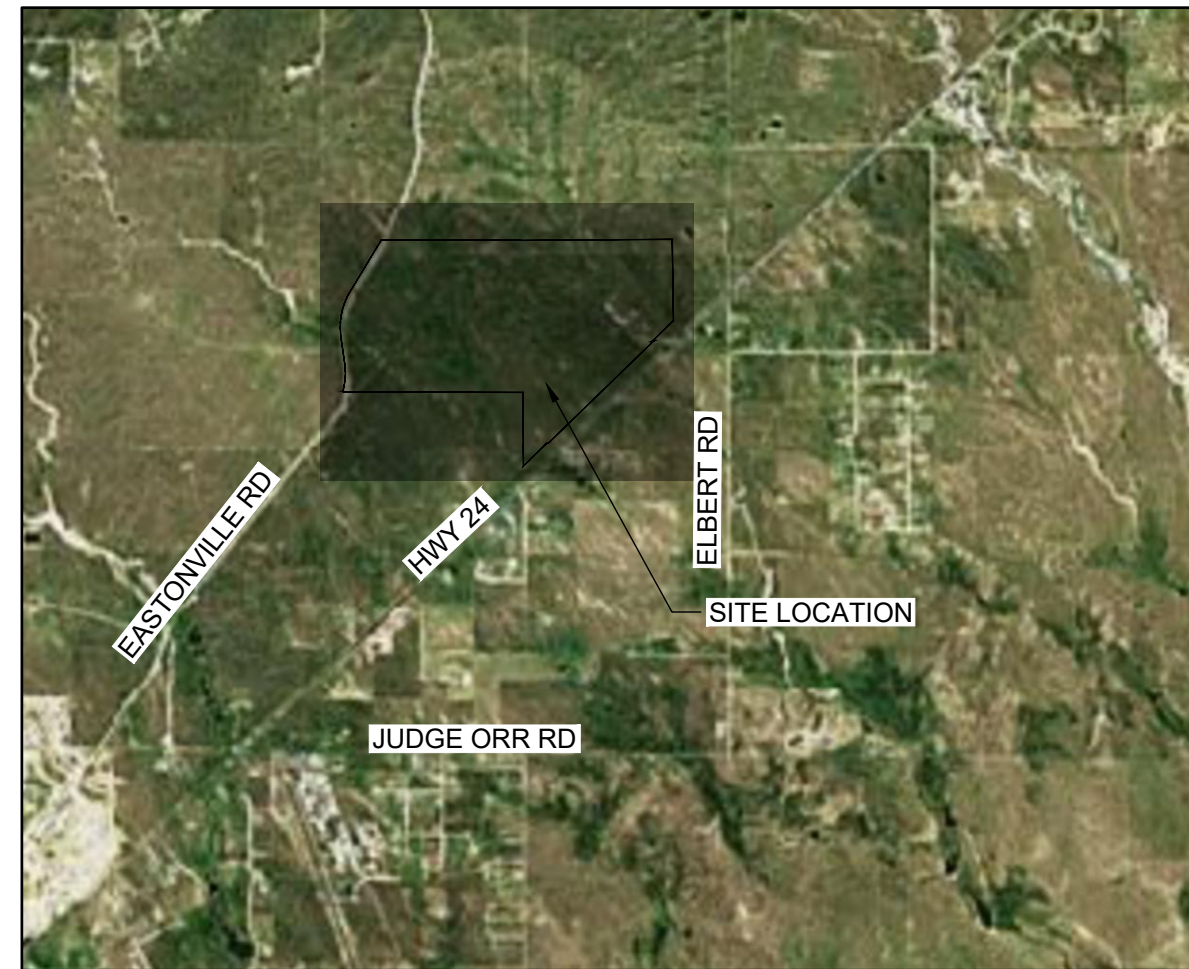


**GRANDVIEW RESERVE (DRAINAGE A & B)
GIECK RANCH TRIBUTARY, 1 GIECK RANCH
TRIBUTARY 2**

SECTIONS 21, 22, 27 & 28, TOWNSHIP 12 S, RANGE 64 W
CITY OF FALCON, EL PASO COUNTY, STATE OF COLORADO



VICINITY MAP
SCALE: 1" = 5000'

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SYMBOLS, ABBREVIATIONS, AND LINETYPES LEGEND

	CWA	CONCRETE WASHOUT AREA
	CF	CONSTRUCTION FENCE
	IP	INLET PROTECTION
	OP	OUTLET PROTECTION
	SF	SILT FENCE
	SSA	STABILIZED STAGING AREA
	VTC	VEHICLE TRACKING CONTROL
	LOC	LIMITS OF CONSTRUCTION
	CD	CHECK DAM
	SM	SEEDING AND MULCHING
	SB	SEDIMENT BASIN
	SR	SURFACE ROUGHENING
	ECB	EROSION CONTROL BLANKET
	CIP	CULVERT INLET PROTECTION
	RS	ROCK SOCK
		STORM INLET TYPE R STORM END SECTION STORM MANHOLE SANITARY MANHOLE FIRE HYDRANT LIGHT POLE WATER VALVE
		PROPERTY LINE
		ROAD CENTERLINE
		RIGHT-OF-WAY LINE
		PROPOSED DRAINAGE
		PROPOSED MAJOR CONTOUR
		PROPOSED MINOR CONTOUR
		EXISTING MAJOR CONTOUR
		EXISTING MINOR CONTOUR
		FLOW ARROW
		EFFECTIVE 100-YR FLOODPLAIN
		EFFECTIVE 100-YR FLOODWAY
		POTENTIAL WALL
		STORM SEWER
		WATERMAIN
		SANITARY SEWER
		SANITARY SERVICE
	ARV	AIR RELEASE VALVE
	CP	CATHODIC PROTECTION
	STA	STATION
	MUE	MULTI USE EASEMENT
	APRX	APPROXIMATE
	PR	PROPOSED
	FT	FEET
	DIA	DIAMETER
	LF	LINEAL FEET
	EL	ELEVATION

BASIS OF BEARINGS:

THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.

BENCHMARK:

DESIGNATION = F 24
PID = JK0240
DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
CONTROL POINT COORDINATE SYSTEM: NAVD88
NORTHING: 1421049.80
EASTING: 3273631.55
ELEVATION: 6866.33

LEGAL DESCRIPTION:

A TRACT OF LAND BEING PORTIONS OF THE SOUTH HALF OF SECTION 21, SOUTH HALF OF SECTION 22, NORTH HALF OF SECTION 28 AND SECTION 27, TOWNSHIP 12 SOUTH, RANGE 64 WEST OF THE SIXTH PRINCIPAL MERIDIAN, EL PASO COUNTY, COLORADO, BEING DESCRIBED AS FOLLOWS:

BASIS OF BEARINGS: THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.

COMMENCING AT THE SOUTHEAST CORNER OF SAID SECTION 21; THENCE NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST ON THE EAST LINE OF SAID SECTION, A DISTANCE OF 2645.09 FEET TO THE NORTHEAST CORNER OF THE SOUTHEAST QUARTER OF SAID SECTION 21, SAID POINT BEING THE POINT OF BEGINNING; THENCE NORTH 89 DEGREES 41 MINUTES 03 SECONDS EAST ON THE NORTH LINE OF THE SOUTH HALF OF SAID SECTION 22, A DISTANCE OF 3938.20 FEET; THENCE SOUTH 00 DEGREES 41 MINUTES 58 SECONDS EAST ON THE EAST LINE OF THE WEST HALF OF THE SOUTHEAST QUARTER OF SECTION 22, A DISTANCE OF 2117.66 FEET TO A POINT ON THE NORTHWESTERLY RIGHT OF WAY LINE OF THE ROCK ISLAND REGIONAL TRAIL AS GRANTED TO EL PASO COUNTY IN THAT WARRANTY DEED RECORDED OCTOBER 21, 1994 IN BOOK 6548 AT PAGE 892, RECORDS OF EL PASO COUNTY, COLORADO; THENCE ON SAID NORTHWESTERLY RIGHT OF WAY, THE FOLLOWING FIVE (5) COURSES:

- (1) SOUTH 45 DEGREES 55 MINUTES 49 SECONDS WEST, A DISTANCE OF 758.36 FEET TO A POINT ON THE SOUTH LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 22;
- (2) NORTH 89 DEGREES 38 MINUTES 06 SECONDS EAST ON SAID SOUTH LINE, A DISTANCE OF 36.18 FEET;
- (3) SOUTH 45 DEGREES 55 MINUTES 49 SECONDS WEST, A DISTANCE OF 3818.92 FEET TO A POINT ON THE NORTH LINE OF THE SOUTHWEST QUARTER OF SAID SECTION 27;
- (4) SOUTH 89 DEGREES 39 MINUTES 01 SECONDS WEST ON SAID NORTH LINE, A DISTANCE OF 36.17 FEET;
- (5) SOUTH 45 DEGREES 55 MINUTES 49 SECONDS WEST, A DISTANCE OF 855.35 FEET TO A POINT ON THE EASTERLY LINE OF SAID SECTION 28;

THENCE NORTH 00 DEGREES 21 MINUTES 45 SECONDS WEST ON THE EAST LINE OF THE SOUTHEAST QUARTER OF SAID SECTION 28, A DISTANCE OF 591.16 FEET TO THE NORTHEAST CORNER OF SAID SOUTHEAST QUARTER; THENCE NORTH 00 DEGREES 21 MINUTES 38 SECONDS WEST ON THE EAST LINE OF THE NORTHEAST QUARTER OF SAID SECTION 28, A DISTANCE OF 1319.24 FEET TO THE SOUTH LINE OF THE NORTH HALF OF THE NORTH HALF OF SAID SECTION 28; THENCE NORTH 89 DEGREES 47 MINUTES 08 SECONDS WEST ON SAID SOUTH LINE, A DISTANCE OF 4692.55 FEET TO A POINT ON THE EASTERLY RIGHT OF WAY LINE OF EXISTING EASTONVILLE ROAD (60.00 FOOT WIDE); THENCE ON SAID EASTERLY RIGHT OF WAY AS DEFINED BY CERTIFIED BOUNDARY SURVEY, AS RECORDED JULY 18, 2001 UNDER RECEPTION NO. 201900096, THE FOLLOWING FIVE (5) COURSES:

- (1) ON THE ARC OF A CURVE TO THE LEFT, WHOSE CENTER BEARS NORTH 73 DEGREES 08 MINUTES 46 SECONDS WEST, HAVING A DELTA OF 24 DEGREES 31 MINUTES 32 SECONDS, A RADIUS OF 1630.00 FEET, A DISTANCE OF 697.73 FEET TO A POINT OF TANGENT;
- (2) NORTH 07 DEGREES 40 MINUTES 18 SECONDS WEST, A DISTANCE OF 777.34 FEET TO A POINT OF CURVE;
- (3) ON THE ARC OF A CURVE TO THE RIGHT, HAVING A DELTA OF 39 DEGREES 01 MINUTES 10 SECONDS, A RADIUS OF 1770.00 FEET, A DISTANCE OF 1205.40 FEET TO A POINT OF TANGENT;
- (4) NORTH 31 DEGREES 20 MINUTES 52 SECONDS EAST, A DISTANCE OF 1517.37 FEET TO A POINT OF CURVE;
- (5) ON THE ARC OF A CURVE TO THE LEFT, HAVING A DELTA OF 02 DEGREES 07 MINUTES 03 SECONDS, A RADIUS OF 1330.00 FEET, A DISTANCE OF 49.15 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH HALF OF SAID SECTION 21;

THENCE SOUTH 89 DEGREES 50 MINUTES 58 SECONDS EAST ON SAID NORTH LINE, A DISTANCE OF 3635.53 FEET TO THE POINT OF BEGINNING;

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.

ENGINEER OF RECORD SIGNATURE DATE

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
4 SITE INVESTMENTS LLC
1271 KELLY JOHNSON BLVD STE 100 COLORADO SPRINGS CO, 80902

EL PASO COUNTY: 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 VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL, AS AMENDED. IN ACCORDANCE WITH ECM SECTION 1.12, THESE CONSTRUCTION DOCUMENTS WILL BE VALID FOR CONSTRUCTION FOR A PERIOD OF 2 YEARS FROM THE DATE SIGNED BY THE EL PASO COUNTY ENGINEER. IF CONSTRUCTION HAS NOT STARTED WITHIN THOSE 2 YEARS, THE PLANS WILL NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR'S DISCRETION.

JOSHUA PALMER, P.E. DATE
INTERIM COUNTY ENGINEER / ECM ADMINISTRATOR

Replace with Engineer's Name and PE number

Replace "Owner Signature" with owner's name.

Remove Interim

5619 DTC PARKWAY, SUITE 1150 | GREENWOOD VILLAGE, COLORADO 80111 | hr@green.com
Phone: 720.602.4999 | Toll Free: 800.728.7805 | HRGreen.com



EL PASO PDC FILE NO.
CDR-228

ENGINEER CONTACT(S):
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GREENWOOD VILLAGE, CO 80111
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gpanza@hrgreen.com

HR GREEN Xref: xref-1-dh01; 01-XL-CONCEPT

DRAWN BY: CMM	JOB DATE: 7/27/2022	BAR IS ONE INCH ON OFFICIAL DRAWINGS.
APPROVED: TBI	JOB NUMBER: 201662.03	0 1"
CAD DATE: 3/27/2023		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD FILE: J:\2020\201662.03\CAD\Drawings\CITITLE SHEET		

NO.	DATE	BY	REVISION DESCRIPTION

HR GREEN - DENVER
5619 DTC PARKWAY SUITE 1150
DENVER CO 80111
PHONE: 720.602.4999
FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
FALCON, COLORADO

CONSTRUCTION DOCUMENTS
TITLE SHEET

SHEET
TS1
01

CHANNEL DESIGN PARAMETERS

Design Parameter	Grandview Reserve Design Value	Design Value From MHFD	El Paso County
	5 ft	5 ft	5 ft
Roughness values	EPC Table 10-2	Per Table 8-5	EPC Table 10-2
Maximum 5-year velocity, main channel (within bankfull channel width) (ft/s)	5 ft/s	5 ft/s	EPC Table 10-3 and 10-4
Maximum 100-year velocity, main channel (within bankfull channel width) (ft/s)	7 ft/s	7 ft/s	EPC Table 10-3 and 10-4
Froude No., 5-year, main channel (within bankfull channel width)	0.7	0.7	
Froude No., 100-year, main channel (within bankfull channel width)	0.8	0.8	0.9 (From section 10.7)
Maximum shear stress, 100-year, main channel (within bankfull channel width)	1.2 lb/sf	1.2 lb/sf	
Minimum bankfull capacity of bankfull channel (based on future development conditions)	70% of 2 year, 10.5 cfs	70% of 2-year discharge or 10% of 100-yr discharge, whichever is greater*	10-yr storm, to be concrete lined or rip rap, ECM 10.5.4
Minimum bankfull channel geometry ¹		Per Table 8-2	
Design Channel Type	C4		
Entrenchment Ratio	2.7-31.65 (x=5.26)		
Width to depth ratio	13.5-75.0 (x=29.28)		
Sinuosity	1.43-2.80 (x=1.92)		
Slope	0.0001-0.0184 (x=0.0045)		
D50	12-14mm (~0.5 in)		
d84	32-48mm (~1.6in)		
Meander Length ²	34-92 (x=56)		
Belt Width ²	18-55 (x=32)		
Radius of Curvature ²	7-28 (x=11)		
Minimum Floodplain Terrace	6 ft		
Maximum overbank side slope	4(H):1(V)	4(H):1(V)	4(H):1(V) when grassed, 2(H):1(V) when concrete, 2.5(H):1(V) when riprap
Maximum bankfull side slope	2.5(H):1(V)	2.5(H):1(V)	
Minimum bottom width	3.8 ft		At least twice depth, but not less than 8 ft for channels conveying at least 400 cfs
Freeboard	1.5 ft	18 inch min	freeboard in ft = 1.0 + 0.025 (velocity in fps)(depth in ft)0.33, to be 12 inch minimum

*THE DESIGN'S BANKFULL CROSS SECTION GEOMETRY WAS ESTIMATED ASSUMING 70% OF THE 2-YEAR FLOW (AN OPTION DESCRIBED IN MILE HIGH FLOOD DISTRICT'S DESIGN MANUAL VOLUME 1). LEOPOLD (A VIEW OF THE RIVER, 1994; FLUVIAL PROCESSES ON GEOMORPHOLOGY, 1992) SHOWED A VERY STRONG CORRELATION BETWEEN THE EFFECTIVE DISCHARGE CHANNEL AND FIELD-DETERMINED BANKFULL GEOMETRY WHERE THE OBSERVED EQUILIBRIUM CHANNEL'S SPILL-OVER POINT TO THE FLOODPLAIN. THIS POINT IS MOST OFTEN CORRELATED TO A FLOW RETURN INTERVAL BETWEEN 1.0-2.0 YEARS WITH AN AVERAGE OF 1.5-YEARS (THOUGH EXCEPTIONS DO EXIST). AS WE DO NOT HAVE GAUGE DATA TO PERFORM A FLOW FREQUENCY ANALYSIS FOR THIS PROJECT'S CHANNEL, NOR A SUITABLE REFERENCE REACH TO SERVE AS AN ANALOGUE WITH WHICH TO SCALE USING DIMENSIONLESS RATIOS RELATED TO THE BANKFULL WIDTH, WE HAVE CHOSEN TO USE THE 2-YEAR FREQUENCY RAINFALL TO APPROXIMATE THE HYDROLOGIC CONDITION OF THE WATERSHED THAT WOULD RESULT IN THE 1.5-1.8 YR FLOW INTERVAL (APPROXIMATELY 70% OF THE 2-YR FLOW INTERVAL).

MILE HIGH FLOOD DISTRICTS' (MHFD) DESIGN MANUAL VOLUME 1 ALSO PRESENTS THE OPTION OF USING 10% OF THE 100-YR DISCHARGE TO SIZE THE BANKFULL CHANNEL'S CAPACITY. IN THE CASE OF THIS PROJECT, WE HAVE NOT OPTED FOR THIS ALTERNATIVE. OUR CONCERN IS THAT THE RESULTING CHANNEL CROSS SECTIONAL AREA DERIVED FROM THIS ALTERNATIVE WOULD BE OVERSIZED AND LEAD TO SEDIMENT ACCUMULATION ON THE BED THROUGH TIME (AGGRADATION). AGGRADATION OCCURS WHEN INSUFFICIENT STREAM POWER IS PRESENT TO TRANSPORT SEDIMENT THROUGH THE CHANNEL, WHICH CAN RESULT FROM AN OVERSIZED BANKFULL CHANNEL. IN THESE CASES, MID-CHANNEL BARS CAN FORM WHICH PUSH FLOWS INTO THE BANKS INCREASING THE RISK OF EROSION AND LATERAL MIGRATION OF THE CHANNEL.

STANDARD NOTES FOR EL PASO COUNTY CONSTRUCTION PLANS

- 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.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- 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:
 - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
 - CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
 - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
 - CDOT M & S STANDARDS
- 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.
- 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.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT (PCD) - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- 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.
- 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.
- ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
- 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.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- 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.
- SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DPW, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- 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.

STANDARD NOTES FOR EL PASO COUNTY GRADING AND EROSION CONTROL PLANS

- 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.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. MANAGEMENT OF THE SWMP DURING CONSTRUCTION IS THE RESPONSIBILITY OF THE DESIGNATED QUALIFIED STORMWATER MANAGER OR CERTIFIED EROSION CONTROL INSPECTOR. THE SWMP SHALL BE LOCATED ON-SITE AT ALL TIMES DURING CONSTRUCTION AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP IS APPROVED AND A "NOTICE TO PROCEED" HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL MEASURES AS INDICATED ON THE APPROVED GEC. A PRECONSTRUCTION MEETING BETWEEN THE CONTRACTOR, ENGINEER, AND EL PASO COUNTY WILL BE HELD PRIOR TO ANY CONSTRUCTION. IT IS THE RESPONSIBILITY OF THE APPLICANT TO COORDINATE THE MEETING TIME AND PLACE WITH COUNTY STAFF.
- CONTROL MEASURES MUST BE INSTALLED PRIOR TO COMMENCEMENT OF ACTIVITIES THAT COULD CONTRIBUTE POLLUTANTS TO STORMWATER. CONTROL MEASURES FOR ALL SLOPES, CHANNELS, DITCHES, AND DISTURBED LAND AREAS SHALL BE INSTALLED IMMEDIATELY UPON COMPLETION OF THE DISTURBANCE.
- ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE MAINTAINED AND REMAIN IN EFFECTIVE OPERATING CONDITION UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND FINAL STABILIZATION IS ESTABLISHED. ALL PERSONS ENGAGED IN LAND DISTURBANCE ACTIVITIES SHALL ASSESS THE ADEQUACY OF CONTROL MEASURES AT THE SITE AND IDENTIFY IF CHANGES TO THOSE CONTROL MEASURES ARE NEEDED TO ENSURE THE CONTINUED EFFECTIVE PERFORMANCE OF THE CONTROL MEASURES. ALL CHANGES TO TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES MUST BE INCORPORATED INTO THE STORMWATER MANAGEMENT PLAN.
- TEMPORARY STABILIZATION SHALL BE IMPLEMENTED ON DISTURBED AREAS AND STOCKPILES WHERE GROUND DISTURBING CONSTRUCTION ACTIVITY HAS PERMANENTLY CEASED OR TEMPORARILY CEASED FOR LONGER THAN 14 DAYS.
- FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- ALL PERMANENT STORMWATER MANAGEMENT FACILITIES SHALL BE INSTALLED AS DESIGNED IN THE APPROVED PLANS. ANY PROPOSED CHANGES THAT EFFECT THE DESIGN OR FUNCTION OF PERMANENT STORMWATER MANAGEMENT STRUCTURES MUST BE APPROVED BY THE ECM ADMINISTRATOR PRIOR TO IMPLEMENTATION.
- EARTH DISTURBANCES SHALL BE CONDUCTED IN SUCH A MANNER SO AS TO EFFECTIVELY MINIMIZE ACCELERATED SOIL EROSION AND RESULTING SEDIMENTATION. ALL DISTURBANCES SHALL BE DESIGNED, CONSTRUCTED, AND COMPLETED SO THAT THE EXPOSED AREA OF ANY DISTURBED LAND SHALL BE LIMITED TO THE SHORTEST PRACTICAL PERIOD OF TIME. PRE-EXISTING VEGETATION SHALL BE PROTECTED AND MAINTAINED WITHIN 50 HORIZONTAL FEET OF A WATERS OF THE STATE UNLESS SHOWN TO BE INFEASIBLE AND SPECIFICALLY REQUESTED AND APPROVED.
- COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSEEN PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF-SITE.
- CONCRETE WASH WATER SHALL BE CONTAINED AND DISPOSED OF IN ACCORDANCE WITH THE SWMP. NO WASH WATER SHALL BE DISCHARGED TO OR ALLOWED TO ENTER STATE WATERS, INCLUDING ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR FACILITIES. CONCRETE WASHOUTS SHALL NOT BE LOCATED IN AN AREA WHERE SHALLOW GROUNDWATER MAY BE PRESENT, OR WITHIN 50 FEET OF A SURFACE WATER BODY, CREEK OR STREAM.
- DURING DEWATERING OPERATIONS, UNCONTAMINATED GROUNDWATER MAY BE DISCHARGED ON-SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ON-SITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.
- BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ON-SITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.
- OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.), IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON-SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY [COMPANY NAME, DATE OF REPORT] AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP) OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

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

Update

EXISTING FLOWS FOR MAIN STEM (DRAINAGE A)			
STATION	2-YR STORM	5-YR STORM	100-YR STORM
37+13	23 cfs	67 cfs	413 cfs
25+92	26.45 cfs	80.03 cfs	479.80 cfs
15+57	26.45 cfs	80.03 cfs	479.80 cfs

EXISTING FLOWS FOR MAIN STEM TRIBUTARY (DRAINAGE B)			
STATION	2-YR STORM	5-YR STORM	100-YR STORM
45+30	19 cfs	59 cfs	280 cfs
22+59	20.14 cfs	68.95 cfs	390.70 cfs
6+14	22.14 cfs	85.99 cfs	597.42 cfs

FUTURE FLOWS FOR MAIN STEM (DRAINAGE A)			
STATION	2-YR STORM	5-YR STORM	100-YR STORM
37+13	23 cfs	67 cfs	413 cfs
25+92	23 cfs	67 cfs	413 cfs
15+57	27.75 cfs	67.69 cfs	466.95 cfs

FUTURE FLOWS FOR MAIN STEM TRIBUTARY (DRAINAGE B)			
STATION	2-YR STORM	5-YR STORM	100-YR STORM
47+49	19 cfs	59 cfs	280 cfs
36+50	31.72 cfs	60.52 cfs	395.83 cfs
5+54	33.53 cfs	63.16 cfs	553.68 cfs

DRAWN BY: TBI JOB DATE: 5/26/2022
 APPROVED: CMM JOB NUMBER: 201662.03
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\dwgs\C\GENERAL NOTES

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NO.	DATE	BY	REVISION DESCRIPTION



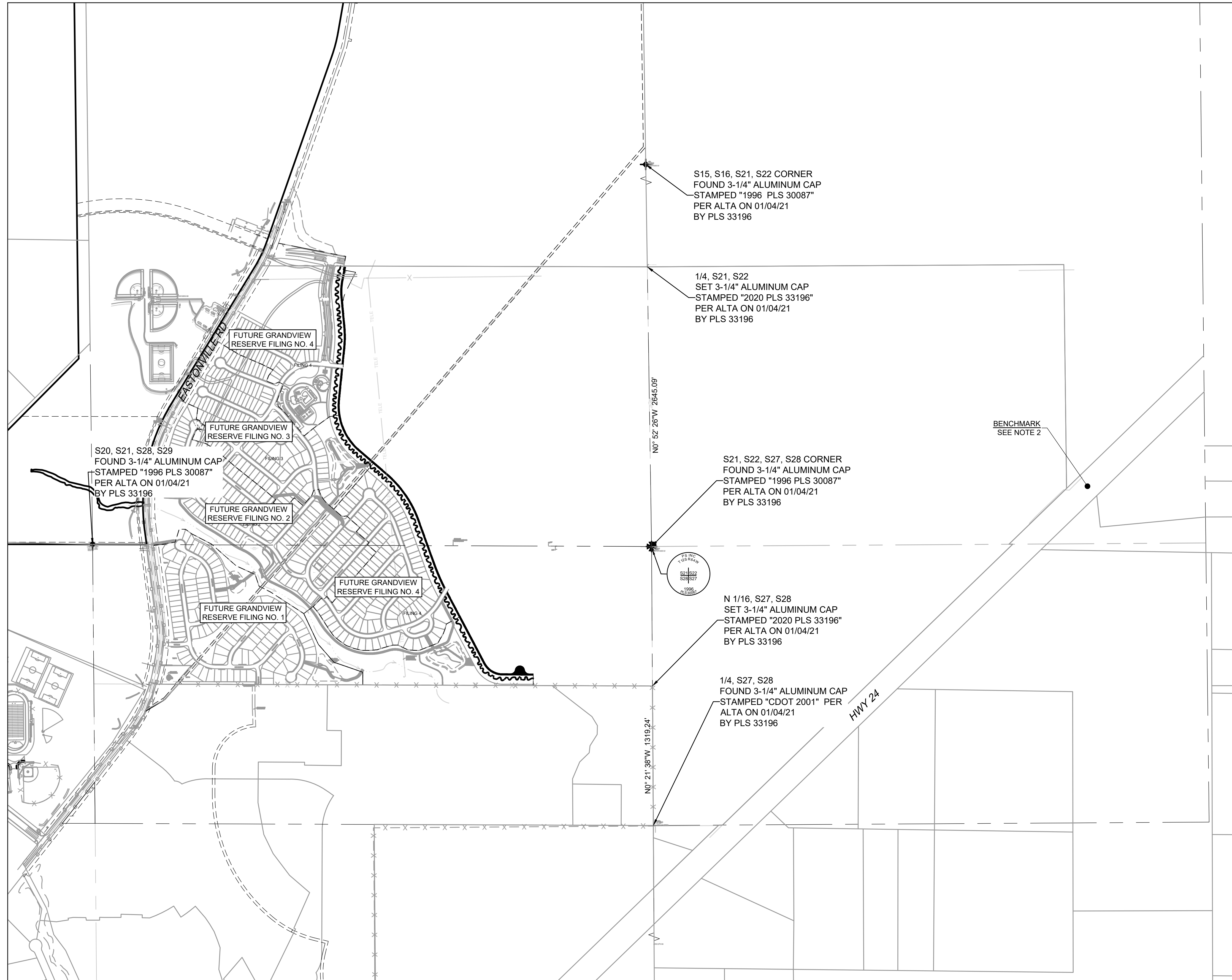
HR GREEN - DENVER
 5619 DTC PARKWAY SUITE 1150
 DENVER CO 80111
 PHONE: 720.602.4999
 FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
 DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 GENERAL NOTES

SHEET
 GN1
 02

HR GREEN - DENVER 5619 DTC PARKWAY SUITE 1150 DENVER CO 80111 PHONE: 720.602.4999 FAX: 844.273.1057



S15, S16, S21, S22 CORNER
FOUND 3-1/4" ALUMINUM CAP
STAMPED "1996 PLS 30087"
PER ALTA ON 01/04/21
BY PLS 33196

1/4, S21, S22
SET 3-1/4" ALUMINUM CAP
STAMPED "2020 PLS 33196"
PER ALTA ON 01/04/21
BY PLS 33196

BENCHMARK
SEE NOTE 2

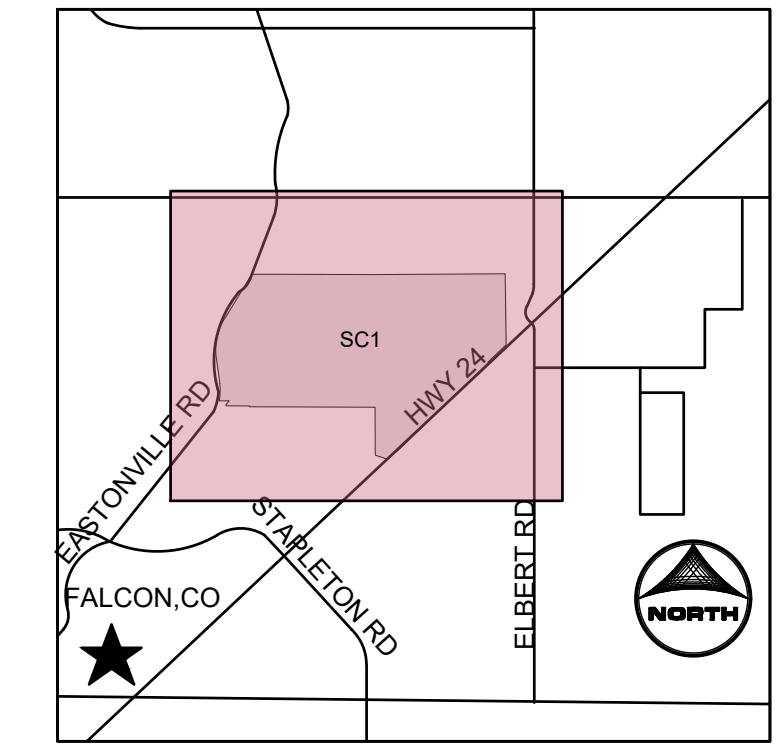
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FOUND 3-1/4" ALUMINUM CAP
STAMPED "1996 PLS 30087"
PER ALTA ON 01/04/21
BY PLS 33196

N 1/16, S27, S28
SET 3-1/4" ALUMINUM CAP
STAMPED "2020 PLS 33196"
PER ALTA ON 01/04/21
BY PLS 33196

1/4, S27, S28
FOUND 3-1/4" ALUMINUM CAP
STAMPED "CDOT 2001" PER
ALTA ON 01/04/21
BY PLS 33196

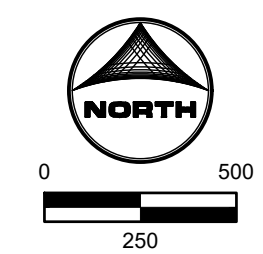
N0° 52' 26"W 2645.09'

N0° 21' 38"W 1319.24'



- KEYMAP**
- PROJECT LEGEND:**
- PROPERTY LINE
 - - - SECTION LINE
 - ⊕ SECTION CORNER

- NOTES:**
- BASIS OF BEARINGS:** THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
 - BENCHMARK:**
DESIGNATION = F 24
PID = JK0240
DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
CONTROL POINT COORDINATE SYSTEM: NAVD88
NORTHING: 1421049.80
EASTING: 3273631.55
ELEVATION: 6866.33



811
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Utility Notification
Center of Colorado

COLORADO LICENSED
PROFESSIONAL ENGINEER
GREGORY L. PACE
37081

DRAWN BY: ACH	JOB DATE: 3/21/2023	BAR IS ONE INCH ON OFFICIAL DRAWINGS.
APPROVED: GP	JOB NUMBER: 201662.03	0" = 1"
CAD DATE: 3/27/2023		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
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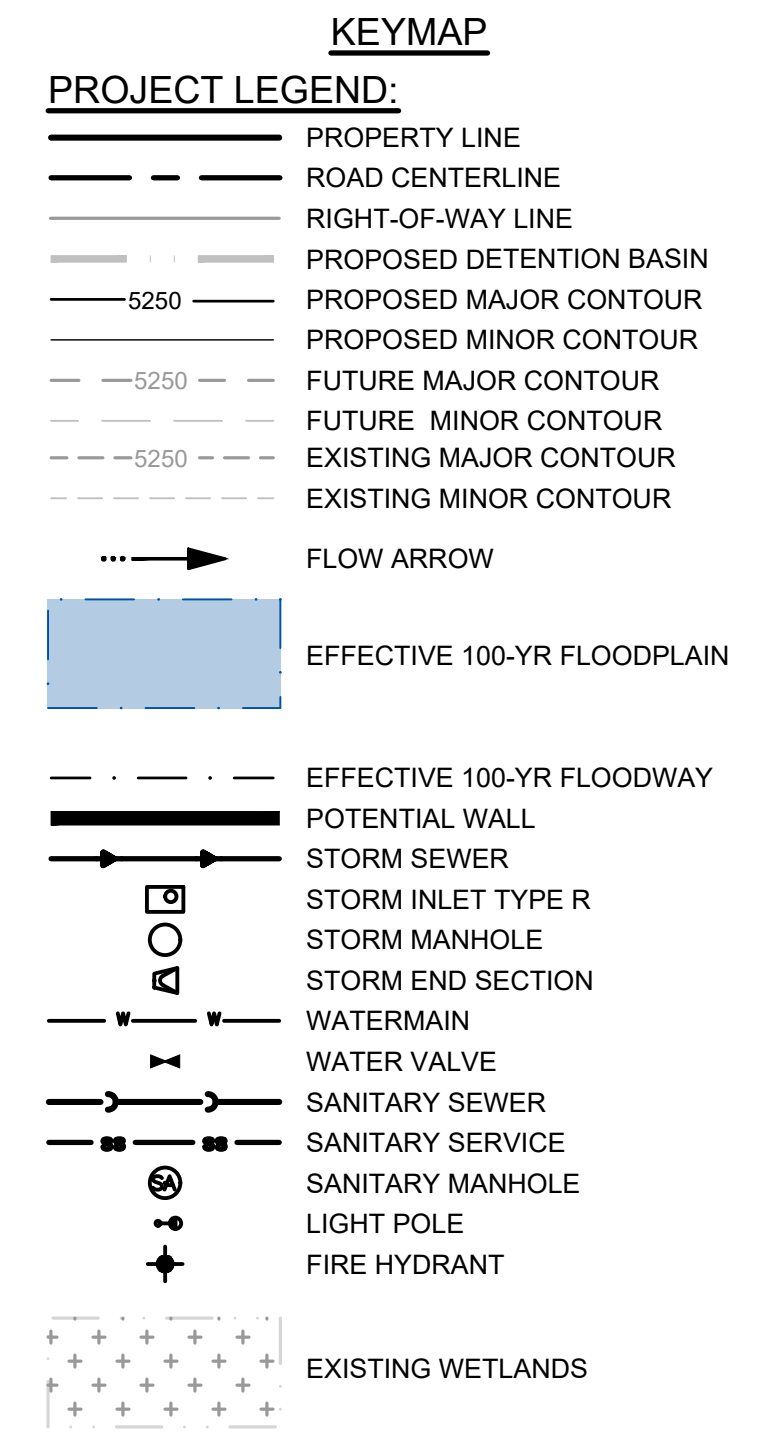
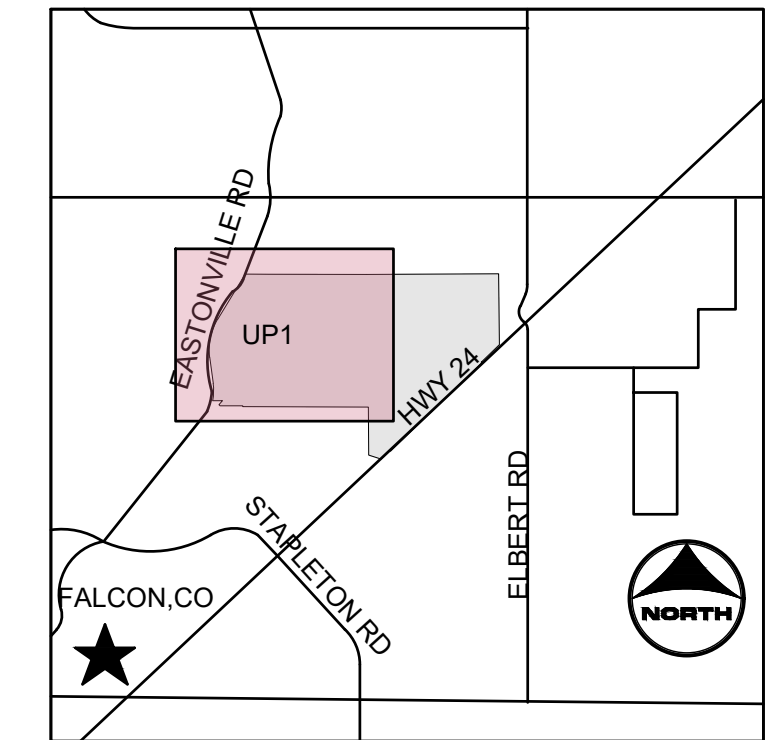
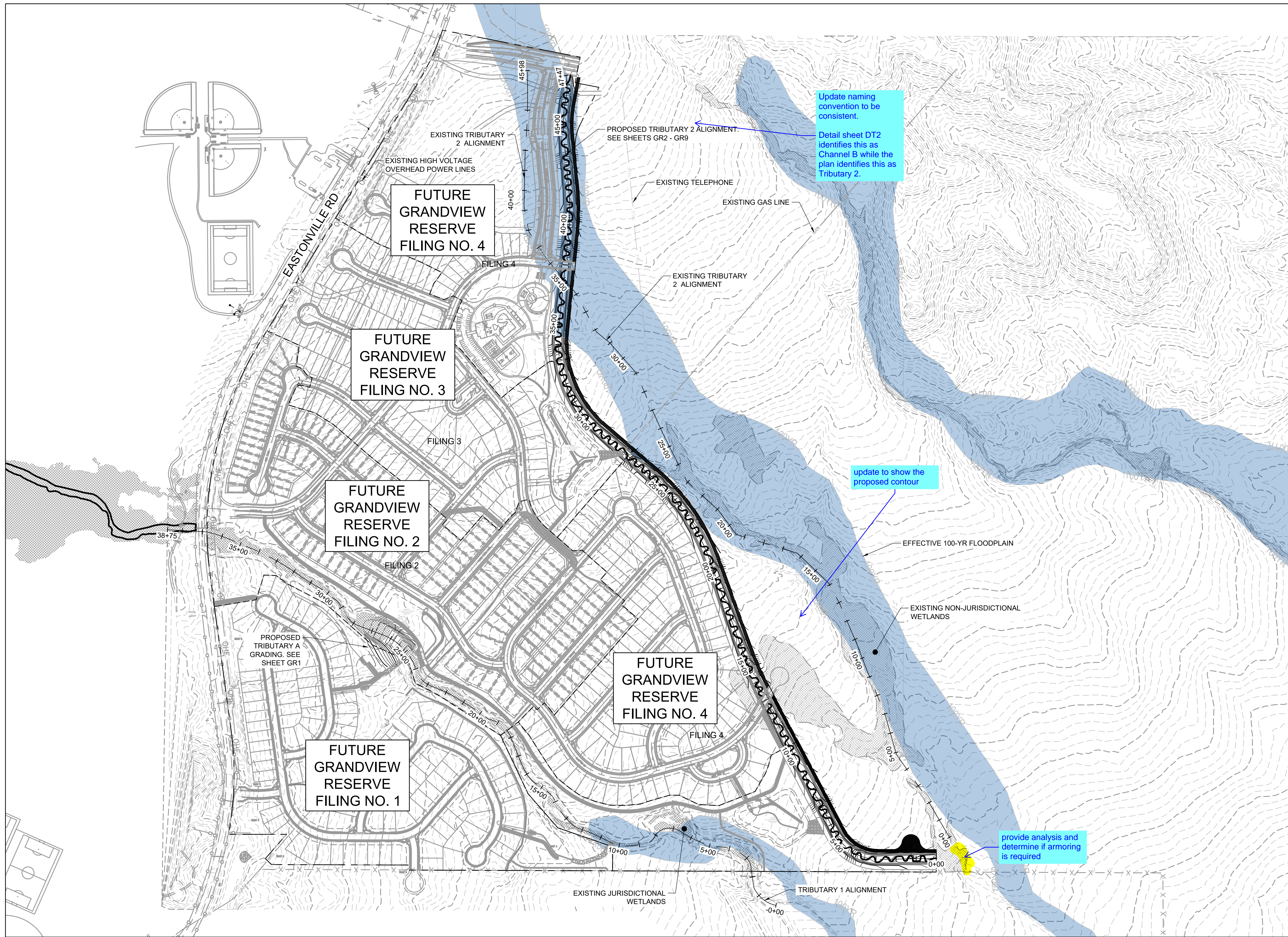
NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - DENVER
5619 DTC PARKWAY SUITE 1150
DENVER CO 80111
PHONE: 720.602.4999
FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
FALCON, COLORADO

CONSTRUCTION DOCUMENTS
SURVEY CONTROL PLAN

SHEET
SC1
03



NOTES:

- BASIS OF BEARINGS:** THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
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 DESIGNATION = F 24
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 DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
 CONTROL POINT COORDINATE SYSTEM: NAVD88
 NORTHING: 1421049.80
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 APPROVED: CMM JOB NUMBER: 201662.03
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NO.	DATE	BY	REVISION DESCRIPTION

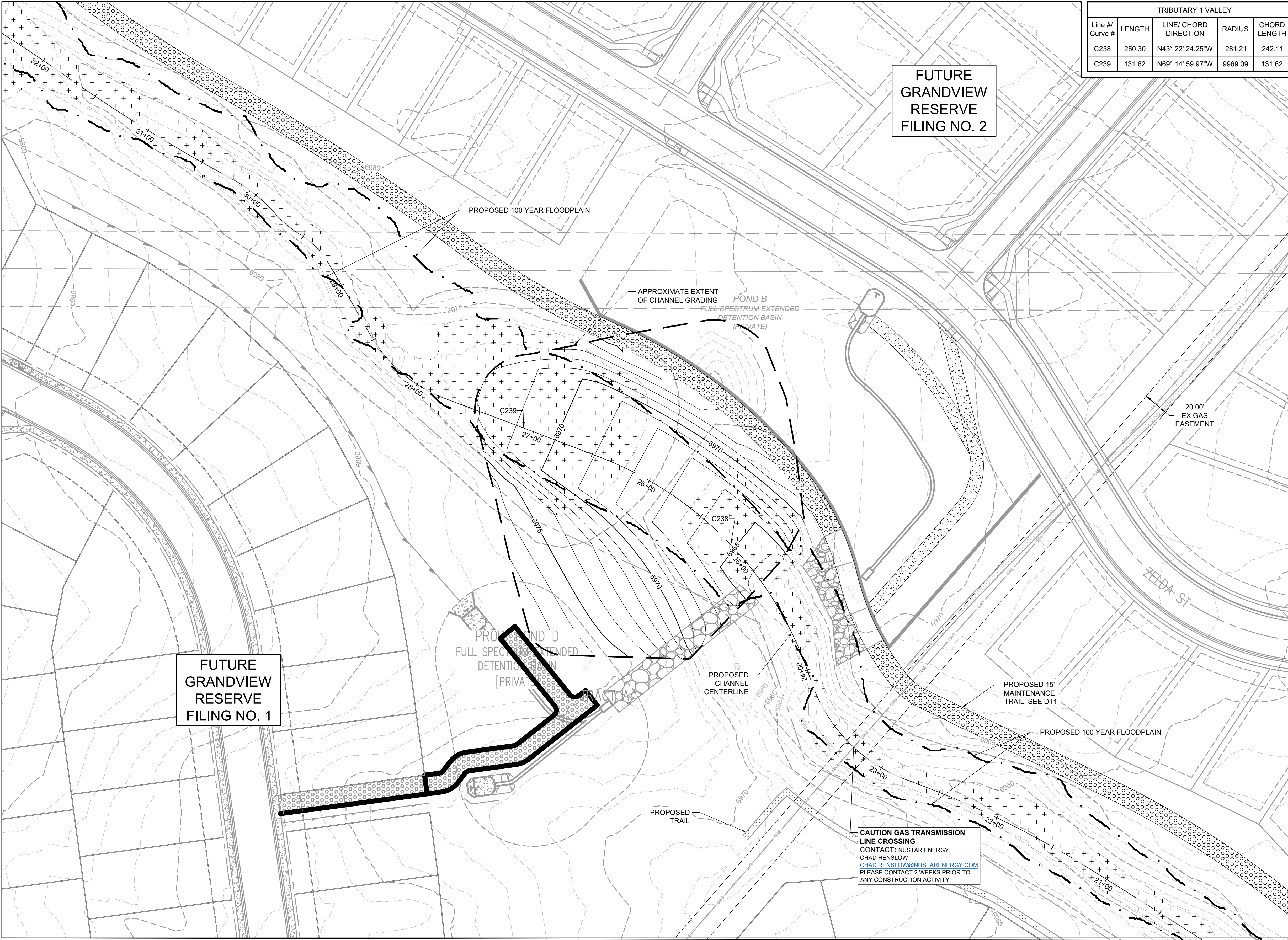
HRGreen
 HR GREEN - DENVER
 5619 DTC PARKWAY SUITE 1150
 DENVER CO 80111
 PHONE: 720.602.4999
 FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

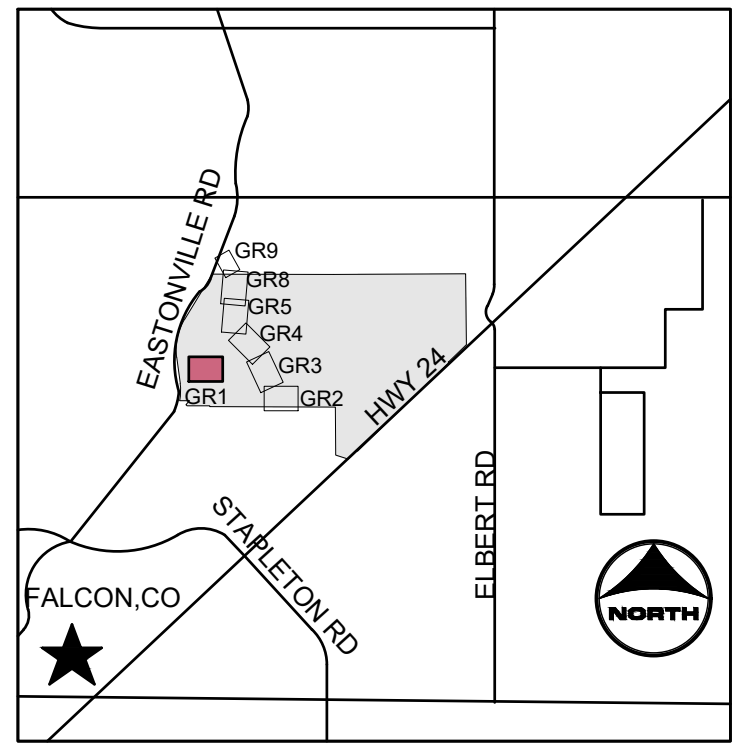
CONSTRUCTION DOCUMENTS
 OVERALL UTILITY PLAN

SHEET
UP1
04

HR GREEN \\srs-jgi-dh01-GRADING KEY: 01-XC-PR-100YR_FP_DELINEATION_01-XC-PR-100YR_FP_DELINEATION_A_HRG120X_EBaser_v-dgpn_062; xc-dgpn-062.10; xc-rows-F1-062.10; xc-row-062; xc-dgpn-F3; xc-row-F3; xc-filing-bnlys; xc-row-F4; xc-dgpn-F4; xc-channel; 01-XC-INITIAL-EC



TRIBUTARY 1 VALLEY				
Line # / Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH
C238	250.30	N43° 22' 24.25"W	281.21	242.11
C239	131.62	N69° 14' 59.97"W	9969.09	131.62



- PROJECT LEGEND:**
- PROPERTY LINE
- ROAD CENTERLINE
- RIGHT-OF-WAY LINE
- SECTION LINE
- EXISTING EASEMENT
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- FLOW ARROW
- LIMITS OF CONSTRUCTION
- PROPOSED 100-YR FLOODPLAIN

- EFFECTIVE 100-YR FLOODPLAIN

- EXISTING WETLANDS

- PROPOSED MAINTENANCE TRAIL

- NOTES:**
- 1. BASIS OF BEARINGS: THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
- 2. BENCHMARK:
DESIGNATION = F 24
PID = JK0240
DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
CONTROL POINT COORDINATE SYSTEM: NAVD88
NORTHING: 1421049.80
EASTING: 3273631.55
ELEVATION: 6866.33
- 3. CHANNEL A TO BE CONSTRUCTED WITH FILING A (AREA SOUTH OF CHANNEL A), CHANNEL B TO BE CONSTRUCTED WITH FILING 2 (AREA NORTH OF CHANNEL A AND SOUTHWEST OF CHANNEL B), BOX CULVERTS/CROSSINGS ALONG CHANNEL B TO BE CONSTRUCTED WITH CHANNEL IMPROVEMENTS.

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PROFESSIONAL ENGINEER
COLORADO LICENSED
37081

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APPROVED: CMM	JOB NUMBER: 201662.03
CAD DATE: 3/27/2023	
CAD FILE: J:\2020\201662.03\CAD\DWG\CI\GRADING	

NO.	DATE	BY	REVISION DESCRIPTION

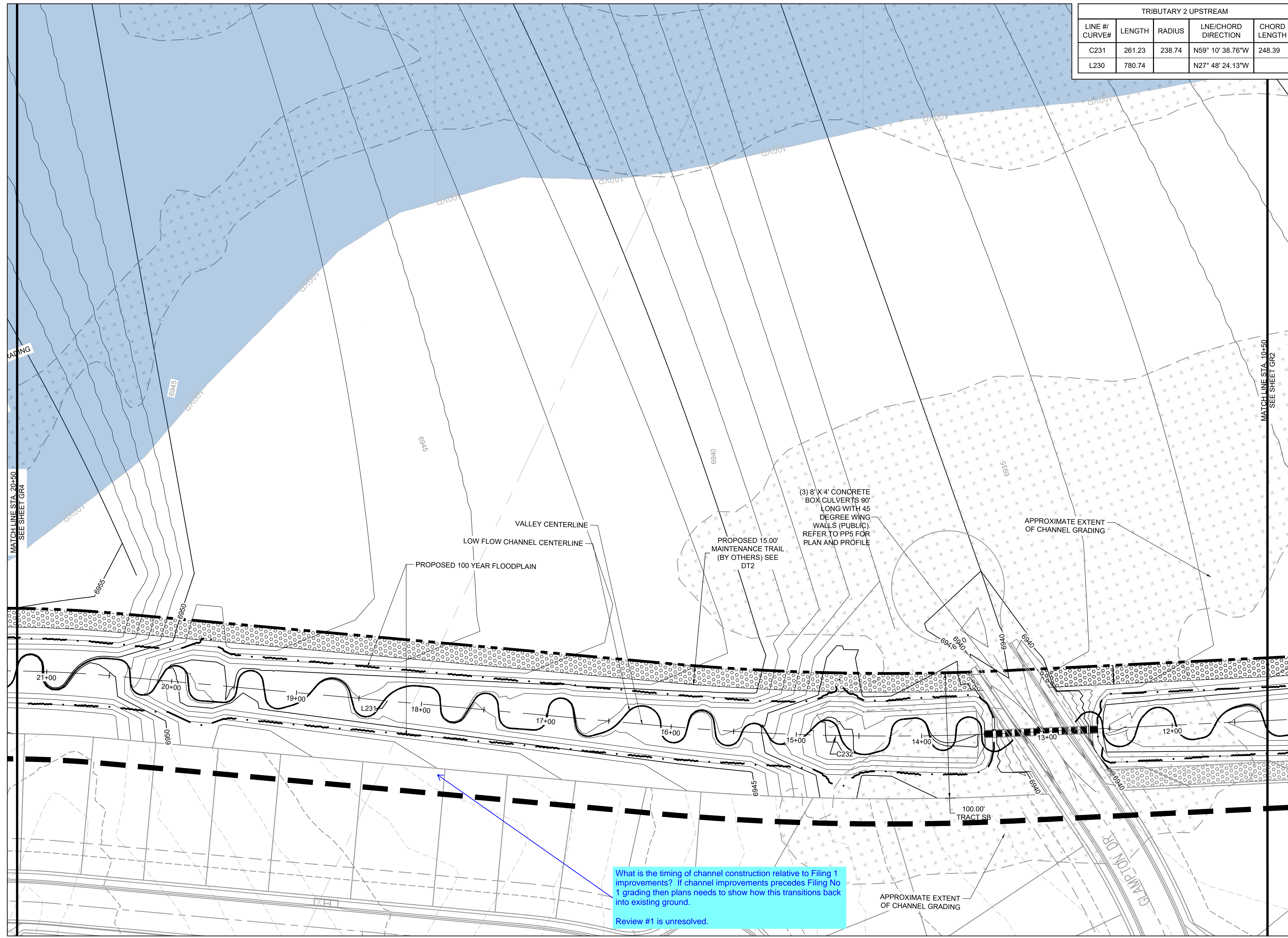
HRGreen
HR GREEN - DENVER
5619 DTC PARKWAY SUITE 1150
DENVER CO 80111
PHONE: 720.602.4999
FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
FALCON, COLORADO

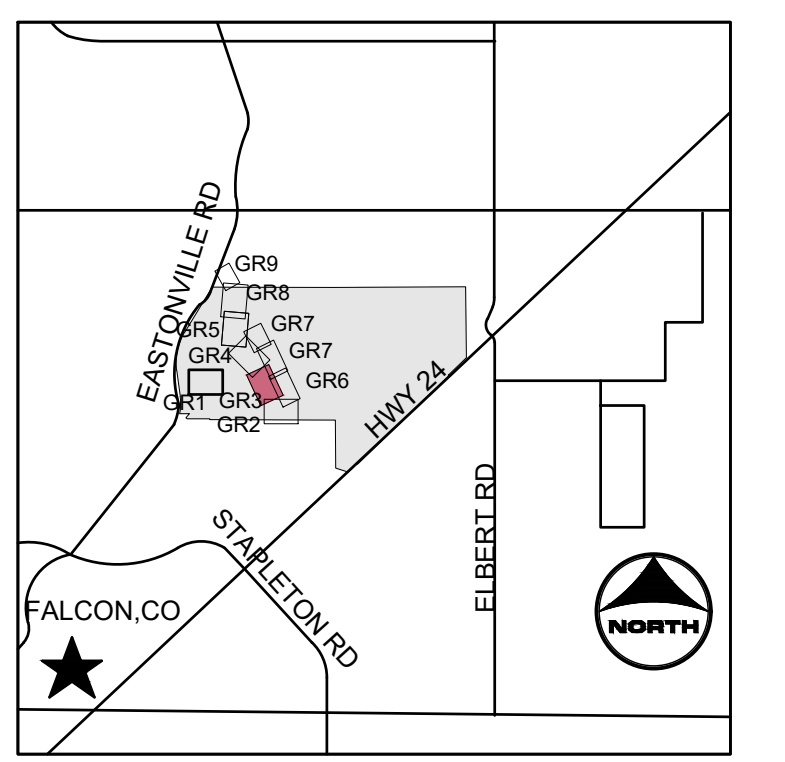
CONSTRUCTION DOCUMENTS
TRIBUTARY 1 GRADING

SHEET
GR1
05

HR GREEN Xref: xg: -d:01; GRADING KEY: 01-XC-PR_100YR_FP_DELINEATION; 01-XC-PR_100YR_FP_DELINEATION; A_HRG_1; 20X_EBase; x: dsign_082; x: dsign_082; 10; xc: row-F1-d62; 10; xc: row-F1-d62; 10; xc: row-F2; xv: uil; 082; xv: row-d82; xc: dsign-F3; xc: row-F3; xc: row-F3; xc: row-F4; xc: dsign-F4; xc: dsign-F4; xc: channel; 01-XC-INITIAL-EC



TRIBUTARY 2 UPSTREAM				
LINE # / CURVE#	LENGTH	RADIUS	LINE/CHORD DIRECTION	CHORD LENGTH
C231	261.23	238.74	N59° 10' 38.76"W	248.39
L230	780.74		N27° 48' 24.13"W	



KEYMAP

PROJECT LEGEND:

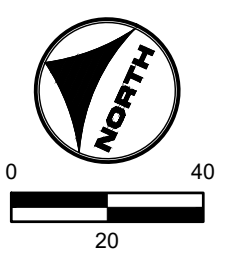
- PROPERTY LINE
- ROAD CENTERLINE
- RIGHT-OF-WAY LINE
- SECTION LINE
- EXISTING EASEMENT
- 5250--- PROPOSED MAJOR CONTOUR
- 5250--- PROPOSED MINOR CONTOUR
- 5250--- EXISTING MAJOR CONTOUR
- 5250--- EXISTING MINOR CONTOUR
- FLOW ARROW
- LIMITS OF CONSTRUCTION
- PROPOSED 100-YR FLOODPLAIN

LEGEND:

- [Blue Shaded Area] EFFECTIVE 100-YR FLOODPLAIN
- [Cross-hatched Area] EXISTING WETLANDS
- [Dotted Area] PROPOSED MAINTENANCE TRAIL

- NOTES:**
- BASIS OF BEARINGS:** THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
 - BENCHMARK:**
 DESIGNATION = F 24
 PID = JK0240
 DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
 CONTROL POINT COORDINATE SYSTEM:
 NAVD88
 NORTHING: 1421049.80
 EASTING: 3273631.55
 ELEVATION: 6866.33
 - CHANNEL A TO BE CONSTRUCTED WITH FILING 1 (AREA SOUTH OF CHANNEL A), CHANNEL B TO BE CONSTRUCTED WITH FILING 2 (AREA NORTH OF CHANNEL A AND SOUTHWEST OF CHANNEL B), BOX CULVERTS/CROSSINGS ALONG CHANNEL B TO BE CONSTRUCTED WITH CHANNEL IMPROVEMENTS.**

What is the timing of channel construction relative to Filing 1 improvements? If channel improvements precedes Filing No 1 grading then plans needs to show how this transitions back into existing ground.
 Review #1 is unresolved.



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CAD FILE: J:\2020\201662.03\CAD\DWG\CIGRADING		

NO.	DATE	BY	REVISION DESCRIPTION

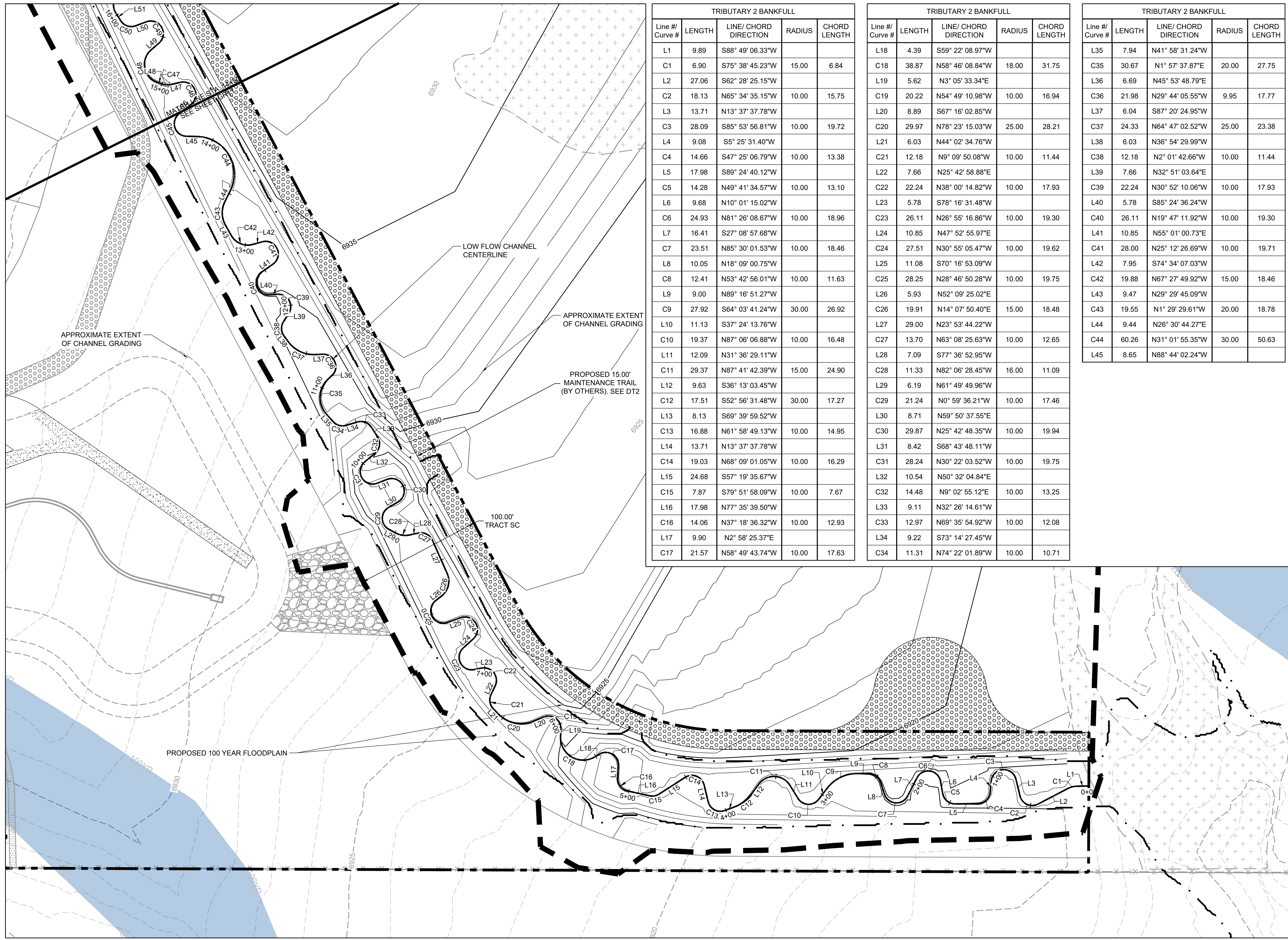
HRGreen
 HR GREEN - DENVER
 5619 DTC PARKWAY SUITE 1150
 DENVER CO 80111
 PHONE: 720.602.4999
 FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 VALLEY GRADING

SHEET
GR3
 07

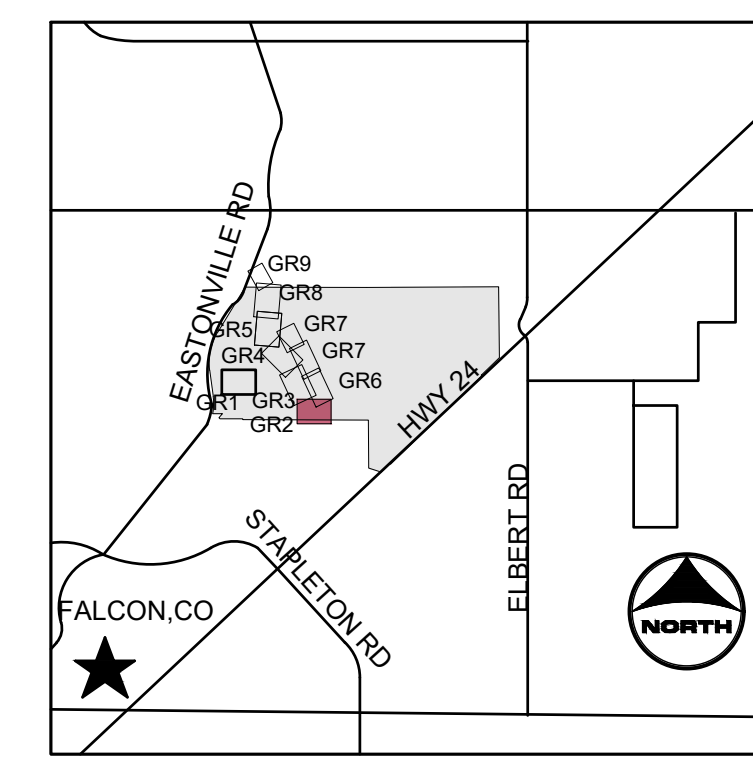
HR GREEN - DENVER: 5619 DTC PARKWAY SUITE 1150, DENVER CO 80111, PHONE: 720.602.4999, FAX: 844.273.1057
 DRAWN BY: TBI JOB DATE: 3/22/2023 BAR IS ONE INCH ON OFFICIAL DRAWINGS: 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
 APPROVED: CMM JOB NUMBER: 201662.03
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\DWG\CIGRADING



TRIBUTARY 2 BANKFULL				
Line # / Curve #	LENGTH	LINE / CHORD DIRECTION	RADIUS	CHORD LENGTH
L1	9.89	S88° 49' 06.33"W		
C1	6.90	S75° 38' 45.23"W	15.00	6.84
L2	27.06	S62° 28' 25.15"W		
C2	18.13	N65° 34' 35.15"W	10.00	15.75
L3	13.71	N13° 37' 37.78"W		
C3	28.09	S85° 53' 56.81"W	10.00	19.72
L4	9.08	S5° 25' 31.40"W		
C4	14.66	S47° 25' 06.79"W	10.00	13.38
L5	17.98	S89° 24' 40.12"W		
C5	14.28	N49° 41' 34.57"W	10.00	13.10
L6	9.68	N10° 01' 15.02"W		
C6	24.93	N81° 26' 08.67"W	10.00	18.96
L7	16.41	S27° 08' 57.68"W		
C7	23.51	N85° 30' 01.53"W	10.00	18.46
L8	10.05	N18° 09' 00.75"W		
C8	12.41	N53° 42' 56.01"W	10.00	11.63
L9	9.00	N89° 16' 51.27"W		
C9	27.92	S64° 03' 41.24"W	30.00	26.92
L10	11.13	S37° 24' 13.76"W		
C10	19.37	N87° 06' 06.88"W	10.00	16.48
L11	12.09	N31° 36' 29.11"W		
C11	29.37	N87° 41' 42.39"W	15.00	24.90
L12	9.63	S36° 13' 03.45"W		
C12	17.51	S52° 56' 31.48"W	30.00	17.27
L13	8.13	S69° 39' 59.52"W		
C13	16.88	N61° 58' 49.13"W	10.00	14.95
L14	13.71	N13° 37' 37.78"W		
C14	19.03	N68° 09' 01.05"W	10.00	16.29
L15	24.68	S57° 19' 35.67"W		
C15	7.87	S79° 51' 58.09"W	10.00	7.67
L16	17.98	N77° 35' 39.50"W		
C16	14.06	N37° 18' 36.32"W	10.00	12.93
L17	9.90	N2° 58' 25.37"E		
C17	21.57	N58° 49' 43.74"W	10.00	17.63

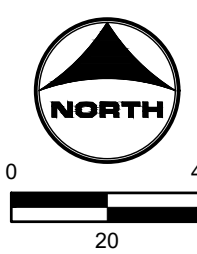
TRIBUTARY 2 BANKFULL				
Line # / Curve #	LENGTH	LINE / CHORD DIRECTION	RADIUS	CHORD LENGTH
L18	4.39	S59° 22' 08.97"W		
C18	38.87	N58° 46' 08.84"W	18.00	31.75
L19	5.62	N3° 05' 33.34"E		
C19	20.22	N54° 49' 10.98"W	10.00	16.94
L20	8.89	S67° 16' 02.85"W		
C20	29.97	N78° 23' 15.03"W	25.00	28.21
L21	6.03	N44° 02' 34.76"W		
C21	12.18	N9° 09' 50.08"W	10.00	11.44
L22	7.66	N25° 42' 58.88"E		
C22	22.24	N38° 00' 14.82"W	10.00	17.93
L23	5.78	S78° 16' 31.48"W		
C23	26.11	N26° 55' 16.86"W	10.00	19.30
L24	10.85	N47° 52' 55.97"E		
C24	27.51	N30° 55' 05.47"W	10.00	19.62
L25	11.08	S70° 16' 53.09"W		
C25	28.25	N28° 46' 50.28"W	10.00	19.75
L26	5.93	N52° 09' 25.02"E		
C26	19.91	N14° 07' 50.40"E	15.00	18.48
L27	29.00	N23° 53' 44.22"W		
C27	13.70	N63° 08' 25.63"W	10.00	12.65
L28	7.09	S77° 36' 52.95"W		
C28	11.33	N82° 06' 28.45"W	16.00	11.09
L29	6.19	N61° 49' 49.96"W		
C29	21.24	N0° 59' 36.21"W	10.00	17.46
L30	8.71	N59° 50' 37.55"E		
C30	29.87	N25° 42' 48.35"W	10.00	19.94
L31	8.42	S68° 43' 48.11"W		
C31	28.24	N30° 22' 03.52"W	10.00	19.75
L32	10.54	N50° 32' 04.84"E		
C32	14.48	N9° 02' 55.12"E	10.00	13.25
L33	9.11	N32° 26' 14.61"W		
C33	12.97	N69° 35' 54.92"W	10.00	12.08
L34	9.22	S73° 14' 27.45"W		
C34	11.31	N74° 22' 01.89"W	10.00	10.71

TRIBUTARY 2 BANKFULL				
Line # / Curve #	LENGTH	LINE / CHORD DIRECTION	RADIUS	CHORD LENGTH
L35	7.94	N41° 58' 31.24"W		
C35	30.67	N1° 57' 37.87"E	20.00	27.75
L36	6.69	N45° 53' 48.79"E		
C36	21.98	N29° 44' 05.55"W	9.95	17.77
L37	6.04	S87° 20' 24.95"W		
C37	24.33	N64° 47' 02.52"W	25.00	23.38
L38	6.03	N36° 54' 29.99"W		
C38	12.18	N2° 01' 42.66"W	10.00	11.44
L39	7.66	N32° 51' 03.64"E		
C39	22.24	N30° 52' 10.06"W	10.00	17.93
L40	5.78	S85° 24' 36.24"W		
C40	26.11	N19° 47' 11.92"W	10.00	19.30
L41	10.85	N55° 01' 00.73"E		
C41	28.00	N25° 12' 26.69"W	10.00	19.71
L42	7.95	S74° 34' 07.03"W		
C42	19.88	N67° 27' 49.92"W	15.00	18.46
L43	9.47	N29° 29' 45.09"W		
C43	19.55	N1° 29' 29.61"W	20.00	18.78
L44	9.44	N26° 30' 44.27"E		
C44	60.26	N31° 01' 55.35"W	30.00	50.63
L45	8.65	N88° 44' 02.24"W		



- KEYMAP**
- PROJECT LEGEND:**
- PROPERTY LINE
 - ROAD CENTERLINE
 - RIGHT-OF-WAY LINE
 - SECTION LINE
 - EXISTING EASEMENT
 - PROPOSED MAJOR CONTOUR
 - PROPOSED MINOR CONTOUR
 - EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - FLOW ARROW
 - LIMITS OF CONSTRUCTION
 - PROPOSED 100-YR FLOODPLAIN
- EFFECTIVE 100-YR FLOODPLAIN
 - EXISTING WETLANDS
 - PROPOSED MAINTENANCE TRAIL

- NOTES:**
- BASIS OF BEARINGS: THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
 - BENCHMARK:**
 DESIGNATION = F 24
 PID = JK0240
 DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
 CONTROL POINT COORDINATE SYSTEM:
 NAVD88
 NORTHING: 1421049.80
 EASTING: 3273631.55
 ELEVATION: 6866.33
 - CHANNEL A TO BE CONSTRUCTED WITH FILING A (AREA SOUTH OF CHANNEL A), CHANNEL B TO BE CONSTRUCTED WITH FILING 2 (AREA NORTH OF CHANNEL A AND SOUTHWEST OF CHANNEL B), BOX CULVERTS/CROSSINGS ALONG CHANNEL B TO BE CONSTRUCTED WITH CHANNEL IMPROVEMENTS.



