

STATE OF OKLAHOMA
CANADIAN COUNTY
FILED OR RECORDED

JUL 15 2019

SHERRY MURRAY
COUNTY CLERK

190557

SA&I 1-4040 (2000)

Canadian _____ County, Oklahoma
COUNTY PURCHASING OFFICE
Canadian _____ County Court House
El Reno _____, Oklahoma
Phone: (405) 295-6125

INVITATION TO BID

PLEASE REVIEW TERMS AND CONDITIONS ON REVERSE
SIDE RELATING TO SUBMISSION OF THIS BID.
Notarized Affidavit completions and signature required on reverse side.

DATE ISSUED July 15, 2019
Page 1 of 2

BID NUMBER #2020-#01 Calumet Road Drainage Project / District #2	BID CLOSING DATE AND HOUR Aug 12, 2019 @ 9:30am	REQUIRED DELIVERY DATE SEE SPECIFICATIONS _____ Days after award of Purchase Order
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TERMS Net, FOB this bid will open Aug 12, 2019 at 9:30am	DATE OF DELIVERY: SEE SPECIFICATIONS
---	---

ITEM	QUANTITY	UNIT OF ISSUE	DESCRIPTION	UNIT PRICE	TOTAL
1 or more			<p>Canadian County Distrcit #2 is seeking bids for:</p> <p>See Specifications attached.</p> <p>The Board of Canadian County Commissioners reserves the right to reject any and all bids or to award all or any portion of the items bid. All data will be considered in the awarding of the bid including the delivery time.</p> <p><u>The terms & conditions of this document must be completed and returned or the bid will be rejected.</u></p> <p>Contact person: Dave Anderson, District #2 Commissioner 201 N Choctaw El Reno, OK 73036 (405) 205-8955</p>		<p>\$ _____</p> <p>Total</p>

APPROVED
Date: 7-15-2019
David Anderson
Officer or Department Head

TERMS AND CONDITIONS

1. Sealed bids will be opened in the Commissioner's Conference Room, Canadian County Courthouse, 201 N. Choctaw Avenue, El Reno, Oklahoma, at the time and date shown on the invitation to bid form.
2. Late bids will not be considered. Bids must be received in sealed envelopes (one to an envelope) with bid number and closing date written on the outside of the envelope.
3. Unit prices will be guaranteed correct by the bidder.
4. Firm prices will be F.O.B. destination.
5. Purchases by Canadian County, Oklahoma, are not subject to state or federal taxes.
6. This bid is submitted as a legal offer and any bid when accepted by the County constitutes a firm contract.
7. Oklahoma laws require each bidder submitting a bid to a county for goods or services to furnish a notarized sworn statement of non-collusion. A form is supplied below.
8. Bids will be firm until 08/12/2019
(DATE)

AFFIDAVIT: I, the undersigned, of lawful age, being first duly sworn on oath say that he (she) is the agent authorized by the bidder to submit the above bid. Affiant further states that the bidder has not been a party to any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or with any state official or employee as to quantity; quality or price in the prospective contract or any other terms of said prospective contract; or in any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the letting of a contract; that the bidder/contractor has not paid, given or donated or agreed to pay, give or donate to any officer or employee of the State of Oklahoma (or other entity) any money or other thing of value, either directly or indirectly in the procuring of the award of a contract pursuant to this bid.

Subscribed and sworn before this _____ day

of _____, 20 _____

(SEAL)

Firm: _____

My commission expires _____

Signed by: _____ Title: _____
(Manual Signature of Undersigned)

NOTARY PUBLIC (CLERK OR JUDGE)

Address: _____ Phone: _____

City: _____ State: _____

Zip: _____

Please mail sealed bids to:
Canadian County Clerk's Office
Attn: Purchasing
PO Box 458
El Reno, OK 73036

Street Address:
201 N Choctaw Avenue
El Reno, OK 73036



Canadian County Purchasing

Bid Specifications

Date Issued: July 15, 2019

Bid Number: **2020-#01**

Closing Date: August 12, 2019 at 9:30am

PO Box 458, 201 N. Choctaw Ave., El Reno, OK 73036

Opening Date: August 12, 2019 at 9:30am

Commissioner's Meeting Room, 201 N. Choctaw Ave., El Reno, OK 73036

~ SPECIFICATIONS~

Calumet Road Drainage Project / District #2

Canadian County District #2 is seeking bids for the following project:

SEE PLANS ATTACHED:

Project Specifications:

Awarded vendor will have 2 weeks from the date bid is awarded to prepare and present a written contract to the Board of County Commissioners for approval. Unless the contractor receives prior approval of a delayed start and completion time from Canadian County the project must begin no later than one (4) weeks from the contract approval and the entire project must be completed within two (2) weeks of the start date.

Final Acceptance:

Prior to final acceptance a final walk-through will be performed with the contractor and a representative of Canadian County.

Bids will be received beginning at 9:30am on Tuesday, August 6, until 9:30am on Monday, August 12, 2019.

Bids shall be accompanied by:

- A certified check, cashier's check or bid bond equal to five percent (5%) of the bid, which shall be deposited with the awarding public agency as a guaranty; or

An irrevocable letter of credit terms the Construction and Properties Division of the Office of Management and Enterprise Services prescribes, issued by a financial institution insured by the Federal Deposit Insurance Corporation or the Federal Savings and Loan Insurance Corporation for the benefit of the state, on behalf of the awarding public agency, in an amount equal to five percent (5%) of the bid. The awarding public agency shall deposit the irrevocable letter of credit with Division.

- Business Relationships Affidavit
- Non-Collusion Bidding Certification

(Please review Title 61 O.S. § 101-138 for full disclosure)

Note

Terms for Payment:

- A purchase order will be issued to the awarded vendor. Once the original itemized invoice is received by the receiving officer it will be processed for payment.

For Information Contact:

Dave Anderson, District #2 Commissioner
Phone: (405) 205-8955
Hours: Monday – Friday 8:00am to 4:00pm
Address: 201 N Choctaw, El Reno, OK 73036

If you have any questions or need additional information, please contact:
D'Shea Brothers, Purchasing Agent, 405.295.6125
dbrothers@okcana.cogov.net



**Canadian County
Purchasing**

Affidavit / Proof of Mailing

Date Issued: July 15, 2019

Bid Number: **2020-#01**

Closing Date: August 12, 2019 at 9:30am

PO Box 458, 201 N. Choctaw Ave., El Reno, OK 73036

Opening Date: August 12, 2019 at 9:30am

Commissioner's Meeting Room, 201 N. Choctaw Ave., El Reno, OK 73036

~ AFFIDAVIT ~

Calumet Road Drainage Project / District #2

State of Oklahoma)
County of Canadian) §

I, D'Shea Brothers, Purchasing Agent, in and for said County and State, do hereby certify that "Invitations to Bid" were sent to the following:

Bid Clerk
projects@bidclerk.com

Bid News
projects@isqft@bidclerk.com

ePlan
1400 Forum Blvd. Suites 7B
Columbia, MO 65203

Francis Tuttle Vo-Tech
Attn: Bid Assistance – Judy Robbins
12777 N. Rockell
Oklahoma City, OK 73142

Online Data Service
3295 River Exchange Drive, Suite 213
Norcross, GA 30092

Reed Construction
30 Technology Pkwy South, Suite 100
Norcross, GA 30092

Redlands Contracting LLC
5601 N.W. 72nd Suite 308
Warr Acres, OK 73132

Atlas Paving Company
PO Box 7577
Oklahoma City, OK 73147

Witness my hand and seal this 15th day of July, 2019.

D'Shea Brothers

D'Shea Brothers, Purchasing Agent





**Canadian County
Purchasing**

BID CHECKLIST

Date Issued: July 15, 2019
Bid Number: 2020-#01
Closing Date: August 12, 2019 at 9:30am
PO Box 458, 201 N. Choctaw Ave., El Reno, OK 73036
Opening Date: August 12, 2019 at 9:30am
Commissioner's Meeting Room, 201 N. Choctaw Ave., El Reno, OK 73036

**TO HELP PREVENT BIDS FROM BEING REJECTED FOR LACK OF COMPLETION
PLEASE CHECK FOR THE FOLLOWING:**

Is the Invitation to Bid Signed and Notarized? _____

Is the Business Relationships Affidavit enclosed? _____

Is the bid bond or cashier's check enclosed? _____

Is the Non-Collusion Bidding Certificate enclosed? _____

Are all applicable spaces filled in? _____

Are all necessary papers enclosed? _____

Is the Bid # and Opening Date on outside of return envelope? _____

Bids will be received beginning 9:30am Tuesday August 6, until 9:30am Monday August 12, 2019 _____
(Do not turn bid in before Tuesday August 6 @ 9:30am – bid will not be opened or considered)

Thank You,

D'Shea Brothers, Purchasing Agent

NON-COLLUSION BIDDING CERTIFICATION

_____ (PROJECT NAME)

STATE OF OKLAHOMA)
)SS
COUNTY _____)

A. For purposes of competitive bids, I certify:

1. I am the duly authorized agent of _____,
the bidder submitting the competitive bid which is attached to this statement, for the purpose of certifying the facts pertaining to the existence of collusion among bidders and between bidders and state officials or employees, as well as facts pertaining to the giving or offering of things of value to government personnel in return for special consideration in the letting of any contract pursuant to the bid to which this statement is attached;
2. I am fully aware of the facts and circumstances surrounding the making of the bid to which this statement is attached and has been personally and directly involved in the proceedings leading to the submission of such bid; and
3. Neither the bidder nor anyone subject to the bidder's direction or control has been a party to the following:
 - a. Any collusion among bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding;
 - b. Any collusion with any state official or employee as to quantity, quality or price in the prospective contract, or as to any other terms of such prospective contract; and
 - c. Any discussions between bidders and any state official concerning exchange of money or other thing of value for special consideration in the letting of a contract.

B. I certify, if awarded the contract, whether competitively bid or not, that neither the Contractors nor anyone subject to the Contractor's direction or control has paid, given, or donated or agreed to pay, give, or donate to any officer or employee of the State of Oklahoma any money or other thing of value, either directly or indirectly, in procuring the contract to which this statement is attached.

Certified this _____ day of _____, 20__.

(Signature)

(Print Name)

(Position in the Company)

BUSINESS RELATIONSHIPS AFFIDAVIT

_____ (PROJECT NAME)

STATE OF OKLAHOMA)
)SS
COUNTY OF _____)

_____, of lawful age, being duly sworn, on oath says that he or she is the agent authorized by the bidder to submit the attached bid. Affiant further states that the nature of any partnership, or other business relationship presently in effect, of which existed within one (1) year prior to the date of this statement with the architect, engineer, or other party to the project is as follows:

Affiant further states that any such business relationship presently in effect of which existed within one (1) year prior to the date of this statement between any officer or director of the bidding company and any officer or director of the architectural or engineering firm or other party to the project is as follows:

Affiant further states that the names of all persons having any such business relationships and the positions they hold with their respective companies or firms are as follows:

(If none of the business relationships herein above mentioned exist, affiant should so state.)

