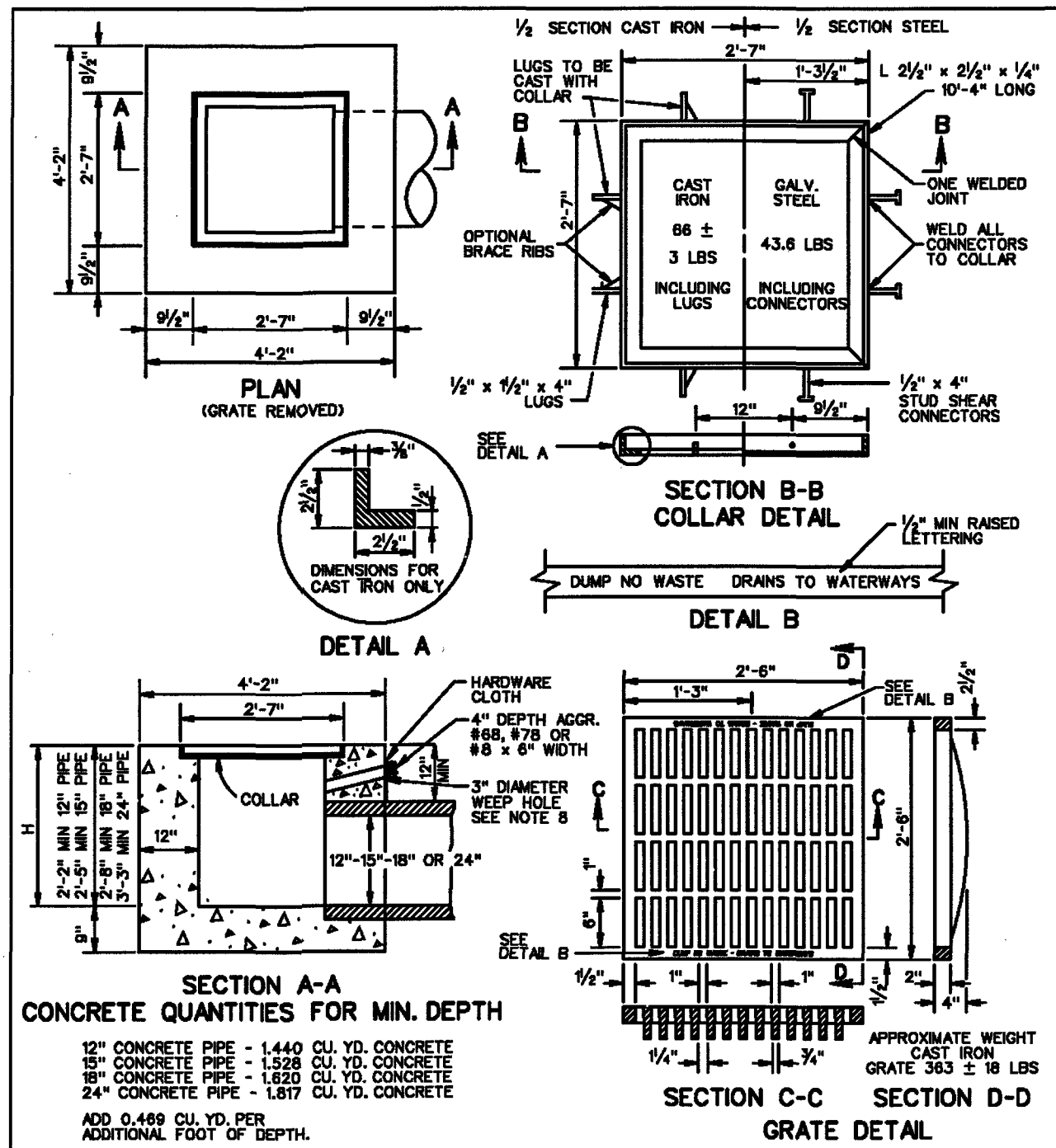
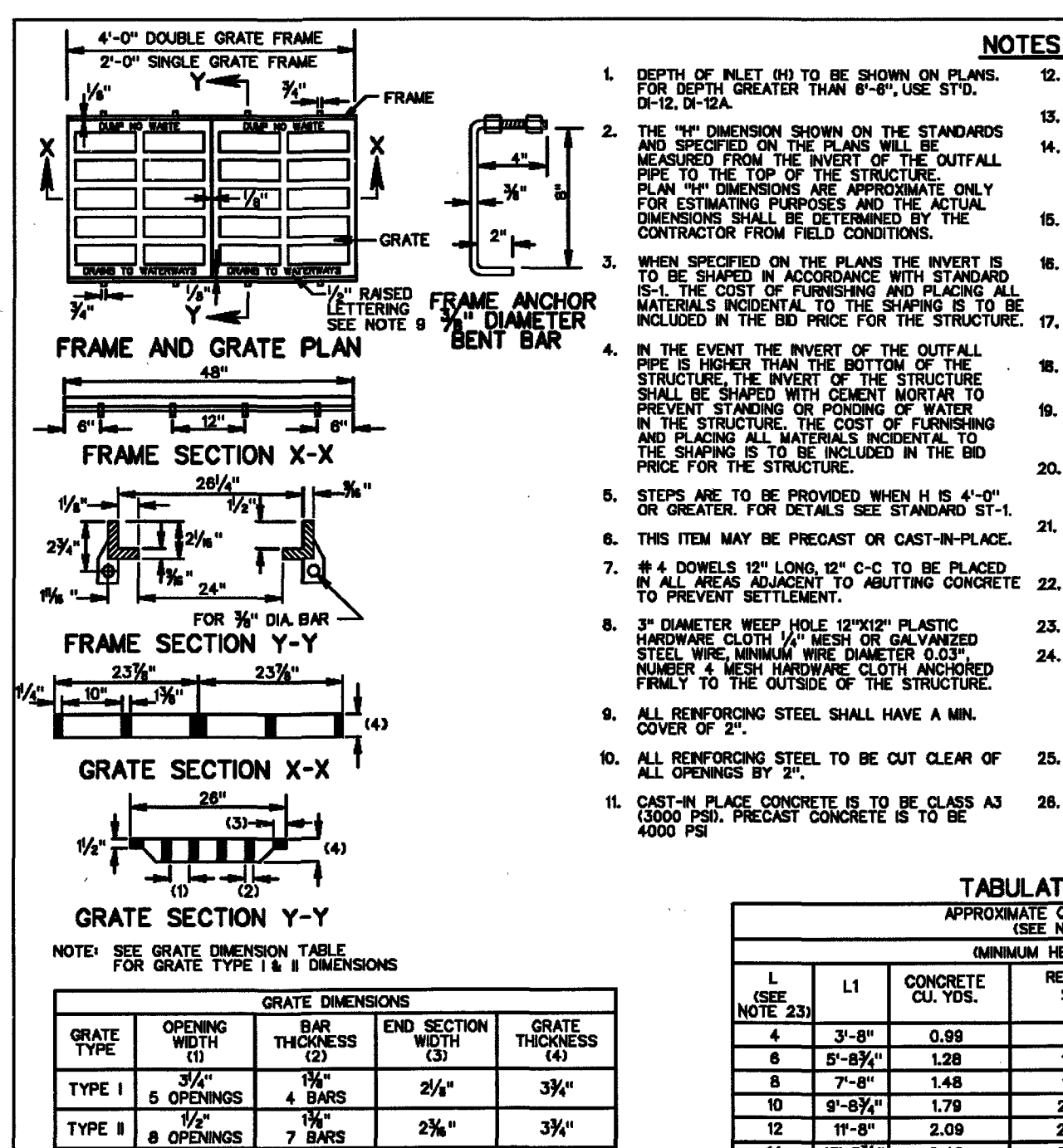




