

Earth Removal Documents

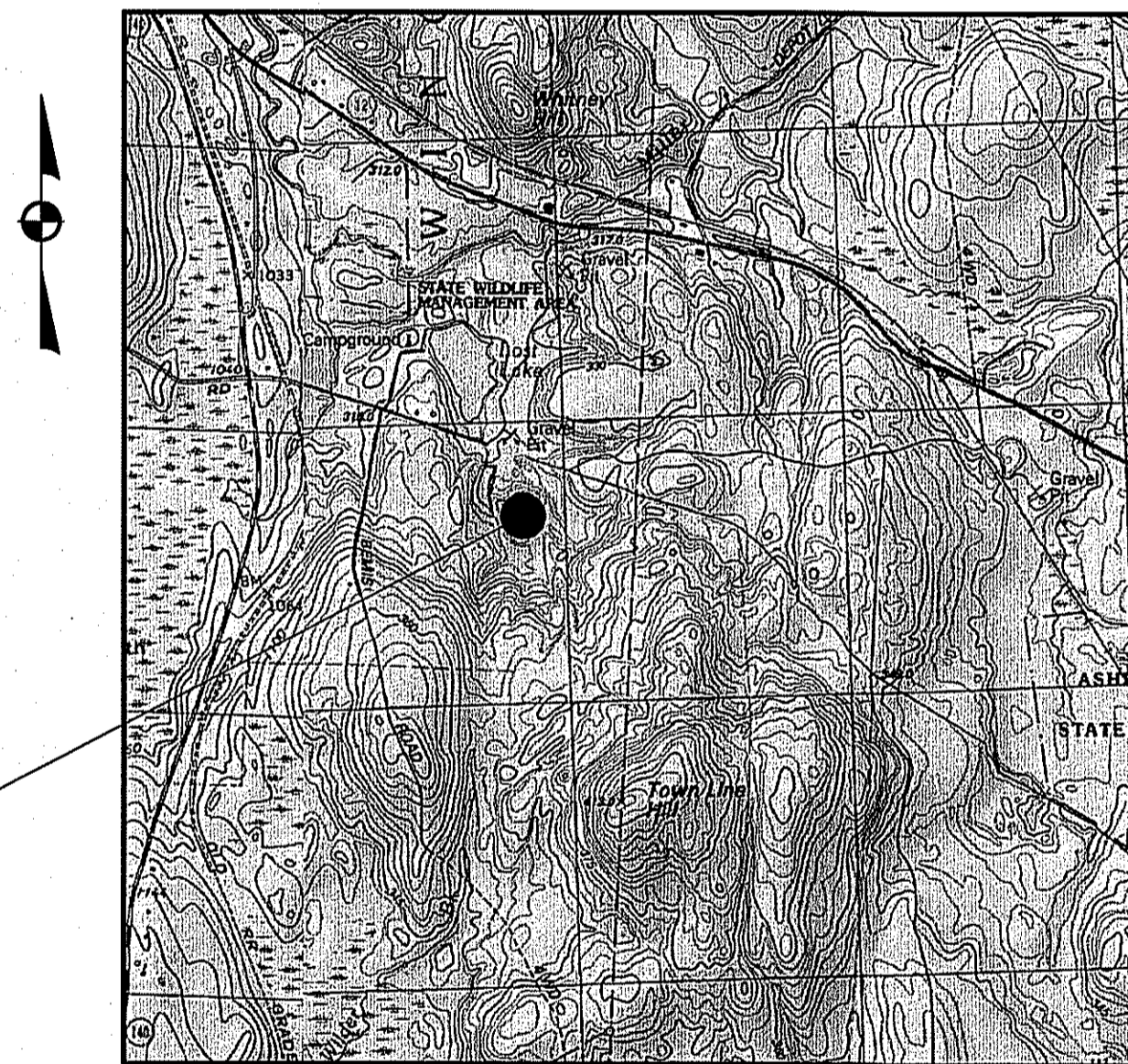
February 14, 2024

Teel Road & Bemis Road

Map 9, Parcels 93 & 99

Winchendon, Massachusetts 01475

PROJECT SITE



SCALE: 1"=1000'±

Applicant:
Powell Stone & Gravel
133 Leominster Shirley Road
(978) 537-8100
Lunenburg, MA 01462

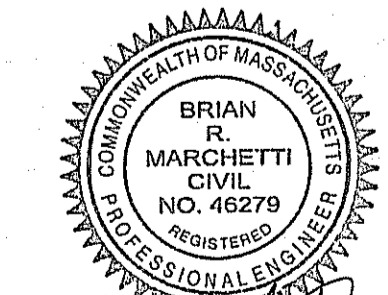
Record Owner:
Winchendon Materials, LLC
133 Leominster Shirley Road
(978) 537-8100
Lunenburg, MA 01462

Civil Engineer:
McCarty Engineering, Inc.
42 Tucker Drive
Leominster, MA 01453
(978) 534-1318

Wetland Consultant:
Three Oaks Environmental
P.O. Box 404
Hubbardston, MA 01452
(978) 855-3180

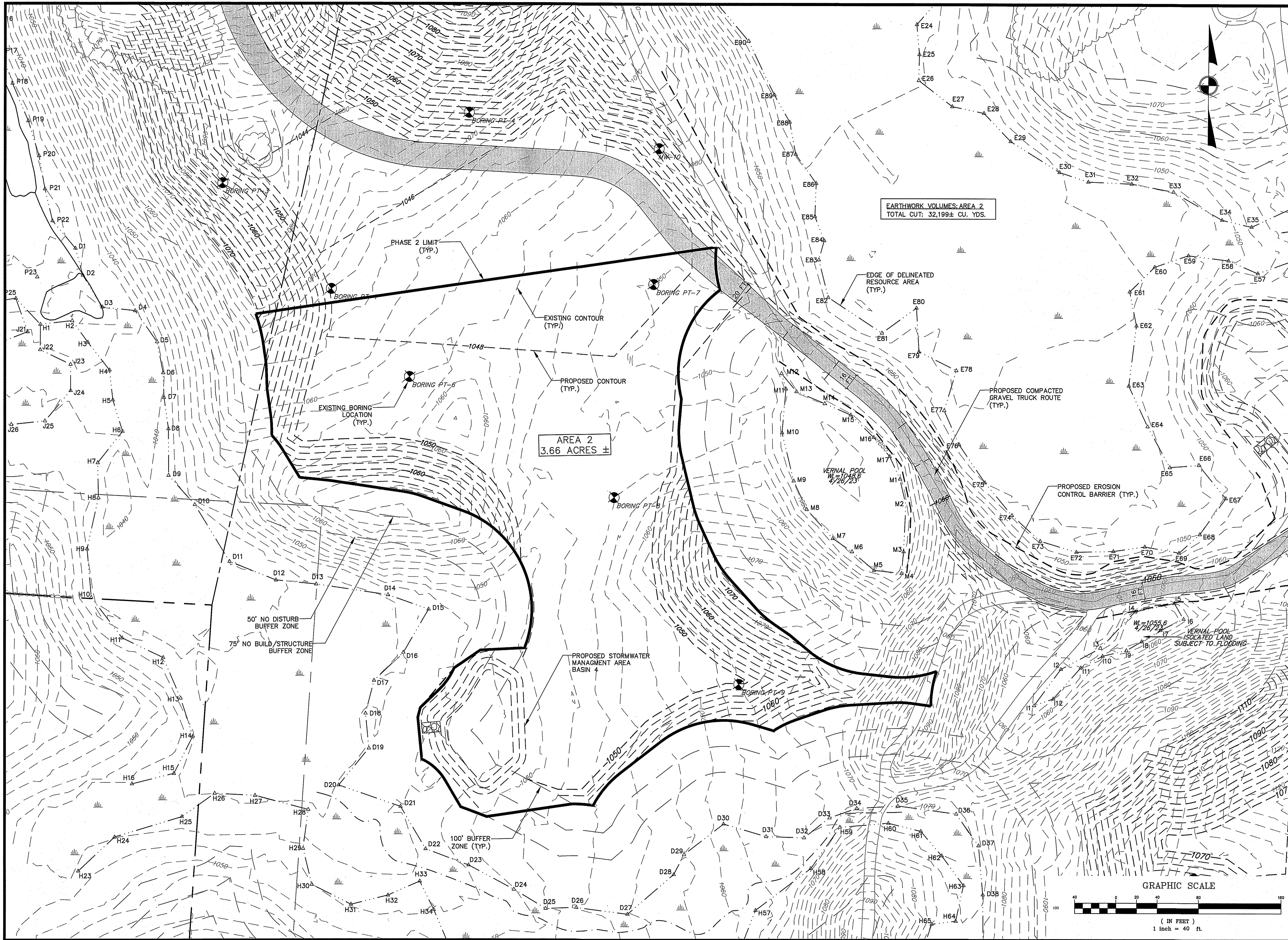
Surveyor:
Tauper Land Survey, Inc.
710 Main Street
Oxford, MA 01537
(508) 987-2266