(Signature of Affiant)

Subscribed and sworn to before me this _____ day of _____, 20 ____

Notary Public _____

My Commission Expires _____

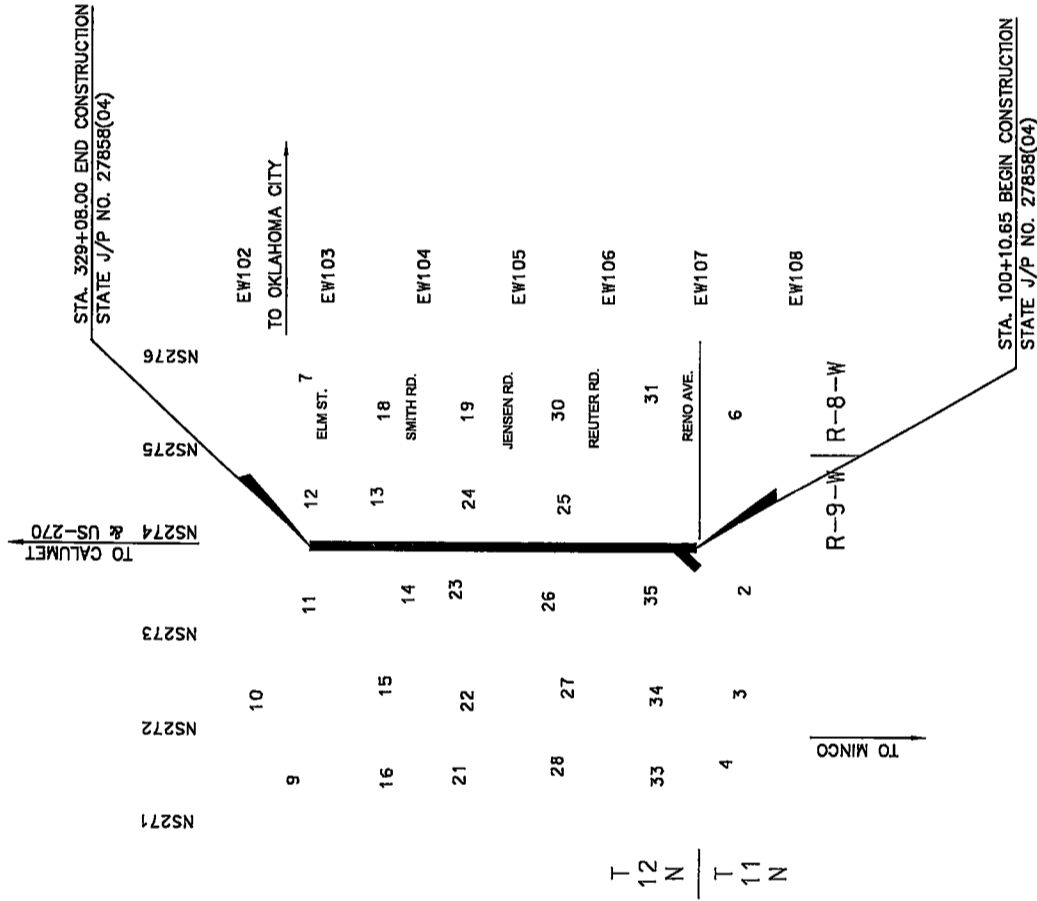
**PLAN OF PROPOSED
COUNTY ROAD
DRAINAGE PLAN
CANADIAN COUNTY
CALUMET ROAD**

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2-4	PLAN AND PROFILE SHEETS
5	CROSS SECTIONS SHEET
R-3	SOLID SLAB SODDING
R-42	MANHOLE FRAME AND COVER
R-43	MANHOLES AND JUNCTION BOXES
R-47	STANDARD PIPE INSTALLATION
R-49	STANDARD PIPE BEDDING
R-64	PAVED DITCHES AND FLUMES

SCALES

PLAN	1" = 50'
PROFILE HORIZ.	1" = 50'
PROFILE VERT.	1" = 5'
LAYOUT MAP	1" = 5280'



SPECIFICATIONS:
COMPLY WITH THE REQUIREMENTS OF THE 2009 OKLAHOMA STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EXCEPT AS MODIFIED BY THE PLANS AND SPECIAL PROVISIONS.

GENERAL CONSTRUCTION NOTES:
IN ACCORDANCE WITH THE OKLAHOMA UNDERGROUND FACILITIES DAMAGE PREVENTION ACT THE CONTRACTOR SHALL NOTIFY THE OKLAHOMA ONE-CALL SYSTEM, INC. 48 HOURS PRIOR TO BEGINNING EXCAVATION. OKLAHOMA ONE-CALL SYSTEM, INC. CALL OKIE 1-800-522-6543 OR 811.

THIS PROJECT SHALL BE CONSTRUCTED WITHOUT CLOSING THE EXISTING ROAD TO LOCAL AND THROUGH TRAFFIC. SEE STANDARD SPECIFICATIONS FOR MAINTENANCE OF LOCAL AND THROUGH TRAFFIC.

THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY RIGHT-OF-WAY FENCE AS REQUIRED. WHEN THE PORTION OF THE PROJECT THAT REQUIRED THIS FENCE IS COMPLETED THE TEMPORARY FENCE SHALL BE REMOVED AND PERMANENT RIGHT-OF-WAY FENCING SHALL BE RESTORED OR INSTALLED IN A MANNER APPROVED BY THE ENGINEER. ALL COST OF TEMPORARY FENCING SHALL BE INCLUDED IN OTHER ITEMS OF WORK.

ALL FLOWLINES THAT ARE TO BE FILLED SHALL BE THOROUGHLY TAMPED BEFORE CONSTRUCTION OR EXTENSION OF DRAINAGE STRUCTURES. ALL COST TO BE INCLUDED IN OTHER ITEMS OF WORK.

CONTRACTOR SHALL PROVIDE CANADIAN COUNTY OR THE ENGINEER A WORK SCHEDULE PRIOR TO CONSTRUCTION. CONTRACTOR TO NOTIFY CANADIAN COUNTY 48 HOURS PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.

ANY DAMAGE TO EXISTING FACILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF CANADIAN COUNTY OR THE ENGINEER.

CONSTRUCTION AREA SHALL BE SMOOTHLY GRADED AND LEFT FREE OF RUTS, TRACK, OR DEBRIS.

CONTRACTOR TO NOTIFY PROPERTY OWNERS PRIOR TO ENTRY OF PROPERTY. TEMPORARY FENCING SHALL BE INSTALLED AT FENCE CROSSINGS IMMEDIATELY. PERMANENT FENCING OF EQUAL OR BETTER CONDITION AND STYLE SHALL BE CONSTRUCTED.

ROADWAY PAY QUANTITY NOTES:
(R-2) ESTIMATED QUANTITY ONLY. TO BE USED IN A MANNER APPROVED BY THE ENGINEER, FOR MISCELLANEOUS GRADING.

(R-7) FOR SOLID SLAB SODDING PRICE BID TO INCLUDE COST OF WATERING, ESTIMATED AT 20 GALLONS PER SQ. YD.

(R-18) ESTIMATED AT 144 LBS. PER CU. FT. .

(R-32) THE PRECAST CONCRETE OPTION MAY BE USED INSTEAD, PER DIRECTION OF THE ENGINEER.

(R-37) TO BECOME THE PROPERTY OF AND BE DISPOSED OF BY THE CONTRACTOR IN A MANNER APPROVED BY THE ENGINEER.

(1) ALL DISTURBED AREAS SHALL RECEIVE SOLID SLAB SODDING.

(2) COST INCLUDE ALL TRENCHING AND PIPE BEDDING QUANTITIES.

(3) 9 C.Y. FOR CONCRETE FLUME WHERE SHOWN ON PLANS. DESIGN NO. 2. 4'-0" WIDE.

APPROVED:

BOARD OF COUNTY COMMISSIONERS

Marc C. Warner
MARC WARNER
DISTRICT NO. 1

DISTRICT NO. 1

David Anderson
DAVID ANDERSON
DISTRICT NO. 2

DISTRICT NO. 2

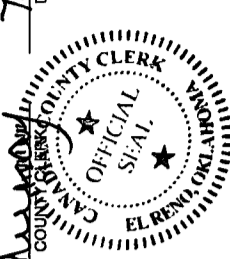
Jack Stewart
JACK STEWART
DISTRICT NO. 3

