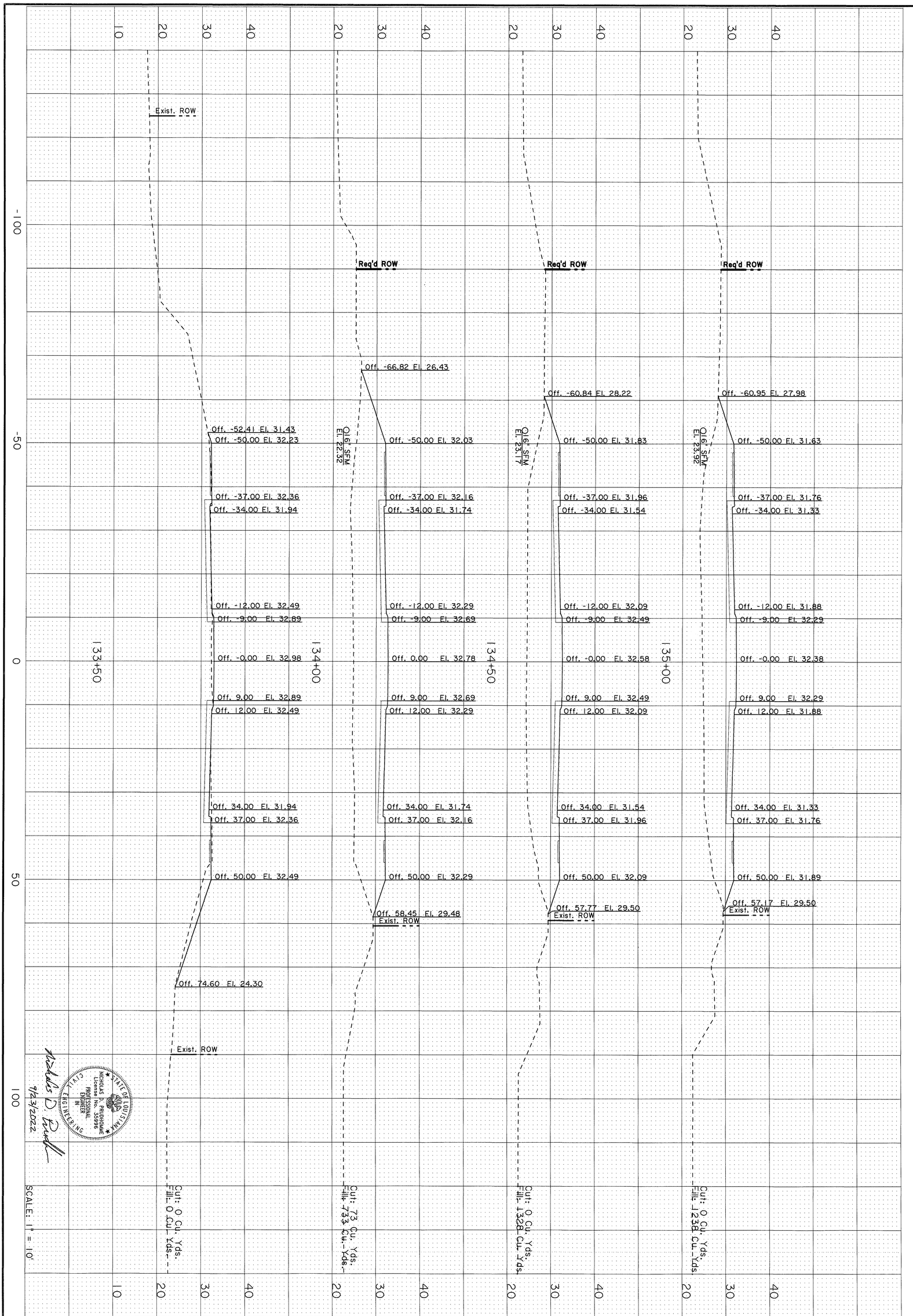
STANDARD PLAN NO.	DATED	SHEET NO
906–04	DECEMBER 3, 2008	2 OF 4

SIGNAL POLE FOUNDATION DETAILS (SINGLE MAST ARMS)

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
H. THOM	D.F. HEBERT	H. THOM	T STEPHENS

DATE	DESCRIPTION REVISIONS	BY
01/11/10	MODIFY FOUNDATION SIZES FOR 35' AND 40' MAST ARMS.	G.L.P.



CIVIL ENGINEERING
STATE OF LOUISIANA
NICHOLAS D. PRUDHOMME
License No. 35996
PROFESSIONAL ENGINEER IN
9/23/2022

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CROSS SECTIONS (DIJON DRIVE EXTENSION)

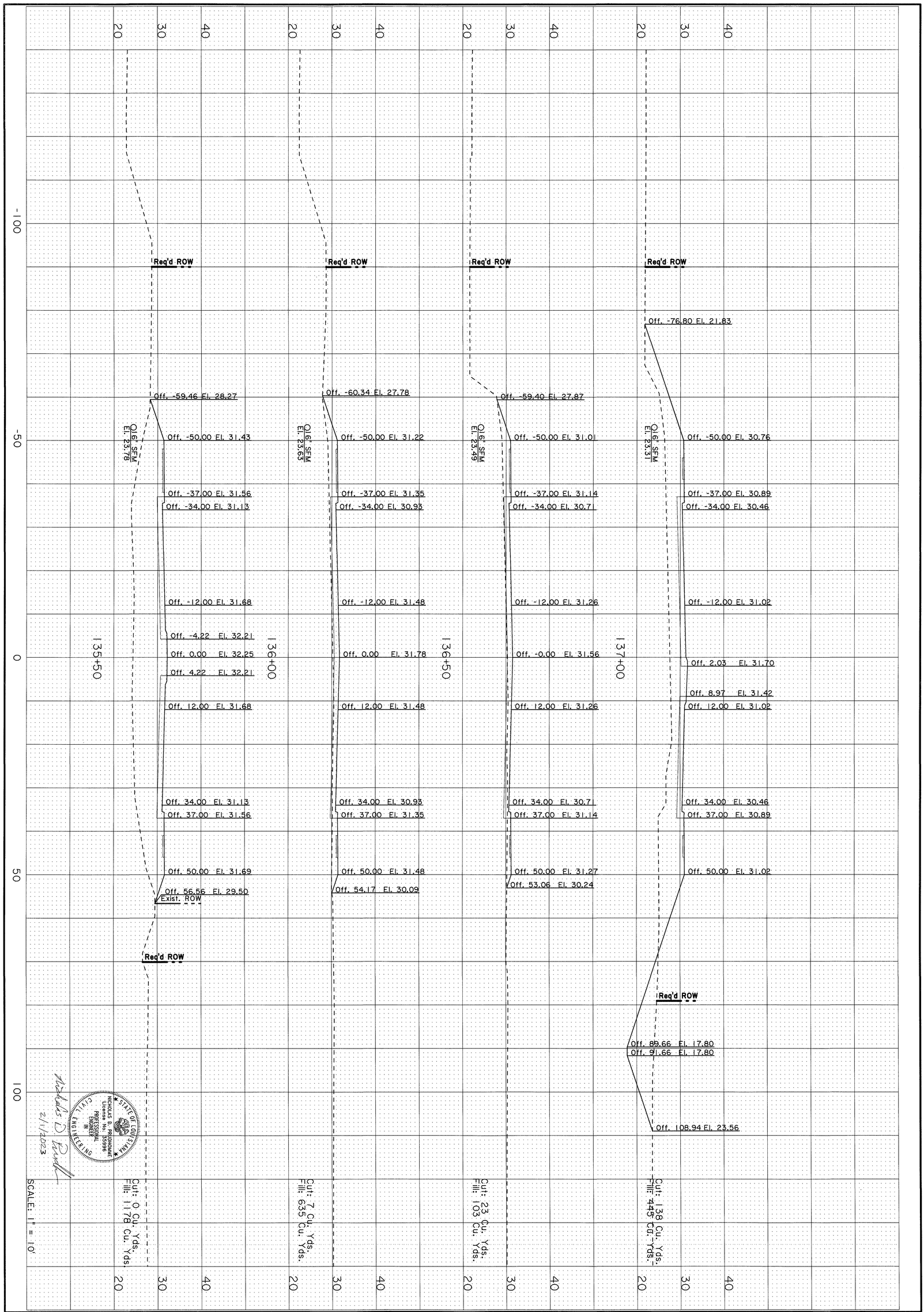
LA 3064 TO LA 1248 PHASE II

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	NDP	PARISH	EAST BATON ROUGE
CHECKED	CMH		
DETAILED	NDP	CONTROL SECTION	000-17
CHECKED	MFB		
SERIES NUMBER	1 OF 15	STATE PROJECT	H.012232

SHEET NUMBER 401



NICHOLAS D. PRUDHOMME
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CIVIL ENGINEERING
STATE OF LOUISIANA

Nicholas D. Prudhomme
2/17/2023

SCALE: 1" = 10'

