

# Progress Report December 21, 2011 SW IL Levee System By Jay Martin



- Design and Construction Documents... **Delivered 60%**
  - Berms
  - Cut off walls
  - Interior drainage
    - Pump stations
    - Ditching
  - Seepage blankets/toe drains
  - Wetlands mitigation
  - Utility relocations
  - Temporary construction access roads
  - Limits of disturbance
  - Existing roadway relocation

# Information Provided for 408 Approval



Document and File Type <sup>4</sup>	Levee System		
	Wood River	MESD	Prairie du Pont / Fish Lake
60% Plans (provided under separate cover)	X	X	X
60% Specifications (provided under separate cover)	X (One set inclusive of all levees)		
Pipe Hydraulics	X	X	X
Utility Conflicts	X	X	X
Technical Decision Record (TDR) Log, listing conclusion or action for each levee segment (.pdf)	X	X	X
Computations and input, sequential from beginning to end of each levee, identified by station (.pdf)	X	X	X
Leaky Blanket Spreadsheet, including Basic Data, Well Design and Seepage Berm tabs (.pdf)	X	X	X
Leaky Blanket Spreadsheet, including Basic Data, Well Design <sup>2</sup> and Seepage Berm tabs (.xls) <sup>1</sup>	X	X	X
Underseepage models from Seep/W (.pdf) <sup>3</sup>	X	X	X
Underseepage models from Seep/W (.gsz)	X	X	X
Trench stability analyses, LWR deep cutoff wall (.pdf and .gsz)	X	N/A	N/A
SWMM Models	X	X	X
HEC-HMS Models	X	X	X
HEC-RAS Models	X	X	X

