THE COTTAGES AT MESA RIDGE

CONSTRUCTION DRAWING

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THE COTTAGES AT MESA RIDGE
EL PASO COUNTY CONSTRUCTION DOCUMENTS AND GRADING AND ERISION CONTROL PLANS

A PORTION OF THE NORTHEAST QUARTER OF SECTION 29, THE SOUTHEAST QUARTER OF SECTION 20, THE SOUTHWEST QUARTER OF SECTION 21, & THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO

EPC STORMWATER REVIEW COMMENTS ARE SHOWN IN ORANGE BOXES WITH BLACK TEXT

LEGAL DESCRIPTION:

THAT PORTION OF THE NORTHWEST QUARTER OF SECTION 28 AND THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: BEARINGS ARE BASED UPON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 29, MONUMENTED AT THE WEST END WITH A 3.25" ALUMINUM CAP IN CONCRETE STAMPED "PLS 4842" AND MONUMENTED AT THE EAST END WITH A #6 REBAR AND 3.25" ALUMINUM CAP STAMPED "PLS 38141" AND ASSUMED TO BEAR S 89°57'13" E A FIELD MEASURED DISTANCE OF 2,652.37 FEET.

BENCHMARK: ELEVATIONS ARE BASED UPON THE FOUNTAIN SANITATION DISTRICT POINT N-1, BEING A 2" BRASS CAP IN CONCRETE AT THE NORTHEAST CORNER OF MESA RIDGE PARKWAY AND FOUNTAIN MESA ROAD. (ELEVATION=5750.57 NGVD 29).

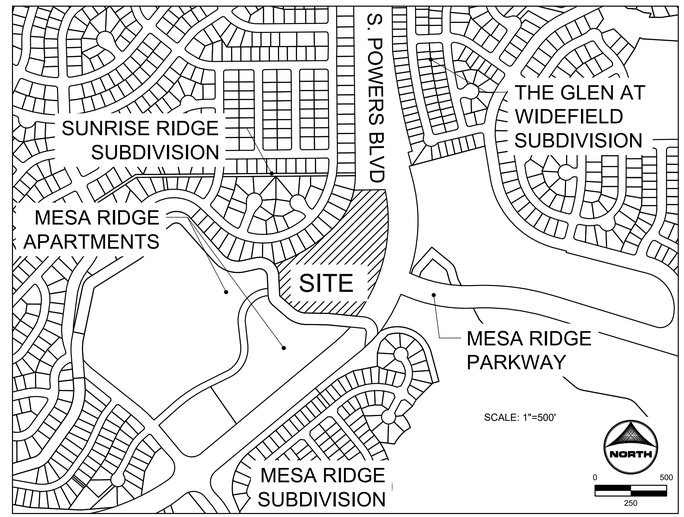
BEGINNING AT THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 28;
THENCE N 89°41'59" E ALONG THE NORTH LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 117.30 FEET TO A POINT ON THE WEST LINE OF POWERS BOULEVARD AS RECORDED UNDER BOOK 6788 AT PAGE 531 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDERS OFFICE;
THENCE ALONG THE WEST LINE OF SAID POWERS BOULEVARD, 933.14 FEET ALONG THE ARC OF A 1,096.98 FOOT RADIUS CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 48°44'17" AND A CHORD THAT BEARS S 12°56'23" W, 905.26 FEET TO A POINT ON THE NORTHERLY LINE OF THAT PARCEL OF LAND DESCRIBED UNDER BOOK 5506 AT PAGE 1290 OF SAID RECORDS;
THENCE OF THE FOLLOWING EIGHT (8) COURSES ALONG SAID NORTHERLY LINES AND EASTERLY LINES OF SAID PARCEL OF LAND DESCRIBED UNDER BOOK 5506 AT PAGE 1290:
1) N 84°16'00" W, A DISTANCE OF 198.99 FEET;
2) 46.11 FEET ALONG THE ARC OF A 540.00 FOOT RADIUS TANGENT CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 04°53'33" AND A CHORD THAT BEARS N 86°42'46" W, 46.10 FEET;
3) N 89°09'33" W, A DISTANCE OF 124.09 FEET;
4) 100.02 FEET ALONG THE ARC OF A 140.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 40°56'07" AND A CHORD THAT BEARS N 68°41'30" W, 97.91 FEET;
5) N 48°13'27" W, A DISTANCE OF 126.77 FEET;
6) 6.49 FEET ALONG THE ARC OF AN 8.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 46°29'23" AND A CHORD THAT BEARS N 24°58'45" W, 6.31 FEET;
7) N 01°44'04" W, A DISTANCE OF 137.18 FEET;
8) 87.71 FEET ALONG THE ARC OF A 135.00 FOOT RADIUS TANGENT CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 37°13'35" AND A CHORD THAT BEARS N 20°21'02" W, 86.18 FEET TO THE SOUTHWEST CORNER OF LOT 15, BLOCK 3, SUNRISE RIDGE SUBDIVISION FILING NO. 8 AS RECORDED UNDER RECEPTION NO. 1722613 OF SAID RECORDS;
THENCE THE FOLLOWING TWO (2) COURSES ALONG THE EASTERLY LINE OF SAID SUNRISE RIDGE SUBDIVISION FILING NO. 8: 1) 511.39 FEET ALONG THE ARC OF A 1,034.60 FOOT RADIUS CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 28°19'14" AND A CHORD THAT BEARS N 58°13'41" E, 506.20 FEET TO A POINT OF COMPOUND CURVATURE;
2) 283.12 FEET ALONG THE ARC OF A 500.00 FOOT RADIUS CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 32°26'36" AND A CHORD THAT BEARS N 27°50'47" E, 279.35 FEET TO A POINT ON THE NORTH LINE OF SAID NORTHEAST QUARTER;
THENCE N 89°57'13" E ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER, A DISTANCE OF 115.21 FEET TO THE POINT OF BEGINNING.

CONTAINING A CALCULATED AREA OF 445,104 SQUARE FEET (10.218 ACRES) OF LAND, MORE OR LESS.

TO BE PLATTED AS "THE COTTAGES AT MESA RIDGE"

STANDARD 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 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL
2. CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FILED 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 DEPARTMENT (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 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 AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
14. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DPW, 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.



VICINITY MAP

GRADING AND EROSION CONTROL NOTES:

1. 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.
2. 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 CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
3. A SEPARATE STORMWATER MANAGEMENT PLAN (SWMP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCITNG CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OF CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
4. 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 THE 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.
5. 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.
6. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATION 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 STORMWATER MANAGEMENT PLAN.
7. TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS
8. 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.
9. ALL PERMANENT STORMWATER FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OF FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
10. EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES HALL 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 SPECIFICALLY REQUESTED AND APPROVED.
11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OF 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 ARES DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S)
12. 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 DISCHARGE OF SEDIMENT OFF SITE.

GENERAL PROVISIONS:

1. STATEMENT OF INTENT: THE PURPOSE AND INTENT OF THE PUD ZONING DISTRICT IS TO CREATE A COHESIVE WELL PLANNED COMMUNITY THAT WILL ALLOW FOR A MAXIMUM OF 122 DWELLING UNITS, SINGLE FAMILY ATTACHED UNITS FOR RENT ONLY, AN AMENITY CENTER, AND OPEN SPACE.
2. AUTHORITY: THIS PUD IS AUTHORIZED BY CHAPTER 4 OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, ADOPTED PURSUANT TO THE COLORADO PLANNED UNIT DEVELOPMENT ACT OF 1972, AS AMENDED.
3. APPLICABILITY: THE PROVISIONS OF THIS PUD SHALL RUN WITH THE LAND. THE LANDOWNERS, THEIR SUCCESSORS, HEIRS, OR ASSIGNS SHALL BE BOUND BY THE DEVELOPMENT PLAN, AS AMENDED AND APPROVED BY THE PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT DIRECTOR OR BOARD OF COUNTY COMMISSIONERS.
4. ADOPTION: THE ADOPTION OF THIS DEVELOPMENT PLAN SHALL EVIDENCED THE FINDINGS AND DECISIONS OF THE EL PASO COUNTY BOARD OF COUNTY COMMISSIONS THAT THIS DEVELOPMENT PLAN FOR THE COTTAGES AT MESA RIDGE IS IN GENERAL CONFORMITY WITH THE EL PASO COUNTY MASTER PLAN, EL PASO COUNTY POLICY PLAN, AND APPLICABLE SMALL AREA PLAN(S); IS AUTHORIZED UNDER THE PROVISIONS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE; AND THAT THE EL PASO COUNTY LAND DEVELOPMENT CODE AND THIS DEVELOPMENT PLAN COMPLIES WITH THE COLORADO PLANNED UNIT DEVELOPMENT ACT OF 1972, AS AMENDED.
5. RELATIONSHIP TO COUNTY REGULATIONS: THE PROVISIONS OF THIS DEVELOPMENT PLAN SHALL PREVAIL AND GOVERN THE DEVELOPMENT OF THE COTTAGES AT MESA RIDGE, PROVIDED, HOWEVER, THAT WHERE THE PROVISIONS OF THIS DEVELOPMENT PLAN DO NOT ADDRESS A PARTICULAR SUBJECT THE RELEVANT PROVISIONS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, AS AMENDED AND IN EFFECT AT THE TIME OF THE PUD PLAN APPROVAL (OR OWNER ACKNOWLEDGE THE PUD CHANGES WITH THE CODE), OR ANY OTHER APPLICABLE RESOLUTIONS OR REGULATIONS OF EL PASO COUNTY, SHALL BE APPLICABLE.
6. ENFORCEMENT: TO FURTHER THE MUTUAL INTEREST OF THE RESIDENTS, OCCUPANTS, AND OWNERS OF THE PUD AND OF THE PUBLIC IN PRESERVATION OF THE INTEGRITY OF THIS DEVELOPMENT PLAN, THE PROVISIONS OF THIS PLAN RELATING TO THE USE OF LAND AND THE LOCATION OF COMMON SPACE SHALL RUN IN FAVOR OF EL PASO COUNTY AND SHALL BE ENFORCEABLE AT LAW OR IN EQUITY BY THE COUNTY WITHOUT LIMITATION ON ANY POWER OR REGULATION OTHERWISE GRANTED BY LAW. WHERE THERE IS MORE THAN ONE PROVISIONS WITHIN THE DEVELOPMENT PLAN THAT COVERS THE SAME SUBJECT MATTER, THE PROVISIONS WHICH IS MORE RESTRICTIVE OR IMPOSES THE HIGHER STANDARDS OR REQUIREMENTS SHALL GOVERN.

SHEET INDEX:

STAKEHOLDERS:

OWNER:	CSJ NO 1 LLC 111 S. TEJON STREET, SUITE 222 COLORADO SPRINGS, CO 80903
DEVELOPER:	GOODWIN KNIGHT 8605 EXPLORER DRIVE, SUITE 250 COLORADO SPRINGS, CO 80920
ATTN:	DAVE MORRISON
APPLICANT:	HR GREEN DEVELOPMENT, LLC 1975 RESEARCH PKWY, SUITE 230 COLORADO SPRINGS, CO 80920
ATTN:	PHIL STUEPFERT, KEN HUHN
SURVEYOR:	BARRON LAND, LLC 2790 N ACADEMY BLVD #311 COLORADO SPRINGS, CO 80917 ATTN: SPENCER BARRON

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THESE DETAILED PLANS AND SPECIFICATIONS.

KENNETH M. HUHN, P.E. DATE
KHUHN@HRGREEN.COM
COLORADO P.E. 0054022

OWNER'S STATEMENT

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN AND ALL OF THE REQUIREMENTS SPECIFIED IN THESE DETAILED PLANS AND SPECIFICATIONS.

OWNER SIGNATURE DATE

HR GREEN: ADDRESSED.

add owner's name

EL PASO COUNTY STATEMENT

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 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. DATE

COUNTY ENGINEER/ ECM ADMINISTRATOR

Please include after drainage criteria manual: Engineering Criteria

HR GREEN: ADDRESSED.

Please add GEC Standard Notes 13 - 29 (see GEC Checklist)

HR GREEN: ADDRESSED.

HR GREEN: ADDRESSED.

Please add PCD File No. SF2214

NOT FOR CONSTRUCTION

DRAWN BY: CBM JOB DATE: 4/5/2022
APPROVED: KMH JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\El_Paso_Co\Cover

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

GOODWIN KNIGHT

EL PASO COUNTY CONSTRUCTION DOCUMENTS
COVER

SHEET CV

1

LEGEND

	EXISTING	PROPOSED
MATCH LINE		
PHASE LINE		
SECTION LINE		
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
CHAIN LINK FENCE		
WOODEN FENCE		
ROD IRON FENCE		
GUARDRAIL		
CABLE TV	TV	TV
U.G. ELECTRIC		
OVERHEAD ELECTRIC	OE	OE
FIBER OPTIC		
GAS MAIN		
SANITARY SEWER		
STORM DRAIN		
TELEPHONE	UT	UT
WATER MAIN		W
SWALE		
TRAIL		
CURB & GUTTER		
DRAINAGE BASIN		
INDEX CONTOUR		
INTER. CONTOUR		
100-YR FLOODPLAIN		
FLOODWAY		
EDGE OF WETLANDS		

DRAINAGE

	EXISTING	PROPOSED
DRAINAGE BASIN		
BASIN TAG		I.D. AREA
DESIGN POINT		

STORM SEWER

	EXISTING	PROPOSED
MANHOLE	ST	D
STORM INLET		
FLARED END SECTION	DI	
RIPRAP		

SANITARY SEWER

CLEAN OUT		
MANHOLE		S
PLUG		

WATER

FIRE HYDRANT		
FIRE DEPT. CONNECTION		FDC
GATE VALVE		
MANHOLE	W	
METER	M	M
TEE		
REDUCER		

DRY UTILITIES

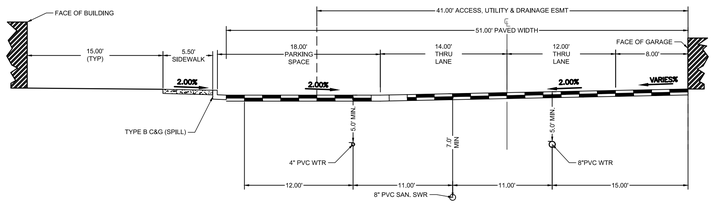
ELECTRIC METER	M
ELECTRIC PEDESTAL	E
ELECTRICAL CABINET	E
ELECTRIC VAULT	EV
FIBER OPTIC PULL BOX	F
FIBER OPTIC MANHOLE	FO
FIBER OPTIC PEDESTAL	FO
FIBER OPTIC SIGN	
FIBER OPTIC VAULT	FV
GAS METER	M
GAS SIGN	
GAS VAULT	
TELEPHONE CABINET	T
TELEPHONE MANHOLE	TM
TELEPHONE SIGNAL/MAST	T
TELEPHONE SIGN	
TELEPHONE PEDESTAL	T
TRANSFORMER	
LIGHT POLE	
FIBER OPTIC VAULT	FV

MISCELLANEOUS

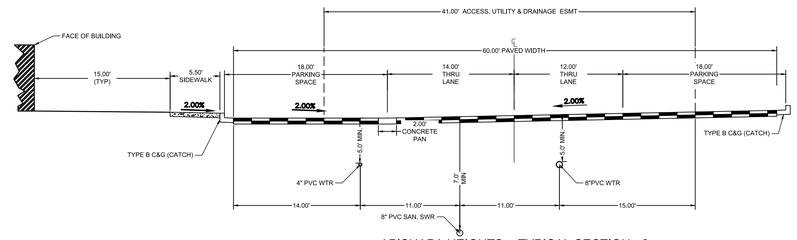
SIGN	
BOLLLARD	
ACCESSIBLE PARKING	

provide cross section/detail for the emergency fire access

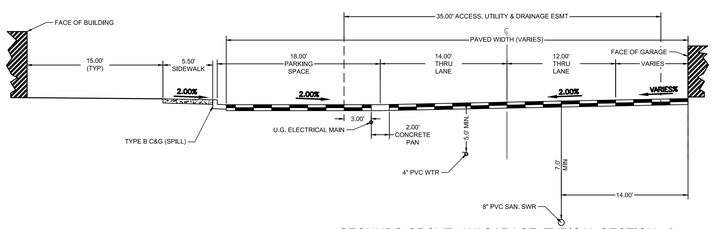
HR GREEN: ADDRESSED.



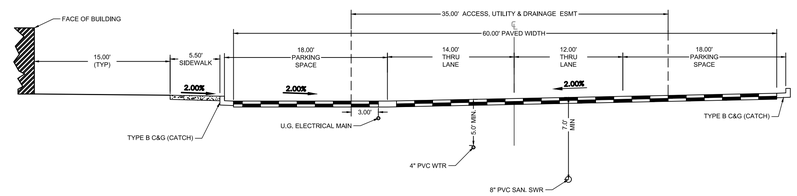
APISHAPA HEIGHTS - W/ GARAGE TYPICAL SECTION - 1
(PRIVATE DRIVEWAY)



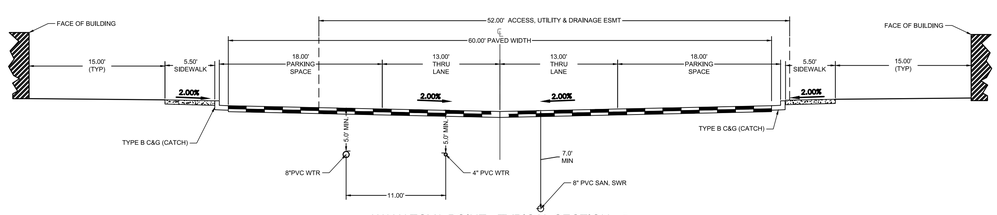
APISHAPA HEIGHTS - TYPICAL SECTION - 2
(PRIVATE DRIVEWAY)



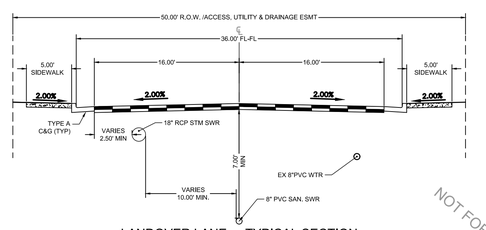
SEGUNDO GROVE - W/ GARAGE TYPICAL SECTION - 3
(PRIVATE DRIVEWAY)



SEGUNDO GROVE - TYPICAL SECTION - 4
(PRIVATE DRIVEWAY)



WAHATOYA POINT - TYPICAL SECTION - 5
(PRIVATE DRIVEWAY)



LANDOVER LANE - TYPICAL SECTION
(PUBLIC LOCAL - CITY OF FOUNTAIN)

NOT FOR CONSTRUCTION

DRAWN BY: CBM	JOB DATE: 4/5/2022	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
APPROVED: KMH	JOB NUMBER: 200541	IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD DATE: 4/5/2022		
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\EI _Paso_Co\Cover		

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
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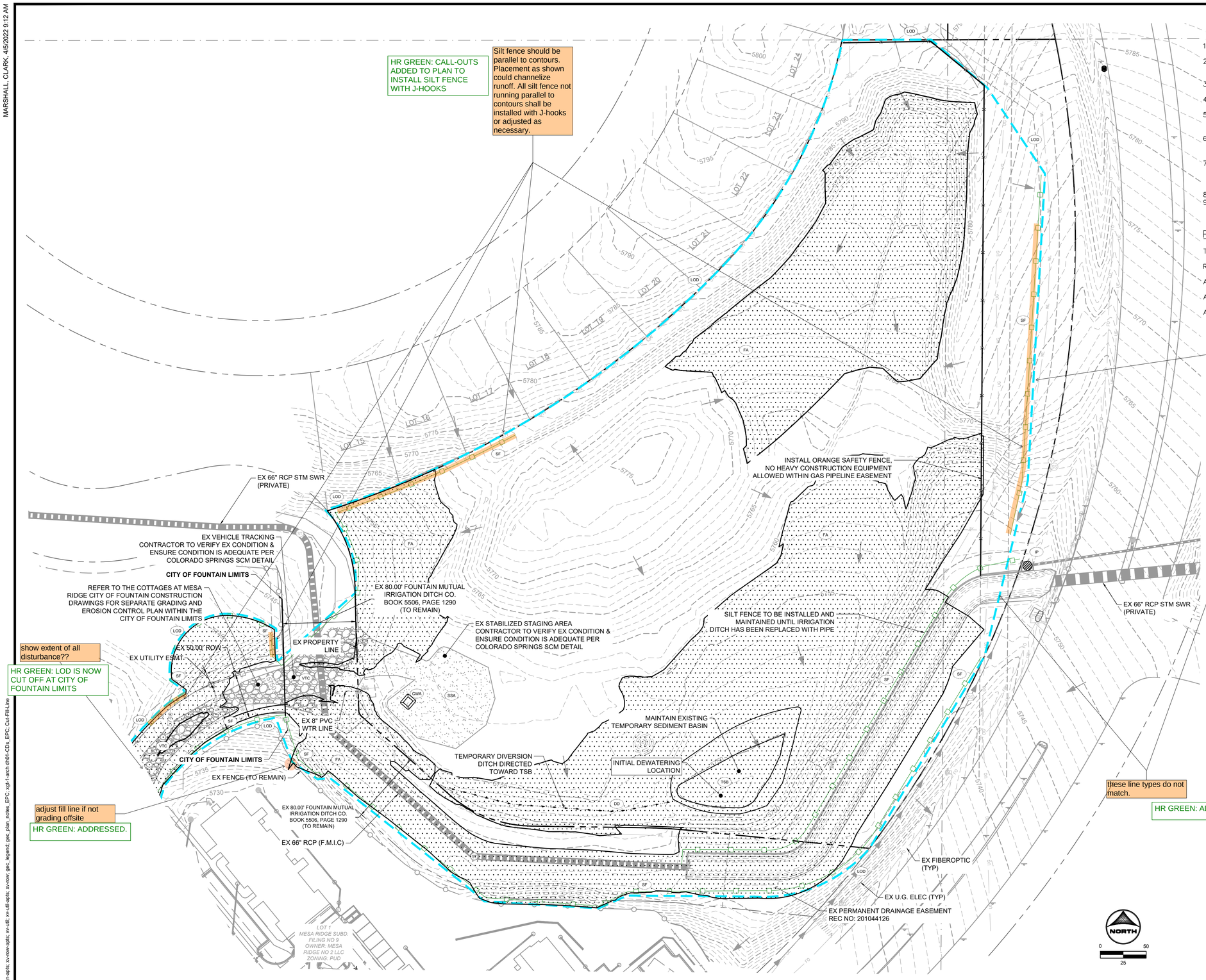
THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

EL PASO COUNTY CONSTRUCTION DOCUMENTS
TYPICAL SECTIONS

SHEET TS

2



GRADING & EROSION CONTROL PLAN NOTES:

1. SEE SHEETS 15 –18 FOR CITY OF COLORADO SPRINGS GRADING AND EROSION CONTROL DETAILS.
2. ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS PLAN MUST BE INSTALLED AND MAINTAINED PER THE COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.
3. AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL.
4. ALL 3:1 SLOPES MUST BE RECEIVE SLOPE TRACKING TREATMENT AND EROSION CONTROL BLANKET.
5. STOCKPILES REQUIRED DURING ONSITE CONSTRUCTION ACTIVITIES WILL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. STOCKPILING OF MATERIAL MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN.
6. NON–STRUCTURAL CONTROLS (I.E. STREET SWEEPING) WILL BE AT THE DISCRETION OF THE PROJECT'S CERTIFIED GEC ADMINISTRATOR THROUGHOUT THE DURATION OF LAND DISTURBING ACTIVITIES.
7. THERE ARE NO ANTICIPATED ASPHALT AND/OR CONCRETE BATCH PLANTS, OR MASONRY MIX STATIONS ASSOCIATED WITH THIS PROJECT. IF THE CONTRACTOR REQUIRES A ASPHALT/CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS, THESES PLANS WILL BE AMENDED AS REQUIRED.
8. THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE.
9. THE SITE IS NOT LOCATED IN THE FEMA 100–YR FLOODPLAIN

GEC Checklist Item i. Please add a note about existing vegetation at the Site.

HR GREEN: ADDRESSED.

PROJECT INFO:

TOTAL DISTURBANCE AREA = 11.33 AC

RECEIVING WATERS: JIMMY CAMP CREEK

ANTICIPATED START OF CONSTRUCTION: SPRING 2022

ANTICIPATED END OF LAND DISTURBANCE: WINTER 2022

ANTICIPATED FINAL STABILIZATION: SPRING 2023

define line type

GEC LEGEND:

CWA	CONCRETE WASHOUT AREA
CF	CONSTRUCTION FENCE
DD	DIVERSION DITCH
IP	INLET PROTECTION
CIP	CULVERT INLET PROTECTION
SCL	SEDIMENT CONTROL LOG
SF	SILT FENCE
SSA	STABILIZED STAGING AREA
SP	STOCKPILE MANAGEMENT
VTC	VEHICLE TRACKING CONTROL
LOD	LIMITS OF CONSTRUCTION ~~(CUT/FILL LIMIT)~~
SM	SEEDING AND MULCHING
FA	FILL AREA (ALL OTHER AREAS ARE CUT)
RS	ROCK SOCK
TSB	TEMPORARY SEDIMENT BASIN
ECB	EROSION CONTROL BLANKET
TW/BW	ELEVATION OF TOP/BOTTOM OF WALL
	PROP FLOW DIRECTION
	EX FLOW DIRECTION

If "limits of disturbance" and "construction boundary" are the same, change to "limits of construction/disturbance" or otherwise show as separate line types for each on the legend and figure.

HR GREEN: ITEM NAME CHANGED TO "LIMITS OF CONSTRUCTION/ DISTURBANCE

DRAWN BY: CBM	JOB DATE: 4/5/2022	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
APPROVED: KMH	JOB NUMBER: 200541		
CAD DATE: 4/5/2022			
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\EI _Paso_Co\GEC\GEC_ Initial			

NO.	DATE	BY	REVISION DESCRIPTION

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THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

GOODWIN KNIGHT

EL PASO COUNTY CONSTRUCTION DOCUMENTS
GEC- INITIAL PLAN

SHEET EC 3

GRADING & EROSION CONTROL PLAN NOTES:

1. SEE SHEETS 15 –18 FOR CITY OF COLORADO SPRINGS GRADING AND EROSION CONTROL DETAILS.
2. ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS PLAN MUST BE INSTALLED AND MAINTAINED PER THE COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.
3. AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL.
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6. NON–STRUCTURAL CONTROLS (I.E. STREET SWEEPING) WILL BE AT THE DISCRETION OF THE PROJECT'S CERTIFIED GEC ADMINISTRATOR THROUGHOUT THE DURATION OF LAND DISTURBING ACTIVITIES.
7. THERE ARE NO ANTICIPATED ASPHALT AND/OR CONCRETE BATCH PLANTS, OR MASONRY MIX STATIONS ASSOCIATED WITH THIS PROJECT. IF THE CONTRACTOR REQUIRES A ASPHALT/CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS, THESES PLANS WILL BE AMENDED AS REQUIRED.
8. THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE.
9. THE SITE IS NOT LOCATED IN THE FEMA 100–YR FLOODPLAIN

PROJECT INFO:

TOTAL DISTURBANCE AREA = 11.33 AC

RECEIVING WATERS: JIMMY CAMP CREEK

ANTICIPATED START OF CONSTRUCTION: SPRING 2022

ANTICIPATED END OF LAND DISTURBANCE: WINTER 2022

ANTICIPATED FINAL STABILIZATION: SPRING 2023

GEC LEGEND:

	CWA	CONCRETE WASHOUT AREA
	CF	CONSTRUCTION FENCE
	DD	DIVERSION DITCH
	IP	INLET PROTECTION
	CIP	CULVERT INLET PROTECTION
	SCL	SEDIMENT CONTROL LOG
	SF	SILT FENCE
	SSA	STABILIZED STAGING AREA
	SP	STOCKPILE MANAGEMENT
	VTC	VEHICLE TRACKING CONTROL
	LOD	LIMITS OF CONSTRUCTION (CUT/FILL LIMIT)
	SM	SEEDING AND MULCHING
	FA	FILL AREA (ALL OTHER AREAS ARE CUT)
	RS	ROCK SOCK
	TSB	TEMPORARY SEDIMENT BASIN
	ECB	EROSION CONTROL BLANKET
TW/BW		ELEVATION OF TOP/BOTTOM OF WALL
		PROP FLOW DIRECTION
		EX FLOW DIRECTION

remove from this sheet for clarity

HR GREEN: ADDRESSED: FILL AREA NO LONGER SHOWN ON THIS SHEET

NOT FOR CONSTRUCTION

DRAWN BY: CBM	JOB DATE: 4/5/2022	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
APPROVED: KMH	JOB NUMBER: 200541		
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EL PASO COUNTY, COLORADO

GOODWIN KNIGHT

EL PASO COUNTY CONSTRUCTION DOCUMENTS
GEC- INTERIM PLAN

SHEET EC

MARSHALL, CLARK, 4/5/2022 9:13 AM

Provide additional detail/cross sections for the proposed retaining walls throughout the development. It was noted on the PUDSP that additional detail would be provided at the subsequent stage of the development.

HR GREEN: DETAILED TOP AND BOTTOM OF WALL GRADES ARE PROVIDED ON SHEETS 11-19, TYPICAL WALL SECTIONS/DETAILS HAVE BEEN ADDDED (SEE SHEET 32)

GEC LEGEND:

	CWA	CONCRETE WASHOUT AREA
	CF	CONSTRUCTION FENCE
	DD	DIVERSION DITCH
	IP	INLET PROTECTION
	CIP	CULVERT INLET PROTECTION
	SCL	SEDIMENT CONTROL LOG
	SF	SILT FENCE
	SSA	STABILIZED STAGING AREA
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TW/BW		ELEVATION OF TOP/BOTTOM OF WALL
		PROP FLOW DIRECTION
		EX FLOW DIRECTION

remove from this sheet for clarity

HR GREEN: ADDRESSED: FILL AREA NO LONGER SHOWN ON THIS SHEET

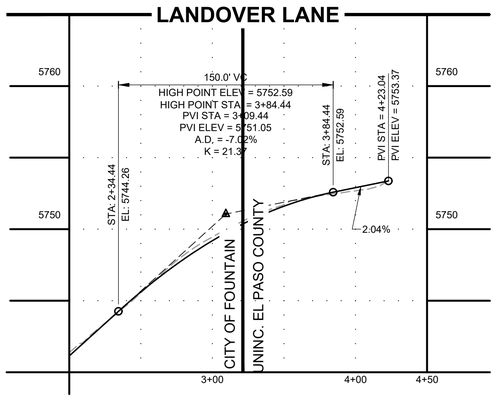
CBM 4/5/2022
KMH 200541
4/5/2022
J:\2020\200541\CAD\Dwgs\C\CD\El _Paso_Co\GEC\GEC_Vertical

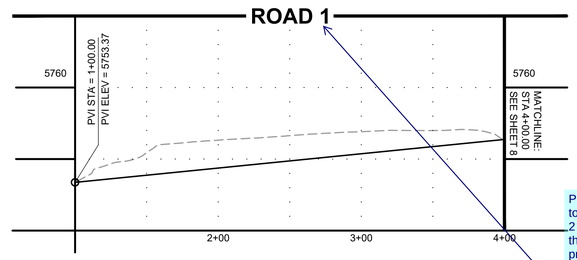
EL PASO COUNTY CONSTRUCTION DOCUMENTS

GEC- VERTICAL PLAN

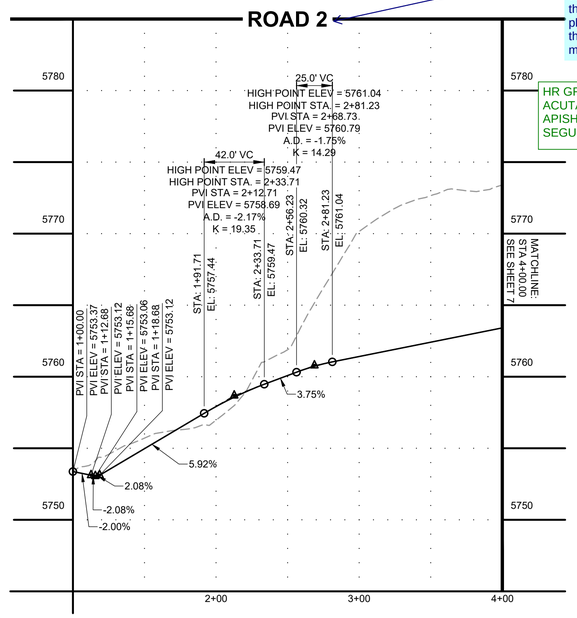
EC 5

HR GREEN Xrefs: xv-dsgn; xv-dsgn-apts; xv-row-apts; xv-util; xv-util-apts; xv-row; gec_legend; GEC_initial; xc-row; xc-dsgn; xc-dsgn-ftn; GEC_Interim; xc-util; gec_plan_notes_EPC; xgt-1-arch dh01-CDs_EPC

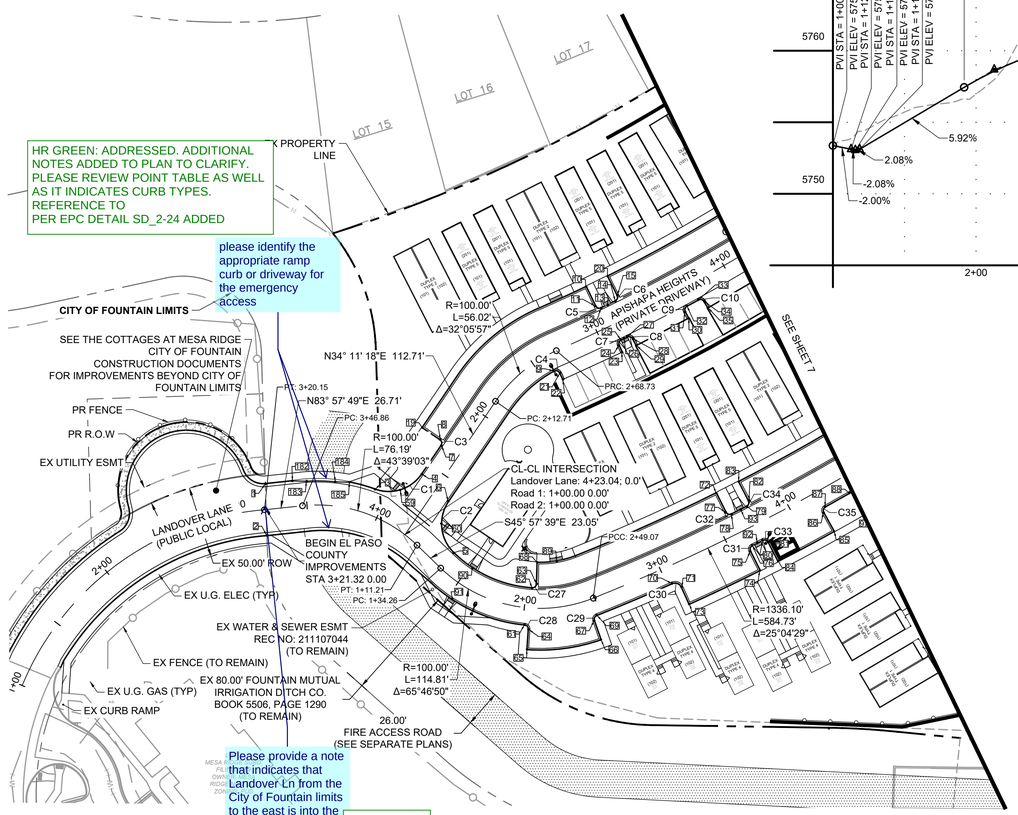




Please revise the title to private drive 1 and 2 and also provide the name of the private drive. Typical throughout the plans. I have clouded the titles where i found them throughout the plans but revise any that i may have missed.



HR GREEN: REPLACED WITH ACUTAL STREET NAMES I.E. APISHPAPA HEIGHTS, SEGUNDO GROVE, ETC



HR GREEN: ADDRESSED. ADDITIONAL NOTES ADDED TO PLAN TO CLARIFY. PLEASE REVIEW POINT TABLE AS WELL AS IT INDICATES CURB TYPES. REFERENCE TO PER EPC DETAIL SD_2-24 ADDED

please identify the appropriate ramp curb or driveway for the emergency access

Please provide a note that indicates that Landover Ln from the City of Fountain limits to the east is into the site is a private roadway.

HR GREEN: ADDRESSED

POINT TABLE

No.	DESC.	ALIGNMENT	STATION	OFFSET	FL EL.
1	PCR/ BEGIN TYPE 1 C&G	Landover Lane	STA 3+22.73	18.0' L	5750.38
2	BEGIN TYPE 1 C&G	Landover Lane	STA 3+20.15	18.0' R	5749.90
3	PCR	Landover Lane	STA 3+92.13	18.0' L	5752.24
4	PCR	Road 1	STA 1+41.66	14.0' L	5753.91
5	PCR	Road 1	STA 1+08.73	35.2' R	5753.34
6	PCR	Road 1	STA 1+36.32	12.0' R	5754.12
7	PC	Road 1	STA 1+65.86	14.0' L	5755.57
8	PT	Road 1	STA 1+68.86	17.0' L	5755.97
9	PC	Road 1	STA 2+60.53	12.0' R	5760.74
10	PI	Road 1	STA 3+06.84	32.0' L	5761.63
11	PC	Road 1	STA 3+06.84	17.0' L	5761.34
12	PT	Road 1	STA 3+09.89	14.0' L	5761.37
13	HC RAMP MP	Road 1	STA 3+15.07	14.0' L	5761.50
14	PC	Road 1	STA 3+21.08	14.0' L	5761.59
15	PT	Road 1	STA 3+24.12	17.0' L	5761.68
19	PI	Road 1	STA 1+68.86	32.0' L	5756.25
20	PI	Road 1	STA 3+24.12	32.0' L	5762.02
21	PT	Road 1	STA 2+64.06	15.1' R	5761.37
22	END TYPE 3 C&G	Road 1	STA 2+63.88	20.2' R	5762.00
23	BEGIN TYPE 3 C&G	Road 1	STA 3+09.65	20.2' R	5762.00
24	PC	Road 1	STA 3+09.74	14.9' R	5761.90
25	PT	Road 1	STA 3+12.71	12.0' R	5761.90
26	HC RAMP MP	Road 1	STA 3+15.06	12.0' R	5762.01
27	PC	Road 1	STA 3+17.41	12.0' R	5762.10
28	PT	Road 1	STA 3+20.38	14.9' R	5762.50
29	END TYPE 3 C&G	Road 1	STA 3+20.48	20.3' R	5763.10
30	BEGIN TYPE 3 C&G	Road 1	STA 3+60.90	20.1' R	5763.10
31	PC	Road 1	STA 3+60.90	15.0' R	5762.95
32	PT	Road 1	STA 3+63.86	12.0' R	5762.94
33	PC	Road 1	STA 3+72.97	12.0' R	5763.21
34	PT	Road 1	STA 3+75.93	14.9' R	5763.60
35	END TYPE 3 C&G	Road 1	STA 3+76.03	20.2' R	5764.20
59	HC RAMP MP	Road 1	STA 1+23.99	20.3' L	5753.04
60	HC RAMP MP	Road 1	STA 1+20.75	16.7' R	5753.21
61	PC	Road 2	STA 2+01.40	12.0' R	5754.65

POINT TABLE

No.	DESC.	ALIGNMENT	STATION	OFFSET	FL EL.
62	PC	Road 2	STA 2+04.49	14.0' L	5754.16
63	PT	Road 2	STA 2+08.11	17.1' L	5754.29
64	PT	Road 2	STA 2+04.01	15.0' R	5754.77
65	PI	Road 2	STA 2+04.01	29.0' R	5755.03
66	PI	Road 2	STA 2+44.56	29.0' R	5755.49
67	PC	Road 2	STA 2+44.56	15.0' R	5755.23
68	PI	Road 2	STA 2+08.11	32.0' L	5754.58
69	PT	Road 2	STA 2+47.17	12.0' R	5755.10
70	PC	Road 2	STA 3+03.57	12.0' R	5755.67
71	PT	Road 2	STA 3+08.51	17.0' R	5755.81
72	PI	Road 2	STA 3+58.87	32.0' L	5756.05
73	PI	Road 2	STA 3+08.51	30.0' R	5756.05
74	PI	Road 2	STA 3+62.04	30.0' R	5756.71
75	PC	Road 2	STA 3+62.04	15.0' R	5756.28
76	PT	Road 2	STA 3+65.01	12.0' R	5756.27
77	PC	Road 2	STA 3+58.87	17.0' L	5755.75
78	PT	Road 2	STA 3+61.91	14.0' L	5755.73
79	PC	Road 2	STA 3+73.97	14.0' L	5755.85
80	PC	Road 2	STA 3+73.06	12.0' R	5756.34
81	PT	Road 2	STA 3+76.02	15.0' R	5756.43
82	PT	Road 2	STA 3+77.00	17.0' L	5755.93
83	PI	Road 2	STA 3+77.00	32.0' L	5756.25
84	PI	Road 2	STA 3+75.97	30.0' R	5756.75
85	PI	Road 2	STA 4+19.28	30.0' R	5757.17
86	PC	Road 2	STA 4+19.28	15.0' R	5757.12
87	PT	Road 2	STA 4+22.25	12.0' R	5756.86
88	PC	Road 2	STA 4+41.55	12.0' R	5757.05
89	HC RAMP MP	Road 2	STA 2+28.22	32.0' L	5754.75
90	HC RAMP MP	Road 2	STA 1+52.86	14.0' L	5753.57
92	HC RAMP MP	Road 2	STA 3+69.03	12.0' R	5756.30
93	HC RAMP MP	Road 2	STA 3+69.10	14.0' L	5755.85
182	END TYPE 1 C&G	Landover Lane	STA 3+41.54	18.0' L	5750.83
183	BEGIN TYPE 5 C&G	Landover Lane	STA 3+50.87	16.8' L	5751.26
184	END TYPE 5 C&G	Landover Lane	STA 3+67.99	16.8' L	5751.81
185	BEGIN TYPE 1 C&G	Landover Lane	STA 3+76.46	18.0' L	5752.39

Please revise to drive1 and 2

HR GREEN: REPLACED WITH ACUTAL STREET NAMES I.E. APISHPAPA HEIGHTS, SEGUNDO GROVE, ETC

Curve Table

Curve #	Length	Radius	Delta	Centerline/Flowline
C1	37.00	28.00	75°42'56"	Flowline
C2	39.17	28.00	80°08'56"	Flowline
C3	4.71	3.00	90°00'00"	Flowline
C4	4.91	3.00	93°40'48"	Flowline
C5	4.72	3.00	90°08'58"	Flowline
C6	4.72	3.00	90°08'58"	Flowline
C7	4.65	3.00	88°51'25"	Flowline
C8	4.65	3.00	88°45'05"	Flowline
C9	4.71	3.00	89°52'44"	Flowline
C10	4.65	3.00	88°45'05"	Flowline
C27	4.82	3.00	92°04'17"	Flowline
C28	4.63	3.00	88°30'19"	Flowline
C29	4.63	3.00	88°30'19"	Flowline
C30	7.84	5.00	89°47'18"	Flowline
C31	4.71	3.00	89°52'22"	Flowline
C32	4.72	3.00	90°07'49"	Flowline
C33	4.72	3.00	90°03'49"	Flowline
C34	4.72	3.00	90°07'49"	Flowline

EL PASO COUNTY ENGINEER
CONSTRUCTION DRAWING DESIGN APPROVAL

PROJECT NUMBER:

WORK ORDER NUMBER:

SHEET _____ OF _____

APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE ABOVE AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

NOT FOR CONSTRUCTION

DRAWN BY: CBM JOB DATE: 4/5/2022
APPROVED: KMH JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\El_Paso_Co\Roadway

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
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THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

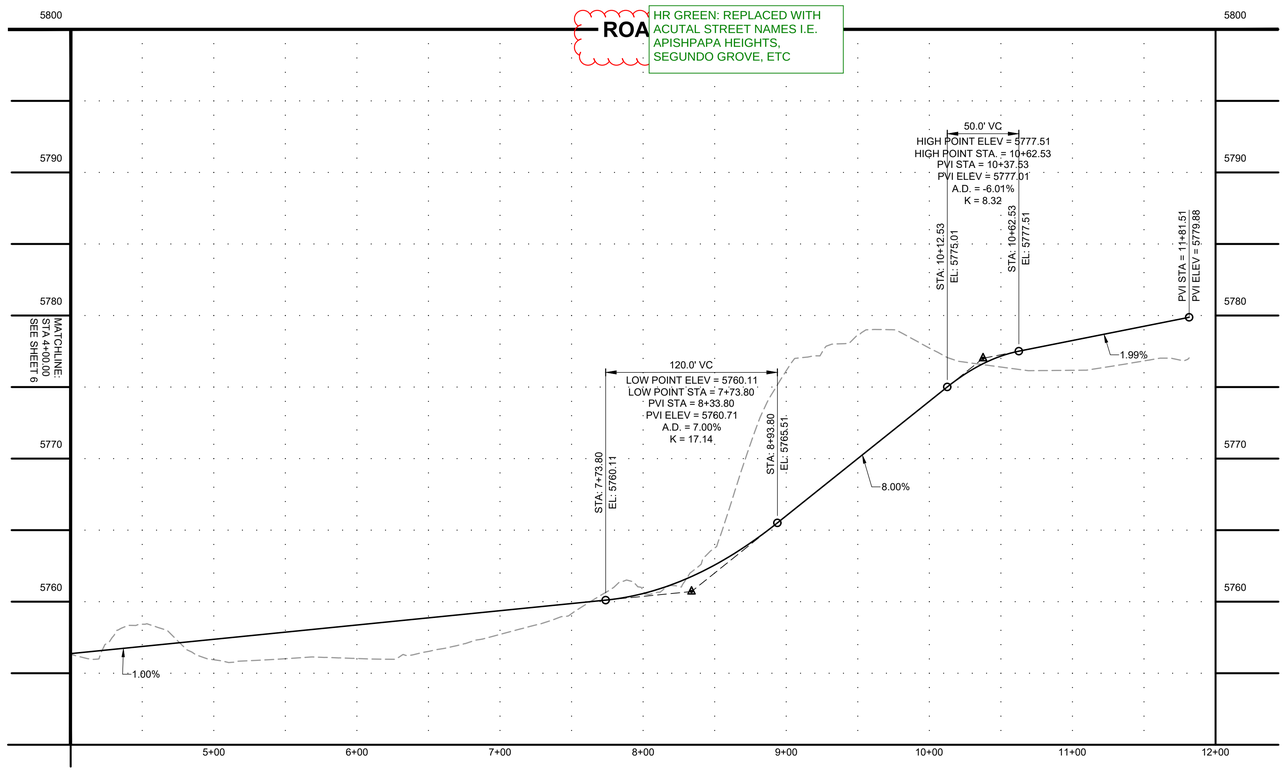
EL PASO COUNTY CONSTRUCTION DOCUMENTS
ROADWAY PLAN & PROFILE

SHEET RD

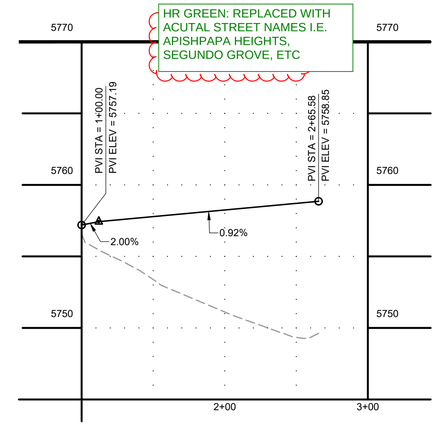
6

ROA

HR GREEN: REPLACED WITH ACUTAL STREET NAMES I.E. APISHPAPA HEIGHTS, SEGUNDO GROVE, ETC

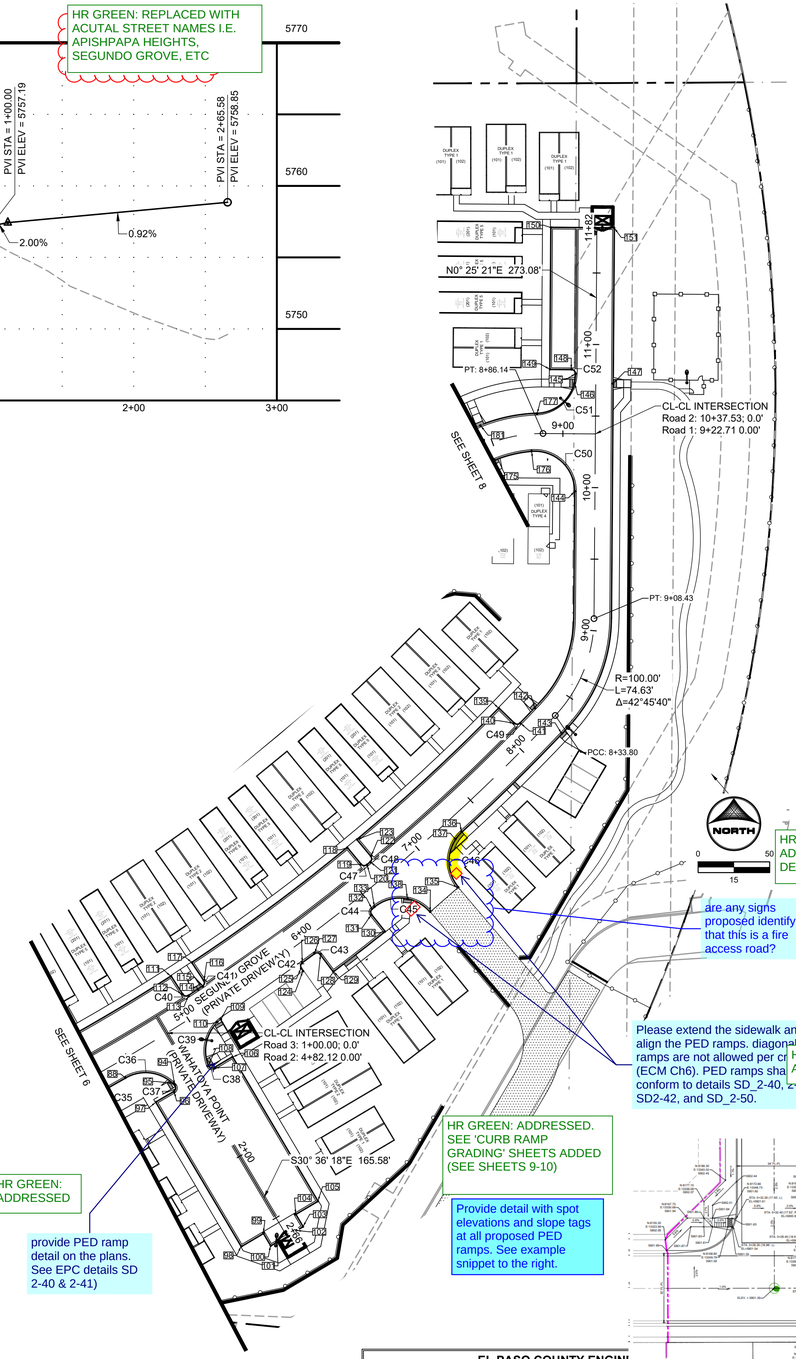


HR GREEN: REPLACED WITH ACUTAL STREET NAMES I.E. APISHPAPA HEIGHTS, SEGUNDO GROVE, ETC



0 50 HORIZONTAL

0 5 VERTICAL



HR GREEN: SIGNES ADDED, REFER TO SITE DEVELOPMENT PLAN

are any signs proposed identifying that this is a fire access road?

