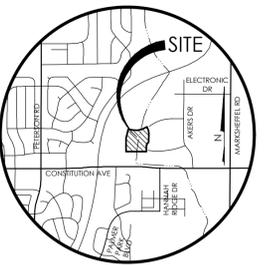


# CONSTRUCTION PLANS

for

## HANNAH RIDGE AT FEATHERGRASS FILING NO. 3

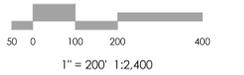
### EL PASO COUNTY, COLORADO



VICINITY MAP

BENCHMARK  
THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).

BASIS OF BEARINGS:  
BEARING REFERRED TO HEREIN ARE BASED ON THE SOUTH LINE OF TRACT FF, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ASSUMED TO BEAR N89°39'18"W MONUMENTED AT EACH END W/ NO. 5 REBAR W/ ALUMIN CAP MARKED "POLARIS, PLS 27605".



#### SHEET INDEX (LINED OUT SHEETS NOT INCLUDED IN THIS SET FOR FILING NO. 3)

PLAN SET SHEET NO.	SHEET TITLE	MVE DRAWING NO.
1	COVER SHEET	60970030-F3
2	GENERAL NOTES & DETAILS	60970031-F3
3	GENERAL NOTES & DETAILS	60970032-F3
4	BRECHES WAY PLAN / PROFILE	60970040-F3
5	GRAND PRIX COURT PLAN / PROFILE	60970041-F3
6	GRAND PRIX COURT PLAN / PROFILE	60970042
7	DAPPLES COURT PLAN / PROFILE	60970043
8	EQUINE COURT PLAN / PROFILE	60970044
9	EQUINE COURT PLAN / PROFILE	60970045
10	FARRIER COURT PLAN / PROFILE	60970046
11	HALF CHAPS COURT PLAN / PROFILE	60970047
12	HANNAH RIDGE DRIVE PLAN / PROFILE	60970048
13	HORSEMANSHIP COURT PLAN / PROFILE	60970049-F3
14	HUNTER JUMPER DRIVE PLAN / PROFILE	60970050-F3
15	HUNTER JUMPER DRIVE PLAN / PROFILE	60970051
16	PONY CLUB LANE PLAN / PROFILE	60970052
17	PONY CLUB LANE PLAN / PROFILE	60970053-F3
18	SHOW HUNTER WAY PLAN / PROFILE	60970054
19	SHAWNEE DRIVE PLAN / PROFILE	60970055
20	ELECTRONIC DRIVE PLAN / PROFILE	60970056
21	ELECTRONIC DRIVE PLAN / PROFILE	60970057
22	WINSLOW PARK DRIVE PLAN / PROFILE	60970058-F3
23	WINSLOW PARK DRIVE PLAN / PROFILE	60970059
24	CONSTITUTION AVENUE IMPROVEMENTS	60970062
25	MISC SANITARY SEWER PLAN / PROFILES	60970065-F3
26	PONY CLUB / BRECHES WAY STORM DRAIN	60970100
27	HANNAH RIDGE DRIVE STORM DRAIN	60970101
28	HUNTER JUMPER DRIVE STORM DRAIN	60970102-F3
29	SHAWNEE DRIVE STORM DRAIN	60970103
30	UNDER SADDLE / WINSLOW PARK STORM DRAIN	60970104-F3
31	MISC STORM DRAIN PLAN / PROFILES	60970066-F3
32	HANNAH RIDGE BOX CULVERT DETAILS	60970067
33	TRIBUTARY DRAINAGE IMPROVEMENTS	60970090-F3
34	TRIBUTARY DRAINAGE IMPROVEMENTS	60970091-F3
35	BOX CULVERT & HEADWALL DETAILS	60970093-F3
36	STORM WATER QUALITY DETENTION BASINS	60970105
37	STORM WATER QUALITY BASIN DETAILS	60970106-F3
38	STORM WATER QUALITY DETENTION BASINS	60970107
39	STREET/STORM PHASING PLAN & NOTES	60970069-F3
40	STRIPING & SIGNAGE PLAN	60970094-F3
41	WATER PLANS COVER SHEET	60970070-F3
42	WATER PLAN (CONSTITUTION)	60970071
43	WATER PLAN (SOUTHWEST)	60970072-F3
44	WATER PLAN (SOUTHEAST)	60970073-F3
45	WATER PLAN (NORTHWEST)	60970074
46	WATER PLAN (NORTHEAST)	60970075
47	WATER PLAN / PROFILE (SHAWNEE DRIVE)	60970076
48	WATER PLAN / PROFILE (MISC PROFILES)	60970077
49	HANNAH RIDGE WATER LINE	60970078
50	WATER PLAN / PROFILE (ELECTRONIC DRIVE)	60970079
51	WATER PLAN / PROFILE (ELECTRONIC DRIVE)	60970080
52	UTILITY SERVICE PLAN & NOTES	60970085-F3
53	UTILITY PHASING PLAN & NOTES	60970087-F3

#### COMPANIES AND AGENCIES

##### OWNER/DEVELOPER

FEATHERGRASS INVESTMENTS, LLC  
4715 NORTH CHESTNUT STREET  
COLORADO SPRINGS, CO 80909

##### ENGINEER

M.V.E., INC.  
1903 LELARAY STREET, STE 200  
COLORADO SPRINGS, CO 80909  
(719) 635-5736

##### STREETS AND RIGHTS OF WAY

EPC PLANNING AND COMMUNITY DEVELOPMENT  
EPC DEPARTMENT OF PUBLIC WORKS  
3275 AKERS DRIVE  
COLORADO SPRINGS, CO 80922  
(719) 520-6460

##### NATURAL GAS

COLORADO SPRINGS UTILITIES  
111 SOUTH CASCADE AVENUE  
P.O. BOX 1103  
COLORADO SPRINGS, CO 80947-1015  
(719) 226-3218

##### ELECTRIC

MOUNTAIN VIEW ELECTRIC ASSOCIATION  
11140 EAST WOODMEN ROAD  
FALCON, CO 80831  
(719) 495-2283

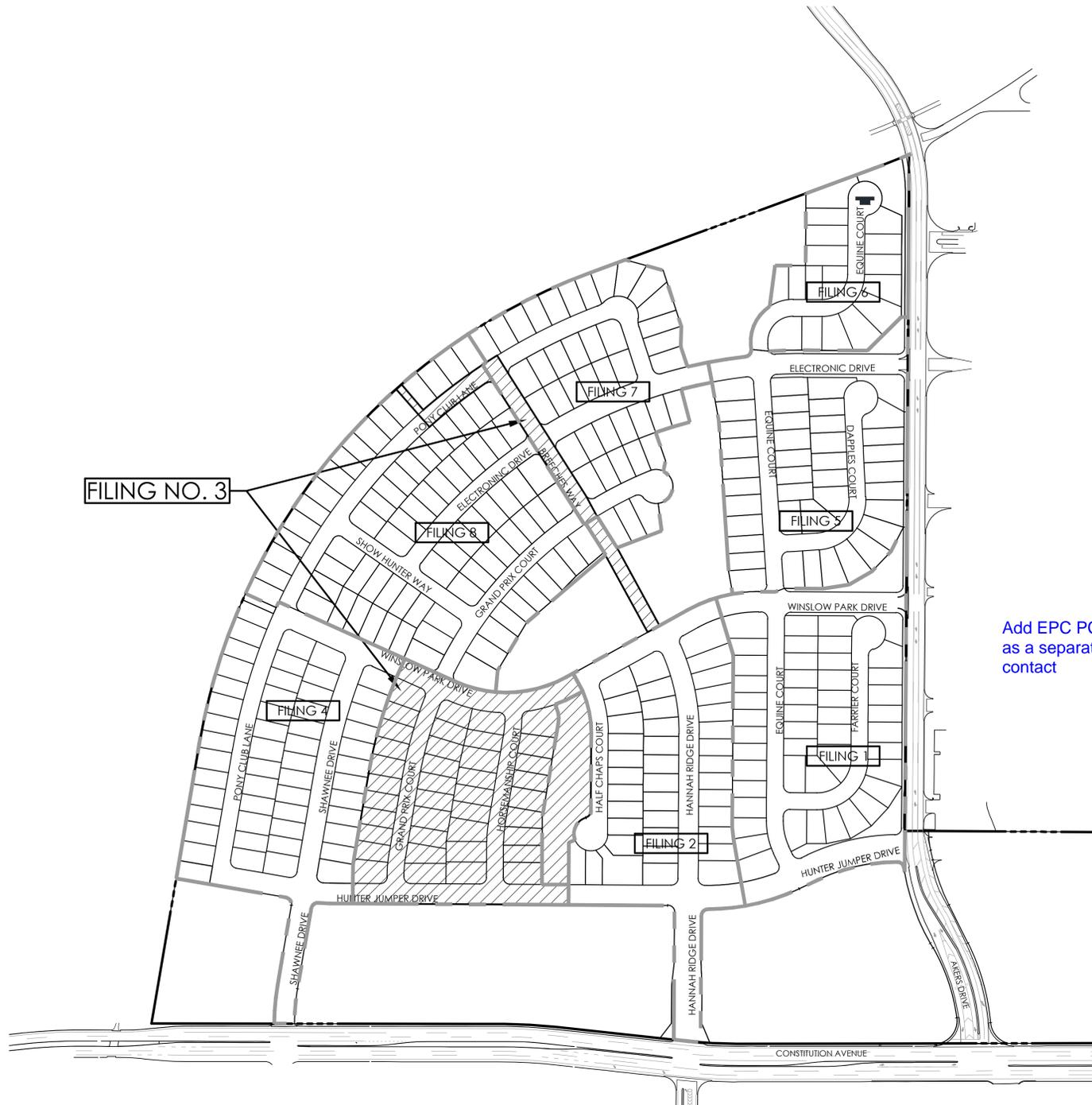
##### WATER & WASTEWATER

CHEROKEE METROPOLITAN DISTRICT  
6250 PALMER PARK BOULEVARD  
COLORADO SPRINGS, CO 80915  
(719) 597-5080

##### TELEPHONE

CENTURYLINK  
555 TECH CENTER DRIVE SUITE 110  
COLORADO SPRINGS, CO 80919  
866.301.9889

Add EPC PCD  
as a separate  
contact



#### FALCON FIRE DEPARTMENT APPROVAL

NOTE: FIRE FLOW DEMAND IS 1500 GPM FOR A 3 HOUR DURATION AT A 20 PSI MINIMUM RESIDUAL MAIN LINE PRESSURE DURING PEAK DEMAND.

UPON DETAILED REVIEW OF THE AVAILABLE WATER SUPPLY, FIRE HYDRANT LOCATIONS AND HOSE LAY DISTANCES, THESE PLANS ARE HEREBY CONSIDERED APPROVED.

FIRE DEPARTMENT SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

#### CHEROKEE METROPOLITAN DISTRICT APPROVAL

THE APPROVAL DATE ON THE PLAN(S) EXPIRES IN ONE (1) YEAR AND SHALL REQUIRE RESUBMITTAL AND APPROVAL IF CONSTRUCTION DOES NOT BEGIN DURING THIS PERIOD.

CHEROKEE METROPOLITAN DISTRICT \_\_\_\_\_ DATE \_\_\_\_\_

#### OWNERS STATEMENT

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

\_\_\_\_\_  
KENNETH P. DRISCOLL DATE  
MANAGER, FEATHERGRASS INVESTMENTS, LLC, A COLORADO LIMITED LIABILITY COMPANY.  
4715 NORTH CHESTNUT STREET  
COLORADO SPRINGS, CO 80909

#### ENGINEER'S STATEMENT

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

\_\_\_\_\_  
DAVID R. GORMAN, P.E. COLORADO NO. 31672 DATE  
FOR AND ON BEHALF OF M.V.E., INC.

#### EL PASO COUNTY PUBLIC SERVICE DEPARTMENT - TRANSPORTATION DIVISION

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

FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

\_\_\_\_\_  
JENNIFER E. IRVINE, P.E. DATE  
COUNTY ENGINEER / ECM ADMINISTRATOR

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 MAY NEED TO BE RESUBMITTED FOR APPROVAL, INCLUDING PAYMENT OF REVIEW FEES AT THE PLANNING AND COMMUNITY DEVELOPMENT DIRECTOR'S DISCRETION.

REVISIONS

DESIGNED BY DRG  
DRAWN BY TJW 8/22/2013  
CHECKED BY \_\_\_\_\_  
AS-BUILTS BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

HANNAH RIDGE  
AT FEATHERGRASS NO. 3

COVER SHEET

MVE PROJECT 60970  
MVE DRAWING 60970030-F3

JULY 25, 2017  
SHEET 1



**EL PASO COUNTY STANDARD CONSTRUCTION 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 (SMWP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
  - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
  - CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
  - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
  - CDOT M & S STANDARDS
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ONSITE AND OFFSITE, ON THE CONSTRUCTION PLANS. ANY MODIFICATIONS NECESSARY DUE TO CONFLICTS, OMISSIONS, OR CHANGED CONDITIONS WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (PCD) - INSPECTIONS, PRIOR TO STARTING CONSTRUCTION.
- IT IS THE CONTRACTOR'S RESPONSIBILITY TO UNDERSTAND THE REQUIREMENTS OF ALL JURISDICTIONAL AGENCIES AND TO OBTAIN ALL REQUIRED PERMITS, INCLUDING BUT NOT LIMITED TO EL PASO COUNTY EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP), REGIONAL BUILDING FLOODPLAIN DEVELOPMENT PERMIT, U.S. ARMY CORPS OF ENGINEERS-ISSUED 401 AND/OR 404 PERMITS, AND COUNTY AND STATE FUGITIVE DUST PERMITS.
- CONTRACTOR SHALL NOT DEVIATE FROM THE PLANS WITHOUT FIRST OBTAINING WRITTEN APPROVAL FROM THE DESIGN ENGINEER AND PCD. CONTRACTOR SHALL NOTIFY THE DESIGN ENGINEER IMMEDIATELY UPON DISCOVERY OF ANY ERRORS OR INCONSISTENCIES.
- ALL STORM DRAIN PIPE SHALL BE CLASS III RCP UNLESS OTHERWISE NOTED AND APPROVED BY PCD.
- CONTRACTOR SHALL COORDINATE GEOTECHNICAL TESTING PER ECM STANDARDS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY PCD PRIOR TO PLACEMENT OF CURB AND GUTTER AND PAVEMENT.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- SIGHT VISIBILITY TRIANGLES AS IDENTIFIED IN THE PLANS SHALL BE PROVIDED AT ALL INTERSECTIONS. OBSTRUCTIONS GREATER THAN 18 INCHES ABOVE FLOWLINE ARE NOT ALLOWED WITHIN SIGHT TRIANGLES.
- SIGNING AND STRIPING SHALL COMPLY WITH EL PASO COUNTY DOT AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DOT, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

**GENERAL NOTES**

- ALL CONSTRUCTION WITHIN EL PASO COUNTY PUBLIC RIGHT-WAYS SHALL BE IN ACCORDANCE WITH MOST CURRENT STANDARDS AND SPECIFICATIONS OF EL PASO COUNTY.
- THE LOCATION OF EXISTING UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND MAY NOT INCLUDE ALL UTILITIES. THE EXCAVATING CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UTILITIES.
- BEFORE COMMENCING ANY EXCAVATION, CALL 1-800-922-1987 FOR EXISTING UTILITY LOCATIONS.
- CONTRACTOR SHALL SCHEDULE AND HOLD A PRE-CONSTRUCTION MEETING A MINIMUM OF 48 HOURS PRIOR TO START OF CONSTRUCTION WITH CHEROKEE METROPOLITAN DISTRICT, EL PASO COUNTY, ENGINEER AND CONTRACTOR.
- CONTRACTOR IS RESPONSIBLE FOR ALL OF HIS OPERATIONS ON THE SITE. CONTRACTOR SHALL OBSERVE ALL SAFETY AND OSHA REGULATIONS DURING CONSTRUCTION OPERATIONS. TRENCH WIDTHS AND SLOPE ANGLES SHALL BE DETERMINED BY THE CONTRACTOR IN THE FIELD AND ACCORDING TO SAFETY AND OSHA REGULATIONS.
- ANY NECESSARY PERMITS SUCH AS SWMP, FUGITIVE DUST, ACCESS, C.O.E. 404, ESQCP PERMIT, ETC. SHALL BE OBTAINED PRIOR TO CONSTRUCTION.
- 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 FINAL 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. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPS SHALL BE MAINTAINED UNTIL PERMANENT SOIL EROSION CONTROL MEASURES ARE IMPLEMENTED AND ESTABLISHED.
- SOIL PREPARATION, SEEDING, AND MULCHING WILL BE REQUIRED ON ALL DISTURBED AREAS NOT SURFACED. THE FOLLOWING TYPES AND RATES SHALL BE USED:

GRASS	VARIETY	AMOUNT IN PLS lbs. PER ACRE
SIDEOATS GRAMA	EL RENO	3.0 lbs.
WESTERN WHEATGRASS	BARTON	2.5 lbs.
SLENDER WHEAT GRASS	NATIVE	2.0 lbs.
LITTLE BLUESTEM	PASTURA	2.0 lbs.
SAND DROPSSEED	NATIVE	0.5 lbs.
SWITCH GRASS	NEBRASKA 28	3.0 lbs.
WEEPING LOVE GRASS	MORPHIA	1.0 lbs.
TOTAL		14.0 lbs.

- SEEDING APPLICATION: DRILLED TO A DEPTH OF .25" TO .50" INTO SOIL WHERE POSSIBLE. BROADCAST AND RAKED TO COVER ON STEEPER THAN 3:1 SLOPES WHERE ACCESS IS LIMITED OR UNSAFE FOR EQUIPMENT.
- THE CONTRACTOR SHALL RESTORE ALL ROADWAYS IMPACTED BY HIS CONSTRUCTION ACTIVITY. GRAVEL ROADWAYS, TO THE EXTENT CONSTRUCTION ACTIVITY WILL IMPACT THEM, SHALL HAVE THE GRAVEL STRIPPED, STOCKPILED AND REINSTALLED. NO ADDITIONAL COMPENSATION WILL BE MADE FOR THIS ACTIVITY. IN THE EVENT THE GRAVEL IS CONTAMINATED OR LOST, THE CONTRACTOR SHALL PROVIDE MAKEUP GRAVEL AT NO ADDITIONAL COST TO THE OWNER.
- GRADING OF THE PROJECT SITE SHALL BE FINALIZED SUCH THAT ALL AREAS DRAIN FREELY AWAY FROM NEW MANHOLES.
- ANY SIGNS, DELINEATOR POSTS, MAIL BOXES, NEWSPAPER BOXES AND OTHER APPURTENANCES REMOVED DURING CONSTRUCTION SHALL BE REPLACED IN THE SAME LOCATION AND IN AN ACCEPTABLE CONDITION AT NO ADDITIONAL COST TO THE OWNER.
- IN THE EVENT THE CONTRACTOR REMOVES EXISTING FENCING, THE FENCING SHALL BE REINSTALLED IN A CONDITION, AS GOOD AS, OR BETTER THAN ORIGINALLY FOUND AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR SHALL COORDINATE ANY REQUIRED FENCE REMOVAL WITH THE LAND OWNER.
- THE CONTRACTOR SHALL RESTORE DRAINAGE CONFIGURATIONS ALTERED AS A RESULT OF HIS CONSTRUCTION ACTIVITY.
- SUFFICIENT CLEARANCE SHALL BE MAINTAINED DURING THE EXCAVATION FOR THE NEW SANITARY SEWER 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.
- 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 RETAINED. 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.
- PORTIONS OF THE PROJECT LIE WITHIN COUNTY ROAD RIGHTS-OF-WAY. TRAFFIC CONTROL SHALL BE UNDERTAKEN IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND REQUIREMENTS SET FORTH BY THE EL PASO COUNTY DEPARTMENT OF TRANSPORTATION (DOT) WITHIN THEIR PERMIT PROVISIONS AS APPROPRIATE.
- THE CONTRACTOR SHALL CONTACT THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS REPRESENTATIVE 48 HOURS PRIOR TO CONSTRUCTION IN COUNTY ROAD RIGHTS-OF-WAY. (EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS, 3275 AKERS DRIVE, COLORADO SPRINGS, CO 80922, (719) 520-6460).
- THE CONTRACTOR SHALL PROVIDE A TRAFFIC CONTROL PLAN IN ACCORDANCE WITH THE PROVISIONS OF THE EL PASO COUNTY DOT UTILITY PERMIT. APPROVAL OF THE TRAFFIC CONTROL PLAN FOR ALL WORK CONTAINED WITHIN THE COUNTY RIGHTS-OF-WAY SHALL BE OBTAINED PRIOR TO THE INITIATION OF ANY CONSTRUCTION WITHIN THE RESPECTIVE RIGHT-OF-WAY.
- COMPLETE CLOSURE OF ANY COUNTY ROAD SHALL NOT BE ALLOWED UNLESS APPROVED IN ADVANCE BY EL PASO COUNTY DOT. ANY CLOSURES PROPOSED SHALL ONLY BE CONSIDERED AFTER SUBMISSION AND APPROVAL OF AN ACCEPTABLE TRAFFIC CONTROL PLAN.
- ASPHALT DESIGN SHALL BE ACCORDING TO GEOTECHNICAL TESTING AND DESIGN TO BE COMPLETED FOLLOWING ROUGH GRADING. THE DESIGN AND TESTING SHALL BE COMPLETED IN ACCORDANCE WITH EPC STANDARDS AND APPROVED BY EPC PRIOR TO PAVING.

**EL PASO COUNTY STANDARD GRADING & EROSION CONTROL NOTES:**

- CONSTRUCTION MAY NOT COMMENCE UNTIL A CONSTRUCTION PERMIT IS OBTAINED FROM PLANNING AND COMMUNITY DEVELOPMENT AND A PRECONSTRUCTION CONFERENCE IS HELD WITH PLANNING AND COMMUNITY DEVELOPMENT INSPECTIONS.
- STORMWATER DISCHARGES FROM CONSTRUCTION SITES SHALL NOT CAUSE OR THREATEN TO CAUSE POLLUTION, CONTAMINATION, OR DEGRADATION OF STATE WATERS. ALL WORK AND EARTH DISTURBANCE SHALL BE DONE IN A MANNER THAT MINIMIZES POLLUTION OF ANY ON-SITE OR OFF SITE WATERS, INCLUDING WETLANDS.
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING.
- A SEPARATE STORMWATER MANAGEMENT PLAN (SMWP) FOR THIS PROJECT SHALL BE COMPLETED AND AN EROSION AND STORMWATER QUALITY CONTROL PERMIT (ESQCP) ISSUED PRIOR TO COMMENCING CONSTRUCTION. DURING CONSTRUCTION THE SWMP IS THE RESPONSIBILITY OF THE DESIGNATED STORMWATER MANAGER, SHALL BE LOCATED ON SITE AT ALL TIMES AND SHALL BE KEPT UP TO DATE WITH WORK PROGRESS AND CHANGES IN THE FIELD.
- ONCE THE ESQCP HAS BEEN ISSUED, THE CONTRACTOR MAY INSTALL THE INITIAL STAGE EROSION AND SEDIMENT CONTROL BMPS 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.
- 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 FINAL 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. AN AREA THAT IS GOING TO REMAIN IN AN INTERIM STATE FOR MORE THAN 60 DAYS SHALL ALSO BE SEEDDED. ALL TEMPORARY SOIL EROSION CONTROL MEASURES AND BMPS 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.
- ALL PERSONS ENGAGED IN EARTH DISTURBANCE SHALL IMPLEMENT AND MAINTAIN ACCEPTABLE SOIL EROSION AND SEDIMENT CONTROL MEASURES INCLUDING BMPS IN CONFORMANCE WITH THE EROSION CONTROL TECHNICAL STANDARDS OF THE DRAINAGE CRITERIA MANUAL (DCM) VOLUME II AND IN ACCORDANCE WITH THE STORMWATER MANAGEMENT PLAN (SMWP).
- 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.
- 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.
- 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 VELOCITY.
- 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.
- EROSION CONTROL BLANKETING SHALL BE USED ON SLOPES STEEPER THAN 3:1.
- 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.
- VEHICLE TRACKING OF SOILS AND CONSTRUCTION DEBRIS OFF-SITE SHALL BE MINIMIZED. MATERIALS TRACKED OFFSITE SHALL BE CLEANED UP AND PROPERLY DISPOSED OF IMMEDIATELY.
- 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.
- THE OWNER, SITE DEVELOPER, CONTRACTOR, AND/OR THEIR AUTHORIZED AGENTS SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL CONSTRUCTION DEBRIS, DIRT, TRASH, ROCK, SEDIMENT, AND SAND THAT MAY ACCUMULATE IN THE STORM SEWER OR OTHER DRAINAGE CONVEYANCE SYSTEM AND STORMWATER APPURTENANCES AS A RESULT OF SITE DEVELOPMENT.
- THE QUANTITY OF MATERIALS STORED ON THE PROJECT SITE SHALL BE LIMITED, AS MUCH AS PRACTICAL, TO THAT QUANTITY REQUIRED TO PERFORM THE WORK IN AN ORDERLY SEQUENCE. ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER, IN THEIR ORIGINAL CONTAINERS, WITH ORIGINAL MANUFACTURER'S LABELS.
- NO 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.
- 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.
- NO PERSON SHALL CAUSE THE IMPEDIMENT OF STORMWATER FLOW IN THE FLOW LINE OF THE CURB AND GUTTER OR IN THE DITCHLINE.
- INDIVIDUALS 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 INCLUDED IN THE DCM VOLUME II AND THE ECM APPENDIX I. ALL APPROPRIATE PERMITS MUST BE OBTAINED BY THE CONTRACTOR PRIOR TO 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.
- ALL CONSTRUCTION TRAFFIC MUST ENTER/EXIT THE SITE AT APPROVED CONSTRUCTION ACCESS POINTS.
- PRIOR TO ACTUAL CONSTRUCTION THE PERMITEE SHALL VERIFY THE LOCATION OF EXISTING UTILITIES.
- A WATER SOURCE SHALL BE AVAILABLE ON SITE DURING EARTHWORK OPERATIONS AND UTILIZED AS REQUIRED TO MINIMIZE DUST FROM EARTHWORK EQUIPMENT AND WIND.
- THE SOILS REPORT FOR THIS SITE HAS BEEN PREPARED BY ENTECH ENGINEERING, INC. AND SHALL BE CONSIDERED A PART OF THESE PLANS.
- 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 HEALTH AND ENVIRONMENT, WATER QUALITY DIVISION. THE APPLICATION CONTAINS CERTIFICATION OF COMPLETION OF A STORMWATER MANAGEMENT PLAN (SMWP), 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

**ABBREVIATIONS**

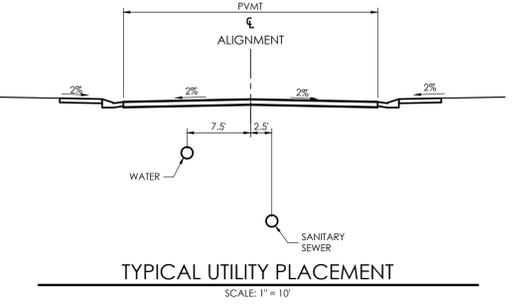
EL	ELEVATION	EC	EDGE OF CONCRETE
PC	POINT OF CURVATURE	ROW	RIGHT-OF-WAY
PI	POINT OF INTERSECTION	R	RADIUS
PT	POINT OF TANGENCY	T	TANGENT
PCR	POINT OF CURVE RETURN	L	LENGTH
PRC	POINT OF REVERSE CURVATURE	LF	LINEAR FEET
PVC	POINT OF VERTICAL CURVATURE	CL	CENTERLINE
PVI	POINT OF VERTICAL INTERSECTION	X.XX' R	DIMENSION RIGHT OF CL
PVT	POINT OF VERTICAL TANGENCY	X.XX' L	DIMENSION LEFT OF CL
GB	GRADE BREAK	PL	PROPERTY LINE
CSP	CORRUGATED STEEL PIPE	PVRC	POINT OF VERTICAL REVERSE CURVATURE
RCPC	REINFORCED CONCRETE PIPE	VC	VERTICAL CURVE
CBC	CONCRETE BOX CULVERT	AP	ANGLE POINT
TBC	TOP BACK CURB	STA	STATION
TC	TOP OF CURB	INV	INVERT
BT	BEGIN TAPER		
ET	END TAPER		

