

2880 International Circle, Suite 110 Colorado Springs, CO 80910 Phone 719-520-6300 Fax 719-520-6695 www.elpasoco.com

EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT DEPARTMENT

CONSTRUCTION DRAWINGS CHECKLIST

Revised: January 2022

Construction Drawings

The purpose of construction drawings is to provide the design for the construction, enlargement, alteration, relocation, removal, conversion, demolition, repair, maintenance and excavation of public infrastructure and common development improvements within the criteria governed by the ECM and the LDC. The construction drawings shall be prepared by a qualified professional engineer and shall be tailored to the stage of development application and the stage of subdivision-related construction.

		Applicant	PCD
	Please confirm each item below has been included by placing a check mark in the "Applicant" column. See right for an example. The "PCD" column is for office use only.	✓	Office use only
	General Content		
1	Sheet Size: 22" x 34" (preferred) or 24" x 36" or 11" x 17"	~	
2	Title block located on right side of sheet and includes at a minimum:	~	
	Project title	/	
	Sheet title	✓	
	Sheet number	✓	
	Name, address, and phone number of engineer	✓	
3	Engineer's stamp is required on all engineering design sheets (final plans for approval only) or cover sheet only electronically per State PE Board Laws, Rules and Policies. If County or Metro District standard detail sheets are included in the CD plan set and not revised, a signed and stamped note indicating that the Design Engineer has issued the referenced standard details with the CDs may be placed on the cover sheet.	~	
4	Minimum text size is 0.08" (2 mm) on full-size plans and must be legible when printed on 11"x17" plans.	✓	
5	North arrow and scale on all plan sheets	✓	
6	Minimum scale is 1"=50' (smaller scale permitted with prior County approval)	~	
7	Drawing legend for symbols, abbreviations, linetypes used	~	
8	Title Sheet which includes at a minimum:	✓	
	Sheet index	~	
	Project title	✓	
	Vicinity map showing the subdivision in relation to section lines and existing or proposed arterial or collector roadways.	~	
	General project layout map (show and label benchmark locations here and on street plans)	~	
	Design engineer's statement	✓	
	Owner/developer's statement	✓	
	El Paso County signature block	✓	
	Planning and Community Development file number at lower right		
	Project benchmark (NAVD88)	✓	
	Basis of bearing	✓	
	Other applicable jurisdiction/utility signature blocks	✓	
	List of governing agencies, owner, engineer, architect with contact information	✓	
9	EPC standard construction notes	✓	
10	Details sheet(s) as needed	-	



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	Street Plan and Profile Sheets			
1	Typical cross-section for all proposed street classifications and variations. (List street names applicable to the typical	✓		
'	street cross section)	~		
2	The street plan view shall include at a minimum:			
	Existing and proposed utilities	\		
	Existing and proposed structures	✓		
	Existing and proposed right-of-way/property lines	✓		
	Existing and proposed easements	~		
	Existing and proposed contours with slope arrows (if no grading plan submitted)	<		
	Adjacent subdivisions identified	<		
	Proposed lot numbers			
	Proposed centerline alignment station label (line/curve data, PC, PT, and survey control)	<		
	Curb return data (Radius, Length, Delta, Chord Bearing)	\		
	Sight distance at intersections shall be shown and labeled. Notes shall be provided for each leg of the intersection stating that they exceed the minimum sight distance for mph design speed. (ECM Section 2.3.7.C.5)	NA		
	Station equation at alignment intersections	~		
	Street name label with road classification and design speed	<		
3	The street profile view shall include at a minimum:			
	Existing ground profile at centerline	~		
	Finished grade profile at centerline and/or flowline	<		
	Existing and proposed grades shown and extended 100 feet beyond storm drain	~		
	Existing and proposed utility crossings	<		
	Station labels at the bottom of profile	<		
	Elevation labels at the side of profiles	~		
	Profile data labels: slope, vertical curve (L, K, A.D, PVI, PVC, PVT, etc.), grade break	<		
	Superelevation data ("e" and runout, if applicable)	<		
	Match lines	~		
	Profiles required for curb returns, knuckles, cul-de-sac bulbs	NA		

Note: See Roadway CD's for public roadway sheets.



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	Storm Drain Plan and Profile Sheets					
1	The storm drain plan view shall include at a minimum:					
	Existing and proposed utilities					
	Existing and proposed structures					
	Existing and proposed right-of-way/property lines	✓				
	Existing and proposed easements	✓				
	Existing and proposed contours with slope arrows (if grading plan is a separate plan set)	NA				
	Adjacent subdivisions identified					
	Proposed lot numbers					
	Storm drain alignment station label (with bearing, curve data for pipes laid on curves, and survey control)	✓				
	Station equation at alignment intersections	✓				
	Structures labeled: station/offset or coordinate, structure number/ID	✓				
	Trench width if located outside existing road; Mill/overlay limits within existing road	✓				
2	The storm drain profile view shall include at a minimum:					
	Existing ground and finished grade profile at centerline	✓				
	Existing and proposed utility crossings (label type of utility, clearances at storm drain crossing, invert)	✓				
	Station labels at the bottom of profile					
	Elevation labels at the side of profiles					
	Pipe labeled: size, material, class, design flow (Q100), velocity (V100), slope, public or private, maximum and minimum cover checks	~				
	100-year hydraulic grade line	✓				
	Structure labeled: structure number/ID, size, type (inlet, manhole, etc.), grate or rim elevation, invert elevations, centerline station, reference where detail is found for non-standard structures	~				
	Outfall labeled: end section and headwalls labeled, riprap apron (length, depth, type, D50), toe wall shown, profile of existing ground shown for 200 feet downstream of outfall, Q100 water surface elevation downstream of outfall	~				
	Pavement Marking and Signing Plan					
1	EPC Standard Signage and Striping Notes					
2	Show all existing and proposed traffic control items such as: curb and gutters, edge of pavement, driveways, medians, islands, sidewalks, curb ramps, curb cuts, ROW, easement, street names, utility poles, signal poles, sign posts, mail box kiosks, trees					
3	Show all existing and proposed permanent pavement markings.					
4	Label existing pavement marking to remain and extent of pavement marking to be removed					
5	Label existing striping to remain, removed or relocated	~				
6	Label proposed pavement marking (width, station/offset, color, type of marking material)	✓				
7	Label proposed signage (MUTCD sign code, signage symbol, size, station/offset or coordinates)	✓				
8	Pavement marking symbols detail	✓				

A PARCEL OF LAND IN THE SOUTHWEST QUARTER OF SECTION 6 AND THE NORTHWEST QUARTER OF SECTION 7. TOWNSHIP 15

SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, MORE PARTICULARLY

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 7;

THENCE SOUTH 2116'15" EAST, A DISTANCE OF 1,234.30 FEET TO THE SOUTHEAST CORNER OF THE SAID PARCEL WHICH IS ALSO THE INTERSECTION OF THE EAST RIGHT-OF-WAY OF GRINNELL BOUELVARD AS DENOTED UNDER RECEPTION NUMBER 09080408 AND THE NORTH RIGHT-OF-WAY OF GOLDFIELD DRIVE AS DENOTED UNDER RECPETION NUMBER 207712585 BOTH WITH THE CLERK AND RECORDER OF EL PASO COUNTY AND THE POINT OF BEGINNING;

THENCE DEPARTING THE SAID NORTH RIGHT-OF-WAY OF GOLDFIELD DRIVE AND CONTINUING NORTHERLY ALONG THE SAID EAST RIGHT-OF-WAY OF GRINNELL BOULEVARD THE FOLLOWING SIX (6) COURSES:

- 1. NORTH 0819'24" WEST, A DISTANCE OF 695.98 FEET TO A POINT OF CURVATURE;
- 2. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 190.45 FEET, SAID CURVE HAVING A RADIUS OF 890.00 FEET, A CENTRAL ANGLE OF 12"15'39", AND A CHORD WHICH BEARS NORTH 02"15'50" WEST, A CHORD DISTANCE OF 190.09 FEET TO A POINT OF NON-TANGENT;
- 3. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 209.47 FEET, SAID CURVE HAVING A RADIUS OF 856.07 FEET, A CENTRAL ANGLE OF 14°01'11", AND A CHORD WHICH BEARS NORTH 12°14'55" EAST, A CHORD DISTANCE
- 4. NORTH 27°27'34" EAST, A DISTANCE OF 142.19 FEET TO A POINT OF CURVATURE;
- 5. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 143.22 FEET, SAID CURVE HAVING A RADIUS OF 844.07 FEET, A CENTRAL ANGLE OF 09°43'19", AND A CHORD WHICH BEARS NORTH 32"16'35" EAST, A CHORD DISTANCE OF 143.05 FEET TO A POINT OF NON-TANGENT;
- 6. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 122.20 FEET, SAID CURVE HAVING A RADIUS OF 110.01 FEET, A CENTRAL ANGLE OF 63'38'34", AND A CHORD WHICH BEARS NORTH 68'57'28" EAST, A CHORD DISTANCE OF 116.01 FEET TO THEA POINT OF NON TANGENT ON THE SOUTH RIGHT-OF-WAY OF POWERS BOUELVARD AS RECORDED UNDER BOOK 5307, PAGE 1472 WITH THE EL PASO CLERK AND RECORDER;

THENCE EASTERLY ALONG THE SAID SOUTH RIGHT-OF-WAY OF POWERS BOUELVARD ALONG THE ARC OF SAID CURVE TO THE LEFT AN ARC LENGTH OF 488.21 FEET. SAID CURVE HAVING A RADIUS OF 2105.00 FEET. A CENTRAL ANGLE OF 13"17'19". AND A CHORD WHICH BEARS SOUTH 60"44'03" EAST A CHORD DISTANCE OF 487.12 FEET TO THE INTERSECTION WITH THE WEST BOUNDARY OF LOT 1, PAINTED SKY AT WATERVIEW FILING NO.3 AS RECORDED UNDER RECTION NUMBER 21271398 WITH THE EL PASO CLAERK AND RECORDER;

THENCE DEPARTING THE SAID SOUTH RIGHT-OF-WAY OF POWERS BOUELVARD AND CONTINUING SOUTHERLY ALONG THE SAID WEST PROPERTY LINE OF LOT 1 SOUTH 15'45'42" WEST. A DISTANCE OF 150.36 FEET TO THE INTERSECTION OF THE NORTH RIGHT-OF-WAY OF DANCING SUN WAY AND THE WEST RIGHT-OF-WAY OF CUDAHY DRIVE, BOTH RECORDED UNDER SAID RECEPTION NUMBER 212713198;

THENCE CONTINUING SOUTHERLY ALONG THE SAID WEST RIGHT-OF-WAY OF CUDAHY DRIVE THE FOLLOWING THREE (3) COURSES:

- 1. SOUTH 15'45'42" WEST, A DISTANCE OF 201.74 FEET TO A POINT OF CURVATURE;
- 2. ALONG THE SAID WEST RIGHT-OF-WAY OF CUDAHY DRIVE ALONG THE ARC OF SAID CURVE TO THE LEFT AN ARC LENGTH OF 610.02 FEET, SAID CURVE HAVING A RADIUS OF 925.00 FEET, A CENTRAL ANGLE OF 37'47'09", AND A CHORD WHICH BEARS SOUTH 03"10"04" EAST, A CHORD DISTANCE OF 599.03 FEET;
- 3. SOUTH 22°03'38" EAST, A DISTANCE OF 12.90 FEET TO A POINT OF CURVATURE ON THE SAID NORTH RIGHT-OF-WAY OF GOLDFIELD DRIVE;
- THENCE WESTERLY ALONG THE SAID NORTH RIGHT-OF-WAY OF GOLDFIELD DRIVE THE FOLLOWING FIVE (5) COURSES: 1. ALONG THE ARC OF SAID CURVE TO THE LEFT AN ARC LENGTH OF 91.01 FEET, SAID CURVE HAVING A RADIUS OF 736.00 FEET, A CENTRAL ANGLE OF 07'05'04", AND A CHORD WHICH BEARS SOUTH 62'27'39" EAST, A CHORD DISTANCE OF
- 2. SOUTH 58°55'08" WEST, A DISTANCE OF 114.02 FEET TO A POINT OF CURAVTURE;
- 3. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 110.36 FEET, SAID CURVE HAVING A RADIUS OF 519.00 FEET, A CENTRAL ANGLE OF 12'11'02", AND A CHORD WHICH BEARS SOUTH 65'00'36" WEST, A CHORD DISTANCE OF 110.16 FEET;
- 4. SOUTH 83°24'45" WEST, A DISTANCE OF 105.09 FEET;
- 5. SOUTH 81°41'14" WEST, A DISTANCE OF 172.84 FEET TO THE POINT OF BEGINNING:
- SAID PARCEL CONTAINS 363,565 SQUARE FEET OR 8.346 ACRES, MORE OR LESS;

PROJECT BENCHMARK:

90.95 FEET;

A RR SPIKE SET IN CONCRETE NEXT TO A RAILROAD FENCE POST SOUTHWEST OF A 90 DEGREE CURVE IN POWERS BOULEVARD. THIS IS A SECTION CORNER FOR SECTIONS 6 AND 7. T15S, R65W, AND SECTIONS 1 AND 12, T15S, R66W OF THE SIXTH P.M. THE POINT IS DESIGNATED AS "5501V" PER THE COLORADO SPRINGS UTILITIES FACILITIES INFORMATION MANAGEMENT SYSTEM (FIMS).

ELEVATION: 5908.830 US SURVEY FEET (NAVD88 DATUM)

NOTE: NAVD 88 ELEVATION WAS TRANSFORMED FROM NGVD29 DATUM USING THE NGS COORDINATE CONVERSION AND TRANSFORMATION TOOL (NCAT). NGVD 29 PUBLISHED ELEVATION = 5905.440. PER NCAT, DELTA IS 3.389 US SURVEY

BASIS OF BEARING:

BASIS OF BEARINGS ARE BASED UPON THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 7, TOWNSHIP 15 SOUTH. RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN AS MONUMENTED AT THE NORTHWEST CORNER OF SAID SECTION 7 BY A FOUND RR SPIKE IN CONCRETE AND THE WEST QUARTER OF SAID SECTION 7 BY A FOUND 3.25" ALUMINUM CAP IN A RANGE BOX STAMPED "17496", AS BEARING SOUTH 00'43'01" EAST, WITH ALL BEARINGS SHOWN HEREON RELATIVE

<u>ARCHITECT</u>

2555 WALNUT ST

(303) 832-4474

253275 AKERS DR

(719) 520-7945

DENVER, CO 80205

CONTACT: JOCELYN SMITH

EL PASO COUNTY

COLORADO SPRINGS, CO 80922

CONTACT: GILBERT LAFORCE

KEPHART

AGENCY CONTACT

OWNER/DEVELOPER

EVERGREEN DEV CO 1873 S BELLARIE ST, SUITE 1200 DENVER, CO 80222 CONTACT: ROBERT PLACE (303) 757-0401

CIVIL ENGINEER/SURVEYOR

HARRIS KOCHER SMITH 1120 LINCOLN ST, SUITE 1000 DENVER, CO 80203 CONTACT: RACHEL PATTON, PE SHAWN CLARKE

(303) 623-6300

LANDSCAPE ARCHITECT

619 N CASCADE AVE, SUITE 200 COLORADO SPRINGS, CO 80903 CONTACT: CHRIS LIEBER (719) 471-0073



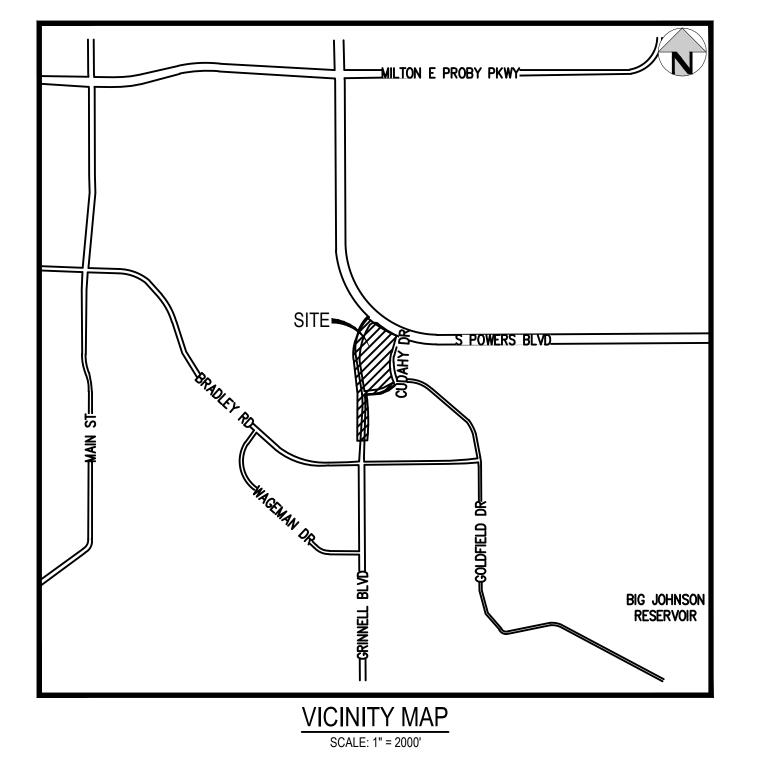
ISSUE DATE: 05-08-2023 | PROJECT #: 221206 REVISION COMMENTS

OUTLOOK POWERS & GRINNELL SITUATED IN THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 15 SOUTH,

 \sim EPC STORMWATER REVIEW COMMENTS IN ORANGE BOXES WITH BLACK TEXT

RANGE 65 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO

CIVIL CONSTRUCTION PLANS



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2 NOTES

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EL PASO COUNTY:

<u>DESIGN ENGINEER'S STATEMENT:</u>

DEVELOPMENT DIRECTOR'S DISCRETION.

COUNTY ENGINEER/ECM ADMINISTRATOR

<u>OWNER'S STATEMENT:</u>

OWNER SIGNATURE

AND EROSION CONTROL PLAN.

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 BELIEF. 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.

DATE

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA.

APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF

DRAINAGE CRITERIA MANUAL VOLUMES 1 AND 2, AND THE ENGINEERING CRITERIA MANUAL, AS AMENDED.

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

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRADING

DATE

THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS,

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE,

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

AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE

ABBREVIATIONS

BOP BOTTOM OF PIPE

BYOT BY OTHERS CONC CONCRETE

Idia Idiameter

DS DOWNSPOUT

L ELEVATION

IEOA | IEDGE OF ASPHALT

EOC EDGE OF CONCRET

EOP EDGE OF PAVEMENT

FES FLARED END SECTION FINISHED FLOOR

FINISHED GRADE

FIRE HYDRANT

IFLOW LINE

HANDICAP

HIGH POINT

LOW POINT

LSD LANDSCAPE DRAIN

MECHANICAL JOINT

NORTH. NORTHING

PVC POLYVINYL CHLORIDE

RCP REINFORCED CONCRETE PIPE

JOINT TRENCH

HGL HYDRAULIC GRADE LINE

GB GRADE BREAK

GV GATE VALVE

HORZ HORIZONTAL

INVERT

LDSC LANDSCAPE

MAX MAXIMUM

IMH IMANHOLE

MIN IMINIMUM

MOD MODIFIED

PR PROPOSED

ROW RIGHT OF WAY

STM STORM SEWER

TB THRUST BLOCK

TEMP TEMPORARY

TOP TOP OF PIPE

TS TOP OF STEP

TYP TYPICAL

VERT VERTICAL

XING CROSSING

TOP/BACK OF CURB

TOP OF WALL (FG

SS | SANITARY SEWER

SAN SANITARY

ISTA ISTATION

PRV PRIVATE

ELEC ELECTRIC

ESMT EASEMENT

EX EXISTING

DR DOOR

BOTTOM OF STEP

BW BOTTOM OF WALL (FG)

DIP DUCTILE IRON PIPE

EAST, EASTING

EGL | IENERGY GRADE LINE

[NAME, P.E. #_____]

Add "PCD File No. SF2318"

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



vided on cover sheet

- 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. 7. 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.
- 8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.
- 9. ALL PERMANENT STORMWATER 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.
- 10. 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.
- 11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).
- 12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.
- 13. 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.
- 14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.
- EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- 16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE
- WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.
- 18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- 19. THE OWNER/DEVELOPER SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, SOIL, AND SAND THAT MAY ACCUMULATE IN ROADS, STORM DRAINS AND OTHER DRAINAGE CONVEYANCE SYSTEMS AND STORMWATER 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
- NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND
- BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.
- 23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED 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.
- 26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- 27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK
- 28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY CTL THOMPSON ON MAY 18, 2021 AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- 29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT:

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

STANDARD GESC NOTES

- 1. SHADED BMPS WERE INSTALLED IN AN EARLIER PHASE, AND UNLESS OTHERWISE INDICATED SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY EL PASO COUNTY. CONTRACTOR SHALL VERIFY THE CONDITION OF ALL EXISTING BMPS AND REMOVE AND REPLACE THEM AS NECESSARY.
- 2. ALL EXISTING BMPS WILL NEED TO BE PROPERLY REFRESHED OR RE-INSTALLED BY THE CONTRACTOR TO FUNCTION AS ORIGINALLY DESIGNED.
- 3. SEE CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, CULVERTS, STORM DRAINS, AND INLET AND OUTLET PROTECTION.
- 4. SEE DETAIL SHEETS EC5-EC7 FOR EROSION CONTROL MEASURE CONSTRUCTION DETAILS.
- 5. CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS NOT FORMALLY LANDSCAPED PER THE APPROVED LANDSCAPE PLAN SEED MIX OR EL PASO COUNTY STANDARD SEED
- 6. ROCK SOCKS MAY BE SUBSTITUTED FOR SILT FENCE AS PERIMETER CONTROL ON HARDSCAPE SURFACE AREAS.
- 7. ALL EROSION AND SEDIMENT CONTROL PRACTICES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THE SWMP MUST BE MAINTAINED IN EFFECTIVE OPERATION CONDITION. PROPER SELECTION AND INSTALLATION OF BMPS AND PROCEDURES, IN ACCORDANCE WITH THE SWMP, SHOULD BE ADEQUATE TO MEET THIS CONDITION. BMPS THAT ARE NOT ADEQUATELY MAINTAINED IN ACCORDANCE WITH GOOD ENGINEERING, HYDROLOGIC AND POLLUTION CONTROL PRACTICES, INCLUDING REMOVAL OF COLLECTED SEDIMENT OUTSIDE THE ACCEPTABLE TOLERANCES OF THE BMPS, ARE NO LONGER OPERATING EFFECTIVELY AND MUST BE ADDRESSED.
- 8. THE CONTRACTOR SHALL PROVIDE SURFACE ROUGHENING AND SEEDING AND MULCHING DURING THE DEMOLITION AND EARTHWORK PHASES AS REQUIRED BY THE SWMP AND EL PASO COUNTY INSPECTOR.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING INLET PROTECTION ON ALL EXISTING STORM SEWER INLETS IMMEDIATELY ADJACENT TO AND DOWNSTREAM OF THE PROJECT SITE.
- 10. THE CONTRACTOR SHALL REFER TO THE STORMWATER MANAGEMENT PLAN (SWMP) DATED 11/01/2021; THE COUNTY/CITY GRADING, EROSION, AND SEDIMENT CONTROL SPECIFICATIONS; AND THE MILE HIGH FLOOD DISTRICT VOLUME 3: STORMWATER BEST MANAGEMENT PRACTICES (BMPS) FOR ADDITIONAL INFORMATION.
- 11. ALL LANDSCAPE DRAIN AREA INLETS SHALL HAVE INLET PROTECTION UNTIL THE UPSTREAM AREA HAS BEEN FORMALLY LANDSCAPED AND ESTABLISHED. REFER TO THE STORM SEWER PLANS FOR EXACT LOCATIONS OF ALL AREA INLETS.
- 12. EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL PROPOSED SLOPES 4:1 OR GREATER.

- I. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
- 2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE, AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.
- 3. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR CYLINDRICAL MANHOLES AND TO THE INSIDE FACE OF INLETS AND OTHER BOX STRUCTURES. PIPE LENGTHS ARE MEASURED TO THE END OF THE STRUCTURE FOR ALL FLARED END SECTIONS.
- 4. STATIONING OF INLETS SHOWN IN STORM SEWER PROFILES IS AT CENTER OF STRUCTURE.
- 5. ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE INDICATED.
- 6. CONTRACTOR SHALL USE HDPE, PVC, OR RCP PIPES FOR THE MAIN LINES, BUT SHALL NOTIFY THE JURISDICTIONAL UTILITY PROVIDER AND THE ENGINEER, PRIOR TO
- 7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW.
- 8. ALL TYPE C & D INLETS SHALL HAVE CLOSE MESH GRATES.
- 9. ALL LATERAL PIPE-TO-PIPE CONNECTIONS SHALL BE MADE USING KOR-N-TEE CONNECTORS OR ENGINEER APPROVED EQUIVALENT.
- 10. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE PROPOSED GRADE.
- 11. CONTRACTOR SHALL MODIFY INLET BASES AS NEEDED IN ORDER TO ENSURE ALL STORM PIPES CONNECT PROPERLY TO THE INLET. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.
- 12. CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS, DESIGNED BY A LICENSED ENGINEER, DETAILING THE STRUCTURAL DESIGN OF ALL POND IMPROVEMENTS (FOREBAY, ENERGY DISSIPATING BAFFLES, OUTLET STRUCTURE, ETC.) FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.

WATER QUALITY/NPDES EROSION AND SEDIMENT CONTROL NOTES

- 1. THIS CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT PLAN HAS BEEN SUBMITTED AS THE APPLICATION FOR A STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES FROM THE WATER QUALITY CONTROL DIVISION OF COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT. I UNDERSTAND THAT ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL BE THE OBLIGATION OF THE LAND OWNER AND/OR HIS SUCCESSORS OR HEIRS; UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED, OR VOIDED.
- 2. THE CONTRACTOR SHALL LOCATE, INSTALL, AND MAINTAIN ALL EROSION CONTROL AND WATER QUALITY "BEST MANAGEMENT PRACTICES" AS INDICATED IN THE APPROVED CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT PLAN AND GEC PLANS.
- MODIFICATION OF AN ACTIVE STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES BY THE DEVELOPER, CONTRACTOR, OR THEIR AUTHORIZED AGENTS SHALL REQUIRE TIMELY NOTIFICATION OF AND APPROVAL BY THE WATER QUALITY CONTROL DIVISION. TERMINATION OF AN ACTIVE STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES UPON COMPLETION OF THE PROJECT REQUIRES NOTIFICATION OF AND APPROVAL BY EL PASO COUNTY ENGINEERING.

BMP MAINTENANCE NOTE

ALL EROSION AND SEDIMENT CONTROL PRACTICES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THE SWMP MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. PROPER SELECTION AND INSTALLATION OF BMPS AND IMPLEMENTATION OF COMPREHENSIVE INSPECTION AND MAINTENANCE PROCEDURES, IN ACCORDANCE WITH THE SWMP, SHOULD BE ADEQUATE TO MEET THIS CONDITION. BMPS THAT ARE NOT ADEQUATELY MAINTAINED IN ACCORDANCE WITH GOOD ENGINEERING, HYDROLOGIC AND POLLUTION CONTROL PRACTICES, INCLUDING REMOVAL OF COLLECTED SEDIMENT OUTSIDE THE ACCEPTABLE TOLERANCES OF THE BMPS, ARE CONSIDERED TO BE NO LONGER OPERATING EFFECTIVELY AND MUST BE ADDRESSED.

UTILITY NOTES

- 1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.
- THE CONTRACTOR SHALL NOTIFY 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION ACTIVITIES. DEWATERING DISCHARGE, PERMITTING FOR ALL UTILITY INSTALLATION. PUMP RATE TESTS ARE HIGHLY RECOMMENDED.

vide legend for linetypes

dd the EPC Construction plans notes.

Know what's **below.**

Call before you dig.

SSUE DATE: 05-08-2023 REVISION COMMENTS DESIGNED BY: < DESIGNER> CHECKED BY: <REVIEWER>



HarrisKocherSmith.com

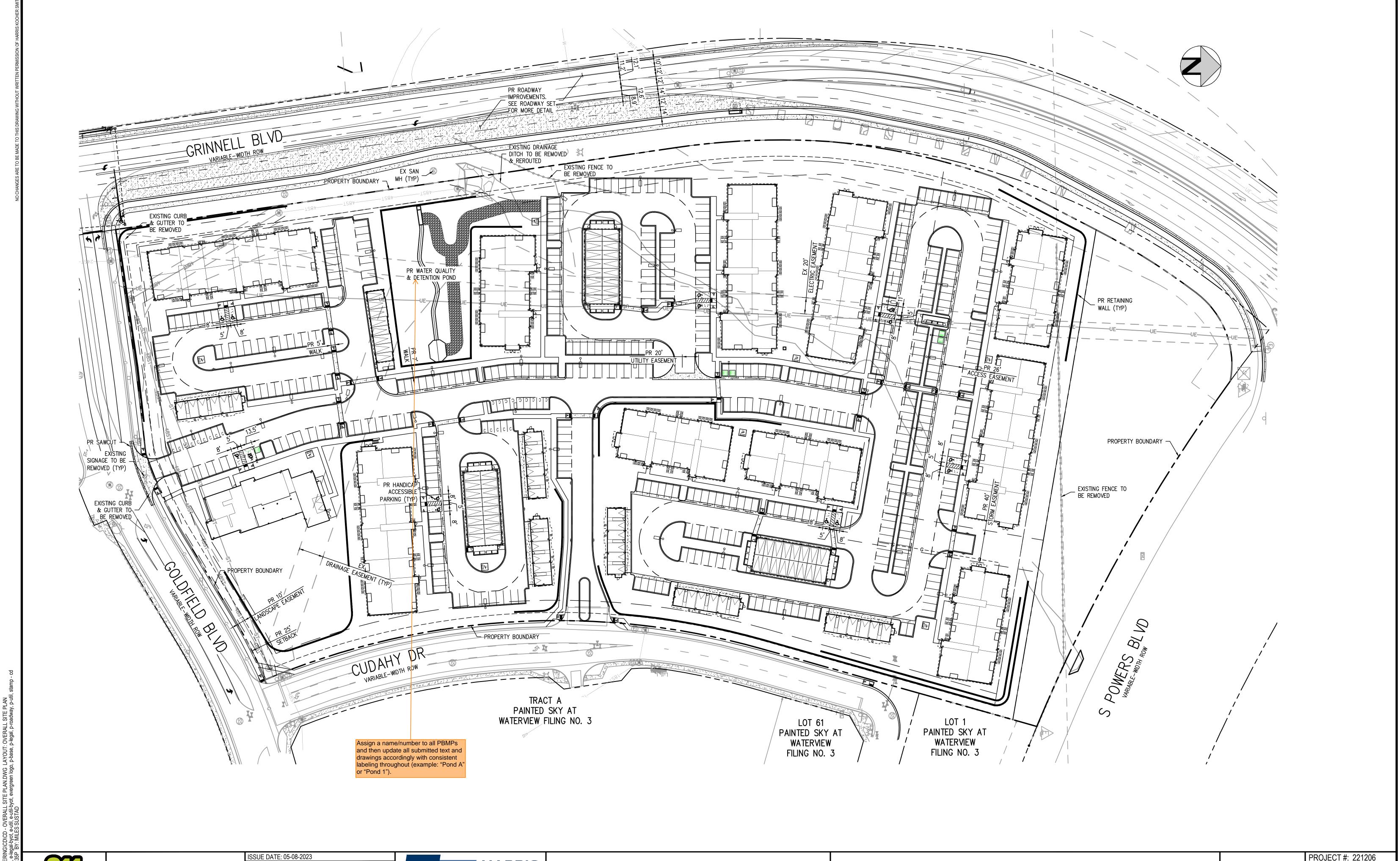


OUTLOOK POWERS & GRINNELL

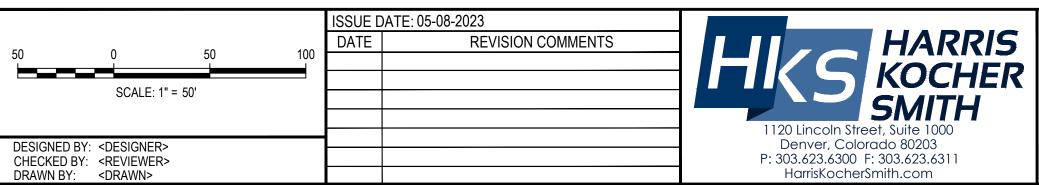
NOTES

PROJECT #: 221206

SHEET NUMBER



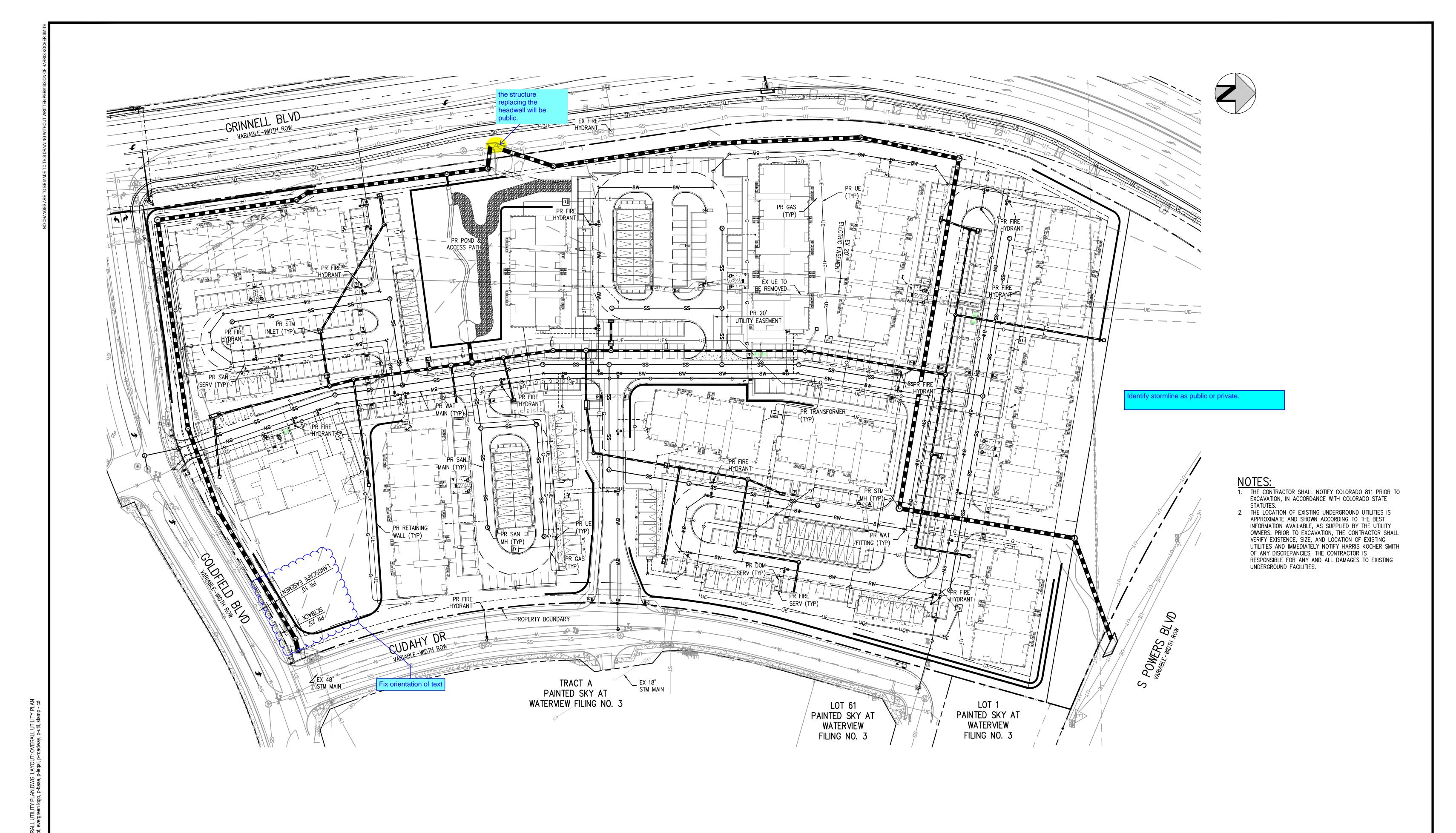
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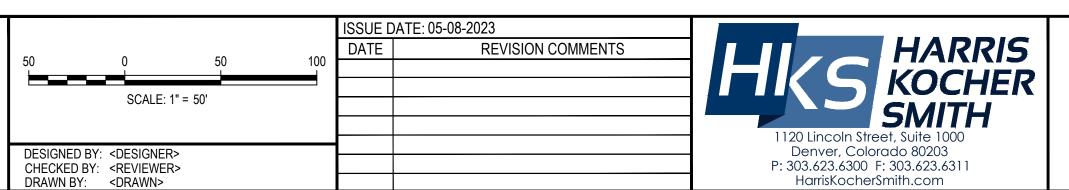


OUTLOOK POWERS & GRINNELL OVERALL SITE PLAN

PRELIMINARY CONSTRUCTION PROJECT #: 221206
SHEET NUMBER

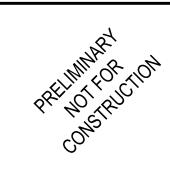


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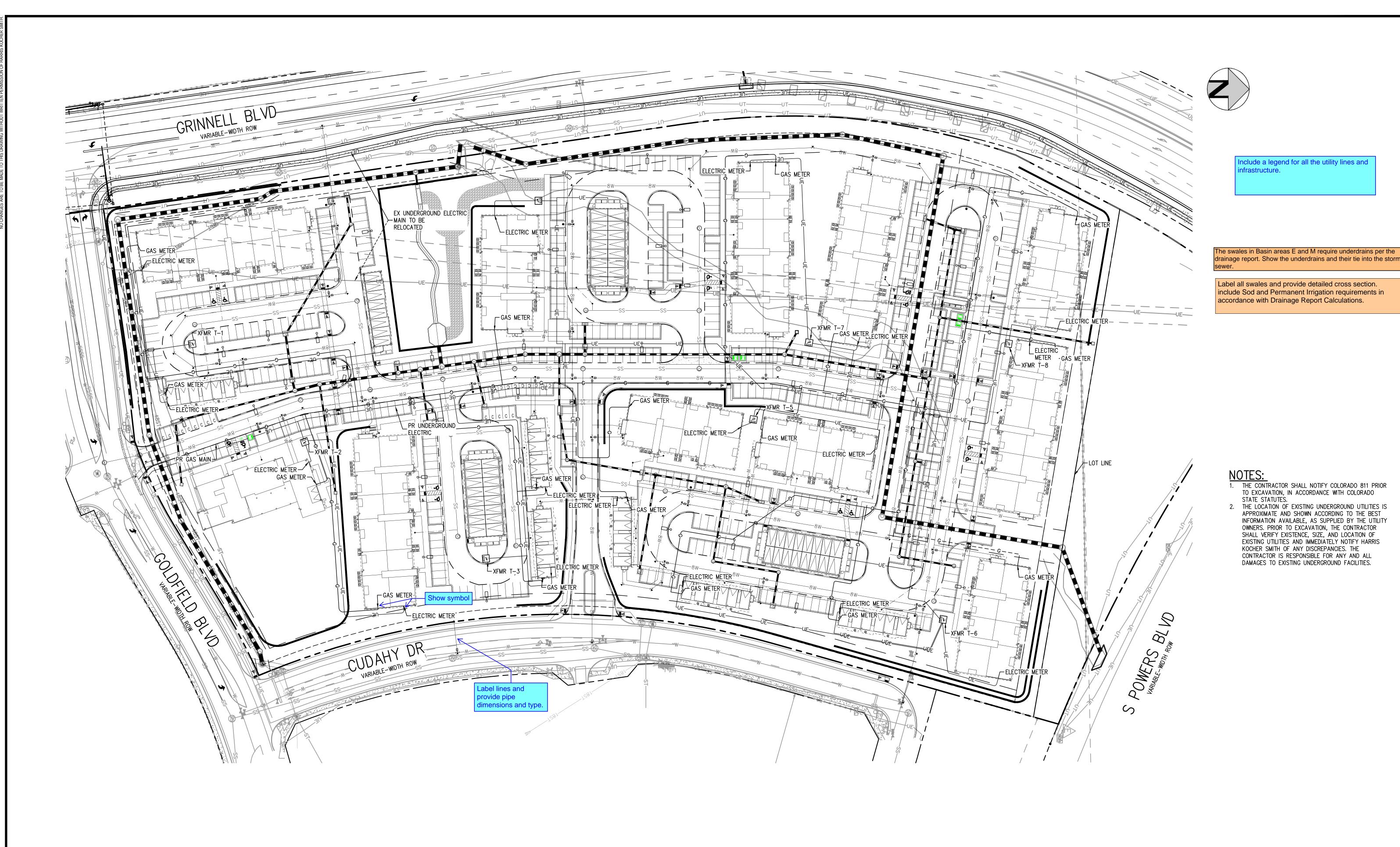


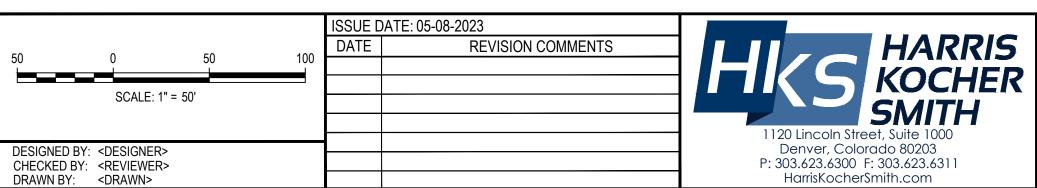


OUTLOOK POWERS & GRINNELL OVERALL UTILITY PLAN



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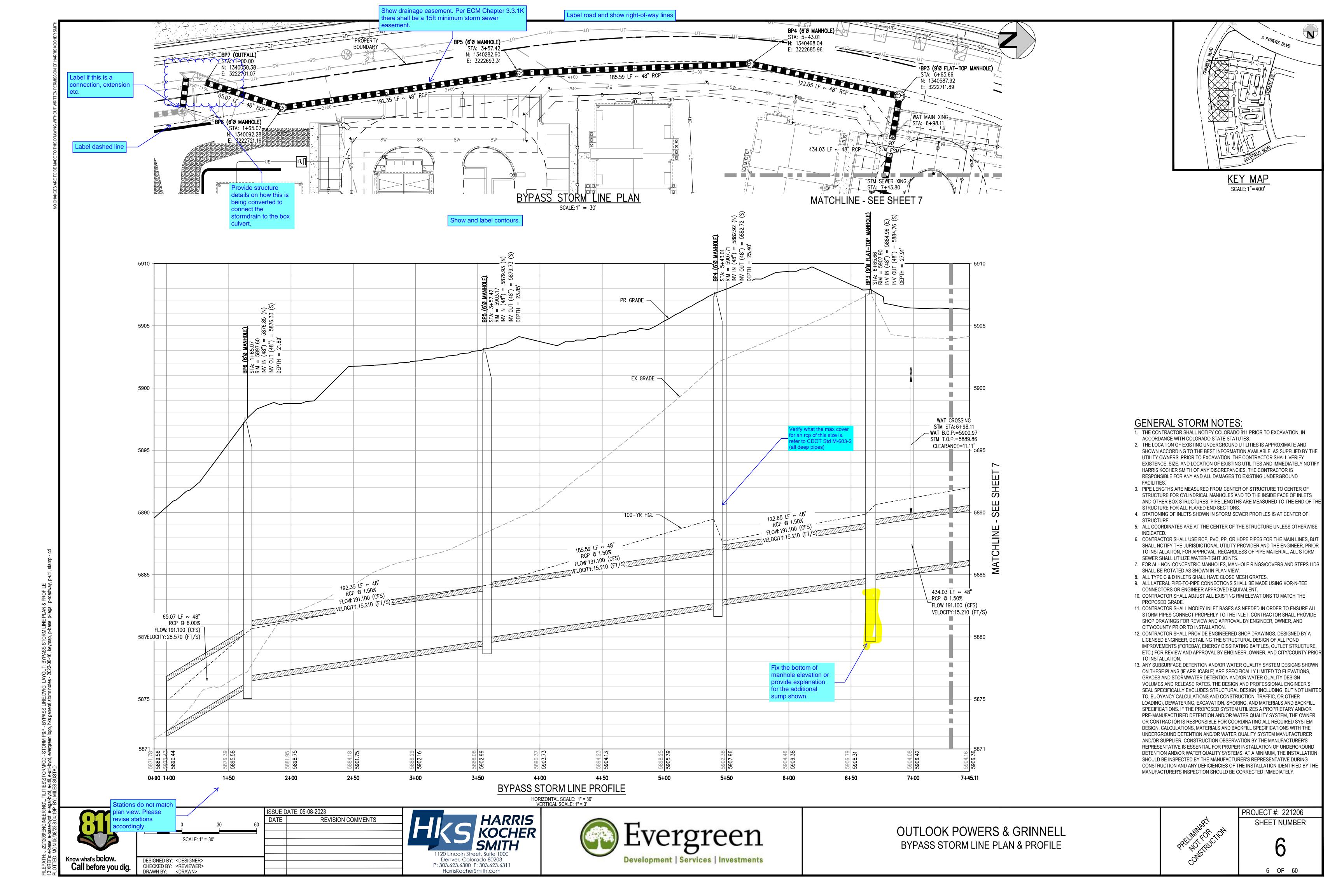


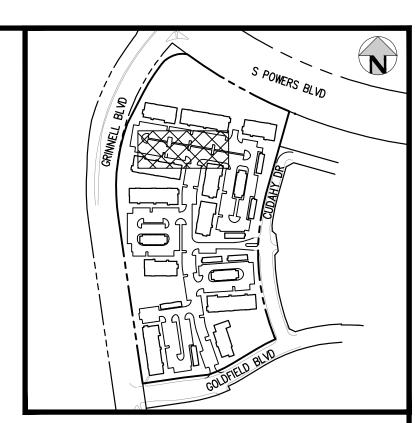




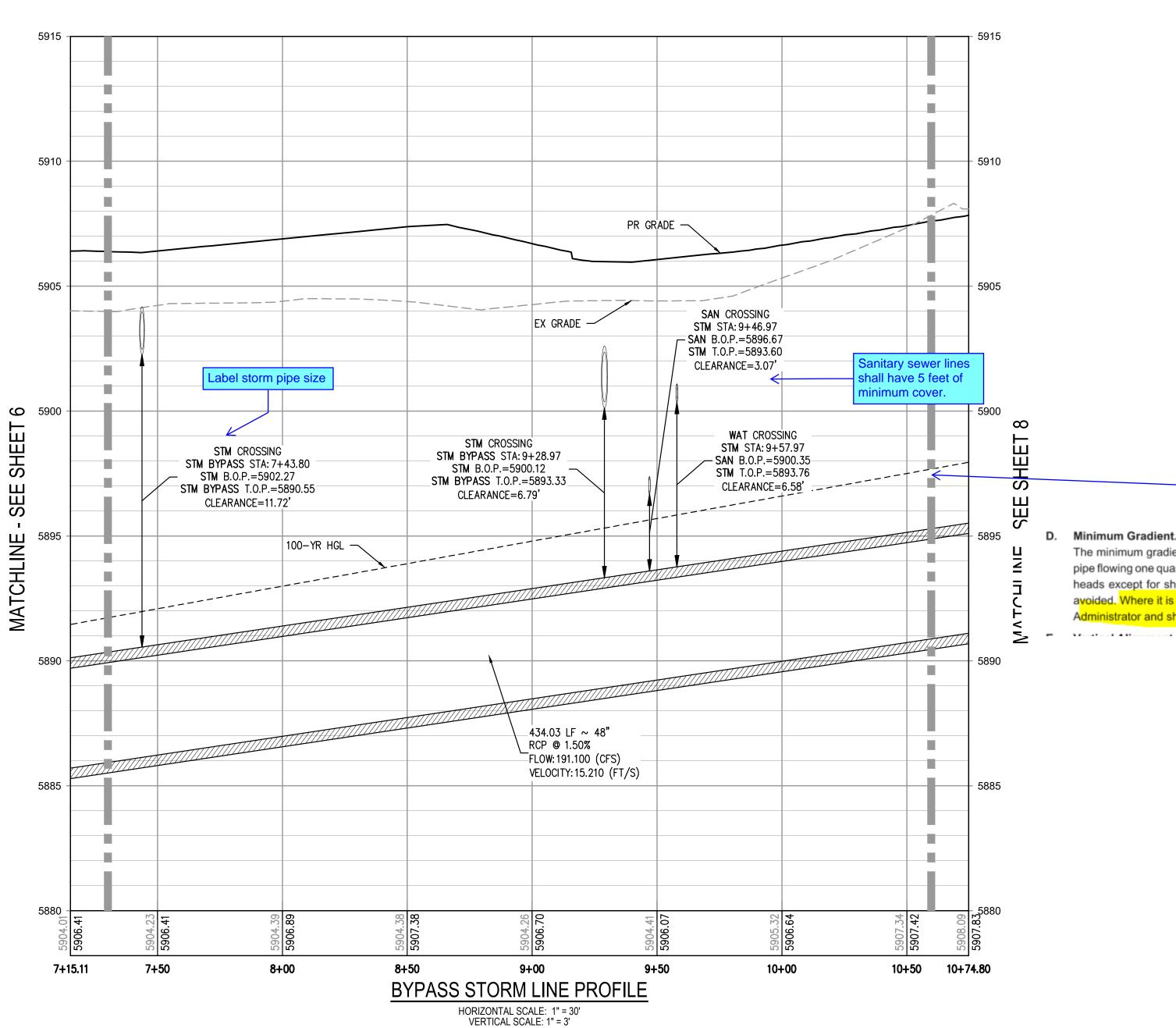
OUTLOOK POWERS & GRINNELL DRY UTILITY PLAN

PROJECT #: 221206 SHEET NUMBER





KEY MA



GENERAL STORM NOTES:

- 1. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
- 2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY T UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE, AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOT HAPPING MOCKED SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS
- EXISTENCE, SIZE, AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NO HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.

 3. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF
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 4. STATIONING OF INLETS SHOWN IN STORM SEWER PROFILES IS AT CENTER OF
- STRUCTURE.

 5. ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE
- INDICATED.
- CONTRACTOR SHALL USE RCP, PVC, PP, OR HDPE PIPES FOR THE MAIN LINES, BUT SHALL NOTIFY THE JURISDICTIONAL UTILITY PROVIDER AND THE ENGINEER, PRIOR TO INSTALLATION, FOR APPROVAL. REGARDLESS OF PIPE MATERIAL, ALL STORM SEWER SHALL UTILIZE WATER-TIGHT JOINTS.
 FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS
- FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW.
- 8. ALL TYPE C & D INLETS SHALL HAVE CLOSE MESH GRATES.9. ALL LATERAL PIPE-TO-PIPE CONNECTIONS SHALL BE MADE USING KOR-N-TEE
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- 10. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE PROPOSED GRADE.
- 11. CONTRACTOR SHALL MODIFY INLET BASES AS NEEDED IN ORDER TO ENSURE ALL STORM PIPES CONNECT PROPERLY TO THE INLET. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.
- 12. CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS, DESIGNED BY A LICENSED ENGINEER, DETAILING THE STRUCTURAL DESIGN OF ALL POND IMPROVEMENTS (FOREBAY, ENERGY DISSIPATING BAFFLES, OUTLET STRUCTURE, ETC.) FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOF TO INSTALLATION.
- 13. ANY SUBSURFACE DETENTION AND/OR WATER QUALITY SYSTEM DESIGNS SHOWN ON THESE PLANS (IF APPLICABLE) ARE SPECIFICALLY LIMITED TO ELEVATIONS, GRADES AND STORMWATER DETENTION AND/OR WATER QUALITY DESIGN VOLUMES AND RELEASE RATES. THE DESIGN AND PROFESSIONAL ENGINEER'S SEAL SPECIFICALLY EXCLUDES STRUCTURAL DESIGN (INCLUDING, BUT NOT LIMITE TO, BUOYANCY CALCULATIONS AND CONSTRUCTION, TRAFFIC, OR OTHER

SEAL SPECIFICALLY EXCLUDES STRUCTURAL DESIGN (INCLUDING, BUT NOT LIMITE TO, BUOYANCY CALCULATIONS AND CONSTRUCTION, TRAFFIC, OR OTHER LOADING), DEWATERING, EXCAVATION, SHORING, AND MATERIALS AND BACKFILL SPECIFICATIONS. IF THE PROPOSED SYSTEM UTILIZES A PROPRIETARY AND/OR PRE-MANUFACTURED DETENTION AND/OR WATER QUALITY SYSTEM, THE OWNER OR CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED SYSTEM DESIGN, CALCULATIONS, MATERIALS AND BACKFILL SPECIFICATIONS WITH THE UNDERGROUND DETENTION AND/OR WATER QUALITY SYSTEM MANUFACTURER AND/OR SUPPLIER. CONSTRUCTION OBSERVATION BY THE MANUFACTURER'S REPRESENTATIVE IS ESSENTIAL FOR PROPER INSTALLATION OF UNDERGROUND DETENTION AND/OR WATER QUALITY SYSTEMS. AT A MINIMUM, THE INSTALLATION SHOULD BE INSPECTED BY THE MANUFACTURER'S REPRESENTATIVE DURING CONSTRUCTION AND ANY DEFICIENCIES OF THE INSTALLATION IDENTIFIED BY THE MANUFACTURER'S INSPECTION SHOULD BE CORRECTED IMMEDIATELY.



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OUTLOOK POWERS & GRINNELL BYPASS STORM LINE PLAN & PROFILE

Jpdate. This does not meet ECM 3.3.1.D.

The designed is not a short run of pipes with

The minimum gradient shall be 0.5% or a minimum velocity of 4 feet per second (fps) with the

pipe flowing one quarter full. Storm sewer pipes shall be designed to flow full and free of pressure

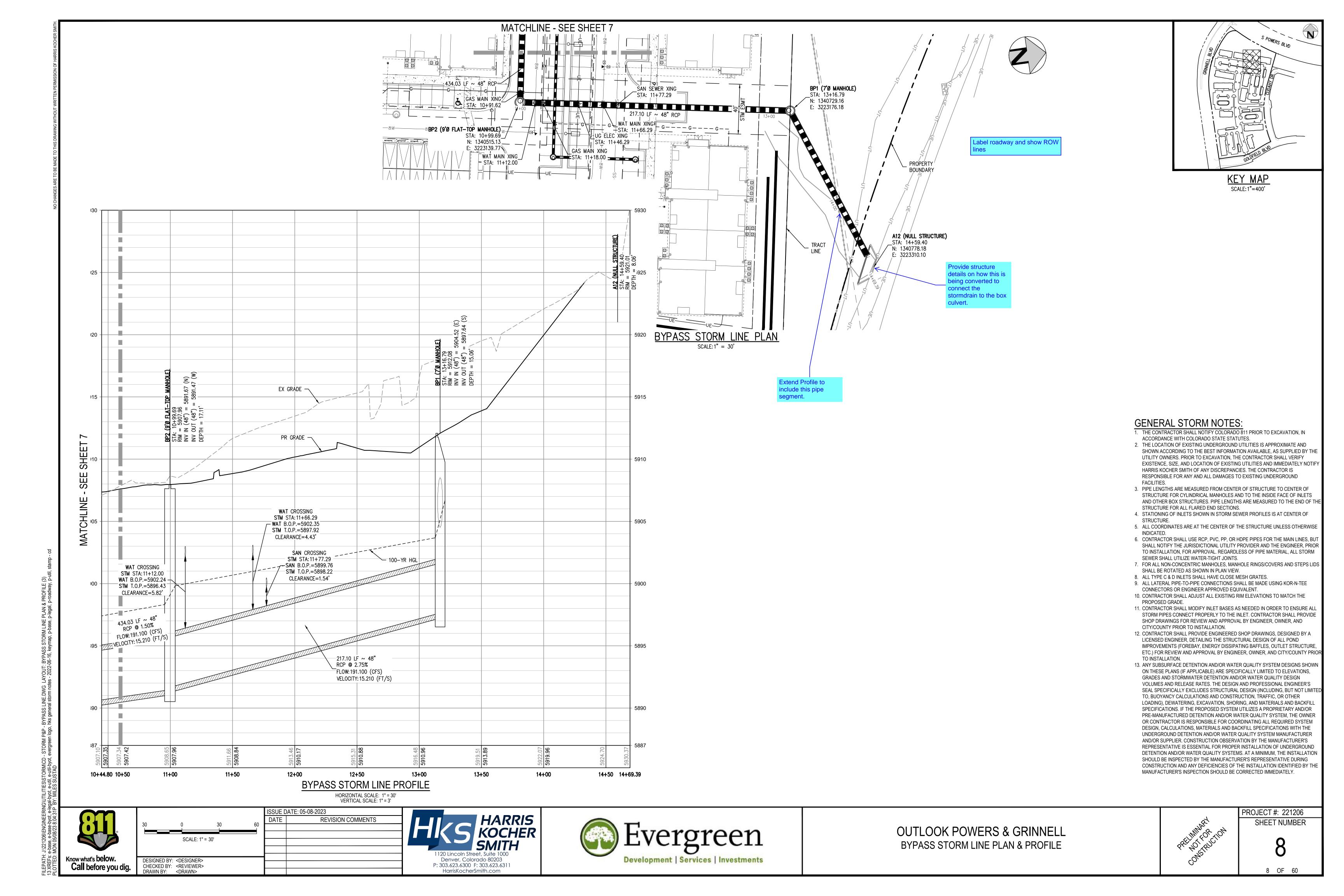
heads except for short runs where the grade changes and a small pressure head cannot be

avoided. Where it is necessary to design for a pressure head, it shall be approved by the ECM

Administrator and shall use pressure pipe with watertight joints with a 100-year service life.



