INDEX TO SHEETS

CITY OF BATON ROUGE
AND
PARISH OF EAST BATON ROUGE

DEPARTMENT OF TRANSPORTATION AND DRAINAGE
ENGINEERING DIVISION

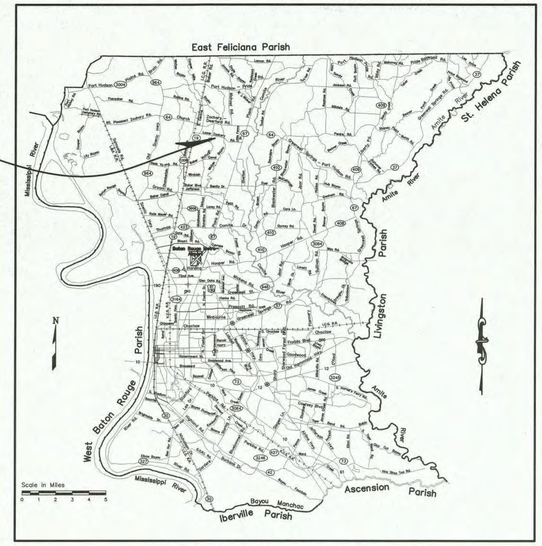
PLANS OF PROPOSED

McHUGH ROAD IMPROVEMENTS NORTH PHASE A

EAST BATON ROUGE PARISH

CITY PARISH PROJECT No. 19-CP-HC-0039A

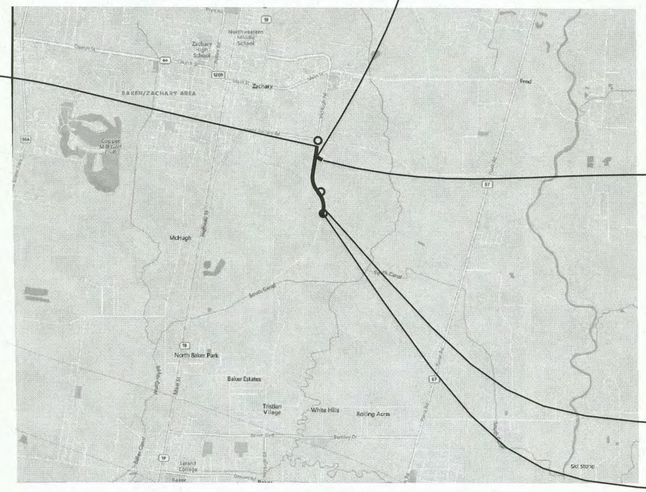
PROJECT LOCATION



VICINITY MAP

STA. 50+24.13 BEGIN
SHAW CEMETERY ROAD

STA. 232+39.94 END NORTH PHASE A
McHUGH ROAD IMPROVEMENTS



STA. 51+49.42 END
SHAW CEMETERY ROAD

EQUATION: (–2.65')
STA. 202+28.44 (LB)=
STA. 202+31.09 (LA)

BEGIN PHASE A
STA. 201+59.95

LAYOUT MAP

SCALE: 1 INCH = 4,000' FEET
0 4,000' 8,000' 12,000' 16,000'

ROADWAY CLASSIFICATION:
COLLECTOR (35 MPH DESIGN SPEED)

TYPE OF CONSTRUCTION:
GRADING, EARTH WORK, DRAINAGE STRUCTURES, SUB–SURFACE DRAINAGE, BASE COURSE, ASPHALTIC CONCRETE PAVEMENT

NOTE:
THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, CITY OF BATON ROUGE AND PARISH OF EAST BATON ROUGE, LOUISIANA, 1997 EDITION, AS AMENDED BY THE PROJECT SPECIFICATIONS, SHALL GOVERN ON THIS PROJECT.

LOUISIANA ONE CALL (811)
LOUISIANA LAW REQUIRES A MINIMUM OF 48 HOURS NOTICE TO UNDERGROUND UTILITY OWNERS BEFORE PERFORMING ANY DIGGING OR DEMOLITION AS REQUIRED BY THE "LOUISIANA UNDERGROUND UTILITIES AND FACILITIES DAMAGE PREVENTION LAW". CONTRACTORS SHALL CONTACT LOUISIANA ONE CALL AT 811 OR 1–800–272–3020.

DATUM:
VERTICAL–NAVD 88; FLORIDA 26 E.B.R. PARISH HORIZONTAL–NAD 83

REFERENCE BENCHMARK:
ALL ELEVATIONS SHOWN IN THESE PLANS REFERENCED TO E.B.R.P. BENCHMARK FLORIDA 26, A BRASS DISK SET IN CONCRETE LOCATED AT FLORIDA GAS TRANSMISSION COMPANY AND STAMPED FLORIDA 26. TO CONVERT FROM E.B.R.P. DATUM TO NAVD 88 (GEOID 18) APPLY –0.84 FEET TO ALL ELEVATIONS

LENGTH OF PROJECT

PROJECT NUMBER	DESCRIPTION	ALGEBRAIC SUM OF ALL EQUATIONS	GROSS LENGTH	EXCEPTION	BRIDGE LENGTH		ROADWAY LENGTH	
	STA TO STA	FEET	FEET	FEET	FEET	MILES	FEET	MILES
19–CP–HC–0039A	201+59.95 TO 232+39.94	3077.34	3077.34		0		3077.34	0.5828
	50+24.13 TO 51+49.42	125.29	125.29		0		125.29	0.0237
	TOTAL LENGTH OF BRIDGES							
	TOTAL LENGTH OF ROADWAY						3202.63	0.6065
	TOTAL MILES				0.6065			

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

RECOMMENDED FOR APPROVAL
DESIGN ENGINEER
DATE: 5-9-2024

RECOMMENDED FOR APPROVAL
MOVEBR PROGRAM MANAGER
DATE: 5/9/24

RECOMMENDED FOR APPROVAL
Cyndi Hennigan
CHIEF TRAFFIC ENGINEER
DATE: 5/10/24

RECOMMENDED FOR APPROVAL
CHIEF DESIGN & CONSTRUCTION ENGINEER
DATE: 5/8/24

APPROVED
DIRECTOR OF DEPARTMENT OF TRANSPORTATION & DRAINAGE, DIV. OF ENGINEERING
DATE: 5-13-24

SHEET NUMBER 1
PARISH EAST BATON ROUGE PARISH
CITY BATON ROUGE
PROJECT 19–CP–HC–0039A
DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 1
REVISION DESCRIPTION BY
No. DATE

MOVEBR

TITLE SHEET

MCHUGH ROAD IMPROVEMENTS - NORTH PHASE A

BR CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

CSRS

P:\22058\MoveBR\Drawings\Final Plans – North A\ FP–001 Title Sheet.dwg May 09, 2024 – 9:57am

Scale: 1"=500

① **CURVE DATA**
PROJECT ADOPTED
P.I. STA. 210+91.43
Δ = 44°06'30" Rt.
D = 4°30'00"
T = 515.82'
L = 980.19'
R = 1273.24'

② **CURVE DATA**
PROJECT ADOPTED
P.I. STA. 228+91.76
Δ = 1°22'27" Lt.
D = 0°30'00"
T = 137.42'
L = 274.83'
R = 11,459.20'

STA. 232+39.94 END NORTH PHASE A
McHUGH ROAD IMPROVEMENTS
C.P. No. 19-CP-HC-0039A

STA. 201+59.95 BEGIN NORTH PHASE A
McHUGH ROAD IMPROVEMENTS
C.P. No. 19-CP-HC-0039A

STA. 50+13.13 BEGIN
SHAW CEMETERY ROAD
= STA. 226+07.90
McHUGH ROAD

190+00

P.T. 202+28.44 (LB)
STA. 202+31.09 (AH)
EQ. = (-2.65')

N 35°29'23" W
344.52'

P.C. 205+75.61

① P.T. 215+55.80

N 08°37'07" E
1198.54'

P.C. 227+54.34

② P.T. 230+29.17

N 7°14'40" E
370.20'

SHAW CEMETERY RD.

LOWER ZACHARY ROAD

STA. 51+49.42 END
SHAW CEMETERY ROAD

OLD McHUGH ROAD

PROPOSED McHUGH ROAD

CANAL

SOUTH

N 19°22'48" E
7935.97'

WIMBISH DRIVE

N 08°17'23" E
826.69'

NOTES:

SEE SHEETS 15 – 17
FOR CONTROL POINTS.

*

REFERENCE PLANS:

COMITE RIVER BASIN, COMITE RIVER DIVERSION
PROJECT MCHUGH ROAD BRIDGE
Solicitation: W912P8-20-B-0054
Issue Date: JULY 2020

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
CIVIL
5-9-2024

SHEET NUMBER 1a

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 1a

No.	DATE	REVISION DESCRIPTION	BY
XXX			

PROJECT LAYOUT

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

MOVEBR

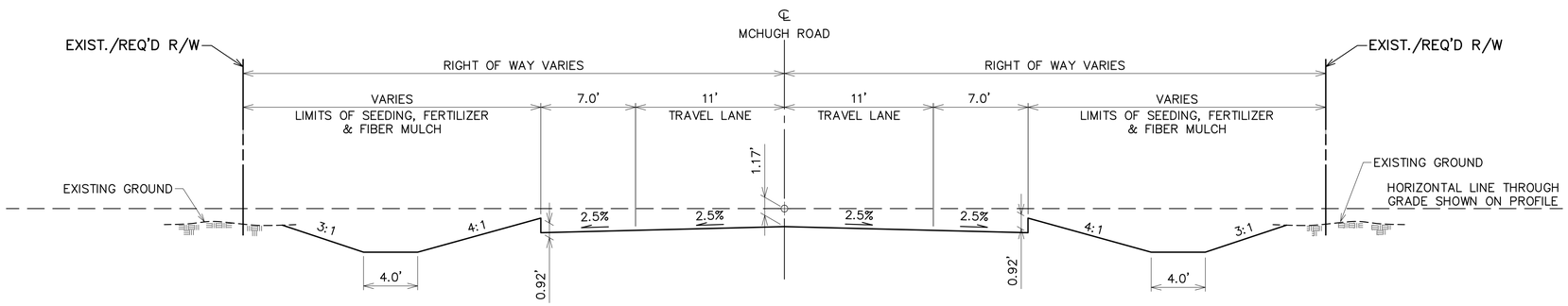
CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

CSRS

P:\22058\MoveBR\Drawings\final plans – north a\ FP-001a Project Layout.dwg May 29, 2024 – 10:01am

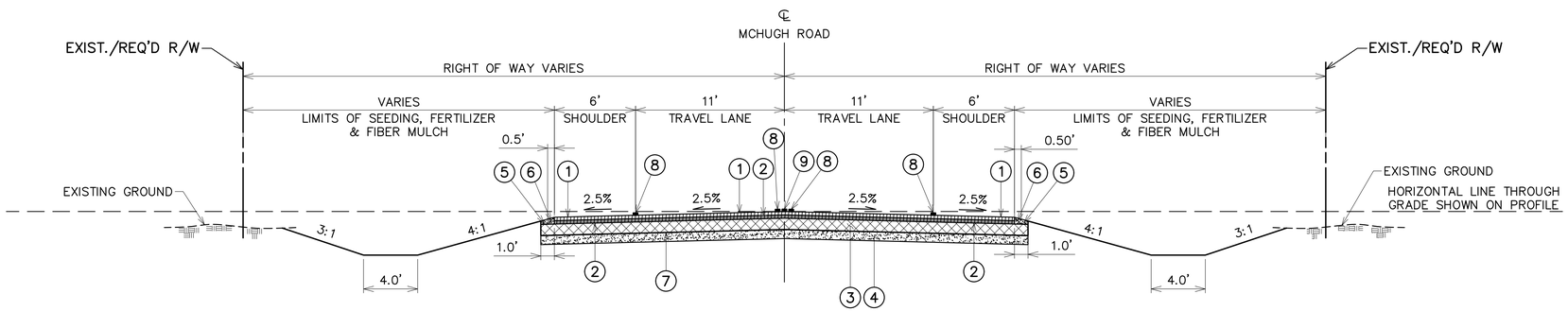
GENERAL NOTES:

1. THE GRADING SECTION TO BE USED AT ANY PARTICULAR LOCATION SHALL BE AS SHOWN ON CROSS–SECTIONS UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER.
2. ALL DIMENSIONS SHOWN ARE DESIGN DIMENSIONS AND WILL BE FOLLOWED TO THE NEAREST PRACTICAL LIMITS IN THE FIELD AS DETERMINED BY THE PROJECT ENGINEER IF TOLERANCES ARE NOT OTHERWISE SPECIFIED.
3. ALL DIMENSIONS SHOWN ON TYPICAL SECTIONS ARE COMPACTED DIMENSIONS.
4. THE ROLL UP OF GEOTEXTILE FABRIC IS INCLUDED IN THE QUANTITY SHEET.



MCHUGH ROAD
TYPICAL GRADING SECTION (N.T.S.)
APPLIES STA. 202+96 TO 212+55

1. 2" ASPHALTIC CONCRETE BINDER COURSE LEVEL 2
2. 2" ASPHALTIC CONCRETE BINDER COURSE LEVEL 2
3. 10" STONE BASE COURSE
4. TYPE D SUBGRADE TREATMENT (8" THICK) (AS DIRECTED BY THE PROJECT ENGINEER)
5. EMBANKMENT MATERIAL
6. SHOULDER WEDGE
7. TYPE D GEOTEXTILE FABRIC
8. PLASTIC TRAFFIC STRIPING (4" WIDE)
9. RAISED PAVEMENT MARKERS



MCHUGH ROAD
TYPICAL FINISHED SECTION (N.T.S.)
APPLIES STA. 202+96 TO 212+55

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN ENGINEERING
5-9-2024

SHEET NUMBER 2

PARISH	CITY	PROJECT
EAST BATON ROUGE PARISH	BATON ROUGE	19-CP-HC-0039A

DESIGNED	DETAILED	DATE	SHEET
CSRS	CSRS	05/09/2024	2
CHECKED	CHECKED		
CSRS	CSRS		

No.	DATE	REVISION DESCRIPTION	BY

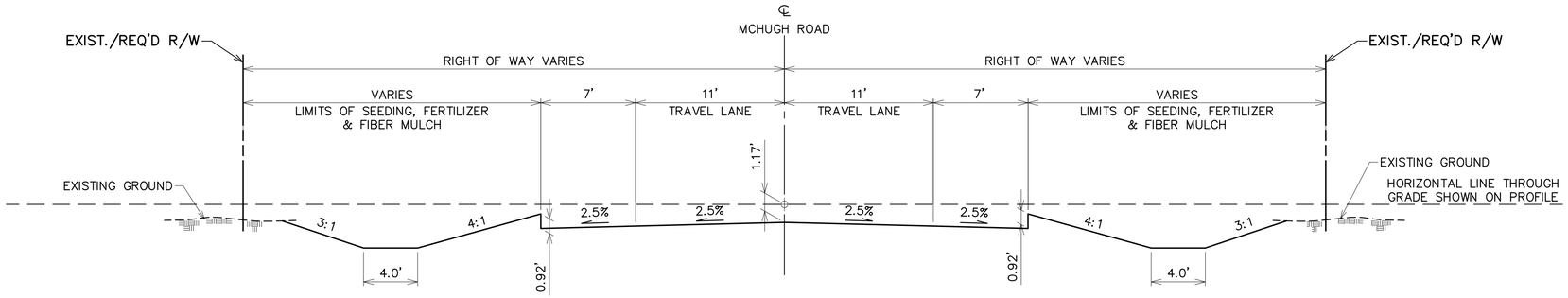
TYPICAL SECTIONS

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

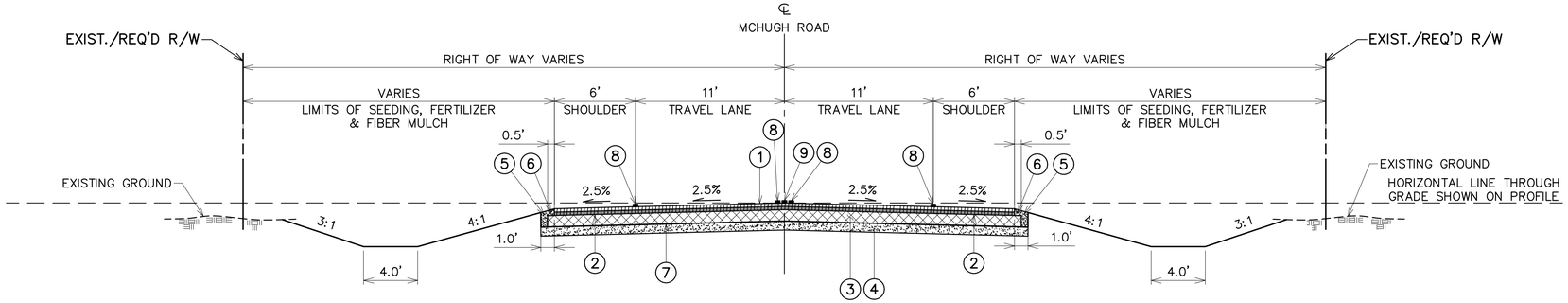
CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

CSRS

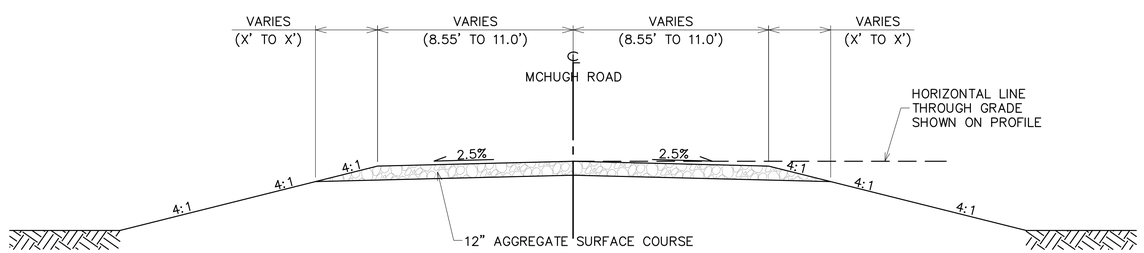
P:\22058\MoveBR\Drawings\final plans – north a\ FP–002 Typical Road Section – McHugh Rd 202+28 to 212+55.dwg May 29, 2024 – 10:01am



MCHUGH ROAD
TYPICAL GRADING SECTION (N.T.S.)
APPLIES STA. 212+55 – 232+39.94



MCHUGH ROAD
TYPICAL FINISHED SECTION (N.T.S.)
APPLIES STA. 212+55 – 232+39.94



MCHUGH ROAD
TYPICAL AGGREGATE SURFACE COURSE SECTION (N.T.S.)
APPLIES STA. 201+59.95 TO 202+96

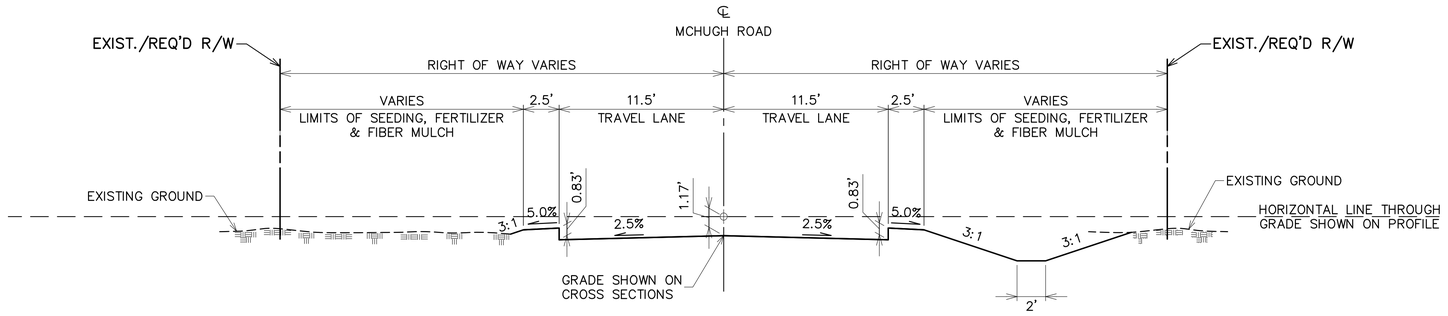
GENERAL NOTES:

1. THE GRADING SECTION TO BE USED AT ANY PARTICULAR LOCATION SHALL BE AS SHOWN ON CROSS–SECTIONS UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER.
2. ALL DIMENSIONS SHOWN ARE DESIGN DIMENSIONS AND WILL BE FOLLOWED TO THE NEAREST PRACTICAL LIMITS IN THE FIELD AS DETERMINED BY THE PROJECT ENGINEER IF TOLERANCES ARE NOT OTHERWISE SPECIFIED.
3. ALL DIMENSIONS SHOWN ON TYPICAL SECTIONS ARE COMPACTED DIMENSIONS.
4. THE ROLL UP OF GEOTEXTILE FABRIC IS INCLUDED IN THE QUANTITY SHEET.

(1) 2" ASPHALTIC CONCRETE BINDER COURSE LEVEL 2
(2) 2" ASPHALTIC CONCRETE BINDER COURSE LEVEL 2
(3) 10" STONE BASE COURSE
(4) TYPE D SUBGRADE TREATMENT (8" THICK) (AS DIRECTED BY THE PROJECT ENGINEER)
(5) EMBANKMENT MATERIAL
(6) SHOULDER WEDGE
(7) TYPE D GEOTEXTILE FABRIC
(8) PLASTIC TRAFFIC STRIPING (4" WIDE)
(9) RAISED PAVEMENT MARKERS

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN ENGINEERING
5-9-2024

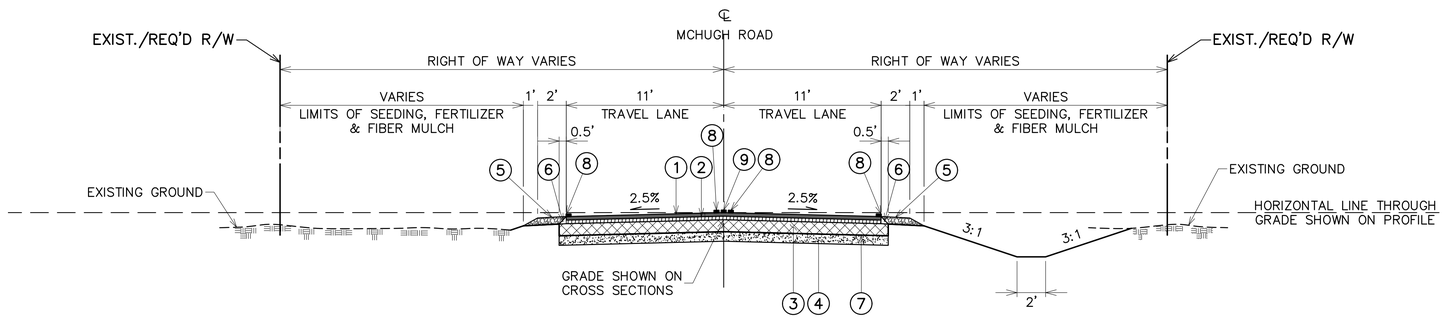
SHEET NUMBER 2a
PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A
DESIGNED: CSRS
CHECKED: CSRS
DETAILED: CSRS
CHECKED: CSRS
DATE: 05/09/2024
SHEET: 2a
REVISION DESCRIPTION BY
No. DATE
MOVEBR
TYPICAL SECTIONS
McHUGH ROAD IMPROVEMENTS – NORTH PHASE A
CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE
CSRS



SHAW CEMETERY ROAD
TYPICAL GRADING SECTION (N.T.S.)
APPLIES STA. 50+24.14 TO 51+49.42

GENERAL NOTES:

1. THE GRADING SECTION TO BE USED AT ANY PARTICULAR LOCATION SHALL BE AS SHOWN ON CROSS-SECTIONS UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER.
2. ALL DIMENSIONS SHOWN ARE DESIGN DIMENSIONS AND WILL BE FOLLOWED TO THE NEAREST PRACTICAL LIMITS IN THE FIELD AS DETERMINED BY THE PROJECT ENGINEER IF TOLERANCES ARE NOT OTHERWISE SPECIFIED.
3. ALL DIMENSIONS SHOWN ON TYPICAL SECTIONS ARE COMPACTED DIMENSIONS.
4. THE ROLL UP OF GEOTEXTILE FABRIC IS INCLUDED IN THE QUANTITY SHEET.



SHAW CEMETERY ROAD
TYPICAL GRADING SECTION (N.T.S.)
APPLIES STA. 50+24.14 TO 51+49.42

1. 2" ASPHALTIC CONCRETE WEARING COURSE LEVEL 2F
2. 2" ASPHALTIC CONCRETE BINDER COURSE LEVEL 2
3. 10" STONE BASE COURSE
4. TYPE D SUBGRADE TREATMENT (8" THICK) (AS DIRECTED BY THE PROJECT ENGINEER)
5. 4" AGGREGATE SURFACE COURSE (SHOULDER)
6. SHOULDER WEDGE
7. TYPE D GEOTEXTILE FABRIC
8. PLASTIC TRAFFIC STRIPING (4" WIDE)
9. RAISED PAVEMENT MARKERS

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
ON BEHALF OF CSRS ENGINEERING
5-9-2024

SHEET NUMBER 2b

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 2b

No.	REVISION DESCRIPTION	DATE	BY

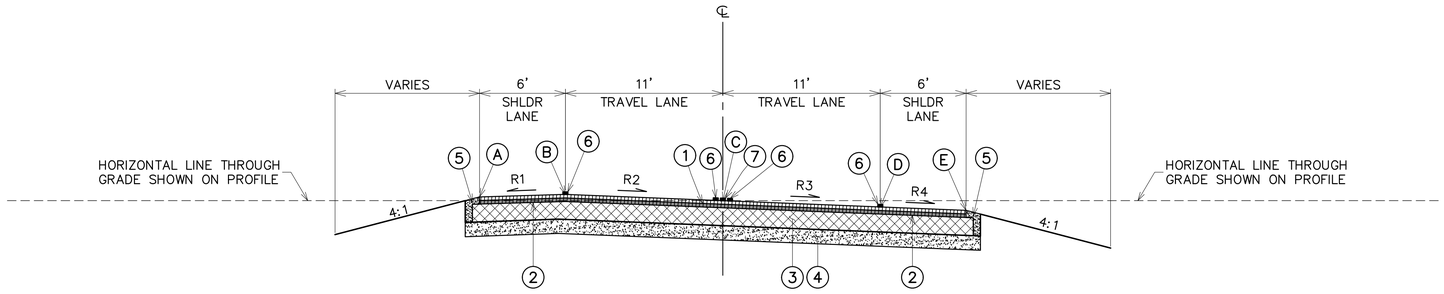
MOVEBR

TYPICAL SECTIONS

McHUGH ROAD IMPROVEMENTS - NORTH PHASE A

BR CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

CSRS



TYPICAL SUPERELEVATED SECTION (#1)

CURVE RIGHT

1. 2" ASPHALTIC CONCRETE BINDER COURSE
2. 2" ASPHALTIC CONCRETE BINDER COURSE
3. 10" STONE BASE COURSE
4. TYPE D SUBGRADE TREATMENT (8" THICK) (AS DIRECTED BY THE PROJECT ENGINEER)
5. EMBANKMENT MATERIAL
6. PLASTIC TRAFFIC STRIPING (4" WIDE)
7. RAISED PAVEMENT MARKERS

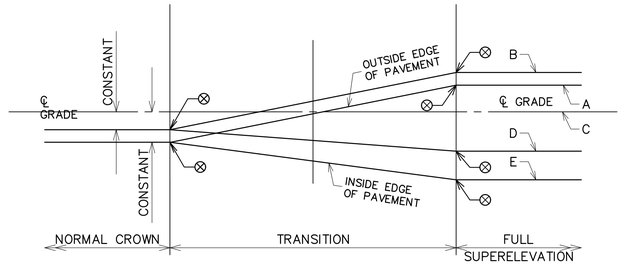
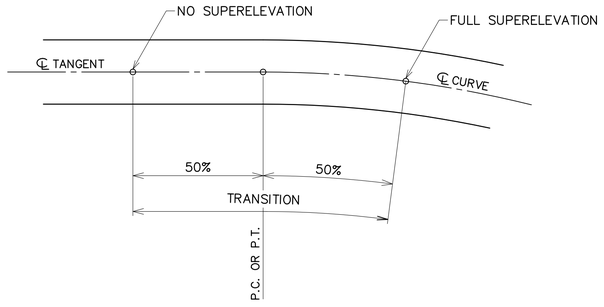


DIAGRAM OF SUPERELEVATION RUNOFF (NTS)

(CURVE RIGHT)

⊗ 50' V.C. REQ'D AT ANGULAR BREAKS IN PROFILE OF EDGES OF EMBANKMENT AND PAVEMENT



PLAN OF RUNOFF *

(NOT TO SCALE)

NOTE:
IF SUFFICIENT TANGENT DISTANCE IS NOT AVAILABLE BETWEEN CURVES, LOCATION OF TRANSITION SHALL BE ADJUSTED SO THAT FULL TRANSITION LENGTHS ARE OBTAINED.

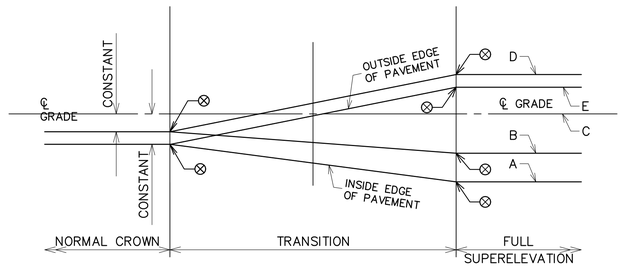


DIAGRAM OF SUPERELEVATION RUNOFF (NTS)

(CURVE LEFT)

⊗ 50' V.C. REQ'D AT ANGULAR BREAKS IN PROFILE OF EDGES OF EMBANKMENT AND PAVEMENT

SUPERELEVATION DETAILS (IN FEET) WITH REFERENCE TO HORIZONTAL LINE THROUGH GRADE SHOWN ON PROFILE

MCHUGH ROAD	CURVE NUMBER	ROAD SECTION	PC STA	PI STA	PT STA	RADIUS OF CURVE	R1	R2	R3	R4	A	B	C	D	E	TRANSITION LENGTH
RT	3	1	205+75.61	210+91.43	215+55.80	1273.24	2.5%	-4.4%	-4.4%	-4.4%	0.33	0.48	0.00	-0.48	-0.75	130

NOTES:
1. NEGATIVE RATES DENOTE DOWN FROM LEFT TO RIGHT.
2. SEE PLAN/PROFILE SHEETS FOR FULL LIMITS OF SUPERELEVATION.
3. DUE TO RELATIVELY LOW DESIGN SPEED AND LARGE CURVE RADIUS, OUTSIDE SHOULDER RATE IS RECOMMENDED TO REMAIN 2.5%

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN
ENGINEERING
5-7-2024

SHEET NUMBER 2c

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 2c

No.	DATE	REVISION DESCRIPTION	BY

TYPICAL SECTIONS

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

CSRS

SUMMARY OF ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	UNIT	QUANTITIES	
			NORTH-A	
			AS BID	AS BUILT
2010100	CLEARING AND GRUBBING	LUMP	LUMP	
2020100	REMOVAL STRUCTURES AND OBSTRUCTIONS	LUMP	LUMP	
2020500	REMOVAL OF ASPHALT SURFACING AND BASE	SY	7070	
2020600	REMOVAL OF CONCRETE WALKS AND DRIVES	SY	154	
2030100	GENERAL EXCAVATION	CY	3050	
2030200	EMBANKMENT	CY	11500	
2030900	GEOTEXTILE FABRIC	SY	12096	
3020510	STONE BASE COURSE (10" THICK)	SY	11770	
3030408	TYPE D SUBGRADE TREATMENT (8" THICK)	SY	5800	
4010100	TRAFFIC MAINTENANCE AGGREGATE, (TRUCK MEASURE)	CY	59	
4020304	AGGREGATE SURFACE COURSE (4" THICK)	SY	56	
4020312	AGGREGATE SURFACE COURSE (12" THICK)	SY	267	
7010218	18" REINFORCED CONCRETE PIPE	LF	32	
7010315	15" EQUIVALENT REINFORCED CONCRETE PIPE ARCH	LF	36	
7010318	18" EQUIVALENT REINFORCED CONCRETE PIPE ARCH	LF	450	
7010324	24" EQUIVALENT REINFORCED CONCRETE PIPE ARCH	LF	76	
7010336	36" EQUIVALENT REINFORCED CONCRETE PIPE ARCH	LF	820	
7020311	GRATE INLET (CPS 702-20)	EACH	6	
9020800	BARBED WIRE FENCE	LF	1045	
9021100	FIELD FENCE SINGLE DRIVE GATE	EACH	2	
9030200	TEMPORARY HAY BALES	EACH	24	
9030400	TEMPORARY SEDIMENT CHECK DAMS	EACH	62	
9030500	TEMPORARY SILT FENCING	LF	6139	
9030800	SEED	POUND	61	
9030900	FERTILIZER	POUND	2022	
9031000	WATER	MGAL	180	
9031300	FIBER MULCH	SY	9787	
9031600	STORM WATER POLLUTION PREVENTION PLAN	LUMP	LUMP	
9050100	TEMPORARY SIGNS AND BARRICADES	LUMP	LUMP	
9050200	TRAFFIC SIGNS	SF	35	
9050804	PLASTIC TRAFFIC STRIPING (4" WIDTH)	LF	12277	
9051100	RAISED PAVEMENT MARKERS	EACH	155	
9070406	6" CONCRETE DRIVE	SY	167	
9090100	MOBILIZATION	LUMP	LUMP	
9140100	PRE-CONSTRUCTION VIDEO	LUMP	LUMP	
9900004	PAYMENT ADJUSTMENT (FUELS AND ASPHALT CEMENTS)	DOLLAR	17300	
9900009	CONCRETE COLLAR	EACH	2	
9900030	ASPHALT CONCRETE PAVEMENT (WEARING COURSE LEVEL 2F)	TON	32	
9900031	ASPHALT CONCRETE PAVEMENT (BINDER COURSE LEVEL 2)	TON	2386	
9900087	ASPHALT DRIVEWAY	SY	362	

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN
ENGINEERING
5-9-2024

SHEET NUMBER 3

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 3

XXX BY

REVISION DESCRIPTION DATE
No.

MOVEBR

SUMMARY OF ESTIMATED QUANTITIES

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

BR CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

CSRS

1.0 GENERAL NOTES:

1.1 THE LOCATION OF ALL UNDERGROUND UTILITIES SHOWN ON THE PLANS IS APPROXIMATE. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE "LOUISIANA ONE CALL", THE APPROPRIATE UTILITY COMPANIES, THE CITY PARISH DEPARTMENT OF PUBLIC WORKS–TRAFFIC DIV. (389–3246), AND SANITARY SEWER DIV. (389–4845), AND VERIFY THE EXACT LOCATION, DEPTH, OR HEIGHT OF ALL UNDERGROUND OR OVERHEAD UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE OR LIABILITY DUE TO HIS FAILURE TO COMPLY WITH THESE INSTRUCTIONS.

1.2 CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL TRAFFIC DURING CONSTRUCTION AND SHALL COMPLY WITH ALL REGULATIONS TO ENSURE SAFETY OF THE WORKMEN AND THE PUBLIC DURING ALL PHASES OF CONSTRUCTION.

1.3 ALL EXISTING STORM DRAINAGE PIPE AND DRAINAGE JUNCTION BOXES WITHIN THE STREET R/W SHALL BE REMOVED UNLESS OTHERWISE SHOWN ON THE PLANS OR DIRECTED BY THE PROJECT ENGINEER. ALL COST FOR REMOVING EXISTING DRAINAGE PIPES, BOXES ETC. SHALL BE INCLUDED IN THE ITEM BID FOR REMOVAL OF STRUCTURES AND OBSTRUCTIONS (ITEM NO. 2020100).CLEARING & GRUBBING OF THE PROJECT SITE WAS INCLUDED IN A PREVIOUS PHASE. SOME CLEARING AND GRUBBING AS INCLUDED ON THE PLAN SHEETS SHOWN FOR INFORMATIONAL PURPOSES ONLY WAS PREVIOUSLY PERFORMED.

1.4 ALL TREES, SHRUBS, ETC. LOCATED WITHIN THE REQ'D R/W SHALL BE REMOVED, UNLESS OTHERWISE SHOWN ON PLANS OR AS DIRECTED BY THE PROJECT ENGINEER. PRIOR TO COMMENCING THE CLEARING WORK, THE CONTRACTOR SHALL NOTIFY THE AFFECTED PROPERTY OWNERS AT LEAST 14 DAYS IN ADVANCE TO GIVE THEM AN OPPORTUNITY TO REMOVE AND SALVAGE THEIR PLANTS.

1.5 ALL EXISTING FENCES LOCATED WITHIN THE STREET R/W SHALL BE RELOCATED TO THE PROPERTY LINE OR R/W UNLESS OTHERWISE SHOWN ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER.

1.6 EXCAVATION AND EMBANKMENT MATERIAL INCLUDES SCARIFYING EXISTING SURFACE PRIOR TO PLACING MATERIAL.

1.7 PAYMENT FOR REMOVING THE EXISTING GRAVEL ROAD IS INCLUDED IN THE ITEM FOR FOR EXCAVATION.

1.8 ALL MAILBOXES SHALL BE RELOCATED. ADDITIONALLY THE US POSTAL SERVICE (USPS) SHALL HAVE ACCESS TO AN ACCEPTABLE MAILBOX AT ALL LOCATIONS CURRENTLY BEING SERVICED BY USPS THROUGHOUT CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THIS WITH THE USPS.

1.9 FOR EMBANKMENT WIDENING DETAILS, SEE THE APPROPRIATE STANDARD PLAN FOR GUARD RAILS.

1.10 ALL LOAD POSTING SIGNS SHALL BE SALVAGED AND RETURNED TO THE PARISH AT NO DIRECT PAYMENT.

1.11 CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING STREAM FLOW DURING CONSTRUCTION AS DIRECTED BY THE PROJECT ENGINEER.

1.12 TEMPORARY EROSION CONTROL WILL INCLUDE SILT FENCE, SEDIMENT CHECK DAMS (HAY), HAY OR STRAW BALES, SLOPE DRAINS OR AS DIRECTED BY THE PROJECT ENGINEER.

1.13 SIDE DRAIN PIPE INVERT SHALL MATCH PROPOSED DITCH INVERT AS SHOWN IN THE PLANS.

2.0 MOVEBR GENERAL NOTES:

2.1 ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION BY EAST BATON ROUGE PARISH DEPARTMENT OF TRANSPORTATION AND DRAINAGE (STANDARD SPECIFICATIONS)

2.2 THE CONTRACTOR SHALL PROVIDE FOR AND MAINTAIN THROUGH AND LOCAL TRAFFIC AT ALL TIMES AND SHALL CONDUCT OPERATIONS IN SUCH A MANNER AS TO CAUSE THE LEAST POSSIBLE INTERFERENCE WITH TRAFFIC AND BUSINESS. ALL COSTS OF MAINTAINING TRAFFIC SHALL BE INCLUDED IN THE PRICE FOR ITEM 9050100 TEMPORARY SIGNS AND BARRICADES.

2.3 CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL SOIL AND DEBRIS AND THE CLEANING OF THE PROJECT ROADWAY SEGMENTS AND SIDEWALKS AS A RESULT OF THEIR CONSTRUCTION ACTIVITIES DURING THE CONTRACT PERIOD AT NO DIRECT PAY.

2.4 CONTRACTOR IS RESPONSIBLE FOR REPAIRING AND/OR REPLACING ADJOINING PAVEMENT AND SUBSURFACE UTILITIES TO REMAIN DAMAGED BY THEIR CONSTRUCTION ACTIVITIES AT NO DIRECT PAY.

2.5 THE CONTRACTOR SHALL BE RESPONSIBLE FOR LAYING OUT THE WORK AND VERIFYING ALL MEASUREMENTS AND GRADES PRIOR TO THE BEGINNING OF CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH THE PROJECT CENTERLINE AND ANY NECESSARY TEMPORARY BENCHMARKS FOR CONSTRUCTION PURPOSES PRIOR TO THE START, WHEN DESTROYING EXISTING MONUMENTS/NAILS/CROSS CUTS, ETC.

2.6 PRIOR TO BEGINNING OF ANY CONSTRUCTION, THE CONTRACTOR SHALL PERFORM AN AUDIO–VIDEO SURVEY OF THE PROJECT SITE. THE ELECTRONIC FILE OF THE AUDIO–VIDEO SURVEY SHALL BE PROVIDED TO THE PROJECT ENGINEER.

2.7 ALL CULVERT ENTRANCES/EXITS SHALL BE CLEARED OF DEBRIS/SOIL, AND, IF BLOCKED, THE OPEN DITCHES SHALL BE GRADED TO DRAIN AT NO DIRECT PAY.

2.8 DURING CONSTRUCTION, THE ENTIRE RIGHT–OF–WAY WIDTH SHALL BE CLEARED OF ANY TRASH, DEBRIS, VEGETATION, ETC. IN THE CASE OF VEGETATION, AN EIGHT FOOT MINIMUM "HEAD SPACE" SHALL BE PROVIDED. AT THE COMPLETION OF THE PROJECT, THE ENTIRE PROJECT LENGTH SHALL BE RE–CLEARED WITHIN THE RIGHT–OF–WAY. ALL COSTS SHALL BE INCLUDED IN THE BID ITEM FOR CLEARING AND GRUBBING (ITEMS 2010100 AND 2010200). THE CONTRACTOR SHALL NOTIFY THE ADJACENT PROPERTY OWNER 14 DAYS PRIOR TO THE REMOVAL OF TREES, SHRUBS, ETC. THE CONTRACTOR SHALL REPLACE, IN KIND, ALL DISTURBED TREES, SHRUBBERY, FLOWERS AND LANDSCAPING OUTSIDE OF THE FOOTPRINT OF THE SIDEWALK WITH PLAN MATERIAL OF SIMILAR SIZE AND TYPE.

2.9 EXISTING RAISED PAVEMENT MARKERS SHALL BE REMOVED AS DIRECTED BY THE PROJECT ENGINEER. COST SHALL BE INCLUDED IN PRICE BID FOR ITEM NO. 9051100. CONTRACTOR SHALL INSTALL BLUE COLOR RAISED PAVEMENT MARKERS ADJACENT TO EACH FIRE HYDRANT LOCATION. MARKERS ARE TO BE PLACED IN CENTER OF OUTSIDE LANE. PAY ITEM 9051100.

2.10 THE CONTRACTOR SHALL NOTIFY ALL RESIDENTS IN WRITING OF THE SCHEDULED CONSTRUCTION ACTIVITIES SEVEN (7) DAYS PRIOR TO ANY DISRUPTION IN SERVICE, THE NOTICES MUST HAVE THE CONTRACTOR'S PHONE NUMBER AND THE NAME OF THE CONTACT PERSON, AND EMERGENCY PHONE NUMBER FOR AFTER HOUR CALLS. NOTICES SHALL NOT BE LEFT IN MAILBOXES UNLESS PROPERLY SENT THRU THE MAIL. ACCIDENTAL REPAIRS SHALL BE REPORTED AS SOON AS POSSIBLE OR AS DIRECTED BY PROJECT ENGINEER.

2.11 CONTRACTOR TO NOTIFY ADJACENT RESIDENTS OF CONSTRUCTION A MINIMUM OF 7 DAYS PRIOR TO START OF CONSTRUCTION.

2.12 NOISE CONTROL – CONTRACTOR SHALL TAKE REASONABLE MEASURES TO AVOID UNNECESSARY NOISE APPROPRIATE FOR THE AMBIENT SOUND LEVELS ON THE AREA DURING WORKING HOURS. ALL CONSTRUCTION MACHINERY AND VEHICLES SHALL BE EQUIPPED WITH PRACTICAL SOUND MUFFLING DEVICES, AND OPERATED IN A MANNER TO CAUSE THE LEAST NOISE, CONSISTENT WITH EFFICIENT PERFORMANCE OF THE WORK (NO DIRECT PAYMENT) PER LOCAL NOISE ORDINANCE.

3.0 ROADWAY

3.1 AFTER THE COMPLETION OF THE MILLING OPERATIONS, PROOF ROLLING OF THE ROADWAY SURFACE MAY BE REQUIRED AT THE DISCRETION OF THE ENGINEER TO LOCATE UNSTABLE AREAS.

4.0 DRIVEWAYS, SIDEWALKS AND CURB RAMPS

4.1 FULL–DEPTH SAWCUTTING IS REQUIRED AT ALL AREAS OF DRIVEWAY AND CURB REMOVAL.

5.0 HORTICULTURE REQUIREMENTS

5.1 ALL MAILBOXES SHALL BE RELOCATED AS NECESSARY AT NO DIRECT PAY

5.2 THE US POSTAL SERVICE, GARBAGE SERVICES, RECYCLING SERVICES AND OTHER MAIL AND OTHER DELIVERY SERVICES SHALL HAVE ACCESS TO THE PROPERTIES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO COORDINATE THIS WITH THE APPROPRIATE AGENCY OR GROUP. THIS WORK IS CONSIDERED INCIDENTAL TO CONSTRUCTION AND SHALL BE AT NO DIRECT PAY.

6.0 UTILITY

6.1 CONTRACTOR SHALL CONTACT THE FOLLOWING, NOT ALL–INCLUSIVE LIST, AT LEAST THREE (3) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION AROUND THEIR RESPECTIVE UTILITIES AND THE CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS REGARDING ANY NECESSARY UTILITY ADJUSTMENTS:

COMPANY	CONTACT	CONTACT #
DEMCO	MR. JEFF BELLINGTON	(225) 262–3036
ENTERGY SERVICES	MR. ADAM ST. GERMAIN	(225) 754–6117
COX COMMUNICATION	MR. THOMAS FLOYD	(225) 806–4745
SHELL PIPELINE	MR. DAMIAN CAMBER	(225) 921–3594
WHITE MARLIN MIDSTREAM	MR. PETE CORMIER	(337) 580–3253
CITY OF ZACHARY – UTILITY	MR. WADE HOLDEN	(225) 654–0287
CITY OF BAKER – UTILITY	MS. T REESE	(225) 775–5584
DIXIE PIPELINE	MR. MIKE GILBERT	(281) 887–3437
FLORIDA GAS	MR. STEVE MILLER	(337) 475–4262
EBR CITY PARISH SEWER	MR. ADAM SMITH	AMSMITH@BRGOV.COM
AT&T DISTRIBUTION	MS. ERIN FRANCE	(225) 367–0678

6.2 CONTRACTOR SHALL CONTACT LA ONE CALL, THE APPROPRIATE UTILITY COMPANY, THE CITY PARISH DEPARTMENT OF TRANSPORTATION AND DRAINAGE – TRAFFIC DIV. (398–2346) AND SANITARY SEWER DIV. (389–4845), PRIOR TO THE START OF CONSTRUCTION FOR CONFIRMATION OF EXISTING UTILITIES. LOCATION OF EXISTING UTILITIES HAS BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE LOCATION, SIZE, AND DEPTH OF ALL UTILITIES, PIPELINES AND STRUCTURES. THE CONTRACTOR SHALL BE LIABLE FOR ANY DAMAGES CAUSED BY FAILURE TO COMPLY.

6.3 THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE PROJECT ENGINEER IF EXISTING UNMARKED DRAINAGE STRUCTURES OR FACILITIES ARE UNCOVERED. THE PROJECT ENGINEER WILL DETERMINE WHETHER TO REMOVE, REPLACE AND/OR CONNECT THE FACILITY TO THE PROPOSED DRAINAGE SYSTEM. CONNECTION TO A PROPOSED ADJACENT MANHOLE SHALL BE MADE AT NO DIRECT PAY.

7.0 TRAFFIC CONTROL

7.1 CONTRACTOR SHALL PROVIDE A TEMPORARY TRAFFIC CONTROL PLAN PREPARED IN ACCORDANCE WITH SECTION 905 OF THE STANDARD SPECIFICATIONS FOR PROJECT ENGINEER'S APPROVAL PRIOR TO CLOSING ANY PORTION OF THE ROADWAY.

7.2 UNLESS SPECIFIED OTHERWISE, CONTRACTOR SHALL PERMANENTLY ADJUST OR RELOCATE EXISTING SIGNAGE, AS INDICATED ON THE PLANS, OUTSIDE THE LIMITS OF THE PROPOSED SIDEWALK AND WITHIN THE EXISTING RIGHT–OF–WAY, AT NO DIRECT PAY.

7.3 CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN ALL NECESSARY BARRICADES, SUITABLE LIGHTS AND DANGER SIGNALS AND SHALL TAKE ALL THE NECESSARY PRECAUTIONS FOR THE PROTECTION OF WORK AND SAFETY OF THE GENERAL PUBLIC. ALL SAFETY LIGHTING AND MARKING SHALL MEET OR EXCEED THE REQUIREMENTS AS DESCRIBED IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION.

7.4 ALL EXISTING TRAFFIC CONTROL DEVICES THAT ARE IN CONFLICT WITH THE CONSTRUCTION OR WORK ZONE TRAFFIC CONTROL PLAN SHALL BE COVERED OR REMOVED BY THE CONTRACTOR, AND THE REMOVED DEVICES RETURNED TO THE CITY. ALL EXISTING DEVICES LEFT IN THE CONSTRUCTION OR WORK ZONE SHALL BE MAINTAINED IN GOOD CONDITION BY THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION.

7.5 ANY DAMAGE CAUSED BY THE CONTRACTOR'S WORK SHALL BE IMMEDIATELY REPORTED BY THE CONTRACTOR TO THE PROJECT ENGINEER. REPAIRS SHALL BE PERFORMED BY THE CONTRACTOR OR BY THE CITY–PARISH, AT THE DISCRETION OF THE CITY–PARISH TRAFFIC ENGINEER, WITH ALL ASSOCIATED COSTS BEING PAID BY THE CONTRACTOR.

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
CIVIL ENGINEERING
5-9-2024

SHEET NUMBER 3a

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19–CP–HC–0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 3a

No.	REVISION DESCRIPTION	DATE	BY
XXX			

MOVEBR

GENERAL NOTES

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

BR CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

CSRS

PROJECT NO.	SHEET
19-CP-HC-0039A	04

LEGEND

- SERVITUDE
- SECTION LINE
- PROPERTY LINE
- ROW
- LIMITS OF CONSTRUCTION
- WETLANDS
- DITCH BANK
- DITCH CENTERLINE/TOE
- STREET SIGN
- TRAFFIC SYMBOL
- MAILBOX
- BRIDGE RAILING
- TBM
- VEGETATION
- FENCE
- FENCE POST
- ELECTRICAL LINE
- ELECTRICAL GUY ANCHOR
- COMBINATION POLE
- LIGHT POLE
- TO BE REMOVED, PAID UNDER ITEM 2020500
- PROPOSED PCC DRIVEWAY
- PROPOSED ASPHALT DRIVEWAY
- PROPOSED ASPHALTIC CONCRETE
- WATER LINE
- WATER METER
- WATER VALVE
- WATER LINE RISER
- FIRE HYDRANT
- GAS LINE
- GAS PIPELINE
- GAS METER
- GAS VALVE
- TELEPHONE/UG CABLE LINE
- TELEPHONE POLE
- TELEPHONE PEDESTAL
- TV/CABLE BOX
- SEWER LINE
- DRAIN LINE
- MANHOLE
- DRAIN INLET
- JUNCTION BOX
- CATCH BASIN

STA. 201+59.95 BEGIN PROJECT 19-CP-HC-0039A

201+59.95 TO 202+96 TEMPORARY AGGREGATE SURFACE COURSE ROADWAY

36" Oak

+28.44 55.00' LT

P.T. 202+28.44 (LB)= STA. 202+31.09 (AH) EQUATION = (-2.65')

Wooded GUY McHUGH et.al.

Apparent location 6" gas line City of Zachary

Telephone Pedestal

REMOVE EXISTING 4' BARBED WIRE FENCE AND REPLACE WITH 5' BARBED WIRE FENCE, L=483'

+86.50-63' sign post (City of Zachary Gas)

+90.5-38.5'survey marker sign
+90.5-37.5' E.B.R. Brass Mon.

Scale: 1"=20'

+60.18 55.00' LT

P.T. Sta. 202+31.09 Survey & Abandoned

P.C. Sta. 205+75.61 Survey & Abandoned

Entergy Electric (Overhead Lines)

REQ'D R/W

EXIST. R/W

LIMITS OF CONSTRUCTION

DITCH ℄

McHUGH ROAD (Limestone)

22.00'

14.92'

FUTURE PHASE

Project 2 Adopted

N 35°29'23" W

McHUGH ROAD

Demco Electric (Overhead Line)

55'
6'
11'
11'
6'
51'

Entergy Electric Right of Way

Wetland Area

+28.44 55.00' RT

GUY McHUGH et.al. Wooded

+23.5-75' power pole
+38-88.5' power pole

Entergy Electric Right of Way

+00.00 55.00' RT

204+00 REQ'D EQUALIZER PIPE 18" RCPA X 60'

+86.5-9.50' telephone pedestal
+87.5-15' power pole anchor
+89.5+30' guy wire anchor

P.C. 205+75.61

+75.61 50.00' RT

LILLIE L. YANTIS Field

SEE NEXT SHEET FOR PIPE CALLOUT

SCALES:
1" =20' HORIZ.
1" = 2' VERT.

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
5-7-2024

SCALES:
1" =20' HORIZ.
1" = 2' VERT.

