VILLAGE OF WINDSOR
VILLAGE BOARD RESOLUTION 2019-70

RESOLUTION AUTHORIZING THE VILLAGE OF WINDSOR MUNICIPAL BUILDING DRAINAGE PROJECT

WHEREAS, the Windsor Village Board has been made aware of a number of drainage issues in and around the Municipal Building; and

WHEREAS, the Village Engineer has developed a plan to capture storm water from the roof drains and grassy areas and transfer it away from the building; and

WHEREAS, the Municipal Building Drainage Plan was advertised for bids in the local newspaper and on the Village website; and

WHEREAS, the bid opening for the project occurred on June 13, 2019 with only one company bidding for the work, and

WHEREAS, the Village Reserve Replacement 2019 budget included use of $50,000 for Municipal Building Stormwater management; and

WHEREAS, the Village 2018 borrowing provided additional funds of $81,393 available for projects due to rounding (Debt Fund);

NOW THEREFORE, BE IT RESOLVED, by the Village Board of the Village of Windsor that it hereby resolves as follows:

1. The Village Board awards the Municipal Building drainage project to Joe Daniels Construction Company, Inc. for $118,900.00.
2. The drainage project will be paid for with $50,000 from the Reserve/Replacement Fund and the balance from the Debt Fund.

The above and foregoing Resolution was duly adopted at a regular meeting of the Village Board of the Village of Windsor on June 20, 2019, by a vote of 5 in favor and 0 opposed.

VILLAGE OF WINDSOR

Robert E. Wipperfurth

Robert E. Wipperfurth, President

Attested by:

Christine Capstran

Christine Capstran, Clerk

Incorporated by Reference:
Exhibit A: Memorandum from Village Engineer Jerry Groth dated June 13, 2019
Exhibit B: Village Hall Site Plan

BAXTER & WOODMAN
Consulting Engineers
2005 W. Beltline Highway, Suite 201, Madison, WI 53713 • 608.277.1230 •baxterwoodman.com

June 13, 2019

Mr. Davis Clark
Director of Public Works
Village of Windsor
4084 Mueller Road
DeForest, WI 53532

Subject: Village of Windsor – Village Hall Drainage Bid Summary and Recommendation of Award

Dear Mr. Clark:

One bid for the Village of Windsor's Village Hall Drainage Project was opened on June 13, 2019. The Project consisted of installation of 660 lineal feet of storm sewer ranging in size of 6 to 12-inches, connections to existing roof gutters, catch basins, pavement replacement including approximately 430 square yards of asphalt pavement with base course, 50 square yards of riprapping, 70 square yards of landscape restoration, and other miscellaneous items of work.

The lone bid was received from Joe Daniels Construction Company, Inc. of Madison, Wisconsin. Joe Daniels Construction Company, Inc.'s lump sum bid for the Village Hall Drainage Project was $118,900. The pre-bid estimate for the project was previously noted in our June 11th Engineer's report, and expected be around $100,000.

The Project was bid on a "lump sum bid" basis with the bidder providing one cost for various work items shown on the drawings. A supplemental unit price for pavement repair was taken to adjust final contract amount if additional (or less) pavement repair was actually needed. Joe Daniels submitted a price of $47.50 per square yard for this supplemental unit price, that is in line with recent Clinton Road project unit price. Bidders were also required to submit a 5% bid security, which Joe Daniels submitted. Joe Daniels recently constructed the booster pumping station on North Towne Road for the Village. Besides the booster station project, Baxter and Woodman has worked with Joe Daniels on other projects in the past.

Based on the above, the Village has two choices, including awarding the contract to Joe Daniels Construction Company, Inc. for the bid price of $118,900 or to not make an award. If you do not make an award to Joe Daniels Construction Company, Inc., you could rebid the project this winter or have Public Works Department staff perform all or a portion of the project as time allows this summer/fall.

Minimally the south side roof drains should be piped away and a new ditch cut in south of the building to allow drainage away from the building itself. Termination of the two roof drains could be out to Mueller Road or back to the parking lot on the west.

