

HYDROLOGICAL ANALYSIS

PRE DEV. RUNOFF COEFFICIENT: 0.20 POST DEV. WEIGHTED RUNOFF COEFFICIENT: 0.25

*TO MANAGE RUNOFF IN THE POST CONSTRUCTION PHASE RUNOFF SELECT EROSION CONTROL MEASURES WILL REMAIN IN PLACE PERMANENTLY. SUCH MEASURES INCLUDE STONE CHECK DAMS, OUTLET PROTECTION, SLOPE DRAIN, AND PERMANENT SEEDING ON CUT/FILL SLOPES. BY MAINTAINING THESE MEASURES IN THE POST CONSTRUCTION PHASE RUNOFF VELOCITIES WILL BE REDUCED AND THEREFORE SUSCEPTIBILITY OF EROSION WILL DECREASE.

SEDIMENT TRAP DIMENSIONS AND SPECIFICATIONS

	DA-1	DA-2	DA-3	DA-4	DA-5	DA-6	DA-7	DA-8
PEAK DISCHARGE 5-YR. (CFS)	0.98	1.10	0.58	0.73	1.19	1.12	1.19	1.12
MIN. SURFACE AREA (435 SF/CFS)	426	478	252	318	518	487	518	487
TOP SURFACE AREA PROVIDED (SF)	792	792	784	560	672	624	624	784
	ST-1	ST-2	ST-3	ST-4	ST-5	ST-6	ST-7	ST-8
BOT. LENGTH (FT.)	16	16	26	20	20	16	16	20
BOT. WIDTH (FT.)	25	25	26	24	24	18	18	24
DEPTH D_1 (FT.)	2	2	2	2	2	2	2	2
DEPTH D_2 (FT.)	2	2	2	2	2	2	2	2
SIDE SLOPE	1:1	1:1	1:1	1:1	1:1	1:1	1:1	1:1
NO. OF BAFFLE ROWS	2	2	2	2	2	2	2	2
STORAGE VOLUME PROVIDED (CY)	88	88	136	102	102	68	68	102

PIPE & OUTLET PROTECTION CHART 🔨

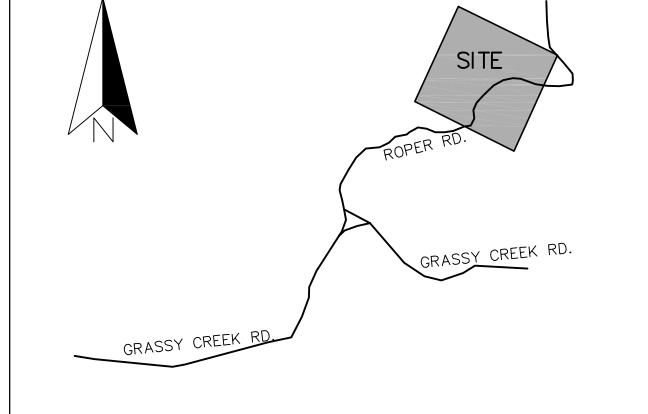
	DA-1	DA-2	DA-3	DA-4	DA-5	DA-6	DA-7	DA-8
DRAINAGE AREA (ACRES)	0.71	0.29	1.05	1.15	0.98	0.62	0.68	1.09
RAINFALL (25 YR. 24 HR.)	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
RUNOFF CURVE #	60	60	60	60	60	60	60	60
AVERAGE SLOPE	8%	22%	8%	8%	17%	10%	9%	18%
PEAK DISCHARGE 25-YR. (cfs)	1.78	1.75	1.22	1.53	2.42	2.20	2.33	2.30
PIPE SIZE REQUIRED	18"	18"	N/A	N/A	N/A	18"	18"	N/A
VELOCITY (fps)	5.4	5.4	4.4	4.6	5.2	5.7	5.8	5.1
TAILWATER COND.	MIN.	MIN.						
St APRON LENGTH (La)	9.0'	9.0'	9.0'	9.0'	9.0'	9.0'	9.0'	9.0'
St WIDTH AT HEADWALL (3xWc)	4.5'	4.5'	4.5'	4.5'	4.5'	4.5'	4.5'	4.5'
St DOWNSTREAM WIDTH (Wa)	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5'	10.5
St AVG. STONE DIAMETER (D50)	3.5"	3.5"	3.5"	3.5"	3.5"	3.5"	3.5"	3.5"
St STONE DEPTH	8"	8"	8"	8"	8"	8"	8"	8"

SEDIMENT STORAGE

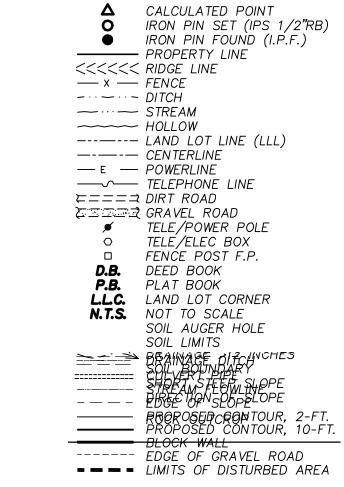
SV-#	DISTURBED AREA (ACRES)	REQ. SEDIMENT STORAGE (134 CU. YDS. PER DISTURBED ACRE)		STORAGE TOTAL (CU. YDS.)
SV-1	2.69	360.5	40 CD X 1.5 CU. YDS. (60) ST #1 (88) ST #2 (88) 994 LF SF (159)	395
SV-2	4.97	667.0	44 Cds X 1.5 CU. YDS. (66) ST #3 (136) ST #4 (102) ST #5 (102) ST #8 (102) 1,006 LF SF (161)	669
SV-3	2.14	286.8	64 Cds X 1.5 CU. YDS. (96) ST #6 (68) ST #7 (68) 901 LF SF (144)	376

RECEIVING WATER

THE RECEIVING WATER FOR THIS DRAINAGE AREA IS THE OCOEE RIVER WHICH IS AN IMPAIRED WATERBODY FOR SEDIMENT. THEREFORE SEDIMENT STORAGE DEVICES HAVE BEEN SIZED FOR THE 5-YR 24 HR. STORM EVENT.

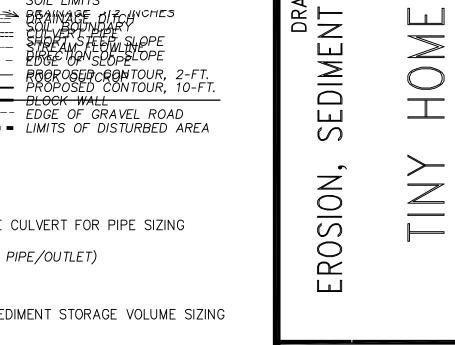


(N.T.S.)



