GRADING AND EROSION CONTROL PLANS

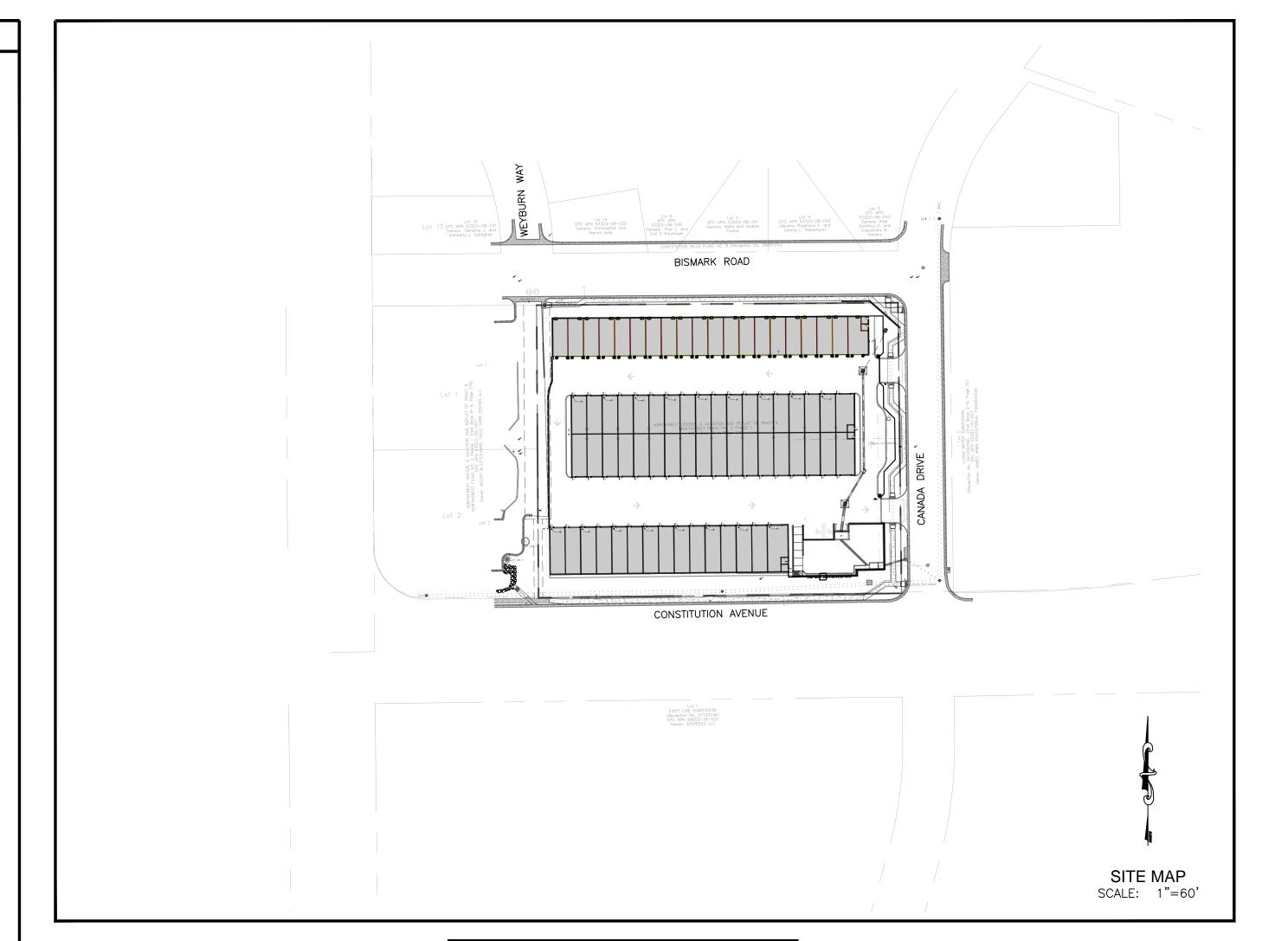
PREPARED FOR K&S DEVELOPMENT, LLC

PROJECT SPECIFIC GRADING AND EROSION CONTROL NOTES

- 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
- 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.
- 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. Management of the SWMP during construction is the responsibility of the designated Qualified Stormwater Manager or Certified Erosion Control Inspector. The SWMP shall be located on site at all times during construction and shall be kept up to date
- Once the ESQCP is approved and a "Notice to Proceed" has been issued, the contractor may install the initial stage erosion and sediment control measures as indicated on the approved 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 staff. Control measures must be installed prior to commencement of activities that could contribute pollutants to

stormwater. Control measures for all slopes, channels, ditches, and disturbed land areas shall be installed

- immediately upon completion of the disturbance. All temporary sediment and erosion control measures shall be maintained and remain in effective operating condition until permanent soil erosion control measures are implemented and final stabilization is established. All persons engaged in land disturbance activities shall assess the adequacy of control measures at the site and identify if changes to those control measures are needed to ensure the continued effective performance of the
- control measures. All changes to temporary sediment and erosion control measures must be incorporated into the Temporary stabilization shall be implemented on disturbed areas and stockpiles where ground disturbing construction activity has permanently ceased or temporarily ceased for longer than 14 days.
- Final stabilization must be implemented at all applicable construction sites. Final stabilization is achieved when all ground disturbing activities are complete and all disturbed areas either have a uniform vegetative cover with individual plant density of 70 percent of pre-disturbance levels established or equivalent permanent alternative stabilization method is implemented. All temporary sediment and erosion control measures shall be removed upon final stabilization and before permit closure
- All permanent stormwater management facilities shall be installed as designed in the approved plans. Any proposed changes that affect the design or function of permanent stormwater management structures must be approved by the ECM Administrator prior to implementation
- 0. Earth disturbances shall be conducted in such a manner so as to effectively minimize 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. Pre-existing vegetation shall be protected and maintained within 50 horizontal feet of a waters of the state unless shown to be infeasible and
- Compaction of soil must be prevented in areas designated for infiltration control measures or where final stabilization will be achieved by vegetative cover. Areas designated for infiltration control measures shall also be protected from sedimentation during construction until final stabilization is achieved. If compaction prevention is not feasible due to site constraints, all areas designated for infiltration and vegetation control measures must be loosened prior to installation of the control measure(s)
- Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be a stabilized conveyance designed to minimize erosion and the
- 3. Concrete wash water shall be contained and disposed of in accordance with the SWMP. No wash water shall be discharged to or allowed to enter State Waters, including any surface or subsurface storm drainage system or facilities. Concrete washouts shall not be located in an area where shallow groundwater may be present, or within 50 feet of a surface water body, creek or stream.
- . During dewatering operations of uncontaminated ground water may be discharged on site, but shall not leave the site in the form of surface runoff unless an approved State dewatering permit is in place.
- Erosion control blanketing or other protective covering shall be used on slopes steeper than 3:1. 6. 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. 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. Control measures may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances.
- 18. Tracking of soils and construction debris off-site shall be minimized. Materials tracked off-site shall be cleaned up
- and properly disposed of immediately. 19. The owner/developer shall be responsible for the removal of all construction debris, dirt, trash, rock, sediment, soil, and sand that may accumulate in roads, storm drains and other drainage conveyance systems and stormwater
- 20. 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.
- 21. No chemical(s) having the potential to be released in stormwater are to be stored or used onsite unless permission for the use of such chemical(s) is granted in writing by the ECM Administrator. In granting approval for the use of such chemical(s), special conditions and monitoring may be required.
- 22. Bulk storage of allowed petroleum products or other allowed liquid chemicals in excess of 55 gallons shall require adequate secondary containment protection to contain all spills onsite and to prevent any spilled materials from entering State Waters, any surface or subsurface storm drainage system or other facilities.
- 23. No person shall cause the impediment of stormwater flow in the curb and gutter or ditch except with approved 24. Owner/developer and their agents shall comply with the "Colorado Water Quality Control Act" (Title 25, Article 8,
- CRS), and the "Clean Water Act" (33 USC 1344), in addition to the requirements of the Land Development Code, DCM Volume II and the ECM Appendix I. All appropriate permits must be obtained by the contractor prior to construction (1041, NPDES, Floodplain, 404, fugitive dust, etc.). In the event of conflicts between these requirements and other laws, rules, or regulations of other Federal, State, local, or County agencies, the most
- restrictive laws, rules, or regulations shall apply. 25. All construction traffic must enter/exit the site only at approved construction access points.
- 26. Prior to construction the permittee shall verify the location of existing utilities.
- 27. A water source shall be available on site during earthwork operations and shall be utilized as required to minimize dust from earthwork equipment and wind. 28. The soils report for this site has been prepared by RMG Engineers/Architects, Inc (Dated: March 11, 2024) and
- shall be considered a part of these plans. 29. At least ten (10) days prior to the anticipated start of construction, for projects that will disturb one (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 (SWMP), 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 WQCD - Permits 4300 Cherry Creek Drive South
- Denver, CO 80246-1530 Attn: Permits Unit
- 30. Base mapping was provided by Land Development Consultants. The date of the last survey update was July 27, 2021.
- Proposed Construction Schedule: Begin Construction: Summer 2024 End Construction: Winter 2024
- Total Site Area = 3.25 Acres 32. Area to be disturbed = 3.26 Acres. Existing 100-year runoff coefficient = 0.37
- Proposed 100-year runoff coefficient = 0.70 Existing Hydrologic Soil Groups: A (A--Truckton sandy loam)
- 33. Site is currently undeveloped and covered with native grasses on moderate to steep slopes (2%-25%). 34. Site is located in the West Fork Jimmy Camp Creek Drainage Basin.
- 35. No Asphalt Batch Plants will be utilized at the site.



STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS

- 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 and 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 (SWMP), 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 and 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-fact 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 contractor's 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 public 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. Signing and striping shall comply with El Paso County DOT and MUTCD criteria. [If applicable, additional signing and striping notes will be provided.]
- 13. Contractor shall obtain any permits required by El Paso County DOT, including Work Within the Right-of-Way and Special
- 14. 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.

EROSION CONTROL INSPECTION AND MAINTENANCE

A Thorough Inspection of the Erosion Control Plan/Stormwater Management System shall be performed every 14 days as well as after any rain o snowmelt event that causes Surface Erosion: * When Silt Fences have silted up to half their height, the silt shall be removed, final grade re-established and slopes re-seeded, if necessary. Any silt fence that has shifted or decayed shall be repaired or replaced. * Any Accumulated Trash or debris shall be removed from outlets. An inspection and maintenance log shall be kept.

SIDEOATS GRAMA

LITTLE BLUESTEM

SAND DROPSEED

WESTERN WHEAT GRASS

SLENDER WHEAT GRASS

WEEPING LOVE GRASS

SEED MIX

rreatment shall be permanently revegetated with the following seed Mix

pls/acre

AREAS DISTURBED BY THE EARTHWORK ACTIVITIES AND NOT RECEIVING OTHER

El Reno

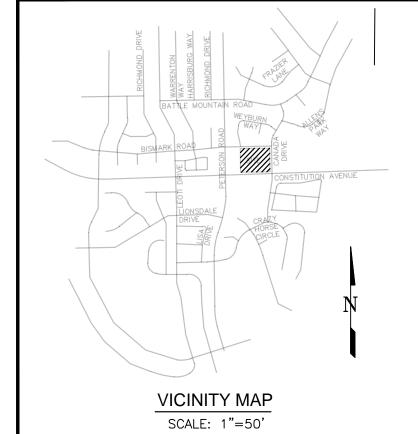
Barton

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Native

Nebraska 28

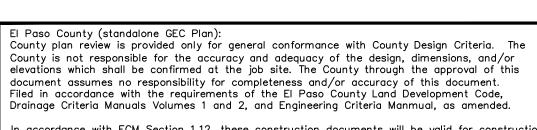
SEEDING APPLICATION: DRILL SEED 1/4" TO 1/2" INTO TOPSOIL. IN AREAS INACCESSIBLE TO A DRILL, HAND BROADCAST AT DOUBLE THE RATE AND RAKE 1/4" TO 1/2" INTO THE TOPSOIL. <u>MULCHING APPLICATION</u>: 1-1/2 TONS NATIVE HAY PER ACRE, MECHANICALLY CRIMPED INTO THE TOPSOIL.



INDEX OF SHEETS COVER SHEET C301 C302 INITIAL CONDITIONS INTERIM CONDITIONS C303 C304 FINAL CONDITIONS GEC DETAILS C305 GEC DETAILS C306 GEC DETAILS C601 POND CONSTRUCTION C602 POND DETAILS POND DETAILS C603 C604 POND DETAILS

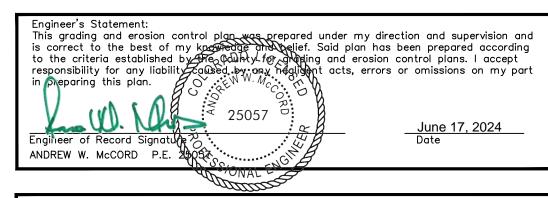
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	EA	\$3.085.00	
STRAW BALES INLET PROTECTION CONCRETE WASH OUT ROCK SOCKS SURFACE ROUGHENING TEMPORARY SEEDING AND MULCH MAINTAINANCE (25% OF EROSION CONTROL) 1	3 EA EA EA O EA O AC	\$3.00 \$33.00 \$217.00 \$1,172.00 \$24.00 \$269.00 \$1793.00 \$8,323.50	\$6,170.00 \$18,960.00 \$594.00 \$1,302.00 \$2,344.00 \$2,400.00 \$269.00 \$1,255.00 \$8,175.00

Kiowa Project No. 23049 June 17, 2024



n 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 Director's discretion.