**SANITARY SEWER CONSTRUCTION NOTES:**

- ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH CHEROKEE METROPOLITAN DISTRICT STANDARD AND THE CITY OF COLORADO SPRINGS CONSTRUCTION STANDARDS UNLESS NOTED OTHERWISE. IN THE EVENT OF CONFLICTING STANDARDS CHEROKEE METROPOLITAN DISTRICT STANDARDS SHALL GOVERN.
- SANITARY SEWER PIPE SHALL CONFORM TO ASTM D3034 SDR35 PVC.
- CONTRACTOR SHALL FIELD VERIFY LOCATION AND ELEVATION OF EXISTING INVERTS PRIOR TO INSTALLATION OF NEW SANITARY SEWER SYSTEM.
- THE CONTRACTOR ASSUMES RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES DURING THE WORK. PRIOR TO ANY EXCAVATION, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT (800) 922-1987 AT LEAST TWO WORKING DAYS PRIOR TO DIGGING.
- INFILTRATION AND EXFILTRATION TESTS CONDUCTED BY AND AT THE EXPENSE OF THE CONTRACTOR SHALL BE PERFORMED ON A REPRESENTATIVE PORTION OF THE PROJECT IN ACCORDANCE WITH SECTION 7.04 OF THE CITY OF COLORADO SPRINGS CONSTRUCTION STANDARDS.
- ALL SANITARY SEWER MANHOLES, LIDS, BASES AND OTHER APPURTENANCES SHALL BE IN ACCORDANCE WITH (IAW) COLORADO SPRINGS DETAILS STANDARD MANHOLE DETAIL 1. EXCEPT AS NOTED ON THESE PLANS, WHERE REQUIRED ON THESE PLANS, WATER TIGHT MANHOLES, LIDS AND CONNECTIONS SHALL BE PROVIDED IAW COLORADO SPRINGS STANDARDS.
- WHERE NECESSARY, THE CONTRACTOR SHALL PROVIDE 3 DEGREE BENDS ON ALL CURVILINEAR SANITARY SEWER PIPE.
- SANITARY SEWER SERVICE LINES SHALL BE LOCATED PER THE DETAIL ON THE UTILITY SERVICE PLAN, OR AT THE DIRECTION OF THE CONSTRUCTION MANAGER.
- OVERLOT GRADING AND STREET SUBGRADE MUST BE WITHIN ± ONE (1) FOOT PRIOR TO ANY UTILITY INSTALLATION.
- WHILE CONSTRUCTING THE SANITARY SEWER SYSTEM THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT LEAST ONE "APPROVED FOR CONSTRUCTION" SET OF UPDATED PLANS AT ALL TIMES. APPROVED FILED MODIFICATIONS TO PLAN SETS SHALL BE CLEARLY IDENTIFIED IN RED INK ON THE PLANS BY THE CONTRACTOR PER FIELD CONSTRUCTION. THESE AS-BUILT CHANGES SHALL BE DATED AND SUBMITTED TO THE ENGINEER OF RECORD. THE ENGINEER OF RECORD SHALL PREPARE A COMPLETE SET OF "AS CONSTRUCTED" DRAWINGS AND DELIVER THE SETS TO THE CHEROKEE METROPOLITAN DISTRICT PRIOR TO FINAL ACCEPTANCE OF THE SANITARY SEWER SYSTEM.
- CONTRACTOR TO CONSTRUCT ALL MANHOLES AND STRUCTURES TO FINISHED GRADE.
- UPON COMPLETION OF CONSTRUCTION AND PRIOR TO ACCEPTANCE BY THE DISTRICT, TWO (2) COPIES OF "AS-CONSTRUCTED" PLANS AND TWO (2) SETS OF ELECTRONIC DATA FILES OF THE PLANS SHALL BE SUBMITTED TO THE DISTRICT FOR RECORD.
  - THE TWO (2) COPIES SHALL BE COMPLETE WITH ALL "AS-CONSTRUCTED" INFORMATION TOGETHER WITH A CERTIFICATION BY THE PARTY RESPONSIBLE FOR CONSTRUCTION THAT ALL DATA THEREON IS ACCURATE AND REPRESENTS ACTUAL CONSTRUCTED CONDITIONS.
  - THE TWO PLAN SETS SHALL BE SUBMITTED ON SHEETS THAT ARE 24" X 36" IN SIZE.
  - THE PLAN SET SHALL BE ON A DURABLE MEDIA THAT CAN BE RUN THROUGH PHOTOCOPIING EQUIPMENT.
  - THE TWO ELECTRONIC DATA FORMATS SHALL BE SUBMITTED. THE FIRST ELECTRONIC DATA FILE SET SHALL BE IN AUTOCAD 2006 OR NEWER FORMAT WITH NO EXTERNAL REFERENCE DRAWINGS. ALL EXTERNAL REFERENCES MUST BE BOUND INTO THE DRAWING SET. THE SECOND SET OF ELECTRONIC DATA FILES SHALL BE IN ADOBE ACROBAT .PDF FORMAT.
  - "AS-CONSTRUCTED" PLANS SHALL BE SUBMITTED WITHIN TWO WEEKS OF COMPLETION OF THE WATER AND/OR SANITARY SEWER UTILITIES.
  - NO AUTHORIZATION TO CONNECT TO THE SYSTEM OR DISCHARGE TO THE SYSTEM WILL BE ALLOWED UNTIL THE "AS-CONSTRUCTED" DOCUMENTS HAVE BEEN RECEIVED AND ACCEPTED BY THE DISTRICT.
  - ALL PLANS, SPECIFICATIONS AND SUPPORTING DOCUMENTS SHALL BE PREPARED BY OR UNDER THE DIRECT SUPERVISION OF A PROFESSIONAL ENGINEER LICENSED TO PRACTICE IN THE STATE OF COLORADO. ALL PLANS AND SPECIFICATIONS SHALL BEAR THE SEAL AND SIGNATURE OF SAID LICENSED PROFESSIONAL ENGINEER.
- TRACER WIRE IS TO BE INSTALLED WITH ALL SANITARY SEWER MAIN LINES AND SERVICES (FROM MAIN LINE TO THE BUILDING STRUCTURE). ALL NONMETALLIC PIPES SHALL HAVE A TRACER WIRE ATTACHED TO ITS TOP DURING CONSTRUCTION. THE TRACER WIRE SHALL BE #12 AWG INSULATED COPPER WIRE WITH NO. 12 TYPE COPPER CONNECTORS AND SHALL BE PERMANENTLY AFFIXED TO THE TOP OF THE PIPE USING TAPE AT 4' INTERVALS. ALL POINTS OF CONNECTION SHALL BE PROTECTED FROM CORROSION BY AN EPOXY OR SILICON COATING. ROUTE TRACER WIRE TO SURFACE AT ALL MANHOLES AND CLEANOUT LOCATIONS

FOR PIPELINES 1.04% OR LESS GRADE THE FOLLOWING ADDITIONAL INSTALLATION PRACTICES SHALL BE USED.

- THE BOTTOM OF THE PIPE TRENCH SHALL BE PLATE TAMPED PRIOR TO THE INSTALLATION OF ANY PIPE OR BEDDING MATERIAL.
- SELECT BEDDING MATERIAL SHALL BE INSTALLED PER CHAPTER 2 OF THE "COLORADO SPRINGS UTILITIES, WASTEWATER STANDARDS".
- TRENCH BACKFILL MATERIAL SHALL BE INSTALLED PER CHAPTER 2 OF THE "COLORADO SPRINGS UTILITIES, WASTEWATER STANDARDS".
- PIPELINES HAVING A SLOPE OF LESS THAN 1.04% SHALL BE "AS CONSTRUCTED" BY A LICENSED SURVEYOR OR AN APPOINTED REPRESENTATIVE UNDER HIS DIRECT SUPERVISION. THE "AS CONSTRUCTED" MANHOLE INVERTS SHALL BE RECORDED ON THE RECORD DRAWING(S) AND SUBMITTED TO CHEROKEE METROPOLITAN DISTRICT.



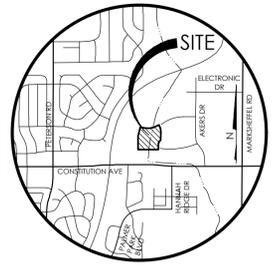
TYPICAL UTILITY PLACEMENT  
 SCALE: 1" = 10'

**LEGEND**

<b>EXISTING</b>	<b>PROPOSED</b>
PROPERTY LINE .....	INDEX CONTOUR .....
ADJACENT PROPERTY LINE .....	INTERMEDIATE CONTOUR .....
EASEMENT LINE .....	SLOPE / GRADE .....
INDEX CONTOUR .....	SPOT ELEVATION .....
INTERMEDIATE CONTOUR .....	TOP WALL .....
TEST HOLE LOCATION .....	FINISHED GRADE FACE WALL .....
CURB AND GUTTER .....	RETAINING WALL .....
SIGN .....	CURB LINE .....
FENCE .....	SIDEWALK .....
WATER MAIN .....	DETENTION POND OUTLET .....
WATER VALVE .....	
FIRE HYDRANT .....	
SANITARY SEWER MAIN .....	
SANITARY SEWER MANHOLE .....	
GAS MAIN .....	
UNDERGROUND ELEC LINE .....	
ELECTRIC VAULTS .....	
TELEPHONE LINE .....	
TELEPHONE RISER .....	

**EXISTING TOPOGRAPHIC MAP NOTES:**

- THE EXISTING TOPOGRAPHY SHOWN ON THIS PLAN WAS PRODUCED BY CARRERA MAPPING INC. FROM AN AERIAL SURVEY FLOWN NOVEMBER 19, 2004 USING GROUND CONTROL BY M.V.E., INC. AKERS DRIVE TOPOGRAPHY IS SPLICED IN FROM THE AKERS DRIVE DESIGN PLANS BY M.V.E., INC. DATED SEPTEMBER 20, 2006.
- ALL EXISTING UTILITIES SHOWN ON THIS SURVEY ARE FROM UTILITY MAIN LOCATION RECORD MAPS OBTAINED FROM THE RESPECTIVE UTILITY COMPANIES AND SURFACE EVIDENCE AS SURVEYED IN THE FIELD. THE LOCATION OF UTILITIES AS SHOWN ARE APPROXIMATE. ALL UTILITIES MAY NOT BE SHOWN OR MAY NOT HAVE BEEN LOCATED. BELOW GROUND UTILITY LOCATIONS WERE NOT PERFORMED.
- VERTICAL CONTOUR INTERVAL FOR THIS MAP IS 2 FOOT.



VICINITY MAP

BENCHMARK  
 THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. [EPC DATUM ELEVATION = 6485.29].  
 BASIS OF BEARINGS:  
 BEARING REFERRED TO HEREIN ARE BASED ON THE SOUTH LINE OF TRACT FF, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ASSUMED TO BEAR N89°39'18"W MONUMENTED AT EACH END W/ NO. 5 REBAR W/ ALUMIN CAP MARKED "POLARIS, PLS 27605".



1903 kellar street, suite 200 colorado springs, co 80909 719.635.5736

REVISIONS

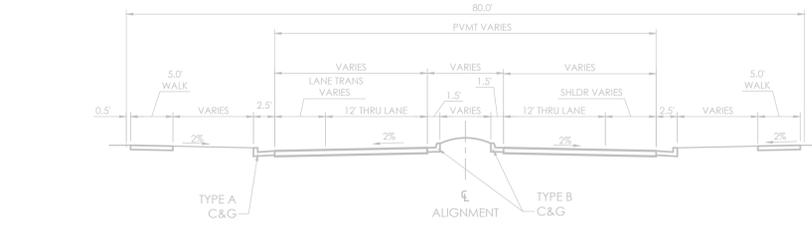
DESIGNED BY DRG  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**HANNAH RIDGE  
 AT FEATHERGRASS NO. 3**

**GENERAL NOTES  
 & DETAILS**

MVE PROJECT **60970**  
 MVE DRAWING 60970031-F3

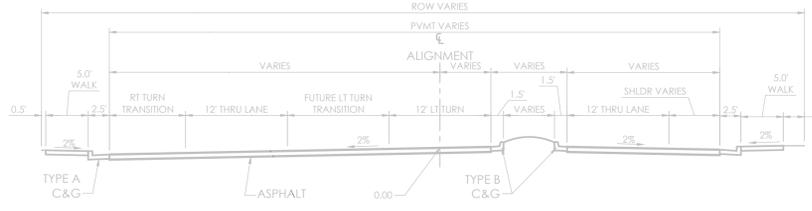
**JULY 25, 2017  
 SHEET 2**



HANNAH RIDGE DRIVE SECTION

STA 4+06.11 TO STA 4+80.08  
SCALE: 1"=10'

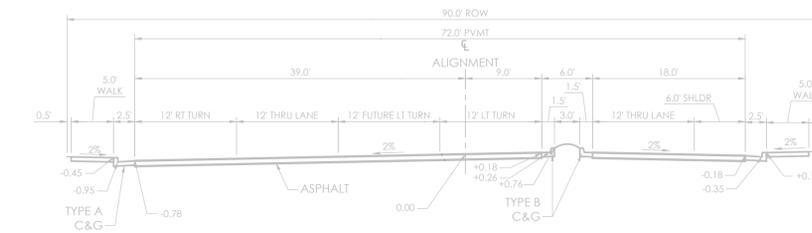
6  
3



HANNAH RIDGE DRIVE SECTION

STA 2+63.85 TO STA 4+06.11  
SCALE: 1"=10'

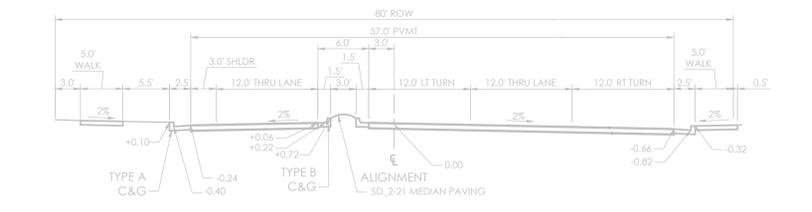
5  
3



HANNAH RIDGE DRIVE SECTION

STA 1+18.67 TO STA 2+63.84  
SCALE: 1"=10'

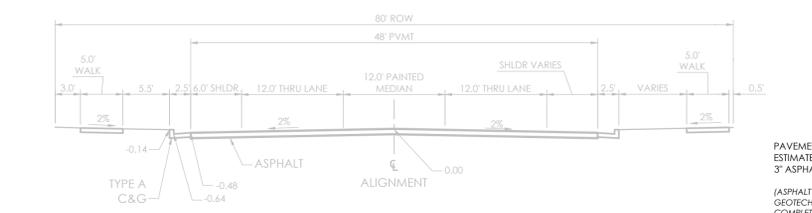
4  
3



HUNTER JUMPER DRIVE SECTION

STA 20+48.02 TO STA 21+44.34  
SCALE: 1"=10'

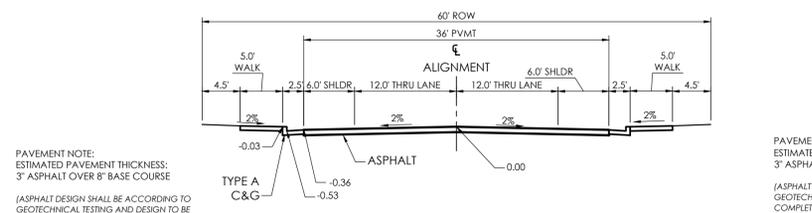
3  
3



HUNTER JUMPER DRIVE SECTION

STA 18+53.45 TO STA 19+88.91  
SCALE: 1"=10'

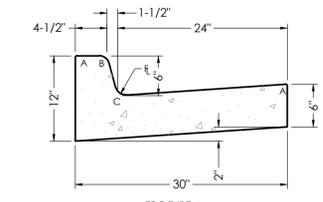
2  
3



HUNTER JUMPER DRIVE SECTION

STA 1+00.00 TO STA 14+95.18  
SCALE: 1"=10'

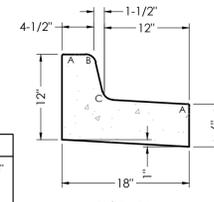
1  
3



EPC TYPE A STANDARD VERTICAL CURB & GUTTER

SCALE 1"=1'

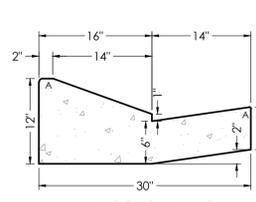
14  
3



EPC TYPE B STANDARD MEDIAN CURB & GUTTER

SCALE 1"=1'

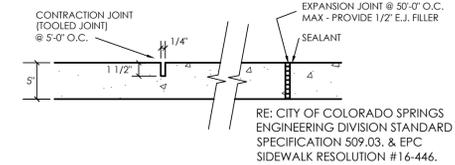
15  
3



EPC OPTIONAL TYPE C STANDARD RAMP CURB & GUTTER

SCALE 1"=1'

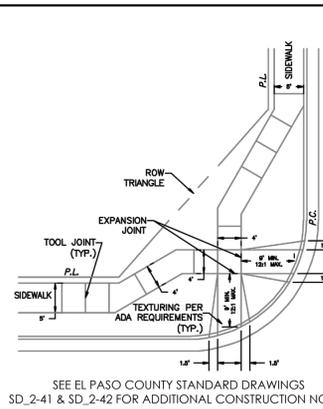
16  
3



TYPICAL CONCRETE WALK

SCALE: 1"=1.5'

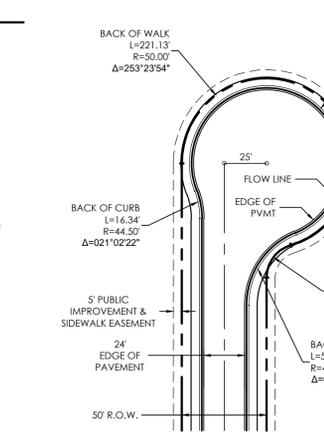
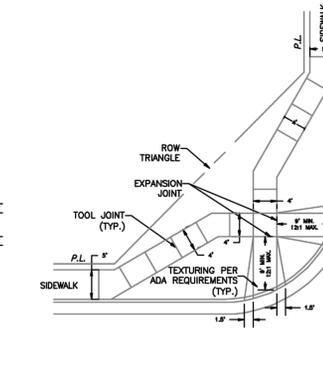
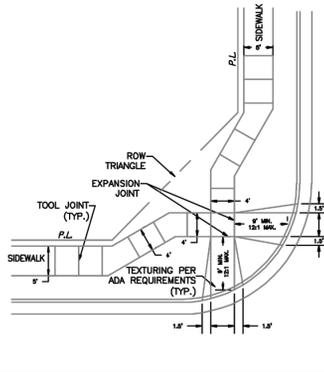
10  
3



PEDESTRIAN INTERSECTION RAMP DETAIL (EPC SD\_2-40)

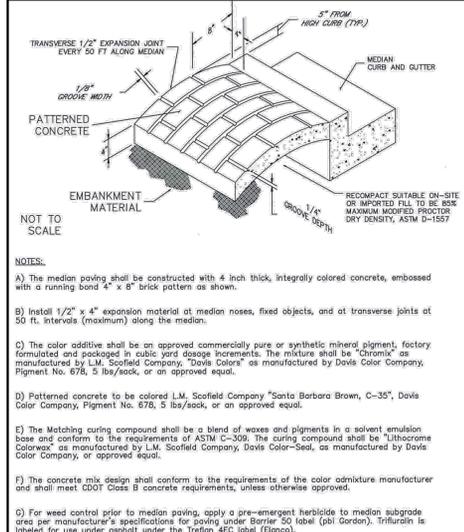
SCALE: NOT TO SCALE

12  
3



TYPICAL CUL-DE-SAC DETAIL

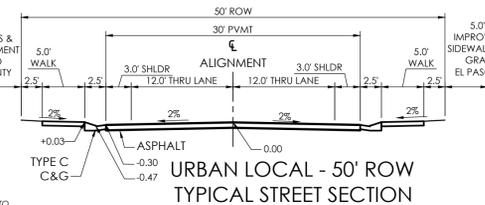
SCALE: NTS



URBAN LOCAL (LOW VOLUME) - 50' ROW TYPICAL STREET SECTION

BREECHES WAY (STA 1+00.00 TO STA 3+55.00), DAPPLES COURT, EQUINE COURT (STA 16+22.21 TO STA 23+43.09), FARRIER COURT, HALF CHAPS COURT, PONY CLUB LANE (STA 23+26.98 TO STA 25+31.22), SHOW HUNTER WAY  
SCALE: 1"=10'

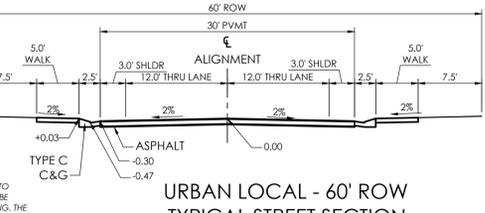
9  
3



URBAN LOCAL - 50' ROW TYPICAL STREET SECTION

BREECHES WAY (STA 3+55.00 TO STA 6+10.00), GRAND PRIX COURT, EQUINE COURT (STA 1+00.00 TO STA 16+22.21), HORSEMANSHIP COURT, PONY CLUB DRIVE (STA 1+00.00 TO STA 23+26.98), ELECTRONIC DRIVE (STA 1+00.00 TO STA 6+60.97)  
SCALE: 1"=10'

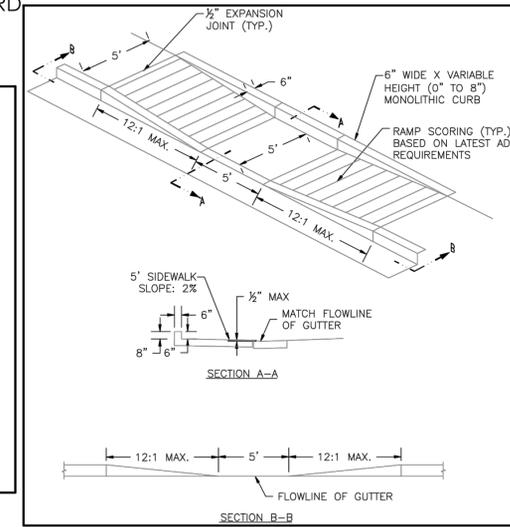
8  
3



URBAN LOCAL - 60' ROW TYPICAL STREET SECTION

HANNAH RIDGE DRIVE (STA 5+30.00 TO STA 13+12.93), SHAWNEE DRIVE, ELECTRONIC DRIVE (STA 6+60.97 TO STA 17+94.05), WINSLOW PARK DRIVE  
SCALE: 1"=10'

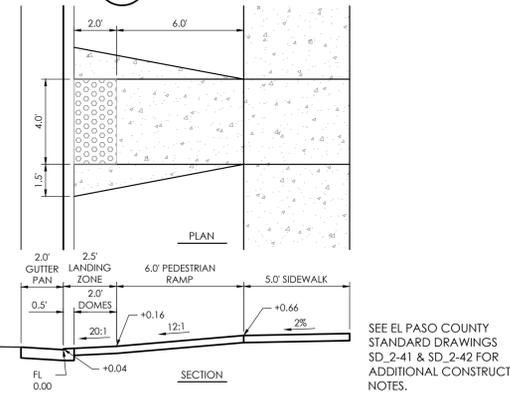
7  
3



PARALLEL PEDESTRIAN RAMP DETAIL (EPC SD\_2-50)

SCALE: NOT TO SCALE

13  
3



MIDBLOCK HANDICAP RAMP DETAIL

SCALE 1"=4'-0"

SEE EL PASO COUNTY STANDARD DRAWINGS SD\_2-41 & SD\_2-42 FOR ADDITIONAL CONSTRUCTION NOTES.



VICINITY MAP

BENCHMARK: THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. [EPC DATUM ELEVATION = 6485.29].  
BASIS OF BEARINGS: BEARING REFERRED TO HEREIN ARE BASED ON THE SOUTH LINE OF TRACT FF, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ASSUMED TO BEAR N89°39'18"W MONUMENTED AT EACH END W/ NO. 5 REBAR W/ ALUMIN CAP MARKED "POLARIS, PLS 27605".

REVISIONS

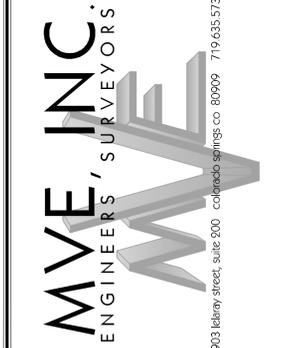
DESIGNED BY DRG  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILTS BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

HANNAH RIDGE AT FEATHERGRASS NO. 3

GENERAL NOTES & DETAILS

MVE PROJECT 60970  
MVE DRAWING 60970032-F3

JULY 25, 2017  
SHEET 3



1903 ledbury street, suite 200 colandrea springs, co 80909 719.635.5736

PAVEMENT NOTE:  
ESTIMATED PAVEMENT THICKNESS:  
3" ASPHALT OVER 8" BASE COURSE  
  
[ASPHALT DESIGN SHALL BE ACCORDING TO GEOTECHNICAL TESTING AND DESIGN TO BE COMPLETED FOLLOWING ROUGH GRADING. THE DESIGN AND TESTING SHALL BE COMPLETED IN ACCORDANCE WITH EPC STANDARDS AND APPROVED BY EPC PRIOR TO PAVING.]

PAVEMENT NOTE:  
ESTIMATED PAVEMENT THICKNESS:  
3" ASPHALT OVER 8" BASE COURSE  
  
[ASPHALT DESIGN SHALL BE ACCORDING TO GEOTECHNICAL TESTING AND DESIGN TO BE COMPLETED FOLLOWING ROUGH GRADING. THE DESIGN AND TESTING SHALL BE COMPLETED IN ACCORDANCE WITH EPC STANDARDS AND APPROVED BY EPC PRIOR TO PAVING.]

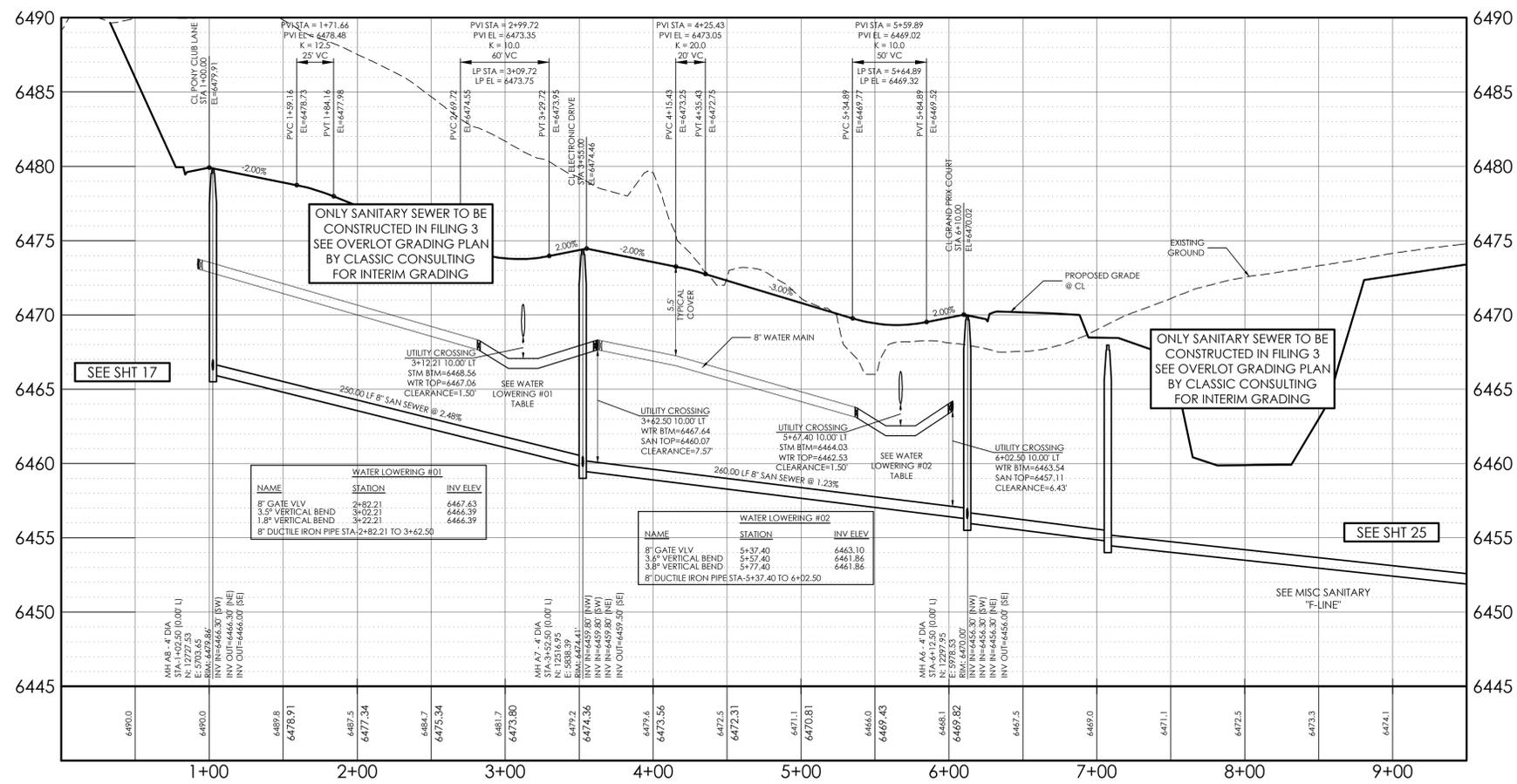
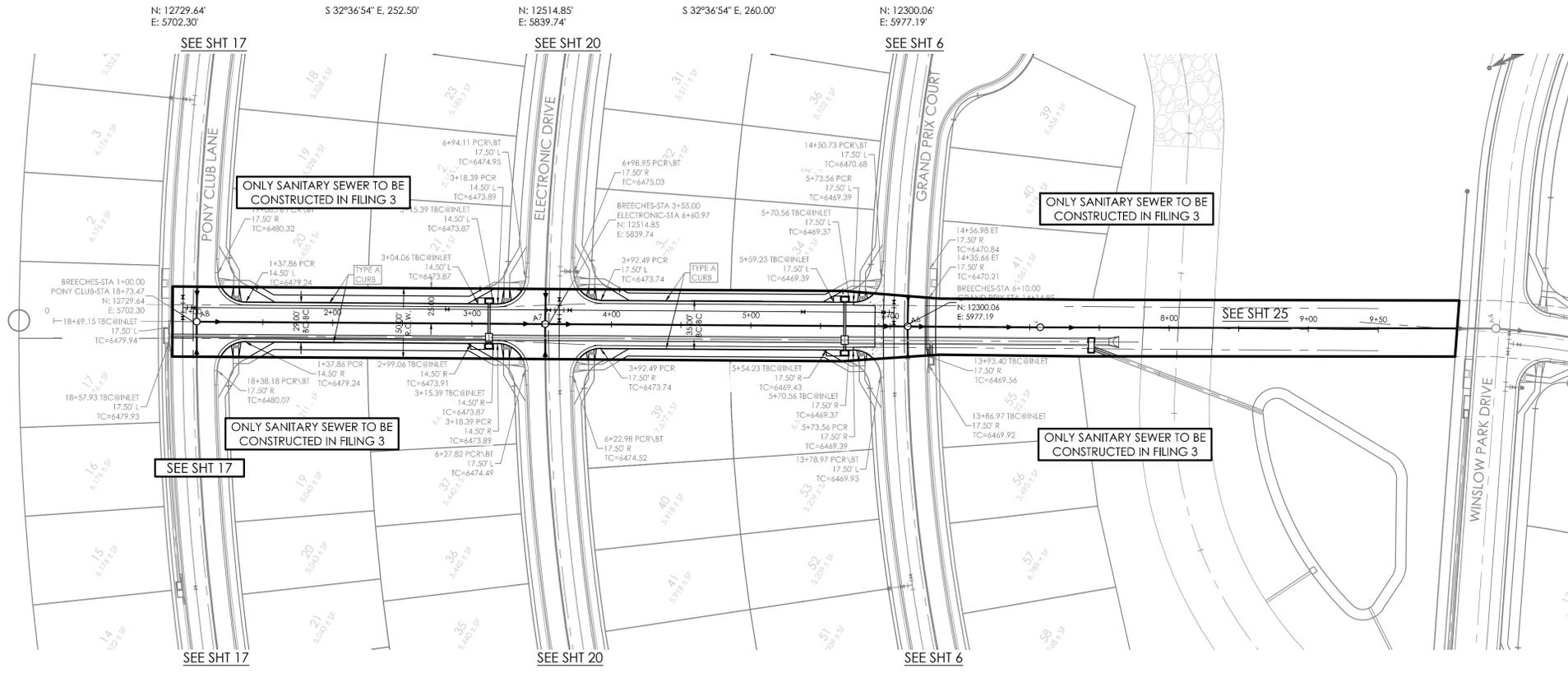
PAVEMENT NOTE:  
ESTIMATED PAVEMENT THICKNESS:  
3" ASPHALT OVER 8" BASE COURSE  
  
[ASPHALT DESIGN SHALL BE ACCORDING TO GEOTECHNICAL TESTING AND DESIGN TO BE COMPLETED FOLLOWING ROUGH GRADING. THE DESIGN AND TESTING SHALL BE COMPLETED IN ACCORDANCE WITH EPC STANDARDS AND APPROVED BY EPC PRIOR TO PAVING.]

