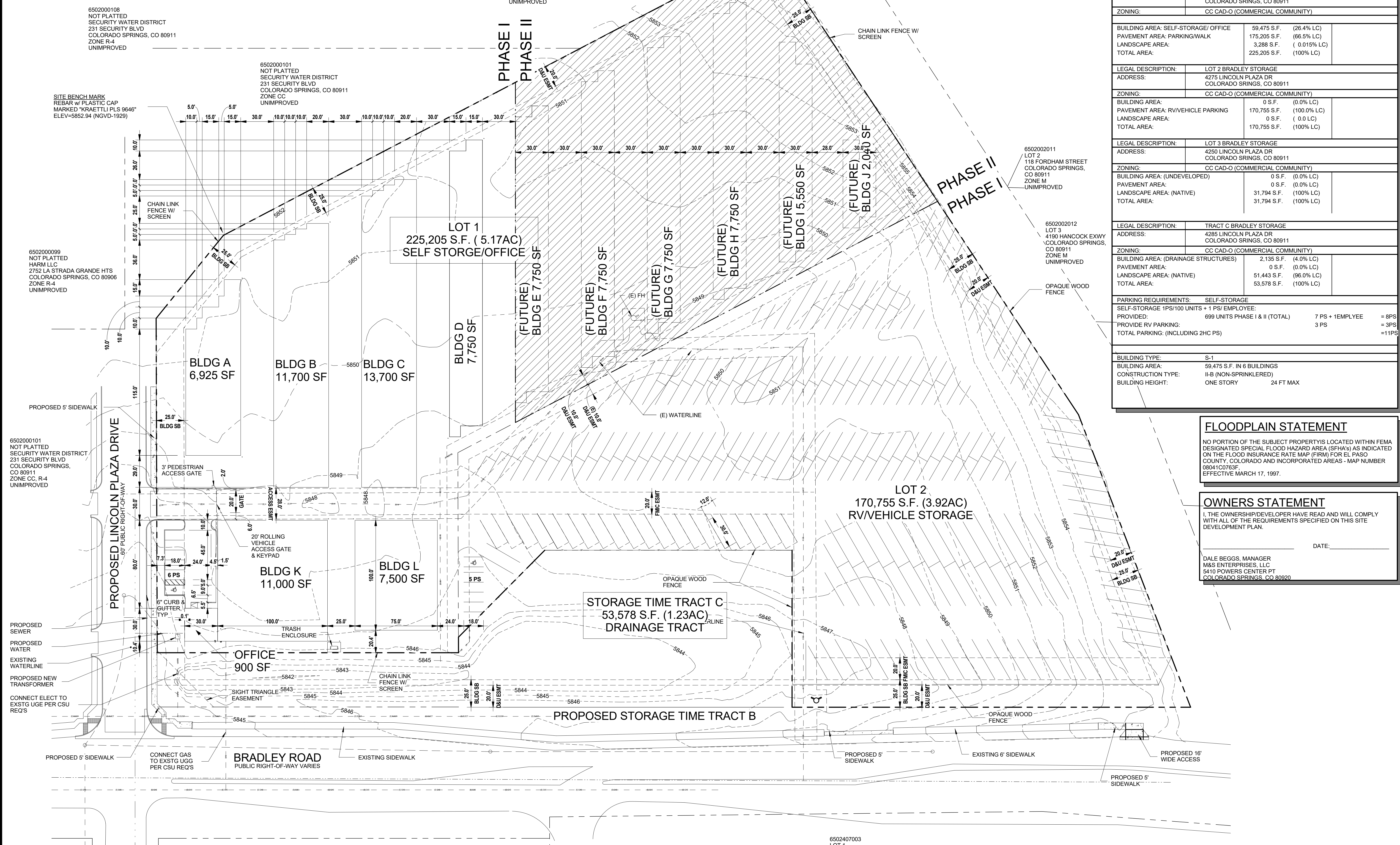


BUILDING AREA (PHASE I)		BLDG AREA (PHASE II)		PARKING (BOAT/RV)	
BUILDING NAME	AREA	BUILDING NAME	AREA	UNIT SIZE	UNIT COUNT
Area	3288 SF	BLDG E	7750 SF	10x20 PS	83
BLDG A	6925 SF	BLDG F	7750 SF	10x25 PS	73
BLDG B	11700 SF	BLDG G	7750 SF	12x25 PS	5
BLDG C	13700 SF	BLDG H	7750 SF	12x30 PS	20
BLDG D	7750 SF	BLDG I	5550 SF	12x35 PS	51
BLDG K	11001 SF	BLDG J	2040 SF	12x40 PS	14
BLDG L	7500 SF	Area	3288 SF	12x50 PS	13
OFFICE	900 SF	Grand total	41878 SF	GRAND TOTAL:	259
GRAND TOTAL	62765 SF				

PROJECT INFORMATION	
OWNER/DEVELOPER:	M&S ENTERPRISES, LLC 5410 POWERS CENTER PT. COLORADO SPRINGS, CO 80920
APPLICANT:	RMG-ARCHITECTS/ENGINEERS 19375 BEACON LITE RD MONUMENT, CO 80132
LEGAL DESCRIPTION:	LOT 1 BRADLEY STORAGE
ADDRESS:	4225 LINCOLN PLAZA DR COLORADO SPRINGS, CO 80911
ZONING:	CC CAD-O (COMMERCIAL COMMUNITY)
BUILDING AREA: SELF-STORAGE/OFFICE	59,475 S.F. (26.4% LC)
PAVEMENT AREA: PARKING/WALK	175,205 S.F. (66.5% LC)
LANDSCAPE AREA:	3,288 S.F. (0.015% LC)
TOTAL AREA:	225,205 S.F. (100% LC)
LEGAL DESCRIPTION:	LOT 2 BRADLEY STORAGE
ADDRESS:	4275 LINCOLN PLAZA DR COLORADO SPRINGS, CO 80911
ZONING:	CC CAD-O (COMMERCIAL COMMUNITY)
BUILDING AREA:	0 S.F. (0.0% LC)
PAVEMENT AREA: RV/VEHICLE PARKING	170,755 S.F. (100.0% LC)
LANDSCAPE AREA:	0 S.F. (0.0 LC)
TOTAL AREA:	170,755 S.F. (100% LC)
LEGAL DESCRIPTION:	LOT 3 BRADLEY STORAGE
ADDRESS:	4250 LINCOLN PLAZA DR COLORADO SPRINGS, CO 80911
ZONING:	CC CAD-O (COMMERCIAL COMMUNITY)
BUILDING AREA: (UNDEVELOPED)	0 S.F. (0.0% LC)
PAVEMENT AREA:	0 S.F. (0.0% LC)
LANDSCAPE AREA: (NATIVE)	31,794 S.F. (100% LC)
TOTAL AREA:	31,794 S.F. (100% LC)
LEGAL DESCRIPTION:	TRACT C BRADLEY STORAGE
ADDRESS:	4285 LINCOLN PLAZA DR COLORADO SPRINGS, CO 80911
ZONING:	CC CAD-O (COMMERCIAL COMMUNITY)
BUILDING AREA: (DRAINAGE STRUCTURES)	2,135 S.F. (4.0% LC)
PAVEMENT AREA:	0 S.F. (0.0% LC)
LANDSCAPE AREA: (NATIVE)	51,443 S.F. (96.0% LC)
TOTAL AREA:	53,578 S.F. (100% LC)
PARKING REQUIREMENTS: SELF-STORAGE	
SELF-STORAGE 1PS/100 UNITS + 1 PS/EMPLOYEE:	
PROVIDED:	699 UNITS PHASE I & II (TOTAL)      7 PS + 1EMPLOYEE = 8PS
PROVIDE RV PARKING:	3 PS = 3PS
TOTAL PARKING: (INCLUDING 2HC PS)	=11PS
BUILDING TYPE:	S-1
BUILDING AREA:	59,475 S.F. IN 6 BUILDINGS
CONSTRUCTION TYPE:	I-B (NON-SPRINKLERED)
BUILDING HEIGHT:	ONE STORY      24 FT MAX

**FLOODPLAIN STATEMENT**  
NO PORTION OF THE SUBJECT PROPERTY IS LOCATED WITHIN FEMA DESIGNATED SPECIAL FLOOD HAZARD AREA (SFHA) AS INDICATED ON THE FLOOD INSURANCE RATE MAP (FIRM) FOR EL PASO COUNTY, COLORADO AND INCORPORATED AREAS - MAP NUMBER 08041C0763F, EFFECTIVE MARCH 17, 1997.

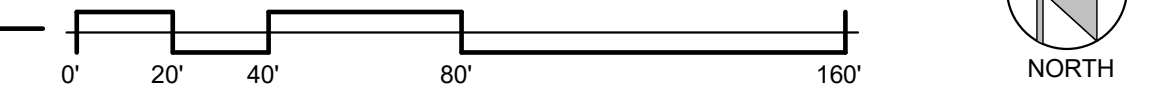
**OWNERS STATEMENT**  
I, THE OWNERSHIP/DEVELOPER HAVE READ AND WILL COMPLY WITH ALL OF THE REQUIREMENTS SPECIFIED ON THIS SITE DEVELOPMENT PLAN.  
DATE: \_\_\_\_\_  
DALE BEGGS, MANAGER  
M&S ENTERPRISES, LLC  
5410 POWERS CENTER PT  
COLORADO SPRINGS, CO 80920



6502405015  
LOT 15  
DEBRA OWINGS  
4306 WITCHES HOLLOW LANE  
COLORADO SPRINGS, CO 80911  
ZONE RS-5000  
SINGLE FAMILY RESIDENTIAL

6502407100  
TRACT A LINCOLN COMMONS TOWNHOMES  
LINCOLN COMMONS LLC  
1880 OFFICE CLUB POINTE, STE 2000  
COLORADO SPRINGS, CO 80920  
ZONE PUD  
MULTI-FAMILY RESIDENTIAL

**1 SITE DEVELOPMENT PLAN**  
DP.01 SCALE: 1" = 40'-0"



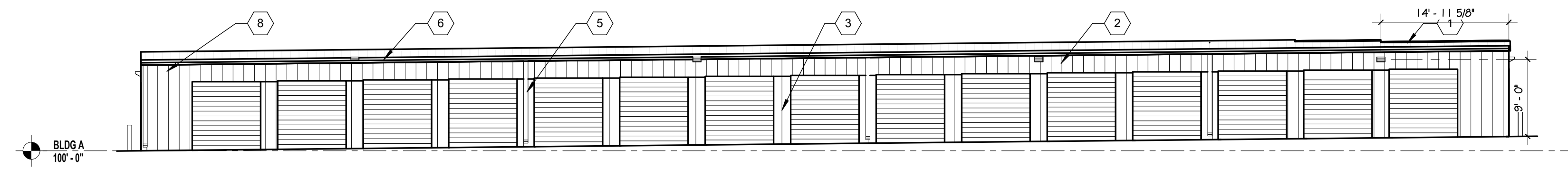
**ROCKY MOUNTAIN GROUP**  
ARCHITECTS  
**RMG**  
ENGINEERS  
19375 BEACON LITE RD., MONUMENT, CO 80132  
(719) 488-2145 - WWW.RMGENGINEERS.COM

**BRADLEY STORAGE**  
4225 LINCOLN PLAZA DR COLORADO SPRINGS, COLORADO

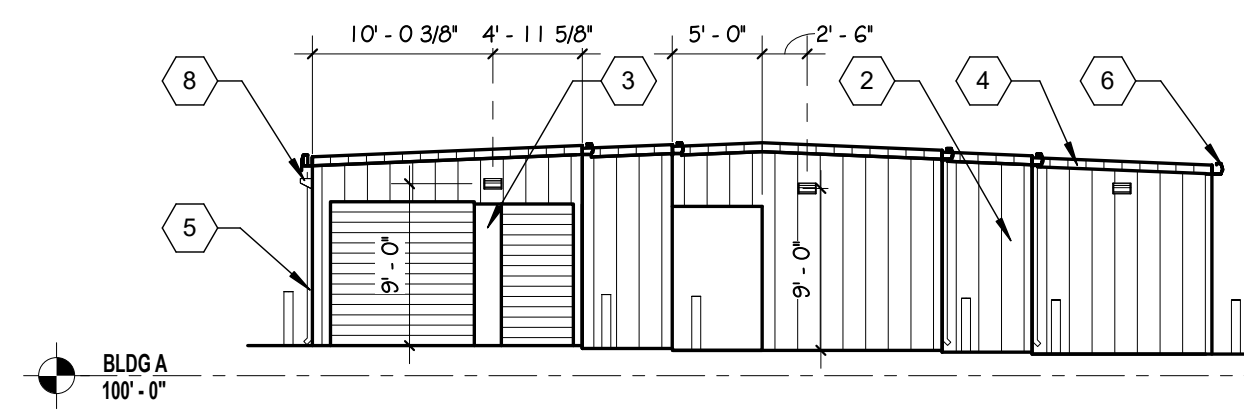
**DEVELOPMENT PLAN**

SHEET NAME: \_\_\_\_\_  
ARCHENGE: KEM  
DRAWN: km  
CHECKED: KM  
DATE: 03.23.2020  
REVISION: \_\_\_\_\_  
DATE: \_\_\_\_\_

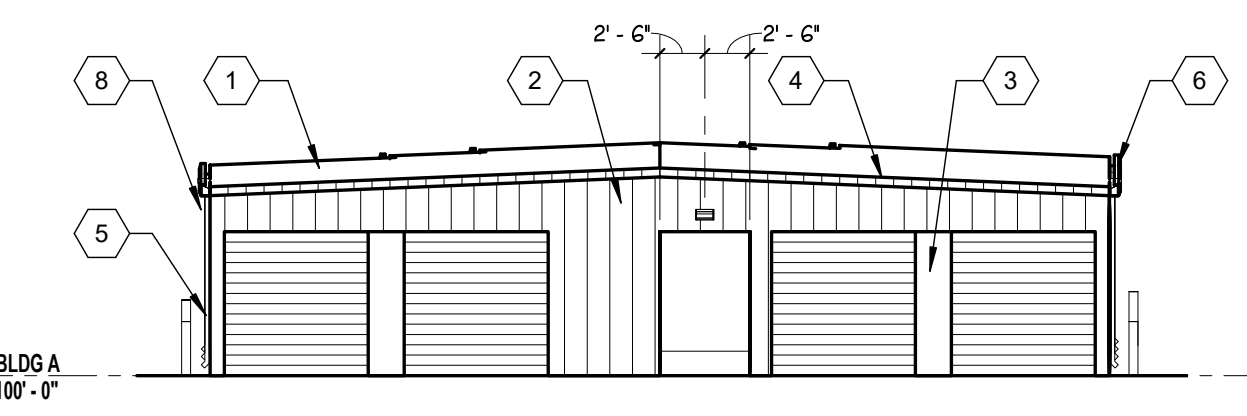
JOB NO: 162072  
SHEET NO: DP.01



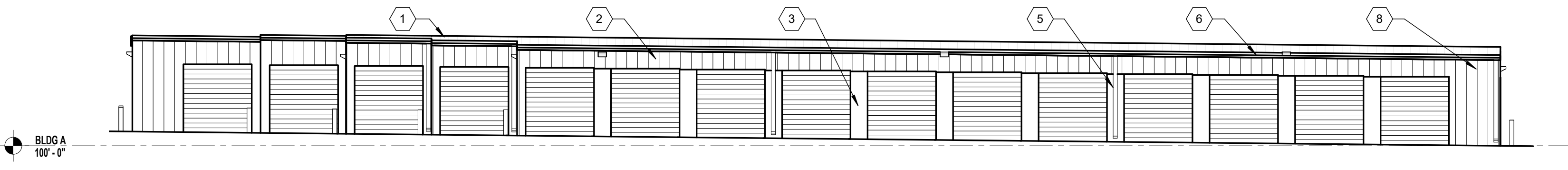
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DP.02 SCALE: 3/32" = 1'-0"



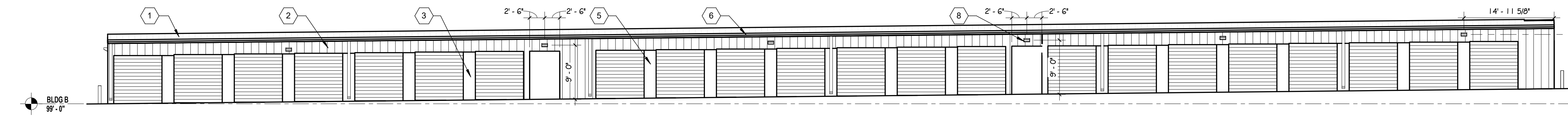
**2 SDP A NORTH ELEVATION**  
DP.02 SCALE: 3/32" = 1'-0"



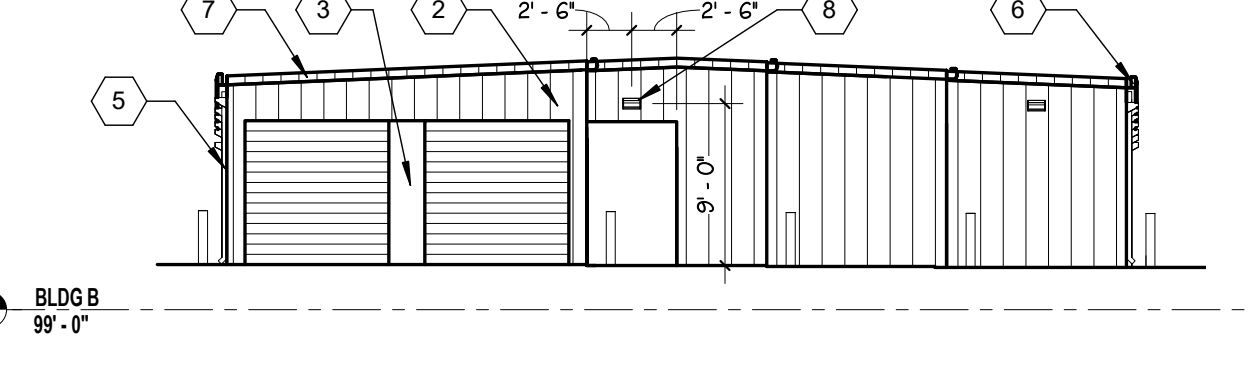
**3 SDP A SOUTH ELEVATION**  
DP.02 SCALE: 3/32" = 1'-0"



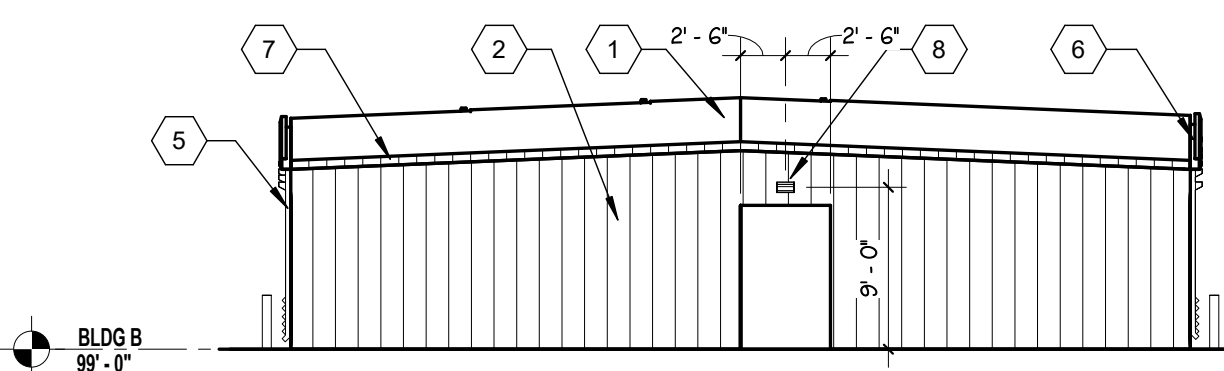
**4 SDP A WEST ELEVATION**  
DP.02 SCALE: 3/32" = 1'-0"



