

# CITY OF SPARKS

## 2021 DRAINAGE AND ROADWAY IMPROVEMENT PROJECT - G ST & SHRIVER BLVD

G ST. from 4TH ST. to 1ST ST.,  
and SHRIVER BOULEVARD from PRATER WAY to I ST.  
BID #20/21-016, PWP #WA-2021-254

April 2021

100% PLANS - FOR BIDDING PURPOSES ONLY

PREPARED & SUBMITTED BY:

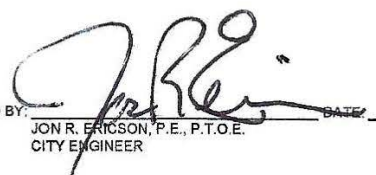


BRYAN J. BYRNE, PE PROJECT ENGINEER DATE



**CITY OF SPARKS OFFICIALS:**

ED LAWSON	MAYOR
DONALD ABOIT	COUNCIL MEMBER WARD 1
DIAN VANDERWELL	COUNCIL MEMBER WARD 2
PAUL ANDERSON	COUNCIL MEMBER WARD 3
CHARLENE BYBEE	COUNCIL MEMBER WARD 4
KRISTOPHER DAHIR	COUNCIL MEMBER WARD 5
NEIL C. KRUTZ	CITY MANAGER

APPROVED BY:  DATE: 4/6/21  
JON R. ERICSON, P.E., P.T.O.E. CITY ENGINEER

PROJECT LOCATION MAP



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**BASIS OF BEARINGS:**

NEVADA STATE PLANE COORDINATE SYSTEM, NAD 83/84, WEST ZONE, MODIFIED BY A GRID TO GROUND COMBINED SCALE FACTOR OF 1.000197939 BASED ON THE WASHOE COUNTY GPS NETWORK.

**BASIS OF ELEVATIONS (VERTICAL DATUM):**

NAVD 88 BASED ON CITY OF SPARKS BENCHMARK #77 ELEVATION 4407.56.

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LAST UPDATED: 4/1/2021  
DRAWING: G-001  
SHEET: 1 OF 17