County Engineer/ECM Administrator Joshua Palmer, P.E.



l, the owner/developer have read and will comply with the requirements of the Grading and

6-18-24 Sean Edwards, President ADDRESS: LEISURE CONSTRUCTION 3442 Tampa Road, Suite B Palm Harbor, FL 34684

DEVELOPER:

Leisure Construction, LLC 3442 Tampa Road, Suite B Palm Harbor, FL 34684 (727) 242-5121

PREPARED BY:



1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342

*A.G.A./A.P.W.A. STANDARD UTILITY MARKING COLOR CODE NATURAL GAS YELLOW ELECTRIC RED WATER BLUE WASTEWATER GREEN 1-800-922-1987

Project No.: 23049

Drawn: MJK

Check: AMcC

06/17/2024

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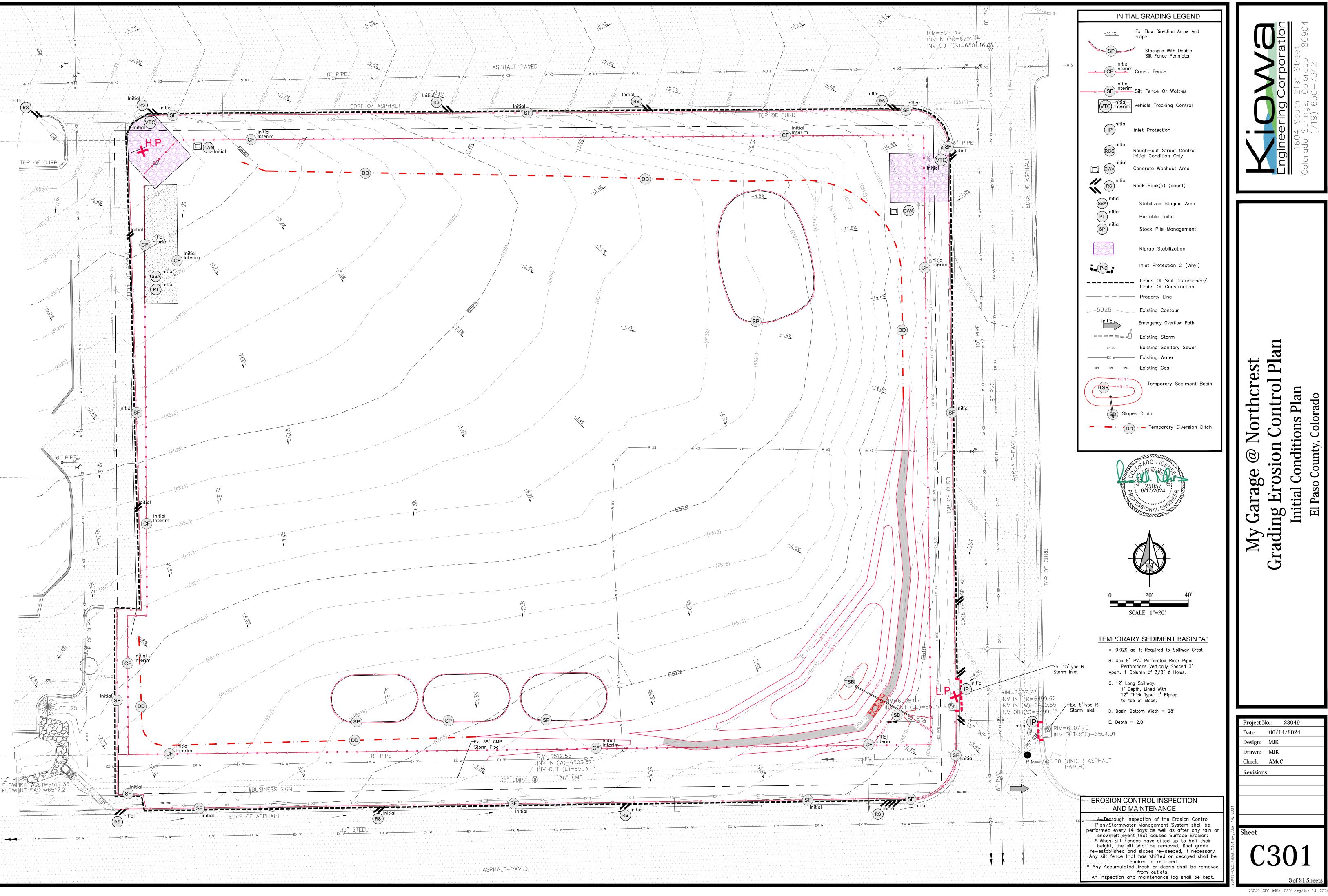
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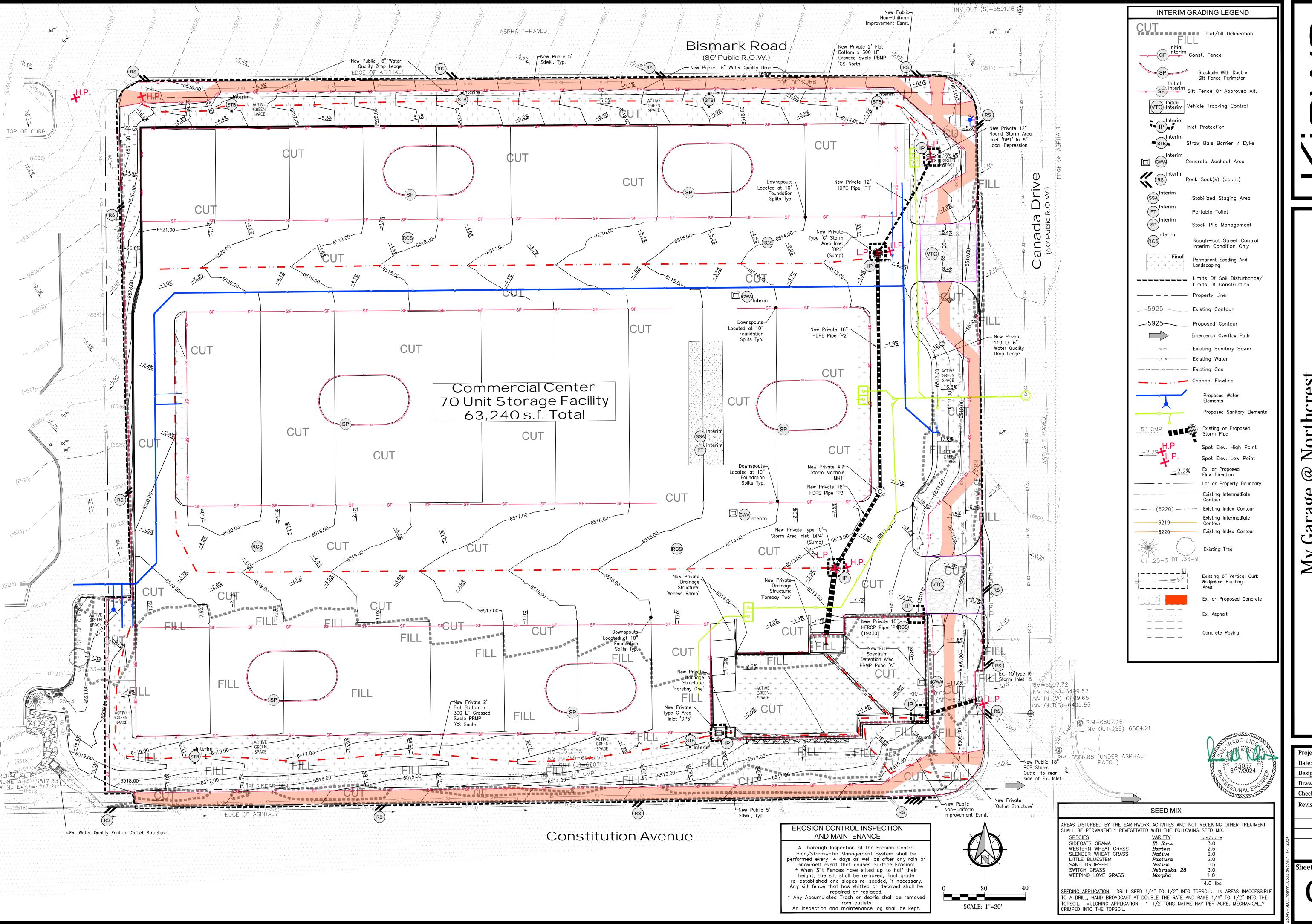
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Initial Con El Paso Cou

Project No.: 23049 Date: 06/14/2024



My Garage @ Northcrest
Grading Erosion Control Plan
Interim Conditions Plan

Project No.: 23049

Date: 06/14/2024

Design: MJK

Drawn: MJK

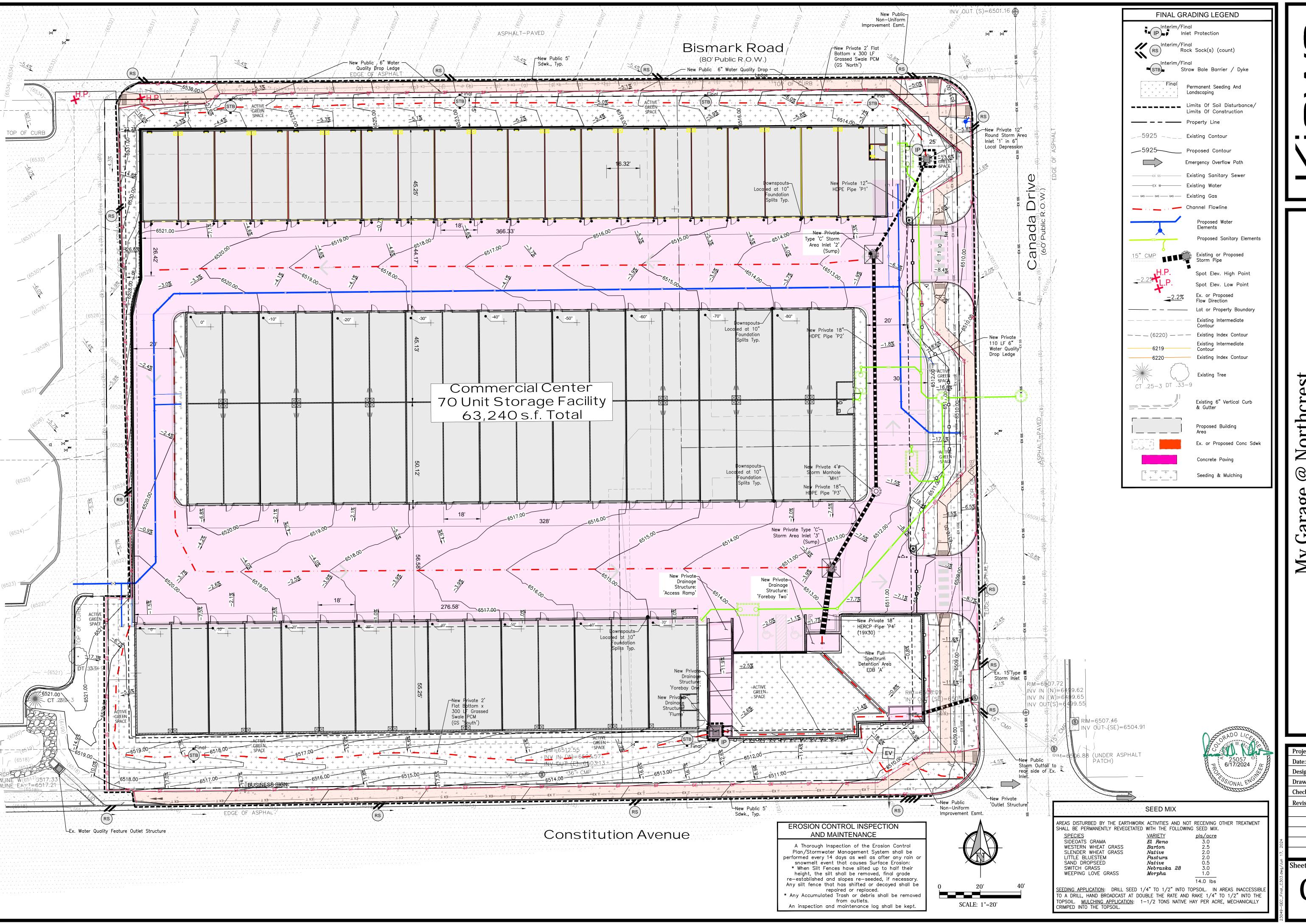
Check: AMcC

Revisions:

Sheet

C302

4 of 21 Sheets
23049-GEC_Interim_C302.dwg/Jun 17, 2024



My Garage @ Northcrest Grading Erosion Control Plan Final Conditions Plan

Project No.: 23049

Date: 05/27/2024

Design: MJK

Drawn: MJK

Check: AMcC

Revisions:

Sheet

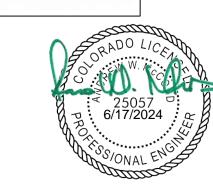
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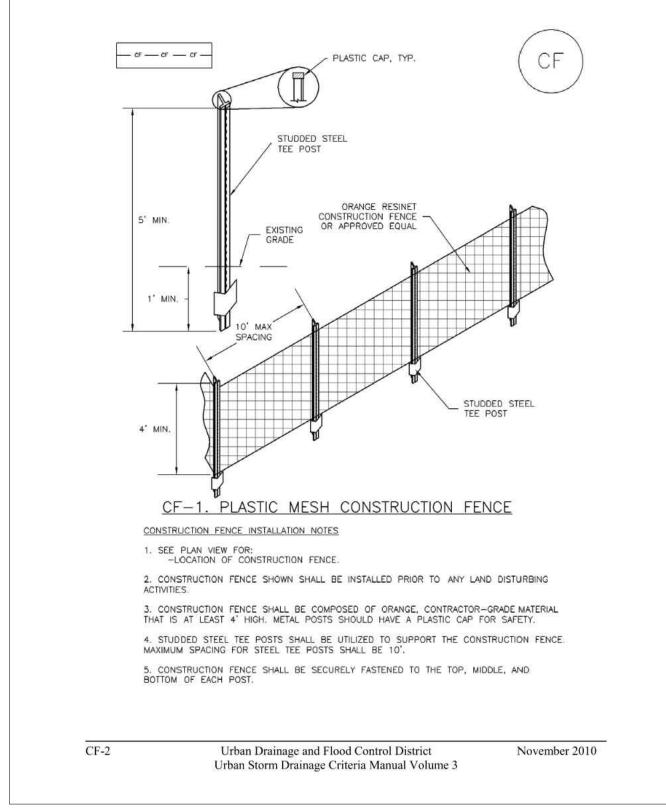
CONCRETE WASHOUT AREA CWA NOT TO SCALE