## FILES/FOLDERS SUBMITTED



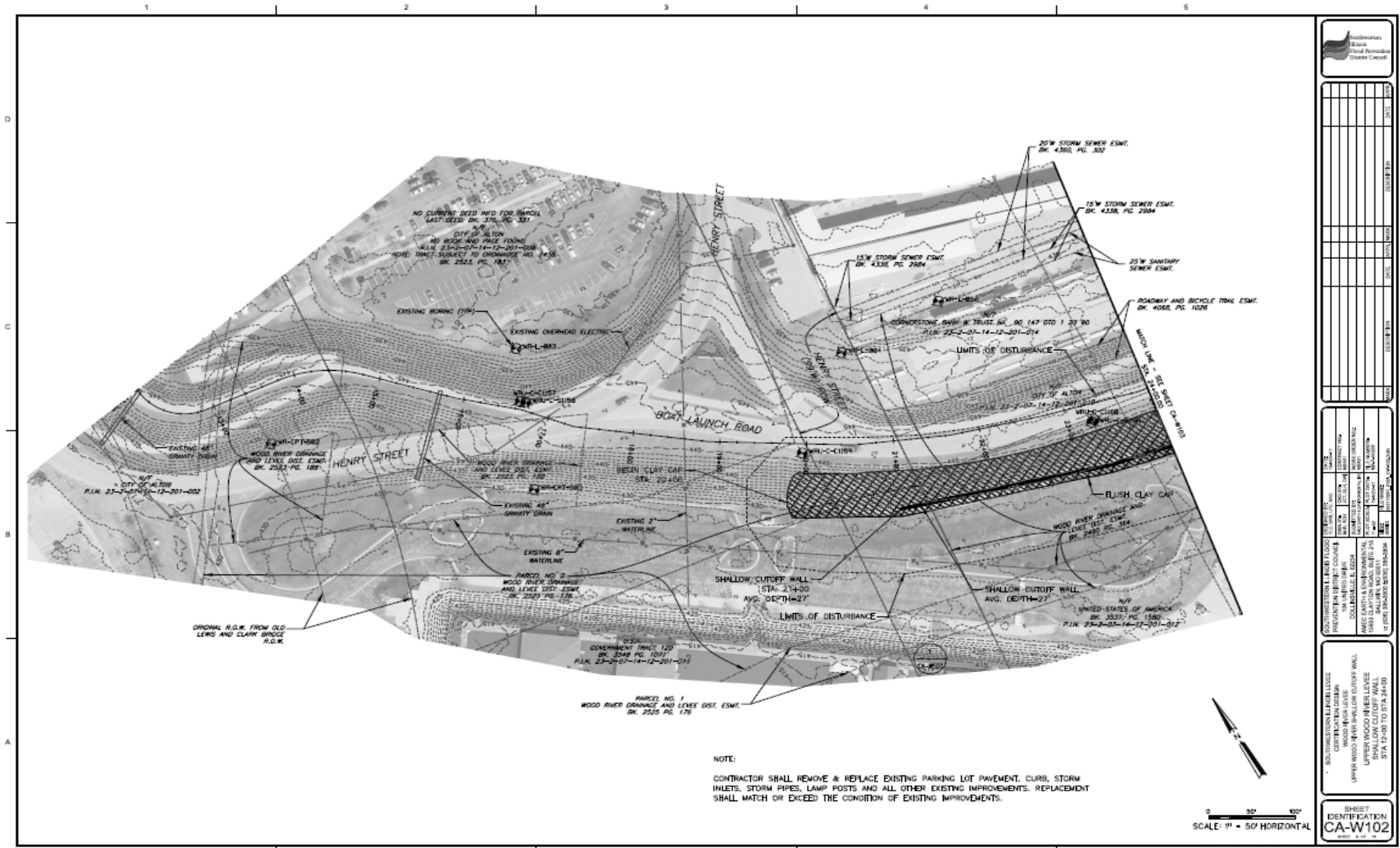
563170001-ADM-DBM-0002\_60% Design Basis Memo/Deliverables  
563170001-ADM-DWG-0002\_60% Design Construction Drawings - WR  
563170001-ADM-DWG-0003\_60% Design Construction Drawings - MESD  
563170001-ADM-DWG-0004\_60% Design Construction Drawings - PDPFL  
563170001-CIV-CAL-0001\_60% Design Hydraulic Calculations - WR  
563170001-CIV-CAL-0002\_60% Design Hydraulic Calculations - MESD  
563170001-CIV-CAL-0003\_60% Design Hydraulic Calculations - PDPFL  
563170001-CIV-LST-0004\_60% Design Utility Impacts - WR  
563170001-CIV-LST-0005\_60% Design Utility Impacts - MESD  
563170001-CIV-LST-0006\_60% Design Utility Impacts - PDPFL  
563170001-CIV-SPC-0002\_60% Civil Specifications  
563170001-GEO-CAL-0001\_60% GEOTECH DESIGN MODELS - WR  
563170001-GEO-CAL-0002\_60% Trench Stability Analysis - WR  
563170001-GEO-CAL-0003\_60% Blanket Theory Spreadsheet - MESD  
563170001-GEO-CAL-0004\_60% Computations Beginning to End of Levee - MESD  
563170001-GEO-CAL-0005\_60% MESD Filter Analysis - MESD  
563170001-GEO-CAL-0006\_60% SeepW Models and Supporting Documentation - MESD  
563170001-GEO-CAL-0007\_60% Well Analyses with Blanket Theory - MESD  
563170001-GEO-CAL-0008\_60% Blanket Theory Spreadsheet - FL  
563170001-GEO-CAL-0009\_60% Blanket Theory Spreadsheet - PDP  
563170001-GEO-CAL-0010\_60% SeepW - PDP  
563170001-GEO-CAL-0011\_60% SeepW - FL

## FILES/FOLDERS SUBMITTED



563170001-GEO-CAL-0012\_60% TDR Reaches - PDPFL  
563170001-GEO-DBM-0003\_60% Design Memorandum - WR (FINAL with ITR)  
563170001-GEO-DBM-0004\_60% PDPFL Design Summary  
563170001-GEO-LST-0001\_60% FLANK (E & W Forks) WOOD RIVER TDR  
563170001-GEO-LST-0002\_60% LOWER WOOD RIVER TDR  
563170001-GEO-LST-0003\_60% UPPER WOOD RIVER TDR  
563170001-GEO-LST-0004\_60% TDR Log MESD  
563170001-HH-CAL-0001\_60% SWMM MODEL - WR  
563170001-HH-CAL-0002\_60% SWMM MODEL - MESD  
563170001-HH-CAL-0003\_60% SWMM MODEL - PDPFL  
563170001-HH-CAL-0004\_60% HMS MODEL - Wood\_River  
563170001-HH-CAL-0005\_60% HMS MODEL - Cahokia Indian  
563170001-HH-CAL-0006\_60% HMS MODEL - Carr Creek  
563170001-HH-CAL-0007\_60% HMS MODEL - PDP Canal  
563170001-HH-CAL-0008\_60% RAS MODEL - WFWoodR  
563170001-HH-CAL-0009\_60% RAS MODEL - WoodR\_EFWoodR  
563170001-HH-CAL-0010\_60% RAS MODEL - Cahokia\_Cr  
563170001-HH-CAL-0011\_60% RAS MODEL - Carr Creek  
563170001-HH-CAL-0012\_60% RAS MODEL - Indian\_Cr  
563170001-HH-CAL-0013\_60% RAS MODEL - PDP\_Canal