PROJECT No. - 49-20-051



**J-U-B ENGINEERS, INC.**

9160 Double Diamond Parkway, Reno, NV 89521  
p 775 852 1440 w www.jub.com



**THE LANGDON GROUP**



**GATEWAY MAPPING INC.**

J-U-B FAMILY OF COMPANIES

## GENERAL NOTES

- ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE DETAILS CONTAINED IN THESE PLANS, THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), 2012 EDITION, AND THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION (SDPWC), LATEST EDITION, AS ADOPTED BY CITY OF SPARKS, AND SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. ALL SPECIFICATIONS REFERENCED HEREIN REFER TO THE SSPWC UNLESS INDICATED OTHERWISE.
- THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL, THROUGHOUT CONSTRUCTION, IN ACCORDANCE WITH APPLICABLE PARTS OF SPECIFICATION SECTION 332, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD, LATEST EDITION).
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE GENERAL SAFETY DURING CONSTRUCTION, AND ALL WORK SHALL CONFORM TO PERTINENT SAFETY REGULATIONS AND CODES. THE CONTRACTOR SHALL FENCE AND OR BARRICADE THE CONSTRUCTION AREA AS REQUIRED TO PROTECT ADJACENT SITES, VEHICULAR TRAFFIC, AND PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF OSHA AND NRS CHAPTER 618, IN THE CONSTRUCTION PRACTICES FOR ALL EMPLOYEES DIRECTLY ENGAGED IN THE CONSTRUCTION OF THIS PROJECT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND/OR PROTECTION OF ALL EXISTING AND PROPOSED PIPING, UTILITIES, TRAFFIC SIGNAL EQUIPMENT (BOTH ABOVE GROUND AND BELOW GROUND), STRUCTURES ADJACENT TO STREETS, AND ALL OTHER EXISTING IMPROVEMENTS THROUGHOUT CONSTRUCTION.
- THE CONTRACTOR SHALL PURSUE WORK IN A CONTINUOUS AND DILIGENT MANNER TO ENSURE A TIMELY COMPLETION OF THE PROJECT.
- ALL CONSTRUCTION SHALL BE CLOSELY COORDINATED WITH THE CITY OF SPARKS SO THAT THE QUALITY OF WORK CAN BE CHECKED FOR APPROVAL.
- THE CONTRACTOR SHALL INCORPORATE ADEQUATE DRAINAGE PROCEDURES DURING THE CONSTRUCTION PROCESS TO ELIMINATE EXCESSIVE PONDING AND/OR EROSION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SITE IN A NEAT AND ORDERLY MANNER THROUGHOUT THE CONSTRUCTION PROCESS. ALL MATERIALS SHALL BE STORED WITHIN APPROVED CONSTRUCTION AREAS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUOUS DUST CONTROL THROUGHOUT THE CONSTRUCTION OF ALL ITEMS SHOWN ON THESE DRAWINGS IN CONFORMITY WITH SECTION 40.030 OF WASHOE COUNTY AIR POLLUTION REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REGULAR CLEANING OF ALL MUD, DIRT, DEBRIS, ETC., FROM ANY AND ALL ADJACENT STREETS AND SIDEWALKS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, ALL PERMITS AS REQUIRED BY CITY OF SPARKS. THE DUST CONTROL PERMIT SHALL BE AT THE CONTRACTOR'S EXPENSE. THE ENCROACHMENT, EXCAVATION, AND LANE CLOSURE PERMITS ARE "NO FEE" PERMITS FOR CITY PROJECTS.
- SPARKS MUNICIPAL CODE 20.04.005.D RESTRICTS CONSTRUCTION HOURS TO 7:00 A.M. UNTIL 7:00 P.M., MONDAY THROUGH FRIDAY AND 9:00 A.M. UNTIL 5:00 P.M. ON SATURDAY. FOR THIS PROJECT, THE DEFINED CONSTRUCTION HOURS WILL BE 7:00 A.M. UNTIL 7:00 P.M., MONDAY THROUGH FRIDAY UNLESS OTHERWISE REQUIRED BY THESE SPECIFICATIONS OR REQUESTED BY THE CITY PROJECT COORDINATOR. THE CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION OPERATIONS BEFORE SEVEN O'CLOCK (7:00 A.M. PACIFIC TIME) EACH WORKING DAY EXCEPT AS DIRECTED BY THE CITY COORDINATOR AND AS SPECIFIED HEREIN.

THE CONTRACTOR SHALL NOT PERFORM ANY CONTRACT WORK ON SATURDAY, SUNDAY, LEGAL HOLIDAYS, AND OUTSIDE OF THE TWELVE (12) HOURS AVAILABLE DURING A REGULAR WORKING DAY EXCEPT AS DIRECTED AND APPROVED BY THE CITY PROJECT COORDINATOR AND AS SPECIFIED HEREIN.

WHEN DIRECTED TO WORK OUTSIDE OF THE LEGALLY PERMITTED CONSTRUCTION HOURS DEFINED ABOVE, THE CONTRACTOR SHALL FIRST OBTAIN APPROVAL FROM THE CITY PROJECT COORDINATOR AT LEAST SEVENTY-TWO (72) HOURS PRIOR TO COMMENCING SUCH OVERTIME WORK. IF THE CONTRACTOR PLANS TO PERFORM WORK ON SATURDAY OR SUNDAY, HE/SHE SHALL OBTAIN APPROVAL BY THE WEDNESDAY PRIOR TO WORK ON THE SATURDAY OR SUNDAY FOR WHICH WORK IS PLANNED. IF THE CONTRACTOR PLANS TO PERFORM WORK ON A LEGAL HOLIDAY, HE/SHE SHALL FIRST OBTAIN APPROVAL FOR THE CITY PROJECT COORDINATOR AT LEAST 72 HOURS IN ADVANCE.

CONTRACTOR SHALL OBTAIN APPROVAL THROUGH THE TEMPORARY USE PERMIT (T.U.P.) AND PAY A FEE OF ONE HUNDRED (\$100.00) DOLLARS TO WORK OUTSIDE OF THE ABOVE LEGALLY PERMITTED CONSTRUCTION HOURS. THE REQUEST SHALL INCLUDE JUSTIFICATION OF HOW PUBLIC SAFETY WILL BE ENHANCED THROUGH WORKING OUTSIDE OF THE RESTRICTED CONSTRUCTION HOURS. SUBMITTAL AND PAYMENT OF FEES DOES NOT GUARANTEE APPROVAL.

