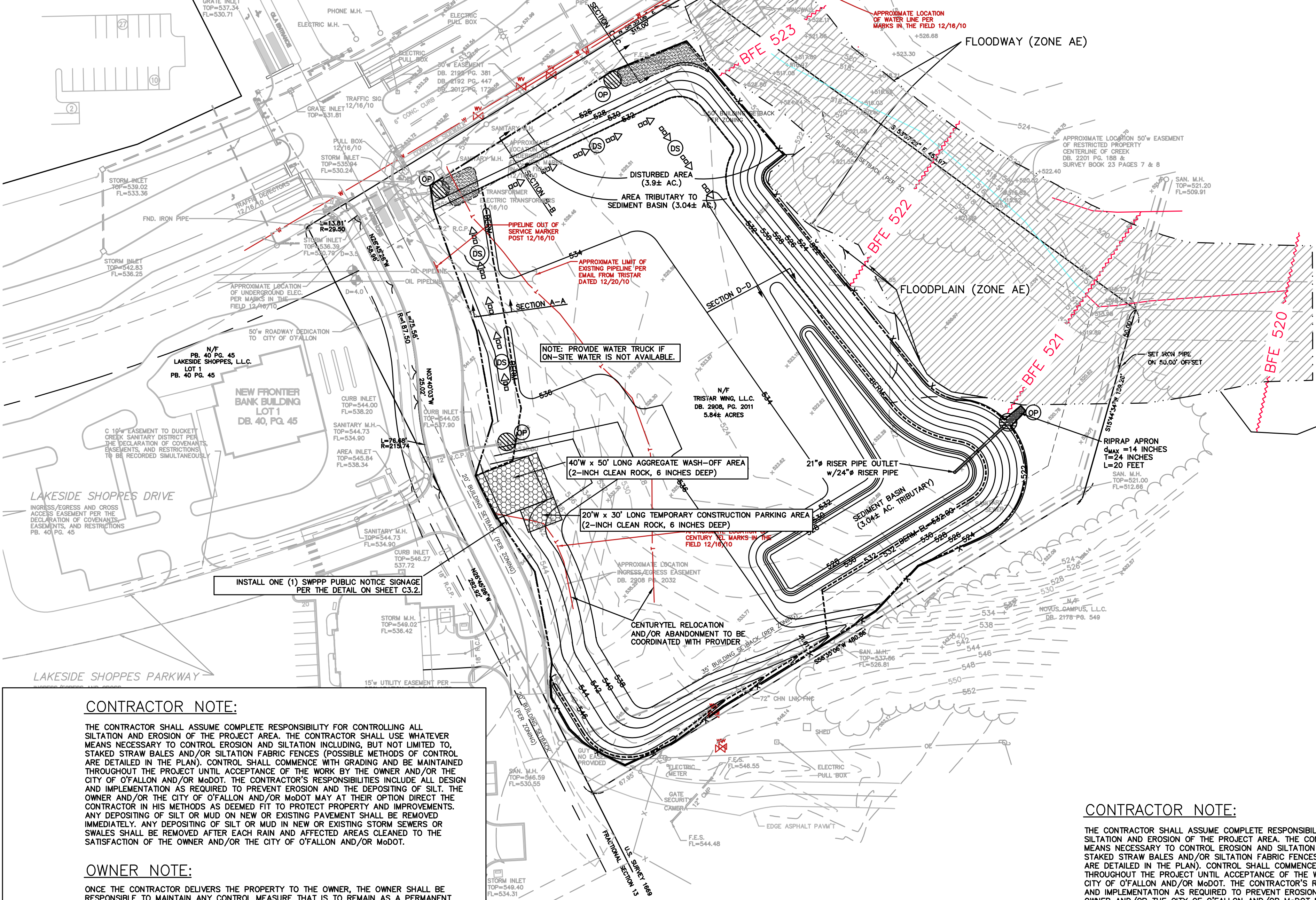