811 UNCC CALL BEFORE YOU DIG
 811 OR 1-800-922-1987
 Utility Notification Center of Colorado

DRAWN BY: TBI	JOB DATE: 3/22/2023	BAR IS ONE INCH ON OFFICIAL DRAWINGS: 1"
APPROVED: CMM	JOB NUMBER: 201662.03	IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD DATE: 3/27/2023		
CAD FILE: J:\2020\201662.03\CAD\DWG\CIGRADING		

NO.	DATE	BY	REVISION DESCRIPTION

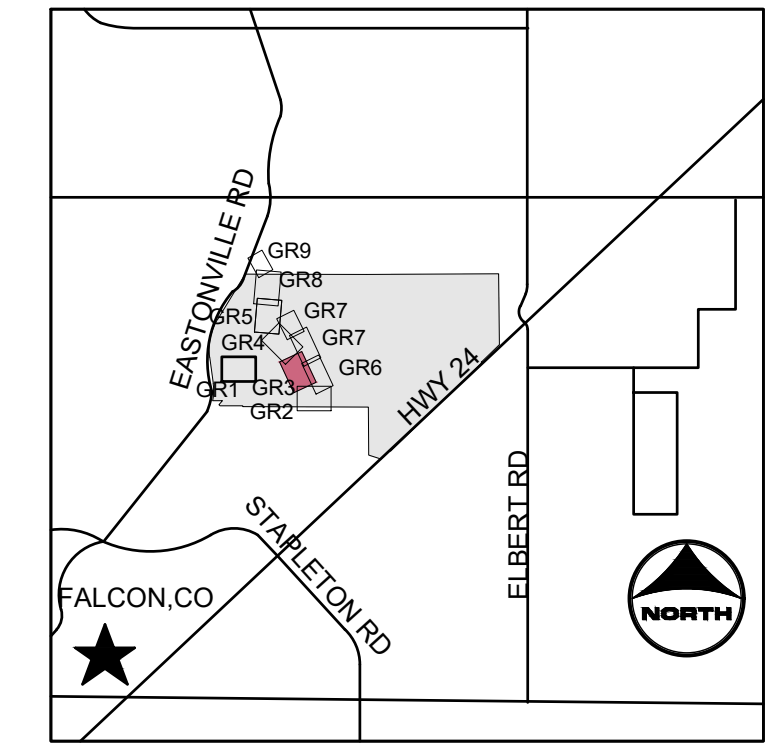
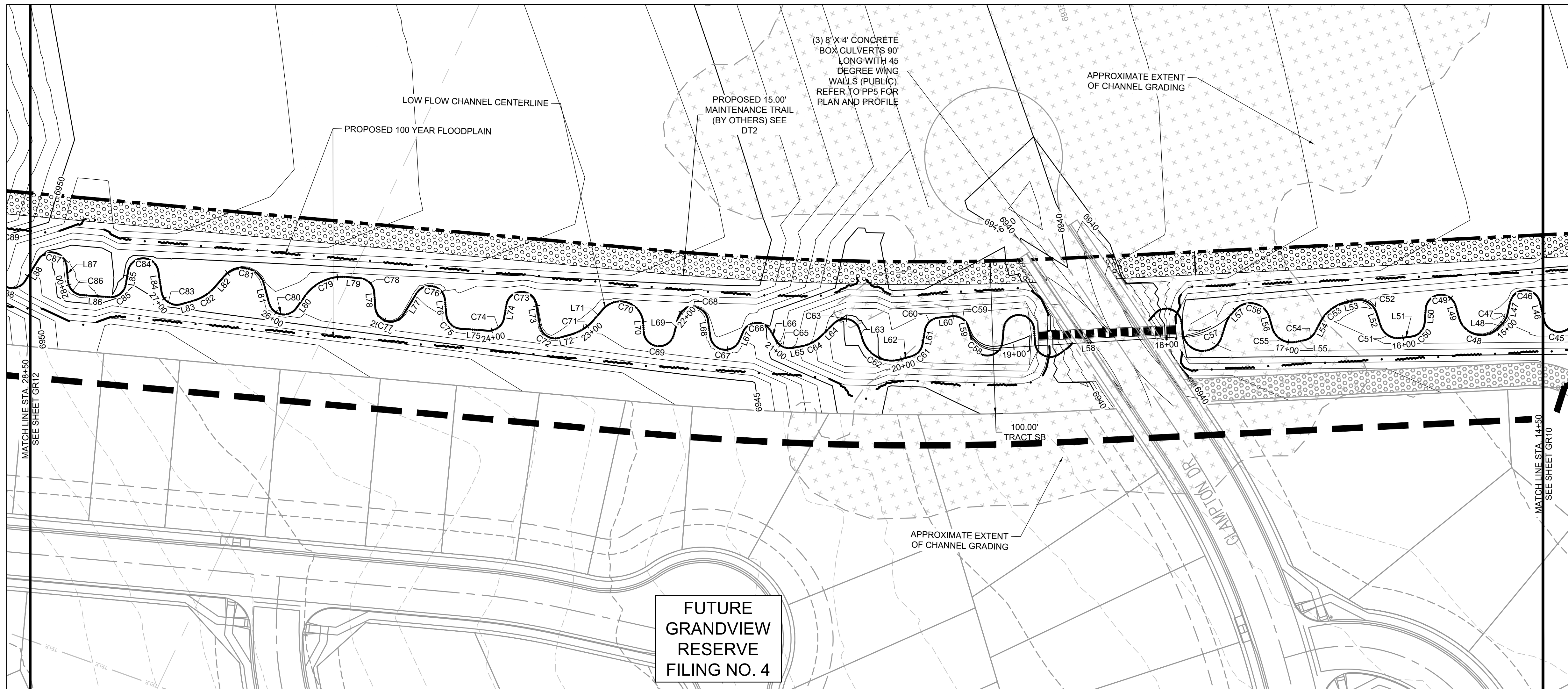
HRGreen
 HR GREEN - DENVER
 5619 DTC PARKWAY SUITE 1150
 DENVER CO 80111
 PHONE: 720.602.4999
 FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 BANKFULL GRADING

SHEET
GR10
 14

HR GREEN - DENVER: 5619 DTC PARKWAY SUITE 1150, DENVER CO 80111, PHONE: 720.602.4999, FAX: 844.273.1057
 DRAWN BY: TBI JOB DATE: 3/22/2023 BAR IS ONE INCH ON OFFICIAL DRAWINGS.
 APPROVED: CMM JOB NUMBER: 201662.03 0" = 1"
 CAD DATE: 3/27/2023 IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
 CAD FILE: J:\2020\201662.03\CAD\DWG\CIG\GRADING



PROJECT LEGEND:

- PROPERTY LINE
- ROAD CENTERLINE
- RIGHT-OF-WAY LINE
- SECTION LINE
- EXISTING EASEMENT
- 5250 PROPOSED MAJOR CONTOUR
- 5250 PROPOSED MINOR CONTOUR
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- FLOW ARROW
- LIMITS OF CONSTRUCTION
- PROPOSED 100-YR FLOODPLAIN

- EFFECTIVE 100-YR FLOODPLAIN
- EXISTING WETLANDS
- PROPOSED MAINTENANCE TRAIL

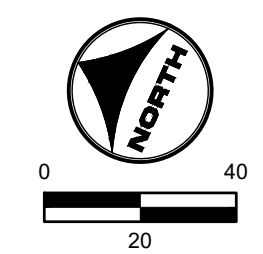
- NOTES:**
- BASIS OF BEARINGS: THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
 - BENCHMARK:**
 DESIGNATION = F 24
 PID = JK0240
 DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
 CONTROL POINT COORDINATE SYSTEM: NAVD88
 NORTHING: 1421049.80
 EASTING: 3273631.55
 ELEVATION: 6866.33
 - CHANNEL A TO BE CONSTRUCTED WITH FILING A (AREA SOUTH OF CHANNEL A), CHANNEL B TO BE CONSTRUCTED WITH FILING 2 (AREA NORTH OF CHANNEL A AND SOUTHWEST OF CHANNEL B), BOX CULVERTS/CROSSINGS ALONG CHANNEL B TO BE CONSTRUCTED WITH CHANNEL IMPROVEMENTS.

TRIBUTARY 2 BANKFULL				
Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH
L46	12.12	N51° 49' 14.03"E		
C46	26.99	N25° 30' 13.62"W	10.00	19.51
L47	8.04	S77° 10' 20.25"W		
C47	6.99	N86° 08' 37.83"W	12.00	6.89
L48	4.55	N69° 27' 35.90"W		
C48	31.01	N10° 14' 23.46"W	15.00	25.77
L49	8.57	N48° 58' 48.98"E		
C49	27.86	N30° 49' 42.51"W	10.00	19.68
L50	8.98	S69° 21' 43.50"W		
C50	13.59	N71° 42' 03.64"W	10.00	12.57
L51	7.25	N32° 45' 53.92"W		
C51	17.17	N8° 11' 39.10"E	12.02	15.75
L52	8.48	N46° 52' 45.83"E		
C52	17.72	N4° 34' 56.64"E	12.00	16.15
L53	6.05	N37° 42' 52.54"W		
C53	21.60	N62° 28' 06.85"W	25.00	20.94
L54	7.73	N87° 13' 22.65"W		
C54	8.91	N61° 41' 26.08"W	10.00	8.62
L55	6.08	N36° 09' 31.29"W		
C55	19.45	N6° 42' 42.47"E	13.00	17.69
L56	6.84	N49° 34' 58.32"E		
C56	27.37	N10° 44' 13.01"W	13.00	22.59

TRIBUTARY 2 BANKFULL				
Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH
L57	3.79	N71° 03' 24.33"W		
C57	37.62	N49° 37' 28.71"W	50.28	36.75
L58	121.59	N28° 32' 56.98"W		
C58	23.62	N11° 43' 14.04"E	16.73	21.70
L59	0.31	N52° 04' 18.04"E		
C59	14.48	N10° 35' 06.87"E	10.00	13.25
L60	9.11	N30° 54' 01.41"W		
C60	12.97	N68° 03' 39.78"W	10.00	12.08
L61	9.22	S74° 46' 40.65"W		
C61	11.31	N72° 49' 49.63"W	10.00	10.71
L62	7.94	N40° 26' 18.04"W		
C62	30.67	N3° 29' 51.97"E	20.00	27.75
L63	6.69	N47° 26' 01.99"E		
C63	20.44	N11° 07' 56.24"W	10.00	17.06
L64	11.71	N69° 41' 54.47"W		
C64	15.23	N52° 14' 52.99"W	25.00	14.99
L65	6.03	N34° 47' 52.67"W		
C65	12.18	N0° 04' 53.37"E	10.00	11.44
L66	7.66	N34° 57' 40.97"E		
C66	22.24	N28° 45' 31.61"W	10.00	17.93
L67	5.78	S87° 31' 13.57"W		
C67	26.11	N17° 40' 34.19"W	10.00	19.30

TRIBUTARY 2 BANKFULL				
Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH
L68	10.85	N57° 07' 38.05"E		
C68	27.51	N21° 40' 23.39"W	10.00	19.62
L69	11.08	S79° 31' 35.17"W		
C69	28.25	N19° 32' 09.56"W	10.00	19.75
L70	5.93	N61° 24' 07.11"E		
C70	35.46	N6° 19' 39.33"W	15.00	27.76
L71	9.63	N74° 03' 25.76"W		
C71	17.51	N57° 19' 57.73"W	30.00	17.27
L72	8.13	N40° 36' 29.69"W		
C72	16.88	N7° 44' 41.02"E	10.00	14.95
L73	13.71	N56° 05' 53.01"E		
C73	28.09	N24° 22' 32.40"W	10.00	19.72
L74	9.08	S75° 09' 02.19"W		
C74	14.66	N62° 51' 23.45"W	10.00	13.38
L75	17.98	N20° 51' 49.09"W		
C75	14.06	N19° 25' 12.37"E	10.00	12.93
L76	9.90	N59° 42' 15.77"E		
C76	24.93	N11° 42' 37.88"W	10.00	18.96
L77	16.41	N83° 07' 31.53"W		
C77	25.15	N11° 04' 35.90"W	10.00	19.03
L78	9.84	N60° 58' 19.72"E		
C78	13.48	N22° 24' 52.51"E	10.04	12.49

TRIBUTARY 2 BANKFULL				
Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH
L79	9.57	N19° 33' 20.48"W		
C79	31.24	N49° 23' 19.62"W	30.00	29.85
L80	9.97	N79° 13' 18.76"W		
C80	22.55	N14° 38' 03.74"W	10.00	18.06
L81	12.49	N49° 57' 11.27"E		
C81	32.47	N12° 03' 07.24"W	15.00	26.49
L82	9.63	N74° 03' 25.76"W		
C82	17.93	N56° 56' 48.00"W	30.03	17.66
L83	7.72	N40° 36' 29.69"W		
C83	16.88	N7° 44' 41.66"E	10.00	14.95
L84	13.71	N56° 05' 53.01"E		
C84	28.09	N24° 22' 32.40"W	10.00	19.72
L85	9.08	S75° 09' 02.19"W		
C85	14.66	N62° 51' 23.45"W	10.00	13.38
L86	17.98	N20° 51' 49.09"W		
C86	14.06	N19° 25' 13.34"E	10.00	12.93
L87	9.90	N59° 42' 15.77"E		
C87	24.93	N11° 42' 37.88"W	10.00	18.96
L88	16.41	N83° 07' 31.53"W		



811 UNCC CALL BEFORE YOU DIG
 811 OR 1-800-922-1987
 Utility Notification Center of Colorado

DRAWN BY: TBI	JOB DATE: 3/22/2023	BAR IS ONE INCH ON OFFICIAL DRAWINGS.
APPROVED: CMM	JOB NUMBER: 201662.03	0" = 1"
CAD DATE: 3/27/2023		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD FILE: J:\2020\201662.03\CAD\DWG\CIG\GRADING		

NO.	DATE	BY	REVISION DESCRIPTION

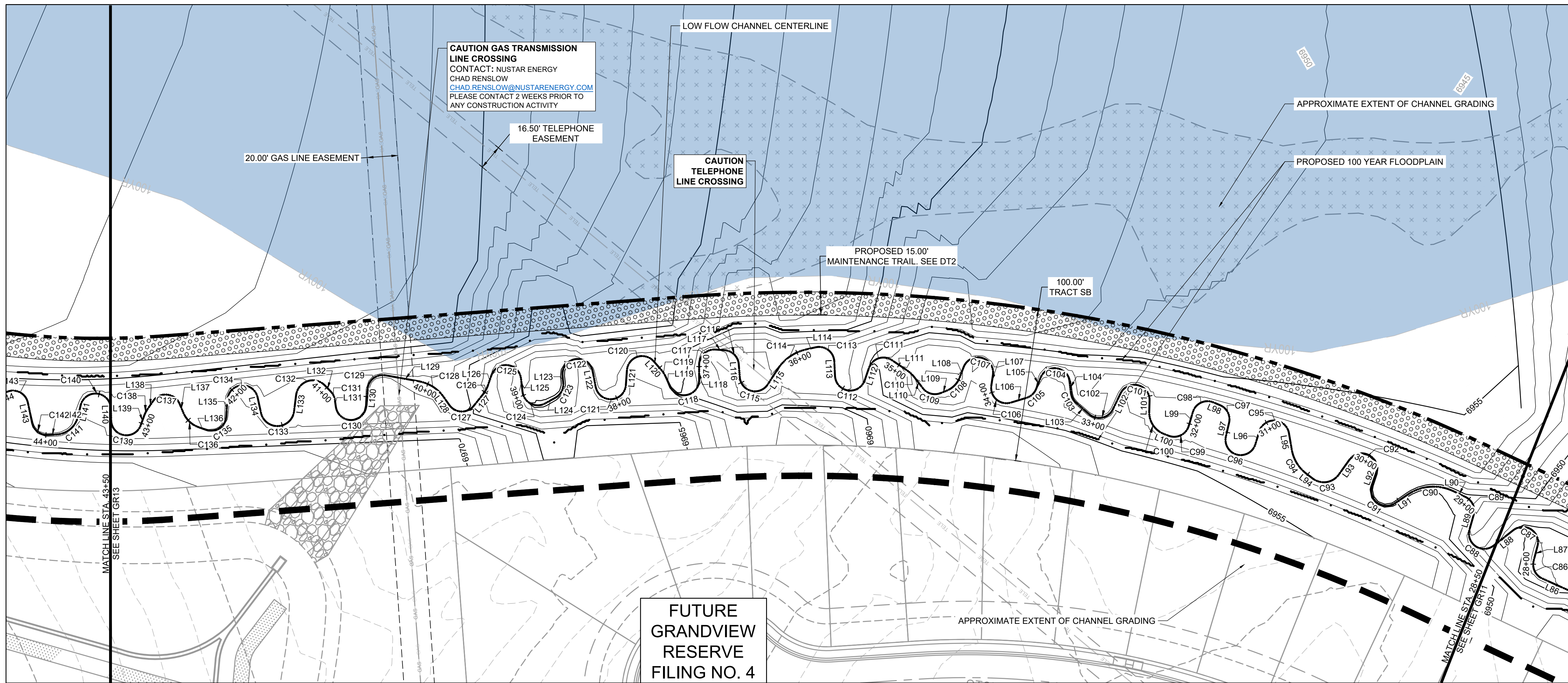
HRGreen
 HR GREEN - DENVER
 5619 DTC PARKWAY SUITE 1150
 DENVER CO 80111
 PHONE: 720.602.4999
 FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

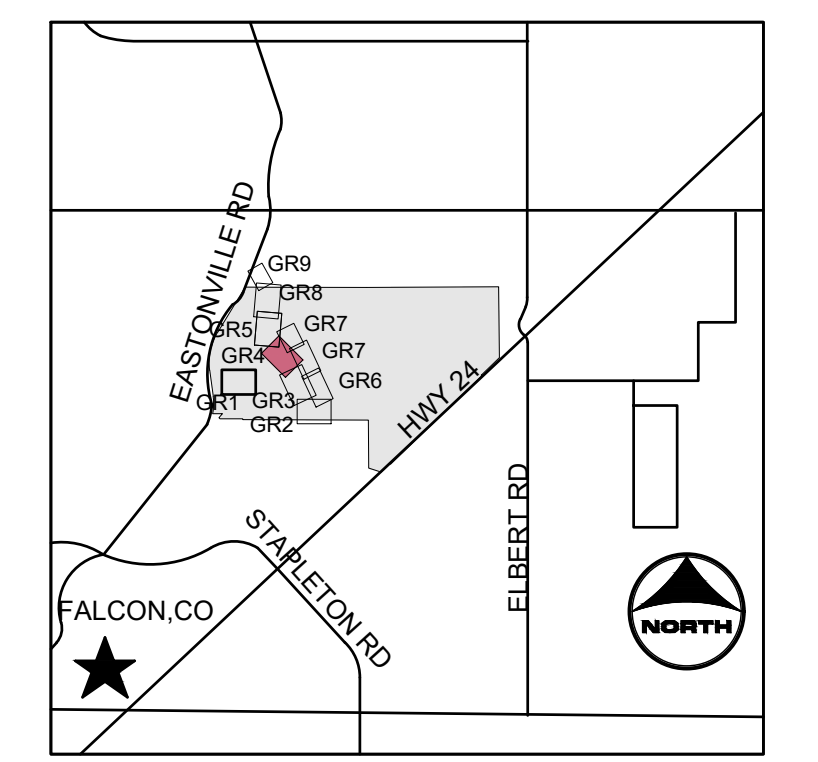
CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 BANKFULL GRADING

SHEET
GR11
 15

HR GREEN - DENVER: 5619 DTC PARKWAY SUITE 1150, DENVER CO 80111, PHONE: 720.602.4999, FAX: 844.273.1057
 DRAWN BY: TBI, JOB DATE: 3/22/2023, BAR IS ONE INCH ON OFFICIAL DRAWINGS, 0" = 1"
 APPROVED: CMM, JOB NUMBER: 201662.03, IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\DWG\CIGRADING



FUTURE GRANDVIEW RESERVE FILING NO. 4



PROJECT LEGEND:

- PROPERTY LINE
- ROAD CENTERLINE
- RIGHT-OF-WAY LINE
- SECTION LINE
- - - EXISTING EASEMENT
- - - PROPOSED MAJOR CONTOUR
- - - PROPOSED MINOR CONTOUR
- - - EXISTING MAJOR CONTOUR
- - - EXISTING MINOR CONTOUR
- FLOW ARROW
- - - LIMITS OF CONSTRUCTION
- - - PROPOSED 100-YR FLOODPLAIN

EFFECTIVE 100-YR FLOODPLAIN
 EXISTING WETLANDS
 PROPOSED MAINTENANCE TRAIL

- NOTES:**
- BASIS OF BEARINGS: THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
 - BENCHMARK:**
 DESIGNATION = F 24
 PID = JK0240
 DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
 CONTROL POINT COORDINATE SYSTEM:
 NAVD88
 NORTHING: 1421049.80
 EASTING: 3273631.55
 ELEVATION: 6866.33
 - CHANNEL A TO BE CONSTRUCTED WITH FILING A (AREA SOUTH OF CHANNEL A), CHANNEL B TO BE CONSTRUCTED WITH FILING 2 (AREA NORTH OF CHANNEL A AND SOUTHWEST OF CHANNEL B), BOX CULVERTS/CROSSINGS ALONG CHANNEL B TO BE CONSTRUCTED WITH CHANNEL IMPROVEMENTS.

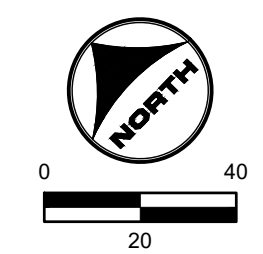
Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH
C88	25.60	N9° 49' 25.51"W	10.01	19.17
L89	9.40	N60° 58' 19.72"E		
C89	14.05	N20° 42' 28.75"E	10.00	12.93
L90	9.00	N19° 33' 20.48"W		
C90	31.24	N49° 23' 19.62"W	30.00	29.85
L91	9.97	N79° 13' 18.76"W		
C91	25.04	N7° 29' 02.80"W	10.00	18.99
L92	8.18	N64° 15' 13.15"E		
C92	28.54	N17° 30' 12.68"W	10.00	19.79
L93	12.06	S80° 44' 21.49"W		
C93	19.18	N53° 27' 44.45"W	12.00	17.21
L94	5.34	N7° 39' 51.64"W		
C94	18.75	N13° 48' 59.59"E	25.00	18.31
L95	10.94	N35° 17' 50.82"E		
C95	26.76	N41° 22' 36.53"W	10.00	19.46
L96	8.88	S61° 56' 54.42"W		
C96	30.75	N29° 57' 02.15"W	10.00	19.99
L97	9.16	N58° 09' 01.28"E		
C97	14.05	N17° 54' 31.25"E	10.00	12.92
L98	4.80	N22° 19' 58.77"W		
C98	16.81	N70° 28' 52.54"W	10.00	14.90
L99	9.34	S61° 22' 13.69"W		

Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH
C99	16.60	N71° 05' 03.19"W	10.00	14.76
L100	3.40	N23° 32' 19.06"W		
C100	18.39	N11° 35' 14.13"E	15.00	17.26
L101	7.45	N46° 42' 47.32"E		
C101	27.23	N31° 16' 54.81"W	10.00	19.56
L102	11.56	S70° 43' 23.06"W		
C102	18.45	N56° 25' 05.12"W	10.00	15.94
L103	11.04	N3° 33' 33.30"W		
C103	7.18	N17° 00' 28.86"E	10.00	7.03
L104	7.94	N37° 34' 32.53"E		
C104	26.39	N38° 01' 19.21"W	10.00	19.37
L105	7.71	S66° 22' 49.05"W		
C105	9.04	N87° 43' 09.16"W	10.00	8.74
L106	10.63	N61° 49' 07.38"W		
C106	20.13	N4° 08' 31.80"W	10.00	16.90
L107	7.18	N53° 32' 03.79"E		
C107	29.03	N29° 37' 53.19"W	10.00	19.86
L108	7.51	S65° 47' 53.53"W		
C108	12.50	S89° 40' 03.85"W	15.00	12.14
L109	4.30	N66° 27' 45.83"W		
C109	12.86	N29° 37' 38.53"W	10.00	11.99
L110	9.31	N7° 12' 29.90"E		

Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH
C110	6.34	N1° 52' 20.28"W	20.00	6.31
L111	12.01	N10° 57' 10.46"W		
C111	18.36	N63° 33' 38.89"W	10.00	15.89
L112	8.57	S63° 49' 52.68"W		
C112	27.63	N37° 01' 43.76"W	10.00	19.64
L113	9.63	N42° 06' 38.48"E		
C113	17.41	N7° 45' 10.26"W	10.00	15.29
L114	6.55	N57° 36' 59.00"W		
C114	23.33	N79° 53' 57.95"W	30.00	22.75
L115	11.69	S77° 49' 02.26"W		
C115	24.92	N30° 47' 49.85"W	10.00	18.95
L116	8.54	N40° 35' 18.03"E		
C116	14.25	N0° 13' 44.58"W	10.00	13.07
L117	6.03	N41° 02' 45.55"W		
C117	16.43	N88° 07' 30.46"W	10.00	14.65
L118	9.89	S44° 47' 44.63"W		
C118	27.21	N57° 14' 52.82"W	10.00	19.56
L119	6.59	N20° 42' 28.68"E		
C119	6.02	N12° 04' 56.94"E	20.00	6.00
L120	7.20	N3° 27' 24.15"E		
C120	23.46	N63° 44' 54.30"W	10.00	18.44
L121	9.75	S49° 02' 47.25"W		

Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH
C121	28.82	N48° 22' 34.68"W	10.00	19.83
L122	10.32	N34° 12' 03.40"E		
C122	30.57	N53° 22' 36.38"W	10.00	19.98
L123	4.56	S39° 02' 43.84"W		
C123	11.68	S72° 30' 24.37"W	10.00	11.03
L124	7.77	N74° 01' 55.09"W		
C124	19.62	N17° 48' 40.14"W	10.00	16.62
L125	8.77	N38° 24' 34.82"E		
C125	26.96	N38° 49' 54.33"W	10.00	19.51
L126	6.80	S63° 55' 35.19"W		
C126	6.95	S73° 52' 28.77"W	20.00	6.91
L127	9.62	S83° 49' 22.37"W		
C127	18.49	N43° 12' 01.69"W	10.00	15.97
L128	6.51	N9° 46' 34.25"E		
C128	19.46	N12° 31' 16.03"W	25.00	18.97
L129	22.46	N34° 49' 06.32"W		
C129	16.69	N82° 37' 49.88"W	10.00	14.82
L130	11.08	S49° 33' 25.22"W		
C130	29.21	N46° 45' 12.25"W	10.00	19.88
L131	4.58	N36° 56' 10.28"E		
C131	6.28	N18° 56' 28.97"E	10.00	6.18
L132	5.56	N0° 56' 47.66"E		

Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH
C132	24.70	N63° 23' 02.96"W	11.00	19.83
L133	10.86	S52° 17' 06.42"W		
C133	30.80	N47° 30' 08.73"W	11.00	21.68
L134	10.39	N32° 42' 36.11"E		
C134	28.56	N49° 06' 33.36"W	10.00	19.80
L135	11.09	S49° 04' 18.88"W		
C135	18.28	N78° 32' 58.75"W	10.00	15.84
L136	4.96	N26° 10' 15.15"W		
C136	14.36	N1° 57' 51.31"W	17.00	13.94
L137	6.32	N22° 14' 32.53"E		
C137	21.42	N39° 07' 50.41"W	10.00	17.56
L138	6.17	S79° 29' 45.47"W		
C138	5.15	S72° 07' 04.39"W	20.00	5.14
L139	6.44	S64° 44' 22.55"W		
C139	27.69	N35° 56' 37.45"W	10.00	19.65



811 UNCC CALL BEFORE YOU DIG
 811 OR 1-800-922-1987
 Utility Notification Center of Colorado

DRAWN BY: TBI, JOB DATE: 3/22/2023, BAR IS ONE INCH ON OFFICIAL DRAWINGS, 0" = 1"
 APPROVED: CMM, JOB NUMBER: 201662.03, IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\DWG\CIGRADING

NO.	DATE	BY	REVISION DESCRIPTION

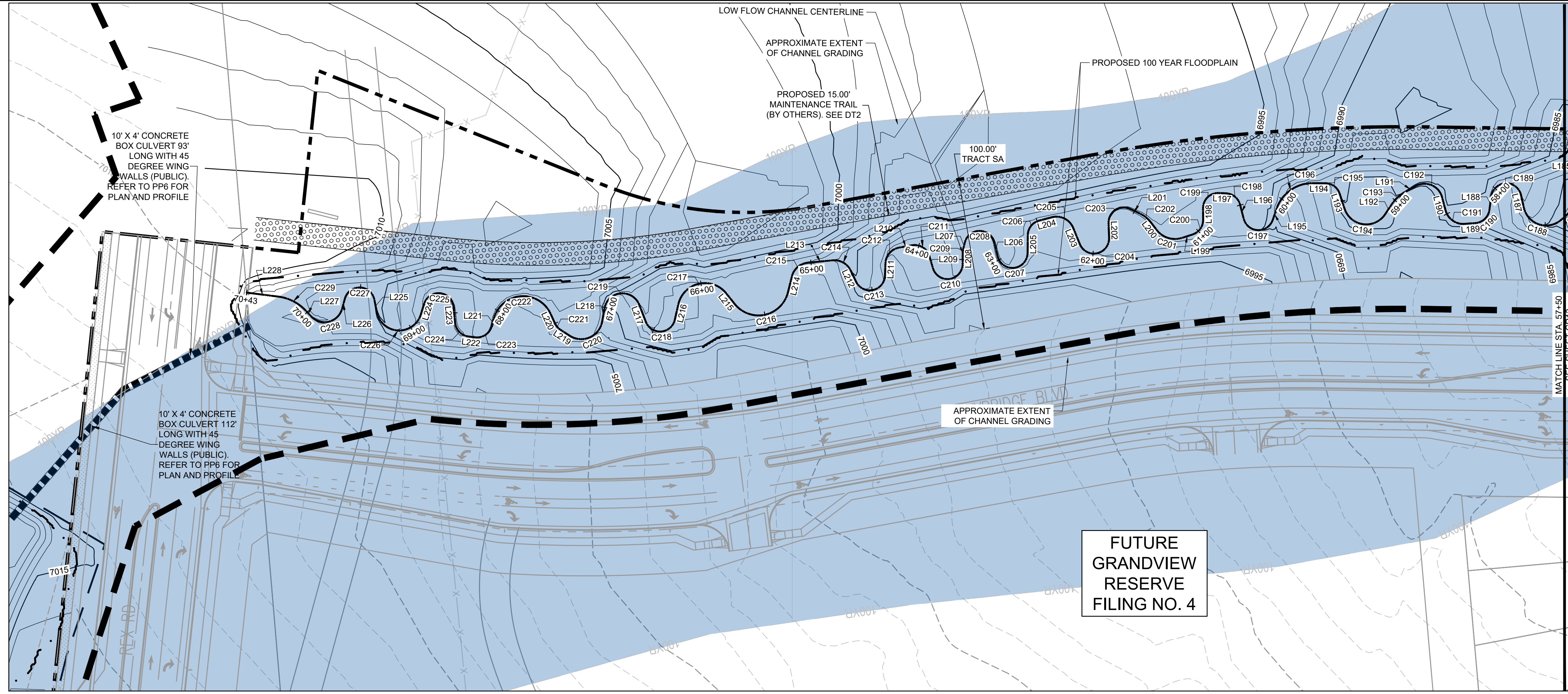
HRGreen
 HR GREEN - DENVER
 5619 DTC PARKWAY SUITE 1150
 DENVER CO 80111
 PHONE: 720.602.4999
 FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

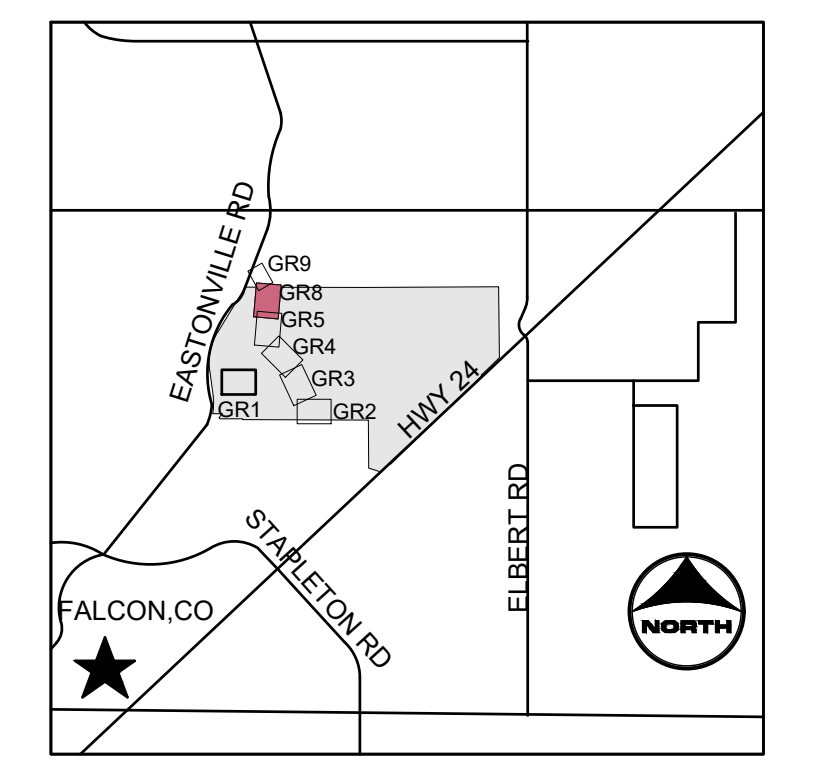
CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 BANKFULL GRADING

SHEET
GR12
 16

HR GREEN - DENVER: 5619 DTC PARKWAY SUITE 1150, DENVER CO 80111, PHONE: 720.602.4999, FAX: 844.273.1057
 10' X 4' CONCRETE BOX CULVERT 93' LONG WITH 45 DEGREE WING WALLS (PUBLIC). REFER TO PP6 FOR PLAN AND PROFILE.
 10' X 4' CONCRETE BOX CULVERT 112' LONG WITH 45 DEGREE WING WALLS (PUBLIC). REFER TO PP6 FOR PLAN AND PROFILE.
 DRAWN BY: TBI JOB DATE: 3/22/2023 BAR IS ONE INCH ON OFFICIAL DRAWINGS.
 APPROVED: CMM JOB NUMBER: 201662.03 0" = 1"
 CAD DATE: 3/27/2023 IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
 CAD FILE: J:\2020\201662.03\CAD\dwg\CIGRADING



FUTURE GRANDVIEW RESERVE FILING NO. 4



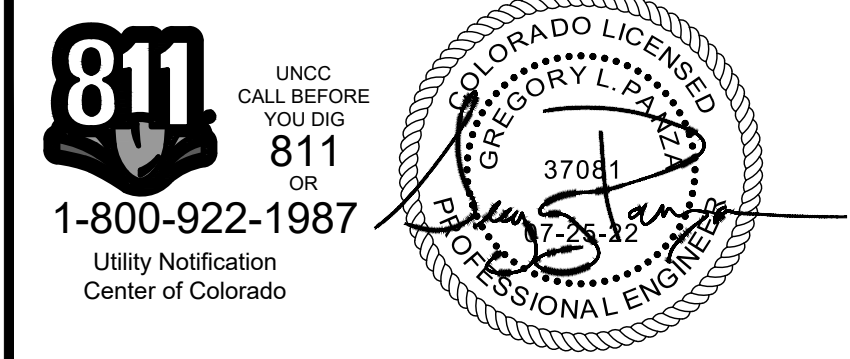
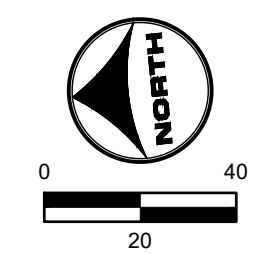
PROJECT LEGEND:

- PROPERTY LINE
- ROAD CENTERLINE
- RIGHT-OF-WAY LINE
- SECTION LINE
- - - EXISTING EASEMENT
- - - PROPOSED MAJOR CONTOUR
- - - PROPOSED MINOR CONTOUR
- - - EXISTING MAJOR CONTOUR
- - - EXISTING MINOR CONTOUR
- FLOW ARROW
- LIMITS OF CONSTRUCTION
- PROPOSED 100-YR FLOODPLAIN

- EFFECTIVE 100-YR FLOODPLAIN
- EXISTING WETLANDS
- PROPOSED MAINTENANCE TRAIL

- NOTES:**
1. BASIS OF BEARINGS: THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
 2. BENCHMARK: DESIGNATION = F 24
PID = JK0240
DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
CONTROL POINT COORDINATE SYSTEM: NAVD88
NORTHING: 1421049.80
EASTING: 3273631.55
ELEVATION: 6866.33
 3. CHANNEL A TO BE CONSTRUCTED WITH FILING A (AREA SOUTH OF CHANNEL A), CHANNEL B TO BE CONSTRUCTED WITH FILING 2 (AREA NORTH OF CHANNEL A AND SOUTHWEST OF CHANNEL B), BOX CULVERTS/CROSSINGS ALONG CHANNEL B TO BE CONSTRUCTED WITH CHANNEL IMPROVEMENTS.

TRIBUTARY 2 BANKFULL					TRIBUTARY 2 BANKFULL					TRIBUTARY 2 BANKFULL					TRIBUTARY 2 BANKFULL									
Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH	Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH	Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH	Line #/ Curve #	LENGTH	LINE/ CHORD DIRECTION	RADIUS	CHORD LENGTH					
C188	31.01	N23° 03' 08.00"E	15.00	25.77	C199	16.25	N38° 56' 32.72"W	10.00	14.52	C209	2.40	N77° 53' 34.21"W	10.00	2.40	C229	20.70	N31° 59' 12.89"E	30.00	20.30					
L187	8.57	N82° 16' 20.45"E			L198	7.68	N85° 29' 08.51"W			L209	8.46	N78° 32' 34.74"E			L218	8.82	N75° 07' 32.91"W			L228	21.01	N12° 12' 56.98"E		
C189	27.86	N2° 27' 47.70"E	10.00	19.68	C200	12.69	N49° 08' 07.23"W	10.00	11.85	C210	14.61	N36° 42' 02.06"E	10.00	13.34	L220	4.50	N12° 15' 40.88"E			C228	25.40	N8° 52' 21.36"W	12.00	20.92
L188	8.98	N77° 20' 45.04"W			L199	7.41	N12° 47' 05.96"W			L210	8.67	N5° 08' 30.61"W			L221	5.41	N69° 34' 19.48"W			L226	7.02	N69° 30' 11.53"W		
C190	13.59	N38° 24' 33.75"W	10.00	12.57	C201	18.38	N22° 19' 25.40"E	15.00	17.25	C211	14.91	N43° 58' 27.24"W	11.00	13.79	L222	4.50	N12° 15' 40.88"E			C227	26.80	N7° 15' 53.12"E	10.00	19.47
L189	7.25	N0° 31' 37.54"E			L200	6.36	N57° 25' 56.76"E			L211	8.19	N82° 48' 23.87"W			L223	10.57	N89° 37' 23.01"E			L227	5.33	N51° 45' 28.05"E		
C191	16.68	N40° 20' 56.81"E	12.00	15.37	C202	9.39	N43° 58' 55.22"E	20.00	9.30	C212	14.91	N43° 58' 27.24"W	11.00	13.79	L224	7.19	N68° 07' 13.58"W			C226	39.83	N7° 57' 20.84"E	15.00	29.12
L190	8.96	N80° 10' 17.29"E			L201	7.15	N30° 31' 53.67"E			L212	8.16	N69° 25' 20.09"E			L225	8.26	N84° 01' 56.33"E			L225	8.26	N84° 01' 56.33"E		
C192	21.88	N27° 56' 06.99"E	12.00	18.97	C203	20.51	N28° 13' 22.72"W	10.00	17.10	C213	26.57	N6° 41' 31.89"W	10.00	19.42	L226	7.02	N69° 30' 11.53"W			C225	27.53	N10° 45' 04.72"E	10.00	19.62
L191	8.16	N24° 18' 02.22"W			L202	9.76	N86° 58' 39.11"W			L214	10.77	N71° 10' 19.33"W			L227	5.33	N51° 45' 28.05"E			L224	7.19	N68° 07' 13.58"W		
C193	11.91	N37° 57' 08.05"W	25.00	11.80	C204	27.90	N7° 03' 17.54"W	10.00	19.69	C214	14.65	N34° 26' 50.24"E	12.00	13.76	C228	25.40	N8° 52' 21.36"W	12.00	20.92	L224	7.19	N68° 07' 13.58"W		
L192	7.82	N51° 36' 13.15"W			L203	11.50	N72° 52' 05.09"E			L215	8.98	N56° 26' 32.67"E			L228	21.01	N12° 12' 56.98"E			C226	39.83	N7° 57' 20.84"E	15.00	29.12
C194	33.65	N12° 39' 37.26"E	15.00	27.02	C205	17.33	N31° 30' 17.31"E	12.00	15.86	C216	44.55	N7° 21' 53.33"W	20.00	35.89										
L193	10.43	N76° 55' 28.56"E			L204	8.67	N9° 51' 30.46"W			L217	11.94	N73° 56' 22.67"E												
C195	12.48	N41° 09' 53.91"E	10.00	11.69	C206	13.00	N47° 06' 03.14"W	10.00	12.10	C217	40.28	N7° 39' 50.77"W	18.00	32.39										
L194	8.34	N5° 24' 21.11"E			L205	11.78	N84° 20' 35.82"W			L218	10.56	N72° 16' 23.80"W												
C196	31.18	N30° 19' 39.76"W	25.00	29.20	C207	28.95	N1° 25' 03.64"W	10.00	19.85	C218	25.52	N0° 49' 59.43"E	10.00	19.14										
L195	7.80	N66° 03' 40.62"W			L206	9.39	N81° 30' 28.54"E			L219	7.63	N38° 03' 34.92"E												
C197	25.58	N7° 13' 52.01"E	10.00	19.16	C208	26.62	N5° 15' 07.22"E	10.00	19.43															
L196	9.62	N80° 31' 24.64"E			L207	4.72	N71° 00' 14.11"W																	
C198	12.73	N44° 03' 44.76"E	10.00	11.89	C209	2.40	N77° 53' 34.21"W	10.00	2.40															
L197	4.77	N7° 36' 03.07"E			L208	7.28	N84° 46' 54.32"W																	



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YOU DIG
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OR
1-800-922-1987
Utility Notification
Center of Colorado

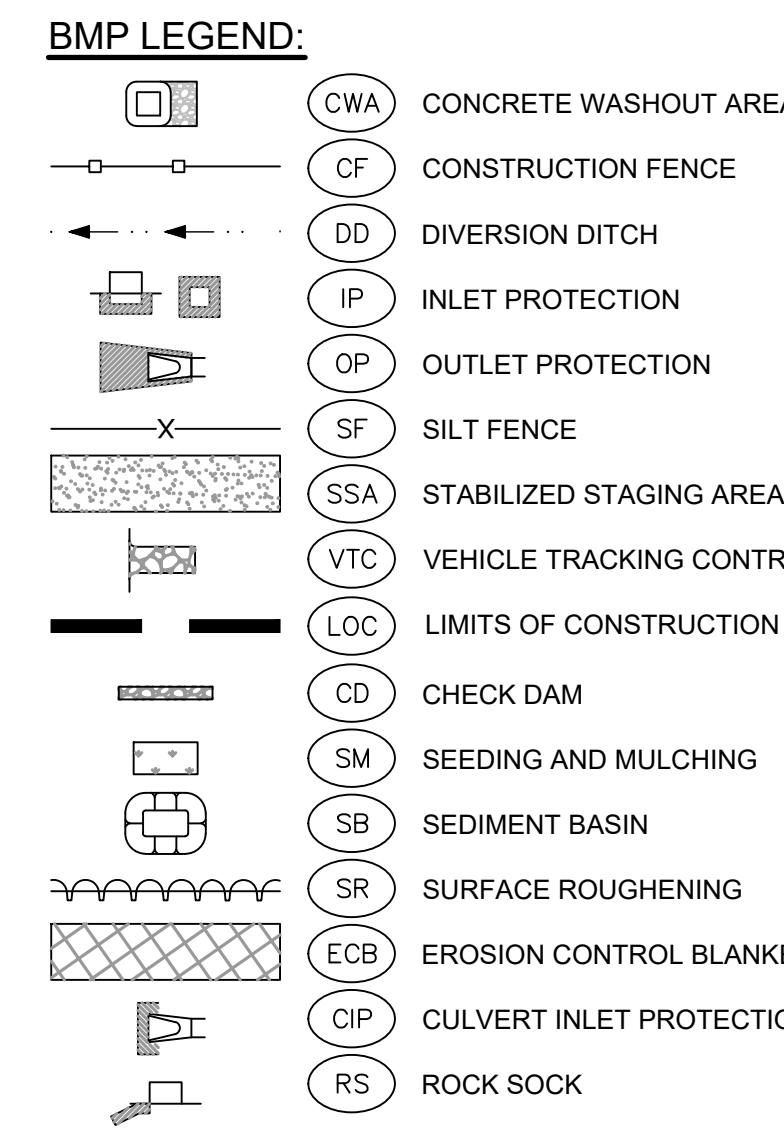
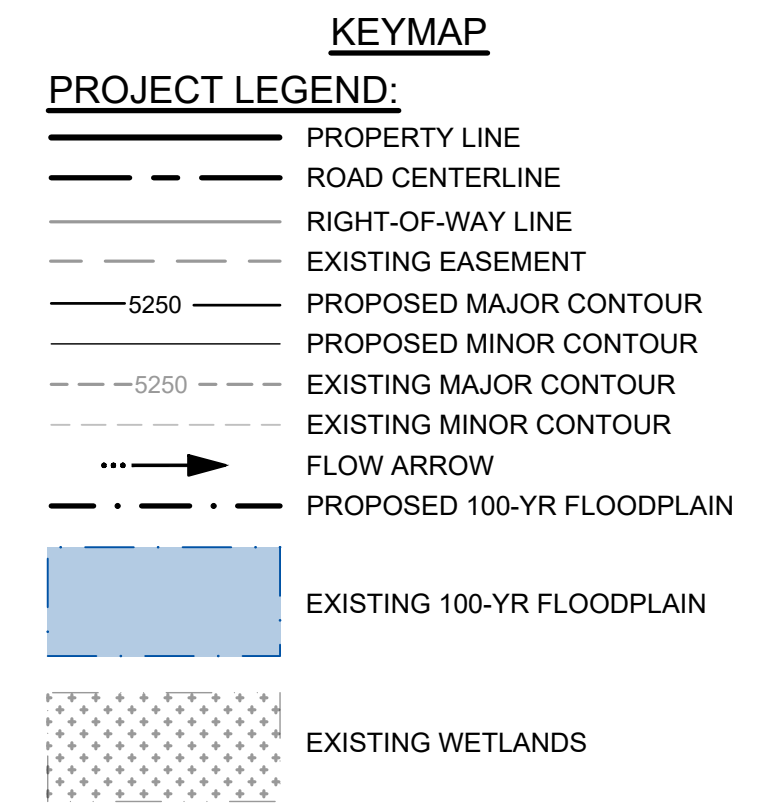
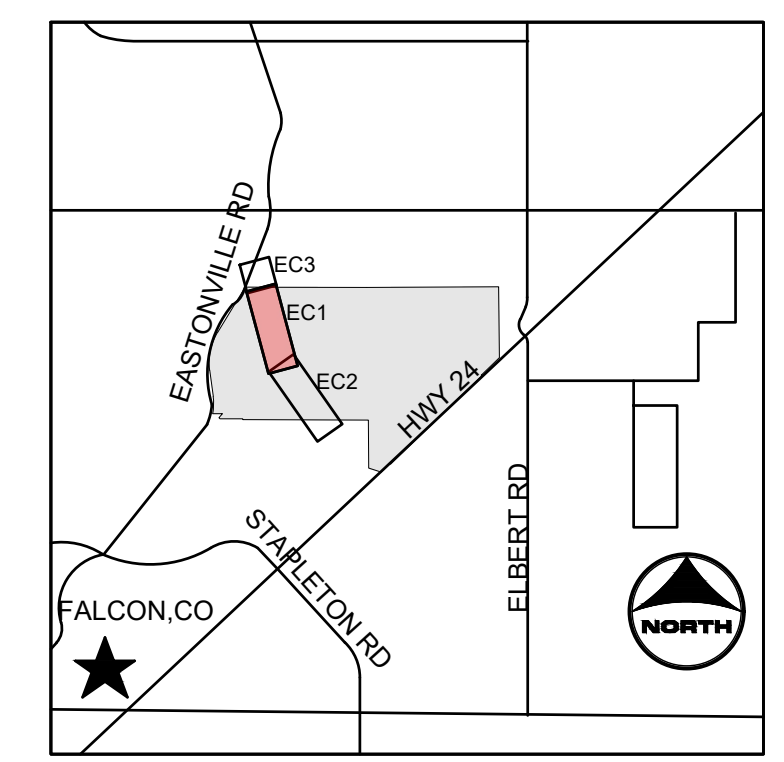
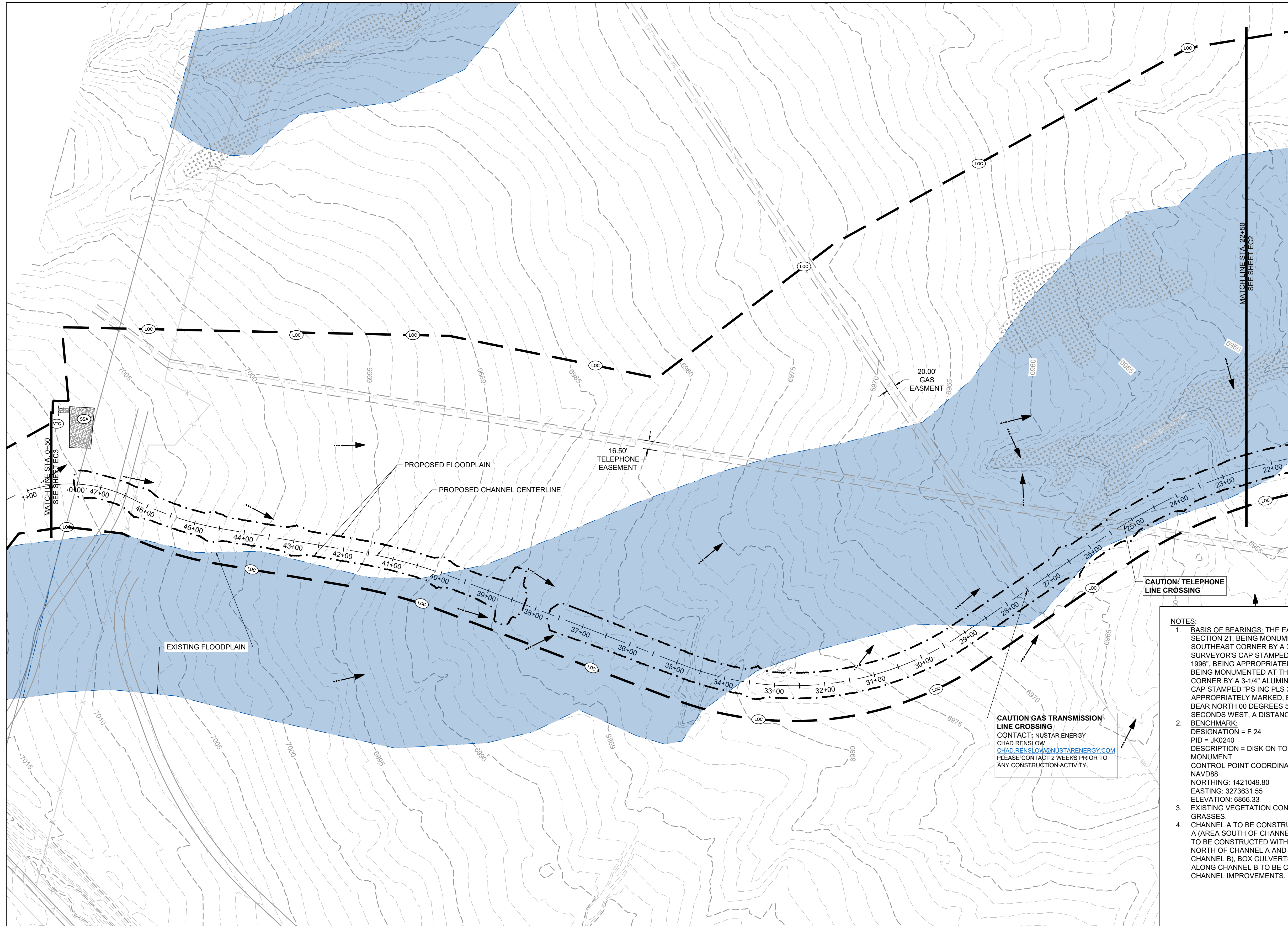
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HRGreen
HR GREEN - DENVER
5619 DTC PARKWAY SUITE 1150
DENVER CO 80111
PHONE: 720.602.4999
FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
FALCON, COLORADO

CONSTRUCTION DOCUMENTS
TRIBUTARY 2 BANKFULL GRADING

SHEET
GR14
18

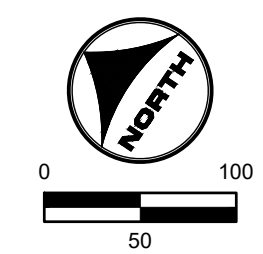


NOTES:

- BASIS OF BEARINGS:** THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
- BENCHMARK:** DESIGNATION = F 24
DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
CONTROL POINT COORDINATE SYSTEM: NAVD88
NORTHING: 1421049.80
EASTING: 3273631.55
ELEVATION: 6866.33
- EXISTING VEGETATION CONSISTS OF NATIVE GRASSES.
- CHANNEL A TO BE CONSTRUCTED WITH FILING A (AREA SOUTH OF CHANNEL A), CHANNEL B TO BE CONSTRUCTED WITH FILING 2 (AREA NORTH OF CHANNEL A AND SOUTHWEST OF CHANNEL B), BOX CULVERTS/ CROSSINGS ALONG CHANNEL B TO BE CONSTRUCTED WITH CHANNEL IMPROVEMENTS.

CAUTION GAS TRANSMISSION LINE CROSSING
CONTACT: NUSTAR ENERGY
CHAD RENSLow@NUSTARENERGY.COM
PLEASE CONTACT 2 WEEKS PRIOR TO ANY CONSTRUCTION ACTIVITY.

CAUTION: TELEPHONE LINE CROSSING



811 UNCC CALL BEFORE YOU DIG
811 OR 1-800-922-1987
Utility Notification Center of Colorado

HR GREEN Xref: xref-d-01; INITIAL EROSION CONTROL KEY; 01-XC-PR-100YR-FP-DELINERATION

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APPROVED: CMM	JOB NUMBER: 201662.03	0
CAD DATE: 3/27/2023		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
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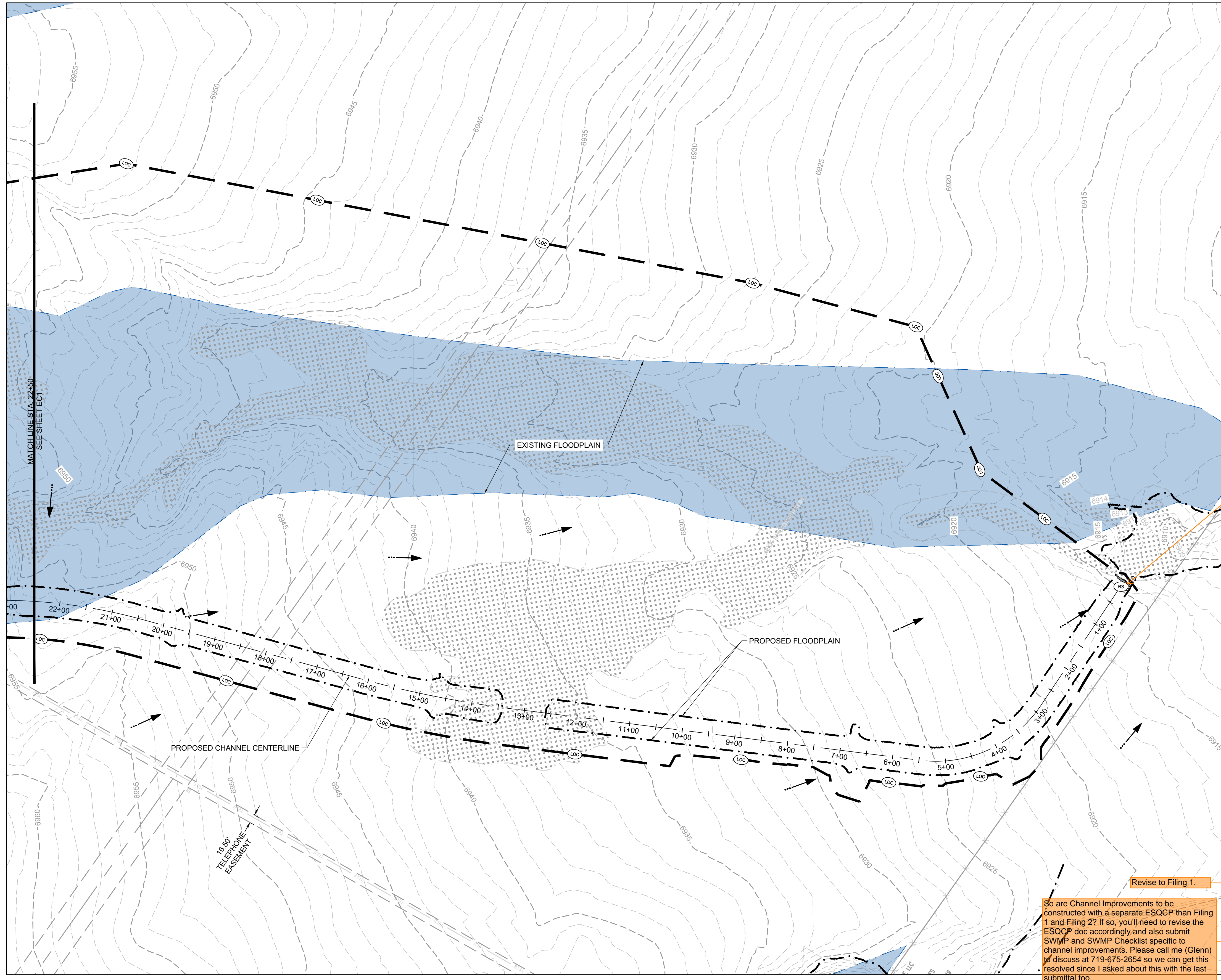
NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - DENVER
5619 DTC PARKWAY SUITE 1150
DENVER CO 80111
PHONE: 720.602.4999
FAX: 844.273.1057

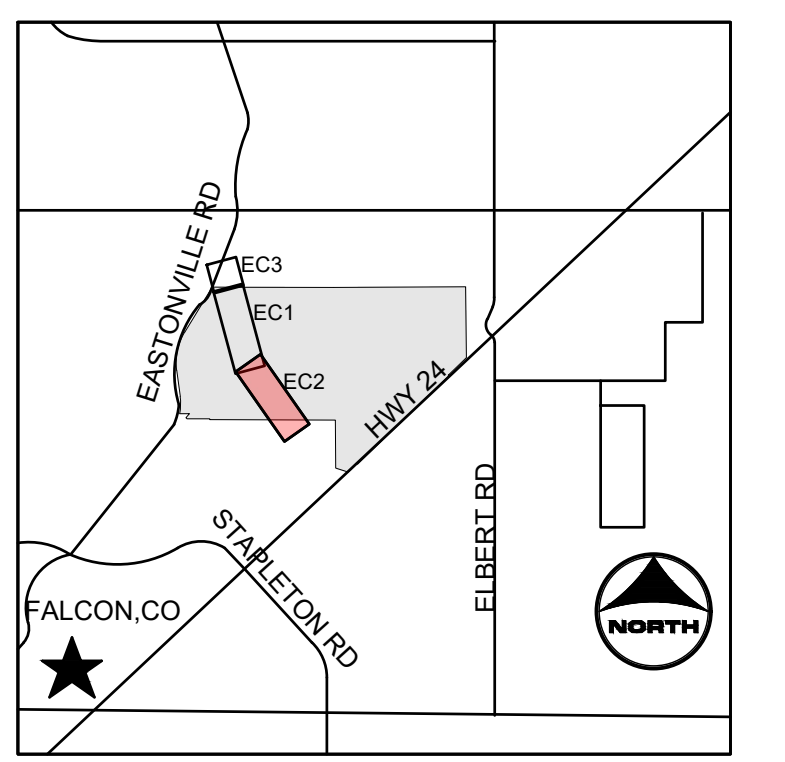
GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
FALCON, COLORADO

CONSTRUCTION DOCUMENTS
INITIAL EROSION CONTROL

SHEET
EC1
19



Unresolved from Review 1:
- Address GEC Checklist Items b, e, m, and p.



- KEYMAP**
- PROJECT LEGEND:**
- PROPERTY LINE
 - ROAD CENTERLINE
 - RIGHT-OF-WAY LINE
 - EXISTING EASEMENT
 - 5250— PROPOSED MAJOR CONTOUR
 - 5250— EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - EXISTING MINOR CONTOUR
 - FLOW ARROW
 - PROPOSED 100-YR FLOODPLAIN
 - EXISTING 100-YR FLOODPLAIN
 - EXISTING WETLANDS

- BMP LEGEND:**
- CWA CONCRETE WASHOUT AREA
 - CF CONSTRUCTION FENCE
 - DD DIVERSION DITCH
 - IP INLET PROTECTION
 - OP OUTLET PROTECTION
 - SF SILT FENCE
 - SSA STABILIZED STAGING AREA
 - VTC VEHICLE TRACKING CONTROL
 - LOC LIMITS OF CONSTRUCTION
 - CD CHECK DAM
 - SM SEEDING AND MULCHING
 - SB SEDIMENT BASIN
 - SR SURFACE ROUGHENING
 - ECB EROSION CONTROL BLANKET
 - CIP CULVERT INLET PROTECTION
 - RS ROCK SOCK

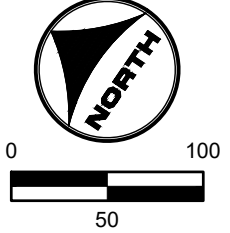
- NOTES:**
- BASIS OF BEARINGS:** THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
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PID = JK0240
DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
CONTROL POINT COORDINATE SYSTEM:
NAVD88
NORTHING: 1421049.80
EASTING: 3273631.55
ELEVATION: 6866.33
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Provide detail for RS.

Unresolved Review 1 comment: Items H and M. 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.

Revise to Filing 1.

So are Channel Improvements to be constructed with a separate ESQCP than Filing 1 and Filing 2? If so, you'll need to revise the ESQCP doc accordingly and also submit SWMP and SWMP Checklist specific to channel improvements. Please call me (Glenn) to discuss at 719-675-2654 so we can get this resolved since I asked about this with the last submittal too.



811 UNCC CALL BEFORE YOU DIG
811 OR 1-800-922-1987
Utility Notification Center of Colorado

FLORIDA LICENSED PROFESSIONAL ENGINEER
37081
7-25-12

HR GREEN Xref: xgfc-dh01; INITIAL EROSION CONTROL KEY; 01-XC-INITIAL EC; HRG-20X_EBase; 01-XC-PR-100YR_FP_DELINEATION

DRAWN BY: TBI	JOB DATE: 3/22/2023	BAR IS ONE INCH ON OFFICIAL DRAWINGS: 1"
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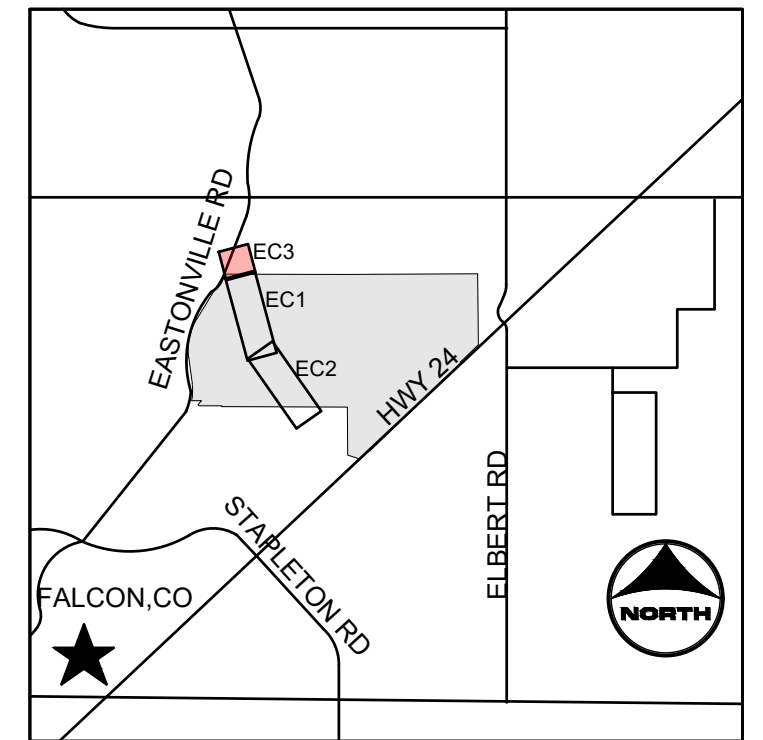
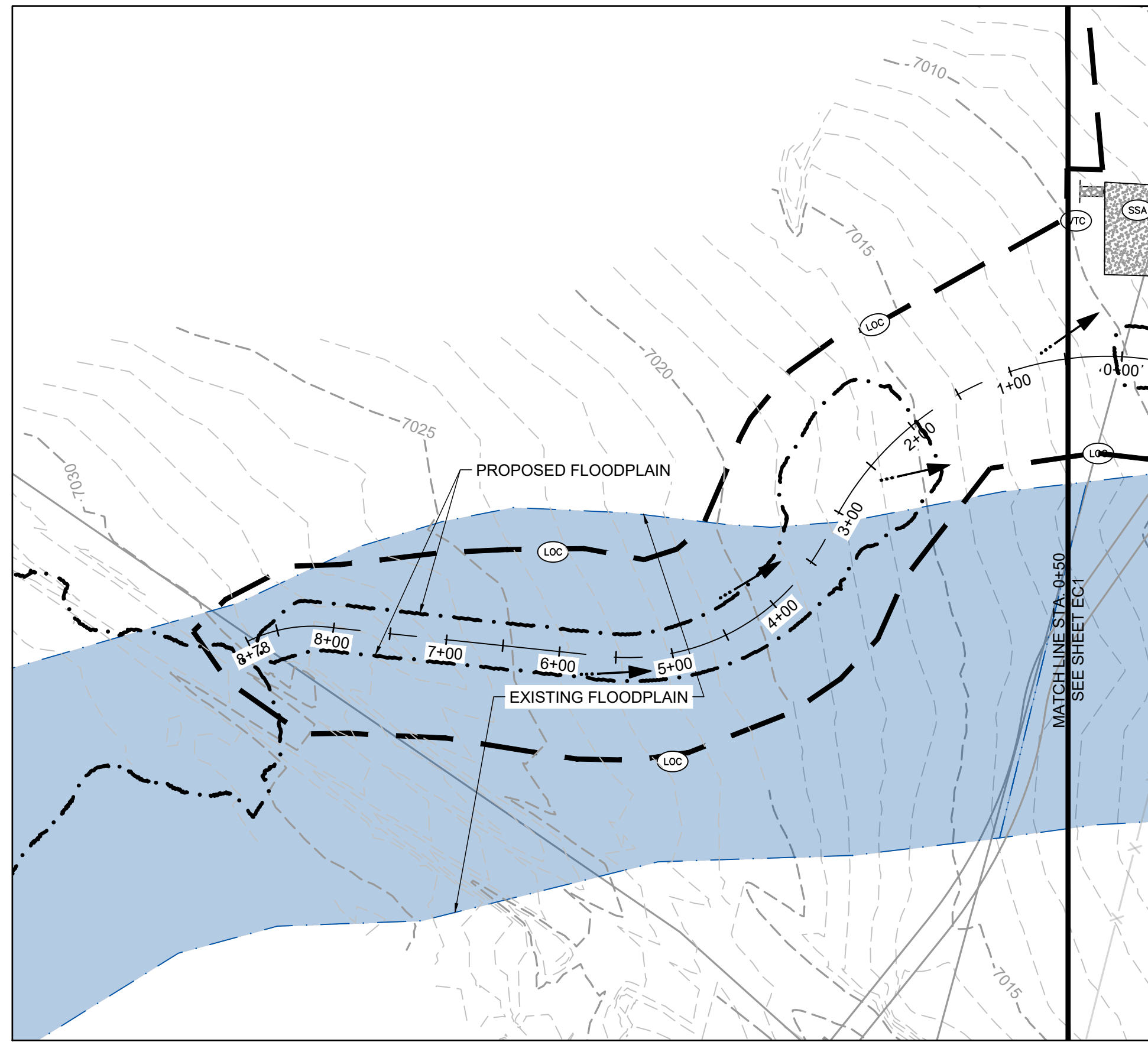
NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
HR GREEN - DENVER
5619 DTC PARKWAY SUITE 1150
DENVER CO 80111
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GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
FALCON, COLORADO

CONSTRUCTION DOCUMENTS
INITIAL EROSION CONTROL

SHEET
EC2
20



KEYMAP

PROJECT LEGEND:

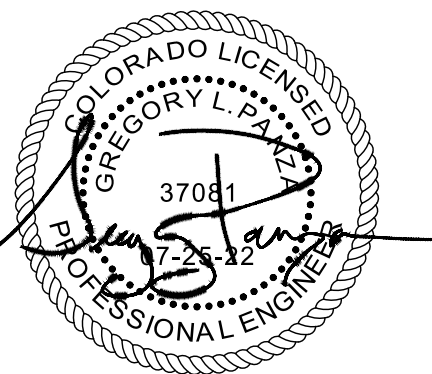
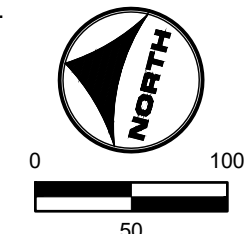
- — — — — PROPERTY LINE
- — — — — ROAD CENTERLINE
- — — — — RIGHT-OF-WAY LINE
- — — — — EXISTING EASEMENT
- — — — — PROPOSED MAJOR CONTOUR
- — — — — EXISTING MAJOR CONTOUR
- — — — — PROPOSED MINOR CONTOUR
- — — — — EXISTING MINOR CONTOUR
- — — — — FLOW ARROW
- — — — — PROPOSED 100-YR FLOODPLAIN
- EXISTING 100-YR FLOODPLAIN
- EXISTING WETLANDS

BMP LEGEND:

- CWA CONCRETE WASHOUT AREA
- CF CONSTRUCTION FENCE
- DD DIVERSION DITCH
- IP INLET PROTECTION
- OP OUTLET PROTECTION
- SF SILT FENCE
- SSA STABILIZED STAGING AREA
- VTC VEHICLE TRACKING CONTROL
- LOC LIMITS OF CONSTRUCTION
- CD CHECK DAM
- SM SEEDING AND MULCHING
- SB SEDIMENT BASIN
- SR SURFACE ROUGHENING
- ECB EROSION CONTROL BLANKET
- CIP CULVERT INLET PROTECTION
- RS ROCK SOCK

NOTES:

- BASIS OF BEARINGS:** THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
BENCHMARK:
DESIGNATION = F 24
PID = JK0240
CONTROL POINT COORDINATE SYSTEM:
NAVD88
NORTHING: 1421049.80
EASTING: 3273631.55
ELEVATION: 6866.33
- EXISTING VEGETATION CONSISTS OF NATIVE GRASSES.
- CHANNEL A TO BE CONSTRUCTED WITH FILING 1 (AREA SOUTH OF CHANNEL A), CHANNEL B TO BE CONSTRUCTED WITH FILING 2 (AREA NORTH OF CHANNEL A AND SOUTHWEST OF CHANNEL B), BOX CULVERTS/ CROSSINGS ALONG CHANNEL B TO BE CONSTRUCTED WITH CHANNEL IMPROVEMENTS.



