

UNDERGROUND MATERIALS AND METHODS SUBCOMMITTEE

October 17, 2023

11:00 a.m.

Via Microsoft Teams

1. Call meeting to order
 - a. 11:02
2. Self-introduction
 - a. Shannon Garcia – Precon
 - b. Raffie Yeremian – Bali
 - c. Ahn Nguyen – City of San Diego
 - d. Jensen Lee – City of SD
 - e. Jeff Boschert – NCPI
 - f. Jaquie Jacques – Sekisui
 - g. Jacob Monroe – ADS
 - h. Mark Giljum – LA County Sanitation District
 - i. Dickie Fernandez – OCSD
 - j. David Wangerin – EJ
 - k. Andy DaSilva – OCSD
 - l. Colin McCarter – LA County PW
 - m. Asim Syed – Cherne
 - n. Steve Cooper – Unibell
 - o. Gean Na – ACPA
 - p. Rub Huning – City of LA Design Standards
 - q. Aidan Rajswing – Thompson Pipe Group
3. Meeting minutes: <http://www.greenbookspecs.org/minutes.asp>
 - a. Colin / Jaquie
4. Announcements, Correspondence and Summary of GB meetings
Andy, Aidan, Ahn, Shannon, Jaquie. – invite to GB Seminar

Jennifer Ekrami, PE (APWA So Cal Greenbook Seminar)

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SBE/DBE/WBE

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✉ jennifer@jse4engineering.com

🖱 <http://www.jse4engineering.com>

- JJ announcement: NAAST West Cal Poly with Trenchless Technologies.
- DB City of LA syphons under LA River – 42” dual syphon studio (ABC) to housing. DB Could share presentation.
- Southern Regional Safety Day
- Water Wise Expo Silver Lake – Water/Sewer 11/7/8
- Wet Show – Indianapolis 24-26

5. Old Business
 - a. 284UM Part 5
 - i. Review Draft. David Badgley to respond to questions from Editorial Committee.
 - b. 329UM Table 306-7.8.3.2 SDR 35 (Kent Carlson)
 - i. Discussion. Subcommittee discussed Change 329UM again. Gean recommends a decision be made soon since this change has been discussed since Spring 2023.
 - c. 330UM Mandrel (Kent Carlson)
 - i. On Hold
 - d. 331UM 11month Warranty footnote to Table 306-7.8.3.1 (Kent Carlson)
 - i. On Hold
 - e. 332 UM 216-7 Causes for Rejection of PRCB (216-7)
 - i. Editorial Committee Review
6. New Business

Next Meeting: November 14, 2023

1. Summary

Meeting title	Greenbook UMM - October Meeting
Attended participants	19
Start time	10/17/23, 10:57:43 AM
End time	10/17/23, 12:39:30 PM
Meeting duration	1h 41m 47s
Average attendance time	1h 24m 29s

2. Participants

Name	First Join	Last Leave	In-Meeting Duration	Email	Participant ID (UPN)	Role
Gean Na	10/17/23, 10:58:49 AM	10/17/23, 12:39:30 PM	1h 40m 41s	gna@greenbookspecs.org	gna@greenbookspecs.org	Organizer
Shannon (Precon Products) (Guest	10/17/23, 10:58:56 AM	10/17/23, 11:55:56 AM	57m			Attendee
Asim Syed	10/17/23, 10:58:56 AM	10/17/23, 12:39:13 PM	1h 40m 17s	ASyed@oatey.com	ASyed@oatey.com	Attendee
Raffie Yeremian	10/17/23, 10:58:56 AM	10/17/23, 12:39:12 PM	1h 40m 16s	RYeremian@baliconstruction.com	RYeremian_baliconstruction.com#EXT#@bnibooks990com.onmicrosoft.com	Attendee
	15027979420	10/17/23, 10:58:59 AM	10/17/23, 12:38:40 PM	1h 39m 40s		Attendee
Fernandez, Dickie	10/17/23, 10:59:07 AM	10/17/23, 12:30:45 PM	1h 31m 38s	bfernandez@ocsan.gov	bfernandez@ocsan.gov	Attendee
Jacquie Jaques	10/17/23, 10:59:11 AM	10/17/23, 12:39:16 PM	1h 40m 4s	Jacquie.Jaques@sekisui-spr.com	Jacquie.Jaques@sekisui-spr.com	Attendee
Jeff Boschert	10/17/23, 10:59:31 AM	10/17/23, 12:39:16 PM	1h 39m 45s			Presenter
Giljum, Mark	10/17/23, 10:59:57 AM	10/17/23, 12:39:16 PM	1h 39m 19s	MGiljum@lacsds.org	mgiljum@lacsds.org	Attendee
Lee, Jensen	10/17/23, 11:00:11 AM	10/17/23, 12:39:13 PM	1h 39m 1s	JWLee@sandiego.gov	JWLee_sandiego.gov#EXT#@bnibooks990com.onmicrosoft.com	Attendee
Jacob Monroe	10/17/23, 11:00:39 AM	10/17/23, 12:39:12 PM	1h 38m 32s	Jacob.Monroe@adspipe.com	Jacob.Monroe_adspipe.com#EXT#@bnibooks990com.onmicrosoft.com	Attendee
Colin McCarter	10/17/23, 11:01:20 AM	10/17/23, 12:06:57 PM	1h 5m 36s	CMCCARTER@dpw.lacounty.gov	CMCCARTER@dpw.lacounty.gov	Attendee
DaSilva, Andy	10/17/23, 11:02:21 AM	10/17/23, 12:33:24 PM	1h 31m 2s	adasilva@ocsan.gov	adasilva@ocsan.gov	Attendee
David Wangerin	10/17/23, 11:02:32 AM	10/17/23, 12:39:10 PM	1h 36m 37s	David.Wangerin@ejco.com	David.Wangerin@ejco.com	Attendee
Nguyen, Anh	10/17/23, 11:02:48 AM	10/17/23, 12:00:13 PM	57m 24s	ANguyen@sandiego.gov	ANguyen@sandiego.gov	Attendee
Aidan Rajsing	10/17/23, 11:02:52 AM	10/17/23, 11:23:15 AM	20m 22s	arajsing@thompsonpipegroup.com	arajsing_thompsonpipegroup.com#EXT#@bnibooks990com.onmicrosoft.com	Attendee
Rob Huning	10/17/23, 11:04:53 AM	10/17/23, 12:39:06 PM	1h 34m 12s			Attendee
David Badgley	10/17/23, 11:11:17 AM	10/17/23, 12:06:58 PM	55m 41s			Attendee
Kent C	10/17/23, 11:16:35 AM	10/17/23, 12:34:30 PM	1h 17m 55s			Attendee

3. In-Meeting Activities

Name	Join Time	Leave Time	Duration	Email	Role
Gean Na	10/17/23, 10:58:49 AM	10/17/23, 12:39:30 PM	1h 40m 41s	gna@greenbookspecs.org	Organizer
Shannon (Precon Products) (Guest	10/17/23, 10:58:56 AM	10/17/23, 11:55:56 AM	57m		Attendee
Asim Syed	10/17/23, 10:58:56 AM	10/17/23, 12:39:13 PM	1h 40m 17s	ASyed@oatey.com	Attendee
Raffie Yeremian	10/17/23, 10:58:56 AM	10/17/23, 12:39:12 PM	1h 40m 16s	RYeremian@baliconstruction.com	Attendee
	15027979420	10/17/23, 10:58:59 AM	10/17/23, 12:38:40 PM	1h 39m 40s	Attendee
Fernandez, Dickie	10/17/23, 10:59:07 AM	10/17/23, 12:30:45 PM	1h 31m 38s	bfernandez@ocsan.gov	Attendee
Jacquie Jaques	10/17/23, 10:59:11 AM	10/17/23, 12:39:16 PM	1h 40m 4s	Jacquie.Jaques@sekisui-spr.com	Attendee
Jeff Boschert	10/17/23, 10:59:31 AM	10/17/23, 12:39:16 PM	1h 39m 45s		Presenter
Giljum, Mark	10/17/23, 10:59:57 AM	10/17/23, 12:39:16 PM	1h 39m 19s	MGiljum@lacsds.org	Attendee
Lee, Jensen	10/17/23, 11:00:11 AM	10/17/23, 12:39:13 PM	1h 39m 1s	JWLee@sandiego.gov	Attendee
Jacob Monroe	10/17/23, 11:00:39 AM	10/17/23, 12:39:12 PM	1h 38m 32s	Jacob.Monroe@adspipe.com	Attendee
Colin McCarter	10/17/23, 11:01:20 AM	10/17/23, 12:06:57 PM	1h 5m 36s	CMCCARTER@dpw.lacounty.gov	Attendee
DaSilva, Andy	10/17/23, 11:02:21 AM	10/17/23, 12:33:24 PM	1h 31m 2s	adasilva@ocsan.gov	Attendee
David Wangerin	10/17/23, 11:02:32 AM	10/17/23, 12:39:10 PM	1h 36m 37s	David.Wangerin@ejco.com	Attendee
Nguyen, Anh	10/17/23, 11:02:48 AM	10/17/23, 12:00:13 PM	57m 24s	ANguyen@sandiego.gov	Attendee
Aidan Rajsing	10/17/23, 11:02:52 AM	10/17/23, 11:23:15 AM	20m 22s	arajsing@thompsonpipegroup.com	Attendee
Rob Huning	10/17/23, 11:04:53 AM	10/17/23, 12:39:06 PM	1h 34m 12s		Attendee
David Badgley	10/17/23, 11:11:17 AM	10/17/23, 12:06:58 PM	55m 41s		Attendee
Kent C	10/17/23, 11:16:35 AM	10/17/23, 12:34:30 PM	1h 17m 55s		Attendee

0:0:0.0 --> 0:0:0.590

Gean Na

OK.

0:0:0.600 --> 0:0:1.690

Gean Na

Good morning everyone.

0:0:1.960 --> 0:0:11.700

Gean Na

This is the Green Book underground materials and Methods subcommittee meeting today's October 17th, 1102 UH.

0:0:14.150 --> 0:0:16.270

Gean Na

Self introductions, I will call everyone out.

0:0:16.280 --> 0:0:17.910

Gean Na

Please just respond.

0:0:18.60 --> 0:0:21.210

Gean Na

Check your microphone and audio and make sure that you're here with this.

0:0:21.430 --> 0:0:24.340

Gean Na

Uh, I'm gonna give disease a chance today.

0:0:24.350 --> 0:0:25.150

Gean Na

Start backwards.

0:0:27.570 --> 0:0:29.290

Gean Na

Shannon from precon.

0:0:31.350 --> 0:0:33.110

Shannon (Precon Products) (Guest)

Hello, Gene and everybody.

0:0:33.970 --> 0:0:36.390

Gean Na

Aye, Raffi amarian.

0:0:38.80 --> 0:0:39.40

Raffie Yeremian

Good morning, everybody.

0:0:39.340 --> 0:0:39.770

Raffie Yermian

Thanks, gene.

0:0:40.610 --> 0:0:42.160

Gean Na

Yeah, on Newman.

0:0:46.730 --> 0:0:47.280

Nguyen, Anh

I'm here.

0:0:47.350 --> 0:0:47.720

Nguyen, Anh

I'm here.

0:0:47.790 --> 0:0:48.110

Nguyen, Anh

Thank you.

0:0:48.820 --> 0:0:50.430

Gean Na

And you're at San Diego, right?

0:0:50.880 --> 0:0:51.100

Nguyen, Anh

Yeah.

0:0:52.70 --> 0:0:54.450

Gean Na

OK, my memories working Jensen Lee.

0:0:56.290 --> 0:0:58.150

Lee, Jensen

Yes, I'm here with the city of San Diego.

0:0:57.600 --> 0:1:0.410

Gean Na

And thank you Jeff.

0:1:0.830 --> 0:1:1.230

Gean Na

Ohh shirt.

0:1:4.310 --> 0:1:5.90

Gean Na

You're on mute cha.

0:1:8.0 --> 0:1:8.480

Jeff Boschert

Hey, good morning.

0:1:10.70 --> 0:1:10.890

Gean Na

OK, Jackie.

0:1:12.770 --> 0:1:13.800

Jacquie Jaques

Hi, good morning, Jackie.

0:1:13.810 --> 0:1:14.740

Jacquie Jaques

Jaques with sekisui.

0:1:19.330 --> 0:1:19.690

Jacquie Jaques

You are.

0:1:16.90 --> 0:1:19.800

Gean Na

That could suit getting better at that, Jacob Monroe.

0:1:22.570 --> 0:1:23.230

Jacob Monroe

Hey, good morning.

0:1:23.240 --> 0:1:24.820

Jacob Monroe

Jacob Monroe with advanced drainage systems.

0:1:25.400 --> 0:1:26.160

Gean Na

Hey Jacob.

0:1:26.960 --> 0:1:27.620

Gean Na

Mark gildon.

0:1:28.590 --> 0:1:28.990

Giljum, Mark

Mark giljum.

0:1:32.740 --> 0:1:35.370

Gean Na

Mark, I kinda lost here, but you ohh he.

0:1:35.380 --> 0:1:37.530

Gean Na

He just must have lost connection or something.

0:1:39.30 --> 0:1:39.800

Gean Na

Dickie Fernandez.

0:1:42.920 --> 0:1:43.880

Fernandez, Dickie

Good morning, everyone.

0:1:44.40 --> 0:1:46.70

Fernandez, Dickie

Dickie Fernandez, Orange County Sanitation district.

0:1:46.710 --> 0:1:46.900

Gean Na

Yeah.

0:1:46.910 --> 0:1:47.460

Gean Na

Here, Dickie.

0:1:47.690 --> 0:1:48.640

Gean Na

You're swimming again.

0:1:48.720 --> 0:1:49.110

Gean Na

Wonderful.

0:1:50.50 --> 0:1:51.210

Gean Na

My favorite background of yours.

0:1:53.770 --> 0:1:54.330

Gean Na

David.

0:1:53.500 --> 0:1:55.610

Giljum, Mark

Actually, Gene, I'm sorry, gene.

0:1:55.620 --> 0:1:58.590

Giljum, Mark

It's it's LA County Sanitation District for Mark Giljum.

0:1:58.220 --> 0:2:0.70

Gean Na

Uh, a.

0:1:59.160 --> 0:2:3.460

Giljum, Mark

I I I accidentally cut hit the cutoff button instead of the unmute button.

0:2:4.100 --> 0:2:4.250

Gean Na

Uh.

0:2:5.190 --> 0:2:5.570

Giljum, Mark

Thank you.

0:2:6.740 --> 0:2:7.490

Gean Na

David wangerin.

0:2:10.120 --> 0:2:11.130

David Wangerin

Uh, David Wangerin, EJ.

0:2:12.740 --> 0:2:13.500

Gean Na

Andy da Silva.

0:2:16.100 --> 0:2:16.970

DaSilva, Andy

Yeah. Morning.

0:2:16.980 --> 0:2:20.760

DaSilva, Andy

With Andy here, with Orange County, San Station district.

0:2:23.320 --> 0:2:24.160

Gean Na

Uh, Colin MCCARTER.

0:2:25.730 --> 0:2:26.540

Colin McCarter

Morning com.

0:2:26.550 --> 0:2:27.860

Colin McCarter

Carter, Ellie County Public works.

0:2:29.590 --> 0:2:30.350

Gean Na

Let's go up.

0:2:32.540 --> 0:2:32.820

Gean Na

Lesson.

0:2:35.520 --> 0:2:37.690

Asim Syed

Yes, ask him Sayed from turning industries.

0:2:38.540 --> 0:2:40.430

Gean Na

Ready my spelling that right.

0:2:42.920 --> 0:2:45.710

Gean Na

And then we have a caller here ending in 9420.

0:2:47.190 --> 0:2:51.690

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

That's Steve Cooper with the unibell PVC pipe association filling in for Brooks Ryan.

0:2:52.580 --> 0:2:52.910

Gean Na

Yeah.

0:2:52.920 --> 0:2:53.930

Gean Na

Welcome back, Steve.

0:2:54.930 --> 0:2:55.330

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

Very good.

0:2:54.40 --> 0:2:56.250

Gean Na

I think it's been a few months since we've had you here.

0:2:57.360 --> 0:2:58.380

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

I'm always present.

0:2:58.390 --> 0:2:58.840

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

Good to be here.

0:3:0.670 --> 0:3:2.10

Gean Na

And then there's gene.

0:3:3.420 --> 0:3:4.740

Gean Na

Uh, is there anyone that I missed?

0:3:7.260 --> 0:3:7.460

Gean Na

OK.

0:3:6.960 --> 0:3:10.910

Rob Huning

18 good morning, Rob Huntington, LA design standards.

0:3:13.440 --> 0:3:15.450

Aidan Rajswing

E Yeah, Jamie definitely missed an important one.

0:3:16.950 --> 0:3:18.760

Gean Na

There you are, Aidan rajswing.

0:3:18.770 --> 0:3:19.40

Aidan Rajswing

Well.

0:3:22.380 --> 0:3:24.10

Gean Na

OK, anyone else that I missed?

0:3:27.880 --> 0:3:28.140

Gean Na

OK.

0:3:30.850 --> 0:3:34.600

Gean Na

Pretty good attendance for today put this over.

0:3:39.430 --> 0:3:40.980

Gean Na

OK, meeting minutes.

0:3:41.230 --> 0:3:47.640

Gean Na

I recall sending meeting minutes over to Vince and he did mention that they were sent or posted online.

0:3:48.170 --> 0:3:49.480

Gean Na

It also came through in the.

0:3:51.650 --> 0:3:52.940

Gean Na

The meeting invitation.

0:3:53.10 --> 0:3:58.900

Gean Na

But I'm just checking the website real Quick Books underground September.

0:4:1.820 --> 0:4:14.350

Gean Na

OK, so for those of you that really love meeting minutes, what I'm doing now is attaching my notes that I take from this meeting that I typically do during the meeting.

0:4:14.740 --> 0:4:18.350

Gean Na

I'm also attaching the transcript from the meeting itself.

0:4:18.360 --> 0:4:25.520

Gean Na

The transcript includes uh, you know everyone that attended the meeting and literally the transcript of the dialogue.

0:4:25.530 --> 0:4:33.410

Gean Na

So if someone promised to give me \$1,000,000, we have it recorded and you then have to give me \$1,000,000 in cash.

0:4:33.420 --> 0:4:34.840

Gean Na

So everything's recorded.

0:4:35.230 --> 0:4:40.880

Gean Na

Obviously that's a joke, but you'll see that kind of that's we just have that for record.

0:4:40.890 --> 0:4:43.30

Gean Na

And I think that would be good to just have it documented.

0:4:44.150 --> 0:4:52.800

Gean Na

I'm I'm also posting meaning minute and and transcript into the Microsoft team so that it's kind of just recorded there.