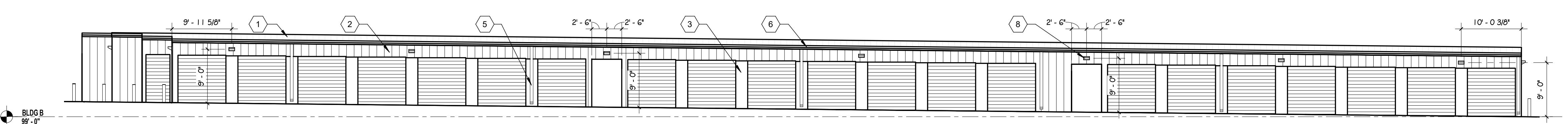
**5 SDP B EAST ELEVATION**  
DP.02 SCALE: 3/32" = 1'-0"



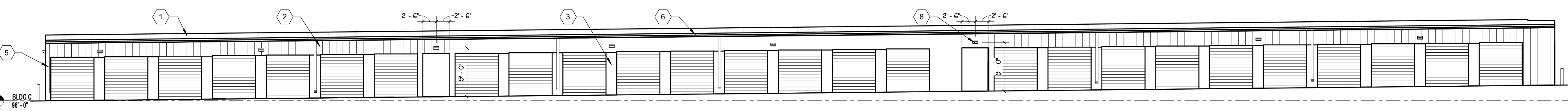
**6 SDP B NORTH ELEVATION**  
DP.02 SCALE: 3/32" = 1'-0"



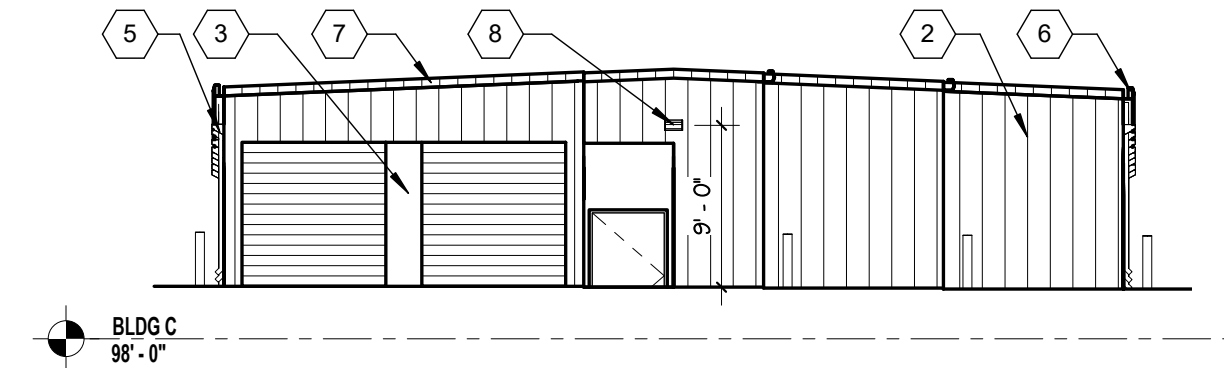
**7 SDP B SOUTH ELEVATION**  
DP.02 SCALE: 3/32" = 1'-0"



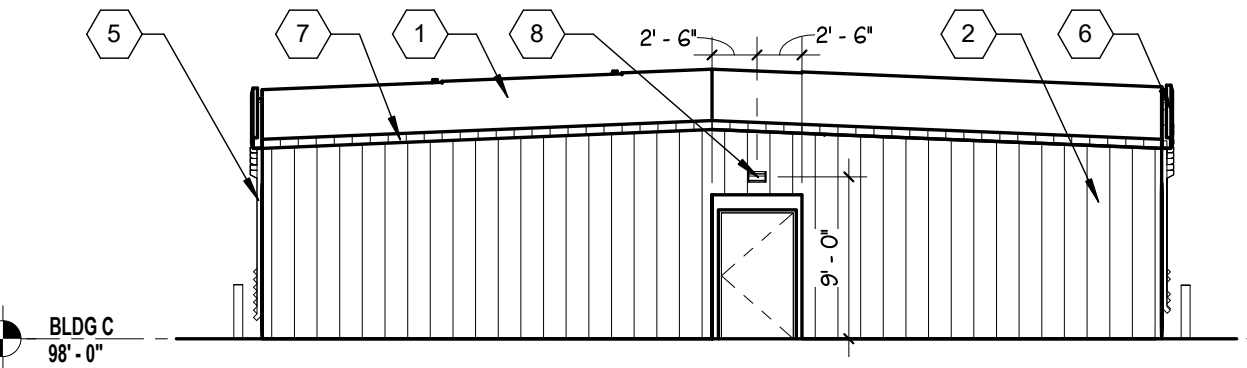
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DP.02 SCALE: 3/32" = 1'-0"



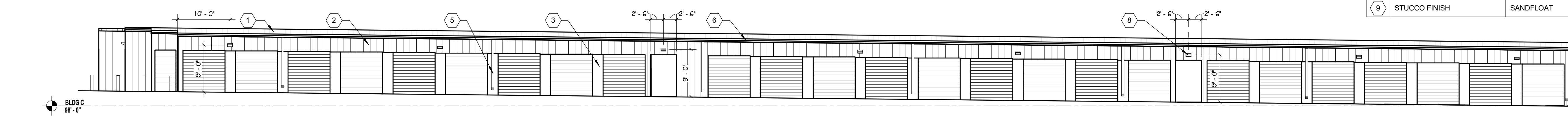
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DP.02 SCALE: 3/32" = 1'-0"



**10 SDP C NORTH ELEVATION**  
DP.02 SCALE: 3/32" = 1'-0"



**11 SDP C SOUTH ELEVATION**  
DP.02 SCALE: 3/32" = 1'-0"



**12 SDP C WEST ELEVATION**  
DP.02 SCALE: 3/32" = 1'-0"

EXTERIOR FINISH LEGEND			
MK	BUILDING ELEMENT	DESCRIPTION	COLOR
1	METAL ROOF	ULTRA ROOF PANEL - KIWI	CHARCOAL GRAY
2	VERTICAL METAL WALL PANEL	26 GA - PER KIWI	SIERRA TAN
3	SMOOTH METAL WALL PANEL	26 GA - PER KIWI	SIERRA TAN
4	2"x4 1/2" ALUM STOREFRONT	ALUMINUM ANODIZED	MEDIUM BRONZE
5	DOWNSPOUTS	PER KIWI	SIERRA TAN
6	GUTTERS	PER KIWI	CHARCOAL GRAY
7	FASCIA TRIM	PER KIWI	CHARCOAL GRAY
8	EXTERIOR AREA LIGHT	WALL MOUNTED	BRONZE
9	STUCCO FINISH	SANDFLOAT	SIERRA TAN

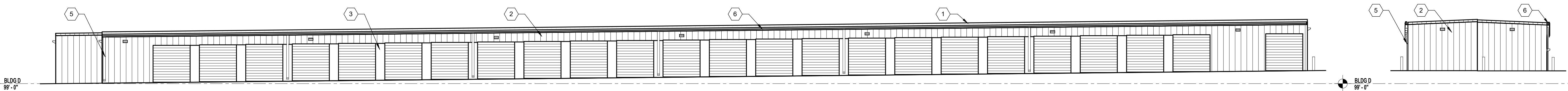
ROCKY MOUNTAIN GROUP  
ARCHITECTS  
Civil/Structural  
Engineering  
19375 BACON LANE, SUITE 200  
COLORADO SPRINGS, COLORADO 80902  
719.266.6665  
WWW.RMENGINEERS.COM

COLORADO COMMERCIAL  
C O N S T R U C T I O N  
540 POWERS CENTER POINT, STE 200  
COLORADO SPRINGS, COLORADO 80902  
719.266.6665

BRADLEY STORAGE  
4225 LINCOLN PLAZA DR COLORADO SPRINGS, COLORADO  
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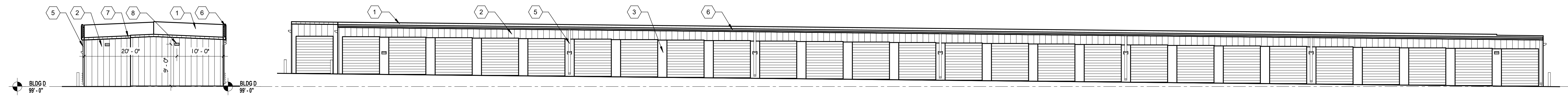
ELEVATIONS  
SHEET NAME  
PROJECT STATUS  
SDP

ARCH/ENG: Designer  
DRAWN: Author  
CHECKED: Checker  
DATE  
03.23.2020  
REVISION DATE  
JOB NO. 162072  
SHEET NO. DP.02



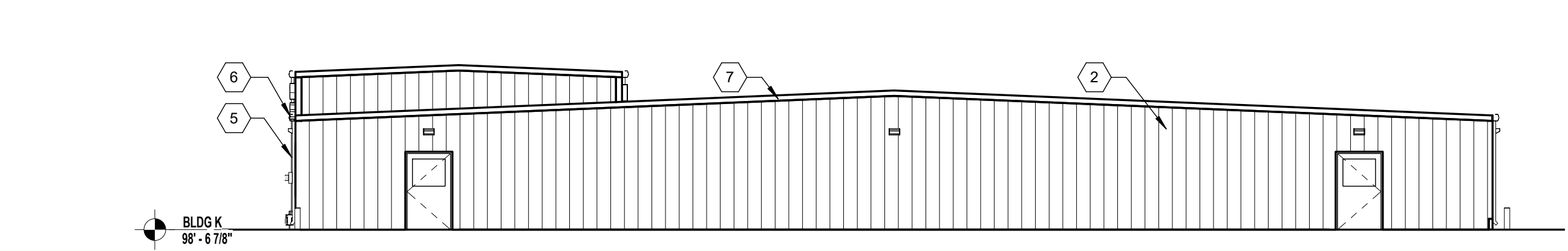
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**2 SDP D NORTH ELEVATION**  
 DP.03 SCALE: 3/32" = 1'-0"

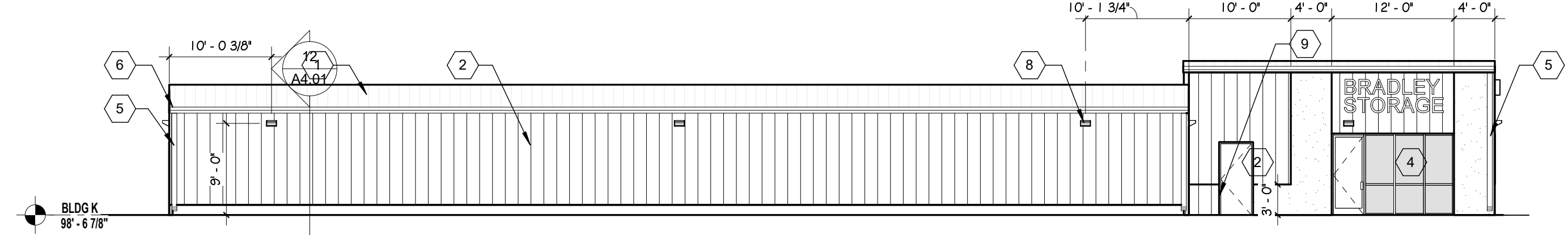


**3 SDP D SOUTH ELEVATION**  
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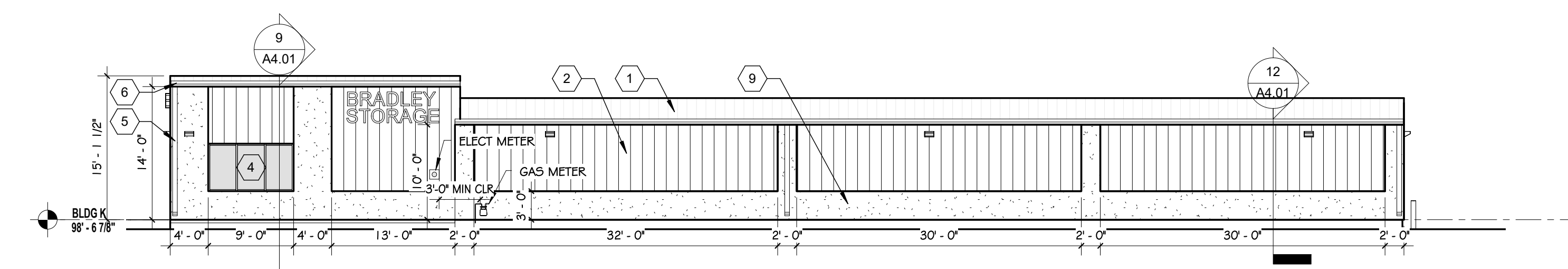
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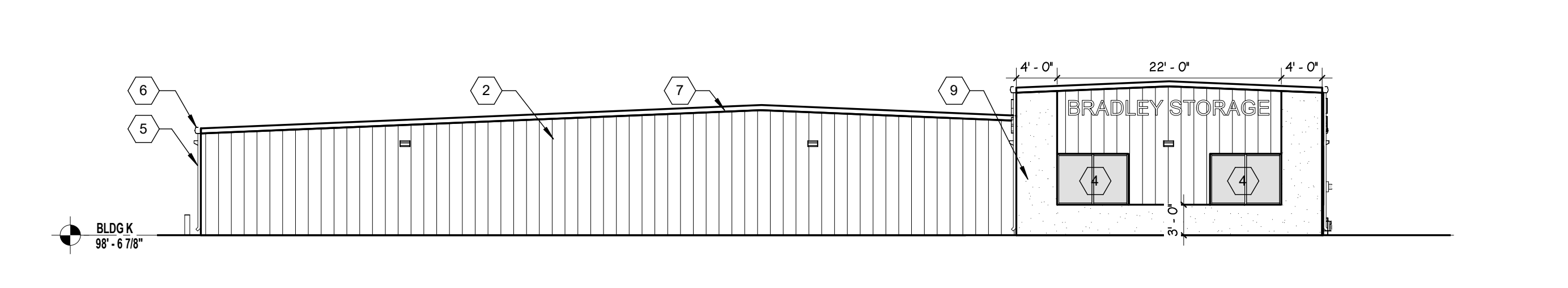
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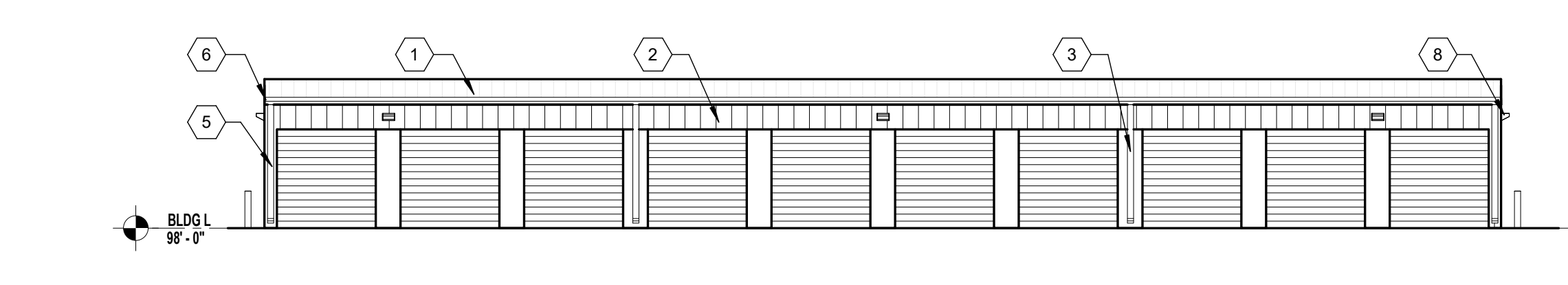
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 DP.03 SCALE: 3/32" = 1'-0"



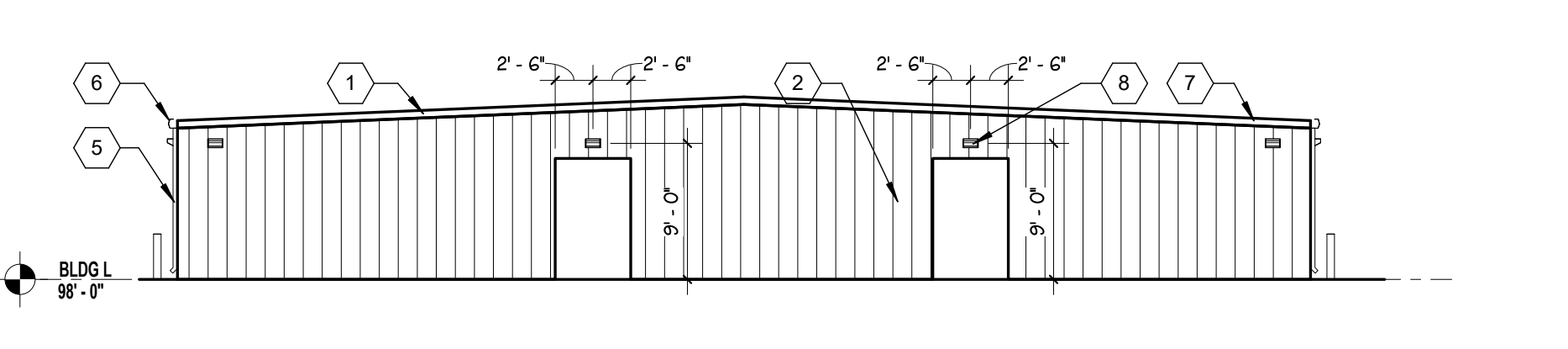
**7 SDP K SOUTH ELEVATION**  
 DP.03 SCALE: 3/32" = 1'-0"



