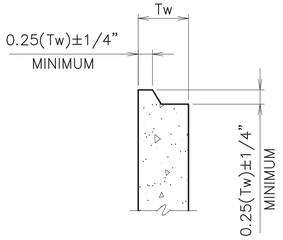
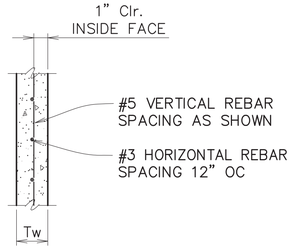
PROJECT NO.	SHEET



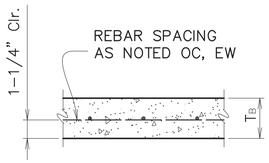
JOINT DETAIL

SCALE: N.T.S.



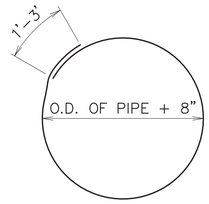
STANDARD
PRECAST WALL DETAIL

SCALE: N.T.S.



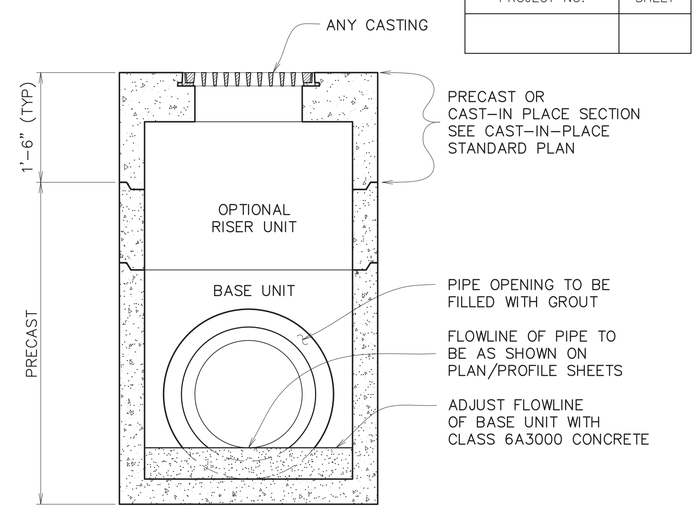
BOTTOM SLAB DETAIL

SCALE: N.T.S.



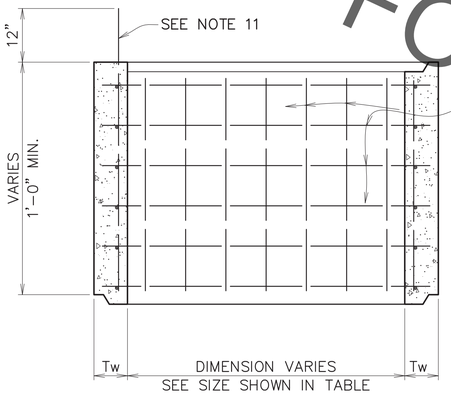
#4 HOOP

SCALE: N.T.S.



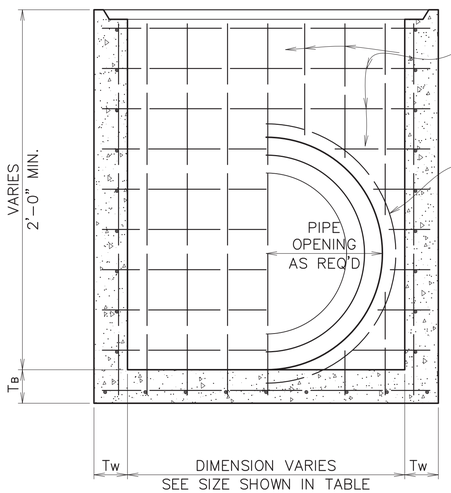
TYPICAL COMPOSITE STRUCTURE

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".

THOMAS A. STEPHENS
License No. 19417
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING
STATE OF LOUISIANA
3/14/2013

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

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