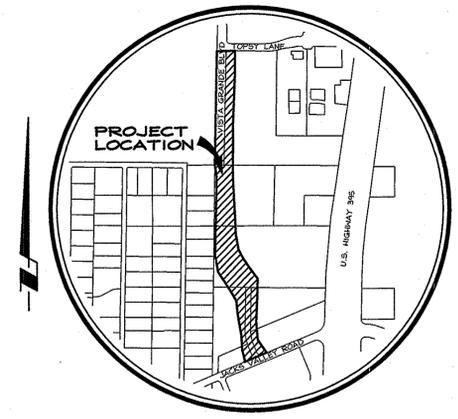
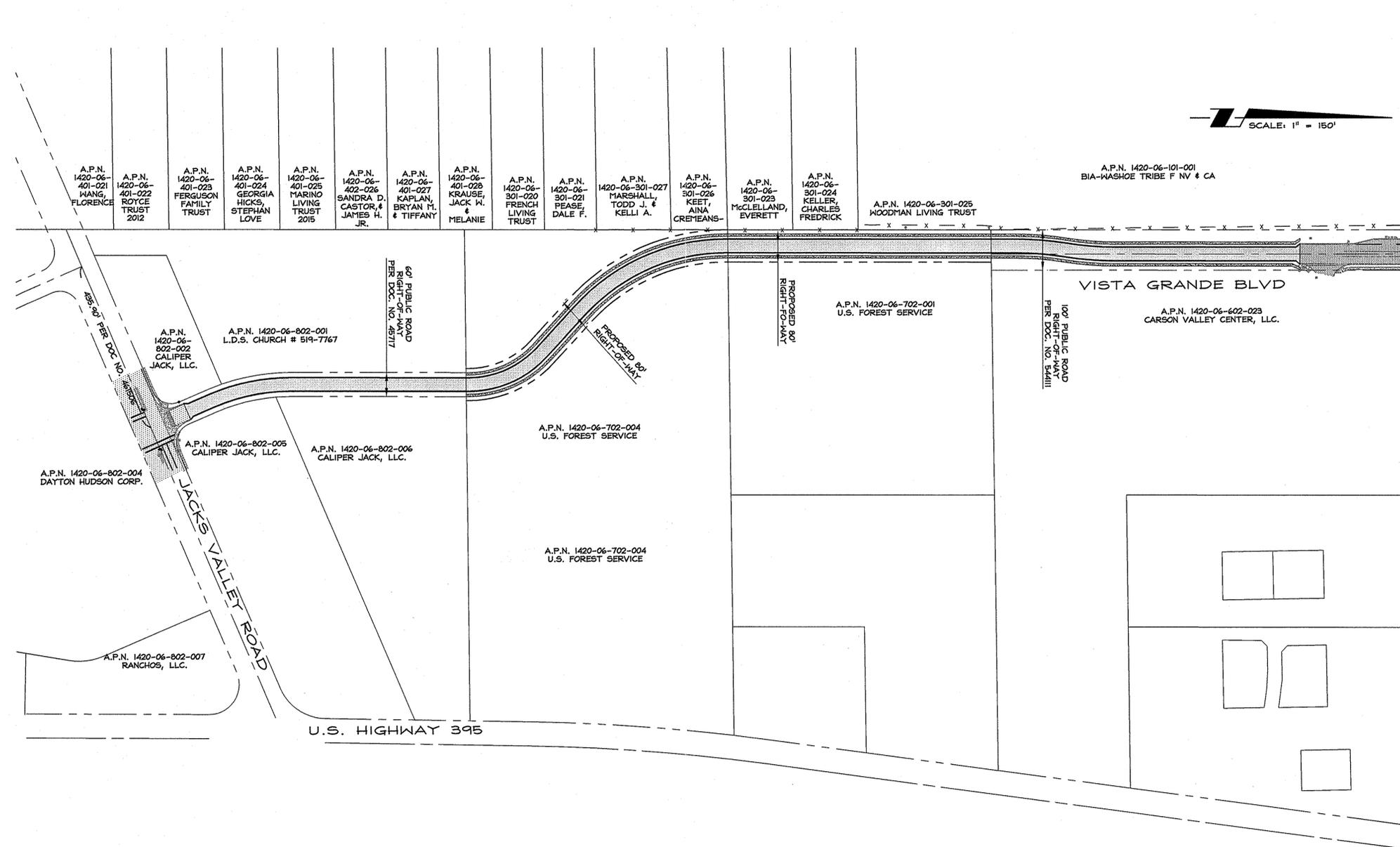


# IMPROVEMENT PLANS FOR VISTA GRANDE BOULEVARD (NORTH EXTENSION) DOUGLAS COUNTY, NEVADA



### PROJECT SUMMARY

A.P.N. 1420-06-702-001, 1420-06-702-004, 4120-06-602-023  
 OWNER: U.S. FOREST SERVICE & CARSON VALLEY CENTER, LLC  
 ENGINEER: R.O. ANDERSON ENGINEERING, INC.  
 P.O. BOX 2224  
 MINDEN, NEVADA 89423  
 (775) 782-2322

### SHEET INDEX

- C1 COVER SHEET
- C2 LEGEND, ABBREVIATIONS, AND NOTES
- C3 PLAN AND PROFILE STA. 0+00-12+00
- C4 PLAN AND PROFILE STA. 12+00-25+00
- C5 PLAN AND PROFILE STA. 25+00-32+00
- C6 DETAILS
- C7 DETAILS
- C8 DETAILS

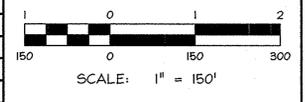
### APPROVALS

DOUGLAS COUNTY COMMUNITY DEVELOPMENT \_\_\_\_\_ DATE \_\_\_\_\_

**SITE PLAN**  
SCALE: 1" = 150'

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NO.	DATE	REVISION BLOCK	BY



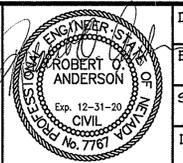
**R/O Anderson**  
WWW.ROANDERSON.COM

MINDEN 1609 Emeralds Ave P.O. Box 2224 Minden, NV 89423 P 775.782.2322 F 775.782.7064

RENO 140 N. Huffer Lane Suite 507 Reno, NV 89501 P 775.782.2322 F 775.782.7064

**VISTA GRANDE BOULEVARD (NORTH EXTENSION)**  
DOUGLAS COUNTY

**COVER SHEET**



DRAWN: MCR	JOB: 0110-019
ENGINEER: ROA	DRAWING: SEE PLOT STAMP
SCALE: NO SCALE	SHEET: C1
DATE: 01.25.2019	OF: 8 SHEETS



PRELIMINARY SITE IMPROVEMENT PLANS - 01.25.2019

SYMBOLS

Table with columns for EXISTING and PROPOSED symbols, listing various infrastructure elements like manholes, valves, and catch basins.

ABBREVIATIONS

Table listing abbreviations for various organizations (e.g., AASHTO, ANSI), materials (e.g., PVC, HDPE), and technical terms (e.g., CENTERLINE, SANITARY SEWER).