DA-# DENOTES DRAINAGE AREA TO PIPE CULVERT FOR PIPE SIZING

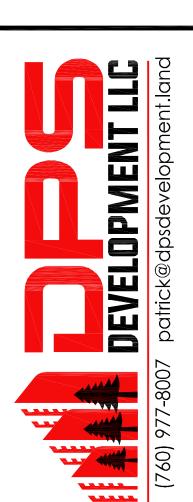
SV-# DENOTES DISTURBED AREA FOR SEDIMENT STORAGE VOLUME SIZING



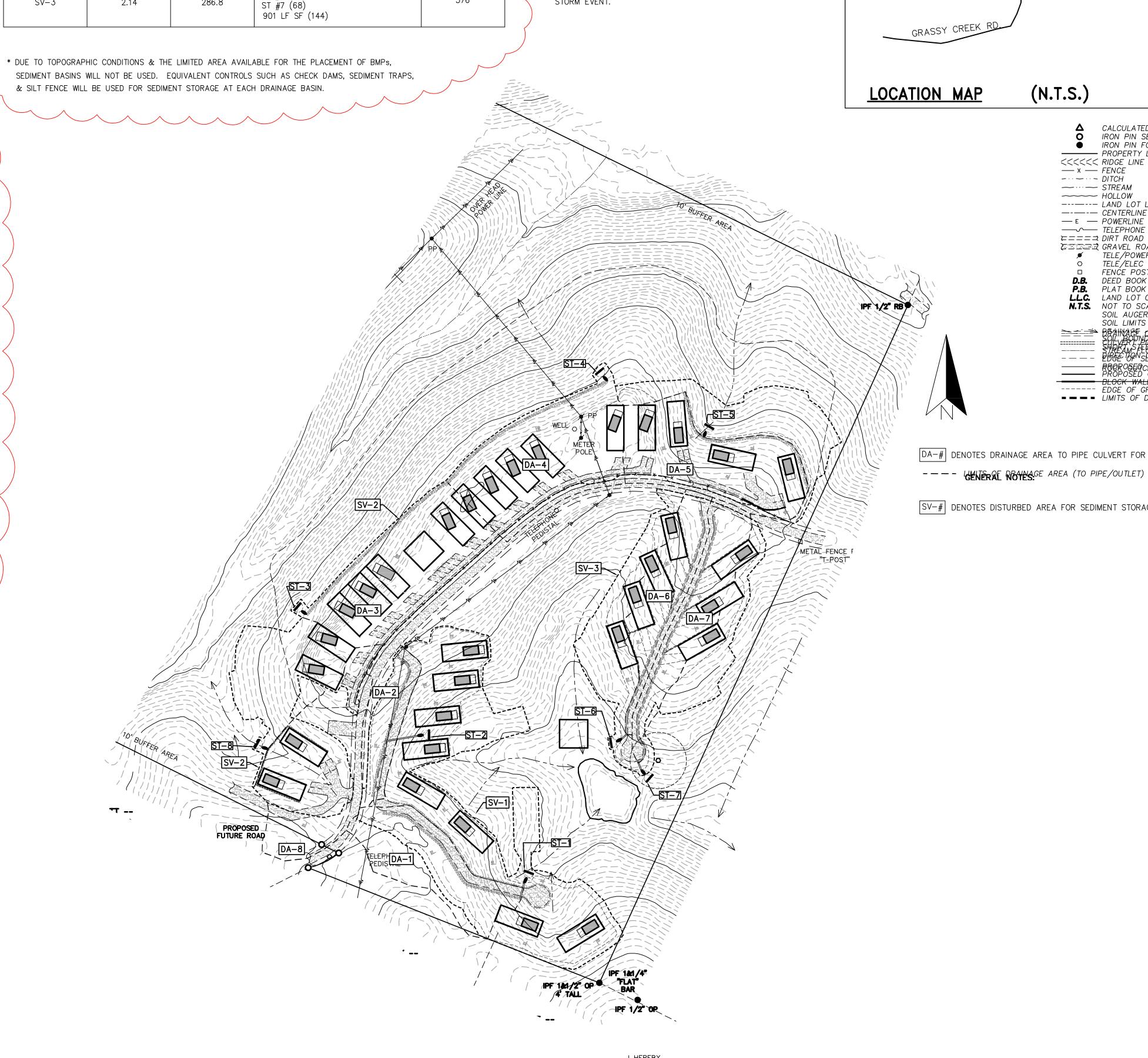
9-18-23 DRAWN BY 9-18-23 CHECKED BY

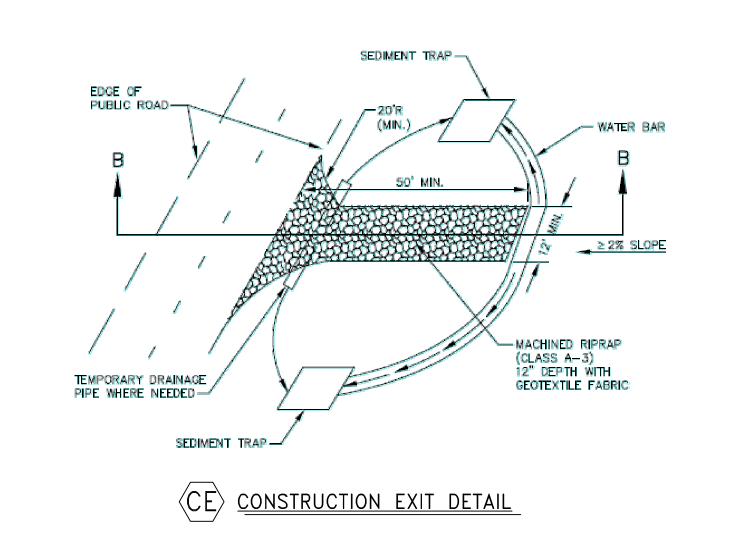
CONTROL

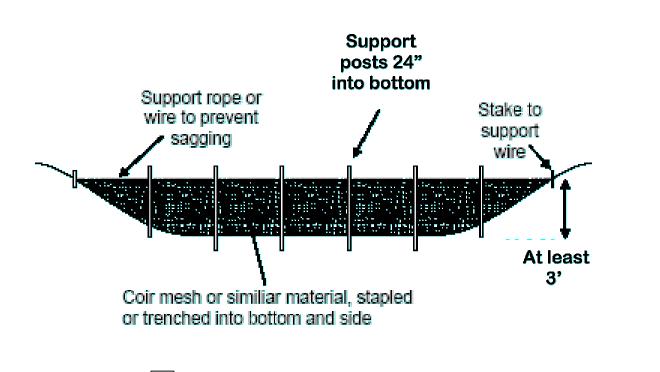
AGE AREAS C POLLUTION



SHEET







OP POROUS BAFFLE DETAIL NOTE: POROUS BAFFLES TO BE PLACE IN SEDIMENT TRAP PERPENDICULAR TO FLOW

PREFERRED SEEDING SCHEDULE

	Zone	Best	Marginal	Preferred Rate/Mix (lb/ac PLS)
	Poorly drained soils	Feb 1 – Mar 20 Sept 1 – Sept 30	Mar 20 – Apr 30 Sept 30 – Oct 31	15 Browntop millet* (nurse crop) 2 switch grass 4 little bluestem 4 Virginia wild rye 4 purpletop 2 partridge pea 2 black-eyed susan
Region I	Well drained soils	Apr 1 – July 15		15 Browntop millet* (nurse crop) 4 little blue stem 4 purpletop 2 sideoats gramma 2 partridge pea 2 black-eyed susan
	High maintenance	Apr 1 – July 15		15 Browntop millet* (nurse crop) 2 partridge pea 45 Red fescue* 45 hard fescue* 25 chewing fescue*
	Low maintenance; Slopes and Poor, shallow soils	Aug 25 – Sept 15 Feb 15 – May 30	Sept 15 – Oct 25 Mar 21 – May 30	15 Browntop millet* (nurse crop) 5 little bluestem 2 switch grass 2 tall dropseed 5 sideoats gramma 2 black-eyed susan 2 partridge pea 1 greyheaded coneflower
Region II	Low maintenance; Moderate slopes; soils >6 in. depth	Aug 25 – Sept 15 Feb 15 – May 30	Sept 15 – Oct 25 Mar 21 – Apr 15	15 Browntop millet* (nurse crop) 5 purpletop 5 little bluestem 5 Virginia wild rye 2 black-eyed susan 2 partridge pea 1 greyheaded coneflower
	High maintenance	Aug 30 – Oct 15	Feb 15 – Apr 15	15 Browntop millet* (nurse crop) 2 partridge pea 45 Red fescue* 45 hard fescue* 25 chewing fescue*
Region	>2500 ft elevation; steep slopes	Mar 20 – Apr 30	Aug 15 – Aug 30 Mar 1 – Mar 20 Apr 20 – June 15	15 Browntop millet* (nurse crop) 5 purpletop 10 little bluestem