Sheet	Sheet Title
	Cover Sheet
1	Existing Conditions Plan
2	Overall Development Plan
3	Phase 1 Grading Plan
4	Phase 2 Grading Plan
5	Phase 3 & 4 Grading Plan
6	Phase 5 Grading Plan
7	Phase 6 Grading Plan
8	Entrance Driveway Grading Plan
9	Construction Details

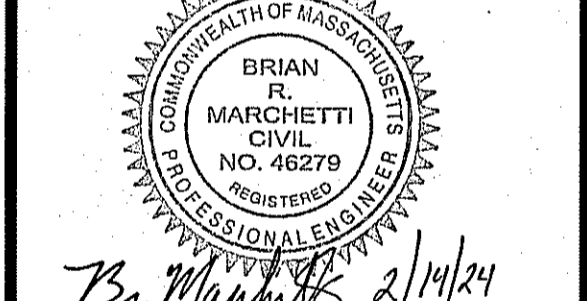


Brian R. Marchetti 2/14/24

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 THESE PLANS WERE PREPARED FOR THE PURPOSE OF OBTAINING STATE AND LOCAL PERMITS AND ARE NOT INTENDED TO BE USED AS CONSTRUCTION DOCUMENTS.



No.	Date	Revision



Drawn By: JRP Designed By: BRM Checked By: *BRM*

McCarty Engineering, Inc.
 Civil Engineers
 42 Tucker Drive, Leominster, MA 01453
 phone: (978) 534-1318 fax: (978) 840-6907
 www.mccartydb.com

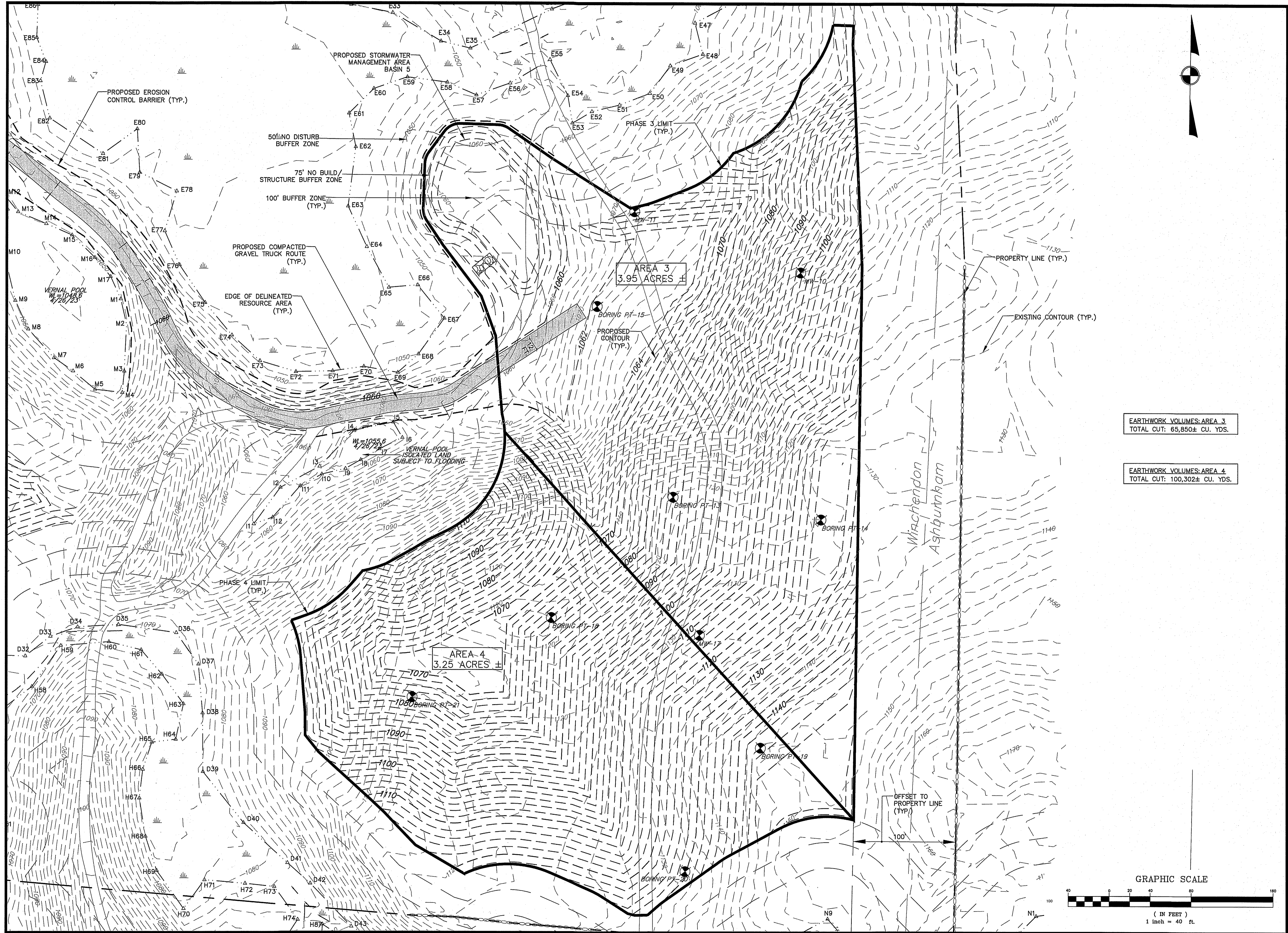
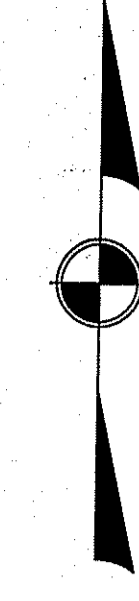
Project Name
Teel Road Parcels
 9-0-93 & 9-0-99

Sheet Title
Phase 2
Grading Plan

Job No: 121.10 Sheet No.
 File Name: 121.10P-Phasing
 Date: February 14, 2024
 Scale: 1"=40' **4**

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EARTHWORK VOLUMES: AREA 3
 TOTAL CUT: 65,850± CU. YDS.

EARTHWORK VOLUMES: AREA 4
 TOTAL CUT: 100,302± CU. YDS.

No.	Date	Revision



Brian Marchetti 2/14/24

Drawn By: JRP
 Designed By: BRM
 Checked By: *TS/ML*

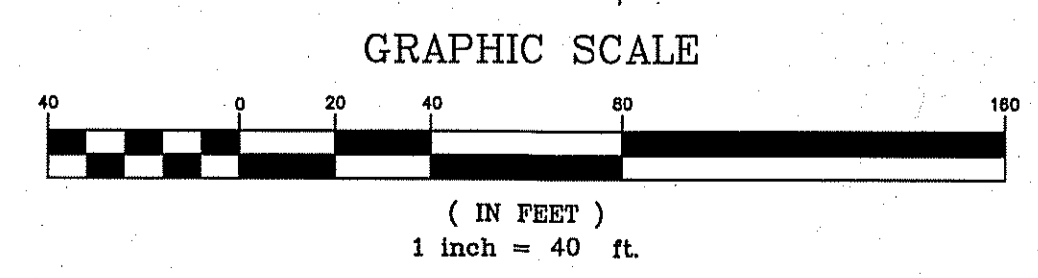
McCarty Engineering, Inc.
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Project Name
Teel Road Parcels
 9-0-93 & 9-0-99