HR GREEN Xref: xgs-1-dh01: INITIAL EROSION CONTROL KEY: 01-XC-PR-100YR-FP-DELINEATION

DRAWN BY: TBI	JOB DATE: 3/22/2023	BAR IS ONE INCH ON OFFICIAL DRAWINGS.
APPROVED: CMM	JOB NUMBER: 201662.03	0" = 1"
CAD DATE: 3/27/2023		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD FILE: J:\2020\201662.03\CAD\dwgs\CI\INITIAL EROSION CONTROL		

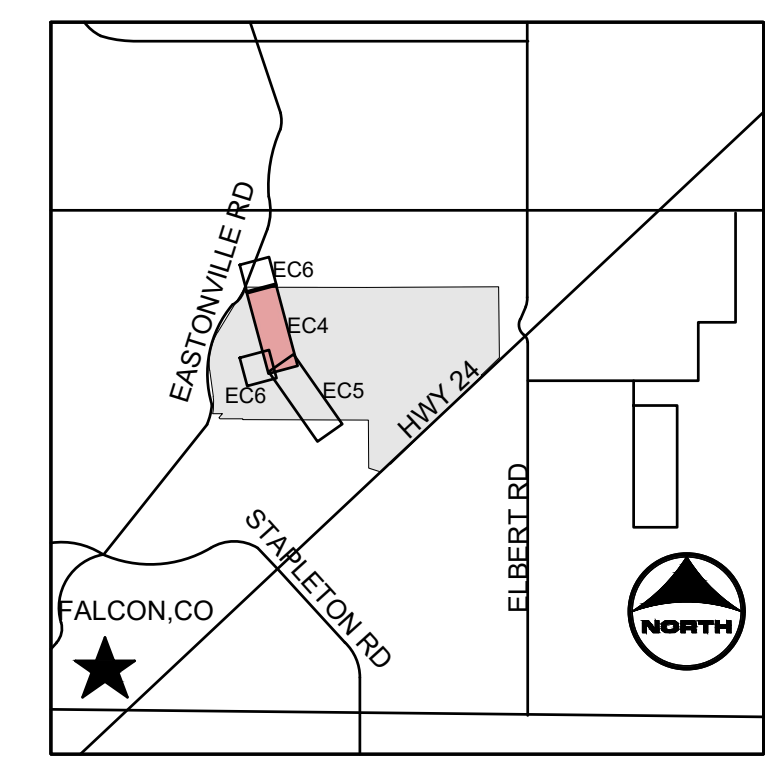
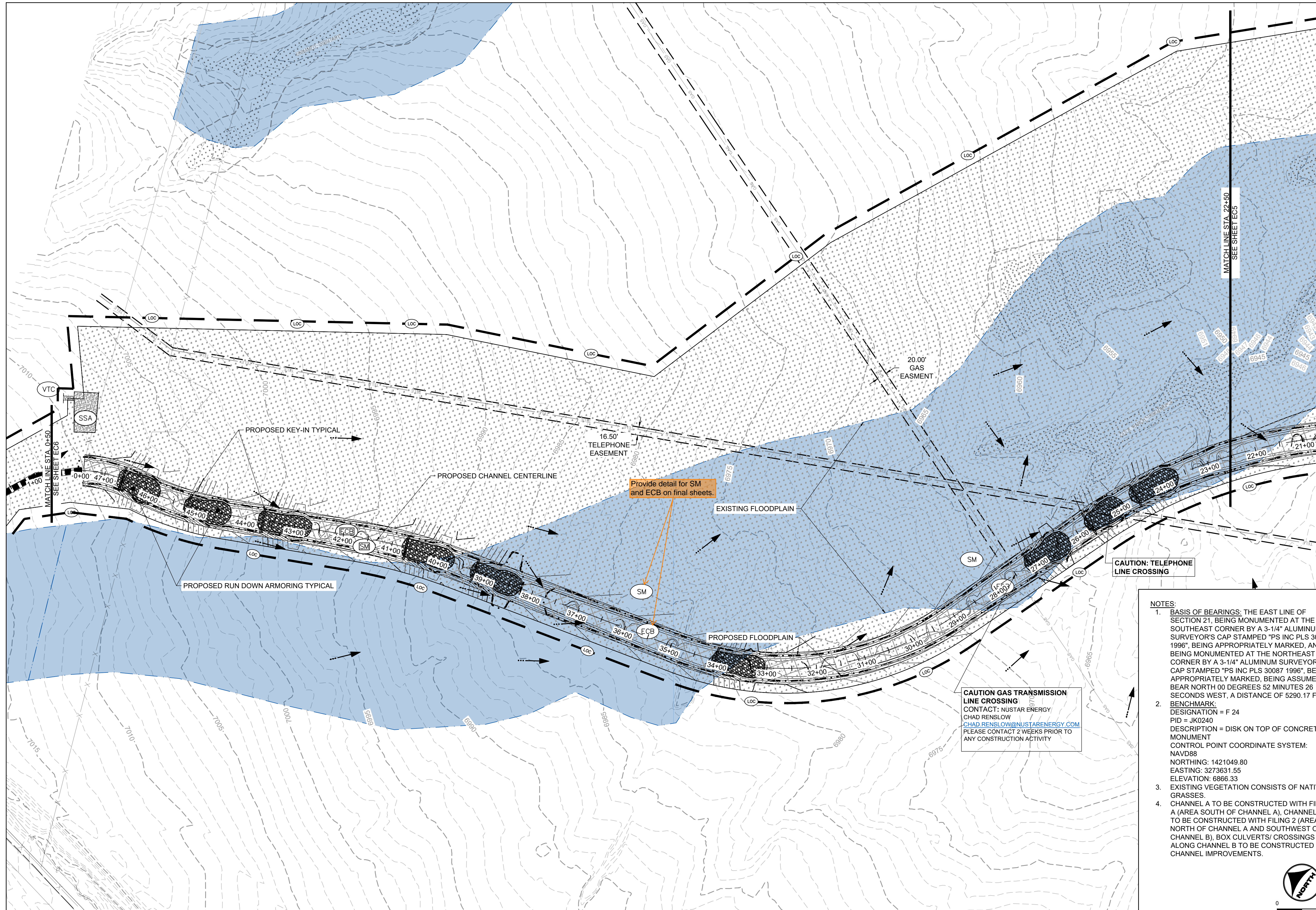
NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
 HR GREEN - DENVER
 5619 DTC PARKWAY SUITE 1150
 DENVER CO 80111
 PHONE: 720.602.4999
 FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 INITIAL EROSION CONTROL

SHEET
EC3
 21

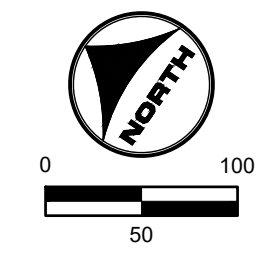


- KEYMAP**
- PROJECT LEGEND:**
- PROPERTY LINE
 - ROAD CENTERLINE
 - RIGHT-OF-WAY LINE
 - 5250 PROPOSED MAJOR CONTOUR
 - 5250 PROPOSED MINOR CONTOUR
 - 5250 EXISTING MAJOR CONTOUR
 - 5250 EXISTING MINOR CONTOUR
 - FLOW ARROW
 - PROPOSED 100-YR FLOODWAY
 - EXISTING 100-YR FLOODPLAIN
 - EXISTING WETLANDS

- BMP LEGEND:**
- CWA CONCRETE WASHOUT AREA
 - CF CONSTRUCTION FENCE
 - DD DIVERSION DITCH
 - IP INLET PROTECTION
 - OP OUTLET PROTECTION
 - SF SILT FENCE
 - SSA STABILIZED STAGING AREA
 - VTC VEHICLE TRACKING CONTROL
 - LOC LIMITS OF CONSTRUCTION
 - CD CHECK DAM
 - SM SEEDING AND MULCHING
 - SB SEDIMENT BASIN
 - SR SURFACE ROUGHENING
 - ECB EROSION CONTROL BLANKET
 - CIP CULVERT INLET PROTECTION
 - RS ROCK SOCK

- NOTES:**
- BASIS OF BEARINGS: THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
 - BENCHMARK:
 DESIGNATION = F 24
 PID = JK0240
 DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
 CONTROL POINT COORDINATE SYSTEM:
 NAVD83
 NORTHING: 1421049.80
 EASTING: 3273631.55
 ELEVATION: 6866.33
 - EXISTING VEGETATION CONSISTS OF NATIVE GRASSES.
 - CHANNEL A TO BE CONSTRUCTED WITH FILING A (AREA SOUTH OF CHANNEL A), CHANNEL B TO BE CONSTRUCTED WITH FILING 2 (AREA NORTH OF CHANNEL A AND SOUTHWEST OF CHANNEL B), BOX CULVERTS/ CROSSINGS ALONG CHANNEL B TO BE CONSTRUCTED WITH CHANNEL IMPROVEMENTS.

CAUTION GAS TRANSMISSION LINE CROSSING
 CONTACT: NUSTAR ENERGY
 CHAD RENSLow@NUSTARENERGY.COM
 PLEASE CONTACT 2 WEEKS PRIOR TO ANY CONSTRUCTION ACTIVITY



811 UNCC CALL BEFORE YOU DIG
 811 OR 1-800-922-1987
 Utility Notification Center of Colorado

FLORIDA LICENSED PROFESSIONAL ENGINEER
 37081

DRAWN BY: TBI JOB DATE: 3/27/2023
 APPROVED: CMM JOB NUMBER: 201662.03
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\dwgs\C\FINAL EROSION CONTROL

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

NO.	DATE	BY	REVISION DESCRIPTION

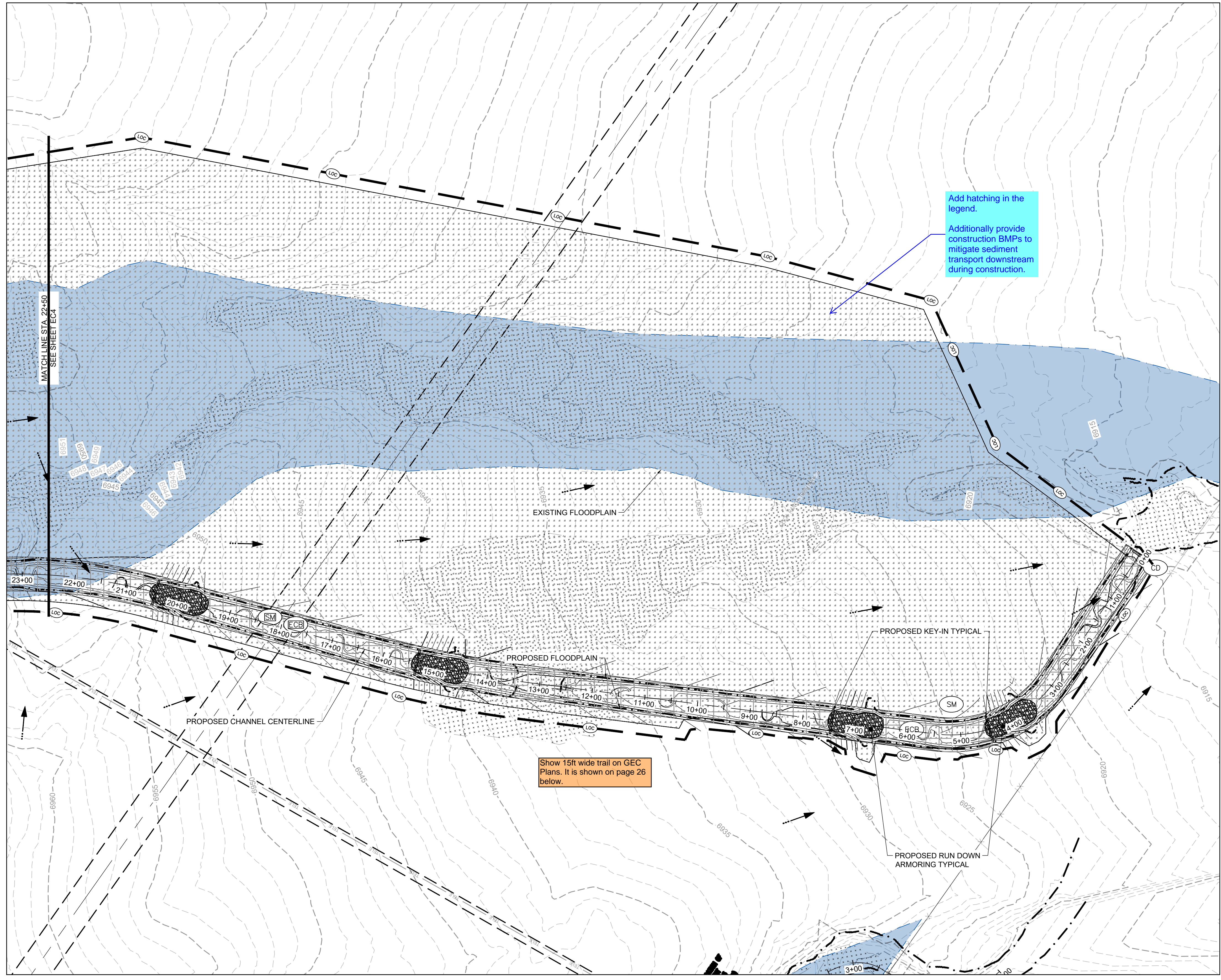
HRGreen
 HR GREEN - DENVER
 5619 DTC PARKWAY SUITE 1150
 DENVER CO 80111
 PHONE: 720.602.4999
 FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 FINAL EROSION CONTROL

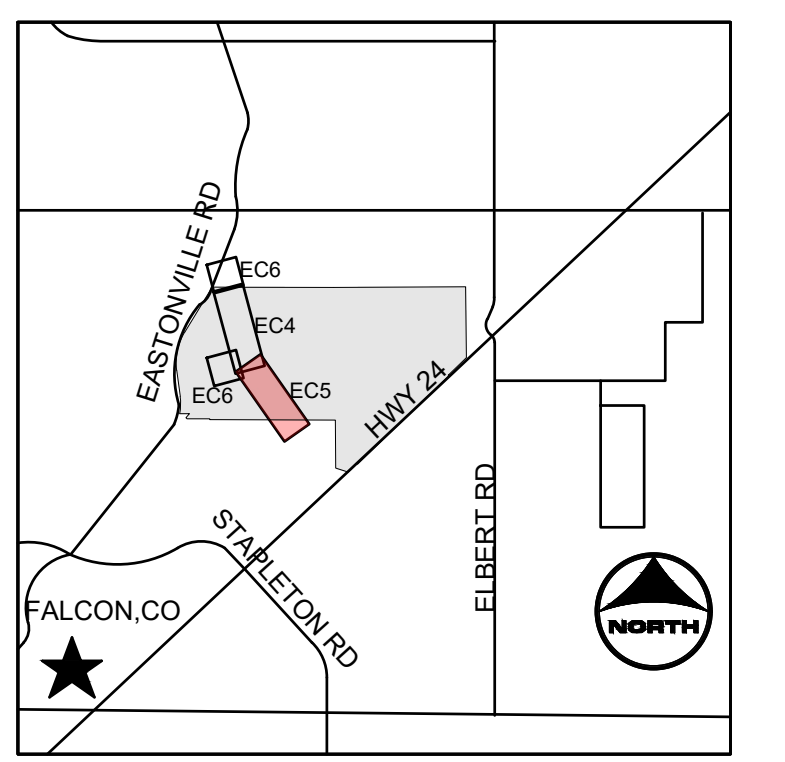
SHEET
EC4
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HR GREEN \cadd\p\2020\201662.03\FINAL EROSION CONTROL KEY: 01_XC\FINAL_EC_01_XC_RIPRAP_HRG1_20X_EBases_01_XC-PR_100YR_FP_DELINEATION



Add hatching in the legend.
 Additionally provide construction BMPs to mitigate sediment transport downstream during construction.

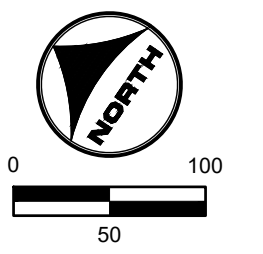
Show 15ft wide trail on GEC Plans. It is shown on page 26 below.



- PROJECT LEGEND:**
- PROPERTY LINE
 - ROAD CENTERLINE
 - RIGHT-OF-WAY LINE
 - 5250 PROPOSED MAJOR CONTOUR
 - 5250 PROPOSED MINOR CONTOUR
 - EXISTING MAJOR CONTOUR
 - EXISTING MINOR CONTOUR
 - FLOW ARROW
 - PROPOSED 100-YR FLOODWAY
 - EXISTING 100-YR FLOODPLAIN
 - EXISTING WETLANDS

- BMP LEGEND:**
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 - CIP CULVERT INLET PROTECTION
 - RS ROCK SOCK

- NOTES:**
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 - BENCHMARK:
 DESIGNATION = F 24
 PID = JK0240
 DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
 CONTROL POINT COORDINATE SYSTEM:
 NAVD83
 NORTHING: 1421049.80
 EASTING: 3273631.55
 ELEVATION: 6866.33
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 Utility Notification Center of Colorado

PROFESSIONAL ENGINEER
 GREGORY L. PARKS
 37081

DRAWN BY: TBI JOB DATE: 3/27/2023
 APPROVED: CMM JOB NUMBER: 201662.03
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\dwgs\C\FINAL EROSION CONTROL

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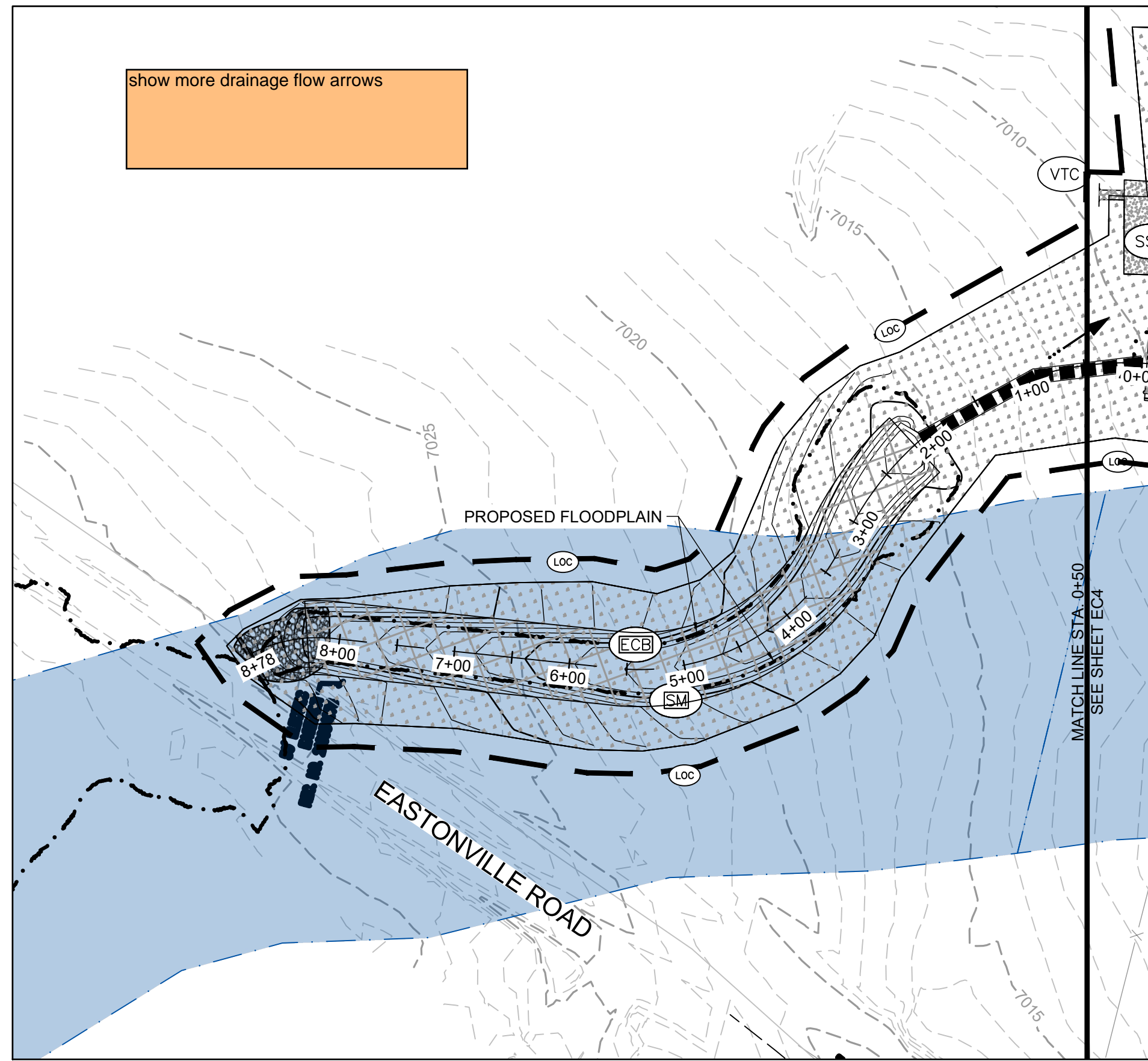
NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
 HR GREEN - DENVER
 5619 DTC PARKWAY SUITE 1150
 DENVER CO 80111
 PHONE: 720.602.4999
 FAX: 844.273.1057

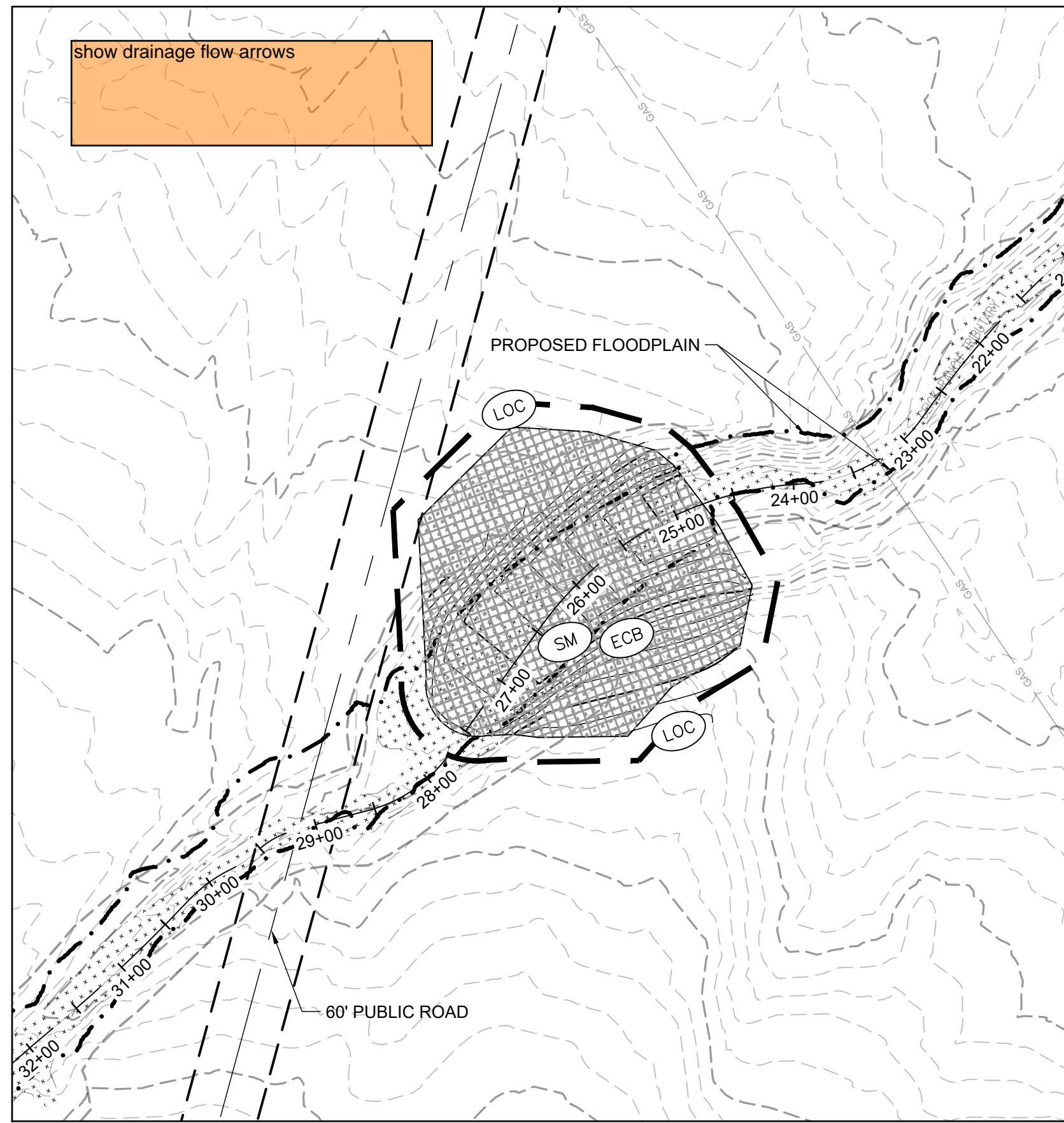
GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 FINAL EROSION CONTROL

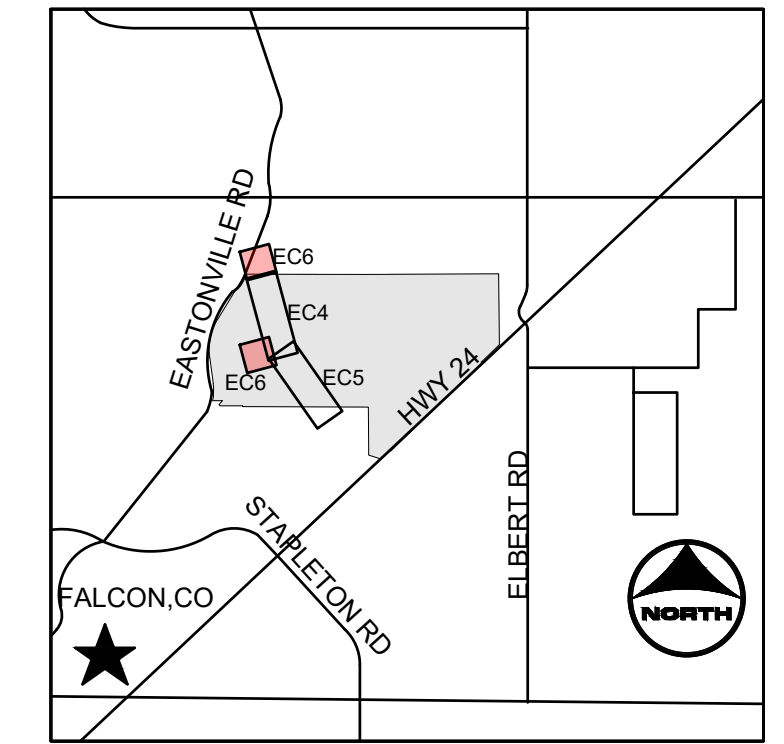
SHEET
EC5
 23



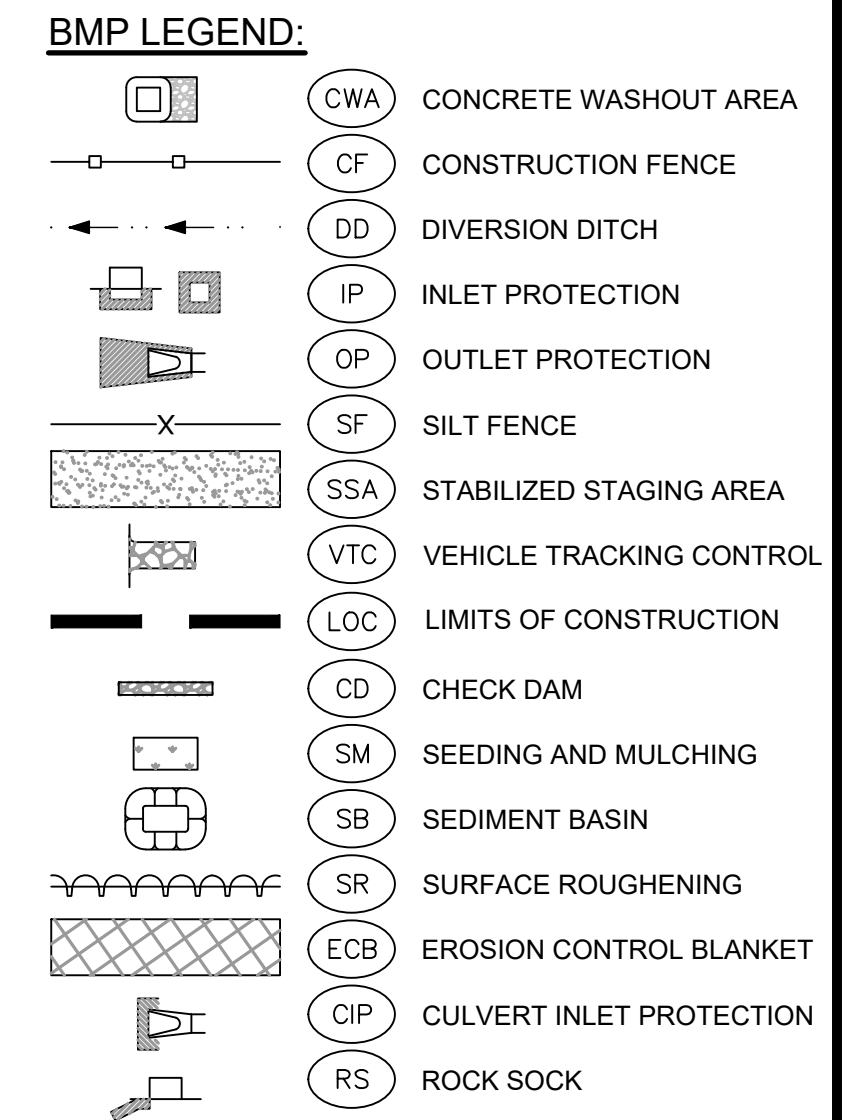
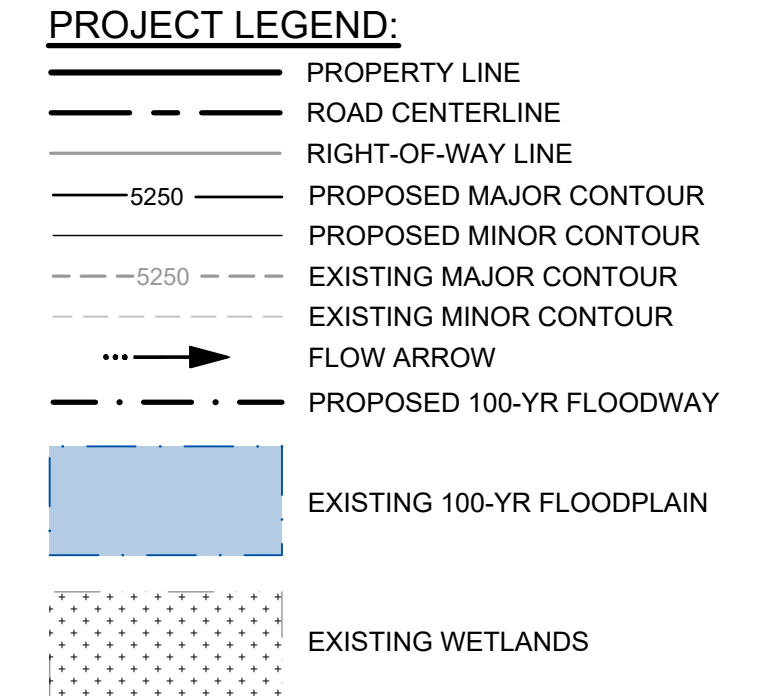
TRIBUTARY 2



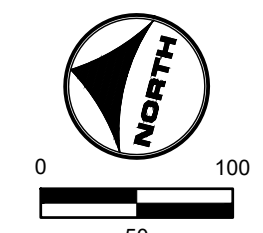
TRIBUTARY 1



KEYMAP



- NOTES:**
- BASIS OF BEARINGS:** THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
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 DESIGNATION = F 24
 PID = JK0240
 DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
 CONTROL POINT COORDINATE SYSTEM:
 NAVD83
 NORTHING: 1421049.80
 EASTING: 3273631.55
 ELEVATION: 6866.33
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 Utility Notification Center of Colorado

FLORIDA LICENSED PROFESSIONAL ENGINEER
 GREGORY L. PARKS
 37081

HR GREEN \xref: xref: sgi: -d01: FINAL EROSION CONTROL KEY: 01-XC-FINAL-EC-01-XC-RIFRAP-HRG1.20X_EBases: 01-XC-PR-100YR_PP_DELINEATION

DRAWN BY: TBI	JOB DATE: 3/27/2023	BAR IS ONE INCH ON OFFICIAL DRAWINGS.
APPROVED: CMM	JOB NUMBER: 201662.03	0
CAD DATE: 3/27/2023		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD FILE: J:\2020\201662.03\CAD\DWG\SI\C\FINAL EROSION CONTROL		

NO.	DATE	BY	REVISION DESCRIPTION

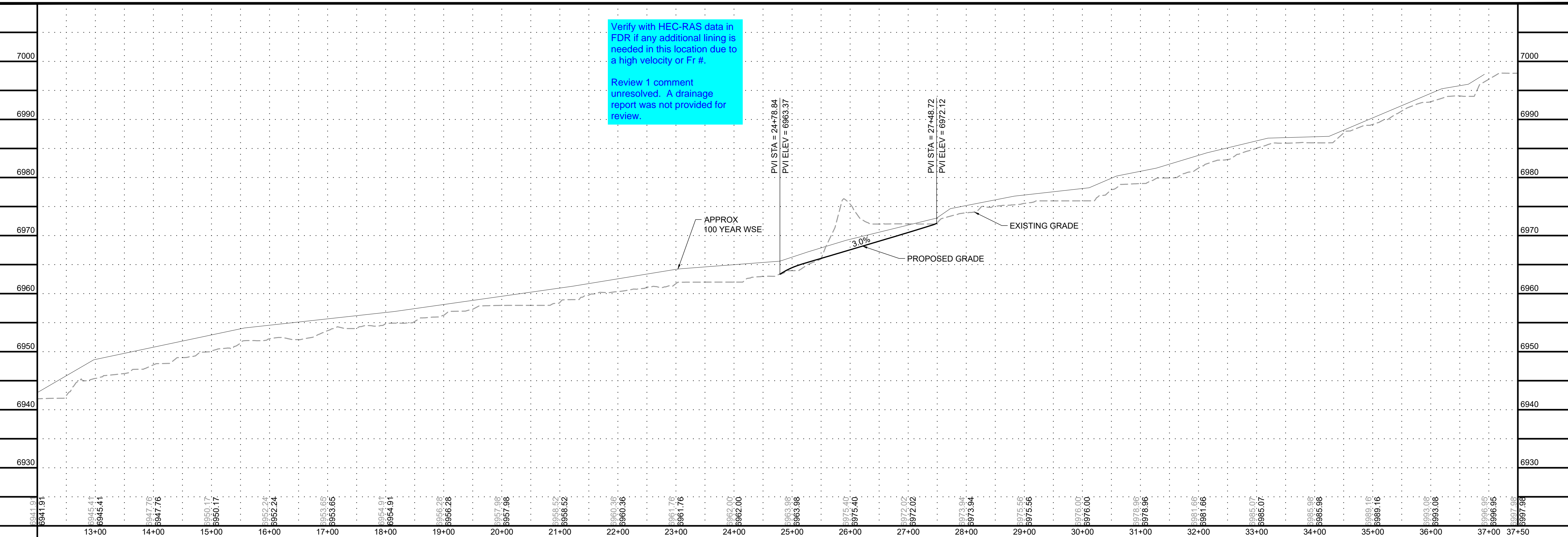
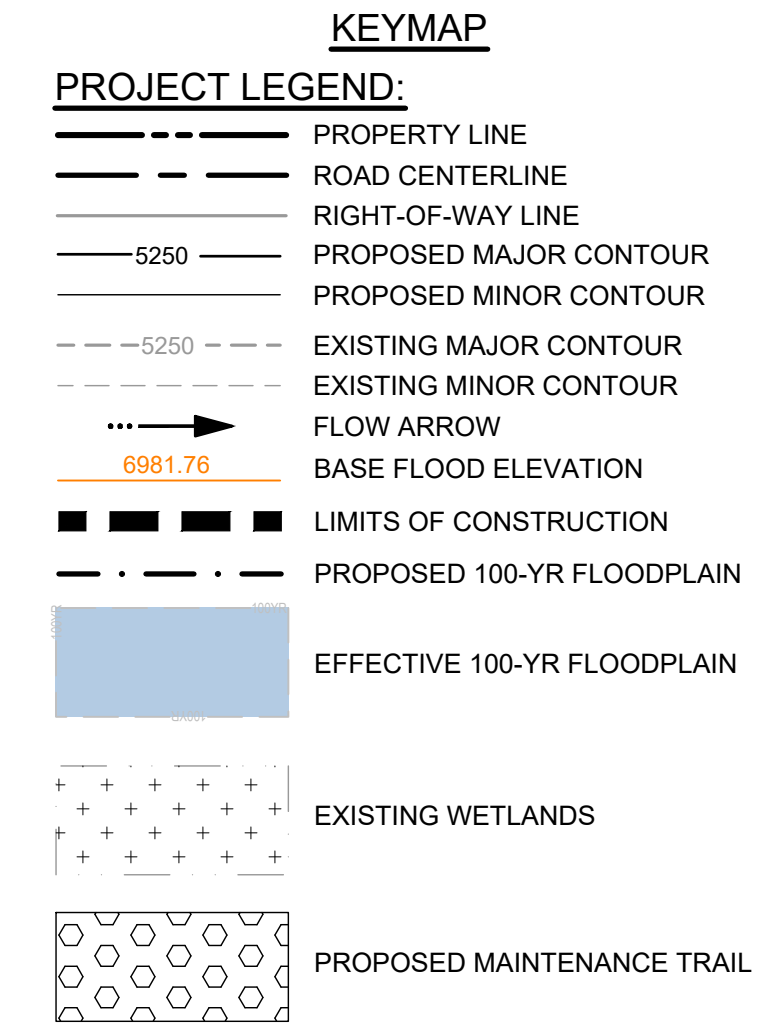
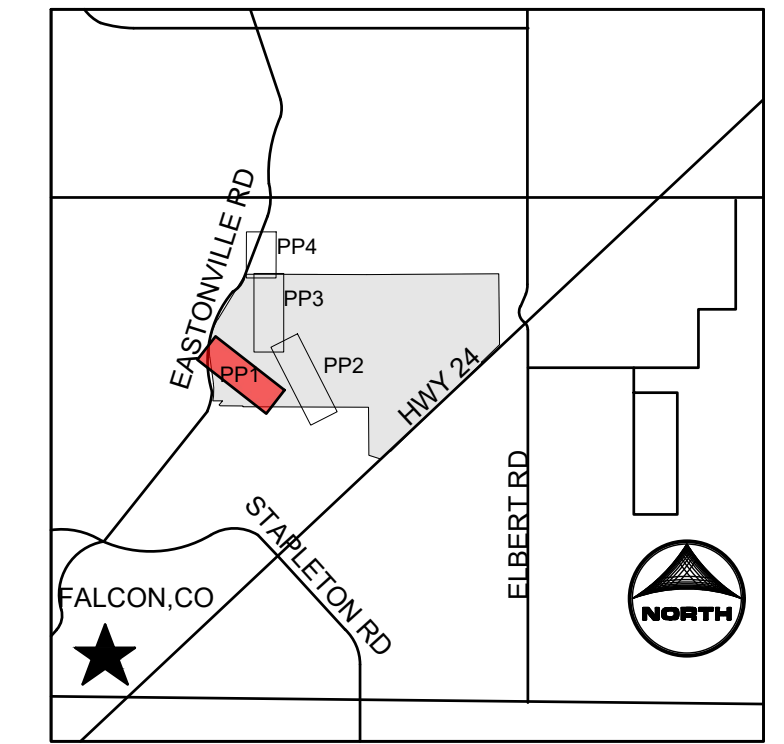
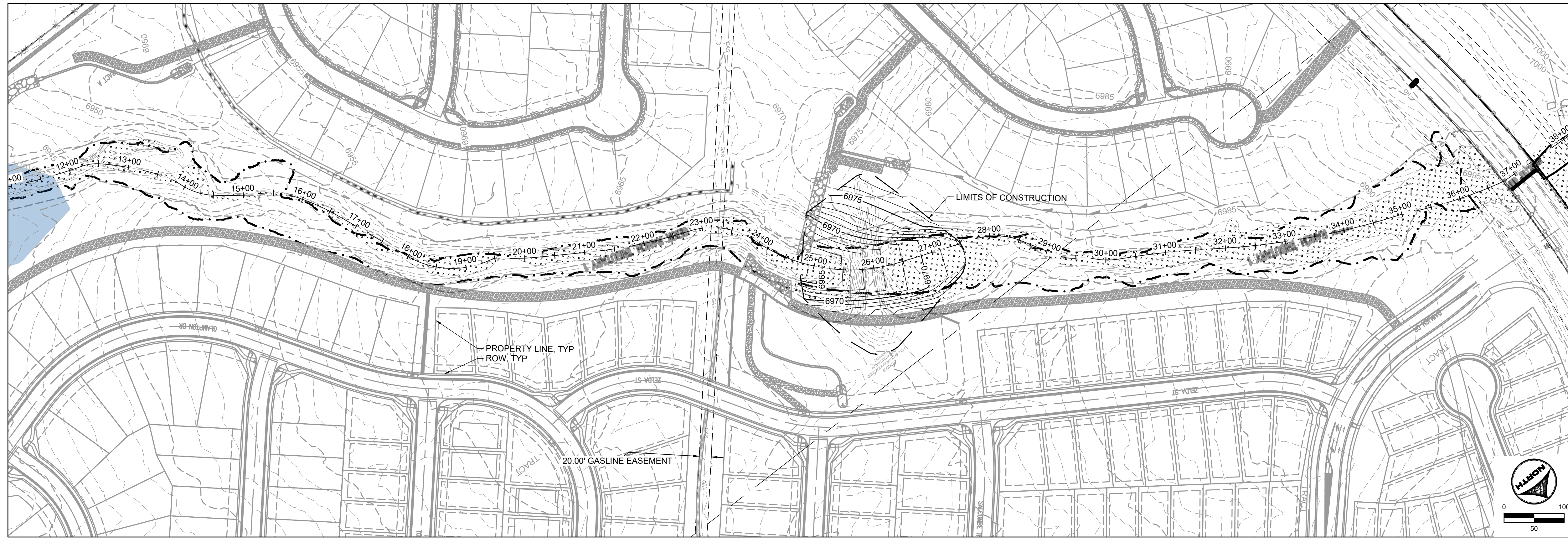
HRGreen
 HR GREEN - DENVER
 5619 DTC PARKWAY SUITE 1150
 DENVER CO 80111
 PHONE: 720.602.4999
 FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 FINAL EROSION CONTROL

SHEET
EC6
 24

HR GREEN - DENVER: 5619 DTC PARKWAY SUITE 1150, DENVER CO 80111, PHONE: 720.602.4999, FAX: 844.273.1057



- NOTES:**
1. BASIS OF BEARINGS: THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET. BENCHMARK: DESIGNATION = F 24
PID = JK0240
DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
CONTROL POINT COORDINATE SYSTEM: NAVD88
NORTHING: 1421049.80
EASTING: 3273631.55
ELEVATION: 6866.33
 2. ALIGNMENT NOT FOR USE IN CONSTRUCTION. REFER TO NORTHINGS AND EASTINGS
 3. PLAN SET APPROVAL APPLIES TO THE LIMITS OF CONSTRUCTION. PLEASE SEE GRANDVIEW FILING NUMBER 1 PLAN SET FOR GRADING OUTSIDE OF THE CHANNEL LIMITS OF CONSTRUCTION.
 4. CHANNEL A TO BE CONSTRUCTED WITH FILING 1 (AREA SOUTH OF CHANNEL A), CHANNEL B TO BE CONSTRUCTED WITH FILING 2 (AREA NORTH OF CHANNEL A AND SOUTHWEST OF CHANNEL B), BOX CULVERTS/ CROSSINGS ALONG CHANNEL B TO BE CONSTRUCTED WITH CHANNEL IMPROVEMENTS

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811 OR 1-800-922-1987
Utility Notification Center of Colorado

PROFESSIONAL ENGINEER
37081
GREGORY L. PARKS
7-25-22

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 APPROVED: CMM JOB NUMBER: 201662.03
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\DWG\CI\PLAN AND PROFILE

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
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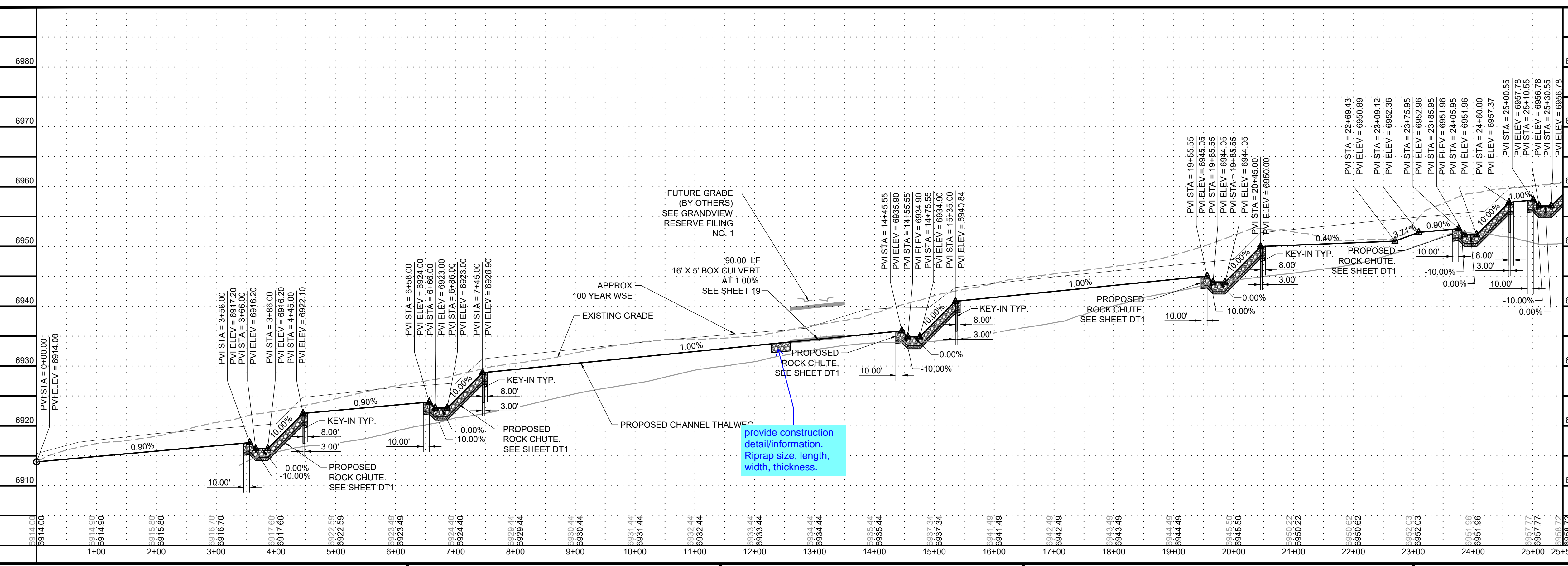
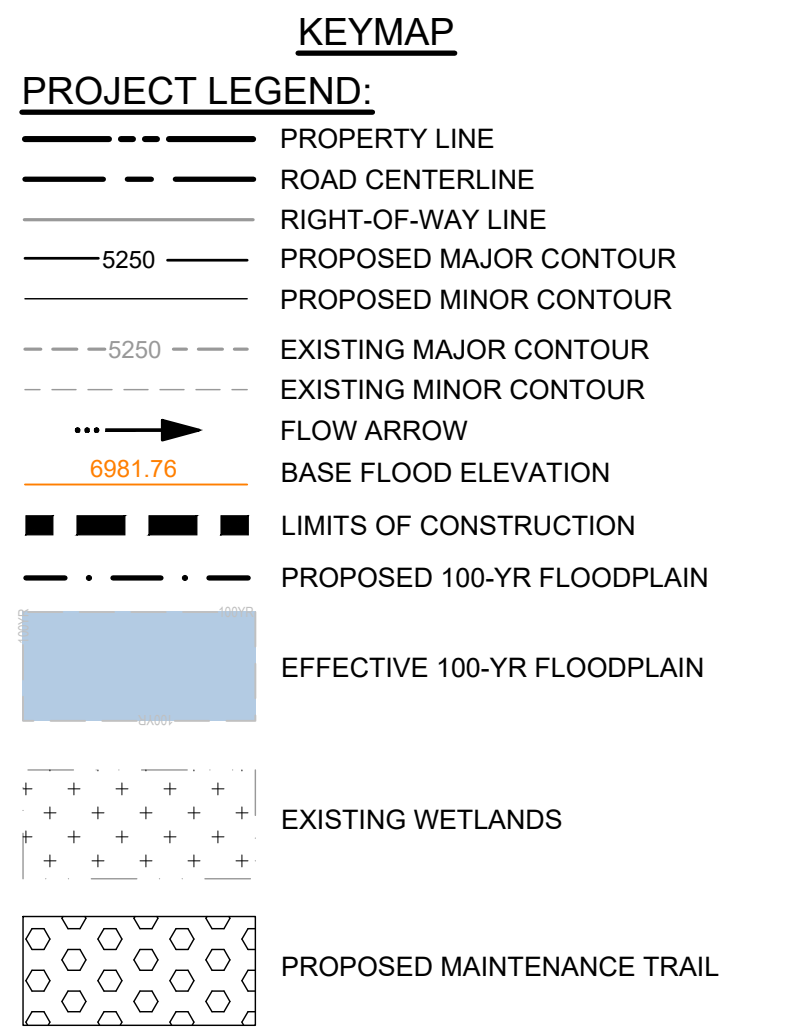
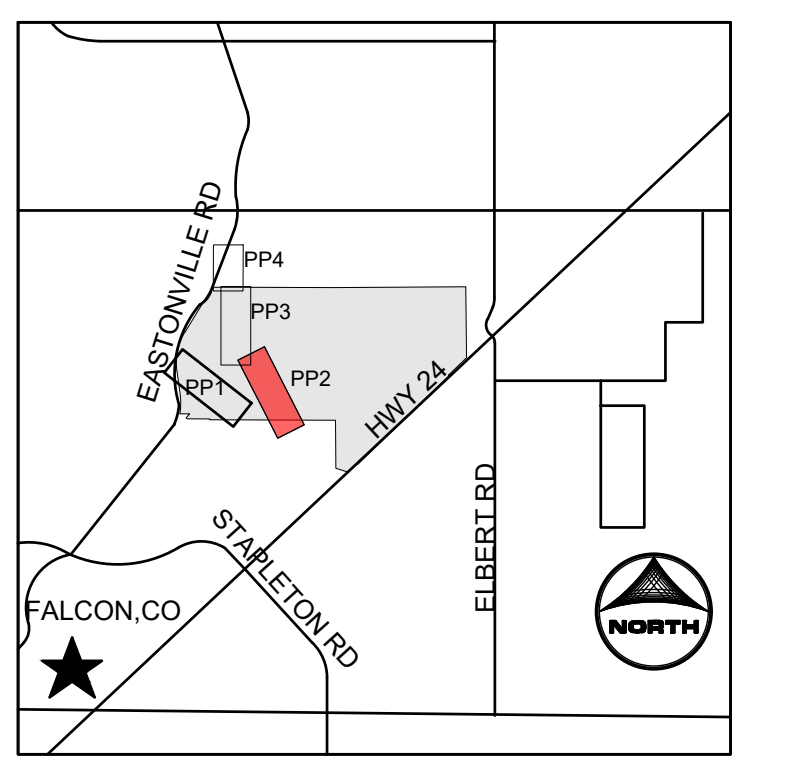
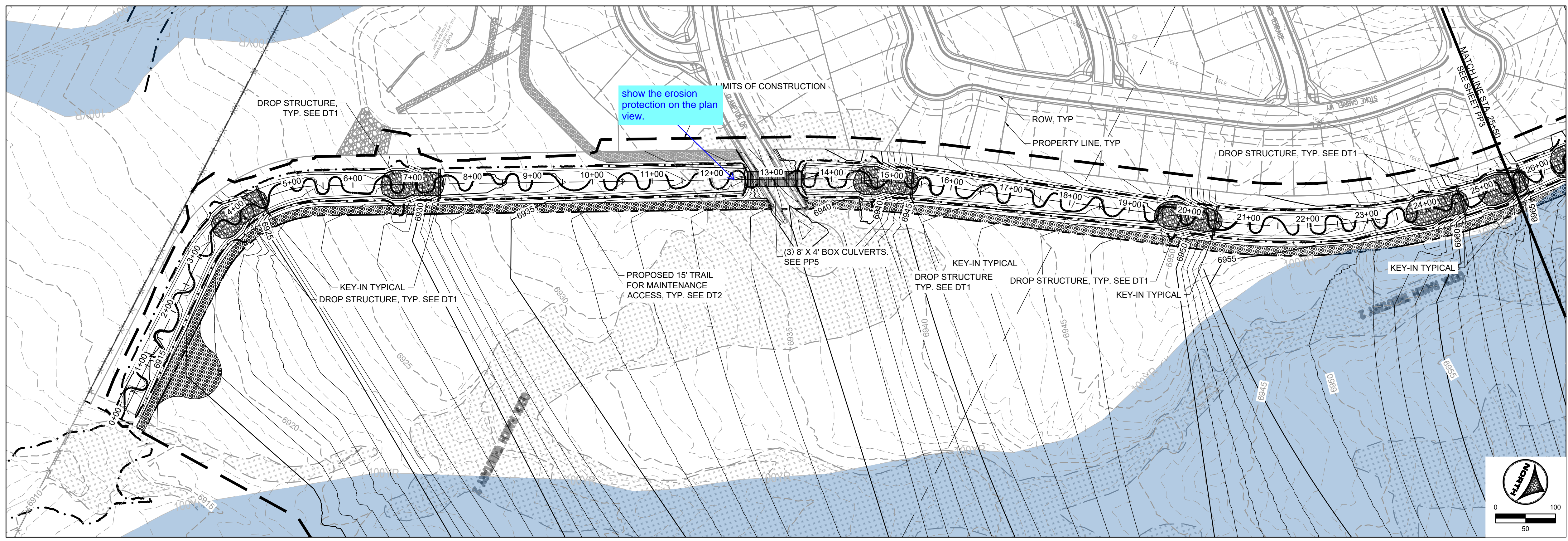
NO.	DATE	BY	REVISION DESCRIPTION

HRGreen HR GREEN - DENVER
 5619 DTC PARKWAY SUITE 1150
 DENVER CO 80111
 PHONE: 720.602.4999
 FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 DRAINAGE TRIBUTARY 1 PLAN AND PROFILE

SHEET
PP1
 25



- NOTES:**
- BASIS OF BEARINGS: THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
 - BENCHMARK: DESIGNATION = F 24
PID = JK0240
DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
CONTROL POINT COORDINATE SYSTEM: NAVD88
NORTHING: 1421049.80
EASTING: 3273631.55
ELEVATION: 6866.33
 - ALIGNMENT NOT FOR USE IN CONSTRUCTION. REFER TO NORTHINGS AND EASTINGS
 - PLAN SET APPROVAL APPLIES TO THE LIMITS OF CONSTRUCTION. PLEASE SEE GRANDVIEW FILING NUMBER 1 PLAN SET FOR GRADING OUTSIDE OF THE CHANNEL LIMITS OF CONSTRUCTION.
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811 UNCC CALL BEFORE YOU DIG
811 OR 1-800-922-1987
Utility Notification Center of Colorado

FLORIDA LICENSED PROFESSIONAL ENGINEER
37081

DRAWN BY: TBI JOB DATE: 3/22/2023
 APPROVED: CMM JOB NUMBER: 201662.03
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\dwg\CI\PLAN AND PROFILE

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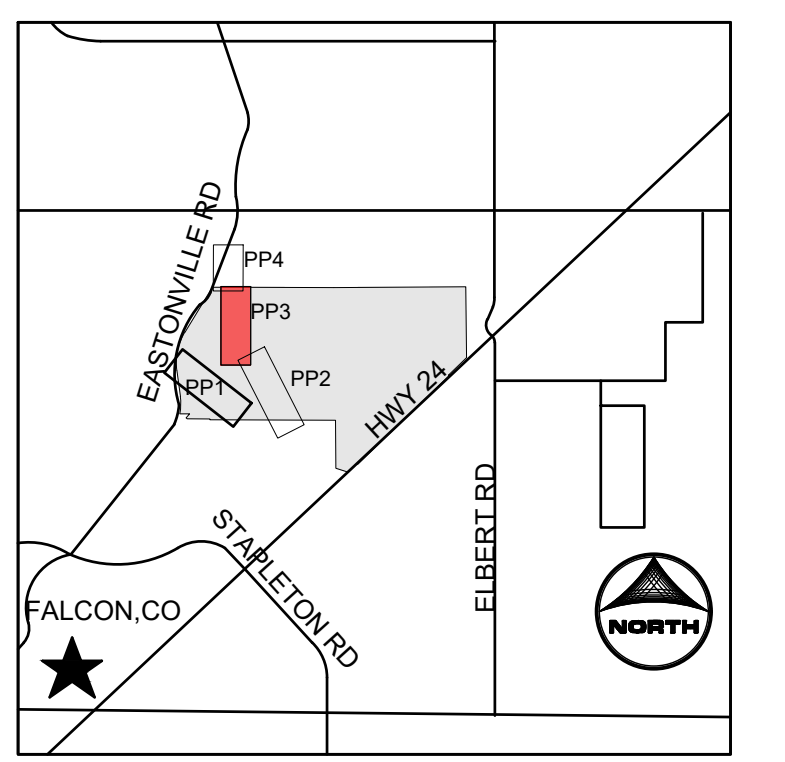
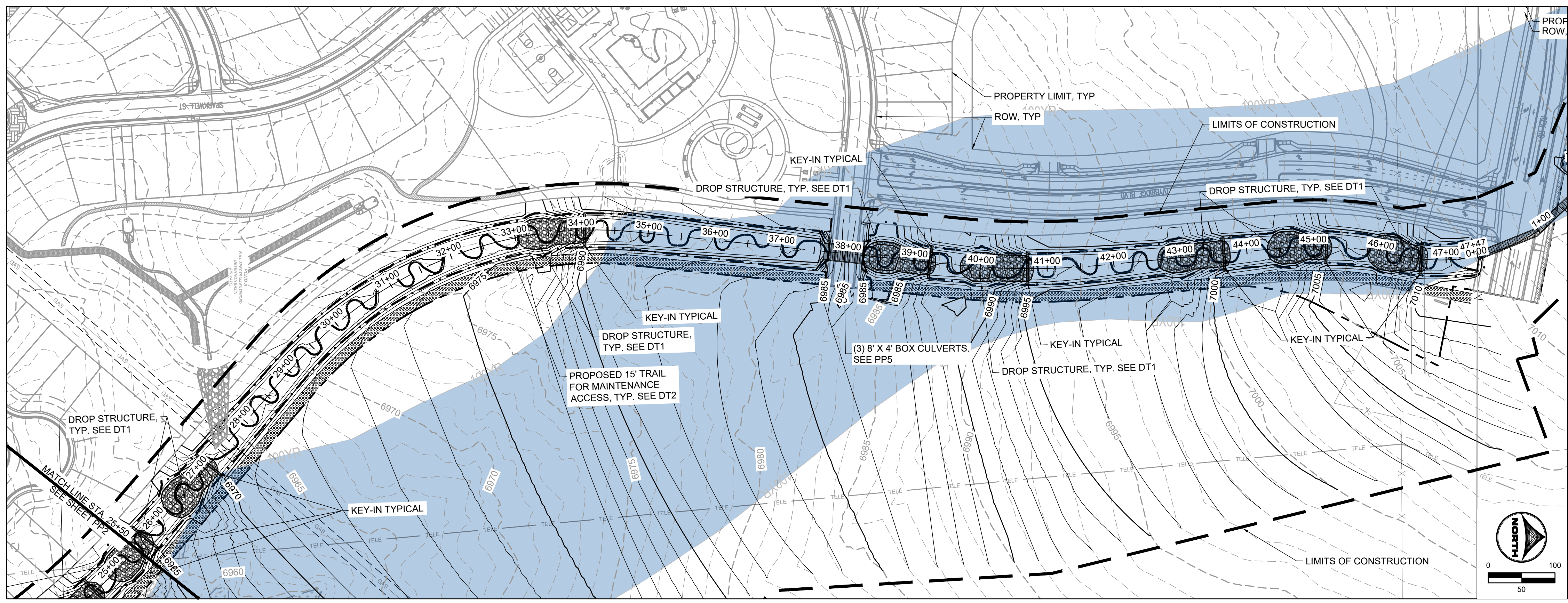
NO.	DATE	BY	REVISION DESCRIPTION

HRGreen
 HR GREEN - DENVER
 5619 DTC PARKWAY SUITE 1150
 DENVER CO 80111
 PHONE: 720.602.4999
 FAX: 844.273.1057

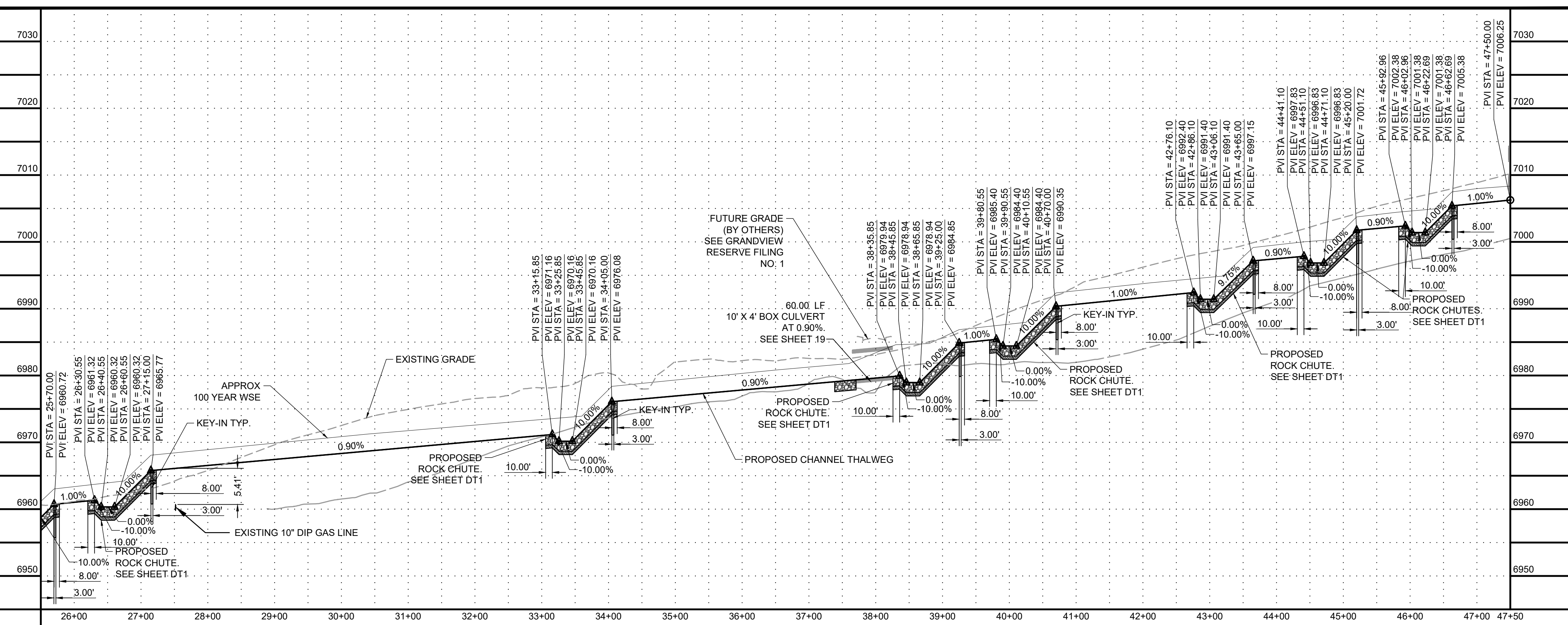
GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 DRAINAGE TRIBUTARY 2 PLAN AND PROFILE

SHEET
 PP2
 26



- KEYMAP**
- PROJECT LEGEND:**
- PROPERTY LINE
 - ROAD CENTERLINE
 - RIGHT-OF-WAY LINE
 - 5250 PROPOSED MAJOR CONTOUR
 - 5250 PROPOSED MINOR CONTOUR
 - 5250 EXISTING MAJOR CONTOUR
 - 5250 EXISTING MINOR CONTOUR
 - FLOW ARROW
 - 6981.76 BASE FLOOD ELEVATION
 - LIMITS OF CONSTRUCTION
 - PROPOSED 100-YR FLOODPLAIN
 - EFFECTIVE 100-YR FLOODPLAIN
 - EXISTING WETLANDS
 - PROPOSED MAINTENANCE TRAIL



- NOTES:**
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 2. BENCHMARK: DESIGNATION = F 24
PID = JK0240
DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
CONTROL POINT COORDINATE SYSTEM: NAVD88
NORTHING: 1421049.80
EASTING: 3273631.55
ELEVATION: 6886.33
 3. ALIGNMENT NOT FOR USE IN CONSTRUCTION. REFER TO NORTHINGS AND EASTINGS
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Utility Notification Center of Colorado

FLORIDA LICENSED PROFESSIONAL ENGINEER
GREGORY L. PERRY
37081

DRAWN BY: TBI JOB DATE: 3/27/2023
APPROVED: CMM JOB NUMBER: 201662.03
CAD DATE: 3/27/2023
CAD FILE: J:\2020\201662.03\CAD\DWG\CIP\PLAN AND PROFILE

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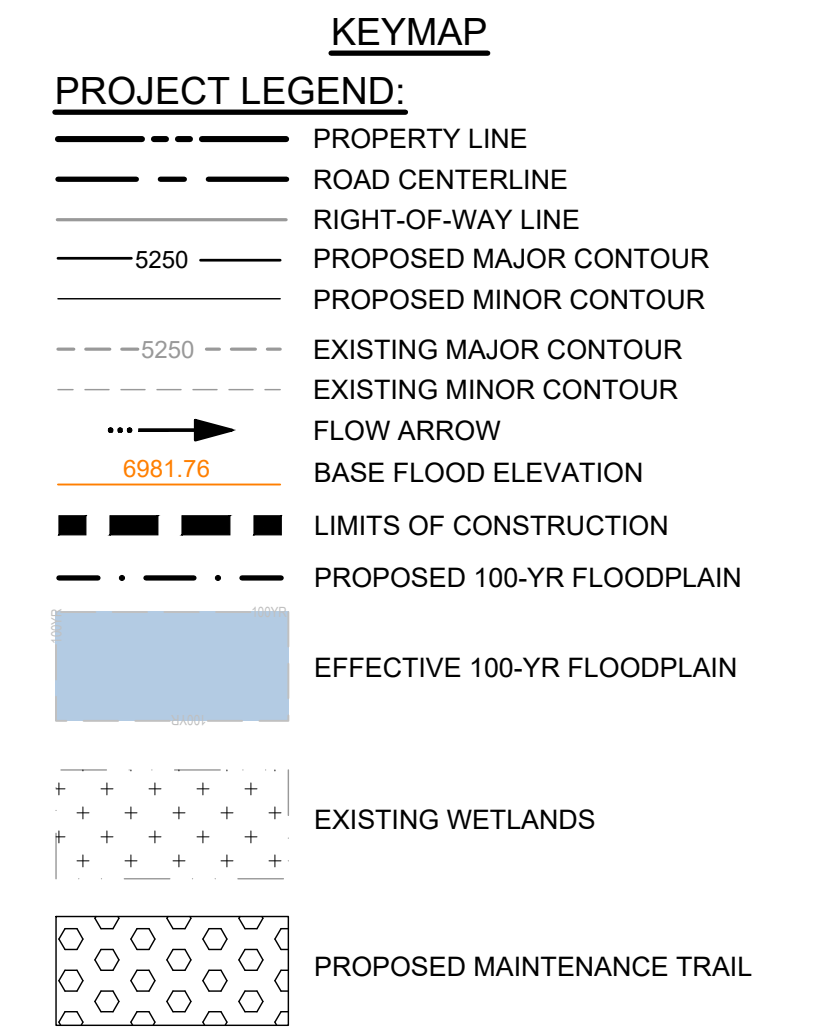
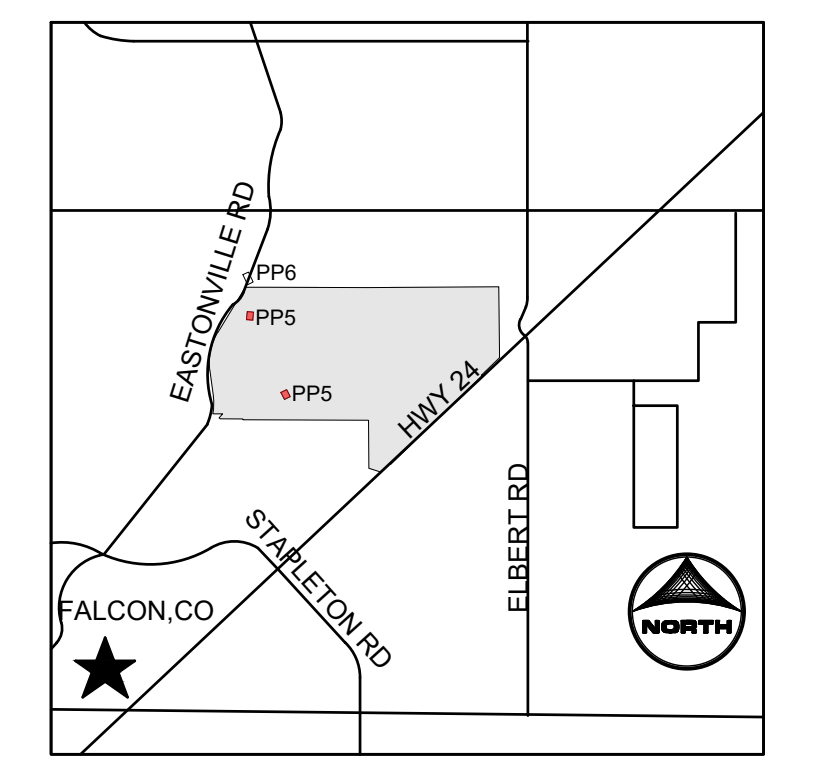
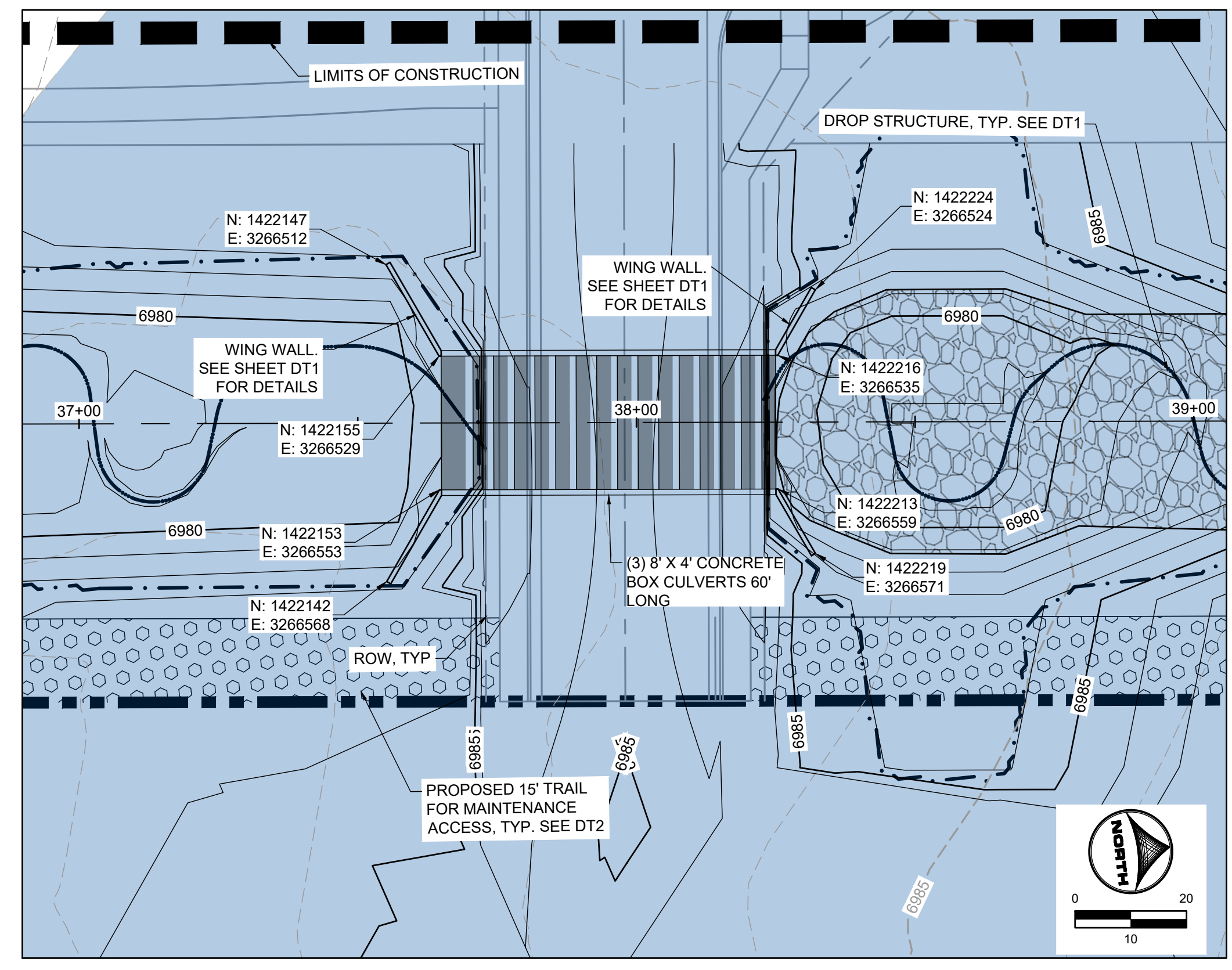
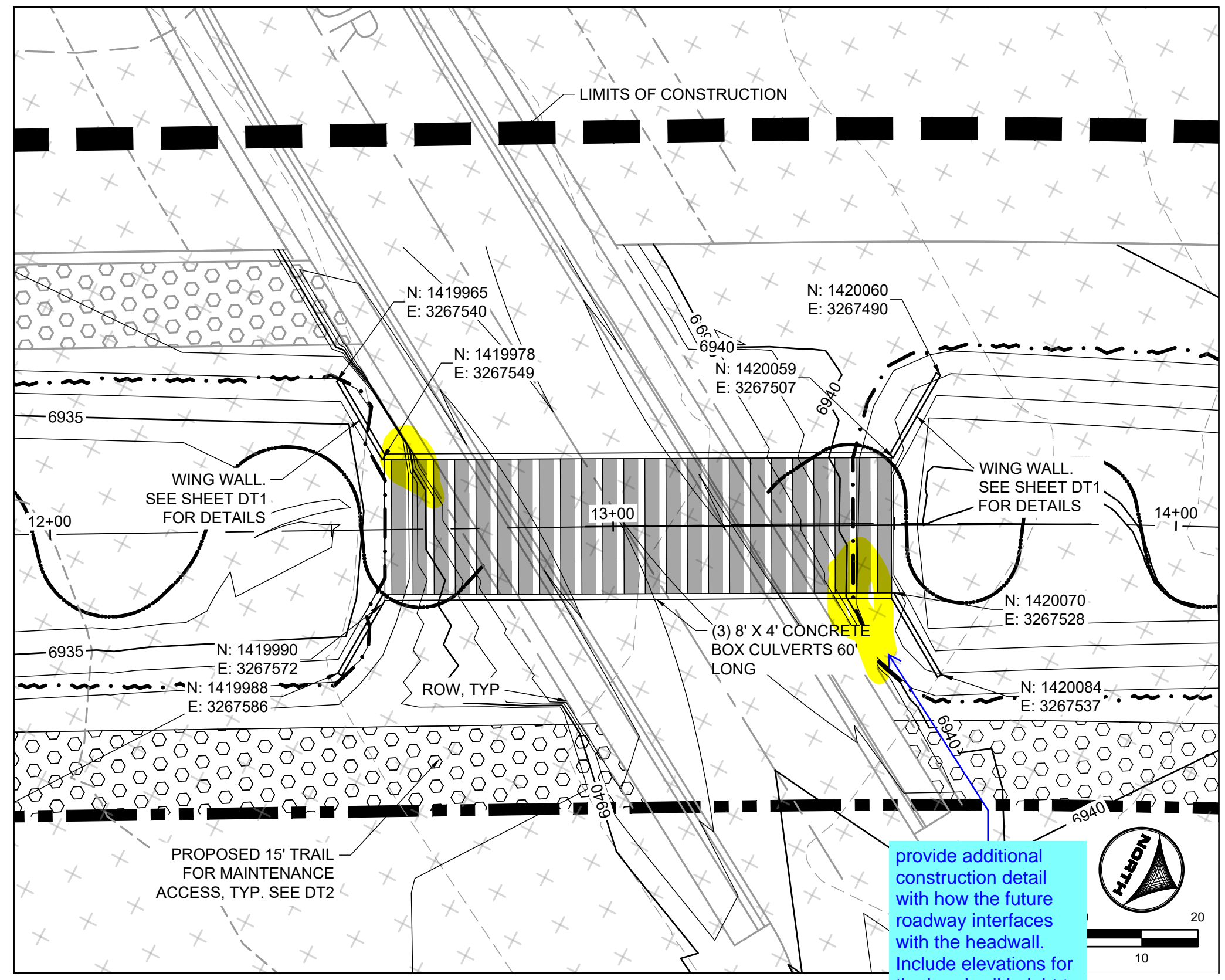
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GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
FALCON, COLORADO

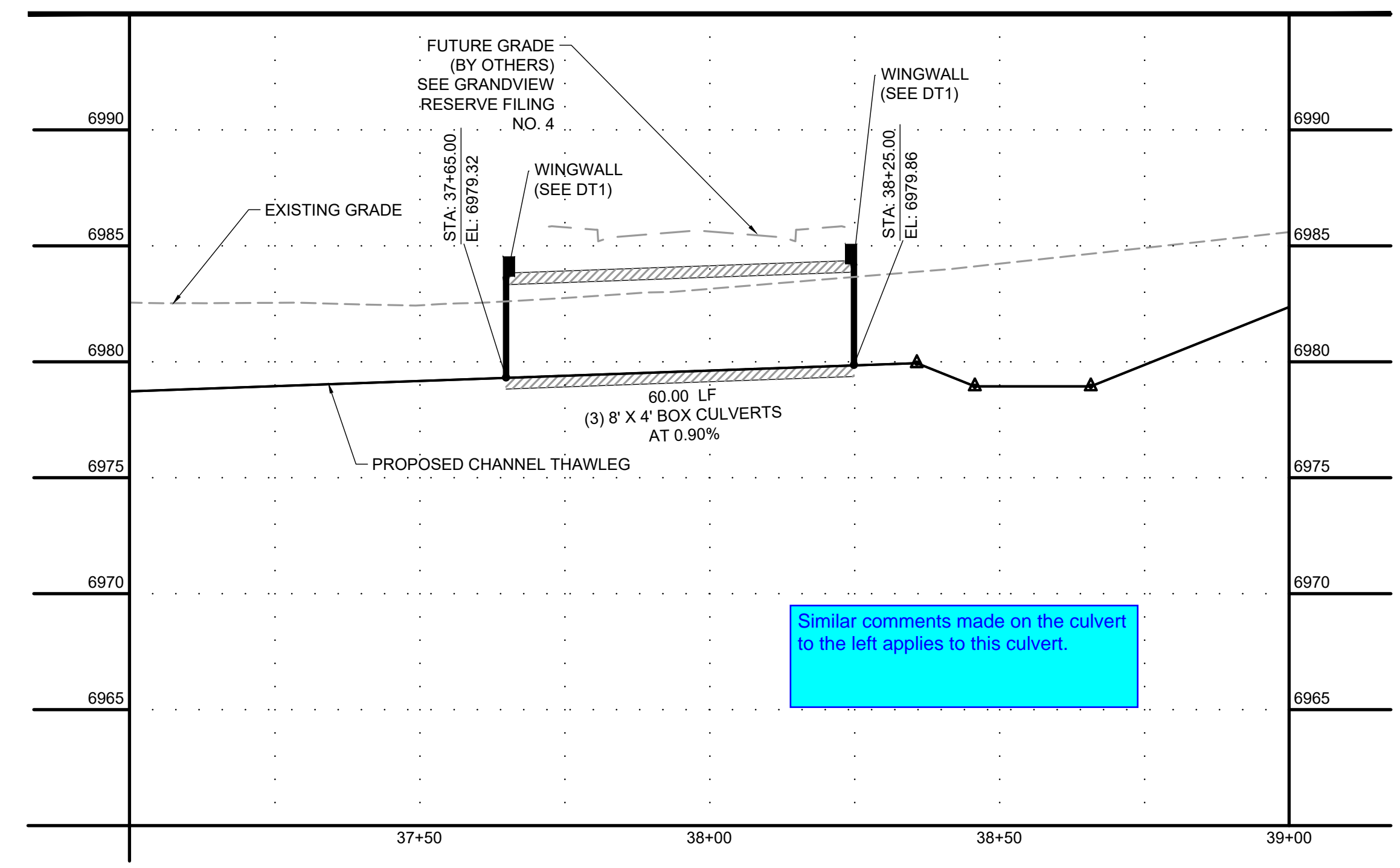
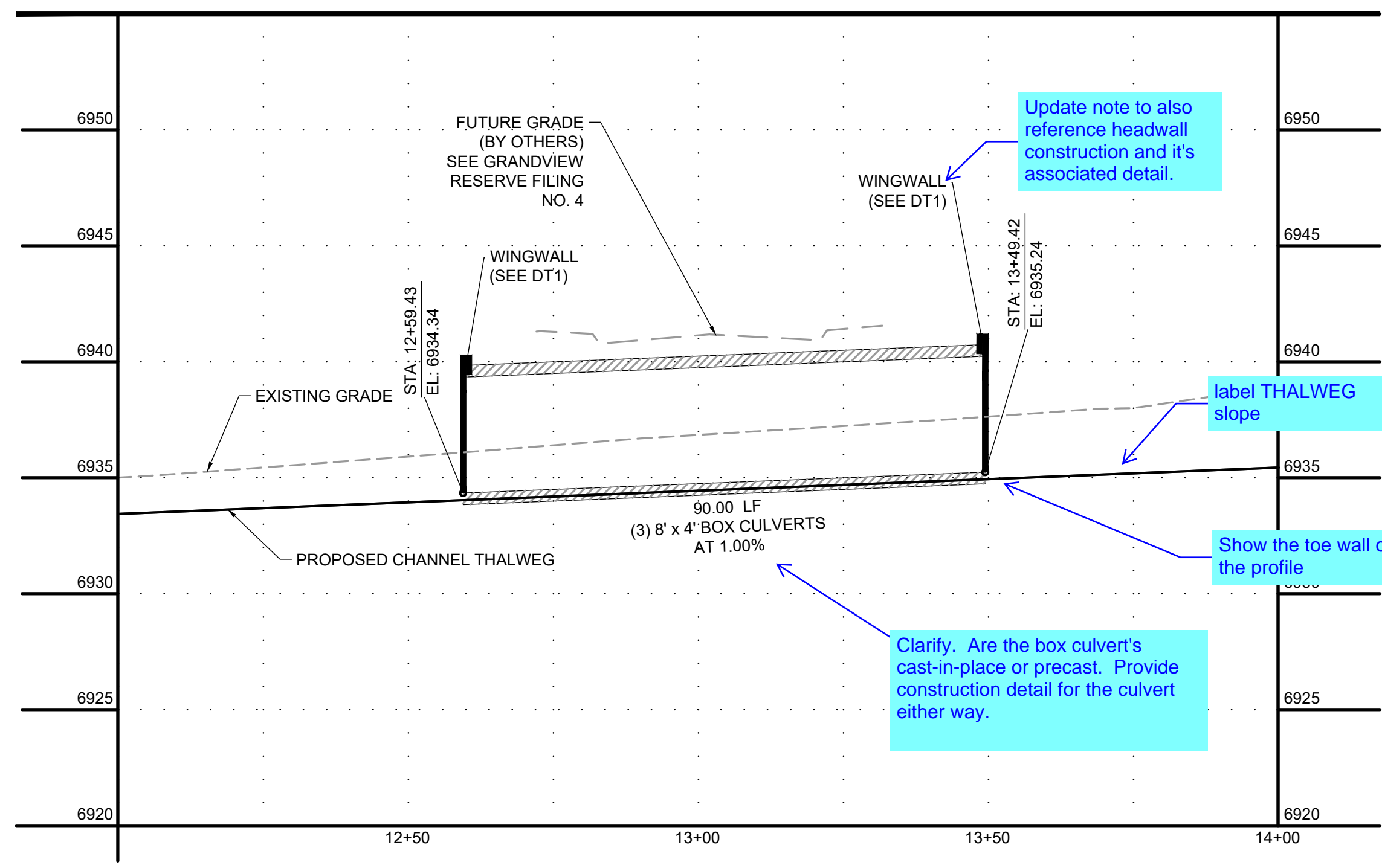
CONSTRUCTION DOCUMENTS
DRAINAGE TRIBUTARY 2 PLAN AND PROFILE

SHEET
PP3
27



NOTES:

1. BASIS OF BEARINGS: THE EAST LINE OF SECTION 21, BEING MONUMENTED AT THE SOUTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, AND BEING MONUMENTED AT THE NORTHEAST CORNER BY A 3-1/4" ALUMINUM SURVEYOR'S CAP STAMPED "PS INC PLS 30087 1996", BEING APPROPRIATELY MARKED, BEING ASSUMED TO BEAR NORTH 00 DEGREES 52 MINUTES 26 SECONDS WEST, A DISTANCE OF 5290.17 FEET.
2. BENCHMARK: DESIGNATION = F 24
PID = JK0240
DESCRIPTION = DISK ON TOP OF CONCRETE MONUMENT
CONTROL POINT COORDINATE SYSTEM: NAVD88
NORTHING: 1421049.80
EASTING: 3273631.55
ELEVATION: 6866.33
3. ALIGNMENT NOT FOR USE IN CONSTRUCTION. REFER TO NORTHINGS AND EASTINGS
4. PLAN SET APPROVAL APPLIES TO THE LIMITS OF CONSTRUCTION. PLEASE SEE GRANDVIEW FILING NUMBER 1 PLAN SET FOR GRADING OUTSIDE OF THE CHANNEL LIMITS OF CONSTRUCTION.
5. CHANNEL A TO BE CONSTRUCTED WITH FILING A (AREA SOUTH OF CHANNEL A), CHANNEL B TO BE CONSTRUCTED WITH FILING 2 (AREA NORTH OF CHANNEL A AND SOUTHWEST OF CHANNEL B), BOX CULVERTS/ CROSSINGS ALONG CHANNEL B TO BE CONSTRUCTED WITH CHANNEL IMPROVEMENTS.



