## **GENERAL NOTES**

- Profile design lines are based on centerline, as shown, unless otherwise noted. All new construction to conform to the specifications of El Paso County Planning and Community Development, Widefield Water and Sanitation District, and the Fountain Mutual Irrigation Company (FMIC). Any asphalt removed is to be replaced to meet the specifications of the El Paso County Planning and Community Developmen
- For pavement design, curb and gutter, and sidewalks see individual plan and profile sheets. Pavement design to be based on Resistance Value 'R' derived from Hveem tests and are to be approved by the Engineering Division of the El Paso County Planning and Community Development prior to work above subgrade. At intersections, all curb returns will have 20-foot radius unless otherwise noted.
- All existing utilities have been shown according to the best available information. The contractor is responsible for field location and verification prior to beginning work. If it appears that there could be a conflict with any utilities, whether indicated on the plans or not, the contractor is to notify the engineer and owner immediately. The contractor is responsible for the protection and repair (if necessary) of all utilities..
- A Pre-Construction meeting shall be held with the El Paso County Planning and Community Development and Widefield Water and Sanitation District prior to any construction. Approved plans, Engineering Criteria Manual, etc. is required to be on-site at all times during construction.
- All necessary permits, such as SWMP, ESQCP, Fugitive Dust, Access, C.O.E. 404, etc. shall be obtained prior to construction.
- All handicap ramps to be per El Paso County Standard SD\_2-40. 10. The contractor shall coordinate exact locations and layout with the El Paso County Planning and Community Development on the placement of any
- pedestrian ramps prior to construction of the curb. Pedestrian ramp locations are as shown on the plans. . Where appropriate, neatly saw cut all existing concrete and asphalt. Repair/replace all disturbed existing items with like materials and thicknesses. 12. All disturbed areas shall be revegetated with native grasses within 21 days of excavation per Erosion Control Plan.
- 13. The prepared Erosion/Sediment Control Plan is to be considered a part of these plans and its requirements adhered to during the construction of this 14. All storm and sanitary sewer pipe lengths and slopes are figured from center of manhole or bend. Pipe lengths are given as a horizontal length.
- 15. All storm sewer bedding to be per CDoT Standards.
- 16. All storm sewer pipe shall be Class III B Wall unless otherwise shown on the storm sewer plan and profile sheets. 17. All wyes and bends used in construction of storm sewer facilities shall be factory fabricated, unless approved by the El Paso County Development
- Services Department. 18. Construction and materials used in all storm and sanitary sewer manholes shall be per specifications. Storm sewer radial deflections to be grouted or installed per manufacturer's recommendations
- 19. Storm sewer manholes sizes as follows unless otherwise shown 18" thru 36" use 48" I.D. manhole
  - 42" thru 48" use 60" I.D. manhole
  - 54" thru 60" use 72" I.D. manhole
- NOTE: Manhole sizes tabulated here shall be increased, if necessary, to accommodate incoming laterals. ). Sanitary sewer manhole sizes and facilities per Widefield Water and Sanitation District Specifications. Sanitary sewers to be installed with Class 'C' bedding. Sanitary sewers deeper than 12-feet shall require Class 'B' bedding. Pipe used for construction of sanitary sewer shall be SDR 35 unless shown otherwise on plan and profiles.
- 21. For additional utility notes, see Utility Plan and/or Service Plan. 22. All horizontal stationing is based on the 'Face of Curb', unless otherwise shown.
- 23. All vertical design and top of curb are based on the design point shown in the typical cross section. 24. The curb line design point is located at the intersection of the face and top of curb for the Type III Standard 6-inch vertical curb. See typical street
- section for design point locations.
- 25. Water and sanitary sewer service provided by Widefield Water and Sanitation District. Telephone service provided by Qwest Communications. Gas service provided by Blackhills Energy. Electric service provided by Mountain View Electric.
- 26. All utility construction to be conducted in conformance with the current Widefield Water and Sanitation District Specifications and/or El Paso County Specifications, whichever is greater. 27. Vertical curb to be used between curb returns (CR) and at curb inlets. Transitions from ramp to vertical curb shall be 10-feet unless otherwise
- approved by the El Paso County Planning and Community Development. All other curb & gutter to be ramp curb & gutter.
- 28. Cross pans to be 6' wide and per El Paso County Standard Detail SD\_2-26. 29. Contractor responsible for meeting all Widefield Water and Sanitation District criteria when connecting to existing stubs.
- 30. Curb returns shall be straight graded from CR to CR unless otherwise noted.
- 31. Inlets are Type 'R' inlets (CDOT STD M-604-12) unless otherwise noted. 32. USPS CBU Mailboxes are to be determined by USPS.

Monument is located at the Northwest corner of the intersection of Powers Boulevard and Fontaine Street. The monument is a 3-inch aluminum cap (FIMS ID #206). Located 51.3 feet west of the west edge of asphalt of Powers Blvd and 65.5 feet north of the north edge of asphalt of Fontaine Street. Elevation=5897.89 feet (NGVD 1929, 1960 Adj.)

BASIS OF BEARINGS is based upon a portion of the Easterly boundary of the Glen at Widefield Sudbivision Filing No. 5B as recorded under Reception No. 206712326 in the records of the Clerk and Recorder's Office, County of El Paso, Satet of Colorado; said line being also a portion of the Easterly Right-of-Way Autumn Glen Avenue as described in said subdivision, being monumented at the Point of Tangency of said boundary by a found cap and rebar marked "PLSC 25968" and at the Point of Curvature of said boundary by a found rebar and cap marked "PLSC 25968". Said line bears N29°46'44"W, a distance of 1154.12 feet.

## EL PASO COUNTY STANDARD NOTES

- All drainage and roadway construction shall meet the standards and specifications of the City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2, and the El Paso County Engineering Criteria Manual.
- Contractor shall be responsible for the notification and field notification of all existing utilities, whether shown on the plans or not, before beginning construction. Location of existing utilities shall be verified by the contractor prior to construction. Call 811 to contact the Utility Notification Center of Colorado (UNCC).
- Contractor shall keep a copy of these approved plans, the Grading and Erosion Control Plan, the Stormwater Management Plan (SWMP), the soils and geotechnical report, and the appropriate design and construction standards and specifications at the job site at all times, including the following:
- El Paso County Engineering Criteria Manual (ECM) b. City of Colorado Springs/El Paso County Drainage Criteria Manual, Volumes 1 and 2
- c. Colorado Department of Transportation (CDOT) Standard Specifications for Road and Bridge Construction CDOT M & S Standard
- Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations from regulations and standards must be requested, and approved, in writing. Any modifications necessary to meet criteria after-the-fact will be entirely the developer's responsibility to rectify.
- It is the design engineer's responsibility to accurately show existing conditions, both onsite and offsite, on the construction plans. Any modifications necessary due to conflicts, omissions, or changed conditions will be entirely the developer's responsibility to rectify.
- Contractor shall schedule a pre-construction meeting with El Paso County Planning and Community Development (P&CDD) Inspections, prior to starting construction.
- It is the contractor's responsibility to understand the requirements of all jurisdictional agencies and to obtain all required permits, including but not limited to El Paso County Erosion and Stormwater Quality Control Permit (ESQCP), Regional Building Floodplain Development Permit, U.S. Army Corps of Engineers-issued 401 and/or 404 permits, and county and state fugitive dust permits.
- Contractor shall not deviate from the plans without first obtaining written approval from the design engineer and P&CDD. Contractor shall notify the design engineer immediately upon discovery of any errors or inconsistencies
- 9. All storm drain pipe shall be Class III RCP unless otherwise noted and approved by P&CDD.
- 10. Contractor shall coordinate geotechnical testing per ECM standards. Pavement design shall be approved by El Paso County P&CDD prior to placement of curb and gutter and pavement.
- 11. All construction traffic must enter/exit the site at approved construction access points.
- 12. Sight visibility triangles as identified in the plans shall be provided at all intersections. Obstructions greater than 18 inches above flowline are not allowed within sight triangles
- 13. Signing and striping shall comply with El Paso County DOT and MUTCD criteria. [If applicable, additional signing and striping notes will be provided.]
- 14. Contractor shall obtain any permits required by El Paso County DOT, including Work Within the Right-of-Way and Special Transport permits.
- 15. The limits of construction shall remain within the property line unless otherwise noted. The owner/developer shall obtain written permission and easements, where required, from adjoining property owner(s) prior to any off-site disturbance, grading, or construction.

## **INDEX OF SHEETS**

# Cover Sheet Plan and Profile - Spring Glen Drive (30+00 to 43+00) Plan and Profile - Spring Glen Drive 43+50 to 45+89) Plan and Profile - Bigtooth Maple Drive (25+50 to 37+82) Plan and Profile - Peachleaf Drive (25+00 to 38+36) Plan and Profile - Bittercress Place (0+00 to 9+00)

- Plan and Profile -- Bittercress Place (9+00 to 14+39) Plan and Profile - Bee Balm Place (1+00 to 3+51)
- Overall Signage and Striping Plan Storm Sewer Plan (Outfall) 10

## **GOVERNING AGENCIES**

- El Paso County Planning & Community Development Department 2880 International Circle Suite 110 Colorado Springs Colorado (719) 520-6300
- Widefield Water & Sanitation District 37 Widefield Blvd. Colorado Springs, Colorado (719) 390-7111

Black Hills Energy 18965 Bas Camp Road Unit A7 Monument, Colorado

(719) 359-0586

14 Utility Plan

16

11 Storm Sewer Plan - (Peachleaf Drive)

12 Grading and Erosion Control Plan

Utility Services Plan

17 Detention Basin Details

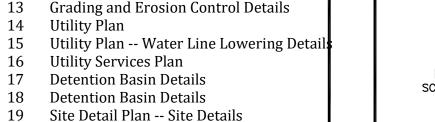
18 Detention Basin Details

20 Site Detail Plan -- Utility Details

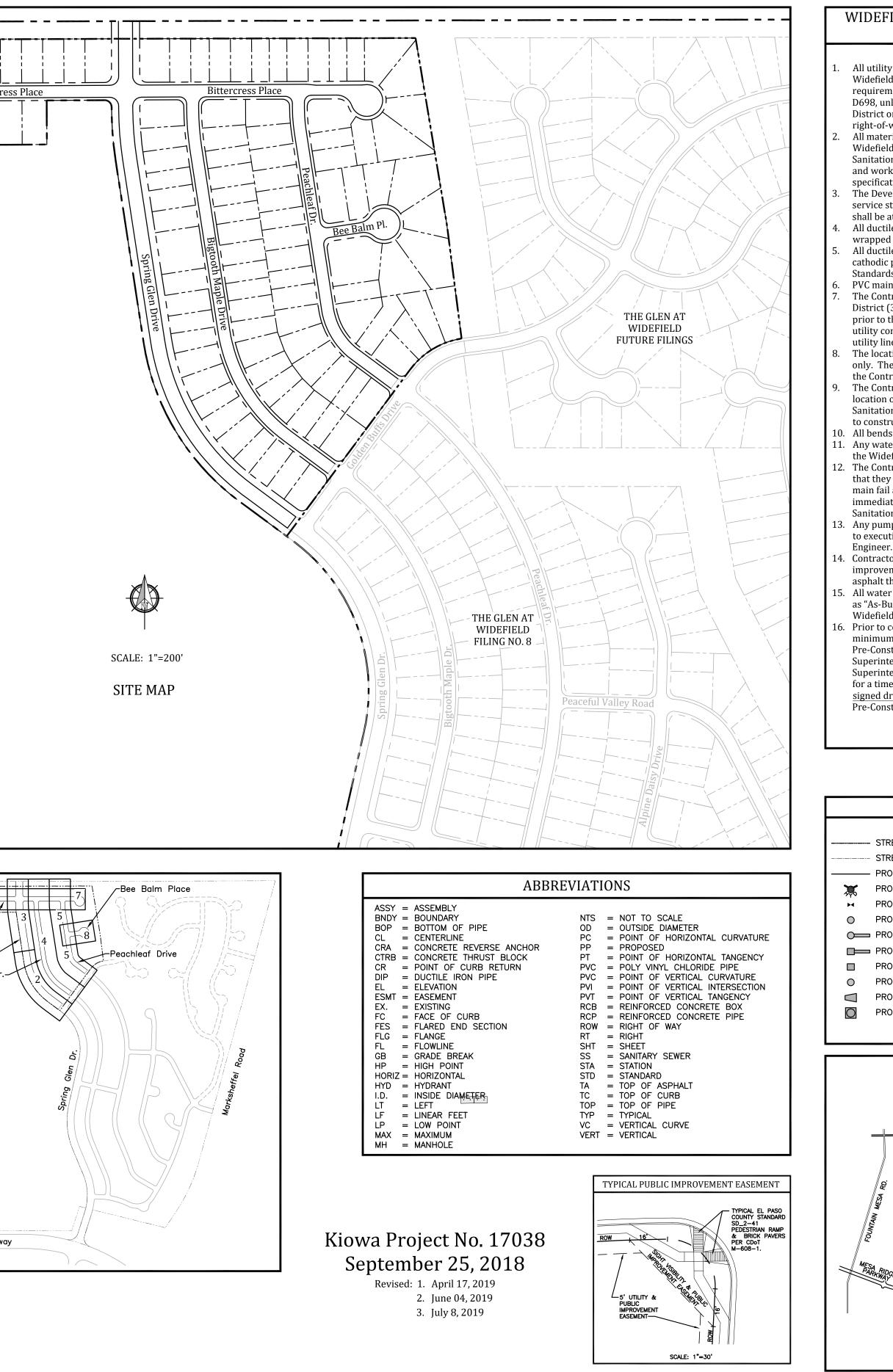
Mountain View Electric Association 11140 East Woodmen Road Falcon, Colorado (719) 495-2283

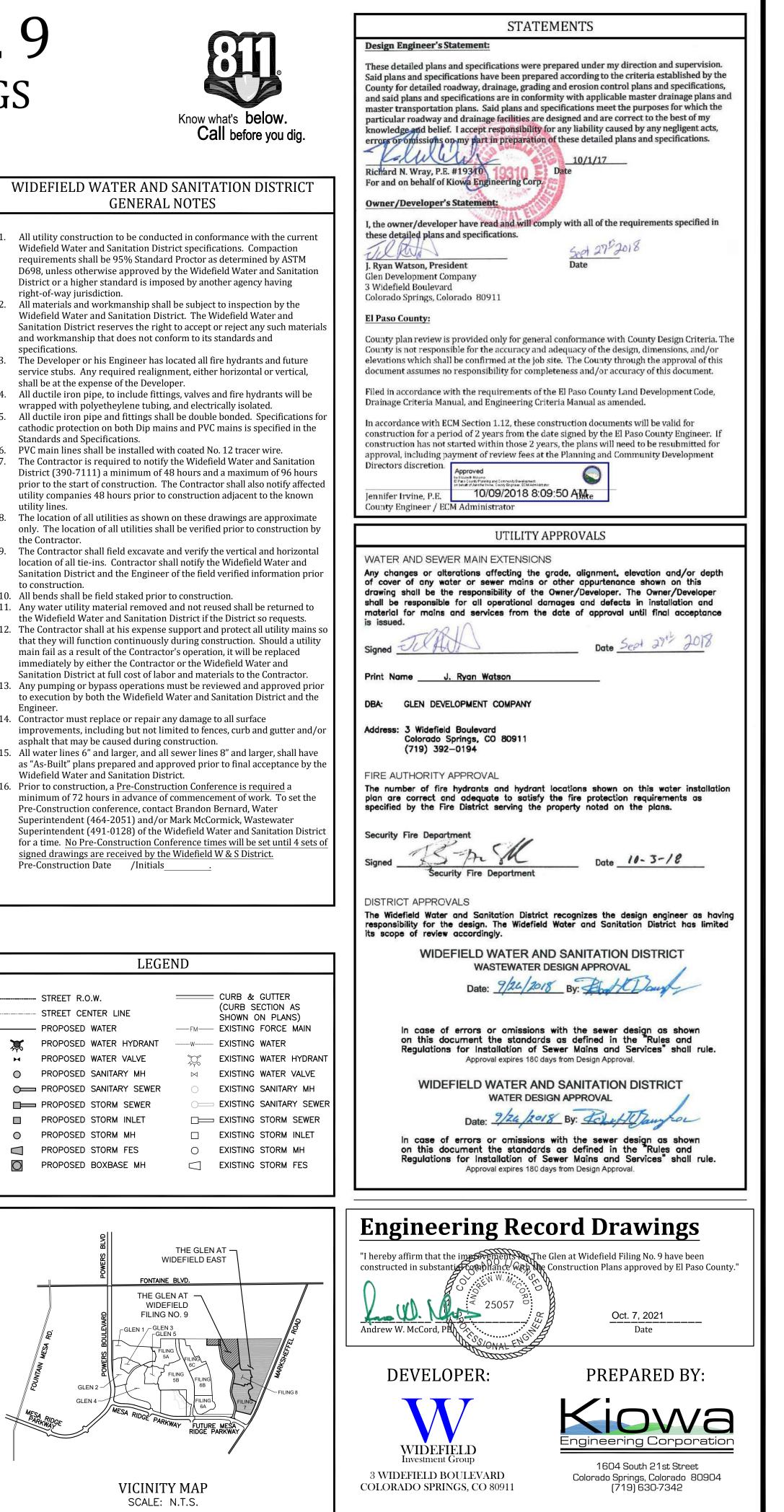


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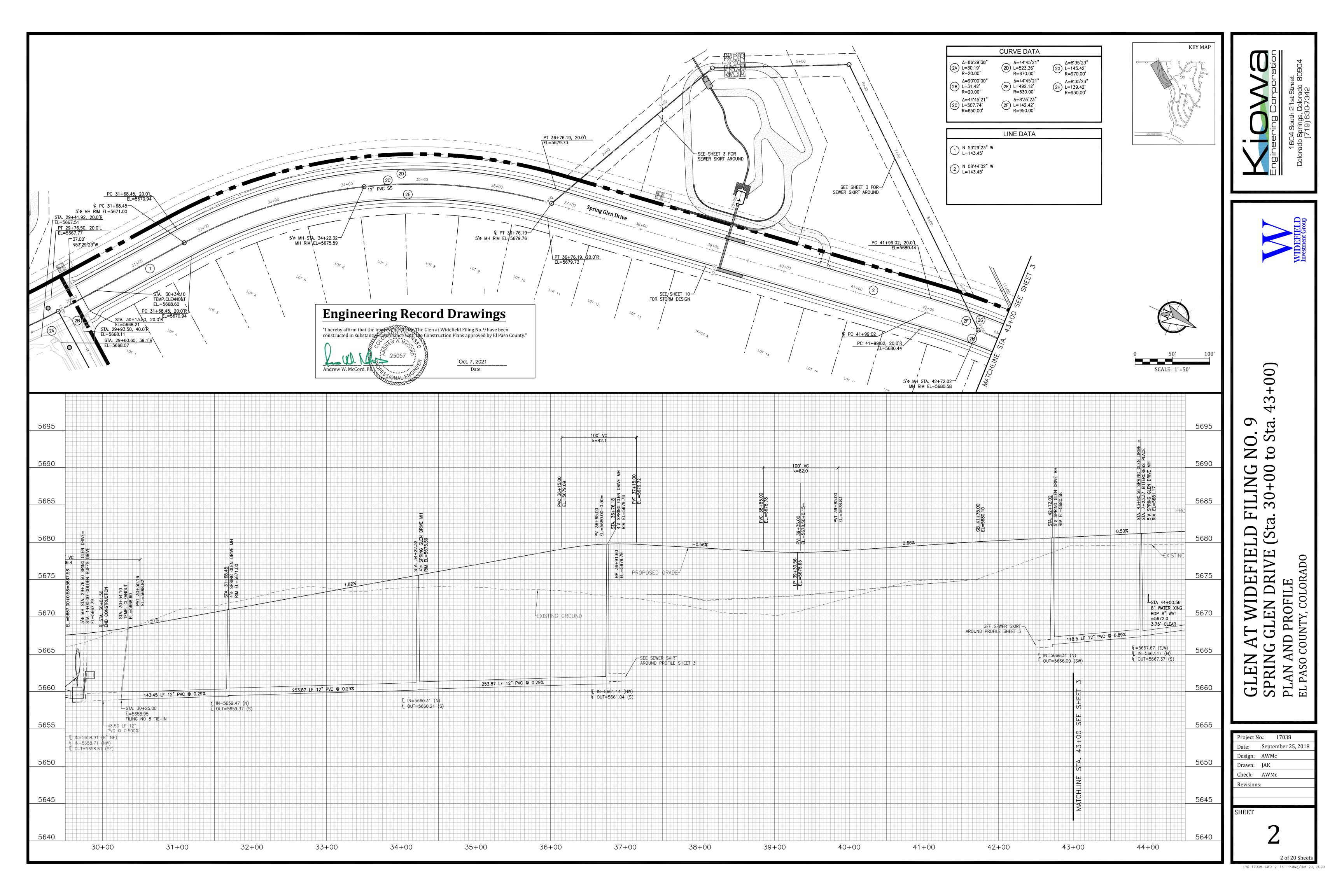