0:4:52.810 --> 0:4:53.970

Gean Na

If you know for future reference.

0:4:56.830 --> 0:4:59.320

Gean Na

Let me share the meeting minutes with the guy.

0:5:2.370 --> 0:5:2.670

Gean Na

Uh.

0:5:2.690 --> 0:5:4.570

Gean Na

Meeting under?

0:5:8.190 --> 0:5:10.970

Gean Na

OK, I'm sharing a PDF right now for you guys.

0:5:15.140 --> 0:5:17.340

Gean Na

Any comments to the September meeting minute?

0:5:26.300 --> 0:5:30.890

Gean Na

OK, hearing none, is there a motion to approve the Minutes from September?

0:5:31.780 --> 0:5:32.220

Colin McCarter

All motion.

0:5:34.40 --> 0:5:34.720

Gean Na

That you call in.

0:5:34.330 --> 0:5:34.890

Jacquie Jaques

I'll second.

0:5:35.920 --> 0:5:36.560

Colin McCarter

Yeah, that was gone.

0:5:38.850 --> 0:5:40.490

Gean Na

Jackie, thank you.

0:5:42.110 --> 0:5:43.600

Gean Na

Alright, let me get out of this screen.

0:5:51.330 --> 0:5:51.640

Gean Na

OK.

0:5:52.660 --> 0:6:4.310

Gean Na

Umm, just for announcements I I guess I wanted to first share that we are in October, we have today's meeting and next months meeting to wrap up 2023.

0:6:5.360 --> 0:6:11.120

Gean Na

The main committee is wrapping up things as well to get everything in for the 2024 edition.

0:6:12.210 --> 0:6:21.190

Gean Na

Uh, I think that they uh, unfortunate announcement is the part 5 change 284 looks like it will not make it into the 2024 edition.

0:6:22.140 --> 0:6:28.310

Gean Na

Uh, as we and the editorial committee and other agencies are in review of it.

0:6:28.320 --> 0:6:32.80

Gean Na

So I don't intend to slow down on it.

0:6:32.180 --> 0:6:37.950

Gean Na

The last time we slowed down, we basically got to the same place we were here 10 years ago.

0:6:38.40 --> 0:6:53.350

Gean Na

We were here three years ago and we're here again now, so I tend to just continue pushing people to get it done and I guess hopefully it'll get done by the supplemental in the event that Lance wants to make any special accommodations to get this done.

0:6:55.370 --> 0:6:57.340

Gean Na

Maybe there's a special meeting in December.

0:6:57.490 --> 0:6:58.140

Gean Na

We'll see.

0:6:58.230 --> 0:7:1.860

Gean Na

But in the meantime, we're just gonna continue to get it done.

0:7:2.430 --> 0:7:7.780

Gean Na

And I and I do ask agencies that are looking at it to just please get it done as soon as possible.

0:7:9.330 --> 0:7:16.30

Gean Na

I also want to give a special thank you to Colin, who has spent time reviewing the document and and we'll take a look at his comments today.

0:7:17.270 --> 0:7:21.210

Gean Na

Umm, that's about it that I have for announcements.

0:7:22.750 --> 0:7:39.760

Gean Na

Ohh one more thing I know APWA Southern California is having the seminar on Green Book and that's in a couple weeks so if anyone is interested to attend or want your people to attend and have not received the invitation, feel free to email me.

0:7:39.770 --> 0:7:39.980

Gean Na

I'll.

0:7:39.990 --> 0:7:47.210

Gean Na

I'll send you guys the the correct contact person and the link to to join the seminar as well.

0:7:48.690 --> 0:7:49.390

Aidan Rajswing

You can connect to me.

0:7:49.400 --> 0:7:49.860

Aidan Rajswing

Please gene.

0:7:50.800 --> 0:7:50.950

Gean Na

Sure.

0:7:52.830 --> 0:7:53.460

DaSilva, Andy

This is Andy.

0:7:53.470 --> 0:7:55.360

DaSilva, Andy

Can you send me a link too?

0:8:0.900 --> 0:8:5.530

Gean Na

Yeah, you got it, Andy and Aiden, is there anyone else that wants to see that invitation?

0:8:6.520 --> 0:8:9.220

Nguyen, Anh

Myself also on could you send it to me?

0:8:10.780 --> 0:8:11.60

Gean Na

OK.

0:8:11.670 --> 0:8:11.870

Nguyen, Anh

Yeah.

0:8:11.810 --> 0:8:13.470

Shannon (Precon Products) (Guest)

Then you can send it to me too, please.

0:8:14.680 --> 0:8:15.250

Shannon (Precon Products) (Guest)

This is Shannon.

0:8:14.730 --> 0:8:16.840

Gean Na

OK anyone else?

0:8:19.330 --> 0:8:19.620

Gean Na

OK.

0:8:19.630 --> 0:8:21.0

Gean Na

And then feel free to email me, you guys.

0:8:21.10 --> 0:8:32.800

Gean Na

If you guys want this invitation, I know APWA just went through a big like website change so some of their invitations are might be falling through the cracks there.

0:8:32.950 --> 0:8:42.880

Gean Na

There's also a new person that is taking care of it on behalf of Trish, and her name is Jennifer Crummy.

0:8:43.120 --> 0:8:59.240

Gean Na

I'm gonna just put her contact information on or in here so that you guys could see it, but she's the person that's now taking care of the Greenbook seminar 4 APWA, Southern California, uh.

0:8:59.240 --> 0:9:6.280

Gean Na

So go ahead and take note of this guy's and then I'll also email the few folks that wanted her information.

0:9:9.40 --> 0:9:9.410

Gean Na

OK.

0:9:11.360 --> 0:9:13.410

Gean Na

Does anyone else want to make a quick announcement?

0:9:13.420 --> 0:9:20.100

Gean Na

Any industry events, any big project tours or uh quick announcements that you guys want to make?

0:9:22.270 --> 0:9:22.760

Jacquie Jaques

Hi, gene.

0:9:22.770 --> 0:9:24.720

Jacquie Jaques

This is Jackie jacquis.

0:9:24.810 --> 0:9:28.640

Jacquie Jaques

I'm some of you have probably received an email from me recently.

0:9:28.650 --> 0:9:41.330

Jacquie Jaques

Umm, I'm on the board of Western chapter of NIST and we're looking to try to help support the Cal Poly student chapter to get them more acclimated on with TRENCHLESS technologies.

0:9:41.630 --> 0:9:51.570

Jacquie Jaques

So if you have a project you think might be well suited for the students to come out and visit, please contact me so we can coordinate with the Cal Poly.

0:9:52.200 --> 0:9:52.350

Jacquie Jaques

Uh.

0:9:52.360 --> 0:9:53.490

Jacquie Jaques
Professor uh.

0:9:53.500 --> 0:9:54.790

Jacquie Jaques
That's jinsung Cho.

0:9:55.80 --> 0:9:57.250

Jacquie Jaques
He's got 5 to 10 students currently.

0:9:57.300 --> 0:10:3.730

Jacquie Jaques
They're trying to rebuild the chapter post COVID, so any industry support would be greatly appreciated.

0:10:6.50 --> 0:10:8.240

Gean Na
Uh, Jackie, I'm glad you brought that up.

0:10:16.290 --> 0:10:16.830

Jacquie Jaques
Oh, excellent.

0:10:9.600 --> 0:10:17.760

Gean Na
My organization, you know the concrete pipe association, is giving that Group A tour, a concrete pipe manufacturing tour.

0:10:20.270 --> 0:10:20.510

David Badgley
Yeah.

0:10:19.580 --> 0:10:29.240

Gean Na
I forget which date, but I believe it's in the next month or two, so we're going to be giving them and one of his courses or one of his classes tour of the facility.

0:10:30.130 --> 0:10:32.640

Gean Na
Uh, so I'll, I'll keep you in the loop.

0:10:32.650 --> 0:10:36.390

Gean Na
So you can be aware of it too, but we are working with Professor Cho on that.

0:10:36.650 --> 0:10:40.700

Gean Na

It's something that we've done with him pre COVID, you know, four or five years ago.

0:10:40.290 --> 0:10:41.460

Jacquie Jaques

Fantastic.

0:10:40.710 --> 0:10:42.330

Gean Na

So yeah, so.

0:10:41.710 --> 0:10:42.500

Jacquie Jaques

Fantastic.

0:10:42.510 --> 0:10:44.430

Jacquie Jaques

And Dickie, I will get back to you later today.

0:10:44.440 --> 0:10:51.120

Jacquie Jaques

We have a board meeting at 2:30, so thank you so much for getting back to me and also mark, how for LA County Sand.

0:10:51.130 --> 0:11:1.400

Jacquie Jaques

We appreciate the support all these kids really are eager to learn more about our industry and are really eager to get out there and get their hands on a knowledge with our industry.

0:11:1.410 --> 0:11:2.100

Jacquie Jaques

So thank you all.

0:11:4.300 --> 0:11:4.810

Giljum, Mark

Quite welcome.

0:11:4.770 --> 0:11:5.310

Gean Na

Jack.

0:11:5.650 --> 0:11:10.300

Gean Na

Jackie, you may be able to get them into the Greenbook seminar and I believe for free.

0:11:11.400 --> 0:11:13.560

Jacquie Jaques

Oh, that would be good. OK.

0:11:10.800 --> 0:11:17.500

Gean Na

Uh, the just an idea of it might be during the class time.

0:11:16.180 --> 0:11:17.510

Jacquie Jaques

And me to the list.

0:11:18.70 --> 0:11:18.530

Gean Na

Yeah, we'll do.

0:11:18.80 --> 0:11:20.760

Jacquie Jaques

If you could help me to the list that would be great.

0:11:23.860 --> 0:11:24.200

Gean Na

OK.

0:11:23.690 --> 0:11:32.0

Jacquie Jaques

Also to is anybody going to Hawaii in November for the West Western Regional annual conference?

0:11:32.10 --> 0:11:35.680

Jacquie Jaques

We're doing in conjunction with HEA.

0:11:35.830 --> 0:11:37.40

Jacquie Jaques

That's November.

0:11:37.50 --> 0:11:49.920

Jacquie Jaques

We have N6, so there's gonna be opportunities for training courses through NA St and two days of presentations and vendor exhibits.

0:11:50.110 --> 0:11:58.430

Jacquie Jaques

So if you're interested, I think we're getting close to the deadline, but obviously it's going to be a great and well attended conference as usual.

0:11:58.440 --> 0:12:3.530

Jacquie Jaques

So if you need more information, I'll go to the nest website or please reach out to me.

0:12:3.540 --> 0:12:6.120

Jacquie Jaques

I'm a board member and I can get you the information.

0:12:9.610 --> 0:12:11.90

Gean Na

Alrighty, thanks Jackie.

0:12:14.520 --> 0:12:15.30

Gean Na

Going to move.

0:12:14.340 --> 0:12:15.290

David Badgley

Gene, this is Dave.

0:12:15.300 --> 0:12:43.330

David Badgley

I've got some things that are coming up here too, so the, the, the, we've already done one of the city of LA starting to do the siphons that go underneath the LA River, which is pretty unique things that we haven't done too much of in the past and we just did a 42 inch siphon that from one of the studios and then goes over to the other side to big housing development and they're gonna do another one this week.

0:12:43.340 --> 0:12:58.60

David Badgley

We can't get anybody on the lot, but if anybody would like to see a, you know, the the videos from that and the and the and the PowerPoint presentation, I can send that to him and then we've got.

0:12:57.850 --> 0:12:59.460

Jacquie Jaques

Is this over a Warner Brothers Dave?

0:13:0.260 --> 0:13:0.610

David Badgley

Yeah.

0:13:3.30 --> 0:13:3.390

Jacquie Jaques

OK.

0:13:0.620 --> 0:13:6.820

David Badgley

No, it's ABC, so it's off of of Ventura Blvd.

0:13:7.190 --> 0:13:8.230

Jacque Jaques

Right. Awesome.

0:13:8.150 --> 0:13:19.660

David Badgley

Now that whether you they do the Connors and so they're they're they're anxious to get this all done because you know, if the strikes over with then everybody's gonna be really busy playing catch up on everything.

0:13:19.670 --> 0:13:24.840

David Badgley

So they we should be all done this week with the the it's a dual siphon.

0:13:24.850 --> 0:13:27.340

David Badgley

So we're, we'll we did one last week.

0:13:35.260 --> 0:13:35.540

Gean Na

OK.

0:13:27.350 --> 0:13:53.650

David Badgley

And so once they get the, the flow diverted into the one that we just did, then we'll do the second one and the uh, the Southern regional on the 26th of October, the Southern Regional Safety Day is going to be at Ontario Hilton Airport Hotel and that's pretty well attended and the on October 30th is our Green Book Seminar.

0:13:54.580 --> 0:14:15.180

David Badgley

And then on, there's a water wise Expo, which is at Silver Lake Sport Complex and Norco which is water and sewer both, that's November 7th and 8th and then the wet show is in Indianapolis is the 24th to the 26th.

0:14:15.340 --> 0:14:17.540

David Badgley

And so we'll be speaking at that again.

0:14:17.550 --> 0:14:27.330

David Badgley

We've been speaking at that for the Southern section Collection System committee since I think we figured like 17 or 18 years or now.

0:14:27.460 --> 0:14:34.190

David Badgley

So we usually have a day that we put together a whole list of speakers, so we'll talk about the Green Book on that.

0:14:34.320 --> 0:14:38.970

David Badgley

Also, when we talk about the trenchless pipelining and manhole lining stuff.

0:14:41.490 --> 0:14:41.820

Gean Na

OK.

0:14:41.830 --> 0:14:42.400

Gean Na

Thanks, Dave.

0:14:42.870 --> 0:14:43.350

David Badgley

You're welcome.

0:14:42.410 --> 0:14:43.710

Gean Na

Appreciate it. Umm.

0:14:45.870 --> 0:14:48.110

Gean Na

OK, moving on to old business.

0:14:48.610 --> 0:14:56.120

Gean Na

Umm, we have a part or change 284 on on kind of on the agenda today.

0:14:56.270 --> 0:14:58.640

Gean Na

We'll also be talking about change 329.

0:14:59.270 --> 0:15:2.200

Gean Na

We do have kind of a special guest from Churney.

0:15:2.550 --> 0:15:15.520

Gean Na

Gentleman's name is Asim so definitely want to have that discussion and then we have other items that are on hold and then I have one last item here that I just have on here for record that it's with editorial committee and so we'll address those things.

0:15:16.210 --> 0:15:18.480

Gean Na

I think we have a stop at 12:30 today.

0:15:19.930 --> 0:15:20.450

Gean Na

Uh, So what?

0:15:20.460 --> 0:15:32.100

Gean Na

That being said, I would like to share you guys the comments that I have received from the editorial committee reviewed by uh, the committee and Charles too.

0:15:32.410 --> 0:15:34.90

Gean Na

So let me share this with you guys.

0:15:41.70 --> 0:15:43.620

Gean Na

Colin, I know you're here today with us.

0:15:44.250 --> 0:15:48.520

Gean Na

I will call on you if I don't know what I'm looking at, but I just.

0:15:49.150 --> 0:15:50.840

Gean Na

I'm looking at this for the first time.

0:15:50.850 --> 0:15:53.930

Gean Na

I just got this from you guys this morning. Umm.

0:15:53.450 --> 0:15:55.950

Colin McCarter

I didn't look at what Charles marked either to be honest.

0:15:56.710 --> 0:15:58.910

Gean Na

Ohh so is the ohh.

0:15:58.920 --> 0:16:1.580

Gean Na

These are independent comments from you and him.

0:16:1.630 --> 0:16:1.900

Gean Na

OK.

0:16:3.660 --> 0:16:4.170

Colin McCarter

Yeah, he took.

0:16:3.380 --> 0:16:4.510

Gean Na

Why don't we roll back?

0:16:4.180 --> 0:16:5.430

Colin McCarter

He took what I sent over.

0:16:5.440 --> 0:16:6.510

Colin McCarter

Yeah, last night.

0:16:6.520 --> 0:16:7.880

Colin McCarter

And then he added stuff on top.

0:16:8.760 --> 0:16:9.940

Gean Na

OK, that's good.

0:16:13.310 --> 0:16:15.120

Gean Na

Hmm, OK.

0:16:17.820 --> 0:16:20.310

Gean Na

I know, I know both of you guys aren't done.

0:16:20.420 --> 0:16:32.930

Gean Na

UM and I know just kind of for the for the group here, the editorial had a special meeting on the 5th to have a game plan of reviewing change 284 on behalf of the editorial committee.

0:16:33.360 --> 0:16:49.460

Gean Na

They then asked the group to review sections one through 6 and then they met on the 12th for another meeting and and we started to review it together and then call and you kind of just took care of it the rest of the day on your own.

0:16:49.470 --> 0:16:53.70

Gean Na

And then he then sent it to Charles to do another review.

0:16:53.80 --> 0:16:53.890

Gean Na

On top of that?

0:16:53.900 --> 0:17:4.620

Gean Na

So umm, I wanted to review some of the comments from them here and know that this is part one of few of of of the review from the editorial.

0:17:4.630 --> 0:17:6.540

Gean Na

This isn't their only review.

0:17:7.720 --> 0:17:16.400

Gean Na

Umm, so I see the strikeouts here, and I remember this conversation that we had called and this mainly was just, you know, redundant.

0:17:17.290 --> 0:17:20.260

Gean Na

You know, this is inherent information that's implied already.

0:17:20.270 --> 0:17:28.450

Gean Na

So there was a suggestion to strike out this Dave, I know this is stuff that you propose.

0:17:28.730 --> 0:17:29.30

David Badgley

Yep.

0:17:28.540 --> 0:17:29.180

Gean Na

Do you see?

0:17:29.190 --> 0:17:30.10

Gean Na

Objection to this?

0:17:31.960 --> 0:17:33.230

David Badgley

I got it on my laptop.

0:17:33.240 --> 0:17:36.440

David Badgley

I couldn't get it on my big computer, so let me try and make it bigger.

0:17:37.820 --> 0:17:41.0

Gean Na

I could zoom in for you, but in essence what?

0:17:41.80 --> 0:17:41.220

Gean Na

What?

0:17:42.120 --> 0:17:46.420

Gean Na

The editorial committee is saying, is this information that struck out here?

0:17:46.660 --> 0:17:51.480

Gean Na

It's already implied as being in the Green Book, so you don't need to say this again.

0:18:7.480 --> 0:18:7.880

Gean Na

Umm.

0:17:53.480 --> 0:18:9.800

David Badgley

The the part that I think that still needs to be there is that it's an A or a C34 license because we've had trouble with the the some plumbing companies have done some work for LA County public works that didn't didn't stand the test of time.

0:18:11.70 --> 0:18:12.900

David Badgley

Yeah, I'll bet they'll go well.

