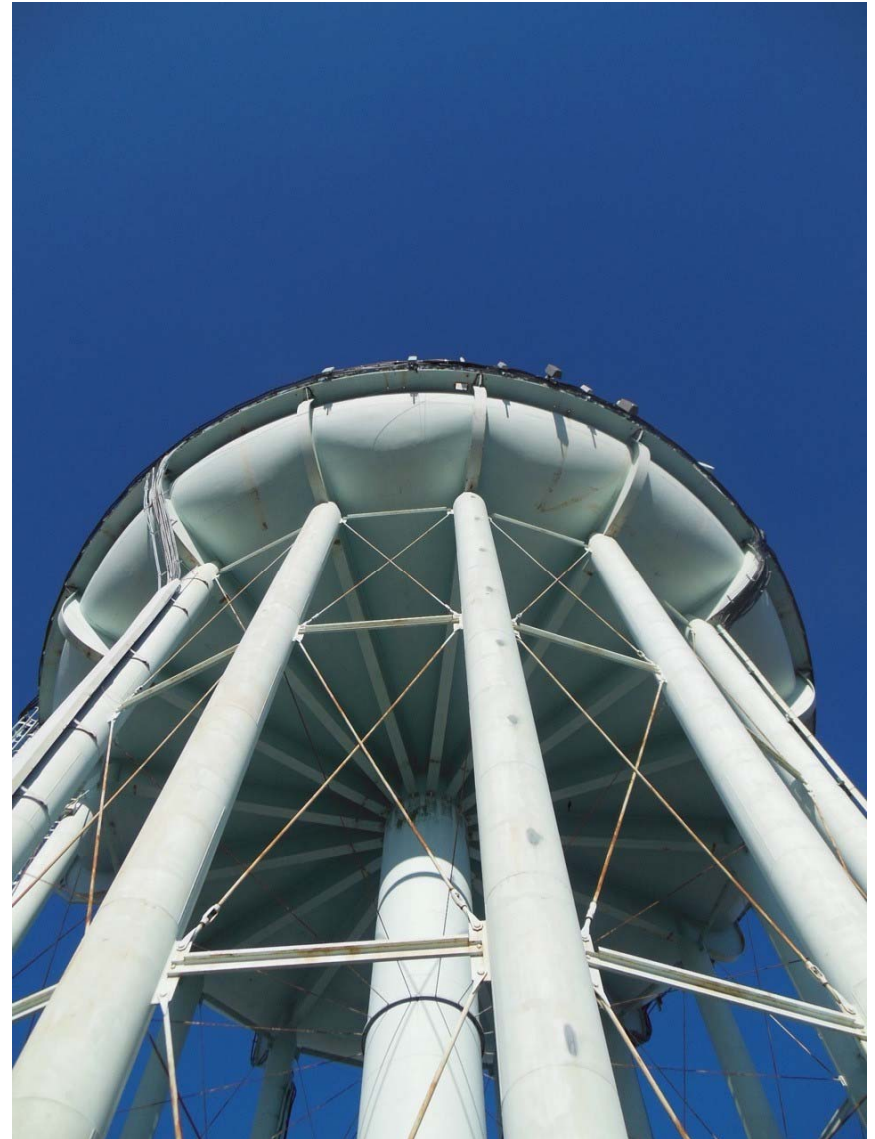


Help! The Sky Is Falling!

Nope, Just a
Cell Antenna.

Christine Gunsallus
Cell: 484-354-9201
cgunsallus@entecheng.com



**Philadelphia
Suburban
Water Company**

What Are Your Concerns?

1. Before Signing Contract
2. During Installation or Upgrades
3. Future Trends

1. Concerns: Before Signing Contract

Just Say No!



Carefully Weight Pros & Cons

PROS

- + Revenue Stream
- + Better Cell Service

OTHERS?

CONS

- X Unfair Contracts
- X Site Security
- X Tank Damage
- X Safety Issues
- X Equipment Falling
- X Liability Risk
- X Personnel Time & Hassle For Access

Contracts

- Review by Tank Engineer w/ cell experience.
- Provisions for repainting.
- Provisions to review and inspect new and upgraded equipment, paid for by carrier.
- Some renegotiate contracts when changes made to equipment.