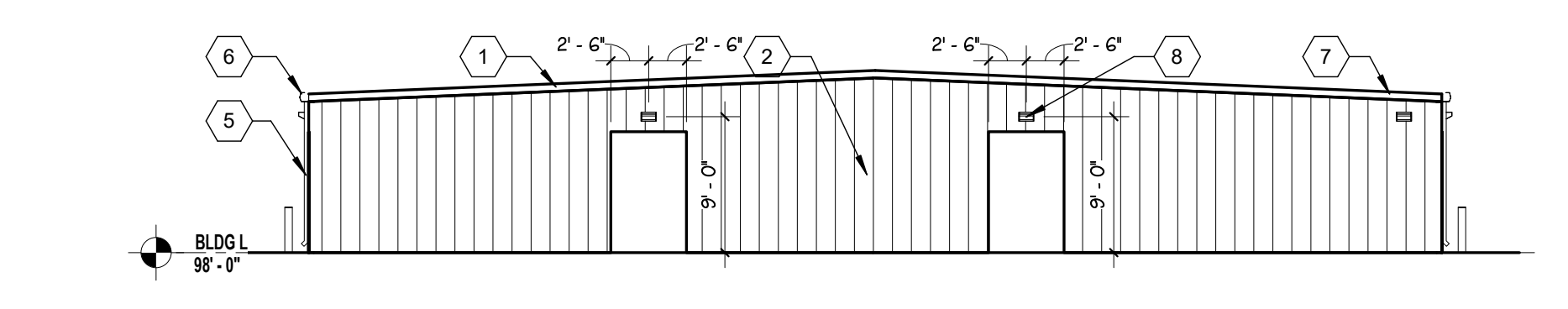
**8 SDP K WEST ELEVATION**  
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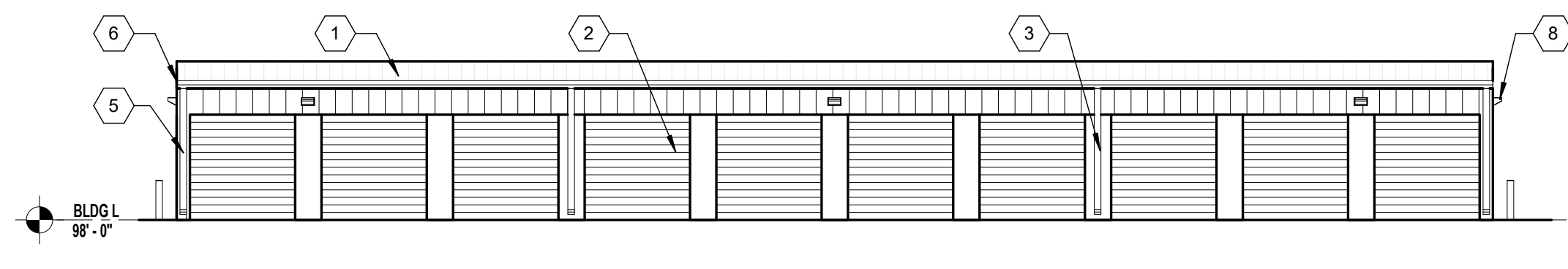
**9 SDP L EAST ELEVATION**  
 DP.03 SCALE: 3/32" = 1'-0"



**10 SDP L NORTH ELEVATION**  
 DP.03 SCALE: 3/32" = 1'-0"



**11 SDP L SOUTH ELEVATION**  
 DP.03 SCALE: 3/32" = 1'-0"



**12 SDP L WEST ELEVATION**  
 DP.03 SCALE: 3/32" = 1'-0"

EXTERIOR FINISH LEGEND			
MK	BUILDING ELEMENT	DESCRIPTION	COLOR
1	METAL ROOF	ULTRA ROOF PANEL - KIWI	CHARCOAL GRAY
2	VERTICAL METAL WALL PANEL	26 GA - PER KIWI	SIERRA TAN
3	SMOOTH METAL WALL PANEL	26 GA - PER KIWI	SIERRA TAN
4	2"x4 1/2" ALUM STOREFRONT	ALUMINUM ANODIZED	MEDIUM BRONZE
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7	FASCIA TRIM	PER KIWI	CHARCOAL GRAY
8	EXTERIOR AREA LIGHT	WALL MOUNTED	BRONZE
9	STUCCO FINISH	SANDFLOAT	SIERRA TAN

ROCKY MOUNTAIN GROUP  
 ARCHITECTS  
**RMG**  
 ENGINEERS  
 19375 BLAZON LANE, SUITE 200  
 COLORADO SPRINGS, COLORADO 80920  
 (719) 488-2145 - WWW.RMGENGINEERS.COM

COLORADO COMMERCIAL  
 C O N S T R U C T I O N  
 5410 POWERS CENTER POINT, STE 200  
 COLORADO SPRINGS, COLORADO 80920  
 719.266.6925

BRADLEY STORAGE  
 4225 LINCOLN PLAZA DR COLORADO SPRINGS, COLORADO

ELEVATIONS  
 SHEET STATUS  
 PROJECT STATUS  
 SDP  
 ARCH/ENG: Designer  
 DRAWN: Author  
 CHECKED: Checker  
 DATE  
 03.23.2020  
 REVISION DATE  
 JOB NO. 162072  
 SHEET NO. DP.03



# SITE CATEGORY CALCULATIONS:

## Landscape Setbacks

Street Name or Boundary	Street Classification	Width (in Ft.) Req./Prov.	Linear Footage	Tree/Feet Required	No. of Trees Req./Prov.	Setback Plant Abbr. Denoted on Plan
Bradley Road	Major arterial	25' / 25'	940'	1 / 20'	47 / 47	(B-SB)*
East boundary	Same zone boundary	N / A	674'	N / A	N / A	N / A
West boundary	Non arterial	10' / 6.5' ave.*	353'	1 / 30'	12 / 12	(W-SB)
North boundary	Same zone boundary	N / A	626'	N / A	N / A	N / A
Northeast boundary	Same zone boundary	N / A	279'	N / A	N / A	N / A

\*Alternative Landscape Plan requested for West boundary landscape setback width.

## Parking

No. of Vehicles Spaces Provided	Shade Trees Required/Provided	Abbr. on Plan
6	1 / 1	(PL)

## Internal Landscaping

Net Site Area (SF) (less public ROW)	Percent Minimum Internal Area (%)	Internal Area (SF) Required / Provided	Internal Trees (1/500 SF) Required / Provided
408,508 s.f.	5%	20,425 s.f. / 55,426 s.f.*	41 / 41

Shrub Substitutes Required / Provided	Internal Plant Abbr. Denoted on Plan
N / A	(IN)

\*Alternative Landscape Plan requested to use 53,540 s.f. pond area toward internal requirements.

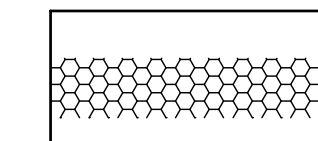
## Landscape Buffer & Screens

Street Name or Property Line	Width (in Ft.) Req. / Prov.	Linear Footage	Buffer Trees (1/20') Required / Provided	Evergreen Trees Req. (50%) / Provided
Bradley Road	25' / 25'	940'	47 / 47	24 / 25

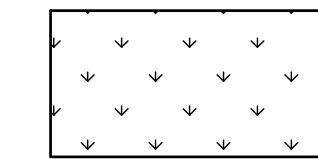
## Area Calculations

Proposed building area:	86,000 s.f. total
Developed lot size:	225,117 s.f.
Parking spaced required:	6 spaces
Parking spaced provided:	6 spaces
% of site with buildings:	38%
% of site with asphalt & gravel:	61%
% of site with landscaping:	1%

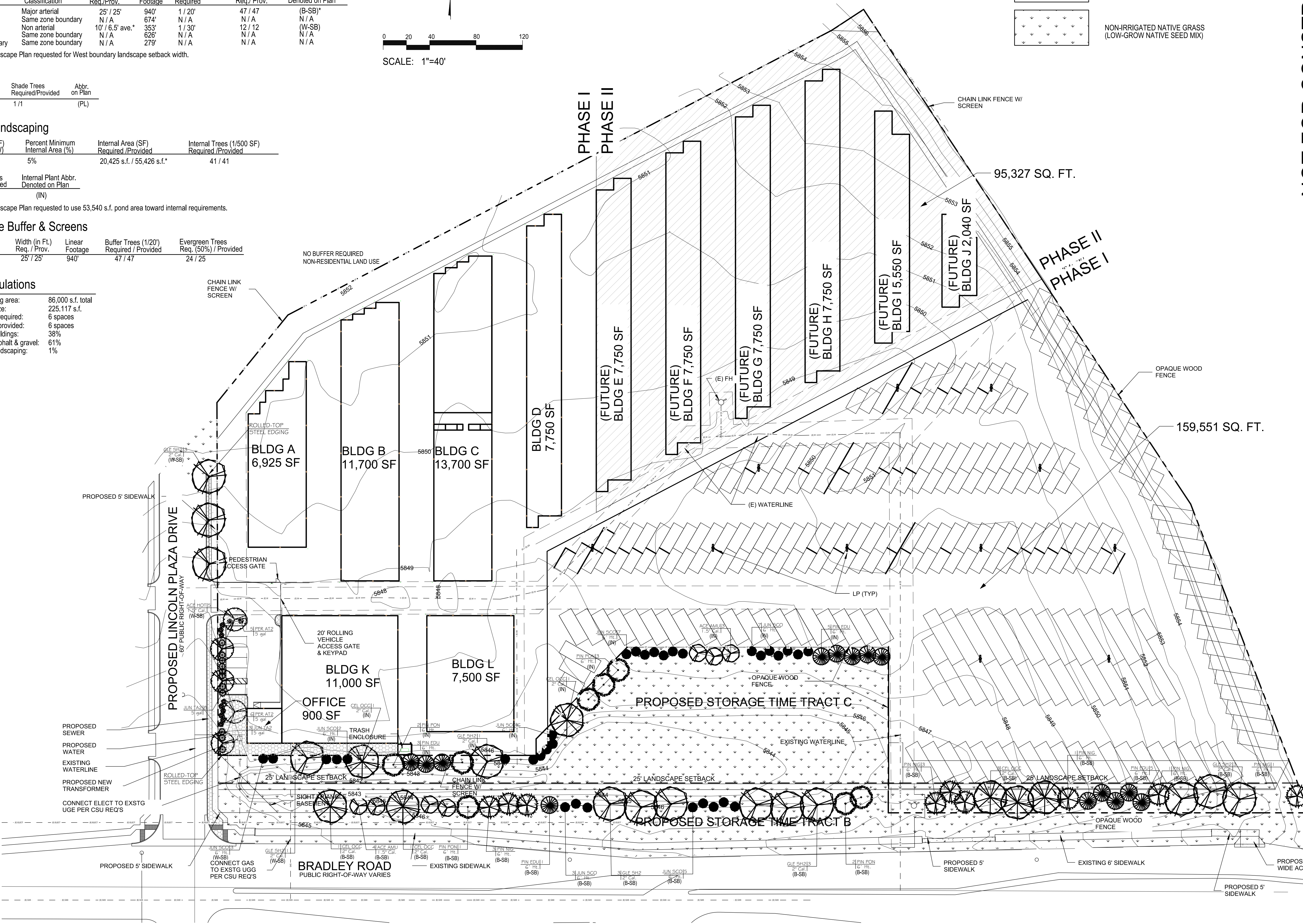
## GROUND PLANE TREATMENT



1.5" 'CIMARRON' CRUSHED ROCK, 3" DEPTH OVER LANDSCAPE FABRIC



NON-IRRIGATED NATIVE GRASS (LOW-GROW NATIVE SEED MIX)



NOT FOR CONSTRUCTION

**JWLA**  
 JON WALSH  
 LANDSCAPE ARCHITECT  
 LLC  
 P.O. Box 354  
 Palmer Lake, CO 80133  
 (719) 640-9428  
 (719) 358-2559 fax  
 jwlandarch@gmail.com

PROJECT FILE: bradley storage flp 3-9-20.dwg

DEVELOPMENT PLAN FOR  
**BRADLEY STORAGE- LOTS 1 AND 2**  
 El Paso County, CO

PROJECT NAME:  
**LANDSCAPE DEVELOPMENT PLAN**

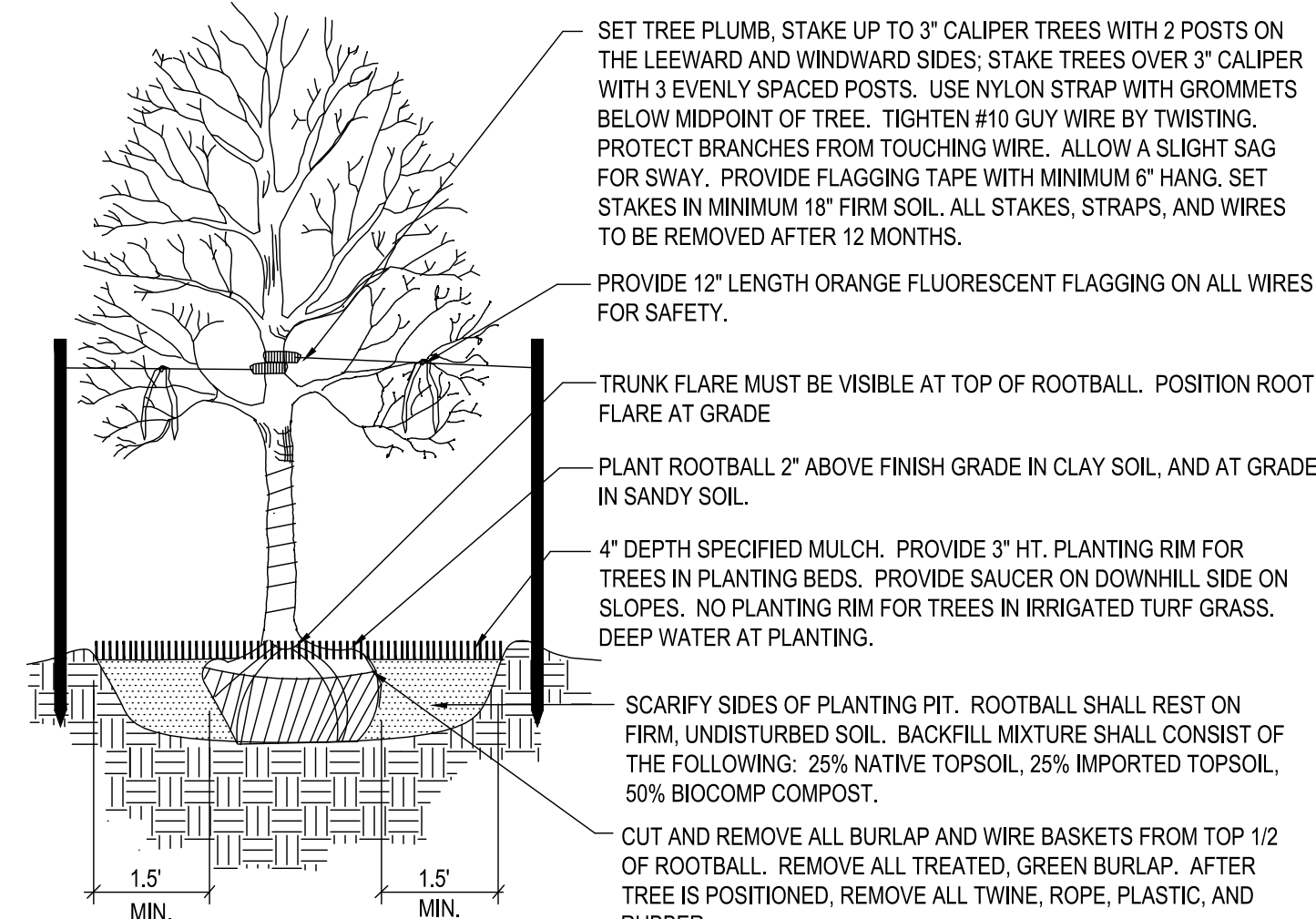
SHEET TITLE:  
 SHEET NO.:  
 REVISION DATE:  
 11 August 2017  
 12 March 2020

STAMP:  
**LS-1**  
 1 of 2



# PLANTING DETAILS

- NOTES:
- DO NOT REMOVE OR CUT LEADER.
  - PRUNE ONLY DEAD OR BROKEN BRANCHES AND WEAK OR NARROW CROTCHES.
  - DO NOT REMOVE LOWER LIMBS AND SPROUTS FOR AT LEAST TWO GROWING SEASONS.
  - KEEP PLANTS MOIST AND SHADED UNTIL PLANTED.
  - DO NOT FERTILIZE FOR AT LEAST ONE GROWING SEASON.
  - WRAP TRUNK ON EXPOSED SITES OR SPECIES WITH THIN BARK. USE ELECTRICAL TAPE NOT TWINE. WRAP OCTOBER 15 AND REMOVE BY MARCH 31.