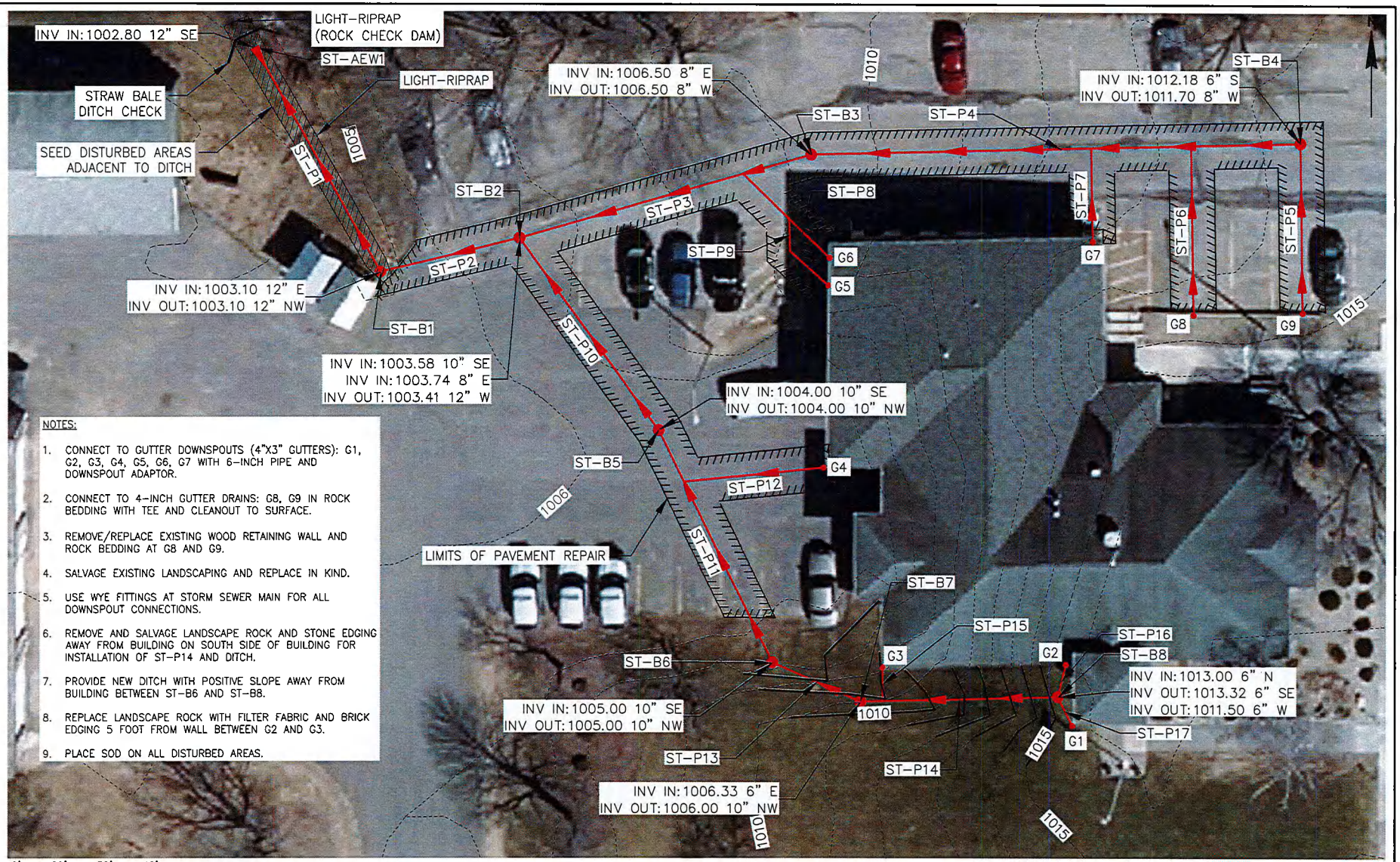
If you have any questions regarding this letter or the bid received, please feel free to contact me.