GENERAL NOTES

- 1. ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, DOUGLAS COUNTY, NEVADA, LATEST EDITION, ORANGE BOOK...
2. ALL WORK IS SUBJECT TO THE APPROVAL OF DOUGLAS COUNTY AND R.O. ANDERSON ENGINEERING, INC.
3. THE OWNER/CONTRACTOR SHALL OBTAIN A PERMIT FROM DOUGLAS COUNTY COMMUNITY DEVELOPMENT PRIOR TO THE START OF CONSTRUCTION.

UTILITIES (ALL)

- 1. ALL UTILITY WORK IS SUBJECT TO THE APPROVAL OF DOUGLAS COUNTY, THE TOWN OF MINDEN, TOWN OF MINDEN WATER, AND M.G.S.D., OR UTILITY COMPANY, AS APPLICABLE.
2. NO UTILITY BACKFILLING WILL BE ALLOWED UNTIL INSPECTED AND APPROVED BY THE GOVERNMENT AGENCY OR UTILITY AGENCIES...

WATER

- 1. ALL WATER SERVICE LATERALS BELOW SEWER OR STORM DRAIN LINES ARE TO BE POLYETHYLENE (PE) PIPE AND SHALL CONFORM TO STANDARD C901 AND ASTM D2737.
2. UNLESS OTHERWISE SPECIFIED, ALL WATERLINES SHALL BE PVC CLASS 235 MEETING THE REQUIREMENTS OF ANHA C900, NSF 61/372, AND SECTION 203.15 OF THE 'ORANGE BOOK'...

SEWER

- 1. ALL SEWER PIPE SHALL BE PVC SDR 35 AND GREEN IN COLOR.
2. SEWER SHALL BE CONSTRUCTED, INSPECTED, AND TESTED IN ACCORDANCE WITH THE ORDINANCES, POLICIES, SPECIFICATIONS, AND STANDARD DETAILS ADOPTED BY DOUGLAS COUNTY.
3. IF ANY SECTIONS OF EXISTING MANHOLES TO BE RAISED OR CONNECTED TO ARE FOUND TO BE DAMAGED PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY DOUGLAS COUNTY...

BASIS OF BEARING

N01°06'30"E -- THE WEST RIGHT OF WAY OF U.S. HIGHWAY 395 PER RECORD OF SURVEY TO SUPPORT A BOUNDARY LINE ADJUSTMENT FOR DGD DEVELOPMENT LTD. PARTNERSHIP, JOHN C. SERPA AND SYNCON HOMES. FILED FOR RECORD ON FEBRUARY 19, 1999 IN BOOK NO. 299 OF OFFICIAL RECORDS, AT PAGE 4014, DOCUMENT NO. 461506.

DATUM

VERTICAL DATUM FOR THIS PROJECT IS NAVD 88 BASED UPON NGS OPUS SOLUTION R. O. ANDERSON POINT NO. 1, ELEVATION = 4922.27'

NOTES

THE BOUNDARY SHOWN HEREON IS PER THE AMENDED RECORD OF SURVEY FOR DOUGLAS COUNTY #32 MAP, FILED FOR RECORD JULY 11, 2000, IN BOOK 0700 OF OFFICIAL RECORDS, AT PAGE 1320, AS DOCUMENT NO. 495561, AND A RECORD OF SURVEY IN SUPPORT OF A BOUNDARY LINE ADJUSTMENT BY AIG BAKER CARSON VALLEY, LLC FILED FOR RECORD APRIL 3, 2003 IN BOOK 0403 OF OFFICIAL RECORDS, AT PAGE 1471, AS DOCUMENT NO. 572306.

NO REVIEW OF A TITLE REPORT WAS COMPLETED AS PART OF THIS SURVEY AND THE MAP MAY NOT REFLECT ALL EASEMENTS OF RECORD.



ONCE THE PROJECT IS COMPLETED, THE ENGINEER WILL PROVIDE RECORD DRAWINGS TO THE COUNTY. RECORD DRAWINGS WILL BE SUBMITTED TO THE COUNTY PRIOR TO THE ISSUANCE OF A NOTICE OF COMPLETION.

LINE TYPES

Table showing line types for EXISTING and PROPOSED conditions, including Building Envelope, Centerline of Right-of-Way, Major/Minor Contour, Easement, EP and/or Lip of Gutter, Flow Line, Gas Line, Overhead/Underground Power, Sanitary Sewer Main, Storm Drain, Water Main, Right-of-Way, and Silt Fence.

Table with columns for NO., DATE, REVISION BLOCK, and BY, used for tracking drawing changes.



MINDEN 1603 Emeralds Ave P.O. Box 2224 Minden, NV 89423 P 775.782.2322 F 775.782.7064

VISTA GRANDE BOULEVARD (NORTH EXTENSION) DOUGLAS COUNTY

LEGEND, ABBREVIATIONS, AND NOTES

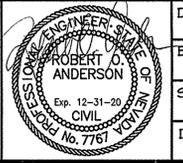


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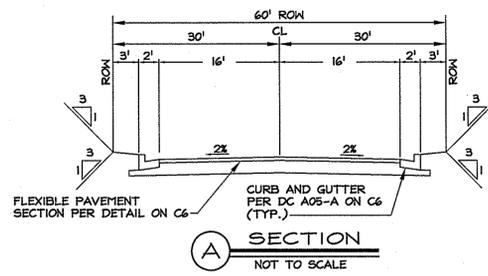
PRELIMINARY SITE IMPROVEMENT PLANS - 01.25.2019

**GENERAL NOTES**

- A. SEWER PIPE LENGTHS ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- B. WATER MAINS AND TRENCH SHALL BE CONSTRUCTED PER DC B01 AND DC B21 ON C7.
- C. SEWER MAINS AND TRENCH SHALL BE CONSTRUCTED PER DC C01 ON C8.
- D. THRUST BLOCKS SHALL BE INSTALLED ON THE WATER MAIN AT ALL TEES, HORIZONTAL AND VERTICAL BENDS PER DETAIL DC B12 ON C7.
- E. ALL SEWER MANHOLES SHALL BE PER DC C03 ON C8.
- F. EXISTING UTILITIES ARE SHOWN AS APPROXIMATE AND CONTRACTOR SHALL POT-HOLE AND VERIFY ACTUAL LOCATION PRIOR TO CONSTRUCTION. REPORT ANY DISCREPANCIES AND CONFLICTS TO ENGINEER FOR RESOLUTION.
- G. FIRE HYDRANT ASSEMBLY PER DETAIL DC B14 ON C7. PAINT CURB RED TO 3 FT. EACH SIDE FROM CENTER OF HYDRANT.
- H. GATE VALVE PER DETAIL DC B10 WITH VALVE BOX PER DETAIL DC B11 ON C7.