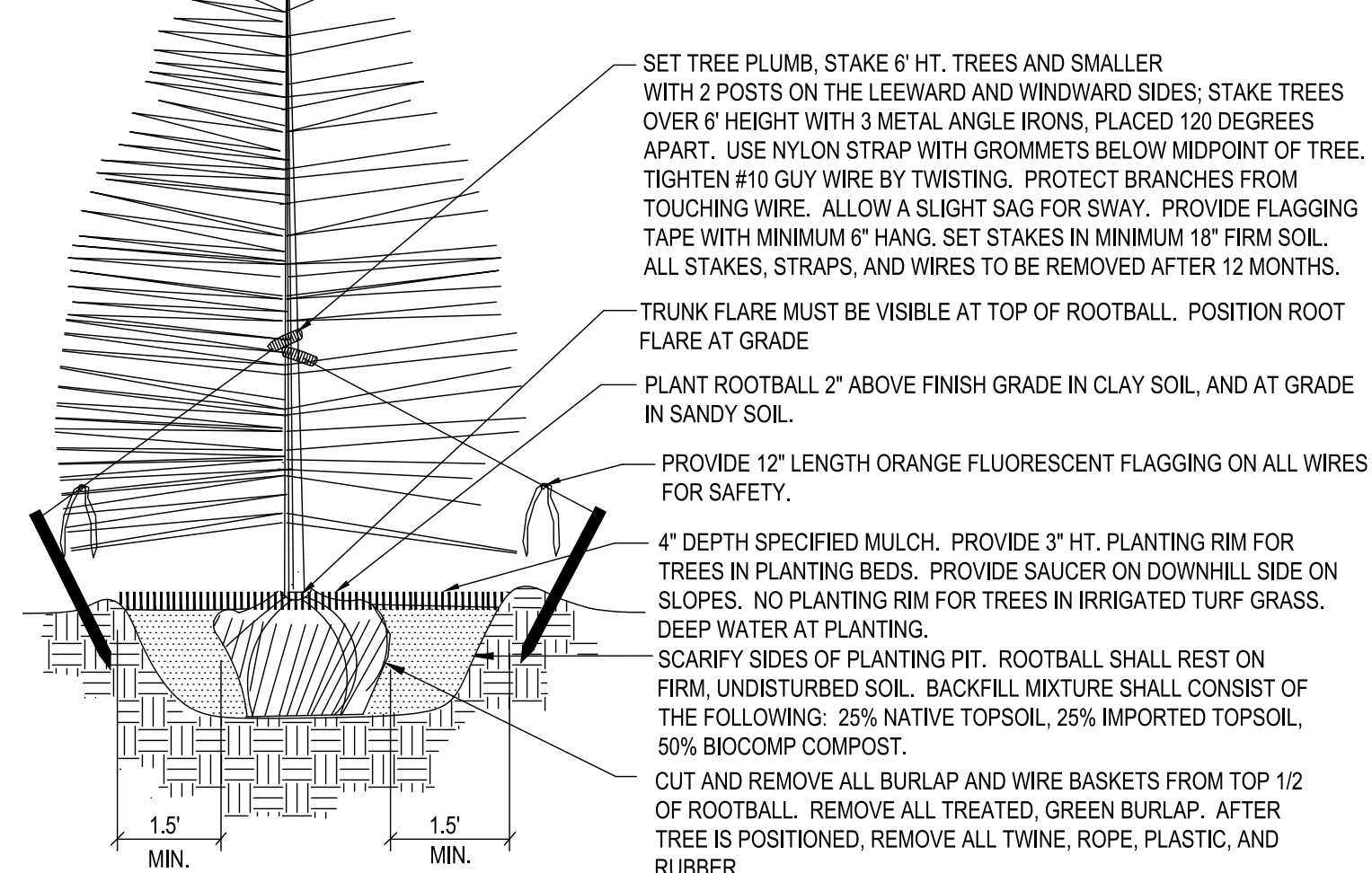


**Deciduous Tree Planting Detail**

NOT TO SCALE

1

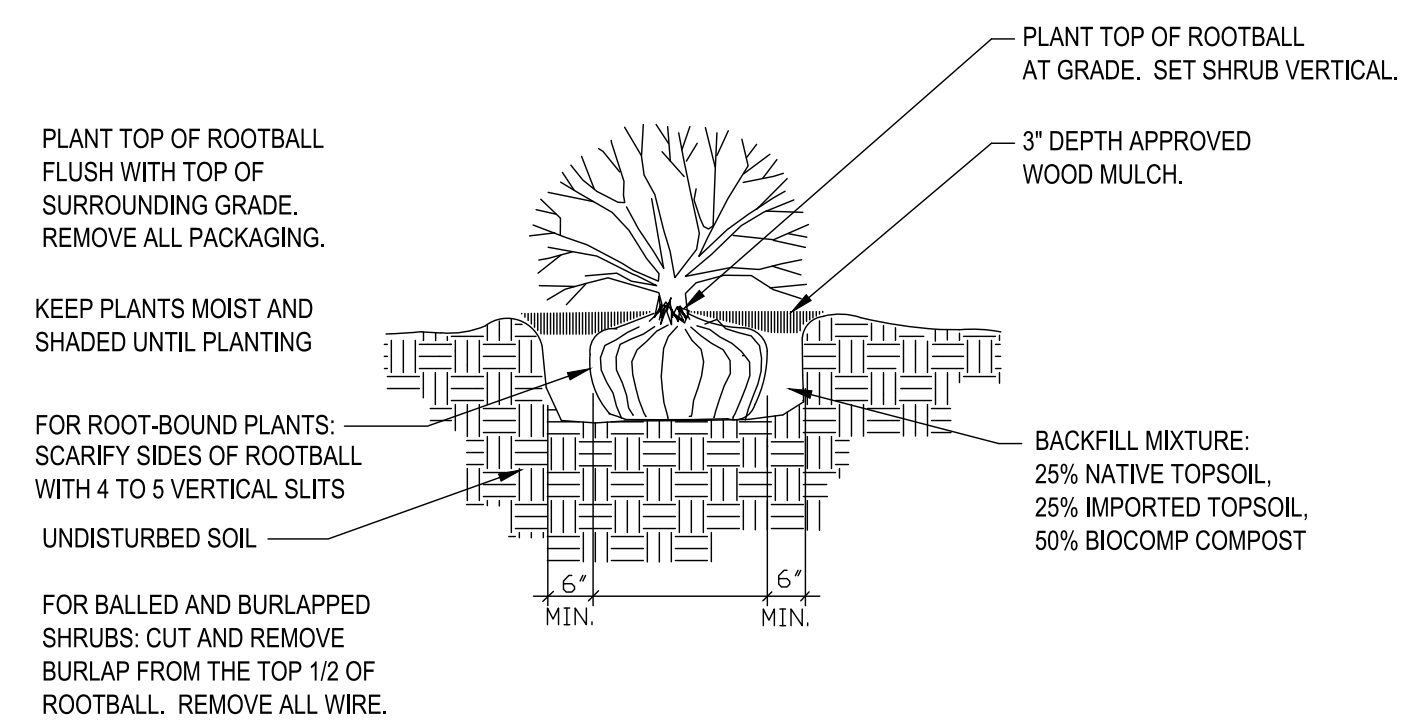
- NOTES:
- DO NOT REMOVE OR CUT LEADER.
  - PRUNE ONLY DEAD OR BROKEN BRANCHES AND WEAK OR NARROW CROTCHES.
  - REMOVE ANY DOUBLE LEADER, UNLESS OTHERWISE DIRECTED BY OWNERS REPRESENTATIVE.
  - KEEP PLANTS MOIST AND SHADED UNTIL PLANTED.
  - AVOID FALL PLANTING IF POSSIBLE



**Coniferous Tree Planting Detail**

NOT TO SCALE

2



**Shrub Planting Detail**

SCALE: NOT TO SCALE

3

# GENERAL NOTES

- ALL REFERENCES TO 'CONTRACTOR' REFER TO LANDSCAPE CONTRACTOR, UNLESS OTHERWISE NOTED.
- CONTRACTOR IS RESPONSIBLE FOR GETTING ALL UTILITY LOCATES 1-800-922-1987 PRIOR TO STARTING ANY WORK ON SITE AND ALSO HAVING UTILITIES RELOCATED AS NECESSARY FOR THE DURATION OF CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR INSTALLING ALL LANDSCAPE SHOWN ON THIS PLAN. ANY DEFICIENCIES OR DEVIATIONS FROM THIS PLAN ARE TO BE APPROVED BY OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT. ANY CHANGES FROM THE APPROVED PLANS MAY REQUIRE APPROVAL FROM THE EL PASO COUNTY PLANNING DEPARTMENT AND MAY DELAY COMPLETION OF PROJECT.
- CONTRACTOR IS RESPONSIBLE FOR VERIFYING QUANTITIES OF MATERIALS NEEDED TO COMPLETE THIS PLAN IN THE FIELD. NOTIFY OWNER'S REPRESENTATIVE OF DISCREPANCIES BETWEEN THE DRAWINGS AND CONDITIONS IN THE FIELD. SUBSTITUTIONS OF LANDSCAPE MATERIALS ARE NOT ALLOWED WITHOUT APPROVAL FROM LANDSCAPE ARCHITECT GIVEN PRIOR TO INSTALLATION. NOTIFY LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION IF LANDSCAPE MATERIAL LOCATIONS NEED TO BE ALTERED DUE TO ON-SITE CONDITIONS.
- CONTRACTOR IS TO PROVIDE A ONE YEAR WARRANTY ON ALL PLANT MATERIALS, IRRIGATION COMPONENTS, NATIVE GRASS, AND WORKMANSHIP. CONTRACTOR IS TO PROVIDE OWNER WITH WARRANTY CONDITIONS AND COMMENCE WARRANTY PERIOD UPON FINAL ACCEPTANCE OF LANDSCAPE INSTALLATION.
- CONTRACTOR SHALL REFER TO ASSOCIATED LANDSCAPE CONTRACTORS OF COLORADO SPECIFICATIONS HANDBOOK, 1996 (OR MORE RECENT) REVISED EDITION FOR SPECIFICATIONS RELATING TO LANDSCAPE AND IRRIGATION CONSTRUCTION ON THIS SITE. REFER TO SECTIONS 02810, 02930, 02940, AND 02950. CONTRACTOR SHOULD CONTACT OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT FOR CLARIFICATIONS OR QUESTIONS.
- THE OWNER OF THIS PROPERTY AND ANY FUTURE OWNERS SHALL BE RESPONSIBLE FOR THE PROPER LANDSCAPE AND IRRIGATION MAINTENANCE OF THIS SITE. MAINTENANCE OF THIS SITE INCLUDES, BUT IS NOT LIMITED TO, IRRIGATION INSPECTIONS AND ADJUSTMENTS, IRRIGATION SYSTEM SHUT DOWN AND START UP, IRRIGATION LEAK REPAIR, LANDSCAPE WEEDING, MOWING, SEEDING, FERTILIZATION, WOOD MULCH AND ROCK COVER REPLACEMENT, PRUNING, AND PLANT MATERIAL REPLACEMENT. ALL MAINTENANCE SHOULD BE IN ACCORDANCE WITH STANDARDS SPECIFIED WITHIN THE "ALCC SPECIFICATIONS HANDBOOK" REVISED EDITION- 1996. OWNER SHOULD CONTACT LANDSCAPE CONTRACTOR OR LANDSCAPE ARCHITECT REGARDING ANY QUESTIONS RELATING TO THE LANDSCAPE OR IRRIGATION MAINTENANCE OF THIS SITE.

# PROJECT NOTES

- FINE GRADING TO BE PERFORMED BY LANDSCAPE CONTRACTOR TO REFLECT FINISHED GRADES SHOWN ON THE PROJECT GRADING PLANS. ALL FINISHED GRADES ARE TO HAVE A MINIMUM 2% SLOPE. CONTRACTOR IS TO REPORT POOR DRAINAGE CONDITIONS OR ANY GRADES IN LANDSCAPE AREAS LESS THAN 2% TO GENERAL CONTRACTOR AND LANDSCAPE ARCHITECT PRIOR TO LANDSCAPE CONSTRUCTION WORK. FINISHED GRADES SHALL BE FREE OF WEEDS AND FREE OF DEBRIS AND ROCKS GREATER THAN ONE INCH.
- CONTRACTOR IS TO PROVIDE FINAL GRADES ADJACENT TO HARDSCAPE SURFACES AT THE FOLLOWING SPECIFICATIONS:  
2' BELOW TOP OF CONCRETE OR RETAINING WALLS FOR ALL MULCH AND ROCK COVER BEDS.  
1" BELOW TOP OF CONCRETE OR RETAINING WALLS FOR NATIVE SEED AREAS.  
CONTRACTOR IS TO COORDINATE THESE GRADING SPECIFICATIONS WITH GENERAL CONTRACTOR AND/OR WHOEVER IS PROVIDING ROUGH GRADING. FINAL GRADES IN ALL LANDSCAPE AREAS ARE TO BE ESTABLISHED USING ON-SITE STOCKPILED TOPSOIL.
- ALL AREAS SHOWN AS 'NATIVE SEED' TO BE SEEDED WITH 'LOW GROW NATIVE SEED MIX' (PAWNEE BUTTE SEED, INC.) BY DRILL SEEDING AND/OR HYDRO-MULCHING AT A RATE OF 1 LB. PER 1,000 SQ. FT. REFER TO NATIVE SEED ESTABLISHMENT SPECIFICATION FOR MORE DETAILED INSTRUCTIONS.
- SPECIFIED MULCH TO BE PLACED AROUND THE BASE OF EACH PROPOSED TREE IS TO CONSIST OF 'COURSE TREE' MULCH (ROCKY TOP RESOURCES).
- ROCK COVER AREAS TO CONSIST OF 1.5" DIAMETER 'CIMARRON GRANITE' CRUSHED ROCK (C&C SAND), SPREAD OVER LANDSCAPE FABRIC. LANDSCAPE FABRIC TO CONSIST OF 'DEWITT' WEED BARRIER PRO, 3 OZ BLACK WOVEN POLYPROPYLENE FABRIC. FABRIC TO OVERLAP 6" MINIMUM AT ALL SEAMS. 6" STEEL ANCHOR PINS TO BE INSTALLED 6" O.C. MAX.

# SOIL PREPARATION NOTES

- PROPOSED NATIVE GRASS AREAS:** ALL SEEDED AREAS TO RECEIVE 3 CU. YDS. PER 1,000 SQ. FT. OF IMPORTED GRADE A TOPSOIL (C&C SAND) INCORPORATED INTO EXISTING SOIL AND ROTO-TILLED TO A 6" DEPTH.
- PROPOSED TREES AND SHRUBS:** ALL PROPOSED TREES ARE TO BE BACKFILLED WITH A MIXTURE OF 'BIOCOMP' SOIL AMENDMENT AND IMPORTED GRADE A TOPSOIL (C&C SAND). REFER TO PLANTING DETAILS.

# IRRIGATION NOTES

- ALL PROPOSED TREES AND SHRUBS ARE TO BE WATERED BY A PROPOSED DRIP IRRIGATION SYSTEM. IRRIGATION SYSTEM SHALL INCLUDE AUTOMATIC CONTROLLER, RAIN SENSOR, BACKFLOW PREVENTER (INSTALLED PER LOCAL CODES), AND TWO QUICK COUPLERS EVENLY SPACED ALONG BRADLEY ROAD FRONTAGE. TREES TO HAVE (4) 1 GPH EMITTERS EACH EVENLY SPACED AT EDGE OF ROOT BALL. SHRUBS TO HAVE (2) 1 GPH EMITTERS EACH EVENLY SPACED AT EDGE OF ROOT BALL. ALL DRIP PIPE SHALL BE SECURED WITH 6" METAL STAKES AND BURIED.
- ALL DISTURBED NATIVE SEED AREAS TO RECEIVE TEMPORARY IRRIGATION UNTIL NATIVE GRASS IS ESTABLISHED. REFER TO NATIVE SEED ESTABLISHMENT SPECIFICATION. HOSES ARE TO BE CONNECTED TO BUILDING HOSE BIBS AND IRRIGATION QUICK COUPLERS TO MANUALLY WATER PROPOSED NATIVE SEED AREAS WITH PORTABLE SPRINKLERS UNTIL ESTABLISHED.

# GRADING / DRAINAGE NOTES

- LANDSCAPE CONTRACTOR IS TO VERIFY THAT ALL FINISHED GRADES COMPLY WITH GRADING PLAN PREPARED BY CIVIL ENGINEER. VERIFY THAT ALL SLOPES DRAIN AWAY FROM BUILDING(S) AND THAT DRAINAGE SWALES ARE CORRECTLY LOCATED AND CARRY WATER AS INTENDED. NOTIFY GENERAL CONTRACTOR PRIOR TO CONSTRUCTION IF STANDING WATER IS PRESENT (OTHER THAN DETENTION FACILITIES) OR IF SLOPES ARE NOT GRADED AS PER APPROVED GRADING PLAN.
- LANDSCAPE CONTRACTOR IS TO LOCATE ALL DOWNSPOUTS AND DOWNSPOUT EXTENSIONS AND VERIFY THAT NO OBSTRUCTIONS ARE IMPEDING THE FLOW OF WATER AWAY FROM THE BUILDING. REMOVE ANY STEEL EDGING WITHIN 10' OF BUILDING(S) TO ALLOW DOWNSPOUT DRAINAGE TO FLOW THROUGH LANDSCAPE BEDS. USE PERFORATED STEEL EDGING WHEREVER DRAINAGE WILL NOT FREELY FLOW THROUGH LANDSCAPE BEDS. IF DOWNSPOUT DRAINAGE IS FLOWING THROUGH WOOD MULCH BEDS CREATE A DRAINAGE SWALE 2' TO 3' WIDE USING 2" TO 4" RIVER ROCK OVER LANDSCAPE FABRIC.
- LANDSCAPE CONTRACTOR IS TO PROVIDE TEMPORARY EROSION MITIGATION MEASURES FOR THE DURATION OF LANDSCAPE CONSTRUCTION AND THROUGH ESTABLISHMENT OF NATIVE GRASS. THIS INCLUDES PLACEMENT OF WATTLES AND/OR EROSION BLANKET WHEREVER DRAINAGE ERODES BARE SOIL AND RUNOFF CAN POTENTIALLY DAMAGE NEIGHBORING PROPERTIES.

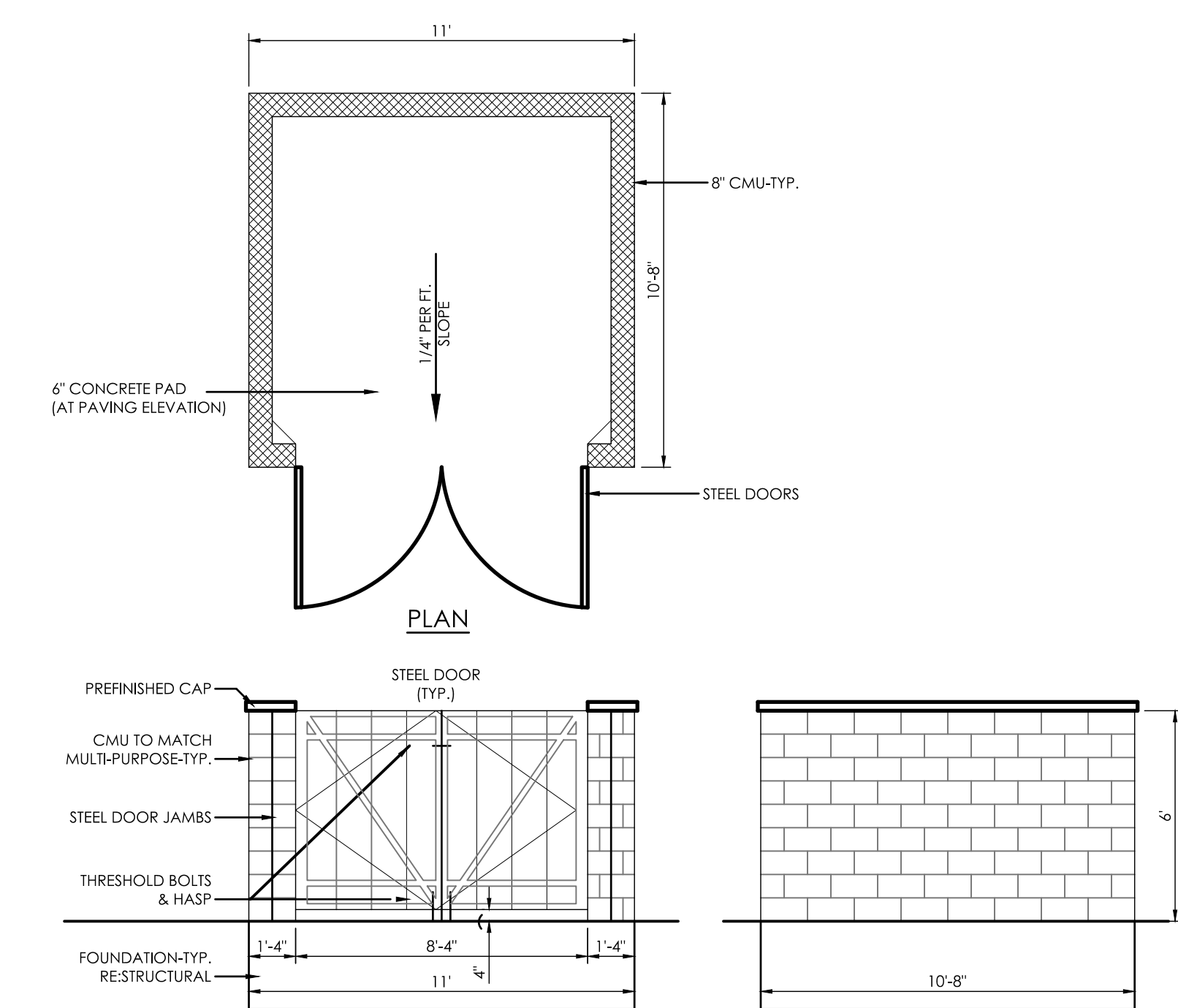
# PLANT SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME / COMMON NAME	SIZE	REMARKS
	ACE AMU	7	<i>Acer ginnala</i> / Amur Maple	1.5" Cal.	B # B
	ACE HOT	6	<i>Acer tatanum</i> "Hot Wings" / Hot Wings Tatanum Maple	1.5" Cal.	B # B
	CEL OCC	7	<i>Celtis occidentalis</i> / Common Hackberry	1.5" Cal.	B # B
	GLE SH2	14	<i>Gleditsia triacanthos inermis</i> "Shademaster" TM / Shademaster Locust	1.5" Cal.	B # B
	JUN SCO	33	<i>Juniperus scopulorum</i> / Rocky Mountain Juniper	6" Ht.	
	PIN EDU	14	<i>Pinus cembroides edulis</i> / Pinyon Pine	6" Ht.	B # B
	PIN NIG	9	<i>Pinus nigra</i> / Austrian Black Pine	6" Ht.	B # B
	PIN PON	8	<i>Pinus ponderosa</i> / Ponderosa Pine	6" Ht.	B # B
SHRUBS	CODE	QTY	BOTANICAL NAME / COMMON NAME	SIZE	
	JUN TA2	11	<i>Juniperus sabina</i> "Tamariscifolia" / Tammy Juniper	5 gal	
	PER AT2	11	<i>Perovskia atriplicifolia</i> / Russian Sage	5 gal	

# NATIVE SEED ESTABLISHMENT

**INITIAL PLANTING**  
STOCKPILED TOPSOIL SHOULD BE SPREAD EVENLY OVER ALL AREAS TO RECEIVE NATIVE SEED. SEED BED IS TO BE WEED-FREE. SPECIFIED SOIL AMENDMENTS SHOULD BE SPREAD AND INCORPORATED INTO TOP 6" OF SOIL. SEED BED IS TO BE RAKED SMOOTH AND FREE OF DEBRIS LARGER THAN 1" IN DIAMETER. ANY AREAS THAT THE CONTRACTOR BELIEVES TO BE SUSCEPTIBLE TO EROSION ARE TO BE BROUGHT TO THE ATTENTION OF THE OWNER AND/OR GENERAL CONTRACTOR PRIOR TO SEEDING. THE SPECIFIED SEED MIX IS TO BE APPLIED BY HYDRO-MULCHING OR BROADCAST SEEDING AT THE RATE SPECIFIED RAKING INTO TOP 1/4" TO 1/2" OF SOIL. SEED IS TO BE APPLIED BETWEEN APRIL 15 AND SEPTEMBER 15. SEED SHALL NOT BE SOWN IF GROUND IS IN A FROZEN STATE. SPECIFIED EROSION CONTROL BLANKET IS TO BE INSTALLED IMMEDIATELY AFTER SEEDING. BLANKET SHALL BE LAID AND SECURED WITH 6" METAL STAPLES AS PER MANUFACTURER'S INSTRUCTIONS. CONTRACTOR IS TO PROVIDE INCIDENTAL WATERING OF ALL SEEDED AREAS THREE TIMES A WEEK DURING GROWING SEASON FOR A MINIMUM OF 8 WEEKS, OR UNTIL ESTABLISHED AND MEETING COVERAGE REQUIREMENTS. MOWING MAY BE NECESSARY DURING THE FIRST GROWING SEASON TO KEEP INVASIVE WEEDS FROM SETTING SEEDS. CONTRACTOR IS RESPONSIBLE FOR KEEPING BROADLEAF WEEDS UNDER CONTROL FOR 12 MONTHS AFTER INITIAL SEEDING AND IS ALSO RESPONSIBLE FOR OVER SEEDING BARE AREAS UNTIL SPECIFIED NATIVE GRASSES COVER ALL AREAS AND AREAS WITHOUT SPECIFIED NATIVE GRASS DO NOT EXCEED 6" X 6".