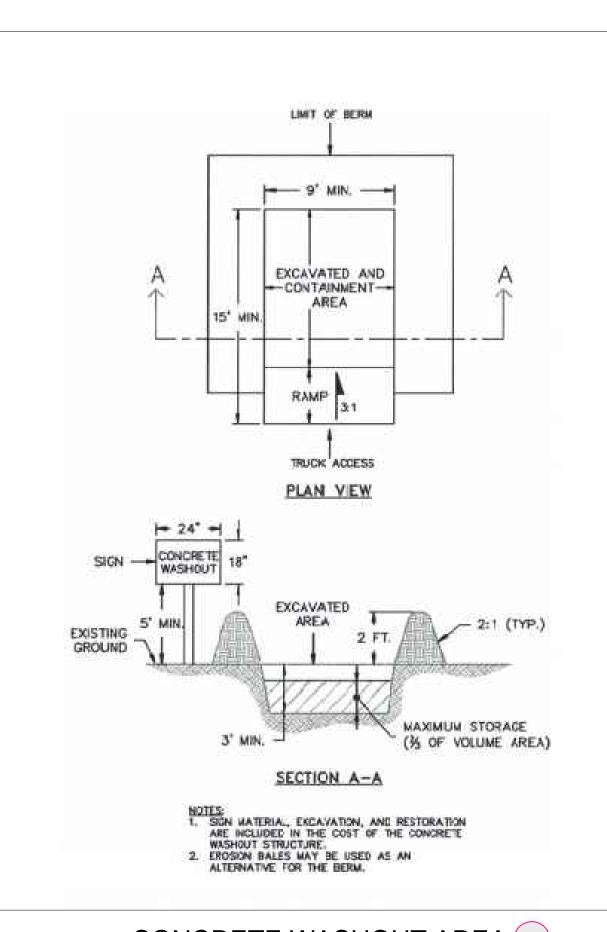
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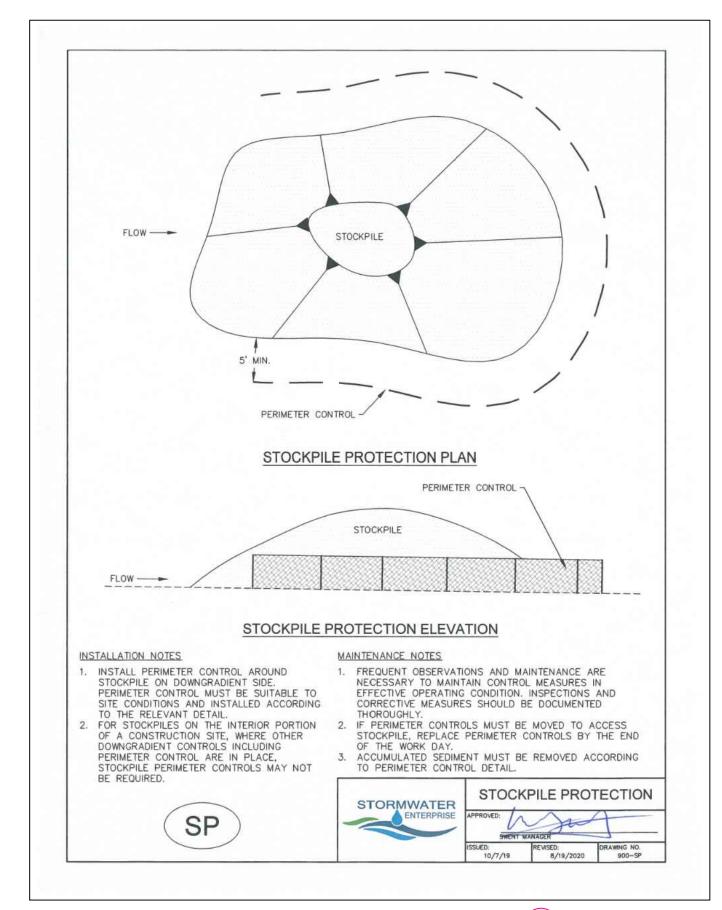




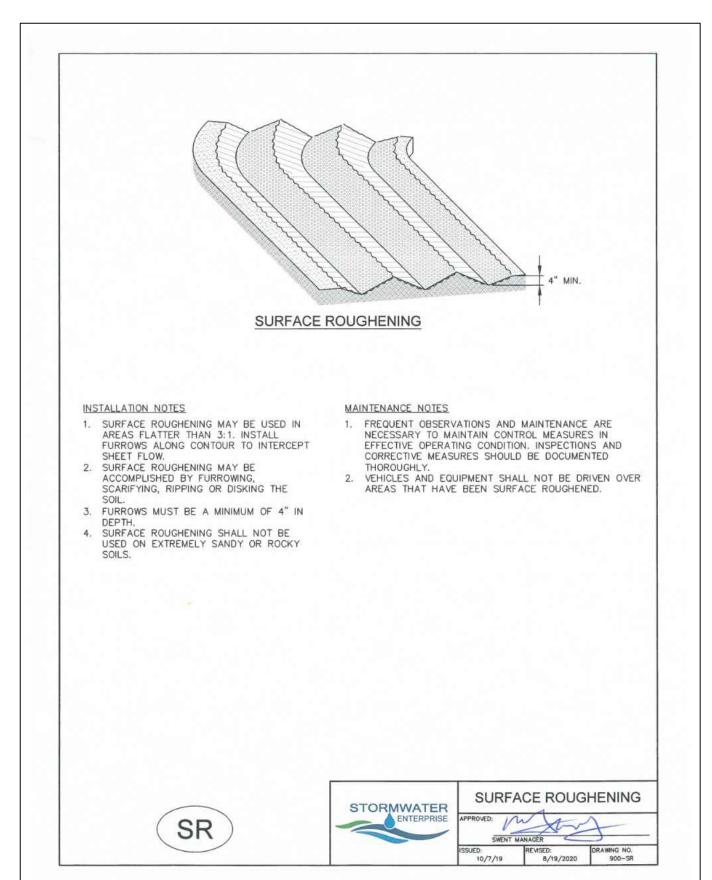








NOT TO SCALE





MAINTENANCE NOTES

CONTRACTOR SHALL ANCHOR PORTABLE TOILET TO THE GROUND, AT A MINIMUM OF TWO OPPOSING CORNERS (ON A DIAGONAL) USING U-SHAPED REBAR STAKES

ISOMETRIC

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE

NECESSARY TO MAINTAIN CONTROL MEASURES IN

CORRECTIVE MEASURES SHOULD BE DOCUMENTED

PORTABLE TOILETS SHALL BE SERVICED AT THE

EFFECTIVE OPERATING CONDITION. INSPECTIONS AND

NECESSARY INTERVALS TO ELIMINATE THE POSSIBILITY

DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION,

MAINTENANCE, AND/OR REMOVAL OF THE TOILETS MUST

Construction Fence (CF)

PORTABLE TOILET

WHEN THE PORTABLE TOILETS ARE REMOVED, ANY

PORTABLE TOILET (TYPICAL)

CURB, ATTACHED SIDEWALK, OR OTHER IMPERVIOUS AREAS

EDGE OF ASPHALT

NSTALLATION NOTES

SM-3

FEET FROM WATERWAYS.

#1 IN STAGING AREAS/YARDS.

. PORTABLE TOILETS SHALL BE PLACED A MINIMUM OF 10 FEET BEHIND ALL CURBS,

SIDEWALKS, AND OTHER IMPERVIOUS AREAS; 50 FEET FROM STORM INLETS, AND 100

PORTABLE TOILETS IN THE RIGHT-OF-WAY ARE REQUIRED TO BE PLACED ON MOBILE

TRAILERS AND MUST BE ANCHORED OR WEIGHTED DOWN. PORTABLE TOILETS MAY

PORTABLE TOILETS SHALL BE SECURELY

ANCHORING SHALL BE POSITIONED ON AT

LEAST TWO OPPOSING (DIAGONAL) CORNERS.