STANDARD DROP INLET
12" - 24" PIPE: MAXIMUM DEPTH (H) = 10'
VIRGINIA DEPARTMENT OF TRANSPORTATION

- NOTES**
- DEPTH OF INLET (H) TO BE SHOWN ON PLANS FOR DEPTH GREATER THAN 10' USE STANDARD D-1A.
 - THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
 - WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD S-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
 - IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
 - STEPS ARE TO BE PROVIDED WHEN H IS 4'-0" OR GREATER. FOR DETAILS SEE STANDARD ST-1.
 - THIS ITEM MAY BE PRECAST OR CAST-IN-PLACE.
 - #4 X 8" SMOOTH CORNERS AT APPROXIMATELY 12" C-C TO BE PLACED IN ALL AREAS ADJACENT TO ABUTTING CONCRETE TO PREVENT SETTLEMENT. IN CASE OF A 2' X 4' NOTCH MAY BE PROVIDED. SEE STANDARD S-1 FOR ALTERNATE DESIGN.
 - 3" DIAMETER WEEP HOLE WITH 12" X 12" PLASTIC HARDWARE CLOTH 1/2" MESH OR GALVANIZED STEEL WIRE MINIMUM WIRE DIAMETER 0.031" AND MESH HARDWARE CLOTH ANCHORED FIRMLY TO THE OUTSIDE OF THE STRUCTURE.
 - CAST IN-PLACE CONCRETE IS TO BE CLASS AS 4000 PSI. PRECAST CONCRETE IS TO BE 4000 PSI.
 - ANY ALTERNATE METHOD OF ANCHORAGE MEETING THE APPROVAL OF THE ENGINEER MAY BE SUBSTITUTED FOR THE CAST IRON LUGS AS SHOWN HEREON.
 - DUMP NO WASTE DRAINS TO WATERWAY LETTERING IS REQUIRED ON ALL D-1A GRATES. LOCATION OF LETTERING MAY VARY BY MANUFACTURER.

