

CONSTRUCTION PLANS
FOR
**CARRIAGE MEADOW SOUTH AT
LORSON RANCH FILING NO. 2**
STREET/STORM SEWER AND UTILITY CONSTRUCTION PLANS



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

CALL 2-BUSINESS DAYS IN ADVANCE
BEFORE YOU DIG, GRADE OR
EXCAVATE FOR THE MARKING OF
UNDERGROUND MEMBER UTILITIES

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DEVELOPER'S STATEMENT

THE UNDERSIGNED OWNER/DEVELOPER HAS READ AND WILL COMPLY WITH ALL THE REQUIREMENTS SPECIFIED IN THESE CONSTRUCTION PLANS AND THE ACCOMPANYING DRAINAGE REPORT.

BUSINESS NAME LORSON, LLC

BY JEFF MARK DATE _____

TITLE MANAGER

ADDRESS 212 N. WAHSATCH AVE. SUITE 301
COLORADO SPRINGS, CO 80903

FIRE DISTRICT APPROVAL

THE NUMBER OF FIRE HYDRANTS AND HYDRANT LOCATIONS TOGETHER WITH THE MAIN SIZES INDICATED ON THIS WATER INSTALLATION PLAN ARE ADEQUATE TO SATISFY THE REQUIREMENTS OF THE SECURITY FIRE PROTECTION DISTRICT'S FIRE AND RESCUE DEPARTMENT. THIS APPROVAL IS BASED ON THE INFORMATION IN THESE PLANS, SPECIFICATIONS AND SUPPLEMENTAL INFORMATION PROVIDED BY THE DESIGN ENGINEER WHOSE SIGNATURE APPEARS IN THESE PLANS, AND THE WIDEFIELD WATER AND SANITATION DISTRICT.

SIGNED _____ DATE _____
BY FIRE PROTECTION CHIEF OR COORDINATOR

CONSTRUCTION APPROVAL

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

JENNIFER IRVINE, COUNTY ENGINEER/ECM ADMINISTRATOR DATE _____
CONDITIONS:

ENGINEER'S APPROVAL

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

RICHARD L. SCHINDLER, P.E. # 33997
FOR AND ON BEHALF OF CORE ENGINEERING GROUP



VICINITY MAP
NO SCALE

Engineering Review

08/23/2019 9:38:40 AM

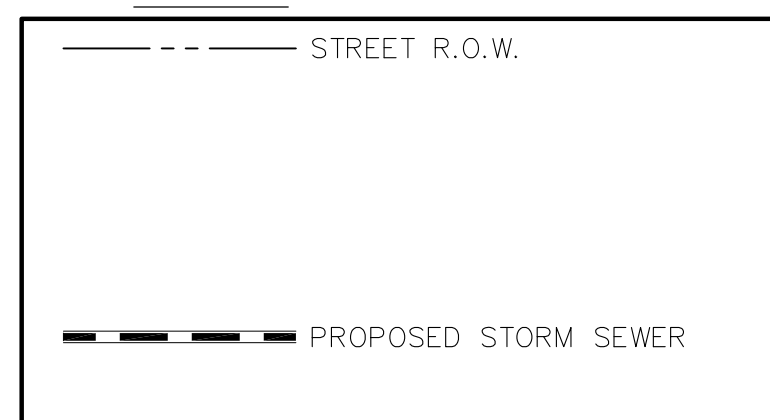
dsdrice

JeffRice@elpaso.com

(719) 520-7877

EPC Planning & Community
Development Department

LEGEND



WATER / SANITARY
WIDEFIELD WATER AND SANITATION DISTRICT
8495 FONTAINE BLVD.
COLORADO SPRINGS, CO 80925
719-390-7111

CABLE
COMCAST
P.O. BOX 173838
DENVER, CO 80217
970-641-4774

ELECTRIC
MOUNTAIN VIEW ELECTRIC
11140 E. WOODMEN RD.
COLORADO SPRINGS, CO 80831
719-495-2283

SECURITY FIRE PROTECTION DISTRICT
400 SECURITY BOULEVARD
SECURITY, CO 80911
719-392-7121

PREPARED FOR:
LORSON, LLC
N. WAHSATCH AVE., SUITE 301
COLORADO SPRINGS, CO 80903
719-635-3200
CONTACT: JEFF MARK

PREPARED BY:
CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
719-570-1100
CONTACT: RICHARD L. SCHINDLER P.E.

DISTRICT APPROVAL (WATER)

THE WIDEFIELD WATER AND SANITATION DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE WIDEFIELD WATER AND SANITATION DISTRICT HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

WIDEFIELD WATER AND SANITATION DISTRICT
WATER DESIGN APPROVAL

DATE _____ BY _____

PROJECT NO. _____

IN CASE OF ERRORS OR OMISSIONS WITH THE WATER DESIGN AS SHOWN ON THIS DOCUMENT THE STANDARDS AS DEFINED IN THE "RULES AND REGULATIONS FOR INSTALLATION OF WATER MAINS AND SERVICES" SHALL RULE.

APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL

DISTRICT APPROVAL (WASTEWATER)

THE WIDEFIELD WATER AND SANITATION DISTRICT RECOGNIZES THE DESIGN ENGINEER AS HAVING RESPONSIBILITY FOR THE DESIGN. THE WIDEFIELD WATER AND SANITATION DISTRICT HAS LIMITED ITS SCOPE OF REVIEW ACCORDINGLY.

WIDEFIELD WATER AND SANITATION DISTRICT
WATER DESIGN APPROVAL

DATE _____ BY _____

PROJECT NO. _____

IN CASE OF ERRORS OR OMISSIONS WITH THE WATER DESIGN AS SHOWN ON THIS DOCUMENT THE STANDARDS AS DEFINED IN THE "RULES AND REGULATIONS FOR INSTALLATION OF WATER MAINS AND SERVICES" SHALL RULE.

APPROVAL EXPIRES 180 DAYS FROM DESIGN APPROVAL

BASIS OF BEARING

BEARINGS ARE BASED ON THE SOUTH LINE OF THE NORTH HALF OF SECTION 23, TOWNSHIP 15 SOUTH, RANGE 65 WEST OF THE 6TH PRINCIPAL MERIDIAN AS BEING SOUTH 8941'52" WEST. THE EAST QUARTER CORNER OF SAID SECTION 23 IS A FOUND 3-1/2" ALUMINUM CAP MONUMENT AND THE WEST QUARTER CORNER OF SAID SECTION 23 IS A FOUND 2-1/2" ALUMINUM CAP MONUMENT

BENCHMARK

FIMS MONUMENT F204 LOCATED AT THE NORTHWEST CORNER OF FONTAINE BLVD AND COTTONWOOD GROVE DR. ELEVATION 5724.072 (N.G.V.D. 29)

TRAFFIC CONTROL NOTE

THE CONTRACTOR SHALL PROVIDE ALL TRAFFIC CONTROL DEVICES AND MONITORING NECESSARY TO SAFELY COMPLETE THE WORK SHOWN IN THESE CONSTRUCTION DOCUMENTS IN CONFORMANCE WITH M.U.T.C.D. GUIDELINES. THE CONTRACTOR SHALL COMPLETE ALL NECESSARY WORK FOR PLAN REVIEW, PERMITS AND PROCESSING. TRAFFIC CONTROL WILL NOT BE PAID SEPARATELY BUT IS INCLUDED IN THE COST OF THE PROJECT.

CORE ENGINEERING GROUP

15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719-659-7800
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@cog1.com

CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2

212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

COVER SHEET

STREET/STORM SEWER AND UTILITY PLANS

DATE:
JUNE 18, 2019

PROJECT NO.
100.046

SHEET NUMBER
C0.1

TOTAL SHEETS: 21

CONSTRUCTION NOTES

1. ALL WORK SHALL COMPLY WITH THE CODES AND POLICIES FOR EL PASO COUNTY.
2. EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THIS GRADING PLAN WAS OBTAINED FROM AERIAL CONTOURS AND PREVIOUS CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO EXAMINE THE SITE AND BE FAMILIAR WITH THE EXISTING CONDITIONS.
3. DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:
BASE OF ALL CUTS AND FILLS - 12 INCHES,
FULL DEPTH OF ALL EMBANKMENTS
4. THE CONTRACTOR IS RESPONSIBLE FOR THE RE-ESTABLISHMENT OF ALL SURVEY MONUMENTS DISTURBED WITHIN THE PROJECT LIMITS.
5. THE CONTRACTOR SHALL PROTECT ALL WORK AREAS AND FACILITIES FROM FLOODING AT ALL TIMES. AREAS AND FACILITIES SUBJECT TO FLOODING, REGARDLESS OF THE SOURCE OF WATER, SHALL BE PROMPTLY DEWATERED AND RESTORED.
6. PRIOR TO PAVING OPERATIONS, THE ENTIRE SUBGRADE SHALL BE PROOF-ROLLED WITH A LOADED 988 FRONT-END LOADER OR SIMILAR HEAVY RUBBER Tired VEHICLE (GVW OF 50,000 POUNDS WITH 18 KIP PER AXLE AT TIRE PRESSURES OF 90 PSI) TO DETECT ANY SOFT OR LOOSE AREAS. IN AREAS WHERE SOFT OR LOOSE SOILS, PUMPING OR EXCESSIVE MOVEMENT IS OBSERVED, THE EXPOSED MATERIALS SHALL BE OVER-EXCAVATED TO A MINIMUM DEPTH OF TWO FEET BELOW PROPOSED FINAL GRADE OR TO A DEPTH AT WHICH SOILS ARE STABLE. AFTER THIS HAS BEEN COMPLETED, THE EXPOSED MATERIALS SHALL BE SCARIFIED TO A DEPTH OF 12 INCHES AND MOISTURE CONDITIONED. THE SUBGRADE SHALL THEN BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY (ASTM D-698) AT 0 TO +4.0% OF OPTIMUM MOISTURE CONTENT FOR A-6 AND A-7-6 SOILS ENCOUNTERED. OTHER SUBGRADE TYPES SHALL BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR DENSITY (ASTM D-1557) AT PLUS OR MINUS 2.0% OF OPTIMUM MOISTURE CONTENT. AREAS WHERE STABLE NATURAL SOILS ARE ENCOUNTERED AT PROPOSED SUBGRADE ELEVATION SHALL ALSO BE SCARIFIED (18 INCHES FOR A-7-6 SOILS BELOW FULL-DEPTH ASPHALT CONCRETE) AND COMPACTED AS OUTLINED ABOVE PRIOR TO PAVING OPERATIONS. SUBGRADE FILL SHALL BE PLACED IN SIX-INCH LIFTS AND UNIFORMLY COMPACTED, MEETING THE REQUIREMENTS AS PREVIOUSLY DESCRIBED.
7. SUBGRADE MATERIALS DEEMED UNSUITABLE BY THE ENGINEER SHALL BE EXCAVATED, DISPOSED OF AND REPLACED WITH APPROVED MATERIALS.
8. FILL SHALL BE PLACED IN 8-INCH MAXIMUM LOOSE LIFTS AND SHALL BE COMPACTED PRIOR TO SUCCESSIVE LIFTS.
9. THE CONTRACTOR IS RESPONSIBLE FOR PREVENTING AND CONTROLLING EROSION DURING CONSTRUCTION ACTIVITIES AT ALL TIMES DURING GRADING AND CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES:
 - HAY BALE BARRIERS WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
 - SILT FENCE WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
 - TEMPORARY SEDIMENTATION BASINS WHERE NEEDED AND/OR AS DIRECTED BY THE ENGINEER.
 - MULCHING AND SEEDING OF EXCESSIVE SLOPED AREAS AS NEEDED OR AS DIRECTED BY THE ENGINEER.
 - TEMPORARY VEHICLE TRACKING CONTROL AS NEEDED AND/OR DIRECTED BY THE ENGINEER.
 - CONCRETE WASH AREAS.
 - INLET PROTECTION.
 THESE AND ALL EROSION CONTROL BEST MANAGEMENT PRACTICES AS SHOWN IN THE GRADING AND EROSION CONTROL PLANS SHALL BE STRICTLY ADHERED TO.
10. FINISHED CONTOURS/SPOT ELEVATIONS SHOWN HEREON REPRESENT FINISHED GRADES. ALL PAVEMENT SUBGRADES ARE BASED ON THE COMPOSITE ASPHALT PAVEMENT RECOMMENDATIONS MADE IN THE "GEOTECHNICAL STUDY" FOR THIS PROJECT.

EL PASO COUNTY STANDARD CONSTRUCTION NOTES:

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

**CORE
ENGINEERING GROUP**

1500 11ST AVENUE, SUITE 301
BOULDER, CO 80506
PHONE: 719-659-7800
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@ceg1.com

DATE: _____
DESCRIPTION: _____
NO: _____
PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
CONTACT: JEFF MARK

PROJECT: CARRIAGE MEADOWS
SOUTH AT LORSON
RANCH FILING NO. 2
FONTAINE BLVD - CARRIAGE MEADOWS DR
COLORADO SPRINGS, COLORADO

DRAWN: **RLS**
DESIGNED: **RLS**
CHECKED: **RLS**

NOTES

DATE:
JUNE 18, 2019

PROJECT NO.
100.046

SHEET NUMBER
C0.2

TOTAL SHEETS: 21

CONSTRUCTION NOTES

- ALL WORK SHALL COMPLY WITH THE CODES AND POLICIES FOR EL PASO COUNTY.
- EXISTING TOPOGRAPHIC INFORMATION SHOWN ON THIS GRADING PLAN WAS OBTAINED FROM DREXEL, BARRELL & CO., JULY, 2005. SUPPLEMENTAL SURVEY DATA WAS OBTAINED FOR MARKSHEFFEL ROAD FROM M&S CIVIL GROUP IN NOVEMBER, 2016. THE CONTRACTOR SHALL BE RESPONSIBLE TO EXAMINE THE SITE AND BE FAMILIAR WITH THE EXISTING CONDITIONS.
- DEPTH OF MOISTURE-DENSITY CONTROL FOR THIS PROJECT SHALL BE AS FOLLOWS:
BASE OF ALL CUTS AND FILLS - 12 INCHES,
FULL DEPTH OF ALL EMBANKMENTS
- THE CONTRACTOR IS RESPONSIBLE FOR THE RE-ESTABLISHMENT OF ALL SURVEY MONUMENTS DISTURBED WITHIN THE PROJECT LIMITS.
- THE CONTRACTOR SHALL PROTECT ALL WORK AREAS AND FACILITIES FROM FLOODING AT ALL TIMES. AREAS AND FACILITIES SUBJECTED TO FLOODING, REGARDLESS OF THE SOURCE OF WATER, SHALL BE PROMPTLY DEWATERED AND RESTORED.
- PRIOR TO PAVING OPERATIONS, THE ENTIRE SUBGRADE SHALL BE PROOF-ROLLED WITH A LOADED 988 FRONT-END LOADER OR SIMILAR HEAVY RUBBER Tired VEHICLE (GVW OF 50,000 POUNDS WITH 18 KIP PER AXLE AT TIRE PRESSURES OF 90 PSI) TO DETECT ANY SOFT OR LOOSE AREAS. IN AREAS WHERE SOFT OR LOOSE SOILS, PUMPING OR EXCESSIVE MOVEMENT IS OBSERVED, THE EXPOSED MATERIALS SHALL BE OVER-EXCAVATED TO A MINIMUM DEPTH OF TWO FEET BELOW PROPOSED FINAL GRADE OR TO A DEPTH AT WHICH SOILS ARE STABLE. AFTER THIS HAS BEEN COMPLETED, THE EXPOSED MATERIALS SHALL BE SCARIFIED TO A DEPTH OF 12 INCHES AND MOISTURE CONDITIONED. THE SUBGRADE SHALL THEN BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF STANDARD PROCTOR DENSITY (ASTM D-698) AT 0 TO +4.0% OF OPTIMUM MOISTURE CONTENT FOR A-6 AND A-7-6 SOILS ENCOUNTERED. OTHER SUBGRADE TYPES SHALL BE UNIFORMLY COMPACTED TO A MINIMUM OF 95% OF MODIFIED PROCTOR DENSITY (ASTM D-1557) AT PLUS OR MINUS 2.0% OF OPTIMUM MOISTURE CONTENT. AREAS WHERE STABLE NATURAL SOILS ARE ENCOUNTERED AT PROPOSED SUBGRADE ELEVATION SHALL ALSO BE SCARIFIED (18 INCHES FOR A-7-6 SOILS BELOW FULL-DEPTH ASPHALT CONCRETE) AND COMPACTED AS OUTLINED ABOVE PRIOR TO PAVING OPERATIONS. SUBGRADE FILL SHALL BE PLACED IN SIX-INCH LIFTS AND UNIFORMLY COMPACTED, MEETING THE REQUIREMENTS AS PREVIOUSLY DESCRIBED.
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 - INLET PROTECTION.
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- FINISHED CONTOURS/SPOT ELEVATIONS SHOWN HEREON REPRESENT FINISHED GRADES. ALL PAVEMENT SUBGRADES ARE BASED ON THE COMPOSITE ASPHALT PAVEMENT RECOMMENDATIONS MADE IN THE "GEOTECHNICAL STUDY" FOR LORSON RANCH.

WIDEFIELD WATER AND SANITATION DISTRICT GENERAL NOTES

- ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT WIDEFIELD WATER AND SANITATION DISTRICT SPECIFICATIONS. COMPACTION REQUIREMENTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE WIDEFIELD WATER AND SANITATION DISTRICT OR A HIGHER STANDARD IS IMPOSED BY ANOTHER AGENCY HAVING RIGHT-OF-WAY JURISDICTION.
- ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE WIDEFIELD WATER AND SANITATION DISTRICT. THE WIDEFIELD WATER AND SANITATION DISTRICT RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SUCH MATERIALS AND WORKMANSHIP THAT DOES NOT CONFORM TO ITS STANDARDS AND SPECIFICATIONS.
- THE DEVELOPER OR HIS ENGINEER HAS LOCATED ALL FIRE HYDRANTS AND FUTURE SERVICE STUBS. ANY REQUIRED REALIGNMENT, EITHER HORIZONTAL OR VERTICAL, SHALL BE AT THE EXPENSE OF THE DEVELOPER.
- ALL DUCTILE IRON PIPE, TO INCLUDE FITTINGS, VALVES AND FIRE HYDRANTS WILL BE WRAPPED WITH POLYETHYLENE TUBING, BONDED AT EACH JOINT AND ELECTRICALLY ISOLATED.
- ALL DUCTILE IRON PIPE SHALL BE DOUBLE BONDED. DIP SHALL HAVE CATHODIC PROTECTION USING NO. 6 WIRE WITH 17 LB. MAGNESIUM ANODES EVERY 400 FEET.
- PVC MAIN LINES SHALL BE INSTALLED WITH COATED NO. 12 TRACER WIRE.
- ALL FITTINGS SHALL BE DUCTILE IRON -MECHANICAL JOINT AND HAVE 9 LB. MAGNESIUM ANODES AT EVERY FITTING.
- THE CONTRACTOR IS REQUIRED TO NOTIFY THE WIDEFIELD WATER AND SANITATION DISTRICT (390-7111) A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL ALSO NOTIFY AFFECTED UTILITY COMPANIES 48 HOURS PRIOR TO CONSTRUCTION ADJACENT TO THE KNOWN UTILITY LINES.
- THE LOCATION OF ALL UTILITIES AS SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE VERIFIED PRIOR TO CONSTRUCTION BY THE CONTRACTOR.
- THE CONTRACTOR SHALL FIELD EXCAVATE AND VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL TIE-INS. CONTRACTOR SHALL NOTIFY THE WIDEFIELD WATER AND SANITATION DISTRICT AND THE ENGINEER OF THE FIELD VERIFIED INFORMATION PRIOR TO CONSTRUCTION.
- ALL BENDS SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION.
- ANY WATER UTILITY MATERIAL REMOVED AND NOT REUSED SHALL BE RETURNED TO THE WIDEFIELD WATER AND SANITATION DISTRICT IF THE DISTRICT SO REQUESTS.
- THE CONTRACTOR SHALL AT HIS EXPENSE SUPPORT AND PROTECT ALL UTILITY MAINS SO THAT THEY WILL FUNCTION CONTINUOUSLY DURING CONSTRUCTION. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT WILL BE REPLACED IMMEDIATELY BY EITHER THE CONTRACTOR OR THE WIDEFIELD WATER AND SANITATION DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR.
- ANY PUMPING OR BYPASS OPERATIONS MUST BE REVIEWED AND APPROVED PRIOR TO EXECUTION BY BOTH THE WIDEFIELD WATER AND SANITATION DISTRICT AND THE ENGINEER.
- DISINFECTION SHALL BE ACCOMPLISHED BY GLUING TABLETS TO THE TOP OF THE LINE. POWDER OR GRANULER HTH SHALL NOT BE USED. SEE WIDEFIELD SPECS FOR FURTHER DEFINITION OF DISINFECTION TECHNIQUES.
- CONTRACTOR MUST REPLACE OR REPAIR ANY DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, CURB AND GUTTER AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.
- ALL WATER LINES 6" AND LARGER, AND ALL SEWER LINES 8" AND LARGER, SHALL HAVE AS "AS-BUILT" PLANS PREPARED AND APPROVED PRIOR TO FINAL ACCEPTANCE BY THE WIDEFIELD WATER AND SANITATION DISTRICT.
- PRIOR TO CONSTRUCTION, A PRE-CONSTRUCTION CONFERENCE IS REQUIRED A MINIMUM OF 72 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. TO SET THE PRE-CONSTRUCTION CONFERENCE, CONTACT BRANDON BERNARD-WATER SUPERINTENDENT (464-2051) AND/OR MARK MCCORMICK, WASTEWATER SUPERINTENDENT OF THE WIDEFIELD WATER AND SANITATION DISTRICT FOR A TIME. NO PRE-CONSTRUCTION CONFERENCE TIMES WILL BE SET UNTIL 4 SETS OF SIGNED DRAWINGS ARE RECEIVED BY THE WIDEFIELD W & S DISTRICT. PRE-CONSTRUCTION DATE /INITIALS_____.

WIDEFIELD WATER AND SANITATION DISTRICT UTILITY CONSTRUCTION NOTES

- ALL DUCTILE IRON PIPE AND FITTINGS SHALL HAVE CATHODIC PROTECTION AND 9 LB MAGNESIUM ANODES AT EVERY FITTING.
- ALL FIRE HYDRANTS SHALL BE GUARDIAN K-81D HYDRANT KENNEDY VALVE OR AMERICAN AVK SERIES 2700, (MODERN)

UNDERDRAIN CONSTRUCTION NOTES

- SUMP PUMP DISCHARGES FROM HOUSES MUST DISCHARGE TO UNDERGROUND UNDERDRAIN LATERALS, OPEN SPACE, PONDS, OR SWALES AND ARE NOT ALLOWED TO FLOW OVER PUBLIC SIDEWALK OR CURB/GUTTER.
- ALL PVC UNDERDRAIN MAINS SHALL BE 4" PVC, SDR 35.
- UNDERDRAIN LATERALS SHALL BE 3" PVC, SDR 35
- UNDERDRAIN CLEANOUT BOXES ON THE MAINS SHALL BE A CAST IRON TWO PIECE HEAVY DUTY VALVE BOX MANUFACTURED BY STAR PIPE PRODUCTS OR APPROVED EQUAL. THE TOP PIECE SHALL BE 16" TALL AND THE BOTTOM PIECE SHALL BE 36" TALL.
- PVC MAIN LINES SHALL BE INSTALLED WITH COATED NO. 12 TRACER WIRE.
- ALL FITTINGS SHALL BE DUCTILE IRON -MECHANICAL JOINT AND HAVE 1 LB. MAGNESIUM ANODES AT EVERY FITTING.
- THE LOCATION OF ALL UTILITIES AS SHOWN ON THESE DRAWINGS ARE APPROXIMATE ONLY. THE LOCATION OF ALL UTILITIES SHALL BE VERIFIED PRIOR TO CONSTRUCTION BY THE CONTRACTOR.
- THE CONTRACTOR SHALL FIELD EXCAVATE AND VERIFY THE VERTICAL AND HORIZONTAL LOCATION OF ALL TIE-INS. CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE FIELD VERIFIED INFORMATION PRIOR TO CONSTRUCTION.
- ALL BENDS SHALL BE FIELD STAKED PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL AT HIS EXPENSE SUPPORT AND PROTECT ALL UTILITY MAINS SO THAT THEY WILL FUNCTION CONTINUOUSLY DURING CONSTRUCTION. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT WILL BE REPLACED IMMEDIATELY BY THE CONTRACTOR AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR.