ııı	<2500 ft elevation; steep slopes	Aug 15 – Sept 1 Mar 1 – Apr 1	Sept 1 — Sept 15 Apr 1 — June 10	10 Indian grass 2 black-eyed susan 0.5 monarda (bergamot) 4 Maryland senna
	>2500 ft elev.; Shallow soils	Mar 20 – Apr 20	Aug 15 – Aug 30 Mar 5 – Mar 20 April 20 – June 15	15 Browntop millet* (nurse crop) 4 purpletop 10 little bluestem
	<2500 ft elev.; Shallow soils	Aug 15 – Sept 1 Mar 1 – Apr 1	Sept 1 – Sept 15 Apr 1 – June 10	10 broomsedge 2 partridge pea 2 black-eyed susan 0.5 monarda (bergamot)
Region III	>2500 ft. elev.; Moderate slopes	Mar 20 – Apr 20	Aug 15 – Aug 30 Mar 5 – Mar 20 Apr 20 – June 15	15 Browntop millet* (nurse crop) 4 purpletop 10 little bluestem
cont'd	<2500 ft. elev.; Moderate slopes	Aug 15 – Sept 1 Mar 1 – Apr 1	Sept 1 – Sept 15 Apr 1 – June 10	10 Indian grass 2 black-eyed susan 0.5 monarda (bergamot) 4 Maryland senna
_	>2500 ft elev.; High maintenance	Mar 20 – Apr 20	Aug 15 – Aug 30 Mar 5 – Mar 20 Apr 20 – June 15	15 Browntop millet* (nurse crop) 45 Red fescue* 45 hard fescue*
	<2500 ft elev.; High maintenance	Aug 15 – Sept 1 Mar 1 – Apr 1	Sept 1 – Sept 15 Apr 1 – June 10	25 chewing fescue*

ALLOWABLE SEEDING SCHEDULE

____ End section (typical)

Tailwater < 0.5 H_C and Assuming Full Culvert Flow (Low Tailwater Conditions)

Tailwater $> 0.5 H_C$ and Assuming Full Culvert Flow (High Tailwater Conditions

Riprap Aprons for Low Tailwater

(downstream flow depth < 0.5 x pipe diameter)

48" | 120 | 26 | 10 | 170 | 37 | 14 | 220 | 46 | 19 | 270 | 54 | 23 | 320 | 64 | 37

(OP) OUTLET PROTECTION DETAIL

NOTE: SEE SHEET 2 FOR DIMENSIONS AND SPECIFICATIONS OF DRAINAGE OUTLETS

Intermediate values to interpolate from

NOT TO SCALE

Minimum apro

 $W_A = W_C + L_A$

 $I_A = W_C + 0.4 L_A$

Heavy geotextile fabric, anchored

= width of riprap apron at end = median riprap size = maximum size of riprap = 1.5 D₅₀ = depth of riprap apron = 1.5 D_{MAX}