NOTES:  
A) The median paving shall be constructed with 4 inch thick, integrally colored concrete, embossed with a running bond 4" x 8" brick pattern as shown.  
B) Install 1/2" x 4" expansion material at median noses, fixed objects, and at transverse joints at 50 ft. intervals (maximum) along the median.  
C) The color additive shall be an approved commercially pure or synthetic mineral pigment, factory formulated and packaged in cubic yard dosage increments. The mixture shall be "chromium" as manufactured by L.M. Scofield Company, "Davis Colors" as manufactured by Davis Color Company, Pigment No. 678, 5 lbs/sock, or an approved equal.  
D) Patterned concrete to be colored L.M. Scofield Company "Santa Barbara Brown, C-35", Davis Color Company, Pigment No. 678, 5 lbs/sock, or an approved equal.  
E) The Matching curing compound shall be a blend of waxes and pigments in a solvent emulsion base and conform to the requirements of ASTM C-309. The curing compound shall be "Lithochrome Colormat" as manufactured by L.M. Scofield Company, Davis Color-Seed, as manufactured by Davis Color Company, or approved equal.  
F) The concrete mix design shall conform to the requirements of the color admixture manufacturer and shall meet CDOT Class B concrete requirements, unless otherwise approved.

ALL MEDIAN TREATMENT TO BE CONSTRUCTED PER EL PASO COUNTY STANDARDS.  
MEDIAN DETAIL (EPC SD\_2-21)  
SCALE: NOT TO SCALE

NOTES  
1. W = WIDTH SHALL BE 6" FOR LOCAL, 8" FOR COLLECTORS, AND 10" FOR ARTERIAL ROADS.  
2. T = SQUARED-OFF RETURN TO BE POURED MONOLITHIC 8" PCC OR 9" FOR COLLECTORS MINIMUM WITH 6x6 - 4.4 W.W.F. OR #4 @ 18 E.W.  
3. DESIGN TO SPECIFY ELEVATIONS AT PI AND PCR

ALL CROSS PANS TO BE CONSTRUCTED PER EL PASO COUNTY STANDARDS.  
CROSS PAN DETAIL (EPC SD\_2-26)  
SCALE: NOT TO SCALE



WATER LOWERING #01		
NAME	STATION	INV. ELEV.
8" GATE VLV	2+82.21	6467.63
3.5" VERTICAL BEND	3+02.21	6466.39
1.8" VERTICAL BEND	3+22.21	6466.39
8" DUCTILE IRON PIPE STA	2+82.21 TO 3+42.50	

WATER LOWERING #02		
NAME	STATION	INV. ELEV.
8" GATE VLV	5+37.40	6463.10
3.8" VERTICAL BEND	5+37.40	6461.86
8" DUCTILE IRON PIPE STA	5+37.40 TO 6+02.50	

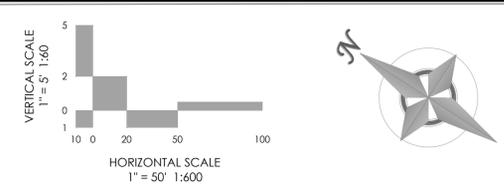


THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. [EPC DATUM ELEVATION = 6485.29].

BASIS OF BEARINGS:  
BEARING REFERRED TO HEREIN ARE BASED ON THE SOUTH LINE OF TRACT FF, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ASSUMED TO BEAR N89°39'18"W MONUMENTED AT EACH END W/ NO. 5 REBAR W/ ALUMIN CAP MARKED "POLARIS, PLUS 27605".

**DESIGN DATA:**  
 SIDEWALKS: WIDTH 5'  
 LOCATION: Attached  Detached   
 DESIGN SPEED \_\_\_\_\_  
 CURB TYPE:  A  B  C  D  E  
 ROW WIDTH: 50' FL-FL VARIES  
 STREET TYPE: LOCAL LOW VOLUME

**PAVEMENT:**  
 TYPE: HMA  PCC   
 THICKNESS: \_\_\_\_\_  
 COMPOSITE SECTION:  
 HMA \_\_\_\_\_ BASE \_\_\_\_\_  
 SUBGRADE STABILIZATION:  
 CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



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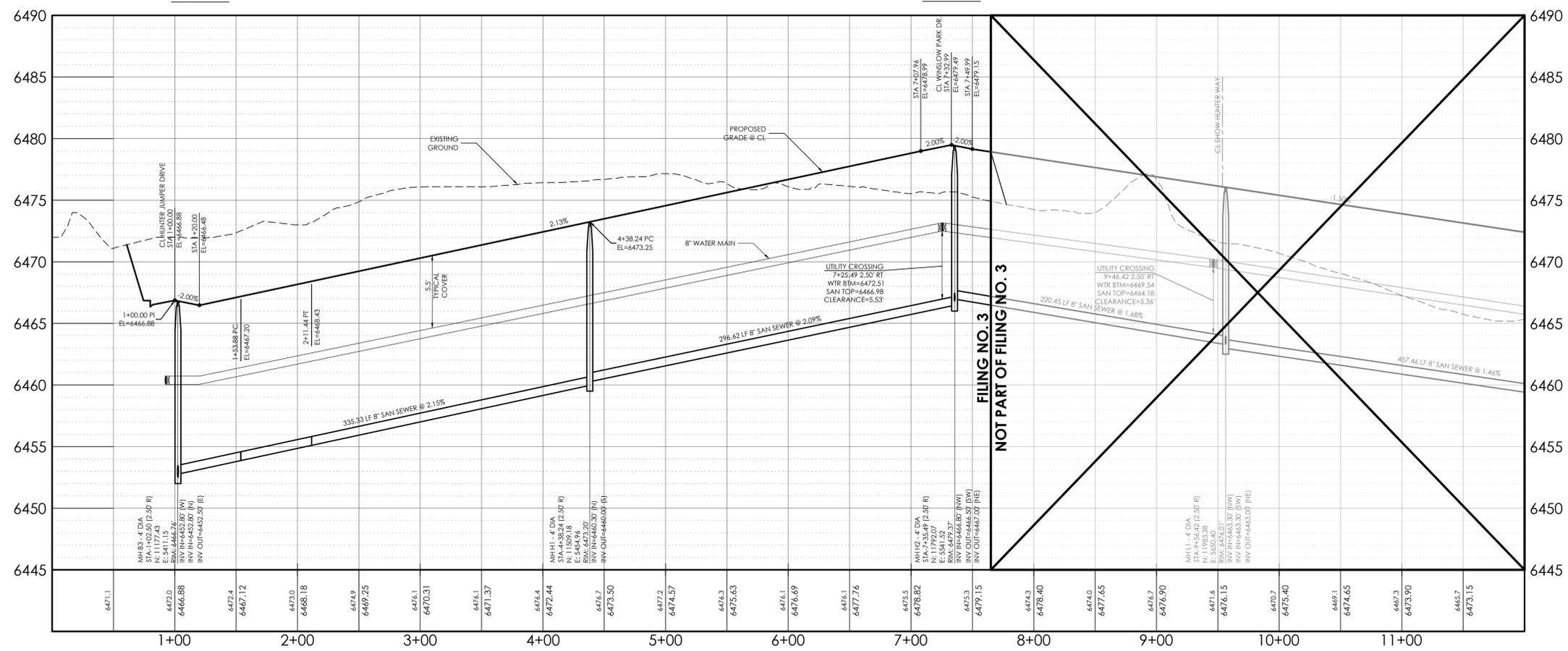
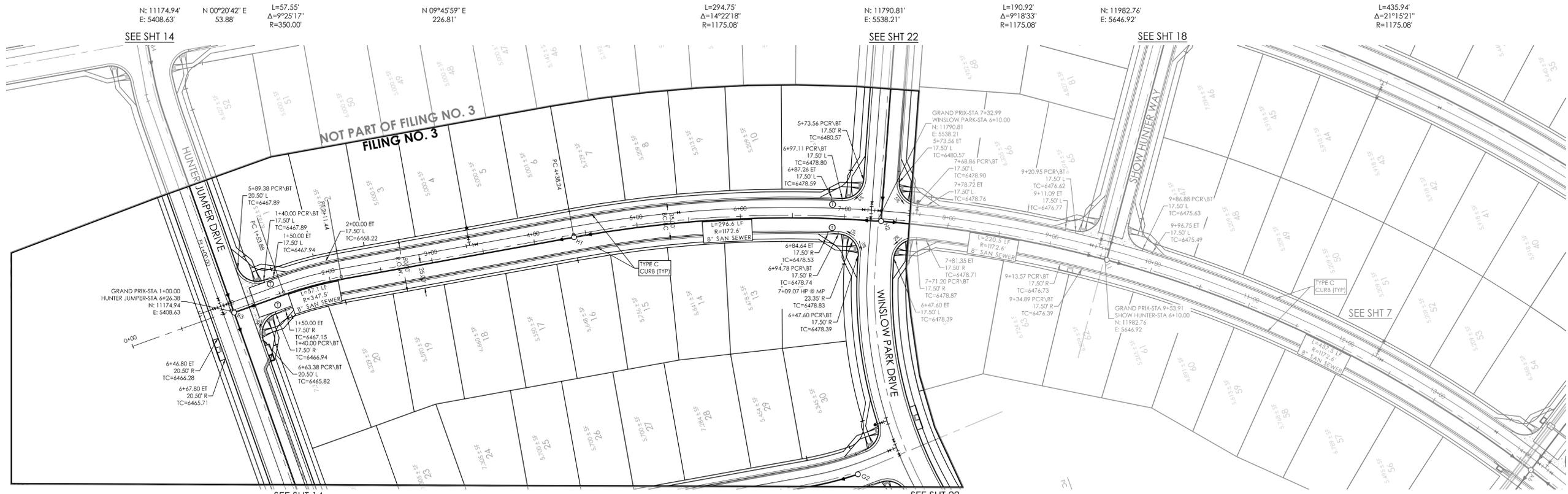
1903 Irelary street  
 colorado springs  
 719.635.5736

suite 200  
 co 80909  
 www.mvecivil.com

REVISIONS

MVE PROJECT **60970**  
 MVE DRAWING **60970040-F3**  
**JULY 25, 2017**  
 DESIGNED BY TJW  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**BREECHES WAY PLAN/ PROFILE**  
 FROM STA 1+00.00  
 TO STA 6+10.00  
 HANNAH RIDGE AT FEATHERGRASS NO. 3



**LEGEND**  
 (1) CURB TRANSITIONS BETWEEN TYPE A AND TYPE C (MODIFIED)

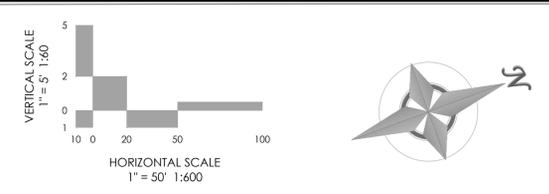
**CURVILINEAR SEWER PIPE NOTE:**  
 THERE IS NO DEFLECTION ALLOWED AT THE JOINTS ON 12-INCH AND SMALLER SEWER PIPE. NOTICE: MECHANICAL MEANS SHOULD NOT BE EMPLOYED TO ACCOMPLISH THESE RADII. IT IS THE INTENT THAT THE WORKER SHOULD ACCOMPLISH THIS MANUALLY IN THE TRENCH. ON 4-INCH TO 12-INCH SEWER PIPE, THE CURVE SHOULD BE ACCOMPLISHED BY BENDING THE PIPE RATHER THAN DEFLECTING JOINTS. THERE SHALL BE NO DEFLECTION IN THE JOINTS UPON COMPLETION TO AVOID OVER-STRESSING THE BELL AND PREVENT POSSIBLE BREAKAGE AND/OR LEAKS.



THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).  
 BASIS OF BEARINGS:  
 BEARING REFERRED TO HERBIN ARE BASED ON THE SOUTH LINE OF TRACT FF, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ASSUMED TO BEAR N89°39'18"W MONUMENTED AT EACH END W/ NO. 5 REBAR W/ ALUMIN CAP MARKED "POLARIS, PLS 27605".

**DESIGN DATA:**  
 SIDEWALKS: WIDTH 5'  
 LOCATION: Attached  Detached   
 DESIGN SPEED \_\_\_\_\_  
 CURB TYPE:  A  B  C  D  
 ROW WIDTH: 50' FL-FL 32.33'  
 STREET TYPE: LOCAL

**PAVEMENT:**  
 TYPE: HMA  PCC   
 THICKNESS: \_\_\_\_\_  
 COMPOSITE SECTION:  
 HMA \_\_\_\_\_ BASE \_\_\_\_\_  
 SUBGRADE STABILIZATION:  
 CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_

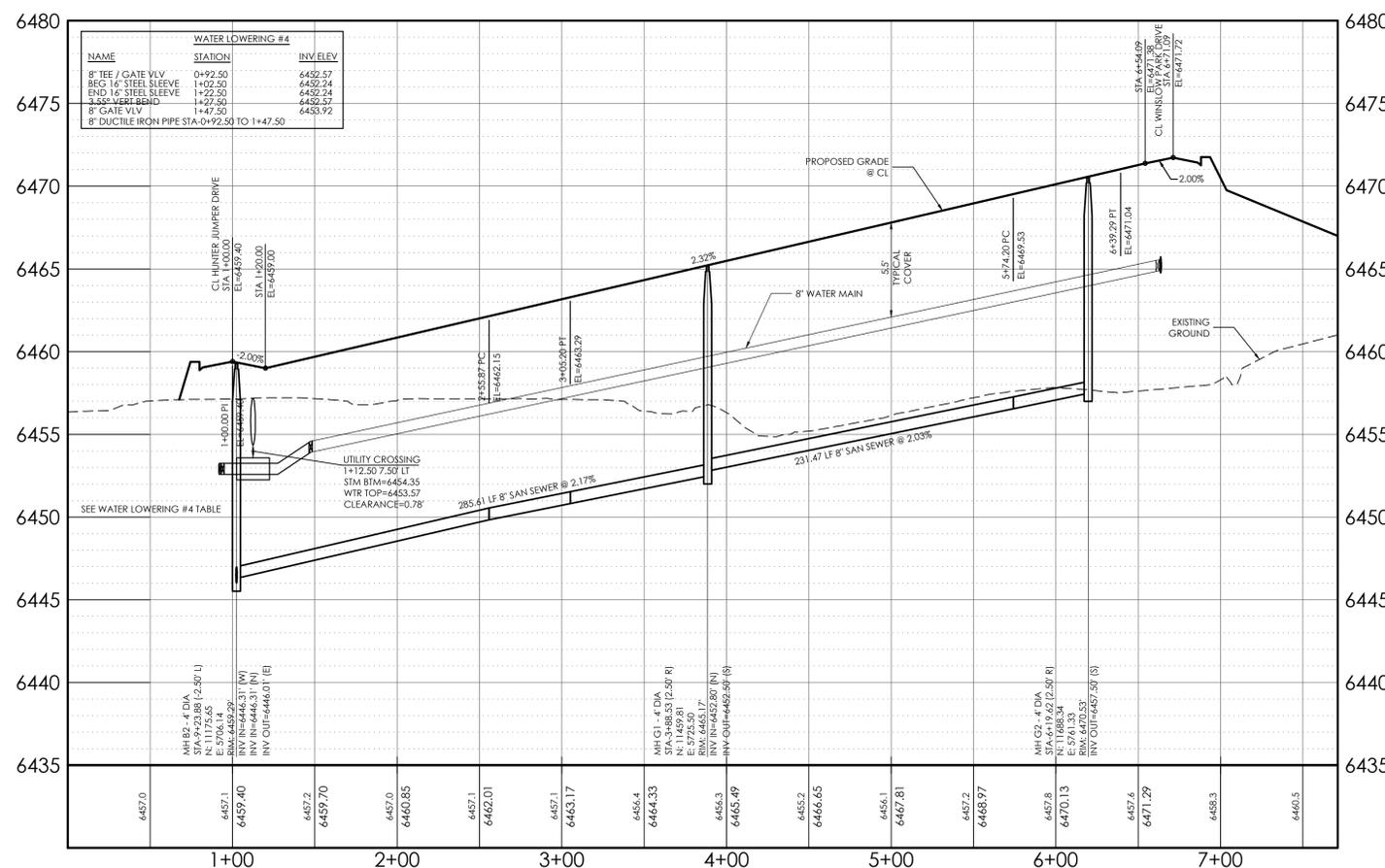
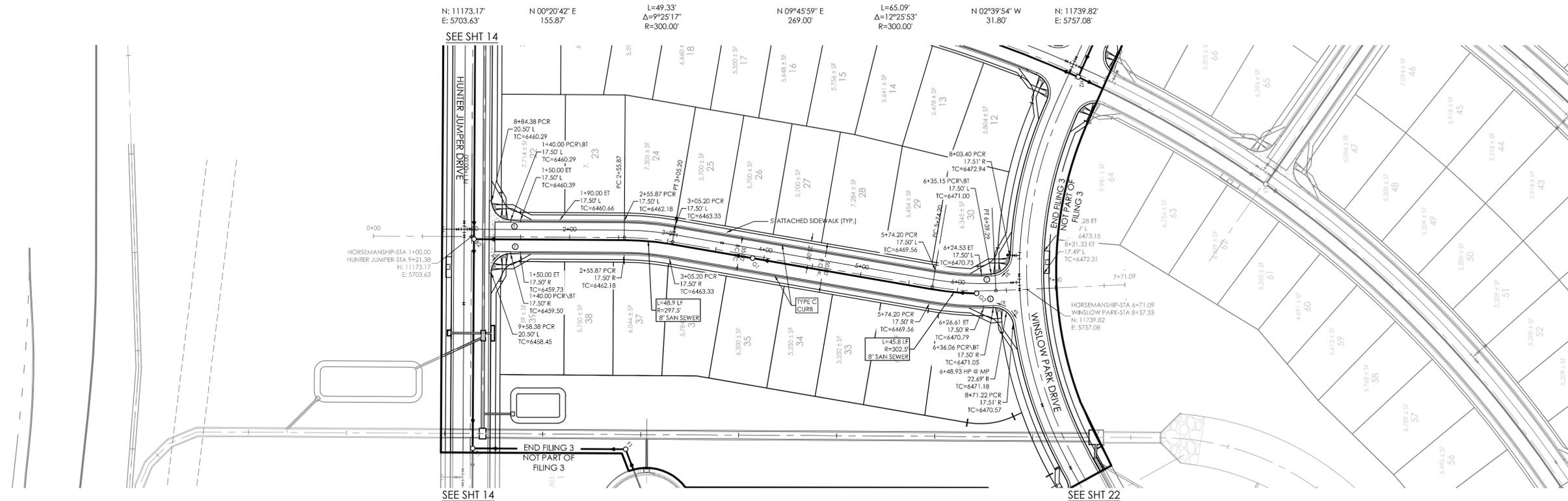


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REVISIONS

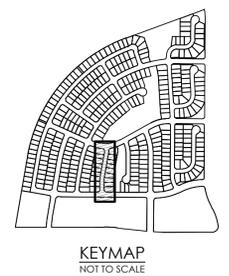
MVE PROJECT **60970**  
 MVE DRAWING **60970041-F3**  
**JULY 25, 2017**  
 DESIGNED BY TJW  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**GRAND PRIX COURT PLAN/ PROFILE**  
 FROM STA 1+00.00  
 TO STA 12+00.00  
 HANNAH RIDGE AT FEATHERGRASS NO. 3



**LEGEND**  
 (I) CURB TRANSITIONS BETWEEN TYPE A AND TYPE C (MODIFIED)

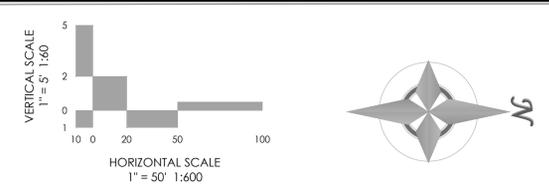
**CURVILINEAR SEWER PIPE NOTE:**  
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THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).  
 BASIS OF BEARINGS:  
 BEARING REFERRED TO HEREIN ARE BASED ON THE SOUTH LINE OF TRACT FF, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ASSUMED TO BEAR N89°39'18"W MONUMENTED AT EACH END W/ NO. 5 REBAR W/ ALUMIN CAP MARKED "POLARIS, PLS 27605".

**DESIGN DATA:**  
 SIDEWALKS: WIDTH 5'  
 LOCATION: Attached  Detached   
 DESIGN SPEED \_\_\_\_\_  
 CURB TYPE:  A  B  C  D  E  
 ROW WIDTH: 50' FL-FL 32.33'  
 STREET TYPE: LOCAL

**PAVEMENT:**  
 TYPE: HMA  PCC   
 THICKNESS: \_\_\_\_\_  
 COMPOSITE SECTION:  
 HMA \_\_\_\_\_ BASE \_\_\_\_\_  
 SUBGRADE STABILIZATION:  
 CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



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REVISIONS

MVE PROJECT **60970**  
 MVE DRAWING **60970049-F3**  
**JULY 25, 2017**  
 DESIGNED BY TJW  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**HORSEMANSHIP COURT PLAN/ PROFILE**  
 FROM STA 1+00.00  
 TO STA 6+71.09  
 HANNAH RIDGE AT FEATHERGRASS NO. 3

HUNTER JUMPER DRIVE  
CENTERLINE DATA:

STA-1+00.00  
N: 11228.52  
E: 4886.61

S 80°14'01" E  
255.00'

STA-3+55.00  
N: 11185.27  
E: 5137.92

S 80°14'01" E  
28.41'

L=49.33'  
Δ=9°25'17"  
R=300.00'

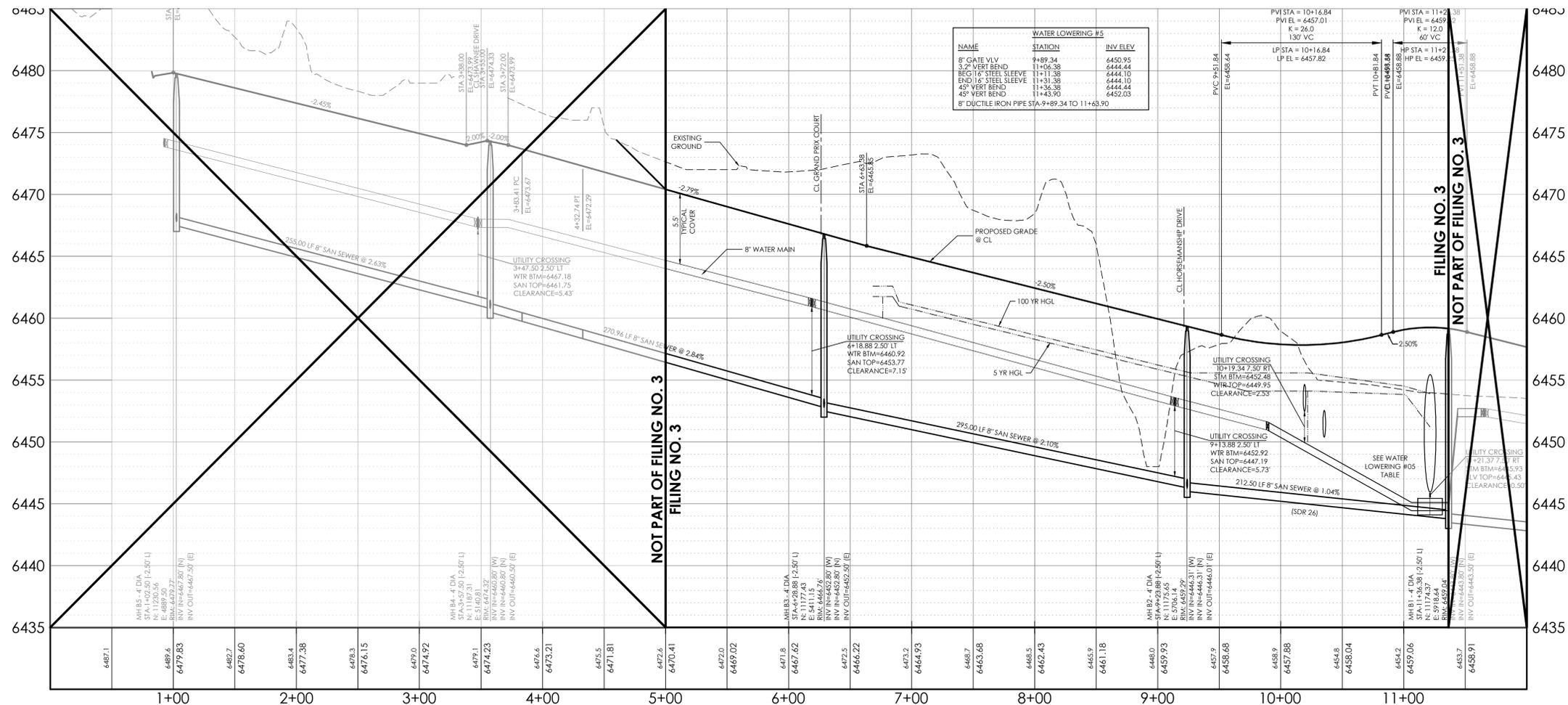
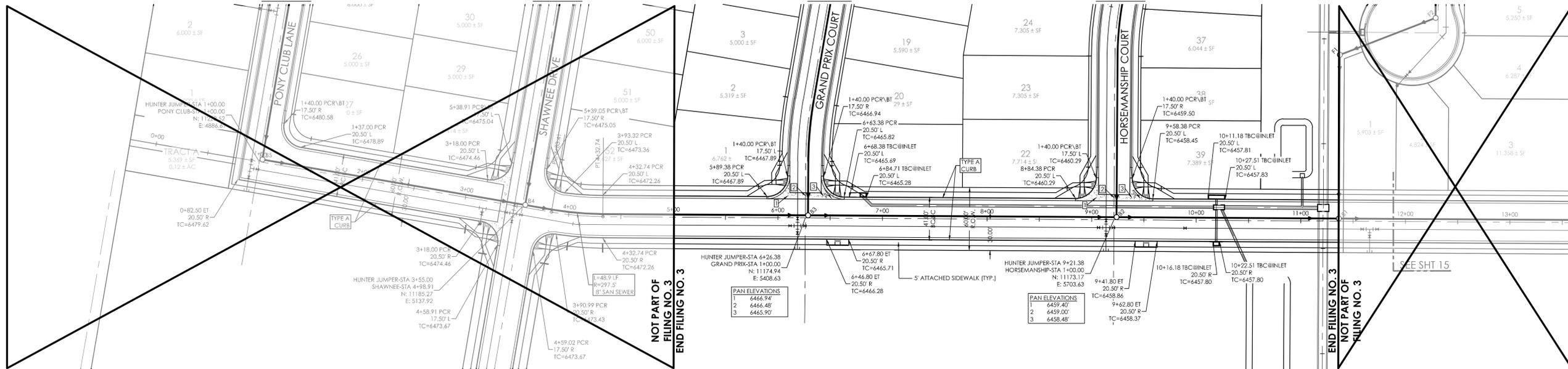
S 89°39'18" E  
195.64'

STA-6+36.28  
N: 11174.94  
E: 5703.63

S 89°39'18" E  
295.00'

STA-9+21.38  
N: 11173.17  
E: 5703.63

S 89°39'18" E  
573.81'

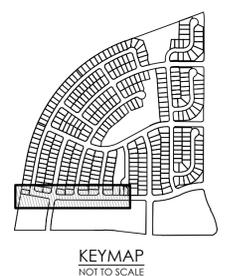


NOTES:

SEE STREET / STORM DRAIN PHASING PLAN FOR PHASED CONSTRUCTION LIMITS.

SEE UTILITY PHASING PLAN FOR PHASED CONSTRUCTION LIMITS AND REQUIRED INTERIM MEASURES.

CURVILINEAR SEWER PIPE NOTE: THERE IS NO DEFLECTION ALLOWED AT THE JOINTS ON 12-INCH AND SMALLER SEWER PIPE. NOTICE: MECHANICAL MEANS SHOULD NOT BE EMPLOYED TO ACCOMPLISH THESE RADII. IT IS THE INTENT THAT THE WORKER SHOULD ACCOMPLISH THIS MANUALLY IN THE TRENCH. ON 4-INCH TO 12-INCH SEWER PIPE, THE CURVE SHOULD BE ACCOMPLISHED BY BENDING THE PIPE RATHER THAN DEFLECTING JOINTS. THERE SHALL BE NO DEFLECTION IN THE JOINTS UPON COMPLETION TO AVOID OVER-STRESSING THE BELL AND/OR LEAKS.