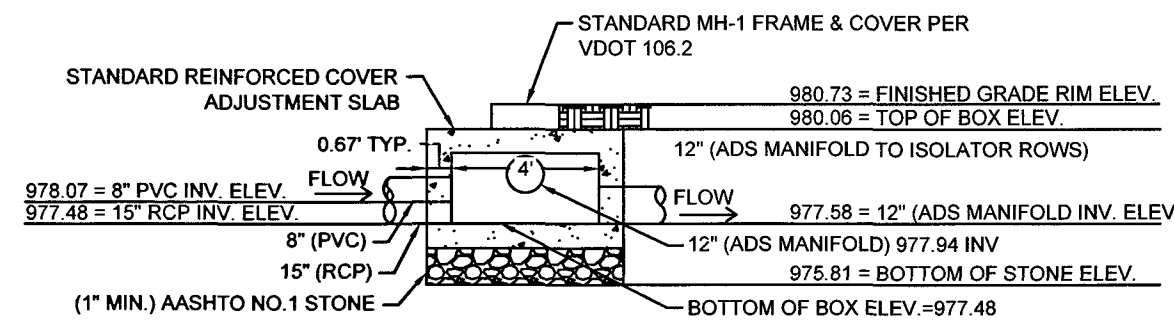


MULTIGRADE DROP INLET
FOR PIPE SIZES 12" TO 36"
VIRGINIA DEPARTMENT OF TRANSPORTATION

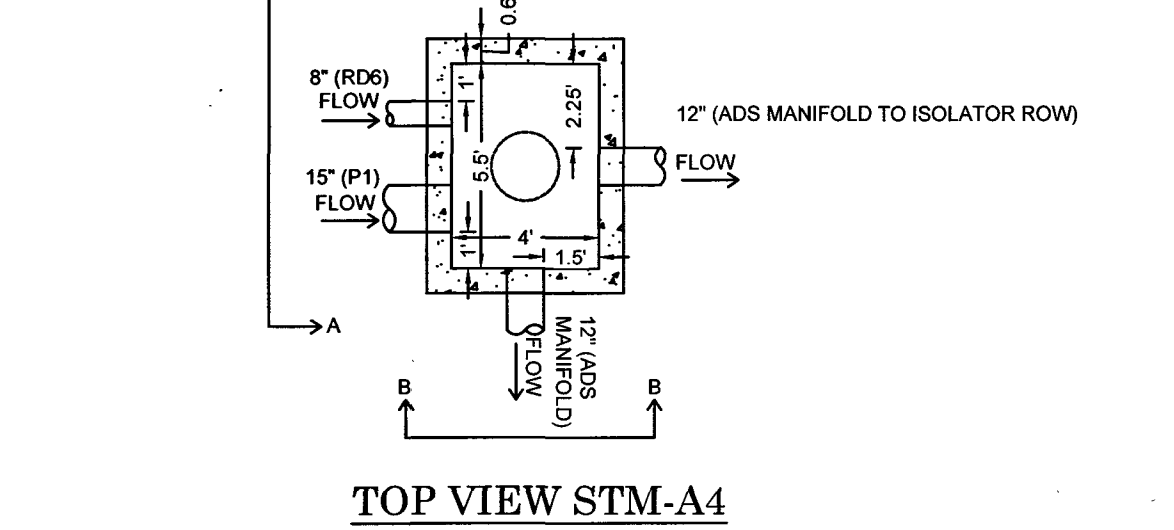
- NOTES**
- DEPTH OF INLET (H) TO BE SHOWN ON PLANS FOR DEPTH GREATER THAN 8'-0" USE STD. D-1B, D-1C.
 - THE "H" DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.
 - WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD S-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
 - IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
 - STEPS ARE TO BE PROVIDED WHEN H IS 4'-0" OR GREATER. FOR DETAILS SEE STANDARD ST-1.
 - THIS ITEM MAY BE PRECAST OR CAST-IN-PLACE.
 - #4 DOWELS 12" LONG, 12" C-C TO BE PLACED IN ALL AREAS ADJACENT TO ABUTTING CONCRETE TO PREVENT SETTLEMENT.
 - 3" DIAMETER WEEP HOLE 12" X 12" PLASTIC HARDWARE CLOTH 1/2" MESH OR GALVANIZED STEEL WIRE MINIMUM WIRE DIAMETER 0.031" AND MESH HARDWARE CLOTH ANCHORED FIRMLY TO THE OUTSIDE OF THE STRUCTURE.
 - ALL REINFORCING STEEL SHALL HAVE A MIN. COVER OF 2".
 - CAST IN-PLACE CONCRETE IS TO BE CLASS AS 4000 PSI. PRECAST CONCRETE IS TO BE 4000 PSI.
 - LENGTH OF SLOT (L) WILL IN EVERY CASE, BE SHOWN ON PLANS.
 - ALL REINFORCING BARS TO BE #4.
 - D-1B CONCRETE GUTTER INCREMENT: ADD 0.01 CU. YDS. CLASS AS CONCRETE FOR EACH ADDITIONAL FOOT OF SLOT LENGTH GREATER THAN MINIMUM 2'-0".
 - GRATE BARS TO BE INSTALLED SO THEY WILL BE ALIGNED PARALLEL TO THE DITCH FLOW.
 - IF NORMAL DITCH GRADE IS TOO FLAT TO ALLOW FOR ADJUSTED GRADE INLET A SPECIAL GUTTER DETAIL WILL BE REQUIRED ON PLANS.
 - D-1C PERIPHERAL GUTTER.
 - PAVED DITCHES ARE TO BE TRANSITIONED TO MEET INLET GUTTER AS SHOWN IN STANDARD PO-2A.
 - QUANTITIES SHOWN ARE FOR INLETS WITHOUT PIPES. PIPE DISPLACEMENTS MUST BE DEDUCTED TO OBTAIN TRUE QUANTITIES.
 - PAVED TRANSITION WHERE REQUIRED ON PLANS TRANSITION IS TO BE SHAPED TO CONFORM TO ROUNDED CONCRETE GUTTER OF D-1C.
 - TYPE I GRATE: LIMITED ACCESS AND RURAL UNLIMITED ACCESS.
 - TYPE II GRATE: URBAN AREAS; PEDESTRIAN ACCESSIBLE AREAS.
 - L = LENGTH ROUNDED FOR PLAN USE.
 - D-1C: FOR APPROX. QUANTITIES FOR D-1C, ADD 0.06 CU. YDS. OF CLASS AS CONCRETE TO D-1B QUANTITIES FOR CONCRETE GUTTER. QUANTITY SHOWN IS FOR A MINIMUM SLOT LENGTH OF 2'-0". FOR OTHER LENGTHS SEE CONCRETE GUTTER INCREMENT BELOW.
 - D-1B AND D-1C ARE NOT TO BE UTILIZED IN LOCATIONS NORMALLY SUBJECT TO TRAFFIC.
 - DUMP NO WASTE DRAINS TO WATERWAYS LETTERING IS REQUIRED ON ALL D-1B GRATES. LOCATION OF LETTERING ON GRATE MAY VARY BY MANUFACTURER.