0:18:12.910 --> 0:18:21.850

David Badgley

We can do 4 inch laterals so we can can do mainlines and so it's those are the two classes that it that it needs to be as a or C42.

0:18:23.900 --> 0:18:25.30

Gean Na

The 34.

0:18:25.610 --> 0:18:25.980

David Badgley

See.

0:18:25.990 --> 0:18:27.30

David Badgley

Yeah, see 34.

0:18:27.720 --> 0:18:31.400

Gean Na

OK, lump, putting a comment back on top of here.

0:18:31.720 --> 0:18:32.80

David Badgley

OK.

0:18:31.750 --> 0:18:35.280

Gean Na

And Dave, I'm just leaving my cookie, Charles for now.

0:18:35.650 --> 0:18:35.830

David Badgley

Yeah.

0:18:40.240 --> 0:18:42.360

David Badgley

Yep, right.

0:18:35.830 --> 0:18:43.260

Gean Na

Now this is with us, so I wanna review everything, but we don't necessarily need to correct everything right now because it's gonna take too much time.

0:18:43.380 --> 0:18:44.170

David Badgley

Oh yeah, no doubt.

0:18:43.590 --> 0:18:47.570

Gean Na

But I wanna at least look at the comments from them and then we could correct it.

0:18:48.90 --> 0:18:48.430

David Badgley

OK.

0:18:49.20 --> 0:18:50.440

Gean Na

So I just flipped that here.

0:18:50.450 --> 0:18:54.780

Gean Na

Hopefully you guys could see this of moving down.

0:18:57.590 --> 0:19:0.760

Gean Na

So we just corrected some formatting here, Dave.

0:19:3.790 --> 0:19:3.890

David Badgley

Yeah.

0:19:2.140 --> 0:19:9.110

Gean Na

When I say we, I mean editorial and correct me if I'm wrong, call in we.

0:19:9.120 --> 0:19:12.240

Gean Na

Yeah, we struck out the 2.1 and the 2.2.

0:19:19.980 --> 0:19:20.160

Colin McCarter

Yeah.

0:19:12.490 --> 0:19:23.190

Gean Na

So that meant this information all was directly under 2, right under some middles and it so it just cleaned things UA bit just formatting.

0:19:29.530 --> 0:19:29.780

Gean Na

Yeah.

0:19:29.790 --> 0:19:32.790

Gean Na

And this is just editorial corrections that Charles corrected.

0:19:39.940 --> 0:19:40.180

Gean Na

OK.

0:19:44.850 --> 0:19:48.260

Gean Na

They're just more editorial corrections here.

0:19:48.310 --> 0:19:50.20

Gean Na

The I remember this conversation.

0:19:50.650 --> 0:20:0.920

Gean Na

The thought here was to eliminate sewer and just put pipelining such that it would apply to all pipelining operations as opposed to only sewer.

0:20:1.330 --> 0:20:1.760

Gean Na

Do you see?

0:20:1.690 --> 0:20:1.890

David Badgley

Yeah.

0:20:1.770 --> 0:20:2.690

Gean Na

Objection to that, Dave.

0:20:3.90 --> 0:20:4.190

David Badgley

No, no, that's good.

0:20:4.900 --> 0:20:5.160

Gean Na

OK.

0:20:5.60 --> 0:20:5.740

David Badgley

Good suggestion.

0:20:14.270 --> 0:20:18.400

Gean Na

This is the question from Charles about replacing manholes with maintenance holes.

0:20:20.360 --> 0:20:26.360

David Badgley

I think maintenance holes is probably what the is on most people's deals now to be politically correct.

0:20:29.330 --> 0:20:30.480

Gean Na

But I think so too.

0:20:30.730 --> 0:20:35.780

Gean Na

And this might be a good question to ask this Thursday at the main committee along with BNI.

0:20:36.800 --> 0:20:37.100

David Badgley

Yep.

0:20:40.260 --> 0:20:49.570

Nguyen, Anh

Uh, I I have a question on that because a lot of with the city of San Diego, a lot of our plan and spec still call out manhole.

0:20:49.820 --> 0:20:51.810

Nguyen, Anh

So we we have to change.

0:20:53.580 --> 0:20:54.260

Nguyen, Anh

Our own.

0:20:57.130 --> 0:21:1.130

Nguyen, Anh

Document to reflect this if, if if this is gonna be.

0:21:2.190 --> 0:21:4.470

Nguyen, Anh

Umm, I guess adopt it.

0:21:8.560 --> 0:21:9.920

Gean Na

Well, I don't know. Uh.

0:21:9.900 --> 0:21:10.40

David Badgley

Yeah.

0:21:9.960 --> 0:21:15.980

Nguyen, Anh

Yeah, because I I think it's gonna add some confusion to to what we have already.

0:21:18.980 --> 0:21:19.250

Nguyen, Anh

Yeah.

0:21:24.880 --> 0:21:25.80

David Badgley

Yeah.

0:21:16.860 --> 0:21:26.450

Colin McCarter

Yeah, I don't know about your specials, but in the section 215 that we just added not too long ago, we still call it precast reinforced concrete manholes.

0:21:27.200 --> 0:21:28.100

Nguyen, Anh

Yeah. So.

0:21:27.480 --> 0:21:30.320

Colin McCarter

We don't call them maintenance socia and that's relatively recent.

0:21:31.280 --> 0:21:31.560

Gean Na

Umm.

0:21:33.90 --> 0:21:33.760

Nguyen, Anh

Yeah, I'm.

0:21:34.50 --> 0:21:35.290

Nguyen, Anh

I'm just throwing it out there.

0:21:35.300 --> 0:21:35.940

Nguyen, Anh

I'm just wondering.

0:21:36.830 --> 0:21:37.380

David Badgley

Yeah, no.

0:21:37.390 --> 0:21:38.350

David Badgley

Good, good thought.

0:21:38.360 --> 0:21:40.900

David Badgley

I always every time I end up doing one of these things.

0:21:40.910 --> 0:21:41.550

David Badgley

That's yeah.

0:21:41.560 --> 0:21:42.880

David Badgley

You you just don't know.

0:21:42.890 --> 0:21:43.360

David Badgley

What?

0:21:43.530 --> 0:21:46.740

David Badgley

What the political correct name is on on this stuff?

0:21:48.870 --> 0:21:49.150

Nguyen, Anh

Yeah.

0:21:51.30 --> 0:21:55.460

Gean Na

Yeah, that can answer that question either on, but I'll, I'll definitely ask that on Thursday.

0:21:55.690 --> 0:22:0.170

Gean Na

And if the answer is no, we'll keep it manhole cause that is the original text.

0:22:1.260 --> 0:22:1.440

Nguyen, Anh

Yeah.

0:22:1.260 --> 0:22:1.460

David Badgley

Yeah.

0:22:1.300 --> 0:22:11.630

Gean Na

Uh, but I I do know that in this change 284, all the manholes was changed to maintenance holes, but easy to replace it back.

0:22:10.220 --> 0:22:12.360

David Badgley

That's yeah.

0:22:11.800 --> 0:22:14.360

Gean Na

But I'll let the main committee dictate which way to move.

0:22:15.510 --> 0:22:15.920

Fernandez, Dickie

Gene.

0:22:15.70 --> 0:22:27.880

David Badgley

Yeah, it may not be a bad idea for in the like the very beginning of the Green Book where it has definitions, it is that maintenance hole and manhole are interchangeable names or something, yeah.

0:22:30.690 --> 0:22:31.880

Gean Na

OK. OK.

0:22:32.10 --> 0:22:32.820

Gean Na

Yeah, we'll let I'll.

0:22:34.440 --> 0:22:35.320

David Badgley

Yeah, yeah.

0:22:32.890 --> 0:22:36.160

Gean Na

I'm gonna let them decide for us that I don't think it's for us to decide.

0:22:38.560 --> 0:22:40.780

Gean Na

Umm, OK, let's see.

0:22:43.50 --> 0:22:44.140

Gean Na

Yeah, I remember this from you.

0:22:44.150 --> 0:22:45.360

Gean Na

Call in uh Dave.

0:22:45.370 --> 0:22:50.840

Gean Na

This is gonna trigger a a motion for you to improve this sentence.

0:22:52.90 --> 0:22:52.360

David Badgley

Yeah.

0:22:50.850 --> 0:22:53.920

Gean Na

Here the proofing skid shall act as a go.

0:22:53.930 --> 0:23:1.850

Gean Na

Nogo gauge to indicate that the pipe has been cleaned to proper operational capacity as it travels to the sewer during the cleaning process.

0:23:2.100 --> 0:23:5.670

Gean Na

So you know, I understand what you're trying to say too.

0:23:6.190 --> 0:23:6.390

David Badgley

Yep.

0:23:5.720 --> 0:23:9.740

Gean Na

I I think the committee just felt like this could be rewritten more.

0:23:11.60 --> 0:23:15.130

Gean Na

I guess the just more technically, right.

0:23:15.140 --> 0:23:15.300

Gean Na

Just.

0:23:15.190 --> 0:23:15.990

David Badgley

Yeah, yeah.

0:23:16.850 --> 0:23:19.880

Gean Na

Uh, so I I remember this conversation too was like do.

0:23:19.890 --> 0:23:26.770

Gean Na

Is there another, uh, standard that talks about this and maybe we could leverage that language?

0:23:27.740 --> 0:23:28.370

David Badgley

Yeah.

0:23:28.440 --> 0:23:29.390

David Badgley

Yeah, that's fine.

0:23:54.350 --> 0:23:55.550

Gean Na

Wonder if I could do this.

0:23:59.280 --> 0:23:59.830

Gean Na

Never mind.

0:24:1.30 --> 0:24:1.190

David Badgley

Yeah.

0:24:0.120 --> 0:24:1.910

Gean Na

OK, moving down here.

0:24:4.180 --> 0:24:12.380

Gean Na

So I recall this to Dave you suggested addressed as a separate bid item and then call and I believe this was you.

0:24:14.60 --> 0:24:14.400

David Badgley

Could be.

0:24:14.120 --> 0:24:16.320

Gean Na

Suggested that just be considered as extra work.

0:24:15.740 --> 0:24:17.720

David Badgley

Yeah, yeah, yeah.

0:24:18.510 --> 0:24:22.490

David Badgley

Things that are that are that you you don't know about.

0:24:22.790 --> 0:24:23.770

David Badgley

You know that are in there that.

0:24:27.380 --> 0:24:27.660

Gean Na

Umm.

0:24:29.810 --> 0:24:34.640

David Badgley

Because we had something like two to three passes with the jet cleaner was typical but.

0:24:38.960 --> 0:24:39.360

Gean Na

OK.

0:24:39.430 --> 0:24:41.800

Gean Na

And then here this is something that I mentioned.

0:24:42.310 --> 0:24:48.370

Gean Na

I I try to keep my mouth shut at the editorial committee, but this one I'm kind of asking you and the committee here.

0:24:48.460 --> 0:24:50.900

Gean Na

I know that Green Book is in the process of eliminating.

0:24:52.600 --> 0:24:55.90

Gean Na

Sole source technologies and whatnot.

0:24:55.100 --> 0:24:59.370

Gean Na

So in lieu of saying hydrojet, we would say hive lossy hydraulic equipment.

0:24:59.720 --> 0:25:3.260

Gean Na

So I believe it's appropriate to strike this out.

0:25:4.300 --> 0:25:4.840

Gean Na

What do you think?

0:25:6.190 --> 0:25:9.930

David Badgley

Uh, the you know most of the people would do.

0:25:12.420 --> 0:25:14.970

David Badgley

Yeah, there's no sole source to that.

0:25:15.60 --> 0:25:29.660

David Badgley

I mean, that's yeah, there's tons of manufacturers out there that and that's kind of the words that's used in the in the industry that it's a jet cleaner and not a glossy hydraulic.

0:25:30.440 --> 0:25:31.830

David Badgley

We could make it just jet.

0:25:32.280 --> 0:25:34.180

David Badgley

Yeah, get rid of the hydro.

0:25:35.230 --> 0:25:40.460

David Badgley

Hydraulic jet cleaning equipment and get rid of hydro.

0:25:44.310 --> 0:25:45.290

Gean Na

So cleaning equipment.

0:25:46.330 --> 0:25:49.800

David Badgley

Yeah, just, just, no, just leave jet on there.

0:25:49.810 --> 0:25:53.520

David Badgley

Just get rid of hydro, yell jet cleaning.

0:25:58.400 --> 0:25:58.560

Gean Na

Yeah.

0:25:59.220 --> 0:25:59.920

Kent C

Can you hear me?

0:26:0.980 --> 0:26:1.360

Gean Na

I hear you.

0:26:1.580 --> 0:26:1.780

David Badgley

Yeah.

0:26:2.530 --> 0:26:3.200

Kent C

OK.

0:26:3.510 --> 0:26:17.850

Kent C

I just heard you if that right there, that hydrogen cleaning, is it applicable to all sources, all types of of hydro with a jet dozzle cleaning and it's in ASTM C1920.

0:26:20.860 --> 0:26:22.10

Kent C

It is not applicable.

0:26:22.20 --> 0:26:25.930

Kent C

It's not a, it's not a patented or copyrighted term.

0:26:27.960 --> 0:26:37.640

Kent C

And Gene, you asked the question back up where it says 95% of operational capacity with the skin, all that language comes straight out of ASTM C1920.

0:26:40.200 --> 0:26:45.780

Kent C

So to answer your question in regards to is there more technical referral?

0:26:45.830 --> 0:26:47.920

Kent C

Yeah, it's ASTM C1920.

0:26:47.970 --> 0:26:55.550

Kent C

Actually when I when I did this for Dave that that ASTM was was referenced and somehow it came out.

0:26:56.370 --> 0:26:59.20

Gean Na

This can including this sentence right here.

0:26:59.400 --> 0:27:0.950

Kent C

Yes, yes.

0:26:59.150 --> 0:27:3.330

Gean Na

The proofing skid OK and let me let me.

0:27:3.30 --> 0:27:9.550

Kent C

It's also it's also referenced in the in the ASTM standard for thermoplastic pipe also.

0:27:10.760 --> 0:27:14.780

Gean Na

And what was the ASTM #C19 which?

0:27:14.960 --> 0:27:16.30

Kent C

Charlie.

0:27:16.280 --> 0:27:18.520

Kent C

Yeah, see 1920.

0:27:19.300 --> 0:27:20.850

Gean Na

20, OK.

0:27:20.330 --> 0:27:24.540

Kent C

The latest edition is 23, so you can just put in scene ASTM C Money.

0:27:25.970 --> 0:27:30.990

Gean Na

OK, I think if it's in there, I think it, uh, it's, yeah, should be good enough.

0:27:32.210 --> 0:27:32.680

Gean Na

OK.

0:27:32.910 --> 0:27:33.260

Gean Na

Yeah.

0:27:33.270 --> 0:27:37.260

Gean Na

The question here was about whether or not hydrojet is appropriate to use.

0:27:37.630 --> 0:27:42.490

Gean Na

If it's is patented, I would say no, but if not then let's leave it.

0:27:42.280 --> 0:27:43.530

Kent C

No, it's it's fine.

0:27:43.80 --> 0:27:44.590

David Badgley

I no it.

0:27:44.940 --> 0:27:45.560

David Badgley

Yeah.

0:27:46.280 --> 0:27:46.500

Gean Na

OK.

0:27:45.600 --> 0:27:48.480

David Badgley

Everybody in the industry knows what what you're talking about.

0:27:49.320 --> 0:27:50.30

Gean Na

Yeah.

0:27:50.460 --> 0:27:50.930

Gean Na

OK.

0:27:51.60 --> 0:27:54.260

Gean Na

Moving on, I see some additional strikes here.

0:27:56.10 --> 0:27:57.800

Gean Na

I think this is clarifications.

0:27:57.930 --> 0:28:0.950

Gean Na

You don't need to say sum, you're saying you know high velocity.

0:28:2.170 --> 0:28:2.570

David Badgley

Right.

0:28:4.460 --> 0:28:5.350

Kent C

Not all of them do.

0:28:7.740 --> 0:28:10.90

Kent C

Yeah, straight hydros that don't have a vacuum.

0:28:10.100 --> 0:28:12.80

Kent C

Then you have commas that have vacuums.

0:28:12.90 --> 0:28:17.10

Kent C

So you can so some high velocity sewer jet cleaners have a vacuum conveyance system.

0:28:26.750 --> 0:28:28.960

Kent C

They're also referred to as combination cleaners.

0:28:31.970 --> 0:28:34.570

Gean Na

I guess what you're trying to say is if or when right?

0:28:34.850 --> 0:28:37.870

Gean Na

I know you're saying not all are in this situation.

0:28:38.520 --> 0:28:40.630

Gean Na

Umm, but I see what your intent is.

0:28:43.250 --> 0:28:44.680

Kent C

There are some of them.

0:28:45.170 --> 0:28:45.320

David Badgley

Yeah.

0:28:44.690 --> 0:28:45.670

Kent C

Do some of them don't?

0:28:49.620 --> 0:28:50.910

Gean Na

Paul and what are your thoughts here?

0:28:50.920 --> 0:28:54.510

Gean Na

Can we say when instead of some?

0:28:57.890 --> 0:28:58.560

Kent C

Say that again.

0:28:58.910 --> 0:28:59.70

David Badgley

The.

0:29:2.180 --> 0:29:2.390

David Badgley

Yeah.

0:29:1.220 --> 0:29:8.400

Colin McCarter

Yeah, I mean, I guess this whole paragraph is just talking about the cleaners with a vacuum conveyance system, right?

0:29:8.820 --> 0:29:9.150

David Badgley

Right.

0:29:8.410 --> 0:29:9.840

Colin McCarter

We're not talking about, though.

0:29:9.850 --> 0:29:12.510

Colin McCarter

We're not requiring that they do have one.

0:29:13.940 --> 0:29:14.180

Kent C

No.

0:29:13.930 --> 0:29:14.190

Gean Na

Right.

0:29:14.820 --> 0:29:15.190

David Badgley

Right.

0:29:15.200 --> 0:29:21.710

David Badgley

So you can do either one, but you know you wanna make sure that whatever you're doing, you need to clean all that material out.

0:29:21.720 --> 0:29:23.410

David Badgley

You're not just flushing it downstream.

0:29:24.550 --> 0:29:24.830

Colin McCarter

OK.

0:29:26.690 --> 0:29:26.860

David Badgley

Yeah.

0:29:24.880 --> 0:29:31.970

Colin McCarter

Yeah, I mean my concern was just to change kind of the tone of the of the paragraph to be more declarative.

0:29:33.260 --> 0:29:33.480

David Badgley

Yeah.

0:29:33.730 --> 0:29:43.60

Colin McCarter

Rather than going on and, you know, some might have this, some might have that you know to be more direct with the language, but and you know, that's fine.

