

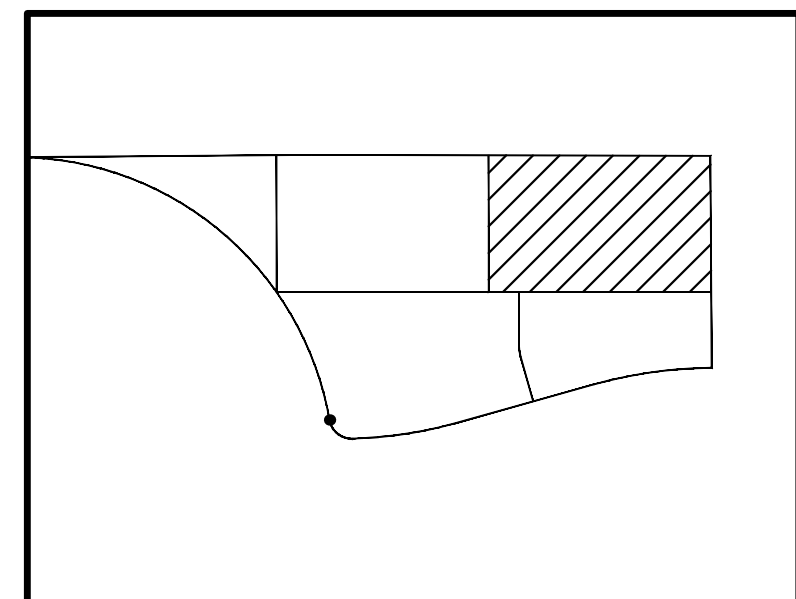
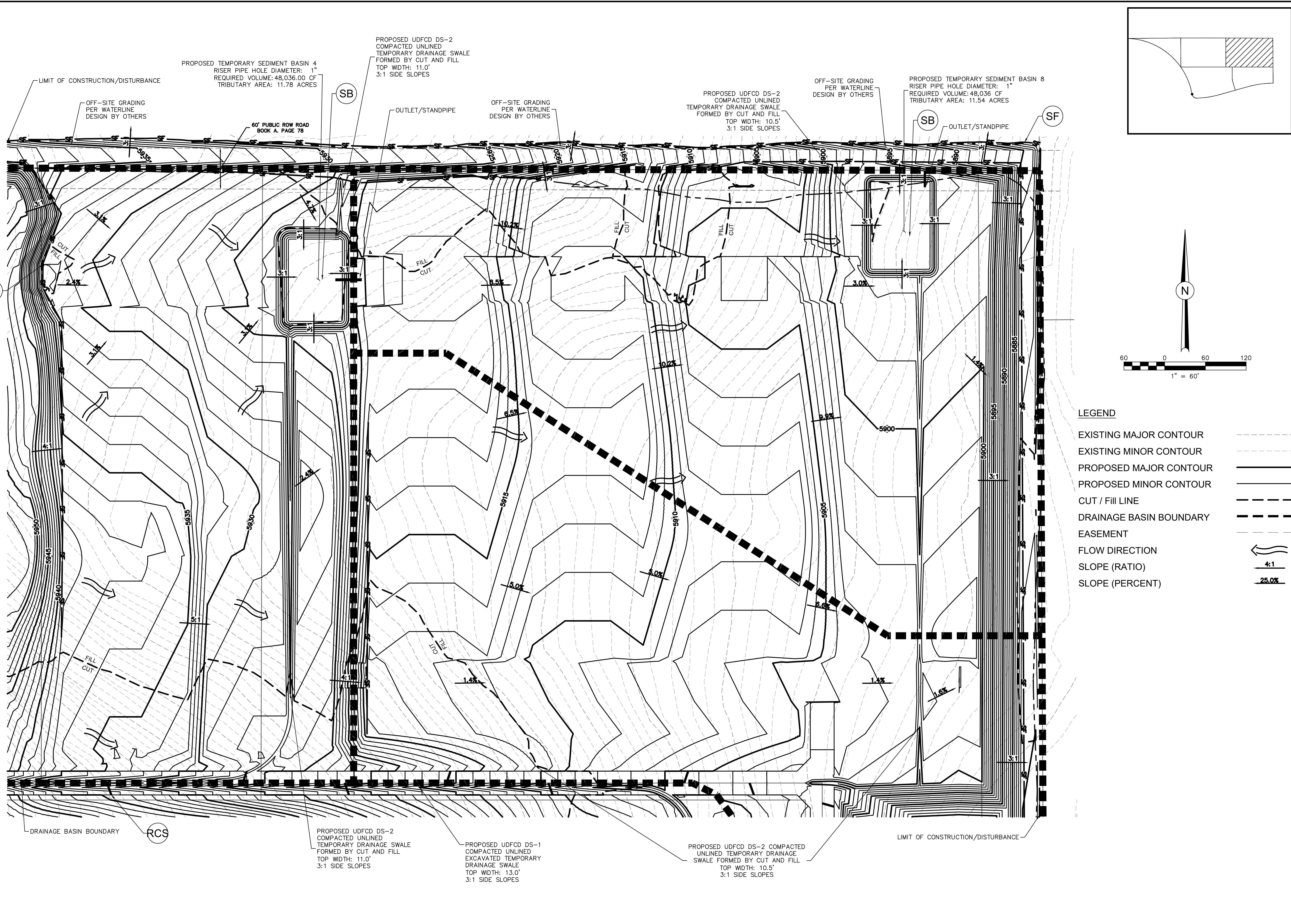