**OVER SEEDING**  
SIX WEEKS AFTER THE INITIAL SEEDING DURING THE FIRST GROWING SEASON AND/OR DURING THE SPRING OF THE SECOND GROWING SEASON CONTRACTOR IS TO REPAIR ANY ERODED AREAS AND OVER SEED ALL BARE NATIVE GRASS AREAS. CONTRACTOR IS TO USE SPECIFIED SEED MIX BY BROADCAST AND RAKING INTO TOP 1/4" TO 1/2" OF SOIL. INCIDENTAL WATERING IS TO BE PROVIDED TO ESTABLISH OVER-SEEDED AREAS. BROADLEAF WEEDS ARE TO BE KEPT UNDER CONTROL BY MANUALLY PULLING OR CUTTING WEEDS OR SPRAYING OF BROADLEAF WEED HERBICIDE. HERBICIDE AND APPLICATION SHALL CONFORM TO ALL APPLICABLE LAWS OF THE STATE OF COLORADO AND MANUFACTURERS INSTRUCTIONS.



**TRASH ENCLOSURE PLAN & ELEVATIONS**

SCALE 1" = 4'-0"  
FOR INFORMATION PURPOSES ONLY: REFER TO CIVIL AND ARCHITECTURAL DRAWINGS FOR CONSTRUCTION DETAILS.

**NOT FOR CONSTRUCTION**



P.O. Box 354  
Palmer Lake, CO 80133  
(719) 640-9428  
(719) 358-2559 fax  
jwlandarch@gmail.com

PROJECT FILE: bradley storage flp3-9-20.dwg

DEVELOPMENT PLAN FOR  
**BRADLEY STORAGE- LOTS 1 AND 2**

El Paso County, CO

PROJECT NAME:

**LANDSCAPE DEVELOPMENT PLAN**

SHEET TITLE:

DATE: 11 August 2017

REVISION NO.: 12 March 2020

STAMP:

SHEET NO.:

**LS-2**  
2 of 2





# BRADLEY STORAGE

## EL PASO COUNTY, CO

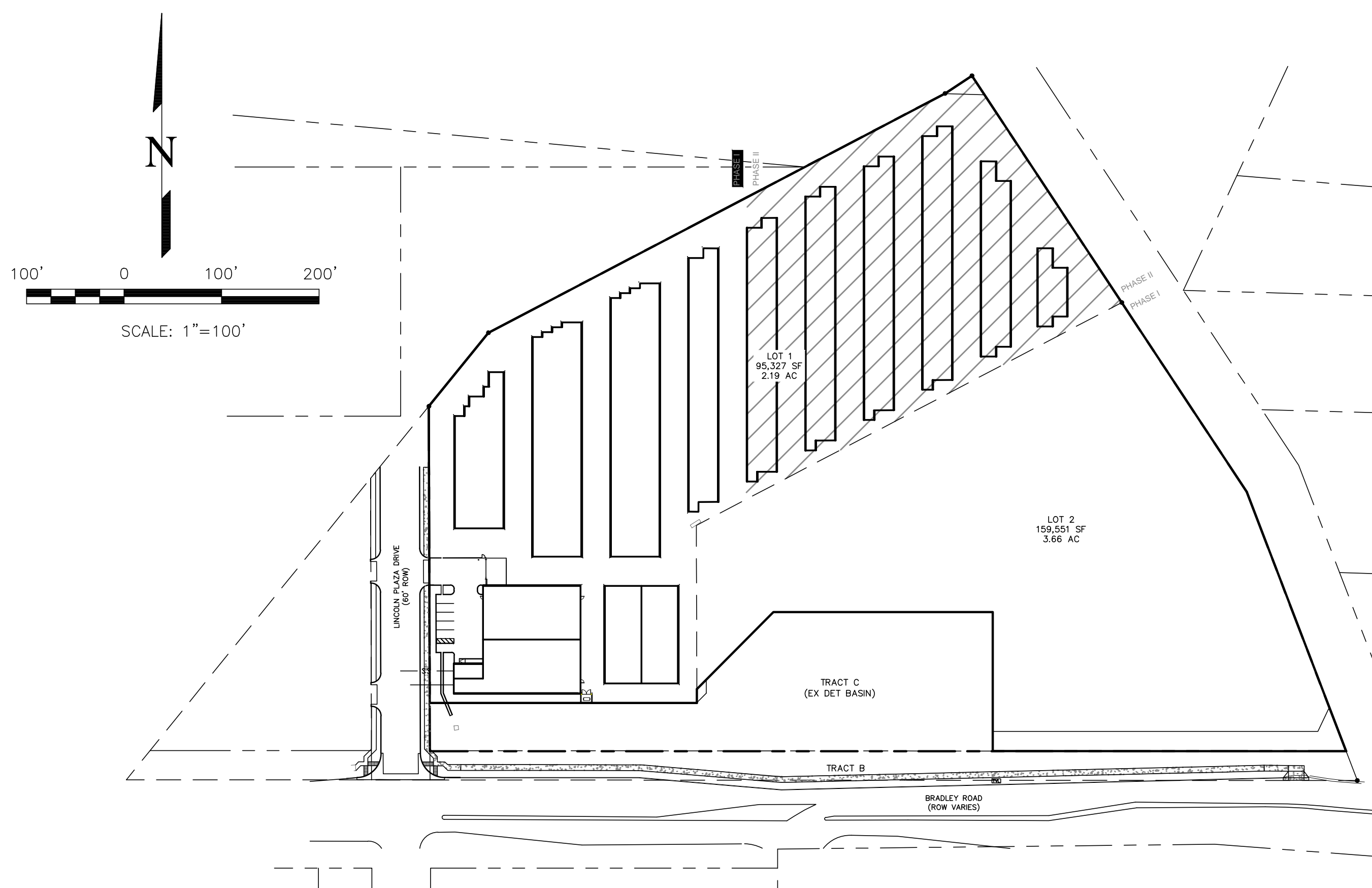
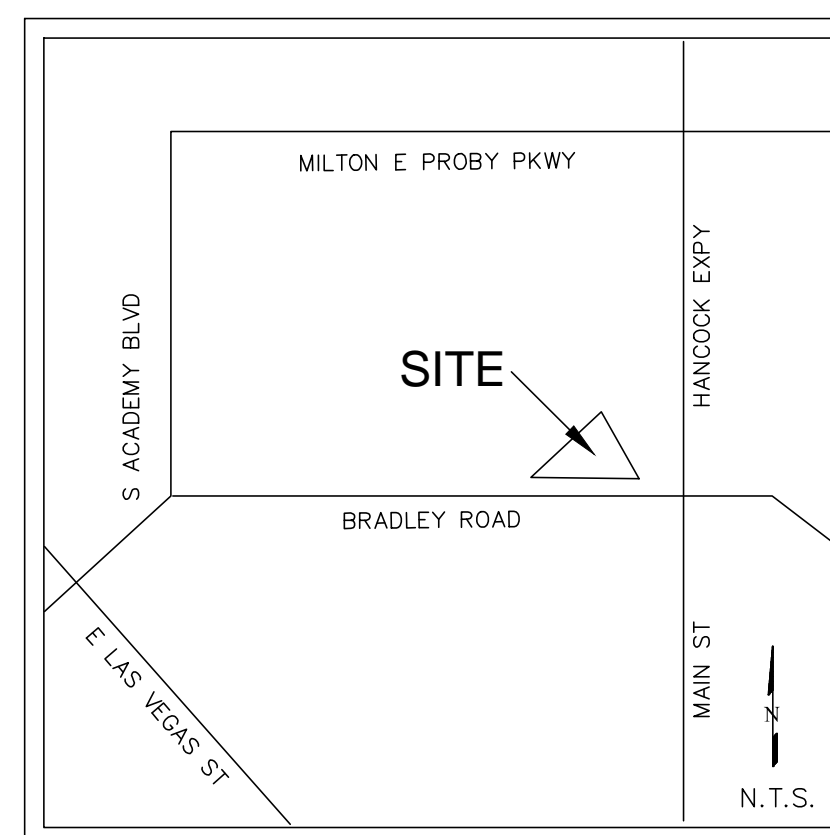
# GRADING AND EROSION CONTROL PLAN

### MARCH 2019

**EROSION CONTROL COST OPINION:**

1. 1,965 LF-SILT FENCE @ \$4.00/LF	\$ 7,860
2. 5 EA-ROCK SOCK @ \$110/EA	\$ 550
3. 1 EA-VEHICLE TRACKING CONTROL @ \$1,325/ENTRANCE	\$ 1,325
4. 0.7 AC-SEED AND MULCH @ \$5,150/AC	\$ 3,605
5. 1 EA-INLET PROTECTION @ \$300/EA	\$ 300
6. 1 EA-CONCRETE WASHOUT @ \$760/EA	\$ 760
7. 40% MAINTENANCE AND REPLACEMENT	\$ 5,760
<b>TOTAL</b>	<b>\$ 20,160</b>

VICINITY MAP



**SHEET INDEX:**

- 1 COVER SHEET
- 2 NOTES SHEET
- 3 GRADING PLAN
- 4 EROSION CONTROL PLAN
- 5 EROSION CONTROL DETAILS
- 6 EROSION CONTROL DETAILS

**SITE ADDRESS**

4225 LINCOLN PLAZA DRIVE  
COLORADO SPRINGS, CO 80911

**CONTACT INFORMATION:**

OWNER: M&S ENTERPRISES LLC  
5410 POWERS CENTER PT, STE 210  
COLORADO SPRINGS, COLORADO 80820  
(719) 635-5736

CIVIL ENGINEER: TERRA NOVA ENGINEERING, INC. (LUANNE DUCETT)  
721 S. 23RD STREET  
COLORADO SPRINGS, COLORADO 80904  
(719) 635-6422

EL PASO COUNTY: PLANNING AND COMMUNITY DEVELOPMENT  
2880 INTERNATIONAL CIRCLE  
COLORADO SPRINGS, COLORADO 80910  
(719) 520-6300

**SOIL TYPES**

ONSITE SOILS ARE HYDROLOGIC GROUP "A", MOSTLY BLAKELAND LOAMY SAND

**BENCHMARKS**

REBAR WITH PLASTIC CAP MARKED "KRAETTLI PLS 9646"  
ELEV=5852.94 (NGVD-1929)

**ENGINEER'S STATEMENT**

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECTION AND SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SAID PLAN HAS BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR GRADING AND EROSION CONTROL PLANS. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARING THIS REPORT.

DANE FRANK, P.E. #50207  
FOR AND ON BEHALF OF TERRA NOVA ENGINEERING, INC.

**OWNER'S STATEMENT**

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN.

OWNER NAME: \_\_\_\_\_ DATE: \_\_\_\_\_

SIGNED BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

**EL PASO COUNTY APPROVAL**

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT.

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTORS DISCRETION.

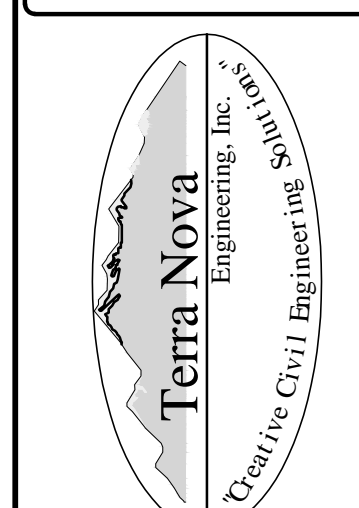
JENNIFER IRVINE, P.E.  
COUNTY ENGINEER / ECM ADMINISTRATOR

DATE: \_\_\_\_\_

REVISIONS NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE EL PASO COUNTY ENGINEER, TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND COST AUTHORIZED BY WRITTEN AUTHORIZATION.

PREPARED FOR:  
**ROCKY MOUNTAIN GROUP**  
ATTN: KEITH MOORE  
19375 BEACON LITE ROAD  
MONUMENT, CO 80132  
719.844.2145



721 S. 23RD STREET  
COLORADO SPRINGS, CO 80904  
OFFICE: 719-635-6422  
FAX: 719-635-6426  
www.tneshinc.com

**BRADLEY STORAGE**

GRADING AND EROSION CONTROL PLAN  
COVER SHEET

DESIGNED BY DLF
DRAWN BY DLF
CHECKED BY LD
H-SCALE AS NOTED
V-SCALE N/A
JOB NO. 1842.00
DATE ISSUED 03/13/19
SHEET NO. 1 OF 6

N:\jobs\1842.00\Drawings\184200 GEC.dwg COVER, 3/13/2019 3:49:20 PM



# BRADLEY STORAGE

## EL PASO COUNTY, CO

# GRADING AND EROSION CONTROL PLAN

## MARCH 2019

**STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS**

1. CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM PLANNING AND COMMUNITY DEVELOPMENT (PCD) AND A PRE-CONSTRUCTION CONFERENCE IS HELD WITH PCD INSPECTIONS.
2. STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF SITE WATERS, INCLUDING WETLANDS.
3. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS TO REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
4. A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED STORMWATER MANAGER, SHALL BE LOCATED ON SITE AT ALL TIMES AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
5. ONCE THE ESQCP HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL BMPs AS INDICATED ON THE GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY PCD INSPECTIONS STAFF.
6. SOIL EROSION CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, OR ANY DISTURBED LAND AREA SHALL BE COMPLETED WITHIN 21 CALENDAR DAYS AFTER FINAL GRADING, OR FINAL EARTH DISTURBANCE, HAS BEEN COMPLETED. DISTURBED AREAS AND STOCKPILES WHICH ARE NOT AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN 30 DAYS SHALL ALSO BE MULCHED WITHIN 21 DAYS AFTER INTERIM GRADING. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPs SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED.
7. TEMPORARY SOIL EROSION CONTROL FACILITIES SHALL BE REMOVED AND EARTH DISTURBANCE AREAS GRADED AND STABILIZED WITH PERMANENT SOIL EROSION CONTROL MEASURES PURSUANT TO STANDARDS AND SPECIFICATION PRESCRIBED IN THE DCM VOLUME II AND THE ENGINEERING CRITERIA MANUAL (ECM) APPENDIX I.
8. ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPs IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME II AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT PLAN (SMWP).
9. ALL TEMPORARY EROSION CONTROL FACILITIES INCLUDING BMPs AND ALL PERMANENT FACILITIES INTENDED TO CONTROL EROSION OF ANY EARTH DISTURBANCE OPERATIONS, SHALL BE INSTALLED AS DEFINED IN THE APPROVED PLANS, THE SWMP AND THE DCM VOLUME II AND MAINTAINED THROUGHOUT THE DURATION OF THE EARTH DISTURBANCE OPERATION.
10. ANY EARTH DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY REDUCE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME.
11. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE DESIGNED TO LIMIT THE DISCHARGE TO A NON-EROSIVE VELOCITY.
12. CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO RUNOFF TO STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
13. EROSION CONTROL BLANKETING IS TO BE USED ON SLOPES STEEPER THAN 3:1.
14. BUILDING, CONSTRUCTION, EXCAVATION, OR OTHER WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. BMPs MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
15. VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFFSITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
17. THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
18. THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
19. NO CHEMICALS ARE TO BE USED BY THE CONTRACTOR, WHICH HAVE THE POTENTIAL TO BE RELEASED IN STORMWATER UNLESS PERMISSION FOR THE USE OF A SPECIFIC CHEMICAL IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING THE USE OF SUCH CHEMICALS, SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
20. BULK STORAGE STRUCTURES FOR PETROLEUM PRODUCTS AND OTHER CHEMICALS SHALL HAVE ADEQUATE PROTECTION SO AS TO CONTAIN ALL SPILLS AND PREVENT ANY SPILLED MATERIAL FROM ENTERING STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES.
21. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER OR IN THE DITCHLINE.
22. INDIVIDUALS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS INCLUDED IN THE DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR COUNTY AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
23. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
24. PRIOR TO ACTUAL CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
25. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
26. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY ENTECH ENGINEERING, INC. AND SHALL BE CONSIDERED A PART OF THESE PLANS.
27. AT LEAST TEN DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB 1 ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SMWP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT  
 WATER QUALITY CONTROL DIVISION  
 WOOD - PERMITS  
 4300 CHERRY CREEK DRIVE SOUTH  
 DENVER, CO 80246-1530  
 ATTN: PERMITS UNIT

**EL PASO COUNTY STANDARD CONSTRUCTION NOTES:**

1. ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 & 2 AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
3. CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SMWP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
  - A. EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
  - B. CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 & 2
  - C. COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
  - D. CDOT M & S STANDARDS.
4. NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACE WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
5. IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
6. CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
7. IT IS THE CONTRACTORS RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
8. CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
9. ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
10. CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
11. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
12. SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
13. SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY PUBLIC WORK DEPARTMENT AND MUTCD CRITERIA.
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY PWD, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
15. THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING OR CONSTRUCTION.

**CONSTRUCTION SCHEDULE**

BEGIN GRADING: SPRING 2019, END GRADING: SUMMER 2019

PHASE I/II APPLIES TO BUILDING CONSTRUCTION. ALL GRADING IS TO BE PERFORMED DURING PHASE I.