TABULATION CHARTS
APPROXIMATE QUANTITIES D-1B ONLY (SEE NOTES 18 & 24)

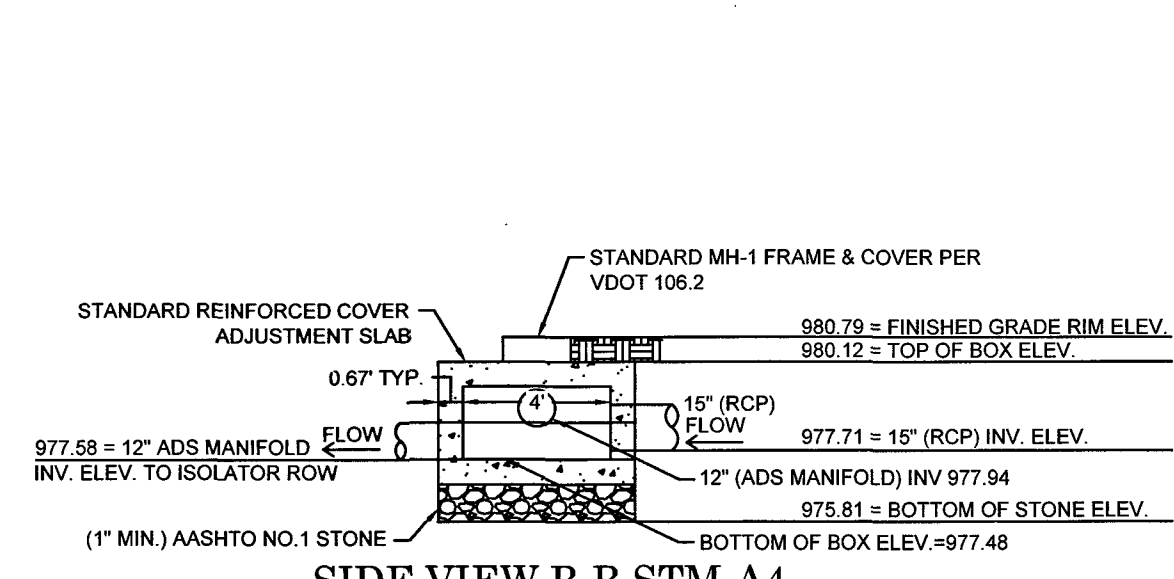
MINIMUM HEIGHT SLOT 4" TO 14" (SEE NOTE 23)		CONCRETE CHAMBER INCREMENTS PER FOOT CU. YDS.	
L (SEE NOTE 23)	L1	CONCRETE CU. YDS.	NUMBER GRATES
4	3'-0"	0.99	2
6	5'-0"	1.28	3
8	7'-0"	1.48	4
10	9'-0"	1.79	5
12	11'-0"	2.09	6
14	13'-0"	2.40	7