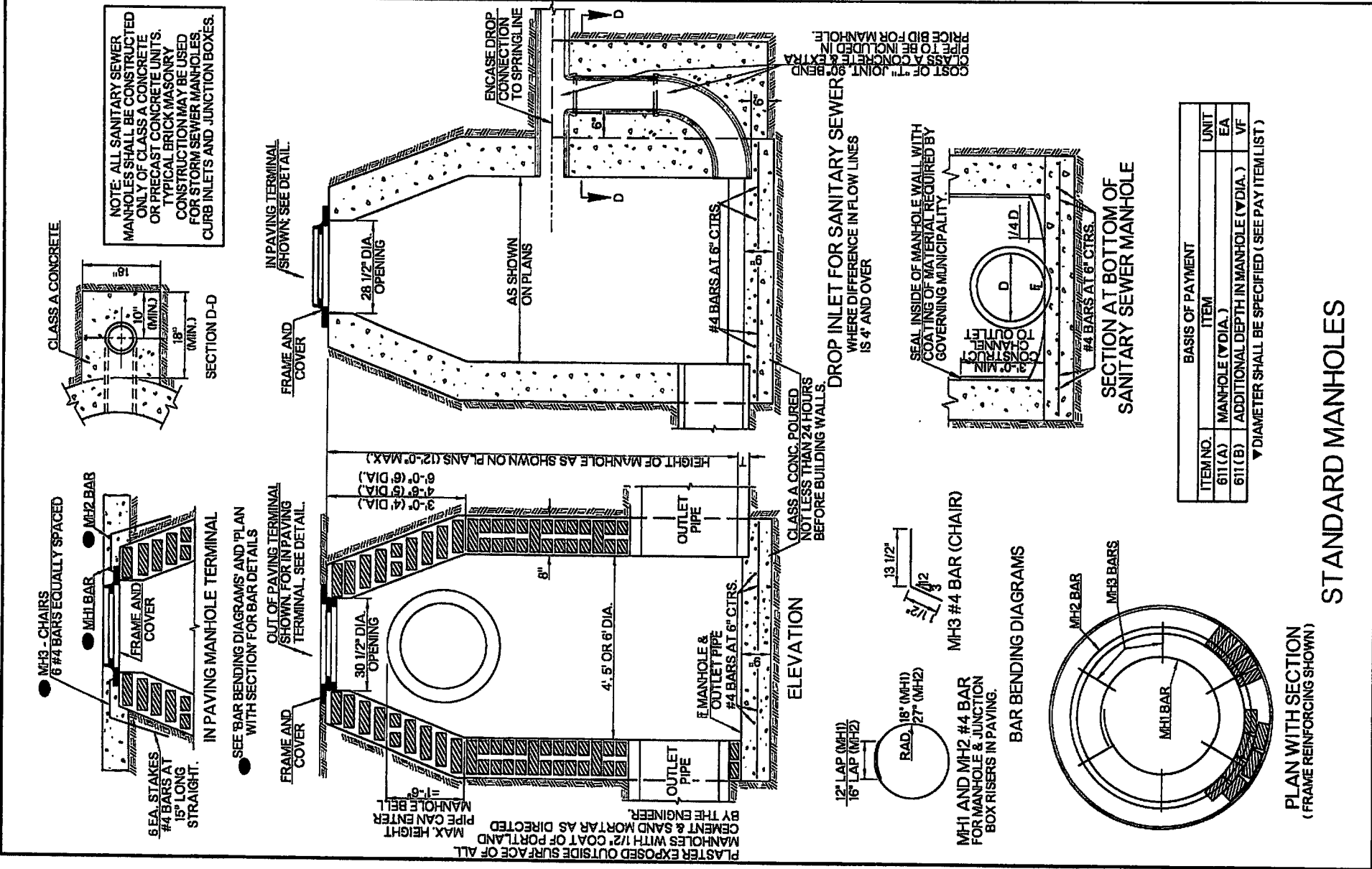
DISTRICT NO. 3

ATTEST

Sherry Murray
SHERRY MURRAY
COUNTY CLERK

7-15-2019
DATE

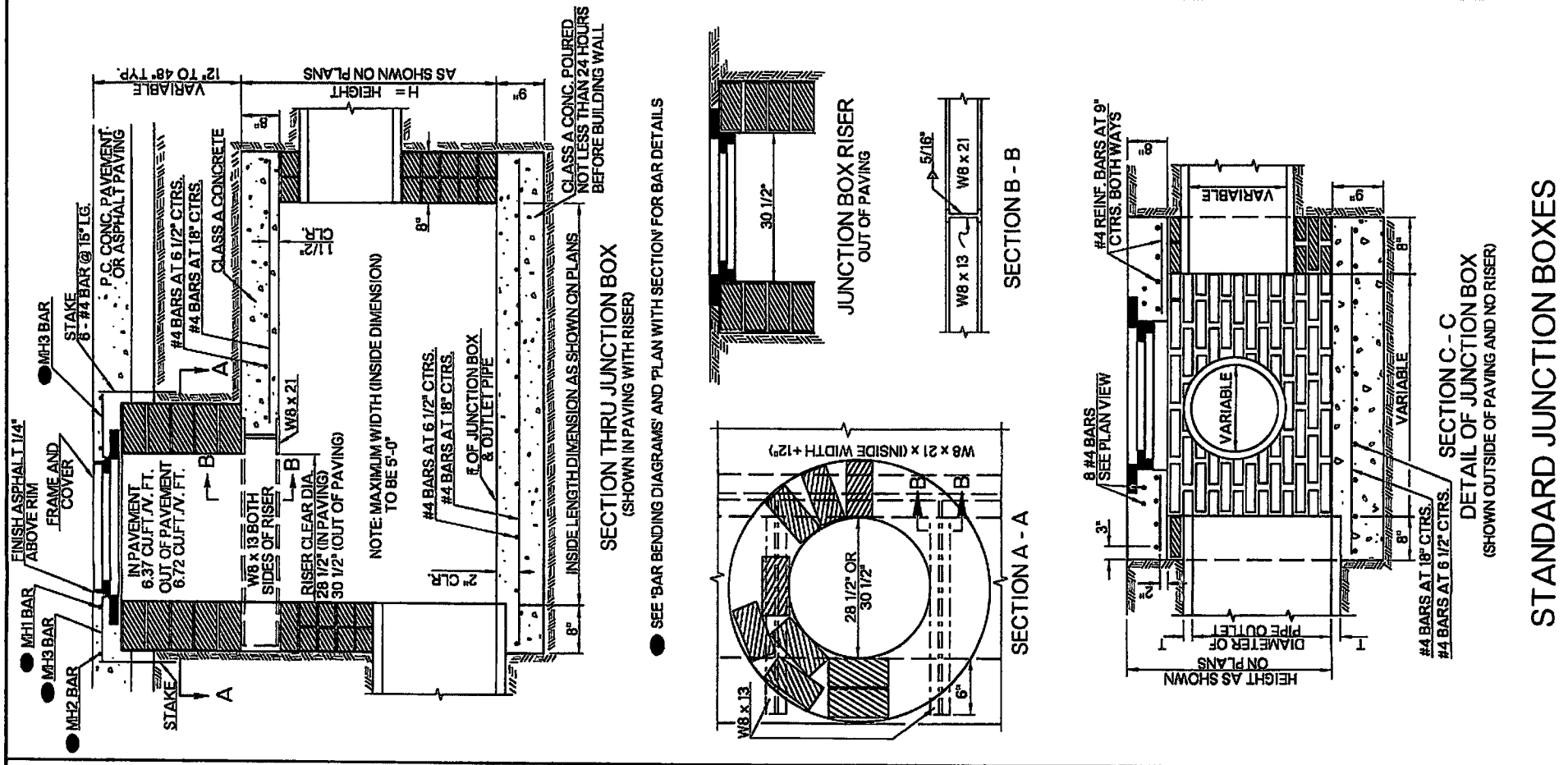




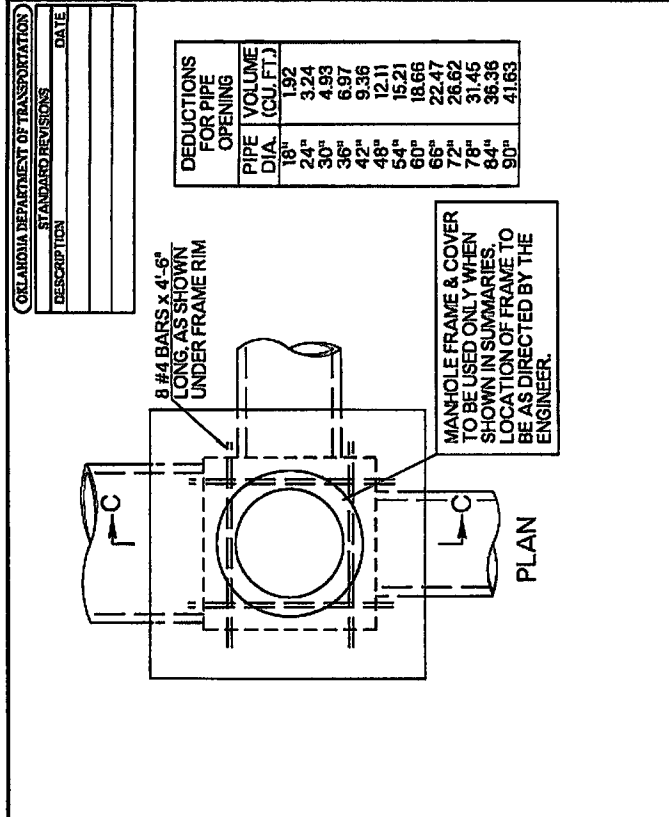
BASIS OF PAYMENT			
ITEM NO.	ITEM	UNIT	
611 (A)	MAN-HOLE (W/DIA.)	EA	
611 (B)	ADDITIONAL DEPTH IN MANHOLE (W/DIA.)	VF	

▼ DIAMETER SHALL BE SPECIFIED (SEE PAY ITEM LIST)

STANDARD MANHOLES



STANDARD JUNCTION BOXES



GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
2. ALL MANHOLES SHALL BE 4 FOOT DIAMETER UNLESS A LARGER DIAMETER IS REQUIRED.
3. CAST-IN-PLACE CONCRETE WALLS WITH THE SAME DIMENSIONS SHOWN ON THIS STANDARD MAY BE USED IN LIEU OF THE BRICK MASONRY. CAST-IN-PLACE WALLS EXCEEDING 5 FEET IN DEPTH (GUTTERLINE TO FLOWLINE), WILL REQUIRE NO. 4 REINFORCING BARS SPACED AT 30 INCH CTRS. VERTICALLY AND 12 INCH CTRS. HORIZONTALLY.
4. WHERE A MORTAR COAT IS REQUIRED IT SHALL BE 1/2" THICK AND SHALL BE APPLIED WHILE BRICK MASONRY IS CLEAN AND DAMP.
5. MANHOLES UP TO 6 FEET IN HEIGHT SHALL BE PAID FOR AS 'MANHOLE' (EA). ANY ADDITIONAL HEIGHT OF MANHOLE SHALL BE PAID FOR AS 'ADDITIONAL DEPTH IN MANHOLE' (VF).
6. JUNCTION BOXES SHALL HAVE INSIDE DIMENSIONS AND HEIGHT AS SHOWN ON THE PLANS, AND CONSTRUCTION SHALL BE MEASURED BY CF. OF WALL MATERIAL AND TO BE PAID FOR AS 'JUNCTION BOXES' (CF). DEDUCTIONS IN VOLUME WILL BE MADE FOR ALL PIPE OPENINGS 18 INCHES IN DIAMETER AND LARGER (SEE TABLE).
7. REINFORCING STEEL AND STRUCTURAL STEEL WILL BE INCLUDED AS PART OF THE COST OF THE STRUCTURE COMPLETE, AND WILL NOT BE MEASURED AS A PAY ITEM.
8. MANHOLE FRAMES, COVERS AND COVER GRATES INSTALLED DURING ORIGINAL CONSTRUCTION SHALL BE INCLUDED IN CONTRACT UNIT PRICE OF ORIGINAL MANHOLE AND JUNCTION BOX. FOR DETAILS OF FRAME AND COVER, SEE THE CURRENT VERSION OF ROADWAY STANDARD MFC-4.
9. PRECAST STORM SEWER MANHOLE STRUCTURES CAN BE SUBSTITUTED FOR BRICK MASONRY OR CAST-IN-PLACE MANHOLE STRUCTURES. SEE ROADWAY STANDARDS PRM-0, PSM-0, AND PWD-0 FOR THEIR DESIGN, DETAILS AND BASIS OF PAYMENT.

OPTIONAL PRECAST MANHOLES

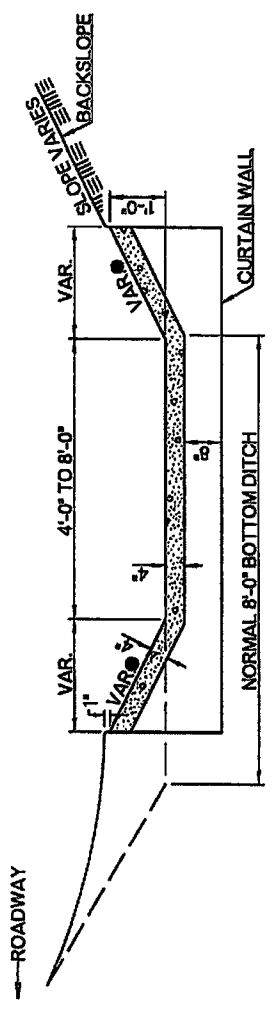
BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
609 (C)	CLASS A CONCRETE, SMALL STRUCTURES	CY
611 (L)	JUNCTION BOXES	CF

▲ FOR QUANTITIES OF CLASS A CONCRETE LESS THAN 20.0 CY

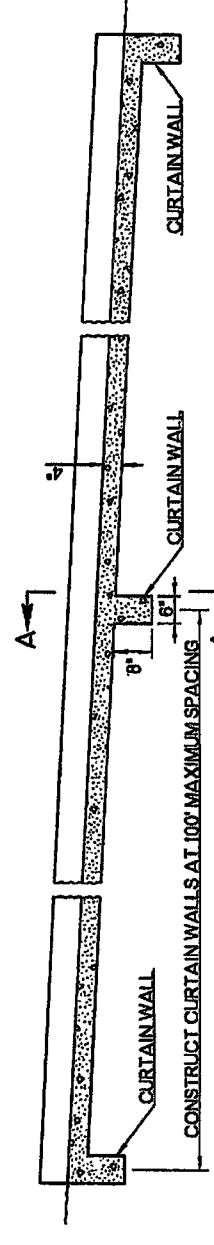
APPROVED BY ROADWAY ENGINEER: *[Signature]* DATE: *1/24/19*

ROADWAY DESIGN DIVISION STANDARD

OKLAHOMA DEPARTMENT OF TRANSPORTATION	
STANDARD REVISIONS	DATE

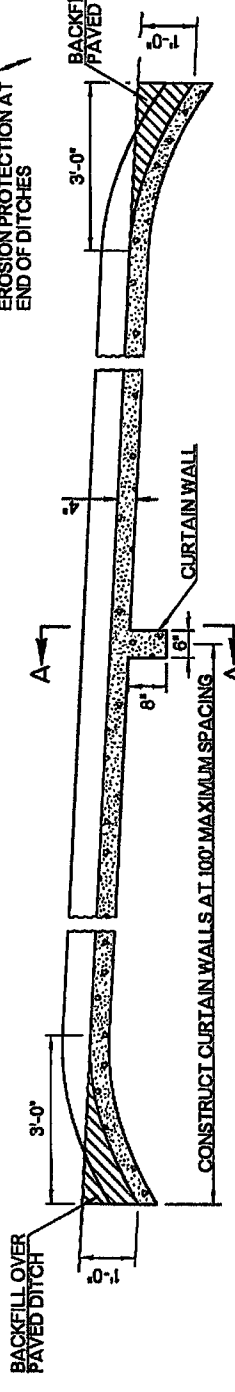


SECTION A - A
DESIGN NO. 2

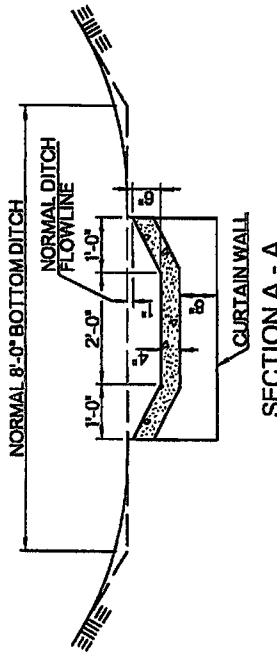


LONGITUDINAL SECTION WITH CURTAIN WALLS
CONSTRUCT CURTAIN WALLS AT 100' MAXIMUM SPACING

WHEN NEEDED, THE PLANS
WILL SPECIFY ADDITIONAL
EROSION PROTECTION AT
END OF DITCHES

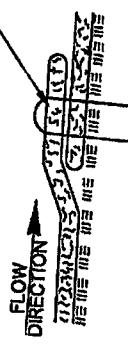


OPTIONAL LONGITUDINAL SECTION WITH BURIED ENDS
(BURIED ENDS SHALL NOT BE USED ADJACENT TO DRAINAGE STRUCTURES)