0:29:48.230 --> 0:29:49.410

David Badgley

Back on it, yeah.

0:29:51.390 --> 0:29:52.980

David Badgley

Yep, yeah.

0:29:57.130 --> 0:29:58.920

Kent C

Well, I I got an idea.

0:29:45.850 --> 0:29:59.340

Gean Na

Well, Dave, can I also just put this back on your plate and and to just clarify this, like calling is asking, I I

understand what Colin is asking for it's and and I hear you can't, it's like not all have high velocity is some don't.

0:29:58.930 --> 0:30:2.480

Kent C

See if there was this high velocity hydrojet cleaning equipment.

0:30:2.950 --> 0:30:3.160

Gean Na

Mm-hmm.

0:30:2.650 --> 0:30:8.760

Kent C

You you could probably strike that whole thing and then just put because you're talking about high.

0:30:8.810 --> 0:30:19.480

Kent C

If you go up to 321, it says high velocity cleaning equipment shall carry water tank out and and may have a vacuum conveyance system.

0:30:22.660 --> 0:30:25.620

Kent C

And in that way you can get rid of a lot of verbiage out of that.

0:30:29.500 --> 0:30:29.780

Gean Na

OK.

0:30:29.160 --> 0:30:35.280

Kent C

And then just talk about, you know, material remove show should be taken or way or whatever.

0:30:37.410 --> 0:30:37.570

David Badgley

Yeah.

0:30:39.90 --> 0:30:39.800

David Badgley

Yeah.

0:30:39.910 --> 0:30:41.950

David Badgley

Let me play with it, yeah.

0:30:35.390 --> 0:30:45.600

Kent C

I just give an idea how have you guys wanna do the editorial on it, but I think it's just saying that, you know, you have some, some have vacuums and some don't.

0:30:45.610 --> 0:30:46.670

Kent C

That's about it.

0:30:55.950 --> 0:31:6.920

Kent C

I mean, honestly, to tell you the truth is as long as you have in there that you take any remove debris away, you probably don't even have to take a talk about the the the vacuum assist.

0:31:7.370 --> 0:31:14.430

Kent C

You just have to emphasize that the that the that the debris cleaned out shall be removed.

0:31:18.850 --> 0:31:19.50

Gean Na

OK.

0:31:20.920 --> 0:31:21.370

Gean Na

A date?

0:31:21.380 --> 0:31:24.10

Gean Na

I'm just gonna leave a, you know, again a little cookie trail here.

0:31:24.20 --> 0:31:24.860

Gean Na

Just to clarify this.

0:31:25.90 --> 0:31:25.760

David Badgley

Yeah.

0:31:25.810 --> 0:31:26.360

David Badgley

Yeah.

0:31:26.800 --> 0:31:28.450

David Badgley

Why don't you the things that we're doing?

0:31:28.460 --> 0:31:29.190

David Badgley

Won't you paint?

0:31:29.200 --> 0:31:32.720

David Badgley

Those are different color or highlight them as blue or something.

0:31:32.790 --> 0:31:33.870

David Badgley

Or did you do that or?

0:31:34.420 --> 0:31:35.960

Gean Na

I kind of did something like that, Dave.

0:31:36.680 --> 0:31:36.940

David Badgley

OK.

0:31:38.100 --> 0:31:38.670

David Badgley

OK.

0:31:39.10 --> 0:31:39.980

David Badgley

OK, no problem.

0:31:41.400 --> 0:31:43.290

David Badgley

OK, perfect. Yeah.

0:31:35.970 --> 0:31:44.520

Gean Na

I don't want to paint the entire document, it already is painted, but you'll see these comments here and I put your name to give you a trigger to get to this.

0:31:46.480 --> 0:31:46.800

Gean Na

You see that?

0:31:47.900 --> 0:31:49.350

Gean Na

So you'll see these little blurbs.

0:31:50.480 --> 0:31:51.0

David Badgley

OK.

0:31:52.90 --> 0:31:58.420

Gean Na

OK, moving down here folks, nothing changed at this point, uh.

0:32:0.710 --> 0:32:1.560

Gean Na

Porcupine tools.

0:32:3.280 --> 0:32:3.780

Gean Na

I love it.

0:32:4.560 --> 0:32:4.760

David Badgley

Yeah.

0:32:4.960 --> 0:32:9.60

Gean Na

Is is this the actual language used in standards, or is there something better than this?

0:32:8.980 --> 0:32:10.460

David Badgley

It's it's, it's a tool.

0:32:12.450 --> 0:32:12.690

Gean Na

OK.

0:32:11.830 --> 0:32:32.190

David Badgley

So it's, you know, and if we've got, you know, if we've got tar that's inside of the Courier metal pipes or steel pipes and it's, you know, the only way to get it out is you know with that something that we can scrape mechanically scrape on on larger diameter pipes and stuff.

0:32:34.580 --> 0:32:34.880

Gean Na

OK.

0:32:36.350 --> 0:32:37.100

Gean Na

Right here.

0:32:37.790 --> 0:32:40.10

Gean Na

I guess there's a Shelby and the question mark.

0:32:43.760 --> 0:32:44.680

David Badgley

Uh, steel.

0:32:43.800 --> 0:32:45.780

Gean Na

But hold on, this comment is down below but.

0:32:48.640 --> 0:32:50.490

Gean Na

Ohh Colin is this?

0:32:50.840 --> 0:32:55.110

Gean Na

I guess a question for for Dave in the comments.

0:33:1.270 --> 0:33:2.300

David Badgley

Yeah, maybe.

0:32:56.170 --> 0:33:3.90

Colin McCarter

Yeah, it's more of are we requiring the mandrel to be steel or for large diameter pipes, I mean.

0:33:2.370 --> 0:33:6.260

David Badgley

Maybe we can make it may instead of shall be.

0:33:9.380 --> 0:33:9.670

David Badgley

Oh, what?

0:33:7.430 --> 0:33:10.420

Colin McCarter

No, shall be wasn't there before it was just steel cleaning.

0:33:19.0 --> 0:33:19.180

David Badgley

Yeah.

0:33:10.430 --> 0:33:20.0

Colin McCarter

Mandrels used to clean large diameter pipelines that are going to be lined using sectional slipliners in active flow pipeline like I added in this shell B it like.

0:33:19.850 --> 0:33:20.290

David Badgley

OK.

0:33:20.10 --> 0:33:22.170

Colin McCarter

Is it like should we put that?

0:33:20.340 --> 0:33:23.840

David Badgley

OK, how about how about if we put mate, maybe.

0:33:26.120 --> 0:33:47.920

David Badgley

Instead of saying that we have to do that because if we're if we're the point where we're using, you know, bucket machines in there, yeah, we're gonna try and use whatever, you know, I've done lines that were pretty much filled with material that we pulled the chain through and then we tied a knot in the chain and then we pulled that through and then we tied 2 knots in the chain.

0:33:47.930 --> 0:33:50.600

David Badgley

I mean, you know, it's it's all mechanical stuff.

0:33:50.610 --> 0:33:56.720

David Badgley

Whatever we've got to do to get, get stuff out of there that we couldn't do with with the jet cleaner.

0:34:1.80 --> 0:34:1.320

Gean Na

Hmm.

0:34:6.900 --> 0:34:7.960

David Badgley

Yeah, yeah.

0:34:4.530 --> 0:34:11.320

Gean Na

I I Dave may not being an expert in this field, but it would an agency say no, you can't use a steel cleaner mandrel.

0:34:12.960 --> 0:34:13.400

David Badgley

No.

0:34:13.940 --> 0:34:20.300

David Badgley

Well, I mean, if there's plastic pipe, but there wouldn't be, there wouldn't be a reason that you would ever put it in to a plastic pipe anyway.

0:34:25.240 --> 0:34:25.780

David Badgley

Yeah.

0:34:25.860 --> 0:34:26.250

David Badgley

Yeah.

0:34:22.180 --> 0:34:27.430

Gean Na

So what if subcontractor does, and I'm just trying to challenge this sentence and trying to protect some?

0:34:26.300 --> 0:34:29.180

David Badgley

No, no, that's, yeah.

0:34:28.540 --> 0:34:31.280

Gean Na

You know, you know agency that doesn't have experience with it.

0:34:29.560 --> 0:34:42.380

David Badgley

What on all this stuff, we're going to line it afterwards anyway, but it's gonna be we have better, better tools now that we specify farther on down with the new high pressure water jet machines.

0:34:42.390 --> 0:34:52.740

David Badgley

That'll do like 43,000 PSI for cutting things out like concrete that's in the bottom of a pipeline or or.

0:34:52.810 --> 0:34:53.520

David Badgley

Yeah.

0:34:56.470 --> 0:34:56.990

Kent C

Gene.

0:34:53.610 --> 0:34:56.990

David Badgley

Or calcium deposits is what we do a lot of with that.

0:35:3.370 --> 0:35:3.560

David Badgley

What?

0:34:59.20 --> 0:35:18.950

Kent C

Umm ASTM F3618-22 is the standard plat the standard practice for cleaning of thermoplastic, solid wall sanitary sewer pipelines and all the explanations on what you can and cannot use including mechanical means or encompassed on that.

0:35:19.360 --> 0:35:28.860

Kent C

So you could you could just you could reference plastic pipe shall be cleaned in accordance with F3618-22 or you can you can take out the 22.

0:35:30.520 --> 0:35:31.860

Kent C

Just get rid of all that language.

0:35:35.990 --> 0:35:37.620

Gean Na

Well, I I leave that up to Dave.

0:35:36.690 --> 0:35:41.200

David Badgley

But but yeah, this is this is the pre cleaning of. Yeah.

0:35:41.210 --> 0:35:45.760

David Badgley

So we're dealing with steel pipes, concrete pipes.

0:35:45.980 --> 0:35:56.920

David Badgley

You know, that's if I'm doing, if we're doing water lines and we have tuberculation inside and so we're gonna use heavy mechanical cleaning on that and use all these kinds of tools.

0:36:3.310 --> 0:36:6.630

David Badgley

So the plastic just doesn't have most of the big problems that we have.

0:36:7.370 --> 0:36:7.620

David Badgley

Yeah.

0:36:7.630 --> 0:36:8.960

David Badgley

On some of the older pipes.

0:36:20.670 --> 0:36:22.870

David Badgley

Yeah, yeah, yeah.

0:36:18.540 --> 0:36:23.820

Gean Na

OK, for now Dave, I'm just going to leave this as maybe and if that's what you want.

0:36:24.640 --> 0:36:24.880

David Badgley

Yeah.

0:36:45.460 --> 0:36:47.810

Gean Na

And then calling you wanted to confirm this sentence here.

0:36:49.620 --> 0:36:50.360

Gean Na

Uh.

0:36:56.710 --> 0:36:57.600

Gean Na

Oh yeah, I remember this.

0:36:57.710 --> 0:36:58.570

Colin McCarter

Right, right.

0:36:57.610 --> 0:37:0.0

Gean Na

So Dave, let me read this out for you guys.

0:37:0.530 --> 0:37:0.660

David Badgley

Yeah.

0:37:0.10 --> 0:37:13.380

Gean Na

The outside diameter of the cleaning mandrel and final proofing mandrel shall be minimum of 1 inch greater than the odd of the liner pipe but and shall not exceed one inch without prior approval to the engineer.

0:37:18.820 --> 0:37:19.310

David Badgley

Right.

0:37:13.470 --> 0:37:20.50

Gean Na

So you're you're saying the mandrel needs to be bigger than the host hosting pipe doesn't.

0:37:19.320 --> 0:37:20.850

David Badgley

So this is cleaning.

0:37:20.940 --> 0:37:40.620

David Badgley

This is cleaning the host pipe that we're going to line, and so if I'm putting the a most of our liner pipes like hobus, vinylon, high density polyethylene wheel light spiral light, yeah, we want to have that cleaned at least one inch larger than the pipe that we're putting in.

0:37:57.480 --> 0:37:59.890

Gean Na

I I think this could be rewritten better.

0:38:0.530 --> 0:38:0.730

David Badgley

Yeah.

0:37:59.900 --> 0:38:2.750

Gean Na

I'm not struggling to read it, I get what you're saying in the first part.

0:38:2.760 --> 0:38:4.470

Gean Na

You're saying it bigger than the line of pipe.

0:38:5.330 --> 0:38:6.770

David Badgley

Yep, yeah.

0:38:4.720 --> 0:38:13.0

Gean Na

We get that and then it says, but and shall not exceed one inch without prior approval of the engineer.

0:38:13.650 --> 0:38:14.970

Gean Na

Ohh I see what your intent is.

0:38:15.200 --> 0:38:22.500

David Badgley

So you don't get the mandrel stuck in the pipe and all said we've got a bigger problem because we're doing this usually in flow.

0:38:24.20 --> 0:38:26.590

David Badgley

So it's it's, it's tricky stuff.

0:38:32.190 --> 0:38:32.460

Gean Na

Right.

0:38:32.470 --> 0:38:34.850

Gean Na

I think he just got to fix these few words here, Dave.

0:38:35.480 --> 0:38:36.780

David Badgley

OK. Yeah.

0:38:35.340 --> 0:38:37.680

Gean Na

Uh, I get where you're trying to say here.

0:38:45.210 --> 0:38:45.480

Kent C

Alright.

0:39:0.460 --> 0:39:1.750

Gean Na

OK, I'm going to leave it like that.

0:39:2.560 --> 0:39:2.760

David Badgley

Yeah.

0:39:11.640 --> 0:39:13.30

Gean Na

Yeah, I remember this dialogue.

0:39:18.670 --> 0:39:18.830

David Badgley

Yeah.

0:39:13.40 --> 0:39:27.410

Gean Na

So, uh, Dave, you have a a paragraph here with the colon going square stock corkscrews for clay and concrete, round stock corkscrews, concave root cutters and brushes for plastic pop, and placed lining properties.

0:39:27.680 --> 0:39:31.160

Gean Na

Colin was suggesting that a table may be a cleaner here.

0:39:32.340 --> 0:39:32.580

David Badgley

OK.

0:39:36.990 --> 0:39:40.360

Gean Na

OK, so this is yours, Dave.

0:39:40.370 --> 0:39:41.220

Gean Na

I'm just gonna put your name.

0:39:42.200 --> 0:39:42.460

David Badgley

Yep.

0:39:52.620 --> 0:39:54.570

Gean Na

And this is just struck out.

0:39:56.530 --> 0:39:58.730

Gean Na

You don't need all this unless you feel that we do.

0:39:58.480 --> 0:39:58.820

David Badgley

OK.

0:40:2.100 --> 0:40:2.390

David Badgley

Right.

0:40:2.320 --> 0:40:4.590

Gean Na

I mean, you may need to add that language down below.

0:40:6.280 --> 0:40:7.850

David Badgley

Yeah, I'm trying to. Yeah.

0:40:4.650 --> 0:40:9.10

Gean Na

Dave, I see what your intent was, but the the title of the section doesn't make sense.

0:40:10.140 --> 0:40:10.520

David Badgley

OK.

0:40:14.390 --> 0:40:14.590

Gean Na

Right.

0:40:14.890 --> 0:40:15.400

Gean Na

Yeah, I see.

0:40:15.410 --> 0:40:19.620

Gean Na

What Colin mentioned here add add this in the body, just not the heading or subheading.

0:40:19.280 --> 0:40:20.650

David Badgley

Oh, OK. OK.

0:40:20.740 --> 0:40:21.0

David Badgley

Yeah.

0:40:21.10 --> 0:40:21.190

David Badgley

Yeah.

0:40:21.200 --> 0:40:22.20

David Badgley

No, that makes sense.

0:40:32.360 --> 0:40:35.540

Gean Na

Dave Altaite, I'll let you take a look at this, but this is a question from Colin.

0:40:36.290 --> 0:40:36.470

David Badgley

Yeah.

0:40:45.810 --> 0:40:47.710

Gean Na

Do you want to discuss this now, Dave?

0:40:48.830 --> 0:40:49.400

David Badgley

So.

0:40:49.590 --> 0:40:51.460

David Badgley

So the part that you got highlighted there.

0:40:52.160 --> 0:40:52.410

Gean Na

Umm.

0:40:54.920 --> 0:40:57.170

David Badgley

Uh, the.

0:41:4.90 --> 0:41:4.310

David Badgley

Yeah.

0:41:1.920 --> 0:41:5.770

Gean Na

Let me let me try to help you give you a glimpse of what we were talking about.

0:41:5.820 --> 0:41:6.70

Gean Na

What?

0:41:6.350 --> 0:41:6.750

David Badgley

OK.

0:41:6.80 --> 0:41:12.390

Gean Na

When Colin and I were looking at this, we weren't sure if you were describing what to do or just describing this.

0:41:15.150 --> 0:41:15.300

David Badgley

Yeah.

0:41:13.710 --> 0:41:18.950

Gean Na

So the suggestion from Colin was comply with the AWA Manual.

0:41:22.540 --> 0:41:22.810

David Badgley

Yep.

0:41:25.400 --> 0:41:25.810

David Badgley

Yeah.

0:41:19.420 --> 0:41:27.880

Gean Na

That could be a lot cleaner than having all this information without any directive, so we're just, we're sure, what the intent of this was.

0:41:25.820 --> 0:41:31.270

David Badgley

Let me look at the let me look at the at the manual and make sure that it says all that same stuff.

0:41:31.280 --> 0:41:32.170

David Badgley

I think it does.

0:41:32.600 --> 0:41:34.620

David Badgley

And then we could just reference that manual.

0:41:37.460 --> 0:41:37.770

Gean Na

OK.

0:41:37.130 --> 0:41:41.160

David Badgley

And that way if it if it changes or there's updates to that, then we're still current.

0:41:45.220 --> 0:41:45.440

Gean Na

OK.

0:41:53.540 --> 0:41:56.150

Gean Na

I I definitely order before we get to the CCTV.

0:41:59.80 --> 0:42:00.600

Gean Na

This was all struck out.

0:42:20.620 --> 0:42:34.80

David Badgley

Uh, that the only reason for that being in there is it really describes situations that where you would use that that's more for water lines or like sewer force mains.

0:42:35.140 --> 0:42:38.350

David Badgley

Uh words, metal pipes that we're dealing with.

0:42:38.360 --> 0:42:40.600

David Badgley

We get the big tuberculation and stuff in there.

0:42:44.650 --> 0:42:47.670

Gean Na

So I get the impression that you wanna keep this language.

0:42:49.110 --> 0:42:49.880

David Badgley

I think I'll.

0:42:49.990 --> 0:42:53.990

David Badgley

Yeah, just make a note and let me, you know, let me look back at it again.

0:43:06.830 --> 0:43:07.180

Gean Na

Yeah.

0:43:7.760 --> 0:43:7.980

David Badgley

You know.