CORE
ENGINEERING GROUP
1500 WEST AVENUE,
BOURNE, CO. 80903
PH: 719-659-7800
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@eg1.com

NO.	DESCRIPTION	DATE
	PROJECT: CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2 FONTAINE BLVD-CARRIAGE MEADOWS DR COLORADO SPRINGS, COLORADO	
	PREPARED FOR: LORSON, LLC 212 N. WAHSATCH AVE, SUITE 301 COLORADO SPRINGS, COLORADO 80903	
	CONTACT: JEFF MARK	

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

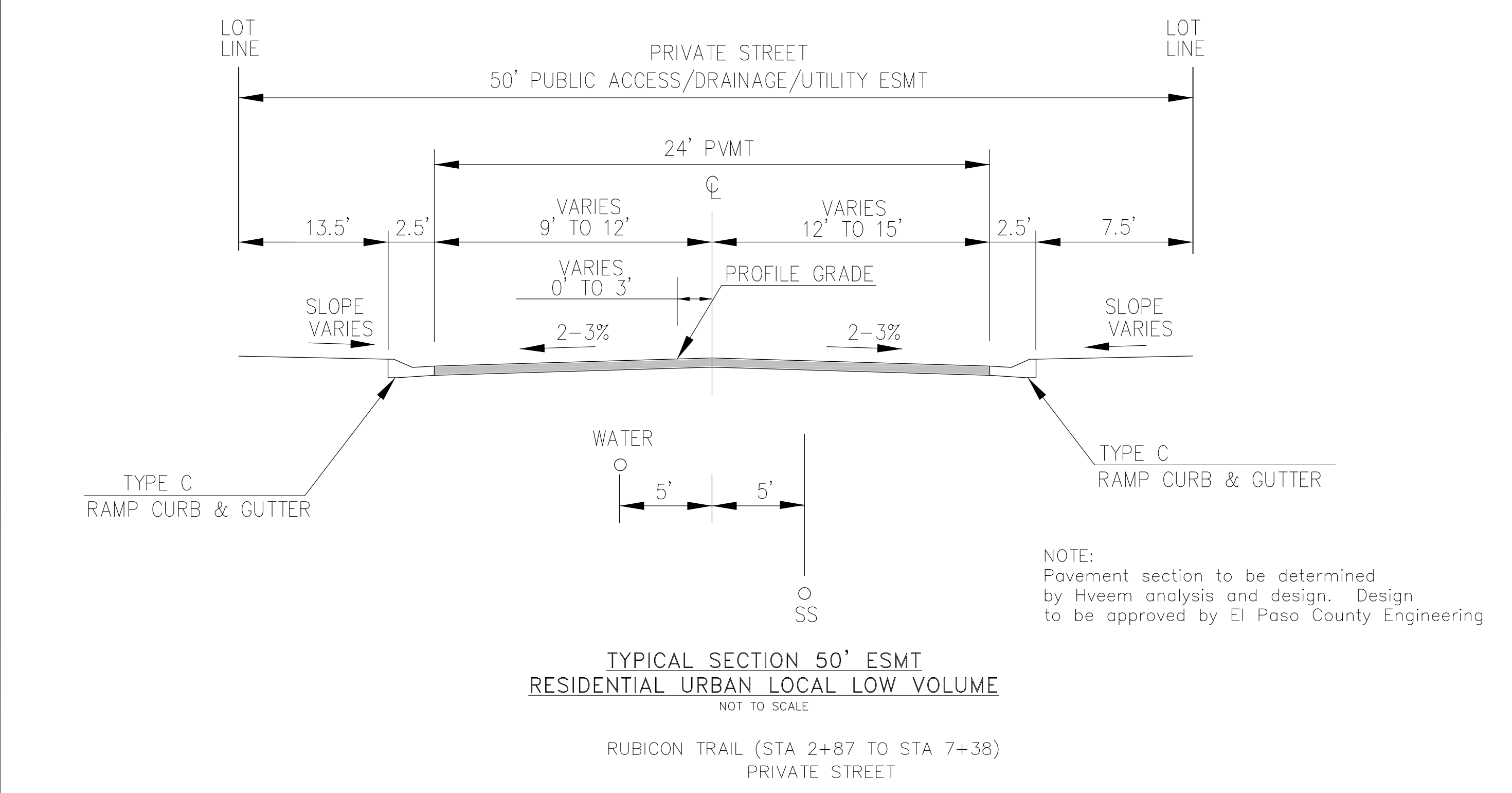
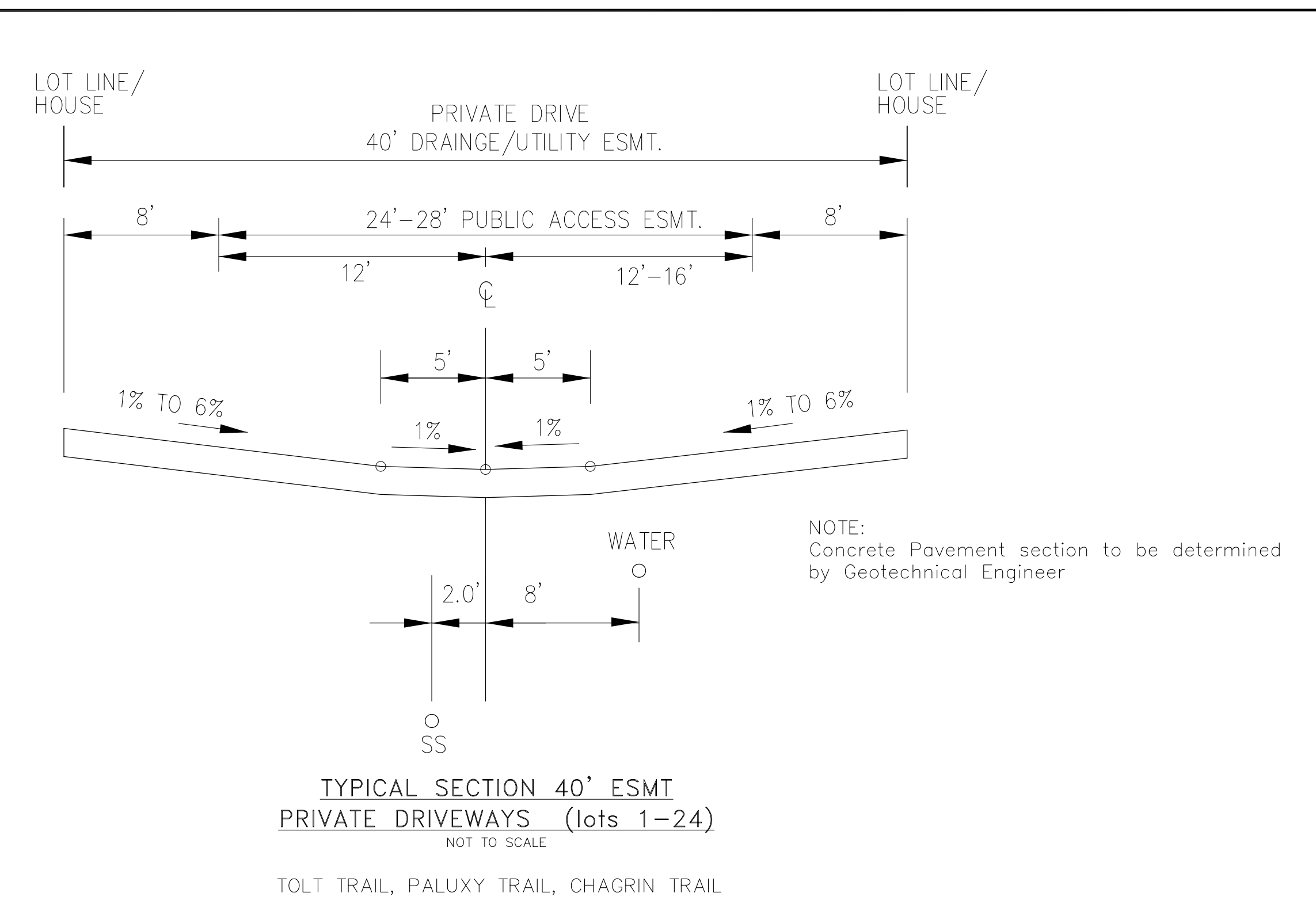
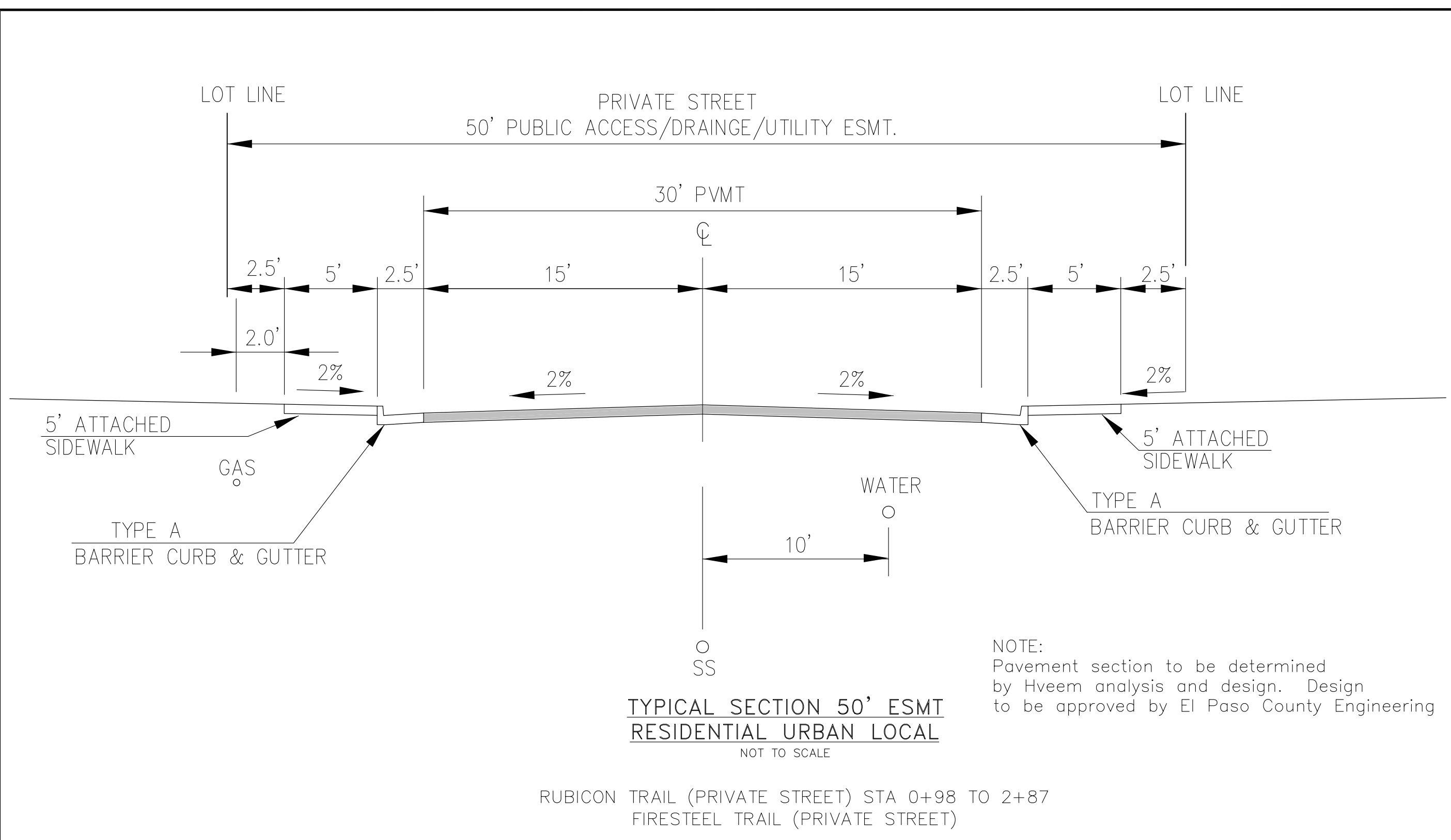
SEWER / WATER NOTES

DATE:
JUNE 18, 2019

PROJECT NO.
100.046

SHEET NUMBER
C0.3

TOTAL SHEETS: 21



CORE ENGINEERING GROUP	
15004 1ST AVENUE S. BURNSVILLE, MN 55306 PH: 719-659-7800 CONTACT: RICHARD L. SCHINDLER, P.E. EMAIL: Rich@cegi.com	
DATE	
DESCRIPTION	
NO.	
DRAWN: RLS	
DESIGNED: RLS	
CHECKED: RLS	
PREPARED FOR: LORSON, LLC PROJECT: CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2 FONTAINE BLVD - CARRIAGE MEADOWS DR COLORADO SPRINGS, COLORADO CONTACT: JEFF MARK	

TYPICAL STREET AND DRIVEWAY SECTIONS	
DATE: JUNE 18, 2019	
PROJECT NO. 100.046	
SHEET NUMBER C0.4	
TOTAL SHEETS: 21	

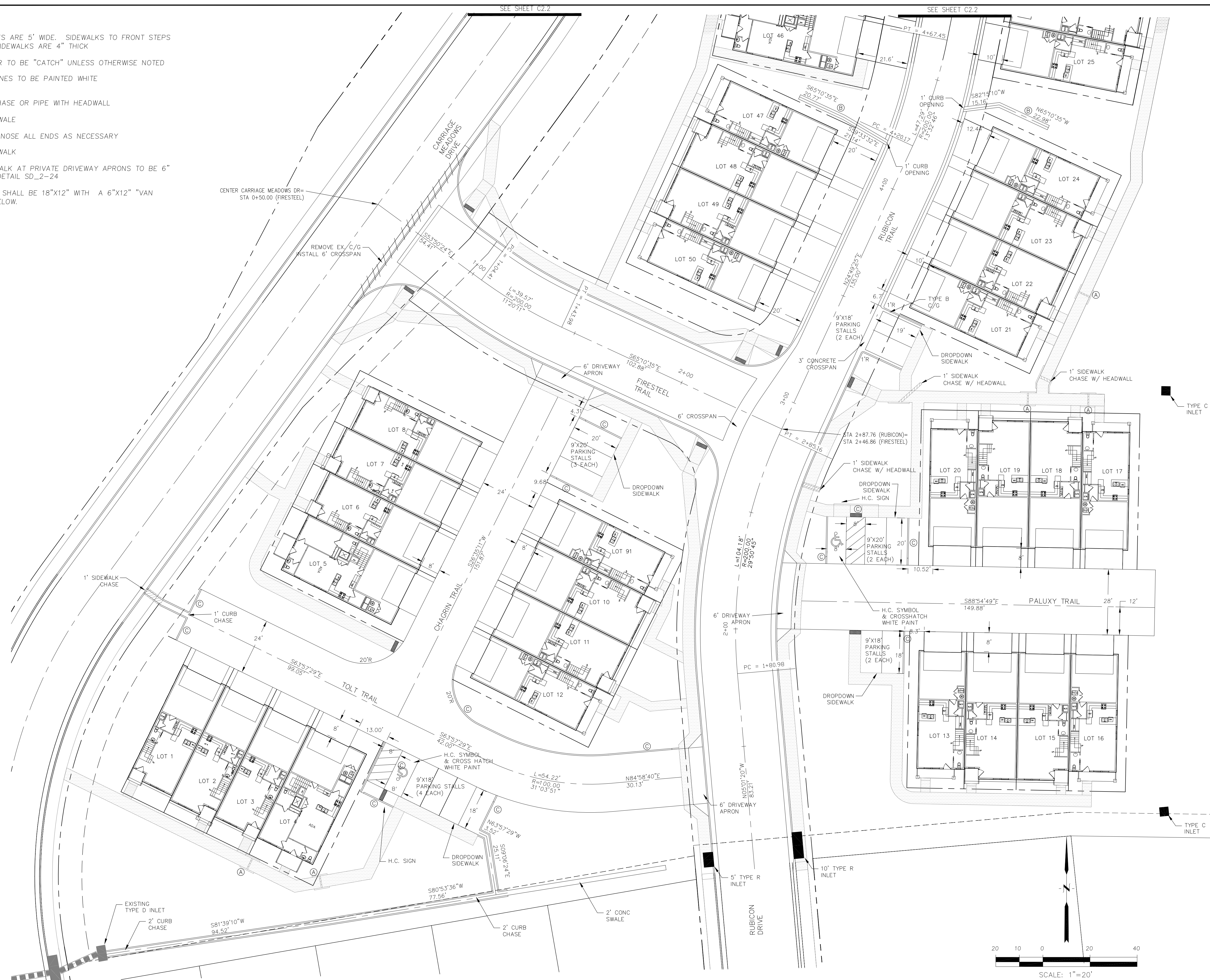
NOTES

- COMMON SIDEWALKS ARE 5' WIDE. SIDEWALKS TO FRONT STEPS ARE 4' WIDE. ALL SIDEWALKS ARE 4" THICK
- CURB AND GUTTER TO BE "CATCH" UNLESS OTHERWISE NOTED
- PARKING STALL LINES TO BE PAINTED WHITE

- (A) 6" SIDEWALK CHASE OR PIPE WITH HEADWALL
- (B) 2' CONCRETE SWALE
- (C) 6" CURB. BULLNOSE ALL ENDS AS NECESSARY

CONCRETE SIDEWALK

- CONCRETE SIDEWALK AT PRIVATE DRIVEWAY APRONS TO BE 6" THICK PER COUNTY DETAIL SD_2-24
- HANDICAP SIGNS SHALL BE 18"x12" WITH A 6"x12" "VAN ACCESSIBLE" SIGN BELOW.



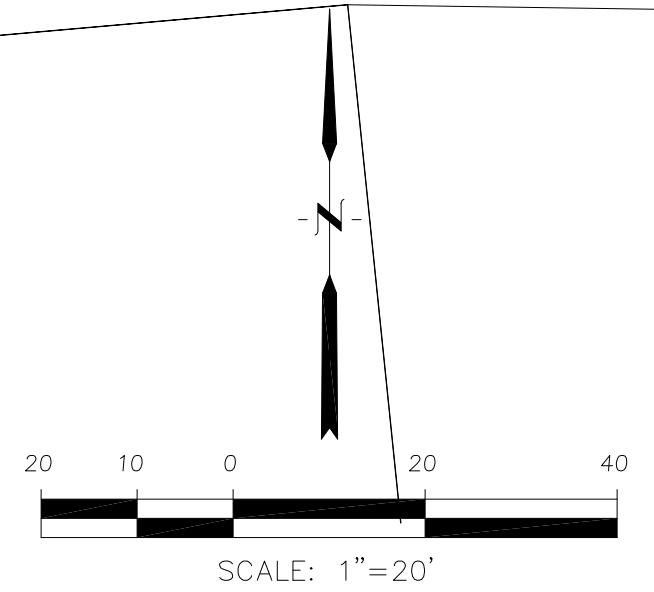
CORE ENGINEERING GROUP
 15004 1ST AVENUE S.
 BIRCH CREEK, CO 80150
 PH: 303-441-7800
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@ceg1.com

DATE: _____
 DESCRIPTION: _____
 NO: _____
 PREPARED FOR: **LORSON, LLC**
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 PROJECT: **CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2**
 FONTAINE BLVD - CARRIAGE MEADOWS DR
 COLORADO SPRINGS, COLORADO
 CONTACT: JEFF MARK

DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

CARRIAGE MEADOWS SOUTH AT LORSON RANCH FIL. NO. 2 HORIZONTAL CONTROL PLAN

DATE: JUNE 18, 2019
 PROJECT NO. 100.046
 SHEET NUMBER **C2.1**
 TOTAL SHEETS: 21



Show the curb location per the Carriage Meadows South PUD/SP (PUDSP-16-002)

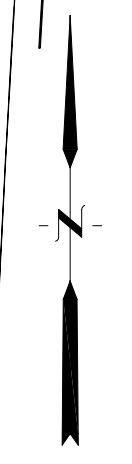
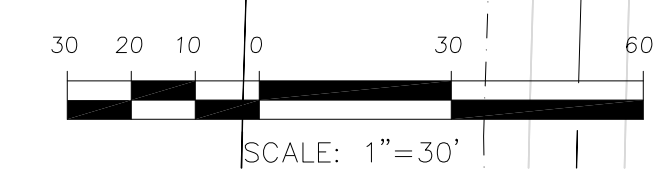
N 7° 51' 21" E 104.03'

10' LANDSCAPE SETBACK

SEE SHEET C2.1

SEE SHEET C2.1

SEE SHEET C2.1



CORE
ENGINEERING GROUP
 15004 1ST AVENUE S,
 BIRCH CREEK, CO 80150
 PH: 303-440-7800
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@ceg1.com

DATE: _____
 NO: _____
 DESCRIPTION: _____
 PREPARED FOR:
LORSON, LLC
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 CONTACT: JEFF MARK

DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

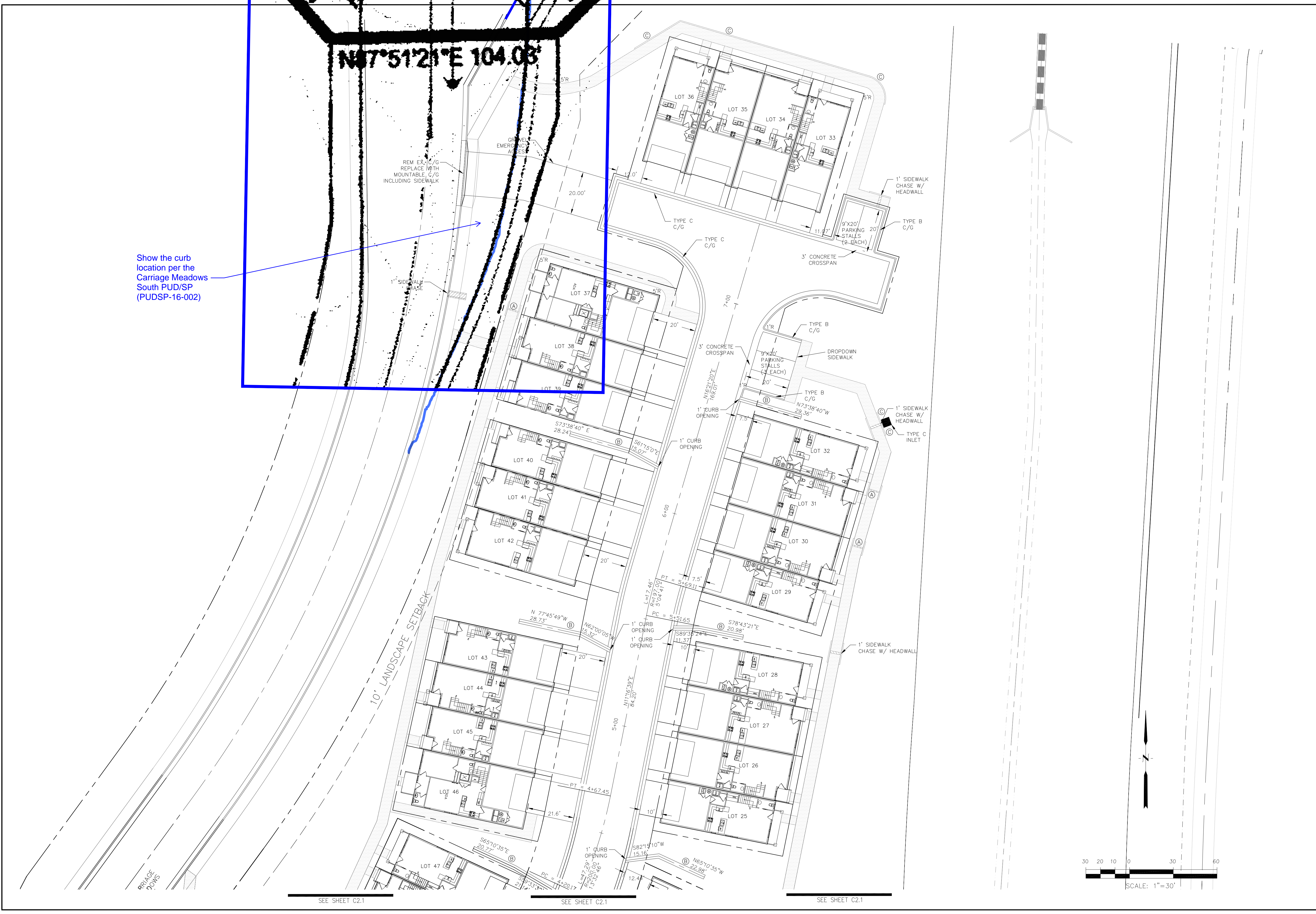
**CARRIAGE MEADOWS SOUTH AT
 LORSON RANCH FIL. NO. 2
 HORIZONTAL CONTROL PLAN**

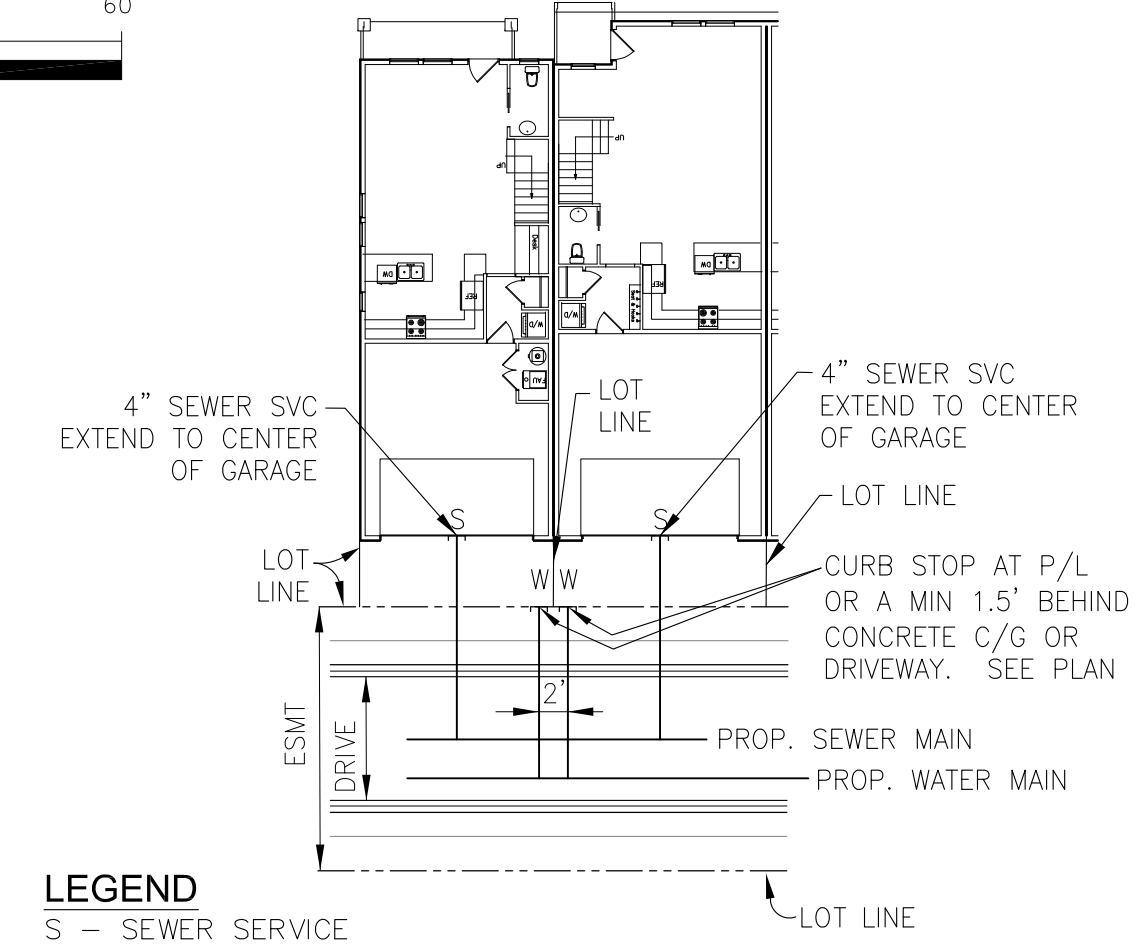
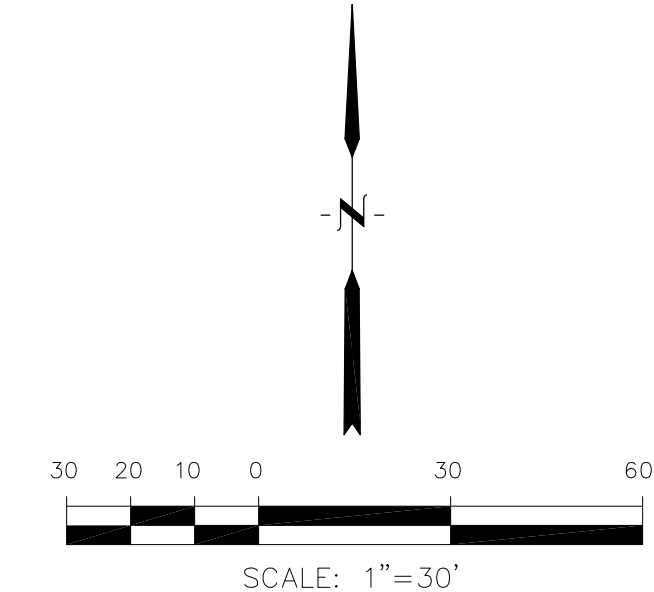
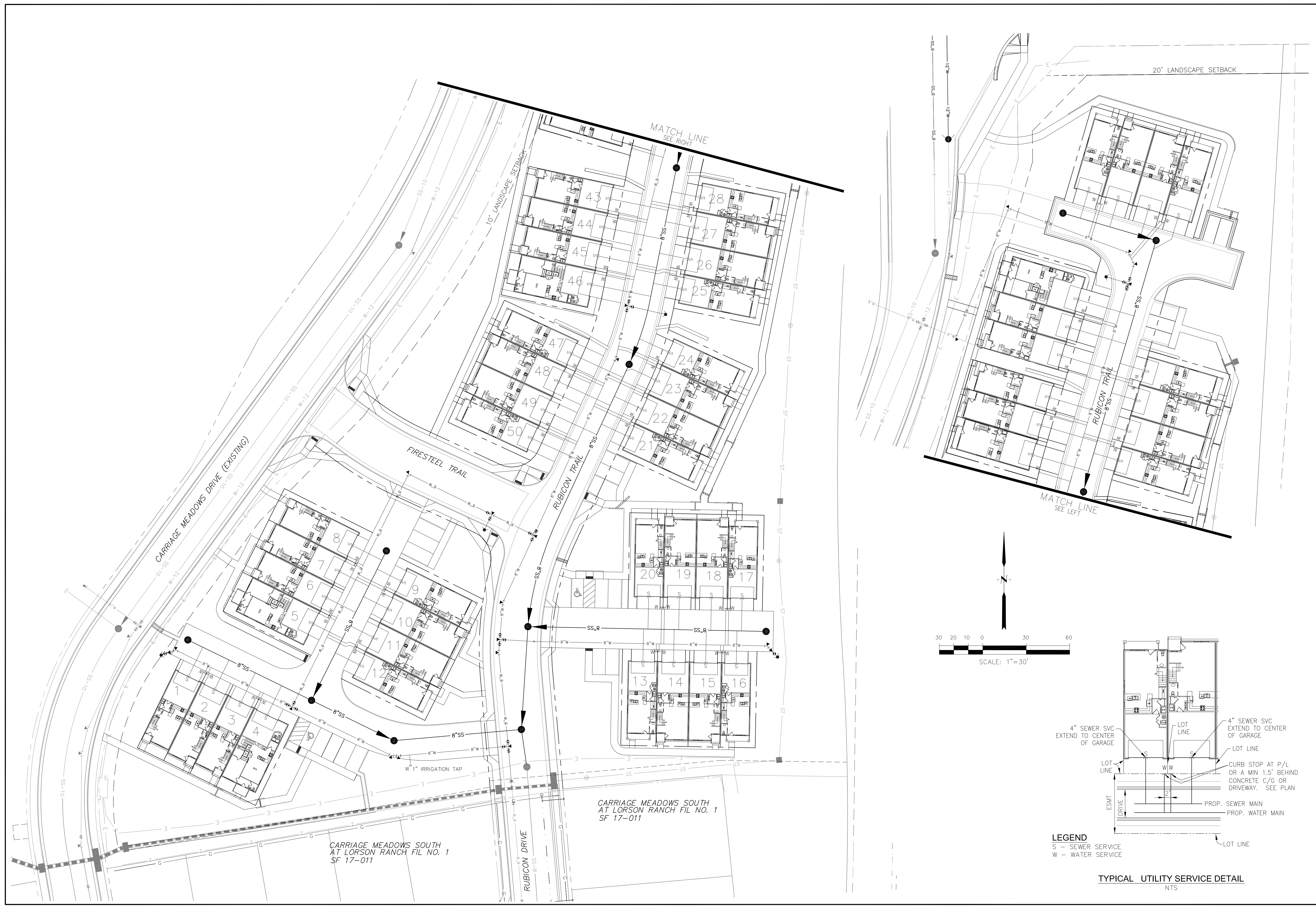
DATE:
 JUNE 18, 2019

PROJECT NO.
 100.046

SHEET NUMBER
C2.2

TOTAL SHEETS: 21





LEGEND
 S - SEWER SERVICE
 W - WATER SERVICE

CARRIAGE MEADOWS SOUTH AT LORSON RANCH FIL NO. 1 SF 17-011

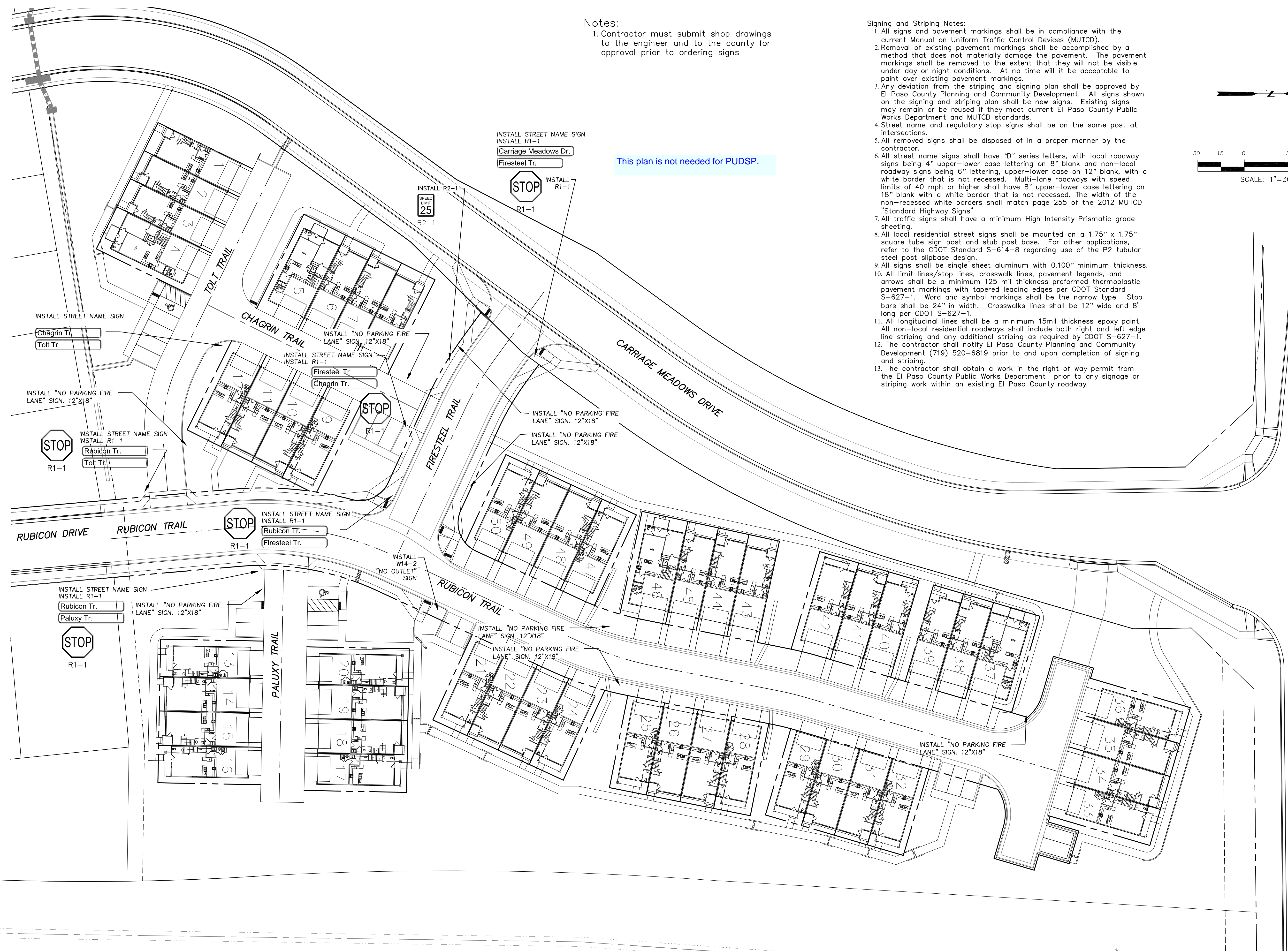
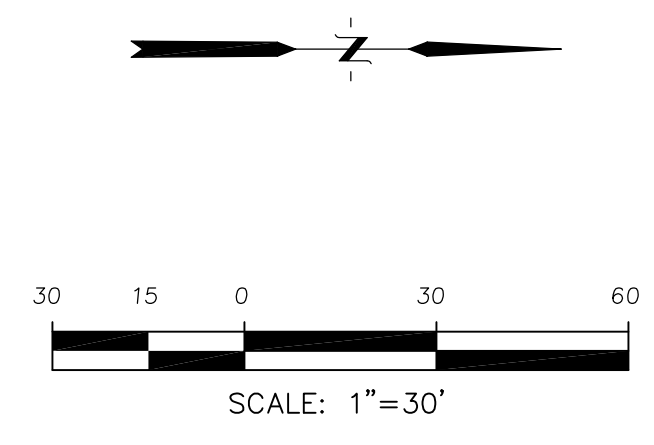
CARRIAGE MEADOWS SOUTH AT LORSON RANCH FIL NO. 1 SF 17-011

<p>CORE ENGINEERING GROUP 15004 1ST AVENUE S. BURNSVILLE, MN 55306 PH: 719-659-7800 CONTACT: RICHARD L. SCHINDLER, P.E. EMAIL: rich@cegi.com</p>		DATE
		DESCRIPTION
NO.	<p>PROJECT: CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2 FONTANE BLVD-CARRIAGE MEADOWS DR COLORADO SPRINGS, COLORADO</p>	<p>PREPARED FOR: LORSON, LLC 212 N. WAHSATCH AVE, SUITE 301 COLORADO SPRINGS, COLORADO 80903 CONTACT: JEFF MARK</p>
DRAWN: RLS	DESIGNED: RLS	CHECKED: RLS
<p>CARRIAGE MEADOWS SOUTH AT LORSON RANCH FIL NO. 2 UTILITY SERVICES PLAN</p>		
DATE: JUNE 18, 2019		
PROJECT NO. 100.046		
SHEET NUMBER C3.1		
TOTAL SHEETS: 21		

Notes:
 1. Contractor must submit shop drawings to the engineer and to the county for approval prior to ordering signs

Signing and Striping Notes:
 1. All signs and pavement markings shall be in compliance with the current Manual on Uniform Traffic Control Devices (MUTCD).
 2. 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.
 3. 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 Public Works Department and MUTCD standards.
 4. Street name and regulatory stop signs shall be on the same post at intersections.
 5. All removed signs shall be disposed of in a proper manner by the contractor.
 6. 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 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".
 7. All traffic signs shall have a minimum High Intensity Prismatic grade sheeting.
 8. All local residential street signs shall be mounted on a 1.75" x 1.75" square tube sign post and stub post base. For other applications, refer to the CDOT Standard S-614-8 regarding use of the P2 tubular steel post slipbase design.
 9. All signs shall be single sheet aluminum with 0.100" minimum thickness.
 10. All limit lines/stop lines, crosswalk lines, pavement legends, and arrows shall be a minimum 125 mil thickness preformed thermoplastic pavement markings with tapered leading edges per 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.
 11. 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-627-1.
 12. The contractor shall notify El Paso County Planning and Community Development (719) 520-6819 prior to and upon completion of signing and striping.
 13. The contractor shall obtain a work in the right of way permit from the El Paso County Public Works Department prior to any signage or striping work within an existing El Paso County roadway.

This plan is not needed for PUDSP.



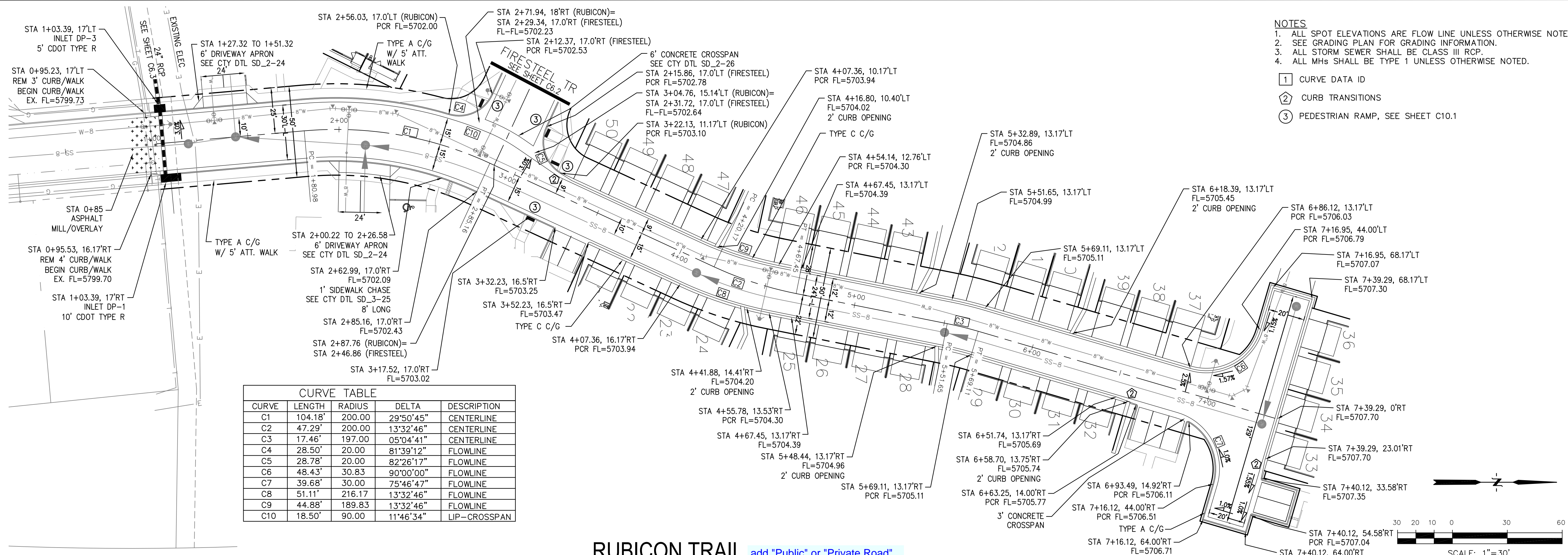
CORE
ENGINEERING GROUP
 15004 1ST AVENUE, S.E.
 BLDG 100
 P.O. BOX 700
 COLORADO SPRINGS, CO 80903
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@cegi.com

DATE: _____
 DESCRIPTION: _____
 NO: _____
 PREPARED FOR:
LORSON, LLC
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 PROJECT: CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2
 FONTAINE BLVD-CARRIAGE MEADOWS DR COLORADO SPRINGS, COLORADO
 CONTACT: JEFF MARK

DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

SIGNING PLAN
CARRIAGE MEADOWS SOUTH AT
LORSON RANCH FILING NO. 2

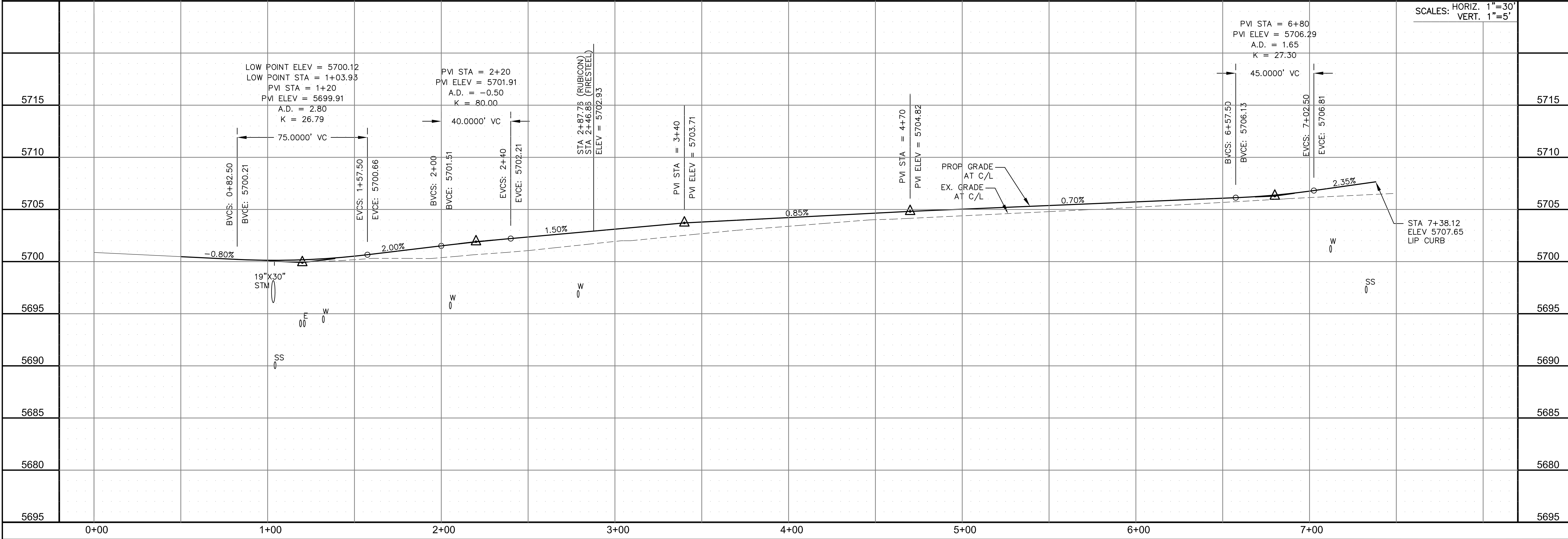
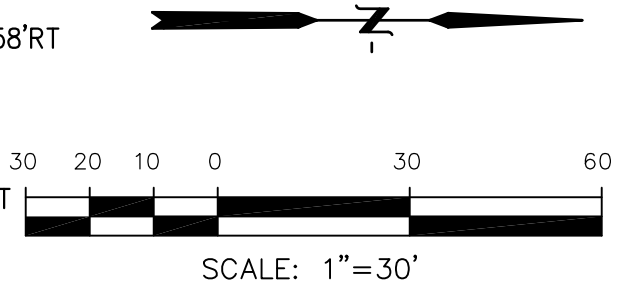
DATE:
 JUNE 18, 2019
 PROJECT NO.
 100.046
 SHEET NUMBER
 C5.1
 TOTAL SHEETS: 21



CURVE	LENGTH	RADIUS	DELTA	DESCRIPTION
C1	104.18'	200.00	29°50'45"	CENTERLINE
C2	47.29'	200.00	13°32'46"	CENTERLINE
C3	17.46'	197.00	05°04'41"	CENTERLINE
C4	28.50'	20.00	81°39'12"	FLOWLINE
C5	28.78'	20.00	82°26'17"	FLOWLINE
C6	48.43'	30.83	90°00'00"	FLOWLINE
C7	39.68'	30.00	75°46'47"	FLOWLINE
C8	51.11'	216.17	13°32'46"	FLOWLINE
C9	44.88'	189.83	13°32'46"	FLOWLINE
C10	18.50'	90.00	11°46'34"	LIP-CROSSSPAN

- NOTES**
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
 2. SEE GRADING PLAN FOR GRADING INFORMATION.
 3. ALL STORM SEWER SHALL BE CLASS III RCP.
 4. ALL MHS SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.
- ① CURVE DATA ID
 - ② CURB TRANSITIONS
 - ③ PEDESTRIAN RAMP, SEE SHEET C10.1

RUBICON TRAIL add "Public" or "Private Road"



CORE ENGINEERING GROUP
 15004 1ST AVENUE S.
 BLDG 798 570 1100
 COLORADO SPRINGS, COLORADO 80903
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@cegi.com