CONTAINMENT PANS MUST BE ANCHORED IN

PLACE AND MUST NOT BE USED WITHIN THE

TOILET CONTAINMENT PANS MAY BE USED

IN PLACE OF A TRAILER AT THE GEC

INSPECTOR'S DISCRETION. TOILET

ANCHORED TO THE GROUND USING U-SHAPED REBAR STAKES, OR OTHER

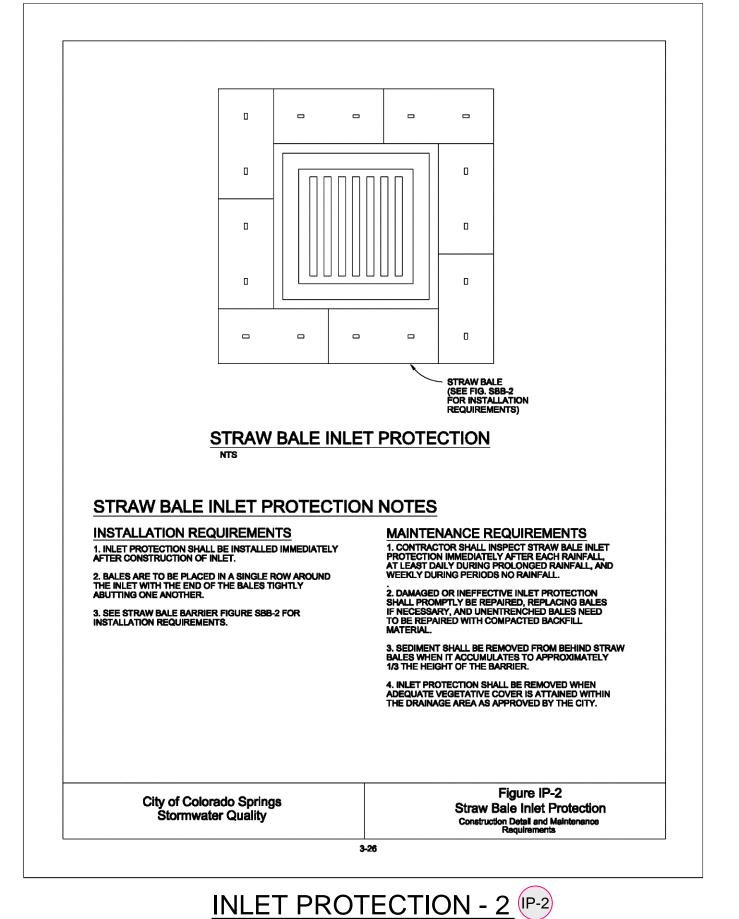
BE INSTALLED IN ACCORDANCE WITH NOTE

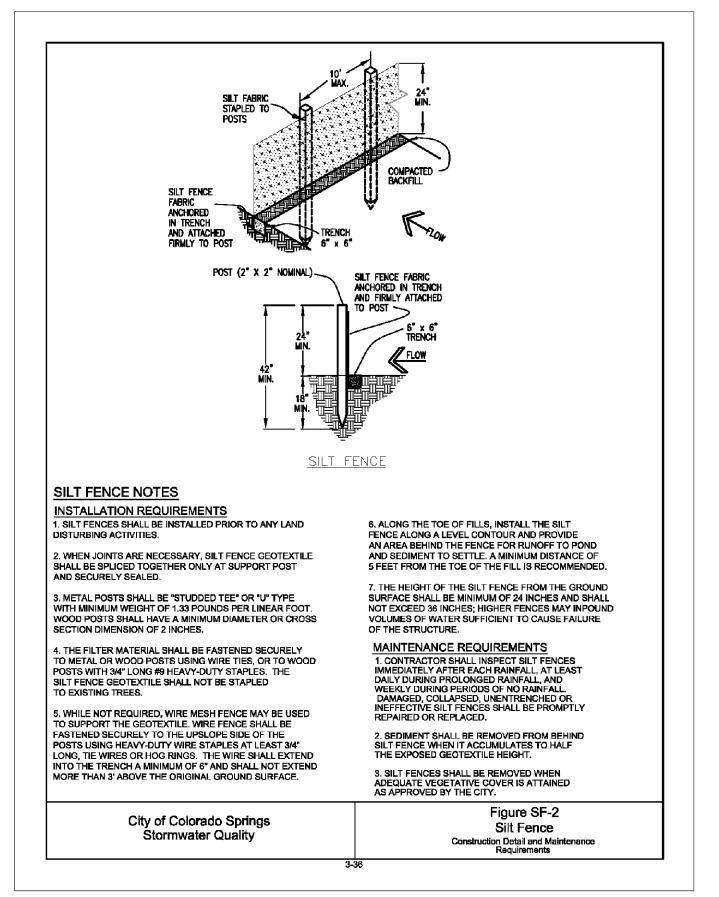
CURB & GUTTER

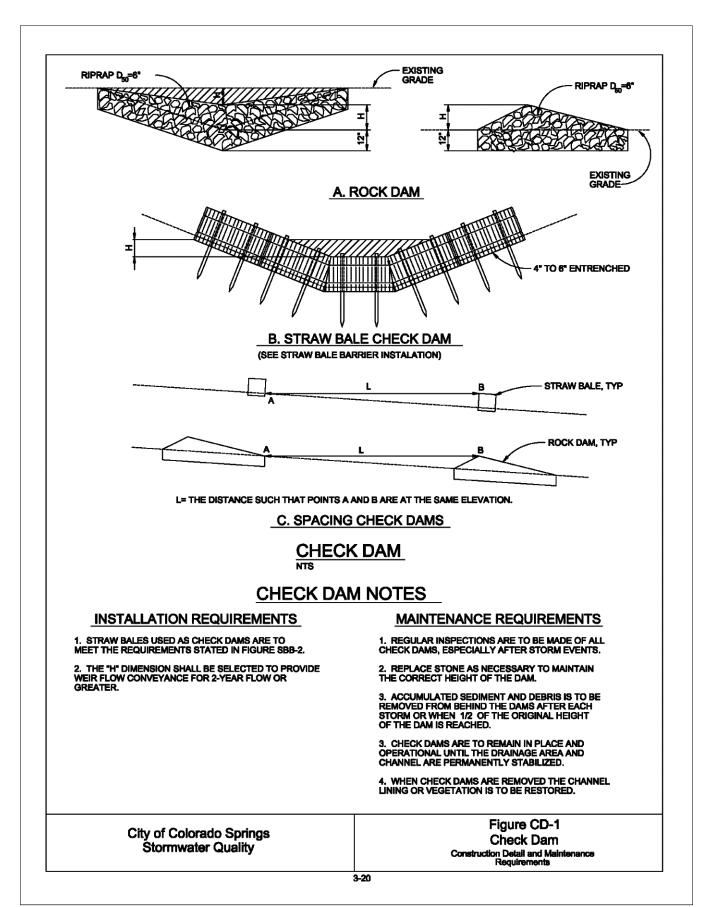
PORTABLE TOILET PLAN

CONTRACTOR SHALL ANCHOR PORTABLE TOILET TO THE GROUND, AT A MINIMUM

OF TWO OPPOSING CORNERS (ON A DIAGONAL)
USING U-SHAPED REBAR STAKES OR

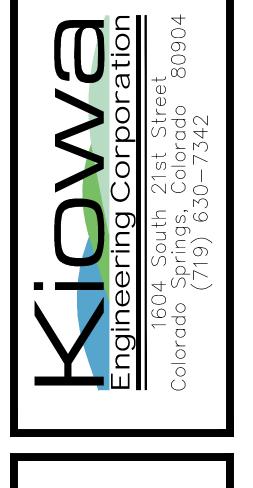






CHECK DAM (CD1)

NOT TO SCALE



Pl control orthcr ail on Erosi De Garage My Ga rading Ξ

Project No.: 23049

Date: 06/14/2024

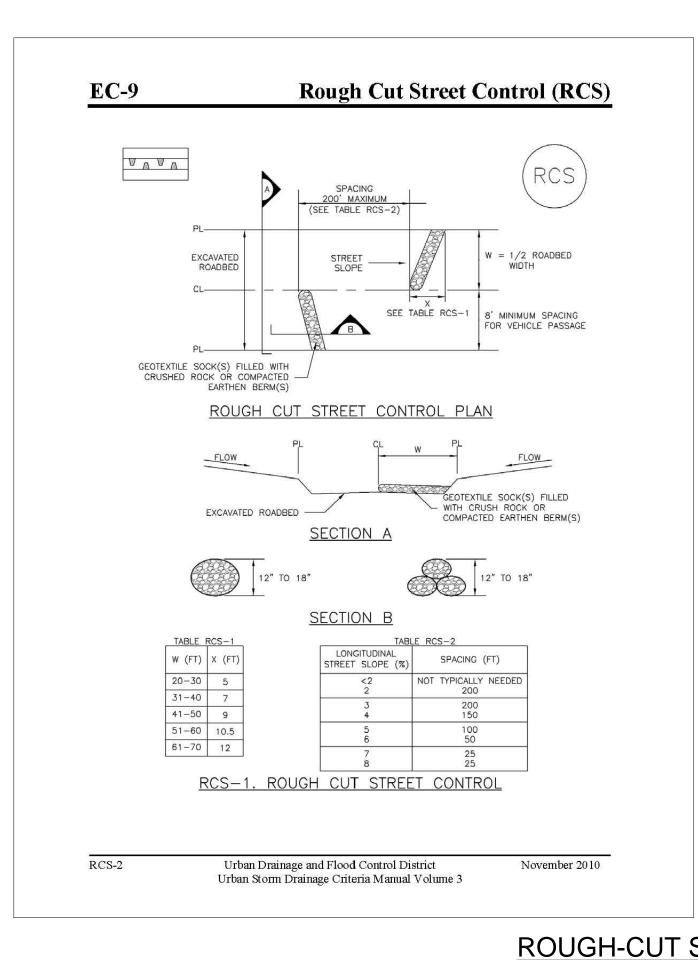
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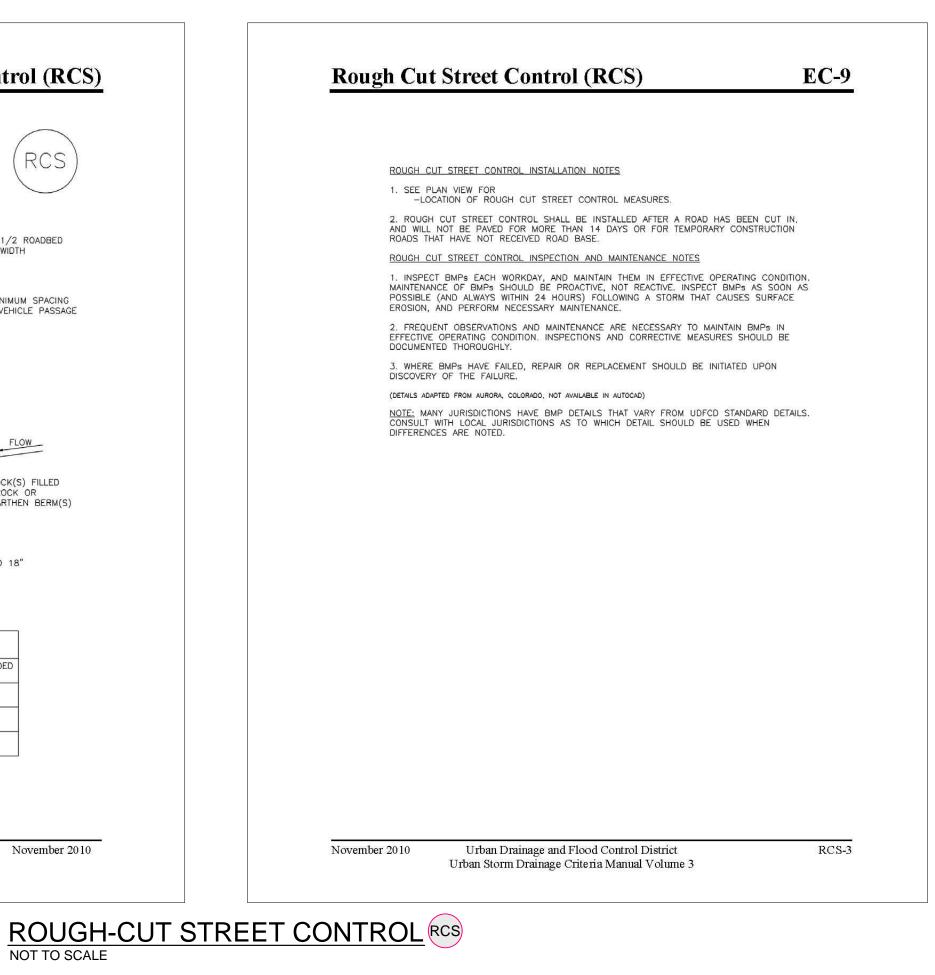
Design: MJK

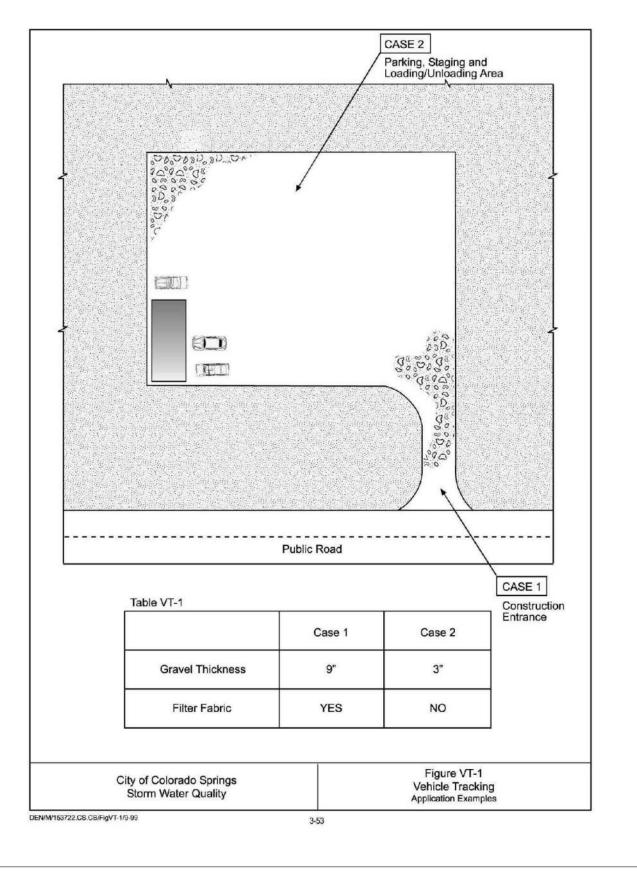
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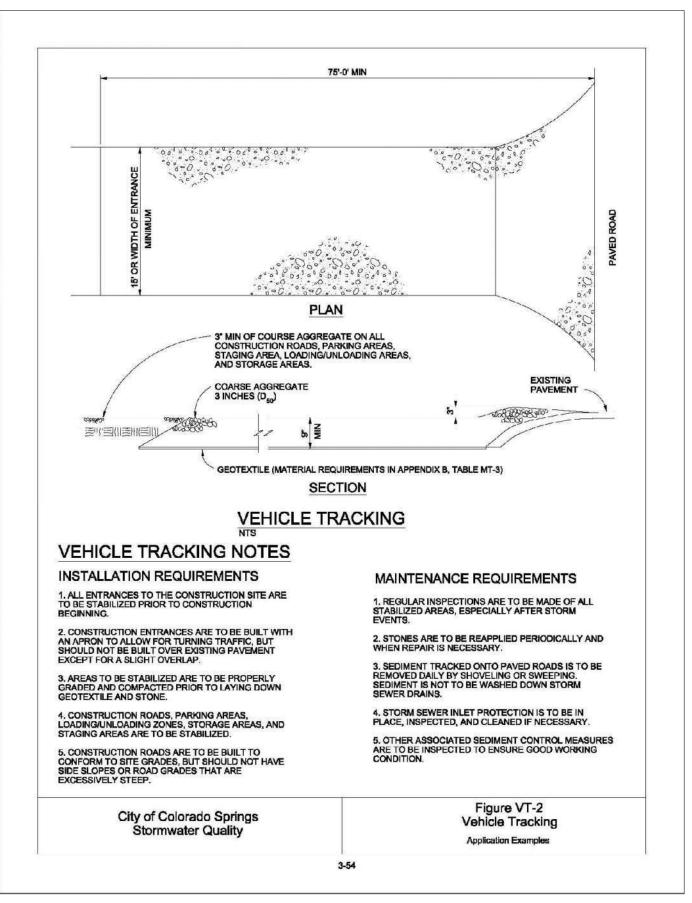
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Check: AMcC