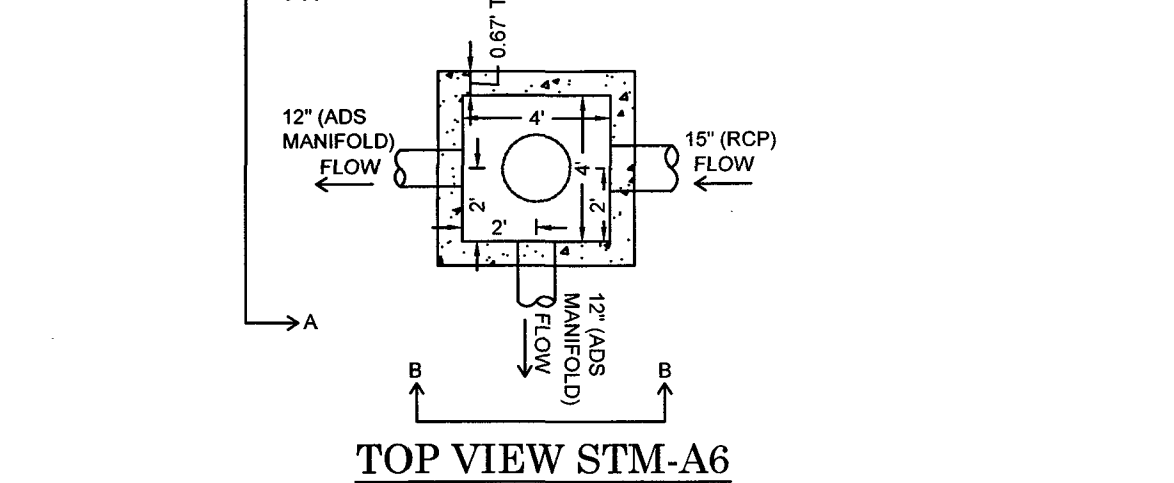
INLET STRUCTURE MANHOLE A4
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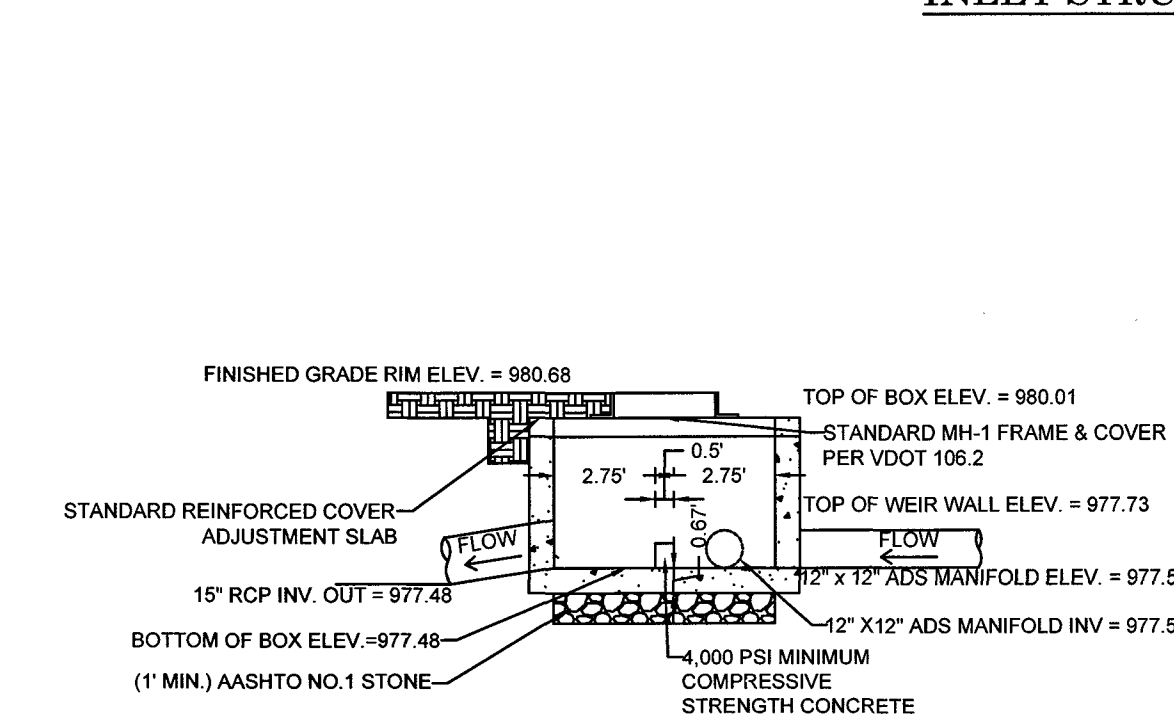
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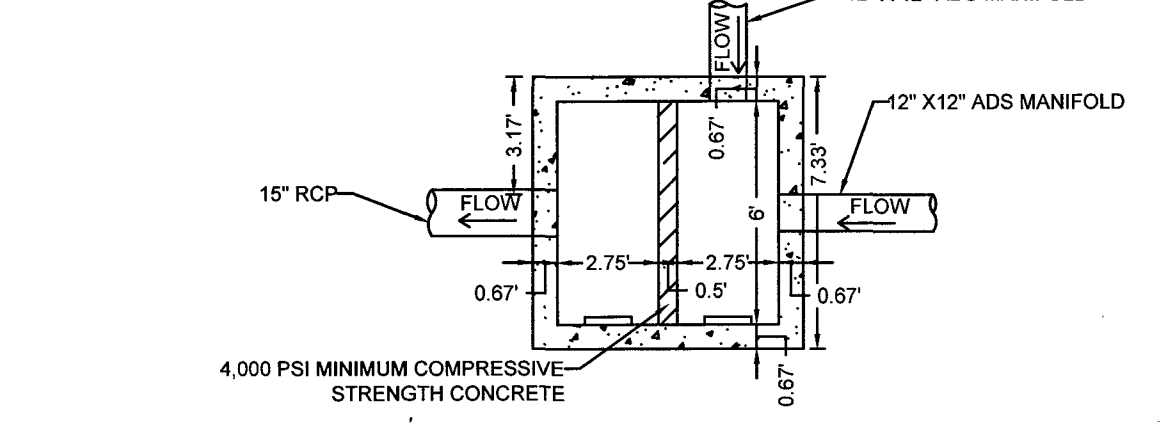
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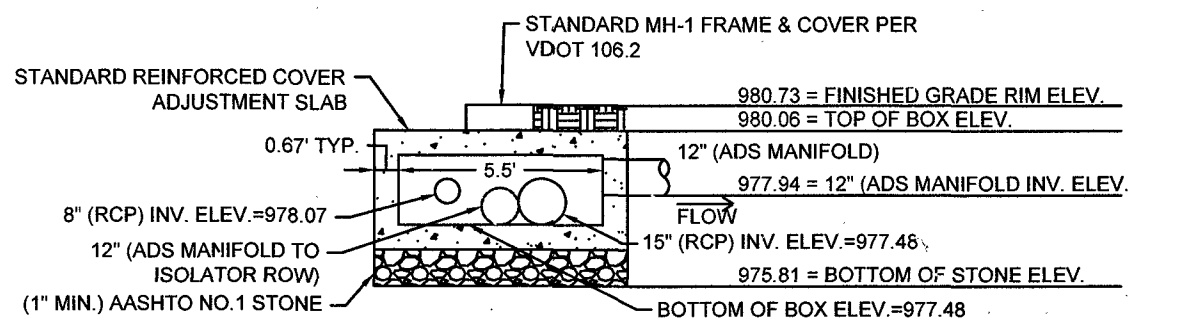