Sheet Title
Phase 3&4
Grading Plan

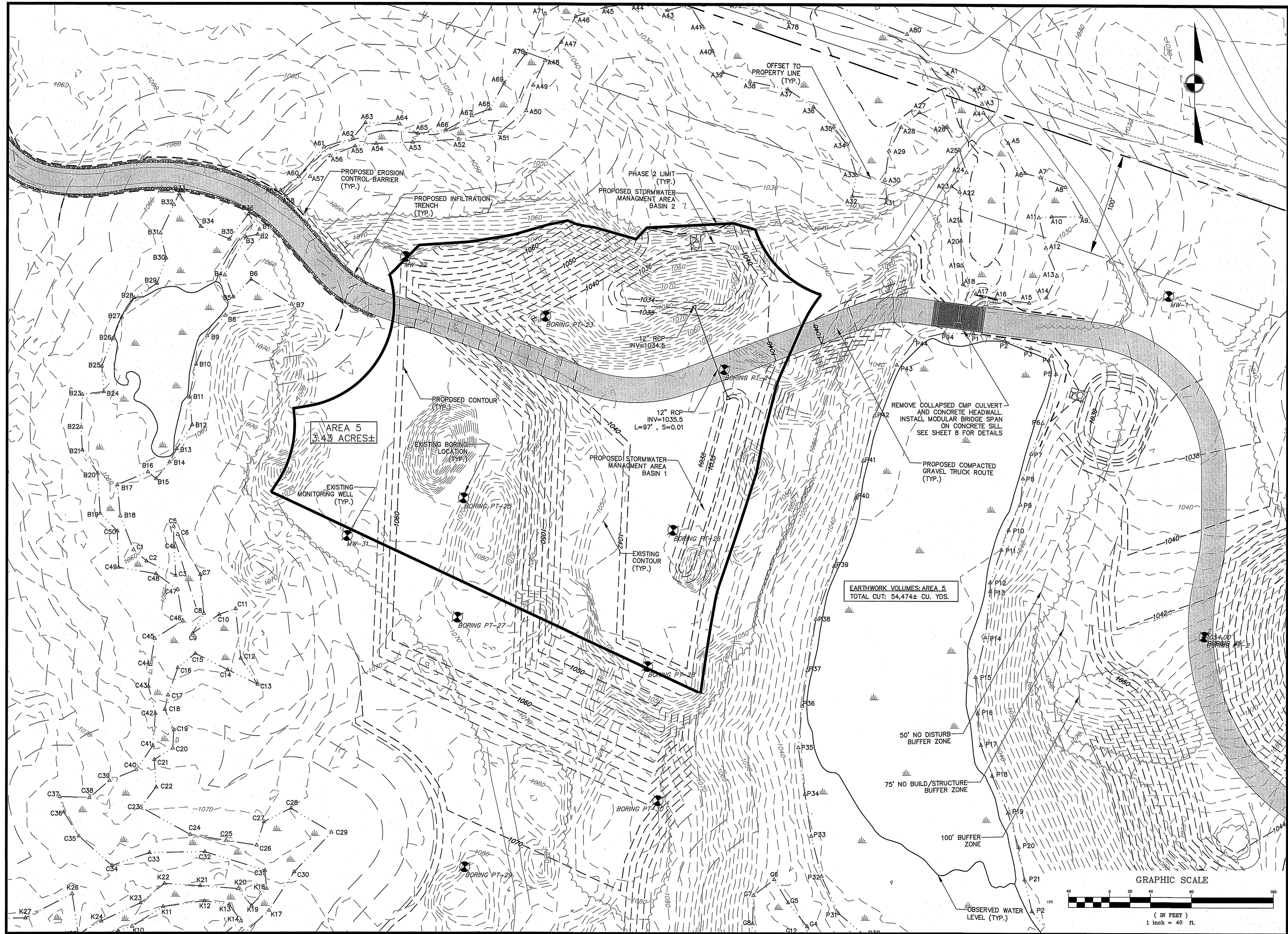
Job No: 121.10
 File Name: 121.10P-Phasing
 Date: February 14, 2024
 Scale: 1"=40'

Sheet No.
5



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No.	Date	Revision

Professional Engineer Seal for Brian R. Marchetti, No. 46279, State of Massachusetts. Signature: *Brian R. Marchetti*, Date: 2/14/24.

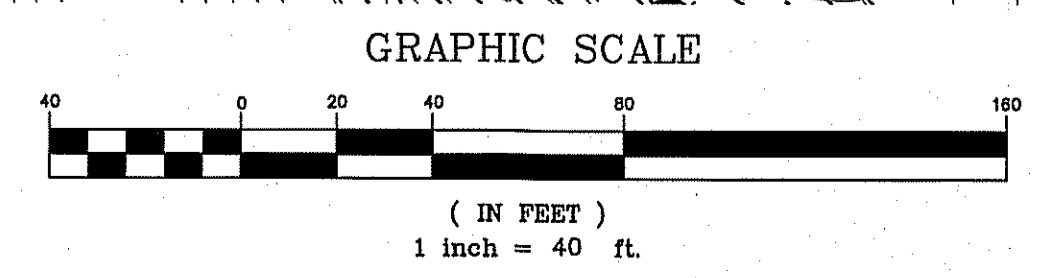
Drawn By: JRP
 Designed By: BRM
 Checked By: *TCM*

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 www.mccartydb.com

Project Name
Teel Road Parcels
 9-0-93 & 9-0-99

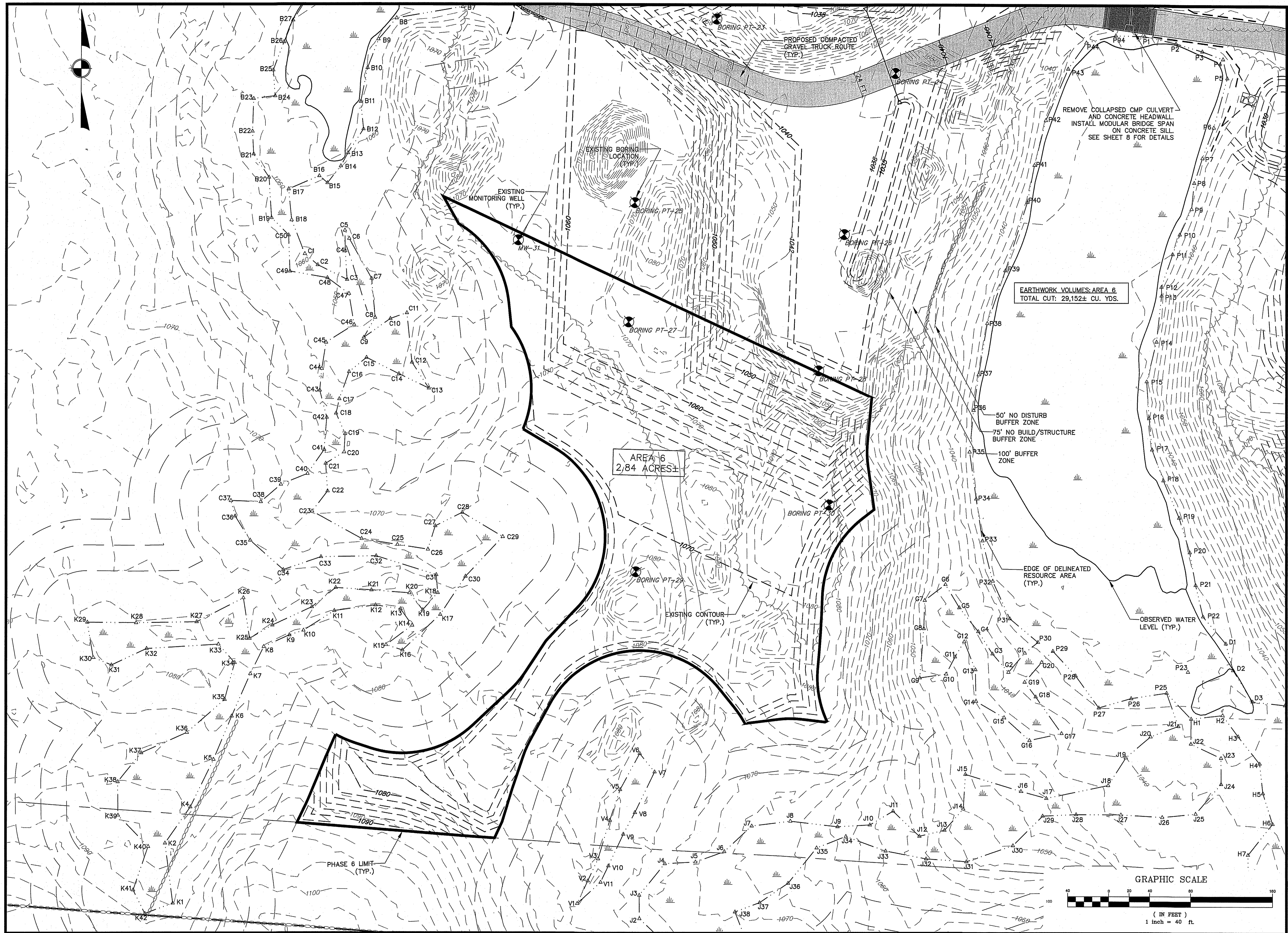
Sheet Title
Phase 5
Grading Plan

Job No: 121.10
 File Name: 121.10P-Phasing
 Date: February 14, 2024
 Scale: 1"=40'
 Sheet No. **6**



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EARTHWORK VOLUMES: AREA 6
TOTAL CUT: 29,152± CU. YDS.