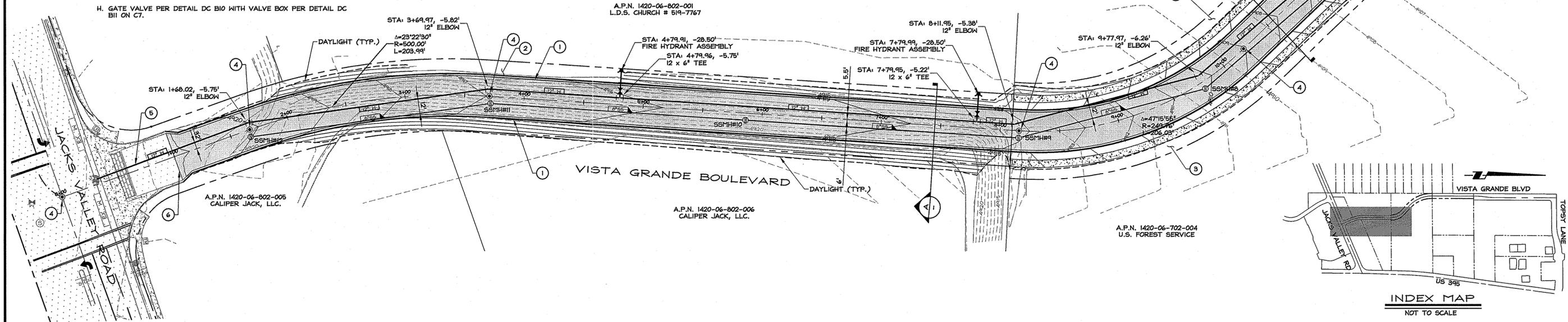
**CONSTRUCTION NOTES**

- ①-TYPE I P.C.C. CURB AND GUTTER PER DETAIL DC A05-A ON C6.
- ②-FLEXIBLE PAVEMENT SECTION PER DETAIL ON C6.
- ③-TYPICAL SIDEWALK PER DETAIL DC A06 ON C6.
- ④-MONUMENT PER DETAIL DC A12 ON C6.
- ⑤-STREET CUT REPAIR PER DETAIL DC A14 ON C6.
- ⑥-SAWCUT, TRIM, TACK, AND MATCH EXISTING PAVEMENT.

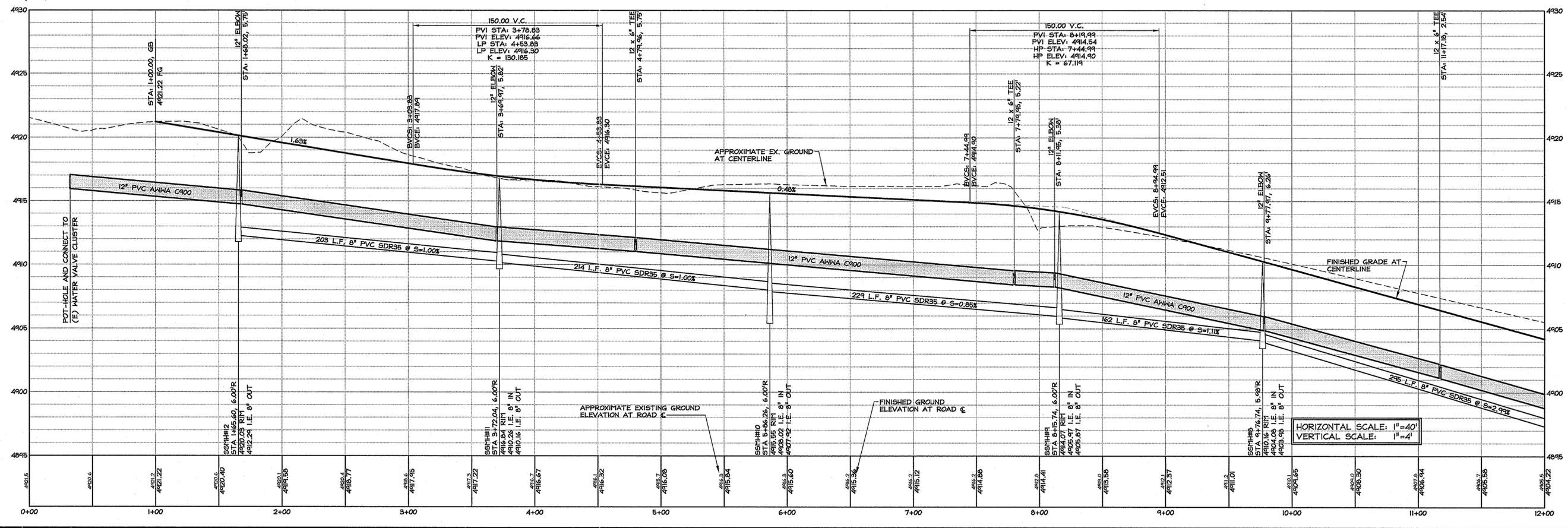


A.P.N. 1420-06-702-004  
U.S. FOREST SERVICE

SCALE: 1" = 40'



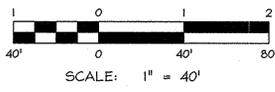
**INDEX MAP**  
NOT TO SCALE



HORIZONTAL SCALE: 1"=40'  
VERTICAL SCALE: 1"=4'

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NO.	DATE	REVISION BLOCK	BY



**R/O Anderson**  
R.O. ANDERSON  
1603 Everet Road  
P.O. Box 2322  
Trenton, NJ 08643  
P 775.782.2322  
F 775.782.7084

**VISTA GRANDE BOULEVARD (NORTH EXTENSION)**  
DOUGLAS COUNTY

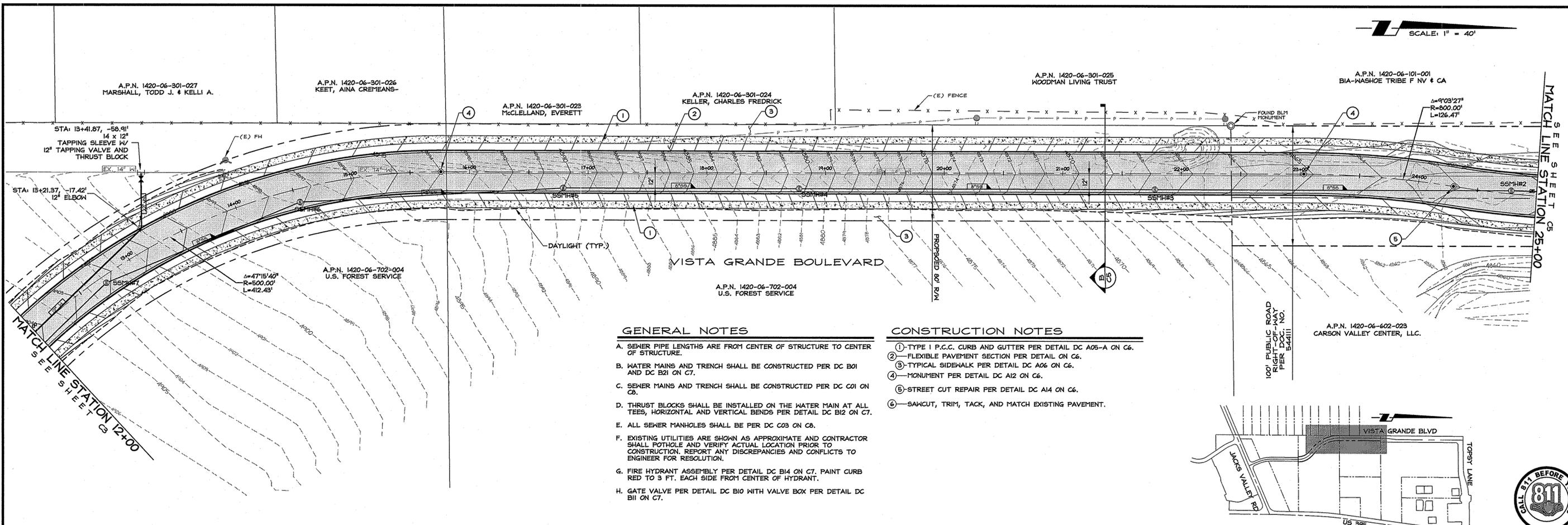
**PLAN AND PROFILE**  
STA. 0+00 TO 12+00