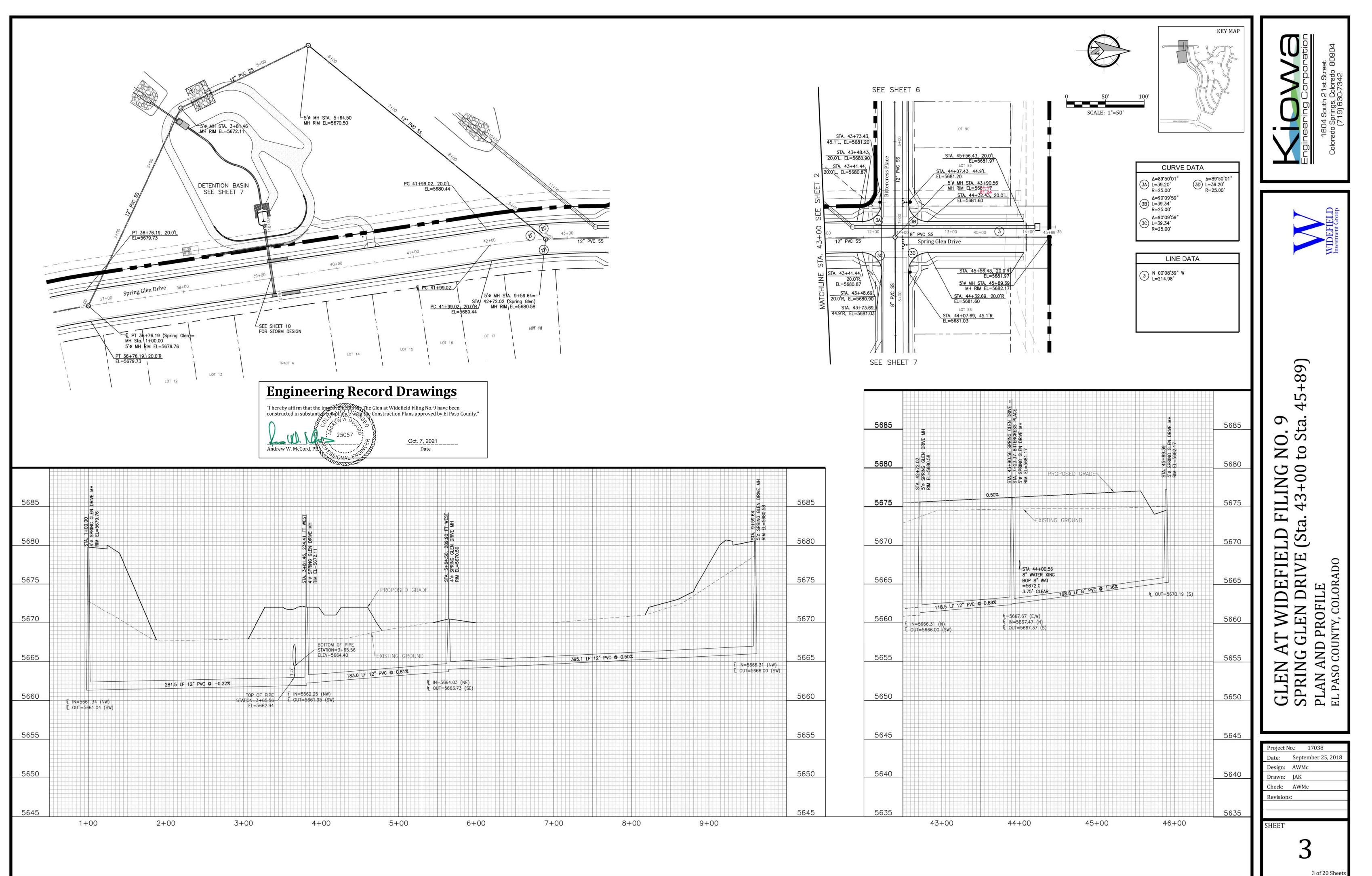
# THE GLEN AT WIDEFIELD FILING NO. 9 **RESIDENTIAL SUBDIVISION CONSTRUCTION DRAWINGS** PREPARED FOR WIDEFIELD INVESTMENT GROUP





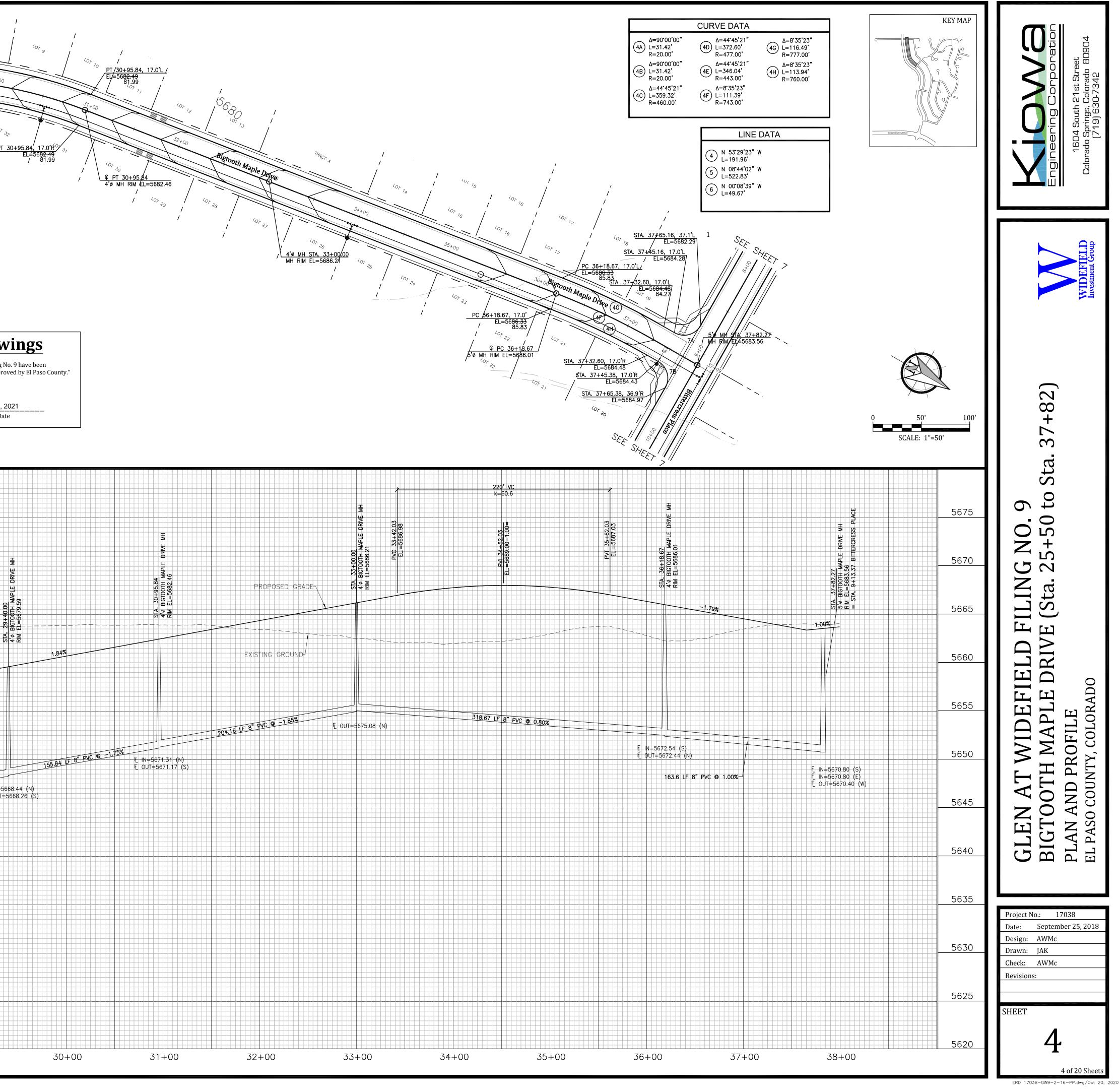
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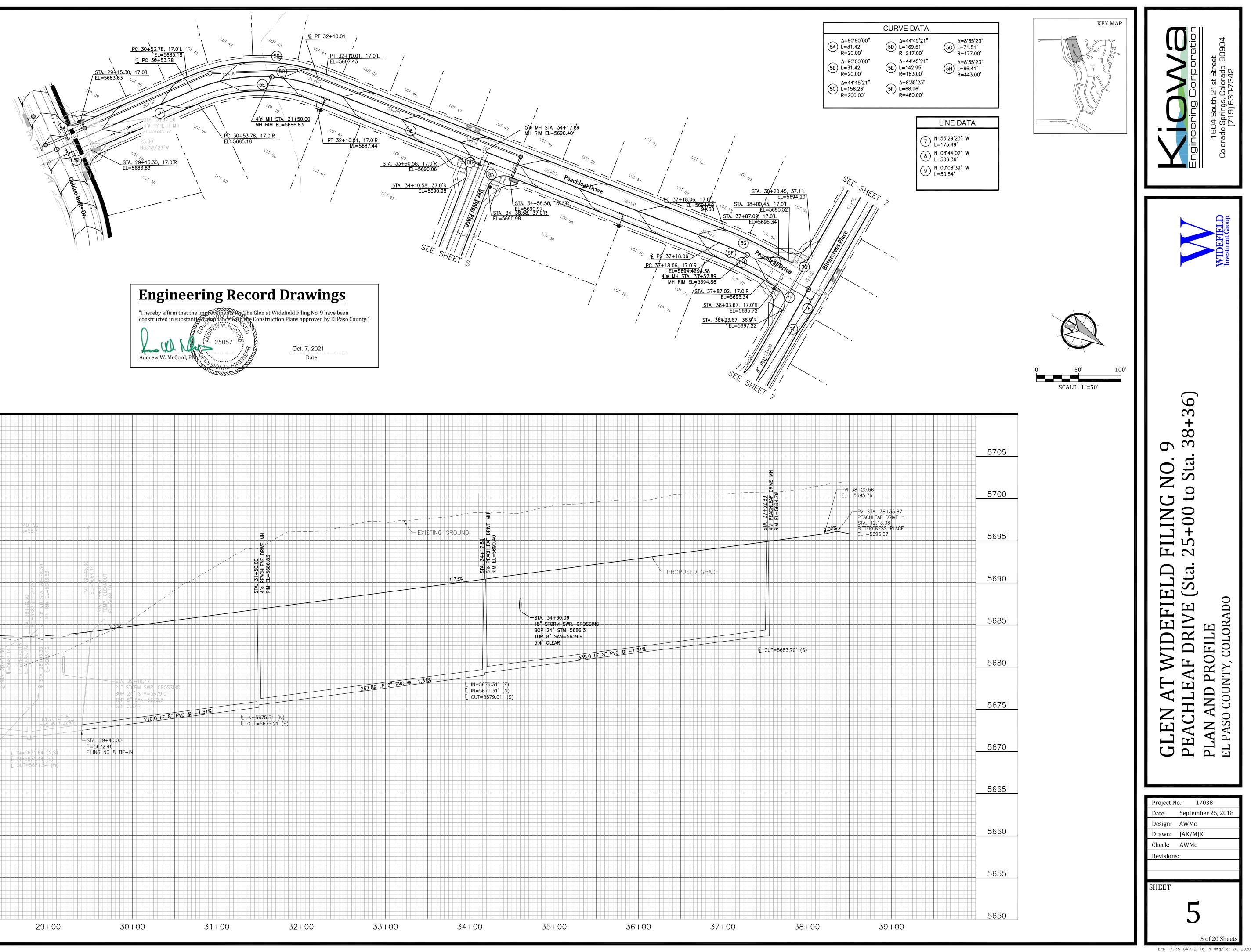


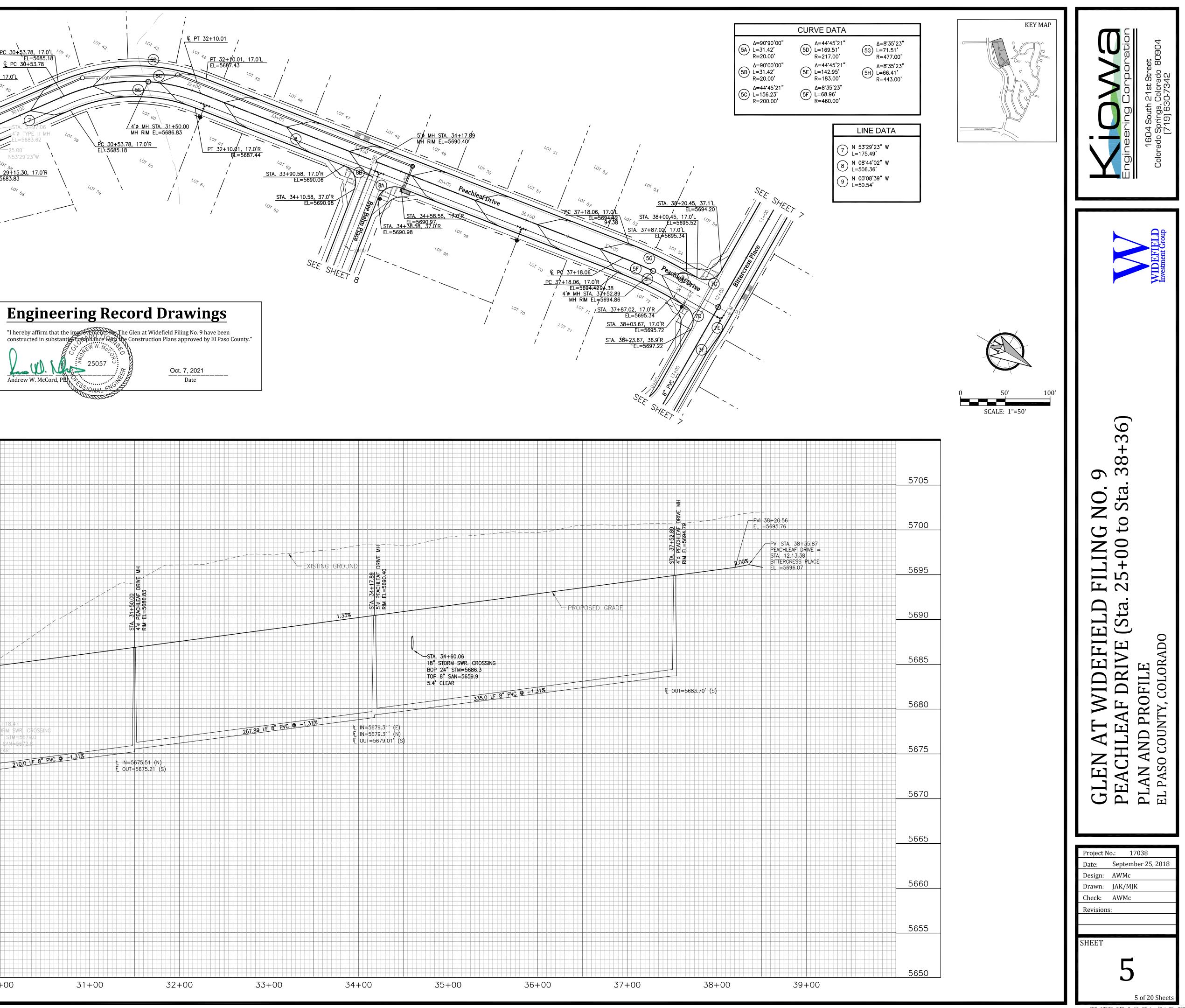


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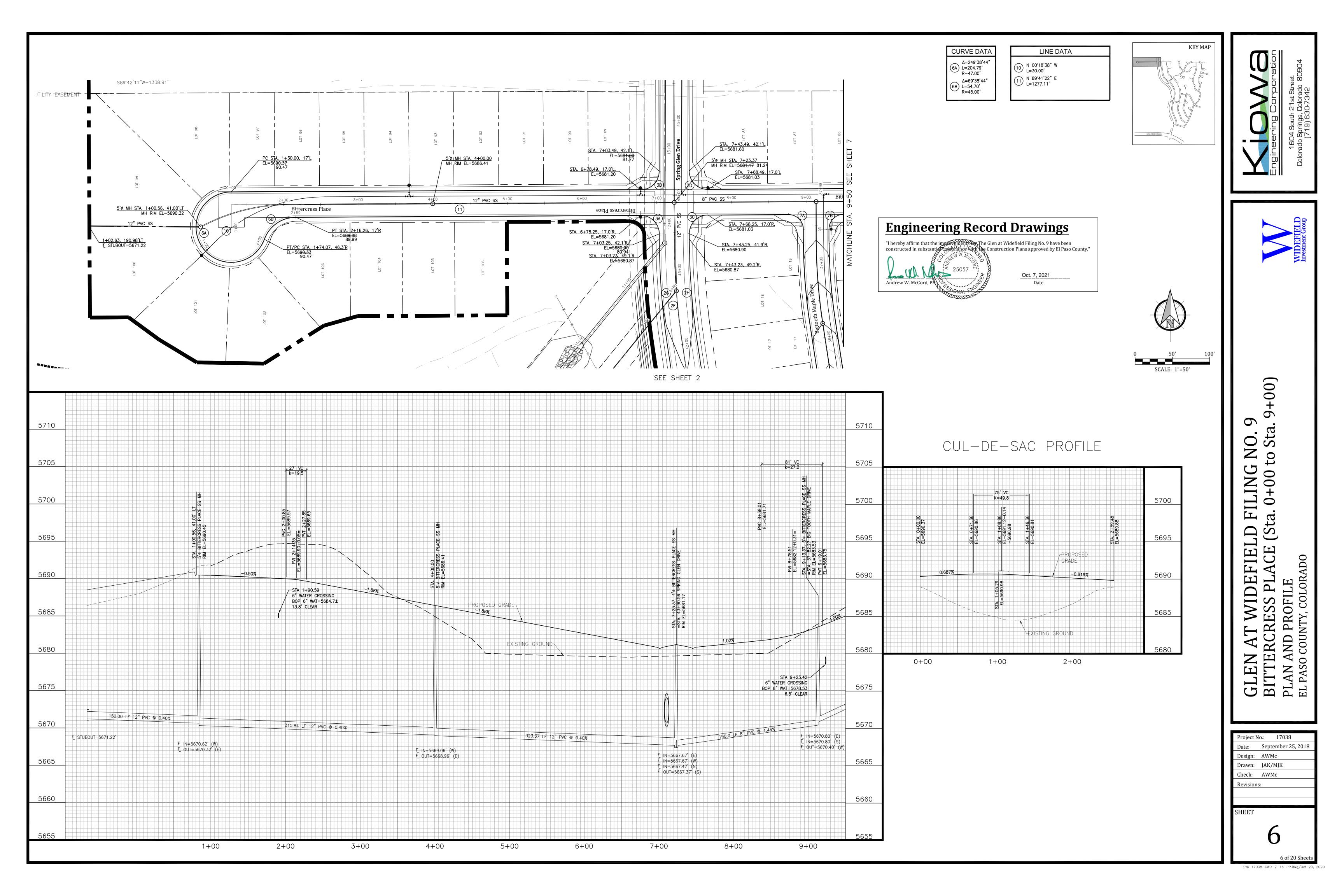
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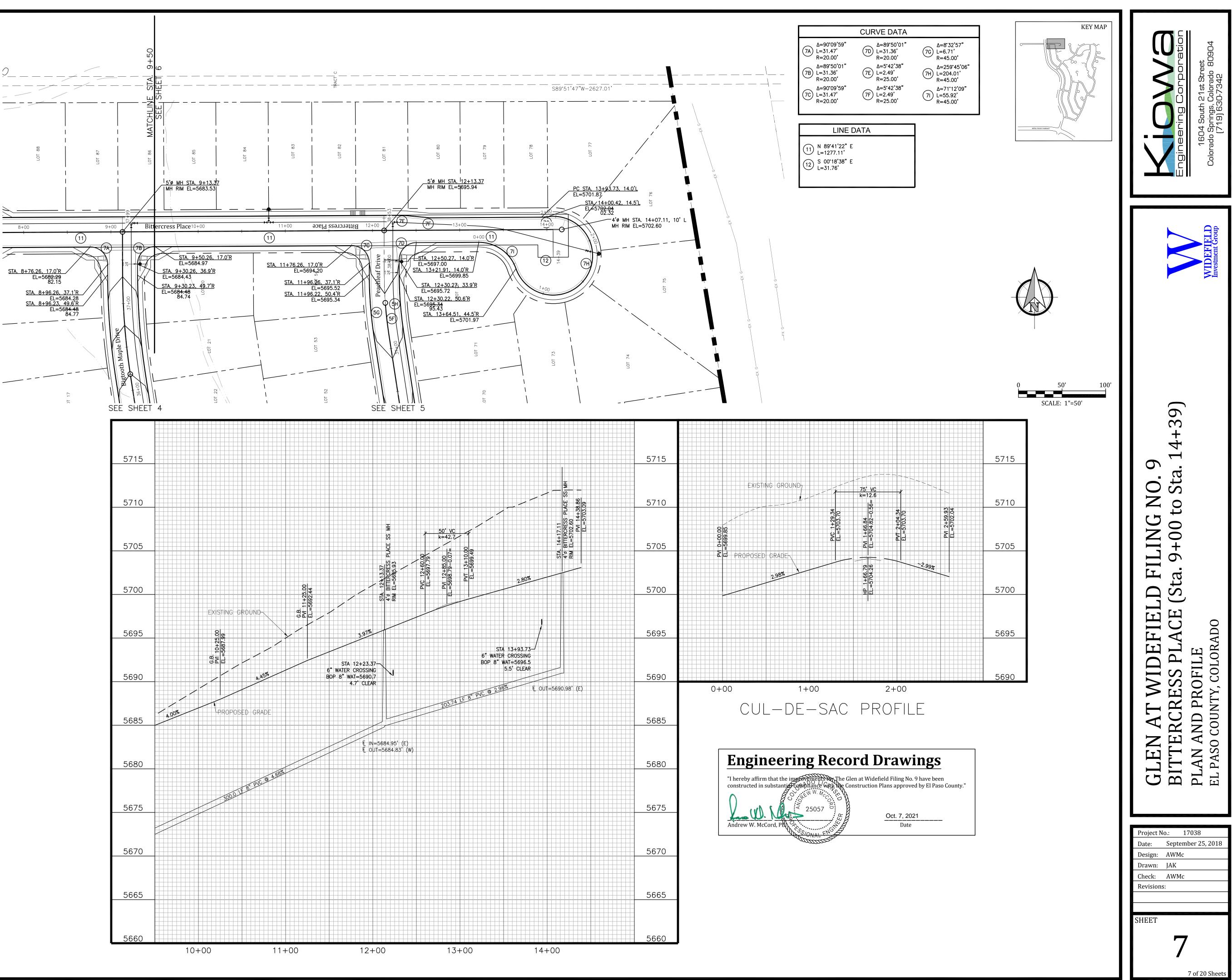