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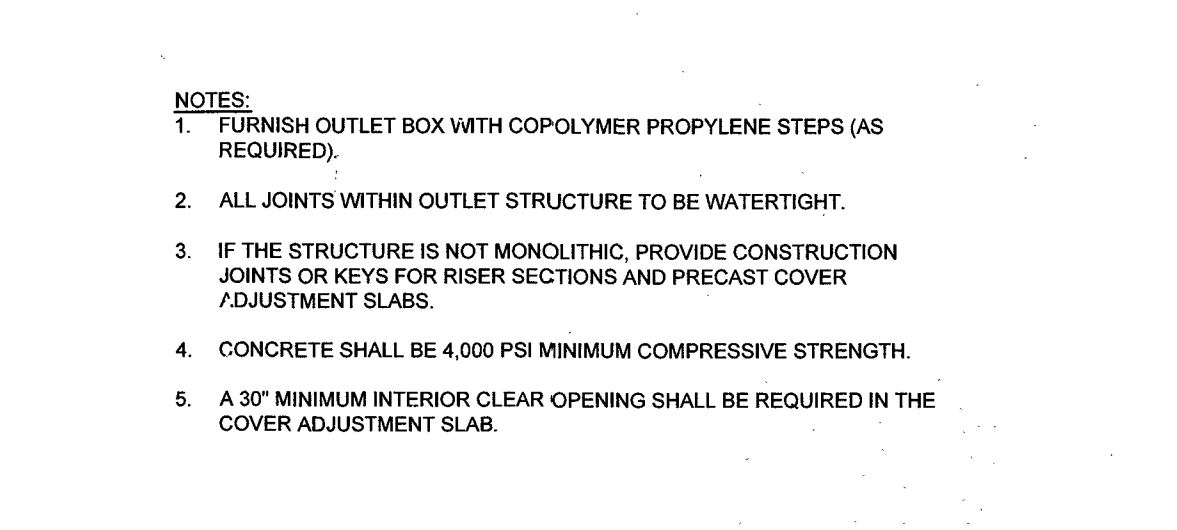
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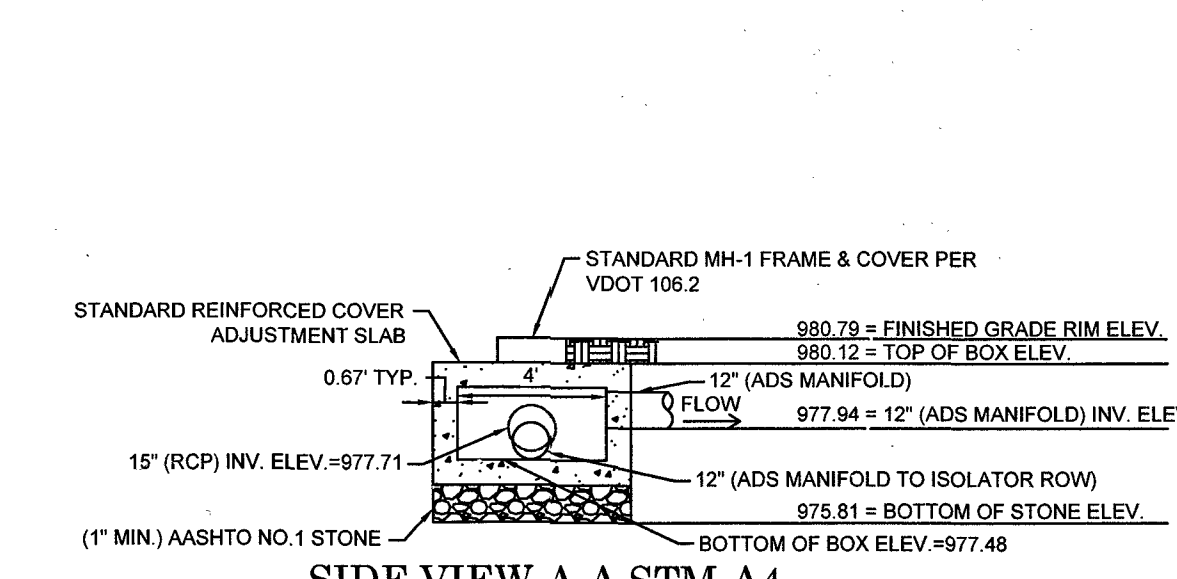
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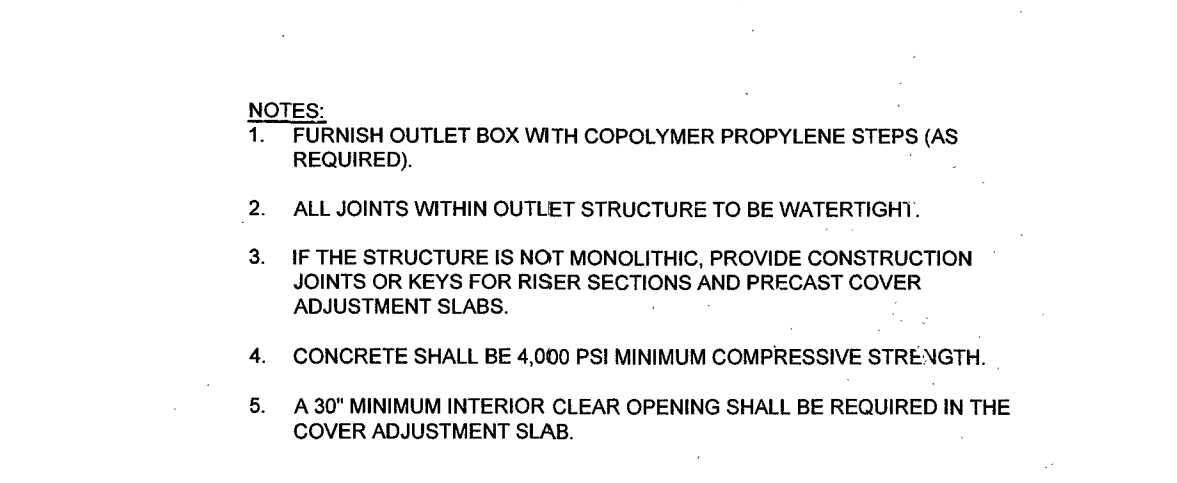
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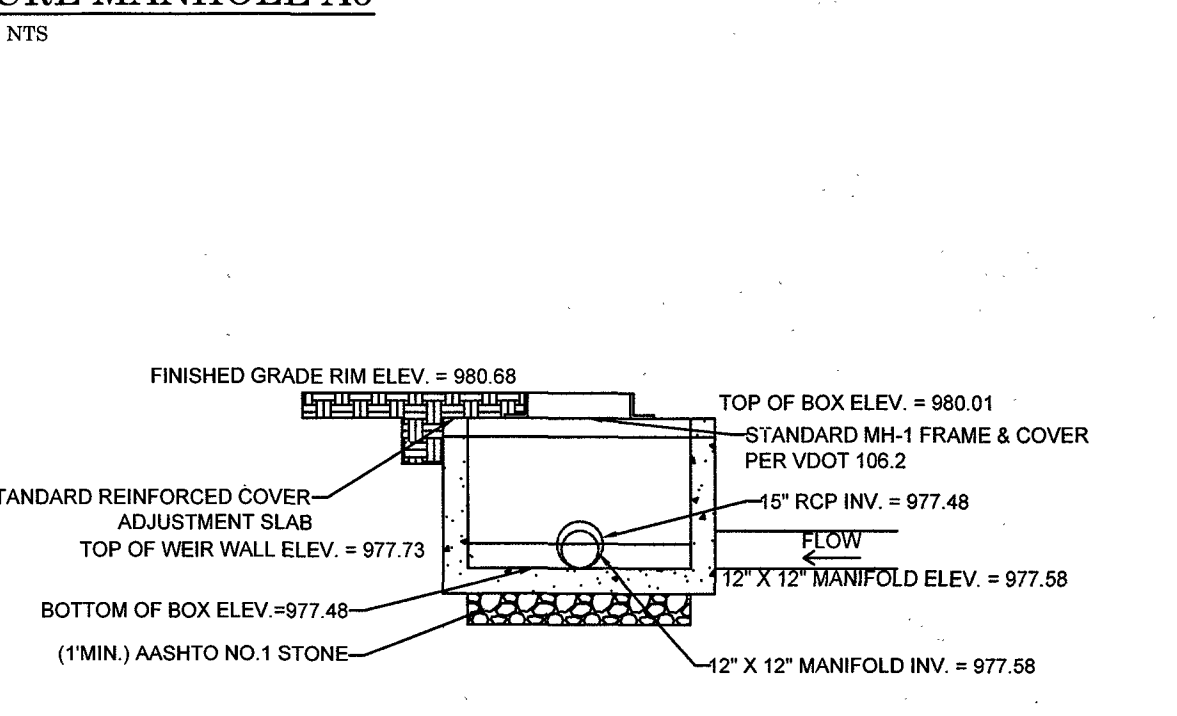