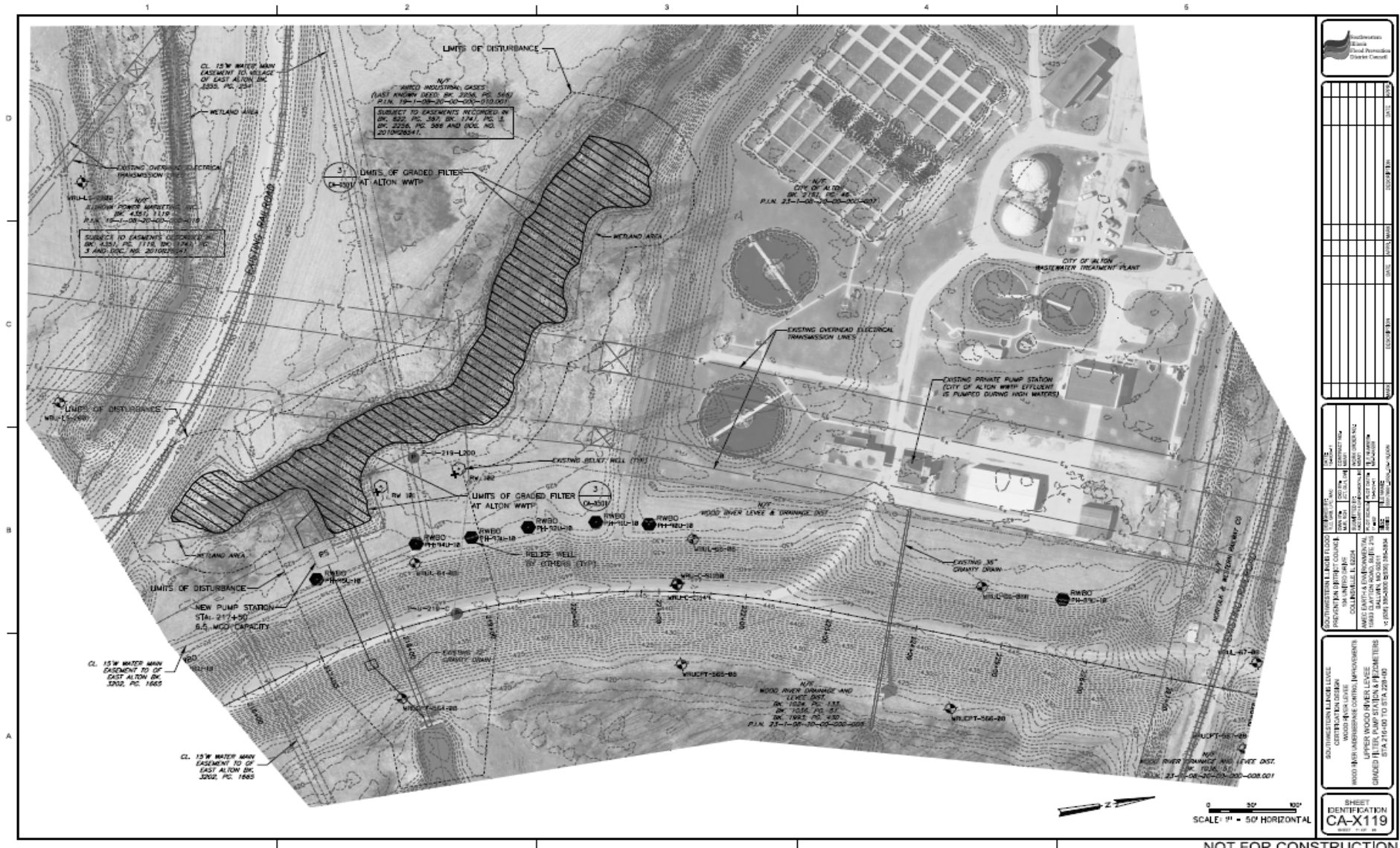
# TYPICAL 60% DRAWING



PROJECT: SHEET: DATE: DRAWN BY: CHECKED BY: APPROVED BY: TITLE:	
CONTRACTOR: PROJECT NO.: SHEET NO.: TOTAL SHEETS: DATE: DRAWN BY: CHECKED BY: APPROVED BY:	TITLE: PROJECT NO.: SHEET NO.: TOTAL SHEETS: DATE: DRAWN BY: CHECKED BY: APPROVED BY:
SHEET IDENTIFICATION <b>CA-W102</b> 1 OF 1	