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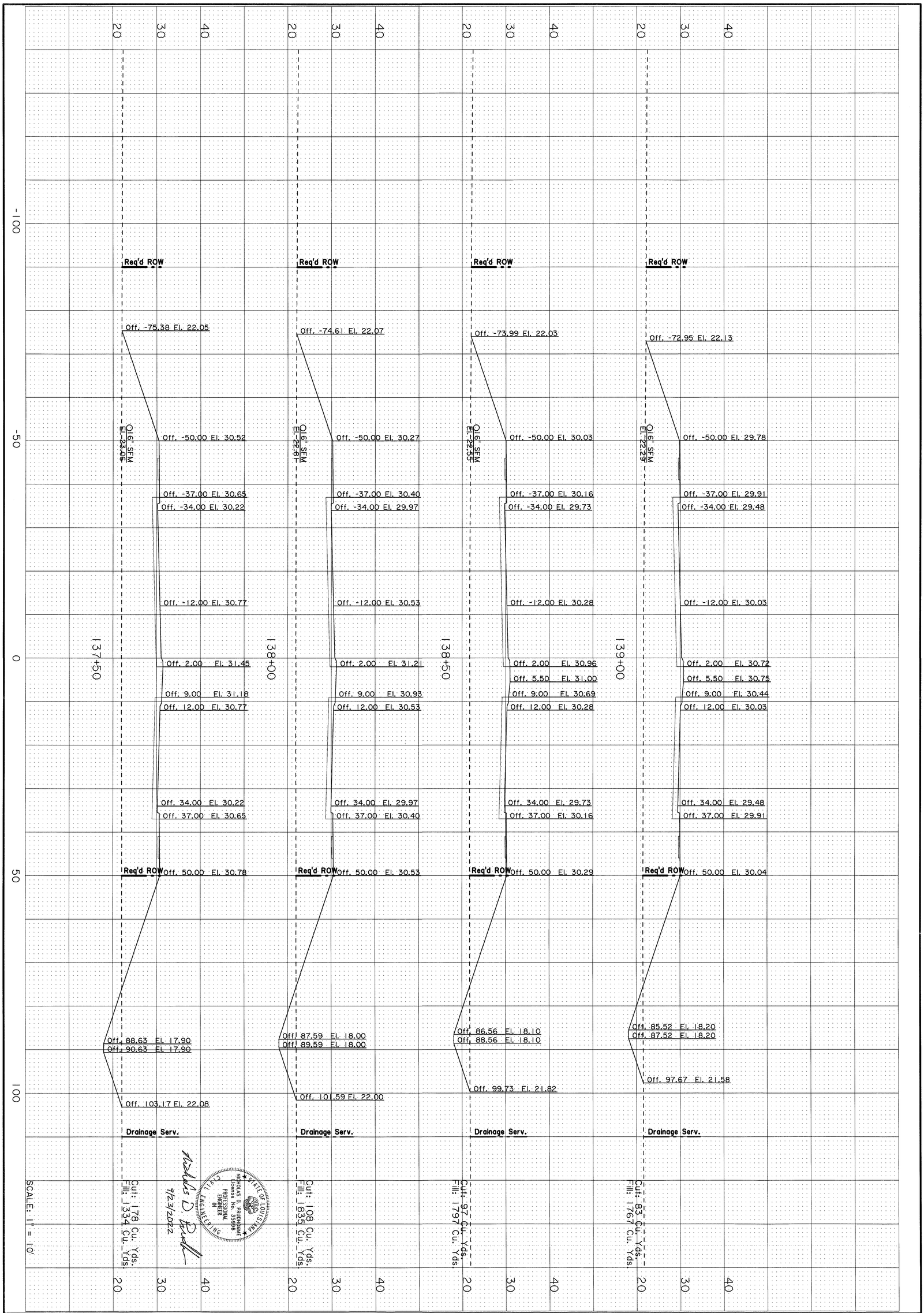
STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	NDP	PARISH	EAST BATON ROUGE
CHECKED	CMH		
DETAILED	NDP	CONTROL SECTION	000-17
CHECKED	MFB		
SERIES NUMBER	2 OF 15	STATE PROJECT	H.012232

SHEET NUMBER 402



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CROSS SECTIONS (DIJON DRIVE EXTENSION)

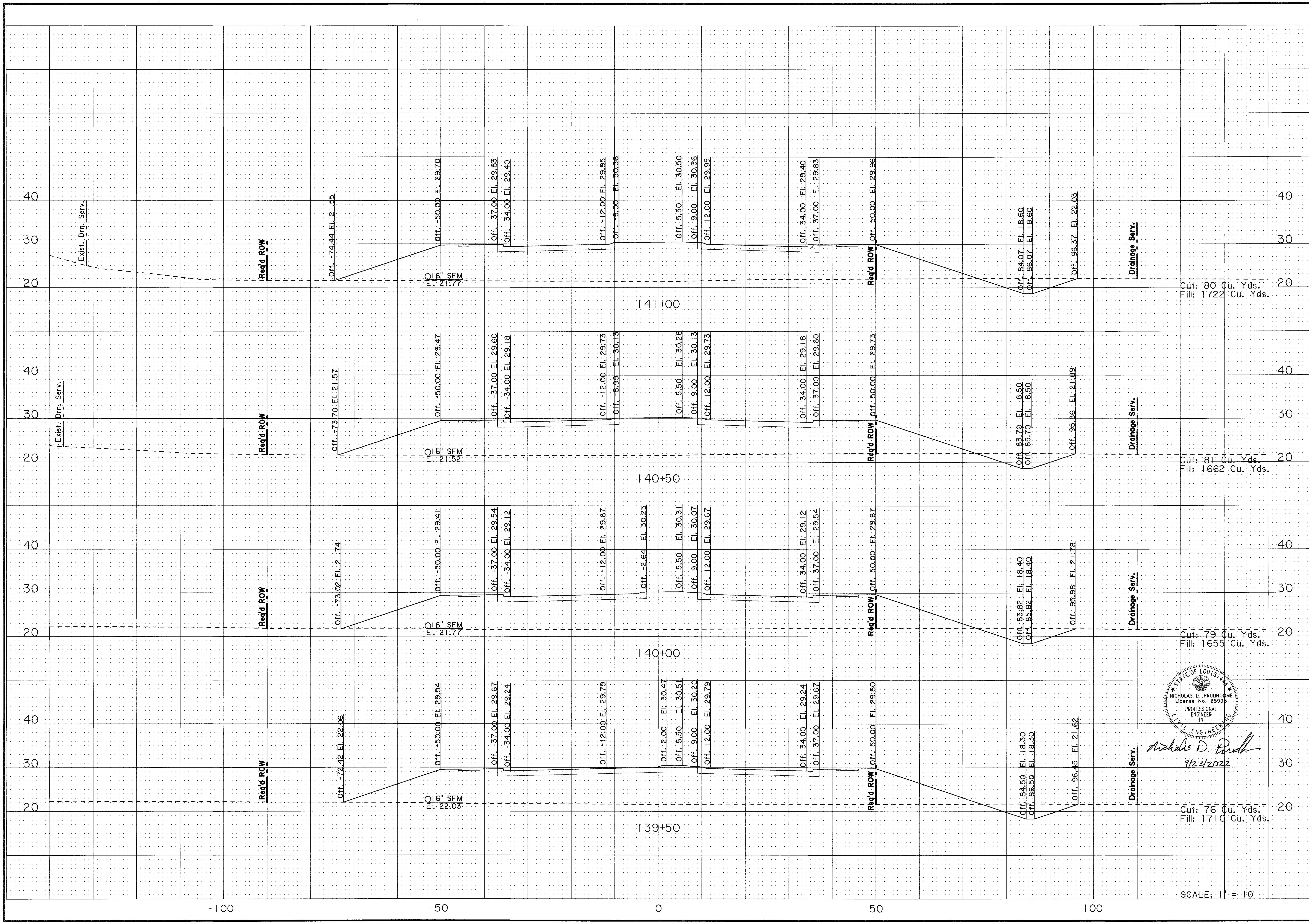
LA 3064 TO LA 1248 PHASE II

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	NDP / CMH	PARISH	EAST BATON ROUGE
DETAILED / CHECKED	NDP / MFB	CONTROL SECTION	000-17
SERIES NUMBER	3 OF 15	STATE PROJECT	H.012232

SHEET NUMBER 403



STATE OF LOUISIANA
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Nicholas D. Prudhomme
9/23/2022

SHEET NUMBER	404
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17
STATE PROJECT	H.012232
DESIGNED	NDP
CHECKED	CMH
DETAILED	NDP
CHECKED	MFB
SERIES NUMBER	4 OF 15

NO.	DATE	REVISION DESCRIPTION	BY

CROSS SECTIONS (DIJON DRIVE EXTENSION)

LA 3064 TO LA 1248 PHASE II

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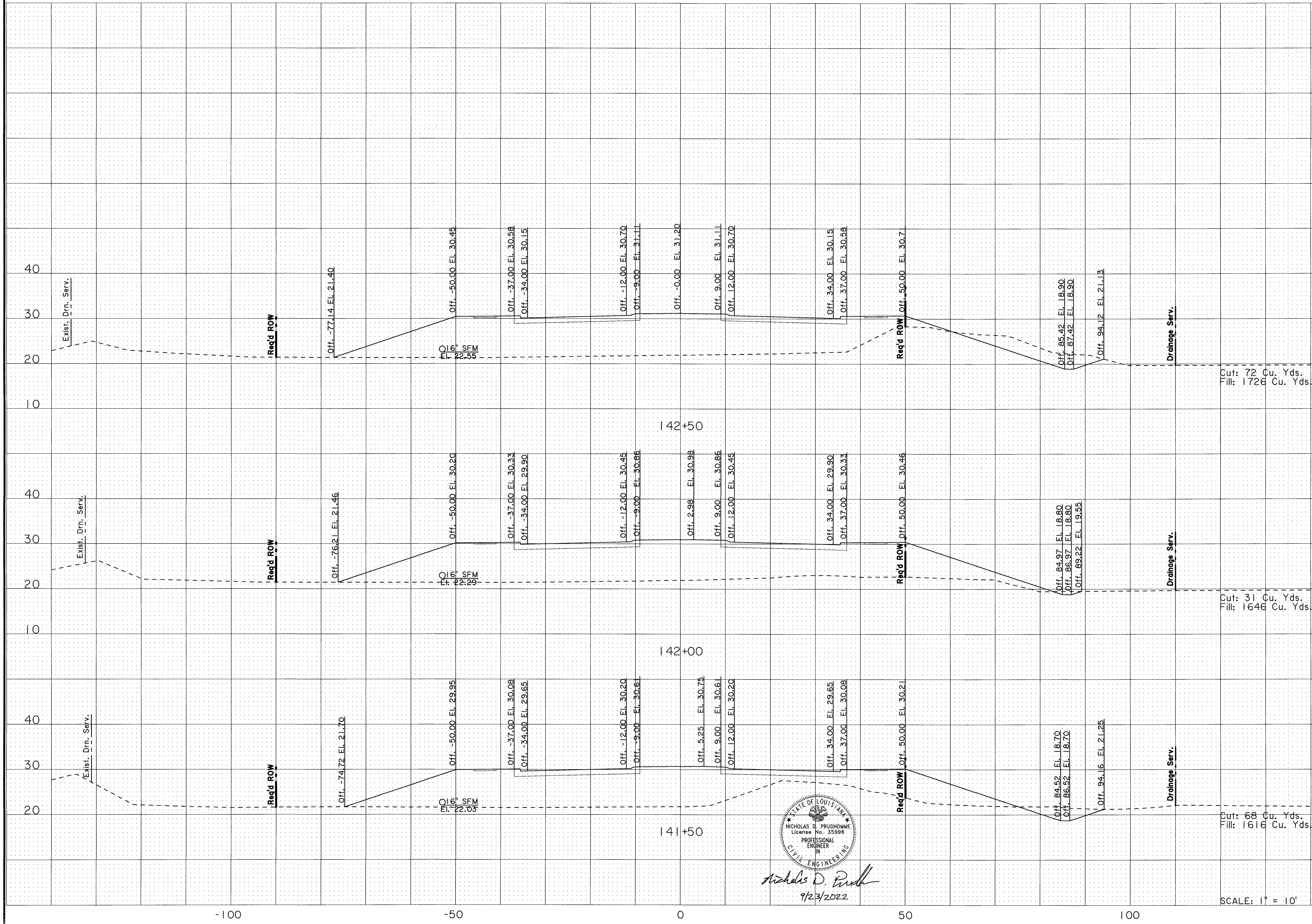