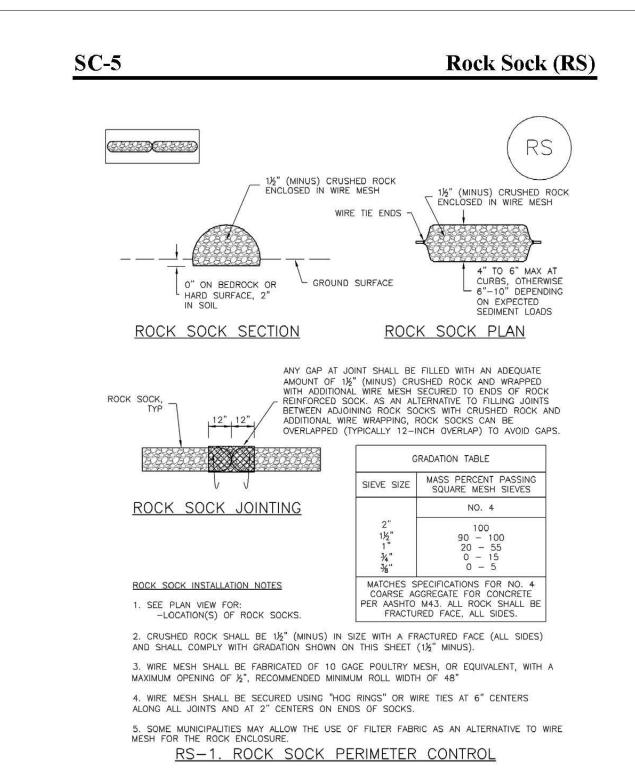








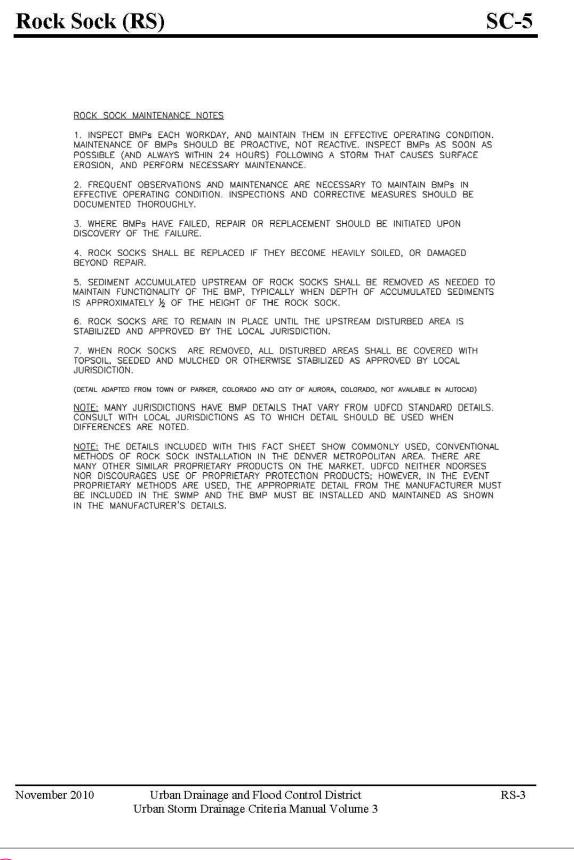
VEHICLE TRACKING CONTROL VTC

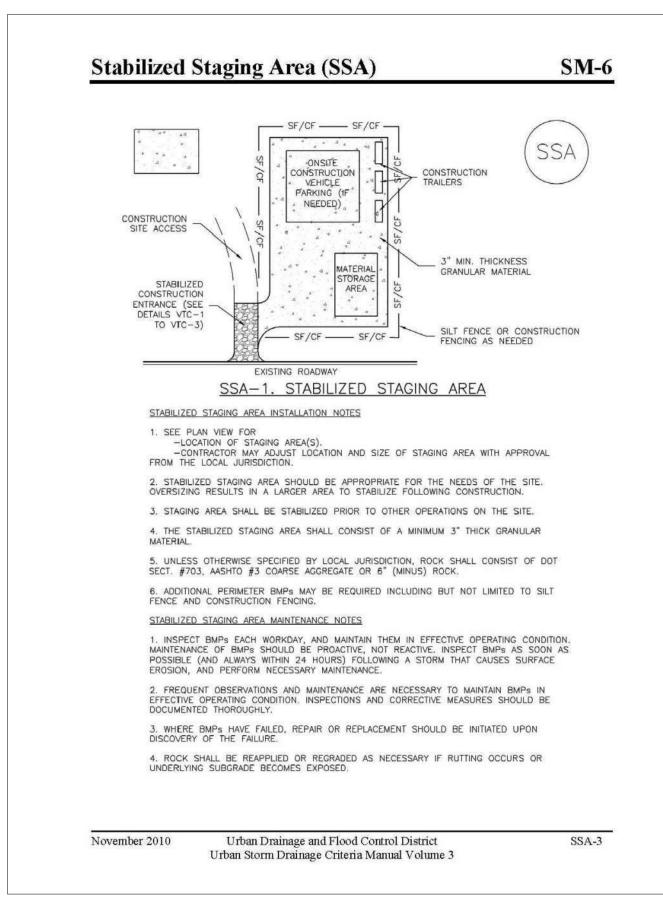


Urban Drainage and Flood Control District

Urban Storm Drainage Criteria Manual Volume 3

RS-2



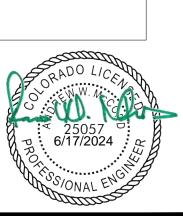




ROCK SOCK RS

November 2010

STABILIZED STAGING AREA SSA NOT TO SCALE



Engineering Corporation
1604 South 21st Street
Colorado Springs, Colorado 80904
(719) 630-7342

My Garage @ Northcrest Grading Erosion Control Pla Details

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Project No.: 23049

Date: 06/14/2024

Design: MJK

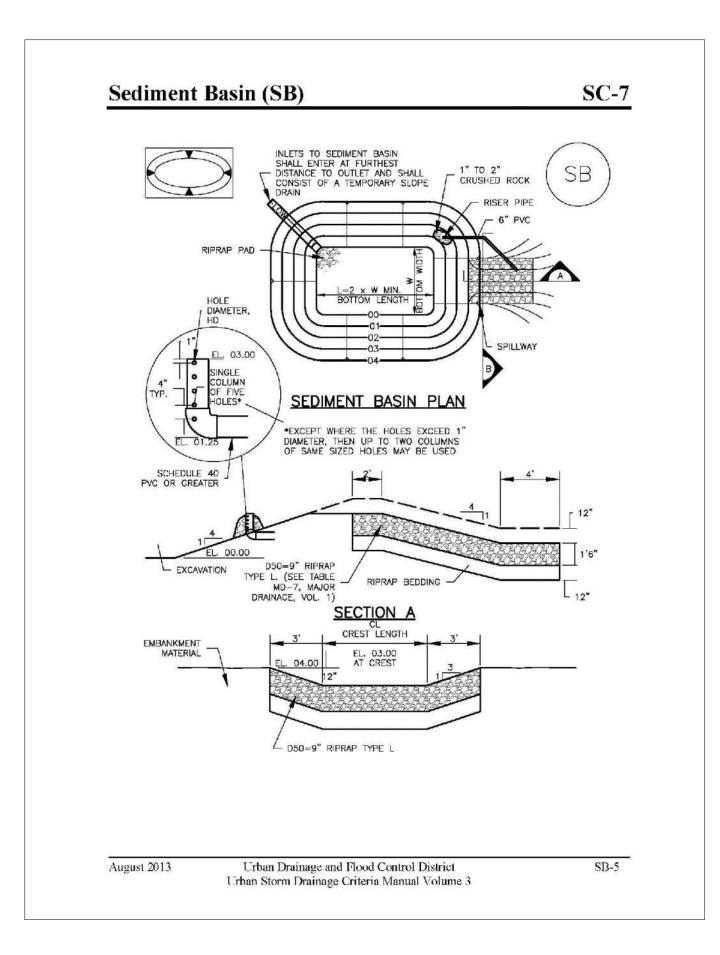
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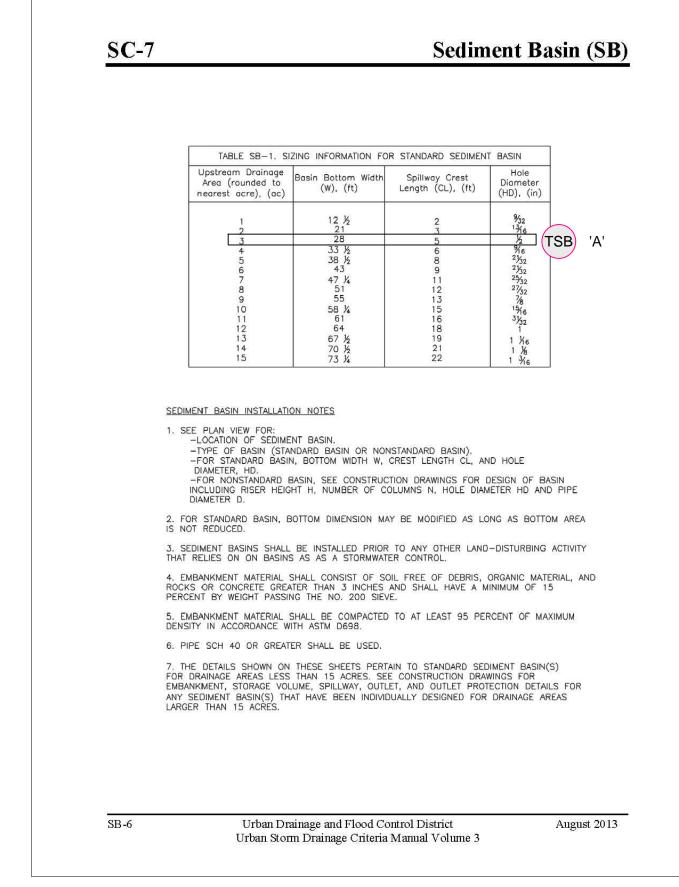
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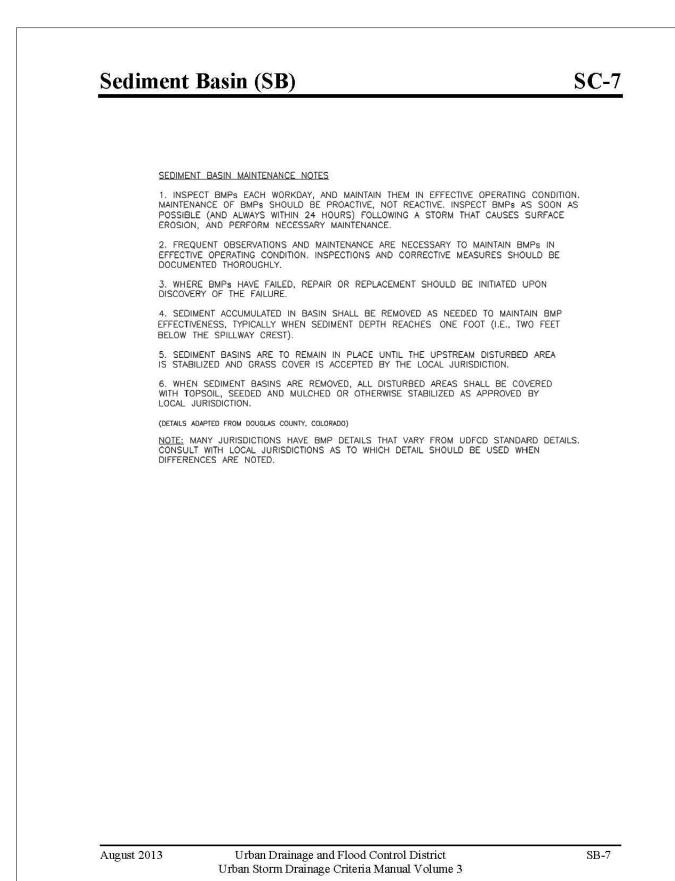
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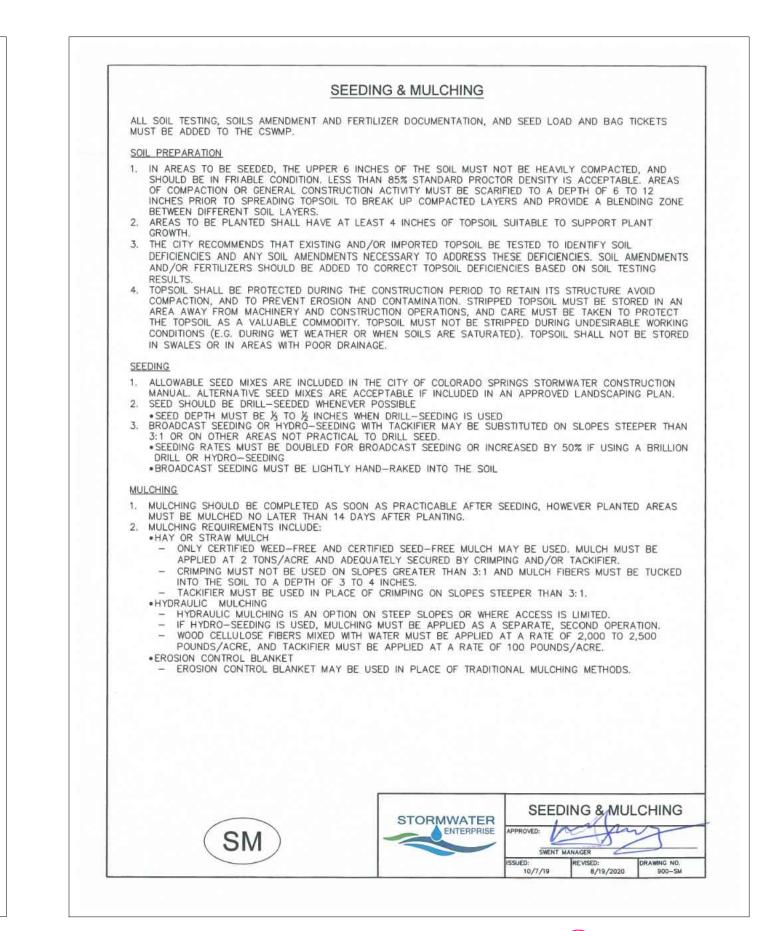
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TEMPORARY SEDIMENT BASIN TSB
NOT TO SCALE





SEEDING & MULCHING SM NOT TO SCALE

My Garage @ Northcre Grading Erosion Control | Details

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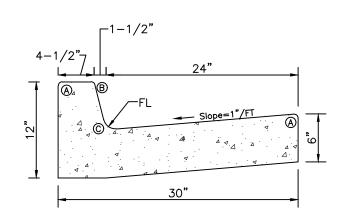
Date: 06/14/2024

Design: MJK
Drawn: MJK
Check: AMcC

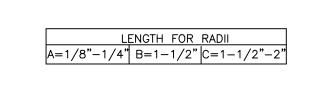
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GENERAL NOTES

- 1. All work shall be done in accordance with current Engineering Manual and ADA requirements.
- 2. Contractor to notify Engineering Division inspection staff 48 hours prior to conconcrete placement.
- 3. Pedestrian ramp construction shall be a minimum 4,500 psi concrete, minimum 4" thick, non-colored, non-scored, coarse broom finish. 4. Ramp location and length may require modification to maintain the 12:1 maximum running ramp slope and 20:1 detectable warning area due to street intersection grades and / or alignment.
- 5. Detectable warning area shall start a minimum of 6" but not more than 8" from the flow line of the curb at any point.
- 6. Detectable warning area shall be prefabricated reddish integrally colored truncated—dome surfaced thermoplastic.
- 7. The detectable warning area shall be 24" in length and the full width of the ramp.
- 8. Ramp width required is the same as approaching sidewalk, 4' minimum. 9. all ramps will be perpendicular to traffic with the exception of mid-block or terminal ramps which may be parallel subject to approval.
- 10. Avoid palcing drainage structures, traffic signal / signage, utilities / junction boxes, or other obstructions within proposed ramp areas. 11. Where the 1'- 6" flared side(s) of a perpendicular curb ramp is (are) contiguous with a pedestrian or hard surface area, the flare
- width shall be increased to 8' minimum and the maximum flare slope shall not exceed 10:1. 12. Pedestrian walkway and / or location of existing or future pedestrian ramps on opposite corners shall be reviewed before construction
- new ramps. New ramps shall align with existing ramps and pedestrian walkway. 13. At marked pedestrian crossings, the bottom of the ramps, exclusive of the flare sides, shall be totally contained within the markings.
- 14. Sidewalk cross-slope: 1/4"/ft.
- 15. Concrete mix design shall conform to the requirements of the color admixture manufacturer and the following:
- 1) 28-day compressive strength = 4,500 PSI (min.)
- 2) Water/cement ratio = 0.45 (max.)
- 3) Cement content = 6-1/2 sacks/C.Y. (min.) (Type II cement)
- 4) Maximum aggregate size = 3/4"
- 5) Entrained air content = 6% 10%
- 6) Slump = 1 inch (min.) 4 inches (max.)