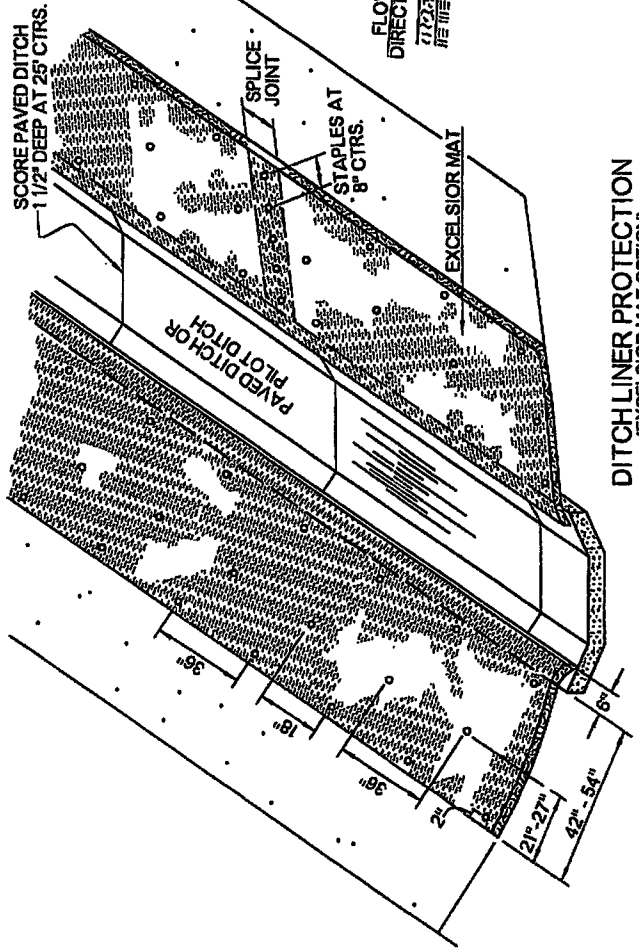


SECTION A - A
DESIGN NO. 1

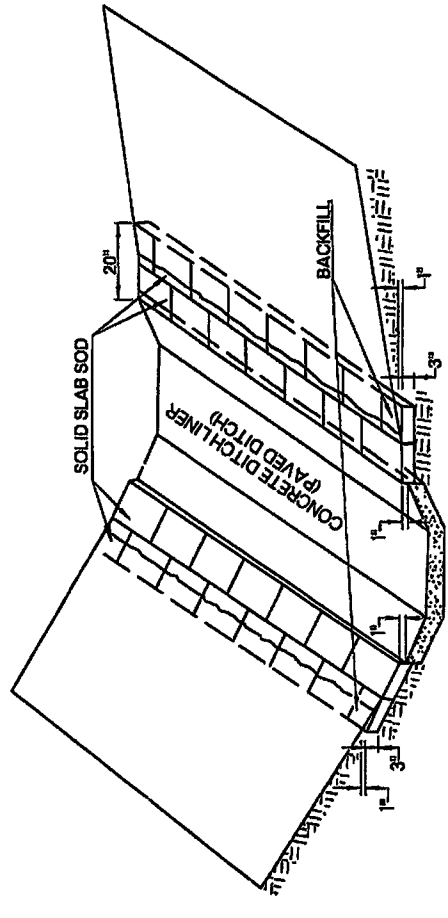
OVERLAP LAYERS
12" (TYPICAL)
W/ U-SHAPED STAPLE



SPLICE JOINT



DITCHLINER PROTECTION
(EXCELSIOR MAT OPTION)



DITCHLINER PROTECTION
(SOLID SLAB SOD OPTION)

DESIGN NO. 1 - A PAVED PILOT DITCH TO BE PLACED 8" BELOW THE NORMAL FLOWLINE AND IN THE CENTER OF A STANDARD DITCH

DESIGN NO. 2 - A DITCH THAT IS PAVED AND HAVING THE SAME FLOWLINE AS A STANDARD UNPAVED DITCH

GENERAL NOTES

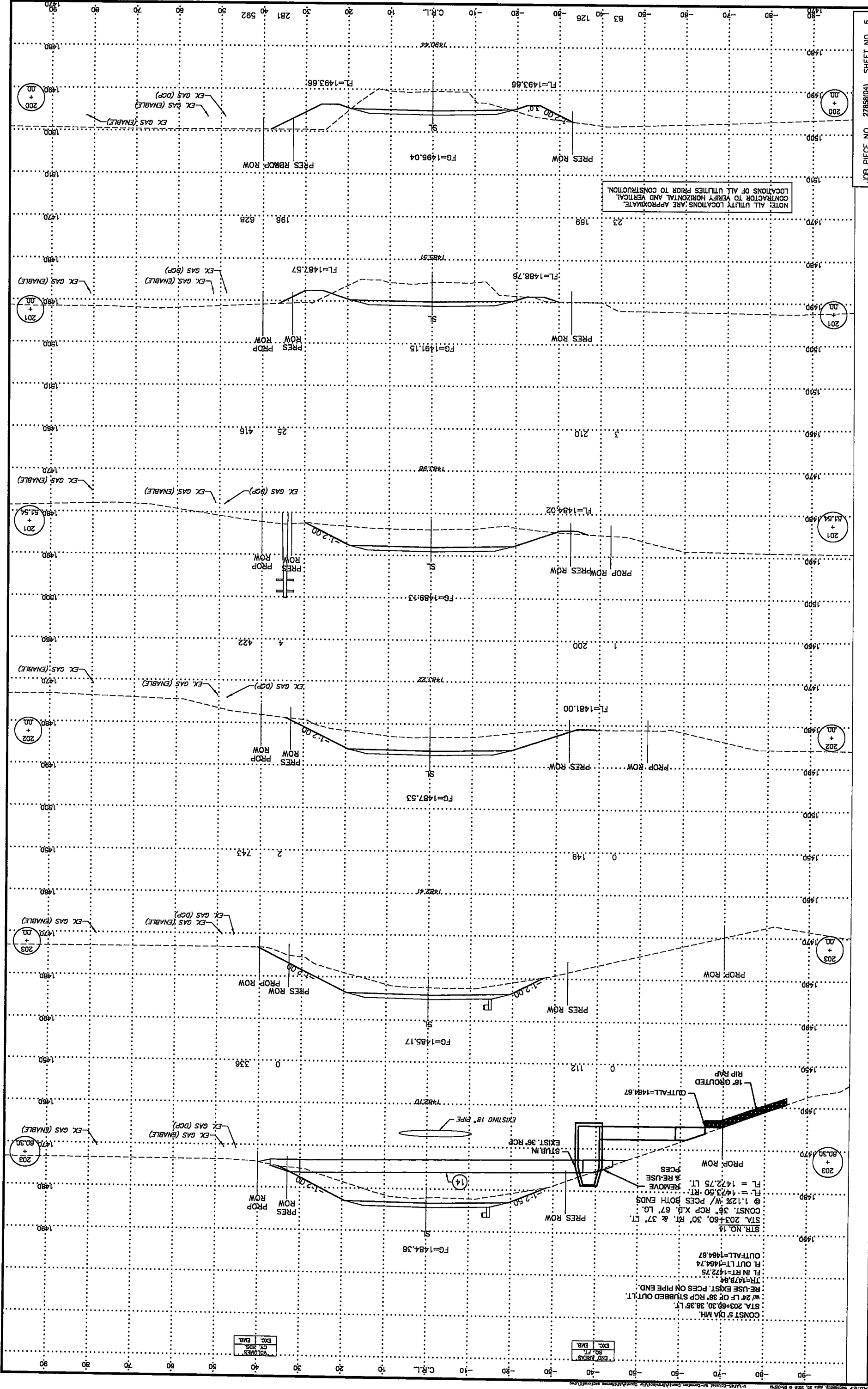
1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
2. ALL COST OF ADDITIONAL BORROW OR EXCAVATION, REQUIRED FOR INSTALLING PAVED DITCH, SHALL BE INCLUDED IN PRICE BID FOR CLASS C CONCRETE.
3. THE DITCH SHALL BE WATERED, AND COMPACTED, BEFORE PLACING CLASS C CONCRETE.
4. DITCHLINER PROTECTION MAY BE EITHER EXCELSIOR MAT, OR SOLID SLAB SOD, AND SHALL BE MEASURED BY THE LINEAR FOOT OF DITCH (PAVED DITCH), IN PLACE.

QUANTITIES OF CLASS C CONCRETE PER LF OF PAVED DITCH
QUANTITIES IN CUBIC YARDS

BOTTOM WIDTH	DESIGN NO. 1							DESIGN NO. 2						
	2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"		
K1	.0522	.0646	.0769	.0892	.1016	.1274	.1397	.1521	.1644	.1768	.1892	.2016		
K2	.0686	.0709	.0832	.0955	.1078	.1045	.1168	.1292	.1415	.1539	.1663	.1787		
● VARIABLE AS SHOWN ON PLANS DESIGN 2A = 1:3 SLOPES DESIGN 2B = 1:2 SLOPES DESIGN 2C = 1:1 SLOPES														
TOTAL CLASS C CONC. = (LENGTH OF PAVED DITCH) (K1) + (NO. OF CURT. WALLS) (K2) K1=CU. YDS. OF CONCRETE PER LINEAR FOOT K2=CU. YDS. OF CONCRETE PER CURTAIN WALL														

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
509 (D)	CLASS C CONCRETE	CY
229	DITCHLINER PROTECTION	LF

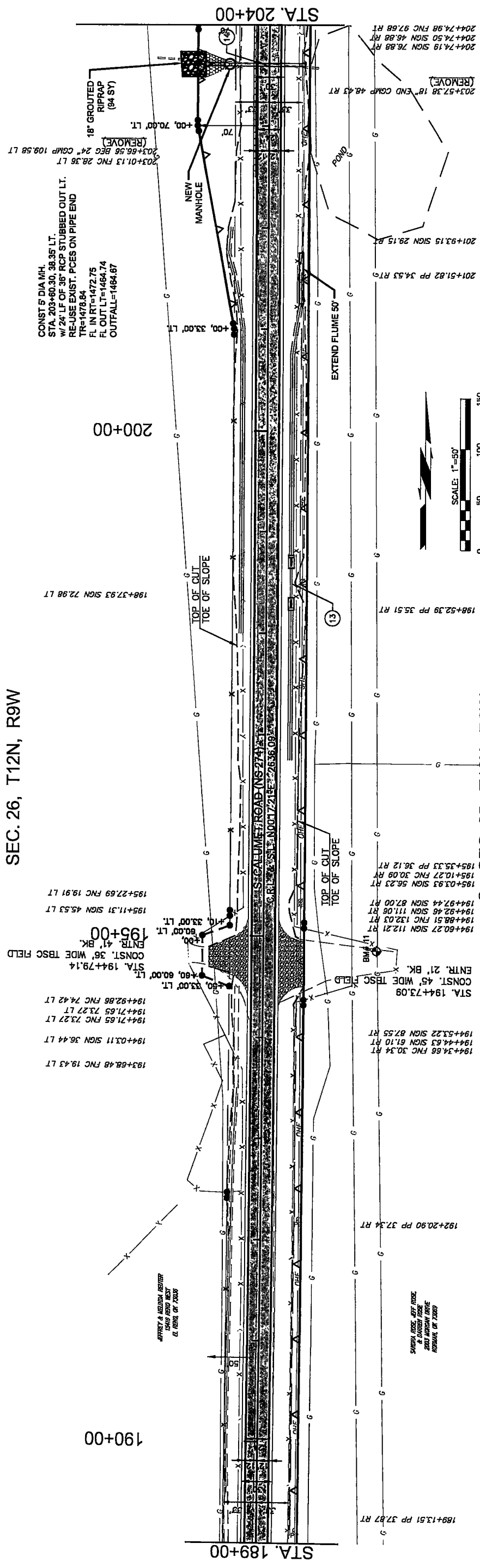
APPROVED BY ROADWAY ENGINEER: *Calvin A. Williams* DATE: *01/11/13*
 ROADWAY DESIGN DIVISION STANDARD
ODOT
 PAVED DITCHES AND FLUMES



VOLUMES	EXC.	EMB.