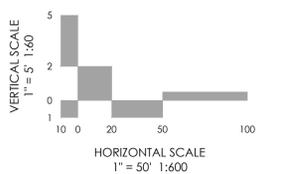


THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).

BASES OF BEARINGS: BEARING REFERRED TO HEREIN ARE BASED ON THE SOUTH LINE OF TRACT FF, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ASSUMED TO BEAR N89°39'18"W MONUMENTED AT EACH END W/ NO. 5 REBAR W/ ALUMIN CAP MARKED "POLARIS, PLS 27605".

**DESIGN DATA:**  
 SIDEWALKS: WIDTH 5'  
 LOCATION: Attached  Detached   
 DESIGN SPEED \_\_\_\_\_  
 CURB TYPE:  B  C  D  E  
 ROW WIDTH: 60' FL-FL 40.00'  
 STREET TYPE: LOCAL

**PAVEMENT:**  
 TYPE: HMA  PCC   
 THICKNESS: \_\_\_\_\_  
 COMPOSITE SECTION:  
 HMA \_\_\_\_\_ BASE \_\_\_\_\_  
 SUBGRADE STABILIZATION:  
 CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



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REVISIONS

MVE PROJECT **60970**  
 MVE DRAWING **60970050-F3**  
**JULY 25, 2017**  
 DESIGNED BY TJW  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILT BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**HUNTER JUMPER DRIVE PLAN/ PROFILE**  
 FROM STA 1+00.00  
 TO STA 12+00.00  
 HANNAH RIDGE AT FEATHERGRASS NO. 3

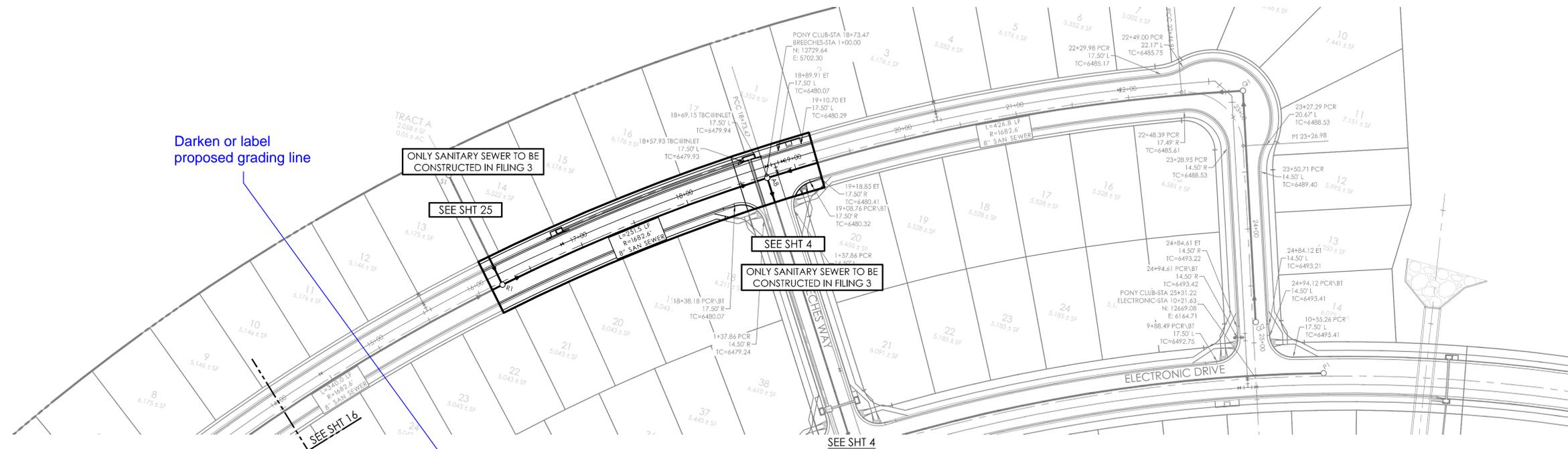
L=635.99'  
 $\Delta=21^{\circ}37'30''$   
 R=1685.08'

N: 12729.64'  
 E: 5702.30'

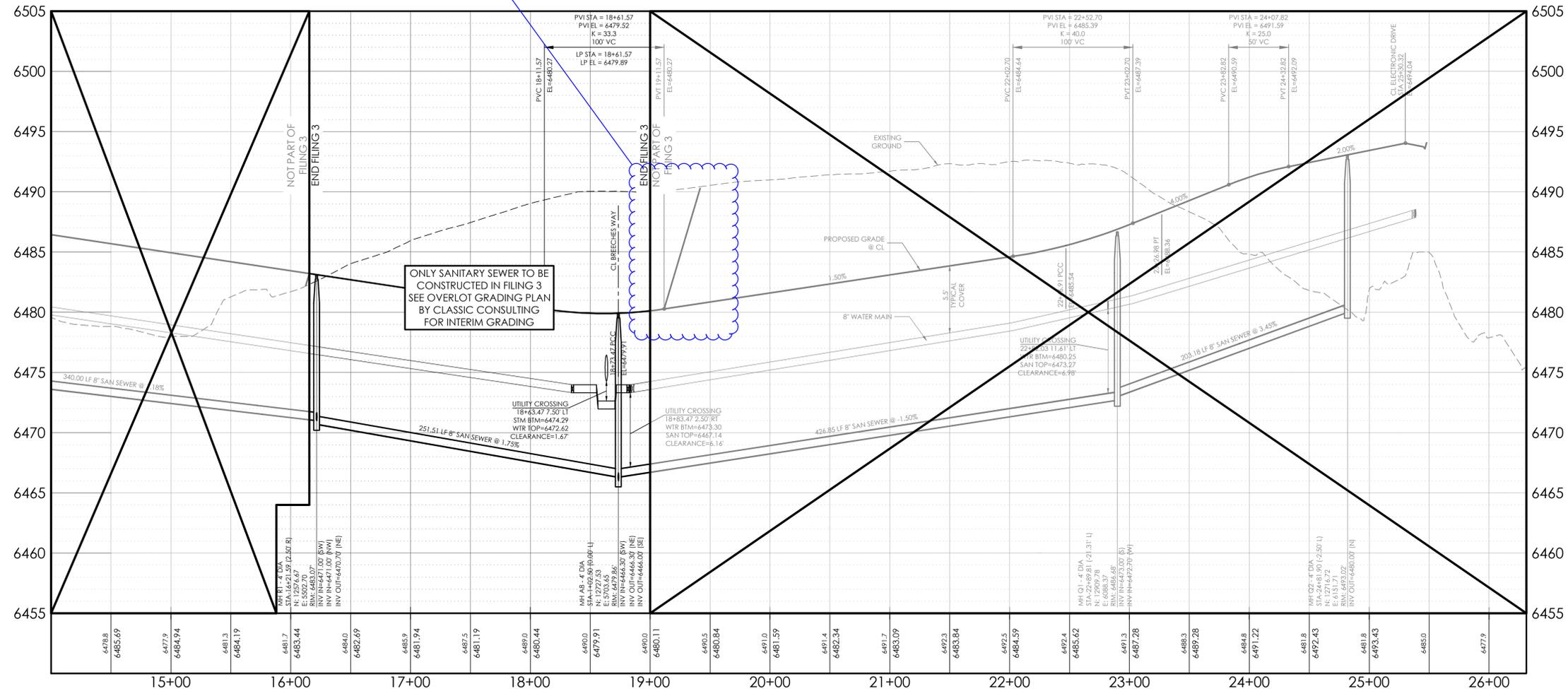
L=373.44'  
 $\Delta=12^{\circ}41'52''$   
 R=1685.08'

L=80.07'  
 $\Delta=91^{\circ}45'08''$   
 R=50.00'

S 18°09'54" E  
 204.24'  
 N: 12669.08'  
 E: 6164.71'



SEE SHT 21



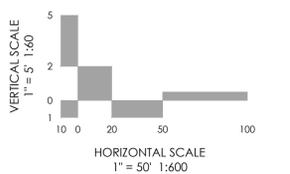
**CURVILINEAR SEWER PIPE NOTE:**  
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THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).  
 BASIS OF BEARINGS:  
 BEARING REFERRED TO HEREIN ARE BASED ON THE SOUTH LINE OF TRACT FF, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ASSUMED TO BEAR N89°39'18"W MONUMENTED AT EACH END W/ NO. 5 REBAR W/ ALUMIN CAP MARKED "POLARIS, PLS 27605".

**DESIGN DATA:**  
 SIDEWALKS: WIDTH 5'  
 LOCATION: Attached  Detached   
 DESIGN SPEED \_\_\_\_\_  
 CURB TYPE: A  B  C  D   
 ROW WIDTH: 50' FL-FL 32.33'  
 STREET TYPE: LOCAL

**PAVEMENT:**  
 TYPE: HMA  PCC   
 THICKNESS: \_\_\_\_\_  
 COMPOSITE SECTION:  
 HMA \_\_\_\_\_ BASE \_\_\_\_\_  
 SUBGRADE STABILIZATION:  
 CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_

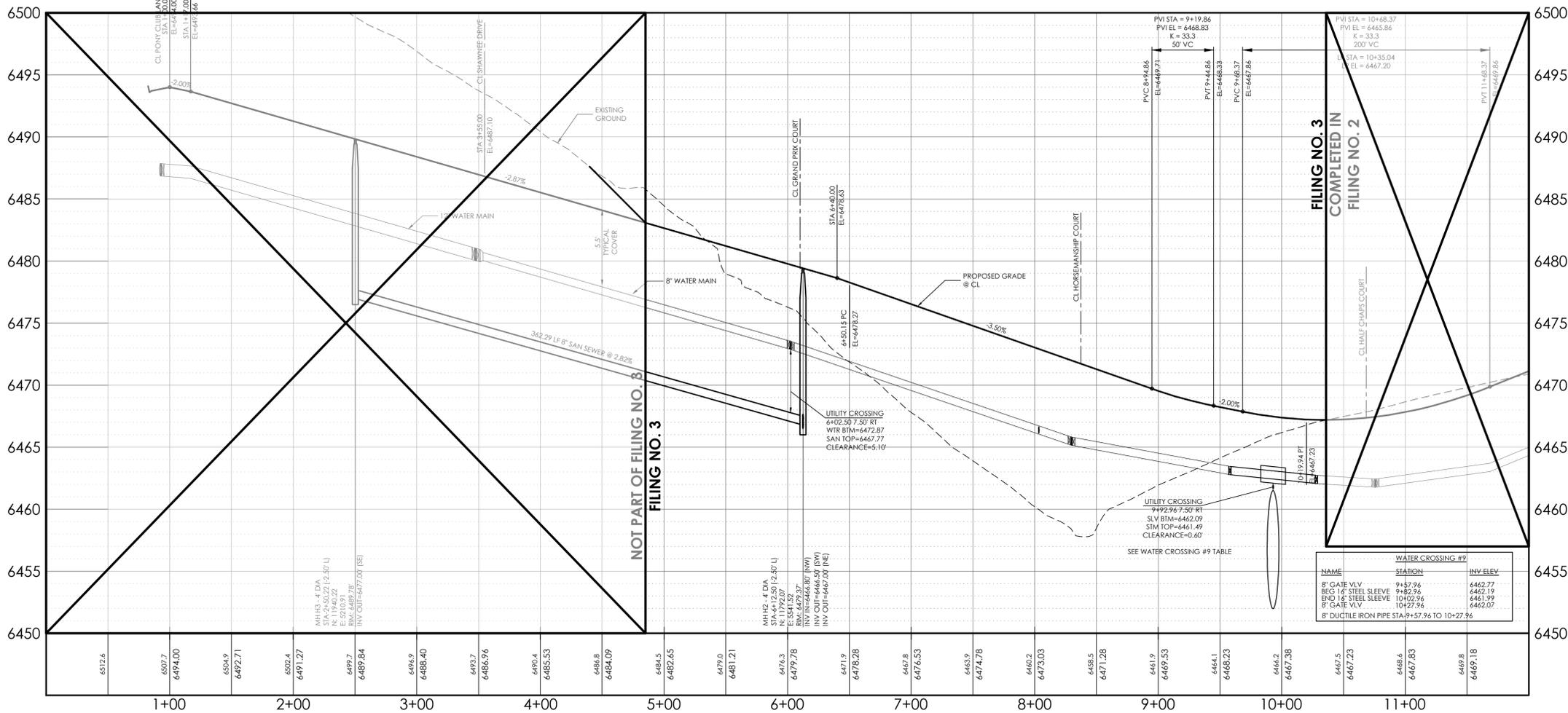
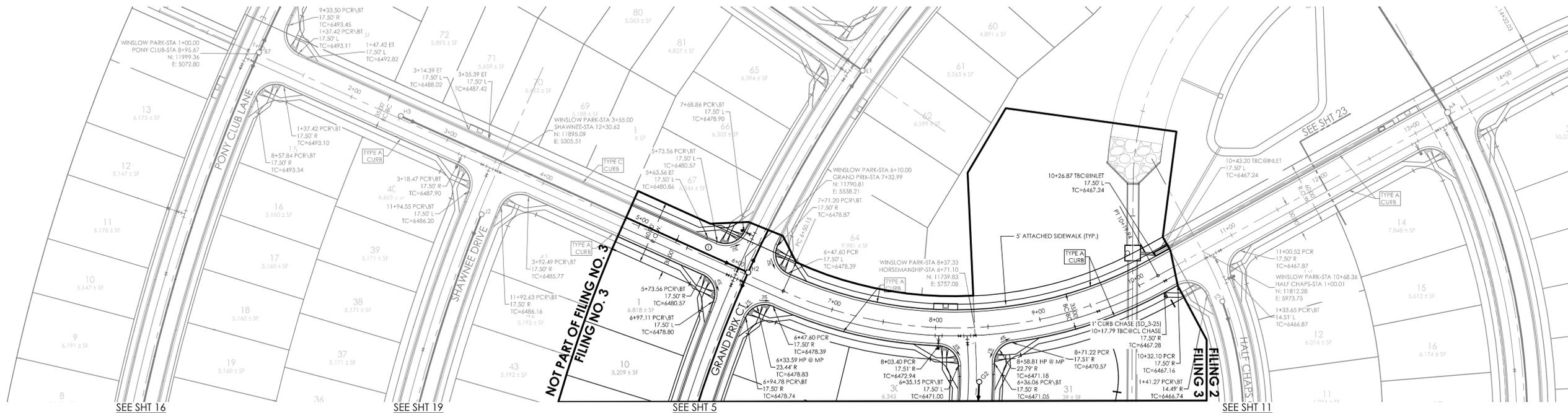


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REVISIONS

MVE PROJECT **60970**  
 MVE DRAWING **60970053-F3**  
**JULY 25, 2017**  
 DESIGNED BY TJW 8/22/2013  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

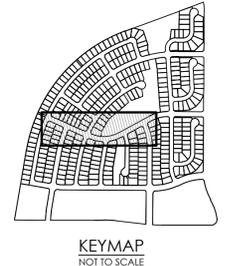
**PONY CLUB LANE PLAN/ PROFILE**  
 FROM STA 14+00.00  
 TO STA 25+30.32  
 HANNAH RIDGE AT FEATHERGRASS NO. 3



**LEGEND**  
 (C) CURB TRANSITIONS BETWEEN TYPE A AND TYPE C (MODIFIED)

**NOTES:**  
 SEE STREET / STORM DRAIN PHASING PLAN FOR PHASED CONSTRUCTION LIMITS.  
 SEE UTILITY PHASING PLAN FOR PHASED CONSTRUCTION LIMITS AND REQUIRED INTERIM MEASURES.

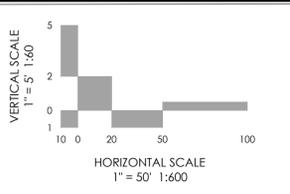
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**DESIGN DATA:**  
 SIDEWALKS: WIDTH 5'  
 LOCATION: Attached  Detached   
 DESIGN SPEED \_\_\_\_\_  
 CURB TYPE:      
 ROW WIDTH: 60' FL-FL VARIES  
 STREET TYPE: LOCAL

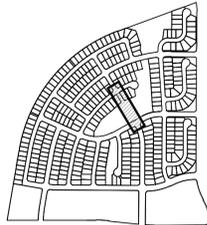
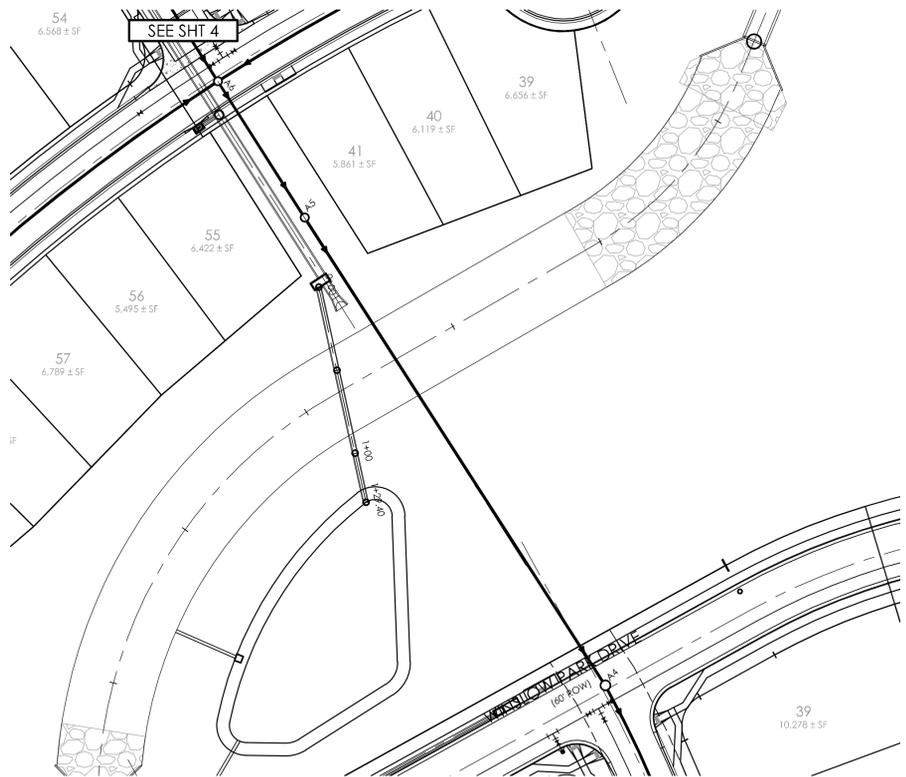
**PAVEMENT:**  
 TYPE: HMA  PCC   
 THICKNESS: \_\_\_\_\_  
 COMPOSITE SECTION:  
 HMA \_\_\_\_\_ BASE \_\_\_\_\_  
 SUBGRADE STABILIZATION:  
 CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



REVISIONS

MVE PROJECT **60970**  
 MVE DRAWING **60970058-F3**  
**JULY 25, 2017**  
 DESIGNED BY TJW  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**WINSLOW PARK DRIVE PLAN/PROFILE**  
 FROM STA 1+00.00  
 TO STA 12+00.00  
 HANNAH RIDGE AT FEATHERGRASS NO. 3

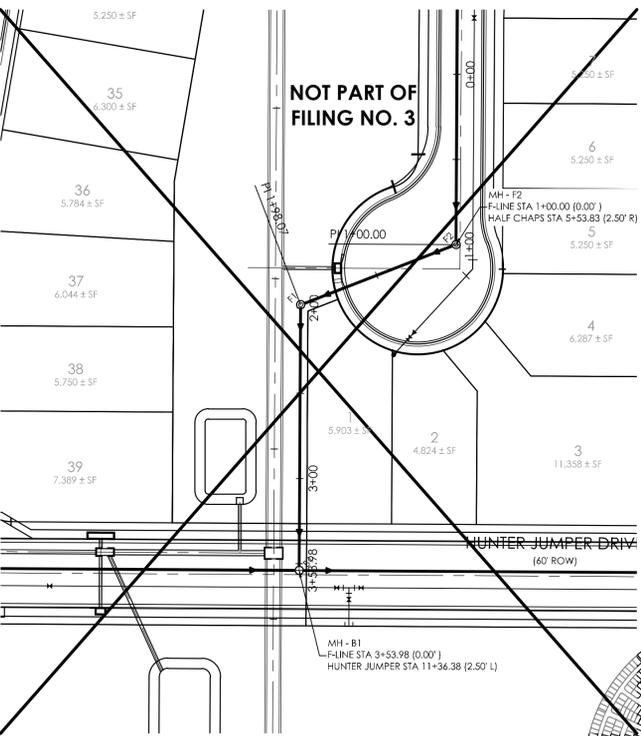


KEYMAP  
NOT TO SCALE

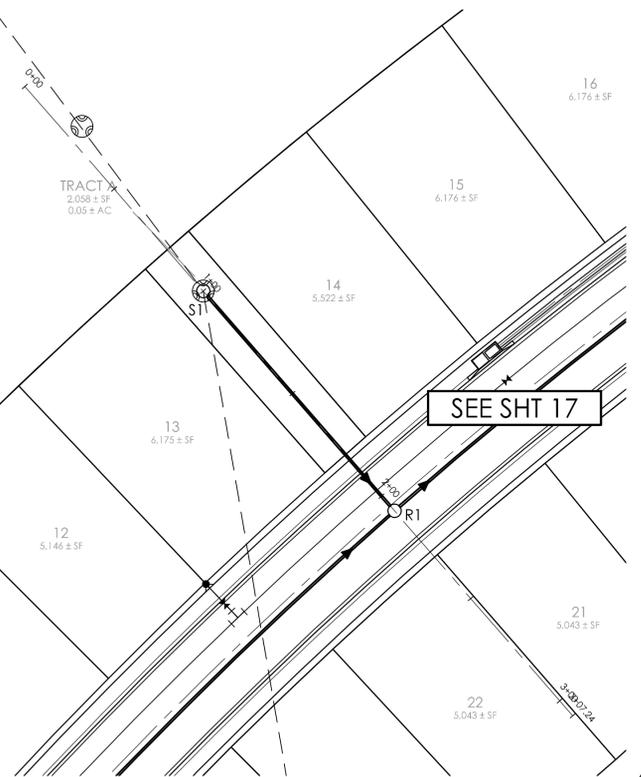
NOTES:  
SEE STREET / STORM DRAIN PHASING PLAN FOR PHASED CONSTRUCTION LIMITS.

SEE UTILITY PHASING PLAN FOR PHASED CONSTRUCTION LIMITS AND REQUIRED INTERIM MEASURES.

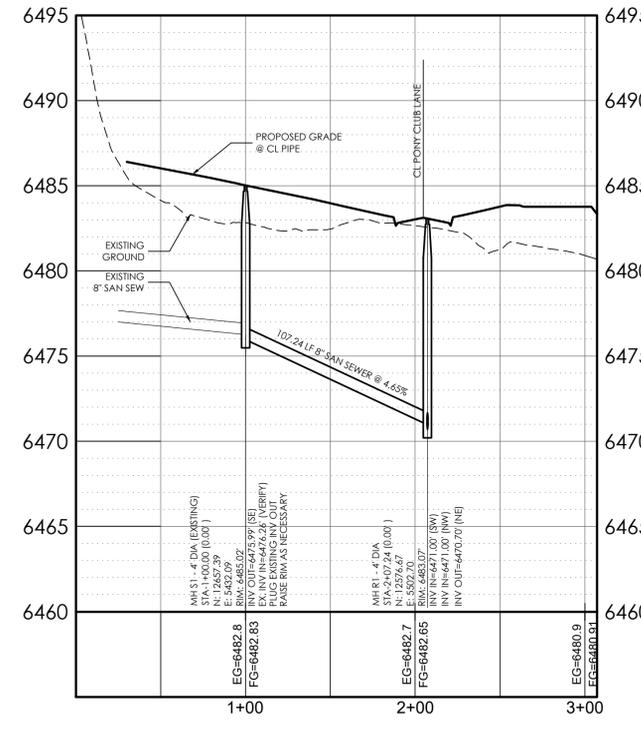
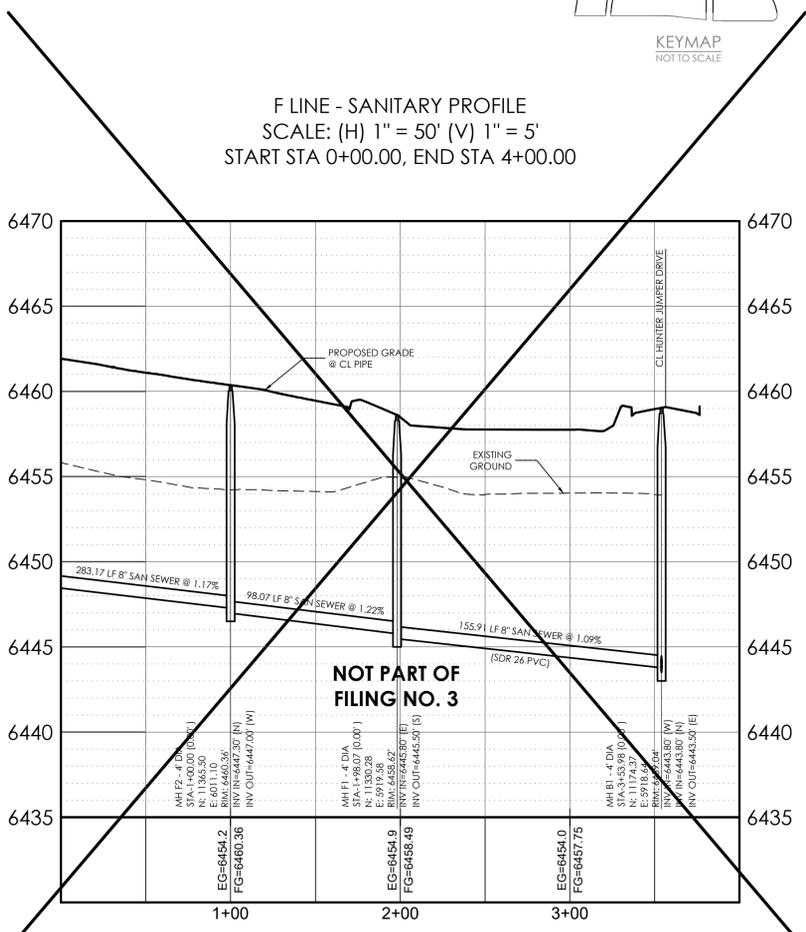
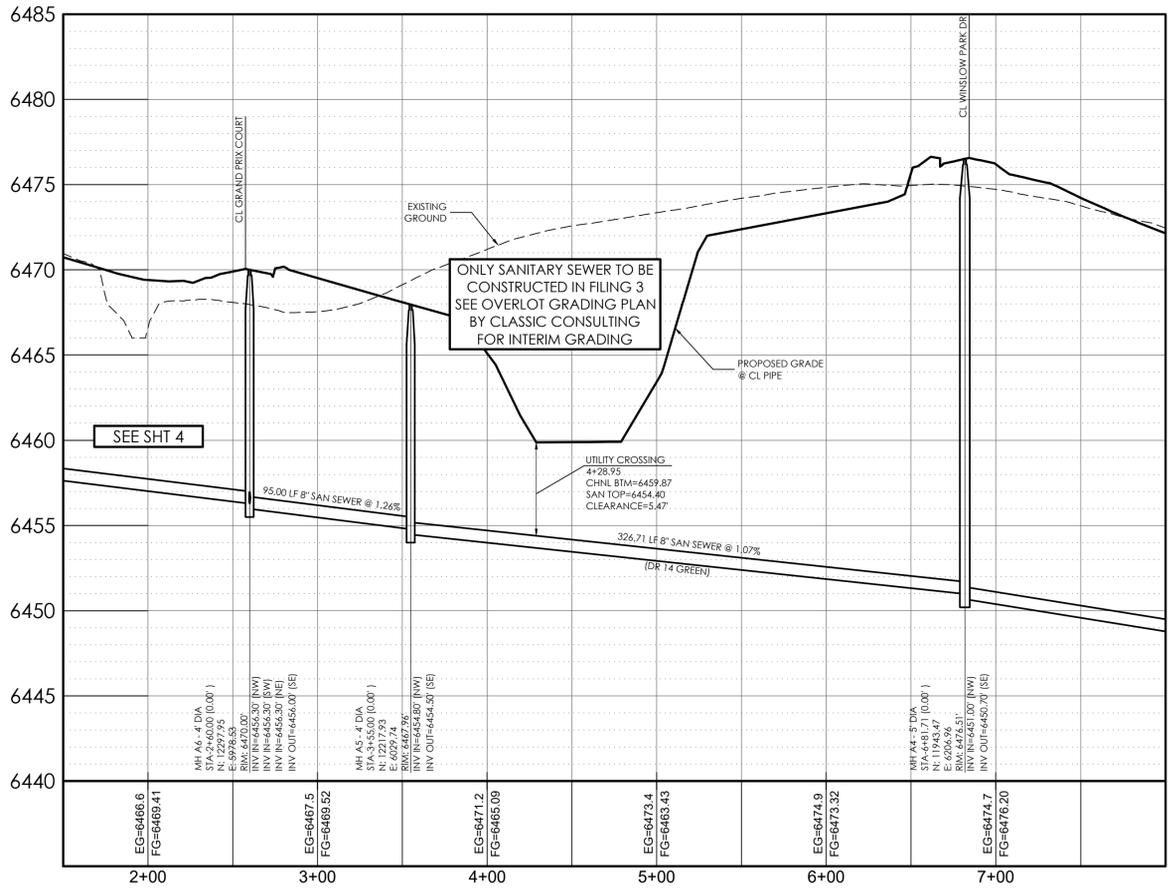
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KEYMAP  
NOT TO SCALE



KEYMAP  
NOT TO SCALE

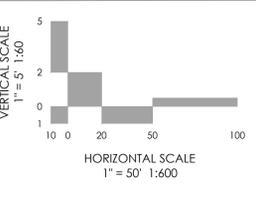


THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).