AREA 6
2,84 ACRES±

No.	Date	Revision



Brian R. Marchetti
Civil Engineer
No. 46279
2/14/24

Drawn By: JRP
Designed By: BRM
Checked By: TSCM

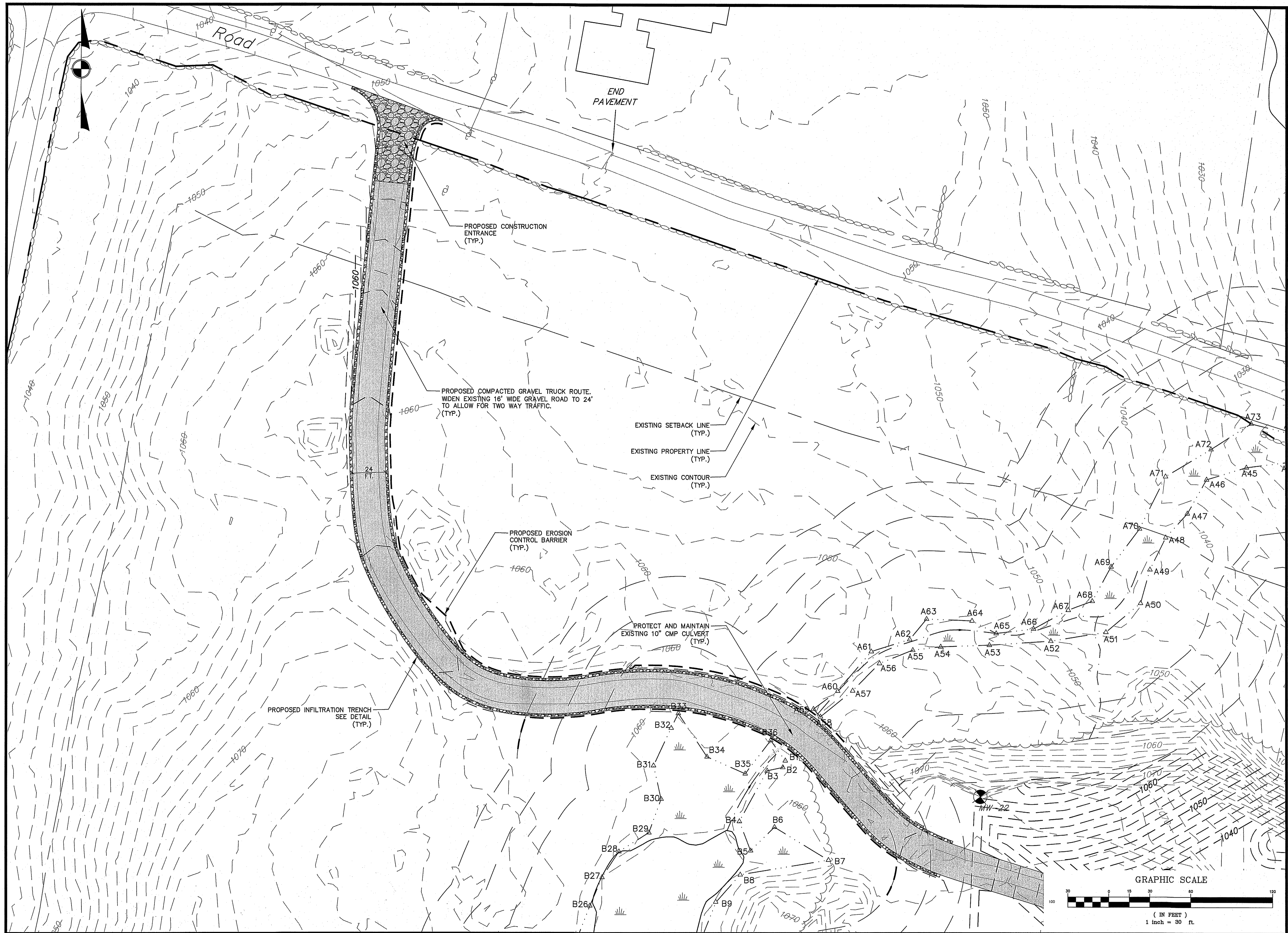
McCarty Engineering, Inc.
Civil Engineers
42 Tucker Drive, Leominster, MA 01453
phone: (978) 534-1318 fax: (978) 840-6907
www.mccartydb.com

Project Name
Teel Road Parcels
9-0-93 & 9-0-99

Sheet Title
Phase 6
Grading Plan

Job No: 121.10
File Name: 121.10P-Phasing
Date: February 14, 2024
Scale: 1"=40'
Sheet No. **7**

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No.	Date	Revision

Professional Engineer Seal for Brian F. Marchetti, No. 46279, State of Massachusetts. Signature: B. Marchetti, Date: 2/14/24.

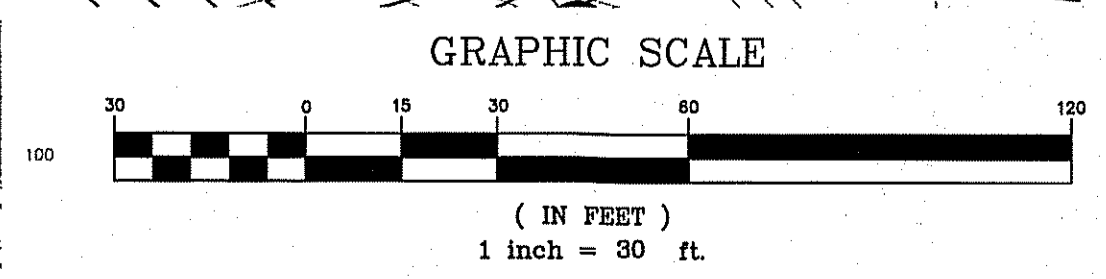
Drawn By: JRP Designed By: BRM Checked By: TSCM

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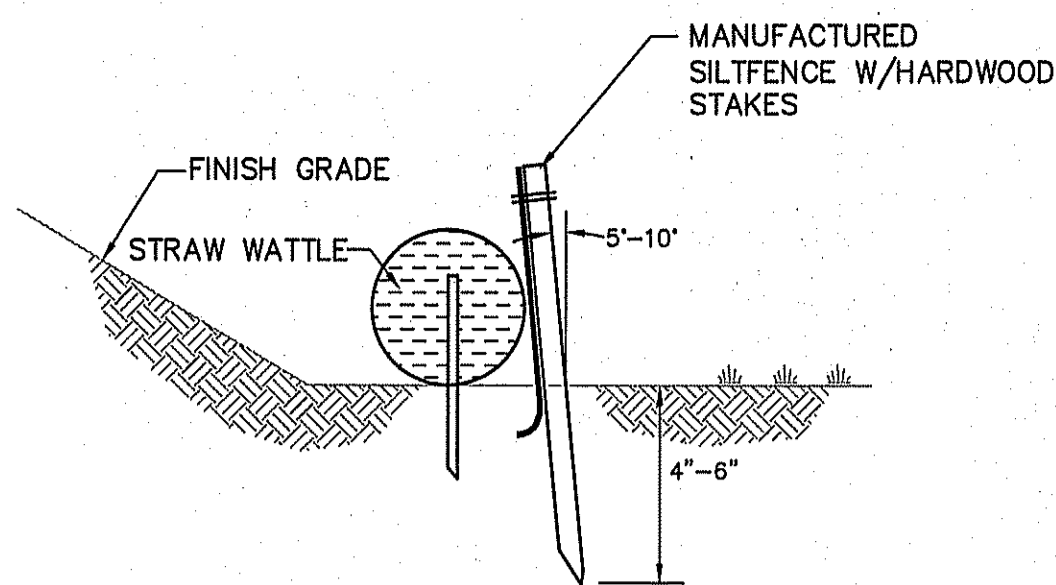
Project Name
**Teel Road Parcels
9-0-93 & 9-0-99**

Sheet Title
**Entrance Driveway
Grading Plan**

Job No: 121.10 Sheet No:
File Name: 121.10P-Phasing
Date: February 14, 2024 **8**
Scale: 1"=30'