205+10.61

SUPERELEVATION TRANSITION
2.5% TO -4.4%

STA. 202+28.44 (LB)= STA. 202+31.09 (AH) EQUATION = (-2.65')

PROPOSED ℄ GRADE

0.00%

Exist. Grade @ ℄ Project

REQ'D 18" RCPA

DG(Rt/Lt) +0.06%

DG(Rt/Lt) -0.06%

F.L. 76.75 (Rt/Lt)

+28.44-79.4
+31.09-79.4
79.3
81.00
79.1
81.00
+20-79.1
+68-78.8
+70-78.8
79.2
81.00
+20-79.4
79.2
81.00

86 84 82 80 78 76 74 72 70

200 201 202 203 204 205 206

PARISH	EAST BATON ROUGE PARISH
CITY	BATON ROUGE
DESIGNED	CSRS
DETAILED	CSRS
CHECKED	CSRS
DATE	05/09/2024

No.	DATE	REVISION DESCRIPTION	BY

MOVEBR CSRS CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

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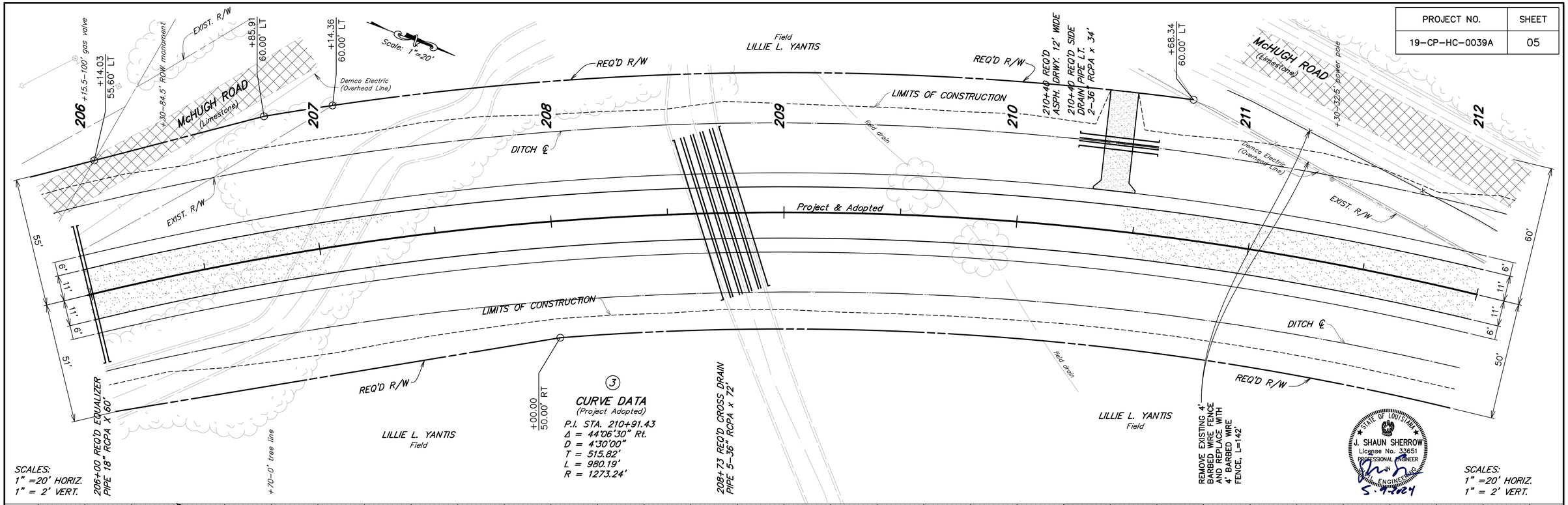
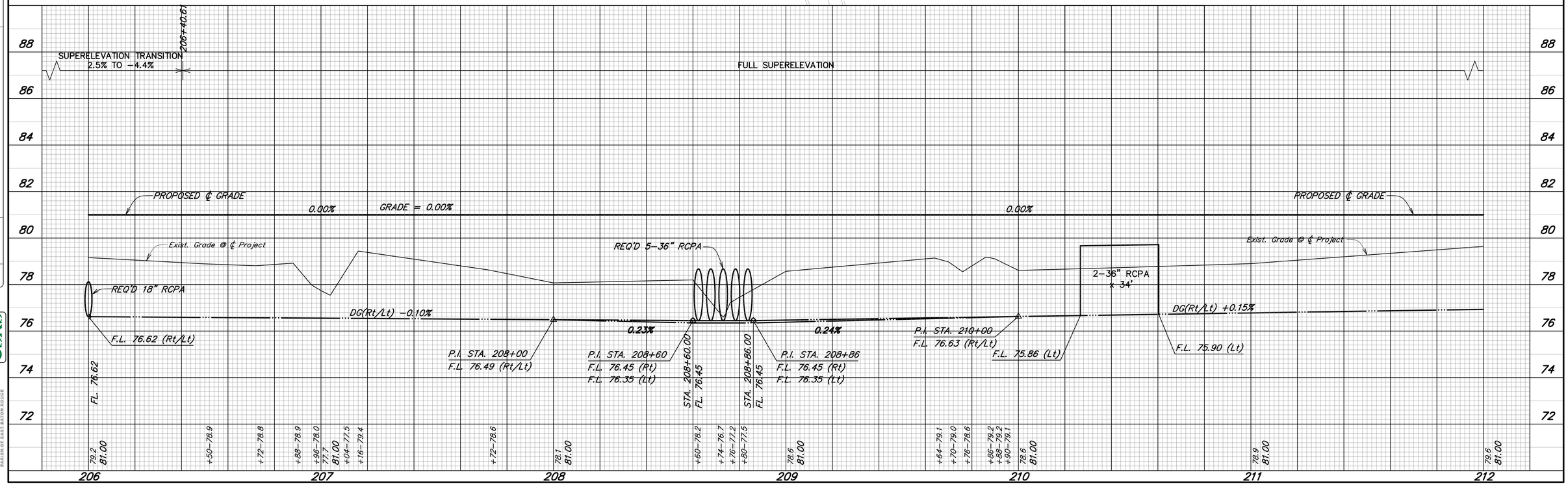
PROJECT NO.	SHEET
19-CP-HC-0039A	05



③ CURVE DATA
(Project Adopted)

P.I. STA. 210+91.43
Δ = 44°06'30" Rt.
D = 4°30'00"
T = 515.82'
L = 980.19'
R = 1273.24'

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN ENGINEERING
5-9-2024



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DESIGNED	CSRS
DETAILED	CSRS
CHECKED	CSRS
DATE	05/09/2024

PARISH	EAST BATON ROUGE PARISH
CITY	BATON ROUGE

No.	DATE	REVISION DESCRIPTION	BY

MOVEBR
CSRS
CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

PROJECT NO.	SHEET
19-CP-HC-0039A	06

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE

DESIGNED: CSRS
DETAILED: CSRS
CHECKED: CSRS
DATE: 05/09/2024

No.	DATE	REVISION DESCRIPTION	BY

MoveBR
CSRS
BR CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

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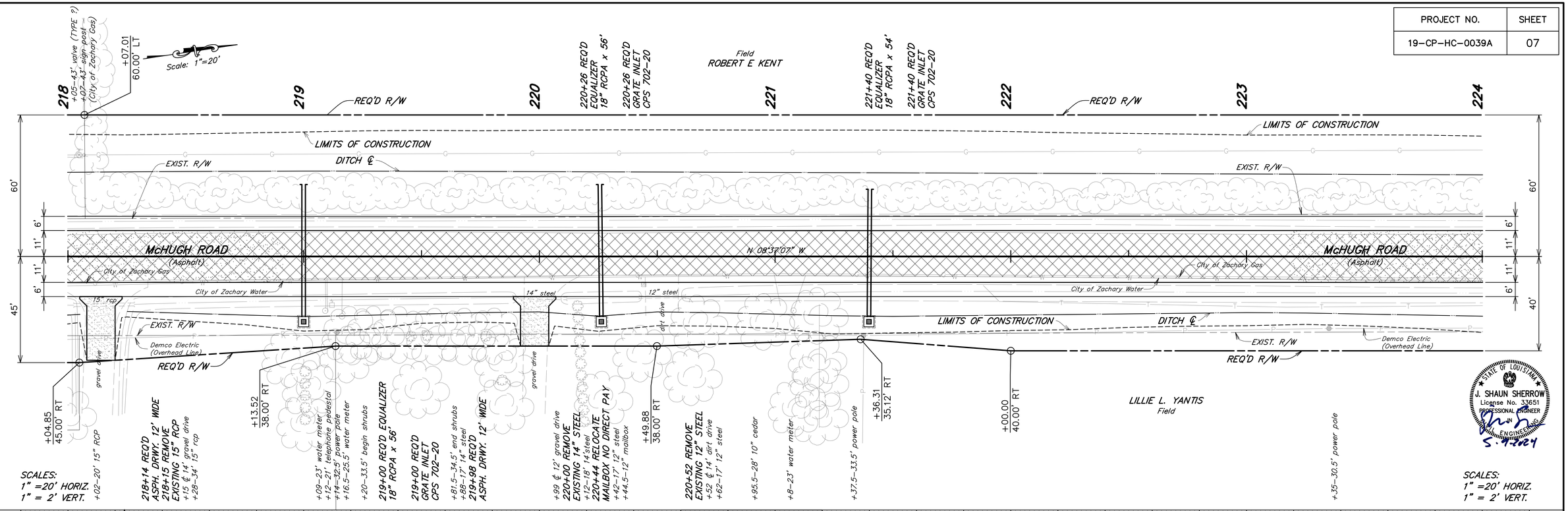
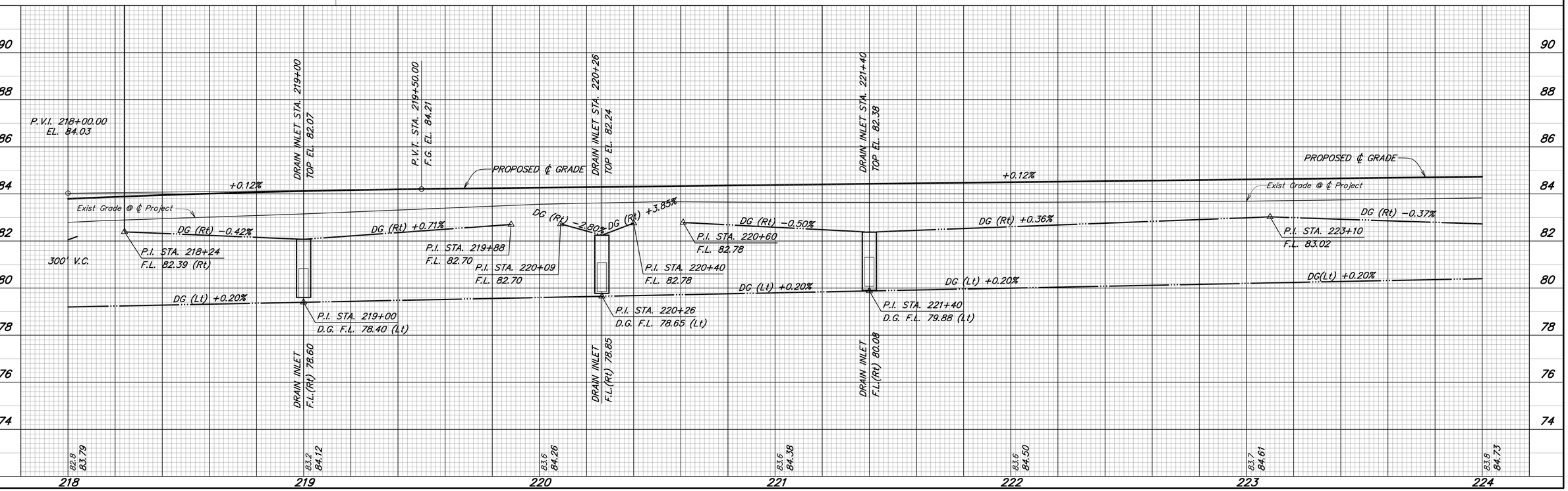
PROJECT NO.	SHEET
19-CP-HC-0039A	07





DESIGNED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
PARISH EAST BATON ROUGE PARISH
CITY BATON ROUGE

No.	DATE	REVISION DESCRIPTION	BY

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN
ENGINEERING
5.9.2024

MOVEBR
CSRS
CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

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PROJECT NO.	SHEET
19-CP-HC-0039A	08

Scale: 1"=20'

SHAW CEMETERY ROAD
STA. 50+13.13 =
STA. 226+07.90
McHUGH ROAD

224 225 226 227 228 229 230

REQ'D R/W

226+50 REQ'D EQUALIZER
18" RCPA x 54'

Field
ROBERT E. KENT

+00.00
60.00' LT

129-46' sign post
City of Zachary Gas)

P.C. 227+54.34
Project Adopted

+00.04
45.00' LT

REMOVE EXISTING 4' BARBED WIRE FENCE AND REPLACE WITH 5' BARBED WIRE FENCE, L=201'

④ CURVE DATA
(Project Adopted)
P.I. STA. 228+91.76
Δ = 1°22'27" Lt.
D = 0°30'00"
T = 137.42'
L = 274.83'
R = 11,459.20'

LIMITS OF CONSTRUCTION
DITCH ℄
EXIST. R/W
McHUGH ROAD (Asphalt)
Project & Adopted
N 08°37'07" E
SHAW CEMETERY Rd.
(Exist. Limestone Road)
City of Zachary Gas
City of Zachary Water
DITCH ℄ DEMO EXISTING CONCRETE DRIVE
EXIST. & REQ'D R/W
Survey & Abandoned
60'
40'
6' 11' 11' 6'
45'
55'

224+10 REQ'D EQUALIZER
18" RCPA x 54'

224+10 REQ'D
GRATE INLET
CPS 702-20

LILLIE L. YANTIS
Field

+41.90
40.00' RT

+11.50–20.5' water meter
+15.50–17' mailbox
226+15.5 RELOCATE
MAILBOX AT NO DIRECT PAY
+17.50–19' mailbox
226+17.5 RELOCATE
MAILBOX AT NO DIRECT PAY
+19.50–17' mailbox
226+19.5 RELOCATE
MAILBOX AT NO DIRECT PAY

+75.90
75.00' RT

SEE SHEET 10

226+50 REQ'D
GRATE INLET
CPS 702-20

+25.5–22.5' telephone pedestal
+28'–24.5' property corner
+54 ℄ 20' limestone drive
226+78.5 RELOCATE
MAILBOX AT NO DIRECT PAY
+81–18' mailboxes
226+81 RELOCATE
MAILBOX AT NO DIRECT PAY
+86–22' survey monument
and brass cap

+10.5–32' water meter

228+35 REQ'D
PCC DRWY. 12' WIDE

228+35 REQ'D SIDE
DRAIN PIPE RT.
15" RCPA x 36'

MARJORIE E.A. BRANNING
Field

+78–26' water meter

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
ENGINEERING
5.7.24

SCALES:
1" =20' HORIZ.
1" = 2' VERT.

SCALES:
1" =20' HORIZ.
1" = 2' VERT.

94 92 90 88 86 84 82 80 78

DRAIN INLET STA. 224+10
TOP EL. 82.69
PROPOSED ℄ GRADE
Exist. Grade @ ℄ Project
+0.12%
DG(Rt) +0.47%
P.I. STA. 224+10
DG. F.L. 80.42 (Lt)
DG(Lt) +0.20%
83.8
84.73 DRAIN INLET
F.L.(Rt) 80.62

P.I. STA. 225+50
F.L. 83.31 (Rt)

P.V.C. STA. 225+50.00
F.G. EL. 84.91
84.2
84.85

84.5
84.98

DRAIN INLET STA. 226+50
TOP EL. 82.80
300' V.C.
DG(Rt) +1.40%
DG(Lt) +2.90%
P.I. STA. 226+50
DG. F.L. 80.90 (Lt)
P.V.I. 227+00.00
EL. 85.08
DRAIN INLET
F.L.(Rt) 81.10

P.I. STA 227+00
F.L. 83.50 (Rt)
+0.63%
DG(Rt) +0.60%
P.I. STA. 227+50
F.L. 83.80 (Lt)
F.L. 84.20 (Rt)
84.7
85.27

84.7
85.73

P.V.T. STA. 228+50.00
F.G. EL. 86.02
PROPOSED ℄ GRADE
Exist. Grade @ ℄ Project
+0.63%
15" RCPA
x 36'
DG(Rt/Lt) +0.60%
F.L. 84.42 (Rt)
85.5
86.33

86.2
86.96

224 225 226 227 228 229 230

No.	DESCRIPTION	BY	DATE

DESIGNED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
PARISH EAST BATON ROUGE PARISH
CITY BATON ROUGE

MOVEBR CSRS
BR CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

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PROJECT NO.	SHEET
19-CP-HC-0039A	09

DESIGNED	CSRS
DETAILED	CSRS
CHECKED	CSRS
DATE	05/09/2024

PARISH	EAST BATON ROUGE PARISH
CITY	BATON ROUGE

No.	DATE	REVISION DESCRIPTION	BY

Scale: 1"=20'

230 +29.17 45.00' LT P.T. 230+29.17 Project Adopted

231

232 +99.01 45.00' LT +14.81 59.51' LT

233

234

235

236

Field
ROBERT E. KENT

REMOVE EXISTING 4' BARBED WIRE FENCE AND REPLACE WITH 5' BARBED WIRE FENCE, L=219'

+11.5–32' telephone pedestal
+16–50.5' fire hydrant
+17.5–51' water valve
+18.5–28' 8" concrete headwall
+21.5–24.5' 24" rcp
+23–24' 8" concrete headwall

232+25 REMOVE CONCRETE HEADWALL **

232+22 REQ'D 18"x24' RCP EXTEN. WITH CONC. COLLAR

LOWER ZACHARY ROAD (Asphalt)

EXIST. DITCH ℄

+02–23' stop sign
+21.5–55' guy wire anchor
+24–55' guy wire anchor
+29–42' gas valve
+23.5–50' gas valve
+33.5–50 guy wire anchor
+46–44' gas valve
+57.5–51' power drop
+59–51' combination pole
+61.5–51.5' EBR monument
+00–27' mailbox
+50–27' stop sign
+90.5–55' combination pole

EXIST. R/W

STA. 232+39.94
END PROJECT 19-CP-HC-0039A

EXIST. DITCH ℄

McHUGH ROAD (Asphalt)

N 08°37'07" E

Survey & Abandoned

SEE SHEET 14 FOR GEOMETRIC DETAIL

42"x29" cmpa

12" rcp

gravel drive

EXIST. DITCH ℄

EXIST. R/W

4" wire mesh

** TO BE PAID FOR UNDER 2020100

P.T. 236+00.00
Project & Adopted

SCALES:
1" =20' HORIZ.
1" = 2' VERT.

45'
55'
6'
11'
11'
6'

REQ'D R/W

LIMITS OF CONSTRUCTION

DITCH ℄

EXIST. R/W

Demco Electric (Overhead Line)

Project & Adopted

Survey & Abandoned

McHUGH ROAD (Asphalt)

N 74°44'40" E

N 08°37'07" E

City of Zachary Sewer

City of Zachary Water

DITCH ℄

Demco Electric (Overhead Line)

REQ'D R/W

DEMO EXISTING CONCRETE DRIVE

LIMITS OF CONSTRUCTION

85°6'5"

18" rcp

59.50' LT

232+19 REQ'D 18"x8" RCP EXTEN. WITH CONC. COLLAR

EXIST. R/W

232+118.5 REMOVE CONCRETE HEADWALL & 78°07'26" E

232+39.94 END OF CONSTRUCTION

MARJORIE E.A. BRANNING
Yard

SCALES:
1" =20' HORIZ.
1" = 2' VERT.

+47.5–28.5 power pole
+48.5–30' combination pole
+51.5–48' guy wire anchor

+19.5–30.5' tree stump

+38.5 ℄ 10' concrete drive
231+42 REQ'D
CONC. DRWY. 12' WIDE

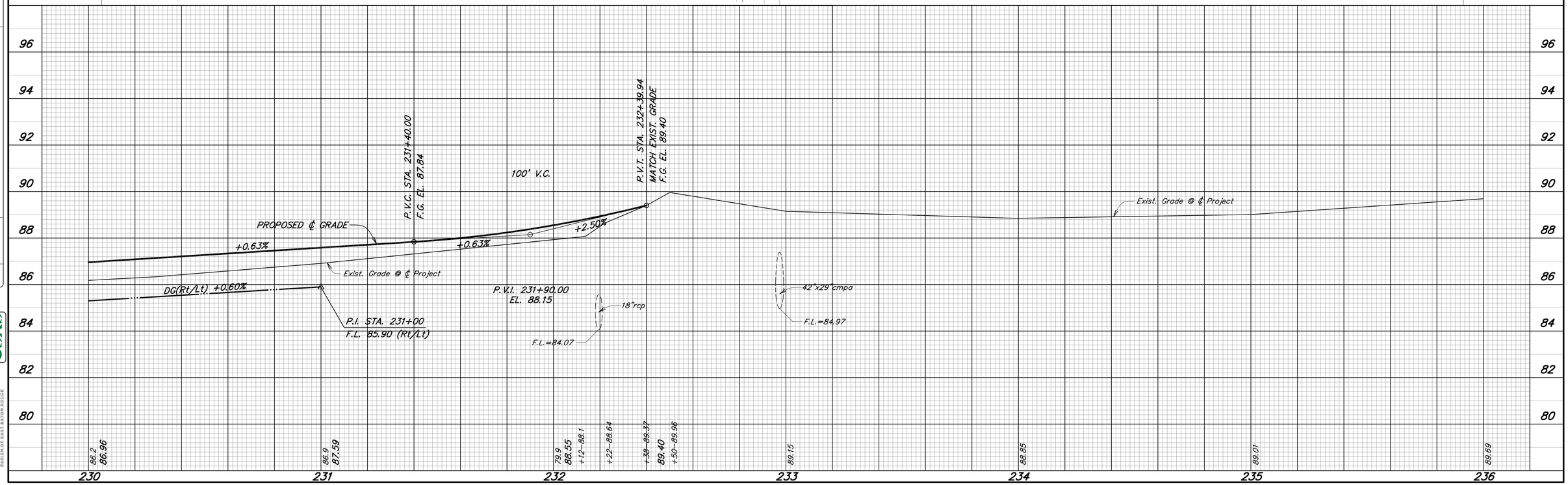
+59–21' telephone pedestal
+66–18.5' cedar

+13.5–18.5' stop sign
+18.5–28' 8" concrete headwall
+21.5–24.5' 24" rcp
+25–27' 8" concrete headwall

+40–35' street sign
+00–12' edge of road
+29.5–4.5' speed limit sign
+67–17' 12" rcp
+76 ℄ 12' gravel drive
+84–16' 12" rcp
+85–28' mailbox

P.C. 233+99.37
Project & Adopted

+53.5–44.5' water meter
+54.5–45' gas meter



CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

P:\22058\MoveBR\Drawings\final plans – north a\ FP-009 Plan Profile.dwg May 29, 2024 – 10:03am

PROJECT NO.	SHEET
19-CP-HC-0039A	10

Scale: 1"=20'

DITCH ℄

LIMITS OF CONSTRUCTION

EXIST. R/W

City of Zachary Water

City of Zachary Gas

McHUGH ROAD (Asphalt)

50

+08-24 (2) mail boxes

MARJORIE E.A. BRANNING
Residence

51

+30 ℄ 16' concrete drive

51+30 REQ'D PCC DRWY.

+94-14 8" pvc sewer

52

+00-12' edge of road

+39-23' 24" white oak

+41-10' 12"cmp

+53-16' 12" white oak

+72.48-17.05' 3/4" prop. cor.

+73.14-13.49' 1/2" prop. cor.

53

+30 ℄ 20' gravel drive

+45-17 30" oak

+53.5-17' 36" cmp

+58.5-17' 36" cmp

+64.5-17' 36" cmp

+72-48' utility anchor

+72-16' 12" oak

+84-39' water valve

+85-48' power pole

+86-32' utility anchor

+92-39' gas regulator

54

+20-14' 8" pvc

+30-14' 8" pvc

+38-17' 30" oak

+65-16' 15" oak

55

STA. 51+49.42
END SHAW CEMETERY ROAD

DEMO EXISTING CONCRETE DRIVE

concrete drive

gravel drive

gravel drive

4' cedars

8"-10"ø pin oaks

EXIST. R/W

8"pvc sewer

12"cmp

EXIST. R/W

8"pvc

EXIST. DITCH ℄

226+79 RELOCATE MAILBOXES AT NO DIRECT PAY

227

REQ'D R/W

(Exist. Limestone Road)

S 54°58'33"E

SHAW CEMETERY ROAD
(Limestone)

12"cmp

36"cmp

36"cmp

S 54°58'33"E

226+17 RELOCATE MAILBOXES AT NO DIRECT PAY

Field
ROBERT E. KENT

EXIST. R/W

EXIST. DITCH ℄

S 81°22'53"E

STA. 226+07.90
McHUGH ROAD P&A ℄ =
STA. 50+13.13
SHAW CEMETERY RD. ℄

SEE SHEET 13 FOR GEOMETRIC DETAIL

EXIST. R/W

P.C. 50+95.28

P.I. STA. 51+41.36

REQ'D R/W

Project & Adopted
N 08°37'07" E

STA. 50+24.13
BEGIN SHAW CEMETERY ROAD

LIMITS OF CONSTRUCTION

EXIST. R/W

DITCH ℄

+37-20' 1/2" prop. cor.

+65-16' 30" live oak

CURVE DATA
(Shaw Cemetery Road)
P.I. STA. 51+18.74
Δ = 26°24'20" Rt.
D = 57°17'45"
T = 23.46'
L = 46.09'
R = 100.00'

LILLIE L. YANTIS
Field

+44-9' 12" cmp

+17-14' 28" oak

+39-12' 18" cedar

+53.5-12.5' 36" cmp

+59-12' 36" cmp

+64-12' 36" cmp

+89-12' telephone pedestal

+02-14' 38" catalpa

+50-14 24" pecan

SCALES:
1" =20' HORIZ.
1" = 2' VERT.

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN
ENGINEERING
5-7-2024

SCALES:
1" =20' HORIZ.
1" = 2' VERT.

PROPOSED ℄ GRADE McHUGH ROAD

BEGIN SHAW CEMETERY ROAD
STA. 50+24.13
F.G. EL. 84.70

P.V.C. STA. 50+29.95
F.G. EL. 84.58

60' V.C.

PROPOSED ℄ GRADE

P.V.T. STA. 50+89.95
F.G. EL. 83.83

END SHAW CEMETERY ROAD
STA. 51+49.42
F.G. EL. 83.83

2.50%

0.00%

0.00%

P.V.I. 50+59.95
EL. 83.83

Exist. Grade @ ℄ Project

Exist. Ditch Grade Rt.

12"cmp

F.L.=81.83(Rt)

3-36"cmp

F.L.=80.12(Rt)

F.L.=79.97(Rt)

F.L.=80.09(Rt)

+14-84.5
+22-84.4
+28-84.1
+40-83.8
+46-84.1
+82-83.9
83.7
83.83
83.8
83.7
83.5
83.6

90 88 86 84 82 80 78 74

50 51 52 53 54 55

No.	DATE	REVISION DESCRIPTION	BY

DESIGNED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024

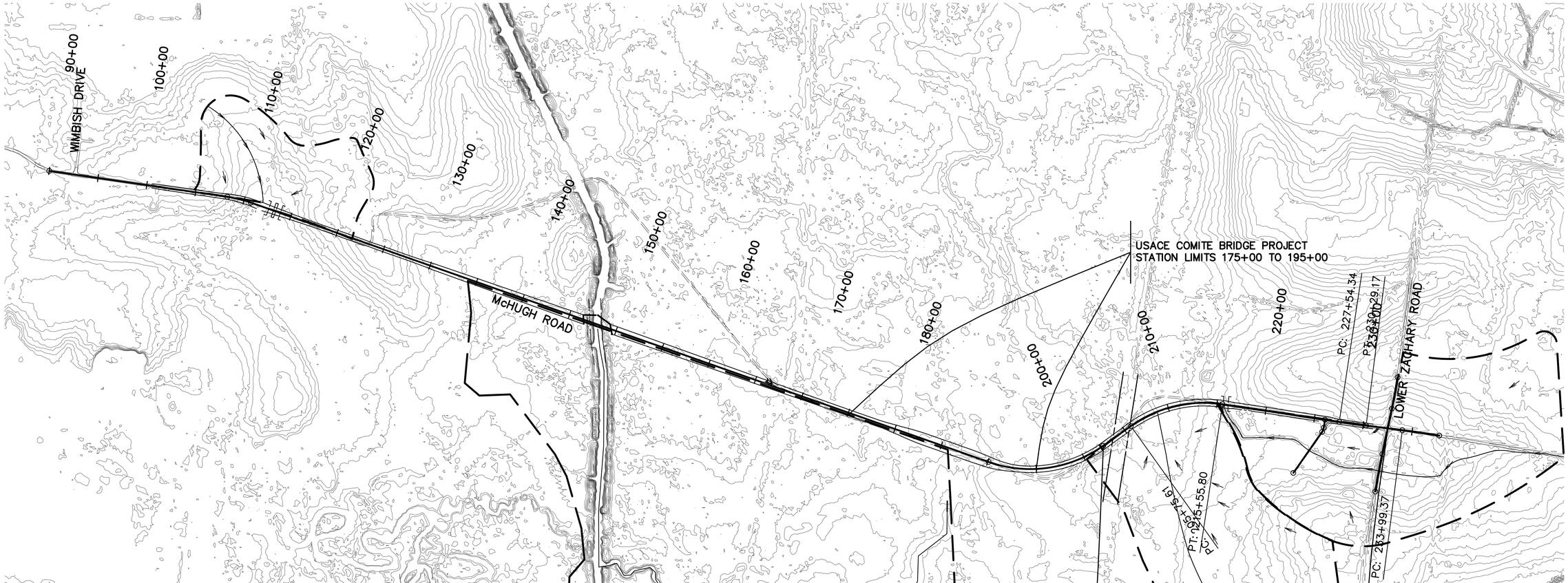
PARISH EAST BATON ROUGE PARISH
CITY BATON ROUGE

MOVEBR
CSRS
CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

P:\22058\MoveBR\Drawings\final plans - north a\ FP-010 Plan Profile.dwg May 29, 2024 - 10:03am

Scale: 1"= 500

STATION	DRAINAGE AREA	Q
111+92	35.0	128
208+73	47.5	128
215+25	101.3	62
215+79	101.3	189



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PROFESSIONAL ENGINEER
5-9-2024

SHEET NUMBER 11

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 11

No.	DATE	REVISION DESCRIPTION	BY
XXX			

EXISTING DRINAGE MAP

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

CSRS

P:\22058\MoveBR\Drawings\final plans – north a\ FP-011 Existing Drainage Map.dwg May 14, 2024 – 10:58am

Scale: 1"= 500

STRUCTURE NO.	STATION	CROSS DRAIN STRUCTURE NO.	W	x	H	x	L	STRUCTURE TYPE	DRAINAGE AREA ACRES	SOIL CLASS	CURVE NO.	AVERAGE WATERSHED SLOPE(%)	HYDRAULIC LENGTH (ft.)	DESIGN DISCHARGE (Q) (cfs.)	TAILWATER ELEVATION (ft.)	HEADWATER ELEVATION (ft.)	ALLOWABLE HEADWATER ELEVATION(ft.)	DIFFERENTIAL HEAD (ft.)	VELOCITY (fps.)
		NO.		DIA.															
1	208+73	5		36			72	RCPA	140.3	C,D	80.4	0.32	3679	190	78.83	79.71	80.76	0.88	5.38
2	215+25	2		36			40	RCPA	33.3	C,D	81.6	0.26	3818	62	79.92	80.44	83.57	0.52	4.93
3	215+79	4		36			60	RCPA	68.0	C,D	81.6	0.26	3818	127*	80.01	80.76	82.32	0.75	5.04

* STA 215+79 – DRAINAGE AREA 101.3 ACRES BYPASS FLOW TO STATION 208+73 (33.3 ACRES)
STA 208+73 – DRAINAGE AREA 140.3 ACRES (107 ACRES + 33.3 ACRES)
STA 208+83 – DESIGN FLOW 62cfs (33.3 ACRES)

(1) SOIL CONSERVATION SERVICE (S.C.S.) METHOD IS USED FOR WATERSHEDS HAVING DRAINAGE AREAS OF 2000 ACRES AND LESS.

(2) 24–HOUR RAINFALL (50–YEAR RETURN INTERVAL) = 10 INCHES

STATE OF LOUISIANA
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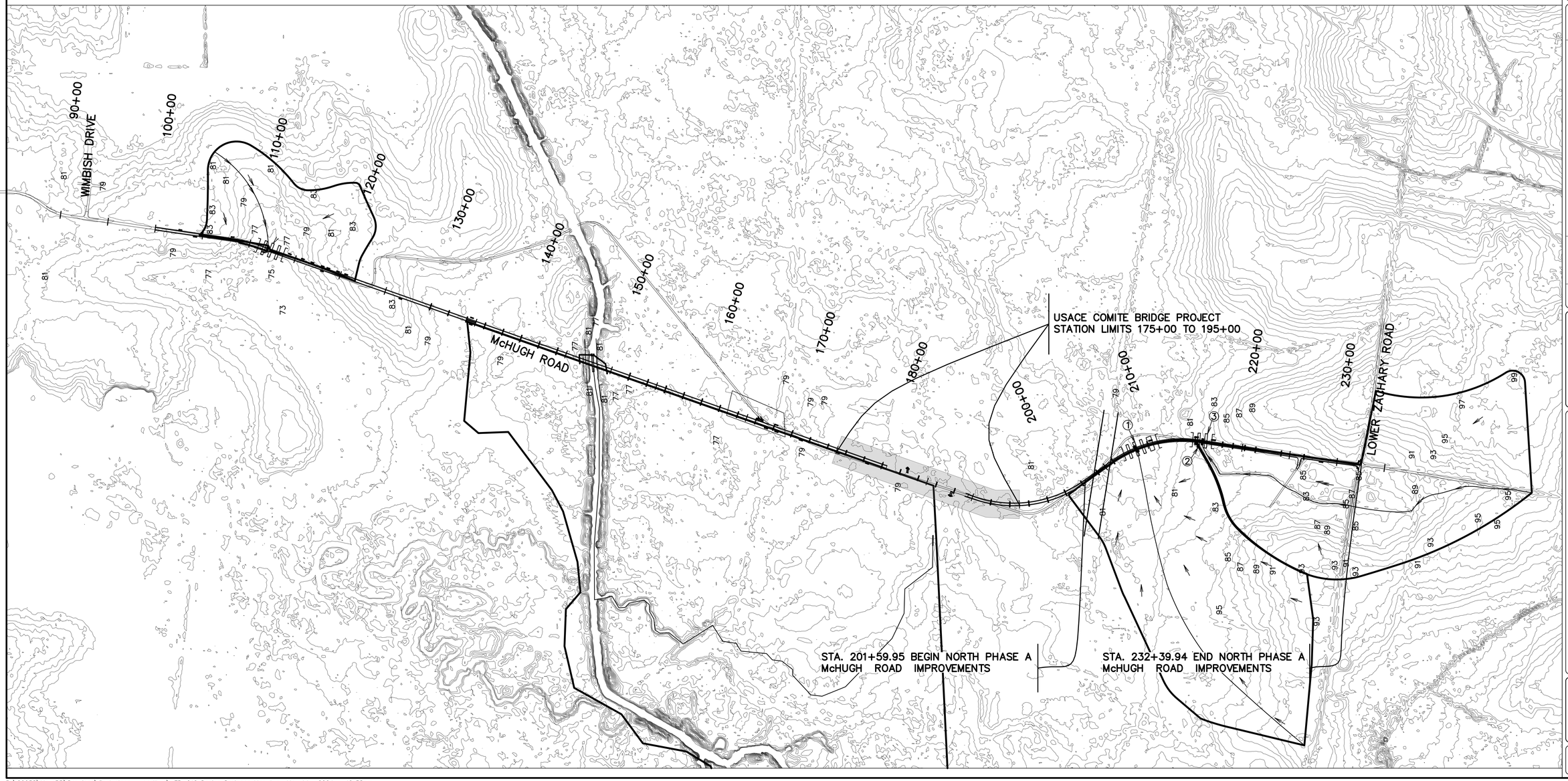
IN
CIVIL ENGINEERING
5-9-2024



SHEET NUMBER 12

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 12

No.	DATE	REVISION DESCRIPTION	BY
XXX			

DESIGN DRINAGE MAP

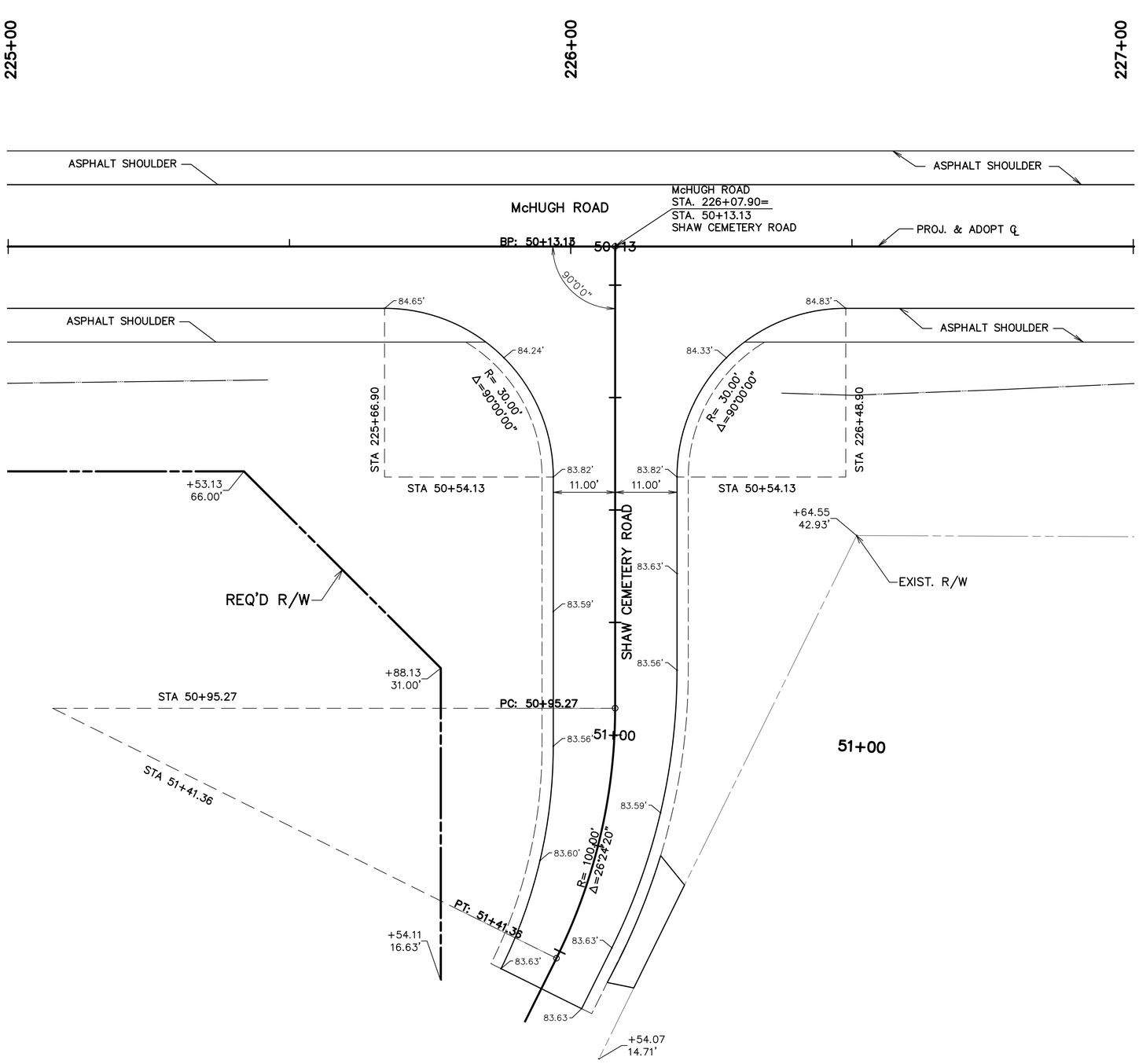
McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

MOVEBR

BR CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

CSRS

P:\22058\MoveBR\Drawings\final plans – north a\ FP–012 Design Drainage Map.dwg May 14, 2024 – 10:58am



SCALE: 1"=10'

DETAILS OF SIDE ROAD INTERSECTION

STA. 226+07.90
SHAW CEMETERY RD.
1"=10'

J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
ON BEHALF OF CSRS
5-9-2024

SHEET NUMBER 13

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 13

No.	REVISION DESCRIPTION	BY	DATE
XXX			

GEOMETRIC DETAILS

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

CSRS

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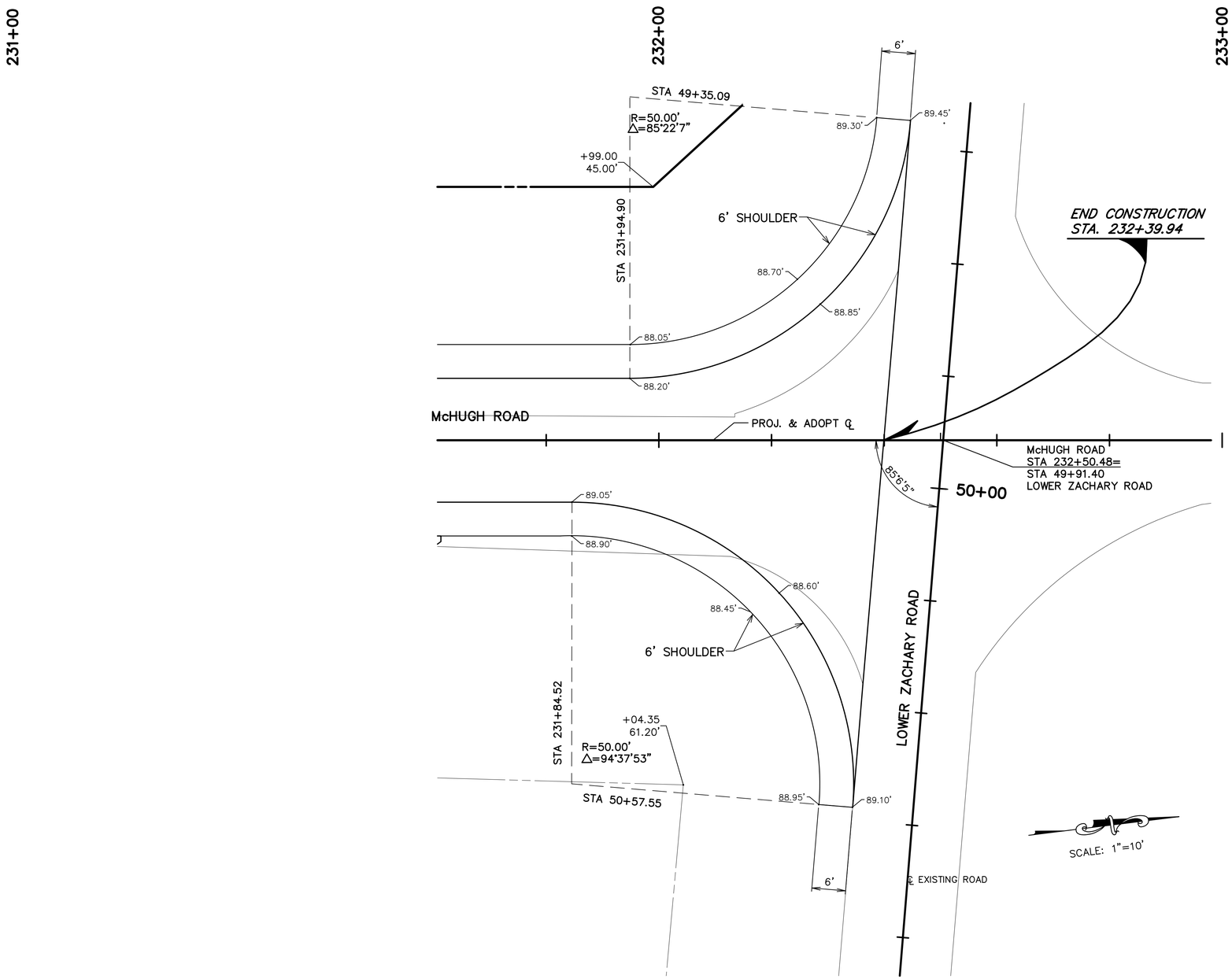


DETAILS OF CONNECTION OF EXISTING TO NEW CONSTRUCTION

STA. 232+50.48
McHUGH ROAD – END CONSTRUCTION
1"=10'

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
ENGINEERING
5-14-2024

SHEET NUMBER 14

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 14

XXX

No.	DATE	REVISION DESCRIPTION	BY

MOVEBR

GEOMERTIC DETAILS

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

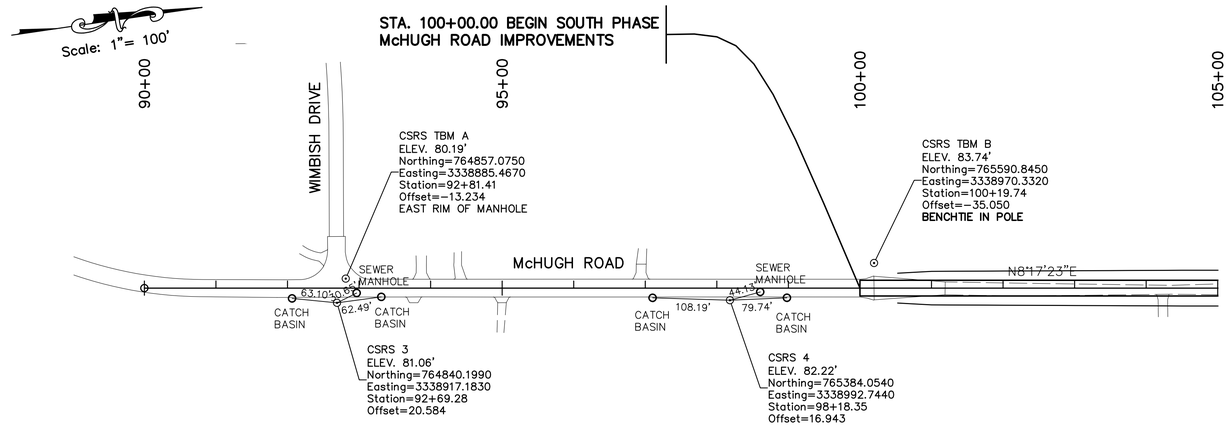
CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

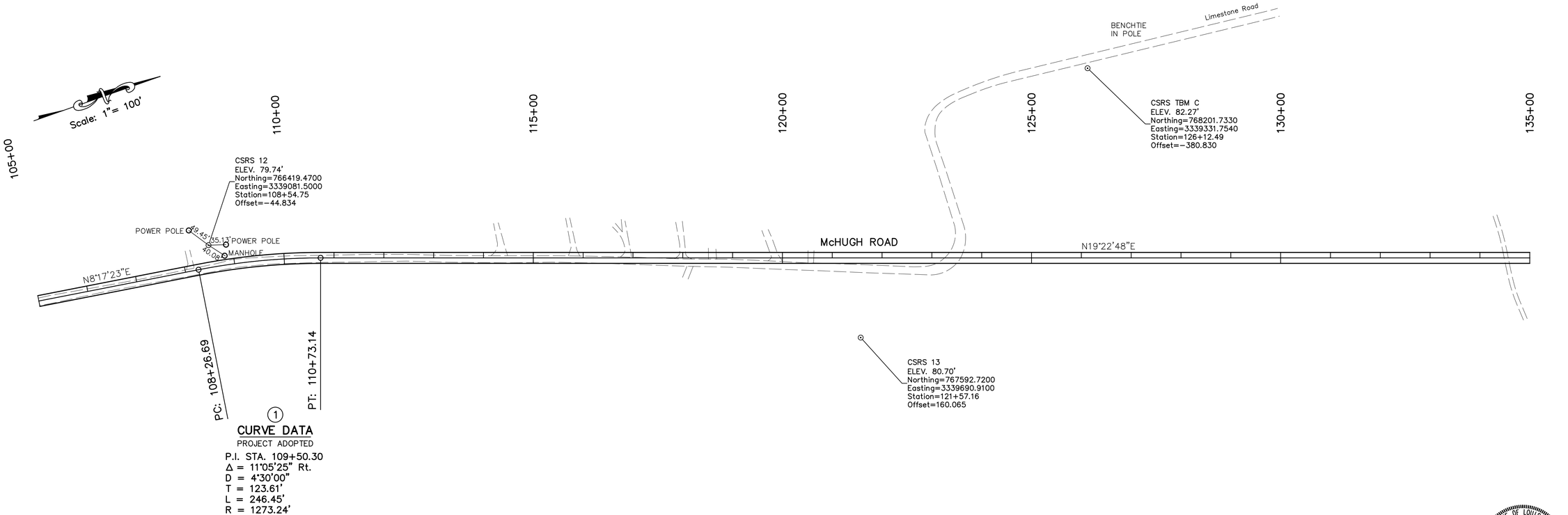
CSRS

P:\22058\MoveBR\Drawings\final plans – north a\ FP-014 Geometric Details.dwg May 14, 2024 – 10:58am

DATUM:
VERTICAL–NAVD 88; FLORIDA 26 E.B.R. PARISH HORIZONTAL–NAD 83

REFERENCE BENCHMARK:
ALL ELEVATIONS SHOWN IN THESE PLANS REFERENCED TO E.B.R.P. BENCHMARK FLORIDA 26, A BRASS DISK SET IN CONCRETE LOCATED AT FLORIDA GAS TRANSMISSION COMPANY AND STAMPED FLORIDA 26. TO CONVERT FROM E.B.R.P. DATUM TO NAVD 88 (GEOID 18) APPLY –0.84 FEET TO ALL ELEVATIONS





1
CURVE DATA
PROJECT ADOPTED
P.I. STA. 109+50.30
Δ = 11°05'25" Rt.
D = 4°30'00"
T = 123.61'
L = 246.45'
R = 1273.24'

J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN ENGINEERING
5-14-2024

SHEET NUMBER 15
PARISH EAST BATON ROUGE PARISH
CITY BATON ROUGE
PROJECT 19-CP-HC-0039A
DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 15

No.	DATE	REVISION DESCRIPTION	BY

SURVEY CONTROL POINTS AND TBM's
McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

CSRS

P:\22058\MoveBR\Drawings\final plans – north a\ FP–015 Survey Control Points and TBMs.dwg May 14, 2024 – 10:58am

Scale: 1" = 100'

135+00 140+00 145+00 150+00 155+00 160+00 165+00

CSRS 11
ELEV. 76.98'
Northing=770772.8825
Easting=3340256.9790
Station=153+44.97
Offset=-361.219

CSRS 15
ELEV. 77.04'
Northing=771339.6840
Easting=3340349.4670
Station=159+10.35
Offset=-462.055

STA: 147+95.00 SOUTH CANAL
(2) 8'X8' BOX CULVERTS

N19°22'48"E

McHUGH ROAD

SOUTH CANAL

DATUM:
VERTICAL-NAVD 88; FLORIDA 26 E.B.R. PARISH HORIZONTAL-NAD 83

REFERENCE BENCHMARK:
ALL ELEVATIONS SHOWN IN THESE PLANS REFERENCED TO E.B.R.P. BENCHMARK FLORIDA 26, A BRASS DISK SET IN CONCRETE LOCATED AT FLORIDA GAS TRANSMISSION COMPANY AND STAMPED FLORIDA 26. TO CONVERT FROM E.B.R.P. DATUM TO NAVD 88 (GEOID 18) APPLY -0.84 FEET TO ALL ELEVATIONS

Scale: 1" = 100'

165+00 170+00 175+00 180+00 185+00 190+00 195+00

CSRS 10
ELEV. 77.94'
Northing=772102.2310
Easting=3340971.4740
Station=168+36.09
Offset=-128.329

53.20'
POWER POLE
109.41'
GAS VENT

Limestone Road

USACE COMITE BRIDGE PROJECT STATION LIMITS 175+00 TO 195+00

STA. 180+49.74 END SOUTH PHASE McHUGH ROAD IMPROVEMENTS = STA. 44+70.00 USACE COMITE BRIDGE

CORPS MONUMENT 2
CORPS ELEV. 79.72
ELEV. 79.86'
Northing=773515.6290
Easting=3341386.7740
Station=183+07.21
Offset=-205.571

CSRS 5
ELEV. 80.50'
Northing=774090.8290
Easting=3341548.0780
Station=189+03.35
Offset=-244.276

CORPS MONUMENT 3
CORPS ELEV. 79.64
ELEV. 79.77'
Northing=773562.9870
Easting=3341470.8810
Station=183+79.80
Offset=-141.944

PC: 190+09.11

STA. 189+51.75 BEGIN NORTH PHASE McHUGH ROAD IMPROVEMENTS = STA. 53+72.00 USACE COMITE BRIDGE

USACE COMITE BRIDGE PROJECT

N19°22'48"E

McHUGH ROAD

CSRS 17
ELEV. 79.09'
Northing=772714.7900
Easting=3341381.6420
Station=175+50.05
Offset=55.332

78.17'
POWER POLE
14.17'
67.00'
53.15'

CSRS TBM D
ELEV. 79.64'
Northing=772011.0880
Easting=3341105.9800
Station=167+94.75
Offset=28.800
BENCHTIE IN POLE

CORPS MONUMENT 1
CORPS ELEV. 78.40'
ELEV. 78.71'
Northing=772760.5570
Easting=3341430.5780
Station=176+09.46
Offset=86.308

CORPS MONUMENT 19-022C-1 2019
CORPS ELEV. 78.53'
ELEV. 78.81'
Northing=772761.0140
Easting=3341407.8780
Station=176+02.36
Offset=64.743

CSRS 9
ELEV. 78.40'
Northing=771988.9470
Easting=3341485.7040
Station=168+99.86
Offset=394.355

POWER POLE
TELEPHONE PEDESTAL
132.62'
129.75'

CORPS MONUMENT 5
CORPS ELEV. 80.37
ELEV. 80.56'
Northing=773982.0980
Easting=3341793.8070
Station=188+82.32
Offset=23.610

CSRS TBM E
ELEV. 80.87'
Northing=774168.4400
Easting=3341861.3500
Station=190+79.04
Offset=27.453
BENCHTIE IN POLE

CSRS 6
ELEV. 80.35'
Northing=774175.1810
Easting=3341994.6760
Station=191+18.07
Offset=154.250

USACE COMITE BRIDGE PROJECT STATION LIMITS 175+00 TO 195+00

(2)

CURVE DATA
PROJECT ADOPTED
P.I. STA. 196+70.08
Δ = 54°52'11" Lt.
D = 4°30'00"
T = 660.97'
L = 1219.33'
R = 1273.24'

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN ENGINEERING
5-14-2024

SHEET NUMBER 16

PARISH EAST BATON ROUGE PARISH
CITY BATON ROUGE
PROJECT 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 16

XXX

REVISION DESCRIPTION BY
No. DATE

MOVEBR

SURVEY CONTROL POINTS AND TBM's

McHUGH ROAD IMPROVEMENTS - NORTH PHASE A

CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

CSRS

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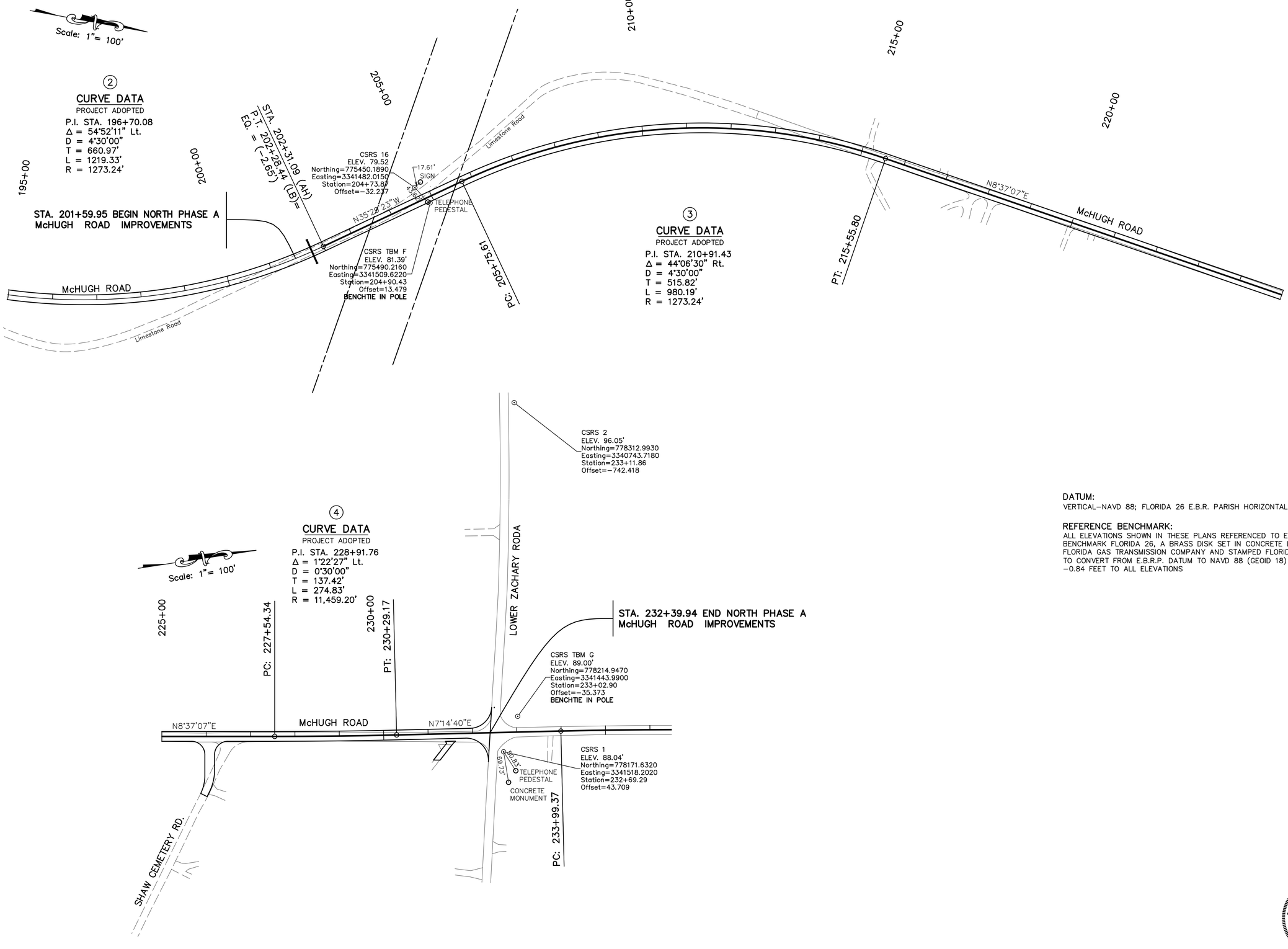


DATUM:
VERTICAL–NAVD 88; FLORIDA 26 E.B.R. PARISH HORIZONTAL–NAD 83

REFERENCE BENCHMARK:
ALL ELEVATIONS SHOWN IN THESE PLANS REFERENCED TO E.B.R.P. BENCHMARK FLORIDA 26, A BRASS DISK SET IN CONCRETE LOCATED AT FLORIDA GAS TRANSMISSION COMPANY AND STAMPED FLORIDA 26. TO CONVERT FROM E.B.R.P. DATUM TO NAVD 88 (GEOID 18) APPLY -0.84 FEET TO ALL ELEVATIONS

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
ON BEHALF OF CSRS
5-9-2024

SHEET NUMBER 17

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 17

REVISION	DESCRIPTION	BY	No.	DATE
XXX				

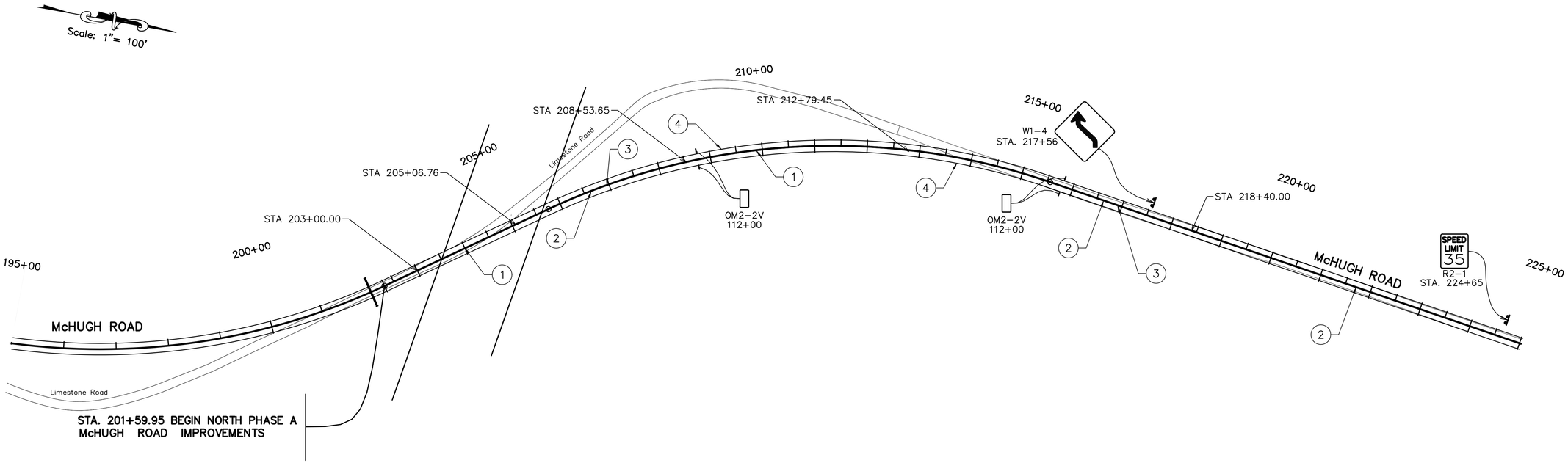
SURVEY CONTROL POINTS AND TBM's

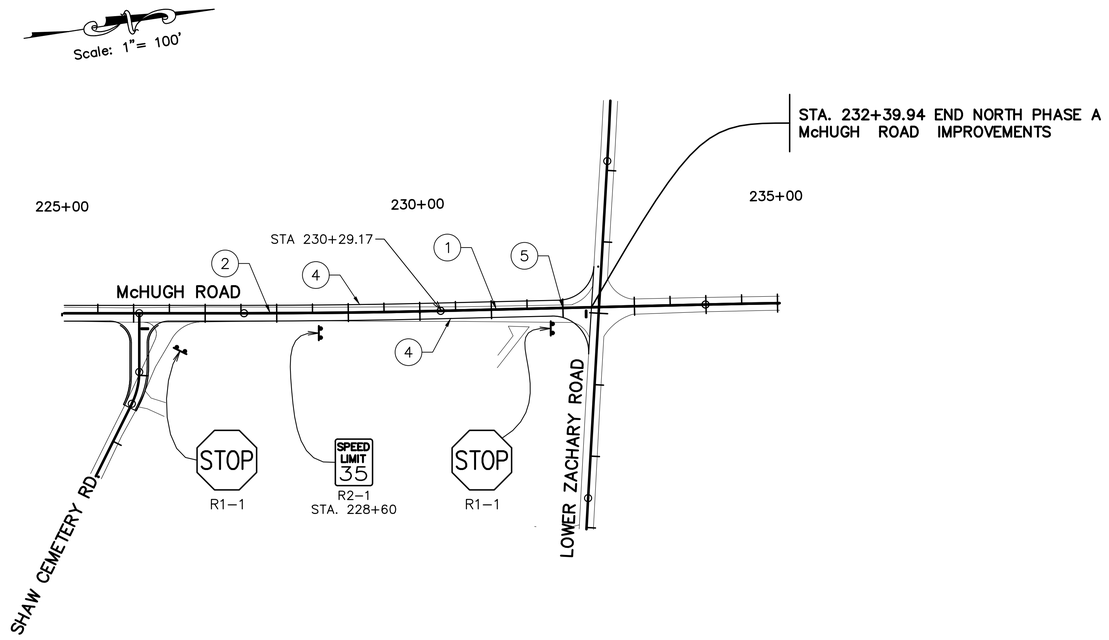
McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

CSRS

P:\22058\MoveBR\Drawings\final plans – north a\ FP-017 Survey Control Points and TBMs.dwg May 14, 2024 – 10:58am





KEYNOTE:

1. 4" DOUBLE SOLID YELLOW LINE W/ RAISED PAVEMENT MARKERS @ 20' O.C.
2. 4" BROKEN YELLOW LINE W/RAISED PAVEMENT MARKERS @ 40' O.C.
3. 4" SOLID YELLOW LINE W/RAISED PAVEMENT MARKERS @ 20' O.C.
4. 4" SOLID WHITE STRIPE
5. 24" SOLID WHITE LINE

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
5-9-2024

SHEET NUMBER 18

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 18

No.	REVISION DESCRIPTION	BY	DATE
	XXX		

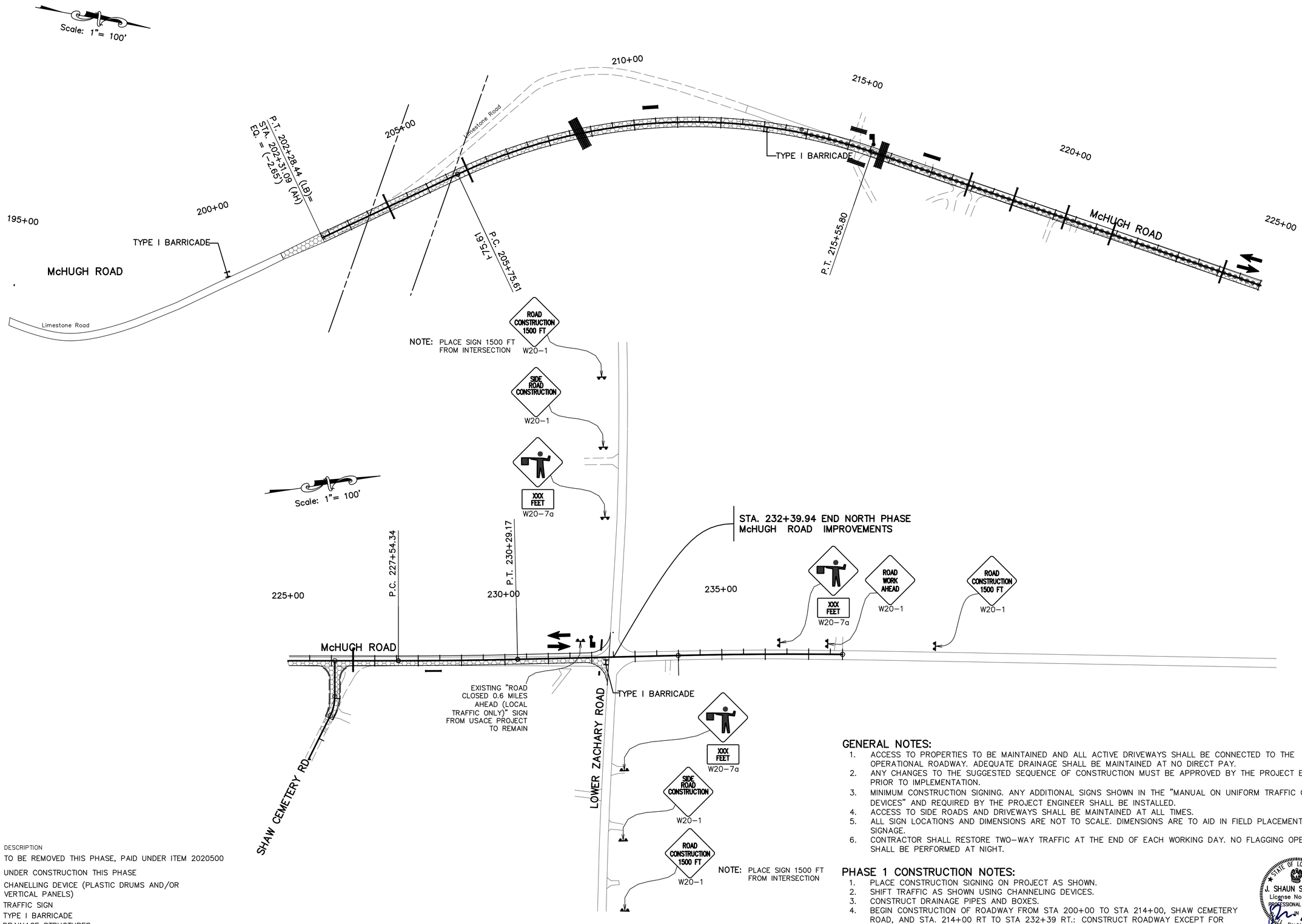
MOVEBR

CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

CSRS

TRAFFIC MARKINGS/SIGNING

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A



LEGEND:

SYMBOL	DESCRIPTION
	TO BE REMOVED THIS PHASE, PAID UNDER ITEM 2020500
	UNDER CONSTRUCTION THIS PHASE
•	CHANELLING DEVICE (PLASTIC DRUMS AND/OR VERTICAL PANELS)
	TRAFFIC SIGN
H	TYPE I BARRICADE
	DRAINAGE STRUCTURES
	FLAGGER

GENERAL NOTES:

1. ACCESS TO PROPERTIES TO BE MAINTAINED AND ALL ACTIVE DRIVEWAYS SHALL BE CONNECTED TO THE OPERATIONAL ROADWAY. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT NO DIRECT PAY.
2. ANY CHANGES TO THE SUGGESTED SEQUENCE OF CONSTRUCTION MUST BE APPROVED BY THE PROJECT ENGINEER PRIOR TO IMPLEMENTATION.
3. MINIMUM CONSTRUCTION SIGNING. ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED.
4. ACCESS TO SIDE ROADS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
5. ALL SIGN LOCATIONS AND DIMENSIONS ARE NOT TO SCALE. DIMENSIONS ARE TO AID IN FIELD PLACEMENT OF SIGNAGE.
6. CONTRACTOR SHALL RESTORE TWO-WAY TRAFFIC AT THE END OF EACH WORKING DAY. NO FLAGGING OPERATIONS SHALL BE PERFORMED AT NIGHT.