Please extend the sidewalk and align the PED ramps. diagonal ramps are not allowed per cr (ECM Ch6). PED ramps sha conform to details SD_2-40, 2-41, SD2-42, and SD_2-50.

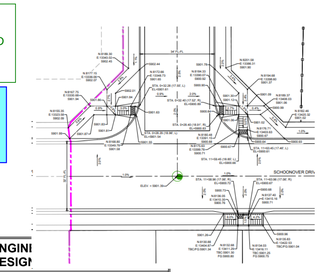
HR GREEN: ADDRESSED

HR GREEN: ADDRESSED. SEE 'CURB RAMP GRADING' SHEETS ADDED (SEE SHEETS 9-10)

Provide detail with spot elevations and slope tags at all proposed PED ramps. See example snippet to the right.

HR GREEN: ADDRESSED

provide PED ramp detail on the plans. See EPC details SD 2-40 & 2-41)



POINT TABLE

No.	DESC.	ALIGNMENT	STATION	OFFSET	FL EL.
94	PCC	R	+68.15	33.9' R	5757.93
95	HC RAMP MP	R	+67.77	32.3' R	5757.90
96	PT	Road 2	STA 4+65.26	37.6' R	5758.10
97	PI	Road 2	STA 4+51.25	37.5' R	5758.37
98	PI	Road 3	STA 2+54.80	31.0' R	5759.52
99	PI	Road 3	STA 2+54.80	13.0' R	5759.15
100	PI	Road 3	STA 2+64.80	13.0' R	5759.35
101	END TYPE 3 C&G	Road 3	STA 2+64.80	7.8' R	5759.42
102	BEGIN TYPE 3 C&G	Road 3	STA 2+64.80	7.8' L	5759.42
103	PI	Road 3	STA 2+64.80	13.0' L	5759.35
104	PI	Road 3	STA 2+54.80	13.0' L	5759.15
105	PI	Road 3	STA 2+54.80	31.0' L	5759.51
106	PI	Road 2	STA 5+11.52	38.7' R	5758.36
107	PC	Road 2	STA 4+97.23	38.2' R	5758.10
108	PCC	Road 2	STA 4+94.45	34.7' R	5757.96
109	END TYPE 3 C&G	Road 2	STA 5+19.07	12.1' R	5758.32
110	HC RAMP MP	Road 2	STA 5+15.83	12.5' R	5757.79
111	PI	Road 2	STA 5+06.10	32.0' L	5757.52
112	PC	Road 2	STA 5+06.10	17.0' L	5757.22
113	PT	Road 2	STA 5+09.13	14.0' L	5757.22
114	HC RAMP MP	Road 2	STA 5+17.06	14.0' L	5757.30
115	PC	Road 2	STA 5+21.08	14.0' L	5757.33
116	PT	Road 2	STA 5+24.12	17.0' L	5757.40
117	PI	Road 2	STA 5+24.12	32.0' L	5757.72
118	PI	Road 2	STA 6+62.37	32.0' L	5759.09
119	PC	Road 2	STA 6+62.37	17.0' L	5758.78
120	PT	Road 2	STA 6+65.41	14.0' L	5758.77
121	PC	Road 2	STA 6+68.55	14.0' L	5758.80
122	PT	Road 2	STA 6+71.59	17.0' L	5758.87
123	PI	Road 2	STA 6+71.59	32.0' L	5759.20

HR GREEN: ADDRESSED

No.	DESC.	ALIGN	STATION	OFFSET	FL EL.
124	BEGIN TYPE 3 C&G	Road 2	STA 5+84.69	17.2' R	5758.57
125	PC	Road 2	STA 5+84.73	14.9' R	5758.52
126	PT	Road 2	STA 5+87.70	12.0' R	5758.49
127	PC	Road 2	STA 5+98.26	12.0' R	5758.59
128	PT	Road 2	STA 6+01.23	15.0' R	5758.68
129	PI	Road 2	STA 6+01.23	30.0' R	5758.99
130	PI	Road 2	STA 6+45.82	30.0' R	5759.53
131	PC	Road 2	STA 6+45.82	15.0' R	5759.21
132	PT	Road 2	STA 6+48.79	12.0' R	5759.08
133	PCR	Road 2	STA 6+51.00	12.0' R	5759.10
134	END TYPE 3 C&G	Road 2	STA 6+78.19	39.6' R	5758.87
135	BEGIN TYPE 3 C&G	Road 2	STA 7+03.45	39.3' R	5759.39
136	PCR	Road 2	STA 7+30.63	12.0' R	5759.94
137	HC RAMP MP	Road 2	STA 7+23.96	12.8' R	5759.82
138	HC RAMP MP	Road 2	STA 6+72.17	22.3' R	5759.54
139	PI	Road 2	STA 8+09.90	32.0' L	5760.72
140	PC	Road 2	STA 8+09.90	17.0' L	5760.74
141	PT	Road 2	STA 8+12.94	14.0' L	5760.61
142	HC RAMP MP	Road 2	STA 8+27.83	14.0' L	5761.16
143	HC RAMP MP	Road 2	STA 8+27.77	12.0' R	5761.74
144	PCR	Road 2	STA 9+97.28	14.0' L	5773.45
145	PCR	Road 2	STA 10+79.52	14.0' L	5777.52
146	HC RAMP MP	Road 2	STA 10+72.79	14.8' L	5777.39
147	HC RAMP MP	Road 2	STA 10+72.78	12.0' R	5778.25
148	PT	Road 2	STA 10+82.51	17.0' L	5777.64
149	PI	Road 2	STA 10+82.51	32.0' L	5777.95
150	PT	Road 2	STA 11+81.51	32.0' L	5779.97
151	PT	Road 2	STA 11+81.51	12.0' R	5780.27
176	PCR	Road 1	STA 8+77.07	12.0' R	5775.00
177	PCR	Road 1	STA 8+82.31	14.0' L	5774.66

Curve Table

Curve #	Length	Radius	Delta
C36	37.60	28.00	76°56'16"
C37	5.37	3.00	102°38'48"
C38	5.17	3.00	98°45'33"
C39	36.19	28.00	74°03'36"
C40	4.72	3.00	90°07'49"
C41	4.72	3.00	90°07'49"
C42	4.66	3.00	88°54'28"
C43	4.71	3.00	89°52'22"
C44	4.71	3.00	89°52'22"
C45	43.27	28.00	88°32'23"
C46	43.03	28.00	88°02'44"
C47	4.72	3.00	90°07'49"
C48	4.72	3.00	90°07'49"
C49	4.72	3.00	90°07'49"
C50	46.52	28.00	95°11'48"
C51	43.01	28.00	88°00'41"
C52	4.70	3.00	89°47'43"

EL PASO COUNTY ENGINI
CONSTRUCTION DRAWING DESIGI

PROJECT NUMBER:

WORK ORDER NUMBER:

SHEET _____ OF _____

APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE ABOVE AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

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APPROVED: KMH JOB NUMBER: 200541
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CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\El _Paso_Co\Roadway

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7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
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EL PASO COUNTY, COLORADO

GOODWIN KNIGHT

EL PASO COUNTY CONSTRUCTION DOCUMENTS
ROADWAY PLAN & PROFILE

SHEET RD 7

POINT TABLE

No.	DESC.	ALIGNMENT	STATION	OFFSET	FL EL.
16	PI	Road 1	STA 4+35.17	32.0' L	5764.19
17	PC	Road 1	STA 4+35.22	17.0' L	5763.90
18	PT	Road 1	STA 4+38.27	14.0' L	5763.93
36	BEGIN TYPE 3 C&G	Road 1	STA 4+35.92	27.6' R	5764.62
37	PC	Road 1	STA 4+36.32	14.9' R	5764.42
38	PT	Road 1	STA 4+39.28	12.0' R	5764.43
39	HC RAMP MP	Road 1	STA 4+41.83	12.0' R	5764.52
40	PC	Road 1	STA 4+53.20	12.0' R	5764.72
41	PT	Road 1	STA 4+56.16	15.0' R	5764.84
42	HC RAMP MP	Road 1	STA 4+41.81	14.0' L	5764.01
43	PC	Road 1	STA 4+51.48	14.0' L	5764.19
44	PT	Road 1	STA 4+54.53	17.0' L	5764.29
45	PI	Road 1	STA 4+54.53	32.0' L	5764.62
46	PI	Road 1	STA 4+56.16	29.0' R	5765.15
47	PI	Road 1	STA 5+63.15	29.0' R	5767.26
48	PC	Road 1	STA 5+63.15	15.0' R	5766.98
49	PT	Road 1	STA 5+66.11	12.0' R	5766.97
50	PC	Road 1	STA 5+69.10	12.0' R	5767.03
51	PT	Road 1	STA 5+72.07	15.0' R	5767.15

POINT TABLE

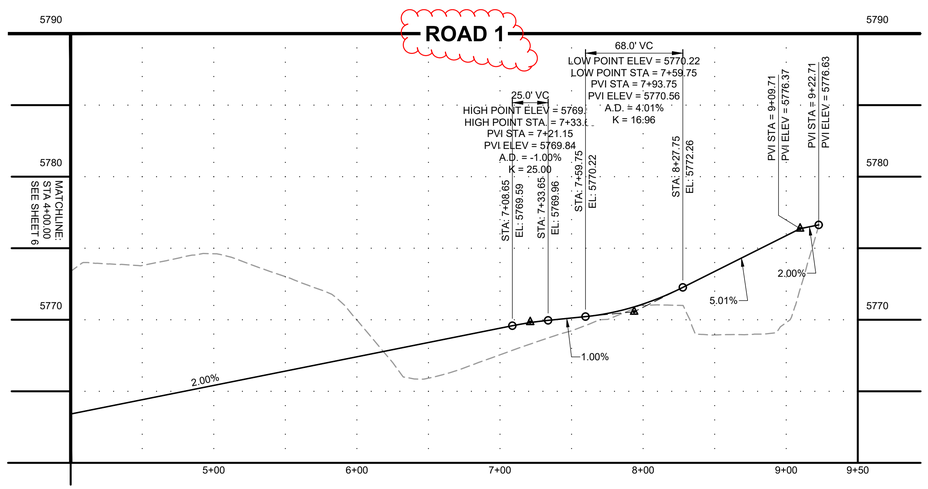
No.	DESC.	ALIGNMENT	STATION	OFFSET	FL EL.
52	PI	Road 1	STA 5+72.07	29.0' R	5767.47
53	PI	Road 1	STA 5+84.08	32.0' L	5767.17
54	PC	Road 1	STA 5+84.08	17.0' L	5766.87
55	PT	Road 1	STA 5+87.12	14.0' L	5766.89
56	PC	Road 1	STA 5+90.29	14.0' L	5766.96
57	PT	Road 1	STA 5+93.33	17.0' L	5767.06
58	PI	Road 1	STA 5+93.33	32.0' L	5767.40
152	PI	Road 1	STA 6+61.09	29.0' R	5769.21
153	PC	Road 1	STA 6+61.09	15.0' R	5768.93
154	PT	Road 1	STA 6+64.05	12.0' R	5768.93
155	PC	Road 1	STA 6+73.94	12.0' R	5769.22
156	PT	Road 1	STA 6+76.90	14.9' R	5769.61
157	END TYPE 3 C&G	Road 1	STA 6+76.99	20.2' R	5770.19
158	PI	Road 1	STA 7+32.41	32.0' L	5770.04
159	PC	Road 1	STA 7+32.41	17.0' L	5769.73
160	PT	Road 1	STA 7+35.49	14.0' L	5769.72
161	HC RAMP MP	Road 1	STA 7+39.69	14.0' L	5769.80
162	PC	Road 1	STA 7+50.07	14.0' L	5769.91
163	PT	Road 1	STA 7+53.15	17.0' L	5770.01

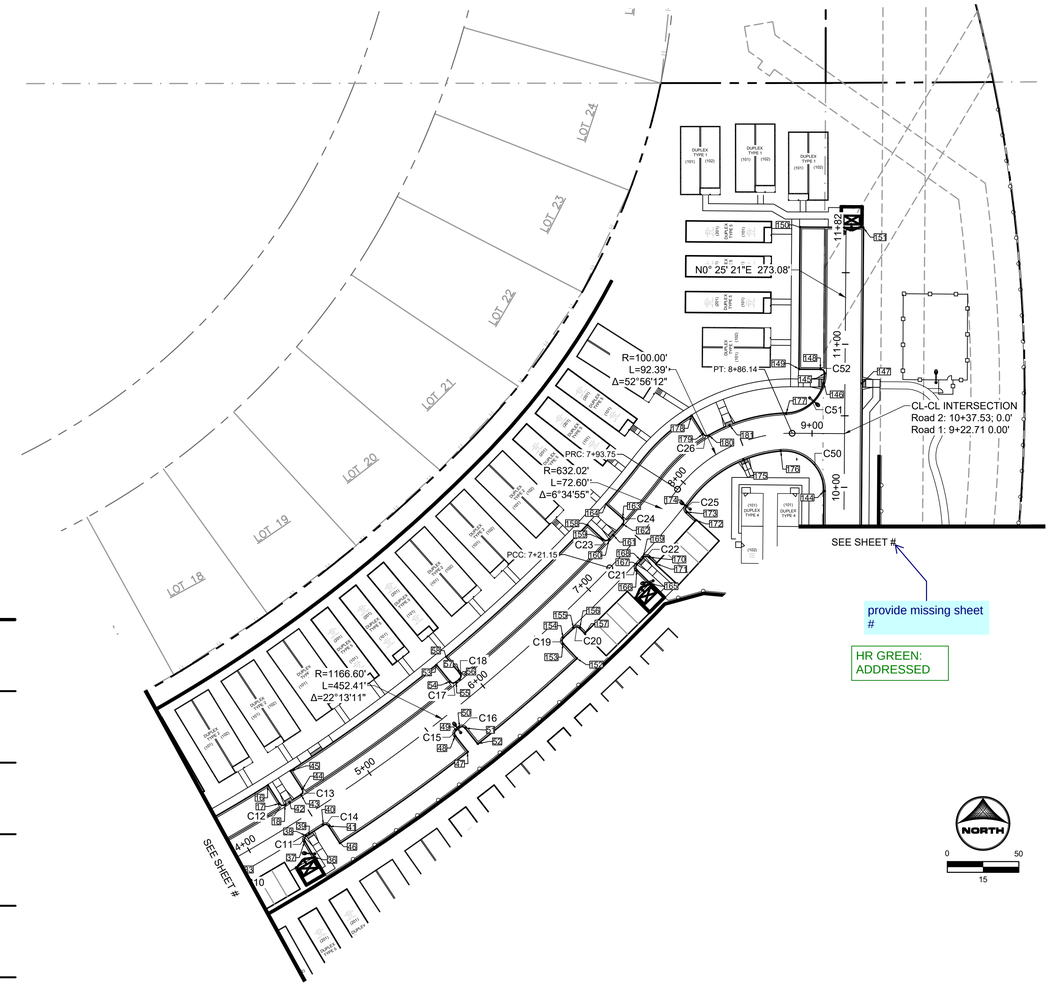
POINT TABLE

No.	DESC.	ALIGNMENT	STATION	OFFSET	FL EL.
164	PI	Road 1	STA 7+53.15	32.0' L	5770.27
165	BEGIN TYPE 3 C&G	Road 1	STA 7+32.37	27.8' R	5770.85
166	PC	Road 1	STA 7+32.86	14.9' R	5770.78
167	PT	Road 1	STA 7+35.79	12.0' R	5770.42
168	HC RAMP MP	Road 1	STA 7+39.67	12.0' R	5770.36
169	PC	Road 1	STA 7+42.10	12.0' R	5770.34
170	PT	Road 1	STA 7+45.03	15.0' R	5770.61
171	END TYPE 3 C&G	Road 1	STA 7+44.96	21.6' R	5771.12
172	BEGIN TYPE 3 C&G	Road 1	STA 7+84.63	23.4' R	5771.12
173	PC	Road 1	STA 7+85.27	14.8' R	5771.00
174	PT	Road 1	STA 7+88.19	12.0' R	5771.01
175	HC RAMP MP	Road 1	STA 8+46.71	12.0' R	5773.47
176	PCR	Road 1	STA 8+77.07	12.0' R	5775.00
177	PCR	Road 1	STA 8+82.31	14.0' L	5774.66
178	PI	Road 1	STA 8+29.95	32.0' L	5772.43
179	PC	Road 1	STA 8+29.95	17.0' L	5772.25
180	PT	Road 1	STA 8+32.51	14.0' L	5772.20
181	HC RAMP MP	Road 1	STA 8+46.69	14.0' L	5772.90

Curve Table

Curve #	Length	Radius	Delta
C11	4.61	3.00	87°59'29"
C12	4.71	3.00	89°57'01"
C13	4.72	3.00	90°08'58"
C14	4.70	3.00	89°51'16"
C15	4.70	3.00	89°51'16"
C16	4.70	3.00	89°51'16"
C17	4.72	3.00	90°08'58"
C18	4.72	3.00	90°08'58"
C19	4.70	3.00	89°51'16"
C20	4.65	3.00	88°51'27"
C21	4.58	3.00	87°29'50"
C22	4.74	3.00	90°26'34"
C23	4.73	3.00	90°16'46"
C24	4.73	3.00	90°16'46"
C25	4.47	3.00	85°22'45"
C26	4.64	3.00	88°31'51"





provide missing sheet #

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EL PASO COUNTY ENGINEER
CONSTRUCTION DRAWING DESIGN APPROVAL

PROJECT NUMBER:

WORK ORDER NUMBER:

SHEET _____ OF _____

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EL PASO COUNTY CONSTRUCTION DOCUMENTS
ROADWAY PLAN & PROFILE

SHEET RD

FSD SANITARY SEWER CONSTRUCTION NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH FOUNTAIN SANITATION DISTRICT DESIGN CRITERIA AND CONSTRUCTION SPECIFICATIONS.
2. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING PIPE INVERTS PRIOR TO INSTALLATION OF NEW SANITARY SEWER SYSTEM.
3. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES DURING THE WORK. PRIOR TO ANY EXCAVATION, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT 811 AT LEAST TWO WORKING DAYS PRIOR TO DIGGING.
4. ALL PROPOSED SANITARY SEWER PIPELINES WITHIN THIS PROJECT SHALL BE AIR TESTED AND VIDEO INSPECTED PER THE FOUNTAIN SANITATION DISTRICT (FSD) STANDARD SPECIFICATIONS,
5. ALL AS-CONSTRUCTED RECORDS AND OTHER REQUIREMENTS OF THE SUBDIVISION PUBLIC IMPROVEMENTS AGREEMENT SHALL BE COMPLETED PRIOR TO CONSIDERATION OF ACCEPTANCE OF THE SYSTEM BY THE DISTRICT,
6. DURING THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM THE CONTRACTOR SHALL HAVE IN HIS/HER POSSESSION AT LEAST ONE "APPROVED FOR CONSTRUCTION" SET OF UPDATED PLANS AT ALL TIMES. APPROVED FIELD MODIFICATIONS TO PLAN SETS SHALL BE CLEARLY IDENTIFIED IN RED INK ON THE PLANS BY THE CONTRACTOR PER FIELD CONSTRUCTION. THESE AS-BUILT CHANGES SHALL BE DATED AND SUBMITTED TO THE ENGINEER OF RECORD. THE ENGINEER OF RECORD SHALL PREPARE A COMPLETE SET OF "AS CONSTRUCTED" DRAWINGS AND DELIVER THE SETS TO THE FOUNTAIN SANITATION DISTRICT PRIOR TO FINAL ACCEPTANCE OF THE SANITARY SEWER SYSTEM.
7. WITH PRIOR APPROVAL, THE CONTRACTOR SHALL PROVIDE 3 DEGREE BENDS ON ALL CURVILINEAR SANITARY SEWER PIPE AT THE LOCATIONS DETAILED ON THE APPROVED CONSTRUCTION PLANS.
8. SANITARY SEWER SERVICE LINES SHALL BE LOCATED PER THE DETAIL ON THE UTILITY SERVICE PLAN, THE DIMENSIONS GIVEN AT EACH LOT WHERE A TYPICAL INSTALLATION IS REQUIRED OR AT THE DIRECTION OF THE FOUNTAIN SANITATION DISTRICT REPRESENTATIVE.
9. SERVICE STUBS SHALL BE INSTALLED A MINIMUM OF TEN (10) FEET INTO THE PROPERTY, UNLESS OTHERWISE SHOWN, AND THE END OF THE STUB SHALL BE MARKED WITH A 2"X4"X12' STEEL OR WOODEN POST PAINTED GREEN.
10. OVERLOT GRADING AND STREET SUBGRADE MUST BE WITHIN ± ONE (1) FOOT PRIOR TO ANY UTILITY INSTALLATION.
11. CONTRACTOR TO CONSTRUCT ALL MANHOLES AND STRUCTURES TO FINISHED GRADE.
12. ALL SANITARY SERVICE PIPE TO BE GREEN GASKET SDR35.
13. ALL 3° BENDS SHALL BE A SPIGOT X BELL FITTING. THE SPIGOT END OF EACH BEND FITTING SHALL BE INSERTED IN THE BELL OF A FULL PIECE (13 FEET) OF ASTM D3034 FOR PVC, SDR 26 OR 35 PIPE WITH THE SUBSEQUENT UPSTREAM PIPE SEGMENT BEING A FULL PIECE OF PIPE. EACH JOINT OF PIPE MAY BE DEFLECTED TO A MINIMUM RADIUS OF 200 FEET IN CONFORMANCE WITH THE MANUFACTURER'S SPECIFICATIONS BETWEEN EACH BEND FITTING. THE CONTRACTOR SHALL USE EXTREME CARE AND EXPERT WORKMANSHIP TO PROVIDE PROPER HORIZONTAL AND VERTICAL ALIGNMENT THROUGH SECTIONS WITH 3° BENDS.
14. MINIMUM RADIUS FOR SANITARY SEWER WITHOUT JOINT FITTINGS IS 267 FEET USING A 14-FOOT-LONG PIPE SEGMENT.
15. CONTRACTOR SHALL BE AWARE THAT WHEN DEBRIS IS DROPPED INTO MANHOLES AND OTHER STRUCTURES, THEY ARE TO IMMEDIATELY REMOVE THIS TO ELIMINATE THE POSSIBILITY OF PROPERTY DAMAGE DUE TO THE DEBRIS-CAUSING BACKUP INTO PRIVATE PROPERTIES. IF AND WHEN IT IS DETERMINED THAT DEBRIS CAUSED A BACKUP, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGES.
16. NO TREES ARE TO BE PLANTED WITHIN ANY SEWER EASEMENT OR WITHIN FIFTEEN (15) FEET OF ANY MANHOLE OR PIPE.
17. ACCESS TO MANHOLES AND INLETS SHALL BE MADE AVAILABLE FOR MAINTENANCE PURPOSES.
18. ALL MANHOLES SHALL RECEIVE AN EXTERIOR WATERPROOF COATING OF COAL TAR EPOXY, ICS DEVOE "DEVTAR," OR APPROVED EQUIVALENT.
19. ALL MANHOLES SHALL RECEIVE AN EXTERIOR JOINT WRAP TO BEST ASSURE WATERTIGHTNESS. REFER TO THE FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICATIONS FOR MATERIALS AND INSTALLATION REQUIREMENTS.
20. ALL SANITARY SEWER MANHOLES ON THIS PROJECT SHALL BE SUBJECT TO VACUUM TESTING PRIOR TO THE CONSIDERATION OF ACCEPTANCE BY THE DISTRICT. AT THE DISTRICT'S SOLE OPTION, ADDITIONAL VACUUM TESTING MAY BE REQUIRED DURING AND PRIOR TO THE CONCLUSION OF THE WARRANTY PERIOD FOR THIS WORK. REFER TO THE FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICATIONS FOR TESTING REQUIREMENTS.
21. CLASS "B" GRANULAR BEDDING SHALL BE UTILIZED FOR ALL WASTEWATER PIPELINE CONSTRUCTION ON THIS PROJECT. AS A MINIMUM, THE CLASS "B" BEDDING SHALL BE COMPRISED OF 3/4-INCH CRUSHED ROCK. LARGER AGGREGATE AND/OR ALTERNATIVE GRADATIONS MAY BE NECESSARY IN ORDER TO ADDRESS TRENCH SUBGRADE STABILIZATION CONDITIONS FOUND UPON EXCAVATION OF THE TRENCH IN ADDITION TO THE SPECIFIED CLASS "B" PIPE BEDDING.
22. WHERE NECESSARY, THE CONTRACTOR SHALL PROVIDE 3° BENDS ON ALL CURVILIVEAR SANITARY SEWER PIPE AT THE LOCATIONS SHOWN ON THE PLANS.
23. SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC), SDR 35, IN ACCORDANCE WITH ASTM D3034 FOR DEPTHS UP TO SIXTEEN (16) FEET. SANITARY SEWER LINES WITH COVER EXCEEDING SIXTEEN (16) FEET FROM FINISHED GRADE SHALL BE POLYVINYL CHLORIDE (PVC), SDR 26, IN ACCORDANCE WITH ASTM D3034. ALL SDR 26 PIPE SHALL BE BEDDED IN CLASS B BEDDING MATERIAL OR WITH RECLAIMED CONCRETE MATERIAL MEETING SANITATION DISTRICT STANDARD.
24. MANHOLES SHALL BE STANDARD PRECAST CONCRETE.
25. ALL SANITARY SEWER MANHOLES <u>SHALL NOT</u> HAVE ANY ACCESS STEPS INSTALLED INSIDE THE MANHOLE. ANY PRECAST SANITARY MANHOLES WITH STEPS SHALL HAVE THE STEPS REMOVED BY SAW CUTTING STEPS FLUSH TO THE MANHOLE AND ADDING EPOXY TO THE CUT ENDS OF THE STEPS.
26. SANITARY SEWER MH COVERS SHALL BE LOCATED ALONG THE CENTERLINE OF THE STREET OR AS CLOSE TO THE CENTERLINE AS IS PRACTICAL.
27. IF GROUNDWATER IS ENCOUNTERED DURING TRENCHING THEN THE TRENCH SHALL BE OVEREXCAVATED AND DEWATERED. WELL POINTS SHALL BE PLACED AS NECESSARY TO PREVENT WATER IN THE TRENCH. THE GROUNDWATER LEVEL SHALL BE KEPT 12-INCHES OR MORE BELOW THE UTILITY BEING INSTALLED. OVEREXCAVATED TRENCH DEPTH SHALL BE BACKFILLED WITH 2-INCH MINUS ROCK WITH <5% PASSING NO. 4 SIEVE. DEWATERING SHALL CONTINUE UNTIL SUCH TIME AS IT IS SAFE TO ALLOW THE WATER TABLE TO RISE IN THE EXCAVATION. PIPE TRENCHES SHALL CONTAIN ENOUGH BACKFILL TO PREVENT PIPE FLOATATION.
28. IN AREAS WHERE SANITARY SEWER WILL BE PLACED ON FILL THE CONTRACTOR SHALL SUPPLY THE FOUNTAIN SANITATION DISTRICT WITH SOIL DENSITY REPORTS PRIOR TO COMMENCING CONSTRUCTION OF THE PIPELINES. THE DENSITY REPORTS SHALL DEMONSTRATE THAT ALL FILLS PLACED WITHIN PIPELINE CONSTRUCTION SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY OR PER GEOTECHNICAL RECOMMENDATION, WHICHEVER STANDARD IS STRICTER. ADDITIONALLY, FILLS SHALL BE PLACED TO A MINIMUM OF 6° ABOVE THE TOP OF THE PROPOSED PIPE PRIOR TO CONSTRUCTION OF THE PIPELINES.
29. THE SANITARY SEWER SERVICES TO BE CONSTRUCTED IN THIS PROJECT SHALL BE CONNECTED TO THE MAIN WITH IN-LINE WYE FITTINGS IN ACCORDANCE WITH FOUNTAIN SANITATION DISTRICT DESIGN CRITERIA AND CONSTRUCTION SPECIFICATIONS. EACH WYE FITTING WILL BE LOCATED NO LESS THAN 3-FEET CLEAR FROM AN ADJACENT SERVICE LINE WYE FITTING. IF TWO (2) SERVICE LINES ARE LOCATED ON THE SAME SIDE OF THE WASTEWATER COLLECTION SYSTEM MAIN, THERE SHALL BE NO LESS THAN 4 FEET OF SPACE BETWEEN THE TWO SEPARATE SEWER SERVICE PIPELINES TO FACILITATE FUTURE EXCAVATION OF EACH WITHOUT DISTURBANCE.
30. ALL SANITARY SEWER MAINS AND PIPELINES SHALL BE CONSTRUCTED WITH COPPER TRACER WIRE, 6 GAUGE SOLID COPPER, EXTENDING FROM THE MANHOLE-TO-MANHOLE ON THE MAIN LINES. IN ADDITION, A COPPER TRACER WIRE SHALL EXTEND ALONG EACH SERVICE LINE, CONNECTED TO THE MAIN LINE COPPER TRACER WIRE, TO A LOCATION NO LESS THAN 10 FEET INSIDE THE LOT FRONTAGE. THE TRACER WIRES WILL BE CONTINUED AT THE TIME OF BUILDING SEWER CONSTRUCTION SUBJECT TO THE INSPECTION OF THE FOUNTAIN SANITATION DISTRICT.
31. THE TRACER WIRE WILL EXTEND UP THE OUTSIDE OF EACH MANHOLE AND BE INSERTED INTO THE MANHOLE INTERIOR UNDER ADJUSTING RINGS SET ON THE CONE WITH NO LESS THAN 1.5 FEET OF CONDUCTOR COILED AT THE MANHOLE INTERIOR.

FSD SANITARY SERVICE PLAN NOTES:

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICIATIONS.
2. FINAL LOCATION OF ALL SEWER, WATER AND GAS SERVICES TO BE APPROVED IN THE FIELD BY THE CONSTRUCTION MANAGER AND DISTRICT INSPECTOR PRIOR TO INSTALLATION.
3. PROPERTY END OF ALL SEWER SERVICES TO BE MARKED WITH A 12'x2"x4" STEEL OR WOODEN POST EXTENDING VERTICALLY FROM THE FLOWLINE.
4. UTILITY LOCATIONS, WHETHER OR NOT SHOWN ON THIS PLAN, IN NO WAY RELIEVES THE CONTRACTOR FROM THE RESPONSIBILITY FOR CALLING FOR UTILITY LOCATIONS FROM THE APPROPRIATE AUTHORITIES PRIOR TO BEGINNING EXCAVATION. THE CONTRACTOR SHALL BE RESPONSIBLE TO LOCATE AND PROTECT ALL EXISTING UTILITIES WITHIN THE PROJECT. ANY DAMAGE TO EXISTING UTILITIES SHALL BE IMMEDIATELY REPAIRED AT THE CONTRACTOR'S SOLE EXPENSE.
5. REUSE OF ANY MATERIAL IS AT THE DISCRETION OF THE DISTRICT INSPECTOR.
6. ALL SANITARY SERVICES TO BE INSTALLED AT THE MINIMUM PERMISSIBLE GRADE OF 2.08% UNLESS OTHERWISE PRE-APPROVED BY THE FOUNTAIN SANITATION DISTRICT.
7. ALL SANITARY SERVICE PIPE SHALL BE GREEN GASKETED SDR35.
8. SANITARY SEWER SERVICE CONNECTIONS ARE TO BE A MINIMUM OF 5' FROM THE MANHOLE.
9. THE CONTRACTOR SHALL NOTIFY FOUNTAIN SANITATION DISTRICT'S INSPECTOR (382- 5303) 48 HOURS PRIOR TO THE START OF CONSTRUCTION TO OUTLINE METHODS OF CONSTRUCTION, MATERIALS TO BE USED AND CONSTRUCTION STAKING.
10. ALL SANITARY SEWER SERVICE LINES TO THE RESIDENTIAL LOTS SHALL BE 4-INCH DIAMETER PIPE. SEWER SERVICES SHALL BE EXTENDED 10' INTO THE RESIDENTIAL LOTS TO AVOID GAS, ELECTRIC AND WATER EASEMENTS ADJACENT TO THE RIGHT OF WAY.
11. ALL TRENCH BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION PART C, ARTICLE II OF THE FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICATIONS MANUAL.

FSD GENERAL SERVICE PLAN NOTES

THE CONTRACTOR SHALL NOTIFY THE FOUNTAIN SANITATION DISTRICT OFFICE (719-382-5303) A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

<u>GENERAL:</u>

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICIATIONS.
2. FOUNTAIN SANITATION DISTRICT DOES NOT GUARANTEE THE ACCURACY OF LOCATIONS OF EXISTING PIPELINES, MANHOLES, AND SERVICE LINES. IF FIELD CONDITIONS ARE FOUND TO BE DIFFERENT THAN SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE DISTRICT INSPECTOR AND THE DESIGN ENGINEER IMMEDIATELY.
3. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY FACILITIES AS A RESULT OF THEIR ACTIONS. THE CONTRACTOR SHALL MAKE ALL THE REQUIRED REPAIRS IMMEDIATELY TO THE SATISFACTION OF FOUNTAIN SANITATION DISTRICT.
4. ALL FIELD STAKING SHALL COMPLY WITH THE WASTEWATER STANDARD SPECIFICATIONS.
5. FINAL LOCATION OF ALL WASTEWATER SERVICES SHALL BE APPROVED IN THE FIELD BY THE DISTRICT INSPECTOR.
6. ALL TRENCH BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION PART C, ATRICLE II OF THE FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICATIONS MANUAL.

WIDEFIELD WATER AND SANITATION DISTRICT GENERAL NOTES

1. ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT WIDEFIELD WATER AND SANITATION DISTRICT SPECIFICATIONS. COMPACTION REQUIREMENTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE WIDEFIELD WATER AND SANITATION DISTRICT OR A HIGHER STANDARD IS IMPOSED BY ANOTHER AGENCY HAVING RIGHT-OF-WAY JURISDICTION.
2. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE WIDEFIELD WATER AND SANITATION DISTRICT. THE WIDEFIELD WATER AND SANITATION DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
3. THE DEVELOPER OR HIS ENGINEER HAS LOCATED ALL FIRE HYDRANTS AND FUTURE SERVICE STUBS. ANY REQUIRED REALIGNMENT, EITHER HORIZONTAL OR VERTICAL, SHALL BE AT THE EXPENSE OF THE DEVELOPER.
4. ALL DUCTILE IRON PIPE, TO INCLUDE FITTINGS, VALVES AND FIRE HYDRANTS WILL BE WRAPPED WITH POLYETHYLENE TUBING, AND ELECTRICALLY ISOLATED.
5. ALL DUCTILE IRON PIPE AND FITTINGS SHALL BE DOUBLE BONDED. SPECIFICATIONS FOR CATHODIC PROTECTION ON BOTH DIP MAINS AND PVC MAINS IS SPECIFIED IN THE STANDARDS AND SPECIFICATIONS.
6. PVC MAIN LINES SHALL BE INSTALLED WITH COATED NO. 12 TRACER WIRE.
7. THE CONTRACTOR IS REQUIRED TO NOTIFY THE WIDEFIELD WATER AND SANITATION DISTRICT (390-7111) A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY COMPANIES 48 HOURS PRIOR TO CONSTRUCTION ADJACENT TO THE KNOWN UTILITY LINES.
8. THE LOCATION OF ALL UTILITIES AS SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE VERIFIED PRIOR TO CONSTRUCTION BY THE CONTRACTOR.
9. THE CONTRACTOR SHALL FIELD EXCAVATE AND VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL TIE-INS. CONTRACTOR SHALL NOTIFY THE WIDEFIELD WATER AND SANITATION DISTRICT AND THE ENGINEER OF THE FIELD VERIFIED INFORMATION PRIOR TO CONSTRUCTION.
10. ALL BENDS SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION.
11. ANY WATER UTILITY MATERIAL REMOVED AND NOT REUSED SHALL BE RETURNED TO THE WIDEFIELD WATER AND SANITATION DISTRICT IF THE DISTRICT SO REQUESTS.
12. THE CONTRACTOR SHALL AT HIS EXPENSE SUPPORT AND PROTECT ALL UTILITY MAINS SO THAT THEY WILL FUNCTION CONTINUOUSLY DURING CONSTRUCTION. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT WILL BE REPLACED IMMEDIATELY BY EITHER THE CONTRACTOR OR THE WIDEFIELD WATER AND SANITATION DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR.
13. ANY PUMPING OR BYPASS OPERATIONS MUST BE REVIEWED AND APPROVED PRIOR TO EXECUTION BY BOTH THE WIDEFIELD WATER AND SANITATION DISTRICT AND THE ENGINEER.
14. CONTRACTOR MUST REPLACE OR REPAIR ANY DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, CURB AND GUTTER AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.
15. ALL WATER LINES 6" AND LARGER, AND ALL SEWER LINES 8" AND LARGER, SHALL HAVE AS "AS-BUILT" PLANS PREPARED AND APPROVED PRIOR TO FINAL ACCEPTANCE BY THE WIDEFIELD WATER AND SANITATION DISTRICT.
16. PRIOR TO CONSTRUCTION, A PRE-CONSTRUCTION CONFERENCE IS REQUIRED A MINIMUM OF 72 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. TO SET THE PRE-CONSTRUCTION CONFERENCE, CONTACT BRANDON BERNARD-WATER DIVISION MANAGER AND/OR JASON DREESSEN, WASTEWATER DIVISION MANAGER AT (719)955-0548 OF THE WIDEFIELD WATER AND SANITATION DISTRICT FOR A TIME. NO PRE-CONSTRUCTION CONFERENCE TIMES WILL BE SET UNTIL 4 SETS OF SIGNED DRAWINGS ARE RECEIVED BY THE WIDEFIELD W & S DISTRICT. PRE-CONSTRUCTION DATE/INITIALS _____ .