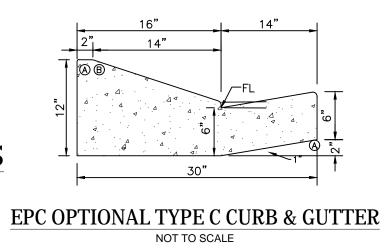


EPC TYPE A CURB & GUTTER NOT TO SCALE



CURB & GUTTER DETAILS EPC STD. SD_2-20

NOT TO SCALE

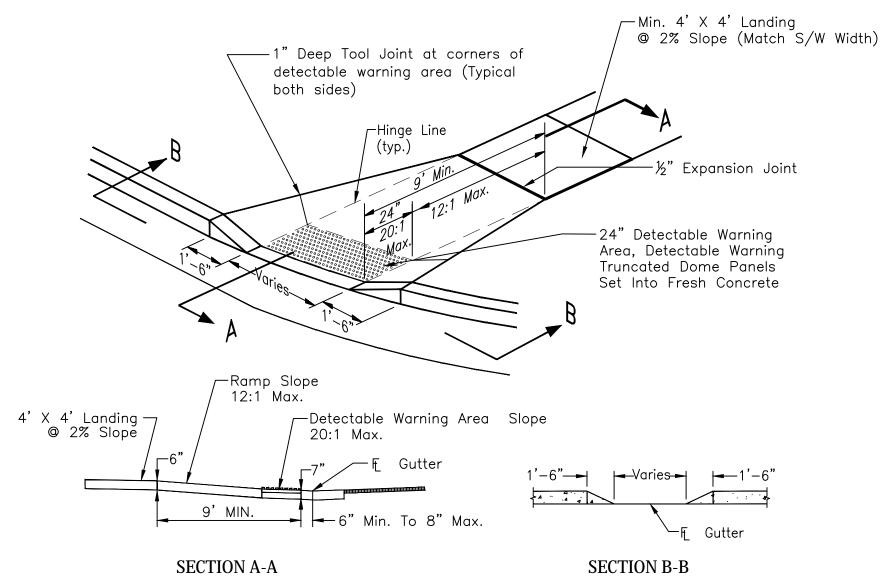




- 1. Provide Centerline Construction or tool joint when driveway width (edge to edge) is 14'
- 2. All Tool Joints shall be a minimum of $1-\frac{1}{2}$ "
- 3. When replacing existing curb and gutter with new driveway, entire curb and gutter section shall be removed and replaced with curb and gutter (variable—curb—height) as shown. Do not break curb from gutter
- 4. Flared portion of driveway shall be poured monolithic with main rectangular portion of
- 5. Where there is more than one driveway on a lot, the spacing of the driveways shall meet requirements in ECM.
- 6. Where an existing sidewalk is in place, and its thickness is less than 6" (residential) or 8" (commercial and industrial) the sidewalk through the driveway shall be removed and replaced with Portland Cement Concrete at the required thickness.
- 7. When a driveway is to be taken out of service, the entire length of curb and gutter shall be removed and replaced with new curb and gutter matching the abutting
- 8. All Provisions in the Land Development Code shall be met, with regard to minimum setback from intersection and side property lines, minimum spacing, maximum width,

GENERAL NOTES:

- ▲ Expansion Joints shall be installed when abutting existing concrete or fixed structure. Expansion Joint Material shall be 1/2" thick and shall extend the full depth of contact surface.
 - Concrete Shall be per El Paso County Engineering Division Specifications.

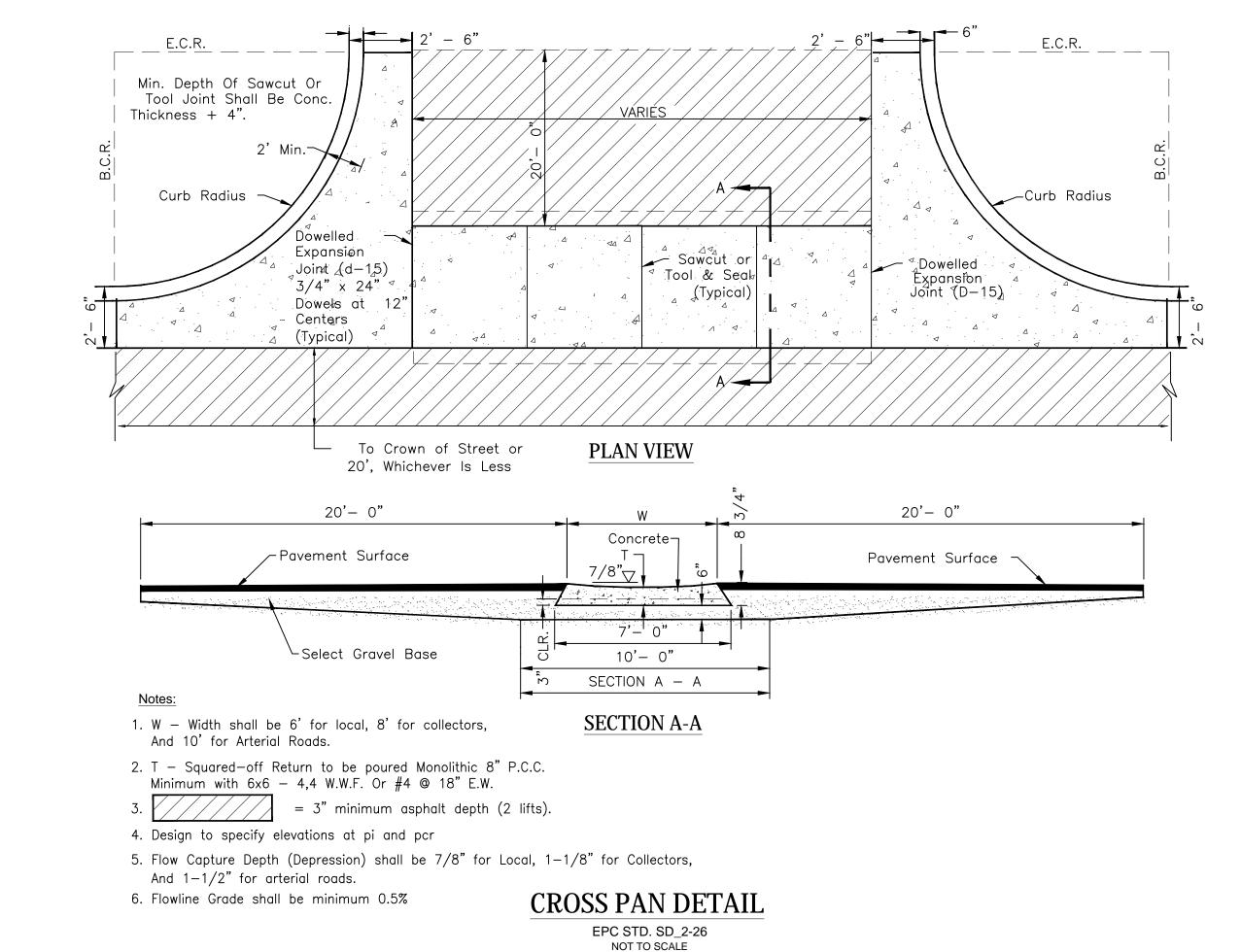


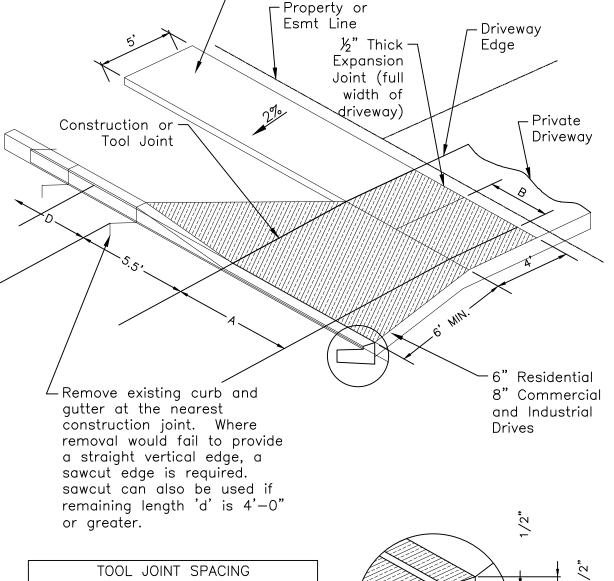
PEDESTRIAN RAMP DETAILS

EPC STD. SD_2-40

NOT TO SCALE







Sidewalk

DRIVEWAY WIDTH 3'-6" 14' Curb and Gutter shall not be poured monolithic with 18' 4'-6" 20' 22' 24' 10' 5' driveway 5'-6" 11' 26' 28' 8'-8" 4'-4"

9'-4" 4'-8"

10'

DRIVEWAY DETAIL WITH DETACHED SIDEWALK

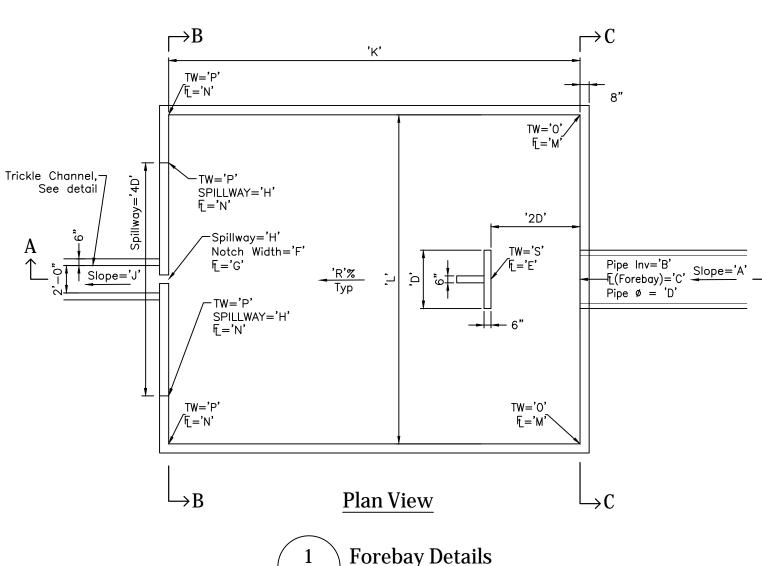
EPC STD. SD_2-25 NOT TO SCALE

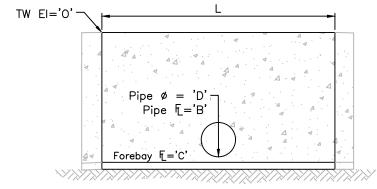
Plan **Details** Site Detail Site

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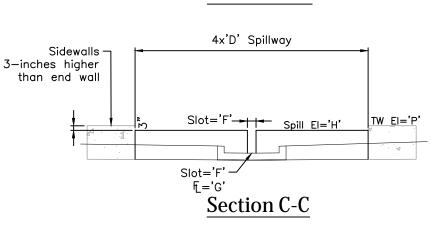
Project No.: 23049 Date: 06/14/2024 Design: MJK Drawn: MJK Check: AMcC Revisions:

23049-Detail_SP-C601.dwg/Jun 14, 2024





Section B-B



Prior to construction, Contractor to provide Shop Drawings for all components of outlet structure, forebays and overflow wall.

Presedimentation

Forebay

Pipe Slope%

Pipe Inv In

Forebay Inv In

Pipe Size (ft)

Baffle Face Inv

Slot Width

Forebay Inv Out

Spillway Inv

Spillway Top

Trickle Pan Slope

Forebay Length

Forebay Width

Toe of Wall

Toe of Wall

Top of Wall

Top of Wall

Baffle Wall Top

R Forebay Slope %

Variable

M

Inflow One (D5) Two (D6)

2.00 0.60

6510.00 6508.40

6509.50 6508.07

0.67 2.00

6509.49 6508.03

2.50 3.00

6509.46 6508.00

6510.21 6508.75

6510.46 6509.00

2.00 0.55

4.00 8.50

4.50 8.50

6509.50 6508.07

6509.46 6508.00

6513.75 6513.83

6510.46 6509.00

6513.50 6513.58

1.00 0.60

2. Grade 60 reinforcing steel required. See table for the minimum lap splice length for reinforcing bars. All reinforcing steel shall have 2-inch minimum clearance from edge of concrete and 3-inch min. clearance to the edge of concrete placed against soil, unless otherwise noted.

 Bar Size
 #4
 #5
 #6

 Min. Splice Length
 1'-3"
 1'-7"
 2'-0"
 3. Concrete for the outlet structure and forebays shall be CDoT Class D Concrete.

4. Expansion joint material shall meet AASHTO specification M-213. Expansion joint material shall be ½" thick, shall extend the full depth of contact surface and the joint shall be sealed, refer to details.

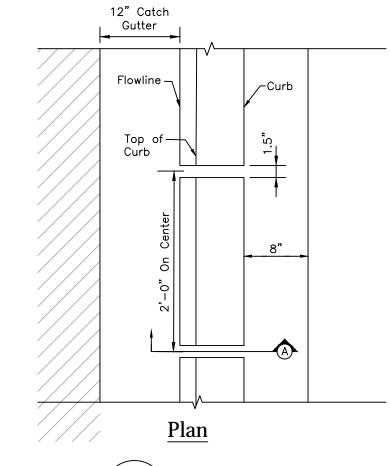
5. All exposed concrete coners shall have a $\frac{3}{4}$ -inch chamfer, unless otherwise noted. 6. Backfilling against walls shall not commence until

concrete has obtained its full seven day strength. 7. Subgrade to be 12" thick clean fill compacted to 95% Standard Proctor Density per ASTM M698 under structures.

