

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 17th EDITION, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

FOUNDATION BEARING PRESSURE

THE RETAINING WALL FOOTING ALLOWABLE BEARING PRESSURE IS 4.00 TONS PER SQUARE FOOT. THE RETAINING WALL FOOTING ACTUAL BEARING PRESSURE IS 0.72 TONS PER SQUARE FOOT.

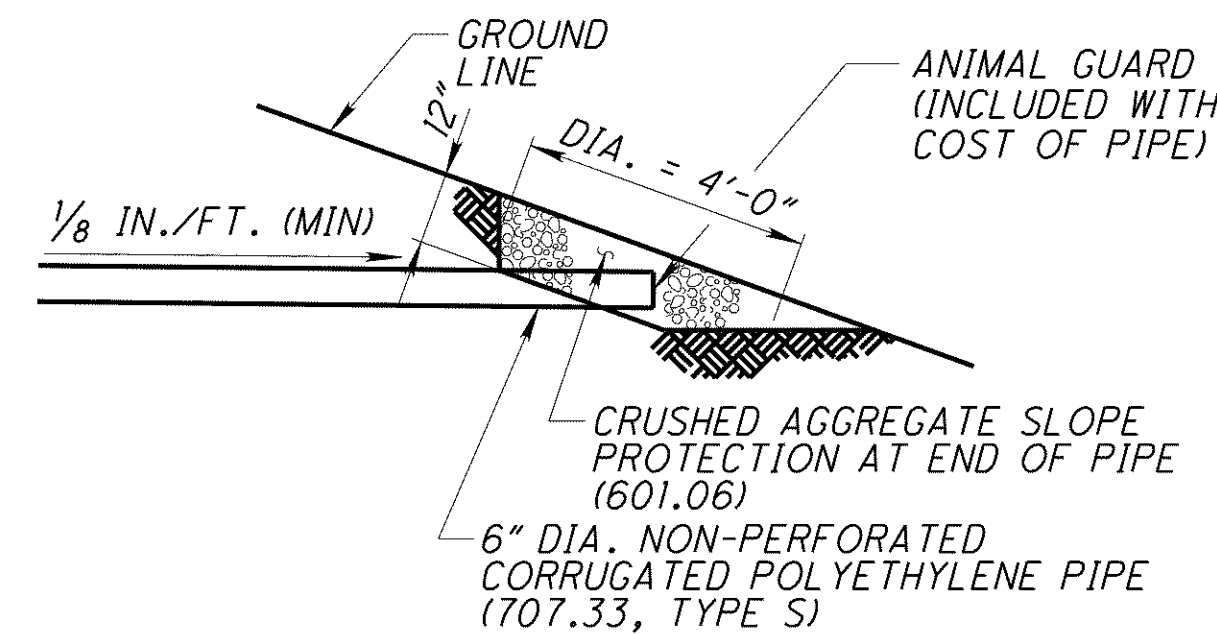
DESIGN DATA

CLASS C CONCRETE - COMPRESSIVE STRENGTH 4000 PSI

REINFORCING STEEL - ASTM A615 OR A996, GRADE 60, MINIMUM YIELD STRENGTH 60,000 PSI

ITEM 518 - 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN

ANIMAL GUARDS SHALL BE PROVIDED AT THE OUTLET OF THE DRAINAGE PIPES, STEEL BOLTS OR RODS FOR THE ANIMAL GUARDS SHALL BE GALVANIZED PER GMS 711.02. SEE STD DWG. DM 1.1 FOR ADDITIONAL DETAILS AND NOTES. THE ANIMAL GUARDS AND CRUSHED AGGREGATE SLOPE PROTECTION ARE INCIDENTAL TO ITEM 518 - 6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN.



TERMINATION OF 6" NON-PERFORATED CORRUGATED PLASTIC PIPE (N.P.C.P.P.)