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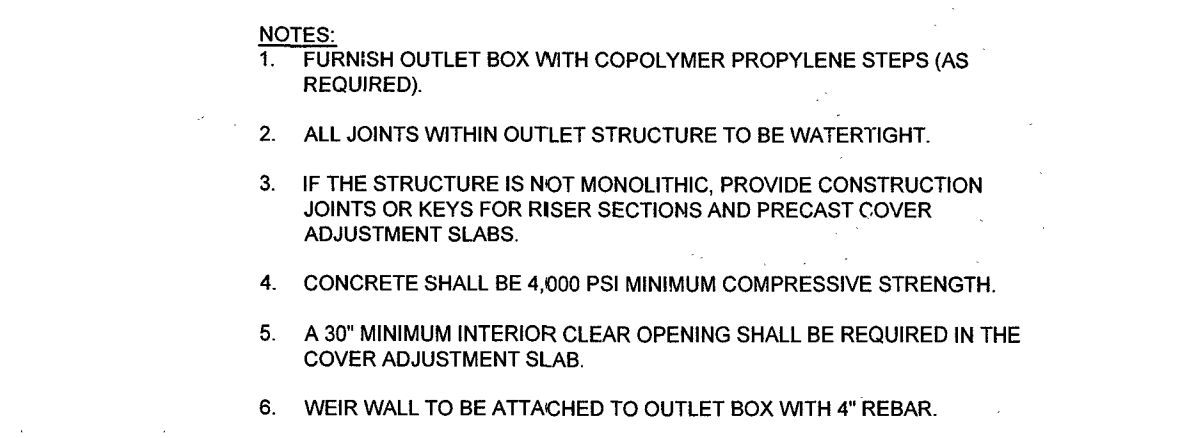
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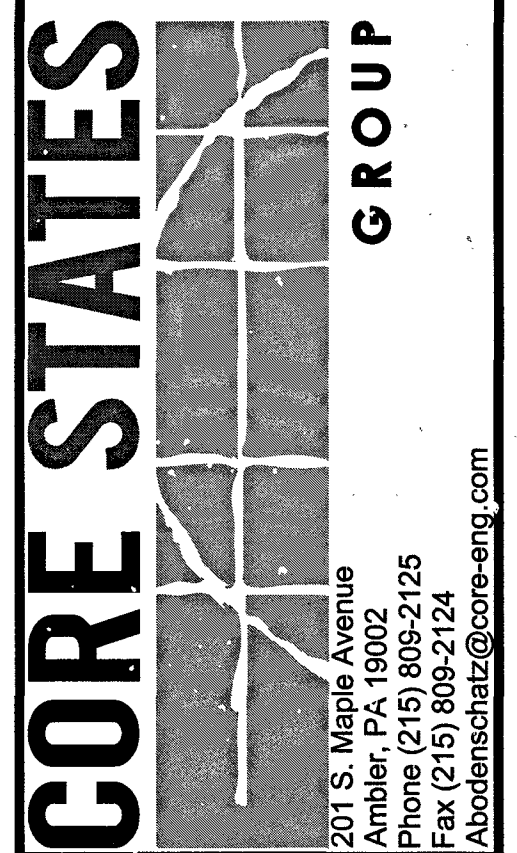
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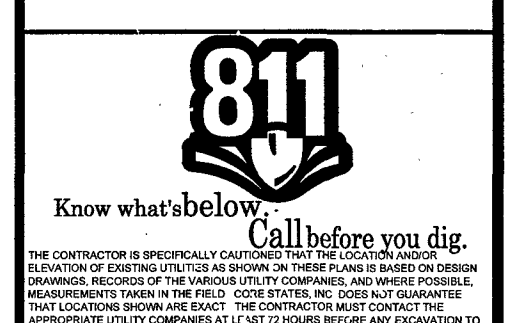
INLET STRUCTURE MANHOLE A6
NTS