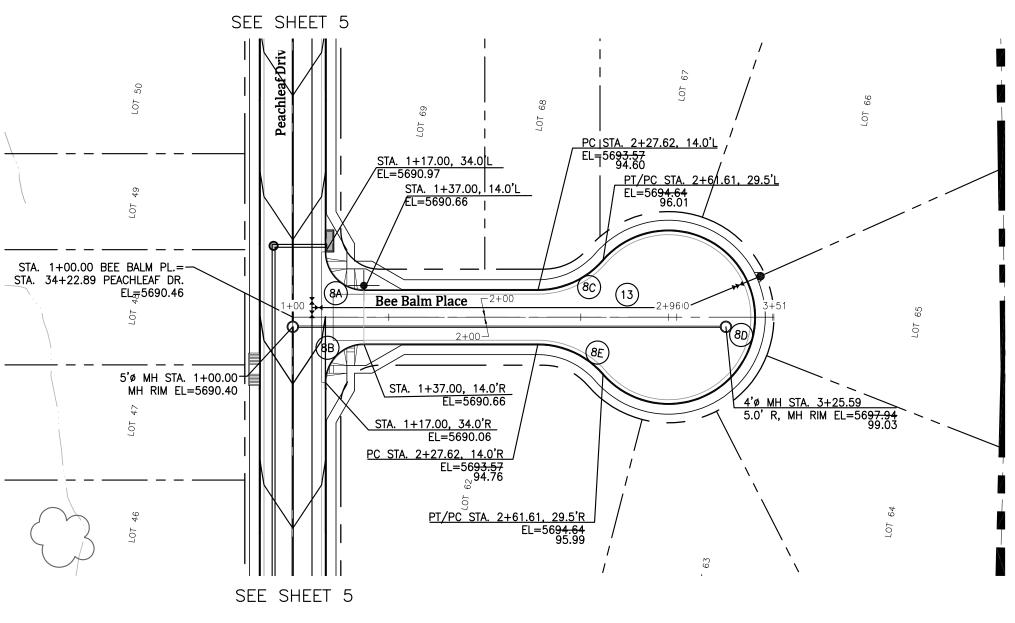


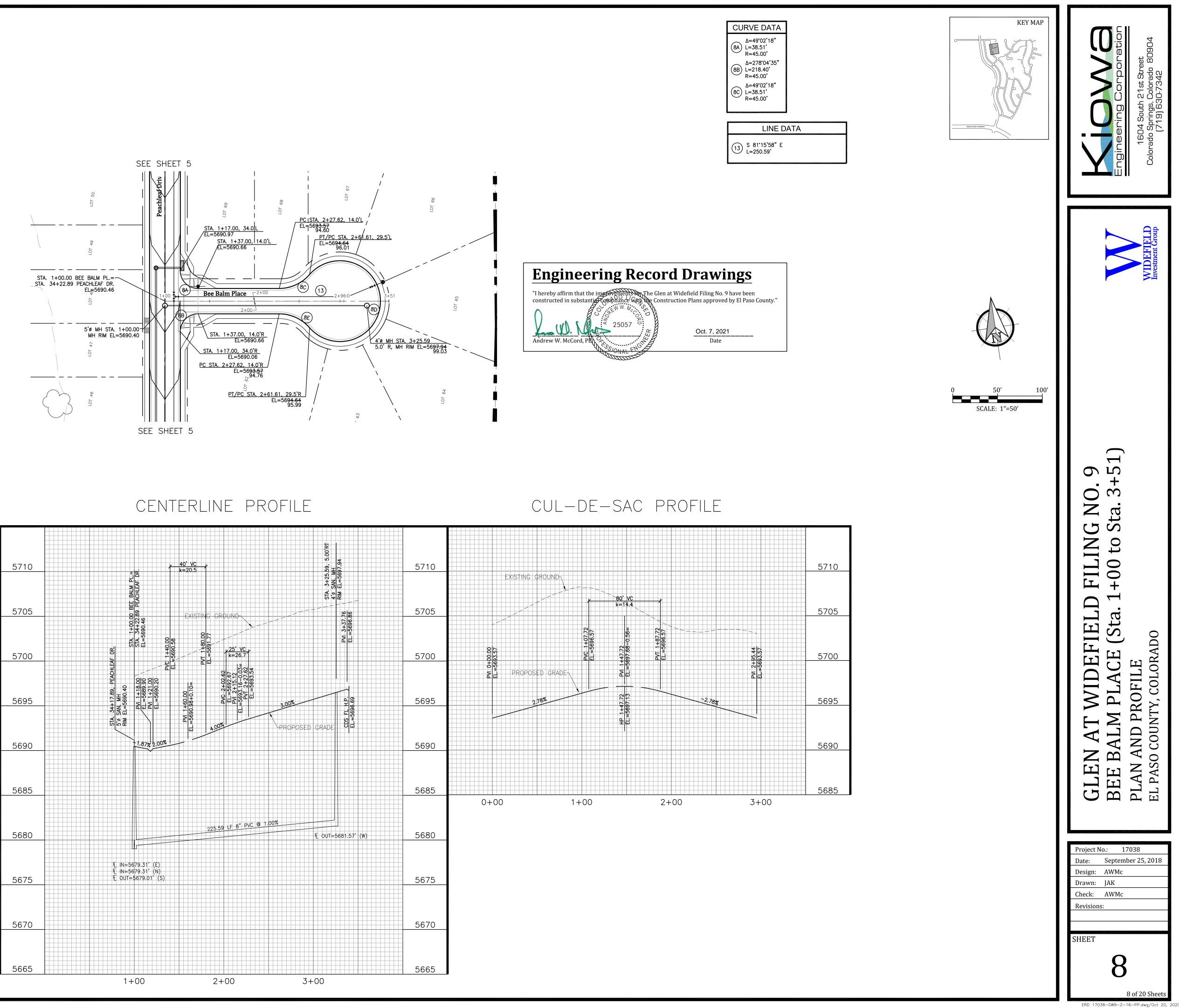
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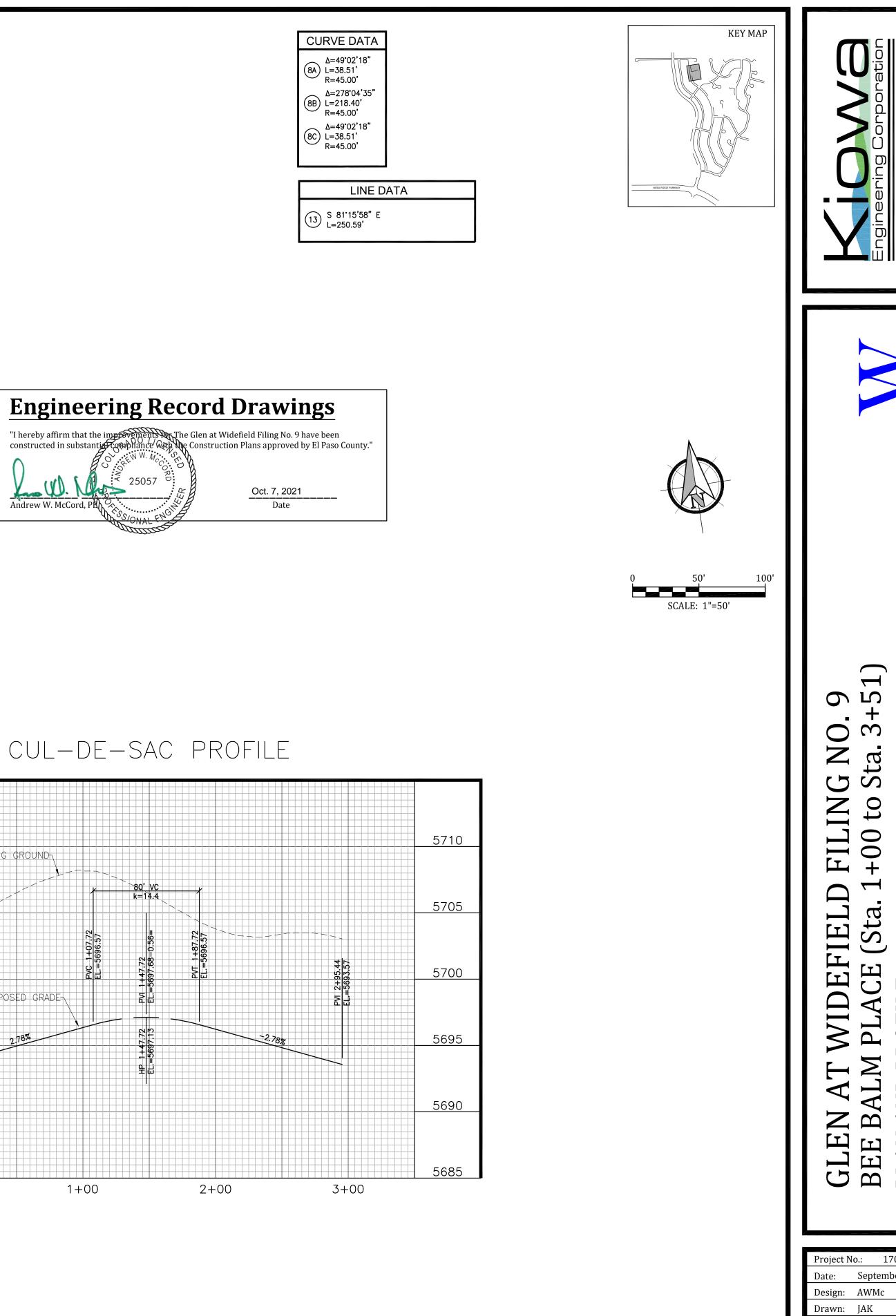


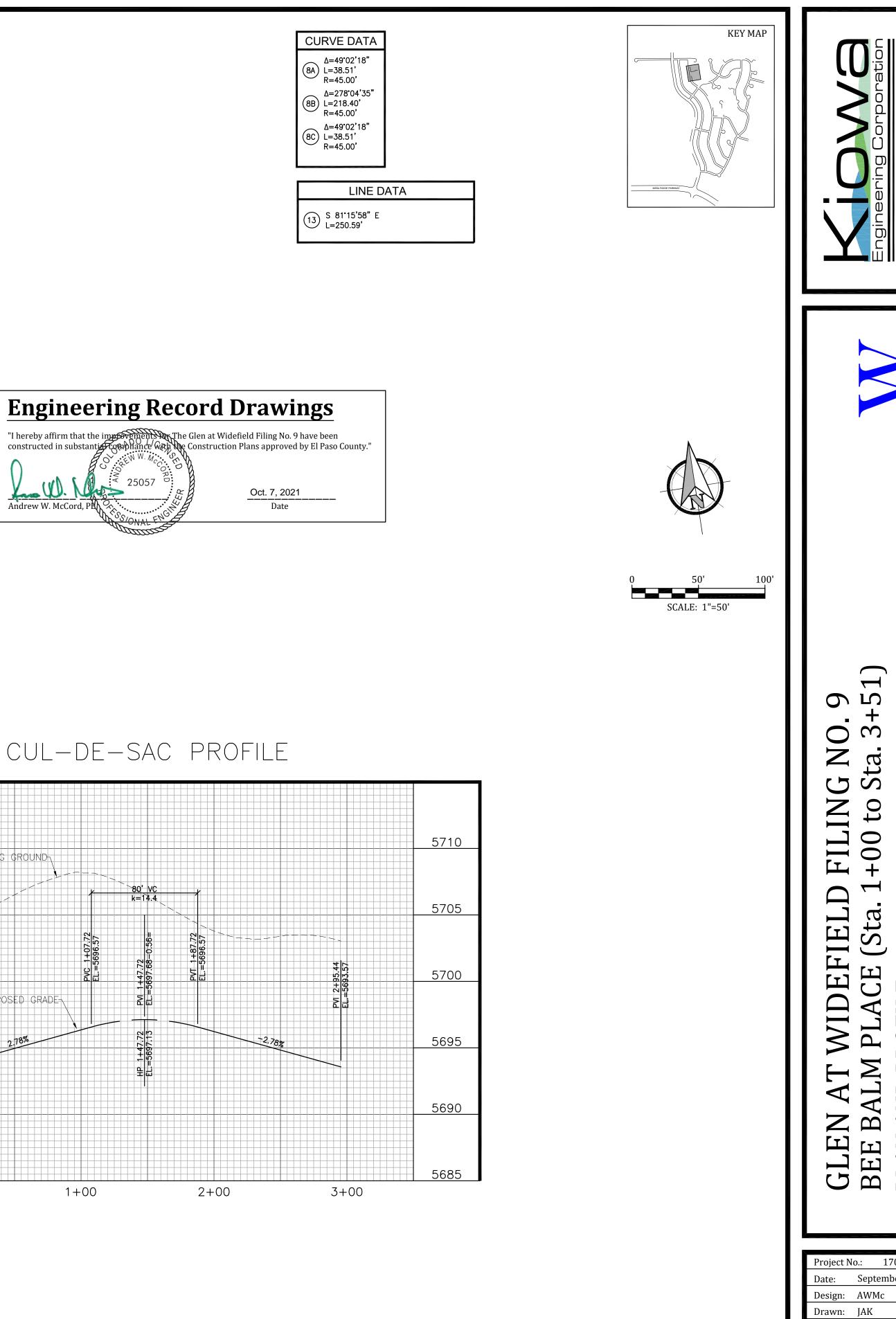


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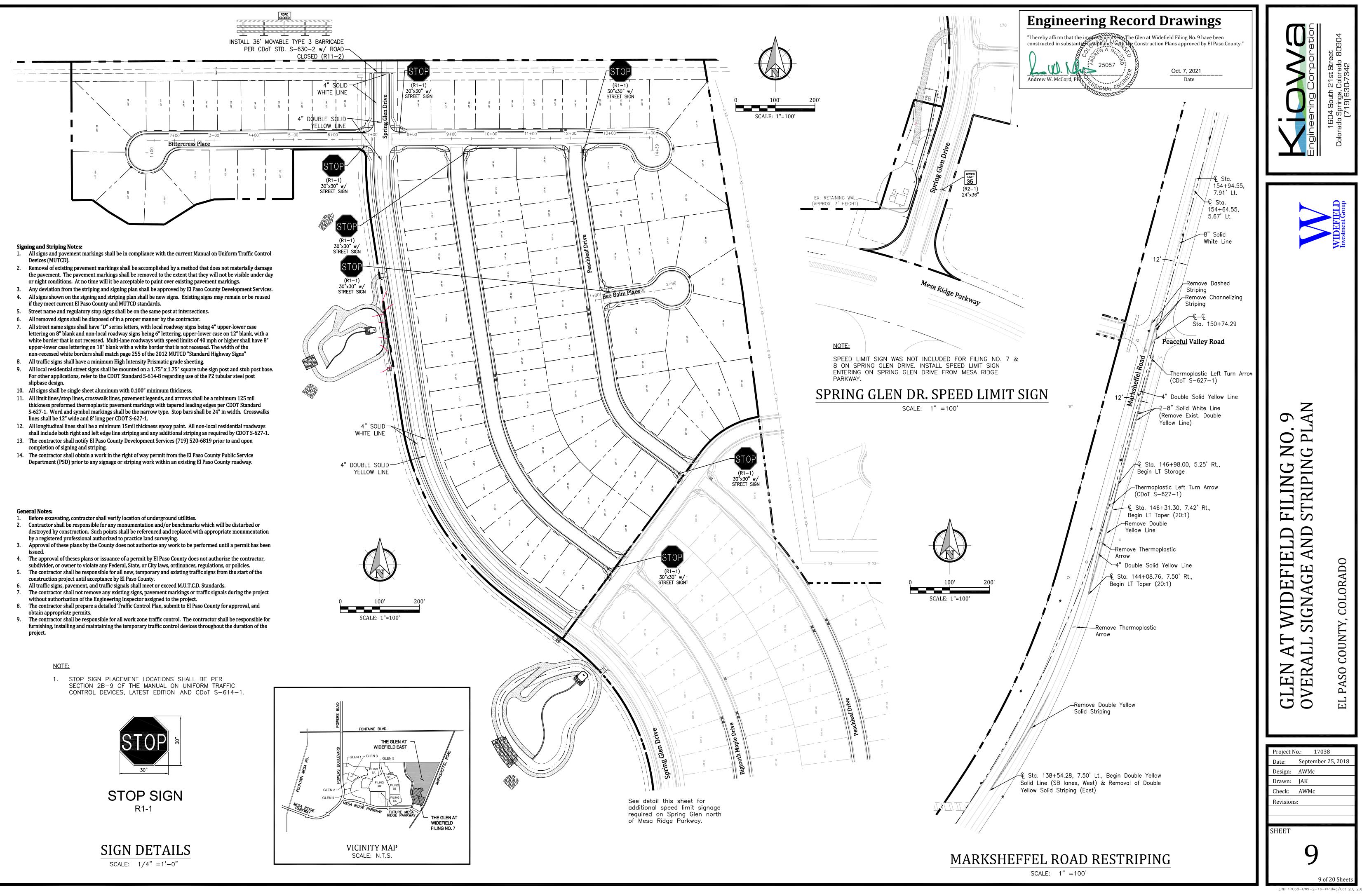