NOT FOR CONSTRUCTION

DRAWN BY: CBM	JOB DATE: 4/5/2022	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 — 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
APPROVED: KMH	JOB NUMBER: 200541		
CAD DATE: 4/5/2022			
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\El _Paso_Co\Notes			

NO.	DATE	BY	REVISION DESCRIPTION

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GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

EL PASO COUNTY CONSTRUCTION DOCUMENTS
NOTES WATER AND SANITARY SEWER

SHEET ----

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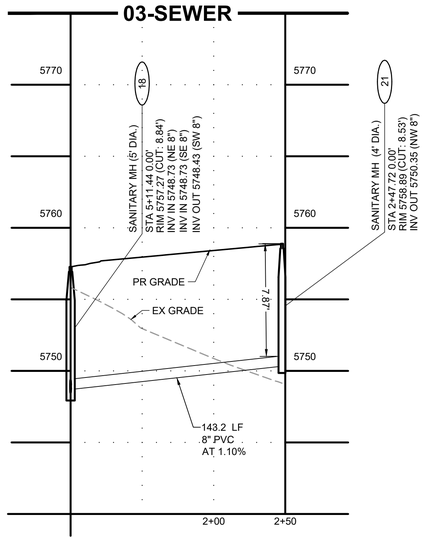

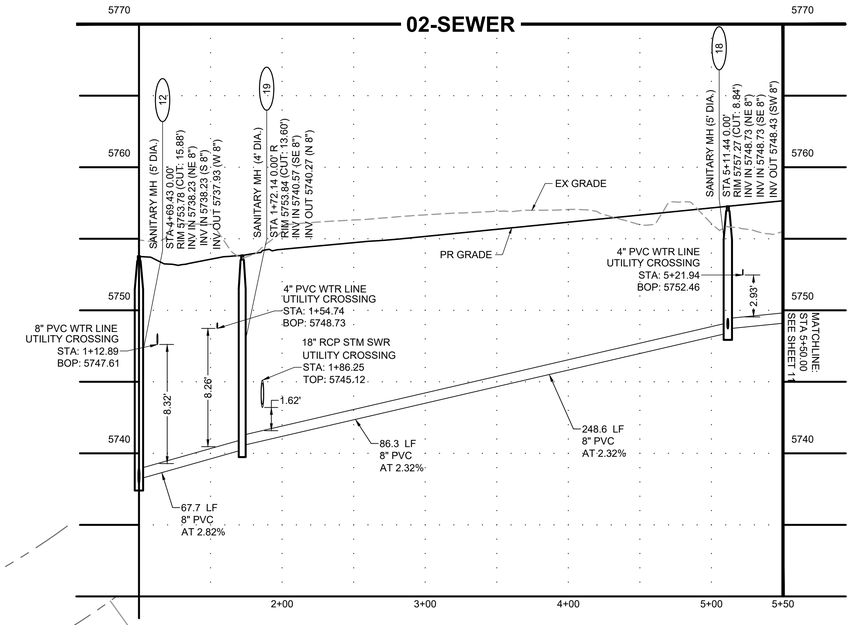

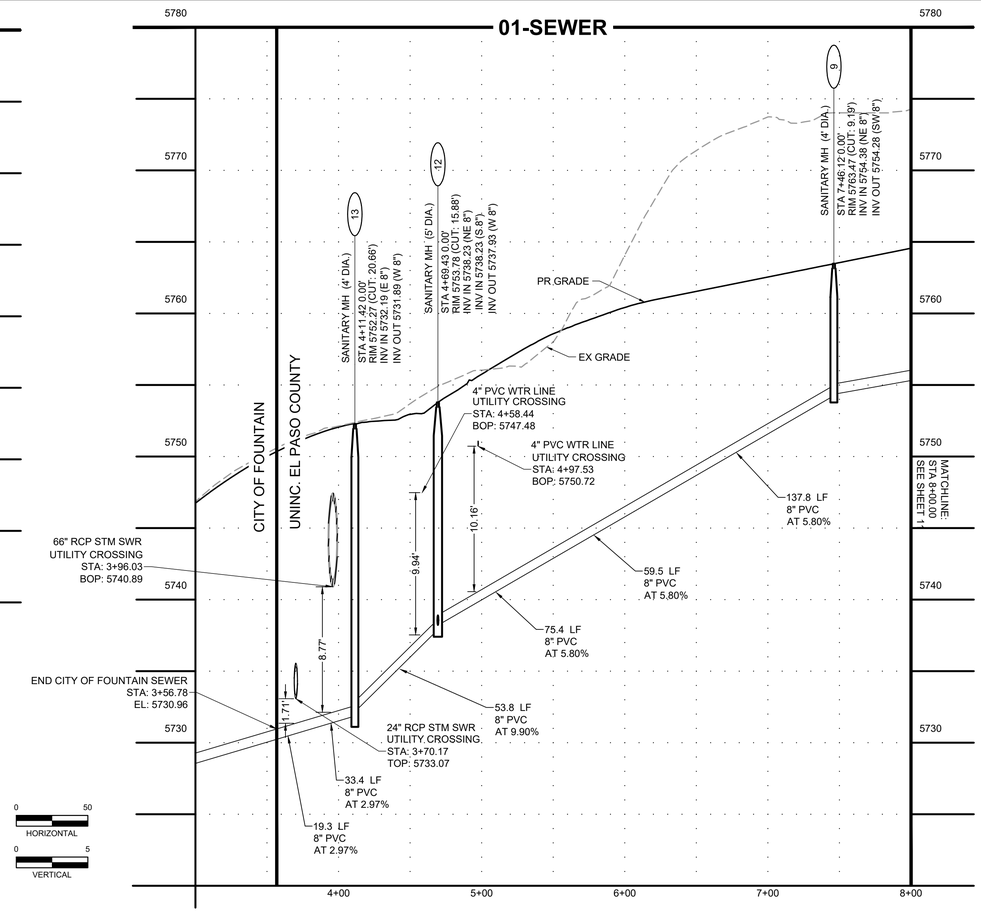

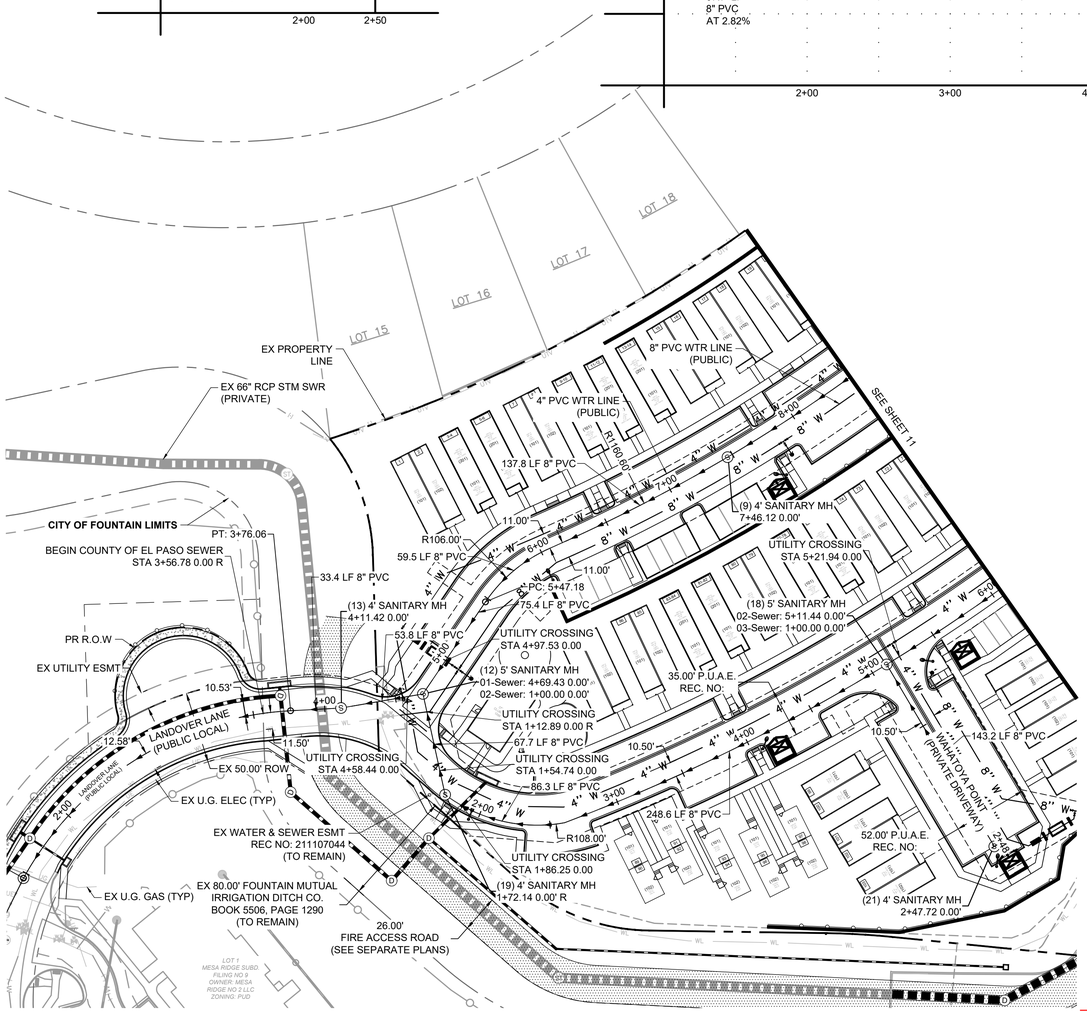

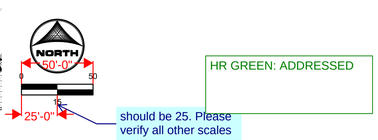

HR GREEN: ADDRESSED

DEVELOPERS STATEMENT - FOUNTAIN SANITATION DISTRICT

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF FOUNTAIN SANITATION DISTRICT REGULATIONS AND STANDARD SPECIFICATIONS. OWNER WILL COMPLY WITH THE CONSTRUCTION DRAWINGS PREPARED BY HIS/HER CIVIL ENGINEER.

DEVELOPER/OWNER SIGNATURE: _____ DATE: _____

NAME OF DEVELOPER/OWNER: _____

TITLE: _____

PHONE: _____

ADDRESS: _____

FOUNTAIN SANITATION DISTRICT

PLANS ARE RECOMMENDED FOR USE IN CONSTRUCTION OF WASTEWATER COLLECTION SYSTEM FOR THIS PROJECT.
DESIGN ENGINEER OF RECORD TAKES SOLE RESPONSIBILITY FOR ALL DESIGN ASPECTS OF THE PROJECT.

_____ _____

JONATHAN MOORE, P.E. DATE
FOUNTAIN SANITATION DISTRICT – DISTRICT ENGINEER

NOT FOR CONSTRUCTION

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GOODWIN KNIGHT

EL PASO COUNTY CONSTRUCTION DOCUMENTS
SANITARY PLAN & PROFILE

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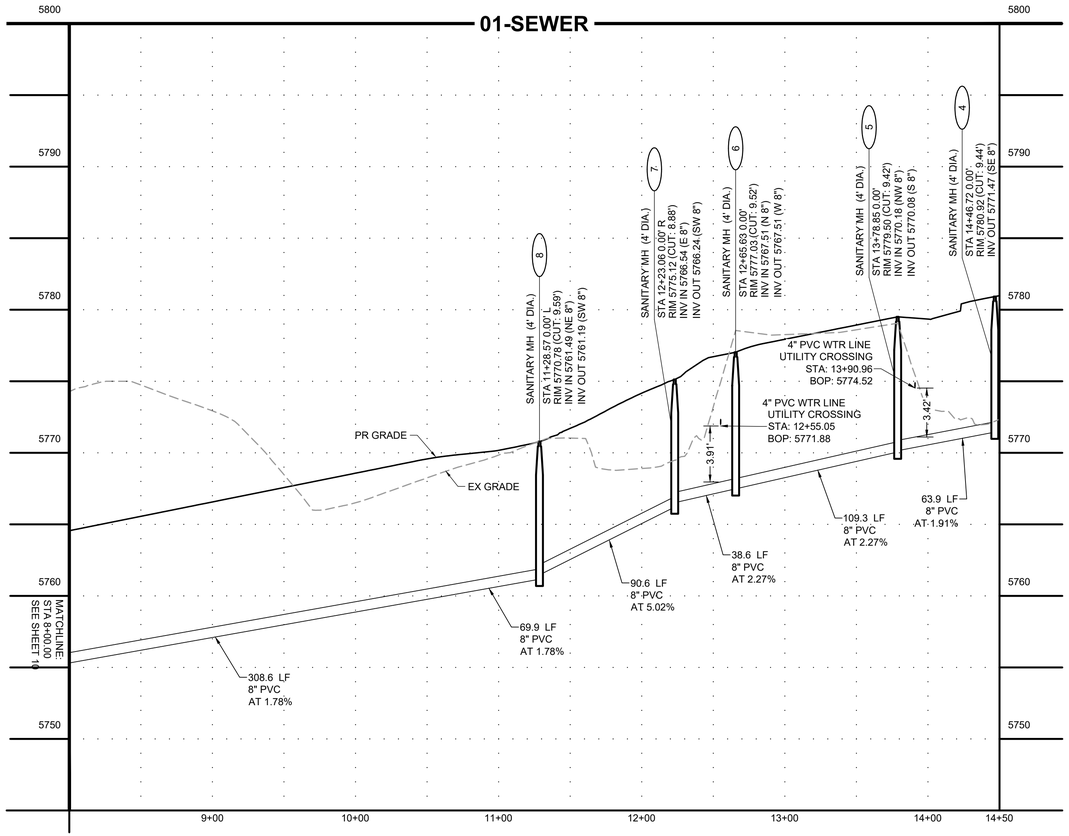

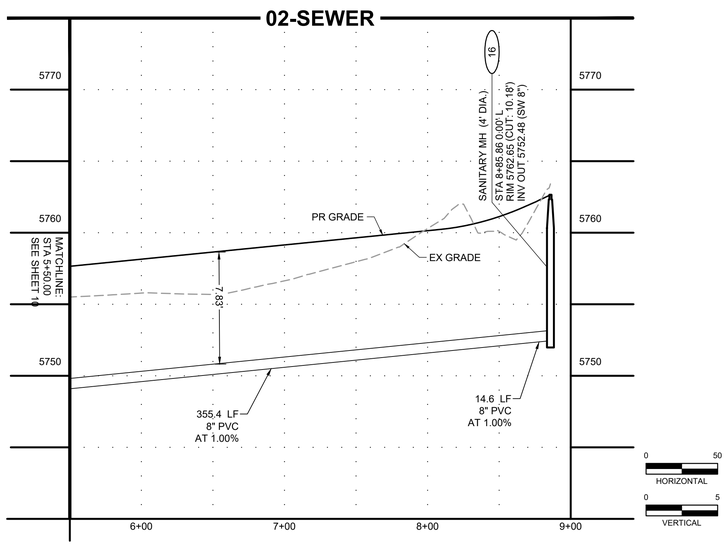

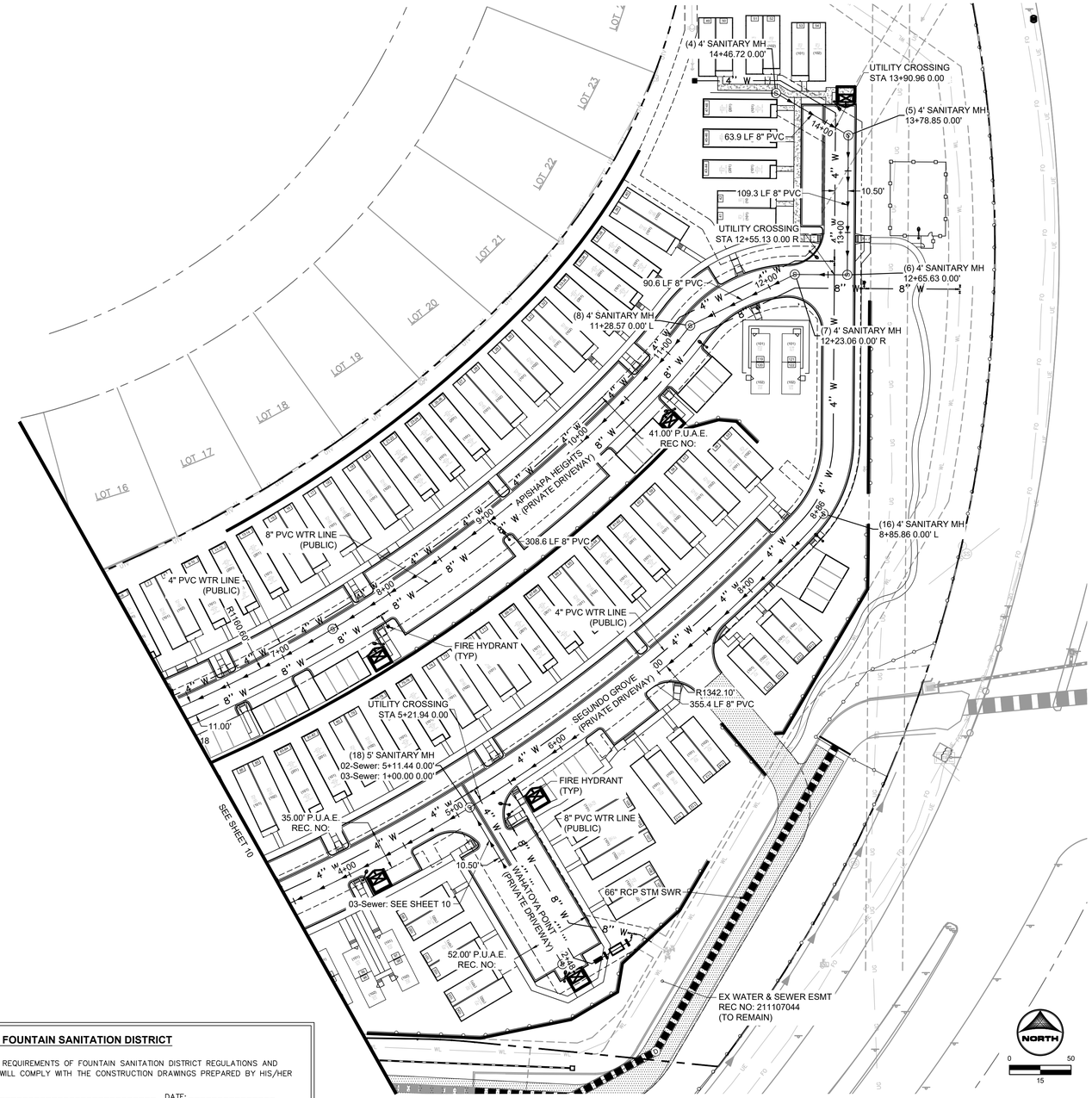

DEVELOPERS STATEMENT - FOUNTAIN SANITATION DISTRICT

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DEVELOPER/OWNER SIGNATURE: _____ DATE: _____

NAME OF DEVELOPER/OWNER: _____

TITLE: _____

PHONE: _____

ADDRESS: _____

FOUNTAIN SANITATION DISTRICT

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DESIGN ENGINEER OF RECORD TAKES SOLE RESPONSIBILITY FOR ALL DESIGN ASPECTS OF THE PROJECT.

_____ _____ _____
JONATHAN MOORE, P.E. DATE
FOUNTAIN SANITATION DISTRICT – DISTRICT ENGINEER

NOT FOR CONSTRUCTION

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WATER and SEWER MAIN EXTENSIONS

Any changes or alterations affecting the grade, alignment, elevation and/or depth of cover of any water or sewer mains or other appurtenance shown on this drawing shall be the responsibility of the Owner/Developer. The Owner/Developer shall be responsible for all operational damages and defects in installation and material for mains and services from the date of approval until final acceptance is issued.

Signed _____ Date _____
Owner/Developer

Print Name _____

DBA _____

Address _____

_____

DISTRICT APPROVALS

The Widefield Water and Sanitation District recognizes the design engineer as having responsibility for the
design and has limited its scope of review accordingly.

WIDEFIELD WATER AND SANITATION DISTRICT
WATER DESIGN APPROVAL

Date: _____ By: _____

PROJECT NO. _____

In case of errors or omissions with the water design as shown on this document the standards as defined in the "Rules and Regulations for Installation of Water Mains and Services" shall rule.

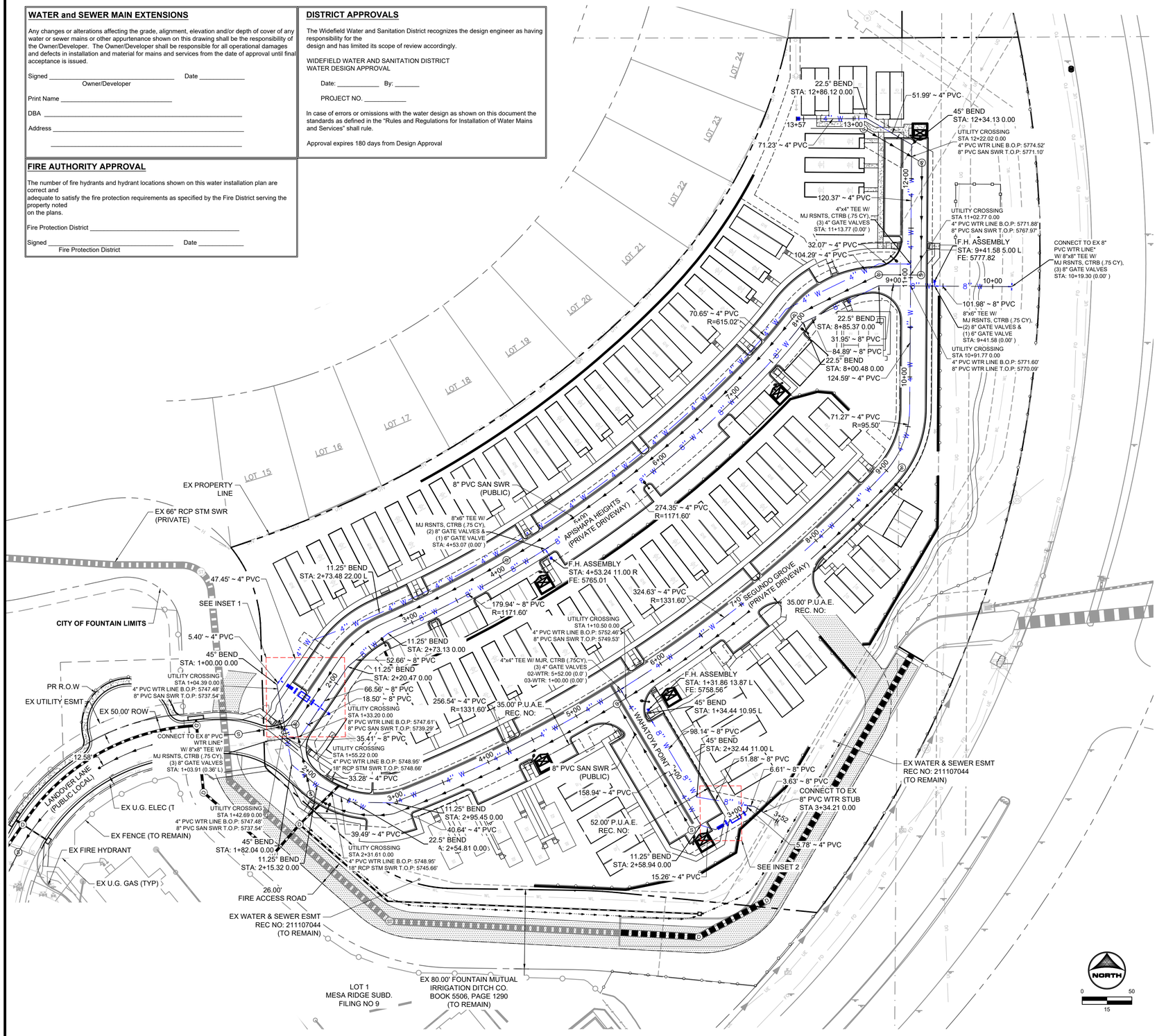
Approval expires 180 days from Design Approval

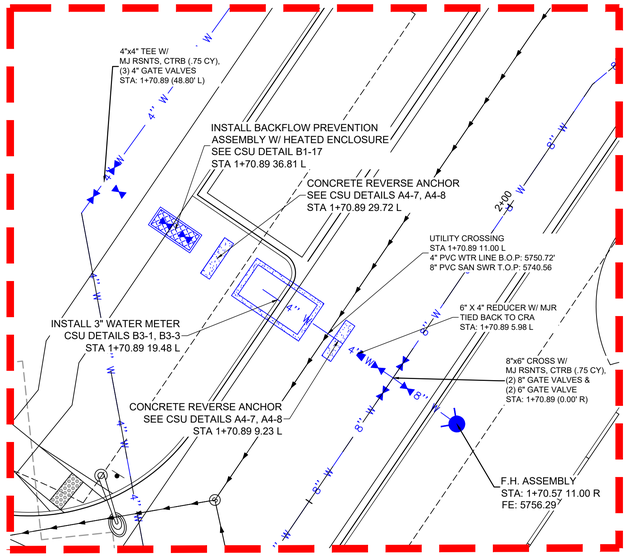
FIRE AUTHORITY APPROVAL

The number of fire hydrants and hydrant locations shown on this water installation plan are correct and
adequate to satisfy the fire protection requirements as specified by the Fire District serving the property noted
on the plans.

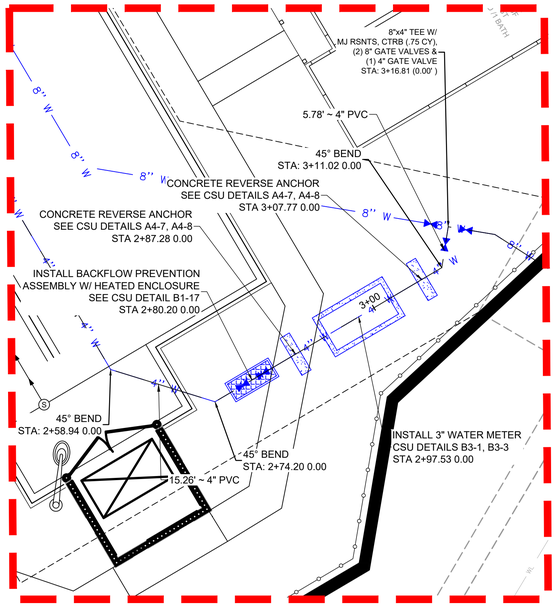
Fire Protection District _____

Signed _____ Date _____
Fire Protection District





INSET 1



INSET 2

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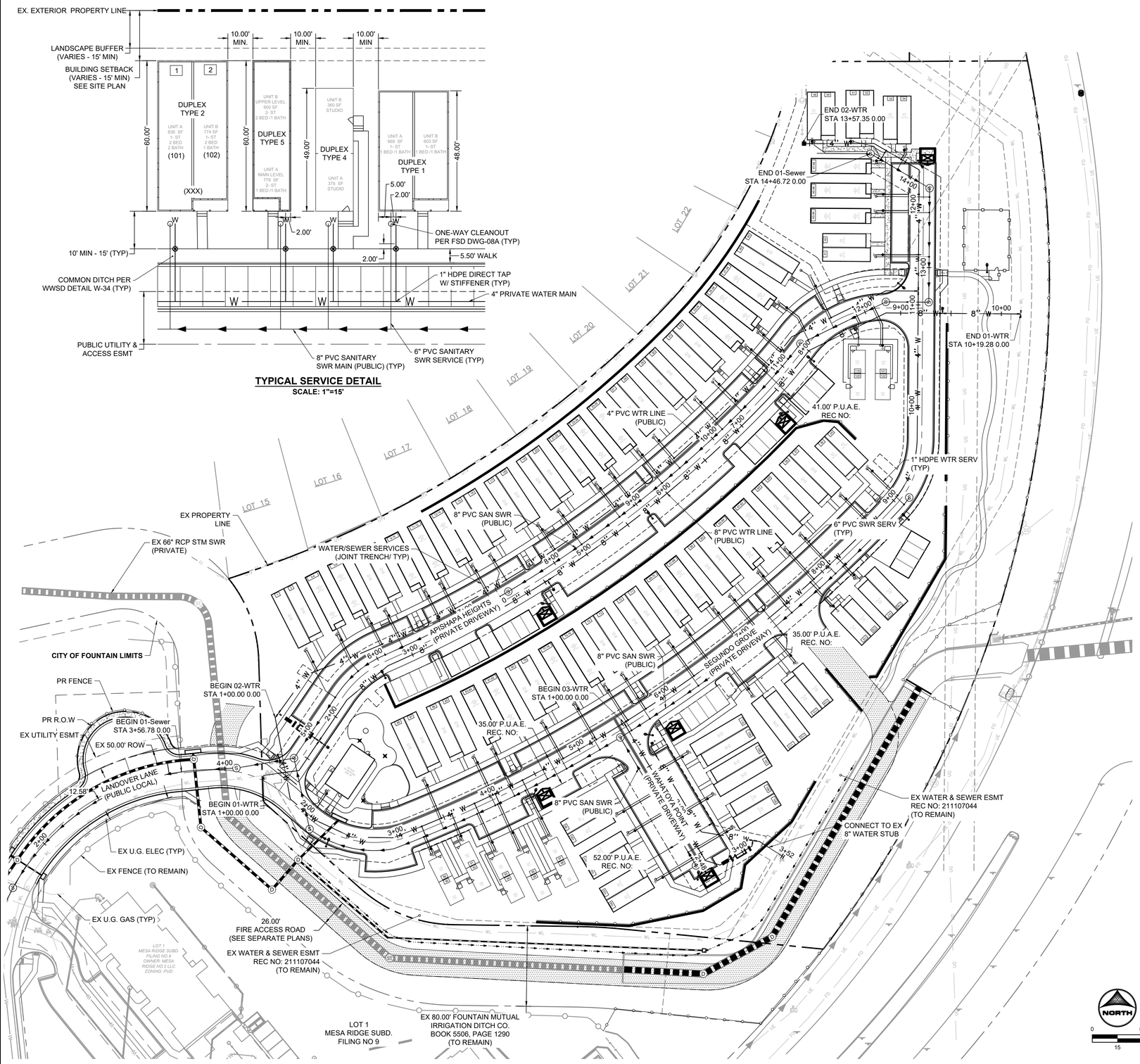
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

GOODWIN KNIGHT

CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
WATER DISTRIBUTION PLAN

SHEET WP

HR GREEN Xrefs: xc-row; xc-util; xv-dsgn; xv-dsgn-apts; xv-row; xv-row-apts; xv-util-apts; xc-dsgn; xv-util; Fin_street_approval_block; xc-dsgn-fin; xgt-1-arch dfd01-CDs_EPC; WWSD_water_approval_block



SEWER SERVICES

LOT	ALIGNMENT	STATION	OFFSET	LOT	ALIGNMENT	STATION	OFFSET	LOT	ALIGNMENT	STATION	OFFSET
CH	02-Sewer	STA 1+48.70	0.0'	41-42	01-Sewer	STA 13+10.74	0.0'	83-84	02-Sewer	STA 3+91.49	0.0'
1-2	01-Sewer	STA 5+42.35	0.0'	43-44	01-Sewer	STA 13+54.61	0.0'	85-86	02-Sewer	STA 3+70.17	0.0'
3-4	01-Sewer	STA 5+77.06	0.0'	45-46	01-Sewer	STA 13+70.10	0.0'	87-88	02-Sewer	STA 3+13.82	0.0' L
5-6	01-Sewer	STA 6+08.62	0.0'	47-48	01-Sewer	STA 14+33.02	0.0'	89-90	02-Sewer	STA 2+92.56	0.0'
7-8	01-Sewer	STA 6+27.63	0.0'	49-50	01-Sewer	STA 14+50.47	0.0' R	91-92	02-Sewer	STA 3+25.15	0.0'
9-10	01-Sewer	STA 6+71.64	0.0'	51-52	01-Sewer	STA 14+37.97	0.0'	93-94	02-Sewer	STA 3+50.16	0.0'
11-12	01-Sewer	STA 6+89.36	0.0'	53-54	01-Sewer	STA 14+15.90	0.0'	95-96	02-Sewer	STA 3+72.67	0.0' R
13-14	01-Sewer	STA 7+26.70	0.0'	55-56	02-Sewer	STA 8+77.13	0.0'	97-98	02-Sewer	STA 4+03.47	0.0'
15-16	01-Sewer	STA 7+36.12	0.0'	57-58	02-Sewer	STA 8+38.82	0.0' L	99-100	03-Sewer	STA 1+63.12	0.0'
17-18	01-Sewer	STA 8+05.80	0.0' L	59-60	02-Sewer	STA 7+80.53	0.0'	101-102	03-Sewer	STA 1+85.12	0.0'
19-20	01-Sewer	STA 8+32.70	0.0'	61-62	02-Sewer	STA 7+59.01	0.0'	103-104	03-Sewer	STA 2+39.12	0.0'
21-22	01-Sewer	STA 8+79.27	0.0'	63-64	02-Sewer	STA 7+22.26	0.0'	105-106	03-Sewer	STA 2+32.47	0.0'
23-24	01-Sewer	STA 8+97.48	0.0' L	65-66	02-Sewer	STA 6+84.11	0.0'	107-108	03-Sewer	STA 1+94.47	0.0'
25-26	01-Sewer	STA 9+33.07	0.0' L	67-68	02-Sewer	STA 6+62.70	0.0'	109-110	03-Sewer	STA 1+46.05	0.0'
27-28	01-Sewer	STA 9+56.22	0.0'	69-70	02-Sewer	STA 6+25.94	0.0'	111-112	02-Sewer	STA 6+40.50	0.0'
29-30	01-Sewer	STA 10+13.39	0.0'	71-72	02-Sewer	STA 6+04.51	0.0'	113-114	02-Sewer	STA 6+92.25	0.0'
31-32	01-Sewer	STA 10+39.91	0.0'	73-74	02-Sewer	STA 5+46.16	0.0'	115-116	02-Sewer	STA 7+54.62	0.0'
33-34	01-Sewer	STA 10+90.04	0.0'	75-76	02-Sewer	STA 5+24.66	0.0'	117-118	02-Sewer	STA 7+90.73	0.0' L
35-36	01-Sewer	STA 11+09.01	0.0'	77-78	02-Sewer	STA 4+87.90	0.0'	119-120	01-Sewer	STA 11+89.31	0.0' R
37-38	01-Sewer	STA 11+37.29	0.0'	79-80	02-Sewer	STA 4+49.75	0.0'	121-122	01-Sewer	STA 12+08.39	0.0' R
39-40	01-Sewer	STA 11+65.24	0.0' L	81-82	02-Sewer	STA 4+28.24	0.0' L				

WATER SERVICES

LOT	ALIGNMENT	STATION	OFFSET	LOT	ALIGNMENT	STATION	OFFSET	LOT	ALIGNMENT	STATION	OFFSET
CH	02-WTR	STA 2+09.03	0.0'	41-42	02-WTR	STA 11+49.80	0.0'	83-84	02-WTR	STA 4+24.31	0.0'
1-2	01-WTR	STA 2+20.47	41.3' L	43-44	02-WTR	STA 11+93.67	0.0' R	85-86	02-WTR	STA 4+03.44	0.0'
3-4	01-WTR	STA 2+49.76	29.9' L	45-46	02-WTR	STA 12+09.80	0.0' R	87-88	02-WTR	STA 3+47.25	0.0'
5-6	01-WTR	STA 2+76.54	21.9' L	47-48	02-WTR	STA 12+72.17	0.0'	89-90	02-WTR	STA 3+26.16	0.0' L
7-8	01-WTR	STA 2+95.91	22.0' L	49-50	02-WTR	STA 13+47.53	0.0'	91-92	02-WTR	STA 3+58.47	0.0' R
9-10	01-WTR	STA 3+40.76	22.0' L	51-52	02-WTR	STA 13+09.13	0.0' R	93-94	02-WTR	STA 3+83.31	0.0'
11-12	01-WTR	STA 3+58.82	22.0' L	53-54	02-WTR	STA 12+54.77	0.0'	95-96	02-WTR	STA 4+05.95	0.0' R
13-14	01-WTR	STA 3+96.36	22.0' L	55-56	02-WTR	STA 9+06.39	0.0'	97-98	02-WTR	STA 4+36.19	0.0'
15-16	01-WTR	STA 4+18.13	22.0' L	57-58	02-WTR	STA 8+68.13	0.0' L	99-100	03-WTR	STA 1+75.84	0.0'
17-18	01-WTR	STA 4+76.26	22.0' L	59-60	02-WTR	STA 8+10.31	0.0'	101-102	03-WTR	STA 1+97.84	0.0'
19-20	01-WTR	STA 5+03.15	22.0' L	61-62	02-WTR	STA 7+88.95	0.0'	103-104	03-WTR	STA 2+51.84	0.0'
21-22	01-WTR	STA 5+50.39	22.0' L	63-64	02-WTR	STA 7+52.49	0.0'	105-106	03-WTR	STA 2+45.19	0.0'
23-24	01-WTR	STA 5+68.76	22.0' L	65-66	02-WTR	STA 7+14.64	0.0'	107-108	03-WTR	STA 2+07.19	0.0'
25-26	01-WTR	STA 6+05.03	22.0' L	67-68	02-WTR	STA 6+93.40	0.0'	109-110	03-WTR	STA 1+58.77	0.0' R
27-28	01-WTR	STA 6+28.37	22.0' L	69-70	02-WTR	STA 6+56.93	0.0'	111-112	02-WTR	STA 6+71.37	0.0'
29-30	01-WTR	STA 6+86.97	22.0' L	71-72	02-WTR	STA 6+35.67	0.0'	113-114	02-WTR	STA 7+22.64	0.0'
31-32	01-WTR	STA 7+13.44	22.0' L	73-74	02-WTR	STA 5+77.77	0.0'	115-116	02-WTR	STA 7+84.24	0.0'
33-34	01-WTR	STA 7+63.45	22.0' L	75-76	02-WTR	STA 5+57.00	0.0'	117-118	02-WTR	STA 8+20.36	0.0'
35-36	01-WTR	STA 7+83.10	22.0' L	77-78	02-WTR	STA 5+19.97	0.0'	119-120	01-WTR	STA 8+58.41	19.7' L
37-38	01-WTR	STA 8+06.03	19.7' L	79-80	02-WTR	STA 4+82.12	0.0'	121-122	01-WTR	STA 8+77.50	19.7' L
39-40	01-WTR	STA 8+34.34	19.7' L	81-82	02-WTR	STA 4+60.78	0.0'				

NOT FOR CONSTRUCTION

MARSHALL, CLARK, 4/5/2022 9:18 AM

HR GREEN Xrefs: xc-row; xc-util; xv-dsgn; xv-dsgn-apts; xv-row; xv-row-apts; xv-util-apts; xc-dsgn; xv-util; Fth_street_approval_block; xc-dsgn-ftn; xgl-1-arch dh01-CDs_EPC; bldg_service_typicals

DRAWN BY: CBM	JOB DATE: 4/5/2022	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
APPROVED: KMH	JOB NUMBER: 200541		
CAD DATE: 4/5/2022			
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\EI_Paso_Co\Util Service Plan			

NO.	DATE	BY	REVISION DESCRIPTION

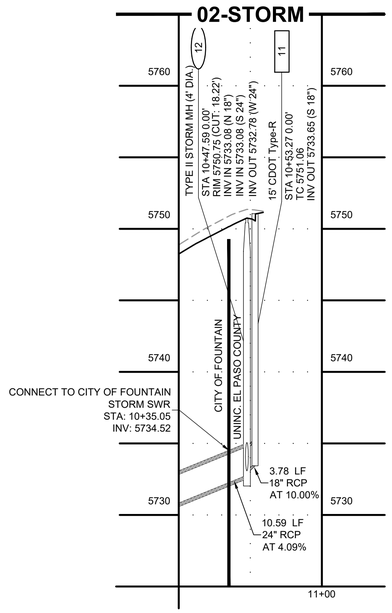
HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

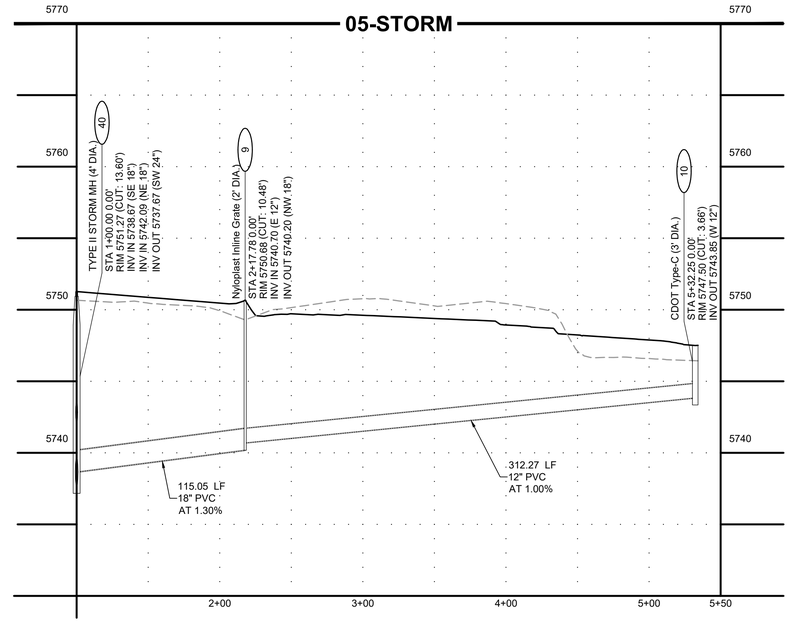
THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

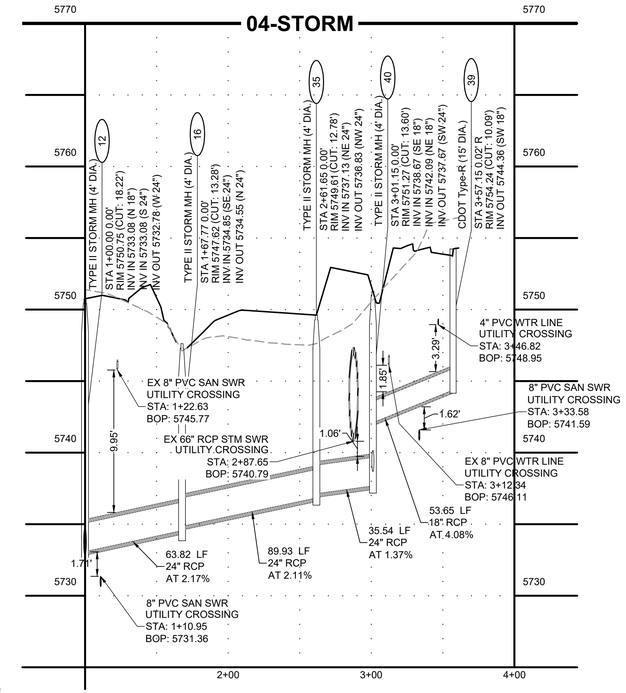
GOODWIN KNIGHT

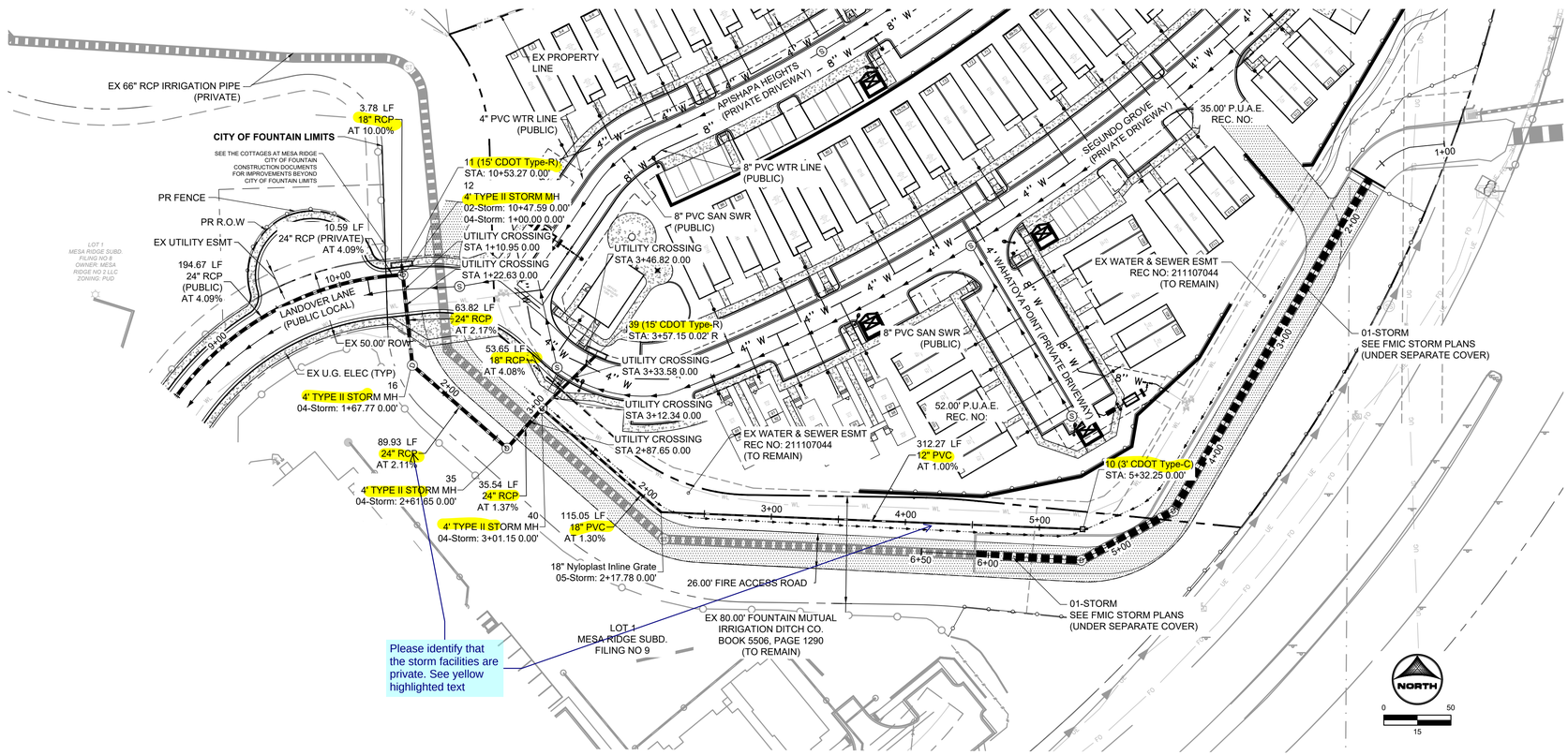
EL PASO COUNTY CONSTRUCTION DOCUMENTS
UTILITY SERVICE PLAN

SHEET USP









Please identify that the storm facilities are private. See yellow highlighted text

EL PASO COUNTY ENGINEER
STORM PLAN DESIGN APPROVAL

PROJECT NUMBER:

WORK ORDER NUMBER:

SHEET _____ OF _____

APPROVAL EXPIRES ONE (1) YEAR FROM THE DATE ABOVE AND RESUBMITTAL OF THESE PLANS FOR REVIEW AND APPROVAL IS REQUIRED IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

NOT FOR CONSTRUCTION

DRAWN BY: CBM JOB DATE: 4/5/2022
APPROVED: KMH JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\El _Paso_Co\Storm

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
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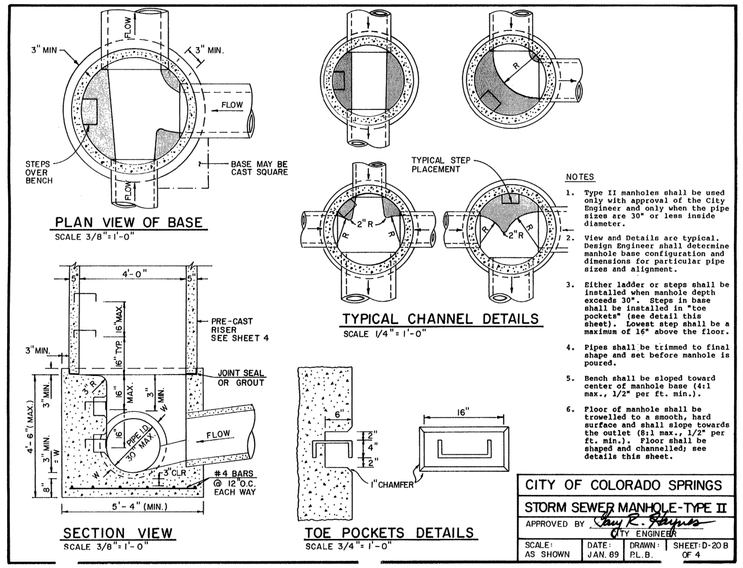
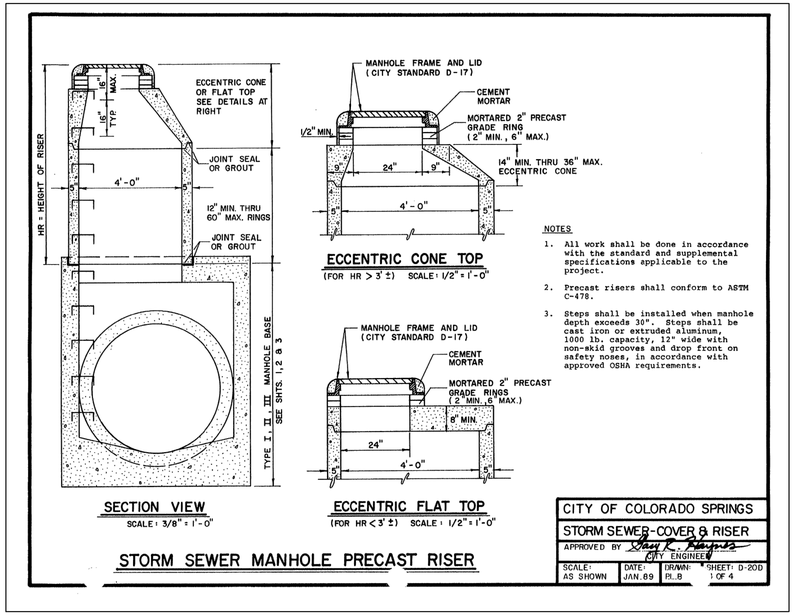
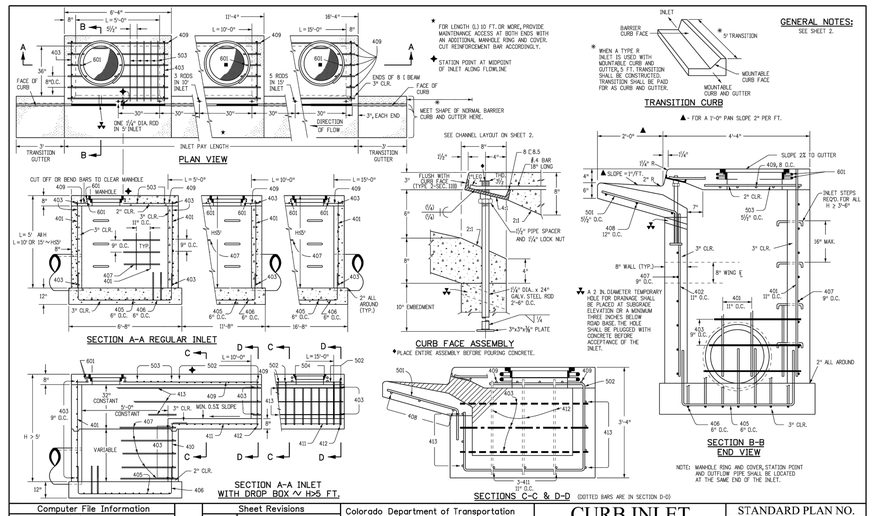
THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

EL PASO COUNTY CONSTRUCTION DOCUMENTS
STORM SEWER PLAN AND PROFILE

SHEET
STM







MARK	BAR # OR SIZE	O.C. SPACING	TYPE	ALL INLETS L = 5 FT. NO. REQ'D.	ALL INLETS L = 5 FT. LENGTH	INLETS: H ≤ 5 FT. L = 10 FT. NO. REQ'D.	INLETS: H ≤ 5 FT. L = 10 FT. LENGTH	INLETS: H ≤ 5 FT. L = 15 FT. NO. REQ'D.	INLETS: H ≤ 5 FT. L = 15 FT. LENGTH	INLETS: H > 5 FT. L = 10 FT. NO. REQ'D.	INLETS: H > 5 FT. L = 10 FT. LENGTH	INLETS: H > 5 FT. L = 15 FT. NO. REQ'D.	INLETS: H > 5 FT. L = 15 FT. LENGTH
401	4	11"	II	15	*	21	*	26	*	11	*	11	*
402	4	11"	II	7	*	13	*	18	*	7	*	7	*
403	4	9"	II	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-0"
405	4	6"	VI	11	6'-10"	21	6'-10"	31	6'-10"	11	6'-10"	11	6'-10"
406	4	6"	VIII	7	8'-10"	7	13'-10"	7	18'-10"	7	8'-10"	7	8'-10"
407	4	9"	II	*	5'-10"	*	10'-10"	*	15'-10"	*	5'-10"	*	5'-10"
408	4	12"	II	3	6'-10"	3	11'-10"	3	16'-0"	3	11'-10"	3	16'-0"
409	4	8"	II	6	5'-10"	6	10'-10"	6	15'-10"	6	10'-10"	6	15'-10"
410	4	11"	VII							5	*	5	*
411	4	11"	II							3	5'-2"	3	10'-2"
412	4	11"	II							3	2'-9"	3	2'-9"
413	4	9"	II							7	10'-10"	7	15'-10"
501	5	5½"	IV	11	3'-4"	22	3'-4"	33	3'-4"	22	3'-4"	33	3'-4"
502	5	5½"	III							11	11'-5"	17	11'-5"
503	5	5½"	II	5	3'-6"	16	3'-6"	27	3'-6"	6	3'-6"	6	3'-6"
504	5	5½"	IX									5	8'-4"
601	6	2½"	V	2	8'-10"	2	8'-10"	2	8'-10"	2	8'-10"	4	8'-10"
■ #8 S				1	5'-10"	1	10'-10"	1	15'-10"	1	10'-10"	1	15'-10"
				‡ BARS, 1 RODS	——	‡ BARS, 5 RODS	——	‡ BARS, 5 RODS	——	‡ BARS, 5 RODS	——	‡ BARS, 5 RODS	——
				REGULAR INLETS						DROP BOX INLETS			

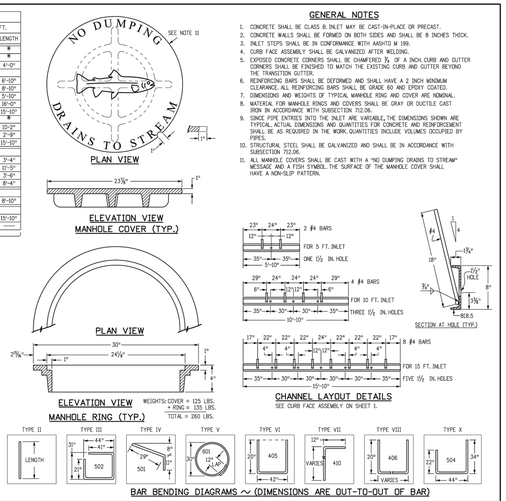
* VARIABLE REFER TO TABLE TWO.
■ INCLUDE #4, 18 IN BARS (SEE CHANNEL LAYOUT).