END AREAS	EXC.	EMB.

SEC. 26, T12N, R9W



CONST 5' DIA MH.
 STA. 203+60.30, 38.35' LT.
 W/ 24" LF OF 36" RCP STUBBED OUT LT.
 RE-USE EXIST. PCES ON PIPE END
 TR=1478.84
 FL IN RT=1472.75
 FL OUT LT=1484.74
 OUTFALL=1484.87

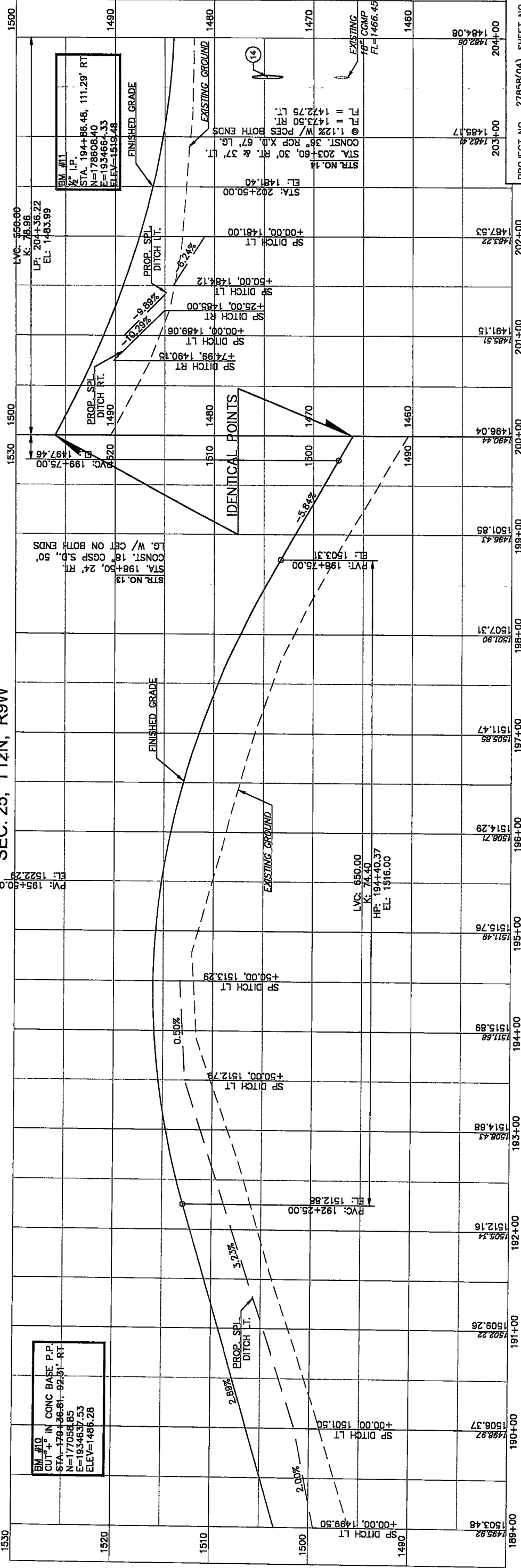
200+00

190+00

SPRINT & MEDIUM RASTER
 1540 PPI BEST
 0.180" OF 2005

SHOWN ASSET INFO
 2005 MICHIGAN STATE
 NORMAL OR 2005

SEC. 25, T12N, R9W



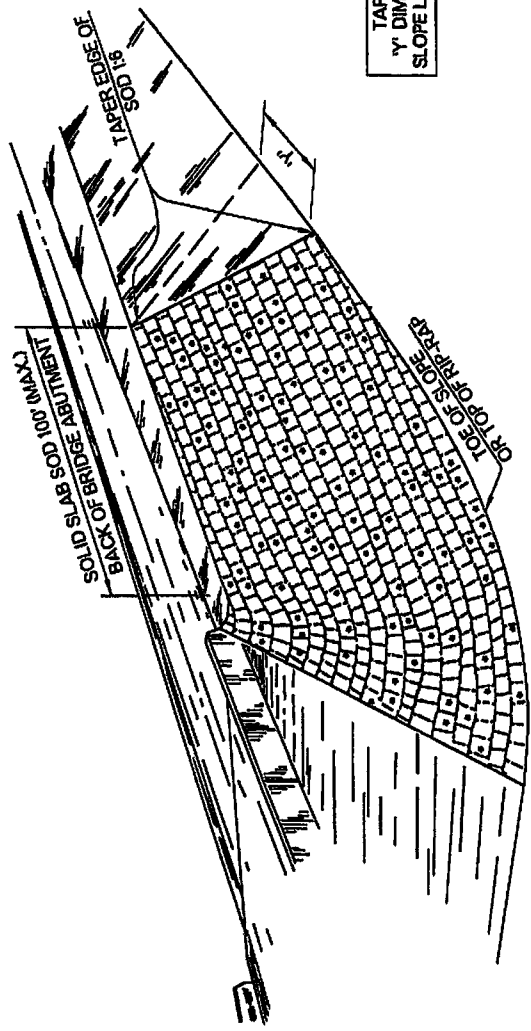
BIM #10
 CUT+ IN CONC BASE P.P.
 STA-179+36.81-92.51' RT
 N=177058.85
 E=1934637.53
 ELEV=1486.28

BIM #1
 1/2 I.P.
 STA. 194+86.48, 111.29' RT
 N=178608.40
 E=1934664.33
 ELEV=1519.48



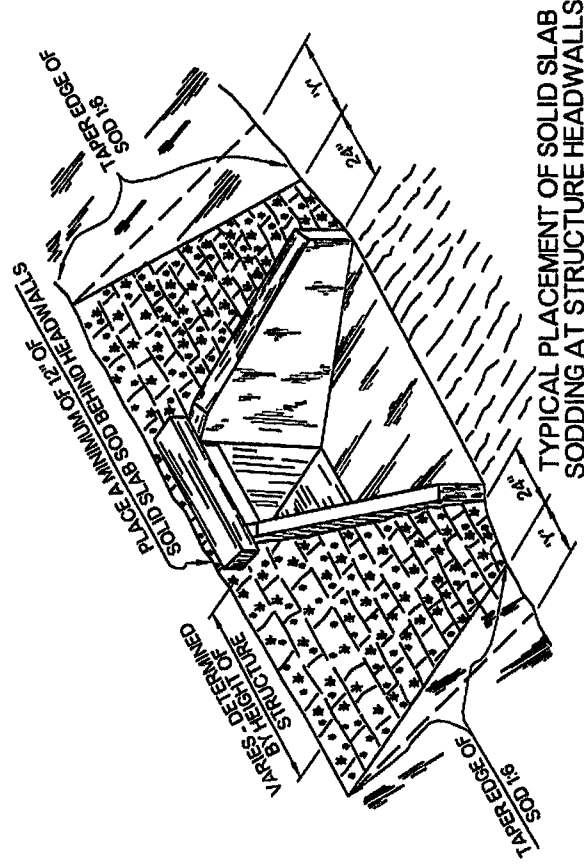
SCALE: 1"=50'

OKLAHOMA DEPARTMENT OF TRANSPORTATION	
STANDARD REVISIONS	DATE

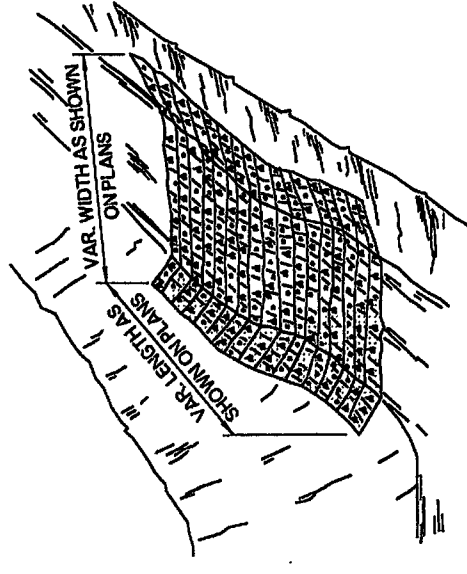


TAPER NOTE
"Y" DIMENSION =
SLOPE LENGTH * 0.17

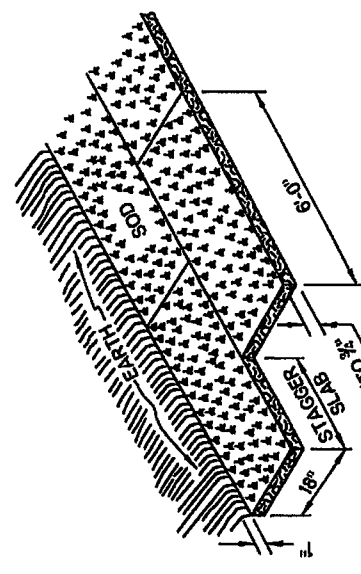
TYPICAL PLACEMENT OF SOLID SLAB SODDING
ON FILL SLOPES, APPROACHES TO OVERPASSES AND BRIDGES.



TYPICAL PLACEMENT OF SOLID SLAB
SODDING AT STRUCTURE HEADWALLS



TYPICAL PLACEMENT OF
SOLID SLAB SODDING IN DITCHES



SOLID SLAB SODDING
(MARCH 1 THRU AUGUST 31)

THE PLACEMENT OF SOLID SLAB SOD SHALL BE
RESTRICTED TO THE PERIOD FROM MARCH 1
THRU AUGUST 31, UNLESS OTHERWISE
APPROVED BY THE ENGINEER.

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2008 ODOT STANDARD SPECIFICATIONS.
2. SOLID SLAB SOD SHALL BE PLACED IN HORIZONTAL ROWS WITH THE LONGEST SIDE OF EACH SLAB RUNNING PARALLEL TO THE ROADWAY, AND THE SLABS IN ALTERNATE ROWS STAGGERED HALF THE LENGTH OF EACH INDIVIDUAL SLAB. ENSURE THE ROWS RUN PARALLEL TO THE ROADWAY.
3. SLABS SHALL BE CUT AND HARVESTED WITH A COMMERCIAL SOD CUTTER TO THE DIMENSIONS SHOWN, THEN LOADED, TRANSPORTED AND HANDLED ON PALLETS.
4. AFTER PLACEMENT OF SOLID SLAB SOD, EARTH AT THE OUTER EDGES OF THE PLACEMENT SHALL BE BACKFILLED AND LOOSELY COMPACTED TO AT LEAST 1" ABOVE THE TOP OF THE SOLID SLAB SODDING.
5. STAKE SOD ON ALL SLOPES 1:2 OR STEEPER, AND ON ANY AREAS THAT ARE IN SUCH CONDITION THAT THERE IS DANGER OF SOD SLIPPING. PERFORM STAKING CONCURRENTLY WITH SOD PLACEMENT AND PRIOR TO TAMPING WITH SOUND WOODEN STAKES APPROXIMATELY 1 INCH SQUARE OR 1 INCH IN DIAMETER AND NOT LESS THAN 12 INCHES IN LENGTH, OR USE METAL STAPLES IN PLACE OF WOODEN STAKES. PLACE STAKE AND STAPLE THE SOD WHERE NECESSARY, AND AS DETERMINED BY THE ENGINEER.