0:43:7.190 --> 0:43:11.920

Gean Na

You know, if if Greenbook had a commentary section, this would be perfect for that, which we don't.

0:43:10.190 --> 0:43:12.700

David Badgley

Yeah, right. Right.

0:43:12.190 --> 0:43:13.880

Gean Na

So maybe we need to have something like this?

0:43:17.970 --> 0:43:18.340

David Badgley

OK.

0:43:13.890 --> 0:43:19.480

Gean Na

I don't know, but yeah, Dave, I'm leaving this comment back in here for you to reconsider.

0:43:18.830 --> 0:43:20.700

David Badgley

Yeah, no problem. Perfect.

0:43:21.560 --> 0:43:24.500

Gean Na

Umm, looks like here are some editorial correction.

0:43:25.800 --> 0:43:30.260

Gean Na

Replacing is which shall be replacing, but yet with that.

0:43:32.410 --> 0:43:32.690

David Badgley

OK.

0:43:32.500 --> 0:43:36.10

Gean Na

Non corrosive to the pilot materials that will penetrate.

0:43:36.20 --> 0:43:37.10

Gean Na

Yeah, I would agree with that.

0:43:37.90 --> 0:43:37.540

David Badgley

Yeah.

0:43:37.630 --> 0:43:38.290

David Badgley

No, I like that.

0:43:40.360 --> 0:43:43.180

Gean Na

Umm, so this is a.

0:43:43.190 --> 0:43:45.480

Gean Na

This was a fun discussion that Colin and I had.

0:43:55.820 --> 0:43:56.10

David Badgley

Yeah.

0:43:48.380 --> 0:44:3.630

Gean Na

This was probably before iPhones and Gopros existed, and we had this language and in the construction world, and we're talking about the quality of the television monitor and minimum of 350 lines per inch.

0:44:11.610 --> 0:44:12.20

David Badgley

And.

0:44:19.480 --> 0:44:19.640

David Badgley

Yeah.

0:44:3.640 --> 0:44:23.530

Gean Na

And you know, obviously we had a few giggles here, but this is extremely outdated information and as you know, I feel like there's an opportunity to to improve this language here and probably other parts of greenbook that talks about CCTV inspection.

0:44:23.980 --> 0:44:31.690

Gean Na

Now, in light of the fact that we probably will not get this into the 2024 edition, I I think we take the time to get this right.

0:44:32.380 --> 0:44:46.940

Gean Na

And I I I would say Dave, is there a more up-to-date language of, you know, pipeline inspections that exist like other standards that have modernized the requirements of the video?

0:44:47.970 --> 0:44:48.230

David Badgley

Yep.

0:44:49.50 --> 0:44:50.280

Gean Na

Like you know, every every.

0:44:50.420 --> 0:44:51.450

David Badgley

So that was it.

0:44:51.500 --> 0:44:55.500

David Badgley

When we had that in there that I think that was some of the original wording.

0:44:55.510 --> 0:45:2.60

David Badgley

That was because we had industrial monitors in the TV trucks, not just a.

0:45:2.920 --> 0:45:3.480

David Badgley

Yeah.

0:45:3.550 --> 0:45:4.920

David Badgley

One that we could go to Best Buy.

0:45:4.930 --> 0:45:6.160

David Badgley

There was no Best Buy.

0:45:7.510 --> 0:45:7.720

Jacque Jaques

Yeah.

0:45:6.270 --> 0:45:17.20

David Badgley

We first started so it's, but these were like much more expensive monitors that you could much higher resolution than than what a regular TV was.

0:45:18.110 --> 0:45:18.500

Gean Na

Well, I.

0:45:17.350 --> 0:45:19.720

David Badgley

So let me check with queues and we'll find out.

0:45:21.20 --> 0:45:21.290

Gean Na

Yeah.

0:45:20.970 --> 0:45:21.470

Jacquie Jaques

Hey gene.

0:45:21.300 --> 0:45:22.110

Gean Na

No, I totally get it.

0:45:21.480 --> 0:45:23.650

Jacquie Jaques

I just did a I'm sorry, David.

0:45:23.660 --> 0:45:24.550

Jacquie Jaques

I mean to cut you off there.

0:45:24.560 --> 0:45:24.900

Jacquie Jaques

I'm so sorry.

0:45:24.860 --> 0:45:25.490

David Badgley

Yeah, no problem.

0:45:26.270 --> 0:45:32.330

Jacquie Jaques

I just did a quick check on and it looked like the minimum acceptable camera resolution now is up to 500 lines.

0:45:37.860 --> 0:45:38.50

Gean Na

Where?

0:45:38.60 --> 0:45:38.670

Gean Na

Where did you see that?

0:45:39.510 --> 0:45:40.70

Gean Na

What reference?

0:45:46.160 --> 0:45:46.380

Gean Na

Umm.

0:45:39.570 --> 0:46:1.570

Jacque Jaques

I'm just doing my iPhone here, just doing just what is the current sewer CCTV camera resolution and this came up on a site here go.ilvt.com, the industry's most advanced video solutions here but looks like minimum acceptable for this application.

0:46:1.580 --> 0:46:9.320

Jacque Jaques

It's 500 lines, so I'm sure that there's some additional information we can find from queues and other manufacturers to update that.

0:46:10.270 --> 0:46:14.180

David Badgley

Yeah, let me check and make sure that we're we're.

0:46:14.230 --> 0:46:18.740

David Badgley

Yeah, because here where we've had highlighted that's the resolution of the monitor.

0:46:24.560 --> 0:46:24.840

Gean Na

Umm.

0:46:27.870 --> 0:46:28.100

Gean Na

OK.

0:46:18.890 --> 0:46:28.750

David Badgley

Sometimes the cameras can do much higher resolution than than your monitor can, so let me let me double check and find out, OK.

0:46:32.350 --> 0:46:32.700

Gean Na

Uh.

0:46:35.740 --> 0:46:37.320

Gean Na

Ohh so I remember this too.

0:46:37.760 --> 0:46:39.350

Gean Na

Umm here.

0:46:39.360 --> 0:46:40.860

Gean Na

You talked about inspection.

0:46:43.490 --> 0:46:44.780

Gean Na

And what was it prior here?

0:46:44.790 --> 0:46:45.930

Gean Na

This is about the equipment.

0:47:0.790 --> 0:47:0.970

David Badgley

The.

0:46:58.180 --> 0:47:3.980

Gean Na

I think this was already corrected, but there was a triple C CCTV inspection.

0:47:6.520 --> 0:47:9.260

Gean Na

But David, you may be able to dismiss this right now.

0:47:10.60 --> 0:47:10.300

David Badgley

Yeah.

0:47:11.0 --> 0:47:12.610

Gean Na

I think this was already corrected.

0:47:13.380 --> 0:47:13.720

David Badgley

OK.

0:47:12.780 --> 0:47:18.160

Gean Na

I think it was two of the same sections were placed and then there was 3C's in one of them.

0:47:19.110 --> 0:47:19.590

David Badgley

Ohk OK.

0:47:28.790 --> 0:47:29.70

Gean Na

It.

0:47:28.270 --> 0:47:29.670

David Badgley

Maybe I was stuttering that day.

0:47:38.360 --> 0:47:39.690

Gean Na

Dave, I'll let you take a look at this.

0:47:40.730 --> 0:47:40.870

David Badgley

Yeah.

0:47:50.220 --> 0:47:51.350

David Badgley

So we're looking also.

0:48:6.590 --> 0:48:6.880

David Badgley

Yeah.

0:48:6.890 --> 0:48:10.800

David Badgley

So it gives them the chance of doing a unit price or.

0:48:12.670 --> 0:48:15.610

David Badgley

Or a yeah.

0:48:15.620 --> 0:48:17.300

David Badgley

You never know how long these are going to be.

0:48:18.950 --> 0:48:25.940

David Badgley

So I think that's what I was thinking about that for a point repair or or if you're digging and replacing.

0:48:25.950 --> 0:48:27.780

David Badgley

So it's that pair.

0:48:27.790 --> 0:48:35.310

David Badgley

The payment clause is for either, whether it's a dig and replace one or it's a spot repair trenchless spot repair.

0:48:40.160 --> 0:48:41.710

David Badgley

I think let's see.

0:48:57.80 --> 0:48:57.410

David Badgley

Yes.

0:48:57.420 --> 0:49:6.340

David Badgley

So if you're, I think the way that the digging contractors price it out as per linear foot or for a certain length, uh.

0:49:6.350 --> 0:49:9.470

David Badgley

And then when they dig down, then they may have to go more than that.

0:49:9.480 --> 0:49:25.80

David Badgley

So that's those are usually priced on a lineal foot price, I think where the spot repairs are more like gonna be, uh, each or lump sum for pipeline point repair or replacement.

0:49:26.630 --> 0:49:29.90

David Badgley

So it just kind of gives you, yeah.

0:49:29.100 --> 0:49:34.60

David Badgley

So it could be a lump sum or it could be a a a footage amount.

0:49:36.110 --> 0:49:41.710

David Badgley

I think it just you know that I I put those are the two ways that they're normally fun done.

0:49:43.520 --> 0:49:45.400

Colin McCarter

I'm just not comfortable with both.

0:49:46.700 --> 0:49:46.950

David Badgley

Yeah.

0:49:46.440 --> 0:49:49.910

Colin McCarter

I mean two different methods of measurement and payment within the same sentence.

0:49:50.980 --> 0:49:51.340

David Badgley

Right.

0:49:49.920 --> 0:49:57.740

Colin McCarter

Basically like if we just pick pick one to be standard and then if a particular agency wants to do one or the other, then they can switch it in their specials.

0:49:58.600 --> 0:49:59.820

David Badgley

Ohh so I've got it.

0:49:58.560 --> 0:50:0.160

Colin McCarter

Like whatever one is is easier.

0:50:1.50 --> 0:50:3.620

David Badgley

So I've got it or in there.

0:50:3.330 --> 0:50:4.510

Colin McCarter

Yeah, yeah.

0:50:4.570 --> 0:50:8.820

David Badgley

So the two different ones? Uh.

0:50:10.860 --> 0:50:11.520

David Badgley

So it can't be.

0:50:13.550 --> 0:50:18.420

David Badgley

I guess that can be per linear foot for let's see.

0:50:20.410 --> 0:50:22.890

David Badgley

Pipeline point repair or replacement?

0:50:22.900 --> 0:50:23.240

David Badgley

Yeah.

0:50:23.250 --> 0:50:33.0

David Badgley

See, you just don't know if you if you tell the contractor that it's gonna be a 6 foot spot repair and it goes longer than that, does it?

0:50:33.70 --> 0:50:34.900

David Badgley

Is it multiples of?

0:50:34.970 --> 0:50:38.440

David Badgley

You know, say he's got to go, like, two more feet to get to a joint.

0:50:38.710 --> 0:50:41.840

David Badgley

So he got it, has to dig it out that much more.

0:50:42.150 --> 0:51:6.300

David Badgley

So that point he'd be paid on the foot basis rather than then saying, OK, it's another whole yo if six feet is what the minimum is then does he get another six feet or does he get just two feet if he's already got the hole dug, if he makes it longer then I think you'd wanna go on on the.

0:51:8.70 --> 0:51:9.170

David Badgley

Lineal foot price.

0:51:19.30 --> 0:51:21.160

Gean Na

Dave, I'll let you chew on this a bit.

0:51:20.270 --> 0:51:21.170

David Badgley

Yeah, yeah, yeah.

0:51:23.260 --> 0:51:27.890

David Badgley

If I put as specified, yeah, OK yeah.

0:51:30.130 --> 0:51:30.370

David Badgley

Yeah.

0:51:34.700 --> 0:51:35.620

David Badgley

Modify it from that.

0:51:21.910 --> 0:51:36.220

Gean Na

Just to clarify, it's, you know, Colin doesn't feel comfortable putting both options and suggest that there there's one generic method in Green Book and then allowing the agencies to differ in their in their specials.

0:51:37.440 --> 0:51:37.870

David Badgley

OK.

0:51:36.390 --> 0:51:38.380

Gean Na

Yeah, but I'll let you chew on it.

0:51:38.320 --> 0:51:38.590

David Badgley

Yeah.

0:51:38.600 --> 0:51:40.830

David Badgley

Let me let me look at that for a while, yeah.

0:51:38.390 --> 0:51:40.880

Gean Na

Just wanted to make sure that you're clear that, OK.

0:51:41.730 --> 0:51:50.530

Colin McCarter

I mean, I think we've used it elsewhere to say that, you know, it shall be as shown in the bid and then not mention a unit price or lump sum at all.

0:51:51.170 --> 0:51:51.370

David Badgley

Yeah.

0:51:54.110 --> 0:51:57.740

Colin McCarter

I mean, but then we just take out the measurement portion above as well.

0:51:57.750 --> 0:52:2.170

Colin McCarter

I mean cause the measurement is talking about going up along the longitudinal axis between the pipes.

0:52:3.620 --> 0:52:4.0

David Badgley

Right.

0:52:3.460 --> 0:52:14.520

Colin McCarter

That wouldn't make sense for lump sum, so we can just say measured as shown in the bid and paid as shown in the bid, and it's and shall include all fittings and control water and all that good stuff.

0:52:14.760 --> 0:52:21.250

David Badgley

Yeah, which takes me back to our keep going on this and I'll talk about something else later.

0:52:21.880 --> 0:52:24.40

David Badgley

The payment thing I think I figured that out.

0:52:25.820 --> 0:52:28.730

Gean Na

OK, there's another comment here from Charles.

0:52:28.740 --> 0:52:32.0

Gean Na

Looks like he's trying to replace furnishing install with just provide.

0:52:35.180 --> 0:52:36.500

Gean Na

Do you agree with that, Dave?

0:52:37.960 --> 0:52:38.350

David Badgley

Uh.

0:52:39.480 --> 0:52:42.620

David Badgley

Say, let's see for shared stall.

0:52:43.920 --> 0:52:48.530

David Badgley

I think that Erik says that that's uh.

0:52:51.650 --> 0:52:58.20

David Badgley

The Erik always talks about that in the in the Green Book seminars that you got to be careful.

0:52:58.230 --> 0:53:9.0

David Badgley

Like if on street lighting, if you if the city has so special one they want and it's a long lead time and they order that ahead of time, then their furnishing.

0:53:9.390 --> 0:53:13.670

David Badgley

But if you want the contractor to do it, you have to stay furnished and install.

0:53:14.530 --> 0:53:17.70

David Badgley

And so that's kind of where I came from on that.

0:53:19.140 --> 0:53:25.630

David Badgley

That that's he usually spends a lot of time on that and examples of of why you would do that.

0:53:25.640 --> 0:53:37.70

David Badgley

We want the contractor to furnish and yell all the whatever tools and stuff that we need or whatever, you know, units of whether it's a spot pair.

0:53:37.130 --> 0:53:37.830

David Badgley

Which one?

0:53:37.840 --> 0:53:39.290

David Badgley

Or it's digging replacing.

0:53:39.500 --> 0:53:42.910

David Badgley

You want them furnishing that and installing that.

0:53:42.920 --> 0:53:45.240

David Badgley

You're not holding anybody up, waiting for stuff.

0:53:56.430 --> 0:53:57.60

David Badgley

Yeah.

0:53:53.100 --> 0:53:57.510

Gean Na

Dave, just when you get this document, just put your argument in here.

0:53:57.520 --> 0:53:57.700

Gean Na

Please.

0:53:57.150 --> 0:53:58.830

David Badgley

So I'll look at, yeah, yeah.

0:53:58.970 --> 0:54:0.900

Gean Na

Uh, but I don't wanna put that in there for you.

0:54:1.700 --> 0:54:1.900

David Badgley

Yeah.

0:54:1.830 --> 0:54:3.640

Gean Na

I I see the new ones and what you're saying.

0:54:24.750 --> 0:54:25.120

David Badgley

Yeah.

0:54:25.130 --> 0:54:34.620

David Badgley

So on this typically, if we're doing lining all the contractors carry 3 1/2 inch pumps and that does normal flow.

0:54:34.860 --> 0:54:47.860

David Badgley

If you start getting into 10 inch pumps and stuff, then that's a whole new ball game and that's probably should be a separate line item that lot of times bypassing is more, more expensive than the lining costs.

0:54:53.240 --> 0:55:4.610

David Badgley

And this just puts it into the where it's in the lump sum deal, which is kind of what we talked about in payments at the very end on 13 or whatever number this is last one.

0:55:13.400 --> 0:55:13.780

Colin McCarter

Right.

0:55:13.110 --> 0:55:19.190

Gean Na

Well, I, I mean, I'm reading Collins comments here and Colin, it looks like you're you're implying that?

0:55:23.140 --> 0:55:23.610

Gean Na

Regardless.

0:55:22.160 --> 0:55:33.120

Colin McCarter

I'm just thinking of, you know, a less sophisticated agency like they might not necessarily know what size pump is gonna be required and whether or not they're gonna need to have a bid item up front.

0:55:35.130 --> 0:55:36.990

Colin McCarter

You know, for a particular bypass.

0:55:35.810 --> 0:55:38.70

David Badgley

Yeah, well, yeah.

0:55:38.120 --> 0:55:43.830

David Badgley

Everybody carries 3 1/2 inch pumps on their trucks and that's pretty standard.

0:55:43.840 --> 0:55:59.390

David Badgley

Once you start getting to 4 inch and above, then that's especially kind of things and at certain point then you're going to go to uh, yeah, 80% of the lines are small lines from 6 to to 15 inch lines.

0:55:59.500 --> 0:56:15.10

David Badgley

So it it fits into to most of those lines, you know 10's and fifteens, you could have a lot of flow in, but you know, but we're covering yell up to you know 112 inch lines or something like that.

0:56:16.240 --> 0:56:26.80

David Badgley

So it's yeah, it was just it was trying to to make it that that's that's something that's normally included in everybody's bid.

0:56:26.90 --> 0:56:36.700

David Badgley

You know it's no no sense pulling that out as a separate line item, but if you've got a bigger bypass situation, then that should be a pulled out as a separate line item.

0:56:42.770 --> 0:56:45.360

Gean Na

So, Dave, you want to keep this sentence here?

0:56:48.130 --> 0:56:48.450

David Badgley

Yeah.

0:56:48.210 --> 0:56:53.720

Gean Na

As a special condition, anything less than this is inherent.

0:56:53.250 --> 0:56:54.450

David Badgley

Yeah, yeah.

0:56:57.20 --> 0:56:58.200

Gean Na

Colin, what are your thoughts?

0:57:7.900 --> 0:57:8.120

David Badgley

Yeah.

0:57:0.670 --> 0:57:10.880

Colin McCarter

I mean, yeah, I guess this, I guess if we're into a four inch or larger pump, we're into pipes that are greater than 15 inches for sewer line, then that's a large enough agency that they should know.