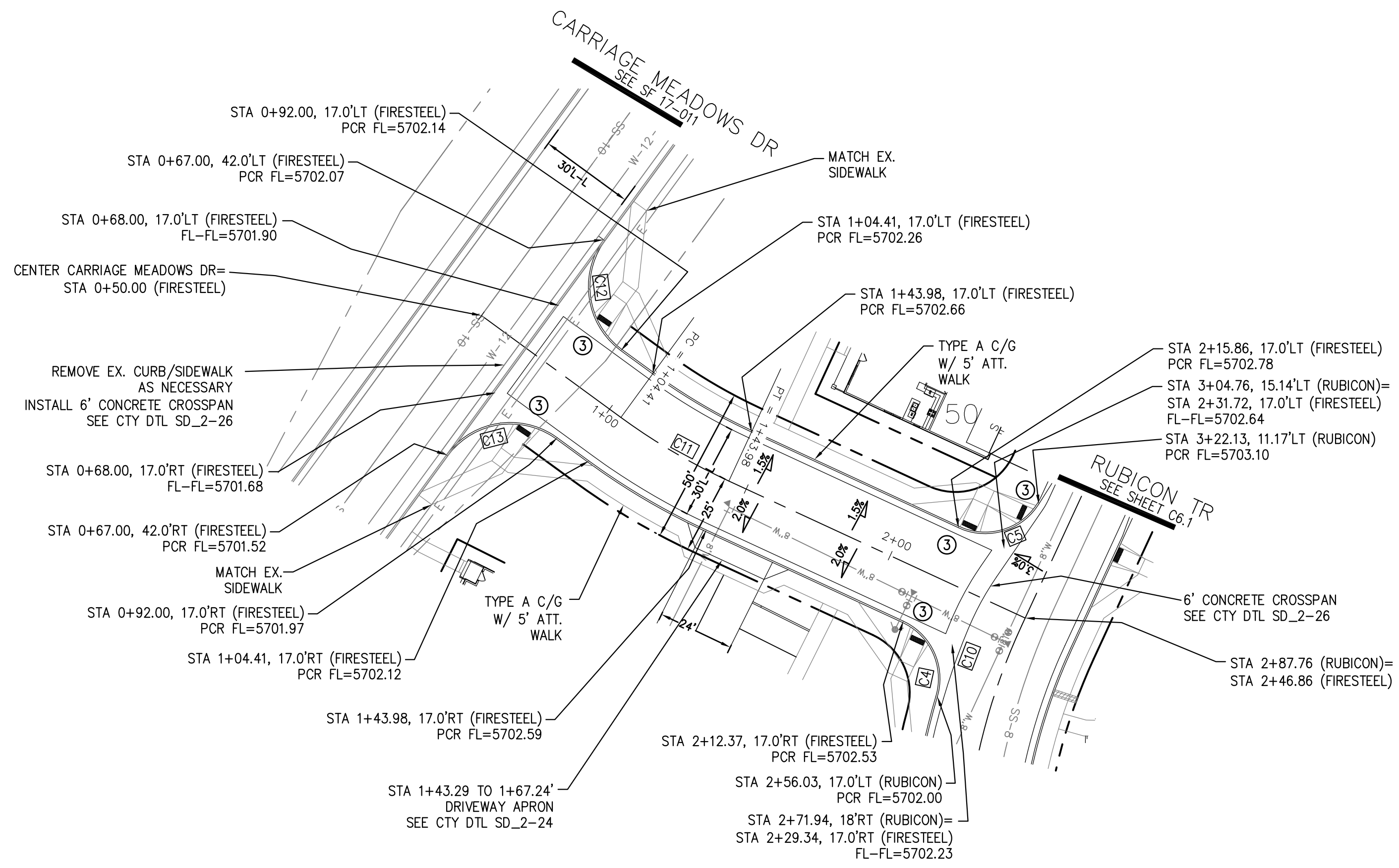
DATE: _____
 DESCRIPTION: _____
 NO.: _____

PREPARED FOR: **LORSON, LLC**
 212 N. WAHSATCH AVE. SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 PROJECT: **CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2**
 FONTANE BLVD-CARRIAGE MEADOWS DR
 COLORADO SPRINGS, COLORADO
 CONTACT: JEFF MARK

DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

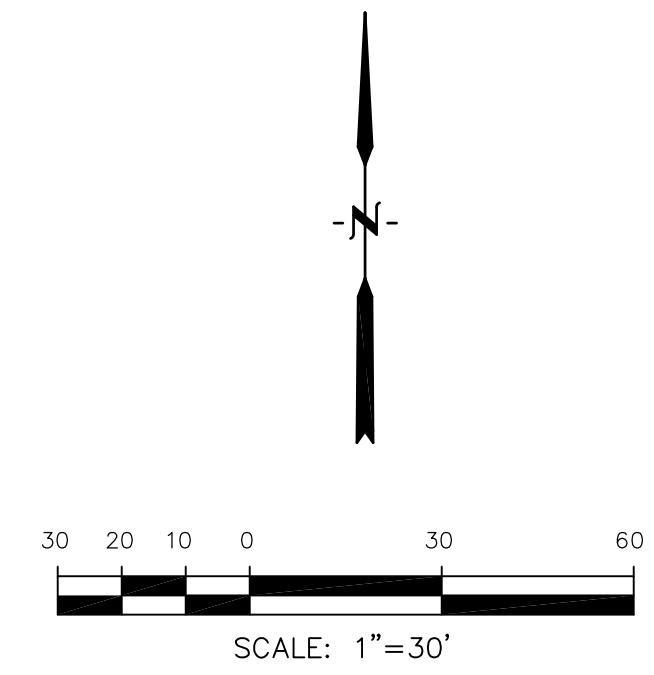
STREET/STORM RUBICON TRAIL STA 0+00 TO 7+40

DATE: JUNE 28, 2019
 PROJECT NO: 100.046
 SHEET NUMBER: C6.1
 TOTAL SHEETS: 21

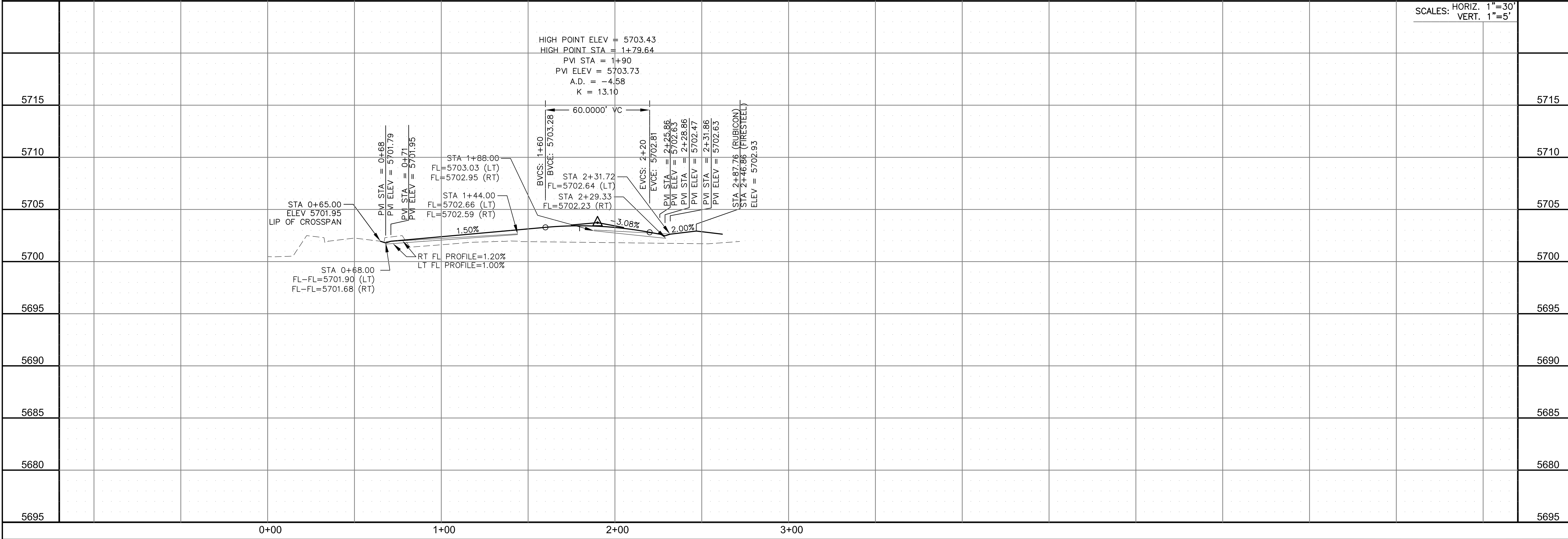


- NOTES**
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
 2. SEE GRADING PLAN FOR GRADING INFORMATION.
 3. ALL STORM SEWER SHALL BE CLASS III RCP.
 4. ALL MHS SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.
- ① CURVE DATA ID
 - ② CURB TRANSITIONS
 - ③ PEDESTRIAN RAMP, SEE SHEET C10.1

CURVE TABLE				
CURVE	LENGTH	RADIUS	DELTA	DESCRIPTION
C4	28.50'	20.00	81°39'12"	FLOWLINE
C5	28.78'	20.00	82°26'17"	FLOWLINE
C10	18.50'	90.00	11°46'34"	LIP-CROSSSPAN
C11	39.57'	200.00	11°20'11"	CENTERLINE
C12	39.27'	25.00	90°00'00"	FLOWLINE
C13	39.27'	25.00	90°00'00"	FLOWLINE



FIRESTEEL TRAIL add "Public" or "Private Road"



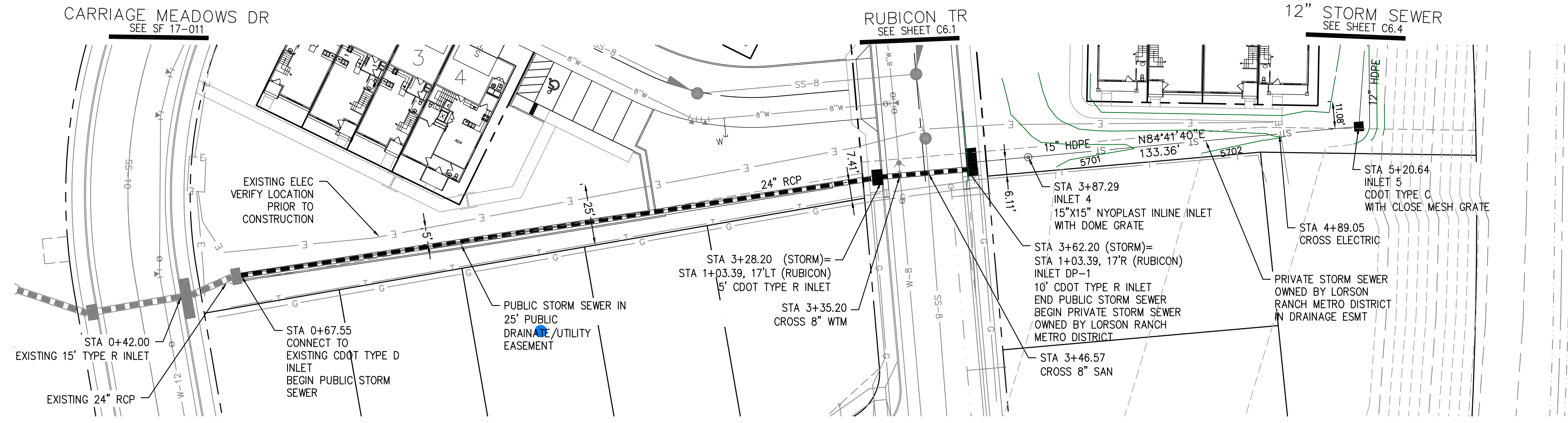
CORE ENGINEERING GROUP
 15004 1ST AVENUE S.
 BLDG 79 570 1100
 COLORADO SPRINGS, COLORADO 80903
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@ceg1.com

DATE: _____
 DESCRIPTION: _____
 NO: _____
 PREPARED FOR: **LORSON, LLC**
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 CONTACT: JEFF MARK

DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

STREET/STORM
FIRESTEEL TRAIL
STA 0+00 TO 2+50

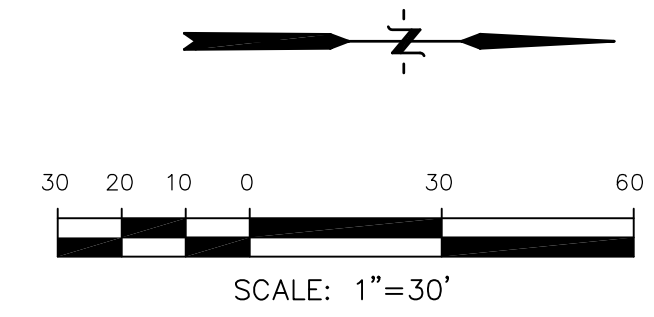
DATE:
 JUNE 28, 2019
 PROJECT NO.
 100.046
 SHEET NUMBER
 C6.2
 TOTAL SHEETS: 21



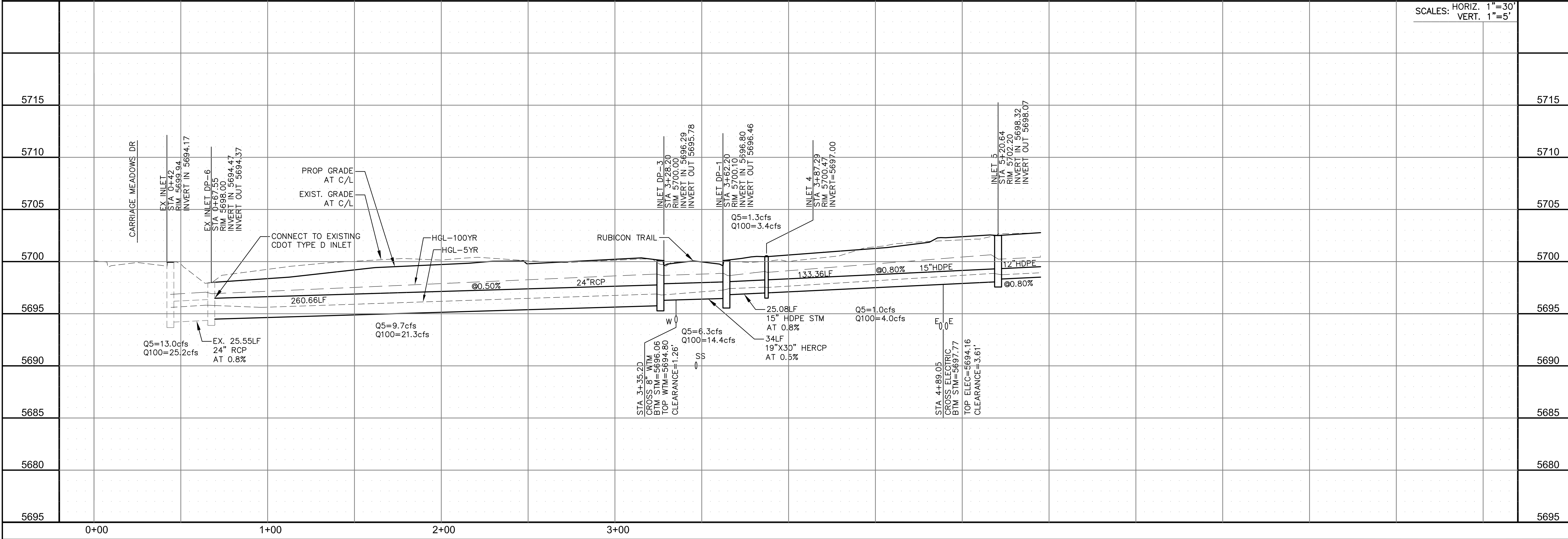
- NOTES
1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
 2. SEE GRADING PLAN FOR GRADING INFORMATION.
 3. ALL STORM SEWER SHALL BE CLASS III RCP.
 4. ALL MHS SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

- ① CURVE DATA ID
- ② CURB TRANSITIONS
- ③ PEDESTRIAN RAMP, SEE SHEET C10.1

with watertight joints



STORM SEWER



SCALES: HORIZ. 1"=30'
VERT. 1"=5'

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
DENVER, CO 80202
PHONE: 303.757.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@cegi.com

DATE: _____
DESCRIPTION: _____
NO: _____
DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
CONTACT: JEFF MARK

PROJECT: **CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2**
FONTAINE BLVD-CARRIAGE MEADOWS DR
COLORADO SPRINGS, COLORADO

STORM SEWER

STA 0+67.55 TO 5+20.64

DATE:
JUNE 28, 2019

PROJECT NO.
100.046

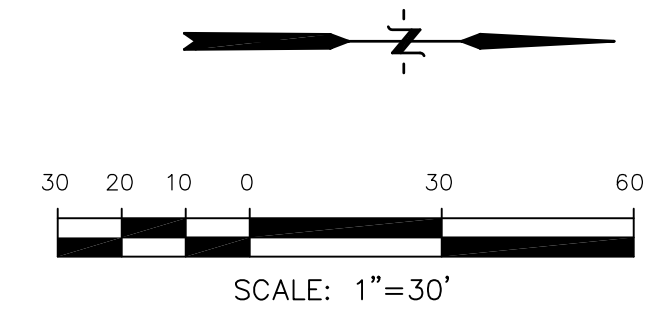
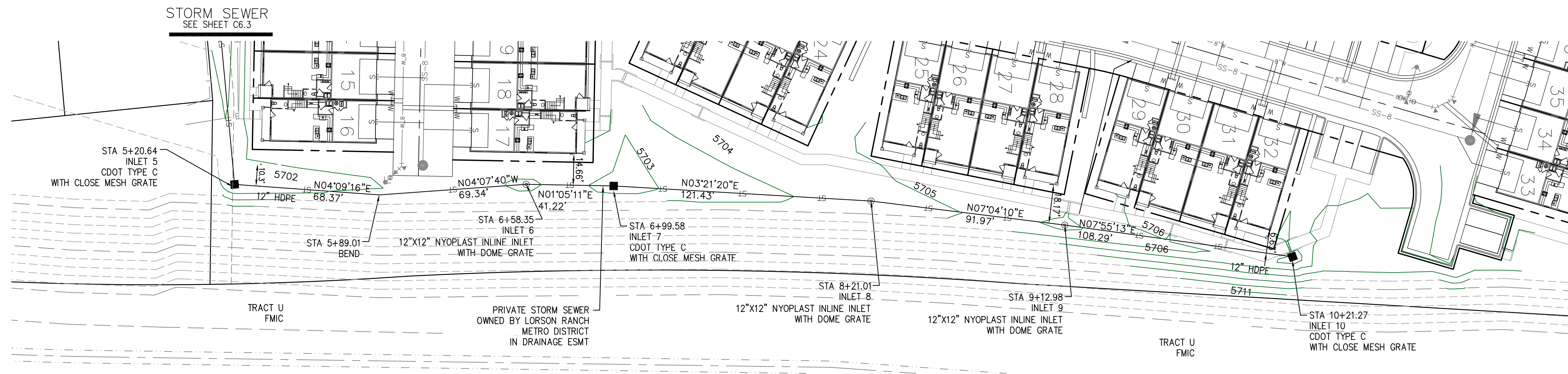
SHEET NUMBER
C6.3

TOTAL SHEETS: 21

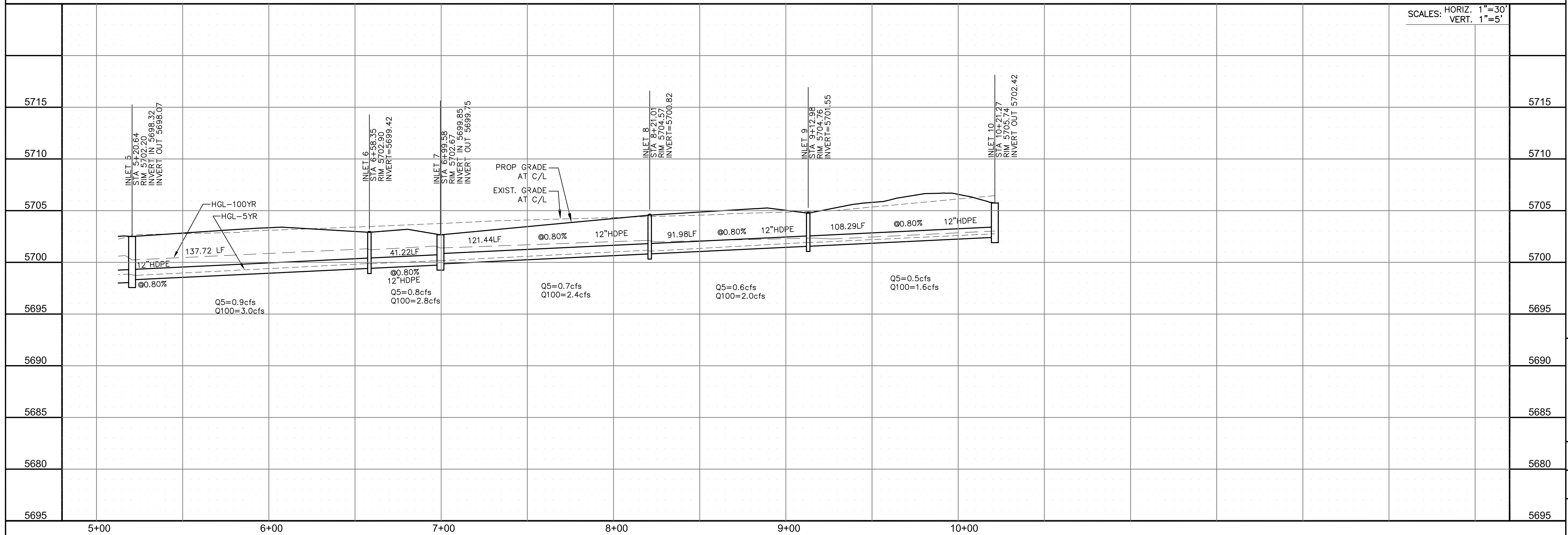
NOTES

1. ALL SPOT ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE NOTED.
2. SEE GRADING PLAN FOR GRADING INFORMATION.
3. ALL STORM SEWER SHALL BE CLASS III RCP.
4. ALL MHS SHALL BE TYPE 1 UNLESS OTHERWISE NOTED.

- ① CURVE DATA ID
- ② CURB TRANSITIONS
- ③ PEDESTRIAN RAMP, SEE SHEET C10.1



STORM SEWER (PRIVATE)



SCALES: HORIZ. 1"=30'
VERT. 1"=5'

CORE
ENGINEERING GROUP
15004 1ST AVENUE S.
DENVER, CO 80202
PHONE: 303.733.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@eg1.com

DATE: _____
DESCRIPTION: _____
NO. _____
DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

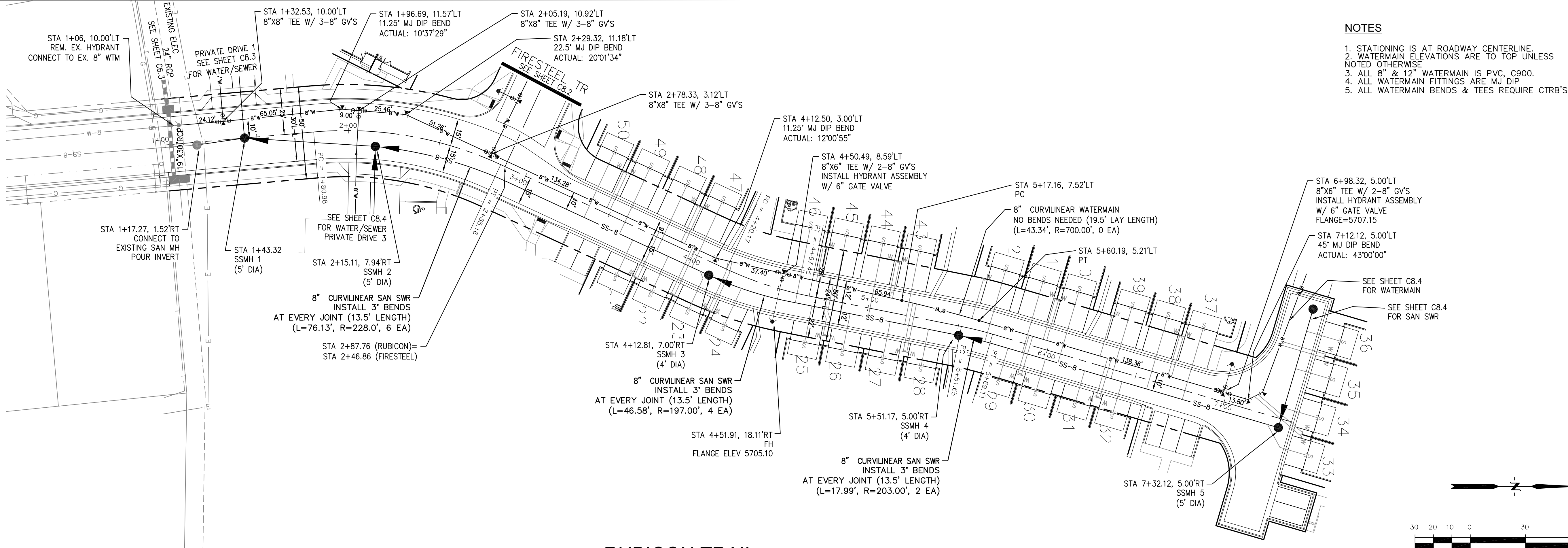
PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
CONTACT: JEFF MARK

PROJECT: **CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2**
FONTAINE BLVD-CARRIAGE MEADOWS DR
COLORADO SPRINGS, COLORADO