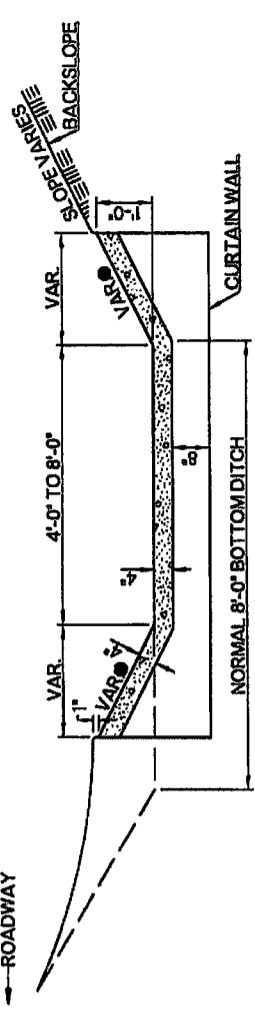
BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
230(A)	SOLID SLAB SODDING	SY

APPROVED BY ROADWAY ENGINEER: *Calvin F. A. Orlita* DATE: *07/11/11*
ROADWAY DESIGN DIVISION STANDARD

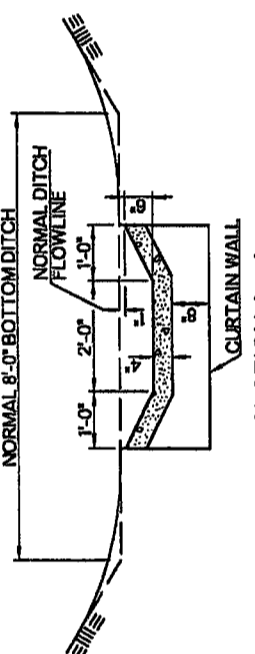


SOLID SLAB SODDING

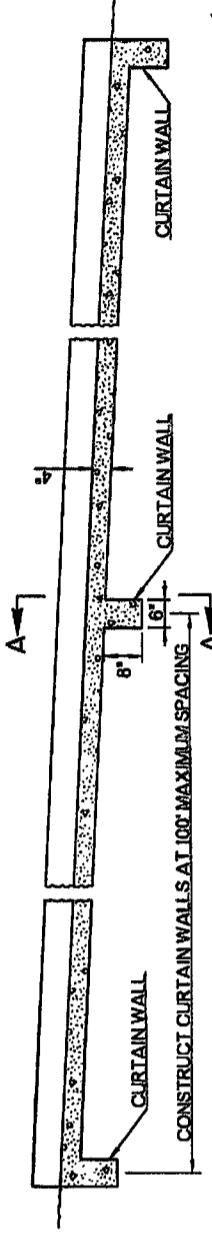
OKLAHOMA DEPARTMENT OF TRANSPORTATION	
STANDARD REVISIONS	DATE



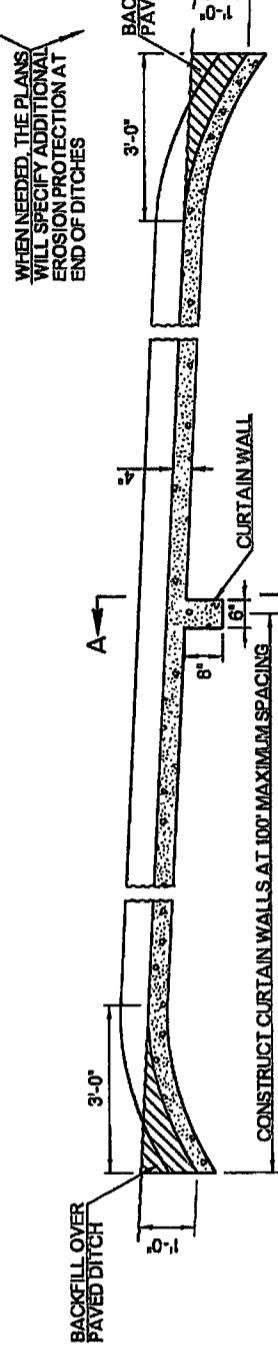
SECTION A - A
DESIGN NO. 2



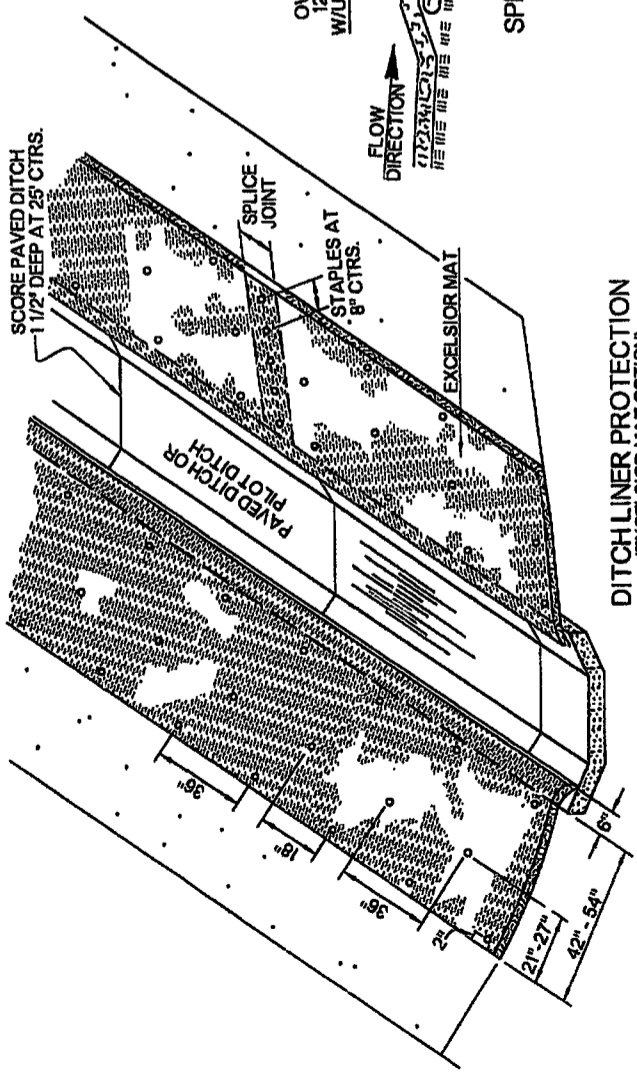
SECTION A - A
DESIGN NO. 1



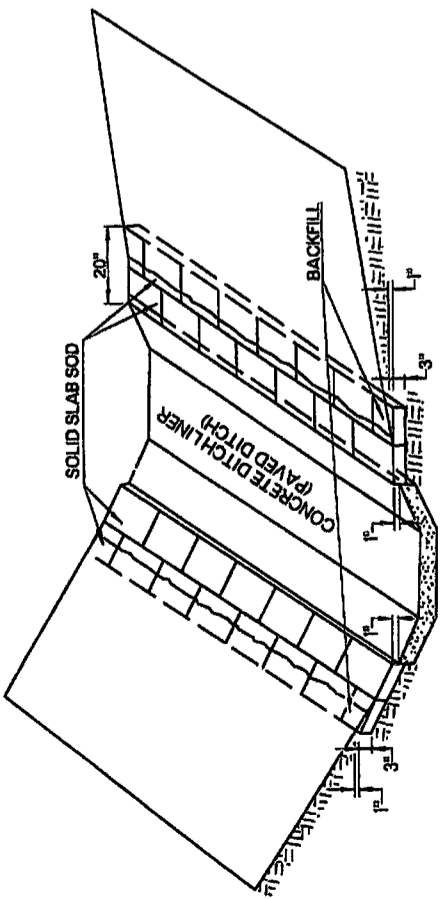
LONGITUDINAL SECTION WITH CURTAIN WALLS



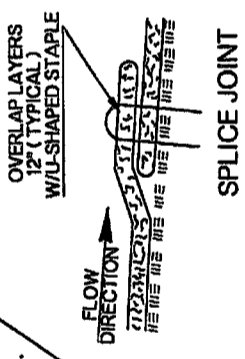
OPTIONAL LONGITUDINAL SECTION WITH BURIED ENDS
(BURIED ENDS SHALL NOT BE USED ADJACENT TO DRAINAGE STRUCTURES)



DITCH LINER PROTECTION
(EXCELSIOR MAT OPTION)



DITCH LINER PROTECTION
(SOLID SLAB SOD OPTION)



SPLICE JOINT

DESIGN NO. 1 - A PAVED PILOT DITCH TO BE PLACED 6" BELOW THE NORMAL FLOWLINE AND IN THE CENTER OF A STANDARD DITCH UNPAVED DITCH

DESIGN NO. 2 - A DITCH THAT IS PAVED AND HAVING THE SAME FLOWLINE AS A STANDARD UNPAVED DITCH

QUANTITIES OF CLASS C CONCRETE PER LF OF PAVED DITCH		QUANTITIES IN CUBIC YARDS						
		DESIGN NO. 1			DESIGN NO. 2			
BOTTOM WIDTH		2'-0"	3'-0"	4'-0"	5'-0"	6'-0"	7'-0"	8'-0"
K 1		.0522	.0645	.0769	.0892	.1016	.1274	.1644
K 2		.0586	.0709	.0832	.0955	.1078	.1790	.2262
	● VARIABLE AS SHOWN ON PLANS							
	DESIGN 2A = 1:3 SLOPES							
	DESIGN 2B = 1:2 SLOPES							
	DESIGN 2C = 1:1 SLOPES							
	TOTAL CLASS C CONC. = (LENGTH OF PAVED DITCH) (K1) + (NO. OF CURT. WALLS) (K2)							
	K1=CU. YDS. OF CONCRETE PER LINEAR FOOT							
	K2=CU. YDS. OF CONCRETE PER CURTAIN WALL							

GENERAL NOTES

1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
2. ALL COST OF ADDITIONAL BORROW OR EXCAVATION, REQUIRED FOR INSTALLING PAVED DITCH, SHALL BE INCLUDED IN PRICE BID FOR CLASS C CONCRETE.
3. THE DITCH SHALL BE WATERED, AND COMPACTED, BEFORE PLACING CLASS C CONCRETE.
4. DITCH LINER PROTECTION MAY BE EITHER EXCELSIOR MAT, OR SOLID SLAB SOD, AND SHALL BE MEASURED BY THE LINEAR FOOT OF DITCH (PAVED DITCH), IN PLACE.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
509 (D)	CLASS C CONCRETE	CY
229	DITCH LINER PROTECTION	LF

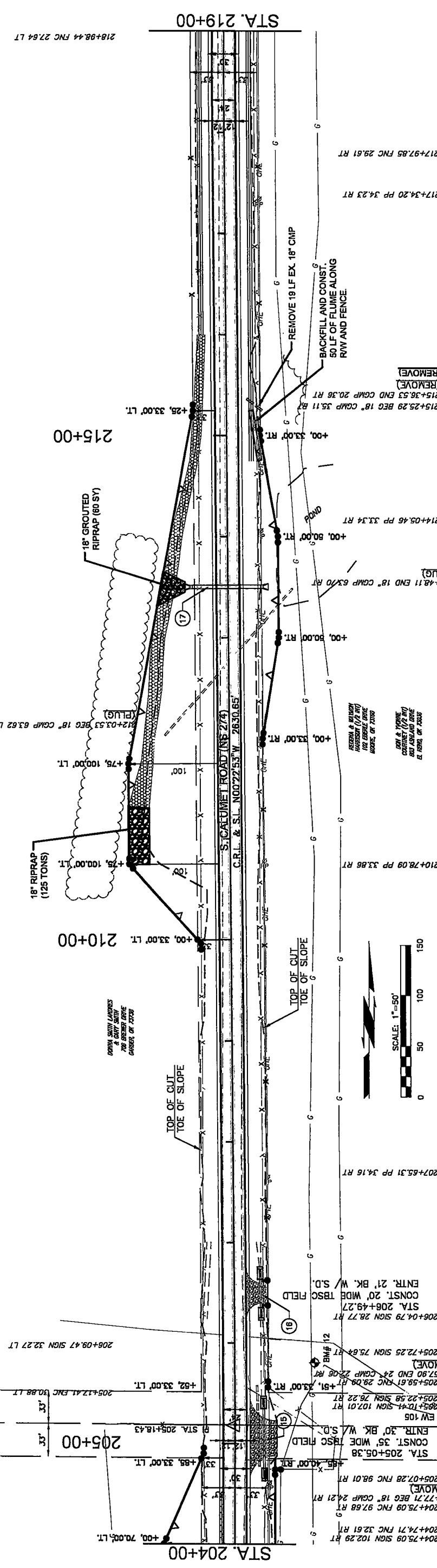
APPROVED BY ROADWAY ENGINEER: *Calvin A. Williams* DATE: *07/11/15*

