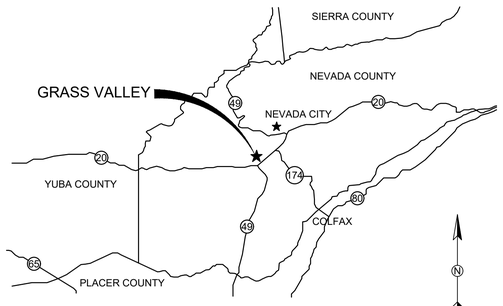
CITY OF GRASS VALLEY

ENGINEERING DIVISION

IMPROVEMENT PLANS FOR

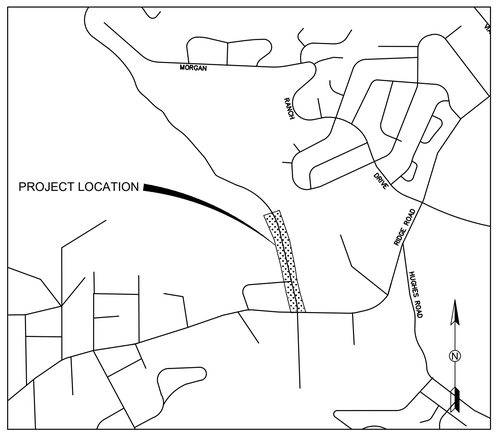
SLATE CREEK ROAD IMPROVEMENTS PROJECT

PROJECT NO. 21-04



VICINITY MAP

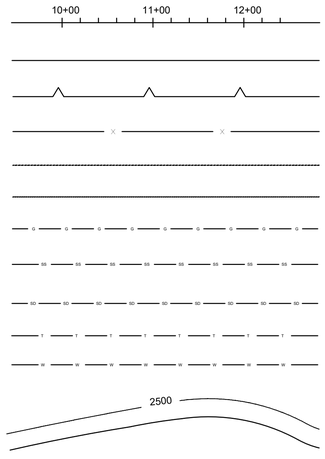
NO SCALE



LOCATION MAP

NO SCALE

CONSTRUCTION LEGEND:



STATION LINE

(E) CURB; DIKE; DRIVEWAY

(E) WALL

(E) FENCE

LOT/ROW LINE

EASEMENT LINE

(E) GAS

(E) SEWER AND SIZE

(E) STORM DRAIN AND SIZE

(E) TELEPHONE

(E) WATER

(P) WATER

(E) CONTOUR LINES

DRAINAGE INLET

FIRE HYDRANT

WATER METER BOX

MANHOLE (SS, SD, TEL, ELEC)

VALVE (GAS, TEL, ARV, WTR)

GUY POLE

GUY WIRE

LIGHT POST

POLE

SINGLE POLE SIGN

MAILBOX

TREE

BENCHMARK

AC=100.00
TC= 100.00

(P) SPOT ELEVATION

A1
GV-1

DENOTES STD PLAN NO/DETAIL NO

1

CONSTRUCTION KEYNOTE

SHEET INDEX:

ABBREVIATIONS:

AB	AGGREGATE BASE	PCC	PORTLAND CEMENT CONCRETE
AC	ASPHALT CONCRETE	ℙ	PROPERTY LINE
C&G	CURB AND GUTTER	(P)	PROPOSED
CF	CUBIC FOOT	PSI	POUNDS PER SQUARE INCH
℄	CENTERLINE	PUE	PUBLIC UTILITY EASEMENT
CY	CUBIC YARD	PVC	POLYVINYL CHLORIDE
E	ELECTRIC	PVMT	PAVEMENT
(E)	EXISTING	R	RADIUS
ELEV	ELEVATION	RCP	REINFORCED CONCRETE PIPE
EP	EDGE OF PAVEMENT	RW	RETAINING WALL
FL	FLOW LINE	ROW	RIGHT OF WAY
FT	FEET	SD	STORM DRAIN
FTG	FOOTING	SF	SQUARE FOOT
G	GAS	SY	SQUARE YARD
ID	INSIDE DIAMETER	ST	STREET
IE	INVERT ELEVATION	STA	STATION
L	LEFT	STD	STANDARD
LF	LINEAR FOOT	SW	SIDEWALK
MAX	MAXIMUM	SS	SANITARY SEWER
MH	MANHOLE	TBC	TOP BACK OF CURB
MIN	MINIMUM	TBW	TOP BACK OF WALK
MISC	MISCELLANEOUS	TFC	TOP FACE OF CURB
NO	NUMBER	TC	TOP OF CURB
NTS	NOT TO SCALE	TP	TELEPHONE POLE
OD	OUTSIDE DIAMETER	TS	TRAFFIC SIGNAL
		TYP	TYPICAL

UTILITY/EMERGENCY CONTACTS:

SEWER/ STORM DRAIN:	CITY OF GRASS VALLEY 125 E MAIN ST GRASS VALLEY, CA 95945	530-274-4350
FIRE PROTECTION:	CITY OF GRASS VALLEY 125 E MAIN ST GRASS VALLEY, CA 95945	530-274-4370
ELECTRICITY/GAS:	PG&E 788 TAYLORVILLE RD GRASS VALLEY, CA 95945	530-477-3260
TELEVISION:	COMCAST 427 EATON RD CHICO, CA 95973	530-206-6172
PHONE:	AT&T 12824 EARHART DRIVE AUBURN, CA 95602	530-888-2031
WATER:	NID 1036 W MAIN ST, GRASS VALLEY, CA 95945	530-273-6185

CALL BEFORE YOU DIG

THE CONTRACTOR SHALL CALL "UNDERGROUND SERVICE ALERT" (USA) AT 1-800-227-2600 AT LEAST TWO WORKING DAYS PRIOR TO PERFORMING EXCAVATION.

NOTES:

1. THE CONTRACTOR SHALL POSSESS A VALID CALIFORNIA CLASS A CONTRACTORS LICENSE, OR A COMBINATION OF THE FOLLOWING CLASSES, (C-8 - CONCRETE CONTRACTOR, C12 - EARTHWORK AND PAVING CONTRACTOR, C29 - MASONRY CONTRACTOR, C31 - CONSTRUCTION ZONE TRAFFIC CONTROL CONTRACTOR, C32 - PARKING AND HIGHWAY IMPROVEMENT CONTRACTOR, C36 - PLUMBING CONTRACTOR AND D63 - CONSTRUCTION CLEANUP) AT THE TIME OF THE BID AWARD, AND THE LICENSE SHALL REMAIN IN EFFECT THROUGHOUT THE TERM OF THIS CONTRACT.
2. THE CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO LATEST EDITIONS OF THE STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND STANDARD PLANS, THE IMPROVEMENT STANDARDS AND STANDARD DRAWINGS OF THE CITY OF GRASS VALLEY AND THE CALIFORNIA MUTCD. IN CASE OF CONFLICT, REFER TO THE PROJECT SPECIAL PROVISIONS FOR ORDER OF PRECEDENCE.
3. THE CITY OF GRASS VALLEY HAS MADE EVERY EFFORT TO SHOW LOCATIONS OF ANY AND ALL EXISTING SURFACE AND SUBSURFACE STRUCTURES. HOWEVER, ACTUAL FIELD CONDITIONS AND LOCATIONS CAN VARY CONSIDERABLY FROM PLAN LOCATIONS. THEREFORE, THE CITY OF GRASS VALLEY CANNOT, AND DOES NOT, ASSUME RESPONSIBILITY OF THE EXISTENCE OR LOCATION OF ANY STRUCTURE SUCH AS, BUT NOT LIMITED TO, UTILITIES, PIPELINES AND SEWERS. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL AGENCIES AND/OR OWNERS TO VERIFY THIS INFORMATION PRIOR TO AND DURING CONSTRUCTION OF IMPROVEMENTS SHOWN HEREON, AND TO CONTACT THE ENGINEER IN THE EVENT OF ANY SIGNIFICANT DISCREPANCY.
4. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATION OF, AND PROTECTING ALL EXISTING UTILITIES AND REPAIRING DAMAGE TO EXISTING UTILITIES. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT (1-800-227-2600) TWO WORKING DAYS PRIOR TO COMMENCEMENT OF EXCAVATION.

RECORD DRAWINGS NOTE:

ALL INFORMATION SHOWN ON THESE PLANS HAS BEEN PREPARED BY, OR UNDER THE DIRECTION OF, THE UNDERSIGNED ENGINEER. ADJUSTMENTS MADE IN THE FIELD DURING CONSTRUCTION ARE INCLUDED HEREIN AND ARE BASED UPON FIELD OBSERVATIONS MADE UNDER THE DIRECTION OF OR BY THE UNDERSIGNED AND/OR INFORMATION RECEIVED FROM THE CITY CONSTRUCTION INSPECTOR, PROJECT CONTRACTORS AND OTHER SOURCES WHEN THE ENGINEER IS ADVISED IN WRITING OF SUCH ADJUSTMENTS. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, CHANGES TO THESE PLANS NOT AUTHORIZED BY THE ENGINEER. ADJUSTMENTS MADE IN THE FIELD WERE NOT SURVEYED AND THE ACCURACY OF THESE DRAWINGS WITH RESPECT TO THOSE ADJUSTMENTS IS NOT GUARANTEED BY THE ENGINEER OR THE CITY OF GRASS VALLEY; FIELD VERIFICATION OF ALL IMPROVEMENTS IS RECOMMENDED.