BASIS OF BEARINGS:  
BEARING REFERRED TO HEREIN ARE BASED ON THE SOUTH LINE OF TRACT FF, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ASSUMED TO BEAR N89°39'18"W MONUMENTED AT EACH END W/ NO. 5 REBAR W/ ALUMIN CAP MARKED "POLARIS, PLS 27605".

DESIGN DATA:  
SIDEWALKS: WIDTH: N/A  
LOCATION: Attached  Detached   
DESIGN SPEED: \_\_\_\_\_  
CURB TYPE:  2  3  4  5  
ROW WIDTH: N/A FL-N/A  
STREET TYPE: N/A

PAVEMENT:  
TYPE: HMA  PCC   
THICKNESS: \_\_\_\_\_  
COMPOSITE SECTION:  
HMA \_\_\_\_\_ BASE \_\_\_\_\_  
SUBGRADE STABILIZATION:  
CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



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ENGINEERS SURVEYORS

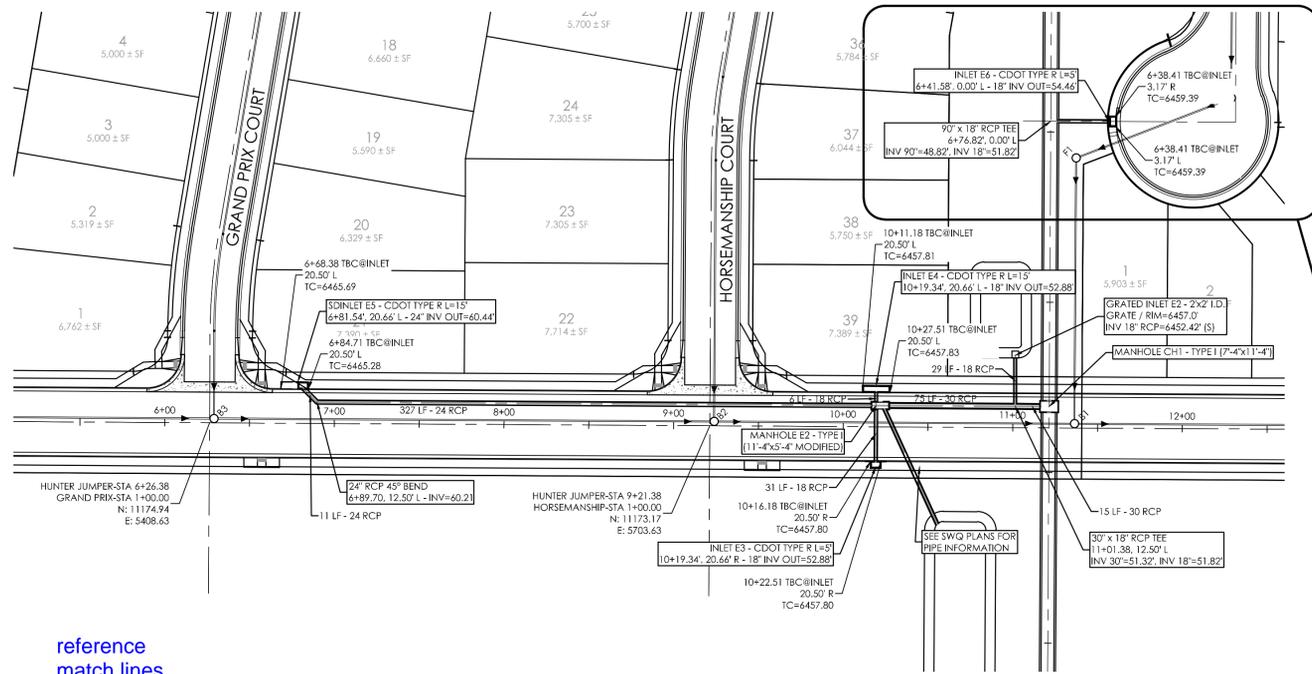
1903 Irelary street  
colorado springs  
719.635.5736

suite 200  
co 80909  
www.mvecivil.com

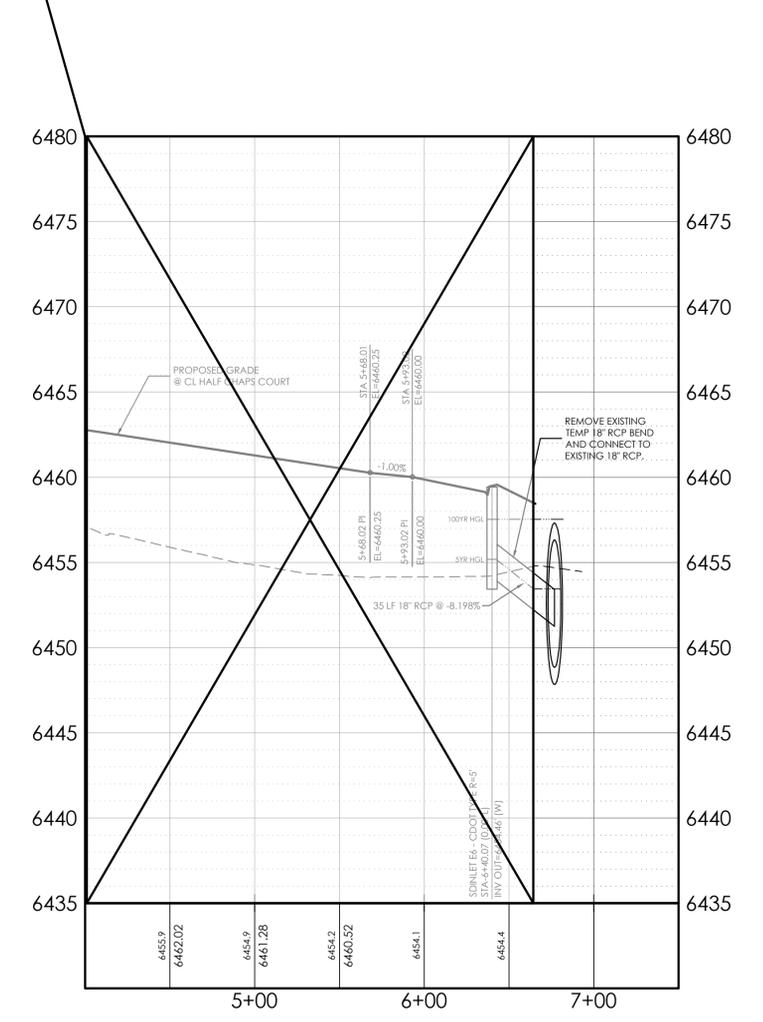
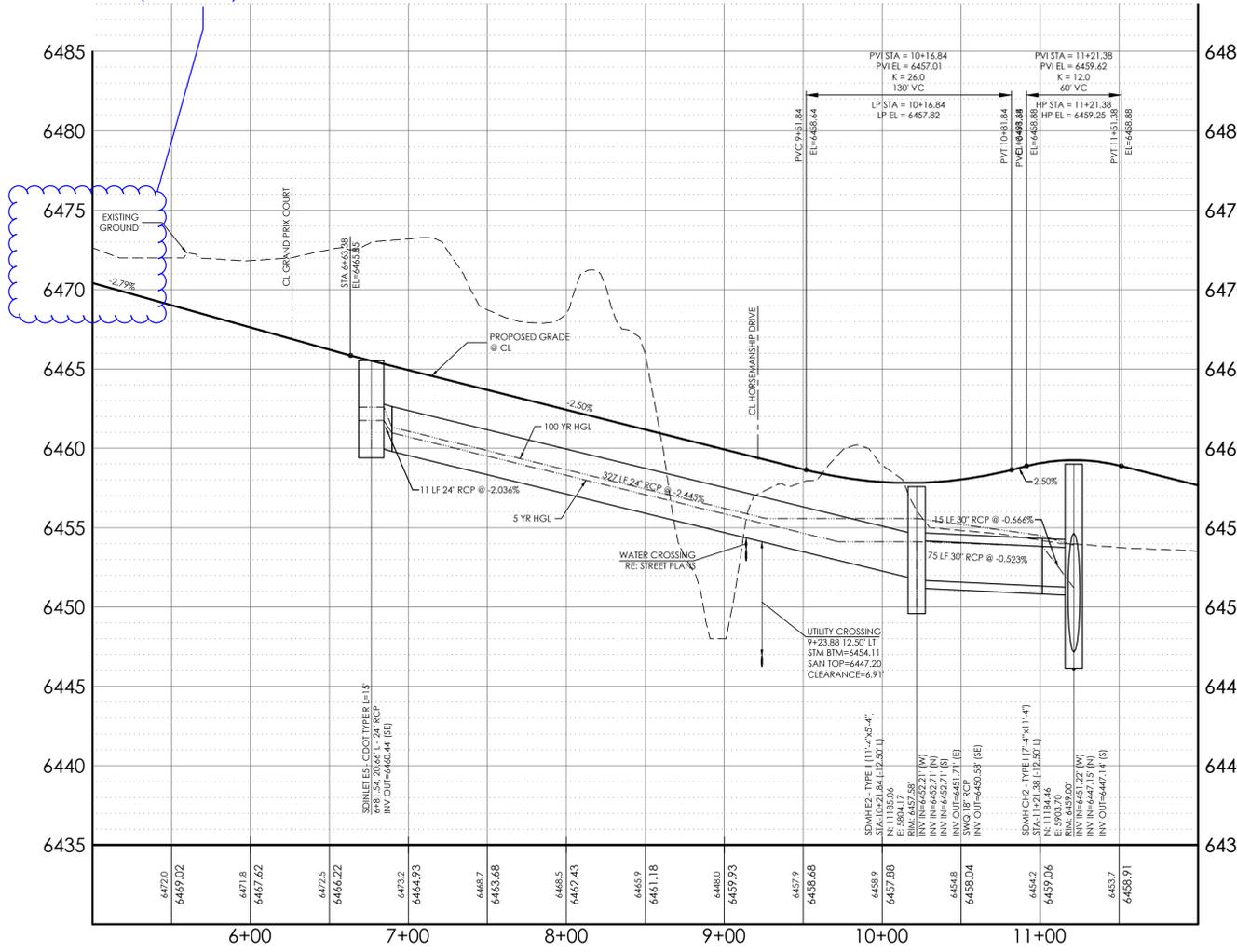
REVISIONS

MVE PROJECT **60970**  
MVE DRAWING **60970065-F3**  
**JULY 25, 2017**  
DESIGNED BY TJW  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILTS BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**MISC SANITARY PLANS/ PROFILES**  
HANNAH RIDGE AT FEATHERGRASS NO. 3  
**SHEET 25**



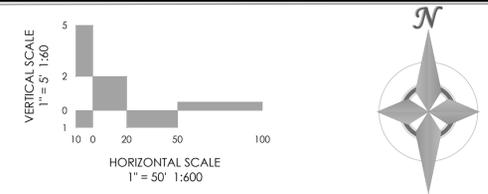
reference  
match lines  
(both ends)



THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).  
BASIS OF BEARINGS: BEARING REFERRED TO HEREIN ARE BASED ON THE SOUTH LINE OF TRACT FF, HANNAH RIDGE AT FEATHERGRASS FILING NO. 1, ASSUMED TO BEAR N89°39'18\"/>

**DESIGN DATA:**  
SIDEWALKS: WIDTH 5'  
LOCATION: Attached  Detached   
DESIGN SPEED \_\_\_\_\_  
CURB TYPE:  2  3  4  5  
ROW WIDTH: 60' FL-FL 40.00'  
STREET TYPE: LOCAL

**PAVEMENT:**  
TYPE: HMA  PCC   
THICKNESS: \_\_\_\_\_  
COMPOSITE SECTION:  
HMA \_\_\_\_\_ BASE \_\_\_\_\_  
SUBGRADE STABILIZATION:  
CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



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ENGINEERS SURVEYORS

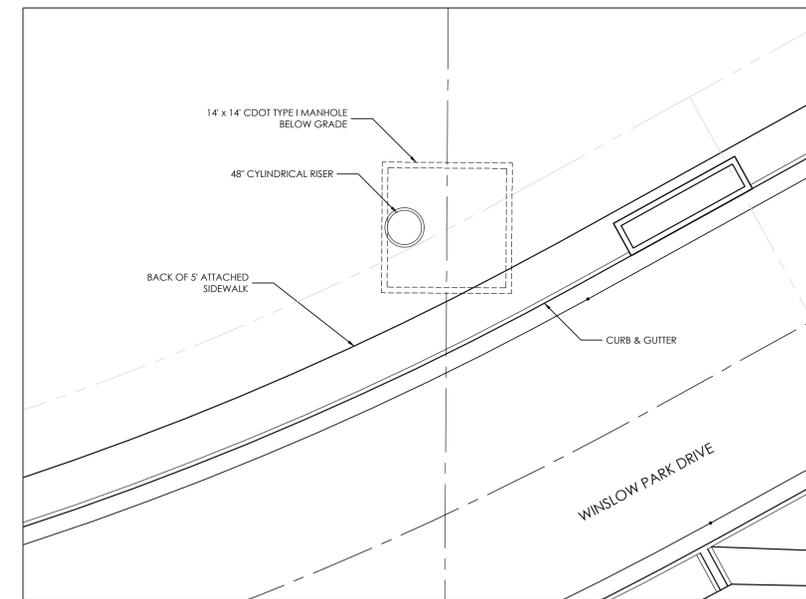
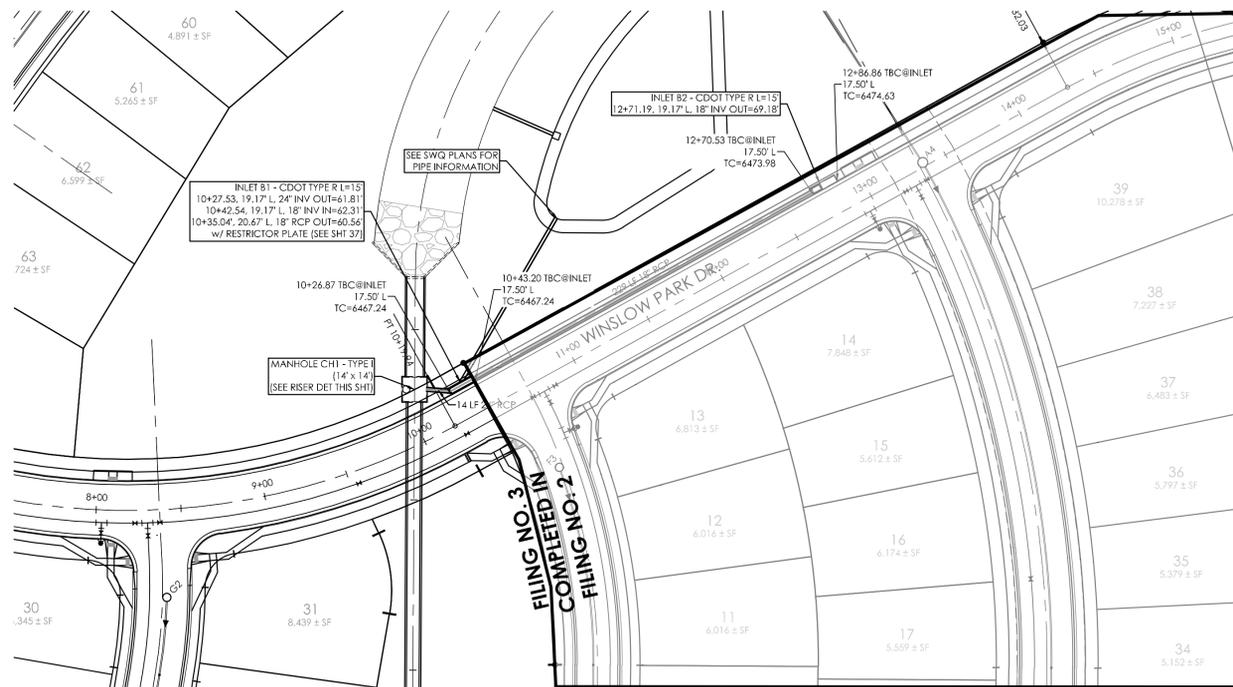
1903 Irelary street  
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719.635.5736

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co 80909  
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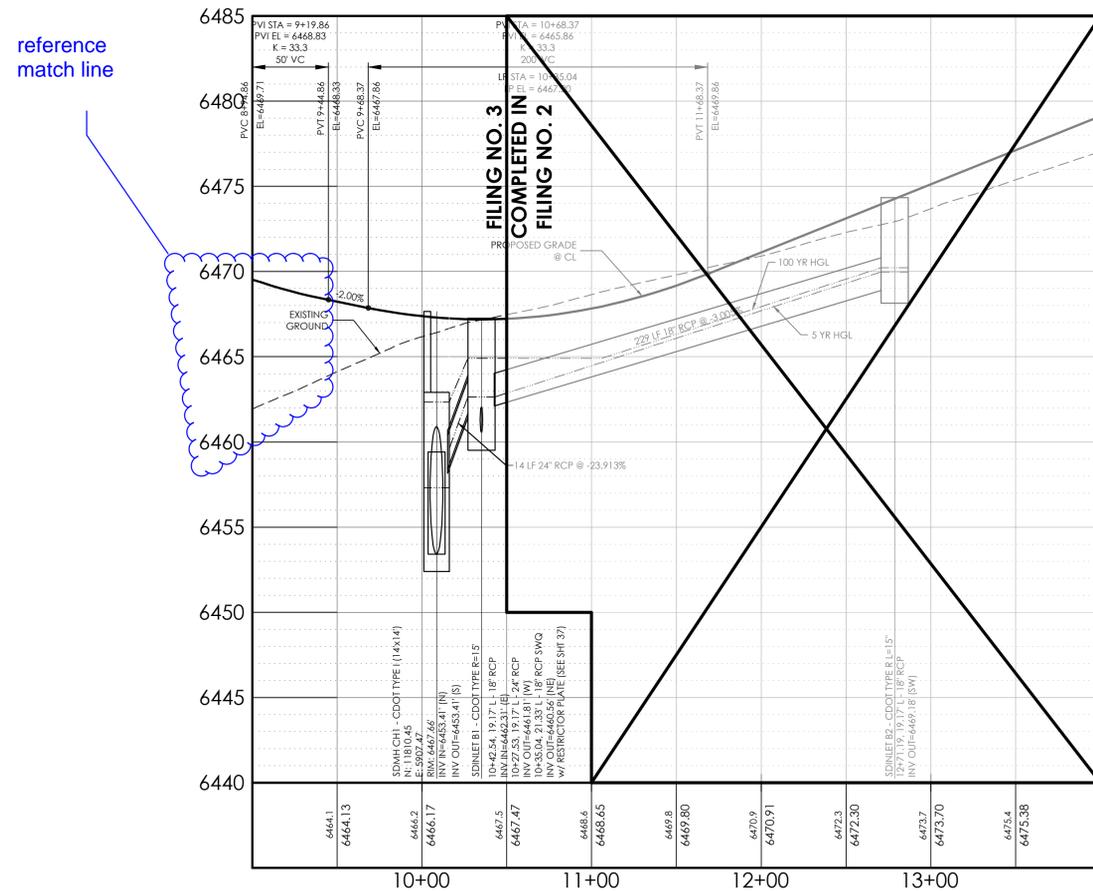
REVISIONS

MVE PROJECT **60970**  
MVE DRAWING **60970102-F3**  
**JULY 25, 2017**  
DESIGNED BY TJW  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILTS BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**HUNTER JUMPER DRIVE STORM DRAIN**  
FROM STA 6+81.54  
TO STA 11+21.38  
HANNAH RIDGE AT FEATHERGRASS NO. 3



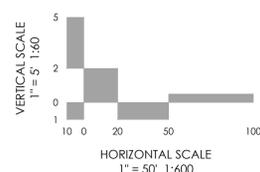
MANHOLE RISER LOCATION DETAIL  
SCALE: 1" = 10'



THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. [EPC DATUM ELEVATION = 6485.29].  
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**DESIGN DATA:**  
SIDEWALKS: WIDTH 5'  
LOCATION: Attached  Detached   
DESIGN SPEED \_\_\_\_\_  
CURB TYPE:      
ROW WIDTH: 60' FL-FL 34.00'  
STREET TYPE: LOCAL

**PAVEMENT:**  
TYPE: HMA  PCC   
THICKNESS: \_\_\_\_\_  
COMPOSITE SECTION:  
HMA \_\_\_\_\_ BASE \_\_\_\_\_  
SUBGRADE STABILIZATION:  
CHEMICAL \_\_\_\_\_ MECHANICAL \_\_\_\_\_  
TYPE \_\_\_\_\_ THICKNESS \_\_\_\_\_



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REVISIONS

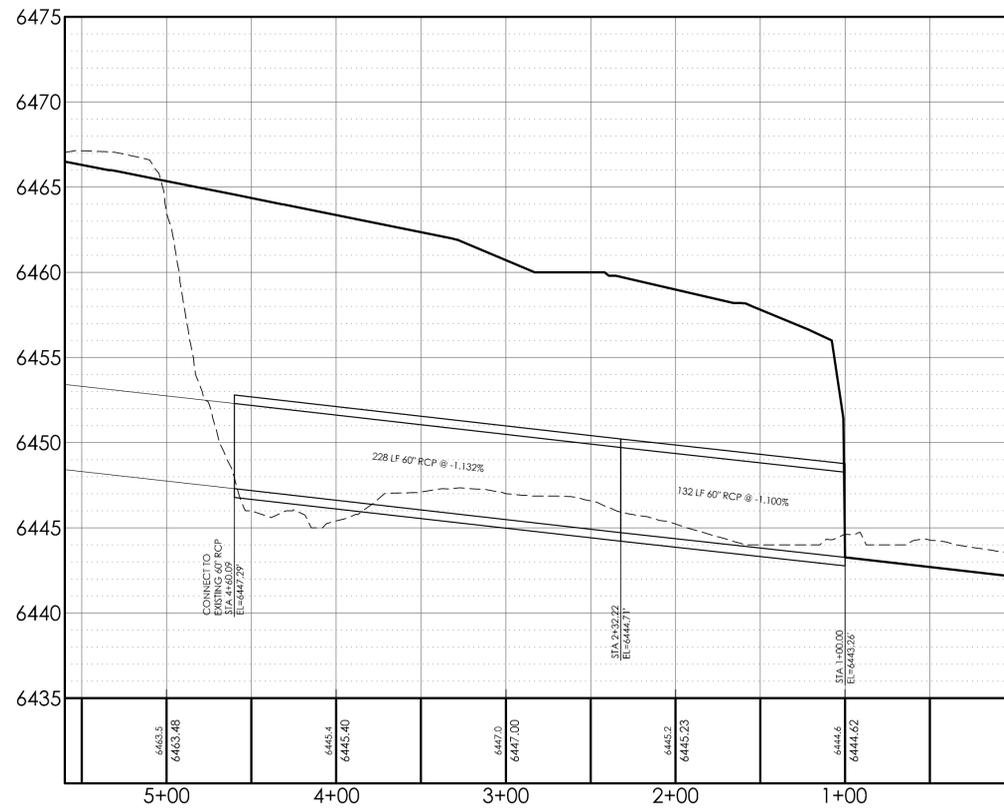
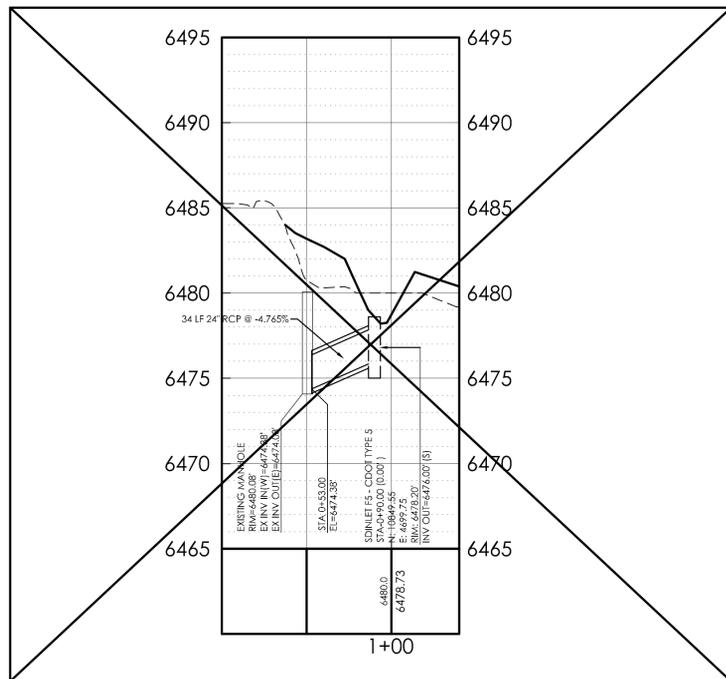
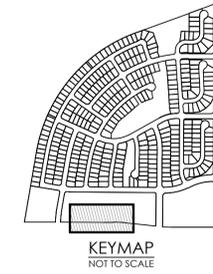
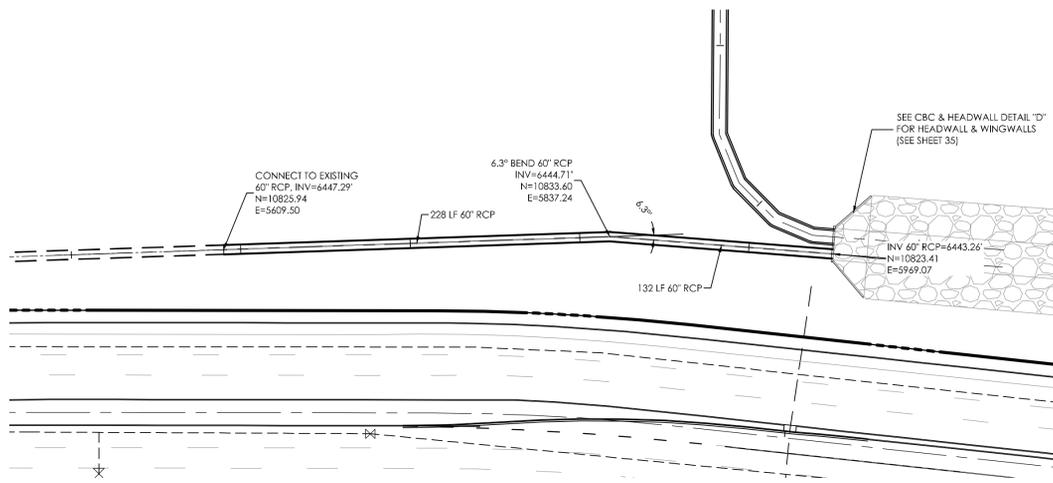
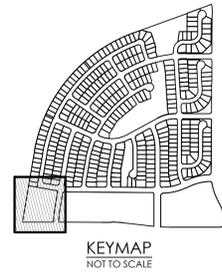
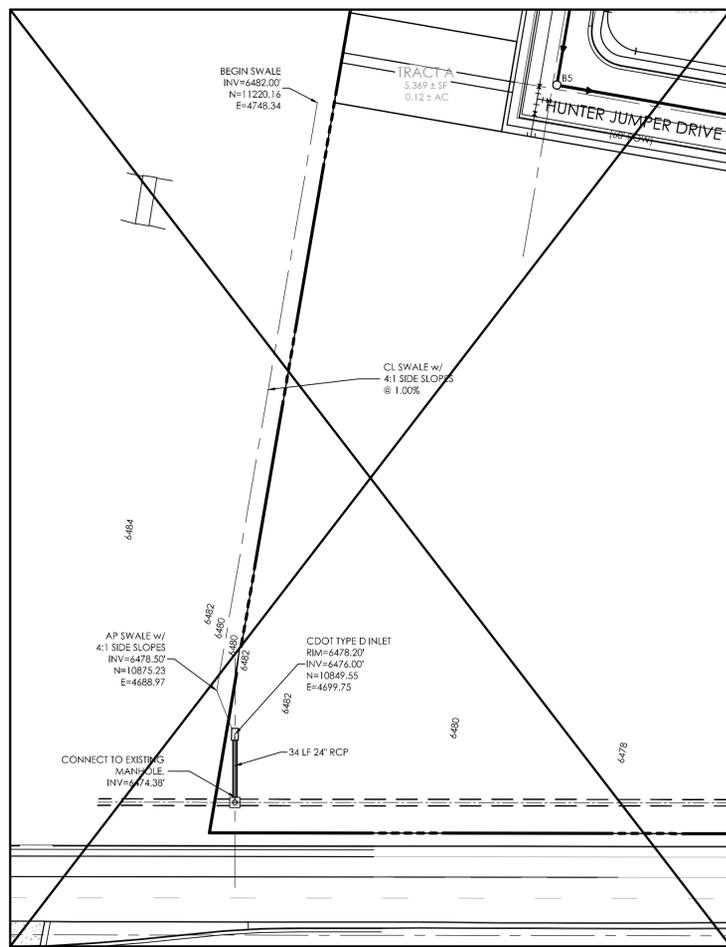
MVE PROJECT **60970**  
MVE DRAWING **60970104-F3**

**JULY 25, 2017**

DESIGNED BY TJW  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILTS BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**WINSLOW PARK  
STORM DRAIN**

HANNAH RIDGE AT FEATHERGRASS NO. 3

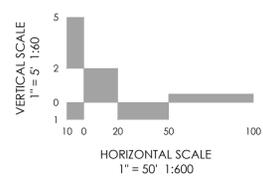


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**DESIGN DATA:**  
 SIDEWALKS: WIDTH N/A  
 LOCATION: Attached  Detached   
 DESIGN SPEED \_\_\_\_\_  
 CURB TYPE: 1  2  3  4  5   
 ROW WIDTH: N/A FL-FL N/A  
 STREET TYPE: N/A

**PAVEMENT:**  
 TYPE: HMA  PCC   
 THICKNESS: \_\_\_\_\_  
 COMPOSITE SECTION:  
 HMA \_\_\_\_\_ BASE \_\_\_\_\_  
 SUBGRADE STABILIZATION:  
 CHEMICAL TYPE \_\_\_\_\_ MECHANICAL THICKNESS \_\_\_\_\_