HR GREEN Xrefs: xgs: xgs: d: d: 01: P&P KEY: 01: _XC_RIPRAP_HRG_X_EBase: 01: XC: Wingwalls: xv: dsig: 662: xc: dsig: 662: 10: xc: row: F1: 662: 10: xc: row: F2: xc: dsig: F2: xc: dsig: F2: xc: row: F3: xc: row: F3: xc: dsig: F3: xc: row: F4: xc: row: F4: 01: XC: PR: 100V: PP: DELINEATION: xc: channel: xc: fill: b: b: 01: XC: INITIAL: EC

DRAWN BY: TBI	JOB DATE: 3/22/2023	BAR IS ONE INCH ON OFFICIAL DRAWINGS.
APPROVED: CMM	JOB NUMBER: 201662.03	0" = 1"
CAD DATE: 3/27/2023		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD FILE: J:\2020\201662.03\CAD\DWGS\CIP\PLAN AND PROFILE		

NO.	DATE	BY	REVISION DESCRIPTION

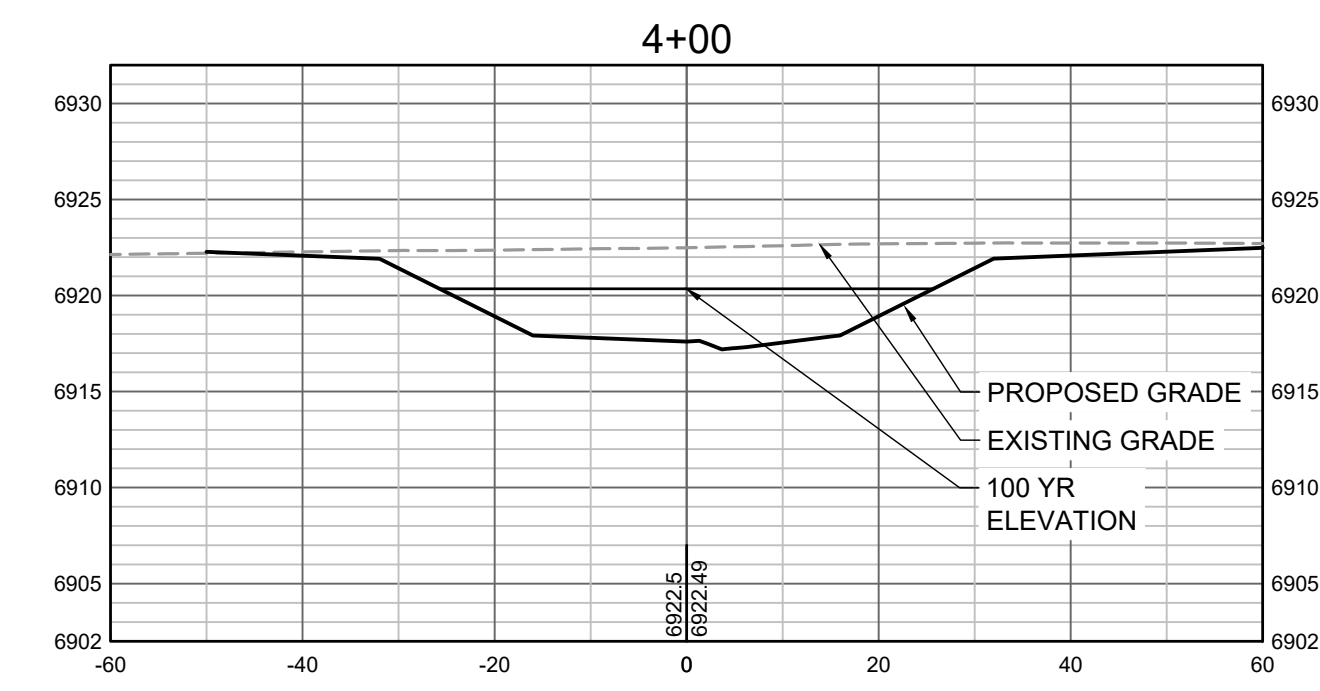
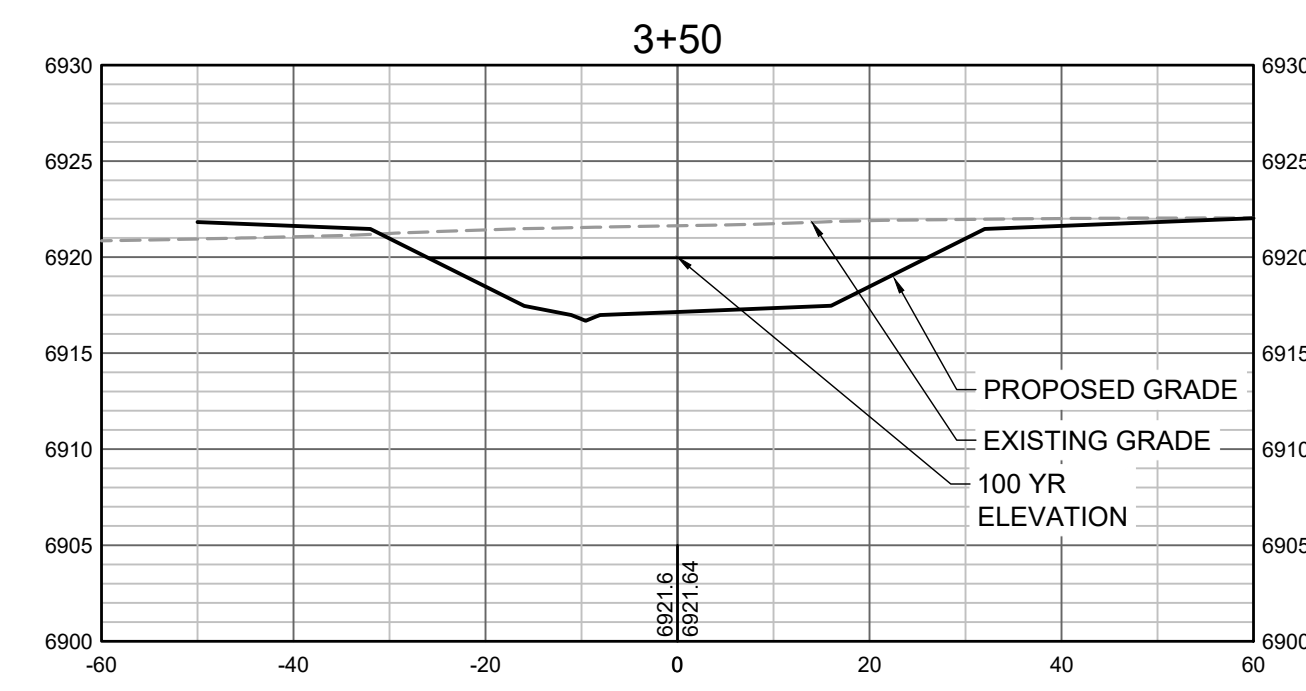
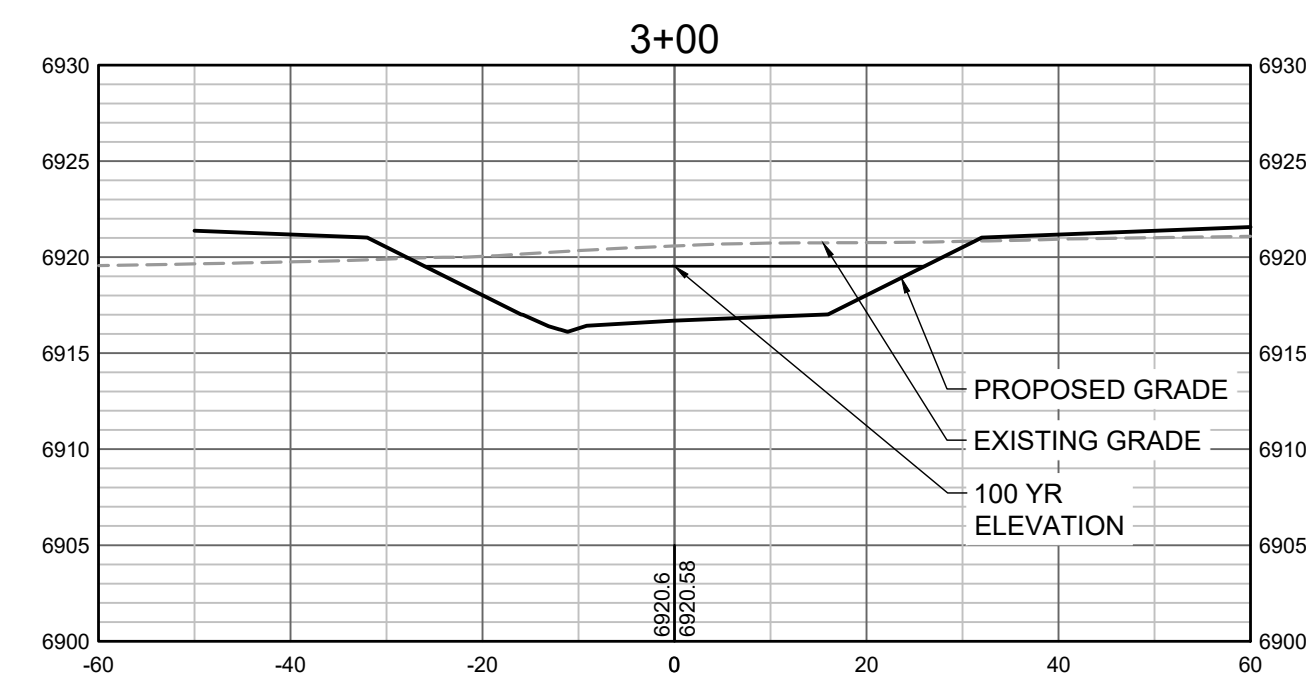
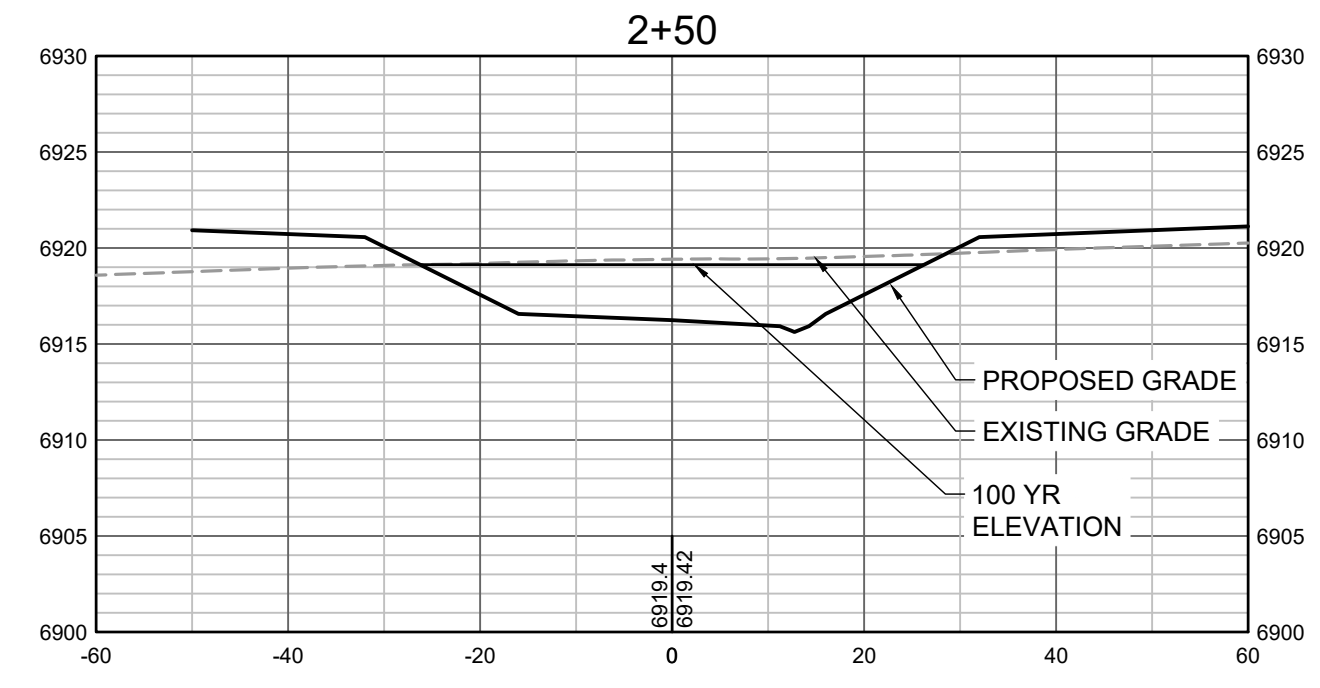
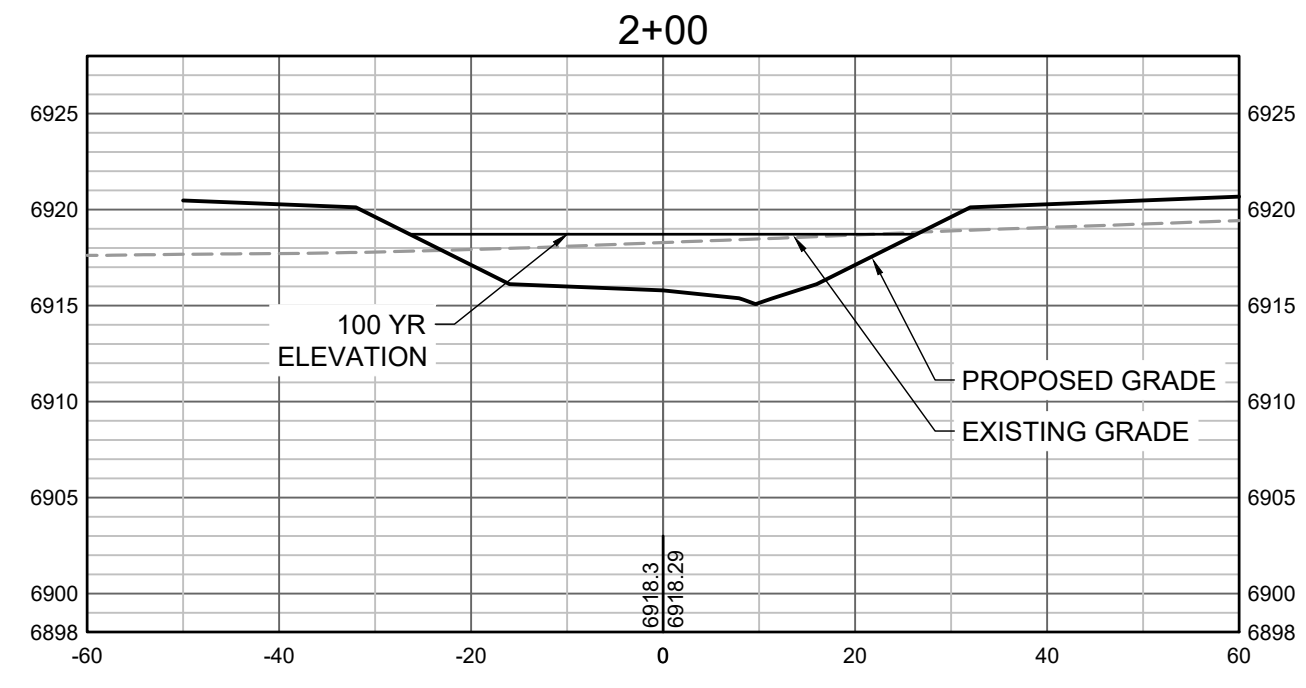
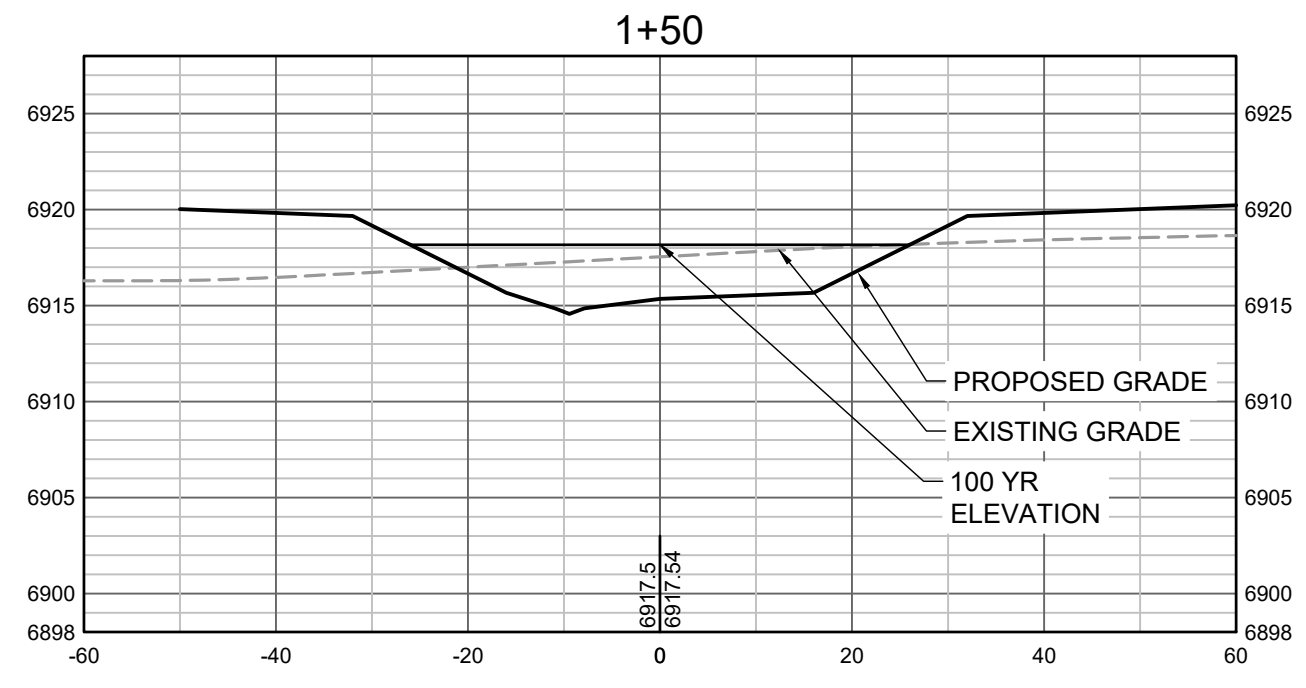
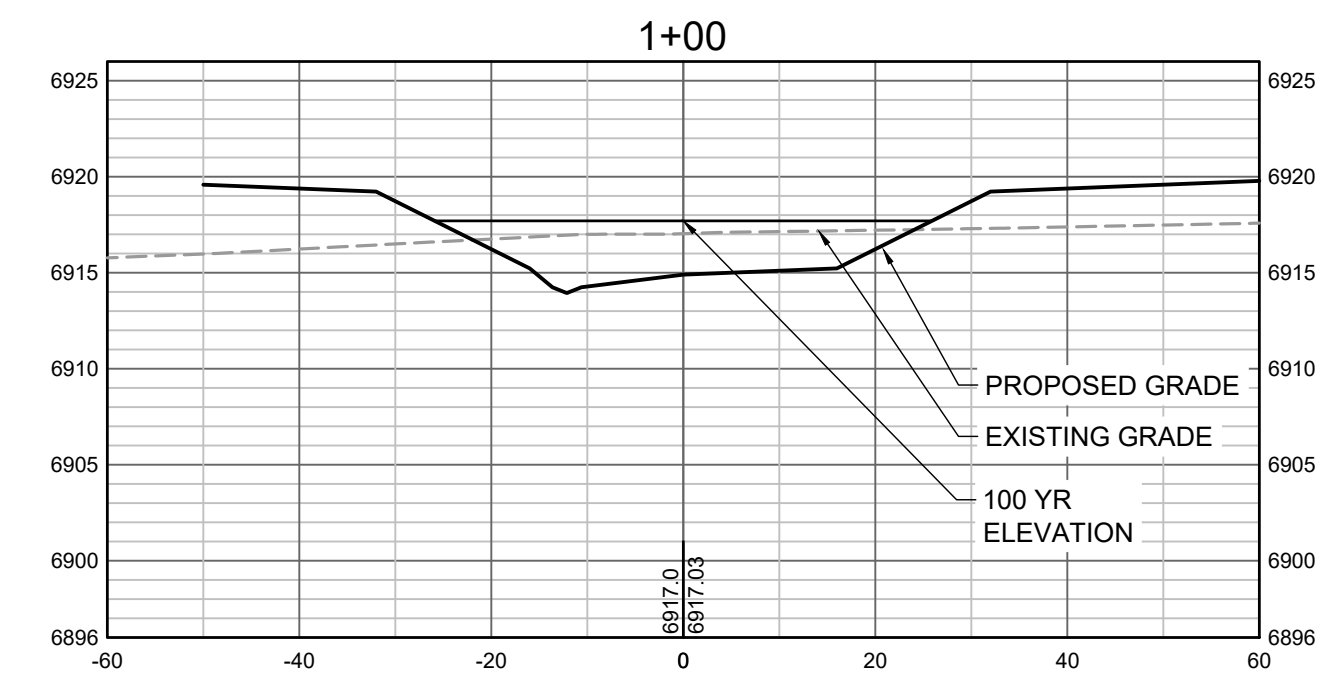
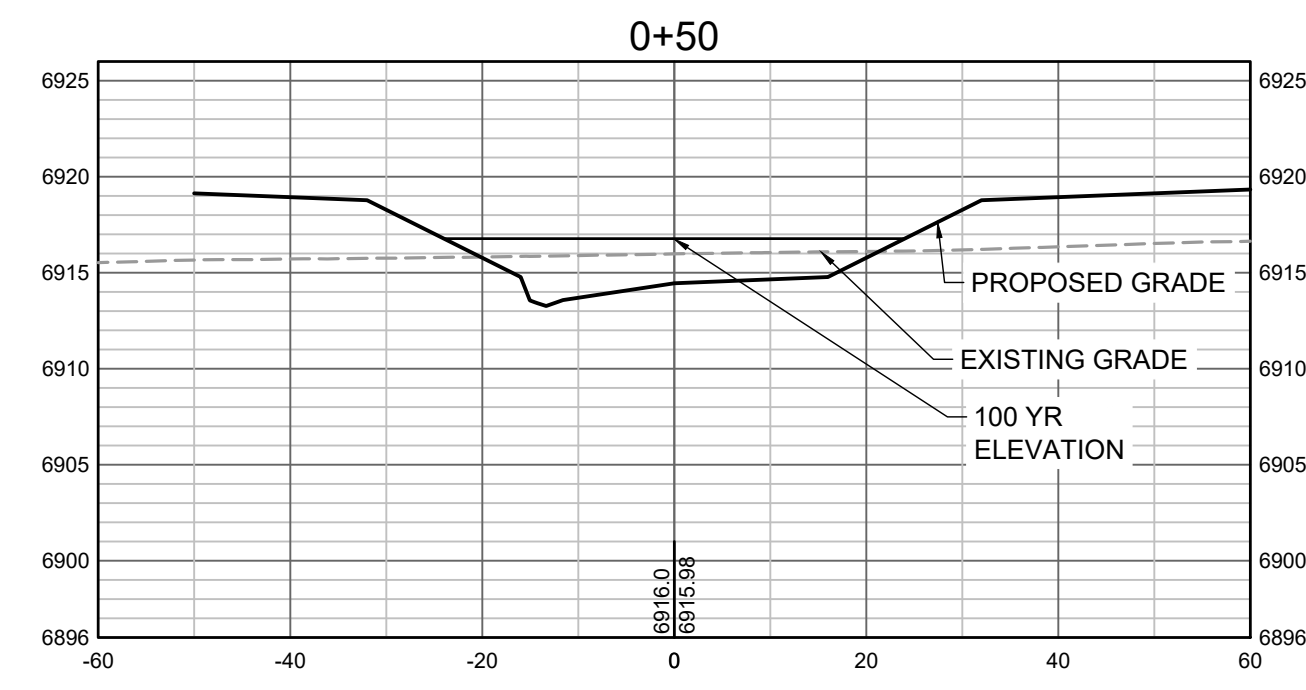
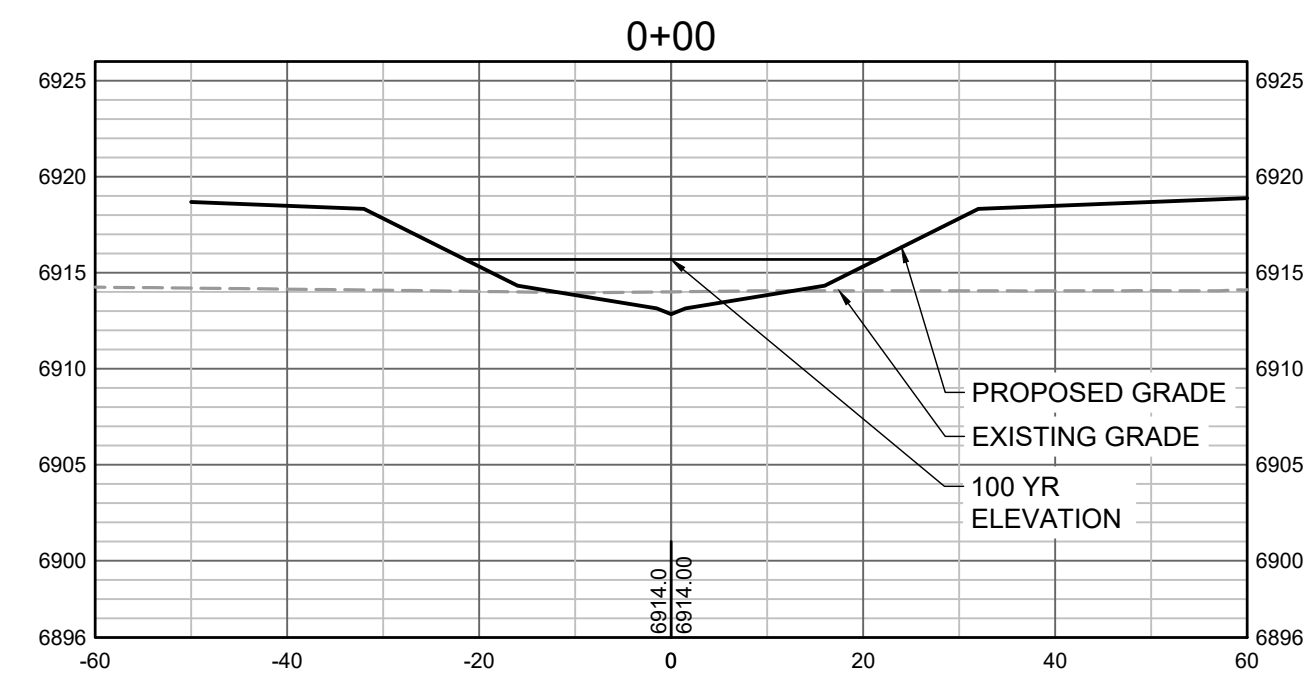
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GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
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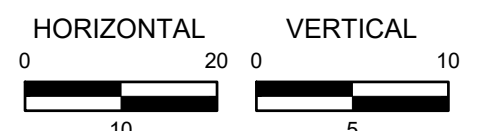
CONSTRUCTION DOCUMENTS
 DRAINAGE CULVERTS PLAN AND PROFILE

SHEET
PP5
 29

811 UNCC
 CALL BEFORE YOU DIG
 811
 OR
 1-800-922-1987
 Utility Notification
 Center of Colorado



PROPOSED GRADES TO TIE INTO GRANDVIEW RESERVE FILING 1. REFER TO THE GRANDVIEW RESERVE FILING 1 PLAN SET FOR CONTINUATION OF GRADING THAT IS BEING TIED INTO OUTSIDE OF CHANNEL GRADING LIMITS.



HR GREEN Xrefs: xgs-1-df01

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 CAD FILE: J:\2020\201662.03\CAD\DWG\C\CROSS SECTIONS

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NO.	DATE	BY	REVISION DESCRIPTION

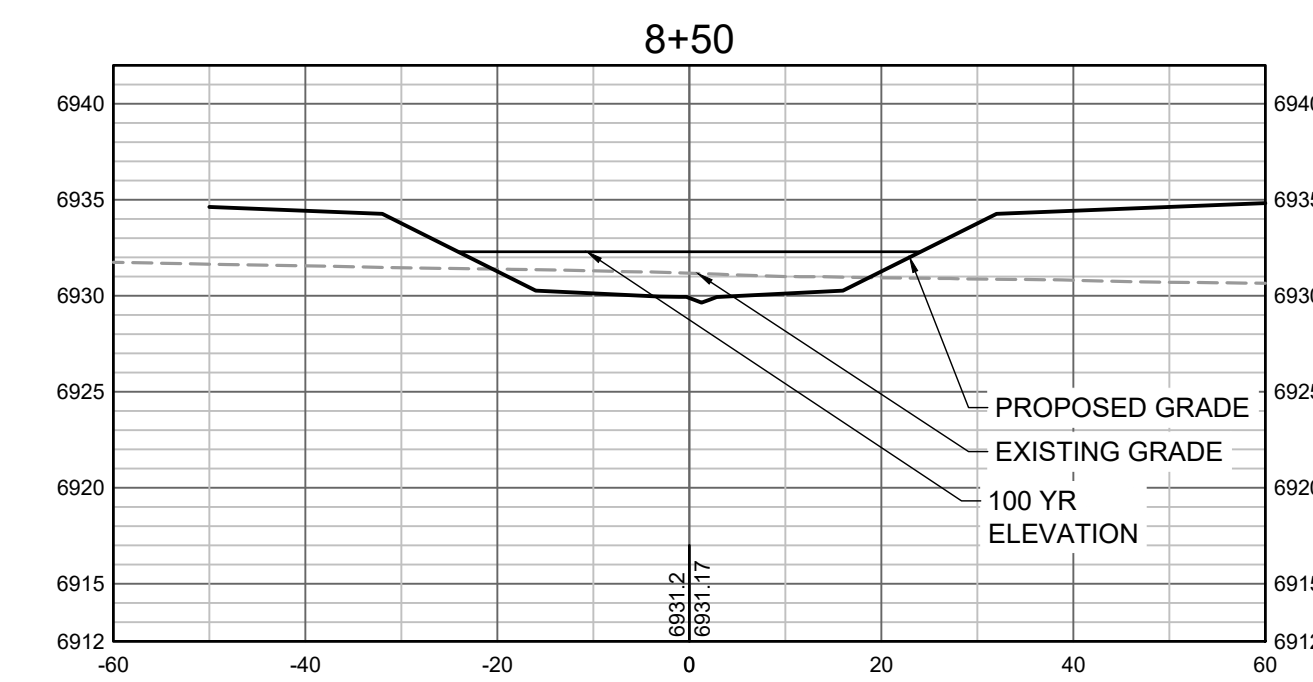
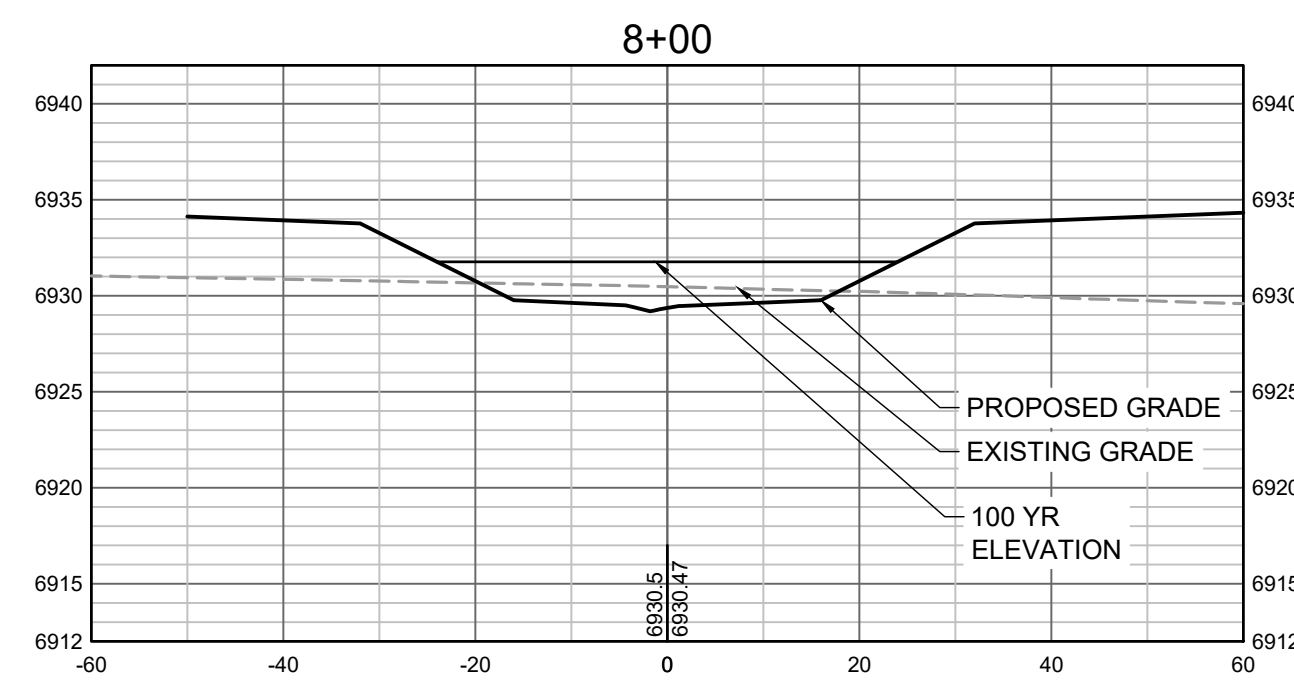
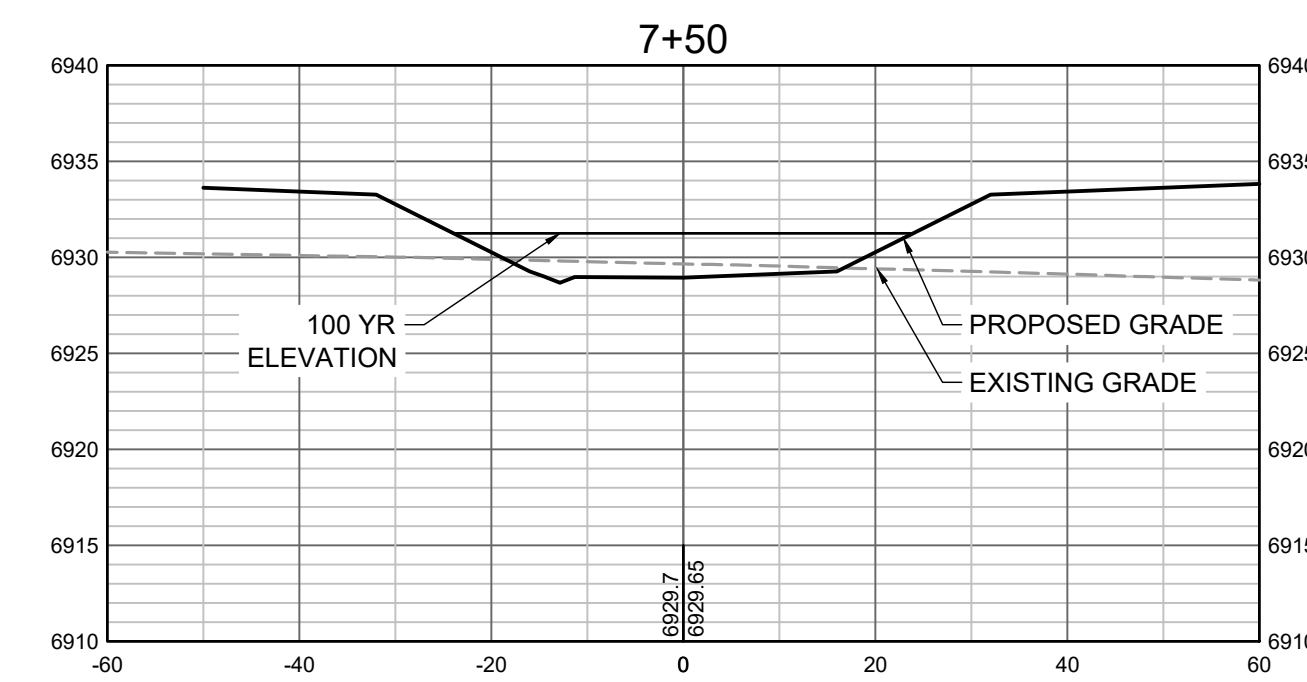
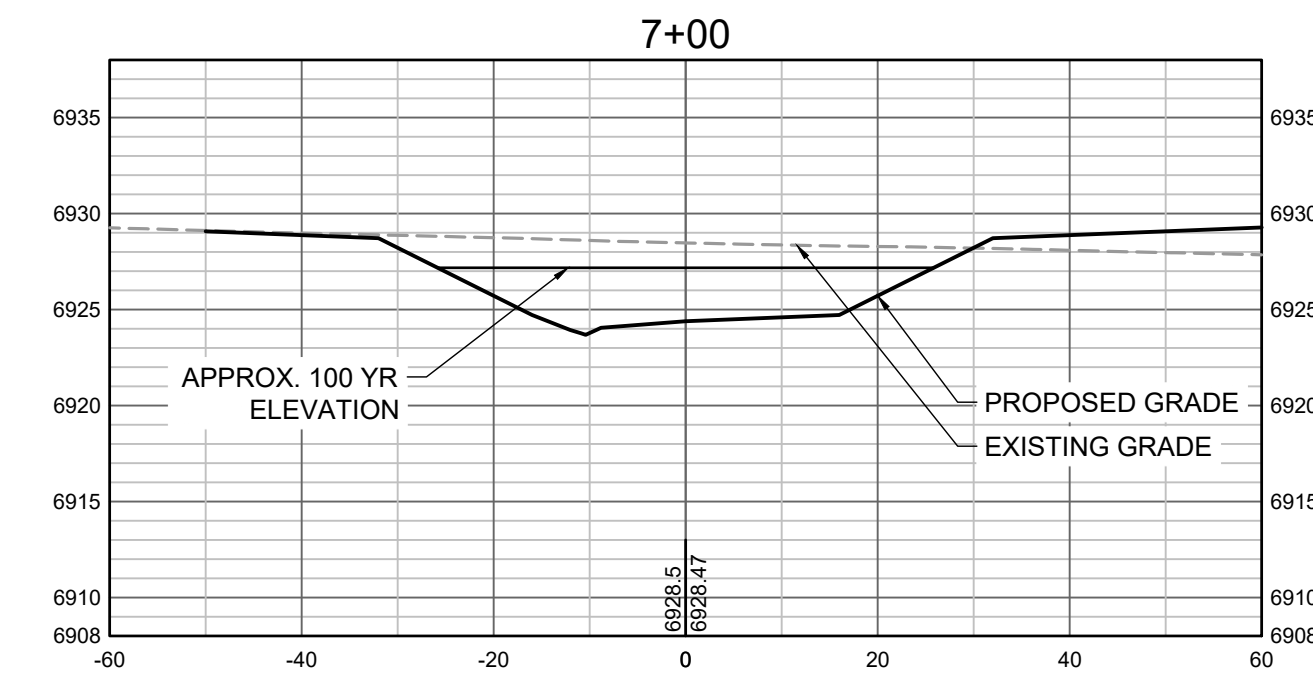
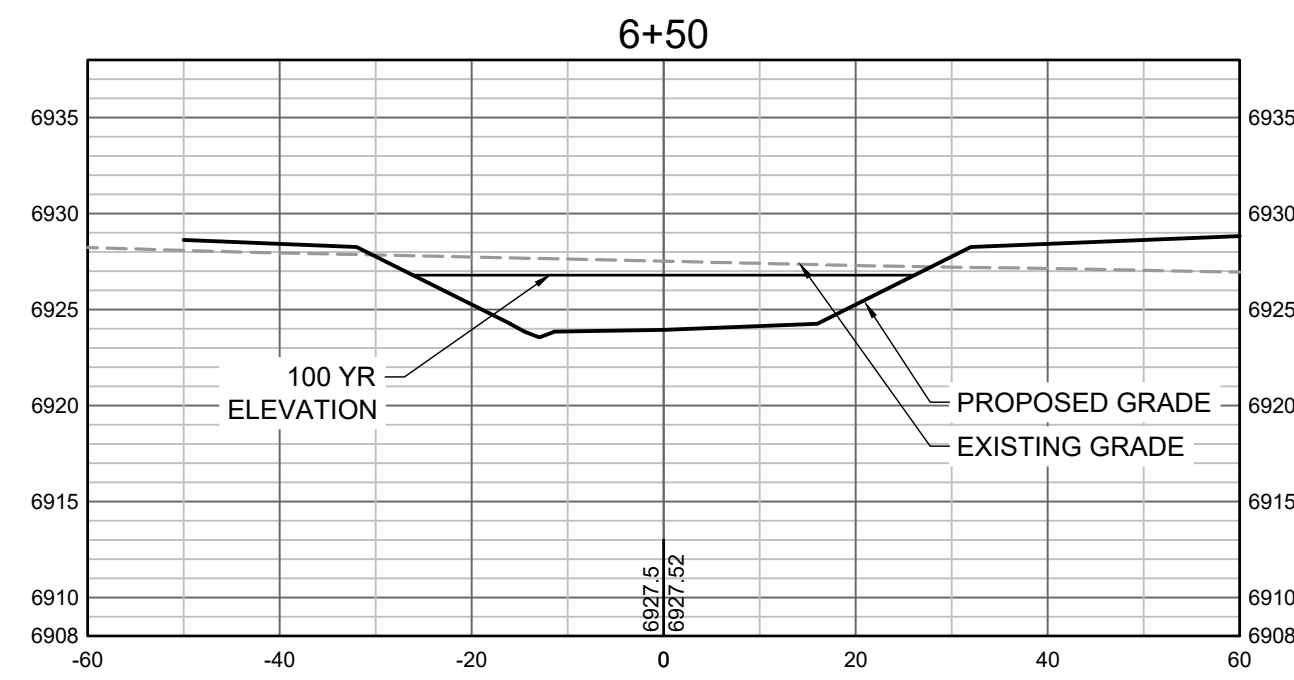
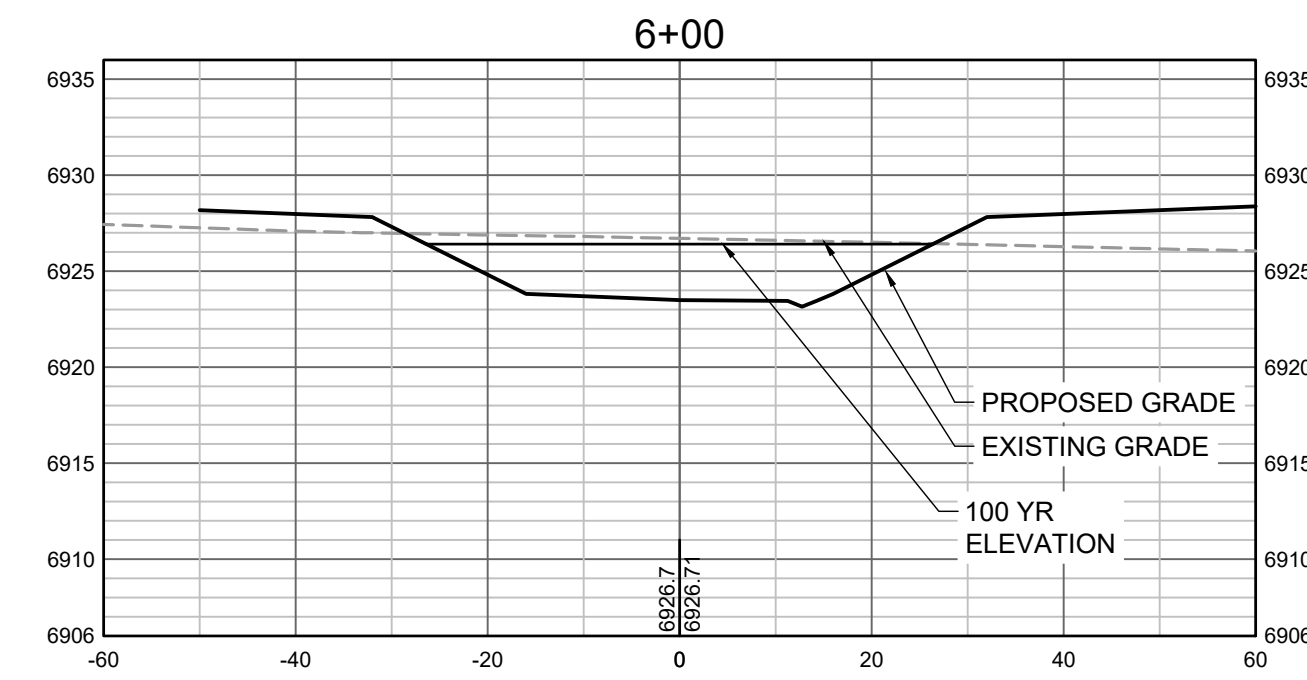
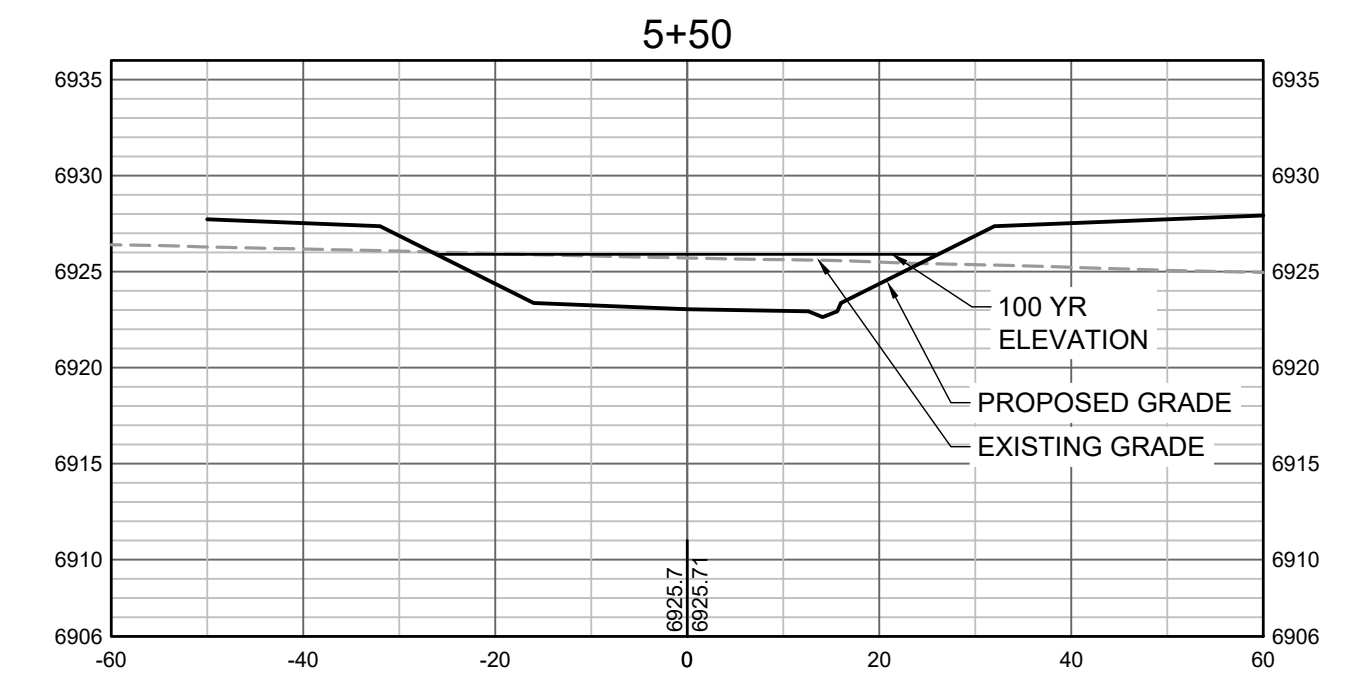
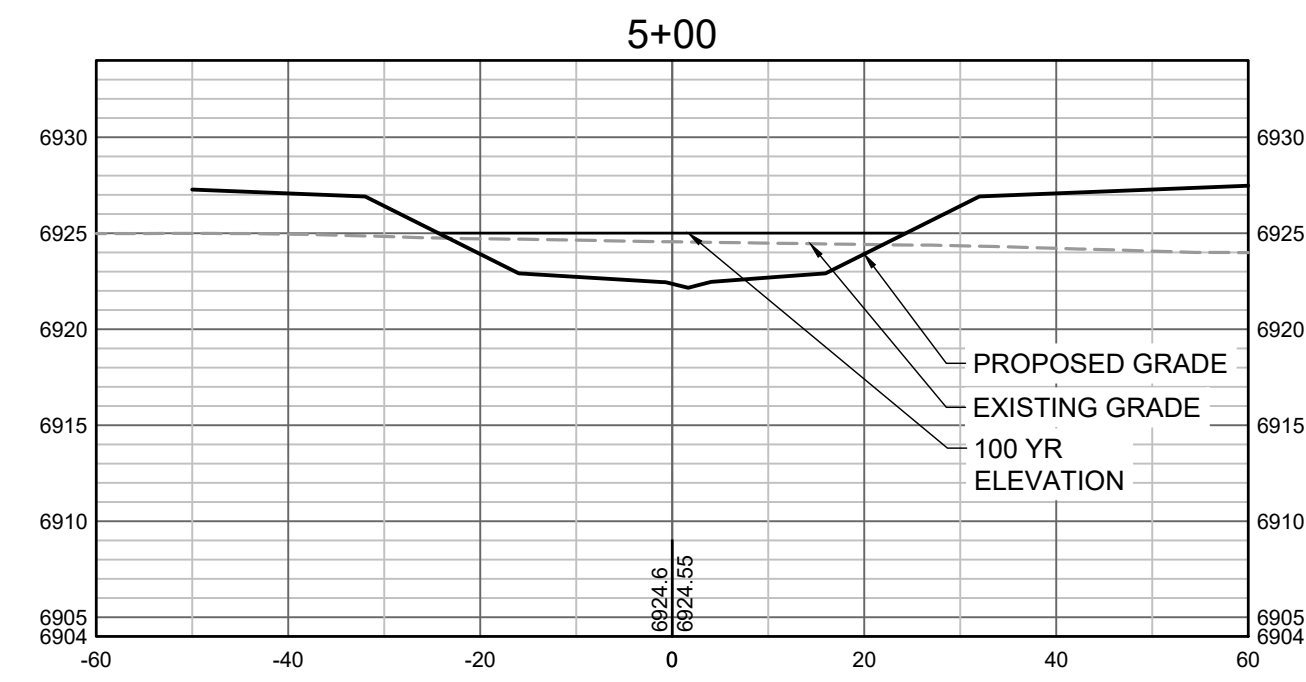
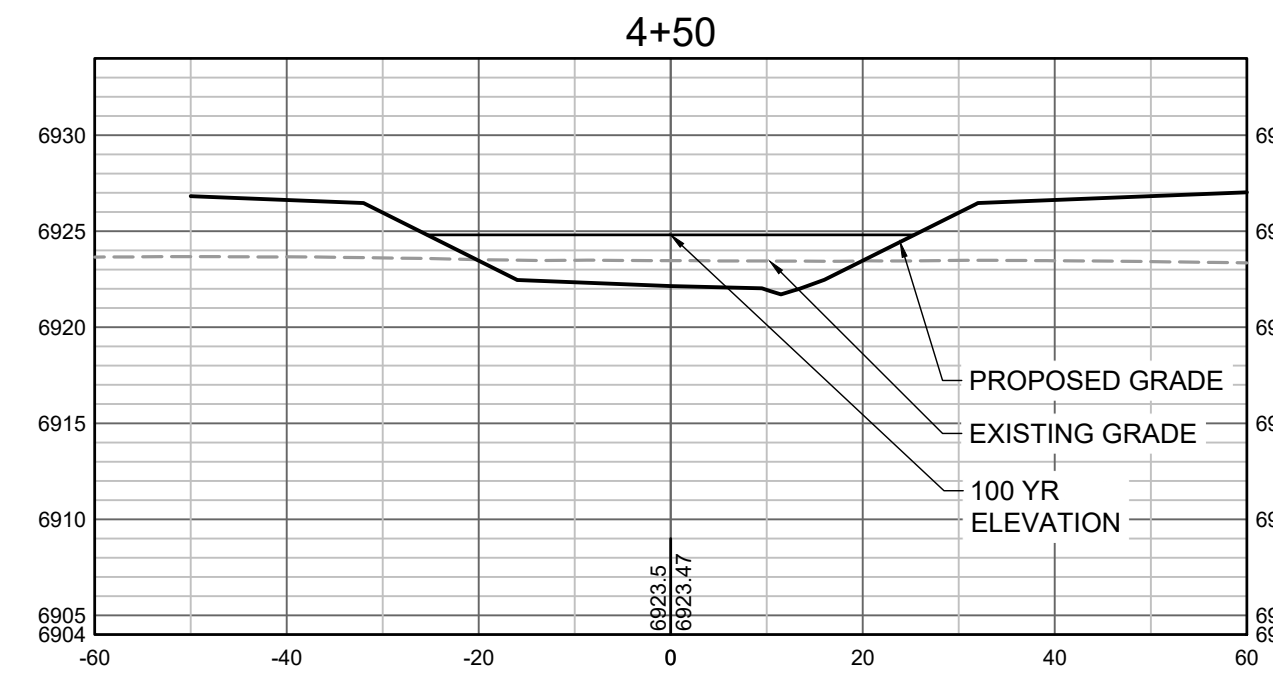


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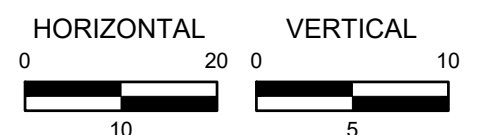
GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 CROSS SECTIONS

SHEET
CS1
 31



PROPOSED GRADES TO TIE INTO GRANDVIEW RESERVE FILING 1. REFER TO THE GRANDVIEW RESERVE FILING 1 PLAN SET FOR CONTINUATION OF GRADING THAT IS BEING TIED INTO OUTSIDE OF CHANNEL GRADING LIMITS.