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**LEGEND**

EXISTING MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	- - - - -
PROPOSED MAJOR CONTOUR	— — — — —
PROPOSED MINOR CONTOUR	- - - - -
CUT / FILL LINE	- - - - -
DRAINAGE BASIN BOUNDARY	- - - - -
EASEMENT	- - - - -
FLOW DIRECTION	→
SLOPE (RATIO)	4:1
SLOPE (PERCENT)	25.0%

31 N. TEJON, SUITE 518  
 COLORADO SPRINGS, CO 80903  
 P: (719) 227-7388  
 F: (719) 227-7392

**DSE** Dakota Springs Engineering  
**J-CAD** 719-377-0002

Know what's below.  
**Call 811 before you dig.**

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DESIGNED BY: **JM** DATE: **06.18.21**  
 DRAWN BY: **JAZ** DATE: **12.15.21**  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

SCALE: HORIZ: **1" = 60'**  
 VERT: \_\_\_\_\_ STATION: \_\_\_\_\_ FROM: \_\_\_\_\_ TO: \_\_\_\_\_

**WATERVIEW NORTH PRE-DEVELOPMENT  
 STORM WATER MANAGEMENT PLAN**

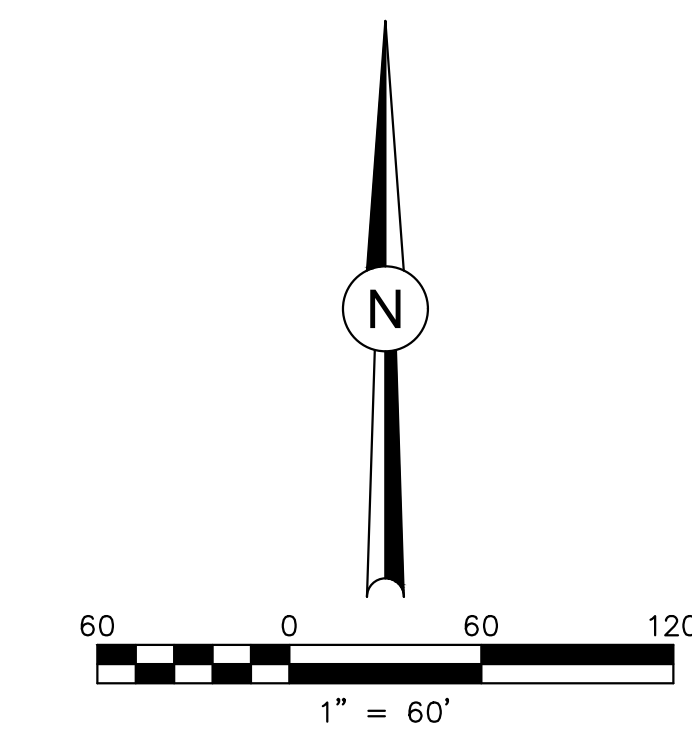
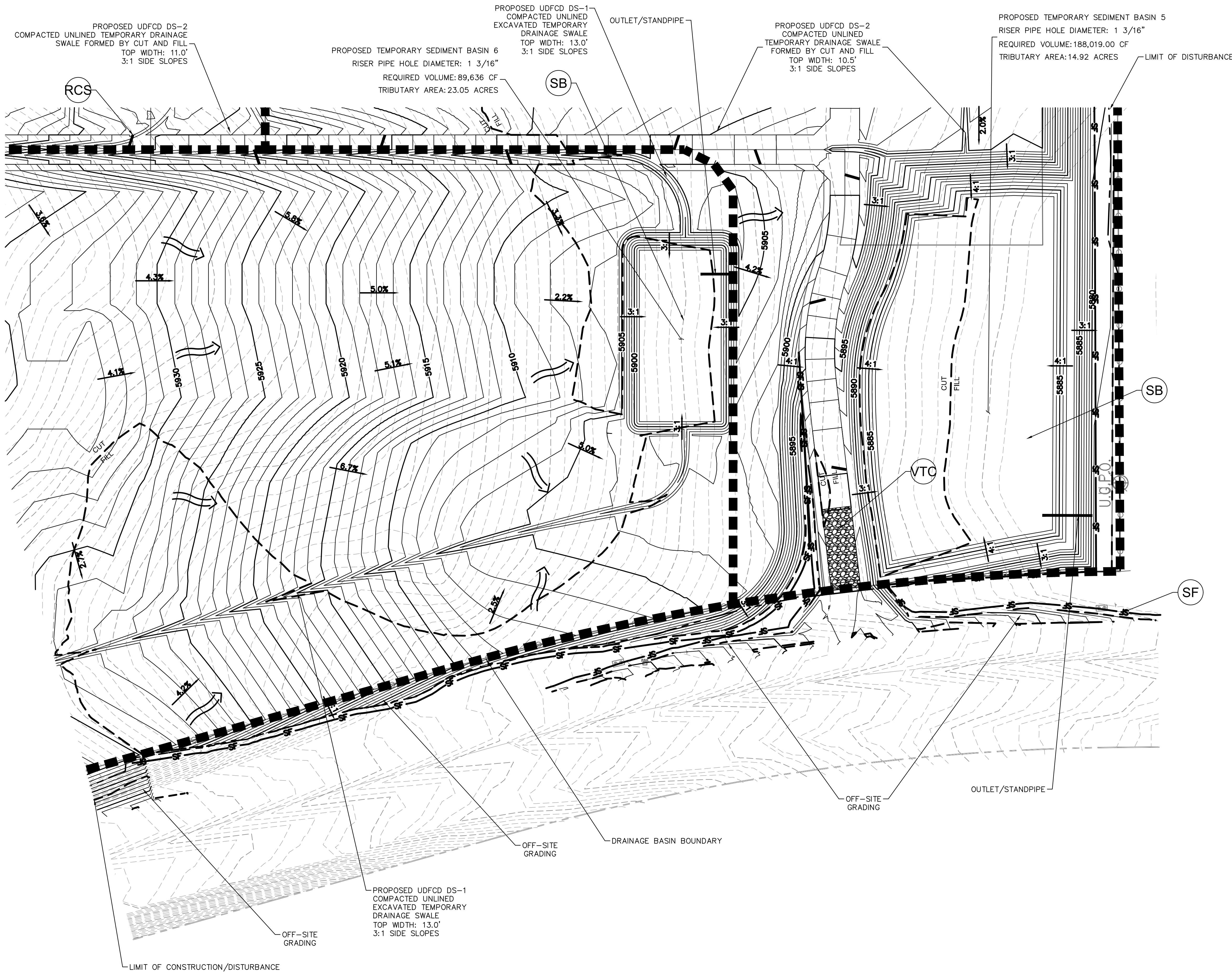
GRADING PLAN (3 OF 5)