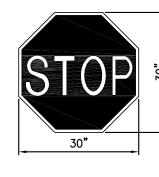


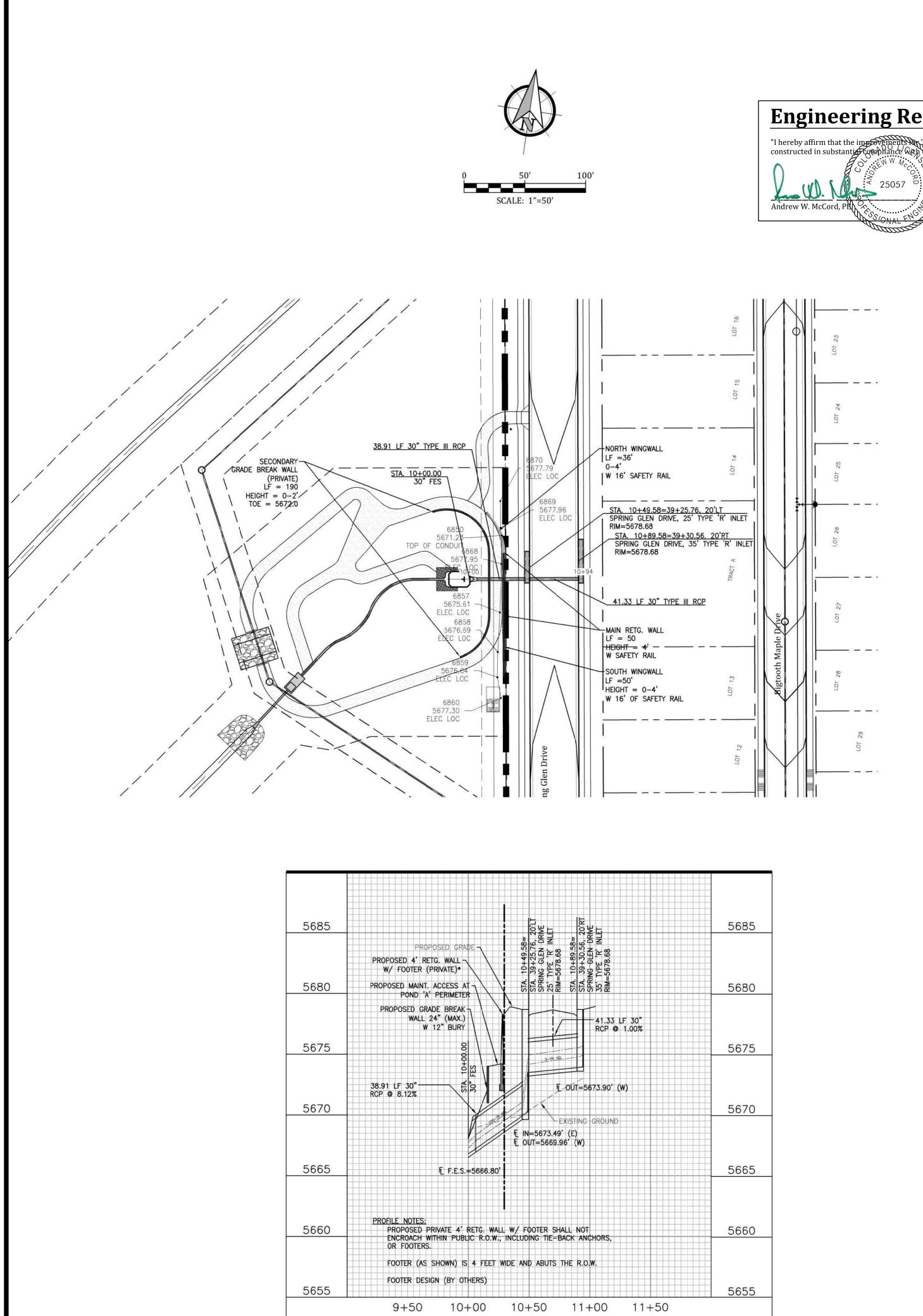




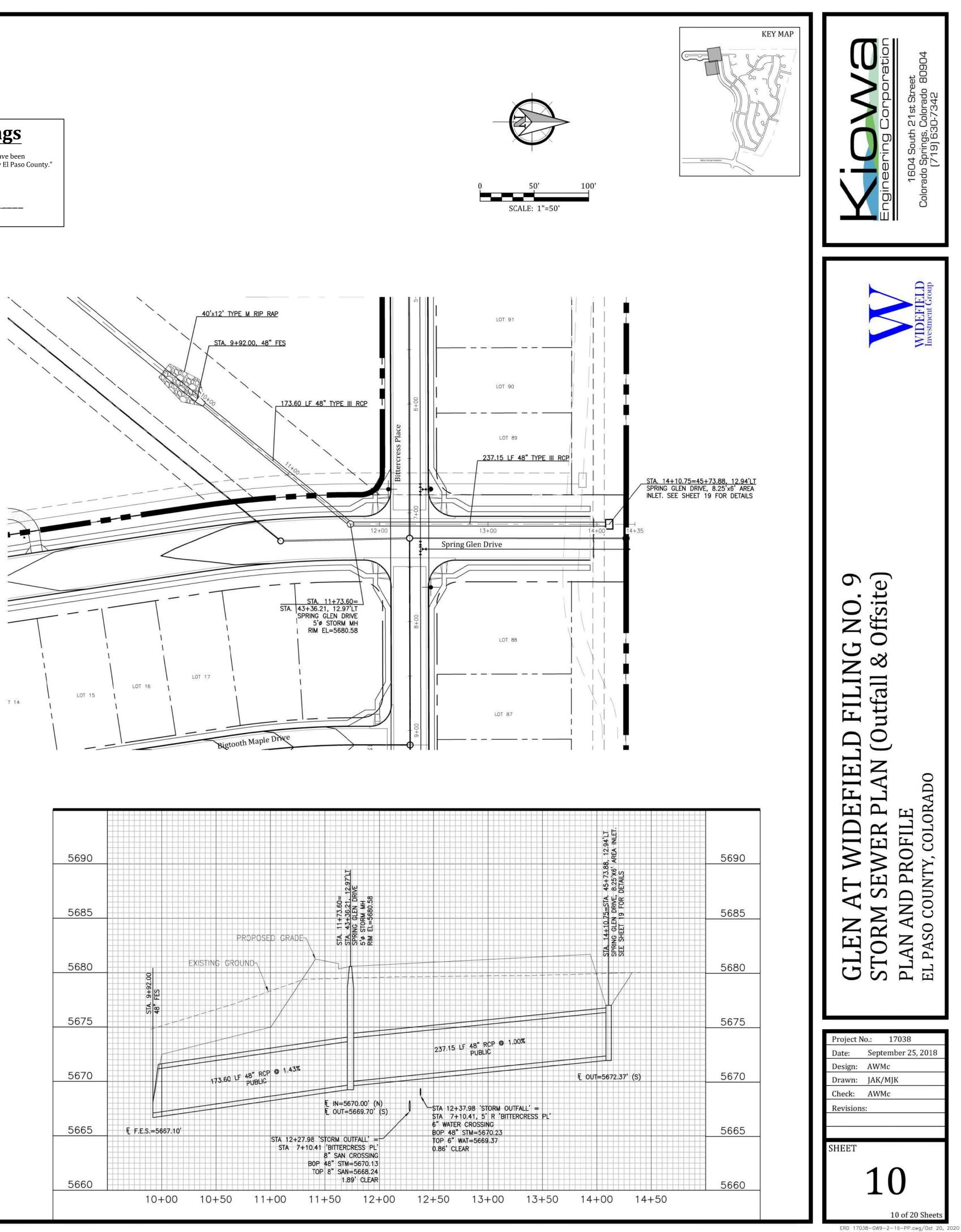
8 of 20 Sheet

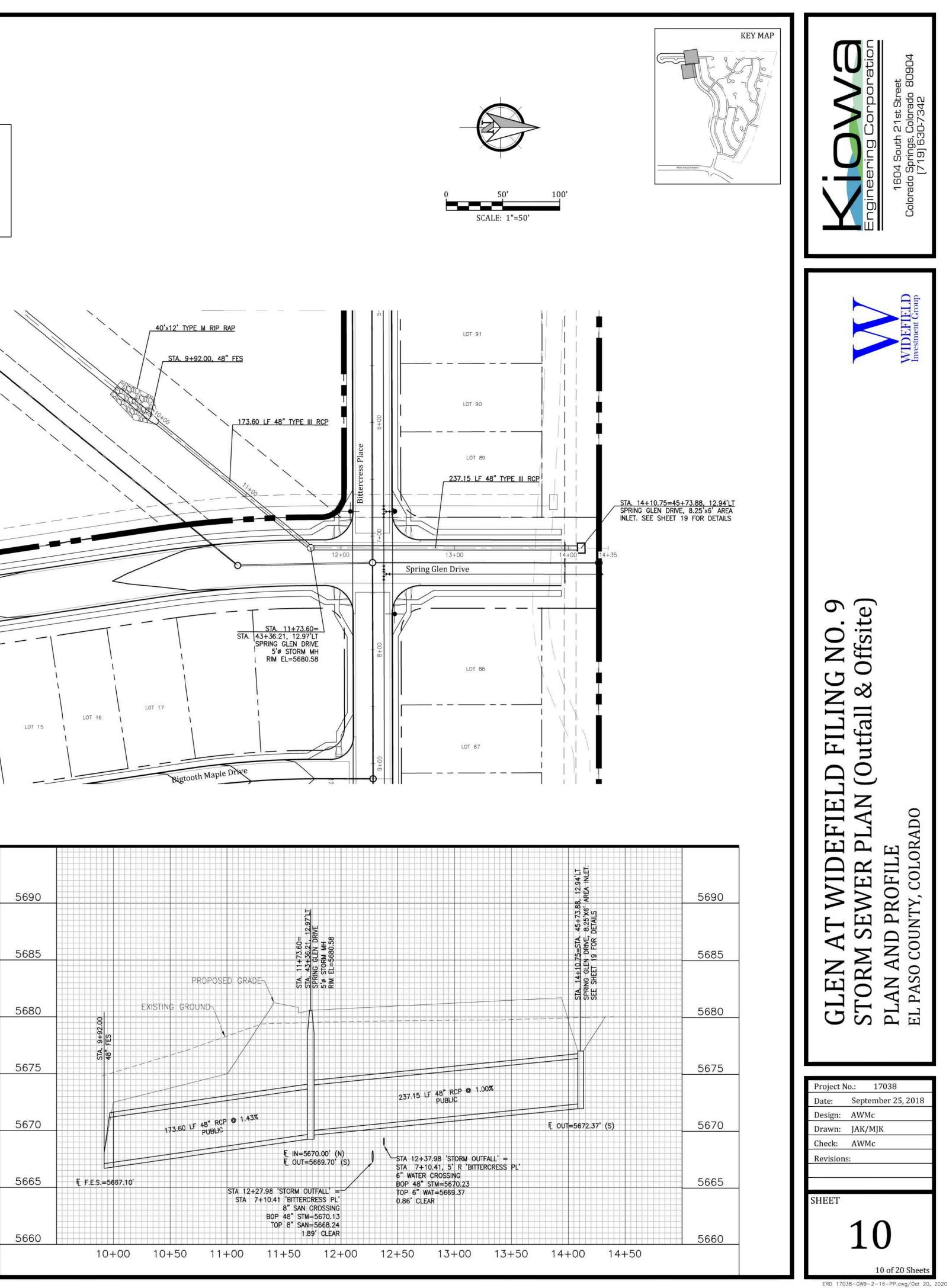




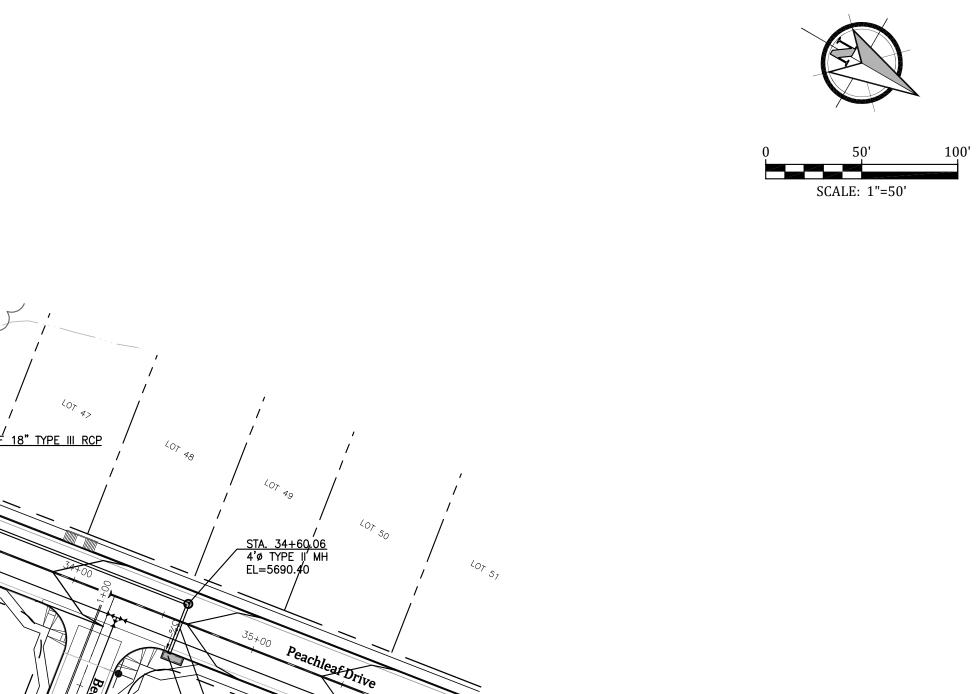








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29.3 LF 18" TYPE III RCP

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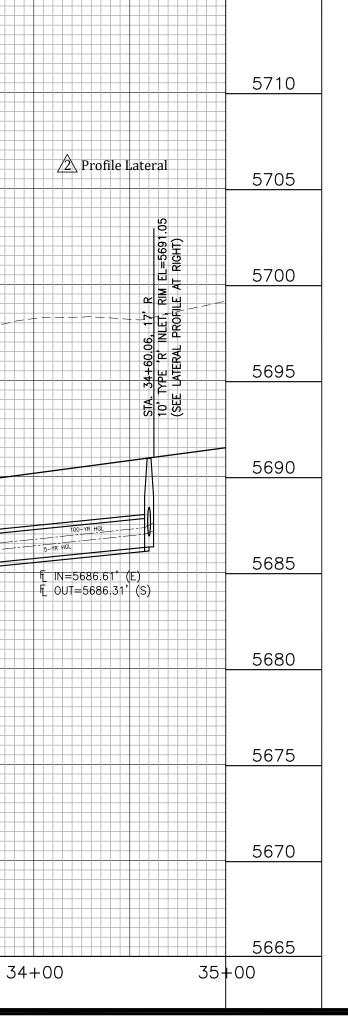
STA. 34+60.06 10' TYPE R INLET -EL=5690.49

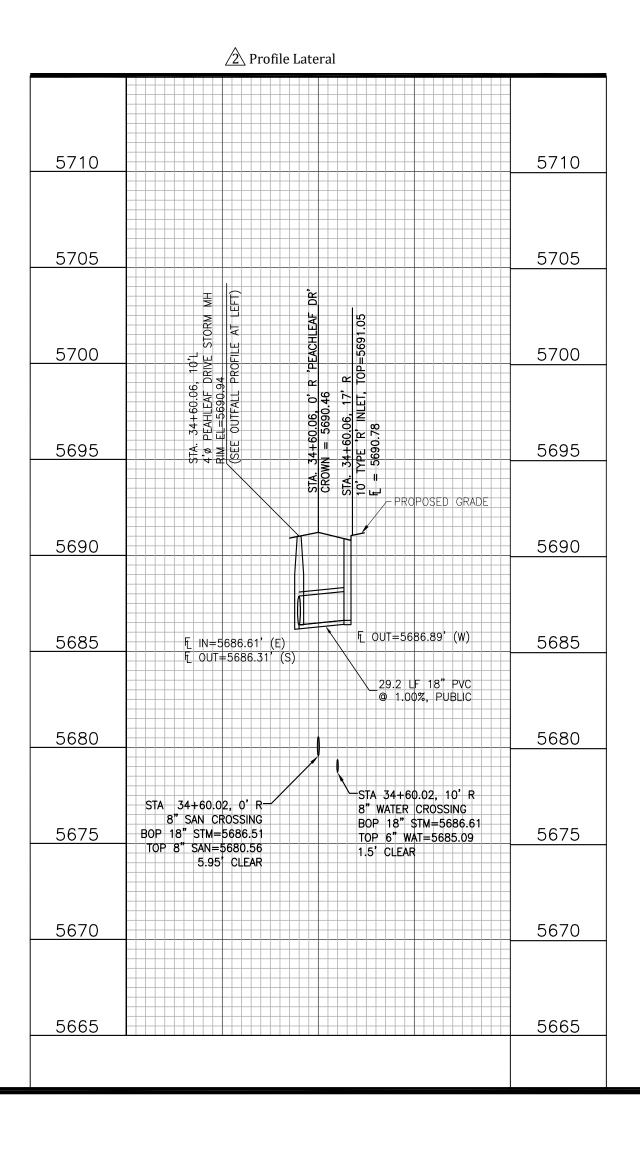
# **Engineering Record Drawings**

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 9 have been constructed in substantic compliance with the Construction Plans approved by El Paso County."



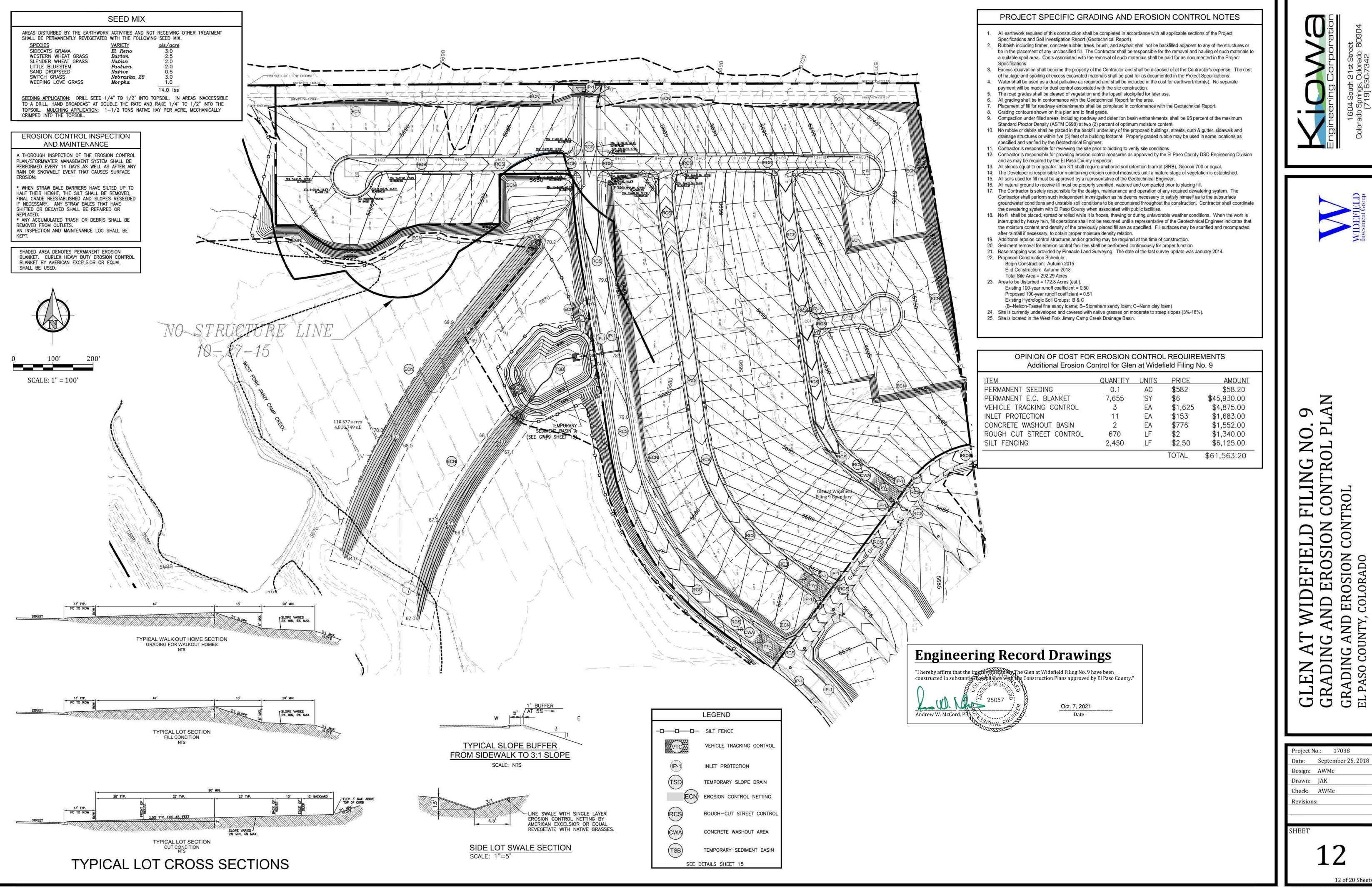
Oct. 7, 2021 Date







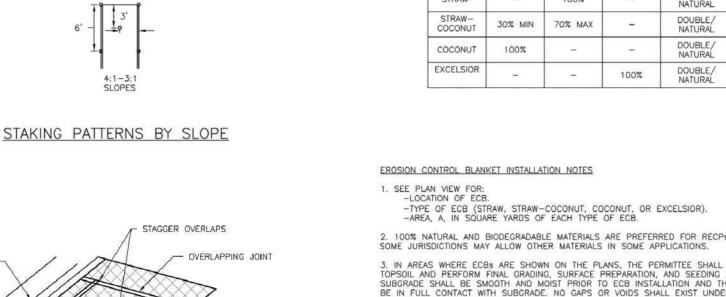
	KEY MAP
MESA RIDGE PARONAY	

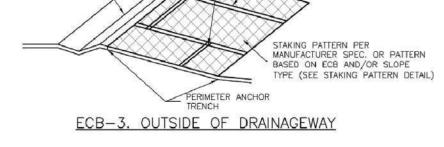


ITEM	QUANTITY	UNITS	PRICE	AMOUNT
PERMANENT SEEDING	0.1	AC	\$582	\$58.20
PERMANENT E.C. BLANKET	7,655	SY	\$6	\$45,930.00
VEHICLE TRACKING CONTROL	3	EA	\$1,625	\$4,875.00
INLET PROTECTION	11	EA	\$153	\$1,683.00
CONCRETE WASHOUT BASIN	2	EA	\$776	\$1,552.00
ROUGH CUT STREET CONTROL	670	LF	\$2	\$1,340.00
SILT FENCING	2,450	LF	\$2.50	\$6,125.00
			TOTAL	\$61,563.20

GLEN AT WIDEFI GRADING AND EROS	GRADING AND EROSION EL PASO COUNTY, COLORADO
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Check: AWMc	

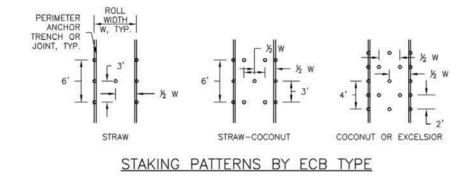
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SEDIMENT BASIN "A"

RISER PIPE, PERFORATIONS

VERTICALLY SPACED 4"

APART, 1 COLUMN OF 5

1' DEPTH, LINED WITH

TO TOE OF SLOPE.