THE CONTRACTOR SHALL BE CHARGED FOR ALL OF CITY OF SPARKS EMPLOYEE(S) TIME SPENT OUTSIDE A STANDARD WORK DAY TO INCLUDE OVERTIME, SATURDAY, SUNDAY, OR HOLIDAY WORK, BASED ON THE EMPLOYEE'S HOURLY RATE, PLUS BENEFITS. THE CONTRACTOR WILL BE NOTIFIED OF THE COSTS INCURRED AND IF THE PAYMENT IS NOT MADE, SUCH COSTS WILL BE DEDUCTED FROM ANY PAYMENT DUE TO THE CONTRACTOR.

- ALL DIMENSIONS ARE TO FRONT FACE OF CURB (LIP) UNLESS NOTED OTHERWISE.
- SHOULD ANY PREHISTORIC OR HISTORIC REMAINS OR ARTIFACTS BE DISCOVERED DURING SITE DEVELOPMENT, WORK SHALL BE TEMPORARILY HALTED AT THE SPECIFIC SITE AND THE STATE HISTORIC PRESERVATION OFFICE OF THE DEPARTMENT OF MUSEUMS, LIBRARY AND ARTS, SHALL BE NOTIFIED TO RECORD AND PHOTOGRAPH THE SITE. THE PERIOD OF TEMPORARY DELAY SHALL BE LIMITED TO A MAXIMUM OF TWO (2) WORKING DAYS FROM THE DATE OF NOTIFICATION.
- A PRECONSTRUCTION CONFERENCE WILL BE HELD WITH CITY OF SPARKS PRIOR TO ANY CONSTRUCTION.
- NO MATERIALS OF ANY KIND SHALL BE STOCKPILED OR CONSTRUCTION EQUIPMENT PARKED ON CONCRETE OR ASPHALT SURFACES.
- CONSTRUCTION OF STREET IMPROVEMENTS MUST ALLOW FOR THE PERPETUATION OF ALL EXISTING LEGAL ACCESSES AND EXISTING DRIVEWAYS.
- THE CONTRACTOR SHALL FURNISH PRODUCT SUBMITTALS FOR IMPROVEMENTS INCLUDING MANUFACTURER'S SPECIFICATIONS, SHOP DRAWINGS, CONCRETE MIX DESIGNS, ASPHALT MIX DESIGNS, GRADATION CERTIFICATIONS, ETC. FOR REVIEW BY THE ENGINEER OF RECORD. SUBMITTALS SHALL BE FURNISHED PROMPTLY AFTER EXECUTION OF THE CONTRACT, BUT IN ALL CASES PRIOR TO DELIVERY OF SUCH MATERIALS.
- THE CONTRACTOR UPON COMPLETION OF THE PROJECT, SHALL PREPARE AND SUBMIT RECORD DRAWINGS TO THE OWNER. SUBMITTAL SHALL BE IN THE FORM OF A CD OR USB DRIVE IN 300 DPI, MULTIPAGE PDF FORMAT.
- THE CONTRACTOR IS REQUIRED TO FILE A NOTICE OF INTENT (NOI) WITH THE NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE CONTRACTOR IS REQUIRED TO SUBMIT THE NOI, PAY THE ASSOCIATED FEES, AND PROVIDE A COPY OF THE NOI RECEIPT WITH THE EE PERMIT APPLICATION. BEST MANAGEMENT PRACTICES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION. THE CONTRACTOR SHALL COMPLY AND MAINTAIN THE CONSTRUCTION SITE INSPECTION CHECKLIST, LOCATED IN APPENDIX D OF THE TRUCKEE MEADOWS BMP HANDBOOK. THE CHECKLIST SHALL BE ONSITE FOR REVIEW BY STATE AND LOCAL GOVERNMENT INSPECTORS. THE CONTRACTOR SHALL INSPECT THE SITE DAILY; PRIOR TO FORECASTED RAIN EVENTS AND WITHIN 24 HOURS OF ANY RAIN EVENT. IF AN INSPECTOR DETERMINES THAT INSTALLED STORM WATER CONTROLS PLACE THE CITY AT RISK OF VIOLATING ITS NPDES PERMIT, THE INSPECTOR MAY ORDER A CHANGE TO THE STORM WATER CONTROLS. IF THE CHANGE IS NOT ACCEPTABLE OR IS NOT IMMEDIATELY IMPLEMENTED, A VIOLATION POSSIBLY RESULTING IN A FINE MAY BE ISSUED. THE CONTRACTOR SHALL NOT DISPOSE OR PLACE DEBRIS IN ANY CITY OF SPARKS MANHOLE, CATCH BASIN OR FACILITY.