PHASE 1 CONSTRUCTION NOTES:

1. PLACE CONSTRUCTION SIGNING ON PROJECT AS SHOWN.
2. SHIFT TRAFFIC AS SHOWN USING CHANNELING DEVICES.
3. CONSTRUCT DRAINAGE PIPES AND BOXES.
4. BEGIN CONSTRUCTION OF ROADWAY FROM STA 200+00 TO STA 214+00, SHAW CEMETERY ROAD, AND STA. 214+00 RT TO STA 232+39 RT.: CONSTRUCT ROADWAY EXCEPT FOR FINAL 2" OF BINDER COURSE.

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN CIVIL ENGINEERING
5-9-2024

SHEET NUMBER 19

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 19

REVISION DESCRIPTION	DATE	BY
XXX		

No.	DATE

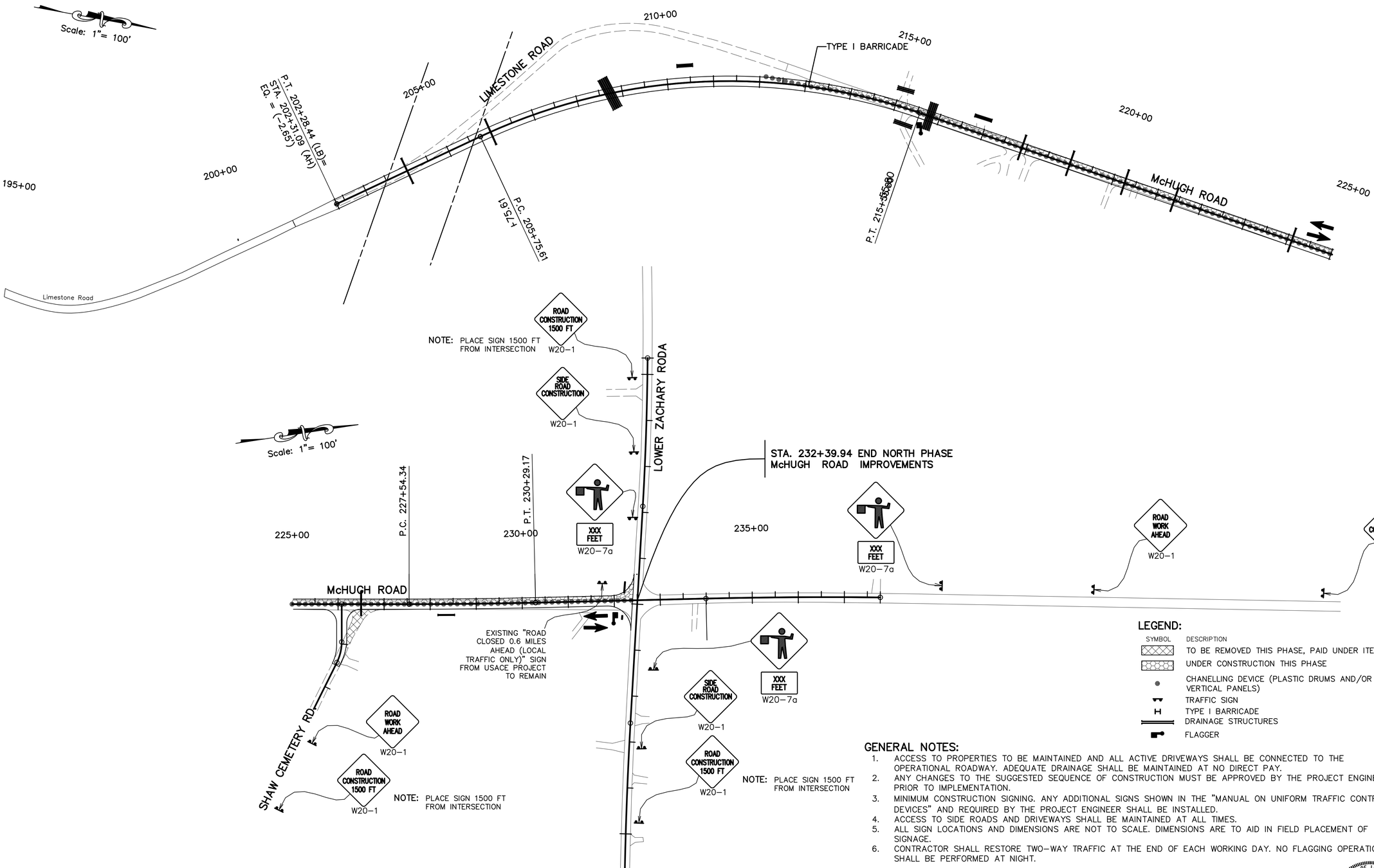
MOVEBR

SEQUENCE OF CONSTRUCTION PHASE 1

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

BR CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

CSRS



LEGEND:

SYMBOL	DESCRIPTION
	TO BE REMOVED THIS PHASE, PAID UNDER ITEM 2020500
	UNDER CONSTRUCTION THIS PHASE
	CHANELLING DEVICE (PLASTIC DRUMS AND/OR VERTICAL PANELS)
	TRAFFIC SIGN
H	TYPE I BARRICADE
	DRAINAGE STRUCTURES
	FLAGGER

GENERAL NOTES:

1. ACCESS TO PROPERTIES TO BE MAINTAINED AND ALL ACTIVE DRIVEWAYS SHALL BE CONNECTED TO THE OPERATIONAL ROADWAY. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT NO DIRECT PAY.
2. ANY CHANGES TO THE SUGGESTED SEQUENCE OF CONSTRUCTION MUST BE APPROVED BY THE PROJECT ENGINEER PRIOR TO IMPLEMENTATION.
3. MINIMUM CONSTRUCTION SIGNING. ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED.
4. ACCESS TO SIDE ROADS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
5. ALL SIGN LOCATIONS AND DIMENSIONS ARE NOT TO SCALE. DIMENSIONS ARE TO AID IN FIELD PLACEMENT OF SIGNAGE.
6. CONTRACTOR SHALL RESTORE TWO-WAY TRAFFIC AT THE END OF EACH WORKING DAY. NO FLAGGING OPERATIONS SHALL BE PERFORMED AT NIGHT.

PHASE 2 CONSTRUCTION NOTES:

1. PLACE CONSTRUCTION SIGNING ON PROJECT AS SHOWN.
2. SHIFT TRAFFIC AS SHOWN USING CHANNELING DEVICES.
3. STA 214+00 LT TO STA 232+39 LT.: CONSTRUCT ROADWAY EXCEPT FOR FINAL 2" OF BINDER COURSE

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
5-14-2024

SHEET NUMBER 20

PARISH EAST BATON ROUGE PARISH
CITY BATON ROUGE
PROJECT 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 20

XXX

REVISION DESCRIPTION BY
No. DATE

MOVEBR

SEQUENCE OF CONSTRUCTION PHASE 2

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

CSRS

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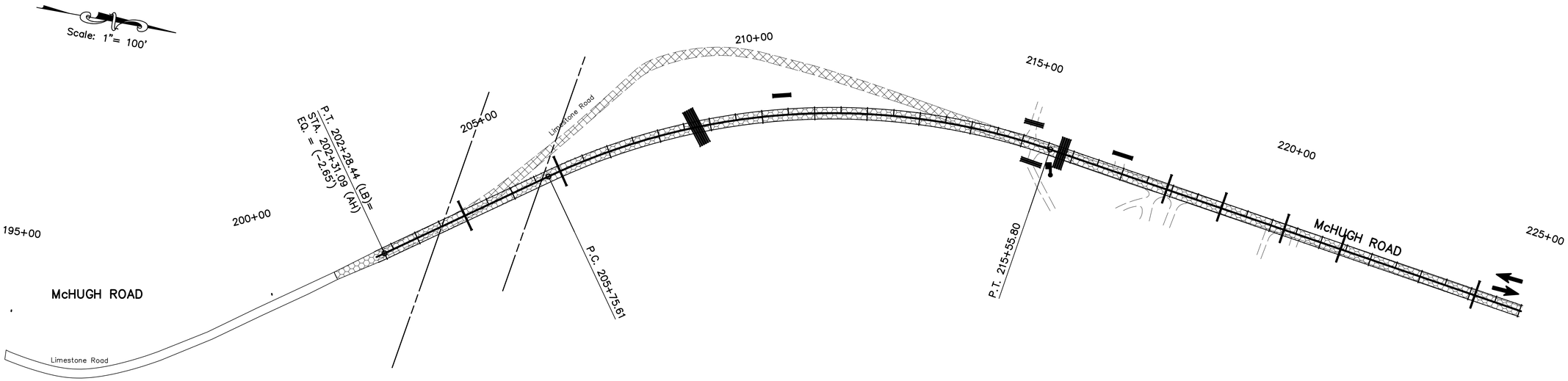
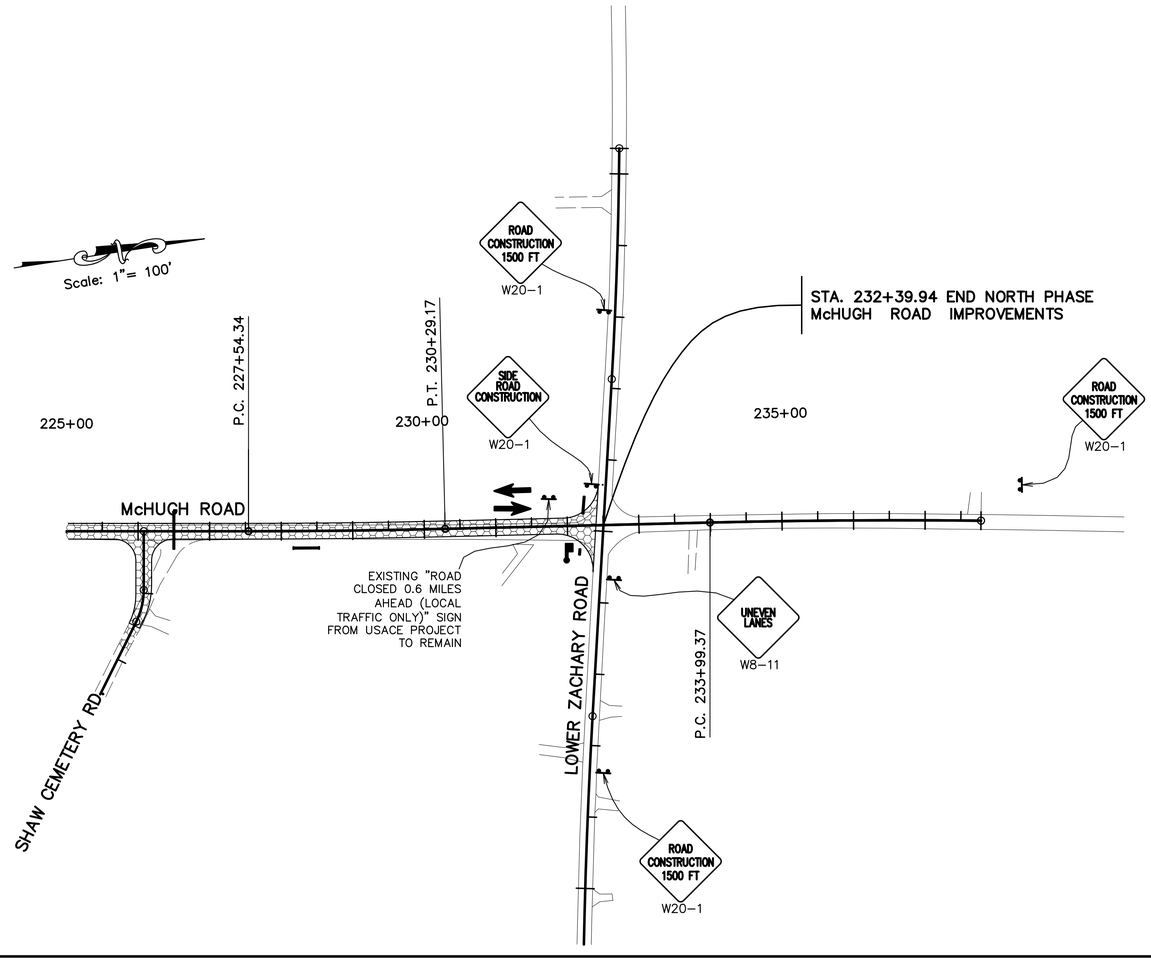




LEGEND:

SYMBOL	DESCRIPTION
	TO BE REMOVED THIS PHASE, PAID UNDER ITEM 2020500
	UNDER CONSTRUCTION THIS PHASE
	TRAFFIC SIGN
H	TYPE I BARRICADE
	DRAINAGE STRUCTURES
	FLAGGER

GENERAL NOTES:

1. ACCESS TO PROPERTIES TO BE MAINTAINED AND ALL ACTIVE DRIVEWAYS SHALL BE CONNECTED TO THE OPERATIONAL ROADWAY. ADEQUATE DRAINAGE SHALL BE MAINTAINED AT NO DIRECT PAY.
2. ANY CHANGES TO THE SUGGESTED SEQUENCE OF CONSTRUCTION MUST BE APPROVED BY THE PROJECT ENGINEER PRIOR TO IMPLEMENTATION.
3. MINIMUM CONSTRUCTION SIGNING. ANY ADDITIONAL SIGNS SHOWN IN THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" AND REQUIRED BY THE PROJECT ENGINEER SHALL BE INSTALLED.
4. ACCESS TO SIDE ROADS AND DRIVEWAYS SHALL BE MAINTAINED AT ALL TIMES.
5. ALL SIGN LOCATIONS AND DIMENSIONS ARE NOT TO SCALE. DIMENSIONS ARE TO AID IN FIELD PLACEMENT OF SIGNAGE.
6. CONTRACTOR SHALL RESTORE TWO-WAY TRAFFIC AT THE END OF EACH WORKING DAY. NO FLAGGING OPERATIONS SHALL BE PERFORMED AT NIGHT.

PHASE 3 CONSTRUCTION NOTES:

1. PLACE CONSTRUCTION SIGNING ON PROJECT AS SHOWN.
2. ADD FINAL 2" BINDER COURSE TO NEW ROADWAY.
3. STA 204+00 TO STA 214+00: REMOVE EXISTING LIMESTONE ROAD AND CULVERTS AS SHOWN.

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
5-9-2024

SHEET NUMBER 21

PARISH EAST BATON ROUGE PARISH
CITY BATON ROUGE
PROJECT 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 21

XXX

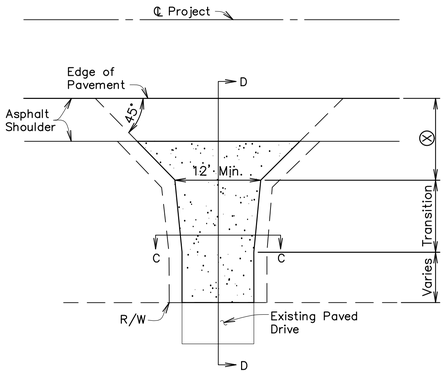
REVISION DESCRIPTION BY
No. DATE

SEQUENCE OF CONSTRUCTION
PHASE 3

McHUGH ROAD IMPROVEMENTS - NORTH PHASE A

CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

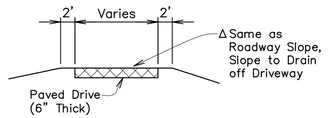
CSRS



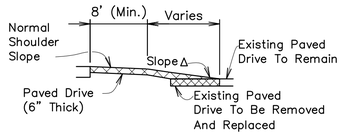
PAVED DRIVE ALONG AGGREGATE SHOULDER CONNECTION EXISTING PAVED DRIVE

1 ASPHALT DRIVEWAY

1"=10'
RE: DRAWING



SECTION C–C



SECTION D–D

1. Asphaltic Concrete For Paved Drives Shall Be 2" Asphaltic Concrete Wearing Course and 2" Asphaltic Concrete Binder Course.
2. Compaction Of Subgrade And Grading Work For Construction Of The Paved Drives Shall Be Satisfactory To The Engineer And Shall Be At No Direct Pay.
3. Maximum Driveway Grade Shall Be 20% (25% For Special Cases). Maximum Breaks In Grade Shall Be 10%, At Not Less Than 10' Intervals.

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
5-9-2024

SHEET NUMBER 22

PARISH EAST BATON ROUGE PARISH
CITY BATON ROUGE
PROJECT 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 22

REVISION	DESCRIPTION	DATE	BY
XXX			

No.	DATE

DRIVEWAY DETAILS

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

CITY OF BATON ROUGE
PARISH OF EAST BATON ROUGE

CSRS

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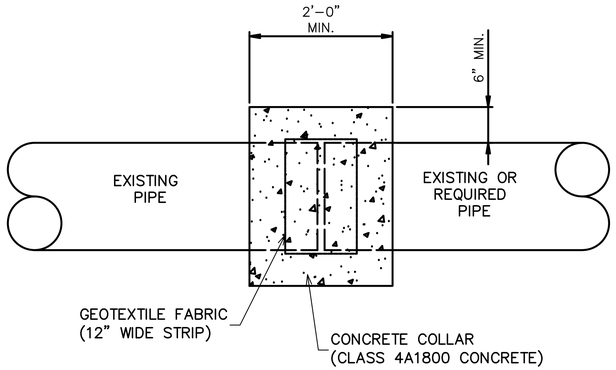
TO REPAIR EXISTING PIPE JOINT SEPARATION
AND/OR
TO CONNECT EXISTING PIPE TO NEW PIPE



1 CONCRETE COLLAR DETAIL

SCALE: NTS
REFERENCE DRAWING (S)

NOTES:
1) NEW PIPE EXTENSION SHALL MATCH EXISTING PIPE IN MATERIAL TYPE AND SIZE BASED ON THE LATEST INDUSTRY STANDARDS

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
5.9.2024

SHEET NUMBER 23

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 23

No.	REVISION DESCRIPTION	DATE	BY
	XXX		

CONCRETE COLLAR DETAIL

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

MOVEBR

BR CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

CSRS

P:\22058\MoveBR\Drawings\final plans – north a\ FP-023 CONCRETE COLLAR DETAIL.dwg May 14, 2024 – 10:59am

New Alignment for McHugh Road
From Wimbush Drive to Lower Zachary Road
Baker, LA

CSRS, Inc.
Baton Rouge, LA

LOG OF SOIL BORING B-17

STE Soil Testing Engineers, Inc.

Sheet 1 of 3

LELAP Certificate No. 02052

File: 05-1057
Date: 05/24/05
Logged by: M. Machen
Driller: Triangle Resources
Rig: Buggy

Location: See Boring Plan

Surface Elevation: N/A (ft., NGVD)

Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
☒			4.5 (P)									Stiff gray SILTY CLAY (CL) w/silt pockets and ferrous nodules
			3.0 (P)	1.76	25	89	52	17	35			
	5		1.5 (P)									
			3.75 (P)	4.57	20	106	53	16	37			Hard gray CLAY (CH) w/silt pockets and ferrous nodules
			4.5+ (P)									
	10											Stiff to very stiff gray SILTY CLAY (CL)
			4.25 (P)	1.24	16	103						-- w/roots and ferrous nodules
	15											
			30 b/f 16-16-14		19		27	15	12			-- w/sand traces
	20											
			3.5 (P)	2.67	26	97						
	25											
			4.5 (P)				40	16	24	CS		
	30											
			3.0 (P)	1.54	30	90						
	35											
			No (P)		22					GS1		Medium dense brown and red SANDY SILT (ML)
	40											

Continued Next Page

Ground Water Level Data
☒ No free water encountered to 10 ft.

Boring Advancement Method
4" Nom. Dia. Short Flight Auger: 0 to 10 ft.
4" Dia. Rotary Wash: 10 to 100 ft.

Boring Abandonment Method
Borehole grouted with cement/ bentonite upon completion

Notes
CS: See Consolidation Curve
GS: Particle Size Analysis
GS1: Gravel = 0%, Sand = 36%

Strata Boundaries May Not Be Exact

New Alignment for McHugh Road
From Wimbush Drive to Lower Zachary Road
Baker, LA

CSRS, Inc.
Baton Rouge, LA

LOG OF SOIL BORING B-17

STE Soil Testing Engineers, Inc.

Sheet 2 of 3

LELAP Certificate No. 02052

File: 05-1057
Date: 05/24/05
Logged by: M. Machen
Driller: Triangle Resources
Rig: Buggy

Location: See Boring Plan

Surface Elevation: N/A (ft., NGVD)

Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
			29 b/f 16-14-15									Medium dense brown and red SANDY SILT (ML)
												-- w/clay layers and organics
	45		20 b/f 20-10-10									
			28 b/f 10-12-16		29		40	17	23			Very stiff gray SILTY CLAY (CL)
	50											
			3.5 (P)				55	19	36			Hard gray and tan SANDY CLAY (CL)
	55											
			4.5 (P)	4.71	21	105						
	60											
			3.5 (P)									-- w/organics
	65											
			4.5+ (P)	1.91	26	96	42	20	22			Stiff gray SILTY CLAY (CL) w/sand seams and ferrous nodules
	70											
			No (P)		26		55	24	31	GS2		Very dense gray CLAYEY SAND (SC)
	75											
			37 b/f 11-18-19									-- w/6-inch clay layer
	80											

Continued Next Page

Ground Water Level Data
☒ No free water encountered to 10 ft.

Boring Advancement Method
4" Nom. Dia. Short Flight Auger: 0 to 10 ft.
4" Dia. Rotary Wash: 10 to 100 ft.

Boring Abandonment Method
Borehole grouted with cement/ bentonite upon completion

Notes
GS: Particle Size Analysis
GS2: Gravel = 0%, Sand = 24%

Strata Boundaries May Not Be Exact

New Alignment for McHugh Road
From Wimbush Drive to Lower Zachary Road
Baker, LA

CSRS, Inc.
Baton Rouge, LA

LOG OF SOIL BORING B-17

STE Soil Testing Engineers, Inc.

Sheet 3 of 3

LELAP Certificate No. 02052

File: 05-1057
Date: 05/24/05
Logged by: M. Machen
Driller: Triangle Resources
Rig: Buggy

Location: See Boring Plan

Surface Elevation: N/A (ft., NGVD)

Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
												Very stiff to stiff gray CLAY (CH)
	85		26 b/f 11-12-14									
												-- w/sand seams
	90		3.5 (P)	3.78	29	93	51	19	32			
			2.5 (P)									
	95											
			2.0 (P)	1.89	36	82						-- w/sand layers
	100											Boring completed at 100 ft.
	105											
	110											
	115											
	120											

Ground Water Level Data
☒ No free water encountered to 10 ft.

Boring Advancement Method
4" Nom. Dia. Short Flight Auger: 0 to 10 ft.
4" Dia. Rotary Wash: 10 to 100 ft.

Boring Abandonment Method
Borehole grouted with cement/ bentonite upon completion

Notes

Strata Boundaries May Not Be Exact

New Alignment for McHugh Road
From Wimbush Drive to Lower Zachary Road
Baker, LA

CSRS, Inc.
Baton Rouge, LA

LOG OF SOIL BORING B-18

STE Soil Testing Engineers, Inc.

Sheet 1 of 3

LELAP Certificate No. 02052

File: 05-1057
Date: 05/23/05
Logged by: M. Machen
Driller: Triangle Resources
Rig: Buggy

Location: See Boring Plan

Surface Elevation: N/A (ft., NGVD)

Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
			4.5+ (P)									Hard dark gray CLAY (CH) w/organics
			4.0 (P)	4.66	19	100	52	17	35			
	5		2.75 (P)				46	15	31	CS		Very stiff gray SILTY CLAY (CL) w/organics
			3.0 (P)	2.94	21	95						
	10		29 b/f 10-14-15									
			33 b/f 13-15-18		13							
	15											
			66 b/f 22-33-33									-- w/silt layer at 19 to 19.5 ft.
	20											
			3.0 (P)	2.73	31	86						-- w/silt seams and pockets
	25											
▽			3.5 (P)									
▼	30											Dense gray SANDY SILT (ML)
			35 b/f 16-17-18		25					GS1		
	35											
			39 b/f 25-19-20									-- w/alternating sand and silt layers
	40											

Continued Next Page

Ground Water Level Data
▽ Free water first encountered
▼ Water level after 15 mins.

Boring Advancement Method
4" Nom. Dia. Short Flight Auger: 0 to 30 ft.
4" Dia. Rotary Wash: 30 to 100 ftr.

Boring Abandonment Method
Borehole grouted with cement/ bentonite upon completion

Notes
CS: See Consolidation Curve
GS: Particle Size Analysis
GS1: Gravel = 0%, Sand = 23%

Strata Boundaries May Not Be Exact

New Alignment for McHugh Road
From Wimbush Drive to Lower Zachary Road
Baker, LA

CSRS, Inc.
Baton Rouge, LA

LOG OF SOIL BORING B-18

STE Soil Testing Engineers, Inc.

Sheet 2 of 3

LELAP Certificate No. 02052

File: 05-1057
Date: 05/23/05
Logged by: M. Machen
Driller: Triangle Resources
Rig: Buggy

Location: See Boring Plan

Surface Elevation: N/A (ft., NGVD)

Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
												Medium brown CLAYEY SILT (ML) w/organics and sand traces
			0.5 (P)	1.31t	30	93						
	45											
			21 b/f 12-11-10									Medium gray and brown CLAY (CH) w/silt layers and silty clay layers
	50											
			3.25 (P)	0.81	28	89	55	19	36			
	55											
			2.25 (P)									
	60											
			4.5+ (P)	3.25	25	98						Very stiff to stiff gray and tan CLAY (CH)
	65											
			3.5 (P)									-- w/sand traces
	70											
			4.5+ (P)	1.91	26	96	55	24	31			
	75											
			65 b/f 29-31-34									Very dense gray SILTY SAND (SM) w/clay traces
	80											

Continued Next Page

Ground Water Level Data
▽ Free water first encountered
▼ Water level after 15 mins.

Boring Advancement Method
4" Nom. Dia. Short Flight Auger: 0 to 30 ft.
4" Dia. Rotary Wash: 30 to 100 ftr.

Boring Abandonment Method
Borehole grouted with cement/ bentonite upon completion

Notes
t: Unconsolidated, Undrained Triaxial Compression Test
Lateral Pressure = 30.8 psi

Strata Boundaries May Not Be Exact

New Alignment for McHugh Road
From Wimbush Drive to Lower Zachary Road
Baker, LA

CSRS, Inc.
Baton Rouge, LA

LOG OF SOIL BORING B-18

STE Soil Testing Engineers, Inc.

Sheet 3 of 3

LELAP Certificate No. 02052

File: 05-1057
Date: 05/23/05
Logged by: M. Machen
Driller: Triangle Resources
Rig: Buggy

Location: See Boring Plan

Surface Elevation: N/A (ft., NGVD)

Ground Water Level	Depth (feet)	Samples	Field Test Results	Compressive Strength (tsf)	Water Content (%)	Dry Unit Weight (pcf)	Atterberg Limits LL	Atterberg Limits PL	Atterberg Limits PI	Other	Soil Type	Description
												Very dense gray SILTY SAND (SM) w/clay traces
												Very stiff gray and brown SILTY CLAY (CL)
	85		24 b/f 12-11-13									
												Very dense gray SILTY SAND (SM)
	90		No (P)									-- w/clay lenses
	95		72 b/f 14-32-40		29					GS2		
												Very stiff dark gray CLAY (CH)
			23 b/f 23-13-10									
	100											Boring completed at 100 ft.
	105											
	110											
	115											
	120											

Ground Water Level Data
▽ Free water first encountered
▼ Water level after 15 mins.

Boring Advancement Method
4" Nom. Dia. Short Flight Auger: 0 to 30 ft.
4" Dia. Rotary Wash: 30 to 100 ftr.

Boring Abandonment Method
Borehole grouted with cement/ bentonite upon completion

Notes
GS: Particle Size Analysis
GS2: Gravel = 0%, Sand = 76%

Strata Boundaries May Not Be Exact

NEEL SCHAFFER

STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN CIVIL ENGINEERING
5-9-2024

SHEET NUMBER 24

PARISH: EAST BATON ROUGE PARISH
CITY: BATON ROUGE
PROJECT: 19-CP-HC-0039A

DESIGNED CSRS
CHECKED CSRS
DETAILED CSRS
CHECKED CSRS
DATE 05/09/2024
SHEET 24

No.	DATE	REVISION DESCRIPTION	BY
XXX			

SOIL BORING LOGS

McHUGH ROAD IMPROVEMENTS – NORTH PHASE A

CITY OF BATON ROUGE PARISH OF EAST BATON ROUGE

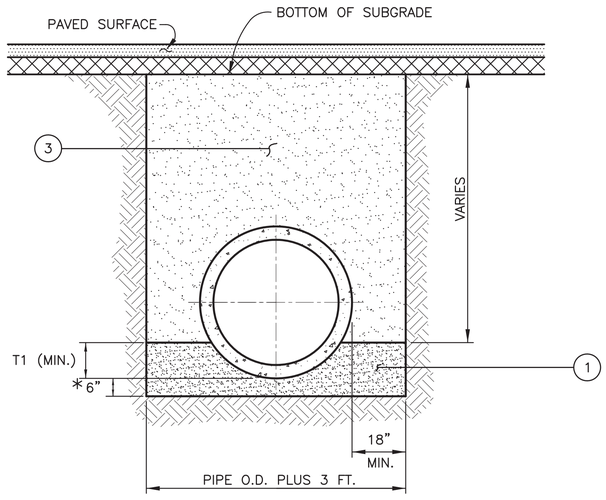
CSRS

P:\22058\MoveBR\Drawings\final plans – north a\ FP-024 Soil Borings.dwg May 14, 2024 – 10:59am

PROJECT NO.	SHEET
19-CP-HC-0039A	301

RIGID PIPE

(REINFORCED CONCRETE)

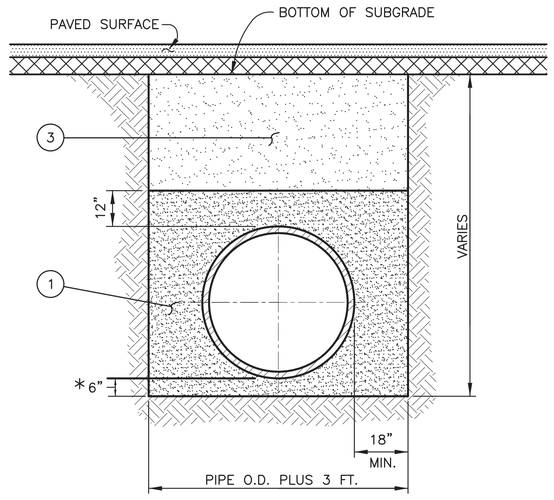


PIPE UNDER OR WITHIN 5 FEET OF STREETS AND PAVED SURFACES.

SCALE: 1/2"=1'-0"

FLEXIBLE PIPE

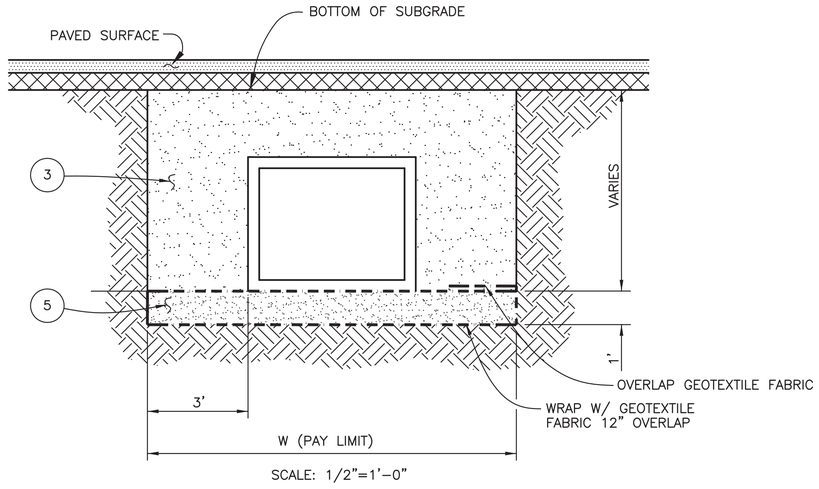
(CORRUGATED METAL, POLYVINYL CHLORIDE, AND POLYETHYLENE)



PIPE UNDER OR WITHIN 5 FEET OF STREETS AND PAVED SURFACES.

SCALE: 1/2"=1'-0"

TYPICAL BEDDING DETAIL FOR REINFORCED CONCRETE BOX CULVERT

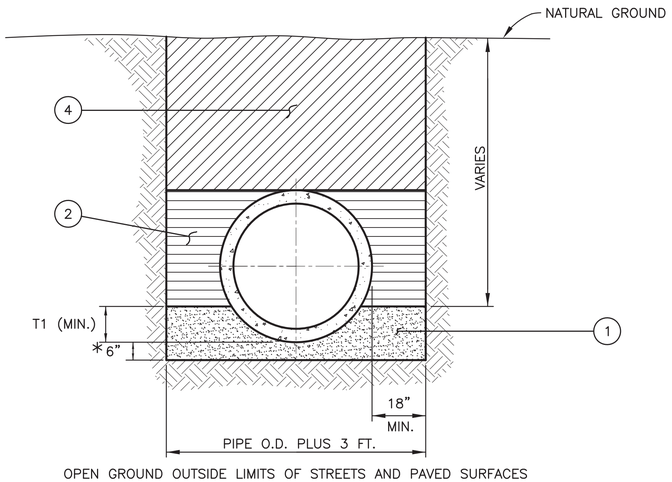


SCALE: 1/2"=1'-0"

GENERAL NOTES

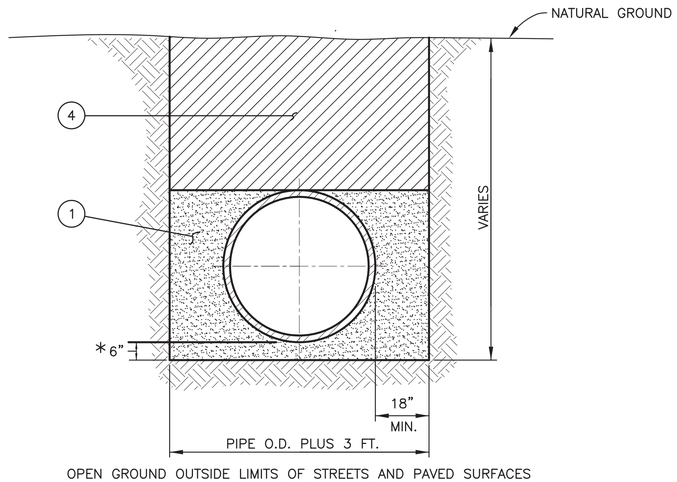
ALL MATERIALS AND WORK SHALL CONFORM TO THE LATEST EDITION OF THE CITY OF BATON ROUGE AND PARISH OF EAST BATON ROUGE-"STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION".

* BEDDING UNDER PIPE SHALL BE 6" UNLESS OTHERWISE SPECIFIED IN THE PLANS OR SPECIAL PROVISIONS.



OPEN GROUND OUTSIDE LIMITS OF STREETS AND PAVED SURFACES

SCALE: 1/2"=1'-0"



OPEN GROUND OUTSIDE LIMITS OF STREETS AND PAVED SURFACES

SCALE: 1/2"=1'-0"

LEGEND

1. BEDDING MATERIAL COMPACTED TO 95% STANDARD PROCTOR DENSITY. (NO DIRECT PAY).
2. BACKFILL MATERIAL (QUALITY EXCAVATED OR SELECT MATERIAL OR SAND). COMPACTED TO A DENSITY AT LEAST EQUAL TO SURROUNDING UNDISTURBED SOIL. (NO DIRECT PAY).
3. BACKFILL MATERIAL (BACKFILL SAND), COMPACTED TO 95% STANDARD PROCTOR DENSITY. (NO DIRECT PAY).
4. BACKFILL MATERIAL (QUALITY EXCAVATED OR SELECT MATERIAL). COMPACTED TO A DENSITY AT LEAST EQUAL TO THE SURROUNDING UNDISTURBED SOIL. (NO DIRECT PAY).
5. 67 LIMESTONE W/ GEOTEXTILE FABRIC.

PIPE BEDDING SCHEDULE

(RIGID PIPE)

PIPE SIZE	T1 (MIN.)
12"-30"	6"
36"-60"	12"
66"-96"	18"

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/14/2012

DATE	DESCRIPTION REVISIONS	BY

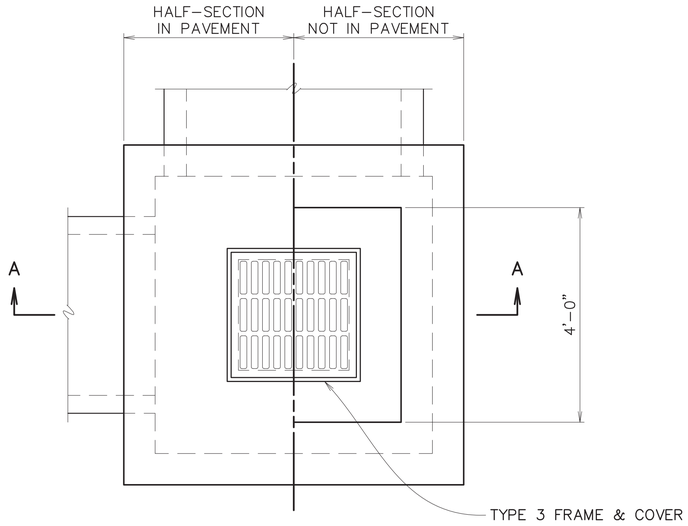
STANDARD PLAN NO.	DATED	SHEET NO.
701-01	February 8, 2008	1 OF 1

STANDARD BEDDING AND BACKFILL DETAILS FOR STORM DRAINAGE CONDUIT

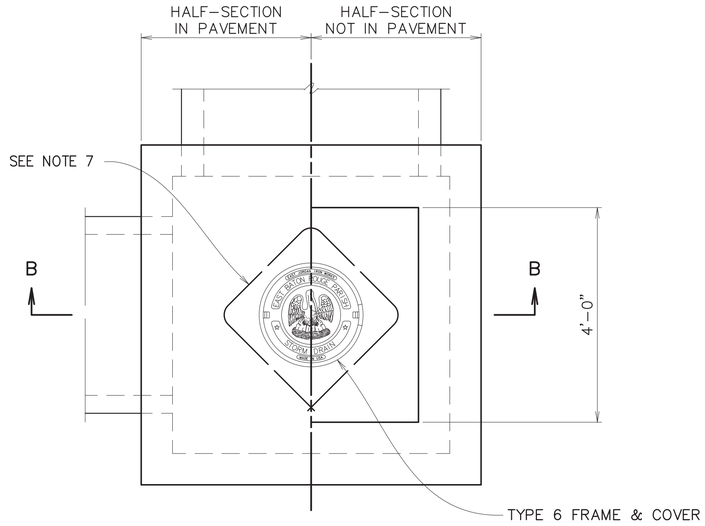
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
R. ELLIS	G. VANNICE	R. ELLIS	T. STEPHENS

PROJECT NO.	SHEET
19-CP-HC-0039A	302



TOP VIEW
TYPE 3
SCALE: 3/4"=1'–0"



TOP VIEW
TYPE 6
SCALE: 3/4"=1'–0"

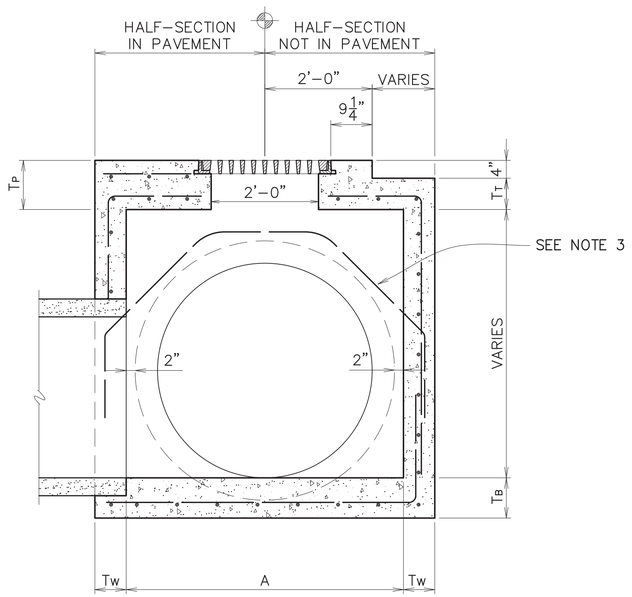
PIPE SIZE		DIMENSION
ROUND PIPE	ARCH PIPE (ROUND EQUIV.)	A *
15"	–	2'–10"
18"	15"	2'–10"
24"	18"	2'–10"
30"	24"	3'–5"
36"	30"	4'–0"
42"	36"	4'–8"
48"	–	5'–2"
54"	42"	5'–9"
60"	48"	6'–4"
–	54"	6'–8"
72"	60"	7'–6"
84"	72"	8'–10"

* INCREASE AS REQUIRED TO PROVIDE MINIMUM TOP WIDTH OF 4' SQUARE.

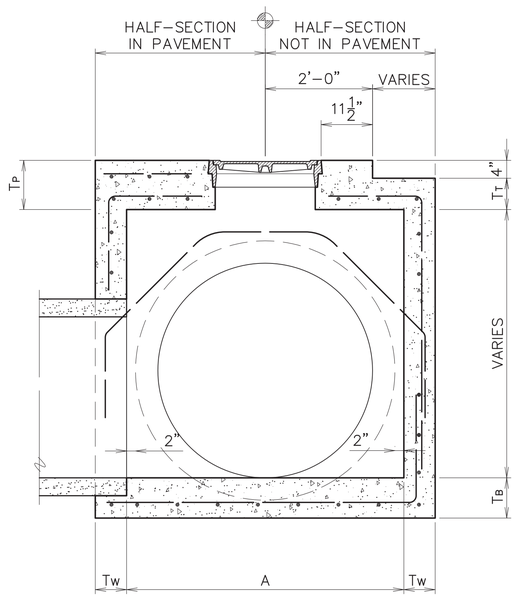
NOTE:

1. SEE STANDARD PLAN 702–99 FOR FRAME AND COVER DETAILS. TYPE 3 OR TYPE 6 FRAME AND COVER REQUIRED.
2. PRECAST CONCRETE STRUCTURES CONFORMING TO STANDARD PLAN 702–97 MAY BE FURNISHED.
3. DIAGONAL REINFORCEMENT REQUIRED FOR PIPE LARGER THAN 36". BARS SHALL LAP TO A FULL LENGTH VERTICAL BAR W/18d LAP LENGTH.
4. DIMENSION A MAY BE VARIED FOR SKEWED PIPE.
5. SEE STANDARD PLAN 702–96 FOR THICKNESS, REINFORCING STEEL, AND OTHER STRUCTURAL DETAILS.
6. SEE STANDARD PLAN 702–98 FOR FOR CURB TRANSITION DETAILS.
7. DIAGONAL REINFORCEMENT REQUIRED. USE SAME REBAR SIZE AS TOP REINFORCING. PLACE AS BOTTOM STEEL IF LOCATED IN PAVEMENT.

⊕ PLAN STATION CALL–OUT



SECTION A–A
TYPE 3
SCALE: 3/4"=1'–0"



SECTION B–B
TYPE 6
SCALE: 3/4"=1'–0"

DATE	DESCRIPTION REVISION	BY

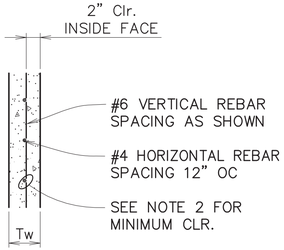
STANDARD PLAN No.	DATED	SHT. No.
702–20	DEC. 6, 2010	1 OF 1

CAST IRON GRATE INLET AND JUNCTION BOX

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

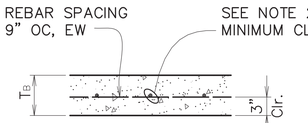
DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	T. STEPHENS

PROJECT NO.	SHEET
19-CP-HC-0039A	303



STANDARD WALL DETAIL

SCALE: N.T.S.



BOTTOM SLAB DETAIL

SCALE: N.T.S.

WALL DIMENSIONS

WALL HEIGHT (FT)	"Tw" WALL THICKNESS (IN)	VERT. REBAR SPACING (IN)
0'–4'	6.0"	12"
4'–8'	6.0"	9"
8'–10'	7.0"	9"
10'–12'	7.0"	6"
12'–16'	8.0"	6"
16'–20'	9.0"	6"

BOTTOM SLAB DIMENSIONS

"TB" SLAB THICKNESS (IN)	"A" OR "B" MAXIMUM WIDTH OF OPENING INSIDE STRUCTURE (FT)	MAXIMUM DEPTH STRUCTURE (FT)	REBAR REQ'D
6.0"	4'	8'	#4
7.0"	6'	12'	#5
8.0"	8'	16'	#5
9.0"	10'	20'	#6

BOTTOM SLAB THICKNESS TO MEET MINIMUM CRITERIA SHOWN FOR OPENING WIDTH AND STRUCTURE DEPTH.

PAVEMENT SLAB DIMENSIONS

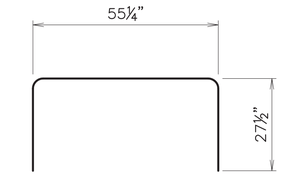
"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"TP" SLAB THICKNESS (IN)	REBAR REQ'D *	INTERMEDIATE SUPPORT BEAM REQ'D (Y OR N)
≤10'	≤ 4'	7.0"	#5	N
≤10'	4'–6'	8.0"	#5	N
≤10'	6'–8'	10.0"	#6	N
6'–8'	6'–8'	7.0"	#5	Y
8'–10'	8'–10'	8.0"	#5	Y

* 9" OC, EW, TB

REBAR MINIMUM LAP AND DEVELOPMENT LENGTHS

REBAR SIZE	LAP LENGTH (IN)	DEVELOPMENT LENGTH (IN)
#4	16"	12"
#5	20"	16"
#6	24"	19"

SHOP DRAWING DETAILING REQ'D TO PROVIDE MINIMUM LENGTHS OR ELSE USE STANDARD HOOKS



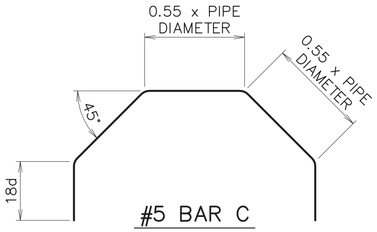
#5 BAR A

SCALE: N.T.S.
2 REQ'D PER FRAME

#5 BAR B

SCALE: N.T.S.
1 REQ'D PER FRAME

ABBREVIATIONS:
OC – ON CENTER
EW – EACH WAY
TB – TOP & BOTTOM

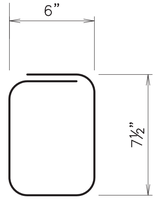


#5 BAR C

SCALE: N.T.S.
1 REQ'D PER PIPE ENTRANCE ≥ 36"ø

#5 BAR D

SCALE: N.T.S.
2 REQ'D PER EACH INTERMEDIATE BEAM



#3 BAR J

SCALE: N.T.S.
REQ'D STIRRUPS @ 4" OC

NOTE:

1. ALL REINFORCING STEEL TO BE DEFORMED GRADE 60 MINIMUM REBAR. STEEL BAR SIZE & SPACING MAY BE ADJUSTED AS LONG AS AREA OF STEEL IS MAINTAINED PER FOOT.
2. MINIMUM CONCRETE COVER FOR REBAR STEEL IS TO BE 3" FOR CONCRETE FACES CAST AGAINST EARTH, 2.5" FOR FACES PERMANENTLY EXPOSED TO EARTH AND 2" FOR ALL OTHERS.
3. CONCRETE COMPRESSIVE STRENGTH FOR CAST–IN–PLACE STRUCTURES TO BE 4000 PSI AT 28 DAYS MINIMUM.
4. SEE SHEET 702–99 FOR FRAME AND COVER DETAILS.
5. SLABS MAY BE PRECAST AND DOWELED INTO WALL SECTIONS. (SEE STD. PLAN 702–97)

A=LENGTH INSIDE OPENING MEASURED PARALLEL TO CURB
B=WIDTH INSIDE OPENING MEASURED PERPENDICULAR TO CURB

TOP SLAB DIMENSIONS

"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"TT" SLAB THICKNESS (IN)	* REBAR REQ'D
≤ 4'	≤ 4'	6.0"	#4
4'–6'	4'–6'	6.0"	#5
6'–8'	6'–8'	6.0"	#6
8'–20'	8'–10'	7.0"	#6

* 9" OC, EW, SET 2" CLR. FROM SLAB BOTTOM

MIDDLE SLAB UNDER PAVEMENT DIMENSIONS

"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"TMP" SLAB THICKNESS (IN)	* REBAR REQ'D
≤20'	≤ 4'	7.0"	#4
≤20'	4'–6'	7.0"	#5
≤20'	6'–8'	8.5"	#6
≤20'	8'–10'	10.0"	#6

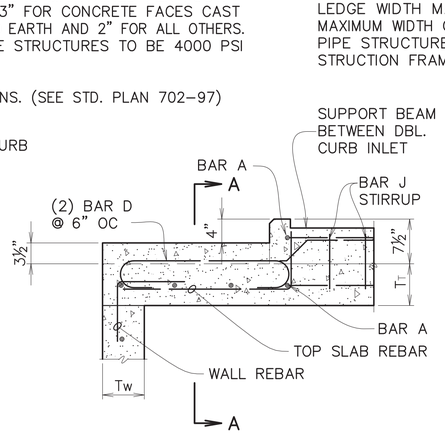
* 9" OC, EW, SET 2" CLR. FROM SLAB BOTTOM

MIDDLE SLAB OUTSIDE PAVEMENT DIMENSIONS

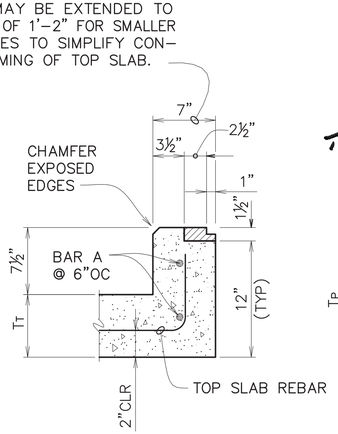
"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"TM" SLAB THICKNESS (IN)	* REBAR REQ'D
≤20'	≤ 4'	7.0"	#4
≤20'	4'–6'	7.0"	#5
≤20'	6'–8'	7.0"	#6
≤20'	8'–10'	8.0"	#6

* 9" OC, EW, SET 2" CLR. FROM SLAB BOTTOM

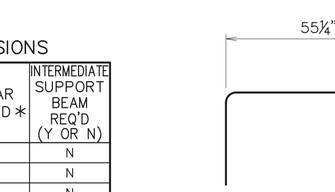
LEDGE WIDTH MAY BE EXTENDED TO MAXIMUM WIDTH OF 1'–2" FOR SMALLER PIPE STRUCTURES TO SIMPLIFY CONSTRUCTION FRAMING OF TOP SLAB.



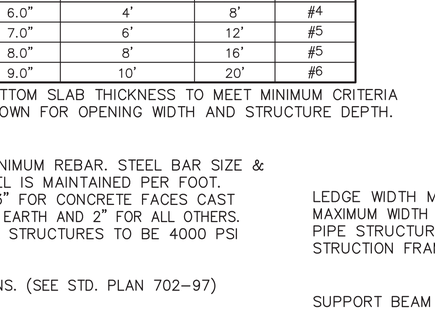
TOP SLAB
INTERMEDIATE SUPPORT BEAM
FOR DOUBLE CURB INLET
SCALE: N.T.S.



TYPE 1 FRAME SUPPORT DETAIL
SCALE: N.T.S.

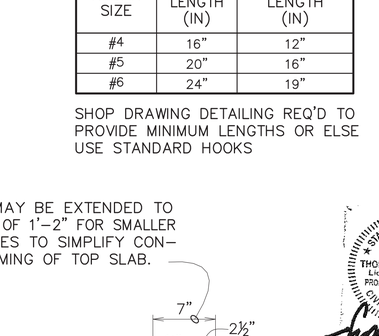


TYPE 2 FRAME IN PAVEMENT
SUPPORT DETAIL
SCALE: N.T.S.