PROJECT #: 221206 SHEET NUMBER



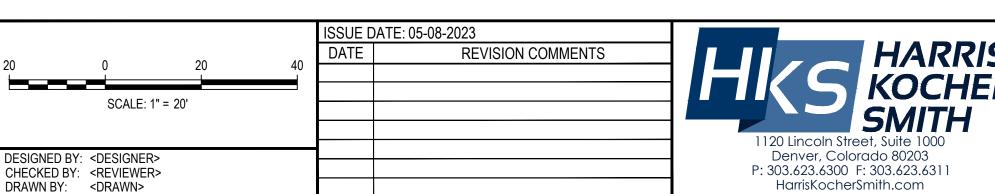
S POWERS BLVD

GENERAL STORM NOTES:

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- I. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND
- 3. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR CYLINDRICAL MANHOLES AND TO THE INSIDE FACE OF INLETS AND OTHER BOX STRUCTURES. PIPE LENGTHS ARE MEASURED TO THE END OF TH
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- 5. ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE INDICATED.
- 6. CONTRACTOR SHALL USE RCP, PVC, PP, OR HDPE PIPES FOR THE MAIN LINES, BU SHALL NOTIFY THE JURISDICTIONAL UTILITY PROVIDER AND THE ENGINEER, PRIOR TO INSTALLATION, FOR APPROVAL. REGARDLESS OF PIPE MATERIAL, ALL STORM SEWER SHALL UTILIZE WATER-TIGHT JOINTS.
- 7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW. 8. ALL TYPE C & D INLETS SHALL HAVE CLOSE MESH GRATES.
- 9. ALL LATERAL PIPE-TO-PIPE CONNECTIONS SHALL BE MADE USING KOR-N-TEE CONNECTORS OR ENGINEER APPROVED EQUIVALENT. 10. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE
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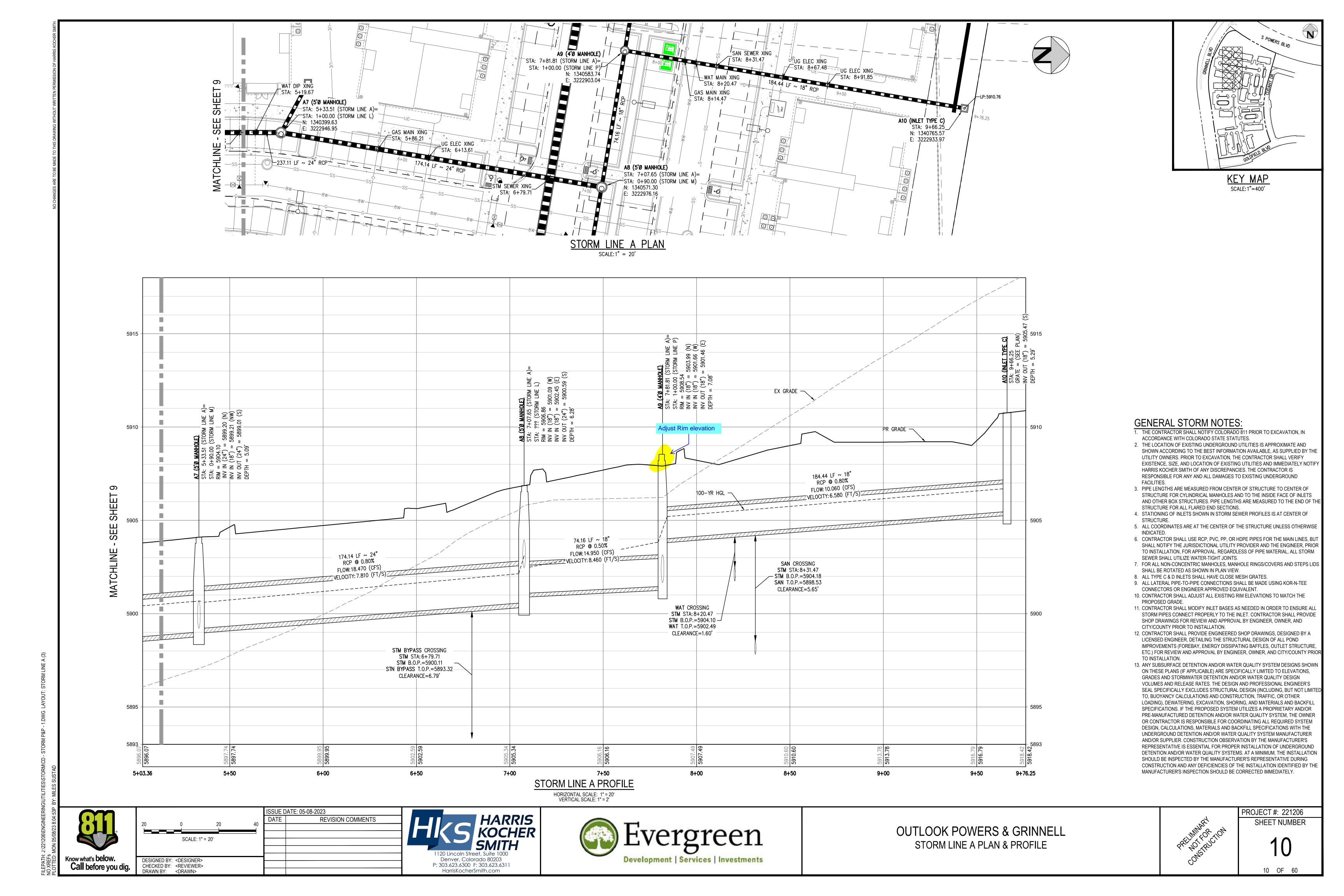


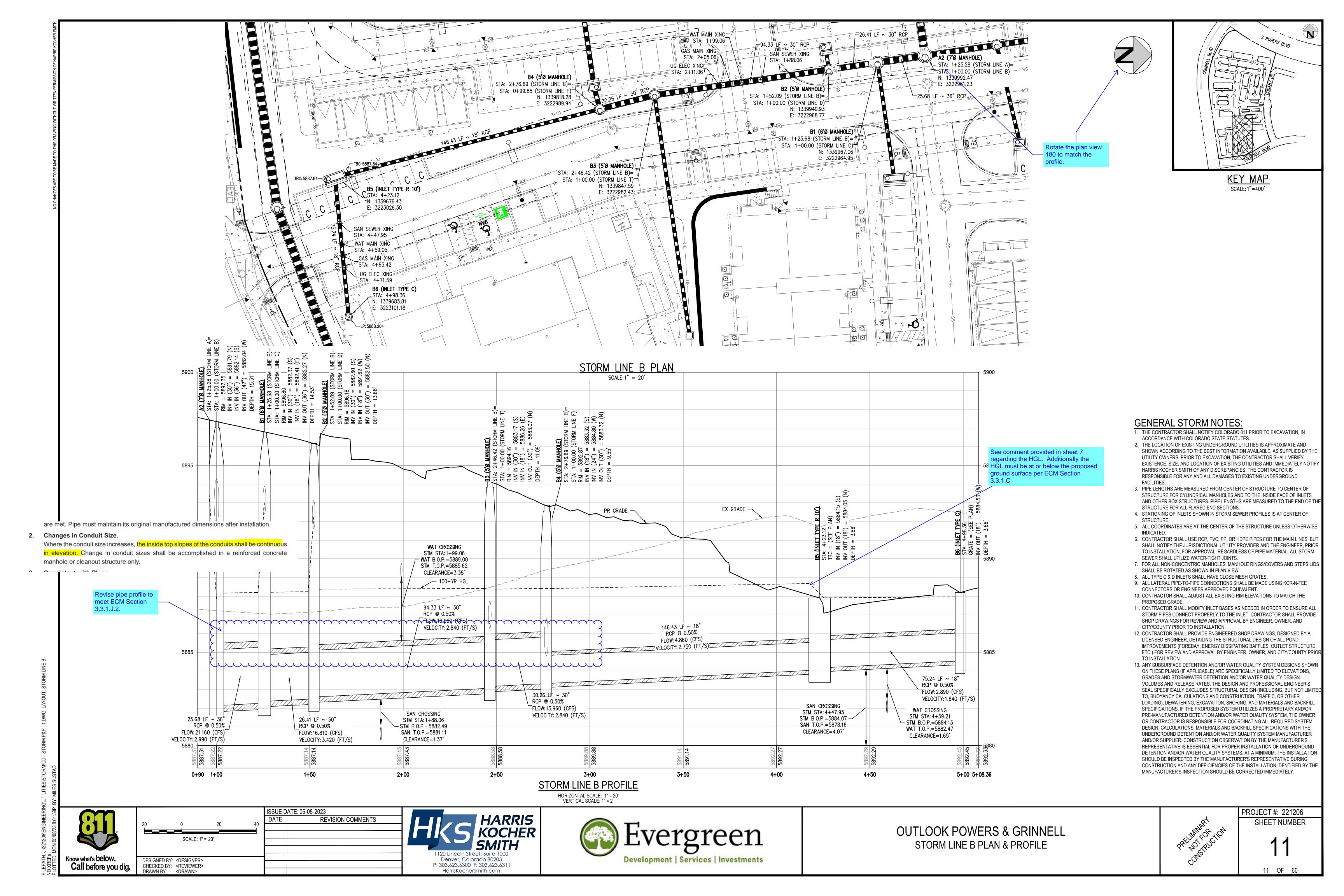


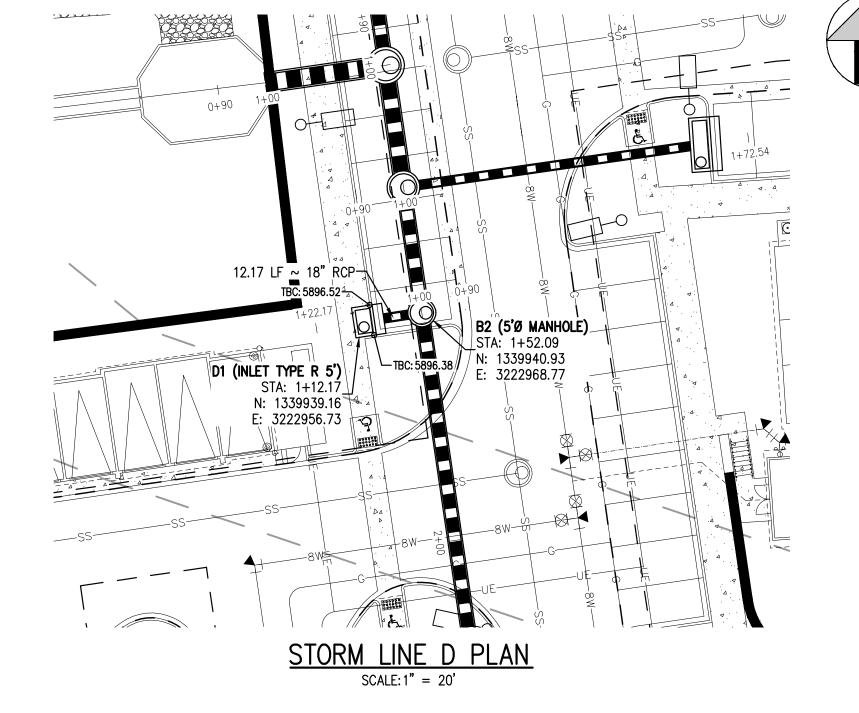


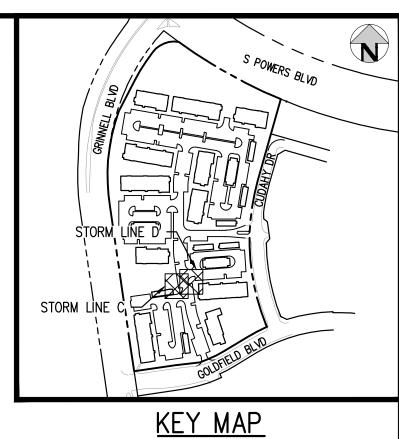


PROJECT #: 221206 SHEET NUMBER

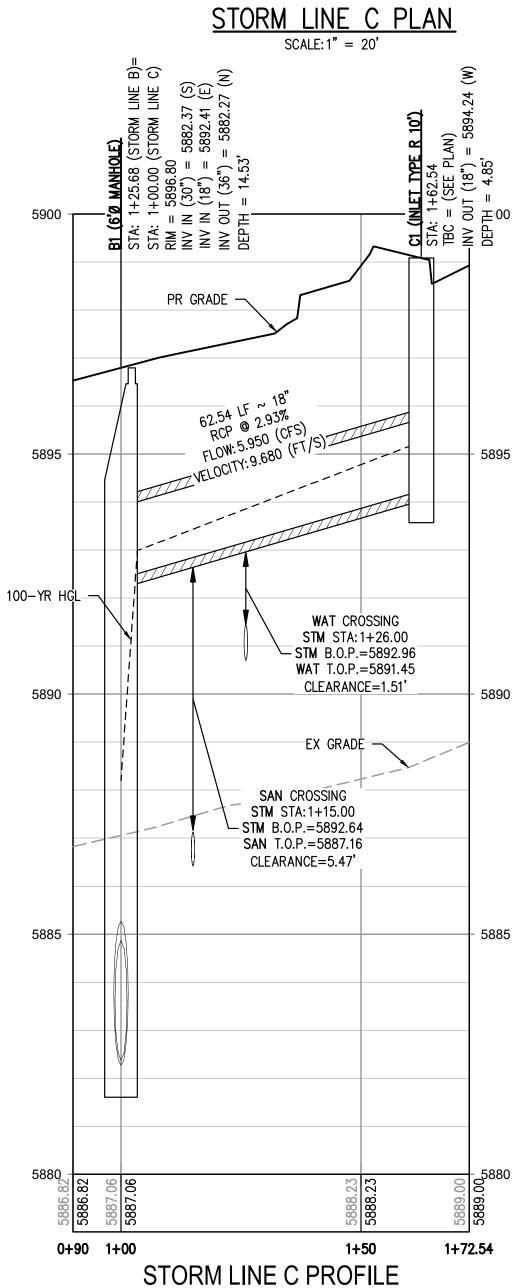




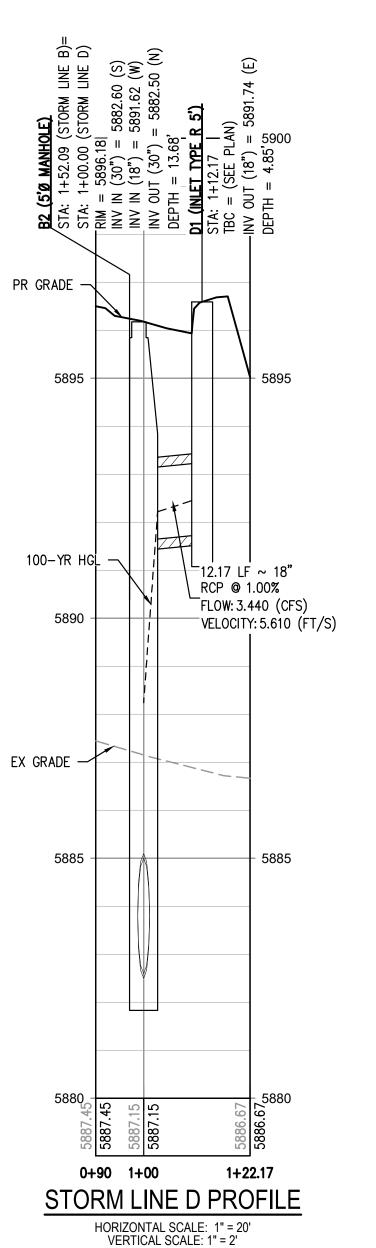








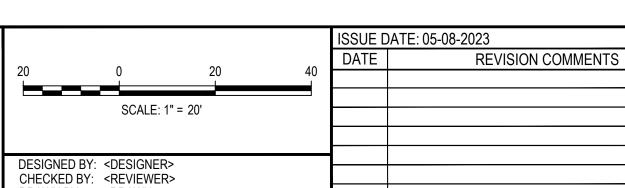
HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" = 2'



GENERAL STORM NOTES:

- I. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
- UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.
- 3. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR CYLINDRICAL MANHOLES AND TO THE INSIDE FACE OF INLETS AND OTHER BOX STRUCTURES. PIPE LENGTHS ARE MEASURED TO THE END OF THE
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- 5. ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE INDICATED.
- 6. CONTRACTOR SHALL USE RCP, PVC, PP, OR HDPE PIPES FOR THE MAIN LINES, BUT SHALL NOTIFY THE JURISDICTIONAL UTILITY PROVIDER AND THE ENGINEER, PRIOR TO INSTALLATION, FOR APPROVAL. REGARDLESS OF PIPE MATERIAL, ALL STORM SEWER SHALL UTILIZE WATER-TIGHT JOINTS.
- 7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW. 8. ALL TYPE C & D INLETS SHALL HAVE CLOSE MESH GRATES.
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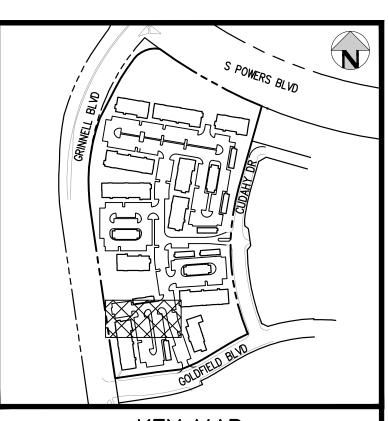








PROJECT #: 221206 SHEET NUMBER

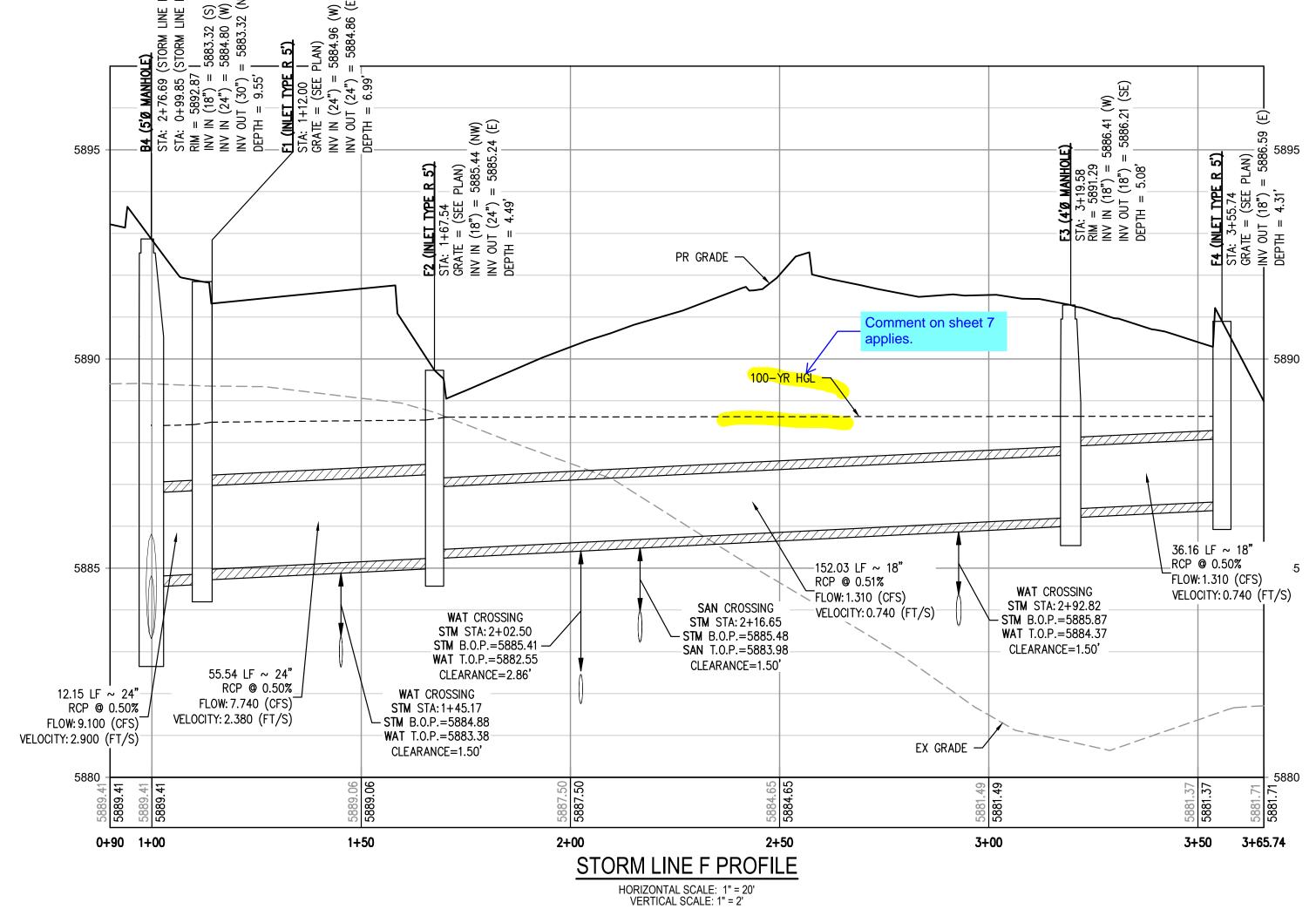


GENERAL STORM NOTES:

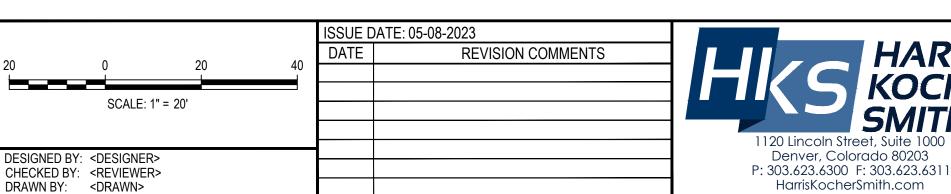
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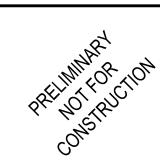


Know what's **below**. Call before you dig.

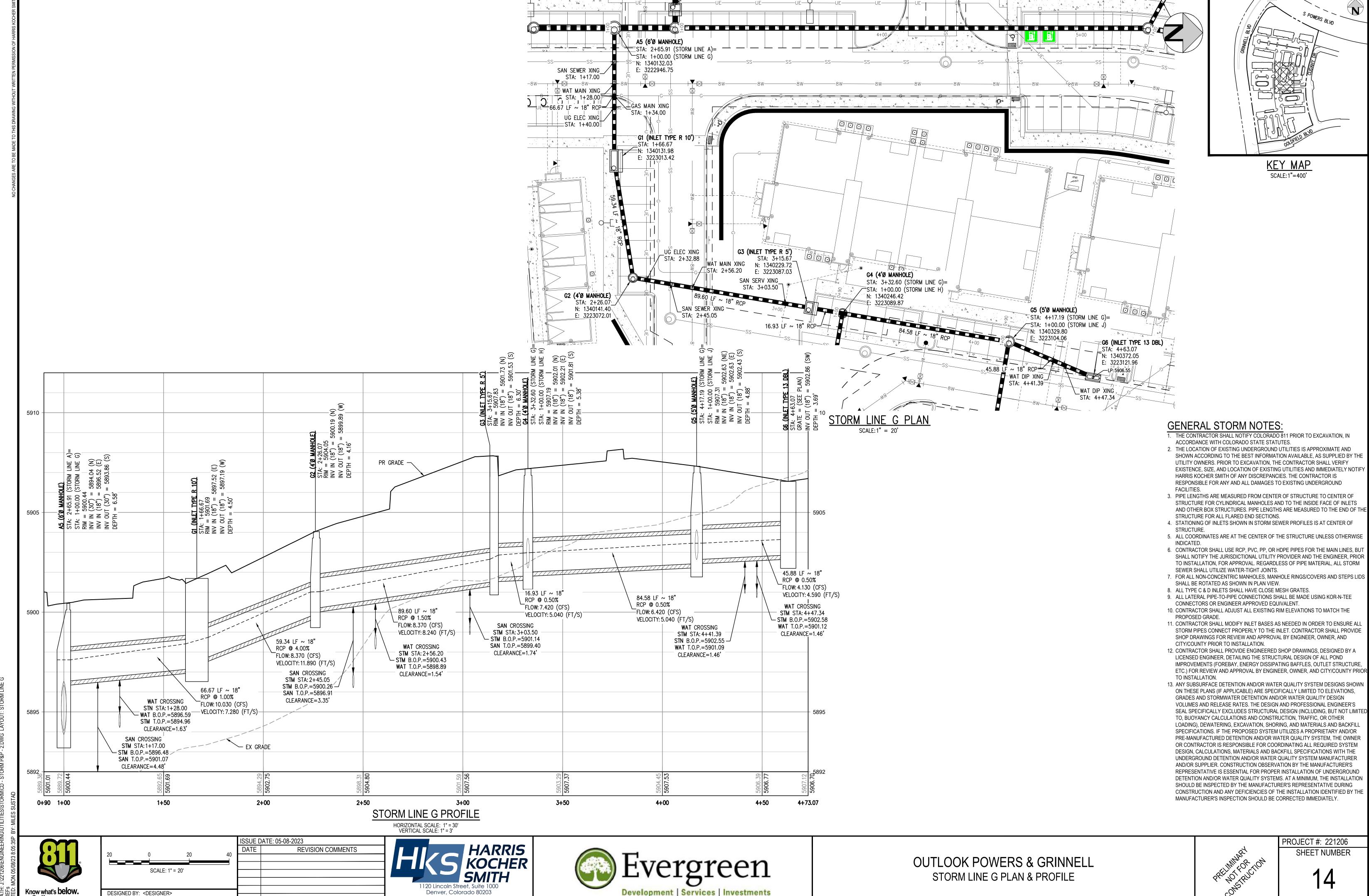




OUTLOOK POWERS & GRINNELL STORM LINE F PLAN & PROFILE



PROJECT #: 221206 SHEET NUMBER

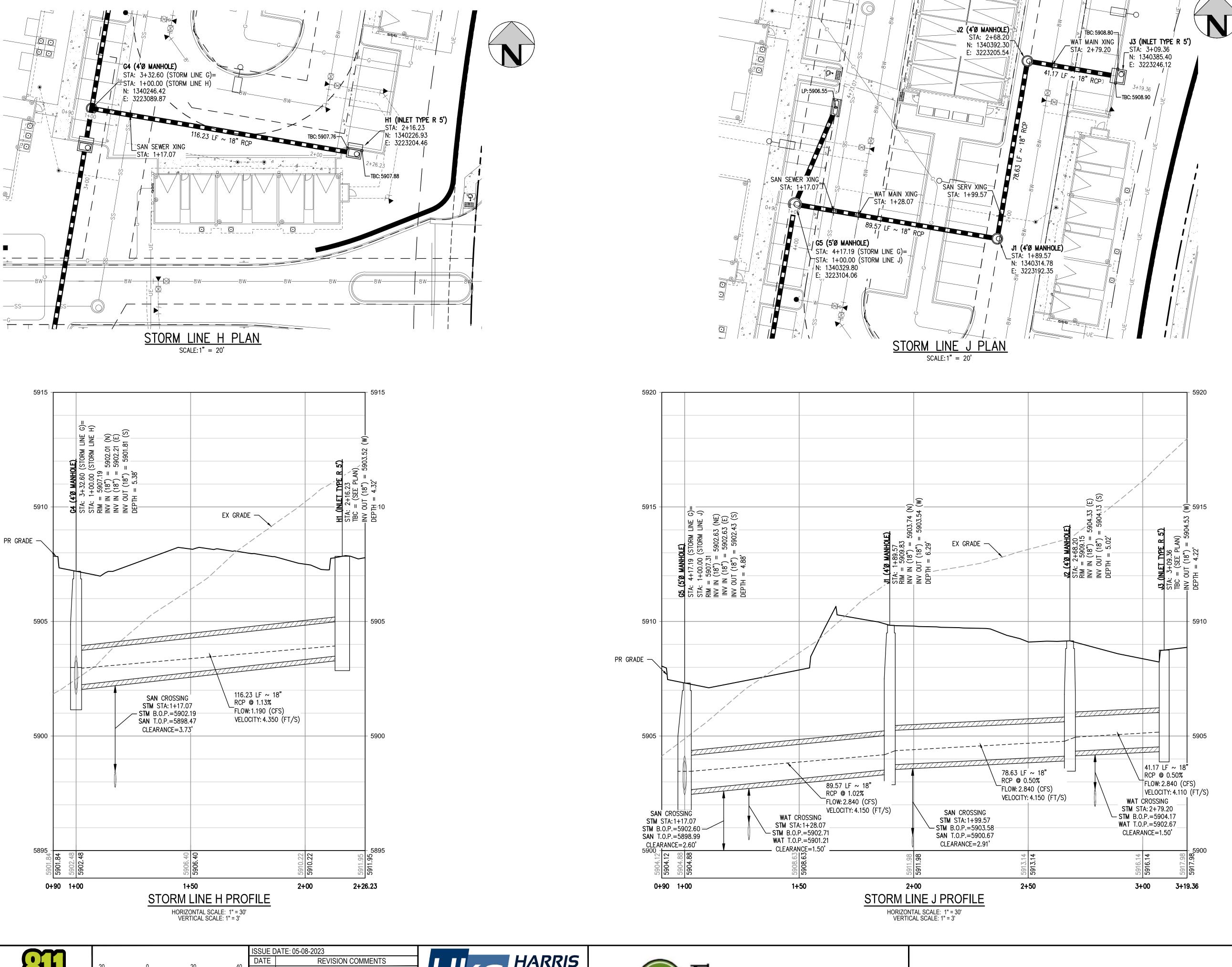


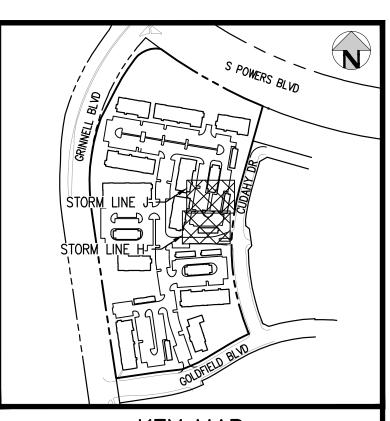
P: 303.623.6300 F: 303.623.6311

HarrisKocherSmith.com

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GENERAL STORM NOTES:

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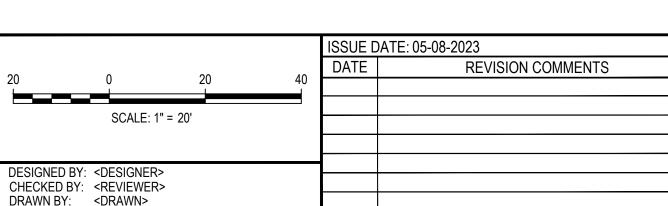
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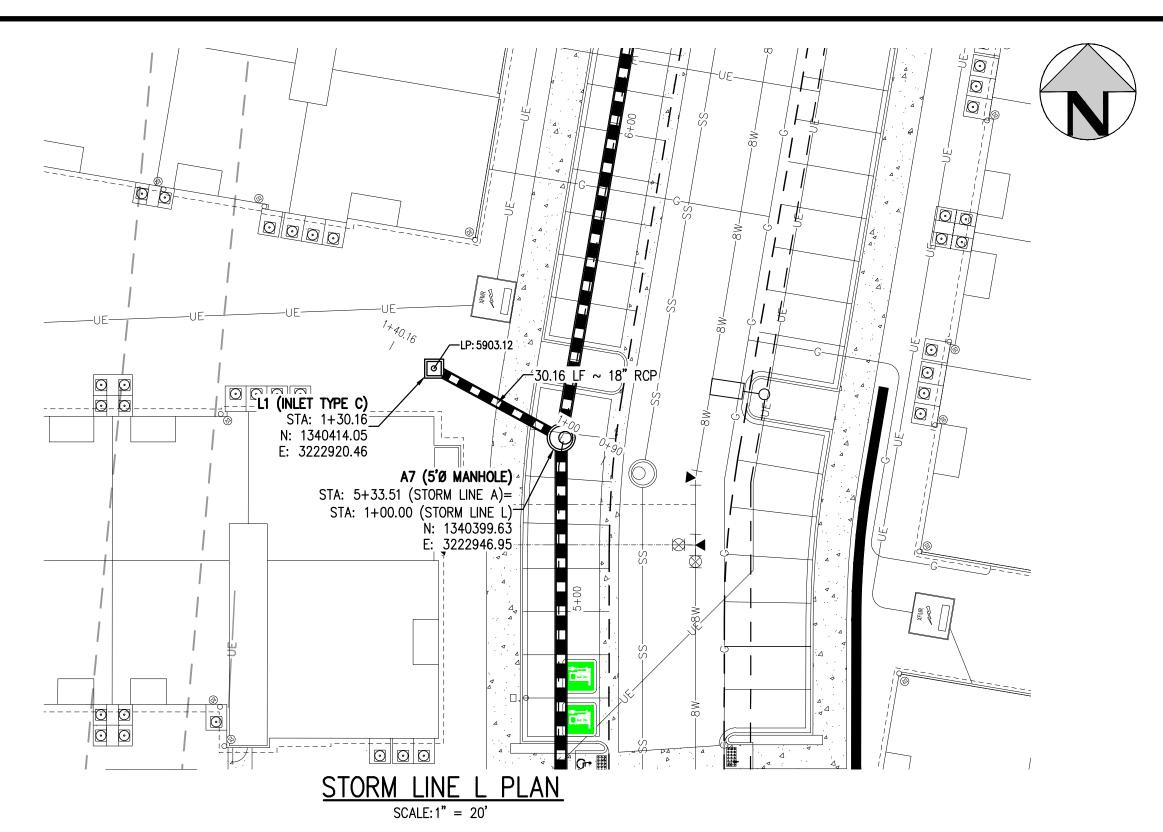


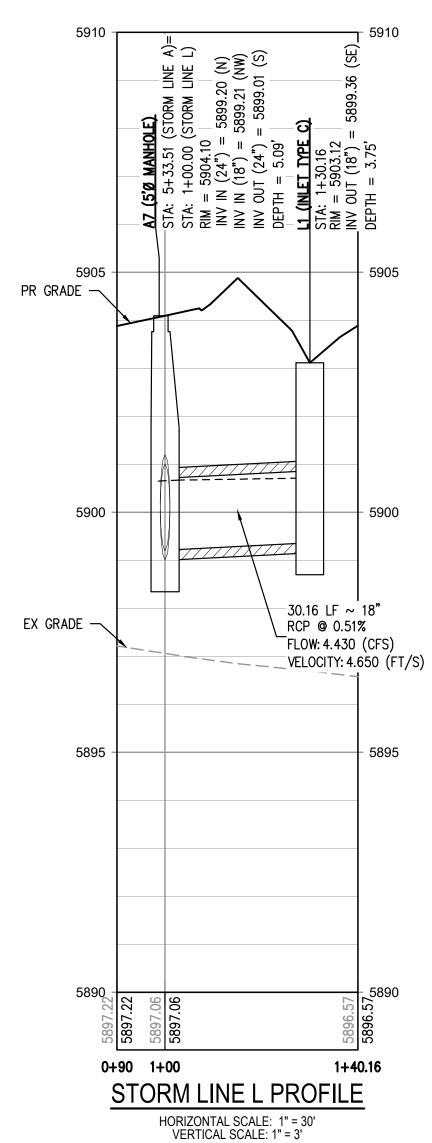


OUTLOOK POWERS & GRINNELL STORM LINE H & J PLAN & PROFILE



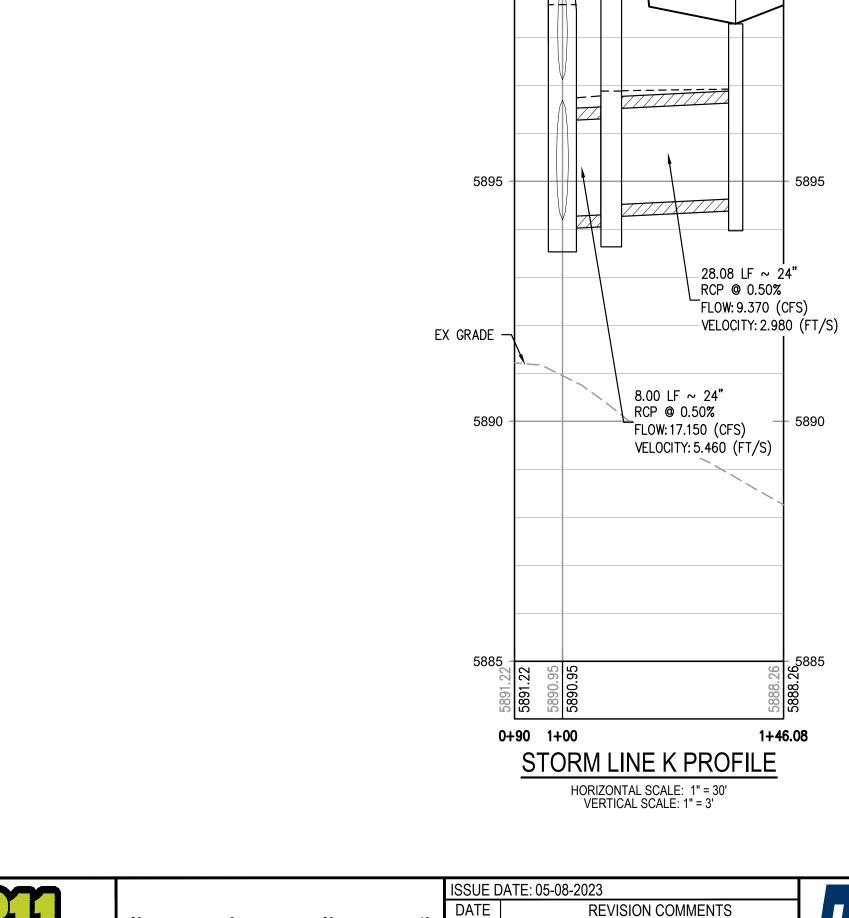
PROJECT #: 221206 SHEET NUMBER

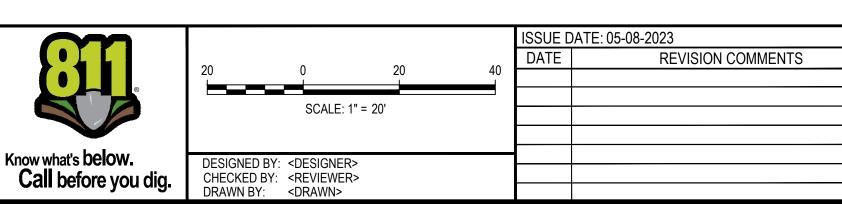






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OUTLOOK POWERS & GRINNELL STORM LINE K & L PLAN & PROFILE



PROJECT #: 221206 SHEET NUMBER

16 OF 60

3. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF

S POWERS BLVD

114.69 LF ~ 18"

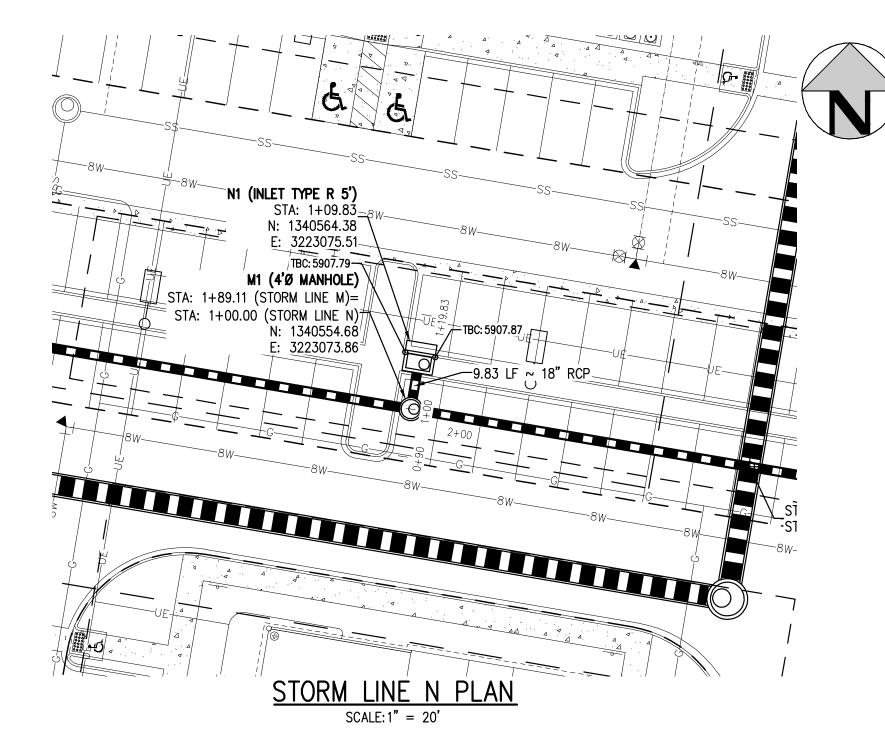
FLOW: 3.520 (CFS)

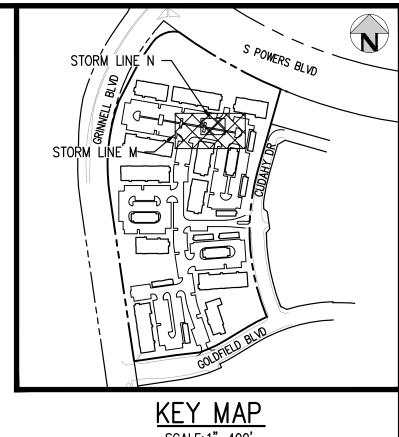
VELOCITY: 5.380 (FT/S)

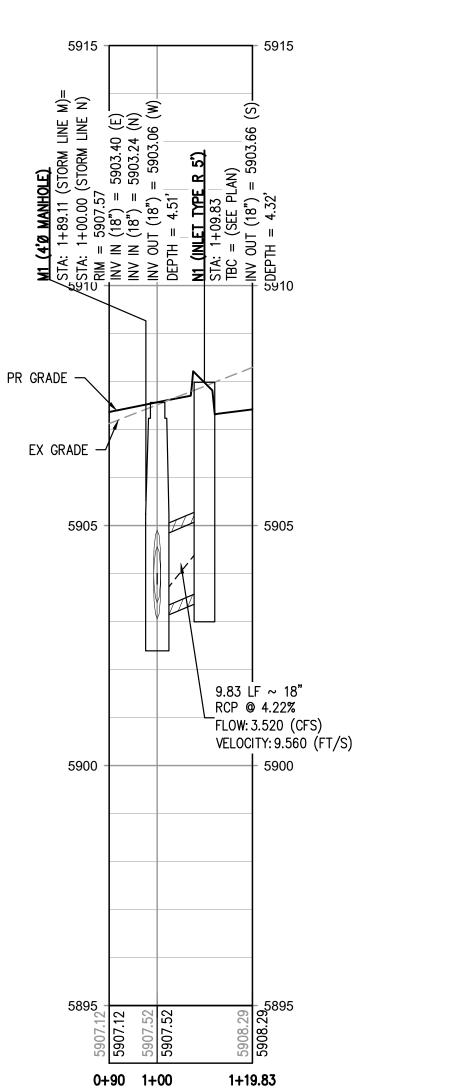
2+00

RCP @ 0.86%

STORM LINE M PROFILE







STORM LINE N PROFILE

HORIZONTAL SCALE: 1" = 30' VERTICAL SCALE: 1" = 3'

GENERAL STORM NOTES

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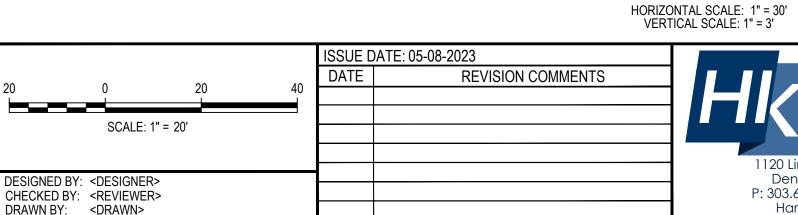
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1+50

99.11 LF ~ 18"

RCP @ 0.61%

FLOW: 3.520 (CFS)

SAN CROSSING

STM STA: 1+08.00

SAN T.O.P.=5897.52

CLEARANCE=4.83'

— STM B.O.P.=5902.35

VELOCITY: 4.750 (FT/S)





3+79.80

3+50

SAN CROSSING

STM STA: 3+53.46 -STM B.O.P.=5905.70

SAN T.O.P.=5900.81

CLEARANCE=4.89'

5900

WAT CROSSING

STM STA: 3+42.46

STM B.O.P.=5905.39 — WAT T.O.P.=5903.88

CLEARANCE=1.51'

STM BYPASS CROSSING

STM STA: 2+60.72

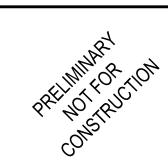
STM B.O.P.=5903.81

STM BYPASS T.O.P.=5896.84

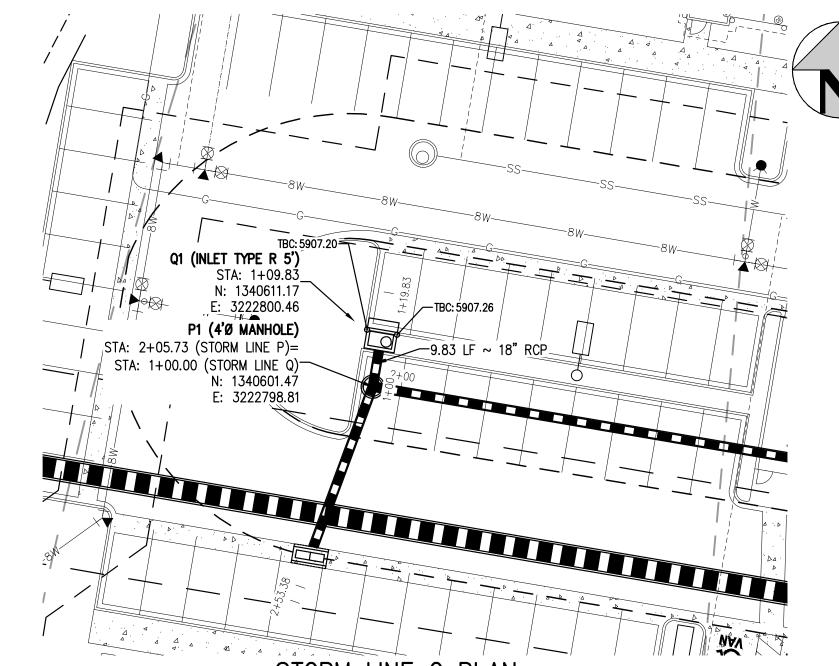
CLEARANCE=6.96'

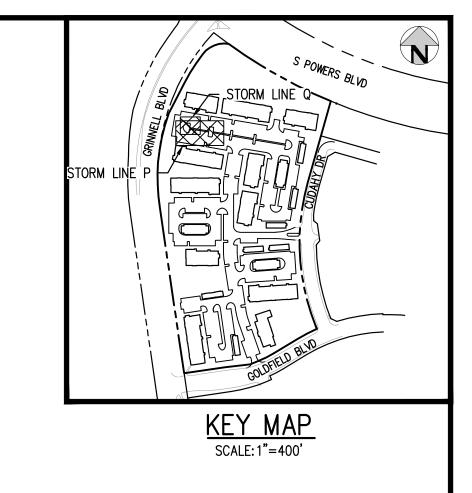
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OUTLOOK POWERS & GRINNELL STORM LINE M & N PLAN & PROFILE

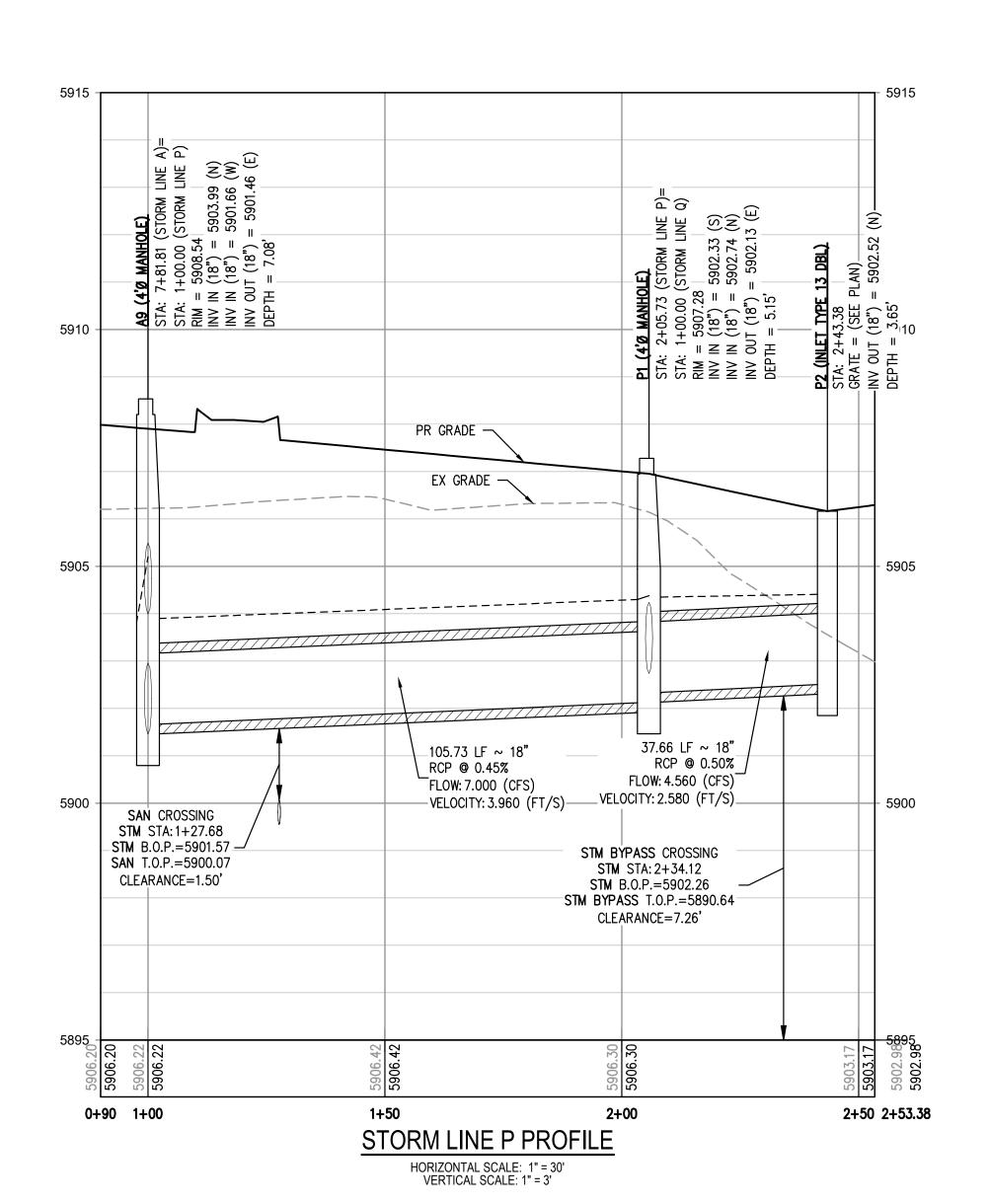


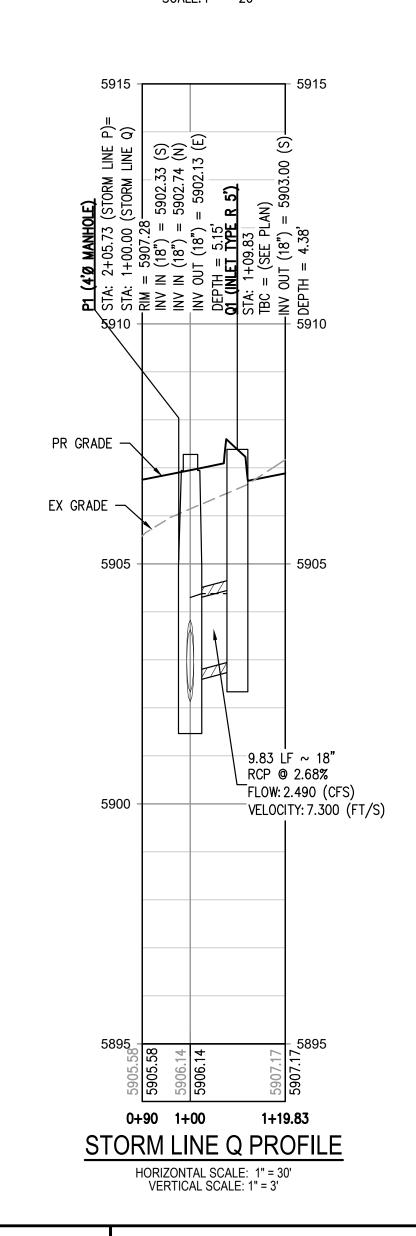
PROJECT #: 221206 SHEET NUMBER





STORM LINE Q PLAN





GENERAL STORM NOTES

. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.

HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND

FACILITIES. 3. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR CYLINDRICAL MANHOLES AND TO THE INSIDE FACE OF INLETS

AND OTHER BOX STRUCTURES. PIPE LENGTHS ARE MEASURED TO THE END OF TH STRUCTURE FOR ALL FLARED END SECTIONS. 4. STATIONING OF INLETS SHOWN IN STORM SEWER PROFILES IS AT CENTER OF

STRUCTURE. 5. ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE

INDICATED.

6. CONTRACTOR SHALL USE RCP, PVC, PP, OR HDPE PIPES FOR THE MAIN LINES, BU SHALL NOTIFY THE JURISDICTIONAL UTILITY PROVIDER AND THE ENGINEER, PRIOR TO INSTALLATION, FOR APPROVAL. REGARDLESS OF PIPE MATERIAL, ALL STORM SEWER SHALL UTILIZE WATER-TIGHT JOINTS.

7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW. 8. ALL TYPE C & D INLETS SHALL HAVE CLOSE MESH GRATES.

9. ALL LATERAL PIPE-TO-PIPE CONNECTIONS SHALL BE MADE USING KOR-N-TEE

CONNECTORS OR ENGINEER APPROVED EQUIVALENT. 10. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE PROPOSED GRADE.

11. CONTRACTOR SHALL MODIFY INLET BASES AS NEEDED IN ORDER TO ENSURE ALI STORM PIPES CONNECT PROPERLY TO THE INLET. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.

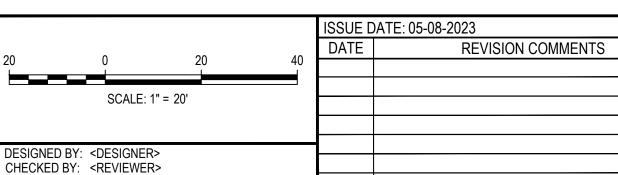
12. CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS, DESIGNED BY A LICENSED ENGINEER, DETAILING THE STRUCTURAL DESIGN OF ALL POND IMPROVEMENTS (FOREBAY, ENERGY DISSIPATING BAFFLES, OUTLET STRUCTURE ETC.) FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.

13. ANY SUBSURFACE DETENTION AND/OR WATER QUALITY SYSTEM DESIGNS SHOWN ON THESE PLANS (IF APPLICABLE) ARE SPECIFICALLY LIMITED TO ELEVATIONS, GRADES AND STORMWATER DETENTION AND/OR WATER QUALITY DESIGN VOLUMES AND RELEASE RATES. THE DESIGN AND PROFESSIONAL ENGINEER'S SEAL SPECIFICALLY EXCLUDES STRUCTURAL DESIGN (INCLUDING, BUT NOT LIMITEI

TO, BUOYANCY CALCULATIONS AND CONSTRUCTION, TRAFFIC, OR OTHER LOADING), DEWATERING, EXCAVATION, SHORING, AND MATERIALS AND BACKFILL SPECIFICATIONS. IF THE PROPOSED SYSTEM UTILIZES A PROPRIETARY AND/OR PRE-MANUFACTURED DETENTION AND/OR WATER QUALITY SYSTEM, THE OWNER OR CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL REQUIRED SYSTEM DESIGN, CALCULATIONS, MATERIALS AND BACKFILL SPECIFICATIONS WITH THE UNDERGROUND DETENTION AND/OR WATER QUALITY SYSTEM MANUFACTURER AND/OR SUPPLIER. CONSTRUCTION OBSERVATION BY THE MANUFACTURER'S REPRESENTATIVE IS ESSENTIAL FOR PROPER INSTALLATION OF UNDERGROUND DETENTION AND/OR WATER QUALITY SYSTEMS. AT A MINIMUM, THE INSTALLATION SHOULD BE INSPECTED BY THE MANUFACTURER'S REPRESENTATIVE DURING CONSTRUCTION AND ANY DEFICIENCIES OF THE INSTALLATION IDENTIFIED BY THE

MANUFACTURER'S INSPECTION SHOULD BE CORRECTED IMMEDIATELY.

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



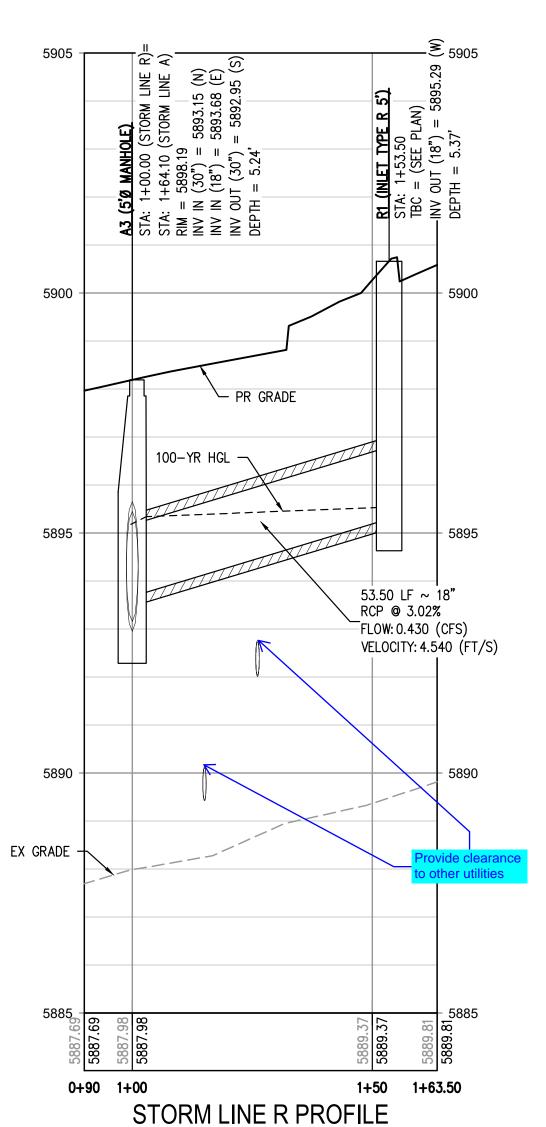




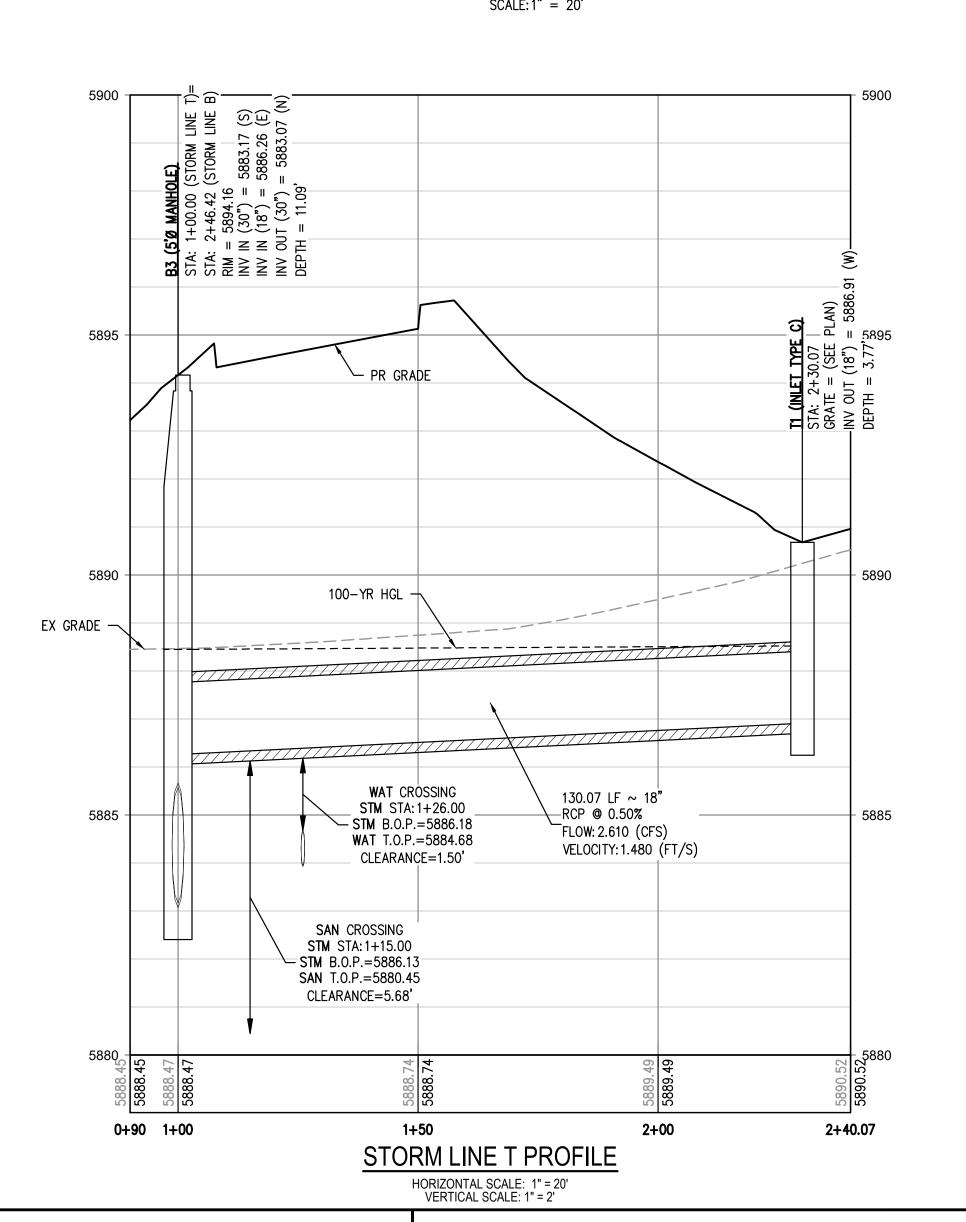
OUTLOOK POWERS & GRINNELL STORM LINE P & Q PLAN & PROFILE

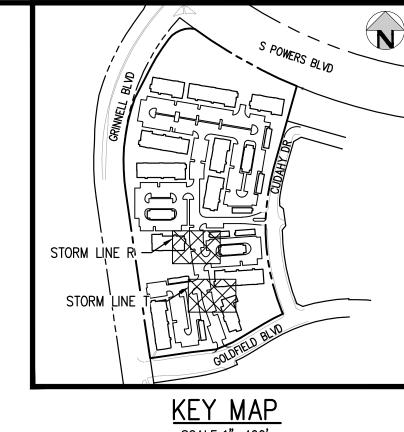


PROJECT #: 221206 SHEET NUMBER



B3 (5'Ø MANHOLE) STA: 1+00.00 (STORM LINE T)= __STA: 2+46.42 (STORM LINE B) 2 130 07 IF 2 18" PCD _N: 1339847.59` T1 (INLET TYPE C) ₹STA: 2+30.07 N: 1339866.42 E: 3223111.12 √STA: 1+38.00 SAN SEWER XING -GAS MAIN XING≠ STA: 1+15.00 STA: 1+32.00 STORM LINE T PLAN





GENERAL STORM NOTES:

FACILITIES.

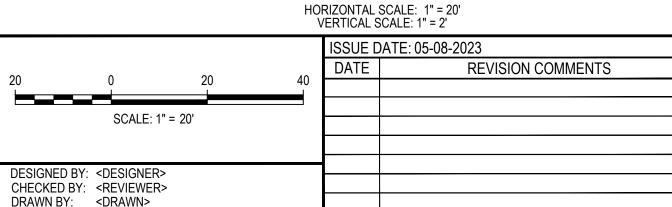
- 1. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
- THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND
- 3. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR CYLINDRICAL MANHOLES AND TO THE INSIDE FACE OF INLETS AND OTHER BOX STRUCTURES. PIPE LENGTHS ARE MEASURED TO THE END OF TH
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- 5. ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE INDICATED.
- 6. CONTRACTOR SHALL USE RCP, PVC, PP, OR HDPE PIPES FOR THE MAIN LINES, BU SHALL NOTIFY THE JURISDICTIONAL UTILITY PROVIDER AND THE ENGINEER, PRIOR TO INSTALLATION, FOR APPROVAL. REGARDLESS OF PIPE MATERIAL, ALL STORM SEWER SHALL UTILIZE WATER-TIGHT JOINTS.
- 7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW.
- 8. ALL TYPE C & D INLETS SHALL HAVE CLOSE MESH GRATES. 9. ALL LATERAL PIPE-TO-PIPE CONNECTIONS SHALL BE MADE USING KOR-N-TEE
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- 10. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE PROPOSED GRADE.
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- 12. CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS, DESIGNED BY A LICENSED ENGINEER, DETAILING THE STRUCTURAL DESIGN OF ALL POND IMPROVEMENTS (FOREBAY, ENERGY DISSIPATING BAFFLES, OUTLET STRUCTURE ETC.) FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.
- 13. ANY SUBSURFACE DETENTION AND/OR WATER QUALITY SYSTEM DESIGNS SHOWN ON THESE PLANS (IF APPLICABLE) ARE SPECIFICALLY LIMITED TO ELEVATIONS, GRADES AND STORMWATER DETENTION AND/OR WATER QUALITY DESIGN VOLUMES AND RELEASE RATES. THE DESIGN AND PROFESSIONAL ENGINEER'S SEAL SPECIFICALLY EXCLUDES STRUCTURAL DESIGN (INCLUDING, BUT NOT LIMITEI

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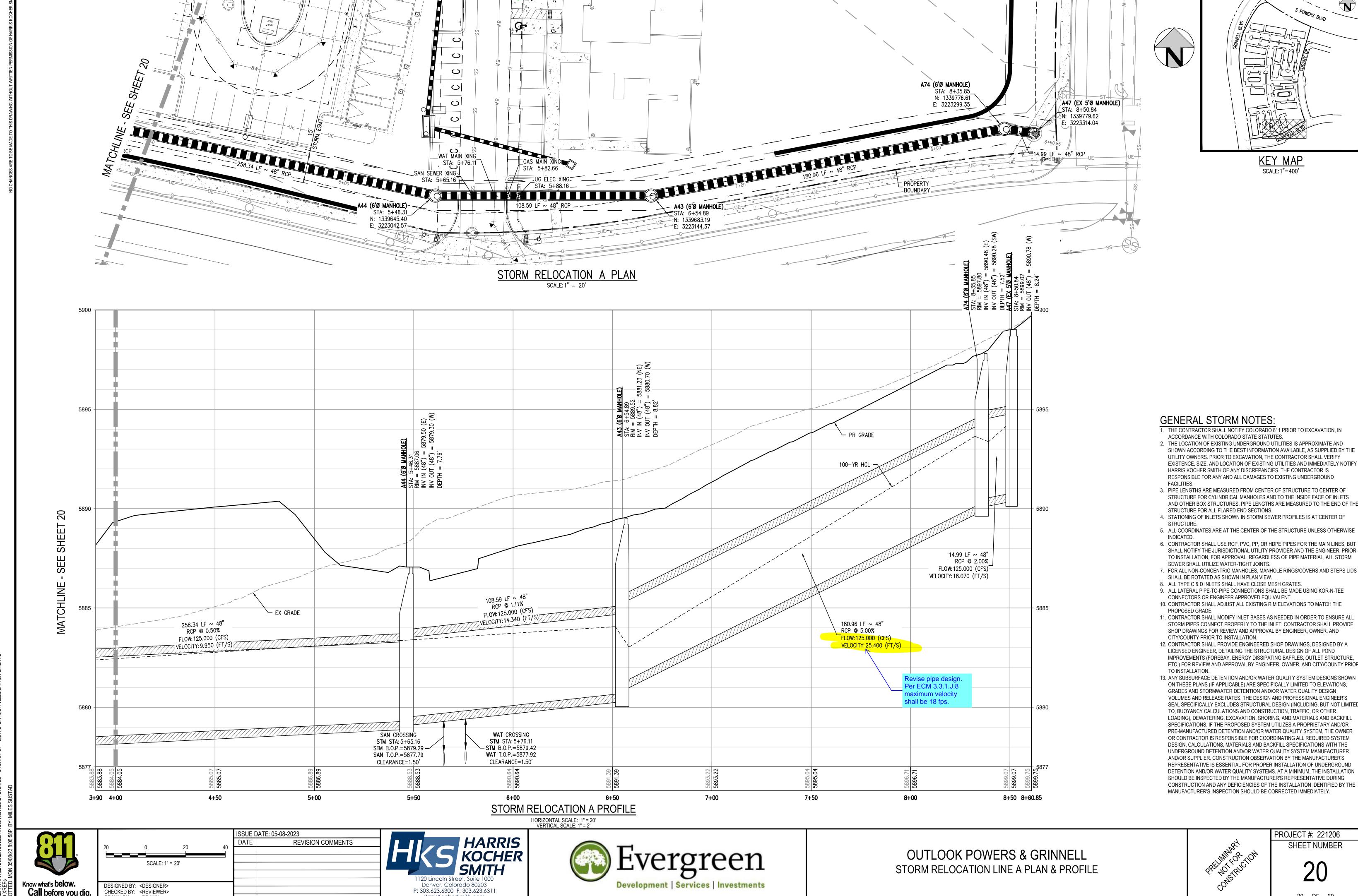




OUTLOOK POWERS & GRINNELL STORM LINE R & T PLAN & PROFILE



PROJECT #: 221206 SHEET NUMBER

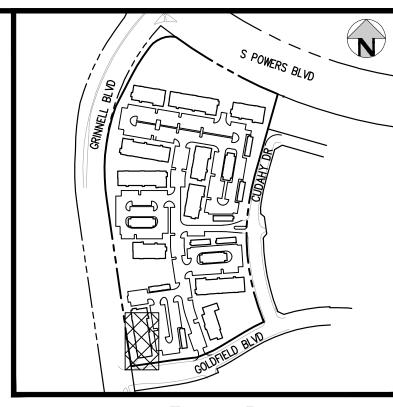


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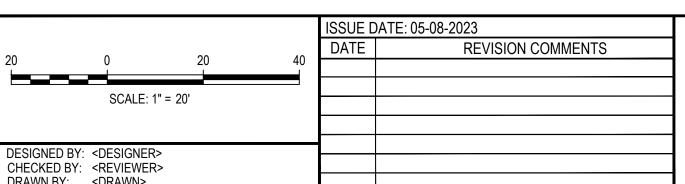


GENERAL STORM NOTES:

FACILITIES.