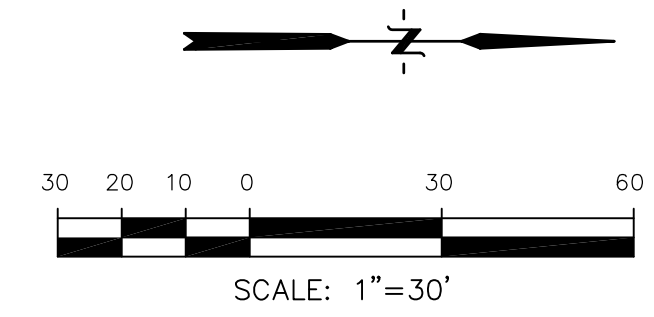
STORM SEWER

STA 5+20.64 TO 10+21.27

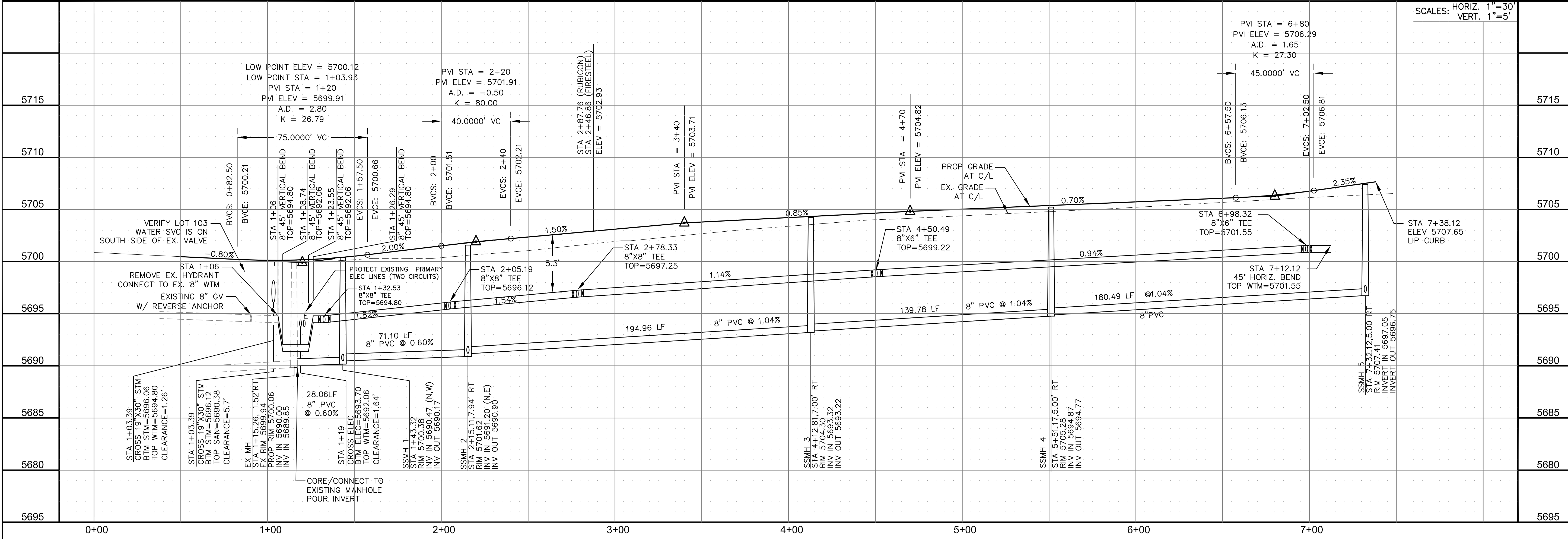
DATE: JUNE 28, 2019
PROJECT NO. 100.046
SHEET NUMBER C6.4
TOTAL SHEETS: 21



- NOTES**
1. STATIONING IS AT ROADWAY CENTERLINE.
 2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE
 3. ALL 8" & 12" WATERMAIN IS PVC, C900.
 4. ALL WATERMAIN FITTINGS ARE MJ DIP
 5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S



RUBICON TRAIL



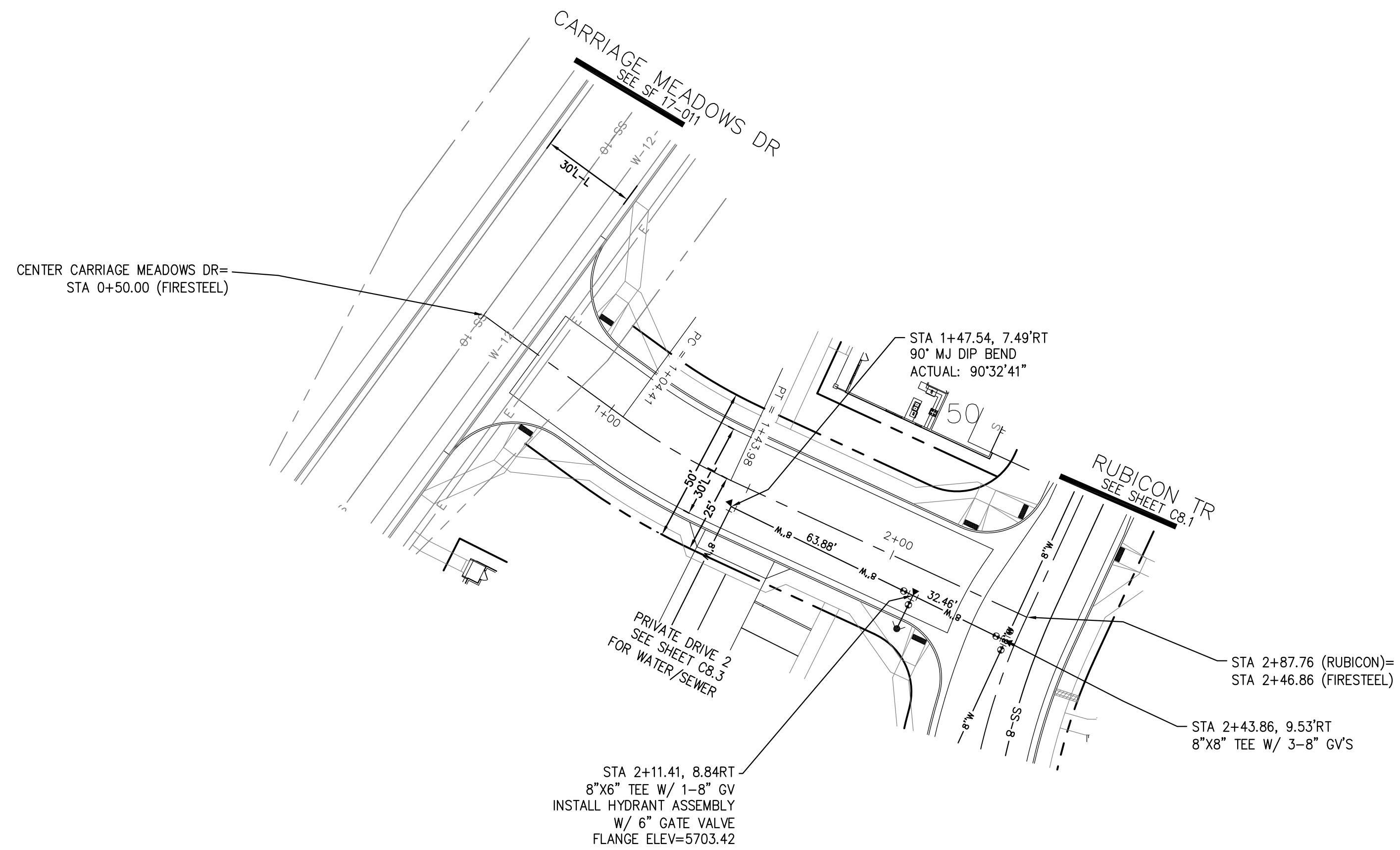
CORE ENGINEERING GROUP
 15004 1ST AVENUE S.
 BIRMGHAM, AL 35206
 PHONE: 205.970.1100
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@cegi.com

DATE: _____
 NO. _____
 DESCRIPTION: _____
 DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

PROJECT: CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2
 FONTAINE BLVD-CARRIAGE MEADOWS DR
 COLORADO SPRINGS, COLORADO
 PREPARED FOR: LORSON, LLC
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 (719) 635-3200
 CONTACT: JEFF MARK

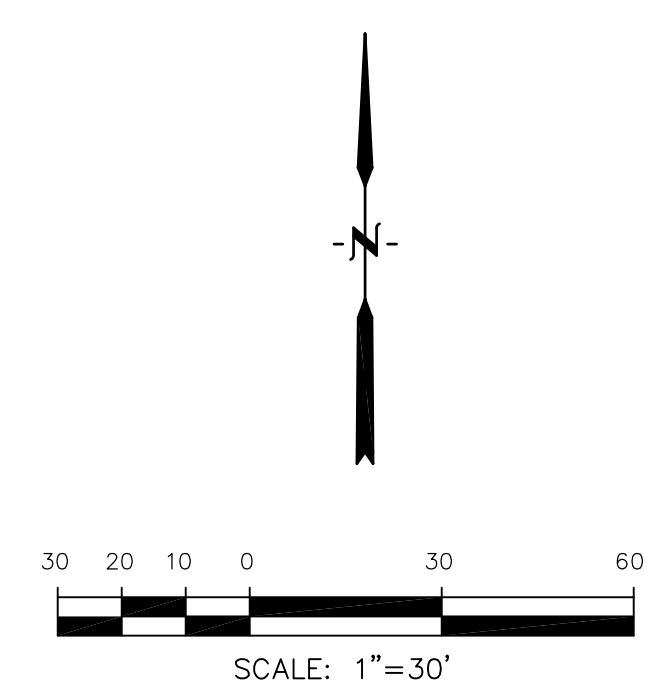
SANITARY / WATER
RUBICON TRAIL
STA 0+00 TO 7+40

DATE: JUNE 28, 2019
 PROJECT NO. 100.046
 SHEET NUMBER C8.1
 TOTAL SHEETS: 21

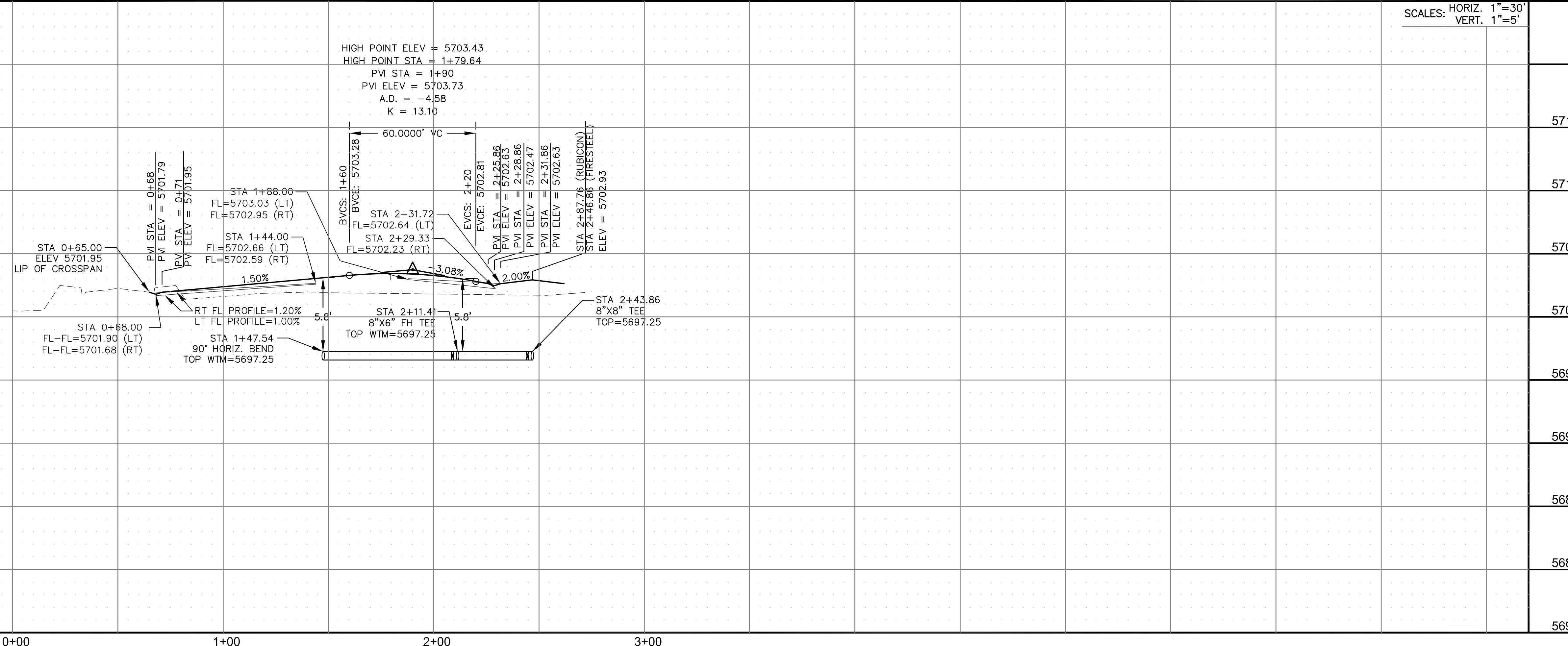


NOTES

1. STATIONING IS AT ROADWAY CENTERLINE.
2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE.
3. ALL 8" & 12" WATERMAIN IS PVC, C900.
4. ALL WATERMAIN FITTINGS ARE MJ DIP.
5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S



FIRESTEEL TRAIL



CORE ENGINEERING GROUP
15004 1ST AVENUE S.
DENVER, CO 80202
PHONE: 303.750.1100
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: Rich@cegi.com

DATE: _____
DESCRIPTION: _____
NO: _____

PREPARED FOR:
LORSON, LLC
212 N. WAHSATCH AVE., SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-3200
CONTACT: JEFF MARK

PROJECT: CARRIAGE MEADOWS
SOUTH AT LORSON
RANCH FILING NO. 2
FONTAINE BLVD-CARRIAGE MEADOWS DR
COLORADO SPRINGS, COLORADO

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

SANITARY / WATER
FIRESTEEL TRAIL
STA 0+00 TO 2+50

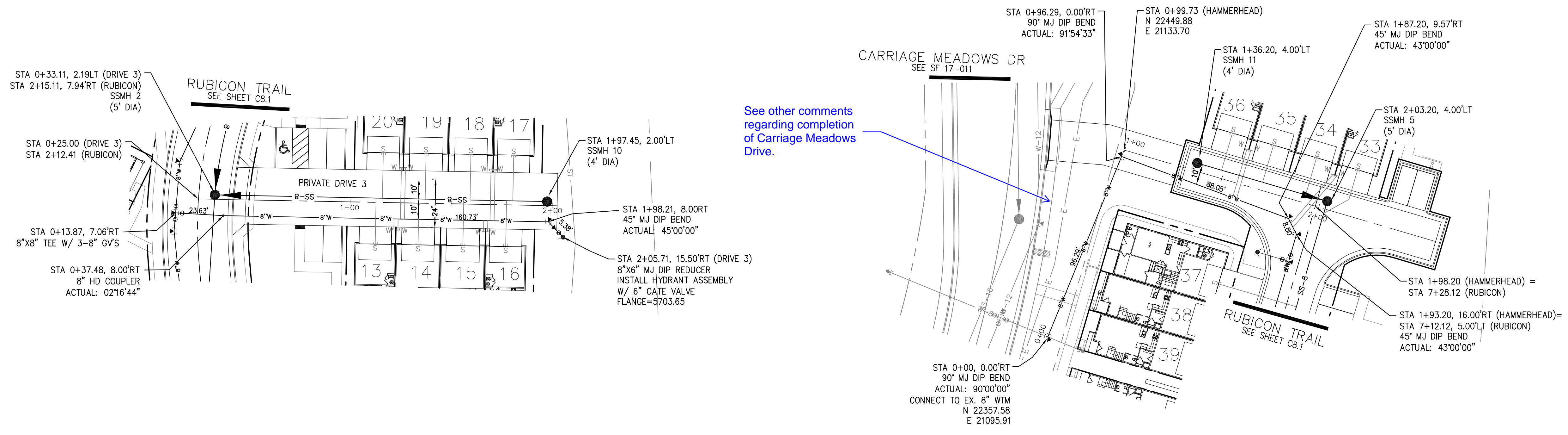
DATE:
JUNE 28, 2019

PROJECT NO.
100.046

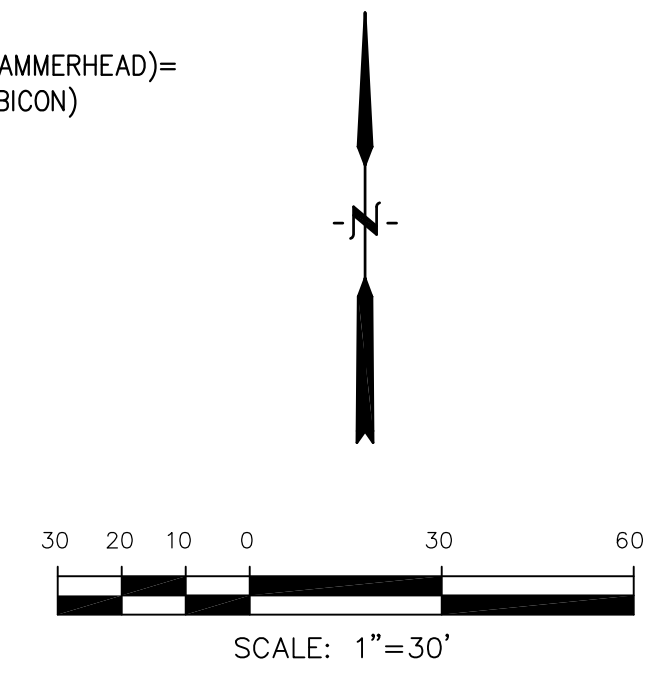
SHEET NUMBER
C8.2

TOTAL SHEETS: 21

- NOTES**
1. STATIONING IS AT ROADWAY CENTERLINE.
 2. WATERMAIN ELEVATIONS ARE TO TOP UNLESS NOTED OTHERWISE.
 3. ALL 8" & 12" WATERMAIN IS PVC, C900.
 4. ALL WATERMAIN FITTINGS ARE MJ DIP.
 5. ALL WATERMAIN BENDS & TEES REQUIRE CTRB'S



See other comments regarding completion of Carriage Meadows Drive.



HAMMERHEAD

PRIVATE DRIVE 3 PALUXY TRAIL		Scales: HORIZ. 1"=30' VERT. 1"=5'	
5715			5715
5710			5710
5705	STA 0+25 (PRIVATE DRIVE) = STA 2+12.41 (RUBICON) ELEV=5701.75	PROP GRADE AT C/L EXIST. GRADE AT C/L	5705
5700	STA 0+13.87, 7.06'RT 8"x8" TEE TOP=5696.12	1.18% 5.0'	5700
5695	164.34 LF 8" PVC @ 1.04%	STA 1+98.21, 8.00'RT 8" 45" HORIZ. BEND TOP=5698.29 STA 2+05.71, 15.50'RT FH TOP 6" WTM=5698.35 STA 2+02 8"x6" MJ REDUCER W/ 6" GV TOP 8" WTM=5698.31	5695
5690	SSMH 2 STA 0+36.11, 2.24' LT RIM 5701.62 INV IN 5691.20 (N.E) INV OUT 5690.90	SSMH 10 STA 1+97.45, 2.00' LT RIM 5703.59 INV IN 5703.59 INV OUT 5692.91	5690
5685			5685
5680			5680
5695		STA 0+00 TOP WTM=5699.50 CONNECT TO EX. 8" WTM STA 1+00 TOP WTM=5701.55 STA 1+93.20 45" HORIZ. BEND TOP WTM=5701.55 67.00 LF 8" PVC @ 1.04%	5695
	0+00	1+00	2+00

CORE ENGINEERING GROUP
 15004 1ST AVENUE S.
 BLDG 790
 P.O. BOX 5701100
 COLORADO SPRINGS, CO 80903
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: Rich@ceg1.com

DATE: _____
 DESCRIPTION: _____
 NO: _____

PREPARED FOR:
LORSON, LLC
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 (719) 635-3200
 CONTACT: JEFF MARK

PROJECT: **CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2**
 FONTAINE BLVD-CARRIAGE MEADOWS DR
 COLORADO SPRINGS, COLORADO

DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

SANITARY / WATER

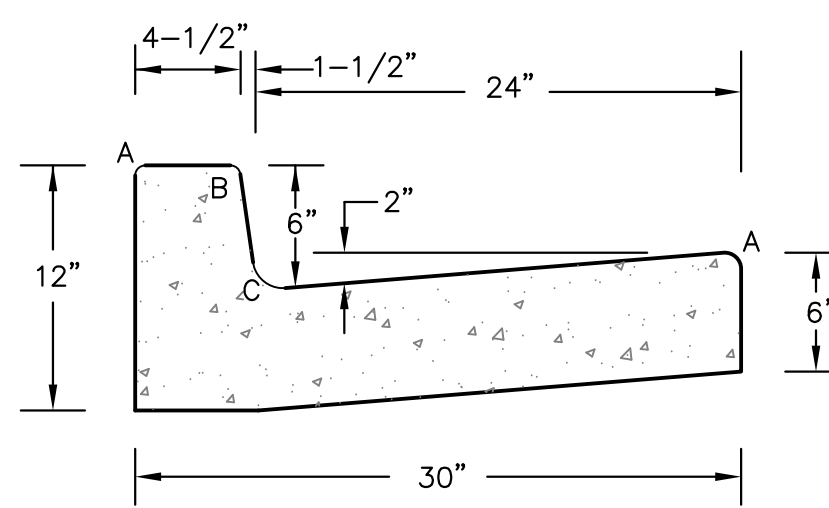
PRIVATE DRIVE 3 (PALUXY TRAIL) AND HAMMERHEAD

DATE: JUNE 28, 2019

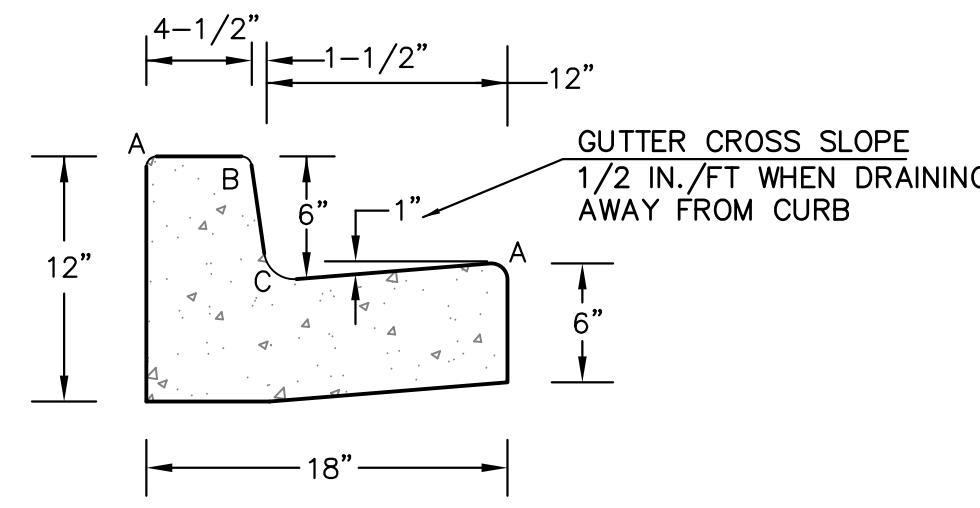
PROJECT NO. 100.046

SHEET NUMBER C8.4

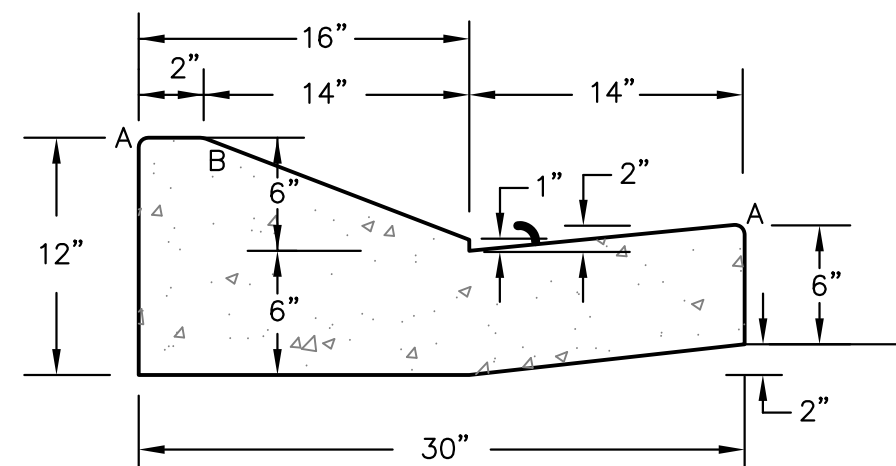
TOTAL SHEETS: 21



TYPE 'A'
VERTICAL CURB AND GUTTER
SCALE 1" = 1'-0"