SHEET NUMBER	405
PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17
STATE PROJECT	H.012232
DESIGNED	NDP
CHECKED	CMH
DETAILED	NDP
CHECKED	MFB
SERIES NUMBER	5 OF 15

NO. | DATE | REVISION DESCRIPTION | BY

CROSS SECTIONS (DIJON DRIVE EXTENSION)

LA 3064 TO LA 1248 PHASE II

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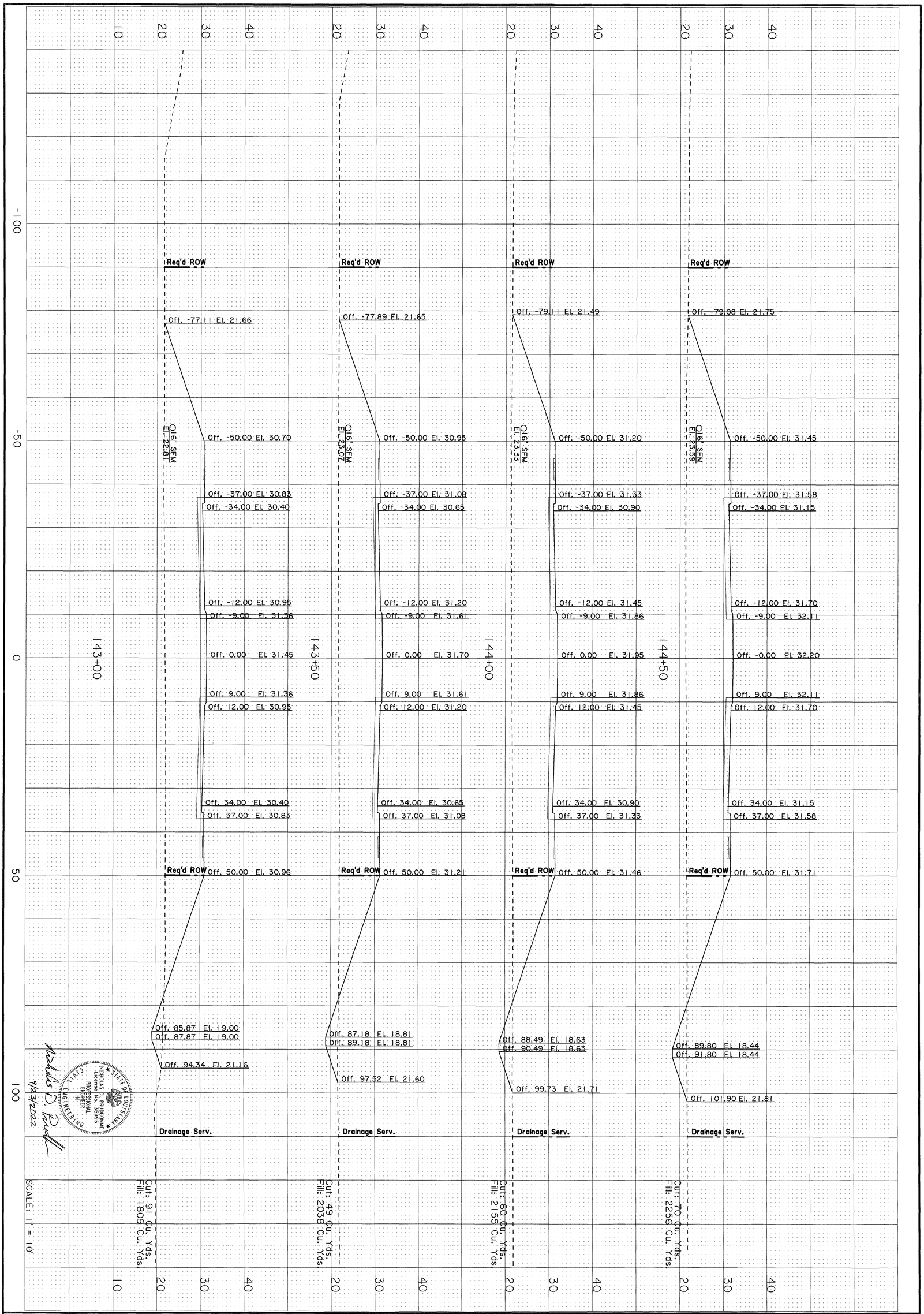

CIVIL ENGINEERING
STATE OF LOUISIANA
NICHOLAS D. PRUDHOMME
License No. 35996
PROFESSIONAL ENGINEER IN
Nicholas D. Prudhomme
9/23/2022

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CROSS SECTIONS (DIJON DRIVE EXTENSION)

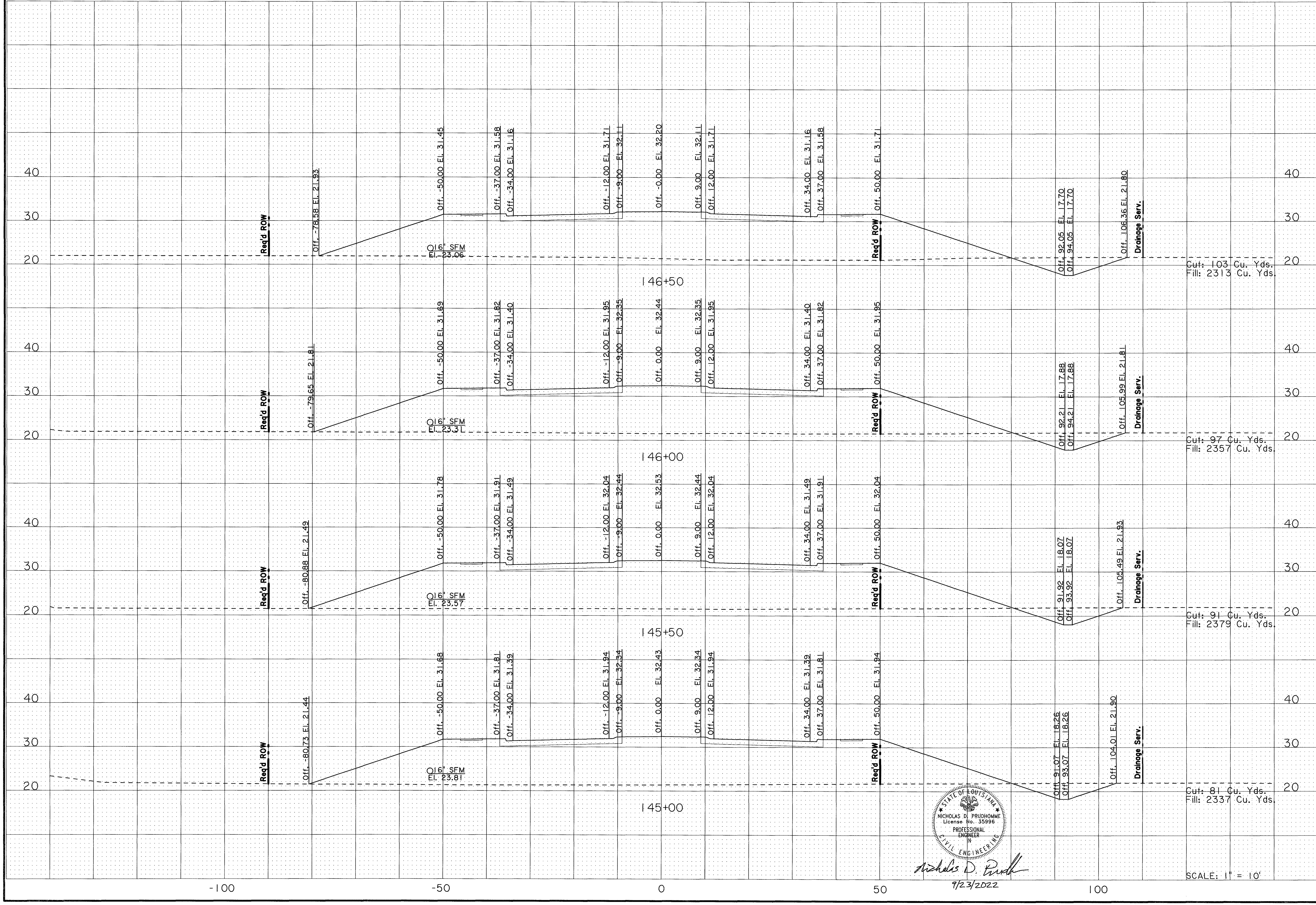
LA 3064 TO LA 1248 PHASE II

STATE OF LOUISIANA

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	NDP / CMH	PARISH	EAST BATON ROUGE
DETAILED / CHECKED	NDP / MFB	CONTROL SECTION	000-17
SERIES NUMBER	6 OF 15	STATE PROJECT	H.012232

SHEET NUMBER 406



SHEET NUMBER 407

PARISH	EAST BATON ROUGE
CONTROL SECTION	000-17
STATE PROJECT	H.012232
DESIGNED	NDP
CHECKED	CMH
DETAILED	NDP
CHECKED	MFB
SERIES NUMBER	7 OF 15