**811 CALL BEFORE YOU DIG**

**ROBERT O. ANDERSON**  
REGISTERED PROFESSIONAL ENGINEER  
No. 7767

DRAWN:	MCR	JOB:	0110-019
ENGINEER:	ROA	DRAWING:	SEE PLOT STAMP
SCALE:	1"=40'	SHEET:	C3
DATE:	01.25.2019	OF:	8 SHEETS

PRELIMINARY SITE IMPROVEMENT PLANS - 01.25.2019

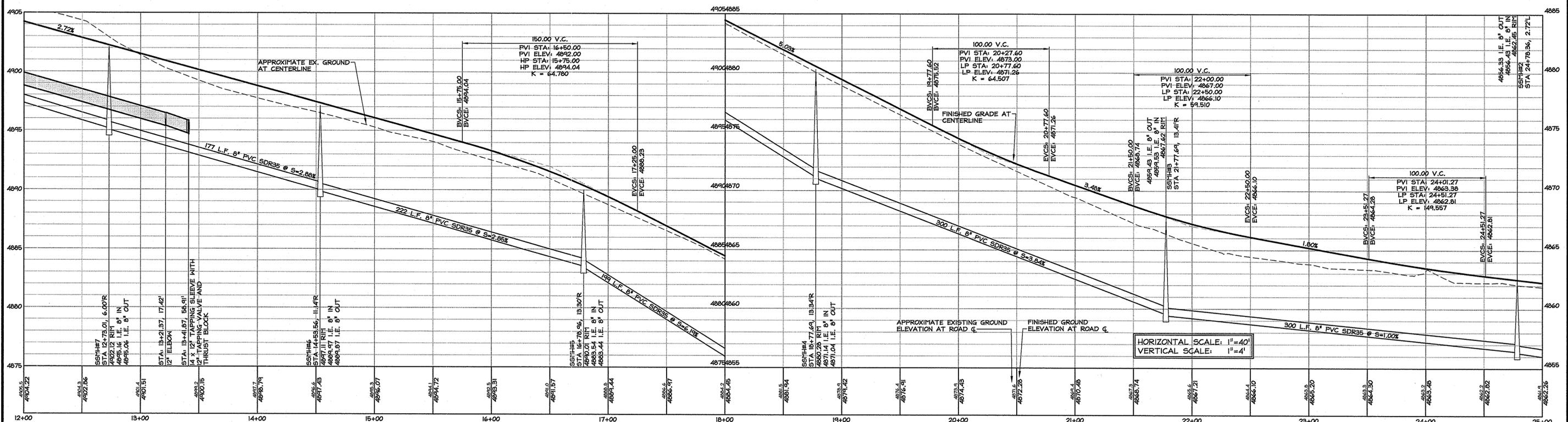
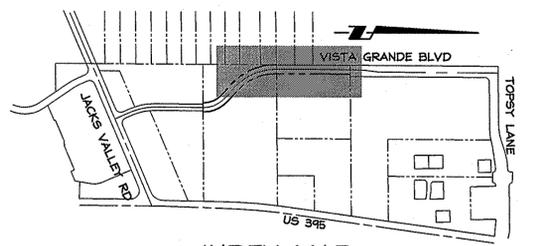


**GENERAL NOTES**

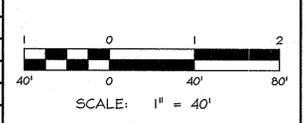
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**CONSTRUCTION NOTES**

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NO.	DATE	REVISION	BLOCK	BY



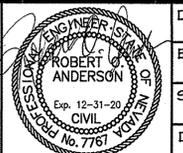
**RO Anderson**  
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RENO  
1605 Emerald Ave  
P.O. Box 2291  
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P 775.782.2322  
F 775.782.7084

RENO  
140 W. Huffaker Lane  
Suite 507  
Reno, NV 89511  
P 775.789.2332  
F 775.782.7084

**VISTA GRANDE BOULEVARD (NORTH EXTENSION)**  
DOUGLAS COUNTY

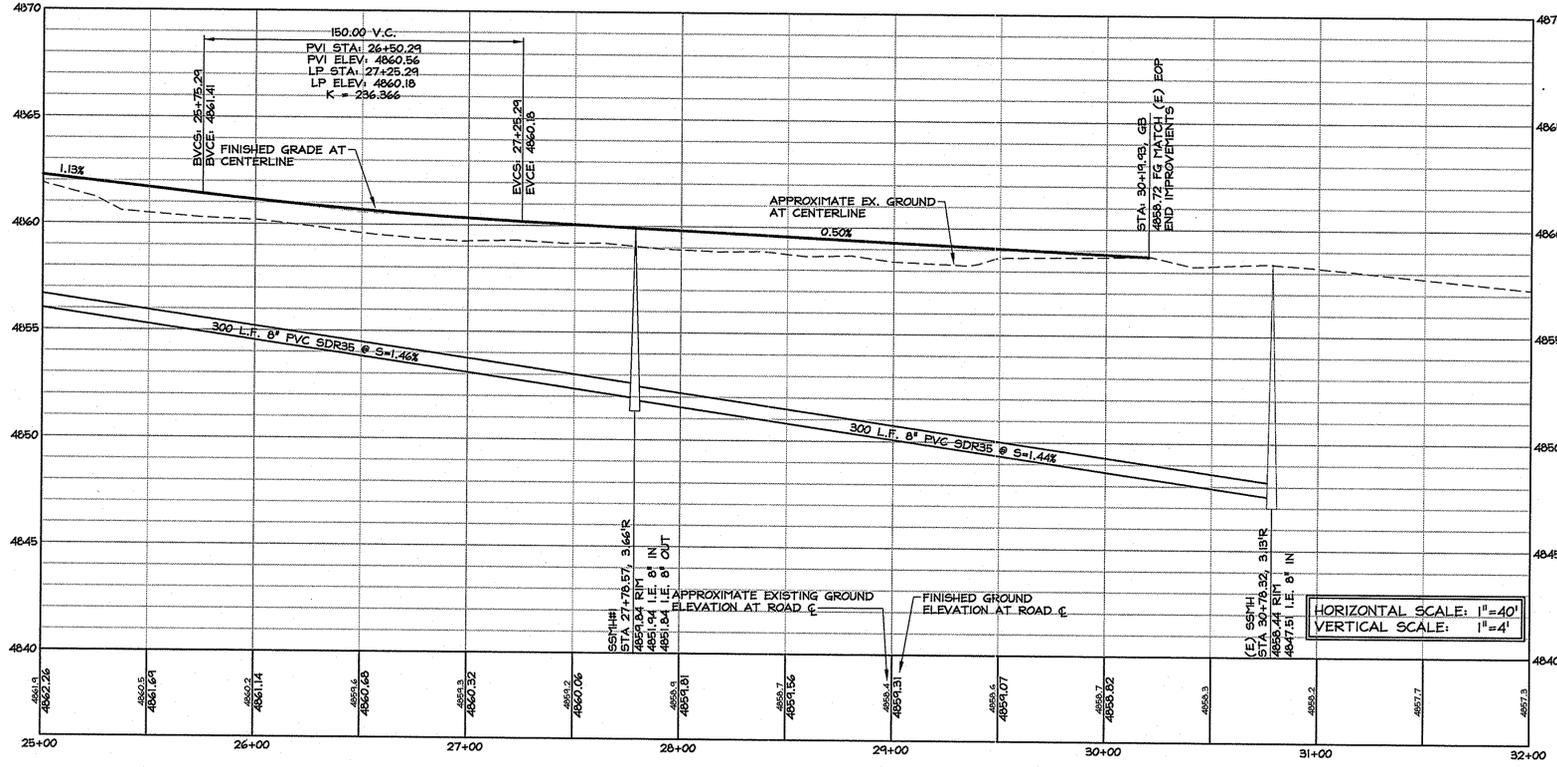
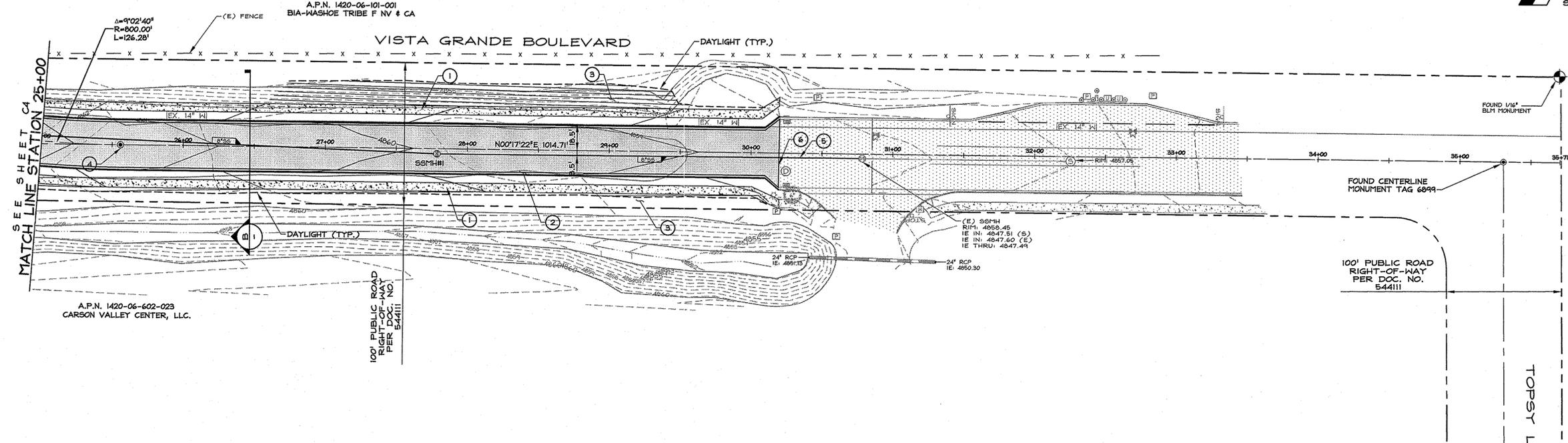
**PLAN AND PROFILE**  
STA. 12+00 TO 25+00



