

ROADWAY AND STORM SEWER CONSTRUCTION PLANS  
FALCON MEADOWS AT BENT GRASS FILING NO. 3  
FALCON, CO 80831 - EL PASO COUNTY  
CHALLENGER COMMUNITIES, LLC

PROJECT CONTACTS

OWNER/DEVELOPER

CHALLENGER COMMUNITIES, LLC  
13570 NORTHGATE ESTATES DR.  
COLORADO SPRINGS, CO 80921  
TELE: (719) 598-5190  
ATTN: JIM BYERS  
EMAIL: JIMBY@CHALLENGERHOMES.COM

APPLICANT

NES, INC.  
619 NORTH CASCADE AVENUE, SUITE 200  
COLORADO SPRINGS, CO 80903  
TELE: (719) 471-0073  
ATTN: BROOKS SANCHEZ  
EMAIL: BSANCHEZ@NESCOLORADO.COM

CIVIL ENGINEER

GALLOWAY & CO., INC.  
1155 KELLY JOHNSON BLVD., SUITE 305  
COLORADO SPRINGS, CO 80920  
TELE: (719) 900-7220  
ATTN: GRANT DENNIS, P.E.  
EMAIL: GRANTDENNIS@GALLOWAYUS.COM

GEOTECHNICAL ENGINEER

ROCKY MOUNTAIN GROUP  
2910 AUSTIN BLUFFS PKWY  
COLORADO SPRINGS, CO 80918  
TELE: (719) 594-3072  
ATTN: TONY MUNGER, P.E.  
EMAIL: TMUNGER@RMG-ENGINEERS.COM

TRAFFIC ENGINEER

LSC TRANSPORTATION CONSULTANTS, INC.  
545 EAST PIKE'S PEAK AVENUE, SUITE 210  
COLORADO SPRINGS, CO 80903  
TELE: (719) 633-2868  
ATTN: JEFFREY C. HODGSON, P.E.  
EMAIL: JEFF@LSCTRANS.COM

SURVEYOR

GALLOWAY & CO., INC.  
1155 KELLY JOHNSON BLVD., SUITE 305  
COLORADO SPRINGS, CO 80920  
TELE: (719) 337-1262  
ATTN: BRIAN DENNIS  
EMAIL: BRIANDENNIS@GALLOWAYUS.COM

UTILITY CONTACTS

WATER & WASTEWATER

WOODMEN HILLS METRO DISTRICT  
8046 EASTONVILLE ROAD  
FALCON, CO 80831  
TELE: (719) 495-2500  
ATTN: CODY RITTER  
EMAIL: CODY@WHMD.ORG

ELECTRIC

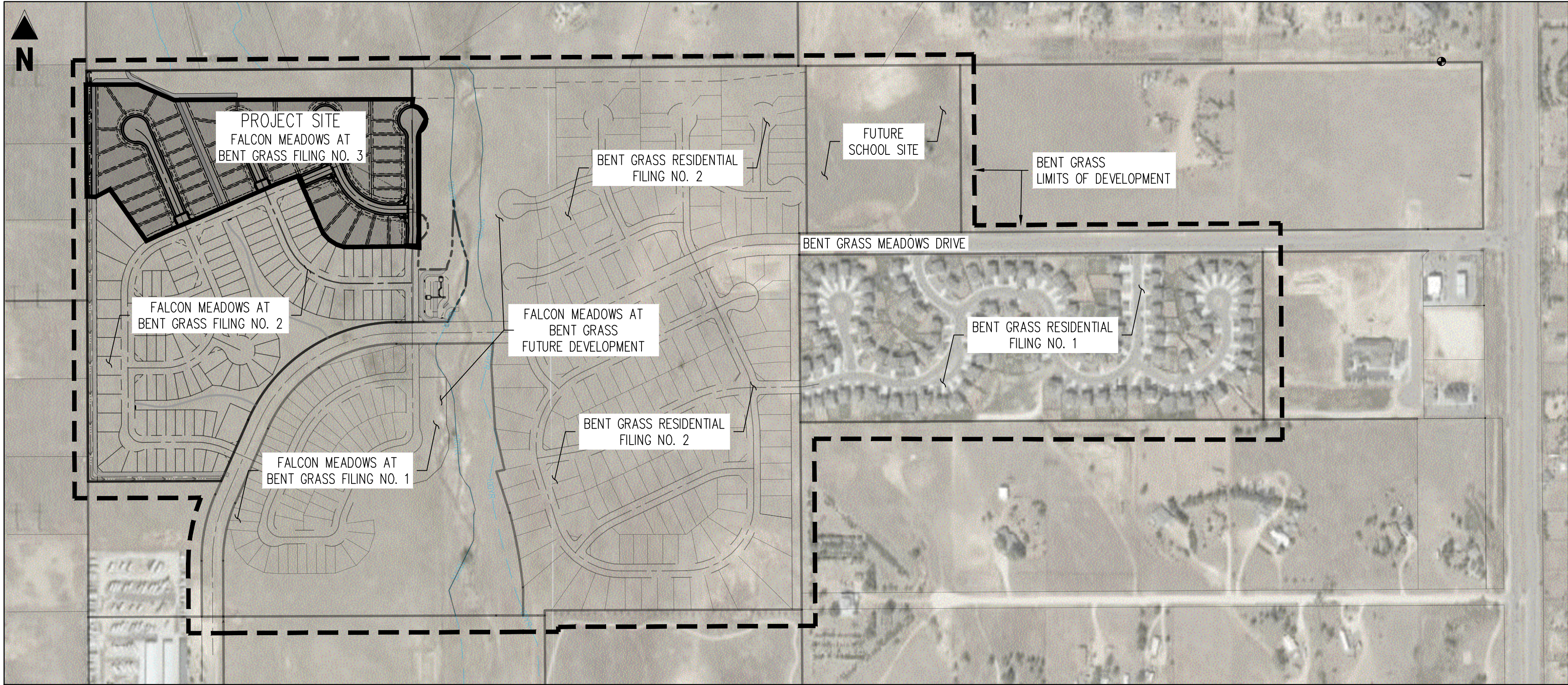
MOUNTAIN VIEW ELECTRIC  
11140 E WOODMEN RD  
FALCON, CO 80831  
TELE: (719) 495-2283  
CATHY HANSEN-LEE  
EMAIL: CATHY@MVEA.COOP

NATURAL GAS

COLORADO SPRINGS UTILITIES (CSU)  
7710 DURANT DRIVE, P.O. BOX 1103, MAIL CODE 2150  
COLORADO SPRINGS, CO 80947-2150  
TELE: (719) 668-5573  
ARON CASSIO  
EMAIL: ACASSIO@CSU.ORG

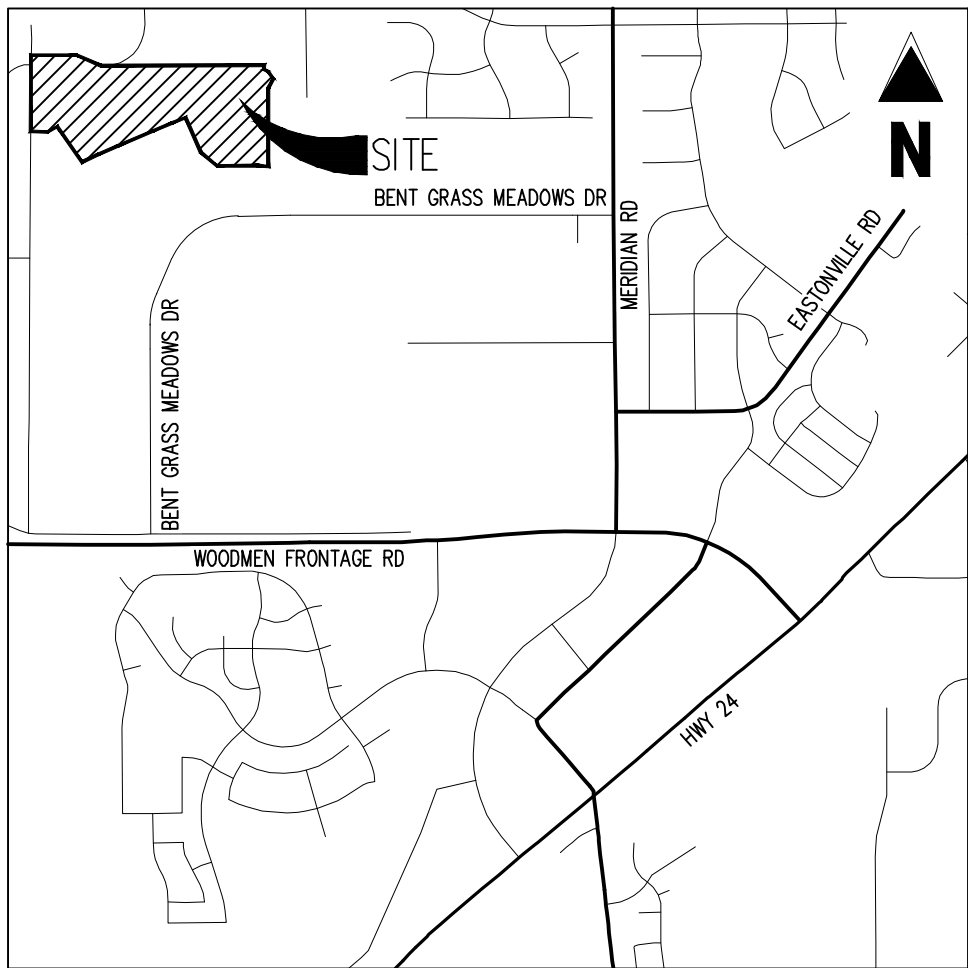
FIRE

FALCON FIRE PROTECTION DISTRICT  
7030 OLD MERIDIAN ROAD  
PEYTON, CO 80831  
TELE: (719) 495-4050  
EMAIL: FALCONFIRE@FALCONFIREPD.ORG



SITE MAP

SCALE: 1"=300'



VICINITY MAP

1"=2,000'

ENGINEER'S STATEMENT

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION. SAID PLANS AND SPECIFICATIONS HAVE BEEN PREPARED ACCORDING TO THE CRITERIA ESTABLISHED BY THE COUNTY FOR DETAILED ROADWAY, DRAINAGE, GRADING AND EROSION CONTROL PLANS AND SPECIFICATIONS, AND SAID PLANS AND SPECIFICATIONS ARE IN CONFORMITY WITH APPLICABLE MASTER DRAINAGE PLANS AND MASTER TRANSPORTATION PLANS. SAID PLANS AND SPECIFICATIONS MEET THE PURPOSES FOR WHICH THE PARTICULAR ROADWAY AND DRAINAGE FACILITIES ARE DESIGNED AND ARE CORRECT TO THE BEST OF MY KNOWLEDGE AND 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.

RONALD G. DENNIS, COLORADO P.E. NO. 0051622

DATE

OWNER'S STATEMENT

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

JIM BYERS  
CHALLENGER HOMES, INC.

DATE

EL PASO COUNTY

COUNTY PLAN REVIEW IS PROVIDED ONLY FOR GENERAL CONFORMANCE WITH COUNTY DESIGN CRITERIA. THE COUNTY IS NOT RESPONSIBLE FOR THE ACCURACY AND ADEQUACY OF THE DESIGN, DIMENSIONS, AND/OR ELEVATIONS WHICH SHALL BE CONFIRMED AT THE JOB SITE. THE COUNTY THROUGH THE APPROVAL OF THIS DOCUMENT ASSUMES NO RESPONSIBILITY FOR COMPLETENESS AND/OR ACCURACY OF THIS DOCUMENT. FILED IN ACCORDANCE WITH THE REQUIREMENTS OF THE EL PASO COUNTY LAND DEVELOPMENT CODE, DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND ENGINEERING CRITERIA MANUAL AS AMENDED.

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

JOSHUA PALMER, P.E.  
INTERIM COUNTY ENGINEER / EGM ADMINISTRATOR

DATE

PCD FILING NO.

FUDSP-20-005 (FALCON MEADOWS AT BENT GRASS PRELIMINARY PLAN)  
SF-22-16 (FALCON MEADOWS AT BENT GRASS FILING NO. 3)

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BASIS OF BEARINGS

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 11, T13S, R65W AND THE WEST QUARTER CORNER SECTION 11, T13S, R65W IS N007°13'45"W AND MONUMENTED AS SHOWN.

BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4, MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR L5# 24954 ELEVATION = 6947.67

CAUTION -- NOTICE TO CONTRACTOR

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.

2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POT-HOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.

Know what's below.  
Call before you dig.



Galloway

1155 Kelly Johnson Blvd., Suite 305  
Colorado Springs, CO 80920  
719.900.7220  
GallowayUS.com

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CHALLENGER  
HOMES

CONSTRUCTION DOCUMENTS  
FALCON MEADOWS AT BENT GRASS FILING NO. 3  
FOR  
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERIDIAN ROAD  
FALCON, CO 80831 - EL PASO COUNTY

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Project No:	CLH000020
Drawn By:	CMWJ
Checked By:	RGD
Date:	06/24/2022

COVER SHEET

C0.0

Sheet 1 of 14



GENERAL CONSTRUCTION NOTES

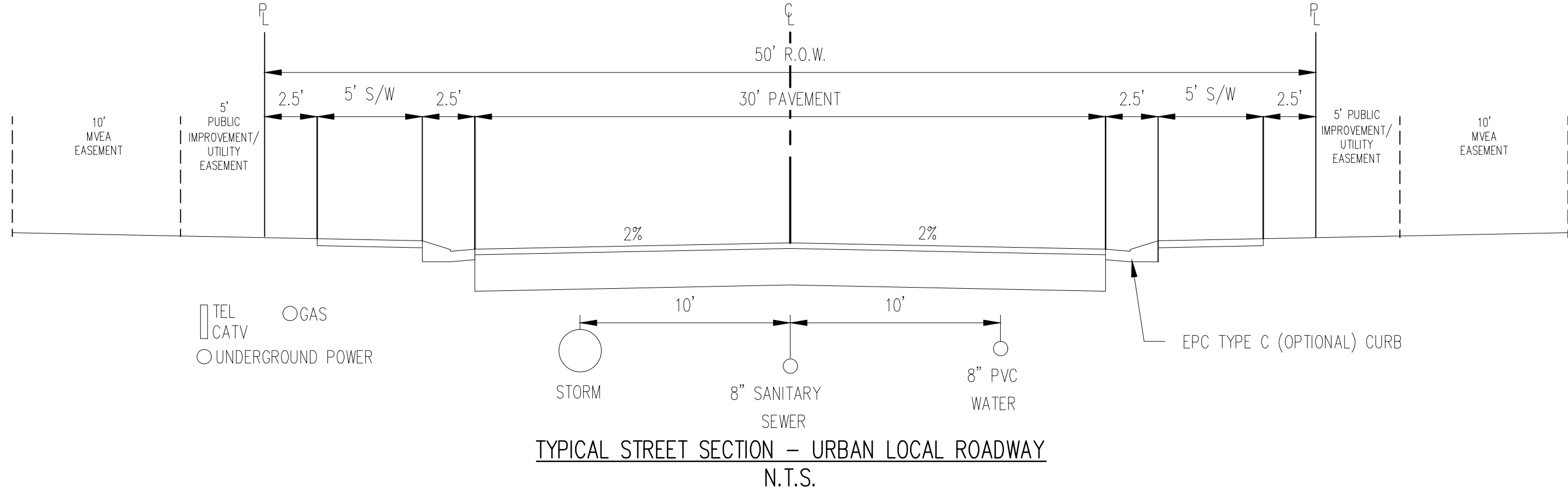
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE AND LOCATION OF ALL UNDERGROUND UTILITIES ALONG THE ROUTE OF THE WORK. THE OMISSION FROM OR THE INCLUSION OF UTILITY LOCATIONS ON THE PLANS IS NOT TO BE CONSIDERED AS THE NONEXISTENCE OF OR A DEFINITE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- THE CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS TO PROTECT EXISTING UTILITIES FROM DAMAGE DUE TO THIS OPERATION. ANY DAMAGE TO THE UTILITIES WILL BE REPLACED AT THE CONTRACTORS EXPENSE AND ANY SERVICE DISRUPTION WILL BE SETTLED BY THE CONTRACTOR.
- ADDITIONAL EROSION CONTROL STRUCTURES MAY BE REQUIRED AT THE TIME OF CONSTRUCTION.
- ALL BACKFILL, SUB-BASE AND / OR BASE COURSE (CLASS 6) MATERIAL SHALL BE COMPACTED TO THE SOILS ENGINEERS RECOMMENDATIONS, AND APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION.
- ALL STATIONING IS CENTERLINE UNLESS OTHERWISE INDICATED. ALL ELEVATIONS ARE FLOW LINE UNLESS OTHERWISE INDICATED.
- ALL DISTURBED PAVEMENT EDGES SHALL BE CUT TO NEAT LINES. REPAIR SHALL CONFORM TO THE EPC EGM APPENDIX K – 1.2C.
- ALL INTERSECTION ACCESSSES TO BE CONSTRUCTED WITH A 25 FOOT SIGHT VISIBILITY TRIANGLES AND THERE SHALL BE NO OBSTRUCTIONS GREATER THAN 18" IN THIS AREA.
- ALL CULVERT AND STORM PIPES SHALL BE SMOOTH INTERIOR CORRUGATED POLYETHYLENE PIPE (HOPE), OR REINFORCED CONCRETE PIPE (RCP). ALL CULVERTS SHALL BE PLACED COMPLETE WITH FLARED END SECTIONS. ADEQUACY OF MATERIAL THICKNESS FOR ANY CSP INSTALLED SHALL BE VERIFIED BY OWNERS GEOTECHNICAL ENGINEER TO SUPPORT MINIMUM 50 YEAR DESIGN LIFE. CULVERTS MUST CONFORM TO EPC EGM SECTION 3.32 – CULVERTS.
- ASPHALT THICKNESS AND BASE COURSE THICKNESS (COMPACTED FOR ROADS SHALL BE PER DESIGN REPORT BY OWNERS GEOTECHNICAL ENGINEER. OWNERS GEOTECHNICAL ENGINEER TO BE ON SITE AT TIME OF ROAD CONSTRUCTION TO EVALUATE SOIL CONDITIONS AND DETERMINE IF ADDITIONAL MEASURES ARE NECESSARY TO ASSURE STABILITY OF THE NEW ROADS. PAVEMENT DESIGN SHALL BE APPROVED BY EL PASO COUNTY DEVELOPMENT SERVICES ENGINEERING DIVISION PRIOR TO CONSTRUCTION.
- TYPE M RIP-RAP WITH 4" OF TYPE II GRANULAR BEDDING AND MIRAFI 180N OR EQUAL MAY BE SUBSTITUTED WHERE TYPE L RIP-RAP WITH MIRAFI FW 700 OR EQUAL IS SPECIFIED.
- ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN COMPLIANCE WITH ANY AND ALL APPLICABLE EL PASO COUNTY STANDARDS AND WITH WOODMAN HILLS METRO DISTRICT CONSULTING ENGINEER APPROVAL.
- ALL POTABLE WATER MAINS SHALL BE ANWIA 9000-SDR18 PVC WITH PUSH-ON SINGLE GASKET TYPE JOINTS AND SHALL MEET THE REQUIREMENTS OF ANSI / NSF 61.
- ALL WATER MAIN FITTINGS SHALL BE MADE FROM GRAY-IRON OR DUCTILE IRON AND FURNISHED WITH MECHANICAL JOINT ENDS. ALL FITTINGS SHALL HAVE A PRESSURE RATING OF 250 PSI AND SHALL MEET THE REQUIREMENTS OF ANSI / NSF 61.
- ALL WATER LINE BENDS, TEES, BLOW-OFFS AND PLUGS AT DEAD-END MAINS SHALL BE PROTECTED FROM THRUST BY USING CONCRETE THRUST BLOCKS AND / OR RODDING AND RESTRAINED PIPE PER THE PAINT BRUSH HILLS METRO DISTRICT CONSULTING ENGINEER APPROVAL.
- MAXIMUM DEFLECTION OF 8" OR 12" PVC WATER MAIN JOINTS IS 4 DEGREES. CORRESPONDING MINIMUM CURVE RADIUS IS 286'. ADDITIONAL 11.25' OR 22.5' BENDS MAY BE REQUIRED FOR PROPER ALIGNMENT.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING DETAILED AS-BUILTS OF ALL WATER MAIN, STORM SEWER AND SANITARY. SEWER MAIN INSTALLATIONS, INCLUDING ACCURATE DISTANCES OF MAIN LINES, VALVES, FITTINGS, MANHOLES AND LOCATIONS OF WATER AND SEWER SERVICES.
- SANITARY SEWER PIPE AND FITTINGS: PVC 4" – 8" ASTM D3034, TYPE PSM, SDR 35; PUSH-ON JOINTS AND MOLDED RUBBER GASKETS MAXIMUM HORIZONTAL DEFLECTIONS, AFTER INSTALLATION AND BACK FILLING SHALL NOT EXCEED 3% OF THE PIPE DIAMETER. (MINIMUM CURVE RADIUS IS 100' FOR 8" PVC SANITARY SEWER MAIN)

STANDARD NOTES FOR EPC CONSTRUCTION PLAN

- ALL DRAINAGE AND ROADWAY CONSTRUCTION SHALL MEET THE STANDARDS AND SPECIFICATIONS OF THE CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2, AND THE EL PASO COUNTY ENGINEERING CRITERIA MANUAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE NOTIFICATION AND FIELD NOTIFICATION OF ALL EXISTING UTILITIES, WHETHER SHOWN ON THE PLANS OR NOT, BEFORE BEGINNING CONSTRUCTION. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CALL 811 TO CONTACT THE UTILITY NOTIFICATION CENTER OF COLORADO (UNCC).
- CONTRACTOR SHALL KEEP A COPY OF THESE APPROVED PLANS, THE GRADING AND EROSION CONTROL PLAN, THE STORMWATER MANAGEMENT PLAN (SWMP), THE SOILS AND GEOTECHNICAL REPORT, AND THE APPROPRIATE DESIGN AND CONSTRUCTION STANDARDS AND SPECIFICATIONS AT THE JOB SITE AT ALL TIMES, INCLUDING THE FOLLOWING:
  - EL PASO COUNTY ENGINEERING CRITERIA MANUAL (ECM)
  - CITY OF COLORADO SPRINGS/EL PASO COUNTY DRAINAGE CRITERIA MANUAL, VOLUMES 1 AND 2
  - COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
  - CDOT M & S STANDARDS
- NOTWITHSTANDING ANYTHING DEPICTED IN THESE PLANS IN WORDS OR GRAPHIC REPRESENTATION, ALL DESIGN AND CONSTRUCTION RELATED TO ROADS, STORM DRAINAGE AND EROSION CONTROL SHALL CONFORM TO THE STANDARDS AND REQUIREMENTS OF THE MOST RECENT VERSION OF THE RELEVANT ADOPTED EL PASO COUNTY STANDARDS, INCLUDING THE LAND DEVELOPMENT CODE, THE ENGINEERING CRITERIA MANUAL, THE DRAINAGE CRITERIA MANUAL, AND THE DRAINAGE CRITERIA MANUAL VOLUME 2. ANY DEVIATIONS FROM REGULATIONS AND STANDARDS MUST BE REQUESTED, AND APPROVED, IN WRITING. ANY MODIFICATIONS NECESSARY TO MEET CRITERIA AFTER-THE-FACT WILL BE ENTIRELY THE DEVELOPER'S RESPONSIBILITY TO RECTIFY.
- IT IS THE DESIGN ENGINEER'S RESPONSIBILITY TO ACCURATELY SHOW EXISTING CONDITIONS, BOTH ON-SITE AND OFF-SITE, 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 EGM 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 DPW AND MUTCD CRITERIA. [IF APPLICABLE, ADDITIONAL SIGNING AND STRIPING NOTES WILL BE PROVIDED.]
- CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY EL PASO COUNTY DPW, INCLUDING WORK WITHIN THE RIGHT-OF-WAY AND SPECIAL TRANSPORT PERMITS.
- THE LIMITS OF CONSTRUCTION SHALL REMAIN WITHIN THE PROPERTY LINE UNLESS OTHERWISE NOTED. THE OWNER/DEVELOPER SHALL OBTAIN WRITTEN PERMISSION AND EASEMENTS, WHERE REQUIRED, FROM ADJOINING PROPERTY OWNER(S) PRIOR TO ANY OFF-SITE DISTURBANCE, GRADING, OR CONSTRUCTION.