- I. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN
- HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND
- 3. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR CYLINDRICAL MANHOLES AND TO THE INSIDE FACE OF INLETS AND OTHER BOX STRUCTURES. PIPE LENGTHS ARE MEASURED TO THE END OF TH
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- 6. CONTRACTOR SHALL USE RCP, PVC, PP, OR HDPE PIPES FOR THE MAIN LINES, BU SHALL NOTIFY THE JURISDICTIONAL UTILITY PROVIDER AND THE ENGINEER, PRIOR TO INSTALLATION, FOR APPROVAL. REGARDLESS OF PIPE MATERIAL, ALL STORM SEWER SHALL UTILIZE WATER-TIGHT JOINTS.
- 7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW. 8. ALL TYPE C & D INLETS SHALL HAVE CLOSE MESH GRATES.
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- 10. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE PROPOSED GRADE. 11. CONTRACTOR SHALL MODIFY INLET BASES AS NEEDED IN ORDER TO ENSURE ALI
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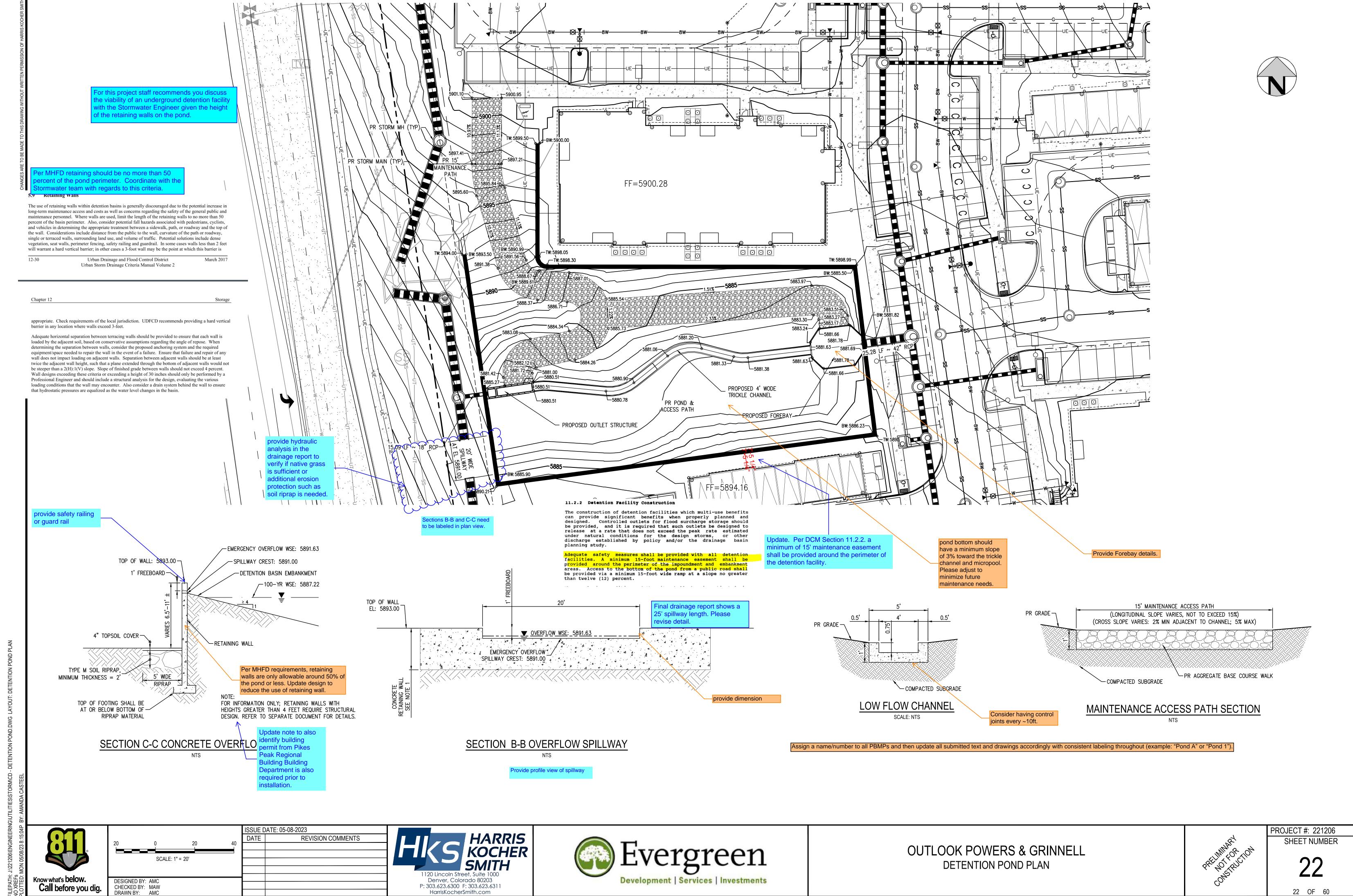




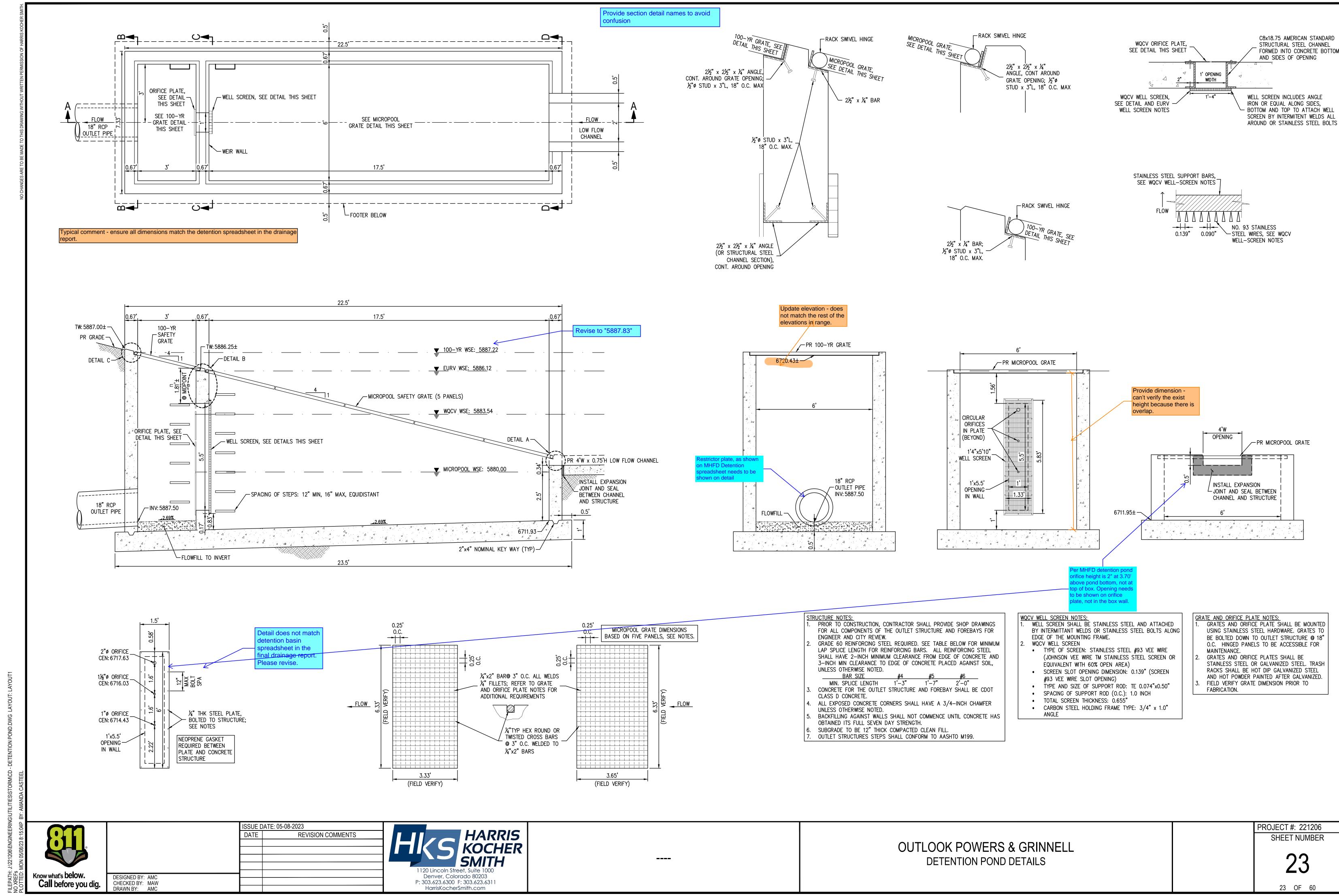


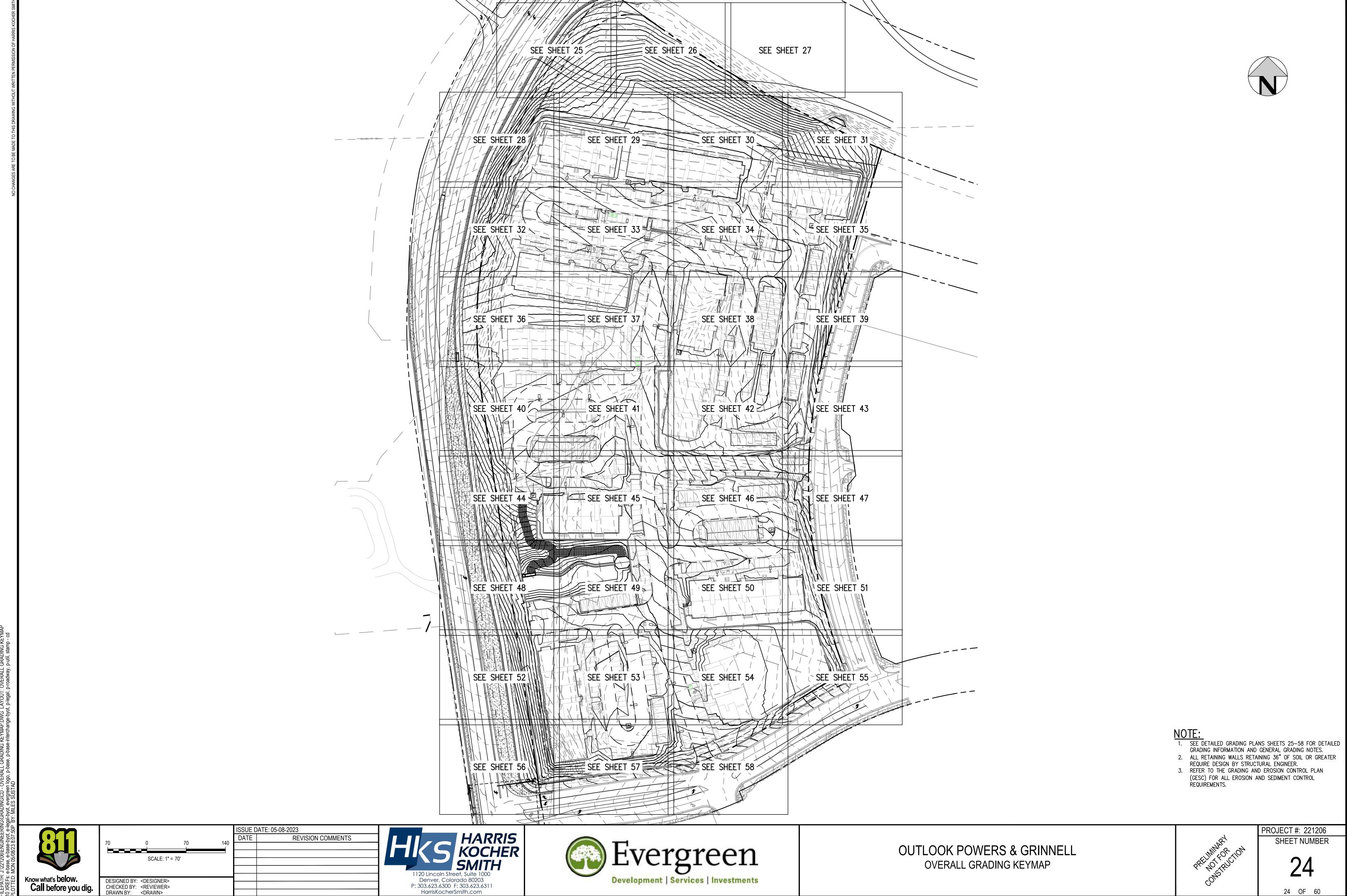


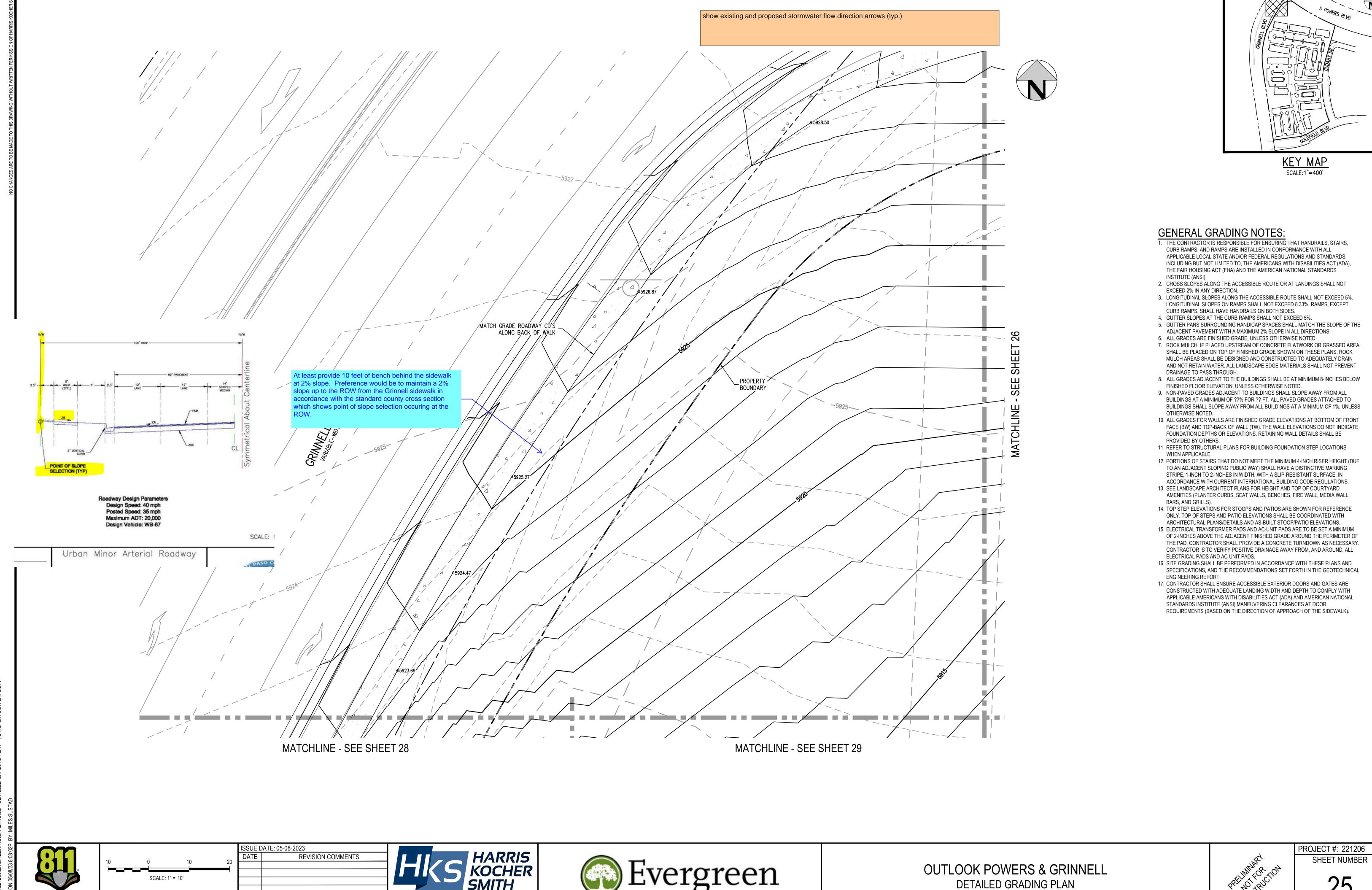
PROJECT #: 221206 SHEET NUMBER



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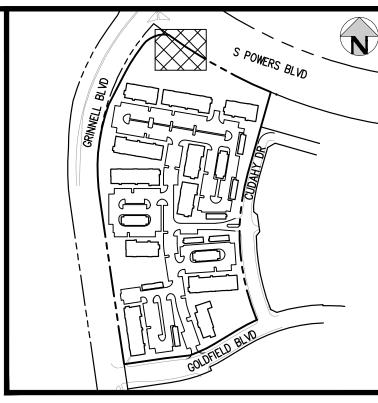
Denver, Colorado 80203

P: 303.623.6300 F: 303.623.6311

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DESIGNED BY: MJS CHECKED BY: RCP DRAWN BY: CLH

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KEY MAI

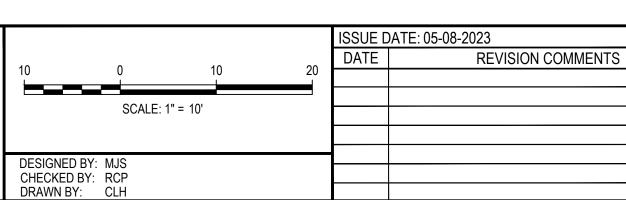
GENERAL GRADING NOTES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT HANDRAILS, STAIRS, CURB RAMPS, AND RAMPS ARE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL STATE AND/OR FEDERAL REGULATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE AMERICANS WITH DISABILITIES ACT (ADA), THE FAIR HOUSING ACT (FHA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
- 2. CROSS SLOPES ALONG THE ACCESSIBLE ROUTE OR AT LANDINGS SHALL NOT EXCEED 2% IN ANY DIRECTION.
- 3. LONGITUDINAL SLOPES ALONG THE ACCESSIBLE ROUTE SHALL NOT EXCEED 5%. LONGITUDINAL SLOPES ON RAMPS SHALL NOT EXCEED 8.33%. RAMPS, EXCEPT CURB RAMPS, SHALL HAVE HANDRAILS ON BOTH SIDES.
- 4. GUTTER SLOPES AT THE CURB RAMPS SHALL NOT EXCEED 5%.
- GUTTER PANS SURROUNDING HANDICAP SPACES SHALL MATCH THE SLOPE OF THE ADJACENT PAVEMENT WITH A MAXIMUM 2% SLOPE IN ALL DIRECTIONS.
 ALL GRADES ARE FINISHED GRADE, UNLESS OTHERWISE NOTED.
- 7. ROCK MULCH, IF PLACED UPSTREAM OF CONCRETE FLATWORK OR GRASSED AREA, SHALL BE PLACED ON TOP OF FINISHED GRADE SHOWN ON THESE PLANS. ROCK MULCH AREAS SHALL BE DESIGNED AND CONSTRUCTED TO ADEQUATELY DRAIN AND NOT RETAIN WATER. ALL LANDSCAPE EDGE MATERIALS SHALL NOT PREVENT DRAINAGE TO PASS THROUGH.
- 8. ALL GRADES ADJACENT TO THE BUILDINGS SHALL BE AT MINIMUM 8-INCHES BELOW FINISHED FLOOR ELEVATION, UNLESS OTHERWISE NOTED.
- 9. NON-PAVED GRADES ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF ??% FOR ??-FT. ALL PAVED GRADES ATTACHED TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF 1%, UNLESS OTHERWISE NOTED.
- 10. ALL GRADES FOR WALLS ARE FINISHED GRADE ELEVATIONS AT BOTTOM OF FRONT FACE (BW) AND TOP-BACK OF WALL (TW). THE WALL ELEVATIONS DO NOT INDICATE FOUNDATION DEPTHS OR ELEVATIONS. RETAINING WALL DETAILS SHALL BE PROVIDED BY OTHERS.
- 11. REFER TO STRUCTURAL PLANS FOR BUILDING FOUNDATION STEP LOCATIONS WHEN APPLICABLE.
- 12. PORTIONS OF STAIRS THAT DO NOT MEET THE MINIMUM 4-INCH RISER HEIGHT (DUE TO AN ADJACENT SLOPING PUBLIC WAY) SHALL HAVE A DISTINCTIVE MARKING STRIPE, 1-INCH TO 2-INCHES IN WIDTH, WITH A SLIP-RESISTANT SURFACE, IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING CODE REGULATIONS.
- 13. SEE LANDSCAPE ARCHITECT PLANS FOR HEIGHT AND TOP OF COURTYARD AMENITIES (PLANTER CURBS, SEAT WALLS, BENCHES, FIRE WALL, MEDIA WALL, BARS, AND GRILLS).
- 14. TOP STEP ELEVATIONS FOR STOOPS AND PATIOS ARE SHOWN FOR REFERENCE ONLY. TOP OF STEPS AND PATIO ELEVATIONS SHALL BE COORDINATED WITH ARCHITECTURAL PLANS/DETAILS AND AS-BUILT STOOP/PATIO ELEVATIONS.
 15. ELECTRICAL TRANSFORMER PADS AND AC-UNIT PADS ARE TO BE SET A MINIMUM
- OF 2-INCHES ABOVE THE ADJACENT FINISHED GRADE AROUND THE PERIMETER OF THE PAD. CONTRACTOR SHALL PROVIDE A CONCRETE TURNDOWN AS NECESSARY. CONTRACTOR IS TO VERIFY POSITIVE DRAINAGE AWAY FROM, AND AROUND, ALL ELECTRICAL PADS AND AC-UNIT PADS.

 16. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND
- SPECIFICATIONS, AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL ENGINEERING REPORT.

 17. CONTRACTOR SHALL ENSURE ACCESSIBLE EXTERIOR DOORS AND GATES ARE
- CONTRACTOR SHALL ENSURE ACCESSIBLE EXTERIOR DOORS AND GATES ARE CONSTRUCTED WITH ADEQUATE LANDING WIDTH AND DEPTH TO COMPLY WITH APPLICABLE AMERICANS WITH DISABILITIES ACT (ADA) AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) MANEUVERING CLEARANCES AT DOOR REQUIREMENTS (BASED ON THE DIRECTION OF APPROACH OF THE SIDEWALK).

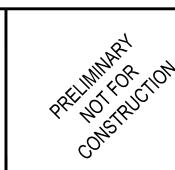
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OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN

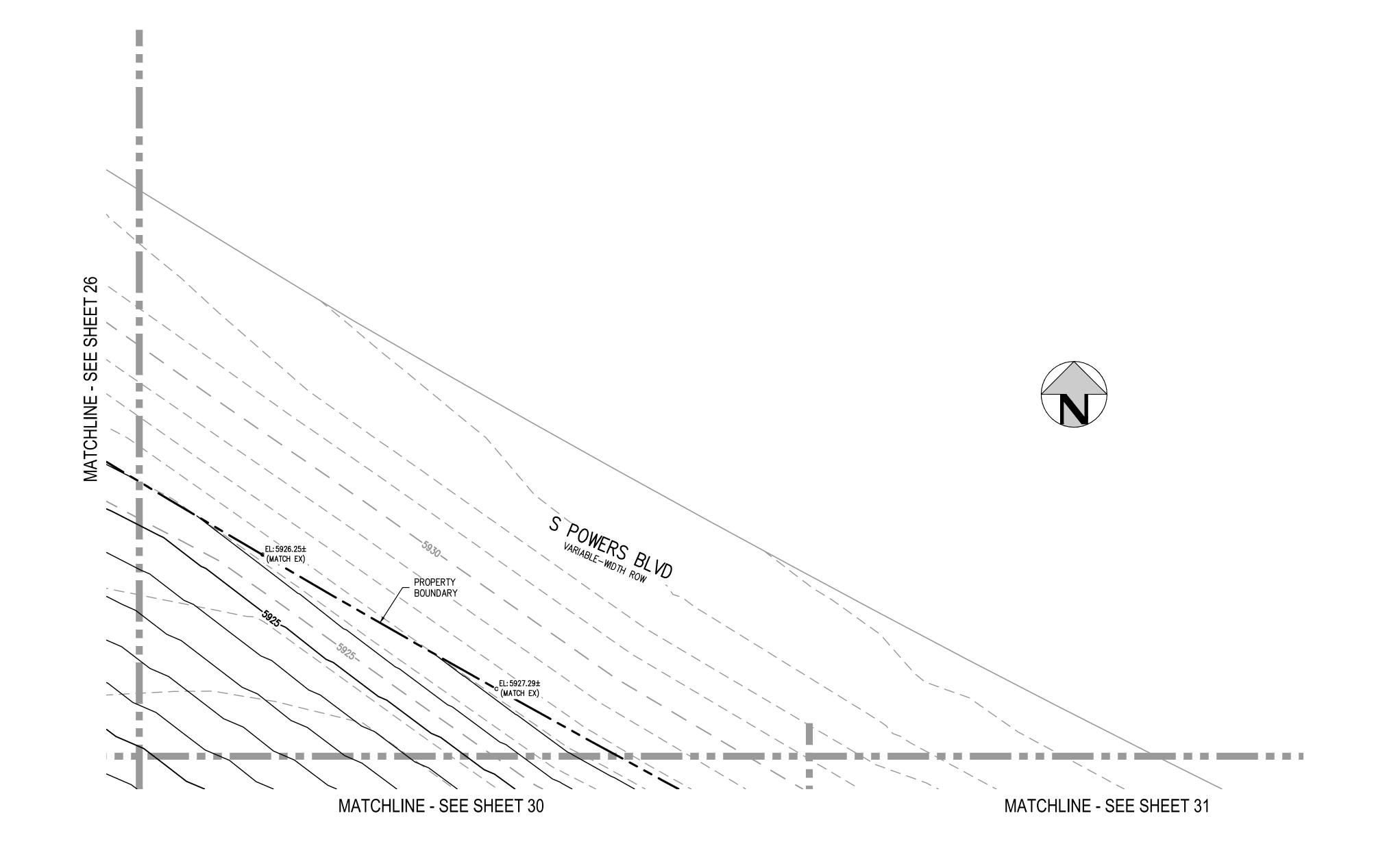


PROJECT #: 221206 SHEET NUMBER

26

GENERAL GRADING NOTES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT HANDRAILS, STAIRS, CURB RAMPS, AND RAMPS ARE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL STATE AND/OR FEDERAL REGULATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE AMERICANS WITH DISABILITIES ACT (ADA), THE FAIR HOUSING ACT (FHA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
- 2. CROSS SLOPES ALONG THE ACCESSIBLE ROUTE OR AT LANDINGS SHALL NOT EXCEED 2% IN ANY DIRECTION.
- LONGITUDINAL SLOPES ALONG THE ACCESSIBLE ROUTE SHALL NOT EXCEED 5%. LONGITUDINAL SLOPES ON RAMPS SHALL NOT EXCEED 8.33%. RAMPS, EXCEPT CURB RAMPS, SHALL HAVE HANDRAILS ON BOTH SIDES.
 GUTTER SLOPES AT THE CURB RAMPS SHALL NOT EXCEED 5%.
- 5. GUTTER PANS SURROUNDING HANDICAP SPACES SHALL MATCH THE SLOPE OF THE ADJACENT PAVEMENT WITH A MAXIMUM 2% SLOPE IN ALL DIRECTIONS.6. ALL GRADES ARE FINISHED GRADE, UNLESS OTHERWISE NOTED.
- 7. ROCK MULCH, IF PLACED UPSTREAM OF CONCRETE FLATWORK OR GRASSED AREA, SHALL BE PLACED ON TOP OF FINISHED GRADE SHOWN ON THESE PLANS. ROCK MULCH AREAS SHALL BE DESIGNED AND CONSTRUCTED TO ADEQUATELY DRAIN AND NOT RETAIN WATER. ALL LANDSCAPE EDGE MATERIALS SHALL NOT PREVENT DRAINAGE TO PASS THROUGH.
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- 11. REFER TO STRUCTURAL PLANS FOR BUILDING FOUNDATION STEP LOCATIONS WHEN APPLICABLE.
- 12. PORTIONS OF STAIRS THAT DO NOT MEET THE MINIMUM 4-INCH RISER HEIGHT (DUE TO AN ADJACENT SLOPING PUBLIC WAY) SHALL HAVE A DISTINCTIVE MARKING STRIPE, 1-INCH TO 2-INCHES IN WIDTH, WITH A SLIP-RESISTANT SURFACE, IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING CODE REGULATIONS.
- 13. SEE LANDSCAPE ARCHITECT PLANS FOR HEIGHT AND TOP OF COURTYARD AMENITIES (PLANTER CURBS, SEAT WALLS, BENCHES, FIRE WALL, MEDIA WALL, BARS, AND GRILLS).
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- 16. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL ENGINEERING REPORT.
- 17. CONTRACTOR SHALL ENSURE ACCESSIBLE EXTERIOR DOORS AND GATES ARE CONSTRUCTED WITH ADEQUATE LANDING WIDTH AND DEPTH TO COMPLY WITH APPLICABLE AMERICANS WITH DISABILITIES ACT (ADA) AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) MANEUVERING CLEARANCES AT DOOR REQUIREMENTS (BASED ON THE DIRECTION OF APPROACH OF THE SIDEWALK).



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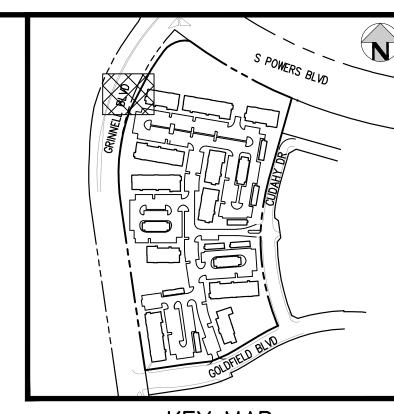




OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN

PREIMINARY CONSTRUCTO PROJECT #: 221206 SHEET NUMBER

27



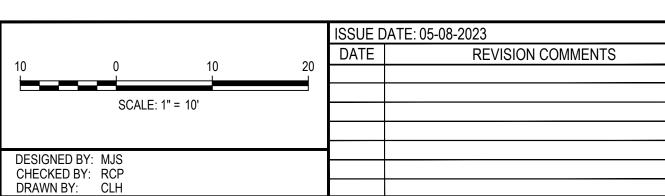
KEY MAF

GENERAL GRADING NOTES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT HANDRAILS, STAIRS, CURB RAMPS, AND RAMPS ARE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL STATE AND/OR FEDERAL REGULATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE AMERICANS WITH DISABILITIES ACT (ADA), THE FAIR HOUSING ACT (FHA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
- 2. CROSS SLOPES ALONG THE ACCESSIBLE ROUTE OR AT LANDINGS SHALL NOT EXCEED 2% IN ANY DIRECTION.
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- GUTTER SLOPES AT THE CURB RAMPS SHALL NOT EXCEED 5%.
 GUTTER PANS SURROUNDING HANDICAP SPACES SHALL MATCH THE SLOPE OF THE ADJACENT DAYSMENT WITH A MAXIMUM 20% SLOPE IN ALL DIRECTIONS.
- ADJACENT PAVEMENT WITH A MAXIMUM 2% SLOPE IN ALL DIRECTIONS.

 6. ALL GRADES ARE FINISHED GRADE, UNLESS OTHERWISE NOTED.
- 7. ROCK MULCH, IF PLACED UPSTREAM OF CONCRETE FLATWORK OR GRASSED AREA, SHALL BE PLACED ON TOP OF FINISHED GRADE SHOWN ON THESE PLANS. ROCK MULCH AREAS SHALL BE DESIGNED AND CONSTRUCTED TO ADEQUATELY DRAIN AND NOT RETAIN WATER. ALL LANDSCAPE EDGE MATERIALS SHALL NOT PREVENT DRAINAGE TO PASS THROUGH.
- 8. ALL GRADES ADJACENT TO THE BUILDINGS SHALL BE AT MINIMUM 8-INCHES BELOW FINISHED FLOOR ELEVATION, UNLESS OTHERWISE NOTED.
- 9. NON-PAVED GRADES ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF ??% FOR ??-FT. ALL PAVED GRADES ATTACHED TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF 1%, UNLESS OTHERWISE NOTED.
- 10. ALL GRADES FOR WALLS ARE FINISHED GRADE ELEVATIONS AT BOTTOM OF FRONT FACE (BW) AND TOP-BACK OF WALL (TW). THE WALL ELEVATIONS DO NOT INDICATE FOUNDATION DEPTHS OR ELEVATIONS. RETAINING WALL DETAILS SHALL BE PROVIDED BY OTHERS.
- 11. REFER TO STRUCTURAL PLANS FOR BUILDING FOUNDATION STEP LOCATIONS WHEN APPLICABLE.
- 12. PORTIONS OF STAIRS THAT DO NOT MEET THE MINIMUM 4-INCH RISER HEIGHT (DUE TO AN ADJACENT SLOPING PUBLIC WAY) SHALL HAVE A DISTINCTIVE MARKING STRIPE, 1-INCH TO 2-INCHES IN WIDTH, WITH A SLIP-RESISTANT SURFACE, IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING CODE REGULATIONS.
- 13. SEE LANDSCAPE ARCHITECT PLANS FOR HEIGHT AND TOP OF COURTYARD AMENITIES (PLANTER CURBS, SEAT WALLS, BENCHES, FIRE WALL, MEDIA WALL, BARS, AND GRILLS).
- 14. TOP STEP ELEVATIONS FOR STOOPS AND PATIOS ARE SHOWN FOR REFERENCE ONLY. TOP OF STEPS AND PATIO ELEVATIONS SHALL BE COORDINATED WITH ARCHITECTURAL PLANS/DETAILS AND AS-BUILT STOOP/PATIO ELEVATIONS.
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- 16. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS, AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL ENGINEERING REPORT.
- 17. CONTRACTOR SHALL ENSURE ACCESSIBLE EXTERIOR DOORS AND GATES ARE CONSTRUCTED WITH ADEQUATE LANDING WIDTH AND DEPTH TO COMPLY WITH APPLICABLE AMERICANS WITH DISABILITIES ACT (ADA) AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) MANEUVERING CLEARANCES AT DOOR REQUIREMENTS (BASED ON THE DIRECTION OF APPROACH OF THE SIDEWALK).

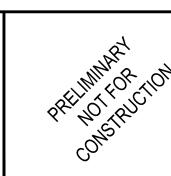






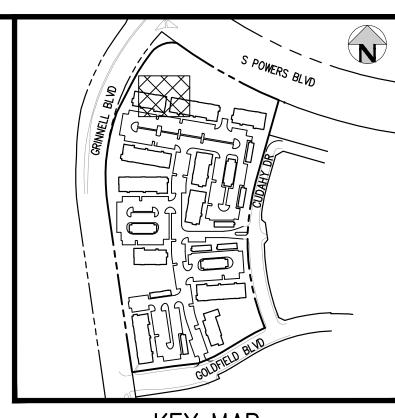


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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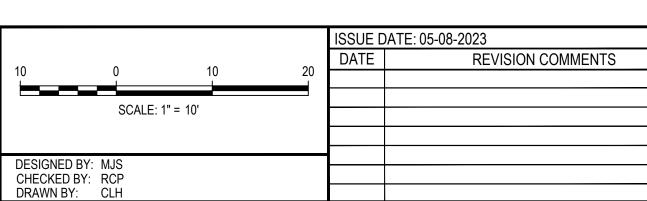


KEY MAF

GENERAL GRADING NOTES:

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- 2. CROSS SLOPES ALONG THE ACCESSIBLE ROUTE OR AT LANDINGS SHALL NOT EXCEED 2% IN ANY DIRECTION.
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- 7. ROCK MULCH, IF PLACED UPSTREAM OF CONCRETE FLATWORK OR GRASSED AREA, SHALL BE PLACED ON TOP OF FINISHED GRADE SHOWN ON THESE PLANS. ROCK MULCH AREAS SHALL BE DESIGNED AND CONSTRUCTED TO ADEQUATELY DRAIN AND NOT RETAIN WATER. ALL LANDSCAPE EDGE MATERIALS SHALL NOT PREVENT DRAINAGE TO PASS THROUGH.
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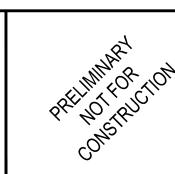






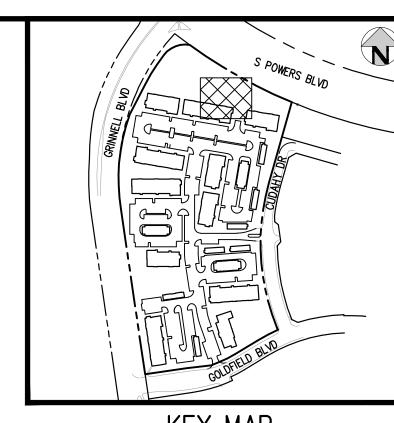


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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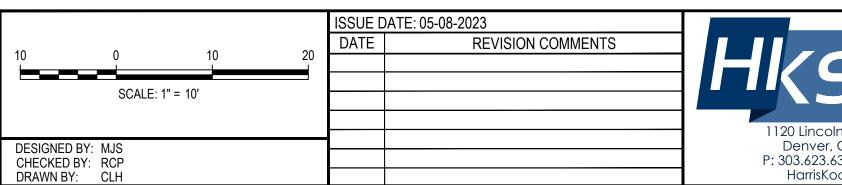


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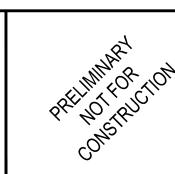






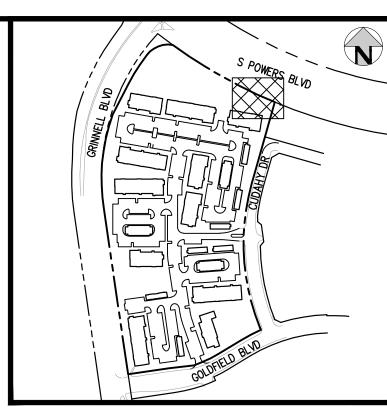


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

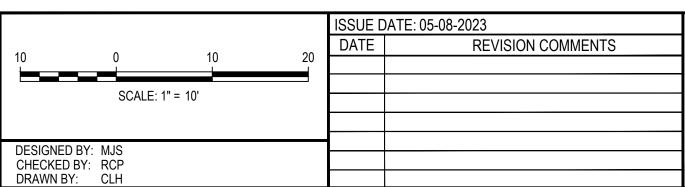
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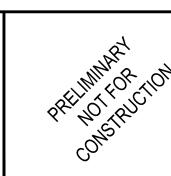






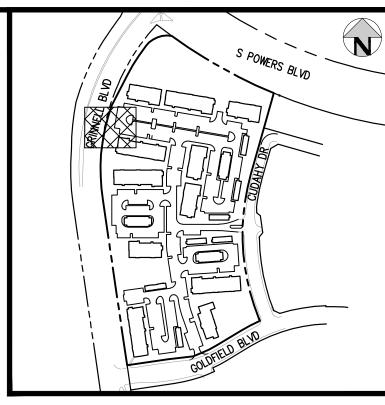


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

MATCHLINE - SEE SHEET 28



KEY MAP

GENERAL GRADING NOTES:

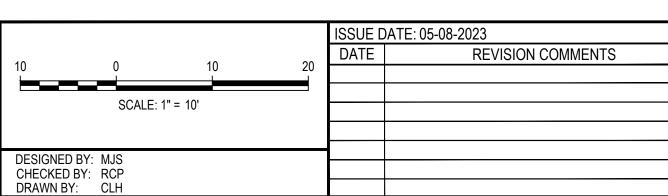
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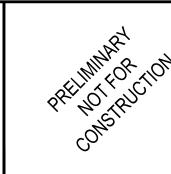








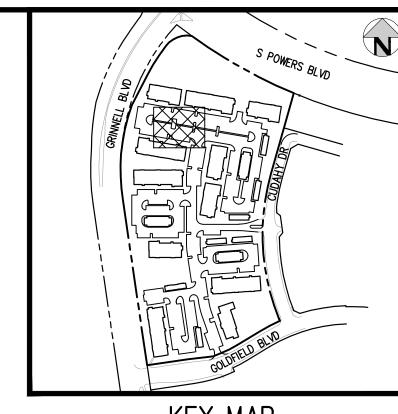
OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



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MATCHLINE - SEE SHEET 29



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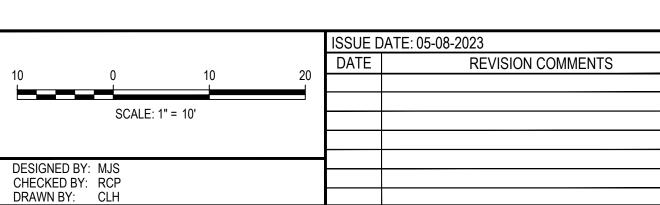
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Know what's below.
Call before you dig.



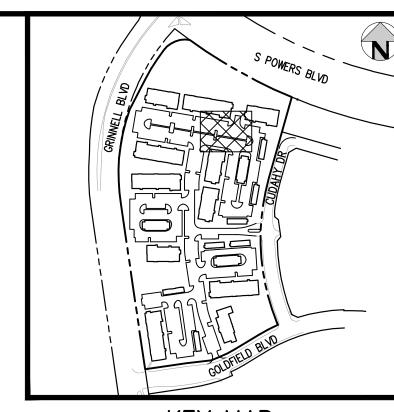




OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN

PRELIMINARY CONSTRUCTOR PROJECT #: 221206 SHEET NUMBER

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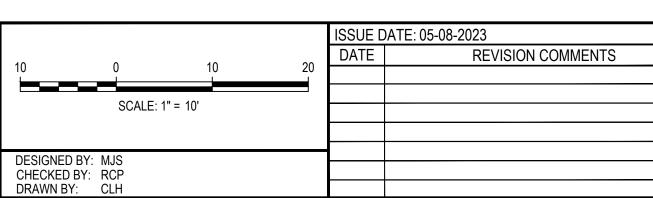


KEY MAF

GENERAL GRADING NOTES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT HANDRAILS, STAIRS, CURB RAMPS, AND RAMPS ARE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL STATE AND/OR FEDERAL REGULATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE AMERICANS WITH DISABILITIES ACT (ADA), THE FAIR HOUSING ACT (FHA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
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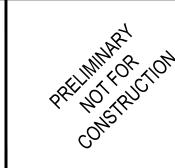
Know what's below.
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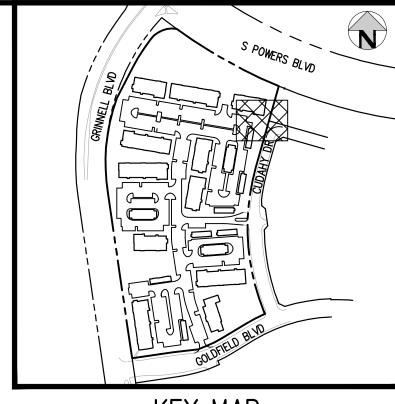


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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KEY MAP

GENERAL GRADING NOTES:

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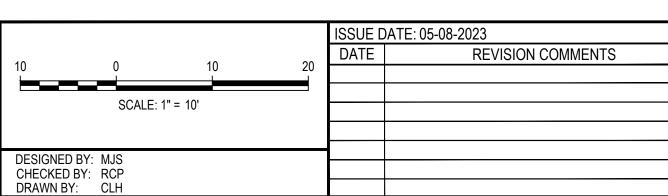
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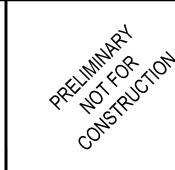






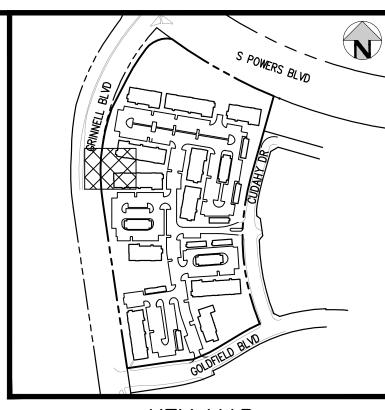


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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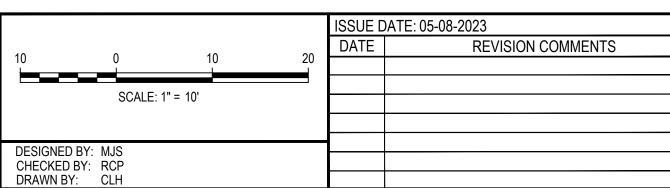
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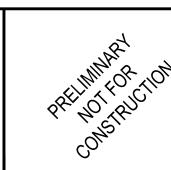






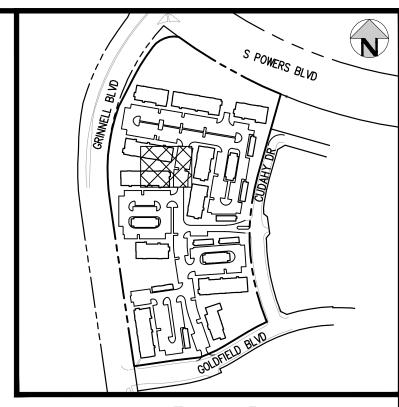


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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KEY MAF

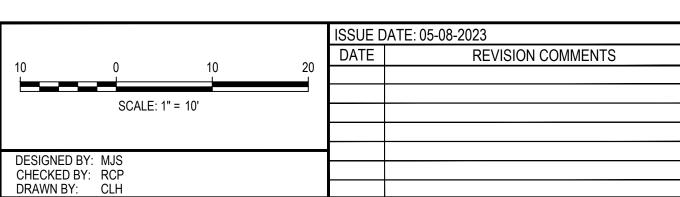
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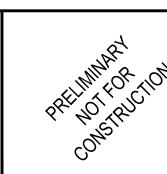






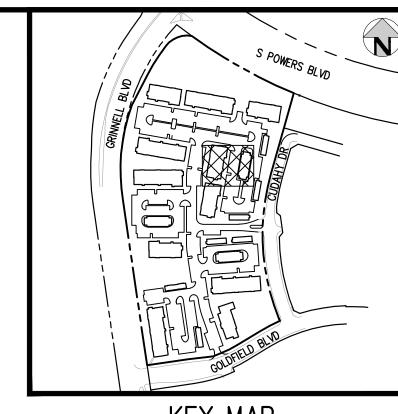


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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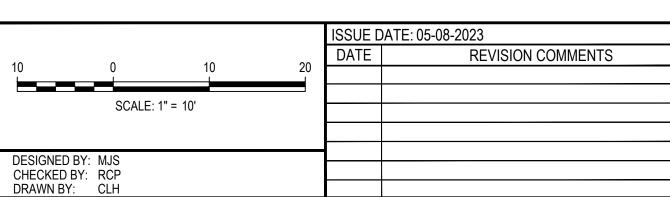


KEY MAP

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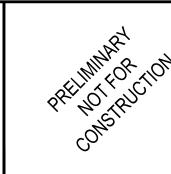








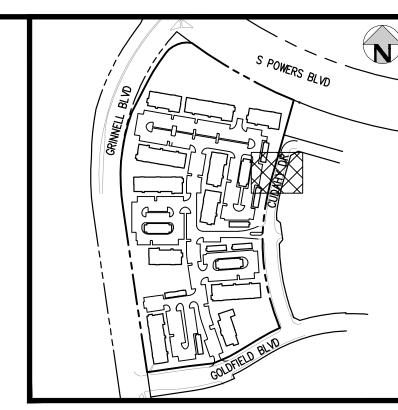
OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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MATCHLINE - SEE SHEET 35

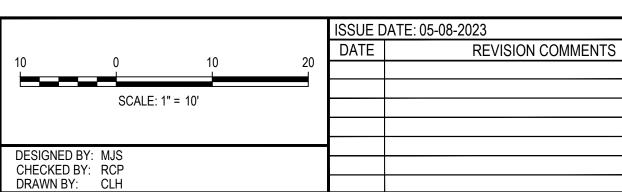


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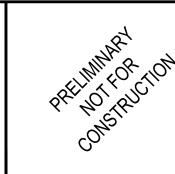
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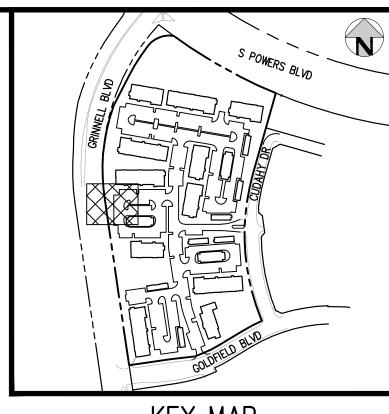


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

39



KEY MAP

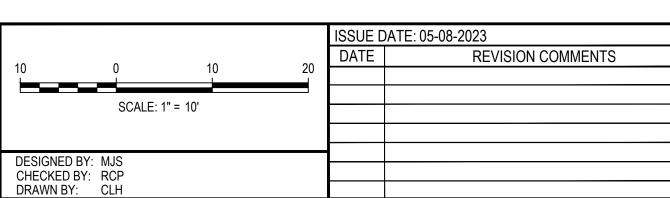
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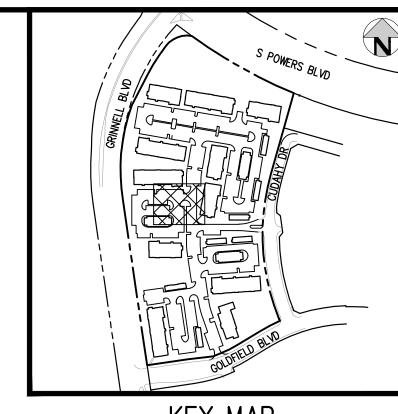


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN

PREIMMARY CONSTRUCTO PROJECT #: 221206 SHEET NUMBER

40

MATCHLINE - SEE SHEET 37



KEY MAF

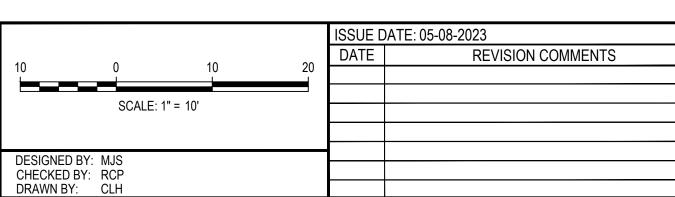
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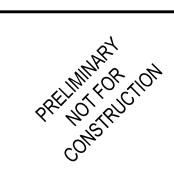






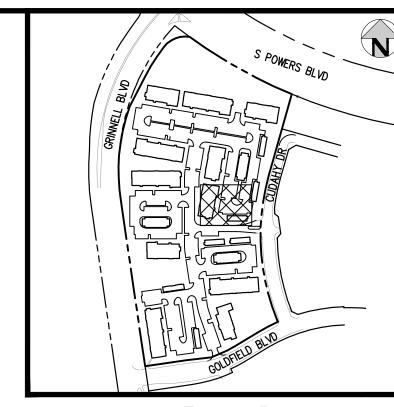


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

41



KEY MAF

GENERAL GRADING NOTES:

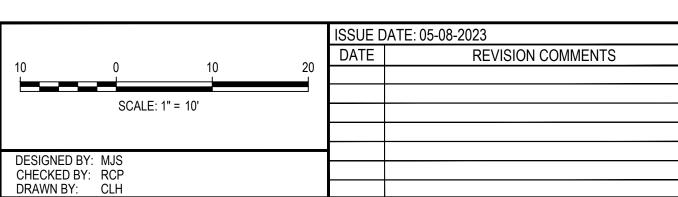
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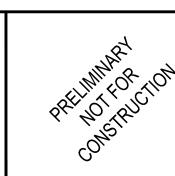






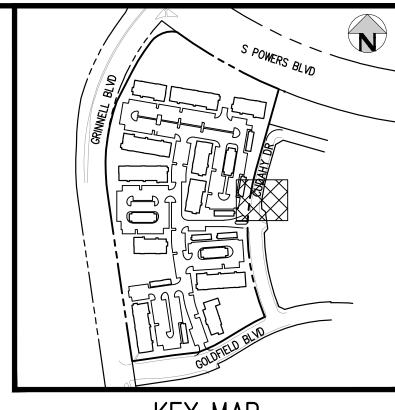


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

42

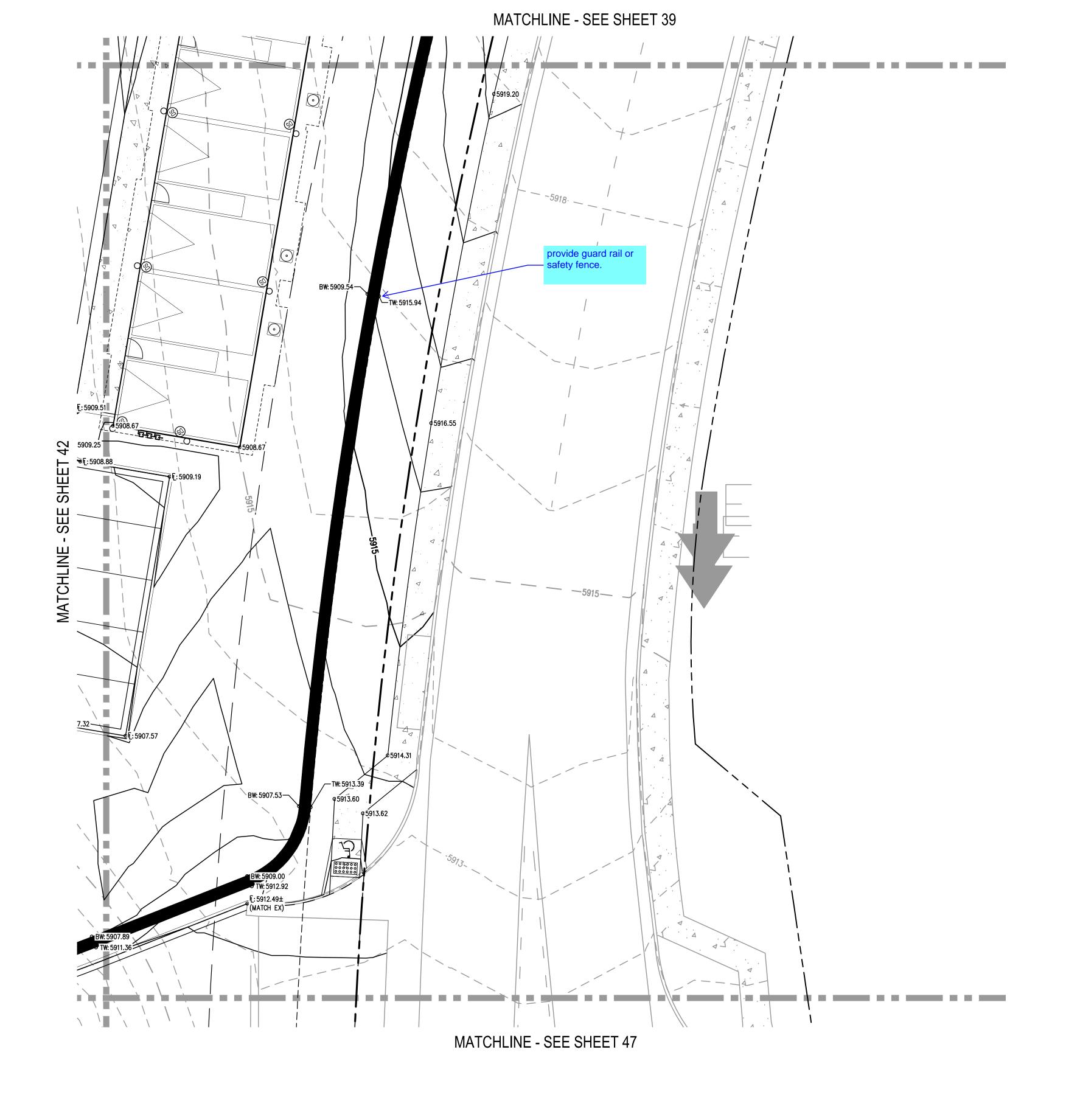


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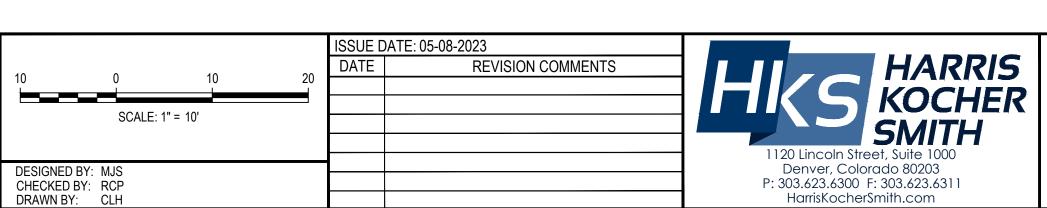
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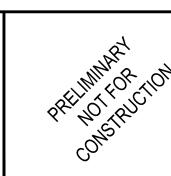


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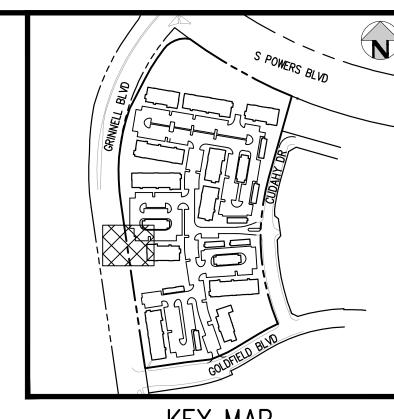


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

43



KEY MAF

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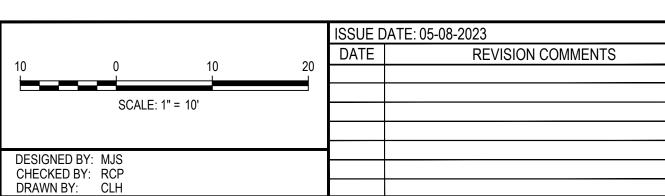
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- OF 2-INCHES ABOVE THE ADJACENT FINISHED GRADE AROUND THE PERIMETER OF THE PAD. CONTRACTOR SHALL PROVIDE A CONCRETE TURNDOWN AS NECESSARY. CONTRACTOR IS TO VERIFY POSITIVE DRAINAGE AWAY FROM, AND AROUND, ALL ELECTRICAL PADS AND AC-UNIT PADS.

 16. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND
- SPECIFICATIONS, AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL ENGINEERING REPORT.

 17. CONTRACTOR SHALL ENSURE ACCESSIBLE EXTERIOR DOORS AND GATES ARE
- 17. CONTRACTOR SHALL ENSURE ACCESSIBLE EXTERIOR DOORS AND GATES ARE CONSTRUCTED WITH ADEQUATE LANDING WIDTH AND DEPTH TO COMPLY WITH APPLICABLE AMERICANS WITH DISABILITIES ACT (ADA) AND AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI) MANEUVERING CLEARANCES AT DOOR REQUIREMENTS (BASED ON THE DIRECTION OF APPROACH OF THE SIDEWALK).









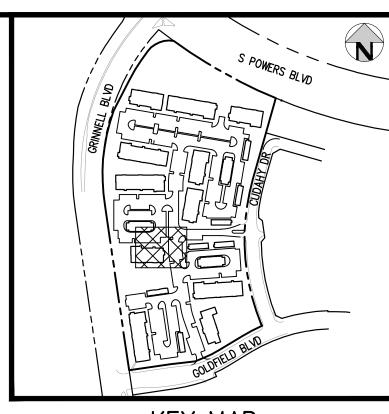
OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

44

MATCHLINE - SEE SHEET 41

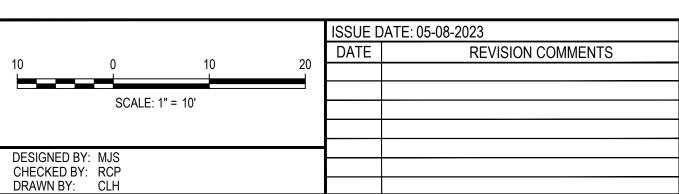


KEY MAF

GENERAL GRADING NOTES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT HANDRAILS, STAIRS, CURB RAMPS, AND RAMPS ARE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL STATE AND/OR FEDERAL REGULATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE AMERICANS WITH DISABILITIES ACT (ADA), THE FAIR HOUSING ACT (FHA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
- 2. CROSS SLOPES ALONG THE ACCESSIBLE ROUTE OR AT LANDINGS SHALL NOT EXCEED 2% IN ANY DIRECTION.
- 3. LONGITUDINAL SLOPES ALONG THE ACCESSIBLE ROUTE SHALL NOT EXCEED 5%. LONGITUDINAL SLOPES ON RAMPS SHALL NOT EXCEED 8.33%. RAMPS, EXCEPT CURB RAMPS, SHALL HAVE HANDRAILS ON BOTH SIDES.
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 GUTTER PANS SURROUNDING HANDICAP SPACES SHALL MATCH THE SLOPE OF THE ADJACENT PAVEMENT WITH A MAXIMUM 2% SLOPE IN ALL DIRECTIONS.
- 6. ALL GRADES ARE FINISHED GRADE, UNLESS OTHERWISE NOTED.

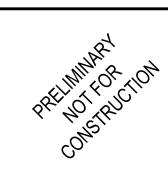
 7. ROCK MULCH, IF PLACED UPSTREAM OF CONCRETE FLATWORK OR GRASSED AREA, SHALL BE DIACED ON TOP OF FINISHED CRADE SHOWN ON THESE DIAMS. BOCK
- SHALL BE PLACED ON TOP OF FINISHED GRADE SHOWN ON THESE PLANS. ROCK MULCH AREAS SHALL BE DESIGNED AND CONSTRUCTED TO ADEQUATELY DRAIN AND NOT RETAIN WATER. ALL LANDSCAPE EDGE MATERIALS SHALL NOT PREVENT DRAINAGE TO PASS THROUGH.
- 8. ALL GRADES ADJACENT TO THE BUILDINGS SHALL BE AT MINIMUM 8-INCHES BELOW FINISHED FLOOR ELEVATION, UNLESS OTHERWISE NOTED.
- 9. NON-PAVED GRADES ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF ??% FOR ??-FT. ALL PAVED GRADES ATTACHED TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF 1%, UNLESS OTHERWISE NOTED.
- 10. ALL GRADES FOR WALLS ARE FINISHED GRADE ELEVATIONS AT BOTTOM OF FRONT FACE (BW) AND TOP-BACK OF WALL (TW). THE WALL ELEVATIONS DO NOT INDICATE FOUNDATION DEPTHS OR ELEVATIONS. RETAINING WALL DETAILS SHALL BE PROVIDED BY OTHERS.
- 11. REFER TO STRUCTURAL PLANS FOR BUILDING FOUNDATION STEP LOCATIONS WHEN APPLICABLE.
- 12. PORTIONS OF STAIRS THAT DO NOT MEET THE MINIMUM 4-INCH RISER HEIGHT (DUE TO AN ADJACENT SLOPING PUBLIC WAY) SHALL HAVE A DISTINCTIVE MARKING STRIPE, 1-INCH TO 2-INCHES IN WIDTH, WITH A SLIP-RESISTANT SURFACE, IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING CODE REGULATIONS.
- 13. SEE LANDSCAPE ARCHITECT PLANS FOR HEIGHT AND TOP OF COURTYARD AMENITIES (PLANTER CURBS, SEAT WALLS, BENCHES, FIRE WALL, MEDIA WALL BARS, AND GRILLS).
- 14. TOP STEP ELEVATIONS FOR STOOPS AND PATIOS ARE SHOWN FOR REFERENCE ONLY. TOP OF STEPS AND PATIO ELEVATIONS SHALL BE COORDINATED WITH ARCHITECTURAL PLANS/DETAILS AND AS-BUILT STOOP/PATIO ELEVATIONS.
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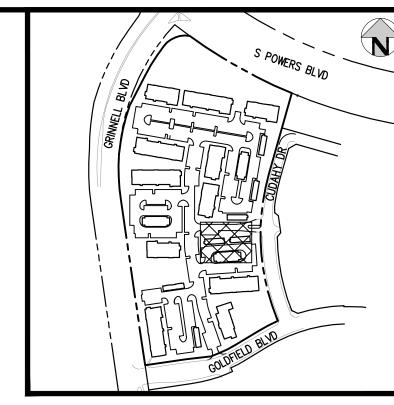
OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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MATCHLINE - SEE SHEET 42

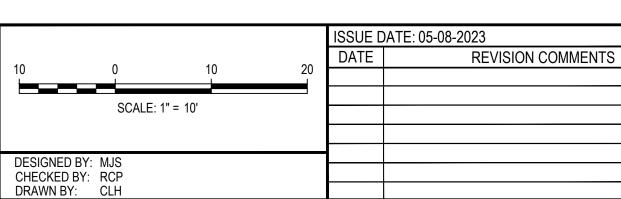


KEY MAF

GENERAL GRADING NOTES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT HANDRAILS, STAIRS, CURB RAMPS, AND RAMPS ARE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL STATE AND/OR FEDERAL REGULATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE AMERICANS WITH DISABILITIES ACT (ADA), THE FAIR HOUSING ACT (FHA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
- 2. CROSS SLOPES ALONG THE ACCESSIBLE ROUTE OR AT LANDINGS SHALL NOT EXCEED 2% IN ANY DIRECTION.
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- 4. GUTTER SLOPES AT THE CURB RAMPS SHALL NOT EXCEED 5%.
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 ALL GRADES ARE FINISHED GRADE, UNLESS OTHERWISE NOTED.
- 7. ROCK MULCH, IF PLACED UPSTREAM OF CONCRETE FLATWORK OR GRASSED AREA, SHALL BE PLACED ON TOP OF FINISHED GRADE SHOWN ON THESE PLANS. ROCK MULCH AREAS SHALL BE DESIGNED AND CONSTRUCTED TO ADEQUATELY DRAIN AND NOT RETAIN WATER. ALL LANDSCAPE EDGE MATERIALS SHALL NOT PREVENT DRAINAGE TO PASS THROUGH.
- 8. ALL GRADES ADJACENT TO THE BUILDINGS SHALL BE AT MINIMUM 8-INCHES BELOW FINISHED FLOOR ELEVATION, UNLESS OTHERWISE NOTED.
- 9. NON-PAVED GRADES ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF ??% FOR ??-FT. ALL PAVED GRADES ATTACHED TO BUILDINGS SHALL SLOPE AWAY FROM ALL BUILDINGS AT A MINIMUM OF 1%, UNLESS OTHERWISE NOTED.
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- 12. PORTIONS OF STAIRS THAT DO NOT MEET THE MINIMUM 4-INCH RISER HEIGHT (DUE TO AN ADJACENT SLOPING PUBLIC WAY) SHALL HAVE A DISTINCTIVE MARKING STRIPE, 1-INCH TO 2-INCHES IN WIDTH, WITH A SLIP-RESISTANT SURFACE, IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING CODE REGULATIONS.
- 13. SEE LANDSCAPE ARCHITECT PLANS FOR HEIGHT AND TOP OF COURTYARD AMENITIES (PLANTER CURBS, SEAT WALLS, BENCHES, FIRE WALL, MEDIA WALL, BARS, AND GRILLS).
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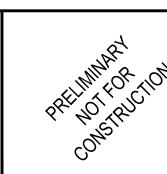






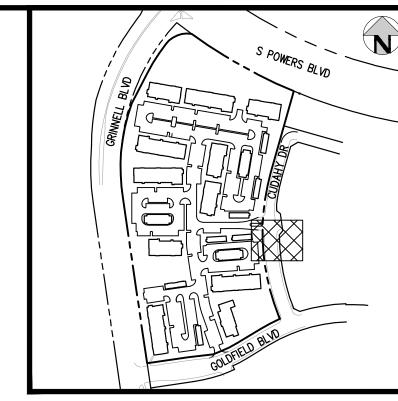


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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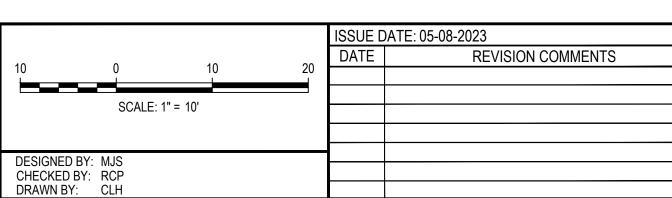
KEY MAF

GENERAL GRADING NOTES:

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 ALL GRADES FOR WALLS ARE FINISHED GRADE ELEVATIONS AT BOTTOM OF FRONT
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- 13. SEE LANDSCAPE ARCHITECT PLANS FOR HEIGHT AND TOP OF COURTYARD AMENITIES (PLANTER CURBS, SEAT WALLS, BENCHES, FIRE WALL, MEDIA WALL, BARS, AND GRILLS).
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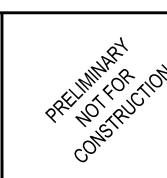




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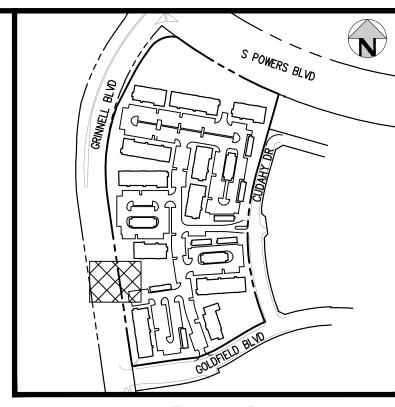


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

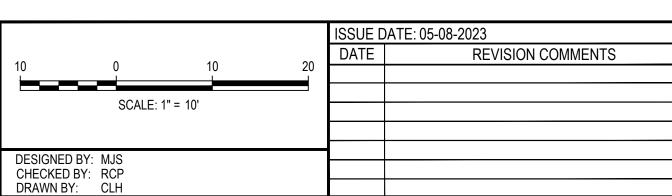
47



GENERAL GRADING NOTES:

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- 5. GUTTER PANS SURROUNDING HANDICAP SPACES SHALL MATCH THE SLOPE OF THE ADJACENT PAVEMENT WITH A MAXIMUM 2% SLOPE IN ALL DIRECTIONS. 6. ALL GRADES ARE FINISHED GRADE, UNLESS OTHERWISE NOTED.
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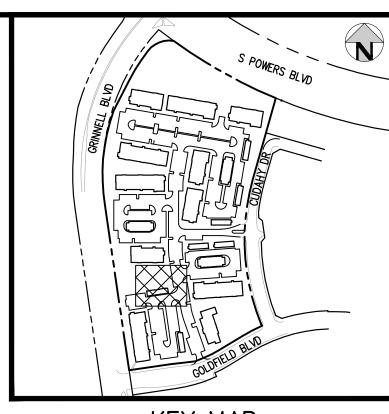






OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN

PROJECT #: 221206 SHEET NUMBER

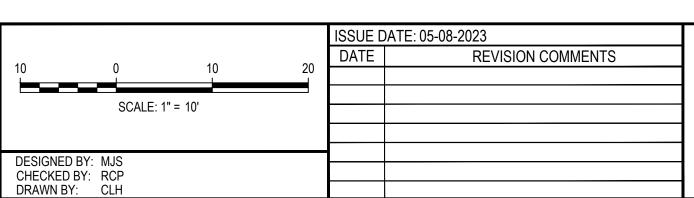


KEY MAP

GENERAL GRADING NOTES:

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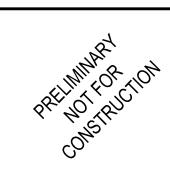






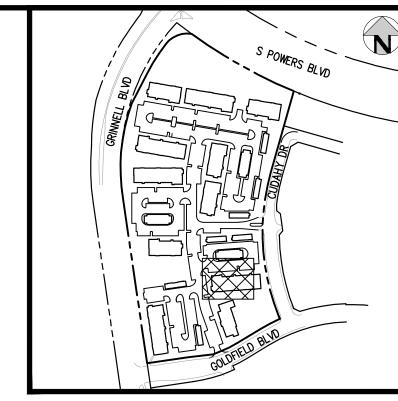


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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KEY MAP

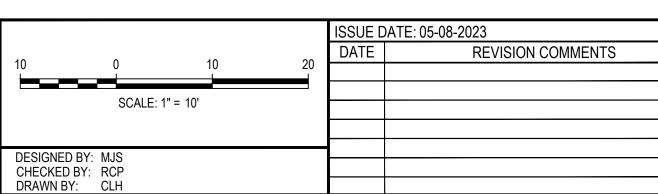
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- GUTTER SLOPES AT THE CURB RAMPS SHALL NOT EXCEED 5%.
 GUTTER PANS SURROUNDING HANDICAP SPACES SHALL MATCH THE SLOPE OF THE ADJACENT DAYEMENT WITH A MAXIMUM 3% SLOPE IN ALL DIRECTIONS.
- ADJACENT PAVEMENT WITH A MAXIMUM 2% SLOPE IN ALL DIRECTIONS.