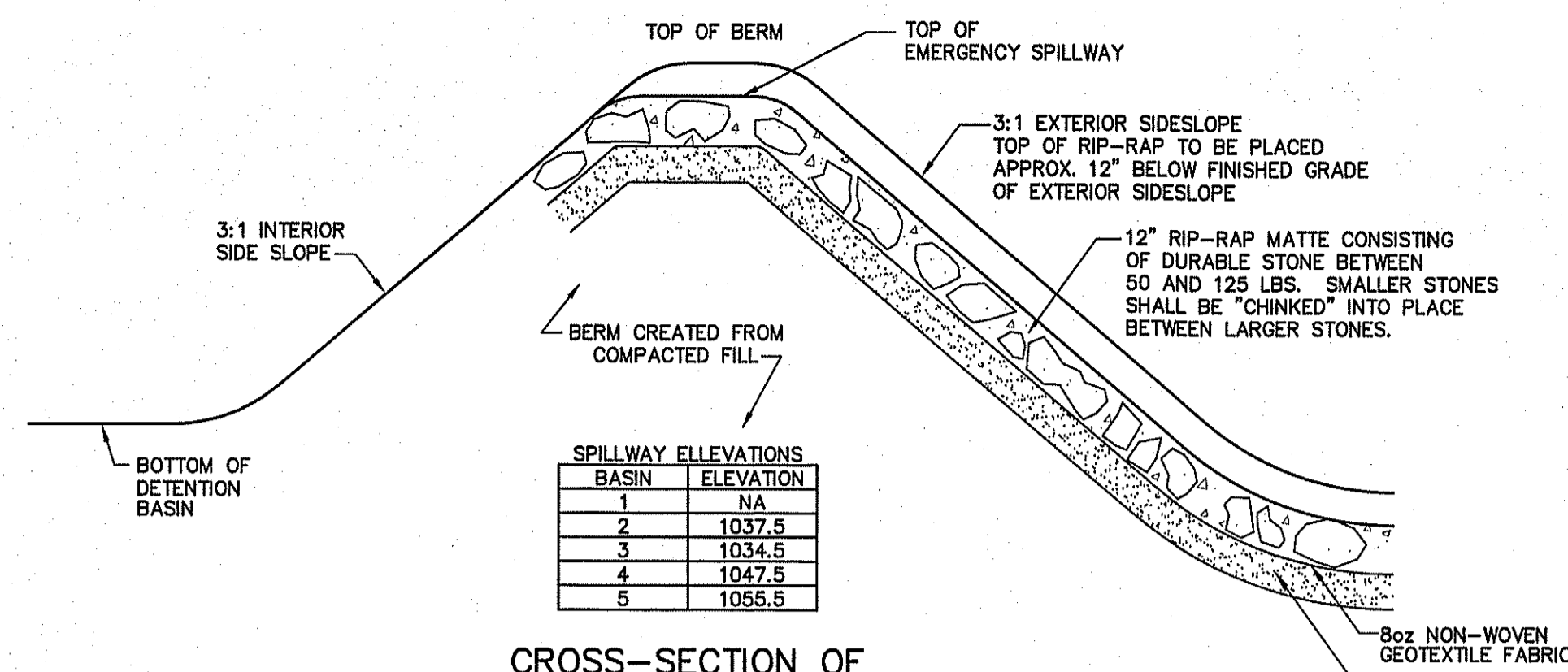


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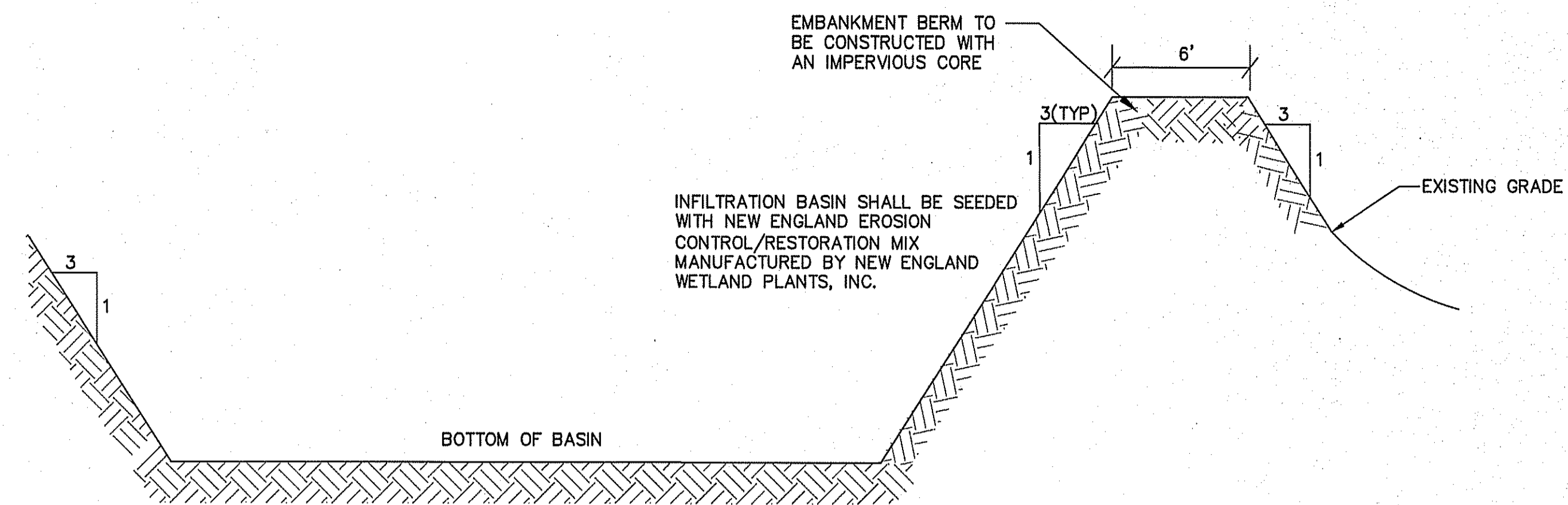
- NOTE:**
1. STRAW WATTLES SHALL BE INSTALLED ON CONTOUR AND STAKED WITH 18 OR 24 INCH WOOD STAKES AT FOUR FEET ON CENTER
 2. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES $\frac{1}{2}$ OF ROLL HEIGHT

STRAW WATTLE / SILT FENCE DETAIL
N.T.S.

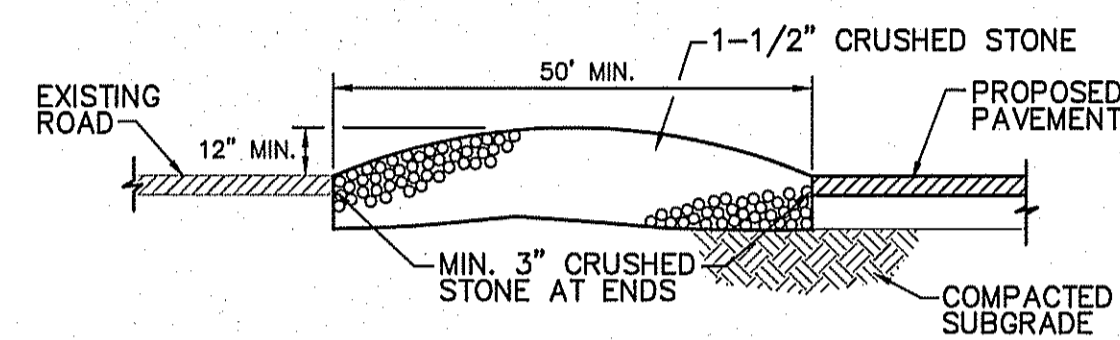


CROSS-SECTION OF INFILTRATION BASIN EMERGENCY SPILLWAY
N.T.S.