2. Concerns: Installation or Upgrades

#1 Tank Owner Concern?
Site Security



Worker falls
from water tower

Security Solutions:

- 24-Hour notice in writing
 - Names of personnel on site
 - Work being done & when
 - Safety training & insurance cert
 - Background checks
- Escort at all times
- Video monitoring on site
- Smart gates

Safety









Sprint



2.5 EQUIPMENT DEPLOYMENT SITE NUMBER: PL03XC064 SITE NAME: NEW BRITAIN 2009 CLEARVIEW ROAD SOUDERTOWN, PA 18964

Sprint
ST. LOUIS, MO 63103
WWW.SPRINT.COM
© 2010 SPRINT

smartlink, llc
100 WEST NINTH AVE.
KING OF PRUSSIA, PA 19381

MASER
CONSULTING P.A.
1000 N. 10TH AVE.
SUITE 100
PHILADELPHIA, PA 19107

WIRELESS COMMUNICATIONS
1000 N. 10TH AVE.
SUITE 100
PHILADELPHIA, PA 19107

SUBMITTALS

NO.	DESCRIPTION	DATE
1	PROJECT DESCRIPTION	1/1/10
2	PROJECT DESCRIPTION	1/1/10
3	PROJECT DESCRIPTION	1/1/10
4	PROJECT DESCRIPTION	1/1/10
5	PROJECT DESCRIPTION	1/1/10
6	PROJECT DESCRIPTION	1/1/10
7	PROJECT DESCRIPTION	1/1/10
8	PROJECT DESCRIPTION	1/1/10
9	PROJECT DESCRIPTION	1/1/10
10	PROJECT DESCRIPTION	1/1/10

PROJECT NO: 18964-001
DRAWING NO: 2.5
CHECKED BY: J.C.
SCALE: AS NOTED



SITE NUMBER:
PL03XC064
SITE NAME:
NEW BRITAIN
SITE ADDRESS:
2009 CLEARVIEW ROAD
SOUDERTOWN, PA 18964

DRAWING TITLE

TITLE SHEET

DRAWING SHEET

T-1

SITE INFORMATION

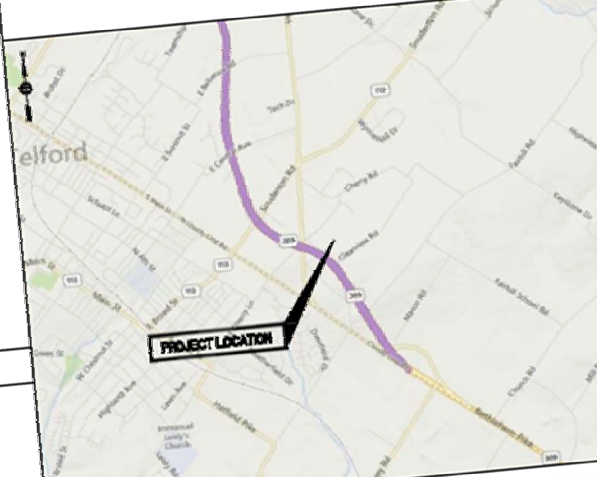
SITE NAME: NEW BRITAIN
SITE NUMBER: PL03XC064
SITE ADDRESS: 2009 CLEARVIEW ROAD
SOUDERTOWN, PA 18964
JURISDICTION: HILLTOWN TOWNSHIP, BUCKS COUNTY
SITE COORDINATES: N 40.313333°
W - 75.300833°
GROUND ELEVATION: 560'± (NAVD 88)
STRUCTURE TYPE: WATER TANK
STRUCTURE HEIGHT: 85.0'± AGL
ANTENNA CENTERLINE: 92.0'± AGL
APPLICANT: SPRINT
3333 STREET ROAD
BENSALEM, PA 19020
SPRINT CM: WAKE OLLON
(215) 416-6700
APPLICANT REPRESENTATIVE: SMARTLINK
1000 WEST NINTH AVE.
SUITE D
KING OF PRUSSIA, PA 19406
CONSULTANT: MASER CONSULTING P.A.
801 ROUTE 73 NORTH
SUITE 100
MARLTON, NJ 08053