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-614-8 REGARDING USE OF THE P2 TUBULAR STEEL POST SLIPBASE 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 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.
- 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.
- THE CONTRACTOR SHALL NOTIFY EL PASO COUNTY PLANNING AND COMMUNITY DEVELOPMENT (719) 520-6819 PRIOR TO AND UPON COMPLETION OF SIGNING AND STRIPING.
- THE CONTRACTOR SHALL OBTAIN A WORK IN THE RIGHT OF WAY PERMIT FROM THE EL PASO COUNTY DEPARTMENT OF PUBLIC WORKS (DPW) PRIOR TO ANY SIGNAGE OR STRIPING WORK WITHIN AN EXISTING EL PASO COUNTY ROADWAY.



STREET NAMES

- HENZLEE PL
- SOPHIA LN
- DAELYN DR
- KITTRICK PL
- ISABEL PL

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Project No:	CLH000020
Drawn By:	CMWJ
Checked By:	RGD
Date:	06/24/2022

NOTES



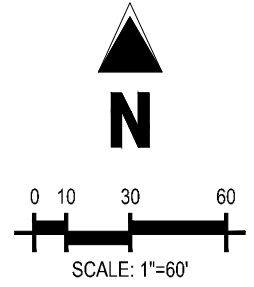
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Checked By:	RGD
Date:	06/24/2022

OVERALL HORIZONTAL  
CONTROL

# C1.0

Sheet 3 of 14



### LEGEND

\_\_\_\_\_ EXISTING PROPERTY LINE  
 \_\_\_\_\_ EXISTING PROPERTY LINE TO BE REMOVED  
 \_\_\_\_\_ PROPOSED RIGHT OF WAY LINE  
 - - - - - PROPOSED CENTER LINE  
 \_\_\_\_\_ EXISTING LOT LINE  
 \_\_\_\_\_ PROPOSED LOT LINE  
 - - - - - EXISTING EASEMENT  
 \_\_\_\_\_ PROPOSED EASEMENT  
 --- 100' --- 100-YEAR FEMA FLOODPLAIN  
 113 PROPOSED LOT #  
 101 EXISTING LOT #

## BASIS OF BEARINGS

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS N00°13'46"W AND MONUMENTED AS SHOWN:

## BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4, MONUMENTED BY A  
YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR LS# 24954 ELEVATION = 6947.67

CAUTION – NOTICE TO CONTRACTOR

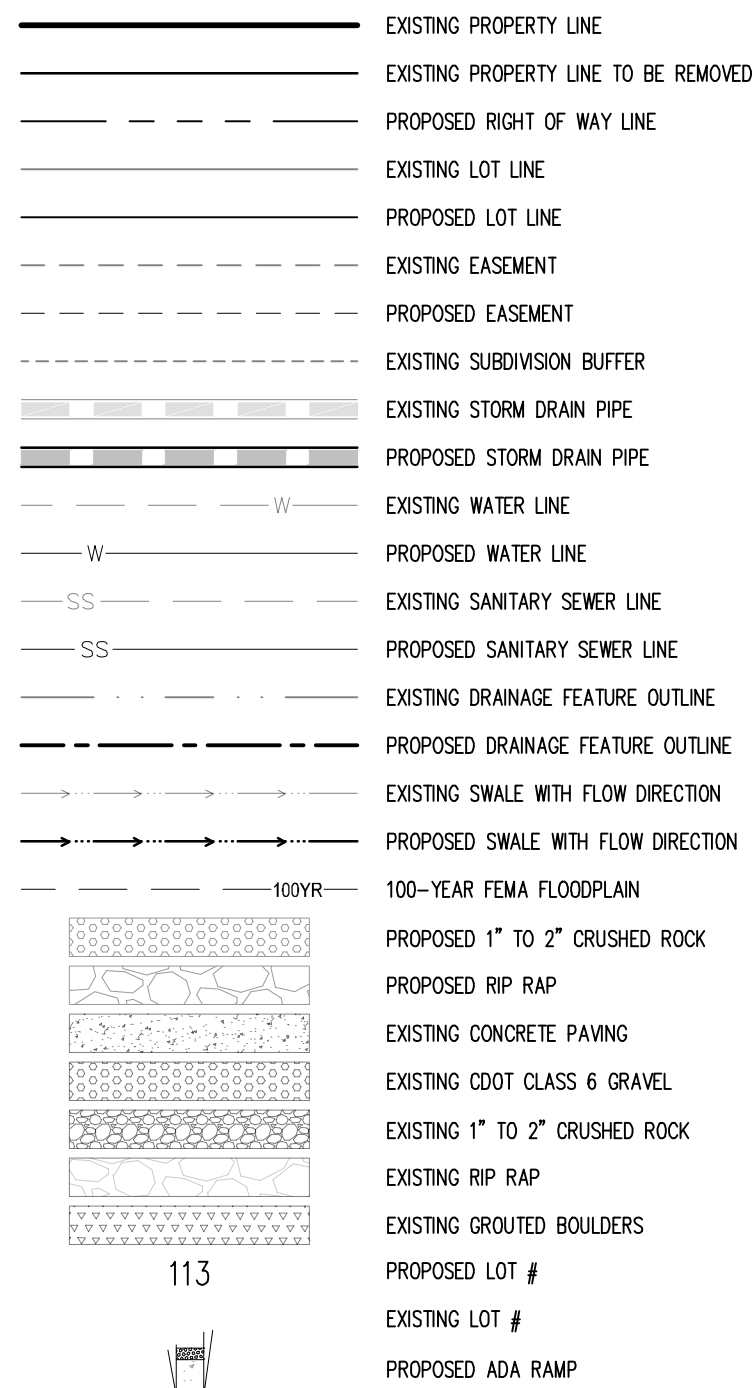
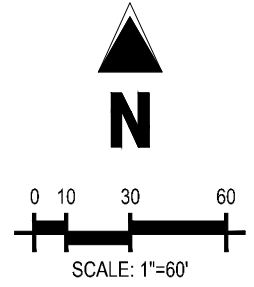
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2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POT-HOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.



Know what's below.  
Call before you dig.





## BASIS OF BEARINGS

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS  $N00^{\circ}13'46''W$  AND MONUMENTED AS SHOWN:

## BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4, MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR L<sub>S</sub># 24954 ELEVATION = 6947.67

CAUTION – NOTICE TO CONTRACTOR

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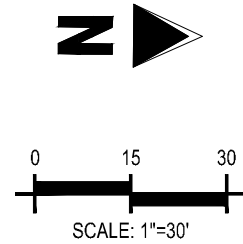
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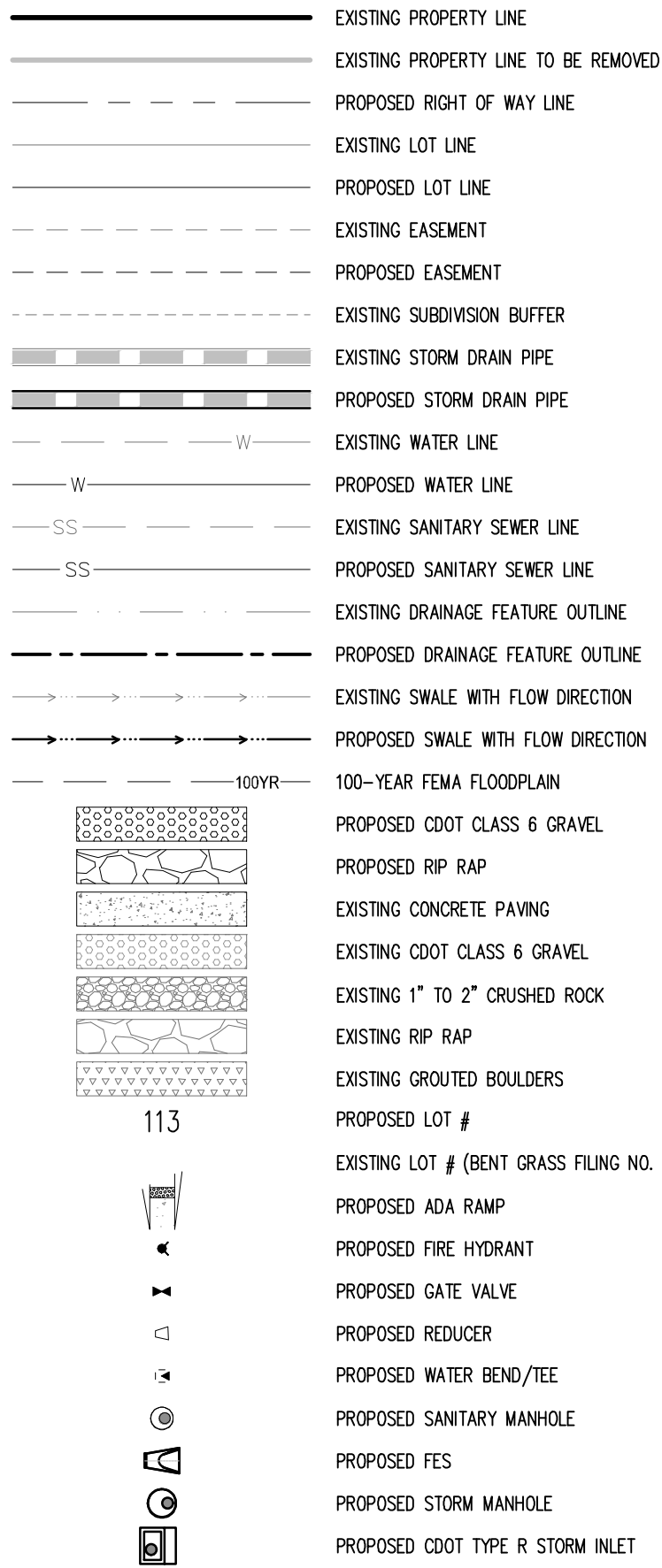
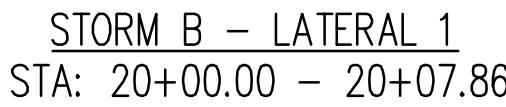
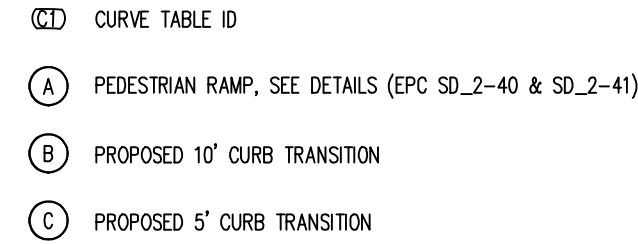










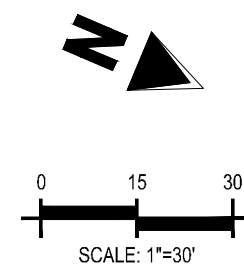


Know what's below.  
Call before you dig.

BENT GRASS MEADOWS DRIVE & MERDIAN ROAD  
FALCON, CO 80831 - EL PASO COUNTY

Sheet 7 of 14





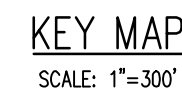
## NOTES

1. ALL STATION CALLOUTS ARE IN RELATION TO THE CENTERLINE OF ROADWAY, THEREFORE STORM SEWER MANHOLE RIMS AND INLETS MAY APPEAR TO NOT MEET FINISH GRADE
2. STORM SEWER INLET FLOW LINE ELEVATION CALLOUTS TO NOT ACCOUNT FOR FLOW LINE DEPRESSION AT STORM SEWER INLET
3. ALL SPOT ELEVATIONS ARE TO FLOW LINE UNLESS OTHERWISE NOTED
4. SEE GRADING PLAN FOR ALL GRADING INFORMATION
5. ALL STORM SEWER SHALL BE CLASS III RCP
6. ALL STORM SEWER MANHOLES SHALL BE TYPE 1 UNLESS OTHERWISE NOTED
7. ALL CROSS PANS SHALL CONFORM TO EL PASO COUNTY DETAIL S02-26













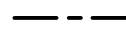














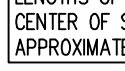


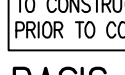
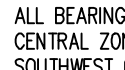


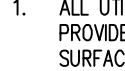
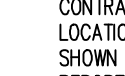
**CD CURVE**

- (A) PEDESTRIAN RAMP, SEE DETAILS (EPC SD\_2-40 & SD\_2-41)
- (B) PROPOSED 10' CURB TRANSITION
- (C) PROPOSED 5' CURB TRANSITION

CURVE SEGMENT TABLE - EDGE OF PAVEMENT					
CURVE TAG #	DELTA	LENGTH (FT)	RADIUS (FT)	CHORD BEARING	CHORD LENGTH (FT)
C6	70°31'44"	55.39	45.00	N12°22'13"E	51.96
C7	250°31'44"	196.76	45.00	N77°37'47"W	73.48



### LEGEND

- |   |                                       |
|---|---------------------------------------|
|    | EXISTING PROPERTY LINE                |
|    | EXISTING PROPERTY LINE TO BE REMOVED  |
|    | PROPOSED RIGHT OF WAY LINE            |
|    | EXISTING LOT LINE                     |
|    | PROPOSED LOT LINE                     |
|    | EXISTING EASEMENT                     |
|    | PROPOSED EASEMENT                     |
|    | EXISTING SUBDIVISION BUFFER           |
|    | EXISTING STORM DRAIN PIPE             |
|    | PROPOSED STORM DRAIN PIPE             |
|    | EXISTING WATER LINE                   |
|    | PROPOSED WATER LINE                   |
|    | EXISTING SANITARY SEWER LINE          |
|    | PROPOSED SANITARY SEWER LINE          |
|    | EXISTING DRAINAGE FEATURE OUTLINE     |
|    | PROPOSED DRAINAGE FEATURE OUTLINE     |
|   | EXISTING SWALE WITH FLOW DIRECTION    |
|  | PROPOSED SWALE WITH FLOW DIRECTION    |
|  | 100-YEAR FEMA FLOODPLAIN              |
|  | PROPOSED CDOT CLASS 6 GRAVEL          |
|  | PROPOSED RIP RAP                      |
|  | EXISTING CONCRETE PAWING              |
|  | EXISTING CDOT CLASS 6 GRAVEL          |
|  | EXISTING 1" TO 2" CRUSHED ROCK        |
|  | EXISTING RIP RAP                      |
|  | EXISTING GROUTED BOULDERS             |
| 113   | PROPOSED LOT #                        |
|  | EXISTING LOT # (BENT GRASS FLUNG NO.) |
|  | PROPOSED ADA RAMP                     |
|  | PROPOSED FIRE HYDRANT                 |
|  | PROPOSED GATE VALVE                   |
|  | PROPOSED REDUCER                      |
|  | PROPOSED WATER BEND/TEE               |
|  | PROPOSED SANITARY MANHOLE             |
|  | PROPOSED FES                          |
|  | PROPOSED STORM MANHOLE                |
|  | PROPOSED CDOT TYPE R STORM INLET      |

CONTRACTOR MUST COORDINATE WORK WITH WOODMEN HILLS METROPOLITAN DISTRICT PRIOR TO BEGINNING WORK AND IS RESPONSIBLE FOR ALL MATERIALS, LABOR, REPAIRS, ETC. TO COMPLETE WORK AND RESTORE AREA TO SAME STATE PRIOR TO STARTING WORK.

LENGTHS OF STORM SEWER ARE THE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED. THEREFORE LENGTHS SHOWN ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND STRUCTURE WIDTHS.

MAINTAIN MINIMUM 18" VERTICAL AND 10' HORIZONTAL SEPARATION BETWEEN STORM SEWER AND POTABLE WATER OR WASTEWATER. A 12" VERTICAL CLEARANCE MUST BE MAINTAINED BETWEEN IRRIGATION LINES.

SURVEYOR TO OBTAIN AUTOCAD FILE FROM ENGINEER AND VERIFY ALL HORIZONTAL CONTROL DIMENSIONING PRIOR TO CONSTRUCTION STAKING. SURVEYOR MUST VERIFY ALL BENCHMARK, BASIS OF BEARING AND DATUM INFORMATION TO ENSURE IMPROVEMENTS WILL BE AT THE SAME HORIZONTAL AND VERTICAL LOCATIONS SHOWN ON THE DESIGN CONSTRUCTION DRAWINGS. PRIOR TO CONSTRUCTION STAKING ANY DISCREPANCY MUST BE REPORTED TO OWNER AND ENGINEER PRIOR TO CONTINUATION OF ANY FURTHER STAKING OR CONSTRUCTION WORK.

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## BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4. MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR LS# 24954 ELEVATION = 6947.67

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Know what's below.  
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1155 Kelly Johnson Blvd., Suite 305  
Colorado Springs, CO 80920  
719.900.7220  
[GallowayUS.com](http://GallowayUS.com)

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**CHALLENGER**  
HOMES

3

CONSTRUCTION DOCUMENTS  
FALCON MEADOWS AT BENT GRASS  
FOR  
CHALLENGER COMMUNITIES, LLC

BENT GRASS MEADOWS DRIVE & MERDIAN ROAD  
FALCON, CO 80831 - EL PASO COUNTY

[illegible]

Project No: CLH000020

Drawn By: CMWJ

Checked By: RGD

Date: 06/24/2022

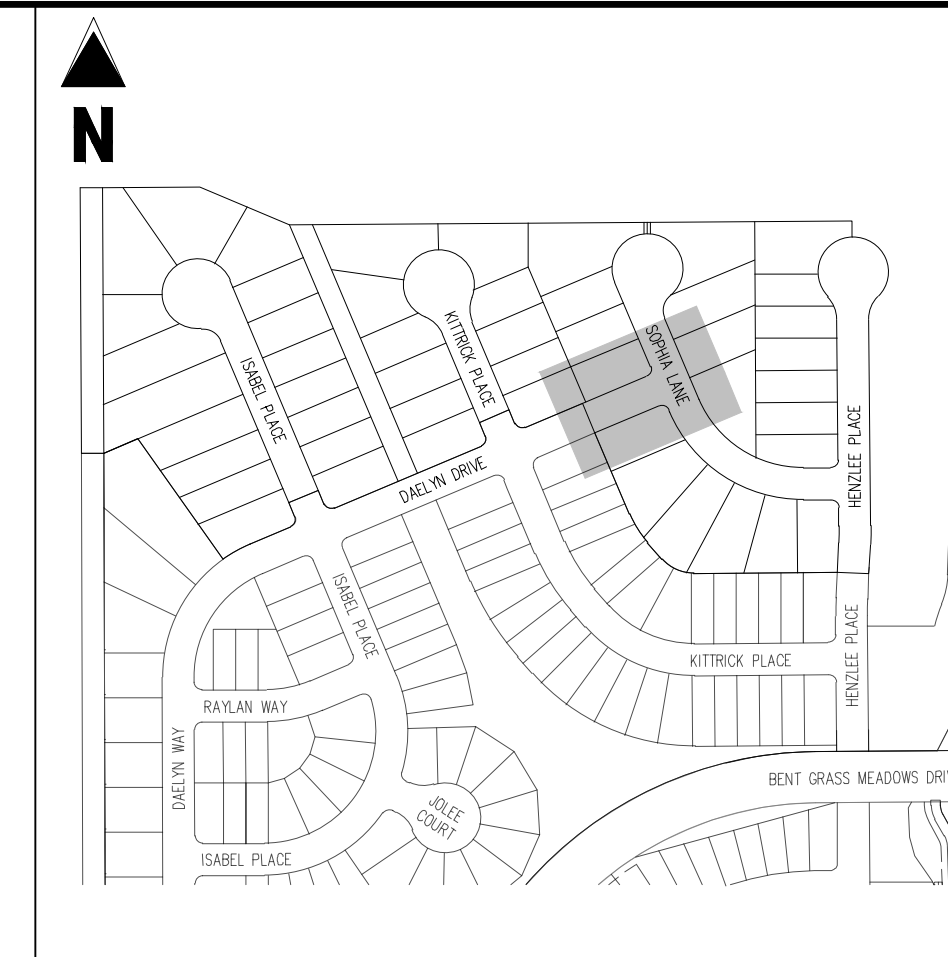
# SOPHIA LANE STREET IMPROVEMENT PLAN

## C2.4

Sheet 8 of 14

Challenger Homes Inc.CO., Falcon = CH100120 = FM at Brent Gross F35QW3-CD/PUB/CL/H2O\_C2-4\_Sophia Lindwig - Caled Johnson - 6/24/2022





KEY MAP  
SCALE: 1"=300'

### LEGEND

	EXISTING PROPERTY LINE
	EXISTING PROPERTY LINE TO BE REMOVED
	PROPOSED RIGHT OF WAY LINE
	EXISTING LOT LINE
	PROPOSED LOT LINE
	EXISTING EASEMENT
	PROPOSED EASEMENT
	EXISTING SUBDIVISION BUFFER
	EXISTING STORM DRAIN PIPE
	PROPOSED STORM DRAIN PIPE
	EXISTING WATER LINE
	PROPOSED WATER LINE
	EXISTING SANITARY SEWER LINE
	PROPOSED SANITARY SEWER LINE
	EXISTING DRAINAGE FEATURE OUTLINE
	PROPOSED DRAINAGE FEATURE OUTLINE
	EXISTING SWALE WITH FLOW DIRECTION
	PROPOSED SWALE WITH FLOW DIRECTION
	100-YEAR FEMA FLOODPLAIN
	PROPOSED CDOT CLASS 6 GRAVEL
	PROPOSED RIP RAP
	EXISTING CONCRETE PAVING
	EXISTING CDOT CLASS 6 GRAVEL
	EXISTING 1" TO 2" CRUSHED ROCK
	EXISTING RIP RAP
	EXISTING GROUTED BOULDERS
	PROPOSED LOT #
	EXISTING LOT # (BENT GRASS FLUNG NO. 113)
	PROPOSED ADA RAMP
	PROPOSED FIRE HYDRANT
	PROPOSED GATE VALVE
	PROPOSED REDUCER
	PROPOSED WATER BEND/TEE
	PROPOSED SANITARY MANHOLE
	PROPOSED FES
	PROPOSED STORM MANHOLE
	PROPOSED CDOT TYPE R STORM INLET

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## BENCHMARK

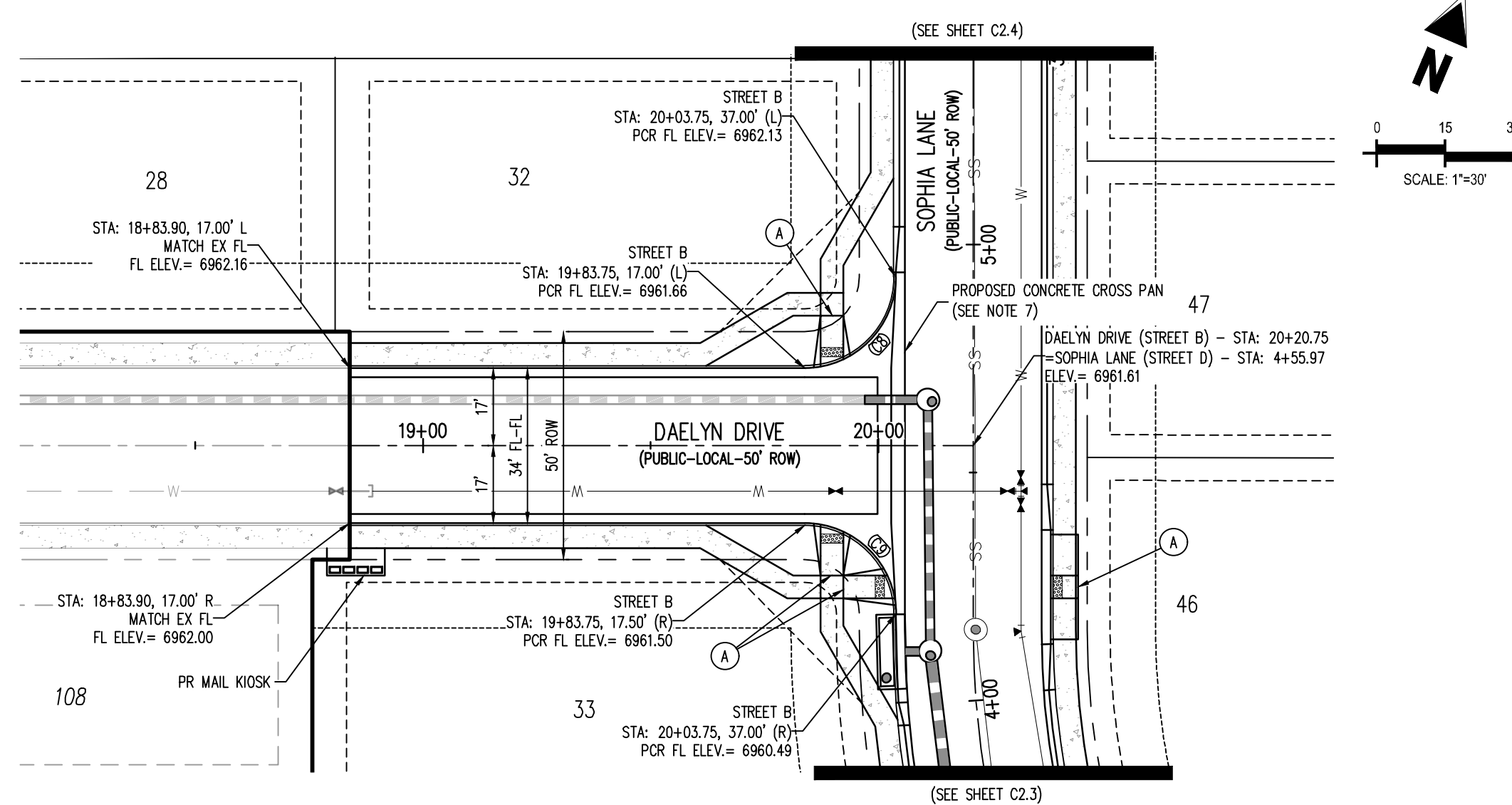
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CAUTION - NOTICE TO CONTRACTOR