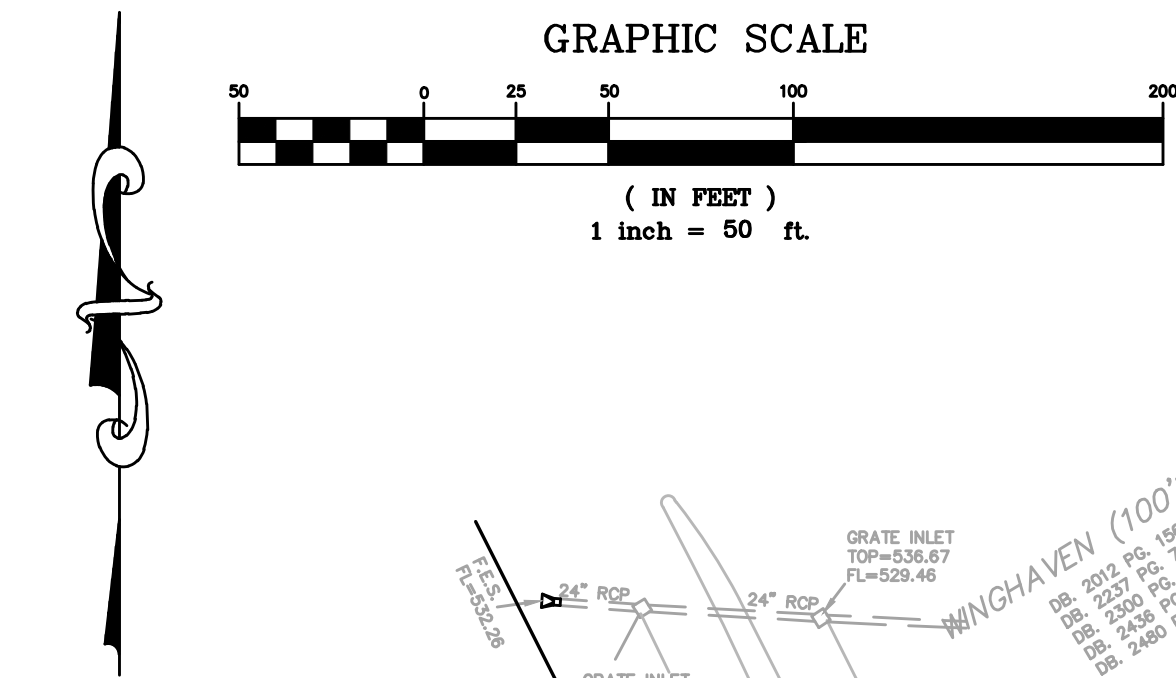




