	Flood Dar	Flood Damage Reduction Segment	Segment /
US Army Corps of Engineers	Syste	System Inspection Report	port
Name of Segment / System : Public Sponsor(s): Southea	Orleans LD - st Louisiana Flo	New Orleans East Bank (Orleans Metro Subbasin) (OLD1) od Protection Authority - East	(D1)
pres	entative: Robert Turner - Regional Director		
	504 262-8902		
Sponsor Email: ruu	rturner@slfpae.com		
Corps of Engineers Inspector:	pector: Kelly Danton, Carl Balint, David Duthu, Nicholas Ferina, Paul Wiltz, Rachael Maltzahn, Jabeen Pasha, Ben S Barcelona	Duthu. Nicholas Ferina. Paul Pasha, Ben S Barcelona	Inspection Start Date: 03/16/2017 Inspection End Date: 04/12/2017
Inspection Report Prepared By:			
Internal Technical Review	Internal Technical Review (For Periodic Inspection), Prepared By: Mark	Mark Woodward, P.E.	M2-1 Date of ITR: -7/3/17
Final Approved By:	Jean Vossen, P.E.		Date Approved: -tb/4/17
Type of Inspection:	Initial Inspection Eligibility	Overall Segment/System	Acceptable
	X Continuing Eligibility Inspection (Routine)	Matting.	X Minimally Acceptable
	Continuing Eligibility Inspection (Periodic)		Unacceptable
Contents of Report: X	Instructions	This annual Continuing Eligibility (Romine) Inspection for the Orlezas Levee District Metro Subbasic) was conduced on March 16, 28, 29, 2017 and April 12, 2017. The inspe	This annual Continuing Eligibility (Bounne) Inspection for the Orlezns Leoce District - New Orleans Fast Bank (Orleans Metro Subbasin) was conducted on March 16, 28, 29, 2017 and April 12, 2017. The inspection included operation and
	Initial Eligibility Inspection	(i) inspection of the Seafbrack Clusters Complex. But of the levee systems and segments for which the Automore. J. 201:541 FPA A11 bet reconsistence on Automatic J. 201:541 FPA A11 bet.	inspection of the Sectionals Cluster Complex Based on featural service and and the Culture inspection, an one call rating the level systems and segments for which the Ortherins Levels District (1D) and the Southesed Laguerana Flood Protection a inforce - LastOMERA for the comparisons expanded one shows a colorable as Manipedie.
	General Items for All Flood Control Works	The deficiencies and recommendations preserving and involution preserving at multime maintenpance activities and developing at	The deficiency is an experimentation of the processing may experiments are commony increased in a processing of the deficiency and recommendations presented in this report. Summary is a number of the deficiency presented in this report. Endine to complex with the mannengance activities and developing a plan to correct the deficiency presented in this report. Endine to complex with the mannengance activities and developing a plan to correct the deficiency presented in this report. Endine to complex with the mannengance activities and developing a plan to correct the deficiency presented in this report. Endine to complex with the correct the deficiency of the deficiency o
\boxtimes	Levee Embankment	the recommendations laid out in this inspection of result in an Ethaeceptable rating in 2018.	the recommendations had out in this inspection report and NLPFA-F's viait for corrective actions within the new year could result in an Unacceptable range in 2018.
	Floodwalls	The basis for the Ahmmally Acceptable (AH) itemus) contained to this report and the ratialg def thamate Reduction Scement System Inspection.	The basis for the Animality Acception (A) rung for this toke sistem signment is the Pri A. P. Tand T. P. Tahnyis For Fake formal continued to this report and the rating deficiencies described in Section (for the general naturations for the blood Damage Reduction Section Essention Resort. Mains at the edit of this report show the area covered and the inserviction
	Interior Drainage System	points collected during the "Current Year" inspa- soid ower, eneroid/ments, crosion, depressions r	pours collected during the "Current Year" importion. The predominant deficiencies observed for the levee embankments were sold cover, encroachments, crosion, depressions rutting, seepage, concrete surfaces, and foundation of concrete structures, relief
	Pump Stations	% ells, and enlyerts requiring inspection This inspection runnig represents the U.S. Vir of this flood downers and endocrine content and a set as a set of endocrine content and and a set as a set of endocrine content and and a set as a set of endocrine content and and a set as a set of endocrine content and and a set as a set of endocrine content and a set as a set as a set as a set as a set as a set as a set as a set as a set as a set as a set as a set as a set as a set as a	wichs, and subsers requiring inspection This inspection transpersions the U.S. Mmy Carps of Engineers (USACE) evaluation of operations and manufernance of the datachers achieved active structure from the carbs of the connection on the information for a last structure
	FDR System Channels	or this novel datages task tendenting system nati- evaluation for Ballonial Hord Institution Proje- inspectant, it is recommended that SI JPA-FF via accorditation: it applicable: A Minimally, Accord- lasee for the SMP.	or this need another the National Photo Instruction per test on conjunction who under management a acceleration evaluation for National Photo Instructor Program (NTP). Due to the Minimally, Acceptable rating for this year's routine inspectament of seconomic and that SUPPAF evaluate the potential impuse of this rating to the layse system S.FFMA accelulations at applicable. A Minimally, Acceptable (SSACE) inspectiver rating atome does not equate to an FFMA accredited layses for the NDP.

Han	Flood Dar	nage Reduction S	egment /
US Army Corps of Engineers®	Syste	em Inspection Rep	oort
Name of Segment	•	· · · · · · · · · · · · · · · · · · ·	D1)
Public Sponsor(s):		.	
Public Sponsor Re	· · · · · · · · · · · · · · · · · · ·	r	
Sponsor Phone:	504 262-8902		
Sponsor Email:	rturner@slfpae.com		
Corps of Engineers	s Inspector: Kelly Danton, Carl Balint, David	Duthu, Nicholas Ferina, Paul	Inspection Start Date: 03/16/2017
	Wiltz, Rachael Maltzahn, Jabeen	Pasha, Ben S Barcelona	Inspection End Date: $\overline{04/12/2017}$
Inspection Report	Prepared By: Nicholas Ferina, David Duthu		Date Report Prepared: $\overline{04/17/2017}$
Internal Technical R	eview (For Periodic Inspection) Prepared By: Mark	K Woodward, P.E.	Date of ITR: -
Final Approved By	y: Jean Vossen, P.E.		Date Approved: -
Type of Inspection:		Overall Segment/System	
Type of mspection.	Initial Inspection Eligibility	Rating:	Acceptable
	Continuing Eligibility Inspection (Routine)	Rating.	Minimally Acceptable
	Continuing Eligibility Inspection (Periodic)		Unacceptable
Contents of Report:	Instructions		pection for the Orleans Levee District – New Orleans East Bank (Orleans 29, 2017 and April 12, 2017. The inspection included operation and
	Initial Eligibility Inspection	inspection of the Seabrook Closure Complex. Base of the levee systems and segments for which the O	ed on team observations from the 2016 routine inspection, an overall rating rleans Levee District (OLD) and the Southeast Louisiana Flood Protection onsibility has been classified as Minimally Acceptable.
	General Items for All Flood Control Works		ed in this report should be reviewed and utilized in scheduling SLFPA-E's an to correct the deficiencies presented in this report. Failure to comply with
			bort and SLFPA-E's plan for corrective actions within the next year could
	🔀 Levee Embankment	result in an Unacceptable rating in 2018. The basis for the Minimally Acceptable (M) rat	ing for this levee system/segment is due to "M" and "U" rating(s) for rated
	Floodwalls	item(s) contained in this report and the rating defic	iencies described in Section G of the general instructions for the Flood
			port. Maps at the end of this report show the area covered and the inspection on. The predominant deficiencies observed for the levee embankments were
	Interior Drainage System	sod cover, encroachments, erosion, depressions/rut	ting, seepage, concrete surfaces, and foundation of concrete structures, relief
	Pump Stations	wells, and culverts requiring inspection. This inspection rating represents the U.S. Army	Corps of Engineers' (USACE) evaluation of operations and maintenance
			y be used in conjunction with other information for a levee system
	FDR System Channels		m (NFIP). Due to the Minimally Acceptable rating for this year's routine the potential impacts of this rating to the levee system's FEMA
		accreditation, if applicable. A Minimally Acceptab levee for the NFIP.	le USACE inspection rating alone does not equate to an FEMA accredited
For Official Use Only (FOUO)			FREEBOARD Version 2.1 - Revision: 13575.201709150855

General Instructions for the Inspection of Flood Damage Reduction Segments / Systems

A. Purpose of USACE Inspections:

The primary purpose of these inspections is to prevent loss of life and catastrophic damages; preserve the value of Federal investments, and to encourage non-Federal sponsors to bear responsibility for their own protection. Inspections should assure that Flood Damage Reduction structures and facilities are continually maintained and operated as necessary to obtain the maximum benefits. Inspections are also conducted to determine eligibility for Rehabilitation Assistance under authority of PL 84-99 for Federal and non-Federal systems. (ER 1130-2-530, ER 500-1-1)

B. Types of Inspections:

The Corps conducts several types of inspections of Flood Damage Reduction systems, as outlined below:

Initial Eligibility Inspections		Continuing Eligibility Inspections
	Routine Inspections	Periodic Inspections
IEIs are conducted to determine whether a non- Federally constructed Flood Damage Reduction system meets the minimum criteria and standards set forth by the Corps for initial inclusion into the Rehabilitation and Inspection Program.	RIs are intended to verify proper maintenance, owner preparedness, and component operation.	PIs are intended to verify proper maintenance and component operation and to evaluate operational adequacy, structural stability, and safety of the system. Periodic Inspections evaluate the system's original design criteria vs. current design criteria to determine potential performance impacts, evaluate the current conditions, and compare the design loads and design analysis used against current design standards. This is to be done to identify components and features for the sponsor that need to be monitored more closely over time or corrected as needed. (Periodic Inspections are used as the basis of risk assessments.)

C. Inspection Boundaries:

Inspections should be conducted so as to rate each Flood Damage Reduction "Segment" of the system. The overall system rating will be the lowest segment rating in the system.

Project	System	Segment
A flood damage reduction project is made up of one or more flood damage reduction systems which were under the same authorization.	A flood damage reduction system is made up of one or more flood damage reduction segments which collectively provide flood damage reduction to a defined area. Failure of one segment within a system constitutes failure of the entire system. Failure of one system does not affect another system.	A flood damage reduction segment is defined as a discrete portion of a flood damage reduction system that is operated and maintained by a single entity. A flood damage reduction segment can be made up of one or more features (levee, floodwall, pump stations, etc).

D. Land Use Definitions:

The following three definitions are intended for use in determining minimum required inspection intervals and initial requirements for inclusion into the Rehabilitation and Inspection Program. Inspections should be considered for all systems that would result in significant environmental or economic impact upon failure regardless of specific land use.

Agricultural	Rural	Urban
 Protected population in the range of zero to 5 households per square mile protected.	of 6 to 20 households per square	Greater than 20 households per square mile; major industrial areas with significant infrastructure investment. Some protected urban areas have no permanent population but may be industrial areas with high value infrastructure with no overnight population.



E. Use of the Inspection Report Template:

The report template is intended for use in all Army Corps of Engineers inspections of levee and floodwall systems and flood damage reduction channels. The section of the template labeled "Initial Eligibility" only needs to be completed during Initial Eligibility Inspections of Non-Federally constructed Flood Damage Reduction Systems. The section labeled "General Items" needs to be completed with every inspection, along with all other sections that correspond to features in the system. The section labeled "Public Sponsor Pre-Inspection Report" is intended for completion before the inspection, if possible.

F. Individual Item / Component Ratings:

Assessment of individual components rated during the inspection should be based on the criteria provided in the inspection report template, though inspectors may incorporate additional items into the report based on the characteristics of the system. The assessment of individual components should be based on the following definitions.

A	cceptable Item	Minimally Acceptable Item	Unacceptable Item
n	he inspected item is in satisfactory condition, with o deficiencies, and will function as intended during he next flood event.	The inspected item has one or more minor deficiencies that need to be corrected. The minor deficiency or deficiencies will not seriously impair the functioning of the item as intended during the next flood event.	The inspected item has one or more serious deficiencies that need to be corrected. The serious deficiency or deficiencies will seriously impair the functioning of the item as intended during the next flood event.