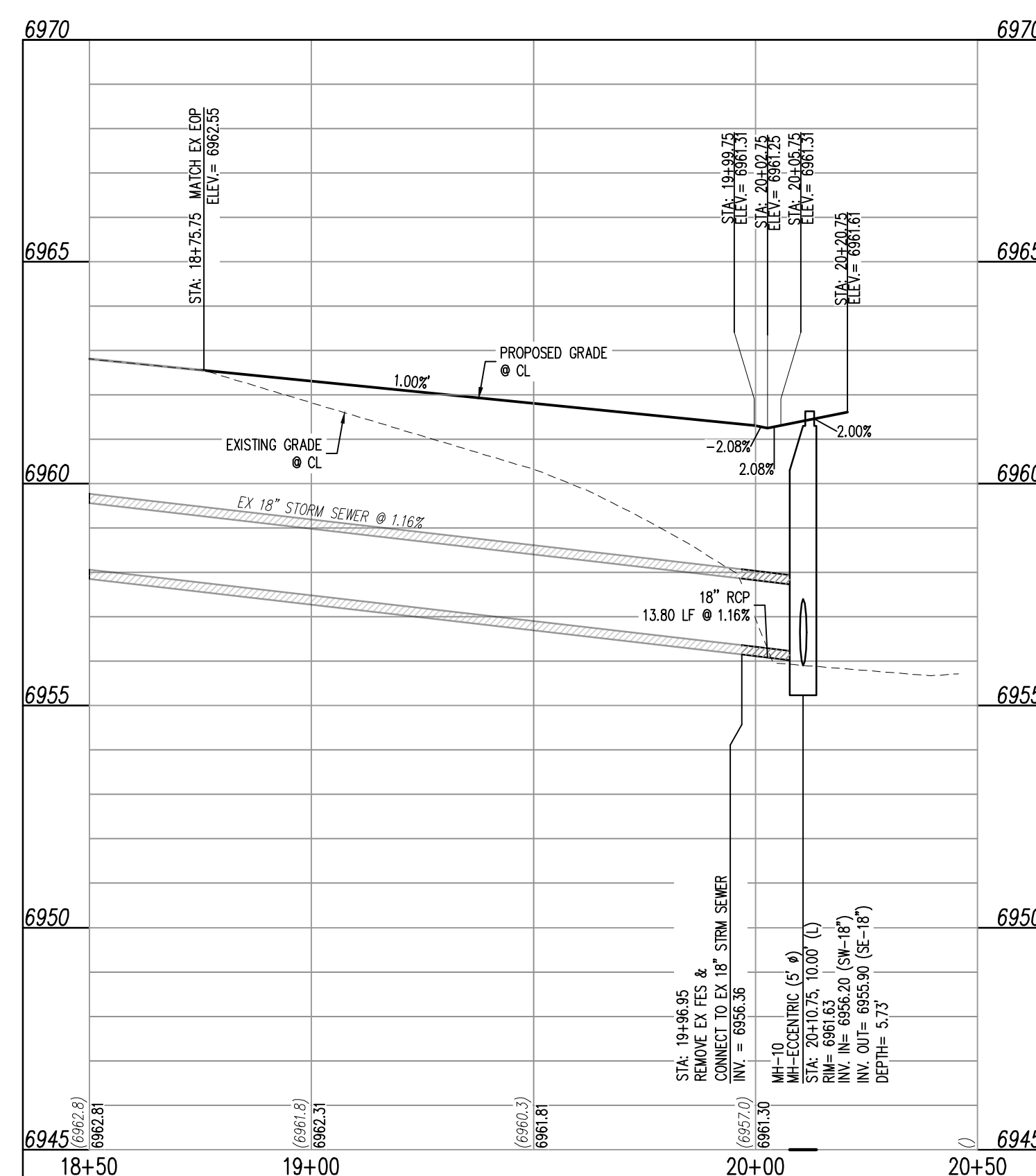
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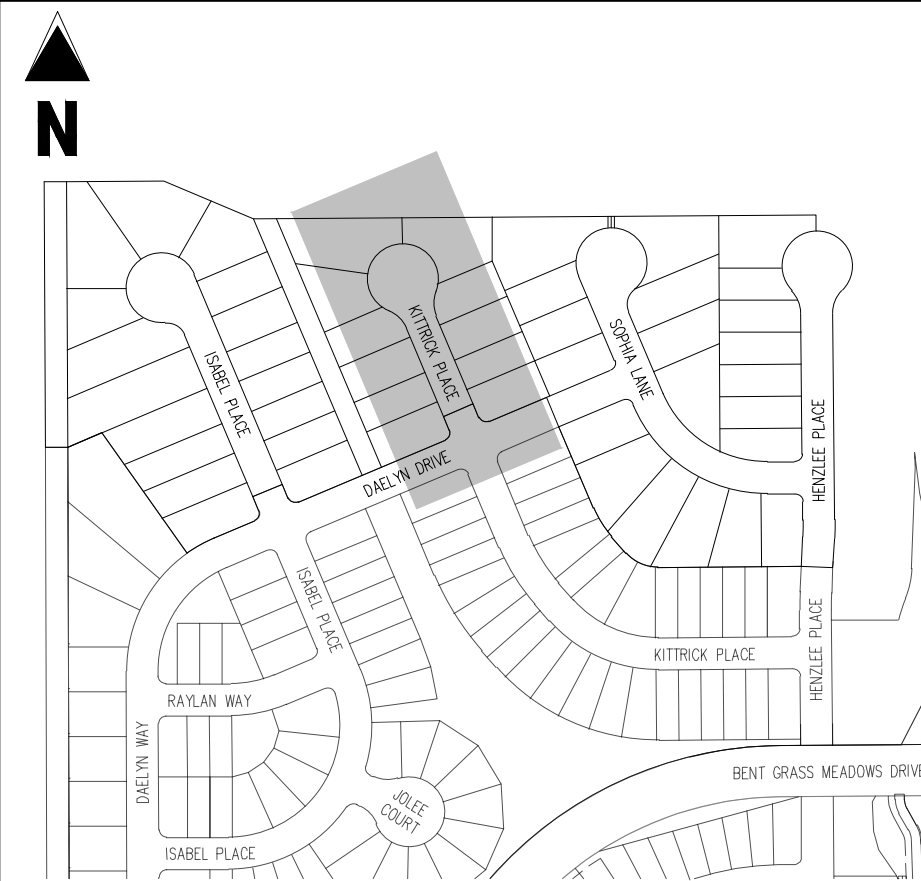


DAELYN DRIVE (STREET B) – PUBLIC 50' R.O.W.  
25 MPH DESIGN SPEED (LOCAL)



DAELYN DRIVE (STREET B)  
STA: 18+50 - 20+50 SCALE: H: 1"=30' V: 1"=3'





SCALE: 1"=300'

SCALE: 1"=300'

LEGEND

- |  |                                      |
|--|--------------------------------------|
|  | EXISTING PROPERTY LINE               |
|  | EXISTING PROPERTY LINE TO BE REMOVED |
|  | PROPOSED RIGHT OF WAY LINE           |
|  | EXISTING LOT LINE                    |
|  | PROPOSED LOT LINE                    |
|  | EXISTING EASEMENT                    |
|  | PROPOSED EASEMENT                    |
|  | EXISTING SUBDIVISION BUFFER          |
|  | EXISTING STORM DRAIN PIPE            |
|  | PROPOSED STORM DRAIN PIPE            |
|  | EXISTING WATER LINE                  |
|  | PROPOSED WATER LINE                  |
|  | EXISTING SANITARY SEWER LINE         |
|  | PROPOSED SANITARY SEWER LINE         |
|  | EXISTING DRAINAGE FEATURE OUTLINE    |
|  | PROPOSED DRAINAGE FEATURE OUTLINE    |
|  | EXISTING SWALE WITH FLOW DIRECTION   |
|  | PROPOSED SWALE WITH FLOW DIRECTION   |
|  | 100-YEAR FEMA FLOODPLAIN             |
|  | PROPOSED CDOT CLASS 6 GRAVEL         |
|  | PROPOSED RIP RAP                     |
|  | EXISTING CONCRETE PAVING             |
|  | EXISTING CDOT CLASS 6 GRAVEL         |
|  | EXISTING 1" TO 2" CRUSHED ROCK       |
|  | EXISTING RIP RAP                     |
|  | EXISTING GROUTED BOULDERS            |
|  | PROPOSED LOT #                       |
|  | EXISTING LOT # (GRASS FLUNG NO.)     |
|  | PROPOSED ADA RAMP                    |
|  | PROPOSED FIRE HYDRANT                |
|  | PROPOSED GATE VALVE                  |
|  | PROPOSED REDUCER                     |
|  | PROPOSED WATER BEND/TEE              |
|  | PROPOSED SANITARY MANHOLE            |
|  | PROPOSED FES                         |
|  | PROPOSED STORM MANHOLE               |
|  | PROPOSED CDOT TYPE R STORM INLET     |

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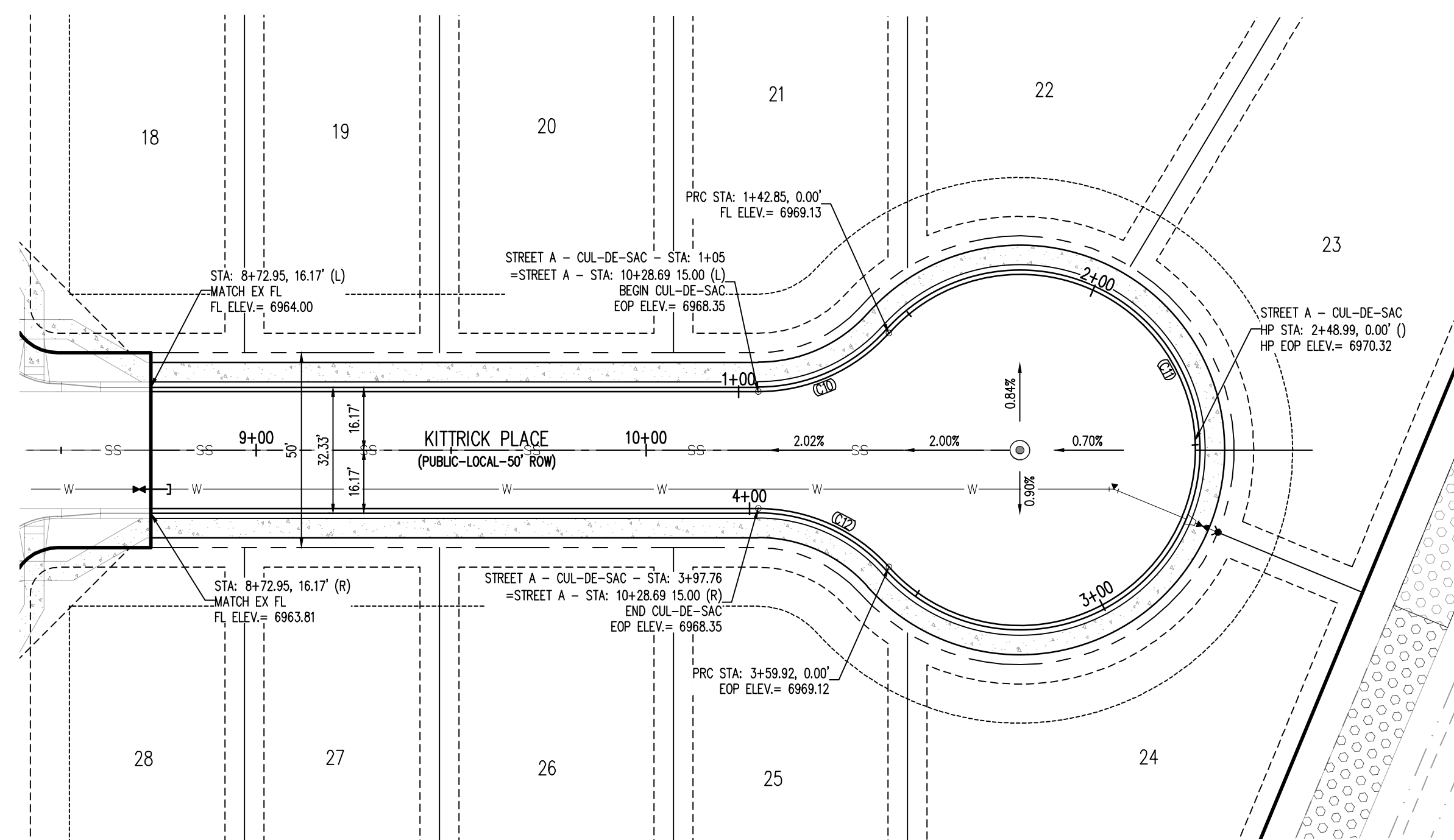
**BENCHMARK**  
THE SOUTHWESTERLY CORNER OF LOT 1, WOODMEN HILLS EILING NO. 4, MONUMENTED BY A

YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR L<sub>S</sub># 24954 ELEV

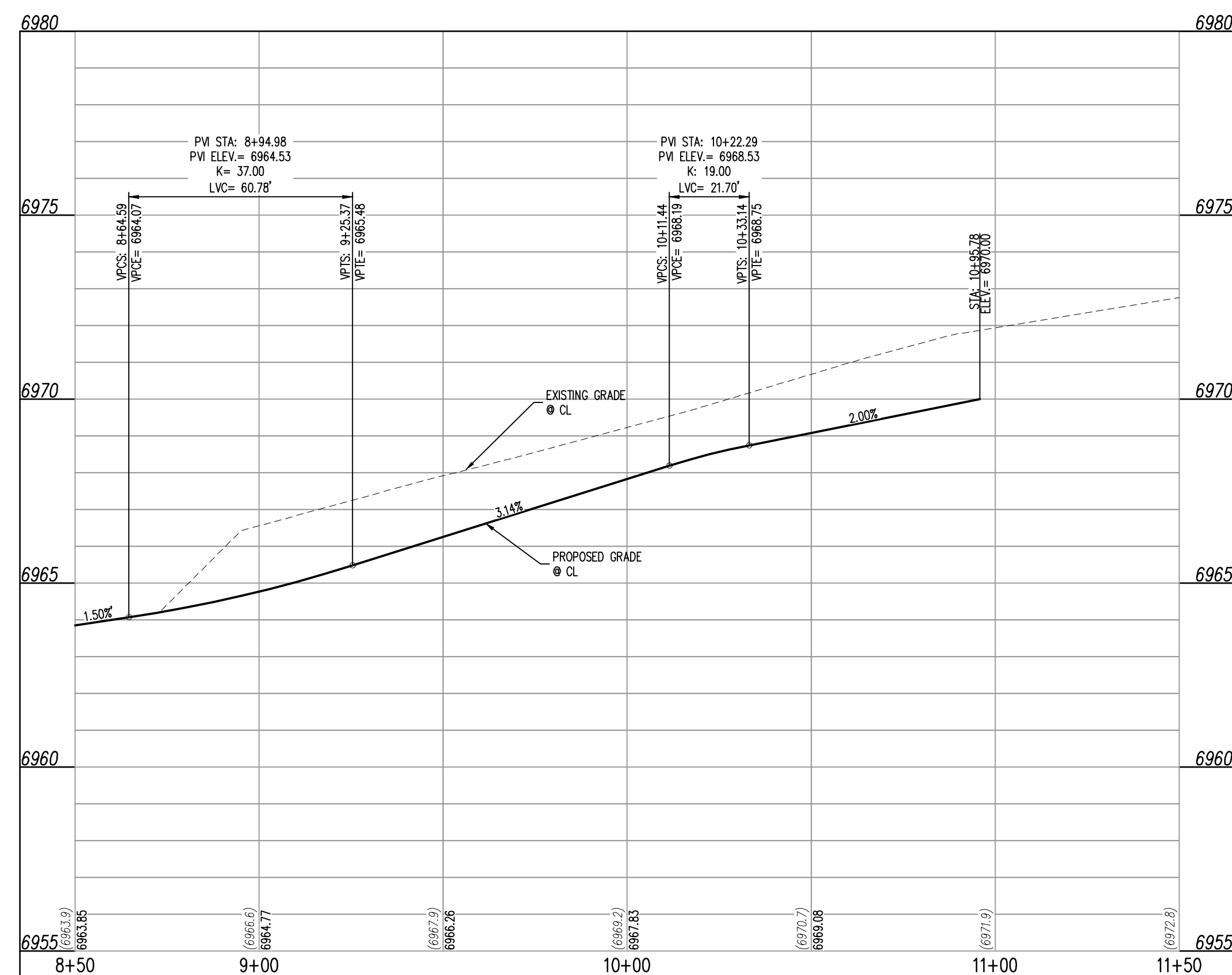
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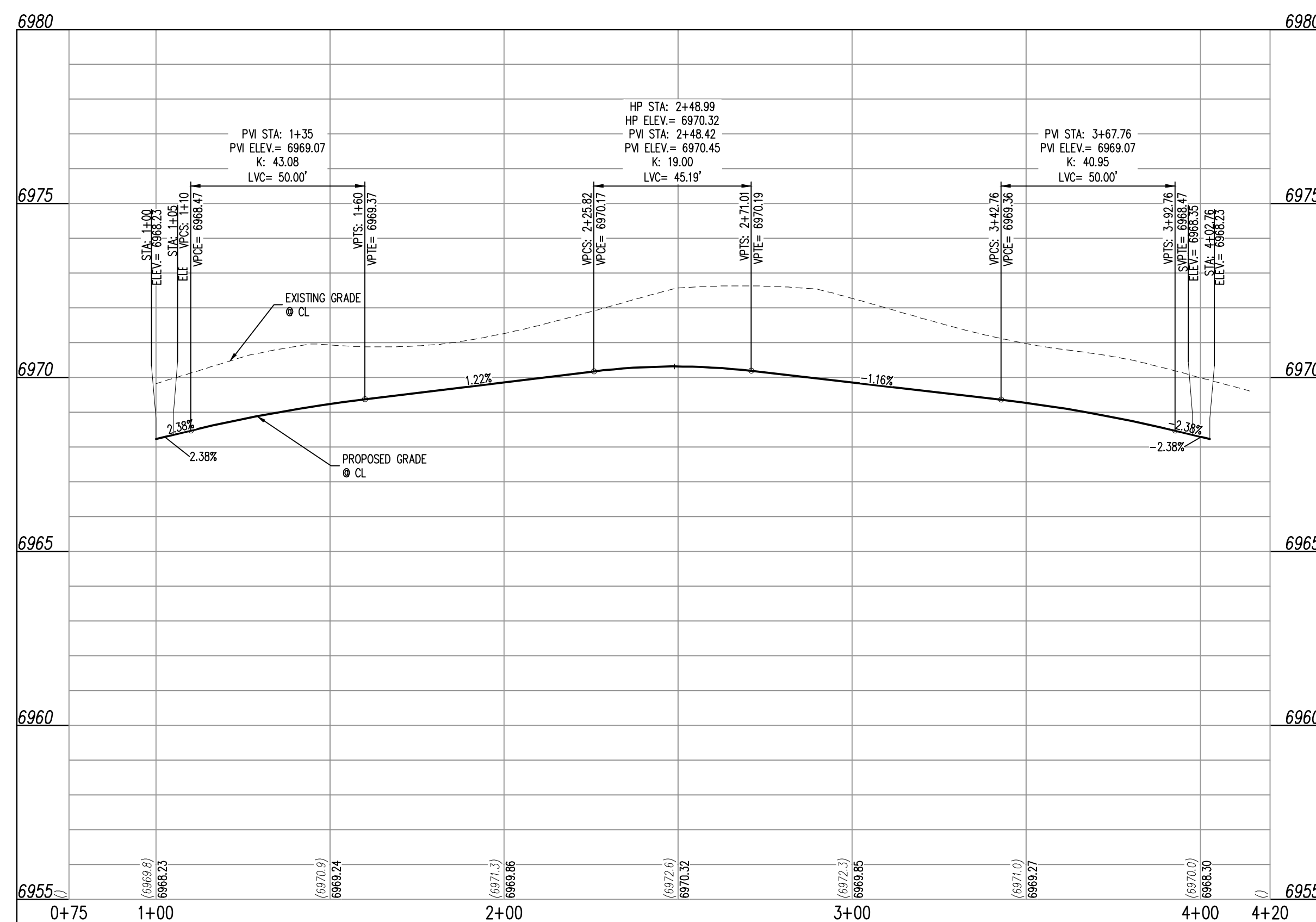
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KITTRICK PLACE (STREET A) – PUBLIC 50' R.O.W.  
25 MPH DESIGN SPEED (LOCAL)

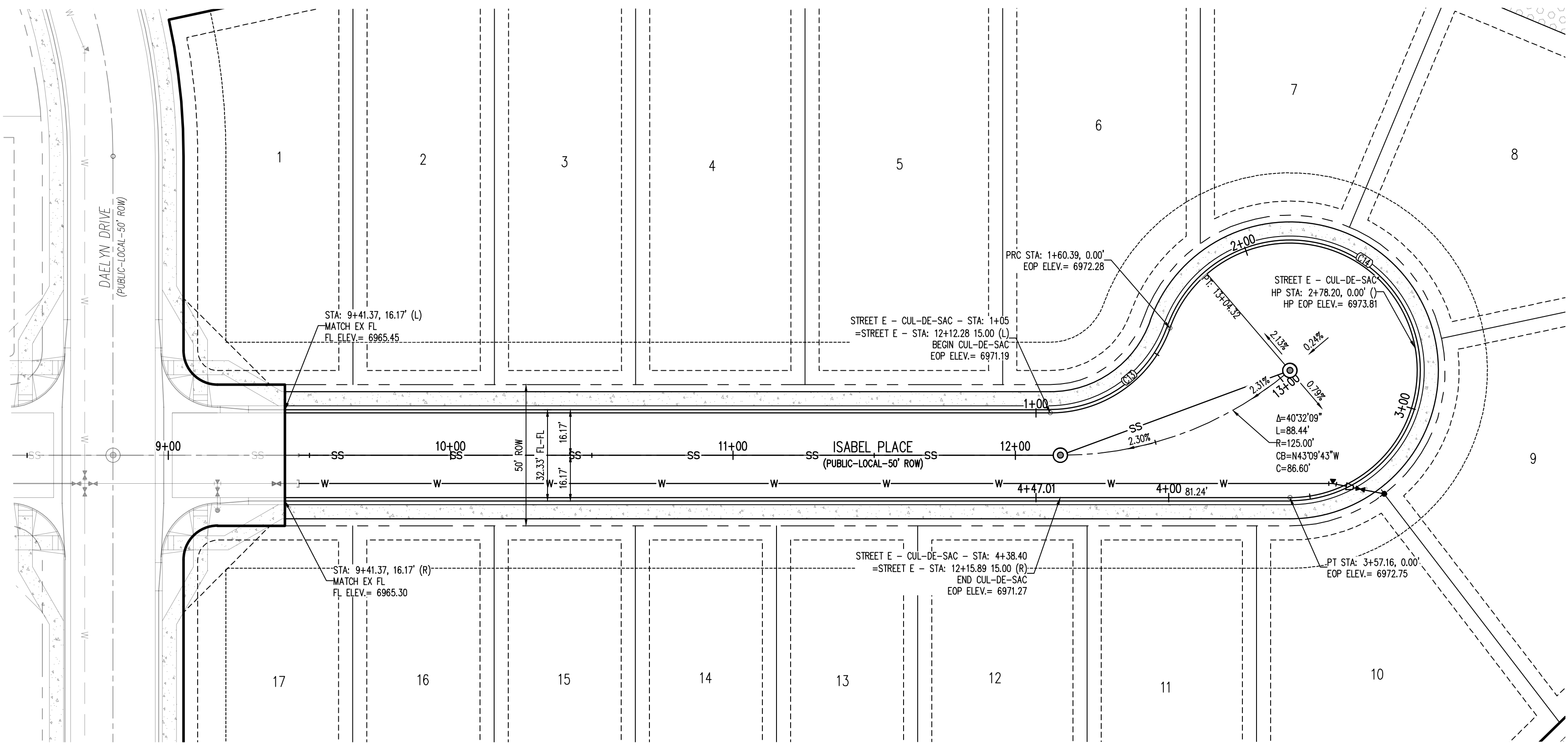


KITTRICK PLACE (STREET A)  
STA: 8+50 - 11+50 SCALE: H: 1"=30' V: 1"=3'