CODE ANALYSIS

BUILDING CODE: PA UCC/2008 IBC
ELECTRICAL CODE: NEC 2011
FIRE SAFETY CODE: NFPA 101
USE GROUP: U (UTILITY)
CONSTRUCTION TYPE: IIS

VICINITY MAP

DIRECTIONS:
DEPART PA-132/STREET ROAD TOWARD WINDSOR DRIVE. BEAR RIGHT ONTO PA-132 NORTH/STREET ROAD. TAKE RAMP RIGHT FOR US-1 NORTH TOWARD WOODSVILLE. AT EXIT PHILADELPHIA INTERCHANGE, TAKE RAMP RIGHT FOR I-276 WEST TOWARD HARRISBURG/ALLENTOWN. AT EXIT FORT WASHINGTON INTERCHANGE, TAKE RAMP RIGHT FOR PA-309 NORTH TOWARD AMBLER. KEEP STRAIGHT ONTO PA-309/NORTH BETHLEHEM PIKE. BEAR RIGHT ONTO BETHLEHEM PIKE. KEEP RIGHT ONTO BETHLEHEM PIKE. TURN RIGHT ONTO EAST CHERRY LANE, AND THEN IMMEDIATELY TURN RIGHT ONTO CLEARVIEW ROAD. THE WATER TANK IS APPROXIMATELY 0.2 MILES AHEAD ON THE LEFT.