= height of culvert = width of culvert

= length of riprap apron

D_A = 1.5 x 1.5 x D₅₀

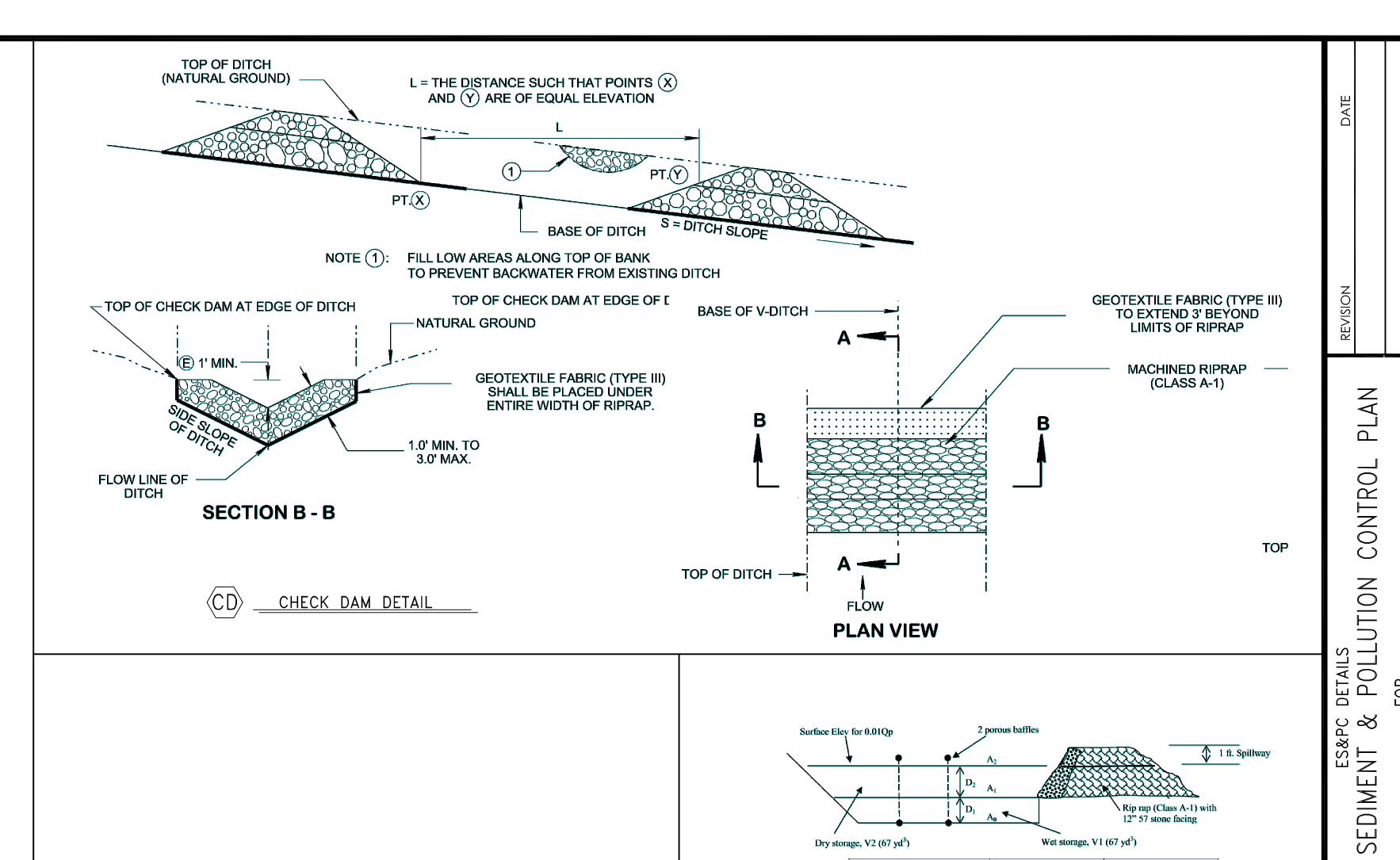
Heavy geotextile fabric, anchored

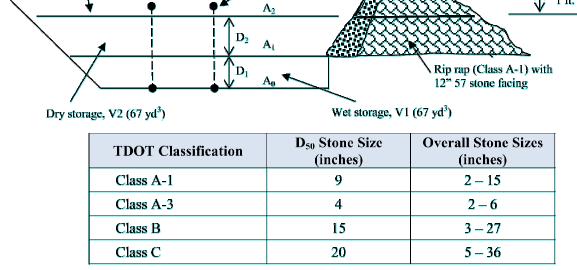
This portion may be an end section, concrete floor or riprap.

 $-D_A = 1.5 \times 1.5 \times D_{50}$

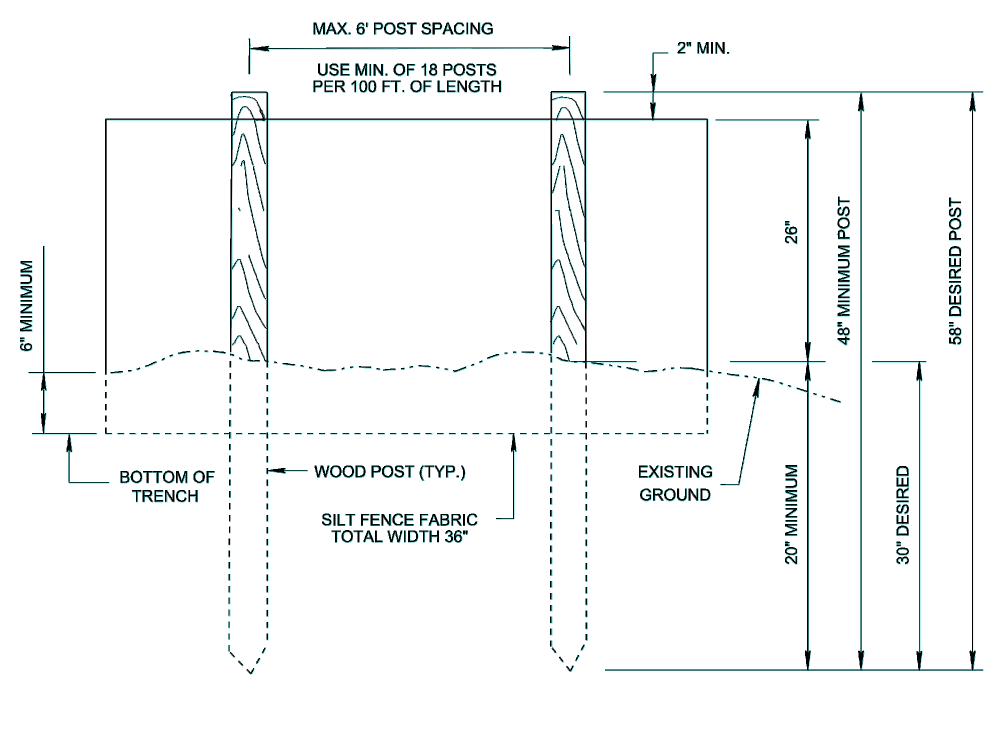
	Zone	Best	Marginal	Rate/Mix (lb/ac PLS)	
	Poorly drained soils	Feb 1 – Mar 20 Sept 1 – Sept 30	Mar 20 – Apr 30 Sept 30 – Oct 31	80 Pensacola bahiagrass 30 Bermudagrass (hulled) 20 Korean lespedeza** 10 Kobe lespedeza**	
Region I	Well drained soils	Apr 1 – July 15		50 Pensacola bahiagrass 15 Bermudagrass (hulled) 30 Korean lespedeza** 15 Foxtail millet**	
	High maintenance	Apr 1 – July 15		40 Bermudagrass (hulled)	
Dogion	Low maintenance; Slopes and Poor, shallow soils	Aug 25 – Sept 15 Feb 15 – Mar 21	Sept 15 – Oct 25 Mar 21 – Apr 15	100 Pensacola bahiagrass 40 Bermudagrass (hulled) 20 Korean lespedeza** 10 Kobe lespedeza**	
M	Low maintenance; Moderate slopes; soils >6 in. depth	Aug 25 – Sept 15 Feb 15 – Mar 21	Sept 15 – Oct 25 Mar 21 – Apr 15	80 Pensacola bahiagrass 30 Bermudagrass (hulled) 20 Korean lespedeza** 10 Kobe lespedeza**	
	High maintenance	Aug 15 – Oct 15	Feb 15 – Apr 15	200 KY 31 fescue**	
Region III	>2500 ft elevation; steep slopes	July 25 - Aug 15 Mar 20 - Apr 20	July 15 – July 25 Aug 15 – Aug 30 Mar 1- Mar 20 Apr 20 – May 15	100 KY 31 fescue** 20 Kobe lespedeza** 10 Korean lespedeza**	
	<2500 ft elevation; steep slopes	Aug 15 – Sept 1 Mar 1 – Apr 1	July 25 – Aug 15 Sept 1 – Sept 15 Apr 1 – May 10	5 Redtop	
	>2500 ft elev.; Shallow soils	July 25 - Aug 15 Mar 20 - Apr 20	July 15 – July 25 Aug 15 – Aug 30 Mar 5 – Mar 20 Apr 20 – May 15	40 KY 31 Fescue** 10 Korean lespedeza** — 10 Redtop	
	<2500 ft elev.; Shallow soils	Aug 15 – Sept 1 Mar 1 – Apr 1	July 25 – Aug 15 Sept 1 – Sept 15 Apr 1 – May 10	10 Crown vetch**	
	>2500 ft. elev.; Moderate slopes	July 25- Aug 15 Mar 20 – Apr 20	July 15 – July 25 Aug 15 – Aug 30 Mar 5 – Mar 20 Apr 20 – May 15	60 KY 31 fescue** 15 Korean lespedeza**	
	<2500 ft. elev.; Moderate slopes	Aug 15 – Sept 1 Mar 1 – Apr 1	July 25 – Aug 15 Sept 1 – Sept 15 Apr 1 – May 10	15 Kobe lespedeza**	
	>2500 ft elev.; High maintenance	July 25 - Aug 15 Mar 20 – Apr 20	July 15 — July 25 Aug 15 — Aug 30 Mar 5 — Mar 20 Apr 20 — May 15	200 KY 31 fescue**	
	<2500 ft elev.; High maintenance	Aug 15 – Sept 1 Mar 1 – Apr 1	July 25 – Aug 15 Sept 1 – Sept 15 Apr 1 – May 10		