NO.	DATE	REVISION DESCRIPTION	BY

CROSS SECTIONS (DIJON DRIVE EXTENSION)

LA 3064 TO LA 1248 PHASE II

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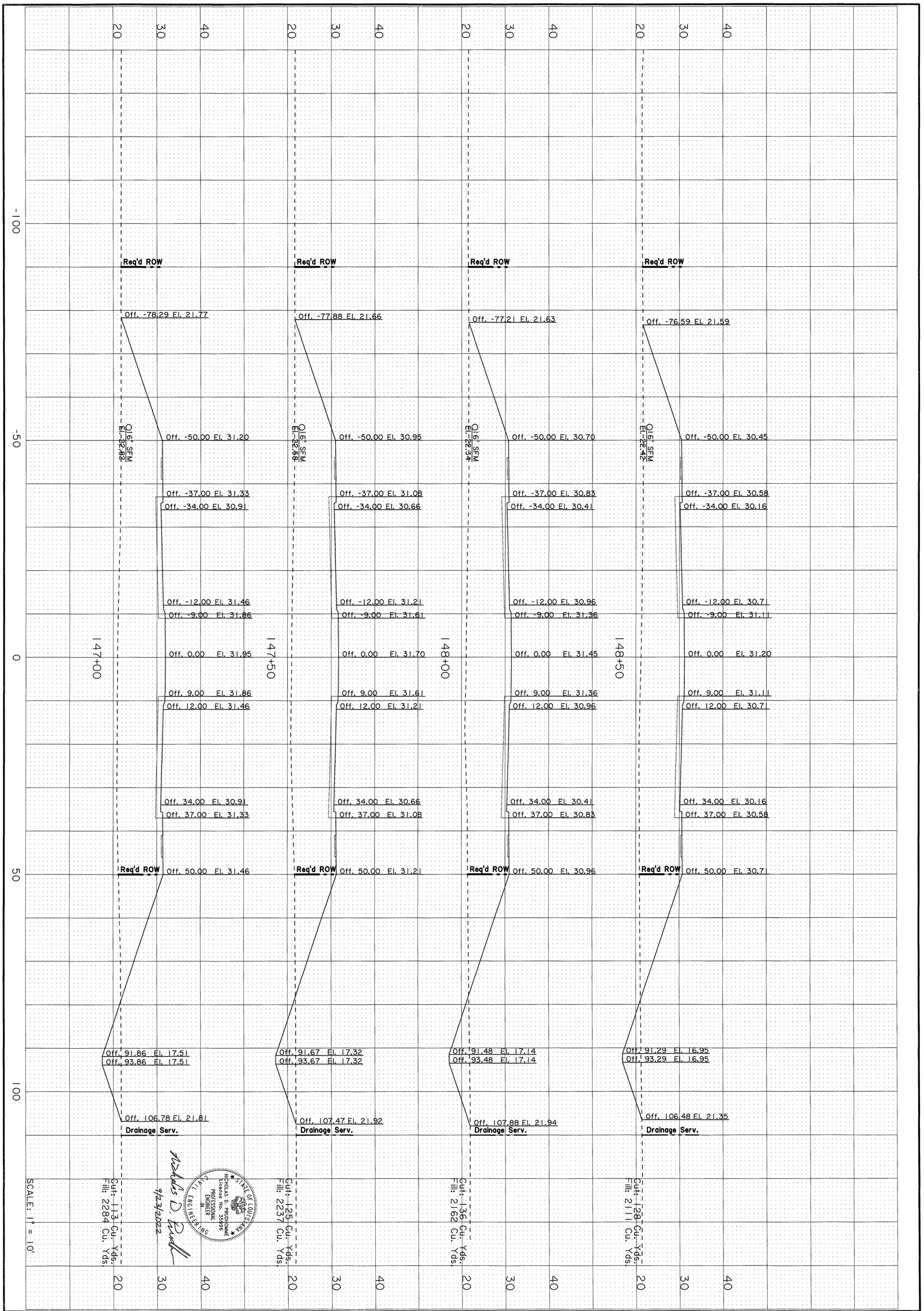

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
NICHOLAS D. PRUDHOMME
LICENSED PROFESSIONAL ENGINEER
STATE OF LOUISIANA
ENGINEERING
9/23/2022

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CROSS SECTIONS (DIJON DRIVE EXTENSION)

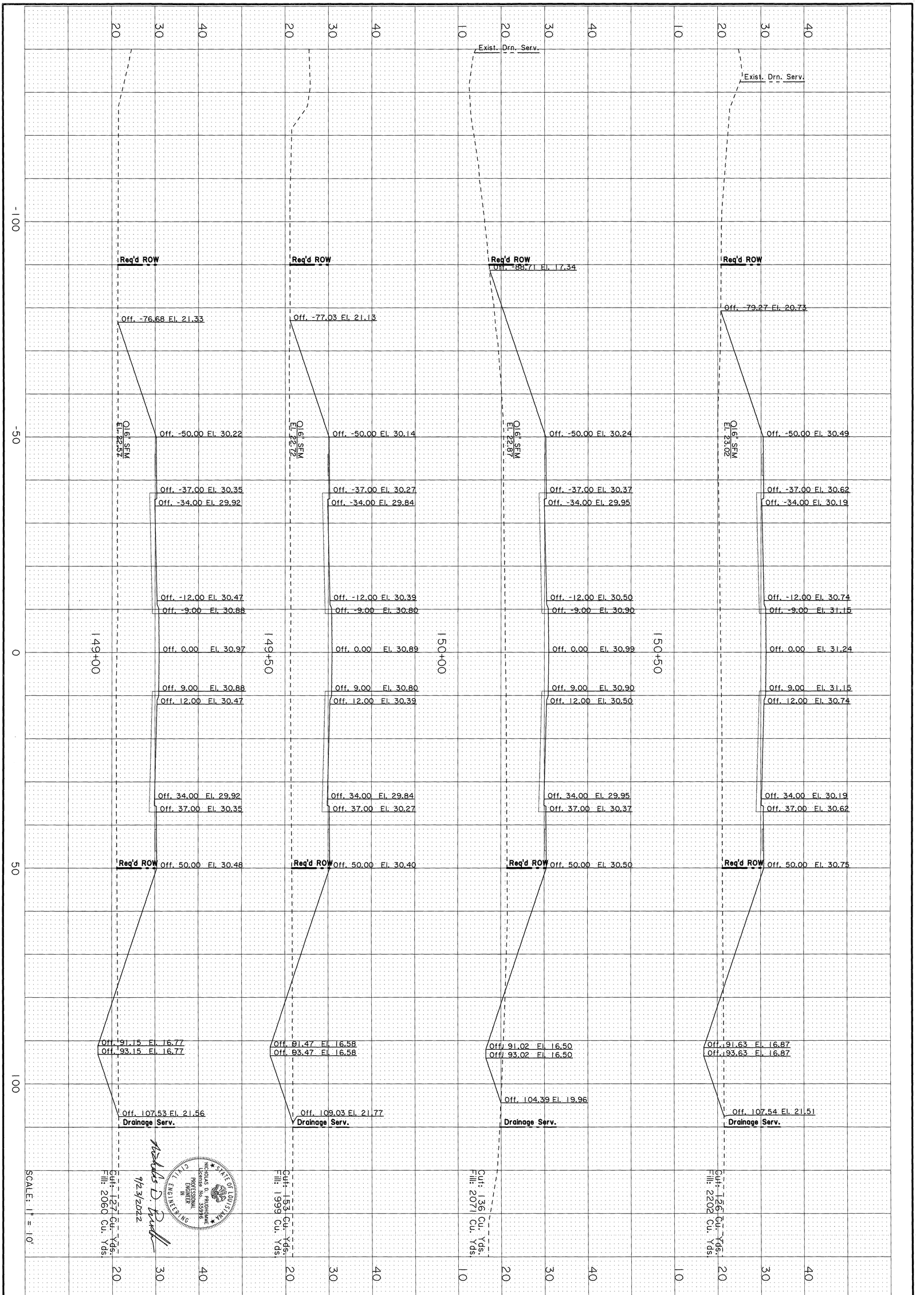
LA 3064 TO LA 1248 PHASE II

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	NDP / CMH	PARISH	EAST BATON ROUGE
DETAILED / CHECKED	NDP / MFB	CONTROL SECTION	000-17
SERIES NUMBER	8 OF 15	STATE PROJECT	H.012232

SHEET NUMBER 408



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CROSS SECTIONS (DIJON DRIVE EXTENSION)