NOT TO SCALE

DRAWING INDEX

SHEET	DRAWING TITLE	REV.
T-1	TITLE SHEET	1
C-1	GENERAL NOTES AND COMPOUND PLAN	1
C-2	EQUIPMENT PLAN	1
C-3	ELEVATION VIEW	1
C-4	ANTENNA PLAN AND SCHEDULE	1
C-5	CONSTRUCTION DETAILS	1
C-6	RIF PLUMBING DIAGRAM	1
C-7	DC POWER DETAILS	1
G-1	GROUNDING DETAILS	1
GN-1	GENERAL NOTES - 1	1
GN-2	GENERAL NOTES - 2	1

PROJECT DESCRIPTION

PROJECT CONSISTS OF INSTALLING (3) ANTENNAS AND EQUIPMENT TO AN EXISTING WIRELESS TELECOMMUNICATIONS FACILITY.

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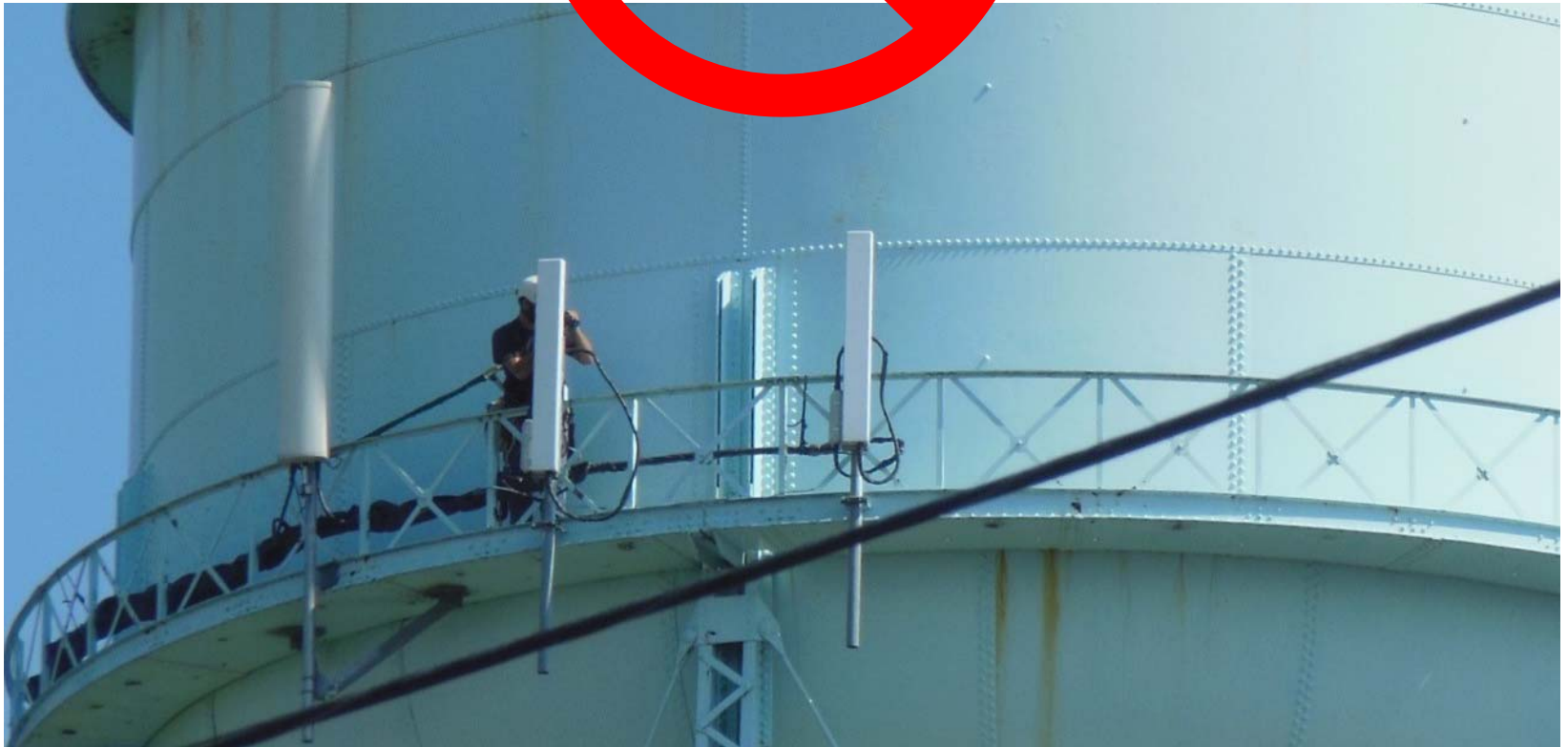
Drawing Review

