Materials & Tests Unit



Standard Operating Procedure Inspection of Corrugated Metal Pipe & Pipe Arch

Objectives:

The purpose of this SOP is to provide a quick reference guide and a means for the inspection, the acceptance and the reporting of Corrugated Metal Pipe and Pipe Arch. This SOP doesn't cover any specialty items. To inspect the specialty items, the technician/inspector will refer to the project plans or contract special provisions.

Materials Inspection and Acceptance:

The NCDOT Materials and Tests Unit are responsible for the inspection of all Corrugated Metal Pipe, located on NCDOT Right of Way or future NCDOT Right of Way. To insure all AASHTO, ASTM and NCDOT specifications are followed, all materials must come from the NCDOT approved list and/or participate in the Department's Brand Registration program.

Safety Equipment List:

Safety Shoes with ANSI Z 41 rating Hard Hat with ANSI Z89.1 rating Safety Vest First Aid Kit Safety Glasses (optional) Ear Plugs (optional) Sun Block (optional) Lifting Belt (optional) Dust Mask (optional)

Safety Concerns:

Vehicular Traffic Sharp Edges Heavy Equipment/Backing Incidents Possible dusty conditions.

Equipment Required for Inspection of Corrugated Metal Pipe:

Corrugated Metal Pipe Worksheet Tape Measure Magna gage (Calibrated Annually by Materials and Tests Unit Chemical Lab) Micrometer Calculator Pen or Pencil

M&T Inspector's Duties for Inspection of Corrugated Metal Pipe:

- 1. Periodically review SOP for the Inspection of Corrugated Metal Pipe.
- 2. Periodically review specifications listed below:
 - a. NCDOT Standard Specification Section 1032-1 thru 4.
 - b. AASHTO M 36 Corrugated Steel Pipe, Metallic Coated, for Sewer and Drains (See Section 2 in AASHTO M 36 for other referenced documents)
- 3. Technician will review contract or purchase order before inspection to verify specified material.
- 4. No inspection should be made without a copy of the Bill of Lading.
 - The following statement shall be on each shipping document, and signed by a responsible company representative who has the authority to bind the company:

We certify that these materials have been inspected and tested and conform to the NCDOT Brand Certification Program for Corrugated Metal Pipe Materials.

- 5. Is the manufacturer/producer approved and currently on the NCDOT Brand Certification Program.
- 6. Identification markings required on each Pipe
 - a. CM Pipe (galvanized/aluminized) shall have the following identification marked on each pipe:
 - Sheet Manufacturer
 - Specified Thickness
 - Specified weight of coating
 - AASHTO Designation
 - Heat Number
 - b. Aluminum Pipe shall have following identification marked on each pipe:
 - Sheet Manufacturer
 - Identification of the pipe fabricator, if different than the sheet manufacturer
 - Alloy and temper (AASHTO M 197 alclad alloy 3004-H34 for annular pipe and alclad alloy 3004-H32 for helical pipe or lock seam)
 - Specified Thickness
 - AASHTO Designation
 - c. Technician will verify required identification of each pipe with corresponding BOL and AASHTO M 36 to insure compliance with specifications.
 - d. If heat numbers do not match BOL. A certified mill test report is requested from the producer/manufacturer.
 - e. Technician will record heat # or temper on Corrugated Metal Pipe Field Worksheet.

7. Dimensions

- a. Diameter of pipe is measured from crest to crest on the inside of pipe. The average diameter will not vary more than 1 percent or $\frac{1}{2}$ ", whichever is greater, for circular pipe. Arched Pipe has a tolerance of 1" or 2 percent whichever is greater, will be permissible in span and rise.
- b. All types of pipe ends, shall be matched in a joint such the maximum difference in diameter of abutting pipe ends is $\frac{1}{2}$ ".
- c. Pipe sections and special attachments for pipe 60" or larger diameter pipe shall be alphanumerically match-marked at the plant site before shipping.
- d. Length of pipe shall not be deficient greater than 1% of total shipment.
- e. Corrugations will be specified on Contract/PO and BOL. Where 3" x 1" corrugations are required, the Contractor will be permitted to use 5" x 1" corrugations.
- f. Pipe with helical corrugations (lock seam) shall have rerolled end with at least 2 annual corrugations at each end.
- 8. Gage or Thickness:
 - a. Technician will use a micrometer to measure gage of pipe.
 - b. Measurements will be recorded on CMP Worksheet

Specified Gage or Thickness	Minimum Gage Allowed
18 (0.052")	0.046"
16 (0.064")	0.057"
14 (0.079")	0.072"
12 (0.109")	0.101"
10 (0.138")	0.129"
8 (0.168")	0.159"

Measurement will be taken at any point not less than 3/8" from edge.