KITTRICK PLACE (STREET A - CUL-DE-SAC)  
STA: 0+75 - 4+20 SCALE: H: 1"=30' V: 1"=3'





ISABEL PLACE (STREET E) – PUBLIC 50' R.O.W.  
25 MPH DESIGN SPEED (LOCAL)

PARCEL CURVE SEGMENT TABLE					
CURVE TAG #	DELTA	LENGTH (FT)	RADIUS (FT)	CHORD BEARING	CHORD LENGTH (FT)
C13	70°31'44"	55.39	45.00	S58°09'31"E	51.96
C14	250°31'44"	196.76	45.00	S31°50'29"W	73.48

#### NOTES

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7. ALL CROSS PANS SHALL CONFORM TO EL PASO COUNTY DETAIL SD2-26

(C1) CURVE TABLE ID

(A) PEDESTRIAN RAMP, SEE DETAILS (EPC SD\_2-40 & SD\_2-41)

(B) PROPOSED 10' CURB TRANSITION

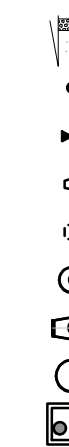
(C) PROPOSED 5' CURB TRANSITION

#### LEGEND

- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE TO BE REMOVED
- PROPOSED RIGHT OF WAY LINE
- EXISTING LOT LINE
- PROPOSED LOT LINE
- EXISTING EASEMENT
- PROPOSED EASEMENT
- EXISTING SUBDIVISION BUFFER
- EXISTING STORM DRAIN PIPE
- PROPOSED STORM DRAIN PIPE
- EXISTING WATER LINE
- PROPOSED WATER LINE
- EXISTING SANITARY SEWER LINE
- PROPOSED SANITARY SEWER LINE
- EXISTING DRAINAGE FEATURE OUTLINE
- PROPOSED DRAINAGE FEATURE OUTLINE
- EXISTING SWALE WITH FLOW DIRECTION
- PROPOSED SWALE WITH FLOW DIRECTION
- 100YR
- 100-YEAR FEMA FLOODPLAIN

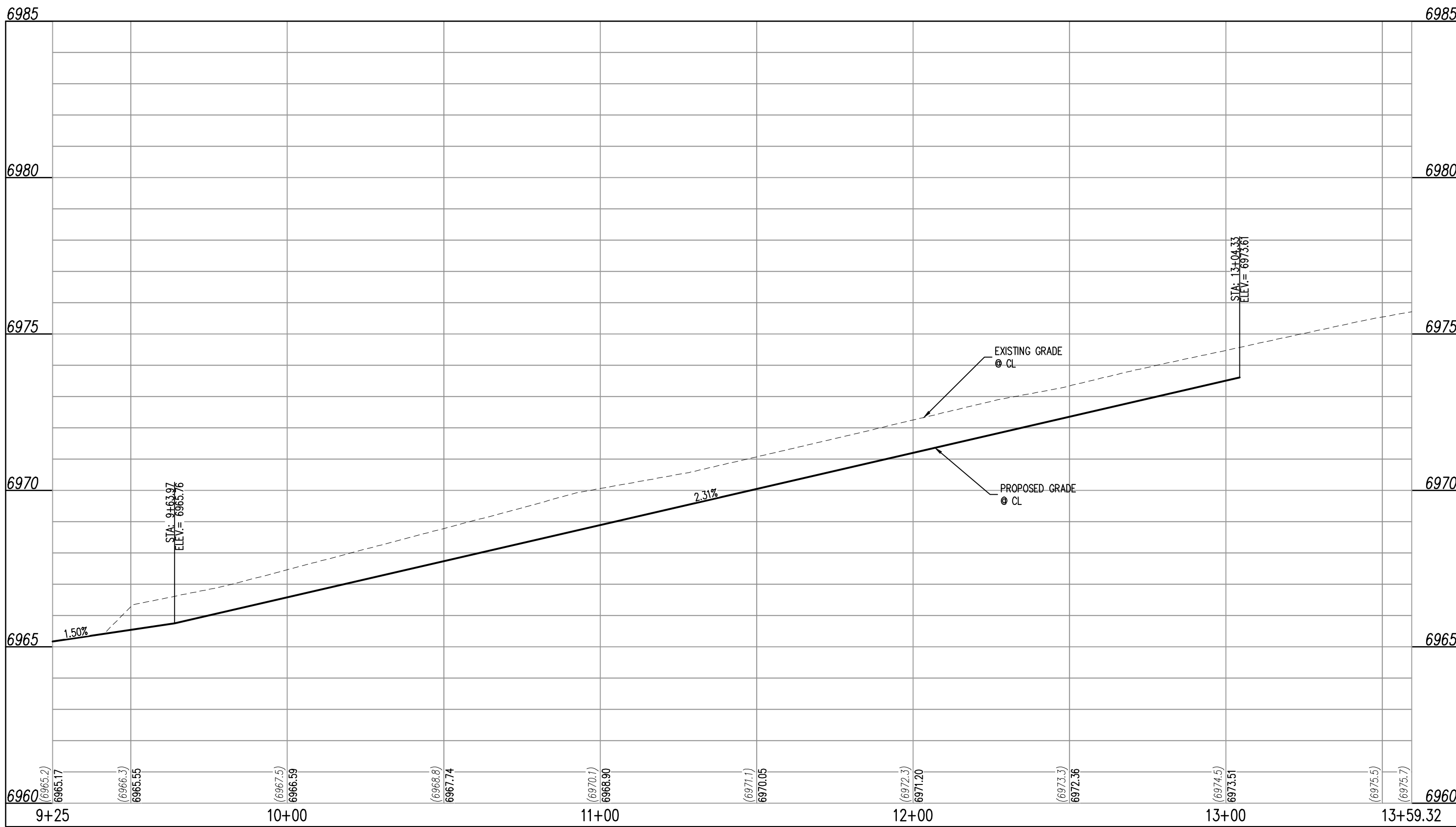
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- EXISTING CONCRETE PAVING
- EXISTING CDOT CLASS 6 GRAVEL
- EXISTING 1" TO 2" CRUSHED ROCK
- EXISTING RIP RAP
- EXISTING GROUTED BOULDERS
- PROPOSED LOT #
- EXISTING LOT # (BENT GRASS FILING NO. 2)
- PROPOSED ADA RAMP
- PROPOSED FIRE HYDRANT
- PROPOSED GATE VALVE
- PROPOSED REDUCER
- PROPOSED WATER BEND/TIE
- PROPOSED SANITARY MANHOLE
- PROPOSED FES
- PROPOSED STORM MANHOLE
- PROPOSED CDOT TYPE R STORM INLET

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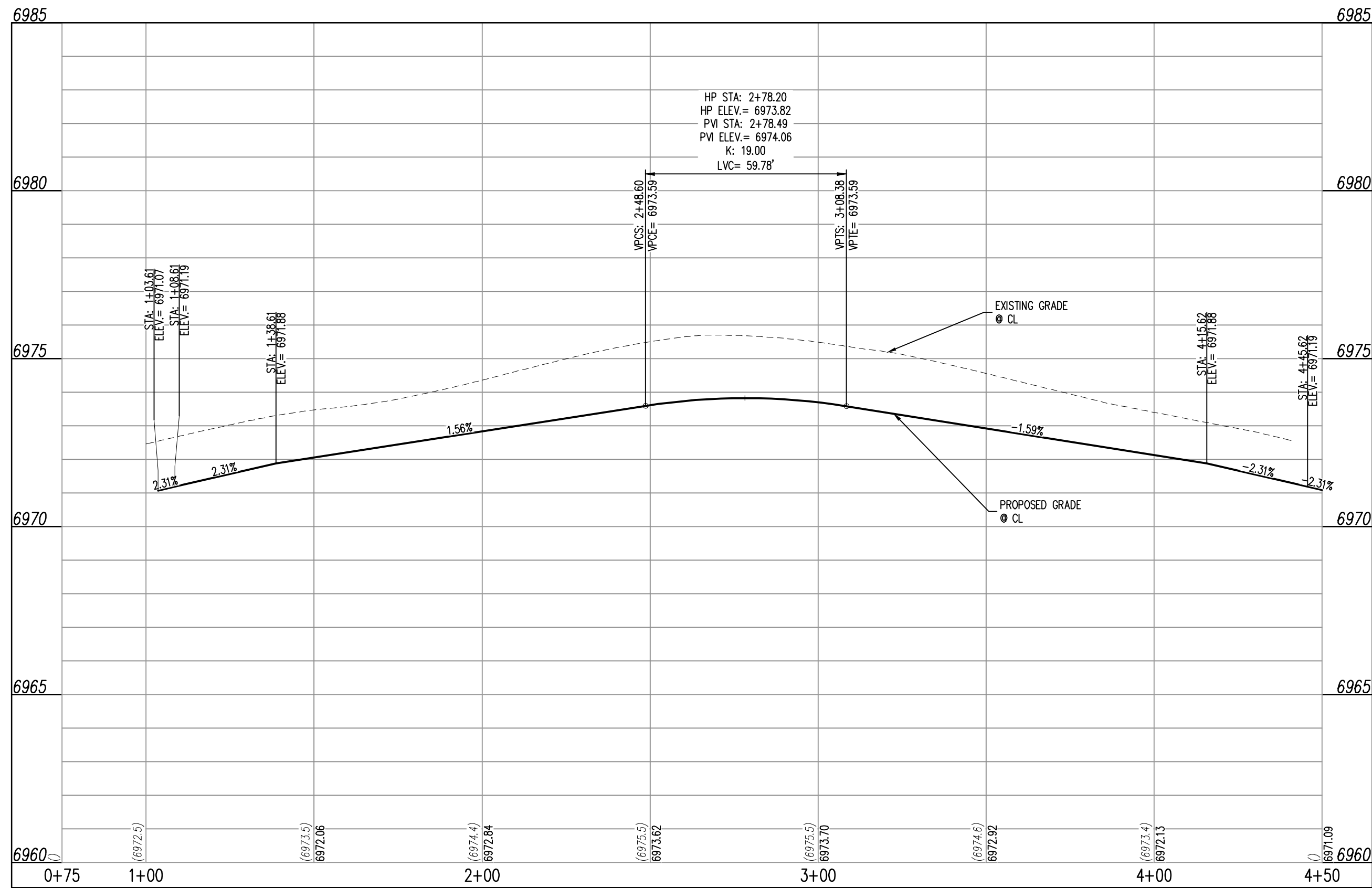


#### KEY MAP

SCALE: 1"=300'



ISABEL PLACE (STREET E)  
STA: 9+25 – 13+59.32 SCALE: H: 1"=30' V: 1"=3'



ISABEL PLACE (STREET E – CUL-DE-SAC)  
STA: 0+75 – 4+50 SCALE: H: 1"=30' V: 1"=3'

#### COPYRIGHT

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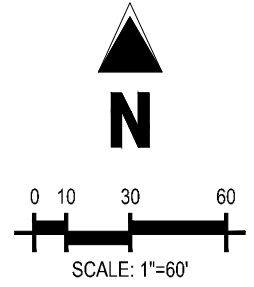
Project No:	CLH000020
Drawn By:	CMWJ
Checked By:	RGD
Date:	06/24/2022

ISABEL PLACE STREET  
IMPROVEMENT PLAN



#	Date	Issue / Description	Init.
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Project No:	CLH000020
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### LEGEND

	EXISTING PROPERTY LINE (PROJECT BOUNDARY)
	EXISTING PROPERTY LINE
	EXISTING RIGHT OF WAY LINE
	PROPOSED PROPERTY LINE (PROJECT BOUNDARY)
	PROPOSED RIGHT OF WAY LINE
	EXISTING LOT LINE
	PROPOSED LOT LINE
	PROPOSED EASEMENT
	100-YEAR FEMA FLOODPLAIN
	PROPOSED LOT NUMBER
	EXISTING LOT #

## SCHEDULE

- ① PROPOSED STOP SIGN, MUTCD SIGN R1-1
- ② PROPOSED STREET NAME SIGN, MUTCD SIGN D3-1
- ③ PROPOSED TYPE III BARRICADE W/ MUTCD R11-2
- ④ PROPOSED NO OUTLET SIGN, MUTCD W14-2A

## BASIS OF BEARINGS

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS N00°13'46"W AND MONUMENTED AS SHOWN:

## BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4, MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR LS# 24954 ELEVATION = 6947.67

CAUTION - NOTICE TO CONTRACTOR

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Know what's below.  
Call before you dig.



EXISTING PROPERTY LINE  
 EXISTING PROPERTY LINE TO BE REMOVED  
 PROPOSED RIGHT OF WAY LINE  
 EXISTING LOT LINE  
 PROPOSED LOT LINE  
 EXISTING EASEMENT  
 PROPOSED EASEMENT  
 EXISTING SUBDIVISION BUFFER  
 EXISTING STORM DRAIN PIPE  
 PROPOSED STORM DRAIN PIPE  
 EXISTING WATER LINE  
 PROPOSED WATER LINE  
 EXISTING SANITARY SEWER LINE  
 PROPOSED SANITARY SEWER LINE  
 EXISTING DRAINAGE FEATURE OUTLINE  
 PROPOSED DRAINAGE FEATURE OUTLINE  
 EXISTING SWALE WITH FLOW DIRECTION  
 PROPOSED SWALE WITH FLOW DIRECTION  
 100-YEAR FEMA FLOODPLAIN

113

PROPOSED CDOT CLASS 6 GRAVEL  
PROPOSED RIP RAP  
EXISTING CONCRETE PAVING  
EXISTING CDOT CLASS 6 GRAVEL  
EXISTING 1" TO 2" CRUSHED ROCK  
EXISTING RIP RAP  
EXISTING GROUTED BOULDERS  
PROPOSED LOT #  
EXISTING LOT # (BENT GRASS FILING NO. 2)  
PROPOSED ADA RAMP  
PROPOSED FIRE HYDRANT  
PROPOSED GATE VALVE  
PROPOSED REDUCER  
PROPOSED WATER BEND/TEE  
PROPOSED SANITARY MANHOLE  
PROPOSED FES  
PROPOSED STORM MANHOLE  
PROPOSED CDOT TYPE R STORM INLET

	PROPOSED SPOT ELEVATION
	FLOWLINE
	LIP OF GUTTER
	EDGE OF SIDEWALK
	TOP OF PED RAMP
	BOTTOM OF PED RAMP
	ROADWAY CENTER LINE
	TOP BACK OF CURB
	PROPOSED SLOPE ARROW

LENGTHS OF STORM SEWER ARE THE HORIZONTAL DISTANCES FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE UNLESS OTHERWISE NOTED. THEREFORE LENGTHS SHOWN ARE APPROXIMATE AND COULD VARY DUE TO VERTICAL ALIGNMENT AND STRUCTURE WIDTHS.

MAINTAIN MINIMUM 18" VERTICAL AND 10' HORIZONTAL SEPARATION BETWEEN STORM SEWER AND POTABLE WATER OR WASTEWATER. A 12" VERTICAL CLEARANCE MUST BE MAINTAINED BETWEEN IRRIGATION LINES.

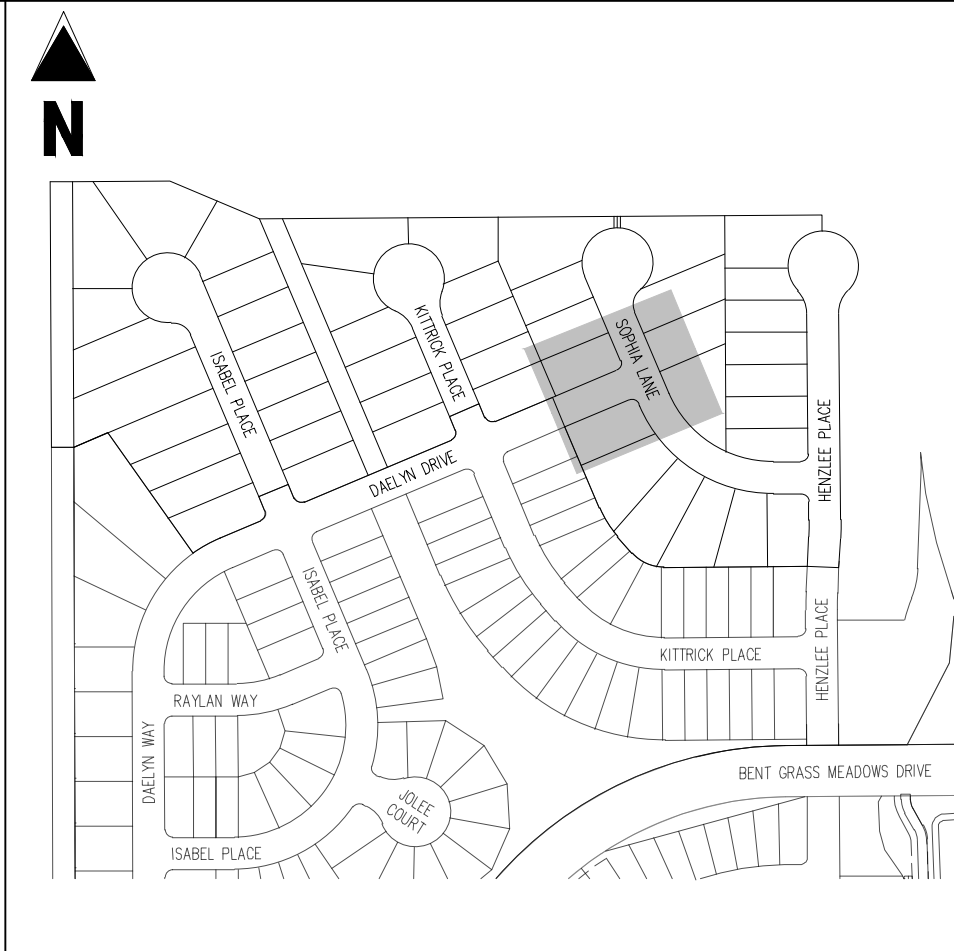
SURVEYOR TO OBTAIN AUTOCAD FILE FROM ENGINEER AND VERIFY ALL HORIZONTAL CONTROL DIMENSIONING PRIOR TO CONSTRUCTION STAKING. SURVEYOR MUST VERIFY ALL BENCHMARK, BASIS OF BEARING AND DATUM INFORMATION TO ENSURE IMPROVEMENTS WILL BE AT THE SAME HORIZONTAL AND VERTICAL LOCATIONS SHOWN ON THE DESIGN CONSTRUCTION DRAWINGS. PRIOR TO CONSTRUCTION STAKING ANY DISCREPANCY MUST BE REPORTED TO OWNER AND ENGINEER PRIOR TO CONTINUATION OF ANY FURTHER STAKING OR CONSTRUCTION WORK.

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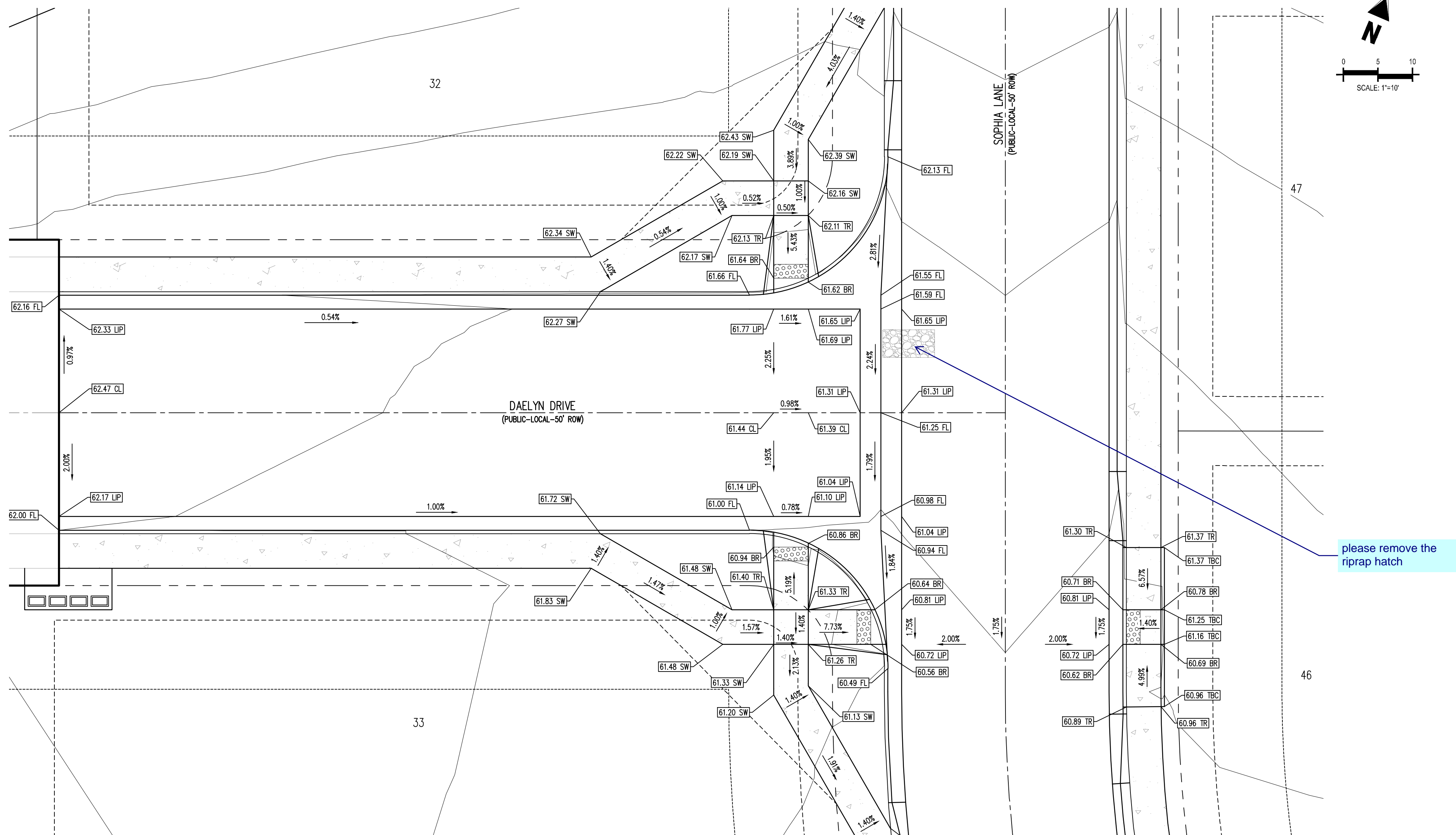
THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4. MONUMENTED BY A  
YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR L<sub>S</sub># 24954 ELEVATION = 6947.67

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2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POT-HOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.