Reviewer must know:

- OSHA
- Good tank engineering practices
- Tank maintenance
- Owner's expectations
- What is there already?
 - Tank accessories
 - Other cell equipment

Engineering Calculations Review

“...proposed load is less than 5% of the water tank’s original design loads.”





August 25, 2014

Entech No. 5276.09

Mr. Daniel Preston, PE
Director of Operations and Engineering
North Penn Water Authority
PO Box 1659
Lansdale, PA 19446

Re: **Sprint Cellular Antenna Structural Review**
Hilltown Tank No. 1 Water Storage Tank

Dear Dan,

As you requested, Entech Engineering, Inc. (Entech) has reviewed the additional documentation provided by Michael Polter of Smartlink related to the proposed Sprint antenna installation at the Hilltown No. 1 Tank. This information was received from Mr. Polter via e-mail dated August 15, 2014. The e-mail contained revised construction drawings with a revision date of August 14, 2014.

We have reviewed this additional information in conjunction with the previous information that had been provided related to this project. We have concluded that all of our previous comments in our August 4, 2014 review letter have been satisfactorily addressed. We therefore recommend that Sprint be allowed to proceed with this project, provided all administrative items have been adequately addressed to NPWA's satisfaction.

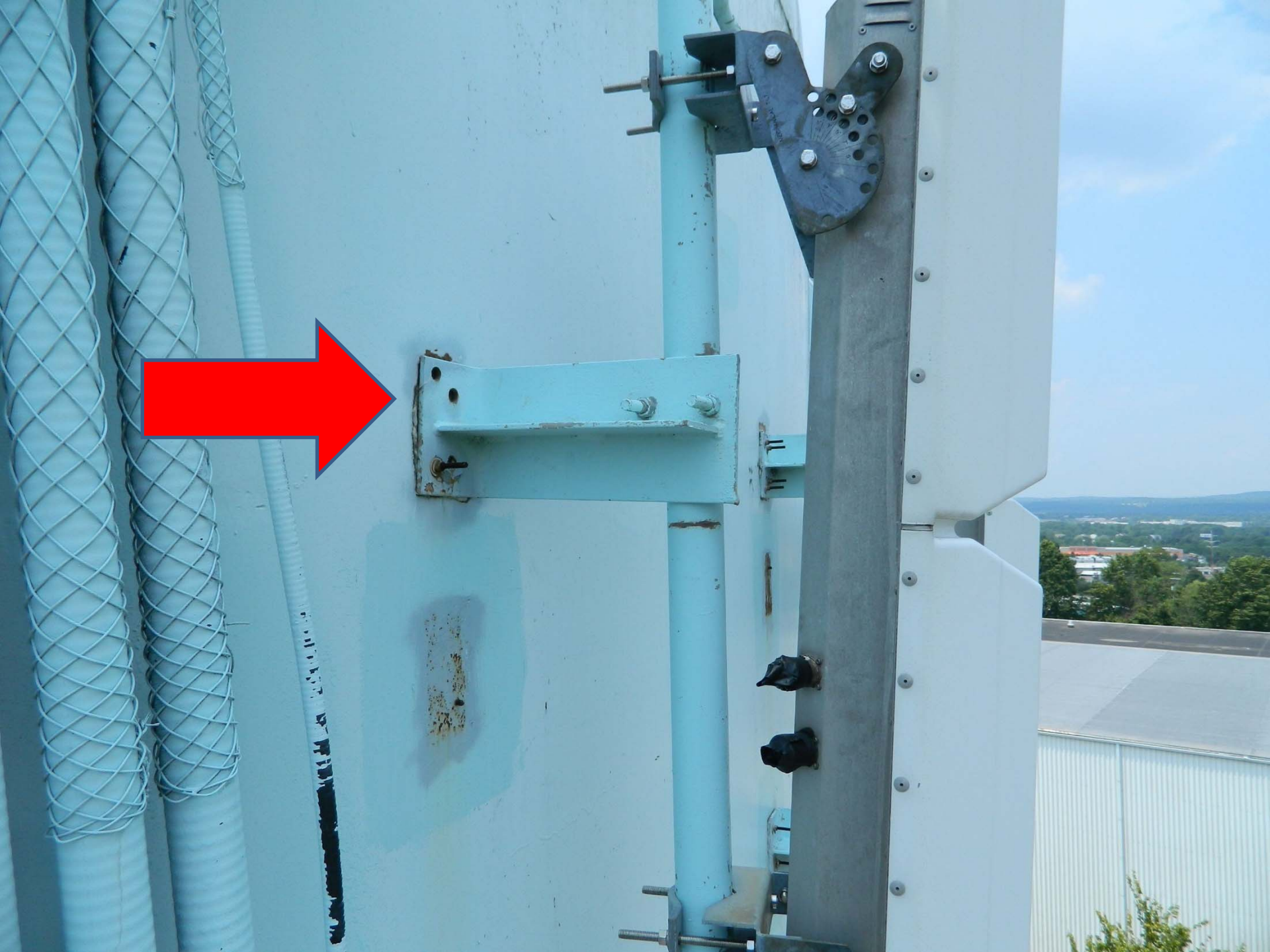
We trust this information will be of use to you. Please contact us if you have any questions or require more information.