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NO. DESCRIPTION	DATE

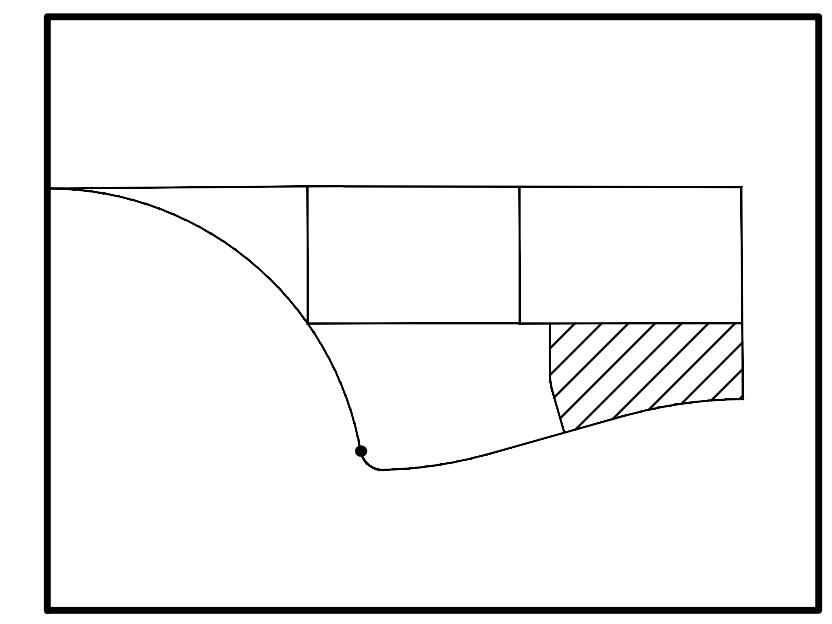
PROJECT NUMBER: **0218-05**  
 SHEET: **5** OF **7**

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**LEGEND**

EXISTING MAJOR CONTOUR	---
EXISTING MINOR CONTOUR	- - - - -
PROPOSED MAJOR CONTOUR	—
PROPOSED MINOR CONTOUR	- - - - -
CUT / FILL LINE	- - - - -
DRAINAGE BASIN BOUNDARY	- - - - -
EASEMENT	- - - - -
FLOW DIRECTION	↔
SLOPE (RATIO)	4:1
SLOPE (PERCENT)	25.0%



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DESIGNED BY:	JM	DATE:	06.18.21
DRAWN BY:	JAZ	DATE:	12.15.21
CHECKED BY:		DATE:	