BAXTER & WOODMAN
Consulting Engineers

Sincerely,

BAXTER & WOODMAN, INC.
CONSULTING ENGINEERS

Gerald D. Groth, P.E.
Windsor Village Engineer



NOTES:

1. CONNECT TO GUTTER DOWNSPOUTS (4"X3" GUTTERS): G1, G2, G3, G4, G5, G6, G7 WITH 6-INCH PIPE AND DOWNSPOUT ADAPTOR.
2. CONNECT TO 4-INCH GUTTER DRAINS: G8, G9 IN ROCK BEDDING WITH TEE AND CLEANOUT TO SURFACE.
3. REMOVE/REPLACE EXISTING WOOD RETAINING WALL AND ROCK BEDDING AT G8 AND G9.
4. SALVAGE EXISTING LANDSCAPING AND REPLACE IN KIND.
5. USE WYE FITTINGS AT STORM SEWER MAIN FOR ALL DOWNSPOUT CONNECTIONS.
6. REMOVE AND SALVAGE LANDSCAPE ROCK AND STONE EDGING AWAY FROM BUILDING ON SOUTH SIDE OF BUILDING FOR INSTALLATION OF ST-P14 AND DITCH.
7. PROVIDE NEW DITCH WITH POSITIVE SLOPE AWAY FROM BUILDING BETWEEN ST-B6 AND ST-B8.
8. REPLACE LANDSCAPE ROCK WITH FILTER FABRIC AND BRICK EDGING 5 FOOT FROM WALL BETWEEN G2 AND G3.
9. PLACE SOD ON ALL DISTURBED AREAS.

SOURCE: DANE COUNTY GIS DATA USED FOR IMAGERY AND CONTOURS.

PROJECT NO: 181368.90	VILLAGE OF WINDSOR, WISCONSIN	COUNTY: DANE	VILLAGE HALL SITE PLAN	SHEET 1 OF 4	BAXTER & WOODMAN	E

FILE NAME: I:\CRYSTAL LAKE\WINDS\181369.90 2019 REDUCED RATE\CAD\DWGS\CURRENT\VILLAGE HALL SITE PLAN.DWG
LAYOUT NAME - 01
PLOT DATE: 5/30/2019 10:00 AM PLOT BY: TIMOTHY L. BREY PLOT NAME: PLOT SCALE: AS NOTED
WISDOT/CADDS SHEET 42

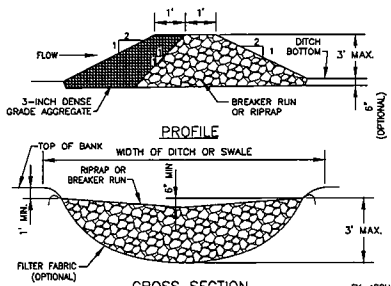
STORM SEWER PIPE SCHEDULE

PIPE ID	PIPE Ø	APPROX. LENGTH	SLOPE
ST–P1	12"	57'	0.53%
ST–P2	12"	32'	1.00%
ST–P3	8"	67'	4.15%
ST–P4	8"	108'	4.84%
ST–P5	6"	37'	0.50% MIN.
ST–P6	6"	37'	0.50% MIN.
ST–P7	6"	21'	0.50% MIN.
ST–P8	6"	27'	0.50% MIN.
ST–P9	6"	19'	0.50% MIN.
ST–P10	10"	53'	0.81%
ST–P11	10"	57'	1.75%
ST–P12	6"	31'	0.50% MIN.
ST–P13	10"	22'	4.75%
ST–P14	6"	44'	11.91%
ST–P15	6"	8'	0.50% MIN.
ST–P16	6"	8'	0.50% MIN.
ST–P17	6"	8'	0.50% MIN.

*ALL PIPE MATERIAL TO BE PVC, EXCEPT ST–P1 TO BE RCP PIPE

QUANTITY TAKEOFF REPORT

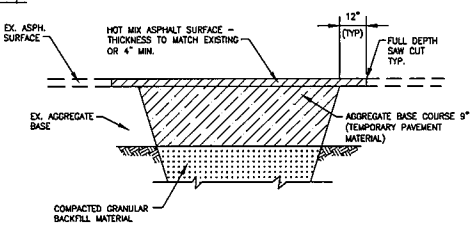
ITEM ID	DESCRIPTION	QUANTITY	UNIT
1	6–INCH STORM SEWER PIPE	240	LF
2	8–INCH STORM SEWER PIPE	175	LF
3	10–INCH STORM SEWER PIPE	132	LF
4	12–INCH STORM SEWER PIPE	89	LF
5	APRON ENDWALLS FOR 12–INCH RCP	1	EACH
6	DOWNSPOUT CONNECTIONS	9	EACH
7	INLET BASIN	8	EACH
8	PAVEMENT REPAIR	475	SY
9	LIGHT RIPRAP	37	SY



1. PROVIDE CLASS I, II, OR IV GEOTEXTILE FILTER FABRIC OVER THE CLEARED AREA BEFORE PLACING THE ROCK.
2. USE WIDOT GRADE 3–INCH DENSE GRADE AGGREGATE.
3. USE WIDOT BREAKER RUN OR RIPRAP.