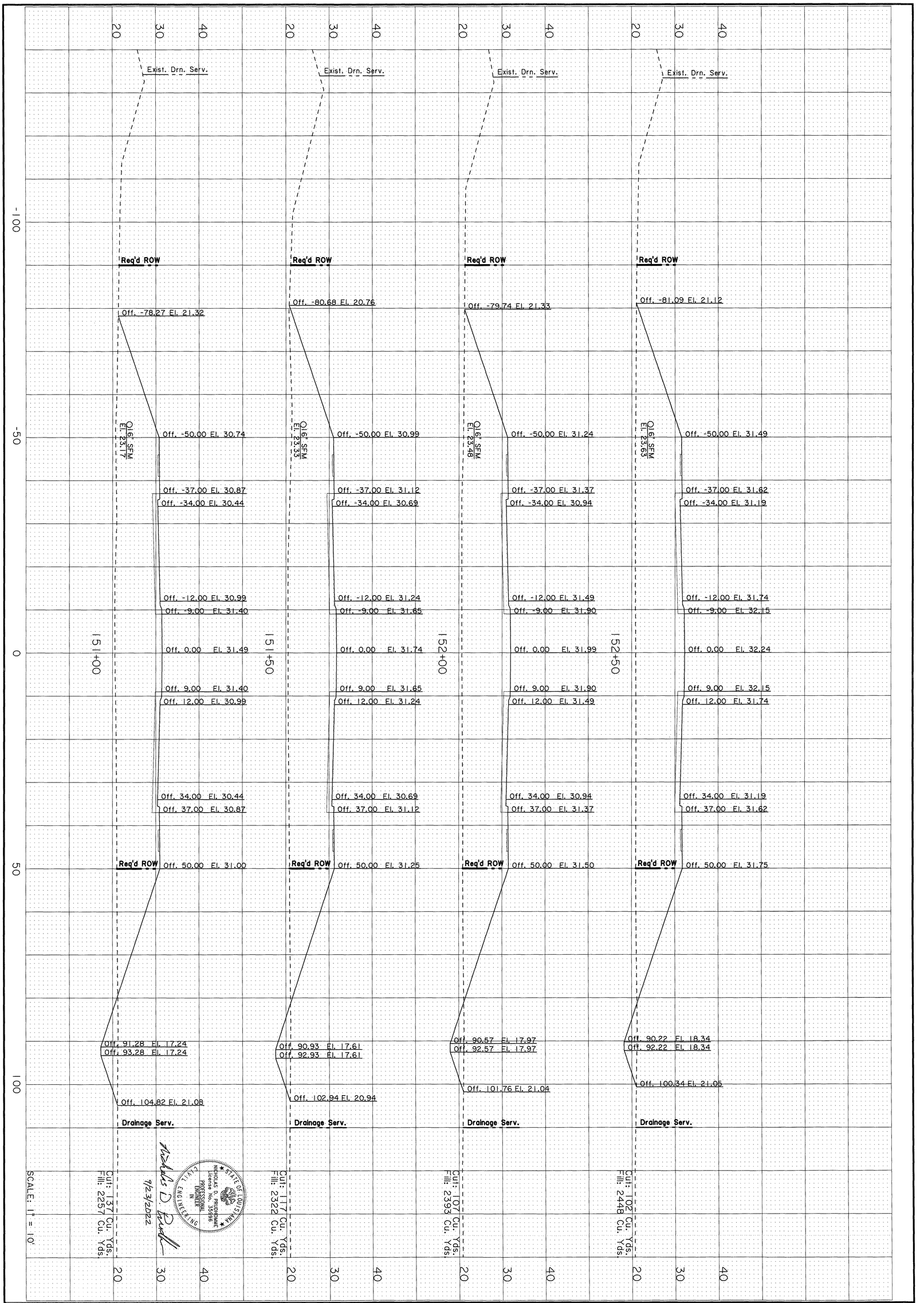
LA 3064 TO LA 1248 PHASE II

STATE OF LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	NDP	PARISH	EAST BATON ROUGE
CHECKED	CMH		
DETAILED	NDP	CONTROL SECTION	000-17
CHECKED	MFB		
SERIES NUMBER	9 OF 15	STATE PROJECT	H.012232

SHEET NUMBER 409



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CROSS SECTIONS (DIJON DRIVE EXTENSION)

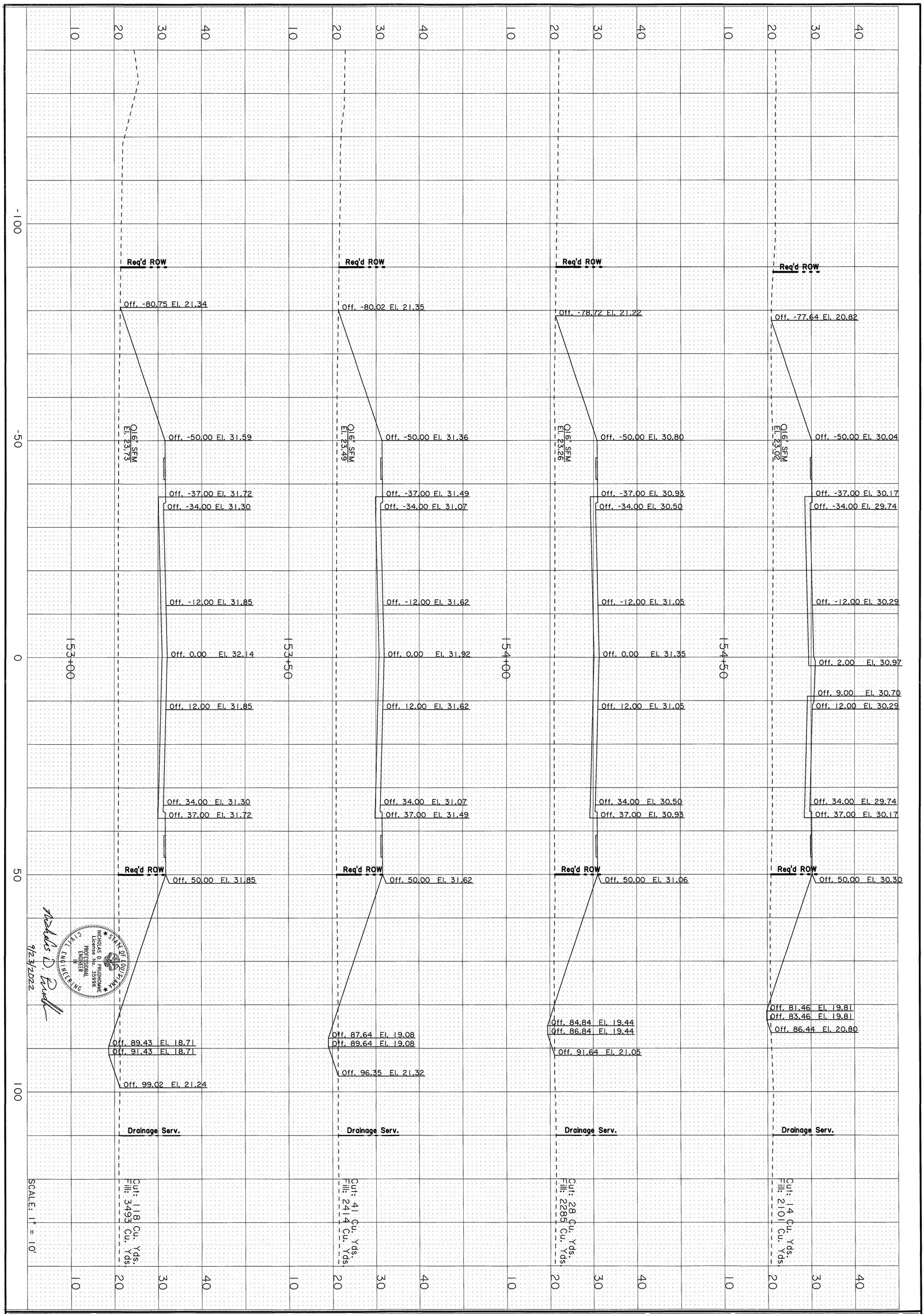
LA 3064 TO LA 1248 PHASE II

STATE OF LOUISIANA

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED	NDP	PARISH	EAST BATON ROUGE
CHECKED	CMH		
DETAILED	NDP	CONTROL SECTION	000-17
CHECKED	MFB		
SERIES NUMBER	10 OF 15	STATE PROJECT	H.012232

SHEET NUMBER 410



NICHOLAS D. PRUDHOMME
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STATE OF LOUISIANA
Nicholas D. Prudhomme
9/23/2022

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CROSS SECTIONS (DIJON DRIVE EXTENSION)

LA 3064 TO LA 1248 PHASE II

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	NDP / CMH	PARISH	EAST BATON ROUGE
DETAILED / CHECKED	NDP / MFB	CONTROL SECTION	000-17
SERIES NUMBER	11 OF 15	STATE PROJECT	H.012232

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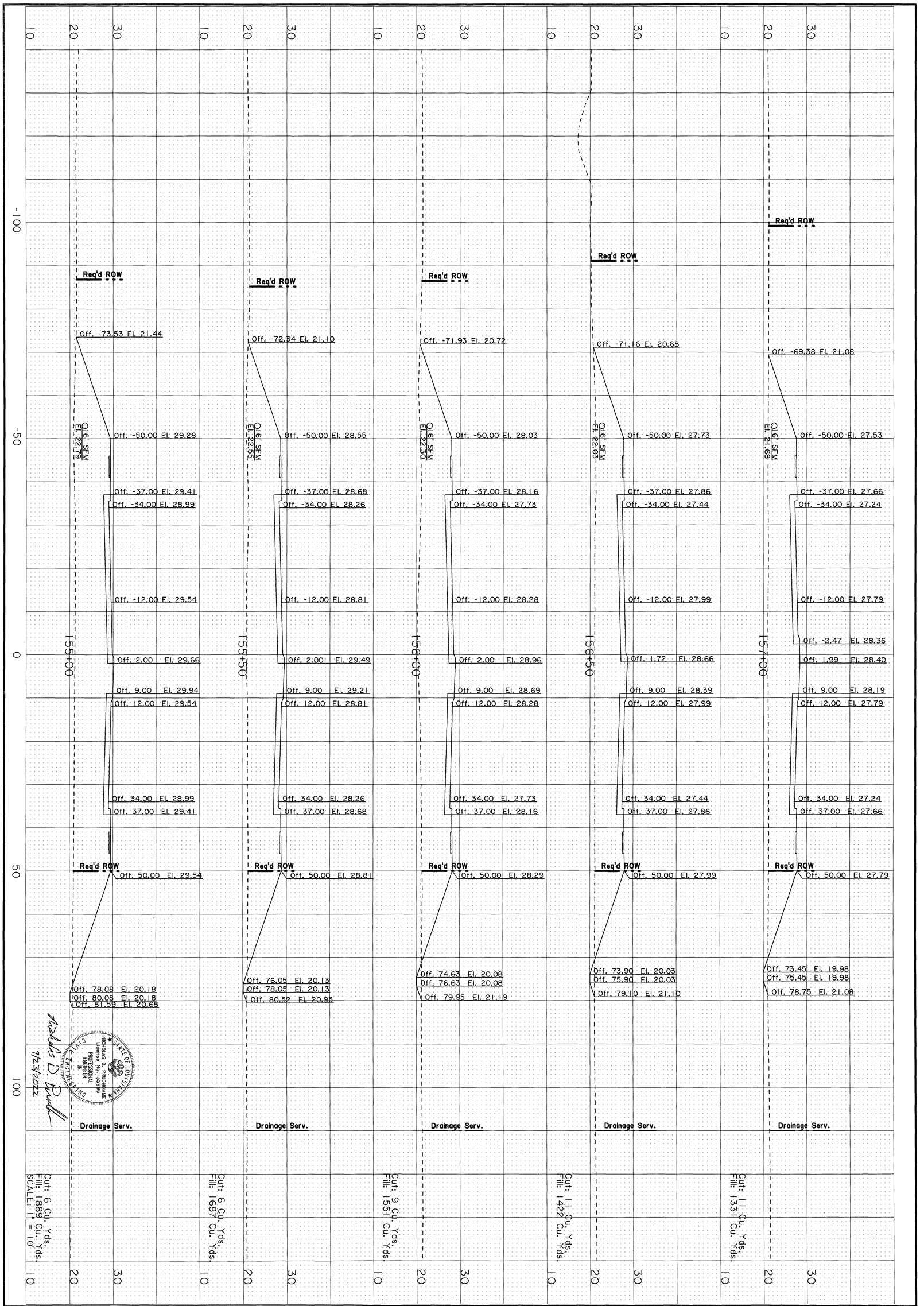