G. Overall Segment / System Ratings:

Determination of the overall system rating is based on the definitions below. Note that an Unacceptable System Rating may be either based on an engineering determination that concluded that noted deficiencies would prevent the system from functioning as intended during the next flood event, or based on the sponsor's demonstrated lack of commitment or inability to correct serious deficiencies in a timely manner.

Acceptable System	Minimally Acceptable System	Unacceptable System
	One or more items are rated as Minimally Acceptable or one or more items are rated as Unacceptable and an engineering determination concludes that the Unacceptable items would not prevent the segment / system from performing as intended during the next flood event.	One or more items are rated as Unacceptable and would prevent the segment / system from performing as intended, or a serious deficiency noted in past inspections (which had previously resulted in a minimally acceptable system rating) has not been corrected within the established timeframe, not to exceed two years

H. Eligibility for PL84-99 Rehabilitation Assistance:

Inspected systems that are not operated and maintained by the Federal government may be Active in the Corps' Rehabilitation and Inspection Program (RIP) and eligible for rehabilitation assistance from the Corps as defined below:

If the Overall System Rating is Acceptable	If the Overall System Rating is Minimally Acceptable	If the Overall System Rating is Unacceptable
	The system is Active in the RIP during the time that it takes to make needed corrections. Active systems are eligible for rehabilitation assistance. However, if the sponsor does not present USACE with proof that serious deficiencies (which had previously resulted in a minimally acceptable system rating) were corrected within the established timeframe, then the system will become Inactive in the RIP.	The system is Inactive in the RIP, and the status will remain Inactive until the sponsor presents USACE with proof that all items rated Unacceptable have been corrected. Inactive systems are ineligible for rehabilitation assistance.



I. Reporting:

After the inspection, the Corps is responsible for assembling an inspection report (or a summary report if it was a Periodic Inspection) including the following information: a. All sections of the report template used during the inspection, including the cover and pre-inspection materials. (Supplemental data collected, and any sections of the template that weren't used during the inspection do not need to be included with the report.)

b. Photos of the general system condition and noted deficiencies.

c. A plan view drawing of the system, with stationing, to reference locations of items rated less than acceptable.

d. The relative importance of the identified maintenance issues should be specified in the transmittal letter.

e. If the Overall System Rating is Minimally Acceptable, the report needs to establish a timeframe for correction of serious deficiencies noted (not to exceed two years) and indicate that if these items are not corrected within the required timeframe, the system will be rated as Unacceptable and made Inactive in the Rehabilitation Inspection Program.

J. Notification:

Reports are to be disseminated as follows within 30 days of the inspection date.

If the Overall System Rating is Acceptable	If the Overall System Rating is Minimally Acceptable	If the Overall System Rating is Unacceptable
Reports need to be provided to the local sponsor and the county emergency management agency.	Reports need to be provided to the local sponsor, state emergency management agency, county emergency management agency, and to the FEMA region.	Reports need to be provided to the local sponsor, state emergency management agency, county emergency management agency, FEMA region, and to the Congressional delegation within 30 days of the inspection.



For use during Initial and Continuing Eligibility Inspections of levee segments / systems

Rated Item	Rating	Rating	Guidelines	Locations/Remarks/Recommendations		
01. Unwanted Vegetation Growth ¹	A A	A	A	The levee has little or no unwanted vegetation (trees, bush, or undesirable weeds), except for vegetation that is properly contained and/or situated on overbuilt sections, such that the mandatory 3-foot root-free zone is preserved around the levee profile. The levee has been recently mowed. The vegetation-free zone extends 15 feet from both the landside and riverside toes of the levee to the centerline of the tree. If the levee access easement doesn't extend to the described limits, then the vegetation-free zone must be maintained to the easement limits. Reference EM 1110-2-301 or Corps policy for regional vegetation variance.		
		М	Minimal vegetation growth (brush, weeds, or trees 2 inches in diameter or smaller) is present within the zones described above. This vegetation must be removed but does not currently threaten the operation or integrity of the levee.			
		U	Significant vegetation growth (brush, weeds, or any trees greater than 2 inches in diameter) is present within the zones described above and must to be removed to reestablish or ascertain levee integrity.			
02. Sod Cover	Μ	Α	There is good coverage of sod over the levee.	USACE_CEMVN_OLD1_2017_a_0110: Station_1		
		М	Approximately 25% of the sod cover is missing or damaged over a significant portion or over significant portions of the levee embankment. This may be the result of over-grazing or feeding on the levee, unauthorized vehicular traffic, chemical or insect problems, or burning during inappropriate seasons.	116+19: Lack of sod cover along crown. SLFPA-E has plans to repair. SLFPA-E shall fertilize and seed areas until adequate sod cover is achieved. (M)		
				U	Over 50% of the sod cover is missing or damaged over a significant portion or portions of the levee embankment.	
		N/A	Surface protection is provided by other means.			
03. Encroachments	Μ	А	No trash, debris, unauthorized farming activity, structures, excavations, or other obstructions present within the easement area. Encroachments have been previously reviewed by the Corps, and it was determined that they do not diminish proper functioning of the levee.	USACE_CEMVN_OLD1_2017_a_0106: Station_1 16+03: Utility pole is in the landside levee slope. SLFPA-E is responsible for verifying that a permit was obtained for the utility, or the utility should be removed if not permitted. (M)		
		М	Trash, debris, unauthorized farming activity, structures, excavations, or other obstructions present, or inappropriate activities noted that should be corrected but will not inhibit operations and maintenance or emergency operations. Encroachments have not been reviewed by the Corps.			
		U	Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the levee.			
04. Closure Structures (Stop Log, Earthen	NA	A	Closure structure in good repair. Placing equipment, stoplogs, and other materials are readily available at all times. Components are clearly marked and installation instructions/			



For use during Initial and	Continuing Eligibility	Inspections of levee segments	/ svstems

Rated Item	Rating	Rating	Guidelines	Locations/Remarks/Recommendations	
Closures, Gates, or Sandbag Closures)			procedures readily available. Trial erections have been accomplished in accordance with the O&M Manual.		
Parts missing or corroded. Placing equipment may not be available warning time. The storage vaults cannot be opened during the tim Components of closure are not clearly marked and installation in		Any of the following issues is cause for this rating: Closure structure in poor condition. Parts missing or corroded. Placing equipment may not be available within the anticipated warning time. The storage vaults cannot be opened during the time of inspection. Components of closure are not clearly marked and installation instructions/ procedures are not readily available. Trial erections have not been accomplished in accordance with the O&M Manual.			
		N/A	There are no closure structures along this component of the FDR system.		
05. Slope Stability	Α	А	No slides, sloughs, tension cracking, slope depressions, or bulges are present.		
		М	Minor slope stability problems that do not pose an immediate threat to the levee embankment.		
		U	Major slope stability problems (ex. deep seated sliding) identified that must be repaired to reestablish the integrity of the levee embankment.		
06. Erosion/ Bank Caving	Μ	А	No erosion or bank caving is observed on the landward or riverward sides of the levee that might endanger its stability.	USACE_CEMVN_OLD1_2017_a_0102: Station_1 669+93: Erosion around southeast end of the 17th Street Outfall Canal pump station wingwall. SLFPA-E should	
			There are areas where minor erosion is occurring or has occurred on or near the levee embankment, but levee integrity is not threatened.	monitor the erosion and contact USACE if conditions worsen. (M)	
		U	Erosion or caving is occurring or has occurred that threatens the stability and integrity of the levee. The erosion or caving has progressed into the levee section or into the extended footprint of the levee foundation and has compromised the levee foundation stability.		
07. Settlement ²	Α	А	No observed depressions in crown. Records exist and indicate no unexplained historical changes.		
		М	Minor irregularities that do not threaten integrity of levee. Records are incomplete or inclusive.		
		U	Obvious variations in elevation over significant reaches. No records exist or records indicate that design elevation is compromised.		
08. Depressions/ Rutting	М	A	There are scattered, shallow ruts, pot holes, or other depressions on the levee that are unrelated to levee settlement. The levee crown, embankments, and access road crowns are well established and drain properly without any ponded water.	USACE_CEMVN_OLD1_2017_a_0004: Station_1 601+45: Rutting on landside toe from vehicles. SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. (M)	
		М	There are some infrequent minor depressions less than 6 inches deep in the levee crown, embankment, or access roads that will pond water.	USACE_CEMVN_OLD1_2017_a_0005: Station_1 21+73:	
		U	There are depressions greater than 6 inches deep that will pond water.	Ponding water near fire hydrant on floodside. SLFPA-E	



For use during Initial and Continuing Eligibility Inspections of levee segments / systems

Rated Item	Rating	Rating	Guidelines	Locations/Remarks/Recommendations
Rated Item	Rating	Rating	Guidelines	shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. (M) USACE_CEMVN_OLD1_2017_a_0015: Station_1 253+37: Ruts with ponding water on landside of wall near relief well. SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. (M) USACE_CEMVN_OLD1_2017_a_0101: Station_1 587+14: Rutting and erosion on the landside levee slope below the floodwall. SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. SLFPA-E has a contract out for this to be repaired. (M) USACE_CEMVN_OLD1_2017_a_0105: Station_1 15+33: Depressions from mowers. SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. (M) USACE_CEMVN_OLD1_2017_a_0107: Station_1 47+47: Standing water on the landside toe. SLFPA-E shall ensure proper drainage. SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. (M)
09. Cracking		A	Minor longitudinal, transverse, or desiccation cracks with no vertical movement along the	USACE_CEMVN_OLD1_2017_a_0108: Station_1 84+11: Ruts along the landside levee slope. SLFPA-E shall repair eroded areas with compacted clay fill. The areas shall then be fertilized and seeded. (M)
U. Clacking	A		crack. No cracks extend continuously through the levee crest.	
		М	Longitudinal and/or transverse cracks up to 6 inches in depth with no vertical movement along the crack. No cracks extend continuously through the levee crest. Longitudinal cracks are no longer than the height of the levee.	
		U	Cracks exceed 6 inches in depth. Longitudinal cracks are longer than the height of the levee and/or exhibit vertical movement along the crack. Transverse cracks extend through the entire levee width.	



Rated Item	Rating	Rating	Guidelines	Locations/Remarks/Recommendations
10. Animal Control	Α	А	Continuous animal burrow control program in place that includes the elimination of active burrowing and the filling in of existing burrows.	
		М	The existing animal burrow control program needs to be improved. Several burrows are present which may lead to seepage or slope stability problems, and they require immediate attention.	
		U	Animal burrow control program is not effective or is nonexistent. Significant maintenance is required to fill existing burrows, and the levee will not provide reliable flood protection until this maintenance is complete.	
11. Culverts/ Discharge Pipes (This item includes both concrete and corrugated metal pipes.) ³	М	A	There are no breaks, holes, cracks in the discharge pipes/ culverts that would result in significant water leakage. The pipe shape is still essentially circular. All joints appear to be closed and the soil tight. Corrugated metal pipes, if present, are in good condition with 100% of the original coating still in place (either asphalt or galvanizing) or have been relined with appropriate material, which is still in good condition. Condition of pipes has been verified using television camera video taping or visual inspection methods within the past five years, and the report for every pipe is available for review by the inspector.	Culverts through the levee and floodwall require visual/ video inspection for verification of pipe conditions. Video inspections have not been conducted within the required 5 year frequency. A list of culverts and drainage structures is attached to this report. SLFPA- E should provide a plan for the culvert inspections by Dec 31, 2017.
		М	There are a small number of corrosion pinholes or cracks that could leak water and need to be repaired, but the entire length of pipe is still structurally sound and is not in danger of collapsing. Pipe shape may be ovalized in some locations but does not appear to be approaching a curvature reversal. A limited number of joints may have opened and soil loss may be beginning. Any open joints should be repaired prior to the next inspection. Corrugated metal pipes, if present, may be showing corrosion and pinholes but there are no areas with total section loss. Condition of pipes has been verified using television camera video taping or visual inspection methods within the past five years, and the report for every pipe is available for review by the inspector.	
		U	Culvert has deterioration and/or has significant leakage; it is in danger of collapsing or as already begun to collapse. Corrugated metal pipes have suffered 100% section loss in the invert. HOWEVER: Even if pipes appear to be in good condition, as judged by an external visual inspection, an Unacceptable Rating will be assigned if the condition of pipes has not been verified using television camera video taping or visual inspection methods within the past five years, and reports for all pipes are not available for review by the inspector.	
		N/A	There are no discharge pipes/ culverts.	
12. Riprap Revetments & Bank Protection	Α	А	No riprap displacement or stone degradation that could pose an immediate threat to the integrity of channel bank. Riprap intact with no woody vegetation present.	