0:57:11.420 --> 0:57:16.70

Colin McCarter

You know what sort of bypass requirements they're going to have to account for in their bid then?

0:57:17.590 --> 0:57:19.50

Colin McCarter

I guess that's fine.

0:57:23.640 --> 0:57:24.140

Gean Na

Umm.

0:57:34.220 --> 0:57:35.500

David Badgley

People don't always have their.

0:57:37.210 --> 0:57:39.10

David Badgley

They're flow metering.

0:57:39.20 --> 0:57:39.420

David Badgley

Done.

0:57:39.790 --> 0:57:40.160

David Badgley

Yeah.

0:57:40.170 --> 0:57:47.720

David Badgley

And so you don't if you don't know, but that's, you know, that's the kind of the deal is, you know, bypass and should be in there.

0:57:48.190 --> 0:57:55.90

David Badgley

But if you've got, if you're doing larger diameter bypassing 4 inch and larger than that should be a separate line item.

0:57:59.750 --> 0:58:0.110

Gean Na

OK.

0:58:0.150 --> 0:58:4.430

Gean Na

So Dave, I just put a comment here that I unstriped this or unstruck this.

0:58:4.170 --> 0:58:5.700

David Badgley

OK, perfect.

0:58:5.770 --> 0:58:6.970

David Badgley

Yeah, so that works.

0:58:9.640 --> 0:58:9.860

David Badgley

Yeah.

0:58:4.440 --> 0:58:15.300

Gean Na

However, you say it, but to just take a look and if that's the best way to write this and I and I get your intent to and, but I'll let you take another look at it.

0:58:19.60 --> 0:58:20.500

Gean Na

There's a comment here from Colin.

0:58:32.640 --> 0:58:35.560

Colin McCarter

You know, just asking who's requirements were conforming too.

0:58:39.700 --> 0:58:40.550

David Badgley

Ohh yeah.

0:58:38.900 --> 0:58:40.600

Colin McCarter

For this general rehab materials.

0:58:40.620 --> 0:58:40.890

David Badgley

Yeah.

0:58:40.900 --> 0:58:44.300

David Badgley

What it tells the two point 11-2.

0:58:47.880 --> 0:58:49.680

David Badgley

So that that they're green book.

0:58:49.860 --> 0:58:50.230

David Badgley

Yeah.

0:58:54.190 --> 0:58:55.630

Colin McCarter

Is a separate statement, though.

0:58:55.640 --> 0:58:55.960

Colin McCarter

Yeah.

0:58:50.240 --> 0:58:56.370

David Badgley

Quality materials or past that the table in there? Yeah.

0:58:55.970 --> 0:59:3.30

Colin McCarter

So shall be tested in accordance with table 211-2 and conform to the requirements for the specified material.

0:59:5.290 --> 0:59:6.800

David Badgley

Ohh at other.

0:59:6.810 --> 0:59:7.180

David Badgley

What?

0:59:7.250 --> 0:59:7.580

David Badgley

Yeah.

0:59:6.270 --> 0:59:9.470

Colin McCarter

So it's like it's implying it's a separate thing that they've got to check.

0:59:7.590 --> 0:59:9.870

David Badgley

So if somebody yeah.

0:59:12.700 --> 0:59:12.890

Gean Na

And.

0:59:10.80 --> 0:59:18.540

David Badgley

So if somebody wants to do something different than the Green book materials than than it would be.

0:59:18.550 --> 0:59:18.800

David Badgley

Why?

0:59:18.810 --> 0:59:20.570

David Badgley

Whatever they put in their special provisions.

0:59:33.700 --> 0:59:34.130

David Badgley

Right.

0:59:34.740 --> 0:59:36.430

David Badgley

Ohh yeah, unless otherwise defined.

0:59:36.440 --> 0:59:36.580

David Badgley

Yeah.

0:59:38.460 --> 0:59:38.850

David Badgley

Yeah.

0:59:38.860 --> 0:59:39.700

David Badgley

No, I like that.

0:59:39.860 --> 0:59:40.320

David Badgley

I like that.

0:59:22.80 --> 0:59:40.580

Gean Na

Is that Dave does, does this take care of this, this striking out conform to the requirements of the specified materials cause this is implied because you set to conform to table 211 two and then unless otherwise specified, which kind of covers if something differs, OK.

0:59:42.720 --> 0:59:42.940

Gean Na

OK.

0:59:44.90 --> 0:59:51.450

David Badgley

And I think that's the wording that LA County Sand uses on their uh there.

0:59:53.470 --> 0:59:54.470

David Badgley

Specifications.

0:59:56.430 --> 0:59:57.820

David Badgley

For the the payment.

0:59:58.230 --> 0:59:58.750

David Badgley

Clause.

1:0:0.160 --> 1:0:2.30

David Badgley

I wrote that down somewhere this morning.

1:0:2.430 --> 1:0:3.830

David Badgley

I don't remember where I did that.

1:0:9.730 --> 1:0:11.240

David Badgley

But I thought that was pretty good boarding.

1:0:28.910 --> 1:0:29.230

Gean Na

OK.

1:0:29.240 --> 1:0:30.680

Gean Na

I'm just going to track this out for now.

1:0:31.330 --> 1:0:31.570

David Badgley

Yeah.

1:0:31.580 --> 1:0:32.190

David Badgley

No, that's fine.

1:0:30.690 --> 1:0:33.10

Gean Na

Dave uh, just take on that a look, see.

1:0:33.420 --> 1:0:33.730

David Badgley

Yeah.

1:0:33.740 --> 1:0:34.780

David Badgley

No, I I like that.

1:0:36.460 --> 1:0:43.500

Gean Na

OK, so call it, I believe you stopped here right before you got into Section 7 or or really deep into 7.

1:0:41.430 --> 1:0:44.950

Colin McCarter

Yeah, that's as far as I made it. Yep.

1:0:45.870 --> 1:0:50.730

Gean Na

OK, so I I'm sure you'll take another pass at it later.

1:0:50.900 --> 1:0:57.890

Gean Na

I'm also urging agencies that use Section 500 to to really focus on Section 7.

1:0:58.920 --> 1:0:59.390

David Badgley

You know that.

1:0:57.900 --> 1:1:3.790

Gean Na

This is the, you know, the invitations of the book and you know, showing a different technology.

1:1:3.800 --> 1:1:8.240

Gean Na

So Dave will will leave this with you now and.

1:1:6.330 --> 1:1:9.420

David Badgley

But yeah, Colin calling.

1:1:9.430 --> 1:1:24.630

David Badgley

If you guys can, in editorial, can look through the two cured in place sections for the numbering, the way I did it there before, I do that on all 14 sections if if that's OK, that numbering system that I did, so when I went to.

1:1:24.710 --> 1:1:27.60

Colin McCarter

Just like the number of decimal places you're talking about.

1:1:27.0 --> 1:1:27.310

David Badgley

Yeah.

1:1:27.690 --> 1:1:27.990

David Badgley

No.

1:1:28.0 --> 1:1:32.450

David Badgley

So the the where we've got to section that we're referring to.

1:1:32.460 --> 1:1:37.670

David Badgley

Once I got to, we could only go like 4 places, I think.

1:1:38.650 --> 1:1:42.950

David Badgley

And so when we get to installation, there's a lot of steps in that.

1:1:43.960 --> 1:1:44.220

Colin McCarter

Umm.

1:1:43.880 --> 1:1:51.60

David Badgley

And then I marked those like ABCDEFG and so that gave me to where I didn't.

1:1:51.70 --> 1:1:57.70

David Badgley

I didn't exceed our four decimal places in there, but I changed it to uh, yeah.

1:1:57.80 --> 1:1:57.680

David Badgley

So right there.

1:1:59.640 --> 1:2:1.100

Colin McCarter

That looks correct, yeah.

1:2:0.0 --> 1:2:6.960

David Badgley

So if that if that looks OK with you guys, then I can apply that to the rest of them for you.

1:2:7.660 --> 1:2:11.890

David Badgley

But I'd like to know before I go ahead and and do that, because that's a huge task.

1:2:14.270 --> 1:2:15.520

David Badgley

So that's I went.

1:2:15.670 --> 1:2:28.980

David Badgley

I went nuts with trying to figure out the the numbering on everything, but this seemed to work and fit into our deal that yeah, because I kept I was going way the hell out, you know, on on numbers behind there.

1:2:28.990 --> 1:2:36.800

David Badgley

But then once I once I decided to go to the ABCD thing then that seemed to work pretty good.

1:2:36.810 --> 1:2:40.90

David Badgley

And and because I've got a lot more things in the installation.

1:2:41.400 --> 1:2:41.830

Colin McCarter

Yeah.

1:2:41.880 --> 1:2:43.830

Colin McCarter

Yeah, I I think that's correct.

1:2:49.30 --> 1:2:49.280

David Badgley

Yeah.

1:2:43.840 --> 1:2:49.820

Colin McCarter

The way it is there, I think you can go to three decimal places beyond the subsection and then you have to go to bulleted.

1:2:56.560 --> 1:2:56.860

David Badgley

Yep.

1:2:51.320 --> 1:2:58.460

Colin McCarter

A bulleted list with ABC and then down to like the little lower case, Roman numeral things for a subcategory below that.

1:2:58.470 --> 1:2:59.650

Colin McCarter

But I think what you got there is good.

1:3:0.520 --> 1:3:1.540

Colin McCarter

I will double check though.

1:3:0.700 --> 1:3:1.880

David Badgley

OK, good.

1:3:3.820 --> 1:3:11.170

David Badgley

So I think I talked to Keegan about that early on when I was, when I couldn't, I was just lost in the swamp.

1:3:11.280 --> 1:3:12.140

David Badgley

And so.

1:3:13.850 --> 1:3:15.480

David Badgley

But I wanna make sure that that's.

1:3:15.950 --> 1:3:20.380

David Badgley

Yeah, I'll try and help you guys out on the rest of them and put that in that same format.

1:3:21.880 --> 1:3:22.340

Colin McCarter

Sounds good.

1:3:51.210 --> 1:3:58.700

Colin McCarter

If that's all we had for change, 284 UM, I've gotta run real quick, so I'll talk to you guys soon.

1:4:2.90 --> 1:4:2.500

David Badgley

OK.

1:4:4.30 --> 1:4:4.590

David Badgley

Thanks Jean.

1:4:5.500 --> 1:4:6.120

Colin McCarter

I take Carol.

1:4:6.910 --> 1:4:7.300

David Badgley

Hey, bye.

1:4:22.70 --> 1:4:24.350

Gean Na

Could you guys hear me think I may have muted myself?

1:4:26.870 --> 1:4:34.940

Gean Na

So moving on to change 329 uh, this is the change proposed by Ken Carlson from the Clay Pipe Institute.

1:4:35.430 --> 1:4:43.730

Gean Na

There's been and discussions and correspondence between Jeff uh, who was here at our meeting last month along with Dickie Fernandez.

1:4:44.330 --> 1:4:50.430

Gean Na

And I also have a guest from uh Turney here today to help us with this discussion.

1:4:51.160 --> 1:4:57.40

Gean Na

Jeff, I wanna give you the floor here to share your findings and whatnot. Umm.

1:4:57.190 --> 1:4:57.430

Jeff Boschert

OK.

1:4:59.100 --> 1:4:59.830

Jeff Boschert

Hey, can you hear me OK?

1:4:59.470 --> 1:5:1.660

Gean Na

Yeah, loud and clear.

1:5:2.440 --> 1:5:3.90

Jeff Boschert

OK.

1:5:3.400 --> 1:5:4.250

Jeff Boschert

Hey, do you want me to?

1:5:5.990 --> 1:5:11.400

Jeff Boschert

Dickie and and Gene I shared with you what I put together ohh to.

1:5:11.770 --> 1:5:15.620

Jeff Boschert

I'm prepared to present that and I think I could probably do it in five or six minutes.

1:5:16.570 --> 1:5:19.370

Jeff Boschert

If you want, I'll do that and then we can talk about it.

1:5:21.280 --> 1:5:21.640

Gean Na

Yeah.

1:5:21.680 --> 1:5:23.570

Gean Na

I just allowed you to be the presenter, Jeff.

1:5:24.100 --> 1:5:24.260

Jeff Boschert

OK.

1:5:23.580 --> 1:5:26.780

Gean Na

So floors, yours just don't take 30 minutes, please.

1:5:27.0 --> 1:5:28.210

Jeff Boschert

I'm not, believe me.

1:5:29.70 --> 1:5:29.230

Gean Na

Yeah.

1:5:28.220 --> 1:5:30.740

Jeff Boschert

No, that's not what I want to do.

1:5:34.20 --> 1:5:34.990

Jeff Boschert

Can you see my screen?

1:5:36.580 --> 1:5:36.710

Gean Na

Yes.

1:5:37.410 --> 1:5:43.650

Jeff Boschert

OK, alright, so I put this together and again five or five or six minutes I think is what I need.

1:5:43.660 --> 1:5:48.680

Jeff Boschert

But I put this together to hopefully clarify any confusion I feel.

1:5:48.690 --> 1:5:53.210

Jeff Boschert

I still feel like there's a lot of confusion about these numbers and what are we talking about?

1:5:53.410 --> 1:5:57.0

Jeff Boschert

So ohm this has been going on for a long time.

1:5:57.630 --> 1:6:2.300

Jeff Boschert

So let's let's look at the at the standard we're talking about, ASTM D3034.

1:6:2.310 --> 1:6:10.20

Jeff Boschert

So looking at this standard, let's go back 45 years and this this standard came out in 72.

1:6:10.30 --> 1:6:20.0

Jeff Boschert

So this was this was this is the oldest one I could find, but so this is 6 years into the standard and you see my laser pointer.

1:6:22.930 --> 1:6:24.70

Jeff Boschert

Can you guys see my laser pointer?

1:6:24.760 --> 1:6:25.0

Gean Na

Yeah.

1:6:24.970 --> 1:6:25.100

Asim Syed

Yes.

1:6:25.560 --> 1:6:27.810

Jeff Boschert

OK, so let's just look at one side.

1:6:27.820 --> 1:6:29.930

Jeff Boschert

So this is table one within the standard.

1:6:29.940 --> 1:6:47.30

Jeff Boschert

Again, this is 1978, so 8 inch pipe is 8.4 and then for SDR 35 this is the four SDR 26 was even dreamed about, but 8.4 was the was the average outside diameter and then the minimum wall was .240.

1:6:47.40 --> 1:6:48.770

Jeff Boschert

There's just think about those numbers.

1:6:49.140 --> 1:6:51.730

Jeff Boschert

So then let's Fast forward to 81.

1:6:51.820 --> 1:6:53.340

Jeff Boschert

Here's the same table again.

1:6:53.350 --> 1:7:2.740

Jeff Boschert

This table's within the standard 8 inch pipe hadn't changed it's 8.4 and then the minimum wall for SDR 35 is .240.

1:7:2.870 --> 1:7:14.850

Jeff Boschert

Now 81 was when you know this concept, uh, uh known as base ID and then published 7 1/2% deflection numbers was introduced 81 was the first year.

1:7:14.860 --> 1:7:19.150

Jeff Boschert

So this whole thing we're talking about started life way back in 1981.

1:7:19.160 --> 1:7:20.870

Jeff Boschert

So that's when this was first published.

1:7:21.100 --> 1:7:28.100

Jeff Boschert

Now this is within the appendix and this table is within the standard, so let's Fast forward to this year.

1:7:28.110 --> 1:7:33.840

Jeff Boschert

This is the current standard for D3034, so you know this is 45 years later.

1:7:34.250 --> 1:7:37.940

Jeff Boschert

That same table this is that same table we just looked at.

1:7:38.190 --> 1:7:39.280

Jeff Boschert

Let's look at the same thing.

1:7:39.290 --> 1:7:43.800

Jeff Boschert

8 inch pipe is 8.4 average OD look at DR-35.

1:7:43.810 --> 1:7:46.520

Jeff Boschert

The minimum wall is .240.

1:7:46.590 --> 1:7:47.520

Jeff Boschert

You know that number.

1:7:47.530 --> 1:7:48.160

Jeff Boschert

It's amazing.

1:7:48.170 --> 1:7:53.610

Jeff Boschert

It hasn't changed in has since that oldest one we looked at from 78 and then the appendix.

1:7:54.780 --> 1:7:55.990

Jeff Boschert

This is the appendix.

1:7:56.0 --> 1:7:59.870

Jeff Boschert

Again, this is 2023, so 8 inch pipe.

1:7:59.960 --> 1:8:2.900

Jeff Boschert

You know this is SDR 35 average.

1:8:2.910 --> 1:8:7.690

Jeff Boschert

They have an average ID, they have a base ID and they have a seven half deflection mandrel number.

1:8:8.160 --> 1:8:13.730

Jeff Boschert

Ohh, so looking at the Green Book, this is the oldest one I could find.

1:8:14.40 --> 1:8:19.950

Jeff Boschert

This was from 1988 and back in 88, or probably maybe before.

1:8:20.720 --> 1:8:22.720

Jeff Boschert

You know, they had a they had a paragraph in here.

1:8:23.590 --> 1:8:35.900

Jeff Boschert

It says the maximum average ID shall be equal to the average OD per per applicable standard minus 2 minimum wall thicknesses and then manufacture and other talent shows shall not be considered.

1:8:36.190 --> 1:8:46.880

Jeff Boschert

So then if you go to the mandrel table, this is SDR 35, eight inch pipe is 7.524 is the minimum mandrel size.

1:8:47.170 --> 1:8:54.170

Jeff Boschert

15 inch pipe is 13849 so you know the way that was original numbers came from.

1:8:54.180 --> 1:8:56.430

Jeff Boschert

Again, this was 88 or maybe before.

1:8:56.840 --> 1:9:0.0

Jeff Boschert

After 30 years, you know, here's the 8.4.

1:9:0.10 --> 1:9:8.590

Jeff Boschert

We looked at minus 2 minimum wall thicknesses, average ID 7920, you know 8 inch SDR, 35 pipe per.

1:9:8.600 --> 1:9:12.890

Jeff Boschert

The Green Book is 5%, so here's the 7.524 number.

1:9:14.60 --> 1:9:15.490

Jeff Boschert

You know, this is the.

1:9:15.580 --> 1:9:26.250

Jeff Boschert

This is what was spelled out in the Green Book and applicable for over 30 years and then 15 inch pipe, you know, is A is a course of 4% as you guys realize.

1:9:26.480 --> 1:9:33.730

Jeff Boschert

But the same concept average OD minus 2 minimum walls multiplied by 96 percent 13849.

1:9:33.940 --> 1:9:35.290

Jeff Boschert

You know, those are the numbers.

1:9:35.520 --> 1:9:36.740

Jeff Boschert

That's where the numbers come from.