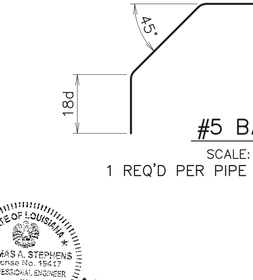


SECTION A–A

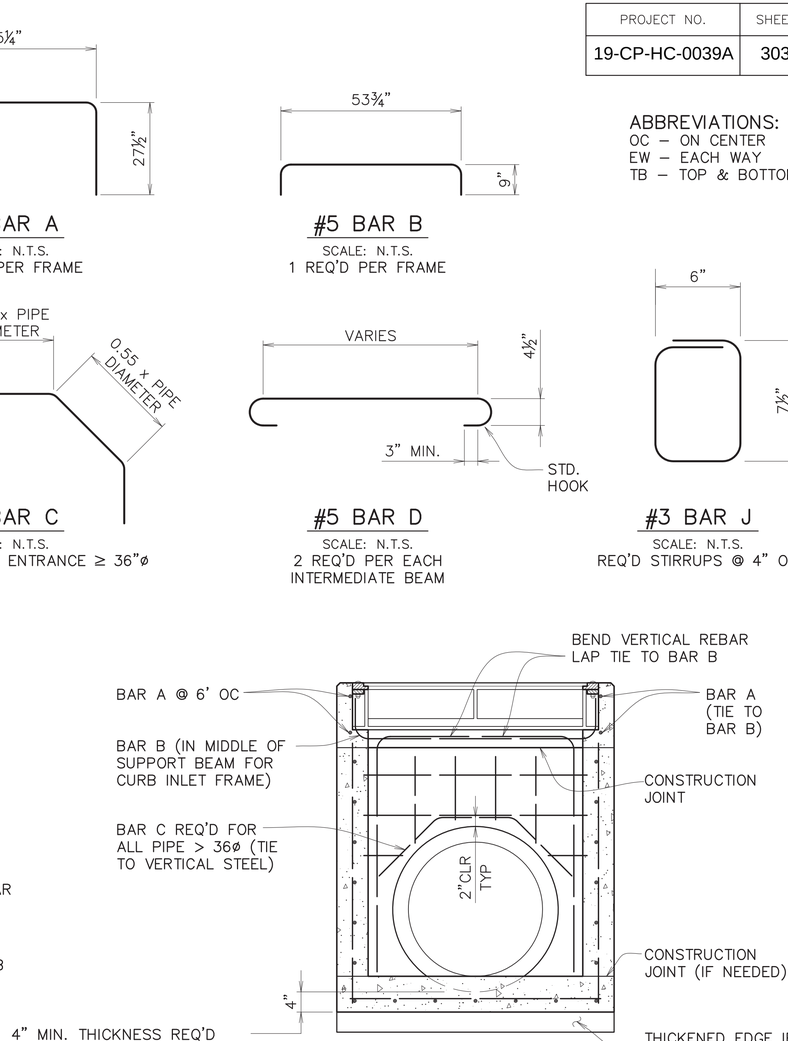
TOP SLAB
INTERMEDIATE SUPPORT BEAM
FOR DOUBLE CURB INLET
SCALE: N.T.S.



TYPICAL SUPPORT BEAM
BETWEEN DOUBLE CURB INLETS
SCALE: N.T.S.



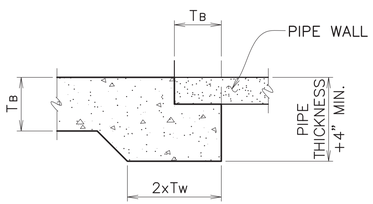
TYPE 3 FRAME IN PAVEMENT
SUPPORT DETAIL
SCALE: N.T.S.



TYPICAL PIPE AND
FRAME REINFORCEMENT

SCALE: N.T.S.

4" MIN. THICKNESS REQ'D IN BOTTOM SLAB BELOW PIPE OUTSIDE WALL. IF "TB" DOES NOT MEET MIN. THICKNESS REQ'D FOR PIPE O.D., PROVIDE THICKENED EDGE WITH MIN. WIDTH OF 2xTw. REINFORCE AS REQ'D. FOR BASE SLAB.



THICKENED EDGE
FOR PIPE SUPPORT
SCALE: N.T.S.

DATE	DESCRIPTION REVISION	BY

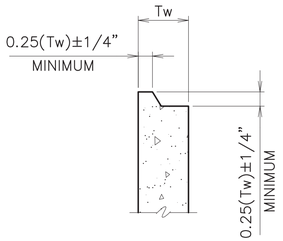
STANDARD PLAN No.	DATED	SHT. No.
702–96	DEC. 6, 2010	1 OF 1

CAST–IN–PLACE DRAINAGE STRUCTURES (STRUCTURAL DETAILS)

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

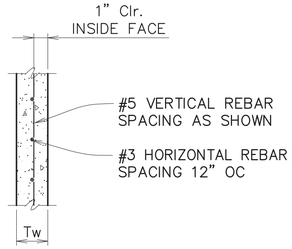
DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	T. STEPHENS

PROJECT NO.	SHEET
19-CP-HC-0039A	304



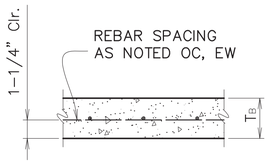
JOINT DETAIL

SCALE: N.T.S.



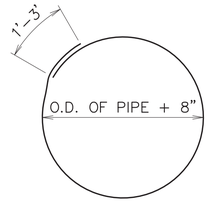
STANDARD
PRECAST WALL DETAIL

SCALE: N.T.S.



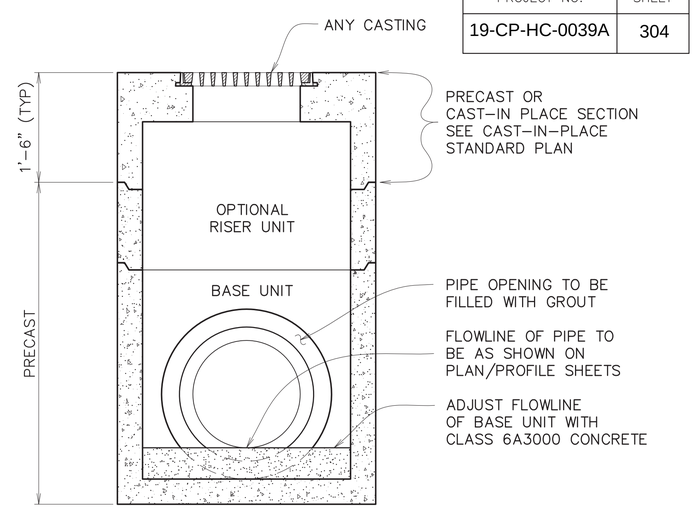
BOTTOM SLAB DETAIL

SCALE: N.T.S.



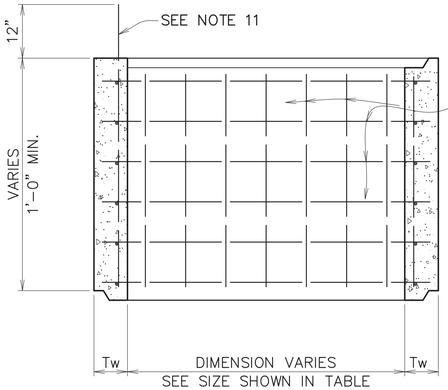
#4 HOOK

SCALE: N.T.S.



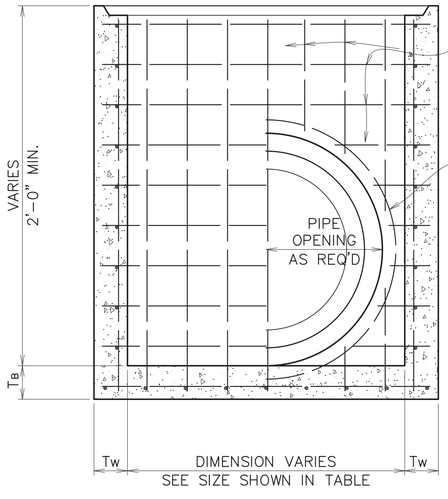
TYPICAL COMPOSITE STRUCTURE

SCALE: N.T.S.



OPTIONAL RISER UNIT

SCALE: N.T.S.



BASE UNIT

SCALE: N.T.S.

A=LENGTH INSIDE OPENING MEASURED PARALLEL TO CURB
B=WIDTH INSIDE OPENING MEASURED PERPENDICULAR TO CURB

PRECAST TOP SLAB DIMENSIONS

"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"TT" SLAB THICKNESS (IN)	* REBAR REQ'D	* REBAR SPACING
≤ 4'	≤ 4'	4.0"	#4	12"
4'-6'	4'-6'	4.0"	#5	12"
6'-8'	6'-8'	5.0"	#5	8"
8'-20'	8'-10'	5.5"	#5	6"

* AS SHOWN OC, EW, SET 1-1/4" CLR. FROM SLAB BOTTOM

PRECAST MIDDLE SLAB
UNDER PAVEMENT DIMENSIONS

"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"TMP" SLAB THICKNESS (IN)	* REBAR REQ'D	* REBAR SPACING
≤ 20'	≤ 4'	5.0"	#4	12"
≤ 20'	4'-6'	6.0"	#5	12"
≤ 20'	6'-8'	7.0"	#5	8"
≤ 20'	8'-10'	8.5"	#5	6"

* AS SHOWN OC, EW, SET 1-1/4" CLR. FROM SLAB BOTTOM

PRECAST MIDDLE SLAB
OUTSIDE PAVEMENT DIMENSIONS

"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"TM" SLAB THICKNESS (IN)	* REBAR REQ'D	* REBAR SPACING
≤20'	≤ 4'	5.0"	#4	12"
≤20'	4'-6'	5.0"	#5	12"
≤20'	6'-8'	6.0"	#5	8"
≤20'	8'-10'	6.5"	#5	6"

* AS SHOWN OC, EW, SET 1-1/4" CLR. FROM SLAB BOTTOM

PRECAST BOTTOM SLAB DIMENSIONS

"TB" SLAB THICKNESS (IN)	"A" OR "B" MAXIMUM WIDTH OF OPENING INSIDE STRUCTURE (FT)	MAXIMUM DEPTH STRUCTURE (FT)	REBAR REQ'D	REBAR SPACING
4.0"	4'	4'	#4	12"
5.0"	6'	8'	#5	12"
6.0"	8'	12'	#5	12"
7.0"	8'	16'	#5	12"
7.5"	10'	20'	#5	6"

BOTTOM SLAB THICKNESS TO MEET MINIMUM CRITERIA SHOWN FOR OPENING WIDTH AND STRUCTURE DEPTH.

PRECAST PAVEMENT SLAB DIMENSIONS

INTERMEDIATE SUPPORT BEAM REQ'D (Y OR N)	"A" INSIDE LENGTH (FT)	"B" INSIDE WIDTH (FT)	"TP" SLAB THICKNESS (IN)	REBAR REQ'D *	REBAR SPACING
N	≤10'	≤ 4'	6.0"	#5	12"
N	≤10'	4'-6'	7.0"	#5	12"
N	≤10'	6'-8'	9.0"	#5	8"
Y	6'-10'	6'-10'	6.0"	#5	12"

* AS SHOWN OC, EW, TB

PRECAST WALL DIMENSIONS

WALL HEIGHT (FT)	"Tw" WALL THICKNESS (IN)	VERT. REBAR SPACING (IN)
0'-4'	4.0"	12"
4'-8'	5.0"	12"
8'-10'	6.0"	9"
10'-12'	6.0"	6"
12'-16'	7.0"	4.5"
16'-20'	7.5"	4.5"

NOTE:

1. THESE PRECAST UNITS ARE INTENDED TO BE USED AS THE LOWER PORTION OF A COMPOSITE STRUCTURE. STRUCTURAL AND FINISHING DETAILS ARE SHOWN ON OTHER STANDARD PLANS FOR STRUCTURE TYPES.
2. ALL REINFORCING STEEL TO BE DEFORMED GRADE 60 MINIMUM REBAR. STEEL BAR SIZE & SPACING MAY BE ADJUSTED AS LONG AS AREA OF STEEL IS MAINTAINED PER FOOT IN ACCORDANCE WITH ASTM C913-08.
3. MINIMUM CONCRETE COVER FOR REBAR STEEL IS TO BE 1" FOR PRECAST CONCRETE WALLS AND 1-1/4" FOR OTHER PRECAST MEMBERS.
4. CONCRETE COMPRESSIVE STRENGTH FOR PRECAST STRUCTURES TO BE 5000 PSI AT 28 DAYS MINIMUM. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI BEFORE SHIPPING UNITS.
5. SEE SHEET 702-99 FOR FRAME AND COVER DETAILS.
6. SEE SHEET 702-96 FOR CAST-IN-PLACE STRUCTURAL DETAILS.
7. PIPE OPENING TO BE FORMED ONLY WHEN REQUIRED.
8. PIPE OPENING TO BE O.D. OF PIPE + 4"± 1/2".
9. ALL PIPE ENDS TO BE SET FLUSH WITH INTERIOR WALLS FACE. PIPE ANNULAR SPACE IS TO BE GROUTED WITH NON-SHRINK GROUT AFTER INSTALLATION. GROUT AS REQUIRED TO CREATE INVERTS.
10. JOINTS BETWEEN PRECAST UNITS TO BE SEALED WITH FLEXIBLE PLASTIC GASKET MATERIAL AND WRAPPED WITH A 12" WIDTH OF GEOTEXTILE FABRIC.
11. JOINTS BETWEEN CAST-IN-PLACE SECTIONS AND OR PRECAST UNITS TO BE TONGUE AND GROOVE AND SEALED WITH TYPE II GRADE A EPOXY OR FLAT JOINT WITH A MINIMUM OF 12" OF No. 4 BARS AT 18" CTRS. (MAX.)
12. PRECAST CONCRETE INLETS CONFORMING TO STANDARD PLANS MAY BE FURNISHED. LEDGE WIDTH MAY BE REDUCED BY 1" AROUND INLET FRAMES TO 2-1/2". SUPPORT BEAM BETWEEN DOUBLE RETICULINE GRATE INLETS MAY BE REDUCED BY 2" DEPTH TO FORM 10"x10" BEAM.
13. PRECAST UNITS SHALL CONFORM TO SECTION 1017 OF THE STANDARD SPECIFICATIONS.
14. ALL PRECAST UNITS TO BE EQUIPPED WITH AT LEAST 2 COMMERCIALLY MANUFACTURED EMBEDDED INSERTS RATED FOR THE STRUCTURE'S LIFT LOAD IN COMPLIANCE WITH APPLICABLE ANSI AND OSHA STANDARDS (MINIMUM SAFETY FACTOR OF 4). EMBEDDED INSERTS TO CONSTRUCTED OF GALVANIZED STEEL OR CORROSION RESISTANT MATERIALS AND INSTALLED BY PRECAST MANUFACTURER IN ACCORDANCE WITH SUPPLIERS INSTRUCTIONS. NO LIFT INSERTS SHALL REMAIN EXPOSED ON VISIBLE SURFACES AFTER THE STRUCTURE IS INSTALLED. NO LIFTING WITH CHAINS WRAPPED AROUND STRUCTURE IS PERMITTED.
15. PRECASTERS ARE REQUIRED TO BE NPCA CERTIFIED.
16. INSTALLATION OF PRECAST STRUCTURES ARE TO BE PER MANUFACTURER'S INSTRUCTIONS. ANY MODIFICATIONS TO STRUCTURES IN FIELD SHALL REQUIRE PRECASTER'S WRITTEN APPROVAL.
17. MINIMUM THICKNESS OF STRUCTURAL ELEMENTS INSTALLED IN OR UNDER PAVEMENT SHALL BE 6".

1	02/10/2012	NOTE #15 REVISION.	G.C.
	DATE	DESCRIPTION REVISION	BY

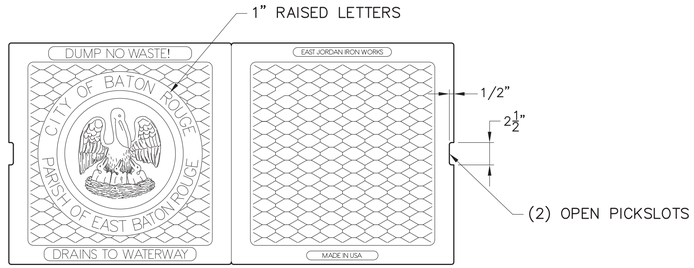
STANDARD PLAN No.	DATED	SHT. No.
702-97	DEC. 6, 2010	1 OF 1

PRECAST DRAINAGE STRUCTURE (STRUCTURAL DETAILS)

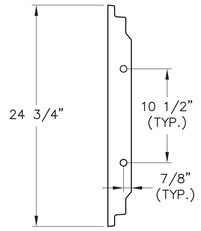
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	T. STEPHENS

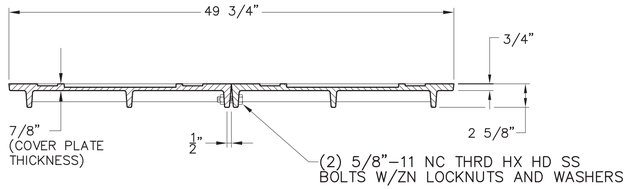
PROJECT NO.	SHEET
19-CP-HC-0039A	305



PLAN OF DUCTILE IRON COVER
SCALE: 1 1/2"=1'-0"



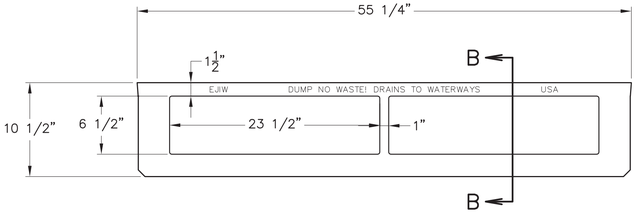
SIDE VIEW



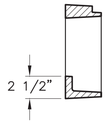
FRONT VIEW

EJIW PRODUCT #44300209
USF 5188 (ITEM 8015665 & 8015666)
OR APPROVED EQUAL

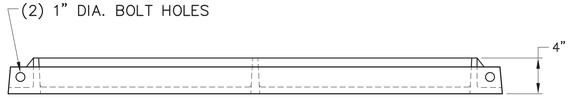
EJIW PRODUCT #44302030
USF 5188 (ITEM 8070063)
OR APPROVED EQUAL



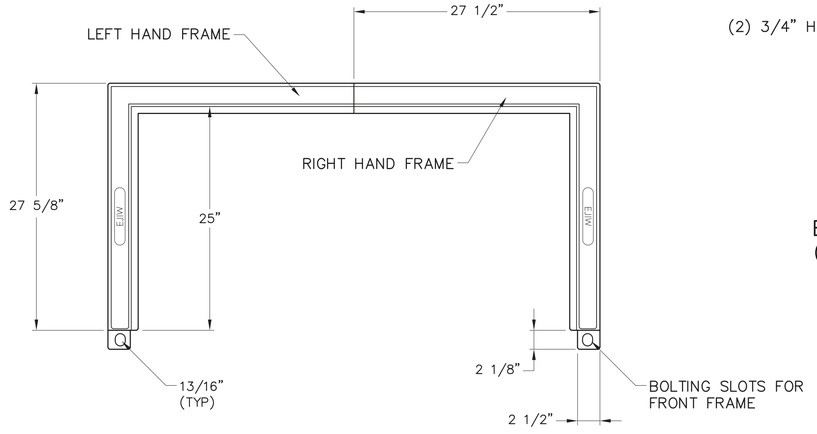
FRONT VIEW



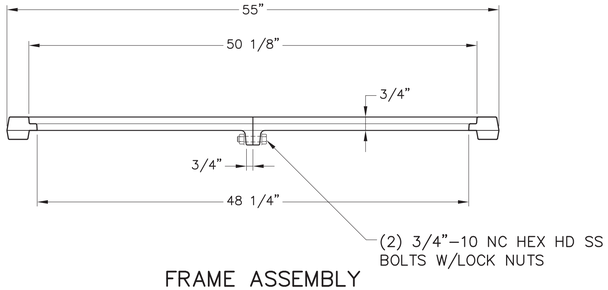
SECTION B-B



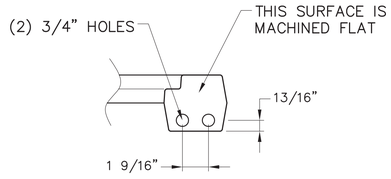
TOP VIEW



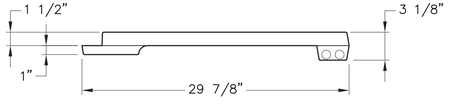
EJIW PRODUCT #44300016
USF 5188 (ITEM 8060020)
OR APPROVED EQUAL

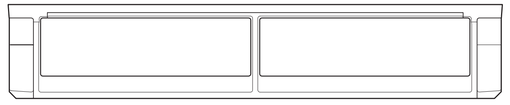


FRAME ASSEMBLY
SCALE: 1 1/2"=1'-0"



BOLT FLANGE DETAIL
(TYP, BOTH HALVES)





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 OF 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

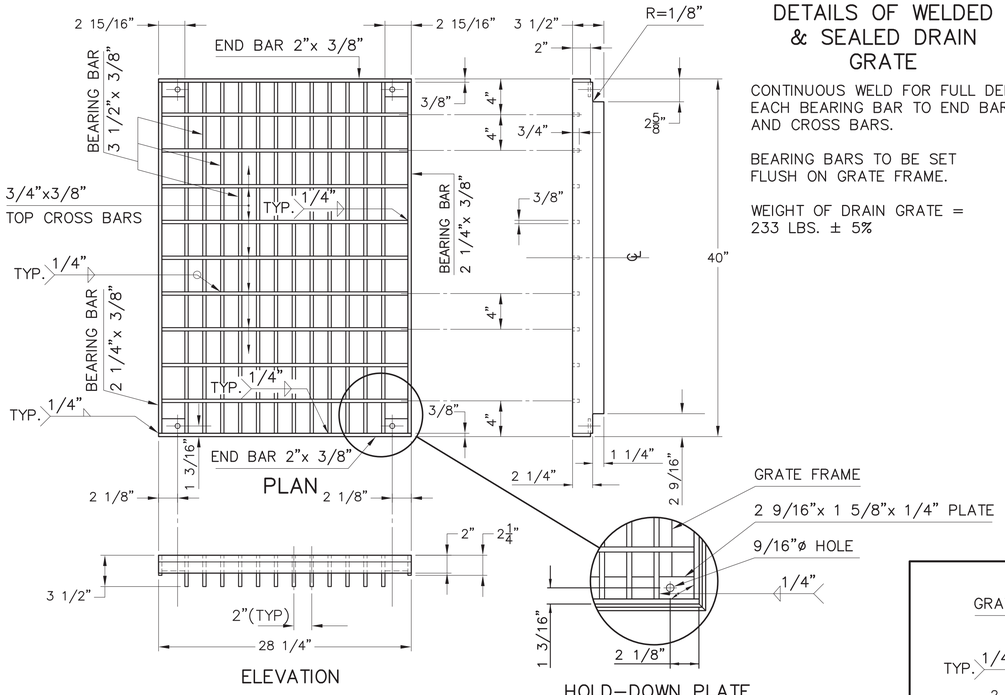
PROJECT NO.	SHEET
19-CP-HC-0039A	306

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"

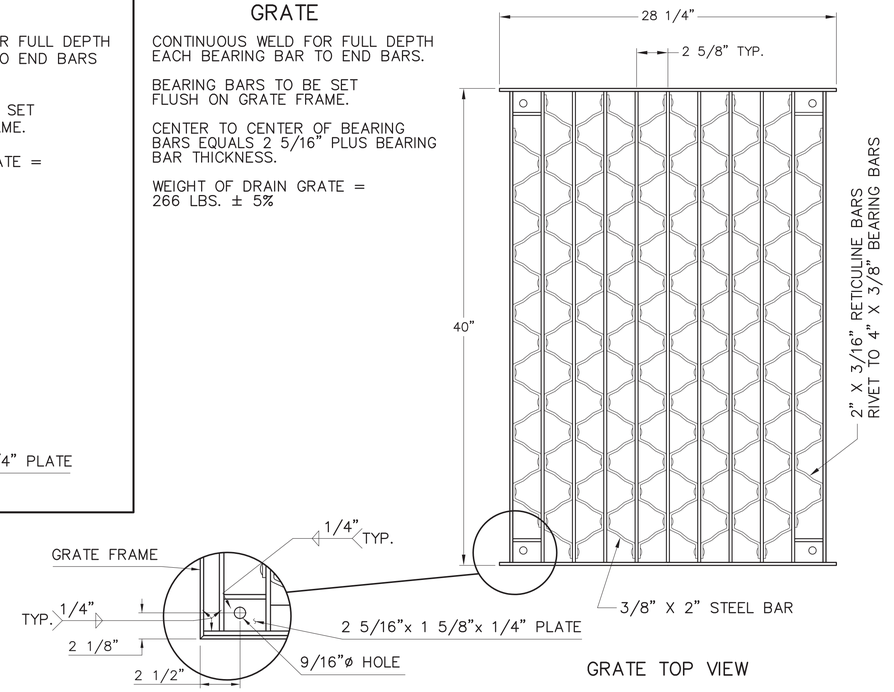
DETAILS OF RIVETED RETICULINE DRAIN GRATE

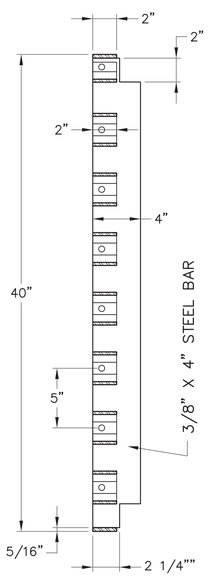
CONTINUOUS WELD FOR FULL DEPTH EACH BEARING BAR TO END BARS.

BEARING BARS TO BE SET FLUSH ON GRATE FRAME.

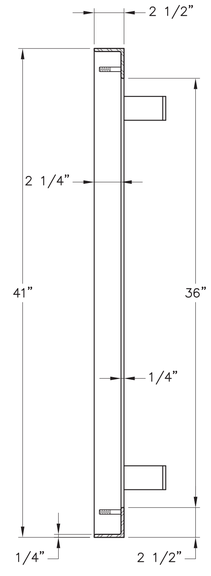
CENTER TO CENTER OF BEARING BARS EQUALS 2 5/16" PLUS BEARING BAR THICKNESS.

WEIGHT OF DRAIN GRATE = 266 LBS. ± 5%

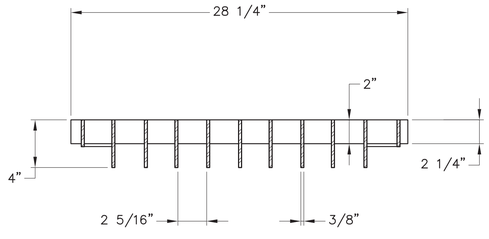




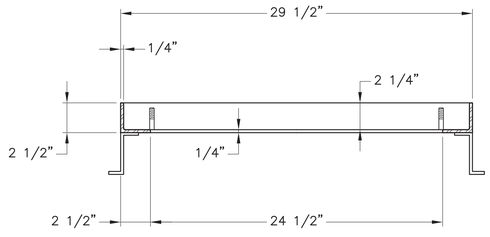
GRATE SECTION



FRAME SECTION

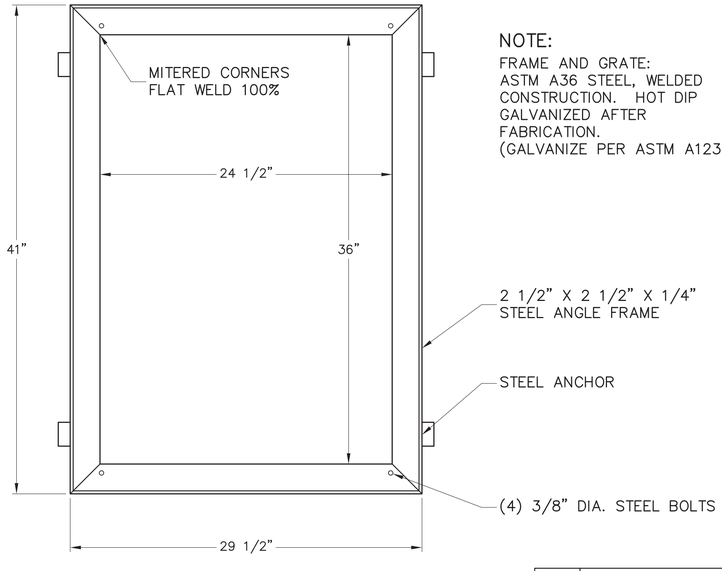


GRATE SECTION



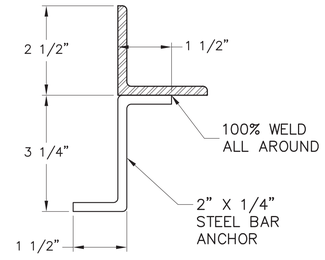
FRAME SECTION

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)



ANCHOR DETAIL

EJIW PRODUCT #44863061
USF 6672-6673
OR APPROVED EQUAL

STANDARD PLAN No.	DATED	SHT. No.
702-99	AUGUST 11, 2008	2 OF 3

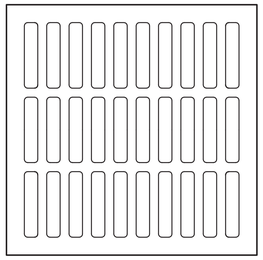
FRAMES, GRATES AND COVERS FOR INLETS AND MANHOLES (TYPE 2)

DATE	DESCRIPTION	BY
	REVISION	
3/28/12	ADD USF PRODUCT NUMBER.	G. L. P.

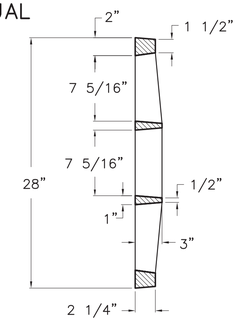
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

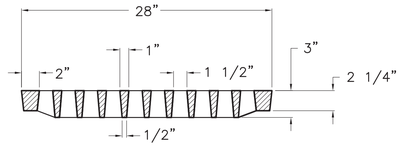
EJIW PRODUCT #45775030, USF 6278 OR APPROVED EQUAL



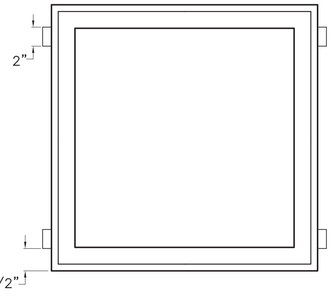
GRATE TOP VIEW



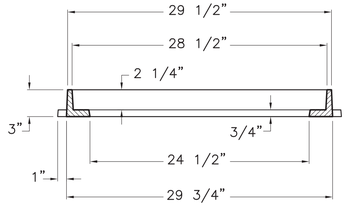
GRATE SECTION



GRATE SECTION



FRAME TOP VIEW

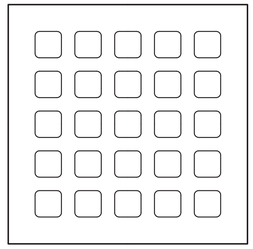


FRAME SECTION

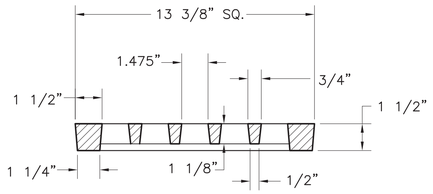
"TYPE 3"
SCALE: 1-1/2"=1'-0"

EJIW PRODUCT #45775010
USF 4650
OR APPROVED EQUAL

EJIW PRODUCT #45913130, USF 6279 OR APPROVED EQUAL



GRATE TOP VIEW

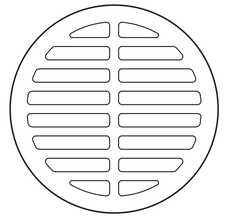


GRATE SECTION

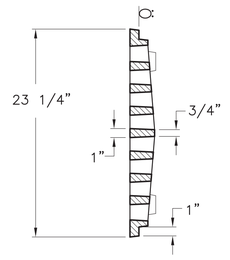
"TYPE 4"
SCALE: 3"=1'-0"

DETAILS OF CAST IRON GRATE
WEIGHT OF CASTING = 38 LBS.

EJIW PRODUCT #43501030, USF 5685 OR APPROVED EQUAL

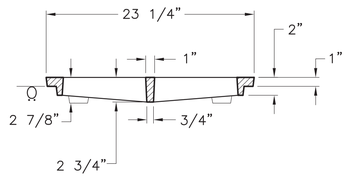


GRATE TOP VIEW



GRATE SECTION

Ö MACHINED SURFACE

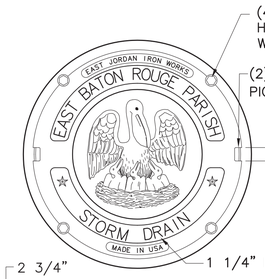


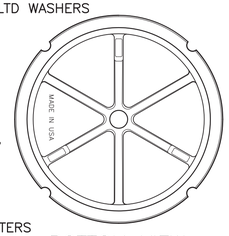
GRATE SECTION

"TYPE 5"
SCALE: 1-1/2"=1'-0"

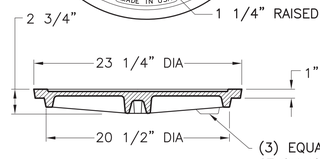
EJIW PRODUCT #41886007 USF 1346 BZ BLT OR APPROVED EQUAL

PROJECT NO.	SHEET
19-CP-HC-0039A	307

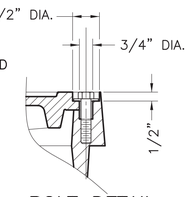




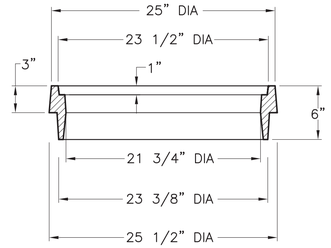
BOTTOM VIEW OF COVER



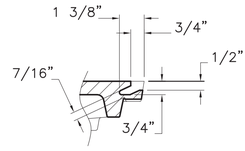
COVER SECTION



BOLT DETAIL



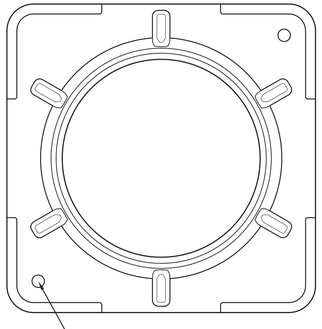
RING SECTION

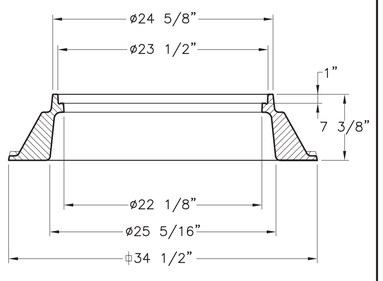


PICKHOLE DETAIL

"TYPE 6"
SCALE: 1-1/2"=1'-0"

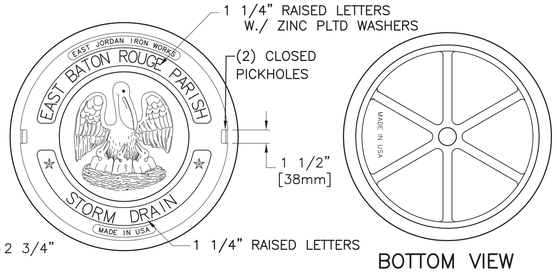
EJIW PRODUCT #41301211, USF 678 BZ OR APPROVED EQUAL



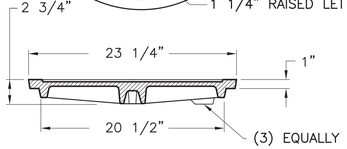


NOTE:
FRAME TO BE USED WITH TYPE 7 COVER.

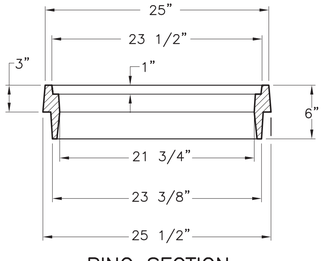
"TYPE 9"
SCALE: 1-1/2"=1'-0"



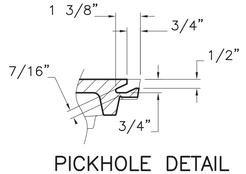
BOTTOM VIEW OF COVER



COVER SECTION



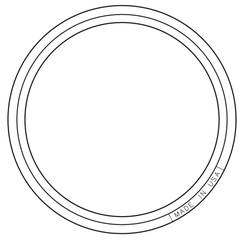
RING SECTION



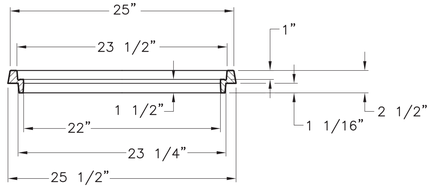
PICKHOLE DETAIL

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"

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
3/16/2013

STANDARD PLAN No.	DATED	SHT. No.
702-99	AUGUST 11, 2008	3 OF 3

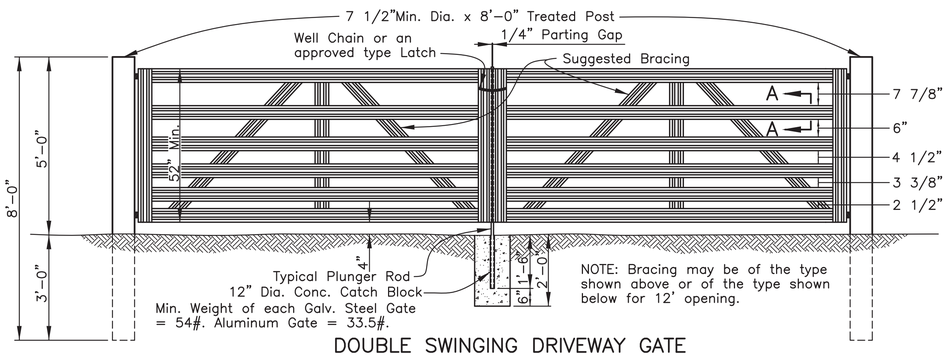
FRAMES, GRATES AND COVERS FOR INLETS AND MANHOLES

DATE	DESCRIPTION REVISION	BY
3/28/12	ADD USF PRODUCT NUMBER.	G. L. P.

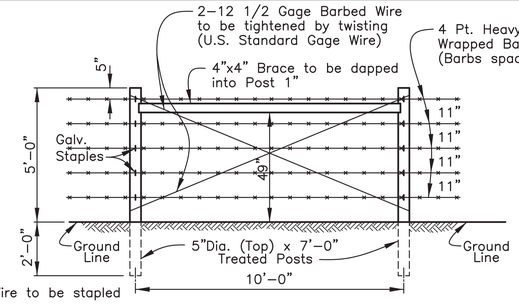
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

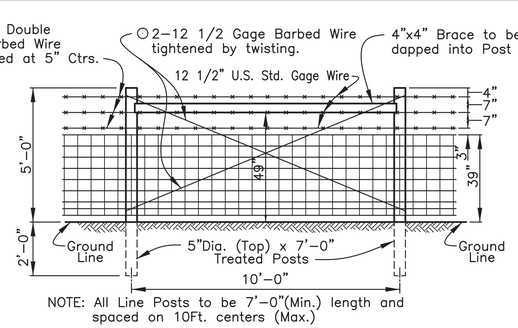
PROJECT NO.	SHEET
19-CP-HC-0039A	308



DOUBLE SWINGING DRIVEWAY GATE (ALUMINUM OR GALVANIZED STEEL)



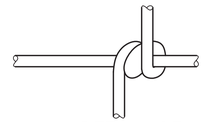
NOTE: Barbed Wire to be stapled at every post.



NOTE: All Line Posts to be 7'–0"(Min.) length and spaced on 10Ft. centers (Max.)

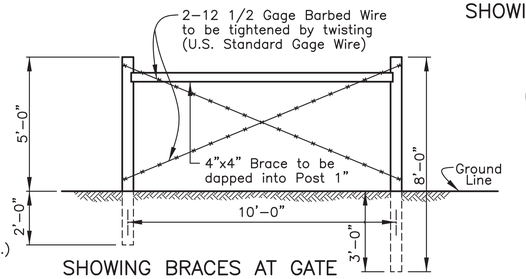
SHOWING BRACE IN STRAIGHT LINE OF FENCE

1 3/4" 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.



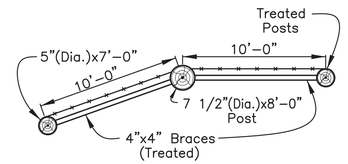
DETAIL OF HINGE JOINT

Nominal Dia. of Zinc–Coated Wire, 0.099 in. Variation ±0.004 in. (Design No. 939–6–12 1/2)

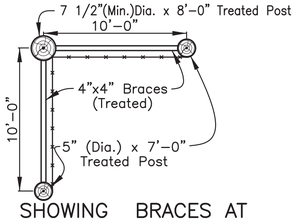


SHOWING BRACES AT GATE (BACK VIEW)

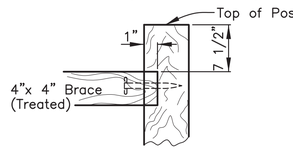
(Fence Not Shown)



SHOWING BRACES AT OBLIQUE ANGLE CORNERS

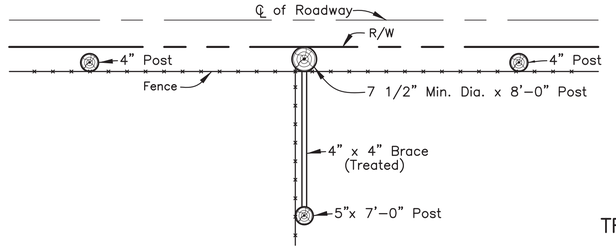


SHOWING BRACES AT RIGHT ANGLE CORNERS



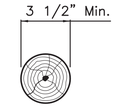
DETAIL OF BRACE DAPPED INTO POST

Note: Braces Shall Be Placed On Straight Section Of Fence Not More Than 500 Feet Apart.



INTERSECTING BRACES ALONG R/W TO BE INSTALLED IN FENCES

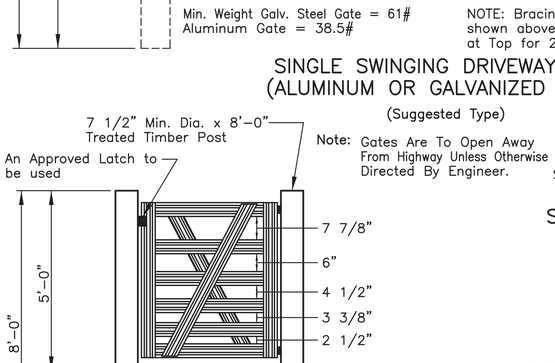
All intersecting fences to be securely attached to the Frontage Fence as shown here.



TREATED WOODEN LINE POST

(Nominal 4" Diam.)

All Post Diameters are mean Diam. at small end.
All wooden Posts and Braces shall be either round or sawed.



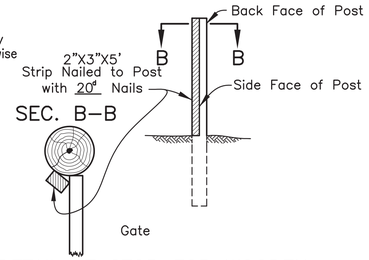
SINGLE SWINGING DRIVEWAY GATE (ALUMINUM OR GALVANIZED STEEL)

(Suggested Type)

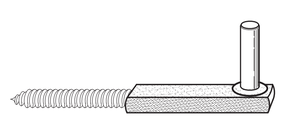
SINGLE SWINGING WALKGATE (ALUMINUM OR GALVANIZED STEEL)

(Suggested Type)

Note: Gates Are To Open Away From Highway Unless Otherwise Directed By Engineer.

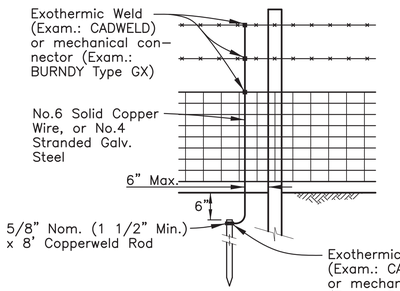


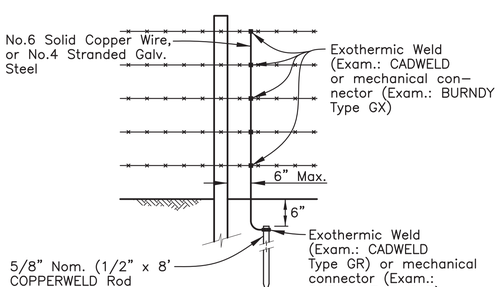
DETAIL AT STOP FOR WOODEN GATE POST



SUGGESTED TYPE SCREW HOOK HINGE FOR WOODEN POST

3/4" x 7 1/2" Screw Hook Hinge

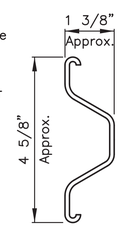




5–STRAND BARBED WIRE

COMBINATION MESH & BARBED WIRE

Horizontal Panels to be .051" Thick (Min.)(For Alum. Gate). Vert. and Diagonal Braces to be .040" Thick (Min.) (For Alum. Gate). Hori. Panels, Vert. and Diagonal Brace to be 0.025" Thick (Min.)(For Galv. Gate.)



TYPICAL SECTION THRU PANEL SECTION A–A

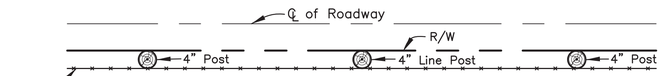
HALF SCALE

NOTE: Grounding devices are to be installed in accordance with the Standard Specifications.

Connection to Aluminum Alloy or aluminum coated fence to be made with steel mechanical connectors. All other mechanical connectors to be bronze.

All connection methods to be approved by Project Engineer.

GROUNDING DETAILS



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

NOTE: Line Post to be located outside of R/W Line.
Wire to be placed 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.

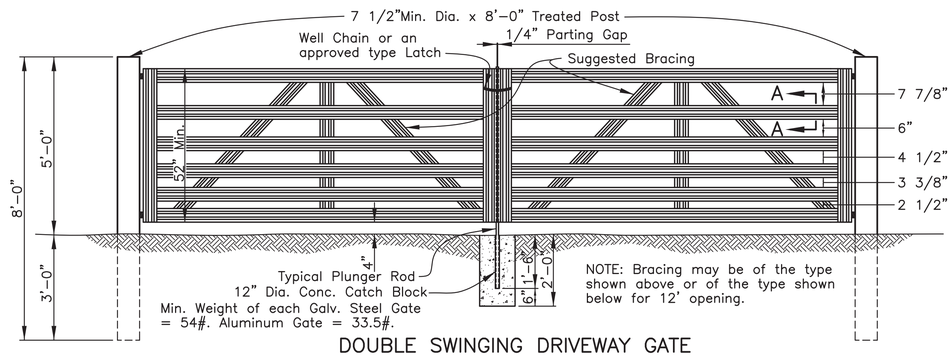
DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
902–01	FEBRUARY 4, 2008	1 OF 2

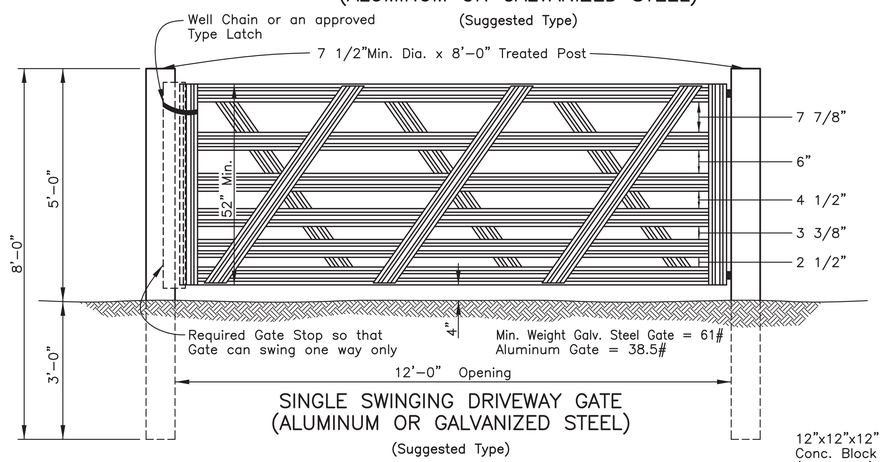
FIELD TYPE FENCE (WOOD POST)

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
R. ELLIS	G. VANNICE	N. RABALAIS	T. STEPHENS



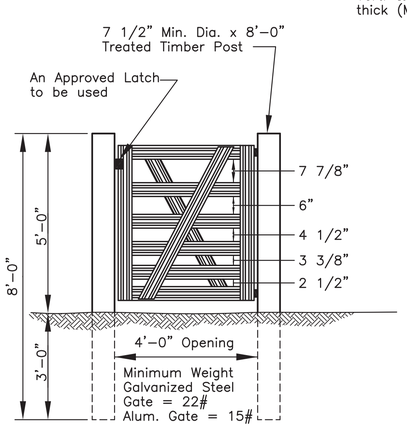
DOUBLE SWINGING DRIVEWAY GATE (ALUMINUM OR GALVANIZED STEEL)



SINGLE SWINGING DRIVEWAY GATE (ALUMINUM OR GALVANIZED STEEL)

(Suggested Type)

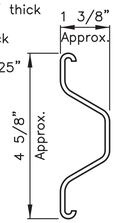
NOTE: Bracing may be of the Type shown above or of the Type shown at Top for 20' Opening.



SINGLE SWINGING WALKGATE (ALUMINUM OR GALVANIZED STEEL)

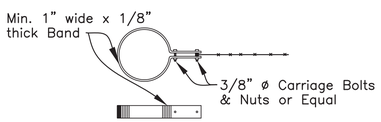
(Suggested Type)

Horizontal Panels to be 0.051" thick (Min.)(ForAlum. Gate). Vert. & Diag. Braces to be 0.040" thick (For Alum. Gate). Hori. Panels, Vert. & Diag. Brace to be 0.025" thick (Min.) (For Galv. Gate).



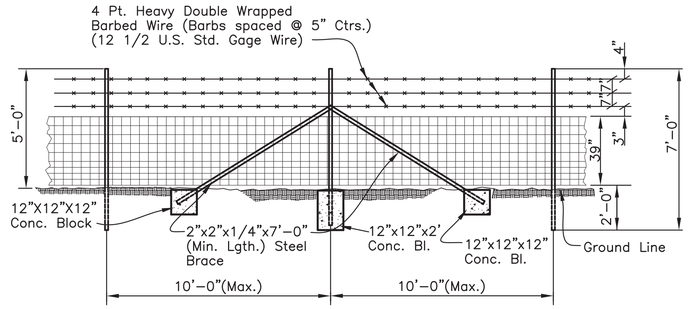
TYPICAL SECTION THRU PANEL SECTION A–A

HALF SCALE

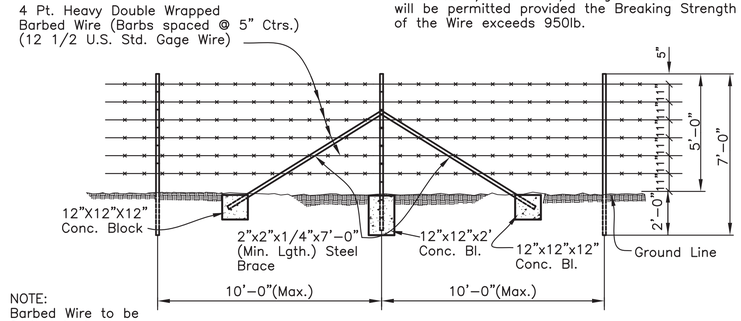


DETAIL OF SUGGESTED TYPE BAND

NOTE: For holding Barbed Wire at Gate Posts.

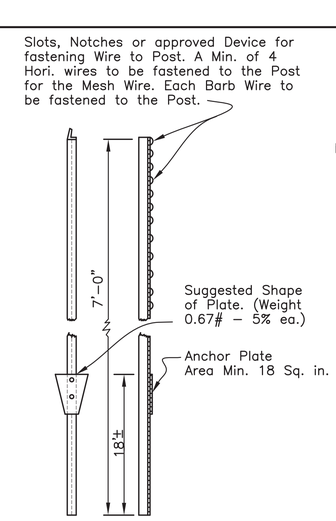


NOTE: 13 1/2 or 15 1/2 Gage Barbed Wire will be permitted provided the Breaking Strength of the Wire exceeds 950lb.



NOTE: Barbed Wire to be fastened at every Post.

SHOWING BRACE IN STRAIGHT LINE OF FENCE

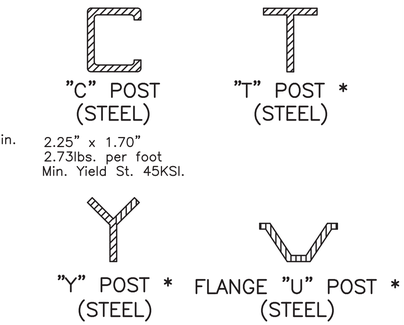


TYPICAL LINE POST

Line Post shall be driven. Top to be protected to prevent burring. Nominal Weight 1.33# per Lin. Ft. (Prior to Fabricatioin).

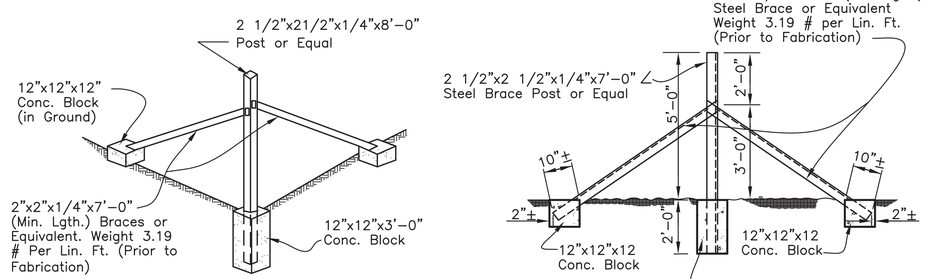
PROJECT NO.	SHEET
19-CP-HC-0039A	309

NOTE: Line Posts may be used in Conjuction 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.

SUGGESTED TYPES OF STEEL FENCE POSTS

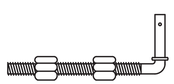


STEEL POST AND BRACES METHOD OF BRACING CORNERS OBLIQUR & INTERSECTING FENCES*

Normal Weight: Corner End and Bracing Posts 4.10 # per Lin. Ft. (Prior to Fabrication).

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 A123)

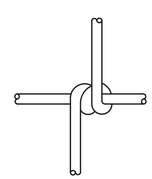
Braces shall be placed on Straight Sectons of Fence not more than 500 Ft. apart.
All Line Posts to be 7'–0" (Min.) Length and spaced



DETAIL OF A SUGGESTED TYPE HINGE PIN FOR GATES

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

*NOTE: For Details of Grounding see Sheet 1. For Alternate Method of Bracing see Sheet 1 of this Standard.

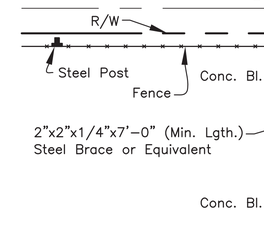


DETAIL OF HINGED JOINT

Nominal Dia. of zinc–coated Wire 0.099 in. Variation ± 0.004 in. (Design No. 939–6 –12 1/2)

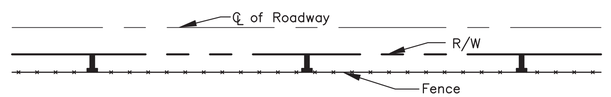
DETAIL OF STIFF STAY KNOT JOINT

Nominal Dia. of zinc–coated Wire 0.099 in. Variation ± 0.004 in. (Design No. 939–6 –12 1/2)



NOTE:
Line Post to be placed 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.

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



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

NOTE: Line Post to be located outside of R/W Line.

For Control of Access, Line Post to be located within Highway R/W.

DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO. 902–01	DATED February 6, 2008	SHEET NO. 2 OF 2

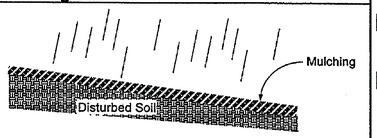
FIELD AND LINE TYPE FENCE (METAL POST)

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
R. ELLIS	G. VANNICE	R. ELLIS	T. STEPHENS

PROJECT NO.	SHEET
19-CP-HC-0039A	310

Mulching



DESCRIPTION
Mulching is the application of a layer of chopped straw, hay or other material which is spread uniformly over barren areas to reduce the effects of erosion from rainfall. Types of mulch include organic materials, straw, wood chips, bark or other fibers. Mulch also comes in prepackaged forms, using straw, hay or other material with organic and inorganic binding systems.

PRIMARY USE
Mulch is used to temporarily and/or permanently stabilize clear or freshly seeded areas. It protects the soil from erosion and moisture loss by lessening the effects of wind, water, and sunlight. It also decreases the velocity of sheet flow, thereby reducing the volume of sediment-laden water flow leaving the mulched area.

APPLICATIONS
Mulch may be used on any construction-related disturbed area for surface protection including:
- Freshly seeded or planted areas,
- Areas at risk due to the time period being unsuitable for growing vegetation,
- Areas that are not conducive to seeding or planting.

DESIGN CRITERIA
Mulch may be used by itself or in combination with netting or other anchors to promote soil stabilization.

Several manufacturers provide an organic mulch with an attached netting to simplify installation. Installation should adhere to manufacturer's specifications and requirements.

- Choice of mulch depends largely on slope, climate, and soil type in addition to availability of different materials. Straw and hay are the recommended choices due to their availability and biodegradability.
- Mulch should be applied in an even and uniform manner where concentrated water flow is negligible.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
● Sediment
○ Nutrients Toxic Materials
○ Oil & Grease
○ Floatable Materials
○ Other Construction Wastes

Implementation Requirements
◒ Capital Costs
◒ Maintenance
○ Training
○ Suitability for Slopes >5%

Legend
● Significant Impact
◒ Medium Impact
○ Low Impact
? Unknown or Questionable Impact

BMP
1

City of Baton Rouge Parish of East Baton Rouge

Department of Public Works

Mulching

- Application of straw or hay mulch should be approximately 2 tons dry per acre spread uniformly across the disturbed area. Other material should be applied such that 25% of the soil is visible through the mulch.
- For areas using straw mulch and the slope is greater than 3-5%, anchoring of the mulch with a Krimper Tool is required.

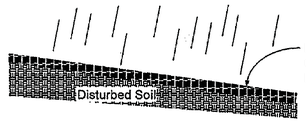
LIMITATIONS
Mulches are subject to removal by wind or water under severe climatic conditions. Mulches lower the soil temperature which may result in longer seed germination periods.

MAINTENANCE REQUIREMENTS
Mulched areas must be inspected on a weekly basis, and after significant (>0.5 inch) rainfall, for thin or bare spots caused by natural decomposition or weather related events. Mulch in high traffic areas should be replaced on a regular basis to maintain uniform protection.