TABLE ONE ~ BAR LIST FOR CURB INLETS, TYPE "R"

"H"	LENGTH 401	LENGTH 402	LENGTH 410	NO. REQ'D. REGULAR 403	NO. REQ'D. REGULAR 407	NO. REQ'D. DROP BOX 403	NO. REQ'D. DROP BOX 407	L = 5 FT. CONC. CU. YDS.	L = 5 FT. STEEL LBS.	L = 10 FT. CONC. CU. YDS.	L = 10 FT. STEEL LBS.	L = 15 FT. CONC. CU. YDS.	L = 15 FT. STEEL LBS.
3'-0"	2'-8"	1'-8"		10	7			3.2	285	5.3	497	7.4	706
3'-6"	3'-2"	2'-2"		10	7			3.4	305	5.7	528	7.9	747
4'-0"	3'-8"	2'-8"		12	9			3.7	326	6.0	559	8.4	786
4'-6"	4'-2"	3'-2"		12	9			3.9	334	6.4	571	8.8	803
5'-0"	4'-8"	3'-8"		14	11			4.1	354	6.7	602	9.3	844
5'-6"	5'-2"	4'-2"	3'-5"	16	13	15	6	4.4	375	6.0	607	7.4	850
6'-0"	5'-8"	4'-8"	3'-11"	16	13	16	6	4.6	382	6.2	616	7.6	860
6'-6"	6'-2"	5'-2"	4'-5"	18	15	18	8	4.8	402	6.4	637	7.8	880
7'-0"	6'-8"	5'-8"	4'-11"	20	17	19	10	5.0	423	6.6	654	8.0	897
7'-6"	7'-2"	6'-2"	5'-5"	20	17	20	10	5.3	430	6.9	664	8.3	907
8'-0"	7'-8"	6'-8"	5'-11"	22	19	22	12	5.5	451	7.1	684	8.5	927
8'-6"	8'-2"	7'-2"	6'-5"	24	21	23	14	5.7	471	7.3	702	8.7	944
9'-0"	8'-8"	7'-8"	6'-11"	24	21	24	14	6.0	479	7.6	711	9.0	954
9'-6"	9'-2"	8'-2"	7'-5"	26	23	26	16	6.2	499	7.8	732	9.2	974
10'-0"	9'-8"	8'-8"	7'-11"	28	25	27	18	6.4	520	8.0	749	9.4	992
10'-6"	10'-2"	9'-2"	8'-5"	28	25	28	18	6.7	527	8.3	759	9.7	1001
11'-0"	10'-8"	9'-8"	8'-11"	30	27	30	20	6.9	547	8.5	779	9.9	1022

NOTES: FOR L = 5 FT., L = 10 FT., AND L = 15 FT.
REGULAR INLETS: TOTAL QUANTITIES NEEDED ARE OUTSIDE THE HEAVY BLACK LINE.
DROP BOX INLETS: TOTAL QUANTITIES NEEDED ARE INSIDE THE HEAVY BLACK LINE.
STEEL WEIGHTS DO NOT INCLUDE STRUCTURAL STEEL CHANNEL.

TABLE TWO ~ BARS AND QUANTITIES VARIABLE WITH "H"



GENERAL NOTES

1. CONCRETE SHALL BE CLASS B. INLET MAY BE CAST-IN-PLACE OR PRECAST.
2. CONCRETE WALLS SHALL BE FORMED ON BOTH SIDES AND SHALL BE 8 INCHES THICK.
3. INLET STEPS SHALL BE IN CONFORMANCE WITH AASHTO M 199.
4. CURB FACE ASSEMBLY SHALL BE GALVANIZED AFTER WELDING.
5. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED ¾" OF A INCH CURB AND GUTTER CORNERS SHALL BE FINISHED TO MATCH THE EXISTING CURB AND GUTTER BEYOND THE TRANSITION GUTTER.
6. REINFORCING BARS SHALL BE DEFORMED AND SHALL HAVE A 2 INCH MINIMUM CLEARANCE. ALL REINFORCING BARS SHALL BE GRADE 60 AND EPOXY COATED.
7. DIMENSIONS AND WEIGHTS OF TYPICAL MANHOLE RING AND COVER ARE NOMINAL.
8. MATERIAL FOR MANHOLE RINGS AND COVERS SHALL BE GRAY OR DUCTILE CAST IRON IN ACCORDANCE WITH SUBSECTION 712.06.
9. SINCE PIPE ENTRIES INTO THE INLET ARE VARIABLE, THE DIMENSIONS SHOWN ARE TYPICAL. ACTUAL DIMENSIONS AND QUANTITIES FOR CONCRETE AND REINFORCEMENT SHALL BE AS REQUIRED IN THE WORK. QUANTITIES INCLUDE VOLUMES OCCUPIED BY PIPES.
10. STRUCTURAL STEEL SHALL BE GALVANIZED AND SHALL BE IN ACCORDANCE WITH SUBSECTION 712.06.
11. ALL MANHOLE COVERS SHALL BE CAST WITH A "NO DUMPING DRAINS TO STREAM" MESSAGE AND A FISH SYMBOL. THE SURFACE OF THE MANHOLE COVER SHALL HAVE A NON-SLIP PATTERN.

CHANNEL LAYOUT DETAILS
SEE CURB FACE ASSEMBLY ON SHEET 1.

Computer File Information
Creation Date: 07/31/19
Designer Initials: JBK
Last Modification Date: 07/31/19
Detailer Initials: LTA
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English

Sheet Revisions
Date | Comments

Colorado Department of Transportation
2829 West Howard Place
2207 HQ, 3rd Floor
Denver, CO 80204
Phone: 303-757-9021 FAX: 303-757-9868
Project Development Branch JBK

CURB INLET TYPE R
Issued by the Project Development Branch: July 31, 2019

STANDARD PLAN NO.
M-604-12
Standard Sheet No. 2 of 2
Project Sheet Number:

NOT FOR CONSTRUCTION

DRAWN BY: CBM
JOB DATE: 4/5/2022
APPROVED: KMH
JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\El_Paso_Co\Details

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
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7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
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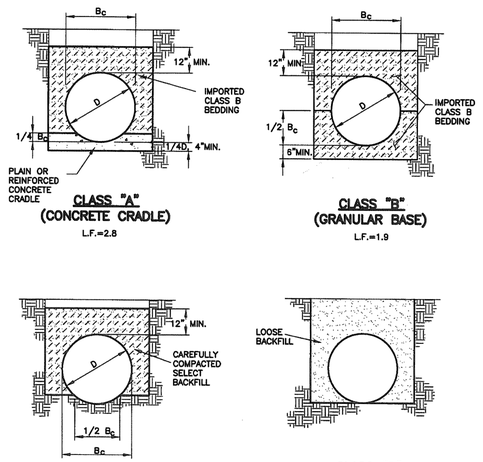
THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

GOODWIN KNIGHT

EL PASO COUNTY CONSTRUCTION DOCUMENTS
DETAILS

SHEET
DT

15



NOTES:

1. FOR ROCK OR OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVEREXCAVATED A MINUMUM OF 6" AND REFILLED WITH GRANULAR BEDDING MATERIAL AS DEFINED BY CLASS "B" BEDDING.
2. L.F. = LOAD FACTOR
3. CLASS "D" BEDDING WILL NOT BE ACCEPTABLE UNDER ANY CONDITION.
4. MINIMUM DENSITY FOR CAREFULLY COMPACTED SELECT BACKFILL SHALL BE 95% OF STD. PROCTOR DENSITY OR AS SPECIFIED FOR THE TRENCH BACKFILL, WHICHEVER IS GREATER.

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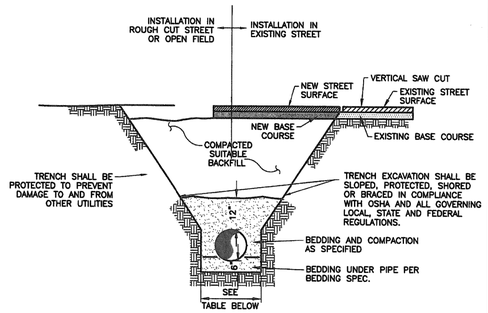
PIPE BEDDING	DWG-01
FSD FOUNTAIN SANITATION DISTRICT	DRAWN: MAM · REVISED: 2-2003 = CLASS B GRAN. MATERIAL · DATE: MARCH 2000 · REVISED: · SCALE: NONE · REVISED:



BOTTOM OF TRENCH WIDTH		
PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
4"	1'-5"	3'-9"
6"	1'-7"	3'-11"
8"	1'-9"	4'-1"
12"	2'-1"	4'-5"
15"	2'-6"	4'-9"
18"	2'-10"	5'-2"
24"	3'-2"	5'-6"

ALL PIPE EMBEDMENT SHALL BE IMPORTED CLASS B BEDDING UNLESS OTHERWISE DIRECTED.

AN OVER EXCAVATED TRENCH SHALL BE REFILLED AND THOROUGHLY COMPACTED UNDER THE DIRECTION OF THE FOUNTAIN SANITATION DISTRICT.

UNDER NO CIRCUMSTANCES WILL PIPE BE LAID IN A PROPOSED FILL AREA PRIOR TO IT BEING COMPLETELY FILLED. THE FILL WILL BE PLACED FIRST TO PROPOSED GRADE AND COMPACTED AS REQUIRED. A TRENCH THEN WILL BE EXCAVATED AND THE PIPE INSTALLED IN THE USUAL MANNER.

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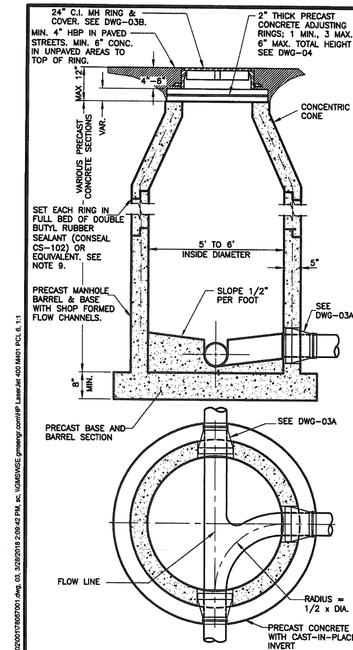
TYPICAL TRENCH CROSS SECTION	DWG-02
FSD FOUNTAIN SANITATION DISTRICT	DRAWN: MAM · REVISED: 3-2003 = BEDDING DEPTH · DATE: MARCH 2000 · REVISED: · SCALE: NONE · REVISED:



1. MANHOLE BARREL MINIMUM DIAMETER SHALL CONFORM TO TABLE.

OUTLET PIPE I.D.	MANHOLE I.D.
8" TO 30"	5'-0"
36" TO 54"	6'-0"
GREATER THAN 25' IN DEPTH	SPECIAL DESIGN

REFER TO STANDARD SPECIFICATIONS REGARDING MANHOLE DIAMETER CRITERIA.

2. MANHOLE FLOW CHANNELS SHALL BE CONSTRUCTED BY FORMING OR SHAPING CAST-IN-PLACE CONCRETE. PIPE SHALL NOT BE LAID THROUGH MANHOLE BASE. CHANNEL DEPTH SHALL BE NO LESS THAN DIAMETER OF THE LARGEST PIPE AT MANHOLE.
3. PRECAST CONCRETE AND REINFORCEMENT TO CONFORM TO ASTM C-478.
4. APPLY HIGH BUILD EPOXY WATERPROOFING TO ALL EXTERIOR CONCRETE SURFACES; PRIOR DESIGN AND INSPECTION APPROVAL REQUIRED. ICS DEVOE DEVTAR 5A.
5. DOUBLE EXTERIOR JOINT WRAPS, MIN. 12" WIDE, SHALL BE INSTALLED AT ALL JOINTS ON MANHOLE BARREL; HENRY CO. RUB'R NEK® JOINT WRAP OR EQUIVALENT.
6. PROVIDE PIPE TO MANHOLE CONNECTION, KOR-N-SEAL® OR EQUIVALENT.
7. REFER TO STANDARD SPECIFICATIONS FOR RING & COVER REQUIREMENTS. CLEAR RING OPENING SHALL BE NO LESS THAN 24".
8. MANHOLES SHALL NOT HAVE STEPS PERMANENTLY INSTALLED. BARREL PENETRATIONS WHERE STEPS HAVE BEEN REMOVED SHALL BE FILLED WITH EPOXY BASED GROUT, SIKAGROUT 212 OR EQUIVALENT. STEPS SHALL BE COMPLETELY REMOVED, NOT CUT OFF AT THE BARREL SURFACE.
9. PLACE EACH RING, BARREL AND CONE SECTION IN FULL BED OF DOUBLE BUTYL RUBBER SEALANT, CONSEAL CS-102 OR EQUIVALENT, NO LESS THAN TWO CONTINUOUS PIECES OF SEALANT, 1"x1" WITH JOINT ON EACH PIECE OFFSET FROM THE OTHER.

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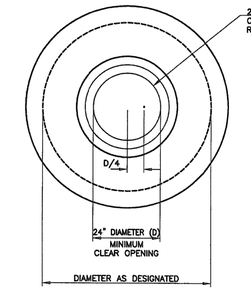
PRECAST CONCRETE MANHOLE	DWG-03
FSD FOUNTAIN SANITATION DISTRICT	DRAWN: SKC · REVISED: 3-2003 = STEPS AND MH DIAMETER · DATE: MARCH 2000 · REVISED: 6-2017: PRECAST BASE, HMA @ RING & MH DIA. · SCALE: NONE · REVISED: 3-2018: CONE, DIAMETERS, WATERPROOFING



1. CAST IRON (C.I.) FOR TRAFFIC BEARING CONDITIONS
2. C.I. OR CAST ALUMINUM FOR NON-TRAFFIC CONDITIONS
3. RING AND COVER MUST BE LOCKING TYPE AND BOLTED TO CONCENTRIC CONE WHEN LOCATED IN AREAS THAT ARE NOT DEDICATED STREETS OR ALLEYS
4. PICK HOLES SHALL BE 1/2" IN DIAMETER LOCATED MIDWAY BETWEEN CENTER OF COVER AND EDGE OF COVER

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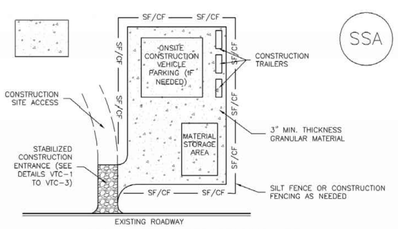
MANHOLE RING AND COVER	DWG-3B
FSD FOUNTAIN SANITATION DISTRICT	DRAWN: SKC · REVISED: · DATE: MARCH 2018 · REVISED: · SCALE: NONE · REVISED:

Stabilized Staging Area (SSA) SM-6



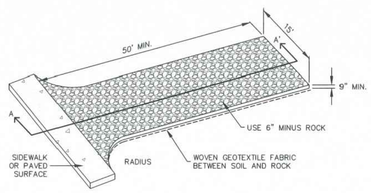
SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

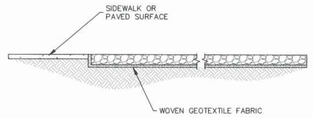
1. SEE PLAN VIEW FOR
   -LOCATION OF STAGING AREA(S).
   -CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
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.



AGGREGATE VEHICLE TRACKING CONTROL



SECTION A-A'

INSTALLATION NOTES

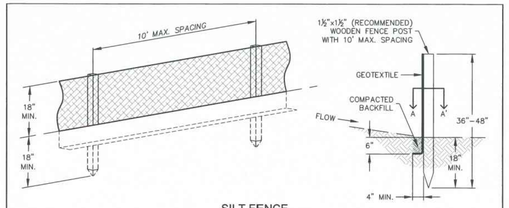
1. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHOULD BE LOCATED AT ALL POINTS WHERE VEHICLES EXIT THE CONSTRUCTION SITE TO ADJACENT ROADWAY.
2. STABILIZED CONSTRUCTION ENTRANCE/EXITS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. RADIUS MUST BE ADEQUATE FOR INTENDED CONSTRUCTION VEHICLE TURNING.
4. ROCK SHOULD CONSIST OF 6" MINUS ROCK.
5. INSTALL CONSTRUCTION FENCE ON BOTH SIDES OF VEHICLE TRACKING CONTROL PAD WHEN NEEDED OR REQUIRED BY INSPECTOR.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. SEDIMENT TRACKED ONTO THE ADJACENT ROAD SHALL BE REMOVED DAILY, BY SWEEPING OR SHOVELING, AND NEVER WASHED DOWN STORM DRAINS.
3. ROUGHEN, REPLACE AND/OR ADD ROCK AS NEEDED TO MAINTAIN CONSISTENT DEPTH AND TO PREVENT SEDIMENT TRACKING ONTO ADJACENT STREET.
4. PERMANENTLY STABILIZE AREA AFTER VEHICLE TRACKING CONTROL IS REMOVED.

VTC

STORMWATER ENTERPRISE	VEHICLE TRACKING CONTROL	
APPROVED: CMENT MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-VTC



SILT FENCE

J-HOOK INSTALLATION

SECTION A-A'

INSTALLATION NOTES

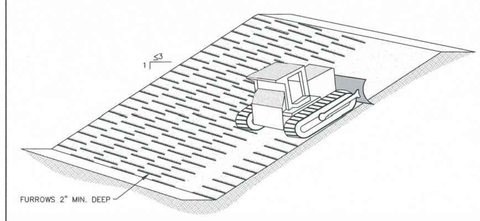
1. SILT FENCE MUST BE PLACED ON A FLAT SURFACE 2'-5' AWAY FROM TOE OF THE SLOPE TO ALLOW FOR PONDING AND DEPOSITION.
2. COMPACT THE TRENCH USING A JUMPING JACK OR WHEEL ROLLING TO THE POINT THAT THE FENCE RESISTS BEING PULLED OUT OF THE GROUND BY HAND.
3. SILT FENCE SHALL BE TAUT WITH NO SAGS AFTER IT HAS BEEN ANCHORED.
4. FABRIC SHALL BE ATTACHED TO POSTS WITH 1" HEAVY DUTY STAPLES OR 1" NAILS. THESE SHOULD BE PLACED VERTICALLY DOWN THE POST, 3" APART.
5. THE PREFERRED INSTALLATION METHOD USES A TRENCHER OR SILT FENCE INSTALLATION DEVICE.
6. INSTALL SILT FENCE ALONG THE CONTOUR OF THE SLOPES OR IN A MANNER TO AVOID CREATING CONCENTRATED FLOW (SUCH AS A "J-HOOK" INSTALLATION).

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN HEIGHT OF THE SILT FENCE.
3. SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AFTER SILT FENCE IS REMOVED.

SF

STORMWATER ENTERPRISE	SILT FENCE	
APPROVED: CMENT MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-SF



SLOPE TRACKING

INSTALLATION NOTES

1. SLOPE TRACKING MAY BE USED ON SLOPES 3:1 OR STEEPER.
2. TRACKING GROOVES SHALL BE PERPENDICULAR TO THE SLOPE.
3. SLOPE TRACKING SHALL NOT BE USED ON EXTREMELY SANDY OR ROCKY SOILS.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SLOPE TRACKED.

ST

STORMWATER ENTERPRISE	SLOPE TRACKING	
APPROVED: CMENT MANAGER		
ISSUED: 10/7/19	REVISED: 8/19/2020	DRAWING NO. 900-ST

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APPROVED: KMH	JOB NUMBER: 200541	IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD DATE: 4/5/2022		
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\El_Paso_Co\Details		

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HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

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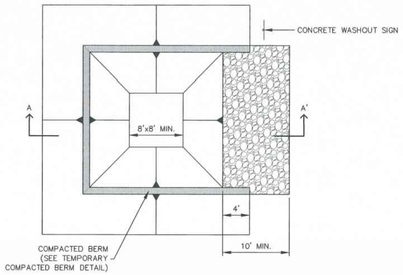
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

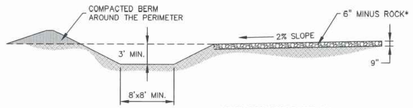
GOODWIN KNIGHT

CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
DETAILS

SHEET DT



CONCRETE WASHOUT AREA PLAN



SECTION A-A'

*ROCK REQUIRED BASED ON SITE CONDITIONS AT THE DISCRETION OF THE GEC INSPECTOR

INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION OF CONCRETE WASHOUT AREA
2. LOCATE AT LEAST 50' AWAY FROM STATE WATERS MEASURED HORIZONTALLY.
3. AN IMPERMEABLE LINER (16 MIL MINIMUM THICKNESS) IS REQUIRED IF CONCRETE WASH AREA IS LOCATED WITHIN 400' OF STATE WATERS OR 1000' OF WELLS OR DRINKING WATER SOURCES.
4. DO NOT LOCATE IN AREAS WHERE SHALLOW GROUNDWATER MAY BE PRESENT.
5. THE CONCRETE WASH AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
6. CONCRETE WASH AREA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8'.
7. BERM SURROUNDING SIDES AND BACK OF CONCRETE WASH AREA SHALL HAVE A MINIMUM HEIGHT OF 2 FEET.
8. CONCRETE WASH AREA ENTRANCE SHALL BE SLOPED 2% TOWARDS THE CONCRETE WASH AREA.
9. SIGNS SHALL BE PLACED AT THE CONCRETE WASH AREA.
10. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

MAINTENANCE NOTES

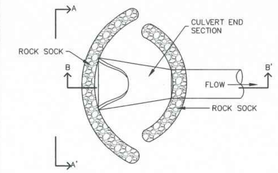
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. THE CONCRETE WASH AREA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN THE PIT SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF ⅔ THE HEIGHT OF THE CONCRETE WASH AREA.
3. 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.
4. THE CONCRETE WASH AREA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
5. PERMANENTLY STABILIZE AREA AFTER CONCRETE WASH AREA IS REMOVED.

CWA

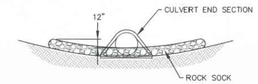
STORMWATER ENTERPRISE — CONCRETE WASHOUT AREA
APPROVED: ENGINEER MANAGER
ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-CWA-1

CWA

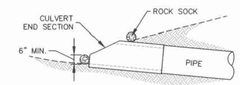
STORMWATER ENTERPRISE — CONCRETE WASHOUT AREA
APPROVED: ENGINEER MANAGER
ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-CWA-2



CULVERT INLET PROTECTION PLAN



SECTION A-A'



SECTION B-B'

INSTALLATION NOTES

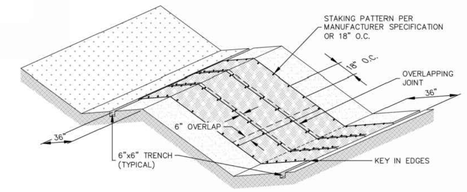
1. SEE ROCK SOCK DETAIL.

MAINTENANCE NOTES

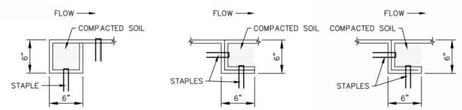
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS ½ HEIGHT OF THE ROCK SOCK.
3. CULVERT INLET PROTECTION SHALL REMAIN UNTIL THE UPSTREAM AREA IS PERMANENTLY STABILIZED.

CIP

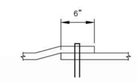
STORMWATER ENTERPRISE — CULVERT INLET PROTECTION
APPROVED: ENGINEER MANAGER
ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-CIP



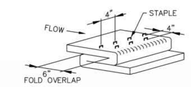
EROSION CONTROL BLANKET



PERIMETER ANCHOR TRENCH | JOINT ANCHOR TRENCH | INTERMEDIATE CHECK SLOT



OVERLAPPING JOINT



STAPLE CHECK
TO BE USED ON SLOPE EVERY 15 FEET

ECB

STORMWATER ENTERPRISE — EROSION CONTROL BLANKET
APPROVED: ENGINEER MANAGER
ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-ECB-1

INSTALLATION NOTES

1. 100% NATURAL AND BIODEGRADABLE MATERIALS ARE REQUIRED FOR EROSION CONTROL BLANKETS. TRM PRODUCTS MAY ME USED WHERE APPROPRIATE AS DESIGNATED BY THE ENGINEER.
2. IN AREAS WHERE EROSION CONTROL BLANKETS ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO EROSION CONTROL BLANKET INSTALLATION, AND THE EROSION CONTROL BLANKET SHALL BE IN FULL CONTACT WITH THE SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
3. PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
4. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL EROSION CONTROL BLANKETS.
5. INTERMEDIATE CHECK SLOT OR STAPLE CHECK SHALL BE INSTALLED EVERY 15' DOWN SLOPES. IN DRAINAGEWAYS, INSTALL CHECK SLOTS EVERY 25' PERPENDICULAR TO FLOW DIRECTION.
6. OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER FOR EROSION CONTROL BLANKETS ON SLOPES.
7. MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKETS SHALL CONFORM TO TABLE ECB-1.
8. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKETS SHALL BE RESEEDED AND MULCHED.
9. STRAW EROSION CONTROL BLANKETS SHALL NOT BE USED WITHIN STREAMS AND DRAINAGE CHANNELS.
10. COMPACT ALL TRENCHES.

MAINTENANCE NOTES

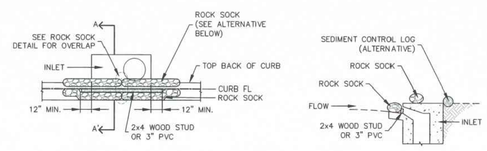
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. EROSION CONTROL BLANKETS SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE. TRM MUST BE REMOVED AT THE DISCRETION OF THE GEC INSPECTOR.
3. ANY EROSION CONTROL BLANKET PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW GEOTEXTILE THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE EROSION CONTROL BLANKET REINSTALLED.

TABLE ECB-1, EROSION CONTROL BLANKET MATERIAL SPECIFICATIONS

TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING
STRAW	–	100%	–	DOUBLE/ NATURAL
STRAW-COCONUT	30% MIN.	70% MAX.	–	DOUBLE/ NATURAL
COCONUT	100%	–	–	DOUBLE/ NATURAL
EXCELSIOR	–	–	100%	DOUBLE/ NATURAL

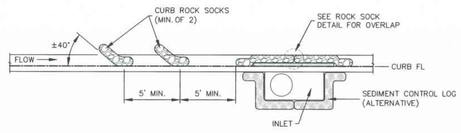
ECB

STORMWATER ENTERPRISE — EROSION CONTROL BLANKET
APPROVED: ENGINEER MANAGER
ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-ECB-2



CURB INLET PROTECTION PLAN

SECTION A-A'



CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

INSTALLATION NOTES

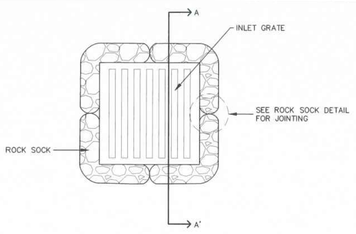
1. SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
2. PLACEMENT OF THE ROCK SOCK SHALL BE APPROXIMATELY 40 DEGREES FROM THE CURB.
3. ROCK SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5' APART.
4. AT LEAST TWO CURB ROCK SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADIENT INLETS.
5. ADDITIONAL ROCK SOCKS MAY BE REQUIRED AT GEC INSPECTOR'S DISCRETION.

MAINTENANCE NOTES

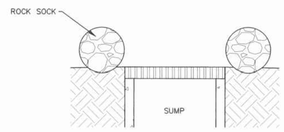
1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA BEHIND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

IP-1

STORMWATER ENTERPRISE — ON-GRADE INLET PROTECTION
APPROVED: ENGINEER MANAGER
ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-IP-1



ROCK SOCK SUMP INLET PROTECTION PLAN



SECTION A-A'

INSTALLATION NOTES

1. SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
2. SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL
3. CONTROL MEASURES MUST BE WRAPPED AROUND INLET AS TIGHTLY AS POSSIBLE.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AROUND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

IP-2

STORMWATER ENTERPRISE — SUMP INLET PROTECTION
APPROVED: ENGINEER MANAGER
ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-IP-2

SEEDING & MULCHING

ALL SOIL TESTING, SOILS AMENDMENT AND FERTILIZER DOCUMENTATION, AND SEED LOAD AND BAG TICKETS MUST BE ADDED TO THE CSWMP.

SOIL PREPARATION

1. IN AREAS TO BE SEEDED, THE UPPER 6 INCHES OF THE SOIL MUST NOT BE HEAVILY COMPACTED, AND SHOULD BE IN FRIABLE CONDITION. LESS THAN 85% STANDARD PROCTOR DENSITY IS ACCEPTABLE. AREAS OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES PRIOR TO SPREADING TOPSOIL TO BREAK UP COMPACTED LAYERS AND PROVIDE A BLENDING ZONE BETWEEN DIFFERENT SOIL LAYERS.
2. AREAS TO BE PLANTED SHALL HAVE AT LEAST 4 INCHES OF TOPSOIL SUITABLE TO SUPPORT PLANT GROWTH.
3. THE CITY RECOMMENDS THAT EXISTING AND/OR IMPORTED TOPSOIL BE TESTED TO IDENTIFY SOIL DEFICIENCIES AND ANY SOIL AMENDMENTS NECESSARY TO ADDRESS THESE DEFICIENCIES. SOIL AMENDMENTS AND/OR FERTILIZERS SHOULD BE ADDED TO CORRECT TOPSOIL DEFICIENCIES BASED ON SOIL TESTING RESULTS.
4. TOPSOIL SHALL BE PROTECTED DURING THE CONSTRUCTION PERIOD TO RETAIN ITS STRUCTURE AVOID COMPACTION, AND TO PREVENT EROSION AND CONTAMINATION. STRIPPED TOPSOIL MUST BE STORED IN AN AREA AWAY FROM MACHINERY AND CONSTRUCTION OPERATIONS, AND CARE MUST BE TAKEN TO PROTECT THE TOPSOIL AS A VALUABLE COMMODITY. TOPSOIL MUST NOT BE STRIPPED DURING UNDESIRABLE WORKING CONDITIONS (E.G. DURING WET WEATHER OR WHEN SOILS ARE SATURATED). TOPSOIL SHALL NOT BE STORED IN SWALES OR IN AREAS WITH POOR DRAINAGE.

SEEDING

1. ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
2. SEED SHOULD BE DRILL-SEEDED WHENEVER POSSIBLE
   - SEED DEPTH MUST BE ¼ TO ½ INCHES WHEN DRILL-SEEDING IS USED
3. BROADCAST SEEDING OR HYDRO-SEEDING WITH TACKIFIER MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
   - SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLION DRILL OR HYDRO-SEEDING
   - BROADCAST SEEDING MUST BE LIGHTLY HAND-RAKED INTO THE SOIL

MULCHING

1. MULCHING SHOULD BE COMPLETED AS SOON AS PRACTICABLE AFTER SEEDING, HOWEVER PLANTED AREAS MUST BE MULCHED NO LATER THAN 14 DAYS AFTER PLANTING.
2. MULCHING REQUIREMENTS INCLUDE:
   - HAY OR STRAW MULCH
     - ONLY CERTIFIED WEED-FREE AND CERTIFIED SEED-FREE MULCH MAY BE USED. MULCH MUST BE APPLIED AT 2 TONS/ACRE AND ADEQUATELY SECURED BY CRIMPING AND/OR TACKIFIER.
     - CRIMPING MUST NOT BE USED ON SLOPES GREATER THAN 3:1 AND MULCH FIBERS MUST BE TUCKED INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES.
     - TACKIFIER MUST BE USED IN PLACE OF CRIMPING ON SLOPES STEEPER THAN 3:1.
   - HYDRAULIC MULCHING
     - HYDRAULIC MULCHING IS AN OPTION ON STEEP SLOPES OR WHERE ACCESS IS LIMITED.
     - IF HYDRO-SEEDING IS USED, MULCHING MUST BE APPLIED AS A SEPARATE, SECOND OPERATION.
     - WOOD CELLULOSE FIBERS MIXED WITH WATER MUST BE APPLIED AT A RATE OF 2,000 TO 2,500 POUNDS/ACRE, AND TACKIFIER MUST BE APPLIED AT A RATE OF 100 POUNDS/ACRE.
   - EROSION CONTROL BLANKET
     - EROSION CONTROL BLANKET MAY BE USED IN PLACE OF TRADITIONAL MULCHING METHODS.

SM

STORMWATER ENTERPRISE — SEEDING & MULCHING
APPROVED: ENGINEER MANAGER
ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-SM

NOT FOR CONSTRUCTION

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APPROVED: KMH | JOB NUMBER: 200541
CAD DATE: 4/5/2022
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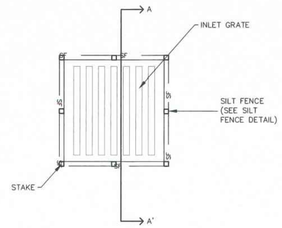
HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

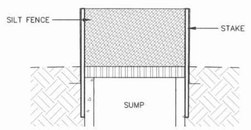
THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

EL PASO COUNTY CONSTRUCTION DOCUMENTS
DETAILS

SHEET DT 17



SILT FENCE SUMP INLET PROTECTION PLAN



SECTION A-A'

INSTALLATION NOTES

1. SEE SILT FENCE DETAIL FOR INSTALLATION REQUIREMENTS.
2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF THREE FEET.
3. SILT FENCE FABRIC SHOULD HAVE A FLOW RATE IN EXCESS OF 30 GALLONS PER MINUTE PER SQUARE YARD SO AS TO ALLOW SOME WATER FLOW AND NOT DAM THE WATER. STANDARD, LOW-FLOW SILT FENCE FABRIC WILL NOT BE ALLOWED.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AROUND INLET AFTER SILT FENCE IS REMOVED WHEN REMOVAL IS APPROPRIATE.

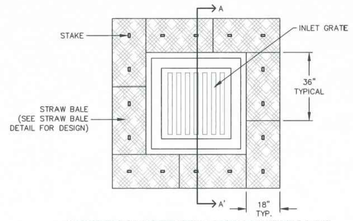
IP-3

STORMWATER ENTERPRISE

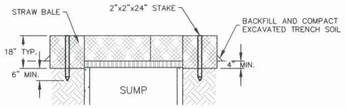
SUMP INLET PROTECTION

APPROVED: SWENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-IP-3



STRAW BALE SUMP INLET PROTECTION PLAN



SECTION A-A'

INSTALLATION NOTES

1. BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH THE ENDS OF THE BALES TIGHTLY ABUTTING ONE ANOTHER.
2. STRAW BALES SHALL CONSIST OF CERTIFIED WEED FREE STRAW OR HAY. LOCAL JURISDICTIONS MAY REQUIRE PROOF THAT BALES ARE WEED FREE.
3. STRAW BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF STRAW OR HAY AND WEIGH NOT LESS THAN 35 POUNDS.
4. STRAW BALE DIMENSIONS SHALL BE APPROXIMATELY 36"x18"x18".
5. A UNIFORM ANCHOR TRENCH SHALL BE EXCAVATED TO A DEPTH OF 4". STRAW BALES SHALL BE PACED SO THAT THE BINDING TWINE IS ENCOMPASSING THE VERTICAL SIDES OF THE BALE(S).
6. TWO (2) WOODEN STAKES SHALL BE USED TO HOLD EACH BALE IN PLACE. WOODEN STAKED SHALL BE 2"x2"x24 (MIN.)". WOODEN STAKES SHALL BE DRIVEN A MINIMUM OF 6" INTO THE GROUND.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. STRAW BALES MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AROUND INLET AFTER STRAW BALES ARE REMOVED WHEN REMOVAL IS APPROPRIATE.
5. STRAW BALES SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, ROTTEN OR DAMAGED BEYOND REPAIR.

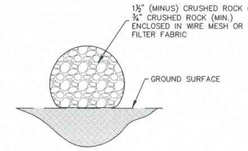
IP-4

STORMWATER ENTERPRISE

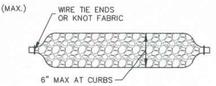
SUMP INLET PROTECTION

APPROVED: SWENT MANAGER

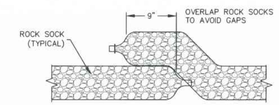
ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-IP-4



ROCK SOCK SECTION



ROCK SOCK PLAN



ROCK SOCK OVERLAP

GRADATION TABLE

	MASS PERCENT PASSING SQUARE MESH SIEVES
	No. 4
2"	100
1½"	90-100
1"	20-55
¾"	0-15
⅜"	0-5

MATCHES SPECIFICATIONS FOR No. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M-43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES

INSTALLATION NOTES

1. CRUSHED ROCK SHALL BE BETWEEN MAX. 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET AND MIN. ¾" CRUSHED ROCK.
2. WIRE MESH SHALL HAVE OPENINGS SMALLER THAN THE SMALLEST SIZE ROCK.
3. 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.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED OR DAMAGED BEYOND REPAIR.
3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN THE DEPTH REACHES ½ OF THE HEIGHT OF THE ROCK SOCK.
4. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL DISTURBED AREA IS STABILIZED.
5. PERMANENTLY STABILIZE AREA AFTER ROCK SOCKS HAVE BEEN REMOVED.

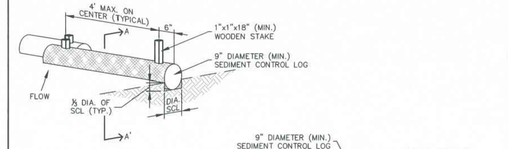
RS

STORMWATER ENTERPRISE

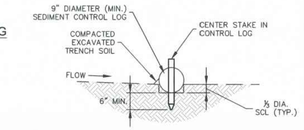
ROCK SOCK

APPROVED: SWENT MANAGER

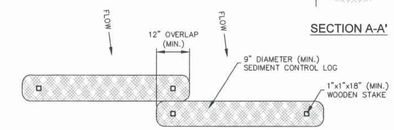
ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-RS



SEDIMENT CONTROL LOG



SECTION A-A'



SEDIMENT CONTROL LOG JOINTS

INSTALLATION NOTES

1. ALL SEDIMENT CONTROL LOGS MUST BE EMBEDDED TO ⅓ OF THE HEIGHT OF THE LOG
2. LARGER DIAMETER SEDIMENT CONTROL LOGS NEED TO BE EMBEDDED DEEPER.
3. PLACE SEDIMENT CONTROL LOG AGAINST SIDEWALK OR BACK OF CURB WHEN ADJACENT TO THESE FEATURES.
4. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BR FREE FROM ANY NOXIOUS WEED SEEDS OF DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
5. IF USING AS SLOPE PROTECTION, INSTALL SEDIMENT CONTROL LOGS ALONG THE CONTOUR.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
3. PERMANENTLY STABILIZE AREA AFTER SEDIMENT CONTROL LOGS HAVE BEEN REMOVED.

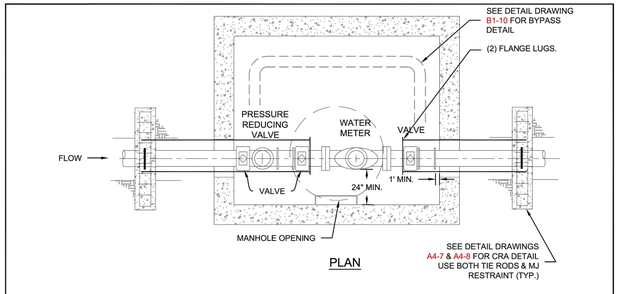
SCL

STORMWATER ENTERPRISE

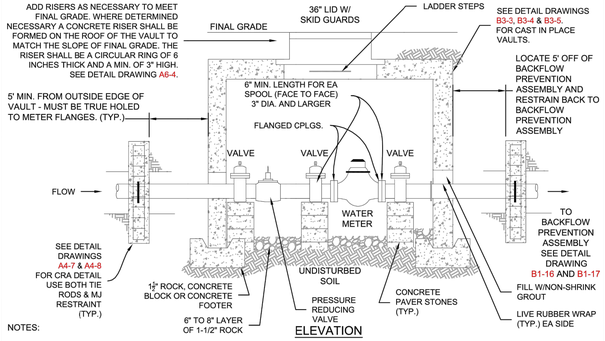
SEDIMENT CONTROL LOGS

APPROVED: SWENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-SCL



PLAN



ELEVATION

NOTES:

1. REFER TO DETAIL DRAWINGS B1-9 THRU B1-11 FOR METER INSTALLATION REQUIREMENTS AND CLEARANCES.
2. THE METER MUST BE INSTALLED WITH THE CLEARANCE DIMENSIONS AS SHOWN IN DETAIL DRAWING B1-11. ONE SIDE OF THE METER SHALL BE FREE FROM ANY OBSTRUCTION. 3' MINIMUM CLEARANCE IS REQUIRED ABOVE AND IN FRONT OF THE METER.
3. TIE RODS TO BE CATHODICALLY PROTECTED PER DETAIL DRAWING A8-11.
4. PRECAST CONCRETE VAULTS SHALL BE DESIGNED FOR HS-20 TRAFFIC LOADING CONDITIONS AND 300 PSF SURCHARGE LOAD.
5. SEE DETAIL DRAWING B3-5 FOR FOOTER DIMENSIONS AND STRUCTURAL REQUIREMENTS.
6. SEE DETAIL DRAWINGS B3-3 AND B3-5 FOR PRECAST VAULT DIMENSIONS.
4. NO DRAIN VALVES, OUTLETS OR BRANCH LINES SHALL BE LOCATED BEFORE THE APPROVED BACKFLOW PREVENTION ASSEMBLY.
5. BACKFLOW PREVENTION ASSEMBLY MUST BE LOCATED NO MORE THAN 10' FROM THE OUTSIDE EDGE OF VAULT.