## ASPHALT NOTES

- PULVERIZED MATERIAL SHALL CONFORM TO REQUIREMENTS OF THE SSPWC FOR TYPE I RECYCLED AGGREGATE BASE.
- ASPHALT CONCRETE MIX DESIGN SHOULD BE TYPE III, 50 BLOW MARSHALL MIX, WITH PG64-28NV, AND 3% AIR VOIDS.
- MIX DESIGNS SHALL BE SUBMITTED FOR REVIEW AND APPROVAL.
- ASPHALT CONCRETE PAVEMENT SHALL BE PLACED IN ACCORDANCE WITH SSPWC.

## EXISTING UTILITIES

- APPROXIMATE LOCATIONS OF UTILITIES ARE SHOWN ON THE PLANS. THEY ARE TO BE USED FOR GENERAL INFORMATION ONLY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE APPROPRIATE UTILITY COMPANIES WHEN CONSTRUCTION MIGHT INTERFERE WITH NORMAL OPERATION OF ANY UTILITIES. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE APPROPRIATE UTILITY COMPANY FIELD-LOCATE ANY UTILITY INSTALLATIONS WHICH MIGHT BE AFFECTED BY CONSTRUCTION PRIOR TO BEGINNING WORK IN THAT AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING SERVICE OF EXISTING UTILITIES AND FOR RESTORING ANY UTILITIES DAMAGED DUE TO CONSTRUCTION AT NO ADDITIONAL COST TO THE OWNER. DEPTHS AND ELEVATIONS OF UTILITIES ARE UNKNOWN UNLESS OTHERWISE SHOWN. CONTRACTOR SHALL FIELD VERIFY UTILITY DEPTHS AND ELEVATIONS; ANY DISCREPANCIES AND/OR CONFLICTS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY.

## INSPECTION AND TESTING

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MATERIALS TESTING INCLUDING BUT NOT LIMITED TO CONCRETE, COMPACTION AND ASPHALT & SUBGRADE. ALL TESTS SHALL MEET MINIMUM ENGINEER REQUIREMENTS. SEE THE CONTRACT DOCUMENTS AND DRAWINGS FOR FREQUENCY OF TESTING. RESULTS ARE TO BE DELIVERED TO SPECIAL INSPECTOR, OWNER AND ENGINEER.
- THE CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ENGINEER AND SPECIAL INSPECTOR FOR INSPECTIONS OF WORK AT APPROPRIATE INTERVALS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PAY FOR ADDITIONAL INSPECTIONS THAT ARE THE RESULT OF HIS WORKMANSHIP.

## DEMOLITION NOTES

- THE REMOVAL OF EXISTING IMPROVEMENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC, 2012), SECTION 301.00.
- EXISTING IMPROVEMENTS, ADJACENT PROPERTY, FENCING, WALLS, UTILITIES AND OTHER FACILITIES, TREES AND PLANTS THAT ARE NOT TO BE REMOVED SHALL BE PROTECTED FROM INJURY OR DAMAGE RESULTING FROM THE CONTRACTORS OPERATIONS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC, 2012), SECTIONS 301.04 AND 300.04.
- THE CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLE RIMS, WATER & GAS VALVE COVERS, & UTILITY BOXES AND FRAME AND COVERS, BOTH HORIZONTALLY AND VERTICALLY, AS REQUIRED TO FIT THE NEW WORK. THE CONTRACTOR SHALL REPLACE ANY APPURTENANCE DAMAGED DURING RELOCATION AT THE COST OF THE CONTRACTOR.
- ALL EXISTING FEATURES IN CONFLICT WITH PROPOSED SHALL BE REMOVED, RELOCATED AND/OR REPLACED. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER AND THE GOVERNING AGENCIES PRIOR TO SUCH REMOVAL, RELOCATION AND/OR REPLACEMENT.