DATE

ENGINEER SIGNATURE
(STAMP OR SEAL)

CITY CLERK/ DEPUTY	"APPROVED BY THE CITY COUNCIL OF THE CITY OF GRASS VALLEY THE 22 DAY OF JUNE 2021."
ASSISTANT CITY ENGINEER	R.C.E. 75378 DATE 6/24/21
PROJECT ENGINEER	R.C.E. DATE 6/24/2021

NOTE:
THE CITY OF GRASS VALLEY OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

G:\DATA\DWG\DESIGN\T

REVISIONS

No.	Description	Engr Init	By	APPROVAL Date

REGISTERED PROFESSIONAL ENGINEER
BJORN P JONES
No. 75378
CIVIL
STATE OF CALIFORNIA

PROJECT NUMBER:
21-04

CITY OF GRASS VALLEY ENGINEERING DIVISION

SLATE CREEK ROAD IMPROVEMENTS PROJECT

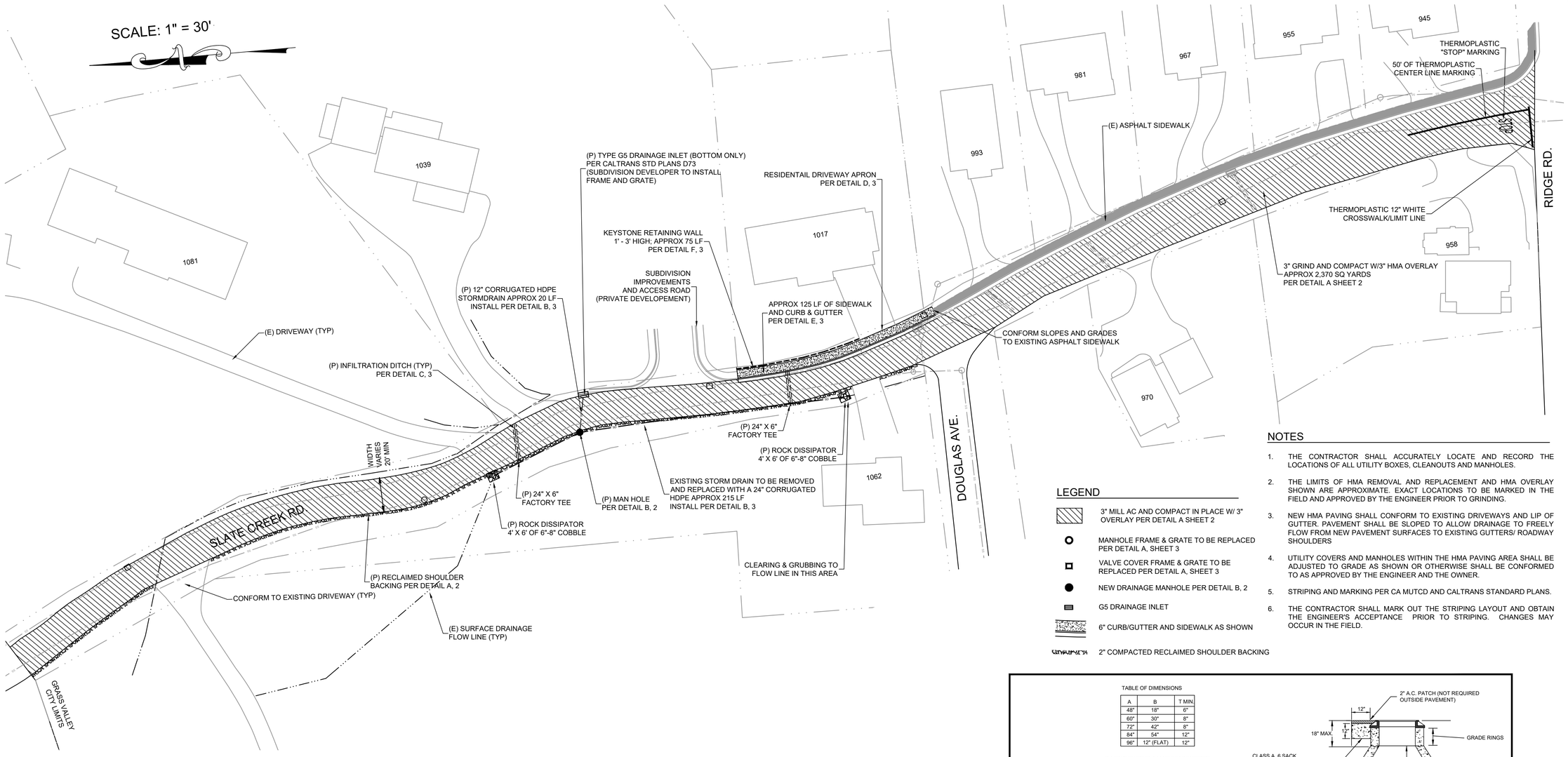
TITLE SHEET

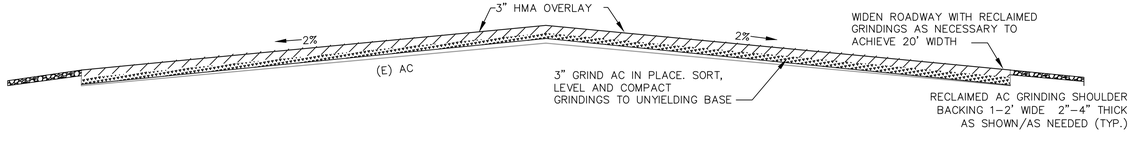
DRAWN BY:	DATE:
EMA	*JUNE 2021*
CHECKED BY:	DATE:
BPJ	*JUNE 2021*