For use during Initial and Continuing Eligibility Inspections of levee segments / systems

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



Rated Item	Rating	Rating	Guidelines	Locations/Remarks/Recommendations
		М	Minor riprap displacement or stone degradation that could pose an immediate threat to the integrity of the channel bank. Unwanted vegetation must be cleared or sprayed with an appropriate herbicide.	
		U	Significant riprap displacement, exposure of bedding, or stone degradation observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Rock protection is hidden by dense brush, trees, or grasses.	
		N/A	There is no riprap protecting this feature of the system, or riprap is discussed in another section.	c
13. Revetments	A	Α	Existing revetment protection is properly maintained, undamaged, and clearly visible.	
other than Riprap		М	Minor revetment displacement or deterioration that does not pose an immediate threat to the integrity of the levee. Unwanted vegetation must be cleared or sprayed with an appropriate herbicide.	
		U	Significant revetment displacement, deterioration, or exposure of bedding observed. Scour activity is undercutting banks, eroding embankments, or impairing channel flows by causing turbulence or shoaling. Revetment protection is hidden by dense brush and trees.	
		N/A	There are no such revetments protecting this feature of the system.	
14. Underseepage Relief Wells/ Toe Drainage Systems	NA	A	Toe drainage systems and pressure relief wells necessary for maintaining FDR system stability during high water functioned properly during the last flood event and no sediment is observed in horizontal system (if applicable). Nothing is observed which would indicate that the drainage systems won't function properly during the next flood, and maintenance records indicate regular cleaning. Wells have been pumped tested within the past 5 years and documentation is provided.	
		М	Toe drainage systems or pressure relief wells are damaged and may become clogged if they are not repaired. Maintenance records are incomplete or indicate irregular cleaning and pump testing.	
		U	Toe drainage systems or pressure relief wells necessary for maintaining FDR system stability during flood events have fallen into disrepair or have become clogged. No maintenance records. No documentation of the required pump testing.	
	<u> </u>	N/A	There are no relief wells/ toe drainage systems along this component of the FDR system.	
15. Seepage	Α	A	No evidence or history of unrepaired seepage, saturated areas, or boils.	
		М	Evidence or history of minor unrepaired seepage or small saturated areas at or beyond the landside toe but not on the landward slope of levee. No evidence of soil transport.	
		U	Evidence or history of active seepage, extensive saturated areas, or boils.	



For use during Initial and Continuing Eligibility Inspections of levee segments / systems



¹ If there is significant growth on the levee that inhibits the inspection of animal burrows or other items, the inspection should be ended until this item is corrected.

² Detailed survey elevations are normally required during Periodic Inspections, and whenever there are obvious visual settlements.

³ The decision on whether or not USACE inspectors should enter a pipe to perform a detailed inspection must be made at the USACE District level. This decision should be made in conjunction with the District Safety Office, as pipes may be considered confined spaces. This decision should record observations with a video camera in order that the condition of the entire pipe, including all joints can later be assessed. Additionally, the video record provides a baseline to which future inspections can be compared.

For use during Initial and Continuing Eligibility Inspections of levee segments / systems



Inspect ID: USACE_CEMVN_OLD1_2017_a_0110 Title: USACE_CEMVN_OLD1_2017_a_0110_1.jpg Rated Item: 02. Sod Cover Rating: M Inspection Remarks: Lack of sod cover along crown. SLFPA-E has plans to repair. Recommended Action: SLFPA-E shall fertilize and seed areas until adequate sod cover is achieved. Caption: Station 1: 116+19 (LCE)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0106 Title: USACE_CEMVN_OLD1_2017_a_0106_1.jpg Rated Item: 03. Encroachments Rating: M Inspection Remarks: Utility pole is in the landside levee slope. Recommended Action: SLFPA-E is responsible for verifying that a permit was obtained for the utility, or the utility should be removed if not permitted. Caption: Station 1: 16+03 (OCE)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



For use during Initial and Continuing Eligibility Inspections of levee segments / systems



Inspect ID: USACE_CEMVN_OLD1_2017_a_0102 Title: USACE_CEMVN_OLD1_2017_a_0102_1.jpg Rated Item: 06. Erosion/ Bank Caving Rating: M Inspection Remarks: Erosion around southeast end of the 17th Street Outfall Canal pump station wingwall. Recommended Action: SLFPA-E should monitor the erosion and contact USACE if conditions worsen. Caption: Station 1: 669+93 (17E)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0004 Title: USACE_CEMVN_OLD1_2017_a_0004_1.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Rutting on landside toe from vehicles. Recommended Action: SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. Caption: Station 1: 601+45 (OLD)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0005 Title: USACE_CEMVN_OLD1_2017_a_0005_1.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Ponding water near fire hydrant on floodside. Recommended Action: SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. Caption: Station 1: 21+73 (IHNCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0005 Title: USACE_CEMVN_OLD1_2017_a_0005_2.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Ponding water near fire hydrant on floodside. Recommended Action: SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. Caption: Station 1: 21+73 (IHNCW)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0005 Title: USACE_CEMVN_OLD1_2017_a_0005_3.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Ponding water near fire hydrant on floodside. Recommended Action: SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. Caption: Station 1: 21+73 (IHNCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0015 Title: USACE_CEMVN_OLD1_2017_a_0015_1.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Ruts with ponding water on landside of wall near relief well. Recommended Action: SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. Caption: Station 1: 253+37 (IHNCW)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0015 Title: USACE_CEMVN_OLD1_2017_a_0015_2.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Ruts with ponding water on landside of wall near relief well. Recommended Action: SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. Caption: Station 1: 253+37 (IHNCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0101 Title: USACE_CEMVN_OLD1_2017_a_0101_1.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Rutting and erosion on the lands

Inspection Remarks: Rutting and erosion on the landside levee slope below the floodwall. **Recommended Action:** SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. SLFPA-E has a contract out for this to be repaired. **Caption:**

Station 1: 587+14 (17E)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0101 Title: USACE_CEMVN_OLD1_2017_a_0101_2.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Rutting and erosion on the landside levee slope below the floodwall. Recommended Action: SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. SLFPA-E has a contract out for this to be repaired. Caption: Station 1: 587+14 (17E)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0105 Title: USACE_CEMVN_OLD1_2017_a_0105_1.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Depressions from mowers. Recommended Action: SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. Caption: Station 1: 15+33 (OCE)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0105 Title: USACE_CEMVN_OLD1_2017_a_0105_2.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Depressions from mowers. Recommended Action: SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. Caption: Station 1: 15+33 (OCE)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0107 Title: USACE_CEMVN_OLD1_2017_a_0107_1.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Standing water on the landside toe. Recommended Action: SLFPA-E shall ensure proper drainage. SLFPA-E shall repair depressed or rutted areas with compacted clay fill. The areas shall then be fertilized and seeded. Caption: Station 1: 47+47 (LCE)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0108 Title: USACE_CEMVN_OLD1_2017_a_0108_1.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Ruts along the landside levee slope. Recommended Action: SLFPA-E shall repair eroded areas with compacted clay fill. The areas shall then be fertilized and seeded. Caption: Station 1: 84+11 (LCE)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0108 Title: USACE_CEMVN_OLD1_2017_a_0108_2.jpg Rated Item: 08. Depressions/ Rutting Rating: M Inspection Remarks: Ruts along the landside levee slope. Recommended Action: SLFPA-E shall repair eroded areas with compacted clay fill. The areas shall then be fertilized and seeded. Caption: Station 1: 84+11 (LCE)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



Floodwalls For use during Initial and Continuing Eligibility Inspections of levee segments / systems

Rated Item	Rating	Rating	Guidelines	Locations/Remarks/Recommendations
01. Unwanted Vegetation Growth ¹	A	A	A grass-only or paved zone is maintained on both sides of the floodwall, free of all trees, brush, and undesirable weeds. The vegetation-free zone extends 15 feet from both the land and riverside of the floodwall, at ground-level, to the centerline of the tree. Additionally, an 8-foot root-free zone is maintained around the entire structure, including the floodwall toe, heel, and any toe-drains. If the floodwall access easement doesn't extend to the described limits, then the vegetation-free zone must be maintained to the easement limits. Reference EM 1110-2-301 and/or Corps policy for regional vegetation variance.	
		М	Minimal vegetation growth (brush, weeds, or trees 2 inches in diameter or smaller) is present within the zones described above. This vegetation must be removed but does not currently threaten the operation or integrity of the floodwall.	
		U	Significant vegetation growth (brush, weeds, or any trees greater than 2 inches in diameter) is present within the zones described above. This vegetation threatens the operation or integrity of the floodwall and must be removed.	
02. Encroachments	Μ	А	No trash, debris, unauthorized structures, excavations, or other obstructions present within the easement area. Encroachments have been previously reviewed by the Corps, and it was determined that they do not diminish proper functioning of the floodwall.	USACE_CEMVN_OLD1_2017_a_0011: Station_1 70+6 Leaking water pipe on the floodside. SLFPA-E should coordinate with the Sewerage and Water Board to make corrective action. (M)
		М	Trash, debris, unauthorized structures, excavations, or other obstructions present, or inappropriate activities noted that should be corrected but will not inhibit operations and maintenance or emergency operations. Encroachments have not been reviewed by the Corps.	USACE_CEMVN_OLD1_2017_a_0024: Station_1 534+82: Leaking fire hydrant causing ponding water at the base of floodwall. SLFPA-E should coordinate with the
		U	Unauthorized encroachments or inappropriate activities noted are likely to inhibit operations and maintenance, emergency operations, or negatively impact the integrity of the floodwall.	Sewerage and Water Board to make corrective action. (M)
03. Closure Structures (Stop Log Closures and Gates) (A or U	Α	A	Closure structure in good repair. Placing equipment, stoplogs, and other materials are readily available at all times. Components are clearly marked and installation instructions/ procedures readily available. Trial erections have been accomplished in accordance with the O&M Manual.	USACE_CEMVN_OLD1_2017_a_0026: Station_1 422+84: Both sector gate leaves at Seabrook were fully cycled. Floodgate operation was smooth, vibration and noise free. All OEM periodic maintenance is occurring on a regular basis. (A)
only)		U	Any of the following issues is cause for this rating: Closure structure in poor condition. Parts missing or corroded. Placing equipment may not be available within the anticipated warning time. The storage vaults cannot be opened during the time of inspection. Components of closure are not clearly marked and installation instructions/ procedures are not readily available. Trial erections have not been accomplished in accordance with the O&M Manual.	USACE_CEMVN_OLD1_2017_a_0027: Station_1 422+83: Both vertical lift gates at Seabrook were fully cycled. Operation occurred with no vibration or noise. All OEM periodic maintenance appears to be taking place on a regular basis. (A)
		N/A	There are no closure structures along this component of the FDR system.	USACE_CEMVN_OLD1_2017_a_0028: Station_1 422+72: Seabrook diesel generator-set 1 was operated under no load. Diesel generator-set 2 operated under the load of the SG and both VLGs. Generator engine ran



For use during Initial and Continuing Eligibility Inspections of levee segments / systems

Rated Item	Rating	Rating	g Guidelines	Locations/Remarks/Recommendations
				without excessive vibration or noise. All OEM periodic maintenance is occurring on a regular basis. (A) USACE_CEMVN_OLD1_2017_a_0029: Station_1 422+82: Visual inspection of all electrical equipment including generators, transfer switches, main distribution panel, lighting panels, step-down transformers, disconnects, motors for Hydraulic Power Units, and grounding was performed at Seabrook Complex. No photo. The equipment is in good condition. (A)
04. Concrete Surfaces	M	A	Negligible spalling, scaling or cracking. If the concrete surface is weathered or holds moisture, it is still satisfactory but should be seal coated to prevent freeze/ thaw damage.	USACE_CEMVN_OLD1_2017_a_0001: Station_1 430+09: Spalling/cracking of the flood side of floodwall. SLFPA-E shall make corrective actions as required. (M)
		М	Spalling, scaling, and open cracking present, but the immediate integrity or performance of the structure is not threatened. Reinforcing steel may be exposed. Repairs/ sealing is necessary to prevent additional damage during periods of thawing and freezing.	USACE_CEMVN_OLD1_2017_a_0012: Station_1 189+78: Spalling at top of wall. SLFPA-E shall monitor concrete cracking/degradation and make corrective actions
		U	Surface deterioration or deep cracks present that may result in an unreliable structure. Any surface deterioration that exposes the sheet piling or lies adjacent to monolith joints may indicate underlying reinforcement corrosion and is unacceptable.	as required. (M) USACE_CEMVN_OLD1_2017_a_0013: Station_1 234+91: Spall along joint of floodwall. SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. (M) USACE_CEMVN_OLD1_2017_a_0014: Station_1 251+76: Spall along joint of floodwall. SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. (M) USACE_CEMVN_OLD1_2017_a_0016: Station_1 263+13: Spall along joint of floodwall. SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. (M) USACE_CEMVN_OLD1_2017_a_0017: Station_1 247+84: Previously repaired spall but deteriorating again. SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. (M) USACE_CEMVN_OLD1_2017_a_0019: Station_1 247+84: Previously repaired spall but deteriorating again.