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ENGINEER: ROA	DRAWING: SEE PLOT STAMP
SCALE: 1"=40'	SHEET: C4
DATE: 01.25.2019	OF: 8 SHEETS

PRELIMINARY SITE IMPROVEMENT PLANS - 01.25.2019

SCALE: 1" = 40'

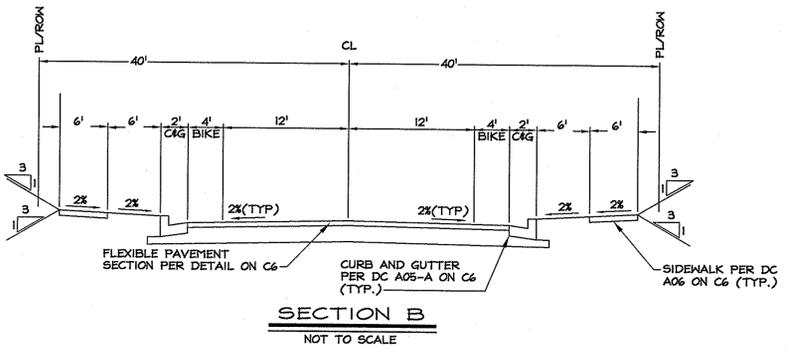
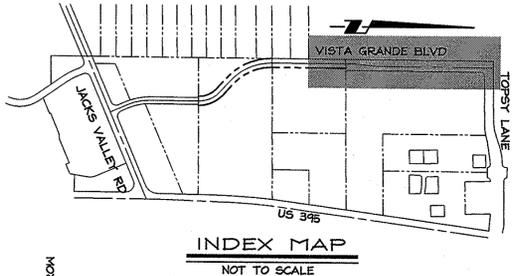


**GENERAL NOTES**

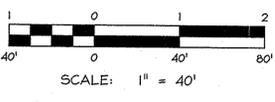
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- ⑥-SAWCUT, TRIM, TACK, AND MATCH EXISTING PAVEMENT.



NO.	DATE	REVISION	BLOCK	BY



**R/O Anderson**  
WWW.ROANDERSON.COM

HINDEN 1403 Emeralds Ave Suite 507  
 P.O. Box 2291  
 Minden, NV 89423  
 P 775.782.2322  
 F 775.782.7084

RENO 140 W. Huffer Lane Suite 507  
 Reno, NV 89511  
 P 775.782.2322  
 F 775.782.7084

**VISTA GRANDE BOULEVARD (NORTH EXTENSION)**  
**DOUGLAS COUNTY**

**PLAN AND PROFILE**  
**STA. 25+00 TO 32+00**

Professional Engineer Seal for Robert O. Anderson, State of Nevada, License No. 7767, Exp. 12-31-2019.

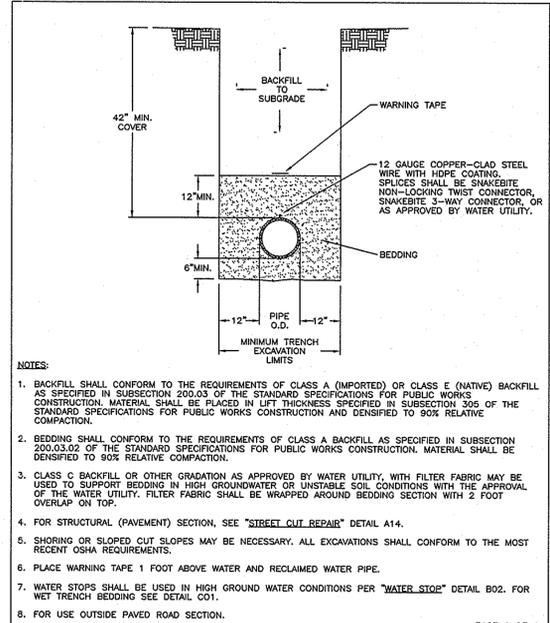
DRAWN: MCR	JOB: 0110-019
ENGINEER: ROA	DRAWING: SEE PLOT STAMP
SCALE: 1"=40'	SHEET: C5
DATE: 01.25.2019	OF: 8 SHEETS