Grasses: 800-1200 lb/acre of 10-10-10 (or the equivalent) Grass-legume mixtures: 800-1200 lb/acre of 5-10-10 (or the equivalent) (PS) PERMANENT SEEDING DETAIL





<u>SEDIMENT TRAP DETAIL</u> NOTE: SEE SHEET 2 FOR DIMENSIONS AND SPECIFICATIONS OF SEDIMENT TRAPS



ELEVATION VIEW SD SILT FENCE DETAIL

DEVELOPMENT LLC SHEET

PLAN

CONTROL

OSION

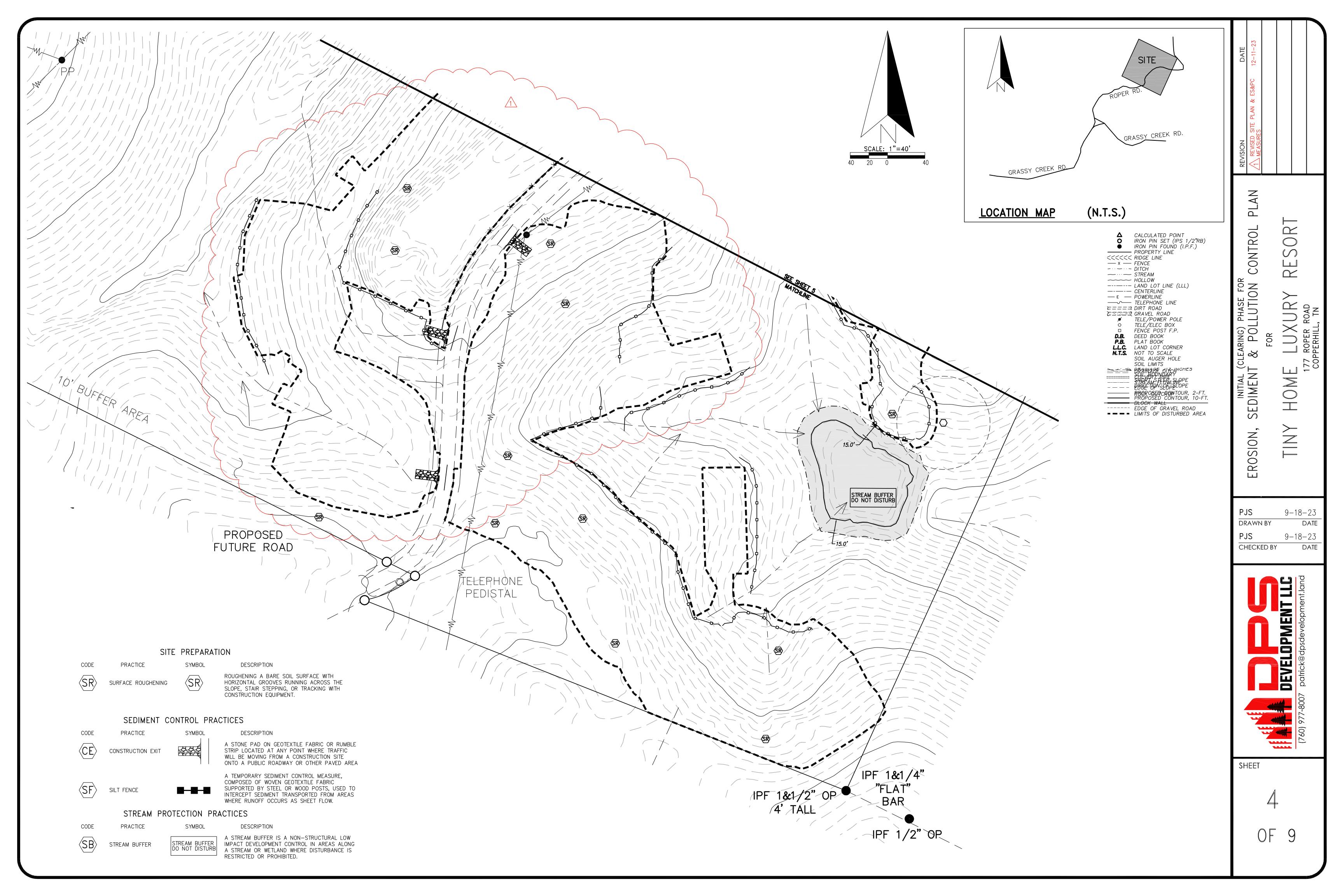
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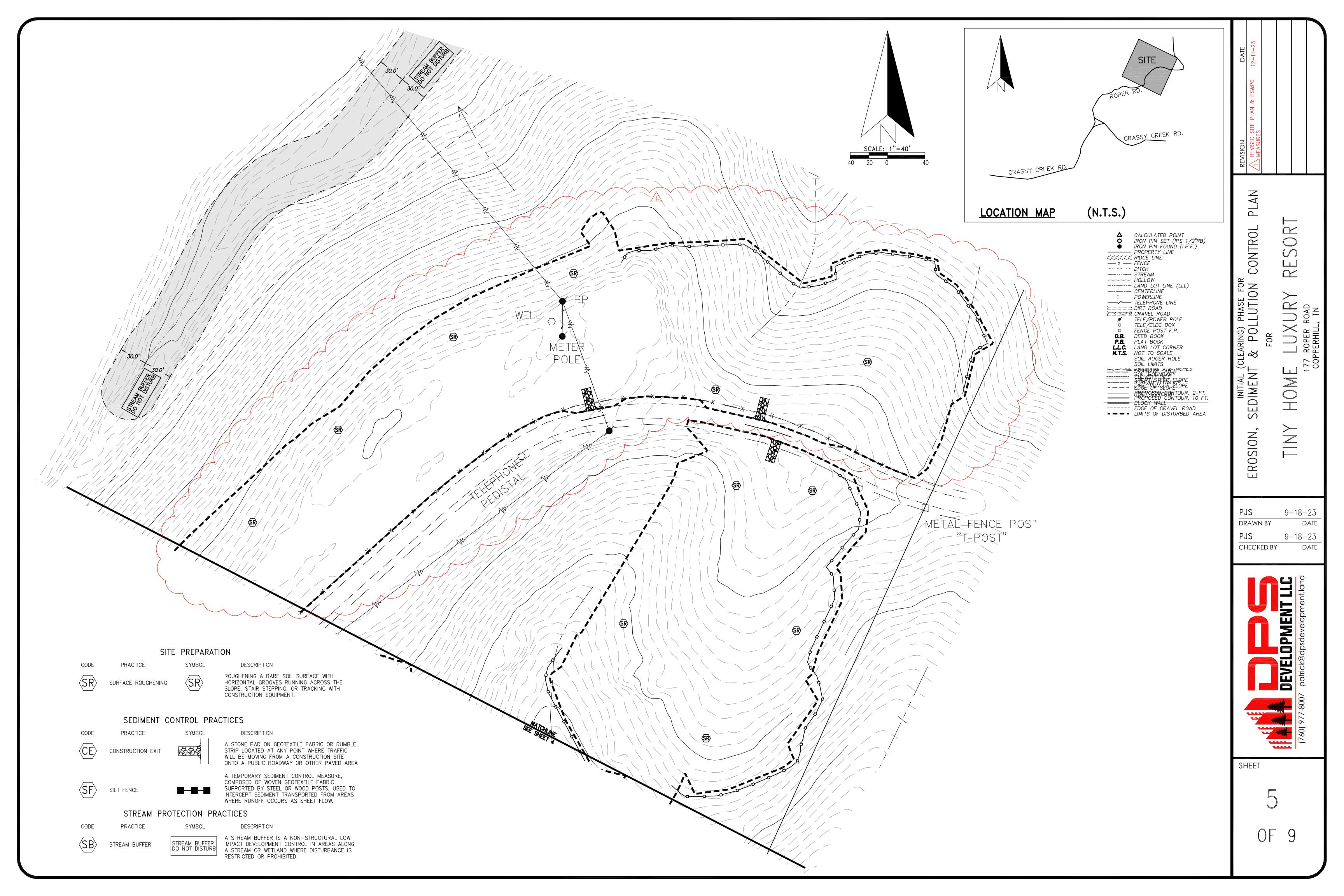