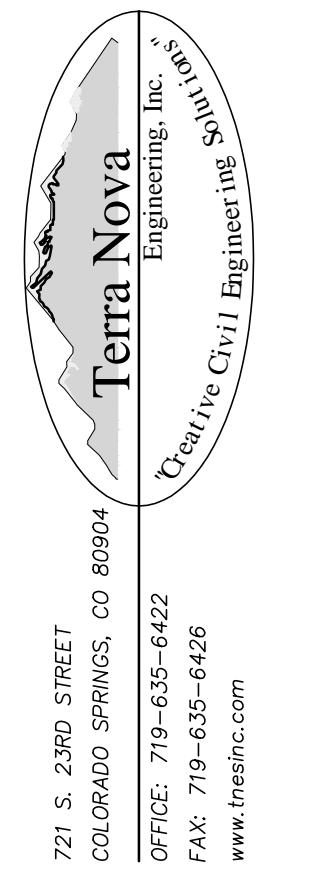
**CONSTRUCTION NOTES:**

1. ALL WORK SHALL COMPLY WITH THE CODES AND POLICIES FOR EL PASO COUNTY.
2. EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THIS GRADING PLAN WAS OBTAINED FROM AERIAL CONTOURS. THE CONTRACTOR SHALL BE RESPONSIBLE TO EXAMINE THE SITE AND BE FAMILIAR WITH THE EXISTING CONDITIONS.
3. DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS: BASE OF ALL CUTS AND FILLS - 12 INCHES, FULL DEPTH OF ALL EMBANKMENTS.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE RE-ESTABLISHMENT OF ALL SURVEY MONUMENTS DISTURBED WITHIN THE PROJECT LIMITS.
5. THE CONTRACTOR SHALL PROTECT ALL WORK AREAS AND FACILITIES FROM FLOODING AT ALL TIMES. AREAS AND FACILITIES SUBJECTED TO FLOODING, REGARDLESS OF THE SOURCE OF WATER, SHALL BE PROMPTLY DEWATERED AND RESTORED.
6. PRIOR TO PAVING OPERATIONS, THE ENTIRE SUBGRADE SHALL BE PROOF-ROLLED WITH A LOADED 988 FRONT-END LOADER OR SIMILAR HEAVY RUBBER Tired VEHICLE (GVW OF 50,000 POUNDS WITH 18 KIP PER AXLE AT TIRE PRESSURES OF 90 PSI) TO DETECT ANY SOFT OR LOOSE AREAS. IN AREAS WHERE SOFT OR LOOSE SOILS, PUMPING OR EXCESSIVE MOVEMENT IS OBSERVED, THE EXPOSED MATERIALS SHALL BE OVER-EXCAVATED TO A MINIMUM DEPTH OF TWO FEET BELOW PROPOSED FINAL GRADE OR TO A DEPTH AT WHICH SOILS ARE STABLE. AFTER THIS HAS BEEN COMPLETED, THE EXPOSED MATERIALS SHALL BE SCARIFIED TO A DEPTH OF 12 INCHES AND MOISTURE CONDITIONED. THE SUBGRADE SHALL THEN BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY (ASTM D-698) AT 0 TO +4.0% OF OPTIMUM MOISTURE CONTENT FOR A-6 AND A-7-6 SOILS ENCOUNTERED. OTHER SUBGRADE TYPES SHALL BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR DENSITY (ASTM D-1557) AT PLUS OR MINUS 2.0% OF OPTIMUM MOISTURE CONTENT. AREAS WHERE STABLE NATURAL SOILS ARE ENCOUNTERED AT PROPOSED SUBGRADE ELEVATION SHALL ALSO BE SCARIFIED (18 INCHES FOR A-7-6 SOILS BELOW FULL-DEPTH ASPHALT CONCRETE) AND COMPACTED AS OUTLINED ABOVE PRIOR TO PAVING OPERATIONS. SUBGRADE FILL SHALL BE PLACED IN SIX-INCH LIFTS AND UNIFORMLY COMPACTED, MEETING THE REQUIREMENTS AS PREVIOUSLY DESCRIBED.
7. SUBGRADE MATERIALS DEEMED UNSUITABLE BY THE ENGINEER SHALL BE EXCAVATED, DISPOSED OF AND REPLACED WITH APPROVED MATERIALS.
8. FILL SHALL BE PLACED IN 8-INCH MAXIMUM LOOSE LIFTS AND SHALL BE COMPACTED PRIOR TO SUCCESSIVE LIFTS.
9. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING AND CONTROLLING EROSION DURING CONSTRUCTION ACTIVITIES AT ALL TIMES DURING GRADING AND CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES:
  - SEDIMENT CONTROL LOGS WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
  - SILT FENCE WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
  - PERMANENT SEEDING AND MULCHING WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
  - CONCRETE WASH AREAS.
  - VEHICLE TRACKING CONTROL.
  - SOIL STOCKPILING AREA.
  - MATERIALS STAGING AREA.
 THESE AND ALL EROSION CONTROL BEST MANAGEMENT PRACTICES AS SHOWN IN THE GRADING AND EROSION CONTROL PLANS SHALL BE STRICTLY ADHERED TO.
10. FINISHED CONTOURS/ SPOT ELEVATIONS SHOWN HEREON REPRESENT FINISHED GRADES.

REVISIONS	NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE ENGINEER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND CONSTRUCTION OF THE PROJECT. TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND FOR THE MOST RECENT DATE OF WRITTEN AUTHORIZATION.

PREPARED FOR:  
**ROCKY MOUNTAIN GROUP**  
 ATTN: KEITH MOORE  
 19375 BEACON LITE ROAD  
 MONUMENT, CO 80132  
 719.844.2145



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 FAX: 719-635-6426  
 www.tneshinc.com

**BRADLEY STORAGE**  
 GRADING AND EROSION CONTROL PLAN  
 NOTES SHEET

DESIGNED BY DLF
DRAWN BY DLF
CHECKED BY LD
H-SCALE AS NOTED
V-SCALE N/A
JOB NO. 1842.00
DATE ISSUED 03/13/19
SHEET NO. 2 OF 6

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# BRADLEY STORAGE

## EL PASO COUNTY, CO

# GRADING AND EROSION CONTROL PLAN

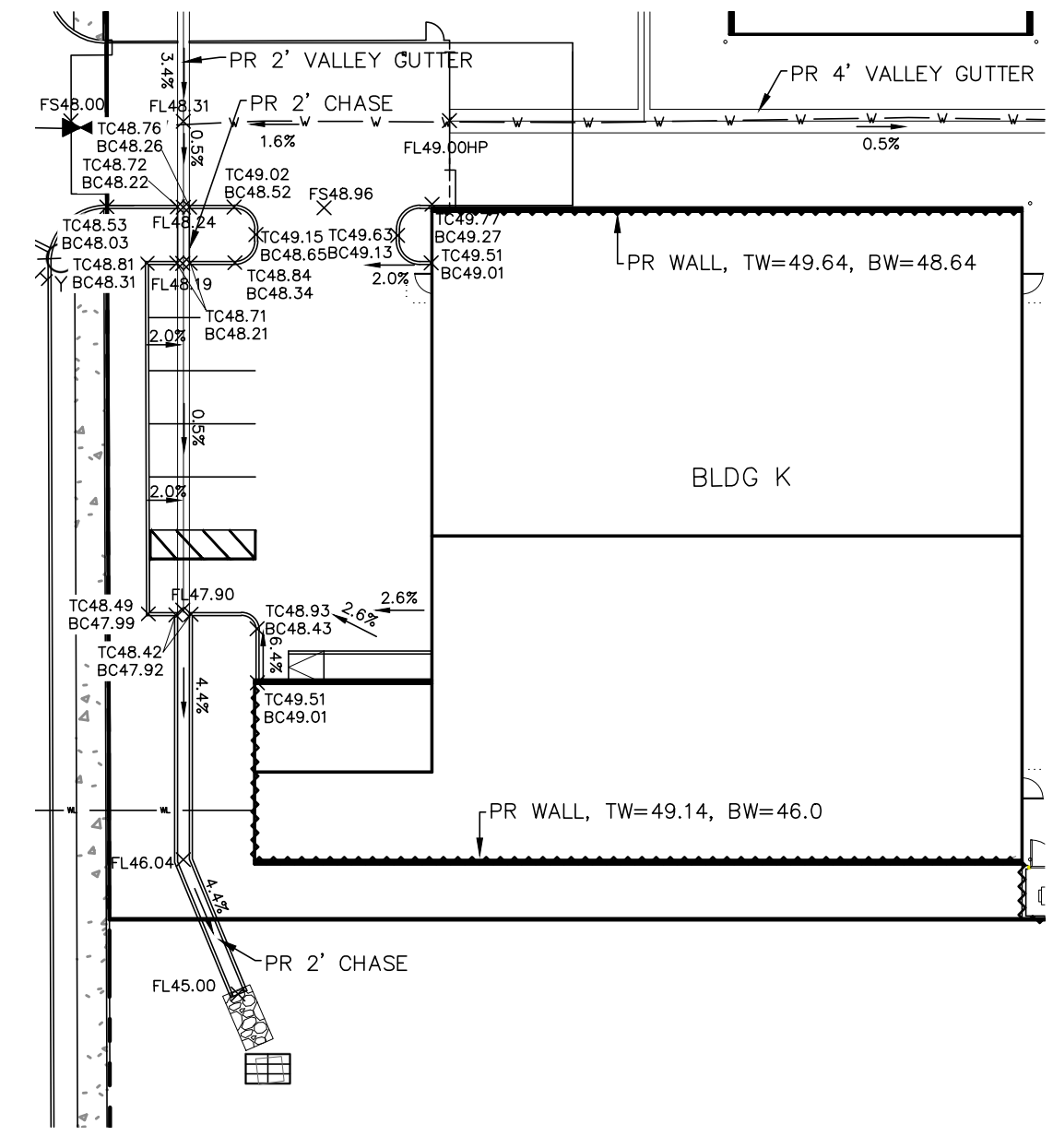
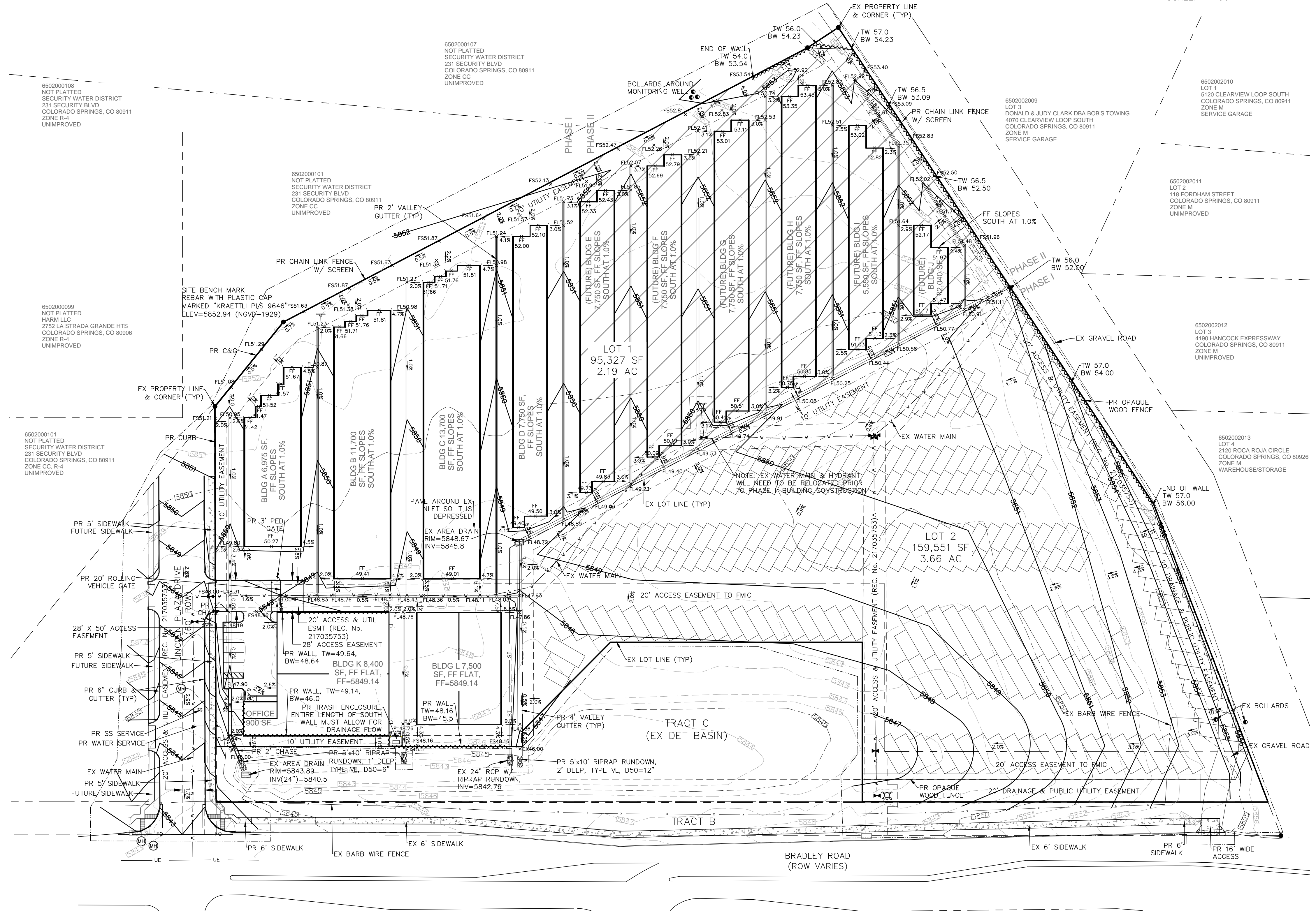
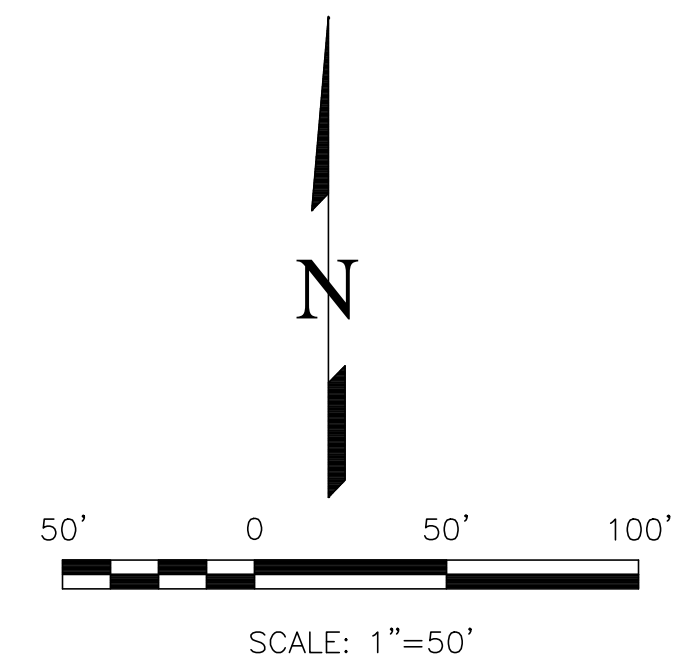
### MARCH 2019

**BENCHMARKS**  
 REBAR WITH PLASTIC CAP MARKED "KRAETTLI PLS 9646"  
 ELEV=5852.94 (NGVD-1929)

**NOTES**  
 1. PROPOSED SURFACE AROUND PHASE 1 BUILDINGS IS CONCRETE. PROPOSED SURFACE IN THE PHASE 1 PARKING STORAGE AREA (LOT 2) IS ASPHALT.  
 2. PROPOSED SURFACE IN THE PHASE 2 AREA (PRIOR TO PHASE 2 CONSTRUCTION) IS ASPHALT MILLINGS, ROAD BASE, OR SIMILAR.  
 3. PHASE 1/II APPLIES TO BUILDING CONSTRUCTION. ALL GRADING IS TO BE PERFORMED DURING PHASE I.  
 4. THE EXTENT OF THE RETAINING WALL ON THE NORTHWEST PROPERTY LINE ASSUMES GRADING ACTIVITIES CAN BE EXTENDED ONTO THE NEIGHBORING PROPERTY TO THE NORTHWEST. IF THIS IS NOT THE CASE, THIS RETAINING WALL WILL HAVE TO BE EXTENDED WEST.

**GRADING LEGEND**

- EXISTING CONTOURS - MINOR 6132
- EXISTING CONTOURS - MAJOR 6130
- WATER LINE  W  W
- SANITARY SEWER LINE  SS
- STORM SEWER LINE  ST
- GAS LINE  GAS
- UNDERGROUND ELECTRICAL LINE  UE
- FIBER OPTIC LINE  FD
- LIMITS OF CONSTRUCTION & AREA OF SOIL DISTURBANCE
- RETAINING WALL
- MANHOLE MH
- WATER VALVE
- FIRE HYDRANT
- SIGN
- PROPOSED FINISHED GROUND  FG
- PROPOSED FINISHED SURFACE  FS
- PROPOSED FLOWLINE  FL
- PROPOSED FINISH FLOOR  FF
- SPOT ELEVATION  SE
- LOW POINT  LP
- HIGH POINT  HP
- TOP OF WALL  TW
- BOTTOM OF WALL (AT GRADE)  BW
- TOP OF CURB  TC
- BOTTOM OF CURB  BC
- GRADE & DIRECTION  2.2%
- PROPOSED CONTOUR
- EXISTING SPOT GRADE  X EX 7314.00
- PROPOSED SPOT GRADE  X 7314.00



**PARKING LOT CURB DETAIL**  
 SCALE 1" = 30'

NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE ENGINEERING BOARD OF THE TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND SITE SPECIFIC AUTHORIZATION.

PREPARED FOR:  
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**BRADLEY STORAGE**

GRADING AND EROSION CONTROL PLAN  
 GRADING PLAN

DESIGNED BY DLF  
 DRAWN BY DLF  
 CHECKED BY LD

H-SCALE 1" = 50'  
 V-SCALE N/A

JOB NO. 1842.00  
 DATE ISSUED 03/13/19  
 SHEET NO. 3 OF 6

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# BRADLEY STORAGE

## EL PASO COUNTY, CO

# GRADING AND EROSION CONTROL PLAN

### MARCH 2019

**BENCHMARKS**  
 REBAR WITH PLASTIC CAP MARKED "KRAETTLI PLS 9646"  
 ELEV=5852.94 (NGVD-1929)

**EROSION CONTROL NOTES**  
 1. PERMANENT SEEDING AND MULCH IS TO BE APPLIED TO ALL DISTURBED AREAS THAT ARE NOT BEING PAVED OR SURFACED WITH GRAVEL (OR SIMILAR).  
 2. SITE FENCE CAN BE REPLACED WITH SEDIMENT CONTROL LOGS AND VICE VERSA.  
 3. PHASE I/II APPLIES TO BUILDING CONSTRUCTION. ALL GRADING IS TO BE PERFORMED DURING PHASE I.