PRELIMINARY SITE IMPROVEMENT PLANS - 01.25.2019



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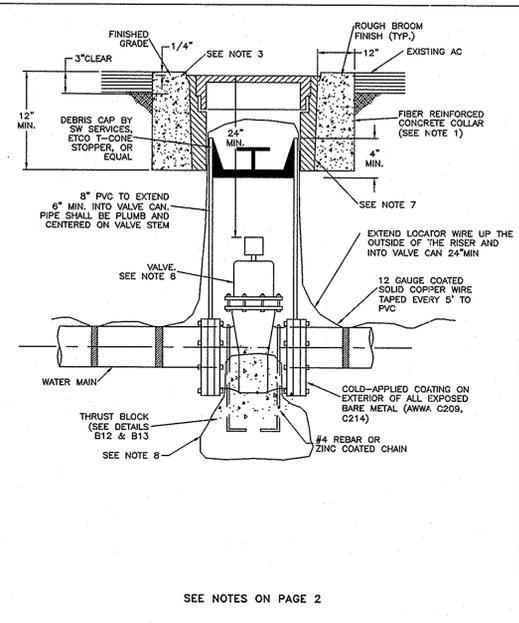


**NOTES:**

- BACKFILL SHALL CONFORM TO THE REQUIREMENTS OF CLASS A (IMPORTED) OR CLASS E (NATIVE) BACKFILL AS SPECIFIED IN SUBSECTION 200.03 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. MATERIAL SHALL BE PLACED IN LIFT THICKNESS SPECIFIED IN SUBSECTION 205 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND DENSIFIED TO 90% RELATIVE COMPACTION.
- BEDDING SHALL CONFORM TO THE REQUIREMENTS OF CLASS A BACKFILL AS SPECIFIED IN SUBSECTION 200.03.02 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION. MATERIAL SHALL BE DENSIFIED TO 90% RELATIVE COMPACTION.
- CLASS C BACKFILL OR OTHER GRADATION AS APPROVED BY WATER UTILITY, WITH FILTER FABRIC MAY BE USED TO SUPPORT BEDDING IN HIGH GROUNDWATER OR UNSTABLE SOIL CONDITIONS WITH THE APPROVAL OF THE WATER UTILITY. FILTER FABRIC SHALL BE WRAPPED AROUND BEDDING SECTION WITH 2 FOOT OVERLAP ON TOP.
- FOR STRUCTURAL (PAVEMENT) SECTION, SEE "STREET CUT REPAIR" DETAIL A14.
- SHORING OR SLOPED CUT SLOPES MAY BE NECESSARY. ALL EXCAVATIONS SHALL CONFORM TO THE MOST RECENT OSHA REQUIREMENTS.
- PLACE WARNING TAPE 1 FOOT ABOVE WATER AND RECLAIMED WATER PIPE.
- WATER STOPS SHALL BE USED IN HIGH GROUND WATER CONDITIONS PER "WATER STOP" DETAIL B02. FOR WET TRENCH BEDDING SEE DETAIL C01.
- FOR USE OUTSIDE PAVED ROAD SECTION.

PAGE 1 OF 1

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION: DOUGLAS COUNTY
			<b>TRENCH EXCAVATION &amp; BACKFILL</b>	DATE: JULY 2017 DWG: B01

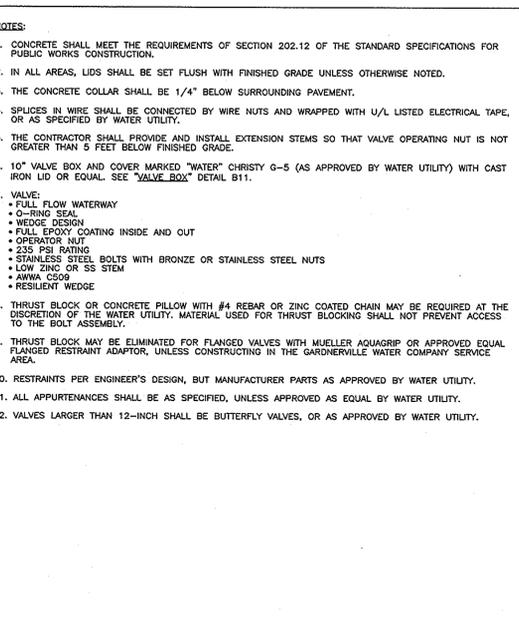


**NOTES:**

- CONCRETE SHALL MEET THE REQUIREMENTS OF SECTION 202.12 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- IN ALL AREAS, LIDS SHALL BE SET FLUSH WITH FINISHED GRADE UNLESS OTHERWISE NOTED.
- THE CONCRETE COLLAR SHALL BE 1/4" BELOW SURROUNDING PAVEMENT.
- SPLICES IN WIRE SHALL BE CONNECTED BY WIRE NUTS AND WRAPPED WITH U/L LISTED ELECTRICAL TAPE, OR AS SPECIFIED BY WATER UTILITY.
- THE CONTRACTOR SHALL PROVIDE AND INSTALL EXTENSION STEMS SO THAT VALVE OPERATING NUT IS NOT GREATER THAN 5 FEET BELOW FINISHED GRADE.
- 10" VALVE BOX AND COVER MARKED "WATER" CHRISTY G-5 (AS APPROVED BY WATER UTILITY) WITH CAST IRON LID OR EQUAL. SEE "VALVE BOX" DETAIL B11.
- VALVE:
  - FULL FLOW WATERWAY
  - O-RING SEAL
  - WEDGE DESIGN
  - FULL EPOXY COATING INSIDE AND OUT
  - OPERATOR NUT
  - 255 PSI RATING
  - STAINLESS STEEL BOLTS WITH BRONZE OR STAINLESS STEEL NUTS
  - LOW ZINC OR SS STEM
  - AWWA C509
  - RESILIENT WEDGE
- THRUST BLOCK OR CONCRETE PILLOW WITH #4 REBAR OR ZINC COATED CHAIN MAY BE REQUIRED AT THE DISCRETION OF THE WATER UTILITY. MATERIAL USED FOR THRUST BLOCKING SHALL NOT PREVENT ACCESS TO THE BOLT ASSEMBLY.
- THRUST BLOCK MAY BE ELIMINATED FOR FLANGED VALVES WITH MUELLER AQUAGRIP OR APPROVED EQUAL FLANGED RESTRAINT ADAPTOR, UNLESS CONSTRUCTING IN THE GARDENVILLE WATER COMPANY SERVICE AREA.
- RESTRAINTS PER ENGINEER'S DESIGN, BUT MANUFACTURER PARTS AS APPROVED BY WATER UTILITY.
- ALL APPURTENANCES SHALL BE AS SPECIFIED, UNLESS APPROVED AS EQUAL BY WATER UTILITY.
- VALVES LARGER THAN 12-INCH SHALL BE BUTTERFLY VALVES, OR AS APPROVED BY WATER UTILITY.