BMP
1

Department of Public Works

Erosion Control Mats



DESCRIPTION
An erosion control mat (ECM) is a geomembrane or biodegradable fabric placed over disturbed areas to limit the effects of erosion due to rainfall impact and runoff across barren soil. Erosion control mats are manufactured by a wide variety of vendors addressing a wide variety of conditions such as vegetation establishment, protection from heavy rainfall, and high velocity flow. Types of matting include organic (jute, straw) and synthetic (plastic and glass fiber) materials.

PRIMARY USE
Mats can provide both temporary and/or permanent stabilization for disturbed soil or barren areas. It is used for difficult to stabilize areas such as steep slopes, temporary or permanent drainage swales, embankments or high traffic (pedestrian) areas. Some mats are reusable, reducing the initial cost of the installation.

APPLICATIONS
Mats can be used on any construction-related disturbed area, but are particularly effective for erosion control of fine grained soils, and on short, steep slopes (such as stream banks) where erosion is high and growth of vegetation is slow.

DESIGN CRITERIA
A mat may be used by itself or in combination with netting or other anchors to promote soil stabilization. Choice of matting depends largely on slope, climate, soil type, and durability. Mats are usually installed according to the manufacturer's recommended guidelines. After appropriate installation, the matting should be checked for: uniform contact with the soil; security of the lap joints; and flushness of the staples with the ground.

Manufacturers information will verify acceptable applications for a particular product.

LIMITATIONS
Although matting is highly effective in controlling erosion, it may be less cost-effective than other BMPs for erosion control and it may require a contractor with considerable mat installation experience for installation.

MAINTENANCE REQUIREMENTS
Matted areas must be inspected on a weekly basis, and after significant (>0.5 inch) rainfall, for bare spots caused by weather related events. Missing or loosened matting must be replaced or re-anchored.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
◒ Sediment
○ Nutrients Toxic Materials
○ Oil & Grease
○ Floatable Materials
○ Other Construction Wastes

Implementation Requirements
● Capital Costs
◒ Maintenance
◒ Training
◒ Suitability for Slopes >5%

Legend
● Significant Impact
◒ Medium Impact
○ Low Impact
? Unknown or Questionable Impact

BMP
2

City of Baton Rouge Parish of East Baton Rouge

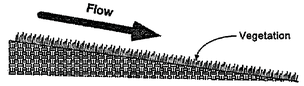
Department of Public Works

Erosion Control Mats

BMP
2

Department of Public Works

Vegetation



DESCRIPTION
Vegetation, as a Best Management Practice, is the sowing of annual grasses, small grains or legumes to provide interim and permanent vegetative stabilization for disturbed areas. Unless otherwise specified, Bermuda Grass is to be used for permanent seeding. Temporary stabilization may be achieved during winter by seeding with Rye Grass.

PRIMARY USE
Vegetation is used as a temporary or permanent stabilization technique for areas disturbed by construction but not protected by pavement, building or other structures. As a temporary control, vegetation is used to stabilize stockpiles and barren areas which are inactive for long periods of time. As a permanent control, grasses and other vegetation provide good protection for the soil along with some filtering for overland runoff. Subjected to acceptable runoff velocities, vegetation can provide a good method of permanent storm water management as well as a visual amenity to the site.

Other BMPs may be required to assist in the establishment of vegetation. These other techniques include erosion control matting, swales and dikes to direct flow around newly seeded areas and proper grading to limit runoff velocities during construction.

APPLICATIONS
Vegetative techniques can and should apply to every construction project with few exceptions. Vegetation effectively reduces erosion in swales, stock piles, berms, mild to medium slopes and along roadways. Vegetative strips can provide some protection when used as a perimeter control for utility and site development construction.

In many cases, the initial cost of temporary seeding may be high compared to tarps or covers for stockpiles or other barren areas subject to erosion yet inactive. This initial cost should be weighed with the amount of time the area is to remain inactive, since maintenance cost for vegetated areas is much less than most structural controls.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
● Sediment
◒ Nutrients Toxic Materials
○ Oil & Grease
○ Floatable Materials
○ Other Construction Wastes

Implementation Requirements
◒ Capital Costs
◒ Maintenance
○ Training
● Suitability for Slopes >5%

Legend
● Significant Impact
◒ Medium Impact
○ Low Impact
? Unknown or Questionable Impact

BMP
3

City of Baton Rouge Parish of East Baton Rouge

Department of Public Works

Vegetation

DESIGN CRITERIA
Surface Preparation
- Interim or final grading must be completed prior to seeding, minimizing all steep slopes.
- Install all necessary erosion structures such as dikes, swales, diversions, etc., prior to seeding.
- Groove or furrow slopes steeper than 3:1 on the contour line before seeding.
- Provide 4-6 inches of topsoil over unsuitable soils.
- Seed-bed should be well pulverized, loose and uniform.

Plant Selection, Fertilization and Seeding
- Use only high quality, USDA certified seed.
- For permanent vegetative cover during the period from March to August (inclusive) use hulled Bermuda Grass applied at 10 - 12 pounds per acre.
- For permanent vegetative cover during the period from September to February (inclusive) use unhulled Bermuda Grass applied at 15 - 20 pounds per acre.
- For temporary stabilization on disturbed areas or stockpiles, use Rye Grass seed applied at 40 - 50 pounds per acre.
- Fertilizer shall be applied according to the manufacturer's recommendation with proper spreader equipment. Typical application rate for 10-10-10 grade fertilizer is 700-1000 pounds per acre. DO NOT OVER APPLY FERTILIZER.
- If hydro-seeding is used, do not mix seed and fertilizer more than 30 minutes before application.
- Evenly apply seed using cyclone seeder, seed drill, cultipacker or hydroseeder.
- Provide adequate water to aid in establishment of vegetation.
- Use appropriate mulching techniques where necessary.

LIMITATIONS
Vegetation is not appropriate for areas subjected to heavy pedestrian or vehicular traffic. As a temporary technique, vegetation may be costly when compared to other techniques.
Vegetation is not appropriate for rock, gravel or coarse grained soils unless 4 to 6 inches of topsoil is applied.

MAINTENANCE REQUIREMENTS
Protect newly seeded areas from excessive runoff and traffic until vegetation is established (mulching may be necessary). A watering and fertilizing schedule will be required as part of the SWPPP to assist in the establishment of the vegetation.

BMP
3

Department of Public Works

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/16/2012

DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
903–01	FEBRUARY 25, 2008	1 OF 11

STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES

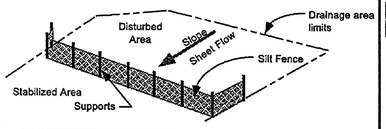
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

903–01

PROJECT NO.	SHEET
19-CP-HC-0039A	311

Silt Fence



Applications
- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents
- ● Sediment
- ○ Nutrients Toxic Materials
- ○ Oil & Grease
- ◒ Floatable Materials
- ○ Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ● Maintenance
- ○ Training
- ◒ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

DESCRIPTION
A silt fence consists of geotextile fabric supported by poultry netting or other backing stretched between either wooden or metal posts with the lower edge of the fabric securely embedded in the soil. The fence is typically located downstream of disturbed areas to intercept runoff in the form of sheet flow. Silt fence provides both filtration and time for sedimentation to reduce sediment and it reduces the velocity of the runoff. Properly designed silt fence is economical since it can be re-located during construction and re-used on other projects.

PRIMARY USE
Silt fence is normally used as perimeter control located downstream of disturbed areas. It is only feasible for non-concentrated, sheet flow conditions.

APPLICATIONS
Silt fence is an economical means to treat overland, non-concentrated flows for all types of projects. Silt fences are used as perimeter control devices for both site developments and linear (roadway) type projects. They are most effective with coarse to silty soil types. Due to the potential of clogging, silt fence should not be used with clay soil types.

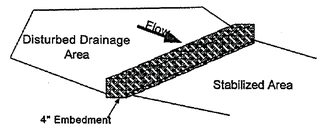
In order to reduce the length of silt fence, it should be placed adjacent to the down slope side of the construction activities.

DESIGN CRITERIA
- Fences are to be constructed along a line of constant elevation (along a contour line) where possible.
- Maximum slope adjacent to the fence is 1:1.
- Maximum distance of flow to silt fence should be 200 feet or less.
- Maximum concentrated flow to silt fence shall be 1 CFS per 20 feet of fence.
- If 50% or less of soil, by weight, passes the U.S. Standard sieve No. 200, select the equivalent opening size (E.O.S.) to retain 85% of the soil.
- Maximum equivalent opening size shall be 70 (#70 sieve).

BMP 4

City of Baton Rouge Parish of East Baton Rouge
Department of Public Works

Straw Bale Dike



Applications
- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents
- ◒ Sediment
- ○ Nutrients Toxic Materials
- ○ Oil & Grease
- ◒ Floatable Materials
- ○ Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ● Maintenance
- ○ Training
- ◒ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

DESCRIPTION
A straw bale dike is a temporary barrier constructed of straw bales anchored with wood posts, that is used to intercept sediment-laden runoff generated by small disturbed areas. The straw bales can serve as both a filtration device and a dam/dike device to treat and redirect flow. Bales can consist of hay or straw in which straw is defined as best quality straw from wheat, oats or barley, free of weed and grass seed and hay is defined as straw which includes weed and grass seed.

PRIMARY USE
A straw bale dike is used to trap sediment-laden storm runoff from small drainage areas with relatively level grades, allowing for reduction of velocity thereby causing sediment to settle out.

APPLICATIONS
Straw bale dikes are used to treat flow after it leaves a disturbed area on a relatively small (<1 acre) site. Due to the limited life of the straw bale, it is cost effective for small projects of a short duration. The limited weight and strength of the straw bale makes it suitable for small, flat (< 2 percent slope) contributing drainage areas. Due to the problems with straw degradation and the lack of uniform quality in straw bales, their use is discouraged except for small residential applications.

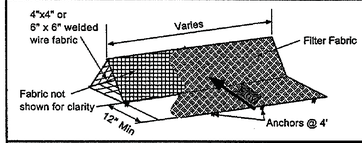
Straw bales can also be used as check dams (see Check Dam BMP S-7) for small watercourses such as interceptor swales and borrow ditches. Due to the problems in securely anchoring the bales, only small watercourses can effectively use straw bale check dams.

DESIGN CRITERIA
- Straw bale dikes are to be constructed along a line of constant elevation (along a contour line).
- Straw bale dikes are suitable only for treating sheet flows across grades of 2% or flatter.
- Maximum contributing drainage area shall be 0.25 acre per 100 linear feet of dike.
- Maximum distance of flow to dike should be 100 feet or less.

BMP 5

City of Baton Rouge Parish of East Baton Rouge
Department of Public Works

Triangular Sediment Filter Dike



Applications
- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents
- ● Sediment
- ○ Nutrients Toxic Materials
- ○ Oil & Grease
- ◒ Floatable Materials
- ○ Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ◒ Maintenance
- ○ Training
- ◒ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

DESCRIPTION
A Triangular Sediment Filter Dike is a self contained silt fence consisting of filter fabric wrapped around welded wire fabric shaped into a triangular cross section. While similar in use to a silt fence, the dike is reusable, sturdier, transportable and can be used on paved areas or in situations where it is impractical to install embedded posts for support.

PRIMARY USE
Triangular filter dikes are used in place of silt fence, treating sediment flow at the perimeter of construction areas and at the perimeter of the site. Also, the dikes can serve as stream protection devices by preventing sediment from entering the streams or as check dams in small swales.

Triangular sediment filter dikes are especially useful for construction areas surrounded by pavement, such as roadways, taxiways, ramps, etc., where silt fence or hay bale installation is Since they can be anchored without penetration, pavement damage can be minimized.

APPLICATIONS
Triangular dikes are used to provide perimeter control by detaining sediment on a disturbed site with drainage that would otherwise flow onto adjacent areas. Triangular dikes also serve as sediment trapping devices when used in areas of sheet flow across disturbed areas or are placed along stream banks to prevent sediment-laden sheet flow from entering the stream. The dikes can be subjected to more concentrated flows and a higher flowrate than silt fence.

DESIGN CRITERIA
- Dikes are to be installed along a line of constant elevation (along a contour line).
- Maximum slope perpendicular to the dike is 1:1.
- Maximum drainage flow to the dike shall be 11 CFS per 100 linear feet of dike.
- Maximum distance of flow to dike should be 200 feet or less.
- Maximum concentrated flow to dike shall be 1 CFS.

BMP 6

City of Baton Rouge Parish of East Baton Rouge
Department of Public Works

Silt Fence

- Minimum equivalent opening size shall be 100 (#100 sieve).
- If 85% or more of soil, by weight, passes the U.S. Standard sieve No. 200, silt fences shall not be used due to potential clogging.
- Sufficient room for the operation of sediment removal equipment shall be provided between the silt fence and other obstructions in order to properly maintain the fence.
- The ends of the fence shall be turned upstream to prevent bypass of stormwater.

LIMITATIONS
Minor ponding will likely occur at the upstream side of the silt fence resulting in minor localized flooding.

Fences which are constructed in swales or low areas subject to concentrated flow may be overtopped resulting in failure of the filter fence. Silt fences subject to areas of concentrated flow (waterways with flows > 1 cfs) are not acceptable.

Silt fence can interfere with construction operations, therefore planning of access routes onto the site is critical.

Silt fence can fail structurally under heavy storm flows, creating maintenance problems and reducing the effectiveness of the system.

MAINTENANCE REQUIREMENTS
Inspections should be made on a weekly basis, especially after large storm events. If the fabric becomes clogged, it should be cleaned or if necessary, replaced.

Sediment should be removed when it reaches approximately one-half the height of the fence.

BMP 4

Department of Public Works

Straw Bale Dike

- Dimensions for individual bales shall be 30 inches minimum length, 18 inches minimum height, 24 inches minimum width and shall weigh no less than 50 pounds when dry.
- Each straw bale shall be placed into an excavated trench having a depth of 4 inches and a width just wide enough to accommodate the bales themselves.
- Straw bales shall be installed in such a way that there is no space between bales

- Individual bales shall be held in place by at least two wood stakes driven a minimum distance of 6 inches below the 4" excavated trench to undisturbed ground, with the first stake driven at an angle toward the previously installed bale.
- The ends of the dike shall be turned upgrade to prevent bypass of stormwater.
- Place bales on sides such that bindings are not buried.

LIMITATIONS
Due to a short effective life caused by biological decomposition, straw bales must be replaced after a period of no more than 3 months. During the wet and warm seasons, however, they must be replaced more frequently as is determined by periodic inspections for structural integrity.

Straw bale dikes are not recommended for use with concentrated flows of any kind except for small check flows in which they can serve as a check dam.

The effectiveness of straw bales in reducing sediment is very limited. Improperly maintained, straw bales can have a negative impact on the water quality of the runoff.

MAINTENANCE REQUIREMENTS
Straw bales shall be replaced if there are signs of degradation such as straw located downstream from the bales, structural deficiencies due to rotting straw in the bale or other signs of deterioration. Sediment should be removed from behind the bales when it reaches a depth of approximately 6 inches.

BMP 5

Department of Public Works

Triangular Sediment Filter Dike

- If 50% or less of soil, by weight, passes the U.S. Standard sieve No. 200, select the equivalent opening size (E.O.S.) to retain 85% of the soil.
- Maximum equivalent opening size shall be 70 (#70 sieve).
- Minimum equivalent opening size shall be 100 (#100 sieve).
- If 85% or more of soil, by weight, passes the U.S. Standard sieve No. 200, triangular sediment dike shall not be used due to clogging.
- Sufficient room for the operation of sediment removal equipment shall be provided between the dike and other obstructions in order to properly remove sediment.
- The ends of the dike shall be turned upgrade to prevent bypass of stormwater.

LIMITATIONS
Ponding will likely occur directly adjacent to the dike which may possibly cause flooding.

Triangular sediment filter dikes are not effective for conditions which include substantial concentrated flows or when they are not constructed along a contour line due to the potential for flow concentration and overtopping.

MAINTENANCE REQUIREMENTS
Inspections should be made on a weekly basis, especially after large (> 0.5 inches) storm events. If the fabric becomes clogged, it should be cleaned or if necessary, replaced.

Sediment should be removed when it reaches approximately 6 inches in depth. In addition, inspections should be made on a regular basis to check the structural integrity of the dike. If structural deficiencies are found, the dike should be immediately repaired or replaced.

As with silt fence, integrity of the filter fabric is important to the effectiveness of the dike. Overlap between dike sections must be checked on a regular basis and repaired if deficient.

BMP 6

Department of Public Works

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19217
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/14/2013

STANDARD PLAN NO.	DATED	SHEET NO.
903–01	FEBRUARY 25, 2008	2 OF 11

STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

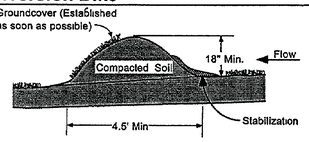
DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

DATE	DESCRIPTION REVISIONS	BY

903–01

PROJECT NO.	SHEET
19-CP-HC-0039A	312

Diversion Dike



Applications
- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents
- ● Sediment
- ○ Nutrients Toxic Materials
- ○ Oil & Grease
- ◒ Floatable Materials
- ◒ Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ◒ Maintenance
- ○ Training
- ● Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

DESCRIPTION
A diversion dike is a compacted soil mound which redirects runoff to a desired location The dike is typically stabilized with natural grass for low velocities or with stone or erosion control mats for higher velocities.

PRIMARY USE
The diversion dike is normally used to intercept offsite flow upstream of the construction area and direct the flow around the disturbed soils. It can also be used downstream of the construction area to direct flow into a sediment reduction device such as a sediment basin or protected inlet. The diversion dike serves the same purpose and, based on the topography of the site, can be used in combination with an interceptor swale.

APPLICATIONS
By intercepting runoff before it has the chance to cause erosion, diversion dikes are very effective in reducing erosion at a reasonable cost. They are applicable to a large variety of projects including site developments and linear projects such as roadways and pipeline construction. Diversion dikes are normally used as perimeter controls for construction sites with large amounts of offsite flow from neighboring properties. Used in combination with swales, the diversion dike can be quickly installed with a minimum of equipment and cost, using the swale excavation as the dike. No sediment removal technique is required if the dike is properly stabilized and the runoff is intercepted prior to crossing disturbed areas.

Significant savings in structural controls can be realized by using diversion dikes to direct sheet flow to a central area such as a sediment basin or other sediment reduction structure if the runoff crosses disturbed areas.

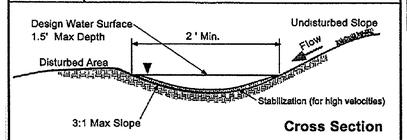
DESIGN CRITERIA
- The maximum contributing drainage area should be 10 acres or
- Maximum depth of flow at the dike shall be 1 foot for 2 year design storm.
- The maximum width of the flow at the dike shall be 20 feet.
- Side slopes of the diversion dike shall be 3:1 or flatter.

BMP 7

City of Baton Rouge Parish of East Baton Rouge

Department of Public Works

Interceptor Swale



Cross Section

Applications
- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents
- ● Sediment
- ○ Nutrients Toxic Materials
- ○ Oil & Grease
- ● Floatable Materials
- ◒ Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ◒ Maintenance
- ○ Training
- ● Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

DESCRIPTION
An interceptor swale is a small v-shaped or parabolic channel which collects runoff and directs it to a desired location. It can either have a natural grass lining or depending on slope and design velocity, a protective lining of erosion matting, stone or concrete.

PRIMARY USE
The interceptor swale can either be used to direct sediment laden flow from disturbed areas into a controlled outlet or to direct 'clean' runoff around disturbed areas. Since the swale is easy to install during early grading operations, it can serve as the first line of defense in reducing runoff across disturbed areas. As a method of reducing runoff across the disturbed construction area, it reduces the requirements of structural measures to capture sediment from runoff since the flow is reduced. By intercepting sediment laden flow downstream of the disturbed area, runoff can be directed into a sediment basin or other BMP for sedimentation as opposed to long runs of silt fence, straw bales or other filtration method.

Based on site topography, swales can be effectively used in combination with diversion dikes.

APPLICATIONS
Common applications for interceptor swales include roadway projects, site development projects with substantial offsite flow impacting the site and sites with a large area(s) of disturbance. It can be used in conjunction with diversion dikes to intercept flows. Temporary swales can be used throughout the project to direct flows away from staging, storage and fueling areas along with specific areas of construction. Note that runoff which crosses disturbed areas or is directed into unstabilized swales must be routed into a treatment BMP such as a sediment basin.

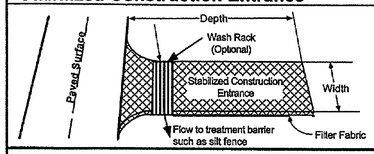
Grass lined swales are an effective permanent stabilization technique. The grass effectively filters both sediment and other pollutants while reducing velocity.

BMP 8

City of Baton Rouge Parish of East Baton Rouge

Department of Public Works

Stabilized Construction Entrance



Applications
- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents
- ◒ Sediment
- ○ Nutrients Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Wastes

Implementation Requirements
- ● Capital Costs
- ◒ Maintenance
- ○ Training
- ○ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

DESCRIPTION
A stabilized construction entrance consists of a pad consisting of gravel, crushed stone, recycled concrete or other rock like material on top of geotextile filter cloth to facilitate the wash down and removal of sediment and other debris from construction equipment prior to exiting the construction site. For added effectiveness, a wash rack area can be incorporated into the design to further reduce sediment tracking. For long term projects, cattle guards or other type of permanent rack system can be used in conjunction with a wash rack. This directly addresses the problem of silt and mud deposition in roadways used for construction site access.

PRIMARY USE
Stabilized construction entrances are used primarily for sites in which significant truck traffic occurs on a daily basis. It reduces the need to remove sediment from streets. If used properly, it also directs the majority of traffic to a single location, reducing the number and quantity of disturbed areas on the site and providing protection for other structural controls through traffic control.

APPLICATIONS
Stabilized construction entrances are a required part of the erosion control plan for all site developments larger than 5 acres and a recommended practice for all construction sites. It is not suitable for long, linear projects. If possible, small entrances should be incorporated into small lot construction due to the large percentage of disturbed area on the site and the high potential for offsite tracking of silt and mud.

DESIGN CRITERIA
- Stabilized construction entrances are to be constructed such that drainage across the entrance is directed to a controlled, stabilized outlet on site with provisions for storage
- The entrance must be properly graded so that storm water is not allowed to leave the site and enter roadways.
- Minimum width of entrance shall be 15 feet, but in no case shall the width be less than that of the entry way to be used.

BMP 9

City of Baton Rouge Parish of East Baton Rouge

Department of Public Works

Diversion Dike

- Minimum width of the embankment at the top shall be 2 feet.
- Minimum embankment height shall be 18 inches as measured from the toe of slope on the upgrade side of the berm
- For velocities less than 6 feet per second, the minimum stabilization for the dike and adjacent flow areas is grass, erosion control mats or mulch. For velocities greater than 6 feet per second, stone stabilization or high velocity erosion control mats should be used. Velocities greater than 8 feet per second must be approved by the local jurisdiction.
- The dikes shall remain in place until all disturbed areas which are protected by the dike are permanently stabilized unless other controls are put into place to protect the disturbed area.
- Flow line at dike shall have a positive grade to drain to a controlled outlet.

LIMITATIONS
Compacted earth dikes require stabilization immediately upon placement so as not to contribute to the problem they are addressing.

The diversion dikes can be a hinderance to construction equipment moving on the site, therefore their locations must be carefully planned prior to installation.

MAINTENANCE REQUIREMENTS
Dikes must be inspected on a weekly basis and after each significant (>0.5 inch) rainfall to determine if silt is building up behind the dike, or if erosion is occurring on the face of the dike. Silt shall be removed in a timely manner. If erosion is occurring on the face of the dike, the slopes of the face shall either be stabilized through mulch or seeding or the slopes of the face shall be reduced.

BMP 7

Department of Public Works

Interceptor Swale

DESIGN CRITERIA
- Maximum depth of flow in the swale shall be 1.5 feet based on a 2 year design storm peak flow. Positive overflow must be provided to accommodate larger storms.
- Side slopes of the swale shall be 3:1 or flatter.
- Minimum design channel freeboard shall be 6 inches.
- The minimum required channel stabilization for grades less than 2 percent and velocities less than 6 feet per second may be grass, erosion control mats or mulching. For grades in excess of 2 percent, or velocities exceeding 6 feet per second, stabilization in the form of high velocity erosion mats, a three inch layer of crushed stone or rip rap is required. Velocities greater than 8 feet per second will require approval by the PROGRAM MANAGER.
- Check dams can be used to reduce velocities in steep swales. See check dam BMP fact sheet for design criteria.
- Interceptor swales must be designed for flow capacity based on Manning's Equation to ensure a proper channel section. Alternate channel sections may be used when properly designed and accepted.
- Consideration must be given to the possible impact that any swale may have on upstream or downstream conditions.
- Swales must maintain positive grade to an acceptable outlet.

LIMITATIONS
Interceptor swales must be stabilized quickly upon excavation so as not to contribute to the erosion problem they are addressing.

Swales may be unsuitable to the site conditions (too flat or steep).

Limited flow capacity for temporary swales. For permanent swales, the 1.5 feet maximum depth can be increased as long

MAINTENANCE REQUIREMENTS
Inspection must be made weekly and after each significant (0.5" or greater) rain event to locate and repair any damage to the channel or to clear debris or other obstructions so as not to diminish flow capacity. Damage from storms or normal construction activities such as tire ruts or disturbance of swale stabilization shall be repaired as soon as practical.

BMP 8

Department of Public Works

Stabilized Construction Entrance

- Minimum depth of entrance shall be 8 inches for the entire length of the control.
- Minimum dimensions for the entrance shall be as follows:

Tract Area	Avg. Lot Depth	Min. Width of Entrance	Min. Depth of Entrance
< 1 Acre	100 feet	15 feet	20 feet
< 5 Acres	200 feet	20 feet	30 feet
< 10 Acres	> 200 feet	20 feet	40 feet
> 10 Acres	> 200 feet	25 feet	50 feet

LIMITATIONS
Selection of the construction entrance location is critical in that to be effective, it must be used exclusively.

Stabilized entrances are rather expensive considering that it must be installed in combination with one or more other sediment control techniques, but it may be cost effective compared to labor intensive street cleaning.

MAINTENANCE REQUIREMENTS
Inspections should be made on a regular basis and after large storm events in order to ascertain whether or not sediment and pollution are being effectively detained on site.

When sediment has substantially clogged the void area between the rocks, the aggregate mat must be washed down or replaced.

Periodic re-grading and top dressing with additional stone must be done to keep the efficiency of the entrance from diminishing.

BMP 9

Department of Public Works

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
3/12/2018

DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
903–01	FEBRUARY 25, 2008	3 OF 11

STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES

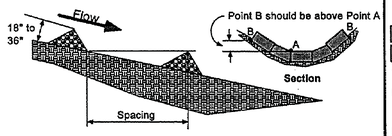
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

903–01

PROJECT NO.	SHEET
19-CP-HC-0039A	313

Check Dams



DESCRIPTION
Check dams are small barriers consisting of straw bales, rock, or earth berms placed across a drainage swale or ditch. They reduce the velocity of small concentrated flows, provide a limited barrier for sediment and help disperse concentrated flows, reducing potential erosion.

PRIMARY USE
Check dams are used for long drainage swales or ditches in which permanent vegetation may not be established and erosive velocities are present. They are typically used in conjunction with other techniques such as inlet protection, rip rap or other sediment reduction techniques. Check dams provide limited treatment. They are more useful in reducing flow to acceptable levels for other techniques.

APPLICATIONS
Check dams are typically used early in construction in swales for long linear projects such as roadways. They can also be used in short swales with a steep slope to reduce unacceptable velocities.

DESIGN CRITERIA
- Check dams should be placed at a distance and height to allow small pools to form between each one. Typically, dam height should be between 18" and 36". Dams should be spaced such that the top of the downstream dam should be at the same elevation as the toe of the upstream dam.
- See design criteria for straw bales, sand bag berms, etc. for specific criteria. Maximum allowable flow shall be based on the specific technique utilized and the velocity of flow.
- Major flows (greater than 2 year design storm) must pass the check dam without causing excessive upstream flooding.
- Check dams should be used in conjunction with other sediment reduction techniques prior to releasing flow offsite.

Applications
- Perimeter Control
- Slope Protection
- **Sediment Trapping**
- **Channel Protection**
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents
- ◒ Sediment
- ○ Nutrients Toxic Materials
- ○ Oil & Grease
- ◒ Floatable Materials
- ○ Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ● Maintenance
- ○ Training
- ◒ Suitability for Slopes >5%

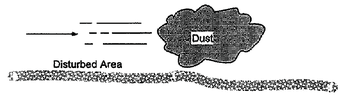
Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP 10

City of Baton Rouge Parish of East Baton Rouge

Department of Public Works

Dust Control BMP



DESCRIPTION
Dust control measures are used to stabilize soil from wind erosion, and reduce dust generated by construction activities. Dust which settles on surfaces both on-site and off-site may be washed by storm water into waterways.

APPLICATIONS
- Clearing and grading activities
- Construction vehicles traffic on unpaved roads
- Drilling and blasting activities
- Sediment tracking onto paved roads
- Soil and debris storage piles
- Batch drop from front end loaders
- Areas with unstabilized soil

DESIGN CRITERIA
- Schedule construction activities to minimize the area where, and time period when soils are exposed.
- Quickly stabilize exposed soils using vegetation, mulching, spray-on adhesives, calcium chloride, sprinkling, and stone/gravel layering.
- Identify and stabilize key access points prior to commencement of construction.
- Minimizing the impact of dust by anticipating the direction of prevailing winds.
- Direct most construction traffic to stabilize roadways within the project site.

LIMITATIONS
- Watering prevents dust only for a short period and should be applied daily (or more often) to be effective. Overwatering may cause a contaminated erosion.
- Oils should not be used for dust control because it may migrate into drainageway and/or seep into the soil.
- Certain chemically-treated subgrades may make soil water repellent, increasing runoff.

Applications
- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- **Temporary Stabilization**
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents
- ◒ Sediment
- ◒ Nutrients Toxic Materials
- ○ Oil & Grease
- ◒ Floatable Materials
- ◒ Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ◒ Maintenance
- ◒ Training
- Suitability for Slopes >5%

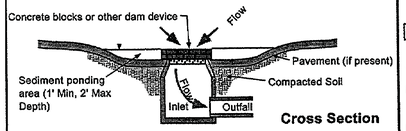
Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP 11

City of Baton Rouge Parish of East Baton Rouge

Department of Public Works

Inlet Protection



DESCRIPTION
Inlet protection consists of a variety of methods of intercepting sediment at low point inlets through the use of stone, filter fabric and other materials. This is normally located at the inlet, providing either detention or filtration to reduce sediment and floatable materials in storm water.

PRIMARY USE
Inlet protection is normally used as a secondary defense in site erosion control . it is normally used in new developments that include new inlets or roads with new curb inlets or during major repairs to existing roadways. Inlet protection has limited use in developed areas due to the potential for flooding, traffic safety and pedestrian safety and maintenance problems. Inlet protection can reduce sediment in storm sewer system by serving as a back up system to onsite controls or by reducing sediment loads from controls with limited effectiveness such as straw bale dikes.

APPLICATIONS
Different variations are used for different conditions as follows:
- Filter barrier protection (similar to a silt fence barrier around the inlet) is appropriate when the drainage area is less than one acre and the basin slope is less than five (5) percent. This type of protection is not applicable in paved areas.
- Block and gravel (crushed stone, recycled concrete is also appropriate) protection is used when flows exceed 0.5 c.f.s. and it is necessary to allow for overtopping to prevent flooding
- Wire mesh and gravel protection (crushed stone, recycled concrete is also appropriate) is used when flows exceed 0.5 c.f.s. and construction traffic may occur over the inlet. This form of protection may be used with both curb and drop inlets

Applications
- Perimeter Control
- Slope Protection
- **Sediment Trapping**
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents
- ◒ Sediment
- ○ Nutrients Toxic Materials
- ◒ Oil & Grease
- ◒ Floatable Materials
- ◒ Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ◒ Maintenance
- ◒ Training
- ○ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP 12

City of Baton Rouge Parish of East Baton Rouge

Department of Public Works

Check Dams

LIMITATIONS
Minor ponding will occur upstream of the check dams.

For heavy flows or high velocity flows, extensive maintenance or replacement of the dams will be required.

Check dams are not a total treatment technique.

MAINTENANCE REQUIREMENTS
Maintenance of the dams should adhere to the maintenance requirements of the management practice used for the dam.

BMP 10

Department of Public Works

Dust Control BMP

MAINTENANCE REQUIREMENTS
Most dust control measures require frequent, often daily, attention.

ADDITIONAL INFORMATION
Dust control BMP's generally stabilize expose
dust particles. For heavily traveled and disturbed areas, wet suppression (watering), chemical dust suppression, gravel or asphalt surfacing, temporary gravel construction entrances, equipment wash-out areas, and haul truck covers can be employed as dust control applications. Permanent or temporary vegetation and mulching and fences can be employed for areas of occasional or no construction traffic. Preventive measures would include minimizing surface areas to be disturbed.

Many of the reasonably available control measures for controlling dust from construction sites can also be implemented as BMPs for storm water pollution prevention. Those BMPs include:

- Pave, vegetate, or chemically stabilize access points where unpaved traffic surfaces adjoin paved roads.
- Provide covers for haul truck transporting materials that contribute to dust.
- Provide suppression or chemical stabilization of exposed soils.
- Provide for rapid clean-up of sediments deposited on paved roads. Furnish stabilized construction road entrances and vehicle wash down areas.
- Stabilize unpaved haul roads, parking and staging areas. Reduce speed and trips on unpaved roads.
- Implement dust control measures for material stockpiles.
- Prevent drainage of sediment laden storm water onto paved surfaces.
- Stabilize abandoned construction sites using vegetation or chemical stabilization methods.
- Limit the amount of areas disturbed by clearing and earth moving operations by scheduling these activities in phases.

For the chemical stabilization, there are many products available as dust palliatives for chemically stabilizing gravel roadways and stockpiles.

In addition, there are many other BMPs identified in this

- Seeding and Plantings
- Stabilized Construction Entrances
- Construction Road Stabilization
- Mulching

BMP 11

Department of Public Works

Inlet Protection

- Excavated impoundment protection around a drop inlet may be used for protection against sediment entering a storm drain system. With this method, it is necessary to install weep holes to allow the impoundment to drain completely. The impoundment shall be sized such that the volume of excavation shall be equal to 1800 to 3600 cubic feet per acre of contributing drainage area entering the inlet for full effectiveness. Smaller volumes can be used for reduced effectiveness.

DESIGN CRITERIA
- Filter fabric protection shall be designed and maintained in a manner similar to silt fence.
- Maximum depth of flow shall be eight (8) inches or less depending on vehicular and pedestrian traffic.
- Positive drainage is critical in the design of inlet protection. If overflow is not provided for at the inlet, flows which exceed the capacity of the inlet protection system shall be routed through established swales, streets or other watercourses to minimize damage due to ponding and to provide for public safety.

LIMITATIONS
Ponding will occur at the inlet with possible flooding as a result.

Inlet protection is only viable at low point inlets. Inlets which are on a slope cannot be effectively protected because stormwater will bypass the inlet and continue downstream, causing an overload condition at inlets beyond.

MAINTENANCE REQUIREMENTS
Inspections should be made on a weekly basis, especially after large (> 0.5 inches) storm events. When silt fence is used and the fabric becomes clogged, it should be cleaned or if necessary, replaced. Also, sediment should be removed when it reaches approximately one-half the height of the fence. If a sump is used, sediment should be removed when the volume of the basin is reduced by 60%.

For systems using stone filters, when the stone filter becomes clogged with sediment, the stones must be pulled away from the inlet and cleaned or replaced. Since cleaning of gravel at a construction site may be difficult, an alternative approach would be to use the clogged stone as fill material and put new stone around the inlet.

BMP 12

Department of Public Works

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 15417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/12/2018

DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
903–01	FEBRUARY 25, 2008	4 OF 11

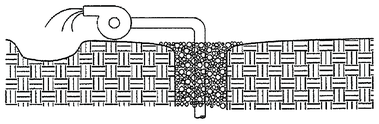
STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES

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
19-CP-HC-0039A	314

Dewatering Operations



Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
- ○ Sediment
- ○ Nutrients
- ○ Toxic Materials
- ◒ Oil & Grease
- ○ Floatable Materials
- ● Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ○ Maintenance
- ◒ Training
- ○ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP
13

City of Baton Rouge
Parish of
East Baton Rouge

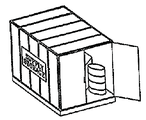
Department of Public Works

DESCRIPTION
Prevent or reduce the discharge of pollutants to storm water from dewatering operations by using sediment controls and by testing the water for contamination.

APPLICATIONS
There are two general classes or pollutants that may result from dewatering operations: sediment, and toxics and petroleum products. A high sediment content in dewatering discharges is common because of the nature of the operation. On the other hand, toxics and petroleum products are not commonly found in dewatering discharges unless, the site or surrounding area has been used for light or heavy industrial activities, or the area has a history of groundwater contamination.

DESIGN CRITERIA
- Use sediment controls to remove sediment from water generated from dewatering.
- Use filtration to remove sediment from a sediment trap or basin. Filtration can be achieved with:
  - Sump pit and a standpipe in the center with holes and wapped in filter fabric. The standpipe is surrounded by stones which filters the water as it collects in the pit before being pumped out;
  - Floating suction hose allowing cleaner surface water to be pumped out; or
  - Standpipe in the sediment basin with slits and wrapped in filter fabric to remove sediments.
- Toxics and Petroleum Products:
  - In areas suspected of having groundwater contamination, protect yourself early in the excavation process by sampling and having the water tested at a certified laboratory. Check with the Louisiana Department of Environmental Quality and the PROGRAM MANAGER for their requirements, including additional water quality tests and disposal options.

Material Delivery And Storage



Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
- ○ Sediment
- ○ Nutrients
- ○ Toxic Materials
- ◒ Oil & Grease
- ○ Floatable Materials
- ● Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ○ Maintenance
- ◒ Training
- ○ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP
14

City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

DESCRIPTION
Prevent or reduce the discharge or pollutants to storm water from material delivery and storage by minimizing the storage of hazardous materials on-site, storing materials in a designated area, installing secondary containment, conducting regular inspection, and training employees and subcontractors.

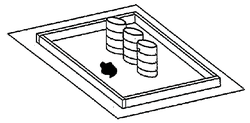
This best management practice covers only material delivery and storage. For information on wastes, see the waste management BMPs.

APPLICATIONS
The following materials are commonly stored on construction sites:
- Pesticides and herbicides.
- Fertilizers.
- Detergents.
- Petroleum products such as fuel, oil, and grease.
- Other hazardous chemicals such as acids, lime, glues, paints, solvents, and curing compounds.

Storage of these materials on-site can pose the following risks:
- Storm water contamination.
- Injury to workers or visitors.
- Groundwater contamination.
- Soil contamination.

DESIGN CRITERIA
- Designate an area of the construction site for material delivery and storage.
  - Place near the construction entrance, away from waterways
  - Avoid transport near drainage paths or waterways
  - Surround with earth berms

Spill Prevention And Control



Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
- ○ Sediment
- ○ Nutrients
- ○ Toxic Materials
- ◒ Oil & Grease
- ○ Floatable Materials
- ● Other Construction Wastes

Implementation Requirements
- ○ Capital Costs
- ○ Maintenance
- ◒ Training
- ○ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP
15

City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

DESCRIPTION
Prevent or reduce the discharge of pollutants to storm water from leaks and spills by reducing the chance for spills, stopping the source of spills, containing and cleaning up spills, properly disposing of spill materials, and training employees.

This best management practice covers only spill prevention and control. However, Material Delivery and Storage and Material Use, also contain useful information, particularly on spill prevention. For information on wastes, see the waste management BMPs.

APPLICATIONS
The following steps will help reduce the storm water impacts of leaks and spills:

General Measures
- Hazardous materials and wastes should be stored in covered containers and protected from vandalism.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- Train employees in spill prevention and cleanup.

Cleanup
- Clean up leaks and spills immediately.
- On paved surfaces, clean up spills with as little water as possible. Use a rag for small spills, mop for general cleanup, and absorbent material for larger spills. If the spilled material is hazardous, then the used cleanup materials are also hazardous and must be sent to either a certified laundry (rags) or disposed of as hazardous waste.
- Never down or bury dry materials spills. Sweep up or excavate the material and dispose of properly. See the waste management BMPs

Dewatering Operations

- Contaminated water can be expensive to treat and/or dispose of properly. However, addressing the problem before construction is much less expensive than after the structures are in place.

LIMITATIONS
The presence of contaminated water may indicate contaminated soil as well. If contaminated water is discovered or suspected, the CONTRACTOR shall stop dewatering and immediately notify the PROGRAM MANAGER.

MAINTENANCE REQUIREMENTS
Maintain sediment controls and filters in good working order.

Inspect excavated areas daily for signs contaminated water as evidenced by discoloration, oily sheet, or odors.

BMP
13

Department of Public Works

Material Delivery And Storage

- Storage of reactive, ignitible, or flammable liquids must comply with the local fire codes and BTR Airport Rescue and Fire Fighting (ARFF) regulations. Contact ARFF, Captain Milton Thomas (504-355-2068), to review site materials, quantities, and proposed storage area to determine specific requirements. See the Flammable and Combustible Liquid Code NFPA30.
- Keep an accurate, up-to-date inventory in your SWPPP of the materials delivered and stored on-site.
- Keep your inventory down. Store only the amount you need, for only as long as you need it.
- Store as few hazardous materials on-site as possible.
- Handle hazardous materials as infrequently as possible.
- Designate a secure material storage area away from drainage courses and near the site entrance.
- Whenever possible, store materials in a covered area with secondary containment such as an earthen dike, horse trough, or even kid's wading pool for non-reactive materials such as detergents, oil, grease and paints. Small amounts of material may be secondarily contained in "busboy" trays or concrete mixing trays.
- Do not store chemicals, drums, or bagged materials directly on the ground. Place these items in secondary containment.
- If drums must be kept uncovered, store them at a slight angle to reduce ponding or rainwater on the lids and to reduce corrosion.
- Try to keep chemicals in their original containers, and keep them well labeled.
- Train employees and subcontractors.
- Employees trained in emergency spill cleanup procedures should be present when dangerous materials or liquid chemicals are unloaded.

LIMITATIONS
Storage sheds often must meet building and fire code requirements.

MAINTENANCE REQUIREMENTS
Keep the designated storage area clean and well organized.
Conduct routine weekly inspections and check for external corrosion of material containers.
Keep an ample supply of spill cleanup materials near the storage area.

BMP
14

Department of Public Works

Spill Prevention And Control

Reporting
- Immediately report spills to the BTR Airport Rescue & Fire Fighting Unit (504-355-2068). Federal regulations require that any oil spill into a water body or onto an adjoining shoreline be reported to the National Response center (NRC) at 800-424-8802 (24 hour).

Vehicle and Equipment Maintenance
- If maintenance must occur on-site, use a designated area, located away from drainage courses, prevent the runon of storm water and the runoff of spills.
- Regularly inspect on-site vehicles and equipment for leaks, and repair immediately.
- Check incoming vehicles and equipment (including delivery trucks, and employee and subcontractor vehicles) for leaking oil and fluids. Do not allow leaking vehicles or equipment on-site.
- Always use secondary containment, such as a drain pan or deep cloth, to catch spills or leaks when removing or changing fluids.
- Place drip pans or absorbent materials under equipment when not in use.
- Use adsorbent materials on small spills rather than hosing down or burying the spill. Remove the adsorbent materials promptly and dispose of properly.
- Promptly transfer used fluids to the proper waste or recycling drums. Don't leave full drip pans or other open containers lying around.
- Oil filters disposed of in trash cans or dumpsters can leak oil and contaminate storm water. Place the oil filter in a funnel over a water oil recycling drum to drain excess oil before disposal. Oil filters can also be recycled. Ask your oil supplier or recycler about recycling oil filters.
- Store cracked batteries in a non-leaking secondary container. Do this with all cracked batteries ven if you think all the acid has drained out. If you drop a battery, treat it as if is cracked. Put in into the containment area until you are sure it is not leaking.

Vehicle and Equipment Fueling
- If fueling must occur on-site, use designated areas, located away from drainage courses, to prevent the runon of storm water and the runoff of spills.
- Discourage "topping-off" of fuel tanks.
- Always use secondary containment, such as a drain pan, when fueling to catch spills/leaks.

LIMITATIONS
If necessary, use a private spill cleanup company.

MAINTENANCE REQUIREMENTS
Keep ample supplies or spill control and cleanup materials on-site, near storage, unloading, and maintenance areas.

Update your spill cleanup materials as changes occur in the types of chemicals on-site.

BMP
15

Department of Public Works

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/14/2013

STANDARD PLAN NO.	DATED	SHEET NO.
903–01	FEBRUARY 25, 2008	5 OF 11

STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES

DATE	DESCRIPTION REVISIONS	BY

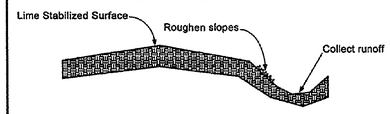
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

903–01

PROJECT NO.	SHEET
19-CP-HC-0039A	315

Lime Stabilization BMP



DESCRIPTION
Lime stabilization is used extensively in some areas to stabilize pavement subbases for roadways, parking lots and other paved surfaces. Hydrated lime is applied to the soil and mixed through disking and other techniques, then allowed to cure. This practice will reduce the potential for runoff to carry lime offsite, where it may impact aquatic life through changing the pH balance of streams, ponds and other water bodies.

PRIMARY USE
This BMP consists of a series of techniques that should be implemented when lime is required for soil stabilization.

APPLICATIONS
Each of the techniques listed can be used under a variety of conditions. The engineer should determine the applicability of the technique based on site conditions such as available open space, quantity of area to be stabilized, proximity of nearby water courses and other BMPs employed at the site. The use of diversion dikes and interceptor swales (see appropriate

in conjunction with these techniques to reduce the impact of the lime.

DESIGN CRITERIA
- The contractor shall limit lime operations to that which can be thoroughly mixed and compacted by the end of each work day.
- No traffic other than water trucks and mixing equipment shall be allowed to pass over the spread lime until after completion of mixing.
- Areas adjacent and downstream of stabilized areas shall be roughened to intercept lime from runoff and reduce runoff velocity.
- Geotextile fabrics such as those used for silt fence should not be used to address lime since the grain size of lime is significantly smaller than the equivalent opening size of the fabric.
- For areas which phasing of lime operations is impractical, use of a curing seal such as Liquid Asphalt, Grade MC-250 or MC-800 applied at a rate of 0.15 gallons per square yard of surface can be used to protect the base.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
- ○ Sediment
- ○ Nutrients / Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Wastes

Implementation Requirements
- ○ Capital Costs
- ○ Maintenance
- ○ Training
- ○ Suitability for Slopes >5%

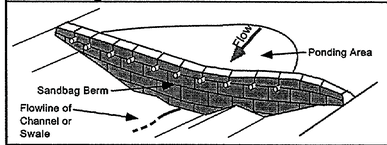
Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP
16

City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

Sand Bag Berm



DESCRIPTION
Sandbag berms consist of stacked sandbags installed across a watercourse to direct flow around construction or to allow sedimentation to occur for flows downstream of disturbed areas. There are overflow pipes located in the top of the berm to allow controlled outflow of water after sedimentation has occurred.

PRIMARY USE
A sandbag berm is a temporary sediment control method that addresses the problem of construction in creeks, channels and other watercourses which carry a constant flow and is subjected to high, concentrated flows. A sandbag berm can also be used to create a small sedimentation pond prior to the completion of a permanent detention basin.

Sandbag berms can be used as check dams in temporary swales or borrow ditches.

Sandbag berms are not recommended for typical perimeter controls where sheet flow is prevalent.

APPLICATIONS
During utility or any type of construction in channels or stream beds, sandbag berms can be used as check dams across channels, serve as a barrier for utility trenches or even provide a temporary channel crossing for construction equipment without seriously affecting stream conditions. Sandbag berms can also be installed parallel to a roadway, providing a corridor of sediment control similar to that provided by a silt fence or hay bales with the exception that a sand bag dike is capable of controlling much higher flows and is much more durable. For site construction sandbag berms can be used to divert or direct flow or create a temporary sediment basin with the added dimension of being able to be moved to accommodate changes in construction much more easily than compacted earth berms.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
- ○ Sediment
- ○ Nutrients / Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Wastes

Implementation Requirements
- ● Capital Costs
- ○ Maintenance
- ○ Training
- ● Suitability for Slopes >5%

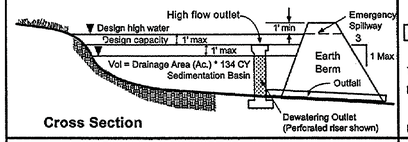
Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP
17

City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

Sediment Basin



Cross Section

DESCRIPTION
A sediment basin is a pond area with a controlled outlet in which sediment-laden runoff is directed to allow settling of suspended sediment from the runoff. It provides treatment for the runoff as well as detention and controlled release of runoff, minimizing flood impacts downstream.

PRIMARY USE
Sediment basins should be used for all sites with adequate open space to site the basin and the ability to direct a majority of the site drainage into the basin. For sites with disturbed areas of 10 acres and larger that are part of a common drainage area, sediment basins are required as either temporary or permanent controls unless specific site conditions limit their use.

APPLICATIONS
Sediment basins serve as treatment devices which can be used on a variety of project types. It is normally used in site development projects in which large areas of land are available for the basin, a stream or drainage way crosses the site, or a specific water feature is planned for the site. Sediment basins are highly effective at reducing sediment and other pollutants for design storm conditions. It also reduces maintenance requirements due to the central location of the sediment and minimal structural requirements of the basin.

DESIGN CRITERIA
- Maximum drainage area contributing to the basin should be 10 acres or less. Larger sediment basins will require specific measures to address the potential for overtopping of the basin and possible failure of the berm.
- Minimum capacity of the basin shall be 3600 cubic feet per disturbed acre of contributing drainage area.
- Deposited sediment shall be removed when the storage capacity of the basin has been depleted by 20%.
- Minimum width of the embankment at the top shall be 8 feet.
- Minimum embankment slope shall be 3:1.
- Maximum embankment height shall be 6 feet as measured from

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
- ● Sediment
- ◒ Nutrients / Toxic Materials
- ○ Oil & Grease
- ◒ Floatable Materials
- ○ Other Construction Wastes

Implementation Requirements
- ● Capital Costs
- ◒ Maintenance
- ○ Training
- ● Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP
18

City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

Lime Stabilization BMP

- Use of sediment basins with a significant (>36 hour) drawdown time is encouraged for large stabilized areas (see Sediment Basin BMP).

LIMITATIONS
These techniques are part of an overall plan to reduce pollutants from an active construction site. In the case of pollution due to lime, prevention of contamination is the only effective method to address this pollutant. Proper application and mixing along with avoiding applications when there is a significant probability of rain will reduce lime runoff.

MAINTENANCE REQUIREMENTS
None.

BMP
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Department of Public Works

Sand Bag Berm

DESIGN CRITERIA
- Berms are to be constructed along a line of constant elevation (a contour line) for use as perimeter control devices.
- Maximum flow through rate shall be 0.1 CFS per square foot of berm surface.
- Minimum height shall be 18 inches.
- Minimum width of the berm shall be 18 inches at the top and 54 inches measured at the bottom.
- Maximum side slopes shall be 2:1.
- Maximum design freeboard shall be 0.3 feet
- Sandbags shall be consist of jute, polypropylene, polyethylene or polyamide woven fabric. Jute shall be composed of a uniform weave of undyed and unbleached single jute jarn weighing an average of 1.2 pounds per linear ard of cloth with approximately 78 warp ends per width of cloth. Polypropylene, polyethylene or polyamide woven fabric shall have a minimum unit weight of 4 ounces per square yard, a mullen burst strength of 300 psi minimum and ultraviolet stability exceeding 70 percent, and shall be filled with coarse sand or pea gravel.
- 4" diameter Schedule 40 or greater PVC pipe segments approximately 24 inches in length shall be used immediately below the top layer of sandbags to allow for flow through the berm.
- For severe velocities or high flows, woven wire mesh can be used to maintain the integrity of the berm.
- Sufficient room for the operation of sediment removal equipment shall be provided between the berm and other obstructions in order to properly remove sediment.
- The ends of the berm shall be turned upgrade or shall tie into natural grades to prevent bypass of stormwater.
- In channel applications, the center of the berm must be lower than the outside ends to prevent bypass around the berm.

LIMITATIONS
Sandbag berms are a costly, labor intensive technique which is suitable only for areas subjected to high concentrated flows. The permeability of the berms makes it unsuitable for low flow, perimeter conditions.

Ponding will occur directly upstream from the berm creating the possibility of a flooding concern which should be considered prior to its placement.

For sandbag berms located in high flow areas such as creeks, the potential for berm damage during high flows increases the requirement for maintenance.

MAINTENANCE REQUIREMENTS
Inspections should be made on a daily basis and after each significant (>0.5 inches) rain event. The sandbags shall be reshaped or replaced as need during the inspection. Silt should be removed when it reaches a depth of six (6) inches. In addition, weekly inspections should be made on the PVC pipe segments to assure clear flow.

BMP
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Department of Public Works

Sediment Basin

the toe of slope on the downstream side.
- The basin outlet shall be designed to accommodate a 10 year design storm without causing damage to the containment structure.
- Minimum outlet capacity shall be 0.2 CFS per acre of contributing drainage area.
- The sediment basin shall have a minimum design dewatering time of 36 hours.
- The basin must be laid out such that the effective flow length of the basin should be at least twice the effective flow width.
- The outlet of the outfall pipe shall be stabilized with rip rap or other form of stabilization with design flows and velocities based on 25 year design storm peak flows. For velocities in excess of 5 feet per second, velocity dissipation measures should be used to reduce outfall velocities.

LIMITATIONS
Sediment basins can be rather large depending on site conditions, requiring the use of expensive development area and comprehensive planning for construction phasing prior to implementation.

Storm events which exceed the design storm event can cause damage to the spillway structure of the basin and may impact downstream concerns.

MAINTENANCE REQUIREMENTS
Sediment shall be removed and the basin shall be regraded to its original dimensions at such point that the capacity of the impoundment has been reduced to 20% of its original storage capacity. The removed sediment shall be stockpiled or redistributed in areas which are protected from erosion.

The basin outlet structure and emergency spillway (if present) should be checked frequently and after each major rain event to check for damage and to insure that obstructions are not diminishing the effectiveness of the structures.

BMP
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Department of Public Works

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19617
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/12/2013

STANDARD PLAN NO.	DATED	SHEET NO.
903–01	FEBRUARY 25, 2008	6 OF 11

STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

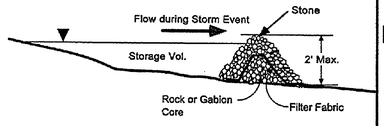
DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

DATE	DESCRIPTION REVISIONS	BY

903–01

PROJECT NO.	SHEET
19-CP-HC-0039A	316

Stone Outlet Sediment Trap



DESCRIPTION
A stone outlet sediment trap is a small ponding area formed by placing a stone embankment or gabion core with an integral stone filter outlet across a drainage swale for the purpose of detaining sediment-laden runoff generated by construction activities. The sediment trap detains runoff long enough to allow most of the suspended sediment to settle while still allowing for diffused flow of runoff.

PRIMARY USE
A sediment trap is used in situations where flows are concentrated in a drainage swale or channel. The sediment trap reduces velocities and allows for settling of sediment while allowing the area behind the trap to de-water. This is normally used for long term (18 months or less) applications in which a sediment basin is not feasible due to site or construction method restrictions. The use of a gabion core as opposed to a
dewatering the area as necessary.

APPLICATIONS
Temporary stone outlet sediment traps are installed at locations where concentrated flows require a protected outlet to contain sediment or spread flow prior to discharge.

DESIGN CRITERIA
- Maximum drainage area contributing to the trap shall be 3 acres. For larger drainage areas, a sediment basin should be used.
- The minimum length of the crest, in feet, of the stone outlet shall be equal to 6 times the size (acres) of the contributing drainage area.
- Deposited sediment shall be removed when the depth of sediment is equal to one-third of the height of the outlet structure as measured from the original toe of slope to the crest of the outlet, or has reached a depth of one foot, whichever is less.
- Minimum width of the embankment at the top shall be 3 feet.
- Minimum embankment slope shall be 3:1.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
● Sediment
○ Nutrients
○ Toxic Materials
○ Oil & Grease
◒ Floatable Materials
○ Other Construction Wastes

Implementation Requirements
● Capital Costs
◒ Maintenance
○ Training
● Suitability for Slopes >5%

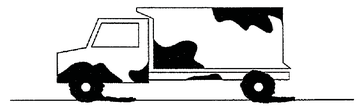
Legend
● Significant Impact
◒ Medium Impact
○ Low Impact
? Unknown or Questionable Impact

BMP
19

City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

Vehicle And Equipment Cleaning



DESCRIPTION
Prevent or reduce the discharge of pollutants to storm water from vehicle and equipment cleaning by using off-site facilities, washing in designated areas only, discharges to the storm drain by infiltrating or recycling the wash water and training employees and subcontractors.

APPLICATIONS
Washing vehicles and equipment outdoors or in areas where wash water

DESIGN CRITERIA
- Use off-site commercial washing businesses as much as possible. For operations involving a large number of vehicles or pieces of equipment, consider conducting this work at an off-site commercial business equipped to handle and dispose of the wash waters properly. Performing this work off-site can also be economical by eliminating the need for a separate washing operation at your site.
- If washing must occur on-site, use designated, bermed wash areas to prevent wash water contact with storm water, creeks, rivers, and other water bodies.
for wash water collection and subsequent infiltration into the ground.
- Use as little water as possible to avoid having to install erosion and sediment controls for the wash area.
- Use phosphate-free, biodegradable soaps.
- Educate employees and subcontractors on pollution prevention measures.
- Do not permit steam cleaning on-site. Steam cleaning can generate significant pollutant concentrations leading to potential storm water and groundwater contamination.
- In construction areas where truck tires collect mud, provide a cleaning areas for removing soil before truck leaves site. Truck tires cleaning area should not be directly a jacent to drainage conveyances. A vegetated buffer area should be located downstream of the tire wash. For heavy use of tire wash area, silt fencing, or sediment trapping may be necessary.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
◒ Sediment
○ Nutrients
○ Toxic Materials
◒ Oil & Grease
○ Floatable Materials
○ Other Construction Wastes

Implementation Requirements
○ Capital Costs
◒ Maintenance
◒ Training
○ Suitability for Slopes >5%

Legend
● Significant Impact
◒ Medium Impact
○ Low Impact
? Unknown or Questionable Impact

BMP
20

City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

Vehicle And Equipment Fueling

DESCRIPTION
Prevent fuel spills and leaks, and reduce their impacts to storm water by using off-site facilities, fueling in designated areas only, enclosing or covering stored fuel, implementing spill controls, and training employees and subcontractors.