DRAWING NUMBER:
2176

SHEET NUMBER:
1 OF 3

SCALE: 1" = 30'





A/2 STREET CROSS SECTION (CIR W/ OVERLAY)
3" GRIND AND COMPACT W/ 3" HMA OVERLAY

NOT TO SCALE

LEGEND

- 3" MILL AC AND COMPACT IN PLACE W/ 3" OVERLAY PER DETAIL A SHEET 2
- MANHOLE FRAME & GRATE TO BE REPLACED PER DETAIL A, SHEET 3
- VALVE COVER FRAME & GRATE TO BE REPLACED PER DETAIL A, SHEET 3
- NEW DRAINAGE MANHOLE PER DETAIL B, 2
- G5 DRAINAGE INLET
- 6" CURB/GUTTER AND SIDEWALK AS SHOWN
- 2" COMPACTED RECLAIMED SHOULDER BACKING

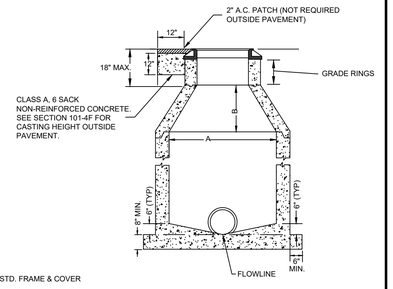
NOTES

1. THE CONTRACTOR SHALL ACCURATELY LOCATE AND RECORD THE LOCATIONS OF ALL UTILITY BOXES, CLEANOUTS AND MANHOLES.
2. THE LIMITS OF HMA REMOVAL AND REPLACEMENT AND HMA OVERLAY SHOWN ARE APPROXIMATE. EXACT LOCATIONS TO BE MARKED IN THE FIELD AND APPROVED BY THE ENGINEER PRIOR TO GRINDING.
3. NEW HMA PAVING SHALL CONFORM TO EXISTING DRIVEWAYS AND LIP OF GUTTER. PAVEMENT SHALL BE SLOPED TO ALLOW DRAINAGE TO FREELY FLOW FROM NEW PAVEMENT SURFACES TO EXISTING GUTTERS/ ROADWAY SHOULDERS
4. UTILITY COVERS AND MANHOLES WITHIN THE HMA PAVING AREA SHALL BE ADJUSTED TO GRADE AS SHOWN OR OTHERWISE SHALL BE CONFORMED TO AS APPROVED BY THE ENGINEER AND THE OWNER.
5. STRIPING AND MARKING PER CA MUTCD AND CALTRANS STANDARD PLANS.
6. THE CONTRACTOR SHALL MARK OUT THE STRIPING LAYOUT AND OBTAIN THE ENGINEER'S ACCEPTANCE PRIOR TO STRIPING. CHANGES MAY OCCUR IN THE FIELD.

TABLE OF DIMENSIONS

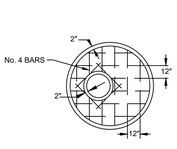
A	B	T MIN.
48"	18"	6"
60"	30"	8"
72"	42"	8"
84"	54"	12"
96"	12" (FLAT)	12"

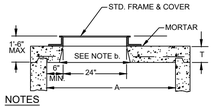
DIMENSION "B" IS A MINIMUM DIMENSION AND MAY BE GREATER IF DEPTH PERMITS. RISER SECTIONS, CONES, AND ADJUSTING RINGS SHALL CONFORM TO ASTM DESIGNATION C-478



NOTES

1. ECCENTRIC CONES SHALL BE USED WHERE SPECIFIED ON THE PLANS.
2. JOINT MAY BE EITHER KEYED OR TONGUE AND GROOVE.
3. SEE SECTION 6-10 FOR JOINT COMPOUND. (ALL MANHOLE JOINTS)
4. TOP OF FRAME SHALL BE 1/8 INCH BELOW ADJACENT PAVEMENT
5. 0.20 FOOT MINIMUM FALL THROUGH MANHOLE.
6. O.D. OF PIPE SHALL NOT EXCEED I.D. OF ITS MANHOLE BARREL
7. IRON TO BE SET 1/4 INCH BELOW FINISHED GRADE





NOTES

1. A FLAT TOP SLAB SHALL BE USED WHEN A SHALLOW LINE DOES NOT PERMIT USE OF A TAPERED DOME.
2. IF THE BOTTOM, INSIDE DIAMETER OF THE FLAT TOP OPENING IS 28 INCHES OR MORE, THE THICKNESS OF THE SLAB MAY BE DISREGARDED IN COMPUTING THE MAXIMUM 18 INCH HEIGHT OF THE OPENING.