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
NICHOLAS D. PRUDHOMME
LICENSE NO. 35916
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

Nicholas D. Prudhomme
9/23/2022

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CROSS SECTIONS (DIJON DRIVE EXTENSION)

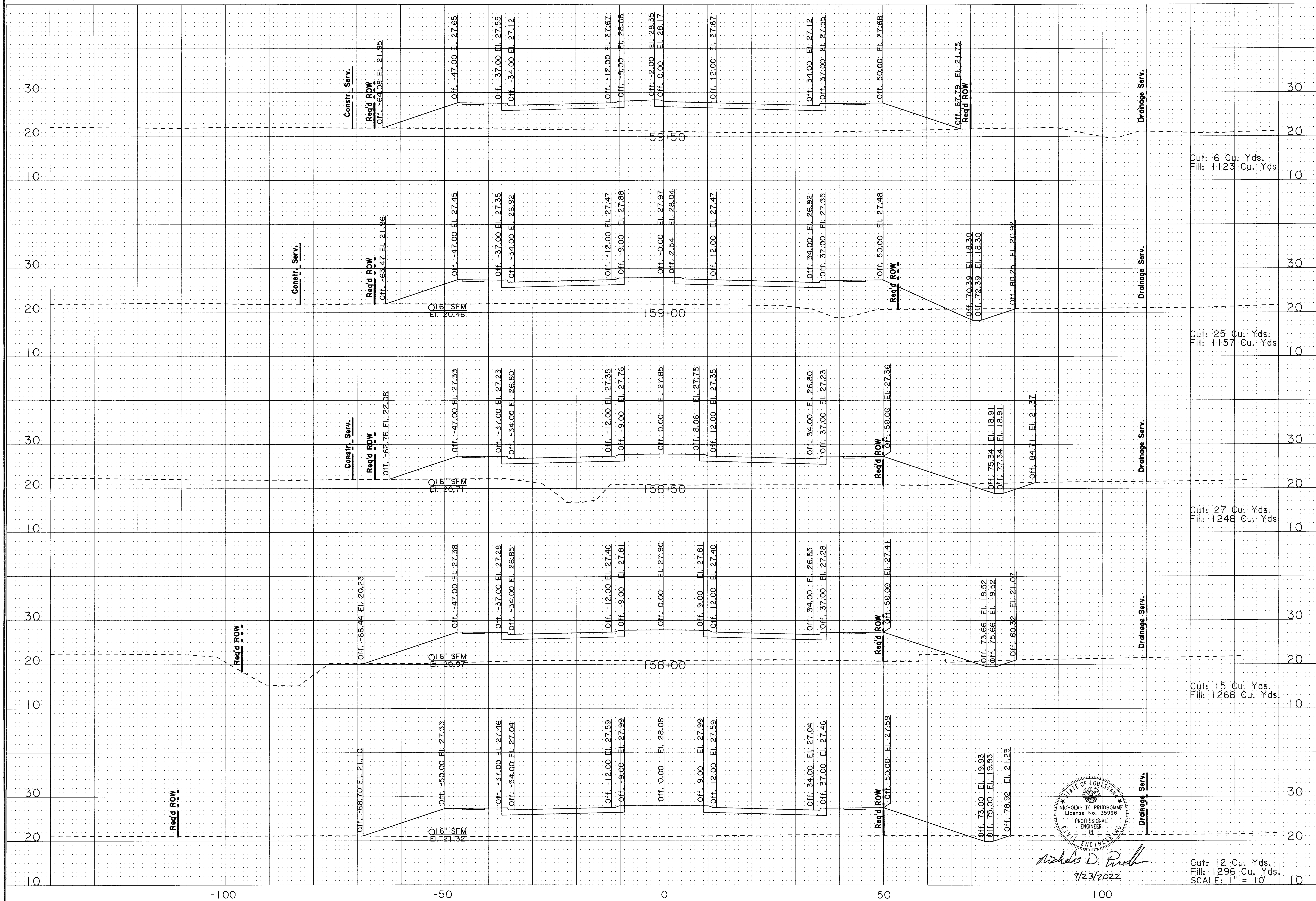
LA 3064 TO LA 1248 PHASE II

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	NDP / CMH	PARISH	EAST BATON ROUGE
DETAILED / CHECKED	NDP / MFB	CONTROL SECTION	000-17
SERIES NUMBER	12 OF 15	STATE PROJECT	H.012232

SHEET NUMBER 412



SHEET NUMBER 413

PARISH: EAST BATON ROUGE

CONTROL SECTION: 000-17

STATE PROJECT: H.012232

DESIGNED: NDP
CHECKED: CMH
DETAILED: NDP
CHECKED: MFB

SERIES NUMBER: 13 OF 15

NO.	DATE	REVISION DESCRIPTION	BY

STATE OF LOUISIANA

STATE OF LOUISIANA
NICHOLAS D. PRUDHOMME
License No. 35996
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

Nicholas D. Prudhomme
9/23/2022

CROSS SECTIONS (DIJON DRIVE EXTENSION)

LA 3064 TO LA 1248 PHASE II

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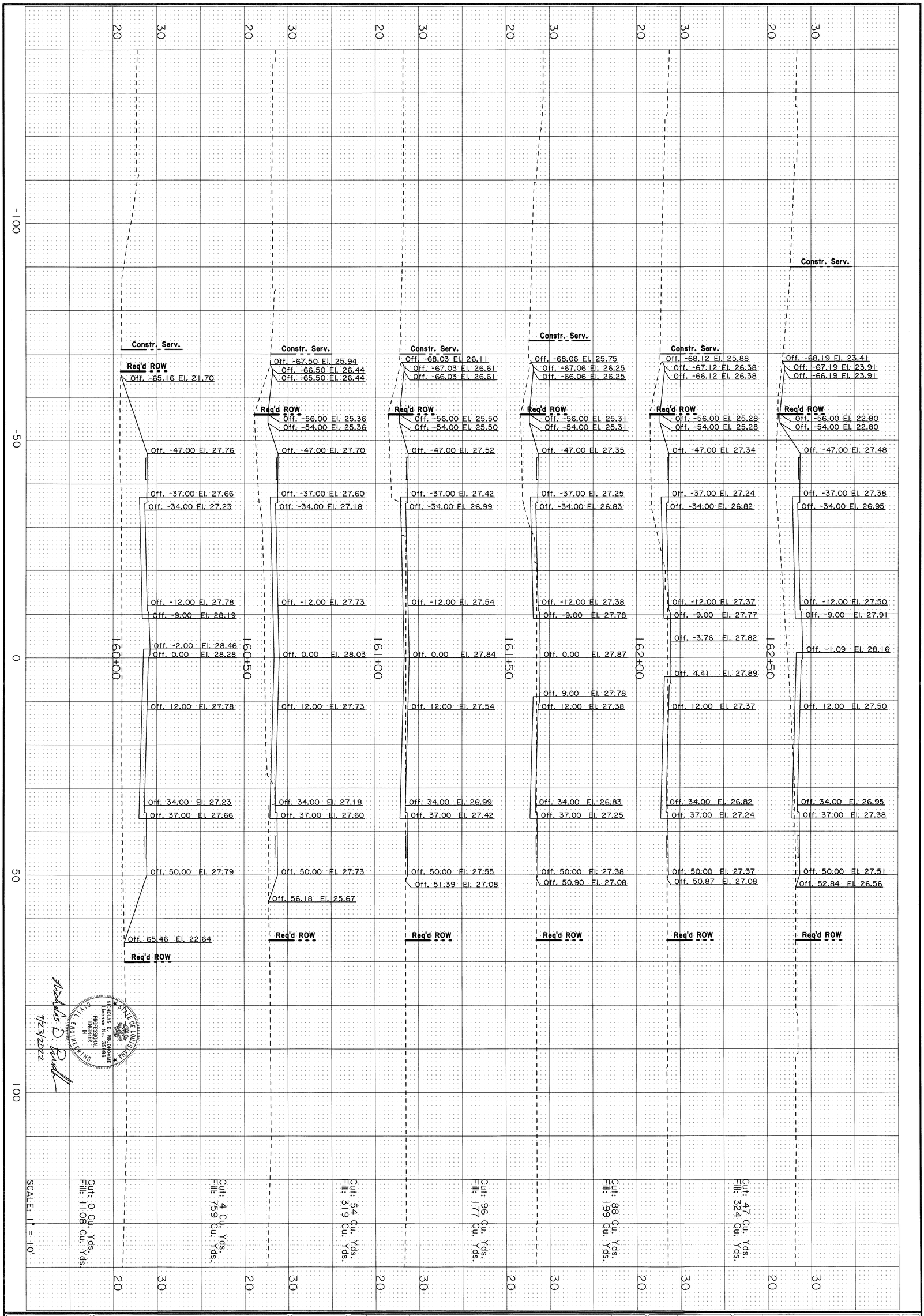