24" THICK TYPE 'M' RIPRAP

A. 0.38 ac—ft REQUIRED TO SPILLWAY CREST.

B. 8" PVC PERFORATED

 ${}^{2}$ / ${}_{32}$ " ø HOLES.

C. 8' LONG SPILLWAY,

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

EROSION, AND PERFORM NECESSARY MAINTENANCE

 $2.\ 100\%$  NATURAL AND BIODEGRADABLE MATERIALS ARE PREFERRED FOR RECPS, ALTHOUGH SOME JURISDICTIONS MAY ALLOW OTHER MATERIALS IN SOME APPLICATIONS. 3. IN AREAS WHERE ECBs ARE SHOWN ON THE PLANS, THE PERMITTEE SHALL PLACE TOPSOIL AND PERFORM FINAL GRADING, SURFACE PREPARATION, AND SEEDING AND MULCHING. SUBGRADE SHALL BE SMOOTH AND MOIST PRIOR TO ECB INSTALLATION AND THE ECB SHALL BE IN FULL CONTACT WITH SUBGRADE. NO GAPS OR VOIDS SHALL EXIST UNDER THE BLANKET

4. PERIMETER ANCHOR TRENCH SHALL BE USED ALONG THE OUTSIDE PERIMETER OF ALL BLANKET AREAS. 5. JOINT ANCHOR TRENCH SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER

(LONGITUDINALLY AND TRANSVERSELY) FOR ALL ECBs EXCEPT STRAW WHICH MAY USE AN OVERLAPPING JOINT.

6. INTERMEDIATE ANCHOR TRENCH SHALL BE USED AT SPACING OF ONE-HALF ROLL LENGTH FOR COCONUT AND EXCELSIOR ECBs. 7. OVERLAPPING JOINT DETAIL SHALL BE USED TO JOIN ROLLS OF ECBs TOGETHER FOR ECBs ON SLOPES.

8. MATERIAL SPECIFICATIONS OF ECBs SHALL CONFORM TO TABLE ECB-1. 9. ANY AREAS OF SEEDING AND MULCHING DISTURBED IN THE PROCESS OF INSTALLING ECBS SHALL BE RESEEDED AND MULCHED.

EROSION CONTROL BLANKET MAINTENANCE NOTES 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

EROSION, AND PERFORM NECESSARY MAINTENANCE. 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE OCUMENTED THOROUGHLY.

WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON SCOVERY OF THE FAILURE

4. ECBs SHALL BE LEFT IN PLACE TO EVENTUALLY BIODEGRADE, UNLESS REQUESTED TO BE REMOVED BY THE LOCAL JURISDICTION.

5. ANY ECB PULLED OUT, TORN, OR OTHERWISE DAMAGED SHALL BE REPAIRED OR REINSTALLED. ANY SUBGRADE AREAS BELOW THE GEOTEXTILE THAT HAVE ERODED TO CREATED A VOID UNDER THE BLANKET, OR THAT REMAIN DEVOID OF GRASS SHALL BE REPAIRED, RESEEDED AND MULCHED AND THE ECB REINSTALLED.



SEDIMENT BASIN INSTALLATION NOTES

LOCATION OF SEDIMENT BASIN

6. PIPE SCH 40 OR GREATER SHALL BE USED.

ROUGH CUT STREET CONTROL INSTALLATION NOTES

EROSION, AND PERFORM NECESSARY MAINTENANCE.

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

HAVE NOT RECEIVED ROAD BASE

-LOCATION OF ROUGH CUT STREET CONTROL MEASURES.

ROUGH CUT STREET CONTROL INSPECTION AND MAINTENANCE NOTES

-TYPE OF BASIN (STANDARD BASIN OR NONSTANDARD BASIN)

-FOR STANDARD BASIN, BOTTOM WIDTH W, CREST LENGTH CL, AND HOLE

-FOR NONSTANDARD BASIN, SEE CONSTRUCTION DRAWINGS FOR DESIGN OF BASIN INCLUDING RISER HEIGHT H, NUMBER OF COLUMNS N, HOLE DIAMETER HD AND PIPE

FOR STANDARD BASIN, BOTTOM DIMENSION MAY BE MODIFIED AS LONG AS BOTTOM AREA

. SEDIMENT BASINS SHALL BE INSTALLED PRIOR TO ANY OTHER LAND-DISTURBING ACTIVITY HAT RELIES ON ON BASINS AS AS A STORMWATER CONTROL.

4. EMBANKMENT MATERIAL SHALL CONSIST OF SOIL FREE OF DEBRIS, ORGANIC MATERIAL, AND

PROCKS OR CONCRETE GREATER THAN 3 INCHES AND SHALL HAVE A MINIMUM OF 15 PERCENT BY WEIGHT PASSING THE NO. 200 SIEVE.

5. EMBANKMENT MATERIAL SHALL BE COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DENSITY IN ACCORDANCE WITH ASTM D698.

7. THE DETAILS SHOWN ON THESE SHEETS PERTAIN TO STANDARD SEDIMENT BASIN(S) FOR DRAINAGE AREAS LESS THAN 15 ACRES. SEE CONSTRUCTION DRAWINGS FOR EMBANKMENT, STORAGE VOLUME, SPILLWAY, OUTLET, AND OUTLET PROTECTION DETAILS FOR

ANY SEDIMENT BASIN(S) THAT HAVE BEEN INDIVIDUALLY DESIGNED FOR DRAINAGE AREAS

2. ROUGH CUT STREET CONTROL SHALL BE INSTALLED AFTER A ROAD HAS BEEN CUT IN, AND WILL NOT BE PAVED FOR MORE THAN 14 DAYS OR FOR TEMPORARY CONSTRUCTION

I. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS

POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE

3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON

1. SEE PLAN VIEW FOR

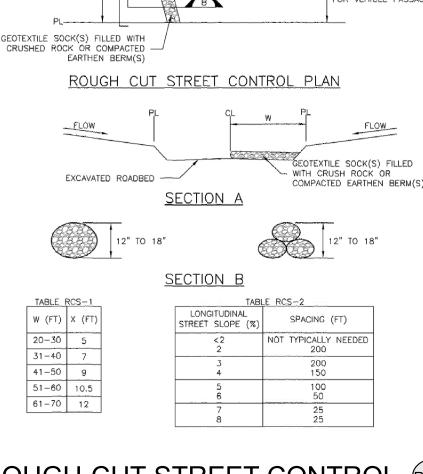
MAMETER, HD

LARGER THAN 15 ACRES.

1. SEE PLAN VIEW FOR

DOCUMENTED THOROUGHLY

DISCOVERY OF THE FAILURE.



GENERAL INLET PROTECTION INSTALLATION NOTES 1. SEE PLAN VIEW FOR: OCATION OF INLET PROTECTION

2. INLET PROTECTION SHALL BE INSTALLED PROMPTLY AFTER INLET CONSTRUCTION OR PAVING IS COMPLETE (TYPICALLY WITHIN 48 HOURS). IF A RAINFALL/RUNOFF EVENT IS FORECAST, INSTALL INLET PROTECTION PRIOR TO ONSET OF EVENT. 3. MANY JURISDICTIONS HAVE BMP DETAILS THAT VARY FROM UDFCD STANDARD DETAILS. DIFFERENCES ARE NOTED. INLET PROTECTION MAINTENANCE NOTES 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

EROSION, AND PERFORM NECESSARY MAINTENANCE 2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY.

4. SEDIMENT ACCUMULATED UPSTREAM OF INLET PROTECTION SHALL BE REMOVED AS NECESSARY TO MAINTAIN BMP EFFECTIVENESS, TYPICALLY WHEN STORAGE VOLUME REACHES

5. INLET PROTECTION IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS INLET PROTECTION IN STREETS.

STRAW BALES.

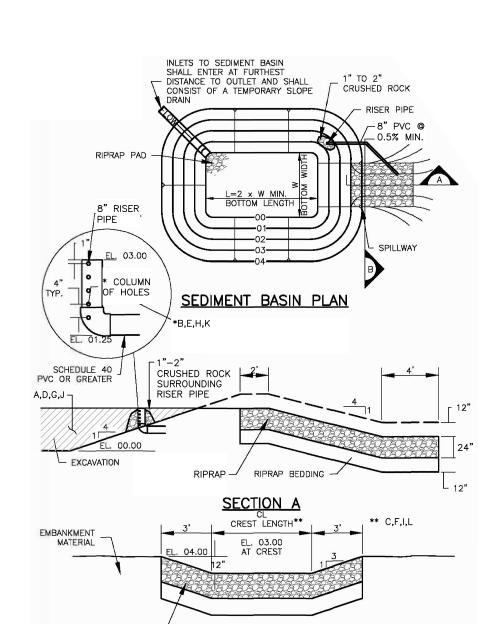
SOCKS 7

WOOD STUD

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



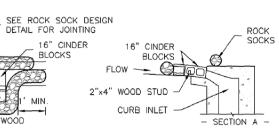




- REPRAP

# INLET PROTECTION (P-)

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



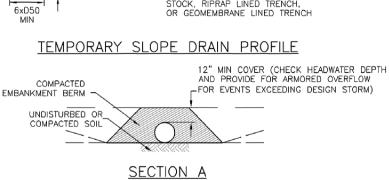
PERMANENTLY STABILIZED, UNLESS THE LOCAL JURISDICTION APPROVES EARLIER REMOVAL OF 6. WHEN INLET PROTECTION AT AREA INLETS IS REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED AND MULCHED, OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

50% OF CAPACITY, A DEPTH OF 6" WHEN SILT FENCE IS USED, OR 1/4 OF THE HEIGHT FOR

3. WHERE BMPS HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

-TYPE OF INLET PROTECTION (IP.1, IP.2, IP.3, IP.4, IP.5, IP.6)





PLASTIC PIPE, HEAVY CANVAS STOCK, RIPRAP LINED TRENCH, RIPRAP\_\_\_\_\_\_

BEDDING

LINED SLOPE DRAIN EMBANKMENT \_\_\_\_\_\_ BERM OF EMBANKMEN CHECK HEADWAT PIPE MUST BE ANCHORED WITH SOIL OR OTHER SUITABLE ANCHOR RIPRAP -27.0 - SCH 40 PIPE D= 12" (MIN) 2xD50 MIN

TERMINATION OF RIPRAP

RIPRAF

6. TEMPORARY SLOPE DRAINS ARE TO REMAIN IN PLACE UNTIL NO LONGER NEEDED, BUT SHALL BE REMOVED PRIOR TO THE END OF CONSTRUCTION. WHEN SLOPE DRAINS ARE REMOVED, THE DISTURBED AREA SHALL BE COVERED WITH TOP SOIL, SEEDED, MULCHED OR OTHERWISE STABILIZED IN A MANNER APPROVED BY THE LOCAL JURISDICTION.

4. INSPECT INLET AND OUTLET POINTS AFTER STORMS FOR CLOGGING OR EVIDENCE OF OVERTOPPING. BREACHES IN PIPE OR OTHER CONVEYANCE SHALL BE REPAIRED AS SOON AS PRACTICABLE IF OBSERVED. 5. INSPECT RIPRAP PAD AT OUTLET FOR SIGNS OF EROSION. IF SIGNS OF EROSION EXIST, ADDITIONAL ARMORING SHALL BE INSTALLED.

EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

EROSION, AND PERFORM NECESSARY MAINTENANCE. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN

SLOPE DRAIN MAINTENANCE NOTES 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

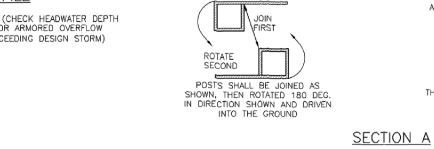
6. RIPRAP PAD SHALL BE PLACED AT SLOPE DRAIN OUTFALL. 7. ANCHOR PIPE BY COVERING WITH SOIL OR AN ALTERNATE SUITABLE ANCHOR MATERIAL.

5. CHECK HEADWATER DEPTHS FOR TEMPORARY AND PERMANENT SLOPE DRAINS. DETAILS SHOW MINIMUM COVER; INCREASE AS NECESSARY FOR DESIGN HEADWATER DEPTH.

. SLOPE DRAIN DIMENSIONS SHALL BE CONSIDERED MINIMUM DIMENSIONS; CONTRACTOR MAY ELECT TO INSTALL LARGER FACILITIES. 4. SLOPE DRAINS INDICATED SHALL BE INSTALLED PRIOR TO UPGRADIENT LAND-DISTURBING

1. SEE PLAN VIEW FOR: -LOCATION AND LENGTH OF SLOPE DRAII -PIPE DIAMETER, D, AND RIPRAP SIZE, D50. 2. SLOPE DRAIN SHALL BE DESIGNED TO CONVEY PEAK RUNOFF FOR 2-YEAR 24-HOUR STORM AT A MINIMUM. FOR LONGER DURATION PROJECTS, LARGER MAY BE APPROPRIATE

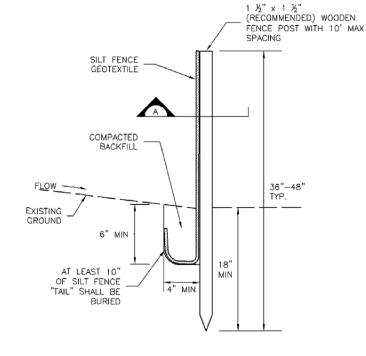
SLOPE DRAIN INSTALLATION NOTES



NTS



SILT FENCE DETAIL



AND APPROVED BY THE LOCAL JURISDICTION, OR IS REPLACED BY AN EQUIVALENT PERIMETER SEDIMENT CONTROL BMP. 7. WHEN SILT FENCE IS REMOVED, ALL DISTURBED AREAS SHALL BE COVERED WITH TOPSOIL, SEEDED AND MULCHED OR OTHERWISE STABILIZED AS APPROVED BY LOCAL JURISDICTION.

5. REPAIR OR REPLACE SILT FENCE WHEN THERE ARE SIGNS OF WEAR, SUCH AS SAGGING, TEARING, OR COLLAPSE. 6. SILT FENCE IS TO REMAIN IN PLACE UNTIL THE UPSTREAM DISTURBED AREA IS STABILIZED

4. SEDIMENT ACCUMULATED UPSTREAM OF THE SILT FENCE SHALL BE REMOVED AS NEEDED TO MAINTAIN THE FUNCTIONALITY OF THE BMP, TYPICALLY WHEN DEPTH OF ACCUMULATED SEDIMENTS IS APPROXIMATELY 6".

2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. 3. WHERE  $\mathsf{BMPs}$  have failed, Repair or Replacement should be initiated upon discovery of the failure.

SILT FENCE MAINTENANCE NOTES 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE EROSION, AND PERFORM NECESSARY MAINTENANCE.

NG PERPENDICULAR TO THE CONTOUR SHOULD BE OF SUFFICIEN RUNOFF FROM FLOWING AROUND THE END OF THE SILT FENCE (TYPICALLY 10' - 20'). 7. SILT FENCE SHALL BE INSTALLED PRIOR TO ANY LAND DISTURBING ACTIVITIES.

OR NAILS WITH 1" HEADS. STAPLES AND NAILS SHOULD BE PLACED 3" ALONG THE FABRIC DOWN THE STAKE. 6. AT THE END OF A RUN OF SILT FENCE ALONG A CONTOUR, THE SILT FENCE SHOULD BE TURNED PERPENDICULAR TO THE CONTOUR TO CREATE A "J-HOOK." THE "J-HOOK"

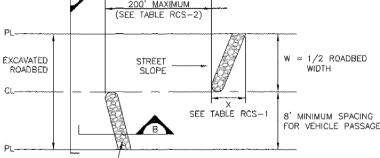
4. SILT FENCE SHALL BE PULLED TIGHT AS IT IS ANCHORED TO THE STAKES. THERE SHOULD BE NO NOTICEABLE SAG BETWEEN STAKES AFTER IT HAS BEEN ANCHORED TO THE STAKES. 5. SILT FENCE FABRIC SHALL BE ANCHORED TO THE STAKES USING 1" HEAVY DUTY STAPLES

3. COMPACT ANCHOR TRENCH BY HAND WITH A "JUMPING JACK" OR BY WHEEL ROLLING. COMPACTION SHALL BE SUCH THAT SILT FENCE RESISTS BEING PULLED OUT OF ANCHOR TRENCH BY HAND.

1. SILT FENCE MUST BE PLACED AWAY FROM THE TOE OF THE SLOPE TO ALLOW FOR WATER PONDING. SILT FENCE AT THE TOE OF A SLOPE SHOULD BE INSTALLED IN A FLAT LOCATION AT LEAST SEVERAL FEET (2-5 FT) FROM THE TOE OF THE SLOPE TO ALLOW ROOM FOR PONDING AND DEPOSITION 2. A UNIFORM 6" X 4" ANCHOR TRENCH SHALL BE EXCAVATED USING TRENCHER OR SILT FENCE INSTALLATION DEVICE. NO ROAD GRADERS, BACKHOES, OR SIMILAR EQUIPMENT SHALL BE USED.

SILT FENCE INSTALLATION NOTES

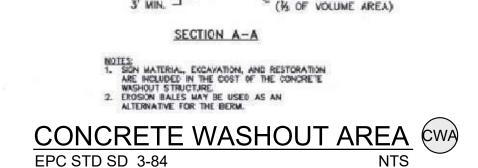
# ROUGH-CUT STREET CONTROL (RCS)



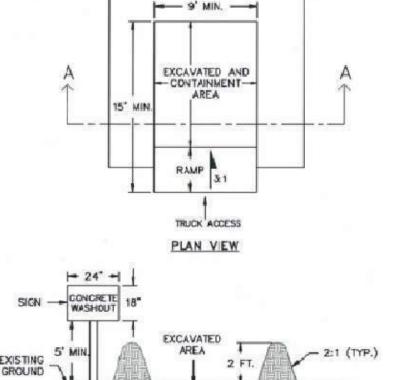
. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THOROUGHLY. 3. WHERE BMPs HAVE FAILED, REPAIR OR REPLACEMENT SHOULD BE INITIATED UPON DISCOVERY OF THE FAILURE.

