CITY OF MASSILLON MUNICIPAL GOVERNMENT ANNEX CITY ADMINISTRATION BUILDING MASSILLON, OHIO 44646

Phone: 330-830-1722 Fax: 330-830-1786

TRANSMITTAL

| То: | Wenger Excavating, Is Gaul/Gjorgi Kondev | nc/ Jeff | Date |): | 2/25/2014 | | |
|---|---|---|---|--|---|---|--|
| From: | Frederick P Werner | | | | | | |
| Re: | 2013 Levee Infrastruc Improvement Project | ture | Date Sub | mitted: | 2/25/2014 | | |
| WE ARE SENI | DING YOU: | | | **** | | | |
| ☑ ATTACHED | □ DRAWINGS | ☑ SHO DRAWING SUBMITT | GS/ | □ COI | NTRACTS | ☐ CHANGE (| ORDER |
| | • | • | | | • | | |
| Submittals ha | ve been reviewed witl | n the follow | ving <u>e</u> | ception | 1S: | | |
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| CITY OF MASSI 151 LINCOLN W MASSILLON, OF | AY EAST DATE | FPW 2/25/2014 | | | | | |
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| CC: File, RPR | | SIGN | ED: | who ! | . 4 | | |

Fax 330-828-

8158



26 N. Cochra St. • P.O. Box 499 • Dalton, Ohio n44618

City of Massillon – Division of Engineering Municipal Government Annex City Administration Building Massillon, Ohio 44646

2/19/14

Attn: Fred Werner

Re: Proposed lowering of SCR-2

Mr. Werner,

Wenger Excavating would like to propose lowering SCR-2 to within 12"+- of existing grade. Concrete Cutting of Akron will make a full depth horizontal saw cut at ground level. Wenger will remove and dispose of section of concrete and set with Conseal a HS-20 Precast Slab Top. The slab top shall have two 30" x 30" aluminum hatches cast in. See Lindsay Concrete Submittal.

All above work shall be considered part of the Sanitary Siphon Chamber Rehab Work Item with No additional cost to the City of Massillon.

If you have any questions please call me at (330)495-6010

SUBMITTAL SHOP DRAWING REVIEW

CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS
REVIEW DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH
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OR HER WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING ALL WORK IN
A SAFE AND SATISFACTORY MANNER.

Sincerely, George Bosu Project Manager Wenger Excavating, Inc.

CITY OF MASSILLON 151 LINCOLN WAY EAST MASSILLON, OHIO 44646

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NOTAPPROVED REVISE/RESUBMIT



"An Equal Opportunity Employer"



6845 ERIE AVE. N.W. BOX 578 + CANAL FULTON, OHIO 44614 + (330) 854-4511 WWW.LINDSAYCONCRETE.COM

Proposal For:

Lindsay Concrete Products, Inc. P.O. Box 578 Canal Fulton, Ohio 44614 (330) 854-4511

Job:

SCR#1 (5'x5') & SCR#2 (L-shape) Lids – Massillon, OH

Project Engineer:

City of Massillon Engineering Department

Contractor:

Wenger Excavating, Inc. (330) 837-4767

Components:

13'-2" x 12' x 8" L-shaped lid Design Calcs

Hatch

SUBMITTAL SHOP DRAWING REVIEW

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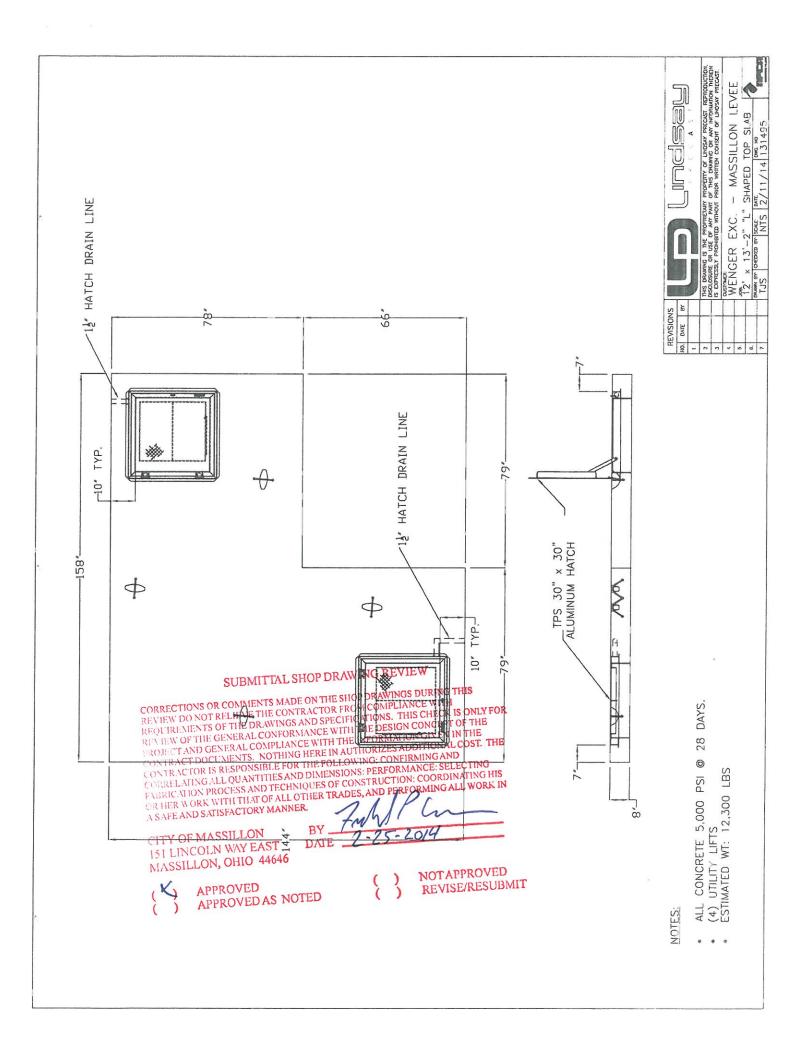
CITY OF MASSILLON 151 LINCOLN WAY EAST MASSILLON, OHIO 44646 Pate of Submittal:

02/18/14

APPROVED APPROVED AS NOTED







Telephone 215-855-8713

FAX 215-855-8714

GARY K. MUNKELT & ASSOCIATES

Consulting Engineers Precast Concrete, Structural, Civil

1180 Welsh Rd. Suite 190 North Wales, PA 19454

PROJECT:

DESIGN PRECAST CONCRETE LSHAPED TOP

SLAB 12'-0" x 13'-2" OD

CLIENT:

LINDSAY CONCRETE PRODUCTS CO., INC.

Sheet

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4

CANAL FULTON, OH

LOCATION:

MASSILLON LEVEE PROJECTSCR

SUBMITTAL SHOP DRAWING REVIEW

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CITY OF MASSILLON 151 LINCOLN WAY EAST MASSILLON, OHIO 44646

DATE 2.

GKM JOB # 149169 NOTED

NOTAPPROVED REVISE/RESUBMIT Date: 02/06/14

GARY K.

MUNION A9562

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GENERAL SPECIFICATIONS

- 1. Concrete shall be designed to obtain a strength of 5,000 psi in 28 days. Material shall meet requirements of ACI 318.
- Reinforcing steel shall be Grade 60 (obtain yield strength of 60,000 psi) and meet requirements of ASTM A615.
- Weight of Concrete 150 lb/ft³
- Weight of Soil 120 lb/ft³
- 5. 300 psf live load at surface
- Ground water table is at grade.
- Top slab is at grade.
- 8. Soil is assumed to have properties such that Ka = 0.33

REFERENCES

- ASTM C 857-01 titled "Standard Practice for Minimum Structural Design Loading for Underground Precast Concrete Utility Structures".
- 2. ACI 318-08 titled "Building Code Requirements for Reinforced Concrete".
- AASHTO 17th Edition (2002) "Standard Specification for Highway Bridges".

SUBMITTAL SHOP DRAWING REVIEW

4. McGregor "Reinforced Concrete Mechanics & Design" 2006 McGrawus Hill CORRECTIONS OR COMMENTS MADE ON THE SHOP DE AMERICA HILL HILL CONTRACTOR FROM COMPLETE HILL CHECK IS ONLY FOR

5. ASTM C 858-04 title de Strator of the Drawings and specifications. This check is only for utility Structures"

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CITY OF MASSILLON 151 LINCOLN WAY EAST MASSILLON, OHIO 44646 BY 2/25/2014