ABBREVIATION LIST:

- S.R. = STATE ROUTE
- ST. = STREET
- C = CENTER LINE
- F = FLOW LINE
- CONST. = CONSTRUCTION
- LT = LEFT
- T & B = TOP AND BOTTOM
- E.F. = EACH FACE
- F.F. = FAR FACE
- N.F. = NEAR FACE
- OFF. = OFFSET
- N.P.C.P.P. = NON-PERFORATED CORRUGATED POLYETHYLENE PIPE
- P.C.P.P. = PERFORATED CORRUGATED POLYETHYLENE PIPE
- EL. = ELEVATION
- O.C. = ON CENTER
- TYP. = TYPICAL
- IN. = INCH
- FT. = FEET
- CLR. = CLEAR
- MIN. = MINIMUM
- MAX. = MAXIMUM
- UNO = UNLESS NOTED OTHERWISE
- STA. = STATION
- CONC. = CONCRETE

PARTICIPATION		ESTIMATED QUANTITIES						
I REHAB	II TRAC	ITEM	EXTENSION	STRUCTURE TOTAL	UNIT	DESCRIPTION	CALC. BY: LEL DATE: 6/08 CHK'D BY P.JL DATE: 6/08	AS PER PLAN STRUCTURE SHEET NO.
	141	503	21101	141	CY	UNCLASSIFIED EXCAVATION, AS PER PLAN		3/4
	9348	509	10000	9348	LB	EPOXY COATED REINFORCING STEEL		
	30	511	46000	30	CY	CLASS C CONCRETE		
	63	511	46500	63	CY	CLASS C CONCRETE, FOOTING		
	66	512	10101	66	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN "A"		4/4
	45	512	10101	45	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN "B"		4/4
	3	512	33000	3	SY	TYPE 2 WATERPROOFING		
	69	517	73200	69	LF	RAILING (DEFLECTOR PARAPET TYPE)		
	31	518	21200	31	CY	POROUS BACKFILL WITH FILTER FABRIC		
	69	518	40000	69	FT	6" PERFORATED CORRUGATED PLASTIC PIPE		
	22	518	40011	22	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS, AS PER PLAN		1/4
	405	530	13000	405	SF	SPECIAL - FORM LINER		1/4

ITEM SPECIAL, FORMLINER

A. GENERAL

THE WORK TO BE DONE UNDER THIS ITEM SHALL INCLUDE,

1. CONSTRUCT TEXTURED AND COLORED CONCRETE SURFACE USING MOLDS AND COLOR STAIN SYSTEM DESIGNED TO DUPLICATE CLOSELY THE APPEARANCE AND TEXTURE OF REAL ASHLAR CUT STONE.
2. USE MOLDS PROVIDING THE FINISHED APPEARANCE OF ASHLAR CUT STONE, WITH MAXIMUM RELIEF OF 1-1/4". ACCEPTABLE FORM LINERS ARE AS FOLLOWS:
 - a) SCOTT SYSTEMS, INC. #167C, ASHLAR STONE
10777 EAST 45TH AVE. DENVER, CO 80239
TELEPHONE: 303-373-2500
 - b) CUSTOM ROCK INTERNATIONAL #11003, RUSTIC ASHLAR BOMANITE DESIGNS, INC. OHIO
RONI BASLER
6001 PINECONE DRIVE MENTOR, OH 44060-1866
TELEPHONE: 440-350-3900
 - c) FITZGERALD FORMLINERS #16999 GEORGIA ASHLAR
1500 EAST CHESTNUT AVENUE SANTA ANA, CA 92701 USA
TELEPHONE: 714-547-6710
TELEPHONE OUTSIDE CA: 1-800-547-7760
 - d) GREENSTREAK FORM LINERS #330, ASHLAR STONE
3400 TREE COURT INDUSTRIAL BLVD. ST. LOUIS, MO 63122-6614
TELEPHONE: 1-800-325-9504
TELEPHONE: 636-225-9400
 - e) APPROVED EQUAL, ASHLAR CUT STONE FORMLINER, 1-1/4" MAX RELIEF
3. NO LESS THAN 60 DAYS PRIOR TO THE CONSTRUCTION OF THE FIRST MOLDED STONE SURFACE, SUBMIT TO THE ENGINEER A 24" SQUARE SAMPLE OF THE PROPOSED STONE MOLD INCLUDING MANUFACTURER'S SPECIFICATIONS AND RECOMMENDATIONS FOR ITS USE.
4. NO LESS THAN 30 DAYS PRIOR TO THE CONSTRUCTION OF THE FIRST MOLDED STONE SURFACE SUBMIT TO THE ENGINEER ONE COPY OF SHOP DRAWINGS SHOWING PLAN, ELEVATION AND DETAILS TO SHOW OVERALL PATTERN, JOINT LOCATIONS, FORM TIE LOCATIONS, AND END, EDGE, AND OTHER SPECIAL CONDITIONS.
5. A PRE-INSTALLATION MEETING IS REQUIRED. SCHEDULE MEETING AMONG MANUFACTURER'S REPRESENTATIVES, APPROPRIATE SUBCONTRACTORS, THE DISTRICT 12 PRODUCTION ADMINISTRATION OR HIS DESIGNEE, THE DISTRICT 12 AESTHETICS COORDINATOR OR HIS DESIGNEE, AND THE ENGINEER TO ASSURE UNDERSTANDING OF FORM LINER USE, STAIN APPLICATION, AND THE REQUIREMENTS OF THE MOCKUP CONSTRUCTION.