HR GREEN Xrefs: xgs-1-dh01

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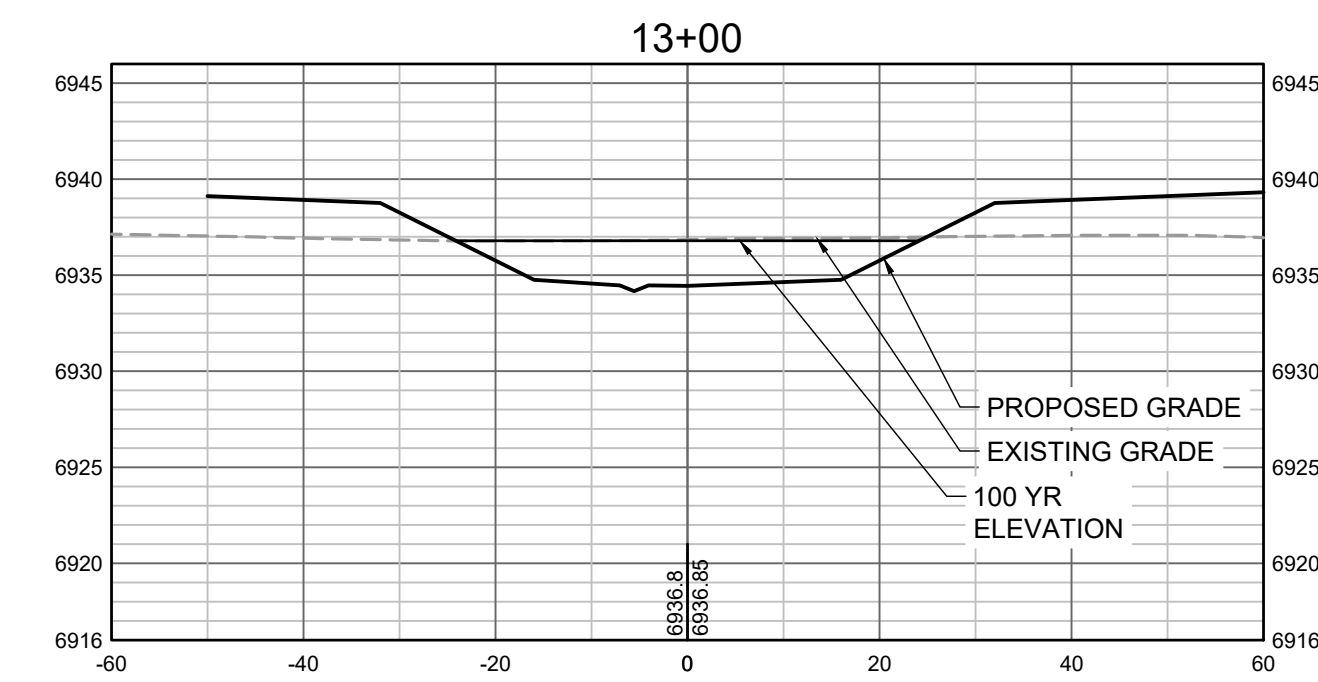
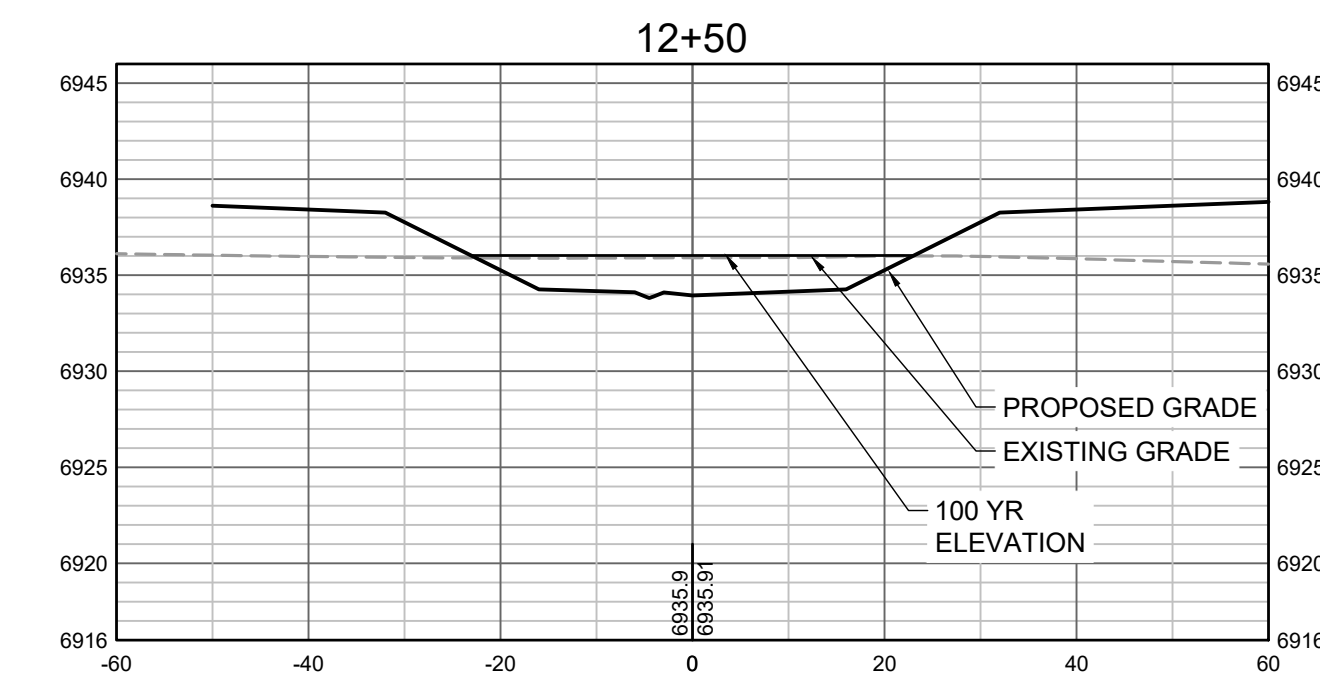
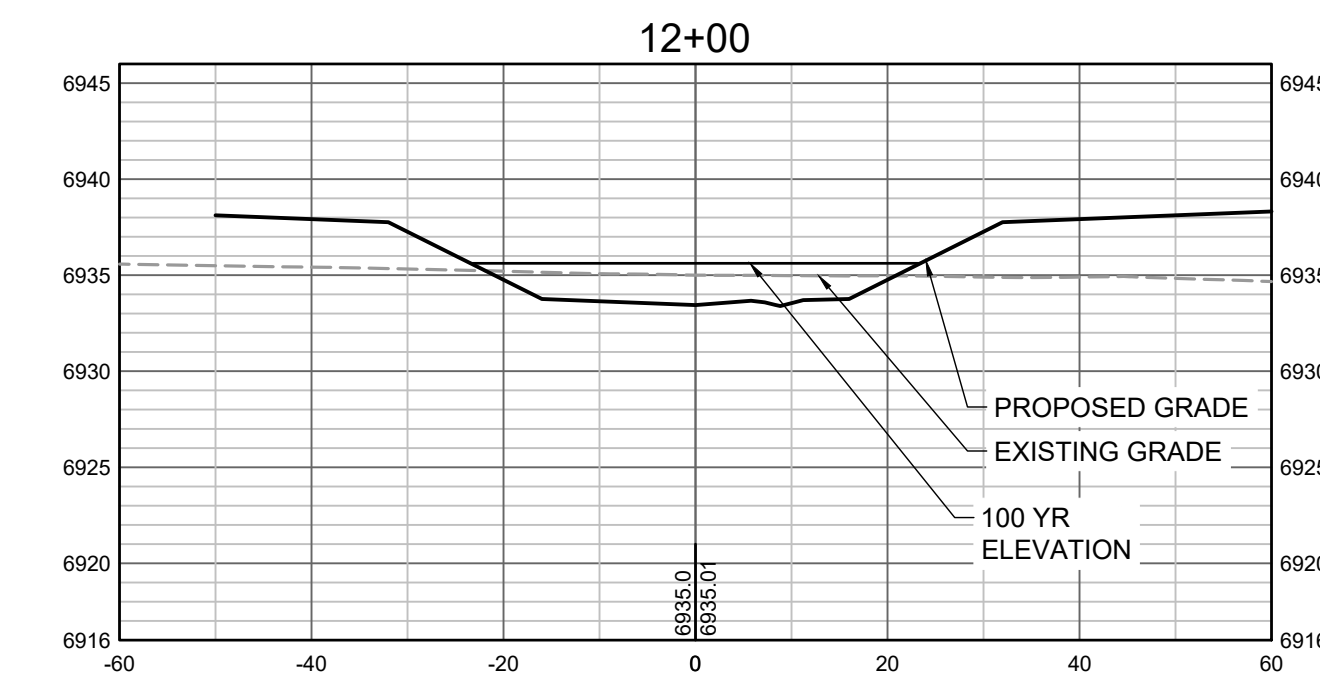
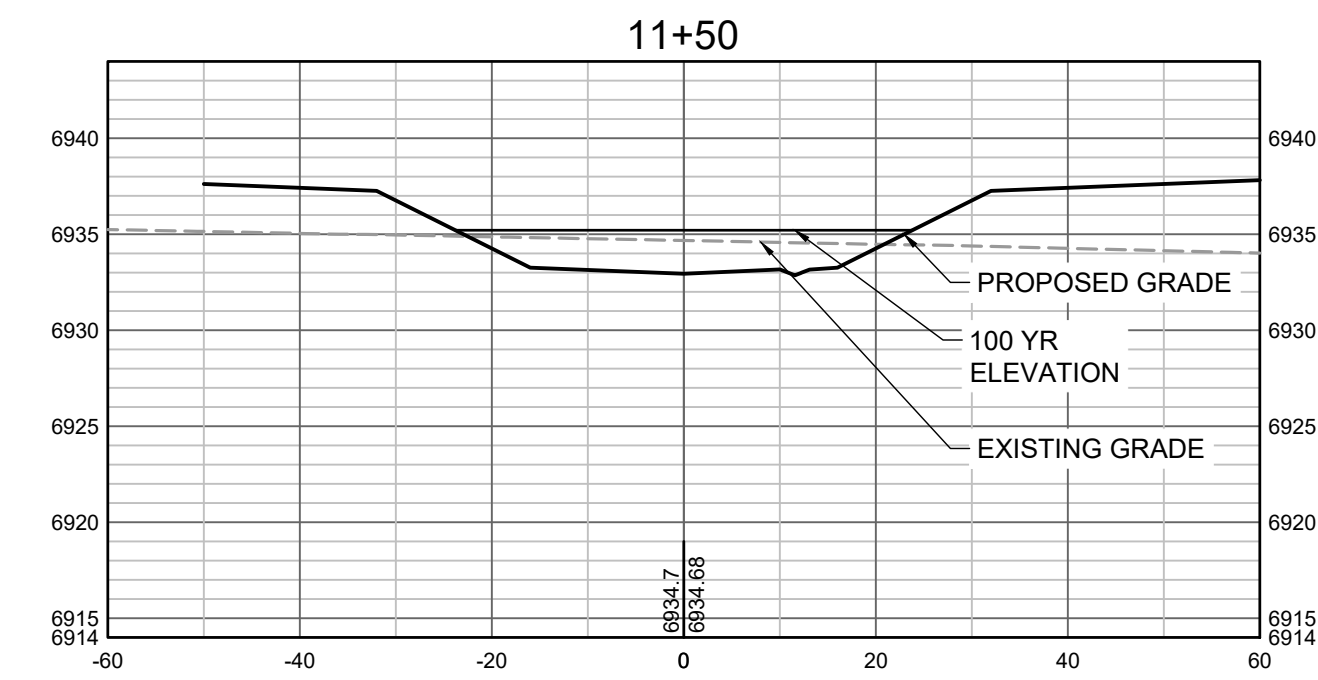
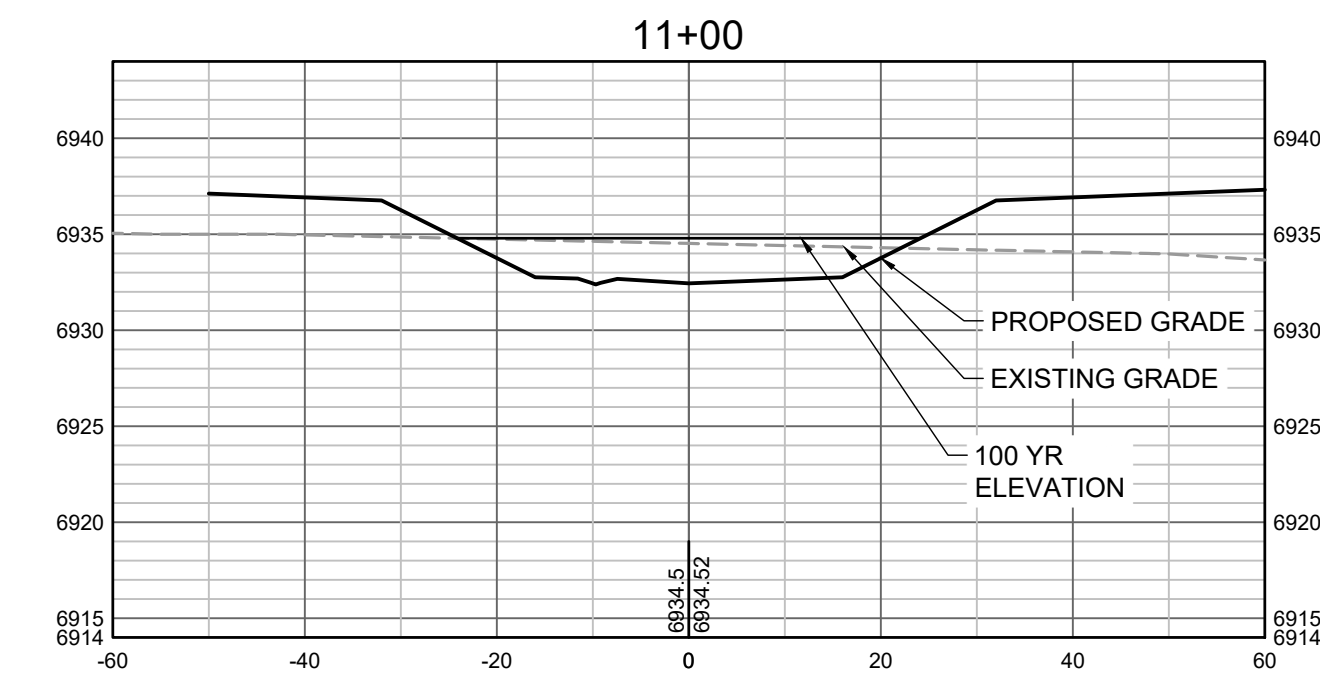
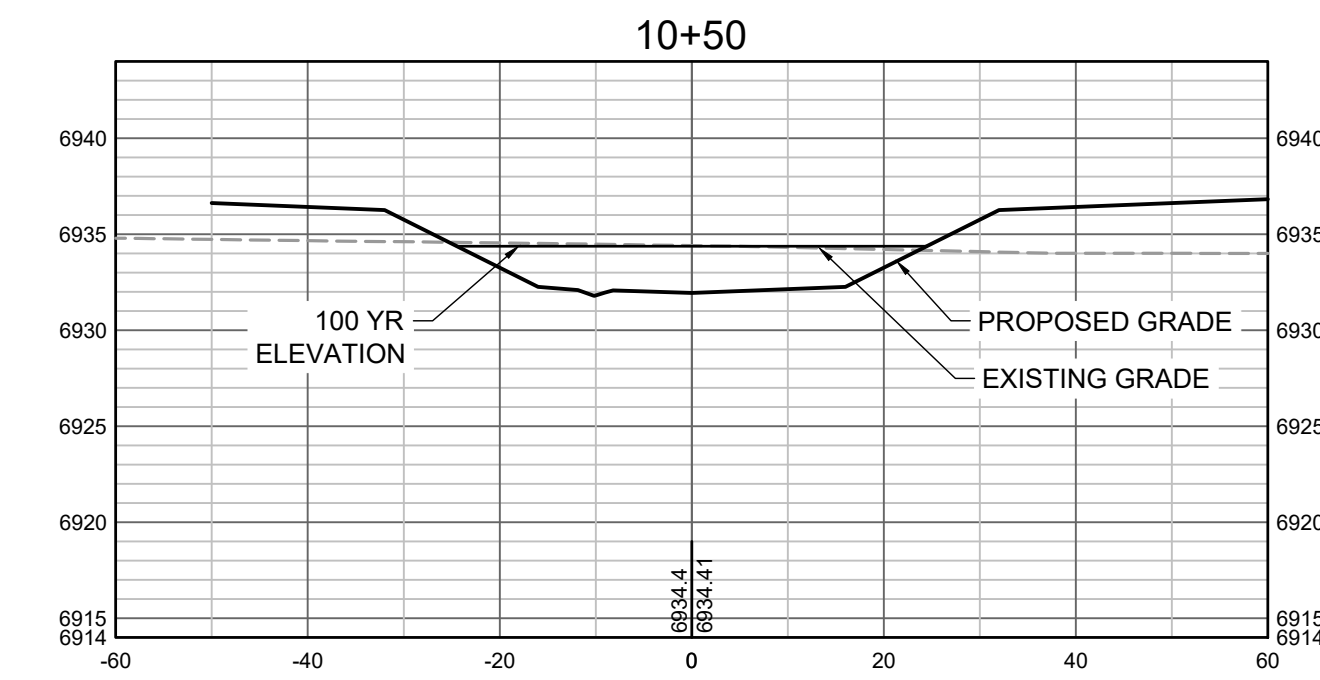
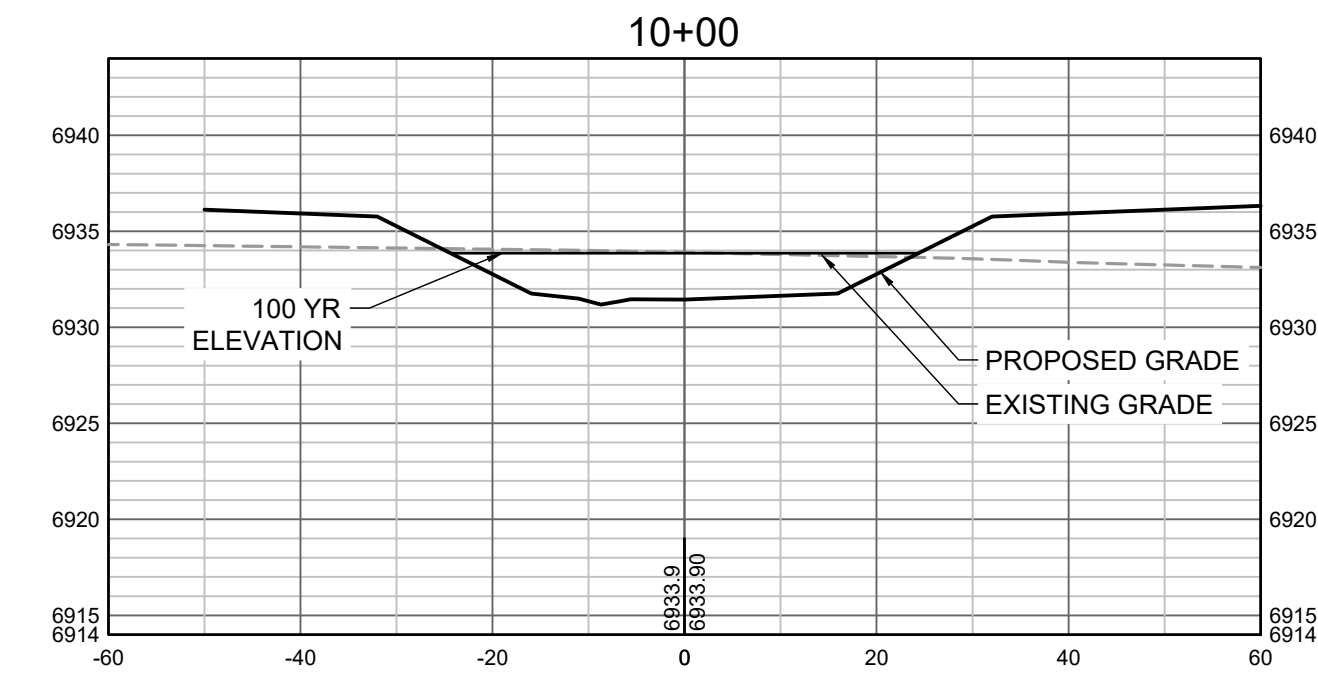
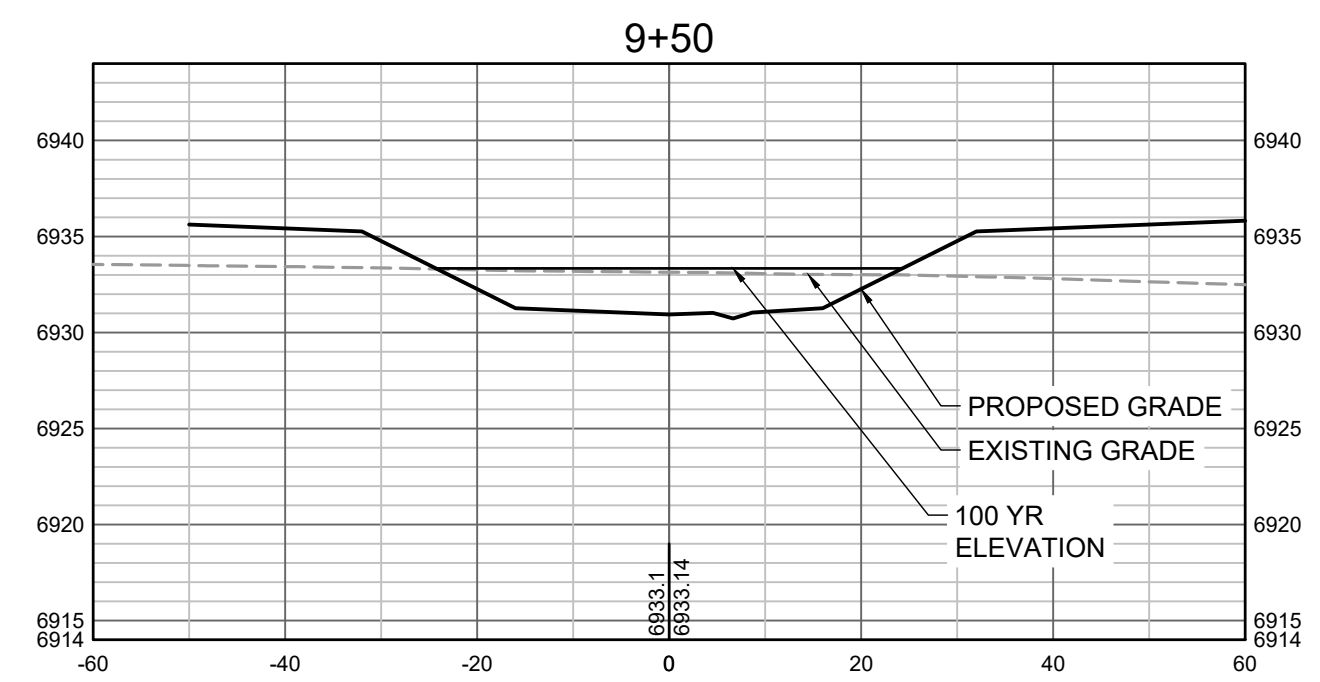
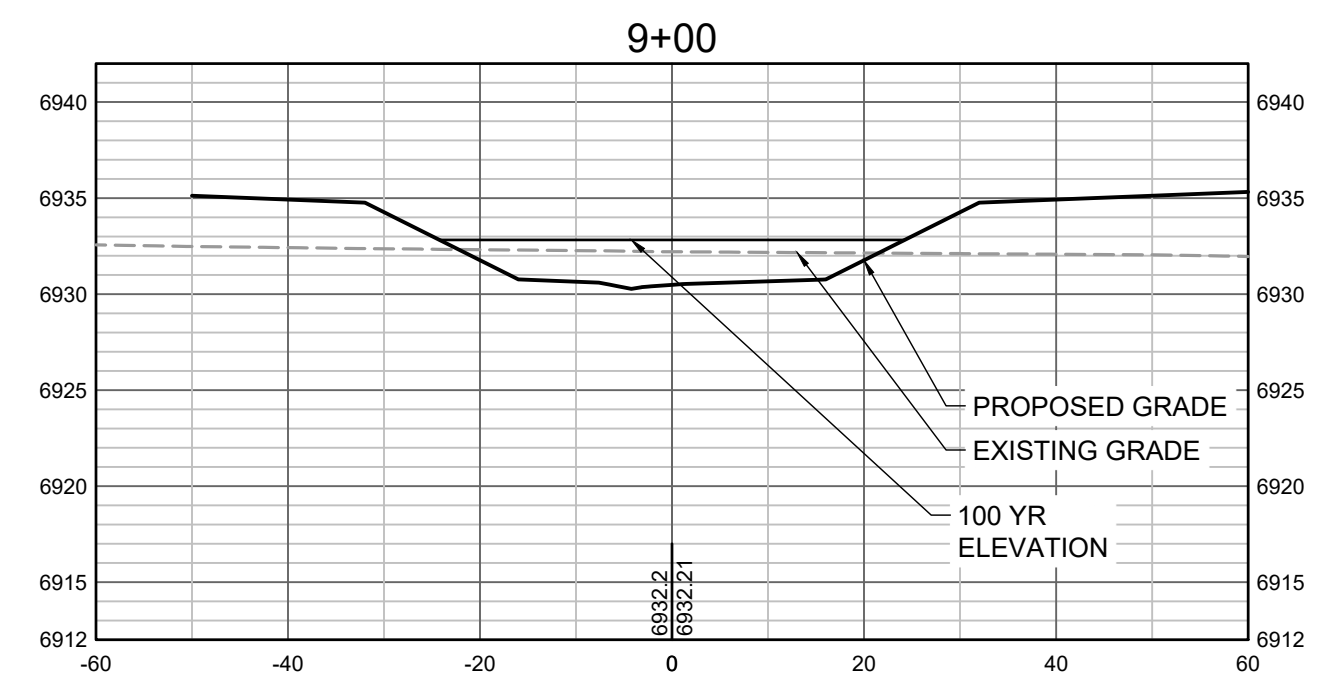


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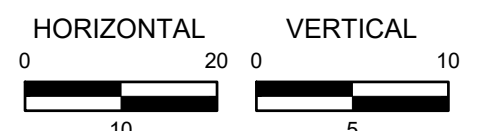
GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 CROSS SECTIONS

SHEET
CS2
 32



PROPOSED GRADES TO TIE INTO GRANDVIEW RESERVE FILING 1. REFER TO THE GRANDVIEW RESERVE FILING 1 PLAN SET FOR CONTINUATION OF GRADING THAT IS BEING TIED INTO OUTSIDE OF CHANNEL GRADING LIMITS.



HR GREEN Xrefs: xgs-1-dh01

DRAWN BY: TBI JOB DATE: 3/22/2023
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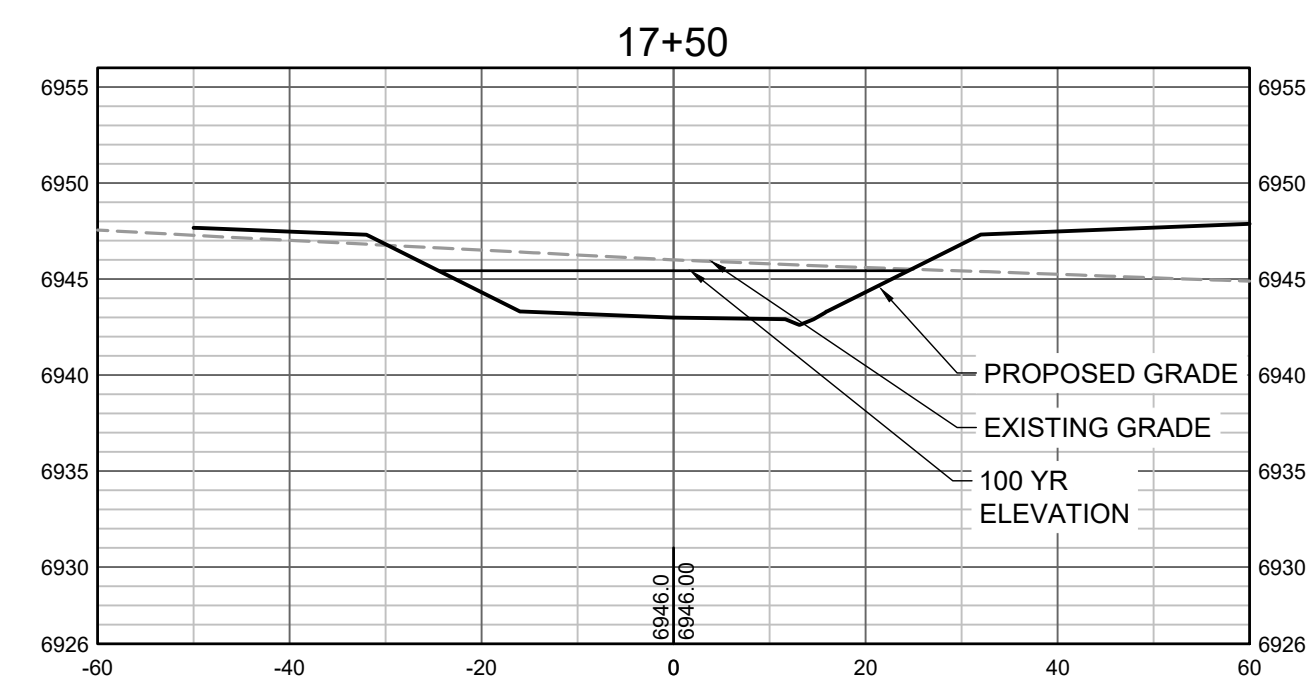
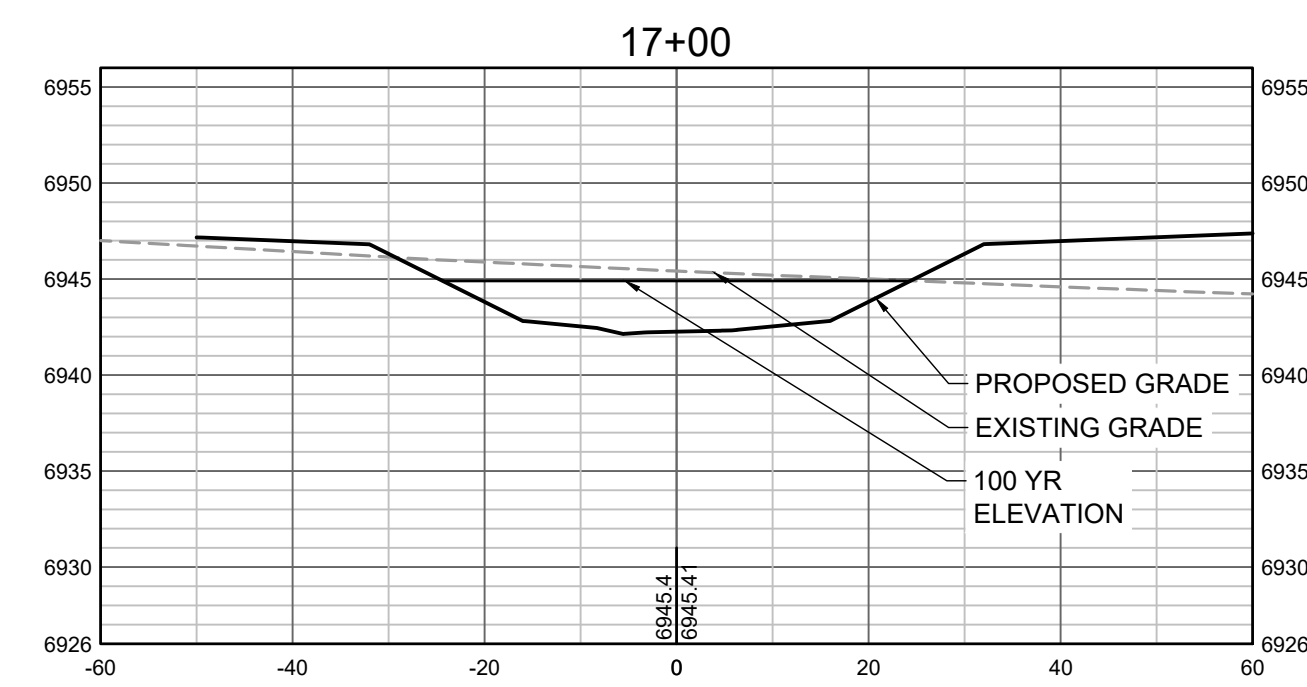
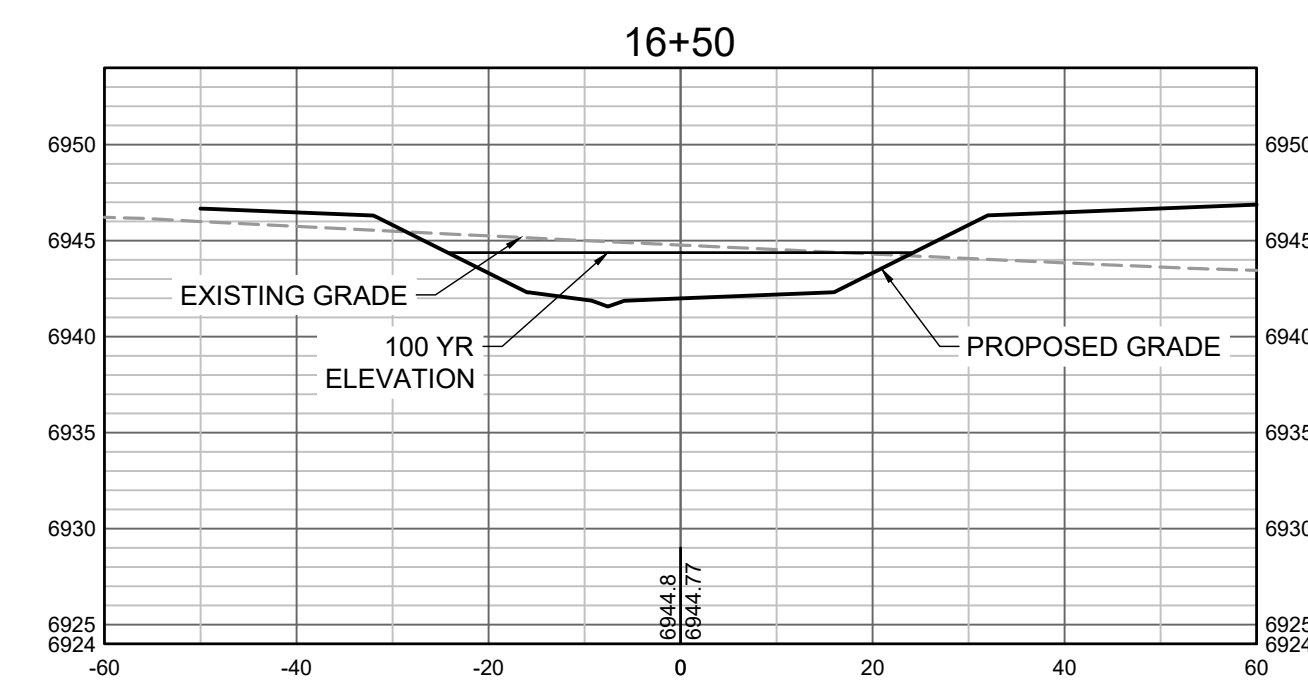
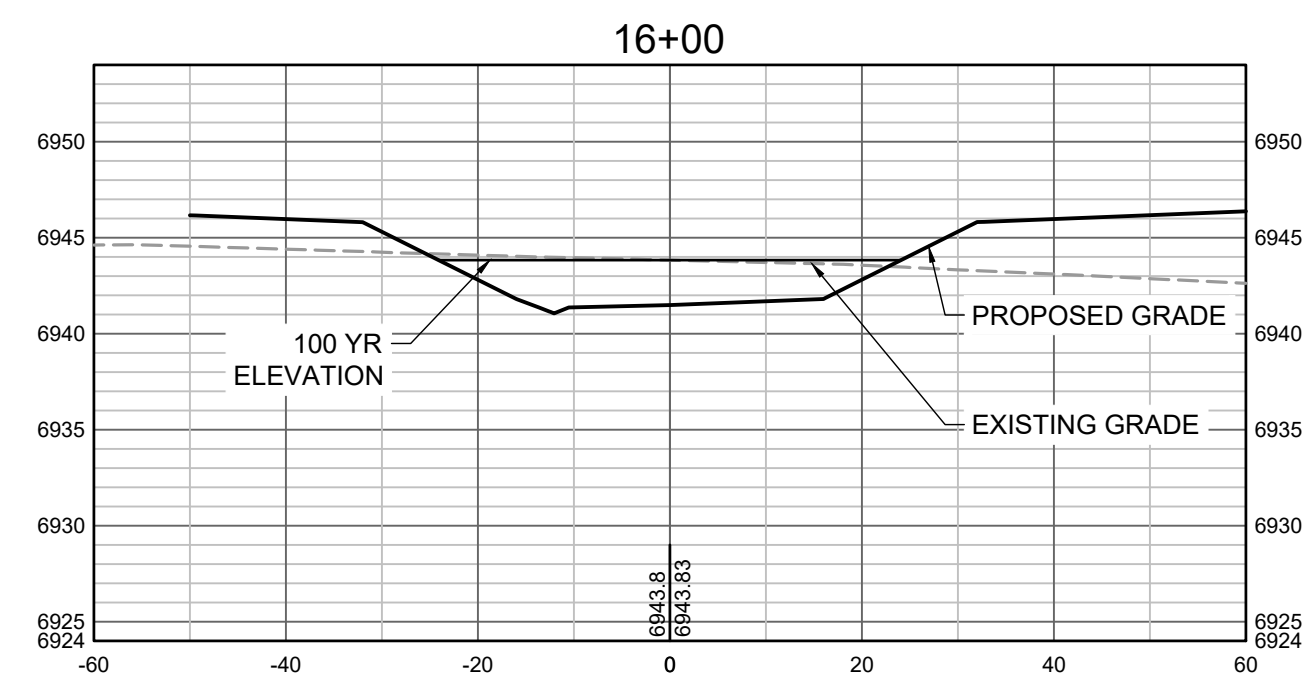
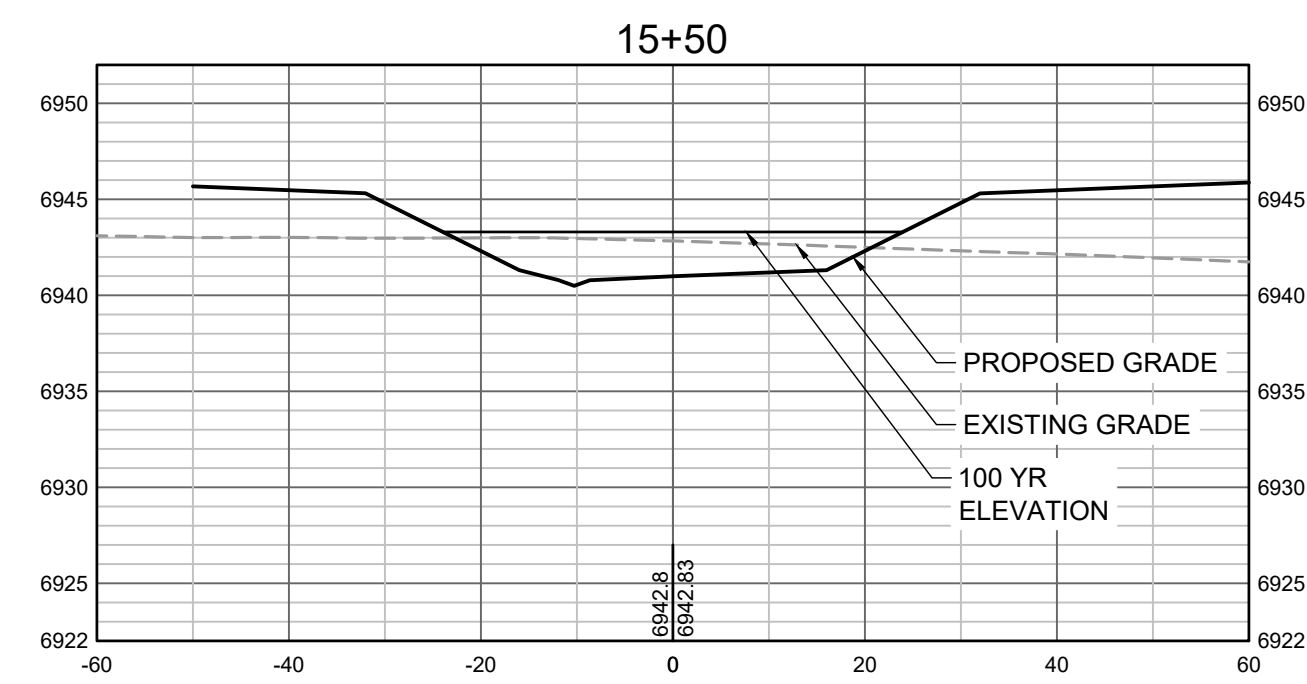
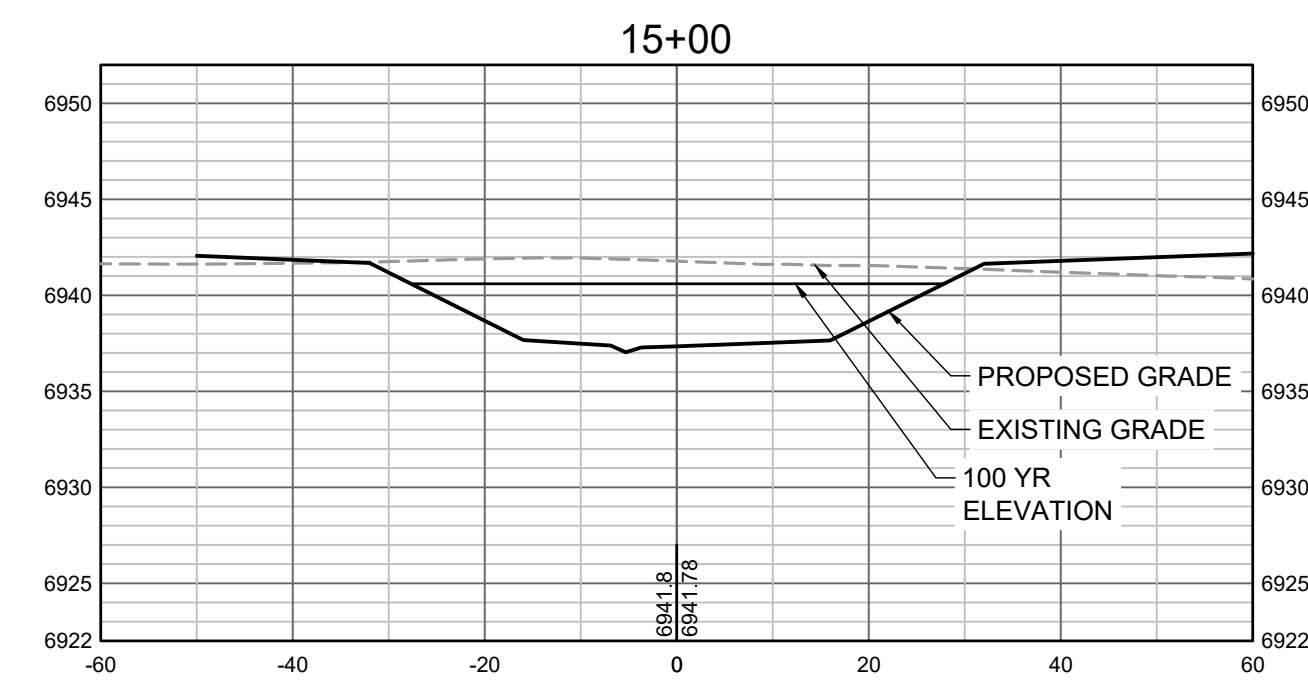
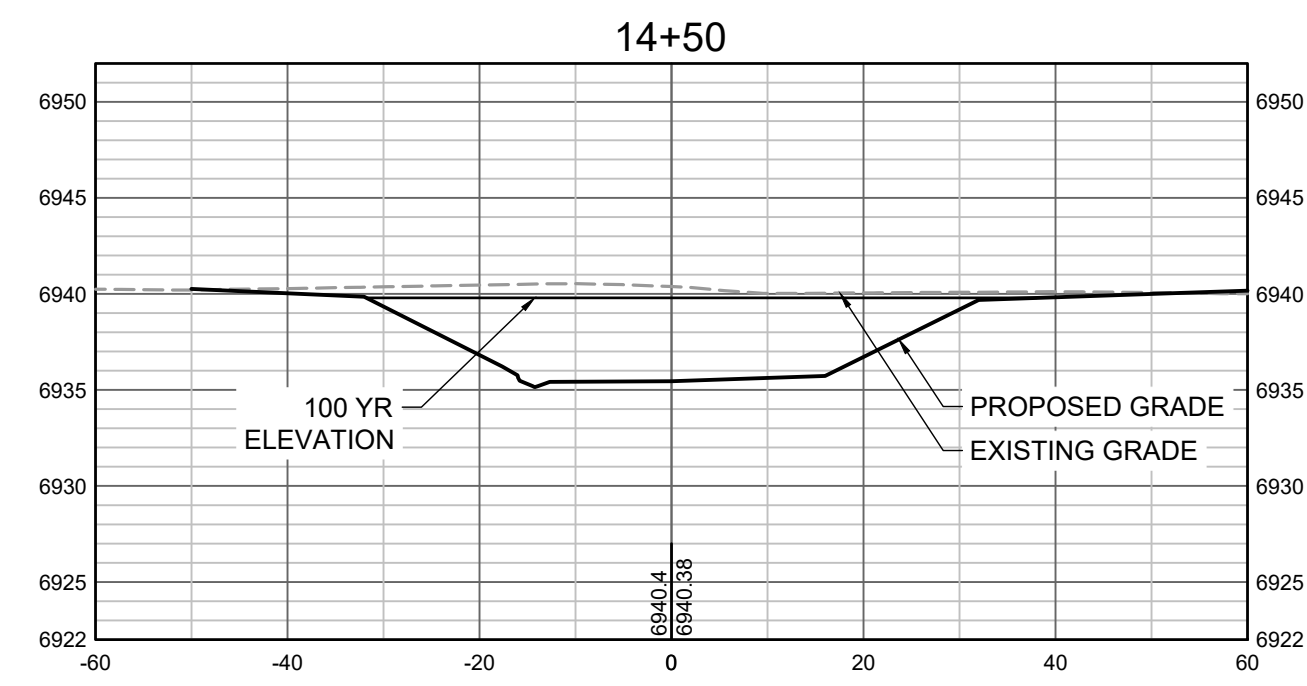
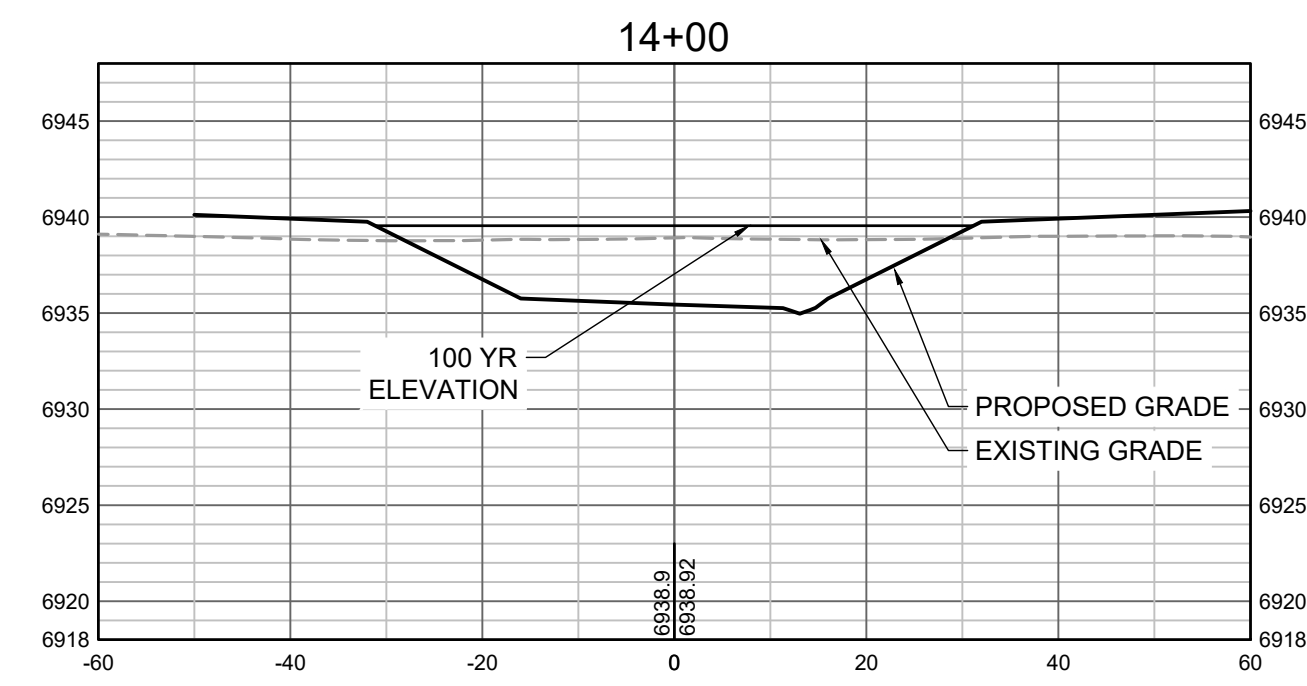
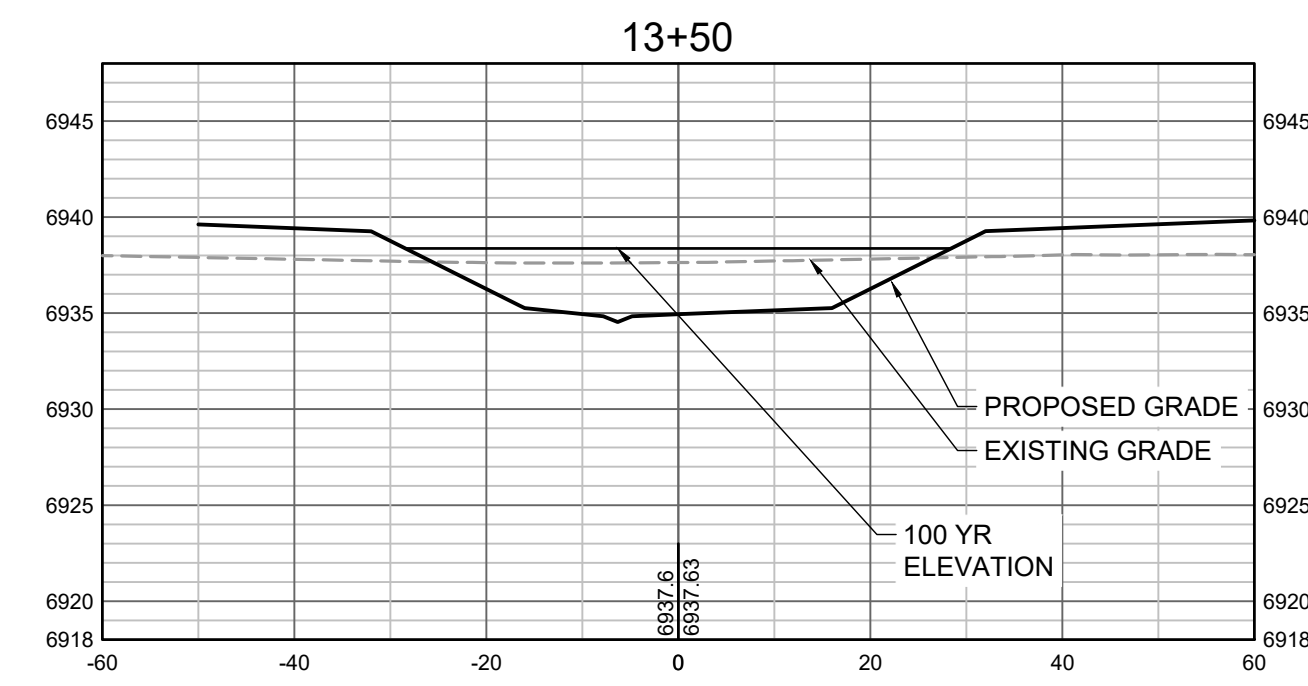


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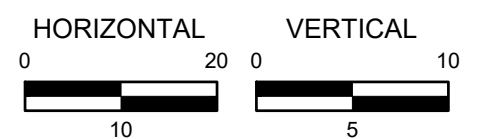
GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 CROSS SECTIONS

SHEET
CS3
33



PROPOSED GRADES TO TIE INTO GRANDVIEW RESERVE FILING 1. REFER TO THE GRANDVIEW RESERVE FILING 1 PLAN SET FOR CONTINUATION OF GRADING THAT IS BEING TIED INTO OUTSIDE OF CHANNEL GRADING LIMITS.



HR GREEN Xrefs: xgs1-dh01

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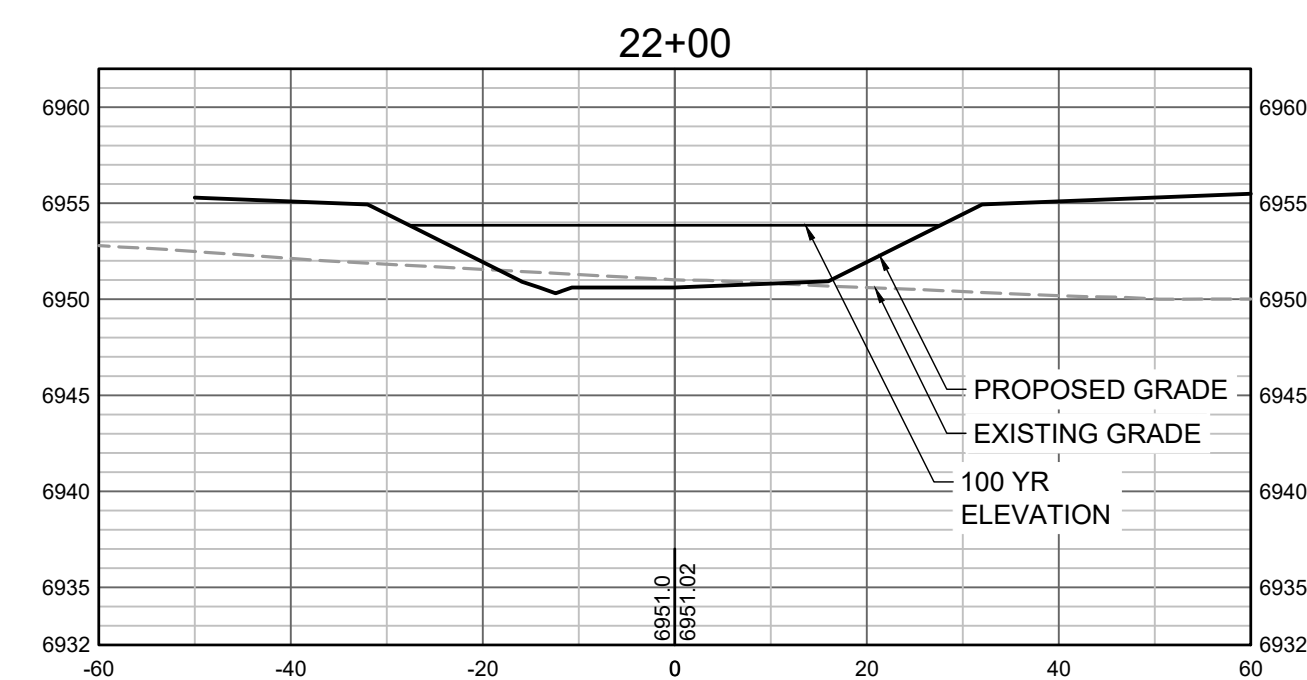
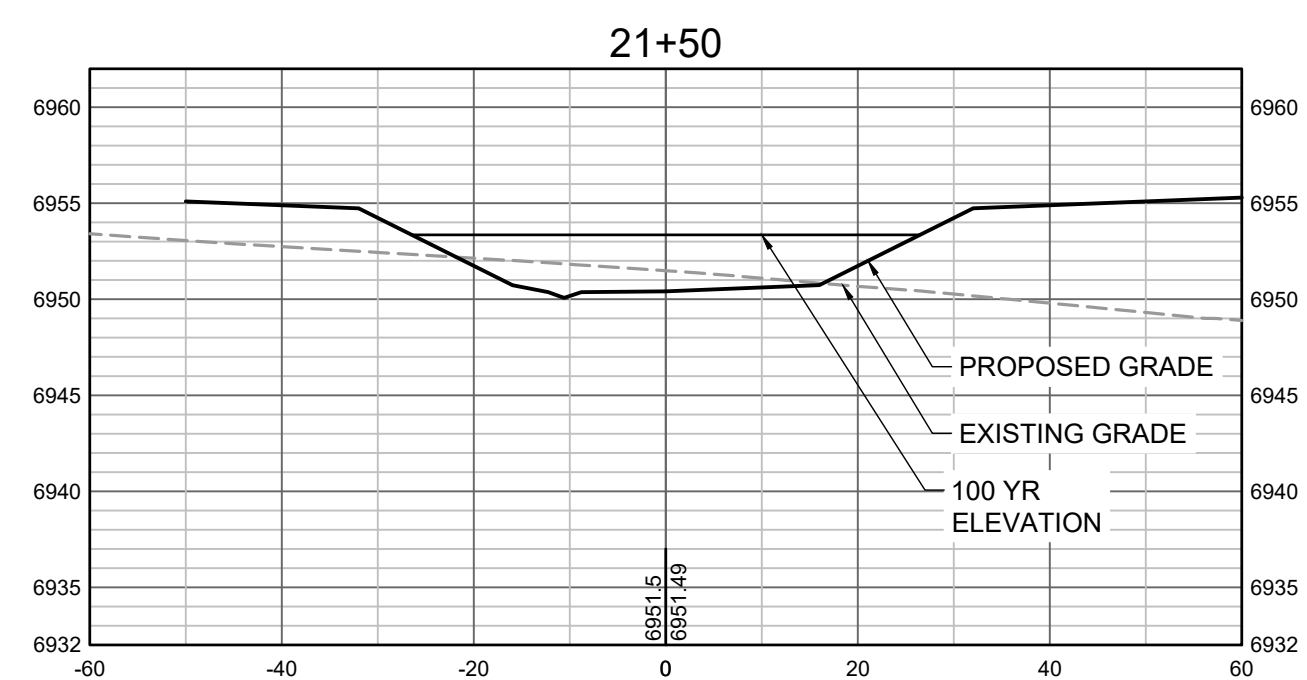
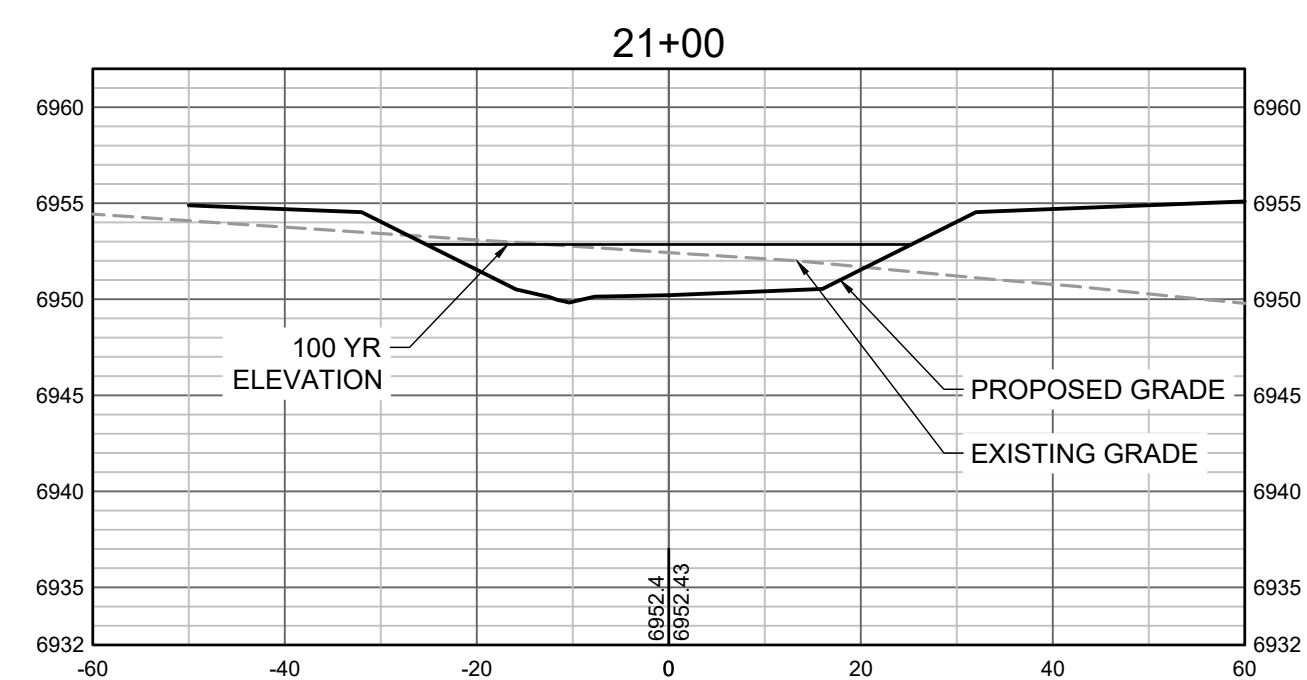
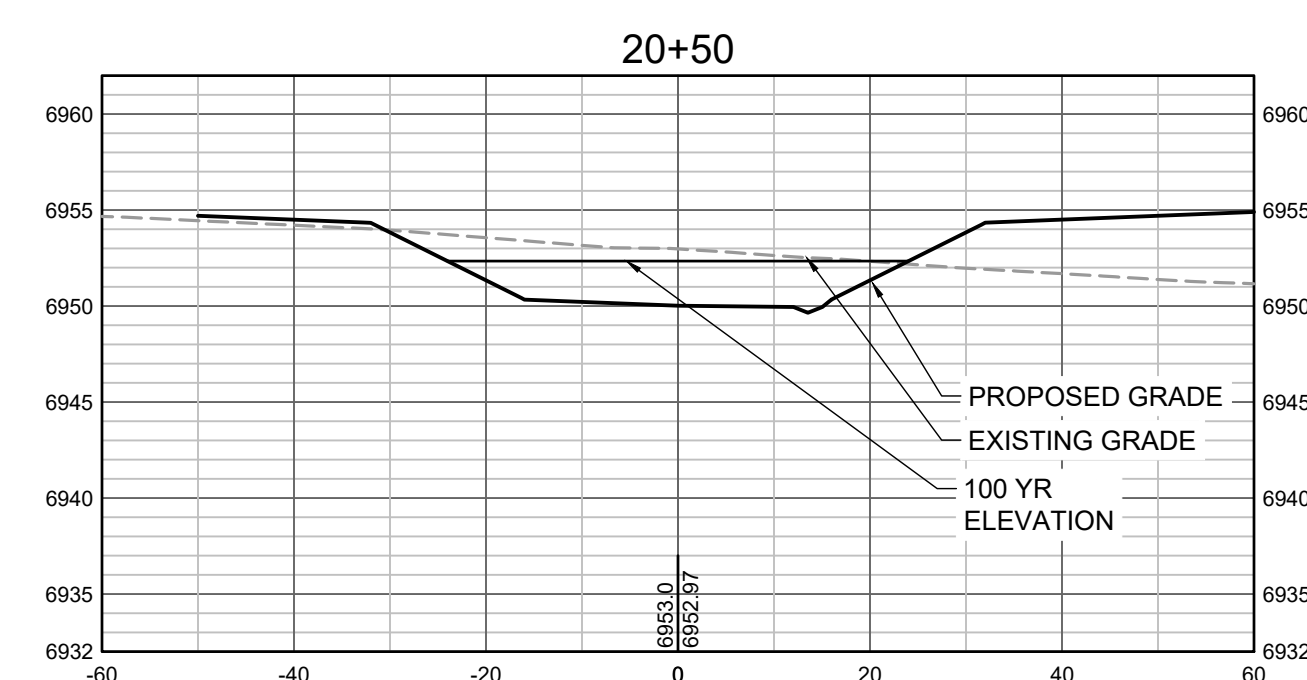
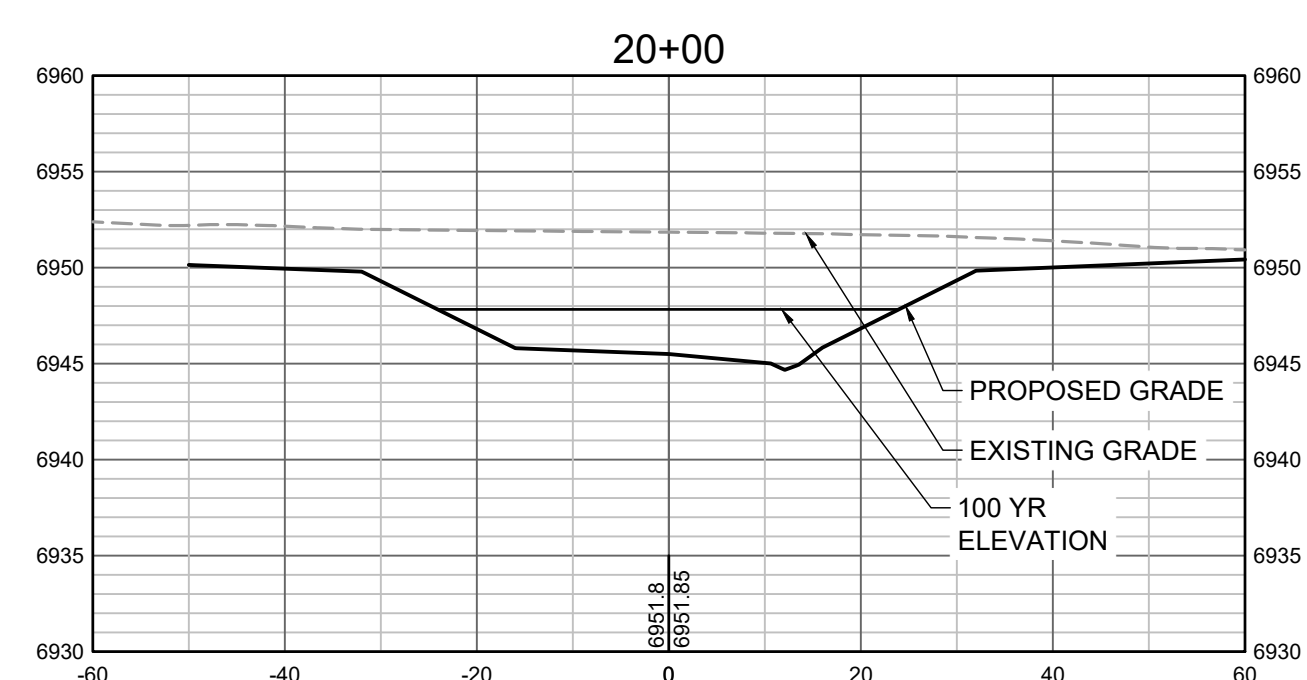
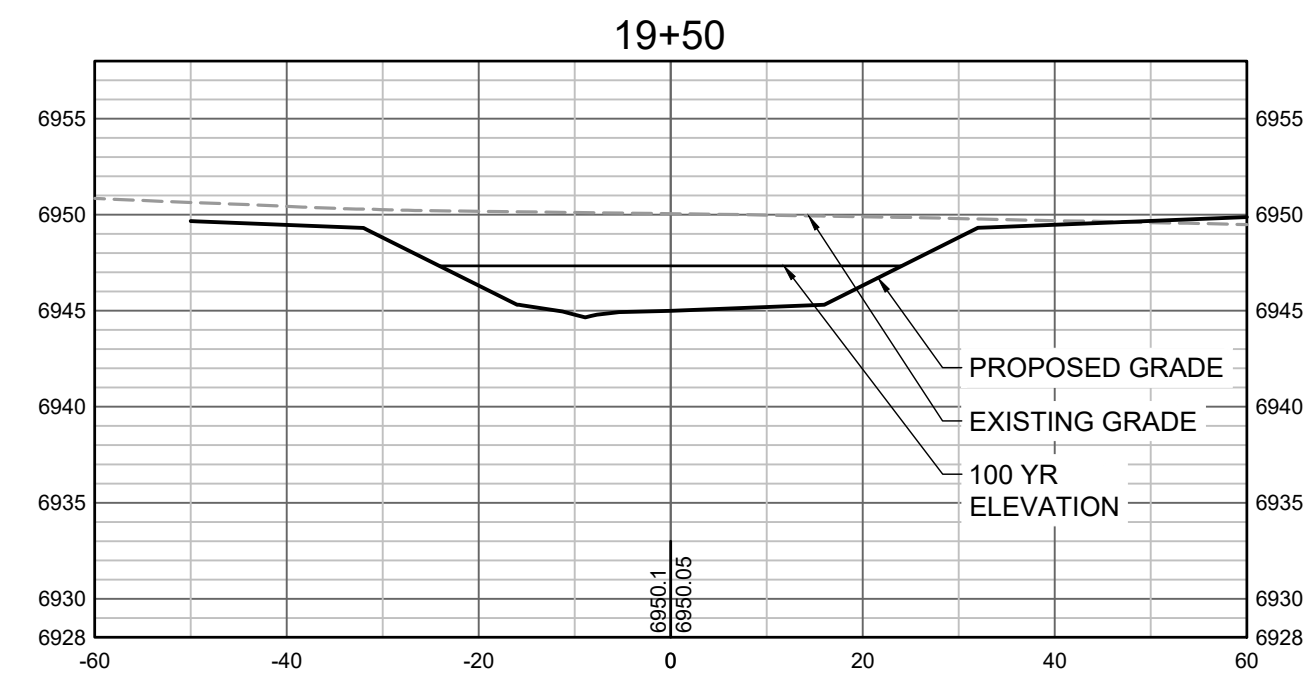
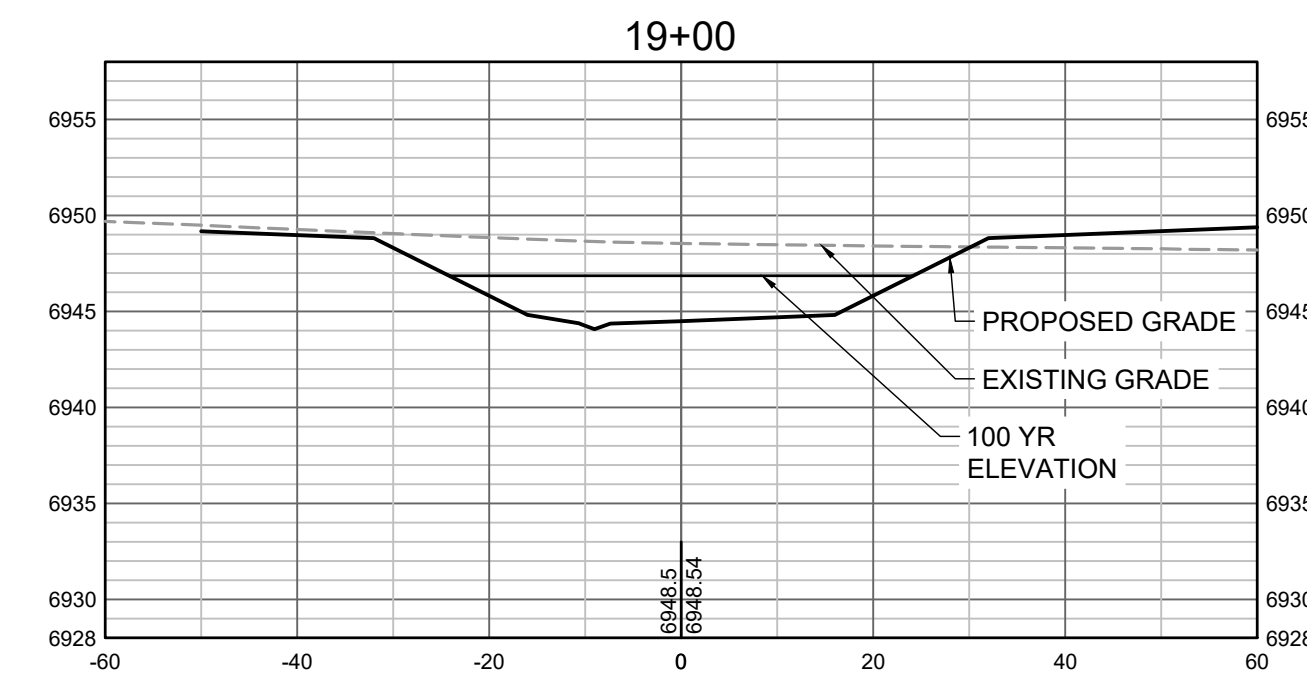
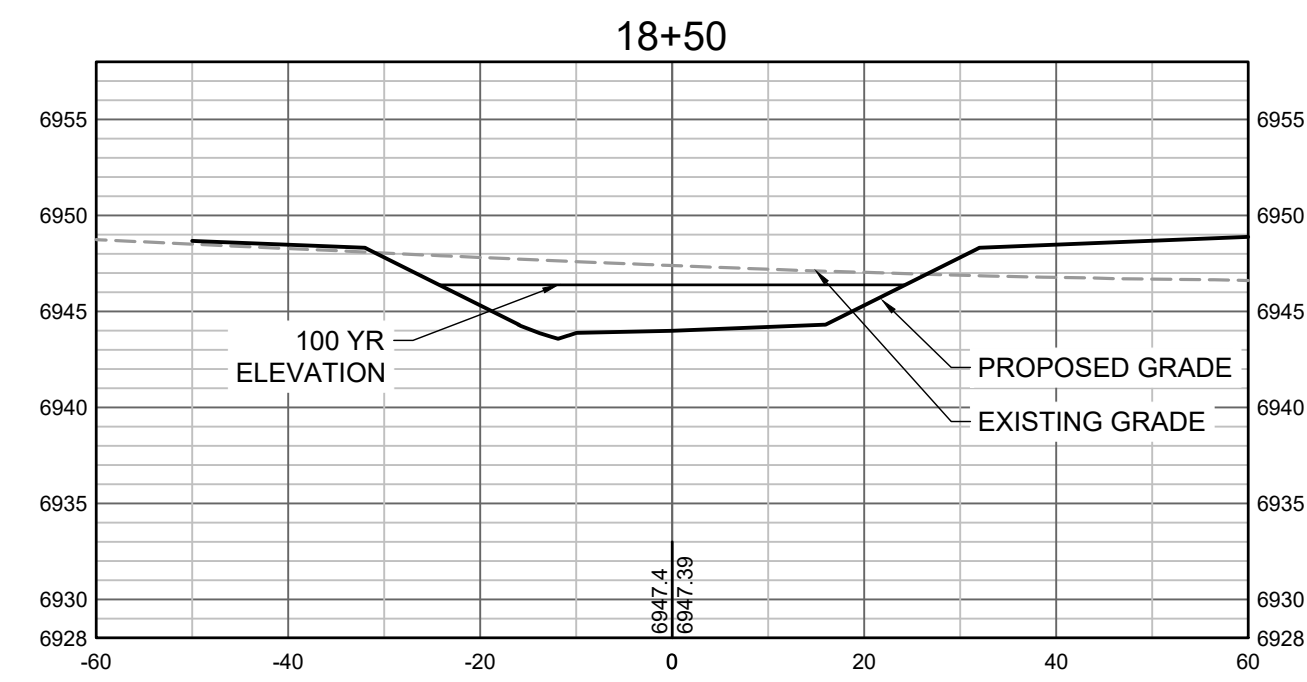
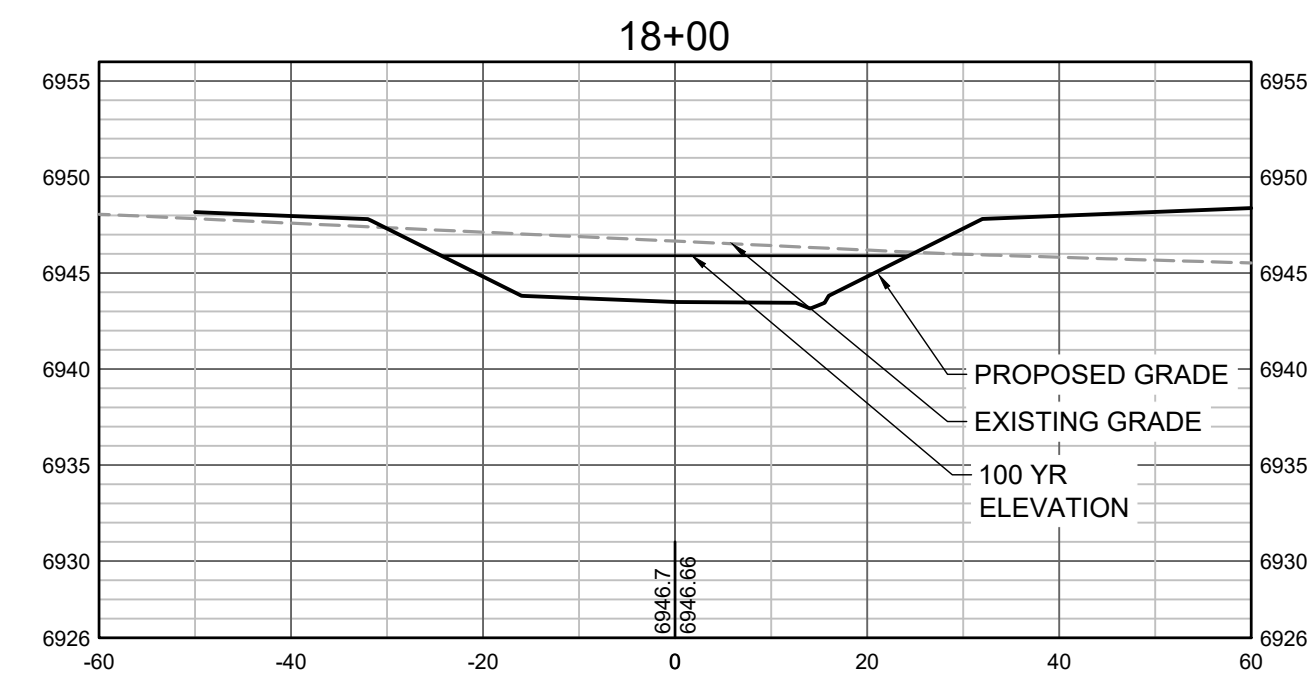
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GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

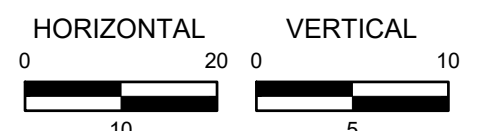
CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 CROSS SECTIONS

SHEET
CS4

34



PROPOSED GRADES TO TIE INTO GRANDVIEW RESERVE FILING 1. REFER TO THE GRANDVIEW RESERVE FILING 1 PLAN SET FOR CONTINUATION OF GRADING THAT IS BEING TIED INTO OUTSIDE OF CHANNEL GRADING LIMITS.