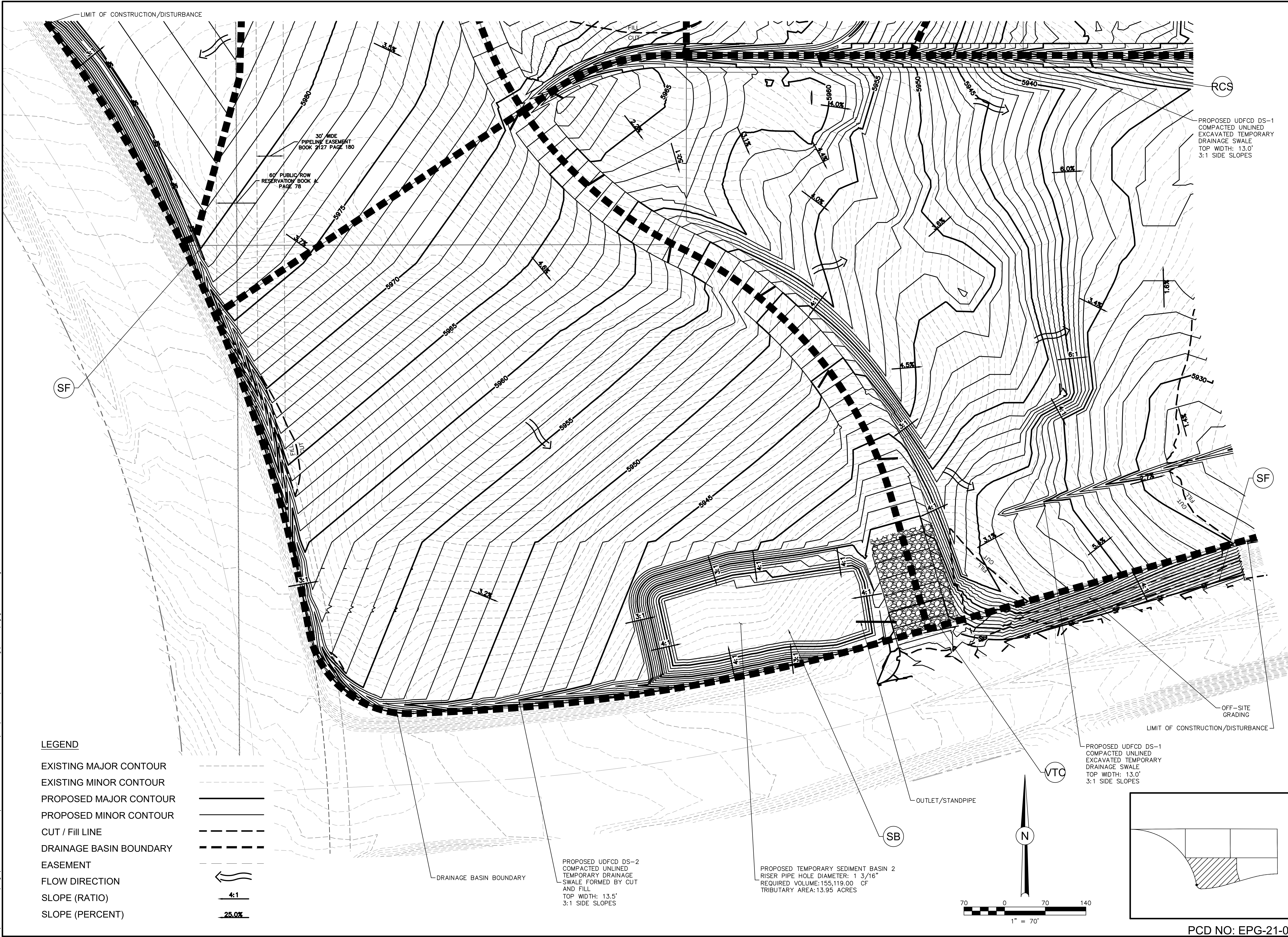
SCALE:	HORIZ: 1" = 60'
VERT:	
STATION:	
FROM:	
TO:	

**WATERVIEW NORTH PRE-DEVELOPMENT  
 STORM WATER MANAGEMENT PLAN**

GRADING PLAN (4 OF 5)