INLET STRUCTURE MANHOLE A6
NTS



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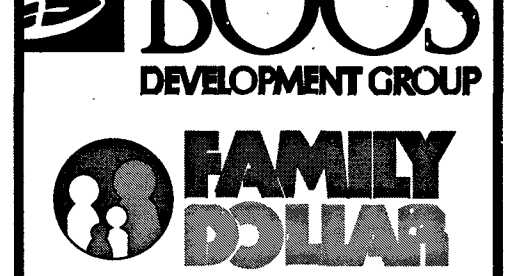
REVISIONS

REV	DATE	COMMENT	BY
1	06-01-15	PER CITY COMMENTS	MV
2	07-15-15	PER CITY COMMENTS	DP/MV

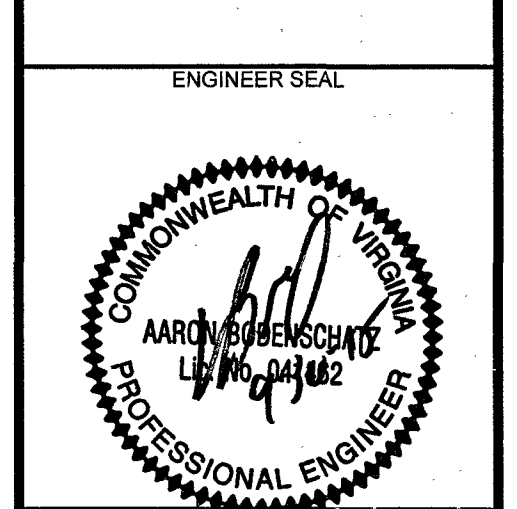
DOCUMENT
COMPREHENSIVE DEVELOPMENT PLAN
CP150014

PROJECT
FAMILY DOLLAR IN ROANOKE, VA

CUSTOMER
BOOS DEVELOPMENT GROUP



SITE LOCATION
**1626 ORANGE AVENUE NW
ROANOKE, VA 24017**



CONSTRUCTION DETAILS

JOB #:	FAM-16430
DATE:	04-10-15
SCALE:	N/A
DRAWN BY:	KF
CHECKED BY:	AB

SHEET NO.
C12
OF 24

APPROVED
10/10/2015