HR GREEN Xrefs: xgs-1-dh01

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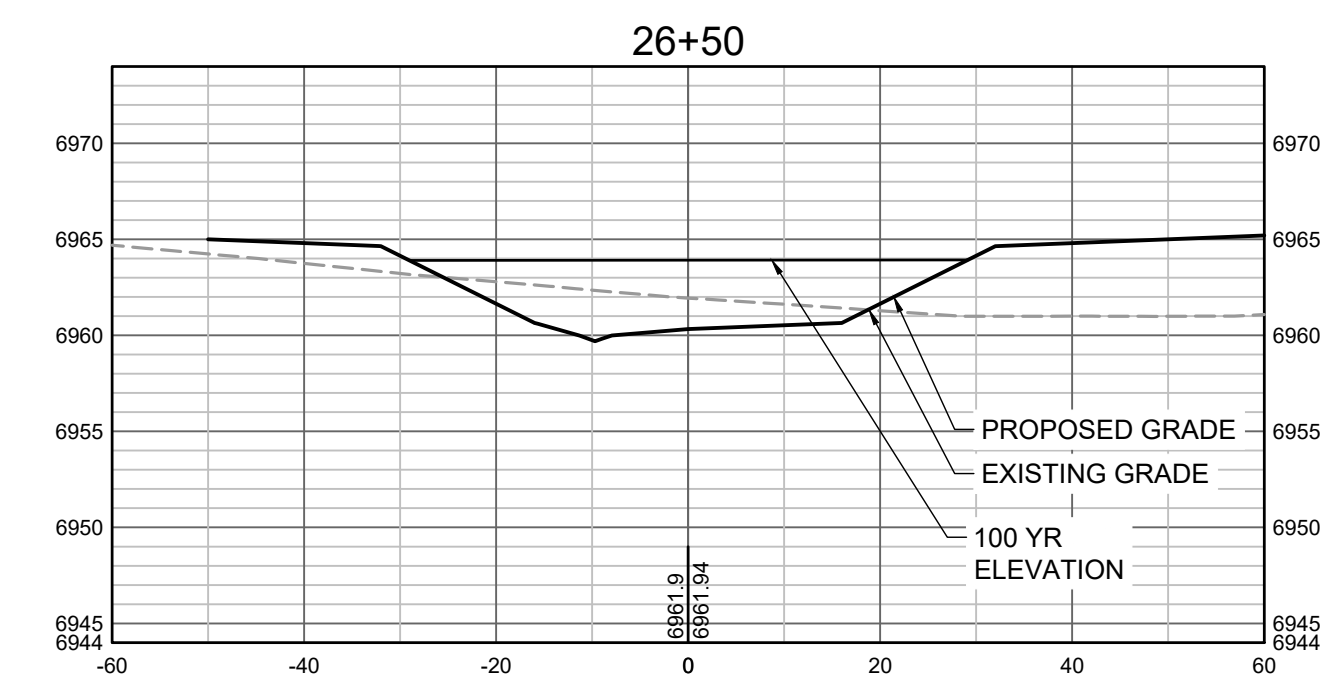
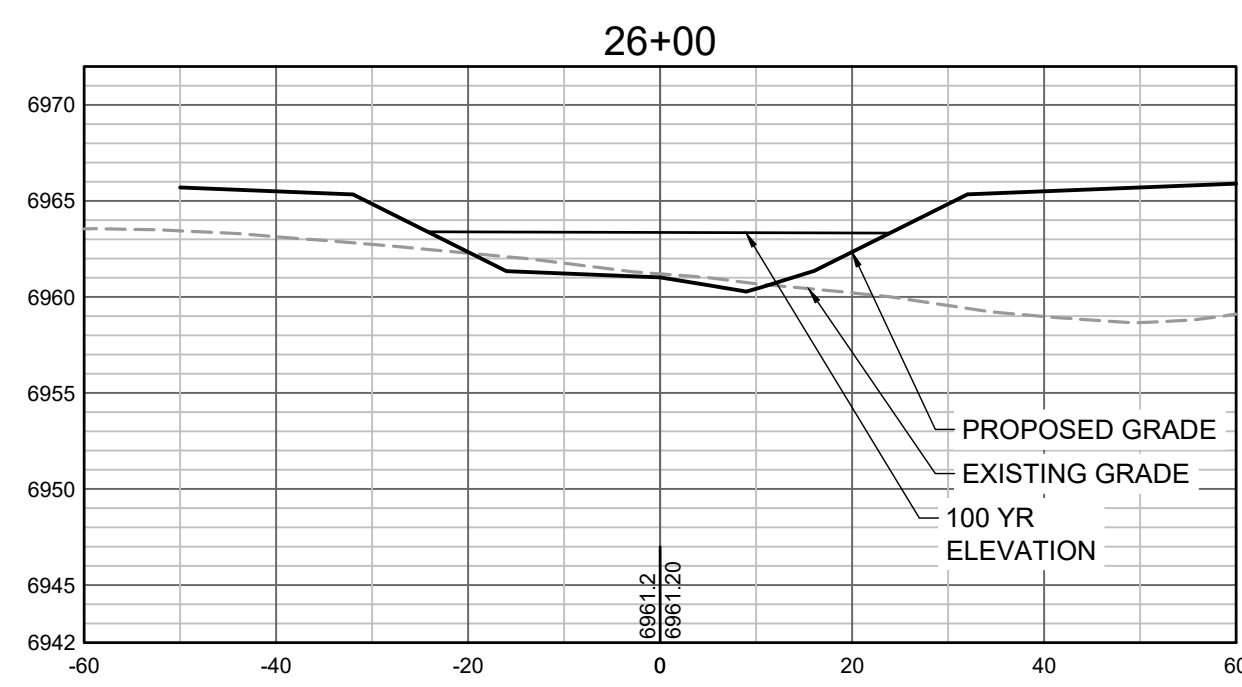
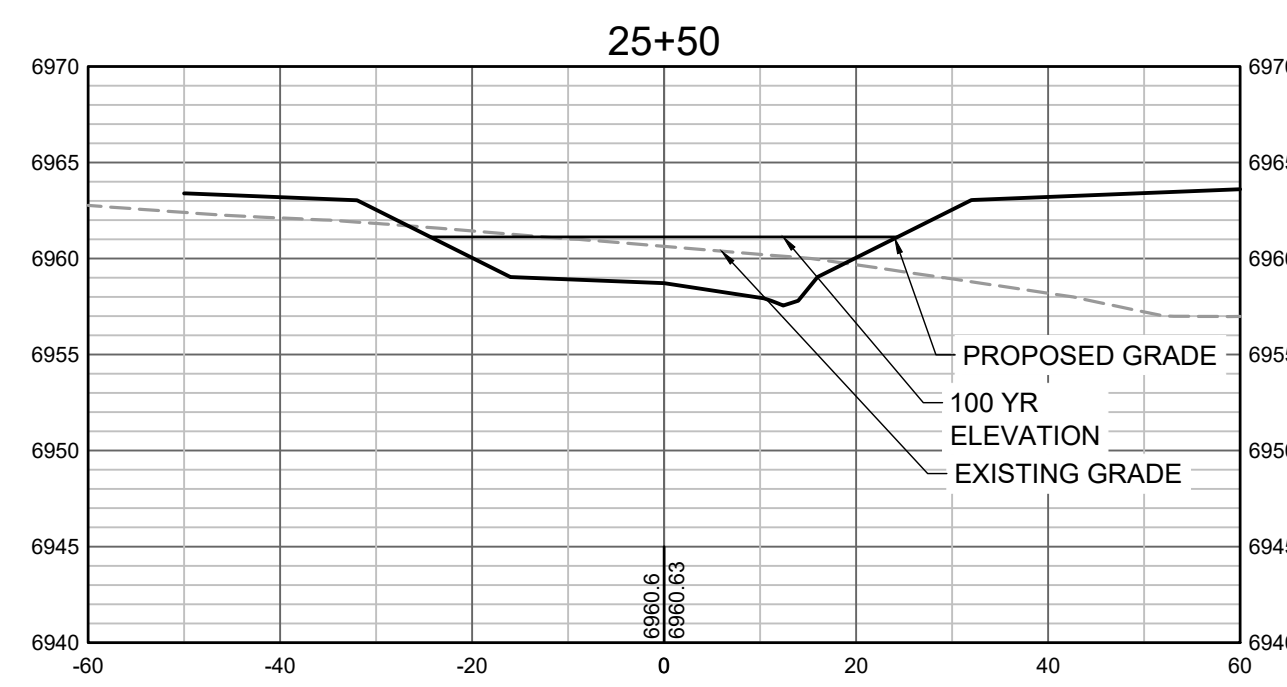
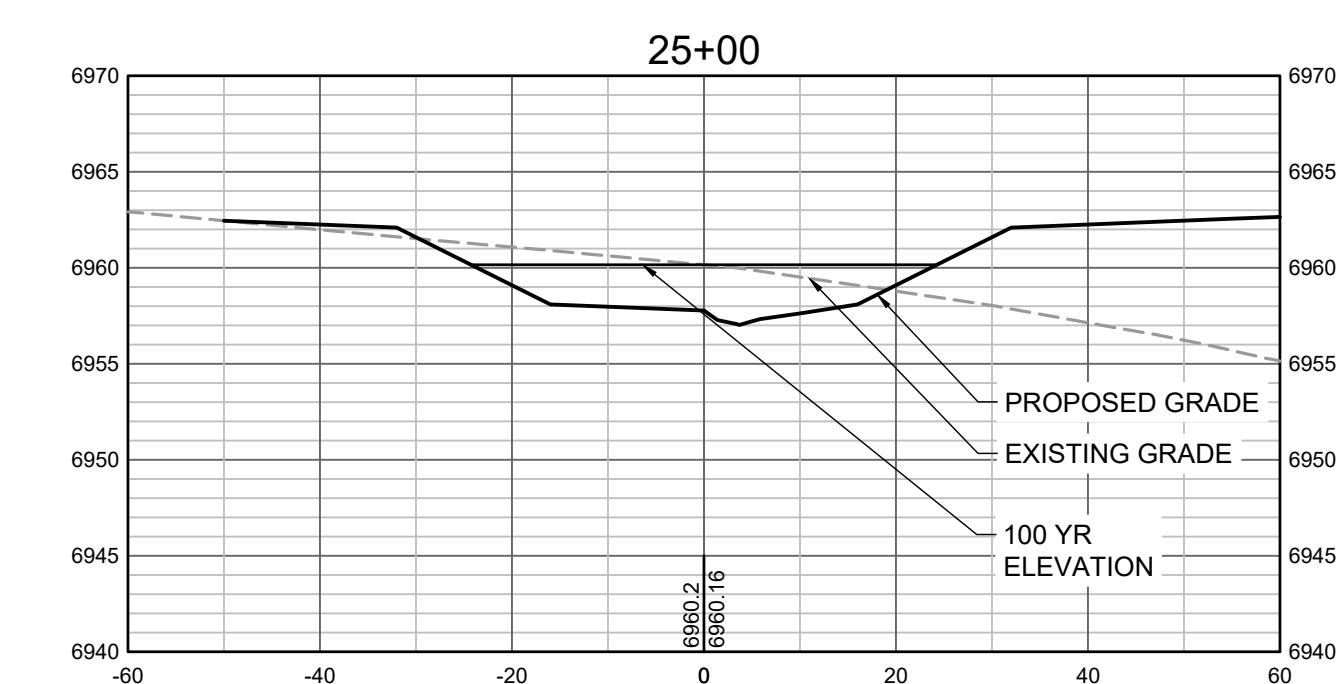
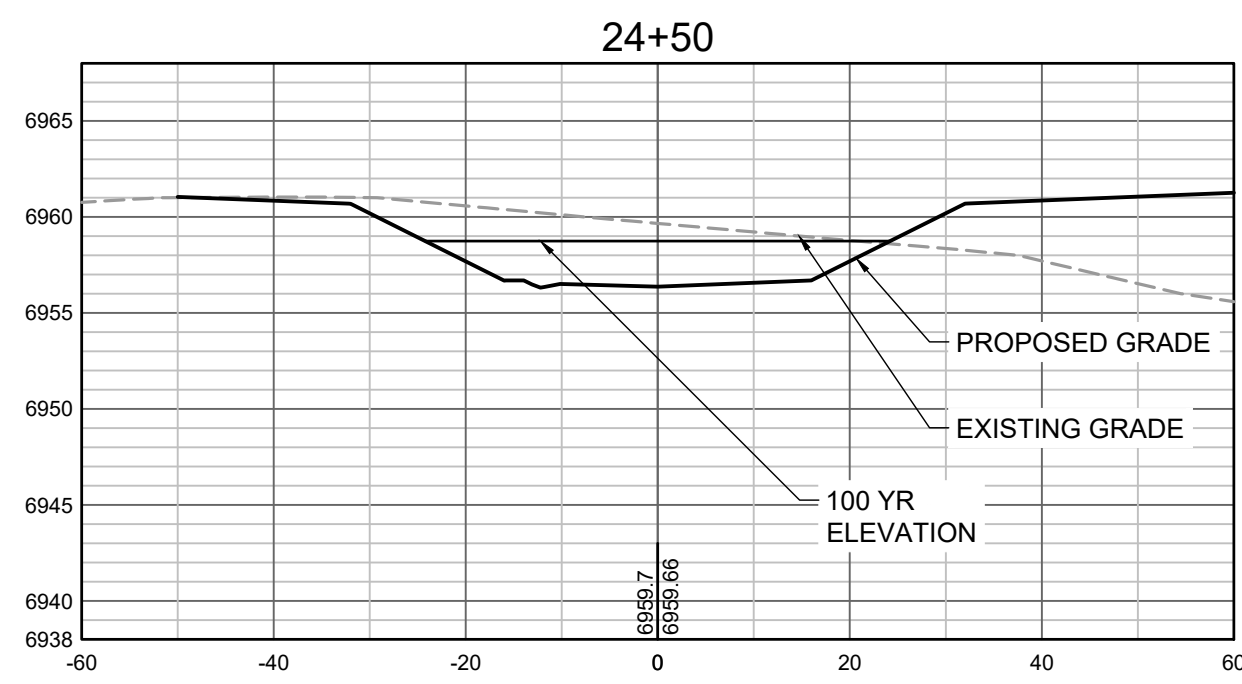
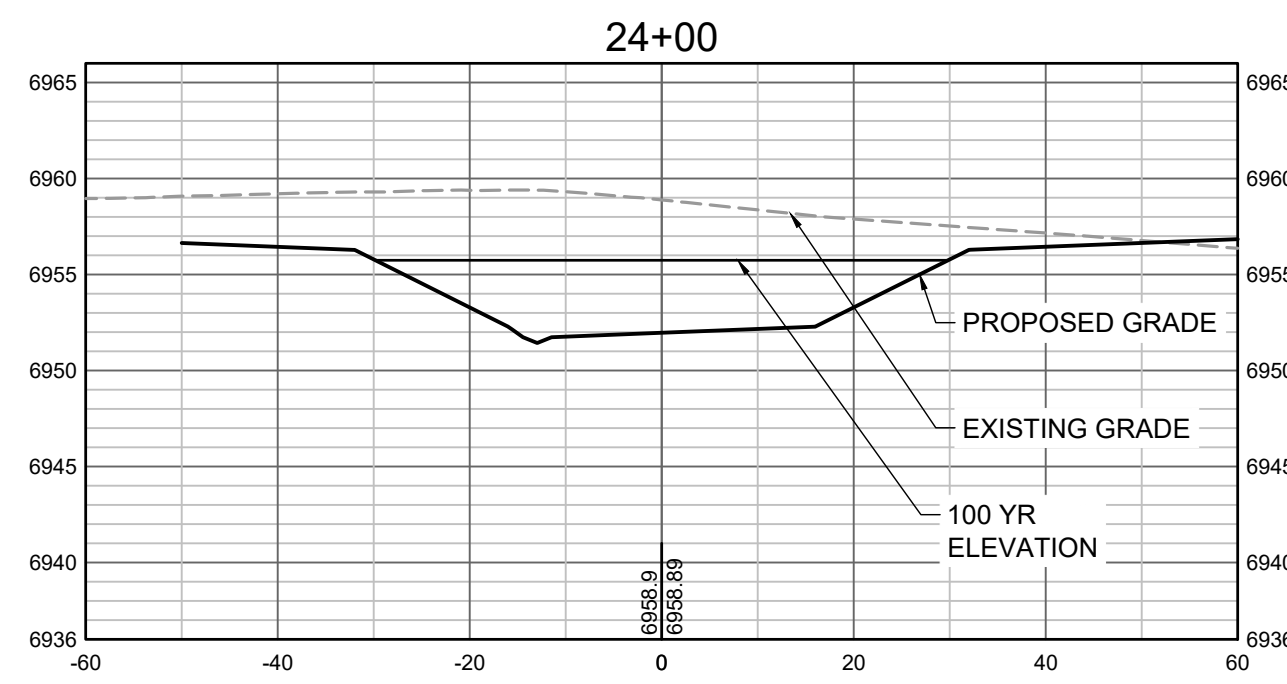
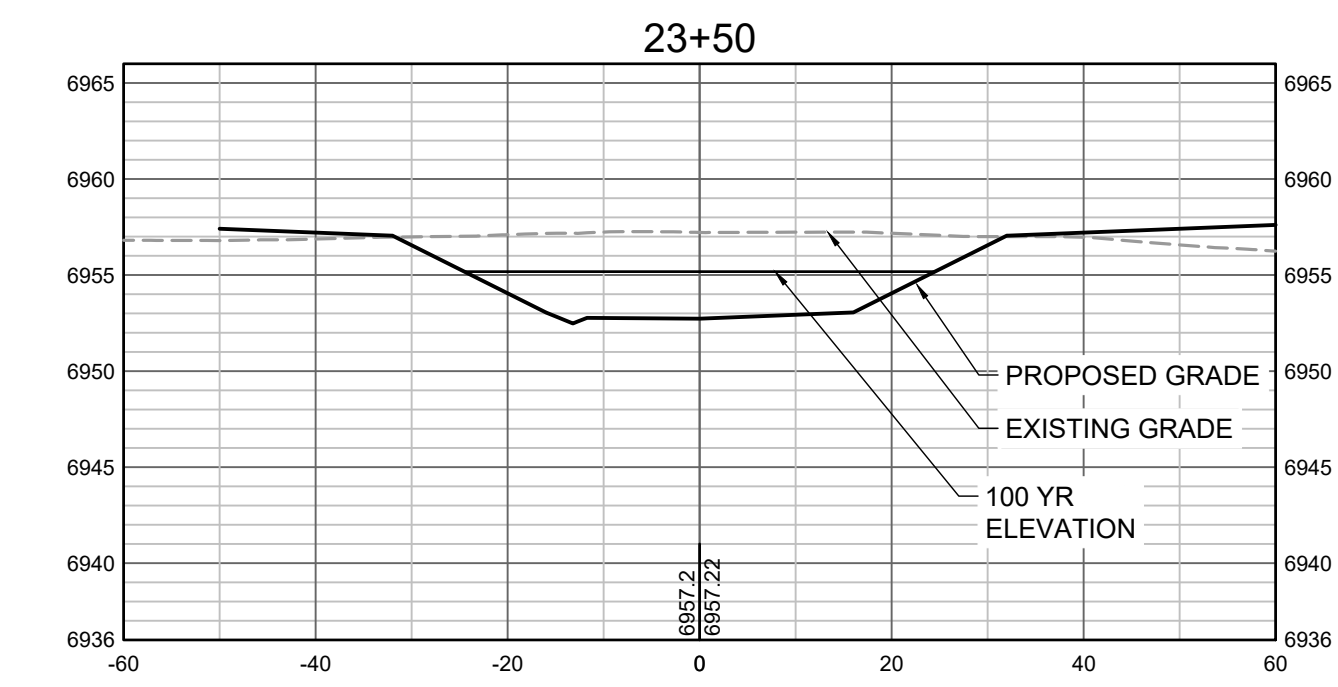
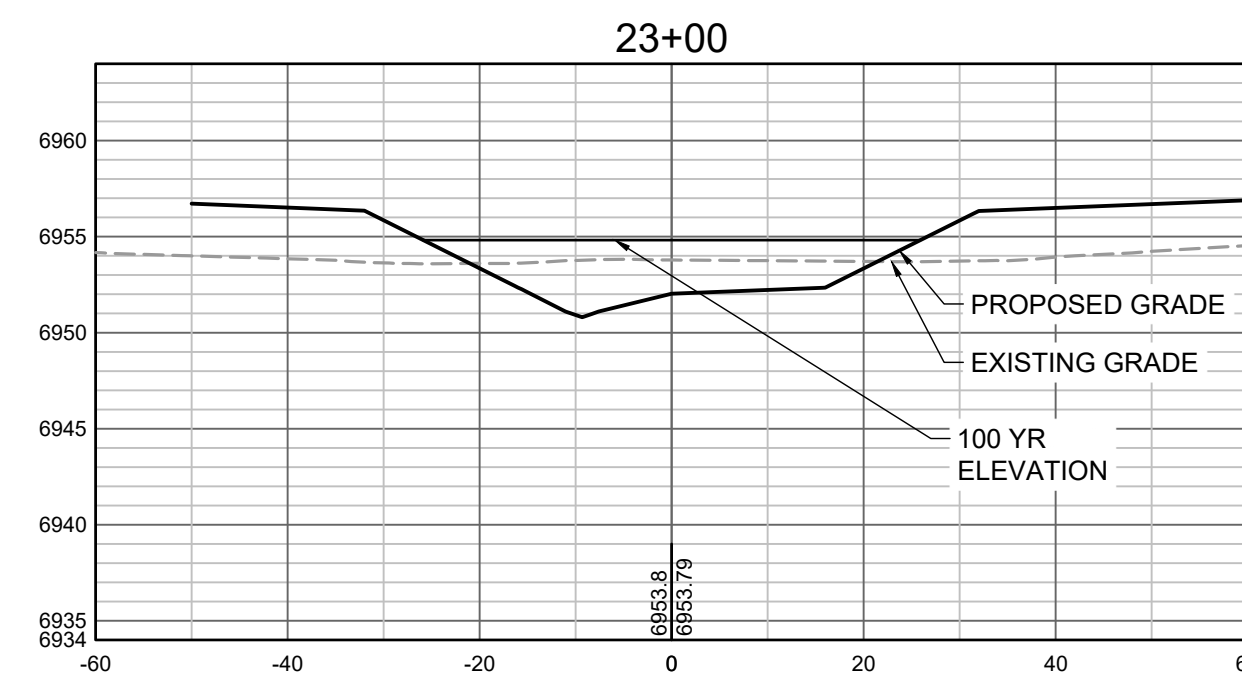
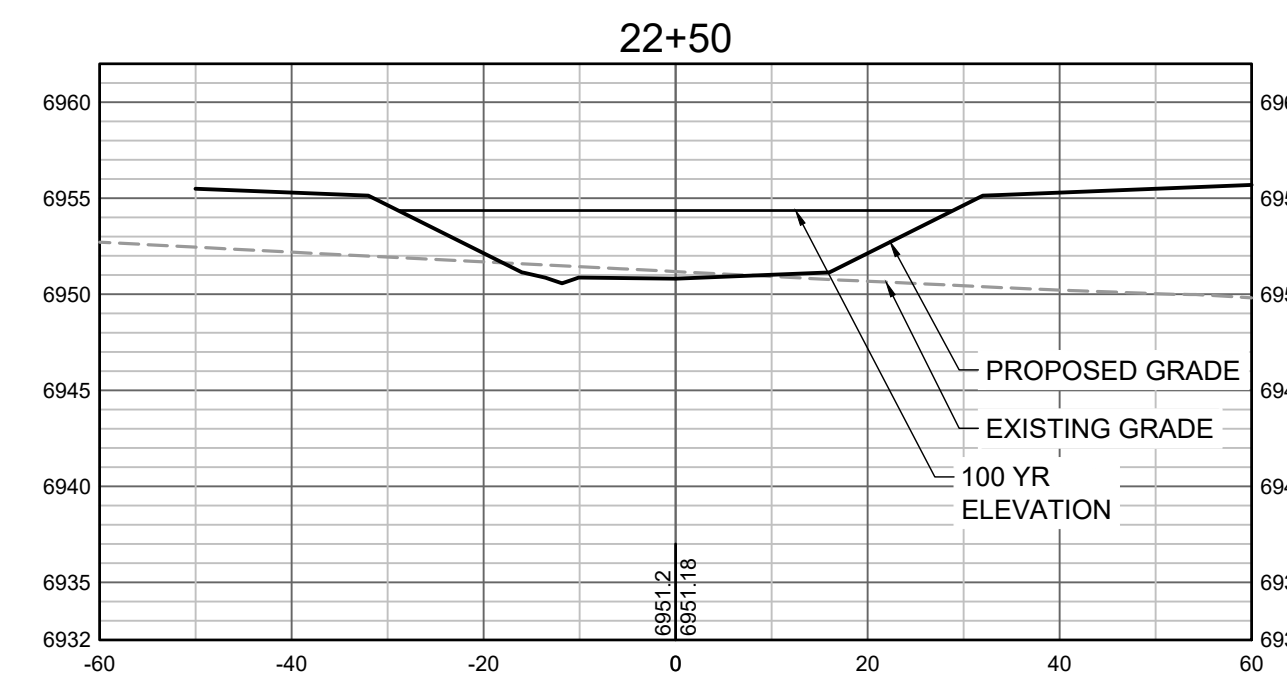
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 FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
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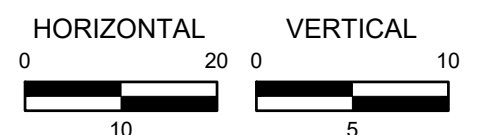
CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 CROSS SECTIONS

SHEET
CS5

35



PROPOSED GRADES TO TIE INTO GRANDVIEW RESERVE FILING 1. REFER TO THE GRANDVIEW RESERVE FILING 1 PLAN SET FOR CONTINUATION OF GRADING THAT IS BEING TIED INTO OUTSIDE OF CHANNEL GRADING LIMITS.



HR GREEN Xrefs: xgs-1-dh01

DRAWN BY: TBI JOB DATE: 3/22/2023
 APPROVED: CMM JOB NUMBER: 201662.03
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\DWG\C\CROSS SECTIONS

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

NO.	DATE	BY	REVISION DESCRIPTION

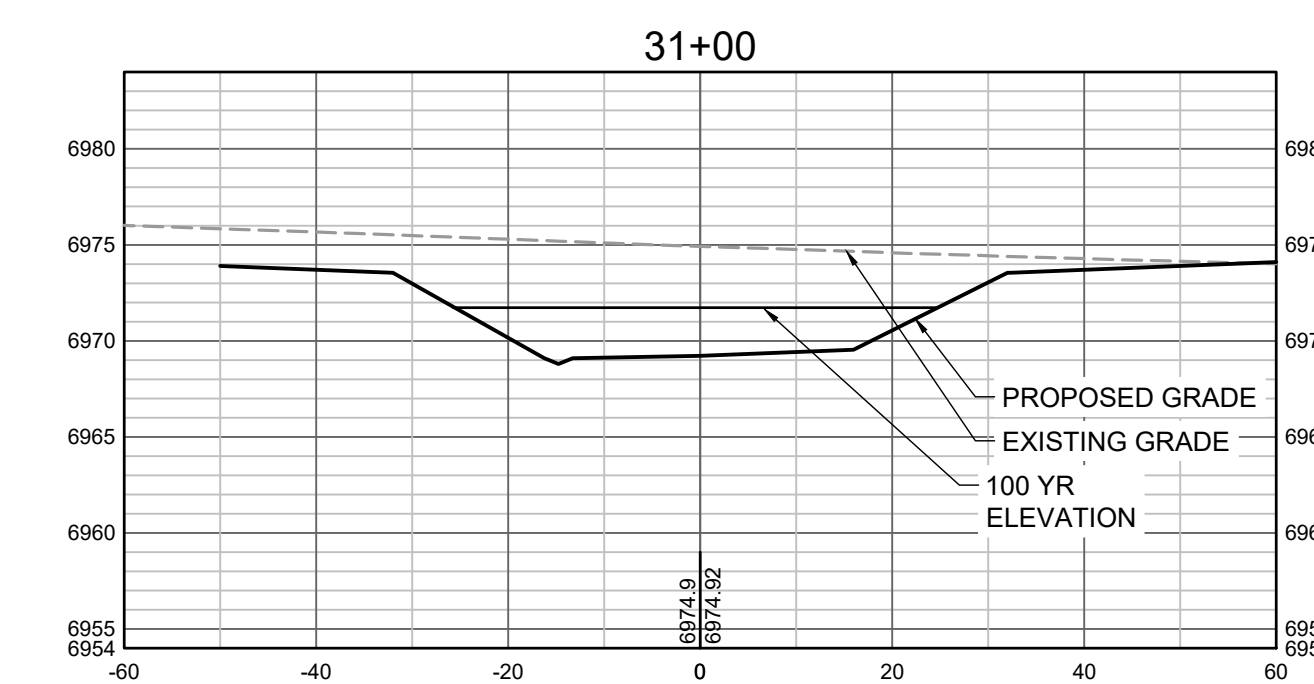
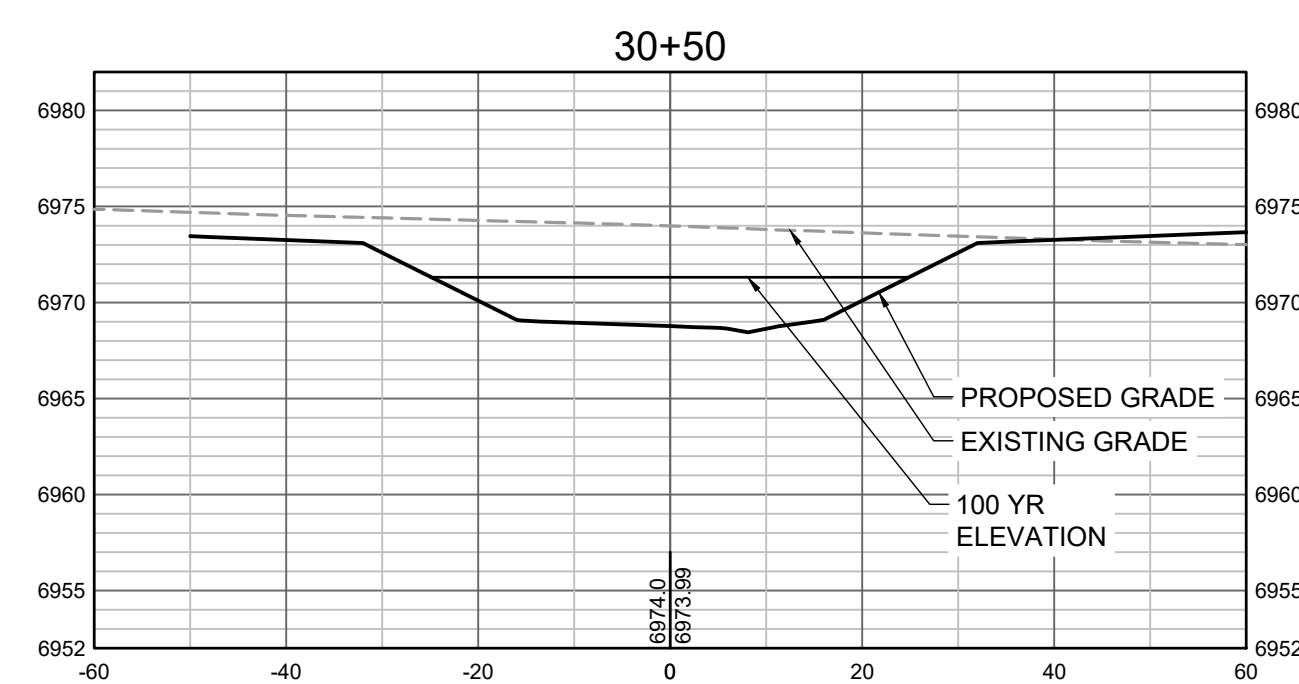
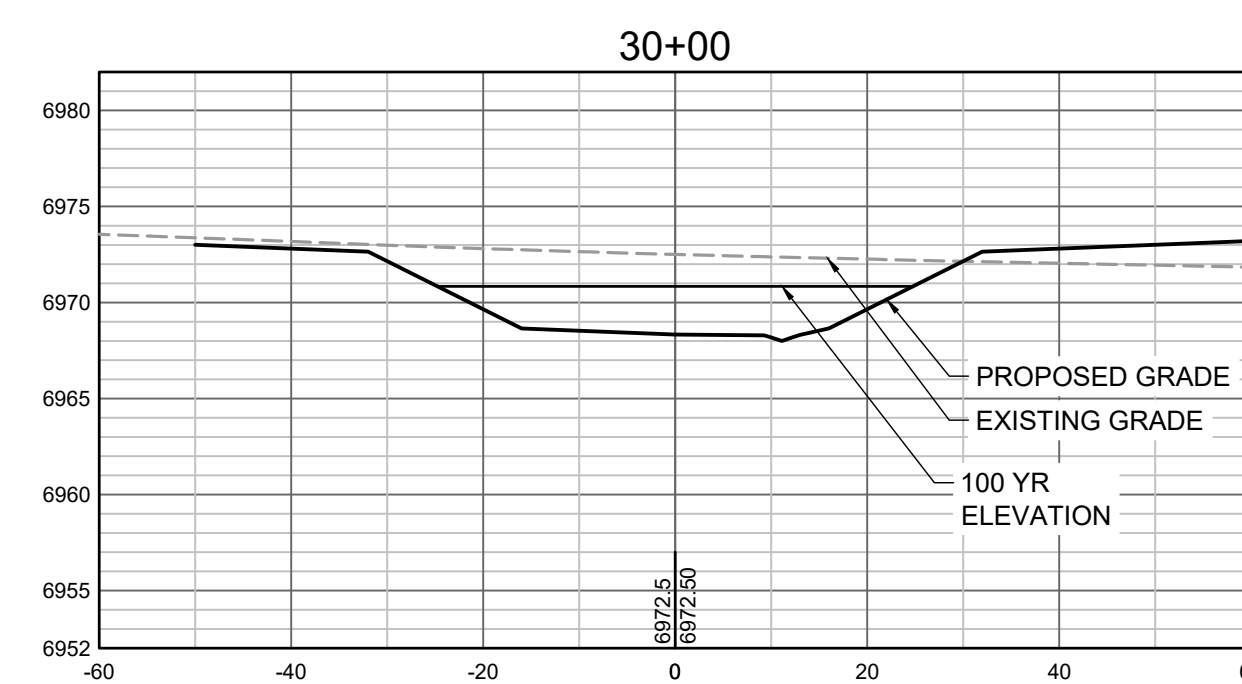
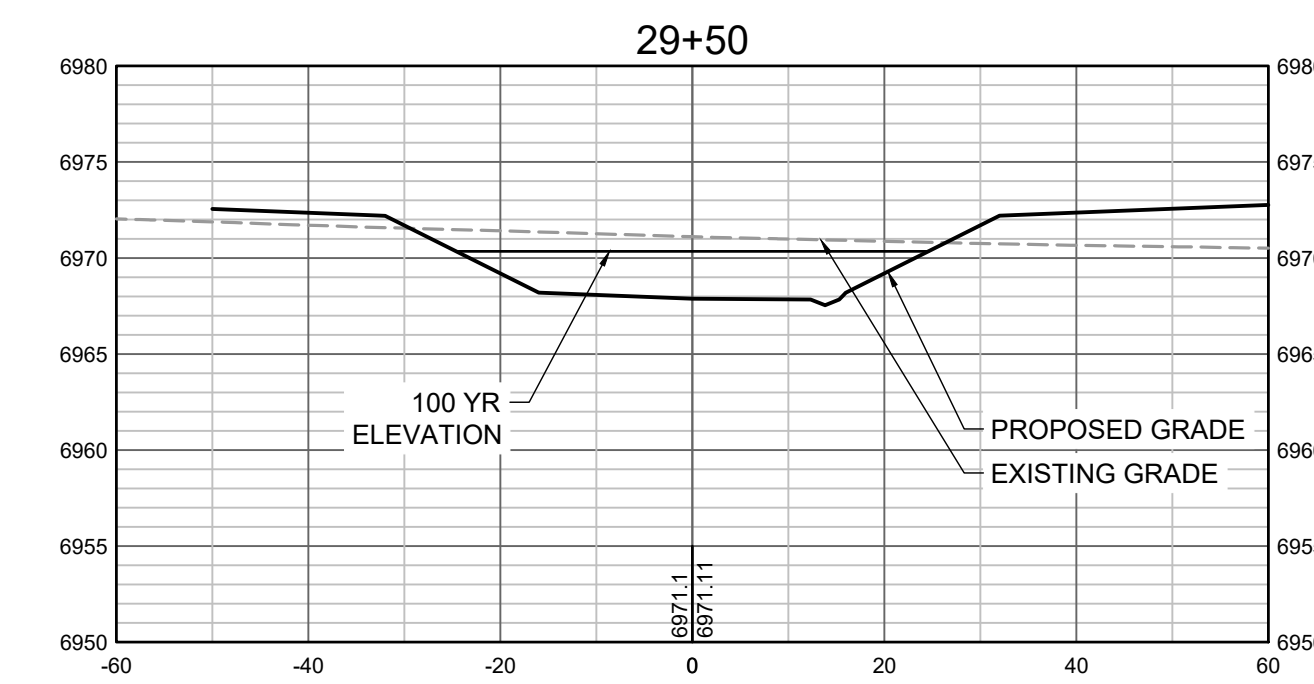
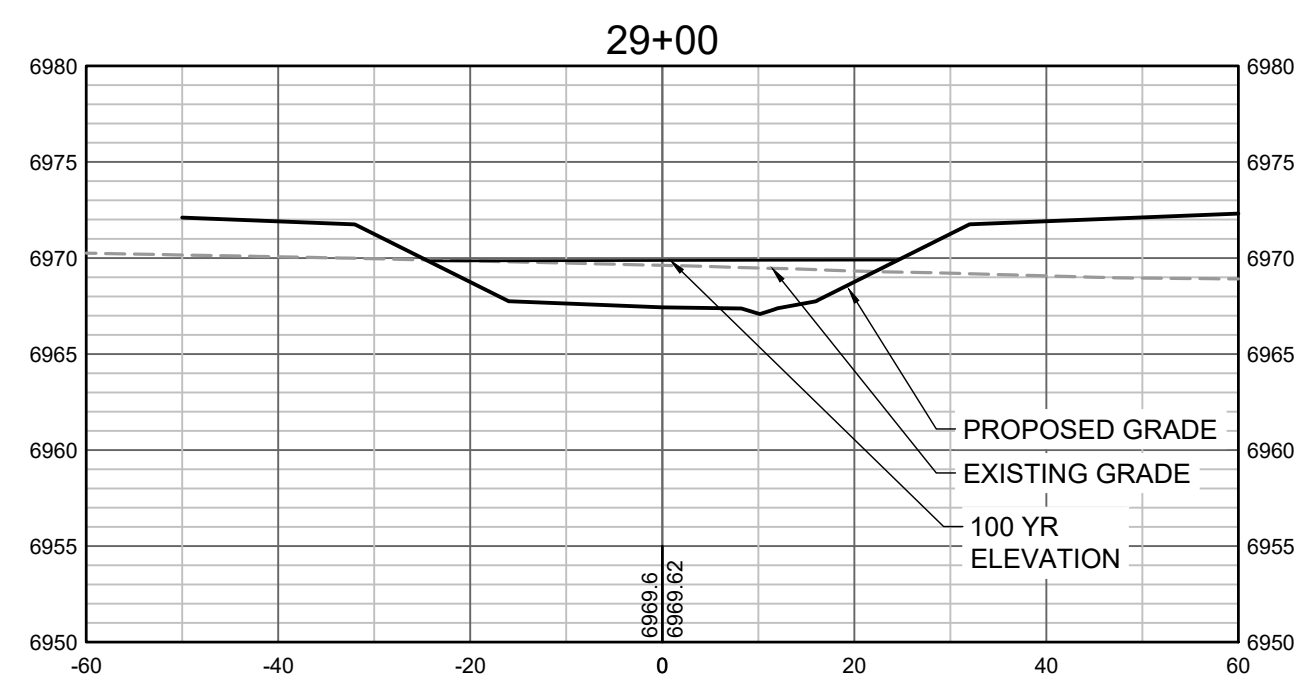
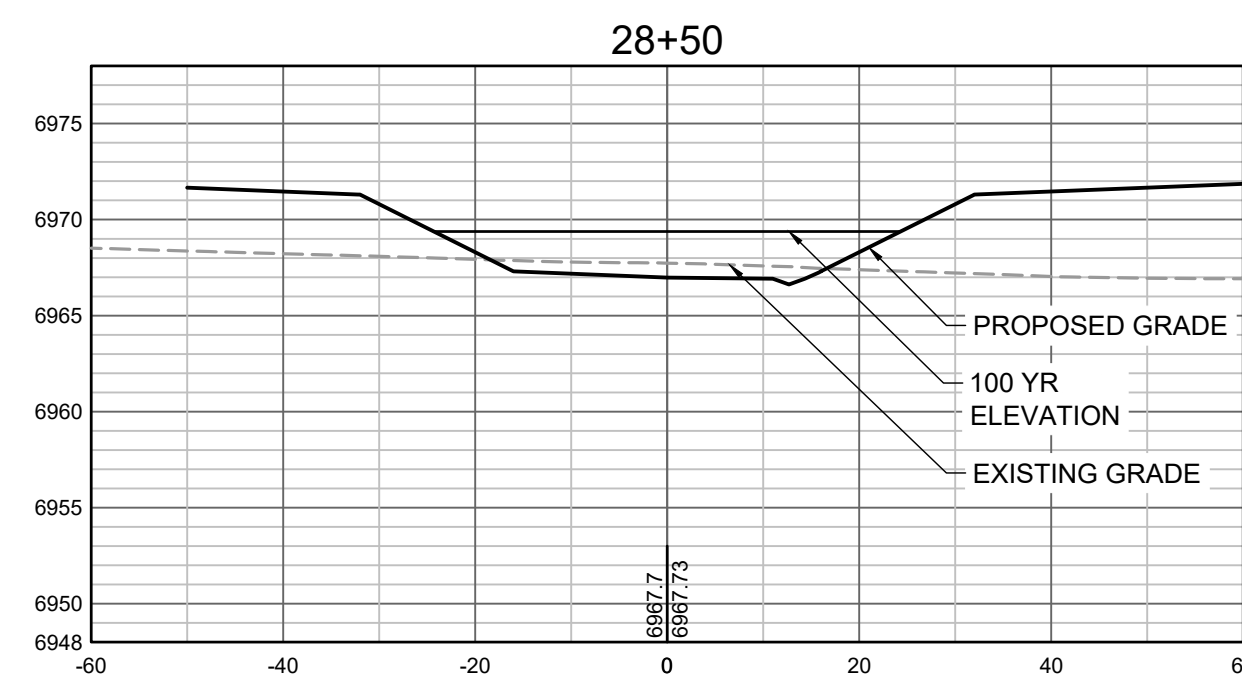
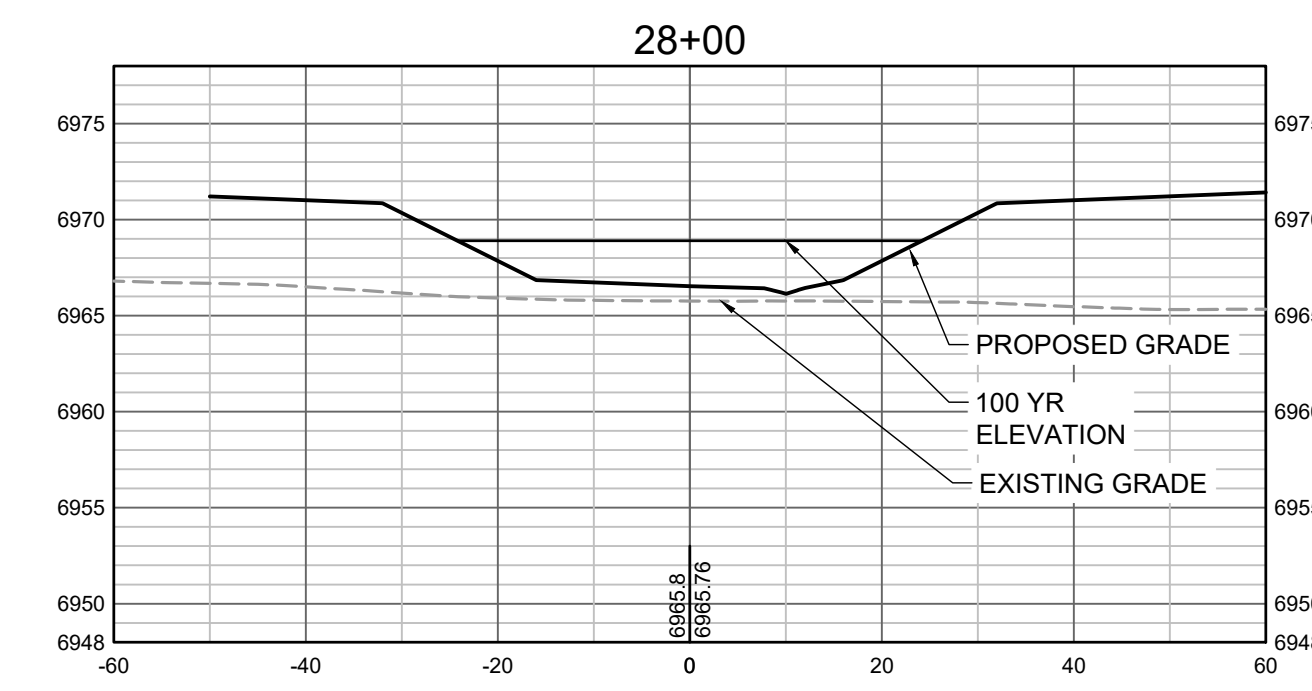
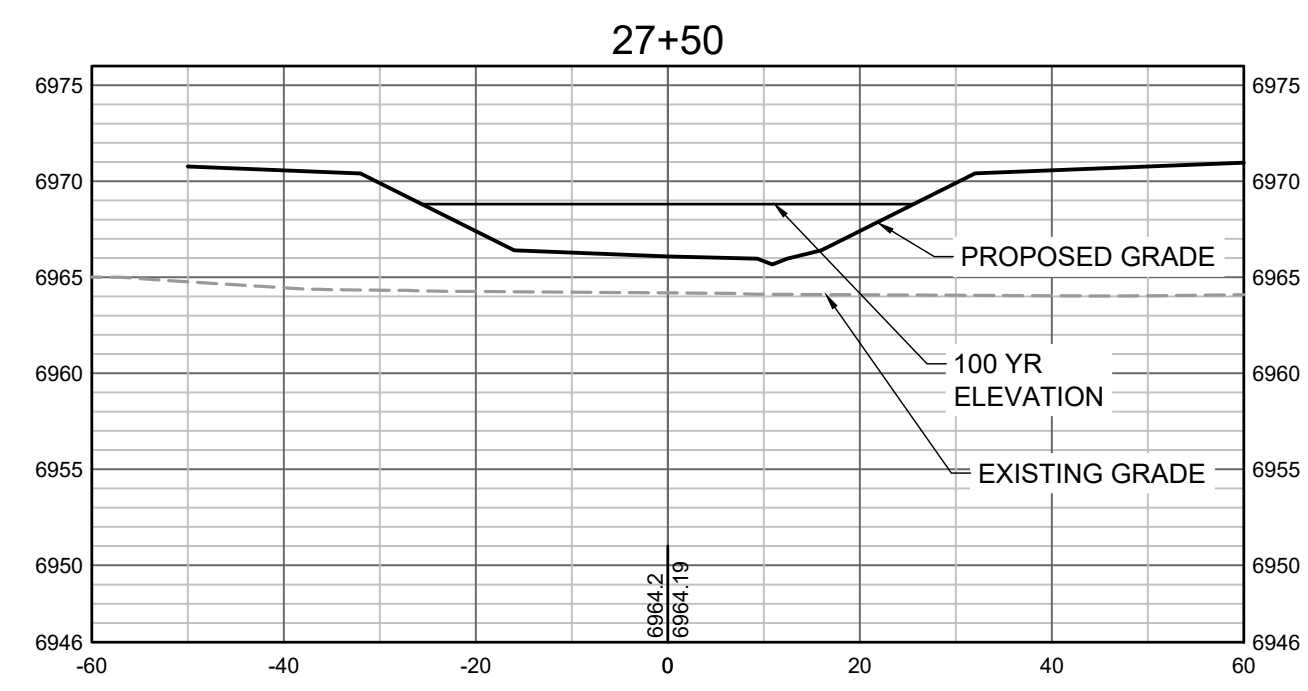
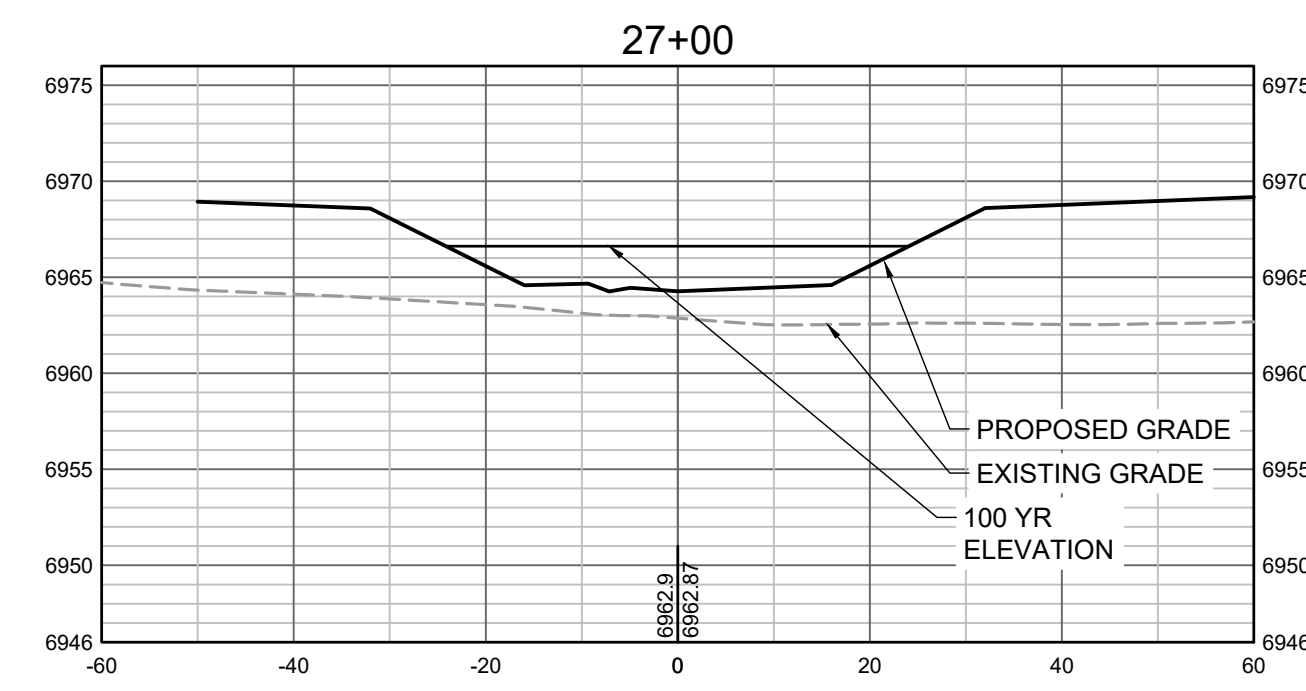


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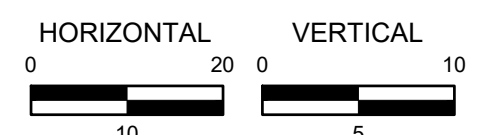
GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 CROSS SECTIONS

SHEET
CS6
36



PROPOSED GRADES TO TIE INTO GRANDVIEW RESERVE FILING 1. REFER TO THE GRANDVIEW RESERVE FILING 1 PLAN SET FOR CONTINUATION OF GRADING THAT IS BEING TIED INTO OUTSIDE OF CHANNEL GRADING LIMITS.



HR GREEN Xrefs: xgs-1-dh01

DRAWN BY: TBI JOB DATE: 3/22/2023
 APPROVED: CMM JOB NUMBER: 201662.03
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\DWGS\C\CROSS SECTIONS

BAR IS ONE INCH ON OFFICIAL DRAWINGS.
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NO.	DATE	BY	REVISION DESCRIPTION

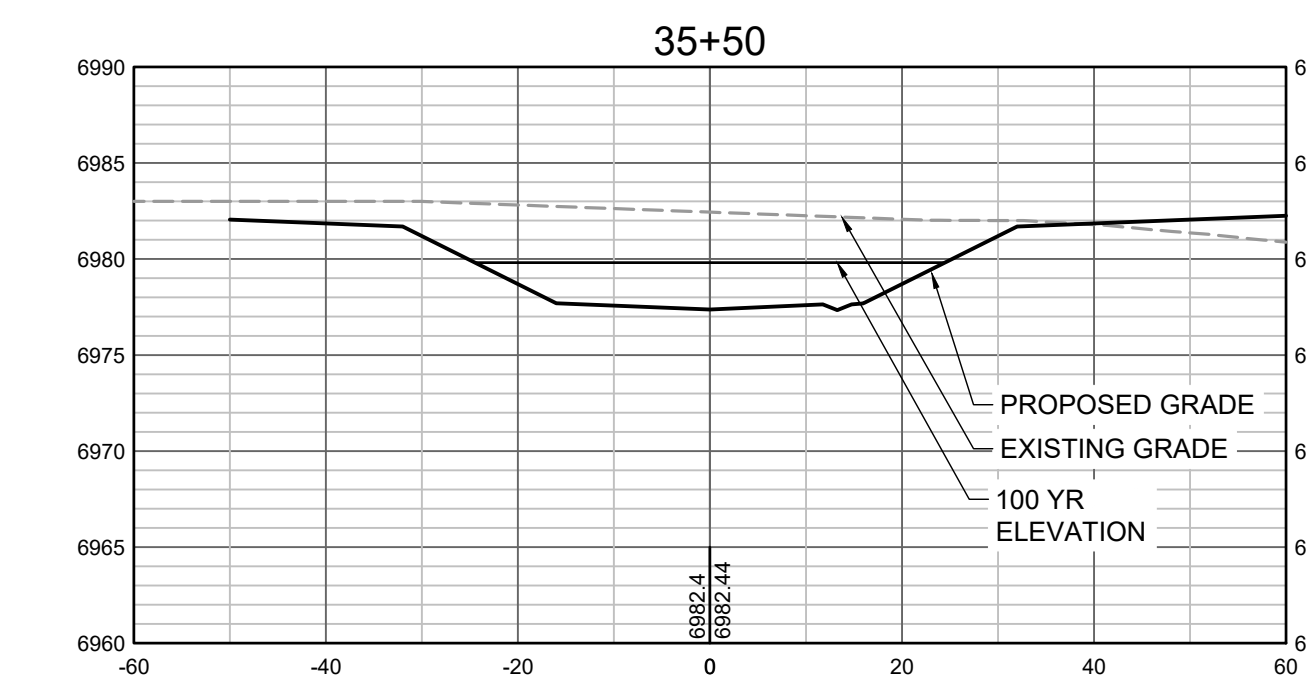
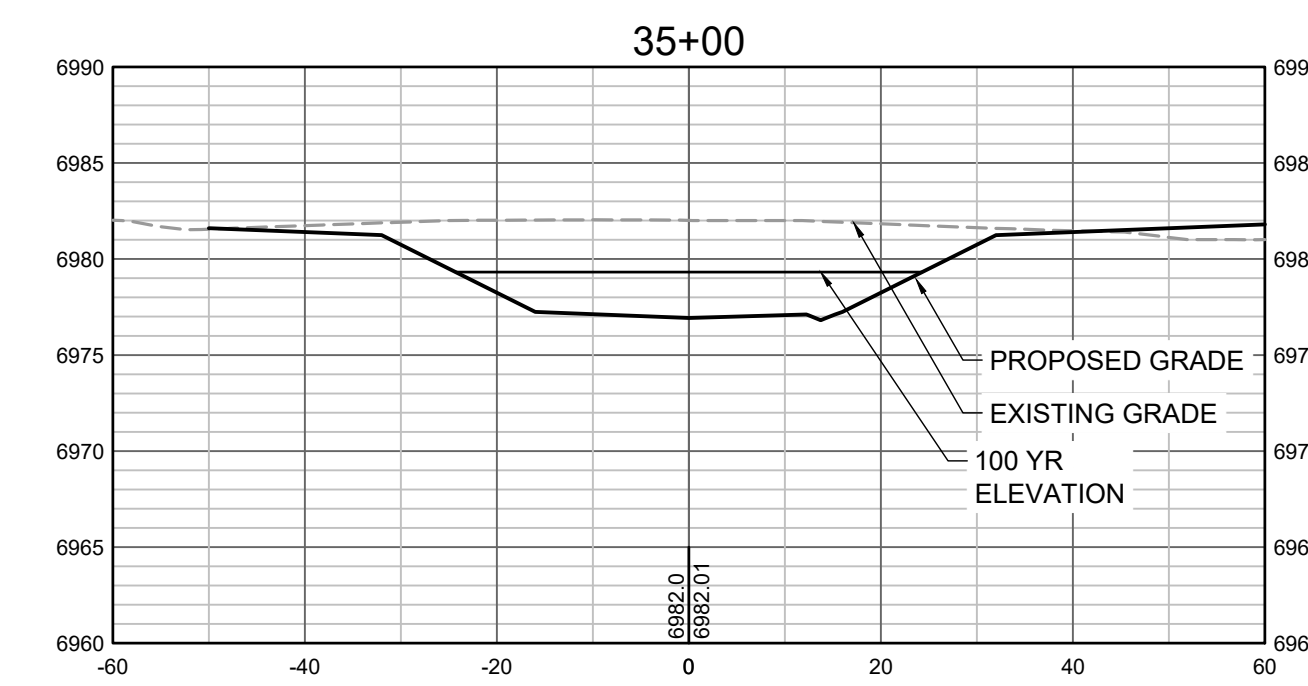
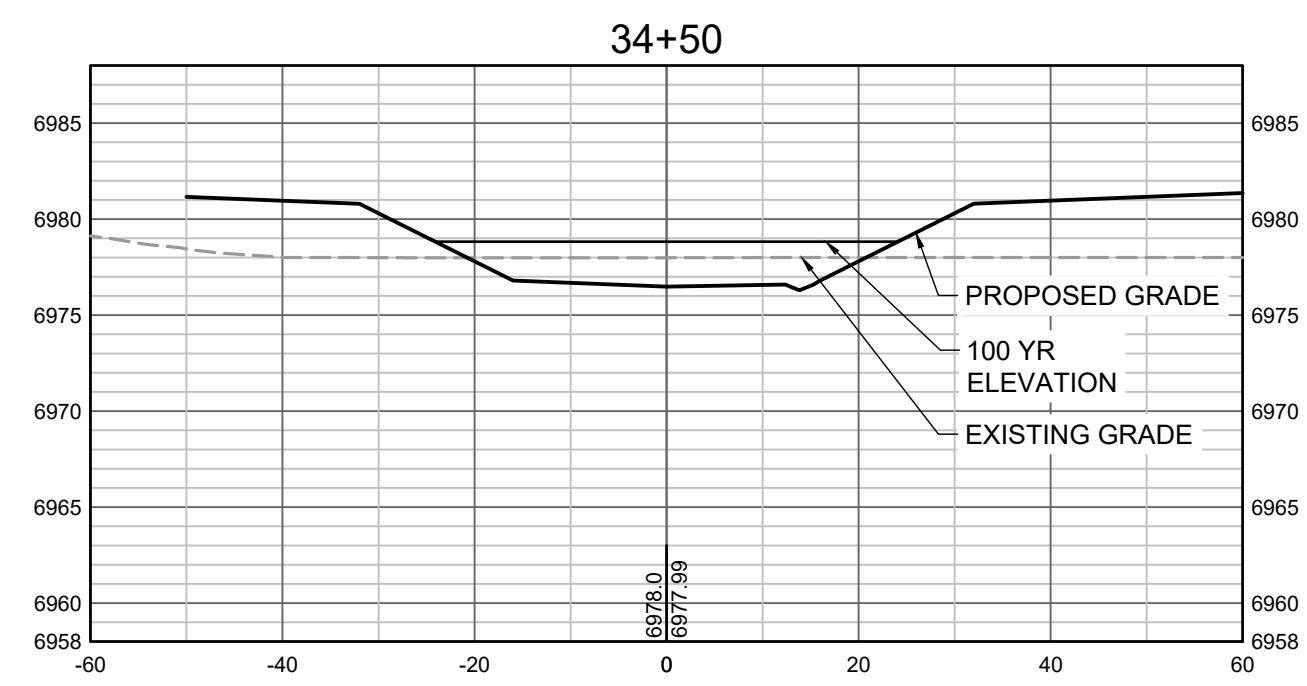
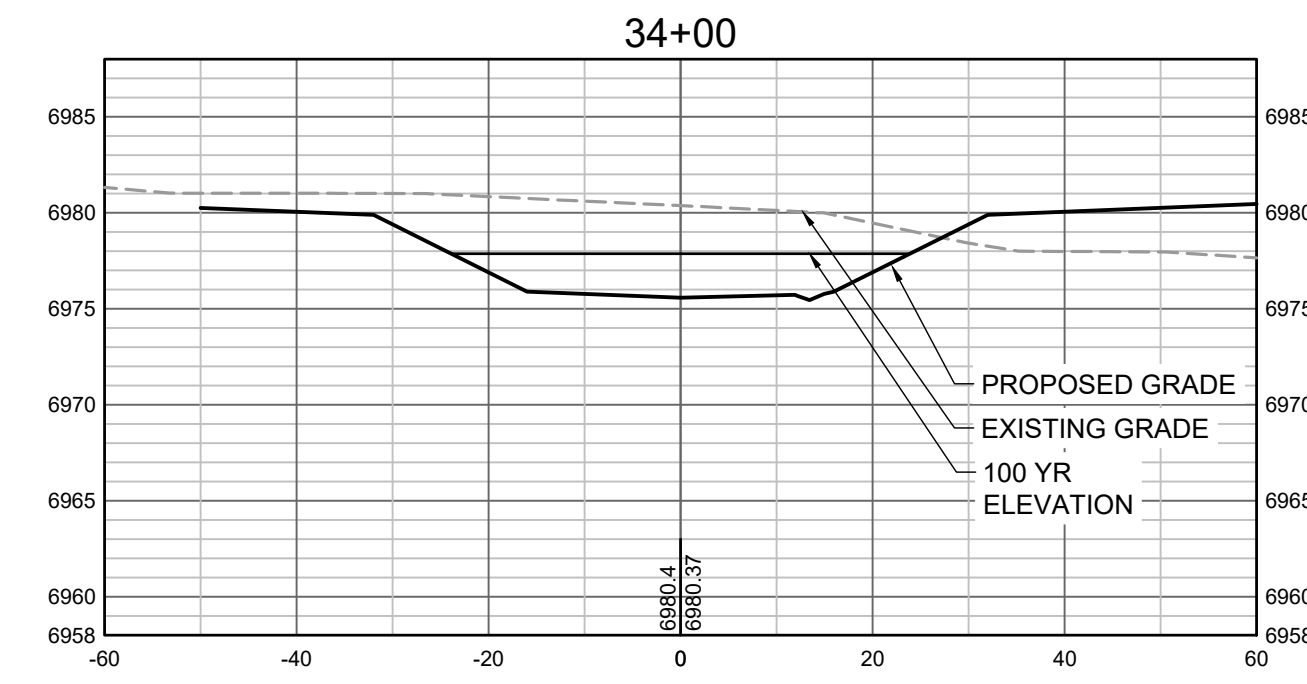
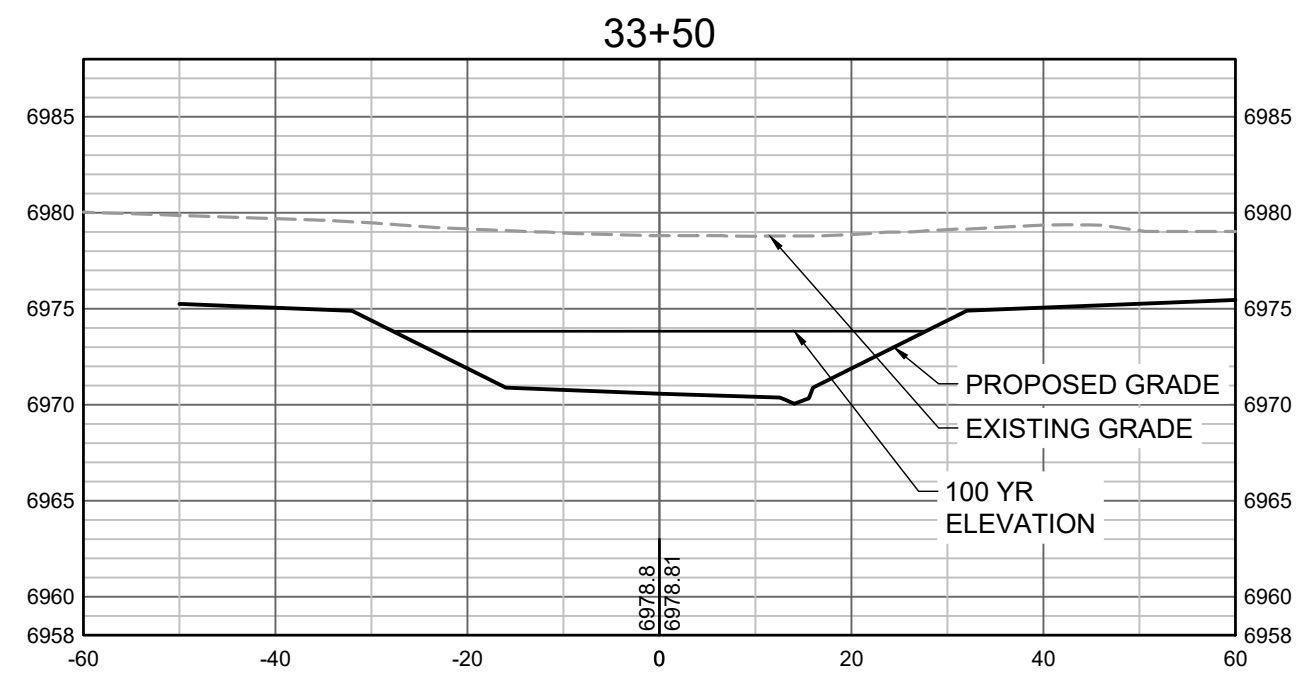
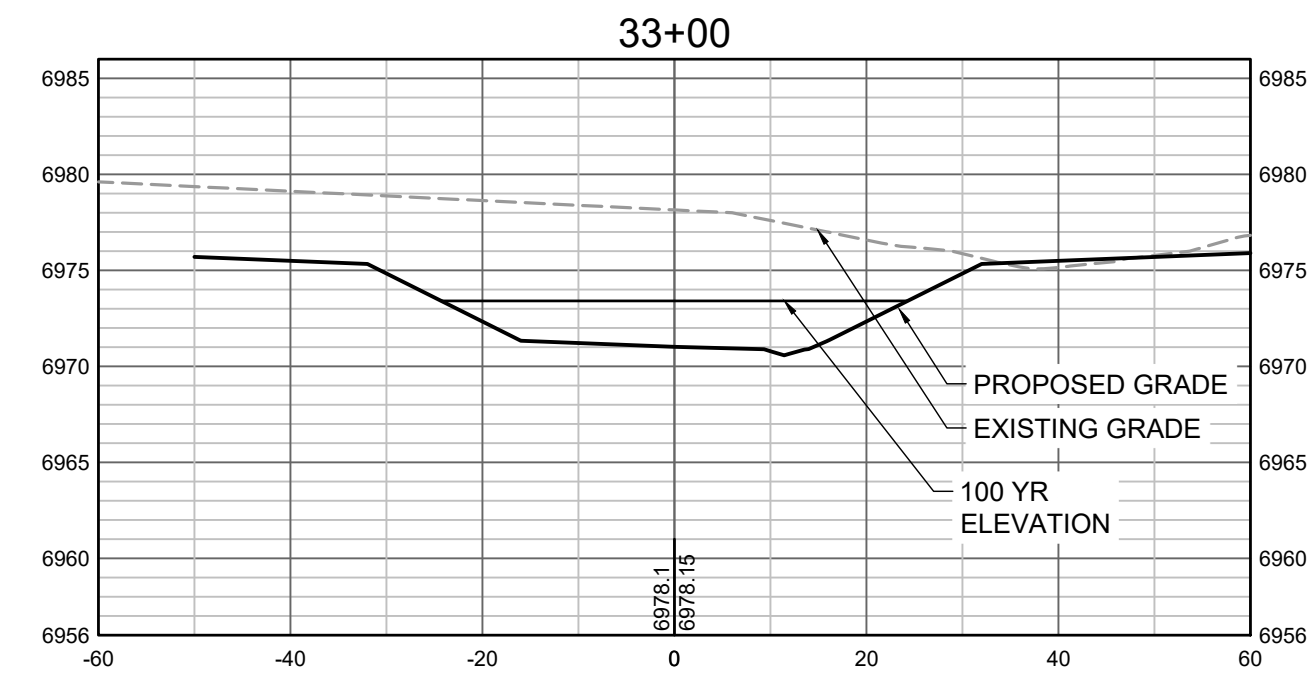
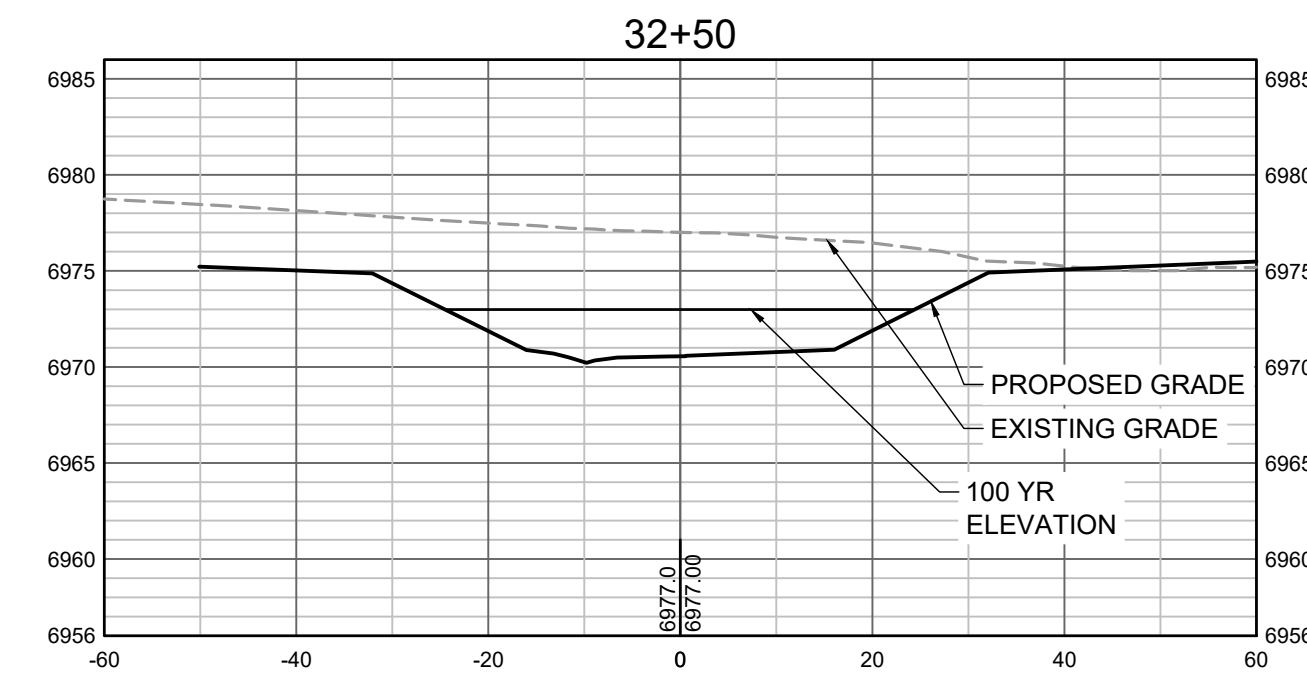
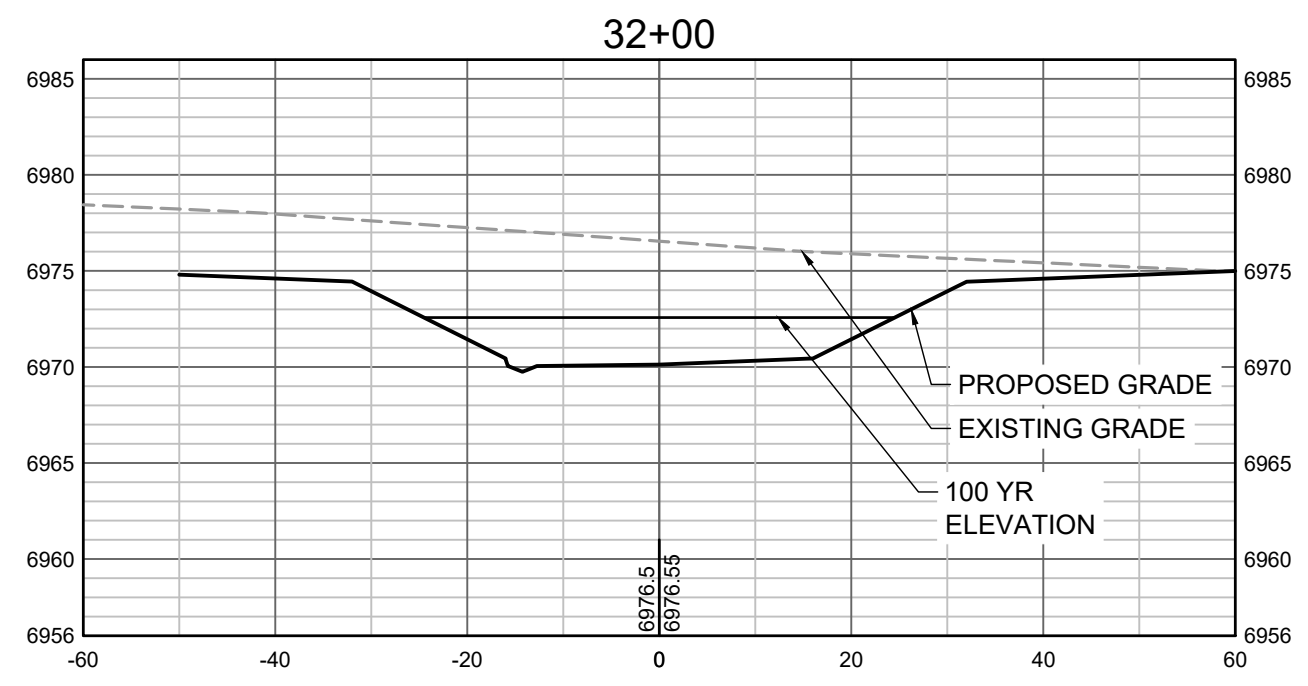
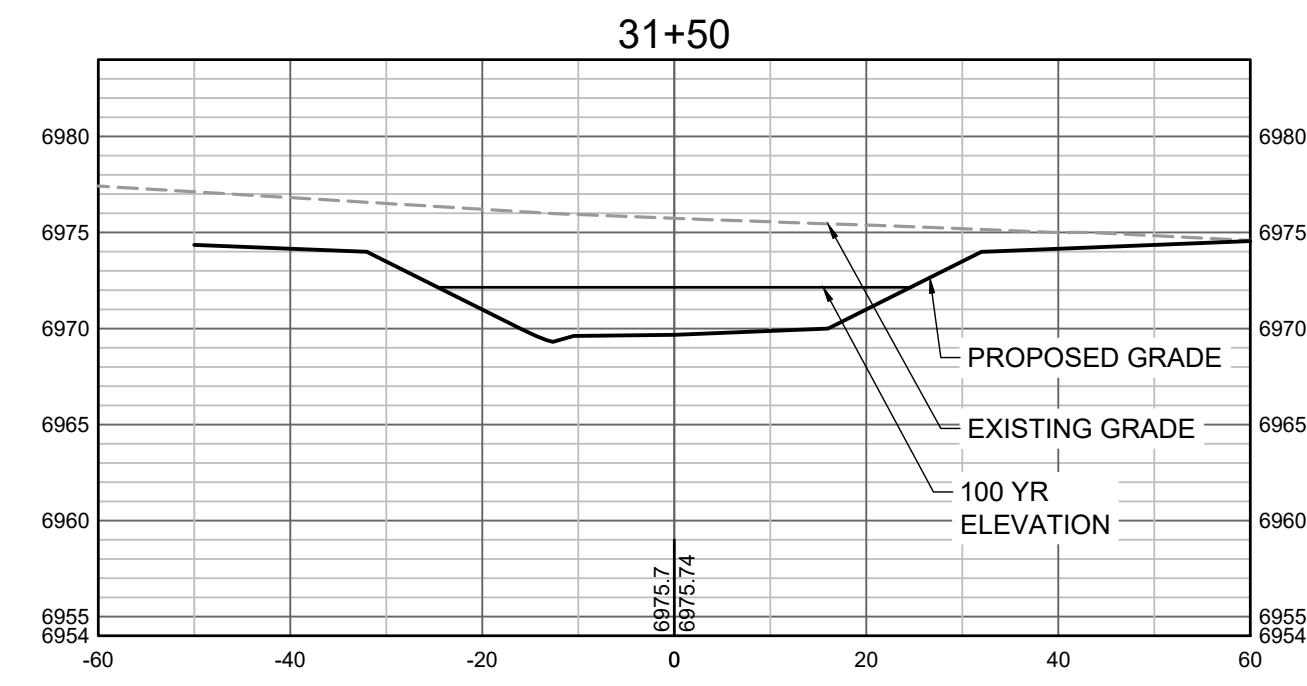


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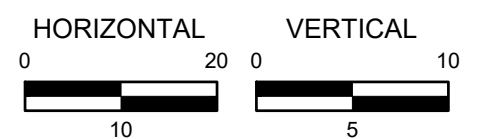
GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
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CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 CROSS SECTIONS

SHEET
CS7
37



PROPOSED GRADES TO TIE INTO GRANDVIEW RESERVE FILING 1. REFER TO THE GRANDVIEW RESERVE FILING 1 PLAN SET FOR CONTINUATION OF GRADING THAT IS BEING TIED INTO OUTSIDE OF CHANNEL GRADING LIMITS.