9. Metallic Coatings

a. Minimum requirements for metallic coatings are:

-AASHTO M 289 Aluminum Coated (T2) = 1.0 ozs. sq. ft. (Both Sides) -AASHTO M 218 Zinc Coated (Galvanized) = 2.0 ozs. sq. ft. (Both Sides)

- b. NCDOT technician will use a calibrated magna gauge to measure coatings in the field. These gauges will measure the thickness in mils. If a discrepancy arises with coating then slugs are to be taken randomly from the heat number in question. A minimum of three slugs per heat number will be taken. Slugs will be sent to NCDOT Materials and Tests Chemical Lab.
- c. Calculating mils to ounces square foot are as follows:
 - Aluminum Coating 1.9 mils = 0.5 ozs. sq. ft (one side)
 Galvanized/Zinc Coating 1.7 mils = 1.0 ozs. sq. ft (one side)
 - Aluminum coating you will take the average mils for each side and add together. Divide this number by 3.8. This will give you ozs. sf. ft. for both sides.
 - Zinc coating you will take the average mils for each side and add together. Divide this number by 1.7. This will give you ozs. sf. ft. for both sides.

- d. Aluminum Pipe will not have a coating specification. Slugs will be taken for chemical and mechanical check.
 - Three slugs will be taken per temper number for shipment.
 - Contact Kelly Croft if you have a speciality item manufactured from aluminum (Endwall and etc.). Mr. Croft will determine amount of slugs needed.

10. Workmanship

- a. Damage to pipe from shipping or handling.
- b. Poor workmanship.
- c. Coating repairs shall be in accordance with the <u>NCDOT Standard Specification</u> <u>Section 1076-7</u>.
- 11. Coupling Bands
 - a. Sheet steel used in fabricating bands must be same coating and shall conform to same specification as pipe.
 - b. Bands shall not be more than 3 nominal gage thicknesses lighter than the gauge of the pipe being connected to. In no case shall the bands be lighter than 18 gage. (Example: When connecting bands to 10 gauge pipe, 16 gauge bands are the minimum allowable band that can be used.)
 - c. Annular corrugated bands shall have a minimum width of 10-1/2" where 2-2/3" x 1/2" corrugations are used.
 - d. Huger type corrugated bands having one annular corrugation at each outside edge of the band will be acceptable.
 - e. Coupling bands with projections (Dimple Bands) may be used where it is necessary to join new pipe to existing pipe having helical corrugations (no rerolled ends) at the joint locations. Use an approved sealer with this type of coupling band.
 - f. Fasten coupling bands on the ends with at least two 1/2" bolts. Bolts, nuts, threaded items and lugs shall be zinc coated by the following process hot dip, electroplating or mechanical.

Standards:

NCDOT Standard Specification Section 1032-1 thru 4

AASHTO M 36

Sample Prep and Submittal:

Listed below are screen shots on Hicams concerning entry of a Guardrail Field Inspection Report.