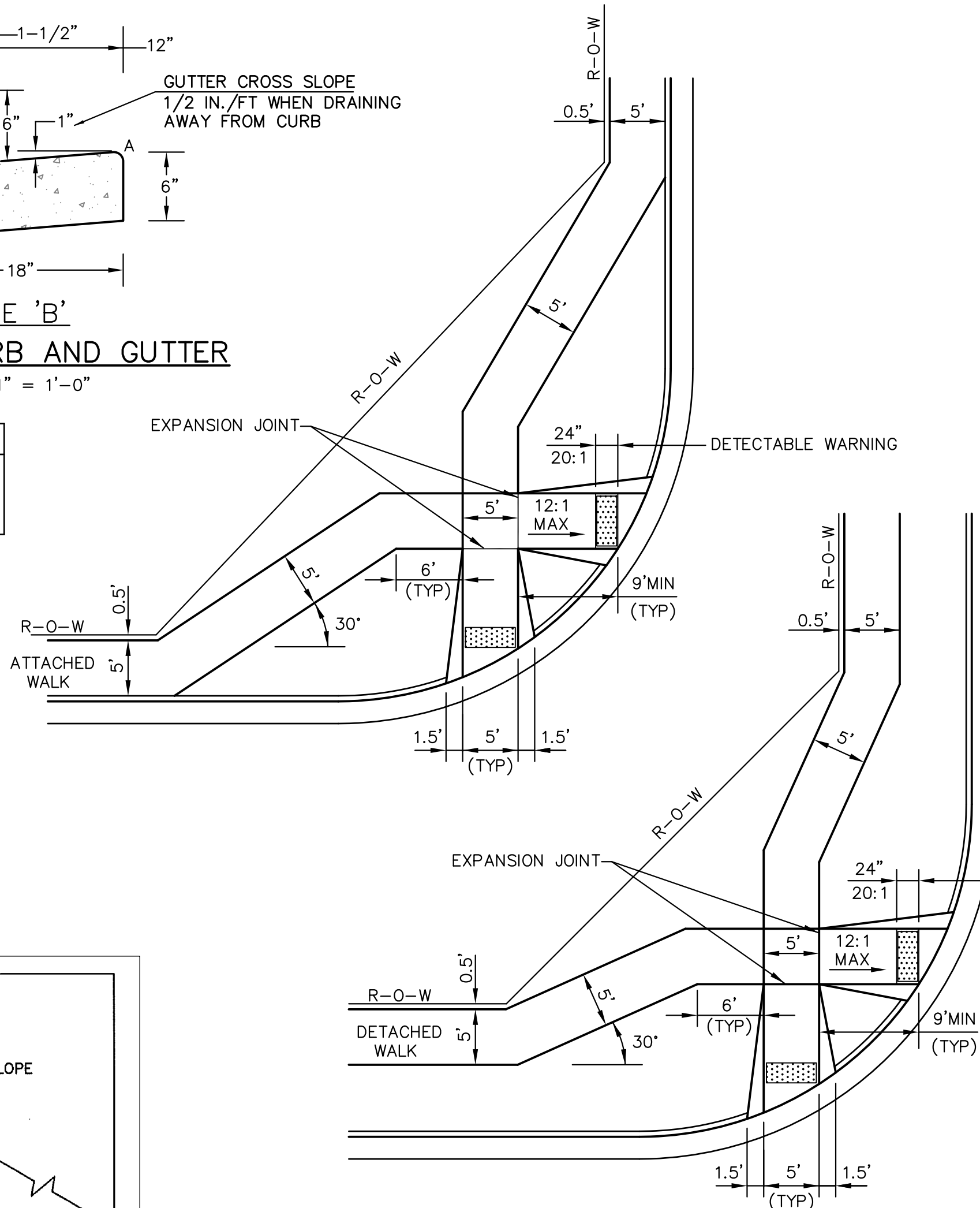


TYPE 'B'
VERTICAL CURB AND GUTTER
SCALE 1" = 1'-0"

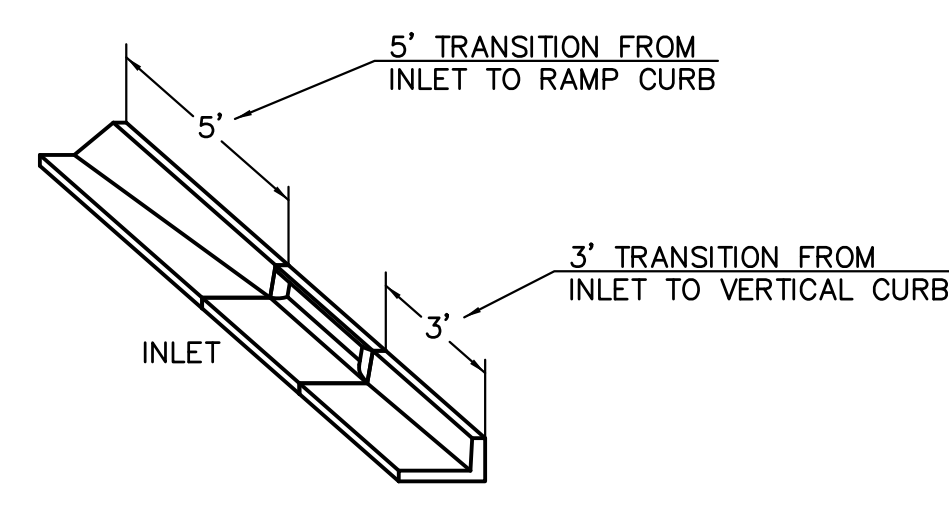


TYPE 'C'
TYPE C RAMP CURB AND GUTTER
SCALE 1" = 1'

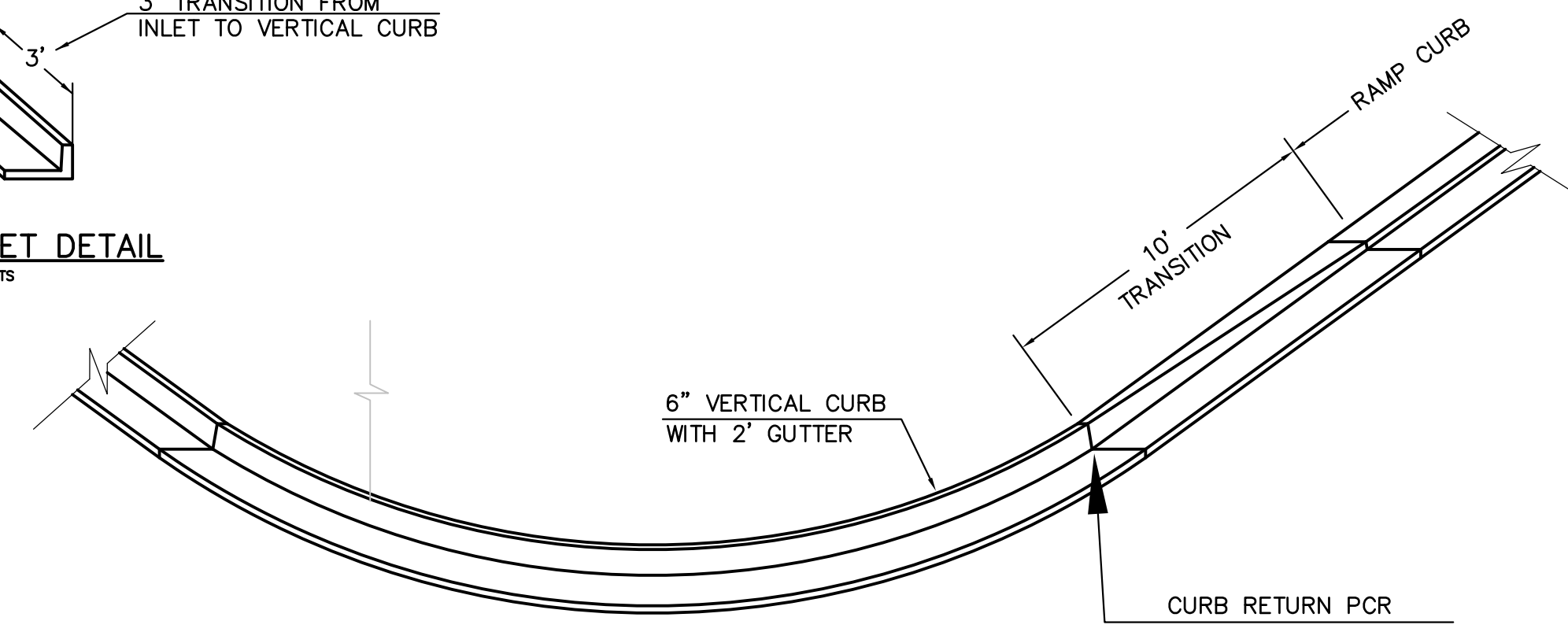
LENGTH FOR RADII	
A	1/8" TO 1/4"
B	1-1/2"
C	1-1/2" TO 2"



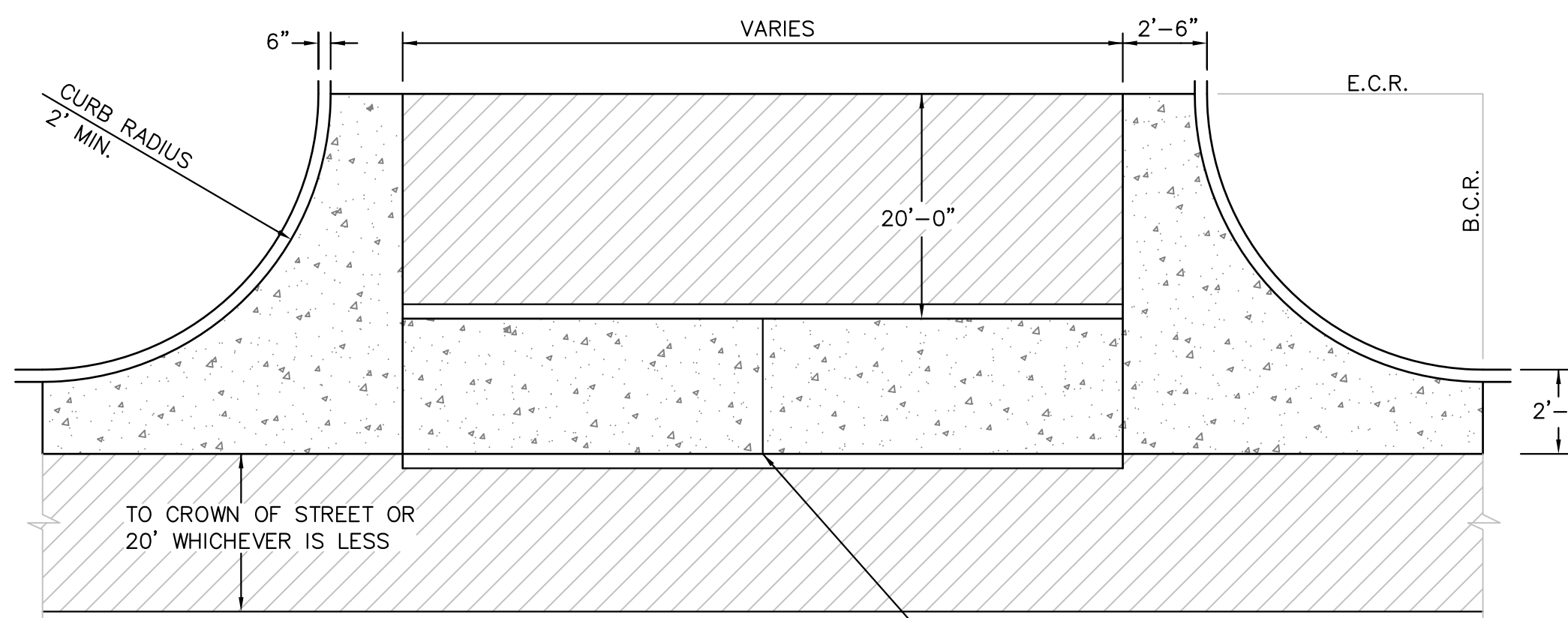
PEDESTRIAN RAMPS AT INTERSECTIONS (ECM SD 2-40)
NO SCALE



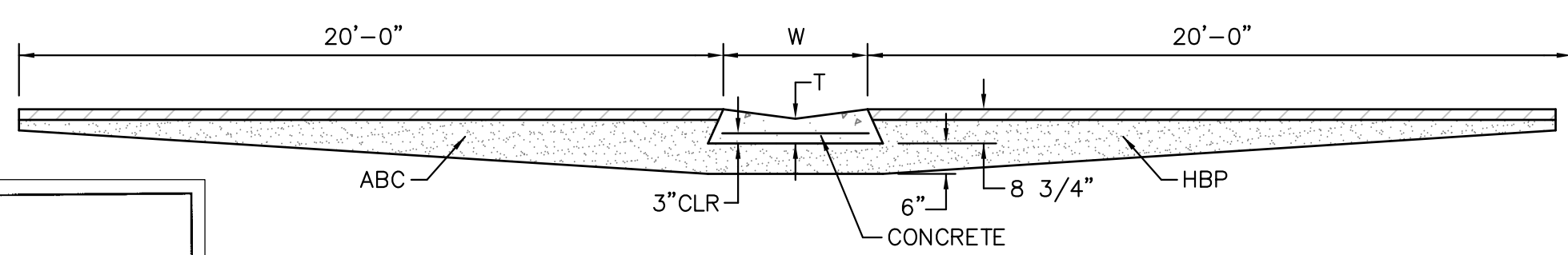
CURB INLET DETAIL
NTS



CURB TRANSITION DETAIL
NTS



PLAN VIEW

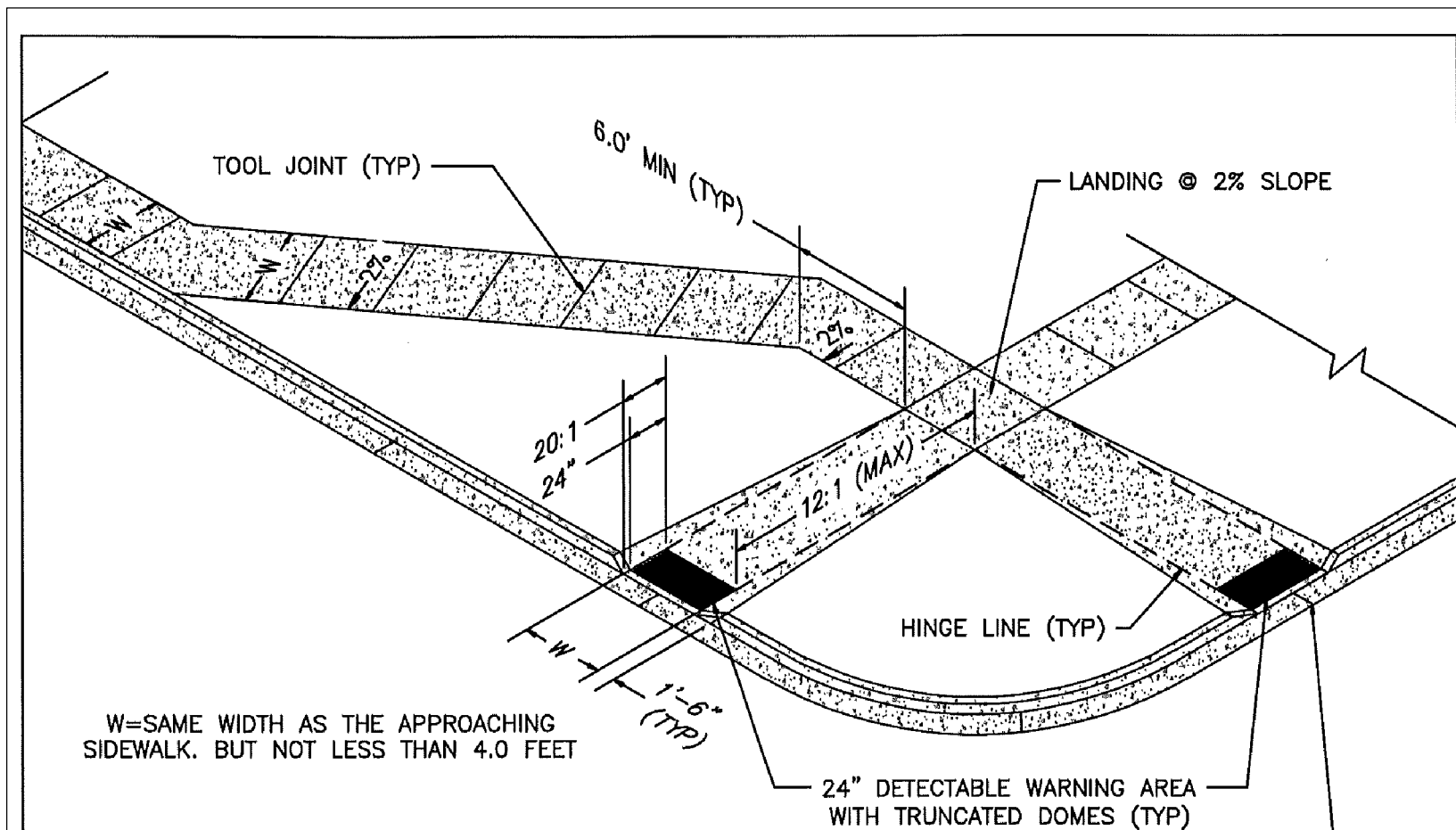


SECTION A - A

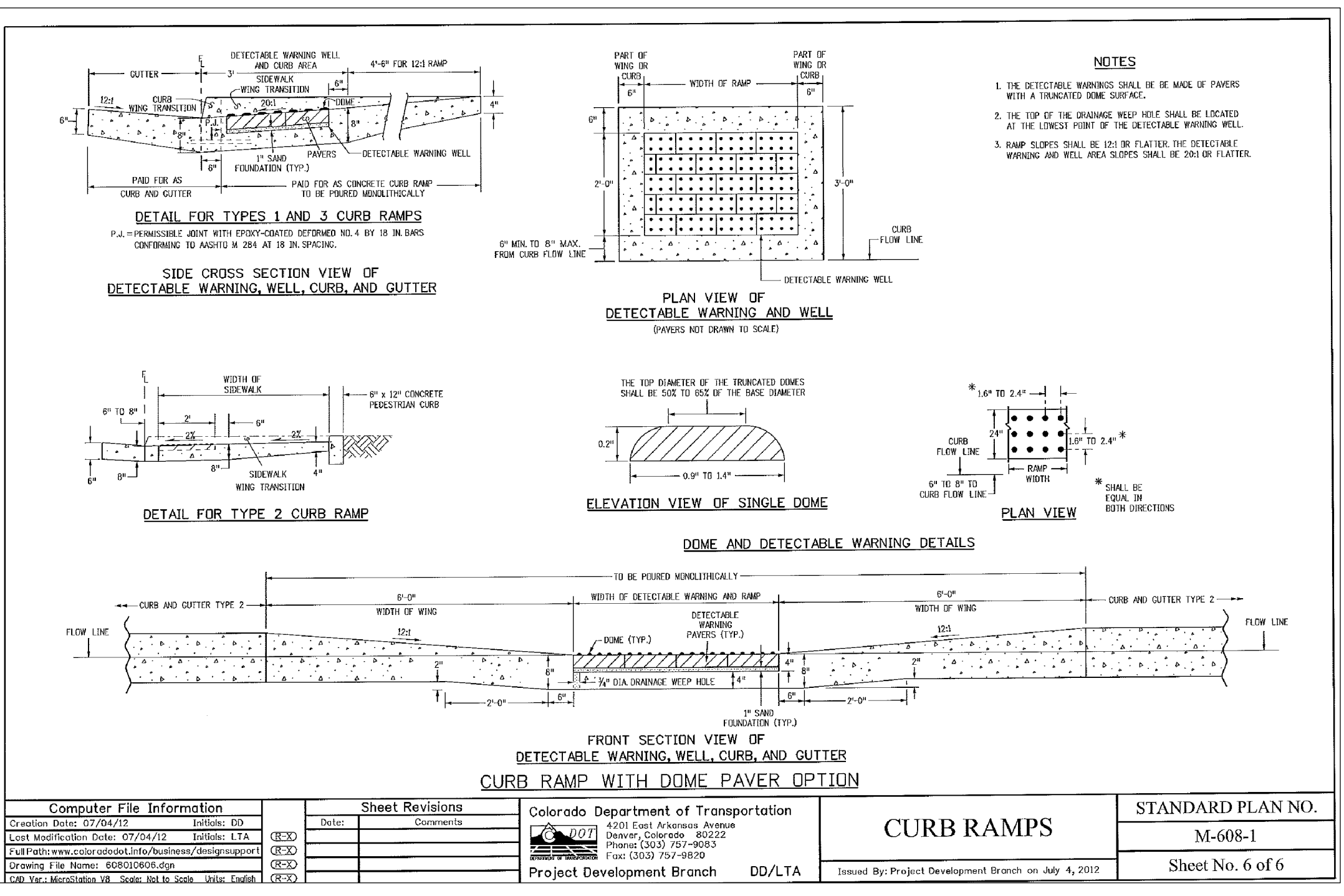
TYPICAL CROSSSPAN LAYOUT (ECM SD 2-26)
NO SCALE

- NOTES
1. W = WIDTH SHALL BE 6' FOR LOCAL, 8' FOR COLLECTORS, 10' FOR ARTERIAL ROADS.
 2. T = SQUARED-OFF RETURN TO BE POURED MONOLITHIC 8" PCC, OR 9" FOR COLLECTORS MINIMUM WITH 6x6 - 4.4 WWF OR #4 @ 18"E.W.
 3. [Hatched Area] = 3" MINIMUM ASPHALT DEPTH (2 LIFTS).
 4. DESIGN TO SPECIFY ELEVATIONS AT PI AND PCR.