KEY MAP  
SCALE: 1"=300'



1/Challenger Homes Inc/CO, Falcon - CUH000020 - FM at Bent Grass F3/2C9A3-CD/PUE/CLH20\_C3.1 Intersections.dwg - Caleb Johnson - 5/24/2022

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	EXISTING PROPERTY LINE
	EXISTING PROPERTY LINE TO BE REMOVED
	PROPOSED RIGHT OF WAY LINE
	EXISTING LOT LINE
	PROPOSED LOT LINE
	EXISTING EASEMENT
	PROPOSED EASEMENT
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113



PROPOSED CDOT CLASS 6 GRAVEL  
PROPOSED RIP RAP  
EXISTING CONCRETE PAVING  
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EXISTING 1" TO 2" CRUSHED ROCK  
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PROPOSED FES  
PROPOSED STORM MANHOLE  
PROPOSED CDOT TYPE R STORM INLET

	PROPOSED SPOT ELEVATION
FL	FLOWLINE
LIP	LIP OF GUTTER
SW	EDGE OF SIDEWALK
TR	TOP OF PED RAMP
BR	BOTTOM OF PED RAMP
CL	ROADWAY CENTER LINE
TBC	TOP BACK OF CURB
XX%	PROPOSED SLOPE ARROW

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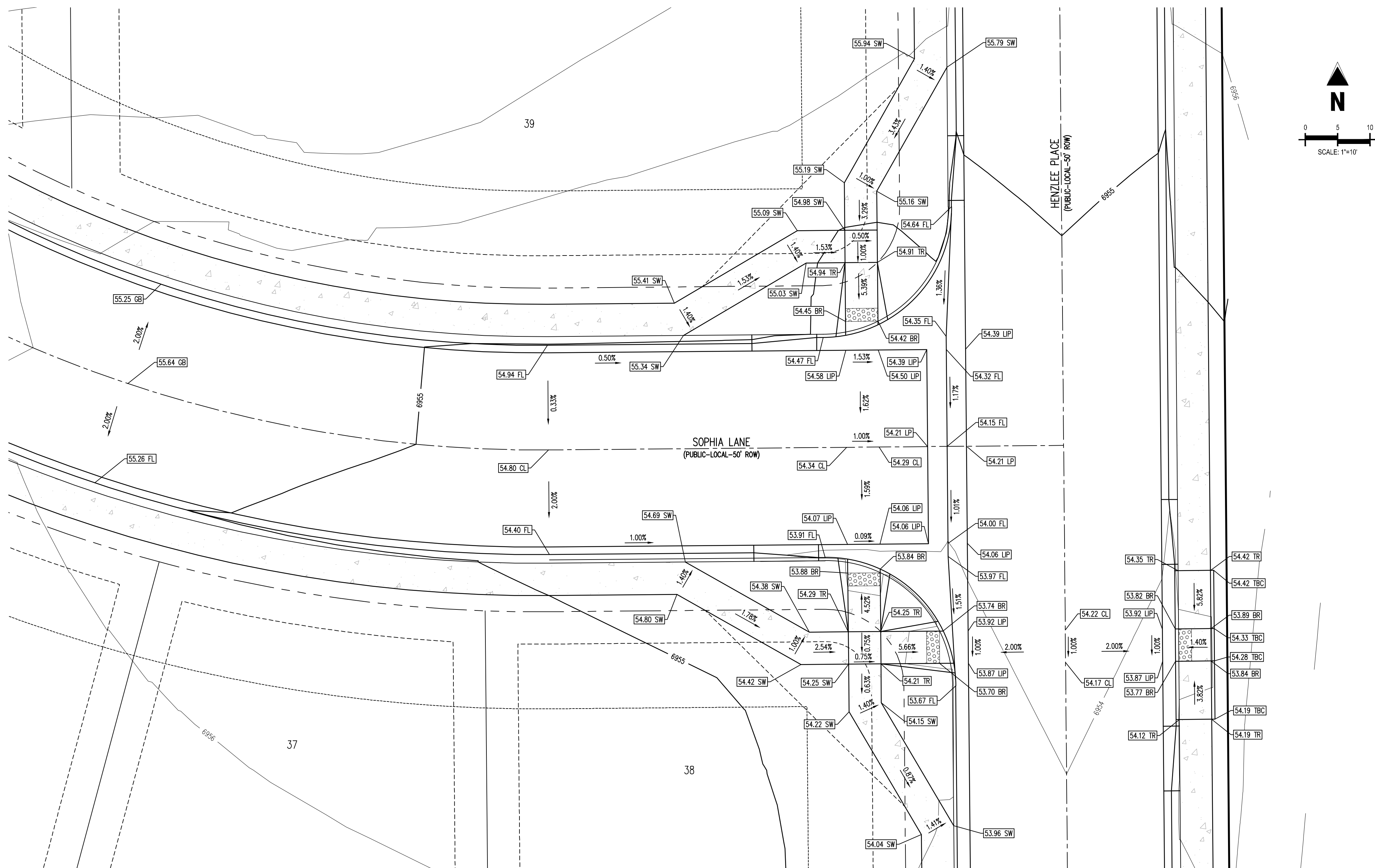
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Know what's below.  
Call before you dig.



SCALE: 1"=300'



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Project No:	CLH000020
Drawn By:	CMWJ
Checked By:	RGD
Date:	06/24/2022

## C3.2

Sheet 14 of 14

Challenger Homes Inc CO, Fallon • CUH000120 • EM at Bent Grass F3/C3A3-CD/PUB/CLH20 C3.2 Intersection 15.2W3 • Caleb Johnson • 5/24/2022







1. ALL UTILITY CONSTRUCTION TO BE CONDUCTED IN CONFORMANCE WITH THE CURRENT WOODMEN HILLS METROPOLITAN DISTRICT (WHMD, THE DISTRICT) SPECIFICATIONS.

3. ALL STATIONING IS CENTER LINE UNLESS OTHERWISE NOTED. ALL ELEVATIONS ARE CENTER LINE UNLESS OTHERWISE NOTED.

5. ALL WATER AND SEWER SERVICE LOCATIONS SHALL BE CLEARLY MARKED ON EITHER THE CURB HEAD OR THE FACE OF THE CURB, WITH AN 'S' FOR SEWER AND A 'W' FOR WATER.

7. ALL DUCTILE IRON PIPE LESS THAN 12 INCHES AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB. MAGNESIUM ANODES EVERY 400 FEET AND 9 LB. MAGNESIUM ANODES AT EACH FITTING. ALL DUCTILE IRON PIPE 12 INCHES AND GREATER AND FITTINGS SHALL HAVE CATHODIC PROTECTION USING TWO NO. 6 WIRES WITH 17 LB. MAGNESIUM ANODES EVERY 300 FEET AND 9 LB. MAGNESIUM ANODES AT EACH FITTING.

9. COMPACTION TESTS SHALL BE 95% STANDARD PROCTOR AS DETERMINED BY ASTM D698, UNLESS OTHERWISE APPROVED BY THE DISTRICT OR HIGHER STANDARD AS IMPOSED BY ANOTHER AGENCIES HAVING RIGHT-OF-WAY JURISDICTION. THIS SHALL INCLUDE ALL VALVES, FIRE HYDRANT RUNS, WATER & SEWER SERVICE LINES AND MANHOLES. ALL REPORTS SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.

11. ALL BENDS SHALL BE FIELD STAKED PRIOR TO THE START OF CONSTRUCTION.

13. AT ALL LOCATIONS WHERE CAP AND STUB IS NOTED ON DRAWINGS, PROVIDE A PLUG AT THE END OF THE PIPE JOINT NEAREST THE SPECIFIED STATION. PROVIDE A REVERSE ANCHOR AT ALL WATER LINE PLUGS.

15. AT THE CONTRACTOR'S EXPENSE, ALL UTILITY MAINS SHALL BE SUPPORTED AND PROTECTED SUCH THAT THEY SHALL FUNCTION CONTINUOUSLY DURING CONSTRUCTION OPERATIONS. SHOULD A UTILITY MAIN FAIL AS A RESULT OF THE CONTRACTOR'S OPERATION, IT SHALL BE REPLACED IMMEDIATELY BY THE CONTRACTOR OR BY THE DISTRICT AT FULL COST OF LABOR AND MATERIALS TO THE CONTRACTOR/DEVELOPER.

17. THE CONTRACTOR SHALL REPLACE OR REPAIR DAMAGE TO ALL SURFACE IMPROVEMENTS, INCLUDING BUT NOT LIMITED TO FENCES, LANDSCAPING, CURB AND GUTTER AND/OR ASPHALT THAT MAY BE CAUSED DURING CONSTRUCTION.

19. THE CONTRACTOR SHALL NOTIFY THE DISTRICT AND ALL AFFECTED UTILITY COMPANIES ADJACENT TO THE PROPOSED UTILITY CONSTRUCTION A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION.

A WEEKLY CONSTRUCTION MEETING SHALL BE REQUIRED WITH THE CONTRACTOR, DISTRICT ENGINEER AND ALL OTHER PARTIES AS DEEMED NECESSARY BY THE DISTRICT.

A) PRIOR TO THE START OF CONSTRUCTION, A PRE-CONSTRUCTION MEETING IS REQUIRED A MINIMUM OF 48 HOURS IN ADVANCE OF COMMENCEMENT OF WORK. A REPRESENTATIVE OF THE OWNER OR DEVELOPER, A REPRESENTATIVE OF THE CONTRACTOR AND DESIGN ENGINEER ARE REQUIRED TO ATTEND. CONTACT THE DISTRICT TO SCHEDULE THE PRE-CONSTRUCTION MEETING. NO PRE-CONSTRUCTION MEETING CAN BE SCHEDULED PRIOR TO FOUR (4) SIGNED/APPROVED PLAN SETS ARE RECEIVED BY THE DISTRICT.

21. TESTING OF FACILITIES:  
A) THE CONTRACTOR SHALL NOTIFY THE DISTRICT A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF ANY TESTING.

- ALL LINES SHALL BE JET CLEANED PRIOR TO VACUUM OR PRESSURE TESTING
- ALL MANHOLES SHALL BE VACUUM TESTED WITH DISTRICT STAFF PRESENT PRIOR TO CCTV INSPECTION.
- SEWER MAINS TO BE PRESSURE TEST PRIOR TO CCTV INSPECTION
- ALL LINES SHALL BE CCTV INSPECTED AND VIDEO SHALL BE SUBMITTED TO THE DISTRICT FOR REVIEW AND APPROVAL.

23. FINAL ACCEPTANCE BY THE DISTRICT OF ANY LINE OR SYSTEM SHALL NOT OCCUR UNTIL COMPLETION OF FINAL ASPHALT LAYERS AND/OR FINAL COMPLETION AND/OR RESTORATION OF ALL SURFACE IMPROVEMENTS. THE WARRANTY PERIOD FOR ALL FACILITIES PRIOR TO FINAL ACCEPTANCE SHALL BE 24 MONTHS COMMENCING AFTER PRELIMINARY ACCEPTANCE.

25. ALL WATER AND SEWER MAINS, INCLUDING SERVICE LINES, SHALL HAVE "AS-BUILT" DRAWINGS PREPARED AND APPROVED PRIOR TO PRELIMINARY ACCEPTANCE BY THE DISTRICT.

SEWER MAIN SHALL BE INSTALLED FOR SERVICE TO COMMERCIAL/BUSINESS DEVELOPMENTS, AND A MANHOLE SHALL BE LOCATED WHERE THE MAIN ENTERS THE PROPERTY. THE END OF THE MAINS SHALL BE MARKED WITH THE APPROPRIATE COLORED CARSONITE MARKER ALONG WITH TRACER WIRE.

WATER SYSTEM INSTALLATION NOTES:  
29. ALL WATER AND FORCE MAIN PIPE SHALL BE AWWA C900 PVC, OR EQUAL, PRESSURE CLASS 200. ALL WATER AND FORCE MAIN FITTINGS SHALL HAVE MECHANICAL RESTRAINTS AND THRUST BLOCKS. ALL WATER AND FORCE MAIN PIPE SHALL HAVE A MINIMUM COVER DEPTH OF FIVE AND ONE-HALF (5.5) FEET.

31. THE DEVELOPER OR HIS ENGINEER SHALL LOCATE ALL FIRE HYDRANTS AND SERVICE STUB OUTS FOR FUTURE DEVELOPMENT. ANY REQUIRED REALIGNMENT, (HORIZONTAL OR VERTICAL), SHALL BE AT THE EXPENSE OF THE DEVELOPER.  
FIRE HYDRANT LOCATION SHALL BE REVIEWED AND APPROVED BY THE APPLICABLE FIRE AUTHORITY.

33. ALL MAIN LINES (PVC & DUCTILE IRON) SHALL BE INSTALLED WITH COATED #12 TRACER WIRE WITH TEST STATIONS AT INTERVALS NO GREATER THAN 500 FT (VALVE BOXES CAN BE USED AT INTERSECTIONS AND SERVICE STUBS).

35. IRRIGATION SERVICES SHALL HAVE A STOP AND WASTE CURB STOP VALVE INSTALLED ALONG WITH TRACER WIRE EXTENDING BACK TO THE MAIN LINE.

b) NO WATER FACILITY SHALL BE PLACED IN SERVICE UNTIL ALL SERVICE LINES ARE COMPLETED AND THE FIRST LIFT OF ASPHALT IS COMPLETED OVER THE LINE. IN THE CASE WHERE NO ASPHALT IS TO BE PLACED OVER THE LINE, SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.

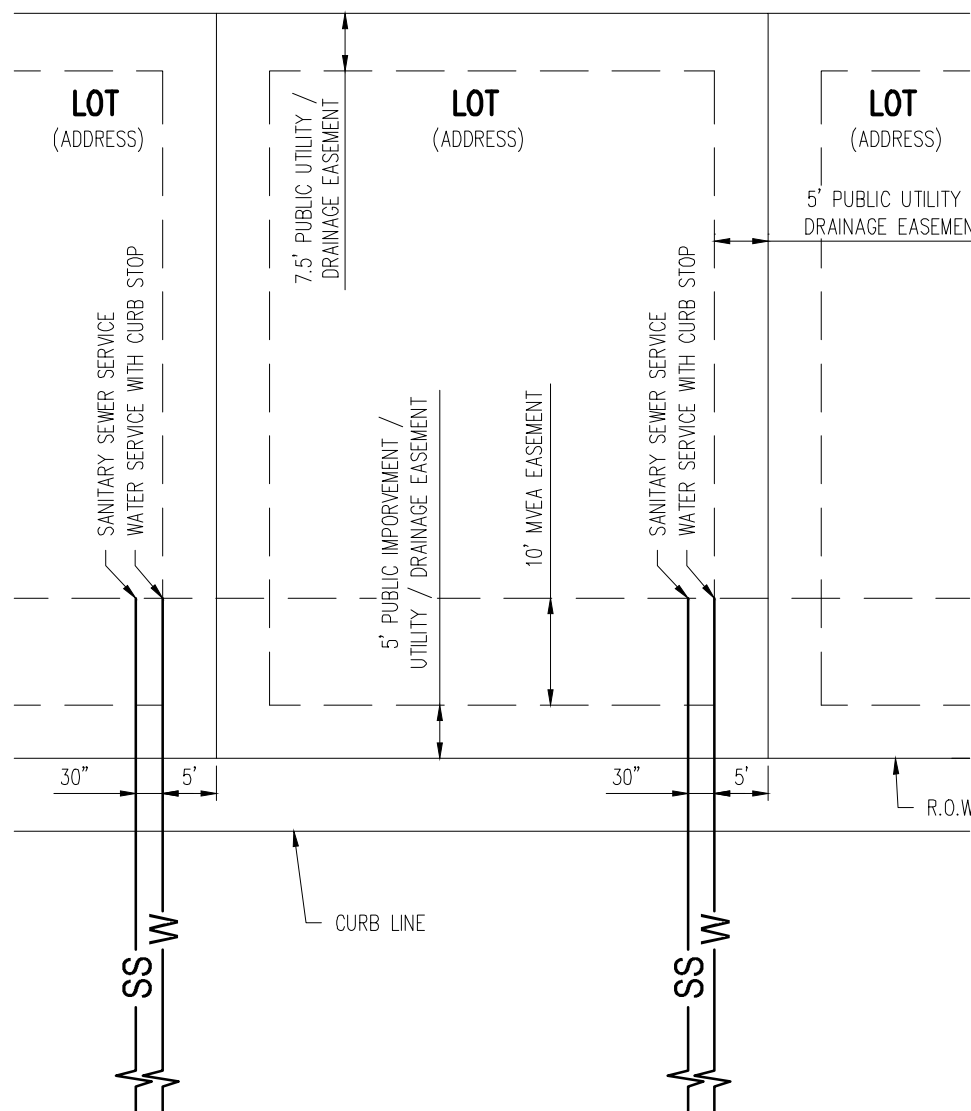
**WASTEWATER SYSTEM INSTALLATION NOTES**

37. SANITARY SEWER LENGTHS ARE MH CENTER-MH CENTER. ALL SANITARY SEWER PIPES SHALL BE SDR 35 PVC OR EQUAL. SEWER LINES MAY NOT EXCEED 7% GRADE FOR ANY SIZE WITHOUT PRIOR APPROVAL OF THE DISTRICT. ALL NEWLY CONSTRUCTED RESIDENTIAL SANITARY SEWER TAPS SHALL USE PRE-MANUFACTURED IN-LINE PVC PUSH-ON WYES. TAPPING SADDLES MAY ONLY BE USED FOR TAPPING PRE-EXISTING MAINS.

38. ALL SANITARY SEWER MANHOLES SHALL BE WRAPPED WITH RUI16 - RUBR-NEK JOINT WRAP OR EQUIVALENT AND COATED.

ANY REQUIRED SURFACE IMPROVEMENTS SHALL BE COMPLETED PRIOR TO USE OF THE FACILITY.

THE ABOVE GUIDELINES ARE SUBJECT TO CHANGE AT ANY TIME.



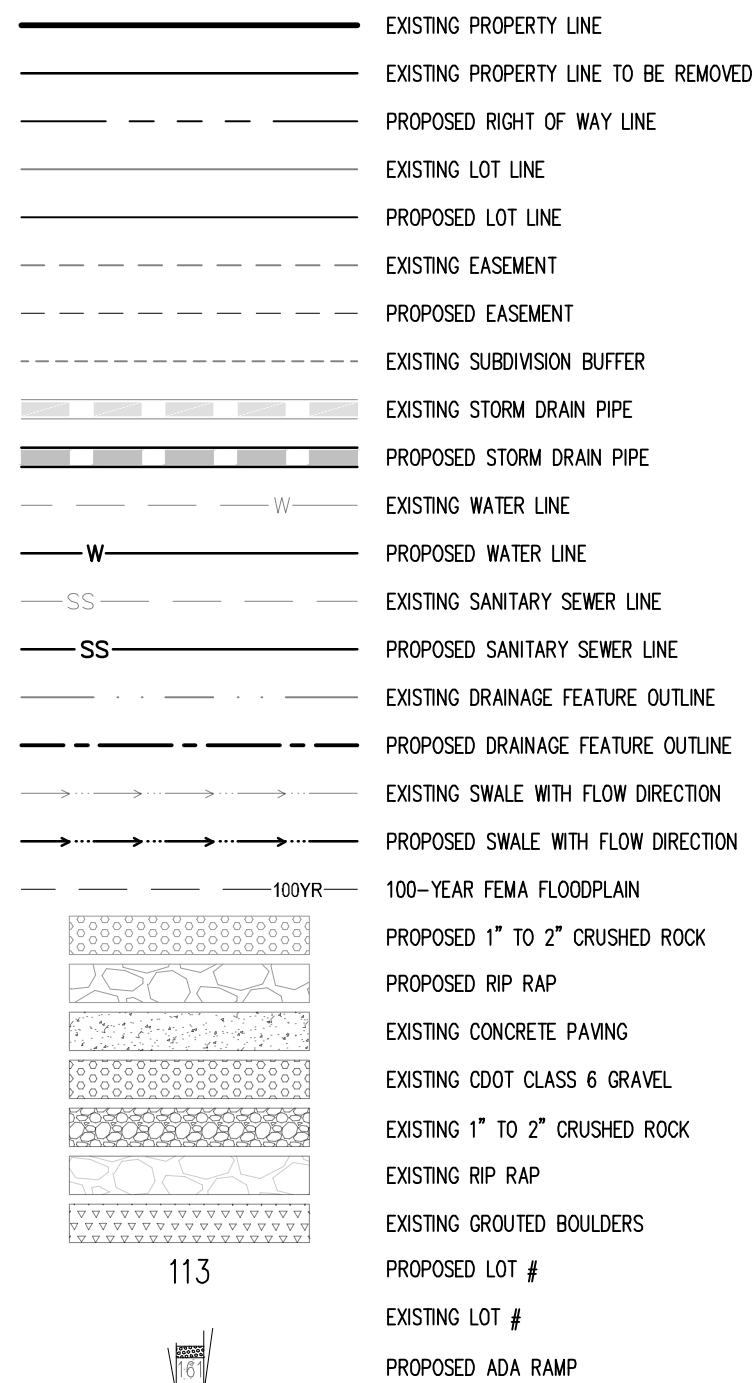
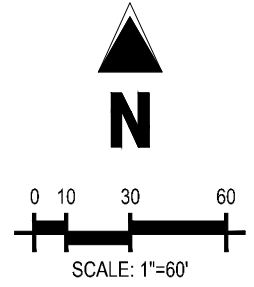
N.T.S.

1. CONTRACTOR TO OBTAIN WORK IN THE ROW PERMIT FROM EL PASO COUNTY PRIOR TO CONSTRUCTION.
2. CONTRACTOR TO GETHOLD AND VERIFY EXISTENCE OF OTHER UTILITIES WITHIN ANY PUBLIC RIGHT OF WAYS.
3. CONTRACTOR TO MAINTAIN 5.5' MINIMUM COVER OVER ALL WATER MAINS CONSTRUCTED.
4. ALL VALVES SHOWN FOR SCHEMATIC PURPOSES ONLY. NO VALVES SHALL BE INSTALLED ON STANDARD WATER SERVICE LINES.
5. STANDARD WATER SERVICE LOCATIONS TO BE 5' FROM THE DOWNSTREAM PROPERTY LINE AND EXTENDED 15' TO THE UTILITY EASEMENT.
6. STANDARD WASTEWATER SERVICES TO BE IN A COMMON TRENCH WITH STANDARD WATER SERVICE. SHALL BE LOCATED A MINIMUM OF 30" FROM CENTER OF PIPE. SEE WOODMEN CDDP FOR DRAINAGE DETAIL.
7. STANDARD SERVICES SHALL BE MARKED WITH "24" POST AT TERMINATION POINT.
8. LOCATION DURING CONNECTION TO RESIDENCE. POSTS SHALL BE SPRAY-PAINTED BLUE FOR WATER AND GREEN FOR SEWER.
9. CURB STOPS ARE NOT TO BE INSTALLED IN CONCRETE CURBS, CROSS PANS, SIDEWALKS, OR DRIVEWAYS.
10. SEE PLANS FOR THE LOCATION OF STANDARD SERVICES ON CORNER LOTS.

BENT GRASS MEADOWS DRIVE & MERDIAN ROAD  
FALCON, CO 80831 - EL PASO COUNTY

Sheet 2 of 18





## BASIS OF BEARINGS

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS  $N00^{\circ}13'46''W$  AND MONUMENTED AS SHOWN:

## BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4, MONUMENTED BY A  
YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR L<sub>S</sub># 24954 ELEVATION = 6947.67

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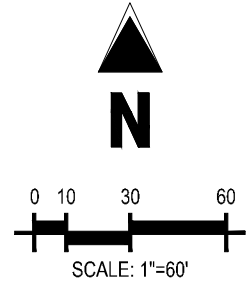


Know what's below.  
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Project No:	CLH000020
Drawn By:	CMWJ
Checked By:	RGD
Date:	06/24/2022



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|  | EXISTING PROPERTY LINE               |
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|  | PROPOSED EASEMENT                    |
|  | EXISTING SUBDIVISION BUFFER          |
|  | EXISTING STORM DRAIN PIPE            |
|  | PROPOSED STORM DRAIN PIPE            |
|  | EXISTING WATER LINE                  |
|  | PROPOSED WATER LINE                  |
|  | EXISTING SANITARY SEWER LINE         |
|  | PROPOSED SANITARY SEWER LINE         |
|  | EXISTING DRAINAGE FEATURE OUTLINE    |
|  | PROPOSED DRAINAGE FEATURE OUTLINE    |
|  | EXISTING SWALE WITH FLOW DIRECTION   |
|  | PROPOSED SWALE WITH FLOW DIRECTION   |
|  | 100-YEAR FEMA FLOODPLAIN             |
|  | PROPOSED 1" TO 2" CRUSHED ROCK       |
|  | PROPOSED RIP RAP                     |
|  | EXISTING CONCRETE PAVING             |
|  | EXISTING CDOT CLASS 6 GRAVEL         |
|  | EXISTING 1" TO 2" CRUSHED ROCK       |
|  | EXISTING RIP RAP                     |
|  | EXISTING GROUTED BOULDERS            |
|  | PROPOSED LOT #                       |
|  | EXISTING LOT #                       |
|  | PROPOSED ADA RAMP                    |

## BASIS OF BEARINGS

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS  $N00^{\circ}13'46''W$  AND MONUMENTED AS SHOWN:

## BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4. MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR LS# 24954 ELEVATION = 6947.67

CAUTION – NOTICE TO CONTRACTOR

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Know what's below.  
Call before you dig.