称 HiCAMS - [hicar	nsprod]												_ & ×
File Edit Functions	Inquiries R	eferences Ac	dmin Tools Windo	w Help									
	8 🙈 /	2 🕅 💐											
Review Field I	nspection	Reports											
Contrac	t:	Êra	1		Material Tv	pe: (All)			_				Patriava
Report Nam	e. Comu	nated Metal	Pine	-	Inspected	Bv:							Ternese
Report I		s	ection: 11		Inspection Da		nn 🗔		<u>x</u>			ins	R <u>e</u> set
Report Statu	e. In Pro				Inspection Pes							in	New
Teet Ceterror					mapection ites	an: ((~ii)			•				<u></u>
Test Categor	y: [(Aii)												
Report Name	Report ID	Contract	Mate	rial Type	Inspector	Inspection Date	Section	Inspection Result	Report Status	Test Catego	ry		
Guardrail	49140	C202810			Whitley, Christopl	10/31/2013	11	Meets Specs	In Process	Acceptanc	e		
Guardrail	41623	C202729			McLain Jr, Raefor	08/17/2012	11	Meets Specs	Unauthorized	Acceptanc	е		
Select Corrugated Metal Pipe for the "Report Name". Then click "New" tab. This will create a new corrugated metal pipe FIR													
			1 of 2 FIR										
										<u>D</u> etails		NOR	Save As
Click to add a new Field I	nspection Re	eport											
🛃 start 🔰 🖉	0 🕑	Citrix Xer	nApp - NCD	🚞 Metal Pipe SOP's	👿 Guardrail :	50P 2014.d	Concret	e Pipe SOP 2	Metal Pipe SOF	9 2014	🐝 HICAMS	- [hicamspro	(C) 🖻 🗄 🧐 🥥 9:28 PM