 6. ALL GRADES ARE FINISHED GRADE, UNLESS OTHERWISE NOTED.

 7. ROCK MULCH, IF PLACED UPSTREAM OF CONCRETE FLATWORK OR GRASSED AREA,
- SHALL BE PLACED ON TOP OF FINISHED GRADE SHOWN ON THESE PLANS. ROCK MULCH AREAS SHALL BE DESIGNED AND CONSTRUCTED TO ADEQUATELY DRAIN AND NOT RETAIN WATER. ALL LANDSCAPE EDGE MATERIALS SHALL NOT PREVENT DRAINAGE TO PASS THROUGH.
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- 11. REFER TO STRUCTURAL PLANS FOR BUILDING FOUNDATION STEP LOCATIONS WHEN APPLICABLE.
- 12. PORTIONS OF STAIRS THAT DO NOT MEET THE MINIMUM 4-INCH RISER HEIGHT (DUE TO AN ADJACENT SLOPING PUBLIC WAY) SHALL HAVE A DISTINCTIVE MARKING STRIPE, 1-INCH TO 2-INCHES IN WIDTH, WITH A SLIP-RESISTANT SURFACE, IN ACCORDANCE WITH CURRENT INTERNATIONAL BUILDING CODE REGULATIONS.
- 13. SEE LANDSCAPE ARCHITECT PLANS FOR HEIGHT AND TOP OF COURTYARD AMENITIES (PLANTER CURBS, SEAT WALLS, BENCHES, FIRE WALL, MEDIA WALL, BARS, AND GRILLS).
- 14. TOP STEP ELEVATIONS FOR STOOPS AND PATIOS ARE SHOWN FOR REFERENCE ONLY. TOP OF STEPS AND PATIO ELEVATIONS SHALL BE COORDINATED WITH ARCHITECTURAL PLANS/DETAILS AND AS-BUILT STOOP/PATIO ELEVATIONS.
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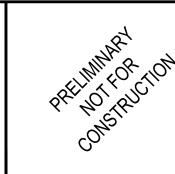








OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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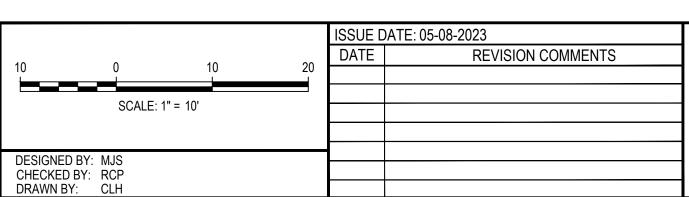
S POWERS BLVD

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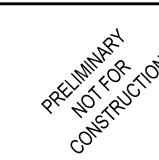
Call before you dig.



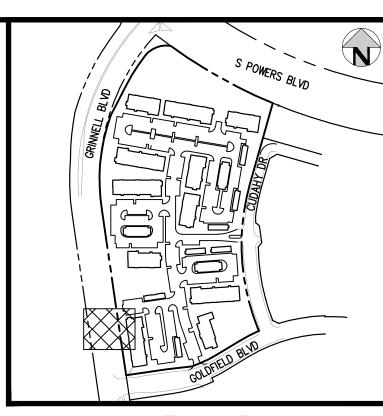




OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER



KEY MAF

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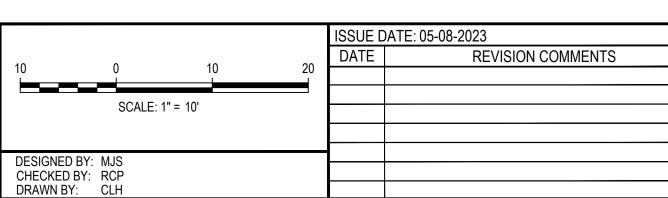
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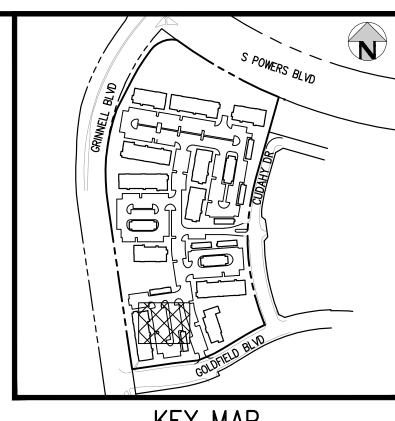




OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN

PREIMMARY CONSTRUCTO PROJECT #: 221206 SHEET NUMBER

52



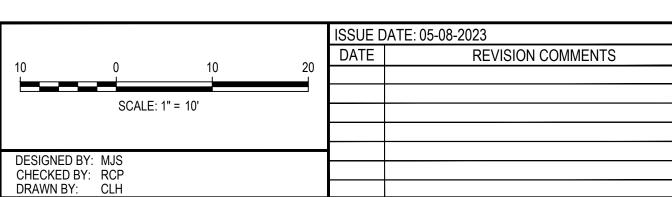
KEY MA

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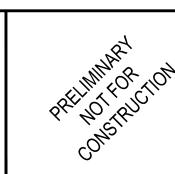






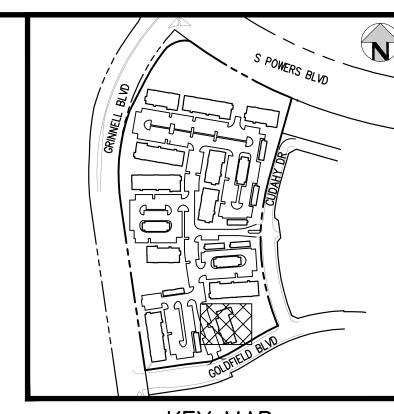


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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KEY MA

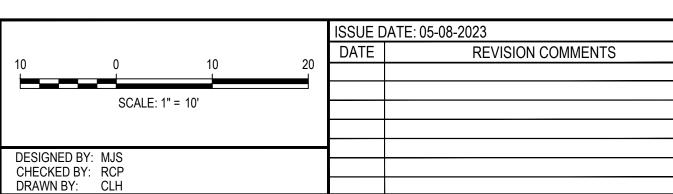
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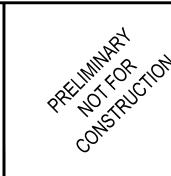






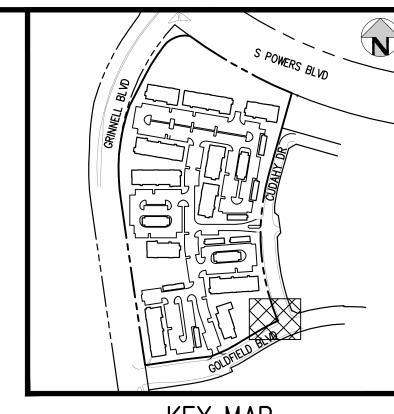


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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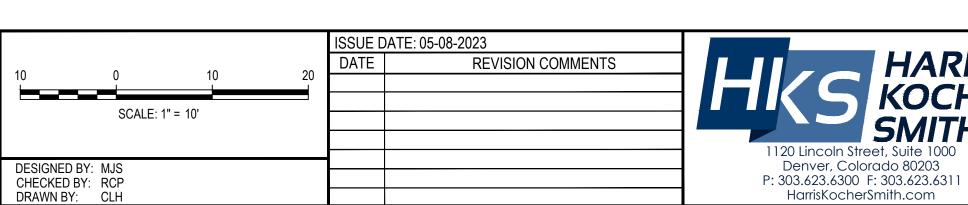


KEY MAF

GENERAL GRADING NOTES:

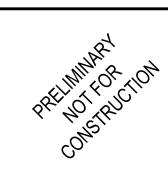
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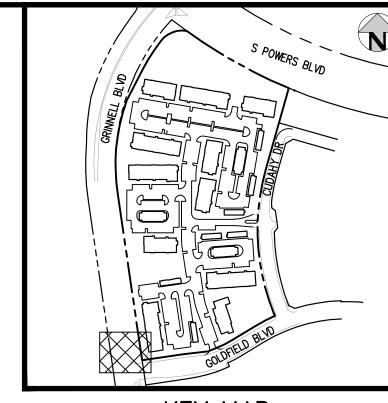


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

55

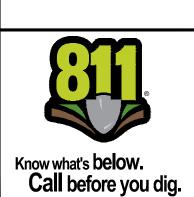


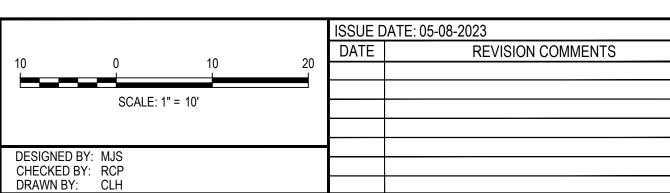
KEY MAP

GENERAL GRADING NOTES:

- 1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT HANDRAILS, STAIRS, CURB RAMPS, AND RAMPS ARE INSTALLED IN CONFORMANCE WITH ALL APPLICABLE LOCAL STATE AND/OR FEDERAL REGULATIONS AND STANDARDS, INCLUDING BUT NOT LIMITED TO, THE AMERICANS WITH DISABILITIES ACT (ADA), THE FAIR HOUSING ACT (FHA) AND THE AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI).
- 2. CROSS SLOPES ALONG THE ACCESSIBLE ROUTE OR AT LANDINGS SHALL NOT EXCEED 2% IN ANY DIRECTION.
- 3. LONGITUDINAL SLOPES ALONG THE ACCESSIBLE ROUTE SHALL NOT EXCEED 5%. LONGITUDINAL SLOPES ON RAMPS SHALL NOT EXCEED 8.33%. RAMPS, EXCEPT CURB RAMPS, SHALL HAVE HANDRAILS ON BOTH SIDES.
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- 7. ROCK MULCH, IF PLACED UPSTREAM OF CONCRETE FLATWORK OR GRASSED AREA, SHALL BE PLACED ON TOP OF FINISHED GRADE SHOWN ON THESE PLANS. ROCK MULCH AREAS SHALL BE DESIGNED AND CONSTRUCTED TO ADEQUATELY DRAIN AND NOT RETAIN WATER. ALL LANDSCAPE EDGE MATERIALS SHALL NOT PREVENT
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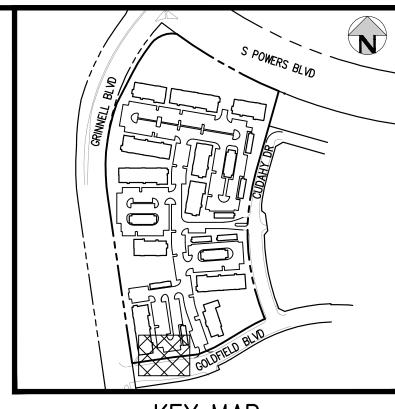


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

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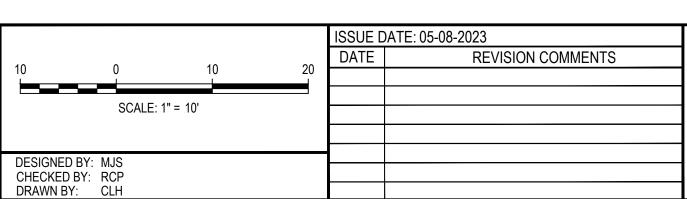


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Add a note stating that retaining walls over 4 feet in height requir building permit and structural engineering plans.

Call before you dig.





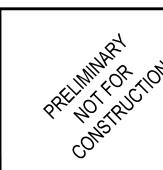


OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN

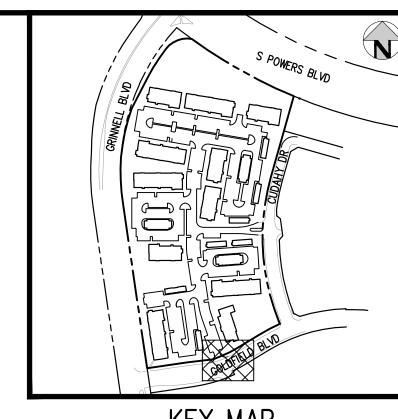
Coordinate with

esign engineer for

recommendations



PROJECT #: 221206 SHEET NUMBER

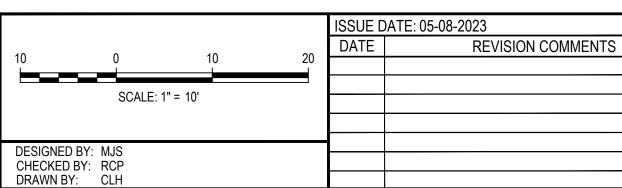


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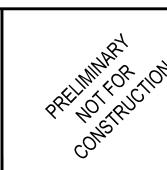






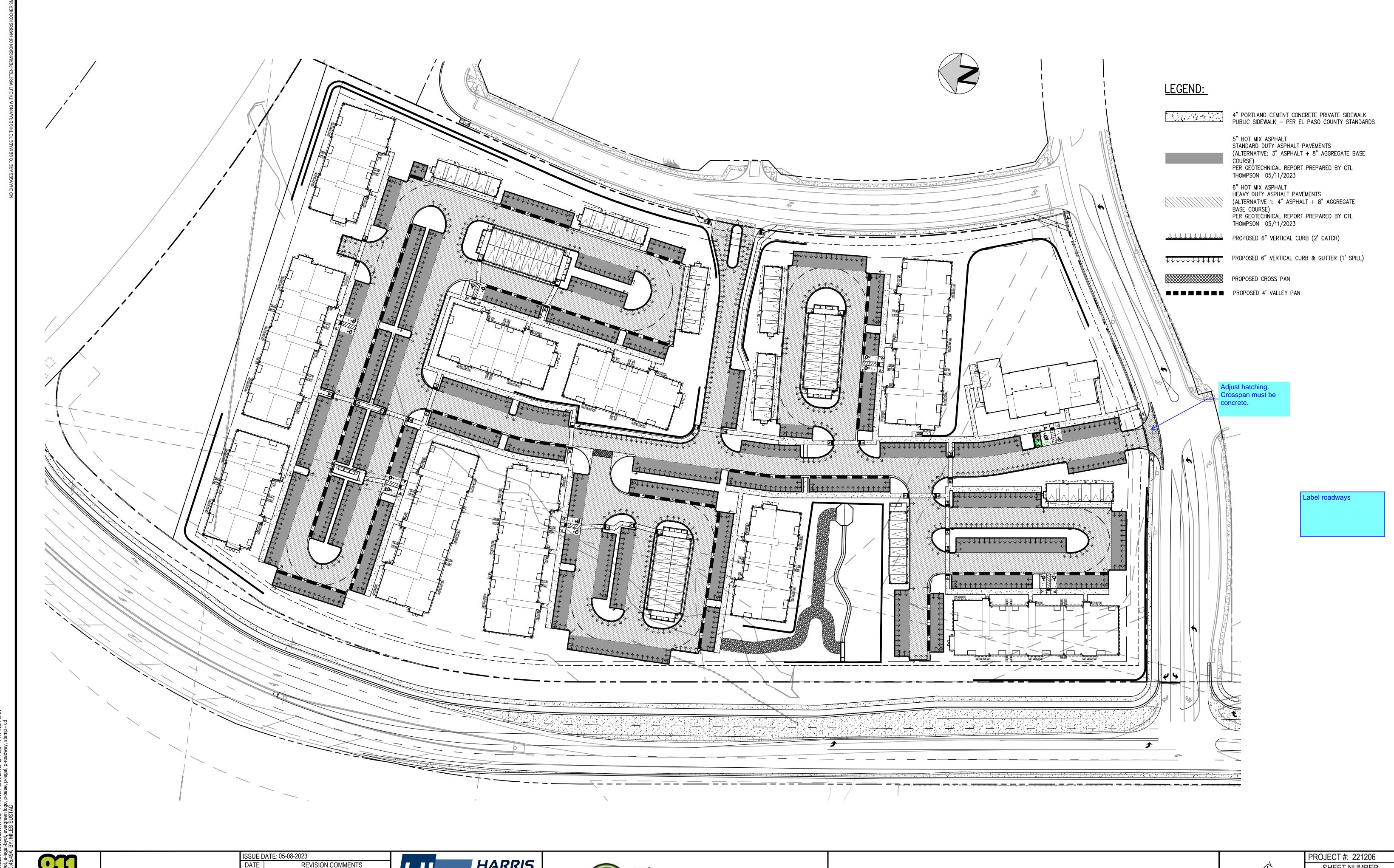


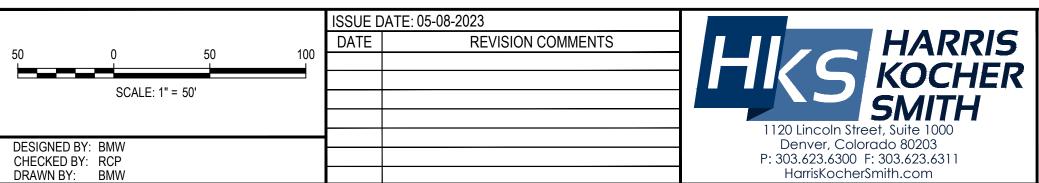
OUTLOOK POWERS & GRINNELL DETAILED GRADING PLAN



PROJECT #: 221206 SHEET NUMBER

58

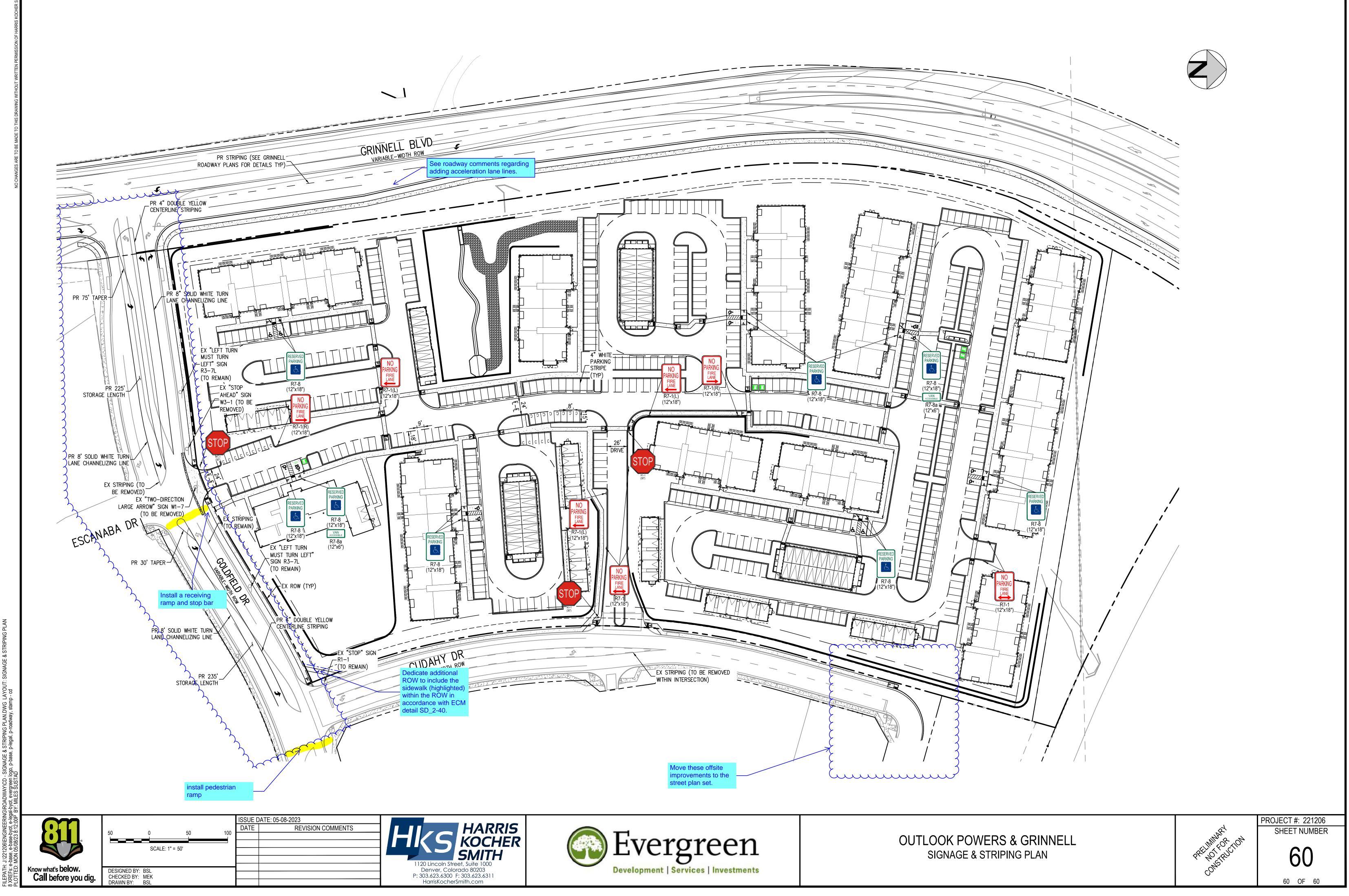






OUTLOOK POWERS & GRINNELL PAVING PLAN

SHEET NUMBER



Development | Services | Investments

60 OF 60

DESIGNED BY: BSL CHECKED BY: MEK DRAWN BY: BSL

LEGAL DESCRIPTION:

A PARCEL OF LAND IN THE SOUTHWEST QUARTER OF SECTION 6 AND THE NORTHWEST QUARTER OF SECTION 7, TOWNSHIP 15 SOUTH. RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 7;

THENCE SOUTH 21°16'15" EAST, A DISTANCE OF 1,234.30 FEET TO THE SOUTHEAST CORNER OF THE SAID PARCEL WHICH IS ALSO THE INTERSECTION OF THE EAST RIGHT-OF-WAY OF GRINNELL BOUELVARD AS DENOTED UNDER RECEPTION NUMBER 09080408 AND THE NORTH RIGHT-OF-WAY OF GOLDFIELD DRIVE AS DENOTED UNDER RECPETION NUMBER 207712585 BOTH WITH THE CLERK AND RECORDER OF EL PASO COUNTY AND THE POINT OF BEGINNING;

THENCE DEPARTING THE SAID NORTH RIGHT-OF-WAY OF GOLDFIELD DRIVE AND CONTINUING NORTHERLY ALONG THE SAID EAST RIGHT-OF-WAY OF GRINNELL BOULEVARD THE FOLLOWING SIX (6) COURSES:

- 1. NORTH 08'19'24" WEST, A DISTANCE OF 695.98 FEET TO A POINT OF CURVATURE;
- 2. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 190.45 FEET, SAID CURVE HAVING A RADIUS OF 890.00 FEET, A CENTRAL ANGLE OF 12"15"39", AND A CHORD WHICH BEARS NORTH 02"15"50" WEST, A CHORD DISTANCE OF 190.09 FEET TO A POINT OF NON-TANGENT;
- 3. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 209.47 FEET, SAID CURVE HAVING A RADIUS OF 856.07 FEET, A CENTRAL ANGLE OF 14°01'11", AND A CHORD WHICH BEARS NORTH 12°14'55" EAST, A CHORD DISTANCE OF 208.95 FEET;
- 4. NORTH 27°27'34" EAST, A DISTANCE OF 142.19 FEET TO A POINT OF CURVATURE;
- 5. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 143.22 FEET, SAID CURVE HAVING A RADIUS OF 844.07 FEET, A CENTRAL ANGLE OF 09'43'19", AND A CHORD WHICH BEARS NORTH 32'16'35" EAST, A CHORD DISTANCE OF 143.05 FEET TO A POINT OF NON-TANGENT;
- 6. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 122.20 FEET, SAID CURVE HAVING A RADIUS OF 110.01 FEET, A CENTRAL ANGLE OF 63'38'34", AND A CHORD WHICH BEARS NORTH 68'57'28" EAST, A CHORD DISTANCE OF 116.01 FEET TO THEA POINT OF NON TANGENT ON THE SOUTH RIGHT-OF-WAY OF POWERS BOUELVARD AS RECORDED UNDER BOOK 5307, PAGE 1472 WITH THE EL PASO CLERK AND RECORDER;

THENCE EASTERLY ALONG THE SAID SOUTH RIGHT-OF-WAY OF POWERS BOUELVARD ALONG THE ARC OF SAID CURVE TO THE LEFT AN ARC LENGTH OF 488.21 FEET. SAID CURVE HAVING A RADIUS OF 2105.00 FEET. A CENTRAL ANGLE OF 1317'19", AND A CHORD WHICH BEARS SOUTH 60'44'03" EAST A CHORD DISTANCE OF 487.12 FEET TO THE INTERSECTION WITH THE WEST BOUNDARY OF LOT 1, PAINTED SKY AT WATERVIEW FILING NO.3 AS RECORDED UNDER RECTION NUMBER 21271398 WITH THE EL PASO CLAERK AND RECORDER;

THENCE DEPARTING THE SAID SOUTH RIGHT-OF-WAY OF POWERS BOUELVARD AND CONTINUING SOUTHERLY ALONG THE SAID WEST PROPERTY LINE OF LOT 1 SOUTH 15'45'42" WEST. A DISTANCE OF 150.36 FEET TO THE INTERSECTION OF THE NORTH RIGHT-OF-WAY OF DANCING SUN WAY AND THE WEST RIGHT-OF-WAY OF CUDAHY DRIVE, BOTH RECORDED UNDER SAID RECEPTION NUMBER 212713198;

THENCE CONTINUING SOUTHERLY ALONG THE SAID WEST RIGHT-OF-WAY OF CUDAHY DRIVE THE FOLLOWING THREE (3) COURSES:

- 1. SOUTH 15'45'42" WEST, A DISTANCE OF 201.74 FEET TO A POINT OF CURVATURE;
- 2. ALONG THE SAID WEST RIGHT-OF-WAY OF CUDAHY DRIVE ALONG THE ARC OF SAID CURVE TO THE LEFT AN ARC LENGTH OF 610.02 FEET, SAID CURVE HAVING A RADIUS OF 925.00 FEET, A CENTRAL ANGLE OF 37°47'09", AND A CHORD WHICH BEARS SOUTH 03"10'04" EAST, A CHORD DISTANCE OF 599.03 FEET;
- 3. SOUTH 22°03'38" EAST, A DISTANCE OF 12.90 FEET TO A POINT OF CURVATURE ON THE SAID NORTH RIGHT-OF-WAY OF GOLDFIELD DRIVE;

THENCE WESTERLY ALONG THE SAID NORTH RIGHT-OF-WAY OF GOLDFIELD DRIVE THE FOLLOWING FIVE (5) COURSES:

- 1. ALONG THE ARC OF SAID CURVE TO THE LEFT AN ARC LENGTH OF 91.01 FEET, SAID CURVE HAVING A RADIUS OF 736.00 FEET, A CENTRAL ANGLE OF 07'05'04", AND A CHORD WHICH BEARS SOUTH 62"27"39" EAST, A CHORD DISTANCE OF 90.95 FEET;
- 2. SOUTH 58°55'08" WEST, A DISTANCE OF 114.02 FEET TO A POINT OF CURAVTURE;
- 3. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 110.36 FEET, SAID CURVE HAVING A RADIUS OF 519.00 FEET, A CENTRAL ANGLE OF 12'11'02", AND A CHORD WHICH BEARS SOUTH 65'00'36" WEST, A CHORD DISTANCE OF 110.16 FEET;
- 4. SOUTH 83°24'45" WEST, A DISTANCE OF 105.09 FEET;
- 5. SOUTH 81'41'14" WEST, A DISTANCE OF 172.84 FEET TO THE POINT OF BEGINNING:
- SAID PARCEL CONTAINS 363,565 SQUARE FEET OR 8.346 ACRES, MORE OR LESS;

BENCHMARK:

"A RR SPIKE SET IN CONCRETE NEXT TO A RAILROAD FENCE POST SOUTHWEST OF A 90 DEGREE CURVE IN POWERS BOULEVARD. THIS IS A SECTION CORNER FOR SECTIONS 6 AND 7, T15S, R65W, AND SECTIONS 1 AND 12, T15S, R66W OF THE SIXTH P.M. THE POINT IS DESIGNATED AS "5501V" PER THE COLORADO SPRINGS UTILITIES FACILITIES INFORMATION MANAGEMENT SYSTEM (FIMS).

ELEVATION: 5908.830 US SURVEY FEET (NAVD88 DATUM)

NOTE: NAVD 88 ELEVATION WAS TRANSFORMED FROM NGVD29 DATUM USING THE NGS COORDINATE CONVERSION AND TRANSFORMATION TOOL (NCAT). NGVD 29 PUBLISHED ELEVATION = 5905.440. PER NCAT, DELTA IS 3.389 US SURVEY FEET.

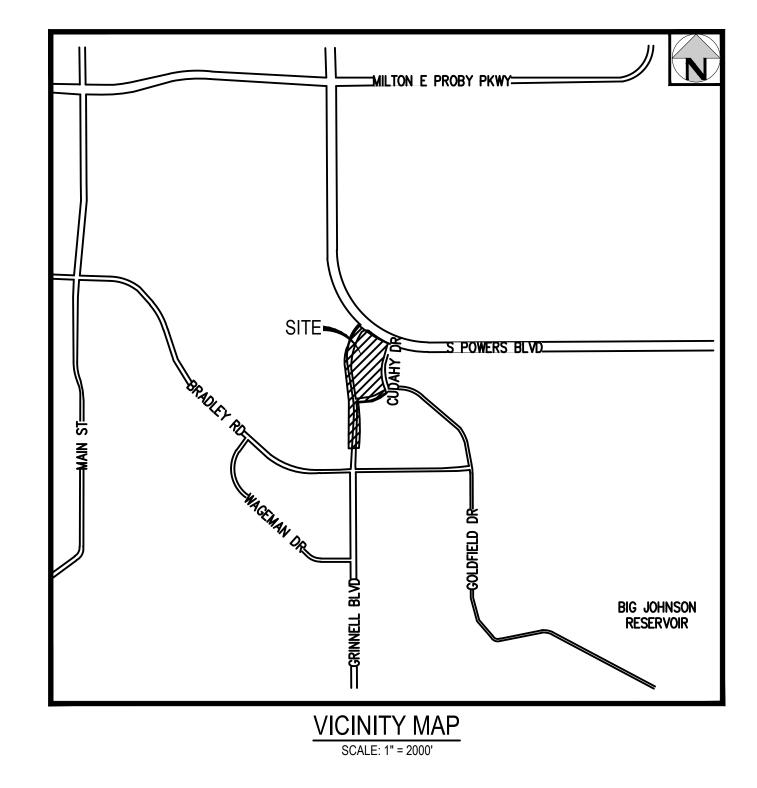
BASIS OF BEARINGS:

BASIS OF BEARINGS ARE BASED UPON THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 7. TOWNSHIP 15 SOUTH. RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN AS MONUMENTED AT THE NORTHWEST CORNER OF SAID SECTION 7 BY A FOUND RR SPIKE IN CONCRETE AND THE WEST QUARTER OF SAID SECTION 7 BY A FOUND 3.25" ALUMINUM CAP IN A RANGE BOX STAMPED "17496", AS BEARING SOUTH 00°43'01" EAST, WITH ALL BEARINGS SHOWN HEREON RELATIVE THERETO.

OUTLOOK POWERS & GRINNELL

SITUATED IN THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO

GRINNELL BLVD ROADWAY PLANS



load the Roadway Plans as a separate item on the DARP submittal matrix

he civil site design will be approved with the site plan oplication. However these offsite improvements to the ublic streets will need to be approved with the final plat pplication.

taff's recommendation is to remove the Site specific civil lan set from the SF2318 final plat application and submit ith the site plan application (PPR2320).

SHEET INDEX

1 COVER SHEET

- 2 M&S STANDARD PLANS LIST
- 3 GENERAL NOTES 4 PROJECT SITE PLAN
- 5 TYPICAL SECTIONS
- 6 GEOMETRIC CONTROL DIAGRAM
- 7 GEOMETRIC CONTROL DIAGRAM
- 8 GEOMETRIC CONTROL DIAGRAM 9 REMOVAL PLAN
- 10 REMOVAL PLAN
- 11 REMOVAL PLAN
- 12 GRINNELL BLVD PLAN & PROFILE EAST
- 13 GRINNELL BLVD PLAN & PROFILE EAST 14 GRINNELL BLVD PLAN & PROFILE EAST
- 15 GRINNELL BLVD PLAN & PROFILE WEST
- 16 GRINNELL BLVD PLAN & PROFILE WEST
- 17 GOLDFIELD DRIVE INTERSECTION DETAIL SHEET
- 18 UTILITY PLAN 19 UTILITY PLAN
- 20 UTILITY PLAN
- 21 GRINNELL BLVD GRADING
- 22 GRINNELL BLVD GRADING 23 GRINNELL BLVD GRADING
- 24 GRINNELL BLVD CROSS SECTIONS
- 25 GRINNELL BLVD CROSS SECTIONS
- 26 GRINNELL BLVD CROSS SECTIONS 27 SIGNAGE & STRIPING PLAN
- 28 SIGNAGE & STRIPING PLAN
- 29 SIGNAGE & STRIPING PLAN
- 30 TRAFFIC SIGNAL PLAN

nclude offsite nprovements to Goldfield and Cudah with these plan set.

ABBREVIATIONS

C&G CURB AND GUTTER

CENTER LINE

EAST, EASTING

EOC EDGE OF CONCRET

EOP EDGE OF PAVEMENT

FES FLARED END SECTION

NORTH, NORTHING

SANITARY SEWER

TBC TOP/BACK OF CURB

HCL HORIZONTAL CONTROL LINE

ELEVATION

EOR END OF RAMP

FH FIRE HYDRANT

IFLOW LINE

HORZ HORIZONTAL

LDSC |LANDSCAPE

LP LOW POINT

lmax lmaximum MH MANHOLE

MIN MINIMUM

NO INUMBER

IPR IPROPOSED

ISTA ISTATION

STM STORM

STD STANDARD

SW SIDEWALK

TYP TYPICAL

WAT WATER

INTS INOT TO SCALE

ROW RIGHT OF WAY

HIGH POINT

ESMT EASEMENT

EX EXISTING

CONC CONCRETE

lowg Idrawing

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 THE 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.

COUNTY ENGINEER/ECM ADMINISTRATOR

OWNER'S STATEMENT:

I, THE OWNER/DEVELOPER HAVE READ AND WILL COMPLY WITH THE REQUIREMENTS OF THE GRINNELL BLVD ROADWAY PLANS.

OWNER SIGNATURE

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

ENGINEER OF RECORD SIGNATURE

dd PCD File No SF2318

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

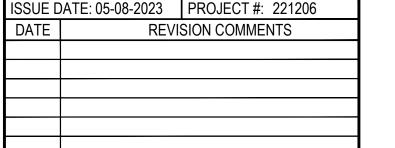


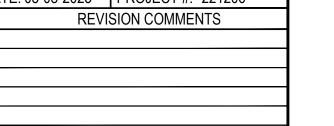
<u>DEVELOPER</u>

CIVIL ENGINEER/SURVEYOR



HarrisKocherSmith.com







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COLORADO DEPARTMENT OF TRANSPORTATION M&S STANDARDS PLANS LIST July 31, 2019

Revised on April 14, 2023

ALL OF THE M&S STANDARD PLANS, AS SUPPLEMENTED AND REVISED, APPLY TO THIS PROJECT WHEN USED BY DESIGNATED PAY ITEM OR SUBSIDIARY ITEM.

THE M&S STANDARD PLANS USED TO DESIGN THIS PROJECT ARE INDICATED BY A MARKED BOX -, AND WILL BE ATTACHED TO THE PLANS. ALL OTHER M&S STANDARD PLANS ARE STILL ELIGIBLE FOR USE IN CONSTRUCTION IF APPROVED BY AN APPROPRIATE COOT ENGINEER.

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Computer File Information Sheet Revisions Creation Date: 07/31/19 Date: Comments R-X R-X Designer Initials: JBK Last Modification Date: 04/14/23 (R-X) Detailer Initials: LTA (R-X)CAD Ver.: MicroStation V8 Scale: Not to Scale Units: Engli

Colorado Department of Transportation 2829 West Howard Place CDDT HQ, 3rd Floor Denver, CD 80204 Phone: 303-757-9021 FAX: 303-757-9868

Construction Engineering Services JBK

PLANS LIST Standard Sheet No. 1 of 1 Issued by the Project Development Branch: July 31, 2019 Project Sheet Number:

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SSUE DATE: 05-08-2023 **REVISION COMMENTS** DESIGNED BY: CHECKED BY: DRAWN BY:





OUTLOOK POWERS & GRINNELL M&S STANDARD PLANS LIST

PROJECT #: 221206 SHEET NUMBER

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.

7. 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.

8. FINAL STABILIZATION MUST BE IMPLEMENTED AT ALL APPLICABLE CONSTRUCTION SITES. FINAL STABILIZATION IS ACHIEVED WHEN ALL GROUND DISTURBING ACTIVITIES ARE COMPLETE AND ALL DISTURBED AREAS EITHER HAVE A UNIFORM VEGETATIVE COVER WITH INDIVIDUAL PLANT DENSITY OF 70 PERCENT OF PRE-DISTURBANCE LEVELS ESTABLISHED OR EQUIVALENT PERMANENT ALTERNATIVE STABILIZATION METHOD IS IMPLEMENTED. ALL TEMPORARY SEDIMENT AND EROSION CONTROL MEASURES SHALL BE REMOVED UPON FINAL STABILIZATION AND BEFORE PERMIT CLOSURE.

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

 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.

11. COMPACTION OF SOIL MUST BE PREVENTED IN AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES OR WHERE FINAL STABILIZATION WILL BE ACHIEVED BY VEGETATIVE COVER. AREAS DESIGNATED FOR INFILTRATION CONTROL MEASURES SHALL ALSO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION UNTIL FINAL STABILIZATION IS ACHIEVED. IF COMPACTION PREVENTION IS NOT FEASIBLE DUE TO SITE CONSTRAINTS, ALL AREAS DESIGNATED FOR INFILTRATION AND VEGETATION CONTROL MEASURES MUST BE LOOSENED PRIOR TO INSTALLATION OF THE CONTROL MEASURE(S).

12. ANY TEMPORARY OR PERMANENT FACILITY DESIGNED AND CONSTRUCTED FOR THE CONVEYANCE OF STORMWATER AROUND, THROUGH, OR FROM THE EARTH DISTURBANCE AREA SHALL BE A STABILIZED CONVEYANCE DESIGNED TO MINIMIZE EROSION AND THE DISCHARGE OF SEDIMENT OFF SITE.

13. 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.

14. DURING DEWATERING OPERATIONS OF UNCONTAMINATED GROUND WATER MAY BE DISCHARGED ON SITE, BUT SHALL NOT LEAVE THE SITE IN THE FORM OF SURFACE RUNOFF UNLESS AN APPROVED STATE DEWATERING PERMIT IS IN PLACE.

EROSION CONTROL BLANKETING OR OTHER PROTECTIVE COVERING SHALL BE USED ON SLOPES STEEPER THAN 3:1.

16. CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL WASTES FROM THE CONSTRUCTION SITE FOR DISPOSAL IN ACCORDANCE WITH LOCAL AND STATE REGULATORY REQUIREMENTS. NO CONSTRUCTION DEBRIS, TREE SLASH, BUILDING MATERIAL WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURIED, DUMPED, OR DISCHARGED AT THE SITE

WASTE MATERIALS SHALL NOT BE TEMPORARILY PLACED OR STORED IN THE STREET, ALLEY, OR OTHER PUBLIC WAY, UNLESS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. CONTROL MEASURES MAY BE REQUIRED BY EL PASO COUNTY ENGINEERING IF DEEMED NECESSARY, BASED ON SPECIFIC CONDITIONS AND CIRCUMSTANCES.

18. TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFF-SITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.

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

NO CHEMICAL(S) HAVING THE POTENTIAL TO BE RELEASED IN STORMWATER ARE TO BE STORED OR USED ONSITE UNLESS PERMISSION FOR THE USE OF SUCH CHEMICAL(S) IS GRANTED IN WRITING BY THE ECM ADMINISTRATOR. IN GRANTING APPROVAL FOR THE USE OF SUCH CHEMICAL(S), SPECIAL CONDITIONS AND MONITORING MAY BE REQUIRED.

BULK STORAGE OF ALLOWED PETROLEUM PRODUCTS OR OTHER ALLOWED LIQUID CHEMICALS IN EXCESS OF 55 GALLONS SHALL REQUIRE ADEQUATE SECONDARY CONTAINMENT PROTECTION TO CONTAIN ALL SPILLS ONSITE AND TO PREVENT ANY SPILLED MATERIALS FROM ENTERING STATE WATERS, ANY SURFACE OR SUBSURFACE STORM DRAINAGE SYSTEM OR OTHER FACILITIES.

23. NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE CURB AND GUTTER OR DITCH EXCEPT WITH APPROVED SEDIMENT CONTROL MEASURES.

24. OWNER/DEVELOPER AND THEIR AGENTS SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8, CRS), AND THE "CLEAN WATER ACT" (33 USC 1344), IN ADDITION TO THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE, DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION (1041, NPDES, FLOODPLAIN, 404, FUGITIVE DUST, ETC.). IN THE EVENT OF CONFLICTS BETWEEN THESE REQUIREMENTS AND OTHER LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, LOCAL, OR COUNTY AGENCIES, THE MOST RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.

25. ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE ONLY AT APPROVED CONSTRUCTION ACCESS POINTS. 26. PRIOR TO CONSTRUCTION THE PERMITTEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.

27. A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND SHALL BE UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK

EQUIPMENT AND WIND. 28. THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY CTL THOMPSON ON MAY 18, 2021 AND SHALL BE CONSIDERED A PART OF THESE PLANS. 29. AT LEAST TEN (10) DAYS PRIOR TO THE ANTICIPATED START OF CONSTRUCTION, FOR PROJECTS THAT WILL DISTURB ONE (1) ACRE OR MORE, THE OWNER OR OPERATOR OF CONSTRUCTION ACTIVITY SHALL SUBMIT A PERMIT APPLICATION FOR STORMWATER DISCHARGE TO THE COLORADO DEPARTMENT OF PUBLIC HEALTH

AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SWMP), OF WHICH THIS GRADING AND EROSION CONTROL PLAN MAY BE A PART. FOR INFORMATION OR APPLICATION MATERIALS CONTACT: COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT WATER QUALITY CONTROL DIVISION WQCD - PERMITS

4300 CHERRY CREEK DRIVE SOUTH

DENVER, CO 80246-1530

ATTN: PERMITS UNIT

1. SHADED BMPS WERE INSTALLED IN AN EARLIER PHASE. AND UNLESS OTHERWISE INDICATED SHALL BE LEFT IN PLACE UNTIL REVEGETATION ESTABLISHMENT IS APPROVED BY EL PASO COUNTY. CONTRACTOR SHALL VERIFY THE CONDITION OF ALL EXISTING BMPS AND REMOVE AND REPLACE THEM AS NECESSARY.

2. ALL EXISTING BMPS WILL NEED TO BE PROPERLY REFRESHED OR RE-INSTALLED BY THE CONTRACTOR TO FUNCTION AS ORIGINALLY DESIGNED.

3. SEE CONSTRUCTION PLANS FOR DETAILS OF PERMANENT DRAINAGE FACILITIES SUCH AS DETENTION FACILITIES, CULVERTS, STORM DRAINS, AND INLET AND OUTLET PROTECTION. 4. SEE DETAIL SHEETS EC5-EC7 FOR EROSION CONTROL MEASURE CONSTRUCTION DETAILS.

5. CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED AREAS NOT FORMALLY LANDSCAPED PER THE APPROVED LANDSCAPE PLAN SEED MIX OR EL PASO COUNTY STANDARD SEED

6. ROCK SOCKS MAY BE SUBSTITUTED FOR SILT FENCE AS PERIMETER CONTROL ON HARDSCAPE SURFACE AREAS.

7. ALL EROSION AND SEDIMENT CONTROL PRACTICES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THE SWMP MUST BE MAINTAINED IN EFFECTIVE OPERATION CONDITION. PROPER SELECTION AND INSTALLATION OF BMPS AND PROCEDURES, IN ACCORDANCE WITH THE SWMP, SHOULD BE ADEQUATE TO MEET THIS CONDITION. BMPS THAT ARE NOT ADEQUATELY MAINTAINED IN ACCORDANCE WITH GOOD ENGINEERING, HYDROLOGIC AND POLLUTION CONTROL PRACTICES, INCLUDING REMOVAL OF COLLECTED SEDIMENT OUTSIDE THE ACCEPTABLE TOLERANCES OF THE BMPS, ARE NO LONGER OPERATING EFFECTIVELY AND MUST BE ADDRESSED

8. THE CONTRACTOR SHALL PROVIDE SURFACE ROUGHENING AND SEEDING AND MULCHING DURING THE DEMOLITION AND EARTHWORK PHASES AS REQUIRED BY THE SWMP AND EL

9. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING INLET PROTECTION ON ALL EXISTING STORM SEWER INLETS IMMEDIATELY ADJACENT TO AND DOWNSTREAM OF THE PROJECT

10. THE CONTRACTOR SHALL REFER TO THE STORMWATER MANAGEMENT PLAN (SWMP) DATED 11/01/2021; THE COUNTY/CITY GRADING, EROSION, AND SEDIMENT CONTROL SPECIFICATIONS; AND THE MILE HIGH FLOOD DISTRICT VOLUME 3: STORMWATER BEST MANAGEMENT PRACTICES (BMPS) FOR ADDITIONAL INFORMATION.

11. ALL LANDSCAPE DRAIN AREA INLETS SHALL HAVE INLET PROTECTION UNTIL THE UPSTREAM AREA HAS BEEN FORMALLY LANDSCAPED AND ESTABLISHED. REFER TO THE STORM SEWER PLANS FOR EXACT LOCATIONS OF ALL AREA INLETS.

12. EROSION CONTROL BLANKETS SHALL BE INSTALLED ON ALL PROPOSED SLOPES 4:1 OR GREATER.

I. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES

2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE, AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.

3. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE FOR CYLINDRICAL MANHOLES AND TO THE INSIDE FACE OF INLETS AND OTHER BOX STRUCTURES. PIPE LENGTHS ARE MEASURED TO THE END OF THE STRUCTURE FOR ALL FLARED END SECTIONS.

4. STATIONING OF INLETS SHOWN IN STORM SEWER PROFILES IS AT CENTER OF STRUCTURE. 5. ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE INDICATED.

6. CONTRACTOR SHALL USE HDPE, PVC, OR RCP PIPES FOR THE MAIN LINES, BUT SHALL NOTIFY THE JURISDICTIONAL UTILITY PROVIDER AND THE ENGINEER, PRIOR TO

7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW.

8. ALL TYPE C & D INLETS SHALL HAVE CLOSE MESH GRATES.

ALL LATERAL PIPE-TO-PIPE CONNECTIONS SHALL BE MADE USING KOR-N-TEE CONNECTORS OR ENGINEER APPROVED EQUIVALENT.

10. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE PROPOSED GRADE.

11. CONTRACTOR SHALL MODIFY INLET BASES AS NEEDED IN ORDER TO ENSURE ALL STORM PIPES CONNECT PROPERLY TO THE INLET. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.

12. CONTRACTOR SHALL PROVIDE ENGINEERED SHOP DRAWINGS, DESIGNED BY A LICENSED ENGINEER, DETAILING THE STRUCTURAL DESIGN OF ALL POND IMPROVEMENTS (FOREBAY, ENERGY DISSIPATING BAFFLES, OUTLET STRUCTURE, ETC.) FOR REVIEW AND APPROVAL BY ENGINEER, OWNER, AND CITY/COUNTY PRIOR TO INSTALLATION.

WATER QUALITY/NPDES EROSION AND SEDIMENT CONTROL NOTES

1. THIS CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT PLAN HAS BEEN SUBMITTED AS THE APPLICATION FOR A STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES FROM THE WATER QUALITY CONTROL DIVISION OF COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT. I UNDERSTAND THAT ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT FUNCTION AS INTENDED. THE REQUIREMENTS OF THIS PLAN SHALL BE THE OBLIGATION OF THE LAND OWNER AND/OR HIS SUCCESSORS OR HEIRS; UNTIL SUCH TIME AS THE PLAN IS PROPERLY COMPLETED, MODIFIED, OR VOIDED.

THE CONTRACTOR SHALL LOCATE, INSTALL, AND MAINTAIN ALL EROSION CONTROL AND WATER QUALITY "BEST MANAGEMENT PRACTICES" AS INDICATED IN THE APPROVED CONSTRUCTION ACTIVITIES STORMWATER MANAGEMENT PLAN AND GEC PLANS.

MODIFICATION OF AN ACTIVE STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES BY THE DEVELOPER, CONTRACTOR, OR THEIR AUTHORIZED AGENTS SHALL REQUIRE TIMELY NOTIFICATION OF AND APPROVAL BY THE WATER QUALITY CONTROL DIVISION. TERMINATION OF AN ACTIVE STORMWATER PERMIT FOR CONSTRUCTION ACTIVITIES UPON COMPLETION OF THE PROJECT REQUIRES NOTIFICATION OF AND APPROVAL BY EL PASO COUNTY ENGINEERING.

BMP MAINTENANCE NOTE

TESTS ARE HIGHLY RECOMMENDED.

ALL EROSION AND SEDIMENT CONTROL PRACTICES AND OTHER PROTECTIVE MEASURES IDENTIFIED IN THE SWMP MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION. PROPER SELECTION AND INSTALLATION OF BMPS AND IMPLEMENTATION OF COMPREHENSIVE INSPECTION AND MAINTENANCE PROCEDURES. IN ACCORDANCE WITH THE SWMP. SHOULD BE ADEQUATE TO MEET THIS CONDITION. BMPS THAT ARE NOT ADEQUATELY MAINTAINED IN ACCORDANCE WITH GOOD ENGINEERING. HYDROLOGIC AND POLLUTION CONTROL PRACTICES, INCLUDING REMOVAL OF COLLECTED SEDIMENT OUTSIDE THE ACCEPTABLE TOLERANCES OF THE BMPS, ARE CONSIDERED TO BE NO LONGER OPERATING EFFECTIVELY AND MUST BE ADDRESSED.

UTILITY NOTES

1. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.

2. THE CONTRACTOR SHALL NOTIFY 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.

CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION ACTIVITIES, DEWATERING DISCHARGE, PERMITTING FOR ALL UTILITY INSTALLATION. PUMP RATE

Add the County Standard Signage & Striping Notes

igning and Striping Notes: All signs and pavement markings shall be in compliance with the current Manual on Uniform Traffic Control Devices (MUTCD).

Removal of existing pavement markings shall be accomplished by a method that does not materially damage the pavement. The pavement markings shall be removed to the extent that they

ill not be visible under day or night conditions. At no time will it be acceptable to paint over existing pavement markings.

Any deviation from the striping and signing plan shall be approved by El Paso County Planning and Community Development. All signs shown on the signing and striping plan shall be new signs. Existing signs may remain or be reused if they meet current El Paso County and MUTCD standards.

Street name and regulatory stop signs shall be on the same post at intersections. All removed signs shall be disposed of in a proper manner by the contractor.

7.All street name signs shall have "D" series letters, with local roadway signs being 4" upper-lower case lettering on 8" blank and non-local roadway signs being 6" lettering, upper-lower case n 12" blank, with a white border that is not recessed. Multi-lane roadways with speed limits of 35 mph or higher shall have 8" upper-lower case lettering on 12" blank with a white border that s not recessed. The width of the non-recessed white borders shall match page 255 of the 2012 MUTCD "Standard Highway Signs". Signal pole mounted and overhead street name signs shal e per MUTCD size standards.

All traffic signs shall have a minimum High Intensity Prismatic grade sheeting. 9.All local residential street signs shall be mounted on a 1.75" x 1.75" square tube sign post and stub post base. For other applications, refer to the CDOT Standard S-614-8 regarding use of

he P2 tubular steel post slipbase design. 0.All signs shall be single sheet aluminum with 0.100" minimum thickness.

I.All limit lines/stop lines, crosswalk lines, pavement legends, and arrows shall be a minimum 125 mil thickness preformed thermoplastic pavement markings with tapered leading edges per DOT Standard S-627-1. Stop bars shall be 24" in width. Crosswalks lines shall be 24" wide and a minimum of 9' long. 2. Word and symbol markings shall be the narrow type.

3.All longitudinal lines shall be a minimum 15mil thickness epoxy paint. All non-local residential roadways shall include both right and left edge line striping and any additional striping as quired by CDOT S-627-1.

1.The contractor shall notify El Paso County Planning and Community Development (719) 520-6819 prior to and upon completion of signing and striping. The contractor shall obtain a work in the right of way permit from the El Paso County Department of Public Works (DPW) prior to any signage or striping work within an existing El Paso unty roadway.

EL PASO COUNTY TRAFFIC SIGNAL NOTES:

SERVICE AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL PROVIDE, FOR REVIEW, BY THE ENGINEER, A COMPLETE TRAFFIC SIGNAL MATERIAL SUBMITTAL PACKAGE THAT CONTAINS, ALL OF THE PROPOSED TRAFFIC SIGNAL EQUIPMENT, INCLUDING MATERIAL SPECIFICATIONS AND DESCRIPTIONS THAT WILL BE NECESSARY TO COMPLETE THE TRAFFIC SIGNAL WORK. THE GNAL EQUIPMENT UNTIL AFTER A REVIEW OF ALL SUBMITTALS HAVE BEEN COMPLETED BY THE ENGINEER AND

FUNCTIONAL AND OPERATIONAL RESPONSIBILITY FOR ALL NEWLY INSTALLED AND EXISTING TRAFFIC SIGNAL EQUIPMENT WILL BECOME THE RESPONSIBILITY OF THE CONTRACTOR UNTIL FINAL ACCEPTANCE OF THE PROJECT. THE CONTRACTOR SHALL CONSIDER THIS WORK INCIDENTAL TO THE OVERALL WORK BEING PERFORMED AND SHALL BE INCLUDED AS PART OF THE PROJECT.

SEE COLORADO DEPARTMENT OF TRANSPORTATION SIGNAL DETAILS FOR CONSTRUCTION/ INSTALLATION DETAILS NOT SHOWN ON THESE PLANS. ALL SIGNAL EQUIPMENT REMOVED BY THE CONTRACTOR SHALL BE SALVAGED AND BECOME THE PROPERTY OF EL

SIGNAL EQUIPMENT WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE INCLUDED IN THE WORK FOR REMOVAL OF TRAFFIC SIGNAL FOILIPMENT. OVERHEAD STREET NAME SIGN DESIGN AND LAYOUT INFORMATION SHALL BE PER THE STREET MANE SIGN DETAIL

TRAFFIC SIGNS MOUNTED ON SIGNAL POLES, MAST ARMS, AND PEDESTALS SHALL BE MOUNTED USING BANDING ALUMINUM CHANNELS, AND BACKING ZEES PER APPLICABLE COOT STANDARD PLANS, OR SIMILAR RIGID SIGN BRACING MOUNTING ASSEMBLY.

DEVELOPMENT AND CONTROLLER PROGRAMMING, THE CONTRACTOR WILL COORDINATE THE DELIVERY DATE OF THE PROGRAMMED TRAFFIC SIGNAL CONTROLLER FOR REVIEW OF EPC DEPARTMENT OF PUBLIC WORKS, HIGHWAY DIVISION SIGNAL SHOP AND ALLOW FOR A MINIMUM TWO WEEK REVIEW PERIOD, AFTER WHICH TIME THE CONTRACTOR MAY MAKE ARRANGEMENTS FOR PICKING UP THE SIGNAL CONTROLLER. CONTROLLER CABINET SHALL BE FURNISHED WITH A "BEST" DOOR LOCK KIT LOCK AND CODE IS "BEST": 5L6R LEFT

CONDUIT IS TO BE REPLACED IN THE EVENT THAT EXISTING CONDUIT IS DAMAGED AND AS DIRECTED BY THE ELECTRICAL SERVICE DISCONNECT BOXES SHALL BE LOCKABLE AND WEATHER PROOF WITH NEMA TYPE CIRCUIT

THE CONTRACTOR SHALL FURNISH AND INSTALL ALL WIRING REQUIRED TO COMPLETE THE INSTALLATION AND ESTABLISH THE FUNCTIONALITY OF ALL TRAFFIC SIGNAL EQUIPMENT. ALL INCIDENTAL ITEMS NOT SHOWN IN THE SUMMARY OF APPROXIMATE QUANTITIES OR TABULATION OF SIGNAL

URES SHALL BE PROVIDED AT THE CONNECTION POINT OF EACH POWER SOURCE OR POINT OF

QUIPMENT SHALL BE CONSIDERED TO BE INCLUDED AS PART OF THE TRAFFIC SIGNAL INSTALLATION AND WILL NOT BE MEASURED AND PAID FOR SEPARATELY. ALL QUANTITIES ARE APPROXIMATE, THE CONTRACTOR SHALL BE BESPONSIBLE FOR ALL WORK NECESSARY TO COMPLETE THE CONSTRUCTION SHOWN ON THESE PLANS. THE SIGNAL SHALL NOT BE TURNED ON OR STARTED UNTIL DIRECTED BY THE ENGINEER. PRIOR TO SIGNAL ACTIVATION, THE ENGINEER SHALL CONFIRM THAT THE APPROPRIATE PAVEMENT MARKINGS AND SIGNING ARE IN PLACE AND THAT ALL WORK NECESSARY FOR PROPER SIGNAL OPERATION HAS BEEN COMPLETED.

THE SIGNAL CONTROLLER SHALL BE A MCCAIN 2070 FLEX ATC CONTROLLER W/ RACK MOUNT, C1 CONNECTOR, AND OMNI SOFTWARE. THE CONFLICT MONITOR SHALL BE MODEL 2010 ECLIP W/ ETHERNET PORT (EDI) AND DYMEC 3170 EMX OMNI SOFTWARE. THE CONFLICT MONITOR SHALL BE MODEL 2010 ECLIP W/ ETHERNET PORT (EDI) AND DYMEC 3170 EN MANAGED INDUSTRIAL ETHERNET SWITCH 8X10/100/100 TX PORT. ETHERNET GATEWAY SHALL BE MICROHARD BULLET LTE-NA CELLULAR GATEWAY. CITEL ETHERNET SURGE PROTECTION (RJ45, MJ8-POE-A) SHALL BE USED. THE CONTROLLER CABINET SHALL BE A MCCAIN 3501 ATC WITH BATTERY BACKUP, AUX RACK AND SHALL CONTAIN ANTI-GRAFFITI SILVER FINISH COATING. CLARY UNINTERRUPTIBLE POWER SUPPLY SP1250 LX, 6 BATTERY, 302C NO SNMP, W/ BATTERY DRAWER SHOULD BE USED. THE CABINET SHALL BE MOUNTED ON A CAST-IN-PLACE CONCRETE FOUNDATION PER APPLICABLE CDOT STANDARDS STANDARD PLAN AND THE CABINET SHALL BE POSITIONED SUCH THA WITH THE FRONT DOOR OPEN, BOTH THE CONTROLLER DISPLAY AND THE SIGNAL INSTALLATION BE VISIBLE.