CONSTRUCTION DOCUMENTS  
FALCON MEADOWS AT BENT GRASS FILING NO. 3  
FOR  
CHALLENGER COMMUNITIES, LLC  
  
BENT GRASS MEADOWS DRIVE & MERDIAN ROAD  
FALCON, CO 80831 - EL PASO COUNTY

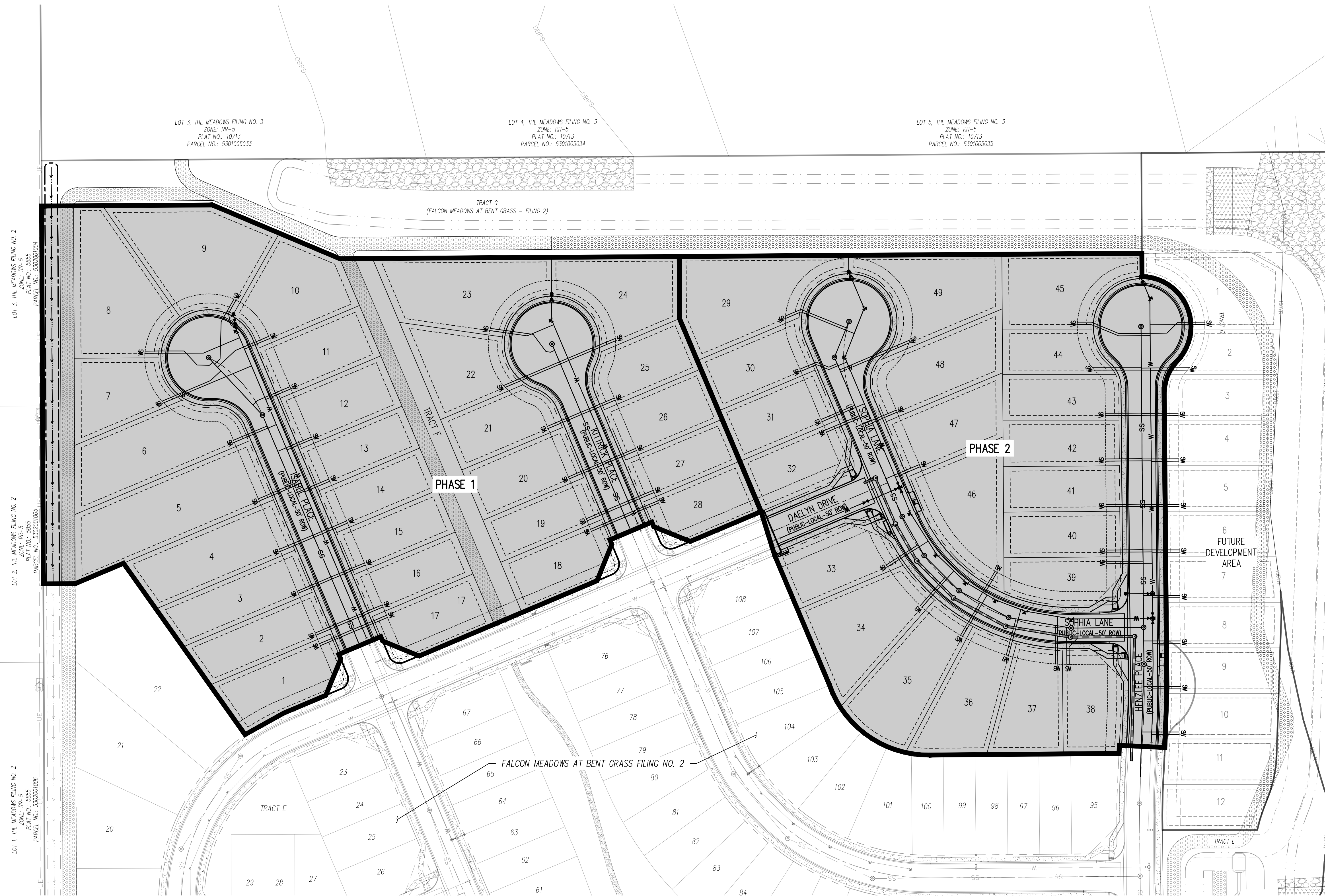
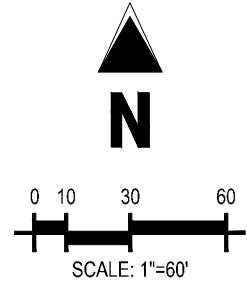
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Project No:	CLH000020
Drawn By:	CMWJ
Checked By:	RGD
Date:	06/24/2022

## PHASE PLAN

# U0.4

Sheet 5 of 18



## BASIS OF BEARINGS

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS N00°13'46"W AND MONUMENTED AS SHOWN:

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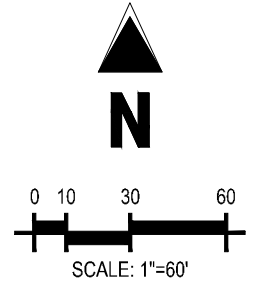
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Know what's below.  
Call before you dig





- |  |                                      |
|--|--------------------------------------|
|  | EXISTING PROPERTY LINE               |
|  | EXISTING PROPERTY LINE TO BE REMOVED |
|  | PROPOSED RIGHT OF WAY LINE           |
|  | EXISTING LOT LINE                    |
|  | PROPOSED LOT LINE                    |
|  | EXISTING EASEMENT                    |
|  | PROPOSED EASEMENT                    |
|  | EXISTING SUBDIVISION BUFFER          |
|  | EXISTING STORM DRAIN PIPE            |
|  | PROPOSED STORM DRAIN PIPE            |
|  | EXISTING WATER LINE                  |
|  | PROPOSED WATER LINE                  |
|  | EXISTING SANITARY SEWER LINE         |
|  | PROPOSED SANITARY SEWER LINE         |
|  | EXISTING DRAINAGE FEATURE OUTLINE    |
|  | PROPOSED DRAINAGE FEATURE OUTLINE    |
|  | EXISTING SWALE WITH FLOW DIRECTION   |
|  | PROPOSED SWALE WITH FLOW DIRECTION   |
|  | 100-YR                               |
|  | 100-YEAR FEMA FLOODPLAIN             |
|  | PROPOSED 1" TO 2" CRUSHED ROCK       |
|  | PROPOSED RIP RAP                     |
|  | EXISTING CONCRETE PAVING             |
|  | EXISTING CDOT CLASS 6 GRAVEL         |
|  | EXISTING 1" TO 2" CRUSHED ROCK       |
|  | EXISTING RIP RAP                     |
|  | EXISTING GROUTED BOULDERS            |
|  | PROPOSED LOT #                       |
|  | EXISTING LOT #                       |
|  | PROPOSED ADA RAMP                    |

## BASIS OF BEARINGS

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## BENCHMARK

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4, MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR L<sub>S</sub># 24954 ELEVATION = 6947.67

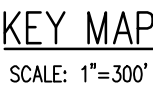
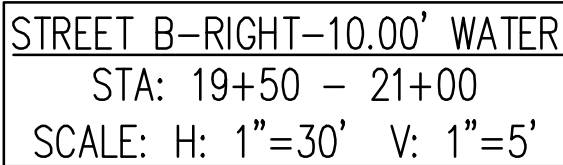
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	EXISTING PROPERTY LINE
	EXISTING PROPERTY LINE TO BE REMOVED
	PROPOSED RIGHT OF WAY LINE
	EXISTING LOT LINE
	PROPOSED LOT LINE
	EXISTING EASEMENT
	PROPOSED EASEMENT
	EXISTING SUBDIVISION BUFFER
	EXISTING STORM DRAIN PIPE
	PROPOSED STORM DRAIN PIPE
	EXISTING WATER LINE
	PROPOSED WATER LINE
	EXISTING SANITARY SEWER LINE
	PROPOSED SANITARY SEWER LINE
	EXISTING DRAINAGE FEATURE OUTLINE
	PROPOSED DRAINAGE FEATURE OUTLINE
	EXISTING SWALE WITH FLOW DIRECTION
	PROPOSED SWALE WITH FLOW DIRECTION
	100-YEAR FEMA FLOODPLAIN
	PROPOSED CDOT CLASS 6 GRAVEL
	PROPOSED RIP RAP
	EXISTING CONCRETE PAVING
	EXISTING CDOT CLASS 6 GRAVEL
	EXISTING 1" TO 2" CRUSHED ROCK
	EXISTING RIP RAP
	EXISTING GROUTED BOULDERS
113	PROPOSED LOT #
	EXISTING LOT # (BEST GRASS FILING NO.)
	PROPOSED ADA RAMP
	PROPOSED FIRE HYDRANT
	PROPOSED GATE VALVE
	PROPOSED REDUCER
	PROPOSED WATER BEND/TIE
	PROPOSED SANITARY MANHOLE
	PROPOSED FES
	PROPOSED STORM MANHOLE
	PROPOSED CDOT TYPE R STORM INLET

1. ALL WATER MAINS SHALL BE NO CLOSER THAN FIVE FEET (5'-0") TO EDGE OF CONCRETE CURB OR SIDEWALK.
2. WATER MAINS SHALL BE DESIGNED FOR A MINIMUM OF FIVE FEET SIX INCHES (5'-6") AND A MAXIMUM OF SIX FEET SIX INCHES (6'-6") OF COVER, EXCEPT WHERE ANOTHER UTILITY CAUSES A CONFLICT, IN WHICH CASE THE WATER MAIN SHALL BE LOWERED AS NECESSARY.
3. A VALVE SHALL ALWAYS BE PROVIDED WHERE A MAIN WILL BE EXTENDED IN THE FUTURE TO FACILITATE CONNECTING TO THE EXISTING MAIN WITHOUT DISRUPTING SERVICE. THERE SHALL BE A TWENTY FOOT (20') STUB STEP THE VALVE TO FACILITATE EASE OF CONNECTION.
4. CONTRACTOR TO READ AND BECOME FAMILIAR WITH THE WOODMILL HILLS METROPOLITAN DISTRICT WATER AND WASTEWATER SYSTEM STANDARD SPECIFICATIONS CRITERIA MANUAL AND DETAILS PRIOR TO BEGINNING CONSTRUCTION.

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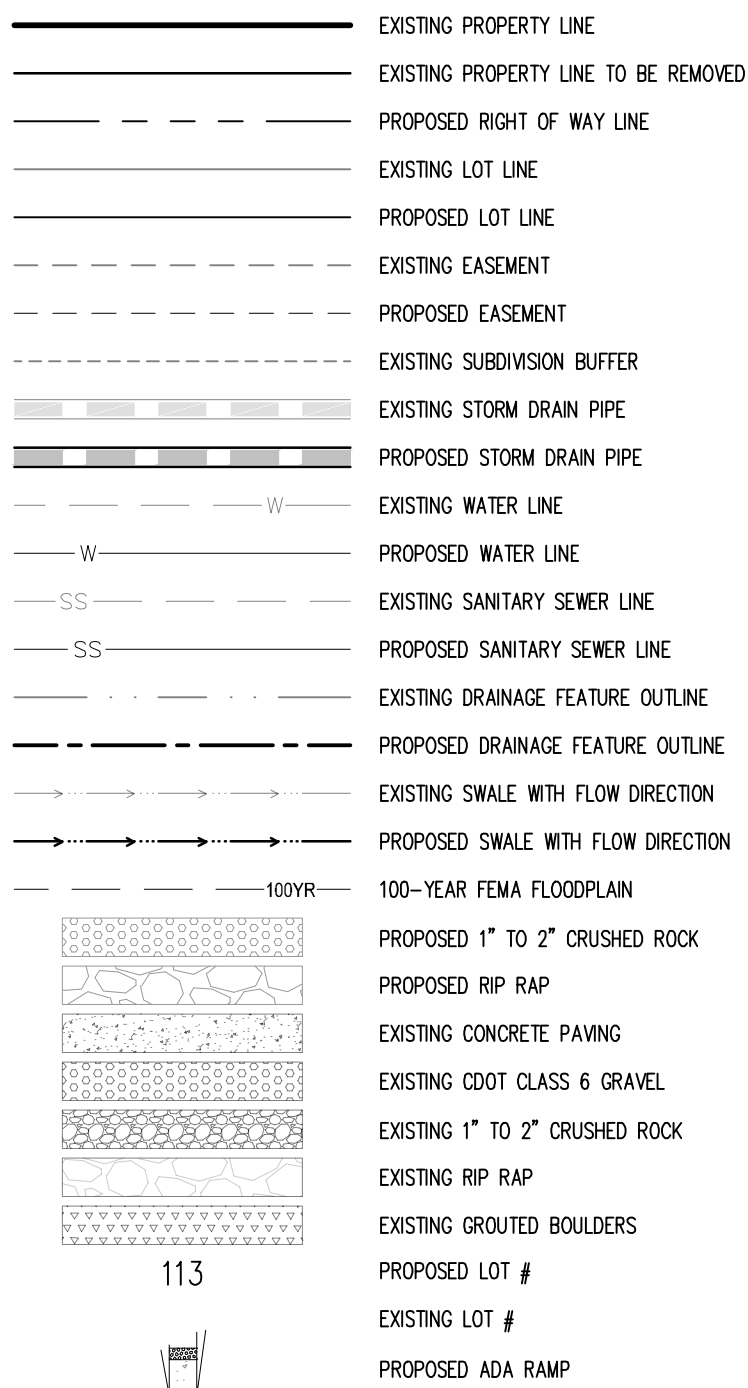
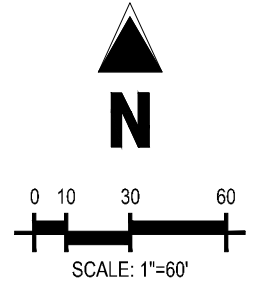
Project No:	CLH000020
Drawn By:	CMWJ
Checked By:	RGD
Date:	06/24/2022

U1.1  
Sheet 7 of 18









## BASIS OF BEARINGS

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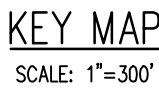
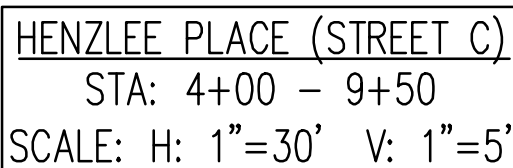
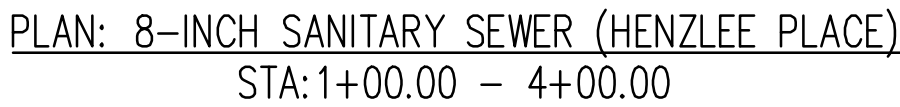
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Know what's below.  
Call before you dig.





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|--|---------------------------------------|
|  | EXISTING PROPERTY LINE                |
|  | EXISTING RIGHT OF WAY TO BE REMOVED   |
|  | PROPOSED RIGHT OF WAY LINE            |
|  | EXISTING LOT LINE                     |
|  | PROPOSED LOT LINE                     |
|  | EXISTING EASEMENT                     |
|  | PROPOSED EASEMENT                     |
|  | EXISTING SUBDIVISION BUFFER           |
|  | EXISTING STORM DRAIN PIPE             |
|  | PROPOSED STORM DRAIN PIPE             |
|  | EXISTING WATER LINE                   |
|  | PROPOSED WATER LINE                   |
|  | EXISTING SANITARY SEWER LINE          |
|  | PROPOSED SANITARY SEWER LINE          |
|  | EXISTING DRAINAGE FEATURE OUTLINE     |
|  | PROPOSED DRAINAGE FEATURE OUTLINE     |
|  | EXISTING SWALE WITH FLOW DIRECTION    |
|  | PROPOSED SWALE WITH FLOW DIRECTION    |
|  | 100-YR FEMA FLOODPLAIN                |
|  | PROPOSED CDOT CLASS 6 GRAVEL          |
|  | PROPOSED RIP RAP                      |
|  | EXISTING CONCRETE PAVING              |
|  | EXISTING CDOT CLASS 6 GRAVEL          |
|  | EXISTING 1" TO 2" CRUSHED ROCK        |
|  | EXISTING RIP RAP                      |
|  | EXISTING GROUTED BOULDERS             |
|  | PROPOSED LOT #                        |
|  | EXISTING LOT # (BENT GRASS FLING NO.) |
|  | PROPOSED ADA RAMP                     |
|  | PROPOSED FIRE HYDRANT                 |
|  | PROPOSED GATE VALVE                   |
|  | PROPOSED REDUCER                      |
|  | PROPOSED WATER BEND/TEE               |
|  | PROPOSED SANITARY MANHOLE             |
|  | PROPOSED FES                          |
|  | PROPOSED STORM MANHOLE                |
|  | PROPOSED CDOT TYPE R STORM INLET      |

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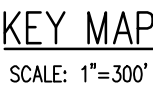
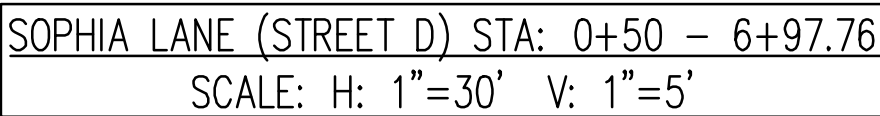
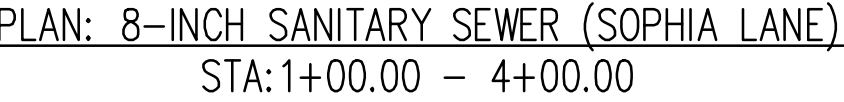


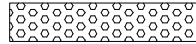
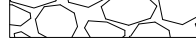




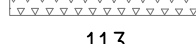










Project No:	CLH000020
Drawn By:	CMWJ
Checked By:	RGD
Date:	06/24/2022

WASTEWATER P&amp;P

Sheet 10 of 18





- |   |                                       |
|---|---------------------------------------|
|  | PROPOSED COOT CLASS 6 GRAVEL          |
|  | PROPOSED RIP RAP                      |
|  | EXISTING CONCRETE PAVING              |
|  | EXISTING COOT CLASS 6 GRAVEL          |
|  | EXISTING 1" TO 2" CRUSHED ROCK        |
|  | EXISTING RIP RAP                      |
|  | EXISTING GROUTED BOULDERS             |
| <b>113</b>  | PROPOSED LOT #                        |
|  | EXISTING LOT # (BEN GRASS FILING NO.) |
|  | PROPOSED ADA RAMP                     |
|  | PROPOSED FIRE HYDRANT                 |
|  | PROPOSED GATE VALVE                   |
|  | PROPOSED REDUCER                      |
|  | PROPOSED WATER BEND/TEE               |
|  | PROPOSED SANITARY MANHOLE             |
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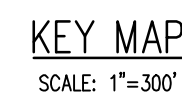
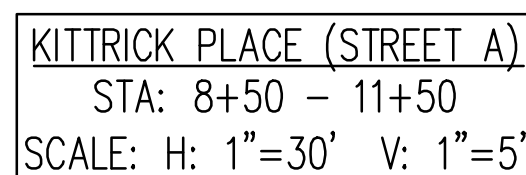
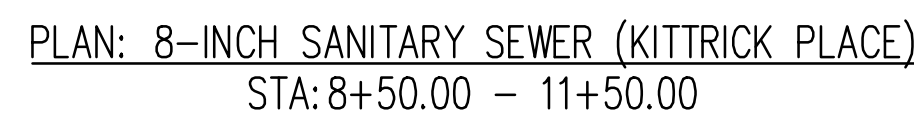
Project No:	CLH000020
Drawn By:	CMWJ
Checked By:	RGD
Date:	06/24/2022

## WASTEWATER P&amp;P

## U2.2

Sheet 11 of 18





	EXISTING PROPERTY LINE
	EXISTING PROPERTY LINE TO BE REMOVED
	PROPOSED RIGHT OF WAY LINE
	EXISTING LOT LINE
	PROPOSED LOT LINE
	EXISTING EASEMENT
	PROPOSED EASEMENT
	EXISTING SUBDIVISION BUFFER
	EXISTING STORM DRAIN PIPE
	PROPOSED STORM DRAIN PIPE
	EXISTING WATER LINE
	PROPOSED WATER LINE
	EXISTING SANITARY SEWER LINE
	PROPOSED SANITARY SEWER LINE
	EXISTING DRAINAGE FEATURE OUTLINE
	PROPOSED DRAINAGE FEATURE OUTLINE
	EXISTING SWALE WITH FLOW DIRECTION
	PROPOSED SWALE WITH FLOW DIRECTION
	100-YR FEMA FLOODPLAIN
	PROPOSED CDOT CLASS 6 GRAVEL
	PROPOSED RIP RAP
	EXISTING CONCRETE PAVING
	EXISTING CDOT CLASS 6 GRAVEL
	EXISTING 1" TO 2" CRUSHED ROCK
	EXISTING RIP RAP
	EXISTING GROUDED BOULDERS
	PROPOSED LOT #
	EXISTING LOT # (BENT GRASS FILING NO.)
	PROPOSED ADA RAMP
	PROPOSED FIRE HYDRANT
	PROPOSED GATE VALVE
	PROPOSED REDUCER
	PROPOSED WATER BEND/TEE
	PROPOSED SANITARY MANHOLE
	PROPOSED FES
	PROPOSED STORM MANHOLE
	PROPOSED CDOT TYPE R STORM INLET

1. ALL STATION CALLOUTS ARE TO THE CENTERLINE OF ROADWAY, THEREFORE MANHOLE RIMS MAY APPEAR TO NOT MEET FINISH GRADE
2. CONTRACTOR TO READ AND BECOME FAMILIAR WITH THE WOODMEN HILLS METROPOLITAN DISTRICT WATER AND WASTEWATER SYSTEM STANDARD SPECIFICATIONS CRITERIA MANUAL AND DETAILS PRIOR TO BEGINNING CONSTRUCTION.

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS N00°13'46"W AND MONUMENTED AS SHOWN:

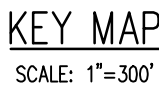
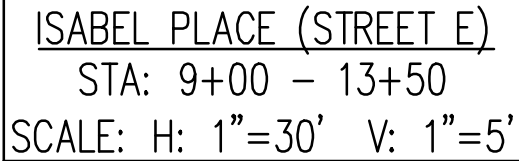
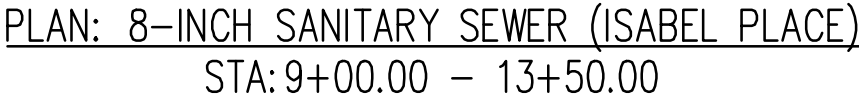
THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4. MONUMENTED BY A YELLOW PLASTIC SURVEYORS CAP ON A NO. 4 REBAR 1S# 24954 ELEVATION = 6947.67

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE TIME OF SURVEY AND IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.

2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY, EITHER THROUGH POTHOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION







- ## NOTES
1. ALL STATION CALLOUTS ARE TO THE CENTERLINE OF ROADWAY, THEREFORE MANHOLE RIMS MAY APPEAR TO NOT MEET FINISH GRADE
  2. CONTRACTOR TO READ AND BECOME FAMILIAR WITH THE WOODMONT HILLS METROPOLITAN DISTRICT WATER AND WASTEWATER SYSTEM STANDARD SPECIFICATIONS CRITERIA MANUAL AND DETAILS PRIOR TO BEGINNING CONSTRUCTION.

ALL BEARINGS ARE GRID BEARINGS OF THE COLORADO STATE PLANE COORDINATE SYSTEM, CENTRAL ZONE, NORTH AMERICAN DATUM 1983. THE BEARING OF THE LINE BETWEEN THE SOUTHWEST CORNER OF SECTION 1, T13S, R65W AND THE WEST QUARTER CORNER SECTION 1, T13S, R65W IS  $N00^{\circ}13'46''W$  AND MONUMENTED AS SHOWN:

THE SOUTHWESTERLY CORNER OF LOT 1 WOODMEN HILLS FILING NO. 4, MONUMENTED BY A YELLOW PLASTIC SURVEYOR'S CAP ON A NO. 4 REBAR LS# 24954 ELEVATION = 6947.67

1. ALL UTILITY LOCATIONS SHOWN ARE BASED ON MAPS PROVIDED BY THE APPROPRIATE UTILITY COMPANY AND FIELD SURFACE EVIDENCE AT THE LOCATION. SURFACE EVIDENCE IS TO BE CONSIDERED AN APPROXIMATE LOCATION ONLY. IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE FIELD LOCATION OF ALL UTILITIES, PUBLIC OR PRIVATE, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO CONSTRUCTION.
2. WHERE A PROPOSED UTILITY CROSSES AN EXISTING UTILITY, IT IS THE CONTRACTOR'S RESPONSIBILITY TO FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF SUCH EXISTING UTILITY THROUGH POT-HOLING OR ALTERNATIVE METHOD. REPORT INFORMATION TO THE ENGINEER PRIOR TO CONSTRUCTION.