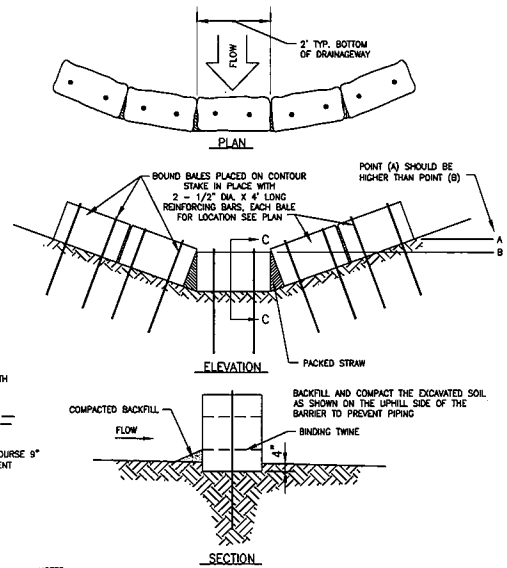
ROCK CHECK DAM

NO SCALE



PAVEMENT REPLACEMENT DETAIL

NO SCALE

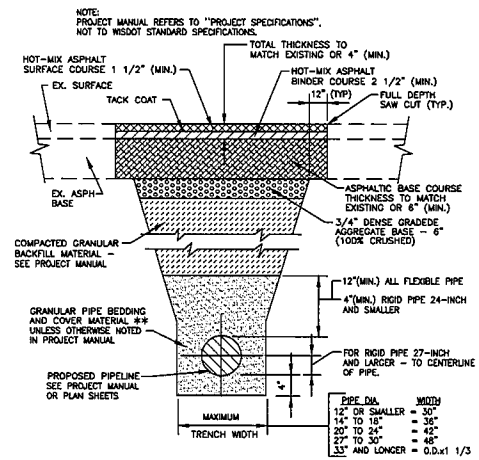


NOTES:

1. STAGGER BALES TO COVER JOINTS IF MORE THAN 1 ROW IS USED.
2. WHEN ROLLED EXCELSIOR IS USED, ANGLE STAKES IN THE DIRECTION OF FLOW, DRIVE THEM 2' ON CENTER, AND ENTWINE THE ENDS OF THE STAKES IN THE MESH ROLL COVERING.

DITCH CHECK STRAW BALE OR EXCELSIOR BARRIER

NO SCALE



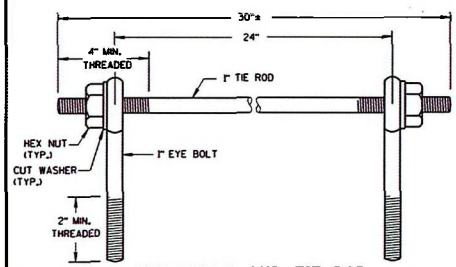
TYPICAL TRENCH DETAIL

NO SCALE

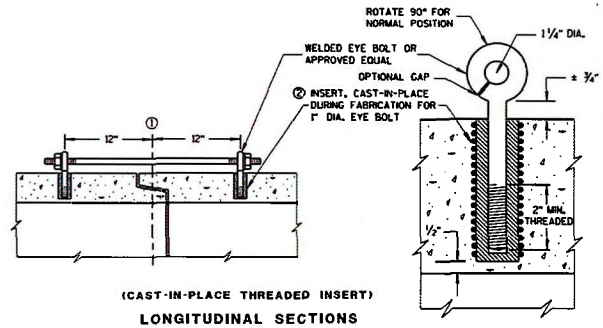
FOR PAVEMENT WITH ASPHALTIC BASE AND COMPACTED GRANULAR BACKFILL MATERIAL

* FOR FLEXIBLE THERMOPLASTIC OR HDPE PIPE COMPLY WITH ASTM 2321, CLASS I OR II.
FOR RIGID PIPE COMPLY WITH ASTM C12, BEDDING CLASS B.
3/8" CRUSHED STONE CHIPS FOR PIPE UP TO 18" DIAMETER
3/4" CRUSHED STONE CHIPS FOR PIPE GREATER THAN 18" DIAMETER