	HICAMS - [train]	
With comparison (Contract Part Report Biology (Fridage) Single Free Vest Contract # Single Free Section Name Single Free Section Single Free Section Section Single Free Section Section Section Section Section Seconset Section Section <td>File Edit Functions Inquiries References Admin Tools Window Help</td> <td>Training Endropment</td>	File Edit Functions Inquiries References Admin Tools Window Help	Training Endropment
Report Name: Conjunct And Information Report Size: Provide Size: Provide Size: Report Name: Conjunct And Information Name: Social Size: Provide Size: Provide Size: Name: Specify Size: Name: Specify Size: Provide Size: Provide Size: Name: Specify Size: Name: Specify Size: Provide Size: Provide Size: Name: Specify Size: Name: Specify Size: Provide Size: Provide Size: Name: Specify Size: Name: Specify Size: Provide Size: Provide Size: Name: Specify Size: Name: Specify Size: Provide Size: Provide Size: Name: Specify Size: Name: Specify Size: Provide Size: Provide Size: Name: Specify Size: Name: Specify Size: Provide Size: Provide Size: Name: Specify Size: Name: Specify Size: Provide Size: Provide Size: Name: Specify Size: Name: Specify Size: Provide Size: Provide Size: Name: Specify Size: Name: Specify Size: Provide Size: Provide Size: Name: Specify Size: Name: Specify Size: Provide Size: Provide Size: Provide Size: Name: Specify Size: Name: Specif	😞 🚥 🛶 🚓 🖍 Marina.	
Sample Fram: Vester Tury Sample Fram: Vester Tury New Contract of Con	Report Name: Corrugated Metal Pipe Report ID	Report Status: In Process
support rest rest rest rest support rest support rest support rest rest rest rest rest rest rest rest rest rest rest rest rest rest rest rest rest rest rest rest rest rest	General Results At Ds Panat History	
Sector 2011 WBS: Country Sector 2011 Book Book Numet Varies Book Book Station Location Book Book Book Book Book Station Location Book Book Book Book Book Book Book Book Book Book Book Book Book Book Book Book Book		
Contract Contract Barles Barles Barles Barles Contract Barles	Sample From: Project	Test Category: Acceptance
Unin Nutrit Producer: Producer: Inspector Nutrit Nutry York Constant Nutry York Nutry York Nutry York <t< td=""><td>Contract: WBS:</td><td>County:</td></t<>	Contract: WBS:	County:
Notes	Station: + Location	n [
Name Yang Section Projection Data Impection Data Impectim Result </td <td>PO: BO</td> <td></td>	PO: BO	
Main Yang Producation Comment Name Yang Comment Name Yang Name Yang Comment Name Yang Name Yang Comment Name Yang <	Maint Supervisor:	
Section: Faces: Producer: Impection Date: [noncolor: nuclear interview intervi	Maint Yard:	
sector Producer convert Conv	Fabricator:	
Producer: Impective Factor Impective Factor Connect Notes of Connect Connect <t< td=""><td>Search by Plant ID: Section</td><td>n: 14</td></t<>	Search by Plant ID: Section	n: 14
Impector Impector Impector None of Comment Comment None of Comment Comment None of Comment Comment Contract # Station - Contract # Station - Location Of Comment - Maint Supervisor (NCDOT Maint) Station - Section Station <td< td=""><td>Producer:</td><td> </td></td<>	Producer:	
Click the "General" its band enter the following: Comment Commen	Inspector	
 Comment Comment Station PO (NCDOT Maint) Maint Supervisor (NCDOT Maint) Maint Supervisor (NCDOT Maint) Maint Yard (NCDOT Maint) Fabricator Section Producer Inspector Inspector Date and Inspection Results. 	Inspection Date: 00/00/0000	Notice of Click the "General" tab and enter the following:
 Station Station Contractor Con	Comment:	– Contract #
 Location PO (NCDOT Maint) Maint Supervisor (NCDOT Maint) Maint Supervisor (NCDOT Maint) Maint Supervisor (NCDOT Maint) Fabricator Section Producer Inspector Inspector Inspector Inspector Sample Front: Fight Maint WBS: 34427.3.2 Contractor: Sample Front: Fight Maint Section: I + O Location: Fight Maint Report Natio: Contractor: Sample Front: Fight Maint Section: I + O Location: Fight Maint Report Natio: Contractor: Sample Front: Fight Maint Section: I + O Location: Fight Maint Report Natio: Contractor: Sample Front: Fight Maint Section: I + O Location: Fight Maint Report Natio: Contractor: Section: I + O Location: Fight Maint Section: I + O Location: Fight Maint Report Natio: Contractor: Section: I + O Location: Fight Maint Report Natio: Contractor: Section: I + O Location: Fight Maint Report Natio: Contractor: Section: I + O Location: Fight Maint Report Natio: Contractor: Section: I + O Notice of Rejection: Fight I + Fight Maint Section: I + O Notice of Rejection: Fight I + Fight Maint Section: I + O Notice of Rejection: Fight I + Fight Maint Section: I + O Section: I + O Notice of Rejection: Fight I + Fight Maint Section: I + O Section: I		– Station
 PO (NCDOT Maint) Maint Supervisor (NCDOT Maint) Maint Supervisor (NCDOT Maint) Fabricator Section Producer Inspector Inspector Date and Inspection Results. 		– Location
 Maint Supervisor (NCDOT Maint) Maint Yard (NCDOT Maint) Fabricator Section Producer Inspector Date and Inspection Results. 		– PO (NCDOT Maint)
 Maint Yard (NCDOT Maint) Fabricator Section Producer Inspector Inspector Date and Inspection Results. 		 Maint Supervisor (NCDOT Maint)
 Start <		– Maint Yard (NCDOT Maint)
 Staff Comment Section Section Producer Inspector Date and Inspector Result Report Name: Compated Meta Pipe Report Name: Pipe Pipe Pipe Report Name: Pipe Pipe Pipe Report Name: Pipe Pipe Pipe Pipe Pipe Pipe Pipe Pipe	eady	– Fabricator
 Producer Inspector Inspe	🐉 start 🖉 🙆 🙆 🌈 Citrix XenApp - NCDO 🍃 Metal Pipe SOP's	🖸 Guardral SOF – Section
 Inspector Insp		– Producer
Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in tradie Itela in		– Inspector
Results Report Name: Contract: Contract: Contract: Contract: Contract: Produce: Interformer Interformer Produce: Interformer I	HiCAMS - [train]	– Inspection Date and Inspection