APPLICATIONS
Fueling vehicles and equipment outdoors or in areas where wash water flows onto the ground can pollute storm water.

DESIGN CRITERIA
- Use of off-site fueling stations as much as possible. If you fuel a large number of vehicles or pieces of equipment, consider using an off-site fueling station equipped to handle fuel and spills properly. Performing this work off-site can also be economical by eliminating the need for a separate fueling area at your site.
- If fueling must occur on-site, use designated areas, located away from drainage course to prevent the runon of storm water and the runoff of spills.
- Discourage "topping-off" of fuel tanks.
- Always use secondary containment, such as a drain pan, when fueling to catch spills/leaks.
- Place a stockpile of spill cleanup materials where it will be readily accessible.
- Use adsorbent materials on small spills rather than hosing down or burying the spill. Remove the adsorbent materials promptly and dispose of properly.
- Carry out all Federal and State requirements regarding stationary above ground storage tanks.
- Do not use mobile fueling of mobile construction equipment around the site; rather, transport the equipment to designated fueling areas. With the exception of tracked equipment such as bulldozers and perhaps small forklifts, most vehicles should be able to travel to a designated area with little lost time.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
○ Sediment
○ Nutrients
○ Toxic Materials
◒ Oil & Grease
○ Floatable Materials
○ Other Construction Wastes

Implementation Requirements
◒ Capital Costs
○ Maintenance
◒ Training
○ Suitability for Slopes >5%

Legend
● Significant Impact
◒ Medium Impact
○ Low Impact
? Unknown or Questionable Impact

BMP
21

City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

Stone Outlet Sediment Trap

- Maximum embankment height shall be 2 feet as measured from the toe of slope to the crest of the stone outlet. The height of the compacted earth embankment shall be one foot higher than the crest of the outlet.
- The maximum allowable flow-through rate shall be 0.1 CFS per square foot of the frontal area of the outlet structure.
- The effective life of the stone outlet sediment trap is approximately 18 months.

LIMITATIONS
Limited applications due to cost of construction, availability of materials, and the amount of land required.

Can cause minor flooding upstream of dam, impacting construction operations.

This technique serves as a temporary measure during construction. It should not be used for more than 18 months due to reduced efficiency.

MAINTENANCE REQUIREMENTS
Sediment shall be removed and the area directly behind the berm shall be regraded to its original dimensions at such point when the capacity of the impoundment has been reduced to one-half of its original storage capacity. The removed sediment shall be stockpiled or redistributed in areas which are protected from erosion.

The stone outlet structure should be inspected frequently and after each major rain event to check for clogging of the void spaces between stones. If the aggregate appears to be silted in such that efficiency is diminished, the stone should be replaced.

BMP
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Department of Public Works

Vehicle And Equipment Cleaning

LIMITATIONS
Even phosphate-free, biodegradable soaps have been shown degrades.
Sending vehicles/equipment off-site should be done in conjunction with Entrance).

MAINTENANCE REQUIREMENTS
Minimal.

BMP
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Department of Public Works

Vehicle And Equipment Fueling

- Train employees and subcontractors in proper fueling and cleanup procedures.

LIMITATIONS
Sending vehicles/equipment off-site should be done in conjunction with Stabilized Construction Entrance BMP.

MAINTENANCE REQUIREMENTS
Keep ample supplies of spill cleanup materials on-site.
Inspect fueling areas and storage tanks on a regular schedule.

BMP
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Department of Public Works

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/12/2018

STANDARD PLAN NO.	DATED	SHEET NO.
903–01	FEBRUARY 25, 2008	7 OF 11

STORM WATER POLLUTION PREVENTION PLAN
BEST MANAGEMENT PRACTICES

DATE	DESCRIPTION REVISIONS	BY

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
19-CP-HC-0039A	317

Solid Waste Management

DESCRIPTION
Large volumes of solid waste are often generated at construction sites including: packaging, pallets, wood waste, concrete waste, soil, electrical wiring, cuttings, and a variety of other materials. The solid waste management practice lists techniques to minimize the potential of storm water contamination from solid waste through appropriate storage and disposal practices.

PRIMARY USE
These practices should be a part of all construction practices. By limiting the trash and debris on site, storm water quality is improved along with reduced clean up requirements at the completion of the project.

APPLICATIONS
The solid waste management practice for construction sites is based on proper storage and disposal practices by construction workers and supervisors. Key elements of the program are education and modification of improper disposal habits. Cooperation and vigilance is required on the part of supervisors and workers to ensure that the recommendations and procedures are followed. Following are lists describing the targeted materials and recommended procedures:

- Targeted Solid Waste Materials
  - Paper and cardboard containers
  - Plastic packaging
  - Styrofoam packing and forms
  - Insulation materials (non-hazardous)
  - Wood pallets
  - Wood cuttings
  - Pipe and electrical cuttings
  - Concrete, brick, and mortar waste
  - Shingle cuttings and waste
  - Roofing tar
  - Steel (cuttings, nails, rust residue)
  - Gypsum board cuttings and waste
  - Sheathing cuttings and waste
  - Miscellaneous cutting and waste
  - Food waste
  - Demolition waste

Storage Procedures
- Wherever possible, minimize production of solid waste materials.
- Designate a foreman or supervisor to oversee and enforce proper solid waste procedures.
- Instruct construction workers in proper solid waste procedures.
- Segregate potentially hazardous waste from non-hazardous construction site debris.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
- ○ Sediment
- ● Nutrients
- Toxic Materials
- ○ Oil & Grease
- ● Floatable Materials
- ● Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ◒ Maintenance
- ◒ Training
- ○ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP
22

City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

Hazardous Waste Management

DESCRIPTION
The hazardous waste management BMP addresses the problem of storm water polluted with hazardous waste through spills or other forms of contact. The objective of the Management Program is to minimize the potential of stormwater contamination from common construction site hazardous wastes through appropriate recognition, handling, storage and disposal practices.

It is not the intent of this Management Program to supersede or replace normal site assessment and remediation procedures. Significant spills and/or contamination warrant immediate response by trained professionals. Suspected job-site contamination should be immediately reported to regulatory authorities and protective actions taken. The General Permit requires reporting of significant spills to the National Response Center (NRC) at (800) 424-8802.

PRIMARY USE
These management practices along with applicable OSHA and EPA guidelines should be incorporated at all construction sites which use or generate hazardous wastes. Many wastes such as fuel, oil, grease, fertilizer and pesticide are present at most construction sites.

INSTALLATION, APPLICATION AND DISPOSAL CRITERIA
The hazardous waste management techniques presented here are based on proper recognition, handling, and disposal practices by construction workers and supervisors. Key elements of the management program are education, proper disposal practices, as well as provisions for safe storage and disposal. Following are lists describing the targeted materials and recommended procedures:

- Targeted Hazardous Waste Materials
  - Paints
  - Solvents
  - Stains
  - Wood preservatives
  - Cutting oils
  - Greases
  - Roofing tar
  - Pesticides
  - Fuels & lube oils
  - Lead based paints (Demolition)

Storage Procedures
- Wherever possible, minimize use of hazardous materials.
- Minimize generation of hazardous wastes on the job-site.
- Segregate potentially hazardous waste from non-hazardous construction site debris.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
- ○ Sediment
- ● Nutrients
- Toxic Materials
- ● Oil & Grease
- ○ Floatable Materials
- ● Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ◒ Maintenance
- ◒ Training
- ○ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP
23

City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

Concrete Waste Management

DESCRIPTION
Concrete waste at construction sites comes in two forms; 1) excess fresh concrete mix including truck and equipment washing, and 2) concrete dust and concrete debris resulting from demolition. Both forms have the potential to impact water quality through storm water runoff contact with the waste.

PRIMARY USE
Concrete waste is present at most construction sites. This BMP should be utilized at sites in which concrete waste is present.

APPLICATIONS
A number of water quality parameters can be affected by introduction of concrete - especially fresh concrete. Concrete affects the pH of runoff, causing significant chemical changes in water bodies and harming aquatic life. Suspended solids in the form of both cement and aggregate dust are also generated from both fresh and demolished concrete waste.

Current Unacceptable Waste Concrete Disposal Practices
- Dumping in vacant areas on the job-site
- Illicit dumping off-jobsite
- Dumping into ditches or drainage facilities

Recommended Disposal Practices
- Avoid unacceptable disposal practices listed above.
- Develop pre-determined, safe concrete disposal areas.
- Provide a washout area with a minimum of 6 cubic feet of containment area volume for every 10 cubic yards of concrete poured.
- Never dump waste concrete illicitly or without property owners knowledge and consent.
- Treat runoff from storage areas through the use of structural controls as required.

Education
- Drivers and equipment operators should be instructed on proper disposal and equipment washing practices (see above).
- Supervisors must be made aware of the potential environmental consequences of improperly handled concrete waste.

Enforcement
- The construction site manager or foreman must ensure that employees and pre-mix companies follow proper procedures for concrete disposal and equipment washing.
- Employees violating disposal or equipment cleaning directives must be re-educated or disciplined if necessary.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
- ○ Sediment
- ○ Nutrients
- Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ● Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ◒ Maintenance
- ◒ Training
- ○ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP
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City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

Solid Waste Management

- Keep solid waste materials under cover in either a closed dumpster or other enclosed trash container that limits contact with rain and runoff.
- Store waste materials away from drainage ditches, swales and catch basins.
- Do not allow trash containers to overflow.
- Do not allow waste materials to accumulate on the ground.
- Prohibit littering by workers and visitors.
- Police site daily for litter and debris.
- Enforce solid waste handling and storage procedures.

Disposal Procedures
- If feasible, segregate recyclable wastes from non-recyclable waste materials and dispose of properly.
- General construction debris may be hauled to a licensed construction debris landfill (typically less expensive than a sanitary landfill).
- Use waste facilities approved by local jurisdiction.
- Runoff which comes into contact with unprotected waste shall be directed into structural treatment such as silt fence to remove debris.

Education
- Educate all workers on solid waste storage and disposal procedures.
- Instruct workers in identification of solid waste and hazardous waste.
- Have regular meetings to discuss and reinforce disposal procedures (incorporate in regular safety seminars).
- Clearly mark on all solid waste containers which materials are acceptable.

Quality Control
- Foreman and/or construction supervisor shall monitor on-site solid waste storage and disposal procedures.
- Discipline workers who repeatedly violate procedures.

Requirements
- Job-site waste handling and disposal education and awareness program.
- Commitment by management to implement and enforce Solid Waste Management Program.
- Compliance by workers.
- Sufficient and appropriate waste storage containers.
- Timely removal of stored solid waste materials.
- Possible modest cost impact for additional waste storage containers.
- Small cost impact for training and monitoring
- Minimal overall cost impact.

LIMITATIONS

Only addresses non-hazardous solid waste.
One part of a comprehensive construction site management program.

BMP
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Department of Public Works

Hazardous Waste Management

- Designate a foreman or supervisor to oversee hazardous materials handling procedures.
- Keep liquid or semi-liquid hazardous waste in appropriate containers (closed drums or similar) and under cover.
- Store waste materials away from drainage ditches, swales and catch basins.
- Use containment berms in fueling and maintenance areas and where the potential for spills is high.
- Ensure that adequate hazardous waste storage volume is available.
- Ensure that hazardous waste collection containers are conveniently located.
- Do not allow potentially hazardous waste materials to accumulate on the ground.
- Enforce hazardous waste handling and disposal procedures.
- Clearly mark on all hazardous waste containers which materials are acceptable for the container.

Disposal Procedures
- Regularly schedule hazardous waste removal to minimize on-site storage.
- Use only reputable, licensed hazardous waste haulers.

Education
- Instruct workers in identification of hazardous waste
- Educate workers of potential dangers to humans and the environment from hazardous wastes
- Instruct workers on safety procedures for common construction site hazardous wastes
- Educate all workers on hazardous waste storage and disposal procedures
- Have regular meetings to discuss and reinforce identification, handling and disposal procedures (incorporate in regular safety seminars)
- Establish a continuing education program to indoctrinate new employees.

Quality Assurance
- Foreman and/or construction supervisor shall monitor on-site hazardous waste storage and disposal procedures.
- Educate and if necessary, discipline workers who violate procedures.
- Ensure that the hazardous waste disposal contractor is reputable and licensed.

Requirements
- Job-site hazardous waste handling and disposal education and awareness program.
- Commitment by management to implement hazardous waste management practices.
- Compliance by workers.
- Sufficient and appropriate hazardous waste storage containers.
- Timely removal of stored hazardous waste materials.

Costs
- Possible modest cost impact for additional hazardous storage containers.
- Small cost impact for training and monitoring.
- Potential cost impact for hazardous waste collection and disposal by licensed hauler - actual cost depends on type of material and

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Department of Public Works

Concrete Waste Management

Demolition Practices
- Monitor weather and wind direction to ensure concrete dust is not entering drainage structures and surface waters.
- Where appropriate, construct sediment traps or other types of sediment detention devices downstream of demolition activities.

Requirements
- Use a pre-determined disposal site(s) approved by LADEQ for waste concrete (See BMP 22 Solid Waste Management). Inform PROGRAM MANAGER of selected disposal site(s).
- Prohibit dumping waste concrete anywhere but pre-determined areas.
- Assign pre-determined truck and equipment washing areas.
- Educate drivers and operators on proper disposal and equipment cleaning procedures.

Costs
- Minimal cost impact for training and monitoring.
- Concrete disposal cost depends on availability and distance to suitable disposal areas
- Additional costs involved in equipment washing could be significant.

LIMITATIONS
This concrete waste management program is one part of a comprehensive construction site waste management program.

BMP
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Department of Public Works

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/14/2013

STANDARD PLAN NO.	DATED	SHEET NO.
903–01	FEBRUARY 25, 2008	8 OF 11

STORM WATER POLLUTION
PREVENTION PLAN
BEST MANAGEMENT PRACTICES

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

DATE	DESCRIPTION REVISIONS	BY

903–01

PROJECT NO.	SHEET
19-CP-HC-0039A	318

Sandblasting Waste Management

DESCRIPTION

The objective of the this management program is to minimize the potential of storm water quality degradation from sandblasting activities at construction sites. The key issues in this program are prudent handling and storage of sandblast media, dust suppression, and proper collection and disposal of spent media. it is not the intent of this program to outline all of the worker safety issues pertinent to this practice. Safety issues should be addressed by construction safety programs as well as local, state, and federal regulations.

INSTALLATION/APPLICATION CRITERIA

Since the media consists of fine abrasive granules, it can be easily transported by air and running water. Sandblasting activities typically create a significant dust problem which must be contained and collected to prevent off-site migration of fines.

Operational Procedures

- Use only inert, non-degradable sandblast media.
- Use appropriate equipment for the job, do not over-blast.
- Wherever possible, blast in a downward direction.
- Install a wind sock or other wind direction instrument.
- Cease blasting activities in high winds or if wind direction could transport grit to drainage facilities.
- Install dust shielding around sandblasting areas.
- Collect and dispose of all spent sandblast grit, use dust containment fabrics and dust collection hoppers and barrels.
- Non-hazardous sandblast grit may be disposed in permitted construction debris landfills or permitted sanitary landfills.
- If sandblast media cannot be fully contained, construct sediment traps downstream from blasting area where appropriate.
- Use fencing where appropriate in areas where blast media - cannot be fully contained.
- If necessary, install misting equipment to remove sandblast grit from the air - prevent runoff from misting operations from entering drainage systems.
- Use vacuum grit collection systems where possible.
- Keep records of sandblasting materials, procedures, and weather conditions on a daily basis.
- Take all reasonable precautions to ensure that sandblasting grit is contained and kept away from drainage structures.

Educational Issues

- Educate all on-site employees of potential dangers to humans and the environment from sandblast grit.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
○ Sediment
● Nutrients
Toxic Materials
○ Oil & Grease
○ Floatable Materials
● Other Construction Wastes

Implementation Requirements
● Capital Costs
● Maintenance
● Training
○ Suitability for Slopes >5%

Legend
● Significant Impact
◒ Medium Impact
○ Low Impact
? Unknown or Questionable Impact

BMP
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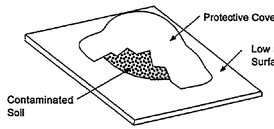
City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

Contaminated Soil Management



DESCRIPTION
Prevent or reduce the discharge of pollutants to storm water from contaminated soil and highly acidic or alkaline soils by conducting pre-construction surveys, inspecting excavations regularly, and remediating contaminated soil promptly.

APPLICATIONS
Contaminated soils may occur on your site for several reasons including:
Past site uses and activities;
Detected or undetected spills and leaks; and

DESIGN CRITERIA

- Conduct thorough site planning including pre-construction geologic surveys.
- Look for contaminated soil as differences in soil properties.
- Seal bedrock fractures with grout or bentonite to reduce seepage from excavation.
- Prevent leaks and spills to the maximum extent practicable. Contaminated soil can be expensive to treat and/or dispose of properly. However, addressing the problem before building construction is much less expensive than after the buildings are in place.
- Test suspected soils at a certified laboratory.
- If the soil is contaminated, work with the local regulatory agencies to develop options for treatment and/or disposal.

LIMITATIONS
If necessary, use a private spill cleanup company.

MAINTENANCE REQUIREMENTS
Contaminated soils that cannot be treated on-site must be disposed of off-site by a licensed hazardous waste hauler.
The presence of contaminated soil may indicate contaminated water as well.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
○ Sediment
◒ Nutrients
Toxic Materials
○ Oil & Grease
○ Floatable Materials
◒ Other Construction Wastes

Implementation Requirements
● Capital Costs
○ Maintenance
◒ Training
○ Suitability for Slopes >5%

Legend
● Significant Impact
◒ Medium Impact
○ Low Impact
? Unknown or Questionable Impact

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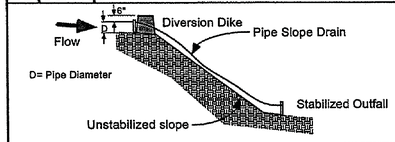
City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

Pipe Slope Drain



DESCRIPTION
A pipe slope drain is a temporary pipe line typically utilizing flexible pipe that conveys runoff down unstabilized slopes. The drain is anchored on the upstream end with some form of headwall to limit erosion and secure the pipe.

PRIMARY USE
A pipe slope drain is used on sites with a long, unstabilized, steep slope area which is subject to erosion from overland flow. It is normally used in combination with interceptor swales or diversion dikes to direct the flow into the pipe area. The pipe slope drain can provide service for a relatively large area. It does not treat the runoff, therefore if the runoff contains sediment, treatment through a controlled outlet will be required before the flow is released offsite.

APPLICATIONS
Sites with large berms or grade changes such as roadway embankments are candidates for a pipe slope drain. Since provisions must be made to direct the flow into the pipe drain, some grading is normally required upstream of the pipe slope drain. Installed properly, slope erosion can be greatly reduced (but not entirely eliminated) through the use of the drain.

Pipe slope drains also require a stabilized outlet. This is critical since the velocities at the outfall are normally high. Velocity dissipators as well as stone or concrete rip rap are typically required to reduce the velocity and spread the flow, reducing erosion. Flow from a pipe slope drain should be routed to a sediment reduction practice through interceptor swales, diversion dikes or other suitable methods.

DESIGN CRITERIA

- The entrance to the pipe slope drain may be a standard corrugated metal pre-fabricated flared end section with an integral toe plate extending a minimum of 6 inches from the bottom of the end section. The grade of the entrance shall be 3 percent maximum.
- The berm at the entrance shall have a minimum height of the pipe diameter + 6" and a minimum width of 3 times the pipe diameter.
- All sections of the pipe slope drain shall be connected using watertight collars or gasketed watertight fittings.
- All sediment-laden runoff conveyed by the pipe slope drain shall be directed to a sediment trapping facility.
- Temporary pipe slope drains are to be sized to accommodate runoff flows equivalent to a 10 year storm as calculated using the Rational Method and

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
◒ Sediment
○ Nutrients
Toxic Materials
○ Oil & Grease
◒ Floatable Materials
○ Other Construction Wastes

Implementation Requirements
● Capital Costs
● Maintenance
○ Training
● Suitability for Slopes >5%

Legend
● Significant Impact
◒ Medium Impact
○ Low Impact
? Unknown or Questionable Impact

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Department of Public Works

Sandblasting Waste Management

- Instruct all on-site employees of the potential hazardous nature of sandblast grit and the possible symptoms of over-exposure to sandblast grit.
- Instruct operators of sandblasting equipment on safety procedures and personal protection equipment.
- Instruct operators on proper procedures regarding storage, handling and containment of sandblast grit.
- Instruct operators to recognize unfavorable weather conditions regarding sandblasting activities.
- Instruct operators and supervisors on current local, state and federal regulations regarding fugitive dust and hazardous waste from sandblast grit.
- Have weekly meetings with operators to discuss and reinforce proper operational procedures.
- Establish a continuing education program to indoctrinate new employees.

Materials Handling Recommendations

- Sandblast media should always be stored under cover away from drainage structures.
- Ensure that stored media or grit is not subject to transport by wind.
- Ensure that all sandblasting equipment as well as storage containers comply with current local, state and federal regulations.
- Refer to Hazardous Waste BMP for hazardous components.
- Capture and treat runoff which comes into contact with sandblasting material or waste.

Quality Assurance

- Foremen and/or construction supervisor should monitor all sandblasting activities and safety procedures.
- Educate and if necessary, discipline workers who violate procedures.
- Take all reasonable precautions to ensure that sandblast grit is not transported off-site or into drainage facilities.

Requirements

- Education and awareness program for all employees regarding control of sandblasting and potential dangers to humans and the environment.
- Operator and supervisor education program for those directly involved in sandblasting activities
- Instructions on material handling, proper equipment operation, personal protective equipment, fugitive dust control, record keeping and reporting.
- Proper sandblast equipment for the job.
- Site-specific fugitive dust control and containment equipment.
- Site-specific fugitive dust control procedures.
- Compliance by supervisors and workers.

Costs

- Minimal cost for training and monitoring.
- Potential for significant cost for containment procedures on large jobs.
- Potential for significant costs associated with cleanup, correction and remediation if contamination occurs.

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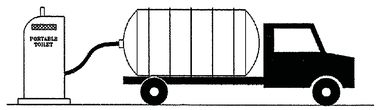
Sanitary/Septic Waste Management



DESCRIPTION
Prevent or reduce the discharge of pollutants to storm water from sanitary/septic waste by providing convenient, well-maintained facilities, and arranging for regular service and disposal.

APPLICATIONS
This BMP is

DESIGN CRITERIA

- Sanitary or septic wastes should be treated or disposed of in accordance with State and local requirements.
- Locate sanitary facilities in a convenient location.
- Untreated raw sewage should never be discharged or buried.
- Temporary septic systems should treat wastes to appropriate levels before discharging.
- If using an on-site disposal system (OSDS), such as a septic system, contact the
- If discharging to the sanitary sewer, contact the local sewage treatment plant for their requirements.
- Sanitary/septic facilities should be maintained in good working order by a licensed service.
- Arrange for regular waste collection by a licensed hauler before facilities overflow.

LIMITATIONS
There are no major limitations to this best management practice.

MAINTENANCE REQUIREMENTS
Inspect facilities regularly. Arrange for regular waste collection.

Applications
Perimeter Control
Slope Protection
Sediment Trapping
Channel Protection
Temporary Stabilization
Permanent Stabilization
Waste Management
Housekeeping Practices

Targeted Constituents
○ Sediment
● Nutrients
Toxic Materials
○ Oil & Grease
○ Floatable Materials
○ Other Construction Wastes

Implementation Requirements
○ Capital Costs
◒ Maintenance
◒ Training
○ Suitability for Slopes >5%

Legend
● Significant Impact
◒ Medium Impact
○ Low Impact
? Unknown or Questionable Impact

BMP
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City of Baton Rouge
Parish of
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Department of Public Works

Pipe Slope Drain

Manning's equation, but in no case shall pipes be sized smaller than is shown in the following table:

Minimum Pipe Size	Maximum Contributing Drainage Area
12"	0.5 Acres
18"	1.5 Acres
21"	2.5 Acres
24"	3.5 Acres
30"	5.0 Acres

- Maximum drainage area for individual pipe slope drains shall be 5 acres. For areas larger than 5 acres, additional drains shall be added.
- Both the entrance and outfall of the pipe slope drain should be properly stabilized. Grass can normally be used at the entrance, but armor type stabilization such as stone or concrete rip rap is normally required to address the high velocities of the outfall.
- An effectiveness rating is based on the ratio of storm water routed away from the slope and into the pipe drain versus the total area of the drainage basin. A minimum value of 0.40 and a maximum value of 0.85 is used for the rating.

LIMITATIONS

- Drains must be located away from construction areas since the drain can easily be damaged by construction traffic.
- Securing the pipe to the slope can be difficult and require significant maintenance during the life of the system.
- In situations where pipe slope drains convey sediment-laden runoff, pipes can become clogged during large rain events causing water to overtop the diversion dike thereby creating a serious erosion condition.
- Grading is normally required upstream of the pipe slope drain in order to direct flow into the system. This can cause additional cost and maintenance.
- A pipe slope drain reduces erosion but does not prevent it or reduce the amount of sediment in runoff. Additional measures should be used in conjunction with the pipe slope drain to treat the flow.

MAINTENANCE REQUIREMENTS
Inspection must be made of the pipe after each significant (>0.5 inch) rain event to locate and repair any damage to joints or clogging of the pipe. In cases where the diversion dike has deteriorated from around the entrance of the pipe, it may be necessary to reinforce the dike with sandbags or to install a concrete collar to prevent failure. Signs of erosion around the pipe drain should be addressed in a timely manner by stabilizing the area with erosion control mats, crushed stone, concrete or other acceptable method.

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Department of Public Works

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/12/2018

STANDARD PLAN NO.	DATED	SHEET NO.
903–01	FEBRUARY 25, 2008	9 OF 11

STORM WATER POLLUTION PREVENTION PLAN BEST MANAGEMENT PRACTICES

DATE	DESCRIPTION REVISIONS	BY

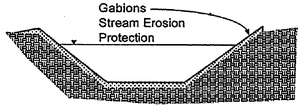
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
G. CHENG	G. VANNICE	G. CHENG	T. STEPHENS

903–01

PROJECT NO.	SHEET
19-CP-HC-0039A	319

Permanent Structural Controls



Applications
- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents
- ● Sediment
- ○ Nutrients Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Wastes

Implementation Requirements
- ● Capital Costs
- ◒ Maintenance
- ○ Training
- ● Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP
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Department of Public Works

DESCRIPTION
Permanent erosion techniques consist of a wide variety of erosion prevention methods including gabions, retaining walls, and rip rap. These are not included as individual BMPs since they go beyond construction phase measures and due to the fact that their use is widespread in the region and the variety of design factors influencing design.

PRIMARY USE
Permanent erosion control is required at the completion of the construction phase of the project. This includes permanent structural methods as well as non-structural methods such as vegetation.

APPLICATIONS
Due to high installation cost and long term maintenance, permanent structural methods should be used only when necessary to address severe erosive conditions. In certain instances however, retaining walls are an effective method to reduce site slopes, reducing runoff velocity. Gabions and concrete rip-rap are effective in reducing stream bank erosion under severe concentrated flow conditions and at pipe outfalls.

DESIGN CRITERIA
Most structural controls such as gabions and rip-rap are designed based on the velocity of flow and the size of the stone used. Project plans will address this as part of standard details. Specifications for rip rap will be provided in design specifications for stone size based on the design velocity of flow across the structure. Manufacturers' information addresses stone size along with basket dimensions for gabions.

Design of retaining walls is based on a variety of structural conditions including soil compressive strength, wall height and water table influence. Tables of dimensions for retaining walls based on site conditions are available from a variety of sources including the Concrete Reinforcing Steel Institute (CRSI).

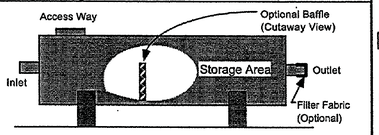
A critical aspect with regards to the design of many permanent controls is adequate anchoring of the structure to prevent undermining of the

LIMITATIONS
The initial cost is an important consideration in selection of permanent structural controls.

Stream bank erosion protection such as rip rap provides limited protection unless used extensively due to the potential for erosion at the edges of the rip rap.

MAINTENANCE REQUIREMENTS
Most stone or concrete structures require little maintenance, but may be subject to vandalism. As mentioned above, erosion around the structure may undermine the integrity of the structure. When maintenance is required, it is typically very extensive and costly.

Temporary Sediment Tank



Applications
- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents
- ◒ Sediment
- ○ Nutrients Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Wastes

Implementation Requirements
- ● Capital Costs
- ● Maintenance
- ◒ Training
- ○ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

BMP
30

City of Baton Rouge
Parish of
East Baton Rouge

Department of Public Works

DESCRIPTION
A temporary sediment tank (TST) is a large truck mounted tank used to hold sediment laden water to provide for sedimentation and filtration. For smaller applications, 55 gallon drums or other water tight container can be used for storage. Water is pumped into the tank where it is detained. If desired an outlet with a geofabric filter can be provided to release the flow after a period of detention.

PRIMARY USE
A TST is typically used at construction sites in urban areas where conventional methods of sediment removal (e. g., sediment traps, sediment basins) are not practical.

APPLICATIONS
Applications for a TST include utility construction in confined areas (such as a business district or large developed area) or localized construction in which other BMPs are not required such as small, depressed construction (tank farms). This includes pumpage from excavation in heavily developed areas, such as a central business district, with flows due to groundwater or runoff entering the trench or excavated area.

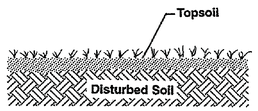
DESIGN CRITERIA
- A TST can be used as either a sedimentation or filtration device. If an oil sheen is present in the runoff, additional treatment will be required before release of runoff.
- For use as a small scale sedimentation basin, de-watering discharge is directed into the TST to a level below the tank midpoint and held for a minimum of 2 hours to allow settlement of a majority of the suspended particles. The tank should be designed for a controlled release when the contents of the tank reach a level higher than the midpoint. When sediment occupies 1/3 the capacity of the TST, it should be removed from the tank.
- As a filtration device, a TST is used for collecting de-watering discharge and flowing it through a filtered opening at the outlet of the tank to reduce suspended sediment volume. The filter opening in the TST should have an EOS (see silt fence BMP) of 70 or smaller.

LIMITATIONS
This is a specialized technique for the situations listed. It is not cost effective for normal sediment removal conditions.

The use of a temporary sediment tank is limited by the capacity of the tank, the time required for settlement of suspended material, and disposal of the water and the sediment.

MAINTENANCE REQUIREMENTS
The temporary sediment tank should be inspected periodically during and after use. A tank should be cleaned out when it becomes 1/3 full of sediment.

Topsoiling



Applications
- Perimeter Control
- Slope Protection
- Sediment Trapping
- Channel Protection
- Temporary Stabilization
- Permanent Stabilization
- Waste Management
- Housekeeping Practices

Targeted Constituents
- ◒ Sediment
- ○ Nutrients Toxic Materials
- ○ Oil & Grease
- ○ Floatable Materials
- ○ Other Construction Wastes

Implementation Requirements
- ◒ Capital Costs
- ◒ Maintenance
- ○ Training
- ◒ Suitability for Slopes >5%

Legend
- ● Significant Impact
- ◒ Medium Impact
- ○ Low Impact
- ? Unknown or Questionable Impact

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City of Baton Rouge
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STANDARD FOR TOPSOILING[1]

TOPSOILING

Definitions: Topsoiling is the stripping, storing and spreading of fertile topsoil over disturbed areas.

Purpose: Topsoiling will provide a more suitable soil medium if the existing or constructed surface is unfavorable for plant growth. Topsoiling will greatly increase the success of establishing good vegetations, help reduce soil erosion, and enhance the beauty of the development.

Conditions Where Practices Applies:

Topsoiling is Used Where:

- The texture and quality of the exposed subsoil or parent material are not suitable for producing adequate vegetative growth.
- The soil material is so shallow that the rooting zone is not deep enough to support plants with continuing supplies of moisture and plant nutrients.
- The soil is extremely acidic or contains material toxic to plant growth.

Design Criteria

- **Topsoil Materials**
  The site should be explored to determine if there is sufficient surface soil of good quality to justify stripping. If additional off-site topsoil is needed, it should meet the following standards as well:
  - Topsoil should be friable and loamy (loam, sandy loam, silt loam, sandy clay loam, clay loam).
  - Topsoil should be free of debris, objectionable weeds and stones, and contain no toxic substances that may be harmful to plant growth.
  - Organic matter content should not be less than 0.75 percent by weight; pH range should be from 5.0 - 7.5.
- **Stripping and Stockpiling**
  Stripping should be confined to the immediate construction area. A 4-6 inch stripping depth is common, but may vary depending on the particular soil.

  Topsoil should be stockpiled so that natural drainage is not obstructed and off-site sediment damage does not occur. stockpile sideslopes should not exceed 2:1. A perimeter dike with a outlet or straw bale barriers should surround the stockpiles. Temporary seeding should be completed within 15 days of stockpile formation.
- **Site Preparation**
  When topsoiling, maintain needed erosion control practices such as diversion dikes, sediment basins, waterways, etc.

  Grading - Grades on the areas to be topsoiled, which have been previously established, should be maintained.

  Liming - Where the pH of the subsoil is .0 or less or the soil is composed of heavy clays, agricultural lime be spread in accordance with the soil test on the vegetative establishment practice being used.

Permanent Structural Controls

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Department of Public Works

Temporary Sediment Tank

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Department of Public Works

Topsoiling

BMP
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Department of Public Works

DATE	DESCRIPTION REVISIONS	BY

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19429
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/14/2013

STANDARD PLAN NO.	DATED	SHEET NO.
903–01	FEBRUARY 25, 2008	10 OF 11

STORM WATER POLLUTION
PREVENTION PLAN
BEST MANAGEMENT PRACTICES

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

903–01

PROJECT NO.	SHEET
19-CP-HC-0039A	320

Topsoiling

Bonding - After and immediately prior to dumping and spreading the topsoil, the subgrade should be loosened by disking and scarifying to a depth of at least two inches to insure bonding of the topsoil and subsoil.

- **Applying Topsoil**
  Topsoil should be handled when it is dry enough to work without damaging soil structure. A uniform application of 4 to 6 inches unsettled should be made.

  No sod or seed should be placed on soil which has been treated with soil sterilants until sufficient time has elapsed to permit dissipation of toxic materials.

General Notes

There are advantages and disadvantages in topsoiling:

- Stripping, stockpiling, reapplying or importing topsoil may not always be cost-effective. Topsoiling can delay seeding or sodding operations and increase the exposure time of denuded areas. Also, most topsoils contain weed seeds, and weeds may compete with desirable species.

- On the other hand, the advantages of topsoil include its high organic matter content, friable nature, water-holding capacity, and nutrient content, which makes it an excellent medium for growth and greatly reduces chances of failure.

Further, preparing a seedbed in subsoil may be considered instead of topsoiling, as some subsoils may provide a good growth medium which is generally free of weed seeds.

If topsoiling is to be done, it should be determined if an adequate volume of topsoil exists on the site. The stockpile should be located for proper non-erosive drainage and such that it does not interfere with work on the site. Sufficient time should be allowed for spreading and bonding topsoil

BMP
31
Department of Public Works

Topsoiling

prior to seeding, sodding or planting; topsoil and subsoil should be properly bonded. Topsoil should not be applied to a subsoil with contrasting texture (as a clay) unless the surface of the subsoil is scarified to provide a good bond with the topsoil.

BMP
31
Department of Public Works

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 15427
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
2/14/2018

STANDARD PLAN NO.	DATED	SHEET NO.
903–01	FEBRUARY 25, 2008	11 OF 11

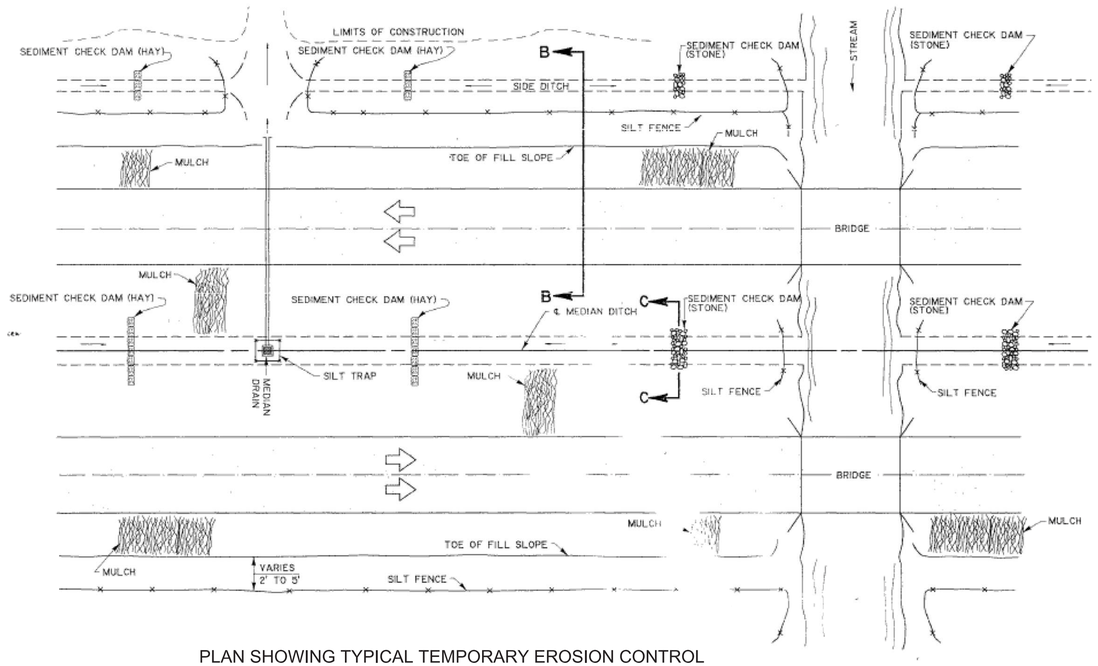
STORM WATER POLLUTION
PREVENTION PLAN
BEST MANAGEMENT PRACTICES

DATE	DESCRIPTION REVISIONS	BY

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

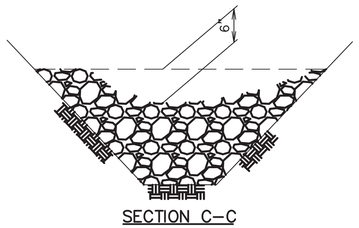
PROJECT NO.	SHEET
19-CP-HC-0039A	321



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 the Standard Specifications for mulches. 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.

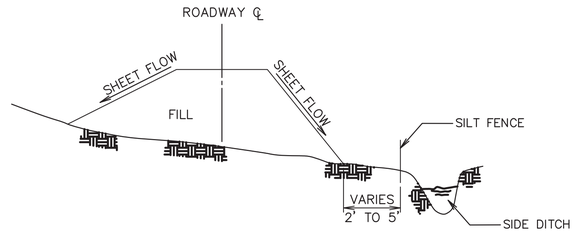


SECTION C–C

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 stormwater flows, thereby reducing erosion of the 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:

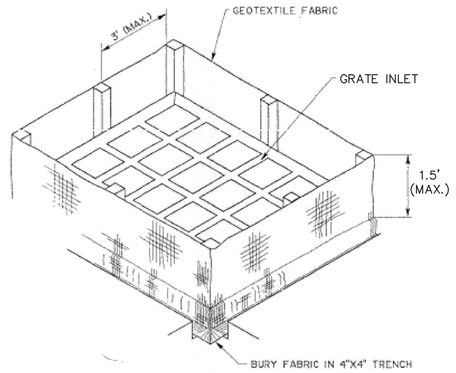
1. Use in small open channels which drain 10 acres or less;
2. Do not use in a live stream;
3. Use in a temporary ditch or swale which, because of their short length of service, cannot receive a non–erodible lining;
4. Use in permanent ditches or swales which will not receive a permanent lining for an 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 Section 705, 2lb class.



SECTION B–B

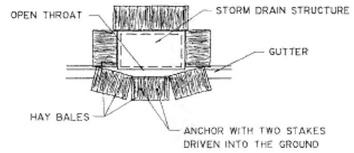
TEMPORARY SILT FENCE APPLICATION

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

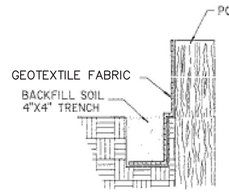


ISOMETRIC VIEW SHOWING GEOTEXTILE FABRIC

(BACKFILL SOIL NOT SHOWN)



PLAN SHOWING HAY BALES

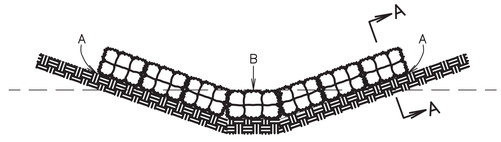


SECTION THRU TRENCH SHOWING GEOTEXTILE FABRIC

NOTES:
The temporary drop inlet silt trap is to be used for small drainage areas (less than 1 acre) where the storm drain is functional before the area is stabilized. The trap can be either geotextile fabric or hay bales.

1. 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;
2. 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;
3. The trap should be inspected regularly after each storm. The sediment should be removed and make sure each stake is firmly in the ground.
4. The geotextile fabric shall conform to Type F or G as per Standard Specifications.

TEMPORARY INLET SILT TRAP



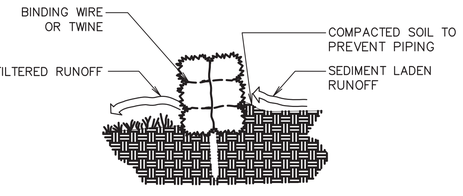
POINTS A SHOULD BE HIGHER THAN POINT B.

ELEVATION

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. 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.



SECTION A–A

LADOTD Standard Plan EC-01 has been adopted with modifications for use by the City/Parish as Standard Plan 903-02.

DATE	DESCRIPTION REVISIONS	BY

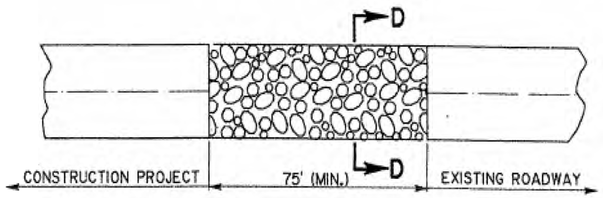
STANDARD PLAN NO. 903–02	DATED November 28, 2009	SHEET NO. 1 OF 2

TEMPORARY EROSION CONTROL INSTALLATION DETAILS

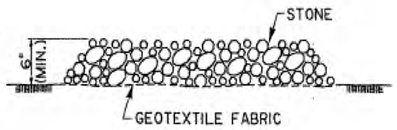
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
G. L. P.	G. VANNICE	G. L. P.	T. STEPHENS

PROJECT NO.	SHEET
19-CP-HC-0039A	322



PLAN



SECTION D–D

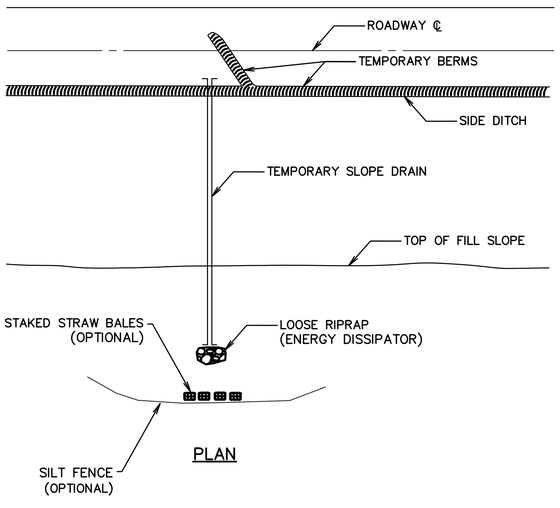
TEMPORARY STONE CONSTRUCTION ENTRANCE

PAY AS SPECIAL ITEM, TEMPORARY STONE CONSTRUCTION ENTRANCE

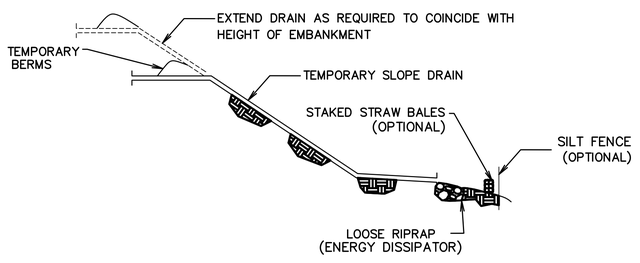
NOTES:
TEMPORARY STONE CONSTRUCTION ENTRANCE AND/OR WASH RACK

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 Construction Entrance and/or Wash Racks are:

1. The stone layer must be a least 6 inches thick;
2. The length of the pad must be at least 75 feet and it must extend the Width of the vehicular ingress and egress;
3. A geotextile fabric underliner is required. The geotextile fabric shall be Type D or per the Standard Specifications;
4. 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.
6. For stone specifications, see Section 705, 2lb class.



PLAN



ELEVATION

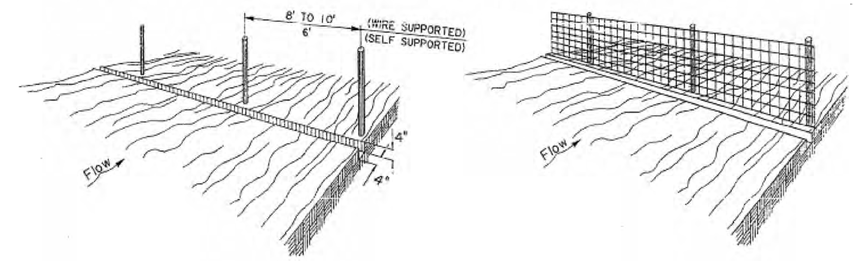
TEMPORARY SLOPE DRAIN

NOTES:
A temporary slope drain is a device used to carry water from the construction work area to a lower elevation. Slope drains may be plastic sheets, metal or plastic pipe, stone gutters, fiber mats, or concrete or asphalt ditches. A few basic design guidelines for the use of a Temporary Slope Drain are:

1. The spacing of the slope drains varies with the road grade.
   For Grades: 0.0% – 2.0% use 500' spacing
   2.1% – 5.0% use 200' spacing
   Greater than 5.0% use 100' spacing
2. Slope drain material: Smooth pipe – 8"minimum
   Corrugated pipe –12"minimum
   Plastic sheeting –4'wide minimum
   Plastic sheeting –3 mils thick minimum
3. Plastic sheeting can be staked down or weighted with rocks or 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 silt fence or hay bales.
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 slit traps cleaned if necessary.

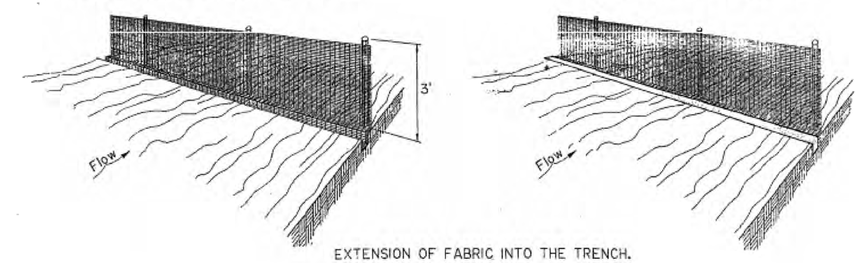
1. SET POSTS AND EXCAVATE A 4" X 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.

2. STAPLE WIRE FENCING TO THE POSTS.

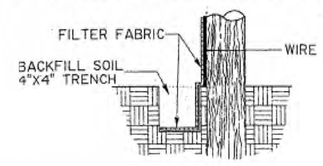


3. ATTACH THE FILTER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.

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 support by post and stretched across an area to intercept and detain small amounts of sediment. Silt fencing shall be in accordance with Section 903 of the Standard Specifications. 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 ¼ acre per 100 feet of silt fence length;
3. Use where the maximum slope length behind the barrier is 100 feet;
4. Use where the maximum gradient behind the barrier is 2:1;
5. Do not use silt fences in live streams or in ditches or swales where flows exceed one cubic foot per second.

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
8/14/2012

DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
903–02	November 28, 2009	2 OF 2

TEMPORARY EROSION CONTROL INSTALLATION DETAILS

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
G. L. P.	G. VANNICE	G. L. P.	T. STEPHENS

PROJECT NO.	SHEET
19-CP-HC-0039A	323

GENERAL PROVISIONS

- All Temporary Traffic Control (TTC) Devices used shall be in accordance with the City–Parish Standard Specifications for Public Works Construction, the current edition of the Manual on Uniform Traffic Control Devices (MUTCD), and the requirements of the National Cooperative Highways Research Program (NCHRP) 350 for Test Level 3. The MUTCD is available at http:mutcd.fhwa.dot.gov/
- The Contractor shall provide one or more authorized Traffic Control Supervisor (TCS) in accordance with the Standard Specifications.
- Materials used for Temporary Traffic Controls shall be in accordance with the City–Parish Standard Specifications for Public Works Construction and when applicable the City–Parish Qualified Products List (C–P QPL).
- No temporary traffic controls shall be erected without the approval of the City–Parish Traffic Engineer and until work is about to begin, unless they are covered.
- No lane closures, lane shifts, diversions, or detours shall occur without the authorization of the City–Parish Traffic Engineer.
- Responsibility is hereby placed upon the contractor for the installation, maintance, and operation of all temporary traffic control devices called for in these plans or required by the Project Engineer for the protection of the traveling public as well as all Department and construction personal. All reflective devices such as signs, drums, barricades, vertical panels, delineators of any type, etc. shall be cleaned or washed periodically to maintain their effectiveness, as required by conditions or Project Engineer.
- The contractor shall also be responsible for the maintenance of all permanent signs and pavement markings left in place as essential to the safe movement and guidance of traffic within the project limits.
- The City–Parish Traffic Engineer shall serve as a technical advisor to the Project Engineer for all Traffic Control matters.
- "Road Work XX Miles" sign shall be required on all projects and located at beginning of the project unless otherwise noted. The sign shall be a minimum Thirty–Six (36) inch X Sixty (60) inch unless otherwise noted.
- Warning signs used for lane closures or lane shifts in which the roadway shall be returned to full public use within Fourteen (14) hours or less may be placed on NCHRP350 approved portable sign frames.
- The City–Parish will approve any detour route marking required to guide travelers around the construction area, but the contractor will be responsible for the required signage.

SPEED LIMITS

- Speed limits shall be lowered by Ten (10) mph for any construction, maintenance, or utility operation that requires one or more of the following: (A) the condition of the original highway is degraded due to milled surfaces or uneven pavements; (B) work is in progress in the immediate vicinity of the travel way requiring lane closures, lane width reductions, or low speed diversions; (C) workers present on the shoulder within Two (2) ft of the edge of traveled way without barrier protection.
- The reduced speed zone shall only apply to those portions of the project limits affected. The Project Engineer may allow SPEED LIMIT WHEN FLASHING signs to supplement reduced speed zones.
- At the end of the reduced speed zone, a speed limit sign displaying the original speed limit before construction shall be installed.
- If conditions warrant, the City–Parish Traffic Engineer may authorize the reduction of the speed limit by more than Ten (10) mph.

PAVEMENT MARKINGS (see C–P QPL)

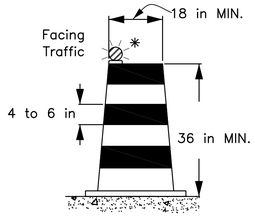
- All pavement markings within the limits of the project that are in conflict with the project signing or the required traffic movements shall be removed from the pavement by blast cleaning or grinding (Existing striping shall not be painted over with black paint or covered with tape).
- If special pavement markings are needed, they shall be reflectorized, removable, and accompanied by the proper signage.
- Temporary Raised Pavement Markers (RPMs) may be added to supplement temporary striping in areas of transition, in tapers, in detours, and in other areas of need as directed by the Project Engineer.
- Materials and placement of temporary pavement markings shall conform to Section 905 of the Standard Specifications. If no pay item exists, temporary markings will be considered incidental to traffic control.

SIGNS

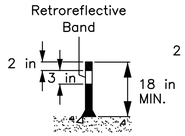
- All signs used for temporary traffic controls shall follow the Department's Standard Plans and the MUTCD. Signs shown in the Standard Plan illustrations are typical and may vary with each specific condition.
- More appropriate signing for a specific condition may be required or substituted with the approval of the Project Engineer and reviewed by the City–Parish Traffic Engineer.
- When projects are separated by less than one mile, they shall be signed as one project.
- At no time shall signs warning against a particular operation be left in place once the operation has been completed or where the obstacle has been removed.
- Signs over Ten (10) sq ft shall be mounted on two post and signs over Twenty (20) sq ft shall be mounted on at least three post.
- Signs shall have a minimum of Two (2) bolts per post.
- Permanent signs no longer applicable or in conflict shall be removed or covered with a strong, lightweight, opaque material.
- Warning signs used for temporary traffic controls shall meet the following guidelines unless otherwise noted in the plans: (A) size shall be Forty–Eight (48) ft X Forty–Eight (48) ft, (B) see the Departments Standard Specifications and the C–P QPL for sheeting information, (C) a minimum of a Two (2) lb U–Channel post may be used driven to a minimum depth of Three (3) ft, (D) sign height shall be a minimum of Five (5) ft above the roadway surface unless there is a concern for pedestrians or bicycle traffic in which it shall be a minimum of Seven (7) ft, (E) lateral distance of signs shall be a minimum of Six (6) ft from the edge of shoulder or edge of pavement if no shoulder exist and Two (2) ft from the back of curb in urban areas.
- Vinyl Roll Up signs will be allowed for short term (less than Twelve (12) hours) daytime work provided that they meet all size, color, retroreflectivity requirements, and NCHRP 350.
- Mesh rollup signs shall not be allowed on any project.
- All signs shall be removed or covered when no longer applicable.
- Contractor shall use caution not to damage existing signs which remain in place. Any signs damaged by work operations shall be replaced at the Contractor's expense.

CHANNELIZING DEVICES

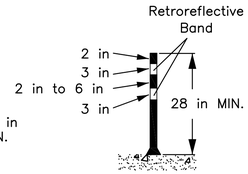
- The following devices may be used: Tubular Markers, Vertical panels, Cones, Drums, and Super Cones. Drums (at standard spacing) and Super Cones (at 1/2 Standard spacing) are the only devices allowed to be used in taper area on the interstate system during daylight hours. Only drums can be used in tapers during night operations.
- Retroreflective material pattern used on super cones shall match that used on drums and conform to Section 1020–1.2(C) of the Standard Specifications.
- Spacing of channelizing devices such as cones, panels, drums, and Type I or II barricades shall not exceed a distance in feet equal to the speed limit when used for taper channelization and a distance in feet of twice the speed limit when used for tangent channelization.
- Twenty–Eight (28) inch traffic cones are not allowed on: 1) interstates, 2) Highways with speeds greater than Forty (40) mph.
- During night time operations: 1) Twenty–Eight (28) inch and Thirty–Six (36) inch cones are not allowed, 2) drums are the only device allowed in the taper.



DRUM

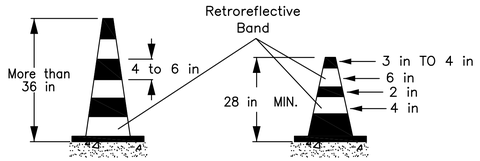


Day and Low–Speed Roadway ≤40 mph



Night and/or Freeway High–Speed Roadway ≥45 mph

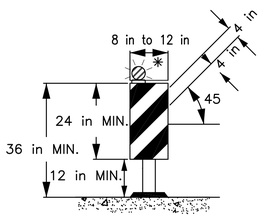
TUBULAR MARKERS



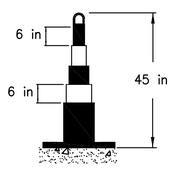
Night and/or Freeway Highway–Speed Roadway ≥45 mph

Day and Low–Speed Roadway ≤40 mph

CONES



VERTICAL PANEL

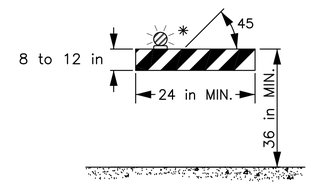


SUPER CONE

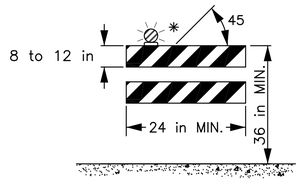
✳ Warning light (optional)

BARRICADES

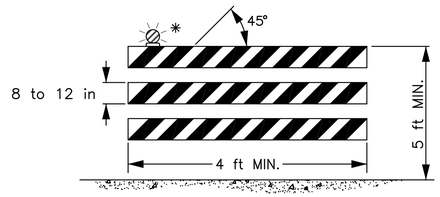
- Barricades shall be designed and applied in accordance with these Standard Plans and the current MUTCD guidance. Generally three types of barricades are used as below. Specific project applications shall be reviewed and approved by the City–Parish Traffic Engineer and shall not deployed without such approval.
- Steady burn lights shall be used when barricades are used in a series for chanelization.
- Type I barricades shall be used on low speed roads or urban streets.
- Type II barricades shall be used on high speed roads.
- Type III barricades shall be used to close a road section to traffic and shall extend completely across a roadway and its shoulders or from curb to curb.
- When signs and lights are to be mounted to a barricade, they must meet NCHRP 350 requirements.



TYPE I BARRICADE ✳✳



TYPE II BARRICADE ✳✳



TYPE III BARRICADE ✳✳

✳ Warning light (optional)

✳✳ Rail stripe widths shall be Six (6) inch, except that Four (4) inch wide stripes may be used if rail lengths are less than Thirty–Six (36) inch. The sides of barricades facing traffic shall have retroreflective rail faces.

STANDARD PLAN NO.	DATED	SHEET NO.
905–01	JULY 3, 2019	1 OF 2

TEMPORARY TRAFFIC CONTROL

STATE OF LOUISIANA
INGOLF A. PARTENHEIMER
REG. No. 28190
REGISTERED PROFESSIONAL ENGINEER IN ELECTRICAL ENGINEERING

September 10, 2020

DATE	DESCRIPTION REVISIONS	BY

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
MUTCD	G. C.HENG	S. EDEL	I. PARTENHEIMER

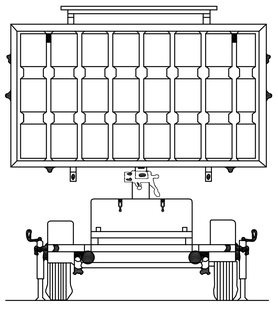
PROJECT NO.	SHEET
19-CP-HC-0039A	324

LIGHTING

- All temporary lighting shall be LED.
- Lighting shall supplement barricades that close one or more lanes or that extends across the roadway. A minimum of two lights will be used, but where a travel way ends immediately after a barricade, a minimum of Four (4) lights shall be used. Lighting shall be by approved electrical installations. Battery operated equipment shall conform to NCHRP 350.
- High intensity flashing lights shall be used to mark the first advance warning sign.
- Low intensity flashing lights shall be used to mark all other hazards off the travel way.
- Steady burning lights shall be used on all traffic control devices used for channelizations.
- Flashing units will be mounted as high as possible and battery compartments shall be mounted Six (6) inches from the ground.