1:9:36.750 --> 1:9:44.460

Jeff Boschert

So the numbers in the green Book that were applicable forever came from table one within the physical standard of D 3034.

1:9:45.200 --> 1:9:53.210

Jeff Boschert

So that was the case from at least 88 or maybe before 80 is the last one I have all the way up to the 2015 revision.

1:9:53.360 --> 1:9:55.750

Jeff Boschert

And here's that same paragraph right here.

1:9:55.840 --> 1:9:59.680

Jeff Boschert

You know, it spells out how to compute the mandrel size.

1:10:1.660 --> 1:10:3.350

Jeff Boschert

And then here's 2012.

1:10:3.620 --> 1:10:8.470

Jeff Boschert

You know the numbers haven't changed, so here's 30348 inch pipe.

1:10:8.480 --> 1:10:12.950

Jeff Boschert

Here's the 7.52415 inch pipe 13849.

1:10:13.120 --> 1:10:21.750

Jeff Boschert

So that's where they came from up until the big changes that all happened in 2015 and 2015, this paragraph was struck.

1:10:21.990 --> 1:10:26.610

Jeff Boschert

And then all these numbers changed to match that base ID.

1:10:26.620 --> 1:10:27.670

Jeff Boschert

It wasn't an error.

1:10:27.780 --> 1:10:28.180

Jeff Boschert

It was.

1:10:28.460 --> 1:10:37.460

Jeff Boschert

It was purposely changed to match the base ID so you know we talked about this and I guess I didn't explain it in detail.

1:10:37.470 --> 1:10:46.220

Jeff Boschert

Like I just did last month and the I guess the argument was well, hey, you know the mandrel companies, they don't make mandrels those sizes.

1:10:46.470 --> 1:10:48.580

Jeff Boschert

And you know, I actually we have.

1:10:48.590 --> 1:10:52.600

Jeff Boschert

We have a scene from churn here today, but I and I talked to him.

1:10:52.670 --> 1:11:0.480

Jeff Boschert

I talked to a guy from plug IT products and I talked to her go and those were the three big mandrel manufacturers in the states.

1:11:1.70 --> 1:11:2.430

Jeff Boschert

And they all told me the same thing.

1:11:2.930 --> 1:11:8.170

Jeff Boschert

They told me that that that some places use the base ID size of the mandrel.

1:11:8.380 --> 1:11:10.190

Jeff Boschert

Some places use the average ID.

1:11:10.200 --> 1:11:13.930

Jeff Boschert

Some places use the average OD minus 2 minimum wall thicknesses.

1:11:14.20 --> 1:11:26.150

Jeff Boschert

It's just depends on the jurisdiction and I did some quick Internet search and the Arizona Mag, San Antonio water system stayed up Public Utilities, Kansas City water, American Water, Houston, etcetera.

1:11:26.500 --> 1:11:36.910

Jeff Boschert

They don't use this base ID number, they use the average OD minus 2 minimum wall thicknesses and the mandrel manufacturers make them to whatever the owner wants.

1:11:38.300 --> 1:11:39.970

Jeff Boschert

You know, why does it matter?

1:11:40.40 --> 1:11:50.870

Jeff Boschert

You know, if you measure a pipe, measure the axle, measure the Y, compute the average, you know that average is very close to average OD minus 2 minimum wall thicknesses.

1:11:51.120 --> 1:11:52.10

Jeff Boschert

But you know, why?

1:11:52.20 --> 1:11:56.310

Jeff Boschert

Does it really matter and why are these places spelled out against using the base ID?

1:11:56.640 --> 1:11:57.200

Jeff Boschert

Because.

1:11:57.690 --> 1:11:58.170

Jeff Boschert

Umm.

1:11:58.680 --> 1:11:59.580

Jeff Boschert

Because they wanna.

1:11:59.590 --> 1:12:5.80

Jeff Boschert

They want an accurate read on the shape of that pipe, whether it's 30 days or whether it's one year.

1:12:5.650 --> 1:12:18.250

Jeff Boschert

You know, as an owner, if you think you're checking for a 5% mandrel, 5% deflection on an 8 inch pipe, you know if you use that base ID, you're checking for about 8.1% of the actual pipe size.

1:12:18.260 --> 1:12:18.930

Jeff Boschert

That's what's allowed.

1:12:20.570 --> 1:12:26.220

Jeff Boschert

You know our or 15, we looked at the, we looked at the 8 inch number and we looked at the 15 inch number.

1:12:26.230 --> 1:12:31.540

Jeff Boschert

But you know, per the Green Book, a 4% deflection manner for 15 inch or 15 inch pipe.

1:12:31.630 --> 1:12:34.220

Jeff Boschert

If you think you're pulling a 4%, use the base ID.

1:12:34.230 --> 1:12:35.880

Jeff Boschert

What's in the Green Book right now?

1:12:35.950 --> 1:12:48.960

Jeff Boschert

You're checking you're allowing a 7.5% deflected pipe almost double the allowance, so you know there was some comments last month about, hey, you guys were spending a whole lot of time talking about this and you're splitting hairs.

1:12:48.970 --> 1:12:54.0

Jeff Boschert

But I mean, these numbers are they're they're massive and it's a whole lot more than splitting hairs.

1:12:54.370 --> 1:12:56.230

Jeff Boschert

So that's what I got.

1:13:2.230 --> 1:13:2.610

Gean Na

Thanks Jeff.

1:13:3.240 --> 1:13:3.580

Jeff Boschert

You bet.

1:13:4.230 --> 1:13:6.240

Jeff Boschert

I don't know what the time was, but I think it was quick.

1:13:8.440 --> 1:13:9.130

Gean Na

That's good.

1:13:10.40 --> 1:13:10.190

Gean Na

Yeah.

1:13:10.200 --> 1:13:16.340

Gean Na

I appreciate you not giving a transportation for an hour of any questions or comments to Jeff.

1:13:21.230 --> 1:13:34.960

Asim Syed

I think the one comment I can have from a journey perspective is as Jeff mentioned, we are doing what the market needs are whenever customer asks for something we are making to those requirements.

1:13:35.670 --> 1:13:43.340

Asim Syed

But in general, our standard products are based on base ID in our catalog.

1:13:43.390 --> 1:13:47.940

Asim Syed

Whatever you see is based on the based ID, not on the average ID.

1:13:48.690 --> 1:13:51.200

Asim Syed

Again, that comes from last few decades.

1:13:51.210 --> 1:13:54.660

Asim Syed

Uh, I I can recommend changes.

1:13:54.670 --> 1:14:0.80

Asim Syed

However, a product manager has to make those changes, which means it should be driven by the sales.

1:14:0.900 --> 1:14:8.870

Asim Syed

So there has to be some efforts from our end if you want to make changes instead of using base ID to use an average ID.

1:14:9.900 --> 1:14:17.580

Asim Syed

Ohh we are here to do the right thing and but at the same time we want to support the market needs and customer.

1:14:18.440 --> 1:14:20.690

Asim Syed

I think the best thing would be is me.

1:14:20.700 --> 1:14:26.290

Asim Syed

I know this is also outside of this discussion scope, but ASTM probably needs to eliminate the table.

1:14:26.860 --> 1:14:31.470

Asim Syed

The one in the appendix is because in append is 11.1.

1:14:31.480 --> 1:14:37.170

Asim Syed

It clearly says what the deflection mandal should be made of.

1:14:37.180 --> 1:14:47.440

Asim Syed

Using a 7 1/2% deflection example so but that's all I have, but if you have any questions for me, I'll be more than happy to answer.

1:14:50.930 --> 1:14:53.540

Gean Na

Uh, thanks, I said. Rafi.

1:14:53.550 --> 1:15:3.440

Gean Na

I know you're here with us today and I know this was a an interesting topic for you and it can be kind of get you to weigh in on this conversation.

1:15:6.400 --> 1:15:6.920

Raffie Yeremian

Yeah.

1:15:6.980 --> 1:15:9.250

Raffie Yeremian

Thanks, Gene and Jeff, thanks for the info.

1:15:9.260 --> 1:15:11.520

Raffie Yeremian

It's it's a good presentation look.

1:15:11.700 --> 1:15:12.0

Raffie Yeremian

Com.

1:15:13.470 --> 1:15:22.440

Raffie Yeremian

So I keep going back to the ASTM because where are you know, the contractor is one piece of the overall process.

1:15:22.450 --> 1:15:31.800

Raffie Yeremian

You know you have the manufacturer, you have the agency, who's buying the product, and then, you know, you got your life cycle cost, which I'm sure the agencies here are concerned about.

1:15:31.810 --> 1:15:34.80

Raffie Yeremian

And that's where the deflection conversation comes in.

1:15:34.690 --> 1:15:38.320

Raffie Yeremian

My problem is where where does when we start changing these standards?

1:15:38.630 --> 1:15:39.410

Raffie Yeremian

What does it do?

1:15:39.420 --> 1:15:41.70

Raffie Yeremian

What are the downstream effects? Right?

1:15:41.510 --> 1:15:45.680

Raffie Yeremian

And seems to just said these things are basically off the shelf.

1:15:45.690 --> 1:15:48.240

Raffie Yeremian

You're getting these things based on the base ID diameter.

1:15:49.560 --> 1:15:51.190

Raffie Yeremian

The standards are built around that.

1:15:51.280 --> 1:16:7.570

Raffie Yeremian

The manufacturers are building so when they when they create a pipe that has and we have people from the pipe manufacturers here when when they create a pipe that's gonna withstand the 5% deflection, you know it's material properties are built around that, right.

1:16:7.580 --> 1:16:14.470

Raffie Yeremian

So as a contractor, I don't make the pipe and and you know I can't control that portion.

1:16:14.480 --> 1:16:18.950

Raffie Yeremian

But I do know that if they stand behind them, they stamp ASTM D3034 on it.

1:16:19.280 --> 1:16:49.990

Raffie Yeremian

I can confidently install it per per the spec, and know that I it's gonna pass that my my issue here is if we start changing what we're measuring off of and we have to create a whole separate standard for people who use the Green Book one, we're gonna lose buy in and and we're on a big push to gain more buy in on

the Green Book 2 we're gonna create a lot of confusion, particularly in the private market where a lot of specifying engineers use the green book as a reference.

1:16:50.400 --> 1:16:59.640

Raffie Yeremian

And you know, we go out there now and and we need to install a product to to, uh, specification that the manufacturer doesn't even support.

1:16:59.990 --> 1:17:22.760

Raffie Yeremian

And then we have to get letters from the manufacturer saying that that, that, that put the ASTM, they go by this standard by the base ID and this is a change and yadda yadda it's gonna create a lot of confusion and that burden is gonna fall clearly on the shoulders of the contracting industry because the manufacturing industry is going to stick to the ASTM and the specifying agency is going to stick to their specification.

1:17:22.850 --> 1:17:28.530

Raffie Yeremian

So the burden falls clearly on my Members to figure out how to balance this out.

1:17:28.780 --> 1:17:35.730

Raffie Yeremian

And and there's no, you know, it just creates a lot of drama and paperwork for our people in the field to try to get something done.

1:17:36.240 --> 1:17:47.290

Raffie Yeremian

And we we we install all different kinds of pipes here at Valley, you know for years, uh, you know, we saw a lot of clay, concrete, plastic, all different agencies.

1:17:47.640 --> 1:17:49.540

Raffie Yeremian

And I'm not saying one is better than the other.

1:17:49.550 --> 1:17:54.430

Raffie Yeremian

I you know, I've probably installed already our company installs probably more clay pipe than anybody in in so Cal.

1:17:56.610 --> 1:18:16.660

Raffie Yeremian

My my issue is simply if we deviate from a from a national standard and create something that that that is outside the norms of the manufacturing tolerances, we create a lose lose situation for contractors and we create a lot of friction between us and our agencies and our owners who are specifying us and that's why I'm just trying to avoid.

1:18:16.670 --> 1:18:19.540

Raffie Yeremian

I'm agnostic when it comes to pipe material.

1:18:19.650 --> 1:18:27.990

Raffie Yeremian

I simply want to stay within industry standards so that we can, you know, not create downstream issues for people who are installing these things.

1:18:34.300 --> 1:18:34.510

Giljum, Mark

Hey.

1:18:34.550 --> 1:18:35.150

Giljum, Mark

Hey, Raffi.

1:18:35.210 --> 1:18:35.580

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6.

1:18:37.870 --> 1:18:38.570

Gean Na

That Marco had.

1:18:38.190 --> 1:18:38.670

Giljum, Mark

Hey, rob.

1:18:38.120 --> 1:18:39.400

Raffie Yeremian

Yeah, go ahead. Yeah.

1:18:39.40 --> 1:18:41.600

Giljum, Mark

Yeah, raffie this mark, this mark giljum from LCSD.

1:18:41.770 --> 1:18:51.10

Giljum, Mark

I I've been following this but I haven't been terribly engaged just because we don't really use PVC pipe, but it's an interesting discussion from your perspective.

1:18:52.140 --> 1:18:53.870

Giljum, Mark

Does does Jeff have a point?

1:18:53.880 --> 1:18:54.350

Giljum, Mark

I mean, do you?

1:18:54.360 --> 1:18:56.350

Giljum, Mark

Do you agree with the the the argument?

1:18:58.310 --> 1:19:0.690

Raffie Yeremian

I mean, I I I could see where the argument is coming from.

1:19:1.120 --> 1:19:1.320

Giljum, Mark

OK.

1:19:0.700 --> 1:19:4.820

Raffie Yeremian

You know, you've got, you've got, you potentially have a a pipe that's being deflected.

1:19:5.450 --> 1:19:9.620

Raffie Yeremian

But but I also know, I mean that's more of a theoretical argument if you ask me.

1:19:9.630 --> 1:19:13.300

Raffie Yeremian

I think in practicality, what does that mean in the field, right?

1:19:13.310 --> 1:19:14.420

Raffie Yeremian

If we create a standard now.

1:19:15.200 --> 1:19:19.910

Raffie Yeremian

Uh EA recreated a market for for a product that doesn't exist, right?

1:19:19.920 --> 1:19:24.590

Raffie Yeremian

These these new deflection gauges where we have to go after and get and then B.

1:19:25.280 --> 1:19:33.220

Raffie Yeremian

You know, we're creating the the burden between the the 5% and the base ID is gonna fall on on means and methods for the contractor.

1:19:33.230 --> 1:19:40.530

Raffie Yeremian

And if the pipe isn't designed for that, no matter what we do, whether we do a right or wrong, we may not meet those standards.

1:19:40.540 --> 1:19:45.260

Raffie Yermanian

And now we're being held to account for standard that we don't necessarily have control over is what I'm saying.

1:19:45.930 --> 1:19:46.170

Giljum, Mark

OK.

1:19:46.920 --> 1:19:47.70

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It's.

1:19:47.760 --> 1:19:48.70

Giljum, Mark

OK.

1:19:48.80 --> 1:19:49.160

Giljum, Mark

I appreciate that, onation.

1:19:47.920 --> 1:19:51.550

Fernandez, Dickie

Hey, Gene, this is Dickie Fernandez from Orange County Sanitation district.

1:19:54.900 --> 1:19:55.80

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No.

1:19:58.910 --> 1:19:59.180

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

And then.

1:19:53.440 --> 1:20:1.540

Fernandez, Dickie

I think that there's something important that we need to clarify and tell me if I'm correct or or not.

1:20:2.620 --> 1:20:11.430

Fernandez, Dickie

It sounds to me that in 2015 there was a revision made on this topic to the Green Book, which was not.

1:20:12.730 --> 1:20:16.370

Fernandez, Dickie

I carefully documented that be an accurate statement.

1:20:17.940 --> 1:20:19.990

Gean Na

Umm, yes and no.

1:20:20.520 --> 1:20:27.950

Gean Na

I know that the folks at BNI don't have records of everything, but there is a change log that greenbook kept.

1:20:36.610 --> 1:20:36.760

Fernandez, Dickie

OK.

1:20:29.30 --> 1:20:37.30

Gean Na

I personally got a copy of the change that occurred in 2015 from from Eric Updyke myself.

1:20:37.200 --> 1:20:41.570

Gean Na

He kept records at things, you know, just being Eric Updyke because he's amazing.

1:20:41.980 --> 1:20:47.530

Gean Na

But you know the Green book are being NI doesn't have a record of it.

1:20:47.540 --> 1:20:53.910

Gean Na

So I have a copy of the change that happened in 2015 and it was clearly changed.

1:20:55.330 --> 1:20:55.590

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

Right.

1:20:54.320 --> 1:20:56.570

Gean Na

Why it was changed I I can't answer that.

1:20:59.300 --> 1:21:0.320

Fernandez, Dickie

And so and so.

1:20:56.740 --> 1:21:1.110

Gean Na

Not being present at the time, but I physically I have.

1:21:1.780 --> 1:21:3.180

Gean Na

I do have a copy of the change.

1:21:3.370 --> 1:21:26.550

Fernandez, Dickie

OK, so because what what Jeff just presented, he's presenting us with the the history of this topic, which was following the national standards, and that goes to what Raffi Raffi was talking about national standards, but it sounds like Jeff was referencing, but this topic was falling national standards.

1:21:29.570 --> 1:21:32.540

Fernandez, Dickie

And I I think that it's not falling national standards anymore.

1:21:33.260 --> 1:21:38.670

Fernandez, Dickie

I mean I I think that we we should at least look into it.

1:21:38.680 --> 1:21:44.350

Fernandez, Dickie

I'm I'm make it accurate because it I think it may be that the green book is not falling.

1:21:44.360 --> 1:21:45.380

Fernandez, Dickie

The national standard right now.

1:21:47.670 --> 1:21:54.190

Gean Na

Well, I can respond to you and I will say this with the big caveat and this I'm saying this out loud to everybody.

1:21:54.560 --> 1:21:59.190

Gean Na

Umm I I am with ACPA representing the concrete pipe industry.

1:22:6.750 --> 1:22:7.80

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

Good.

1:21:59.200 --> 1:22:9.360

Gean Na

And of course, it would appear that I'm biased in my thoughts here, but I'm gonna tell you guys what I think happened with Greenbook and respond to your your comment there.

1:22:14.100 --> 1:22:14.260

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

Yeah.

1:22:9.370 --> 1:22:14.540

Gean Na

Dickie Assim said something to I would say uh.

1:22:24.780 --> 1:22:24.990

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

OK.

1:22:15.10 --> 1:22:30.920

Gean Na

Important as well, so that ASTM released an appendix and that appendix gave you an example of how to size or mandrel and in the appendix is where they use.

1:22:32.150 --> 1:22:37.140

Gean Na

Umm, something different than what the industry used to use right in the appendix?

1:22:38.500 --> 1:22:47.400

Gean Na

Correct me if I'm wrong, Jeff, but they are they're using the the average ID, but in the past the standard was base.