ITEM SPECIAL, FORMLINER (CONT.)

B. PRODUCTS

1. SIMULATED STONE MOLDS SHALL BE REUSABLE, MADE OF HIGH STRENGTH URETHANE, AND EASILY ATTACHABLE TO FORMS. MOLDS SHALL NOT COMPRESS MORE THAN 1/4" WHEN CONCRETE IS POURED AT RATE OF 10 VERTICAL FEET PER HOUR. MOLDS SHALL BE REMOVABLE WITHOUT CAUSING DETERIORATION OF SURFACE OR UNDERLYING CONCRETE.
2. USE A RELEASE AGENT THAT IS COMPATIBLE WITH MOLDS AND WITH COLOR STAIN SYSTEM TO BE APPLIED TO SURFACE. PROVIDE THE ENGINEER WITH THE MANUFACTURER'S SPECIFICATIONS FOR PRODUCT APPLICATION.

C. EXECUTION

1. CLEAN MOLDS AND MAKE FREE OF BUILDUP PRIOR TO EACH POUR. INSPECT FOR BLEMISHES OR TEARS. REPAIRS IF POSSIBLE FOLLOWING MANUFACTURER'S RECOMMENDATIONS. DAMAGED MOLDS SHALL BE REPLACED AT NO ADDITIONAL CHARGE TO THE STATE.
2. APPLY RELEASE AGENT IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. PLACE MOLDS WITH LESS THAN 1/4" SEPARATION BETWEEN THEM. ATTACH MOLDS TO FORM SECURELY FOLLOWING MANUFACTURER'S RECOMMENDATIONS.
4. WHERE FORM LINERS ABUT, CAREFULLY BLEND SURFACE TO MATCH THE BALANCE OF THE STONE PATTERN, AVOIDING VISIBLE SEAMS OR FORM MARKS.
5. PLACE FORM ITEMS AT THINNEST POINTS OF MOLDS (THE HIGH POINTS OF FINISHED SURFACE.) NEATLY PATCH THE HOLE REMAINING AFTER DISENGAGING THE PROTRUDING PORTION OF THE TIE SO THAT IT WILL NOT BE VISIBLE AFTER COLORING THE CONCRETE SURFACE.

D. METHOD OF MEASUREMENT AND BASIS OF PAYMENT

THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES AT THE CONTRACT PRICE BID FOR ITEM SPECIAL - FORM LINER. QUANTITIES ARE BASED ON SURFACE AREA, PER SQUARE FOOT, OF FORM LINER TEXTURED SURFACES.

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