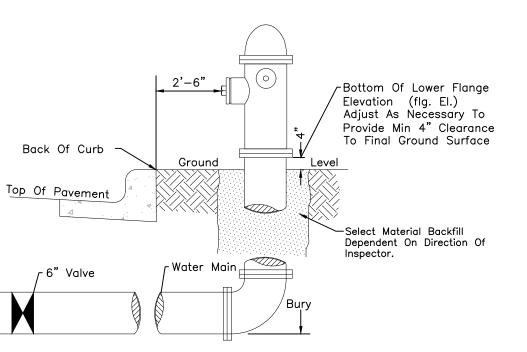
8. Outlet stucture steps shall conform to AASHTO M199. 9. Forebay: Construction joints shall be installed at 10' O.C. maximum. The joints shall be sealed with a joint sealant.

			Г	Curb	Ве	yond	
_	1'-0 	-	6"	8"	-	1	Pavement
Pavement	8.33%			6.5		1" Char	nfer
9	<u>A</u>		√ . △	,4 ,4		-0.5"	- Receiving Pervious Area (RPA)
							(turfgrass) ⊊ ;;
	7"	5"	-	1'-2"			6" Min Topsoil
		Se	ectio	<u>n</u>			





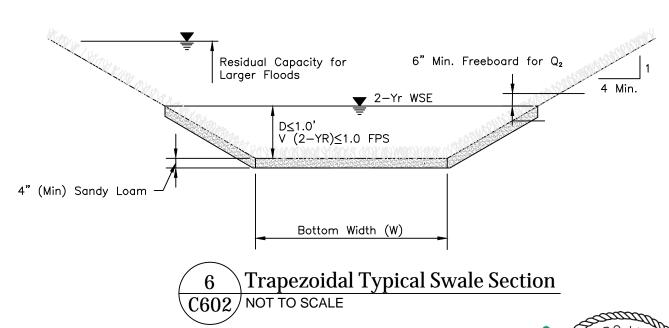
Slotted Curb $\setminus C602$ NOT TO SCALE



Fire Hydrant Detail NOT TO SCALE

GENERAL NOTES:

- Hydrant nozzles shall be positioned at right angles to curb. If no curb or sidewalk exists, nozzles shall be placed at right angle to street or alley.
- 2. Hydrants shall be placed a minimum of 5.0 feet from any utility or drainage structure.
- 3. Any hydrant being installed with conditions other than those mentioned and/or detailed below will require signed approval from the Widefield Water District and Security Fire District.
- See Site Utility Plan for hydrant locations and flange elevations. 5. The upper exposed section of the hydrant above ground shall be painted rustoleum 659 yellow or equal. The buried portion of the hydrant shall be given a bituminous coating in accordance with Section 10-8.1 of AWWA Standard C110.



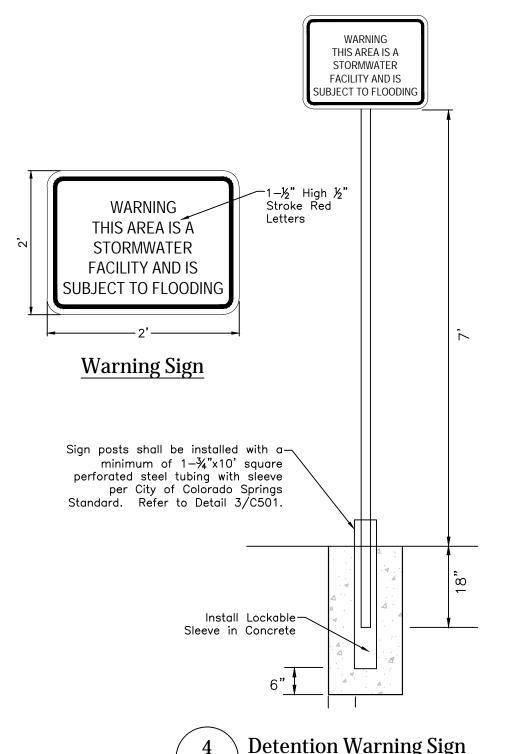


Subsequent To Stripping And Grubbing The Following Overlot/pipe Installation Procedures Are Anticipated For The Sanitary Sewer Located On Proposed Embankments:

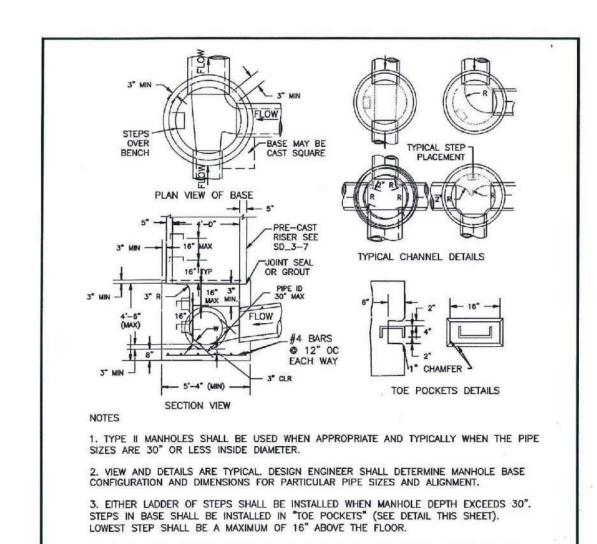
The Removal And Replacement Of Metastable Soil. Testing Of The Fill Subsequent To The Penetration Of The

Metastable Soil Will Continue Until A Minimum Of 7 Feet Of Structural Fill Has Been Placed Above The Proposed Sewer Line Utility Trenches Shall Be Excavated And Sanitary Sewer Line Installed. The Pipe Shall Be Properly Bedded And Structural Fill

Placed And Tested To The Previous Grade. The Overlot And Embankment Fill Can Be Completed. Where The Sanitary Sewer Is Placed In Embankment Fill During The Overlot Process, Site Shall Monitor and Test All Work Associated with the Affected Portions.



 $\overline{(C602)}$ NOT TO SCALE



4. PIPES SHALL BE TRIMMED TO FINAL SHAPE AND SET BEFORE MANHOLE IS POURED.

5. BENCH SHALL BE SLOPED TOWARD CENTER OF MANHOLE BASE (4:1 MAX., 1/2" PER

6. FLOOR OF MANHOLE SHALL BE TROWELLED TO A SMOOTH, HARD SURFACE AND SHALL

SLOPE TOWARDS THE OUTLET (8:1., 3" PER FT. MIN.) . FLOOR SHALL BE SHAPED AND CHANNELED; SEE DETAILS THIS SHEET. SCALE: NOT TO SCALE Storm Sewer Manhole Detai Type II Standard Drawing André P. Brackin

SD 3-2

\Storm Sewer Manhole Detail Type II C602/ EPC STD. SD_3-2 NOT TO SCALE

11/10/04



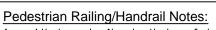
Details

Site

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Project No.: 23049 Date: 06/14/2024 Design: MJK Drawn: MJK Check: AMcC Revisions: Sheet

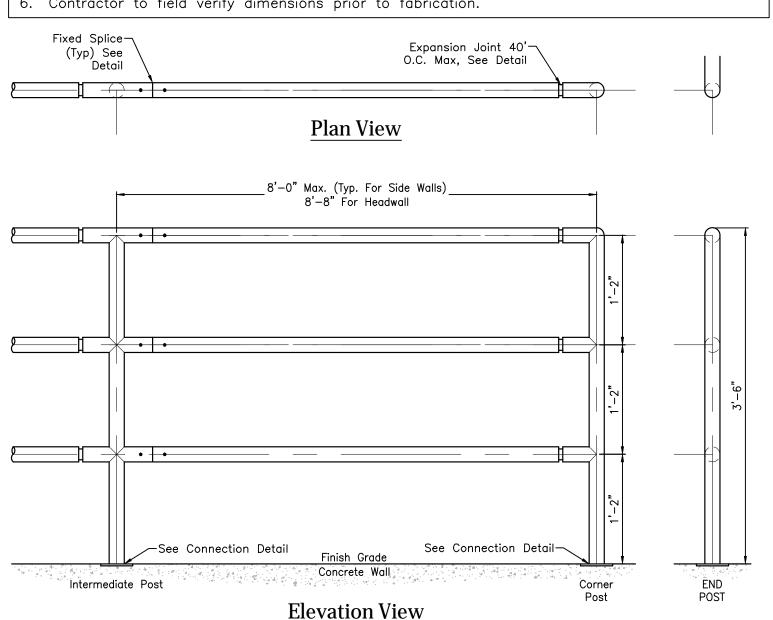
23049-Detail_C602.dwg/Jun 17, 2024



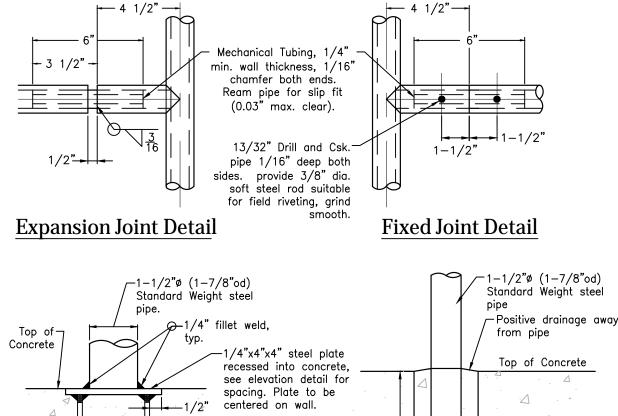
All handrail shall be fabricated with new 1-1/2" (1-7/8" od) diameter standard weight

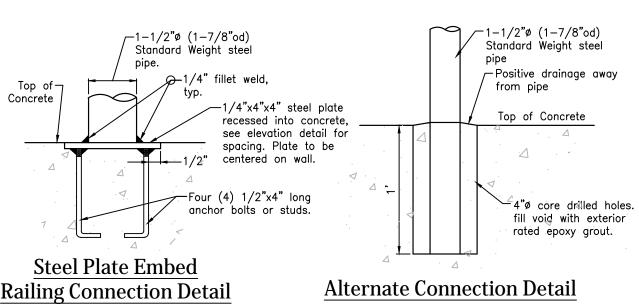
 $\overline{(602)}$ NOT TO SCALE

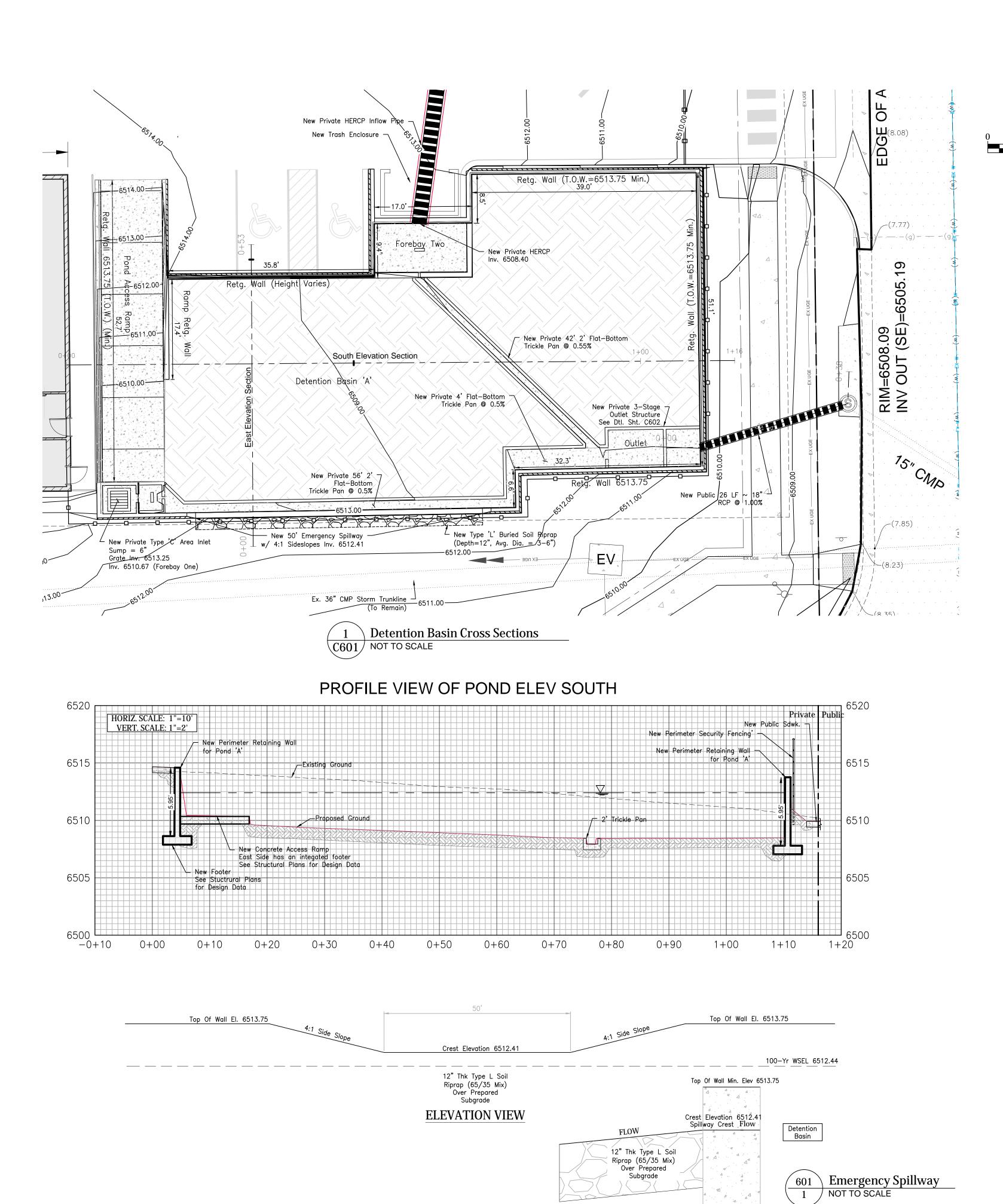
- Weld all pipe joints with 1/8" reinforced welds and dress smooth.
- 3. Corners and edges of all bars, plates and pipe ends shall be sanded smooth and free of 4. All handrail material required for complete installation shall be provided.
- 5. Handrail finish shall be one coat metal primer and two coats Sherwin Williams bridge green.
- color shall be verified by County. 6. Contractor to field verify dimensions prior to fabrication.