Project No:	CLH000020
Drawn By:	CMWJ
Checked By:	RGD
Date:	06/24/2022

U2.4  
Sheet 13 of 18











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Project No:	CLH000020
Drawn By:	CMWJ
Checked By:	RGD
Date:	06/24/2022

## RESTRAINED M.J. PIPE LENGTH (FT)

TYPE OF FITTING	6-INCH DUCTILE IRON AND PVC			16-INCH DUCTILE IRON AND PVC		
	STATIC PRESSURE (PSI)			STATIC PRESSURE (PSI)		
90° BEND, TEE, VALVE OR PLUG	<100	100-150	150-200	<100	100-150	150-200
45° BEND	5	8	10	29	43	58
22-1/2° BEND	2	4	5	12	18	24
11-1/4° BEND	1	2	2	6	9	12
				3	4	6

TYPE OF FITTING	8-INCH DUCTILE IRON AND PVC			18-INCH DUCTILE IRON AND PVC		
	STATIC PRESSURE (PSI)			STATIC PRESSURE (PSI)		
90° BEND, TEE, VALVE OR PLUG	<100	100-150	150-200	<100	100-150	150-200
45° BEND	16	24	32	32	48	64
22-1/2° BEND	7	10	13	14	20	27
11-1/4° BEND	3	5	6	7	10	13
				3	5	7

TYPE OF FITTING	12-INCH DUCTILE IRON AND PVC			20-INCH DUCTILE IRON AND PVC		
	STATIC PRESSURE (PSI)			STATIC PRESSURE (PSI)		
90° BEND, TEE, VALVE OR PLUG	<100	100-150	150-200	<100	100-150	150-200
45° BEND	23	34	45	35	52	70
22-1/2° BEND	9	14	19	15	22	29
11-1/4° BEND	5	7	9	7	10	14
				3	5	7

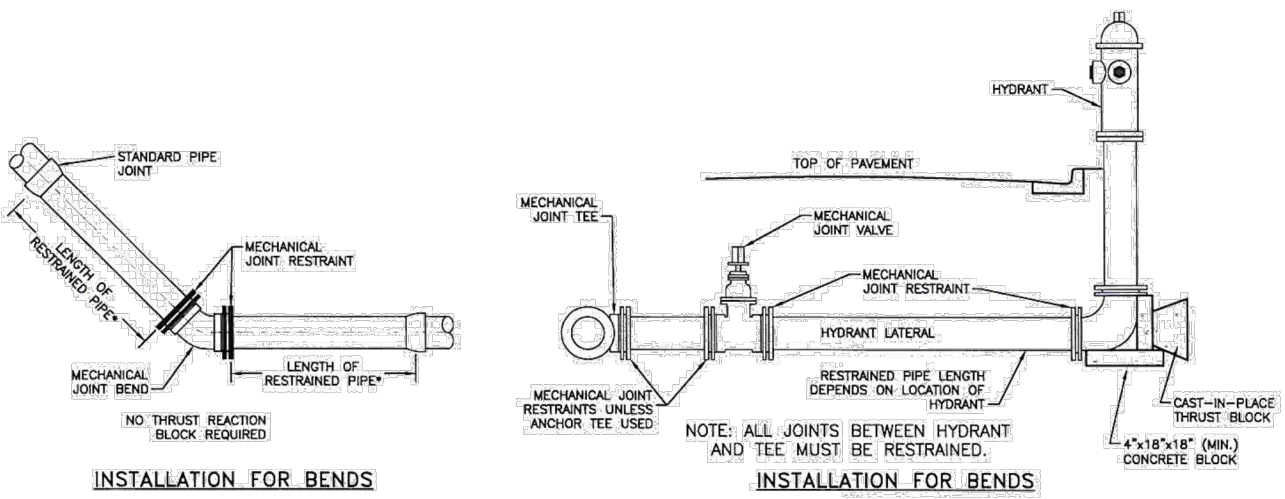
TYPE OF FITTING	24-INCH DUCTILE IRON AND PVC		
	STATIC PRESSURE (PSI)		
90° BEND, TEE, VALVE OR PLUG	<100	100-150	150-200
45° BEND	41	61	81
22-1/2° BEND	17	25	34
11-1/4° BEND	8	12	16
	4	6	8

### NOTES:

- PRESSURES GREATER THAN 200 PSI REQUIRE SPECIAL DESIGN APPROVED BY THE DISTRICT.
- LENGTH IS BASED ON MINIMUM 5'-0" OF GROUND COVER AND SOIL COMPACTED ACCORDING TO SECTION 5.15 OF THESE SPECIFICATIONS.
- APPROVED METHODS OF RESTRAINED PIPE BEYOND INITIAL FITTING SHALL BE:
  - FOR DUCTILE IRON PIPE, 1100 SERIES MEGALUG BY EBM IRON OR EQUAL ON MECHANICAL JOINT PIPE OR DOUBLE 1100 SERIES MEGALUG BY EBM IRON OR EQUAL ON PUSH ON JOINT PIPE.
  - FOR PVC PIPE, SERIES 1500 OR SERIES 2800 RESTRAINTS BY EBM IRON OR EQUAL.

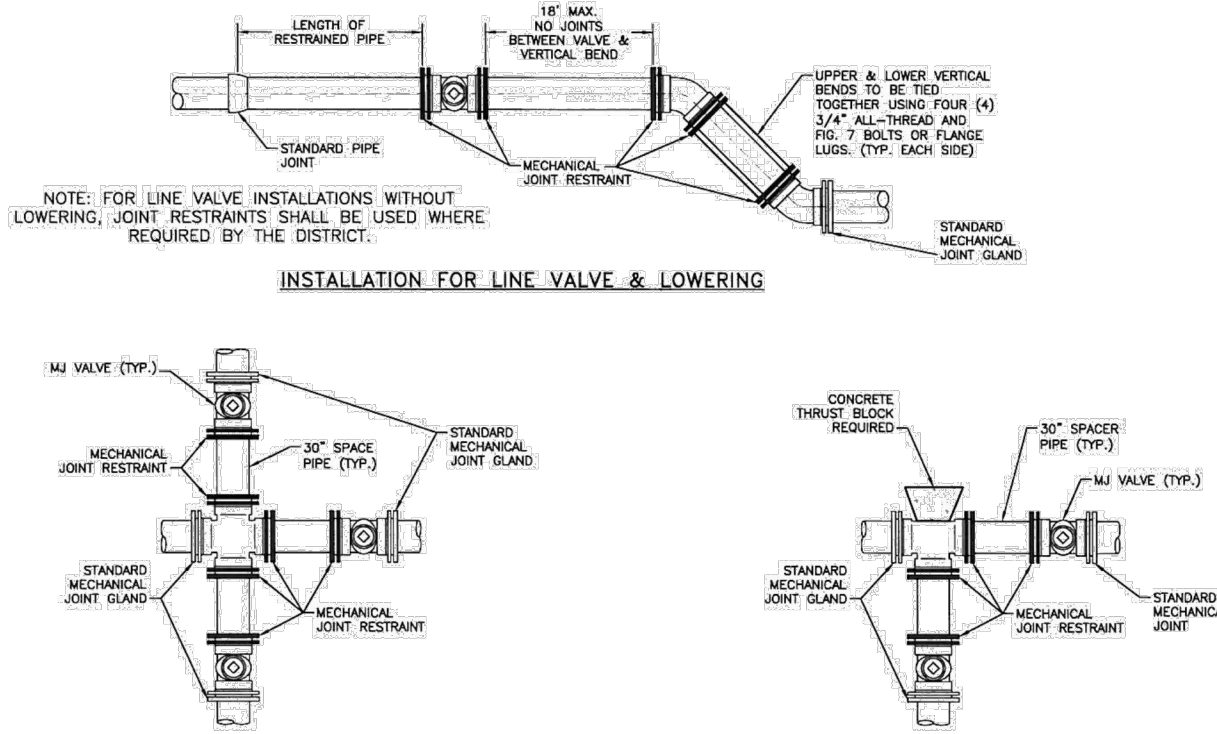
## RESTRAINED MJ PIPE LENGTH DATA

Drawn: GDM	Revised:	<b>WOODMEN HILLS</b> WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	W-25
Date: JUN 2021	Revised:		
Scale: N.T.S.	Revised:		



### INSTALLATION FOR BENDS

### INSTALLATION FOR LINE VALVE & LOWERING



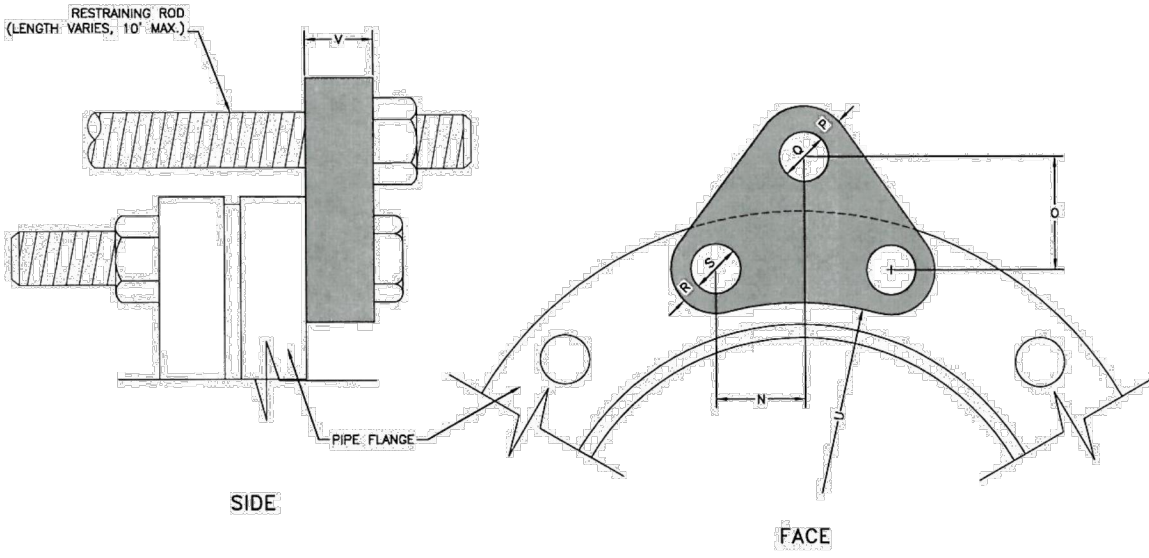
### CROSS INSTALLATION

### TEE INSTALLATION

- MECHANICAL JOINTS SHALL BE APPROVED ACCORDING TO MATERIAL SPECIFICATION FOR DIP AND PVC PIPE.
- LENGTH OF PIPE REQUIRING JOINT RESTRAINT SHALL BE DETERMINED FROM CHART ON DRAWING W-25.
- RESTRAINED JOINT PVC PIPE SHALL NOT BE USED FOR LOWERINGS.

## APPLICATIONS FOR MECHANICAL JOINT RESTRAINTS

Drawn: GDM	Revised:	<b>WOODMEN HILLS</b> WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	W-24
Date: JUN 2021	Revised:		
Scale: N.T.S.	Revised:		

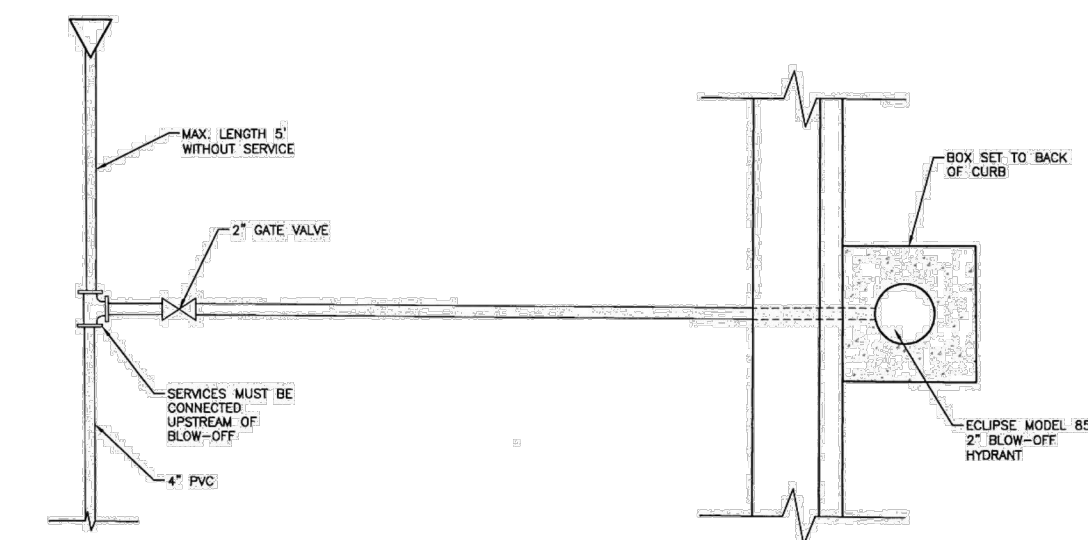


H.S. ROD				M.S. ROD				NO REC (EA)			
"N" (IN.)	"O" (IN.)	ROD DIA. (IN.)	"P" (IN.)	"N" (IN.)	"O" (IN.)	ROD DIA. (IN.)	"R" (IN.)		"S" (IN.)	"U" (IN.)	"V" (IN.)
1	7/8	3/4	1	7/8	3/4	7/8	7/8	3/4	3/4	3/4	2
1	7/8	1	1	7/8	7/8	1	7/8	4/7	4/7	1	2
1	7/8	3/4	1	7/8	3/4	1	7/8	4/7	4/7	3/4	2
1-1/4	1-1/8	1	1-1/4	1-1/8	1	1-1/8	1	7-1/4	7-1/4	1	2
1-3/8	1-1/4	1-1/2	1-3/8	1-1/4	1-1/4	1-1/8	7-8	7-8	1-1/4	1-1/4	3
1-1/2	1-3/8	1-1/4	1-1/2	1-3/8	1-1/4	1-1/2	1-1/8	8-3/8	1-1/8	1-1/2	3
1-1/2	1-3/8	1-3/8	1-1/2	1-3/8	1-1/2	1-1/2	1-1/8	1-1/8	1-1/8	1-1/2	4
1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/8	10-1/8	1-1/8	2	4
1-3/8	1-1/2	1-1/2	1-3/8	1-1/2	1-3/8	1-3/8	1-1/4	11-1/4	1-1/4	4	4
1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-3/8	12-1/4	1-3/8	2	4
1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-1/2	1-3/8	12-1/2	2-1/4	4	6

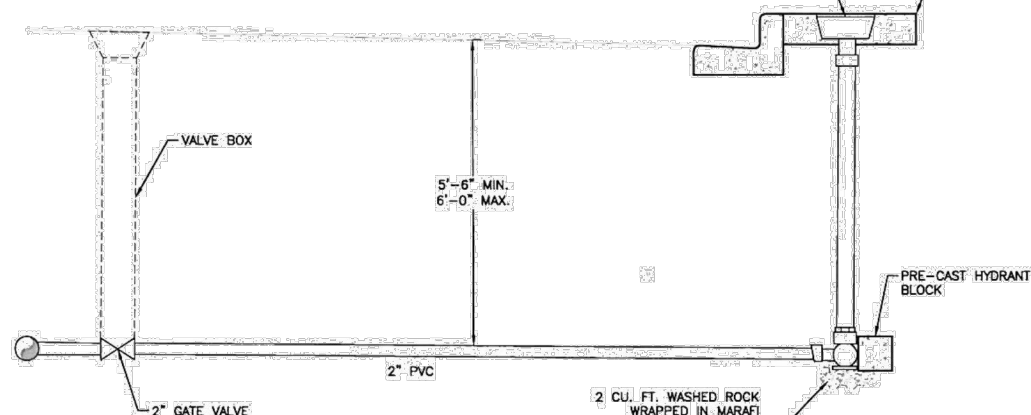
- N.T.S. MEANS MILD STEEL ROD, ASTM STANDARD DESIGNATION A-36. NUTS SHALL BE ASTM STANDARD DESIGNATION A-307.
- N.T.S. MEANS HIGH STRENGTH STEEL ROD, ASTM STANDARD DESIGNATION A-193 GRADE B-7. NUTS SHALL BE ASTM STANDARD DESIGNATION A-193 GRADE B-7.

## FLANGE - LUG DETAIL

Drawn: GDM	Revised:	<b>WOODMEN HILLS</b> WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	W-23
Date: JUN 2021	Revised:		
Scale: N.T.S.	Revised:		



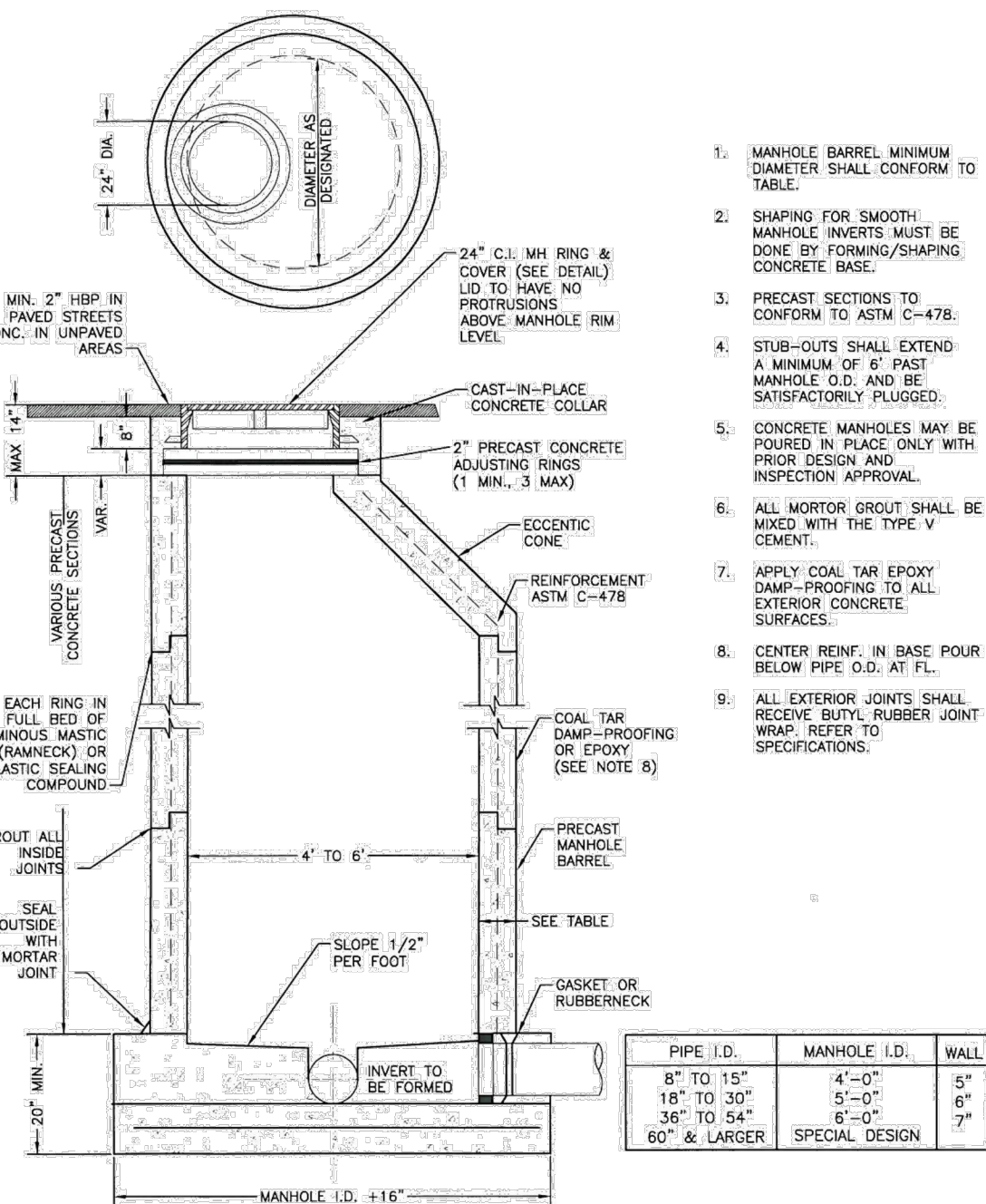
### PLAN VIEW N.T.S.



### PROFILE VIEW N.T.S.

## CUL-DE-SAC BLOW-OFF DETAIL

Drawn: GDM	Revised:	<b>WOODMEN HILLS</b> WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	W-22
Date: JUN 2021	Revised:		
Scale: N.T.S.	Revised:		

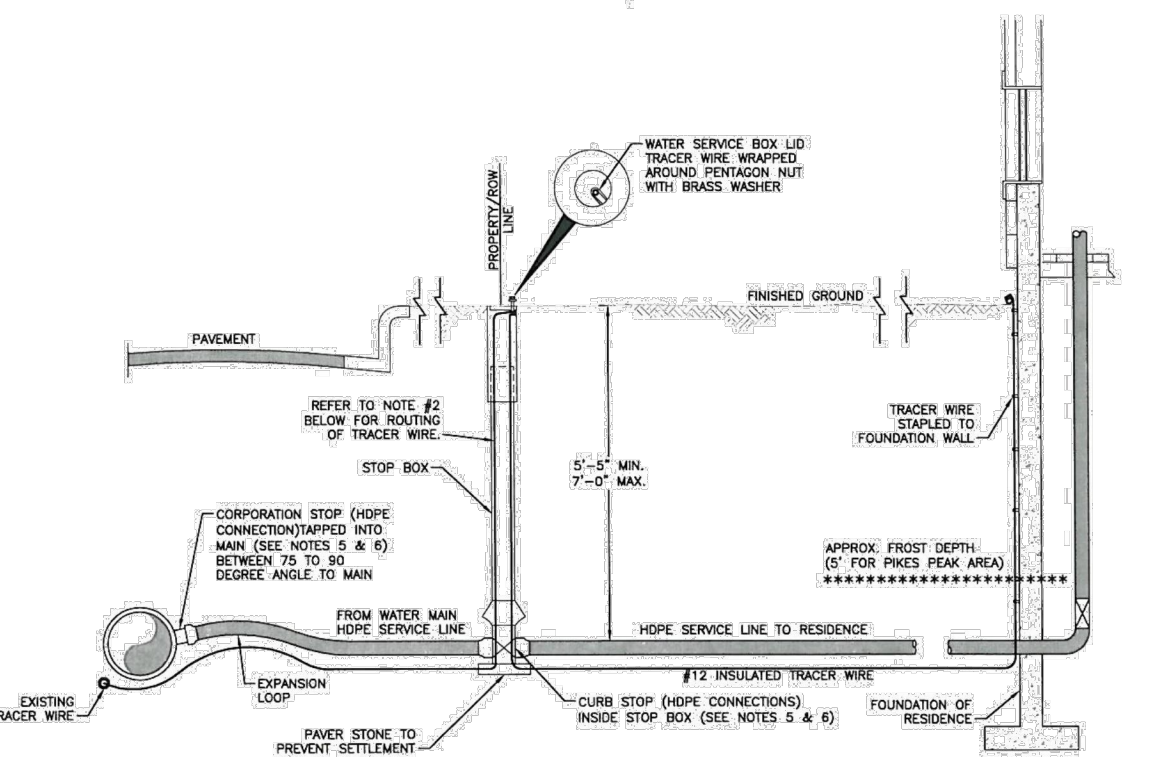


- MANHOLE BARREL MINIMUM DIAMETER SHALL CONFORM TO TABLE.
- SHAPING FOR SMOOTH MANHOLE INVERTS MUST BE DONE BY FORMING/SHAPING CONCRETE BASE.
- PRECAST SECTIONS TO CONFORM TO ASTM C-478.
- STUB-OUTS SHALL EXTEND A MINIMUM OF 8\"/>

PIPE I.D.	MANHOLE I.D.	WALL
8" TO 15"	4'-0"	5"
18" TO 30"	5'-0"	6"
36" TO 54"	6'-0"	7"
60" & LARGER	SPECIAL DESIGN	

## PRECAST MANHOLE

Drawn: GDM	Revised:	<b>WOODMEN HILLS</b> WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	WW-3
Date: JUN 2021	Revised:		
Scale: N.T.S.	Revised:		