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Rated Item	Rating	Rating	Guidelines	Locations/Remarks/Recommendations
				SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. (M) USACE_CEMVN_OLD1_2017_a_0022: Station_1 67+13: Station_2 74+47: Numerous spalls along the landside of the floodwall. SLFPA-E shall monitor concrete cracking/ degradation and make corrective actions as required. (M) USACE_CEMVN_OLD1_2017_a_0025: Station_1 533+90: Spalling/cracking of the land side of floodwall. SLFPA-E shall make corrective actions as required. (M) USACE_CEMVN_OLD1_2017_a_0103: Station_1 77+28: Station_2 84+06: Exposed rebar on the landside retaining wall below the floodwall at Orleans Canal. SLFPA-E shall make corrective actions as required. (M)
05. Tilting, Sliding or Settlement	Α	А	There are no significant areas of tilting, sliding, or settlement that would endanger the integrity of the structure.	
of Concrete Structures		М	There are areas of tilting, sliding, or settlement (either active or inactive) that need to be repaired. The maximum offset, either laterally or vertically, does not exceed 2 inches unless the movement can be shown to be no longer actively occurring. The integrity of the structure is not in danger.	
		U	There are areas of tilting, sliding, or settlement (either active or inactive) that threaten the structure's integrity and performance. Any movement that has resulted in failure of the waterstop (possibly identified by daylight visible through the joint) is unacceptable. Differential movement of greater than 2 inches between any two adjacent monoliths, either laterally or vertically, is unacceptable unless it can be shown that the movement is no longer active. Also, if the floodwall is of I-wall construction, then any visible or measurable tilting of the wall toward the protected side that has created an open horizontal crack on the riverside base of a monolith is unacceptable.	
06. Foundation	Μ	А	No active erosion, scouring, or bank caving that might endanger the structure's stability.	USACE_CEMVN_OLD1_2017_a_0018: Station_1 422+33: Settlement and deterioration of the scour
of Concrete Structures		М	There are areas where the ground is eroding towards the base of the structure. Efforts need to be taken to slow and repair this erosion, but it is not judged to be close enough to the structure or to be progressing rapidly enough to affect structural stability before the next inspection. For the purposes of inspection, the erosion or scour is not closer to the riverside face of the wall than twice the floodwall's underground base width if the wall is of L-wall or T-wall construction; or if the wall is of sheetpile or I-wall construction, the	 422+35: Settlement and deterioration of the scour protection sealant. SLFPA-E shall repair in accordance with Volume 2 OMRR&R Manual. (M) USACE_CEMVN_OLD1_2017_a_0021: Station_1 430+09: Sealant deterioration at the floodwall and scour protection on the protected side. SLFPA-E shall make



Floodwalls For use during Initial and Continuing Eligibility Inspections of levee segments / systems

Rated Item	Rating	Rating	Guidelines	Locations/Remarks/Recommendations	
			erosion is not closer than twice the wall's visible height. Additionally, rate of erosion is such that the wall is expected to remain stabile until the next inspection.	corrective actions as required. Clean concrete surface. Seal cracks. Patch concrete. Seal concrete. (M)	
		U	Erosion or bank caving observed that is closer to the wall than the limits described above, or is outside these limits but may lead to structural instabilities before the next inspection. Additionally, if the floodwall is of I-wall or sheetpile construction, the foundation is unacceptable if any turf, soil or pavement material got washed away from the landside of the I-wall as the result of a previous overtopping event.	USACE_CEMVN_OLD1_2017_a_0023: Station_1 474+34: Small voids at the base of the floodwall on floodside. SLFPA-E shall inspect, repair, and monitor damaged areas.	
07. Monolith Joints	М	А	The joint material is in good condition. The exterior joint sealant is intact and cracking/ desiccation is minimal. Joint filler material and/or waterstop is not visible at any point.	USACE_CEMVN_OLD1_2017_a_0006: Station_1 53+25 Water stop deterioration. SLFPA-E needs to repair the	
		М	The joint material has appreciable deterioration to the point where joint filler material and/ or waterstop is visible in some locations. This needs to be repaired or replaced to prevent spalling and cracking during freeze/ thaw cycles, and to ensure water tightness of the joint.	expansion material between monolith joints. (M)	
		U	The joint material is severely deteriorated or the concrete adjacent to the monolith joints has spalled and cracked, damaging the waterstop; in either case damage has occurred to the point where it is apparent that the joint is no longer watertight and will not provide the intended level of protection during a flood.		
		N/A	There are no monolith joints in the floodwall.		
08. Underseepage Relief Wells/ Toe Drainage Systems	М	A	Toe drainage systems and pressure relief wells necessary for maintaining FDR system stability during high water functioned properly during the last flood event and no sediment is observed in horizontal system (if applicable). Nothing is observed which would indicate that the drainage systems won't function properly during the next flood, and maintenance records indicate regular cleaning. Wells have been pumped tested within the past 5 years and documentation is provided.	USACE_CEMVN_OLD1_2017_a_2001: Station_1 225+67: Station_2 290+37: Relief wells along the IHNC corridor require pump testing to be performed to determine existing specific capacity per well. Pump testing has not been conducted within the required 5 year frequency. SLFPA-E should provide a plan for relief well pump tests by Dec 2017. (M)	
			М	Toe drainage systems or pressure relief wells are damaged and may become clogged if they are not repaired. Maintenance records are incomplete or indicate irregular cleaning and pump testing.	USACE_CEMVN_OLD1_2017_a_2002: Station_1 4+24: Station_2 57+84: Relief wells along the IHNC corridor require pump testing to be performed to determine existing
		U	Toe drainage systems or pressure relief wells necessary for maintaining FDR system stability during flood events have fallen into disrepair or have become clogged. No maintenance records. No documentation of the required pump testing.	specific capacity per well. Pump testing has not been conducted within the required 5 year frequency. SLFPA- E should provide a plan for relief well pump tests by Dec	
		N/A	There are no relief wells/ toe drainage systems along this component of the FDR system.	2017. (M) USACE_CEMVN_OLD1_2017_a_2005: Relief Well ID 1-NW - Is in good condition. See attached trip report dated April 20, 2017/July 11, 2017 for additional photos and observations. SLFPA-E should provide a plan for relief	



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Rated Item	Rating	Rating	g Guidelines	Locations/Remarks/Recommendations
				well pump tests by Dec 2017. SLFPA-E shall clean the relief wells prior to pump testing. (M)
				USACE_CEMVN_OLD1_2017_a_2006: Relief Well ID 2-NW. The 5 year pump test interval is overdue. SLFPA- E should provide a plan for relief well pump tests by Dec 2017. (M)
				USACE_CEMVN_OLD1_2017_a_2007: Relief Well ID 3-NW. The 5 year pump test interval is overdue. SLFPA- E should provide a plan for relief well pump tests by Dec 2017. (M)
				USACE_CEMVN_OLD1_2017_a_2008: Relief Well ID 4-NW - Is in good condition. See attached trip report dated April 20, 2017/July 11, 2017 for additional photos and observations. SLFPA-E should provide a plan for relief well pump tests by Dec 2017. SLFPA-E shall clean the relief wells prior to pump testing. (M)
				USACE_CEMVN_OLD1_2017_a_2009: Relief Well ID 5-NW - Is in good condition. See attached trip report dated April 20, 2017/July 11, 2017 for additional photos and observations. SLFPA-E should provide a plan for relief well pump tests by Dec 2017. SLFPA-E shall clean the relief wells prior to pump testing. (M)
				USACE_CEMVN_OLD1_2017_a_2010: Relief Well ID 6-NW - Unable to determine conditions due to numerous problems. CMP was knocked over at ground surface. See attached trip report dated April 20, 2017/July 11, 2017 for additional photos and observations. SLFPA-E should provide a plan for relief well pump tests by Dec 2017. SLFPA-E shall clean the relief wells prior to pump testing. (U)
				USACE_CEMVN_OLD1_2017_a_2012: Relief Well ID RW-9 in in good condition. The 5 year pump test interval is overdue. SLFPA-E should provide a plan for relief well pump tests by Dec 2017. SLFPA-E shall clean the relief wells prior to pump testing. (M)
				USACE_CEMVN_OLD1_2017_a_2013: Relief Well ID RW-8 is in good condition. The 5 year pump test interval



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Rated Item	Rating	Rating	Guidelines	Locations/Remarks/Recommendations
				is overdue. SLFPA-E should provide a plan for relief well pump tests by Dec 2017. SLFPA-E shall clean the relief wells prior to pump testing. (M) USACE_CEMVN_OLD1_2017_a_2014: Relief Well ID RW-7 is in good condition. The 5 year pump test interval is overdue. SLFPA-E should provide a plan for relief well pump tests by Dec 2017. SLFPA-E shall clean the relief wells prior to pump testing. (M)
09. Seepage	A	А	No evidence or history of unrepaired seepage, saturated areas, or boils.	USACE_CEMVN_OLD1_2017_a_0109: Station_1
		М	Evidence or history of minor unrepaired seepage or small saturated areas at or beyond the landside toe but not on the landward slope of levee. No evidence of soil transport.	116+62: Previously noted wet spot behind the houses nearest the landside levee toe on the East Bank of London Avenue Canal. SLFPA-E shall monitor location.
		U	Evidence or history of active seepage, extensive saturated areas, or boils.	(A) USACE_CEMVN_OLD1_2017_a_2000: Station_1 401+36: Convention center on protected side of flood wall has seepage coming under their retaining wall. Historic seepage noted at this location during past flood events. SLFPA-E shall monitor areas of historic seepage. (M)



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0011 Title: USACE_CEMVN_OLD1_2017_a_0011_1.jpg Rated Item: 02. Encroachments Rating: M Inspection Remarks: Leaking water pipe on the floodside. Recommended Action: SLFPA-E should coordinate with the Sewerage and Water Board to make corrective action. Caption: Station 1: 70+62 (IHNCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0024 Title: USACE_CEMVN_OLD1_2017_a_0024_1.jpg Rated Item: 02. Encroachments Rating: M Inspection Remarks: Leaking fire hydrant causing ponding water at the base of floodwall. Recommended Action: SLFPA-E should coordinate with the Sewerage and Water Board to make corrective action. Caption: Station 1: 534+82 (OLD)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0024 Title: USACE_CEMVN_OLD1_2017_a_0024_2.jpg Rated Item: 02. Encroachments Rating: M Inspection Remarks: Leaking fire hydrant causing ponding water at the base of floodwall. Recommended Action: SLFPA-E should coordinate with the Sewerage and Water Board to make corrective action. Caption: Station 1: 534+82 (OLD)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0024 Title: USACE_CEMVN_OLD1_2017_a_0024_3.jpg Rated Item: 02. Encroachments Rating: M Inspection Remarks: Leaking fire hydrant causing ponding water at the base of floodwall. Recommended Action: SLFPA-E should coordinate with the Sewerage and Water Board to make corrective action. Caption: Station 1: 534+82 (OLD)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0024 Title: USACE_CEMVN_OLD1_2017_a_0024_4.jpg Rated Item: 02. Encroachments Rating: M Inspection Remarks: Leaking fire hydrant causing ponding water at the base of floodwall. Recommended Action: SLFPA-E should coordinate with the Sewerage and Water Board to make corrective action. Caption: Station 1: 534+82 (OLD)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0026 Title: USACE_CEMVN_OLD1_2017_a_0026_1.jpg Rated Item: 03. Closure Structures (Stop Log Closures and Gates) (A or U only) Rating: A Inspection Remarks: Both sector gate leaves at Seabrook were fully cycled. Floodgate operation was smooth, vibration and noise free. Recommended Action: All OEM periodic maintenance is occurring on a regular basis.