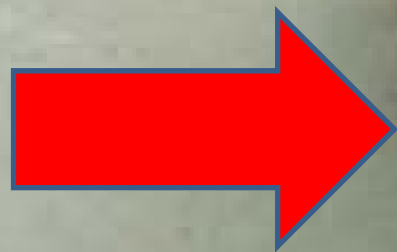
Sincerely,

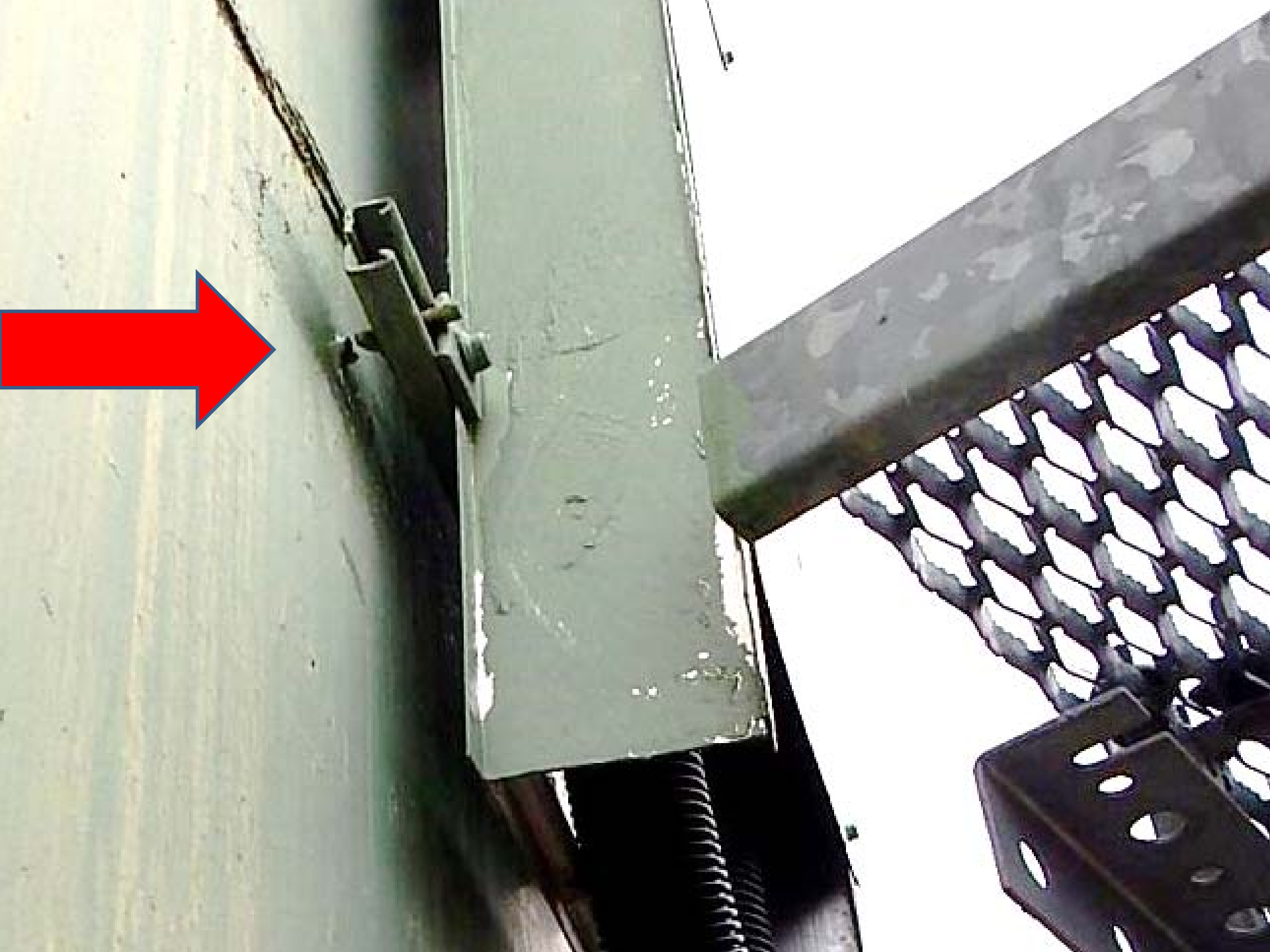
Steven E. Riley, PE
Director of Project Management

cc: Michael Polter, Smartlink
Christine Gunsaulus, MBA















NORTH PENN
WATER AUTHORITY



Safety Solutions:

- Review CDs and Engineer's Calcs.
- Be wary of heavier upgrades.
- Know OSHA rules & regs.
- Pre/Post installation inspection.
- Inspection of studs/welds.
- Require repairs immediately.
- Require carriers to make installations safe during tank repainting.