PAGE 2 OF 2

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION: DOUGLAS COUNTY
			<b>VALVE</b>	DATE: JULY 2017 DWG: B10

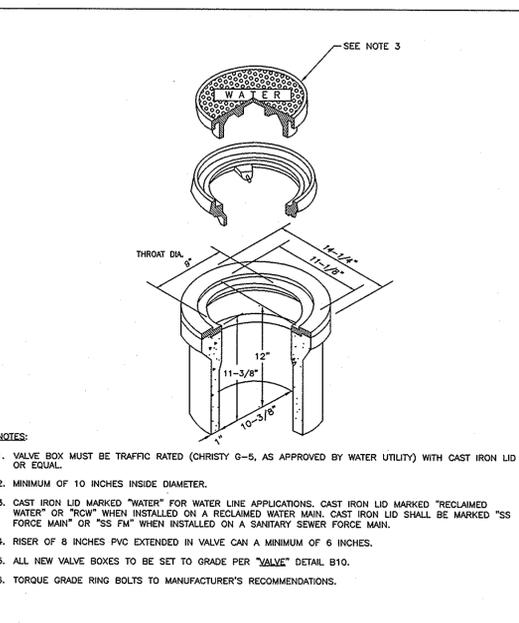


**NOTES:**

- VALVE BOX MUST BE TRAFFIC RATED (CHRISTY G-5, AS APPROVED BY WATER UTILITY) WITH CAST IRON LID OR EQUAL.
- MINIMUM OF 10 INCHES INSIDE DIAMETER.
- CAST IRON LID MARKED "WATER" FOR WATER LINE APPLICATIONS. CAST IRON LID MARKED "RECLAIMED WATER" OR "RW" WHEN INSTALLED ON A RECLAIMED WATER MAIN. CAST IRON LID SHALL BE MARKED "SS FORCE MAIN" OR "SS FM" WHEN INSTALLED ON A SANITARY SEWER FORCE MAIN.
- RISER OF 8 INCHES PVC EXTENDED IN VALVE CAN A MINIMUM OF 6 INCHES.
- ALL NEW VALVE BOXES TO BE SET TO GRADE PER "VALVE" DETAIL B10.
- TORQUE GRADE RING BOLTS TO MANUFACTURER'S RECOMMENDATIONS.

PAGE 1 OF 1

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION: DOUGLAS COUNTY
			<b>VALVE BOX</b>	DATE: JULY 2017 DWG: B11



**NOTES:**

- CONCRETE FOR THRUST BLOCKS SHALL CONFORM TO SECTION 337.10 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
- THRUST BLOCKS SHALL BE PLACED AGAINST UNDISTURBED SOIL.
- JOINTS AND FACE OF PLUGS SHALL BE KEPT CLEAR OF CONCRETE.
- THRUST BLOCK BEARING AREAS ARE FOR A 160 PSI TEST PRESSURE WITH 2000 PSF BEARING CAPACITY. NOMINAL PIPE DIAMETER, AND A FACTOR OF SAFETY OF 1.5 INSTALLATIONS USING DIFFERENT TEST PRESSURES, AND/OR SOIL TYPES SHALL BE ADJUSTED BY THE DESIGN ENGINEER.
- ALL JOINTS SHALL BE POLYWRAPPED (VORON POLYETHYLENE, 8 MILS THICK).

PAGE 1 OF 1

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION: DOUGLAS COUNTY
			<b>THRUST BLOCKS</b>	DATE: JULY 2017 DWG: B12

Type of Fitting	90° Bend	45° Bend	11.25° or 22.5° Bend
Typical Installation			
Type of Fitting	Tee or Dead End	Cross w/Plug	Tee w/Plug
Typical Installation			

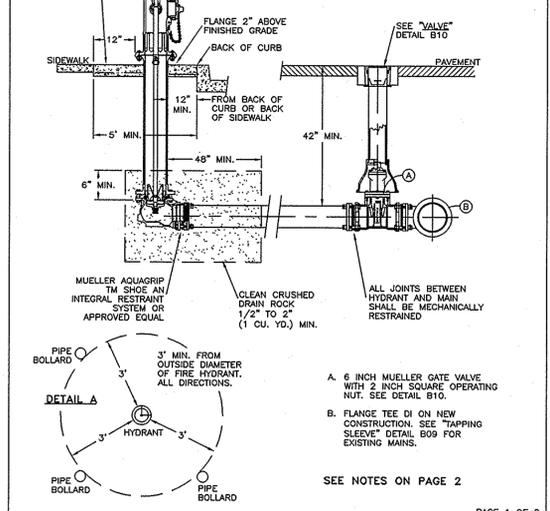
  

Minimum Thrust Block Bearing Area - Square Feet (Y x W)				
Type of Fitting	90° Bend, Cross	45° Bend	11.25° or 22.5° Bend	Tee or Tee w/Plug
4"	2	1	1	2
6"	5	3	2	4
8"	8	5	3	6
10"	13	7	4	9
12"	18	10	5	13
14"	25	13	7	17
16"	32	17	9	23

**NOTES:**

- CONCRETE FOR THRUST BLOCKS SHALL CONFORM TO SECTION 337.10 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS.
- THRUST BLOCKS SHALL BE PLACED AGAINST UNDISTURBED SOIL.
- JOINTS AND FACE OF PLUGS SHALL BE KEPT CLEAR OF CONCRETE.
- THRUST BLOCK BEARING AREAS ARE FOR A 160 PSI TEST PRESSURE WITH 2000 PSF BEARING CAPACITY. NOMINAL PIPE DIAMETER, AND A FACTOR OF SAFETY OF 1.5 INSTALLATIONS USING DIFFERENT TEST PRESSURES, AND/OR SOIL TYPES SHALL BE ADJUSTED BY THE DESIGN ENGINEER.
- ALL JOINTS SHALL BE POLYWRAPPED (VORON POLYETHYLENE, 8 MILS THICK).

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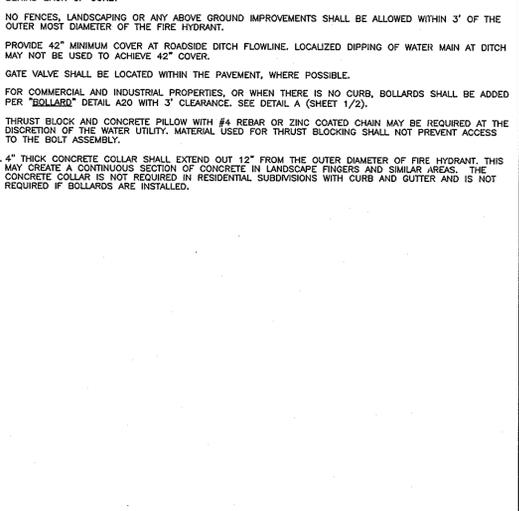


**NOTES:**

- HYDRANT COLOR SHALL BE AS APPROVED BY THE APPLICABLE FIRE DISTRICT.
- OPERATING NUT SHALL BE 1-1/2" PENTAGON.
- INSPECTION BY WATER UTILITY SHALL BE REQUIRED PRIOR TO BACKFILLING.
- IN RESIDENTIAL AREAS, IF SIDEWALK NOT PRESENT, SET HYDRANT SO THAT OPERATING NUT IS 3'-6" BEHIND BACK OF CURB.
- NO FENCES, LANDSCAPING OR ANY ABOVE GROUND IMPROVEMENTS SHALL BE ALLOWED WITHIN 3' OF THE OUTER MOST DIAMETER OF THE FIRE HYDRANT.
- PROVIDE 42" MINIMUM COVER AT ROADSIDE DITCH FLOWLINE. LOCALIZED DIPPING OF WATER MAIN AT DITCH MAY NOT BE USED TO ACHIEVE 42" COVER.
- GATE VALVE SHALL BE LOCATED WITHIN THE PAVEMENT, WHERE POSSIBLE.
- FOR COMMERCIAL AND INDUSTRIAL PROPERTIES, OR WHEN THERE IS NO CURB, BOLLARDS SHALL BE ADDED PER "BOLLARD" DETAIL A20 WITH 3' CLEARANCE. SEE DETAIL A (SHEET 1/2).
- THRUST BLOCK AND CONCRETE PILLOW WITH #4 REBAR OR ZINC COATED CHAIN MAY BE REQUIRED AT THE DISCRETION OF THE WATER UTILITY. MATERIAL USED FOR THRUST BLOCKING SHALL NOT PREVENT ACCESS TO THE BOLT ASSEMBLY.
- 4" THICK CONCRETE COLLAR SHALL EXTEND OUT 12" FROM THE OUTER DIAMETER OF FIRE HYDRANT. THIS MAY CREATE A CONTINUOUS SECTION OF CONCRETE IN LANDSCAPE FINISHERS AND SIMILAR AREAS. THE CONCRETE COLLAR IS NOT REQUIRED IN RESIDENTIAL SUBDIVISIONS WITH CURB AND GUTTER AND IS NOT REQUIRED IF BOLLARDS ARE INSTALLED.