NO.	DESCRIPTION	DATE

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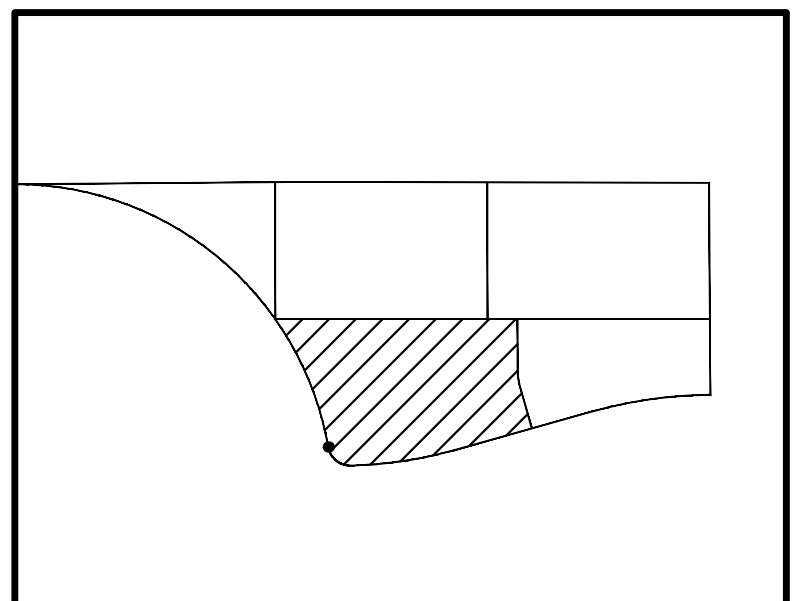
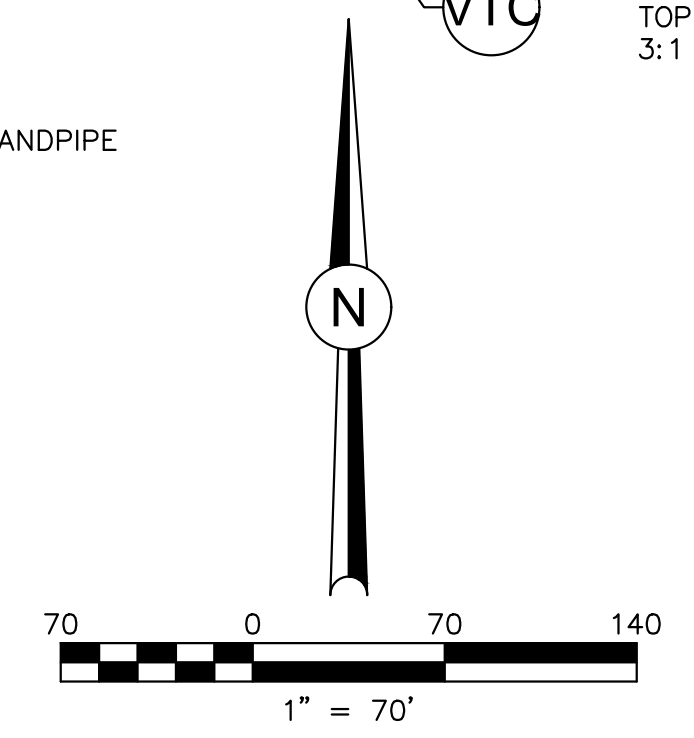
**LEGEND**

EXISTING MAJOR CONTOUR	
EXISTING MINOR CONTOUR	
PROPOSED MAJOR CONTOUR	
PROPOSED MINOR CONTOUR	
CUT / FILL LINE	
DRAINAGE BASIN BOUNDARY	
EASEMENT	
FLOW DIRECTION	
SLOPE (RATIO)	
SLOPE (PERCENT)	

PROPOSED UDFCD DS-2  
 COMPACTED UNLINED  
 TEMPORARY DRAINAGE  
 SWALE FORMED BY CUT  
 AND FILL  
 TOP WIDTH: 13.5'  
 3:1 SIDE SLOPES

PROPOSED TEMPORARY SEDIMENT BASIN 2  
 RISER PIPE HOLE DIAMETER: 1 3/16"  
 REQUIRED VOLUME: 155,119.00 CF  
 TRIBUTARY AREA: 13.95 ACRES

PROPOSED UDFCD DS-1  
 COMPACTED UNLINED  
 EXCAVATED TEMPORARY  
 DRAINAGE SWALE  
 TOP WIDTH: 13.0'  
 3:1 SIDE SLOPES



PCD NO: EPG-21-004

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**DSE** Dakota Springs Engineering

**JCAD** 719-377-0002

DESIGNED BY: **JM** DATE: **06.18.21**  
 DRAWN BY: **JAZ** DATE: **12.15.21**  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