Colorado Springs Utilities
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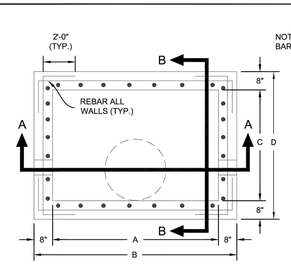
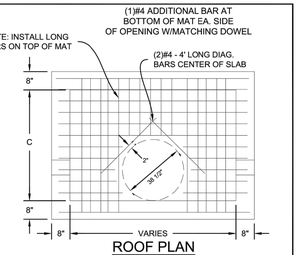
PRE-CAST CONCRETE VAULT
FOR 3" THRU 10" METERS
W/BYPASS

B3-2

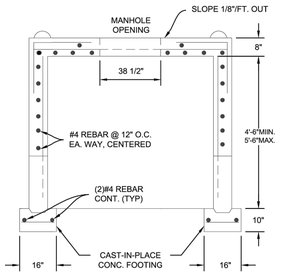
DATED 03/2019



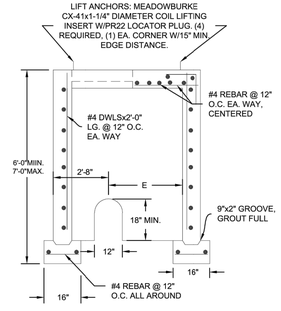
PLAN



ROOF PLAN



SECTION A-A



SECTION B-B

METER SIZE	A	B	C	D	E
3" & 4"	10'-0"	11'-4"	5'-0"	6'-4"	3'-8"
6"	11'-0"	12'-4"	5'-0"	6'-4"	3'-8"

PLAN:

CONCRETE VAULT SHALL BE DESIGNED FOR HS-20 TRAFFIC LOADING CONDITIONS AND 300 PSF SURCHARGE LOAD, UNLESS APPROVED OTHERWISE. SEPARATE ROOF ACCEPTABLE.

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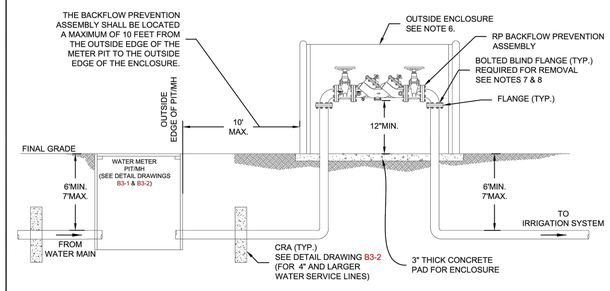
It's how we're all connected

CAST IN PLACE
CONCRETE VAULT FOR
3", 4", AND 6" METERS

B3-5

DATED 06/2015



NOTES:

1. REFERENCE SECTION 2.7.L FOR BACKFLOW PREVENTION ASSEMBLY REQUIREMENTS.
2. NO DRAIN VALVES, OUTLETS OR BRANCH LINES SHALL BE LOCATED BEFORE THE APPROVED BACKFLOW PREVENTION ASSEMBLY.
3. THE APPROVED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED WITH SOLDERED OR FLANGED ONLY.
4. THE BACKFLOW PREVENTION ASSEMBLY SHALL BE ON AN APPROVED REDUCED PRESSURE PRINCIPLE BACKFLOW PREVENTION ASSEMBLY.
5. REMOVABLE BACKFLOW PREVENTION ASSEMBLIES WILL BE EVALUATED ON A CASE BY CASE BASIS AND WILL ONLY BE APPROVED FOR SEASONAL IRRIGATION USERS.
6. SEASONAL BACKFLOW PREVENTION ASSEMBLIES SHALL BE LOCATED IN A LOCKABLE LID TO PROTECT FROM THEFT.
7. WHERE REMOVAL OF ASSEMBLY IS REQUESTED, FLANGES MUST BE INSTALLED ON THE IN-GROUND SUPPLY AND DISCHARGE PIPING SO THE EXPOSED PIPING OF THE WATER SYSTEM IS SEALED OFF WHILE THE BACKFLOW PREVENTER IS REMOVED.
8. DURING REMOVAL PERIOD, THE VALVE ON THE SUPPLY SIDE SHALL BE SHUT AND THE FLANGES SHALL BE SEALED WITH A BOLTED BLIND FLANGE.
9. FOR SERVICE LINES 4" AND GREATER, PIPE SHALL BE RESTRAINED BETWEEN THE METER PIT AND BACKFLOW PREVENTER.

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TYPICAL NON-SINGLE-FAMILY RESIDENTIAL OUTDOOR
WATER METER AND REMOVABLE BACKFLOW
PREVENTION ASSEMBLY
FOR IRRIGATION SYSTEMS

B1-17

DATED 01/2017

DRAWN BY: CBM JOB DATE: 4/5/2022
APPROVED: KMH JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\EI _Paso_Co\Details

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

GOODWIN KNIGHT

EL PASO COUNTY CONSTRUCTION DOCUMENTS
DETAILS

SHEET
DT
18

THE COTTAGES AT MESA RIDGE
CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS

A PORTION OF THE NORTHEAST QUARTER OF SECTION 29, THE SOUTHEAST QUARTER OF SECTION 20, THE SOUTHWEST QUARTER OF SECTION 21, & THE NORTHWEST QUARTER OF SECTION 28, TOWNSHIP 13 SOUTH, RANGE 65 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO

LEGAL DESCRIPTION:

THAT PORTION OF THE NORTHWEST QUARTER OF SECTION 28 AND THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

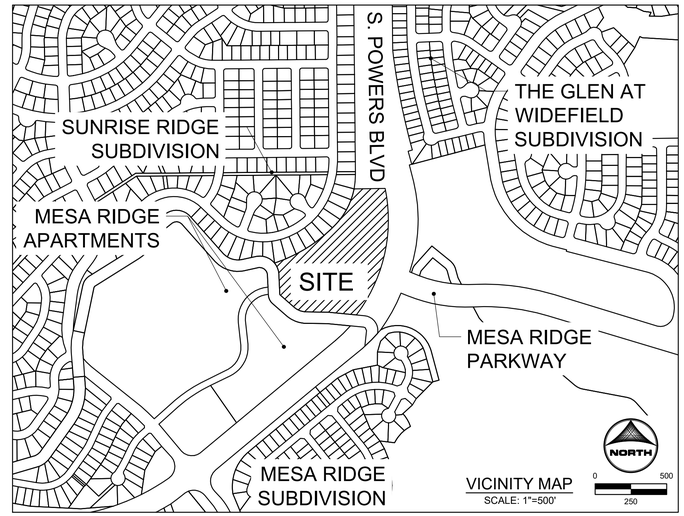
BASIS OF BEARINGS: BEARINGS ARE BASED UPON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 29, MONUMENTED AT THE WEST END WITH A 3.25" ALUMINUM CAP IN CONCRETE STAMPED "PLS 4842" AND MONUMENTED AT THE EAST END WITH A #6 REBAR AND 3.25" ALUMINUM CAP STAMPED "PLS 38141" AND ASSUMED TO BEAR S 89°57'13" E A FIELD MEASURED DISTANCE OF 2,652.37 FEET.

BENCHMARK: ELEVATIONS ARE BASED UPON THE FOUNTAIN SANITATION DISTRICT POINT N-1, BEING A 2" BRASS CAP IN CONCRETE AT THE NORTHEAST CORNER OF MESA RIDGE PARKWAY AND FOUNTAIN MESA ROAD. (ELEVATION=5750.57 NGVD 29).

BEGINNING AT THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 28;
THENCE N 89°41'59" E ALONG THE NORTH LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 117.30 FEET TO A POINT ON THE WEST LINE OF POWERS BOULEVARD AS RECORDED UNDER BOOK 6788 AT PAGE 531 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDERS OFFICE;
THENCE ALONG THE WEST LINE OF SAID POWERS BOULEVARD, 933.14 FEET ALONG THE ARC OF A 1,096.98 FOOT RADIUS CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 48°44'17" AND A CHORD THAT BEARS S 12°56'23" W, 905.26 FEET TO A POINT ON THE NORTHERLY LINE OF THAT PARCEL OF LAND DESCRIBED UNDER BOOK 5506 AT PAGE 1290 OF SAID RECORDS;
THENCE OF THE FOLLOWING EIGHT (8) COURSES ALONG SAID NORTHERLY LINES AND EASTERLY LINES OF SAID PARCEL OF LAND DESCRIBED UNDER BOOK 5506 AT PAGE 1290:
1) N 84°16'00" W, A DISTANCE OF 198.99 FEET;
2) 46.11 FEET ALONG THE ARC OF A 540.00 FOOT RADIUS TANGENT CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 04°53'33" AND A CHORD THAT BEARS N 86°42'46" W, 46.10 FEET;
3) N 89°09'33" W, A DISTANCE OF 124.09 FEET;
4) 100.02 FEET ALONG THE ARC OF A 140.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 40°56'07" AND A CHORD THAT BEARS N 68°41'30" W, 97.91 FEET;
5) N 48°13'27" W, A DISTANCE OF 126.77 FEET;
6) 6.49 FEET ALONG THE ARC OF AN 8.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 46°29'23" AND A CHORD THAT BEARS N 24°58'45" W, 6.31 FEET;
7) N 01°44'04" W, A DISTANCE OF 137.18 FEET;
8) 87.71 FEET ALONG THE ARC OF A 135.00 FOOT RADIUS TANGENT CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 37°13'35" AND A CHORD THAT BEARS N 20°21'02" W, 86.18 FEET TO THE SOUTHWEST CORNER OF LOT 15, BLOCK 3, SUNRISE RIDGE SUBDIVISION FILING NO. 8 AS RECORDED UNDER RECEPTION NO. 1722613 OF SAID RECORDS;
THENCE THE FOLLOWING TWO (2) COURSES ALONG THE EASTERLY LINE OF SAID SUNRISE RIDGE SUBDIVISION FILING NO. 8: 1) 511.39 FEET ALONG THE ARC OF A 1,034.60 FOOT RADIUS CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 28°19'14" AND A CHORD THAT BEARS N 58°13'41" E, 506.20 FEET TO A POINT OF COMPOUND CURVATURE;
2) 283.12 FEET ALONG THE ARC OF A 500.00 FOOT RADIUS CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 32°26'36" AND A CHORD THAT BEARS N 27°50'47" E, 279.35 FEET TO A POINT ON THE NORTH LINE OF SAID NORTHEAST QUARTER;
THENCE N 89°57'13" E ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER, A DISTANCE OF 115.21 FEET TO THE POINT OF BEGINNING.

CONTAINING A CALCULATED AREA OF 445,104 SQUARE FEET (10.218 ACRES) OF LAND, MORE OR LESS.

TO BE PLATTED AS "THE COTTAGES AT MESA RIDGE"



VICINITY MAP
SCALE: 1"=500'

STAKEHOLDERS:

OWNER:	CSJ NO 1 LLC 111 S. TEJON STREET, SUITE 222 COLORADO SPRINGS, CO 80903
DEVELOPER:	GOODWIN KNIGHT 8605 EXPLORER DRIVE, SUITE 250 COLORADO SPRINGS, CO 80920
ATTN:	DAVE MORRISON
APPLICANT:	HR GREEN DEVELOPMENT, LLC 1975 RESEARCH PKWY, SUITE 230 COLORADO SPRINGS, CO 80920
ATTN:	PHIL STUEPFERT, KEN HUHN
SURVEYOR:	BARRON LAND, LLC 2790 N ACADEMY BLVD #311 COLORADO SPRINGS, CO 80917 ATTN: SPENCER BARRON

SHEET INDEX:

ENGINEER'S STATEMENT:

SIGNATURE (AFFIX SEAL): _____ DATE: _____

COLORADO PROFESSIONAL ENGINEER NO:_____

ACCEPTANCE:

THESE PLAN SUBMITTED APPEAR TO BE IN CONFORMANCE WITH THE CITY OF FOUNTAIN SUBMITTAL REQUIREMENTS AND STANDARD ENGINEERING PRINCIPLES AND PRACTICES APPEAR TO HAVE BEEN FOLLOWED. THE PROFESSIONAL ENGINEER SUBMITTED AND SEALING THE PLANS IS SOLELY RESPONSIBLY FOR THEIR ACCURACY AND VALIDITY. THE REVIEW IS ONLY VALID FOR ONE (1) YEAR FROM THE DATE BELOW.

BRANDY R WILLIAMS, P.E., CITY ENGINEER DATE:

DETAILED DRAINAGE CONSTRUCTION PLANS AND SPECIFICATIONS ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE ESTABLISHED CRITERIA FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED PLANS AND SPECIFICATIONS.

SIGNATURE (AFFIX SEAL): _____ DATE: _____

COLORADO PROFESSIONAL ENGINEER NO:_____

CITY OF FOUNTAIN DETAILED DRAINAGE CONSTRUCTION PLANS AND SPECIFICATIONS REVIEW:

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

BRANDY R WILLIAMS, P.E., CITY ENGINEER DATE:

ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. IF SUCH WORK IS PERFORMED IN ACCORDANCE WITH THE GRADING AND EROSION CONTROL PLAN, THE WORK WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY, OR ADVERSELY AFFECT THE SAFETY, USE OR STABILITY OF A PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY.

SIGNATURE (AFFIX SEAL) DATE

OWNER'S STATEMENT

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN INCLUDING TEMPORARY CONTROL MEASURE INSPECTION REQUIREMENTS AND FINAL STABILIZATION REQUIREMENTS, ACCORDING TO THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. I ACKNOWLEDGE THE RESPONSIBILITY TO DETERMINE WHETHER THE CONSTRUCTION ACTIVITIES ON THESE PLANS REQUIRE COLORADO DISCHARGE PERMIT SYSTEM (CDPS) PERMITTING FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

DEVELOPER/OWNER SIGNATURE: _____DATE:_____

NAME OF DEVELOPER/OWNER: _____

DBA: _____ PHONE: _____

TITLE: _____ EMAIL: _____

ADDRESS:_____

FAX: _____

CITY OF FOUNTAIN GRADING AND EROSION CONTROL REVIEW:

THIS GRADING PLAN AND EROSION CONTROL PLAN IS FILED IN ACCORDANCE WITH SECTION 12.04.160 OF THE CODE OF THE CITY OF FOUNTAIN. THIS PLAN IS REVIEWED WITH THE DRAINAGE CRITERIA MANUAL, VOL. I (JANUARY 2021) AND VOL. II (DECEMBER 2020); STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.

BRANDY R WILLIAMS, P.E., CITY ENGINEER DATE

NOTES:

CITY OF FOUNTAIN
PUBLIC WORKS DEPARTMENT APPROVAL

STREETS: _____

SANITARY SEWER:_____

WATER MAIN:_____

DRAINAGE: _____

PARKS:_____

NOTES:

NOT FOR CONSTRUCTION

DRAWN BY: NQJ JOB DATE: 4/5/2022
APPROVED: KMH JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\C.O.F\Cover

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
FOUNTAIN, COLORADO

CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
COVER

SHEET
CV

1

SANITARY SEWER CONSTRUCTION NOTES:

1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH FOUNTAIN SANITATION DISTRICT DESIGN CRITERIA AND CONSTRUCTION SPECIFICATIONS.
2. CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING PIPE INVERTS PRIOR TO INSTALLATION OF NEW SANITARY SEWER SYSTEM.
3. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES DURING THE WORK. PRIOR TO ANY EXCAVATION, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT 811 AT LEAST TWO WORKING DAYS PRIOR TO DIGGING.
4. ALL PROPOSE SANITARY SEWER PIPELINES WITHIN THIS PROJECT SHALL BE AIR TESTED AND VIDEO INSPECTED PER THE FOUNTAIN SANITATION DISTRICT (FSD) STANDARD SPECIFICATIONS.
5. ALL AS-CONSTRUCTED RECORDS AND OTHER REQUIREMENTS OF THE SUBDIVISION PUBLIC IMPROVEMENTS AGREEMENT SHALL BE COMPLETED PRIOR TO CONSIDERATION OF ACCEPTANCE OF THE SYSTEM BY THE DISTRICT.
6. DURING THE CONSTRUCTION OF THE SANITARY SEWER SYSTEM THE CONTRACTOR SHALL HAVE IN HIS/HER POSSESSION AT LEAST ONE "APPROVED FOR CONSTRUCTION" SET OF UPDATED PLANS AT ALL TIMES. APPROVED FIELD MODIFICATIONS TO PLAN SETS SHALL BE CLEARLY IDENTIFIED IN RED INK ON THE PLANS BY THE CONTRACTOR PER FIELD CONSTRUCTION. THESE AS-BUILT CHANGES SHALL BE DATED AND SUBMITTED TO THE ENGINEER OF RECORD. THE ENGINEER OF RECORD SHALL PREPARE A COMPLETE SET OF "AS CONSTRUCTED" DRAWINGS AND DELIVER SETS TO THE FOUNTAIN SANITATION DISTRICT PRIOR TO FINAL ACCEPTANCE OF THE SANITARY SEWER SYSTEM.
7. WITH PRIOR APPROVAL, THE CONTRACTOR SHALL PROVIDE 3 DEGREE BENDS ON ALL CURVILINEAR SANITARY SEWER PIPE AT THE LOCATION DETAILED ON THE APPROVED CONSTRUCTION PLANS.
8. SANITARY SERVICE LINES SHALL BE LOCATED PER THE DETAIL ON UTILITY SERVICE PLAN, THE DIMENSIONS GIVEN AT EACH LOT WHERE A TYPICAL INSTALLATION IS REQUIRED OR AT THE DIRECTION OF THE FOUNTAIN SANITATION DISTRICT REPRESENTATIVE.
9. SERVICE STUBS SHALL BE INSTALLED A MINIMUM OF TEN (10) FEET INTO PROPERTY, UNLESS OTHERWISE SHOWN, AND THE END OF THE STUB SHALL BE MARKED WITH A 2"X4"X12" STEEL OR WOODEN POST PAINTED GREEN.
10. OVERLOT GRADING AND STREET SUBGRADE MUST BE WITHIN ± ONE (1) FOOT PRIOR TO ANY UTILITY INSTALLATION.
11. CONTRACTOR TO CONSTRUCT ALL MANHOLES AND STRUCTURES TO FINISHED GRADE.
12. ALL SANITARY SERVICE PIPE TO BE GREEN GASKET SDR35.
13. ALL 3° BENDS SHALL BE A SPIGOT X BELL FITTING. THE SPIGOT END OF EACH BEND FITTING SHALL BE INSERTED IN THE BELL OF A FULL PIECE (13 FEET) OF ASTM D3034 FOR PVC, SDR 26 OR 35 PIPE WITH THE SUBSEQUENT UPSTREAM PIPE SEGMENT BEING A FULL PIECE OF PIPE. EACH JOINT OF PIPE MAY BE DEFLECTED TO A MINIMUM RADIUS OF 200 FEET IN CONFORMANCE WITH THE MANUFACTURER'S SPECIFICATIONS BETWEEN EACH BEND FITTING. THE CONTRACTOR SHALL USE EXTREME CARE AND EXPERT WORKMANSHIP TO PROVIDE PROPER HORIZONTAL AND VERTICAL ALIGNMENT.
14. MINIMUM RADIUS FOR SANITARY SEWER WITHOUT JOINT FITTINGS IS 267 FEET USING A 14-FOOT-LONG PIPE SEGMENT.
15. CONTRACTOR SHALL BE AWARE THAT WHEN DEBRIS IS DROPPED INTO MANHOLES AND OTHER STRUCTURES, THEY ARE TO IMMEDIATELY REMOVE THIS TO ELIMINATE THE POSSIBILITY OF PROPERTY DAMAGE DUE TO THE DEBRIS-CAUSING BACKUP INTO PRIVATE PROPERTIES. IF AND WHEN IT IS DETERMINED THAT DEBRIS CAUSED A BACKUP, THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGES.
16. NO TREES ARE TO BE PLANTED WITHIN ANY SEWER EASEMENT OR WITHIN FIFTEEN (15) FEET OF ANY MANHOLE OR PIPE.
17. ACCESS TO MANHOLES AND INLETS SHALL BE MADE AVAILABLE FOR MAINTENANCE PURPOSES.
18. ALL MANHOLES SHALL RECEIVE AN EXTERIOR WATERPROOF COATING OF COAL TAR EPOXY, ICS DEVOE "DEVTAR," OR APPROVED EQUAL.
19. ALL MANHOLES SHALL RECEIVE AN EXTERIOR JOINT WRAP TO BEST ASSURE WATERTIGHNESS. REFER TO THE FOUNTAIN SANITATION DISTRICT STANDARDS SPECIFICATIONS FOR MATERIAL AND INSTALLATION REQUIREMENTS.
20. ALL SANITARY SEWER MANHOLES ON THIS PROJECT SHALL BE SUBJECT TO VACUUM TESTING PRIOR TO THE CONSIDERATION OF ACCEPTANCE BY THE DISTRICT. AT THE DISTRICT'S SOLE OPTION, ADDITIONAL VACUUM TESTING MAY BE REQUIRED DURING AND PRIOR TO THE CONCLUSION OF THE WARRANTY PERIOD FOR THIS WORK. REFER TO THE FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICATIONS FOR TESTING REQUIREMENTS.
21. CLASS "B" GRANULAR BEDDING SHALL BE UTILIZED FOR ALL WASTEWATER PIPELINE CONSTRUCTION ON THIS PROJECT. AS A MINIMUM, THE CLASS "B" BEDDING SHALL BE COMPRISED OF ¾ INCH CRUSHED ROCK. LARGER AGGREGATE AND/OR ALTERNATIVE GRADATIONS MAY BE NECESSARY IN ORDER TO ADDRESS TRENCH SUBGRADE STABILIZATION CONDITIONS FOUND UPON EXCAVATION OF THE TRENCH IN ADDITIONAL TO THE SPECIFIED CLASS "B" PIPE BEDDING.
22. WHERE NECESSARY, THE CONTRACTOR SHALL PROVIDE 3° BENDS ON ALL CURVILINEAR SANITARY SEWER PIPE AT THE LOCATIONS SHOWN ON THE PLANS.
23. SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC), SDR 35, IN ACCORDANCE WITH ASTM D3034 FOR DEPTHS UP TO SIXTEEN (16) FEET, SANITARY SEWER LINES WITH COVER EXCEEDING SIXTEEN (16) FEET FROM FINISHED GRADE SHALL BE POLYVINYL CHLORIDE (PVC), SDR 26, IN ACCORDANCE WITH ASTM D3034, ALL SDR 26 PIPE SHALL BE BEDDED IN CLASS B BEDDING MATERIAL OR WITH RECLAIMED CONCRETE MATERIAL MEETING SANITATION DISTRICT STANDARD.
24. MANHOLES SHALL BE STANDARD PRECAST CONCRETE.
25. ALL SANITARY SEWER MANHOLES SHALL NOT HAVE ANY ACCESS STEPS INSTALLED INSIDE THE MANHOLE. ANY PRECAST SANITARY MANHOLES WITH STEPS SHALL HAVE THE STEPS REMOVED BY SAW CUTTING STEPS FLUSH TO THE MANHOLE AND ADDING EPOXY TO THE CUT ENDS OF THE STEPS.
26. SANITARY SEWER MH COVERS SHALL BE LOCATED ALONG THE CENTERLINE OF THE STREET OR AS CLOSE TO THE CENTERLINE AS IS PRACTICAL.
27. IF GROUNDWATER IS ENCOUNTERED DURING TRENCHING THEN THE TRENCH SHALL BE OVEREXCAVATED AND DEWATERED. WELL POINTS SHALL BE PLACED AS NECESSARY TO PREVENT WATER IN THE TRENCH. THE GROUNDWATER LEVEL SHALL BE KEPT 12-INCHES OR MORE BELOW THE UTILITY BEING INSTALLED. OVEREXCAVATED TRENCH DEPTH SHALL BE BACKFILLED WITH 2-INCH MINUS ROCK WITH <5% PASSING NO. 4 SIEVE. DEWATERING SHALL CONTINUE UNTIL SUCH TIME AS IT IS SAFE TO ALLOW THE WATER TABLE TO RISE IN THE EXCAVATION. PIPE TRENCHES SHALL CONTAIN ENOUGH BACKFILL TO PREVENT PIPE FLOATATIONS.
28. IN AREAS WHERE SANITARY SEWER WILL BE PLACED ON FILL THE CONTRACTOR SHALL SUPPLY THE FOUNTAIN SANITATION DISTRICT WITH SOIL DENSITY REPORTS PRIOR TO COMMENCING CONSTRUCTION OF THE PIPELINES. THE DENSITY REPORTS SHALL DEMONSTRATED THAT ALL FILLS PLACED WITHIN PIPELINE CONSTRUCTION SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY OR PER GEOTECHNICAL RECOMMENDATION, WHICHEVER STANDARD IS STRICTER. ADDITIONALLY, FILLS SHALL BE PLACED TO A MINIMUM OF 6' ABOVE THE TOP OF THE PROPOSED PIPE PRIOR TO CONSTRUCTION OF THE PIPELINES.
29. THE SANITARY SEWER SERVICES TO BE CONSTRUCTED IN THIS PROJECT SHALL BE CONNECTED TO THE MAIN WITH IN-LINE WYE FITTINGS IN ACCORDANCE WITH FOUNTAIN SANITATION DISTRICT DESIGN CRITERIA AND CONSTRUCTION SPECIFICATIONS. EACH WYE FITTING WILL BE LOCATED NO LESS THAN 3-FEET CLEAR FROM AN ADJACENT SERVICE LINE WYE FITTING. IF TWO (2) SERVICE LINES ARE LOCATED ON THE SAME SIDE OF THE WASTEWATER COLLECTION SYSTEM MAIN, THERE SHALL BE NO LESS THAN 4 FEET OF SPACE BETWEEN THE TWO SEPARATE SEWER SERVICE PIPELINES TO FACILITATE FUTURE EXCAVATION OF EACH WITHOUT DISTURBANCE.
30. ALL SANITARY SEWER MAINS AND PIPELINES SHALL BE CONSTRUCTED WITH COPPER TRACER WIRE, 6 GAUGE SOLID COPPER, EXTENDING FROM THE MANHOLE-TO-MANHOLE ON THE MAIN LINES. IN ADDITION, A COPPER TRACER WIRE SHALL EXTENDED ALONG EACH SERVICE LINE, CONNECTED TO THE MAIN LINE COPPER TRACER WIRE, TO A LOCATION NO LESS THAN 10 FEET INSIDE THE LOT FRONTAGE. THE TRACER WIRES WILL BE CONTINUED AT THE TIME OF BUILDING SEWER CONSTRUCTION SUBJECT TO THE INSPECTION OF THE FOUNTAIN SANITATION DISTRICT.
31. THE TRACER WIRE WILL EXTEND UP THE OUTSIDE OF EACH MANHOLE AND BE INSERTED INTO THE MANHOLE INTERIOR UNDER ADJUSTING RINGS SET ON THE CONE WITH NO LESS THAN 1.5 FEET OF CONDUCTOR COILED AT THE MANHOLE INTERIOR.

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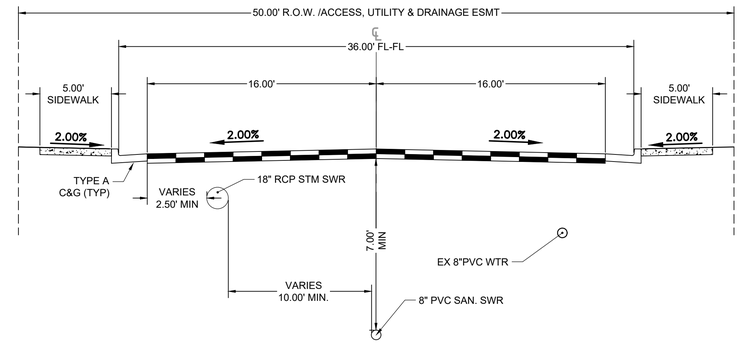


LANDOVER LANE - TYPICAL SECTION
(PUBLIC LOCAL - CITY OF FOUNTAIN)

LEGEND

	EXISTING	PROPOSED
MATCH LINE		
PHASE LINE		
SECTION LINE		
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
CHAIN LINK FENCE		
WOODEN FENCE		
ROD IRON FENCE		
GUARDRAIL		
CABLE TV	TV	TV
U.G. ELECTRIC	UE	UE
OVERHEAD ELECTRIC	OE	OE
FIBER OPTIC	FO	FO
GAS MAIN		
SANITARY SEWER	SS	
STORM DRAIN		
TELEPHONE	UT	UT
WATER MAIN	W	W
SWALE		
TRAIL		
CURB & GUTTER		
DRAINAGE BASIN		
INDEX CONTOUR		
INTER. CONTOUR		
100-YR FLOODPLAIN		
FLOODWAY		
EDGE OF WETLANDS		

DRAINAGE

	EXISTING	PROPOSED
DRAINAGE BASIN		
BASIN TAG		I.D. AREA
DESIGN POINT		

STORM SEWER

	EXISTING	PROPOSED
MANHOLE	ST	D
STORM INLET		
FLARED END SECTION		
RIPRAP		

SANITARY SEWER

CLEAN OUT		
MANHOLE		S
PLUG		

WATER

FIRE HYDRANT		
FIRE DEPT. CONNECTION		
GATE VALVE		
MANHOLE	W	W
METER		M
TEE		
REDUCER		

DRY UTILITIES

ELECTRIC METER	M
ELECTRIC PEDESTAL	E
ELECTRICAL CABINET	E
ELECTRIC VAULT	EV
FIBER OPTIC PULL BOX	F
FIBER OPTIC MANHOLE	FO
FIBER OPTIC PEDESTAL	F
FIBER OPTIC SIGN	
FIBER OPTIC VAULT	FV
GAS METER	M
GAS SIGN	
GAS VAULT	
TELEPHONE CABINET	T
TELEPHONE MANHOLE	TH
TELEPHONE SIGNAL/MAST	T
TELEPHONE SIGN	
TELEPHONE PEDESTAL	T
TRANSFORMER	
LIGHT POLE	
FIBER OPTIC VAULT	FV

MISCELLANEOUS

SIGN	
BOLLLARD	
ACCESSIBLE PARKING	

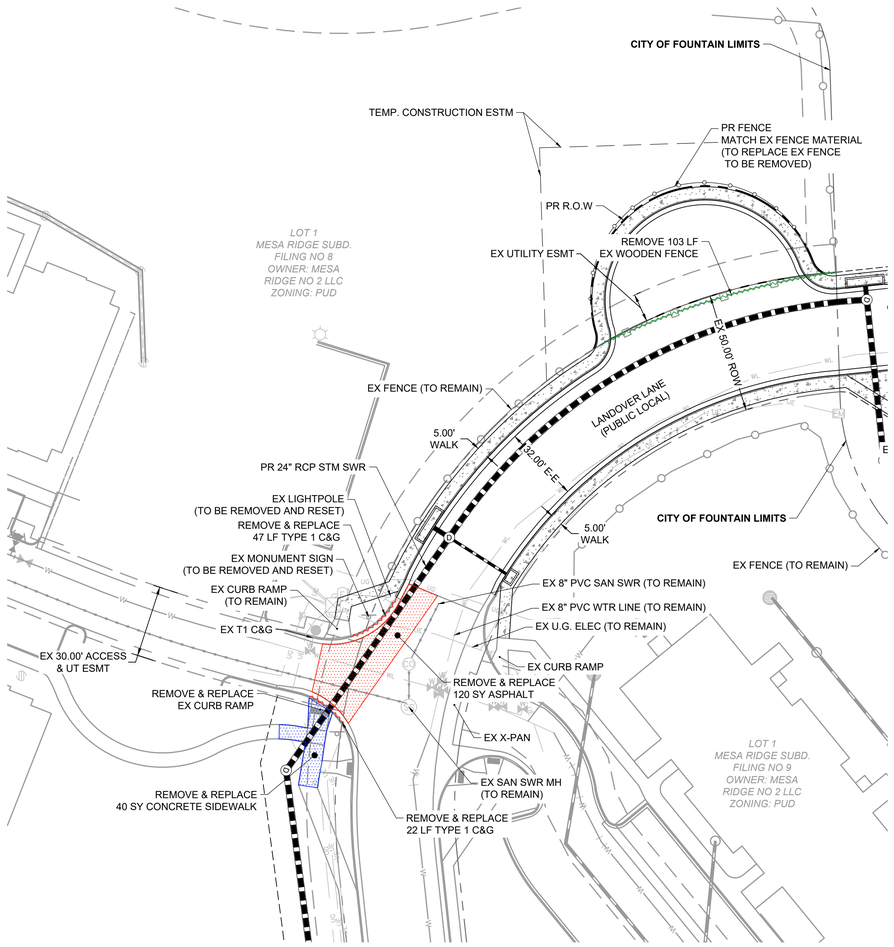
FSD GENERAL SERVICE PLAN NOTES

THE CONTRACTOR SHALL NOTIFY THE FOUNTAIN SANITATION DISTRICT OFFICE (719-382-5303) A MINIMUM OF 48 HOURS PRIOR TO THE START OF CONSTRUCTION.

GENERAL:

1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL MEET FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICIATIONS.
2. FOUNTAIN SANITATION DISTRICT DOES NOT GUARANTEE THE ACCURACY OF LOCATIONS OF EXISTING PIPELINES, MANHOLES, AND SERVICE LINES. IF FIELD CONDITIONS ARE FOUND TO BE DIFFERENT THAN SHOWN ON THE PLANS, THE CONTRACTOR SHALL NOTIFY THE DISTRICT INSPECTOR AND THE DESIGN ENGINEER IMMEDIATELY.
3. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO ANY UTILITY FACILITIES AS A RESULT OF THEIR ACTIONS. THE CONTRACTOR SHALL MAKE ALL THE REQUIRED REPAIRS IMMEDIATELY TO THE SATISFACTION OF FOUNTAIN SANITATION DISTRICT.
4. ALL FIELD STAKING SHALL COMPLY WITH THE WASTEWATER STANDARD SPECIFICATIONS.
5. FINAL LOCATION OF ALL WASTEWATER SERVICES SHALL BE APPROVED IN THE FIELD BY THE DISTRICT INSPECTOR.
6. ALL TRENCH BACKFILL AND COMPACTION SHALL BE IN ACCORDANCE WITH SECTION PART C, ATRICLE II OF THE FOUNTAIN SANITATION DISTRICT STANDARD SPECIFICATIONS MANUAL.

NOT FOR CONSTRUCTION



DEMOLITION LEGEND:

- ASPHALT REMOVAL
- CONCRETE REMOVAL
- CURB & GUTTER REMOVAL
- FENCE REMOVAL

ENGINEER'S STATEMENT:

SIGNATURE (AFFIX SEAL): _____ DATE: _____

COLORADO PROFESSIONAL ENGINEER NO:_____

ACCEPTANCE:

THESE PLAN SUBMITTED APPEAR TO BE IN CONFORMANCE WITH THE CITY OF FOUNTAIN SUBMITTAL REQUIREMENTS AND STANDARD ENGINEERING PRINCIPLES AND PRACTICES APPEAR TO HAVE BEEN FOLLOWED. THE PROFESSIONAL ENGINEER SUBMITTED AND SEALING THE PLANS IS SOLELY RESPONSIBLY FOR THEIR ACCURACY AND VALIDITY. THE REVIEW IS ONLY VALID FOR ONE (1) YEAR FROM THE DATE BELOW.

NOT FOR CONSTRUCTION

BRANDY R WILLIAMS, P.E., CITY ENGINEER DATE: _____

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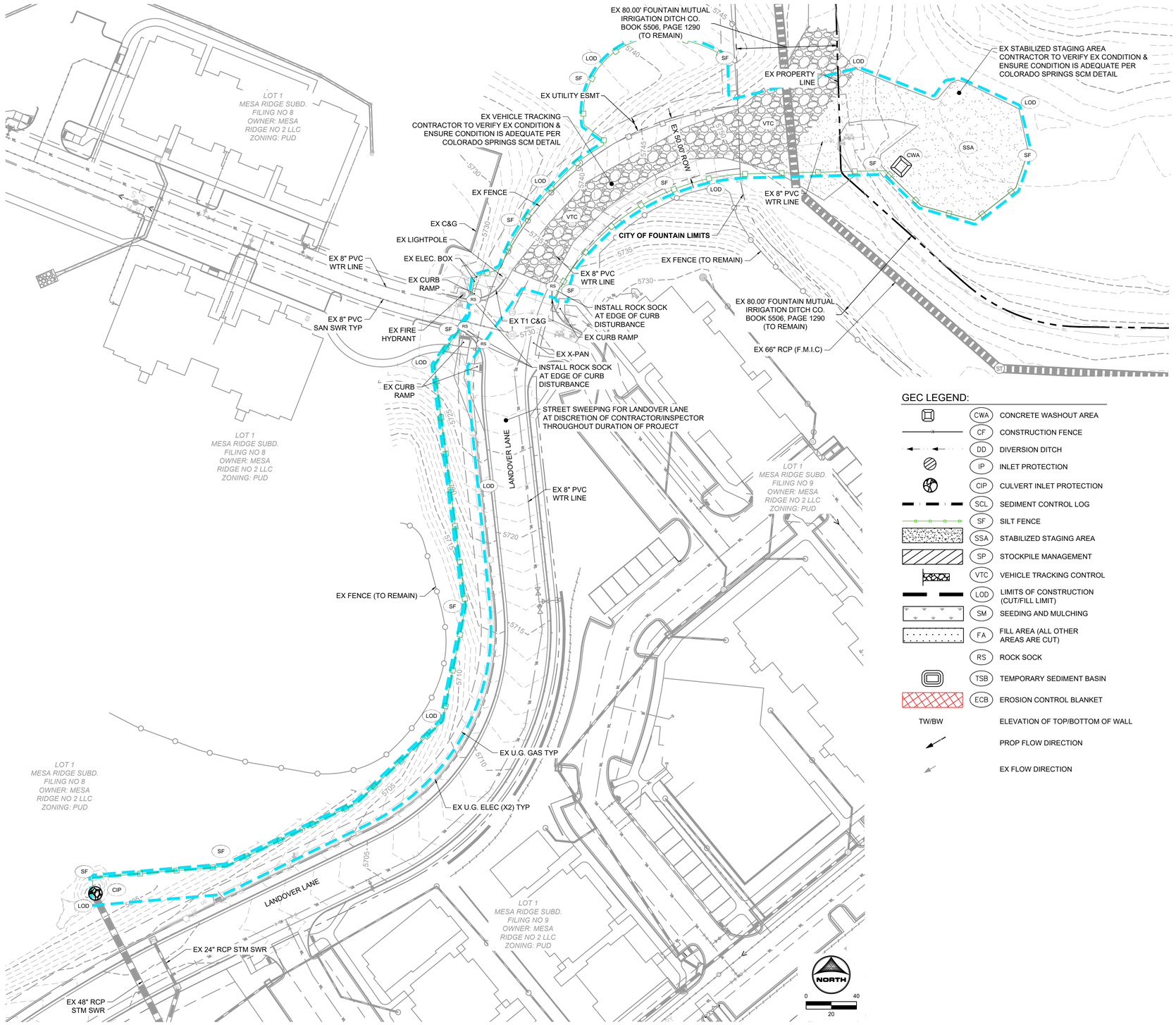
CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
DEMOLITION PLAN

SHEET DP 3



GEC LEGEND:

CWA	CONCRETE WASHOUT AREA
CF	CONSTRUCTION FENCE
DD	DIVERSION DITCH
IP	INLET PROTECTION
CIP	CULVERT INLET PROTECTION
SCL	SEDIMENT CONTROL LOG
SF	SILT FENCE
SSA	STABILIZED STAGING AREA
SP	STOCKPILE MANAGEMENT
VTC	VEHICLE TRACKING CONTROL
LOD	LIMITS OF CONSTRUCTION (CUT/FILL LIMIT)
SM	SEEDING AND MULCHING
FA	FILL AREA (ALL OTHER AREAS ARE CUT)
RS	ROCK SOCK
TSB	TEMPORARY SEDIMENT BASIN
ECB	EROSION CONTROL BLANKET
TW/BW	ELEVATION OF TOP/BOTTOM OF WALL
	PROP FLOW DIRECTION
	EX FLOW DIRECTION

GRADING & EROSION CONTROL PLAN NOTES:

1. SEE SHEETS 11–13 FOR CITY OF COLORADO SPRINGS GRADING AND EROSION CONTROL DETAILS.
2. ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS PLAN MUST BE INSTALLED AND MAINTAINED PER THE COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.
3. AREA WITHIN LIMITS OF DISTURBANCE TO BE CLEARED, GRUBBED AND STOCKPILED PRIOR TO IMPORT OF ANY FILL.
4. ALL 3:1 SLOPES MUST BE RECEIVE SLOPE TRACKING TREATMENT AND EROSION CONTROL BLANKET.
5. STOCKPILES REQUIRED DURING ONSITE CONSTRUCTION ACTIVITIES WILL BE PLACED AT THE DISCRETION OF THE CONTRACTOR. STOCKPILING OF MATERIAL MUST NOT OCCUR OUTSIDE THE LIMITS OF DISTURBANCE SHOWN ON THIS PLAN.
6. NON–STRUCTURAL CONTROLS (I.E. STREET SWEEPING) WILL BE AT THE DISCRETION OF THE PROJECT'S CERTIFIED GEC ADMINISTRATOR THROUGHOUT THE DURATION OF LAND DISTURBING ACTIVITIES.
7. THERE ARE NO ANTICIPATED ASPHALT AND/OR CONCRETE BATCH PLANTS, OR MASONRY MIX STATIONS ASSOCIATED WITH THIS PROJECT. IF THE CONTRACTOR REQUIRES A ASPHALT/CONCRETE BATCH PLANTS OR MASONRY MIX STATIONS, THESES PLANS WILL BE AMENDED AS REQUIRED.
8. THERE ARE NO EXISTING PRESERVATION EASEMENTS LOCATED ON SITE.

PROJECT INFO:

TOTAL DISTURBANCE AREA = 1.31 AC

RECEIVING WATERS: JIMMY CAMP CREEK

ANTICIPATED START OF CONSTRUCTION: SPRING 2022

ANTICIPATED END OF LAND DISTURBANCE: FALL 2022

ANTICIPATED FINAL STABILIZATION: WINTER 2022

ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. IF SUCH WORK IS PERFORMED IN ACCORDANCE WITH THE GRADING AND EROSION CONTROL PLAN, THE WORK WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY, OR ADVERSELY AFFECT THE SAFETY, USE OR STABILITY OF A PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY.

SIGNATURE (AFFIX SEAL) DATE

OWNER'S STATEMENT

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN INCLUDING TEMPORARY CONTROL MEASURE INSPECTION REQUIREMENTS AND FINAL STABILIZATION REQUIREMENTS, ACCORDING TO THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. I ACKNOWLEDGE THE RESPONSIBILITY TO DETERMINE WHETHER THE CONSTRUCTION ACTIVITIES ON THESE PLANS REQUIRE COLORADO DISCHARGE PERMIT SYSTEM (CDPS) PERMITTING FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

DEVELOPER/OWNER SIGNATURE: _____ DATE: _____

NAME OF DEVELOPER/OWNER: _____

DBA: _____ PHONE: _____

TITLE: _____ EMAIL: _____

ADDRESS: _____

FAX: _____

CITY OF FOUNTAIN GRADING AND EROSION CONTROL REVIEW:

THIS GRADING PLAN AND EROSION CONTROL PLAN IS FILED IN ACCORDANCE WITH SECTION 12.04.160 OF THE CODE OF THE CITY OF FOUNTAIN. THIS PLAN IS REVIEWED WITH THE DRAINAGE CRITERIA MANUAL, VOL. I (JANUARY 2021) AND VOL. II (DECEMBER 2020); STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.