2. ROUGH CUT STREET CONTROL SHALL BE INSTALLED AFTER A ROAD HAS BEEN CUT IN IND WILL NOT BE PAVED FOR MORE THAN 14 DAYS OR FOR TEMPORARY CONSTRUCTION ROADS THAT HAVE NOT RECEIVED ROAD BASE. ROUGH CUT STREET CONTROL INSPECTION AND MAINTENANCE NOTES 1. INSPECT BMPs EACH WORKDAY, AND MAINTAIN THEM IN EFFECTIVE OPERATING CONDITION. MAINTENANCE OF BMPs SHOULD BE PROACTIVE, NOT REACTIVE. INSPECT BMPs AS SOON AS POSSIBLE (AND ALWAYS WITHIN 24 HOURS) FOLLOWING A STORM THAT CAUSES SURFACE

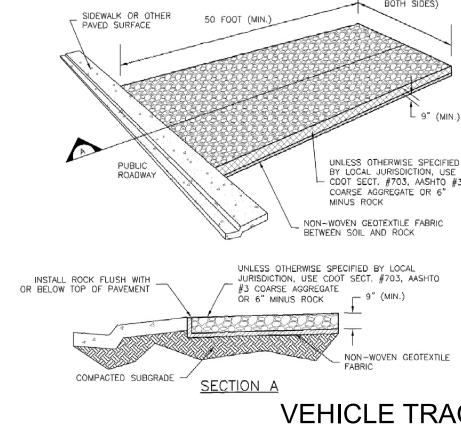
ROUGH CUT STREET CONTROL INSTALLATION NOTES 1. SEE PLAN VIEW FOR -LOCATION OF ROUGH CUT STREET CONTROL MEASURES.



MAXMUM STORAGE



LIMIT OF BERM



WIDTH CAN BE LESS IF CONST

EHICLES ARE PHYSICALL'

L 9" (MIN.)

CONFINED OF

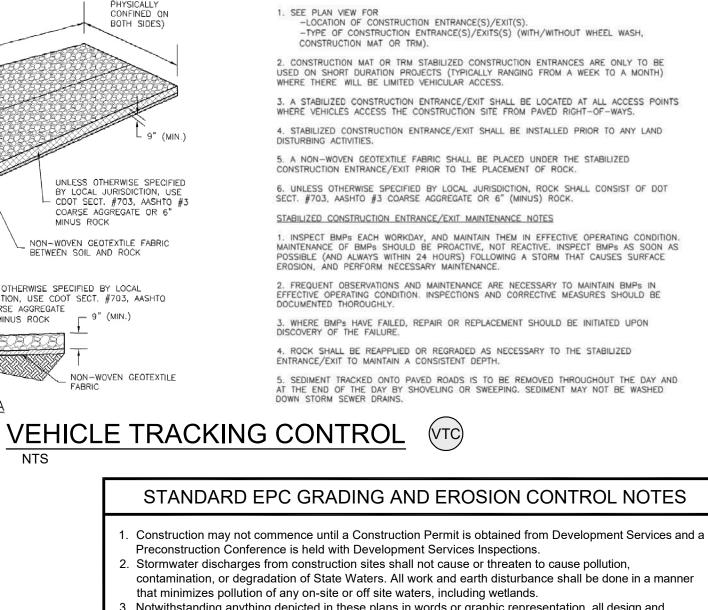
JNLESS OTHERWISE SPECIFIED

MINUS ROCK

- 9" (MIN.)

NON-WOVEN GEOTEXTILE

BOTH SIDES)



STABILIZED CONSTRUCTION ENTRANCE/EXIT INSTALLATION NOTES

- . Notwithstanding anything depicted in these plans in words or graphic representation, all design and construction related to roads, storm drainage and erosion control shall conform to the standards and requirements of the most recent version of the relevant adopted El Paso County standards, including the Land Development Code, the Engineering Criteria Manual, the Drainage Criteria Manual, and the Drainage Criteria Manual Volume 2. Any deviations to regulations and standards must be requested, and approved in writing. . A separate Stormwater Management Plan (SWMP) for this project shall be completed and an Erosion and
- Stormwater Quality Control Permit (ESQCP) issued prior to commencing construction. During construction the SWMP is the responsibility of the designated Stormwater Manager. The SWMP shall be located on site at all times and shall be kept up to date with work progress and changes in the field. 5. Once the ESQCP has been issued, the contractor may install the initial stage erosion and sediment
- control BMP's as indicated on the GEC. A preconstruction meeting between the contractor, engineer, and El Paso County will be held prior to any construction. It is the responsibility of the applicant to coordinate the meeting time and place with County DSD inspections staff. 6. Soil erosion control measures for all slopes, channels, ditches, or any disturbed land area shall be
- completed within 21 calendar days after final grading, or earth disturbance, has been completed. Disturbed areas and stockpiles, which are not at final grade but will remain dormant for longer than 30 days, shall also be mulched within 21 days after interim grading. And area that is going to remain an interim for more than 60 days shall also be seeded. All temporary soil erosion control measures and BMP's shall be maintained until permanent soil erosion control measures are implemented and established
- Temporary soil erosion control facilities shall be removed and earth disturbance areas graded and stabilized with permanent soil erosion control measures pursuant to standards and specification prescribed in the DCM Volume II and the Engineering Criteria Manual (ECM) appendix I.
- 8. All persons engaged wit hearth disturbance shall implement and maintain acceptable soil erosion and sediment control measures including BMP's in conformance with the erosion control technical standards of the Drainage Criteria Manual (DCM) Volume II and in accordance with the Stormwater Management Plan (SWMP)
- . All temporary erosion control facilities including BMPs and all permanent facilities intended to control erosion of any earth disturbance operations shall be installed as defined in the approved plans, the SWMP and the DCM Volume II and maintained throughout the duration of the earth disturbance operation. 10. Any earth disturbance shall be conducted in such a manner so as to effectively reduce accelerated soil
- erosion and resulting sedimentation. All disturbances shall be designed, constructed, and completed so that the exposed area of any disturbed land shall be limited to the shortest practical period of time. 11. Any temporary or permanent facility designed and constructed for the conveyance of stormwater around, through, or from the earth disturbance area shall be designed to limit the discharge to a non-erosive
- 12. Concrete wash water shall be contained and disposed of in accordance with the SWMP. No wash water shall be discharged to or allowed to runoff to State Waters, including any surface or subsurface storm drainage system or facilities.
- 13. Erosion control blanketing is to be used on slopes steeper than 3:1. 14.Building, construction, excavation, or other waste materials shall not be temporarily placed or stored in the street, alley, or other public way, unless in accordance with an approved Traffic Control Plan. BMPs may be required by El Paso County Engineering if deemed necessary, based on specific conditions and circumstances
- 15. Vehicle tracking of soils and construction debris off-site shall be minimized. Materials tracked offsite shall be cleaned up and properly disposed of immediately. 16. Contractor shall be responsible for the removal of all wastes from the construction site for disposal in
- accordance with local and State regulatory requirements. No construction debris, tree slash, building material wastes or unused building materials shall be buried, dumped, or discharged at the site. 17. The owner, site developer, contractor, and/or their authorized agents shall be responsible for the removal
- of all constructions debris, dirt, trash, rock, sediment, and sand that may accumulate in the storm sewer or other drainage conveyance and stormwater appurtenances as a result of site development. 18. The quantity of materials stored on the project site shall be limited, as much as practical, to that quantity required to perform the work in an orderly sequence. All materials stored on-site shall be stored in a neat,
- orderly manner, in their original containers, with original manufacturer's labels. 19.No chemicals are to be used by the contractor, which have the potential to be released in stormwater unless permission for the use of a specific chemical is granted in writing by the ECM Administrator. In granting the use of such chemicals, special conditions and monitoring may be required.
- 20.Bulk storage structures for petroleum products and other chemicals shall have adequate protection so as to contain all spills and prevent any spilled material from entering State Waters, including any surface or subsurface storm drainage system or facilities. 21.No person shall cause the impediment of stormwater flow in the flow line of the curb and gutter or in the
- ditchline. 22.Individuals shall comply with the "Colorado Water Quality Control Act" (Title 25, Article8, CRS), and the Clean Water Act" (33 USC 1344), in addition to the requirements included in the DCM Volume II and the ECM Appendix I. All appropriate permits must be obtained by the Contractor prior to the construction (NPDES, Floodplain, 404, fugitive dust, etc.). In the event of conflicts between these requirements and laws, rules, or regulations of other Federal, State, or County Agencies, the more restrictive laws, rules, or regulations shall apply.
- 23.All construction traffic must enter/exit the site at approved construction access points. 24. Prior to actual construction the permitee shall verify the location of existing utilities.
- 25.A water source shall be available on site during earthwork operations and utilized as required to minimize dust from earthwork equipment and wind. 26.The soils report for this site entitled Subsurface Soil Investigation The Glen at Widefield, Filing #6,
- Widefield, Colorado has been prepared by Soil Testing and Engineering, Inc. and shall be considered a part of these plans.
- 27.At least ten days prior to the anticipated start of construction, for projects that will disturb 1 acre or more, the owner or operator of construction activity shall submit a permit application for stormwater discharge to the Colorado Department of Public Heath 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, Colorado 80246-1530

Attn: Permits Unit

for U. Andrew W. McCord,

# **Engineering Record Drawings**

25057

"I hereby affirm that the improvements for The Glen at Widefield Filing No. 9 have been constructed in substantic compliance with the Construction Plans approved by El Paso County."

Oct. 7, 2021

Date





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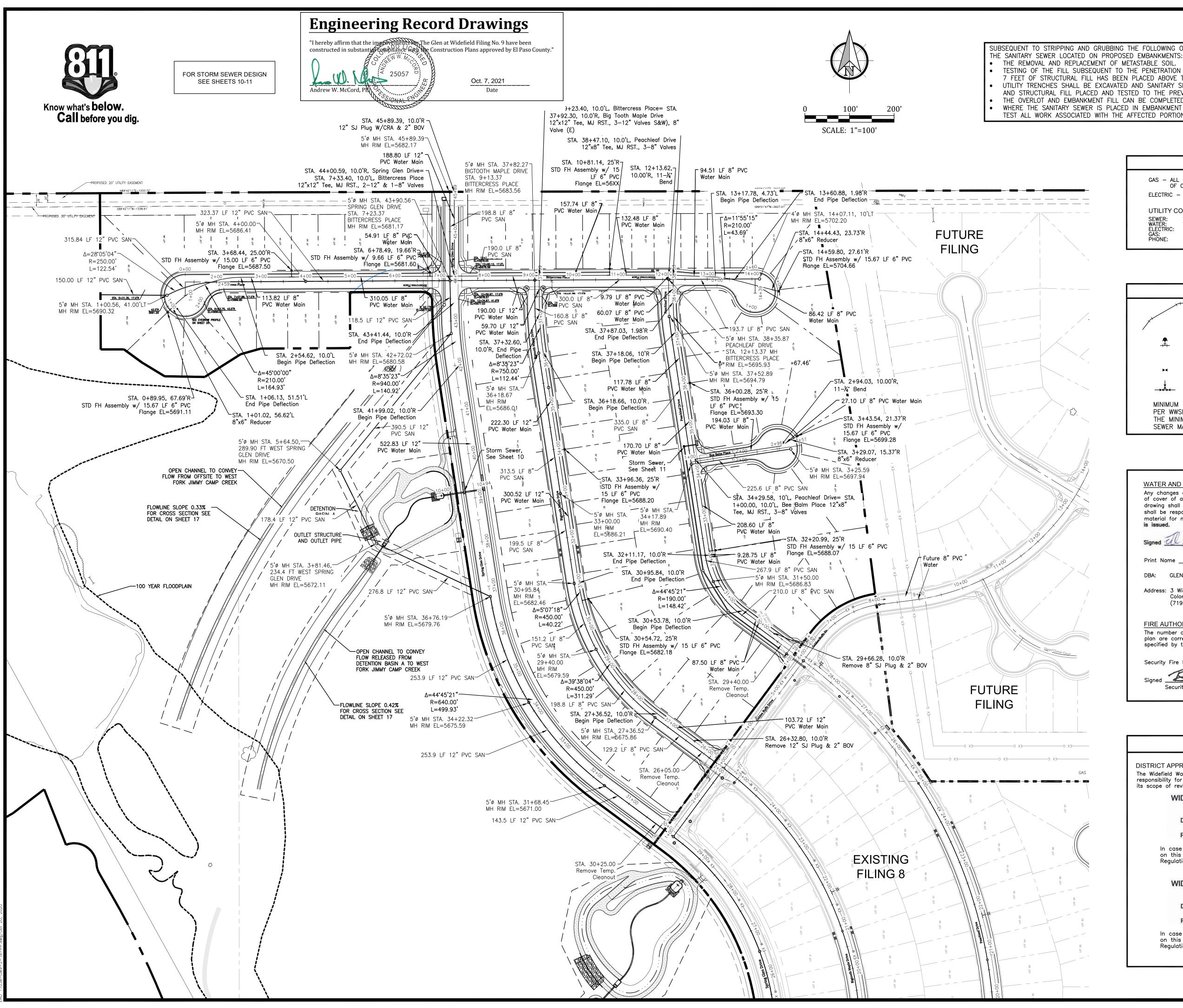
Project N	lo.: 17038
Date:	September 25, 2018
Design:	AWMc
Drawn:	NRK
Check:	AWMc
Revisions	s:
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	13 of 20 Sheets

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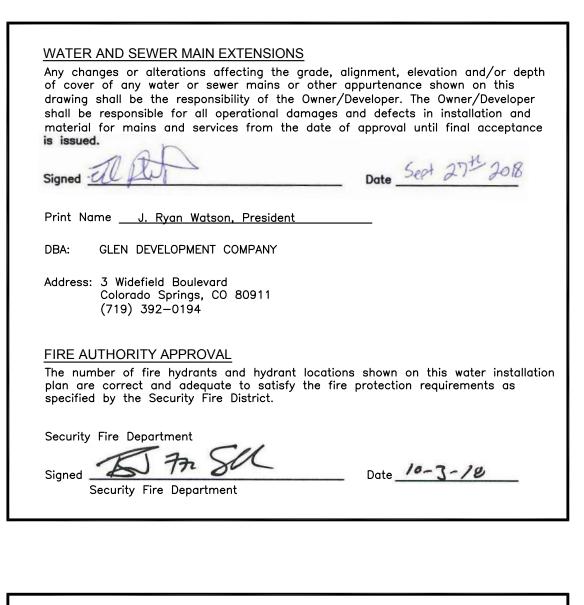
SUBSEQUENT TO STRIPPING AND GRUBBING THE FOLLOWING OVERLOT/PIPE INSTALLATION PROCEDURES ARE ANTICIPATED FOR THE SANITARY SEWER LOCATED ON PROPOSED EMBANKMENTS: • THE REMOVAL AND REPLACEMENT OF METASTABLE SOIL. • TESTING OF THE FILL SUBSEQUENT TO THE PENETRATION OF THE METASTABLE SOIL WILL CONTINUE UNTIL A MINIMUM OF

7 FEET OF STRUCTURAL FILL HAS BEEN PLACED ABOVE THE PROPOSED SEWER LINE ELEVATION. UTILITY TRENCHES SHALL BE EXCAVATED AND SANITARY SEWER LINE INSTALLED. THE PIPE SHALL BE PROPERLY BEDDED AND STRUCTURAL FILL PLACED AND TESTED TO THE PREVIOUS GRADE. THE OVERLOT AND EMBANKMENT FILL CAN BE COMPLETED.

WHERE THE SANITARY SEWER IS PLACED IN EMBANKMENT FILL DURING THE OVERLOT PROCESS, STE SHALL MONITOR AND TEST ALL WORK ASSOCIATED WITH THE AFFECTED PORTIONS.

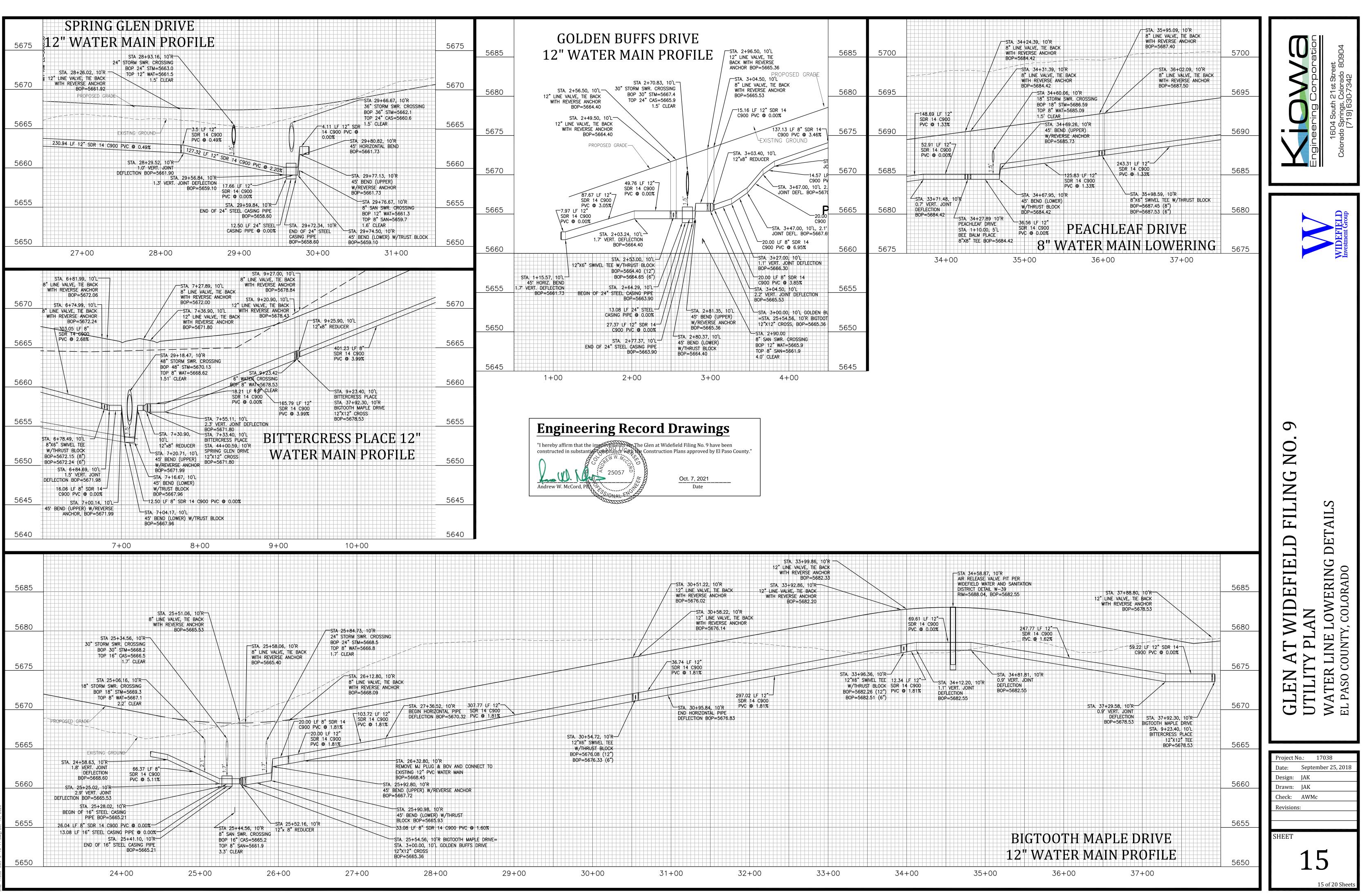
# ADDITIONAL UTILITY NOTES GAS – ALL GAS MAINS AND SERVICES ARE TO BE INSTALLED PER THE CITY OF COLORADO SPRINGS. ELECTRIC – ALL ELECTRIC SERVICES ARE TO BE INSTALLED PER THE CITY OF FOUNTAIN ELECTRIC DIVISION. UTILITY CONTACTS SEWER: WIDEFIELD W&S DISTRICT (WWSD) 390–7111 WIDEFIELD W&S DISTRICT (WWSD) 390–7111 ELECTRIC: MOUNTAIN VIEW ELECTRIC GAS: PEOPLES NATURAL GAS BOD-303–0752 PHONE: US WEST

	LEGEND
Jan 1	PROPOSED 8" PVC WATER MAIN (DR 18) WITH MJ FITTINGS (UNLESS OTHERWISE NOTED)
<b>₽</b> + <sup>‡</sup> +	WIDEFIELD WATER & SANITATION DISTRICT STANDARD FIRE HYDRANT ASSEMBLY. INSTALL PER WIDEFIELD WATER AND SANITATION DISTRICT CONSTRUCTION SPECIFICATIONS
M	8" GATE VALVE (UNLESS OTHERWISE NOTED)
	TEE w/CONCRETE THRUST BLOCK
PER WWSD SPE THE MINIMUM (	S SHOWN FOR WATER MAIN = 290' CIFICATIONS AND EL PASO COUNTY ECM 4.3.6.A.1&2, COVER OVER WATER MAIN & SERVICES AND SANITARY & SERVICES IS 5 FEET.