ROADWAY DESIGN DIVISION STANDARD

DOT PAVED DITCHES AND FLUMES

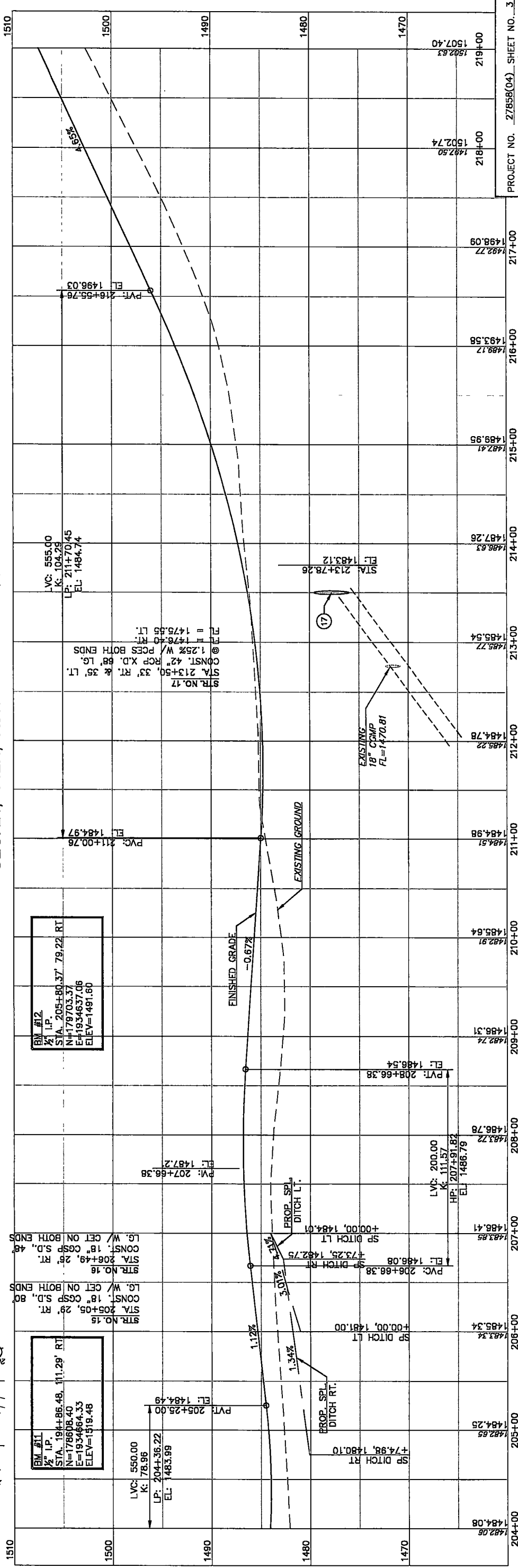
OKLAHOMA DEPARTMENT OF TRANSPORTATION 2009 SPECIFICATIONS DC-3 2 R-84

SEC. 23, T12N, R9W

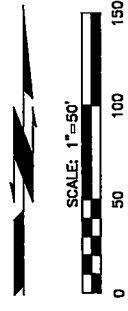


218+98.44 FNC 27.64 LT

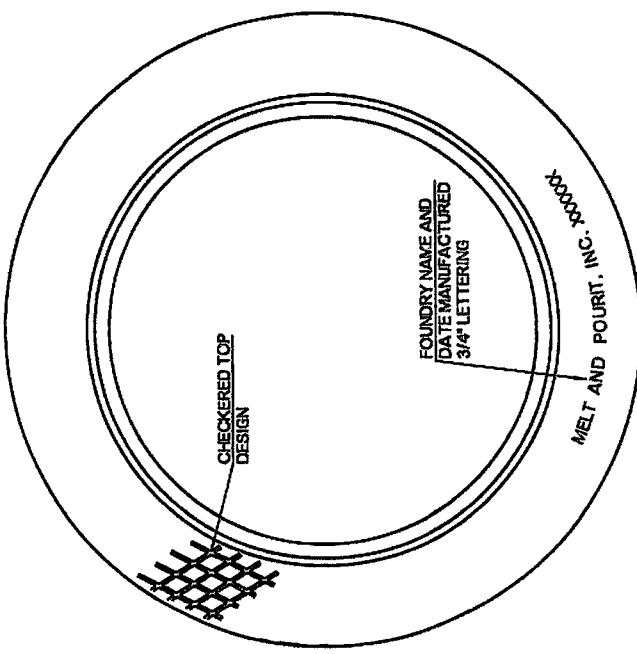
SEC. 24, T12N, R9W



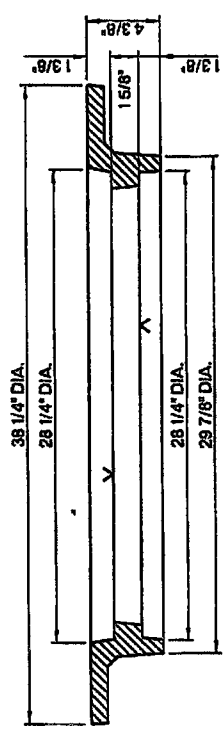
204+00	1482.08	1484.08
205+00	1482.65	1484.25
206+00	1483.34	1485.34
207+00	1483.85	1486.41
208+00	1483.72	1486.78
209+00	1483.74	1486.79
210+00	1482.91	1485.64
211+00	1484.51	1484.98
212+00	1485.22	1484.78
213+00	1485.72	1485.54
214+00	1486.63	1487.26
215+00	1487.41	1489.95
216+00	1489.12	1493.58
217+00	1492.72	1498.09
218+00	1492.50	1502.74
219+00	1502.63	1507.40



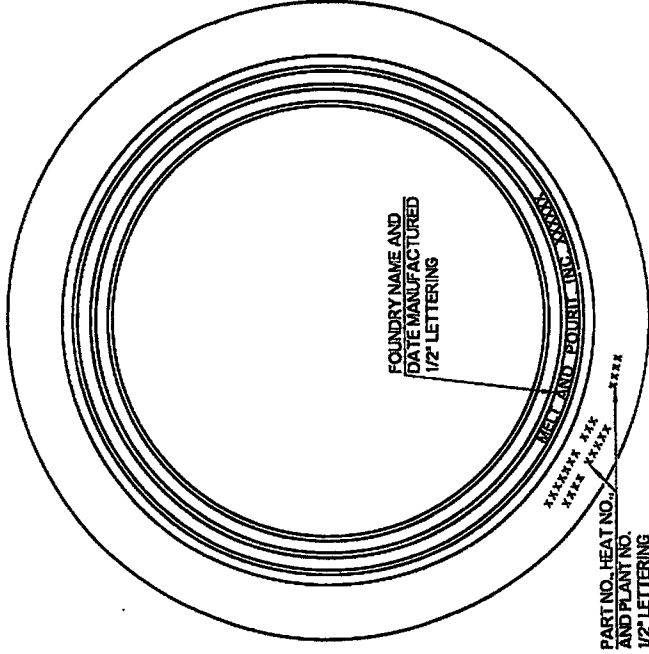
OKLAHOMA DEPARTMENT OF TRANSPORTATION	
STANDARD REVISIONS	DATE



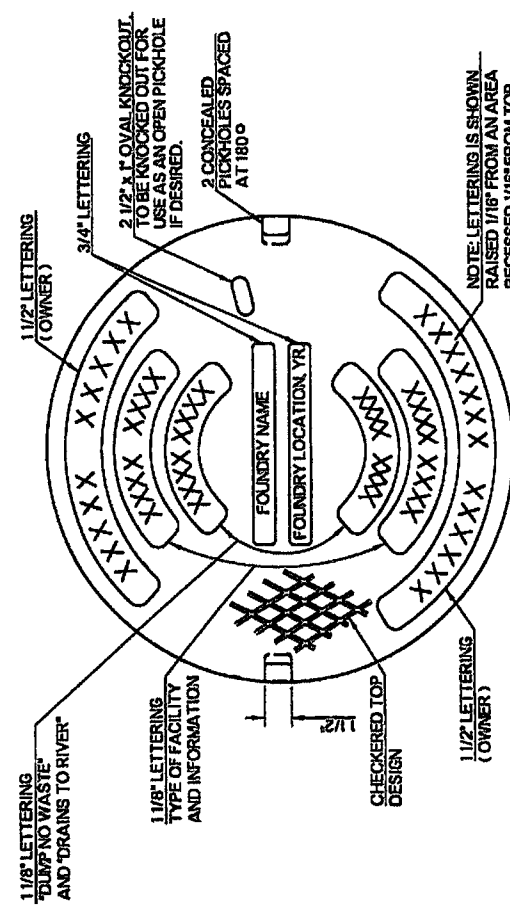
TOP SIDE OF FRAME FOR OUT OF PAVING INSTALLATION



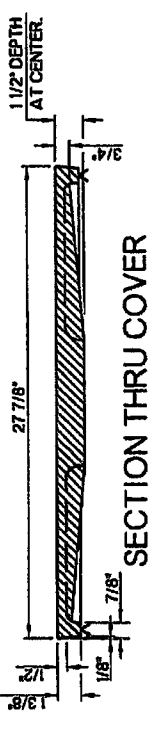
REVERSIBLE FRAME



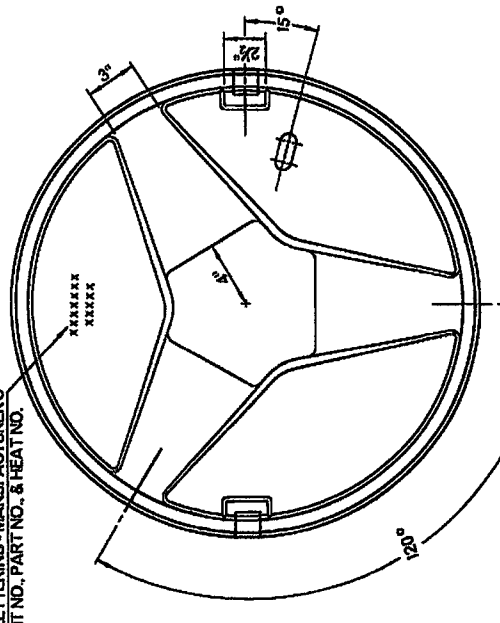
TOP SIDE OF FRAME FOR IN PAVING INSTALLATION



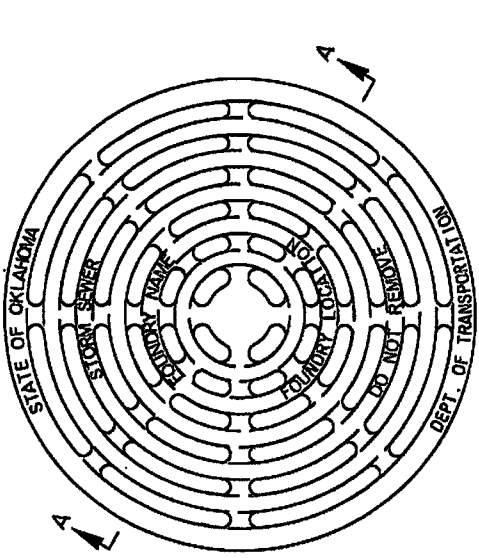
TOP SIDE OF COVER



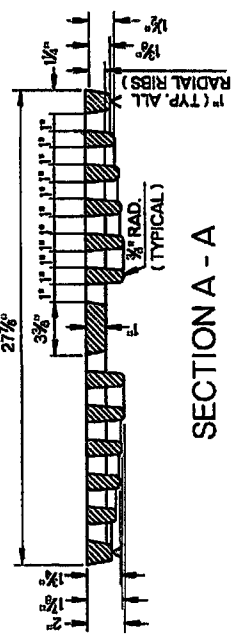
SECTION THRU COVER



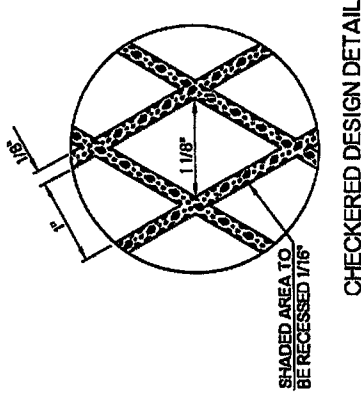
BOTTOM SIDE OF COVER



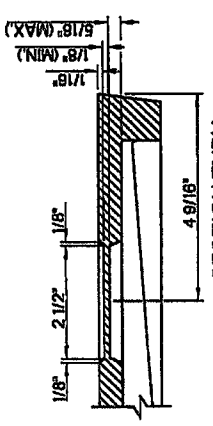
TOP SIDE OF COVER GRATE



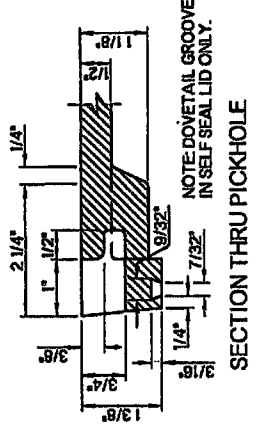
SECTION A - A



CHECKERED DESIGN DETAIL



SECTION THRU OVAL KNOCKOUT



SECTION THRU PICKHOLE

- GENERAL NOTES**
1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
 2. COVERS WILL BE FURNISHED WITH A PLAIN SEAT, UNLESS A SELF-SEAL SEAT OR A LOCKING DEVICE IS SPECIFIED IN THE PLANS.
 3. LETTERING TO DENOTE OWNERSHIP AND TYPE OF USAGE WILL BE AT THE DISCRETION OF THE OWNER.
 4. FRAMES AND COVERS SHALL BE CAST STEEL, DUCTILE IRON, OR GRAY IRON CONFORMING TO SECTION 725 OF THE SPECIFICATIONS.
 5. MANHOLE FRAMES, COVERS AND COVER GRATES INSTALLED DURING ORIGINAL CONSTRUCTION SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE OF THE ORIGINAL MANHOLE.