SPILLWAY ELEVATIONS	ELEVATION
1	NA
2	1037.5
3	1034.5
4	1047.5
5	1055.5

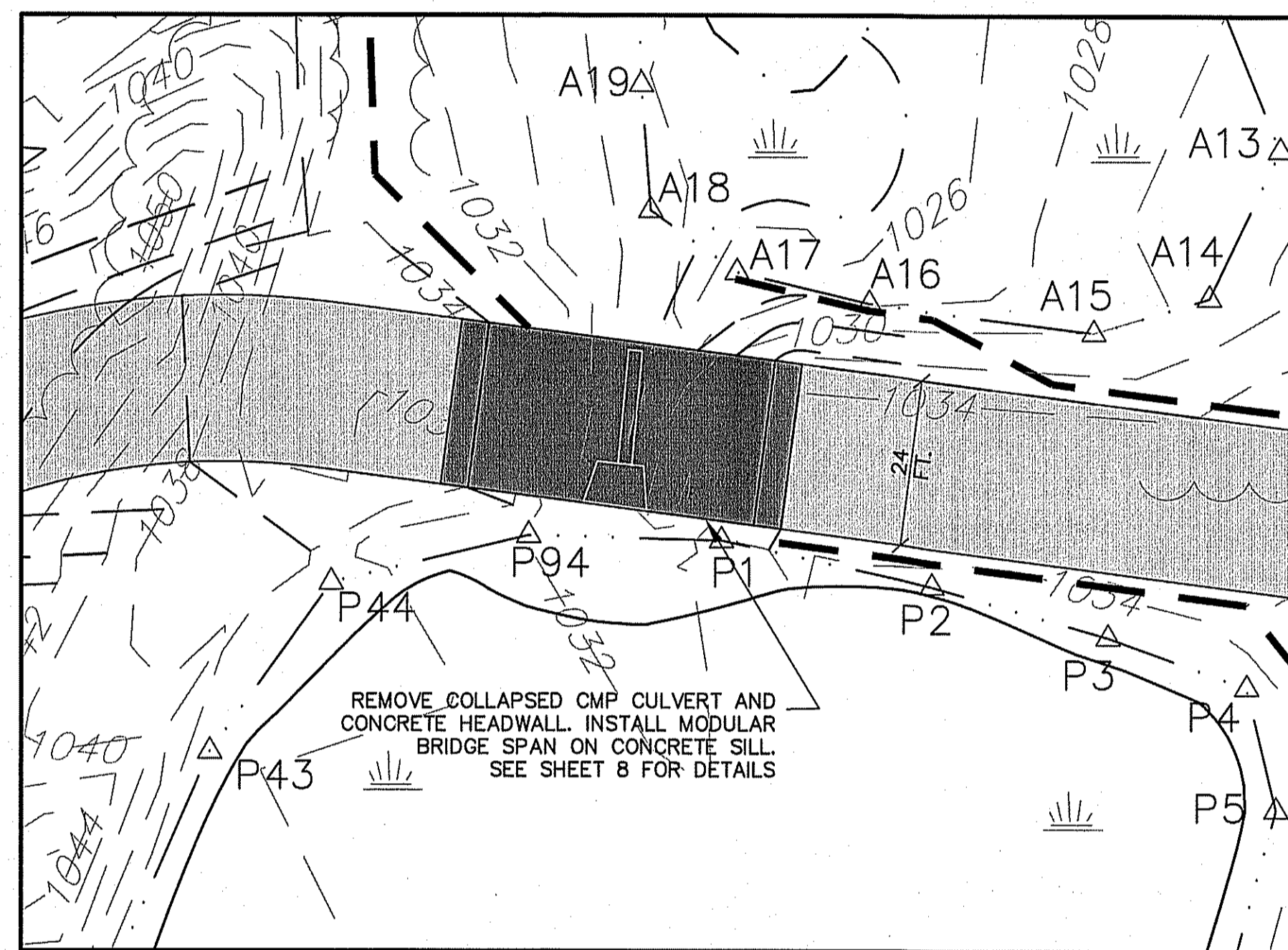


CROSS-SECTION OF TYPICAL INFILTRATION BASIN DETAIL
N.T.S.

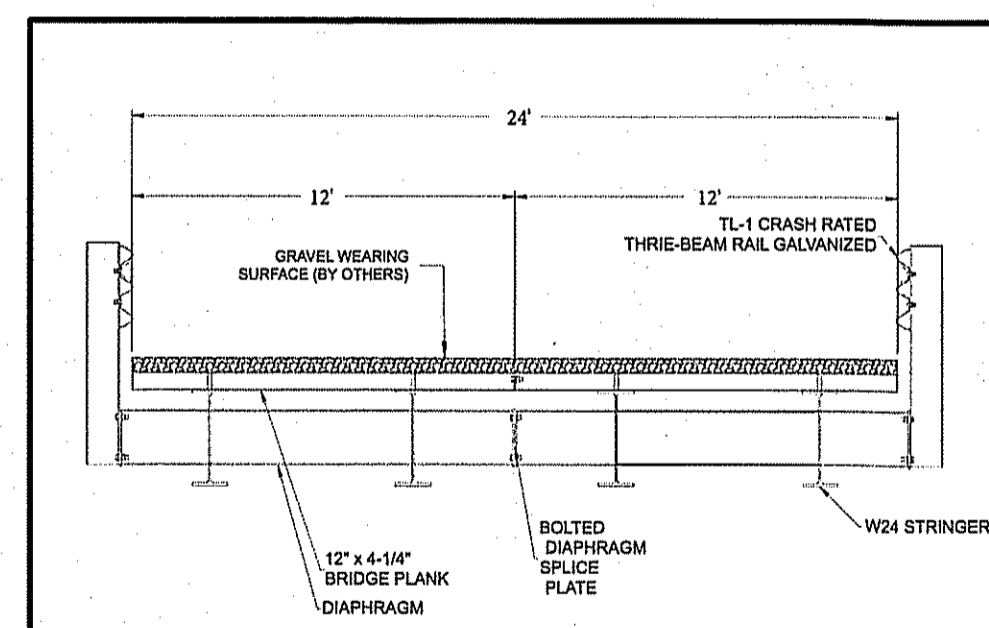


- NOTES:**
- THE PURPOSE OF THIS TEMPORARY BERM IS TO REMOVE MUD FROM THE TIRES OF VEHICLES LEAVING THE SITE DURING CONSTRUCTION. PROVIDE LEVEL AREA OF CRUSHED STONE 50 FEET IN FROM EDGE OF EXISTING ROAD.

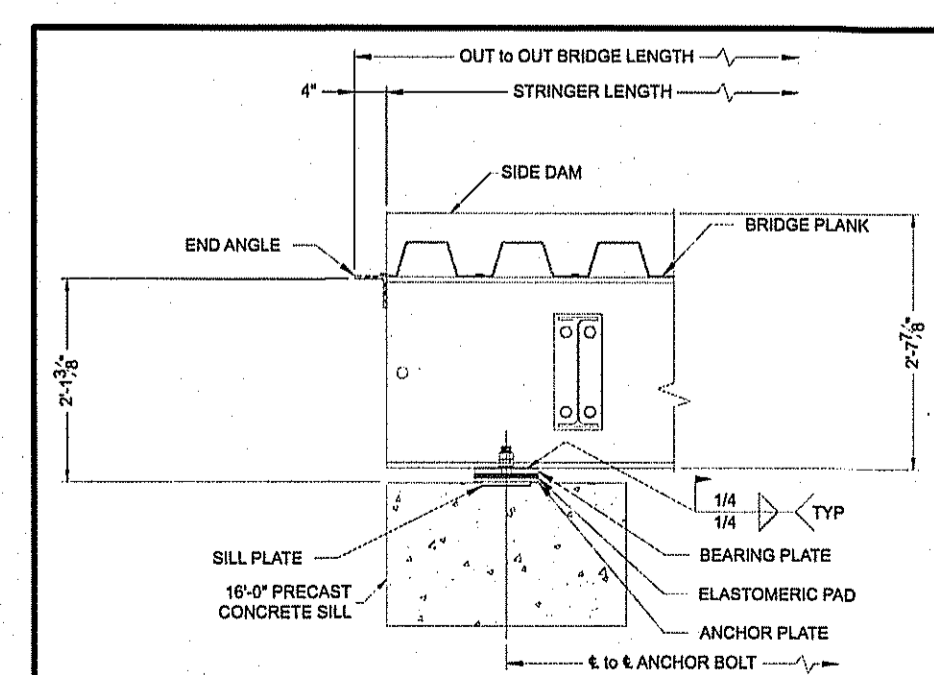
TEMPORARY CONSTRUCTION ENTRANCE BERM
N.T.S.



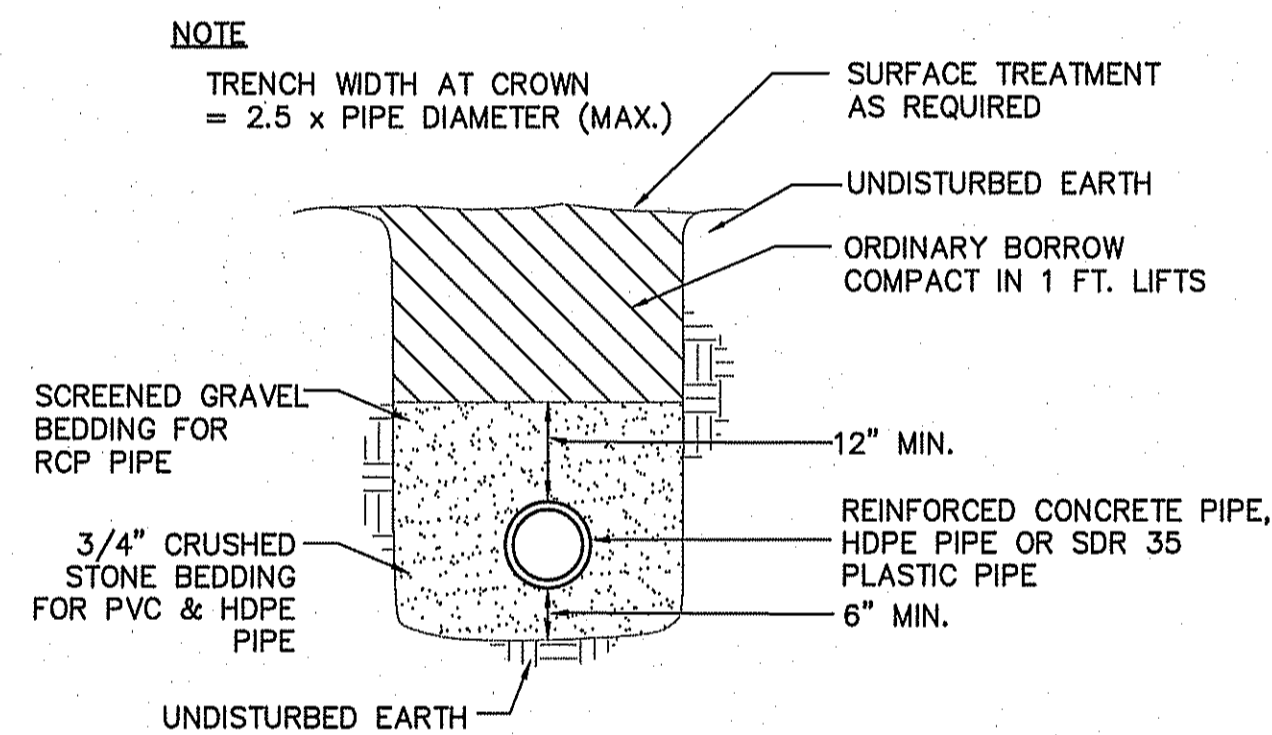
MODULAR BRIDGE PLAN VIEW
N.T.S.