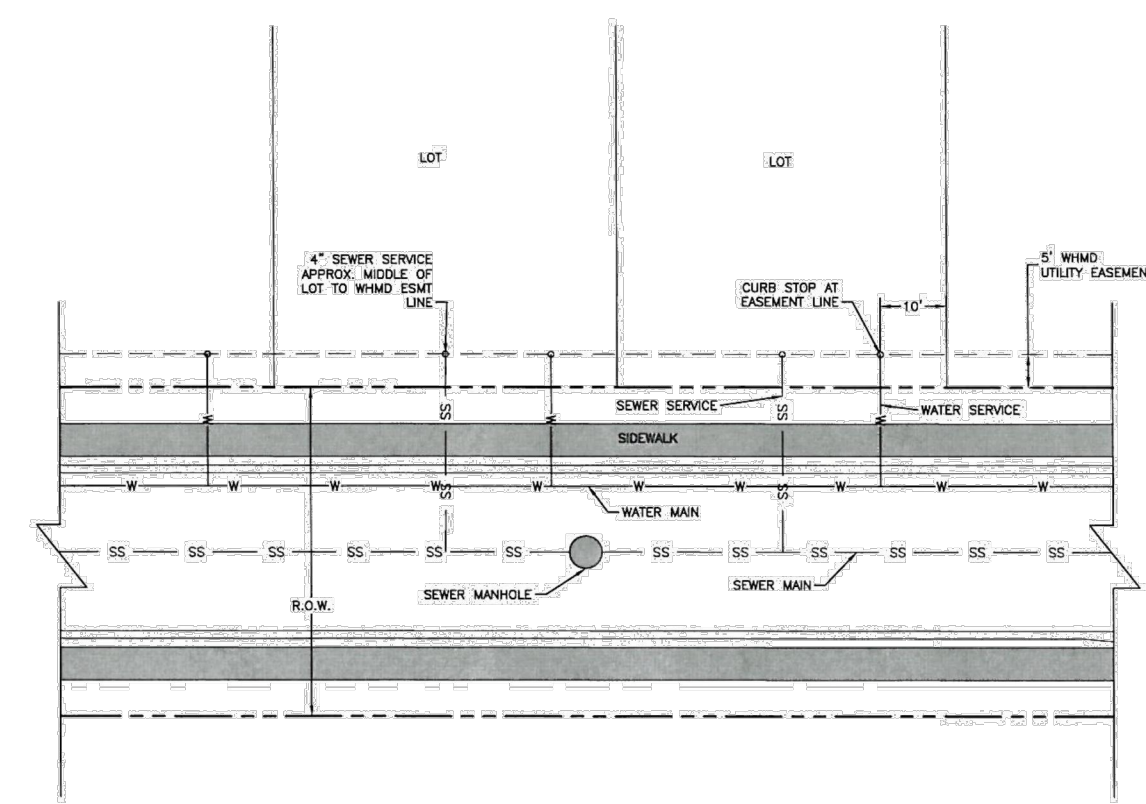
### WATER SERVICE LINE NOTES:

- NO. 12 INSULATED TRACER WIRE SHALL BE PLACED ALONG SERVICE LINE AND SHALL BE A CONTINUOUS (WITHOUT SPLICES) LENGTH.
- WHEN A NEW PLASTIC SERVICE IS CONNECTED TO A PVC MAIN, THE SERVICE LINE TRACER WIRE SHALL BE CONNECTED TO THE MAIN'S TRACER WIRE WITH A SPLIT-BOLT CONNECTOR. THE TRACER WIRE IS THEN TAPED ALONG THE SERVICE LINE IN AT LEAST 3 LOCATIONS NOT TO EXCEED 10'. ALL CURB STOP BOXES SHALL HAVE A 1-1/2\"/>

- TO ASSIST IN PE PIPE LOCATING, A SUB. ANODE SHOULD BE CONNECTED TO THE END OF THE TRACER WIRE AND THE WATER MAIN TRACER WIRE EVERY 1000 FEET ALONG THE LENGTH OF THE WATER MAIN. THE NEW ANODE WILL BE ATTACHED TO THE WATER SERVICE/WATER MAIN TRACER WIRE WITH A SPLIT-BOLT CONNECTOR. THE CONNECTOR IS TO BE WRAPPED FIRST WITH A 4\"/>

## TYPICAL INSTALLATION FOR SERVICE LINE & STOP BOX

Drawn: GDM	Revised:	<b>WOODMEN HILLS</b> WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	W-33
Date: JUN 2021	Revised:		
Scale: N.T.S.	Revised:		



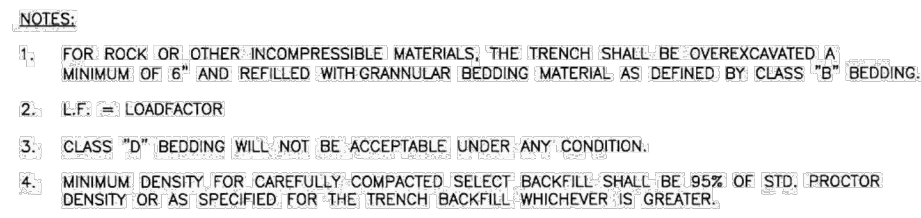
### NOTES:

- WATER SERVICE TO BE 10' FROM "DOWNSTREAM" PROPERTY LINE AND EXTENDED TO WHMD UTILITY EASEMENT LINE.
- SEWER SERVICE TO BE PLACED APPROXIMATELY IN THE MIDDLE OF THE LOT AND EXTENDED TO WHMD UTILITY EASEMENT LINE.
- SERVICES SHALL BE MARKED WITH 2\"/>

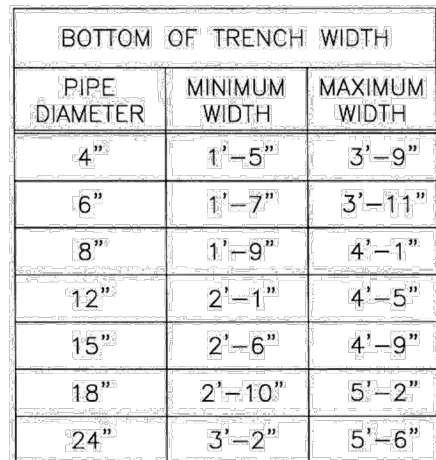
## UTILITY SERVICE LOCATIONS

Drawn: GDM	Revised:	<b>WOODMEN HILLS</b> WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	W-39
Date: JUN 2021	Revised:		
Scale: N.T.S.	Revised:		





Drawn: GDM	Revised:	 <b>WOODMEN HILLS</b> METROPOLITAN DISTRICT WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	WW-1
Date: JAN 2011	Revised:		
Scale: N.T.S.	Revised:		

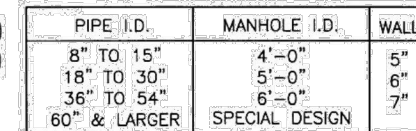


ALL PIPE EMBEDMENT SHALL BE IMPORTED CLASS B BEDDING UNLESS OTHERWISE DIRECTED.

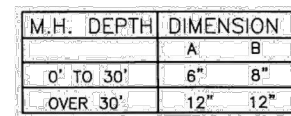
AN OVER EXCAVATED TRENCH SHALL BE REFILLED AND THOROUGHLY COMPACTED UNDER THE DIRECTION OF THE DISTRICT.

UNDER NO CIRCUMSTANCES WILL PIPE BE LAID IN A PROPOSED FILL AREA PRIOR TO IT BEING COMPLETELY FILLED. THE FILL WILL BE PLACED FIRST TO PROPOSED GRADE AND COMPACTED AS REQUIRED. A TRENCH THEN WILL BE EXCAVATED AND THE PIPE INSTALLED IN THE USUAL MANNER.

Drawn: GDM	Revised:	 <b>WOODMEN HILLS</b> METROPOLITAN DISTRICT	<b>WATER &amp; WASTEWATER SYSTEM</b> STANDARD SPECIFICATIONS	<b>WW-2</b>
Date: JAN 2011	Revised:			
Scale: N.T.S.	Revised:			



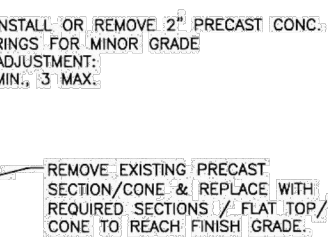
Drawn: GDM	Revised:	 <b>WOODMEN HILLS</b> METROPOLITAN DISTRICT	WATER & WASTEWATER SYSTEM	WW-3
Date: JAN 2011	Revised:		STANDARD SPECIFICATIONS	
Scale: N.T.S.	Revised:			



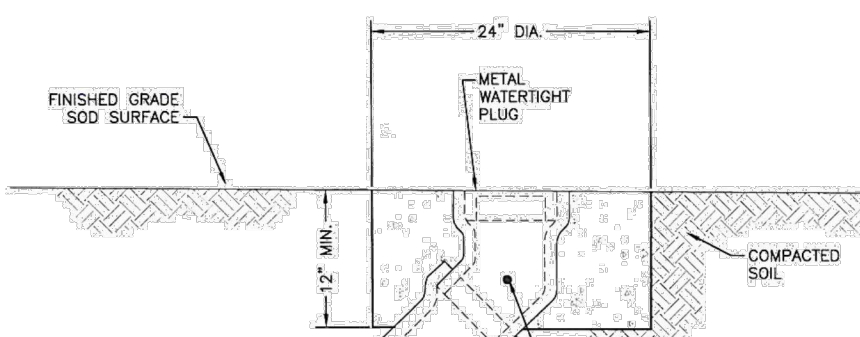
WATERPROOFING REQUIREMENTS

1. APPLY CEMENT GROUT LAYER ( $\frac{3}{8}$ " THICK) TO ALL INTERIOR JOINTS ABOVE FLOW CHANNEL.
2. APPLY COAL TAR EPOXY DAMPROOFING TO ALL EXTERIOR CONCRETE SURFACES.
3. APPLY CEMENT GROUT LAYER ( $\frac{3}{8}$ " TO  $\frac{1}{2}$ " THICK) TO ALL EXTERIOR CONCRETE SURFACES, AS DIRECTED BY DISTRICT. APPLY PRIOR TO DAMPROOFING.

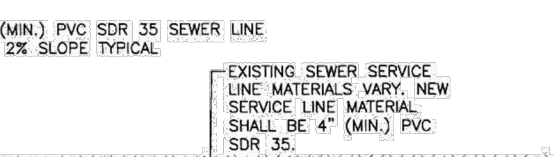
Drawn: QDM	Revised:	 <b>WOODMEN HILLS</b> METROPOLITAN DISTRICT	WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	<b>WW-4</b>
Date: JAN. 2011	Revised:			
Scale: N.T.S.	Revised:			



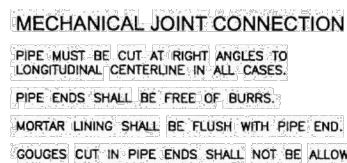
Drawn: GDM	Revised:	 <b>WOODMEN HILLS</b> METROPOLITAN DISTRICT	WATER & WASTEWATER SYSTEM STANDARD SPECIFICATIONS	<b>WW-5</b>
Date: JAN 2011	Revised:			
Scale: N.T.S.	Revised:			



Drawn: GOM	Revised:	 <b>WOODMEN HILLS</b> METROPOLITAN DISTRICT	WATER & WASTEWATER SYSTEM	WW-6
Date: JAN 2011	Revised:		STANDARD SPECIFICATIONS	
Scale: N.T.S.	Revised:			



Drawn: GGM	Revised:	 <b>WOODMEN HILLS</b> METROPOLITAN DISTRICT	<b>WATER &amp; WASTEWATER SYSTEM</b> <b>STANDARD SPECIFICATIONS</b>	<b>WW-7</b>
Date: JAN 2011	Revised:			
Scale: N.T.S.	Revised:			



GENERAL NOTES:

1. ALL PIPE CUTTING EQUIPMENT AND PIPE CUTS MUST BE APPROVED BY THE WATER AND SANITATION DISTRICT INSPECTOR.
2. ALL PIPE ENDS TO BE USED IN INSTALLATION SHALL BE DRESSED SMOOTH TO THE SATISFACTION OF THE INSPECTOR PRIOR TO INSTALLATION.
3. AT THE REQUEST OF THE CONTRACTOR MAKING THE INSTALLATION, THE DISTRICT WILL MAKE PIPE CUTS, PROVIDING THE CURRENT FEE PER CUT IS PAID AND 24-HOUR NOTICE IS GIVEN (THE CURRENT FEE IS SUBJECT TO CHANGE.)
4. ALL DIP DELIVERED TO JOB SITE MUST BE NEW MATERIAL.

Drawn: GCM  
 Date: JAN 2011  
 Scale: N.T.S.

Revised:  
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**WOODMEN HILLS**  
 METROPOLITAN DISTRICT

WATER & WASTEWATER SYSTEM  
 STANDARD SPECIFICATIONS

WW-11



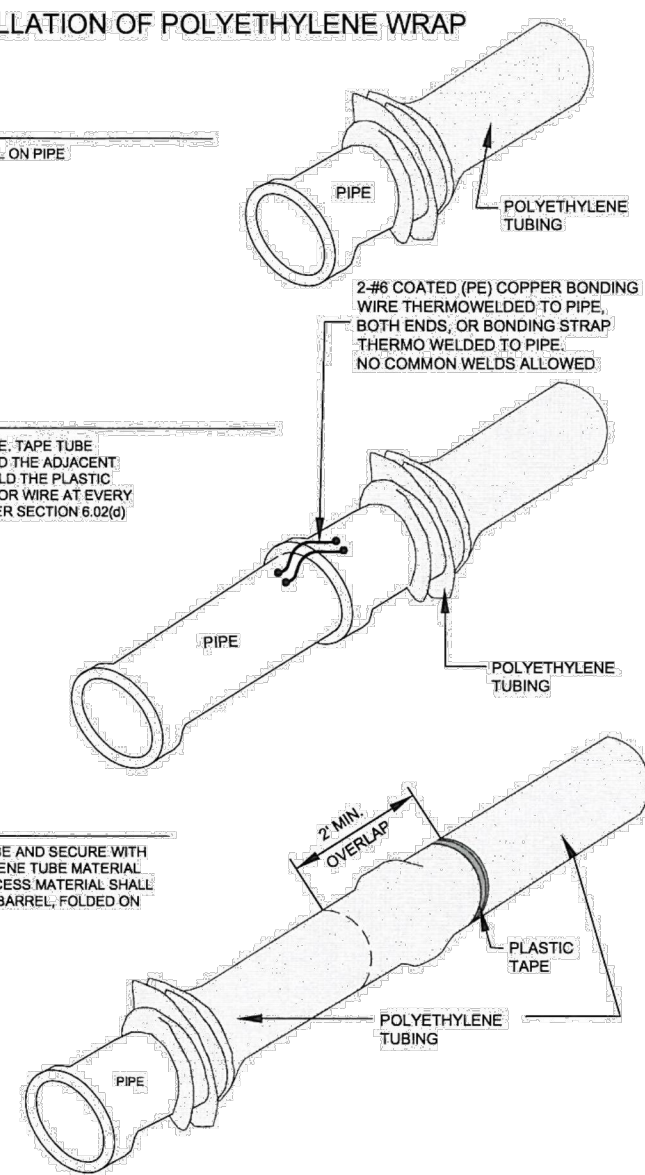
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Project No:	CLH000020
Drawn By:	CMWJ
Checked By:	RGD
Date:	06/24/2022

## FIELD INSTALLATION OF POLYETHYLENE WRAP

**STEP 1:**

PLACE TUBE OF POLYETHYLENE MATERIAL ON PIPE PRIOR TO LOWERING IT INTO TRENCH.



### STEP 2:

PULL TUBE OVER THE LENGTH OF THE PIPE. TAPE TUBE TO END AT JOINT. FOLD MATERIAL AROUND THE ADJACENT SPIGOT END AND WRAP WITH TAPE TO HOLD THE PLASTIC TUBE IN PLACE. INSTALL BONDING STRAP OR WIRE AT EVERY JOINT OF PIPE PRIOR TO WRAPPING AS PER SECTION 8.02(g) OF THE STANDARD SPECIFICATIONS.

### STEP 3:

OVERLAP FIRST TUBE WITH ADJACENT TUBE AND SECURE WITH PLASTIC ADHESIVE TAPE. THE POLYETHYLENE TUBE MATERIAL COVERING THE PIPE SHALL BE LOOSE. EXCESS MATERIAL SHALL BE NEATLY DRAWN UP AROUND THE PIPE BARREL, FOLDED ON TOP OF PIPE AND TAPED IN PLACE.

## POLYETHYLENE PIPE WRAP

Drawn: CCM	Revised:	 <b>WOODMEN HILLS</b> METROPOLITAN DISTRICT	WATER & WASTEWATER SYSTEM	WW-12
Date: JAN 2011	Revised:		STANDARD SPECIFICATIONS	
Scale: N.T.S.	Revised:			

MAXIMUM DEFLECTION  
PER SLIP JOINT OF D.I.P.

PIPE DIAMETER			MFRS. DEFL.	DESIGN DEFLECTION (80% MAX.)		APPROX. RADIUS FOR DEFLECTING CURVES WITHOUT BENDS		
I.D. (IN)	O.D. (IN)	O.D. (FT)		MAX. DEF. DIST.				
				1"	2"			
4"	4.665"	.400"	500/000"	400/000"	16"	251'	288'	258'
6"	6.865"	.575"	500/000"	400/000"	14"	151'	258'	258'
8"	9.065"	.754"	500/000"	400/000"	14"	151'	288'	258'
10"	11.10"	.925"	500/000"	400/000"	16"	151'	288'	258'
12"	13.20"	1.100"	500/000"	400/000"	16"	151'	288'	258'
14"	15.30"	1.275"	300/000"	224/000"	10"	81'	477'	430'
16"	17.40"	1.450"	300/000"	224/000"	10"	81'	477'	430'
18"	19.50"	1.625"	300/000"	224/000"	10"	91'	477'	430'
20"	21.60"	1.800"	300/000"	224/000"	10"	91'	477'	430'
24"	25.80"	2.150"	300/000"	224/000"	10"	91'	477'	430'
30"	32.00"	2.686"	230/000"	200/000"	8"	71'	575'	515'
36"	38.20"	3.190"	200/000"	136/000"	6"	61'	716'	646'
42"	44.40"	3.706"	200/000"	136/000"	6"	61'	716'	646'

(1) 20'L = NORMAL 20-FOOT JOINT LAYING LENGTH  
(2) = NORMAL 18-FOOT JOINT LAYING LENGTH

### MAXIMUM PIPELINE DEFLECTION DATA

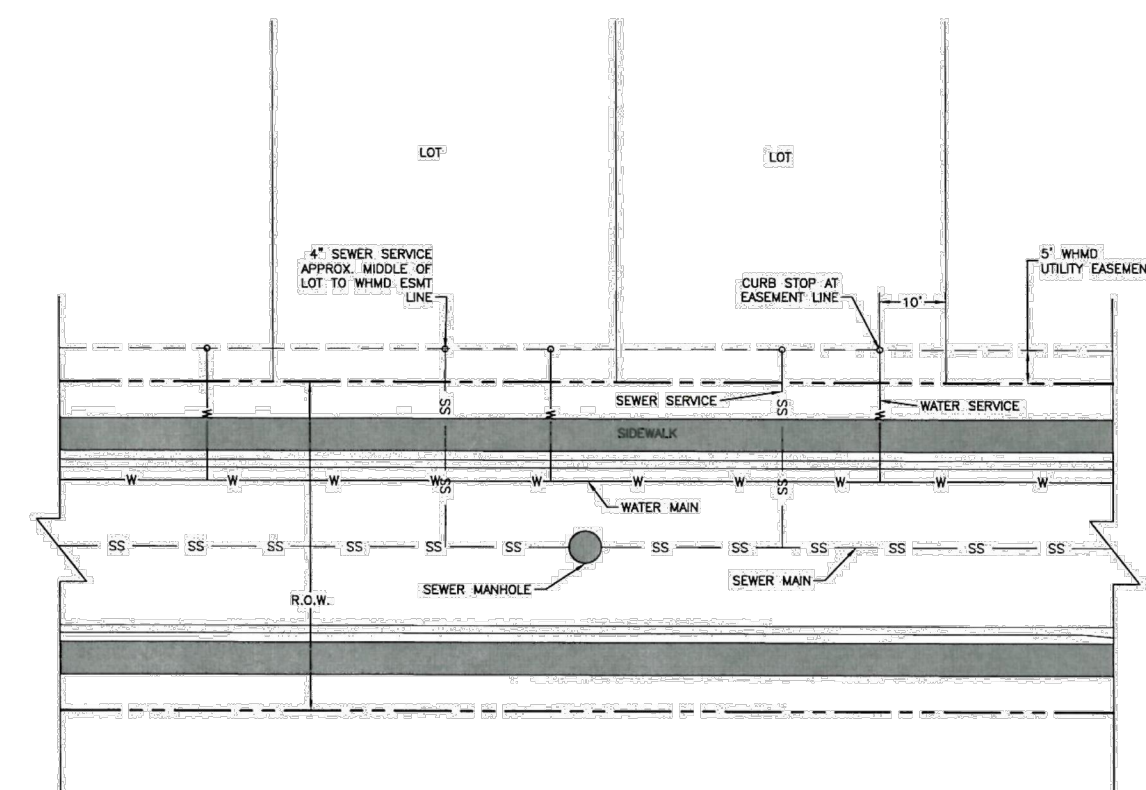
Drawn: GCM  
 Date: JAN 2011  
 Scale: N.T.S.

Revised:  
 Revised:  
 Revised:

**WOODMEN HILLS**  
 METROPOLITAN DISTRICT

WATER & WASTEWATER SYSTEM  
 STANDARD SPECIFICATIONS

**WW-14**



## UTILITY SERVICE LOCATIONS

Drawn: GCM	Revised:	 <b>WOODMEN HILLS</b> METROPOLITAN DISTRICT	WATER & WASTEWATER SYSTEM	WW-20
Date: JAN 2011	Revised:		STANDARD SPECIFICATIONS	
Scale: N.T.S.	Revised:			

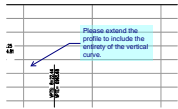
**NOTES:**

1. WATER SERVICE TO BE 10' FROM "DOWNSTREAM" PROPERTY LINE AND EXTENDED TO WHMD UTILITY EASEMENT LINE.
2. SEWER SERVICE TO BE PLACED APPROXIMATELY IN THE MIDDLE OF THE LOT AND EXTENDED TO WHMD UTILITY EASEMENT LINE.
3. SERVICES SHALL BE MARKED WITH 2"x4" POST AT TERMINATION POINT FOR LOCATION DURING CONNECTION TO RESIDENCE. POSTS SHALL BE SPRAY-PAINTED BLUE FOR WATER AND GREEN FOR SEWER.



# Construction Drawings\_v2 redlines.pdf Markup Summary 7-25-2022

Daniel Torres (5)

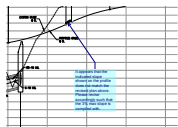


**Subject:** Callout  
**Page Label:** [6] 6 HENZLEE PLACE STREET IMPROVEMENT PLAN  
**Author:** Daniel Torres  
**Date:** 7/21/2022 11:44:00 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Please extend the profile to include the entirety of the vertical curve.



**Subject:** Highlight  
**Page Label:** [6] 6 HENZLEE PLACE STREET IMPROVEMENT PLAN  
**Author:** Daniel Torres  
**Date:** 7/21/2022 11:42:35 AM  
**Status:**  
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**Layer:**  
**Space:**



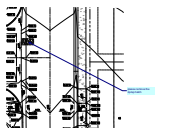
**Subject:** Callout  
**Page Label:** [8] 8 SOPHIA LANE STREET IMPROVEMENT PLAN  
**Author:** Daniel Torres  
**Date:** 7/21/2022 11:54:13 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

It appears that the indicated slope shown on the profile does not match the revised plan above. Please revise accordingly such that the 3% max slope is complied with.



**Subject:** Re: Callout  
**Page Label:** [8] 8 SOPHIA LANE STREET IMPROVEMENT PLAN  
**Author:** Daniel Torres  
**Date:** 7/21/2022 11:55:07 AM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

Carlos, can you remove this comment. I provided my own comment with tweaked language.



**Subject:** Callout  
**Page Label:** [13] 13 INTERSECTION DETAIL  
**Author:** Daniel Torres  
**Date:** 7/21/2022 3:28:39 PM  
**Status:**  
**Color:** ■  
**Layer:**  
**Space:**

please remove the riprap hatch