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NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION: DOUGLAS COUNTY
			<b>FIRE HYDRANT ASSEMBLY</b>	DATE: JULY 2017 DWG: B14



**WATER UTILITY GENERAL NOTES:**

- ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AS ADOPTED BY DOUGLAS COUNTY. THE OWNER / CONTRACTOR SHALL OBTAIN A PERMIT FROM DOUGLAS COUNTY COMMUNITY DEVELOPMENT PRIOR TO THE START OF CONSTRUCTION.
- ALL TRAFFIC CONTROL AND BARRICADING WITHIN THE PUBLIC RIGHT-OF-WAY SHALL CONFORM TO PART VI OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THE NEHA WORK ZONE TRAFFIC CONTROL HANDBOOK, 1986 EDITION. NO STREET CLOSURES WILL BE ALLOWED WITHOUT PRIOR WRITTEN APPROVAL OF A TRAFFIC CONTROL PLAN BY THE DOUGLAS COUNTY ENGINEERING DIVISION.
- THE OWNER / CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT "CALL BEFORE YOU DIG" 1-800-227-2600 FORTY-EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION. AN UNDERGROUND SERVICE ALERT MAY ALSO BE LOGGED AT WWW.JSNORTH.ORG.
- THE OWNER / CONTRACTOR SHALL CALL DOUGLAS COUNTY ENGINEERING DIVISION (782-6237) FORTY-EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION. THE OWNER / CONTRACTOR SHALL CALL TWENTY-FOUR (24) HOURS PRIOR TO REQUIRED INSPECTIONS AND TESTING. THE REQUIRED INSPECTIONS AND TESTS ARE LISTED ON THE INSPECTION RECORD ISSUED WITH EACH PERMIT. THE OWNER / CONTRACTOR MUST HAVE THE PERMIT NUMBER AND THE DESCRIPTION LISTED ON THE INSPECTION RECORD TO SCHEDULE REQUIRED INSPECTIONS AND TESTING.
- THE APPROVED PLAN, PERMIT AND INSPECTION RECORD MUST BE ON THE JOB SITE AT ALL TIMES.
- WATER MAIN SHUTDOWNS / INTERRUPTION OF SERVICE: WATER UTILITY APPROVAL IS REQUIRED. FORTY-EIGHT (48) HOURS PRIOR TO NOTIFICATION OF CUSTOMERS. COMMERCIAL AND RESIDENTIAL CUSTOMERS SHALL BOTH RECEIVE FORTY-EIGHT (48) HOURS WRITTEN NOTICE OF A SHUTDOWN, AND SPECIAL ARRANGEMENTS MAY HAVE TO BE MADE TO ACCOMMODATE CUSTOMERS OPERATIONAL NEEDS. THE WATER UTILITY IS RESPONSIBLE FOR THE NOTIFICATION WHEN WORK IS PERFORMED BY THE WATER UTILITY. THE CONTRACTOR IS RESPONSIBLE FOR THE NOTIFICATION WHEN WORK IS PERFORMED BY THE RESPONSIBLE PARTY LISTING THE DATE, TIME, AND ADDRESS OF ALL PERSONS NOTIFIED. THE CONTRACTOR SHALL BE INCLUDED ON THE LIST FOR ALL COMMERCIAL CUSTOMERS. THE CONTRACTOR WILL BE SUBJECT TO DAMAGE CLAIMS SHOULD THEY FAIL TO NOTIFY CUSTOMERS OR MAINTAIN DOCUMENTATION OF NOTIFICATION OF CUSTOMERS. THE CONTRACTOR SHALL NOT OPERATE ANY EXISTING WATER VALVES WITHOUT AUTHORIZATION OF THE WATER UTILITY.
- ALL WATER MAINS SHALL BE C900, DUCTILE IRON, AS SPECIFIED ON THE PLANS OR AS APPROVED BY THE WATER UTILITY. ALL WATER SERVICES 2" OR LESS SHALL BE IPS, PE PIPE (AWWA STANDARD C901); SERVICES 3" OR GREATER SHALL BE CLASS 150 C900 PVC OR AS SPECIFIED ON THE PLANS.
- LINE SEPARATION MUST MEET THE PROVISIONS OF NAC 445A.6715 THROUGH 445A.6718 IN ITS ENTIRETY, NDEP'S VERTICAL CROSSING SUMMARY, AND BE APPROVED BY STATE AND WATER UTILITY.
- ALL HOT TAPS ARE TO BE PERFORMED BY A LICENSED CONTRACTOR APPROVED BY THE WATER UTILITY. THE CONTRACTOR SHALL CONTACT THE WATER UTILITY AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO SCHEDULING HOT TAP DATE AND TIME.
- WATER VALVE MARKERS SHALL BE BLUE CARSONITE UTILITY MARKER (CRM-3086), 5"-2" WITH WATER UTILITY'S DECAL OR APPROVED EQUAL. PLACE MARKER NO MORE THAN FIVE (5) FEET FROM THE VALVE OR AS DIRECTED BY THE WATER UTILITY.
- ALL WATER MAIN AND WATER SERVICE INSPECTIONS MUST BE COMPLETED PRIOR TO ANY CERTIFICATE OF OCCUPANCY OR NOTICE OF COMPLETION BY THE WATER UTILITY ACCEPTING IMPROVEMENTS.

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NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION: DOUGLAS COUNTY
			<b>FIRE HYDRANT ASSEMBLY</b>	DATE: JULY 2017 DWG: B14
			<b>WATER UTILITY GENERAL NOTES</b>	DATE: JULY 2017 DWG: B21

NO.	DATE	REVISION BLOCK	BY

**R/O Anderson**  
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**VISTA GRANDE BOULEVARD (NORTH EXTENSION)**

**DOUGLAS COUNTY**

**DETAILS**

DRAWN: MCR  
ENGINEER: ROA  
SCALE: NO SCALE  
DATE: 01.25.2019

JOB: 0110-019  
DRAWING: DETAILS  
SHEET: C7  
OF: 8 SHEETS

**PROFESSIONAL ENGINEER**

ROBERT D. ANDERSON  
CIVIL  
No. 7761

Exp. 12-31-20



PRELIMINARY SITE IMPROVEMENT PLANS - 01.25.2019