SDD 8f4 Joint Ties for Concrete Pipe and Concrete Pipe Collars



EYE BOLTS AND TIE ROD



(CAST-IN-PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USE FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

① ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

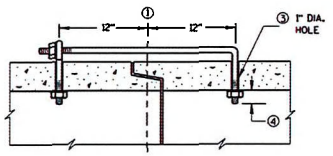
③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

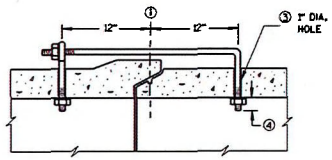
⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.

6



(TONGUE & GROOVE PIPE)

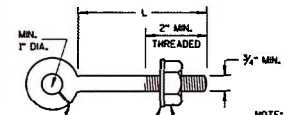


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

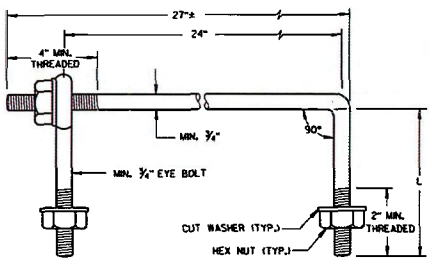
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

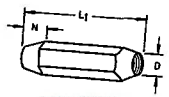
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

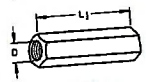
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



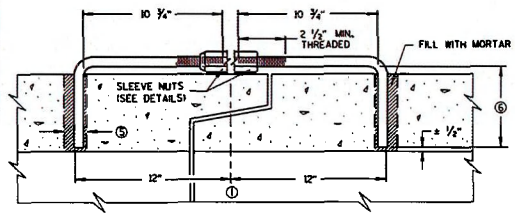
TAPERED



PLAIN

RIGHT AND LEFT THREADS

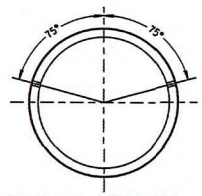
SLEEVE NUTS



LONGITUDINAL SECTION

(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

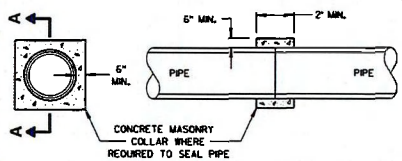
ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION

6



SECTION A-A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 6-5-2012 DATE FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

S.D.D. 8 F 4-7

S.D.D. 8 F 4-7

PROJECT NO: 181368.90	VILLAGE OF WINDSOR, WISCONSIN	COUNTY: DANE	DETAILS	SHEET 3 OF 4	BAXTER & WOODMAN	E

FILE NAME I:\CRYSTAL LAKE\WINDS\181369.90 2019 REDUCED RATE\CAD\DWGS\CURRENT\VILLAGE HALL SITE PLAN.DWG LAYOUT NAME - 03 PLOT DATE 5/30/2019 10:03 AM PLOT BY TIMOTHY L. BREY PLOT NAME PLOT SCALE AS NOTED WISDOT/CADDS SHEET 42

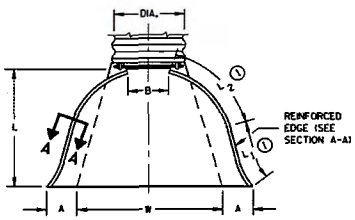
SDD 8f1 Apron Endwalls for Culvert Pipe

METAL APRON ENDWALLS										
PIPE DIA. (IN.)	MIN. THICK. (inches)		DIMENSIONS (inches)						APPROX. SLOPE	BODY
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1½")	L_1 ①	L_2 ①	W (±2")	
12	.064	.060	6	6	6	21	12	17½	24	2½ to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21¾	30	2½ to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28¼	36	2½ to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29⅝	42	2½ to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37¼	48	2½ to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52¼	60	2½ to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59¾	72	2½ to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75⅝	84	2½ to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2¼ to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85½	102	2¼ to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1½ to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1½ to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1½ to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1½ to 1	3 Pc.