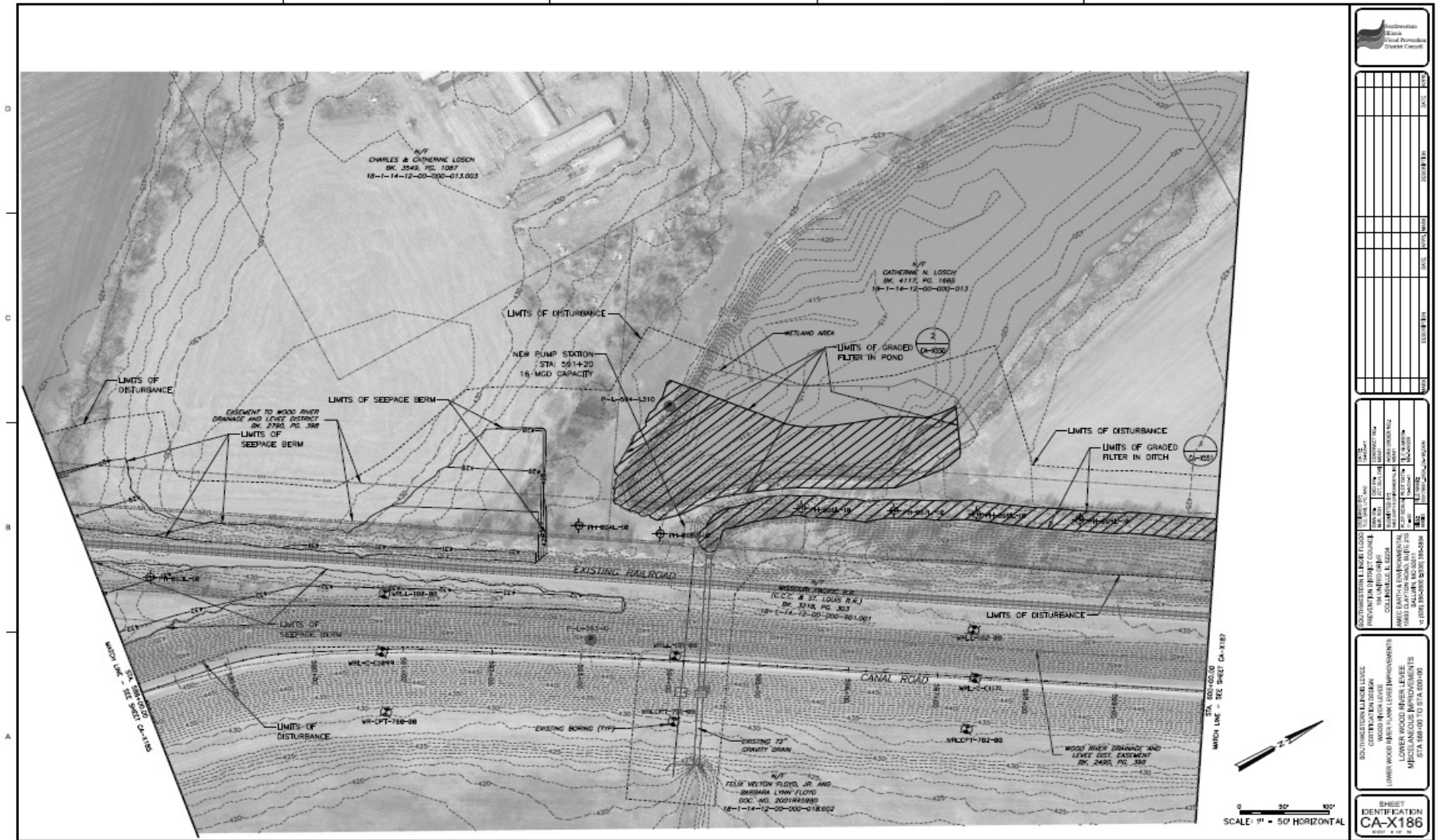
NOT FOR CONSTRUCTION

# TYPICAL 60% DRAWING



NOT FOR CONSTRUCTION

# TYPICAL 60% DRAWING



**MEADOWS**  
Wood River  
Flood Protection  
District Council

NO. 1	DATE	REVISION

**PROJECT INFORMATION**

PROJECT NAME: WOOD RIVER FLOOD PROTECTION DISTRICT COUNCIL  
 PROJECT NO.: 18-1-14-12-00-000-018-002  
 DRAWING NO.: CA-X186  
 SHEET NO.: 18-1-14-12-00-000-018-002  
 DATE: 10/18/2018