Caption:

Station 1: 422+84 (OP)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0027 Title: USACE_CEMVN_OLD1_2017_a_0027_1.jpg Rated Item: 03. Closure Structures (Stop Log Closures and Gates) (A or U only) Rating: A Inspection Remarks: Both vertical lift gates at Seabrook were fully cycled. Operation occurred with no vibration or noise. Recommended Action: All OEM periodic maintenance appears to be taking place on a

regular basis. Caption: Station 1: 422+83 (OP)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0028 Title: USACE_CEMVN_OLD1_2017_a_0028_1.jpg Rated Item: 03. Closure Structures (Stop Log Closures and Gates) (A or U only) Rating: A Inspection Remarks: Seabrook diesel generator-set 1 was operated under no load. Diesel generator-set 2 operated under the load of the SG and both VLGs. Generator engine ran without excessive vibration or noise.

Recommended Action: All OEM periodic maintenance is occurring on a regular basis. **Caption:**

Station 1: 422+72 (OP)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



For use during Initial and Continuing Eligibility Inspections of levee segments / systems



Inspect ID: USACE_CEMVN_OLD1_2017_a_0012 Title: USACE_CEMVN_OLD1_2017_a_0012_1.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Spalling at top of wall. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 189+78 (IHNCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0013 Title: USACE_CEMVN_OLD1_2017_a_0013_1.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Spall along joint of floodwall. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 234+91 (IHNCW)



Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



Flood Damage Reduction Segment / System Inspection Report For Official Use Only (FOUO)

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Inspect ID: USACE_CEMVN_OLD1_2017_a_0014 Title: USACE_CEMVN_OLD1_2017_a_0014_1.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Spall along joint of floodwall. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 251+76 (IHNCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0014 Title: USACE_CEMVN_OLD1_2017_a_0014_2.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Spall along joint of floodwall. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 251+76 (IHNCW)

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Inspect ID: USACE_CEMVN_OLD1_2017_a_0016 Title: USACE_CEMVN_OLD1_2017_a_0016_1.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Spall along joint of floodwall. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 263+13 (IHNCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0016 Title: USACE_CEMVN_OLD1_2017_a_0016_2.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Spall along joint of floodwall. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 263+13 (IHNCW)

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Inspect ID: USACE_CEMVN_OLD1_2017_a_0017 Title: USACE_CEMVN_OLD1_2017_a_0017_1.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Previously repaired spall but deteriorating again. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 247+84 (IHNCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0019 Title: USACE_CEMVN_OLD1_2017_a_0019_1.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Previously repaired spall but deteriorating again. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 263+32 (IHNCW)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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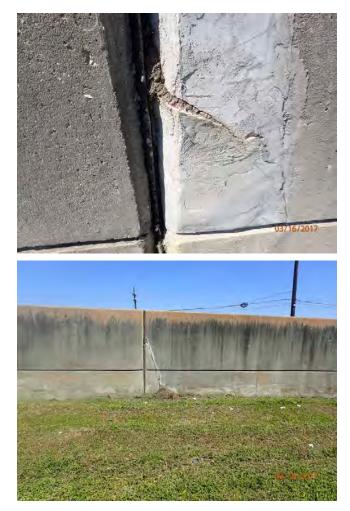
Inspect ID: USACE_CEMVN_OLD1_2017_a_0022 Title: USACE_CEMVN_OLD1_2017_a_0022_1.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Numerous spalls along the landside of the floodwall. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 67+13 (IHNCW) Station 2: 74+47 (IHNCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0022 Title: USACE_CEMVN_OLD1_2017_a_0022_2.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Numerous spalls along the landside of the floodwall. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 67+13 (IHNCW) Station 2: 74+47 (IHNCW)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0022 Title: USACE_CEMVN_OLD1_2017_a_0022_3.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Numerous spalls along the landside of the floodwall. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 67+13 (IHNCW) Station 2: 74+47 (IHNCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0022 Title: USACE_CEMVN_OLD1_2017_a_0022_4.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Numerous spalls along the landside of the floodwall. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 67+13 (IHNCW) Station 2: 74+47 (IHNCW)

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Inspect ID: USACE_CEMVN_OLD1_2017_a_0022 Title: USACE_CEMVN_OLD1_2017_a_0022_5.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Numerous spalls along the landside of the floodwall. Recommended Action: SLFPA-E shall monitor concrete cracking/degradation and make corrective actions as required. Caption: Station 1: 67+13 (IHNCW) Station 2: 74+47 (IHNCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0025 Title: USACE_CEMVN_OLD1_2017_a_0025_1.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Spalling/cracking of the land side of floodwall. Recommended Action: SLFPA-E shall make corrective actions as required. Caption: Station 1: 533+90 (OLD)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0103 Title: USACE_CEMVN_OLD1_2017_a_0103_1.jpg Rated Item: 04. Concrete Surfaces Rating: M Inspection Remarks: Exposed rebar on the landside retaining wall below the floodwall at Orleans Canal. Recommended Action: SLFPA-E shall make corrective actions as required. Caption: Station 1: 77+28 (OCW) Station 2: 84+06 (OCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0018 Title: USACE_CEMVN_OLD1_2017_a_0018_1.jpg Rated Item: 06. Foundation of Concrete Structures Rating: M Inspection Remarks: Settlement and deterioration of the scour protection sealant. Recommended Action: SLFPA-E shall repair in accordance with Volume 2 OMRR&R Manual. Caption: Station 1: 422+33 (OP)

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Inspect ID: USACE_CEMVN_OLD1_2017_a_0021 Title: USACE_CEMVN_OLD1_2017_a_0021_1.jpg Rated Item: 06. Foundation of Concrete Structures Rating: M Inspection Remarks: Sealant deterioration at the floodwall and scour protection on the protected side. Recommended Action: SLFPA-E shall make corrective actions as required. Clean concrete surface. Seal cracks. Patch concrete. Seal concrete. Caption: Station 1: 430+09 (OP)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0023 Title: USACE_CEMVN_OLD1_2017_a_0023_1.jpg Rated Item: 06. Foundation of Concrete Structures Rating: Inspection Remarks: Small voids at the base of the floodwall on floodside. Recommended Action: SLFPA-E shall inspect, repair, and monitor damaged areas. Caption: Station 1: 474+34 (OLD)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



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Inspect ID: USACE_CEMVN_OLD1_2017_a_0023 Title: USACE_CEMVN_OLD1_2017_a_0023_2.jpg Rated Item: 06. Foundation of Concrete Structures Rating: Inspection Remarks: Small voids at the base of the floodwall on floodside. Recommended Action: SLFPA-E shall inspect, repair, and monitor damaged areas. Caption: Station 1: 474+34 (OLD)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0023 Title: USACE_CEMVN_OLD1_2017_a_0023_3.jpg Rated Item: 06. Foundation of Concrete Structures Rating: Inspection Remarks: Small voids at the base of the floodwall on floodside. Recommended Action: SLFPA-E shall inspect, repair, and monitor damaged areas. Caption: Station 1: 474+34 (OLD)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction



For use during Initial and Continuing Eligibility Inspections of levee segments / systems



Inspect ID: USACE_CEMVN_OLD1_2017_a_0023 Title: USACE_CEMVN_OLD1_2017_a_0023_4.jpg Rated Item: 06. Foundation of Concrete Structures Rating: Inspection Remarks: Small voids at the base of the floodwall on floodside. Recommended Action: SLFPA-E shall inspect, repair, and monitor damaged areas. Caption: Station 1: 474+34 (OLD)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0006 Title: USACE_CEMVN_OLD1_2017_a_0006_1.jpg Rated Item: 07. Monolith Joints Rating: M Inspection Remarks: Water stop deterioration. Recommended Action: SLFPA-E needs to repair the expansion material between monolith joints. Caption: Station 1: 53+25 (IHNCW)

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Inspect ID: USACE_CEMVN_OLD1_2017_a_0006 Title: USACE_CEMVN_OLD1_2017_a_0006_2.jpg Rated Item: 07. Monolith Joints Rating: M Inspection Remarks: Water stop deterioration. Recommended Action: SLFPA-E needs to repair the expansion material between monolith joints. Caption: Station 1: 53+25 (IHNCW)

Inspect ID: USACE_CEMVN_OLD1_2017_a_0006 Title: USACE_CEMVN_OLD1_2017_a_0006_3.jpg Rated Item: 07. Monolith Joints Rating: M Inspection Remarks: Water stop deterioration. Recommended Action: SLFPA-E needs to repair the expansion material between monolith joints. Caption: Station 1: 53+25 (IHNCW)

Key: A = Acceptable. M = Minimally Acceptable; Maintenance is required. U = Unacceptable. N/A = Not Applicable. FDR = Flood Damage Reduction