LUMINAIRES SHALL CONSIST OF AN ASSEMBLY THAT UTILIZES LEDS AS THE LIGHT SOURCE, IN ADDITION, A COMPLETE LUMINAIRE SHALL CONSIST OF A HOUSING, LED ARRAY, AND ELECTRONIC DRIVER (POWER SUPPLY). ALL LUMINAIRES SHALL BE WIRED 120 VOL TS AC WITH MUL TL-TAP HEADS. THE LED FIXTURE MUST HAVE A COLOR TEMPERATURE OF 4100k (+/- SOOK), MUST BE DESIGNED TO OPERATE AT A TEMPERATURE RANGE OF -40° F TO 105°F (-40° C TO 40°C) and provide a minimum of 70,000 hours of operation, luminaires shall be e-light-star led street light, or approved equal. The contractor shall provide a recommendation for type of the street light BASED ON THE CONSTRUCTION PLANS AND MANUFACTURER'S SPECIFICATIONS, TO BE APPROVED BY THE ENGINEER. THE FIXTURE MUST BE CAST ALUMINUM, PROVIDED WITH FUSING, SURGE SUPPRESSION AND MUST BE UL LISTED FOR WET LOCATIONS. THE FIXTURE MUST HAVE AN INTERNAL, WEATHER—TIGHT LED DRIVE. NO ACTIVE COOLING FEATURES (FANS, ETC.) WILL BE ALLOWED. THE FINISHED SHALL MATCH THE EXTENSION ARM SHAFTS. THE LUMINAIRES WILL BE INSTALLED ON 15 FOOT EXTENSION ARM SHAFTS AT NOMINAL HEIGHT OF 40 FEET AND SHALL BE WELDED TO THE SIGNAL POLE PER CDOT TYPICAL TRAFFIC SIGNAL INSTALLATION DETAILS STANDARD PLAN S—614—40. LUMINAIRE ARM SHAFTS HALL BE IN ACCORDANCE WITH THE PROFIECT PLANS. SHAFT SHALL BE IN ACCORDANCE WITH THE PROJECT PLANS.

THE INTERSECTION DETECTION SYSTEM (MICROWAVE VEHICLE DETECTION SYSTEM) CONTRACT ITEM INCLUDES DEVICE INSTALLATION (I.E., DETECTOR UNIT, HARDWARE, WIRING, PROCESSOR MODULE, ÉTC.), AND VERIFICATION OF SUCCESSFUL IN-FIELD DETECTION ZONE OPERATION BASED ON SEVERAL VEHICLE ACTUATIONS IN ALL DETECTION ZONES.

17. THE CONTRACTOR SHALL COORDINATE THE SCHEDULES OF THE CONTRACTED PROFESSIONAL ENGINEERING CONSULTANT AND THE EPC DEPARTMENT OF PUBLIC WORKS, HIGHWAY DIVISION TRAFFIC SIGNAL STAFF FOR SCHEDULING THE ON-SITE FIELD IMPLEMENTATION OF ALL TRAFFIC SIGNAL TIMING AND OPERATIONAL PROGRAMMING, VEHICLE DETECTION ZONE PLACEMENT, AND DETECTION EQUIPMENT POSITIONING. THIS WORK SHALL BE SCHEDULED NEAR THE END OF THE PROJECT, PRIOR TO PROJECT ACCEPTANCE, AND ONLY AFTER ALL FINAL DATEMENT MORNINGS SIGNAL WORK AND STAFF OR ST

SENSOR 2.0, WITH INTERFACE BOARD (4 OUTPUTS, SINGLE CABINET SLOT).

19. PEDESTRIAN SIGNAL HEAD INSTALLATION SHALL INCLUDE ALUMINUM AND POWDER COATED GLOSS BLACK SIGNAL HEAD WITH APPROVED LED COUNTDOWN DISPLAY, ALUMINUM OPEN VISOR WITH THE OUTSIDE POWDER COATED GLOSS BLACK, PUSHBUTTON, AND INSTRUCTIONAL R10-3E COUNTDOWN PEDESTRIAN ACTUATION SIGN. PUSHBUTTONS SHALL BE POLARA NAVIGATOR iNS23TN1-B-ES BLACK iNS-UNIVERSAL NAVIGATOR W/ 9"X15" R10-3E SIGN, NO BRAILLE, CUSTOM VOICE, AND 2-WIRE PUSH BUTTONS, OR APPROVED EQUIVALENT (GEN 4 AUDIBLE). CUS MESSAGING SHALL NOT INTERFERE WITH TRADITIONAL NON-VISUAL FORMATS SPECIFIED IN 4E OF THE MUTCD AND SHALL ONLY PROVIDE ADDITIONAL INFORMATION AS DIRECTED BY THE ENGINEER.

20. ALL TRAFFIC SIGNAL POLES, MAST ARMS, PEDESTALS, AND LUMINAIRE ARMS SHALL HAVE A GLOSS BLACK COAT FINISH OVER HOT DIP GALVANIZED BASE COAT, INSTALLED IN ACCORDANCE WITH THE PAINT MANUFACTURER'S INSTRUCTIONS.

21. ALL SIGNAL POLE AND CONTROLLER LOCATIONS SHOWN ARE APPROXIMATE ONLY, MAST ARMS SHALL BE OF SUFFICIENT LENGTH AND DESIGN TO ALLOW PROPER PLACEMENT OF SIGNAL HEADS AND OVERHEAD SIGNING PER THE PLANS. ACTUAL LOCATIONS SHALL BE STAKED IN THE FIELD AND FIELD VERIFIED BY THE ENGINEER PRIOR TO DRILLING, EXCAVATION, AND ORDERING THE SIGNAL EQUIPMENT AND MAST ARMS. THE LOCATION OF EACH SIGNAL POLE FOUNDATION SHALL BE POTHOLED PRIOR TO DRILLING TO CONFIRM WHETHER OR NOT ANY UTILITY CONFLICTS

22. LATERAL OFFSETS FROM THE NEAR EDGE OF TRAFFIC SIGNAL POLES, PEDESTALS, AND CABINETS TO THE FACE OF CURB OR EDGE OF PAVED SHOULDER SHOULD BE AT LEAST SIX FEET, HOWEVER, A MINIMUM LATERAL OFFSET OF AT LEAST FOUR FEET MAY BE PROVIDED FOR CURB OFFSETS. IF NO PAVED SHOULDER EXISTS, A MINIMUM LATERAL OFFSET OF AT LEAST EIGHT FEET SHOULD BE PROVIDED FROM THE EDGE OF PAVEMENT FOR AN AUXILIARY LANE AND A MINIMUM LATERAL OFFSET OF AT LEAST TWELVE FEET SHOULD BE PROVIDED FROM THE EDGE OF PAVEMENT FOR A THROUGH LANE.

23. SHOULD THE CONTRACTOR ENCOUNTER WATER IN THE CAISSON, ANY DE-WATERING METHODS AND NECESSAR

24. ALL TRAFFIC SIGNAL COMPONENT PULL BOXES SHALL BE PRE CAST HIGH DENSITY POLYMER CONCRETE (HDPC) MATERIAL WITH THE FOLLOWING SIZES: 36 INCH X 48 INCH X 24 INCH (CDOT TYPE 5) FOR THE PULL BOX ADJACENT THE CONTROLLER CABINET FOUNDATION AND 24 INCH X 36 INCH X 24 INCH (CDOT TYPE 4) FOR THE REMAINING

25. TRAFFIC PULL BOX LOCATIONS SHOWN IN THE PROJECT PLANS ARE APPROXIMATE. ACTUAL LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER. PULL BOXES SHALL BE FLUSH WITH THE FINISHED GROUND SURFACE AND SHALL NOT BE PLACED IN AREAS THAT ARE SUSCEPTIBLE TO WATER RUNOFF OR STANDING WATER. CONDUIT RUNS BETWEEN PULL BOXES SHALL NOT EXCEED APPROXIMATELY 200 FEET AND PULL BOXES SHALL NOT BE LOCATED IN HANDICAP RAMPS, PEDESTRIAN LANDING AREAS, SIDEWALKS, PRIMARY SIDEWALK PATHS, OR ROADWAY PAVEMENT

26. THE CONDUIT NUMBER AND SIZES FOR TYPICAL CONDUIT RUNS INCLUDE THE FOLLOWING FOR A PREEMINENT MAST

A. BETWEEN THE SIGNAL POLE FOUNDATION AND ADJACENT SIGNAL POLE PULL BOX: TWO (2) 2 INCH AND ONE (1) 3

B. BETWEEN SIGNAL PULL BOXES: TWO (2) 2 INCH AND THREE (3) 3 INCH. C. BETWEEN THE CONTROLLER CABINET FOUNDATION AND ADJACENT PULL BOX: THREE (3) 2 INCH AND FOUR (4) 3

D. BETWEEN THE SECONDARY SERVICE PEDESTAL METER FOUNDATION AND THE CONTROLLER CABINET FOUNDATION ONE (1) 2 INCH FOR THE ELECTRICAL SERVICE FEED.

27. ALL CONDUIT AND FITTINGS SHALL BE SCHEDULE 80 PVC AND ALL CONDUIT SHALL HAVE A PULL ROPE LEFT IN THEM WHEN CONSTRUCTION IS COMPLETED. ALL CONDUIT ENTERING THE CABINET FOUNDATION AND PULL BOXES SHALL HAVE BELL END STYLE COUPLINGS ON ALL CONDUIT ENDS.

28. ALL CONDUIT THAT IS DIRECTIONALLY BORED SHALL BE A MINIMUM OF THREE FEET BELOW THE EXISTING PAVEMENT. THIS WORK SHALL AVOID DISTURBING OR DAMAGING EXISTING FACILITIES AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROMPT RECONSTRUCTION, ALTERATION, REPAIR OR MAINTENANCE OF HIGHWAY PROPERTY, AS NECESSARY, TO REPAIR DAMAGE CAUSED BY THE ACCOMMODATION OF THE UTILITY, AND TO RESTORE THE HIGHWAY TO PRE-EXISTING OR BETTER CONDITIONS.

29. ALL SIGNAL CABLE SHALL BE CONTINUOUS FROM CONNECTIONS MADE IN THE HANDHOLE COMPARTMENT OF THE SIGNAL POLE BASE TO THE TERMINAL COMPARTMENT OF THE CONTROLLER CABINET AND SHALL CONTAIN NO SPLICES, EACH SIGNAL HEAD SHALL CONTAIN SEPARATE AND CONTINUOUS SIGNAL CABLE FROM THE SIGNAL HEAD

30. A SEPARATE AND CONTINUOUS 21 CONDUCTOR CABLE SHALL RUN FROM THE CONTROLLER CABINET TO THE HANDHOLE AT EACH SIGNAL POLE AND SHALL CONTAIN NO SPLICES

31. ALL SIGNS MOUNTED ON SIGNAL POLES, MST ARMS, AND PEDESTALS SHALL BE MOUNTED USING BANDING ALUMINUM CHANNELS, AND BACKING ZEES PER CDOT TYPICAL POLE MOUNT SIGN INSTA STANDARD PLAN S-614-20, OR SIMILAR RIGID SIGN BRACING MOUNTING ASSEMBLY, AD DIRECTE HE ENGINEER. MAST ARM SIGNS THAT REQUIRE Z-BRACKETS SHALL BE MOUNTED ON ASTRO-S

32. ALL CONDUCTORS AND CABINET WRING SHALL BE COLOR CODED AND PERMANENTLY TAGGED PERMINER DIRECTION AND IN ACCORDANCE WITH THE SIGNAL PHASE NUMBERING AND DETECTION PHASE NUMBERING INFORMATION CONTAINED IN THE PROJECT PLANS.

33. ALL VEHICLE SIGNAL HEADS SHALL HAVE APPROVED 12 INCH LED INDICATIONS AND SHALL BE ALUMINUM WITH POWDER COATED GLOSS BLACK FINISH AND SHALL CONTAIN 12 INCH ALUMINUM VISORS WITH THE OUTSIDE POWDER COATED GLOSS BLACK, ALL VEHICLE SIGNAL HEADS SHALL HALUMINUM LOUVERED BACK PLATES WITH POWDER COATED GLOSS BLACK FINISH AND YELLOW REFLECTIVE BORDER. MAST ARM SIGN HEADS SHALL USE ASTRO— TYPE MOUNTING ASSEMBLIES ASHALL BE INSTALLED APPROXIMATELY LEVEL WITH ONE ANOTHER AT A 17 TO 19 FOOT VERTICAL CLEARANCE ABOVE THE HIGH POINT OF THE PAVEMENT EDGE.

SHALL CONTACT THE ENGINEER FOR COORDINATING AND SCHEDULING THIS WORK. 35. ALL VEHICLE AND PEDESTRIAN SIGNAL HEADS THAT HAVE NOT BEEN PLACED IN SERVICE SHALL COVERED WITH PREFABRICATED WEATHER RESISTANT NYLON FROM FITTING SIGNAL FACE COVER MATERIAL. THE SIGNAL FACE SHALL REMAIN COMPLETELY COVERED UNTIL THE SIGNAL HEAD IS F IN SERVICE AND IS FULLY FUNCTIONAL AND OPERATIONAL.

36. ALL DETECTION EQUIPMENT, DETECTION ZONES, AND SIGNAL TIMING OPERATION SHALL BE CONFIR THE FIELD BY THE PROFESSIONAL ENGINEERING CONSULTANT TO BE ACHIEVING SATISFACTORY TO

COMMUNICATION SYSTEM WILL BE A DYMEC ETHERNET SWITCH KY-3170EMX AND CELLULAR MODI MICROHARD BULLET LTE, WITH CITEL SURGE SUPPRESSION ON ALL THESE COMPONENTS. 38. THE CONTRACTED PROFESSIONAL ENGINEERING TRAFFIC SIGNAL TIMING, CONTROLLER PROGRAMMIN OPERATION AND OVERALL TRAFFIC SIGNAL OPERATIONAL CONSULTANT SERVICES THAT ARE TO B RETAINED BY THE OWNER/DEVELOPER/DISTRICT SHALL INCLUDE, BUT NOT BE LIMITED TO:

A. DEVELOPING ALL TRAFFIC SIGNAL TIMING AND ALL OPERATIONAL PARAMETERS FOR ACHIEVING ISOLATED, FULL-ACTUATED VEHICLE AND PEDESTRIAN INTERSECTION OPERATION AND, WHEN DOCUMENT TO BE NECESSARY, COORDINATED SIGNAL SYSTEM TIMING PLAN OPERATION DURING THE OF THE PROPERTY OF T

B. PROGRAMMING ALL SIGNAL TIMING PARAMETERS INTO THE TRAFFIC SIGNAL CONTROLLER. C. FIELD IMPLEMENTING AND FINE-TUNING PARAMETERS INTO THE TRAFFIC SIGNAL CONTROLLER.

FIELD IMPLEMENTING AND FIN-TUNING/ADJUSTING ALL TRAFFIC SIGNAL TIMING PARAMETERS INCLUDING FOLLOW-UP FIELD REVIEWS AS MAY BE NECESSARY.

D. DEVELOPING, PROGRAMMING, FIELD IMPLEMENTING, AND FINE—TUNING ALL VEHICLE DETECTION DIMENSIONS, ZONE LOCATIONS, AND OPERATIONAL PARAMETERS. LL OF THE AFOREMENTIONED CONTRACTED PROFESSIONAL ENGINEERING TRAFFIC SIGNAL OPERATIONA ONSULTANT SERVICED DELIVERABLES SHALL BE CONSISTENT WITH NATIONAL PUBLICATIONS, INCLUDIN NOT LIMITED TO: MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) LATEST EDITION/REVISION FHWA-HOP-08-024 "TRAFFIC SIGNAL TIMING MANUAL" (JUNE 2008), FHWA-HRT-04-091 "SIGNALIZEI INTERSECTIONS: INFORMATION GUIDE" (AUGUST 2004), FHWA-HOP-06-006 "TRAFFIC CONTROL SYSTEI HANDBOOK" (OCTOBER 2005), FHWA-DTFH61-01-C-00183 "SIGNAL TIMING PROCESS FINAL REPORT" (DECEMBER 2003), NCHRP REPORT 731 "GUIDELINES FOR TIMING YELLOW AND ALL-RED INTERVALS AT SIGNALIZED INTERSECTIONS" (2012), NCHRP REPORT 812 "SIGNAL TIMING MANUAL SECOND EDITION" 2

THE TRAFFIC SIGNAL CONTROLLER CONTRACT ITEM IS TO BE INCLUSIVE OF ETHERNET SWITCH, CELLULAR GATEWAY, AND SURGE PROTECTION

E INCLUSIVE OF FOUNDATION PAD AND CLARY UNINTERRUPTIBLE

3. POWER SOURCE WIRE IS TO BE CATSE OUTDOOR CABLE (CMXT 350 MHz, SOLID, 24 AWG, FOIL WATERPROOF TAPE 1000F/ROLL)

Fraffic Signal Notes

dd the County Standard Construction Drawing Notes.

andard 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 nd 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

Contractor shall keep a copy of these approved plans, the Grading and Erosion Control Plan, the Stormwater Management Plan (SWMP), the soils and geotechnical eport, 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

iangles.

Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall. onform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the ngineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations from regulations and standards must be requested, and approved, in writing. Any modifications necessary to meet criteria after-the-fact will be entirely the developer's responsibility to rectify.

5. It is the design engineer's responsibility to accurately show existing conditions, both onsite and offsite, on the construction plans. Any modifications necessary due to onflicts, 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 (PCD) – Inspections, prior to starting construction.

7.It is the contractor's responsibility to understand the requirements of all jurisdictional agencies and to obtain all required permits, including but not limited to El Paso County rosion 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 nmediately upon discovery of any errors or inconsistencies.

9.All storm drain pipe shall be Class III RCP unless otherwise noted and approved by PCD.

1.All construction traffic must enter/exit the site at approved construction access points.

D.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 nd pavement.

2. 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

3. Signing and striping shall comply with El Paso County DOT and MUTCD criteria. [If applicable, additional signing and striping notes will be provided.]

4. Contractor shall obtain any permits required by El Paso County DOT, including Work Within the Right-of-Way and Special Transport permits. 5. The limits of construction shall remain within the property line unless otherwise noted. The owner/developer shall obtain written permission and easements, where equired, from adjoining property owner(s) prior to any off-site disturbance, grading, or construction.



OUTLOOK POWERS & GRINNELL GENERAL NOTES

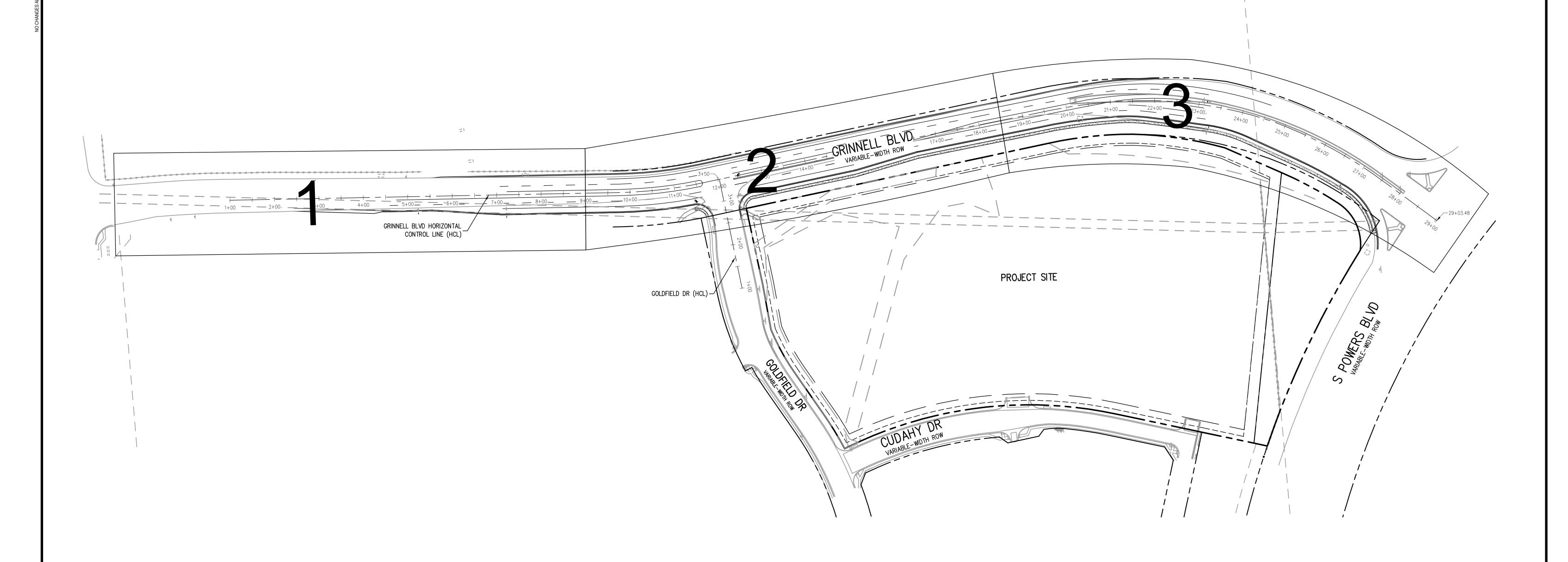


PROJECT #: 221206 SHEET NUMBER

3 OF 30

Call before you dig



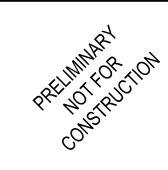


Know what's below. Call before you dig.

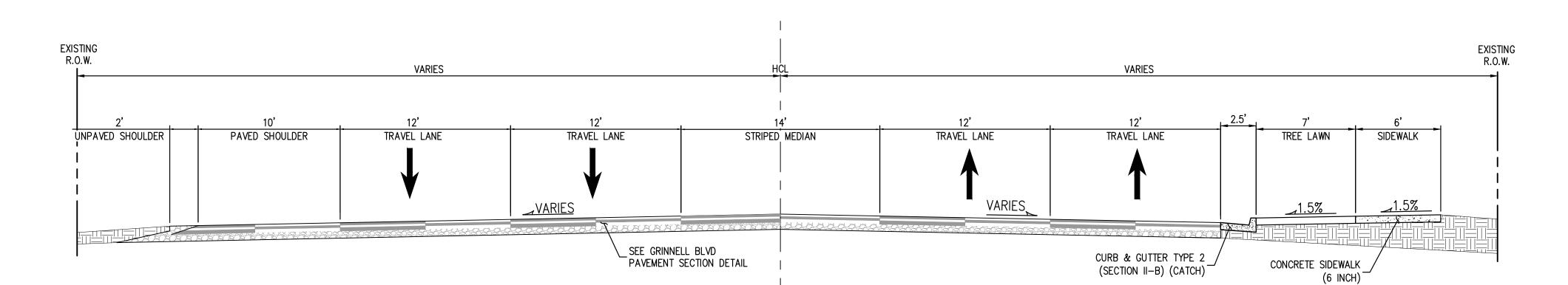
| ISSUE DATE: 05-08-2023 | DATE | REVISION COMMENTS | SCALE: 1" = 100' | SCALE: 1" = 100'



OUTLOOK POWERS & GRINNELL PROJECT SITE PLAN



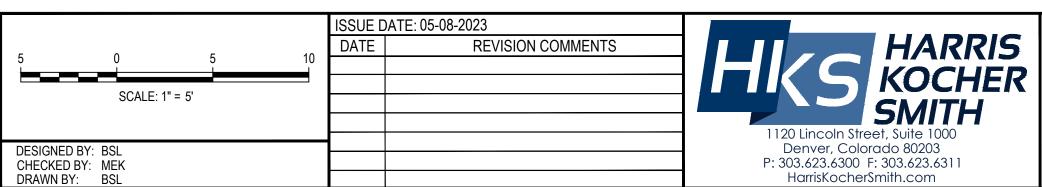
PROJECT #: 221206
SHEET NUMBER



GRINNELL BLVD HCL STA 16+52.95 TO STA 20+30.98

provide a cross section from 20+31 to 28+00







OUTLOOK POWERS & GRINNELL TYPICAL SECTIONS



PROJECT #: 221206
SHEET NUMBER

5
OF 30

BENCHMARK:

"A RR SPIKE SET IN CONCRETE NEXT TO A RAILROAD FENCE POST SOUTHWEST OF A 90 DEGREE CURVE IN POWERS BOULEVARD. THIS IS A SECTION CORNER FOR SECTIONS 6 AND 7, T15S, R65W, AND SECTIONS 1 AND 12, T15S, R66W OF THE SIXTH P.M. THE POINT IS DESIGNATED AS "5501V" PER THE COLORADO SPRINGS UTILITIES FACILITIES INFORMATION MANAGEMENT SYSTEM (FIMS).

ELEVATION: 5908.830 US SURVEY FEET (NAVD88 DATUM)

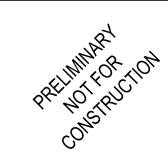
NOTE: NAVD 88 ELEVATION WAS TRANSFORMED FROM NGVD29 DATUM USING THE NGS COORDINATE CONVERSION AND TRANSFORMATION TOOL (NCAT). NGVD 29 PUBLISHED ELEVATION = 5905.440. PER NCAT, DELTA IS 3.389 US SURVEY FEET.



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						⊣ SMITH
						1120 Lincoln Street, Suite 1000
DESIGNED BY CHECKED BY						 Denver, Colorado 80203 P: 303.623.6300 F: 303.623.6311
DRAWN BY:	BSL					HarrisKocherSmith.com



OUTLOOK POWERS & GRINNELL GEOMETRIC CONTROL DIAGRAM



PROJECT #: 221206
SHEET NUMBER

6 OF 30

BENCHMARK:

"A RR SPIKE SET IN CONCRETE NEXT TO A RAILROAD FENCE POST SOUTHWEST OF A 90 DEGREE CURVE IN POWERS BOULEVARD. THIS IS A SECTION CORNER FOR SECTIONS 6 AND 7, T15S, R65W, AND SECTIONS 1 AND 12, T15S, R66W OF THE SIXTH P.M. THE POINT IS DESIGNATED AS "5501V" PER THE COLORADO SPRINGS UTILITIES FACILITIES INFORMATION MANAGEMENT SYSTEM (FIMS).

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DESIGNED BY: MEK				— Denver, Colorado 80203 P: 303.623.6300 F: 303.623.6311
CHECKED BY: MEK DRAWN BY: BSL				HarrisKocherSmith.com



OUTLOOK POWERS & GRINNELL GEOMETRIC CONTROL DIAGRAM



PROJECT #: 221206
SHEET NUMBER

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"A RR SPIKE SET IN CONCRETE NEXT TO A RAILROAD FENCE POST SOUTHWEST OF A 90 DEGREE CURVE IN POWERS BOULEVARD. THIS IS A SECTION CORNER FOR SECTIONS 6 AND 7, T15S, R65W, AND SECTIONS 1 AND 12, T15S, R66W OF THE SIXTH P.M. THE POINT IS DESIGNATED AS "5501V" PER THE COLORADO SPRINGS UTILITIES FACILITIES INFORMATION MANAGEMENT SYSTEM (FIMS).

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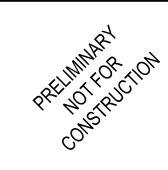
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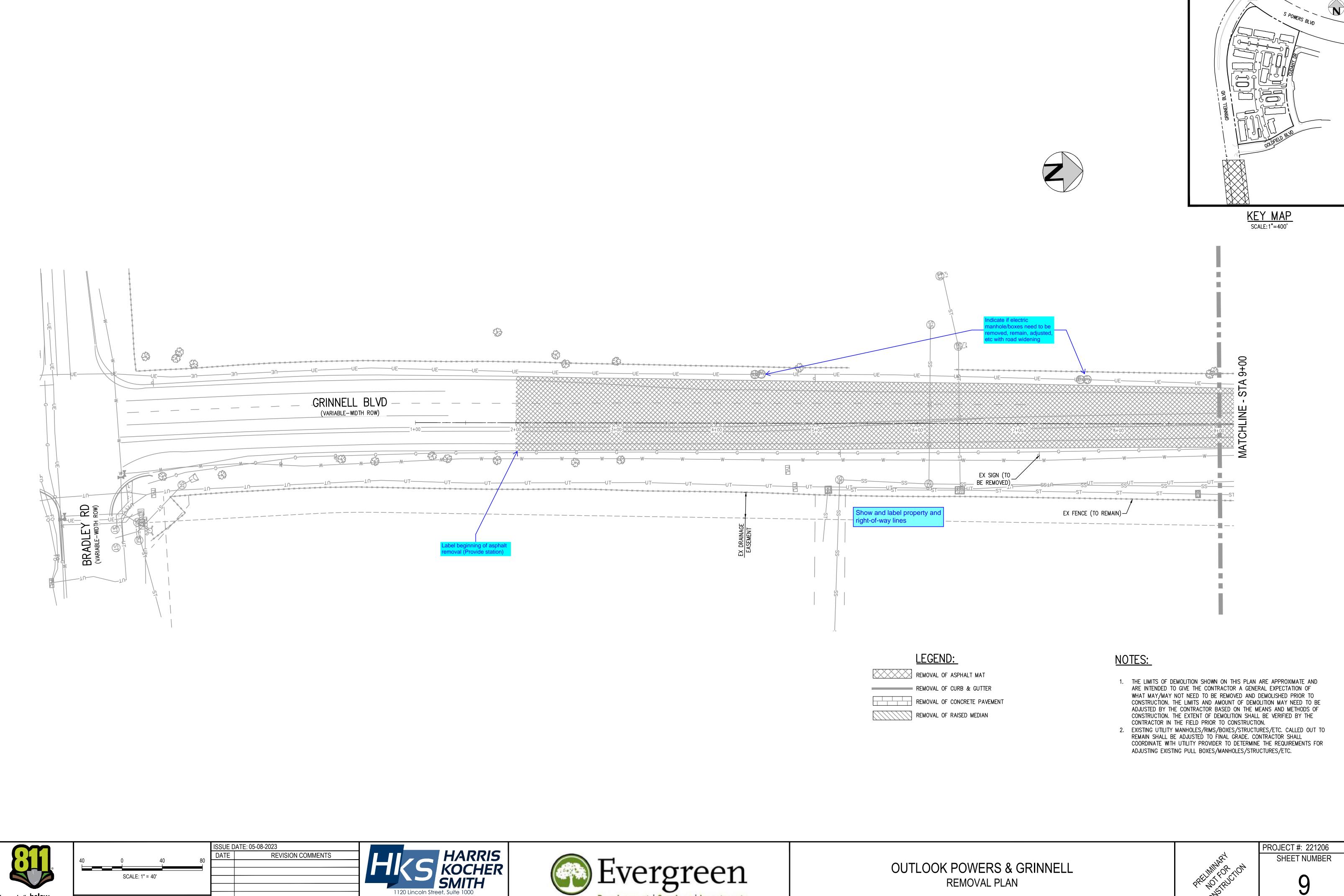


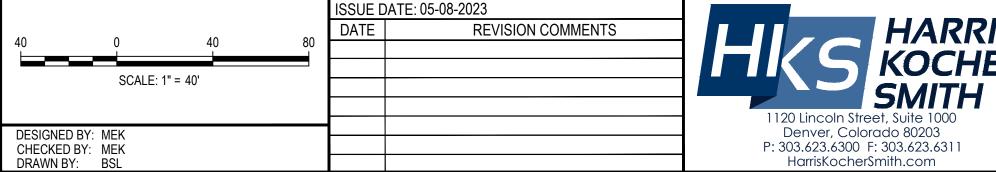


OUTLOOK POWERS & GRINNELL GEOMETRIC CONTROL DIAGRAM

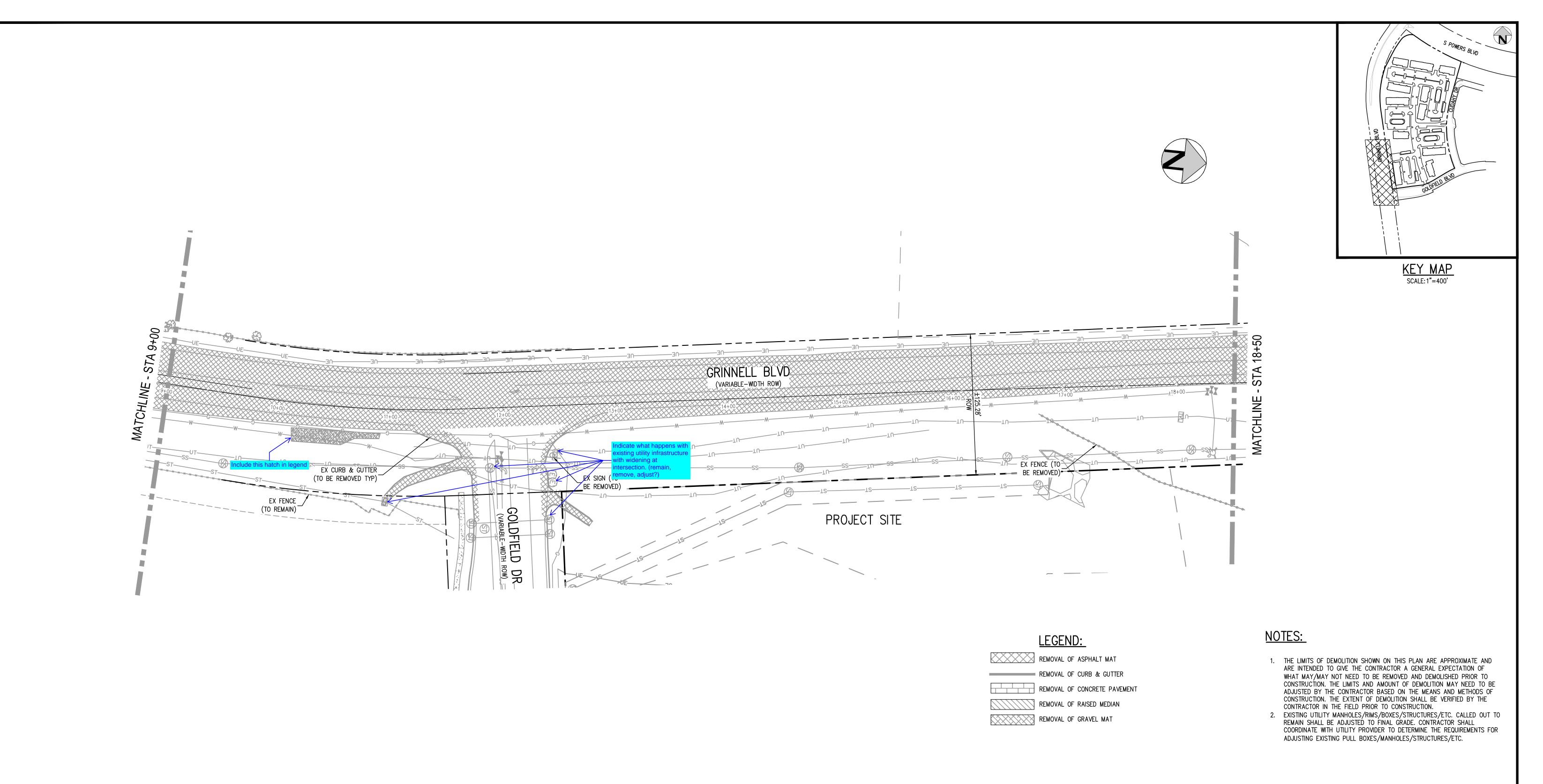


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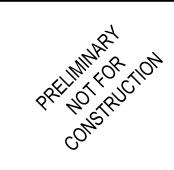


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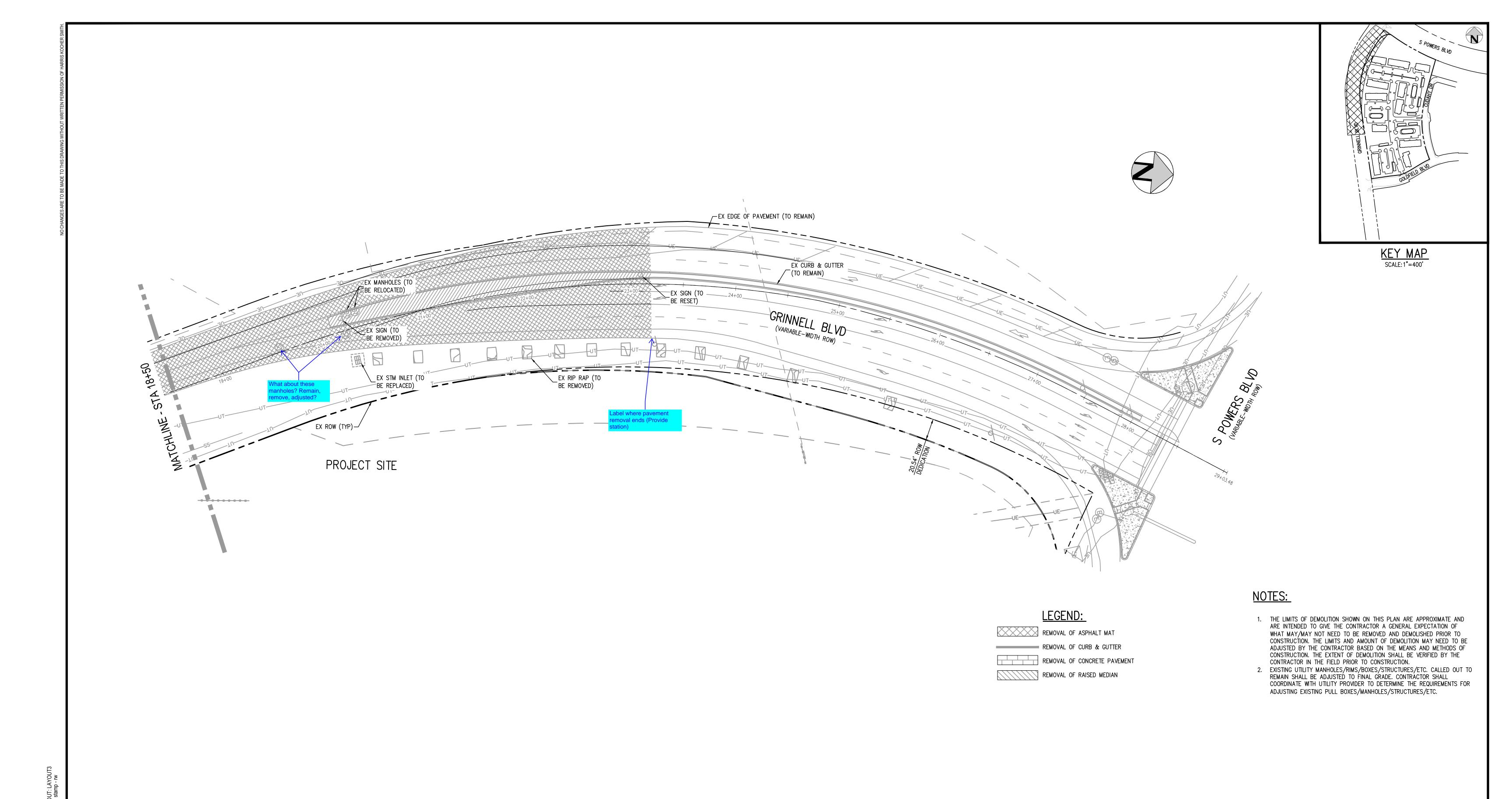
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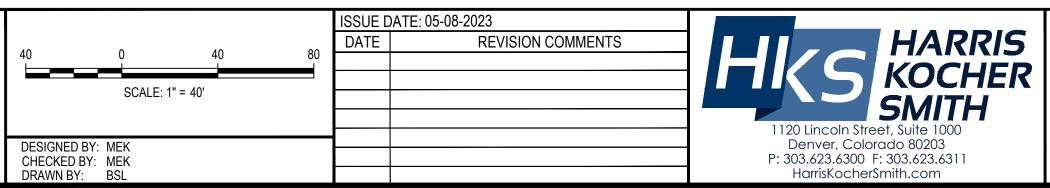
OUTLOOK POWERS & GRINNELL REMOVAL PLAN



PROJECT #: 221206 SHEET NUMBER



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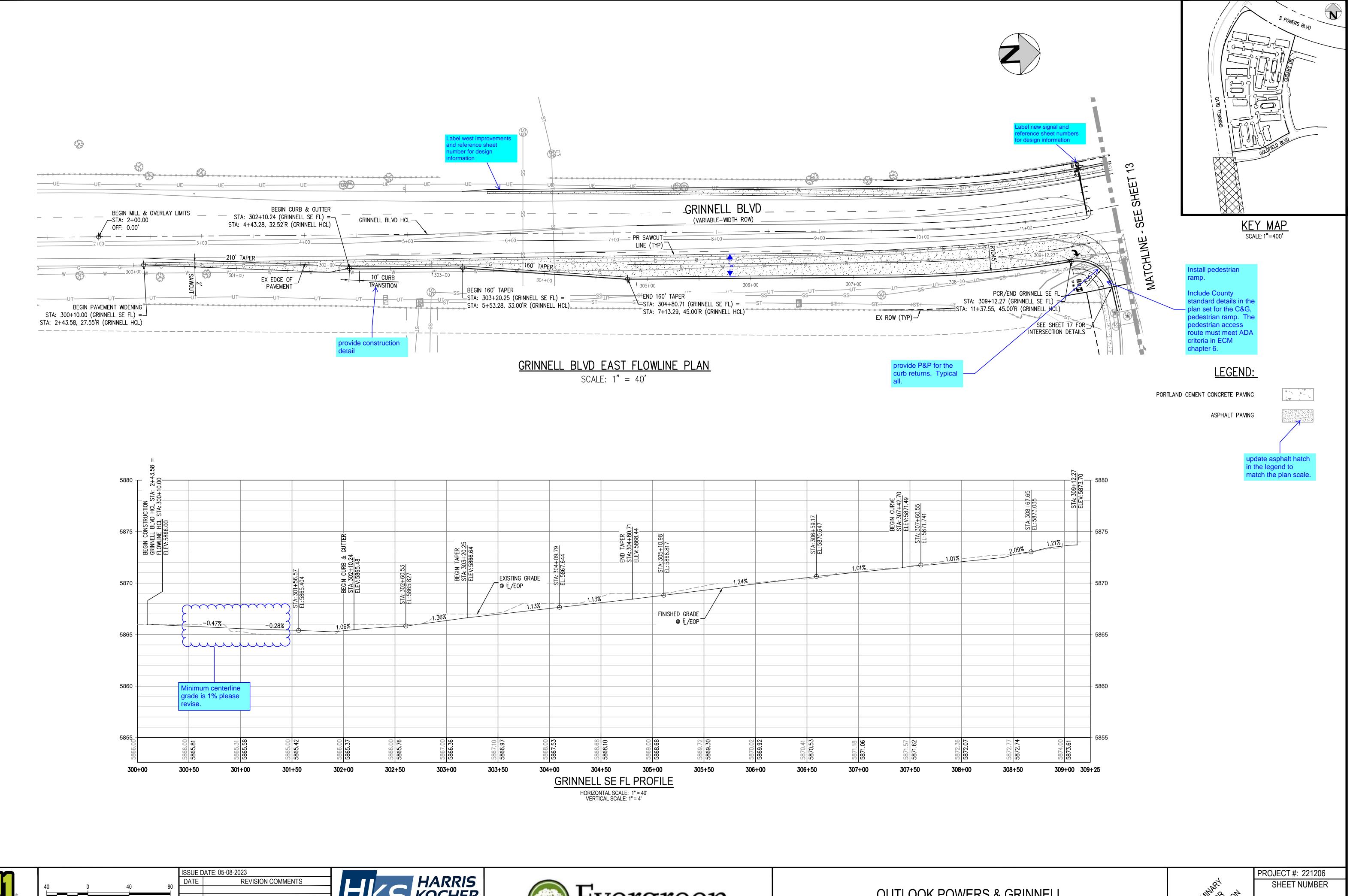




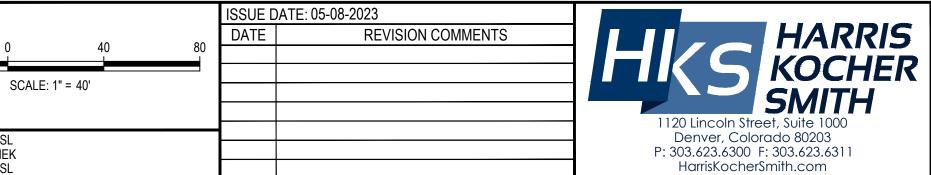




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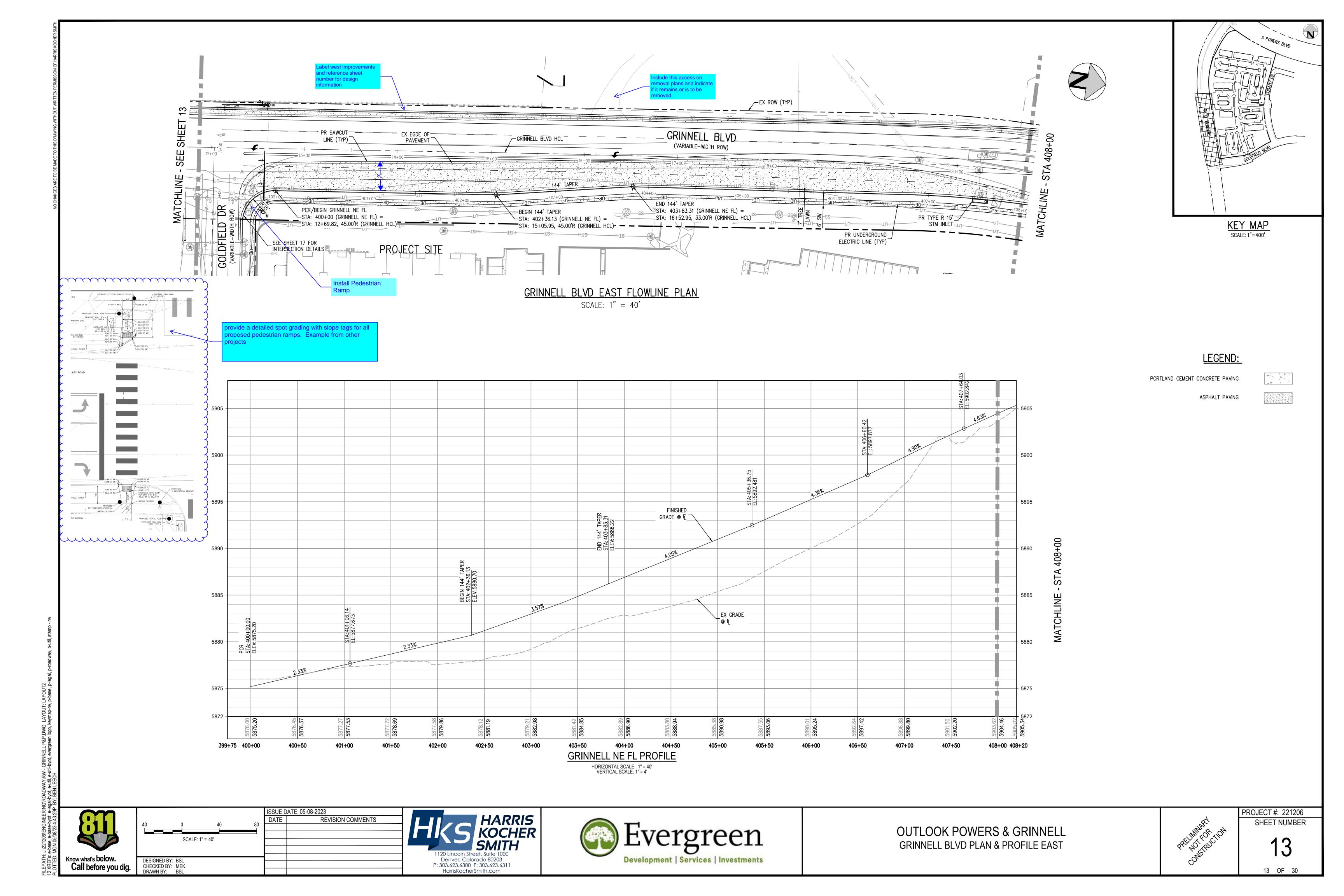


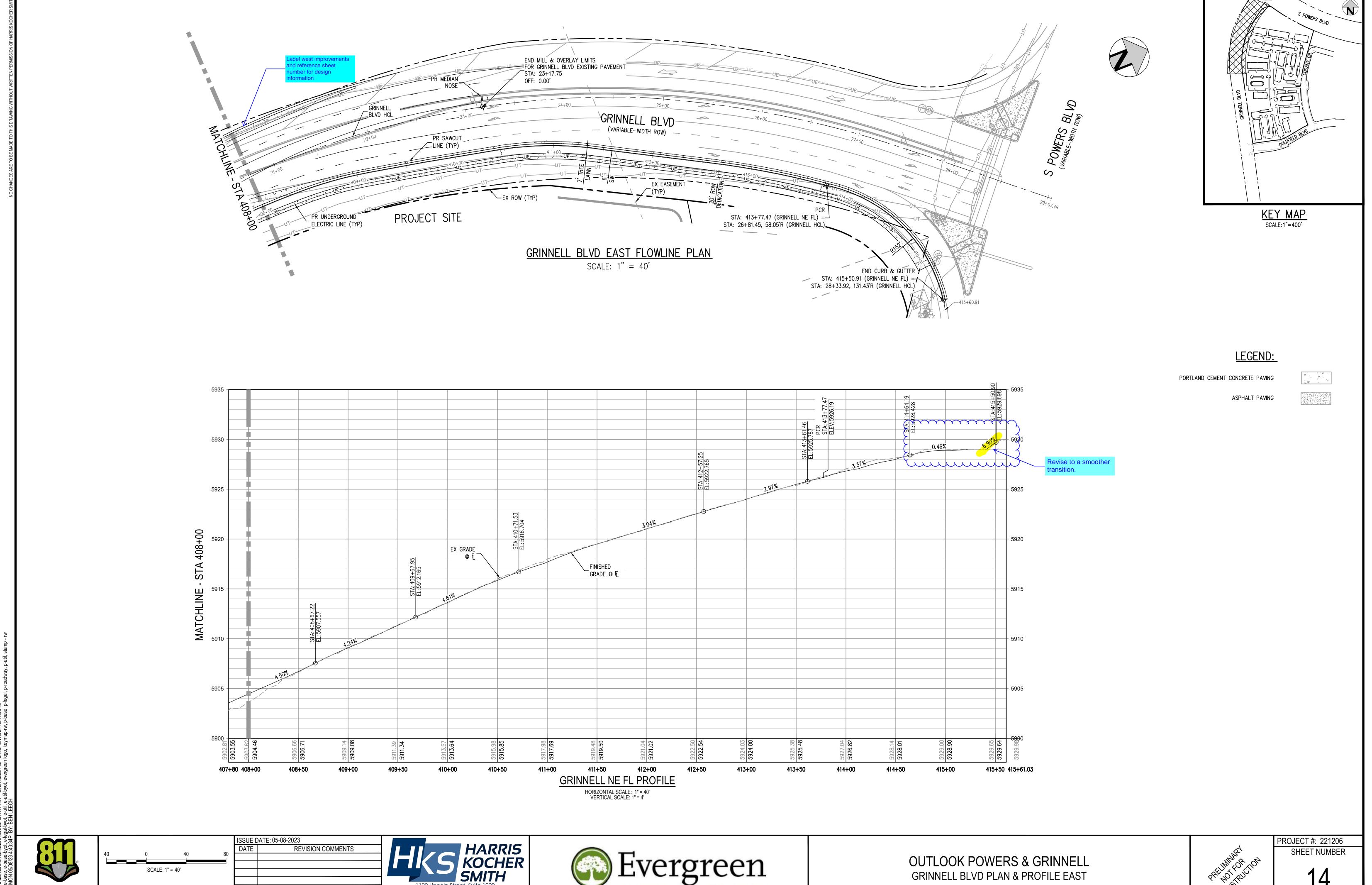
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OUTLOOK POWERS & GRINNELL GRINNELL BLVD PLAN & PROFILE EAST

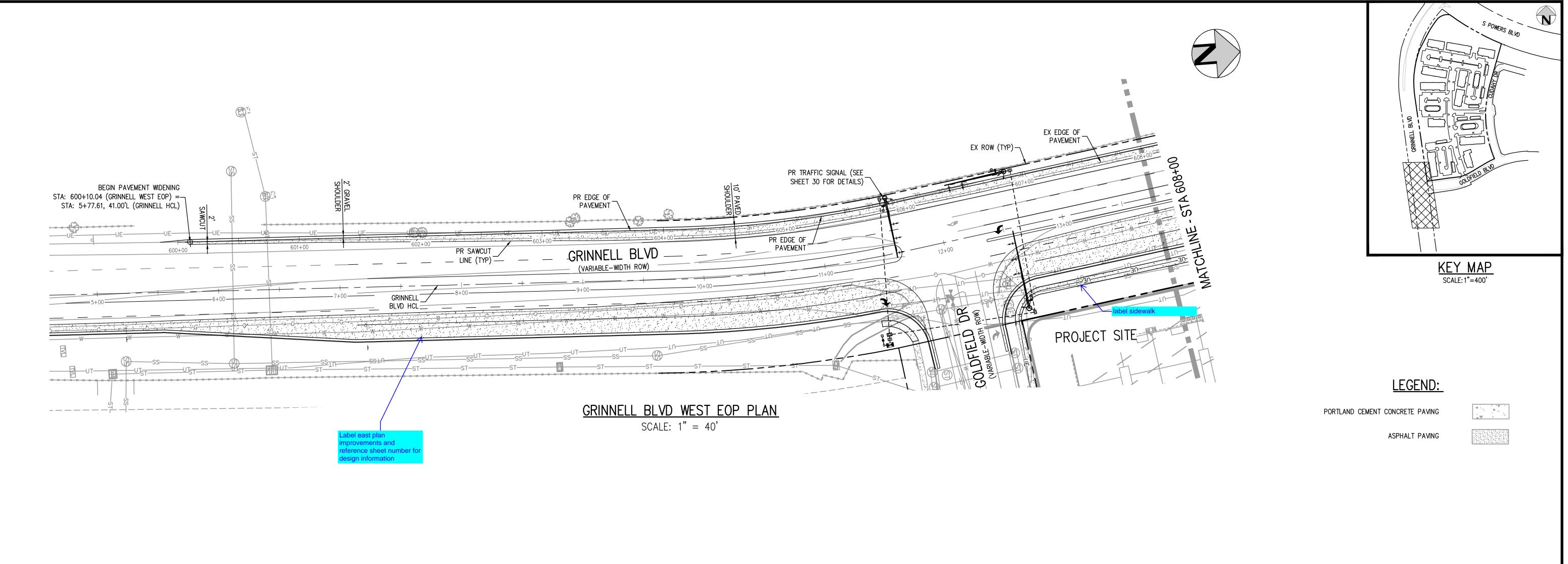


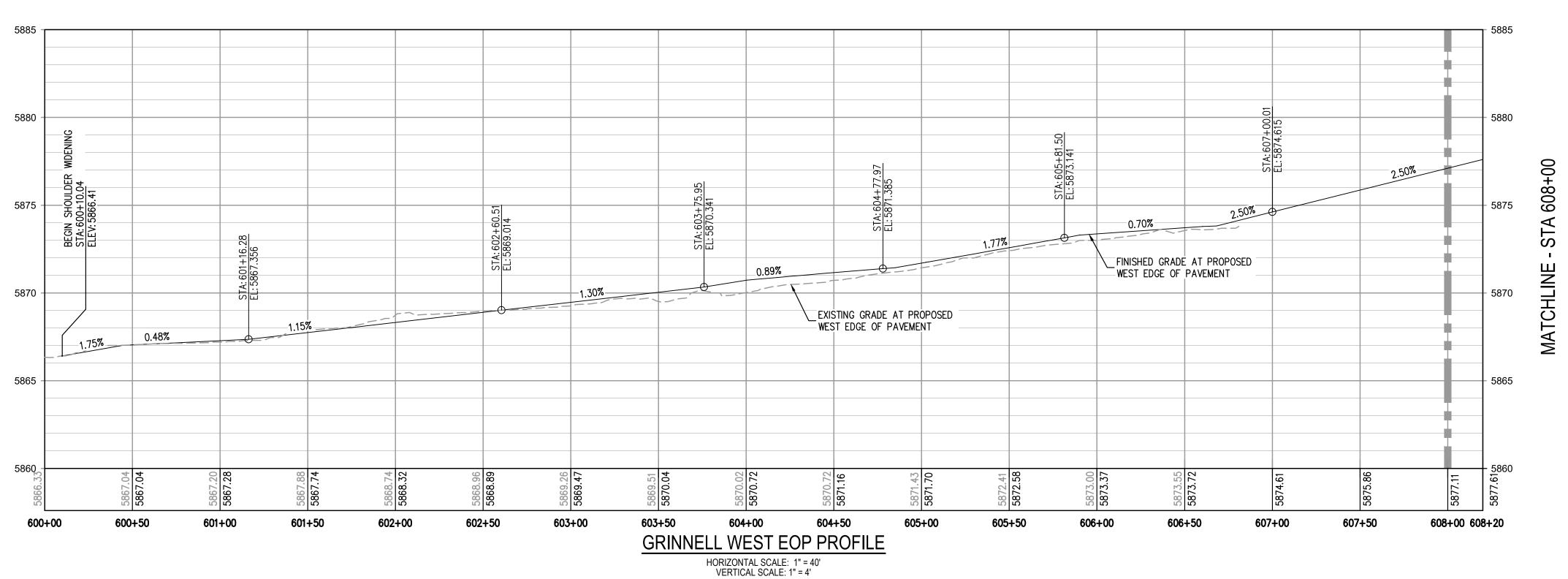


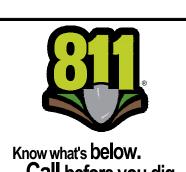
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Denver, Colorado 80203 P: 303.623.6300 F: 303.623.6311 HarrisKocherSmith.com

DESIGNED BY: BSL CHECKED BY: MEK DRAWN BY: BSL







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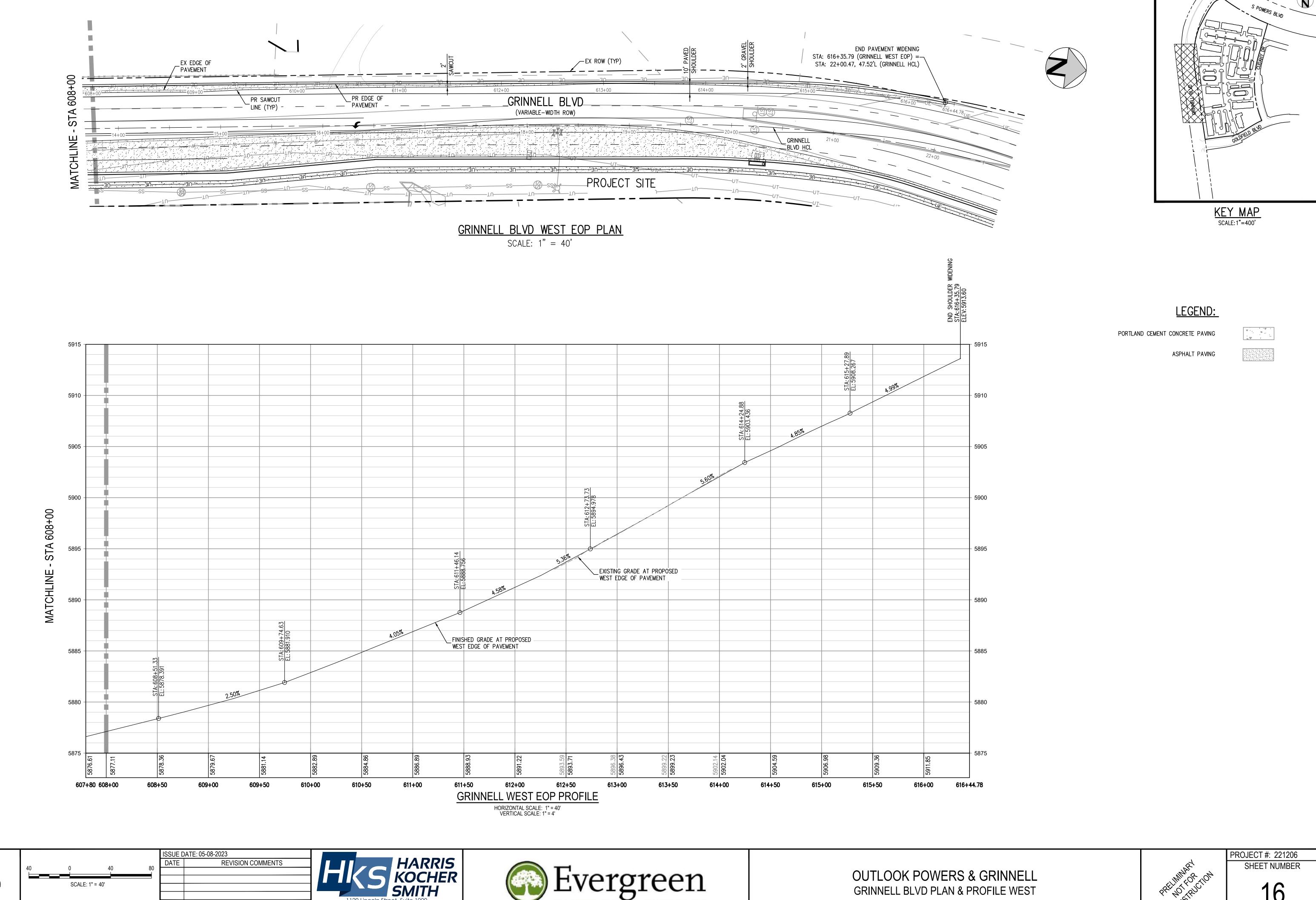
OUTLOOK POWERS & GRINNELL GRINNELL BLVD PLAN & PROFILE WEST

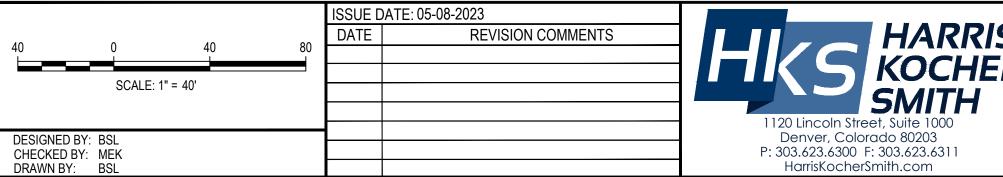


PROJECT #: 221206
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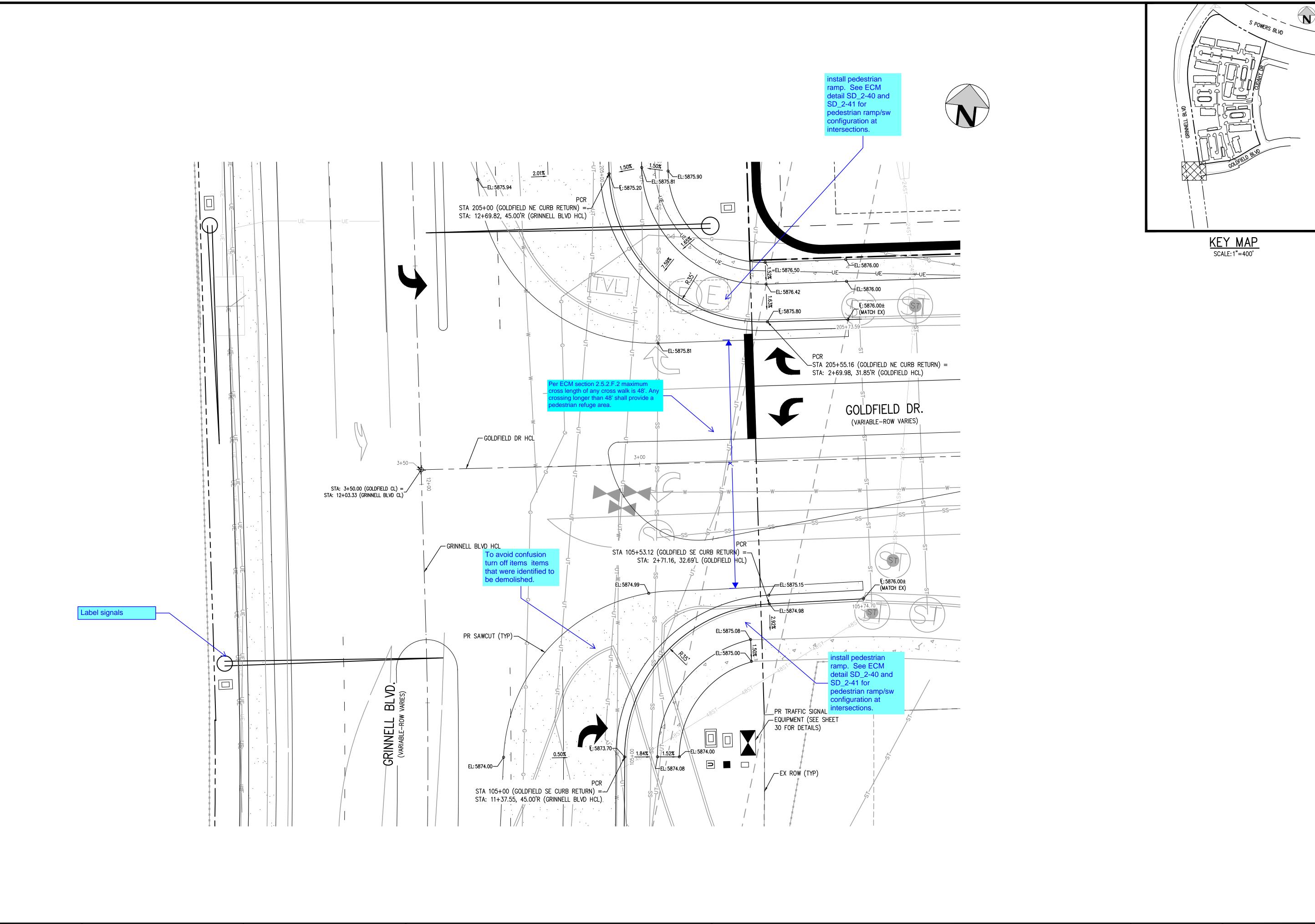




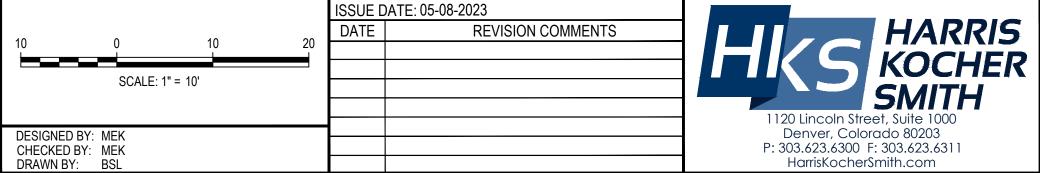


GRINNELL BLVD PLAN & PROFILE WEST









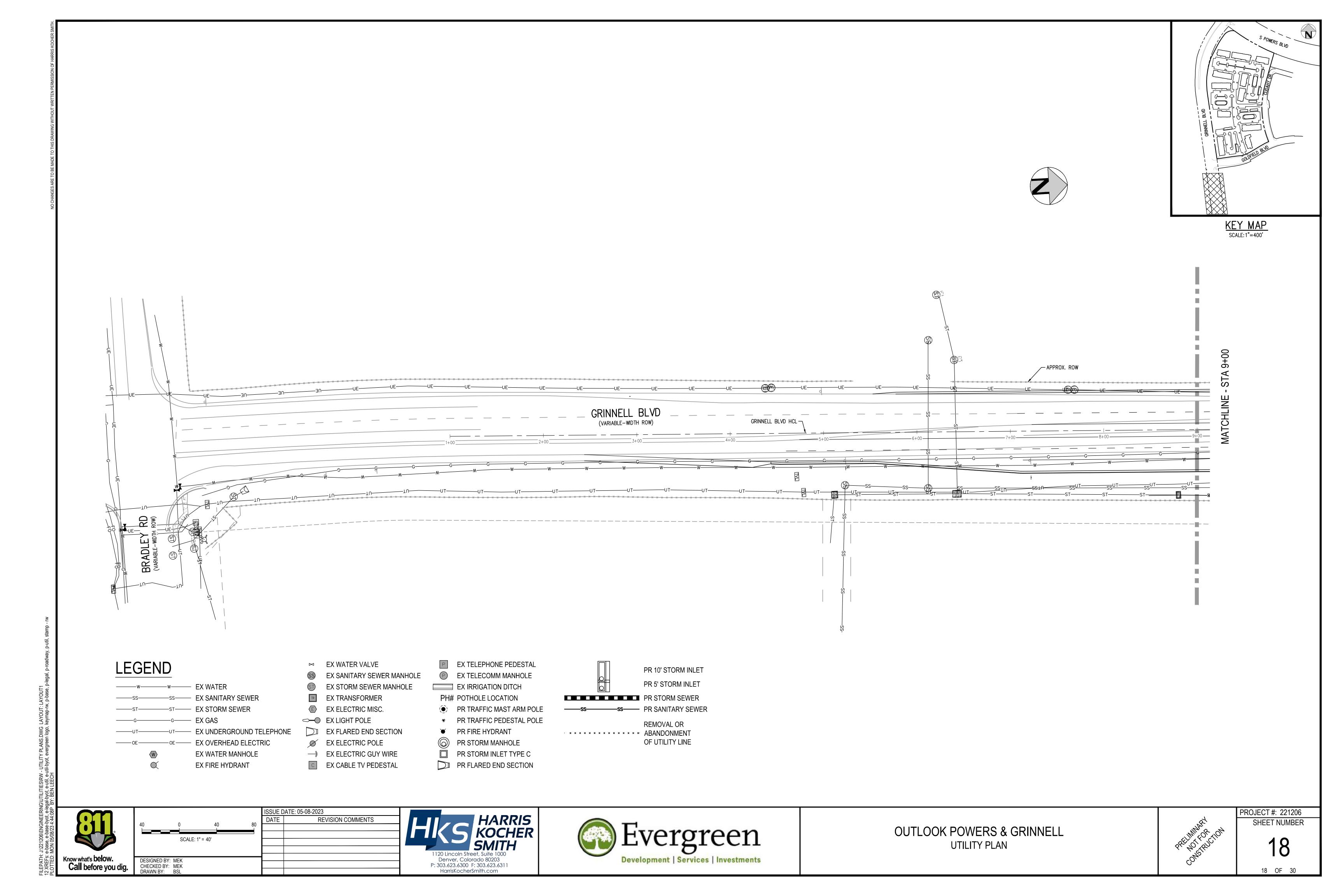


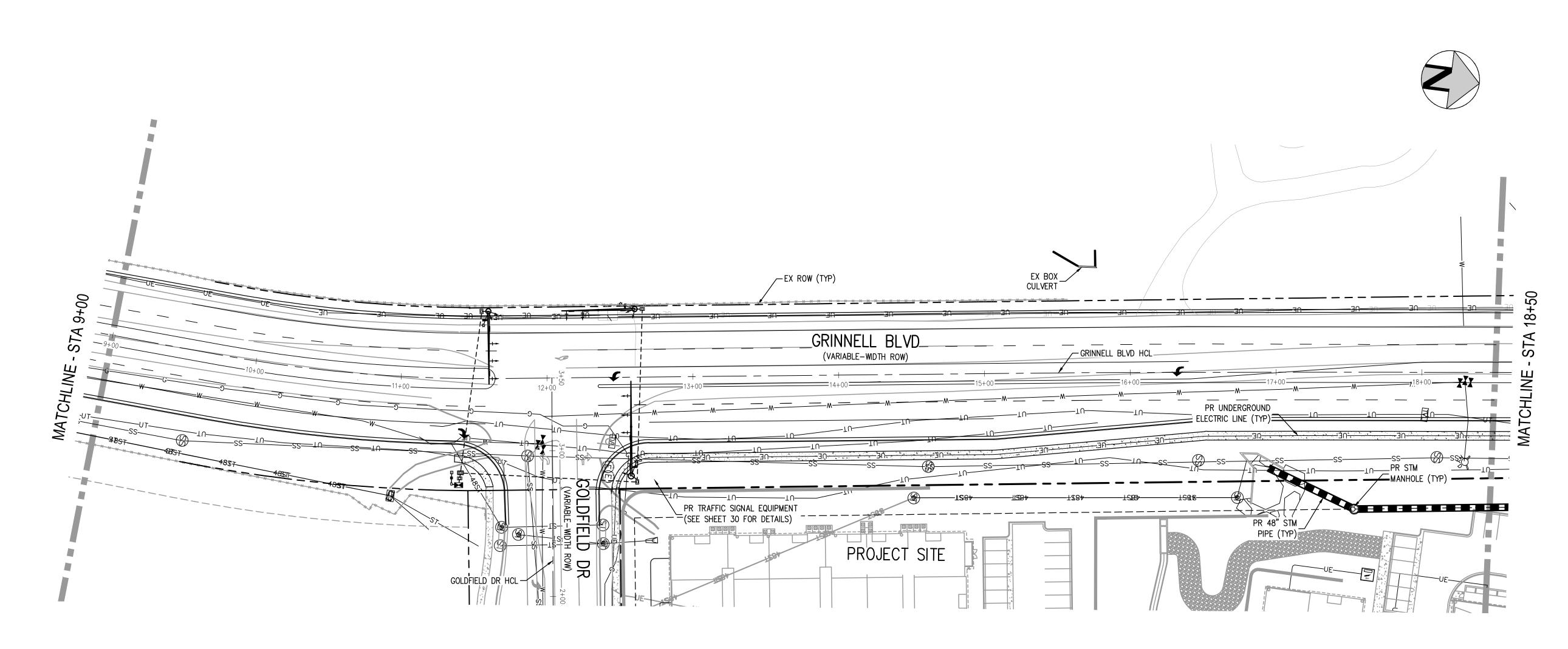


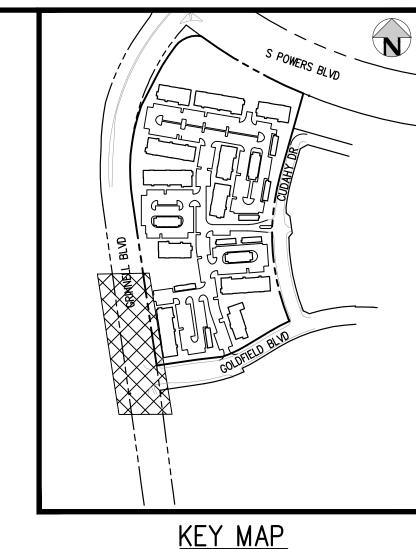


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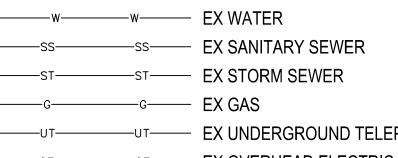
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- EX UNDERGROUND TELEPHONE -OE - EX OVERHEAD ELECTRIC EX WATER MANHOLE EX FIRE HYDRANT

EX WATER VALVE

EX SANITARY SEWER MANHOLE EX STORM SEWER MANHOLE

EX TRANSFORMER EX ELECTRIC MISC.