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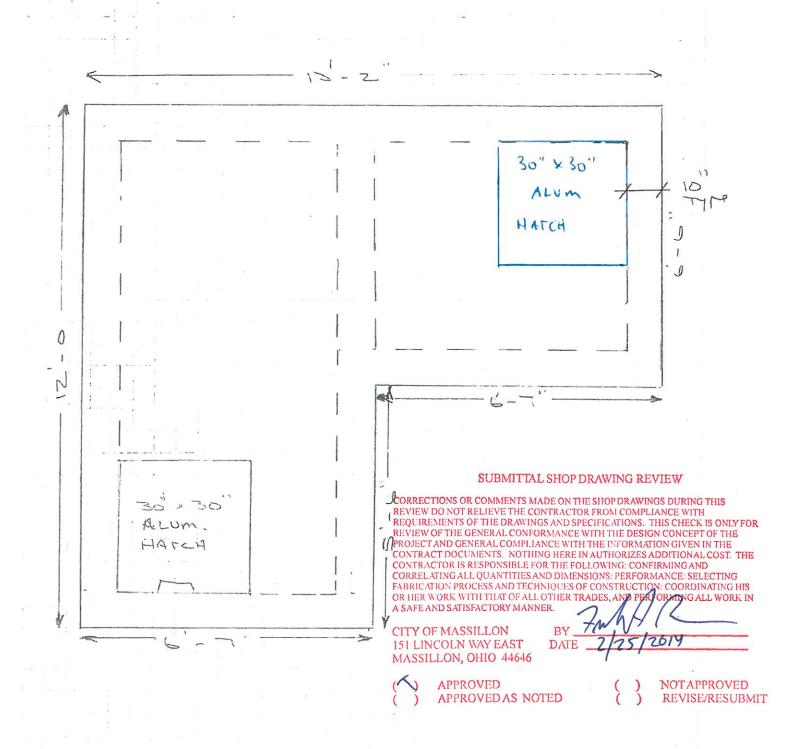
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GARY K. MUNKELT & ASSOC. Structural Engineers



ejco.com 800 626 4653 30F5

MASSILLON LEVEE PROJECT DROPOSED SLAD TOP FOR SCR - Z



DATE:

PROJECT:

PROBLEM: DESIGN TOP SLAB

LOADS

Live load 300 psf

 $\gamma_{\text{concrete}} = 150 \text{ pcf}$

2.2 ft slab section between opening & long run supports live & dead loads on section & 1/2 opening

Use ACI Load Factors 1.6L + 1.2D

= 1.2 x 0.15 Kcf x 8/12 ft x (2.2ft wide beam + $\frac{1}{2}$ (6.5 region + 2.5' opening) $= 1.16 \, \text{Klf}$ W_{DL}

= 1.6 x 0.30 Ksf x (2.2ft wide beam + $\frac{1}{2}$ (6.5 region + 2.5' opening) = 3.22 KIf $\Sigma = 4.38 \text{ KIf}$

APPLIED MOMENT AND SHEAR - Span = 5.75 ft cl to cl walls

 $= 0.125 \times 4.38 \text{ Klf } \times (5.75 \text{ ft})^2$ Mu

= 18.1 K-ft

= (4.38 Klf x 5.0 ft) / 2Vu

= 10.95 K

ALLOWABLE MOMENT AND SHEAR

60 Ksi

b = 26 in

Use: #5 @ 6" ocew

f'c = 5 Ksi d = 8 - 1.5 - 5/16

6 SUBMITARESLIDE INFAWING REVIEW

a = (1.33 x 60)/(0.85 x 26 x 5) = 0.722 in

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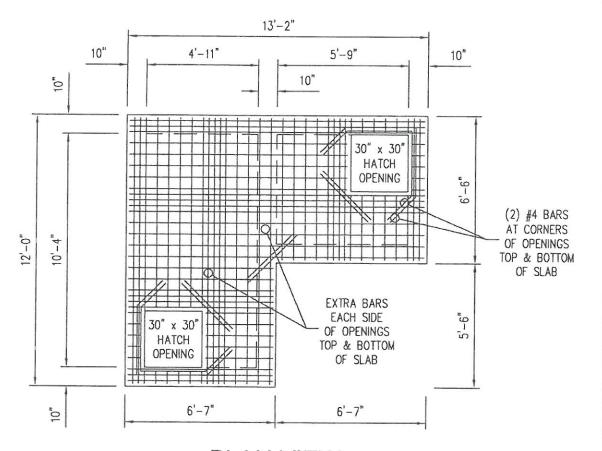
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 $\Phi V_n = (0.75 \times 2 \sqrt{5,000 \times 26 \times 6.19}) / 1,000 \frac{OR HER WORK WITH THE WANNER WANNER$