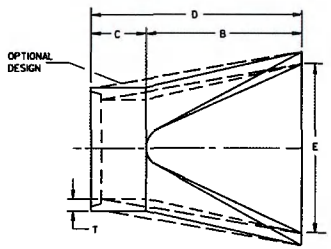
* EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48⅞	72⅞	24	2	3 to 1
15	2¼	6	27	46	73	30	2¼	3 to 1
18	2½	9	27	46	73	36	2½	3 to 1
21	2¾	9	36	37½	73½	42	2¾	3 to 1
24	3	9½	43½	30	73½	48	3	3 to 1
27	3¼	10½	49½	24	73½	54	3¼	3 to 1
30	3½	12	54	19¾	73½	60	3½	3 to 1
36	4	15	63	34¾	97¾	72	4	3 to 1
42	4½	21	63	35	98	78	4½	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5½	27	65	*33¼-35	**98¼- 100	90	5½	2⅔ to 1
60	6	* 30-35 **	60	39	99	96	5	2 to 1
66	6½	* 24-30 **	* 72-78 **	* 21-27 **	99	102	5½	2 to 1
72	7	* 24-36 **	78	21	99	108	6	2 to 1
78	7½	* 24-36 **	78	21	99	114	6½	2 to 1
84	8	36	90½	21	111½	120	6½	1½ to 1
90	8½	41	87½	24	111½	132	6½	1½ to 1

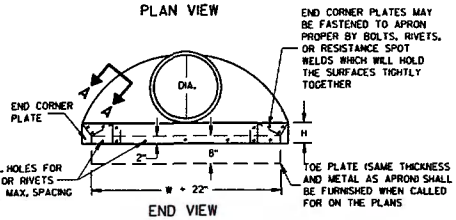
*MINIMUM
**MAXIMUM



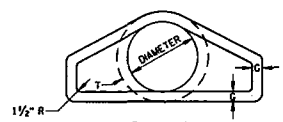
PLAN VIEW



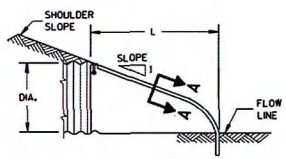
PLAN



END VIEW

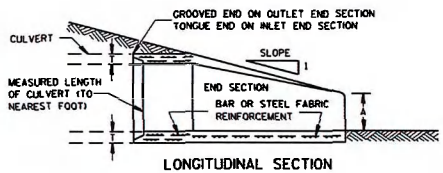


END VIEW



SIDE ELEVATION

METAL ENDWALLS

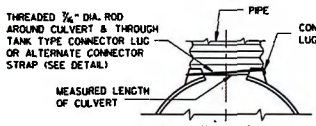


LONGITUDINAL SECTION

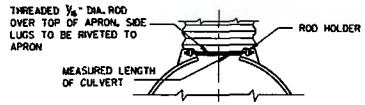
CONCRETE ENDWALLS

ALTERNATE FOR TYPE 1 CONNECTION

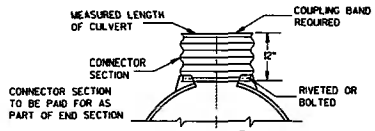
END SECTION CONNECTOR STRAP



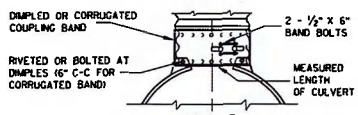
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

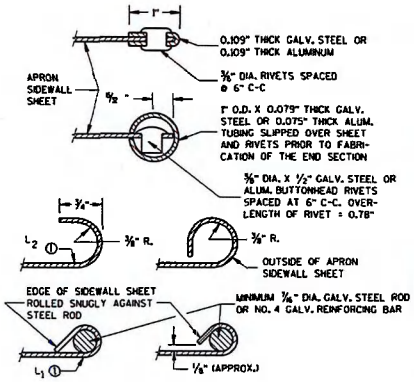
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8-30-94
DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 F 1-11