○──○ EX LIGHT POLE EX FLARED END SECTION

→ EX ELECTRIC GUY WIRE

EX CABLE TV PEDESTAL

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PH# POTHOLE LOCATION PR TRAFFIC MAST ARM POLE PR TRAFFIC PEDESTAL POLE

▼ PR FIRE HYDRANT PR STORM MANHOLE PR STORM INLET TYPE C

PR FLARED END SECTION

PR STORM SEWER

PR 10' STORM INLET PR 5' STORM INLET — PR SANITARY SEWER

REMOVAL OR · · · · · · · · · · · · · · · ABANDONMENT OF UTILITY LINE

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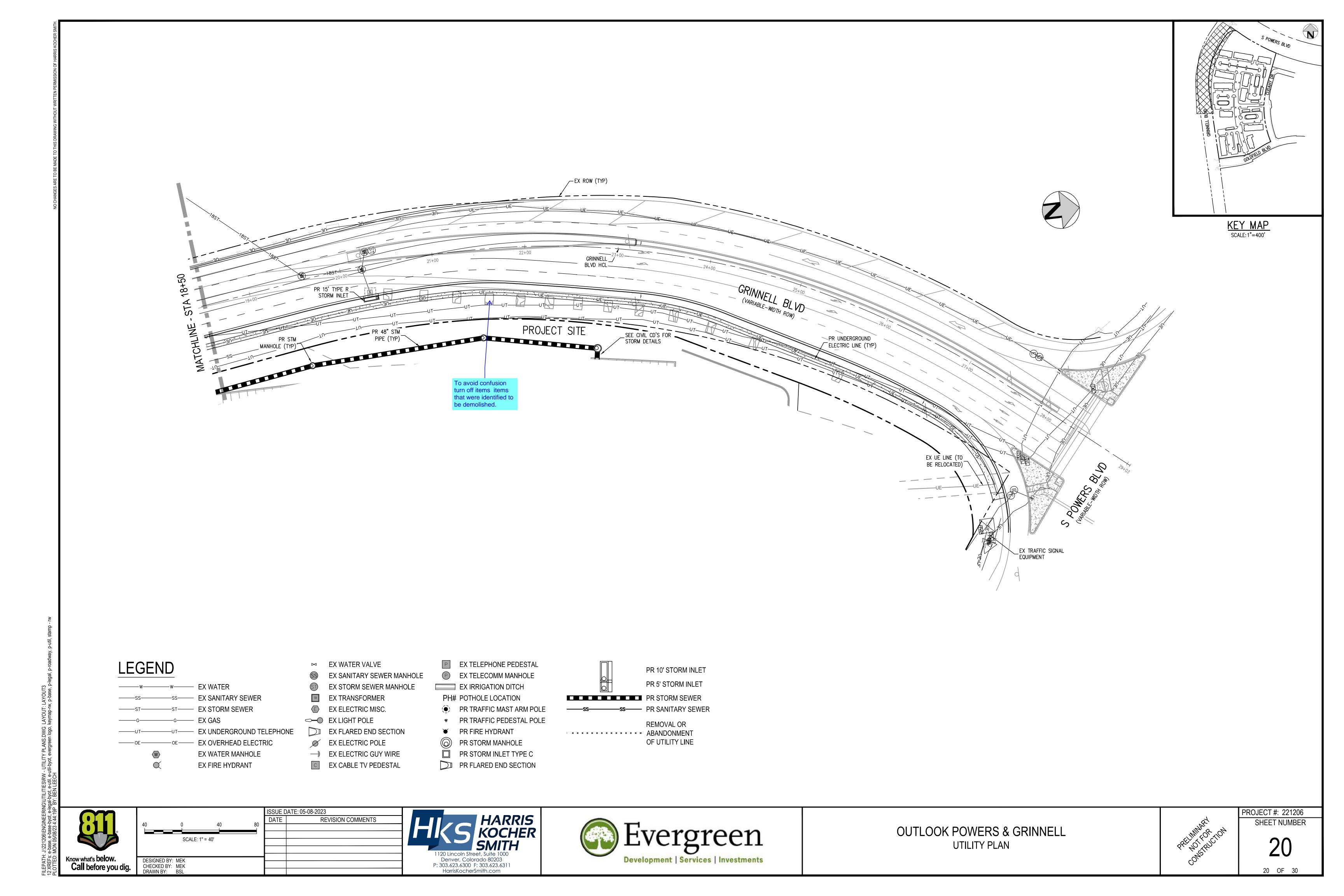


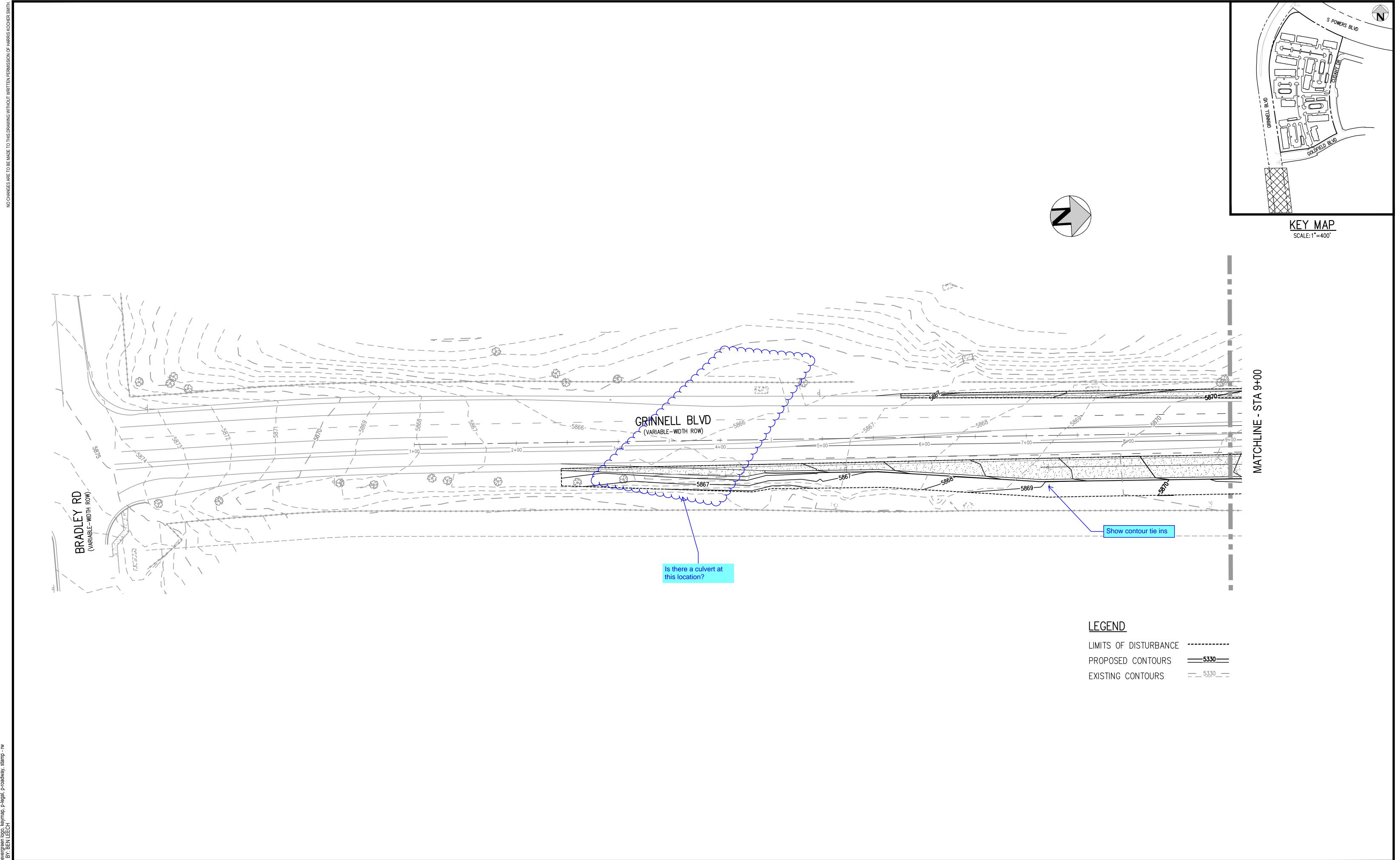


OUTLOOK POWERS & GRINNELL UTILITY PLAN

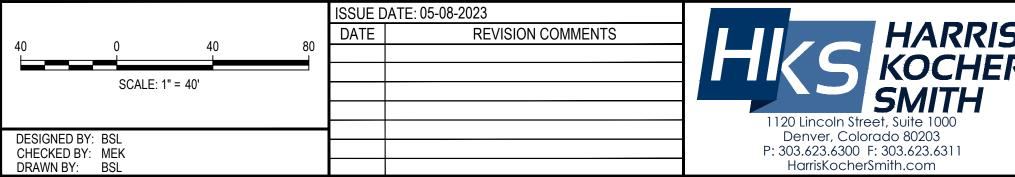


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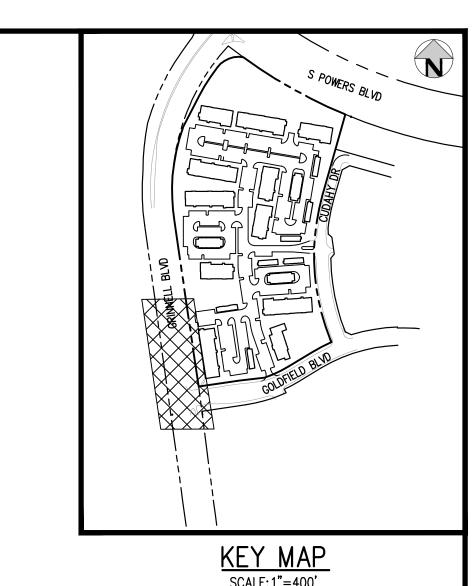


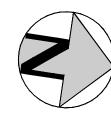


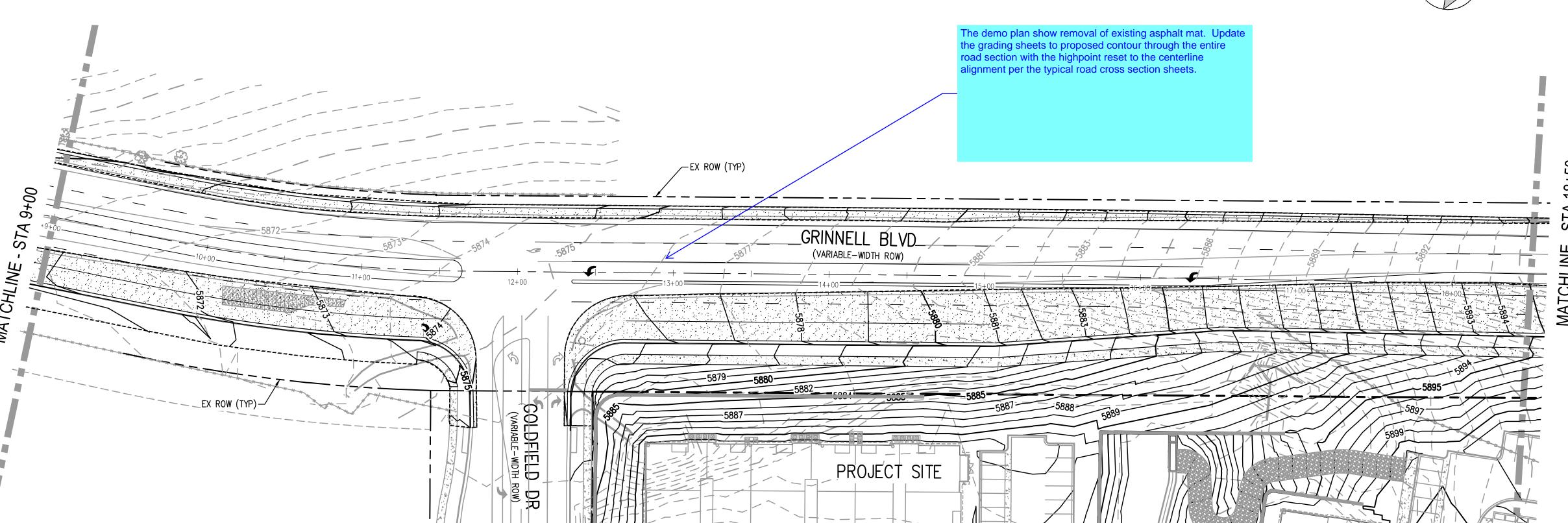


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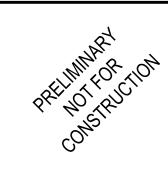
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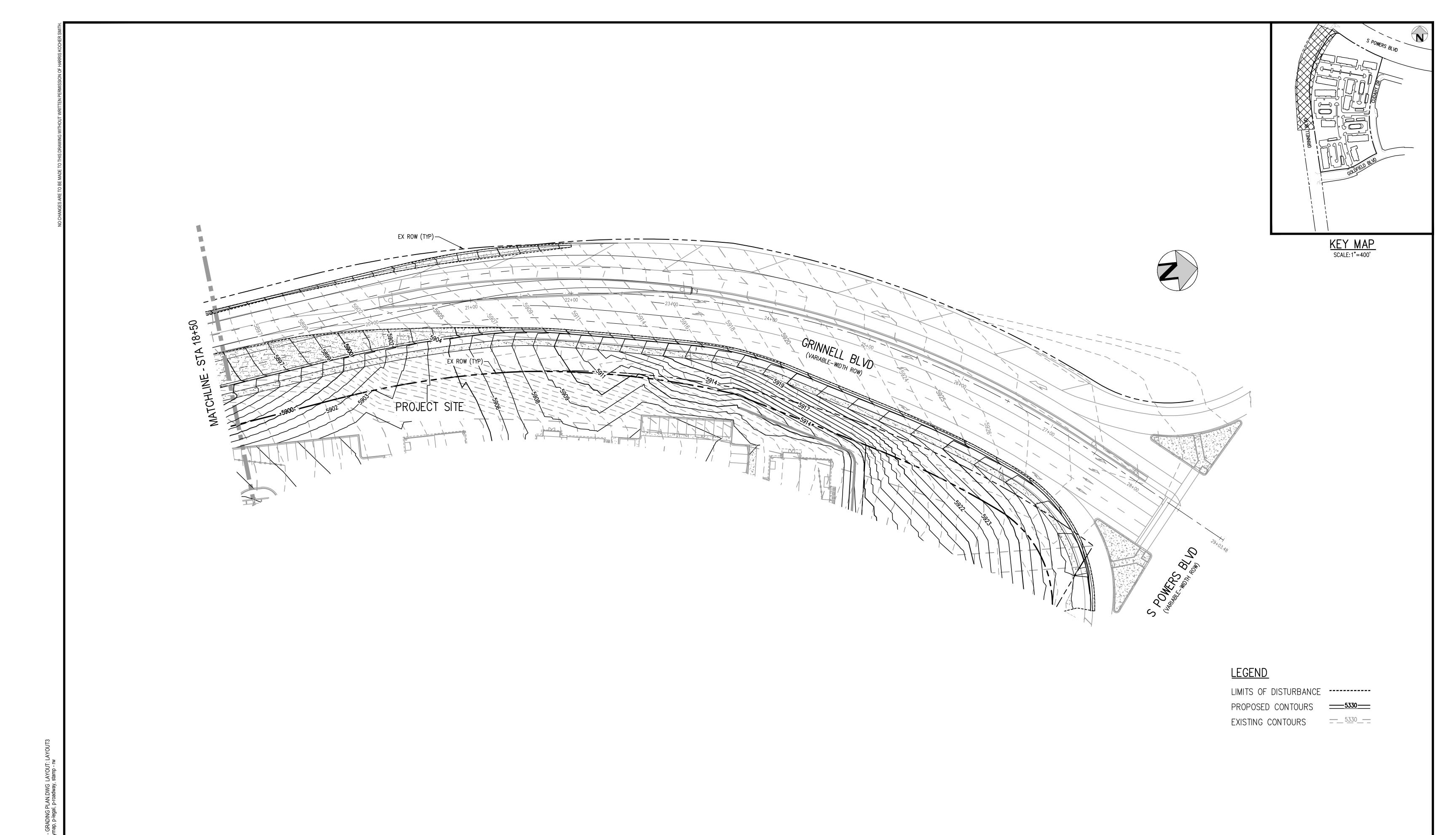


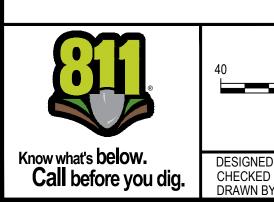




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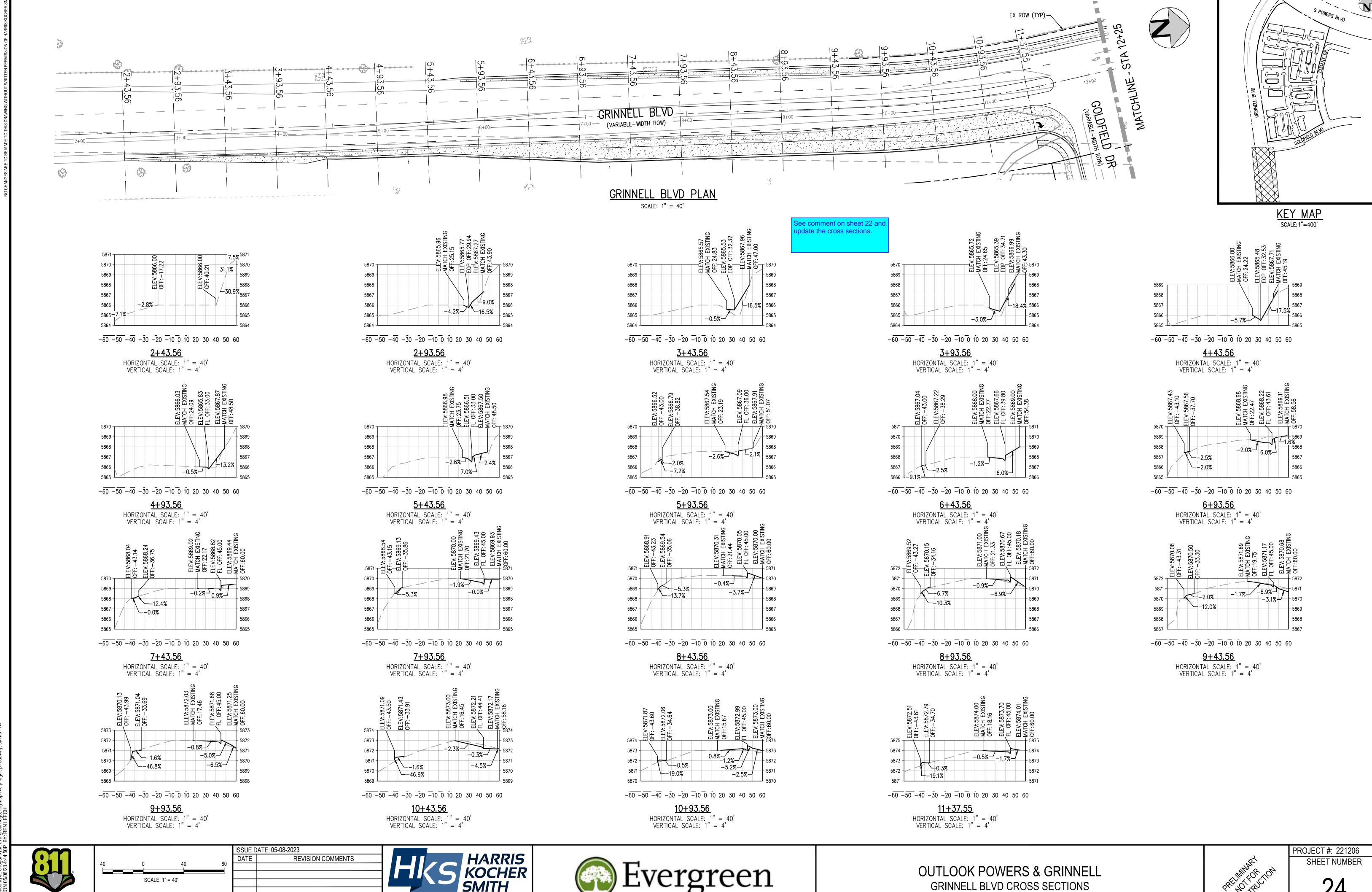
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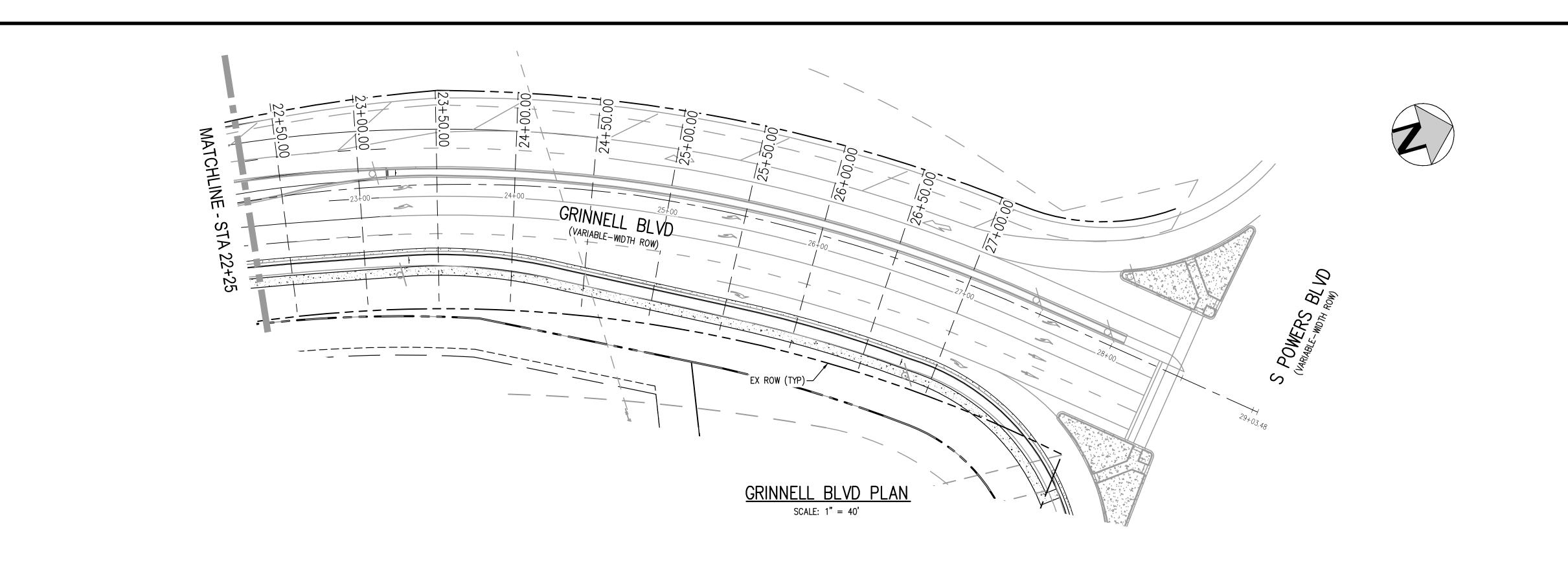
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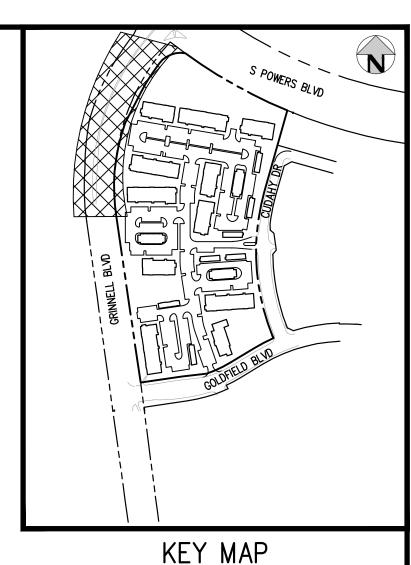
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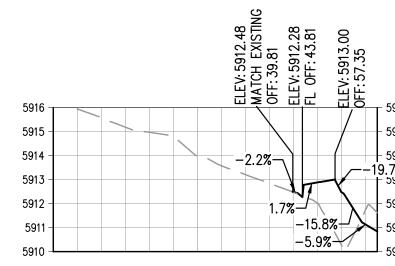
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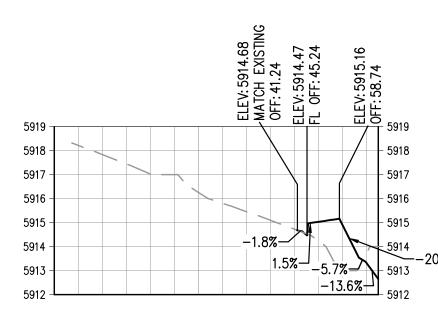




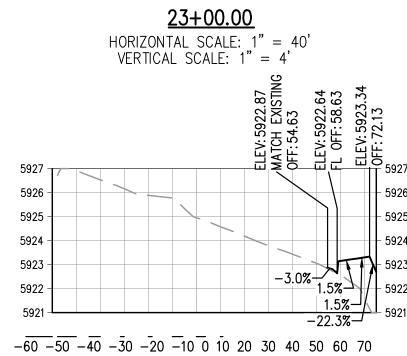
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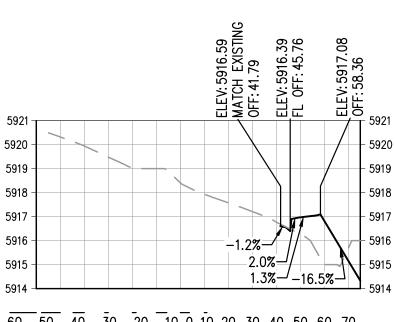
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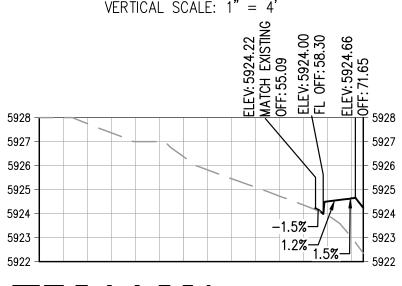


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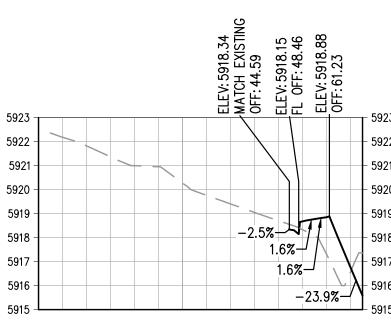


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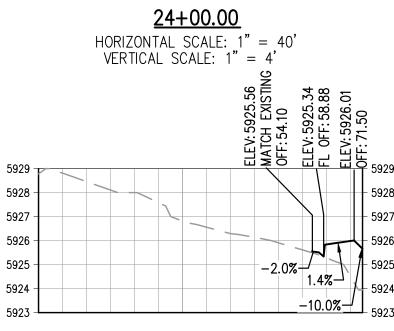
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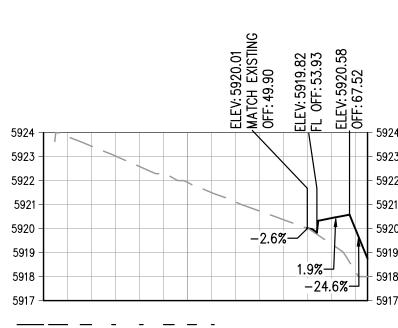
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 $-\overline{60} - \overline{50} - \overline{40} - \overline{30} - \overline{20} - \overline{10} \overline{0} 10 20 30 40 50 60 70$ $\frac{26+50.00}{\text{HORIZONTAL SCALE: 1"}} = 40'$ VERTICAL SCALE: 1" = 4'



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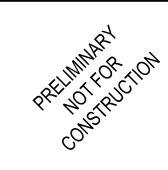
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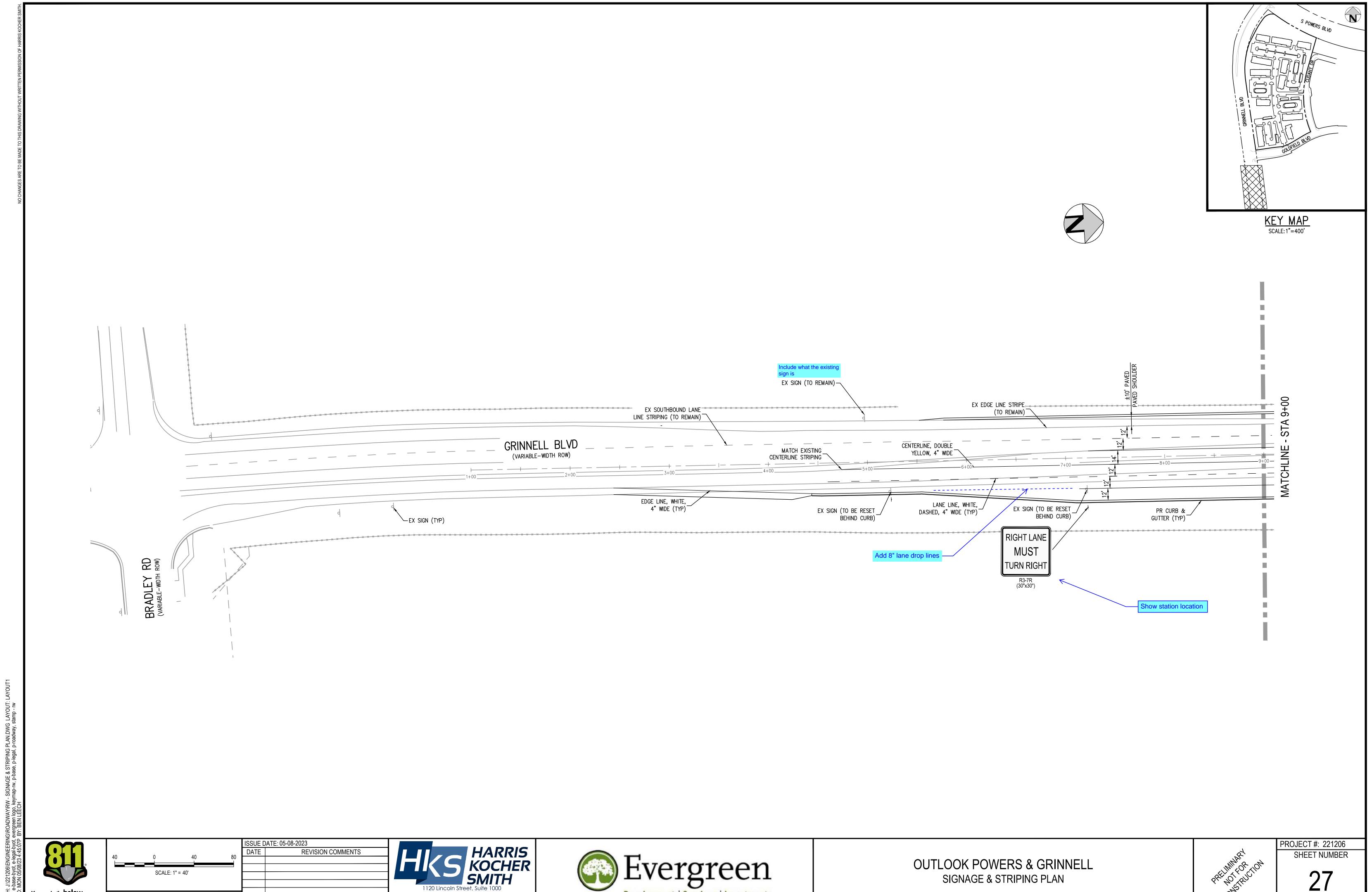


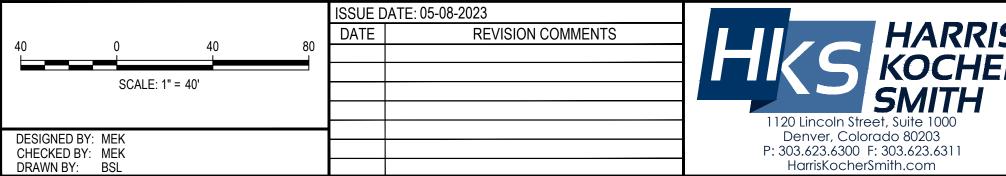


OUTLOOK POWERS & GRINNELL GRINNELL BLVD CROSS SECTIONS



PROJECT #: 221206 SHEET NUMBER











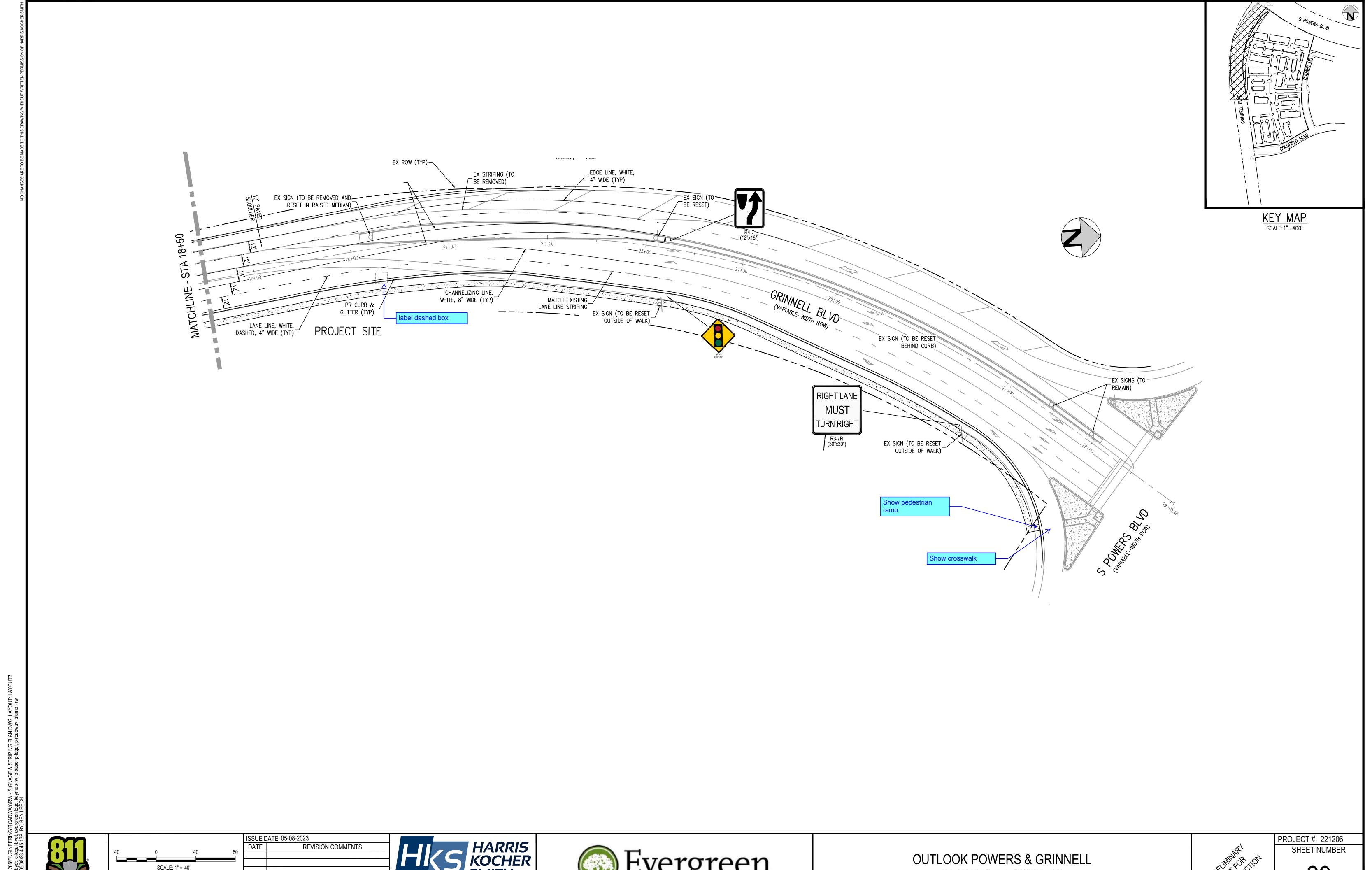
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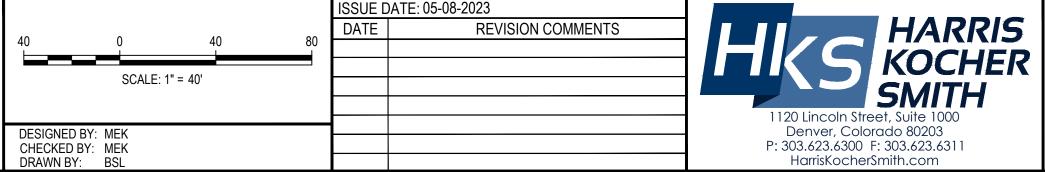






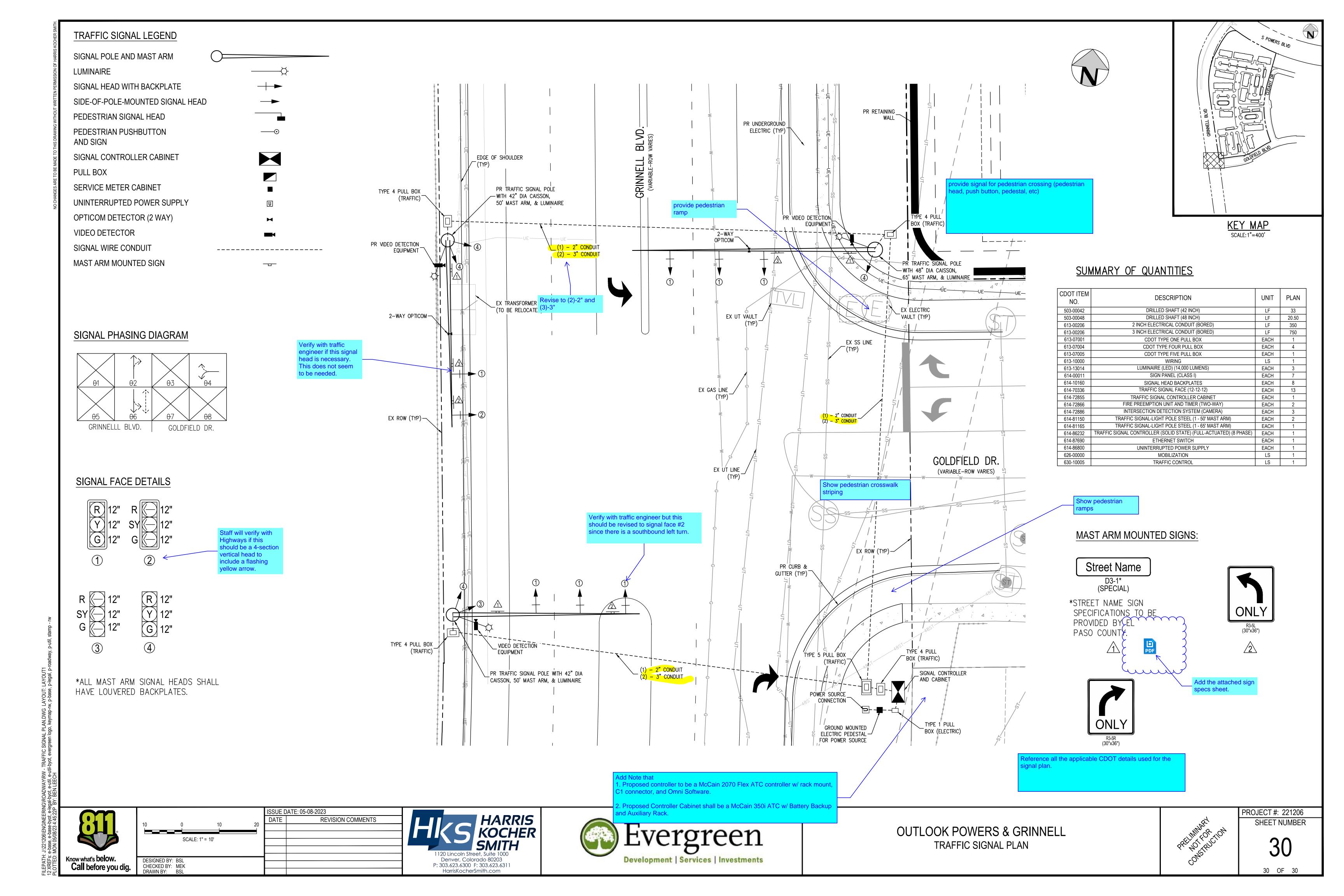
PROJECT #: 221206
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SIGNAGE & STRIPING PLAN



LEGAL DESCRIPTION:

A PARCEL OF LAND IN THE SOUTHWEST QUARTER OF SECTION 6 AND THE NORTHWEST QUARTER OF SECTION 7. TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN, COUNTY OF EL PASO, STATE OF COLORADO, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SAID SECTION 7;

THENCE SOUTH 21°16'15" EAST, A DISTANCE OF 1,234.30 FEET TO THE SOUTHEAST CORNER OF THE SAID PARCEL WHICH IS ALSO THE INTERSECTION OF THE EAST RIGHT-OF-WAY OF GRINNELL BOUELVARD AS DENOTED UNDER RECEPTION NUMBER 09080408 AND THE NORTH RIGHT-OF-WAY OF GOLDFIELD DRIVE AS DENOTED UNDER RECPETION NUMBER 207712585 BOTH WITH THE CLERK AND RECORDER OF EL PASO COUNTY AND THE POINT OF BEGINNING;

THENCE DEPARTING THE SAID NORTH RIGHT-OF-WAY OF GOLDFIELD DRIVE AND CONTINUING NORTHERLY ALONG THE SAID EAST RIGHT-OF-WAY OF GRINNELL BOULEVARD THE FOLLOWING SIX (6) COURSES:

- 1. NORTH 08'19'24" WEST, A DISTANCE OF 695.98 FEET TO A POINT OF CURVATURE;
- 2. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 190.45 FEET, SAID CURVE HAVING A RADIUS OF 890.00 FEET, A CENTRAL ANGLE OF 12"15'39", AND A CHORD WHICH BEARS NORTH 02"15'50" WEST, A CHORD DISTANCE OF 190.09 FEET TO A POINT OF NON-TANGENT;
- 3. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 209.47 FEET, SAID CURVE HAVING A RADIUS OF 856.07 FEET, A CENTRAL ANGLE OF 14°01'11", AND A CHORD WHICH BEARS NORTH 12°14'55" EAST, A CHORD DISTANCE OF 208.95 FEET;
- 4. NORTH 27°27'34" EAST, A DISTANCE OF 142.19 FEET TO A POINT OF CURVATURE;
- 5. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 143.22 FEET, SAID CURVE HAVING A RADIUS OF 844.07 FEET, A CENTRAL ANGLE OF 09'43'19", AND A CHORD WHICH BEARS NORTH 32"16'35" EAST, A CHORD DISTANCE OF 143.05 FEET TO A POINT OF NON-TANGENT;
- 6. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 122.20 FEET, SAID CURVE HAVING A RADIUS OF 110.01 FEET, A CENTRAL ANGLE OF 63'38'34", AND A CHORD WHICH BEARS NORTH 68'57'28" EAST, A CHORD DISTANCE OF 116.01 FEET TO THEA POINT OF NON TANGENT ON THE SOUTH RIGHT-OF-WAY OF POWERS BOUELVARD AS RECORDED UNDER BOOK 5307, PAGE 1472 WITH THE EL PASO CLERK AND RECORDER;

THENCE EASTERLY ALONG THE SAID SOUTH RIGHT-OF-WAY OF POWERS BOUELVARD ALONG THE ARC OF SAID CURVE TO THE LEFT AN ARC LENGTH OF 488.21 FEET, SAID CURVE HAVING A RADIUS OF 2105.00 FEET, A CENTRAL ANGLE OF 1317'19", AND A CHORD WHICH BEARS SOUTH 60'44'03" EAST A CHORD DISTANCE OF 487.12 FEET TO THE INTERSECTION WITH THE WEST BOUNDARY OF LOT 1, PAINTED SKY AT WATERVIEW FILING NO.3 AS RECORDED UNDER RECTION NUMBER 21271398 WITH THE EL PASO CLAERK AND RECORDER;

THENCE DEPARTING THE SAID SOUTH RIGHT-OF-WAY OF POWERS BOUELVARD AND CONTINUING SOUTHERLY ALONG THE SAID WEST PROPERTY LINE OF LOT 1 SOUTH 15'45'42" WEST, A DISTANCE OF 150.36 FEET TO THE INTERSECTION OF THE NORTH RIGHT-OF-WAY OF DANCING SUN WAY AND THE WEST RIGHT-OF-WAY OF CUDAHY DRIVE, BOTH RECORDED UNDER SAID RECEPTION NUMBER 212713198;

THENCE CONTINUING SOUTHERLY ALONG THE SAID WEST RIGHT-OF-WAY OF CUDAHY DRIVE THE FOLLOWING THREE (3) COURSES:

- 1. SOUTH 15'45'42" WEST, A DISTANCE OF 201.74 FEET TO A POINT OF CURVATURE;
- 2. ALONG THE SAID WEST RIGHT-OF-WAY OF CUDAHY DRIVE ALONG THE ARC OF SAID CURVE TO THE LEFT AN ARC LENGTH OF 610.02 FEET, SAID CURVE HAVING A RADIUS OF 925.00 FEET, A CENTRAL ANGLE OF 37°47'09", AND A CHORD WHICH BEARS SOUTH 03"10'04" EAST, A CHORD DISTANCE OF 599.03 FEET;
- 3. SOUTH 22°03'38" EAST, A DISTANCE OF 12.90 FEET TO A POINT OF CURVATURE ON THE SAID NORTH RIGHT-OF-WAY OF GOLDFIELD DRIVE;

THENCE WESTERLY ALONG THE SAID NORTH RIGHT-OF-WAY OF GOLDFIELD DRIVE THE FOLLOWING FIVE (5) COURSES:

- 1. ALONG THE ARC OF SAID CURVE TO THE LEFT AN ARC LENGTH OF 91.01 FEET, SAID CURVE HAVING A RADIUS OF 736.00 FEET, A CENTRAL ANGLE OF 07'05'04", AND A CHORD WHICH BEARS SOUTH 62"27"39" EAST, A CHORD DISTANCE OF 90.95 FEET;
- 2. SOUTH 58°55'08" WEST, A DISTANCE OF 114.02 FEET TO A POINT OF CURAVTURE;
- 3. ALONG THE ARC OF SAID CURVE TO THE RIGHT AN ARC LENGTH OF 110.36 FEET, SAID CURVE HAVING A RADIUS OF 519.00 FEET, A CENTRAL ANGLE OF 12"11'02", AND A CHORD WHICH BEARS SOUTH 65"00'36" WEST, A CHORD DISTANCE OF 110.16 FEET;
- 4. SOUTH 83°24'45" WEST, A DISTANCE OF 105.09 FEET;
- 5. SOUTH 81°41'14" WEST, A DISTANCE OF 172.84 FEET TO THE POINT OF BEGINNING:
- SAID PARCEL CONTAINS 363,565 SQUARE FEET OR 8.346 ACRES, MORE OR LESS;

BENCHMARK:

"A RR SPIKE SET IN CONCRETE NEXT TO A RAILROAD FENCE POST SOUTHWEST OF A 90 DEGREE CURVE IN POWERS BOULEVARD. THIS IS A SECTION CORNER FOR SECTIONS 6 AND 7, T15S, R65W, AND SECTIONS 1 AND 12, T15S, R66W OF THE SIXTH P.M. THE POINT IS DESIGNATED AS "5501V" PER THE COLORADO SPRINGS UTILITIES FACILITIES INFORMATION MANAGEMENT SYSTEM (FIMS).

ELEVATION: 5908.830 US SURVEY FEET (NAVD88 DATUM)

NOTE: NAVD 88 ELEVATION WAS TRANSFORMED FROM NGVD29 DATUM USING THE NGS COORDINATE CONVERSION AND TRANSFORMATION TOOL (NCAT). NGVD 29 PUBLISHED ELEVATION = 5905.440. PER NCAT, DELTA IS 3.389 US SURVEY FEET.

BASIS OF BEARINGS:

BASIS OF BEARINGS ARE BASED UPON THE WEST LINE OF THE NORTHWEST QUARTER OF SECTION 7, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE SIXTH PRINCIPAL MERIDIAN AS MONUMENTED AT THE NORTHWEST CORNER OF SAID SECTION 7 BY A FOUND RR SPIKE IN CONCRETE AND THE WEST QUARTER OF SAID SECTION 7 BY A FOUND 3.25" ALUMINUM CAP IN A RANGE BOX STAMPED "17496", AS BEARING SOUTH 00°43'01" EAST, WITH ALL BEARINGS SHOWN HEREON RELATIVE THERETO.

OUTLOOK POWERS & GRINNELL

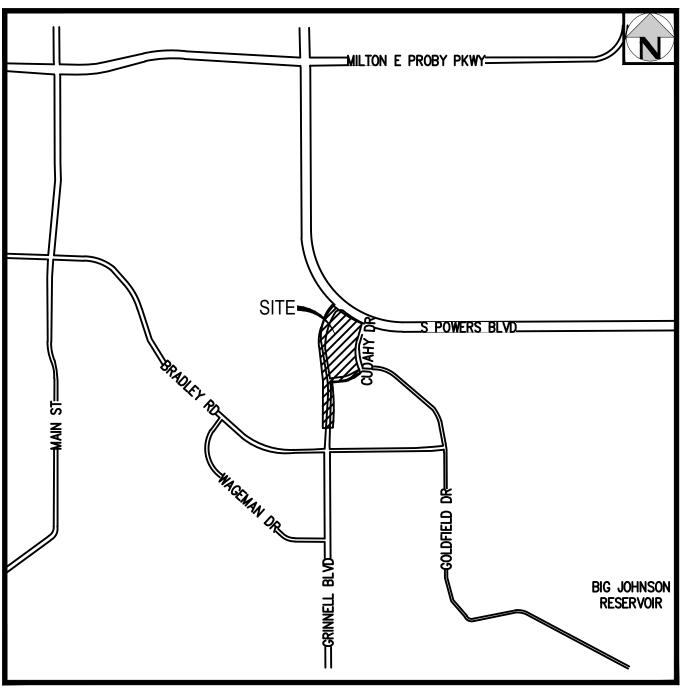
SITUATED IN THE NORTHWEST 1/4 OF SECTION 7, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH P.M., COUNTY OF EL PASO, STATE OF COLORADO.

taff's recommendation is to remove the Site specific

pload the Utility Plans as a separate item on the eDARP

approvements from the SF2318 final plat application and ubmit it with the site plan application (PPR2320).

WATER & SANITARY PLANS



VICINITY MAP SCALE: 1" = 2000'

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ABBREVIATIONS BLDG BUILDING BLVD BOULEVARD DIP DUCTILE IRON PIPE EAST, EASTING ELEC ELECTRIC IESMT IEASEMENT **IEXISTING** FH FIRE HYDRANT FEET LINEAR FEET NORTH, NORTHING IPKWY IPARKWAY ROW RIGHT-OF-WAY ISAN ISANITARY ISTM ISTORM TOP TOP OF PIPE TYP TYPICAL UNDERGROUND WAT WATER

<u>LEGEND</u>	<u>EXISTING</u>	<u>PROPOSED</u>
PROPERTY LINE		
RIGHT-OF-WAY		
SANITARY SEWER PIPE	SS	SS
WATER PIPE	W	
STORM SEWER PIPE	ST	
GAS	G	
UNDERGROUND TELEPHONE	——UT——UT——	——UT———UT——
UNDERGROUND ELECTRIC	UEUE	———UE———UE———
OVERHEAD ELECTRIC	OEOE	OEOE
JOINT TRENCH	JTJT	JTJT
MANHOLE	ST	
GATE VALVE		Ø
HYDRANT		\varpropto
TEE & FITTINGS		⊕ ₽ �
WATER DOMESTIC SERVICE		
WATER FIRE SERVICE		
SANITARY SERVICE W/ CLEANOUT		
INLET		
FLARED END SECTION		D
LANDSCAPE DRAIN		
LIGHT	0-0	ф № ф
TELEPHONE VAULT	P	
TELEPHONE JUNCTION BOX	P	
ELECTRIC PULL BOX	E	
FENCE POST/BOLLARD	•	
TRANSFORMER	TR	XFMR

dd the El Paso County standard signature blocks for the developer/owner tatement, design engineer statement, and county engineer.

WATER STATEMENT

THE UNDERSIGNED OWNER/DEVELOPER AGREES THAT THE INSTALLATION OF THESE PROPOSED WATER FACILITIES WILL BE MADE IN ACCORDANCE WITH WATER DISTRICT SPECIFICATIONS AND SHALL BE INSTALLED TO A DEPTH OF 5 FEET TO FLOW LINE FOR WATER MAIN(S) UP TO BUT NOT INCLUDING 12 INCH DIAMETER WATER MAINS AND 4 FEET OF COVER FOR 12 INCH AND LARGER DIAMETER MAIN(S) AT FINAL GRADE. ANY CHANGES REQUIRED TO MEET THE ABOVE STIPULATIONS SHALL BE AT THE EXPENSE OF THE OWNER/DEVELOPER. ALL MAIN EXTENSIONS SHALL BE SUPPORTED BY PLAN AND PROFILE DRAWINGS APPROVED BY THE WATER DISTRICT.

ANY WATER MAIN, SERVICE LINE OR APPURTENANCE THAT IS TO BE RELOCATED OR ADJUSTED BY THE CONTRACTOR OR DEVELOPER SHALL BE ACCOMPLISHED BY THE DEVELOPER, BUILDER, CONTRACTOR OR PERSON OR PERSONS REQUIRING THE MOVEMENT, RELOCATION OR ADJUSTMENT AT NO EXPENSE TO THE SECURITY WATER DISTRICT.

SIGNED		DA II	<u> </u>
	OWNER/DEVELOPER		
DBA			
ADDRESS			

ALL FIRE HYDRANTS SHALL BE INSTALLED ACCORDING TO SECURITY WATER DISTRICT SPECIFICATIONS.

THE NUMBER OF FIRE HYDRANTS AND HYDRANT LOCATION AS SHOWN ON THIS WATER INSTALLATION PLAN ARE CORRECT AND ADEQUATE TO SATISFY THE FIRE PROTECTION REQUIREMENTS AS SPECIFIED BY THE SECURITY FIRE DEPARTMENT OR FOUNTAIN FIRE DEPARTMENT; WHOMEVER HAS

SIGNED	SECURITY FIRE DEPARTMENT	DATE	
SIGNED	FOUNTAIN FIRE DEPARTMENT	DATE	
ER PLAN API	PROVAL		

SECURITY WATER DISTRICT

SECURITY SANITATION PLAN APPROVA SECURITY SANITATION DISTRICT

SANITARY STATEMENT

OF THE OWNER/DEVELOPER.

SANITATION DISTRICT.

dd PCD File No SF2318

THE UNDERSIGNED OWNER/DEVELOPER AGREES THAT THE INSTALLATION

REQUIRED TO MEET THE ABOVE STIPULATIONS SHALL BE AT THE EXPENSE

ANY SEWER MAIN, SERVICE LINE, OR APPURTENANCE TO EITHER, THAT IS

CONTRACTOR, OR PERSON(S) REQUIRING THE MOVEMENT, RELOCATION, OR

OF THESE PROPOSED SEWER FACILITIES WILL BE MADE IN ACCORDANCE

WITH SECURITY SANITATION DISTRICT SPECIFICATIONS. ANY CHANGES

TO BE RELOCATED OR ADJUSTED BECAUSE OF CONSTRUCTION OR

ADJUSTMENT. THIS SHALL BE AT NO EXPENSE TO THE SECURITY

OWNER/DEVELOPER

DEVELOPMENT SHALL BE ACCOMPLISHED BY THE DEVELOPER, BUILDER,

DEVELOPER

CIVIL ENGINEER/SURVEYOR





ISSUE L	DATE: 05-08-2023	PROJECT #: 221206				
DATE	REVI	REVISION COMMENTS				

SECURITY SANITATION DISTRICT GENERAL NOTES FOR WASTEWATER COLLECTION SYSTEM CONSTRUCTION

GENERAL

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE SECURITY SANITATION DISTRICT (SSD) SEWER USE REGULATIONS (SUR), THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS AND THE SSD POLICIES, PROCEDURÉS AND AGREEMENTS PERTAINING TO THIS PROJECT.