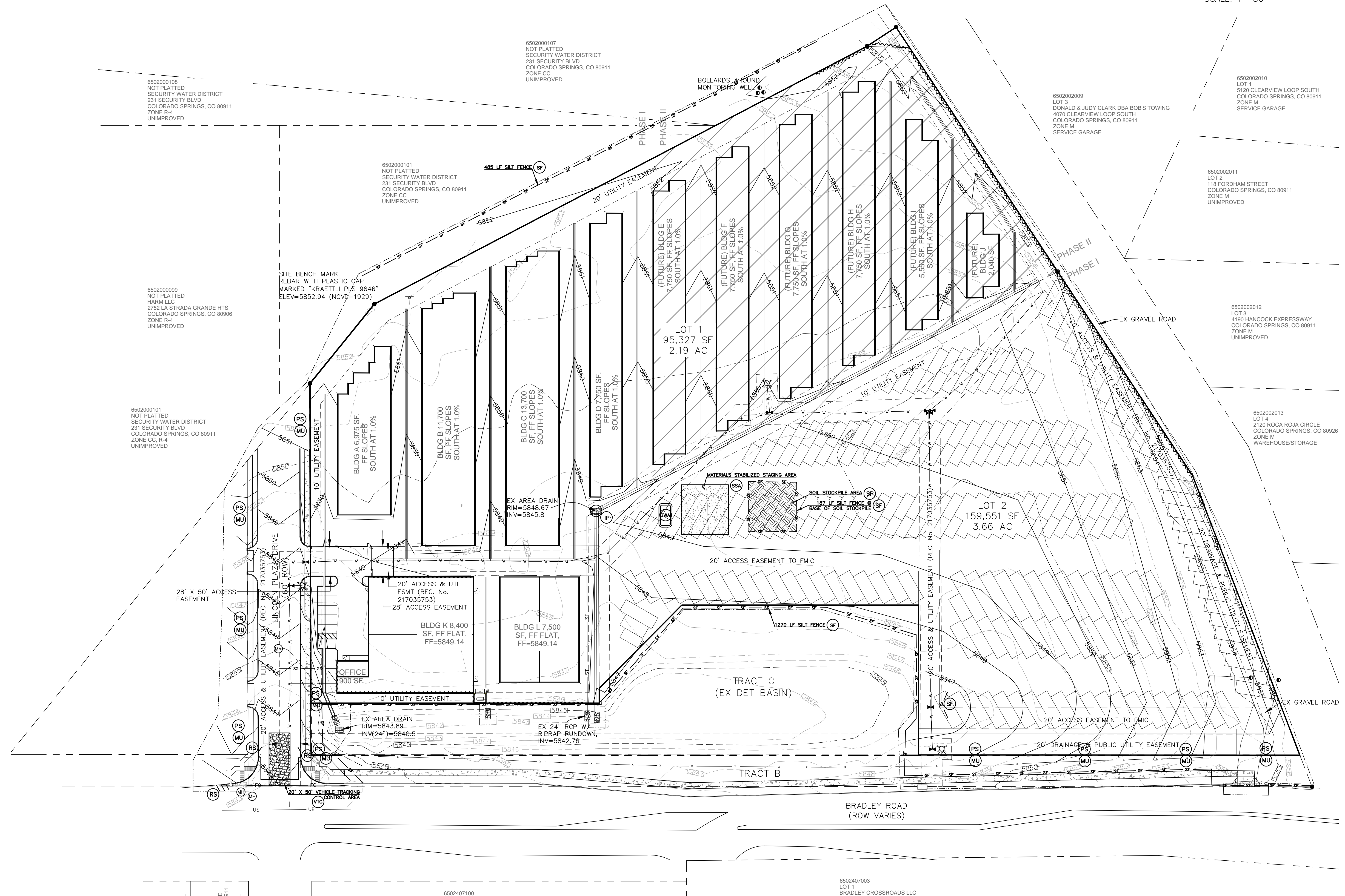
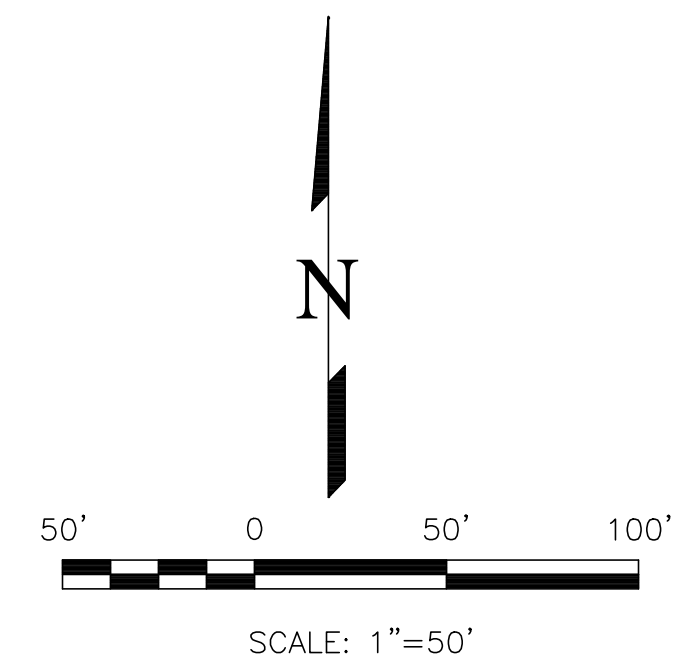
**EROSION CONTROL QUANTITIES**  
 SILT FENCE: 1,965 LF  
 INLET PROTECTION: 2 EA  
 ROCK SOCKS: 5 EA  
 SEED & MULCH: 0.7 AC

**GRADING LEGEND**

EXISTING CONTOURS - MINOR	6132
EXISTING CONTOURS - MAJOR	6130
WATER LINE	W
SANITARY SEWER LINE	SS
STORM SEWER LINE	ST
GAS LINE	GAS
UNDERGROUND ELECTRICAL LINE	UE
FIBER OPTIC LINE	FO
LIMITS OF CONSTRUCTION & AREA OF SOIL DISTURBANCE	
RETAINING WALL	
MANHOLE	MH
WATER VALVE	
FIRE HYDRANT	
SIGN	
PROPOSED FINISHED GROUND	FG
PROPOSED FINISHED SURFACE	FS
PROPOSED FLOWLINE	FL
PROPOSED FINISH FLOOR	FF
SPOT ELEVATION	SE
LOW POINT	LP
HIGH POINT	HP
TOP OF WALL	TW
BOTTOM OF WALL (AT GRADE)	BW
GRADE & DIRECTION	2.2%
PROPOSED CONTOUR	
EXISTING SPOT GRADE	X EX 7314.00
PROPOSED SPOT GRADE	X 7314.00

**EROSION CONTROL LEGEND**

KEY	TITLE	SYMBOL
(SF)	SILT FENCE	—SF—
(SSA)	STABILIZED STAGING AREA	[Pattern]
(VTC)	VEHICLE TRACKING CONTROL	[Pattern]
(IP)	INLET PROTECTION	[Symbol]
(RS)	ROCK SOCK PROTECTION	[Symbol]
(SP)	STOCKPILE MANAGEMENT WITH PROTECTION	[Symbol]
(CWA)	CONCRETE WASHOUT AREA	[Symbol]
(MU)	MULCHING - CRIMP FLAT AREAS, HYDROSEED ON SLOPES	(MU)
(PS)	PERMANENT SEEDING - DRILL SEED FLAT AREAS, BROADCAST SEED OR HYDROSEED ON SLOPES, SEED MIX PER DRAINAGE CRITERIA MANUAL (MAY 2014) VOL 1, TABLE 14-12	(PS)



REVISIONS	NO.	DESCRIPTION	DATE

UNTIL SUCH TIME AS THESE DRAWINGS ARE APPROVED BY THE ENGINEERING AGENCIES, THE TERRA NOVA ENGINEERING, INC. APPROVES THEIR USE ONLY FOR THE PROJECT AND FOR THE MOST PART, WITHOUT WRITTEN AUTHORIZATION.

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**BRADLEY STORAGE**

GRADING AND EROSION CONTROL PLAN  
 EROSION CONTROL PLAN

DESIGNED BY DLF  
 DRAWN BY DLF  
 CHECKED BY LD  
 H-SCALE 1" = 50'  
 V-SCALE N/A  
 JOB NO. 1842.00  
 DATE ISSUED 03/13/19  
 SHEET NO. 4 OF 6

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**SC-1 Silt Fence (SF)**

**SILT FENCE INSTALLATION NOTES**

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

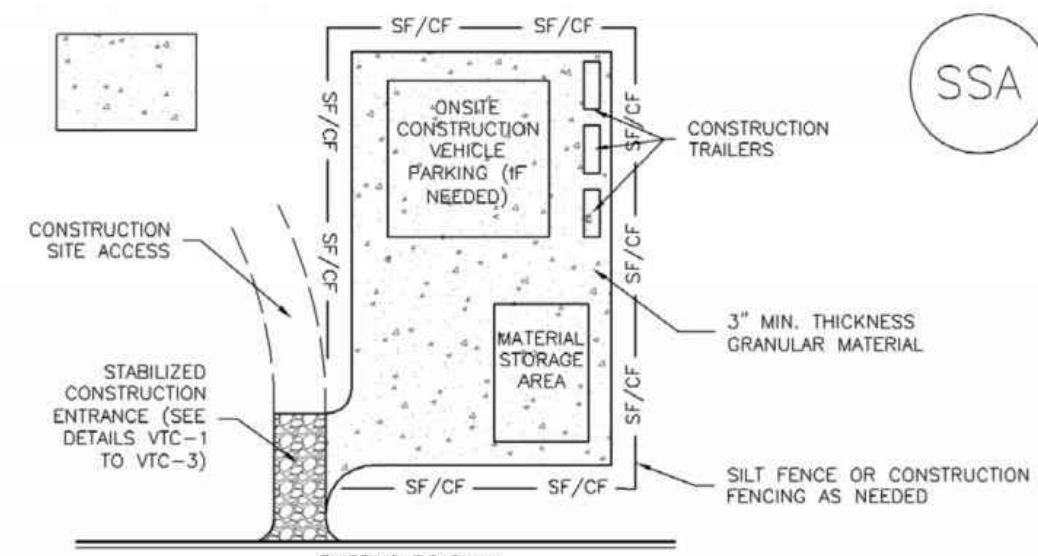
**SILT FENCE MAINTENANCE NOTES**

1. 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.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP. TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
7. WHEN SILT FENCE IS 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 HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

SF-4 Urban Drainage and Flood Control District November 2010  
 Urban Storm Drainage Criteria Manual Volume 3

**SM-6 Stabilized Staging Area (SSA)**



**SSA-1. STABILIZED STAGING AREA**

**STABILIZED STAGING AREA INSTALLATION NOTES**

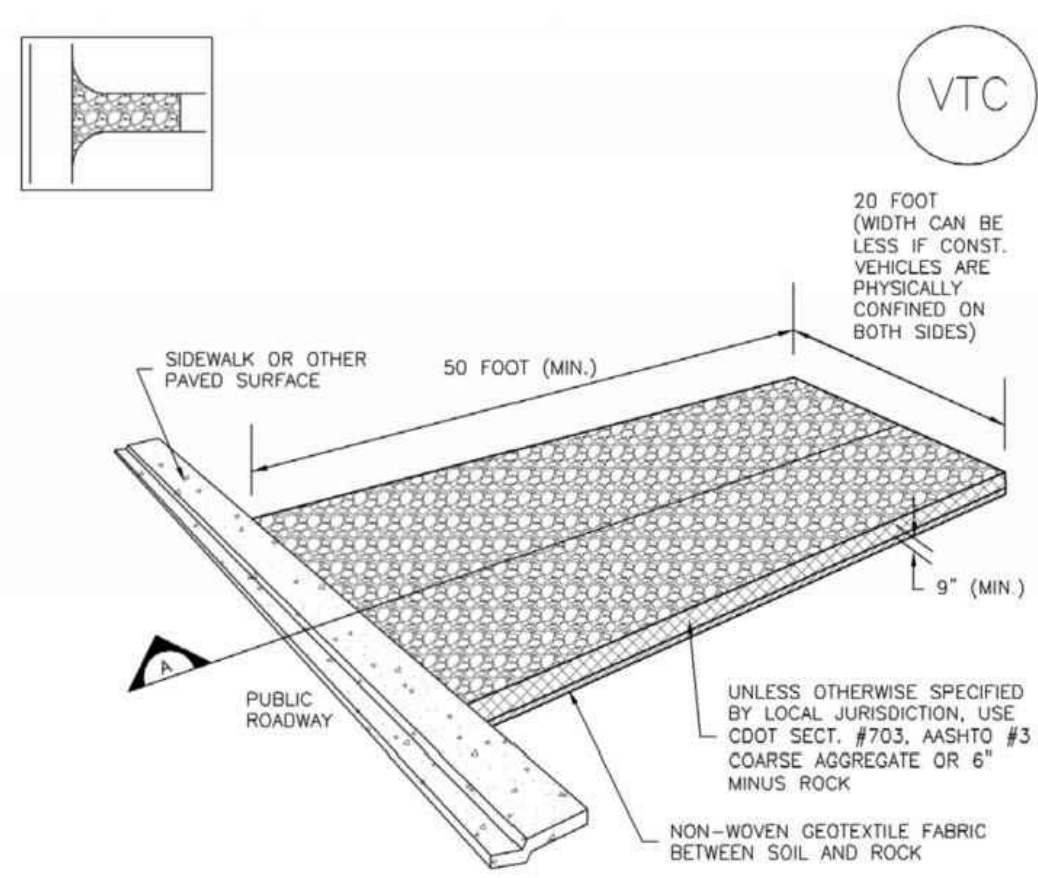
1. SEE PLAN VIEW FOR -LOCATION OF STAGING AREA(S). -CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
3. STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
4. THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
5. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
6. ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.

**STABILIZED STAGING AREA MAINTENANCE NOTES**

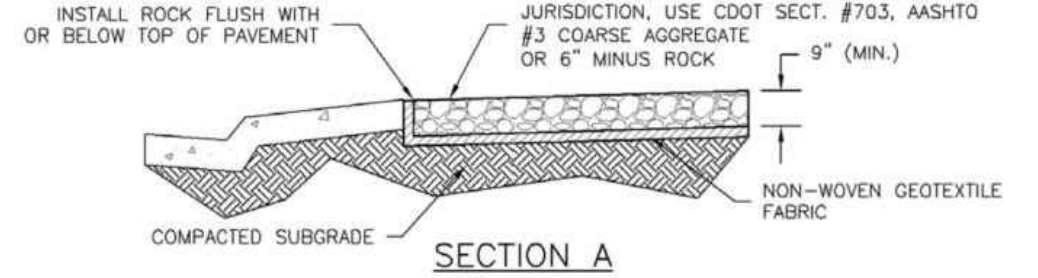
1. INSPECT BMPs EACH WORKDAY AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

November 2010 Urban Drainage and Flood Control District November 2010  
 Urban Storm Drainage Criteria Manual Volume 3 SSA-3

**SM-4 Vehicle Tracking Control (VTC)**

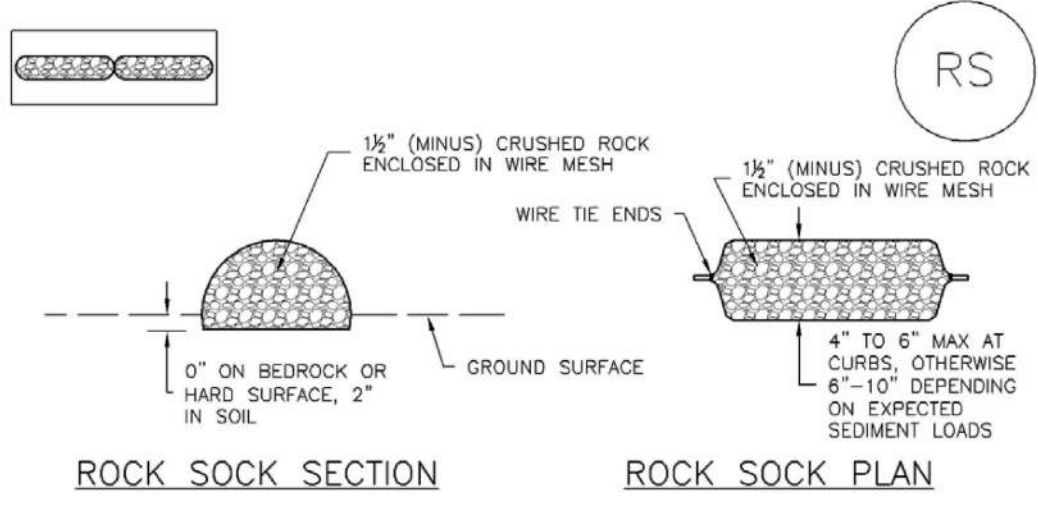


**VTC-1. AGGREGATE VEHICLE TRACKING CONTROL**



November 2010 Urban Drainage and Flood Control District November 2010  
 Urban Storm Drainage Criteria Manual Volume 3 VTC-3

**SC-5 Rock Sock (RS)**



**ROCK SOCK SECTION**

**ROCK SOCK PLAN**

ANY GAP AT JOINT SHALL BE FILLED WITH AN ADEQUATE AMOUNT OF 1/2" (MINUS) CRUSHED ROCK AND WRAPPED WITH ADDITIONAL WIRE MESH SECURED TO ENDS OF ROCK REINFORCED SOCK. AS AN ALTERNATIVE TO FILLING JOINTS BETWEEN ADJOINING ROCK SOCKS WITH CRUSHED ROCK AND ADDITIONAL WIRE WRAPPING, ROCK SOCKS CAN BE OVERLAPPED (TYPICALLY 12-INCH OVERLAP) TO AVOID GAPS.

**ROCK SOCK JOINTING**

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

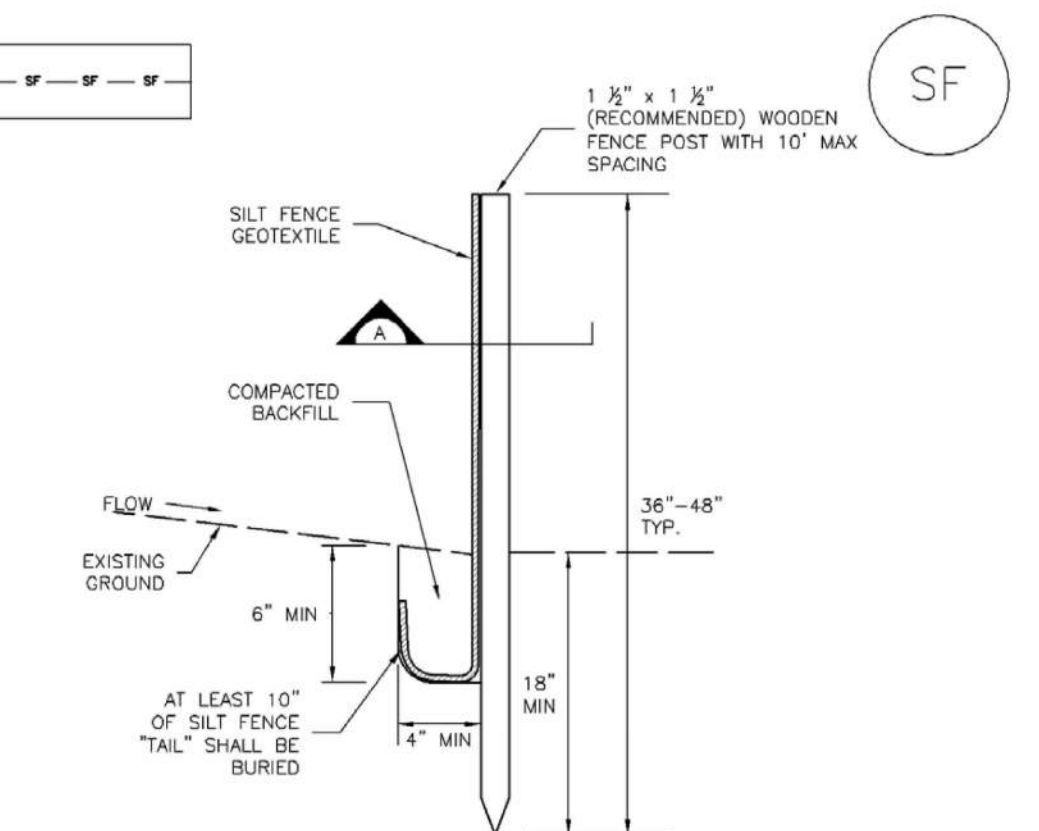
**ROCK SOCK INSTALLATION NOTES**

1. SEE PLAN VIEW FOR -LOCATION(S) OF ROCK SOCKS.
2. CRUSHED ROCK SHALL BE 1/2" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET (1/2" MINUS).
3. WIRE MESH SHALL BE FABRICATED OF 10 GAGE POLYURETHANE OR EQUIVALENT, WITH A MAXIMUM OPENING OF 1/2". RECOMMENDED MINIMUM ROLL WIDTH OF 48".
4. 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.
5. SOME MUNICIPALITIES MAY ALLOW THE USE OF FILTER FABRIC AS AN ALTERNATIVE TO WIRE MESH FOR THE ROCK ENCLOSURE.