BRANDY R WILLIAMS, P.E., CITY ENGINEER DATE

NOTES:

NOT FOR CONSTRUCTION

DRAWN BY: NQJ JOB DATE: 4/5/2022
APPROVED: KMH JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\C.O.F\GEC_Initial

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

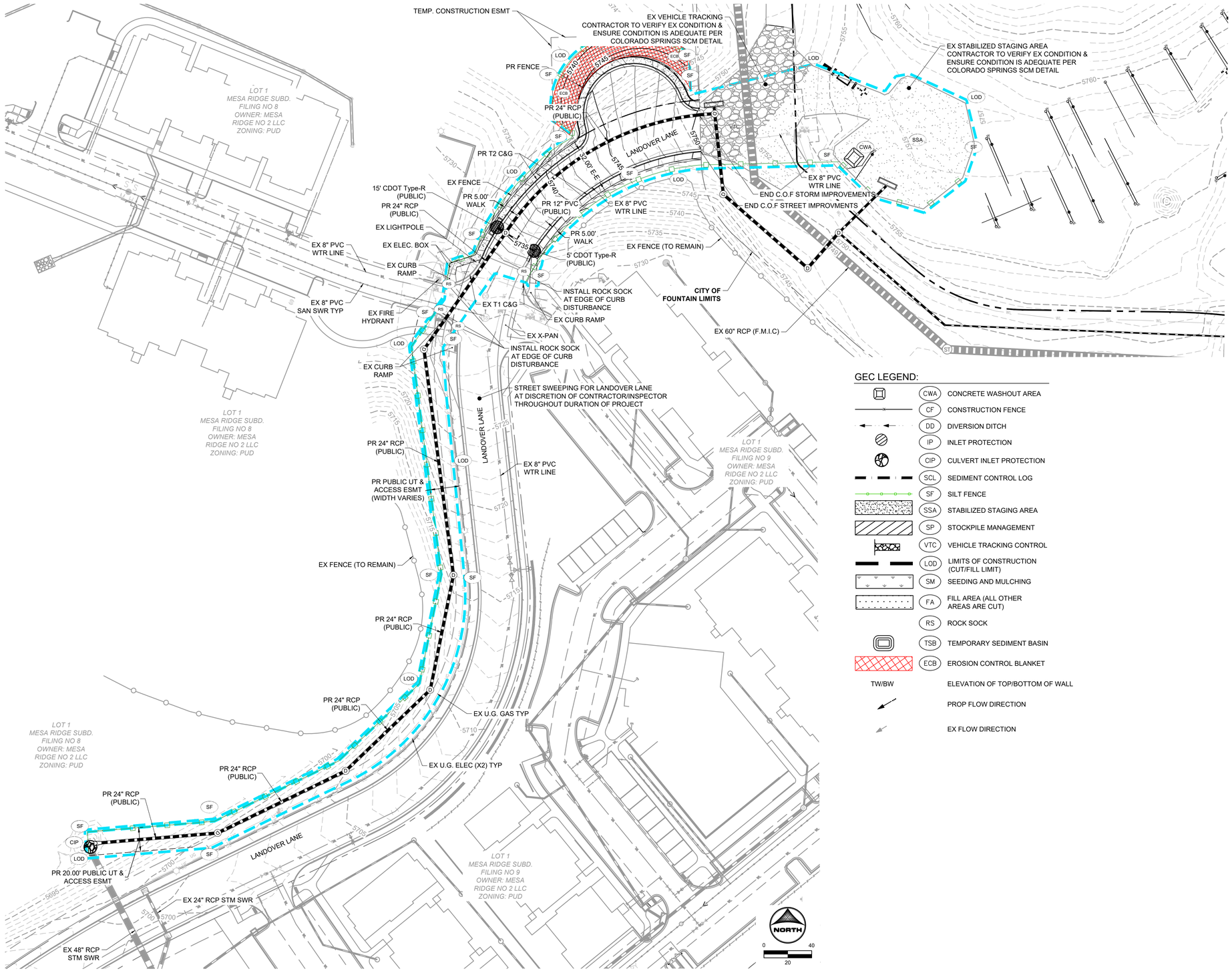
HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
FOUNTAIN, COLORADO

GOODWIN KNIGHT

CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
GEC - INITIAL PLAN

SHEET GEC 4



GEC LEGEND:

CWA	CONCRETE WASHOUT AREA
CF	CONSTRUCTION FENCE
DD	DIVERSION DITCH
IP	INLET PROTECTION
CIP	CULVERT INLET PROTECTION
SCL	SEDIMENT CONTROL LOG
SF	SILT FENCE
SSA	STABILIZED STAGING AREA
SP	STOCKPILE MANAGEMENT
VTC	VEHICLE TRACKING CONTROL
LOD	LIMITS OF CONSTRUCTION (CUT/FILL LIMIT)
SM	SEEDING AND MULCHING
FA	FILL AREA (ALL OTHER AREAS ARE CUT)
RS	ROCK SOCK
TSB	TEMPORARY SEDIMENT BASIN
ECB	EROSION CONTROL BLANKET
TW/BW	ELEVATION OF TOP/BOTTOM OF WALL
	PROP FLOW DIRECTION
	EX FLOW DIRECTION

GRADING & EROSION CONTROL PLAN NOTES:

1. SEE SHEETS 11–13 FOR CITY OF COLORADO SPRINGS GRADING AND EROSION CONTROL DETAILS.
2. ALL STORMWATER MANAGEMENT MEASURES SHOWN ON THIS PLAN MUST BE INSTALLED AND MAINTAINED PER THE COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.
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PROJECT INFO:

TOTAL DISTURBANCE AREA = 1.31 AC

RECEIVING WATERS: JIMMY CAMP CREEK

ANTICIPATED START OF CONSTRUCTION: SPRING 2022

ANTICIPATED END OF LAND DISTURBANCE: FALL 2022

ANTICIPATED FINAL STABILIZATION: WINTER 2022

ENGINEER'S STATEMENT

THIS GRADING AND EROSION CONTROL PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. IF SUCH WORK IS PERFORMED IN ACCORDANCE WITH THE GRADING AND EROSION CONTROL PLAN, THE WORK WILL NOT BECOME A HAZARD TO LIFE AND LIMB, ENDANGER PROPERTY, OR ADVERSELY AFFECT THE SAFETY, USE OR STABILITY OF A PUBLIC WAY, DRAINAGE CHANNEL, OR OTHER PROPERTY.

SIGNATURE (AFFIX SEAL) DATE

OWNER'S STATEMENT

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING AND EROSION CONTROL PLAN INCLUDING TEMPORARY CONTROL MEASURE INSPECTION REQUIREMENTS AND FINAL STABILIZATION REQUIREMENTS, ACCORDING TO THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. I ACKNOWLEDGE THE RESPONSIBILITY TO DETERMINE WHETHER THE CONSTRUCTION ACTIVITIES ON THESE PLANS REQUIRE COLORADO DISCHARGE PERMIT SYSTEM (CDPS) PERMITTING FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY.

DEVELOPER/OWNER SIGNATURE: _____ DATE: _____

NAME OF DEVELOPER/OWNER: _____

DBA: _____ PHONE: _____

TITLE: _____ EMAIL: _____

ADDRESS: _____

FAX: _____

CITY OF FOUNTAIN GRADING AND EROSION CONTROL REVIEW:

THIS GRADING PLAN AND EROSION CONTROL PLAN IS FILED IN ACCORDANCE WITH SECTION 12.04.160 OF THE CODE OF THE CITY OF FOUNTAIN. THIS PLAN IS REVIEWED WITH THE DRAINAGE CRITERIA MANUAL, VOL. I (JANUARY 2021) AND VOL. II (DECEMBER 2020); STORMWATER CONSTRUCTION MANUAL; LATEST REVISIONS.

BRANDY R WILLIAMS, P.E., CITY ENGINEER DATE

NOTES:

FOR CONSTRUCTION

DRAWN BY: YOU JOB DATE: 4/5/2022
APPROVED: KEN JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\C.O.F\GEC_Interim

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NO.	DATE	BY	REVISION DESCRIPTION

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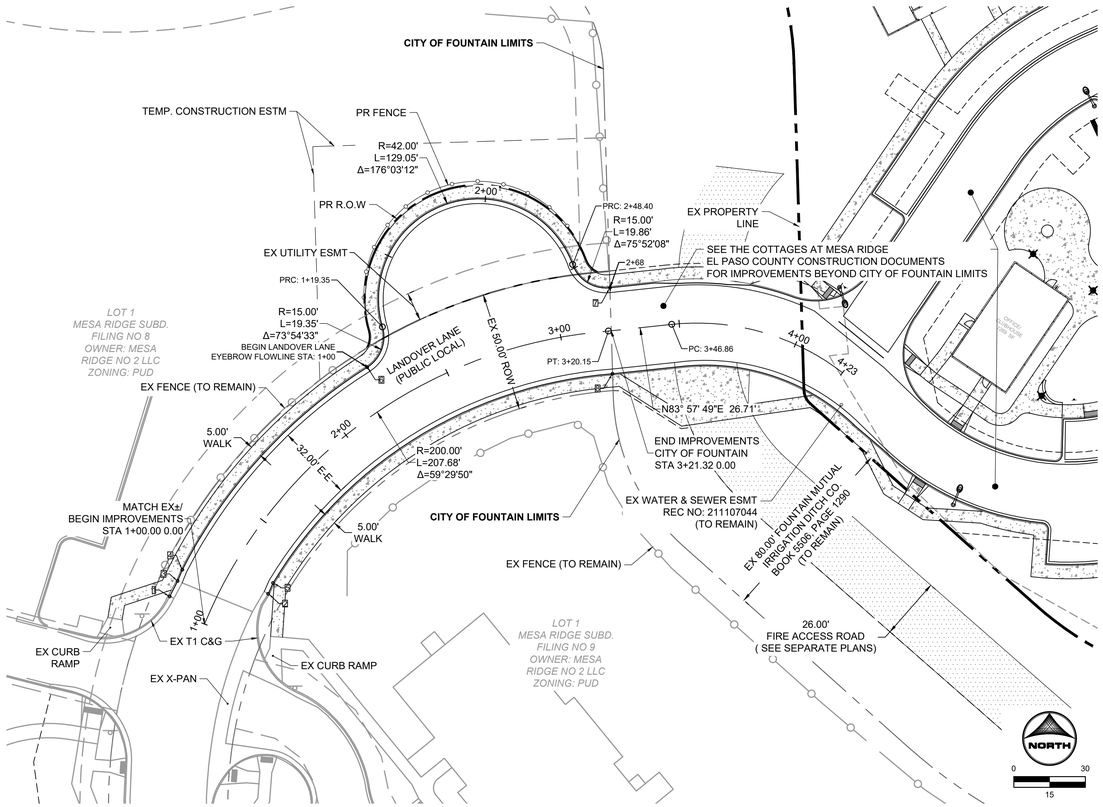
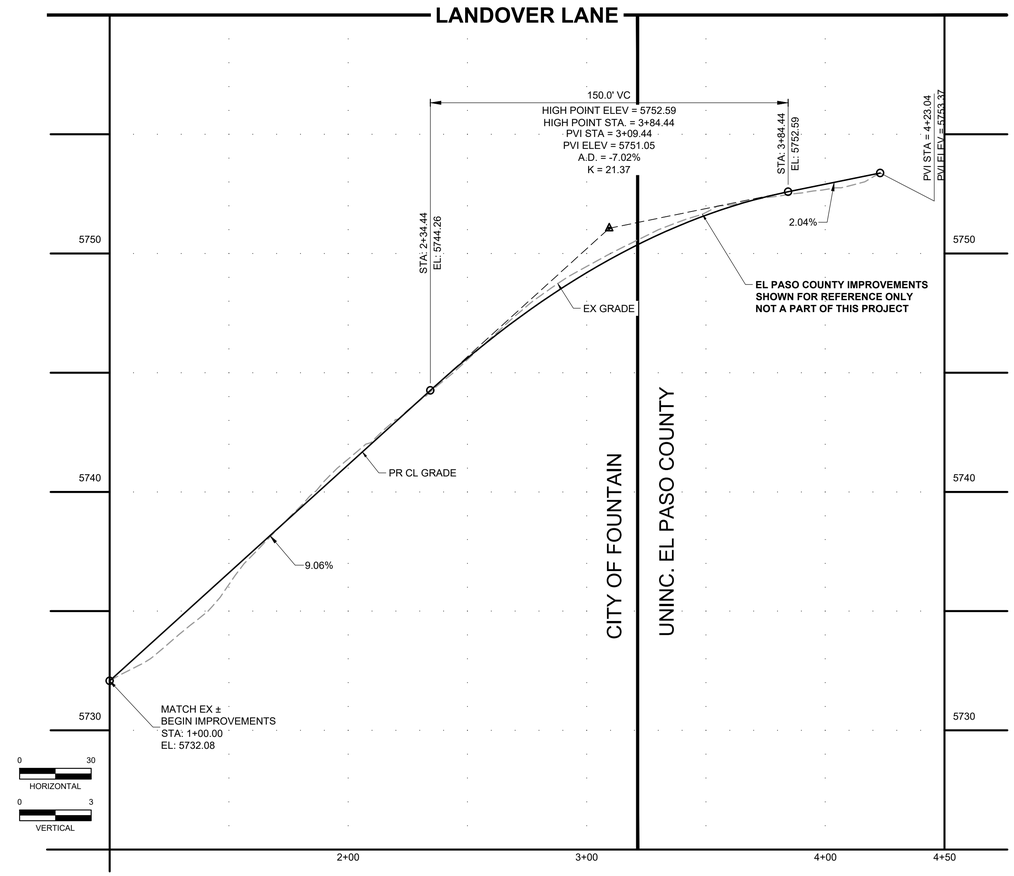
THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
FOUNTAIN, COLORADO

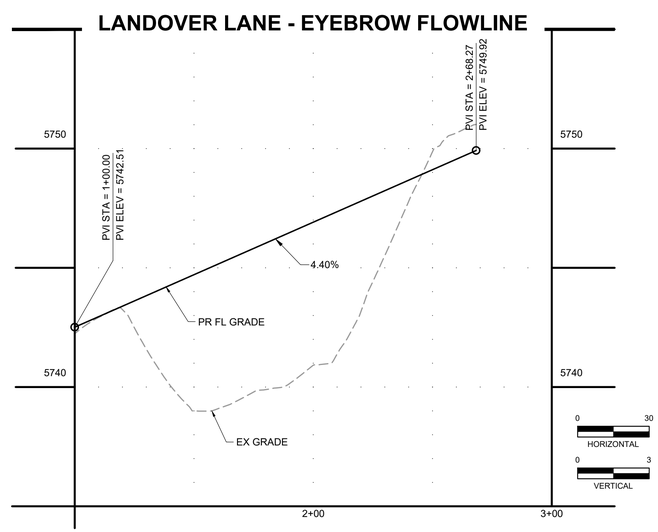
CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
GEC - INTERIM-FINAL PLAN

SHEET GEC 5





POINT TABLE					
No.	DESC.	ALIGNMENT	STATION	OFFSET	FL EL.
1	MATCH EX ±	Landover Lane	STA 1+04.69	18.0' L	5732.01
2	MATCH EX ±	Landover Lane	STA 1+24.25	18.5' R	5733.76
3	PI	Landover Lane	STA 1+11.37	17.6' L	5732.17
4	PC	Landover Lane	STA 1+16.04	18.0' L	5732.63
5	PC	Landover Lane	STA 1+29.70	18.0' R	5734.33
6	PRC	Landover Lane	STA 2+22.78	18.0' L	5742.76
7	PT/END T1 C&G	Landover Lane	STA 3+22.73	18.0' L	5750.38
8	END TYPE 1 C&G	Landover Lane	STA 3+20.15	18.0' R	5749.90



ENGINEER'S STATEMENT:

SIGNATURE (AFFIX SEAL): _____ DATE: _____

COLORADO PROFESSIONAL ENGINEER NO:_____

ACCEPTANCE:

THESE PLAN SUBMITTED APPEAR TO BE IN CONFORMANCE WITH THE CITY OF FOUNTAIN SUBMITTAL REQUIREMENTS AND STANDARD ENGINEERING PRINCIPLES AND PRACTICES APPEAR TO HAVE BEEN FOLLOWED. THE PROFESSIONAL ENGINEER SUBMITTED AND SEALING THE PLANS IS SOLELY RESPONSIBLY FOR THEIR ACCURACY AND VALIDITY. THE REVIEW IS ONLY VALID FOR ONE (1) YEAR FROM THE DATE BELOW.

NOT FOR CONSTRUCTION

BRANDY R WILLIAMS, P.E., CITY ENGINEER DATE: _____

DRAWN BY: NQJ JOB DATE: 4/5/2022
APPROVED: KMH JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\C.O.F\Roadway

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NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
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COLORADO SPRINGS CO 80919
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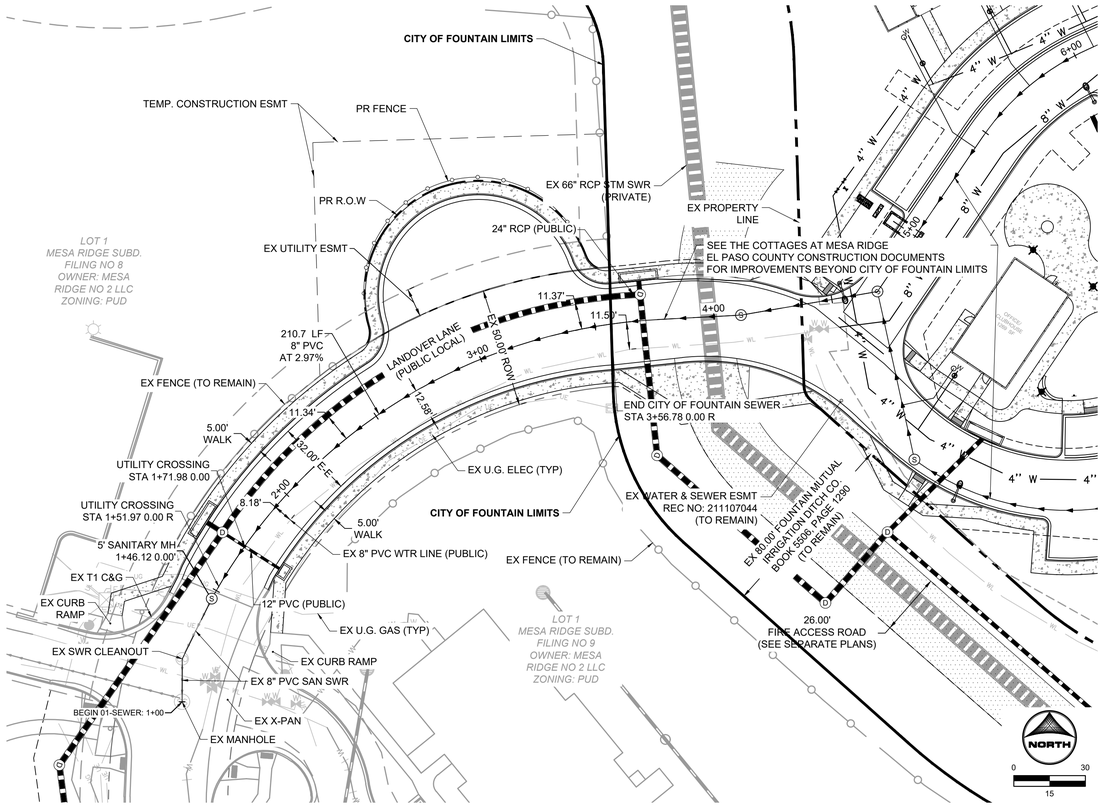
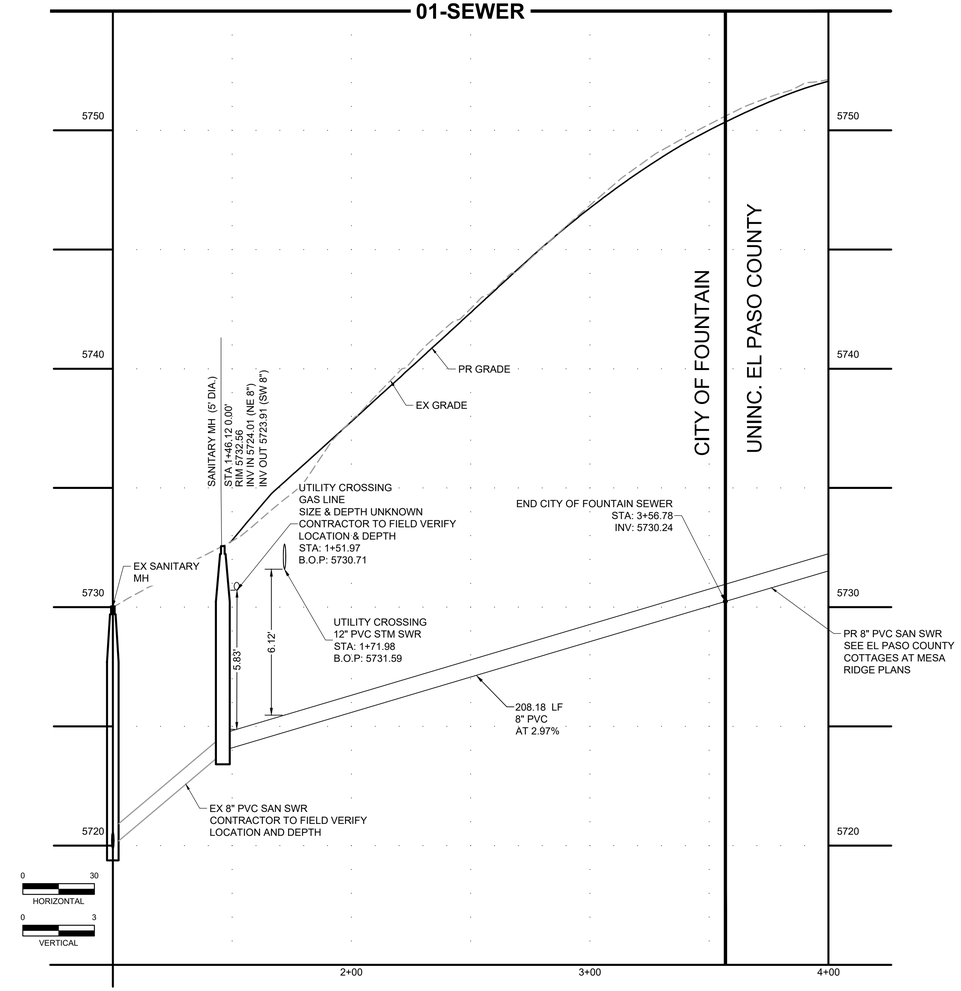
THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
FOUNTAIN, COLORADO

CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
LANDOVER LANE - PLAN & PROFILE

SHEET
RD

6





DEVELOPERS STATEMENT - FOUNTAIN SANITATION DISTRICT

THE OWNER WILL COMPLY WITH THE REQUIREMENTS OF FOUNTAIN SANITATION DISTRICT REGULATIONS AND STANDARD SPECIFICATIONS. OWNER WILL COMPLY WITH THE CONSTRUCTION DRAWINGS PREPARED BY HIS/HER CIVIL ENGINEER.

DEVELOPER/OWNER SIGNATURE: _____ DATE: _____

NAME OF DEVELOPER/OWNER: _____

TITLE: _____

PHONE: _____

ADDRESS: _____

FOUNTAIN SANITATION DISTRICT

PLANS ARE RECOMMENDED FOR USE IN CONSTRUCTION OF WASTEWATER COLLECTION SYSTEM FOR THIS PROJECT.
DESIGN ENGINEER OF RECORD TAKES SOLE RESPONSIBILITY FOR ALL DESIGN ASPECTS OF THE PROJECT.

_____ _____
JONATHAN MOORE, P.E. DATE
FOUNTAIN SANITATION DISTRICT – DISTRICT ENGINEER

NOT FOR CONSTRUCTION

DRAWN BY: NQJ JOB DATE: 4/5/2022
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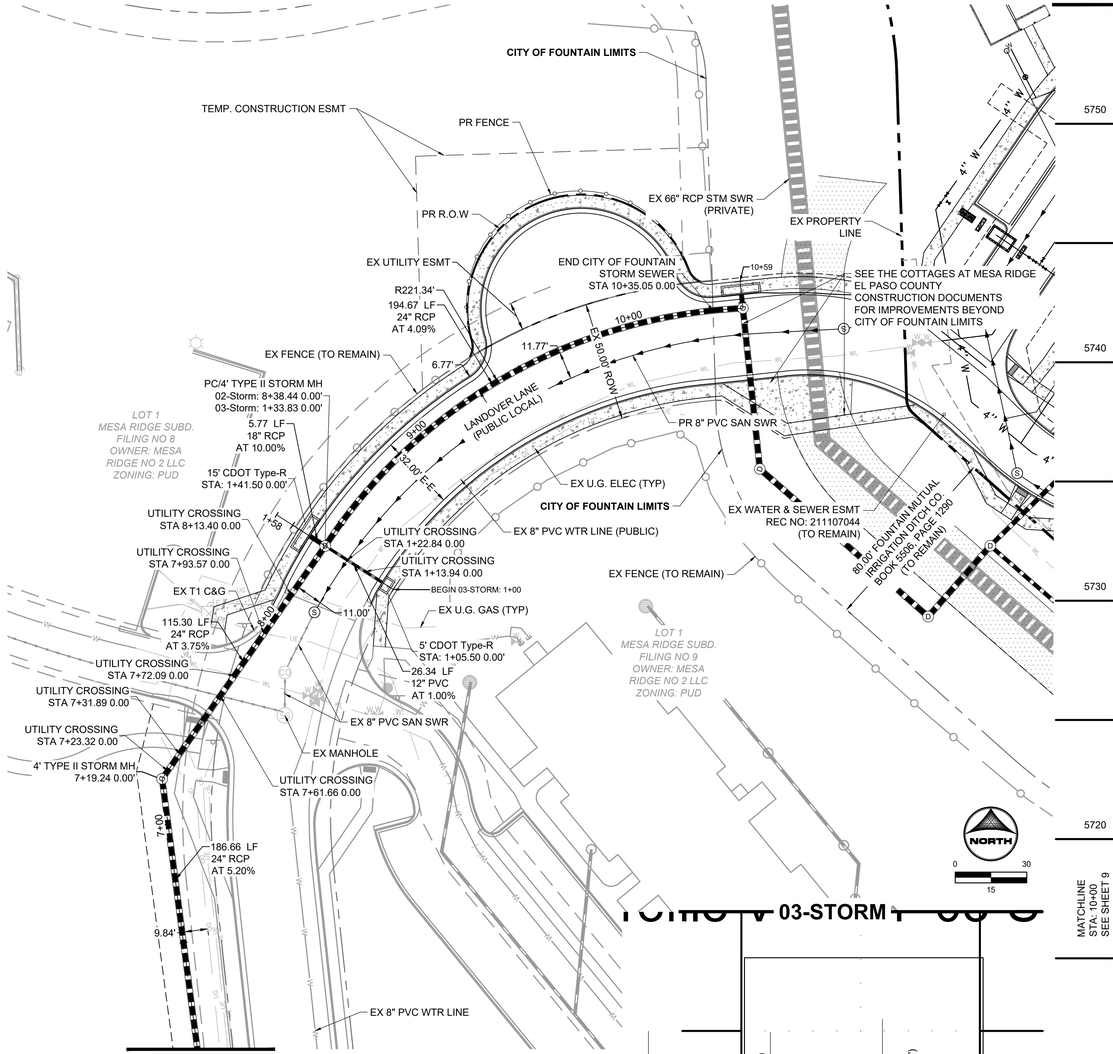
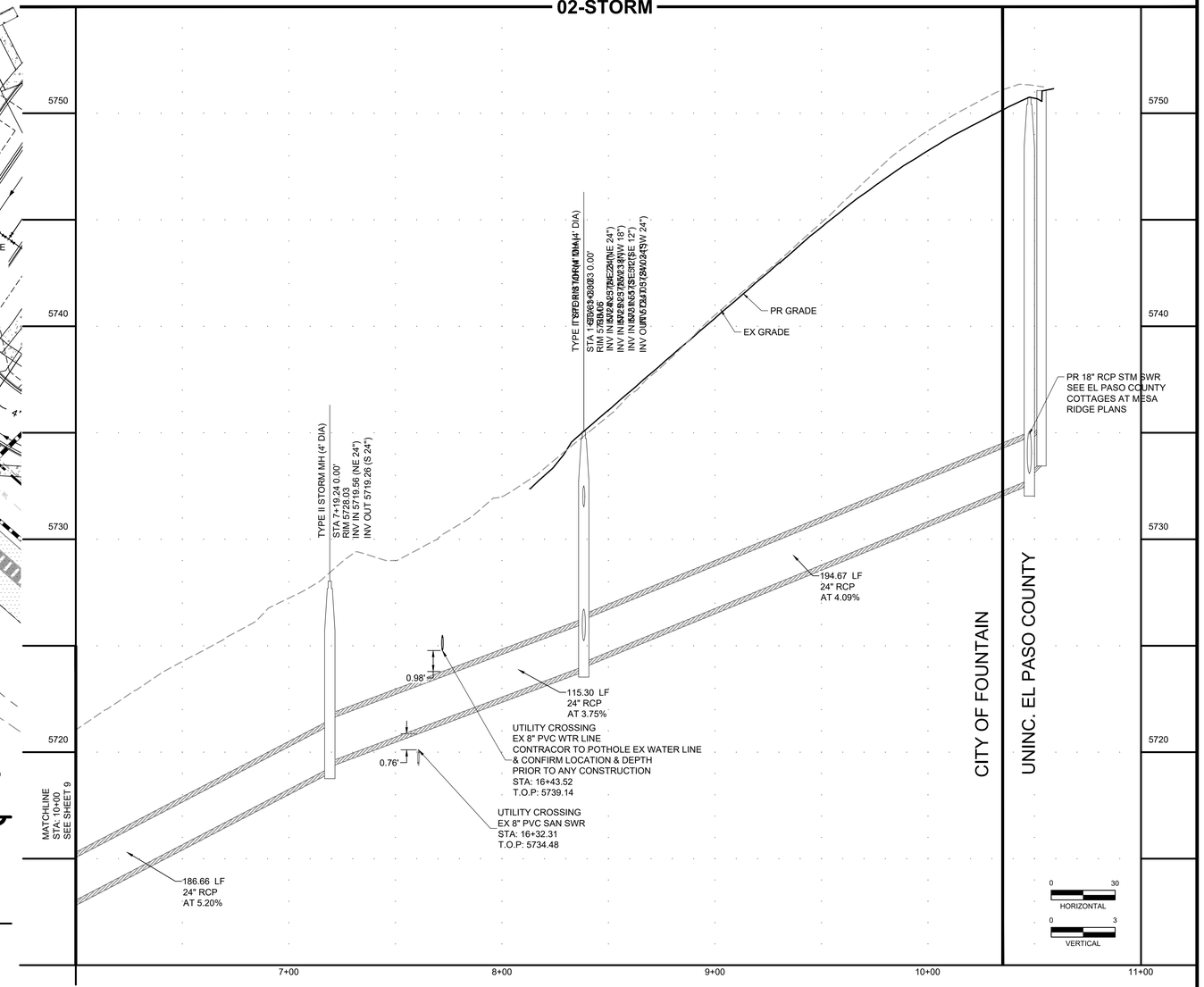
THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
FOUNTAIN, COLORADO

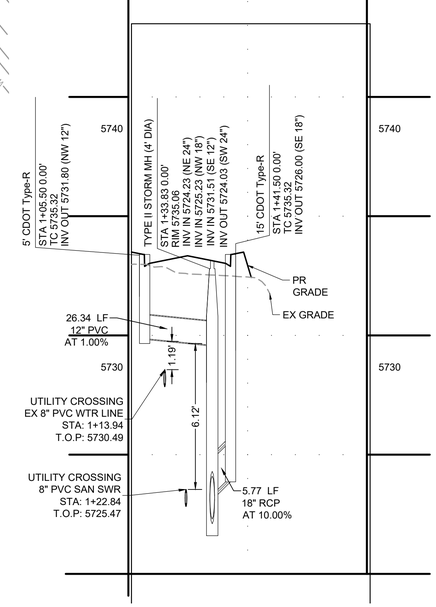
CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
SANITARY PLAN & PROFILE

SHEET SAN 7

HUHN, KEN, 4/5/2022 9:23 AM







ENGINEER'S STATEMENT:

SIGNATURE (AFFIX SEAL): _____ DATE: _____

COLORADO PROFESSIONAL ENGINEER NO:_____

ACCEPTANCE:

THESE PLAN SUBMITTED APPEAR TO BE IN CONFORMANCE WITH THE CITY OF FOUNTAIN SUBMITTAL REQUIREMENTS AND STANDARD ENGINEERING PRINCIPLES AND PRACTICES APPEAR TO HAVE BEEN FOLLOWED. THE PROFESSIONAL ENGINEER SUBMITTED AND SEALING THE PLANS IS SOLELY RESPONSIBLY FOR THEIR ACCURACY AND VALIDITY. THE REVIEW IS ONLY VALID FOR ONE (1) YEAR FROM THE DATE BELOW.

BRANDY R WILLIAMS, P.E., CITY ENGINEER DATE: _____

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CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\C.O.F\Storm			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen

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THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
FOUNTAIN, COLORADO

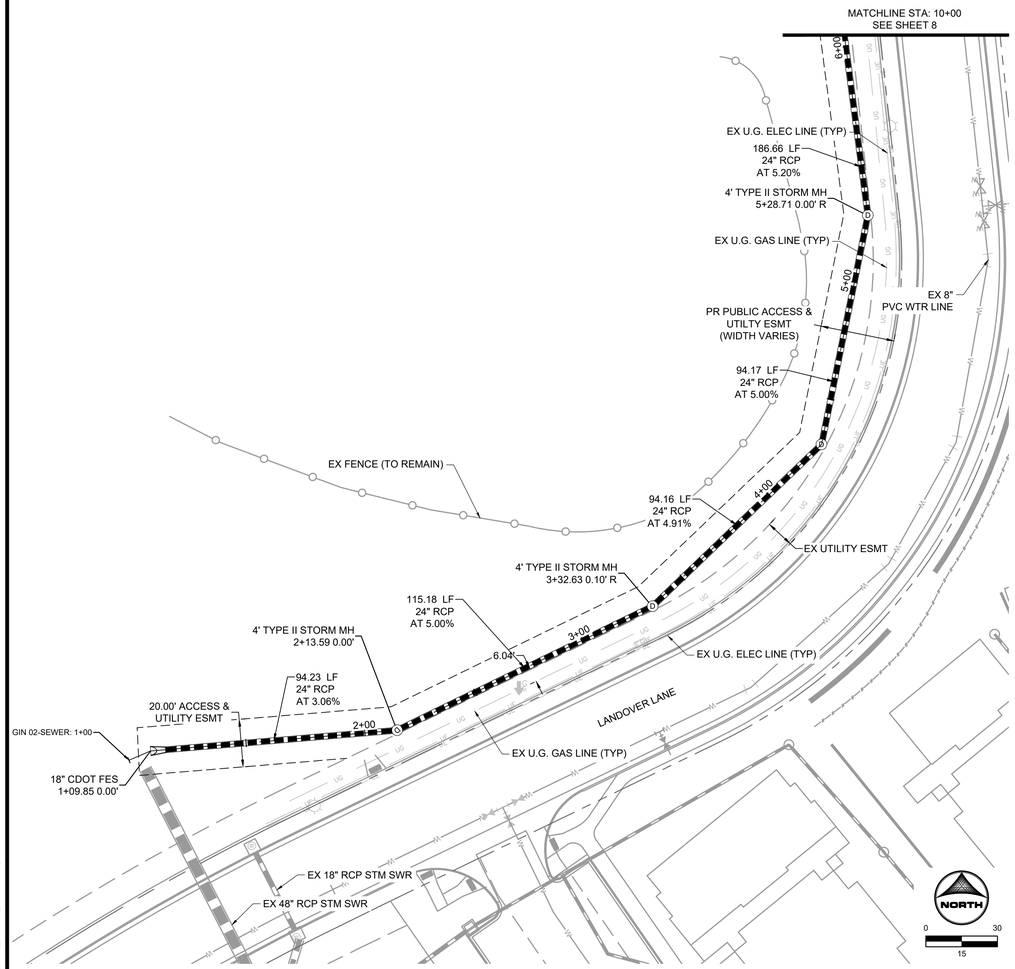
GOODWIN KNIGHT

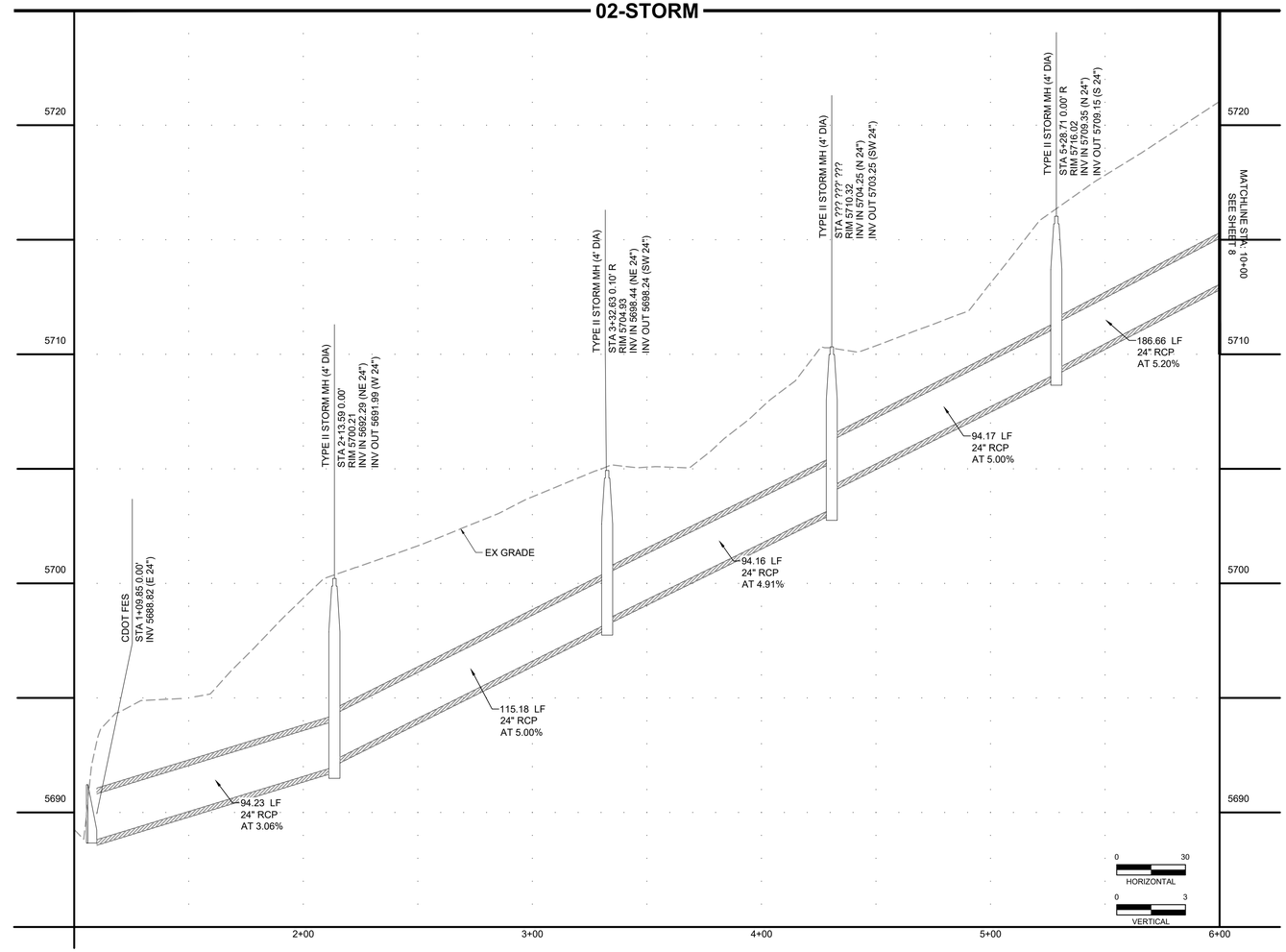
CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
STORM PLAN & PROFILE

SHEET STM

8

HR GREEN Xrefs, xc-row; xc-util; xv-dsgn; xv-dsgn-apts; xv-row; xv-row-apts; xv-util-apts; xgl-1-arch dh01-CDs_Fountain; xc-dsgn; xv-util; Fln_stormapproval_block; Fln_street_approval_block; xc-dsgn-fln





DETAILED DRAINAGE CONSTRUCTION PLANS AND SPECIFICATIONS ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION. SAID DETAILED PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE ESTABLISHED CRITERIA FOR DETAILED DRAINAGE PLANS AND SPECIFICATIONS, AND SAID DETAILED PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH THE MASTER PLAN OF THE DRAINAGE BASIN. SAID DRAINAGE PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR DRAINAGE FACILITY(S) IS DESIGNED. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERRORS OR OMISSIONS ON MY PART IN PREPARATION OF THE DETAILED PLANS AND SPECIFICATIONS.