SCALE: HORIZ: **1" = 70'**  
 VERT: \_\_\_\_\_  
 STATION: \_\_\_\_\_  
 FROM: \_\_\_\_\_  
 TO: \_\_\_\_\_

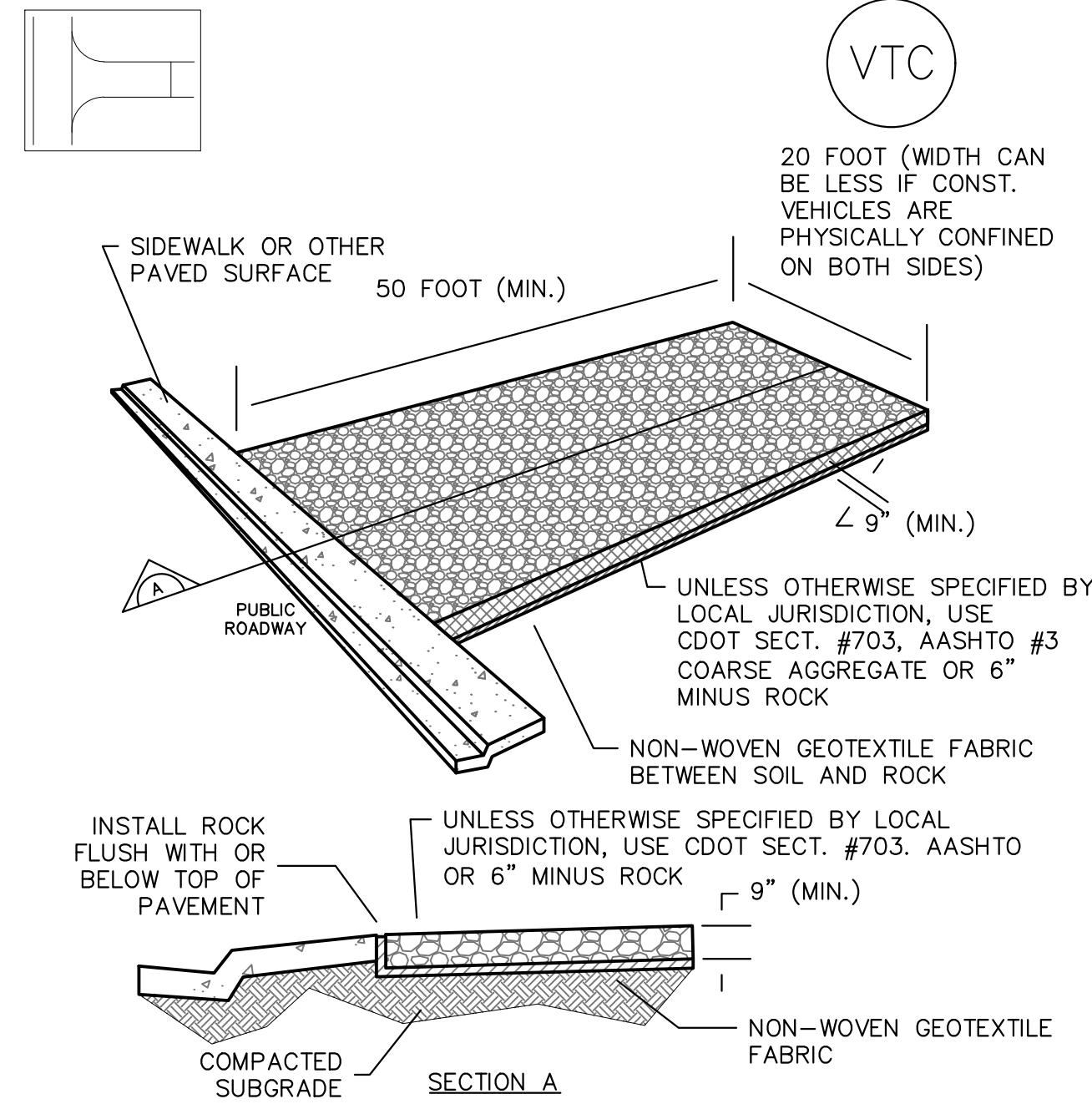
WATERVIEW NORTH PRE-DEVELOPMENT  
 STORM WATER MANAGEMENT PLAN

GRADING PLAN (5 OF 5)

NO.	DESCRIPTION	DATE

PROJECT NUMBER: **0218-05**  
 SHEET: **7** OF **7**

Know what's below.  
 Call 811 before you dig.



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

**STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES:**

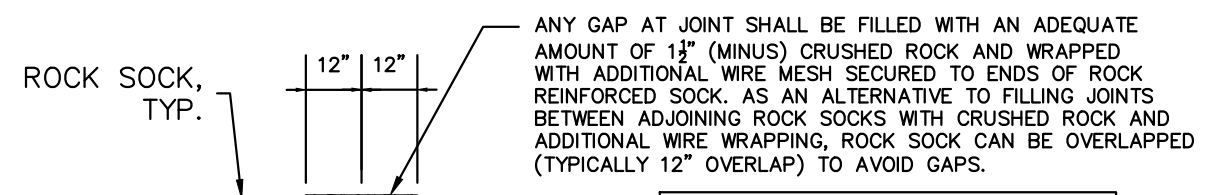
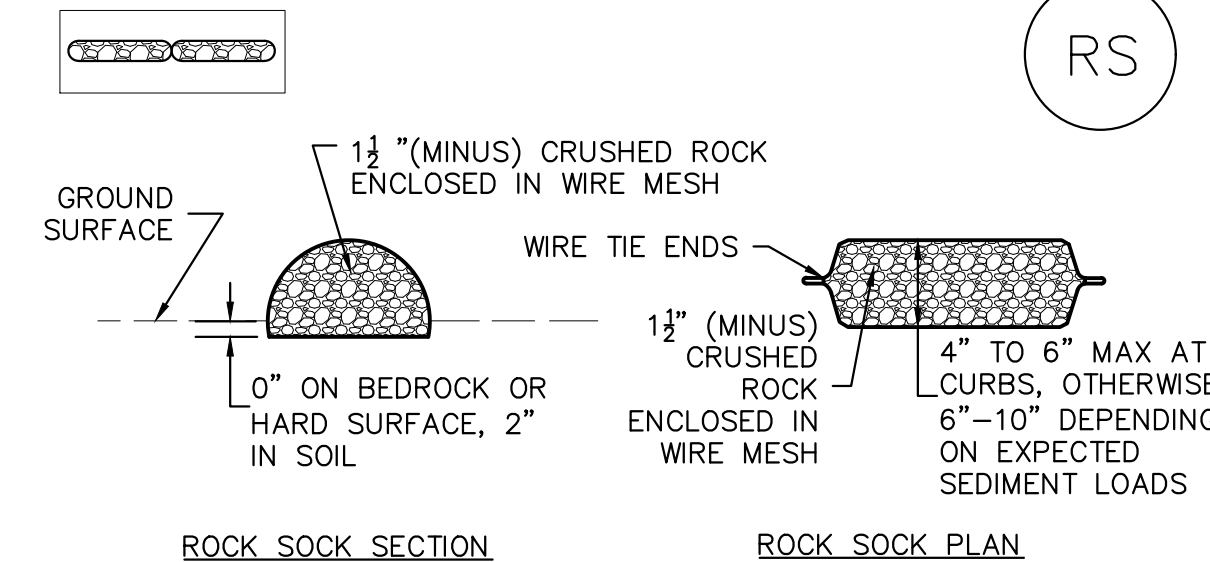
- SEE PLAN FOR
  - LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S)
  - TYPE OF CONSTRUCTION ENTRANCE(S)/EXIT(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).
- CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.
- A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.
- STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.

**STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES:**

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.
- SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.

NOTE: MANY JURISDICTIONS GAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTION AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

(DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO. NOT AVAILABLE IN AUTOCAD)



GRADATION TABLE	
SIIEVE SIZE	MASS PERCENT PASSING SQUARE MESH SIEVES
2"	NO. 4
1 1/2"	100
1"	90-100
3/4"	20-55
3/8"	0-15
3/16"	0-5

MATCHES SPECIFICATIONS FOR NO. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M43. ALL ROCK SHALL BE FRACTURED FACE. ALL SIDES.

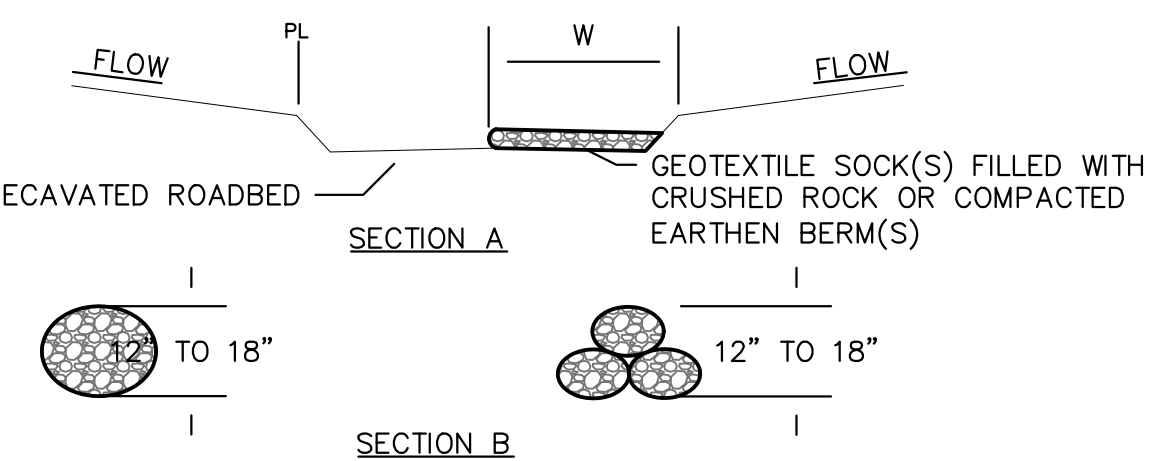
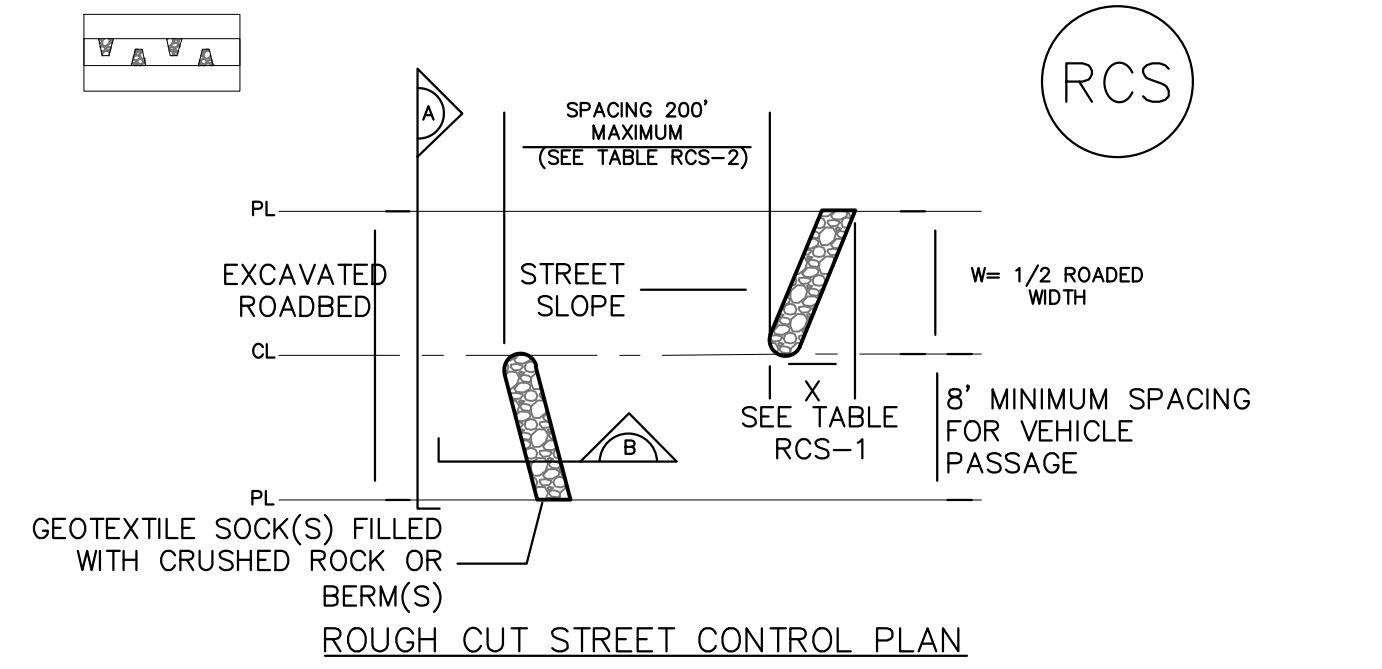
- ROCK SOCK INSTALLATION NOTES:**
- SEE PLAN VIEW FOR:
    - LOCATION(S) OF ROCK SOCKS.
  - CRUSHED ROCK SHALL BE 1 1/2" (MINUS) IN SIZE WITH A FRACTURED FACES (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1 1/2" MINUS).
  - WIRE MESH SHALL BE FABRICATED OF 10 GAGE POULTRY MESH. OR EQUIVALENT, WITH A MAXIMUM OPENING OF 1/2". RECOMMENDED MINIMUM ROLL WIDTH OF 48".
  - WIRE MESH SHALL BE SECURED USING "HOG RINGS" OR WIRE TIES AT 6" CENTERS ALONG ALL JOINTS AND AT 2" CENTERS ON ENDS OF SOCKS.
  - SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