## CONTACT PHONE NUMBERS

CONTRACTOR - (\_\_\_\_ CONSTRUCTION)

ENGINEER - (J-U-B ENGINEERS, INC.)

LONNIE J. JOHNSON, P.E. 775-852-1440 office  
J-U-B OFFICE - RENO, NV  
9160 Double Diamond Parkway  
Reno, NV 89521

TRANSPORTATION MANAGER - (CITY OF SPARKS)

AMBER SOSA, P.E. 775-353-2273 office  
431 Prater Way  
Sparks, NV 89431



Know what's below.  
Call before you dig.

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



J-U-B ENGINEERS, INC.



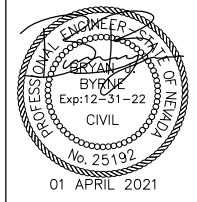
J-U-B ENGINEERS, INC.  
9160 Double  
Diamond Parkway  
Reno, NV 89521  
Phone: 775.852.1440  
www.jub.com



NO.	DESCRIPTION	BY	DATE

2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER  
CITY OF SPARKS, WASHOE COUNTY, NEVADA  
GENERAL NOTES

FILE : 49-20-051-GSHR-TNLA  
JUB PROJ. #: 49-20-051  
DRAWN BY: KBK  
DESIGN BY: BB  
CHECKED BY: LUJ  
ONE INCH  
AT FULL SIZE. IF NOT ONE  
INCH, SCALE ACCORDINGLY  
LAST UPDATED: 4/1/2021  
DRAWING:  
G-002  
SHEET: 2 OF 17



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NO.	REVISION	DESCRIPTION	DATE

2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER  
 CITY OF SPARKS, WASHOE COUNTY, NEVADA

LEGEND & GENERAL PROJECT INFORMATION

FILE: 49-20-051-GSHR-TNLA  
 JUB PROJ. #: 49-20-051  
 DRAWN BY: KBK  
 DESIGN BY: BB  
 CHECKED BY: LUJ

ONE INCH  
 AT FULL SIZE, IF NOT ONE  
 INCH, SCALE ACCORDINGLY  
 LAST UPDATED: 4/1/2021

DRAWING:  
**G-003**

SHEET: 3 OF 17

### LINE LEGEND

LINE DESCRIPTION	PROPOSED LINE	EXISTING LINE
PROPERTY LINE		— P/L —
ROAD CENTERLINE		— — — — —
WATER MAIN		--- W ---
WATER SERVICE		--- WS --- WS ---
SANITARY SEWER		--- SS ---
STORM DRAIN	— SD —	--- SD ---
OVERHEAD POWER		— OHP —
NATURAL GAS		--- G ---
NATURAL GAS SERVICE		--- G --- G ---
FENCE		--- X ---
WOOD FENCE		— o — o — o — o —
MAJOR CONTOUR	— 2521 —	— — — — —
MINOR CONTOUR	— — — — —	— — — — —
UTILITY ABANDONED IN PLACE		— / / / / /
CURB & GUTTER AND SIDEWALK	=====	=====

### SYMBOL LEGEND

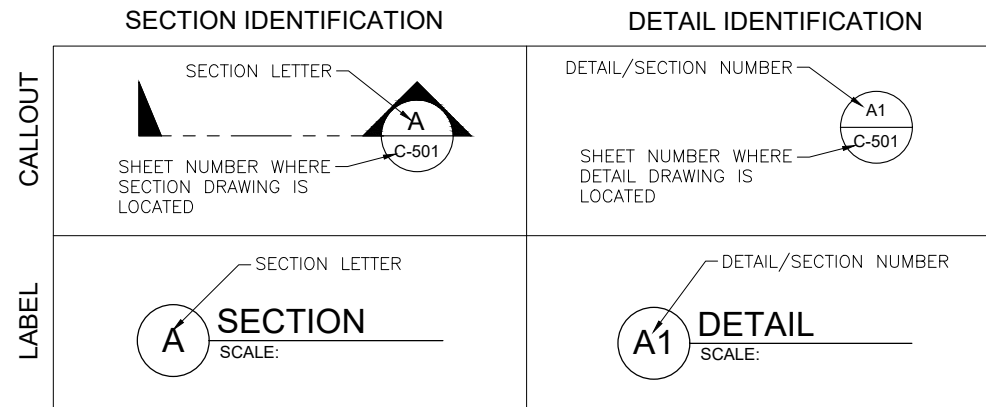
SYMBOL DESCRIPTION	EXISTING SYMBOL	PROPOSED SYMBOL	SYMBOL DESCRIPTION	EXISTING SYMBOL	PROPOSED SYMBOL
CATCH BASIN	■	■	GAS VALVE	⊗	⊗
SD MANHOLE	⊕	⊕	POWER POLE	⊕	⊕
SS MANHOLE	⊙	⊙	STREET LIGHT	☼	☼
FIRE HYDRANT	⊙	⊙	GUY WIRE	┆	┆
WATER METER	⊕	⊕	TEST HOLE	⊕	⊕
WATER VALVE	⊗	⊗	SIGN	┆	┆