Nicholas D. Prudhomme
9/23/2022

STATE OF LOUISIANA
NICHOLAS D. PRUDHOMME
License No. 35596
PROFESSIONAL ENGINEER IN
CIVIL ENGINEERING

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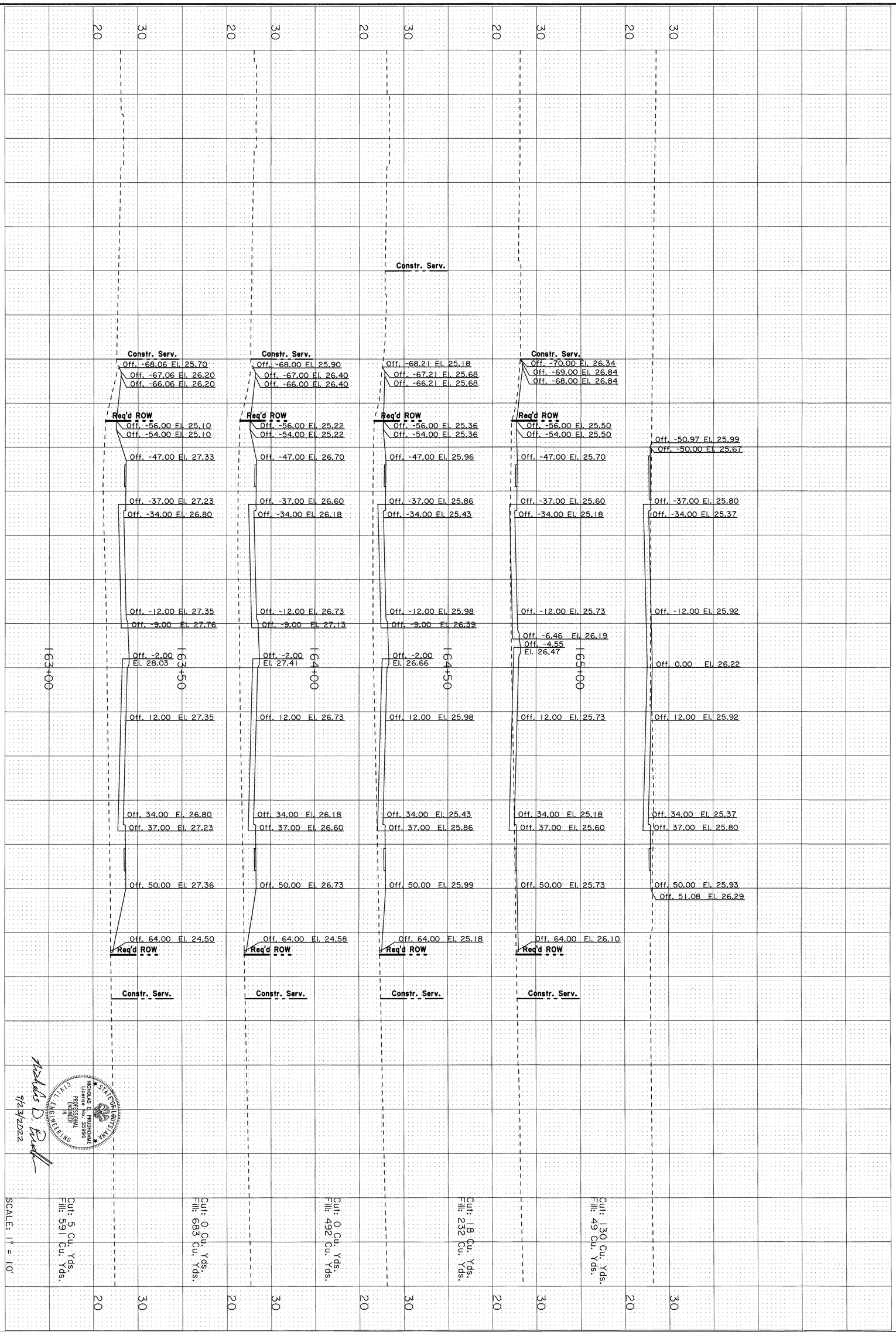
CROSS SECTIONS (DIJON DRIVE EXTENSION)

LA 3064 TO LA 1248 PHASE II

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	NDP / CMH	PARISH	EAST BATON ROUGE
DETAILED / CHECKED	NDP / MFB	CONTROL SECTION	000-17
SERIES NUMBER	14 OF 15	STATE PROJECT	H.012232

SHEET NUMBER 414



STATE OF LOUISIANA
NICHOLAS D. PRUDHOMME
LICENSED PROFESSIONAL ENGINEER
NO. 35996
CIVIL ENGINEERING
9/23/2022

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CROSS SECTIONS (DIJON DRIVE EXTENSION)

LA 3064 TO LA 1248 PHASE II

STATE OF LOUISIANA
DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

NO.	DATE	REVISION DESCRIPTION	BY

DESIGNED / CHECKED	NDP / CMH	PARISH	EAST BATON ROUGE
DETAILED / CHECKED	NDP / MFB	CONTROL SECTION	000-17
SERIES NUMBER	15 OF 15	STATE PROJECT	H.012232

SHEET NUMBER 415

V:\2018\active\201802601\03 disciplines\highway\Phase 2\plan development\drawing\cross sections\dwg_xsec_i10.dgn 31-JUL-2018 10:2

Off.-61.31 Elev.23.64
Off.-42.00 Elev.26.71
Off.-36.00 Elev.28.14
Off.-24.00 Elev.29.07
B/L
EL. 29.19
Cut: 34.00 Cu. Yds.
Fill: 43.52 Cu. Yds.
702+00

Off.-59.28 Elev.24.44
Off.-42.00 Elev.26.96
Off.-36.00 Elev.28.50
Off.-24.00 Elev.29.36
B/L
EL. 29.44
Cut: 17.68 Cu. Yds.
Fill: 18.56 Cu. Yds.
701+50

B/L
EL. 29.65
Cut: 0.00 Cu. Yds.
Fill: 0.00 Cu. Yds.
701+00

20 30 40

-50 -25 0 25 50

SCALE: 1" = 5'

STATE OF LOUISIANA
DENNIS M. PASSMAN
REG. No. 27987
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
07/27/18

SHEET NUMBER 416

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE	258-33	H.012232

DESIGNED	CHECKED	DETAILED	CHECKED	SERIES NUMBER
DMP	JC	DMP	JC	1 OF 3

NO.	DATE	BY	REVISION OR CHANGE ORDER DESCRIPTION

CROSS SECTIONS
(I-10 EASTBOUND EXIT RAMP)
LA 3064 TO LA 1248 PHASE II

DOTD

Stantec

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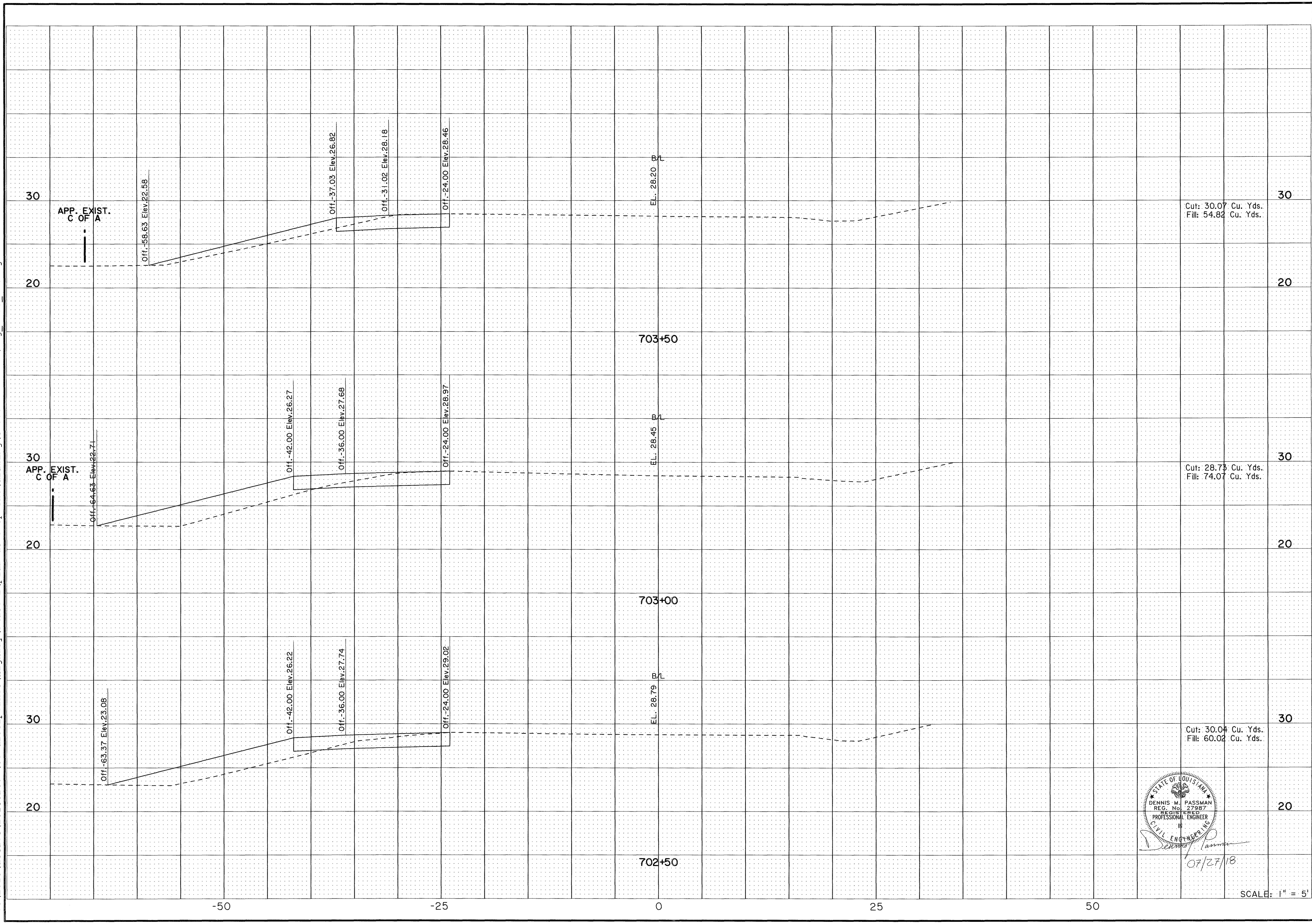
31-JUL-2018 10:28