Tank Damage

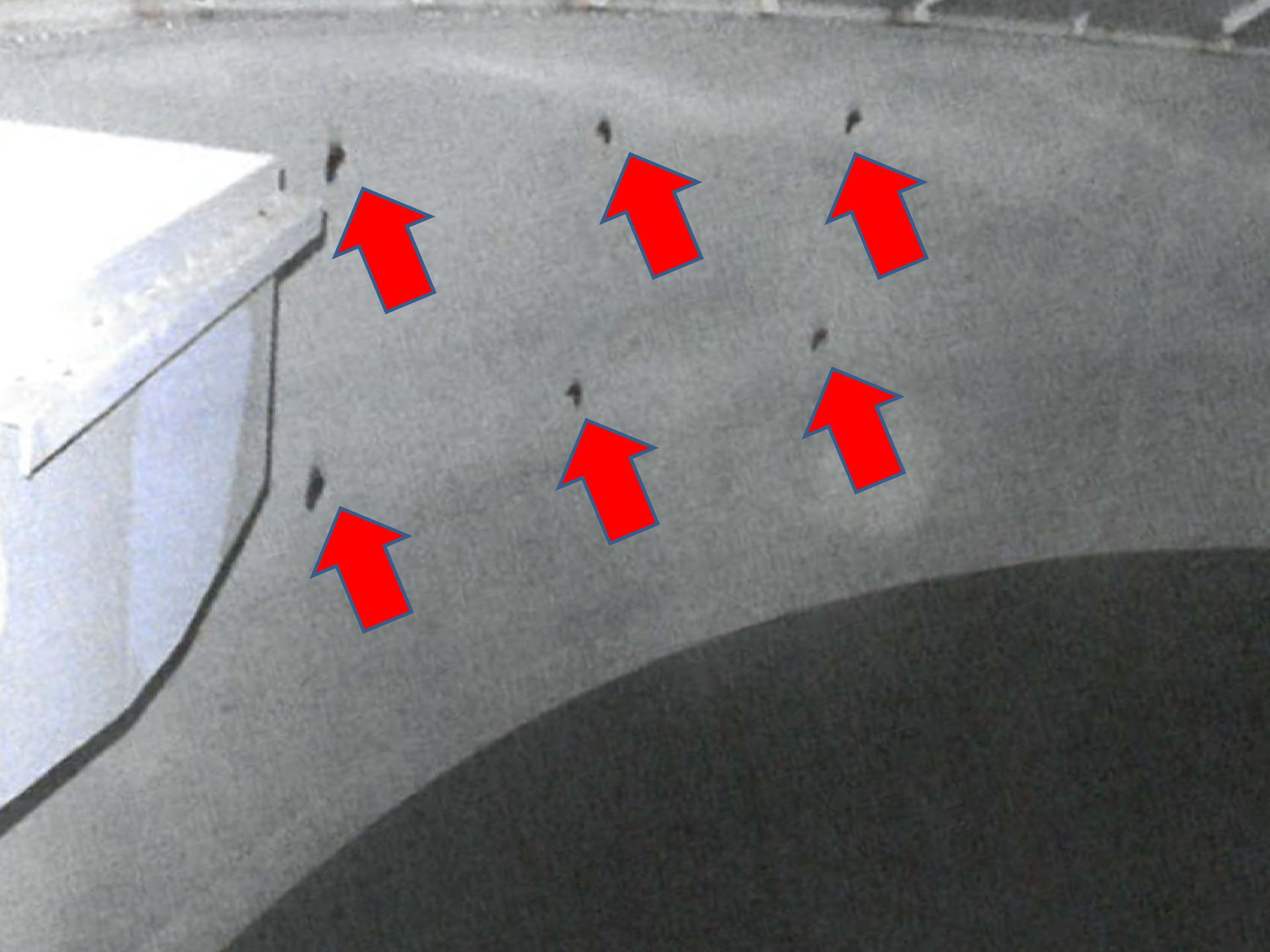
Can you attribute tank/coatings damage to a carrier?













SHIELD OVERLAP DIRECTION

CONSCOPE

ANGREU | HELIX FIBRE





Tank Damage Solutions:

- Pre/Post installation inspection.
- Require repairs immediately.
- Stay on top of carrier/contractor.

Liability

- Can a Tank Owner be sued?



Personnel Time/Hassle

- How much time does it take?
- Ideally one person coordinates
- Emergency upgrades?
 - “Bad planning on your part does not constitute an emergency on my part.”
- Is there a checklist of what to do?
- Who pays?
 - Carrier
 - Escrow
 - Owner

3. Concerns: Future Trends

Consolidation of Carriers

- Loss of revenue.
- Getting old equipment off tank & site.
- Get contractor back for corrections.



Roof Corral

I.K. STOLTZFUS





I.K. STOLTZFUS



I.K. STOLTZFUS

New Construction



Magnets?



Lessons Learned

- Just say no.
- Weigh pros & cons carefully.
- Remember that installers
 - don't care about tanks;
 - don't know OSHA;
 - don't know paint.
- ALWAYS wear your hard hat on site.



Questions?

Christine Gunsallus

cell: 484-354-9201

cgunsallus@entecheng.com