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REVISIONS

MVE PROJECT **60970**  
 MVE DRAWING **60970066-F3**

**JULY 25, 2017**

DESIGNED BY TJW  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**MISC STORM PLANS/ PROFILES**

HANNAH RIDGE AT FEATHERGRASS NO. 3

**SHEET 31**

STA: 1+00.00 N: 10833.38' E: 5969.84'  
 STA: 1+13.03 N: 10834.38' E: 5956.85'  
 STA: 1+17.08 N: 10843.72' E: 5934.67'  
 STA: 1+67.40 N: 10865.29' E: 5913.38'  
 STA: 1+97.71 N: 10893.37' E: 5901.95'

STA: 4+88.82 N: 11184.46' E: 5903.70'

STA: 6+56.32 N: 11351.96' E: 5904.71'

STA: 11+14.82 N: 11810.45' E: 5907.47'

STA: 11+80.82 N: 11876.45' E: 5907.86'

STA: 14+68.09 N: 12113.42' E: 6046.19'

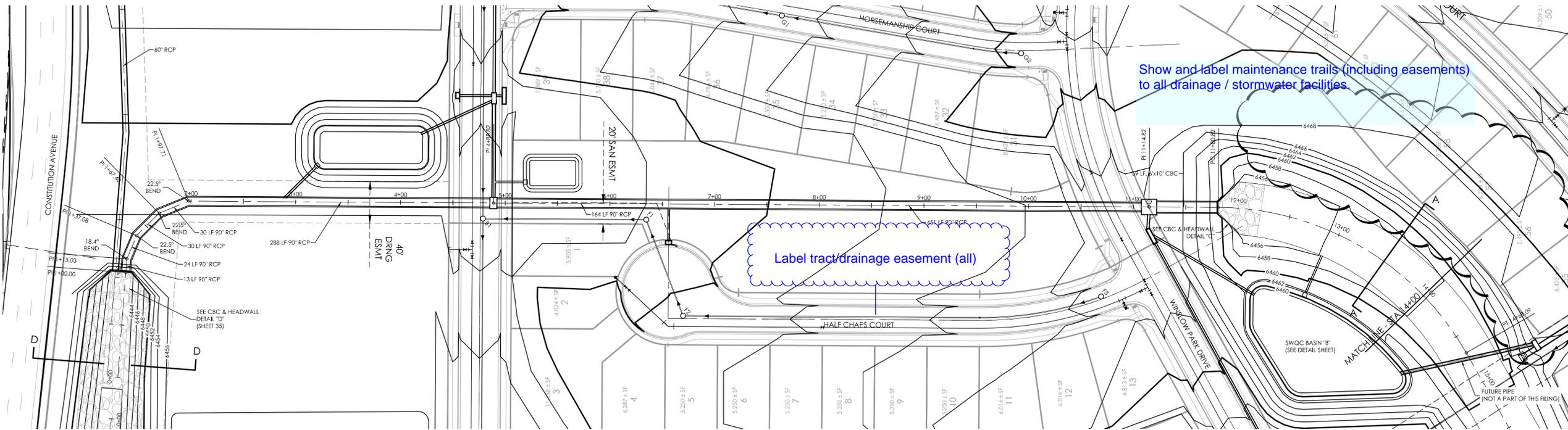
N 85°34'48" W 13.03'  
 N 67°09'18" W 24.05'  
 N 44°39'18" W 30.32'  
 N 22°09'18" W 30.32'  
 N 00°20'42" W 291.10'

N 00°20'42" W 167.50'

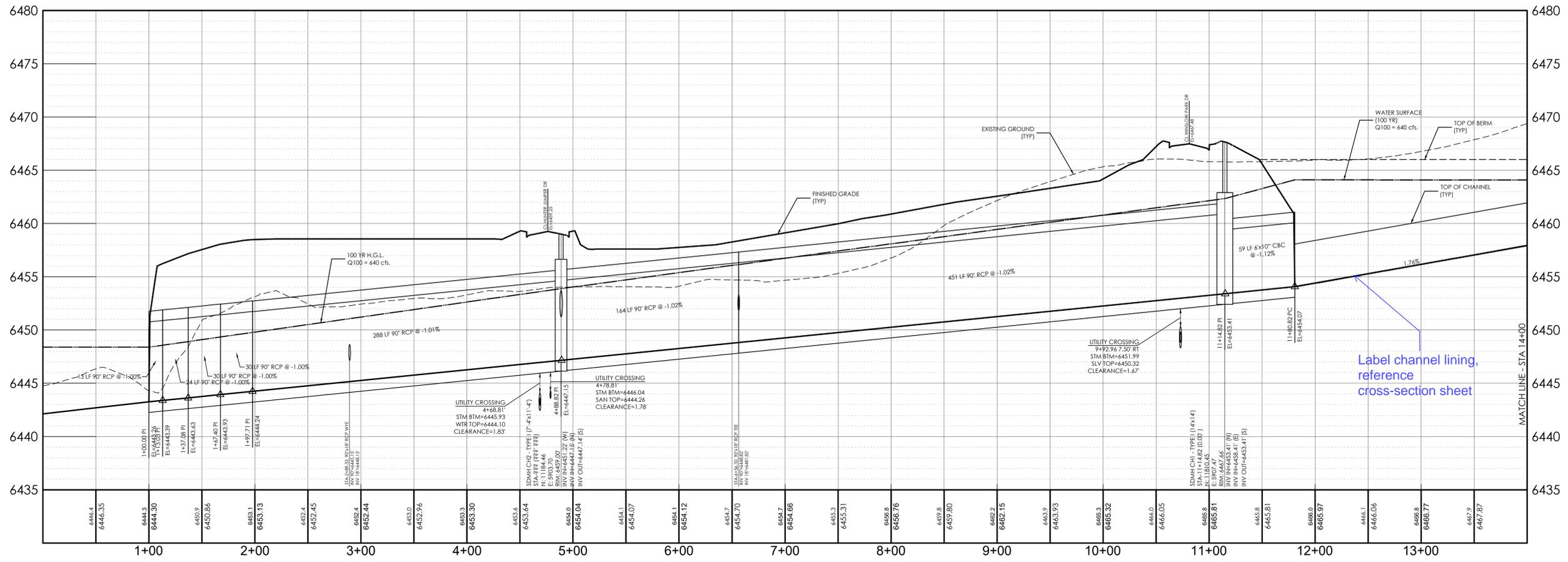
N 00°20'42" W 458.50'

N 00°20'42" W 66.00'

L=287.27'  
 $\Delta=59^\circ51'13"$   
 R=275.00'



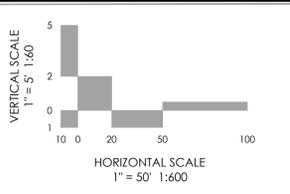
SEE GRADING PLAN BY CLASSIC CONSULTING FOR TEMPORARY TRANSITION FROM EXISTING GRADE TO PROPOSED CHANNEL.



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**DESIGN DATA:**  
 SIDEWALKS: WIDTH N/A  
 LOCATION: Attached  Detached   
 DESIGN SPEED N/A  
 CURB TYPE: 1  2  3  4  5   
 ROW WIDTH: N/A FL N/A  
 STREET TYPE: N/A

**PAVEMENT:**  
 TYPE: HMA  PCC   
 THICKNESS: N/A  
 COMPOSITE SECTION:  
 HMA N/A BASE N/A  
 SUBGRADE STABILIZATION:  
 CHEMICAL TYPE N/A MECHANICAL THICKNESS N/A

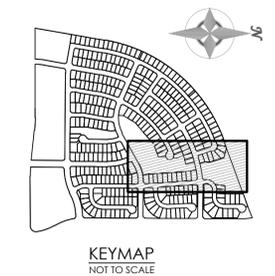
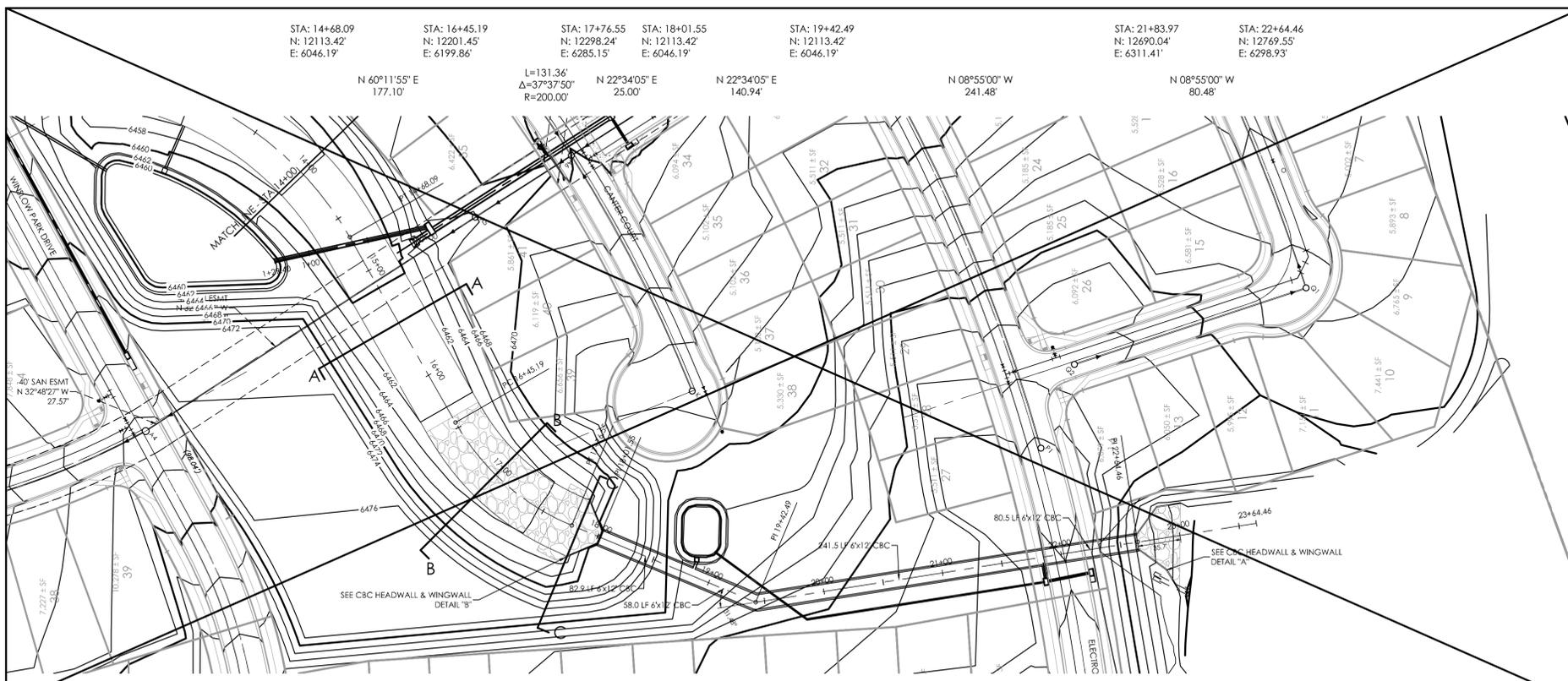


**MVE, INC.**  
 ENGINEERS SURVEYORS  
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 suite 200 co 80909 www.mvecivil.com

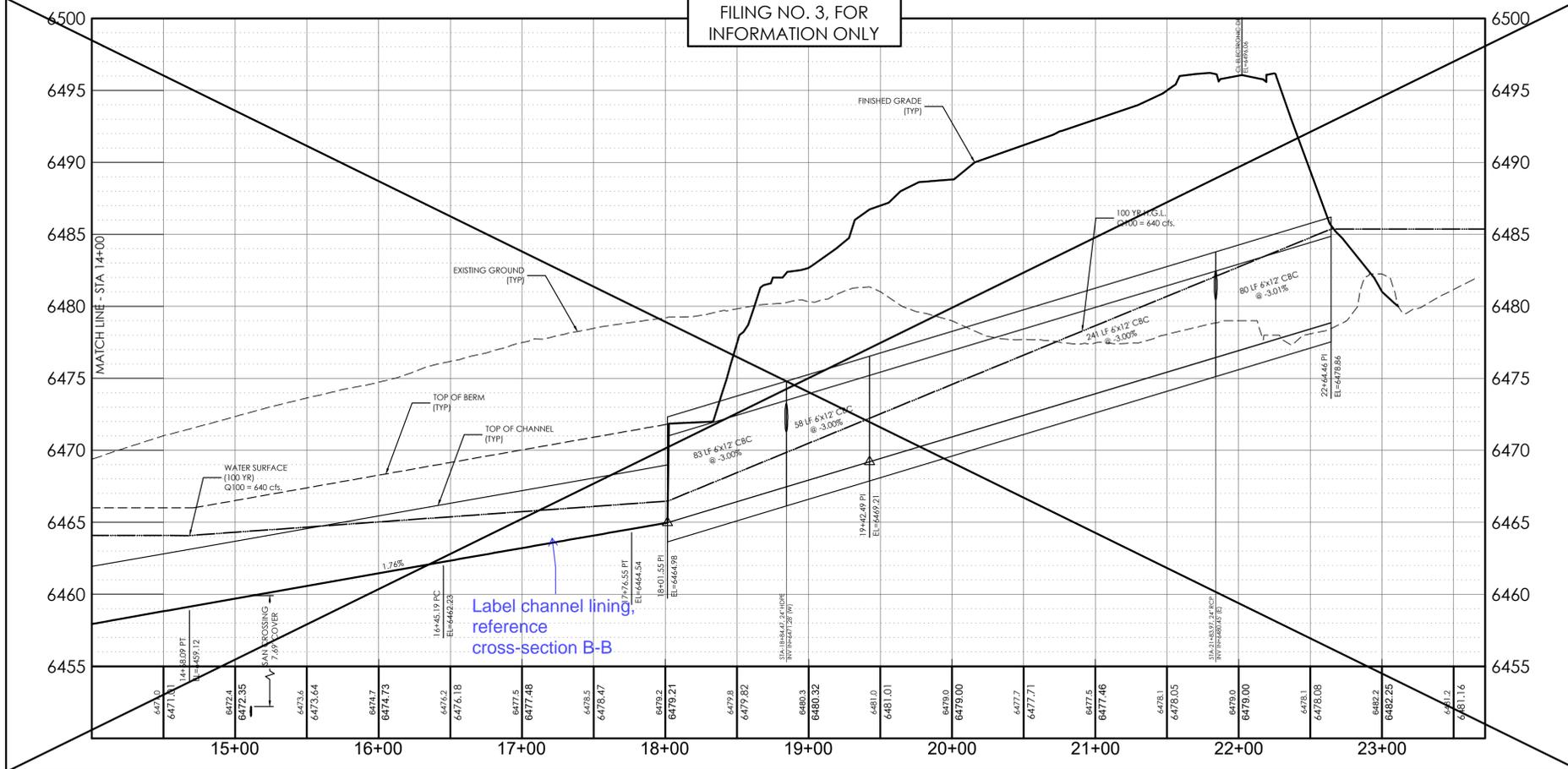
REVISIONS

MVE PROJECT **60970**  
 MVE DRAWING **60970090-F3**  
**JULY 25, 2017**  
 DESIGNED BY  
 DRAWN BY TJW  
 CHECKED BY  
 AS-BUILTS BY  
 CHECKED BY

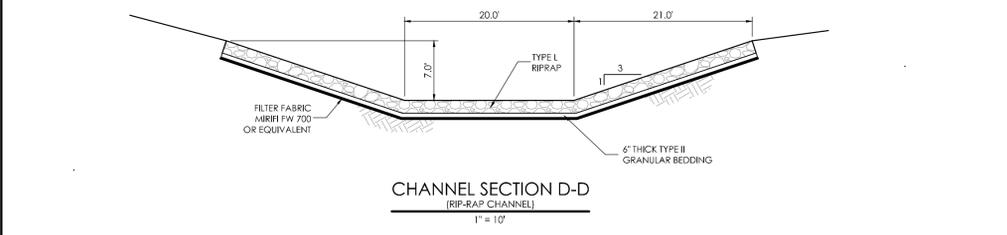
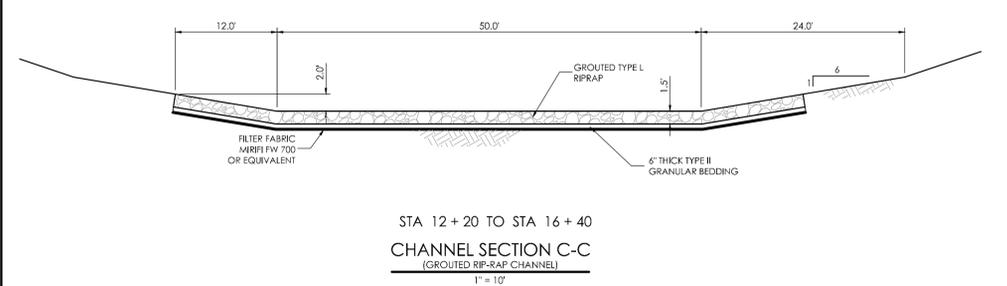
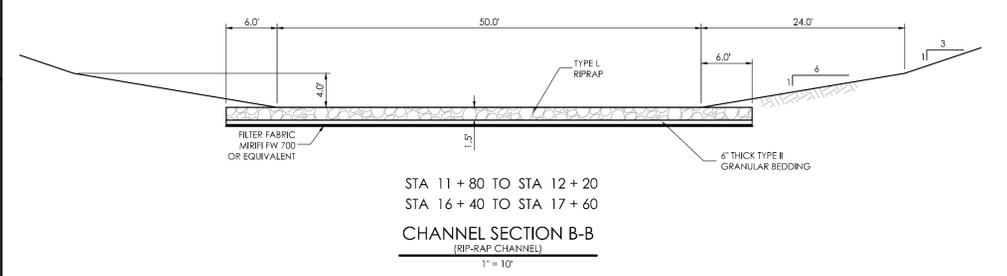
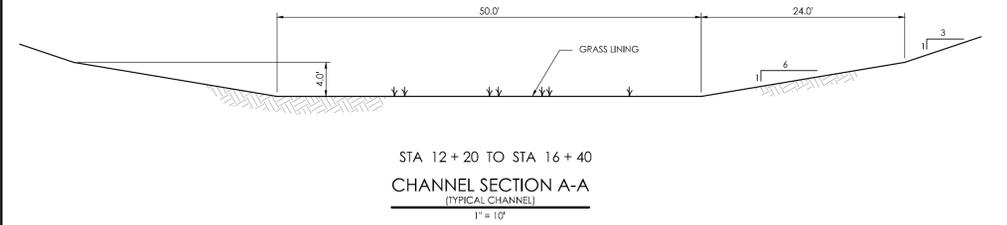
**TRIBUTARY DRAINAGE IMPROVEMENTS**  
 FROM STA 1+00.00  
 TO STA 14+00  
 HANNAH RIDGE AT FEATHERGRASS NO. 3



NOT A PART OF FILING NO. 3, FOR INFORMATION ONLY



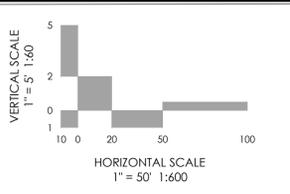
Label channel lining, reference cross-section B-B



THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).  
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**DESIGN DATA:**  
 SIDEWALKS: WIDTH N/A  
 LOCATION: Attached  Detached   
 DESIGN SPEED N/A  
 CURB TYPE:  2  3  4  5  
 ROW WIDTH: N/A FL-FL N/A  
 STREET TYPE: N/A

**PAVEMENT:**  
 TYPE: HMA  PCC   
 THICKNESS: N/A  
 COMPOSITE SECTION:  
 HMA N/A BASE N/A  
 SUBGRADE STABILIZATION:  
 CHEMICAL TYPE N/A MECHANICAL THICKNESS N/A

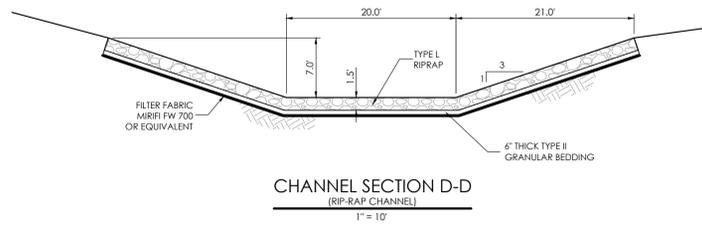
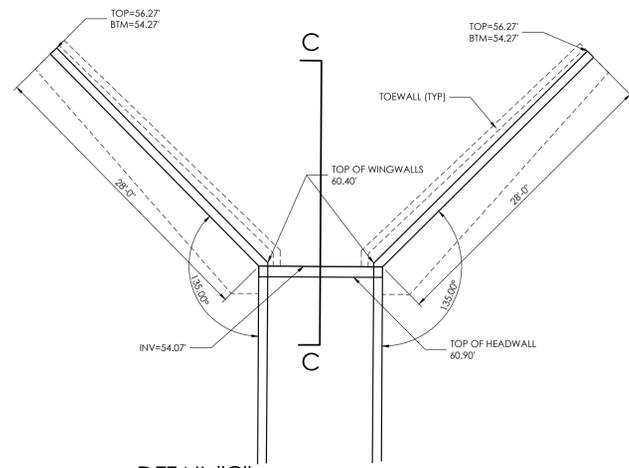


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 co 80909  
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REVISIONS

MVE PROJECT **60970**  
 MVE DRAWING **60970091-F3**  
**JULY 25, 2017**  
 DESIGNED BY \_\_\_\_\_ 8/22/2013  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

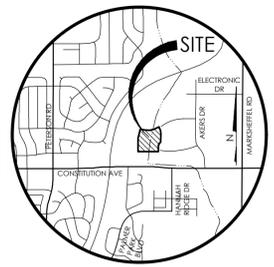
**TRIBUTARY DRAINAGE IMPROVEMENTS**  
 FROM STA. 14+00.00  
 TO STA 22+64.46  
 HANNAH RIDGE AT FEATHERGRASS NO. 3



BOX CULVERT / HEADWALL / WINGWALL DIMENSIONS TABLE				
	A	B	C	D
HEIGHT (H)	8'-4"	8'-4"	7'-8"	
R	6'	6'	6'	
S	12'	12'	10'	
T(f)	13'	13'	10'	
T(b)	15'	15'	10'	
Y				11'-8"
x1				21'-0"
SLOPE (IN)				
SLOPE (OUT)	2'	2'	2'	7'-5"
k	2'	2'	2'	7'-5"
k2	2'	2'	2'	7'-5"
L	28'-4"	28'-0"	28'-0"	27'-5 1/2"
L2	20'-0"			
m	7'-4.5"	7'-4.5"	7'-4.5"	8'-8"
a (MIN)	1'-0"	1'-0"	1'-0"	2'-2"
a (MAX)	2'-0"	2'-0"	2'-0"	2'-2"
b (MIN)	1'-8"	1'-8"	1'-8"	4'-0"
b (MAX)	3'-8"	3'-8"	3'-8"	4'-0"

GENERAL NOTES

- ALL CONCRETE SHALL BE CLASS D (BOX CULVERT).
- CONSTRUCTION JOINTS ARE NOT SHOWN ON THE PLANS. CONTRACTOR SHALL PROVIDE A PLAN DENOTING LOCATION OF CONTRACTOR'S PROPOSED CONSTRUCTION JOINTS FOR STAGED CONSTRUCTION PRIOR TO THE BEGINNING OF ANY BOX CULVERT FORMING. THE CONSTRUCTION JOINT DETAIL FOR STAGED CONSTRUCTION SHALL BE AS SHOWN IN SECTION C-C AS DEPICTED ON THESE PLANS.
- ALL CONSTRUCTION JOINTS SHALL BE THOROUGHLY CLEANED BEFORE FRESH CONCRETE IS PLACED.
- THE CONTRACTOR SHALL MAINTAIN THE STABILITY OF THE STRUCTURE DURING CONSTRUCTION. STRUCTURE EXCAVATION AND BACKFILL SHALL BE IN ACCORDANCE WITH STANDARD.
- BACKFILL SHALL NOT BEGIN UNTIL TOP SLAB HAS REACHED DESIGN STRENGTH = F<sub>c</sub>'.
- REINFORCING STEEL SHALL BE GRADE 60 - UNCOATED.
- STANDARD PLANS REFERENCED ARE COLORADO DEPARTMENT OF TRANSPORTATION AS STANDARD PLANS. THEY ARE M-601-1, M-601-2, M-601-10, M-601-29.
- ALL TRANSVERSE REINFORCING SHALL BE NORMAL TO THE CENTERLINE OF THE BOX.
- ALL EXPOSED CONCRETE CORNERS SHALL BE CHAMFERED 1/4" IN.
- WINGWALL AND APRON CONCRETE SHALL BE CONCRETE CLASS B, OR D (BOX CULVERT) FOR CBC'S.
- WINGWALL FOOTINGS AND FLOOR OF BOX CULVERT SHALL BE PLACED MONOLITHICALLY.
- WINGWALL AND APRON CONCRETE SHALL BE CONCRETE CLASS B, OR D (BOX CULVERT) FOR CBC'S.
- AN ALTERNATE PRECAST CONCRETE BOX CULVERT MAY BE USED FOR THIS PROJECT IN ACCORDANCE WITH STANDARD PLAN NO. M-603-3 DATED JULY 04, 2012. TAPER SHALL BE HAND FORMED AND CONSTRUCTED ON SITE.



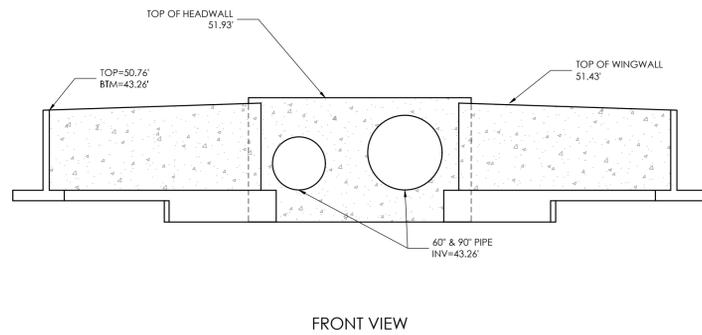
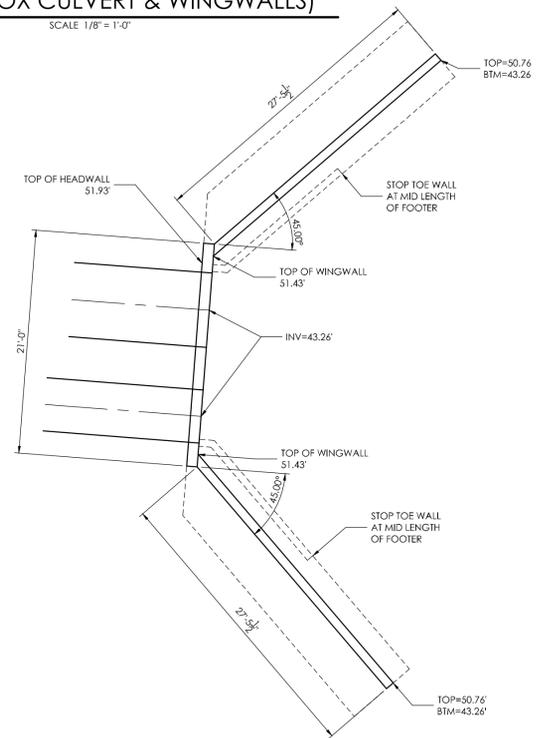
LOAD DATA

LIVE LOAD = AASHTO, HS 20-44 AND ALTERNATE MILITARY LOADING  
 DEAD LOAD CASE 1: VERTICAL EARTH LOAD = 120 LBS./CU. FT.  
 HORIZONTAL EARTH LOAD = 30 LBS./CU. FT.  
 DEAD LOAD CASE 2: VERTICAL EARTH LOAD = 120 LBS./CU. FT.  
 HORIZONTAL EARTH LOAD = 60 LBS./CU. FT.  
 FUTURE HMA OVERLAY = 48 LBS./SQ. FT. BASED ON 4 IN. THICKNESS  
 LIVE LOAD SURCHARGE ON EXTERIOR WALLS = 2 FT. OF EARTH

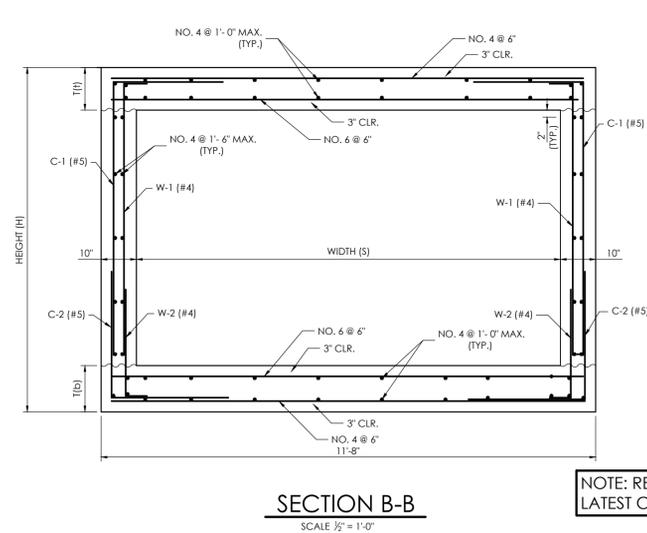
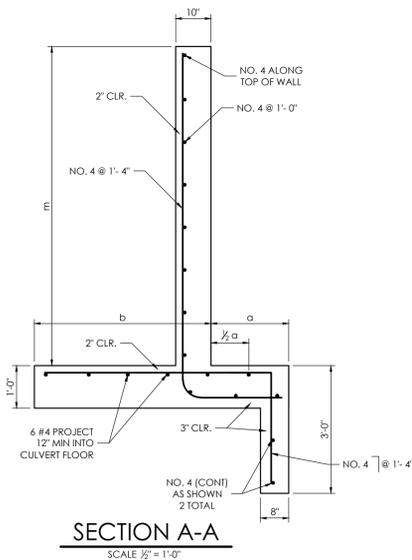
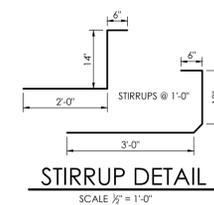
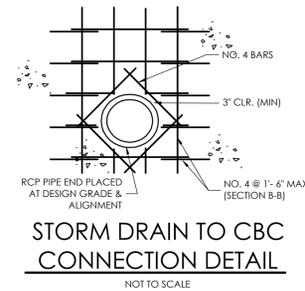
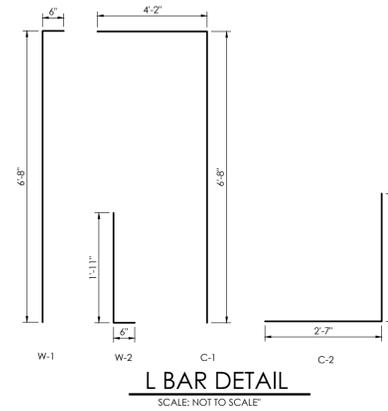
DESIGN DATA

UNIT STRESS: F<sub>c</sub> = 24,000 PSI  
 F<sub>s</sub> = 1,200 PSI  
 N = 9  
 EQUIVALENT FLUID PRESSURE = 36 LBS./CU. FT.  
 MAXIMUM TOE PRESSURE = 1 TON/SQ. FT.