MODULAR BRIDGE SECTION
N.T.S.

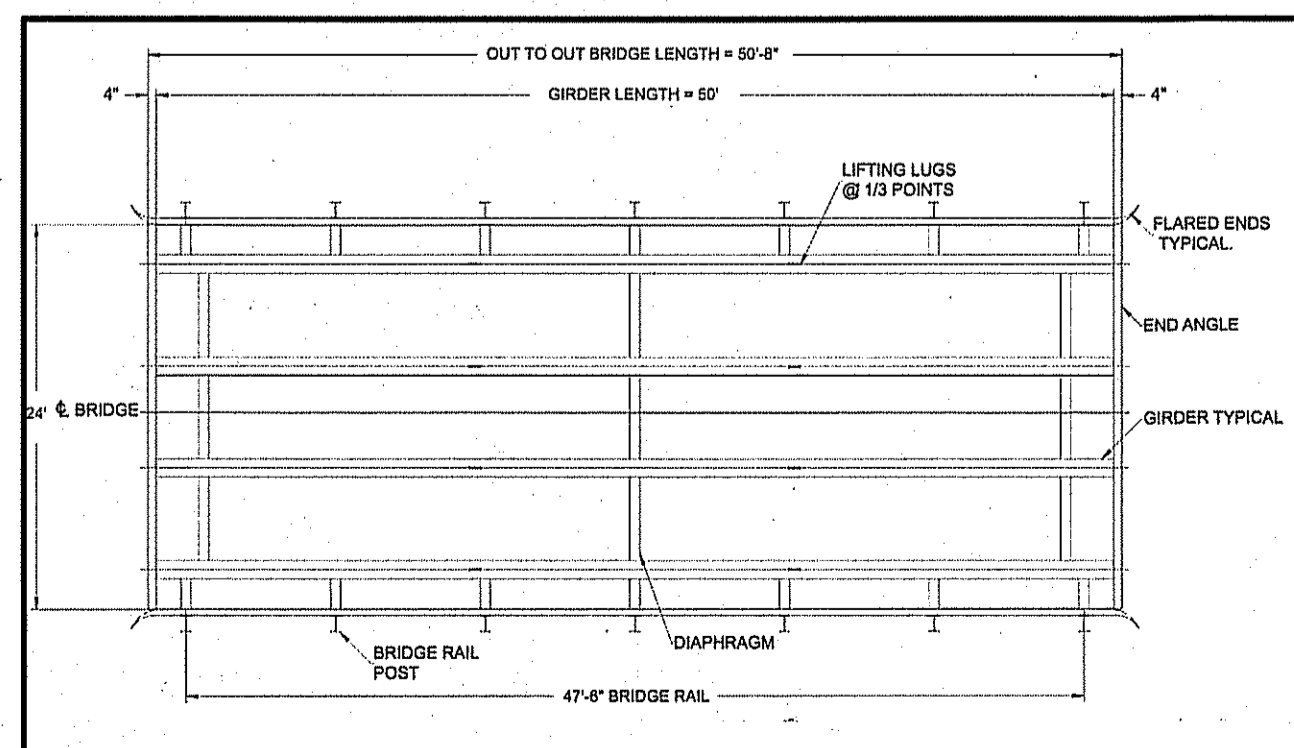


MODULAR BRIDGE BEARING ELEVATION
N.T.S.



- NOTES:**
1. TRENCH EXCAVATION WIDTH TO ALLOW FOR FREE TRAVEL OF COMPACTION EQUIPMENT
 2. ALL COMPACTION TO A MINIMUM 95 PERCENT DRY DENSITY DETERMINED BY ASTM D1557.
 3. SEE MANUFACTURERS SPECIFICATIONS FOR ADDITIONAL INSTALLATION REQUIREMENTS
 4. AVOID HEAVY EQUIPMENT LOADS OVER PIPE DURING CONSTRUCTION

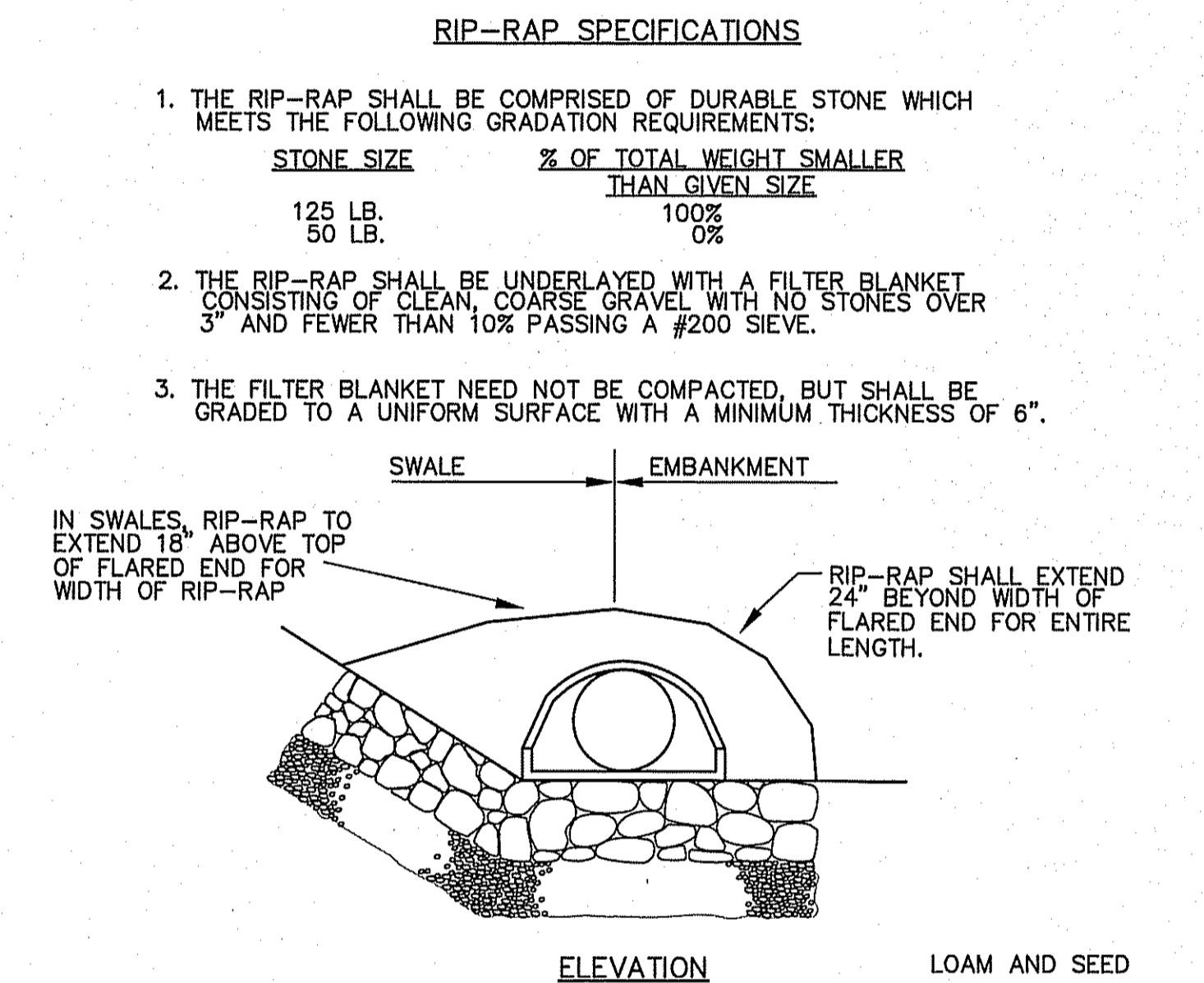
DRAIN PIPE TRENCH DETAIL
N.T.S.



MODULAR BRIDGE DETAIL
N.T.S.