NOTE: MACHINING (SYMBOL Δ) MAY BE ACCOMPLISHED BY MILLING OR BY LEVEL GRINDING.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
611(C)	REPLACEMENT OF MANHOLE FRAME AND COVER	EA
611(D)	REPLACEMENT MANHOLE FRAME	EA
611(E)	REPLACEMENT OF MANHOLE COVER	EA
611(F)	REPLACEMENT OF MANHOLE COVER GRATE	EA

APPROVED BY ROADWAY ENGINEER **Collette A. O'Neil** DATE **01/28/11**

ROADWAY DESIGN DIVISION STANDARD

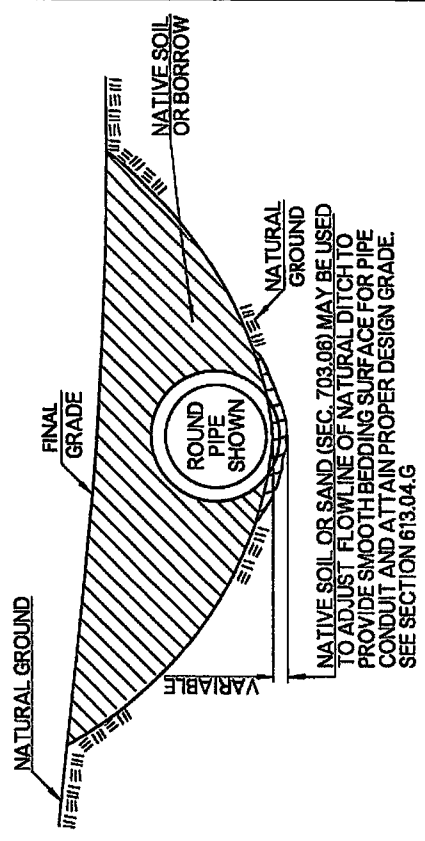
ODOT

MANHOLE FRAME AND COVER

OKLAHOMA DEPARTMENT OF TRANSPORTATION
2009 SPECIFICATIONS

MFC-4	1
	R-42

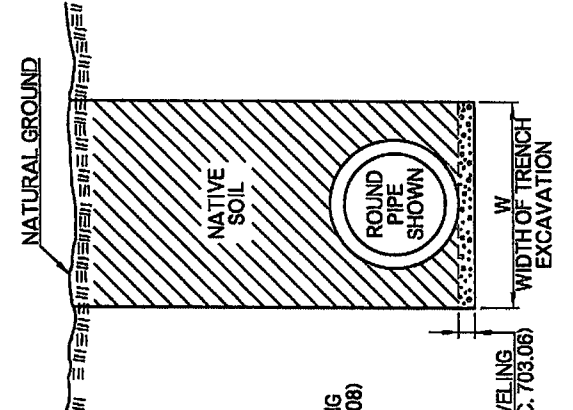
OKLAHOMA DEPARTMENT OF TRANSPORTATION	
STANDARD REVISIONS	DATE



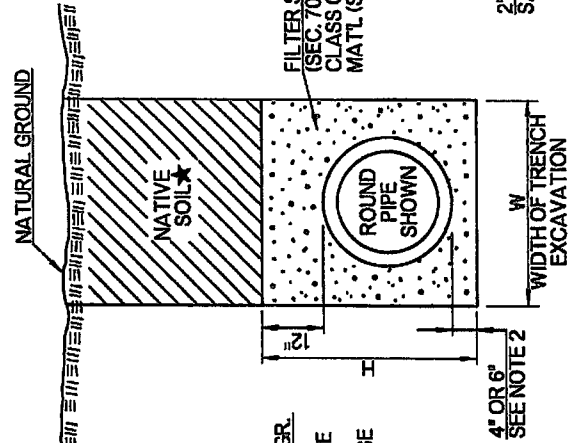
**CLASS D BEDDING
ALTERNATE 2**

GENERAL NOTES

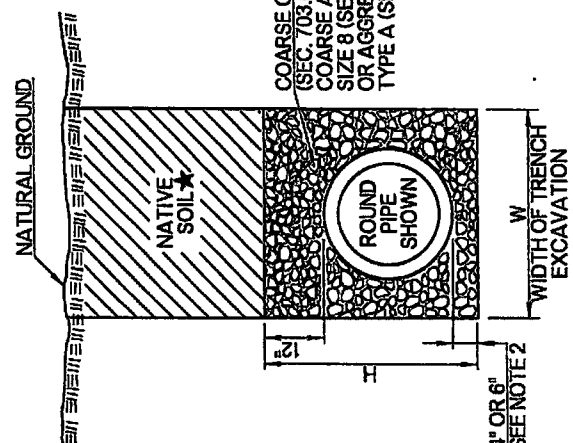
1. ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2009 ODOT STANDARD SPECIFICATIONS.
2. EQUIVALENT PIPE SIZES 66 INCHES AND LARGER REQUIRE 6 INCHES OF BEDDING MATERIAL BELOW PIPE CONDUIT.
3. NATIVE SOIL FOR BACKFILL TO BE COMPACTED IN ACCORDANCE WITH SECTION 202.04 OF THE STANDARD SPECIFICATIONS.
4. A BETTER CLASS OF BEDDING MAY BE SUBSTITUTED FOR THE NEXT LOWER CLASS. EXAMPLE: CLASS A STANDARD BEDDING CAN BE USED IN LIEU OF CLASS B STANDARD BEDDING.
5. FOR TRENCH WIDTH (W), BEDDING HEIGHT (H), PIPE DATA, MULTIPLE PIPE SPACING & BEDDING DATA, SEE ROADWAY STANDARDS SPI-4 & FPI-3.
6. DATA TABLE WILL DISPLAY 'NA' WHEN PIPE MATERIALS ARE NOT ALLOWED.
7. STANDARD BEDDING CLASS D MATERIAL(S) (ALTERNATE 1) WILL BE CONSIDERED AS INCIDENTAL AND NOT BE PAID FOR SEPARATELY. COST FOR BORROW OR FILL MATERIAL NEEDED FOR ALTERNATE 2, WILL BE INCLUDED IN THE PRICE OF THE PIPE.
8. PIPE MATERIAL(S) PRODUCT(S) NOT SHOWN IN THE PIPE BEDDING TABLE WILL BE EVALUATED AND APPROVED ON A CASE BY CASE BASIS.
9. ALL TEMPORARY PIPES SHALL HAVE CLASS D BEDDING UNLESS OTHERWISE SHOWN IN THE PLANS.
10. BEDDING MATERIAL TYPE B, C, AND D, SHALL BE PLACED IN 6" LAYERS AND COMPACTED TO THE SPECIFIED DENSITY USING HAND OPERATED EQUIPMENT ONLY.
- ★11. WHEN PIPE INSTALLATION IS UNDER PAVING, IN LIEU OF BACKFILLING WITH NATIVE SOIL, PLACE BEDDING MATERIAL ALL THE WAY TO TOP OF TRENCH.
12. THE USE OF AN ALTERNATE PIPE AND ITS CORRESPONDING BEDDING MATERIAL WILL BE ACCEPTABLE PROVIDED THE CRITERIA IN THE DESIGN TABLE IS MET
13. POLYPROPYLENE PIPE SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321.



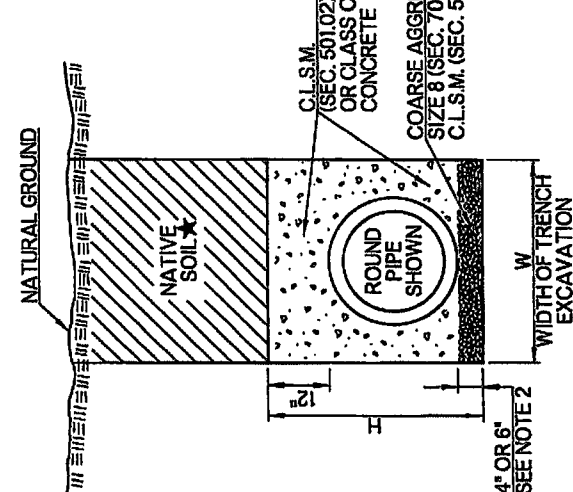
**CLASS D BEDDING
ALTERNATE 1**



CLASS C BEDDING



CLASS B BEDDING



CLASS A BEDDING

PIPE BEDDING CLASS/DESIGN TABLE	UNDER PAVING				OUTSIDE PAVING		
	CROSS DRAIN (NHS OR D17 v 6000 VFD)	CROSS DRAIN (OTHER)	STORM SEWER (NHS OR D17 v 6000 VFD)	STORM SEWER (OTHER)	CROSS DRAIN	SIDE DRAIN	STORM SEWER
TYPE OF PIPE	B	C	B	C	C	D	C
REINFORCED CONCRETE PIPE	NA	NA	NA	NA	C	D	C
CORRUGATED GALV. STEEL PIPE (CGSP)	NA	NA	NA	NA	C	D	C
MILL PRECOATED CGSP	NA	NA	NA	NA	C	D	C
CORRUGATED GALV. STRUCT. PLATE	NA	NA	NA	NA	C	D	C
ALUMINIZED TYPE II CSP	NA	NA	NA	NA	C	D	C
CORRUGATED POLYETHYLENE / PVC	NA	A	NA	A	B	B	B
POLYVINYL CHLORIDE (SC 40/80 PVC)	NA	NA	NA	NA	NA	NA	NA
POLYPROPYLENE PIPE (PP) ▲	NA	B	NA	B	C	D	C

■ WHEN THERE IS ANY POSSIBILITY OF THE PAVEMENT BEING WIDENED DURING THE LIFE OF THE DRAINAGE STRUCTURE, THE BEDDING SHALL MEET THE 'UNDER PAVING SECTION' CRITERIA FOR THE FULL EXTENT OF ANY ANTICIPATED EXPANSION TO THE FACILITY.

▲ BACKFILL WITH A MINIMUM OF TWO (2) FEET OF APPROVED BACKFILL MATERIAL.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
613 (R)	STANDARD BEDDING MATERIAL, CLASS A	CY
613 (S)	STANDARD BEDDING MATERIAL, CLASS B	CY
613 (T)	STANDARD BEDDING MATERIAL, CLASS C	CY

APPROVED BY ROADWAY ENGINEER: *Calvin F. J.* DATE: *01/15/13*

ROADWAY DESIGN DIVISION STANDARD

STANDARD PIPE BEDDING