SIGNATURE (AFFIX SEAL): _____ DATE: _____

COLORADO PROFESSIONAL ENGINEER NO:_____

CITY OF FOUNTAIN DETAILED DRAINAGE CONSTRUCTION PLANS AND SPECIFICATIONS REVIEW:

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

BRANDY R WILLIAMS, P.E., CITY ENGINEER DATE: _____

NOT FOR CONSTRUCTION

DRAWN BY: NQJ JOB DATE: 4/5/2022
APPROVED: KMH JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\C.O.F\Storm

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0 1"
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HRGreen
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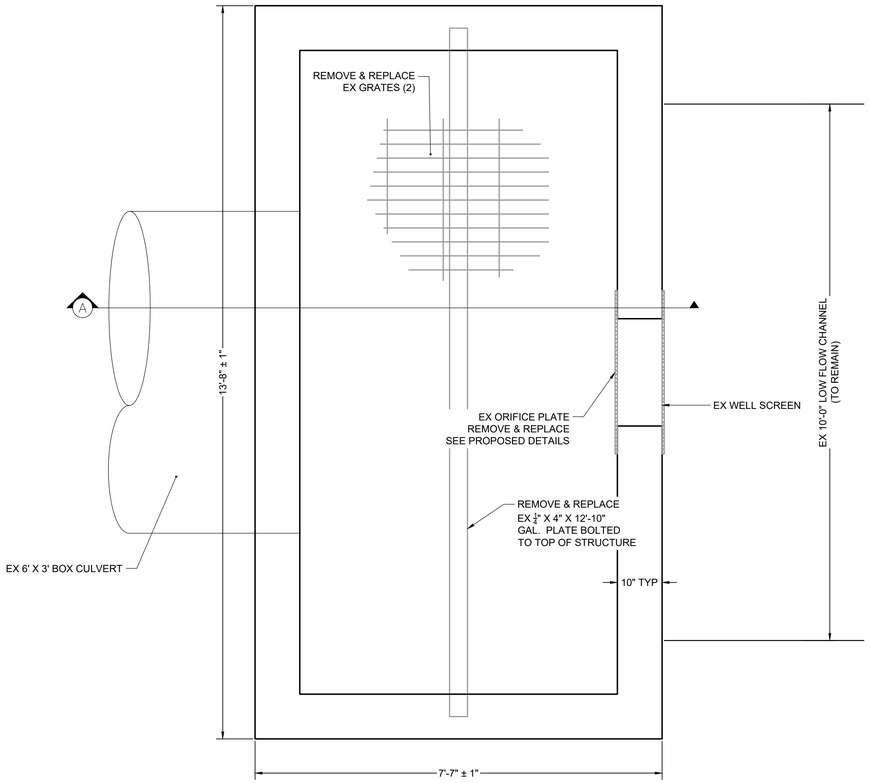
THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
FOUNTAIN, COLORADO

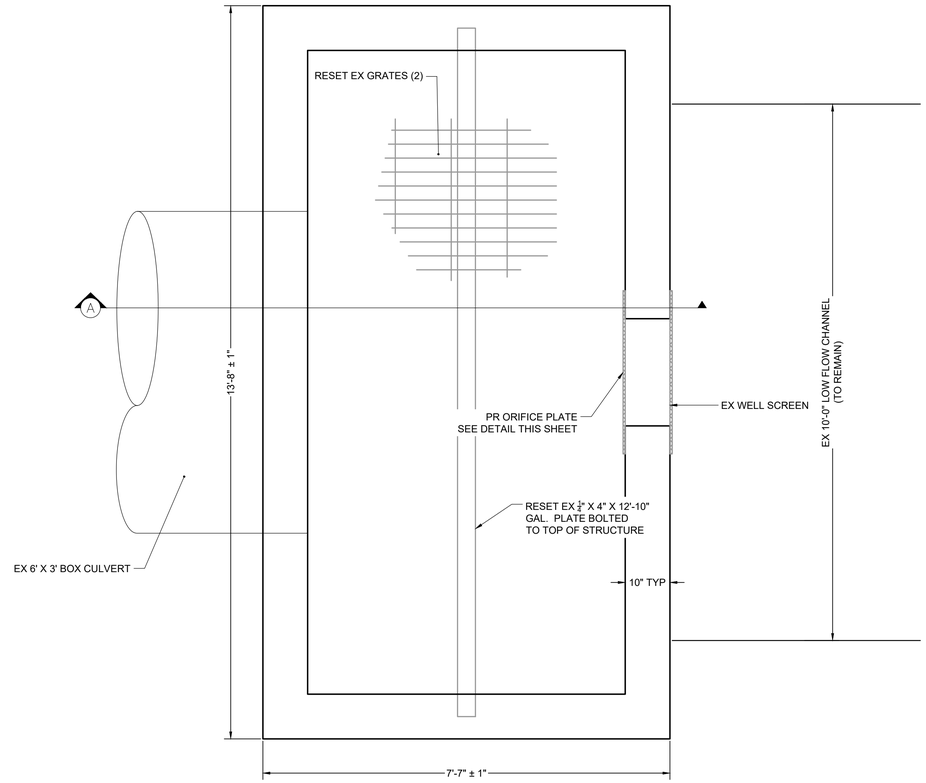
CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
STORM PLAN & PROFILE

SHEET
STM

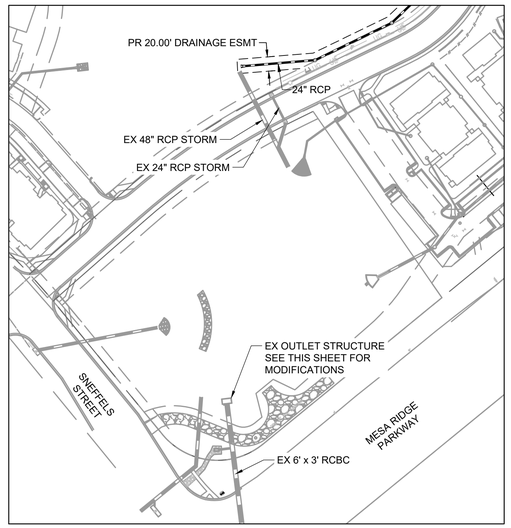
9



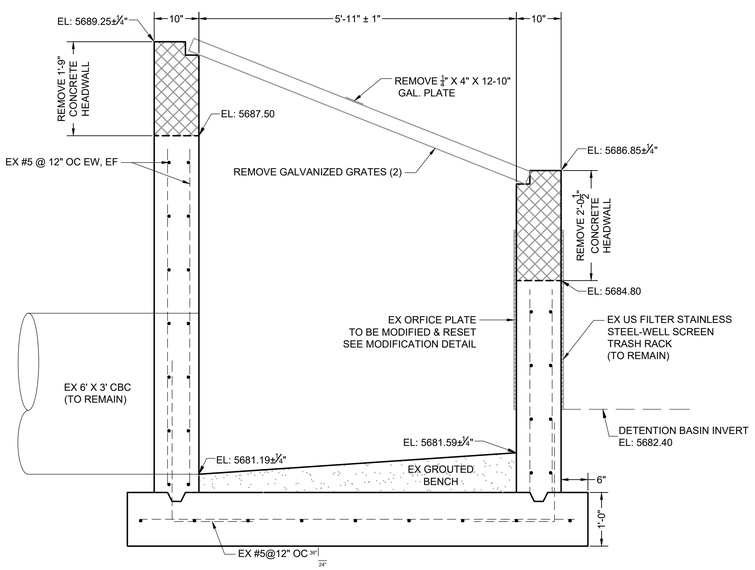
PLAN VIEW
EX POND OUTLET STRUCTURE PLAN
SCALE: 3/4" = 1'



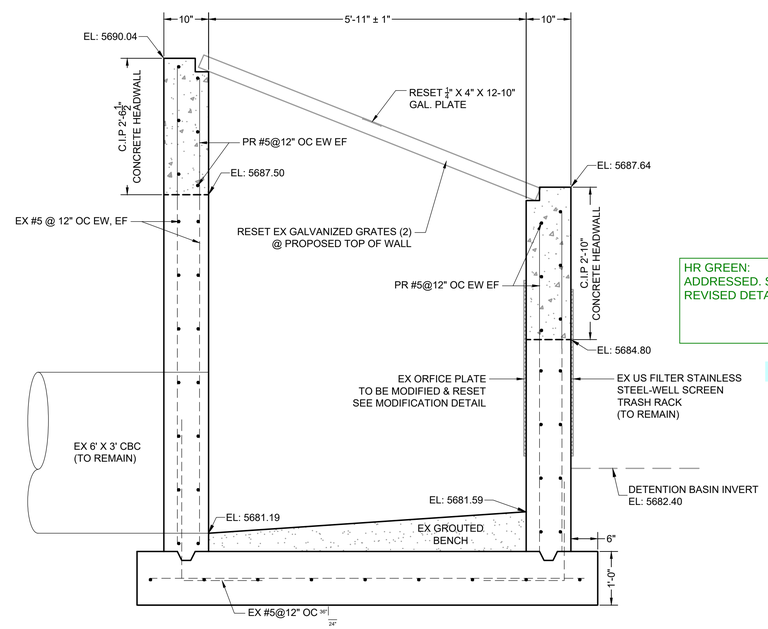
PLAN VIEW
POND OUTLET STRUCTURE MODIFCIATIONS
SCALE: 3/4" = 1'



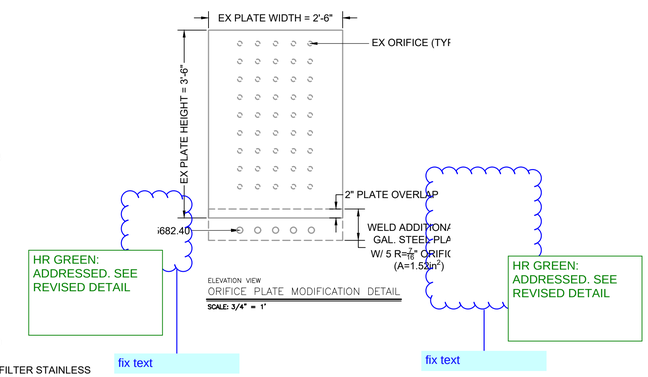
VICINITY MAP
SCALE: 1" = 100'



SECTION A – PROFILE VIEW
EX POND OUTLET STRUCTURE – DEMO PLAN
SCALE: 3/4" = 1'



SECTION A – PROFILE VIEW
POND OUTLET STRUCTURE MODIFICATIONS
SCALE: 3/4" = 1'



ELEVATION VIEW
ORIFICE PLATE MODIFICATION DETAIL
SCALE: 3/4" = 1'

NOT FOR CONSTRUCTION

SCALE:
3/4" = 1'

DRAWN BY: NQJ	JOB DATE: 4/5/2022	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
APPROVED: KMH	JOB NUMBER: 200541		
CAD DATE: 4/5/2022			
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\C.O.F\Outlet_Structure_Details			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
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7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
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THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
FOUNTAIN, COLORADO

GOODWIN KNIGHT

CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
OUTLET STRUCTURE MODIFICATION PLAN

SHEET DT

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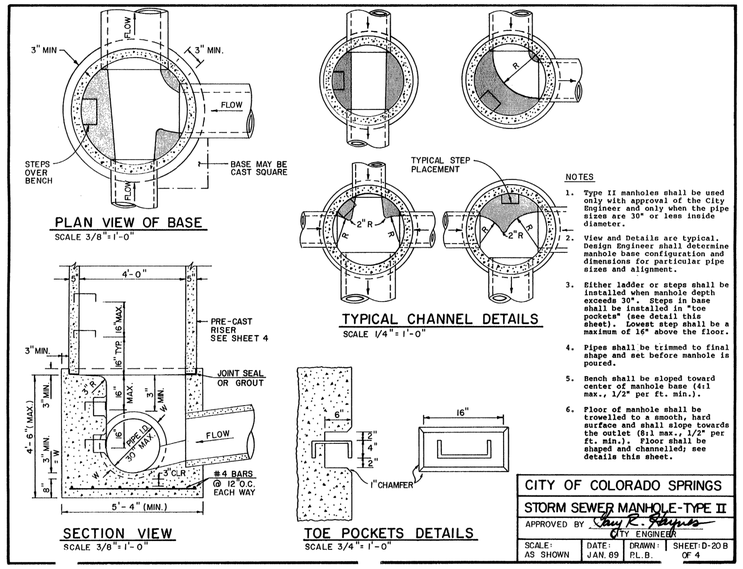
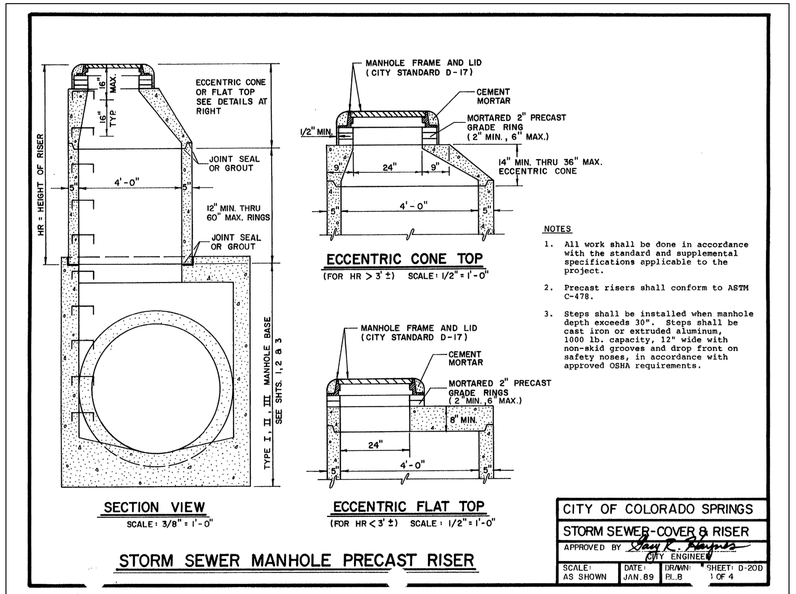
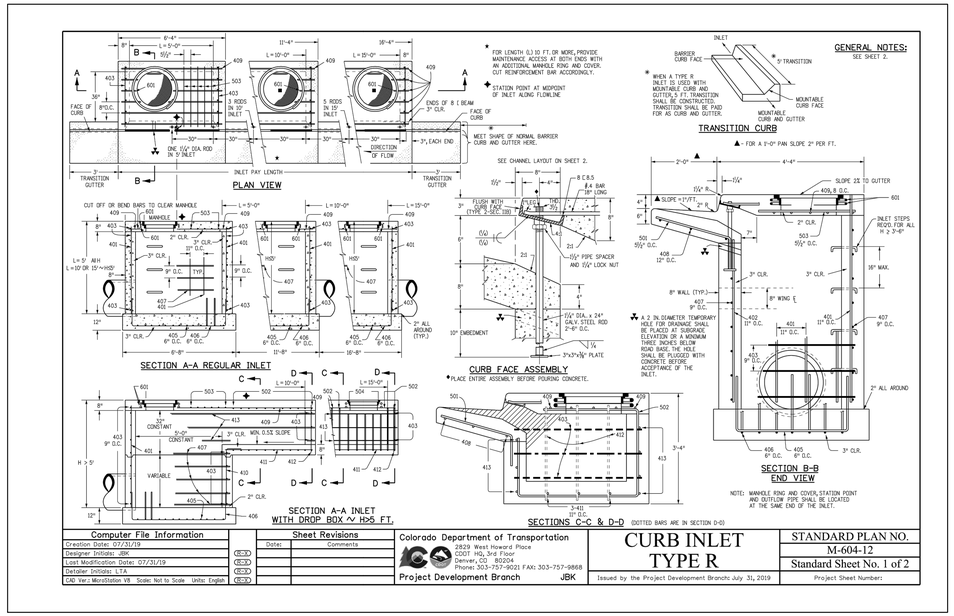






MARK	BAR # OR SIZE	O.C. SPACING	TYPE	ALL INLETS L = 5 FT. NO. REQ'D.	ALL INLETS L = 5 FT. LENGTH	INLETS: H ≤ 5 FT. L = 10 FT. NO. REQ'D.	INLETS: H ≤ 5 FT. L = 10 FT. LENGTH	INLETS: H ≤ 5 FT. L = 15 FT. NO. REQ'D.	INLETS: H ≤ 5 FT. L = 15 FT. LENGTH	INLETS: H > 5 FT. L = 10 FT. NO. REQ'D.	INLETS: H > 5 FT. L = 10 FT. LENGTH	INLETS: H > 5 FT. L = 15 FT. NO. REQ'D.	INLETS: H > 5 FT. L = 15 FT. LENGTH
401	4	11"	II	15	*	21	*	26	*	11	*	11	*
402	4	11"	II	7	*	13	*	18	*	7	*	7	*
403	4	9"	II	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-0"	*	4'-0"
405	4	6"	VI	11	6'-10"	21	6'-10"	31	6'-10"	11	6'-10"	11	6'-10"
406	4	6"	VIII	7	8'-10"	7	13'-10"	7	18'-10"	7	8'-10"	7	8'-10"
407	4	9"	II	*	5'-10"	*	10'-10"	*	15'-10"	*	5'-10"	*	5'-10"
408	4	12"	II	3	6'-10"	3	11'-10"	3	16'-0"	3	11'-10"	3	16'-0"
409	4	8"	II	6	5'-10"	6	10'-10"	6	15'-10"	6	10'-10"	6	15'-10"
410	4	11"	VII							*	*	*	*
411	4	11"	II							3	5'-2"	3	10'-2"
412	4	11"	II							3	2'-8"	3	2'-8"
413	4	9"	II							7	10'-10"	7	15'-10"
501	5	5½"	IV	11	3'-4"	22	3'-4"	33	3'-4"	22	3'-4"	33	3'-4"
502	5	5½"	III							11	11'-5"	17	17'-5"
503	5	5½"	IX	5	3'-8"	16	3'-8"	27	3'-8"	6	3'-8"	6	3'-8"
504	5	5½"	IX									5	8'-4"
601	6	2½"	V	2	8'-10"	2	8'-10"	2	8'-10"	2	8'-10"	4	8'-10"
■ #8 S				1	5'-10"	1	10'-10"	1	15'-10"	1	10'-10"	1	15'-10"
				# BARS, 1 REQ'D	——	# BARS, 2 REQ'D	——	# BARS, 3 REQ'D	——	# BARS, 2 REQ'D	——	# BARS, 3 REQ'D	——
						REGULAR INLETS				DROP BOX INLETS			

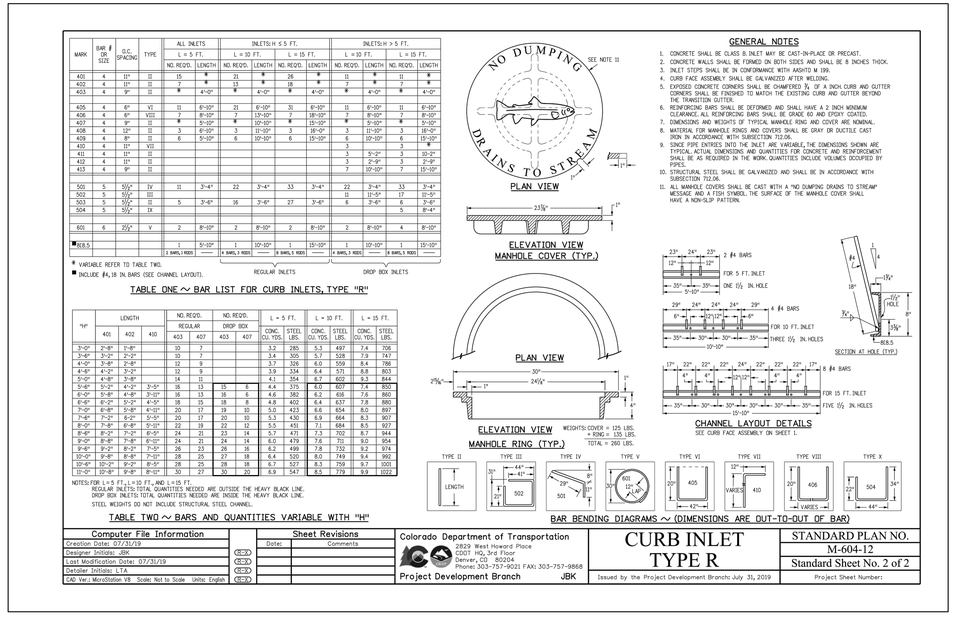
* VARIABLE REFER TO TABLE TWO.
■ INCLUDE #8, 1S IN BARS (SEE CHANNEL LAYOUT).

TABLE ONE ~ BAR LIST FOR CURB INLETS, TYPE "R"

"H"	LENGTH 401	402	410	NO. REQ'D. REGULAR 403	407	NO. REQ'D. DROP BOX 403	407	L = 5 FT. CONC. CU. YDS.	STEEL LBS.	L = 10 FT. CONC. CU. YDS.	STEEL LBS.	L = 15 FT. CONC. CU. YDS.	STEEL LBS.
3'-0"	2'-8"	1'-8"		10	7			3.2	285	5.3	497	7.4	706
3'-6"	3'-2"	2'-2"		10	7			3.4	305	5.7	528	7.9	747
4'-0"	3'-8"	2'-8"		12	9			3.7	326	6.0	559	8.4	786
4'-6"	4'-2"	3'-2"		12	9			3.9	334	6.4	571	8.8	803
5'-0"	4'-8"	3'-8"		14	11			4.1	354	6.7	602	9.3	844
5'-6"	5'-2"	4'-2"	3'-5"	16	13	15	6	4.4	375	6.9	607	7.4	850
6'-0"	5'-8"	4'-8"	3'-11"	16	13	16	6	4.6	382	6.2	616	7.6	860
6'-6"	6'-2"	5'-2"	4'-5"	18	15	18	8	4.8	402	6.4	637	7.8	880
7'-0"	6'-8"	5'-8"	4'-11"	20	17	19	10	5.0	423	6.6	654	8.0	897
7'-6"	7'-2"	6'-2"	5'-5"	20	17	20	10	5.3	430	6.9	664	8.3	907
8'-0"	7'-8"	6'-8"	5'-11"	22	19	22	12	5.5	451	7.1	684	8.5	927
8'-6"	8'-2"	7'-2"	6'-5"	24	21	23	14	5.7	471	7.3	702	8.7	944
9'-0"	8'-8"	7'-8"	6'-11"	24	21	24	14	6.0	479	7.6	711	9.0	954
9'-6"	9'-2"	8'-2"	7'-5"	26	23	26	16	6.2	499	7.8	732	9.2	974
10'-0"	9'-8"	8'-8"	7'-11"	28	25	27	18	6.4	520	8.0	749	9.4	992
10'-6"	10'-2"	9'-2"	8'-5"	28	25	28	18	6.7	527	8.3	759	9.7	1001
11'-0"	10'-8"	9'-8"	8'-11"	30	27	30	20	6.9	547	8.5	779	9.9	1022

NOTES: FOR L = 5 FT., L = 10 FT., AND L = 15 FT.
REGULAR INLETS: TOTAL QUANTITIES NEEDED ARE OUTSIDE THE HEAVY BLACK LINE.
DROP BOX INLETS: TOTAL QUANTITIES NEEDED ARE INSIDE THE HEAVY BLACK LINE.
STEEL WEIGHTS DO NOT INCLUDE STRUCTURAL STEEL CHANNEL.

TABLE TWO ~ BARS AND QUANTITIES VARIABLE WITH "H"



DRAWN BY: NQJ JOB DATE: 4/5/2022
APPROVED: KMH JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\C.O.F\Details

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

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GOODWIN KNIGHT
FOUNTAIN, COLORADO

GOODWIN KNIGHT

CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
DETAILS

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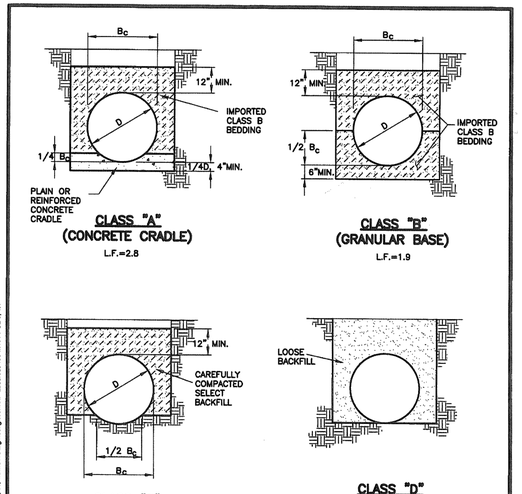

NOTES:

1. FOR ROCK OR OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVEREXCAVATED A MINUMUM OF 6" AND REFILLED WITH GRANULAR BEDDING MATERIAL AS DEFINED BY CLASS "B" BEDDING.
2. L.F. = LOAD FACTOR
3. CLASS "D" BEDDING WILL NOT BE ACCEPTABLE UNDER ANY CONDITION.
4. MINIMUM DENSITY FOR CAREFULLY COMPACTED SELECT BACKFILL SHALL BE 95% OF STD. PROCTOR DENSITY OR AS SPECIFIED FOR THE TRENCH BACKFILL, WHICHEVER IS GREATER.

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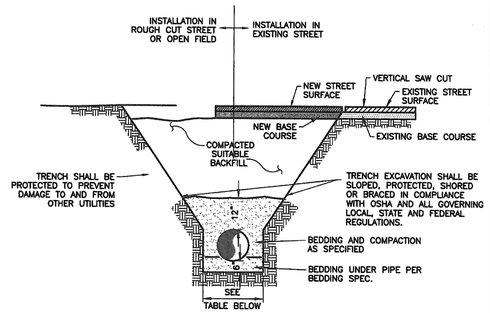
PIPE BEDDING — DWG-01

FSD FOUNTAIN SANITATION DISTRICT | DRAWN: MAM | REVISED: 2-2003 = CLASS B GRAN. MATERIAL | DATE: MARCH 2000 | REVISED: | SCALE: NONE | REVISED:



BOTTOM OF TRENCH WIDTH		
PIPE DIAMETER	MINIMUM WIDTH	MAXIMUM WIDTH
4"	1'-5"	3'-9"
6"	1'-7"	3'-11"
8"	1'-9"	4'-1"
12"	2'-1"	4'-5"
15"	2'-6"	4'-9"
18"	2'-10"	5'-2"
24"	3'-2"	5'-6"

ALL PIPE EMBEDMENT SHALL BE IMPORTED CLASS B BEDDING UNLESS OTHERWISE DIRECTED.

AN OVER EXCAVATED TRENCH SHALL BE REFILLED AND THOROUGHLY COMPACTED UNDER THE DIRECTION OF THE FOUNTAIN SANITATION DISTRICT.

UNDER NO CIRCUMSTANCES WILL PIPE BE LAID IN A PROPOSED FILL AREA PRIOR TO IT BEING COMPLETELY FILLED. THE FILL WILL BE PLACED FIRST TO PROPOSED GRADE AND COMPACTED AS REQUIRED. A TRENCH THEN WILL BE EXCAVATED AND THE PIPE INSTALLED IN THE USUAL MANNER.

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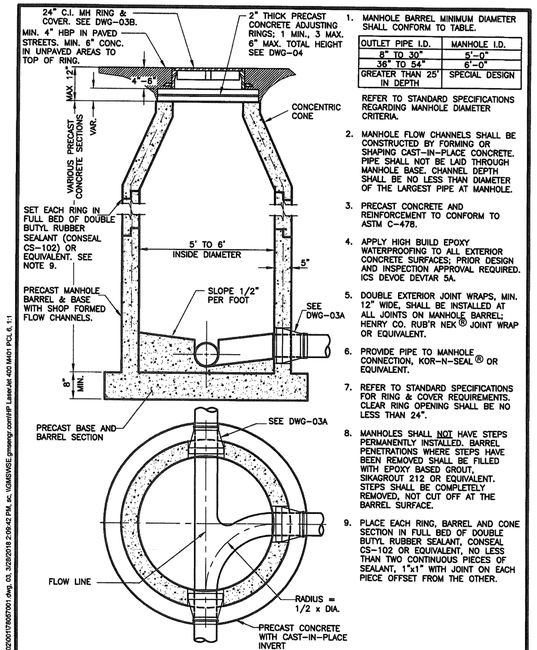
TYPICAL TRENCH CROSS SECTION — DWG-02

FSD FOUNTAIN SANITATION DISTRICT | DRAWN: MAM | REVISED: 3-2003 = BEDDING DEPTH | DATE: MARCH 2000 | REVISED: | SCALE: NONE | REVISED:



1. MANHOLE BARREL MINIMUM DIAMETER SHALL CONFORM TO TABLE.

OUTLET PIPE I.D.	MANHOLE I.D.
8" TO 30"	5'-0"
36" TO 54"	6'-0"
GREATER THAN 25' IN DEPTH	SPECIAL DESIGN

REFER TO STANDARD SPECIFICATIONS REGARDING MANHOLE DIAMETER CRITERIA.

2. MANHOLE FLOW CHANNELS SHALL BE CONSTRUCTED BY FORMING OR SHAPING CAST-IN-PLACE CONCRETE. PIPE SHALL NOT BE LAID THROUGH MANHOLE BASE. CHANNEL DEPTH SHALL BE NO LESS THAN DIAMETER OF THE LARGEST PIPE AT MANHOLE.
3. PRECAST CONCRETE AND REINFORCEMENT TO CONFORM TO ASTM C-478.
4. APPLY HIGH BUILD EPOXY WATERPROOFING TO ALL EXTERIOR CONCRETE SURFACES; PRIOR DESIGN AND INSPECTION APPROVAL REQUIRED. ICS DEVOE DEVTAR 5A.
5. DOUBLE EXTERIOR JOINT WRAPS, MIN. 12" WIDE, SHALL BE INSTALLED AT ALL JOINTS ON MANHOLE BARREL; HENRY CO. RUB'R NEK® JOINT WRAP OR EQUIVALENT.
6. PROVIDE PIPE TO MANHOLE CONNECTION, KOR-N-SEAL® OR EQUIVALENT.
7. REFER TO STANDARD SPECIFICATIONS FOR RING & COVER REQUIREMENTS. CLEAR RING OPENING SHALL BE NO LESS THAN 24".
8. MANHOLES SHALL NOT HAVE STEPS PERMANENTLY INSTALLED. BARREL PENETRATIONS WHERE STEPS HAVE BEEN REMOVED SHALL BE FILLED WITH EPOXY BASED GROUT, SIKAGROUT 212 OR EQUIVALENT. STEPS SHALL BE COMPLETELY REMOVED, NOT CUT OFF AT THE BARREL SURFACE.
9. PLACE EACH RING, BARREL AND CONE SECTION IN FULL BED OF DOUBLE BUTYL RUBBER SEALANT, CONSEAL CS-102 OR EQUIVALENT, NO LESS THAN TWO CONTINUOUS PIECES OF SEALANT, 1"x1" WITH JOINT ON EACH PIECE OFFSET FROM THE OTHER.

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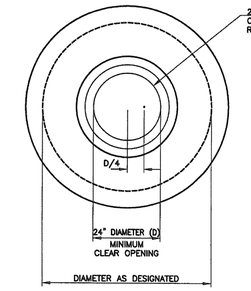
PRECAST CONCRETE MANHOLE — DWG-03

FSD FOUNTAIN SANITATION DISTRICT | DRAWN: SKC | REVISED: 3-2003 = STEPS AND MH DIAMETER | DATE: MARCH 2000 | REVISED: 6-2017: PRECAST BASE, HMA @ RING & MH DIA. | SCALE: NONE | REVISED: 3-2018: CONE, DIAMETERS, WATERPROOFING



1. CAST IRON (C.I.) FOR TRAFFIC BEARING CONDITIONS
2. C.I. OR CAST ALUMINUM FOR NON-TRAFFIC CONDITIONS
3. RING AND COVER MUST BE LOCKING TYPE AND BOLTED TO CONCENTRIC CONE WHEN LOCATED IN AREAS THAT ARE NOT DEDICATED STREETS OR ALLEYS
4. PICK HOLES SHALL BE 1/2" IN DIAMETER LOCATED MIDWAY BETWEEN CENTER OF COVER AND EDGE OF COVER

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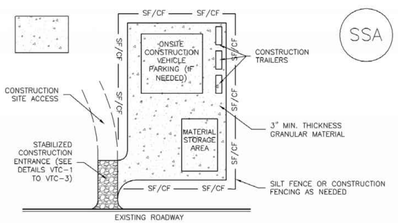
MANHOLE RING AND COVER — DWG-3B

FSD FOUNTAIN SANITATION DISTRICT | DRAWN: SKC | REVISED: | DATE: MARCH 2018 | REVISED: | SCALE: NONE | REVISED:

Stabilized Staging Area (SSA) — SM-6



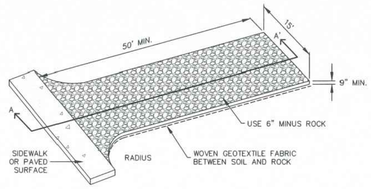
SSA-1. STABILIZED STAGING AREA

STABILIZED STAGING AREA INSTALLATION NOTES

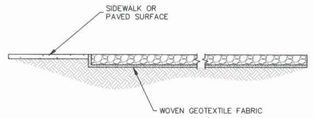
1. SEE PLAN VIEW FOR
   -LOCATION OF STAGING AREA(S).
   -CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
2. STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
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.



AGGREGATE VEHICLE TRACKING CONTROL



SECTION A-A'

INSTALLATION NOTES

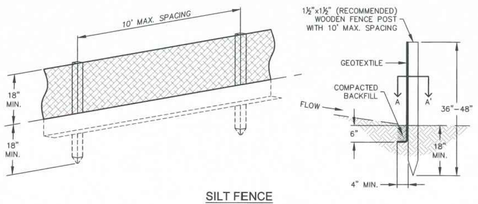
1. A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHOULD BE LOCATED AT ALL POINTS WHERE VEHICLES EXIT THE CONSTRUCTION SITE TO ADJACENT ROADWAY.
2. STABILIZED CONSTRUCTION ENTRANCE/EXITS SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
3. RADIUS MUST BE ADEQUATE FOR INTENDED CONSTRUCTION VEHICLE TURNING.
4. ROCK SHOULD CONSIST OF 6" MINUS ROCK.
5. INSTALL CONSTRUCTION FENCE ON BOTH SIDES OF VEHICLE TRACKING CONTROL PAD WHEN NEEDED OR REQUIRED BY INSPECTOR.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. SEDIMENT TRACKED ONTO THE ADJACENT ROAD SHALL BE REMOVED DAILY, BY SWEEPING OR SHOVELING, AND NEVER WASHED DOWN STORM DRAINS.
3. ROUGHEN, REPLACE AND/OR ADD ROCK AS NEEDED TO MAINTAIN CONSISTENT DEPTH AND TO PREVENT SEDIMENT TRACKING ONTO ADJACENT STREET.
4. PERMANENTLY STABILIZE AREA AFTER VEHICLE TRACKING CONTROL IS REMOVED.

VTC

STORMWATER ENTERPRISE | VEHICLE TRACKING CONTROL | APPROVED: | ENGINEER MANAGER | ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-VTC



SILT FENCE

J-HOOK INSTALLATION

SECTION A-A'

INSTALLATION NOTES

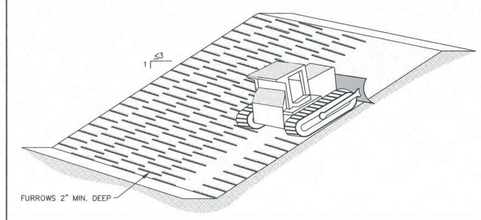
1. SILT FENCE MUST BE PLACED ON A FLAT SURFACE 2'-5' AWAY FROM TOE OF THE SLOPE TO ALLOW FOR PONDING AND DEPOSITION.
2. COMPACT THE TRENCH USING A JUMPING JACK OR WHEEL ROLLING TO THE POINT THAT THE FENCE RESISTS BEING PULLED OUT OF THE GROUND BY HAND.
3. SILT FENCE SHALL BE TAUT WITH NO SAGS AFTER IT HAS BEEN ANCHORED.
4. FABRIC SHALL BE ATTACHED TO POSTS WITH 1" HEAVY DUTY STAPLES OR 1" NAILS. THESE SHOULD BE PLACED VERTICALLY DOWN THE POST, 3" APART.
5. THE PREFERRED INSTALLATION METHOD USES A TRENCHER OR SILT FENCE INSTALLATION DEVICE.
6. INSTALL SILT FENCE ALONG THE CONTOUR OF THE SLOPES OR IN A MANNER TO AVOID CREATING CONCENTRATED FLOW (SUCH AS A "J-HOOK" INSTALLATION).

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN HEIGHT OF THE SILT FENCE.
3. SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AFTER SILT FENCE IS REMOVED.

SF

STORMWATER ENTERPRISE | SILT FENCE | APPROVED: | ENGINEER MANAGER | ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-SF



SLOPE TRACKING

INSTALLATION NOTES

1. SLOPE TRACKING MAY BE USED ON SLOPES 3:1 OR STEEPER.
2. TRACKING GROOVES SHALL BE PERPENDICULAR TO THE SLOPE.
3. SLOPE TRACKING SHALL NOT BE USED ON EXTREMELY SANDY OR ROCKY SOILS.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. VEHICLES AND EQUIPMENT SHALL NOT BE DRIVEN OVER AREAS THAT HAVE BEEN SLOPE TRACKED.

ST

STORMWATER ENTERPRISE | SLOPE TRACKING | APPROVED: | ENGINEER MANAGER | ISSUED: 10/7/19 | REVISED: 8/19/2020 | DRAWING NO. 900-ST

DRAWN BY: NQJ JOB DATE: 4/5/2022
APPROVED: KMH JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\C.O.F\Details

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 — 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

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GOODWIN KNIGHT
FOUNTAIN, COLORADO

GOODWIN KNIGHT

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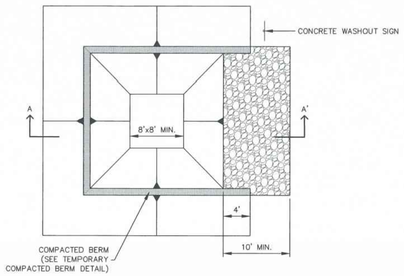
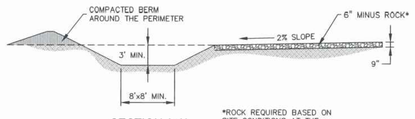
DETAILS

SHEET DT



CONCRETE WASHOUT AREA PLAN



SECTION A-A'

*ROCK REQUIRED BASED ON SITE CONDITIONS AT THE DISCRETION OF THE GEC INSPECTOR

CWA

STORMWATER ENTERPRISE

CONCRETE WASHOUT AREA

APPROVED: SMENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-CWA-1

INSTALLATION NOTES

1. SEE PLAN VIEW FOR:
   -LOCATION OF CONCRETE WASHOUT AREA
2. LOCATE AT LEAST 50' AWAY FROM STATE WATERS MEASURED HORIZONTALLY.
3. AN IMPERMEABLE LINER (16 MIL MINIMUM THICKNESS) IS REQUIRED IF CONCRETE WASH AREA IS LOCATED WITHIN 400' OF STATE WATERS OR 1000' OF WELLS OR DRINKING WATER SOURCES.
4. DO NOT LOCATE IN AREAS WHERE SHALLOW GROUNDWATER MAY BE PRESENT.
5. THE CONCRETE WASH AREA SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE.
6. CONCRETE WASH AREA SHALL INCLUDE A FLAT SUBSURFACE PIT THAT IS AT LEAST 8' BY 8'.
7. BERM SURROUNDING SIDES AND BACK OF CONCRETE WASH AREA SHALL HAVE A MINIMUM HEIGHT OF 2 FEET.
8. CONCRETE WASH AREA ENTRANCE SHALL BE SLOPED 2% TOWARDS THE CONCRETE WASH AREA.
9. SIGNS SHALL BE PLACED AT THE CONCRETE WASH AREA.
10. USE EXCAVATED MATERIAL FOR PERIMETER BERM CONSTRUCTION.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. THE CONCRETE WASH AREA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS ACCUMULATED IN THE PIT SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF ⅔ THE HEIGHT OF THE CONCRETE WASH AREA.
3. 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.
4. THE CONCRETE WASH AREA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
5. PERMANENTLY STABILIZE AREA AFTER CONCRETE WASH AREA IS REMOVED.

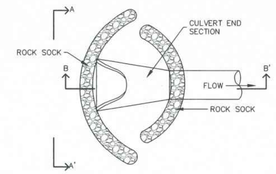
CWA

STORMWATER ENTERPRISE

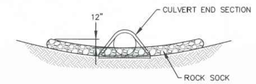
CONCRETE WASHOUT AREA

APPROVED: SMENT MANAGER

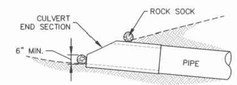
ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-CWA-2



CULVERT INLET PROTECTION PLAN



SECTION A-A'



SECTION B-B'

INSTALLATION NOTES

1. SEE ROCK SOCK DETAIL.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS ½ HEIGHT OF THE ROCK SOCK.
3. CULVERT INLET PROTECTION SHALL REMAIN UNTIL THE UPSTREAM AREA IS PERMANENTLY STABILIZED.

CIP

STORMWATER ENTERPRISE

CULVERT INLET PROTECTION

APPROVED: SMENT MANAGER

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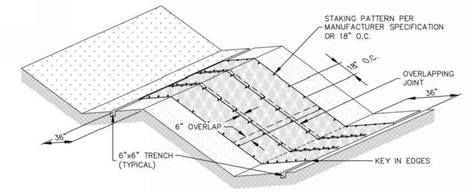
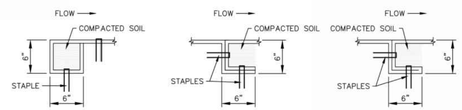
10/7/19	8/19/2020	900-CIP



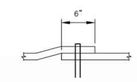
EROSION CONTROL BLANKET



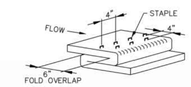
PERIMETER ANCHOR TRENCH

JOINT ANCHOR TRENCH

INTERMEDIATE CHECK SLOT



OVERLAPPING JOINT



STAPLE CHECK

TO BE USED ON SLOPE EVERY 15 FEET

ECB

STORMWATER ENTERPRISE

EROSION CONTROL BLANKET

APPROVED: SMENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-ECB-1

INSTALLATION NOTES

1. 100% NATURAL AND BIODEGRADABLE MATERIALS ARE REQUIRED FOR EROSION CONTROL BLANKETS. TRM PRODUCTS MAY ME USED WHERE APPROPRIATE AS DESIGNATED BY THE ENGINEER.
2. IN AREAS WHERE EROSION CONTROL BLANKETS ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO EROSION CONTROL BLANKET INSTALLATION, AND THE EROSION CONTROL BLANKET SHALL BE IN FULL CONTACT WITH THE SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET.
3. PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS.
4. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER (LONGITUDINALLY AND TRANSVERSELY) FOR ALL EROSION CONTROL BLANKETS.
5. INTERMEDIATE CHECK SLOT OR STAPLE CHECK SHALL BE INSTALLED EVERY 15' DOWN SLOPES. IN DRAINAGEWAYS, INSTALL CHECK SLOTS EVERY 25' PERPENDICULAR TO FLOW DIRECTION.
6. OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF EROSION CONTROL BLANKETS TOGETHER FOR EROSION CONTROL BLANKETS ON SLOPES.
7. MATERIAL SPECIFICATIONS OF EROSION CONTROL BLANKETS SHALL CONFORM TO TABLE ECB-1.
8. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING EROSION CONTROL BLANKETS SHALL BE RESEEDED AND MULCHED.
9. STRAW EROSION CONTROL BLANKETS SHALL NOT BE USED WITHIN STREAMS AND DRAINAGE CHANNELS.
10. COMPACT ALL TRENCHES.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. EROSION CONTROL BLANKETS SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE. TRM MUST BE REMOVED AT THE DISCRETION OF THE GEC INSPECTOR.
3. ANY EROSION CONTROL BLANKET PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW GEOTEXTILE THAT HAVE ERODED TO CREATE A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE EROSION CONTROL BLANKET REINSTALLED.

TABLE ECB-1, EROSION CONTROL BLANKET MATERIAL SPECIFICATIONS

TYPE	COCONUT CONTENT	STRAW CONTENT	EXCELSIOR CONTENT	RECOMMENDED NETTING
STRAW	–	100%	–	DOUBLE/ NATURAL
STRAW-COCONUT	30% MIN.	70% MAX.	–	DOUBLE/ NATURAL
COCONUT	100%	–	–	DOUBLE/ NATURAL
EXCELSIOR	–	–	100%	DOUBLE/ NATURAL

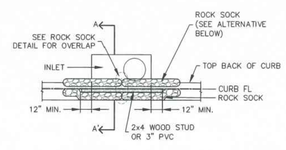
ECB

STORMWATER ENTERPRISE

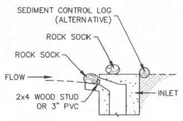
EROSION CONTROL BLANKET

APPROVED: SMENT MANAGER

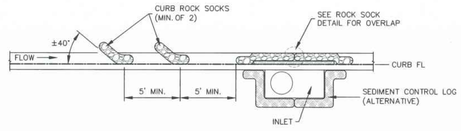
ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-ECB-2



CURB INLET PROTECTION PLAN



SECTION A-A'



CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

INSTALLATION NOTES

1. SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
2. PLACEMENT OF THE ROCK SOCK SHALL BE APPROXIMATELY 40 DEGREES FROM THE CURB.
3. ROCK SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5' APART.
4. AT LEAST TWO CURB ROCK SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADIENT INLETS.
5. ADDITIONAL ROCK SOCKS MAY BE REQUIRED AT GEC INSPECTOR'S DISCRETION.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA BEHIND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

IP-1

STORMWATER ENTERPRISE

ON-GRADE INLET PROTECTION

APPROVED: SMENT MANAGER

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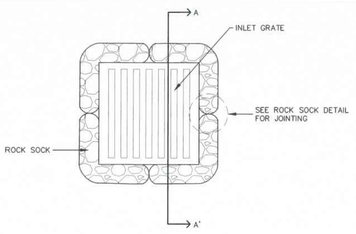
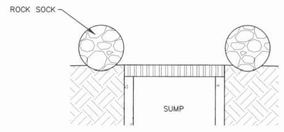
10/7/19	8/19/2020	900-IP-1



ROCK SOCK SUMP INLET PROTECTION PLAN



SECTION A-A'

INSTALLATION NOTES

1. SEE ROCK SOCK DETAIL FOR INSTALLATION REQUIREMENTS.
2. SEDIMENT CONTROL LOGS MAY BE USED IN PLACE OF ROCK SOCKS IN PERVIOUS AREAS. INSTALL PER SEDIMENT CONTROL LOG DETAIL
3. CONTROL MEASURES MUST BE WRAPPED AROUND INLET AS TIGHTLY AS POSSIBLE.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. ROCK SOCKS MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AROUND INLET AFTER ROCK SOCKS ARE REMOVED WHEN REMOVAL IS APPROPRIATE.

IP-2

STORMWATER ENTERPRISE

SUMP INLET PROTECTION

APPROVED: SMENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-IP-2

SEEDING & MULCHING

ALL SOIL TESTING, SOILS AMENDMENT AND FERTILIZER DOCUMENTATION, AND SEED LOAD AND BAG TICKETS MUST BE ADDED TO THE CSWMP.

SOIL PREPARATION

1. IN AREAS TO BE SEEDED, THE UPPER 6 INCHES OF THE SOIL MUST NOT BE HEAVILY COMPACTED, AND SHOULD BE IN FRIABLE CONDITION. LESS THAN 85% STANDARD PROCTOR DENSITY IS ACCEPTABLE. AREAS OF COMPACTION OR GENERAL CONSTRUCTION ACTIVITY MUST BE SCARIFIED TO A DEPTH OF 6 TO 12 INCHES PRIOR TO SPREADING TOPSOIL TO BREAK UP COMPACTED LAYERS AND PROVIDE A BLENDING ZONE BETWEEN DIFFERENT SOIL LAYERS.
2. AREAS TO BE PLANTED SHALL HAVE AT LEAST 4 INCHES OF TOPSOIL SUITABLE TO SUPPORT PLANT GROWTH.
3. THE CITY RECOMMENDS THAT EXISTING AND/OR IMPORTED TOPSOIL BE TESTED TO IDENTIFY SOIL DEFICIENCIES AND ANY SOIL AMENDMENTS NECESSARY TO ADDRESS THESE DEFICIENCIES. SOIL AMENDMENTS AND/OR FERTILIZERS SHOULD BE ADDED TO CORRECT TOPSOIL DEFICIENCIES BASED ON SOIL TESTING RESULTS.
4. TOPSOIL SHALL BE PROTECTED DURING THE CONSTRUCTION PERIOD TO RETAIN ITS STRUCTURE AVOID COMPACTION, AND TO PREVENT EROSION AND CONTAMINATION. STRIPPED TOPSOIL MUST BE STORED IN AN AREA AWAY FROM MACHINERY AND CONSTRUCTION OPERATIONS, AND CARE MUST BE TAKEN TO PROTECT THE TOPSOIL AS A VALUABLE COMMODITY. TOPSOIL MUST NOT BE STRIPPED DURING UNDESIRABLE WORKING CONDITIONS (E.G. DURING WET WEATHER OR WHEN SOILS ARE SATURATED). TOPSOIL SHALL NOT BE STORED IN SWALES OR IN AREAS WITH POOR DRAINAGE.

SEEDING

1. ALLOWABLE SEED MIXES ARE INCLUDED IN THE CITY OF COLORADO SPRINGS STORMWATER CONSTRUCTION MANUAL. ALTERNATIVE SEED MIXES ARE ACCEPTABLE IF INCLUDED IN AN APPROVED LANDSCAPING PLAN.
2. SEED SHOULD BE DRILL-SEEDED WHENEVER POSSIBLE
   - SEED DEPTH MUST BE ¼ TO ½ INCHES WHEN DRILL-SEEDING IS USED
3. BROADCAST SEEDING OR HYDRO-SEEDING WITH TACKIFIER MAY BE SUBSTITUTED ON SLOPES STEEPER THAN 3:1 OR ON OTHER AREAS NOT PRACTICAL TO DRILL SEED.
   - SEEDING RATES MUST BE DOUBLED FOR BROADCAST SEEDING OR INCREASED BY 50% IF USING A BRILLION DRILL OR HYDRO-SEEDING
   - BROADCAST SEEDING MUST BE LIGHTLY HAND-RAKED INTO THE SOIL

MULCHING

1. MULCHING SHOULD BE COMPLETED AS SOON AS PRACTICABLE AFTER SEEDING, HOWEVER PLANTED AREAS MUST BE MULCHED NO LATER THAN 14 DAYS AFTER PLANTING.
2. MULCHING REQUIREMENTS INCLUDE:
   - HAY OR STRAW MULCH
     - ONLY CERTIFIED WEED-FREE AND CERTIFIED SEED-FREE MULCH MAY BE USED. MULCH MUST BE APPLIED AT 2 TONS/ACRE AND ADEQUATELY SECURED BY CRIMPING AND/OR TACKIFIER.
     - CRIMPING MUST NOT BE USED ON SLOPES GREATER THAN 3:1 AND MULCH FIBERS MUST BE TUCKED INTO THE SOIL TO A DEPTH OF 3 TO 4 INCHES.
     - TACKIFIER MUST BE USED IN PLACE OF CRIMPING ON SLOPES STEEPER THAN 3:1.
   - HYDRAULIC MULCHING
     - HYDRAULIC MULCHING IS AN OPTION ON STEEP SLOPES OR WHERE ACCESS IS LIMITED.
     - IF HYDRO-SEEDING IS USED, MULCHING MUST BE APPLIED AS A SEPARATE, SECOND OPERATION.
     - WOOD CELLULOSE FIBERS MIXED WITH WATER MUST BE APPLIED AT A RATE OF 2,000 TO 2,500 POUNDS/ACRE, AND TACKIFIER MUST BE APPLIED AT A RATE OF 100 POUNDS/ACRE.
   - EROSION CONTROL BLANKET
     - EROSION CONTROL BLANKET MAY BE USED IN PLACE OF TRADITIONAL MULCHING METHODS.