CITY OF MASSILLON

As minimum for T&S = $0.0018 \times 12 \times 8 = 0.1 \frac{151 \text{ LINCOLN WAY EAST}}{\text{Mings/ApLON, OHIO 44646}}$

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PLAN VIEW

SUBMITTAL SHOP DRAWING REVIEW

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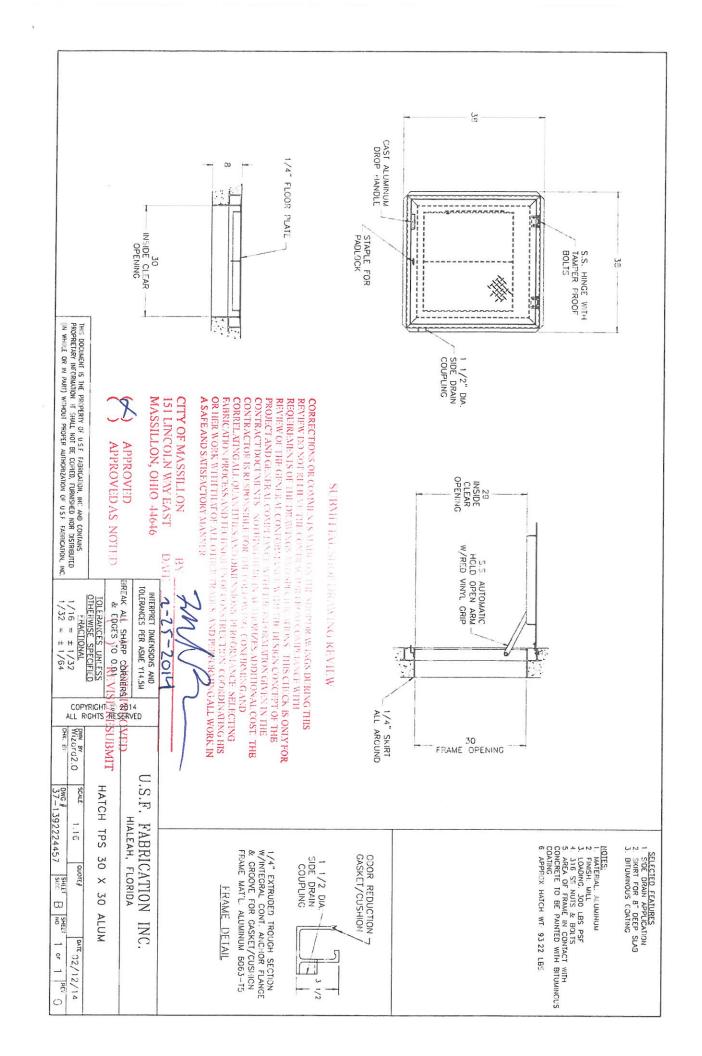
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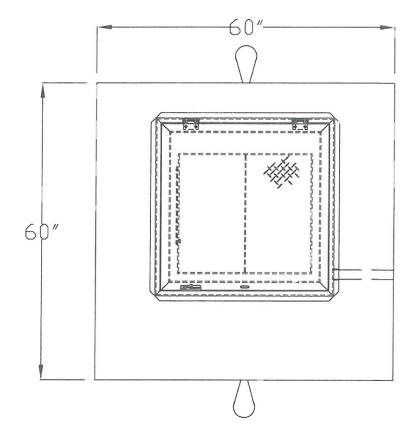
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| MATERIALS: | REINFORCING STEEL DRAWING | DESIGNED FOR: |
|-------------------------------------|---------------------------|---------------------------------|
| CONCRETE fc = 5,000 PSI STEEL | L-SHAPED TOP SLAB | 300 PSF LIVE LOAD AT SURFACE |
| REBAR fy = 60,000 PSI | 12'-0" x 13'-2" | TOP OF TOP SLAB IS AT GRADE |

GARY K. MUNKELT & ASSOC. Structural Engineers Fax: (215) 855-8714



| REVISIONS | DATE | BY |
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TPS 30" x 30" > ALUMINUM HATCH

SUBMITTAL SHOP DRAWING REVIEW

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CITY OF MASSILLON 151 LINCOLN WAY EAST NOMSSILLON, OHIO 44646

BY. DATE _

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REVISIONS 2 WENGER EXC. 4. 5. 6. 7. TJS TH 2/10/14 131495

1½" HATCH

DRAIN LINE