CURB DETAILS (ECM SD 2-20)



- PEDESTRIAN RAMP NOTES**
1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CURRENT ENGINEERING CRITERIA MANUAL AND ADA REQUIREMENTS.
 2. CONTRACTOR TO NOTIFY ENGINEERING DIVISION INSPECTION STAFF 48 HOURS PRIOR TO CONCRETE PLACEMENT.
 3. PEDESTRIAN RAMP CONSTRUCTION SHALL BE A MINIMUM 4,500 PSI CONCRETE, MINIMUM 4" THICK, NON-COLORED, NON-SCORED, COURSE BROOM FINISH.
 4. RAMP LOCATION AND LENGTH MAY REQUIRE MODIFICATION TO MAINTAIN THE 12:1 MAXIMUM RUNNING RAMP SLOPE AND 20:1 DETECTABLE WARNING AREA DUE TO STREET INTERSECTION GRADES AND/OR ALIGNMENTS.
 5. PEDESTRIAN WALKWAY AND/OR LOCATION OF EXISTING OR FUTURE PEDESTRIAN RAMPS ON OPPOSITE CORNERS SHALL BE REVIEWED BEFORE CONSTRUCTING NEW RAMPS.
 6. DETECTABLE WARNING AREA SHALL BE REFRABRICATED REDDISH INTEGRALLY COLORED TRUNCATED-DOMES.
 7. THE DETECTABLE WARNING AREA SHALL BE 24" IN LENGTH AND THE FULL WIDTH OF THE RAMP.
 8. RAMP WIDTH REQUIRED IS SAME AS APPROACHING SIDEWALK; 4" MINIMUM.
 9. ALL RAMPS WILL BE PERPENDICULAR TO TRAFFIC WITH THE EXCEPTION OF MID-BLOCK OR TERMINAL RAMPS WHICH MAY BE PARALLEL SUBJECT TO APPROVAL.
 10. AVOID PLACING DRAINAGE STRUCTURES, TRAFFIC SIGNAL/SIGNAGE, UTILITIES/JUNCTION BOXES, OR OTHER OBSTRUCTIONS WITHIN PROPOSED RAMP AREAS.
- GENERAL NOTES**
1. WHERE THE 1'-6" FLARED SIDE(S) OF A PERPENDICULAR CURB RAMP IS (ARE) CONTIGUOUS WITH A PEDESTRIAN OR HARD SURFACE AREA, THE MAXIMUM FLARE SLOPE SHALL NOT EXCEED 10:1.
 2. PEDESTRIAN WALKWAY AND/OR LOCATION OF EXISTING OR FUTURE PEDESTRIAN RAMPS ON OPPOSITE CORNERS SHALL BE REVIEWED BEFORE CONSTRUCTING NEW RAMPS.
 3. AT MARKED PEDESTRIAN CROSSINGS, THE BOTTOM OF THE RAMPS, EXCLUSIVE OF THE FLARE SIDES, SHALL BE TOTALLY CONTAINED WITHIN THE MARKINGS.
- LAYOUT CURB SECTIONS SO THAT AT LEAST ONE TOOL JOINT IS WITHIN RAMP THROAT



TRUNCATED DOME DETAILS (ECM SD 2-42)
NO SCALE

DATE APPROVED: 7/9/09 André P. Brackin DEPARTMENT OF TRANSPORTATION	Pedestrian Intersection Ramp Standard Drawing REVISION DATE: 1/18/11 FILE NAME: SD_2-41	
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Computer File Information Question Date: 07/04/12 Last Modification Date: 07/04/12 Drawing File Name: 608010608.dgn Cad User: MarsStation 18 Scale: Not to Scale Units: English	Sheet Revisions Date: _____ Comments: _____	Colorado Department of Transportation 4201 East Arkansas Avenue Denver, CO 80222 Phone: (303) 757-9000 Fax: (303) 757-4900 Project Development Branch DD/LTA Issued By: Project Development Branch on July 4, 2012	CURB RAMPS STANDARD PLAN NO. M-608-1 Sheet No. 6 of 6
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CORE ENGINEERING GROUP
15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719-659-7800
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rich@cegi.com

DATE: _____

DESCRIPTION: _____

NO. _____

PROJECT: CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2
212 N. WAHSATCH AVE., SUITE 301
COLORADO SPRINGS, COLORADO 80903
(719) 635-5200
CONTACT: JEFF MARK

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

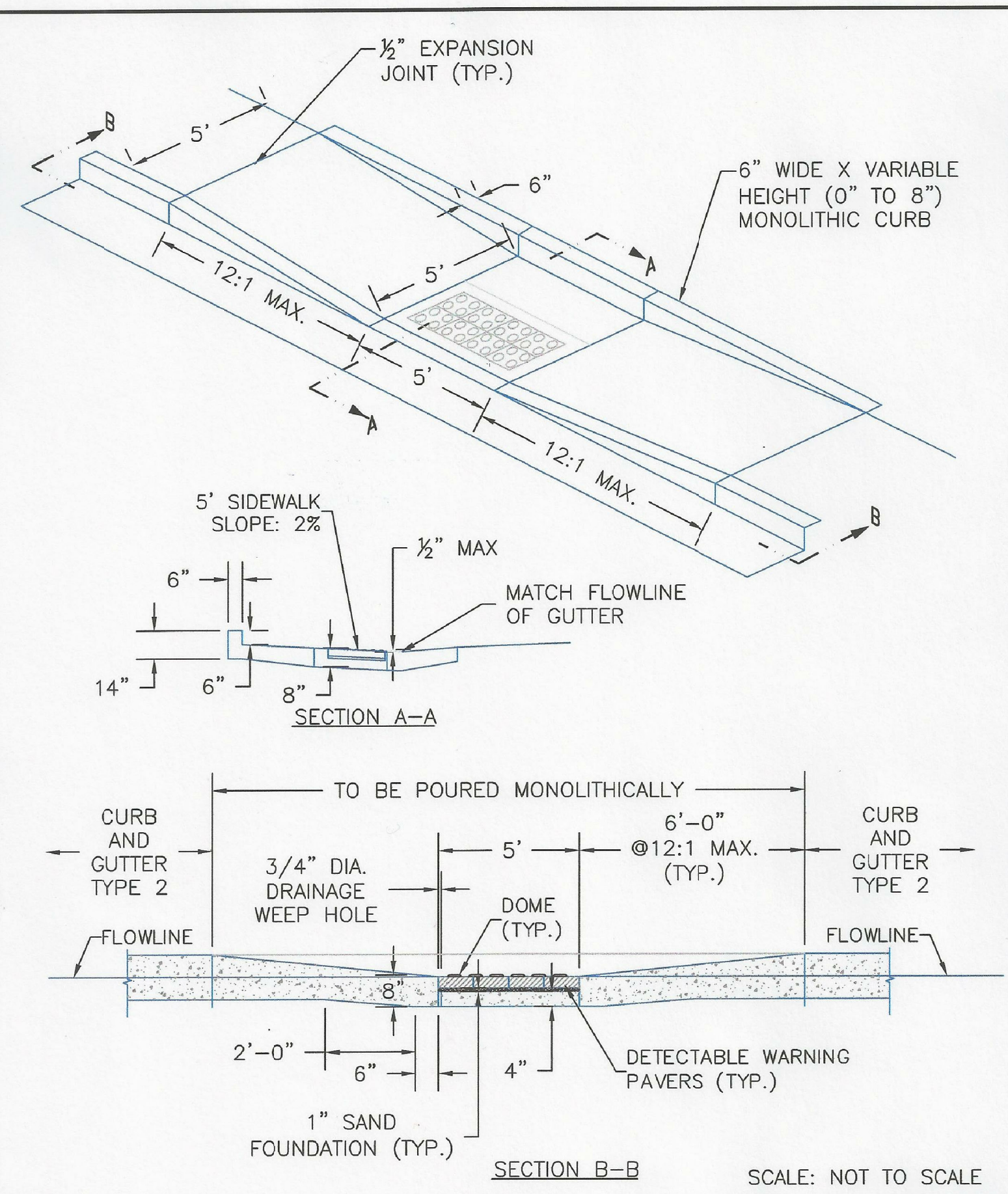
ROADWAY DETAIL SHEET

DATE: JUNE 18, 2019

PROJECT NO. 100.046

SHEET NUMBER C10.1

TOTAL SHEETS: 21

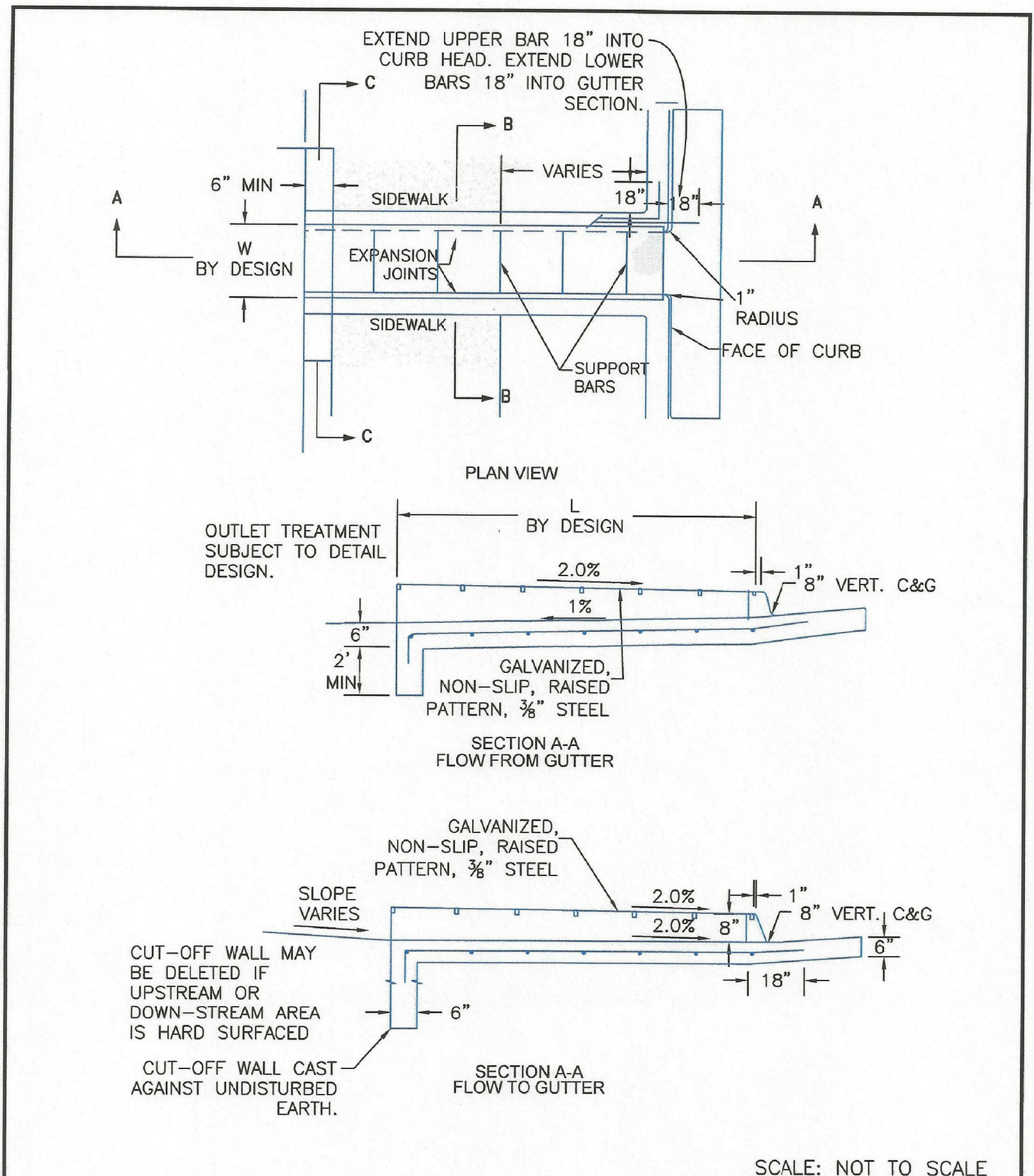


8/11/11
 DATE APPROVED: André P. Brackin
 DEPARTMENT OF TRANSPORTATION

Parallel Pedestrian Ramp Detail
 Standard Drawing

REVISION DATE: 12/8/15
 FILE NAME: SD_2-50

EL PASO COUNTY
 DEPARTMENT OF TRANSPORTATION

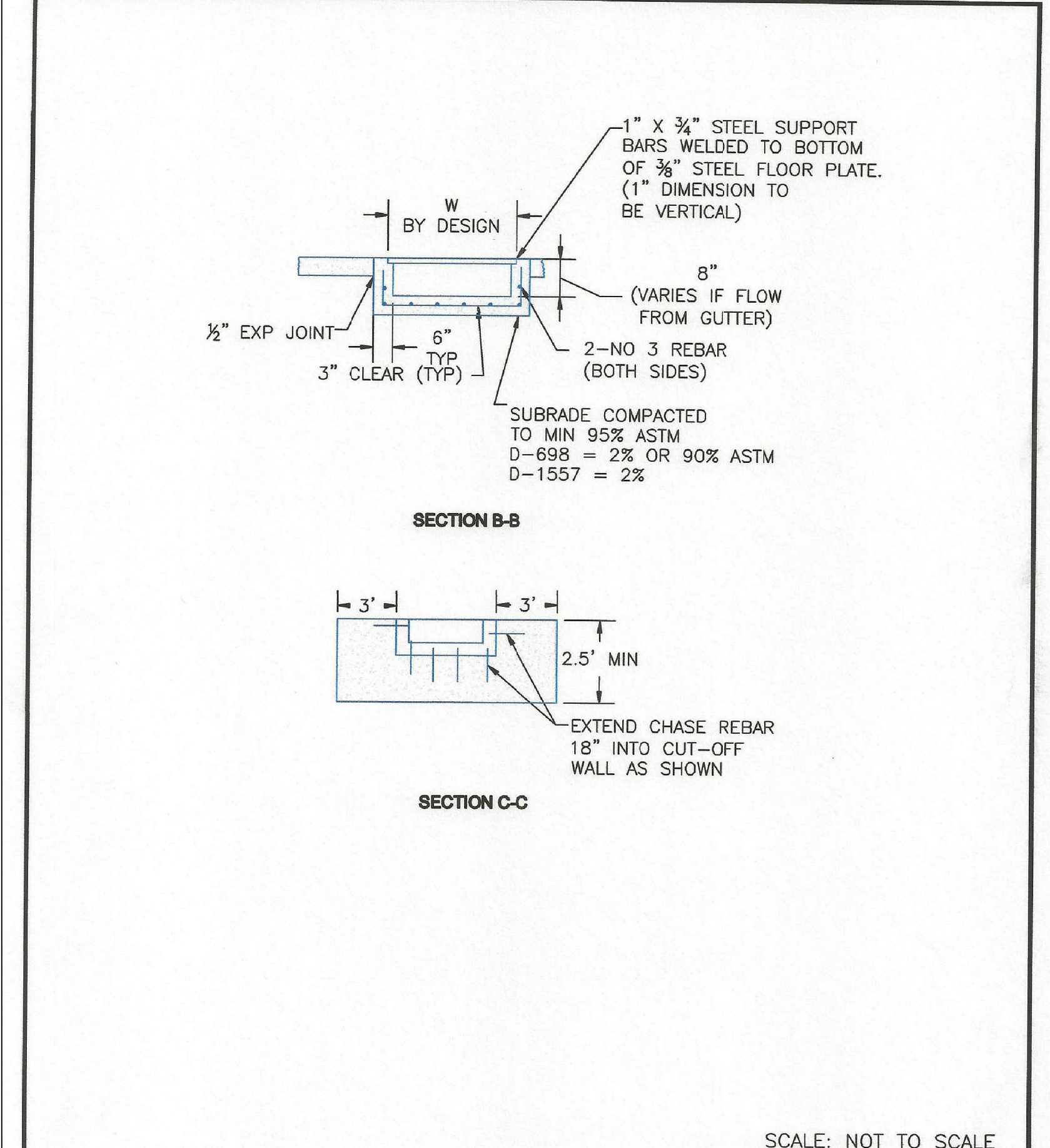


8/11/11
 DATE APPROVED: André P. Brackin
 DEPARTMENT OF TRANSPORTATION

Curb Opening with Drainage Chase Detail 1 of 2
 Standard Drawing

REVISION DATE: 12/8/15
 FILE NAME: SD_3-25

EL PASO COUNTY
 DEPARTMENT OF TRANSPORTATION

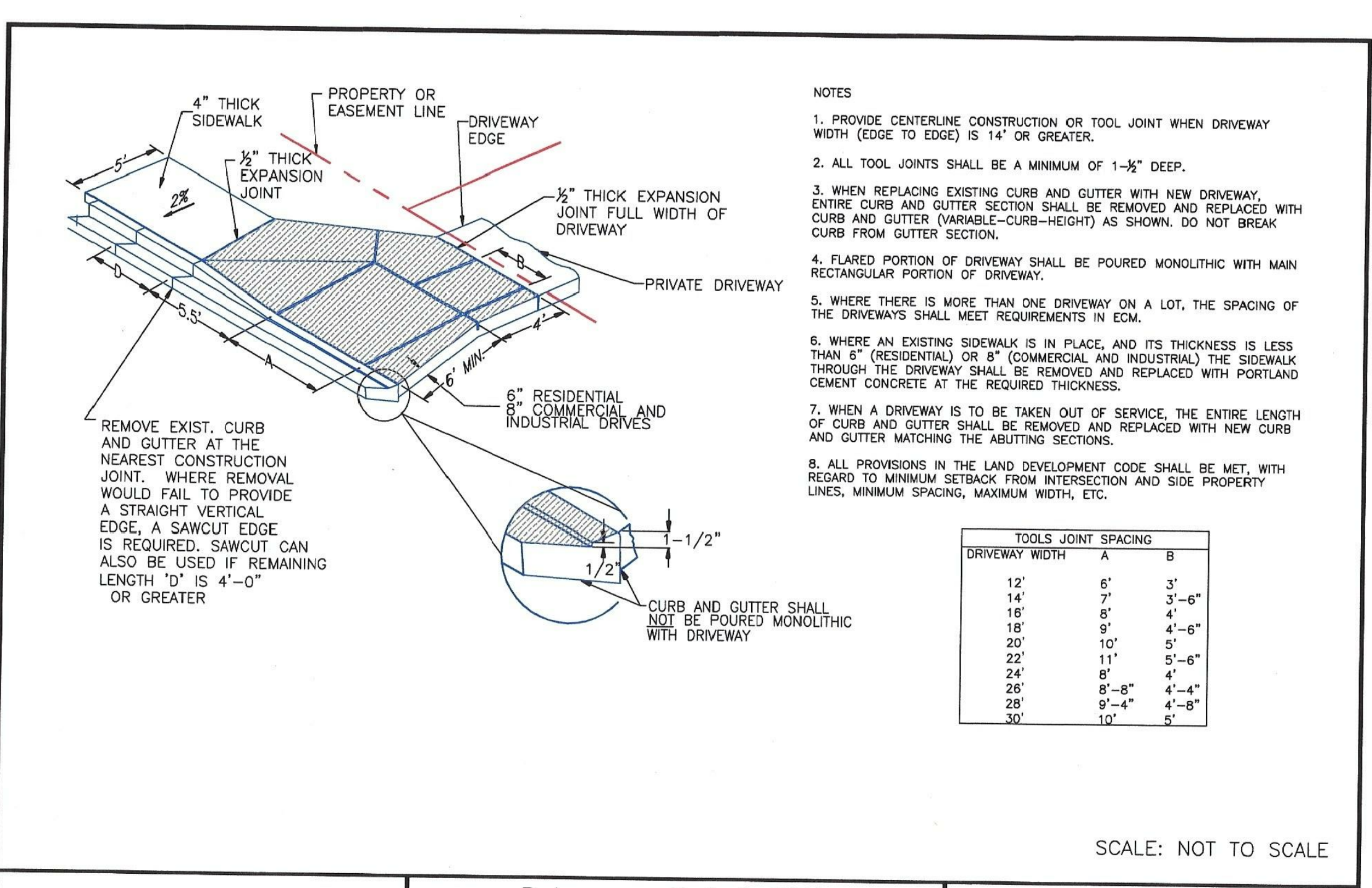


8/11/11
 DATE APPROVED: André P. Brackin
 DEPARTMENT OF TRANSPORTATION

Curb Opening with Drainage Chase Detail 2 of 2
 Standard Drawing

REVISION DATE: 11/10/04
 FILE NAME: SD_3-25A

EL PASO COUNTY
 DEPARTMENT OF TRANSPORTATION



- NOTES
1. PROVIDE CENTERLINE CONSTRUCTION OR TOOL JOINT WHEN DRIVEWAY WIDTH (EDGE TO EDGE) IS 14' OR GREATER.
 2. ALL TOOL JOINTS SHALL BE A MINIMUM OF 1-1/2" DEEP.
 3. WHEN REPLACING EXISTING CURB AND GUTTER WITH NEW DRIVEWAY, ENTIRE CURB AND GUTTER SECTION SHALL BE REMOVED AND REPLACED WITH CURB AND GUTTER (VARIABLE-CURB-HEIGHT) AS SHOWN. DO NOT BREAK CURB FROM GUTTER SECTION.
 4. FLARED PORTION OF DRIVEWAY SHALL BE POURED MONOLITHIC WITH MAIN RECTANGULAR PORTION OF DRIVEWAY.
 5. WHERE THERE IS MORE THAN ONE DRIVEWAY ON A LOT, THE SPACING OF THE DRIVEWAYS SHALL MEET REQUIREMENTS IN ECM.
 6. WHERE AN EXISTING SIDEWALK IS IN PLACE, AND ITS THICKNESS IS LESS THAN 8" (RESIDENTIAL) OR 8" (COMMERCIAL AND INDUSTRIAL) THE SIDEWALK THROUGH THE DRIVEWAY SHALL BE REMOVED AND REPLACED WITH PORTLAND CEMENT CONCRETE AT THE REQUIRED THICKNESS.
 7. WHEN A DRIVEWAY IS TO BE TAKEN OUT OF SERVICE, THE ENTIRE LENGTH OF CURB AND GUTTER SHALL BE REMOVED AND REPLACED WITH NEW CURB AND GUTTER MATCHING THE ADJUTING SECTIONS.
 8. ALL PROVISIONS IN THE LAND DEVELOPMENT CODE SHALL BE MET, WITH REGARD TO MINIMUM SETBACK FROM INTERSECTION AND SIDE PROPERTY LINES, MINIMUM SPACING, MAXIMUM WIDTH, ETC.

DRIVEWAY WIDTH	TOOLS JOINT SPACING	
	A	B
12'	6'	3'
14'	7'	3'-6"
16'	8'	4'
18'	9'	4'-6"
20'	10'	5'
22'	11'	5'-6"
24'	8'	4'
26'	8'-8"	4'-4"
28'	9'-4"	4'-8"
30'	10'	5'

8/11/11
 DATE APPROVED: André P. Brackin
 DEPARTMENT OF TRANSPORTATION

Driveway Detail With Attached Sidewalk
 Standard Drawing

REVISION DATE: 11/10/04
 FILE NAME: SD_2-24

EL PASO COUNTY
 DEPARTMENT OF TRANSPORTATION

CORE ENGINEERING GROUP
 15004 1ST AVENUE S.
 BURNSVILLE, MN 55306
 PH: 719-659-7800
 CONTACT: RICHARD L. SCHINDLER, P.E.
 EMAIL: rich@cegi.com

DATE: _____
 DESCRIPTION: _____
 NO. _____

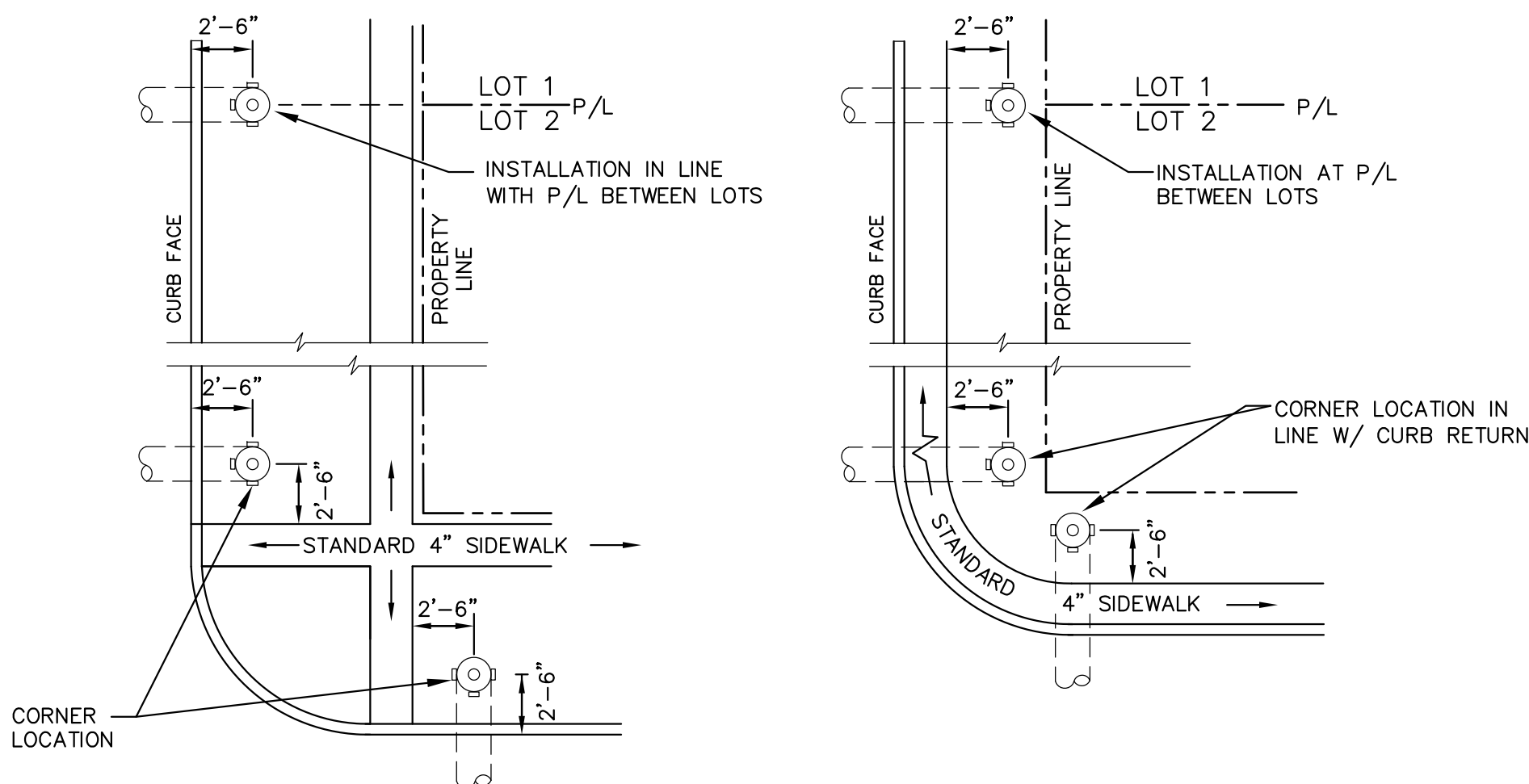
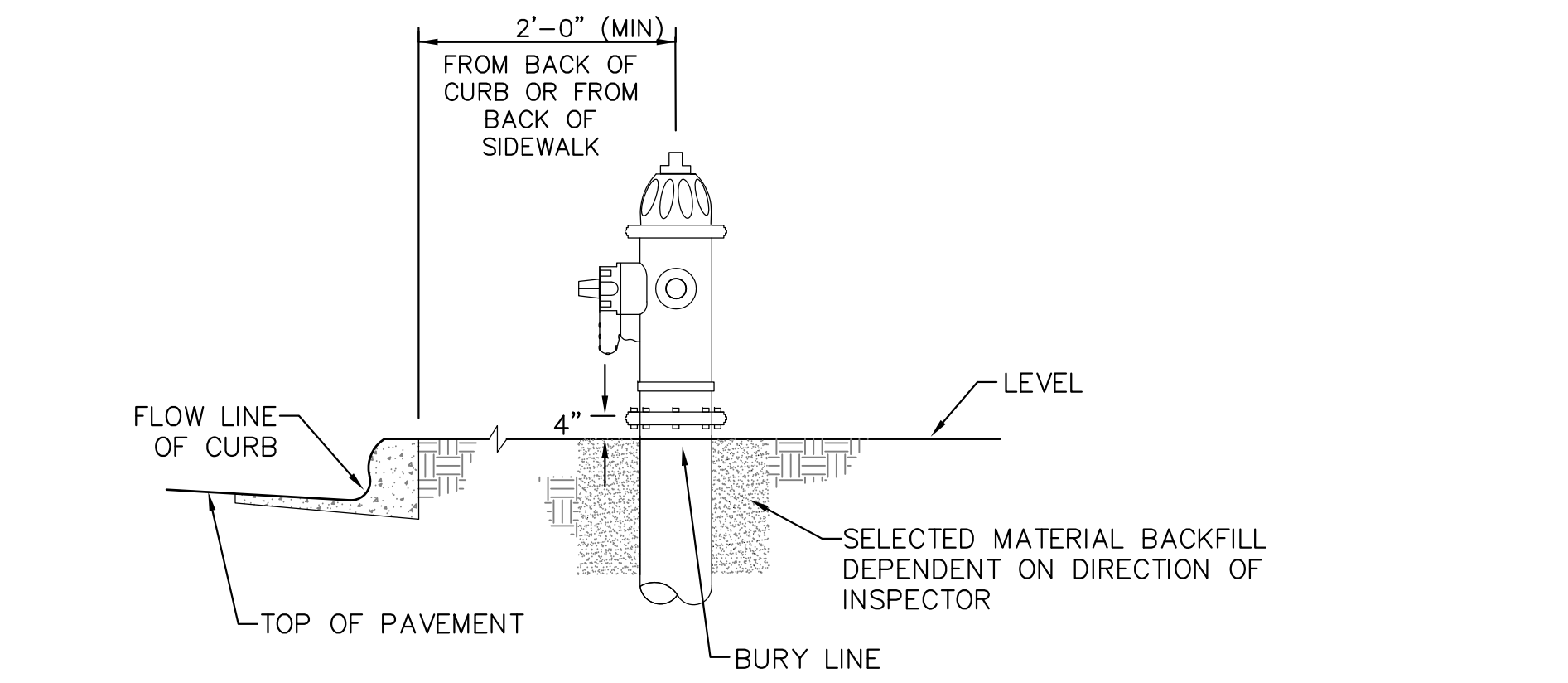
PREPARED FOR: **LORSON, LLC**
 212 N. WAHSATCH AVE, SUITE 301
 COLORADO SPRINGS, COLORADO 80903
 (719) 635-5200
 CONTACT: JEFF MARK