### HATCH LEGEND

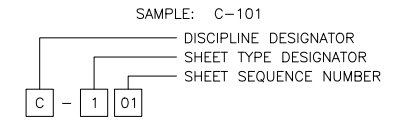
HATCH DESCRIPTION	HATCH DEPICTION	ASSOCIATED SECTION/DETAIL
PROPOSED ASPHALT TYPICAL SECTION		TS1 TS2 C-100 C-100
PROPOSED ASPHALT SPECIAL SECTION		TS3 C-100
PROPOSED CONCRETE DRIVEWAY		S-111A C-501
PROPOSED CONCRETE REPLACEMENT SECTION		S-103 S-111A C-501 C-501
PROPOSED POSSIBLE REM & REPL SECTION		S-103 S-111A C-501 C-501

### SECTION AND DETAIL IDENTIFIERS

NOTE:  
 A DASH MAY BE PLACED IN THE LOWER PORTION OF THE IDENTIFIER IF THE DETAIL DRAWING OR SECTION VIEW IS LOCATED ON THE SAME SHEET.



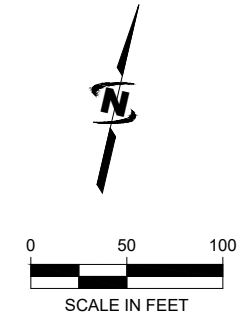
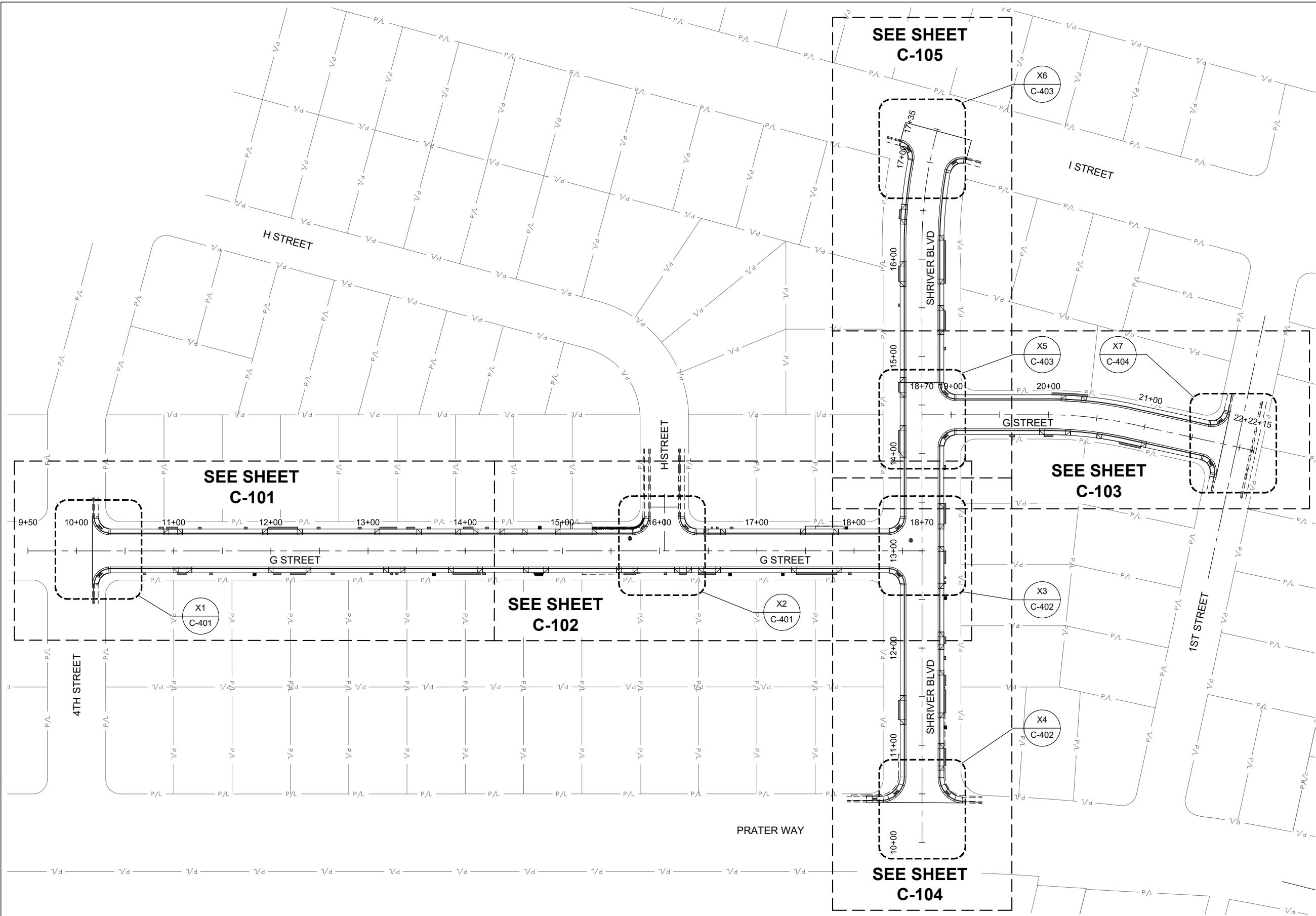
### SHEET NUMBERING