HR GREEN Xrefs: xgs-1-dh01

DRAWN BY: TBI JOB DATE: 3/22/2023
 APPROVED: CMM JOB NUMBER: 201662.03
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\DWG\C\CROSS SECTIONS

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

NO.	DATE	BY	REVISION DESCRIPTION



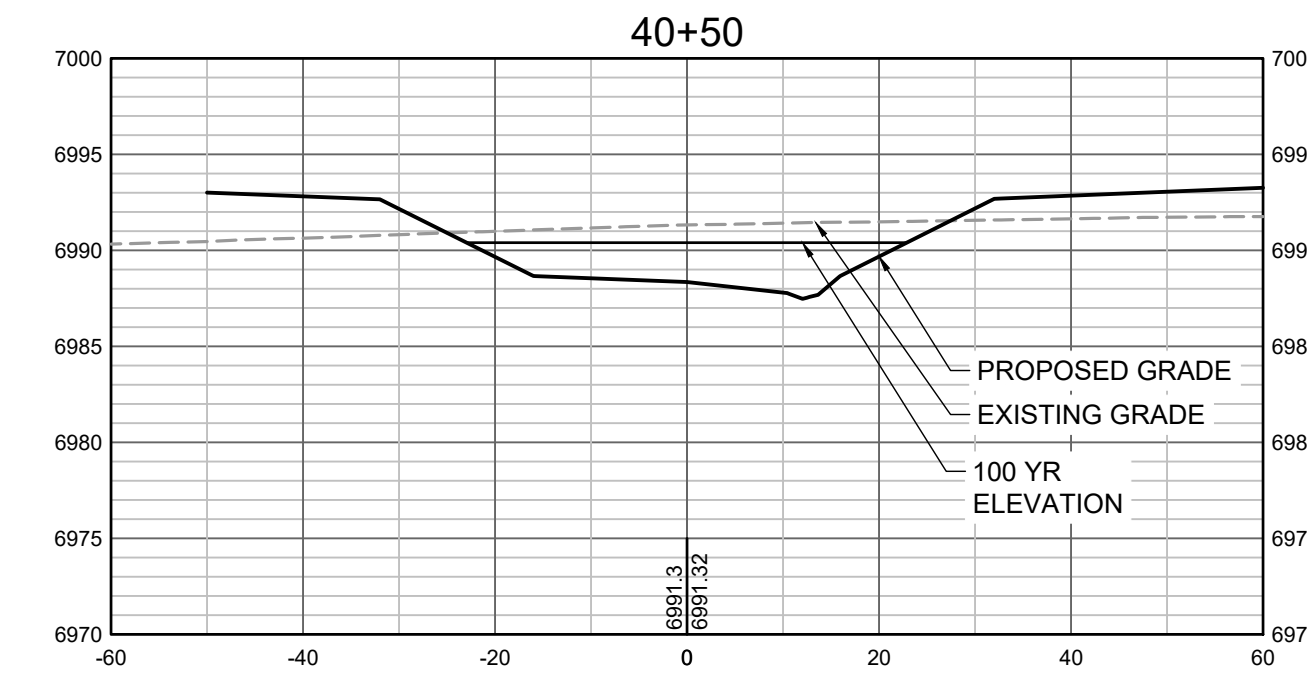
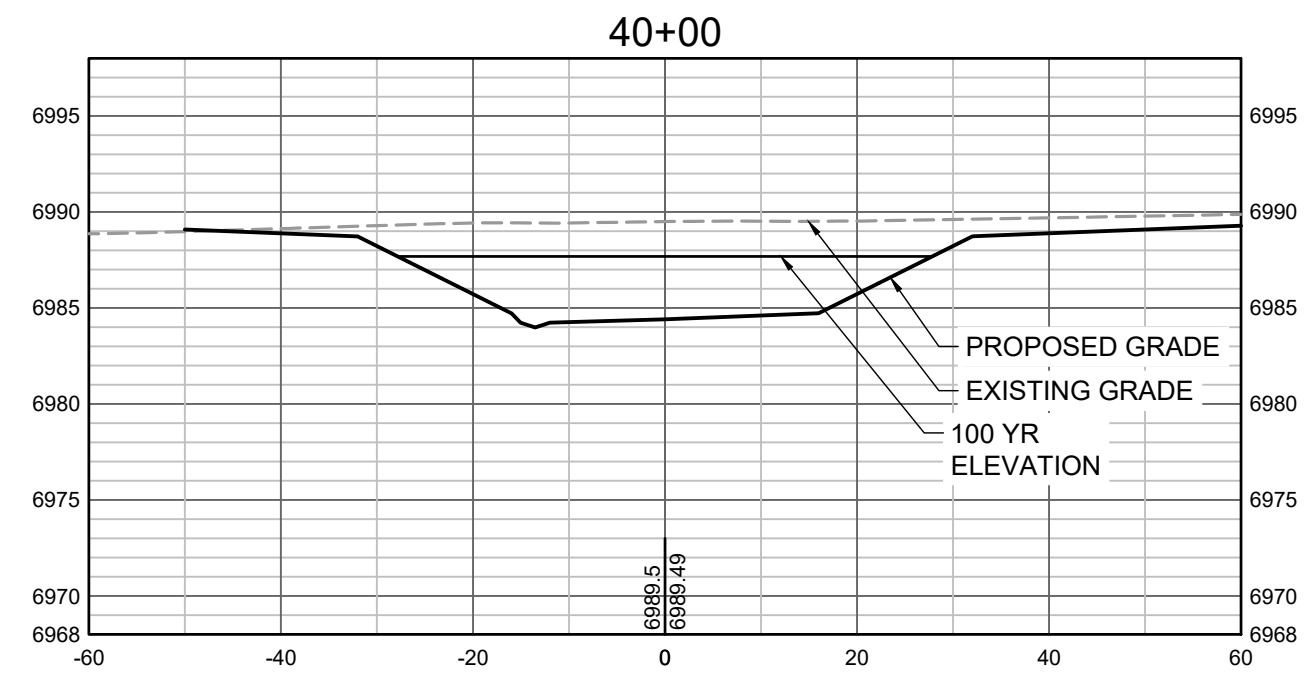
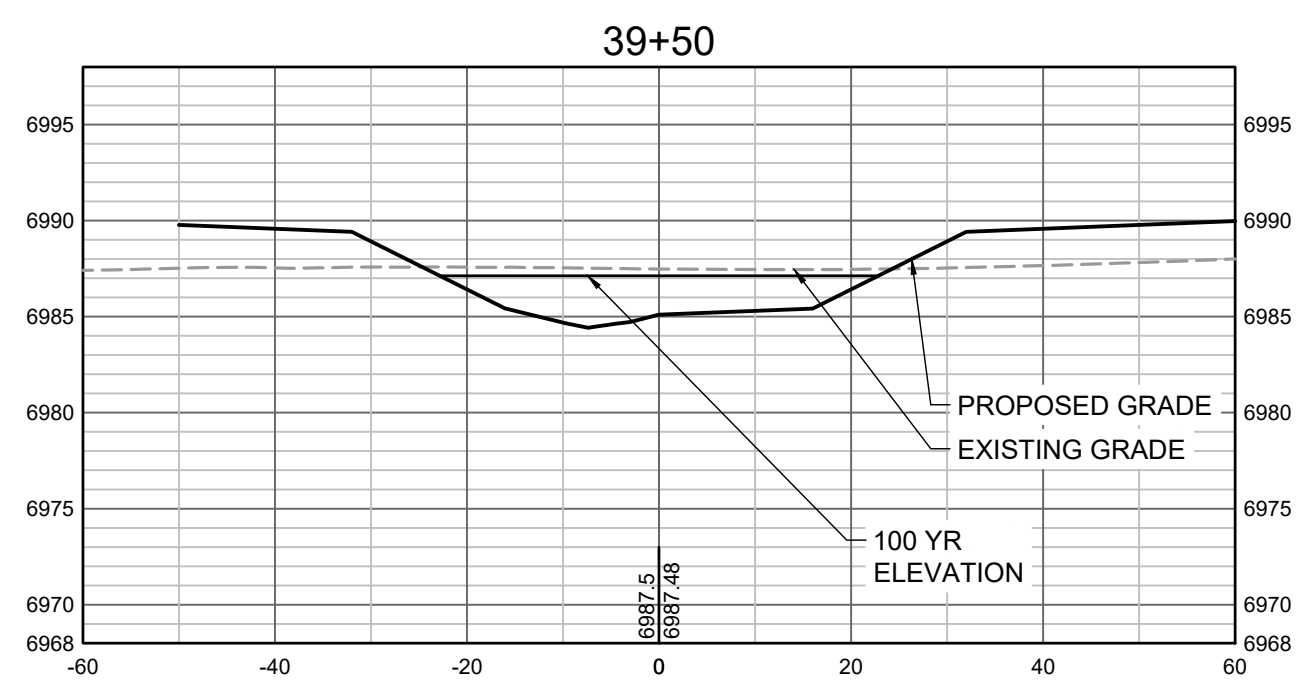
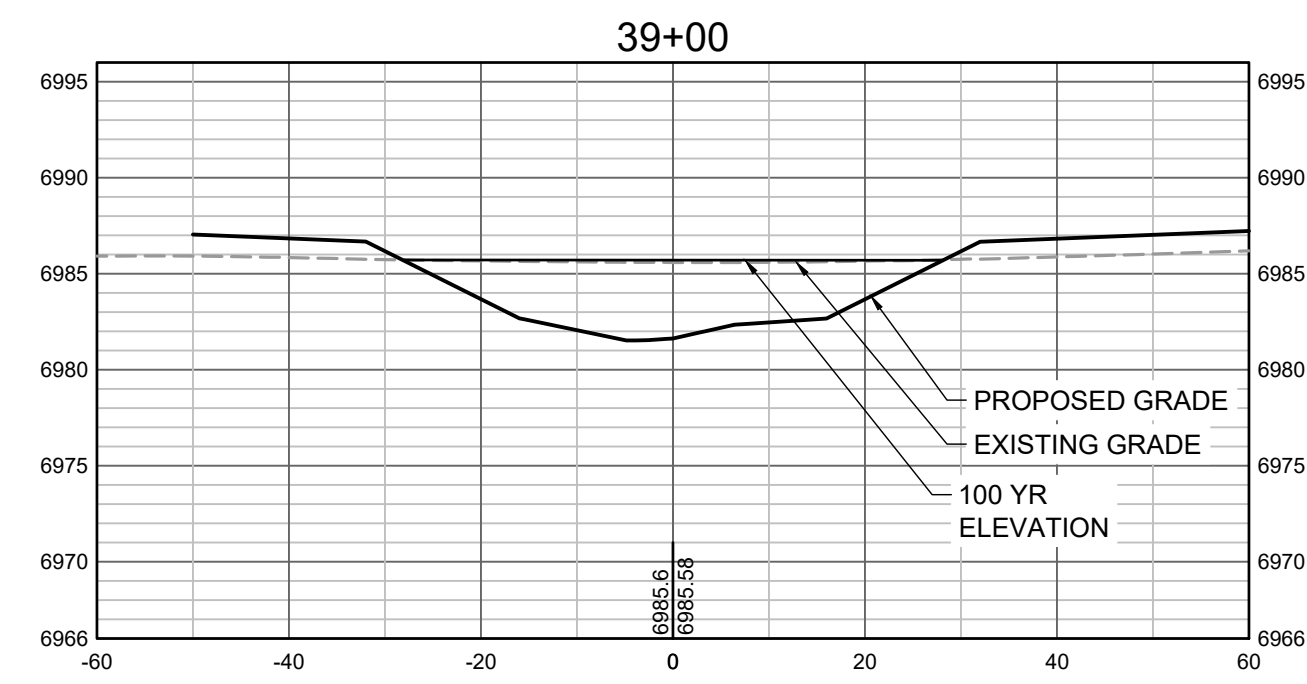
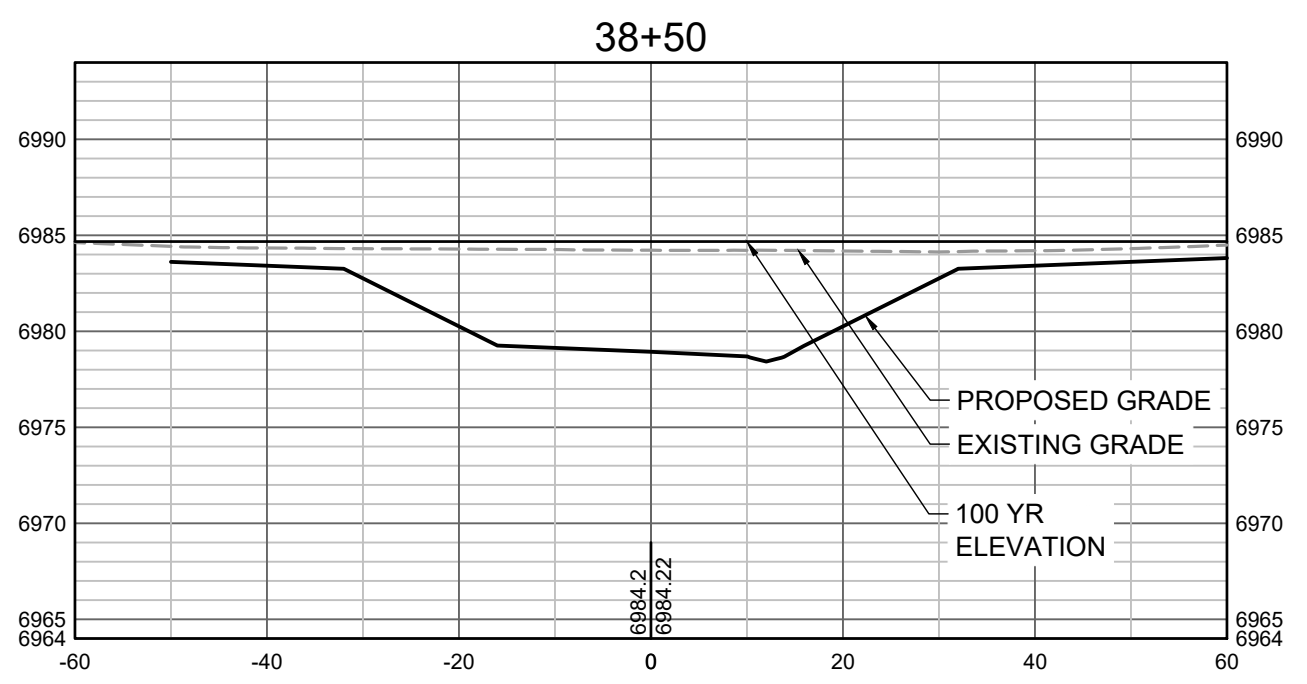
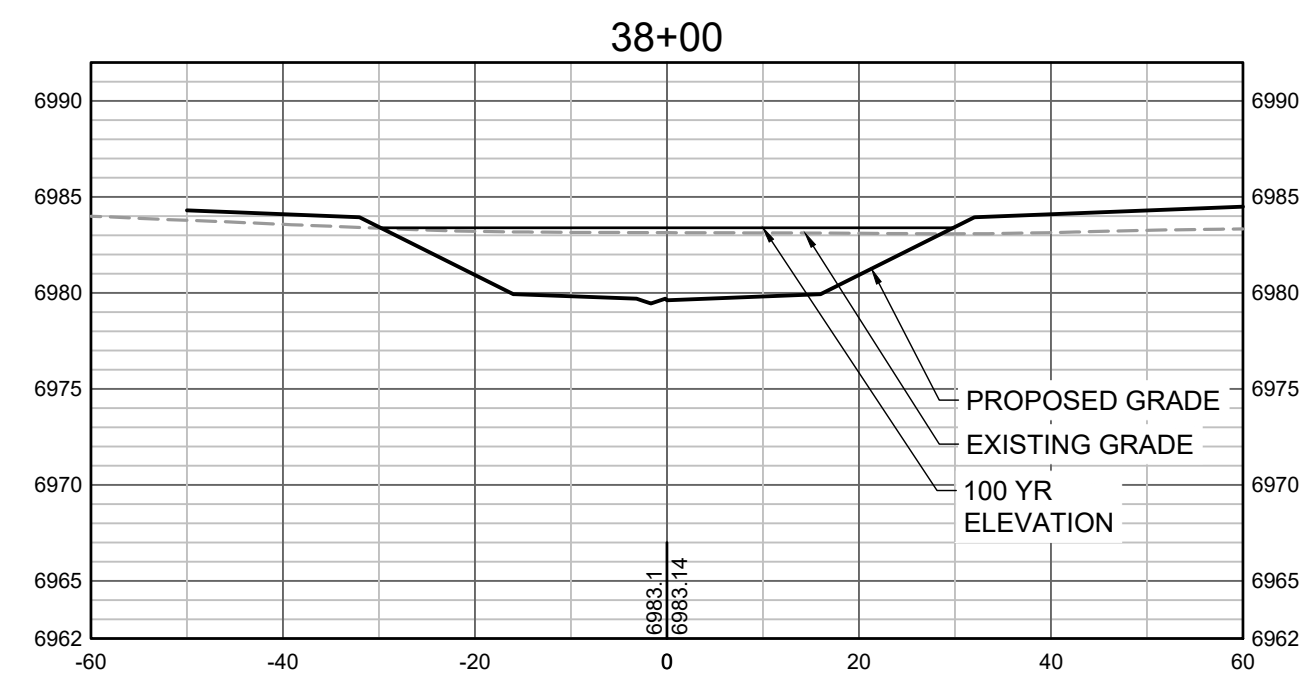
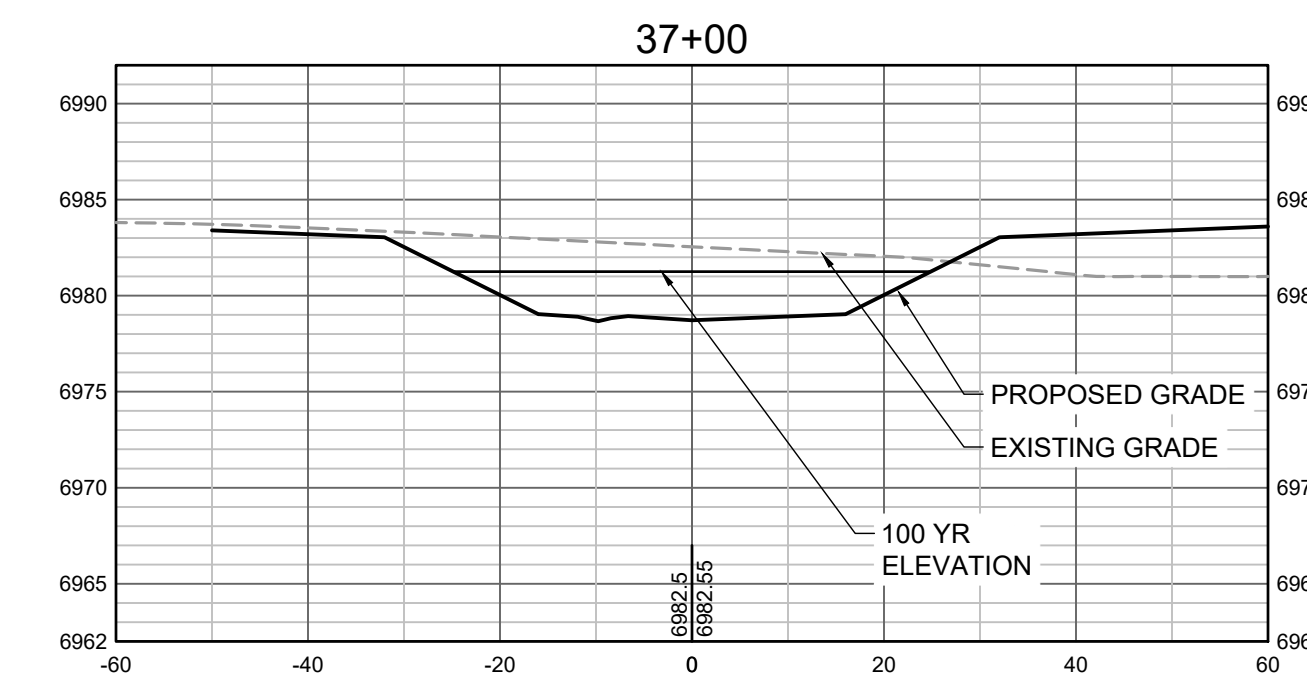
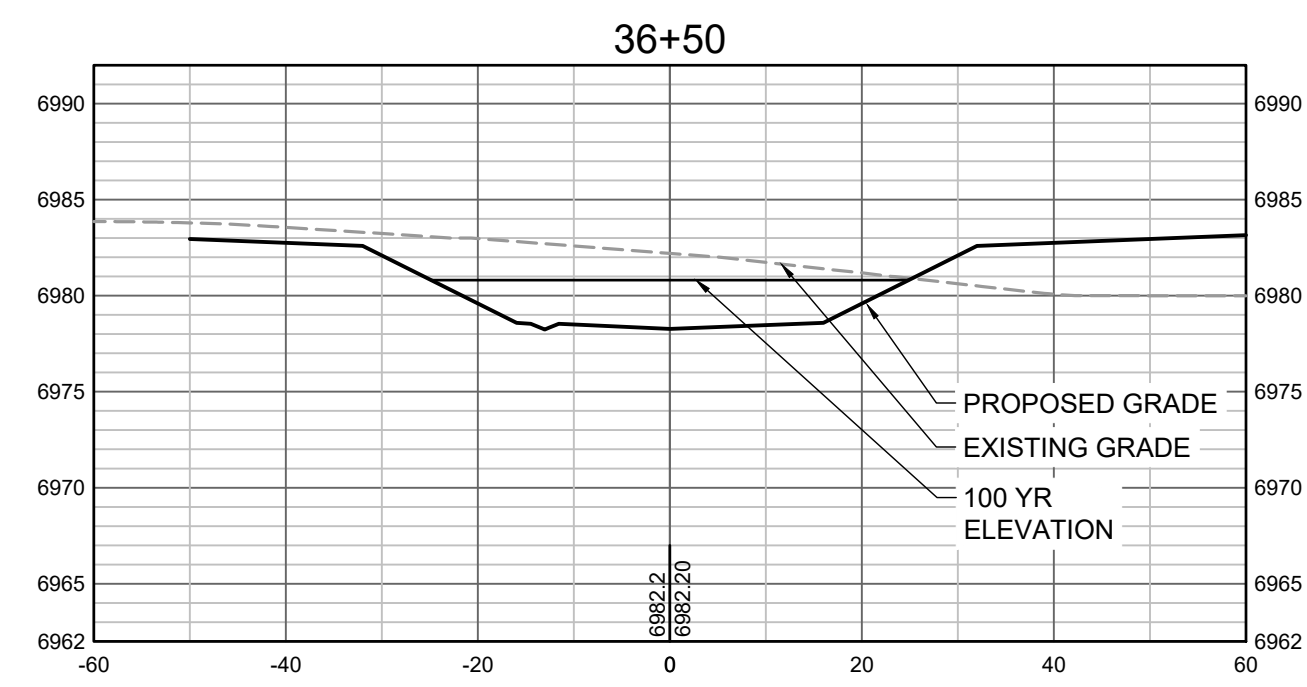
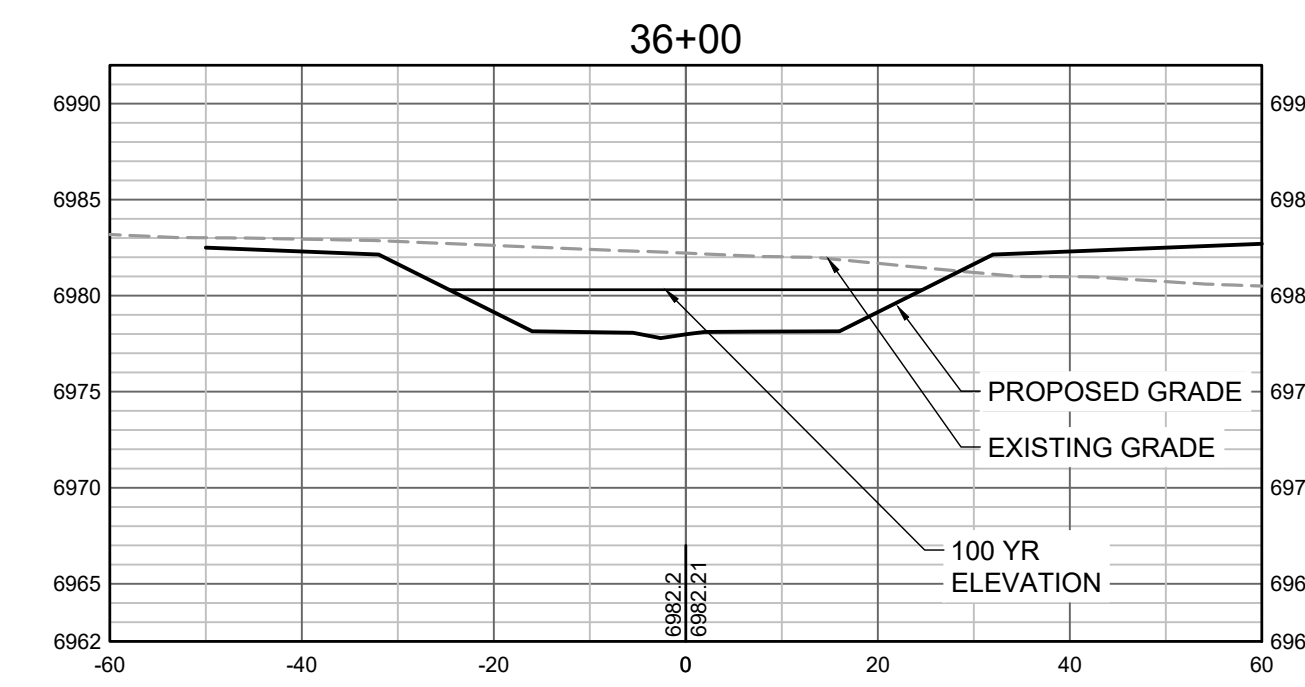
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GRANDVIEW RESERVE (DRAINAGE A & B)
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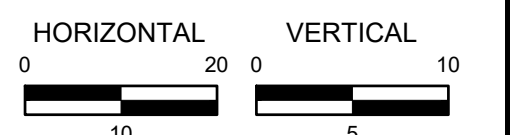
CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 CROSS SECTIONS

SHEET
CS8

38



PROPOSED GRADES TO TIE INTO GRANDVIEW RESERVE FILING 1. REFER TO THE GRANDVIEW RESERVE FILING 1 PLAN SET FOR CONTINUATION OF GRADING THAT IS BEING TIED INTO OUTSIDE OF CHANNEL GRADING LIMITS.



HR GREEN Xrefs: xgs-1-dh01

DRAWN BY: TBI JOB DATE: 3/22/2023
 APPROVED: CMM JOB NUMBER: 201662.03
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\DWG\C\CROSS SECTIONS

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

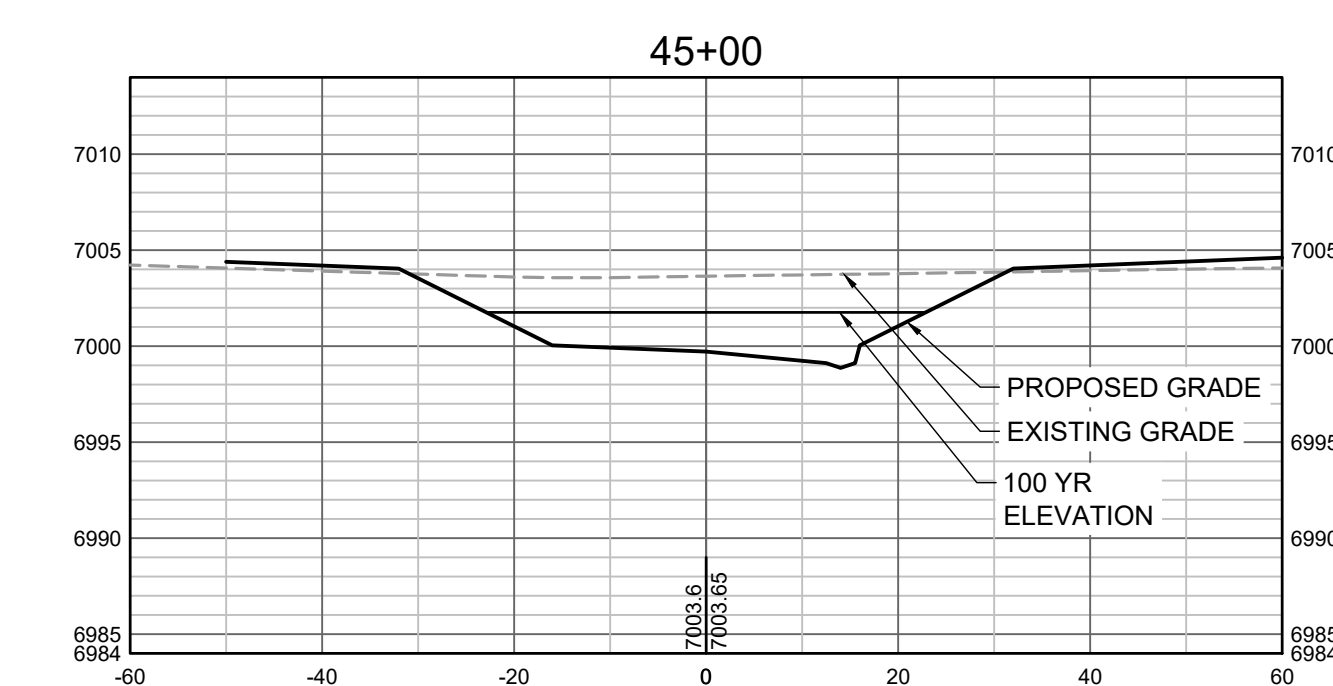
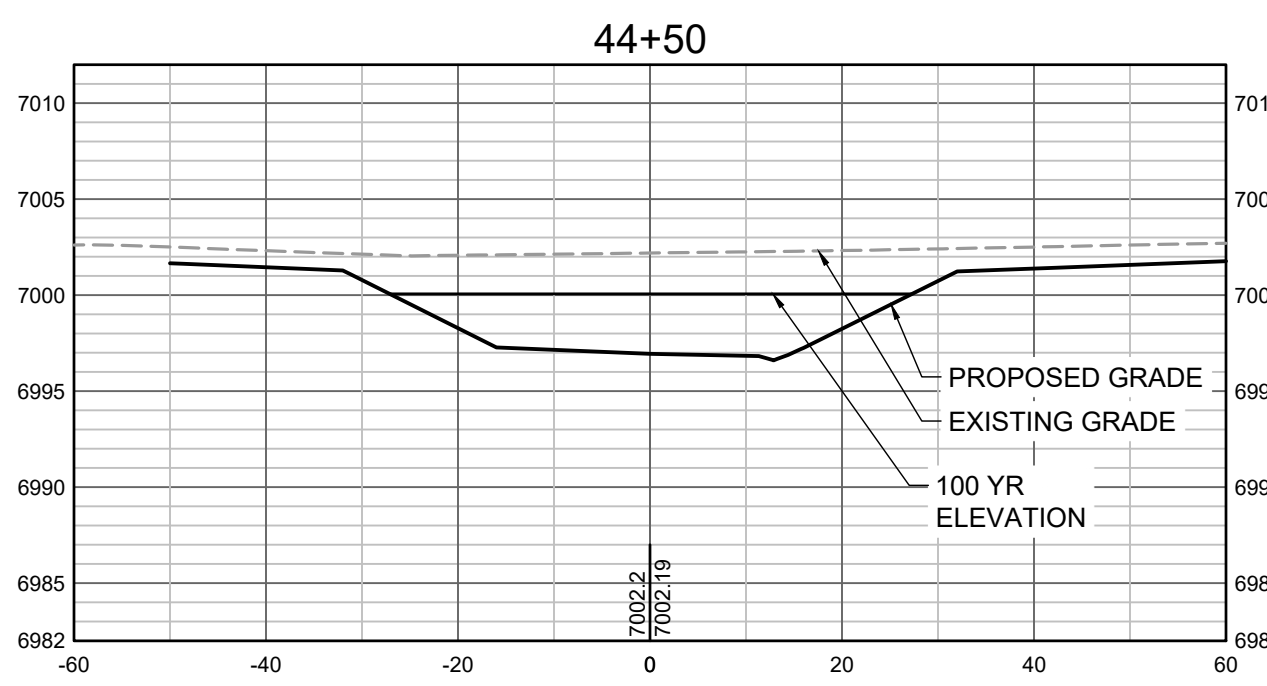
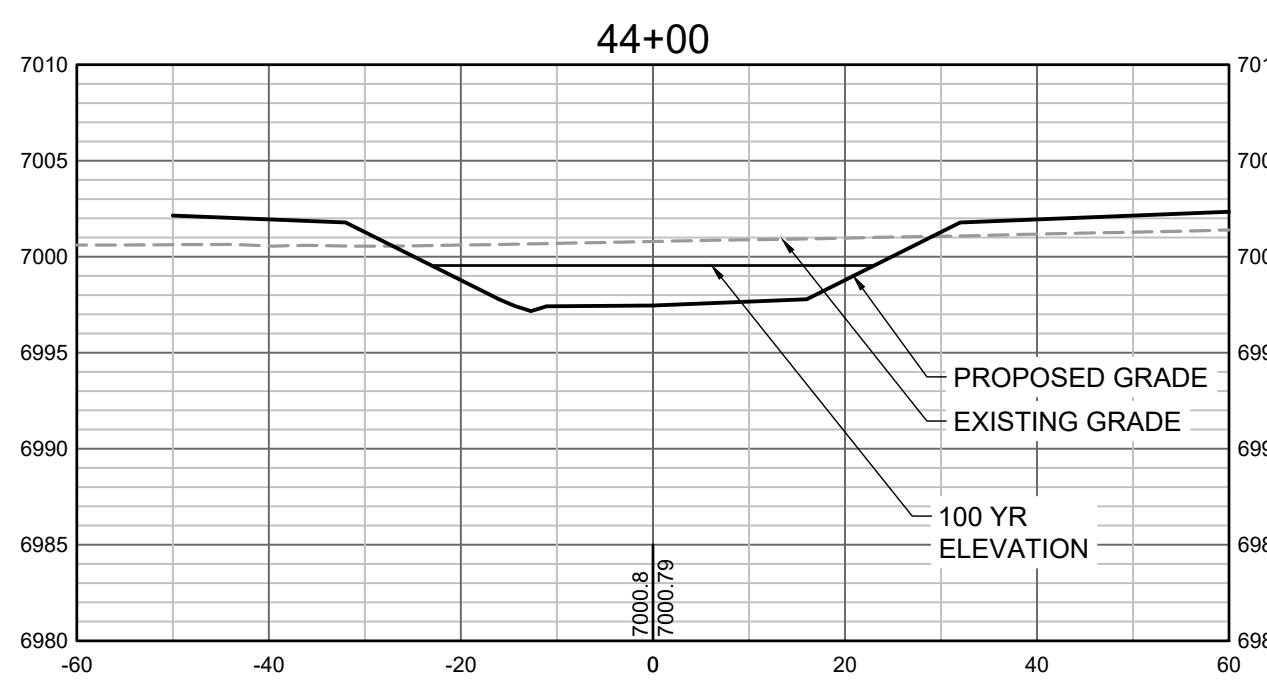
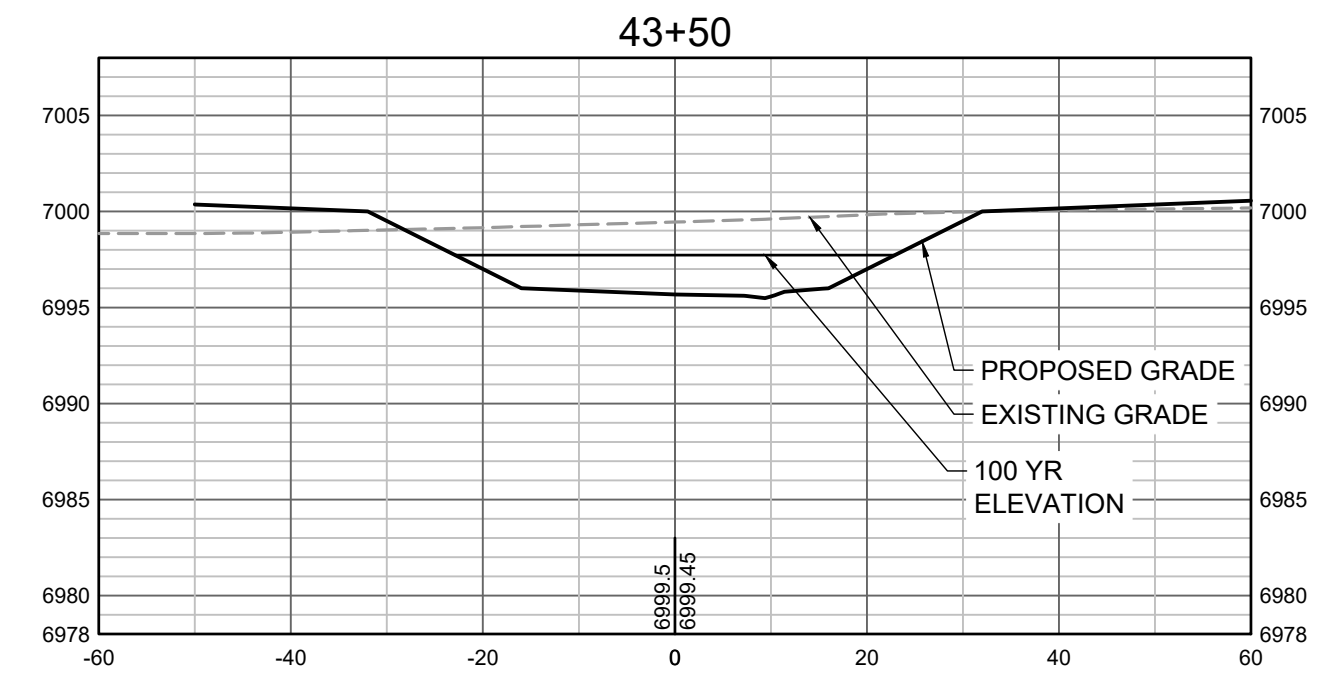
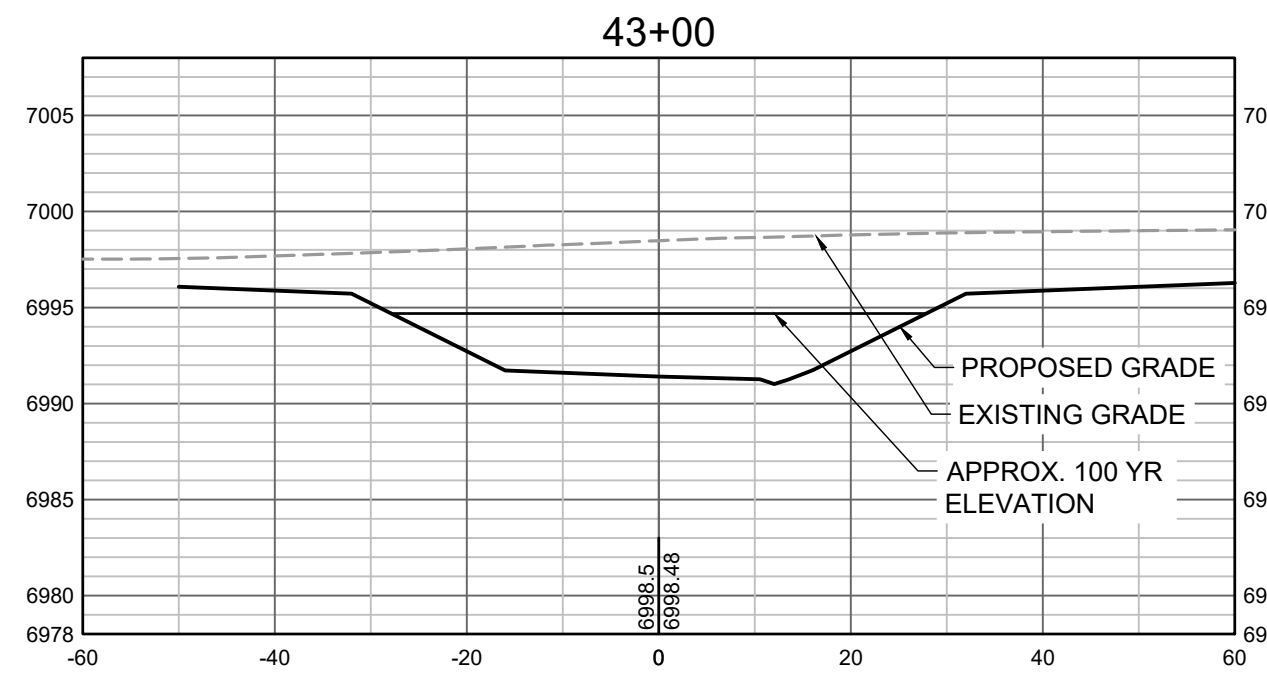
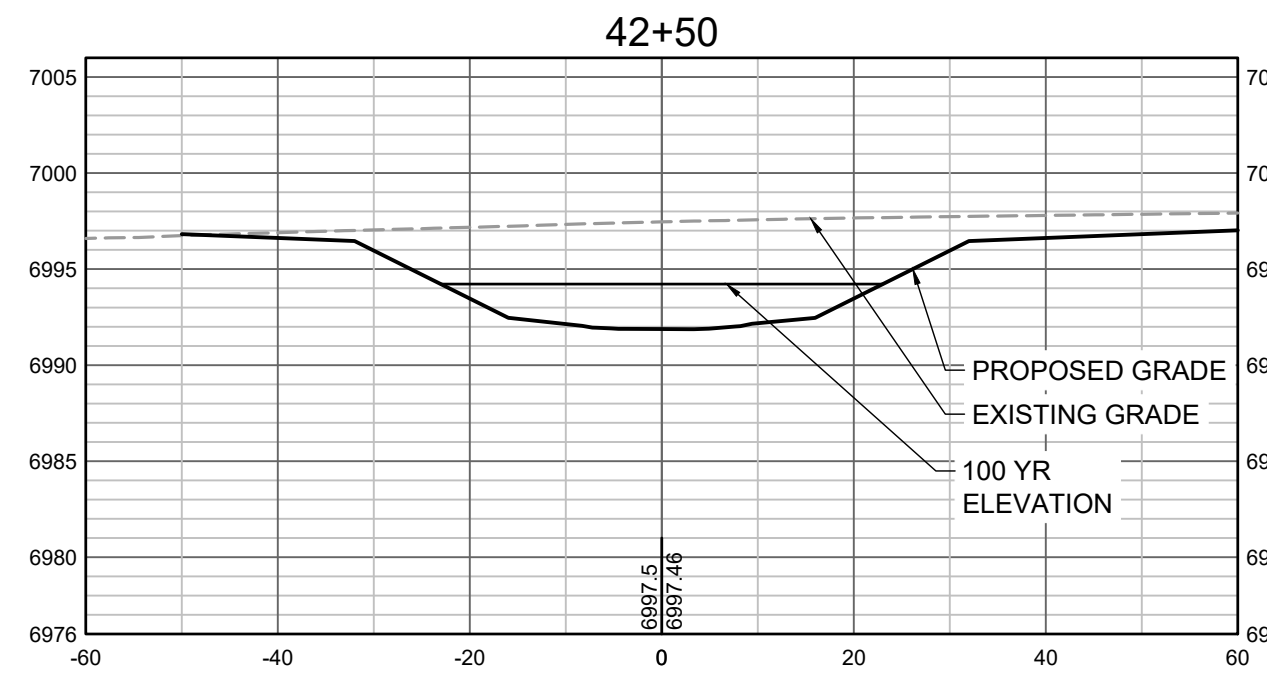
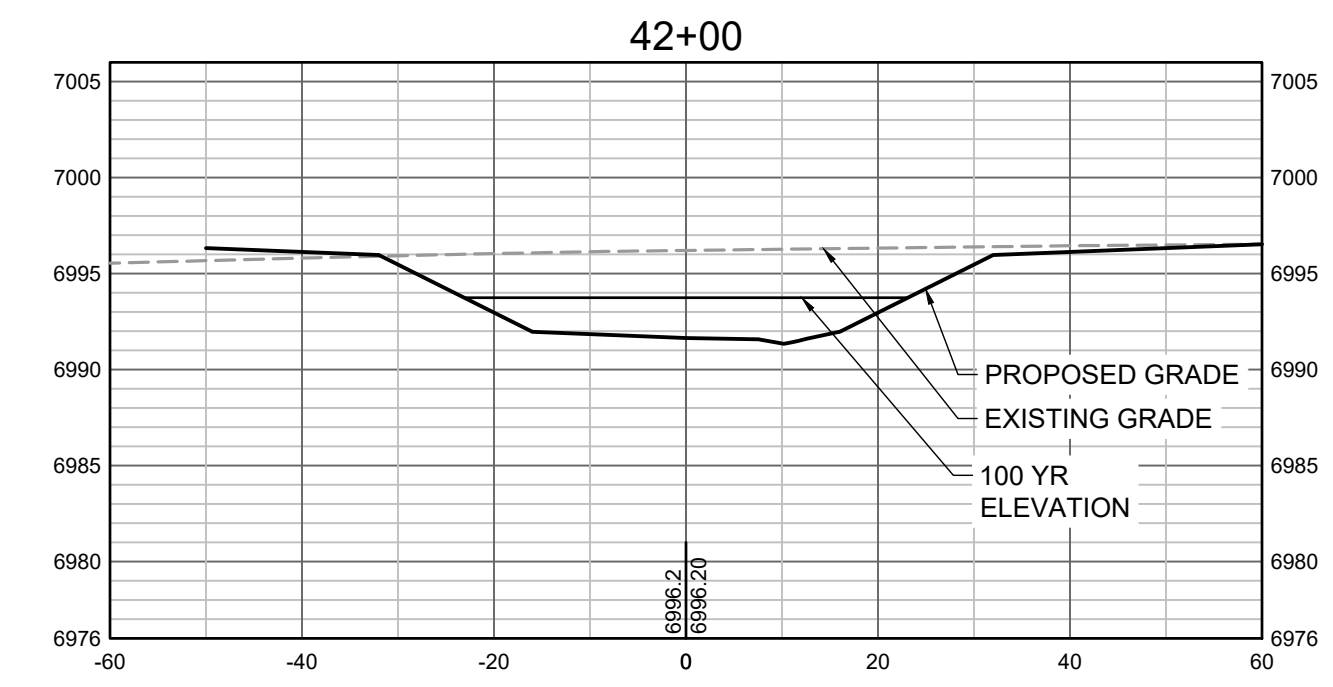
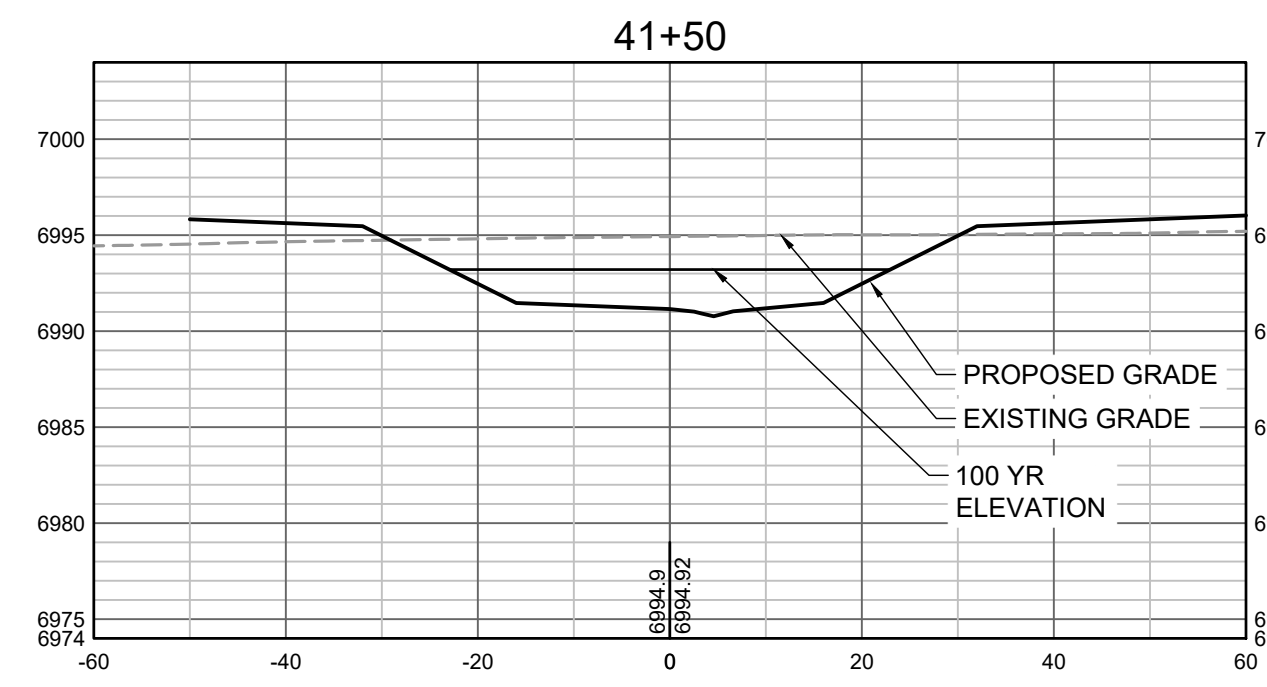
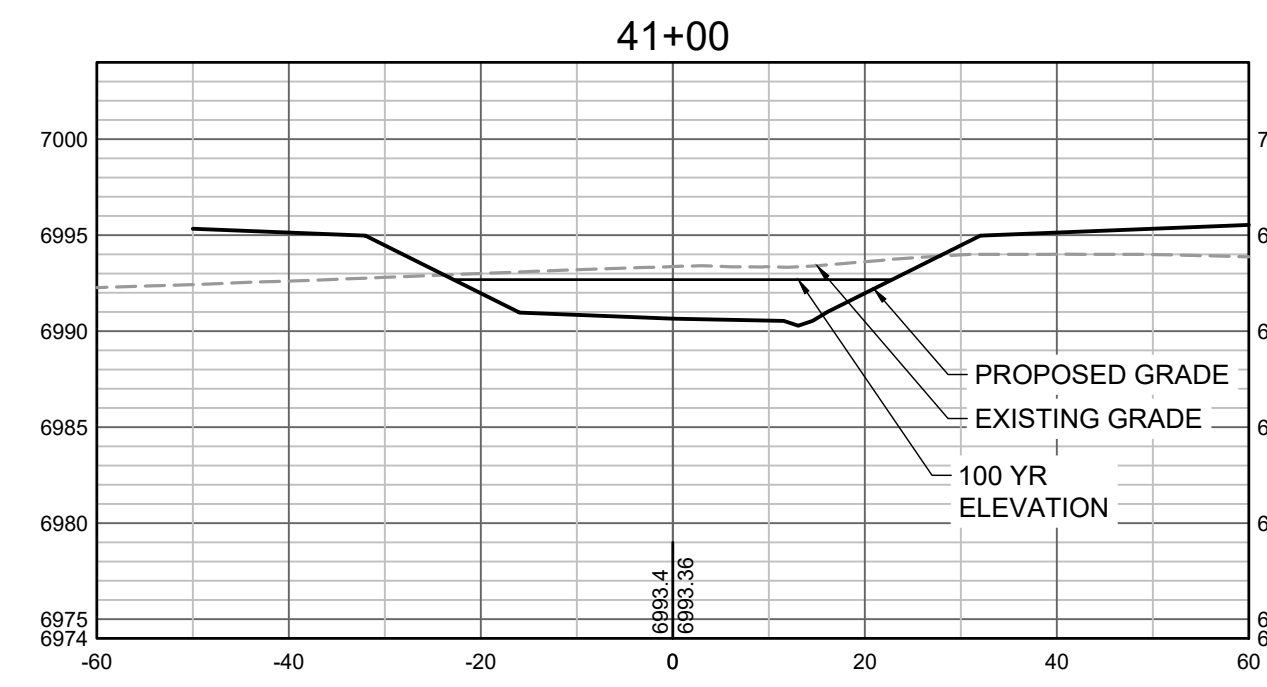
NO.	DATE	BY	REVISION DESCRIPTION

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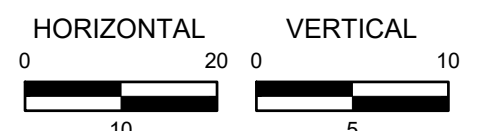
GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 CROSS SECTIONS

SHEET
CS9
39



PROPOSED GRADES TO TIE INTO GRANDVIEW RESERVE FILING 1. REFER TO THE GRANDVIEW RESERVE FILING 1 PLAN SET FOR CONTINUATION OF GRADING THAT IS BEING TIED INTO OUTSIDE OF CHANNEL GRADING LIMITS.



HR GREEN Xrefs: xgs-1-df01

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 APPROVED: CMM JOB NUMBER: 201662.03
 CAD DATE: 3/27/2023
 CAD FILE: J:\2020\201662.03\CAD\DWG\C\CROSS SECTIONS

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NO.	DATE	BY	REVISION DESCRIPTION

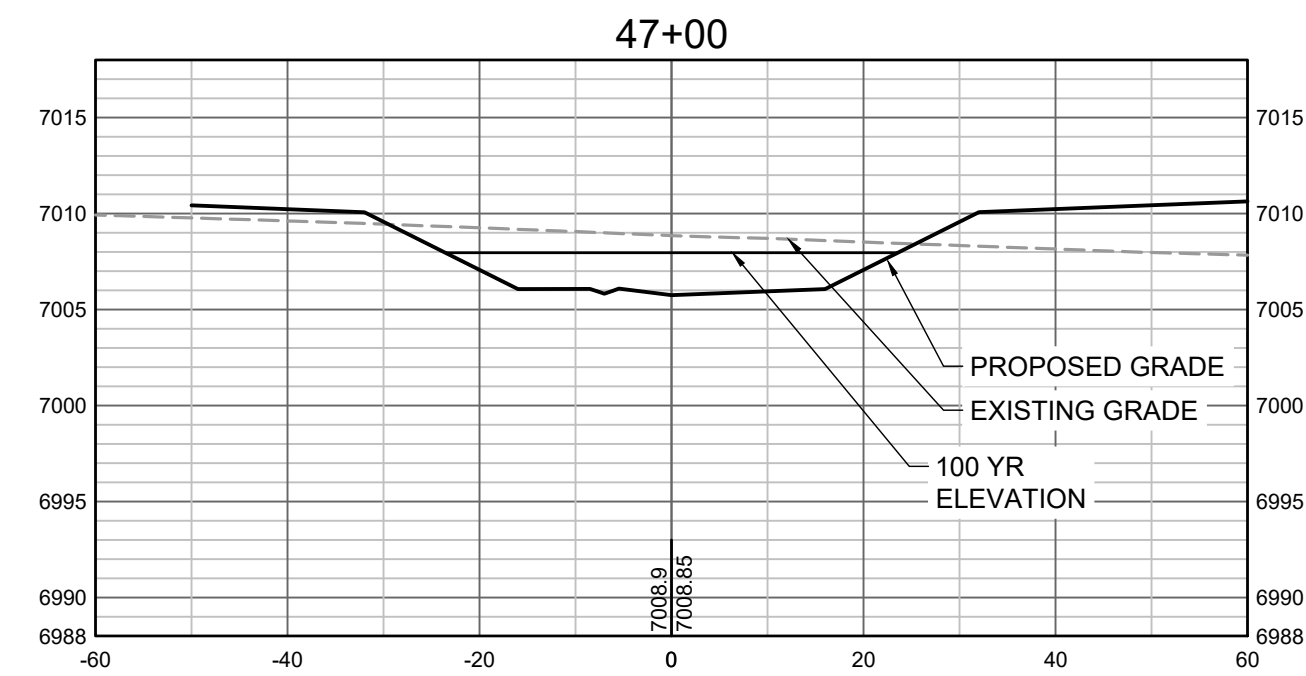
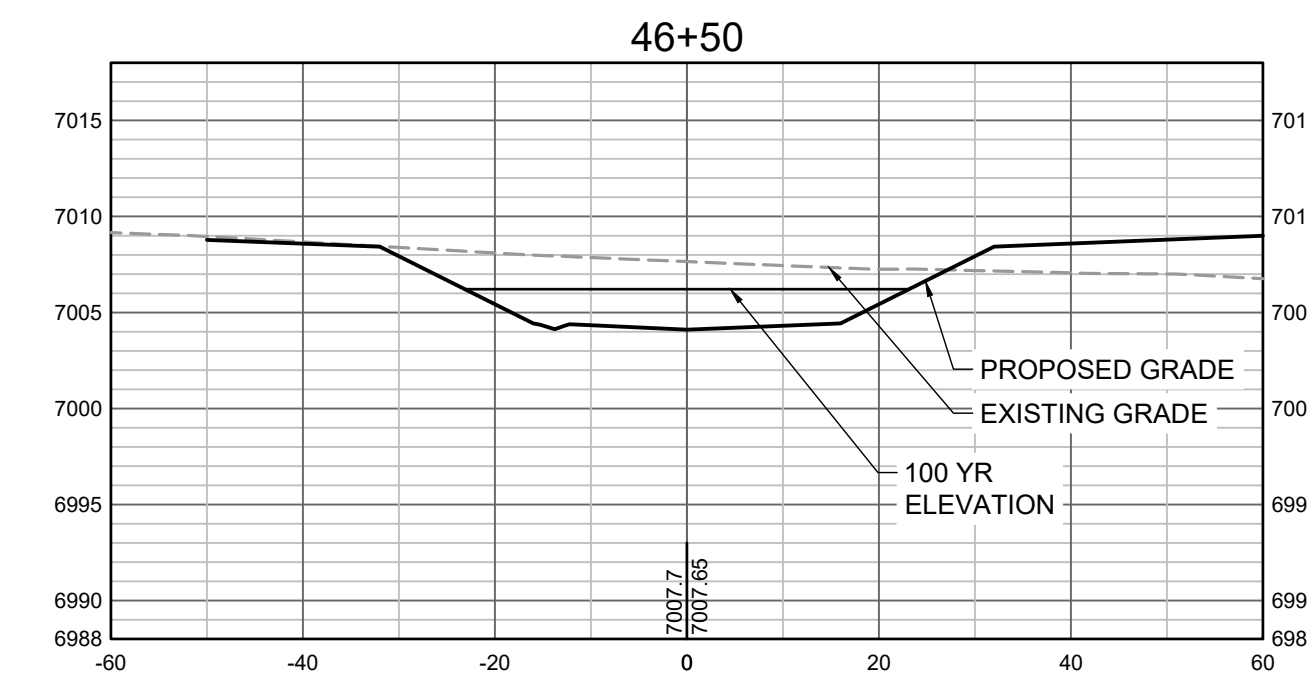
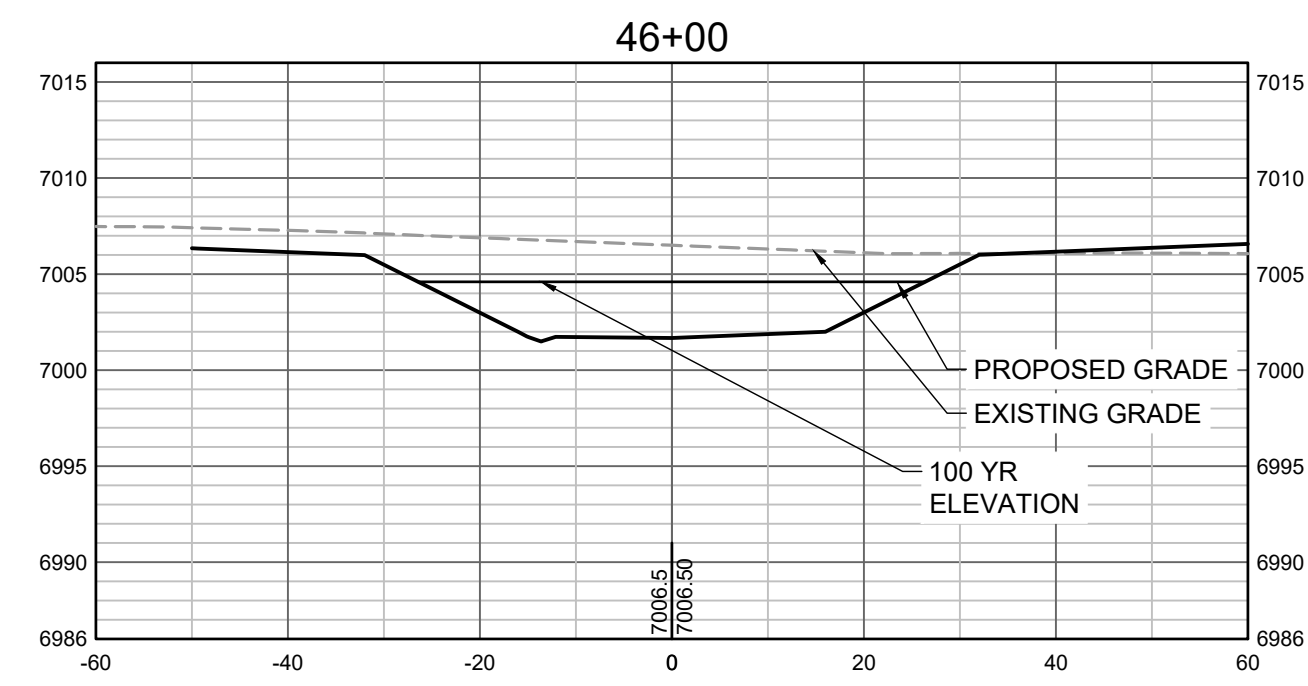
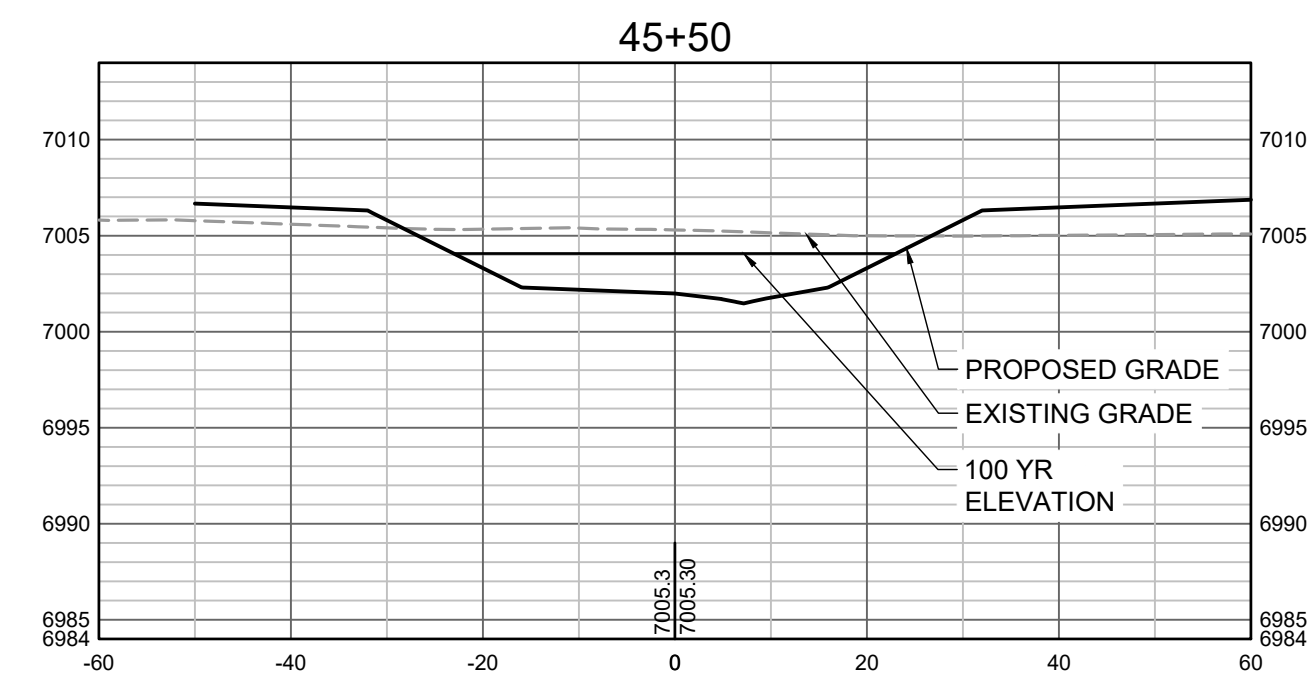


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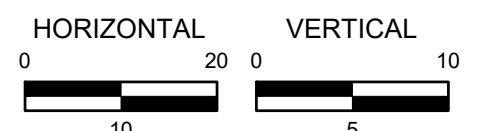
GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 CROSS SECTIONS

SHEET
CS10
 40



PROPOSED GRADES TO TIE INTO GRANDVIEW RESERVE FILING 1.
 REFER TO THE GRANDVIEW RESERVE FILING 1 PLAN SET FOR
 CONTINUATION OF GRADING THAT IS BEING TIED INTO OUTSIDE
 OF CHANNEL GRADING LIMITS.



HR GREEN Xref: xref.dwg

DRAWN BY: TBI JOB DATE: 3/22/2023 BAR IS ONE INCH ON OFFICIAL DRAWINGS.
 APPROVED: CMM JOB NUMBER: 201662.03 0" = 1"
 CAD DATE: 3/27/2023 IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
 CAD FILE: J:\2020\201662.03\CAD\DWG\CROSS SECTIONS

NO.	DATE	BY	REVISION DESCRIPTION

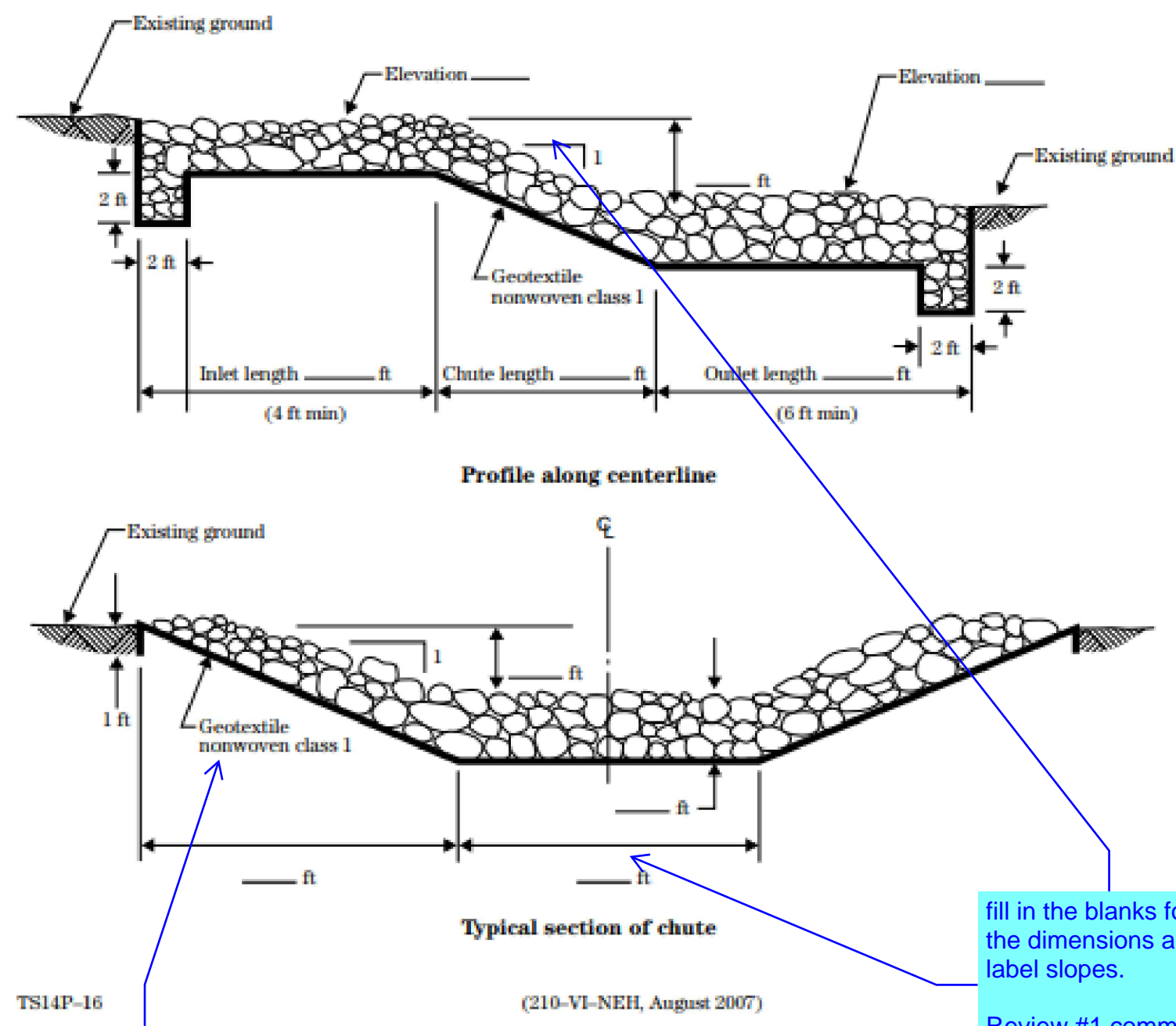
HRGreen
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 DENVER CO 80111
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GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 TRIBUTARY 2 CROSS SECTIONS

SHEET
CS11
 41

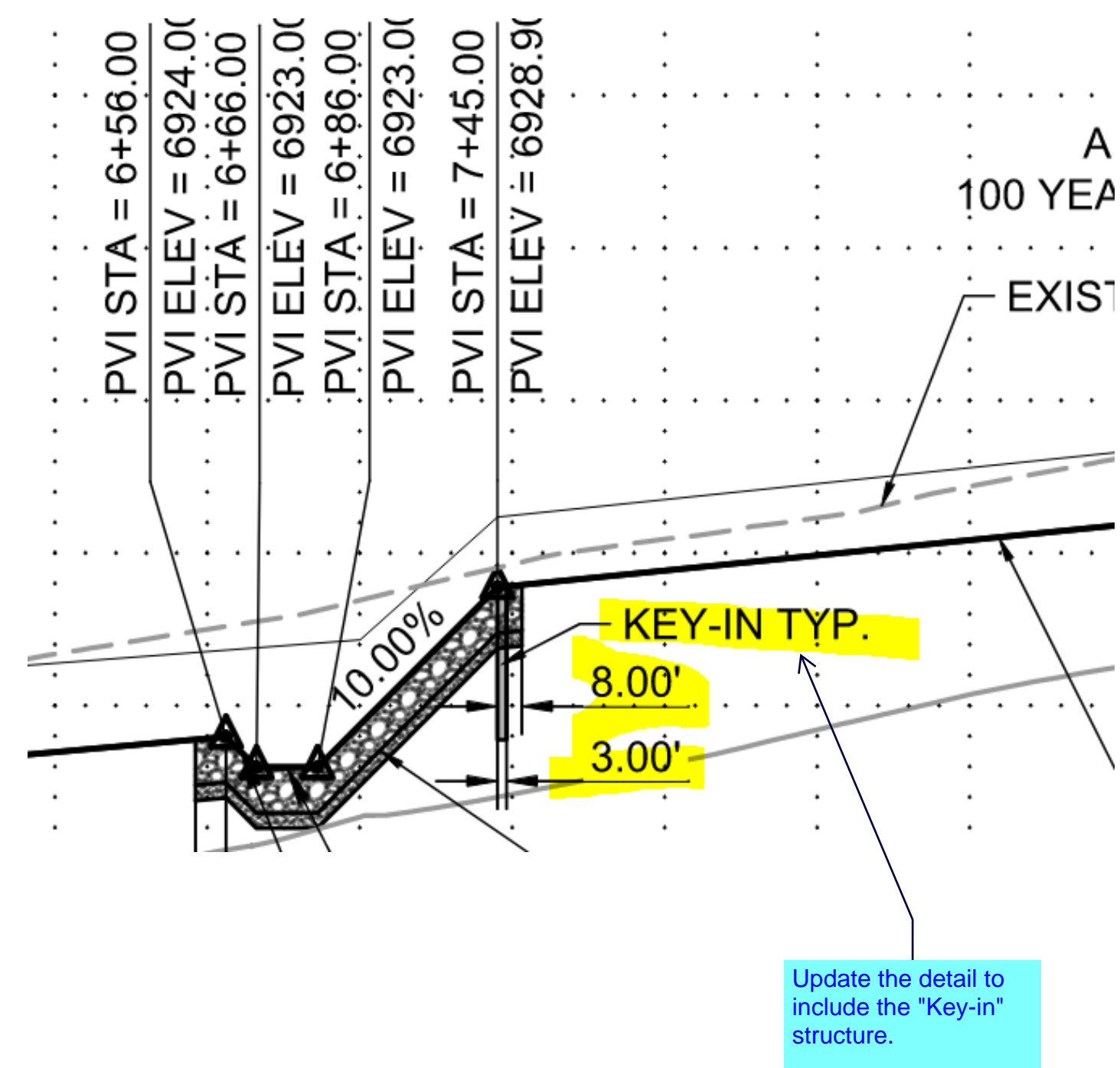
Figure TS14P-32 Design drawings for rock chute grade control structure



TS14P-16
Identify the specific product to be used.
Review #1 comment is unresolved

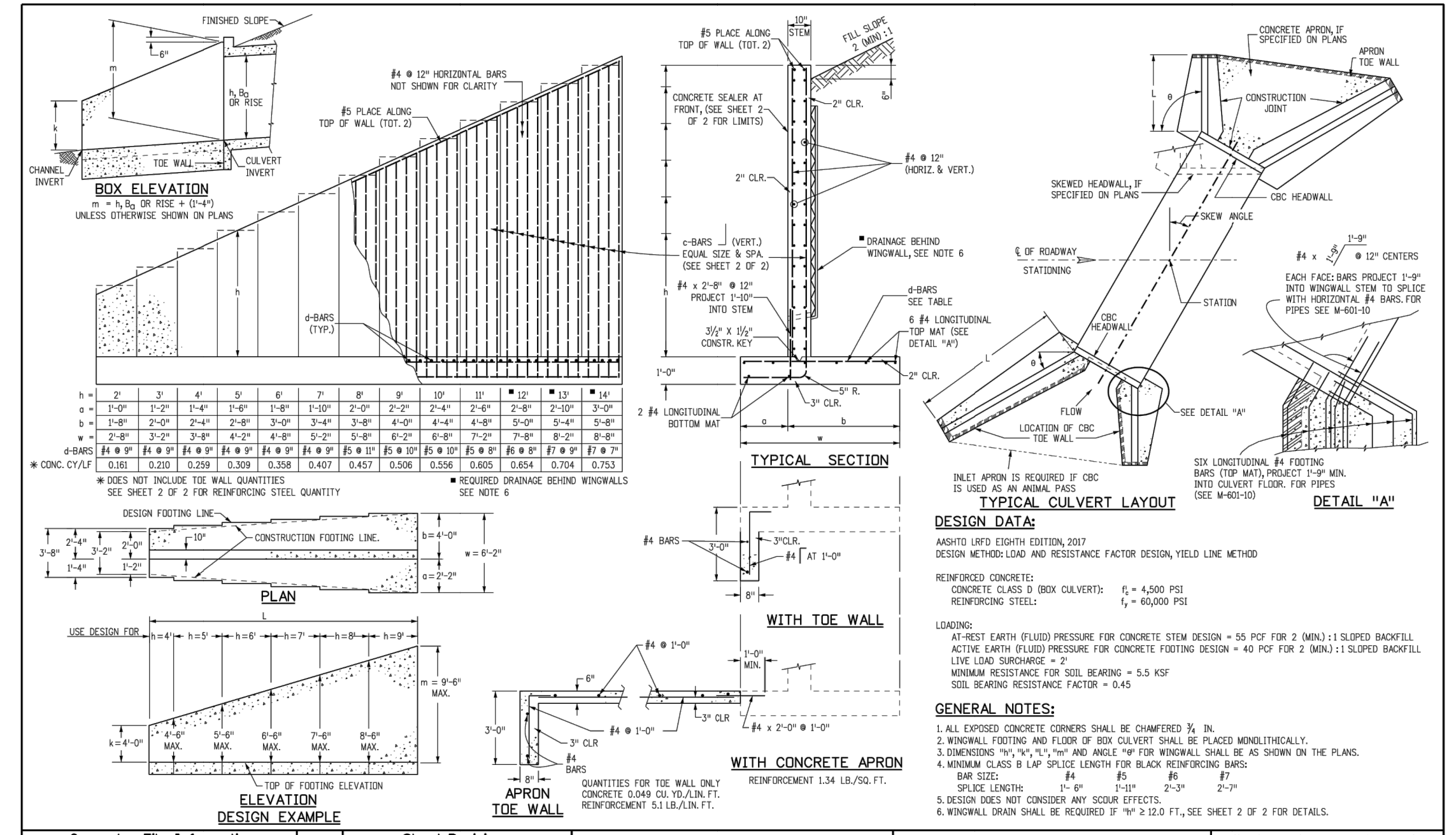
fill in the blanks for the dimensions and label slopes.
Review #1 comment is unresolved.

Chapter 9



Update the detail to include the "key-in" structure.
Review #1 comment is unresolved.
Hydraulic structures

Chapter 9



Computer File Information	Sheet Revisions	Colorado Department of Transportation	STANDARD PLAN NO.
Creation Date: 07/31/19 Designer: Initials: JKB Last Modification Date: 07/31/19 Detailer: Initials: LTA CAD Ver: MicroStation V8 - Scale: Not to Scale - Units: English	Date: _____ Comments: _____	2829 West Howard Place Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9988 Project Development Branch JKB	M-601-20 Standard Sheet No. 1 of 2

C-BARS AND REINFORCING STEEL QUANTITY (EXCLUDE THE WALL)		REINFORCING STEEL QUANTITY INCLUDES STEM AND FOOTING QUANTITIES, BUT DOES NOT INCLUDE THE WALL QUANTITIES.	
MULTIPLY BY (M)		MULTIPLY BY (M)	
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2	5	2	5
3	6	3	6
4	7	4	7
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Computer File Information	Sheet Revisions	Colorado Department of Transportation	STANDARD PLAN NO.
Creation Date: 07/31/19 Designer: Initials: JKB Last Modification Date: 07/31/19 Detailer: Initials: LTA CAD Ver: MicroStation V8 - Scale: Not to Scale - Units: English	Date: _____ Comments: _____	2829 West Howard Place Denver, CO 80204 Phone: 303-757-9021 FAX: 303-757-9988 Project Development Branch JKB	M-601-20 Standard Sheet No. 2 of 2

Please provide details for the box culverts.
Review #1 comment is unresolved.