RS-1. ROCK SOCK PERIMETER CONTROL

- ROCK SOCK MAINTENANCE NOTES:**
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
  - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
  - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
  - ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.
  - SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCK SHALL BE REMOVED AS NEEDED TO MAINTAIN FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 1/2 OF THE HEIGHT OF THE ROCK SOCK.
  - ROCK SOCKS ARE TO REMAIN, ALL PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
  - WHEN ROCK SOCKS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION. (DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS GAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTION AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

NOTE: THE DETAILS INCLUDED WITH THE PREVIOUS FACT SHEETS SHOW COMMONLY USED, CONVENTIONAL METHODS OF INLET PROTECTION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY PROPRIETARY INLET PROTECTION METHODS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY INLET PROTECTION; HOWEVER, IN THE EVENT PROPRIETARY METHODS ARE USED, THE APPROPRIATE DETAIL FROM THE MANUFACTURER MUST BE INCLUDED IN THE SWMP AND THE BMP MUST BE INSTALLED AND MAINTAINED AS SHOWN IN THE MANUFACTURER'S DETAIL.



W (FT)	X (FT)
20-30	5
31-40	7
41-50	9
51-60	10.5
61-70	12

LONGITUDINAL STREET SLOPE (%)	SPACING (FT)
<2	NOT TYPICALLY NEEDED
2	200
3	200
4	150
5	100
6	50
7	25
8	25

RCS-1. ROUGH CUT STREET CONTROL

**ROUGH CUT STREET CONTROL INSTALLATION NOTES:**

- SEE PLAN VIEW FOR
  - LOCATION OF ROUGH CUT STREET CONTROL MEASURES.
- ROUGH CUT STREET CONTROL SHALL BE INSTALLED AFTER A ROAD HAS BEEN CUT IN AND WILL NOT BE PAVED FOR MORE THAN 14 DAYS OR FOR TEMPORARY CONSTRUCTION ROADS THAT HAVE NOT RECEIVED ROAD BASE.

**ROUGH CUT STREET CONTROL INSPECTION AND MAINTENANCE NOTES:**

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE. (DETAILS ADOPTED FROM AURORA, COLORADO. NOT AVAILABLE IN AUTOCAD)

NOTE: MANY JURISDICTIONS GAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTION AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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**J-CAD** 719-377-0002

DESIGNED BY: **JJM** DATE: **06.18.21**  
 DRAWN BY: **JAZ** DATE: **06.21.21**  
 CHECKED BY: \_\_\_\_\_ DATE: \_\_\_\_\_

SCALE: \_\_\_\_\_  
 HORIZ: N/A  
 VERT: \_\_\_\_\_  
 STATION: \_\_\_\_\_  
 FROM: \_\_\_\_\_  
 TO: \_\_\_\_\_

WATERVIEW NORTH PRE-DEVELOPMENT STORM WATER MANAGEMENT PLAN

EROSION CONTROL DETAILS (1 OF 2)

REVISIONS:  
 NO. DESCRIPTION  
 DATE

PROJECT NUMBER: **0219-05**  
 SHEET **8** OF **9**

PCD NO: \_\_\_\_\_

Know what's below. Call 811 before you dig.

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