PROJECT: **CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2**
 FONTAINE BLVD - CARRIAGE MEADOWS DR
 COLORADO SPRINGS, COLORADO

DRAWN: RLS
 DESIGNED: RLS
 CHECKED: RLS

CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2 ROADWAY DETAILS

DATE: JUNE 18, 2019
 PROJECT NO: 100.046
 SHEET NUMBER: C10.3
 TOTAL SHEETS: 21



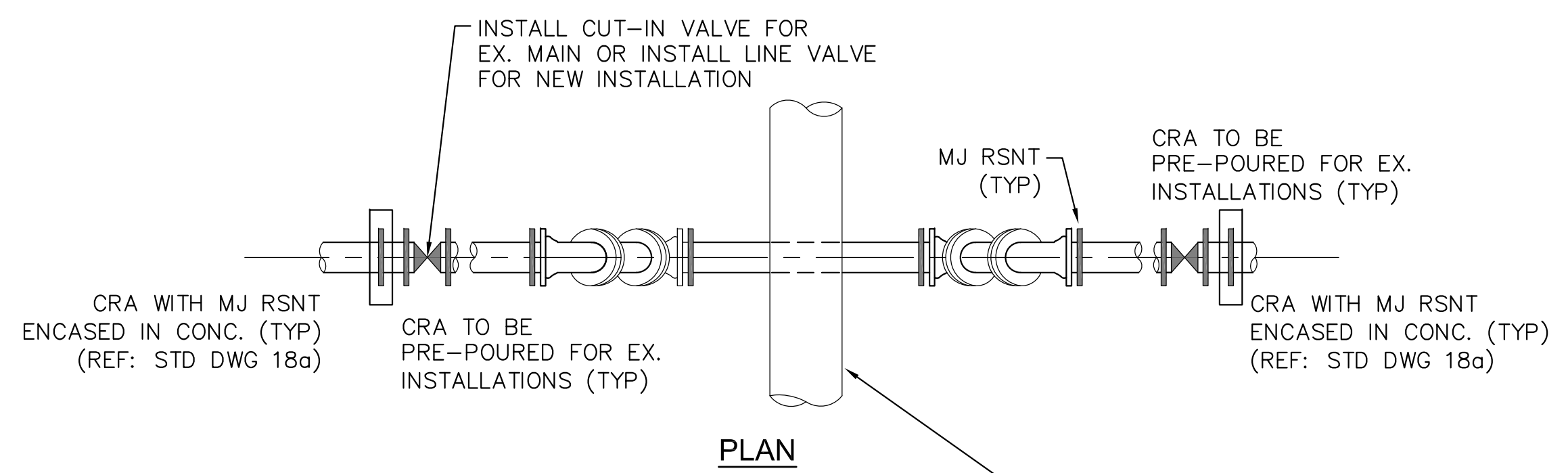
DETACHED SIDEWALK LOCATION
 NO SCALE

ATTACHED SIDEWALK LOCATION
 NO SCALE

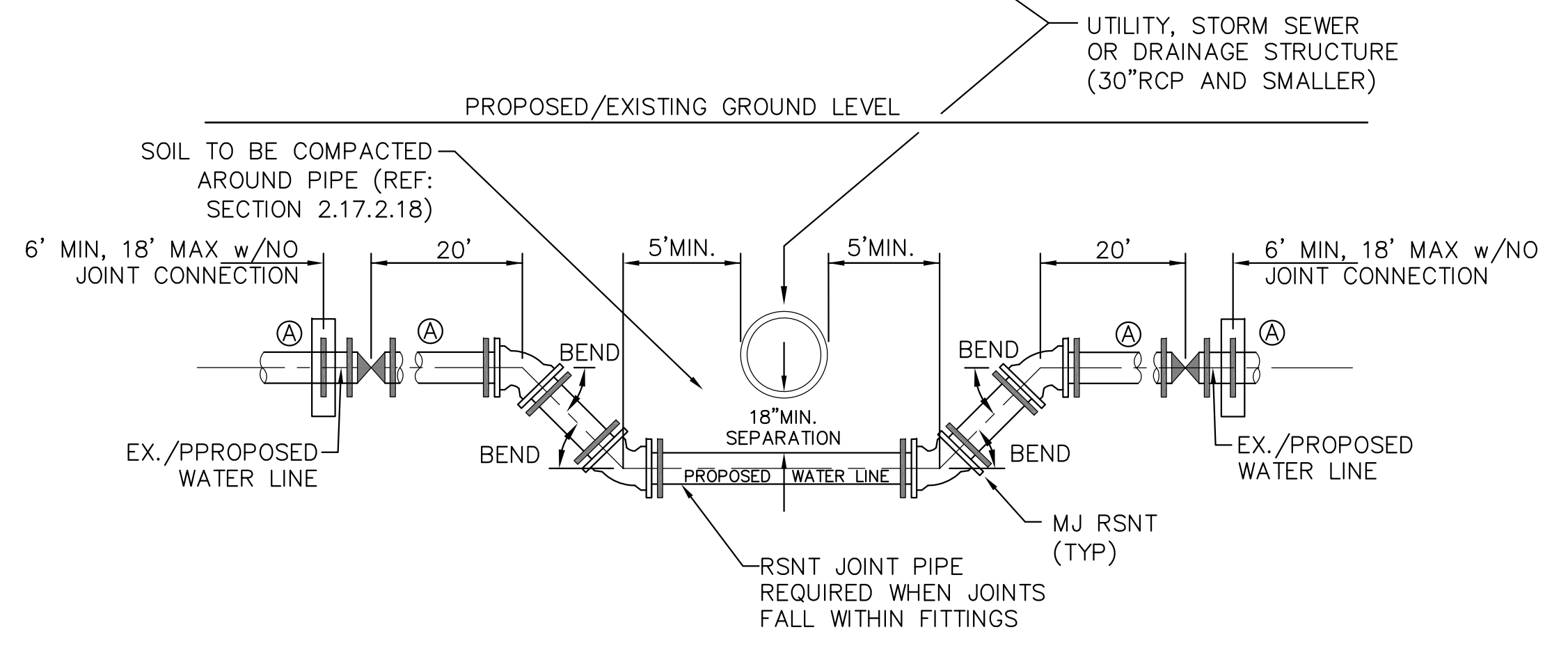
NOTE
 ALL HYDRANTS SHALL BE GUARDIAN K-81D OR AVK SERIES 2700.

- NOTES**
1. HYDRANT NOZZLE SHALL BE POSITIONED AT RIGHT ANGLES TO CURB. IF NO CURB OR SIDEWALK EXIST, NOZZLE SHALL BE PLACED AT RIGHT ANGLE TO STREET OR ALLEY.
 2. HYDRANTS WILL BE PLACED A MINIMUM OF 5.0 FEET FROM ANY UTILITY OR DRAINAGE STRUCTURE (TO BE CO-ORDINATED WITH JOINT TRENCH INSTALLATION)
 3. ANY HYDRANT BEING INSTALLED WITH CONDITIONS OTHER THAN THOSE MENTIONED AND/OR DETAILED BELOW WILL REQUIRE SIGNED APPROVAL FROM SECURITY FIRE PROTECTION DISTRICT.

FIRE HYDRANT LOCATIONS
 NO SCALE



PLAN



ELEVATION
30"RCP AND SMALLER - UTILITY STRUCTURE
 NO SCALE

GENERAL NOTES

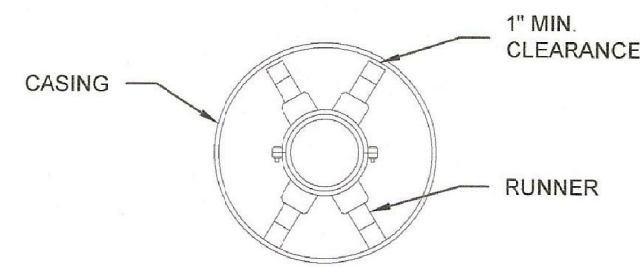
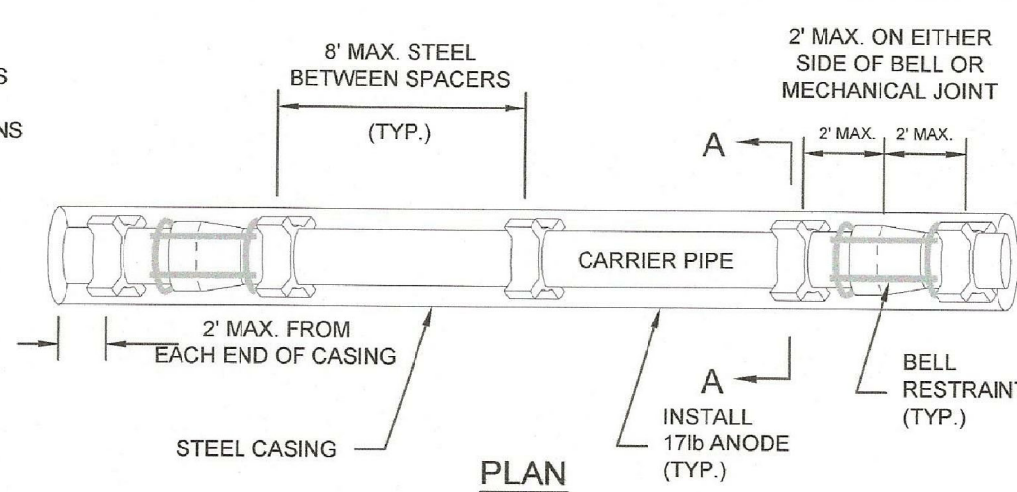
1. D.I.P. PIPE REQUIRED IN LOWERINGS (AT THE DISCRETION OF THE WRD/INSPECTOR PVC PIPE MAYBE APPROVED).
2. (A) LOWERINGS TO BE CATHODIC PROTECTED UNDER THE DIRECTION OF THE WRD INSPECTOR. (17 1b).
3. ALL FITTINGS SHALL HAVE MJ RSNTS. SEE DRAWINGS NO. 27, 28 & SECTION 5.14 OF THE WRD SPECIFICATIONS.
4. EXAMPLE CAN VARY DUE TO SITE CONDITIONS AND INSPECTOR'S DIRECTION'S.

LOWERING DETAIL WITH MJ RSNT FITTINGS AND RSNT JOINT PIPE (w/APPROVAL OF W.R.D.)
 (PER CSU STANDARD # 20a)
 NO SCALE

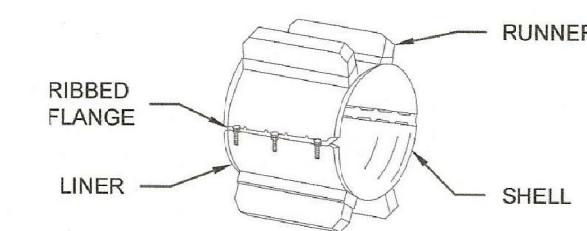
CASING PIPE MINIMUM SIZES AND THICKNESSES
(TO BE VERIFIED BY THE DESIGN ENGINEER)
BASED ON ACTUAL LOADING AND SITE CONDITIONS

CASING PIPE NOMINAL SIZE (IN)	MIN. THICKNESS (IN)
12	0.250
14	0.312
16	0.312
18	0.312
20	0.375
24	0.500
32	0.500
36	0.625

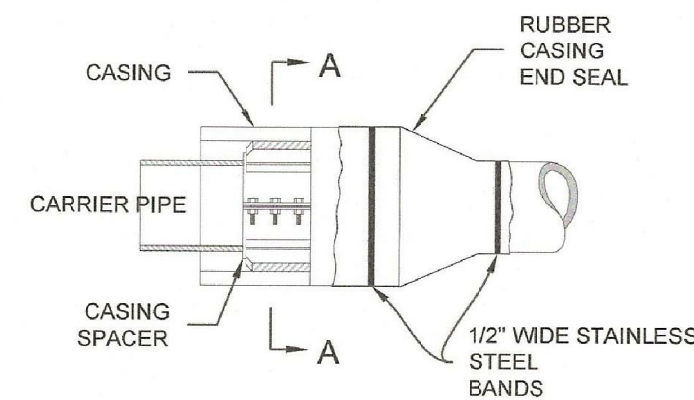
CASING PIPE MINIMUM SIZES AND THICKNESSES ARE BASED ON E80 LOADING. VARIANCES TO THESE MINIMUMS MAY BE ALLOWED WITH SUPPORTING CALCULATIONS FROM THE DESIGN ENGINEER



TYPICAL PIPE SUPPORT CASING ARRANGEMENT (CENTERED/RESTRAINED)



SPACER



CARRIER PIPE:

- CARRIER PIPE SHALL BE CENTERED WITHIN CASING BY USE OF APPROVED STAINLESS STEEL CASING SPACERS AS MANUFACTURED BY APPROVED MANUFACTURER BY COLORADO SPRINGS UTILITIES. (REFERENCE CHAPTER 2)

PLACEMENT OF SPACERS ON CARRIER PIPE:

- GENERAL - ONE SPACER SHALL BE PLACED MAX. 2' FROM EACH END OF CASING AND ON EITHER SIDE OF EACH BELL OR MECHANICAL JOINT. SUBSEQUENT SPACERS SHALL BE PLACED AT 8' INTERVALS WITHIN THE CASING, OR IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATIONS.

END SEALS:

- END SEALS SHALL BE USED TO ENSURE A WATER TIGHT SEAL ON EITHER END OF THE CASING.

CATHODIC PROTECTION:

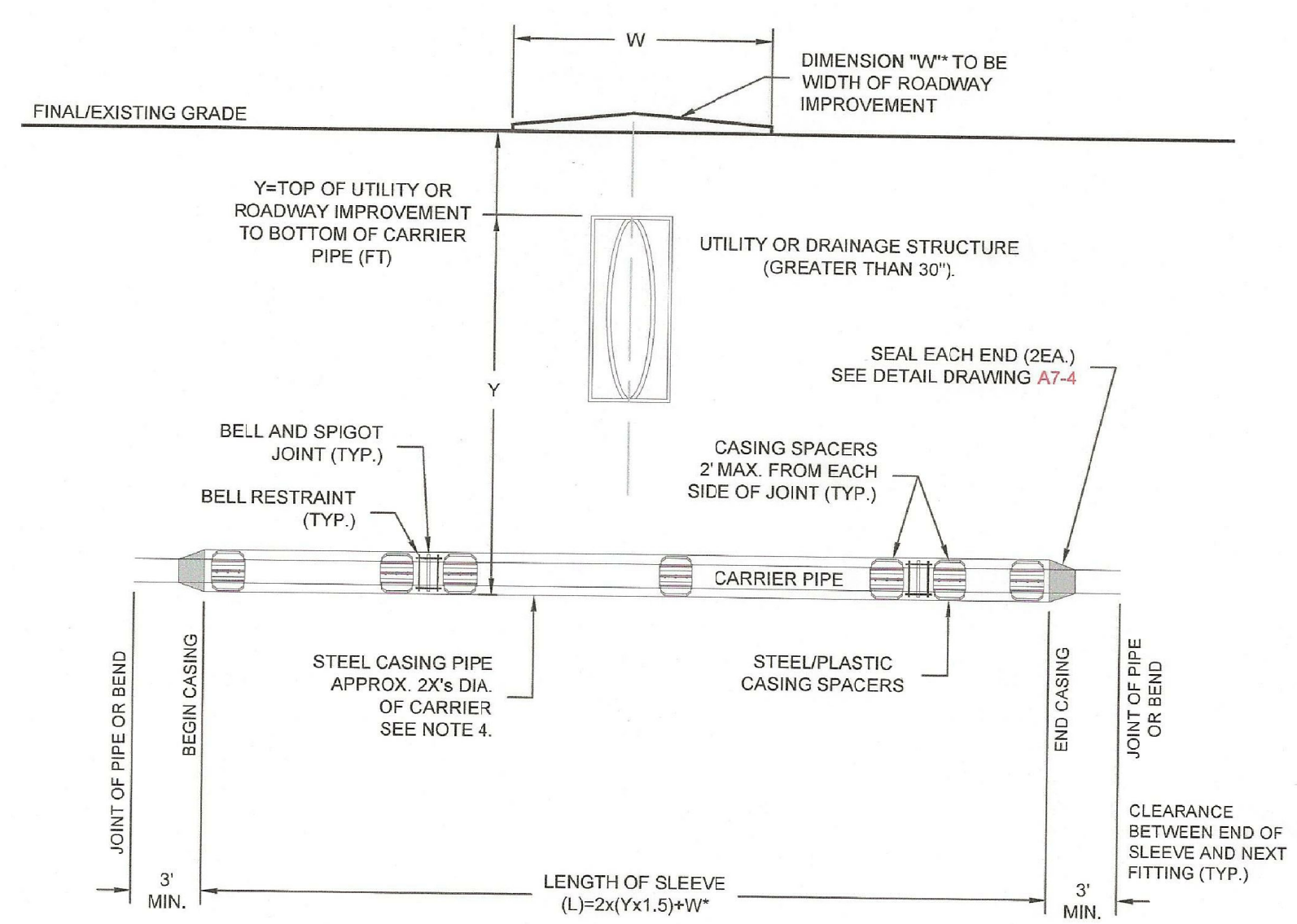
- CASING SHALL BE CATHODICALLY PROTECTED PER SECTION 2.6.1.



TYPICAL STEEL CASING INSTALLATION

A7-4

DATED 06/2015



NOTE:
AN ADDITIONAL CASING SPACER SHALL BE CENTERED ON THE PIPE WHEN 18' TO 20' LONG PIPE JOINTS ARE USED. (TYP.)
**"W" SHALL BE ADDED WHEN A SLEEVE IS REQUIRED TO CROSS A ROADWAY IMPROVEMENT SUCH AS A ROUNDABOUT OR MEDIAN. "W" IS NOT REQUIRED WHEN CROSSING AN UNDERGROUND UTILITY.

NOTES:

- ALL FITTINGS AND BELLS SHALL BE RESTRAINED IN THE CASING PIPE.
- LOCATE CASING SPACERS AT "HOMING" LOCATION FOR SLEEVES GREATER THAN 50 FEET IN LENGTH TO PREVENT DAMAGE TO BELL DURING INSTALLATION AND EXTRACTION OF PIPE, IF REMOVED.
- CASING SHALL BE STEEL PIPE WITH A MINIMUM YIELD STRENGTH OF 35,000 PSI. CASING THICKNESS SHALL BE SPECIFIED BY THE DESIGN ENGINEER ON THE PLANS BASED ON THE ANTICIPATED LOADS. SEE DETAIL DRAWING A7-4.
- THE DIAMETER OF THE CASING SHALL BE SPECIFIED BY THE DESIGN ENGINEER. THE DIAMETER SHALL TAKE INTO ACCOUNT THE MAXIMUM O.D. WITH THE USE OF RESTRAINED JOINT PIPE.
- SEE DETAIL DRAWING A7-4 FOR CASING SPACER DETAILS.
- LOCATE SPACERS ON BOTH SIDES OF JOINTS TO ELIMINATE DEFLECTION OF THE JOINT IN THE SLEEVE.
- WHERE WATER MAIN CROSSES UNDER STORM SEWER, WASTEWATER OR NON-POTABLE WATER INFRASTRUCTURE, REFERENCE SECTION 2.6.H.2.
- WHEN CROSSING A ROADWAY IMPROVEMENT, THE WIDTH OF THE IMPROVEMENT SHALL BE ADDED TO THE LENGTH OF THE SLEEVE.



TYPICAL STEEL CASING INSTALLATION

A7-3

DATED 06/2015

CORE
ENGINEERING GROUP

15004 1ST AVENUE S.
BURNSVILLE, MN 55306
PH: 719-659-7800
CONTACT: RICHARD L. SCHINDLER, P.E.
EMAIL: rich@cegi.com

NO.	DESCRIPTION	DATE

DRAWN: RLS
DESIGNED: RLS
CHECKED: RLS

WATER/SEWER
DETAILS

DATE:
JUNE 18, 2019

PROJECT NO.
100.046

SHEET NUMBER
C12.2

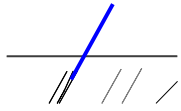
TOTAL SHEETS: 21

PREPARED FOR:
LORSON, LLC
212 N. WAHSAATCH AVE, SUITE 301
COLORADO SPRINGS, COLORADO 80903
CONTACT: JEFF MARK

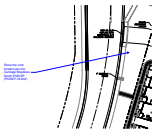
PROJECT: **CARRIAGE MEADOWS SOUTH AT LORSON RANCH FILING NO. 2**
FONTAINE BLVD - CARRIAGE MEADOWS DR
COLORADO SPRINGS, COLORADO

Markup Summary 9-3-2019

dsdrice (11)



Subject: Line
Page Label: 6
Author: dsdrice
Date: 8/23/2019 8:40:43 AM
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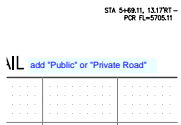
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Page Label: 6
Author: dsdrice
Date: 8/23/2019 8:47:34 AM
Color: ■

Show the curb location per the Carriage Meadows South PUD/SP (PUDSP-16-002)

This plan is not needed for PUDSP.

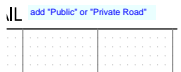
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Date: 8/23/2019 9:40:36 AM
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This plan is not needed for PUDSP.



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Author: dsdrice
Date: 8/23/2019 9:41:49 AM
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add "Public" or "Private Road"



Subject: Text Box
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Author: dsdrice
Date: 8/23/2019 9:42:10 AM
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add "Public" or "Private Road"

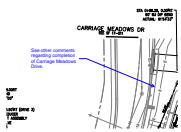


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Date: 8/23/2019 9:43:50 AM
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Subject: Callout
Page Label: 11
Author: dsdrice
Date: 8/23/2019 9:45:19 AM
Color: ■

with watertight joints



Subject: Callout
Page Label: 16
Author: dsdrice
Date: 8/23/2019 9:47:43 AM
Color: ■

See other comments regarding completion of Carriage Meadows Drive.

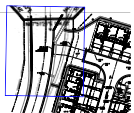
Engineering Review
9/23/2019 9:48:40 AM
dsdrice
JcdR@epcplanning.com
(719) 520-7877
EPC Planning & Community
Development Department

Subject: EPC ENG Review
Page Label: 1
Author: dsdrice
Date: 8/23/2019 9:48:40 AM
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Subject: Highlight
Page Label: 6
Author: dsdrice
Date: 8/30/2019 11:21:27 AM
Color: ■

provide improvements



Subject: Snapshot
Page Label: 6
Author: dsdrice
Date: 8/30/2019 11:21:38 AM
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