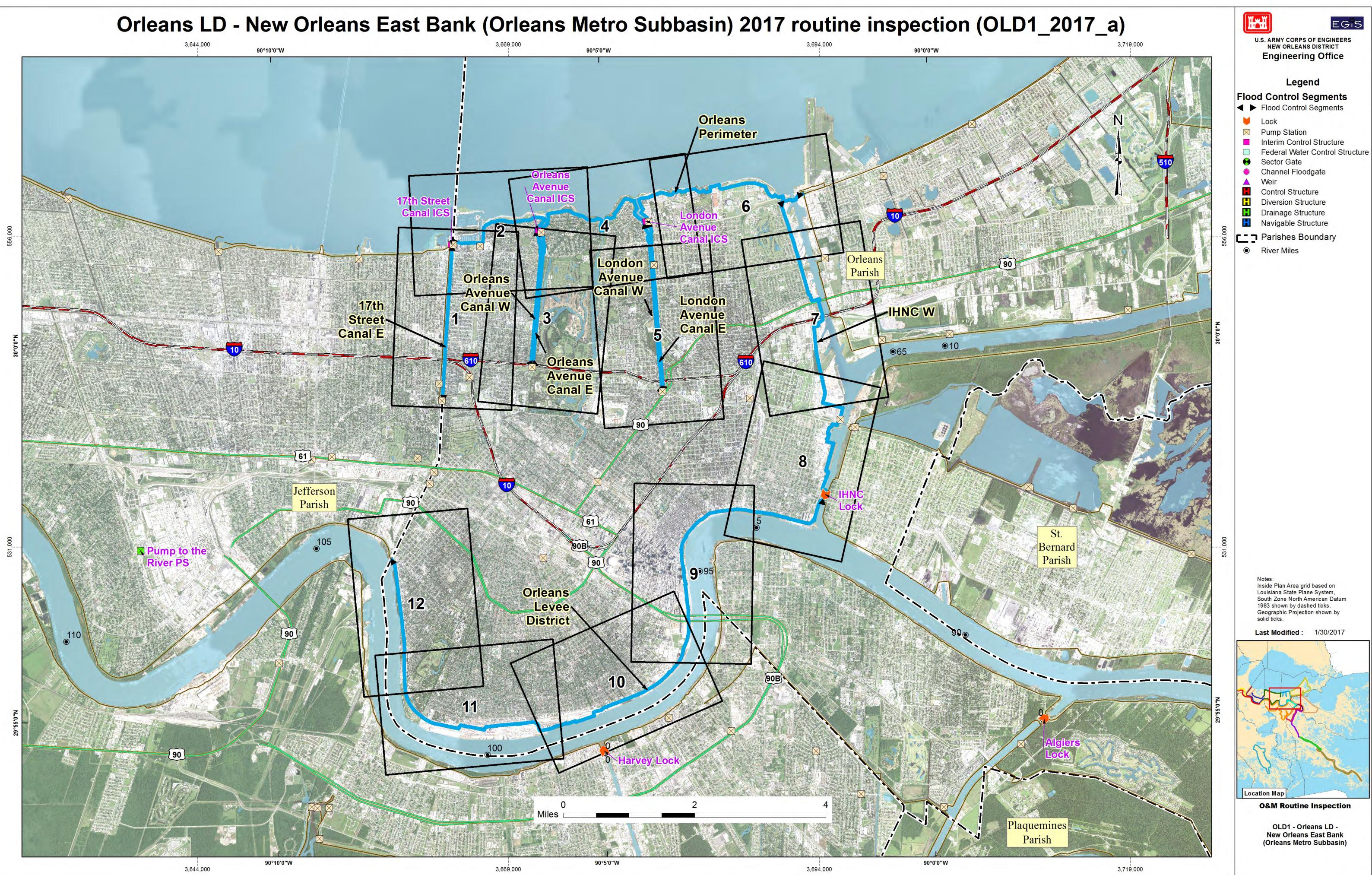


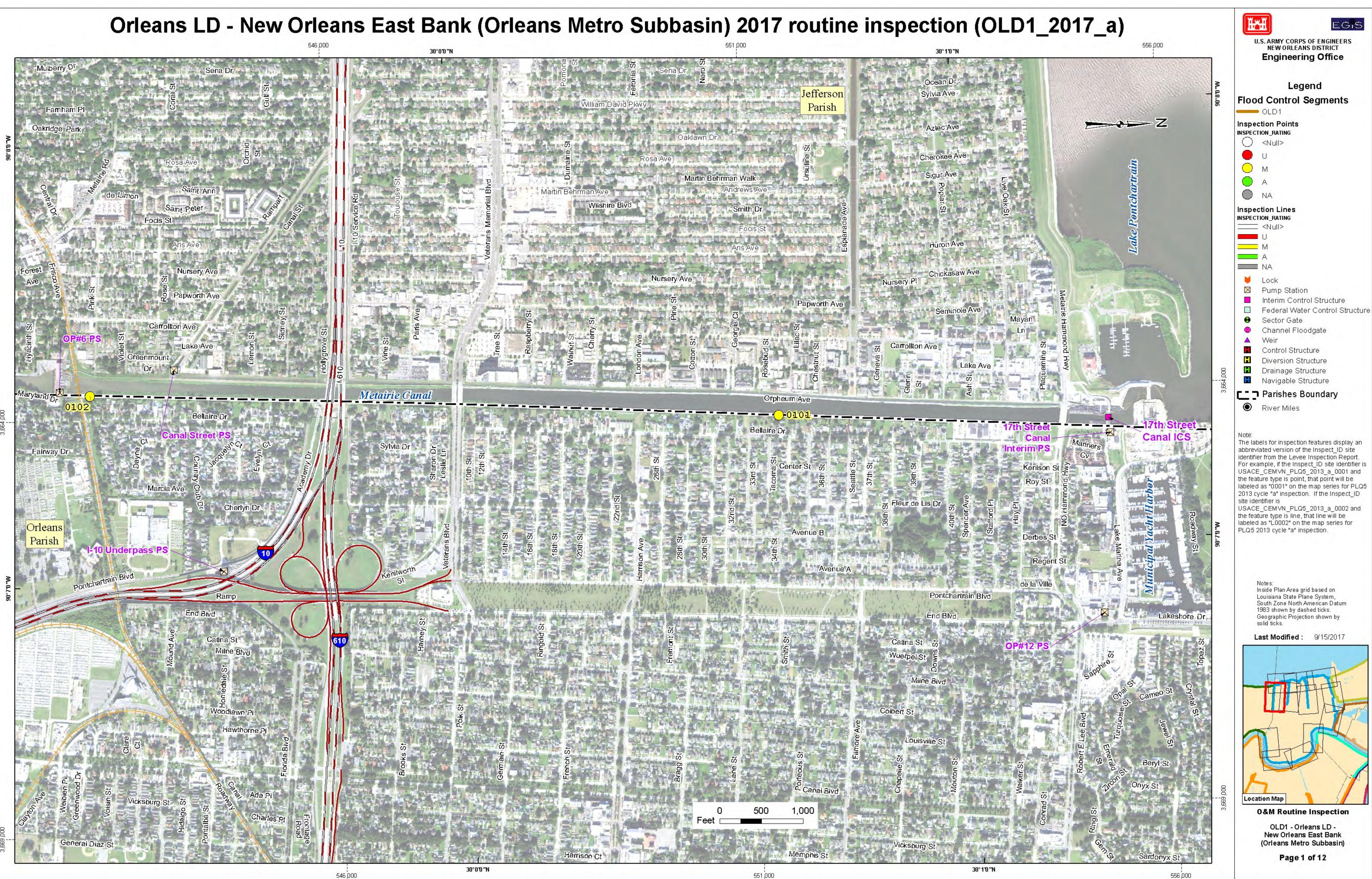
GRAVITY_1	STATION	DRAIN_DESCRIPTION	INLET_INVE	OUTLET_INV	DRAIN_D IAM	PIPE_CONST	DRAIN _GATE	FC_SEGME_1
V8	30070.609	INVERT	0	4.85	12	Concrete		OLD1
V7	29202.672		0	3.2	12	Concrete		OLD1
V18	35927.436	INVERTS	0	5.2	12	Steel		OLD1
V25	40142.176		0	7	21	Steel		OLD1
V2	18569.805	INLET FULL UNK SIZ MAT INVERT	0	0	0	Other		OLD1
V52	56763.383		7.8	7.85	12	Steel		OLD1
V47	55325.064	SHOT RIM	2.65	8.65	12	Steel		OLD1
V42	51956.845	SHOT RIM	2.5	3.8	12	Steel		OLD1
V38	49342.884	SHOT RIM	4.8	5	12	Steel		OLD1
V29	45306.799	UNABLE TO OPEN	0	0	0			OLD1
V21	37182.045		5.1	5.2	12	Other		OLD1
V11	31820.506	INVERTS & OUTLET WERE UNABLE TO BE OBTAINED INVERTS & OUTLET WERE UNABLE TO BE	0	0	0			OLD1
V3	20507.394	OBTAINED	0	0	0			OLD1
	5322.269	2.6x2.6 grate inlet with pvc pipe	20.504	13.8	44	Plastic		OLD1
	5602.858	2.6x2.6 grate inlet with pvc pipe	18.244	14.27	44	Plastic		OLD1
	5791.03	2.6x2.6 grate inlet with pvc pipe	18.421	13.35	44	Plastic		OLD1
	61103.8	1.6'x1.6' grate inlet with pvc pipe	18.734	17.22	27	Plastic		OLD1
	7009.8	1.6'x1.6' grate inlet with pvc pipe	18.463	15.717	27	Plastic		OLD1
	61103.8	1.6'x1.6' grate inlet with pvc pipe	0	17.1	27	Plastic		OLD1
	6606.587	1.6'x1.6' grate inlet with pvc pipe	0	16.66	27	Plastic		OLD1
	6824.285	1.6'x1.6' grate inlet with pvc pipe INVERTS & OUTLET WERE UNABLE TO BE	0	17.4	27	Plastic		OLD1
V1	20500.548	OBTAINED INVERTS & OUTLET WERE UNABLE TO BE	0	0	0			OLD1
V2	20504.13	OBTAINED INVERTS & OUTLET WERE UNABLE TO BE	0	0	0			OLD1
V48	55788.366	OBTAINED	0	0	0			OLD1
	5244.55	2.6x2.6 grate inlet with pvc pipe	21.008	17.92	44	Plastic		OLD1

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	5394.907	2.6x2.6 grate inlet with pvc pipe	18.514	14.28	44	Plastic	OLD1
	5469.861	2.6x2.6 grate inlet with pvc pipe	18.061	14.03	44	Plastic	OLD1
	5672.378	2.6x2.6 grate inlet with pvc pipe	18.389	15.16	44	Plastic	OLD1
	5731.775	2.6x2.6 grate inlet with pvc pipe	18.316	13.83	44	Plastic	OLD1
	61103.8	2.6x2.6 grate inlet with pvc pipe	18.477	12.96	44	Plastic	OLD1
	5968.96	2.6x2.6 grate inlet with pvc pipe	18.467	14.31	44	Plastic	OLD1
	6870.765	1.6'x1.6' grate inlet with pvc pipe	18.3	16.39	27	Plastic	OLD1
	7001.859	1.6'x1.6' grate inlet with pvc pipe	18.369	16.21	27	Plastic	OLD1
	7105.962	1.6'x1.6' grate inlet with pvc pipe	17.69	13.85	27	Plastic	OLD1
V13	32861.789		0	0	0	Other	OLD1
V12	32452.923	INVERT	0	2.95	12	Concrete	OLD1
V4	19540.235		0	0	0	Other	OLD1
V4	20943.997		0	0	0	Other	OLD1
V9	30420.172		0	6.25	0	Concrete	OLD1
V10	31018.985		0	0	0	Other	OLD1
V20	36896.516	INVERT	0	6.2	12	Steel	OLD1
V22A	38504.53	FULL OF WATER	0	0	0	Other	OLD1
V19	36699.91	INVERTS	0	4.52	12	Steel	OLD1
V14	33193.77		0	3.75	6	Polyvinyl Chloride	OLD1
V32	46417.319		0	4.3	0	Concrete	OLD1
V31	46154.965		0	2.65	12	Concrete	OLD1
V27В	44617.684		0	2.18	12	Concrete	OLD1
V25A	39941.295	MANHOLE	0	0	30	Steel	OLD1
V27	40984.562	MANHOLE	0	0	0	Steel	OLD1
V27A	41052.911	MANHOLE	0	0	0	Steel	OLD1
V3	18904.926		0	0	12	Steel	OLD1

1	I	INVERTS & OUTLET WERE UNABLE TO BE		I		1	l	I
V15	33947.564	OBTAINED	0	0	0			OLD1
V1A	16837.674		0	0	0	Other		OLD1
V22B	38318.321	INACCESSABLE	0	0	0			OLD1
V51	56524.484		0	7.15	12	Steel		OLD1
V50	56194.504	SHOT RIM SILTED FULL	0	0	0	Other		OLD1
V49	56040.871	SHOT RIM	0	7.55	12	Steel		OLD1
V46	54581.354	SHOT RIM	3.15	6.15	12	Steel		OLD1
V45	54009.566	SHOT RIM	3.3	5.2	12	Steel		OLD1
V44	52628.007	SHOT RIM	0	3.45	12	Steel		OLD1
V43	52580.643	SHOT RIM	1.75	3.85	12	Steel		OLD1
V41	51427.387	SHOT RIM	2.35	4.05	12	Steel		OLD1
V40	50473.871	SHOT MH RIM	2.5	4.45	12	Steel		OLD1
V39	50136.965	SHOT RIM BOTTOM SILTED FULLY	0	0	0	Steel		OLD1
V36	48645.92	SHOT RIM	1.8	1.9	12	Steel		OLD1
V35	48259.437	SHOT RIM	0	0	18	Steel		OLD1
V37	48998.973	SHOT RIM NO OTHER STRUCTURE	0	0	0			OLD1
V23	38898.072	FULL OF DEBRIS	0	0	0			OLD1
V24	39019.141	FULL OF DEBRIS	0	0	0			OLD1
V26	40809.742	INVERTS & OUTLET WERE UNABLE TO BE	0	0	0	Concrete		OLD1
V33	47096.373	OBTAINED INVERTS & OUTLET WERE UNABLE TO BE	0	0	0			OLD1
V28	45176.626	OBTAINED	0	0	0			OLD1
V6	23303.935	OUTLET COULD NOT BE FOUND	0	0	0			OLD1
V-16	0		0	0	0			OLD1
V-17	0		0	0	0			OLD1
V-30	0		0	0	0			OLD1
V-32A	0		0	0	0			OLD1