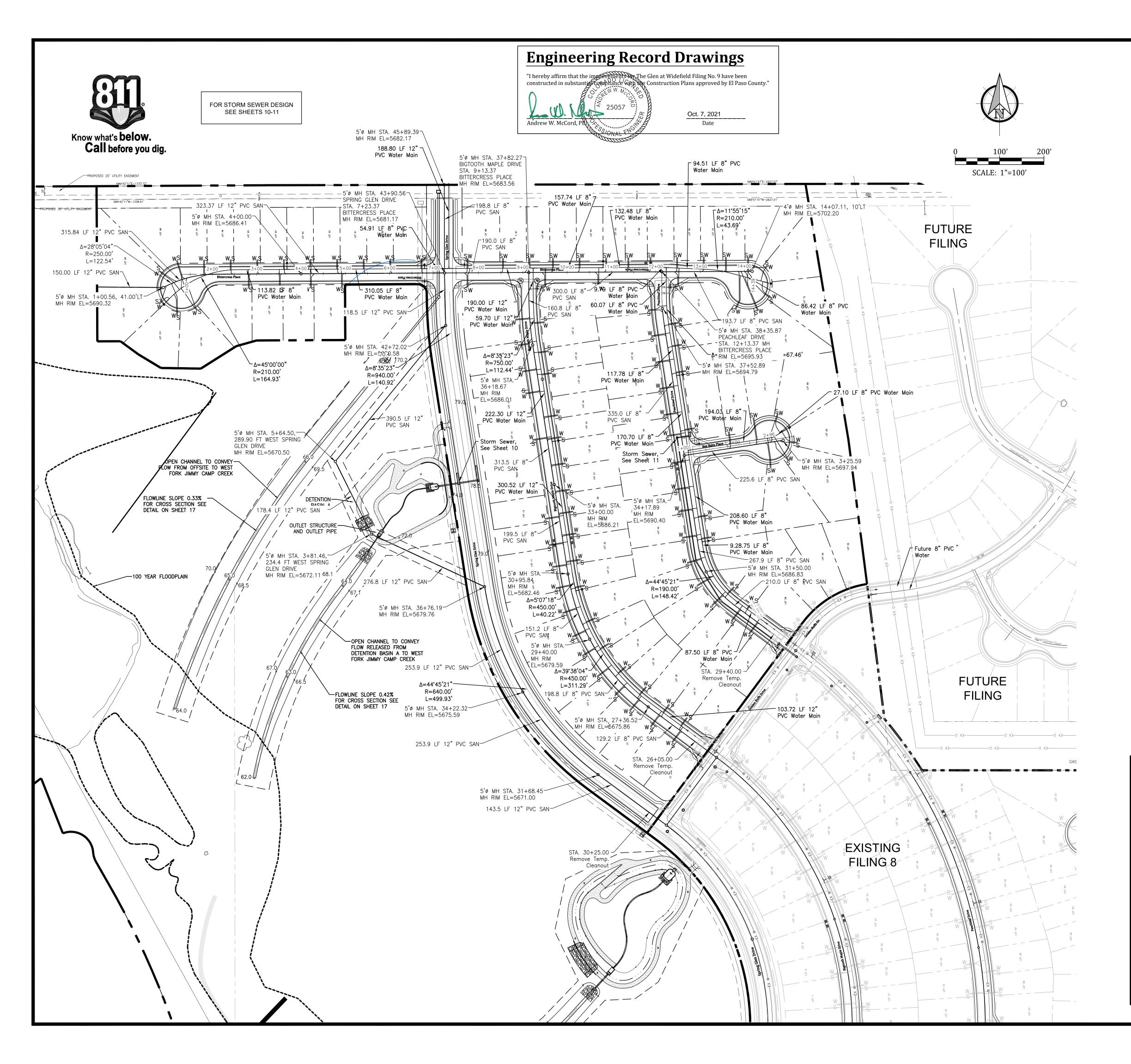


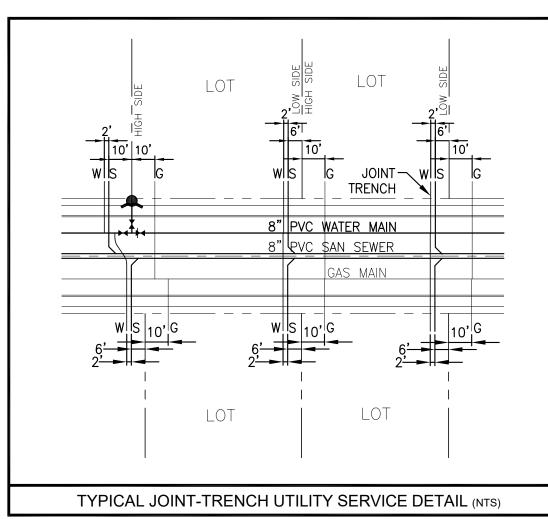
UTILITY APPROVALS
DISTRICT APPROVALS The Widefield Water and Sanitation District recognizes the design engineer as having responsibility for the design. The Widefield Water and Sanitation District has limited its scope of review accordingly.
WIDEFIELD WATER AND SANITATION DISTRICT WASTEWATER DESIGN APPROVAL Date: <u>9/24/2019</u> By: <u>Coberth Bounds</u>
PROJECT NO
In case of errors or omissions with the sewer design as shown on this document the standards as defined in the "Rules and Regulations for Installation of Sewer Mains and Services" shall rule. Approval expires 180 days from Design Approval.
WIDEFIELD WATER AND SANITATION DISTRICT WATER DESIGN APPROVAL
PROJECT NO.
In case of errors or omissions with the sewer design as shown on this document the standards as defined in the "Rules and Regulations for Installation of Sewer Mains and Services" shall rule. Approval expires 180 days from Design Approval.

	Engineering Corporation 1604 South 21st Street Colorado Springs, Colorado 80904 (719) 630-7342
	WIDEFIELD Investment Group
GLEN AT WIDEFIELD FILING NO. 9	
Project N Date: Design: Drawn: Check: Revision	September 25, 2018 AWMc JAK AWMc
SHEET	<b>14</b> of 20 Sheets



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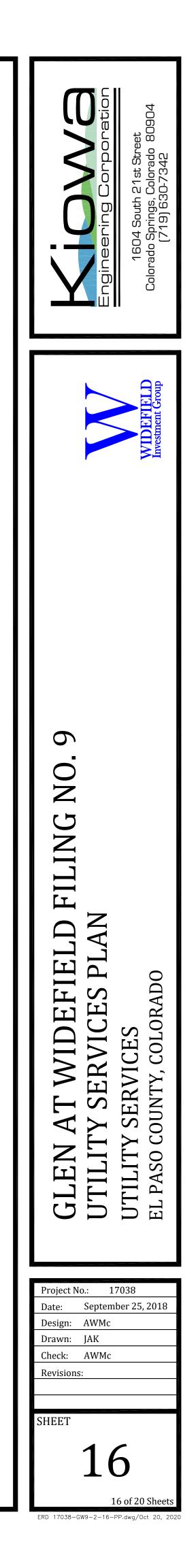
ADDITIONAL UTILITY NOTES						
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ELECTRIC -	ELECTRIC – ALL ELECTRIC SERVICES ARE TO BE INSTALLED PER MOUNTAINVIEW ELECTRIC ASSOCIATION.					
UTILITY C	UTILITY CONTACTS					
SEWER: WATER: ELECTRIC: GAS: PHONE:	WIDEFIELD W&S DISTRICT (WWSD) WIDEFIELD W&S DISTRICT (WWSD) MOUNTAIN VIEW ELECTRIC BLACKHILLS ENERGY US WEST	390-7111 390-7111 495-2283 800-303-0752 636-4632				

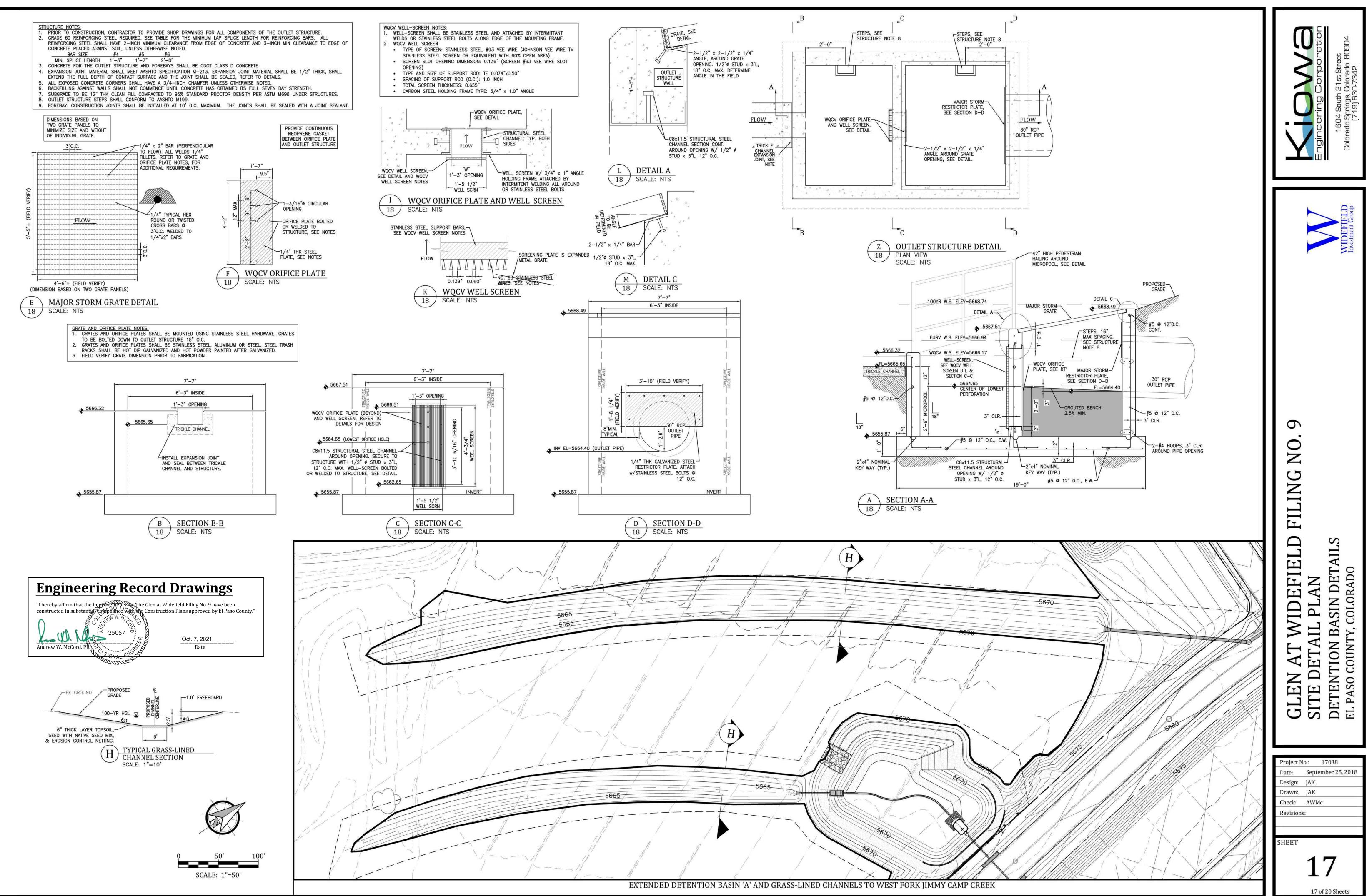
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M	GATE VALVE (UNLESS OTHERWISE NOTED)			
<b>_</b>	TEE w/CONCRETE THRUST BLOCK			
MINIMUM RADIUS SHOWN FOR WATER MAIN = 290' PER WWSD SPECIFICATIONS AND EL PASO COUNTY ECM 4.3.6.A.1&2, THE MINIMUM COVER OVER WATER MAIN & SERVICES AND SANITARY SEWER MAINS & SERVICES IS 5 FEET.				

SUBSEQUENT TO STRIPPING AND GRUBBING THE FOLLOWING OVERLOT/PIPE INSTALLATION PROCEDURES ARE ANTICIPATED FOR THE SANITARY SEWER LOCATED ON PROPOSED EMBANKMENTS:

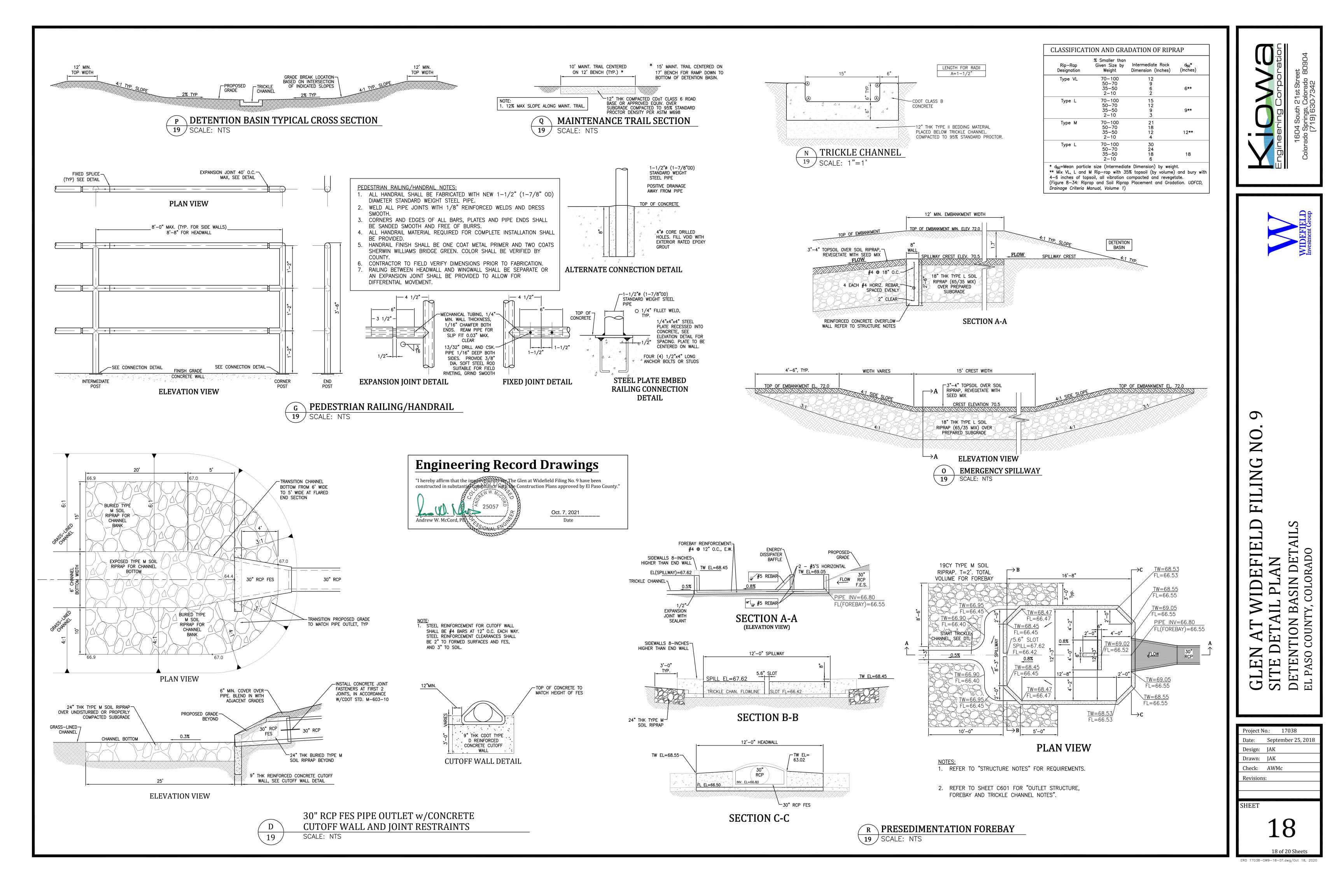
- THE REMOVAL AND REPLACEMENT OF METASTABLE SOIL.
   TESTING OF THE FILL SUBSEQUENT TO THE PENETRATION OF THE METASTABLE SOIL WILL CONTINUE UNTIL A MINIMUM OF 7 FEET OF STRUCTURAL FILL HAS BEEN PLACED ABOVE THE PROPOSED SEWER LINE ELEVATION.
   UTILITY TRENCHES SHALL BE EXCAVATED AND SANITARY SEWER LINE
- INSTALLED. THE PIPE SHALL BE PROPERLY BEDDED AND STRUCTURAL FILL PLACED AND TESTED TO THE PREVIOUS GRADE.
   THE OVERLOT AND EMBANKMENT FILL CAN BE COMPLETED.
- WHERE THE SANITARY SEWER IS PLACED IN EMBANKMENT FILL DURING THE OVERLOT PROCESS, STE SHALL MONITOR AND TEST ALL WORK ASSOCIATED WITH THE AFFECTED PORTIONS.

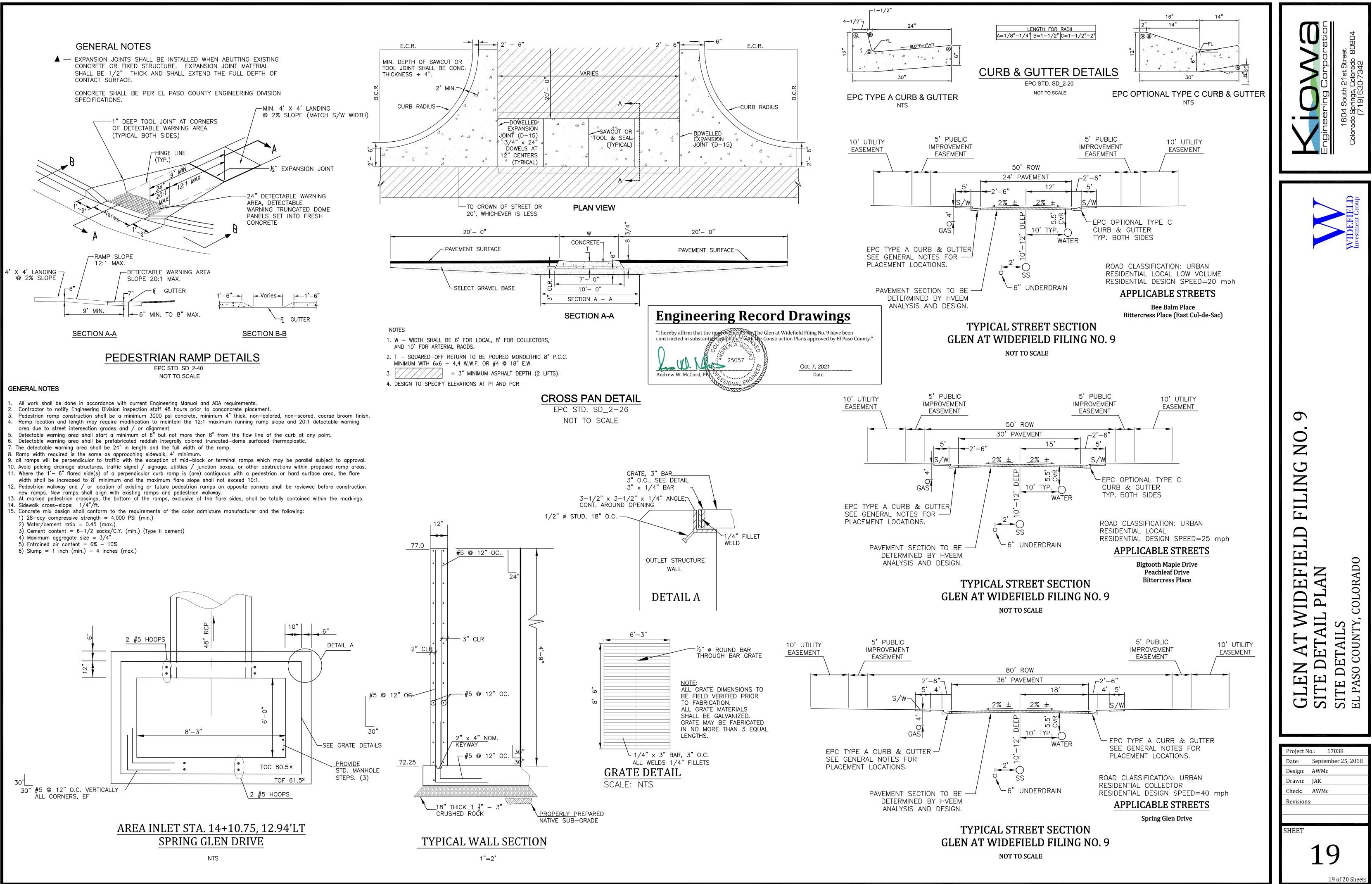
UTILITY APPROVALS				
The	STRICT APPROVALS e Widefield Water and Sanitation District recognizes the design engineer as having sponsibility for the design. The Widefield Water and Sanitation District has limited scope of review accordingly.			
	WIDEFIELD WATER AND SANITATION DISTRICT WASTEWATER DESIGN APPROVAL			
	Date: 9/20/2018 By: Tobut K Bunfer			
	PROJECT NO.			
	In case of errors or omissions with the sewer design as shown on this document the standards as defined in the "Rules and Regulations for Installation of Sewer Mains and Services" shall rule. Approval expires 180 days from Design Approval.			
	WIDEFIELD WATER AND SANITATION DISTRICT WATER DESIGN APPROVAL			
	Date: 9/24/2018 By: John + K Daufor			
	PROJECT NO			
	In case of errors or omissions with the sewer design as shown on this document the standards as defined in the "Rules and Regulations for Installation of Sewer Mains and Services" shall rule. Approval expires 180 days from Design Approval.			