**DESIGNER**  
 NAME: CHARLES & CATHERINE LOSCH  
 NO.: 4112, RD. 1968  
 18-1-14-12-00-000-018-002

**CHECKER**  
 NAME: FELIX WELTON FLOYD, JR. AND  
 BRIGIDA LYNN FLOYD  
 DOC. NO. 20210014000  
 18-1-14-12-00-000-018-002

**APPROVER**  
 NAME: WOOD RIVER FLOOD PROTECTION DISTRICT COUNCIL  
 TITLE: DISTRICT MANAGER

**SCALE**  
 SCALE: 1" = 50' HORIZONTAL

**SHEET IDENTIFICATION**  
 CA-X186

NOT FOR CONSTRUCTION



## Construction Cost Estimate

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- 60 % construction cost estimate
- Aligned with current drawings and specs

**...Delivered**

- 404 and 401 including preliminary wetlands mitigation plan

**...Delivered joint application**

## Biggest Changes - Wood River

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- Decreases

- Seepage Berms - \$1.5M
- C/O walls - \$13.7M
- RW - \$1.8M
- Utilities/Disturbance - \$1M

- Increases

- Pump Stations - \$3.5M
- Excavation & Haul Off - \$1.4M
- Dewatering - \$7.9M

## Biggest Changes - MESD



### ■ Decreases

- Clear and Grub - \$1.4M
- Seepage Berms - \$1.2M
- C/O walls - \$18.9M
- RW - \$3.5M
- Utilities - \$7.1M
- Wetlands - \$1.4M

### ■ Increases

- Excavation and Haul Off - \$5.2M
- Graded Filters/Trench - \$4.8M
- Pump Stations - \$6.9M

## Biggest Changes – PdP/FL



- Decrease
  - RW (rehab) - \$0.5M
  
- Increases
  - Seepage Berms - \$1.7M
  - RW - \$1.4M
  - Pump Station - \$7.4M
  - Land Acquisition - \$0.7M
  - Wetlands - \$0.6M

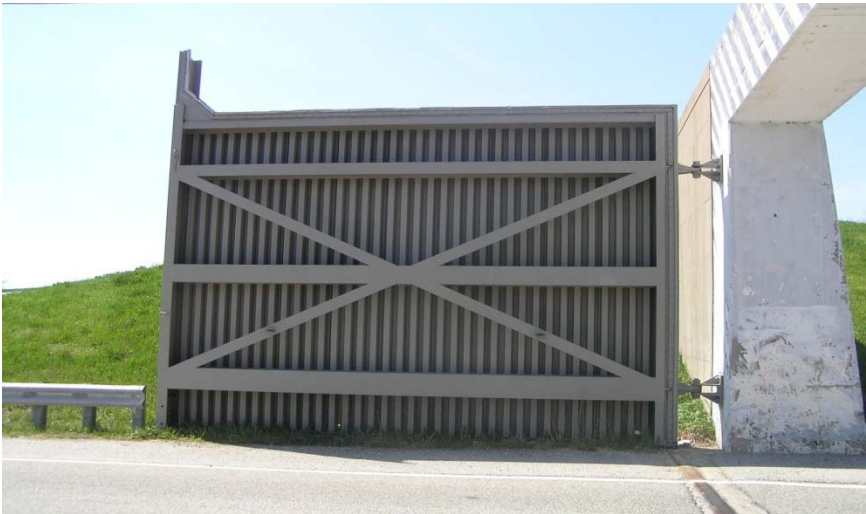
- Task Order #07 - 100% design (plans, specs, cost estimate)
- Task Order # 06 – USACE 408 Process
- Task Order #05 – Levee Screening (Mel Price and COR segments)