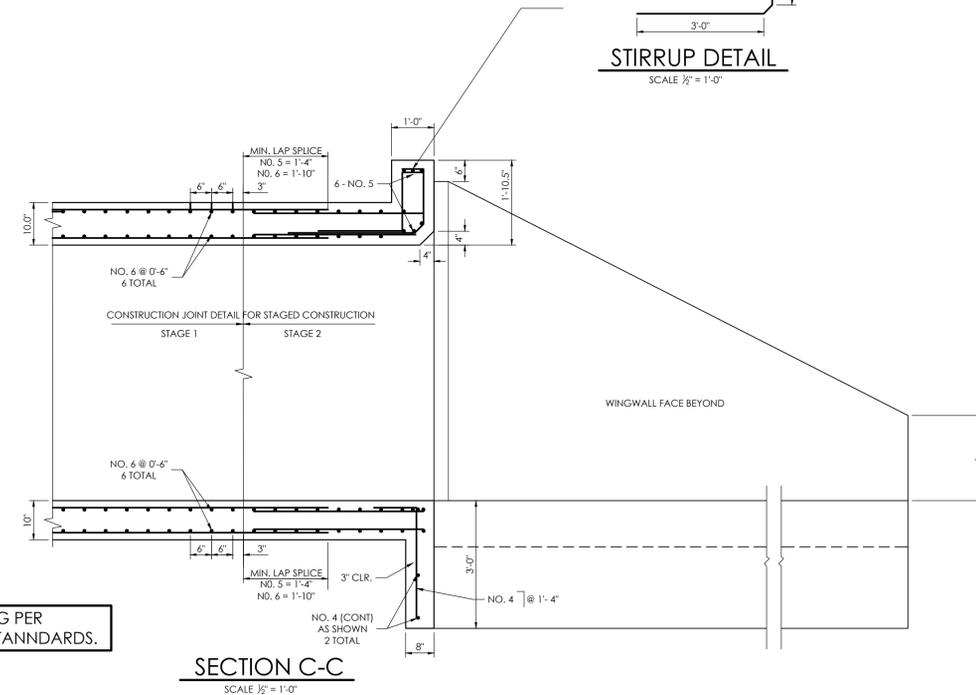
BENCHMARK  
 THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. (EPC DATUM ELEVATION = 6485.29).  
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DETAIL "D"  
(60" & 90" PIPE HEADWALL & WINGWALLS)  
SCALE 1/8" = 1'-0"



NOTE: REBAR & SPACING PER LATEST CDOT M-601-1 STANNDDARDS.



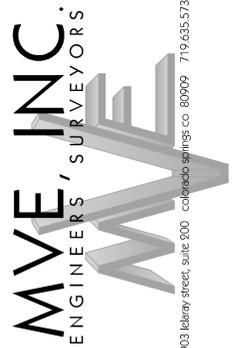
REVISIONS

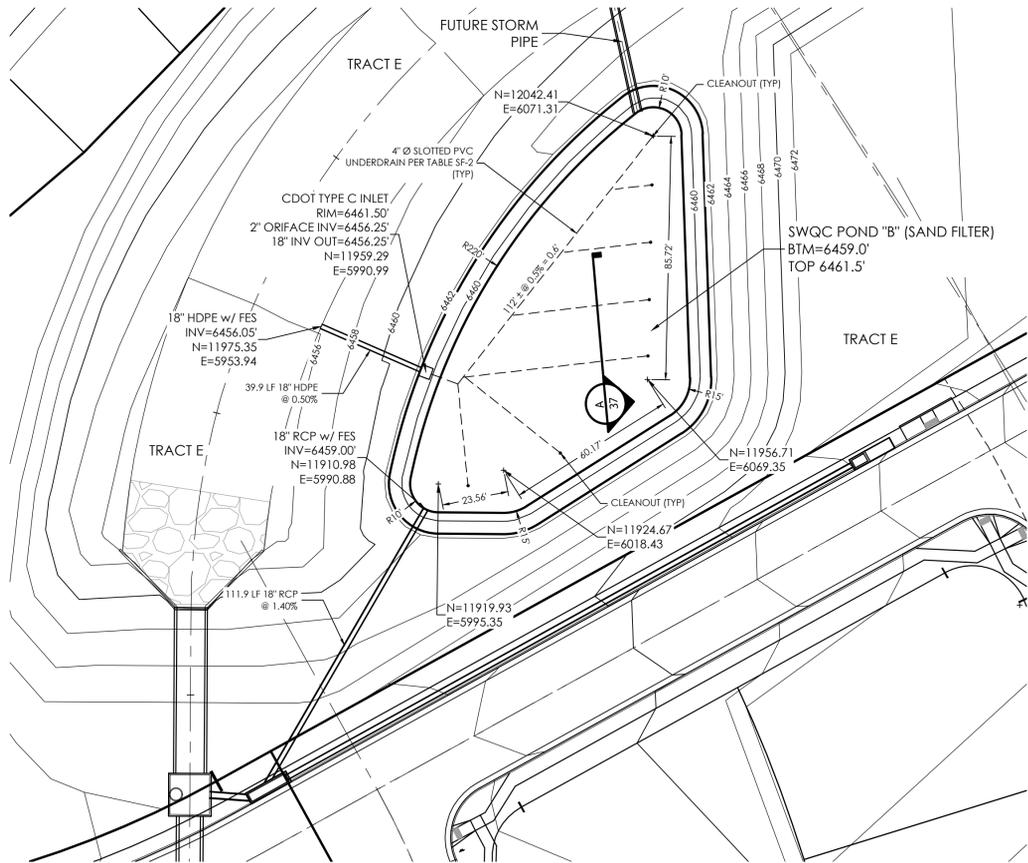
DESIGNED BY TJW  
 DRAWN BY TJW 8/22/2013  
 CHECKED BY  
 AS-BUILTS BY  
 CHECKED BY

HANNAH RIDGE  
 AT FEATHERGRASS NO. 3  
 BOX CULVERT  
 & HEADWALL DETAILS

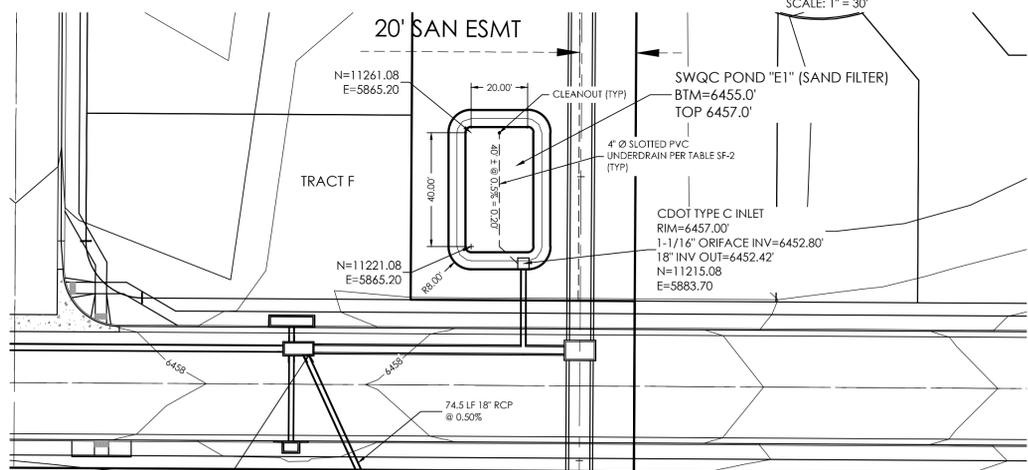
MVE PROJECT 60970  
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JULY 25, 2017  
 SHEET 35

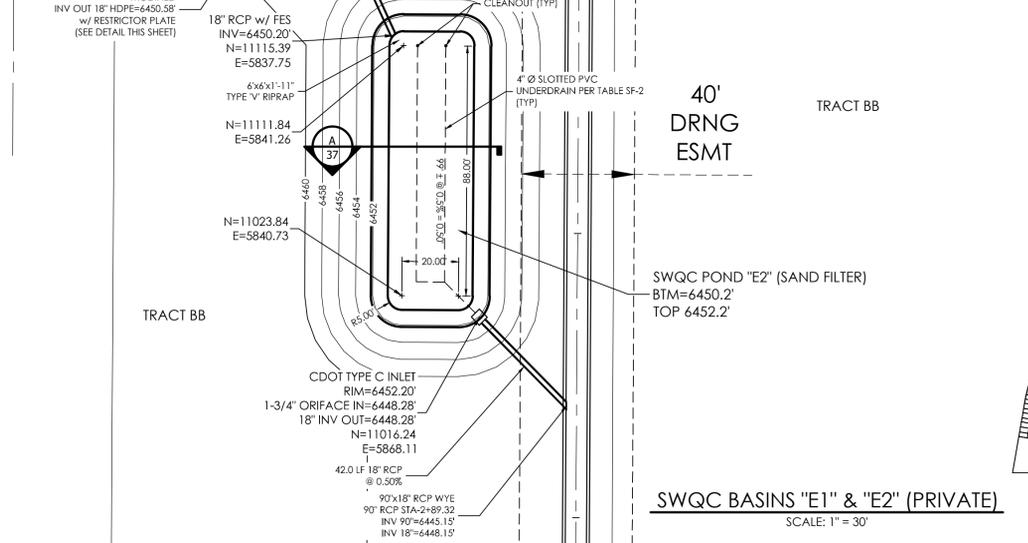




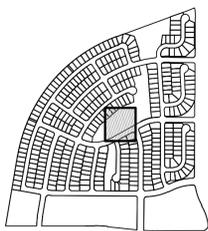
SWQC BASIN "B" (PRIVATE)  
SCALE: 1" = 30'



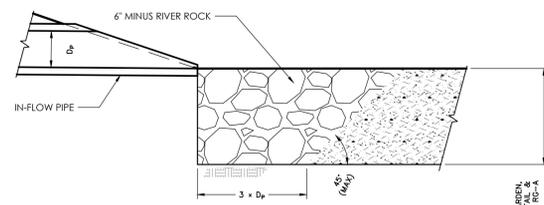
SWQC BASIN "E1" (PRIVATE)  
SCALE: 1" = 30'



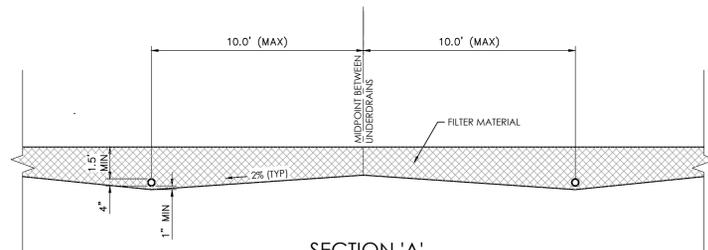
SWQC BASINS "E1" & "E2" (PRIVATE)  
SCALE: 1" = 30'



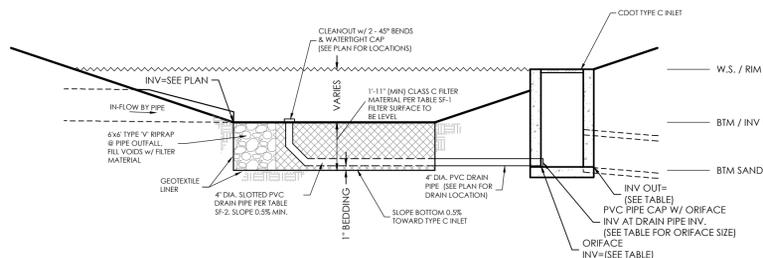
KEYMAP  
NOT TO SCALE



CONCENTRATED IN-FLOW DETAIL  
SCALE: NTS



SECTION 'A'  
SCALE: 1" = 4'



TYPICAL SWQC BASIN (SAND FILTER)  
SCALE: N.T.S.

SAND FILTER BASIN	BASE AREA (SQ. FEET)	FILTER BASIN VOLUME (FT <sup>3</sup> )	FILTER BASIN BTM/INV IN ELEV	POND DEPTH (FT)	TOP OF BOX ELEVATION (W.S.)	OUTLET ORIFICE DIAMETER (IN)	INV OUT ELEV	RESTRICTOR PLATE HEIGHT (FT)
B	9.331	27.293	6459.00	2.5	6461.50	2"	6456.25	0.70
E1	1.053	3.014	6455.00	2.0	6457.00	1-1/16"	6452.42	N/A
E2	2.919	7.425	6450.20	2.0	6452.20	1-3/4"	6448.28	0.66

**SAND FILTER SPECIFICATIONS:**  
**NOTES & REFERENCES:**  
 REFERENCE URBAN DRAINAGE AND FLOOD CONTROL DISTRICT (UDFCD), URBAN STORM DRAINAGE CRITERIA MANUAL VOLUME 3, SECTION 14.6, FOR FULL SET OF SAND FILTER DETAILS AND SPECIFICATIONS AS IDENTIFIED.  
 FILTER MATERIAL - CLASS B or CLASS C FILTER MATERIAL, PER SOIL MATERIAL GRADATION TABLE.  
 PERMEABLE GEOTEXTILE SEPARATOR FABRIC - TENCATE MIRAFIT 170N, OR EQUAL, PER UDFCD TABLE SF-3.  
 CONCENTRATED INFLOW - PER CONCENTRATED INFLOW DETAIL.  
 SLOTTED PIPE - CONTECH A-2000, OR EQUAL, PER PIPE SPECIFICATION TABLE.

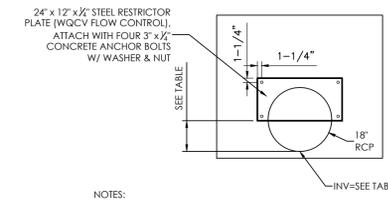
SOIL MATERIAL GRADATION TABLE  
(SOURCE: UDFCD BOREHOLE/PROF (R) TABLE B-1 & SAND FILTER BASIN (SF) TABLE SF-1)

STANDARD SIEVE SIZE	% PASSING	FILTER MATERIAL <sup>(1)</sup>	
		CLASS B	CLASS C
1-1/2"	100	100	100
3/4"	100	100	100
NO. 4	100	20-60	60-100
NO. 10	85-100	10-30	10-30
NO. 50	10-30	0-3	0-3
NO. 100	80-90	0-3	0-3
NO. 200	3-17		

<sup>(1)</sup>RAIN GARDEN ONLY  
<sup>(2)</sup>LESS THAN 1.5% ORGANIC MATERIAL  
<sup>(3)</sup>APPLIES TO BOTH SAND FILTER BASIN AND RAIN GARDEN

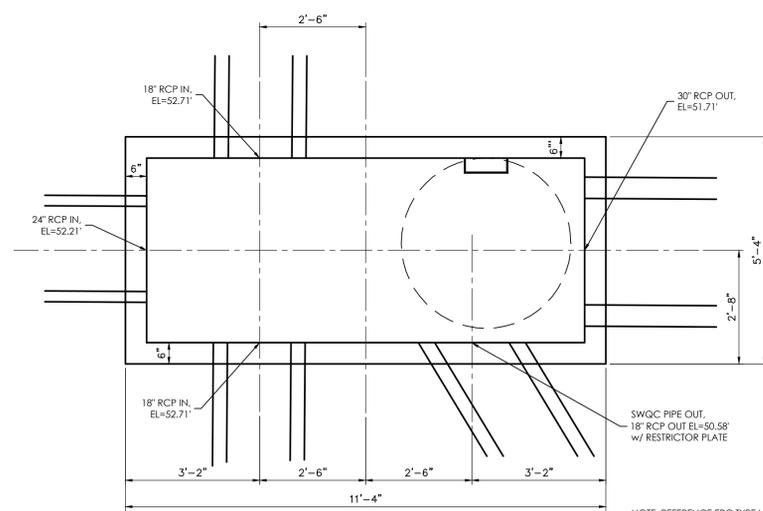
TABLE SF-2 (SLOTTED PIPE DIMENSIONS)

PIPE Ø	SLOT LENGTH	SLOT WIDTH	SLOT CENTERS	OPEN AREA (PER SF)
4"	1-1/16"	0.032"	0.413"	1.90 SQ. IN.



NOTES:  
 1. ORIFICE AND RESTRICTOR PLATES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.  
 3. ALL ORIFICE PLATES SHALL BE MOUNTED WITH 3" x 3/8" STAINLESS STEEL CONCRETE ANCHOR BOLTS W/ WASHERS, AND NUTS AS SHOWN.

MANHOLE / INLET RESTRICTOR PLATE DET.  
SCALE: 1" = 2'-0"

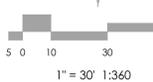


MODIFIED TYPE I MANHOLE  
SCALE: 1" = 2'-0"



VICINITY MAP  
NTS

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1" = 30' 1:360

**MVE, INC.**  
 ENGINEERS, SURVEYORS  
 1903 Kellaray Street, Suite 200 Colorado Springs, CO 80909 719.635.5736

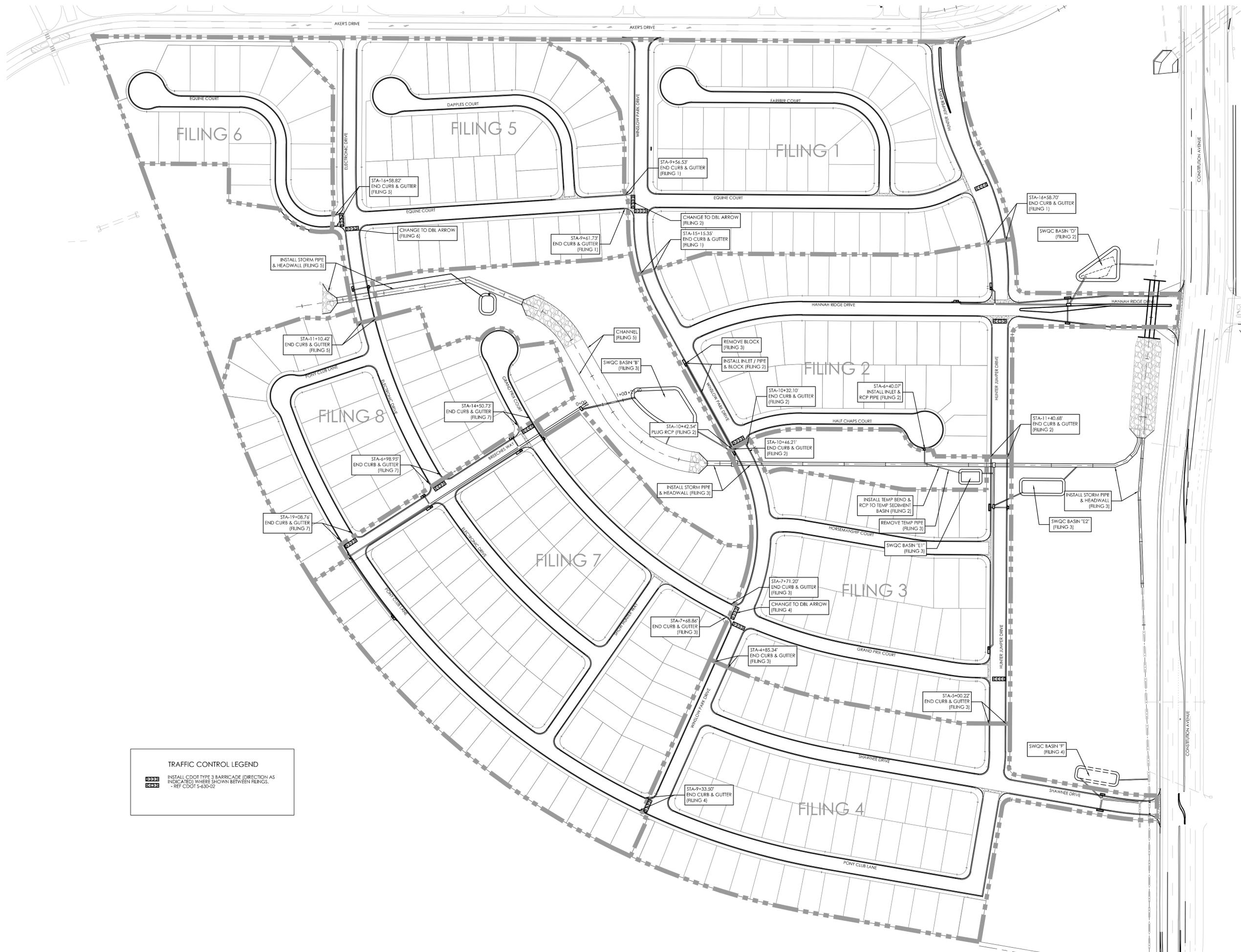
REVISIONS

DESIGNED BY DRG  
 DRAWN BY TJW 8/22/2013  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

HANNAH RIDGE  
 AT FEATHERGRASS NO. 3  
 STORM WATER  
 QUALITY BASIN DETAILS

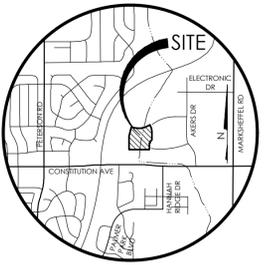
MVE PROJECT 60970  
 MVE DRAWING 60970106-F3

JULY 25, 2017  
 SHEET 37



**TRAFFIC CONTROL LEGEND**

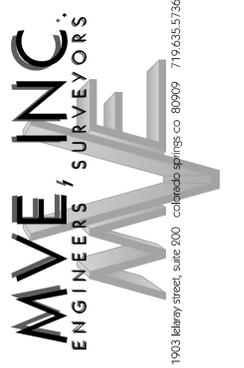
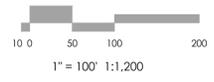
 INSTALL CDOT TYPE 3 BARRICADE (DIRECTION AS INDICATED) WHERE SHOWN BETWEEN FILINGS.  
 REF CDOT 5-630-02



**VICINITY MAP**  
NTS

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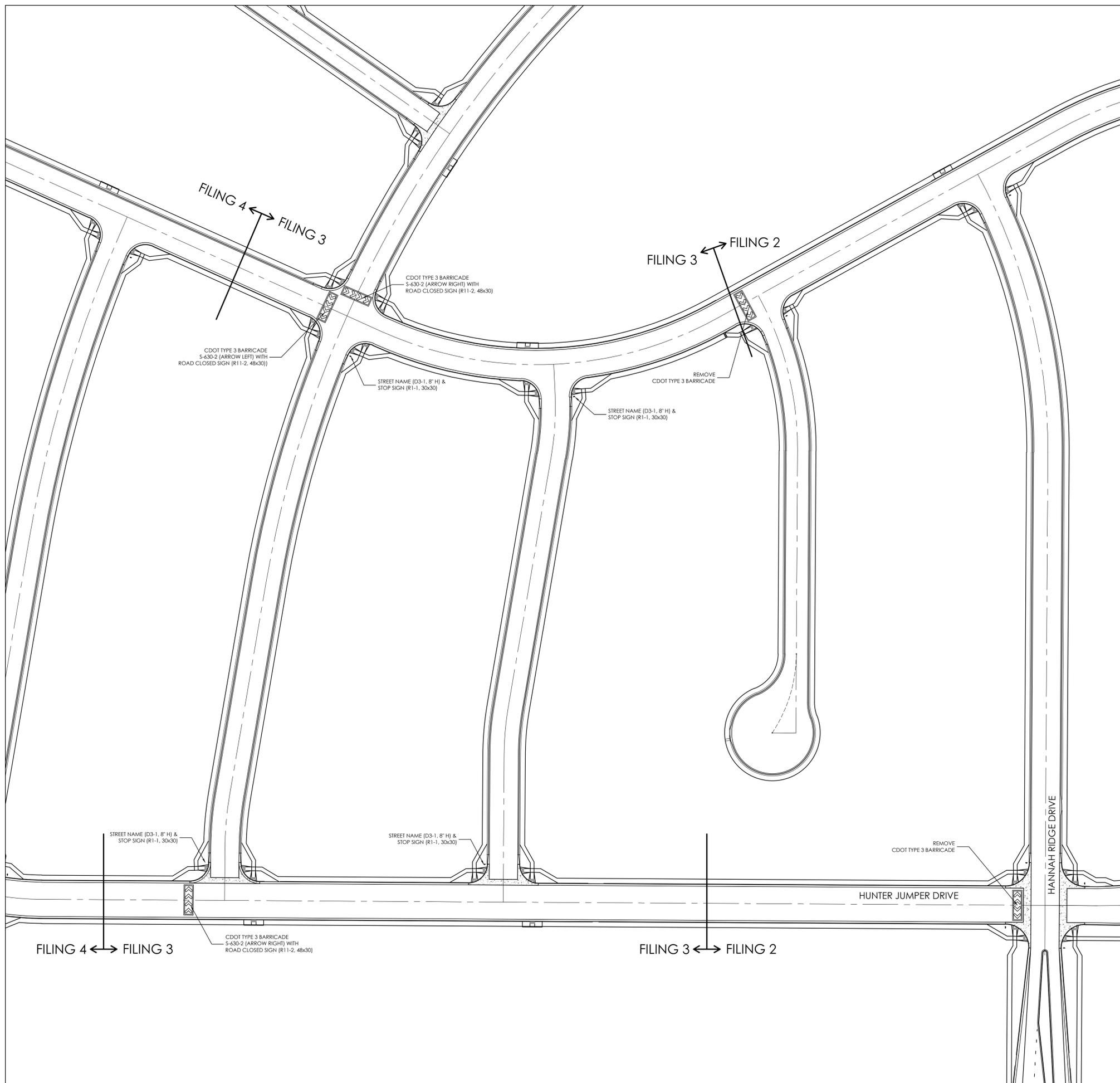
REVISIONS

DESIGNED BY DRG  
 DRAWN BY TJW  
 CHECKED BY \_\_\_\_\_  
 AS-BUILTS BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

**HANNAH RIDGE AT FEATHERGRASS NO. 3**  
**STREET / STORM PHASING PLAN & NOTES**

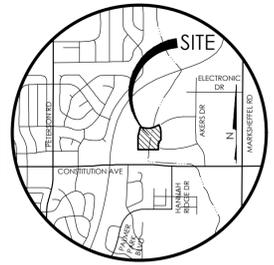
MVE PROJECT: **60970**  
 MVE DRAWING: 60970069-F3

**JULY 25, 2017**  
**SHEET 39**



EL PASO COUNTY STANDARD SIGNING AND STRIPING NOTES

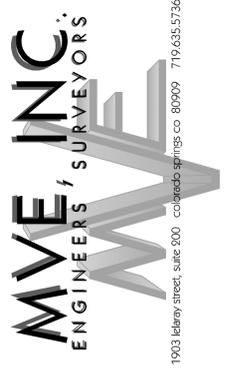
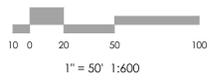
- ALL SIGNS AND PAVEMENT MARKINGS SHALL BE IN COMPLIANCE WITH THE CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
- REMOVAL OF EXISTING PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY A METHOD THAT DOES NOT MATERIALLY DAMAGE THE PAVEMENT. THE PAVEMENT MARKINGS SHALL BE REMOVED TO THE EXTENT THAT THEY WILL 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.
- 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 ON 12" BLANK. WITH A WHITE BORDER THAT IS NOT RECESSED. MULTI-LANE ROADWAYS WITH SPEED LIMITS OF 40 MPH OR HIGHER SHALL HAVE 8" UPPER-LOWER CASE LETTERING ON 18" BLANK WITH A WHITE BORDER THAT IS NOT RECESSED. THE WIDTH OF THE NON-RECESSED WHITE BORDERS SHALL MATCH PAGE 255 OF THE 2012 MUTCD "STANDARD HIGHWAY SIGNS"
- ALL TRAFFIC SIGNS SHALL HAVE A MINIMUM HIGH INTENSITY PRISMATIC GRADE SHEETING.
- 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-414-B REGARDING USE OF THE P2 TUBULAR STEEL POST SUBBASE DESIGN.
- ALL SIGNS SHALL BE SINGLE SHEET ALUMINUM WITH 0.100" MINIMUM THICKNESS.
- ALL LIMIT LINES/STOP LINES, CROSSWALK LINES, PAVEMENT LEGENDS, AND ARROWS SHALL BE A MINIMUM 1/25 MIL THICKNESS PREFORMED THERMOPLASTIC PAVEMENT MARKINGS WITH TAPERED LEADING EDGES PER CDOT STANDARD S-627-1. WORD AND SYMBOL MARKINGS SHALL BE THE NARROW TYPE. STOP BARS SHALL BE 24" IN WIDTH. CROSSWALKS LINES SHALL BE 12" WIDE AND 8' LONG PER CDOT S-627-1.
- 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 REQUIRED BY CDOT S-427-1.
- THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (719) 520-4819 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 PUBLIC SERVICE DEPARTMENT (PSD) PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.