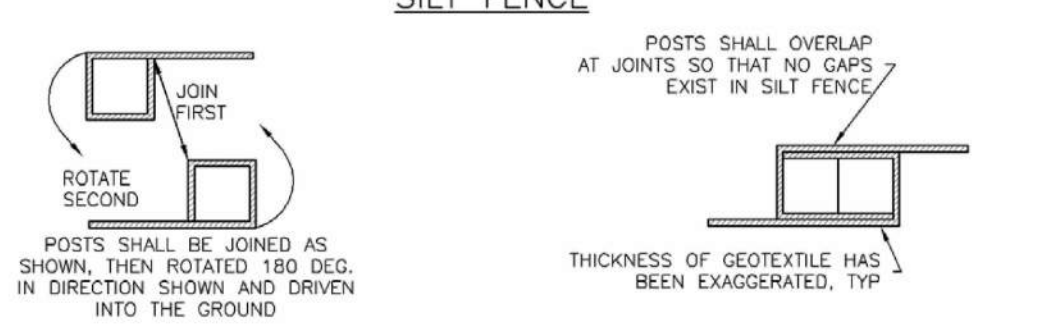
**RS-1. ROCK SOCK PERIMETER CONTROL**

RS-2 Urban Drainage and Flood Control District November 2010  
 Urban Storm Drainage Criteria Manual Volume 3

**SC-1 Silt Fence (SF)**



**SILT FENCE**



**SECTION A**

**SF-1. SILT FENCE**

November 2010 Urban Drainage and Flood Control District November 2010  
 Urban Storm Drainage Criteria Manual Volume 3 SF-3

**SM-6 Stabilized Staging Area (SSA)**

**STABILIZED STAGING AREA MAINTENANCE NOTES**

5. STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
6. THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.

NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.

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

(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

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 Urban Storm Drainage Criteria Manual Volume 3 SSA-4

**SM-4 Vehicle Tracking Control (VTC)**

**STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES**

1. SEE PLAN VIEW FOR -LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S). -TYPE OF CONSTRUCTION ENTRANCE(S)/EXIT(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM).
2. 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.
3. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.
4. STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
5. A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.
6. UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.

**STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES**

1. 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.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.
5. 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 HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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

November 2010 Urban Drainage and Flood Control District November 2010  
 Urban Storm Drainage Criteria Manual Volume 3 VTC-6

**SC-5 Rock Sock (RS)**

**ROCK SOCK MAINTENANCE NOTES**

1. 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.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, OR DAMAGED BEYOND REPAIR.
5. SEDIMENT ACCUMULATED UPSTREAM OF ROCK SOCKS 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.
6. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
7. 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)

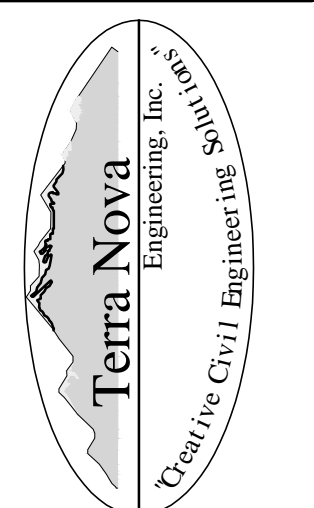
NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET SHOW COMMONLY USED, CONVENTIONAL METHODS OF ROCK SOCK INSTALLATION IN THE DENVER METROPOLITAN AREA. THERE ARE MANY OTHER SIMILAR, PROPRIETARY PRODUCTS ON THE MARKET. UDFCD NEITHER ENDORSES NOR DISCOURAGES USE OF PROPRIETARY PROTECTION PRODUCTS; HOWEVER, 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 DETAILS.

November 2010 Urban Drainage and Flood Control District November 2010  
 Urban Storm Drainage Criteria Manual Volume 3 RS-3

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PREPARED FOR:  
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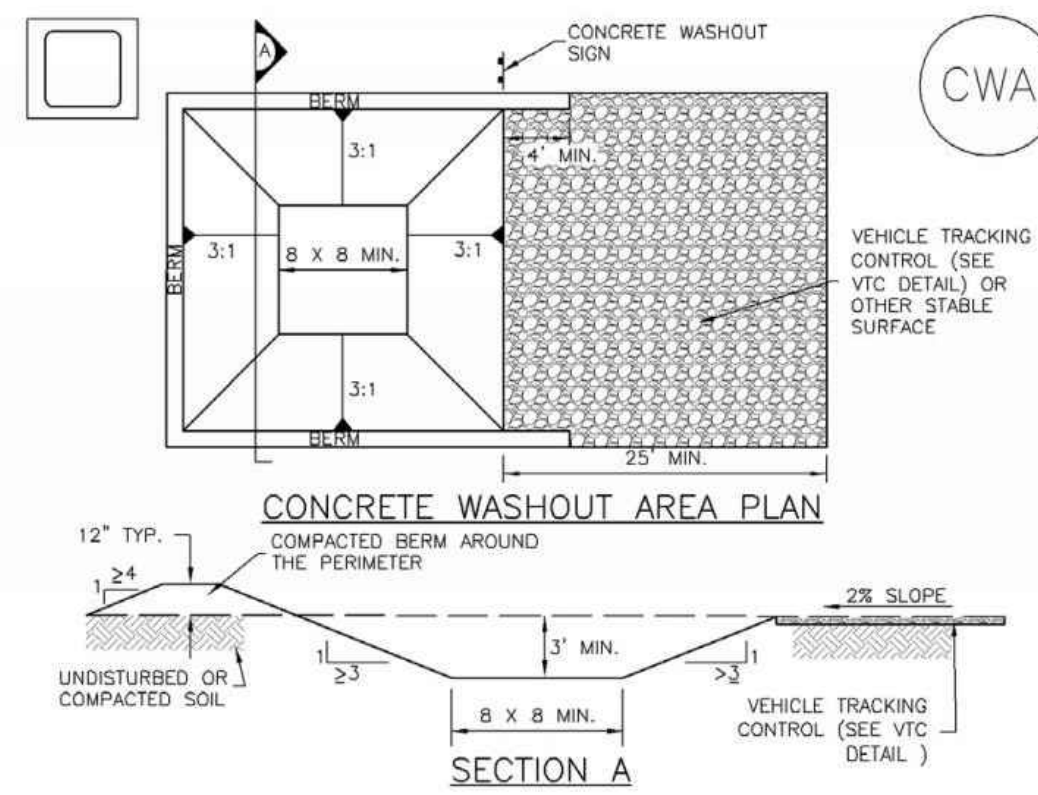
**BRADLEY STORAGE**  
 GRADING AND EROSION CONTROL PLAN  
 EROSION CONTROL DETAILS

DESIGNED BY DLF  
 DRAWN BY DLF  
 CHECKED BY LD  
 H-SCALE 1" = 50'  
 V-SCALE N/A  
 JOB NO. 1842.00  
 DATE ISSUED 03/13/19  
 SHEET NO. 5 OF 6

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**Concrete Washout Area (CWA) MM-1**



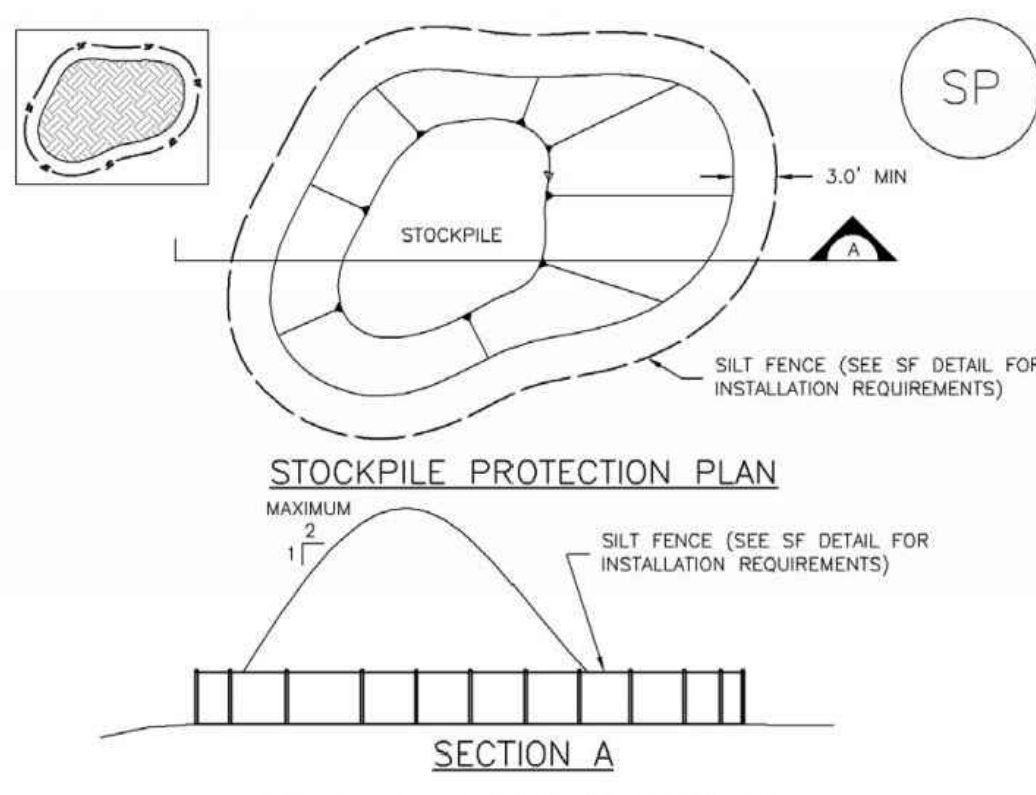
**CWA-1. CONCRETE WASHOUT AREA**

**CWA INSTALLATION NOTES**

- SEE PLAN VIEW FOR -CWA INSTALLATION LOCATION.
- DO NOT LOCATE AN UNLINED CWA WITHIN 400' OF ANY NATURAL DRAINAGE PATHWAY OR WATERBODY. DO NOT LOCATE WITHIN 1,000' OF ANY WELLS OR DRINKING WATER SOURCES. IF SITE CONSTRAINTS MAKE THIS INFEASIBLE, OR IF HIGHLY PERMEABLE SOILS EXIST ON SITE, THE CWA MUST BE INSTALLED WITH AN IMPERMEABLE LINER (18 MIL MIN. THICKNESS) OR SURFACE STORAGE ALTERNATIVES USING PREFABRICATED CONCRETE WASHOUT DEVICES OR A LINED ABOVE GROUND STORAGE ARE SHOULD BE USED.
- THE CWA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
- CWA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8' SLOPES LEADING OUT OF THE SUBSURFACE PIT SHALL BE 3:1 OR FLATTER. THE PIT SHALL BE AT LEAST 3' DEEP.
- BERM SURROUNDING SIDES AND BACK OF THE CWA SHALL HAVE MINIMUM HEIGHT OF 1'.
- VEHICLE TRACKING PAD SHALL BE SLOPED 2% TOWARDS THE CWA.
- SIGNS SHALL BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CWA, AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CWA TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS.
- USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

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**Stockpile Management (SP) MM-2**



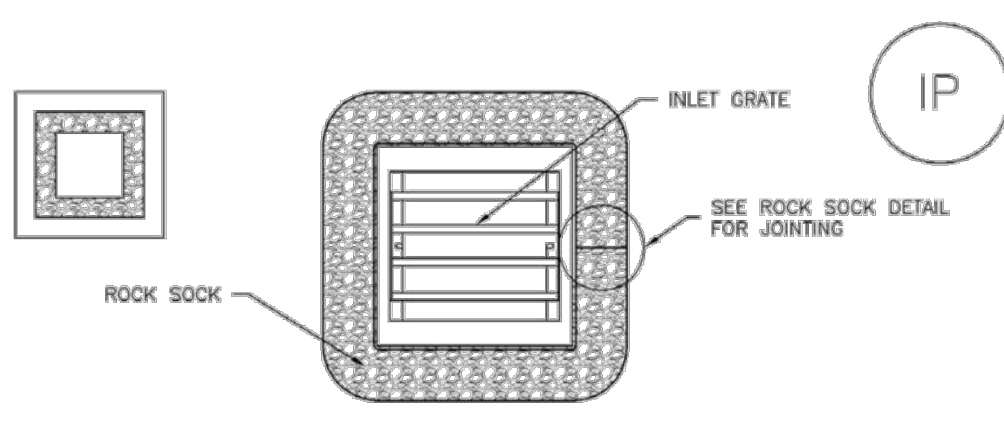
**SP-1. STOCKPILE PROTECTION**

**STOCKPILE PROTECTION INSTALLATION NOTES**

- SEE PLAN VIEW FOR: -LOCATION OF STOCKPILES -TYPE OF STOCKPILE PROTECTION
- INSTALL PERIMETER CONTROLS IN ACCORDANCE WITH THEIR RESPECTIVE DESIGN DETAILS. SILT FENCE IS SHOWN IN THE STOCKPILE PROTECTION DETAILS; HOWEVER, OTHER TYPES OF PERIMETER CONTROLS INCLUDING SEDIMENT CONTROL LOGS OR ROCK SOCKS MAY BE SUITABLE IN SOME CIRCUMSTANCES. CONSIDERATIONS FOR DETERMINING THE APPROPRIATE TYPE OF PERIMETER CONTROL FOR A STOCKPILE INCLUDE WHETHER THE STOCKPILE IS LOCATED ON A PERVIOUS OR IMPERVIOUS SURFACE, THE RELATIVE HEIGHTS OF THE PERIMETER CONTROL AND STOCKPILE, THE ABILITY OF THE PERIMETER CONTROL TO CONTAIN THE STOCKPILE WITHOUT FAILING IN THE EVENT THAT MATERIAL FROM THE STOCKPILE SHIFTS OR SLUMPS AGAINST THE PERIMETER, AND OTHER FACTORS.
- STABILIZE THE STOCKPILE SURFACE WITH SURFACE ROUGHENING, TEMPORARY SEEDING AND MULCHING, EROSION CONTROL BLANKETS, OR SOIL BINDERS. SOILS STOCKPILED FOR AN EXTENDED PERIOD (TYPICALLY FOR MORE THAN 60 DAYS) SHOULD BE SEEDED AND MULCHED WITH A TEMPORARY GRASS COVER ONCE THE STOCKPILE IS PLACED (TYPICALLY WITHIN 14 DAYS). USE OF MULCH ONLY OR A SOIL BINDER IS ACCEPTABLE IF THE STOCKPILE WILL BE IN PLACE FOR A MORE LIMITED TIME PERIOD (TYPICALLY 30-60 DAYS).
- FOR TEMPORARY STOCKPILES ON THE INTERIOR PORTION OF A CONSTRUCTION SITE, WHERE OTHER DOWNGRADIENT CONTROLS, INCLUDING PERIMETER CONTROL, ARE IN PLACE, STOCKPILE PERIMETER CONTROLS MAY NOT BE REQUIRED.

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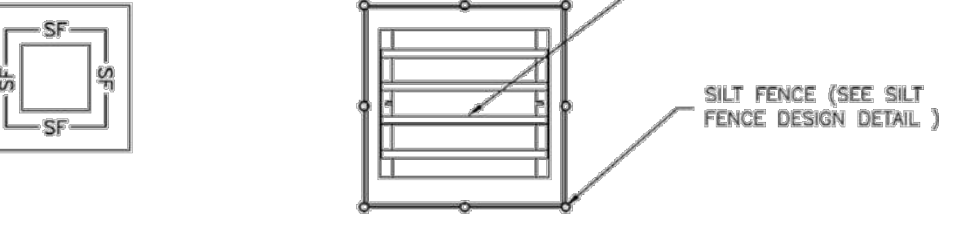
**Inlet Protection (IP) SC-6**



**IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION**

**ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES**

- SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.



**IP-4. SILT FENCE FOR SUMP INLET PROTECTION**

**SILT FENCE INLET PROTECTION INSTALLATION NOTES**

- SEE SILT FENCE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
- POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF 3 FEET.
- STRAW WATTLES/SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF SILT FENCE FOR INLETS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL.

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**MM-1 Concrete Washout Area (CWA)**

**CWA 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.
- THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
- CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
- THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
- WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

CWA-4 Urban Drainage and Flood Control District November 2010 Urban Storm Drainage Criteria Manual Volume 3

**MM-2 Stockpile Management (SM)**

**STOCKPILE PROTECTION 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.
- IF PERIMETER PROTECTION MUST BE MOVED TO ACCESS SOIL STOCKPILE, REPLACE PERIMETER CONTROLS BY THE END OF THE WORKDAY.
- STOCKPILE PERIMETER CONTROLS CAN BE REMOVED ONCE ALL THE MATERIAL FROM THE STOCKPILE HAS BEEN USED.

(DETAILS ADAPTED FROM PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

SP-4 Urban Drainage and Flood Control District November 2010 Urban Storm Drainage Criteria Manual Volume 3

**SC-6 Inlet Protection (IP)**

**GENERAL INLET PROTECTION INSTALLATION NOTES**

- SEE PLAN VIEW FOR: -LOCATION OF INLET PROTECTION -TYPE OF INLET PROTECTION (IP-1, IP-2, IP-3, IP-4, IP-5, IP-6)
- INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT.
- MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

**INLET PROTECTION 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.
- SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR 1/4 OF THE HEIGHT FOR STRAW BALES.
- INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.
- WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

NOTE: THE DETAILS INCLUDED WITH THIS FACT SHEET 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 DETAILS.

NOTE: SOME MUNICIPALITIES DISCOURAGE OR PROHIBIT THE USE OF STRAW BALES FOR INLET PROTECTION. CHECK WITH LOCAL JURISDICTION TO DETERMINE IF STRAW BALE INLET PROTECTION IS ACCEPTABLE.

IP-8 Urban Drainage and Flood Control District August 2013 Urban Storm Drainage Criteria Manual Volume 3

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BRADLEY STORAGE	GRADING AND EROSION CONTROL PLAN EROSION CONTROL DETAILS		
DESIGNED BY	DLF		
DRAWN BY	DLF		
CHECKED BY	LD		
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JOB NO.	1842.00		
DATE ISSUED	03/13/19		
SHEET NO.	6 OF 6		

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