V-53	0		0	0	0		OLD1
V-54	0		0	0	0		OLD1
V-55	0		0	0	0		OLD1
V-56	0		0	0	0		OLD1
V-57	0		0	0	0		OLD1
V-58	0		0	0	0		OLD1
V4B	41325.1		5.09	4.94	18	Steel	OLD1
V4	6249.086	OUTLET NOT FOUND	0	0	0		OLD1

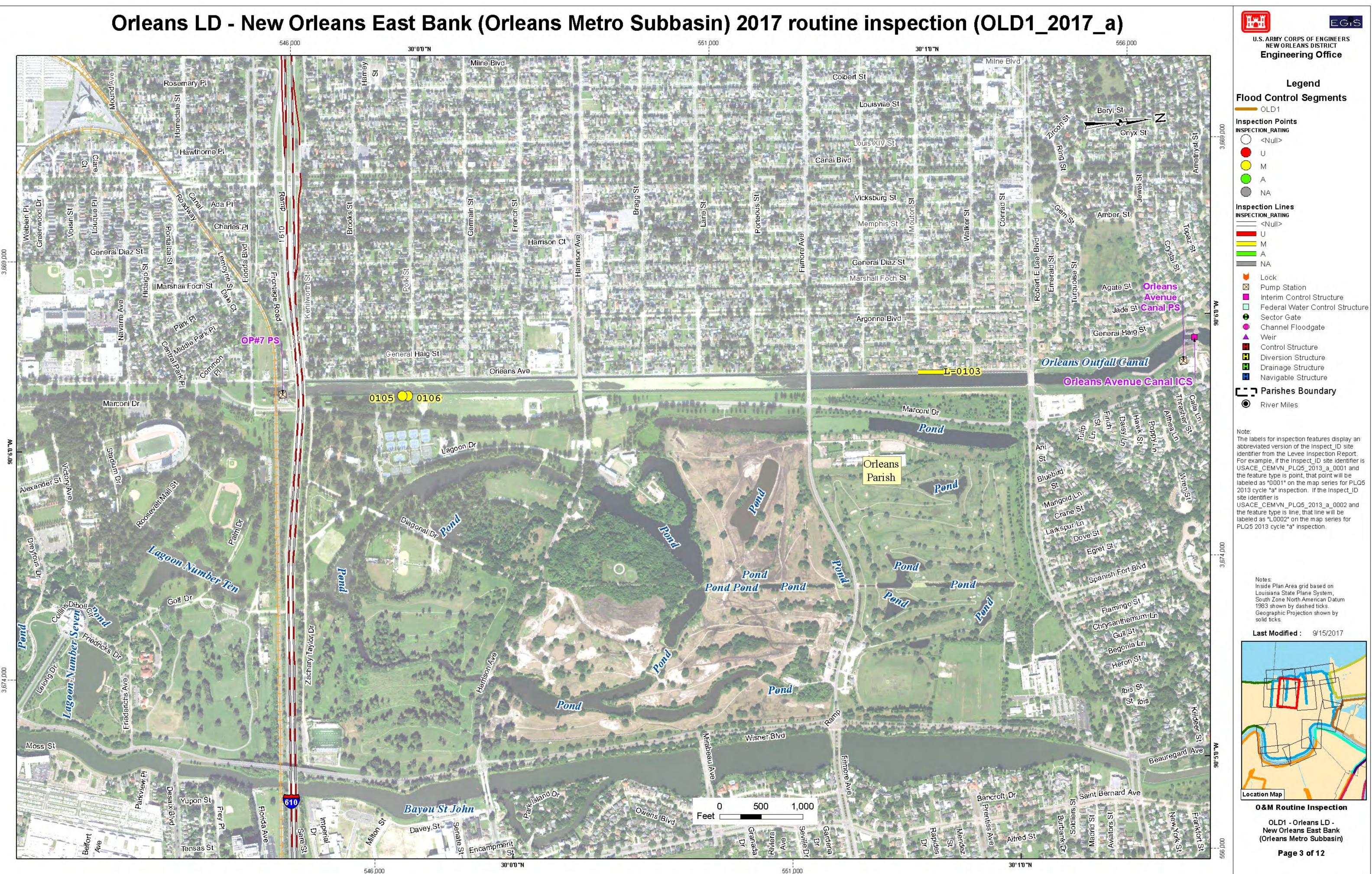




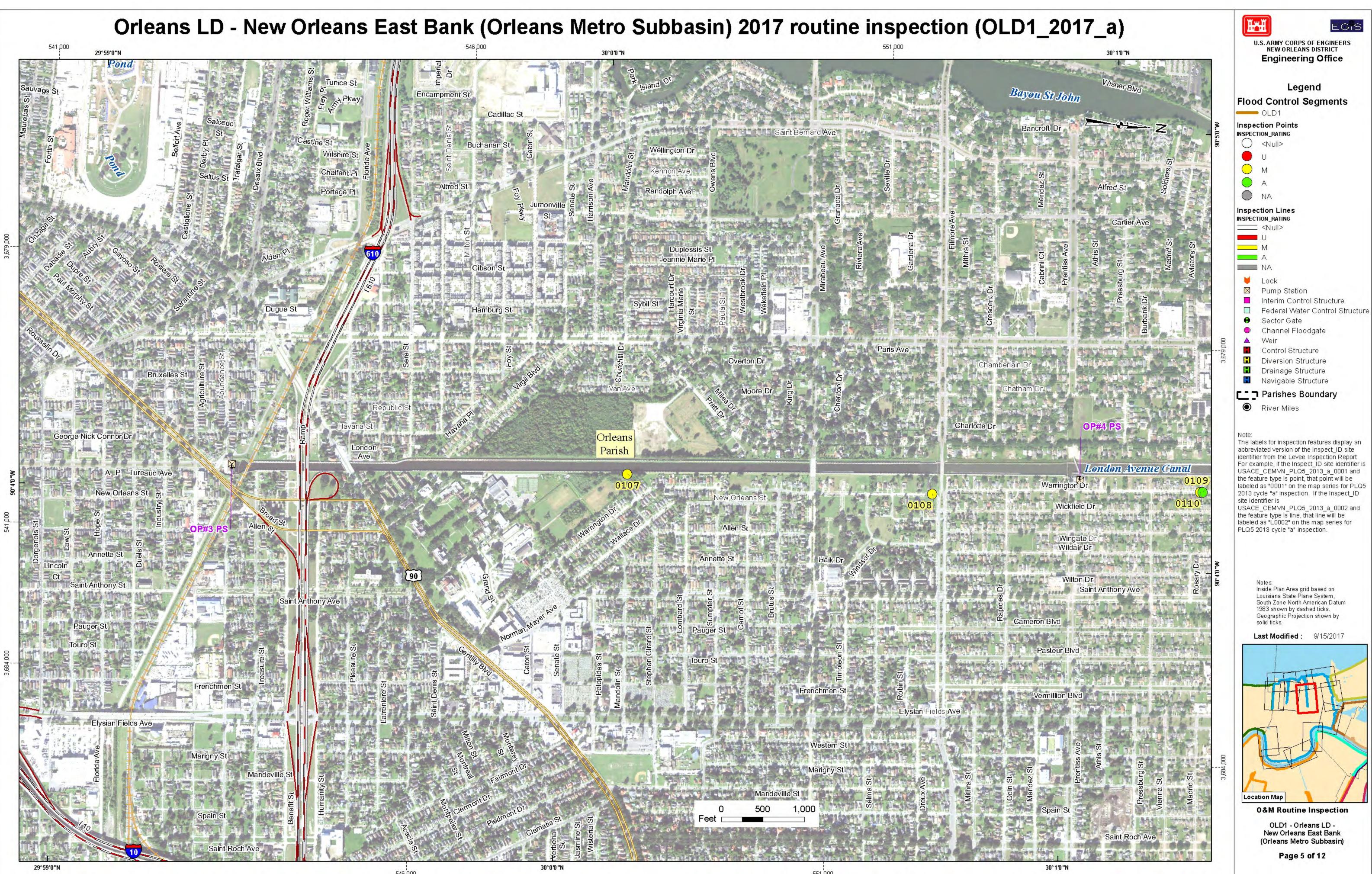
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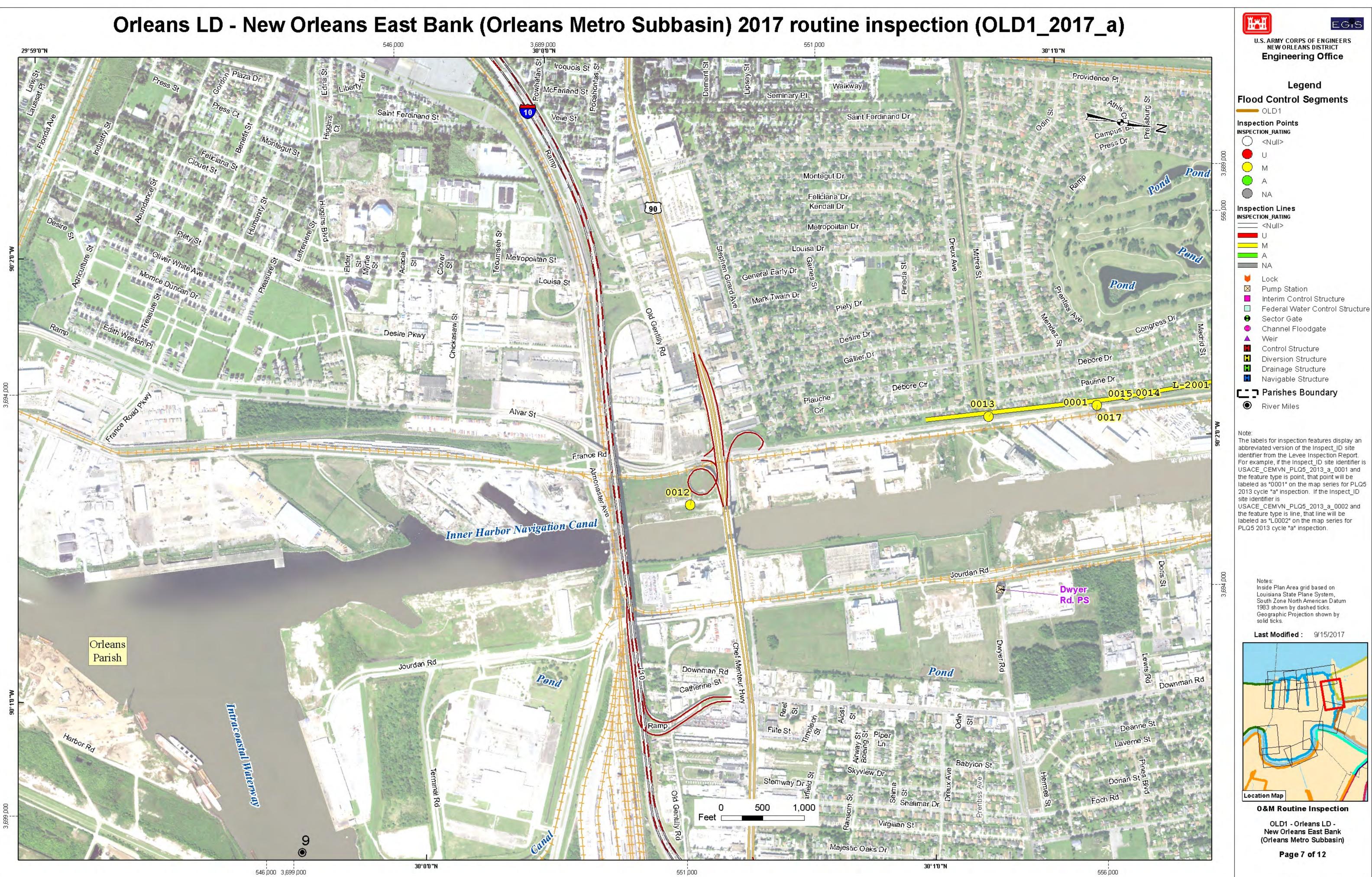