CONTRACTOR NOTE:

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OWNER NOTE:

ONCE THE CONTRACTOR DELIVERS THE PROPERTY TO THE OWNER, THE OWNER SHALL BE RESPONSIBLE TO MAINTAIN ANY CONTROL MEASURE THAT IS TO REMAIN AS A PERMANENT STRUCTURE TO CONTROL SILTATION AND EROSION.

FLOOD NOTE:

SUBJECT PROPERTY LIES WITHIN FLOOD ZONE X (AREA OF 0.2% ANNUAL CHANCE FLOOD, AREA OF 1% ANNUAL CHANCE FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FEET OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE, AND AREAS PROTECTED BY LEVEES FROM 1% ANNUAL CHANCE FLOOD) AND FLOOD ZONE AE WITH BASE FLOOD ELEVATIONS OF 523 - 520 ACCORDING TO THE NATIONAL FLOOD INSURANCE RATE MAP NUMBER 291530240G WITH AN EFFECTIVE DATE OF 01/20/2016.

SEDIMENT BASIN STORAGE VOLUME (REQUIRED)

6-MONTH DESIGN STORM

$$V = P \times C \times A \times 3630 \text{ where: } P=2.03 \text{ in.}, C=0.5, A=3.04 \text{ Ac.}$$

$$V = 2.03 \times 0.5 \times 3.04 \times 3630$$

$$V = 11,201 \text{ C.F.}$$

SEDIMENT BASIN VOLUME (PROVIDED)

Elevation	Area	Volume
528.00	8,352	0
529.00	10,360	9,351
529.25	10,858	12,002
529.50	11,370	14,781

SEDIMENT BASIN CLEAN OUT VOLUME and ELEVATION

SEDIMENT CLEAN OUT REQUIRED @ 0.75 x V

$$V \times 0.75 = 8,401 \text{ C.F. (SAY CLEAN OUT ELEVATION : 528.90)}$$

SEDIMENT BASIN CLEAN OUT VOLUME/ELEVATION

Elevation	Area	Volume
528.00	8,352	0
528.75	9,845	6,824
528.85	10,047	7,818
528.90	10,148	8,323

OUTLET STRUCTURE - 24" RISER PIPE

10-YEAR DESIGN STORM

$$Q = C \times i \times A \text{ where: } C=0.5, i=6.62 \text{ in/hr}, A=3.04 \text{ Ac.}$$

$$Q = 0.5 \times 6.62 \times 3.04$$

$$Q = 10.06 \text{ cfs}$$

ON-SITE DIVERSION SWALE SECTION D-D

6-MONTH DESIGN STORM

$$Q = C \times i \times A \text{ where: } C=0.5, i=2.86 \text{ in/hr}, A=0.95 \text{ Ac.}$$

$$Q = 0.5 \times 2.86 \times 0.95$$

$$Q = 1.36 \text{ cfs}$$

SECTION D-D
BOTTOM WIDTH = 2 FEET
Q = 1.36 cfs
V = 1.79 fps
DEPTH = 0.27 FEET

24" RISER PIPE (Weir Flow)

$$Q_w = 9.739 \times D_r \times h^{3/2} \text{ where: } D_r=2'$$

$$10.06 = 9.739 \times 2 \times h^{3/2}$$

$$h = 0.64'$$

24" RISER PIPE (Orifice Flow)

$$Q_o = 3.782 \times D_r^2 \times h^{1/2} \text{ where: } D_r=2'$$

$$10.06 = 3.782 \times 2^2 \times h^{1/2}$$

$$h = 0.44'$$

Sediment Basin Water Surface Elevation

$$529.25 + 0.44 = 529.69$$

$$\text{Sediment Basin Berm: } 532.00$$

$$532.00 - 529.69 = 2.31' (2.31' > 1') \text{ therefore O.K.}$$

EROSION CONTROL LEGEND

OP	OUTLET PROTECTION
WD	WASH DOWN/CONSTRUCTION ENTRANCE/PARKING AREA
DS	DIVERSION SWALE
X	SILTATION FENCE
HEAVY STONE	HEAVY STONE REVETMENT

CONTRACTOR NOTE:

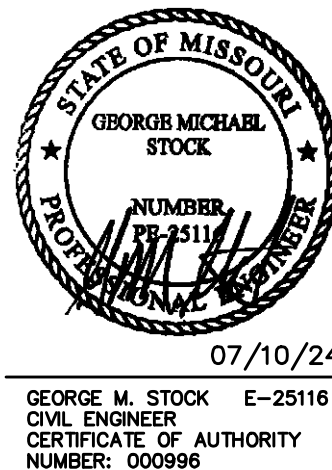
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TRISTAR Wing LLC
Parcel ID:
4-0069B-5614-00-0001.6300000
O'Fallon, Missouri 63368

STOCK & ASSOCIATES
Consulting Engineers, Inc.
257 Chesterfield Business Parkway
St. Louis, MO 63005
Phone: (636) 530-9000
Contact: Doug Bruns, P.E.
doug@stockassociates.com



Developer / Owner Information
TRISTAR WING, L.L.C.
c/o TRISTAR COMPANIES
12647 Olive Blvd., Suite 510
St. Louis, MO 63141

Storm Water Pollution Prevention Plan

P+Z No. : 23-010299

Approval Date : 09/07/23

Permit No. :

Page No.
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