Revord Market Corrugaded Metal Pipe Report ID: Report Status: In Process Report Name: Corrugaded Metal Pipe Report ID: Report Status: In Process	He Lait Functions Induines References Admin Tools Window Help	Results.
Report Name: Corrugated Metal Pipe Report ID: Report Status: Metal Results At IDs Report History Sample From: Project Contract: Contract: Contract: Station: + 00 Location: PROJECT Po: NA Bob: S233-1 Mint Superviso: NA Bob: Station: + 00 Location: PROJECT Po: NA Bob: S233-1 Maint Yard: NA Bob: Station: - 00 NA Bob: Station: - 00 NA Bob: S233-1 Maint Yard: NA Bob: Station: - 100 Bob: - 100 - 100 -	Review Corrugated Metal Pipe (New)	
Results At IDs Report History Sample From: Project Test Category: Acceptance Contract: Contracto: WBS: 34427.3.2 Contracto: Contracto: Statio: 0 + 00 Location: PROJECT Po: NA Bol: 323-1 Maint Supervisor: NA Maint Supervisor: NA Bol: 323-1 Bol: 323-1 Bol: 323-1 Maint Supervisor: NA Bol: Bol: Bol: </td <td>Report Name: Corrugated Metal Pipe Report ID</td> <td>r: Report Status: In Process</td>	Report Name: Corrugated Metal Pipe Report ID	r: Report Status: In Process
Sample From: Project Test Category: Acceptance Contract: C202240 WBS: 34427.3.2 County: Macon Contractor: Station: +00 Location: PROLECT Prolect: Prolect	General Results Alt IDs Report History	
Contractic C202240 WBS: 34427.3.2 County: Macon Contractor: Station: •+00 Location: PROJECT Po: V/A BOL: 3233-1 Maint Supervisor: V/A Maint Yard: V/A Fabricator: LANE-DUBLIN Search by Plant ID: • Section: 14 Producer: Lane Enterprises, Inc Dublin- MP17 Inspector Results: Inspector Results: Inspector Date: 19/26/2013 Result: In Process Inspector Date: 19/26/2014 Result: In Process In	Sample From: Project	Test Category: Accentance
Contractor: Station: PO: NA BOL: 9233-1 Maint Supervisor: NA Maint Yard: NA Bol: 9233-1 Maint Supervisor: NA Bol: 9233-1 Maint Yard: NA Bol: 9233-1 Maint Yard: NA Bol: Search by Plant ID: Search by Plant ID: Search by Plant ID: Search Search: Inspector: Inspector: <td< td=""><td>Contract: C202240 (1) WBS: 34427.3.2</td><td>County: Macon</td></td<>	Contract: C202240 (1) WBS: 34427.3.2	County: Macon
Station: 0 0 P0: WA BoL: 323-1 Maint Supervisor: WA BoL: 323-1 Maint Supervisor: WA BoL: 323-1 Maint Yard: WA BoL: State: Maint Yard: WA BoL: State: Produce: Inspection Result: Inspection Date: D3262013 Bol: Inspect: Comment: Dispect: Bol: Bol: Dispect: Dispect:<	Contractor:	
PO: IV/A BOL: 3233-1 Maint Supervisor: IV/A Maint Yard: IV/A Baint Yard: IV/A Fabricator: CANE-DUBLIN Search by Plant ID: Inspection Result: Inspection Result: Inspection Result: Inspection Result: Inspection Date: 09/26/2013 Comment: Start	Station: 0 + 00 Location	n: PROJECT
Maint Supervisor: VA Maint Yard: VA Fabricator: ANE-DUBLIN Search by Plant ID: Section: Inspection Results Inspection Result: Inspector: Edford, Brandon S Inspection Date: 19/26/2013 Comment: Section:	PO: N/A BO	L: 3233-1
Maint Yard: WA Fabricator: ANE-DUBLIN Search by Plant ID: Section: 14 Producer: ane Enterprises, Inc., Lane Enterprises, Inc Dublin - MP17 Inspection Results Inspection Results Inspection Date: 09/26/2013 Result: In Process Inspection Date: 09/26/2013 Result: In Process Comment: Start COMMENT: Result: In Process Section: S	Maint Supervisor: N/A	
Fabricator: ANE-DUBLIN Search by Plant ID: Section: Producer: ane Enterprises, Inc., Lane Enterprises, Inc Dublin - MP17 Inspection Results Inspection Result: Inspection Result: Inspection Result: Inspection Result: Inspection Result: Inspection Result: Inspection Date: 19/26/2013 Comment: Image: Comment: Start Comment: <	Maint Yard: NA	
Search by Plant (D): Section: It Producer: ane Enterprises, Inc., Lane Enterprises, Inc Dublin - MP17 Inspection Results Inspection Result: In Process Inspection Date: 09/26/2013 Notice of Rejection: It Comment: Comment: It It It Start Comment: It It It It Start Comment: It	Fabricator: LANE-DUBLIN	
Inspection Results Inspection Results Inspection Result: In Process Inspection Date: 09/26/2013 IN Notice of Rejection: Comment Comment Start C I C Concepto Process Inspection Result: In Process Inspection Date: 09/26/2013 IN Notice of Rejection: IN Inspection Date: 09/26/2013 IN Inspection Result: In Process Inspec	Search by Plant ID: Section Producer: Lans Enformises, Inc. Lans Enformises, Inc. Co.	n: j 14 🔽 iblin - MP17
Inspection Result: In Process Inspection Date: 09/26/2013 Result: Operation Result: In Process Inspection Date: 09/26/2013 Result: Description Comment Comment Start C C Concerned Service Ser	Inspection Results	
Inspection Date: 09/26/2013 Image: Notice of Rejection: Image: Notice of Rejection: Comment: Image: Notice of Rejection: Image: Notice of Rejection: Image: Notice of Rejection: Start Comment: Image: Notice of Rejection: Image: Notice of Rejection: Image: Notice of Rejection: Start Comment: Image: Notice of Rejection: Image: Notice of Rejection: Image: Notice of Rejection: Start Comment: Image: Notice of Rejection: Image: Notice of Rejection: Image: Notice of Rejection: Start Comment: Image: Notice of Rejection: Image: Notice of Rejection: Image: Notice of Rejection: Start Comment: Image: Notice of Rejection: Image: Notice of Rejection: Image: Notice of Rejection:	Inspector: Ledford, Brandon S	Inspection Result: In Process
	Inspection Date: 09/26/2013	Notice of Rejection:
Start C O C Citri Vendeo - NCDO 2 Metal Pres SOP 2	Comment:	<u></u>
Start C 0 6 Ctrix VenAce - NCDO @ Metal Pres SOP:		
Start C 0 6 Ctrix VenApo - NCDO 2 Metal Pres 3025		
Start C O C Chin XenApo - NCDO 20 Metal Pres 509's D Guardeal 509 2014 d. D Converte Pres 509 2 D Metal Pres 509 2014		
Start C C Chrix XenApo - NCDO C Metal Pres 50P's		
Start A O G A Chrix XenApo - NCDO 🎓 Metal Poe 509's 🕅 Guardral 509 2014 d. 🕅 Concrete Poe 509 2		
	teady	W Guardral SOP 2014.d W Concrete Pipe SOP 2 W Metal Pipe SOP 2014 PHCAMS - frrant - \\R C SUP 9:43 PM