2. THE CONTRACTOR SHALL COORDINATE AND PROVIDE FOR DETERMINING THE LOCATION AND PROVIDING FOR PROTECTION OF EXISTING UTILITIES AND DRAINAGE STRUCTURES. THE UTILITY NOTIFICATION CENTER OF COLORADO SHALL BE CONTACTED BY DIALING 811 OR 1-800-922-1987.

SUFFICIENT CLEARANCE SHALL BE MAINTAINED BETWEEN THE EXCAVATION FOR THE NEW WASTEWATER FACILITIES AND ANY POWER OR TELEPHONE POLE OR GUY WIRE. IN CASES WHERE FAILURE OF A POLE IS POSSIBLE, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY FOR ASSISTANCE TO TEMPORARILY BRACE OR SUPPORT THE POLE AS REQUIRED. IN THE CASE WHERE A GUY WIRE OR ITS ANCHOR IS IN DIRECT CONFLICT WITH THE WORK PROPOSED, THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY FOR THE REMOVAL AND REINSTALLATION OF THE CONFLICTING GUY WIRE OR ANCHOR AS REQUIRED.

4. NO EXCAVATED MATERIAL SHALL BE PLACED UNDER OVERHEAD ELECTRIC CONDUCTORS OR AROUND POLES OR TEMPORARILY STORED UNDER LINES WITHOUT FIRST CONSULTING WITH THE ELECTRIC UTILITY TO DETERMINE IF ADEQUATE CLEARANCES WILL BE MAINTAINED. NO PERSON, TOOL OR EQUIPMENT SHALL OPERATE CLOSER THAN 10 FEET TO ANY PORTION OF ANY ENERGIZED LINE WITHOUT FIRST COMPLYING WITH THE PROVISIONS OF COLORADO REVISED STATUTES 1973, SECTION 1, TITLE 9, ARTICLE 2.5, 102 AND 103.

5. THE CONTRACTOR SHALL NOT DISTURB ANY EXISTING UTILITIES UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL UTILITIES SHALL REMAIN IN SERVICE AT ALL TIMES DURING CONSTRUCTION UNLESS OTHER ARRANGEMENTS, ACCEPTABLE TO THE UTILITY OWNER, ARE MADE BETWEEN THE CONTRACTOR, THE RESPECTIVE UTILITY DEPARTMENT AND WHERE APPROPRIATE, THE PRIVATE PROPERTY OWNER(S).

6. THE CONTRACTOR IS RESPONSIBLE TO INSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE STANDARDS AND REGULATIONS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

EARTHWORK

- 7. ALL EXCAVATION, PIPE EMBEDMENT AND TRENCH BACKFILL SHALL BE IN ACCORDANCE WITH THE SECURITY SANITATION DISTRICT SEWER USE REGULATIONS AND THE DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS AND SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL AUTHORITY GOVERNING WORK IN AND USE OF PUBLIC RIGHT-OF-WAYS.
- 8. IN THOSE AREAS WHERE CONSTRUCTION ACTIVITY ALTERS EXISTING DRAINAGE CONFIGURATIONS, DRAINAGE PATTERNS SHALL BE RESTORED TO AS GOOD AS OR BETTER CONDITIONS THAN THOSE THAT EXISTED PRIOR TO THE CONSTRUCTION ACTIVITY.
- 9. COMPACTION SHALL BE IN COMPLIANCE WITH THE SECURITY SANITATION DISTRICT SEWER USE REGULATIONS. IN THOSE AREAS WHERE CUT PERMITS ARE ISSUED BY AN OUTSIDE AUTHORITY OR IN CASE OF CONFLICT IN THE REFERENCED STANDARDS, COMPLY WITH THE MORE STRINGENT SPECIFICATION. 10. ANY MATERIAL NOT SUITABLE FOR INCORPORATION INTO TRENCH BACKFILL OR STREET SUBGRADE SHALL BE REMOVED FROM THE SITE.
- 11. ANY SOIL THAT IS DISTURBED BELOW THE DESIGNATED SUBGRADE ELEVATIONS BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED IN ACCORDANCE WITH THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS.

TRAFFIC CONTROL AND STREET SURFACE RESTORATION

12. ALL STREET SURFACE RESTORATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE AGENCY HAVING JURISDICTION OVER THE ROADWAY, SUBJECT TO THE ACCEPTANCE BY THE SECURITY SANITATION DISTRICT.

SANITARY SEWER SERVICE LINES

- 13. SANITARY SEWER SERVICE LINES MUST BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF THE SECURITY SANITATION DISTRICT SEWER USE
- REGULATIONS AND THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS. 14. SANITARY SEWER SERVICE CONNECTIONS USING IN-LINE TEES OR SADDLE TAP TEES SHALL BE INSTALLED NO LESS THAN 5-FEET FROM ANY MANHOLE AND NO LESS THAN 3-FEET FROM AN ADJACENT SEWER SERVICE CONNECTION OR TAP.
- 15. THE CONTRACTOR SHALL NOTIFY THE SECURITY SANITATION DISTRICT 48-HOURS PRIOR TO COMMENCING EXCAVATION FOR A SANITARY SEWER SERVICE LINE AND COORDINATE THE REQUIRED INSPECTIONS.
- 16. CLEANOUTS SHALL BE INSTALLED WHERE HORIZONTAL DEFLECTIONS IN ALIGNMENT OCCUR IN ACCORDANCE WITH THE SECURITY SANITATION DISTRICT DESIGN
- CRITERIA AND STANDARD SPECIFICATIONS.
- 17. ALL SERVICE LINE INSTALLATIONS SHALL BE INSPECTED BY THE SECURITY SANITATION DISTRICT PRIOR TO BACKFILLING.
- 18. SANITARY SEWER SERVICE LINES SHALL BE INSTALLED WITH AN ABSOLUTE MINIMUM SLOPE OF 2% UNLESS SPECIFICALLY AUTHORIZED BY THE SECURITY SANITATION DISTRICT IN WRITING.

GENERAL CONSTRUCTION NOTES

REGULATIONS.

- 19. SHOP DRAWING SUBMITTALS SHALL BE MADE TO THE SECURITY SANITATION DISTRICT FOR ALL MATERIALS TO BE INCORPORATED INTO THIS PROJECT. 20. ALL SEWER MAIN AND SERVICE LINE WORK SHALL BE UNDERTAKEN UTILIZING CLASS "B" BEDDING. REFER TO THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS FOR THE REQUIRED PIPELINE EMBEDMENT.
- 21. ANY SIGNS, DELINEATOR POSTS, MAILBOXES, NEWSPAPER BOXES AND OTHER APPURTENANCES REMOVED DURING CONSTRUCTION SHALL BE REINSTALLED IN THE SAME LOCATION AND IN AN ACCEPTABLE CONDITION.
- 22. IN THOSE AREAS WHERE NEW PIPELINE CONSTRUCTION IMPACTS EXISTING FENCING, THE CONTRACTOR SHALL REMOVE THE FENCING AS NECESSARY. ALL FENCING REMOVED DURING CONSTRUCTION SHALL BE REINSTALLED IN A CONDITION AS GOOD AS OR BETTER THAN ORIGINALLY FOUND.
- 23. EXISTING PROPERTY CORNERS AND SECTION MONUMENTATION SHALL NOT BE DISTURBED. IN THE EVENT ANY EXISTING PROPERTY MONUMENTATION IS DISTURBED DURING THE COURSE OF CONSTRUCTION, IT SHALL BE REPLACED BY A SURVEYOR LICENSED IN THE STATE OF COLORADO.
- 24. THE CONTRACTOR SHALL SET ALL MANHOLE RINGS AND COVERS OUTSIDE OF PAVED ROADWAYS OR HARDSCAPED AREAS 2-INCHES ABOVE THE FINISH GRADE AND INSTALL A CARSONITE MARKER POST AT EACH MANHOLE. THE CONTRACTOR SHALL COORDINATE WITH THE SECURITY SANITATION DISTRICT FOR THE PLACEMENT OF THE CARSONITE MARKERS AT ALL OFF-ROAD MANHOLE LOCATIONS.
- 25. IN PAVED ROADS OR HARDSCAPED SURFACES, MANHOLE RINGS SHALL BE SET 1/4-INCH BELOW FINISH GRADE. CARE SHALL BE TAKEN IN FINAL GRADING TO
- PRECLUDE PONDING OF SURFACE WATER OVER MANHOLE RINGS AND COVERS. 26. THE CONTRACTOR SHALL REVIEW THE DETAILS IN THE SECURITY SANITATION DISTRICT SEWER USE REGULATIONS AND STANDARD DRAWINGS FOR MANHOLE WALL THICKNESS, BASE DIAMETER AND THICKNESS, STEEL REQUIREMENTS AND WATERPROOFING REQUIREMENTS. MANHOLE BASES SHALL BE PRECAST UNITS UNLESS APPROVED IN ADVANCE BY THE SECURITY SANITATION DISTRICT.
- 27. THE CONTRACTOR SHALL COORDINATE THE INSTALLATION OF CONCRETE/GROUT FILLETS IN THE MANHOLES WITH THE SECURITY SANITATION DISTRICT TO
- ENSURE PROPER PERFORMANCE AND ACHIEVEMENT OF DESIGN INTENT. FULL DEPTH, EQUAL TO THE PIPE DIAMETER, FLOW CHANNELS ARE REQUIRED. 28. THE CONTRACTOR IS TO UNDERTAKE HIS WORK IN ACCORDANCE WITH OSHA'S CONFINED SPACE ENTRY REQUIREMENTS.
- 29. NEW MATERIALS SHALL BE USED FOR ALL WORK UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- 30. POSITIVE DRAINAGE SHALL BE PROVIDED AWAY FROM ALL STRUCTURES. FINAL GRADING IS SUBJECT TO REVIEW AND APPROVAL. 31. THE SUBGRADE UNDERNEATH ALL STRUCTURES SHALL BE ADEQUATELY STABILIZED IN ACCORDANCE WITH THE SECURITY SANITATION DISTRICT SEWER USE
- 32. ALL SANITARY SEWER COLLECTION SYSTEM COMPONENTS ARE SUBJECT TO PRESSURE TESTING IN ACCORDANCE WITH THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS. PRIOR TO FINAL ACCEPTANCE BY THE DISTRICT, ALL SANITARY SEWER LINES SHALL BE PROFESSIONALLY CLEANED, INSPECTED BY INTERNAL VIDEO CAMERA AND WRITTEN RECORDS AND DIGITAL VIDEO DISK (DVD) RECORDINGS FURNISHED TO THE SECURITY SANITATION DISTRICT FOR REVIEW AND APPROVAL.
- 33. THE PIPELINE INSTALLATION SHALL GENERALLY BE ACCOMPLISHED FROM THE LOWEST PORTION OF THE PROJECT PROCEEDING UPHILL.
- 34. FLAT TOP LIDS ON PRECAST CONCRETE MANHOLES ARE REQUIRED FOR ALL MANHOLES 5.0 FEET AND LESS IN DEPTH. ECCENTRIC CONES ARE TO BE
- INSTALLED ON ALL MANHOLES WITH DEPTHS GREATER THAN 5.0 FEET. 35. THE CONTRACTOR SHALL THICKEN FILLETS IN MANHOLES AT THE DIRECTION OF THE SECURITY SANITATION DISTRICT WHERE THE UPSTREAM LINES HAVE EXCESSIVE GRADES.
- 36. ALL POLYVINYLCHLORIDE (PVC) PIPE SHALL BE IN CONFORMANCE WITH ASTM D3034 (GREEN IN COLOR) AND INSTALLED PER ASTM D2321. PIPE STANDARD DIMENSION RATIO (SDR) OR PIPE STIFFNESS (PS) MAY VARY AND SHALL BE SHOWN ON THE CONSTRUCTION DRAWINGS.
- 37. WHERE THE NEW SANITARY SEWER MAIN IS LESS THAN 18 VERTICAL INCHES UNDER A WATER MAIN, THE CONTRACTOR SHALL INSTALL A 20-FOOT LONG SEGMENT OF DUCTILE IRON PIPE (DIP) IN THE SANITARY SEWER MAIN CENTERED ON THE WATER MAIN CROSSING. THE DIP SHALL BE CONNECTED TO THE PVC SANITARY SEWER MAIN WITH WATERTIGHT FERNCO TYPE COUPLINGS ENCASED IN REINFORCED CONCRETE 12-INCHESLONG, 6-INCHES THICK. MATCH INVERTS OF THE DIP AND PVC PIPE.
- 38. ALL DUCTILE IRON PIPING UTILIZED WITHIN THE SECURITY SANITATION DISTRICT SHALL HAVE AN INTERIOR COATING OR LINING IN ACCORDANCE WITH THE REQUIREMENTS OF THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS SPECIFICALLY DESIGN, APPLIED AND INSTALLED FOR
- 39. THE SANITARY SEWER PIPELINE SHALL BE INSTALLED IN STRAIGHT ALIGNMENTS BETWEEN MANHOLES UNLESS OTHERWISE APPROVED BY THE SECURITY SANITATION DISTRICT.
- 40. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING WASTEWATER PIPELINES OR MANHOLES AS A RESULT OF THEIR CONSTRUCTION
- 41. ALL PIPELINES SHALL BE "AS BUILT" SURVEYED AND "AS BUILT" DRAWINGS SUBMITTED TO THE SECURITY SANITATION DISTRICT FOR REVIEW AND ACCEPTANCE. PAPER OR "HARD COPY" DRAWINGS AND ELECTRONIC AUTOCAD FILES ARE REQUIRED. REFER TO THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS FOR THE REQUIRED ELECTRONIC FILE FORMAT, HORIZONTAL COORDINATE SYSTEM AND VERTICAL DATUM.
- 42. THE CONTRACTOR SHALL PROCURE AND FAMILIARIZE HIMSELF WITH THE SECURITY SANITATION DISTRICT (SSD) SEWER USE REGULATIONS (SURS), THE SECURITY SANITATION DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS AND THE SSD POLICIES, PROCEDURES AND AGREEMENTS PERTAINING TO THIS PROJECT PRIOR TO COMMENCING CONSTRUCTION. A COPY OF THE DISTRICT'S SEWER USE REGULATIONS AND DESIGN CRITERIA AND STANDARD SPECIFICATIONS SHALL BE ON-SITE ANY TIME CONSTRUCTION IS BEING ACCOMPLISHED.
- 43. MANHOLE ENTRY PERMIT: THE SECURITY SANITATION DISTRICT WILL AUTHORIZE THE CONTRACTOR TO ENTER DISTRICT-OWNED MANHOLES; HOWEVER, THE DISTRICT WILL NOT ISSUE AN "ENTRY PERMIT" TO THE CONTRACTOR FOR ANY CONFINED SPACE. PRIOR TO ANY ENTRY, THE CONTRACTOR SHALL PROVIDE HIS OWN PERSONNEL CAPABLE AND QUALIFIED TO ISSUE AN ENTRY PERMIT AND SHALL BE EQUIPPED FOR ENTRY INTO CONFINED SPACES. THE SECURITY
- SANITATION DISTRICT WILL ASSUME NO RESPONSIBILITY FOR THE CONTRACTOR'S ENTRY INTO DISTRICT—OWNED MANHOLES.
- 44. ALL MANHOLES SHALL HAVE A FOUR (4) FOOT INSIDE DIAMETER UNLESS OTHERWISE SHOWN ON THE CONSTRUCTION DRAWINGS. 45. THE WARRANTY FOR COMPLETED WORK SHALL EXTEND FOR A TWO-YEAR PERIOD FROM THE DATE OF ACCEPTANCE OF THE PROJECT BY THE DISTRICT.

SECURITY SANITATION DISTRICT GENERAL NOTES FOR WASTEWATER COLLECTION SYSTEM CONSTRUCTION

GENERAL

- 1. "DISTRICT MAINS" AS DEFINED IN SECTION 2.01 (A) OF THE SECURITY WATER DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS WILL BE LOCATED WITHIN PUBLIC RIGHT-OF-WAYAND/OR EASEMENTS AS DETERMINED BY THE SECURITY WATER DISTRICT. PUBLIC RIGHT-OF-WAYS MUST BE APPROVED BY THE LOCAL LAND USE AUTHORITY IN THE SUBDIVISION PLAT OR OTHERWISE BY DEDICATION AND ACCEPTANCE.
- 2. THE SECURITY WATER DISTRICT MUST RECEIVE SIGNED AND RECORDED COPIES OF ALL EASEMENT AGREEMENTS PRIOR TO THE START OF CONSTRUCTION. 3. ALL WORK SHALL BE IN ACCORDANCE WITH THE SECURITY WATER DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS AND THE SECURITY WATER DISTRICT POLICIES,
- PROCEDURES AND AGREEMENTS PERTAINING TO THIS PROJECT. 4. THE CONTRACTOR SHALL COORDINATE AND PROVIDE FOR DETERMINING THE LOCATION AND PROVIDING FOR PROTECTION OF EXISTING UTILITIES AND DRAINAGE STRUCTURES. THE UTILITY NOTIFICATION CENTER OF COLORADO SHALL BE CONTACTED BY DIALING 811 OR 1-800-922-1987. ALL PLANS FOR WATER SYSTEM ADDITIONS OR IMPROVEMENTS TO BE CONSTRUCTED WITHIN THE DISTRICT'S SYSTEM SHALL COMPLY WITH THE COLORADO SUBSURFACE UTILITY LAW: SENATE BILL 18-167, CRS 9-1.5-101 THROUGH 9-1.5-108. AS MAY BE AMENDED FROM TIME TO TIME, INCLUDING, BUT NOT LIMITED TO, PREPARATION AND SUBMITTAL OF SUBSURFACE UTILITY ENGINEERING PLANS, DOCUMENTS AND CERTIFICATIONS AS SPECIFIED.
- 5. SUFFICIENT CLEARANCE SHALL BE MAINTAINED BETWEEN THE EXCAVATION FOR THE NEW WATER FACILITIES AND ANY POWER OR TELEPHONE POLE OR GUY WIRE. IN CASES WHERE FAILURE OF A POLE IS POSSIBLE. THE CONTRACTOR SHALL CONTACT THE APPROPRIATE UTILITY FOR ASSISTANCE TO TEMPORARILY BRACE OR SUPPORT THE POLE AS REQUIRED. IN THE CASE WHERE A GUY WIRE OR ITS ANCHOR IS IN DIRECT CONFLICT WITH THE WORK PROPOSED, THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY FOR THE REMOVAL AND REINSTALLATION OF THE CONFLICTING GUY WIRE OR ANCHOR AS REQUIRED.
- 6. NO EXCAVATED MATERIAL SHALL BE PLACED UNDER OVERHEAD ELECTRIC CONDUCTORS OR AROUND POLES OR TEMPORARILY STORED UNDER LINES WITHOUT FIRST CONSULTING WITH THE ELECTRIC UTILITY TO DETERMINE IF ADEQUATE CLEARANCES WILL BE MAINTAINED. NO PERSON, TOOL OR EQUIPMENT SHALL OPERATE CLOSER THAN 10 FEET TO ANY
- PORTION OF ANY ENERGIZED LINE WITHOUT FIRST COMPLYING WITH THE PROVISIONS OF COLORADO REVISED STATUTES 1973, SECTION 1, TITLE 9, ARTICLE 2.5, 102 AND 103. 7. THE CONTRACTOR SHALL NOT DISTURB ANY EXISTING UTILITIES UNLESS OTHERWISE NOTED ON THE DRAWINGS. ALL UTILITIES SHALL REMAIN IN SERVICE AT ALL TIMES DURING CONSTRUCTION UNLESS OTHER ARRANGEMENTS, ACCEPTABLE TO THE UTILITY OWNER, ARE MADE BETWEEN THE CONTRACTOR, THE RESPECTIVE UTILITY DEPARTMENT AND WHERE APPROPRIATE, THE PRIVATE PROPERTY OWNER(S).
- 8. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT ALL WORK IS PERFORMED IN ACCORDANCE WITH APPLICABLE STANDARDS AND REGULATIONS AS SET FORTH BY THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA).

- 1. ALL EXCAVATION, PIPE EMBEDMENT AND TRENCH BACKFILL SHALL BE IN ACCORDANCE WITH THE SECURITY WATER DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS AND SHALL CONFORM TO THE REQUIREMENTS OF THE LOCAL AUTHORITY GOVERNING WORK IN AND USE OF PUBLIC RIGHT-OF-WAYS.
- 2. IN THOSE AREAS WHERE CONSTRUCTION ACTIVITY ALTERS EXISTING DRAINAGE CONFIGURATIONS, DRAINAGE PATTERNS SHALL BE RESTORED TO AS GOOD AS OR BETTER CONDITIONS THAN THOSE THAT EXISTED PRIOR TO THE CONSTRUCTION ACTIVITY.
- 3. COMPACTION SHALL BE IN COMPLIANCE WITH THE SECURITY WATER DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS. IN THOSE AREAS WHERE EXCAVATION PERMITS
- ARE ISSUED BY AN OUTSIDE AUTHORITY OR IN CASE OF CONFLICT IN THE REFERENCED STANDARDS, COMPLY WITH THE MORE STRINGENT SPECIFICATION.
- 4. ANY MATERIAL NOT SUITABLE FOR INCORPORATION INTO TRENCH BACKFILL OR STREET SUBGRADE SHALL BE REMOVED FROM THE SITE. 5. ANY SOIL THAT IS DISTURBED BELOW THE DESIGNATED SUBGRADE ELEVATIONS BY CONSTRUCTION ACTIVITIES SHALL BE REPLACED IN ACCORDANCE WITH THE SECURITY WATER DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS.

TRAFFIC CONTROL AND STREET SURFACE RESTORATION

1. ALL STREET SURFACE RESTORATION SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE AGENCY HAVING JURISDICTION OVER THE ROADWAY, SUBJECT TO THE ACCEPTANCE BY THE SECURITY WATER DISTRICT.

WATER MAINS & APPURTENANCES

- 1. POTHOLING OR EXCAVATION FOR WATER MAINS CROSSING EXISTING UTILITIES OR OBSTRUCTIONS SHALL BE PERFORMED IN THE DESIGN STAGE OF THE PLAN PREPARATION. THE LOCATION OF CONNECTION OF NEW WATER MAINS TO THE EXISTING DISTRIBUTION SYSTEM FACILITIES SHALL BE EXCAVATED AND HORIZONTAL AND VERTICAL LOCATION OF
- EXISTING FACILITIES DETERMINED BY PRECISE SURVEY. THE POTHOLE AND SURVEY DATA SHALL BE SHOWN ON THE FINAL APPROVED WATER MAIN PLANS AND/OR DRAWINGS. 2. THE CONTRACTOR IS REQUIRED TO NOTIFY THE SECURITY WATER DISTRICT INSPECTOR OFFICE TWO WORKING DAYS PRIOR TO BEGINNING CONSTRUCTION. THE SECURITY WATER DISTRICT WILL BE NOTIFIED FIVE WORKING DAYS PRIOR TO ANY SHUT DOWN OF EXISTING SERVICE DUE TO CONSTRUCTION.
- 3. REUSE OF ANY MATERIALS OR REJECTION OF ANY NEW MATERIALS SHALL BE AT THE SOLE DISCRETION OF THE SECURITY WATER DISTRICT'S INSPECTOR. THE SECURITY WATER DISTRICT'S DECISION SHALL BE FINAL.
- 4. ALL STREET VALVE BOXES SHALL BE TYLER/UNION SLIP TYPE (664-A, 26T+36B IS REFERENCE TO LEVEL ONE ASSEMBLY, LESS LID WHICH IS A 5-1/4" DROP LID MARKED "WATER"). STREET VALVE BOXES SHALL BE SET 0" — 1/4" BELOW FINAL PAVEMENT SURFACE ELEVATION. FINAL SURFACE ELEVATION SHALL BE CONSTRUCTED AS ASSEMBLY IS DESIGNED (TOP SECTION FLANGE WILL BEAR APPLIED LOADING. DROP-IN RISERS SHALL NOT BE USED.)
- 5. DO NOT DROP PIPE AND FITTINGS WHEN OFF-LOADING. DO NOT STORE PIPE AND ASSOCIATED MATERIALS DIRECTLY ON THE GROUND. 6. ALL WATER MAINS AND APPURTENANCES DELIVERED TO THE SITE FOR INSTALLATION SHALL BE KEPT CLEAN. THE ENDS OF PIPES AND FITTINGS SHALL BE COVERED UNDER PROTECTIVE COVERINGS AT THE TIME OF DELIVERY TO PROTECT THE INNER SURFACES FROM COMING INTO CONTACT WITH MOISTURE, DIRT, DUST, DEBRIS AND ANIMALS AND SHALL REMAIN PROTECTED UNTIL INSTALLATION IS COMPLETE.

WATER SERVICE LINES

- 1. SERVICE LINES SHALL BE INSTALLED WITH WET TAPS FOR CORPORATION STOPS. LINES ONE (1) INCH AND SMALLER DIAMETER SHALL BE DIRECT TAPPED (CC THREADED).
- TAPS ONE AND A HALF (1-1/2) INCH AND LARGER REQUIRE A TWELVE (12) INCH LONG, CC THREADED, FUSION EPOXY COATED, STEEL TAPPING SLEEVE OR CUT IN TEE. 2. EACH BUSINESS, EACH RESIDENCE, AND EACH UNIT OF A DUPLEX HAVING SEPARATE WATER FACILITIES SHALL HAVE A SEPARATE METER AND WATER SERVICE LINE FROM THE MAIN TO THE METER ASSEMBLY.
- 3. EXISTING BUSINESSES OR RESIDENCES THAT MODIFY. EXPAND OR SPLIT SPACE THAT NOW HAVE ONE SERVICE LINE. SHALL INSTALL A NEW SERVICE LINE CONNECTED TO THE DISTRIBUTION SYSTEM AND METER ASSEMBLY IF THERE IS TO BE A SEPARATE BUSINESS OR RESIDENCE.
- TAPPING PERMITS MUST BE APPLIED FOR AT THE SECURITY WATER DISTRICT OFFICE LOCATED AT 231 SECURITY BOULEVARD. PHONE 719-392-3475. AND PAID FOR AT LEAST 24 HOURS PRIOR TO TAPPING.
- 5. ALL SERVICE TAPS ON WATER MAINS WITHIN THE SECURITY WATER DISTRICT DISTRIBUTION SYSTEM SHALL BE ACCOMPLISHED BY THE CONTRACTOR, WHO SHALL NOTIFY THE
- SECURITY WATER DISTRICT 24 HOURS PRIOR TO TAPPING. PROPERTY CORNERS SHALL BE CLEARLY MARKED BY CONTRACTOR OR OWNER PRIOR TO TAPPING. 6. SERVICE LINE MATERIAL SHALL BE DRISCOPLEX ® 5100 ULTRA-LINE ® POLYETHYLENE (PE) PIPING, SIDR-7. OR OTHER SECURITY WATER DISTRICT APPROVED MATERIAL. ACCOMPANIED BY A #6 BARE COPPER LOCATION WIRE. CURB STOPS AND CORPORATION STOPS SHALL BE FORD METER BOX CO. BRASS AS SPECIFIED. CURB STOP BOXES
- SHALL BE TYLER, BOTTOM SLIP JOINT AND TOP SCREW JOINT. 7. SERVICE LINES SHALL ENTER THE LOT AS CLOSE AS POSSIBLE TO 90-DEGREES TO THE FRONT PROPERTY LINE. SERVICE LINES SHALL HAVE NO LESS THAN 10-FEET OF SEPARATION FROM SEWER SERVICES AND NO LESS THAN 6-FEET OF SEPARATION FROM ALL OTHER UTILITIES. BENCHING OF WATER SERVICE LINES ABOVE SEWER SERVICES IN A COMMON DITCH IS NOT PERMITTED. CURB STOPS SHALL BE SET AT A DEPTH OF 4-FEET TO FINAL GRADE OR AT SIDEWALK ELEVATION. CURB STOPS SHALL NOT BE
- LOCATED IN SIDEWALKS OR DRIVEWAYS. 8. DRAWINGS FOR NON-RESIDENTIAL SERVICE INSTALLATIONS SHALL HAVE A DETAIL OF THE UTILITY ROOM SHOWING METER(S), PRV. BACKFLOW DEVICE, ISOLATION VALVES, FLOOR DRAINS, AND OTHER REQUIRED APPURTENANCES. BACKFLOW DEVICES SHALL BE TESTED BY A CERTIFIED BACKFLOW TECHNICIAN PRIOR TO INITIAL ACCEPTANCE BY THE SECURITY WATER DISTRICT. THE SECURITY WATER DISTRICT SHALL RECEIVE COPIES OF TEST RESULTS ON SECURITY WATER DISTRICT TEST FORMS AVAILABLE AT THE SECURITY WATER DISTRICT OFFICE.

GENERAL CONSTRUCTION NOTES

1. SHOP DRAWING SUBMITTALS SHALL BE MADE TO THE SECURITY WATER DISTRICT FOR ALL MATERIALS TO BE INCORPORATED INTO THIS PROJECT.

POSITIVE DRAINAGE SHALL BE PROVIDED AWAY FROM ALL STRUCTURES. FINAL GRADING IS SUBJECT TO REVIEW AND APPROVAL.

- 2. ALL WATER MAINS AND SERVICE LINE WORK SHALL BE UNDERTAKEN UTILIZING CLASS "B" BEDDING. REFER TO THE SECURITY WATER DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS FOR THE REQUIRED PIPELINE EMBEDMENT. 3. ANY SIGNS, DELINEATOR POSTS, MAILBOXES, NEWSPAPER BOXES AND OTHER APPURTENANCES REMOVED DURING CONSTRUCTION SHALL BE REINSTALLED IN THE SAME LOCATION
- AND IN AN ACCEPTABLE CONDITION. 4. IN THOSE AREAS WHERE NEW PIPELINE CONSTRUCTION IMPACTS EXISTING FENCING, THE CONTRACTOR SHALL REMOVE THE FENCING AS NECESSARY. ALL FENCING REMOVED
- DURING CONSTRUCTION SHALL BE REINSTALLED IN A CONDITION AS GOOD AS OR BETTER THAN ORIGINALLY FOUND.
- 5. EXISTING PROPERTY CORNERS AND SECTION MONUMENTATION SHALL NOT BE DISTURBED. IN THE EVENT ANY EXISTING PROPERTY MONUMENTATION IS DISTURBED DURING THE COURSE OF CONSTRUCTION. IT SHALL BE REPLACED BY A SURVEYOR LICENSED IN THE STATE OF COLORADO.
- 6. THE CONTRACTOR SHALL SET ALL VALVE RISER BOXES OUTSIDE OF PAVED ROADWAYS OR HARDSCAPED AREAS 2-INCHES ABOVE THE FINISH GRADE AND INSTALL A CARSONITE MARKER POST AT EACH VALVE. CONTRACTOR SHALL COORDINATE WITH THE SECURITY WATER DISTRICT FOR THE PLACEMENT OF THE CARSONITE MARKERS AT ALL LOCATIONS. NEW MATERIALS SHALL BE USED FOR ALL WORK UNLESS NOTED OTHERWISE ON THE DRAWINGS.
- 9. THE SUBGRADE UNDERNEATH ALL STRUCTURES SHALL BE ADEQUATELY STABILIZED IN ACCORDANCE WITH THE SECURITY WATER DISTRICT DESIGN CRITERIA AND STANDARD
- 10. ALL WATER MAINS ARE SUBJECT TO PRESSURE TESTING IN ACCORDANCE WITH THE SECURITY WATER DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS. PRIOR TO FINAL ACCEPTANCE BY THE SECURITY WATER DISTRICT. ALL WATER MAINS MUST BE PRESSURETESTED. DISINFECTED. AND AN ACCEPTABLE BACTERIOLOGICAL TEST RECEIVED AND PROVIDED TO THE SECURITY WATER DISTRICT FOR ACCEPTANCE.
- 11. THE PIPELINE INSTALLATION SHALL GENERALLY BE ACCOMPLISHED BY PUSHING SPIGOT ENDS INTO BELL ENDS OF THE PIPE. 12. ALL WATER MAINS INSTALLED WITHIN THE SECURITY WATER DISTRICT SHALL BE DUCTILE IRON PIPE (DIP) IN ACCORDANCE WITH THE SECURITY WATER DISTRICT DESIGN CRITERIA
- AND STANDARD SPECIFICATIONS. 13. WHERE THE NEW WATER MAIN IS LESS THAN 18 VERTICAL INCHES OVER A SANITARY SEWER MAIN, THE WATER LINE SHALL BE INSTALLED IN ACCORDANCE WITH THE
- REQUIREMENTS OF THE COLORADO DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT REQUIREMENTS. 14. ALL DUCTILE IRON PIPING UTILIZED WITHIN THE SECURITY WATER DISTRICT DISTRIBUTION SYSTEM SHALL HAVE AN EXTERIOR COATING AND AN INTERIOR LINING IN ACCORDANCE
- WITH THE REQUIREMENTS OF THE SECURITY WATER DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS.
- 15. THE WATER MAIN PIPELINE SHALL BE INSTALLED IN STRAIGHT ALIGNMENTS UNLESS OTHERWISE APPROVED BY THE SECURITY WATER DISTRICT.
- 16. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THE EXISTING WATER DISTRIBUTION SYSTEM PIPELINES AS A RESULT OF THEIR CONSTRUCTION ACTIVITY. 17. ALL PIPELINES SHALL BE "AS BUILT" SURVEYED AND "AS BUILT" DRAWINGS SUBMITTED TO THE SECURITY WATER DISTRICT FOR REVIEW AND ACCEPTANCE. PAPER OR "HARD COPY" DRAWINGS AND ELECTRONIC AUTOCAD FILES ARE REQUIRED. REFER TO THE SECURITY WATER DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS FOR THE
- REQUIRED ELECTRONIC FILE FORMAT, HORIZONTAL COORDINATE SYSTEM AND VERTICAL DATUM. 18. THE CONTRACTOR SHALL PROCURE AND BE FAMILIAR WITH THE SECURITY WATER DISTRICT DESIGN CRITERIA AND STANDARD SPECIFICATIONS AND THE SECURITY WATER DISTRICT POLICIES, PROCEDURES AND AGREEMENTS PERTAINING TO THIS PROJECT PRIOR TO COMMENCING CONSTRUCTION. A COPY OF THE SECURITY WATER DISTRICT'S DESIGN CRITERIA
- AND STANDARD SPECIFICATIONS SHALL BE ON-SITE ANY TIME CONSTRUCTION IS BEING ACCOMPLISHED. 19. THE WARRANTY FOR COMPLETED WORK SHALL EXTEND FOR A TWO-YEAR PERIOD FROM THE DATE OF THE PRELIMINARY ACCEPTANCE OF THE PROJECT BY THE SECURITY WATER DISTRICT.



SSUE DATE: 05-08-2023 REVISION COMMENTS **DESIGNED BY** CHECKED BY:

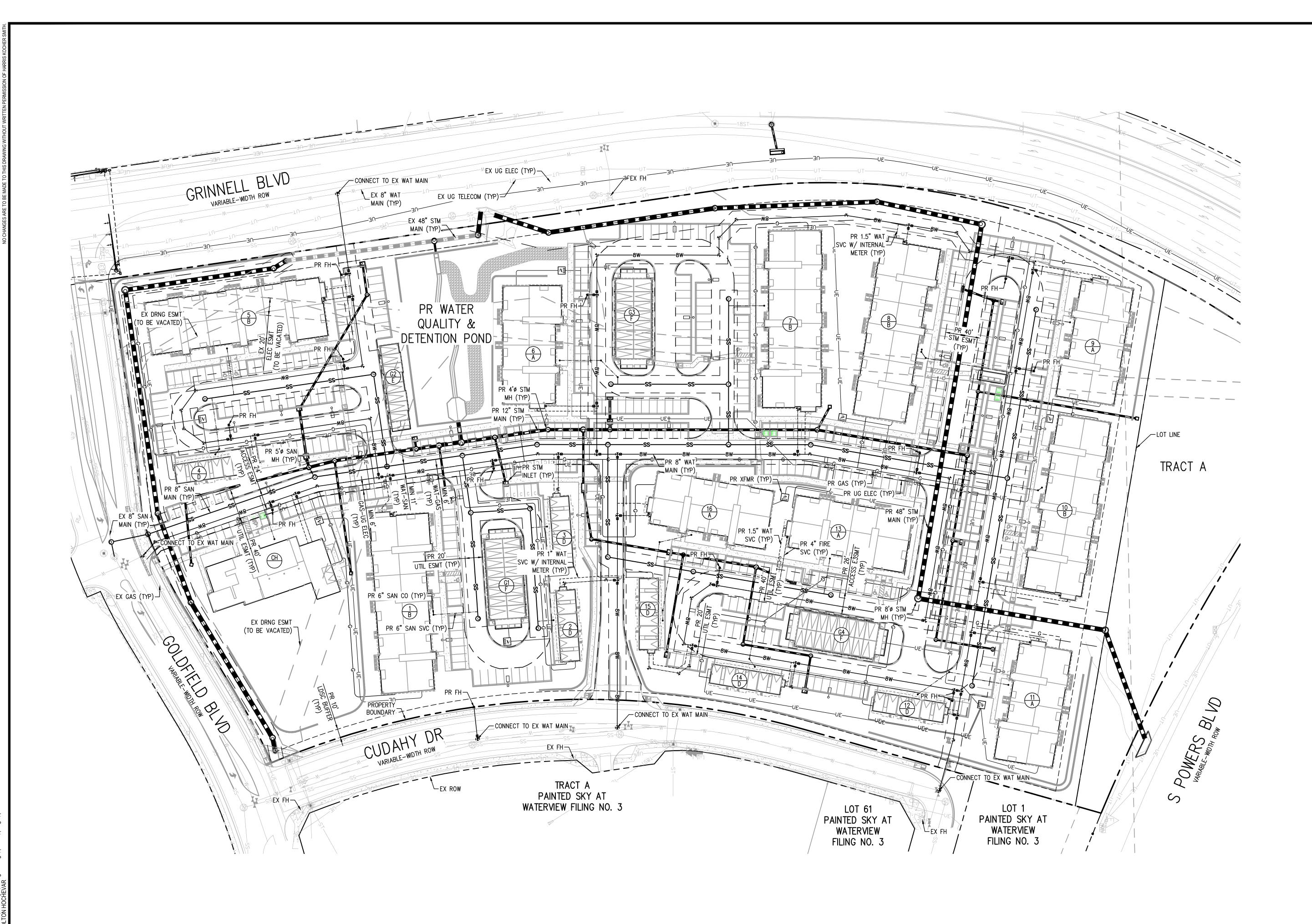


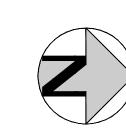
HarrisKocherSmith.com



OUTLOOK POWERS & GRINNELL GENERAL NOTES

PROJECT #: 221206 SHEET NUMBER





OTES:

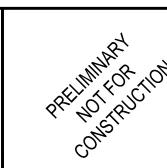
- COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
- STATUTES.

 2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE, AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND FACILITIES.

Know what's below.
Call before you dig.



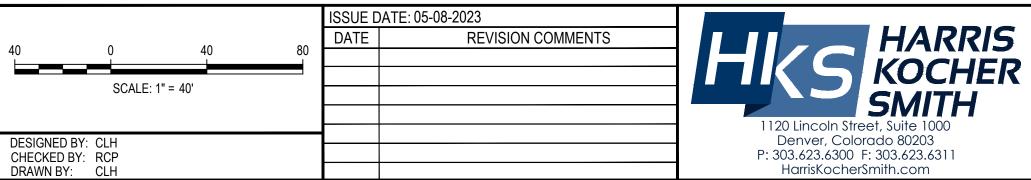
OUTLOOK POWERS & GRINNELL OVERALL UTILITY PLAN



PROJECT #: 221206 SHEET NUMBER



Call before you dig.





OUTLOOK POWERS & GRINNELL SANITARY LINE A PLAN & PROFILE

PROJECT #: 221206 SHEET NUMBER

44.07 LF ~_ 6" PVC @ 1.00%

BLDG 12

SANITARY LINE A PLAN

(SANITARY CLEANOUT) STA: 13+83.85

\N: 1340514.76

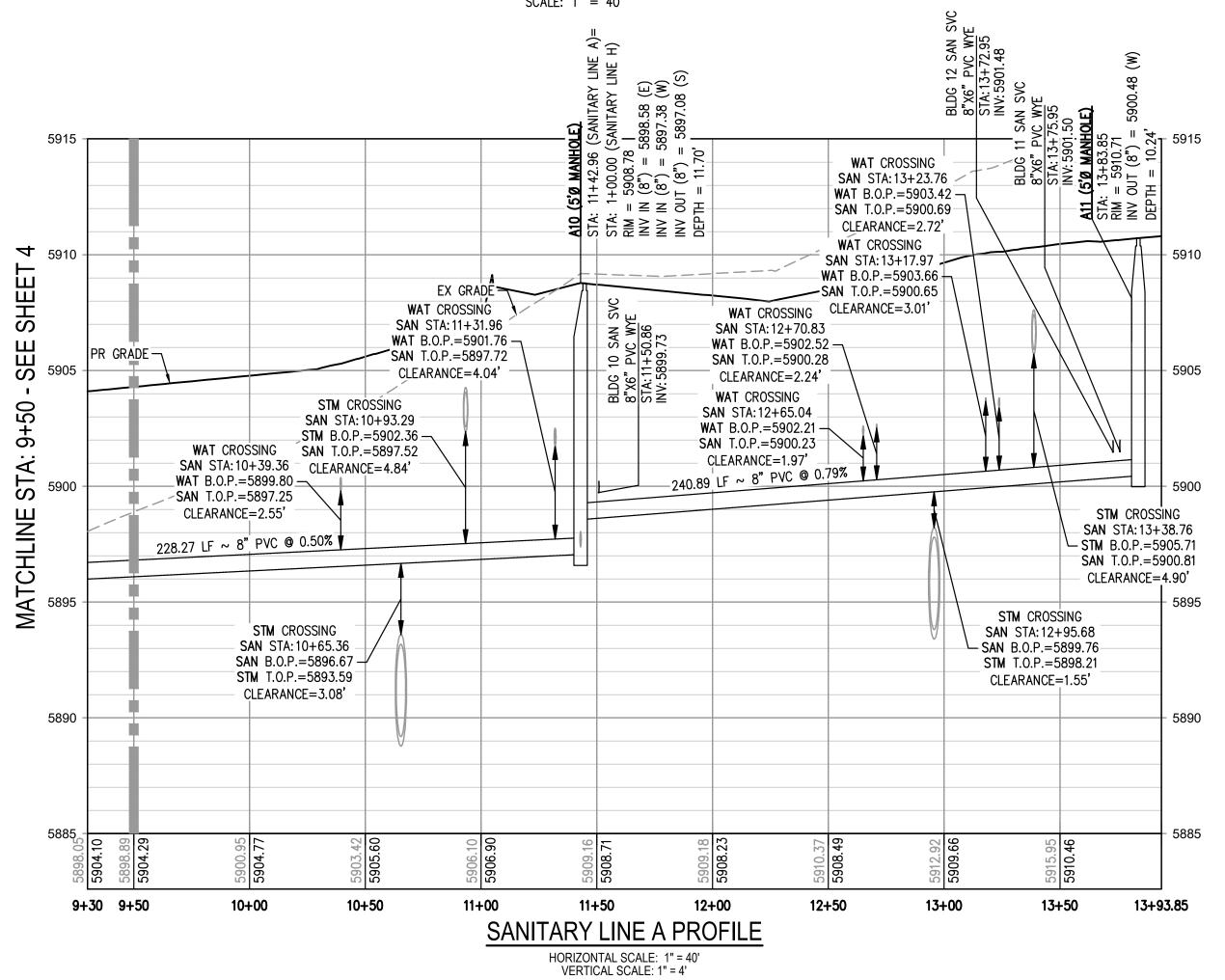
(SANITARY CLEANOUT)

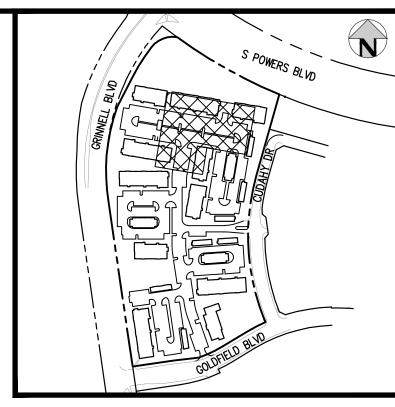
- 40.84 LF ~ N: 1340618.43

- 6" PVC @ 1.00% -E: 3223238.77

A11 (5'Ø MANHOLE)

N: 1340576.85





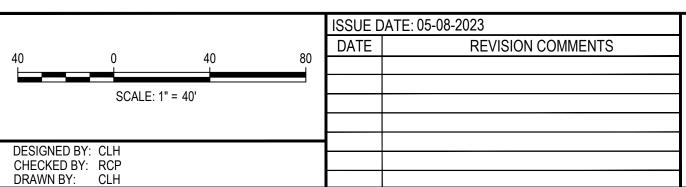
	SANITARY SERVICE TABLE							
BLDG SERVICE	SVC STA @ MAIN	SVC INV @ WYE	INV @ BLDG CLEANOUT	FFE	LENGTH (FT)	SLOPE (%)	SIZE (DIA. IN.)	NUMBER OF UNITS
BLDG 10	11+50.86	5899.73	5900.14	5910.38	42.45	1.00%	6"	36
BLDG 12	13+72.95	5901.47	5902.20	5911.32	72.44	1.00%	6"	3
BLDG 11	13+75.95	5901.50	5901.91	5912.27	40.84	1.00%	6"	24

GENERAL SANITARY NOTES:

- 1. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
- 2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE, AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND
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- 6. MAINTAIN A MINIMUM OF TEN FEET OF HORIZONTAL SEPARATION BETWEEN ALL SANITARY SEWER AND DOMESTIC WATER MAINS AND SERVICES IN ACCORDANCE WITH STATE OF COLORADO AND JURISDICTIONAL UTILITY PROVIDER SPECIFICATIONS.
- 7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW.
- 8. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE PROPOSED GRADE.
- 9. ALL SANITARY SERVICE CLEANOUTS LOCATED ADJACENT TO A BUILDING SHALL BE TWO-WAY CLEANOUTS.
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- c. RESTORING ALL DISTURBED AREAS TO ORIGINAL CONDITION, OR AS INDICATED

ON THE PLANS.

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



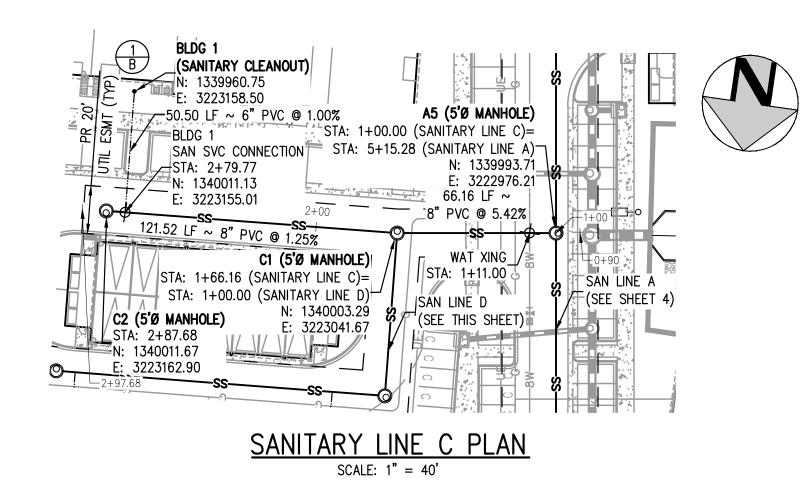


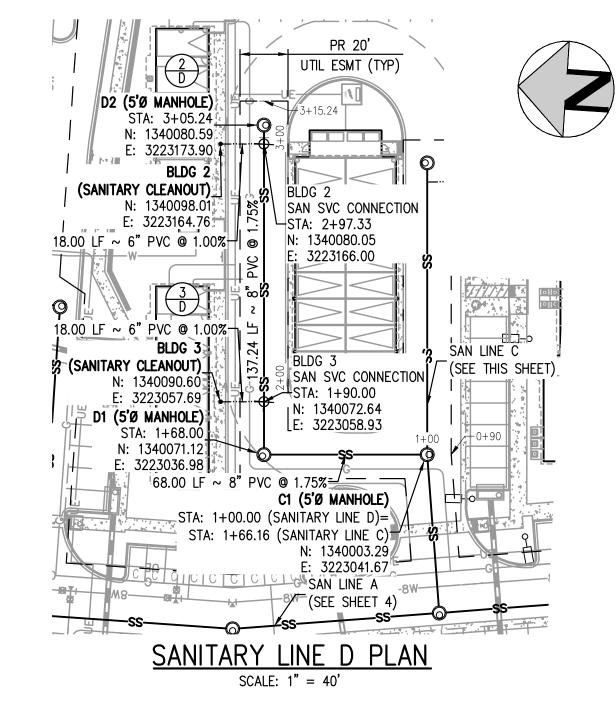


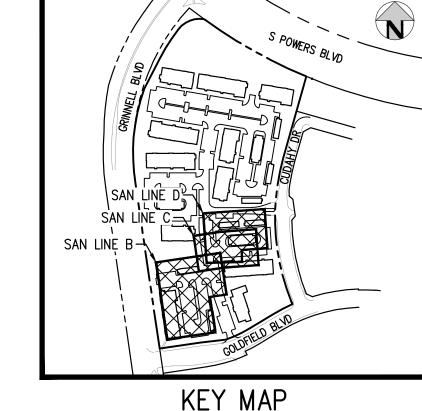
OUTLOOK POWERS & GRINNELL SANITARY LINE A PLAN & PROFILE



PROJECT #: 221206 SHEET NUMBER



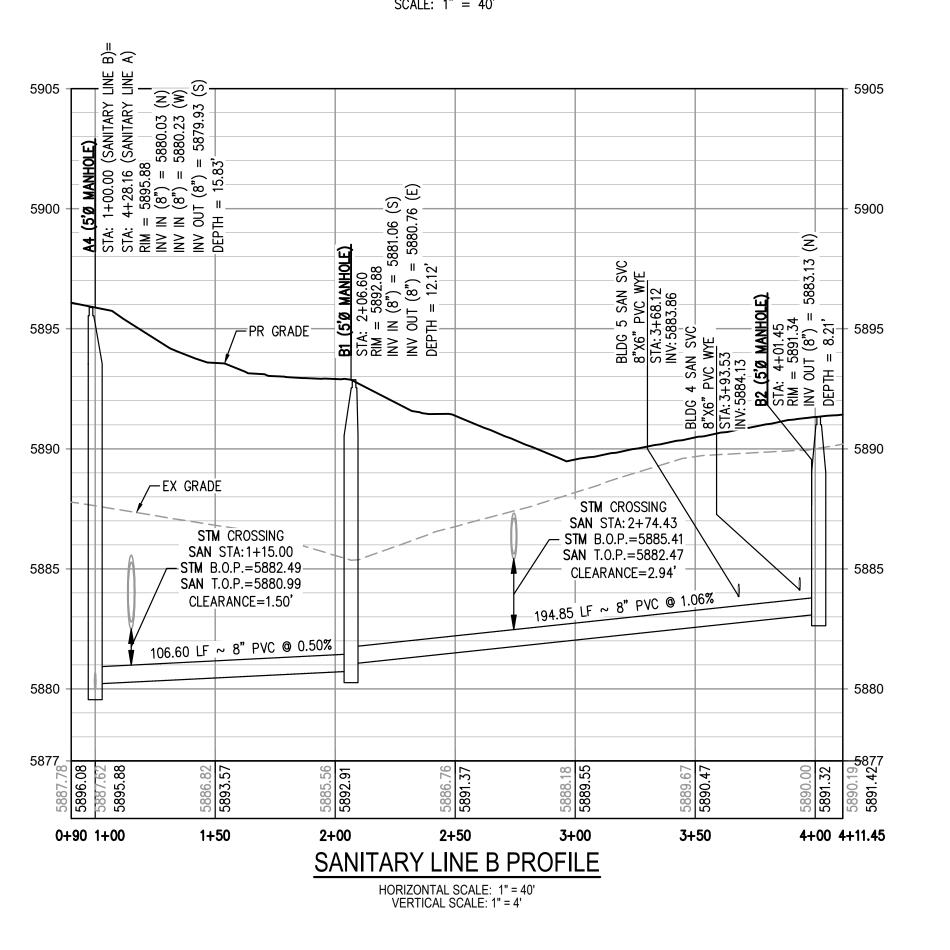


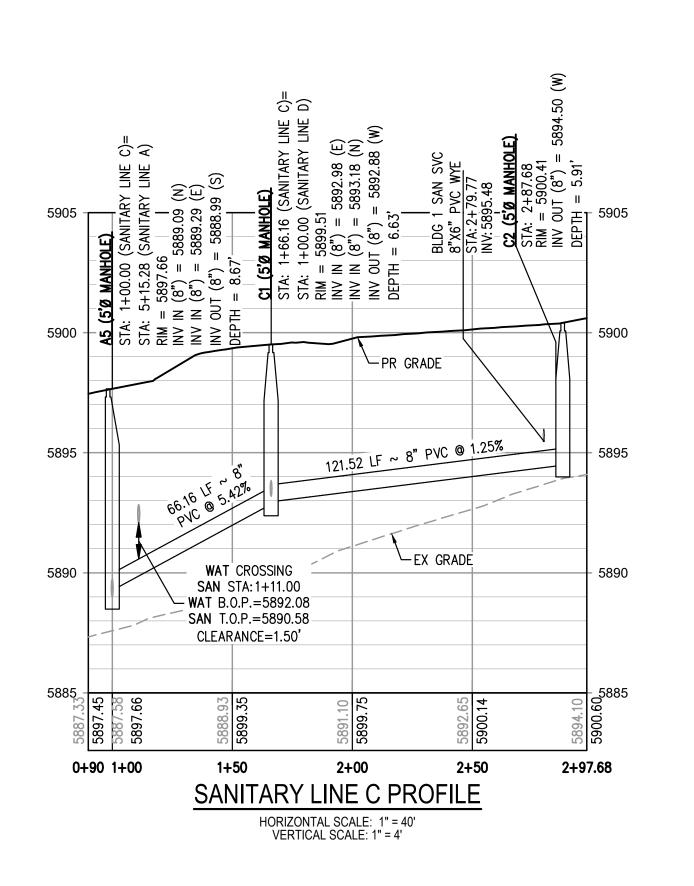


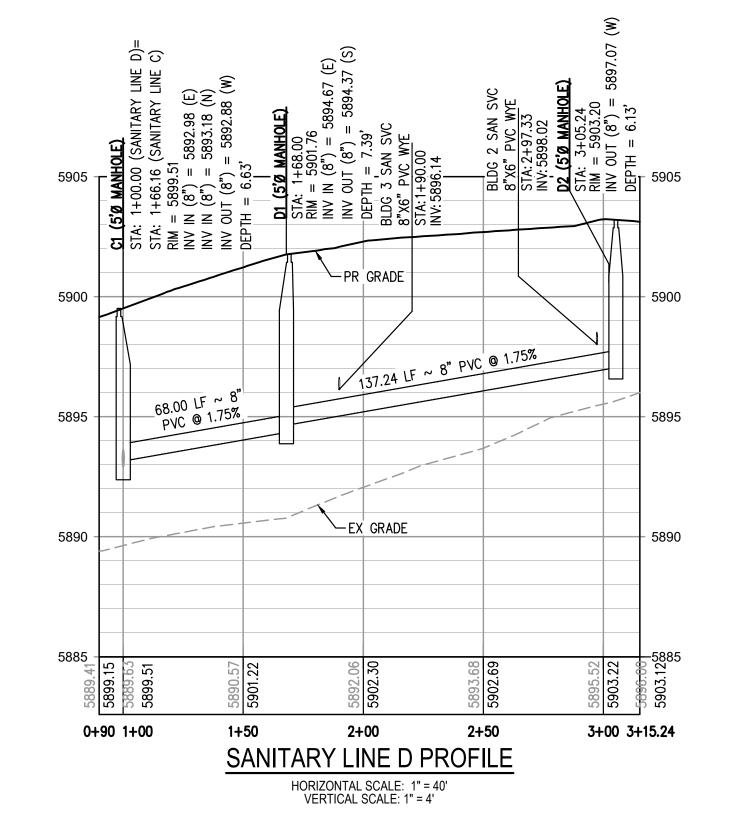
SANITARY SERVICE TABLE								
BLDG SERVICE	SVC STA @ MAIN	SVC INV @ WYE	INV @ BLDG CLEANOUT	FFE	LENGTH (FT)	SLOPE (%)	SIZE (DIA. IN.)	NUMBER OF UNITS
BLDG 5	3+68.12	5883.86	5884.39	5892.11	53.50	1.00%	6"	36
BLDG 4	3+93.53	5884.13	5884.80	5892.27	66.78	1.00%	6"	3
BLDG 1	2+79.77	5895.48	5895.99	5901.58	50.50	1.00%	6"	36
BLDG 3	1+90.00	5896.14	5896.32	5902.97	18.00	1.00%	6"	3
BLDG 2	2+97.33	5898.02	5898.20	5904.05	18.00	1.00%	6"	3

GENERAL SANITARY NOTES:

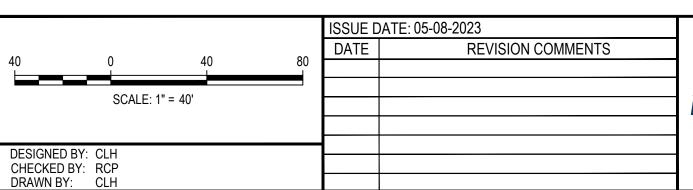
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- 8. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE
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- ON THE PLANS.









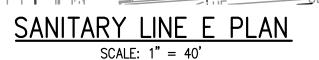






OUTLOOK POWERS & GRINNELL SANITARY LINES B, C, & D PLAN AND PROFILE





E1 (5'Ø MANHOLE) 3

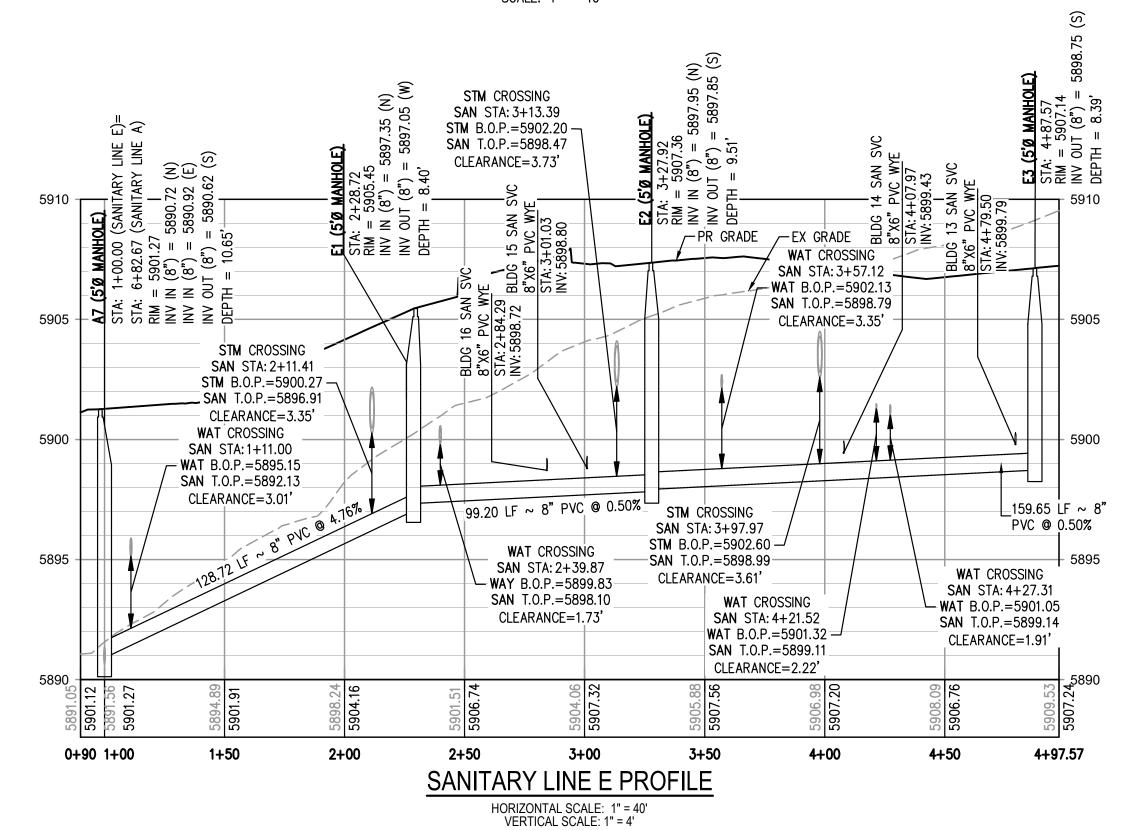
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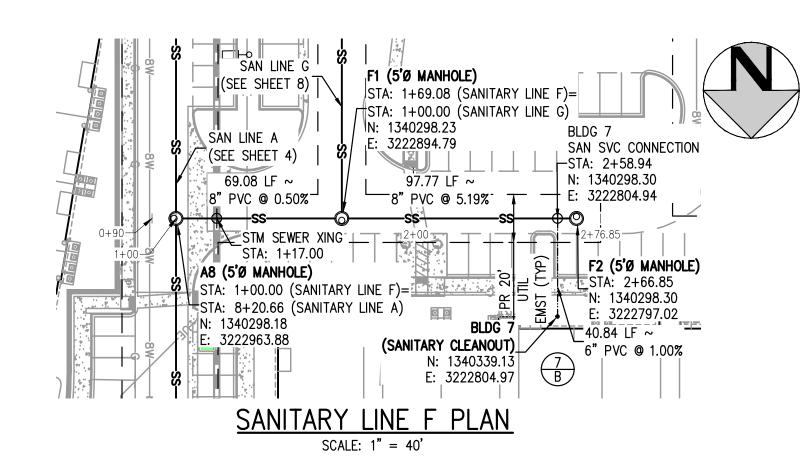
A7 (5'Ø MANHOLE)

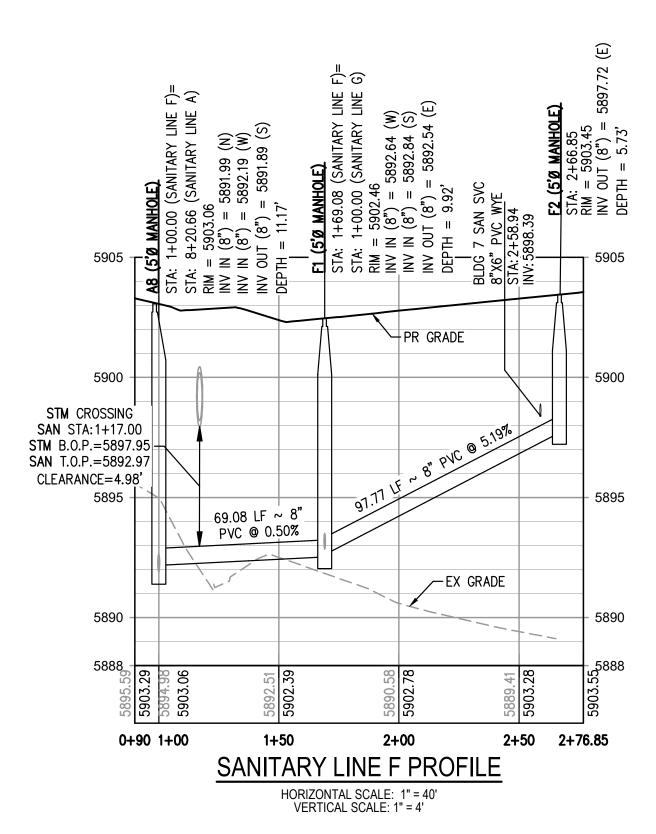
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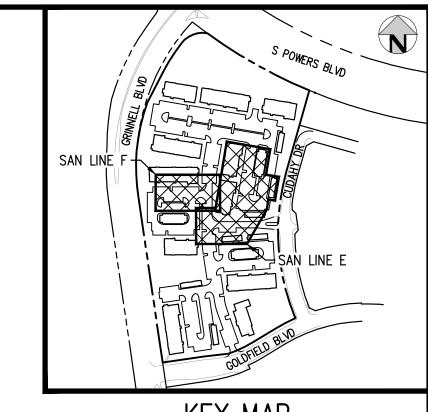
 Π STA: 1+00.00 (SANITARY LINE E)=-

STA: 6+82.67 (SANITARY LINE A)









SANITARY SERVICE TABLE								
BLDG SERVICE	SVC STA @ MAIN	SVC INV @ WYE	INV @ BLDG CLEANOUT	FFE	LENGTH (FT)	SLOPE (%)	SIZE (DIA. IN.)	NUMBER OF UNITS
BLDG 16	2+84.29	5898.72	5899.36	5908.49	64.03	1.00%	6"	24
BLDG 15	3+01.03	5898.80	5899.42	5908.11	61.25	1.00%	6"	3
BLDG 14	4+07.97	5899.43	5900.42	5909.34	98.69	1.00%	6"	3
BLDG 13	4+79.50	5899.79	5900.20	5908.37	41.00	1.00%	6"	24
BLDG 7	2+58.94	5898.39	5898.80	5904.32	40.84	1.00%	6"	36

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HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS

- 3. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO START OF CONSTRUCTION.
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Know what's **below**. Call before you dig.