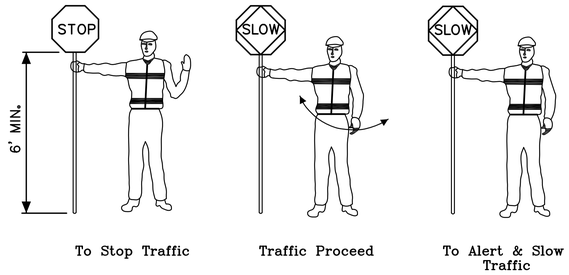
PORTABLE CHANGEABLE MESSAGE SIGNS

- When working within the traveled way, including shoulders and auxiliary lanes. Changeable Message Signs (CMS) shall be used on all Interstate Highways and on all other roadways (where space is available) with an ADT greater than Twenty Thousand (20,000) and should be delineated with retroreflective TTC devices.
- When used in advance of a lane closure or a lane shift, the CMS should be placed on the right hand side of the road a minimum distance of Two (2) miles in advance of the taper for Interstates and to be determined by the City–Parish Traffic Engineer on other roadways.
- CMS messages shall be approved by the City–Parish Traffic Engineer.
- When Portable Changeable Message signs are not being used, they should be removed; if not removed, they should be shielded by guardrail or barriers; or if the previous Two (2) options are not feasible, they should be delineated with retroreflective TTC devices.



FLAGGERS

- All flaggers must be qualified. The contractor shall be responsible for training or assuring that all flaggers are qualified to perform flagging duties. A certificate indicating completion of a flagger training course shall be availabel to the engineer if requested. A Qualified Flagger is one that has attended courses such as those offered by the American Traffic Safety Services Association (ATSSA) or other courses approved by the City–Parish.
- When utilized, a flagger shall use a minimum Eighteen (18) inch sign on a minimum Six (6) ft stop/slow paddle and wear ANSI Class 2 vest during day time operations and ANSI Class 3 ensemble during night operations. In all flagging operations, the flagger must be visible from flagger advance warning sign.
- Flagger stations shall be in a highly visible location far enough in advance of the work site so that approaching traffic will have sufficient distance to reduce speed before entering the project. 200–300 feet is desirable. In urban areas, the advances distance may be decreased.

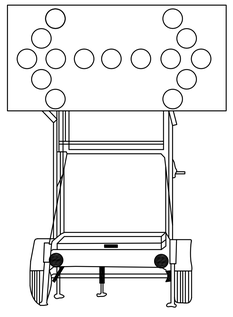


To Stop Traffic | Traffic Proceed | To Alert & Slow Traffic

USE OF HAND SIGN

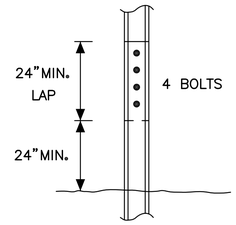
FLASHING ARROW PANELS

- Flashing Arrow Panels shall be used for lane closures on all facilities with Two (2) or more lanes in a single direction and a speed limit greater than Thirty–Five (35) mph.
- When used, flashing arrow panels should be located on the shoulder at the beginning of the taper.
- Where the shoulder width is limited, the flashing arrow panel should be placed within the closed lane as close to the beginning of the taper as practical.
- All Flashing Arrow Panels shall be Four (4) ft x Eight (8) ft Type C with LED lighting.
- When Flashing Arrow Panels signs are not being used, they should be removed; if not removed, they should be shielded by guardrail or barriers: or if the previous two options are not feasible, they should be delineated with retroreflective TTC devices.



ALLOWABLE LAP SPLICE FOR U–CHANNELL POST

U–channel posts may be spliced where long length are required. The upper section shall overlap the lower section by at least Twenty–Four (24) inches. The bottom edge of the upper section of the splice shall be a minimum of Twenty–Four (24) inches above the ground. The spliced sections shall be secured with at least Four (4) 5/16 inch diameter hexhead bolts spaced equally along the splice.



Front View

HIGHWAY–RAIL GRADE CROSSING

1. When a highway–rail grade crossing exists within or upstream of the merging taper and it is anticipated that backups resulting from the lane closure might extend through the highway–rail grade crossing, the TTC zone should be extended so that the merging taper precedes the highway–rail grade crossing.
2. When a highway–rail grade crossing exists within the acitivity area, provisions should be made to provide road users operating on the left side of the normal centerline with comparable warning devices as supplied for road users operating on the right side of the normal centerline.
3. When a highway–rail grade crossing exists within the activity area, early coordination with the railroad company should occur before work starts.
4. When a highway–rail grade crossing exists within the activity area, a flagger may be used at the highway–rail grade crossing to minimize the probability that vehicles are stopped within Fifteen (15) ft of the highway–rail grade crossing, measured from both sides of the outside rails.
5. A truck–mounted attenuator may be used on the work vehicle and/or the shadow vehicle.

STATE OF LOUISIANA
INGOLF A. PARTENHEIMER
REG. No. 28190
REGISTERED PROFESSIONAL ENGINEER IN ELECTRICAL ENGINEERING

September 10, 2020

DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
905–01	JULY 3, 2019	2 OF 2

TEMPORARY TRAFFIC CONTROL

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
MUTCD	G. C.HENG	S.EDEL	I. PARTENHEIMER

PROJECT NO.	SHEET
19-CP-HC-0039A	325

Suggested Advance Warning Sign Spacing

Road Types	Distance Between Signs*		
	A	B	C
Urban (40 mph or less)	100	100	100
Urban (45 mph or more)	350	350	350
Rural	500	500	500

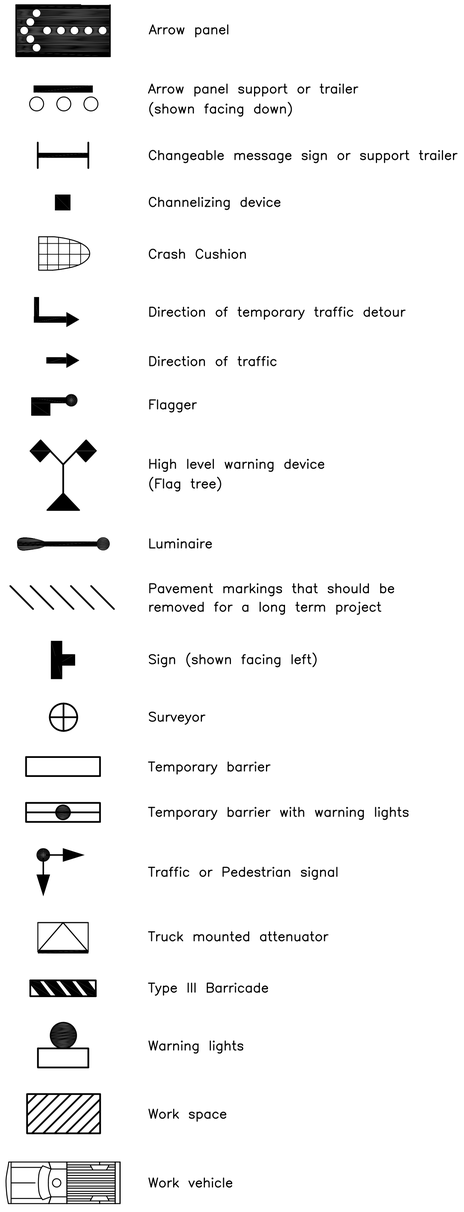
* Distances are shown in feet. The column headings A, B, and C are the dimensions shown in Typical Application Figures. The A dimension is the distance from the transition or point of restriction to the first sign. The B dimension is the distance between the first and second signs. The C dimension is the distance between the second and third signs. (The third sign is the first one in a three–sign series encountered by a driver approaching a TTC zone.)

Formulas for Determining Taper Lengths

Speed Limit (S)	Taper Length (L) Feet
40 mph or less	$L \quad \frac{WS^2}{60}$
45 mph or more	$L \quad WS$

Where:
L = taper length in feet
W = width of offset in feet
S = posted speed limit in mph.

Meaning of Symbols on Typical Application Diagrams



Index to Typical Applications

Typical Application Description	Typical Application Number	Standard Plan Number
Work Outside of Shoulder		
Work Beyond the Shoulder	TA–1	905–03
Work on the Shoulder		
Work on Shoulders	TA–3	905–03
Shoulder Work with Minor Encroachment	TA–6	905–04
Work Within the Traveled Way of Two-Lane Highways		
Road Closed with Diversion	TA–7	905–04
Road Closed with Off–Site Detour	TA–8	905–05
Lane Closure on Two–Lane Road Using Flaggers	TA–10	905–05
Lane Closure on Two–Lane Road with Low Traffic Volumes	TA–11	905–06
Temporary Road Closure	TA–13	905–06
Mobile Operations on Two–Lane Road	TA–17	905–07
Work Within the Traveled Way of Urban Streets		
Lane Closure on Minor Street	TA–18	905–07
Detour for One Travel Direction	TA–19	905–08
Detour for Closed Street	TA–20	905–08
Work Within the Traveled Way at an Intersection and Sidewalks		
Multiple Lane Closures at Intersection	TA–25	905–09
Crosswalk Closures and Pedestrian Detours	TA–29	905–09
Work Within the Traveled Way of Multi-lane, Non-access Controlled Highways		
Interior Lane Closure on Multi–lane Street	TA–30	905–10
Half Road Closure on Multi–lane, High–Speed Highway	TA–32	905–10
Lane Closure on Divided Highway	TA–33	905–11
Work in the Vicinity of Highway-Rail Grade Crossings		
Work in Vicinity of Highway–Rail Grade Crossing	TA–46	905–11

Information contained herewith was taken directly from the MUTCD 2003 version.

STATE OF LOUISIANA
INGOLF A. PARTENHEIMER
REG. No. 28190
REGISTERED PROFESSIONAL ENGINEER IN ELECTRICAL ENGINEERING

September 10, 2020

DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
905–02	JULY 3, 2019	1 OF 1

TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATIONS

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
MUTCD	G. CHENG	S. EDEL	I. PARTENHEIMER

PROJECT NO.	SHEET
19-CP-HC-0039A	326

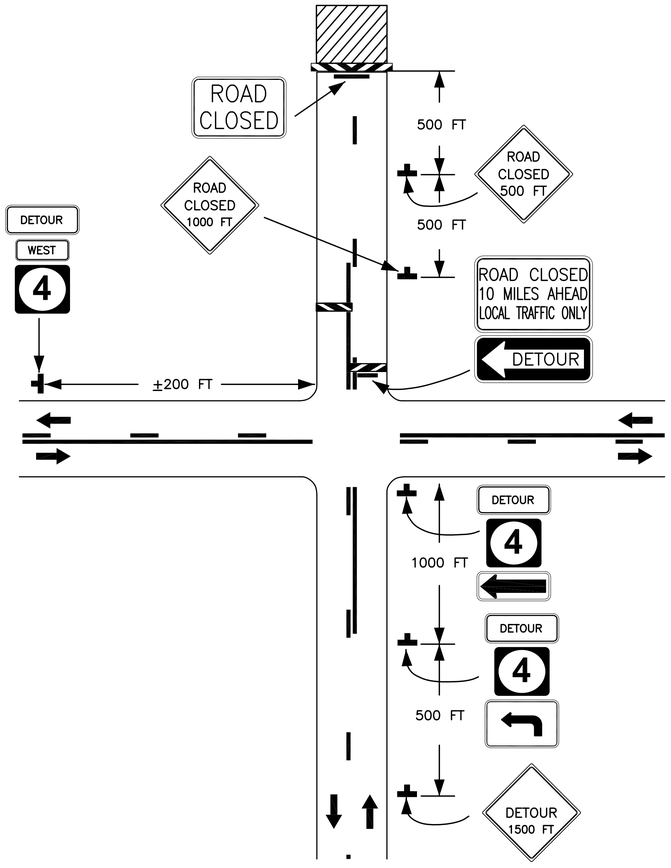
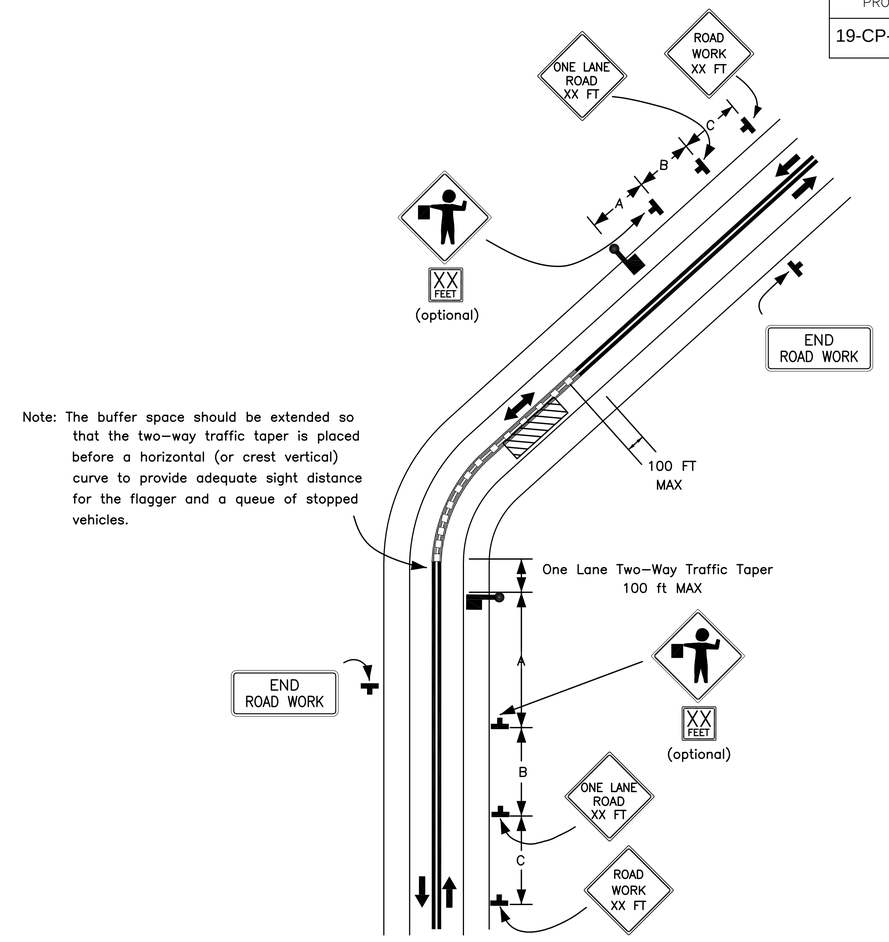


Figure TA–8
Roads Closed with Off–Site Detour

NOTES:

1. Regulatory traffic control devices should be modified as needed for the duration of the detour.
2. If the road is opened for some distance beyond the intersection and/or there are significant orgin/destination points beyond the intersection, the ROAD CLOSED and DETOUR signs on Type III Barricades may be located at the edge of the traveled way.
3. A Route Sign Directional assembly may be placed on the far left corner of the intersection to augment or replace the one shown on the near right corner.
4. Flashing warning lights and/or flags may be used to call attention to the advance warning signs.
5. Cardinal direction plaques may be used with route signs.

This sheet shall be used with Standard Plan No. 905–01 and 905–02.



Note: The buffer space should be extended so that the two–way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.

Figure TA–10
Lane Closure on Two–Lane Road Using Flaggers

NOTES:

1. For low–volume situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger, positioned to be visible to road users approaching from both directions, may be used.
2. The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short–duration operations.
3. Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

a. A BEPREPARED TO STOP sign may be added to the sign series.

4. The buffer space should be extended so that the two–way traffic taper is placed before a horizontal (or crest vertical) curve to provide adequate sight distance for the flagger and a queue of stopped vehicles.
5. At night, flagger stations shall be illuminated, except in emergencies.
6. When used, the BE PREPARED TO STOP sign should be located between the Flagger sign and the ONE LANE ROAD sign.

STATE OF LOUISIANA
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REG. No. 28190
REGISTERED PROFESSIONAL ENGINEER IN ELECTRICAL ENGINEERING
September 10, 2020

DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
905–05	JULY 3, 2019	1 OF 1

TEMPORARY TRAFFIC CONTROL
TYPICAL APPLICATIONS

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
MUTCD	G. CHENG	S. EDEL	I. PARTENHEIMER

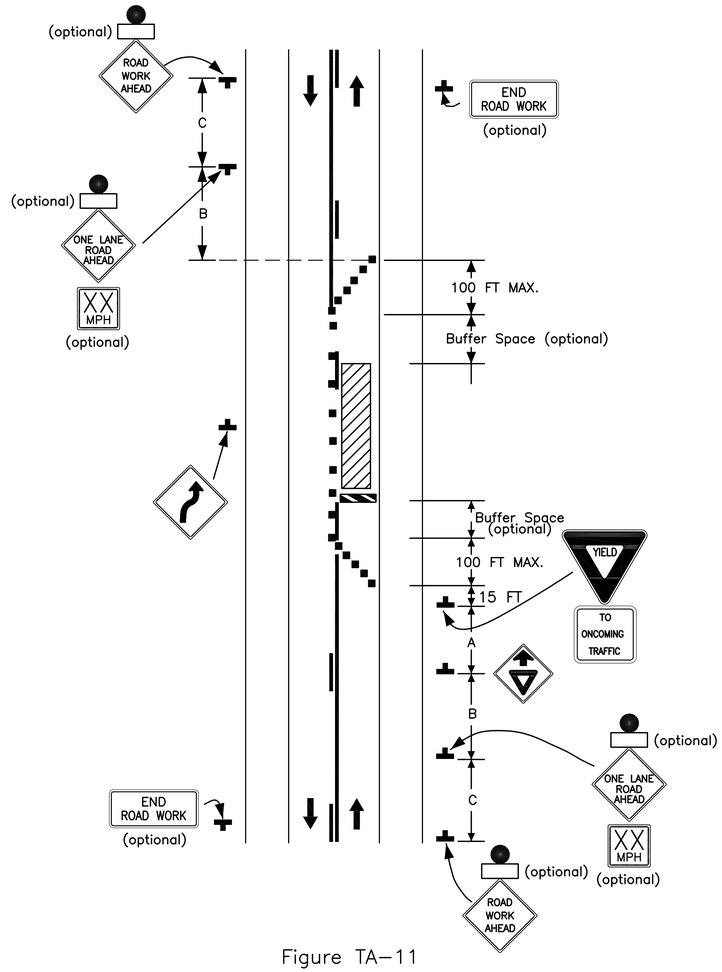

Figure TA–11
Lane Closure on Two–Lane Road with Low Traffic Volumes

NOTES:

1. This TTC zone application may be used as an alternate to the TTC application shown in TA–10 (using flaggers) when the following conditions exist:
   a. Vehicular traffic volume is such that sufficient gaps exist for vehicular traffic that must yield.
   b. Road users from both directions are able to see approaching vehicular traffic through and beyond the work site and have sufficient visibility of approaching vehicles.
2. The Type B flashing warning lights shall be placed on the ROAD WORK AHEAD and the ONE LANE ROAD AHEAD signs whenever a night lane closure is necessary.

This sheet shall be used with Standard Plan No. 905–01 and 905–02.

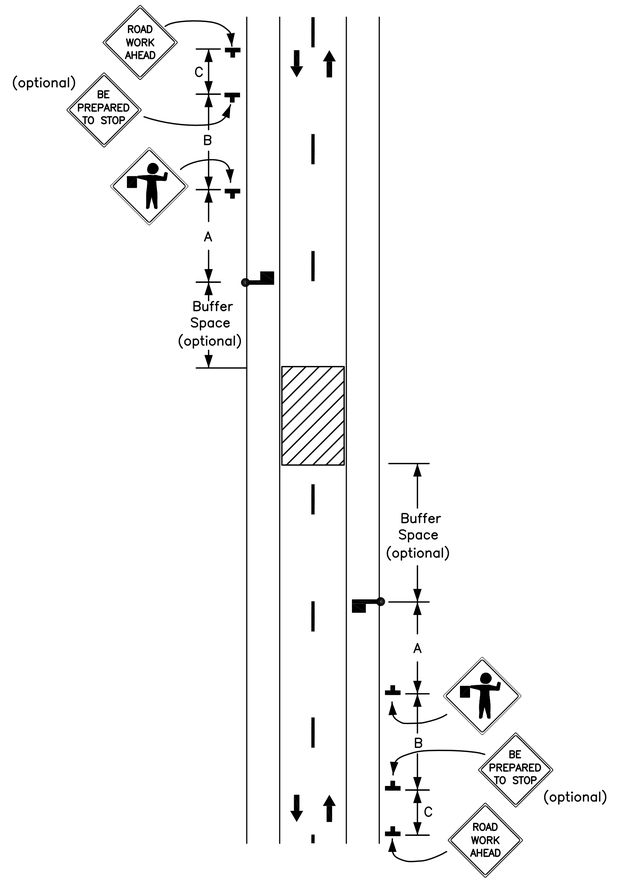

Figure TA–13
Temporary Road Closure

NOTES:

1. Conditions represented are a planned closure not exceeding 20 minutes during the daytime.
2. A flagger or uniformed law enforcement officer shall be used for this application.
3. A BE PREPARED TO STOP sign may be added to the sign series.
4. When used, the BE PREPARED TO STOP sign should be located before the Flagger symbol sign.

STATE OF LOUISIANA
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REG. No. 28190
REGISTERED PROFESSIONAL ENGINEER IN ELECTRICAL ENGINEERING
September 10, 2020

PROJECT NO.	SHEET
19-CP-HC-0039A	327

STANDARD PLAN NO.	DATED	SHEET NO.
905–06	JULY 3, 2019	1 OF 1

TEMPORARY TRAFFIC CONTROL TYPICAL APPLICATIONS

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
MUTCD	G. CHENG	S. EDEL	I. PARTENHEIMER

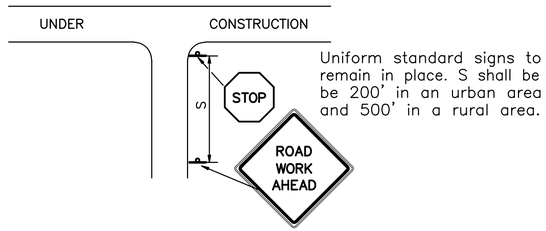
DATE	DESCRIPTION REVISIONS	BY

PROJECT NO.	SHEET
19-CP-HC-0039A	328

The Side Road Work Ahead sign shall be used in advance of an intersection where the construction project on the side road approach terminates at the crossing.

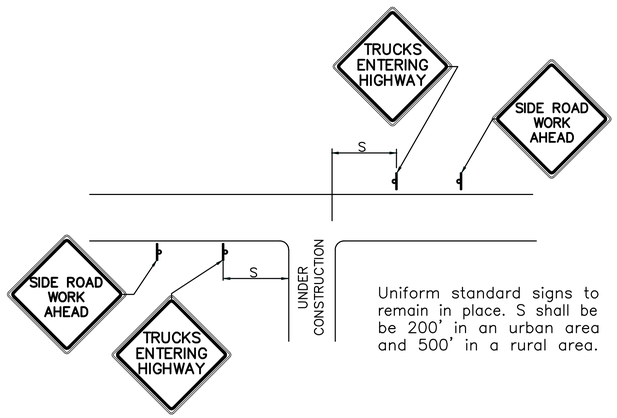
36" x 36"
Legend 5" Series C

SIDE ROAD WORK AHEAD SIGN



Uniform standard signs to remain in place. S shall be be 200' in an urban area and 500' in a rural area.

SIGNING FOR SIDE ROAD APPROACH TO CONSTRUCTION PROJECT



Uniform standard signs to remain in place. S shall be be 200' in an urban area and 500' in a rural area.

SIDE ROAD WORK

This sheet shall be used with Standard Plan No. 905-01 and 905-02.

SEPTEMBER 28, 2007

STANDARD PLAN NO.	DATED	SHEET NO.
905–30	September 28, 2007	1 OF 1

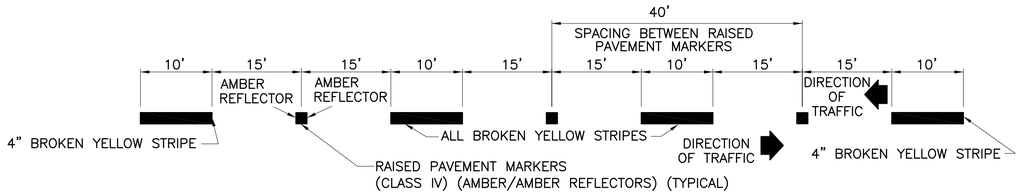
TEMPORARY TRAFFIC CONTROL
LOCAL APPLICATIONS

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
MUTCD	G. CHENG	B. HARMON	I. PARTENHEIMER

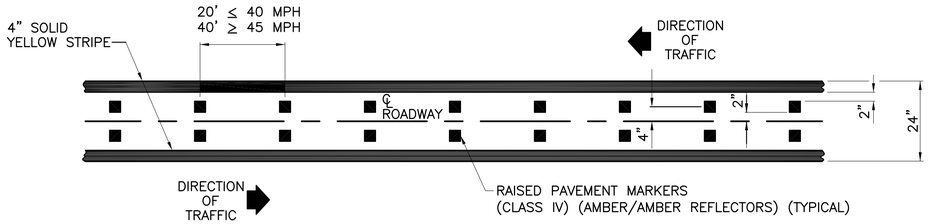
DATE	DESCRIPTION	BY
	REVISIONS	

PROJECT NO.	SHEET
19-CP-HC-0039A	329



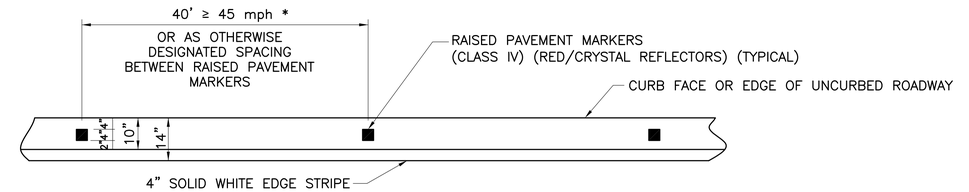
TWO–LANE, TWO–WAY, PASSING CENTERLINE STANDARD

TO BE USED ALONG ℄ OF TWO–LANE ROADWAY WITH TWO–WAY TRAFFIC



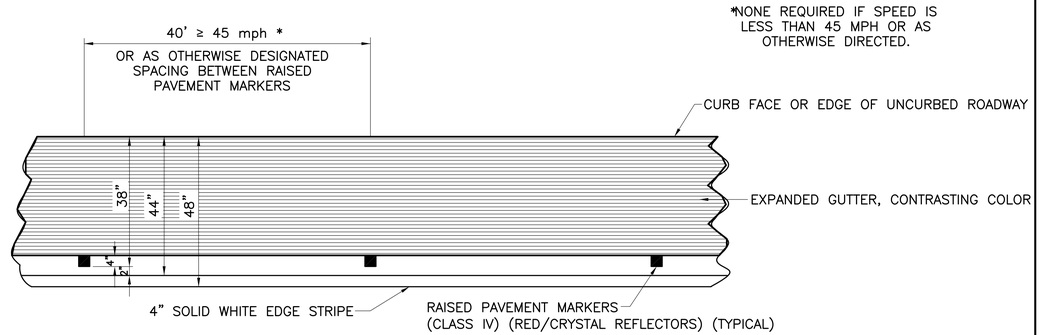
MULTILANE, TWO–WAY, NO PASSING, CENTERLINE STANDARD

TO BE USED ALONG ℄ OF MULTI–LANE UNDIVIDED HIGHWAY



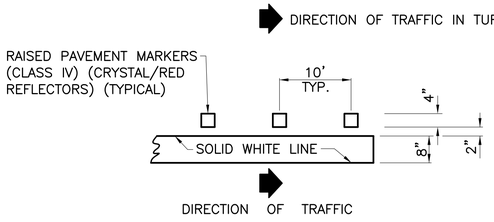
CURB EDGELINE STANDARD

TYPICAL ROADWAY EDGE PAVEMENT MARKERS

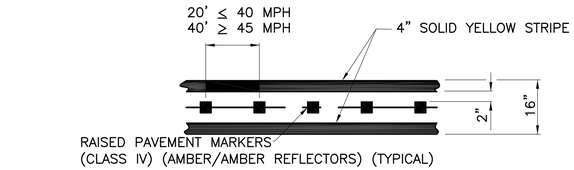


CURB EDGELINE STANDARD WITH EXPANDED GUTTER

TYPICAL ROADWAY EDGE PAVEMENT MARKERS

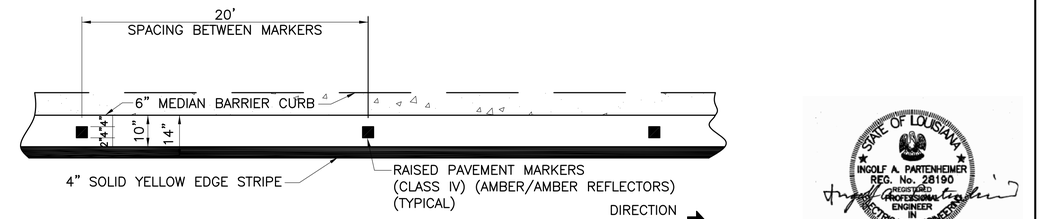


DETAIL OF RAISED PAVEMENT MARKER PLACEMENT

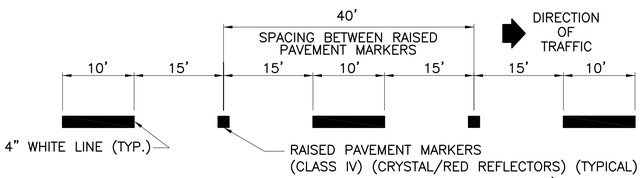


TWO–LANE, TWO–WAY, NO PASSING CENTERLINE STANDARD

TO BE USED ALONG ℄ OF TWO LANE, TWO–WAY
ROADWAY WHERE NO PASSING IS ALLOWED

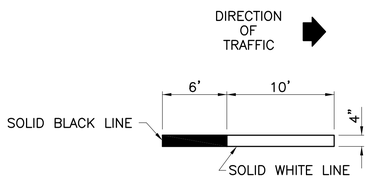


MEDIAN EDGELINE STANDARD



LANELINE STANDARD

TO BE USED ALONG LANE LINES FOR ONE–WAY TRAFFIC
IN RURAL AREAS, AND ON URBAN SECTIONS OF MULTI–LANE ROADWAYS.



LANE LINE STRIPE DETAIL – LEADING SHADOW

TO BE USED ON PORTLAND CEMENT
CONCRETE STREETS WITH POSTED SPEED
45 MPH OR GREATER AND ON ALL
BRIDGES AND APPROACH SLABS
REGARDLESS OF POSTED SPEED LIMIT.

STATE OF LOUISIANA
INGOLF A. PARTENHEIMER
REG. No. 28190
REGISTERED PROFESSIONAL ENGINEER IN ELECTRICAL ENGINEERING

JUNE 13, 2008

DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
905–50	JUNE 13, 2008	1 OF 8

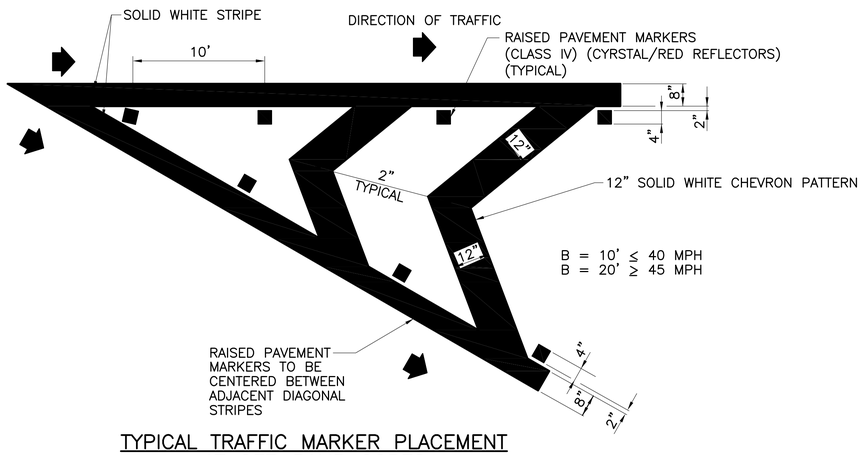
ROADWAY MARKING AND TYPICAL DETAILS

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

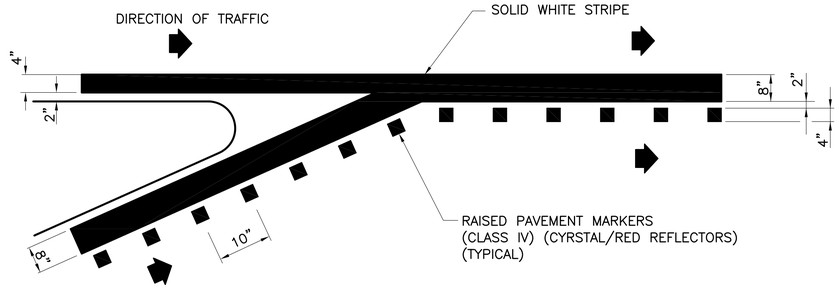
DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	I. PARTENHEIMER

ENGINEERING AUTODESK LAND DESKTOP STDLAY FORM G.V.

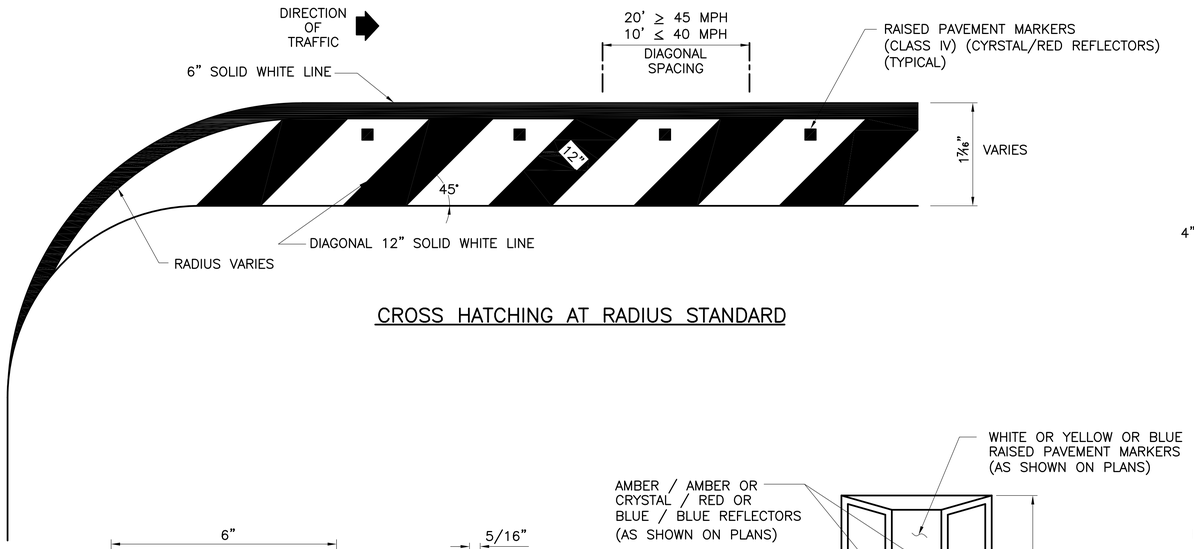
PROJECT NO.	SHEET
19-CP-HC-0039A	330



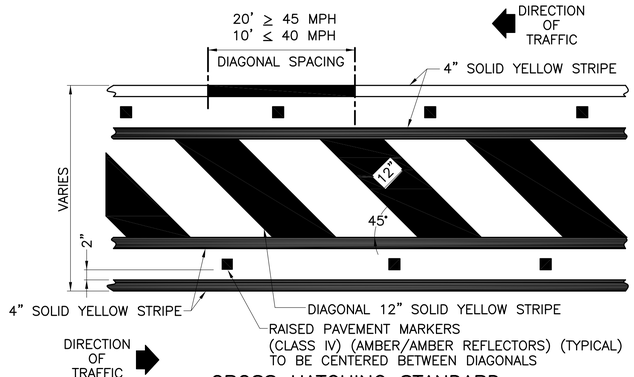
TYPICAL TRAFFIC MARKER PLACEMENT
AT OFF–RAMP GORES



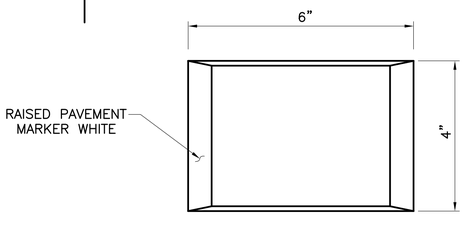
TYPICAL TRAFFIC MARKER PLACEMENT
AT ON–RAMP GORES



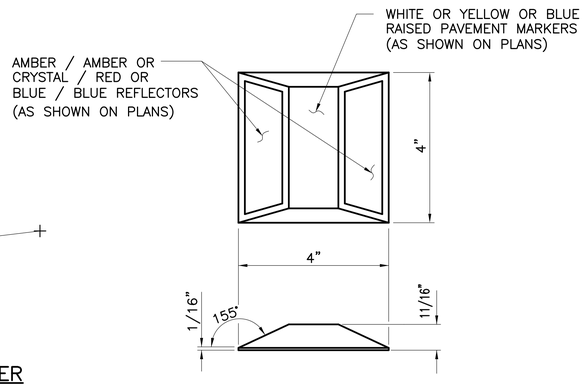
CROSS HATCHING AT RADIUS STANDARD



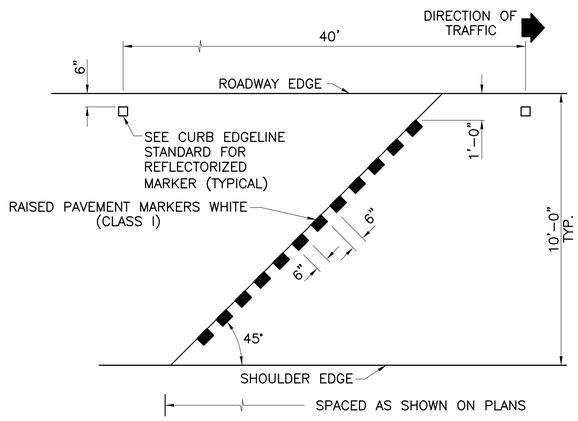
CROSS HATCHING STANDARD



4" X 6" NON–REFLECTORIZED RAISED PAVEMENT MARKER
TYPICAL (CLASS I)



4" X 4" REFLECTORIZED RAISED PAVEMENT
MARKER TYPICAL (CLASS IV)



TYPICAL RAISED MARKER
PLACEMENT ALONG BRIDGE SHOULDER

STATE OF LOUISIANA
INGOLF A. PARTENHEIMER
REG. No. 28190
REGISTERED PROFESSIONAL ENGINEER IN ELECTRICAL ENGINEERING

JUNE 13, 2008

STANDARD PLAN NO.	DATED	SHEET NO.
905–50	JUNE 13, 2008	2 OF 8

ROADWAY MARKING
AND
TYPICAL DETAILS

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION
AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

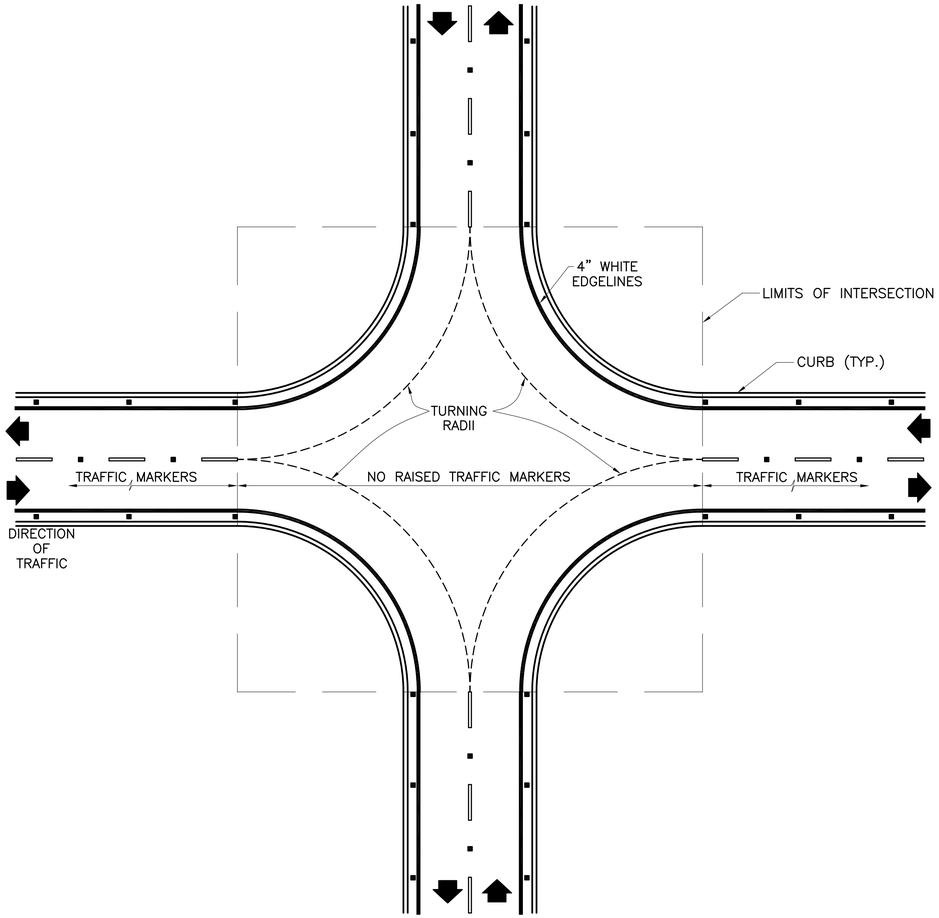
DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	I. PARTENHEIMER

DATE	DESCRIPTION REVISIONS	BY

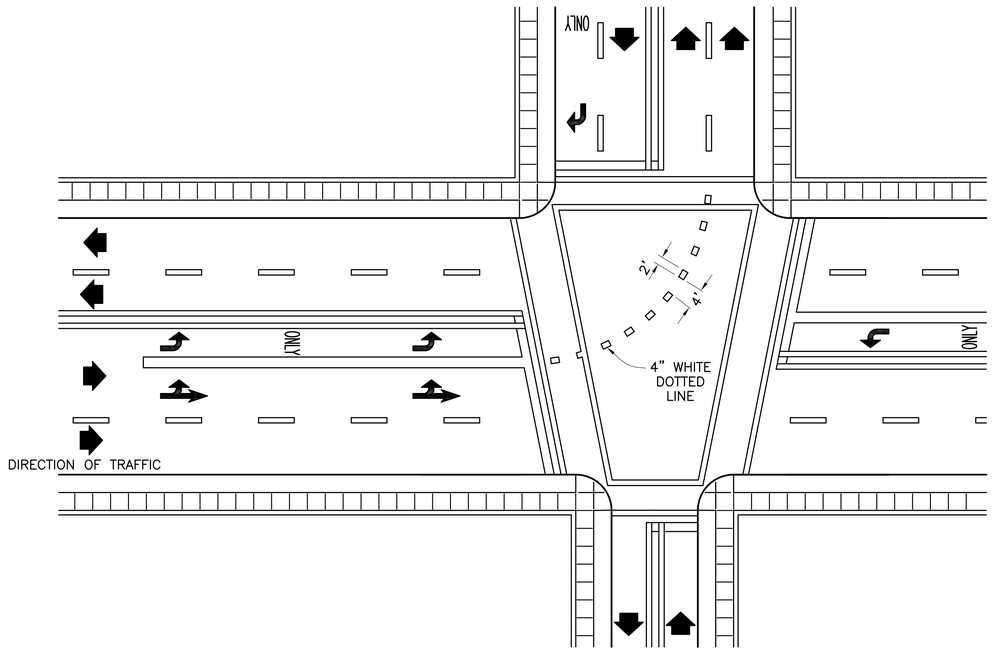
905–50

ENGINEERING AUTODESK LAND DESKTOP STDLAY FORM G.V.

PROJECT NO.	SHEET
19-CP-HC-0039A	331



DETAIL OF TYPICAL INTERSECTION
SHOWING TRAFFIC MARKER PLACEMENT
FOR TWO–LANE ROADWAY



DETAIL OF TYPICAL INTERSECTION
SHOWING LANE STRIPING FOR
DOUBLE LEFT–TURN CONDITION.

NOTE:

AT CHANNELIZED INTERSECTION TRAFFIC MARKERS TO BE PLACED AS DIRECTED BY THE PROJECT ENGINEER.

ALL STRIPING TO BE THERMOPLASTIC MATERIAL, UNLESS OTHERWISE DIRECTED.

RAISED MARKERS SHALL BE CLASS IV, UNLESS OTHERWISE DIRECTED.

ALL PATTERNS SHOWN ARE TYPICAL AND SUBJECT TO CHANGE DEPENDING ON ROADWAY WIDTH.

STATE OF LOUISIANA
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STANDARD PLAN NO.	DATED	SHEET NO.
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ROADWAY MARKING
AND
TYPICAL DETAILS

ENGINEERING DIVISION
DEPARTMENT OF TRANSPORTATION AND DRAINAGE
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
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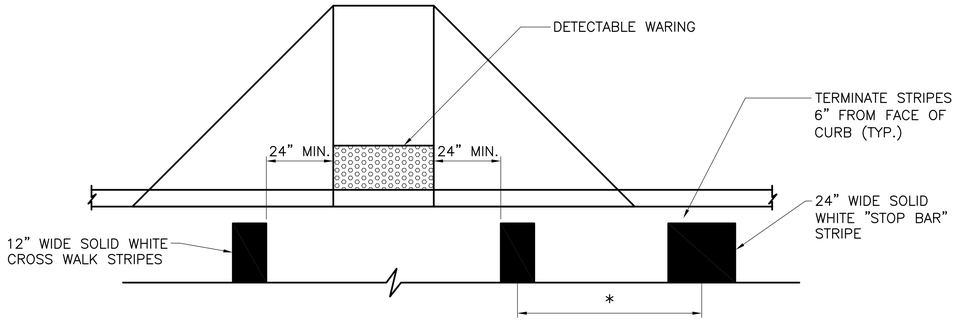
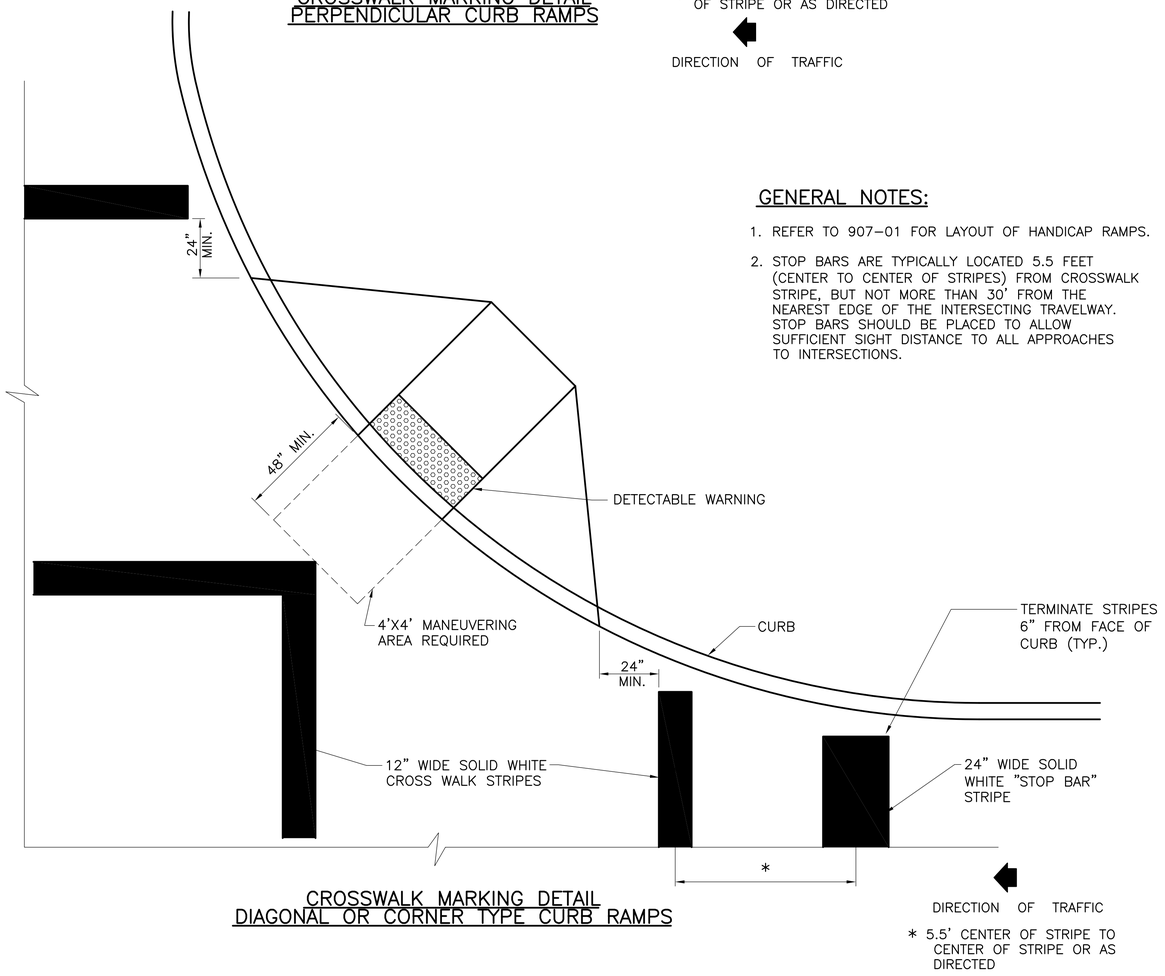
ENGINEERING AUTODESK LAND DESKTOP STDLAY FORM G.V.

PROJECT NO.	SHEET
19-CP-HC-0039A	332



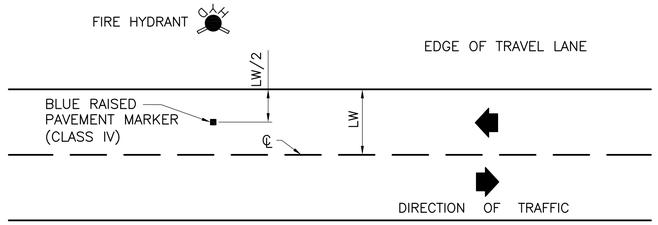
CROSSWALK MARKING DETAIL
PERPENDICULAR CURB RAMPS



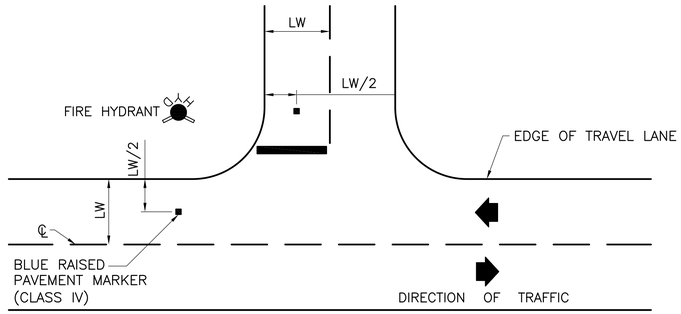
CROSSWALK MARKING DETAIL
DIAGONAL OR CORNER TYPE CURB RAMPS

GENERAL NOTES:

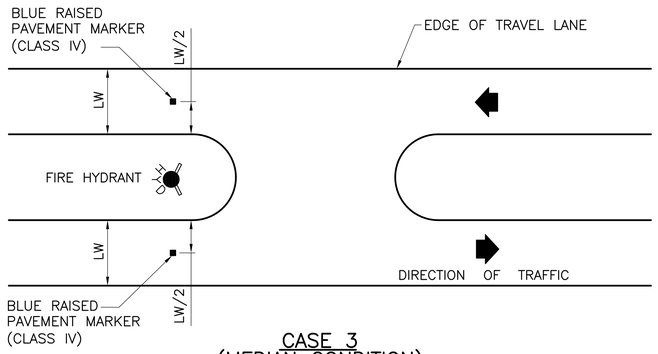
1. REFER TO 907-01 FOR LAYOUT OF HANDICAP RAMPS.
2. STOP BARS ARE TYPICALLY LOCATED 5.5 FEET (CENTER TO CENTER OF STRIPES) FROM CROSSWALK STRIPE, BUT NOT MORE THAN 30' FROM THE NEAREST EDGE OF THE INTERSECTING TRAVELWAY. STOP BARS SHOULD BE PLACED TO ALLOW SUFFICIENT SIGHT DISTANCE TO ALL APPROACHES TO INTERSECTIONS.



CASE 1
(THRUWAY CONDITION)



CASE 2
(CORNER CONDITION)



CASE 3
(MEDIAN CONDITION)

REFLECTIVE MARKER FOR FIRE DEPARTMENT

STATE OF LOUISIANA
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DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
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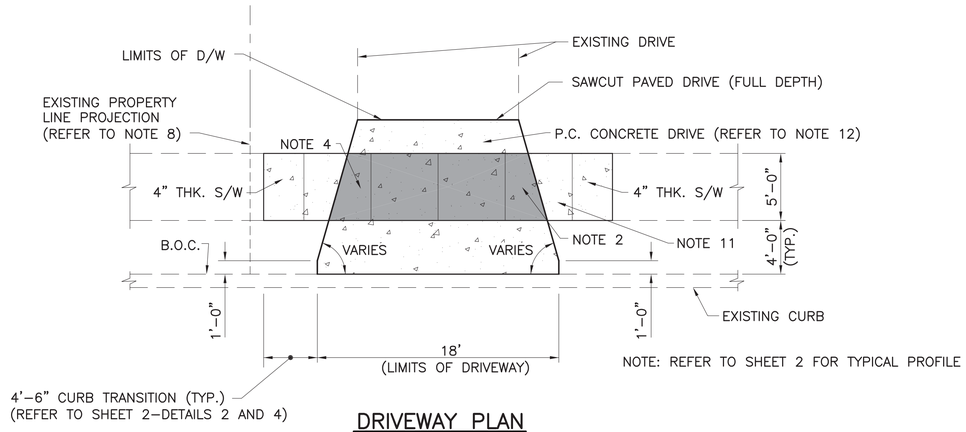
INTERSECTION MARKINGS
AND
TYPICAL DETAILS

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	I. PARTENHEIMER

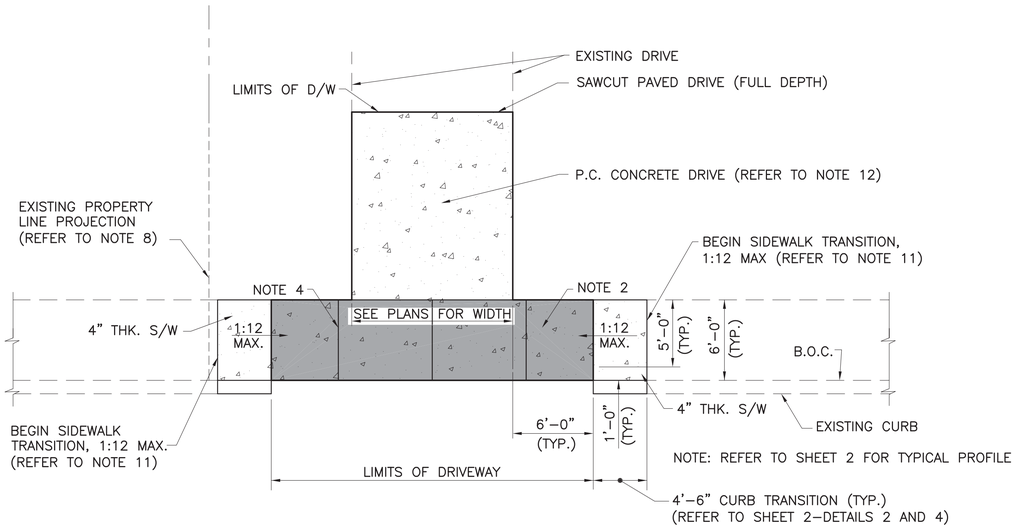
ENGINEERING AUTODESK LAND DESKTOP STDLAY FORM G.V.

PROJECT NO.	SHEET
19-CP-HC-0039A	333



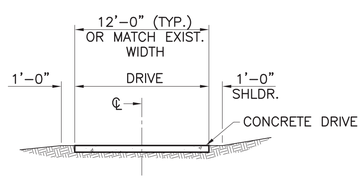
NOTE: REFER TO SHEET 2 FOR TYPICAL PROFILE

DRIVEWAY PLAN
LOCAL STREETS (REFER TO NOTE 10)
N.T.S.



NOTE: REFER TO SHEET 2 FOR TYPICAL PROFILE

DRIVEWAY PLAN
COLLECTOR AND ARTERIAL STREETS (REFER TO NOTE 10)
N.T.S.



SECTION VIEW
N.T.S.

NOTES:

1. DRIVEWAY GEOMETRY SHOWN SHALL APPLY FOR BOTH NEW STREET CONSTRUCTION AND MODIFICATIONS TO EXISTING STREETS.
2. SIDEWALK THICKNESS SHALL MATCH DRIVEWAY THICKNESS WITHIN LIMITS OF DRIVEWAY OR AS DIRECTED BY THE PROJECT ENGINEER.
3. CONSTRUCTION OR KEYWAY JOINT REQ'D WHEN DRIVE DIMENSIONS EXCEED 16' IN EITHER DIRECTION. LOCATION OF JOINTS SHALL BE COORDINATED WITH THE PROJECT ENGINEER.
4. WITHIN THE DRIVEWAY LIMITS, SIDEWALK AREA SHALL HAVE SCORED JOINTS PER STANDARD PLANS AND SPECIFICATIONS. EXPANSION AND CONSTRUCTION JOINT LOCATIONS SHALL BE PER 907-01.
5. REFER TO STD. PLAN 907-01 FOR SIDEWALK RAMPS. SIDEWALK TRANSITION SHALL NOT EXCEED 1:12 SLOPE.
6. MAXIMUM CHANGE IN GRADES IS 12% FOR A CREST AND 11% AT SAGS WITHOUT VERTICAL CURVES. MAXIMUM GRADE CHANGES SHOULD BE AT LEAST 10' APART. MAXIMUM GRADE TYPICALLY SHALL NOT EXCEED 20%.
7. REFER TO STD. PLAN 502-01 FOR CURB DETAILS AND REFER TO STD. PLAN 907-02 FOR COMBINATION CURB AND GUTTER DETAILS.
8. DRIVEWAY SHALL NOT EXTEND BEYOND THE ADJACENT PROPERTY LINE PROJECTION.
9. THE WIDTH OF THE DRIVEWAY AT THE THROAT SHALL BE A MINIMUM OF 12'.
10. STREET TYPES ARE AS DEFINED BY THE TRAFFIC ENGINEER.
11. NEW SIDEWALKS SHALL BE TRANSITIONED TO MATCH EXISTING SIDEWALKS AS DIRECTED BY THE PROJECT ENGINEER.
12. DRIVEWAY THICKNESS SHALL BE AS SHOWN ON THE CONSTRUCTION PLANS OR AS DIRECTED BY THE PROJECT ENGINEER. MINIMUM RESIDENTIAL DRIVE THICKNESS IS 6".