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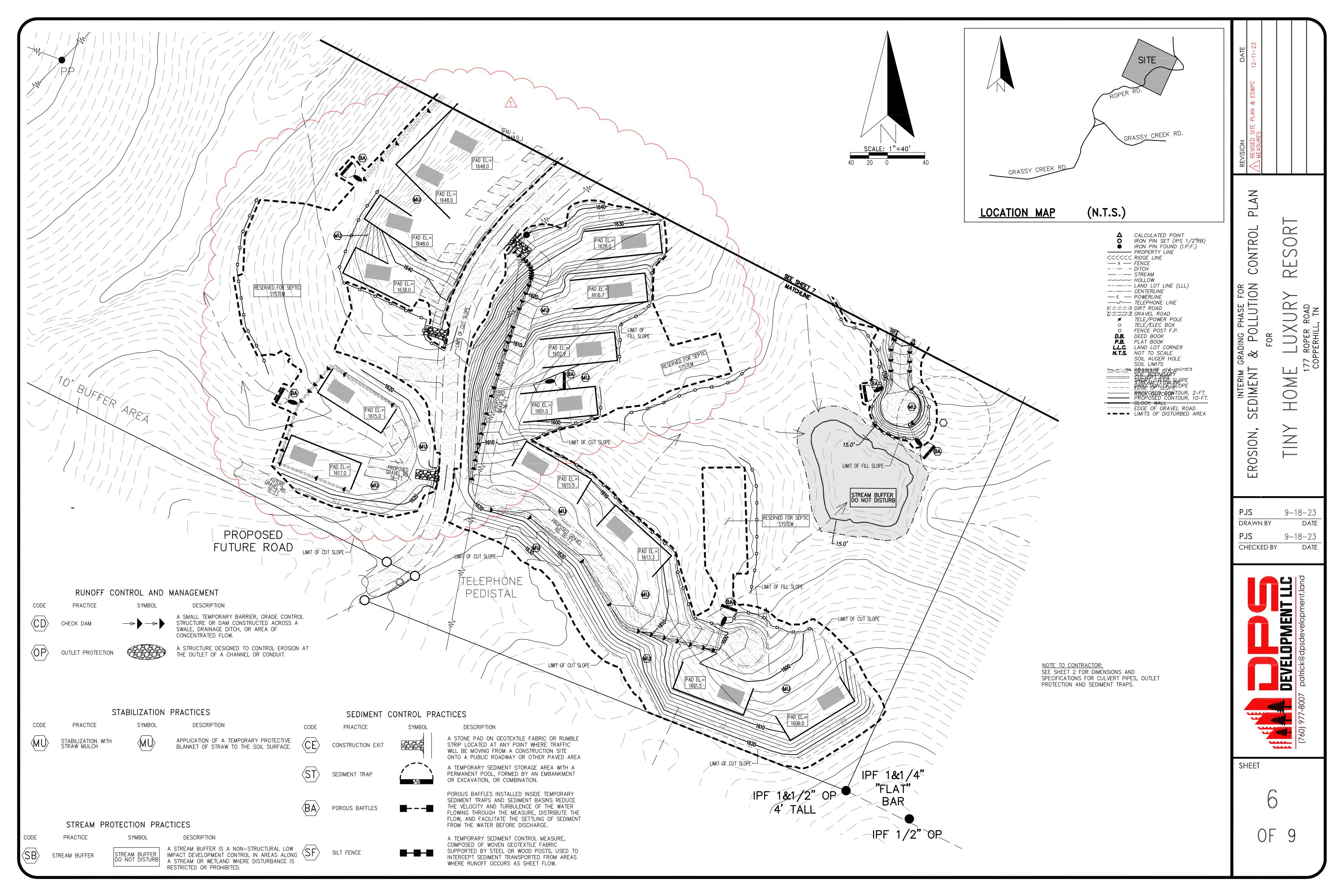
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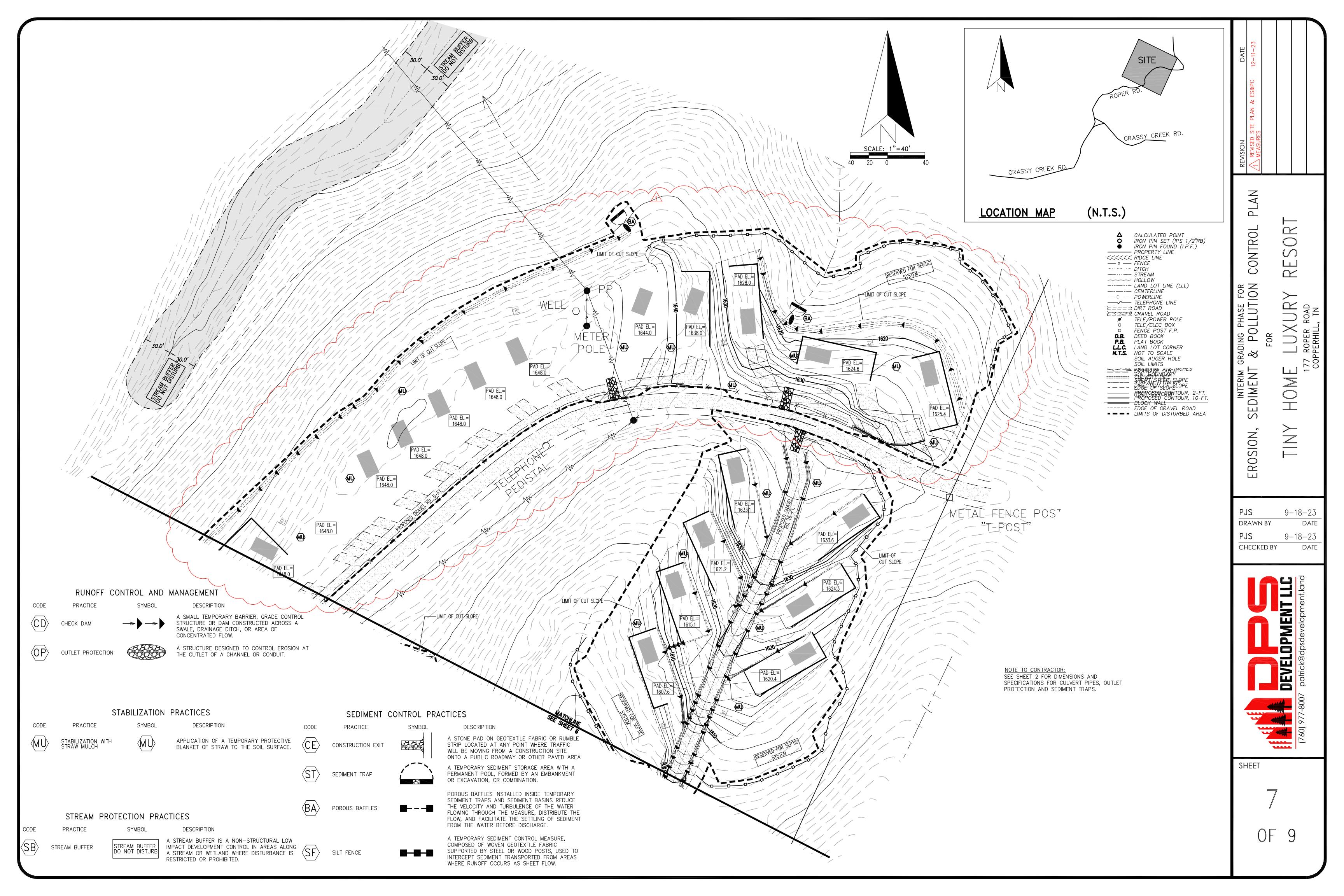
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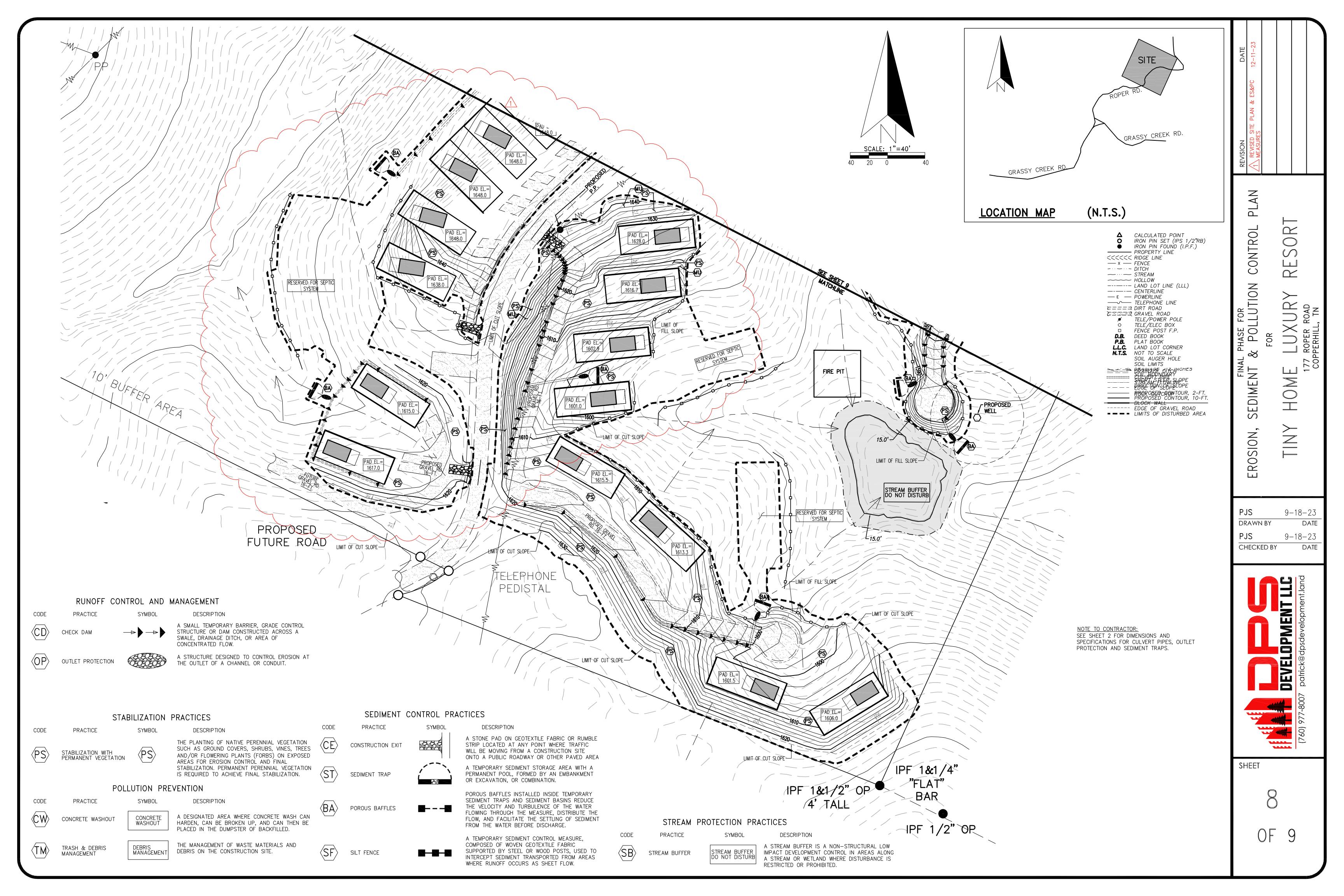
DATE