VICINITY MAP  
N15

BENCHMARK  
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REVISIONS

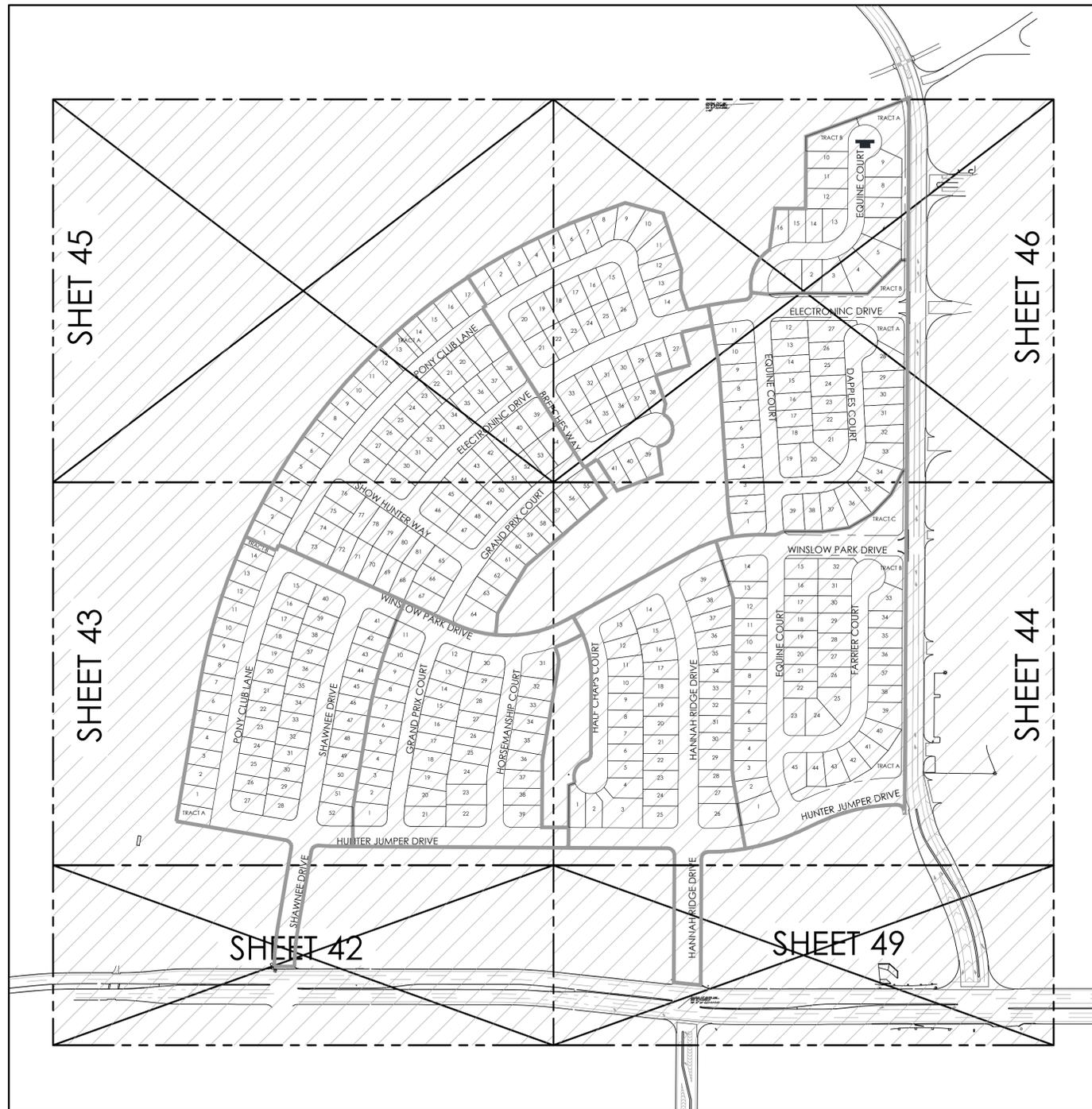
DESIGNED BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_  
 AS-BUILT BY \_\_\_\_\_  
 CHECKED BY \_\_\_\_\_

HANNAH RIDGE  
AT FEATHERGRASS NO. 3

STRIPING AND  
SIGNAGE PLAN

MVE PROJECT 60970  
 MVE DRAWING 60970094-F3

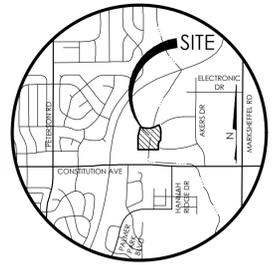
JULY 25, 2017  
 SHEET 40



**WATER SYSTEM CONSTRUCTION NOTES:**

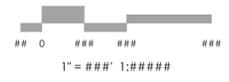
1. ALL MATERIALS AND WORKMANSHIP SHALL BE IN CONFORMANCE WITH CHEROKEE METROPOLITAN DISTRICT STANDARDS AND THE CITY OF COLORADO SPRINGS CONSTRUCTION STANDARDS UNLESS NOTED OTHERWISE. IN THE EVENT OF CONFLICTING STANDARDS CHEROKEE METROPOLITAN DISTRICT STANDARDS SHALL GOVERN.
2. ALL WATER SYSTEM MAINS PIPE MATERIAL SHALL BE POLYVINYL CHLORIDE (PVC) CLASS 200 (DR-14) PER AWWA C-900 AND ASTM D241 SPECIFICATIONS, EXCEPT WHERE NOTED. SPECIFICALLY, SECTIONS OF WATER PIPE THAT CROSS UNDER MAJOR DRAINAGE WAYS (SAND CREEK) R MAJOR THOROUGHFARES SHALL BE DUCTILE IRON PIPE.
3. ALL FITTINGS SHALL BE CONSTRUCTED OF GRAY-IRON MATERIAL AND FURNISHED WITH MECHANICAL JOINT ENDS. ALL FITTINGS SHALL HAVE A MINIMUM PRESSURE RATING OF 250 PSI AND SHALL BE WRAPPED WITH A 9-MIL THICKNESS POLYETHYLENE MATERIAL PER AWWA STANDARD C105.
4. ALL WATER PIPES SHALL BE INSTALLED AT A MINIMUM DEPTH OF FIVE (5) FEET BELOW FINISHED GRADE.
5. ALL BENDS, TEE, FIRE HYDRANTS, BLOW-OFFS, AND PLUGS AT DEAD END MAINS SHALL BE INSTALLED WITH CONCRETE THRUST BLOCKS.
6. FIRE HYDRANT ASSEMBLIES SHALL INCLUDE ALL PIPES, FITTINGS, VALVES, APPURTENANCES, MATERIALS AND LABOR THAT ARE NECESSARY TO INSTALL A COMPLETE AND USEABLE FIRE HYDRANT. FIRE HYDRANT ASSEMBLIES SHALL BE ONE OF THE FOLLOWING TYPES:
  - A. MUELLER CENTURION, MODEL A-473
  - B. KENNEDY VALVE
  - C. AMERICAN AVK
  - D. OR ENGINEER/DISTRICT APPROVED EQUAL.
7. VALVE BOXES SHALL BE TYLER SLIP; TYPE "C" CAST IRON VALVE BOX ASSEMBLY SERIES 6860 WITH NO. 160 OVAL BASE OR APPROVED EQUAL.
8. CONTRACTOR SHALL PRESSURE TEST AND DISINFECT THE SYSTEM PRIOR TO CONNECTING TO EXISTING MAINS.
9. ALL WATER SYSTEM COMPONENTS SHALL BE FLUSHED AND CHLORINATED PER AWWA C-601, "DISINFECTING WATER MAINS" PRIOR TO ACCEPTANCE. THE CONTRACTOR SHALL PRODUCE A 25 MG/L SOLUTION BY ADHERING CHLORINE TABLETS TO THE PIPE SECTION WITH PERMATEX CLEAR TRV INSIDE THE SYSTEM. CHLORINATION SHALL OCCUR PRIOR TO HYDROSTATIC TESTING. THE CONTRACTOR SHALL OBTAIN A BACTERIOLOGICAL SAMPLE AFTER THE SYSTEM HAS BEEN FLUSHED. A CLEAN BACTERIOLOGICAL SAMPLE MUST BE OBTAINED PRIOR TO THE SYSTEM BEING PLACED INTO SERVICE.
10. HYDROSTATIC TESTING: ALL WATER SYSTEM MAINS SHALL BE FIELD PRESSURE TESTED TO A MINIMUM OF 150 PSI OR 1 1/2 TIMES THE STATIC OPERATING PRESSURE, WHICH EVER IS GREATER. MAXIMUM ALLOWABLE LEAKAGE FOR EACH SECTION OF PIPE BETWEEN LINE VALVES SHALL NOT EXCEED THE FOLLOWING: \*10 GALLONS PER INCH OF PIPE DIAMETER PER MILE PER DAY.
11. ALL VALVES SHALL CONFORM TO OPEN LEFT CONVENTION PER CHEROKEE METROPOLITAN DISTRICT STANDARDS. SERVICE LINE STOP VALVES/BOXES SHALL BE LOCATED A MINIMUM OF 7 FEET BEYOND THE PROPERTY LINE OR PER THE SERVICE DETAIL ON THE UTILITY SERVICE PLAN. ALL OTHER VALVES SHALL BE LOCATED PER THESE PLANS.
12. WHEN IT IS NECESSARY TO RAISE OR LOWER WATER MAINS AT OTHER UTILITY CROSSINGS THE CONTRACTOR SHALL INSURE A MINIMUM CLEARANCE OF 18" WHERE POSSIBLE BETWEEN THE OUTSIDE DIAMETER OF PIPES.
13. WHILE CONTRACTING THE WATER SYSTEM THE CONTRACTOR SHALL HAVE IN HIS POSSESSION AT LEAST ONE "APPROVED FOR CONSTRUCTION: SET OF UPDATED PLANS AT ALL TIMES. APPROVED FIELD MODIFICATIONS TO PLAN SETS SHALL BE CLEARLY IDENTIFIED IN RED INK ON THE PLANS BY THE CONTRACTOR PER FIELD CONSTRUCTION. THESE AS-BUILT CHANGES SHALL BE DATED AND SUBMITTED TO THE ENGINEER OF RECORD. THE ENGINEER OF RECORD SHALL PREPARE A COMPLETE SET OF "AS CONSTRUCTED" DRAWINGS AND DELIVER THE SETS TO THE CHEROKEE METROPOLITAN DISTRICT PRIOR TO FINAL ACCEPTANCE OF THE WATER SYSTEM.
14. COMPACTION TESTING RESULTS OF ALL TRENCHES AND BEDDING MATERIAL SHALL BE SUBMITTED TO THE ENGINEER OF RECORD PRIOR TO ACCEPTANCE OF THE WATER SYSTEM.
15. PRIOR TO TAPPING ANY EXISTING WATER MAIN THE CONTRACTOR SHALL SUBMIT AND RECEIVE APPROVAL FOR SAID TAP IN ACCORDANCE WITH THE CHEROKEE METROPOLITAN DISTRICT STANDARDS.
16. PVC PIPE MUST BE PRESSURIZED PRIOR TO TAPPING.
17. THE WATER SYSTEM CONTRACTOR SHALL INSTALL ALL IRRIGATION TAPS AND METERS PER THESE PLANS.
18. FIRE FLOW DEMAND IS 1500 GPM FOR A 3 HOUR DURATION AT A 20-PSI MINIMUM RESIDUAL MAIN LINE PRESSURE.
19. ALL NONMETALLIC PIPES SHALL HAVE A TRACER WIRE ATTACHED TO ITS TOP DURING CONSTRUCTION. THE TRACER WIRE SHALL BE #12 AWG INSULATED COPPER WIRE WITH NO. 12 TYPE COPPER CONNECTORS AND SHALL BE PERMANENTLY AFFIXED TO THE TOP OF THE PIPE USING TAPE AT 4' INTERVALS. THE TRACER WIRE SHALL ALSO BE PERMANENTLY CONNECTED TO ALL FIRE HYDRANT TEE, METALLIC PIPE BENDS, MAIN VALVE AND OTHER METALLIC FITTINGS AND APPURTENANCES. ALL POINTS OF CONNECTION SHALL BE PROTECTED FROM CORROSION BY AN EPOXY OR SILICON COATING. GROUND TRACER WIRES TO SURFACE AT ALL VALVE BOXES.
20. THE CONTRACTOR ASSUMES RESPONSIBILITY FOR THE PROTECTION OF ALL UTILITIES DURING THE WORK. PRIOR TO ANY EXCAVATION, CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO AT (800) 922-1987 AT LEAST TWO WORKING DAYS PRIOR TO DIGGING.
21. ALL VALVES SHALL BE INSTALLED IN ACCORDANCE WITH COLORADO SPRINGS STANDARDS EXCEPT FOR NOTE 11 ABOVE. SPACING SHALL BE EQUIDISTANT FROM TEES, ELBOWS, BENDS AND OTHER APPURTENANCES AT 3 FOOT WHERE POSSIBLE.
22. HIGH DEFLECTION COUPLINGS ARE NOT TO BE USED IN THE INSTALLATION OF CURVILINEAR WATER PIPE.
23. TAPS WILL NOT BE RELEASE UNTIL THE FOLLOWING CONDITIONS ARE MET:
  - A. WATER AND SEWER LINES ARE INSTALLED AND PRESSURE TESTED TO THE DISTRICT STANDARDS. ALL 2X4 MARKERS ARE INTACT AND PAINTED FOR SERVICES.
  - B. AS CONSTRUCTED DRAWINGS HAVE BEEN SUBMITTED TO THE DISTRICT. DRAWINGS TO INCLUDE ANY CHANGES FROM CONSTRUCTION DRAWINGS. THE LENGTH, DEPTH, GRADE AND LOCATION OF ALL SEWER SERVICES. THE LENGTH DEPTH AND LOCATION OF WATER SERVICES.
  - C. ALL ELECTRIC AND GAS UTILITIES ARE INSTALLED.
  - D. THE FIRST LIFT OF HOT MIX ASPHALT MUST BE INSTALLED.
24. CONTRACTOR IS TO NOTIFY CHEROKEE METROPOLITAN DISTRICTS' INSPECTOR 24 HOURS PRIOR TO ALL STORM SEWER CRITICAL CROSSING OVER WATER AND SEWER LINES, TO VERIFY CLEARANCE.
25. FIRE HYDRANTS MUST BE PAINTED, BLUE CAPS AND BONNETS; WHITE BARREL SECTIONS. COLOR CODES ARE AS FOLLOWS: CHEROKEE BLUE, PRODUCT NUMBER 58155; CHEROKEE WHITE, PRODUCT NUMBER 58101, BOTH GLOSS OIL BASE EXTERIOR DEVCOE-BAROX. CAN BE PURCHASED AT THE PAINT SPOT 5849 PALMER PARK BLVD COLORADO SPRINGS, CO 80915, OR EQUAL BRAND.

CURVILINEAR PIPELINE : THERE IS NO DEFLECTION ALLOWED AT THE JOINTS ON 12-INCH AND SMALLER PIPE. NOTICE: MECHANICAL MEANS SHOULD NOT BE EMPLOYED TO ACCOMPLISH THESE RADII. IT IS THE INTENT THAT THE WORKER SHOULD ACCOMPLISH THIS MANUALLY IN THE TRENCH. ON 4-INCH TO 12-INCH PIPE, THE CURVE SHOULD BE ACCOMPLISHED BY BENDING THE PIPE RATHER THAN DEFLECTING JOINTS. THERE SHALL BE NO DEFLECTION IN THE JOINTS UPON COMPLETION TO AVOID OVER-STRESSING THE BELL AND PREVENT POSSIBLE BREAKAGE AND/OR LEAKS.



VICINITY MAP

BENCHMARK  
THE BENCHMARK FOR THESE PLANS IS THE TOP OF #4 REBAR, PANEL POINT NO. 1, LOCATED ON THE SOUTH EDGE OF CONSTITUTION AVE AND THE WEST EDGE OF THE ROCK ISLAND TRAIL, 535 FEET WEST OF THE CENTERLINE OF SHAWNEE DR. ELEVATION = 6486.63. [EPC DATUM ELEVATION = 6485.29].  
BASIS OF BEARINGS:  
BEARING REFERRED TO HEREIN ARE BASED ON THE SOUTH LINE OF TRACT FF, HANNAH RIDGE AT FEATHERGRASS FILINGS NO. 1, ASSUMED TO BEAR N89°39'18"W MONUMENTED AT EACH END W/ NO. 5 REBAR W/ ALUMIN CAP MARKED "POLARIS, PLS 27605".



1" = 40' 1:1600

**MVE, INC.**  
ENGINEERS, SURVEYORS  
1903 ledlow street, suite 200 colorado springs, co 80909 719.635.5736

REVISIONS

DESIGNED BY DRG  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILTS BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

HANNAH RIDGE  
AT FEATHERGRASS NO. 3  
**WATER PLANS**  
COVER SHEET

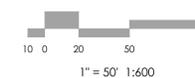
MVE PROJECT **60970**  
MVE DRAWING 60970070-F3

**JULY 25, 2017**  
**SHEET 41**



VICINITY MAP  
N.T.S.

BENCHMARK  
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REVISIONS

DESIGNED BY DRG  
DRAWN BY TJW 8/22/2013  
CHECKED BY  
AS-BUILTS BY  
CHECKED BY

HANNAH RIDGE  
AT FEATHERGRASS NO. 3

WATER PLAN  
SOUTHWEST

MVE PROJECT 60970  
MVE DRAWING 60970072-F3

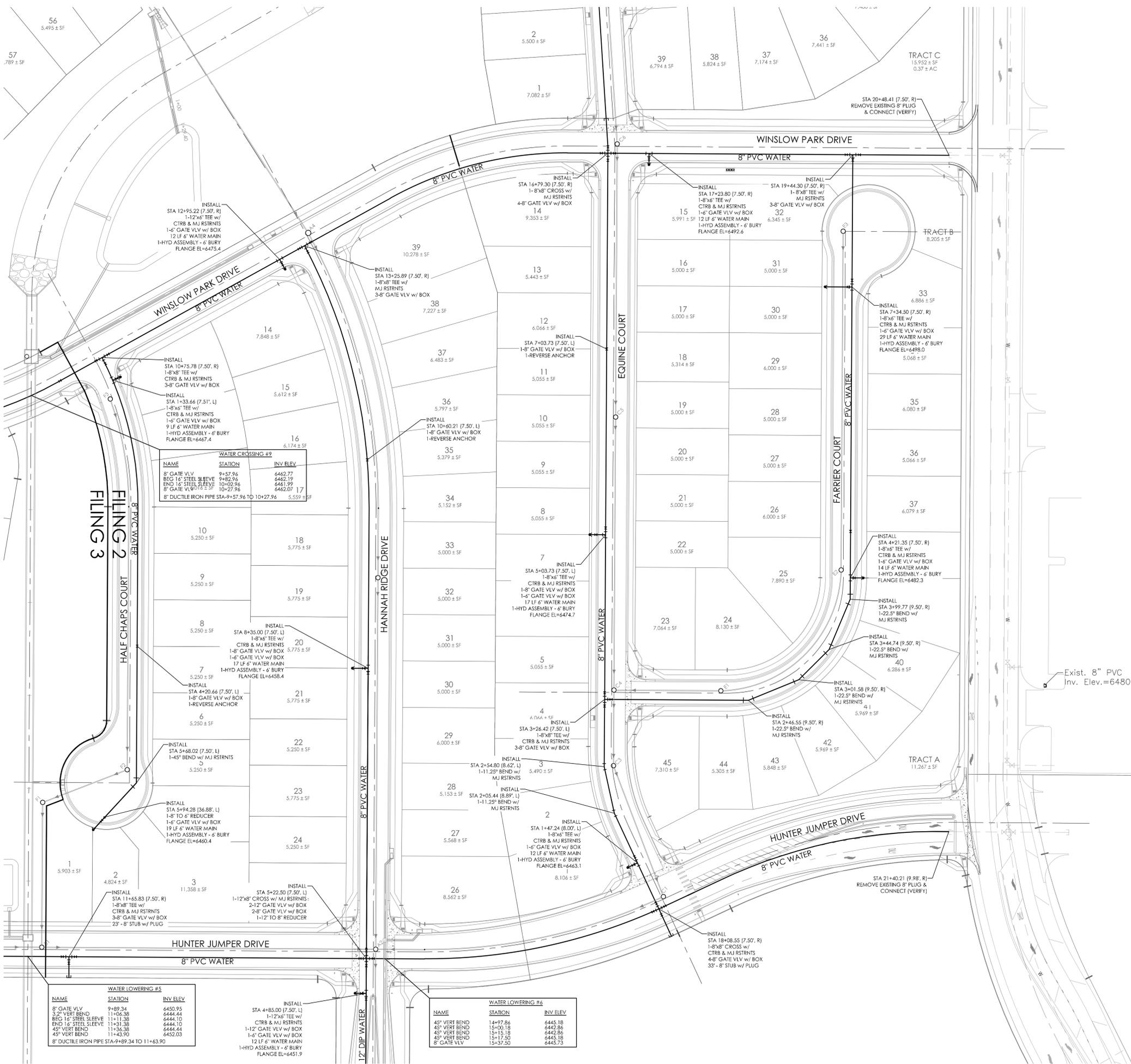
JULY 25, 2017  
SHEET 43

CURVILINEAR PIPE NOTE:  
THERE IS NO DEFLECTION ALLOWED AT THE JOINTS ON 12-INCH AND SMALLER PIPE. NOTICE: MECHANICAL MEANS SHOULD NOT BE EMPLOYED TO ACCOMPLISH THESE RADII. IT IS THE INTENT THAT THE WORKER SHOULD ACCOMPLISH THIS MANUALLY IN THE TRENCH, ON 4-INCH TO 12-INCH PIPE. THE CURVE SHOULD BE ACCOMPLISHED BY BENDING THE PIPE RATHER THAN DEFLECTING JOINTS. THERE SHALL BE NO DEFLECTION IN THE JOINTS UPON COMPLETION TO AVOID OVER-STRESSING THE BELL AND PREVENT POSSIBLE BREAKAGE AND/OR LEAKS.

NOTE:  
SEE UTILITY PHASING PLAN FOR PHASED CONSTRUCTION LIMITS.



WATER LOWERING #4		
NAME	STATION	INV. ELEV.
8" TEE / GATE VLV	0+92.50	6452.57
BEG 16" STEEL SLEEVE	1+02.50	6452.24
END 16" STEEL SLEEVE	1+22.50	6452.24
3.55" VERT BEND	1+27.50	6452.57
8" GATE VLV	1+47.50	6453.92
8" DUCTILE IRON PIPE STA-0+92.50 TO 2+97.50		

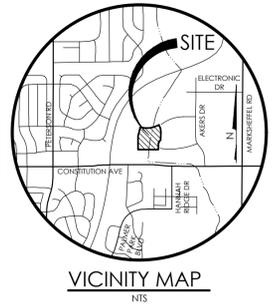


WATER CROSSING #9		
NAME	STATION	INV. ELEV.
8" GATE VLV	9+57.96	6462.77
BEG 16" STEEL SLEEVE	9+82.96	6462.19
END 16" STEEL SLEEVE	10+02.96	6461.99
8" GATE VLV	10+27.96	6462.07
8" DUCTILE IRON PIPE STA-9+57.96 TO 10+27.96	5.59 ± SF	

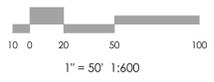
WATER LOWERING #5		
NAME	STATION	INV. ELEV.
8" GATE VLV	9+89.34	6450.95
3 2" VERT BEND	11+06.38	6444.44
BEG 16" STEEL SLEEVE	11+11.38	6444.10
END 16" STEEL SLEEVE	11+31.38	6444.10
45° VERT BEND	11+36.38	6444.44
45° VERT BEND	11+43.90	6452.03
8" DUCTILE IRON PIPE STA-9+89.34 TO 11+63.90		

WATER LOWERING #6		
NAME	STATION	INV. ELEV.
45° VERT BEND	14+97.84	6445.18
45° VERT BEND	15+00.18	6442.86
45° VERT BEND	15+12.18	6442.86
45° VERT BEND	15+17.50	6445.18
8" GATE VLV	15+37.50	6445.73

WATER LOWERING #5		
NAME	STATION	INV. ELEV.
INSTALL STA 4+85.00 (7.50' L)		
1-8" TO 6" REDUCER		
1-6" GATE VLV w/ BOX		
19 LF 6" WATER MAIN		
1-HYD ASSEMBLY - 6" BURY		
FLANGE EL=6460.4		



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REVISIONS

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 DRAWN BY TJW  
 CHECKED BY  
 AS-BUILTS BY  
 CHECKED BY

**HANNAH RIDGE AT FEATHERGRASS NO. 3**

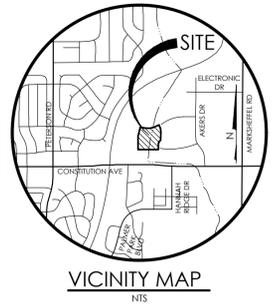
**WATER PLAN SOUTHEAST**

**CURVILINEAR PIPE NOTE:**  
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NOTE:  
 SEE UTILITY PHASING PLAN FOR PHASED CONSTRUCTION LIMITS.

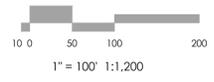
MVE PROJECT **60970**  
 MVE DRAWING **60970073-F3**

**JULY 25, 2017**  
**SHEET 44**



**BENCHMARK**  
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REVISIONS

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 DRAWN BY TJW  
 CHECKED BY  
 AS-BUILTS BY  
 CHECKED BY

**HANNAH RIDGE AT FEATHERGRASS NO. 3**

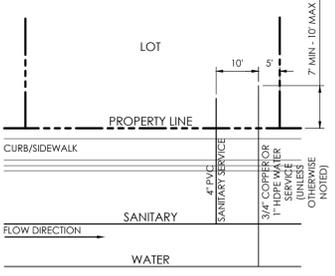
**UTILITY SERVICE PLAN & NOTES**

MVE PROJECT 60970  
 MVE DRAWING 60970085-F3

**JULY 25, 2017**  
**SHEET 52**

**SANITARY SEWER SERVICE LINES**  
**PIPE MATERIAL & MINIMUM SLOPE REQUIREMENTS:**

PIPE DIA.	BURY DEPTH	MATERIAL	MIN SLOPE
4"	6' - 14'	SDR 35 PVC	2.08%
4"	14' - 24'	SDR 26 PVC	1.04%
4"	24' - 30'	SCHEDULE 80 PVC	1.04%



**UTILITY SERVICE NOTES:**

MINIMUM DEPTH OF SANITARY SEWER PIPE IS 6- FEET OF COVER. IF THIS MINIMUM CANNOT BE ACHIEVED THE FOLLOWING APPLIES; OTHERWISE THE SEWER PIPE MUST HAVE 6- FEET OF COVER:

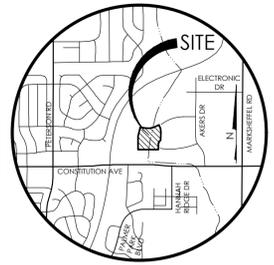
DEPTH GREATER THAN 6- FEET; MATERIAL TYPE SDR 35  
 DEPTH BETWEEN 4- FEET AND 6- FEET; MATERIAL TYPE SCH 40 OR CAST IRON PIPE (CIP)  
 DEPTH LESS THAN 4- FEET; MATERIAL TYPE SCH 40 OR CIP WITH CONCRETE CAP.

THREE (3) FOOT SEPARATION REQUIRED BETWEEN SERVE TAPS ON ALL MAINS.

WATER SERVICE MUST BE OVER THE SEWER AT ALL TIMES. SEWER SERVICE PIPE LOCATED WITHIN 1- FOOT OF THE WATER SERVICE LINE MUST BE CONSTRUCTED WITH SCH 40 PIPE OR CIP.

ALL EXTERIOR SEWER CLEANOUTS MUST HAVE A CAST IRON, TRAFFIC-RATED COVER, OR EQUIVALENT WITH CONCRETE COLLAR.

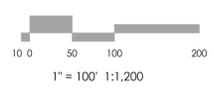
SEE UTILITY PHASING PLAN FOR PHASED CONSTRUCTION LIMITS.



VICINITY MAP  
NTS

**BENCHMARK**  
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REVISIONS

DESIGNED BY TJW  
DRAWN BY TJW  
CHECKED BY \_\_\_\_\_  
AS-BUILTS BY \_\_\_\_\_  
CHECKED BY \_\_\_\_\_

**HANNAH RIDGE  
AT FEATHERGRASS NO. 3**

**UTILITY PHASING  
PLAN & NOTES**

MVE PROJECT 60970  
MVE DRAWING 60970087-F3

**JULY 25, 2017  
SHEET 53**

# Markup Summary

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## AutoCAD SHX Text (13)

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CONSTRUCTION PLANS for HANNAH RIDGE AT  
FEATHERGRASS FILING NO. 3 EL PASO  
COUNTY, COLORADO



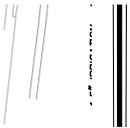
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DATE \_\_\_\_\_



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1.5" IRRIGATION



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EXISTING 7'X7' CBC INV IN ELEV=6485.3 INV  
OUT ELEV=6484.4 L=92'



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EXISTING 16" WATER LINE GND ELEV=6455.21  
TOP 16" DIP ELEV=6447.63



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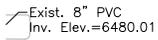
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Exist. 8" PVC Inv. Elev.=6480.01



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dsdrice (10)



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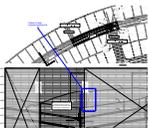
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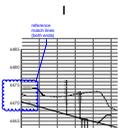
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Add EPC PCD as a separate contact



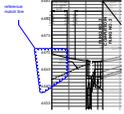
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Darken or label proposed grading line



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reference match lines (both ends)



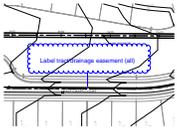
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reference match line



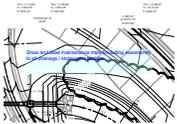
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Label channel lining, reference cross-section sheet



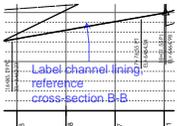
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Label tract/drainage easement (all)



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Show and label maintenance trails (including easements) to all drainage / stormwater facilities.



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Label channel lining, reference cross-section B-B