- MODULAR BRIDGE NOTES**
1. CONTECH ENGINEERED SOLUTIONS HAS AISC QUALITY CERTIFIED BRIDGE FABRICATION - ADVANCED (MAJOR) WITH A FRACTURE CRITICAL AND SOPHISTICATED PAINT ENDORSEMENT.
 2. DESIGN IS IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.
 3. MATERIALS (UNLESS NOTED OTHERWISE):
 - a) STRUCTURAL STEEL: ASTM A588 WEATHERING STEEL
 - b) BRIDGE PLANK: ASTM A583 GRADE 50 CLASS 1 (GALV)
 - c) STRUCTURAL BOLTS: ASTM F1554 GRADE A55 (GALV)
 - d) GUARDRAIL BOLTS: ASTM A307 (GALV)
 - e) SHEET PILING: ASTM A202 (GALV)
 4. DESIGN LOADS:
 - a) BRIDGE DEAD LOAD PLUS 80 PSF TOTAL WEARING SURFACE.
 - b) VEHICLE LIVE LOAD: H-20
 - c) MAX AVERAGE DAILY TRUCK TRAFFIC (ADTT) = 200
 - d) MAX LL DEFLECTION = LENGTH/900
 - e) OWNER SPECIFIED LIVE LOAD: 100
 - f) WIND LOADING PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 3.8.
 - g) SEISMIC LOADING PER AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 3.10.
 5. BRIDGE RAIL DESIGNED FOR TL-1 OR TL-2 LOADS IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS APPENDIX A13.2 OR ONLY USED AS A GUIDE RAIL (RAIL HAS NOT BEEN CRASH TESTED). SEE TYPICAL DETAILS FOR BIG R EXPRESS MODULAR NON-CRASH TESTED BRIDGE RAILS FOR RAIL OPTIONS.
 6. BRIDGE TO BE BUILT TO THE REQUIREMENTS OF AWS D1.5.
 7. ALL EXPOSED SURFACES OF STRUCTURAL STEEL TO BE CLEANED IN ACCORDANCE WITH STEEL STRUCTURES PAINTING COUNCIL SURFACE PREPARATION SPECIFICATIONS NO. 1, SP/SP-1 SOLVENT CLEANING. EXPOSED SURFACES OF STEEL SHALL BE DEFINED AS THOSE SURFACES SEEN FROM THE DECK OR FROM THE OUTSIDE OF THE STRUCTURE. ALL OTHER SURFACES TO HAVE STANDARD MILL FINISH.
 8. MAINTENANCE NOTE: CONTECH RECOMMENDS NOT APPLYING DE-ICING OR QUAT PROHIBITIVE CHEMICALS OR SALTS TO ANY PART OF THE BRIDGE STRUCTURE. IF DE-ICING OR DUST PROHIBITIVE CHEMICALS OR SALTS ARE APPLIED TO ANY PART OF THE BRIDGE STRUCTURE, CONTECH WILL NOT BE RESPONSIBLE FOR ANY RESULTANT ACCELERATED CORROSION.
 9. ELASTOMERIC PADS ARE USED TO PROVIDE A LEVEL BEARING SURFACE ONLY.
 10. 12" x 4-1/4" BRIDGE PLANKS ARE SHOP WELDED TO THE GIRDERS AND ARE THE STRUCTURAL BEARING SYSTEM. THE WEARING SURFACE IS ONLY TO PROVIDE A SMOOTH RUNNING SURFACE AND NOT REQUIRED STRUCTURALLY.
 11. DECK MAY BE FINISHED WITH GRAVEL, ASPHALT, CONCRETE, WOOD OR ANY OTHER SUITABLE WEARING SURFACE MATERIAL AT THE OWNER'S DISCRETION. TYPICAL WEARING SURFACE LOAD OF 80 PSF WILL ACCOMMODATE UP TO 5 1/4" OF GRAVEL BASE (25 PSF) OR 4 1/4" OF CONCRETE OR ASPHALT (160 PCF) SURFACING ABOVE THE STEEL BRIDGE DECK PLANK CORRUGATIONS. FOR CONCRETE WEARING SURFACES CONTECH RECOMMENDS USING CRACK CONTROL REINFORCING AND LATERAL SHIFTING OR UPLIFT OF THE CONCRETE WEARING SURFACE IS A CONCERNING CONTECH RECOMMENDS ATTACHING HEADED ANCHOR STUDS IN THE VALLEYS OF THE CORRUGATIONS.

MODULAR BRIDGE NOTES
N.T.S.

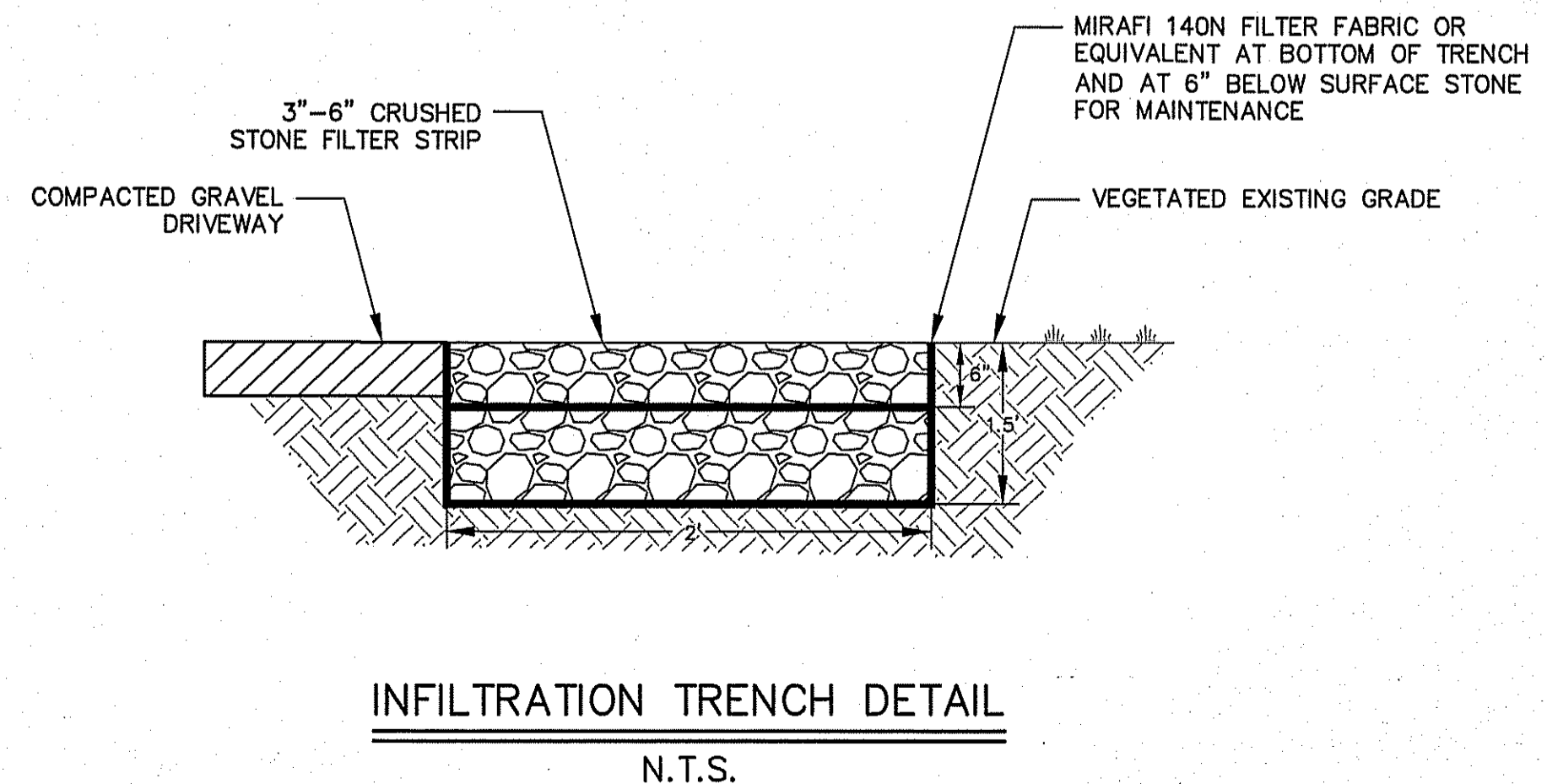


RIP-RAP SPECIFICATIONS

1. THE RIP-RAP SHALL BE COMPRISED OF DURABLE STONE WHICH MEETS THE FOLLOWING GRADATION REQUIREMENTS:

STONE SIZE	% OF TOTAL WEIGHT SMALLER THAN GIVEN SIZE
125 LB.	100%
50 LB.	0%
2. THE RIP-RAP SHALL BE UNDERLAIED WITH A FILTER BLANKET CONSISTING OF CLEAN, COARSE GRAVEL WITH NO STONES OVER 3" AND FEWER THAN 10% PASSING A #200 SIEVE.
3. THE FILTER BLANKET NEED NOT BE COMPACTIONED, BUT SHALL BE GRADED TO A UNIFORM SURFACE WITH A MINIMUM THICKNESS OF 6".

FLARED END W/RIP-RAP DETAIL
N.T.S.



INFILTRATION TRENCH DETAIL
N.T.S.

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No.	Date	Revision

Drawn By: JLL
 Designed By: JLL
 Checked By: JLL

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www.mccartydb.com

Project Name
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9-0-93 & 9-0-99

Sheet Title
Construction Details

Job No: 121.10
File Name: 121.10P-DT01
Date: February 14, 2024
Scale: N.T.S.

Sheet No.
9