ERD 17038-GW9-17-18-DT.dwg/Oct 20, 202





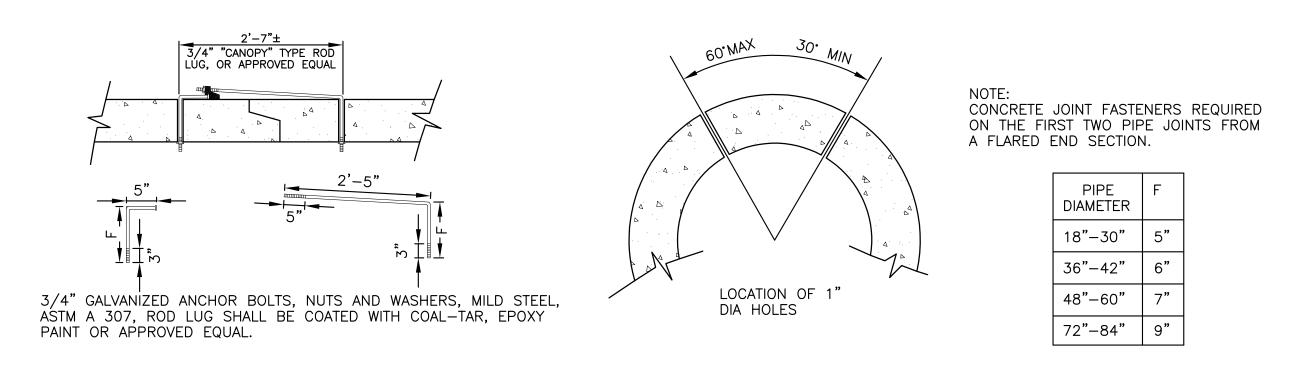
ERD 17038-GW9-19-20-DT.dwg/Oct 19, 202

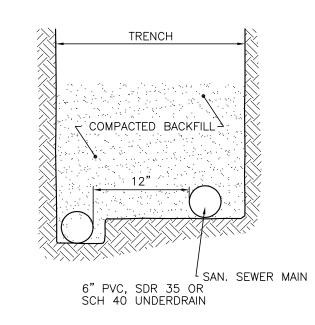
EK



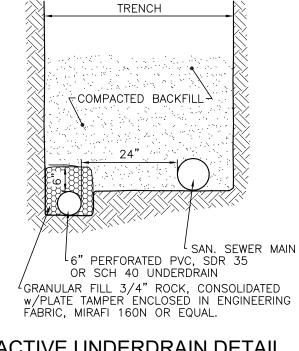
SECTION.

- 1. UNDERDRAIN TO BE CONSTRUCTED WHERE INDICATED BY A DASHED LINE (----). 2. SOLID DRAIN PIPE WILL BE USED IN AREAS AS SHOWN ON THE PLANS AND AS
- DIRECTED BY THE GEOTECHNICAL ENGINEER. 3. ALL UNDERDRAIN CONSTRUCTION SHALL CONFORM WITH THE LATEST CITY OF
- COLORADO SPRINGS STANDARDS. 4. ENGINEERING FABRIC TO HAVE A MINIMUM 12-INCH OVERLAP ABOVE UNDERDRAIN
- GRANULAR FILL. 5. UNDERDRAIN PIPE TO BE CONSTRUCTED WITH THE TOP OF PIPE EQUAL TO OR
- BELOW THE BOTTOM OF THE SANITARY SEWER PIPE. 6. GEOTECHNICAL ENGINEER TO DETERMINE EXTENT OF ACTIVE/PASSIVE UNDERDRAIN
- DEPENDING UPON CONDITIONS ENCOUNTERED DURING CONSTRUCTION. 7. THE CONNECTION BETWEEN THE ACTIVE AND PASSIVE PORTIONS OF THE UNDERDRAIN SYSTEM IS TO BE CONSTRUCTED WITH A NON-PERMEABLE BARRIER SO THAT ALL COLLECTED GROUNDWATER IS DIRECTED INTO THE PASSIVE PIPE







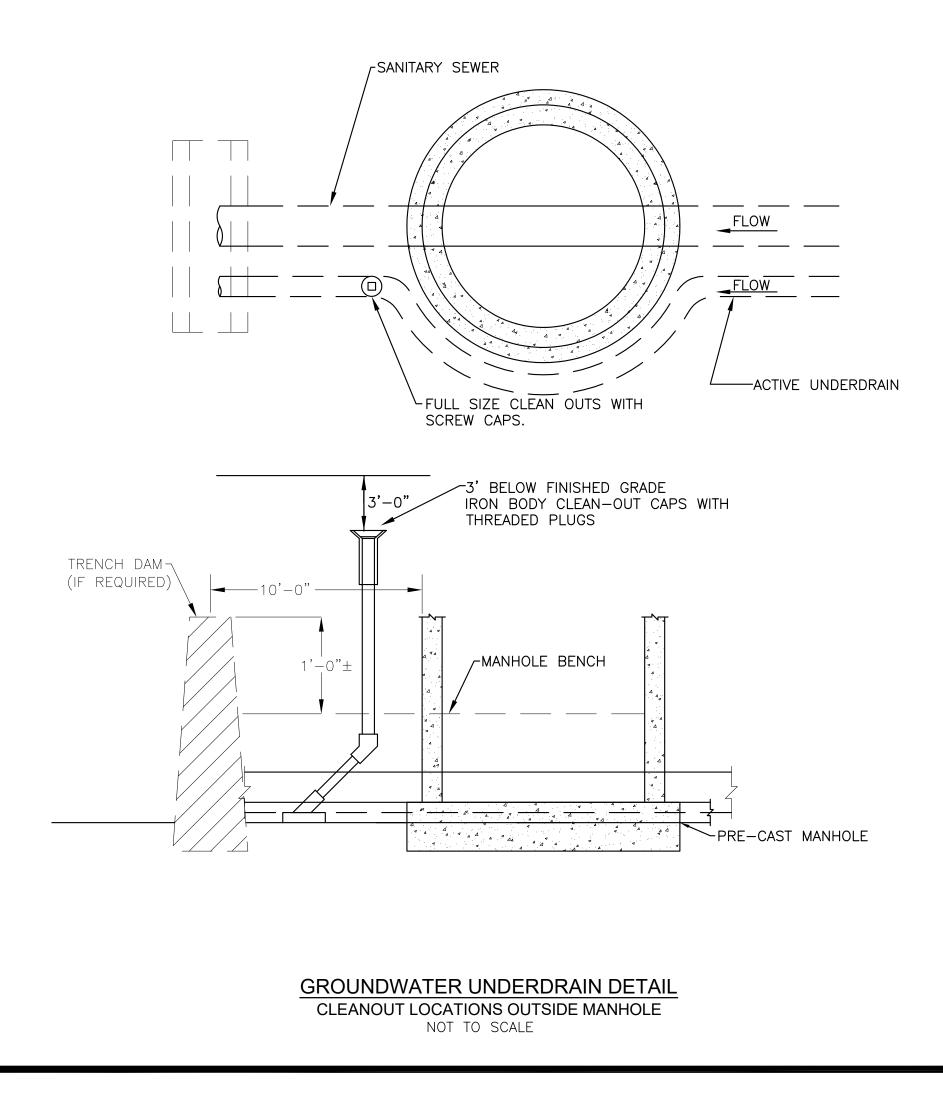


ACTIVE UNDERDRAIN DETAIL NOT TO SCALE

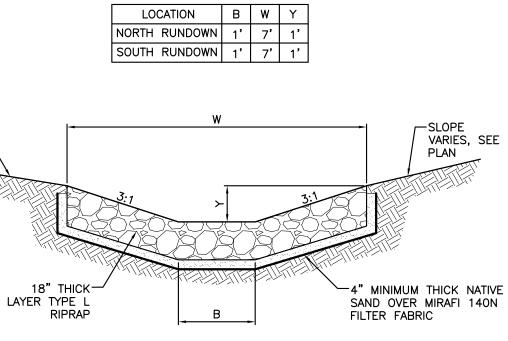
SLOPE-

PLAN

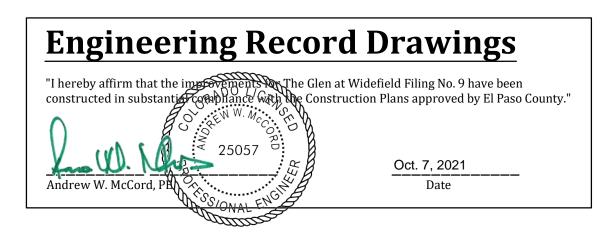
VARIES, SEE

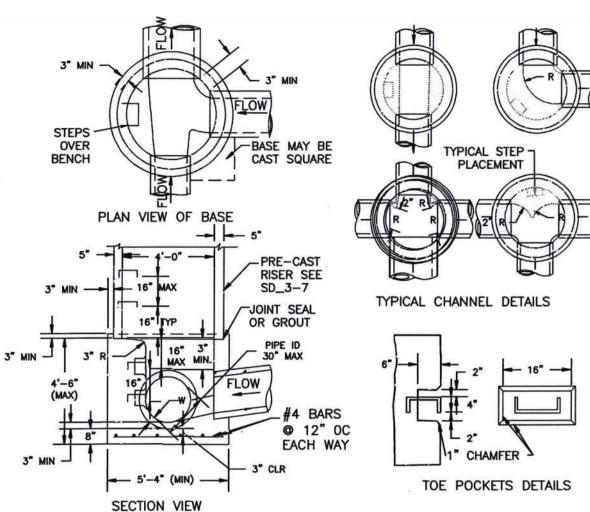






**RIPRAP RUNDOWN DETAIL -**PEACEFUL VALLEY ROAD AT MARKSHEFFEL ROAD SCALE: NTS





NOTES

FOOT. MIN.).

1. TYPE II MANHOLES SHALL BE USED WHEN APPROPRIATE AND TYPICALLY WHEN THE PIPE SIZES ARE 30" OR LESS INSIDE DIAMETER.

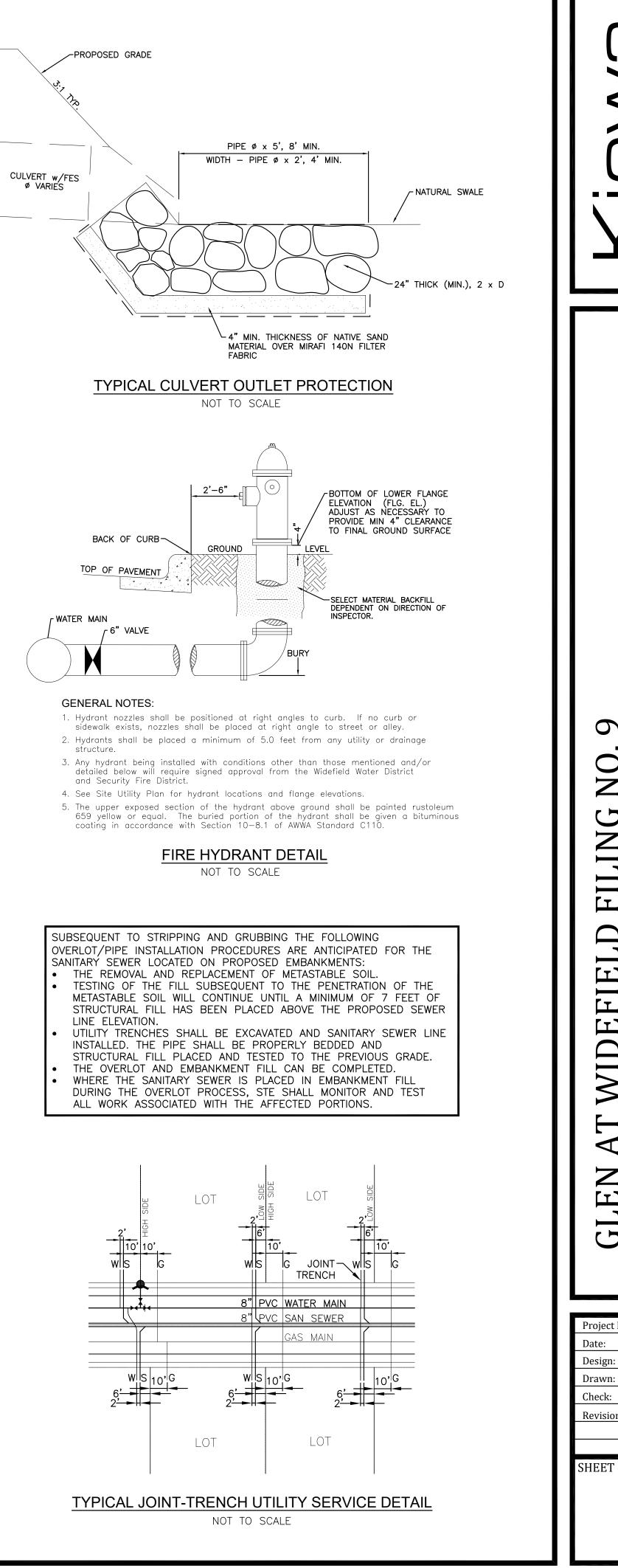
2. VIEW AND DETAILS ARE TYPICAL. DESIGN ENGINEER SHALL DETERMINE MANHOLE BASE CONFIGURATION AND DIMENSIONS FOR PARTICULAR PIPE SIZES AND ALIGNMENT.

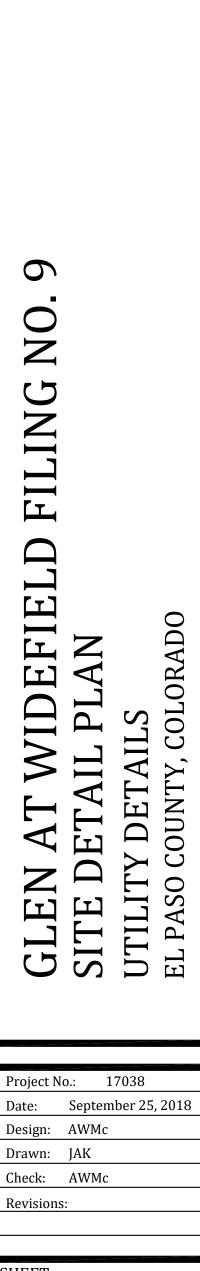
3. EITHER LADDER OF STEPS SHALL BE INSTALLED WHEN MANHOLE DEPTH EXCEEDS 30". STEPS IN BASE SHALL BE INSTALLED IN "TOE POCKETS" (SEE DETAIL THIS SHEET). LOWEST STEP SHALL BE A MAXIMUM OF 16" ABOVE THE FLOOR.

4. PIPES SHALL BE TRIMMED TO FINAL SHAPE AND SET BEFORE MANHOLE IS POURED. 5. BENCH SHALL BE SLOPED TOWARD CENTER OF MANHOLE BASE (4:1 MAX., 1/2" PER

6. FLOOR OF MANHOLE SHALL BE TROWELLED TO A SMOOTH, HARD SURFACE AND SHALL SLOPE TOWARDS THE OUTLET (8:1.,  $\frac{1}{2}$ " PER FT. MIN.) . FLOOR SHALL BE SHAPED AND CHANNELED; SEE DETAILS THIS SHEET.

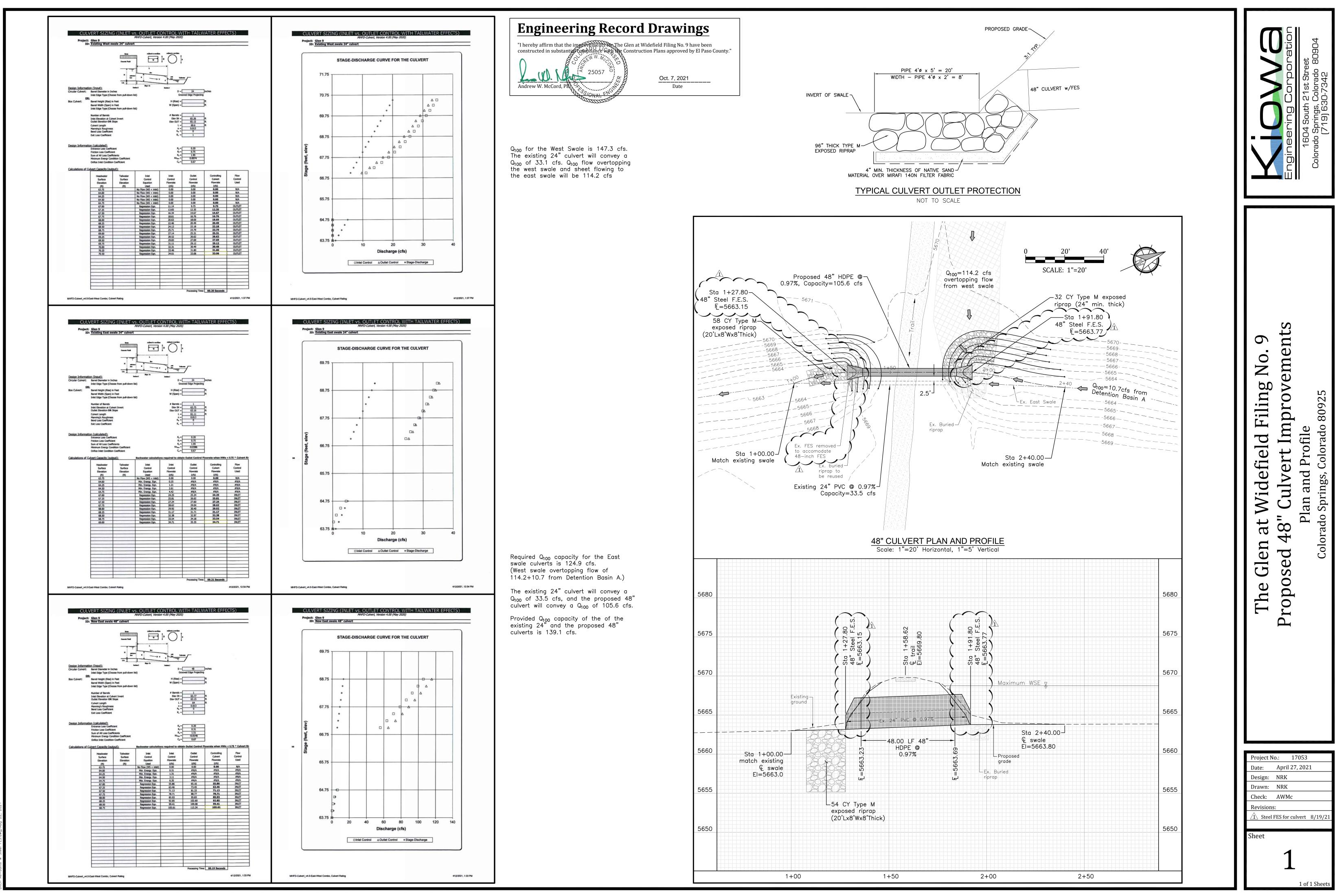
## STORM SEWER MANHOLE DETAIL TYPE II EPC STD. SD\_3-2 NOT TO SCALE





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20 of 20 Shee



Electrical Conduit Alignment							
	Alignment Locate	Finish		Finish			
	Mtn View	Ground		Grade			
Station	Surface Elev. (Current)	Elevation(Final)	Length	Adjustment			
0+00.00	5677.3	5678.451	15.316'	1.15			
0+15.32	5676.717	5677.474	2.006'	0.76			
0+17.32	5676.64	5677.346	20.693'	0.71			
0+38.02	5676.69	5675.16	12.874'	-1.53			
0+50.89	5676.27	5674.768	16.529'	-1.50			
0+67.42	5675.719	5674.264	3.284'	-1.45			
0+70.70	5675.61	5674.164	39.892'	-1.45			
1+10.59	5677.95	5674.19	9.168'	-3.76			
1+19.76	5675.327	5675.018	4.380'	-0.31			
1+24.14	5673.936	5675.413	7.518'	1.48			
1+31.66	5671.878	5676.092	2.422'	4.21			
1+34.08	5671.23	5676.311	1.391'	5.08			
1+35.47	5673.007	5676.521	4.914'	3.51			
1+40.39	5677.96	5677.264	22.163'	-0.70			
1+62.55	5677.79	5676.979					

### 10