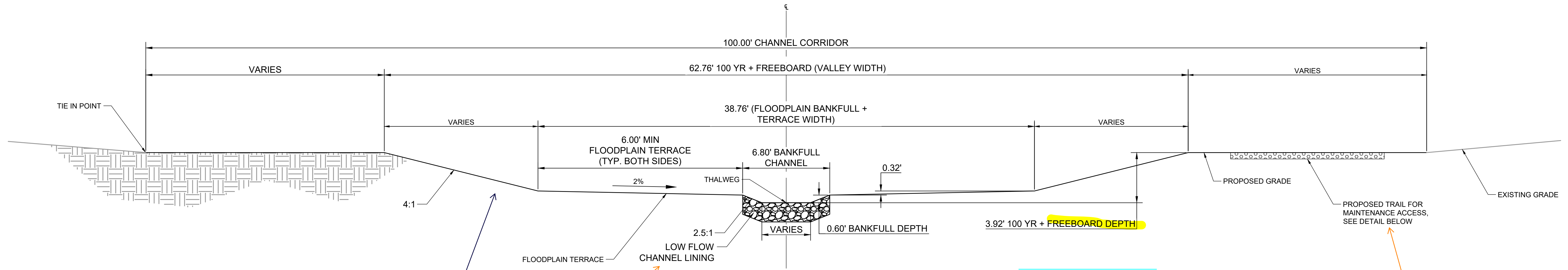
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APPROVED: CMM	JOB NUMBER: 201662.03	0" = 1" IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
CAD DATE: 3/27/2023		
CAD FILE: J120201201662.03\CAD\DWG\CIDETAILS		

NO.	DATE	BY	REVISION DESCRIPTION

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FAX: 844.273.1057

GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
FALCON, COLORADO

CONSTRUCTION DOCUMENTS
DETAILS
SHEET DT1
42



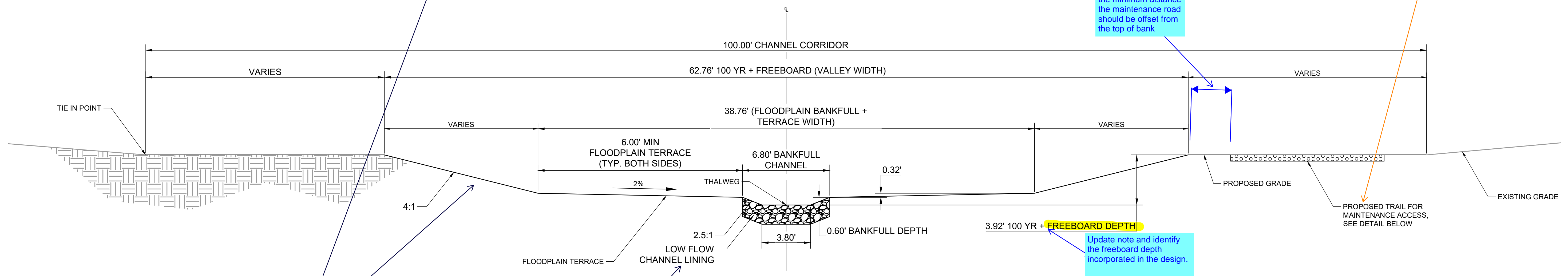
1 TYPICAL CROSS SECTION CHANNEL A
SCALE: N.T.S.

Specify the material and depth and/or reference the sheet where that info is specified.

Update. This is not consistent with Tributary A grading (Sheet GR1) which does not show this riprapped low flow channel.

provide dimension for the minimum distance the maintenance road should be offset from the top of bank

label/show location on GEC Plans



2 TYPICAL CROSS SECTION CHANNEL B
SCALE: N.T.S.

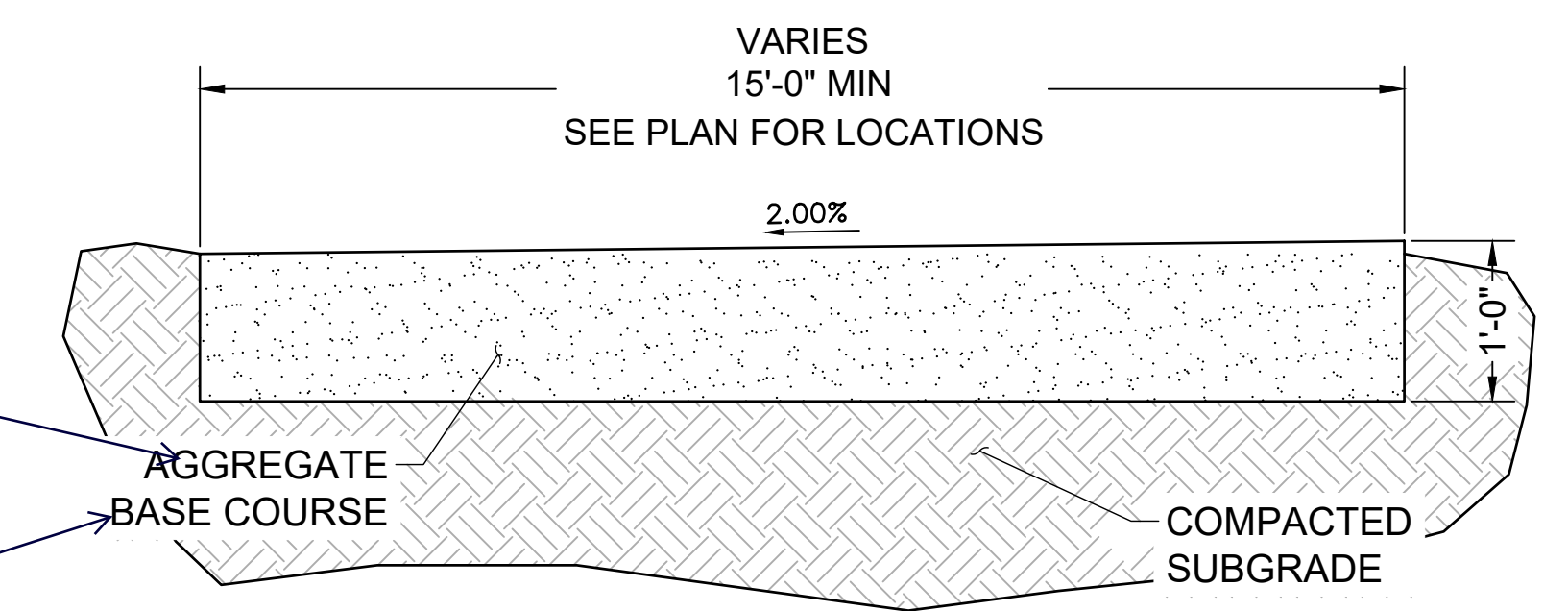
identify riprap size for both cross sections

Update note and identify the freeboard depth incorporated in the design.

Update callout to specify the material. This should be CDOT Class 6

update the Financial Assurance estimate to include the ABC.

Provide channel lining detail. What grass lining was assumed. The 7fps velocity design parameter noted in sheet GN1 exceeds the permissible velocity for native grass. Short native grass permissible velocity is around 3 to 4 fps.
Per DCM Table 10-4, 7fps permissible velocity only corresponds to sodded grass.
Review #1 remains unresolved.



MAINTENANCE ROAD TYPICAL SECTION
SCALE: NTS

- NOTES:
- BANKFULL CHANNEL MAY SHIFT LEFT OR RIGHT WITHIN THE BANKFULL + TERRACE WIDTH SO LONG AS THE MINIMUM FLOOD PLAIN TERRACE WIDTH OF 6' IS MAINTAINED ON BOTH SIDES.
 - VALLEY WIDTH MAY SHIFT WITHIN THE 100' CHANNEL CORRIDOR.
 - SEE PROFILES FOR ELEVATION AT THALWEG.

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APPROVED: CMM	JOB NUMBER: 201662.03	0" = 1"
CAD DATE: 3/27/2023		IF NOT ONE INCH, ADJUST SCALE ACCORDINGLY.
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NO.	DATE	BY	REVISION DESCRIPTION

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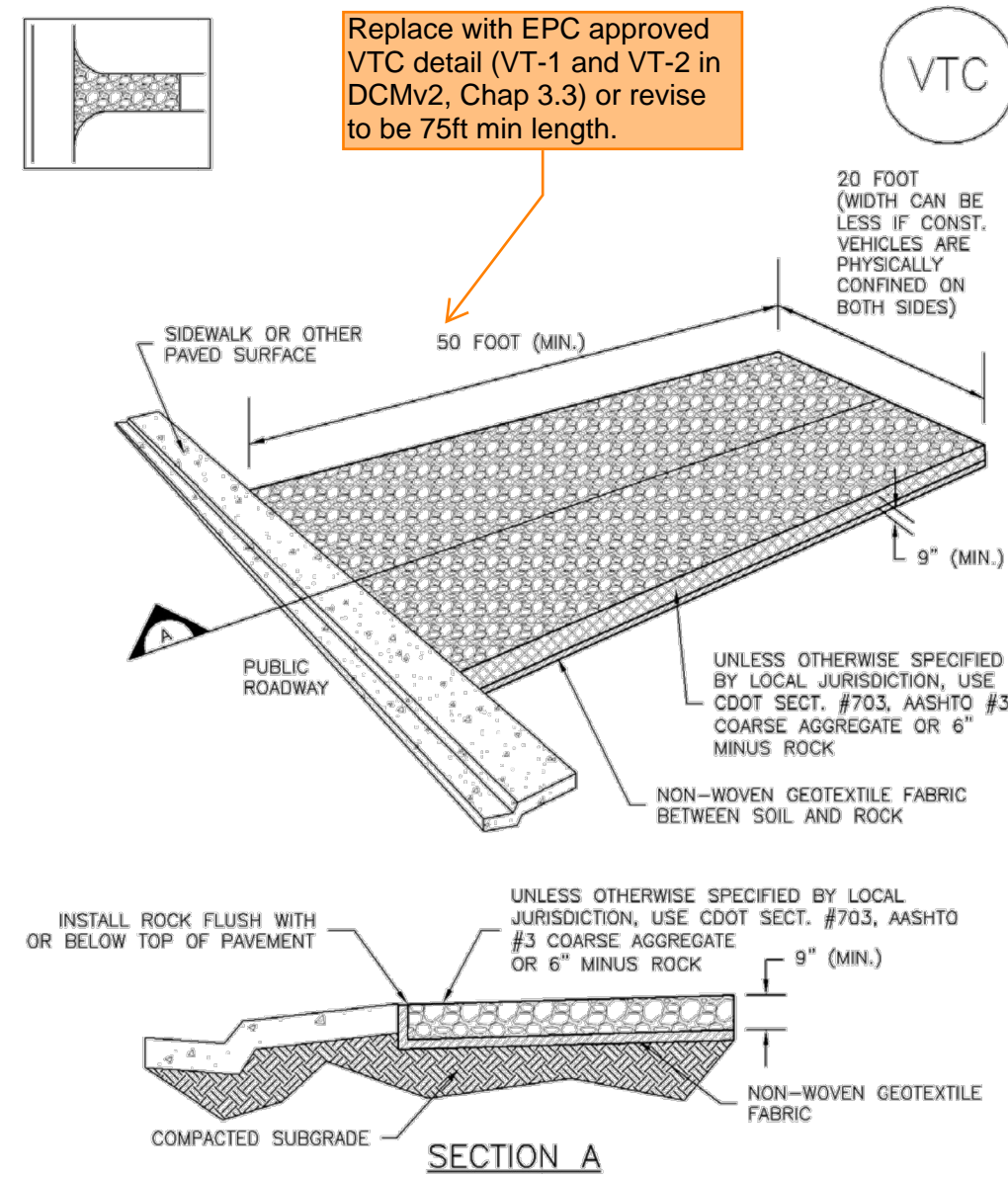
GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
FALCON, COLORADO

CONSTRUCTION DOCUMENTS
DETAILS

SHEET
DT2
43

HR GREEN Xref: xgs-1-dh01

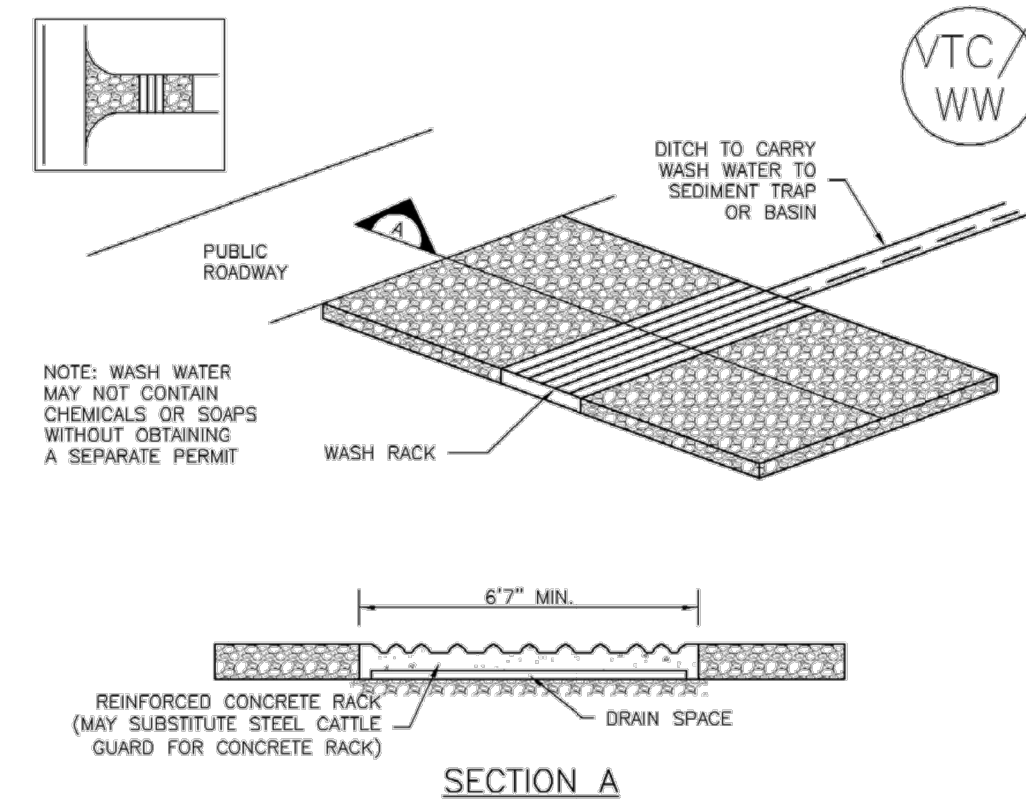
Vehicle Tracking Control (VTC) SM-4



VTC-1. AGGREGATE VEHICLE TRACKING CONTROL

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

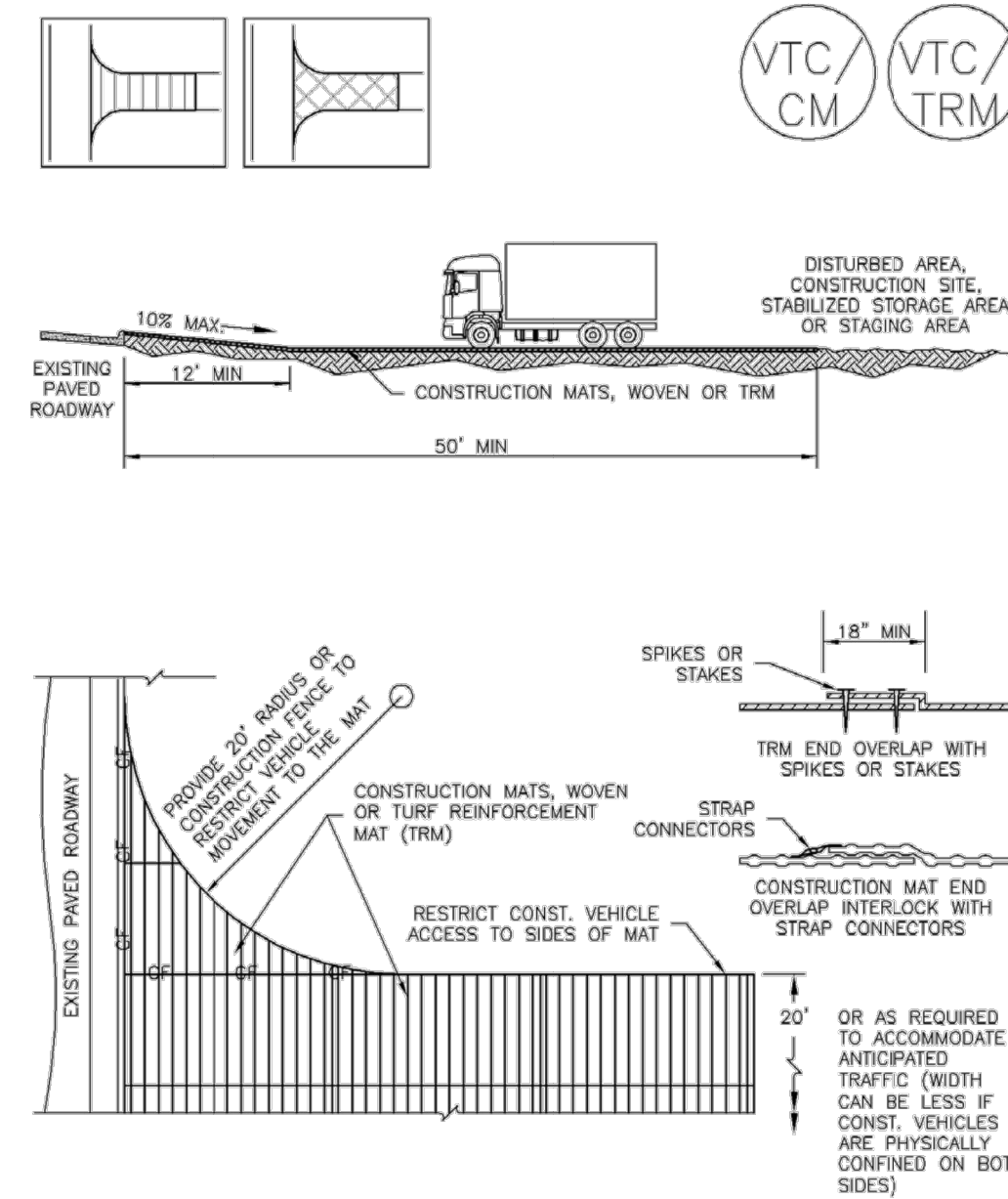
SM-4 Vehicle Tracking Control (VTC)



VTC-2. AGGREGATE VEHICLE TRACKING CONTROL WITH WASH RACK

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

Vehicle Tracking Control (VTC) SM-4



VTC-3. VEHICLE TRACKING CONTROL W/ CONSTRUCTION MAT OR TURF REINFORCEMENT MAT (TRM)

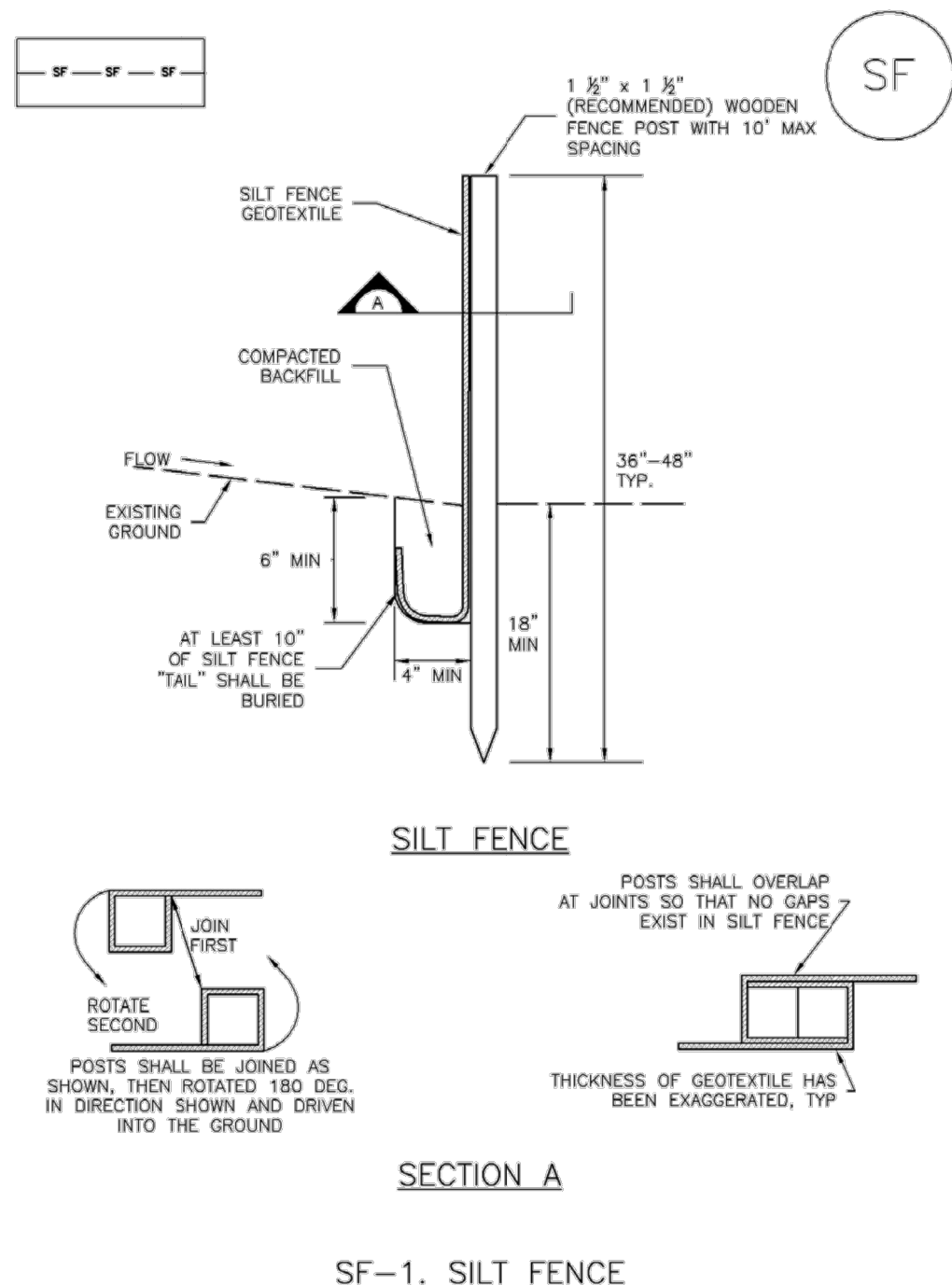
November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 VTC-5

SM-4 Vehicle Tracking Control (VTC)

- STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
 - LOCATION OF CONSTRUCTION ENTRANCE(S)/EXIT(S)
 - TYPE OF CONSTRUCTION ENTRANCE(S)/EXIT(S) (WITH/WITHOUT WHEEL WASH, CONSTRUCTION MAT OR TRM)
 - CONSTRUCTION MAT OR TRM STABILIZED CONSTRUCTION ENTRANCES ARE ONLY TO BE USED ON SHORT DURATION PROJECTS (TYPICALLY RANGING FROM A WEEK TO A MONTH) WHERE THERE WILL BE LIMITED VEHICULAR ACCESS.
 - A STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE LOCATED AT ALL ACCESS POINTS WHERE VEHICLES ACCESS THE CONSTRUCTION SITE FROM PAVED RIGHT-OF-WAYS.
 - STABILIZED CONSTRUCTION ENTRANCE/EXIT SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
 - A NON-WOVEN GEOTEXTILE FABRIC SHALL BE PLACED UNDER THE STABILIZED CONSTRUCTION ENTRANCE/EXIT PRIOR TO THE PLACEMENT OF ROCK.
 - UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
- STABILIZED CONSTRUCTION ENTRANCE/EXIT MAINTENANCE NOTES**
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY TO THE STABILIZED ENTRANCE/EXIT TO MAINTAIN A CONSISTENT DEPTH.
 - SEDIMENT TRACKED ONTO PAVED ROADS IS TO BE REMOVED THROUGHOUT THE DAY AND AT THE END OF THE DAY BY SHOVELING OR SWEEPING. SEDIMENT MAY NOT BE WASHED DOWN STORM SEWER DRAINS.
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM CITY OF BROOMFIELD, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

Silt Fence (SF) SC-1



SF-1. SILT FENCE

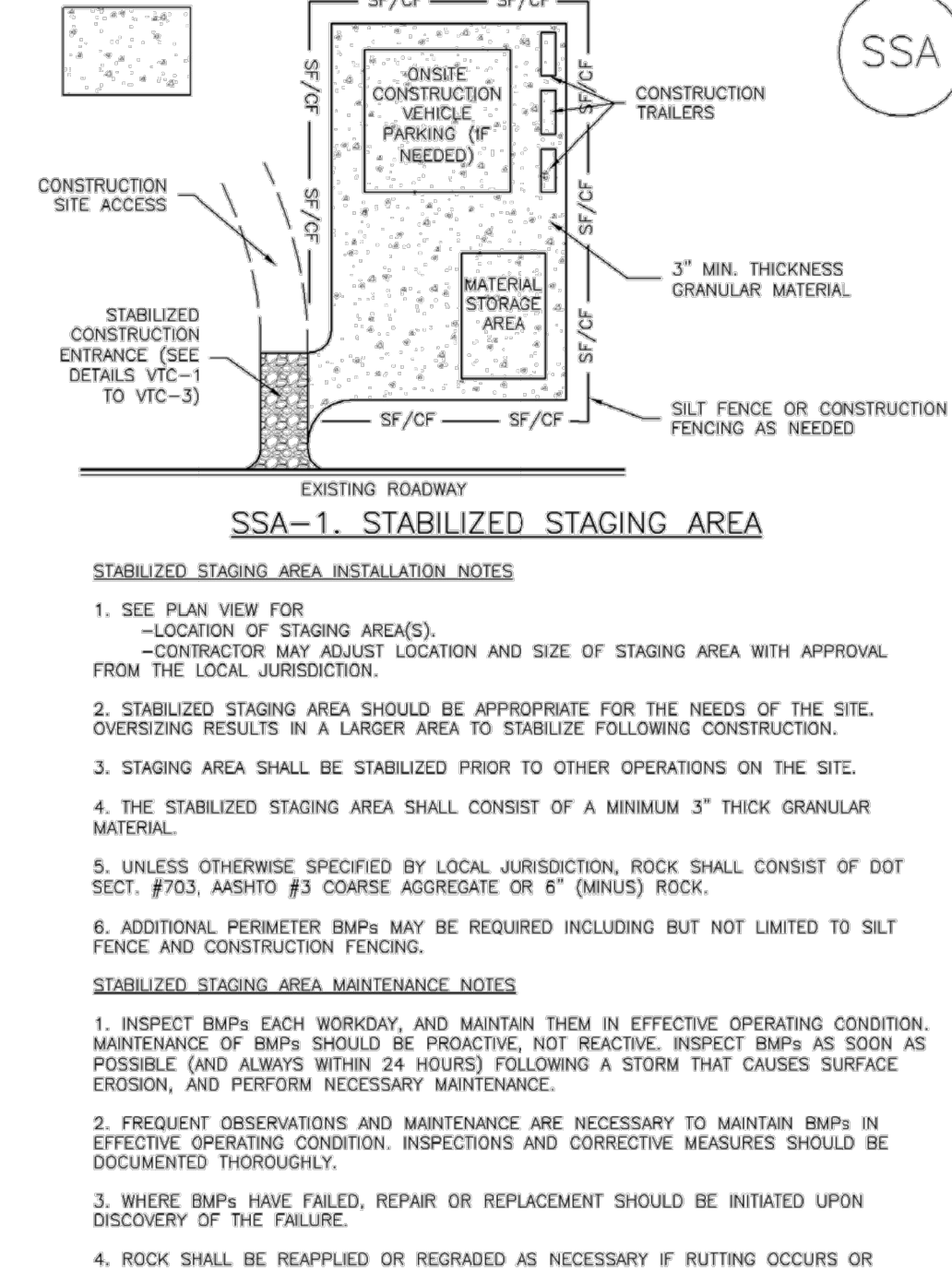
November 2010 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SF-3

SC-1 Silt Fence (SF)

- SILT FENCE INSTALLATION NOTES**
- SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION.
 - A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.
 - COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.
 - SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES.
 - SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE.
 - AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK" EXTENDING PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIENT LENGTH TO KEEP RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20').
 - SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- SILT FENCE MAINTENANCE NOTES**
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".
 - REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE.
 - SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP.
 - WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.
- (DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF AURORA, NOT AVAILABLE IN AUTOCAD)
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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

Stabilized Staging Area (SSA) SM-6



SSA-1. STABILIZED STAGING AREA

- STABILIZED STAGING AREA INSTALLATION NOTES**
- SEE PLAN VIEW FOR:
 - LOCATION OF STAGING AREA(S)
 - CONTRACTOR MAY ADJUST LOCATION AND SIZE OF STAGING AREA WITH APPROVAL FROM THE LOCAL JURISDICTION.
 - STABILIZED STAGING AREA SHOULD BE APPROPRIATE FOR THE NEEDS OF THE SITE. OVERSIZING RESULTS IN A LARGER AREA TO STABILIZE FOLLOWING CONSTRUCTION.
 - STAGING AREA SHALL BE STABILIZED PRIOR TO OTHER OPERATIONS ON THE SITE.
 - THE STABILIZED STAGING AREA SHALL CONSIST OF A MINIMUM 3" THICK GRANULAR MATERIAL.
 - UNLESS OTHERWISE SPECIFIED BY LOCAL JURISDICTION, ROCK SHALL CONSIST OF DOT SECT. #703, AASHTO #3 COARSE AGGREGATE OR 6" (MINUS) ROCK.
 - ADDITIONAL PERIMETER BMPs MAY BE REQUIRED INCLUDING BUT NOT LIMITED TO SILT FENCE AND CONSTRUCTION FENCING.
- STABILIZED STAGING AREA MAINTENANCE NOTES**
- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
 - FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
 - WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
 - ROCK SHALL BE REAPPLIED OR REGRADED AS NECESSARY IF RUTTING OCCURS OR UNDERLYING SUBGRADE BECOMES EXPOSED.

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SM-6 Stabilized Staging Area (SSA)

- STABILIZED STAGING AREA MAINTENANCE NOTES**
- STABILIZED STAGING AREA SHALL BE ENLARGED IF NECESSARY TO CONTAIN PARKING, STORAGE, AND UNLOADING/LOADING OPERATIONS.
 - THE STABILIZED STAGING AREA SHALL BE REMOVED AT THE END OF CONSTRUCTION. THE GRANULAR MATERIAL SHALL BE REMOVED OR, IF APPROVED BY THE LOCAL JURISDICTION, USED ON SITE, AND THE AREA COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY LOCAL JURISDICTION.
- NOTE: MANY MUNICIPALITIES PROHIBIT THE USE OF RECYCLED CONCRETE AS GRANULAR MATERIAL FOR STABILIZED STAGING AREAS DUE TO DIFFICULTIES WITH RE-ESTABLISHMENT OF VEGETATION IN AREAS WHERE RECYCLED CONCRETE WAS PLACED.
- NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.
- (DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

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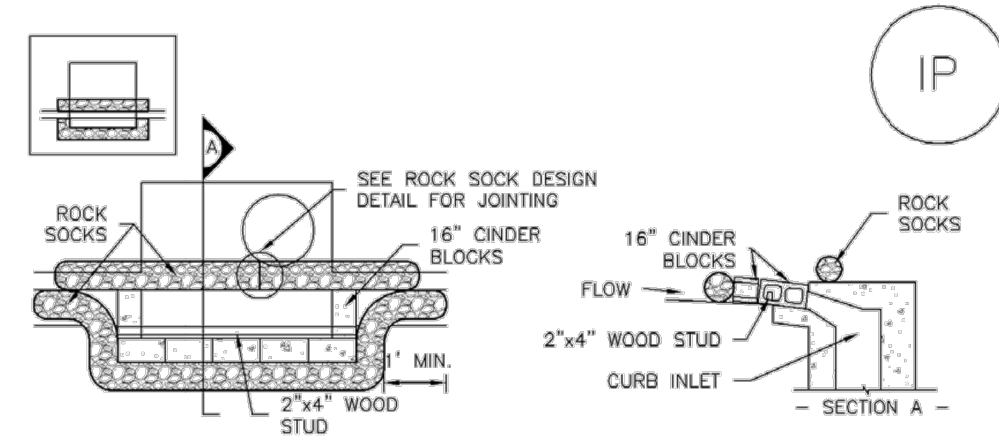
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GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 DETAILS

SHEET
 DT3
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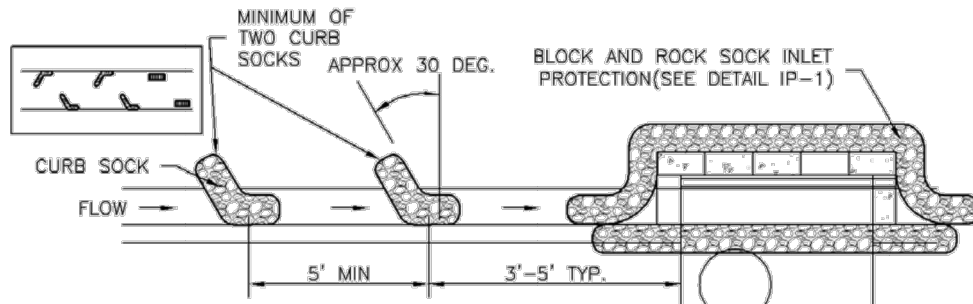
SC-6 Inlet Protection (IP)



IP-1. BLOCK AND ROCK SOCK SUMP OR ON GRADE INLET PROTECTION

BLOCK AND CURB SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
2. CONCRETE "CINDER" BLOCKS SHALL BE LAID ON THEIR SIDES AROUND THE INLET IN A SINGLE ROW, ABUTTING ONE ANOTHER WITH THE OPEN END FACING AWAY FROM THE CURB.
3. GRAVEL BAGS SHALL BE PLACED AROUND CONCRETE BLOCKS, CLOSELY ABUTTING ONE ANOTHER AND JOINED TOGETHER IN ACCORDANCE WITH ROCK SOCK DESIGN DETAIL.



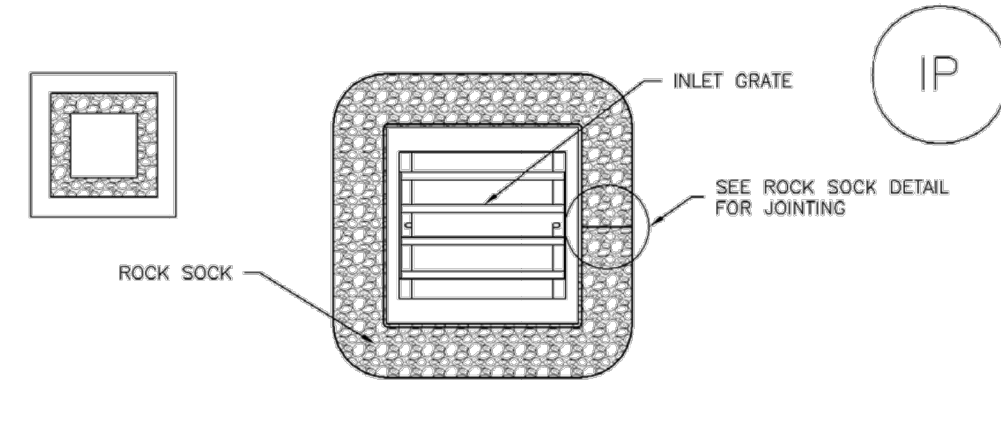
IP-2. CURB ROCK SOCKS UPSTREAM OF INLET PROTECTION

CURB ROCK SOCK INLET PROTECTION INSTALLATION NOTES

1. SEE ROCK SOCK DESIGN DETAIL INSTALLATION REQUIREMENTS.
2. PLACEMENT OF THE SOCK SHALL BE APPROXIMATELY 30 DEGREES FROM PERPENDICULAR IN THE OPPOSITE DIRECTION OF FLOW.
3. SOCKS ARE TO BE FLUSH WITH THE CURB AND SPACED A MINIMUM OF 5 FEET APART.
4. AT LEAST TWO CURB SOCKS IN SERIES ARE REQUIRED UPSTREAM OF ON-GRADE INLETS.

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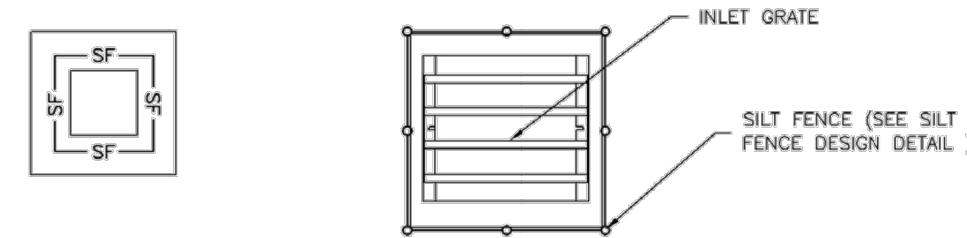
Inlet Protection (IP) SC-6



IP-3. ROCK SOCK SUMP/AREA INLET PROTECTION

ROCK SOCK SUMP/AREA INLET PROTECTION INSTALLATION NOTES

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



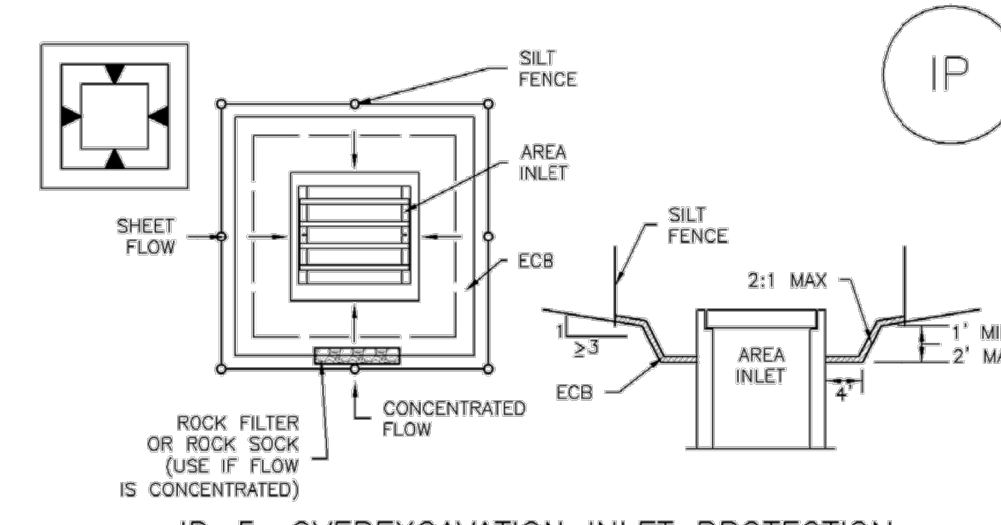
IP-4. SILT FENCE FOR SUMP INLET PROTECTION

SILT FENCE INLET PROTECTION INSTALLATION NOTES

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

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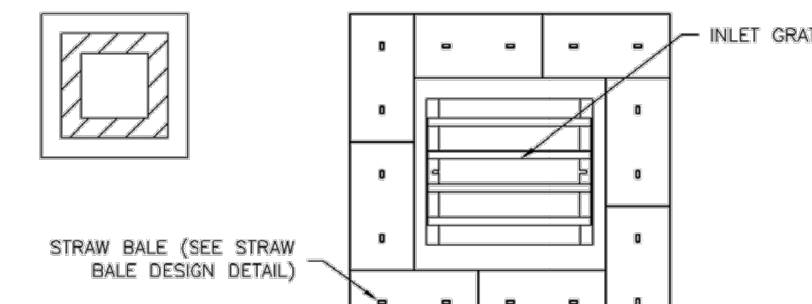
SC-6 Inlet Protection (IP)



IP-5. OVEREXCAVATION INLET PROTECTION

OVEREXCAVATION INLET PROTECTION INSTALLATION NOTES

1. THIS FORM OF INLET PROTECTION IS PRIMARILY APPLICABLE FOR SITES THAT HAVE NOT YET REACHED FINAL GRADE AND SHOULD BE USED ONLY FOR INLETS WITH A RELATIVELY SMALL CONTRIBUTING DRAINAGE AREA.
2. WHEN USING FOR CONCENTRATED FLOWS, SHAPE BASIN IN 2:1 RATIO WITH LENGTH ORIENTED TOWARDS DIRECTION OF FLOW.
3. SEDIMENT MUST BE PERIODICALLY REMOVED FROM THE OVEREXCAVATED AREA.



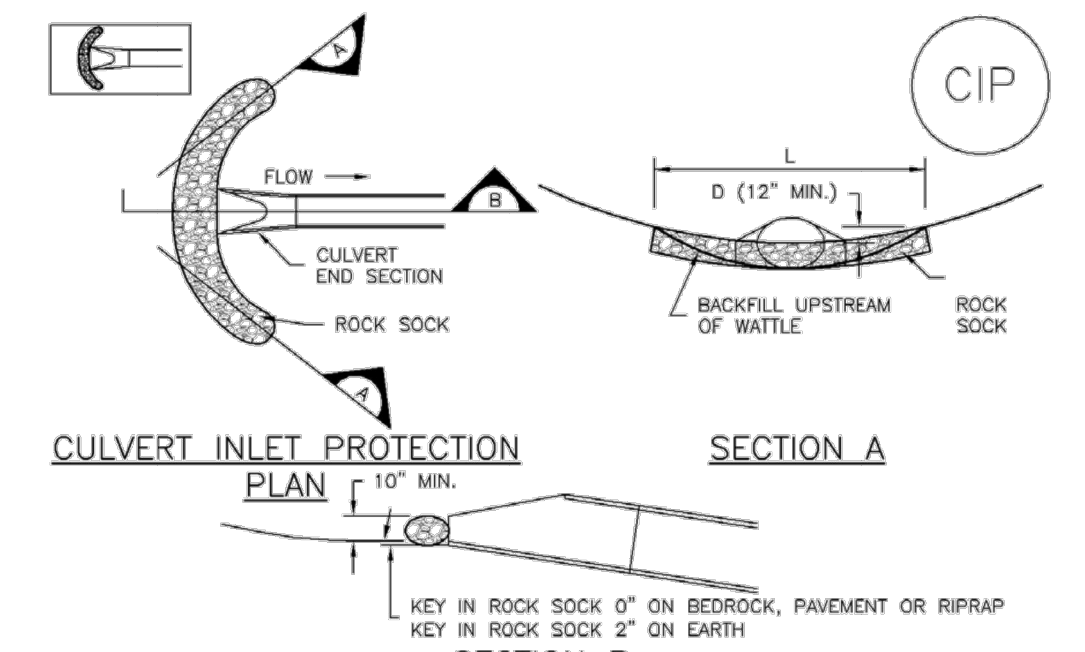
IP-6. STRAW BALE FOR SUMP INLET PROTECTION

STRAW BALE BARRIER INLET PROTECTION INSTALLATION NOTES

1. SEE STRAW BALE DESIGN DETAIL FOR INSTALLATION REQUIREMENTS.
2. BALES SHALL BE PLACED IN A SINGLE ROW AROUND THE INLET WITH ENDS OF BALES TIGHTLY ABUTTING ONE ANOTHER.

IP-6 Urban Drainage and Flood Control District August 2013
Urban Storm Drainage Criteria Manual Volume 3

Inlet Protection (IP) SC-6



CIP-1. CULVERT INLET PROTECTION

CULVERT INLET PROTECTION INSTALLATION NOTES

1. SEE PLAN VIEW FOR -LOCATION OF CULVERT INLET PROTECTION.
2. SEE ROCK SOCK DESIGN DETAIL FOR ROCK GRADATION REQUIREMENTS AND JOINING DETAIL.

CULVERT INLET PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF THE CULVERT SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS $\frac{1}{2}$ THE HEIGHT OF THE ROCK SOCK.
5. CULVERT INLET PROTECTION SHALL REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.

(DETAILS ADAPTED FROM JURIPA, COLORADO, NOT AVAILABLE IN AUTOCAD)
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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SC-6 Inlet Protection (IP)

GENERAL INLET PROTECTION INSTALLATION NOTES

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

INLET PROTECTION MAINTENANCE NOTES

1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES 50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR $\frac{1}{4}$ OF THE HEIGHT FOR STRAW BALES.
5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF INLET PROTECTION IN STREETS.
6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

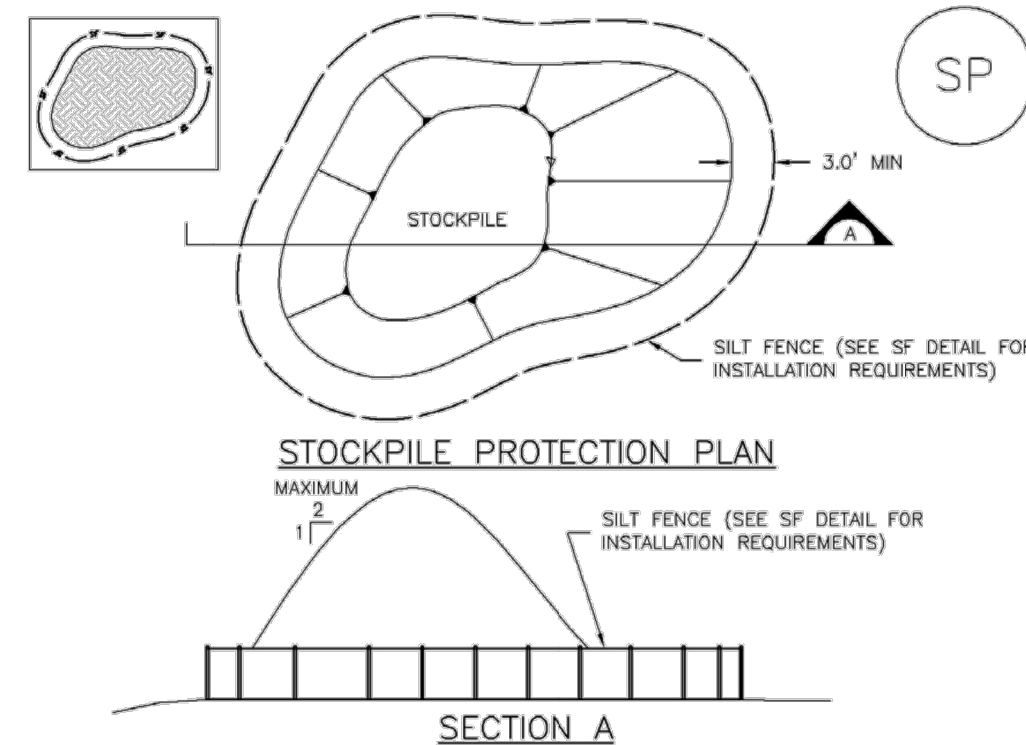
(DETAIL ADAPTED FROM TOWN OF PARKER, COLORADO AND CITY OF JURIPA, COLORADO, NOT AVAILABLE IN AUTOCAD)
NOTE: MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. CONSULT WITH LOCAL JURISDICTIONS AS TO WHICH DETAIL SHOULD BE USED WHEN DIFFERENCES ARE NOTED.

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

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

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

Stockpile Management (SP) MM-2



SP-1. STOCKPILE PROTECTION

STOCKPILE PROTECTION INSTALLATION NOTES

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

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Urban Storm Drainage Criteria Manual Volume 3 SP-3

MM-2 Stockpile Management (SM)

STOCKPILE PROTECTION 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.

STOCKPILE PROTECTION MAINTENANCE NOTES

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

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

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

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

Temporary and Permanent Seeding (TS/PS) EC-2

Seeding dates for the highest success probability of perennial species along the Front Range are generally in the spring from April through early May and in the fall after the first of September until the ground freezes. If the area is irrigated, seeding may occur in summer months, as well. See Table TS/PS-3 for appropriate seeding dates.

Table TS/PS-1. Minimum Drill Seeding Rates for Various Temporary Annual Grasses

Species ^a (Common name)	Growth Season ^b	Pounds of Pure Live Seed (PLS)/acre ^c	Planting Depth (inches)
1. Oats	Cool	35 - 50	1 - 2
2. Spring wheat	Cool	25 - 35	1 - 2
3. Spring barley	Cool	25 - 35	1 - 2
4. Annual ryegrass	Cool	10 - 15	$\frac{1}{2}$
5. Millet	Warm	3 - 15	$\frac{1}{2}$ - $\frac{3}{4}$
6. Sudangrass	Warm	5 - 10	$\frac{1}{2}$ - $\frac{3}{4}$
7. Sorghum	Warm	5 - 10	$\frac{1}{2}$ - $\frac{3}{4}$
8. Winter wheat	Cool	20-35	1 - 2
9. Winter barley	Cool	20-35	1 - 2
10. Winter rye	Cool	20-35	1 - 2
11. Triticale	Cool	25-40	1 - 2

^a Successful seeding of annual grass resulting in adequate plant growth will usually produce enough dead-plant residue to provide protection from wind and water erosion for an additional year. This assumes that the cover is not disturbed or mowed closer than 8 inches.

Hydraulic seeding may be substituted for drilling only where slopes are steeper than 3:1 or where access limitations exist. When hydraulic seeding is used, hydraulic mulching should be applied as a separate operation, when practical, to prevent the seeds from being encapsulated in the mulch.

^b See Table TS/PS-3 for seeding dates. Irrigation, if consistently applied, may extend the use of cool season species during the summer months.

^c Seeding rates should be doubled if seed is broadcast, or increased by 50 percent if done using a Brillion Drill or by hydraulic seeding.

June 2012 Urban Drainage and Flood Control District June 2012
Urban Storm Drainage Criteria Manual Volume 3 TS/PS-3

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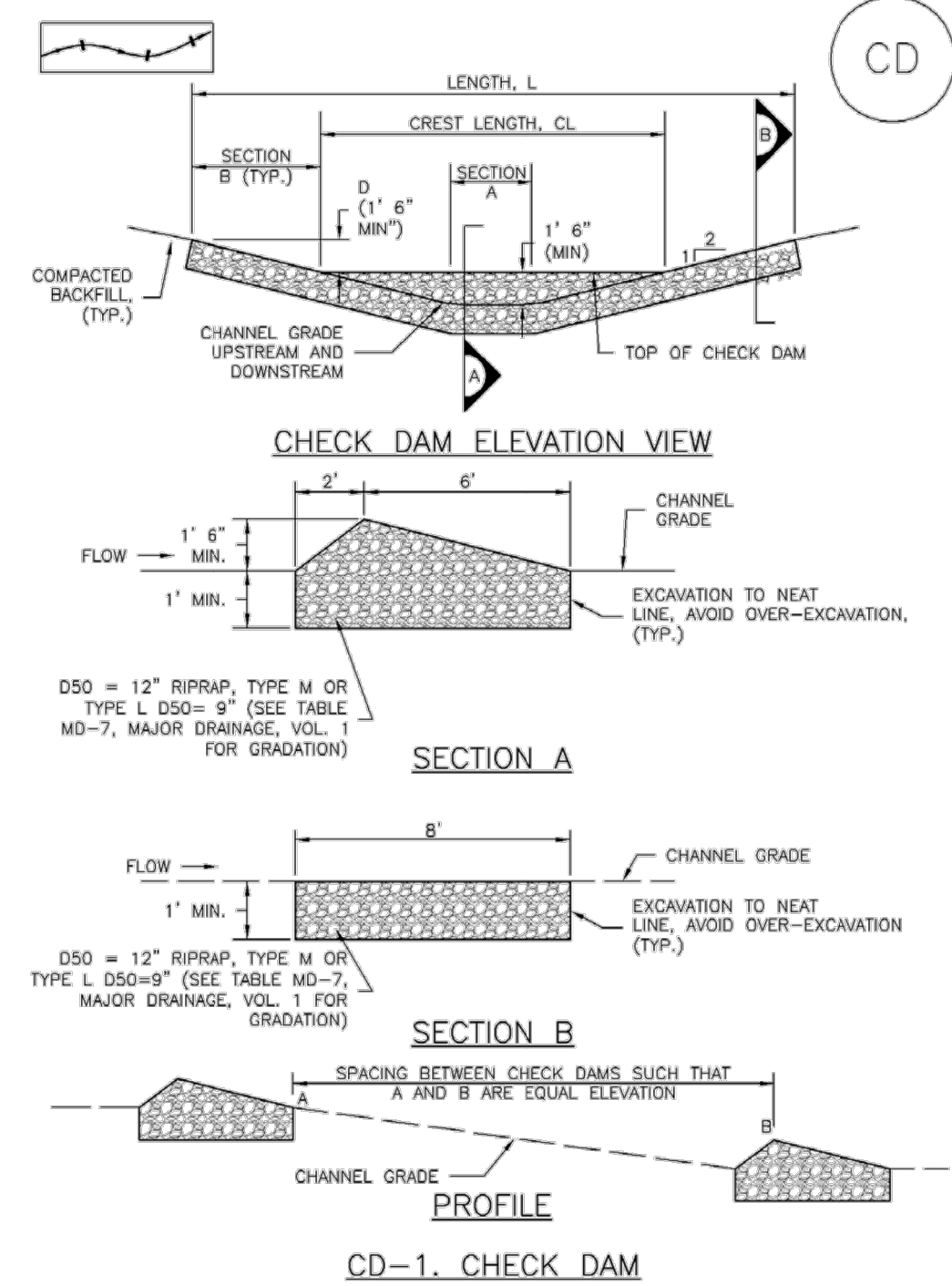
GRANDVIEW RESERVE (DRAINAGE A & B)
DR HORTON
FALCON, COLORADO

CONSTRUCTION DOCUMENTS
DETAILS

SHEET
DT4
45

Check Dams (CD)

EC-12



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

EC-12

Check Dams (CD)

CHECK DAM INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF CHECK DAMS.
 - CHECK DAM TYPE (CHECK DAM OR REINFORCED CHECK DAM).
 - LENGTH (L), CREST LENGTH (CL), AND DEPTH (D).
- CHECK DAMS INDICATED ON INITIAL SWMP SHALL BE INSTALLED AFTER CONSTRUCTION FENCE, BUT PRIOR TO ANY UPSTREAM LAND DISTURBING ACTIVITIES.
- RIPRAP UTILIZED FOR CHECK DAMS SHOULD BE OF APPROPRIATE SIZE FOR THE APPLICATION. TYPICAL TYPES OF RIPRAP USED FOR CHECK DAMS ARE TYPE M (D50 12") OR TYPE L (D50 9").
- RIPRAP PAD SHALL BE TRENCHED INTO THE GROUND A MINIMUM OF 1'.
- THE ENDS OF THE CHECK DAM SHALL BE A MINIMUM OF 1' 6" HIGHER THAN THE CENTER OF THE CHECK DAM.

CHECK DAM MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED UPSTREAM OF THE CHECK DAMS SHALL BE REMOVED WHEN THE SEDIMENT DEPTH IS WITHIN 1/2 OF THE HEIGHT OF THE CREST.
- CHECK DAMS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
- WHEN CHECK DAMS ARE REMOVED, EXCAVATIONS SHALL BE FILLED WITH SUITABLE COMPACTED BACKFILL. DISTURBED AREA SHALL BE SEEDED AND MULCHED AND COVERED WITH GEOTEXTILE OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

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

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

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

EC-8

Temporary Outlet Protection (TOP)

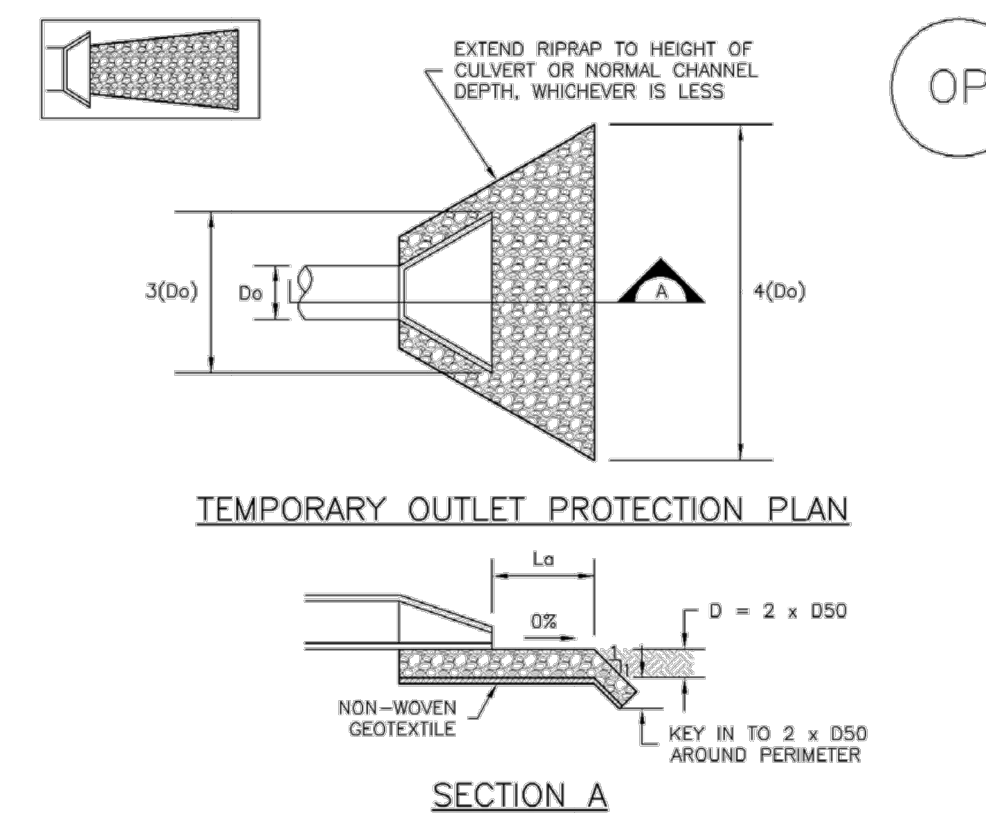


TABLE OP-1. TEMPORARY OUTLET PROTECTION SIZING TABLE

PIPE DIAMETER, Dp (INCHES)	DISCHARGE, Q (CFS)	APRON LENGTH, La (FT)	RIPRAP D50 DIAMETER MIN (INCHES)
8	2.5	5	4
	5	10	6
12	5	10	4
	10	13	6
	10	10	6
18	20	16	9
	30	23	12
	40	26	16
	30	16	9
24	40	26	9
	60	26	12
	60	30	16

OP-1. TEMPORARY OUTLET PROTECTION

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

Temporary Outlet Protection (TOP)

EC-8

TEMPORARY OUTLET PROTECTION INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF OUTLET PROTECTION.
 - DIMENSIONS OF OUTLET PROTECTION.
- DETAIL IS INTENDED FOR PIPES WITH SLOPE \leq 10%. ADDITIONAL EVALUATION OF RIPRAP SIZING AND OUTLET PROTECTION DIMENSIONS REQUIRED FOR STEEPER SLOPES.
- TEMPORARY OUTLET PROTECTION INFORMATION IS FOR OUTLETS INTENDED TO BE UTILIZED LESS THAN 2 YEARS.

TEMPORARY OUTLET PROTECTION INSPECTION AND MAINTENANCE NOTES

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

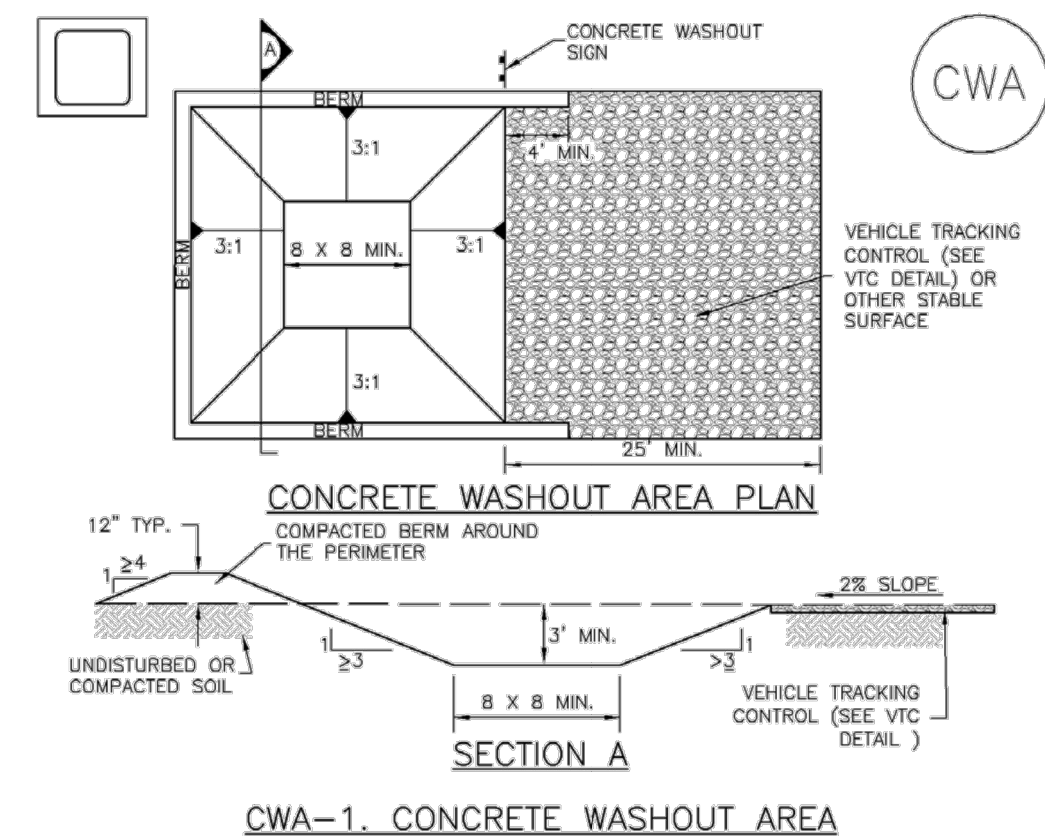
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(DETAILS ADAPTED FROM AURORA, COLORADO AND PREVIOUS VERSION OF VOLUME 3, NOT AVAILABLE IN AUTOCAD)

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

Concrete Washout Area (CWA)

MM-1



CWA-1. CONCRETE WASHOUT AREA

CWA INSTALLATION NOTES

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

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

MM-1

Concrete Washout Area (CWA)

CWA MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- THE CWA SHALL BE REPAIRED, CLEANED, OR ENLARGED AS NECESSARY TO MAINTAIN CAPACITY FOR CONCRETE WASTE. CONCRETE MATERIALS, ACCUMULATED IN PIT, SHALL BE REMOVED ONCE THE MATERIALS HAVE REACHED A DEPTH OF 2'.
- CONCRETE WASHOUT WATER, WASTED PIECES OF CONCRETE AND ALL OTHER DEBRIS IN THE SUBSURFACE PIT SHALL BE TRANSPORTED FROM THE JOB SITE IN A WATER-TIGHT CONTAINER AND DISPOSED OF PROPERLY.
- THE CWA SHALL REMAIN IN PLACE UNTIL ALL CONCRETE FOR THE PROJECT IS PLACED.
- WHEN THE CWA IS REMOVED, COVER THE DISTURBED AREA WITH TOP SOIL, SEED AND MULCH OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

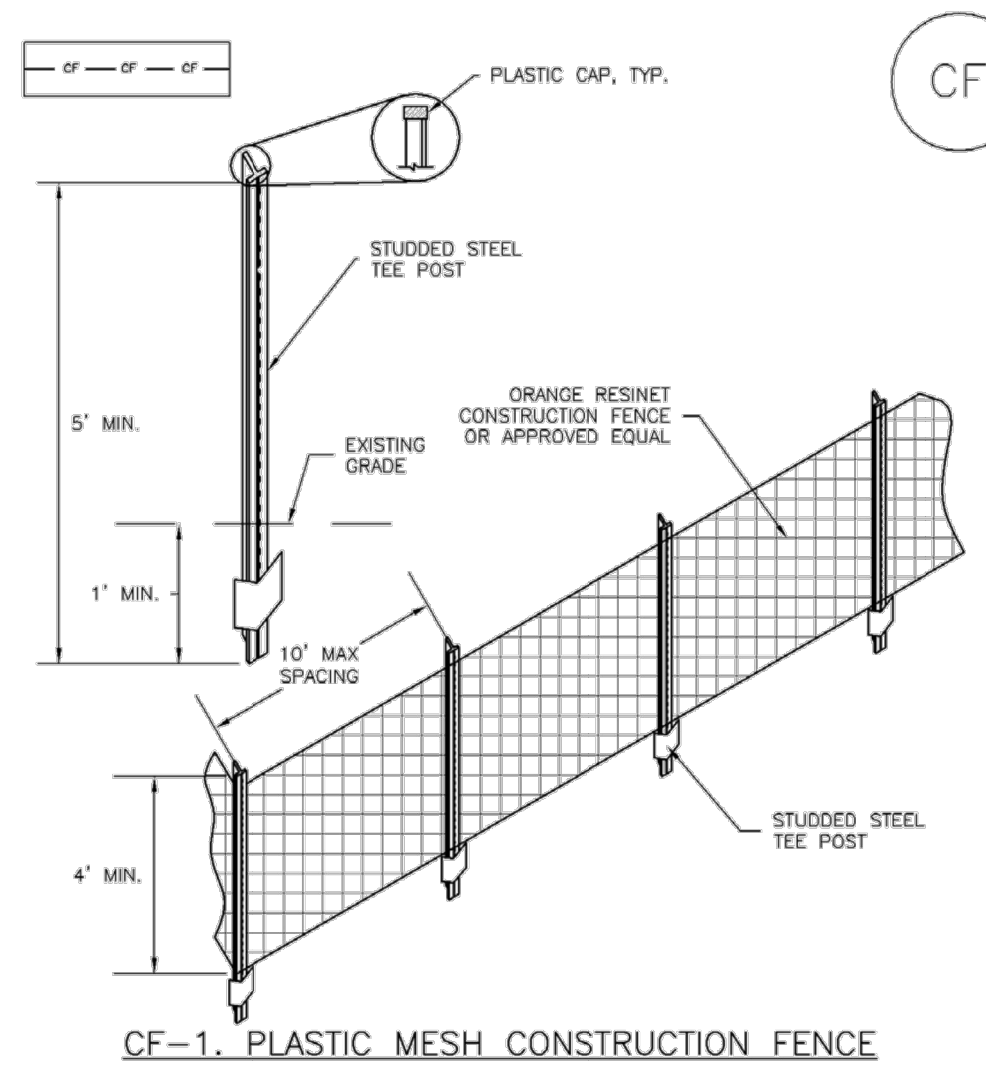
(DETAILS ADAPTED FROM DOUGLAS COUNTY, COLORADO AND THE CITY OF PARKER, COLORADO, NOT AVAILABLE IN AUTOCAD)

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

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

SM-3

Construction Fence (CF)



CF-1. PLASTIC MESH CONSTRUCTION FENCE

CONSTRUCTION FENCE INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF CONSTRUCTION FENCE.
- CONSTRUCTION FENCE SHOWN SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.
- CONSTRUCTION FENCE SHALL BE COMPOSED OF ORANGE, CONTRACTOR-GRADE MATERIAL THAT IS AT LEAST 4' HIGH. METAL POSTS SHOULD HAVE A PLASTIC CAP FOR SAFETY.
- STUDDED STEEL TEE POSTS SHALL BE UTILIZED TO SUPPORT THE CONSTRUCTION FENCE. MAXIMUM SPACING FOR STEEL TEE POSTS SHALL BE 10'.
- CONSTRUCTION FENCE SHALL BE SECURELY FASTENED TO THE TOP, MIDDLE, AND BOTTOM OF EACH POST.

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

Construction Fence (CF)

SM-3

CONSTRUCTION FENCE MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- CONSTRUCTION FENCE SHALL BE REPAIRED OR REPLACED WHEN THERE ARE SIGNS OF DAMAGE SUCH AS RIPS OR SAGS. CONSTRUCTION FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND APPROVED BY THE LOCAL JURISDICTION.
- WHEN CONSTRUCTION FENCES ARE REMOVED, ALL DISTURBED AREAS ASSOCIATED WITH THE INSTALLATION, MAINTENANCE, AND/OR REMOVAL OF THE FENCE SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

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

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

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

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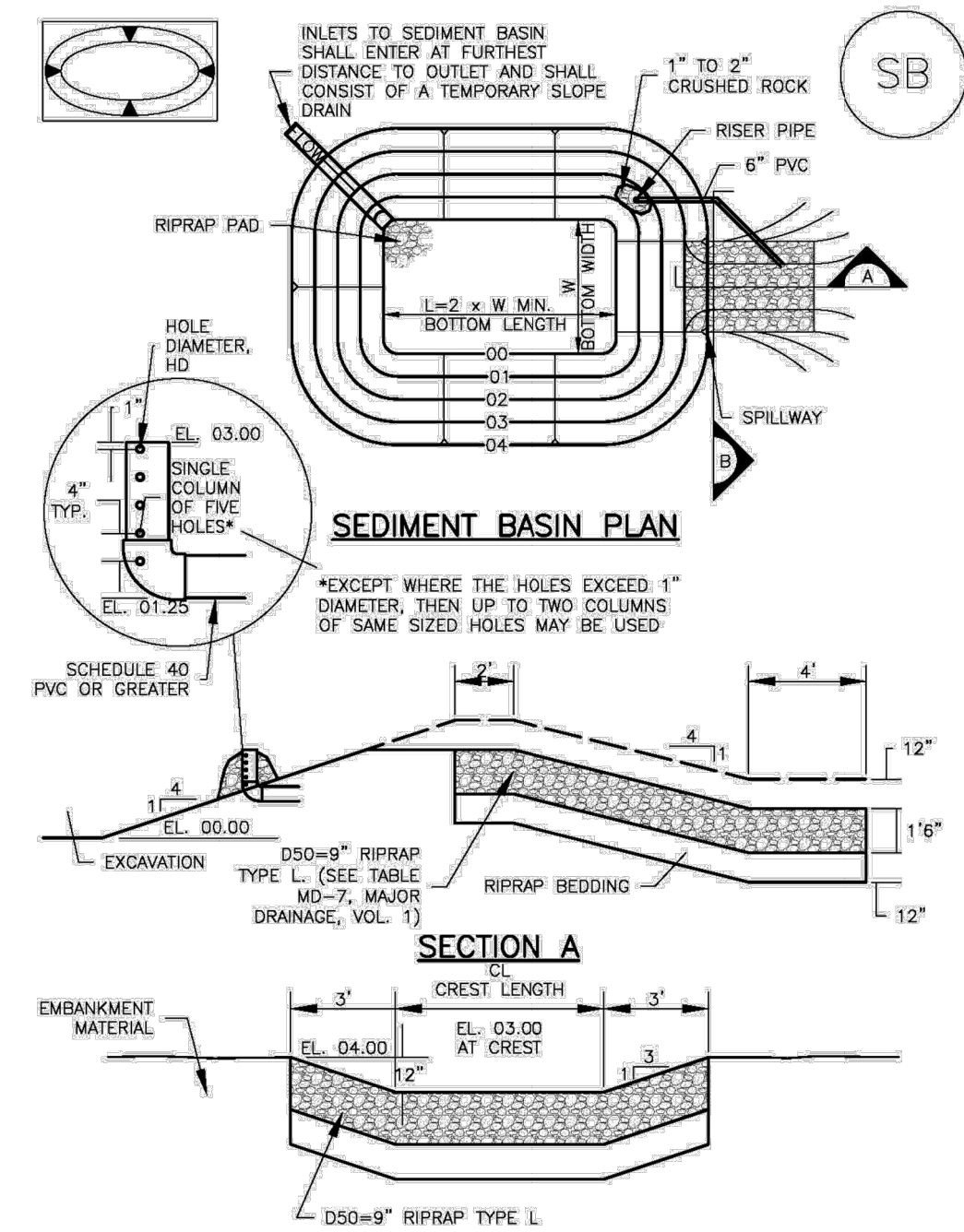
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GRANDVIEW RESERVE (DRAINAGE A & B)
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 FALCON, COLORADO

CONSTRUCTION DOCUMENTS
 DETAILS
 SHEET
 DT5
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Sediment Basin (SB)

SC-7



August 2013 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SB-5

SC-7

Sediment Basin (SB)

TABLE SB-1. SIZING INFORMATION FOR STANDARD SEDIMENT BASIN

Upstream Drainage Area (rounded to nearest acre), (ac)	Basin Bottom Width (W), (ft)	Spillway Crest Length (CL), (ft)	Hole Diameter (HD), (in)
1	12 1/2	2	3/4
2	21	3	7/8
3	28	5	1
4	33 1/2	6	1 1/8
5	38 1/2	8	1 1/4
6	43	9	1 1/2
7	47 1/2	11	1 3/4
8	51	12	1 7/8
9	55 1/2	13	2
10	58 1/2	15	2 1/8
11	61	16	2 1/4
12	64	18	2 1/2
13	67 1/2	19	2 3/4
14	70 1/2	21	2 7/8
15	73 1/2	22	3

SEDIMENT BASIN INSTALLATION NOTES

- SEE PLAN VIEW FOR:
 - LOCATION OF SEDIMENT BASIN.
 - TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN).
 - FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL AND HOLE DIAMETER, HD.
 - FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE DIAMETER D.
- FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA IS NOT REDUCED.
- SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY THAT RELIES ON ON BASINS AS A STORMWATER CONTROL.
- EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND ROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.
- EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.
- PIPE SCH 40 OR GREATER SHALL BE USED.
- THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS LARGER THAN 15 ACRES.

SB-6 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 August 2013

Sediment Basin (SB)

SC-7

SEDIMENT BASIN MAINTENANCE NOTES

- INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.
- FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.
- WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.
- SEDIMENT ACCUMULATED IN BASIN SHALL BE REMOVED AS NEEDED TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN SEDIMENT DEPTH REACHES ONE FOOT (I.E., TWO FEET BELOW THE SPILLWAY CREST).
- SEDIMENT BASINS ARE TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED AND GRASS COVER IS ACCEPTED BY THE LOCAL JURISDICTION.
- WHEN SEDIMENT BASINS ARE REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

(DETAILS ADAPTED FROM BOULDER COUNTY, COLORADO)

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

August 2013 Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3 SB-7

BMP	Detail # and Source			
	DCM (Vol 2: Chap 3.3)	MHFD (USDCM Vol 3: Chap 7)	COS - Stormwater Construction Manual (App E)	CDOT Standard Plans on M-208- 1
Mulching	MU-1	EC-4	X	
Rock Sock		SC-5	X	X
Rolled Erosion Control Products	ECB-1, ECB-2	EC-6	X	

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