FLAT TOP SLAB

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION			
STANDARD PRECAST DRAINAGE MANHOLE			
APPROVED: PUBLIC WORKS DIRECTOR / CITY ENGINEER			
SCALE: NONE	DRAWN BY: TMT	DATE: FEB 25, 2014	DR - 1

B/2 STANDARD PRECAST DRAINAGE MANHOLE

NOT TO SCALE

NOTE:
THE CITY OF GRASS VALLEY OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

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REVISIONS

No.	Description	Engr Init	By	APPROVAL Date

REGISTERED PROFESSIONAL ENGINEER BJORN P. JONES No. 75378 CIVIL STATE OF CALIFORNIA

PROJECT NUMBER: **21-04**

CITY OF GRASS VALLEY ENGINEERING DIVISION

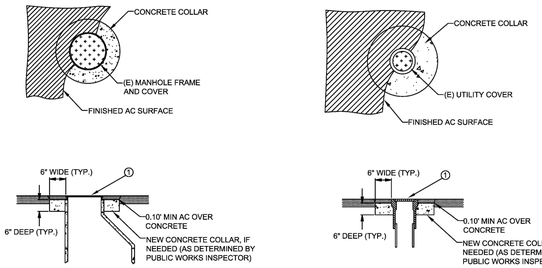
SLATE CREEK ROAD ROAD IMPROVEMENT PROJECT

CONSTRUCTION PLAN

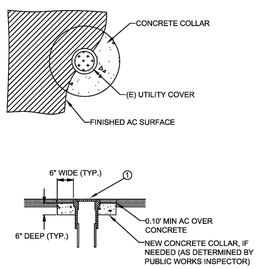
DRAWN BY:	DATE:
EMA	JUNE 2021
CHECKED BY:	DATE:
BPJ	JUNE 2021

DRAWING NUMBER: **2176**

SHEET NUMBER: **2 OF 3**



MANHOLE



UTILITY COVER

NOTES

1 IRON TO BE SET 1/4 INCH BELOW FINISHED GRADE.

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION		
ADJUST UTILITY COVER/ MANHOLE TO GRADE		
APPROVED BY: PUBLIC WORKS DIRECTOR / CITY ENGINEER		
SCALE: NONE	DRAWN BY: TMT	DATE: FEB 6, 2014

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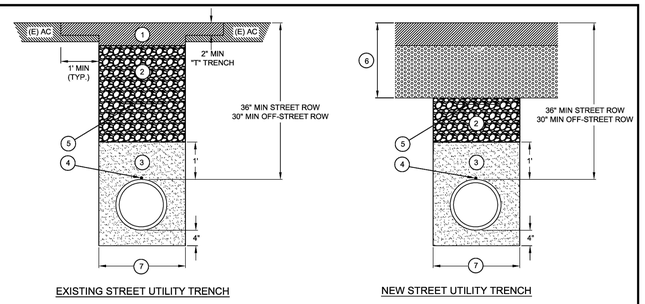
ST-28

A/3 ADJUST UTILITY COVER/ MH TO GRADE

NOT TO SCALE



EXISTING STREET UTILITY TRENCH

NEW STREET UTILITY TRENCH

NOTES:

1. AC PATCH, 4 INCHES THICK OR THAT OF EXISTING, WHICHEVER IS GREATER. T-TRENCH MAY BE ACHIEVED BY SAWCUT OR GRIND AND REMOVE. TACK COAT ON ALL PAVEMENT SURFACES (TYP.). SURFACE OF TRENCH EDGES SHALL BE SEAL COATED.
2. AB PROCESSED TO 95% RELATIVE COMPACTION OR TWO SACK SLURRY CEMENT WITH CITY ENGINEER APPROVAL.
3. IMPORTED SAND BEDDING: MECHANICALLY CONSOLIDATED OR SHOVEL SLICED UNDER THE HAUNCHES OF THE PIPE.
4. #10 TRACING WIRE SECURED TO TOP OF WATER MAINS
5. BACKFILL TAPE LOCATED 12"-24" BELOW FINISH GRADE FOR ALL SEWER AND WATER MAINS.
6. STREET STRUCTURAL SECTION PER APPROVED PLANS.
7. TRENCH WIDTH IS FROM UNDISTURBED TRENCH SIDES. OD + 12" MIN., OD + 24" MAX.