SM

STORMWATER ENTERPRISE

SEEDING & MULCHING

APPROVED: SMENT MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-SM

DRAWN BY: YOU JOB DATE: 4/5/2022
APPROVED: KEN JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\C.O.F\Details

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

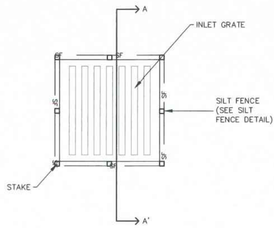
HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
FOUNTAIN, COLORADO

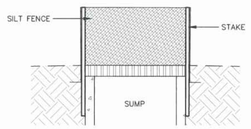
GOODWIN KNIGHT

CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
DETAILS

SHEET DT



SILT FENCE SUMP INLET PROTECTION PLAN



SECTION A-A'

INSTALLATION NOTES

1. SEE SILT FENCE DETAIL FOR INSTALLATION REQUIREMENTS.
2. POSTS SHALL BE PLACED AT EACH CORNER OF THE INLET AND AROUND THE EDGES AT A MAXIMUM SPACING OF THREE FEET.
3. SILT FENCE FABRIC SHOULD HAVE A FLOW RATE IN EXCESS OF 30 GALLONS PER MINUTE PER SQUARE YARD SO AS TO ALLOW SOME WATER FLOW AND NOT DAM THE WATER. STANDARD, LOW-FLOW SILT FENCE FABRIC WILL NOT BE ALLOWED.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. SILT FENCE MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AROUND INLET AFTER SILT FENCE IS REMOVED WHEN REMOVAL IS APPROPRIATE.

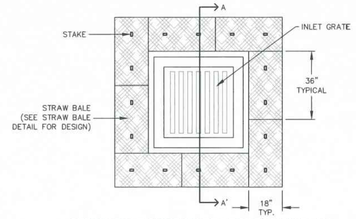
IP-3

STORMWATER ENTERPRISE

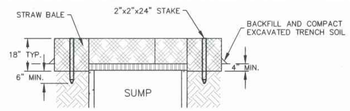
SUMP INLET PROTECTION

APPROVED: SHEET MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-IP-3



STRAW BALE SUMP INLET PROTECTION PLAN



SECTION A-A'

INSTALLATION NOTES

1. BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH THE ENDS OF THE BALES TIGHTLY ABUTTING ONE ANOTHER.
2. STRAW BALES SHALL CONSIST OF CERTIFIED WEED FREE STRAW OR HAY. LOCAL JURISDICTIONS MAY REQUIRE PROOF THAT BALES ARE WEED FREE.
3. STRAW BALES SHALL CONSIST OF APPROXIMATELY 5 CUBIC FEET OF STRAW OR HAY AND WEIGH NOT LESS THAN 35 POUNDS.
4. STRAW BALE DIMENSIONS SHALL BE APPROXIMATELY 36"x18"x18".
5. A UNIFORM ANCHOR TRENCH SHALL BE EXCAVATED TO A DEPTH OF 4". STRAW BALES SHALL BE PACED SO THAT THE BINDING TWINE IS ENCOMPASSING THE VERTICAL SIDES OF THE BALE(S).
6. TWO (2) WOODEN STAKES SHALL BE USED TO HOLD EACH BALE IN PLACE. WOODEN STAKED SHALL BE 2"x2"x24 (MIN.)". WOODEN STAKES SHALL BE DRIVEN A MINIMUM OF 6" INTO THE GROUND.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE DESIGN DEPTH OF THE INLET BARRIER.
3. STRAW BALES MUST REMAIN UNTIL THE UPSTREAM DISTURBANCE AREA IS STABILIZED.
4. PERMANENTLY STABILIZE AREA AROUND INLET AFTER STRAW BALES ARE REMOVED WHEN REMOVAL IS APPROPRIATE.
5. STRAW BALES SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED, ROTTEN OR DAMAGED BEYOND REPAIR.

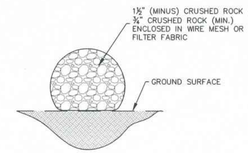
IP-4

STORMWATER ENTERPRISE

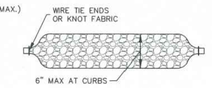
SUMP INLET PROTECTION

APPROVED: SHEET MANAGER

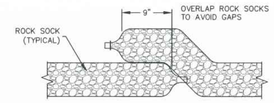
ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-IP-4



ROCK SOCK SECTION



ROCK SOCK PLAN



ROCK SOCK OVERLAP

GRADATION TABLE

	MASS PERCENT PASSING SQUARE MESH SIEVES
	No. 4
2"	100
1½"	90-100
1"	20-55
¾"	0-15
⅜"	0-5

MATCHES SPECIFICATIONS FOR No. 4 COARSE AGGREGATE FOR CONCRETE PER AASHTO M-43. ALL ROCK SHALL BE FRACTURED FACE, ALL SIDES

INSTALLATION NOTES

1. CRUSHED ROCK SHALL BE BETWEEN MAX. 1½" (MINUS) IN SIZE WITH A FRACTURED FACE (ALL SIDES) AND SHALL COMPLY WITH GRADATION SHOWN ON THIS SHEET AND MIN. ¾" CRUSHED ROCK.
2. WIRE MESH SHALL HAVE OPENINGS SMALLER THAN THE SMALLEST SIZE ROCK.
3. 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.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ROCK SOCKS SHALL BE REPLACED IF THEY BECOME HEAVILY SOILED OR DAMAGED BEYOND REPAIR.
3. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN THE DEPTH REACHES ½ OF THE HEIGHT OF THE ROCK SOCK.
4. ROCK SOCKS ARE TO REMAIN IN PLACE UNTIL DISTURBED AREA IS STABILIZED.
5. PERMANENTLY STABILIZE AREA AFTER ROCK SOCKS HAVE BEEN REMOVED.

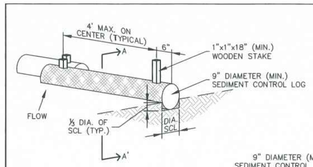
RS

STORMWATER ENTERPRISE

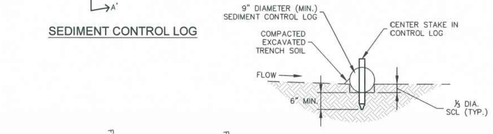
ROCK SOCK

APPROVED: SHEET MANAGER

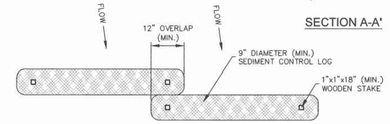
ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-RS



SEDIMENT CONTROL LOG



SECTION A-A'



SEDIMENT CONTROL LOG JOINTS

INSTALLATION NOTES

1. ALL SEDIMENT CONTROL LOGS MUST BE EMBEDDED TO ⅓ OF THE HEIGHT OF THE LOG
2. LARGER DIAMETER SEDIMENT CONTROL LOGS NEED TO BE EMBEDDED DEEPER.
3. PLACE SEDIMENT CONTROL LOG AGAINST SIDEWALK OR BACK OF CURB WHEN ADJACENT TO THESE FEATURES.
4. SEDIMENT CONTROL LOGS SHALL CONSIST OF STRAW, COMPOST, EXCELSIOR OR COCONUT FIBER, AND SHALL BR FREE FROM ANY NOXIOUS WEED SEEDS OF DEFECTS INCLUDING RIPS, HOLES AND OBVIOUS WEAR.
5. IF USING AS SLOPE PROTECTION, INSTALL SEDIMENT CONTROL LOGS ALONG THE CONTOUR.

MAINTENANCE NOTES

1. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN CONTROL MEASURES IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
2. ACCUMULATED SEDIMENT MUST BE REMOVED WHEN THE HEIGHT REACHES ½ OF THE HEIGHT OF THE SEDIMENT CONTROL LOG.
3. PERMANENTLY STABILIZE AREA AFTER SEDIMENT CONTROL LOGS HAVE BEEN REMOVED.

SCL

STORMWATER ENTERPRISE

SEDIMENT CONTROL LOGS

APPROVED: SHEET MANAGER

ISSUED:	REVISED:	DRAWING NO.
10/7/19	8/19/2020	900-SCL

DRAWN BY: YOU JOB DATE: 4/5/2022
APPROVED: KEN JOB NUMBER: 200541
CAD DATE: 4/5/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\C.O.F\Details

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
0 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
FOUNTAIN, COLORADO

GOODWIN KNIGHT

CITY OF FOUNTAIN CONSTRUCTION DOCUMENTS
DETAILS

SHEET
DT

THE COTTAGES AT MESA RIDGE
FOUNTAIN MUTUAL IRRIGATION COMPANY
IRRIGATION PIPE CONSTRUCTION DRAWINGS

A PORTION OF THE NORTHEAST QUARTER OF SECTION 29, THE SOUTHEAST QUARTER OF SECTION 20, THE SOUTHWEST QUARTER OF SECTION 21, & THE NORTHWEST QUARTER OF SECTION 28 TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH P.M.
COUNTY OF EL PASO, STATE OF COLORADO

BASIS OF BEARINGS:

BEARINGS ARE BASED UPON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 29, MONUMENTED AT THE WEST END WITH A 3.25" ALUMINUM CAP IN CONCRETE STAMPED "PLS 4842" AND MONUMENTED AT THE EAST END WITH A #6 REBAR AND 3.25" ALUMINUM CAP STAMPED "PLS 38141" AND ASSUMED TO BEAR S 89°57'13" E A FIELD MEASURED DISTANCE OF 2,652.37 FEET.

BENCHMARK:

ELEVATIONS ARE BASED UPON THE FOUNTAIN SANITATION DISTRICT POINT N-1, BEING A 2" BRASS CAP IN CONCRETE AT THE NORTHEAST CORNER OF MESA RIDGE PARKWAY AND FOUNTAIN MESA ROAD. (ELEVATION=5750.57 NGVD 29).

LEGAL DESCRIPTION:

THAT PORTION OF THE NORTHWEST QUARTER OF SECTION 28 AND THE NORTHEAST QUARTER OF SECTION 29, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO, DESCRIBED AS FOLLOWS:

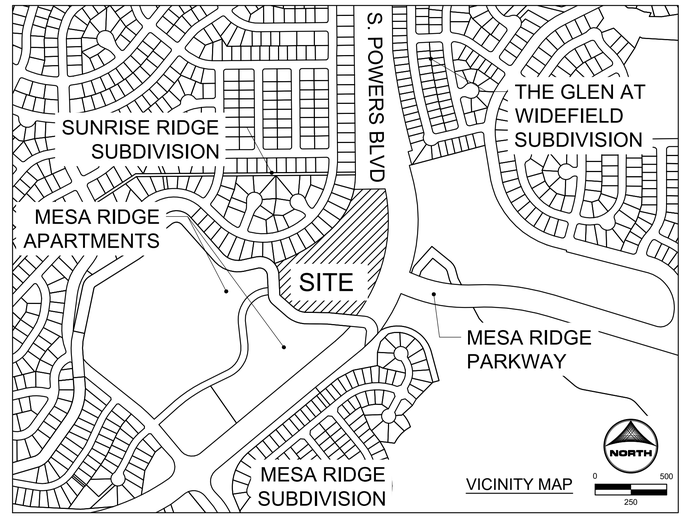
BASIS OF BEARINGS: BEARINGS ARE BASED UPON THE NORTH LINE OF THE NORTHEAST QUARTER OF SAID SECTION 29, MONUMENTED AT THE WEST END WITH A 3.25" ALUMINUM CAP IN CONCRETE STAMPED "PLS 4842" AND MONUMENTED AT THE EAST END WITH A #6 REBAR AND 3.25" ALUMINUM CAP STAMPED "PLS 38141" AND ASSUMED TO BEAR S 89°57'13" E A FIELD MEASURED DISTANCE OF 2,652.37 FEET.

BENCHMARK: ELEVATIONS ARE BASED UPON THE FOUNTAIN SANITATION DISTRICT POINT N-1, BEING A 2" BRASS CAP IN CONCRETE AT THE NORTHEAST CORNER OF MESA RIDGE PARKWAY AND FOUNTAIN MESA ROAD. (ELEVATION=5750.57 NGVD 29).

BEGINNING AT THE NORTHWEST CORNER OF THE NORTHWEST QUARTER OF SAID SECTION 28;
THENCE N 89°41'59" E ALONG THE NORTH LINE OF SAID NORTHWEST QUARTER, A DISTANCE OF 117.30 FEET TO A POINT ON THE WEST LINE OF POWERS BOULEVARD AS RECORDED UNDER BOOK 6788 AT PAGE 531 OF THE RECORDS OF THE EL PASO COUNTY CLERK AND RECORDERS OFFICE;
THENCE ALONG THE WEST LINE OF SAID POWERS BOULEVARD, 933.14 FEET ALONG THE ARC OF A 1,096.98 FOOT RADIUS CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 48°44'17" AND A CHORD THAT BEARS S 12°56'23" W, 905.26 FEET TO A POINT ON THE NORTHERLY LINE OF THAT PARCEL OF LAND DESCRIBED UNDER BOOK 5506 AT PAGE 1290 OF SAID RECORDS;
THENCE OF THE FOLLOWING EIGHT (8) COURSES ALONG SAID NORTHERLY LINES AND EASTERLY LINES OF SAID PARCEL OF LAND DESCRIBED UNDER BOOK 5506 AT PAGE 1290:
1) N 84°16'00" W, A DISTANCE OF 198.99 FEET;
2) 46.11 FEET ALONG THE ARC OF A 540.00 FOOT RADIUS TANGENT CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 04°53'33" AND A CHORD THAT BEARS N 86°42'46" W, 46.10 FEET;
3) N 89°09'33" W, A DISTANCE OF 124.09 FEET;
4) 100.02 FEET ALONG THE ARC OF A 140.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 40°56'07" AND A CHORD THAT BEARS N 68°41'30" W, 97.91 FEET;
5) N 48°13'27" W, A DISTANCE OF 126.77 FEET;
6) 6.49 FEET ALONG THE ARC OF AN 8.00 FOOT RADIUS TANGENT CURVE TO THE RIGHT, HAVING A CENTRAL ANGLE OF 46°29'23" AND A CHORD THAT BEARS N 24°58'45" W, 6.31 FEET;
7) N 01°44'04" W, A DISTANCE OF 137.18 FEET;
8) 87.71 FEET ALONG THE ARC OF A 135.00 FOOT RADIUS TANGENT CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 37°13'35" AND A CHORD THAT BEARS N 20°21'02" W, 86.18 FEET TO THE SOUTHWEST CORNER OF LOT 15, BLOCK 3, SUNRISE RIDGE SUBDIVISION FILING NO. 8 AS RECORDED UNDER RECEPTION NO. 1722613 OF SAID RECORDS;
THENCE THE FOLLOWING TWO (2) COURSES ALONG THE EASTERLY LINE OF SAID SUNRISE RIDGE SUBDIVISION FILING NO. 8: 1) 511.39 FEET ALONG THE ARC OF A 1,034.60 FOOT RADIUS CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 28°19'14" AND A CHORD THAT BEARS N 58°13'41" E, 506.20 FEET TO A POINT OF COMPOUND CURVATURE;
2) 283.12 FEET ALONG THE ARC OF A 500.00 FOOT RADIUS CURVE TO THE LEFT, HAVING A CENTRAL ANGLE OF 32°26'36" AND A CHORD THAT BEARS N 27°50'47" E, 279.35 FEET TO A POINT ON THE NORTH LINE OF SAID NORTHEAST QUARTER;
THENCE N 89°57'13" E ALONG THE NORTH LINE OF SAID NORTHEAST QUARTER, A DISTANCE OF 115.21 FEET TO THE POINT OF BEGINNING.

CONTAINING A CALCULATED AREA OF 445,104 SQUARE FEET (10.218 ACRES) OF LAND, MORE OR LESS.

TO BE PLATTED AS "THE COTTAGES AT MESA RIDGE"



VICINITY MAP

SHEET INDEX:

STAKEHOLDERS:

OWNER:	CSJ NO 1 LLC 111 S. TEJON STREET, SUITE 222 COLORADO SPRINGS, CO 80903
DEVELOPER:	GOODWIN KNIGHT 8605 EXPLORER DRIVE, SUITE 250 COLORADO SPRINGS, CO 80920
ATTN:	DAVE MORRISON
APPLICANT:	HR GREEN DEVELOPMENT, LLC 1975 RESEARCH PKWY, SUITE 230 COLORADO SPRINGS, CO 80920
ATTN:	PHIL STUEPFERT, KEN HUHN
SURVEYOR:	BARRON LAND, LLC 2790 N ACADEMY BLVD #311 COLORADO SPRINGS, CO 80917 ATTN: SPENCER BARRON

LEGEND

	EXISTING	PROPOSED
MATCH LINE		
PHASE LINE		
SECTION LINE		
PROPERTY LINE		
EASEMENT LINE		
RIGHT OF WAY		
CENTERLINE		
CHAIN LINK FENCE		
WOODEN FENCE		
ROD IRON FENCE		
GUARDRAIL		
CABLE TV	TV	TV
U.G. ELECTRIC	UE	UE
OVERHEAD ELECTRIC	OE	OE
FIBER OPTIC	FO	FO
GAS MAIN		
SANITARY SEWER	SS	
STORM DRAIN		
TELEPHONE	UT	UT
WATER MAIN	W	W
SWALE		
TRAIL		
CURB & GUTTER		
DRAINAGE BASIN		
INDEX CONTOUR		
INTER. CONTOUR		
100-YR FLOODPLAIN		
FLOODWAY		
EDGE OF WETLANDS		

DRAINAGE

	EXISTING	PROPOSED
DRAINAGE BASIN		
BASIN TAG		I.D. / AREA
DESIGN POINT		1

STORM SEWER

	EXISTING	PROPOSED
MANHOLE		
STORM INLET		
FLARED END SECTION		
RIPRAP		

SANITARY SEWER

CLEAN OUT		
MANHOLE		
PLUG		

WATER

FIRE HYDRANT		
FIRE DEPT. CONNECTION		
GATE VALVE		
MANHOLE		
METER		
TEE		
REDUCER		

DRY UTILITIES

ELECTRIC METER	
ELECTRIC PEDESTAL	
ELECTRICAL CABINET	
ELECTRIC VAULT	
FIBER OPTIC PULL BOX	
FIBER OPTIC MANHOLE	
FIBER OPTIC PEDESTAL	
FIBER OPTIC SIGN	
FIBER OPTIC VAULT	
GAS METER	
GAS SIGN	
GAS VAULT	
TELEPHONE CABINET	
TELEPHONE MANHOLE	
TELEPHONE SIGNAL/MAST	
TELEPHONE SIGN	
TELEPHONE PEDESTAL	
TRANSFORMER	
LIGHT POLE	
FIBER OPTIC VAULT	

MISCELLANEOUS

SIGN	
BOLLLARD	
ACCESSIBLE PARKING	

OWNER STATEMENT:

THE UNDERSIGNED OWNER/DEVELOPER AGREES TO INSTALL THE PROPOSED FACILITIES AS DEPICTED ON THESE PLANS. ANY CHANGES REQUIRED DUE TO FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF FMIC FOR THEIR REVIEW AND COMMENT.

OWNER/DEVELOPER

TITLE:

ADDRESS:

DATE:

ENGINEER'S STATEMENT

THIS STORM SEWER PLAN WAS PREPARED UNDER MY DIRECT SUPERVISION AND IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. I ACCEPT RESPONSIBILITY FOR ANY LIABILITY CAUSED BY ANY NEGLIGENT ACTS, ERROR OR OMISSIONS ON MY PART IN PREPARATION OF THIS STORM SEWER PLAN.

KEN M. HUHN, P.E. DATE
KHUHN@HRGREEN.COM
COLORADO P.E. 0054022

NOT FOR CONSTRUCTION

DRAWN BY: NQJ JOB DATE: 4/4/2022
APPROVED: KMH JOB NUMBER: 200541
CAD DATE: 4/4/2022
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\FMIC\FMIC_Cover

BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 — 1"
IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.

NO.	DATE	BY	REVISION DESCRIPTION

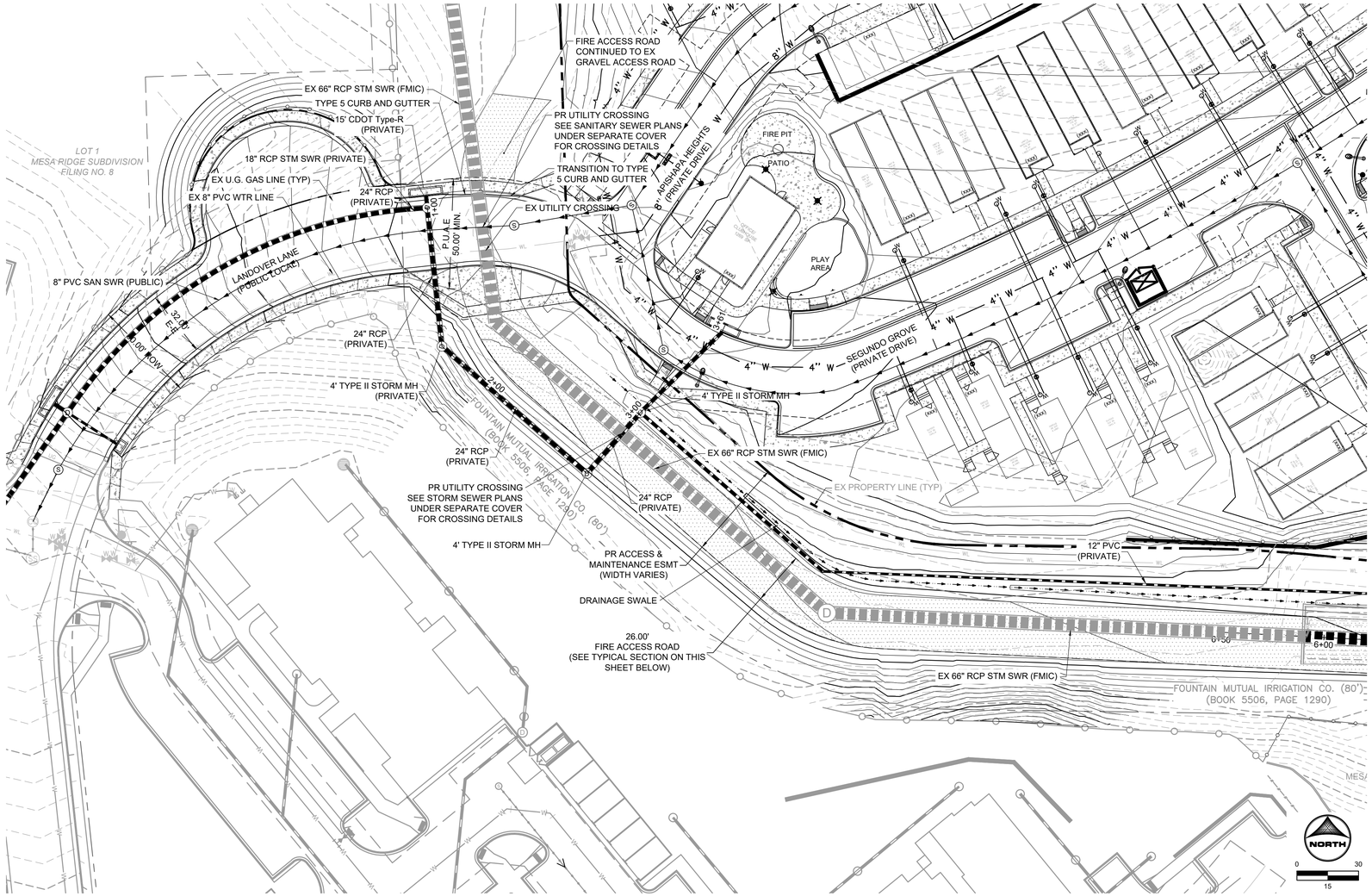
HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

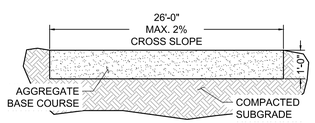
THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

IRRIGATION PIPE CONSTRUCTION DRAWINGS
COVER SHEET

SHEET CV

1





26' FIRE ACCESS ROAD TYPICAL SECTION
SCALE: NTS

NOT FOR CONSTRUCTION

DRAWN BY: NQJ	JOB DATE: 4/4/2022		BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 — 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
APPROVED: KMH	JOB NUMBER: 200541		
CAD DATE: 4/4/2022			
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\FMIC\FMIC_Storm			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

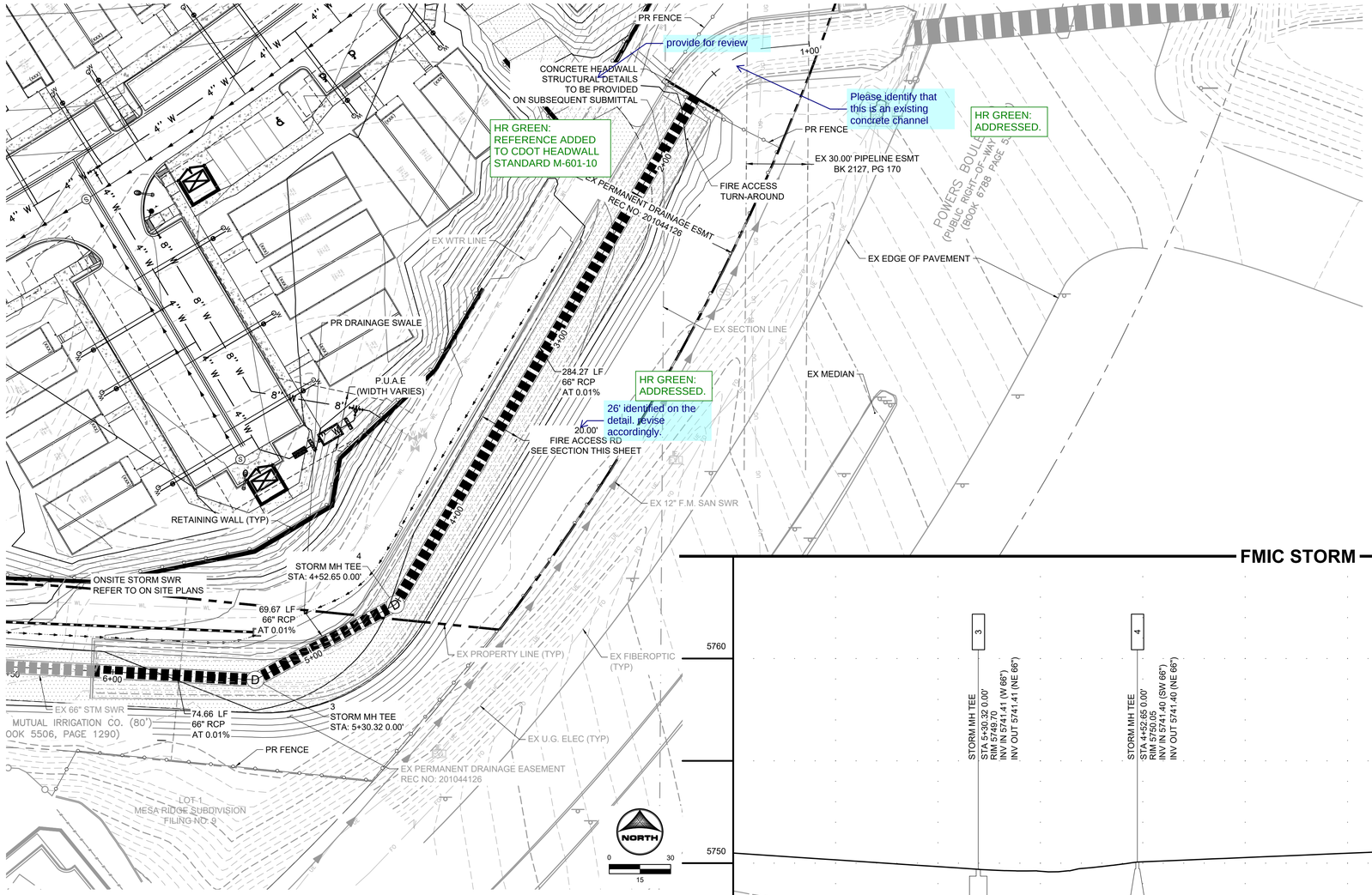
THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

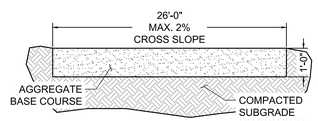
GOODWIN KNIGHT

IRRIGATION PIPE CONSTRUCTION DRAWINGS
STORM PLAN

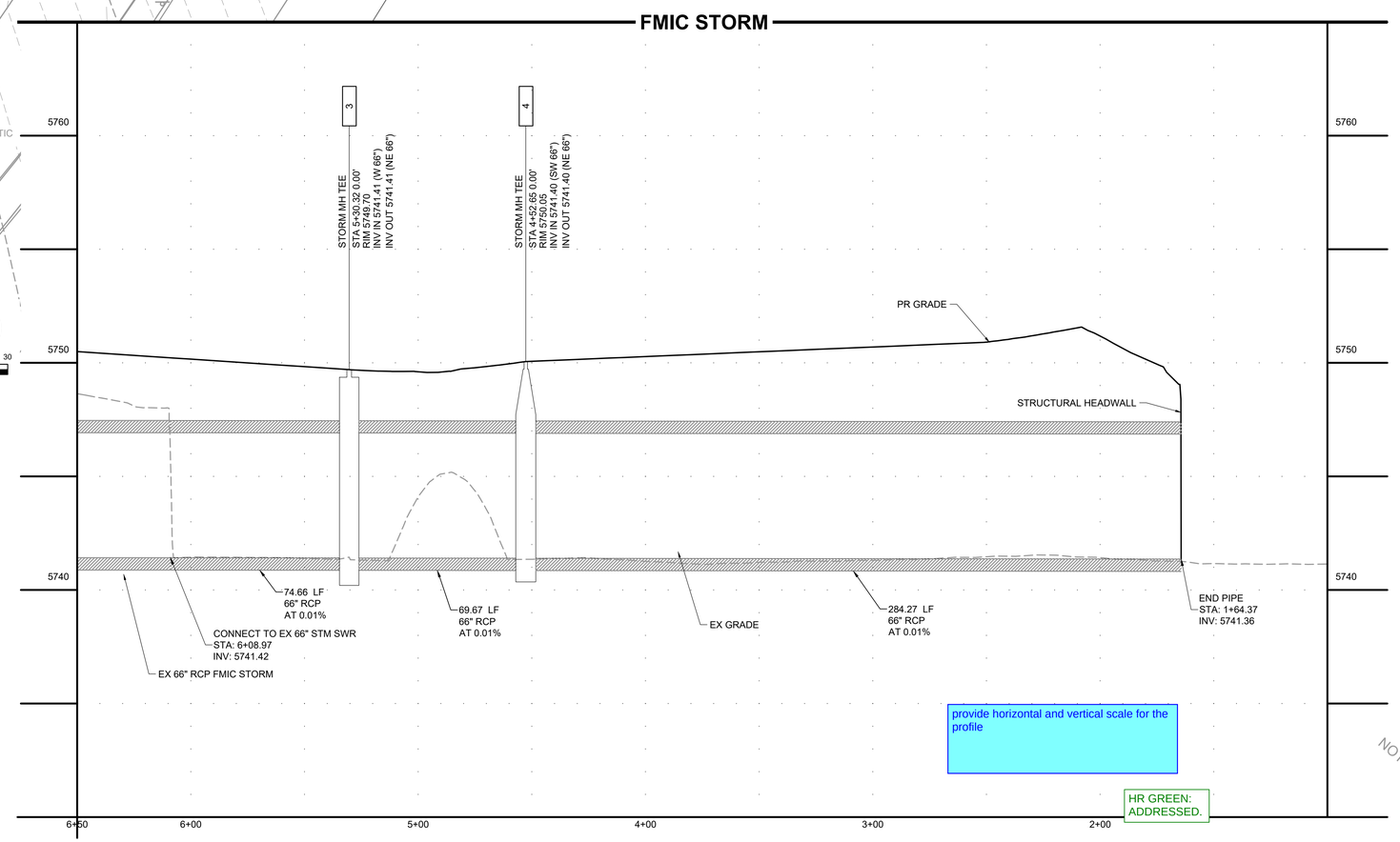
SHEET
STM

2





26' FIRE ACCESS ROAD TYPICAL SECTION
SCALE: NTS



NOT FOR CONSTRUCTION

DRAWN BY: NQJ	JOB DATE: 4/4/2022	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
APPROVED: KMH	JOB NUMBER: 200541		
CAD DATE: 4/4/2022			
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\FMIC\FMIC_Storm			

NO.	DATE	BY	REVISION DESCRIPTION

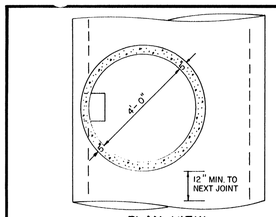
HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

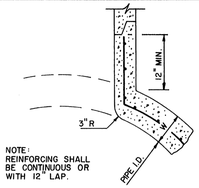
GOODWIN KNIGHT

IRRIGATION PIPE CONSTRUCTION DRAWINGS
STORM SEWER - PLAN & PROFILE

SHEET
STM
3



PLAN VIEW
SCALE 3/8" = 1'-0"

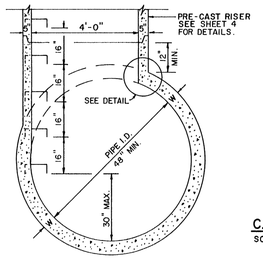


NOTE:
REINFORCING SHALL BE CONTINUOUS OR WITH 12" LAP.

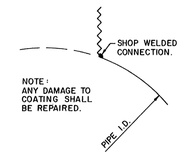
R.C.P. CONNECTION DETAIL
SCALE 3/4" = 1'-0"

NOTES:

1. Type III manholes shall be used only with approval by the City Engineer and only when all of the following conditions are met:
   a. Pipe is 48" or larger inside diameter
   b. No change in pipe size
   c. No change in pipe material
   d. No change in horizontal alignment
   e. Slope is flat and continuous
2. Type III manholes shall be fabricated by the manufacturer/supplier and delivered to the site as a single unit. Field fabrication shall not be permitted.
3. Either ladder or steps shall be installed. Lowest step shall be a maximum of 30" above the invert of the pipe.

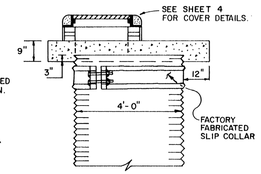


SECTION VIEW
SCALE 3/8" = 1'-0"



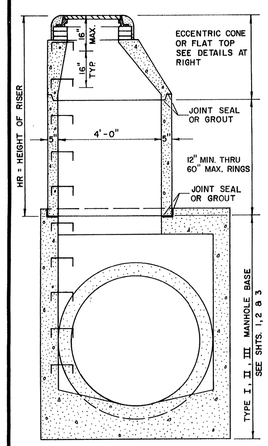
NOTE:
ANY DAMAGE TO COATING SHALL BE REPAIRED.

C.S.P. CONNECTION DETAIL
SCALE 3/4" = 1'-0"

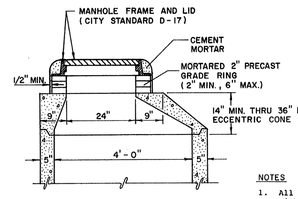


SPECIAL LID FOR USE WITH C.S.P. RISER.
SCALE 3/8" = 1'-0"

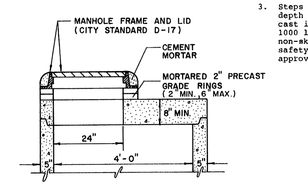
CITY OF COLORADO SPRINGS			
STORM SEWER MANHOLE-TYPE III			
APPROVED BY Gary R. Haynes CITY ENGINEER			
SCALE: AS SHOWN	DATE: JAN. 89	DRAWN: PL.B.	SHEET: D-20C 3 OF 4



SECTION VIEW
SCALE: 3/8" = 1'-0"



ECCENTRIC CONE TOP
(FOR HR > 3' ±) SCALE: 1/2" = 1'-0"



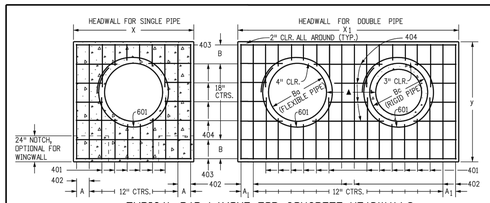
ECCENTRIC FLAT TOP
(FOR HR < 3' ±) SCALE: 1/2" = 1'-0"

NOTES

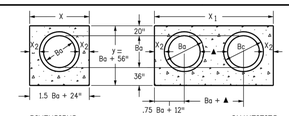
1. All work shall be done in accordance with the standard and supplemental specifications applicable to the project.
2. Precast risers shall conform to ASTM C-478.
3. Steps shall be installed when manhole depth exceeds 30". Steps shall be cast iron or extruded aluminum, 1000 lb. capacity, 12" wide with non-skid grooves and drop front on safety noses, in accordance with approved OSHA requirements.

STORM SEWER MANHOLE PRECAST RISER

CITY OF COLORADO SPRINGS			
STORM SEWER-COVER & RISER			
APPROVED BY Gary R. Haynes CITY ENGINEER			
SCALE: AS SHOWN	DATE: JAN. 89	DRAWN: PL.B	SHEET: D-20D 1 OF 4



TYPICAL BAR LAYOUT FOR CONCRETE HEADWALLS



DIMENSIONS									QUANTITIES			
									CONCRETE		STEEL ■	
Bo IN.	Bc IN.	X FT.-IN.	A IN.	X1 FT.-IN.	A1 IN.	y FT.-IN.	B IN.	X2 IN.	SGL. CU. YD.	DBL. CU. YD.	SGL. LBS.	DBL. LBS.
54	65	8-9	8½	15-6	7	9-2	17	20	2.12	3.55	209	364
60	72	9-6	7	17-0	10	9-8	11	21	2.35	3.99	236	414
66	79	10-3	11½	18-6	7	10-2	14	22	2.60	4.44	249	453
72	86	11-0	10	20-0	10	10-8	17	23	2.85	4.91	270	476
78	93	11-9	8½	21-3	11	11-2	11	24	3.11	5.29	306	527
84	100	12-6	7	22-6	7	11-8	14	25	3.38	5.68	333	572
90	107	13-3	11½	23-9	8½	12-2	17	26	3.66	6.08	335	593
96	114	14-0	10	25-0	10	12-8	11	27	3.94	6.48	379	649
102	121	14-9	8½	26-3	11½	13-2	14	28	4.24	6.89	400	664
108	128	15-6	7	27-6	7	13-8	17	29	4.54	7.30	424	707

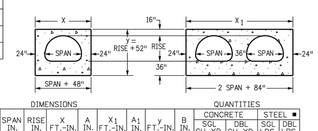
HEADWALL FOR RIGID ROUND PIPE

GENERAL NOTES

1. CONCRETE SHALL BE CLASS B.
2. HEADWALL SHALL BE PERPENDICULAR TO THE PIPE ℄ UNLESS OTHERWISE SHOWN ON THE PLANS. TABULATED DIMENSIONS AND QUANTITIES MUST BE ADJUSTED FOR SKEWED INSTALLATIONS.
3. FOR WINGWALL DETAILS, SEE STANDARD PLAN M-601-20.
4. VOLUME OCCUPIED BY PIPE HAS BEEN DEDUCTED FROM STEEL AND CONCRETE QUANTITIES.
5. EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED ¾ IN.
6. ALL REINFORCING BARS SHALL HAVE A 2 IN. MINIMUM CLEARANCE.

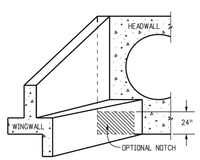
▲ WHEN TWO OR MORE PIPES ARE LAID SIDE BY SIDE, THEY SHALL BE PLACED SO THAT THE ADJACENT PIPES WILL BE ½ INSIDE DIAMETER APART, OR ½ INSIDE SPAN APART, OR 3 FT. APART (INCLUDING WALL THICKNESS), WHICHEVER IS LESS.

■ ADD 0.89 x (X OR X1) (LB.) WHEN APRON IS REQUIRED.

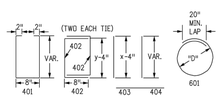


DIMENSIONS									QUANTITIES			
									CONCRETE		STEEL ■	
EQUIV. Bo IN.	SPAN IN.	RISE IN.	X FT.-IN.	A IN.	X1 FT.-IN.	A1 IN.	y FT.-IN.	B IN.	SGL. CU. YD.	DBL. CU. YD.	SGL. LBS.	DBL. LBS.
72	81	59	10-9	8½	20-6	7	9-3	17½	2.72	5.10	250	467
78	87	63	11-3	11½	21-6	7	9-7	10½	2.85	5.34	275	531
84	95	67	11-9	8½	22-10	9	9-11	12½	3.08	5.79	290	547
90	103	71	12-7	7½	24-2	11	10-3	15	3.30	6.21	321	591
96	112	75	13-4	12	25-8	8	10-7	16½	3.52	6.65	314	606
102	117	79	13-9	8½	26-6	7	10-11	9½	3.63	6.86	356	672
108	128	83	14-8	8	28-4	12	11-3	11½	3.96	7.51	376	699

HEADWALL FOR FLEXIBLE PIPE ARCH

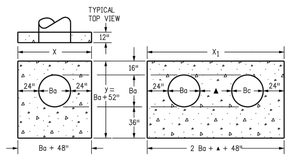


FRONT VIEW



RIGID PIPE = Bc + 6"
"D" = FLEXIBLE PIPE = Bo + 8"
FLEXIBLE ARCH = SPAN + 8"
STRUCTURAL PLATE ARCH = RISE + 8"

BAR BENDING

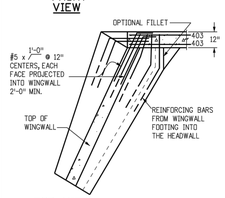


DIMENSIONS									QUANTITIES			
									CONCRETE		STEEL ■	
Bo IN.	FT.-IN.	X FT.-IN.	A IN.	X1 FT.-IN.	A1 IN.	y FT.-IN.	B IN.	SGL. CU. YD.	DBL. CU. YD.	SGL. LBS.	DBL. LBS.
54	8-6	7	15-3	11½	8-10	15	2.19	3.81	211	358
60	9-0	10	16-6	7	9-4	18	2.38	4.25	217	396
66	9-6	7	17-9	8½	9-10	12	2.58	4.70	252	454
72	10-0	10	19-0	10	10-4	15	2.78	5.17	255	472
78	10-6	7	20-0	10	10-10	18	2.98	5.56	278	499
84	11-0	10	21-0	10	11-4	12	3.19	5.95	297	553
90	11-6	7	22-0	10	11-10	15	3.40	6.36	317	517
96	12-0	10	23-0	10	12-4	18	3.62	6.79	321	597
102	12-6	7	24-0	10	12-10	12	3.84	7.21	364	653
108	13-0	10	25-0	10	13-4	15	4.06	7.63	362	678

HEADWALL FOR FLEXIBLE ROUND PIPE

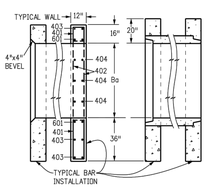
DIMENSIONS									QUANTITIES			
									CONCRETE		STEEL ■	
EQUIV. Bo IN.	SPAN FT.-IN.	RISE FT.-IN.	X FT.-IN.	A IN.	X1 FT.-IN.	A1 IN.	y FT.-IN.	B IN.	SGL. CU. YD.	DBL. CU. YD.	SGL. LBS.	DBL. LBS.
66	6-1	4-7	10-1	10½	19-2	11	8-11	15½	2.52	4.70	232	424
75	7-0	5-1	11-0	10	21-0	10	9-5	9½	2.80	5.25	282	509
84	7-11	5-7	11-11	9½	22-10	9	9-11	12½	3.08	5.79	291	540
93	8-10	6-1	12-10	9	24-8	8	10-5	15½	3.36	6.33	309	622
102	9-9	6-7	13-9	8½	26-6	7	10-11	9½	3.63	6.86	379	673
111	10-11	7-1	14-11	8½	28-10	9	11-5	12½	4.05	7.67	377	711
120	11-10	7-7	15-10	9	30-8	8	11-11	15½	4.36	8.28	395	731
132	12-10	8-4	16-10	9	32-8	8	12-8	11	4.75	9.03	441	839
141	14-1	8-9	18-1	10½	35-2	11	13-1	13½	5.17	9.86	448	931
150	15-4	9-3	19-4	12	37-8	8	13-7	16½	5.69	10.88	490	953
159	15-10	9-10	19-10	9	38-8	8	14-2	11	5.89	11.25	534	1019

HEADWALL FOR STRUCTURAL PLATE ARCH



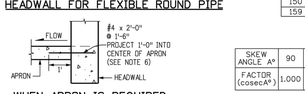
TOP VIEW

WINGWALL CONNECTION



INLET OUTLET
ENDS OF FLEXIBLE PIPE

INLET OUTLET
ENDS OF RIGID PIPE



WHEN APRON IS REQUIRED

SKEW ANGLE A°	90	85	80	75	70	65	60	55	50	45	40	35	30
FACTOR (cosecA°)	1.000	1.004	1.015	1.035	1.064	1.103	1.155	1.221	1.305	1.414	1.556	1.743	2.000

SKEW FACTOR TABLE

Computer File Information	
Creation Date: 07/31/19	
Designer Initials: JBK	(R-X)
Last Modification Date: 07/31/19	(R-X)
Detailer Initials: LTA	(R-X)
CAD Ver.: MicroStation V8 Scale: Not to Scale Units: English	(R-X)

Sheet Revisions	
Date:	Comments

Colorado Department of Transportation
2829 West Howard Place
CDOT HQ, 3rd Floor
Denver, CO 80204
Phone: 303-757-9021 FAX: 303-757-9868
Project Development Branch JBK

HEADWALL FOR PIPES

Issued by the Project Development Branch: July 31, 2019

STANDARD PLAN NO.
M-601-10
Standard Sheet No. 1 of 1
Project Sheet Number:

DRAWN BY: NQJ	JOB DATE: 4/4/2022	BAR IS ONE INCH ON OFFICIAL DRAWINGS. 0 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.	
APPROVED: KMH	JOB NUMBER: 200541		
CAD DATE: 4/4/2022			
CAD FILE: J:\2020\200541\CAD\Dwgs\C\CD\FMIC\FMIC_Storm			

NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - COLORADO SPRINGS
7222 COMMERCE CENTER DR SUITE 220
COLORADO SPRINGS CO 80919
PHONE: 719.300.4140 TOLL FREE: 800.728.7805
FAX: 844.273.1057 | HRGreen.com

THE COTTAGES AT MESA RIDGE
GOODWIN KNIGHT
EL PASO COUNTY, COLORADO

IRRIGATION PIPE CONSTRUCTION DRAWINGS
CONSTRUCTION DETAILS

SHEET DT 4