HICAMS - [train]	admin Tools Wind	au Hala								_ <u>-</u> ×
🖙 🖬 🎒 📲 🔌 🚴 🖉 Milli	3 Admin 1003 Wild	эм нор								Training Environment
🐟 Review Corrugated Metal Pipe (I	New)									_ 🗆 🗙
Report Name: Corrugated M	letal Pipe	Rep	ort ID:		Repo	ort Status	s: In Process	•		
General Results Alt IDs Report	History									
Material Type	Material	Me Gage Thick	tal ness Corrugati	on Perforated	Weld	Band	Accepted	Rejected		
		_	.000 *				.000	.000		
1 of 1 Material Line item: (None) First Reading Coating Type: Avg Reading: Coating: Asphait Coating Type: Available Accepted: Ready HICAMS - [train] File Edit Functions Inquiries References The Edit Functions Inquiries References Review Corrugated Metal Pipe (f	Sec C .00 A to XenApp - NCDO	 Cl Cl En 	ick the "Result ick the "insert" try "Material " try "Material " try "Gage" gaş try "Metal Thi try "Corrugati try "Perforatec try "Perforatec try "Band" if b try "Accepted" try "Line Item try "Coating T try "Coating T	s" tab to ente icon in the t 'ype" Pipe C material that e of specifie ckness" gage on" corrugati " if pipe is p bipe is weldet ording to NC ands were su ' quantity of ' pipe inspec ype" choice 4 ing" coatings	r in all c op left c ulvert or was ins d pipe. of mate on speci erforated 1. Do w DOT St pplied c material ted musi of coatin entered	of your orner, - Acces pected fied by d. Doe relds lo tandard lo they that m t be ass ags: Alt l in ave	test results 4 th icon in ssories ecified and / contact or es it meet A ok good wi 1 Specificat 1 Specificat i Specificat i Specificat sociated wi uminized, <i>A</i> erage mils.	gaged wit special pr ASHTO M ith no hole jon 1076-7 pecificatio OT specific th correct l Asphalt, Po	h micrometer. ovision. 4 36-8. s? Has weld 7 ns required. ations. ine items. olymer or Zinc	 9:53 PM . .
Report Name: Corrugated N	letal Pipe	Rep	ort ID:		Repo	ort Status	s: In Process	•		
General Results Alt IDs Report	History									
Material Type	Material	Me Gage Thick	tal ness Corrugati	on Perforated	Weld	Band	Accepted	Rejected		
Pipe Culvert, Metal - Englis Alum	inized Corrugated	Ste 16 - Englis	.061 2 2/3 x 1/	2 N/A	N/A	Pass	60.0	.000		
Line Item: 20 - 18" DRAINA	GE PIPE		-	Disp	osition					
First Reading	Secon	Reading		Acc	epted:		000 PayAdju	sted:	.000 PAR	
Coating Type: Aluminized	Coat	ing Type: (None)		Con	inved:		uuu le	stib.	/=>	
Avg Reading:	1.90 Avg	Reading:		001	ent.				2	
Coating: 1	.00	coating:	.00							
Asphalt Coating Type:										
Available Accepted:										
🛂 start 📄 🖉 🖸 🧭 Citri	ix XenApp - NCDO	🗀 Metal Pipe SOP's	Guardrail SOP	2014.d 🕅 Con	rete Pipe SOP	2	Metal Pipe SOP 20	014 🛛 🙃 HiC	:AMS - [train] - \\R	S =** 9, 9:57 PM