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION		
UTILITY TRENCH BEDDING BACKFILL AND PAVING		
APPROVED BY: PUBLIC WORKS DIRECTOR / CITY ENGINEER		
SCALE: NONE	DRAWN BY: EAD	DATE: MAY 12, 2012

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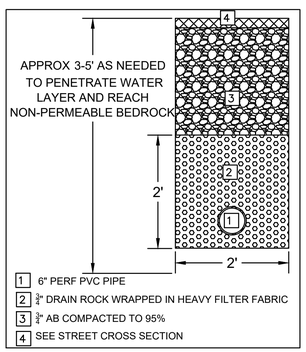
ST - 2

B/3 UTILITY TRENCH BEDDING BACKFILL & PAVING

NOT TO SCALE



1 6" PERF PVC PIPE
2 ¾" DRAIN ROCK WRAPPED IN HEAVY FILTER FABRIC
3 ¾" AB COMPACTED TO 95%
4 SEE STREET CROSS SECTION

C/3 INFILTRATION TRENCH

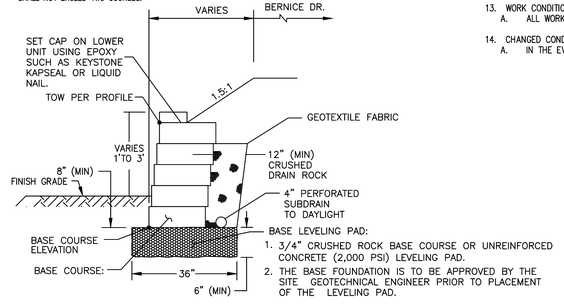
NOT TO SCALE

NOTES

1. KEYSTONE RETAINING WALLS SHALL BE CONSTRUCTED PER THE MANUFACTURER'S SPECIFICATIONS (LATEST EDITION) AND THE NOTES AND DETAILS SHOWN ON THESE PLANS.
2. CONCRETE UNITS
   A. MODULAR WALL UNITS SHALL BE KEYSTONE (TAN 333 COLOR) RETAINING WALL UNITS AS MANUFACTURED BY BASALITE IN ACCORDANCE WITH ASTM C-90 AND ASTM C-140.
   B. CONCRETE WALL UNITS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3,000 PSI. NORMAL WEIGHT CONCRETE SHALL HAVE A MAXIMUM MOISTURE ABSORPTION OF 13%, MEDIUM WEIGHT MAXIMUM OF 15%, AND HAVING A LIGHT WEIGHT MAXIMUM MOISTURE ABSORPTION OF 18%.
   C. DIMENSIONAL TOLERANCES SHALL BE IN ACCORDANCE WITH ASTM C-90 EXCEPT THOSE MEASURED TO THE SPLIT FACE WHICH VARY. UNITS SHALL HAVE A MINIMUM OF 1 SQ. FT. FACE AREA EACH.
   D. UNITS SHALL HAVE ANGLED SIDES CAPABLE OF CONCAVE AND CONVEX ALIGNMENT CURVES WITH A MINIMUM RADIUS OF 3.5 FEET. FOR STRAIGHT WALLS USE NON-ANGLED STRAIGHT SIDE CAP UNITS.
3. FIBERGLASS CONNECTING PINS
   A. CONNECTING PINS SHALL BE 1/2" DIAMETER THERMOSET ISOPTHALIC POLYESTER RESIN-PULTRUDED FIBERGLASS REINFORCEMENT RODS SUPPLIED BY THE UNIT MANUFACTURER.
   B. PINS SHALL HAVE A MINIMUM FLEXURAL STRENGTH OF 128,000 PSI AND SHORT BEAM SHEAR OF 6,400 PSI.
4. KEYSTONE KAPSEALTM
   A. CONSTRUCTION ADHESIVE MATERIAL SHALL CONFORM TO ASTM 2339 AND SHALL BE SUPPLIED BY THE KEYSTONE UNIT SUPPLIER.
5. EXCAVATION
   A. CONTRACTOR SHALL EXCAVATE TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS. CITY'S REPRESENTATIVE SHALL INSPECT THE EXCAVATION AND APPROVE PRIOR TO PLACEMENT OF LEVELING MATERIAL OR FILL SOILS. PROOF ROLL FOUNDATION AREA AS DIRECTED TO DETERMINE IF REMEDIAL WORK IS REQUIRED.
   B. OVER-EXCAVATION AND REPLACEMENT OF UNSUITABLE FOUNDATION SOILS AND REPLACEMENT WITH APPROVED COMPACTED FILL WILL BE COMPENSATED AS AGREED UPON WITH THE OWNER. BASE LEVELING PAD
   C. THE MAXIMUM CALCULATED APPLIED BEARING PRESSURE OF THE WALLS IS PROVIDED IN THE CALCULATION. THE PROJECT GEOTECHNICAL ENGINEER SHALL CALCULATE ALLOWABLE BEARING CONDITIONS PRIOR TO CONSTRUCTION OF WALLS.
6. BASE LEVELING PAD
   A. LEVELING PAD MATERIAL SHALL BE PLACED TO THE LINES AND GRADES SHOWN ON THE CONSTRUCTION DRAWINGS, TO A MINIMUM THICKNESS OF 6 INCHES AND EXTEND LATERALLY A MINIMUM OF 6" IN FRONT AND BEHIND THE MODULAR WALL UNIT.
   B. SOIL LEVELING PAD MATERIALS SHALL BE COMPACTED TO A MINIMUM OF 95% STANDARD PROCTOR DENSITY PER ASTM D-698.
   C. LEVELING PAD SHALL BE PREPARED TO INSURE FULL CONTACT TO THE BASE SURFACE OF THE CONCRETE UNITS.
7. MODULAR UNIT INSTALLATION
   A. FIRST COURSE OF UNITS SHALL BE PLACED ON THE LEVELING PAD AT THE APPROPRIATE LINE AND GRADE. ALIGNMENT AND LEVEL SHALL BE CHECKED IN ALL DIRECTIONS AND INSURE THAT ALL UNITS ARE IN FULL CONTACT WITH THE BASE AND PROPERLY SEATED.
   B. PLACE THE FRONT OF UNITS SIDE-BY-SIDE. DO NOT LEAVE GAPS BETWEEN ADJACENT UNITS. LAYOUT OF CORNERS AND CURVES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
   C. INSTALL SHEAR/CONNECTING DEVICES PER MANUFACTURER'S RECOMMENDATIONS.
   D. PLACE AND COMPACT DRAINAGE FILL WITHIN AND BEHIND WALL UNITS. PLACE AND COMPACT BACKFILL SOIL BEHIND DRAINAGE FILL. FOLLOW WALL ERECTION AND DRAINAGE FILL CLOSELY WITH STRUCTURE BACKFILL.
   E. MAXIMUM STACKED VERTICAL HEIGHT OF WALL UNITS, PRIOR TO UNIT DRAINAGE FILL AND BACKFILL PLACEMENT AND COMPACTION, SHALL NOT EXCEED TWO COURSES.
8. BACKFILL MATERIAL
   NATIVE FILL (FOUNDATION, REINFORCED, & RETAINED) SHALL POSSESS THE FOLLOWING MINIMUM CHARICTERISTICS:
   INTERNAL FRICTION ANGLE (ø): 35°
   COHESION: 0 PSF
   UNIT WEIGHT: 130 PCF
9. BASE LEVELING AND FILTERING MATERIAL
   A. FILTERING MATERIAL SHALL BE CLASS 2 PERMEABLE MATERIAL PER SECTION 68 OF THE STATE SPECIFICATION IN COMPLIANCE WITH THE GRADATION TABLE BELOW.