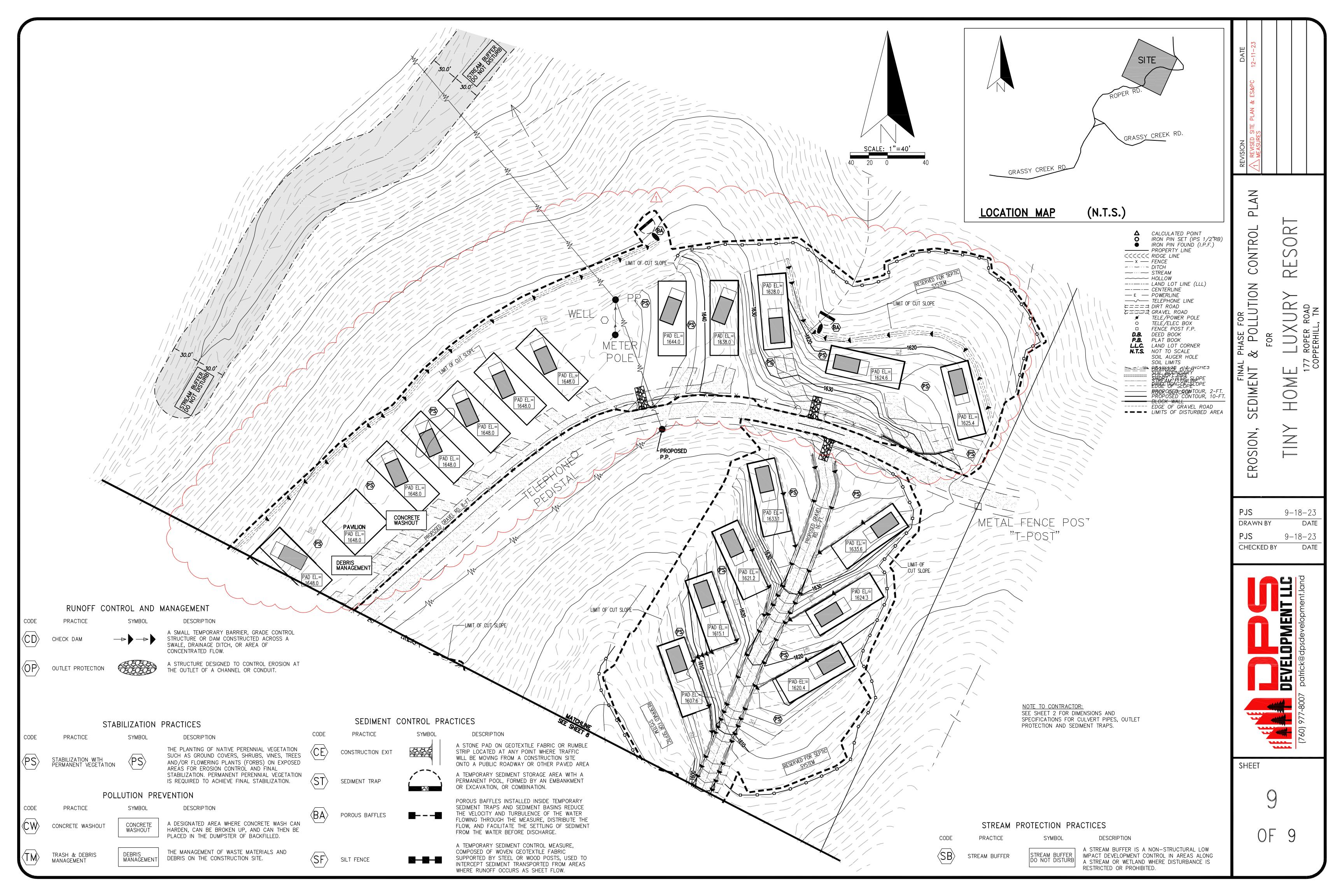












FW: Notice of Coverage: TNR114112 - Tiny Home Resort

Nikki Carpenter < Nikki.Carpenter@tn.gov>

Mon 12/11/2023 3:05 PM

To:Cali Calderwood <Cali.Calderwood@tn.gov>;Hannah L. Biggs <Hannah.L.Biggs@tn.gov>

Please upload, let me know if it doesn't open



Nikki Carpenter | Environmental Scientist
Division of Water Resources
Chattanooga Environmental Field Office
1301 Riverfront Parkway, Suite 206
Chattanooga, TN 37402
(423) 661-5267
Nikki Carpenter@tn.gov

Nikki.Carpenter@tn.gov tn.gov/environment

From: Patrick Salcedo <patrick@dpsdevelopment.land>

Sent: Monday, December 11, 2023 12:10 PM
To: Nikki Carpenter < Nikki.Carpenter@tn.gov>

Cc: Jennifer Innes < Jennifer.Innes@tn.gov>; Robert Nix < robert nix73@hotmail.com>; Bo Oglesby

<bo.oglesby@yahoo.com>; David Toole <davetoole2000@yahoo.com>

Subject: [EXTERNAL] RE: Notice of Coverage: TNR114112 - Tiny Home Resort

Hi Nikki,

Please see the link below to access the revised ES&PC plans for TNR114112. The disturbed area did in fact increase by 3.6% which I noted on the cover sheet. As mentioned, the ES&PC measures did not change much, just shifting a few things around like the sediment traps and the ditches flowing to the traps.

Let me know if you need anything else.

https://www.dropbox.com/scl/fo/963hbxxgm34qxxy6uyjff/h?rlkey=1pppwh5dw22n2b7hwpvem1ww3&dl=0

Thank you!

Patrick J. Salcedo, PE M: (760) 977-8007

https://www.dpsdevelopment.land/

France Mildi Companies Alildi Companies Otto

From: Nikki Carpenter < Nikki.Carpenter@tn.gov > Sent: Wednesday, November 22, 2023 10:31 AM To: Patrick Salcedo < patrick@dpsdevelopment.land >

Cc: Jennifer Innes < Jennifer.Innes@tn.gov>

Subject: RE: Notice of Coverage: TNR114112 - Tiny Home Resort

Patrick,

I left you a voicemail in response, and I'm following up here with some options.

If the proposed revisions are *within* the permitted disturbed area, you don't need to send anything to us for review. The most up to date SWPPP (to include revised EPSC sheets) needs to be kept on site and adhered to by the site contractor. These revisions should meet the conditions of the CGP.

If the proposed work is outside the LOD currently permitted under a valid NOC, the permit allows you to increase the disturbed acreage by 10%. You don't need to submit an application, but you do need to submit a revised SWPPP for review.

If the acreage exceeds the 10%, a new submittal should be sent in for review and a new tracking number will be assigned.

Of course, all this changes if there are proposed impacts to jurisdictional features, buffer encroachments, or equivalent measures proposed. We may need to discuss further if that is the case.

Right now, work is only authorized inside the permitted LOD.

I will be available the rest of today, but then out of the office until next Wednesday. I've copied Jennifer in case this email doesn't address your concerns.

Thank you,



Nikki Carpenter | Environmental Scientist
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Nikki.Carpenter@tn.gov
tn.gov/environment

From: Patrick Salcedo <patrick@dpsdevelopment.land>

Sent: Tuesday, November 21, 2023 4:40 PM **To:** Nikki Carpenter < Nikki.Carpenter@tn.gov >

Subject: [EXTERNAL] RE: Notice of Coverage: TNR114112 - Tiny Home Resort

*** This is an EXTERNAL email. Please exercise caution. DO NOT open attachments or click links from unknown senders or unexpected email - STS-Security. ***

Hi Nikki,

I just left you a message about a site plan change for this project. The owners have decided to move a few homes around where the disturbed area will be relatively the same but it will affect the location of certain erosion control measures. I'd like to get your suggestion on how we care take care of this since the NOC has already been issued. Do we need to make this change to the plans now? Or can we start construction and submit plans sometime in the next month or so as we are clearing?

Thank you and regards,

Patrick J. Salcedo, PE

M: (760) 977-8007

https://www.dpsdevelopment.land/

From: Nikki Carpenter < <u>Nikki.Carpenter@tn.gov</u>> Sent: Wednesday, November 1, 2023 2:33 PM

To: robert nix73@hotmail.com

Cc: Patrick Salcedo <patrick@dpsdevelopment.land>

Subject: Notice of Coverage: TNR114112 - Tiny Home Resort

Please find attached the Notice of Coverage (NOC) for the above referenced project.

The NOC and other permit documents can also be found on the TDEC Public Data Viewer: https://dataviewers.tdec.tn.gov/pls/enf_reports/f?p=9034:34001

We appreciate your attention to the General Construction Stormwater Permit (CGP) and its requirements. We believe this does make a difference to the quality of state waters. If you have any questions, please feel free to contact me.

NPDES Construction Stormwater Permit: https://www.tn.gov/content/tn/environment/permit-permits/water-permits1/npdes-stormwater-permitting-program/npdes-stormwater-construction-permit.html

Thank you,



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