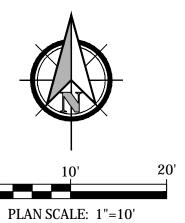
Pedestrian Railing/Handrail $\sqrt{602}$ NOT TO SCALE



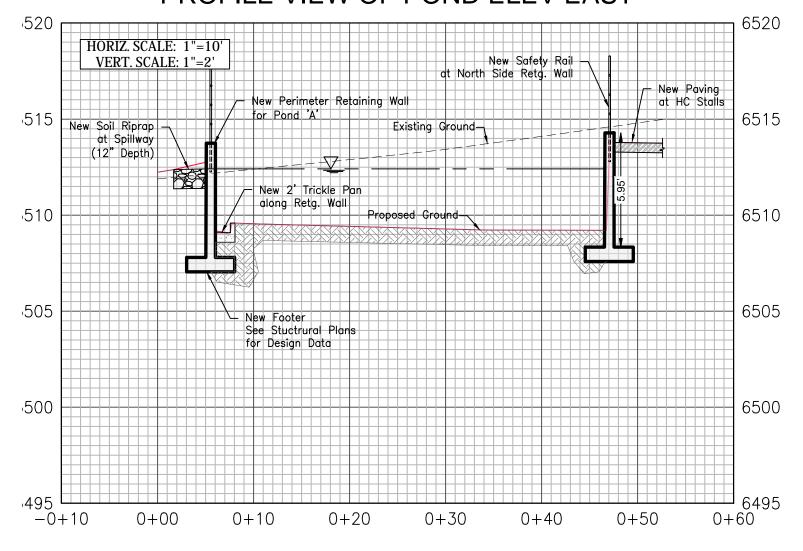




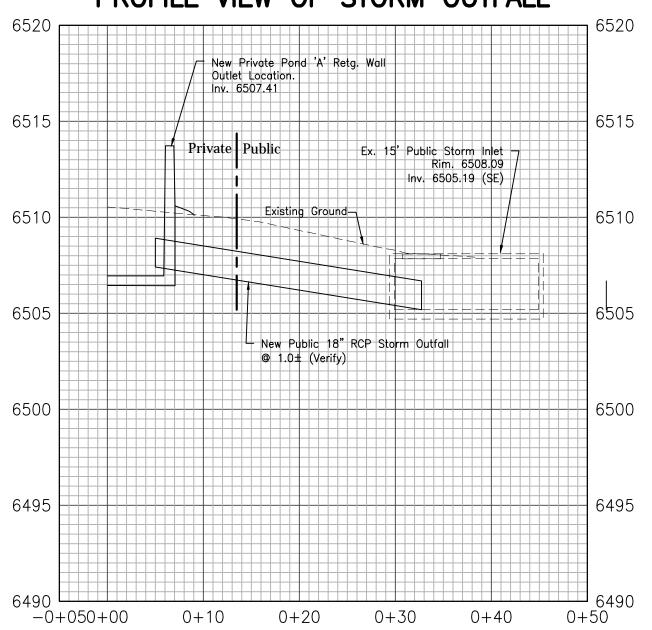
SECTION A-A



PROFILE VIEW OF POND ELEV EAST



PROFILE VIEW OF STORM OUTFALL





El Paso Co

Project No.: 23049

Date: 06/14/2024

Design: MJK

Drawn: MJK

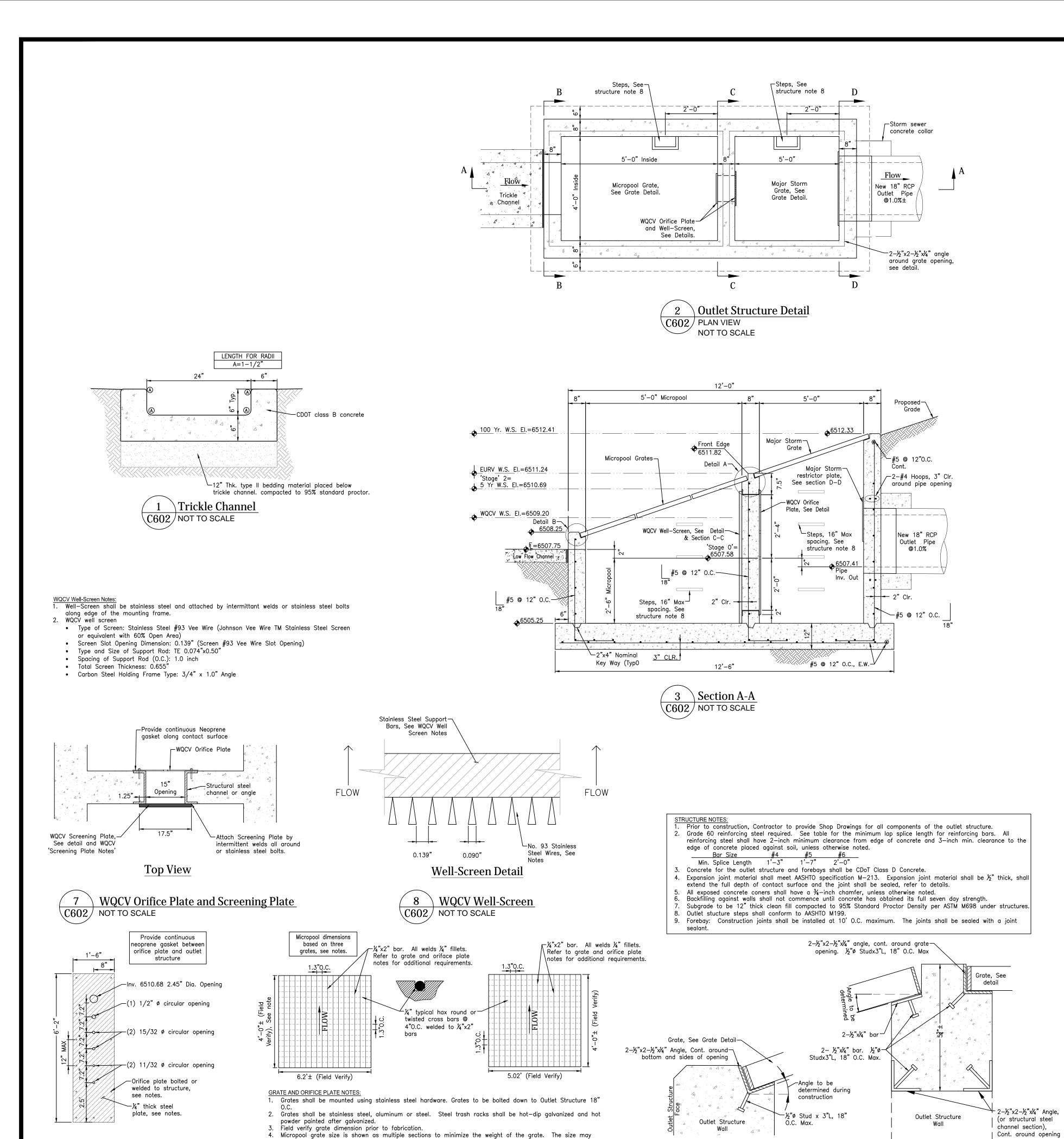
Check: AMcC

Sheet

C603

23049-Detail_SW-C603-C604.dwg/Jun 14, 2024





Major Storm Grate Detail

/ NOT TO SCALE

\C602/

 $12 \setminus \text{Detail B}$

 $\overline{(c_{602})}$ not to scale

′13 \ Detail A

 $\overline{\text{C}602}$ NOT TO SCALE

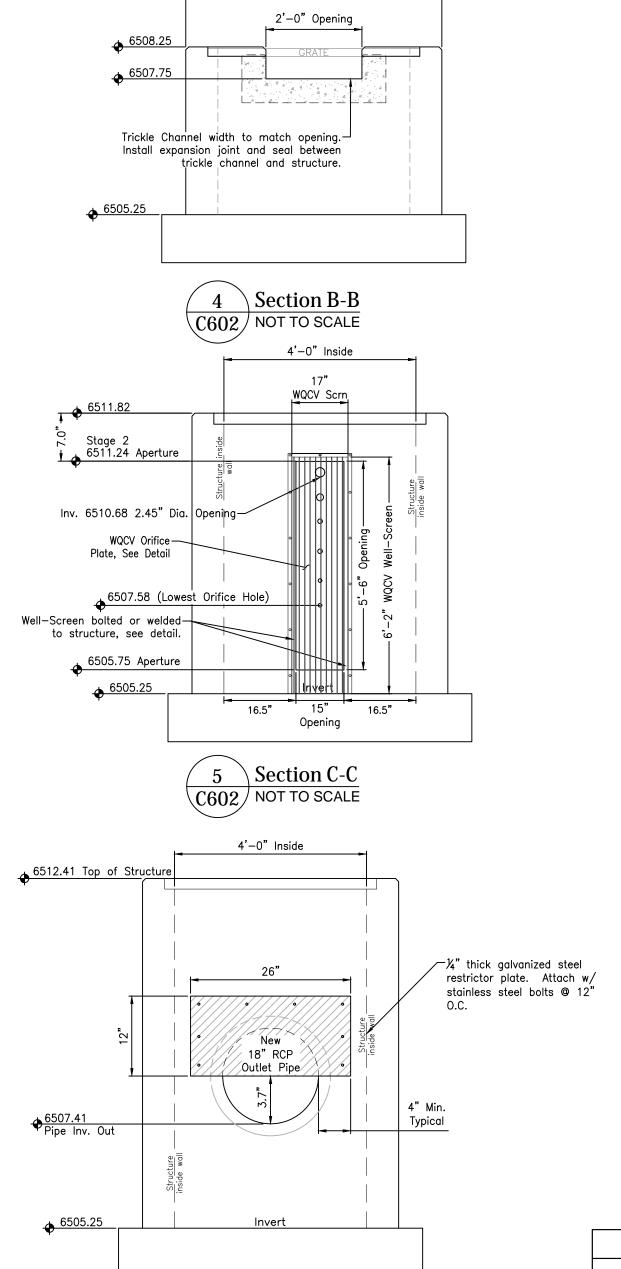
vary from that shown.

 $\overline{(c602)}$ NOT TO SCALE

10 \ Micropool Grates Detail

WQCV Orifice Plate

 $\setminus C602$ NOT TO SCALE



4'-0"



CLASSIFICATION AND GRADATION OF RIPRAP Given Size by Weight Dimension (Inches) 70-100 (Inches) Designation 50-70 Type VL 2-10 70-100 6** Type L 70-100 9**

d₅₀=Mean Particle Size (Intermediate Dimension) by weight. 12** ** Mix VL, L AND M Riprap with 35% Topsoil (by Volume) and bury with 4-6 Inches of Topsoil, all vibration compacted & revegetate. (Table MD—7: Classification and Gradation of Ordinary Riprap. UDFCD, Drainage Criteria Manual, Vol. 1)

- The soil material shall be native or topsoil and mixed with Sixty—Five Percent 65%) riprap and Thirty—Five Percent (35%) soil by volume.
- Soil Riprap shall consist of a uniform mixture of soil and riprap without voids.

6 \ Section D-D

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m C}602)}$ NOT TO SCALE

- Contractor shall cooperate with Engineer in obtaining and providing samples of all specified materials. Contractor shall submit certified laboratory test certificates for all items required for Soil Riprap.
- 5. The riprap designation and total thickness of riprap shall be as shown on the drawings. The maximum stone size shall not be larger than the thickness of the riprap.
- Neither width nor thickness of a single stone of riprap shall be less than One-Third $(\frac{1}{3})$ of its length.

Riprap used shall be the type designated on the drawings and shall conform to the Table shown.

- The specific gravity of the riprap shall be two and one—half (2.5) or greater.
- Minimum density for acceptable riprap shall be One—Hundred and Sixty—Five (165) pounds per cubic foot.
- Riprap specific gravity shall be according to the Bulk—Saturated, Surface—Dry basis, in accordance with AASHTO T85. 10. The riprap shall have a percentage loss of not more than Forty Percent (40%) after Five—Hundred (500) revolutions when tested in
- accordance with AASHTO T96. 11. The riprap shall have a percentage loss of not more than Ten (10%) after Five (5) cycles when tested in accordance with AASHTO T104 for
- Ledge rock using sodium sulfate.
- 12. The riprap shall have a percentage loss of not more than Ten Percent (10%) after Twelve (12) cycles of freezing and thawing when tested
- in accordance with AASHTO T103 for Ledge rock, Procedure A. Rock shall be free from calcite intrusions.
- Gradation: Each load of riprap shall be reasonably well—graded from the smallest to the largest size specified.
- 13.1. Stones smaller than the Two to Ten Percent (2%—10%) size will not be permitted in an amount exceeding Ten Percent (10%) by
- 13.2. Control of gradation shall be by visual inspection. However in the evebt the Engineer determines the riprap to be unacceptable, he Engineer shall pick Two (2) random truckloads to be dumped and checked for gradation. Mechanical equipment and labor needed to assist in checking gradation shall be provided by the Contractor at no additional cost.



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Project No.: 23049

Date: 06/14/2024

Design: MJK

Drawn: MJK

Check: AMcC

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