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
No.4	25-40
No.8	18-33
No.30	5-15
No.50	0-7
No.200	0-3

10. REINFORCED BACKFILL PLACEMENT
    A. THE DESIGN REQUIRES A NON-SATURATED BACKFILL MATERIAL. REINFORCED BACKFILL SHALL BE COMPACTED TO 95% OF THE MAXIMUM DENSITY AS DETERMINED BY ASTM D698.
    B. REINFORCED BACKFILL SHALL BE PLACED AND COMPACTED IN LIFTS NOT TO EXCEED 6 INCHES WHERE HAND COMPACTION IS USED OR 10 INCHES WHERE HEAVY COMPACTION EQUIPMENT IS USED. LIFT THICKNESS SHALL BE DECREASED TO ACHIEVE THE REQUIRED DENSITY AS REQUIRED.
    C. ONLY LIGHTWEIGHT HAND-OPERATED EQUIPMENT SHALL BE ALLOWED WITHIN 3 FEET FROM THE TAIL OF THE MODULAR CONCRETE UNIT.
    D. AT THE END OF EACH DAY'S OPERATION, THE CONTRACTOR SHALL SLOPE THE LAST LIFT OF REINFORCED BACKFILL AWAY FROM THE WALL UNITS TO DIRECT RUNOFF AWAY FROM WALL FACE. THE CONTRACTOR SHALL NOT ALLOW SURFACE RUNOFF FROM ADJACENT AREAS TO ENTER THE WALL CONSTRUCTION SITE.
    E. GEOTEXTILE FABRIC SHALL BE GEO TEC 701. PRODUCTS OF EQUIVALENT FORMATION AND APPLICABILITY MAY BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO INSTALLATION.
11. DRAIN PIPE
    A. A 4-INCH DIAMETER PERFORATED PVC SCHEDULE 40 DRAINAGE PIPE SHALL BE INSTALLED AS ILLUSTRATED IN THE CONSTRUCTION DRAWINGS. THE PIPE SHALL BE INSTALLED AT A MINIMUM 2% SLOPE AND OUTLET TO A SUITABLE COLLECTION BASIN IN ACCORDANCE WITH LOCAL CODES. THE PERFORATIONS SHALL BE DIRECTED DOWN AND THE DRAINAGE PIPE SHALL BE SURROUNDED BY A MINIMUM OF 4-INCHES OF UNIT DRAINAGE FILL.
12. CAP INSTALLATION
    A. CAP UNITS SHALL BE GLUED TO UNDERLYING UNITS WITH AN ALL-WEATHER ADHESIVE APPROVED BY THE MANUFACTURER FOR THIS APPLICATION AND ACCEPTED BY KEYSTONE.
13. WORK CONDITIONS
    A. ALL WORK SHALL COMPLY WITH OSHA STANDARDS, LOCAL ORDINANCES AND CODES.
14. CHANGED CONDITIONS
    A. IN THE EVENT CONDITIONS CHANGE OR ARE DIFFERENT THAN THESE OUTLINED ABOVE, CONTACT CITY FOR DIRECTION.