30
20
APP. EXIST. C OF A
Off.-58.63 Elev.22.58
Off.-37.03 Elev.26.82
Off.-31.02 Elev.28.18
Off.-24.00 Elev.28.46
B/L
EL. 28.20
Cut: 30.07 Cu. Yds.
Fill: 54.82 Cu. Yds.
703+50
APP. EXIST. C OF A
Off.-64.63 Elev.22.71
Off.-42.00 Elev.26.27
Off.-36.00 Elev.27.68
Off.-24.00 Elev.28.97
B/L
EL. 28.45
Cut: 28.73 Cu. Yds.
Fill: 74.07 Cu. Yds.
703+00
Off.-63.37 Elev.23.08
Off.-42.00 Elev.26.22
Off.-36.00 Elev.27.74
Off.-24.00 Elev.29.02
B/L
EL. 28.79
Cut: 30.04 Cu. Yds.
Fill: 60.02 Cu. Yds.
702+50
-50
-25
0
25
50
SCALE: 1" = 5'
STATE OF LOUISIANA
DENNIS M. PASSMAN
REG. No. 27987
REGISTERED PROFESSIONAL ENGINEER
IN CIVIL ENGINEERING
07/27/18

SHEET NUMBER 417

PARISH: EAST BATON ROUGE
CONTROL SECTION: 258-33
STATE PROJECT: H.012232

DESIGNED: DMP
CHECKED: JC
DETAILED: DMP
CHECKED: JC
SERIES NUMBER: 2 OF 3

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

STATE OF LOUISIANA

CROSS SECTIONS
(I-10 EASTBOUND EXIT RAMP)

LA 3064 TO LA 1248 PHASE II

DOTD
Stantec

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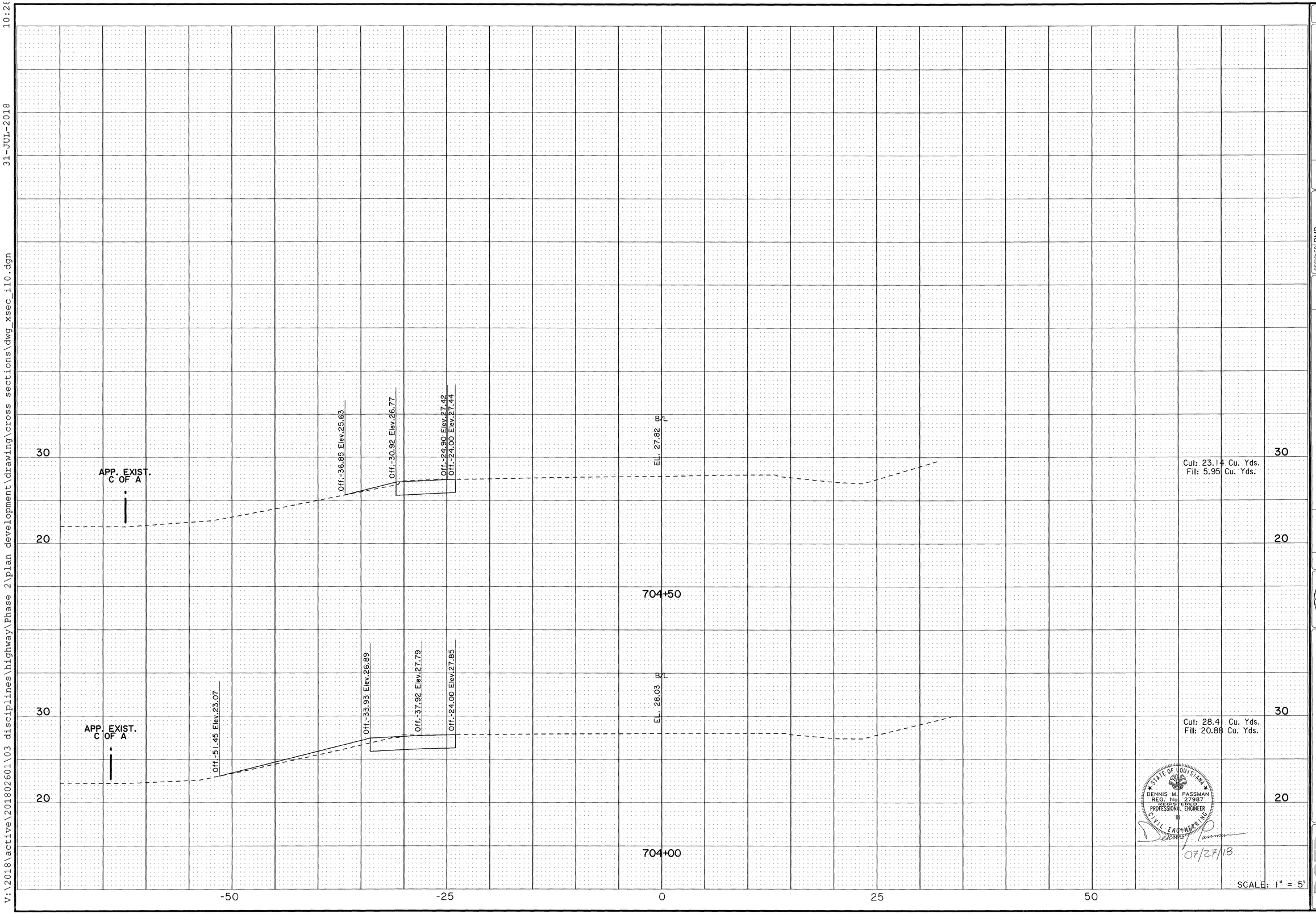

STATE OF LOUISIANA
DENNIS M. PASSMAN
REG. No. 27987
REGISTERED PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
07/27/18

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGNED	DMP
CHECKED	JC
DETAILED	DMP
CHECKED	JC
SERIES NUMBER	3 OF 3
PARISH	EAST BATON ROUGE
CONTROL SECTION	258-33
STATE PROJECT	H.012232
SHEET NUMBER	418

CROSS SECTIONS (I-10 EASTBOUND EXIT RAMP)

LA 3064 TO LA 1248 PHASE II

DOTD

Stantec

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819+00
Off. -18.66 El. 31.56
Off. -2.84 El. 32.30
Off. -1.83 El. 32.55
Off. -18.18 El. 31.54
Off. -2.72 El. 32.19
Off. -0.93 El. 32.64
Cut: 48 Cu. Yds.
Fill: 0 Cu. Yds.

818+50
Off. -18.16 El. 31.47
Off. -2.59 El. 32.09
Off. -0.35 El. 32.65
Cut: 50 Cu. Yds.
Fill: 0 Cu. Yds.

818+00
Off. -16.56 El. 31.47
Off. -0.34 El. 32.08
Off. 0.32 El. 31.91
Cut: 20 Cu. Yds.
Fill: 0 Cu. Yds.

817+79
Cut: 0 Cu. Yds.
Fill: 0 Cu. Yds.

35 30 25 35 30 25 35 30 25 35 30 25 35 30 25

-50 -25 0 25 50

SCALE: 1" = 5'

DENNIS M. PASSMAN
REG. No. 27987
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
07/27/18

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

DESIGNED DMP
CHECKED JC
DETAILED DMP
CHECKED JC
SERIES NUMBER 1 OF 3

PARISH EAST BATON ROUGE
CONTROL SECTION 450-10
STATE PROJECT H.012232

SHEET NUMBER 419

CROSS SECTIONS
(BLUEBONNET BLVD.)

LA 3064 TO LA 1248 PHASE II

Stantec

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821+00

Off. -13.76 El. 31.25
Off. -6.80 El. 31.99
Off. -6.66 El. 31.95
Off. -15.47 El. 31.41
Off. -4.01 El. 32.38
Off. -2.71 El. 32.05

Cut: 23 Cu. Yds.
Fill: 0 Cu. Yds.

820+50

Off. -16.22 El. 31.40
Off. 0.90 El. 32.55
Off. 1.81 El. 32.32

Cut: 35 Cu. Yds.
Fill: 0 Cu. Yds.

820+00

Off. -17.64 El. 31.46
Off. -1.24 El. 32.35
Off. -0.76 El. 32.23

Cut: 43 Cu. Yds.
Fill: 0 Cu. Yds.

819+50

Cut: 46 Cu. Yds.
Fill: 0 Cu. Yds.

35
30
25

-50 -25 0 25 50

SCALE: 1" = 5'

STATE OF LOUISIANA
DENNIS M. PASSMAN
REG. No. 27987
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
07/27/18

SHEET NUMBER	420
PARISH	EAST BATON ROUGE
CONTROL SECTION	450-10
STATE PROJECT	H.012232
DESIGNED	DMP
CHECKED	JC
DETAILED	DMP
CHECKED	JC
SERIES NUMBER	2 OF 3

NO.	DATE	REVISION OR CHANGE ORDER DESCRIPTION	BY

CROSS SECTIONS
(BLUEBONNET BLVD.)
LA 3064 TO LA 1248 PHASE II

BOYD
Stantec

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822+95

Off. -4.15 El. 30.52
Off. -1.4 El. 30.96
Off. 1.70 El. 31.11

Cut: 9 Cu. Yds.
Fill: 1 Cu. Yds.

822+50

Off. -7.81 El. 30.72
Off. -2.64 El. 31.32
Off. -2.31 El. 31.41

Cut: 15 Cu. Yds.
Fill: 0 Cu. Yds.

822+00

Off. -10.22 El. 30.86
Off. -3.99 El. 31.57
Off. -3.88 El. 31.55

Cut: 17 Cu. Yds.
Fill: 0 Cu. Yds.

821+50

Off. -12.51 El. 31.01
Off. -5.53 El. 31.78
Off. 5.05 El. 31.66

Cut: 18 Cu. Yds.
Fill: 0 Cu. Yds.

35
30
25

-50 -25 0 25 50

SCALE: 1" = 5'

STATE OF LOUISIANA
DENNIS M. PASSMAN
REG. No. 27987
REGISTERED
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
Dennis Passman
07/27/18

SHEET NUMBER	421
PARISH	EAST BATON ROUGE
CONTROL SECTION	450-10
STATE PROJECT	H.012232
DESIGNED	DMP
CHECKED	JC
DETAILED	DMP
CHECKED	JC
SERIES NUMBER	3 OF 3

REVISION OR CHANGE ORDER DESCRIPTION | NO. | DATE | BY

CROSS SECTIONS
(BLUEBONNET BLVD.)

LA 3064 TO LA 1248 PHASE II

BOYD

Stantec