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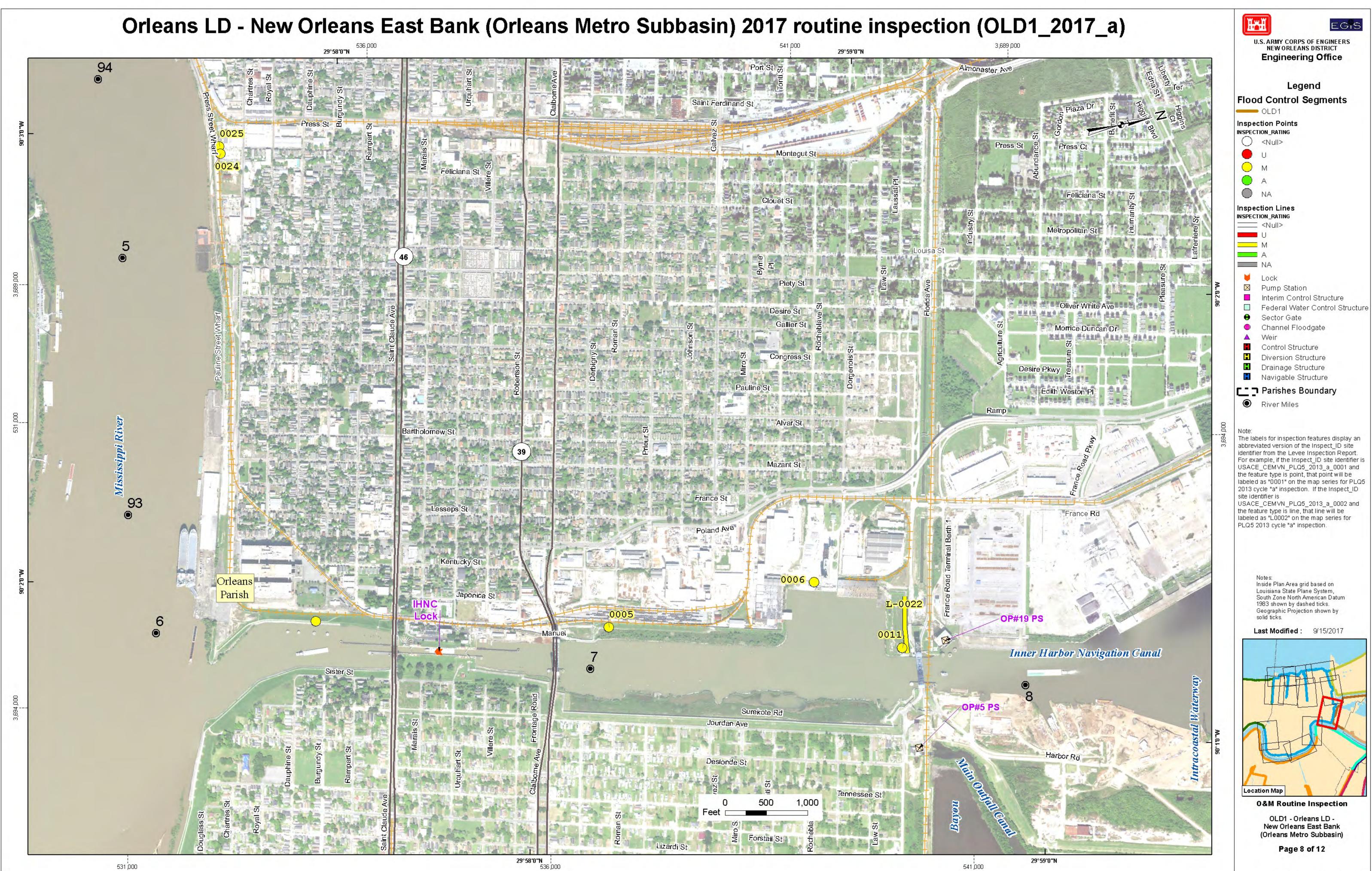
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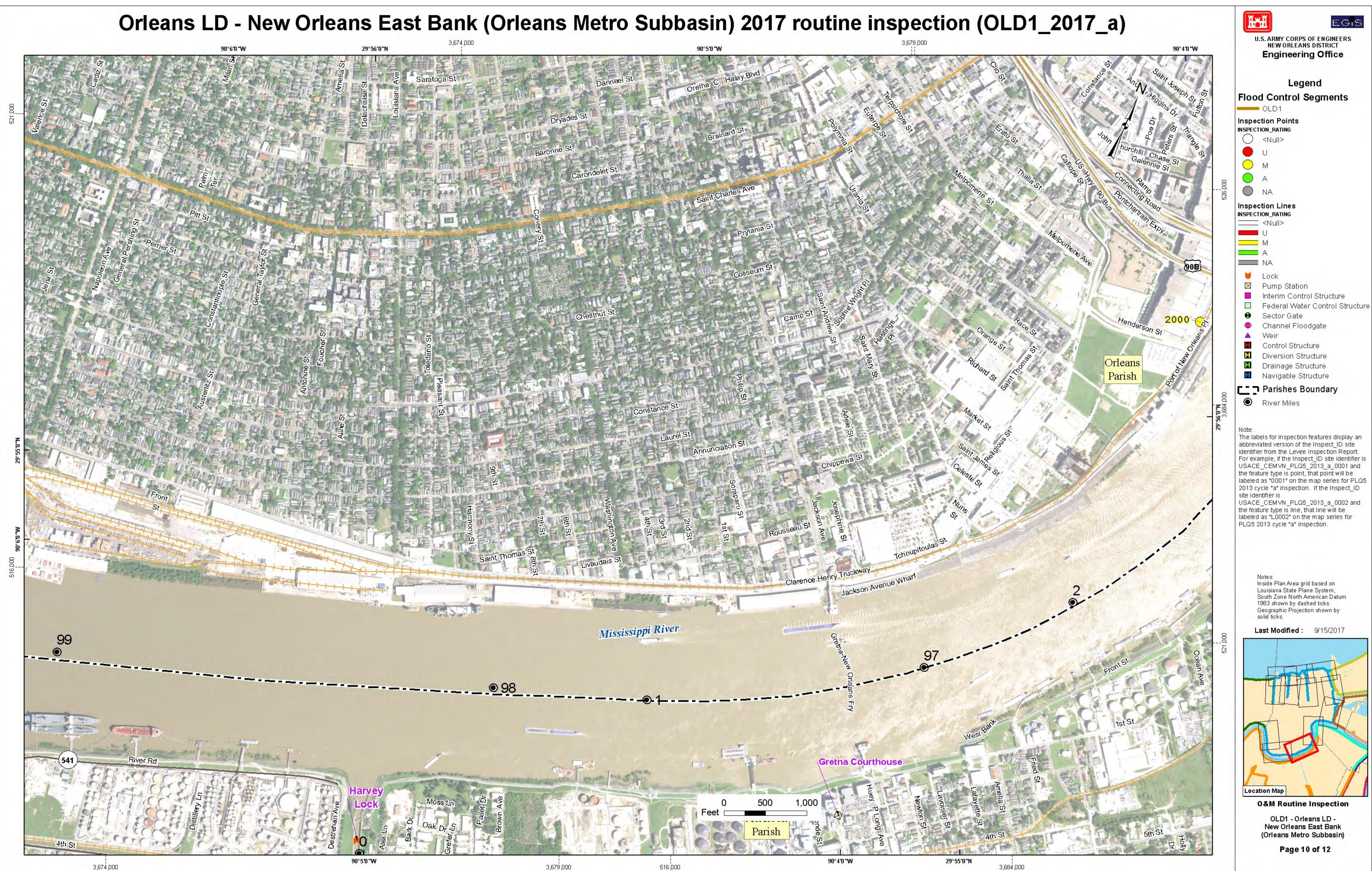








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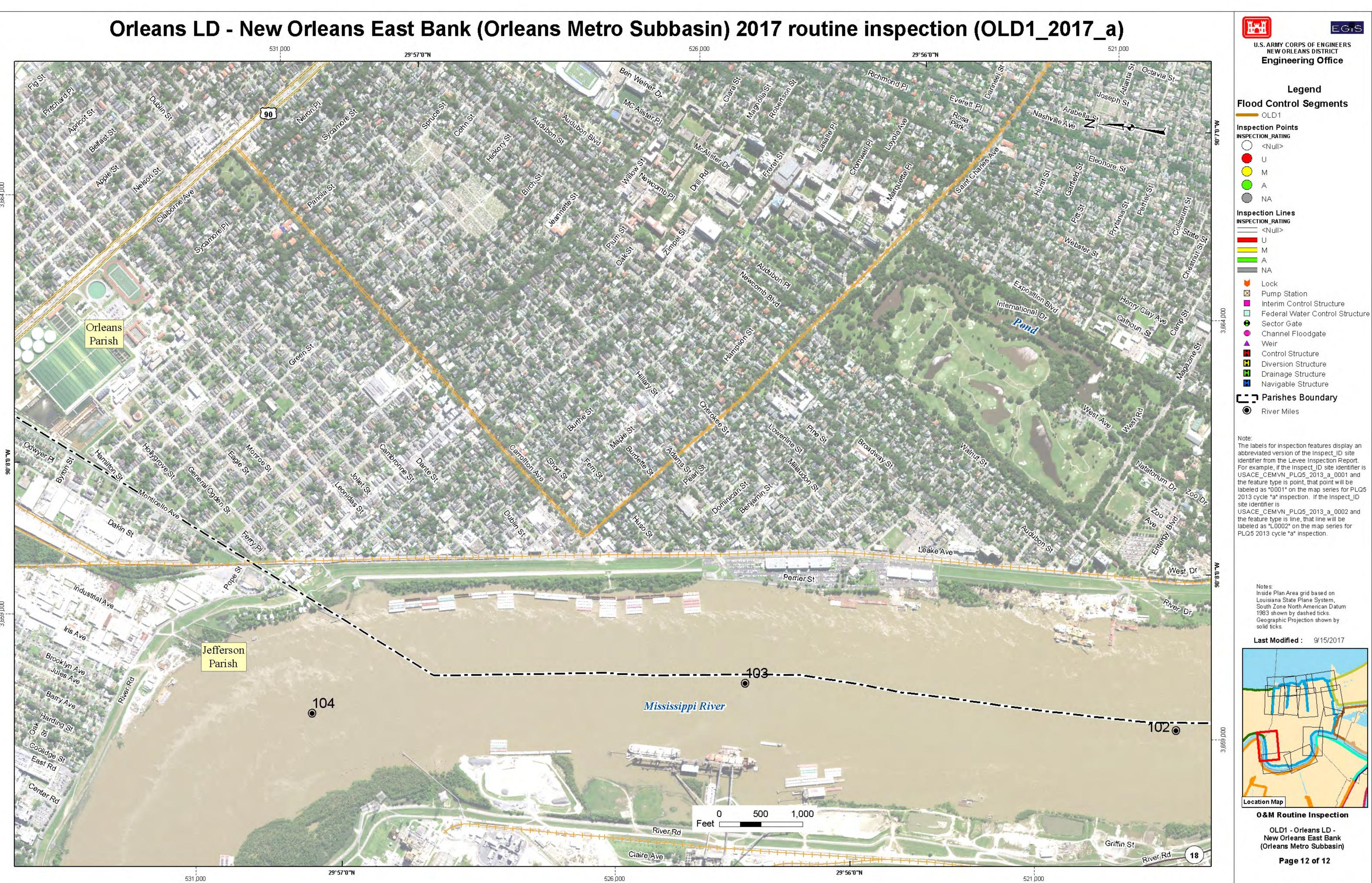


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