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19417
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IN
CIVIL ENGINEERING
2/16/2018

LEGEND

SIDEWALK AREA WITHIN DRIVEWAY (PAID FOR AS DRIVEWAY) REFER TO NOTES 2 AND 4.

DATE	DESCRIPTION REVISIONS	BY

STANDARD PLAN NO.	DATED	SHEET NO.
907-04	APRIL 16, 2009	1 OF 2

RESIDENTIAL DRIVES
GEOMETRIC DETAILS

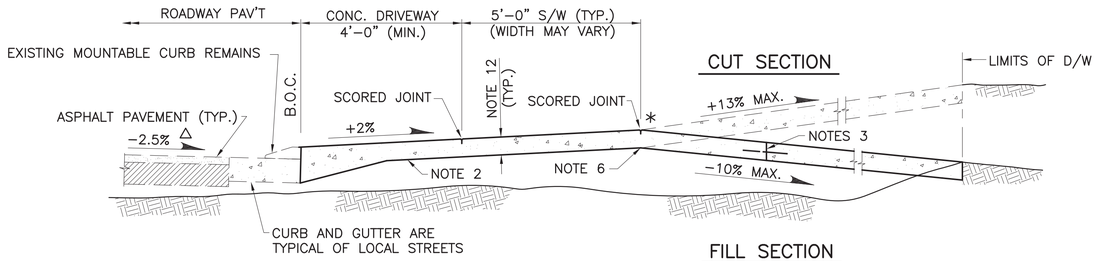
ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	T. STEPHENS

907-04

ENGINEERING AUTODESK LAND DESKTOP STDLAY FORM C.V.
907-04_1of2.dwg.

PROJECT NO.	SHEET
19-CP-HC-0039A	334

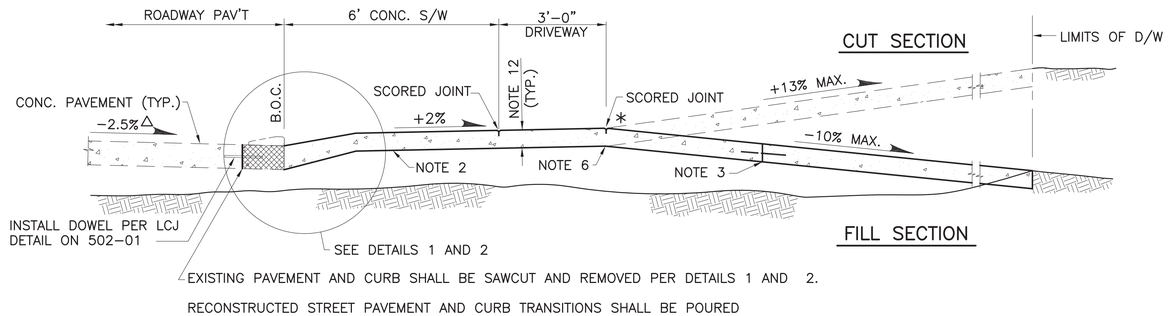


△ SLOPES SHOWN ARE FOR NORMAL CROWN ROADWAY SECTION

□ 2'-0" DRIVEWAY TRANSITION, NOT SUBJECT TO SAG CRITERIA

∗ A +0.33' VERTICAL CLEARANCE IS REQUIRED FROM THE GUTTERLINE TO THE LOCATION SHOWN.

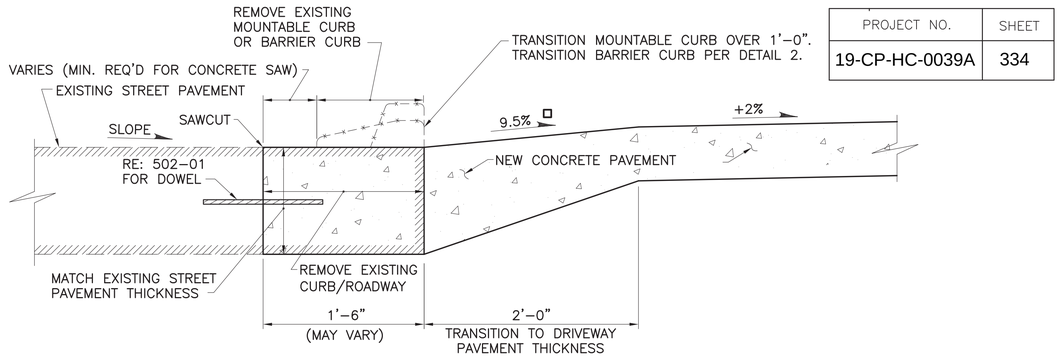
TYPICAL DRIVEWAY PROFILE 1
LOCAL RESIDENTIAL STREET W/MOUNTABLE CURB
REFER TO SHEET 1 FOR NOTES
N.T.S.



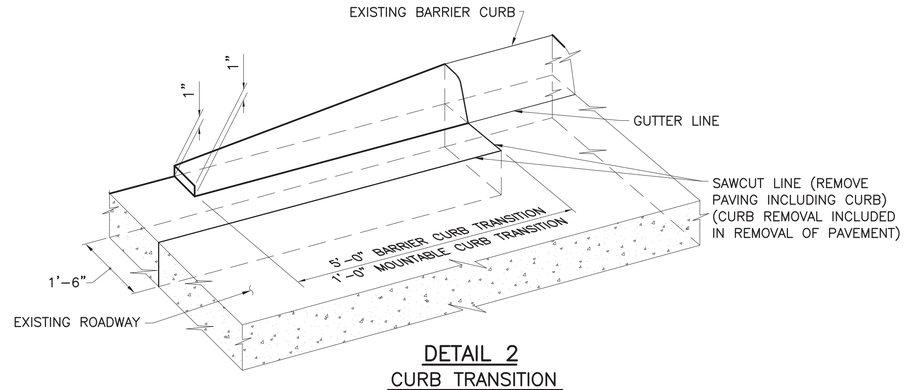
EXISTING PAVEMENT AND CURB SHALL BE SAWCUT AND REMOVED PER DETAILS 1 AND 2.

RECONSTRUCTED STREET PAVEMENT AND CURB TRANSITIONS SHALL BE POURED MONOLITHICALLY.

TYPICAL DRIVEWAY PROFILE 2
COLLECTOR AND ARTERIAL STREETS
REFER TO SHEET 1 FOR NOTES
N.T.S.

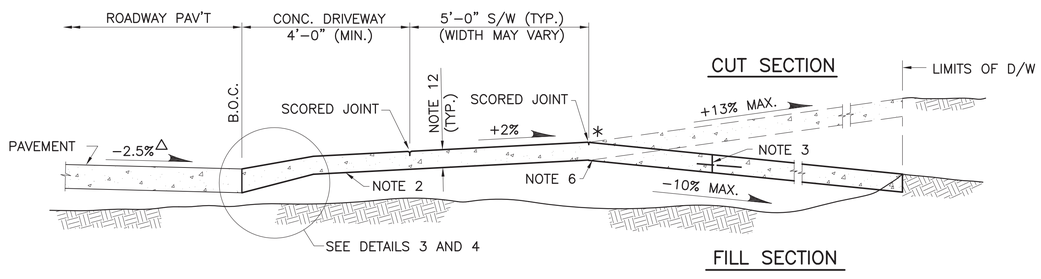


DETAIL 1
DRIVEWAY CONNECTION
N.T.S.



DETAIL 2
CURB TRANSITION
(TRANSITION OF BARRIER CURB SHOWN. TRANSITION MOUNTABLE CURB OVER 1'-0".)
N. T. S.

NEW DRIVEWAY ON EXISTING STREET



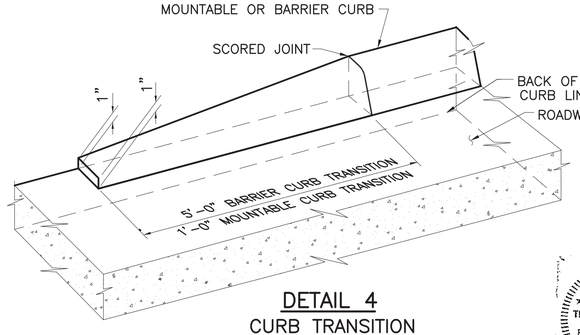
△ SLOPES SHOWN ARE FOR NORMAL CROWN ROADWAY SECTION

□ 2'-0" DRIVEWAY TRANSITION, NOT SUBJECT TO SAG CRITERIA

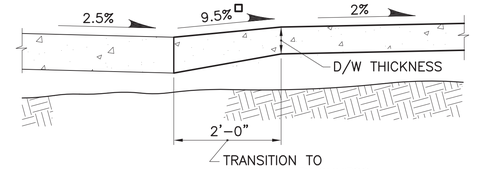
∗ A +0.33' VERTICAL CLEARANCE IS REQUIRED FROM THE GUTTERLINE TO THE LOCATION SHOWN.

◉ FOR NEW LOCAL STREET WITH MOUNTABLE CURB, CONSTRUCT IN ACCORDANCE WITH TYPICAL DRIVEWAY PROFILE 1.

TYPICAL DRIVEWAY PROFILE 3
COLLECTOR AND ARTERIAL STREETS ◉
REFER TO SHEET 1 FOR NOTES
N.T.S.



DETAIL 4
CURB TRANSITION
(TRANSITION OF BARRIER CURB SHOWN. TRANSITION MOUNTABLE CURB OVER 1'-0".)
N. T. S.



DETAIL 3
DRIVEWAY CONNECTION
N.T.S.

NEW DRIVEWAY ON NEW STREET
N.T.S.

STATE OF LOUISIANA
THOMAS A. STEPHENS
License No. 19417
PROFESSIONAL ENGINEER IN CIVIL ENGINEERING
3/16/2015

STANDARD PLAN NO.	DATED	SHEET NO.
907-04	APRIL 16, 2009	2 OF 2

RESIDENTIAL DRIVES
TYPICAL PROFILES AND DETAILS

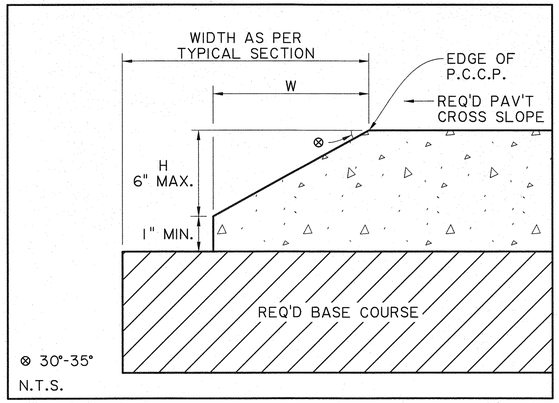
DATE	DESCRIPTION REVISIONS	BY

ENGINEERING DIVISION
DEPARTMENT OF PUBLIC WORKS
CITY OF BATON ROUGE & PARISH OF EAST BATON ROUGE

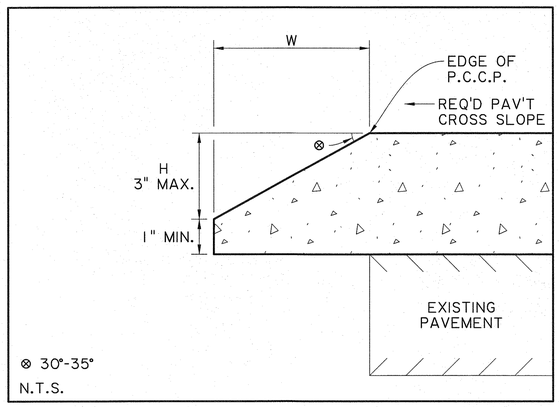
DESIGNED	DRAWN	CHECKED	APPROVED
GLP	GLP	GLP	T. STEPHENS

907-04

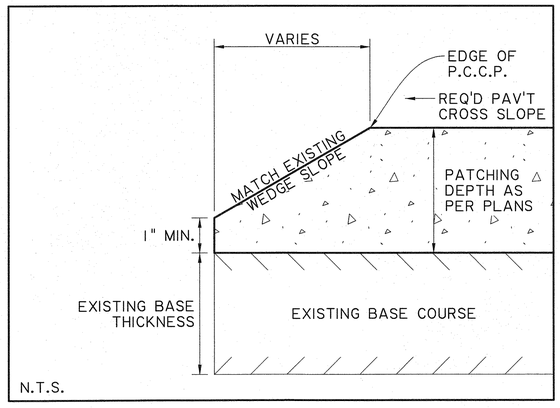
P.C.C.P. SHOULDER WEDGE



P.C.C. SHOULDER WEDGE FOR NEW CONSTRUCTION



P.C.C. SHOULDER WEDGE FOR WHITETOPPING



P.C.C. SHOULDER WEDGE FOR PAVEMENT PATCHING WITH EXISTING WEDGE

NOTES:

1. SHOULDER WEDGES SHALL BE REQUIRED AT THE OUTSIDE EDGES OF THE PAVED ROADWAY (EDGE OF TRAVEL LANE OR EDGE OF PAVED SHOULDER), UNLESS THE TOTAL REQUIRED ASPHALT CONCRETE THICKNESS IS LESS THAN 2" AND FOR PAVEMENT PATCHING PROJECTS WHERE THE EXISTING PAVEMENT DOES NOT HAVE SHOULDER WEDGES.
2. FOR ASPHALT CONCRETE PAVEMENTS, SHOULDER WEDGES SHALL BE UTILIZED ON SINGLE LIFTS IF THE LAYER THICKNESS IS GREATER THAN OR EQUAL TO 2" AND, AT A MINIMUM, ON EACH OF THE TOP 2 LIFTS OF A MULTI-LIFT PAVEMENT.
3. EQUIP THE PAVER WITH A MECHANICAL DEVICE THAT WILL PRODUCE A WEDGE WITH A UNIFORM TEXTURE, SHAPE, AND DENSITY, WHILE AUTOMATICALLY ADJUSTING TO VARYING HEIGHTS ENCOUNTERED ALONG THE PAVEMENT EDGE.
4. THE CONTRACTOR SHALL BLADE AND SHAPE EXISTING GROUND OR SHOULDER MATERIAL TO FORM A UNIFORM SURFACE UNDER THE ASPHALT SHOULDER WEDGE PRIOR TO PLACEMENT OF PAVEMENT.
5. FOR ASPHALT CONCRETE PAVEMENTS, THE MAXIMUM SHOULDER WEDGE HEIGHT ("H") SHALL EQUAL 6". IF THE TOTAL ASPHALT THICKNESS IS GREATER THAN 6", THE CONTRACTOR SHALL STAGE CONSTRUCTION BY PULLING UP THE SHOULDERS OR FORE SLOPE MATERIAL IN THE LOWER LIFTS, THEN UTILIZING THE WEDGE IN EACH OF THE FINAL 2 LIFTS.
6. REQUIRED BASE WIDTHS ARE AS SHOWN ON TYPICAL SECTIONS. IT IS NOT REQUIRED FOR THE BASE COURSE WIDTH TO INCLUDE THE WIDTH OF THE ASPHALT WEDGE. THE ASPHALT WEDGE MAY BE SUPPORTED BY THE EXISTING GROUND, EMBANKMENT, OR SHOULDER MATERIAL. HOWEVER, THE DESIGNER SHOULD MAKE EVERY EFFORT TO SUPPORT THE SHOULDER WEDGE WITH NEW BASE COURSE MATERIAL UNLESS PREVENTED BY PROJECT SCOPE, PHYSICAL RESTRAINTS, OR DEEMED IMPRACTICAL. FOR CONCRETE SHOULDER WEDGES, THE REQUIRED BASE WIDTH SHOULD INCLUDE THE WIDTH OF THE SHOULDER WEDGE AND THE DESIRED ADDITIONAL WIDTH BEYOND THE SURFACING, EXCEPT FOR WHITETOPPING.
7. SEE TYPICAL SECTION SHEETS FOR PAVEMENT DETAILS.
8. THE ANGLE SHOWN FOR AN ASPHALT CONCRETE SHOULDER WEDGE IS MEASURED AFTER COMPACTION.
9. THE SHOULDER WEDGE SHALL NOT BE CONSIDERED PART OF THE REQUIRED PAVEMENT WIDTH.
10. ANGLE OF SHOULDER WEDGE IS MEASURED FROM THE FACE OF THE WEDGE TO A LINE REPRESENTING THE THEORETICAL PROJECTION OF THE PAVEMENT CROSS SLOPE.
11. SHOULDER WEDGES SHALL NOT BE CONSTRUCTED AT INTERSECTIONS, PAVED DRIVEWAYS, OR BEHIND GUARDRAILS UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE PROJECT ENGINEER. IF SHOULDER WEDGES ARE CONSTRUCTED AT THESE LOCATIONS DURING PAVING OPERATIONS, THEY SHALL BE REMOVED BY SAWCUTTING AT NO DIRECT PAY. NO QUANTITY DEDUCTIONS WILL BE MADE IN THE PLANS FOR SUCH GAPS.
12. SHOULDER WEDGES SHALL BE REQUIRED AT THE OUTSIDE EDGES OF WHITETOPPING UNLESS THE REQUIRED THICKNESS IS 2" OR AN ASPHALT SHOULDER IS PROPOSED IN ADDITION TO WHITETOPPING. THE PROPOSED ASPHALT SHOULDER IS REQUIRED TO HAVE WEDGES UNLESS THE TOTAL REQUIRED ASPHALT CONCRETE THICKNESS IS LESS THAN 2".

P.C.C.P. SHOULDER WEDGE QUANTITIES

HEIGHT "H" INCHES	30° WEDGES		35° WEDGES	
	WIDTH "W" INCHES	SQYD PER MILE	WIDTH "W" INCHES	SQYD PER MILE
4.0	6.9	674.7	5.7	557.3
5.0	8.7	850.7	7.1	694.2
6.0	10.4	1016.9	8.6	840.9

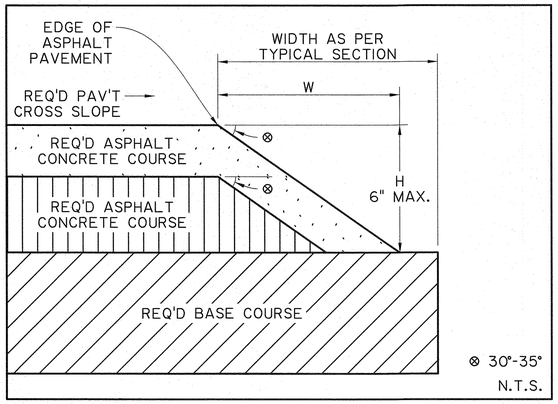
QUANTITIES SHOWN IN PLANS ARE BASED ON A 35° WEDGE
QUANTITIES SHOWN ARE FOR 2 WEDGES (ONE AT EACH SIDE OF ROADWAY)

WHITETOPPING WEDGE QUANTITIES

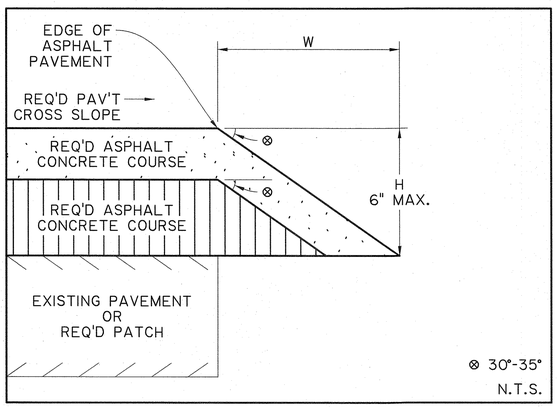
HEIGHT "H" INCHES	30° WEDGES		35° WEDGES	
	WIDTH "W" INCHES	SQYD PER MILE	WIDTH "W" INCHES	SQYD PER MILE
2.0	3.5	342.2	2.9	283.6
3.0	5.2	508.4	4.3	420.4

QUANTITIES SHOWN IN PLANS ARE BASED ON A 35° WEDGE
QUANTITIES SHOWN ARE FOR 2 WEDGES (ONE AT EACH SIDE OF ROADWAY)

ASPHALT CONCRETE SHOULDER WEDGE



ASPHALT CONCRETE SHOULDER WEDGE
FOR NEW CONSTRUCTION OR BASE REHABILITATION



ASPHALT CONCRETE SHOULDER WEDGE FOR OVERLAY OR PATCHING

THESE STANDARD PLANS HAVE BEEN PROPERLY EXAMINED BY ME, THE UNDERSIGNED PROFESSIONAL ENGINEER. I HAVE DETERMINED THAT THESE PLANS COMPLY WITH ALL APPLICABLE CODES AND HAVE BEEN PROPERLY ADAPTED TO USE ON THIS PROJECT, MCHUGH RD IMPROVEMENTS, NORTH PHASE A, CITY-PARISH PROJECT NO. 19-CP-HC-0039A.

J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
5-7-2024

ASPHALT CONCRETE SHOULDER WEDGE QUANTITIES

HEIGHT "H" INCHES	30° WEDGES		35° WEDGES	
	WIDTH "W" INCHES	TONS PER MILE	WIDTH "W" INCHES	TONS PER MILE
2.0	3.5	18.8	2.9	15.6
2.5	4.3	28.9	3.6	24.2
3.0	5.2	41.9	4.3	34.7
3.5	6.1	57.4	5.0	47.1
4.0	6.9	74.2	5.7	61.3
4.5	7.8	94.4	6.4	77.4
5.0	8.7	117.0	7.1	95.5
5.5	9.5	140.5	7.9	116.8
6.0	10.4	167.8	8.6	138.7

QUANTITIES SHOWN IN PLANS ARE BASED ON A 35° WEDGE
QUANTITIES SHOWN IN TABLE ARE BASED ON 110 $\frac{LB}{IN\ SQYD}$
QUANTITIES SHOWN ARE FOR 2 WEDGES (ONE AT EACH SIDE OF ROADWAY)

SHEET NUMBER 335

PARISH	CONTROL SECTION	STATE PROJECT
EAST BATON ROUGE		CITY PARISH PROJECT NO. 19-CP-HC-0039A

DESIGN	CHECK	DETAIL	CHECK	REVIEW	SERIES # 1 OF 1
RAN	JML	RAN	JML		

10/24/2022
STATE OF LOUISIANA
RYAN A. NOLAN
License No. 40078
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

APPROVED BY CHIEF ENGINEER:
DATE: 10/25/2022

STATE OF LOUISIANA DEPARTMENT OF JUSTICE

SHOULDER WEDGE

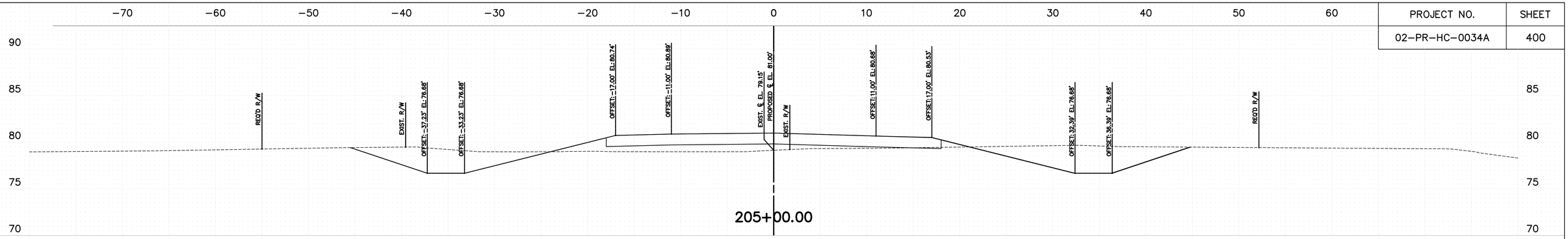
SW-01

STANDARD PLAN NO.

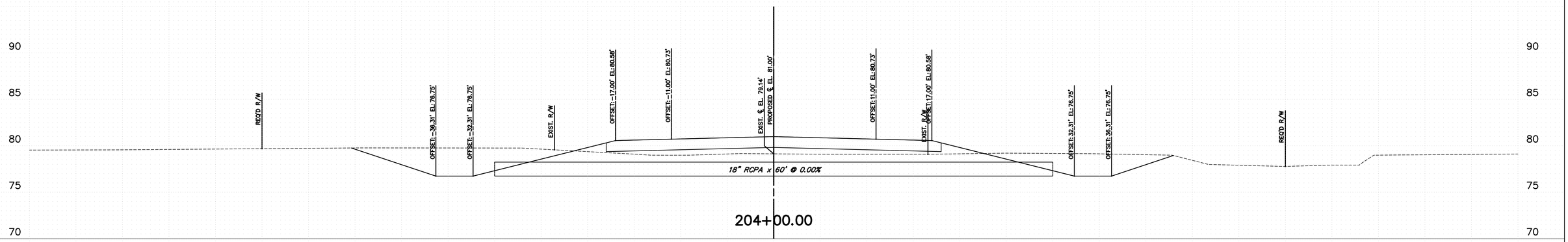
DOTD
LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

ROAD DESIGN

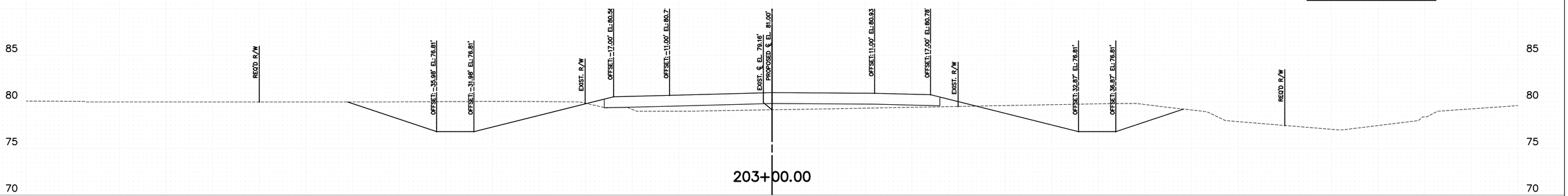
PROJECT NO.	SHEET
02-PR-HC-0034A	400



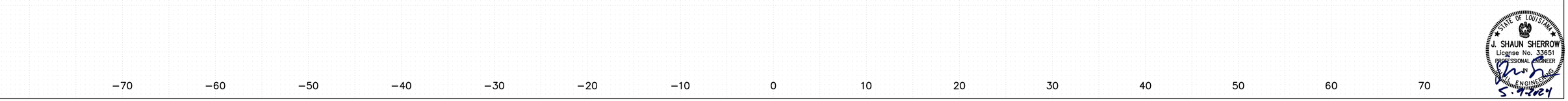
EXCAVATION: 77.24 CY
EMBANKMENT: 386.14 CY



EXCAVATION: 94.68 CY
EMBANKMENT: 368.53 CY



EXCAVATION: 81.73 CY
EMBANKMENT: 232.34 CY



STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
5-9-2024

FINAL SURVEY
NOTE BOOK
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ORIGINAL SURVEY
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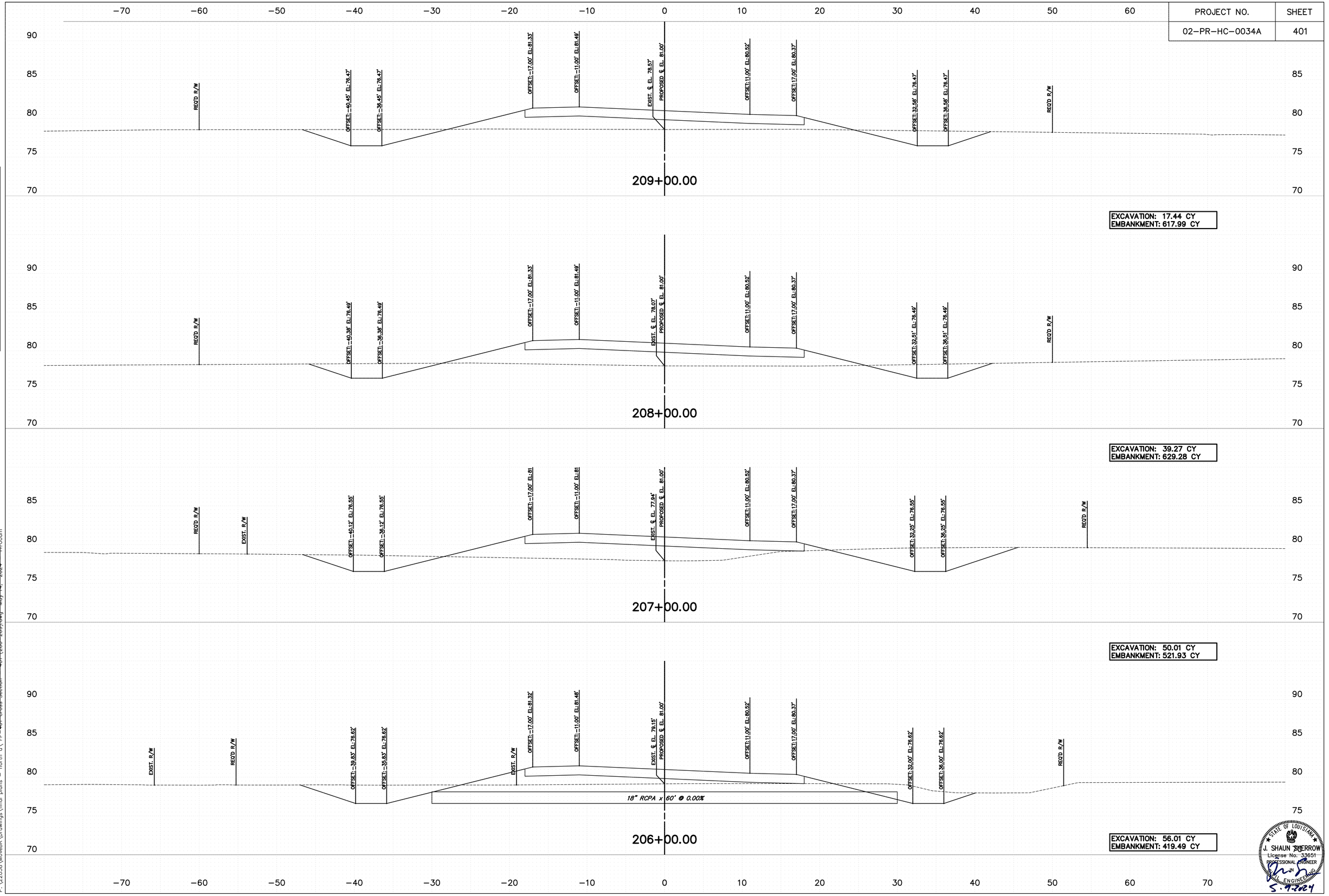
PROJECT NO.	SHEET
02-PR-HC-0034A	401



FINAL SURVEY
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ORIGINAL SURVEY
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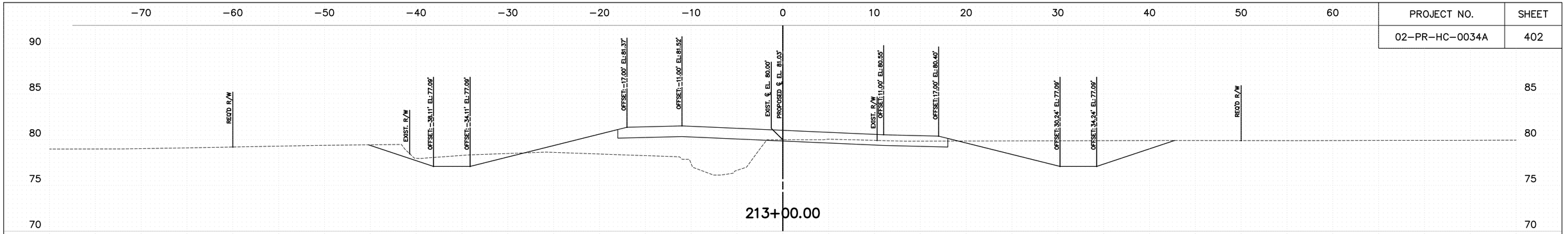
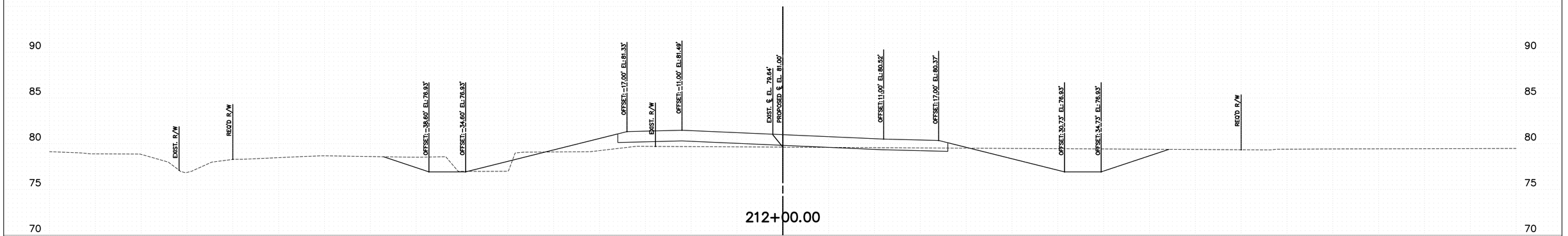
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
STATE OF LOUISIANA
5-14-2024

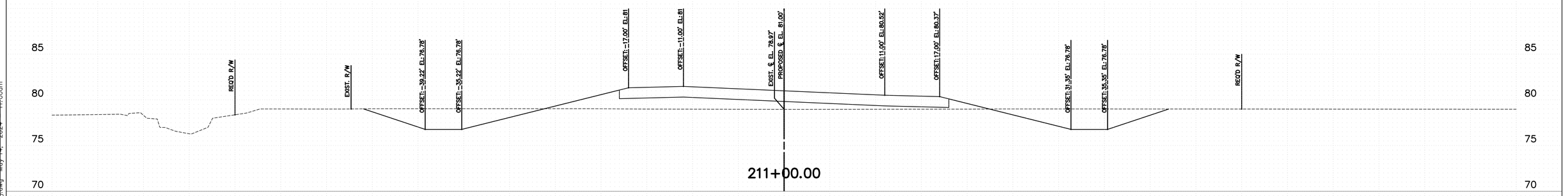
PROJECT NO.	SHEET
02-PR-HC-0034A	402



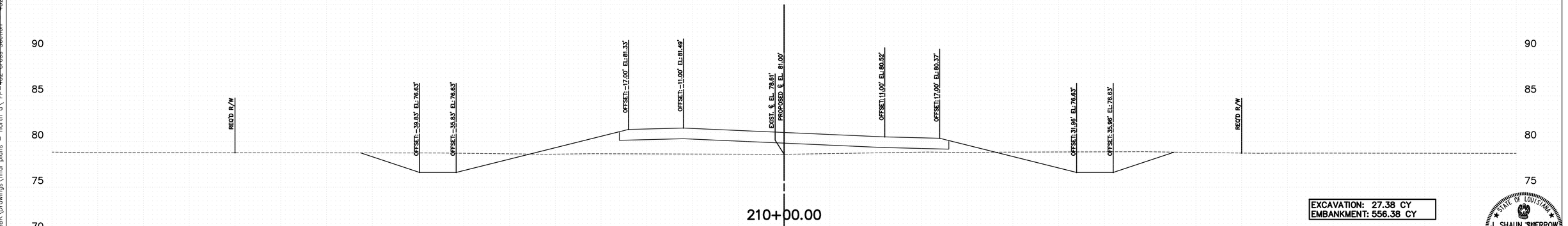
EXCAVATION: 35.60 CY
EMBANKMENT: 461.26 CY



EXCAVATION: 33.11 CY
EMBANKMENT: 442.07 CY



EXCAVATION: 34.55 CY
EMBANKMENT: 507.84 CY



EXCAVATION: 27.38 CY
EMBANKMENT: 556.38 CY

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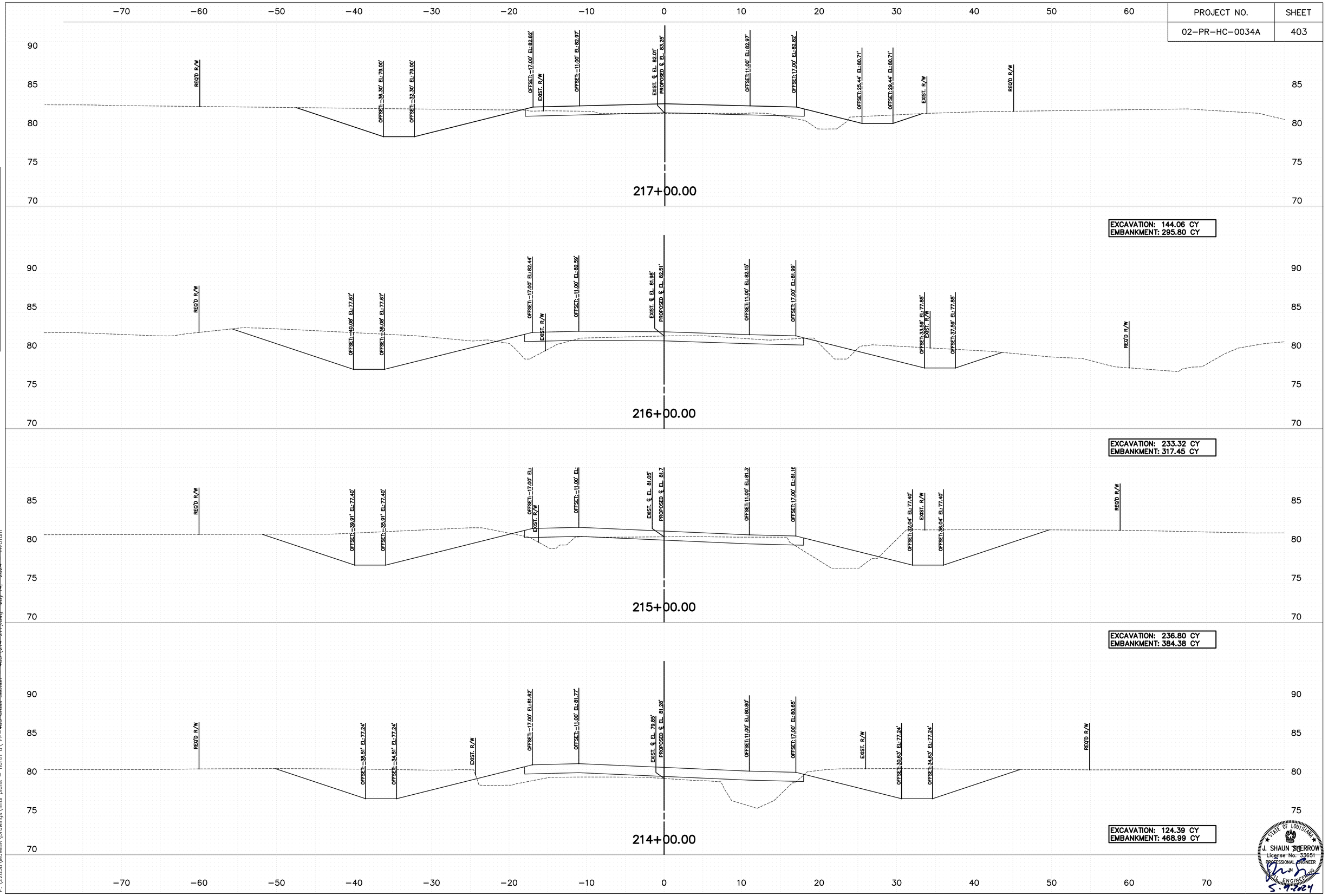
PROFESSIONAL ENGINEER
STATE OF LOUISIANA
ENGINEER
5-14-2024

PROJECT NO.	SHEET
02-PR-HC-0034A	403



FINAL SURVEY
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ORIGINAL SURVEY
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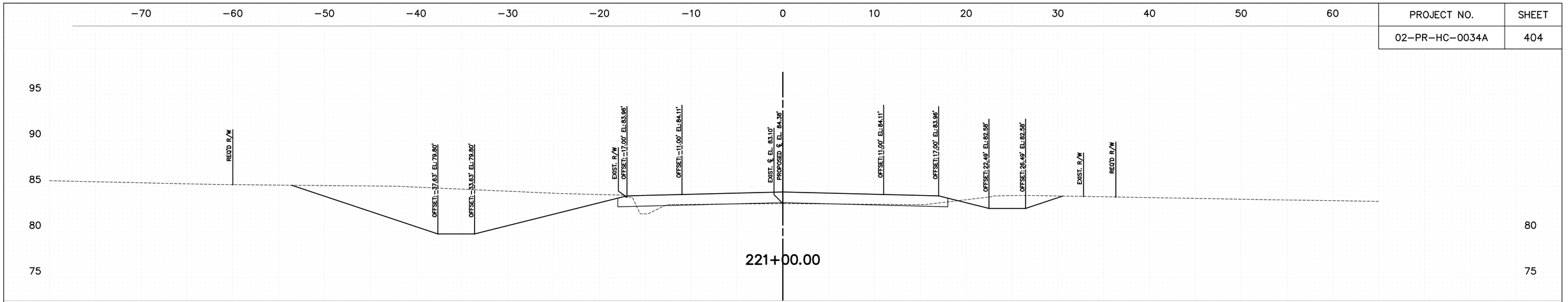
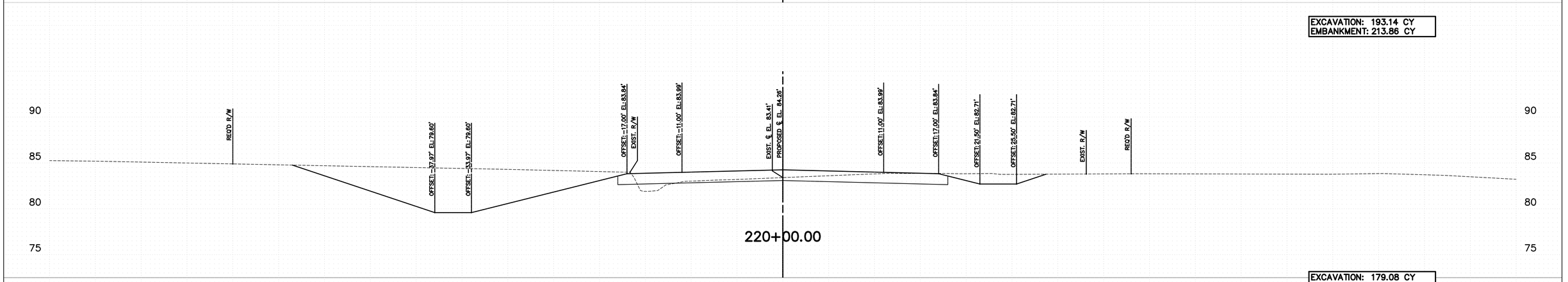
License No. 33651
PROFESSIONAL ENGINEER
ENGINEERING
5-14-2024

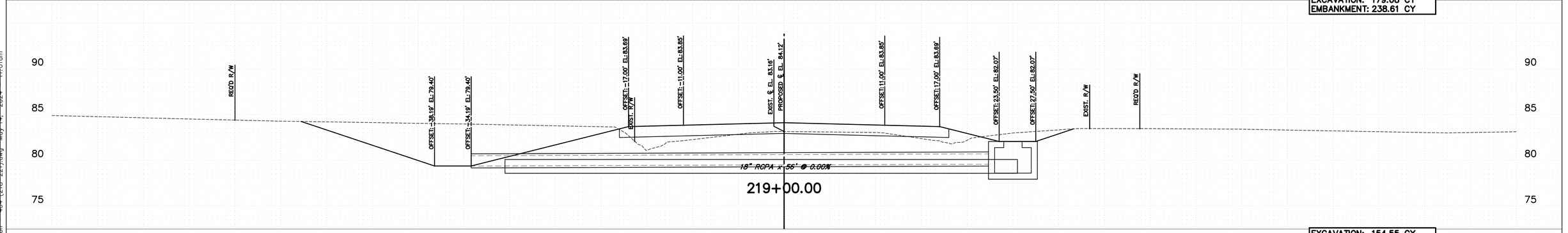
PROJECT NO.	SHEET
02-PR-HC-0034A	404



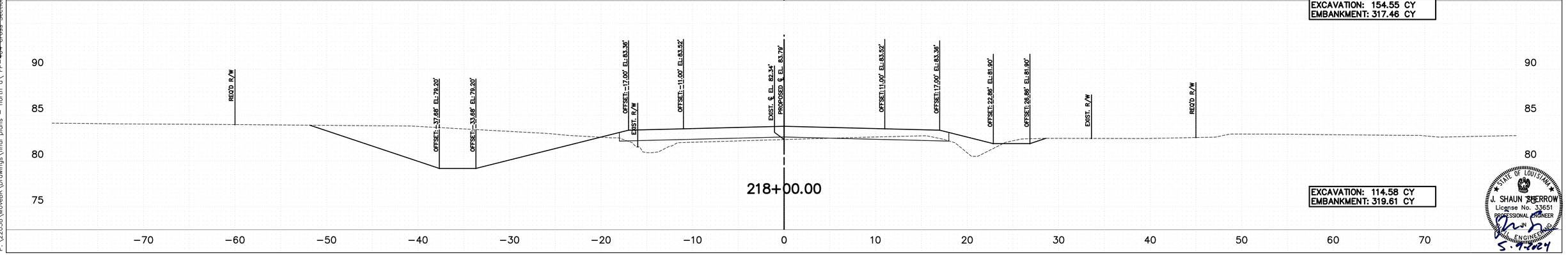
EXCAVATION: 193.14 CY
EMBANKMENT: 213.86 CY



EXCAVATION: 179.08 CY
EMBANKMENT: 238.61 CY



EXCAVATION: 154.55 CY
EMBANKMENT: 317.46 CY



EXCAVATION: 114.58 CY
EMBANKMENT: 319.61 CY

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

FINAL SURVEY
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ORIGINAL SURVEY
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No. 404 Cross Sections
BY
DATE

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J. SHAUN SHERROW
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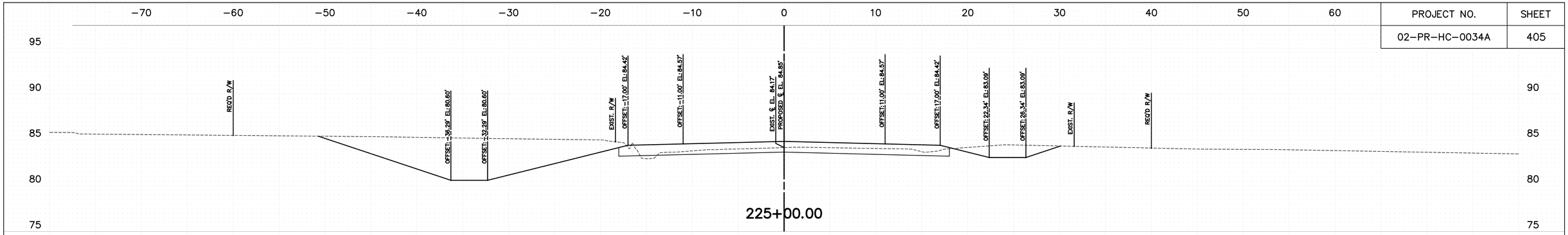
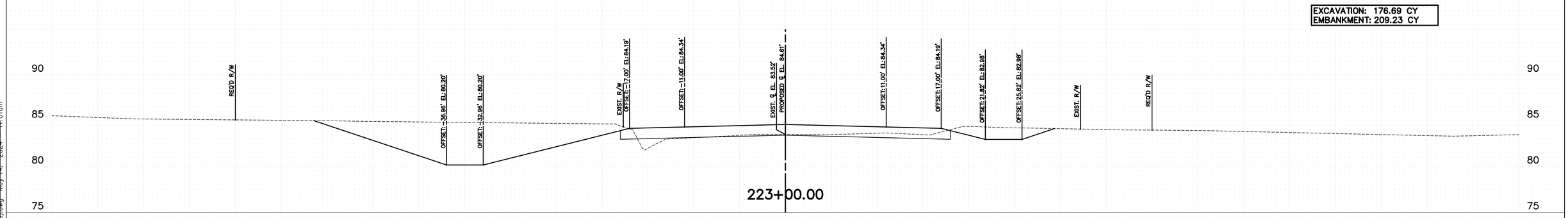
PROFESSIONAL ENGINEER
STATE OF LOUISIANA
ENGINEERING
5-17-2024

PROJECT NO.	SHEET
02-PR-HC-0034A	405



EXCAVATION: 175.06 CY
EMBANKMENT: 190.34 CY

EXCAVATION: 176.69 CY
EMBANKMENT: 209.23 CY



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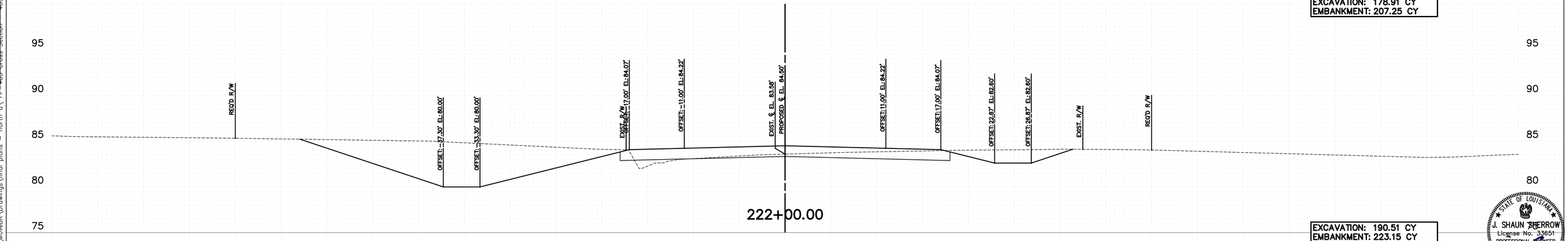
EMBANKMENT: 207.25 CY



EXCAVATION: 190.51 CY
EMBANKMENT: 223.15 CY

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

FINAL SURVEY
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ORIGINAL SURVEY
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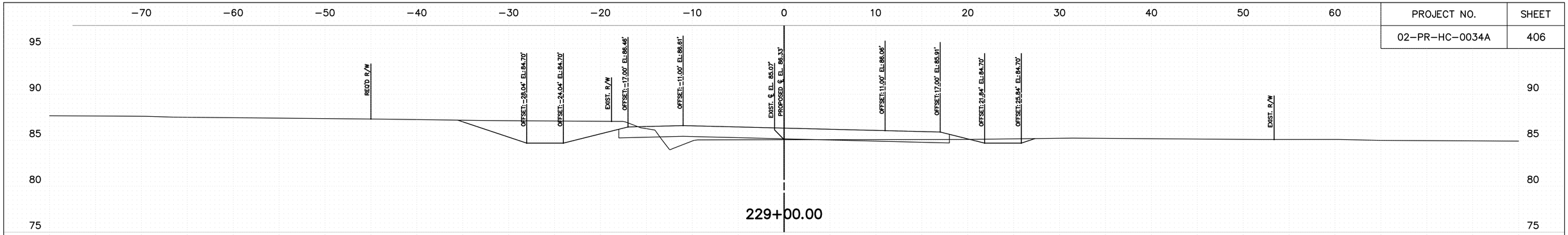
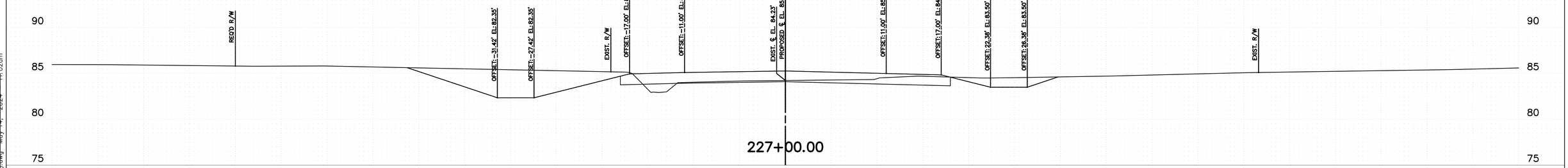
STATE OF LOUISIANA
J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
ENGINEER
5-14-2024

PROJECT NO.	SHEET
02-PR-HC-0034A	406

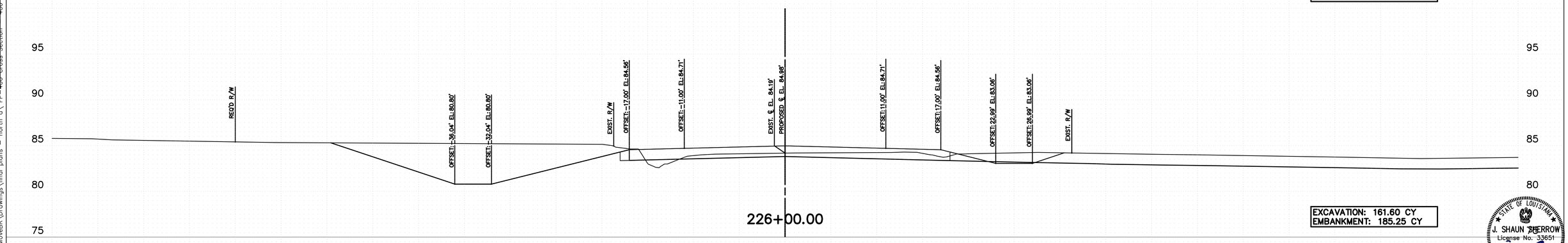


EXCAVATION: 18.61 CY
EMBANKMENT: 247.43 CY

EXCAVATION: 32.47 CY
EMBANKMENT: 227.36 CY



EXCAVATION: 103.45 CY
EMBANKMENT: 203.33 CY



EXCAVATION: 161.60 CY
EMBANKMENT: 185.25 CY

-70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70

J. SHAUN SPERROW
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PROFESSIONAL ENGINEER
5-14-2024

FINAL SURVEY
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ORIGINAL SURVEY
NOTE BOOK | SURVEYED | PLOTTED | TEMPLATE | AREAS | AREAS CHECKED | No. | BY | DATE

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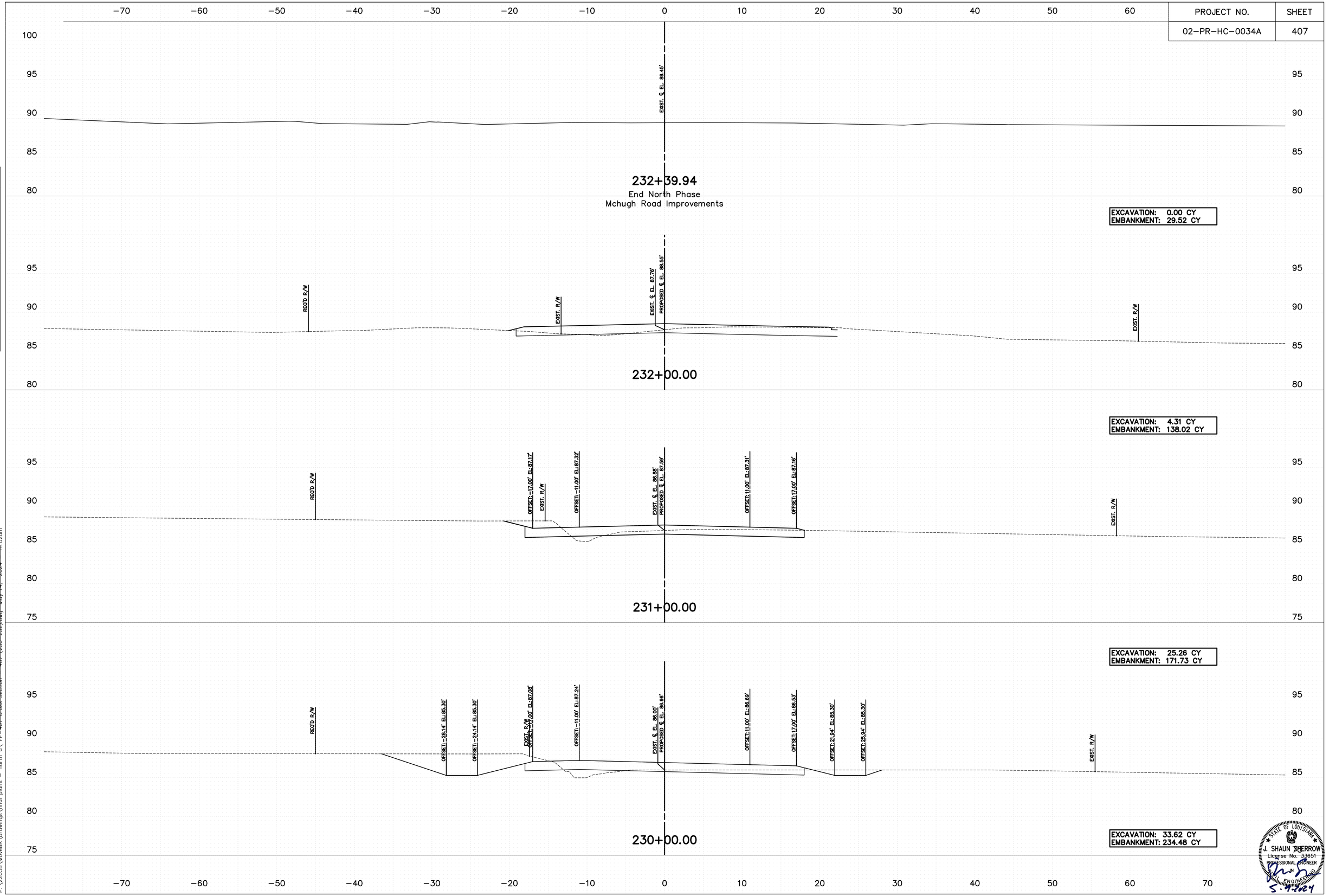
PROJECT NO.	SHEET
02-PR-HC-0034A	407



FINAL SURVEY
NOTE BOOK
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ORIGINAL SURVEY
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J. SHAUN SHERROW
License No. 33651
PROFESSIONAL ENGINEER
5-14-24