		ISSUE DATE: 05-08-2023			
40	40 00	DATE	REVISION COMMENTS		
40 0	40 80				
SCALE: 1" = 4	חי				
30ALE. 1 - 40					
DESIGNED BY: CLH					
CHECKED BY: RCP					
DRAWN BY: CLH					



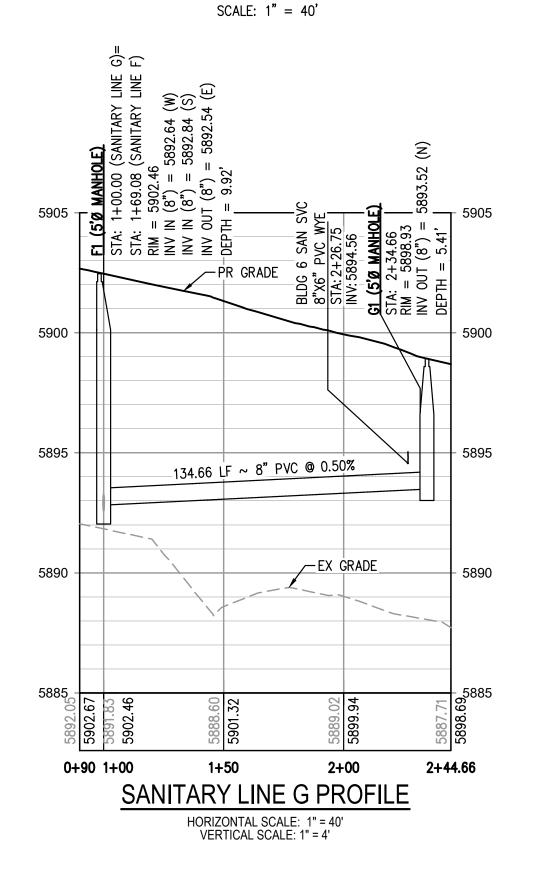


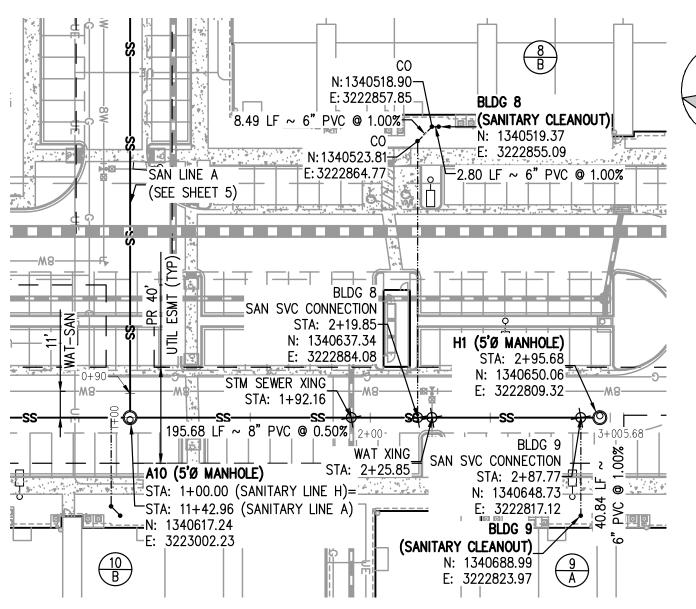
OUTLOOK POWERS & GRINNELL SANITARY LINES E & F PLAN & PROFILE

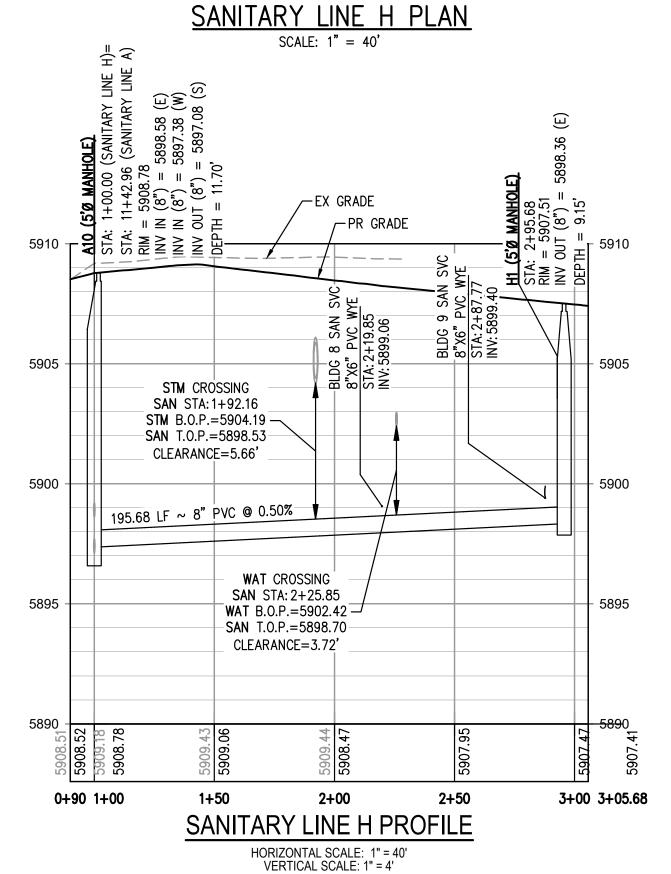


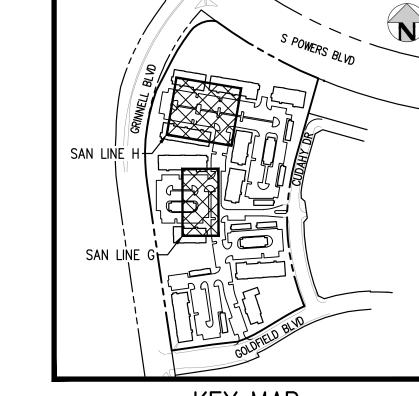
PROJECT #: 221206 SHEET NUMBER

SANITARY LINE G PLAN









SANITARY SERVICE TABLE								
BLDG SERVICE	SVC STA @ MAIN	SVC INV @ WYE	INV @ BLDG CLEANOUT	FFE	LENGTH (FT)	SLOPE (%)	SIZE (DIA. IN.)	NUMBER OF UNITS
BLDG 6	2+26.75	5894.56	5895.38	5900.28	82.32	1.00%	6"	24
BLDG 8	2+19.85	5899.06	5900.33	5908.29	126.45	1.00%	6"	36
BLDG 9	2+87.77	5899.81	5899.40	5909.17	40.84	1.00%	6"	24

GENERAL SANITARY NOTES:

- 1. THE CONTRACTOR SHALL NOTIFY COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.
- 2. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS APPROXIMATE AND SHOWN ACCORDING TO THE BEST INFORMATION AVAILABLE, AS SUPPLIED BY THE UTILITY OWNERS. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL VERIFY EXISTENCE, SIZE, AND LOCATION OF EXISTING UTILITIES AND IMMEDIATELY NOTIFY HARRIS KOCHER SMITH OF ANY DISCREPANCIES. THE CONTRACTOR IS
- FACILITIES. 3. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY CONTRACTOR PRIOR TO
- START OF CONSTRUCTION.

RESPONSIBLE FOR ANY AND ALL DAMAGES TO EXISTING UNDERGROUND

4. PIPE LENGTHS ARE MEASURED FROM CENTER OF MANHOLE TO CENTER OF MANHOLE. ALL COORDINATES ARE AT THE CENTER OF THE STRUCTURE UNLESS OTHERWISE INDICATED.

5. ALL WORK, INCLUDING CORRECTION WORK, SHALL BE INSPECTED BY THE UTILITY

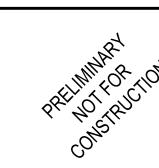
- PROVIDER'S REPRESENTATIVE WHO SHALL HAVE THE AUTHORITY TO HALT CONSTRUCTION WHEN THERE IS A LACK OF ADHERENCE TO STANDARD CONSTRUCTION PRACTICES. 6. MAINTAIN A MINIMUM OF TEN FEET OF HORIZONTAL SEPARATION BETWEEN ALL
- SANITARY SEWER AND DOMESTIC WATER MAINS AND SERVICES IN ACCORDANCE WITH STATE OF COLORADO AND JURISDICTIONAL UTILITY PROVIDER SPECIFICATIONS.
- 7. FOR ALL NON-CONCENTRIC MANHOLES, MANHOLE RINGS/COVERS AND STEPS LIDS SHALL BE ROTATED AS SHOWN IN PLAN VIEW.
- 8. CONTRACTOR SHALL ADJUST ALL EXISTING RIM ELEVATIONS TO MATCH THE
- PROPOSED GRADE. 9. ALL SANITARY SERVICE CLEANOUTS LOCATED ADJACENT TO A BUILDING SHALL BE
- TWO-WAY CLEANOUTS. 10. THE CONTRACTOR IS RESPONSIBLE FOR:
- a. OBTAINING ALL APPLICABLE LICENSES, BONDS, PERMITS, STANDARDS AND
- SPECIFICATIONS FOR SEWER MAIN INSTALLATION.
- b. VERIFYING THE LOCATION AND DEPTH OF EXISTING UTILITIES AND NOTIFYING THE ENGINEER OF ANY DISCREPANCIES.
- c. RESTORING ALL DISTURBED AREAS TO ORIGINAL CONDITION, OR AS INDICATED

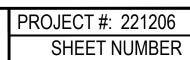
ON THE PLANS.

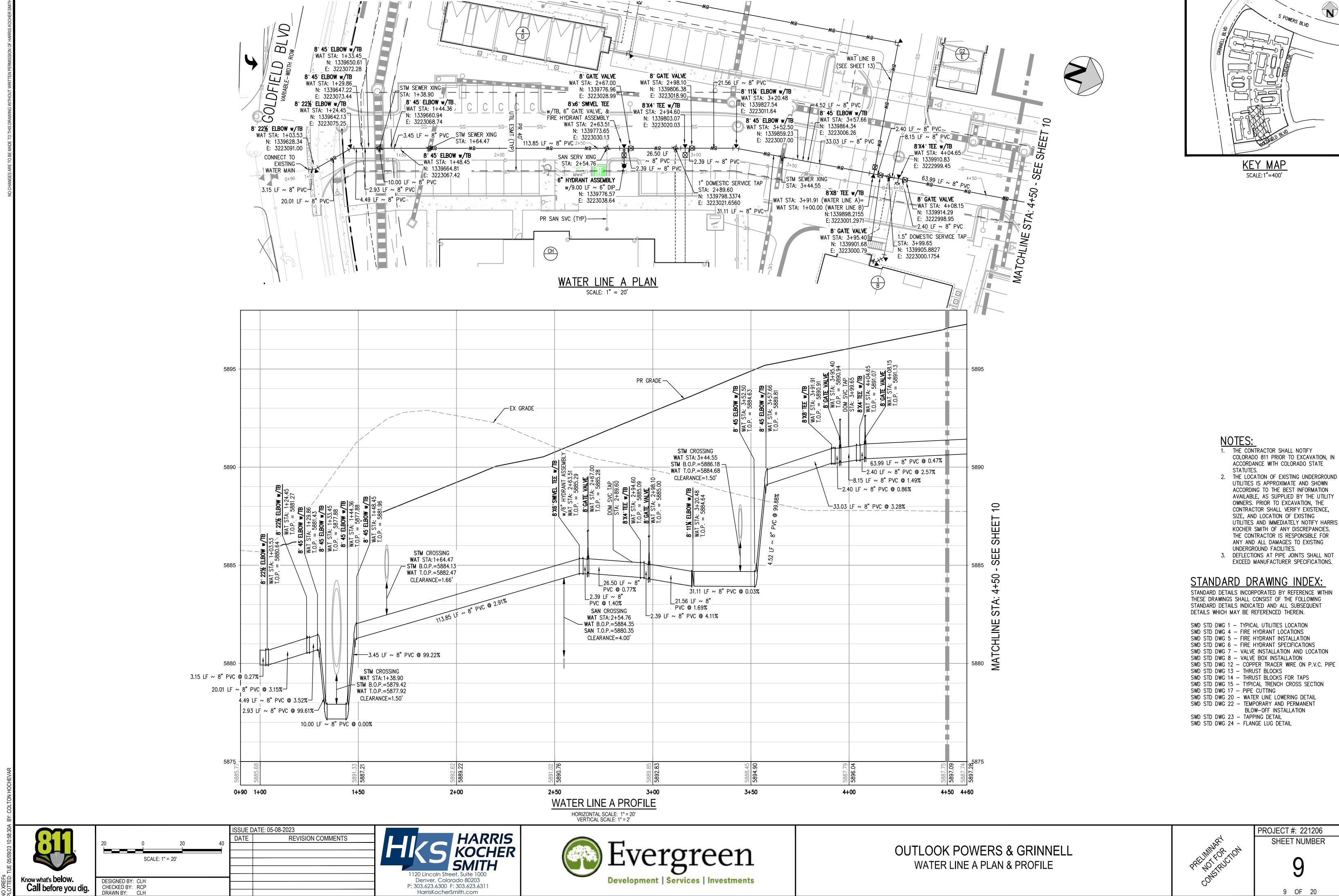




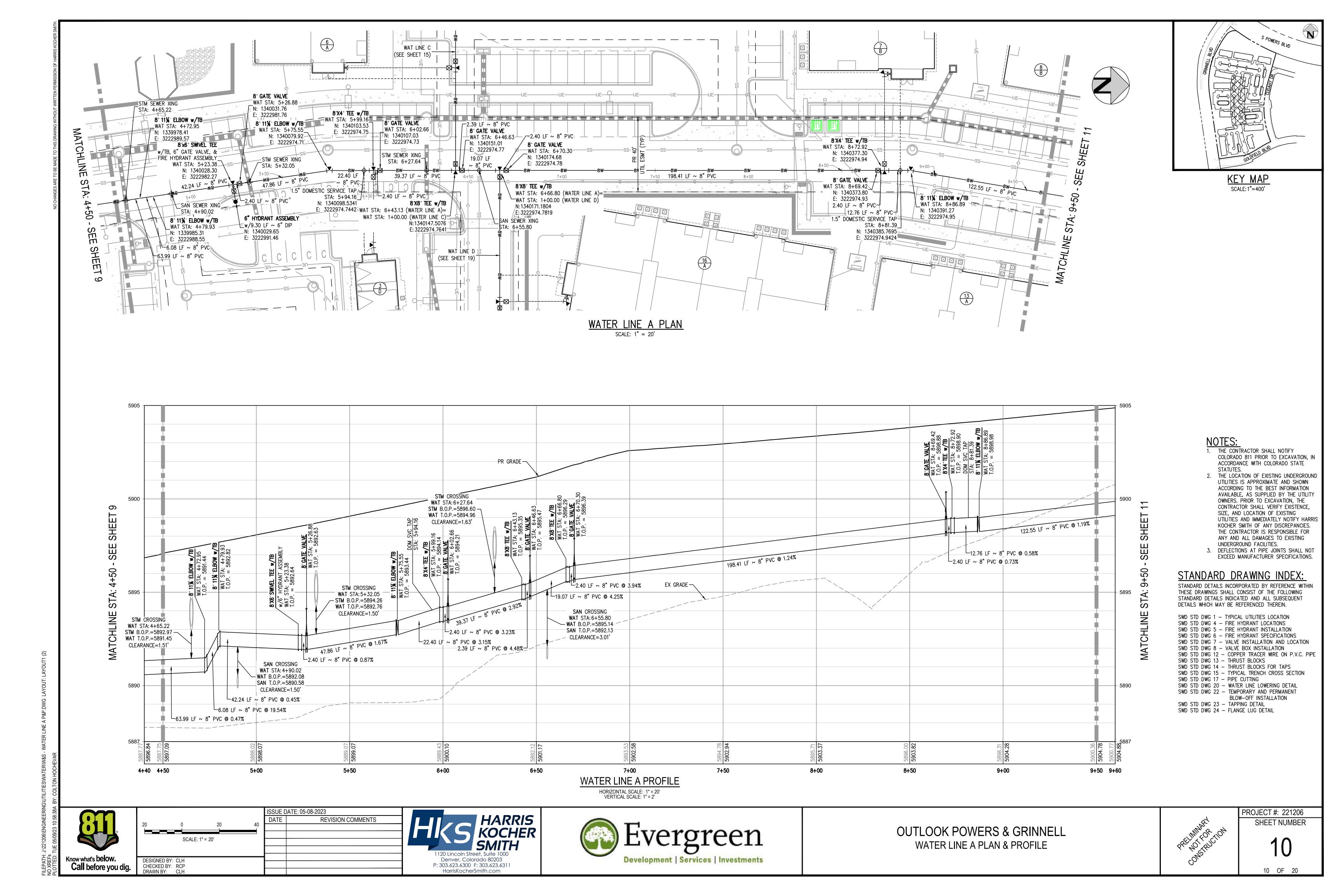


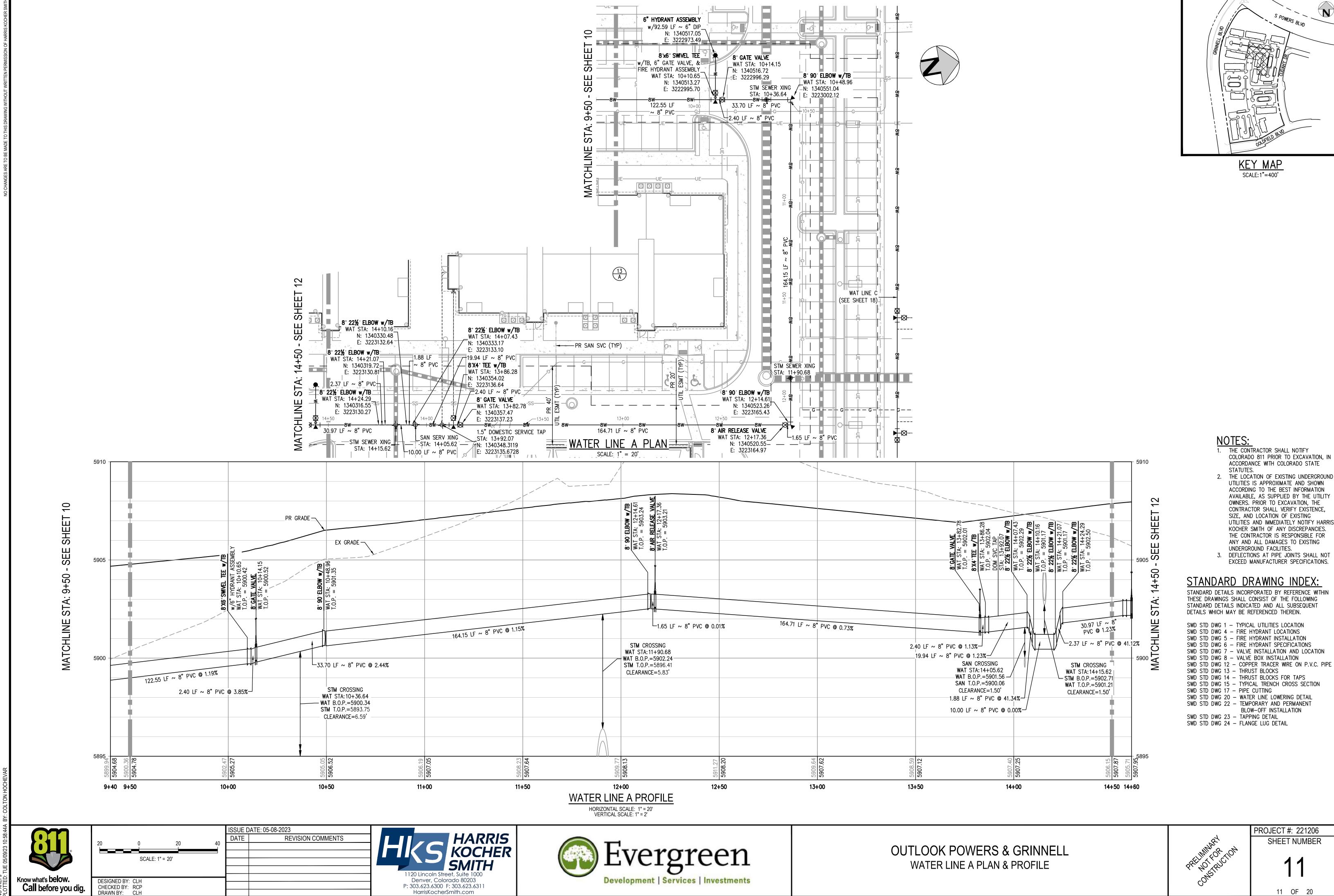






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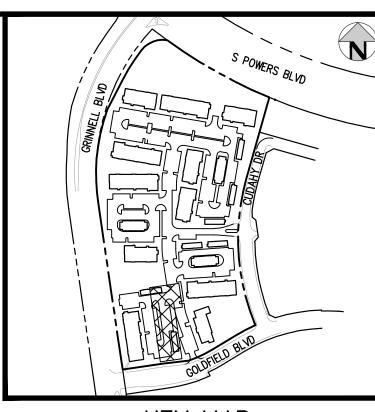
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WATER LINE A PLAN & PROFILE

12 OF 20

SCALE: 1" = 20'

DESIGNED BY: CLH CHECKED BY: RCP DRAWN BY: CLH



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- 3. DEFLECTIONS AT PIPE JOINTS SHALL NOT EXCEED MANUFACTURER SPECIFICATIONS.

UNDERGROUND FACILITIES.

STANDARD DRAWING INDEX:

STANDARD DETAILS INCORPORATED BY REFERENCE WITHIN THESE DRAWINGS SHALL CONSIST OF THE FOLLOWING STANDARD DETAILS INDICATED AND ALL SUBSEQUENT DETAILS WHICH MAY BE REFERENCED THEREIN.

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SWD STD DWG 23 - TAPPING DETAIL SWD STD DWG 24 - FLANGE LUG DETAIL

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

SSUE DATE: 05-08-2023 **REVISION COMMENTS** SCALE: 1" = 20' DESIGNED BY: CLH CHECKED BY: RCP DRAWN BY: CLH HarrisKocherSmith.com

0+90 1+00



1+50

2+00



WATER LINE B PROFILE

HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" = 2'

3+00

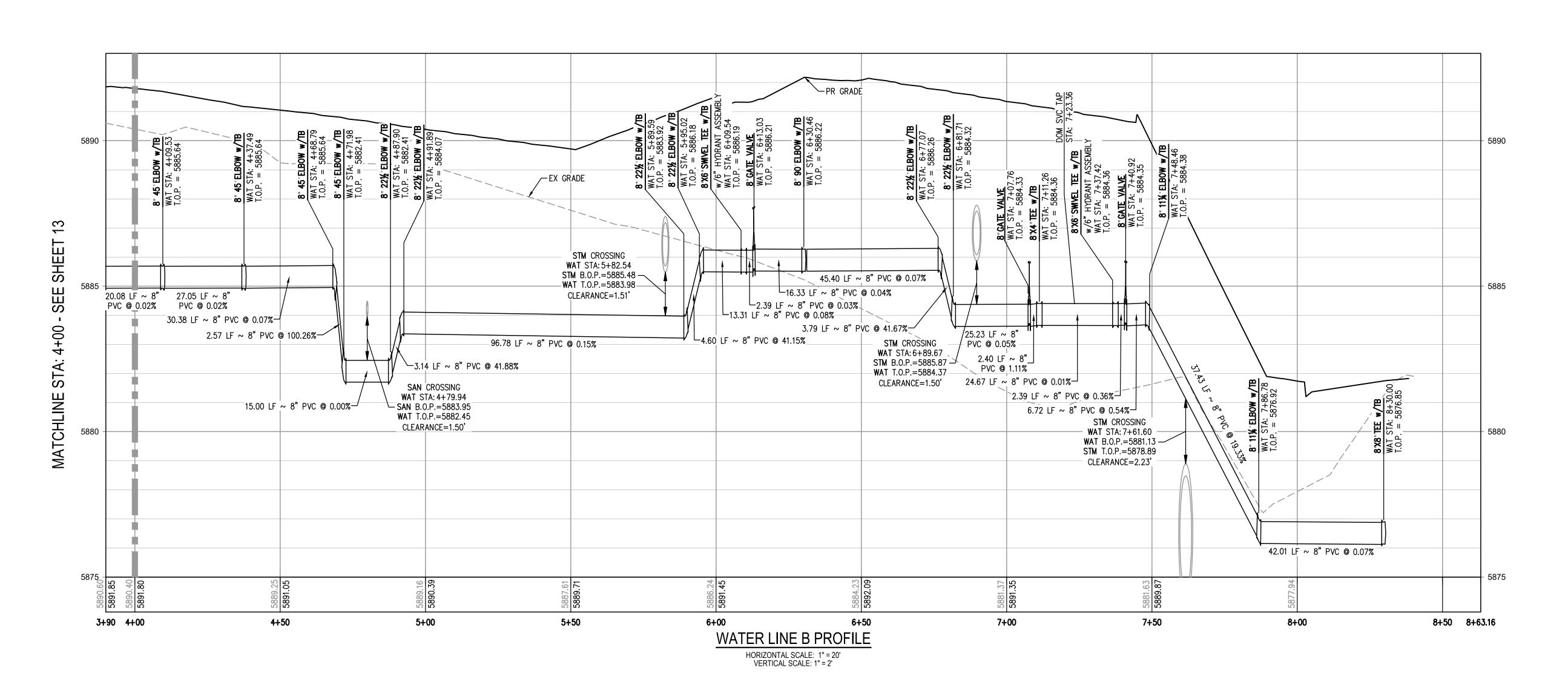
3+50

OUTLOOK POWERS & GRINNELL WATER LINE B PLAN & PROFILE

4+00 4+10



PROJECT #: 221206 SHEET NUMBER



1. THE CONTRACTOR SHALL NOTIFY

COLORADO 811 PRIOR TO EXCAVATION, IN ACCORDANCE WITH COLORADO STATE STATUTES.

S POWERS BLVD

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SWD STD DWG 23 - TAPPING DETAIL SWD STD DWG 24 - FLANGE LUG DETAIL

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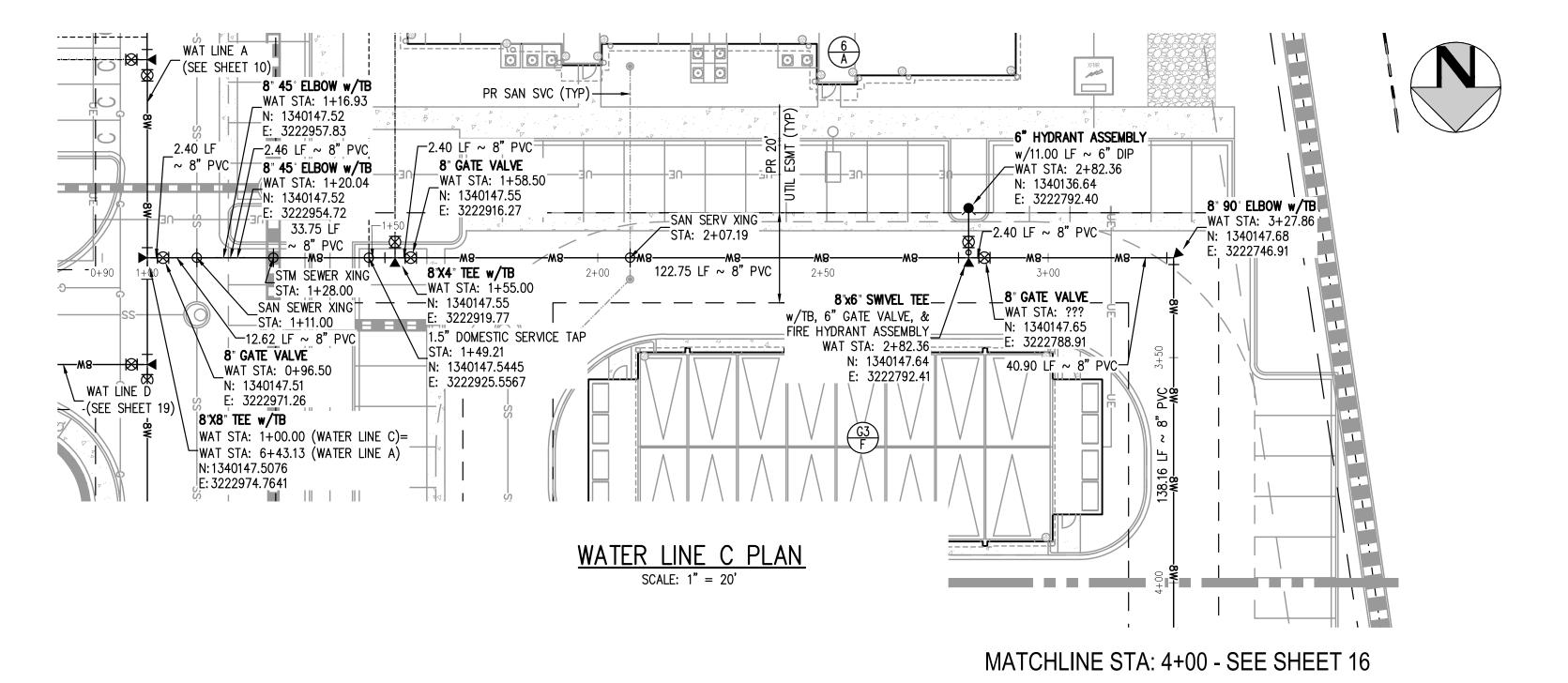


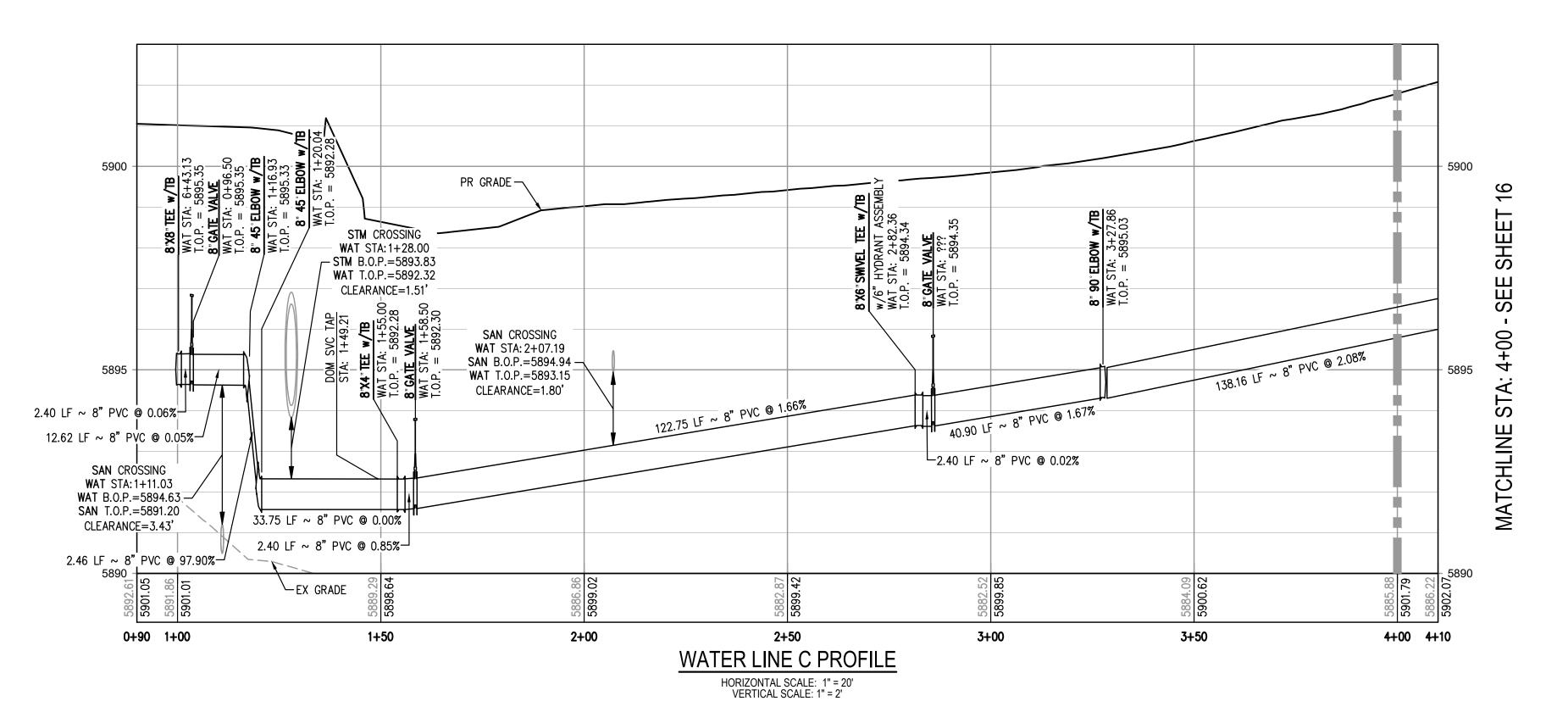


OUTLOOK POWERS & GRINNELL WATER LINE B PLAN & PROFILE



PROJECT #: 221206 SHEET NUMBER





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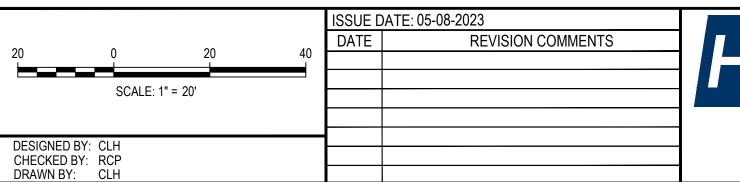
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BLOW-OFF INSTALLATION SWD STD DWG 23 - TAPPING DETAIL SWD STD DWG 24 - FLANGE LUG DETAIL

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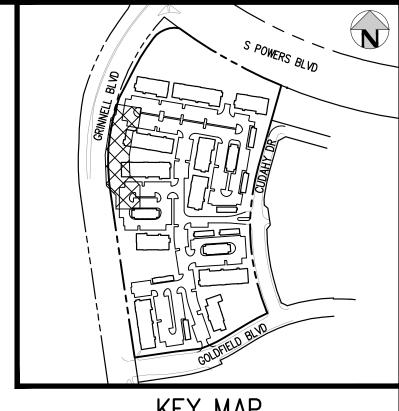




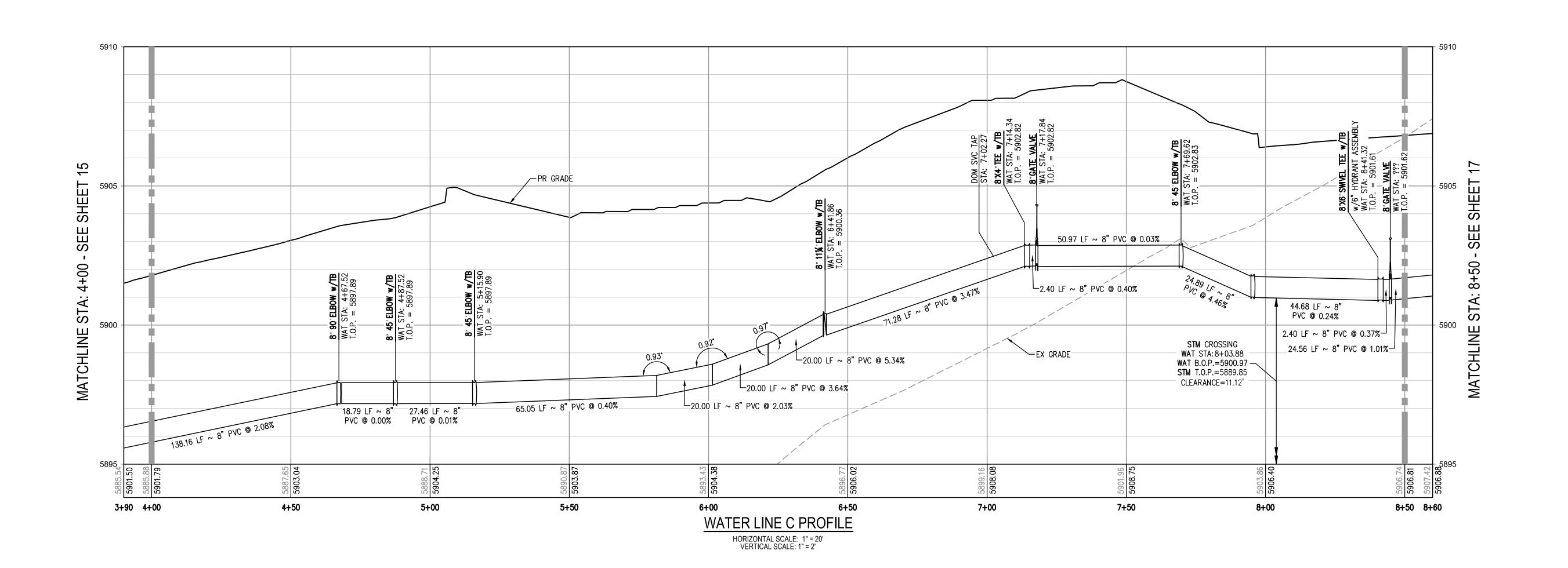
OUTLOOK POWERS & GRINNELL WATER LINE C PLAN & PROFILE



PROJECT #: 221206 SHEET NUMBER



SCALE: 1"=400'



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SSUE DATE: 05-08-2023 **REVISION COMMENTS** SCALE: 1" = 20' DESIGNED BY: CLH CHECKED BY: RCP DRAWN BY: CLH

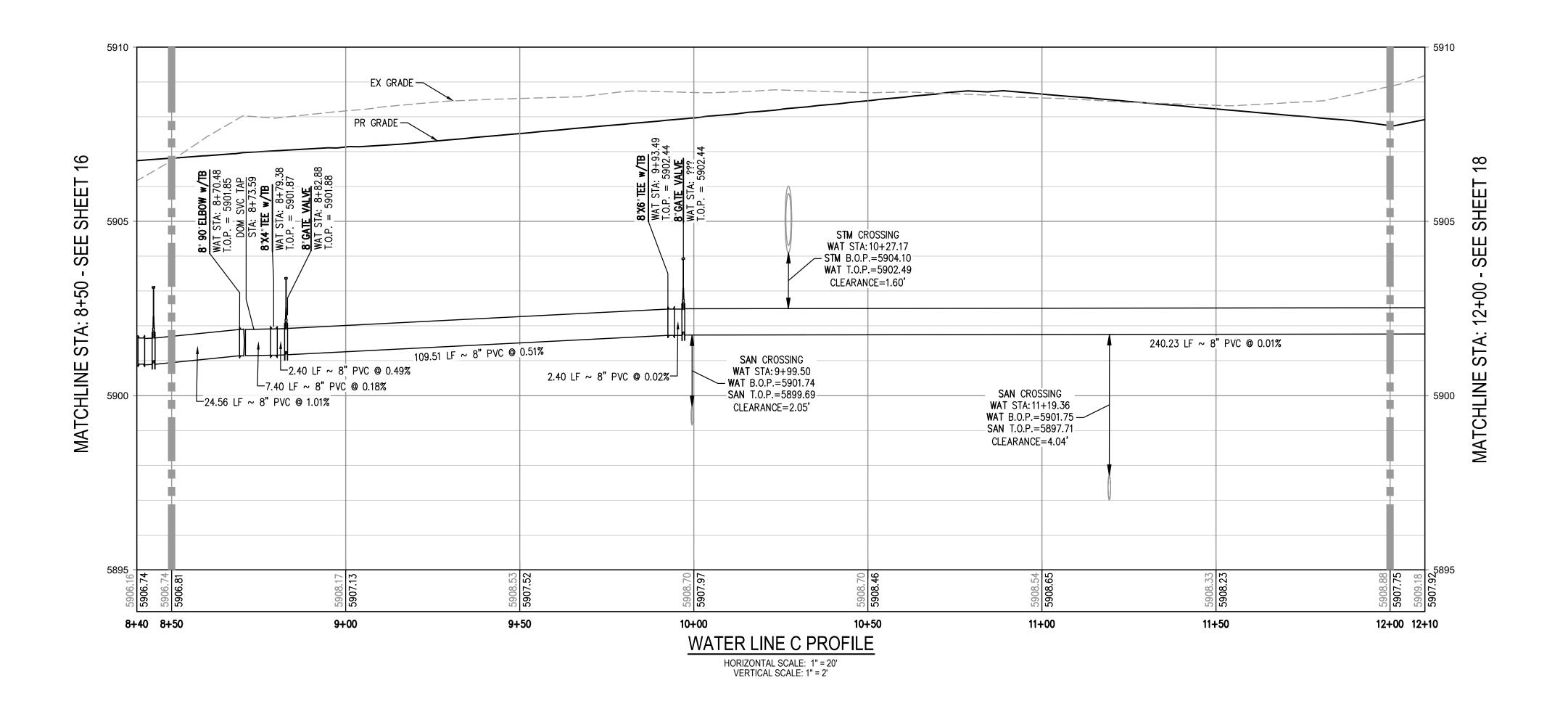




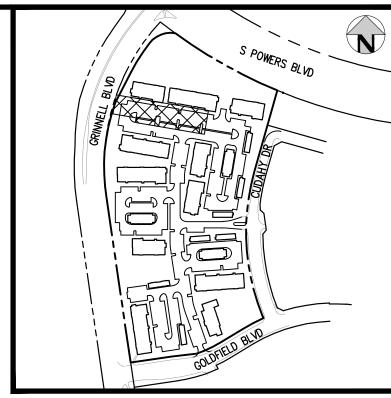
OUTLOOK POWERS & GRINNELL WATER LINE C PLAN & PROFILE



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SCALE: 1" = 20'



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BLOW-OFF INSTALLATION

SWD STD DWG 23 - TAPPING DETAIL SWD STD DWG 24 - FLANGE LUG DETAIL

Know what's below. Call before you dig.

				ISSUE DATE: 0	5-08-2023	
0		00	40	DATE	REVISION COMMENTS	
)	0	20	40			
SCALE: 1" = 20'						-
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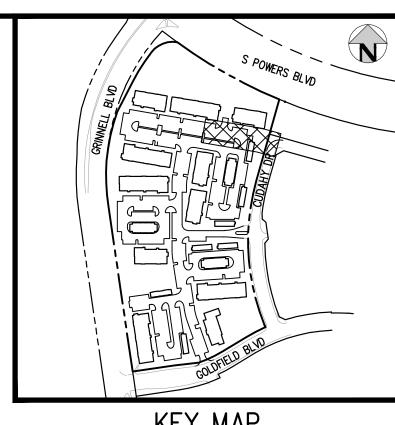




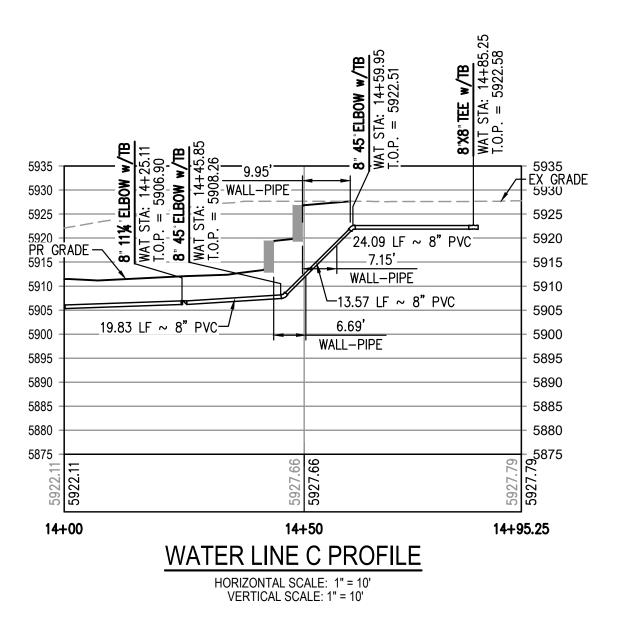
OUTLOOK POWERS & GRINNELL WATER LINE C PLAN & PROFILE



PROJECT #: 221206 SHEET NUMBER



KEY MAP



OTES:

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SWD STD DWG 23 — TAPPING DETAIL

SWD STD DWG 23 - TAPPING DETAIL SWD STD DWG 24 - FLANGE LUG DETAIL

Know what's below.
Call before you dig.





OUTLOOK POWERS & GRINNELL WATER LINE C PLAN & PROFILE

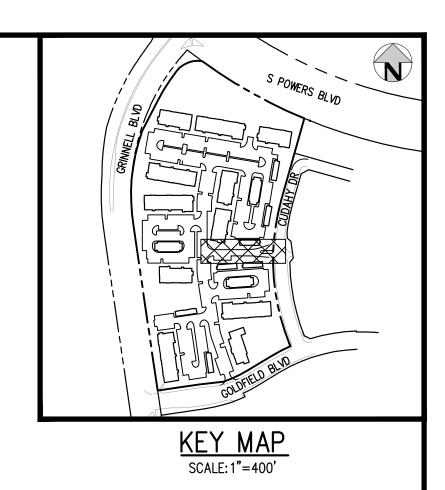


PROJECT #: 221206 SHEET NUMBER

PR GRADE —

2.39 LF ~ 8" PVC @ 5.64%

EX GRADE —



5905

5900

4+22.89

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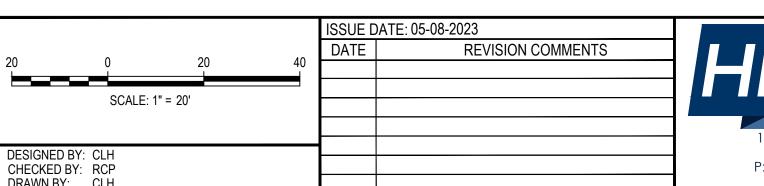
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SWD STD DWG 23 - TAPPING DETAIL SWD STD DWG 24 - FLANGE LUG DETAIL

81
Know what's below. Call before you dig.



5905



L20.00 LF ~ 8" PVC @ 1.72%

1+50

0+90 1+00

STM CROSSING

WAT STA: 2+02.28
STM B.O.P.=5900.47
WAT T.O.P.=5898.89

CLEARANCE=1.58'

17 35.67 LF ~ 8" PVC @ 0.85%

2+00

 \perp 2.40 LF ~ 8" PVC @ 5.03%-

└-25.65 LF ~ 8" PVC @ 4.26%

20.00 LF ~ 8" PVC @ 3.40% 6.70 LF ~ 8" PVC @ 19.86%



SAN CROSSING

WAT STA: 2+19.59

- WAT B.O.P.=5899.83

SAN T.O.P.=5898.10

CLEARANCE=1.73'

2+50

WATER LINE D PROFILE

HORIZONTAL SCALE: 1" = 20' VERTICAL SCALE: 1" = 2'

3+00

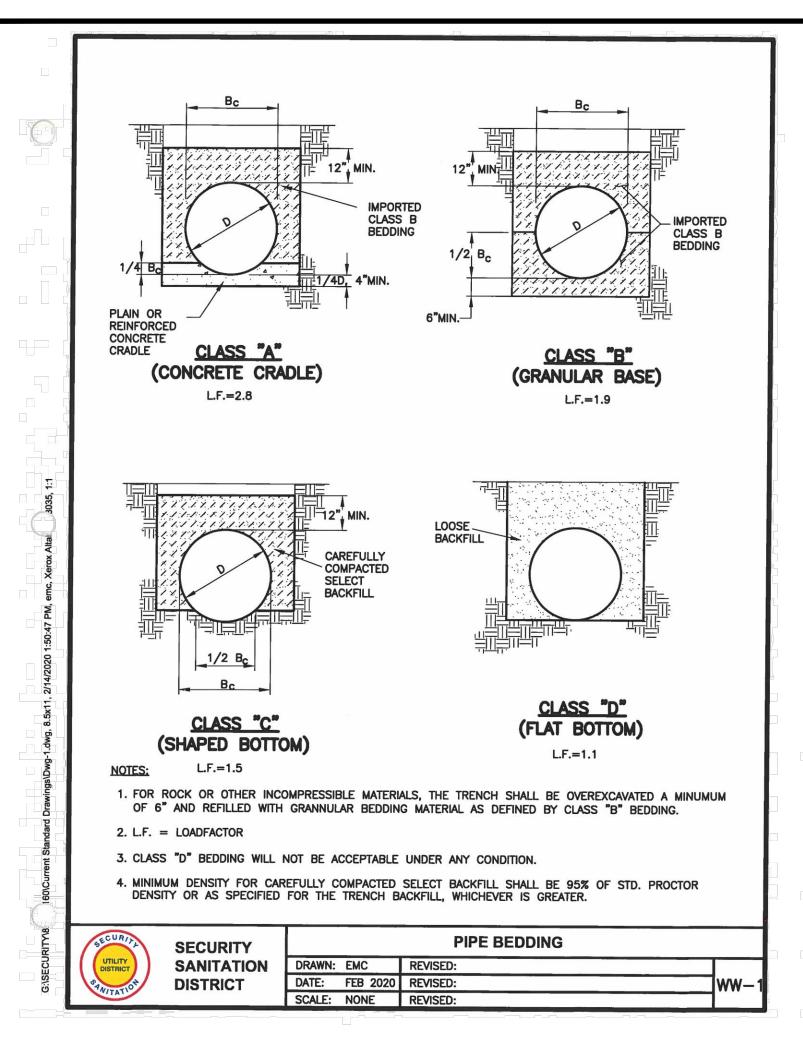
3+50

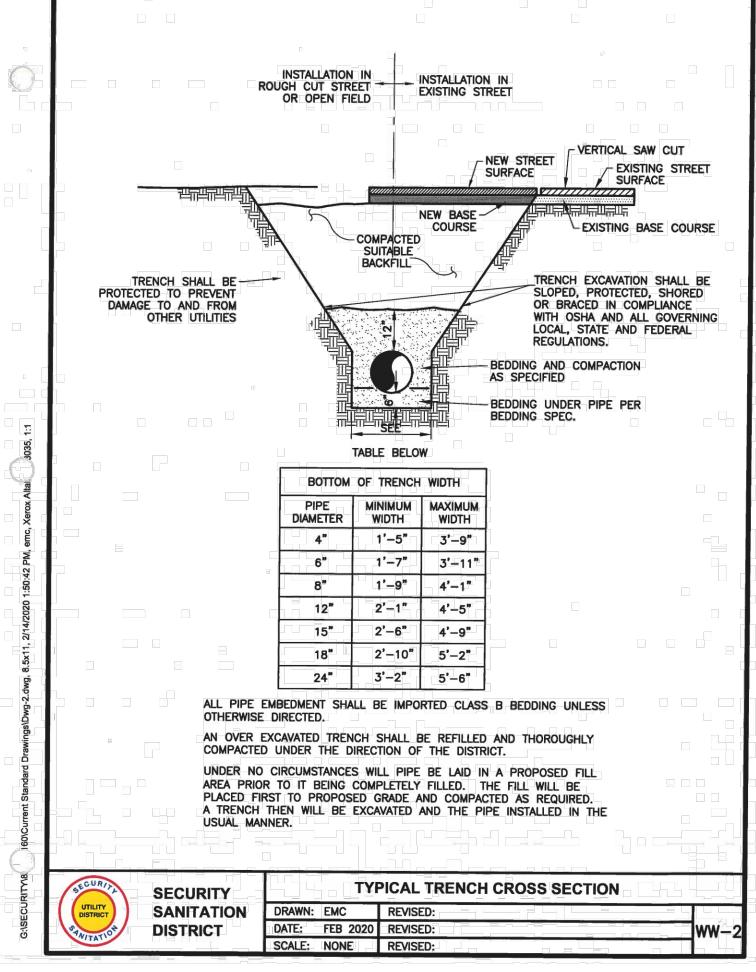
OUTLOOK POWERS & GRINNELL WATER LINE D PLAN & PROFILE

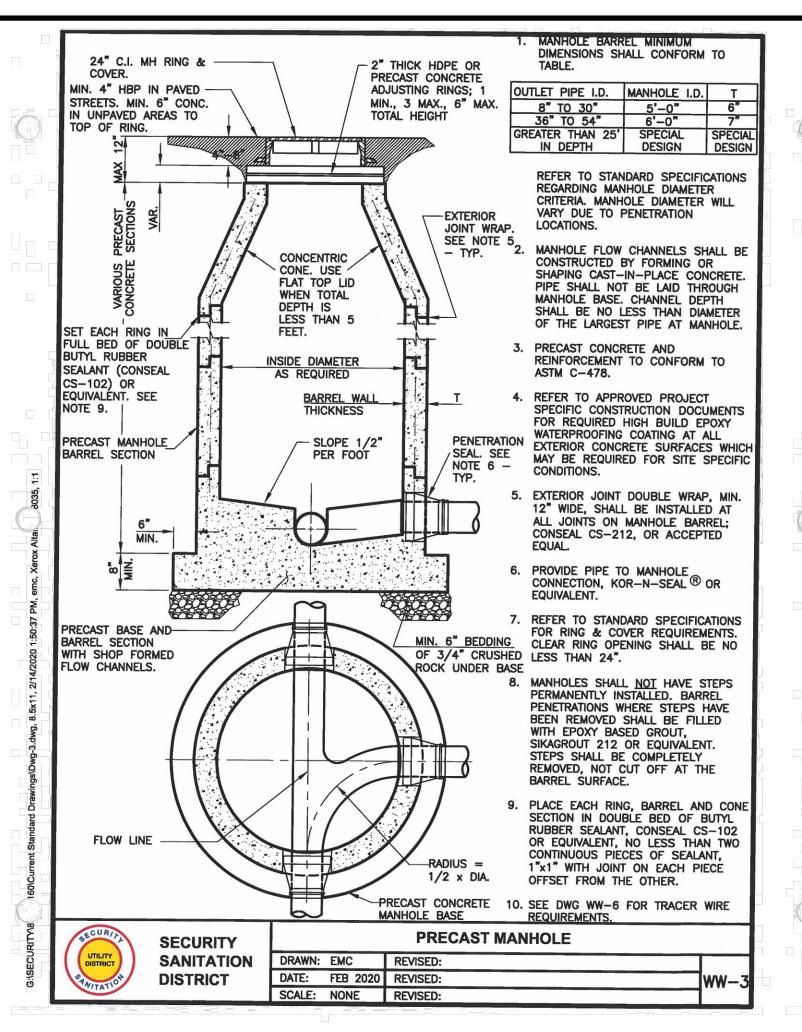
4+00

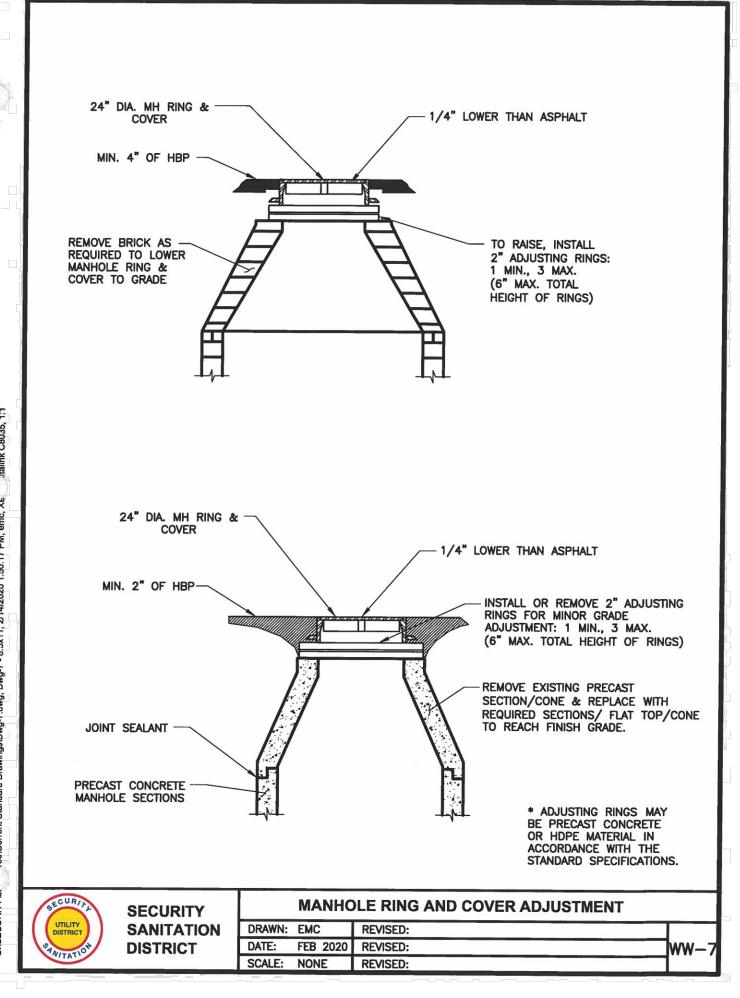


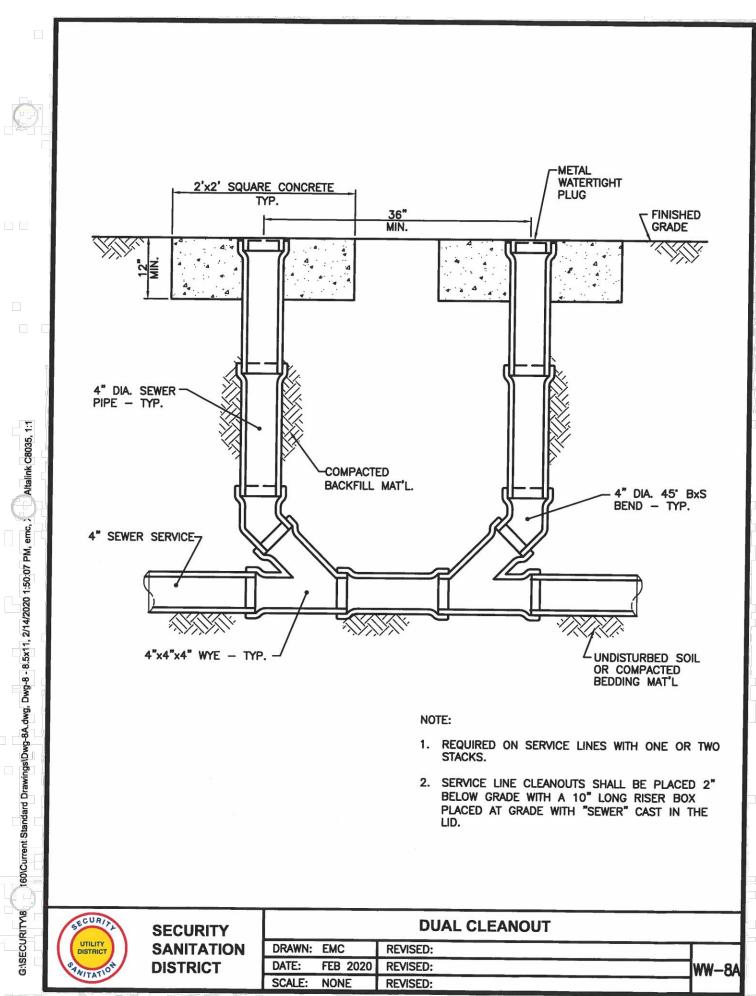
PROJECT #: 221206 SHEET NUMBER

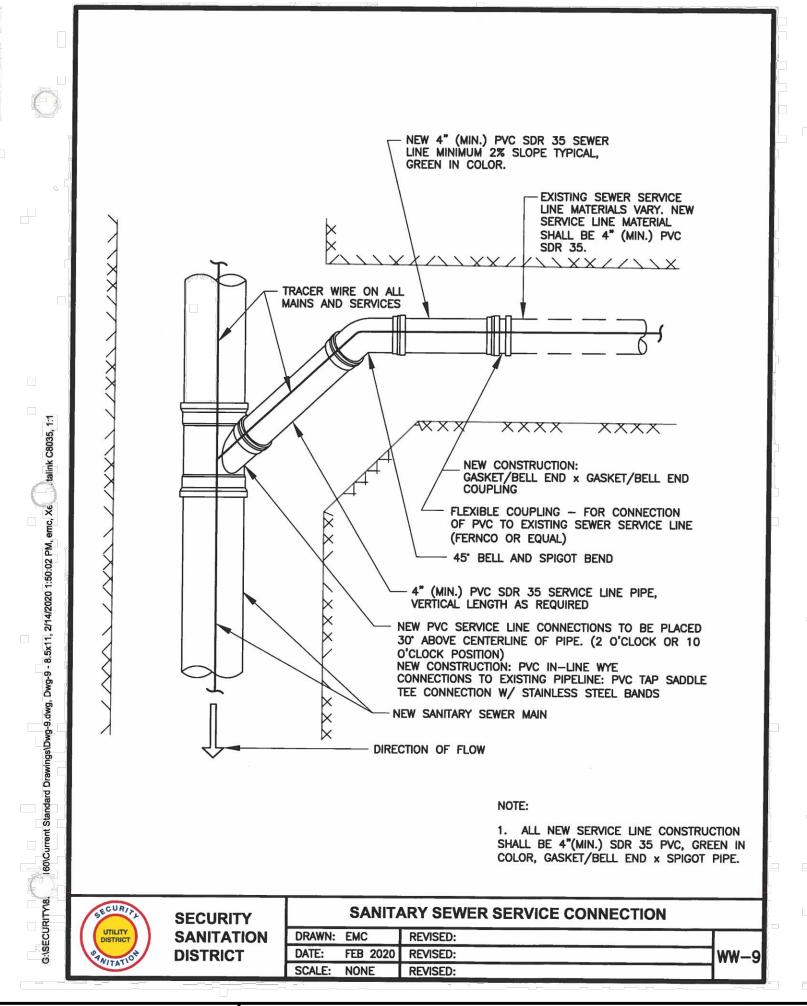


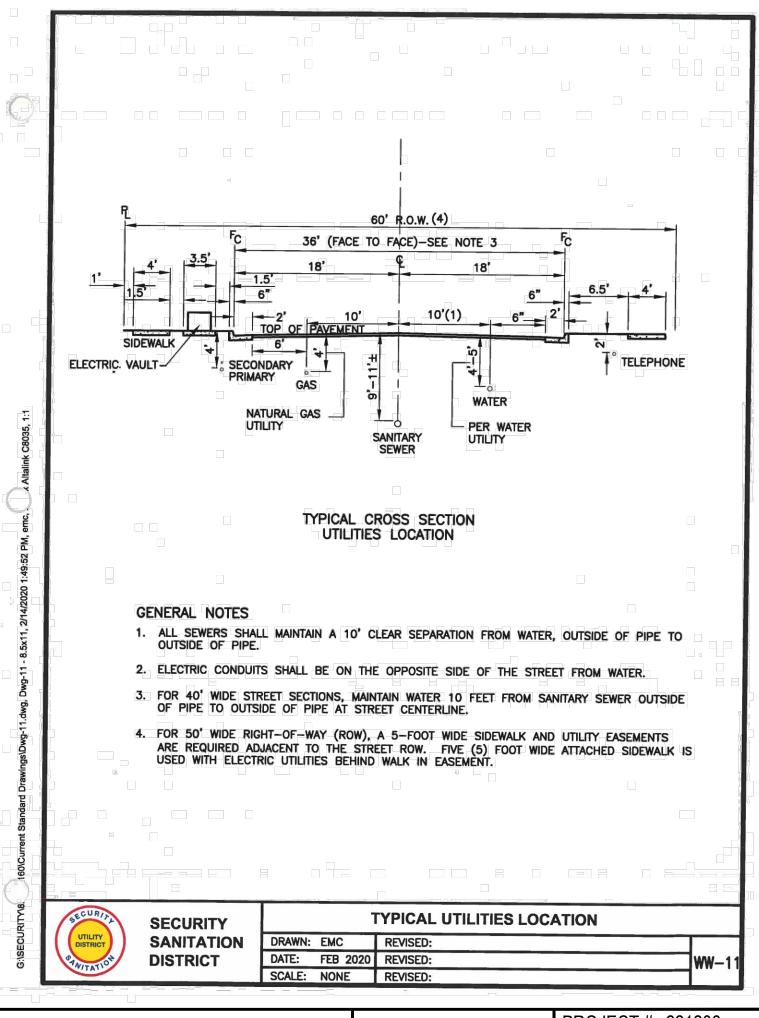




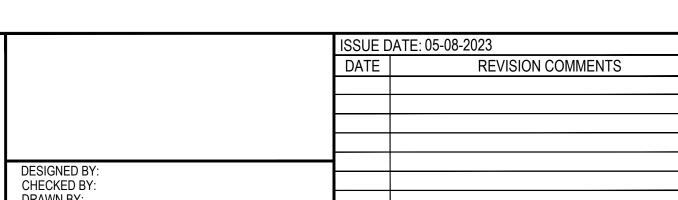














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