TYPICAL RETAINING WALL SECTION

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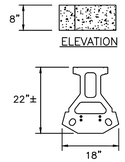
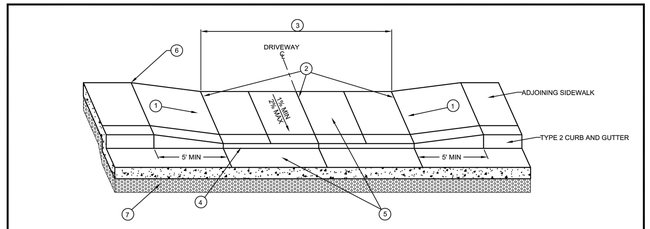


STANDARD UNIT

F/3 KEYSTONE RETAINING WALL DETAILS

NOT TO SCALE



LEGEND:

1. THE MAX. SLOPE IS 8.33% IF LONGITUDINAL STREET GRADE ALLOWS.
2. DEEP TOOL JOINT, SEE CURB, GUTTER AND SIDEWALK DETAIL.
3. DRIVEWAY WIDTH PER THE DESIGN STANDARDS.
4. 1 INCH HIGH LIP AT 45 DEGREE BATTER.
5. COMMERCIAL DRIVEWAY: SIDEWALK, CURB AND GUTTER SHALL BE MIN. 8" THICK CONCRETE WITH NO. 4, GRADE 60 REBAR 18" ON CENTER IN DRIVEWAY SECTION.
   RESIDENTIAL DRIVEWAY: SIDEWALK, CURB, AND GUTTER SHALL BE MIN. 6" THICK CONCRETE.
6. EXPANSION JOINT (TYP.)
7. 6" MIN AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION UNDER CURB AND GUTTER, DRIVEWAY AND DRIVEWAY WINGS.

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION		
RESIDENTIAL AND COMMERCIAL DRIVEWAY		
APPROVED BY: ASSISTANT CITY ENGINEER		
SCALE: NONE	DRAWN BY: CAD	DATE: NOV 5, 2018

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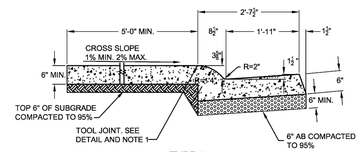
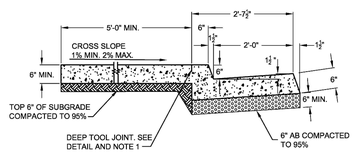
ST - 9

D/3 RESIENTIAL DRIVEWAY

NOT TO SCALE



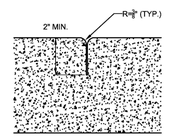
TYPE 1
ROLLED CURB AND GUTTER



TYPE 2
VERTICAL CURB AND GUTTER

NOTES:

1. 2" DEEP TOOL JOINT AT BACK OF CURB FOR ALL MONOLITHIC CURB, GUTTER AND SIDEWALK.
2. AGGREGATE BASE, COMPACTED TO 95%, MAY BE SUBSTITUTED FOR NATIVE SUBGRADE UNDER THE SIDEWALK SECTION.



DEEP TOOL JOINT DETAIL

PUBLIC WORKS DEPARTMENT ENGINEERING DIVISION		
CURB, GUTTER AND SIDEWALK		
APPROVED BY: PUBLIC WORKS DIRECTOR / CITY ENGINEER		
SCALE: NONE	DRAWN BY: EAD	DATE: MAY 12, 2016

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ST - 3

E/3 CURB, GUTTER AND SIDEWALK

NOT TO SCALE

NOTE:

THE CITY OF GRASS VALLEY OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF ELECTRONIC COPIES OF THIS PLAN SHEET.

REVISIONS

No.	Description	Engr Init	By	APPROVAL Date

REGISTERED PROFESSIONAL ENGINEER BJORN P. JONESON No. 75378 CIVIL STATE OF CALIFORNIA

PROJECT NUMBER:
21-04

CITY OF GRASS VALLEY ENGINEERING DIVISION

SLATE CREEK ROAD ROAD IMPROVEMENT PROJECT

DETAILS

DRAWN BY: EMA DATE: JUNE 2021
CHECKED BY: BPJ DATE: JUNE 2021

DRAWING NUMBER:
2176

SHEET NUMBER:
3 OF 3

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