**...Presented to Chief Supervisor of Construction and the Works**

## Field activities



- Archeology
- Land surveying



Task	Start	End	2012				2013				2014				2015			
			QTR 4	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3
Work Package 1	12/16/2011	11/1/2013	[Gantt bar]															
404/401 Permit	12/16/2011	3/24/2012	[Gantt bar]															
USACE Technical Review	12/16/2011	1/14/2012	[Gantt bar]															
100% Construction Doc Prep	12/16/2011	1/21/2012	[Gantt bar]															
USACE 408 Final Review & Permission	1/22/2012	2/20/2012	[Gantt bar]															
Local Permit Review	1/22/2012	2/20/2012	[Gantt bar]															
Bid	1/22/2012	3/5/2012	[Gantt bar]															
Addenda	2/21/2012	3/5/2012	[Gantt bar]															
Bid Review/Recommendation	3/6/2012	3/12/2012	[Gantt bar]															
County Board Approval	3/13/2012	4/11/2012	[Gantt bar]															
Council Authorization	3/13/2012	4/11/2012	[Gantt bar]															
Contracting (Award & Notice to Proceed)	4/12/2012	5/11/2012	[Gantt bar]															
Construction	5/12/2012	11/1/2013	[Gantt bar]															
Work Package 2	12/16/2011	1/24/2014	[Gantt bar]															
USACE Technical Review	12/16/2011	1/14/2012	[Gantt bar]															
80% Construction Doc Prep	1/16/2012	2/29/2012	[Gantt bar]															
Land Acquisition	3/1/2012	5/29/2012	[Gantt bar]															
100% Construction Doc Prep	3/1/2012	4/14/2012	[Gantt bar]															
USACE 408 Final Review & Permission	4/15/2012	5/14/2012	[Gantt bar]															
Local Permit Review	4/15/2012	5/14/2012	[Gantt bar]															
Bid	4/15/2012	5/28/2012	[Gantt bar]															
Addenda	5/15/2012	5/28/2012	[Gantt bar]															
Bid Review/Recommendation	5/29/2012	6/4/2012	[Gantt bar]															
County Board Approval	6/5/2012	7/4/2012	[Gantt bar]															
Council Authorization	6/5/2012	7/4/2012	[Gantt bar]															
Contracting (Award & Notice to Proceed)	7/5/2012	8/3/2012	[Gantt bar]															
Construction	8/4/2012	1/24/2014	[Gantt bar]															
Work Package 3	12/16/2011	2/1/2014	[Gantt bar]															
USACE Technical Review	12/16/2011	1/14/2012	[Gantt bar]															
Construction Documents	3/9/2012	4/22/2012	[Gantt bar]															
Land Acquisition	4/1/2012	6/29/2012	[Gantt bar]															
USACE 408 Final Review & Permission	4/23/2012	5/22/2012	[Gantt bar]															
Local Permit Review	4/23/2012	5/22/2012	[Gantt bar]															
Construction	8/12/2012	2/1/2014	[Gantt bar]															
Work Package 4	12/16/2011	3/27/2014	[Gantt bar]															
USACE Technical Review	12/16/2011	1/14/2012	[Gantt bar]															



- WP-1 - Gravity Drain & Gravel Filter Rehab (WR & MESD) –May 2012
  - WP-2 - Pump Stations (WR, MESD & PdP/FL) – Aug 2012
  - WP-3 - Relief Wells, Berm, Graded Filter & Toe Drain (WR) – Sept 2012
  - WP-4 - Clay Blanket, Graded Filter & Toe Drain (MESD) – Oct 2012
  - WP-5 - Relief Wells, Clay Blanket, Graded Filter & Toe Drain (MESD) – Dec 2012
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- WP-6 - Relief Wells & Berm (PdP/FL) – Feb 2013
  - WP-7 - Cutoff Walls (WR) – July 2013
  - WP-8 - Wetland Mitigation (offsite) – May 2013

### ■ Task Order Status

- TO - #1 Program Management - ongoing
- TO - #2 Preliminary Design 30% - complete
- TO - #3 Preliminary Construction – ongoing
- TO - #4 - Preliminary Design 60% - complete

Pending...

- TO - #5 – Additional Levee Screening (COR and Mel Price)
- TO - #6 - USACE 408 Process
- TO - #7 – Final Design 100%

## Issues & Concerns

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- Weather and river levels
- Cultural resources – State Historic Preservation Office
- USACE 408 process
- Permits 404 & 401
- Chair of Rocks and Mel Price certification

## Look Ahead



- Respond to technical comments from the Corps on the back up shared at 60%
- Track permit application (404, 401) – answer questions, information requests
- Push forward on completion of 100% submittals and 408 requirements, package by package
- Develop wetland mitigation design
- Mel Price & Chain of Rocks evaluation

# QUESTIONS?