🝻 HiCAMS - [train]				_ & ×
File Edit Functions Inquiries References Admin Tools Wind	dow Help			
<u> </u>				Training Environment
🛲 Review Corrugated Metal Pipe (Report ID: 49184)				
Report Name: Corrugated Metal Pipe	Report ID: 49184	Report Statu	Is: Complete	
General Results Alt IDs Report History				
Sample From: Project	т	est Category: Acceptance		
Contract: C202240	WBS: 34427.3.2	County: Macon		
Contractor:	F			- 11
Station: 0 + 00	Location: PROJ	Once all informat	tion is entered, than the report	
PO: N/A	BOL: 3233-	status can be char	nge to complete & report saved.	
Maint Supervisor: N/A		A report id # will	be assigned to the FIR.	
Maint Yard: N/A				
Fabricator: LANE-DUBLIN	L		4	
Search by Plant ID: MP17	Section: 14			
Producer: Lane Enterprises, Inc.,	Lane Enterprises, Inc Dublin - MP1	17		
Inspector: Ledford, Brandon S	Inspe	ection Result: Meets Specs		
Inspection Date: 08/26/2013	Notice	of Rejection: 🔤		
Comment:				
Ready				
Start 🖉 🙆 🕲 🗁 Metal Pipe SOP's	W Guardrall SOP 2014 W Concrete	Pipe SOP 2 W Metal Pipe SOP 2014	Citrix XenApp - NCD Real HiCAMS - [train] - \\	C 🕞 🗄 🤍 🤍 3:04 PM

Documentation Submittal:

- After the inspection, the technician will notify the appropriate NCDOT personnel of the inspection results. If contract is not in HiCams or pipe was inspected at a maintenance yard then a hard copy of the report will be sent to the appropriate personnel.
- Corugated Metal Pipe Fir should be entered into HiCams within two working days after the inspection. FIR will be reviewed and authorized by the Section Materials Specialist within two working days after being completed.
- A hard copy of the Corrugated Metal Pipe Field Worksheets, BOL and copy of the FIR will be filed by the technician