1:22:48.340 --> 1:22:55.870

Gean Na

So that appendix changed the industry and greenbook followed suit. Because of that appendix.

1:22:55.880 --> 1:23:3.500

Gean Na

And it appears the mandrel manufactured follows suit as well, all as a result of the release of that appendix.

1:23:3.960 --> 1:23:4.860

Gean Na

What is it, 20?

1:23:4.870 --> 1:23:5.790

Gean Na

Some odd years ago.

1:23:5.800 --> 1:23:8.100

Gean Na

What 1981 now?

1:23:7.820 --> 1:23:8.150

Jeff Boschert

Yeah, this.

1:23:8.110 --> 1:23:17.760

Gean Na

Asim made a comment there saying that he he obviously needs to do what the market suggest, but it's founded like Asim kind of agrees.

1:23:17.770 --> 1:23:21.20

Gean Na

What's the argument that Jeff had now?

1:23:25.570 --> 1:23:25.800

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

OK.

1:23:21.30 --> 1:23:46.500

Gean Na

I would say from my position, trying to look at this as unbiased as possible, it appears that Green Book reacted to the appendix because if you look at the appendix, it literally is telling the world how to size the mandrel, whether it's right or wrong, that I don't under, I don't know if the greenbook challenged the appendix or not, but I believe that is what happened.

1:23:47.90 --> 1:23:49.0

Gean Na

I believe it was a reaction of the appendix.

1:23:50.320 --> 1:23:50.780

Fernandez, Dickie

OK.

1:23:50.910 --> 1:23:51.240

Fernandez, Dickie

Thank you.

1:23:50.400 --> 1:23:52.460

Gean Na

Umm yeah.

1:23:52.470 --> 1:23:55.470

Gean Na

But Jeff, you know you're argument and your presentation.

1:23:56.410 --> 1:23:58.680

Gean Na

Umm, I I hear it.

1:23:58.730 --> 1:23:59.620

Gean Na

I I hear you.

1:23:59.670 --> 1:24:1.360

Gean Na

I'm not here to say it's right or wrong.

1:24:1.370 --> 1:24:3.930

Gean Na

I think it's a good argument.

1:24:8.480 --> 1:24:9.730

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

Well, and I I would.

1:24:4.440 --> 1:24:11.340

Gean Na

I I definitely want to hear from Steve from Unibel and especially if you could adjust appendix.

1:24:11.350 --> 1:24:11.510

Gean Na

Yeah.

1:24:10.140 --> 1:24:11.720

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

Yeah, go ahead.

1:24:11.520 --> 1:24:12.590

Gean Na

Go ahead, Steve floors.

1:24:13.370 --> 1:24:28.130

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

And I guess my my thoughts are you know you have a standard that goes back to the 1980s and I realized there's always exceptions to standards just as you write in a 5% mandrel test versus a 7 1/2% manual test.

1:24:28.610 --> 1:24:30.20

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

That's your prerogative.

1:24:30.330 --> 1:24:48.520

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

I I think that for the benefit of of the thorough plastic users that that rely on that Green Book, you know you're to follow the national standard keeps you from having specials that have to have additional inspection and and all the different orders.

1:24:48.750 --> 1:25:1.380

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

I think that journey, I think by being here as well as Jeff mentioned Harco and there's a lot of mandrel companies that that lances that make mandrels, they're making it to that standard.

1:25:1.390 --> 1:25:15.160

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

I think when you want to deviate from that standard, as was mentioned by the contractor, you're just going to introduce additional problems and and and delays for the contractor and for the inspectors.

1:25:15.370 --> 1:25:15.710

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

I just.

1:25:16.200 --> 1:25:18.150

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

I feel like that right?

1:25:18.160 --> 1:25:18.930

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

Wrong or different?

1:25:18.940 --> 1:25:31.540

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

The standard has been that way for for 40 years now, over 40 years with, I don't know, you've heard me say it before with over 1,000,000 miles of gravity sewer pipe and service today.

1:25:31.670 --> 1:25:43.420

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

OK, now if there's a, whether it be a slight or significant difference between the average ID and the base ID, I don't know where everybody thinks the problem is.

1:25:43.430 --> 1:25:53.760

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

OK, I I this is a proven product that's been utilized by the vast majority over 90 of your largest 100 cities in the country.

1:25:54.70 --> 1:26:8.850

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

I think it's kind of a kind of a test for greenbook to see whether you know you are gonna set a standard here that's different from what your peers, OK, and cities all across this country.

1:26:8.860 --> 1:26:12.730

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

I know Jeff referenced a few cities there, I understand that.

1:26:12.800 --> 1:26:22.950

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

But the vast majority of them are following the 3034 standard as it's written with that appendix, and with that base ID having been determined and set.

1:26:23.110 --> 1:26:48.550

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

So I I don't you know, again, I I've I've said before, it's up to you all determine what you wanted, but

when you do that, it has a big impact to you know the San Diego's and the orange counties and people that are utilizing PVC on a big regular basis, they're going to just write it exceptions to the Green book and go forward with what the standard says.

1:26:48.600 --> 1:26:51.290

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

In my opinion, that's up to them to do what they want to do.

1:26:51.340 --> 1:26:53.30

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

So does that help at all?

1:26:55.510 --> 1:26:55.980

Gean Na

Yes.

1:26:56.70 --> 1:26:56.800

Gean Na

Thank you, Steve.

1:26:56.870 --> 1:26:58.110

Gean Na

Good to hear from you on the subject.

1:27:3.870 --> 1:27:5.600

David Wangerin

Again, if I can make a comment.

1:27:6.200 --> 1:27:6.580

Gean Na

Of course.

1:27:7.270 --> 1:27:8.690

David Wangerin

Umm so.

1:27:10.930 --> 1:27:13.680

David Wangerin

Seeing the presentation, the math is right.

1:27:22.690 --> 1:27:23.110

Fernandez, Dickie

So I'm doing.

1:27:13.850 --> 1:27:34.810

David Wangerin

I mean and and and I'll say that that that I'm I'm not disagreeing with the math that that not a job or or can't has put forward as a manufacturer not in mandrels or pipe or anything else but as a manufacturer for

manhole covers and frames this is this is a problem that we see in in other markets and and as a technical specialist.

1:27:36.810 --> 1:27:41.800

David Wangerin

The argument at doing what your neighbors are doing isn't always the best argument to make.

1:27:42.710 --> 1:27:51.410

David Wangerin

With that being said though, is that this standard was changed in 2015 for a reason, and that reason was to follow those national standards.

1:27:51.920 --> 1:28:2.310

David Wangerin

And with that being said, maybe the changes they made in 2015 may not be as accurate as they could have been because they included the wrong size of pipe.

1:28:3.220 --> 1:28:6.460

David Wangerin

They may not have spelled out base ID properly the there.

1:28:6.470 --> 1:28:12.490

David Wangerin

There may be several things that that, that this standard may need to be looked at and refined to bring it in line.

1:28:12.500 --> 1:28:20.540

David Wangerin

More of what that national standard is now, I'm not saying that that what we have in this presentation is wrong, but or I'm not saying what we have in the presentation.

1:28:23.310 --> 1:28:45.220

David Wangerin

We should follow it in the presentation, but but the presentation is is it is being right, the right course of action and what do we be stepping back by going back to what our old standard was versus what we have in 2015 or do we really just need to look at what's currently being accepted knowing that there is a level of error not only in the pipe but also in the mandrels.

1:28:45.230 --> 1:28:48.570

David Wangerin

What that Kent pointed out, because that is the national standard.

1:28:48.580 --> 1:28:50.20

David Wangerin

It's the only standard that we can follow.

1:28:53.740 --> 1:28:54.920

David Wangerin

That would that would be my question.

1:29:5.510 --> 1:29:6.160

Gean Na

Uh, does there?

1:29:6.170 --> 1:29:9.0

Gean Na

Is there anyone else that wants to weigh in on this discussion here?

1:29:14.120 --> 1:29:14.490

Gean Na

Umm.

1:29:14.500 --> 1:29:14.790

Gean Na

What?

1:29:14.840 --> 1:29:15.80

Gean Na

What?

1:29:15.90 --> 1:29:21.970

Gean Na

Dickie, I'm gonna ask you to kind of weigh in a little bit more here and and I appreciate, David, what you had just said.

1:29:22.480 --> 1:29:35.870

Gean Na

Umm, if you had to write this spec, Dickie uh, would you suggest following what the appendix currently shows, which is also what the greenbook currently shows.

1:29:37.270 --> 1:29:47.30

Gean Na

Or follow what Jeff has shown in his mathematical presentation and say the Green Book should go back umm.

1:29:49.390 --> 1:30:1.240

Gean Na

And I would respect if you don't want to respond to that, but uh, I'm trying to move the conversation along and I, you know, I at one point we're gonna have to decide whether this change request will need to just go away.

1:30:2.110 --> 1:30:4.550

Gean Na

But I don't want to continue talking about this for the next year.

1:30:5.820 --> 1:30:9.50

Gean Na

Because we've talked about it for almost an the entirety of 2023.

1:30:9.460 --> 1:30:9.650

Jeff Boschert

Here.

1:30:9.800 --> 1:30:10.60

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OK.

1:30:9.60 --> 1:30:16.120

Gean Na

So we eventually need to make a decision, but everyone made very good arguments on both sides, I would say.

1:30:20.570 --> 1:30:21.990

Gean Na

I just realized Dickey's not here.

1:30:22.0 --> 1:30:22.150

Gean Na

What?

1:30:22.160 --> 1:30:22.740

Gean Na

The city anymore.

1:30:22.750 --> 1:30:23.940

Gean Na

So I'm like talking to a wall.

1:30:24.510 --> 1:30:24.710

Jeff Boschert

Huh.

1:30:26.570 --> 1:30:28.720

Gean Na

Umm uh.

1:30:28.360 --> 1:30:28.820

Jeff Boschert

What gene?

1:30:28.830 --> 1:30:32.490

Jeff Boschert

Hopefully I I solved the confusion with with what I put together.

1:30:32.500 --> 1:30:36.870

Jeff Boschert

That was my attempt right, but I thought there was still some confusion after the last meeting.

1:30:36.880 --> 1:30:39.740

Jeff Boschert

So if maybe we got that accomplished today.

1:30:41.330 --> 1:30:43.660

Gean Na

Yeah, I I definitely think so myself.

1:30:58.420 --> 1:30:58.660

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

OK.

1:30:43.710 --> 1:30:59.320

Gean Na

You know I, Jeff, I personally took the time to try to better understand base and average because it hurt my brain a few months ago when we were talking about it, I had to understand the time of average and the time of base, if you know what I mean.

1:30:59.330 --> 1:31:2.670

Gean Na

Like when those things occurred and I and I.

1:31:2.670 --> 1:31:5.60

Gean Na

Can I'm saying is that allowed for those of you that kind of follow along here?

1:31:5.890 --> 1:31:8.760

Gean Na

Umm, the green book.

1:31:11.80 --> 1:31:24.350

Gean Na

Changed in 2015 and it appears that they followed with what the appendix shows, and I've heard multiple people here say that that is what most people are using here today, including a sync from journey.

1:31:25.360 --> 1:31:30.450

Gean Na

Umm, whether that's right or wrong, but that is what the quote unquote standard is.

1:31:34.580 --> 1:31:34.780

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

OK.

1:31:41.310 --> 1:31:41.570

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

Yeah.

1:31:31.230 --> 1:31:44.600

Gean Na

So I would leave it up to, you know, voting members of Greenbook to say gean we need to have this change because we feel like the math is correct and the standard is wrong.

1:31:45.480 --> 1:31:45.940

Gean Na

Uh.

1:31:46.840 --> 1:31:48.150

Gean Na

So I'll leave it there, guys.

1:31:48.740 --> 1:31:58.40

Gean Na

Umm I I think it's OK to leave this for another month or two, but definitely don't wanna talk about it all of 2024, right?

1:31:58.50 --> 1:32:11.940

Gean Na

So we'll have to make a decision soon, but this isn't something that will have to keep talking about now, if something changed at ASTM and the appendix is modified, then that'll prompt greenbook and you know in physically.

1:32:12.10 --> 1:32:15.250

Gean Na

But uh, that's that, right?

1:32:15.20 --> 1:32:15.350

Jeff Boschert

I don't.

1:32:15.360 --> 1:32:15.910

Jeff Boschert

It's gonna happen.

1:32:15.920 --> 1:32:17.310

Jeff Boschert

It hadn't changed since 81.

1:32:17.750 --> 1:32:18.70

Gean Na

Right.

1:32:17.320 --> 1:32:22.950

Jeff Boschert

So and that the other table that we talked about, it hadn't changed since 78 to the last 45 years.

1:32:22.960 --> 1:32:24.980

Jeff Boschert

So the numbers the pipe hasn't changed.

1:32:28.860 --> 1:32:29.190

609e50f4-2e2d-4ca6-abb4-cdb1481d788b

I'm gonna.

1:32:25.860 --> 1:32:33.520

Gean Na

Yeah, but I you know, I I would say you know, any any member of the Subcommittee or GREENBOOK has a has a right to propose a change.

1:32:34.540 --> 1:32:42.990

Gean Na

Uh, but in a situation like this, I I air on the side of listening to the voting Members at this point because they're ultimately going to have the vote.

1:32:43.280 --> 1:32:51.330

Gean Na

So, umm and the voting Members here today are agencies and and Raffi so.

1:32:54.590 --> 1:32:58.420

Gean Na

Yeah, I think we heard from everyone today on this subject.

1:32:58.970 --> 1:33:7.30

Gean Na

I'm happy to have kind of 1 on ones with you guys if you guys want, but I I think we'll leave it open for one or two more months, Jeff and Kent.

1:33:8.60 --> 1:33:8.360

Jeff Boschert

OK.

1:33:9.50 --> 1:33:17.180

Gean Na

And if you know if the motion comes from anyone to to, you know, close this change, that's we'll have to react to that at that time.

1:33:17.600 --> 1:33:21.420

Gean Na

But we don't have to make a move today, but I appreciate everyone weighing in on this.

1:33:21.430 --> 1:33:22.610

Gean Na

I know we've talked about this a lot.

1:33:24.500 --> 1:33:27.220

Gean Na

So I'm gonna move a.

1:33:25.540 --> 1:33:28.30

David Wangerin

Eight that gene, one last comment.

1:33:28.650 --> 1:33:29.90

David Wangerin

Umm.

1:33:28.590 --> 1:33:29.150

Gean Na

Of course, go ahead.

1:33:29.250 --> 1:33:37.410

David Wangerin

Even even even if we decide not to change back to the standard prior 2015, I do see a need for that.

1:33:37.460 --> 1:33:50.680

David Wangerin

That specification to be to have corrections done to it because there are a couple of things that that Kent has pointed out that are wrong, namely the wrong size of pipe and then some incorrect references in that spec.

1:33:50.740 --> 1:33:57.130

David Wangerin

What do you think it should be reviewed and looked at at at worst case scenario or best case scenario?

1:33:59.400 --> 1:33:59.830

Gean Na

Yeah.

1:33:59.840 --> 1:34:12.980

Gean Na

And I, you know, I I made that those comments to the main committee when this first came about, so around the April and May time frame initial thought was the numbers were just wrong or just mathematical errors.

1:34:12.990 --> 1:34:18.980

Gean Na

And then the conversation sort of developed into, OK, we now know that the appendix is wide as some of these things happen.

1:34:18.990 --> 1:34:34.360

Gean Na

Then, of course, the 2015 changes to your point, if there are things that are considered to be editorial corrections, umm, I just need that to be highlighted and we can get that to the main committee.

1:34:34.530 --> 1:34:36.360

Gean Na

That window is very small guys.

1:34:36.370 --> 1:34:37.250

Gean Na

It's October right now.

1:34:38.750 --> 1:35:10.240

Gean Na

So, umm, Jeff or Kent or even yourself, David, if you get, if you guys can identify things that are just very clear like fat finger, you know issues I think the you know greenbook committee and BNI would be willing to make those corrections but not to go back to Pre 2015 right a Jeff uh maybe that's something that you could take a look at and I'm happy to follow up with you on those things.

1:35:11.40 --> 1:35:11.540

Jeff Boschert

OK, sure.

1:35:12.460 --> 1:35:12.890

Jeff Boschert

Will do.

1:35:16.500 --> 1:35:18.740

Gean Na

OK, I see.

1:35:18.750 --> 1:35:19.480

Gean Na

I know, I know.

1:35:19.490 --> 1:35:34.260

Gean Na

We're a little bit past our time, guys, so I'm just not gonna discuss 33331 and those of our two other discussions, those are asked to be put on hold and I kind of would say the same things about change 329.

1:35:34.350 --> 1:35:35.960

Gean Na

We just have to make a decision on them.

1:35:36.90 --> 1:35:41.360

Gean Na

They they they can't just be put on our agenda and talked about for the next forever, right.

1:35:41.450 --> 1:35:45.370

Gean Na

So we'll just table those two UM till next time.

1:35:47.630 --> 1:35:50.180

Gean Na

Umm, that's all I have for discussion items folks.

1:35:50.470 --> 1:35:52.860

Gean Na

Our next meeting is they'll never 14th.

1:35:53.50 --> 1:35:57.520

Gean Na

I believe that's the week before Thanksgiving, so we're not conflicting there. 123.

1:35:57.530 --> 1:36:1.860

Gean Na

Yeah, it's the Tuesday before the week of Thanksgiving.

1:36:1.870 --> 1:36:5.490

Gean Na

If that doesn't confuse you, uh greenbook always does.

1:36:5.560 --> 1:36:7.660

Gean Na

So I think we're good on that date.

1:36:9.230 --> 1:36:11.810

Gean Na

Any last comments or thoughts from anyone before we adjourn?

1:36:15.690 --> 1:36:16.200

Gean Na

OK.

1:36:16.410 --> 1:36:17.490

Gean Na

Thanks everyone for your time.

1:36:17.500 --> 1:36:18.170

Gean Na

I appreciate it.

1:36:18.570 --> 1:36:19.10

Giljum, Mark

Thank you.

1:36:18.180 --> 1:36:19.290

Gean Na

You guys have a good rest of your week.

1:36:18.910 --> 1:36:19.380

David Wangerin

Thank you.

1:36:19.770 --> 1:36:20.380

Giljum, Mark

Thank you, gene.

1:36:19.890 --> 1:36:20.570

Asim Syed

OK, thank you.

1:36:20.470 --> 1:36:20.830

Lee, Jensen

Thank you.

1:36:21.270 --> 1:36:21.940

Jeff Boschert

Thanks Jane.

1:36:22.130 --> 1:36:22.640

Jeff Boschert

Have a good week.

1:36:23.260 --> 1:36:23.770

Raffie Yeremian

Thanks Shane.