DISCIPLINE DESIGNATORS		
DISCIPLINE	DESIGNATOR	DESCRIPTION
GENERAL	G	ALL GENERAL
	GI	GENERAL INFORMATION
	GC	GENERAL CONTRACTUAL
	GR	GENERAL RESOURCE
SURVEY/MAPPING	V	ALL SURVEY
GEOTECHNICAL	B	ALL GEOTECHNICAL
CIVIL	C	ALL CIVIL
LANDSCAPE	L	ALL LANDSCAPE
STRUCTURAL	S	ALL STRUCTURAL
ARCHITECTURAL	A	ALL ARCHITECTURE
EQUIPMENT	Q	ALL EQUIPMENT
MECHANICAL	M	ALL MECHANICAL
ELECTRICAL	E	ALL ELECTRICAL
PLUMBING	P	ALL PLUMBING
PROCESS	D	ALL PROCESS
RESOURCE	R	ALL RESOURCE

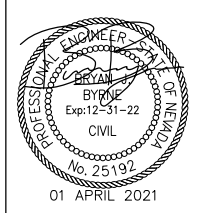
SHEET TYPE DESIGNATORS	
DESIGNATOR	SHEET TYPE
0	GENERAL (SYMBOLS, LEGENDS, NOTES, ETC.)
1	PLANS (HORIZONTAL VIEWS)
2	ELEVATIONS, PROFILES, COMBINED PLAN & PROFILES
3	SECTIONS (SECTIONAL VIEWS)
4	LARGE-SCALE VIEWS (PLANS, ELEVATIONS, ECT.)
5	DETAILS OR COMBINED DETAILS AND SECTIONS
6	SCHEDULES AND DIAGRAMS
7	USER DEFINED
8	USER DEFINED
9	3D REPRESENTATIONS (ISOMETRICS, PERSPECTIVES, PHOTOS)

Plot Date: 4/12/21 3:37 PM Plotted By: Keith Kedar  
 Date Created: 4/12/21 J:\JUB\COM\CENTRAL\CLIENTS\WASHPARK\SCITY\PROJECTS\49-20-051-GST&SHR\DR\DESIGN\CAD\DRAWING\20-051-GSHR-P&P.DWG



DRAWING SCALES:  
 1 INCH @ 50 SC = 22"x34" PLANS  
 1 INCH @ 100 SC = 11"x17" PLANS

City of Sparks  
**J-U-B ENGINEERS, INC.**  
 9160 Double Diamond Parkway  
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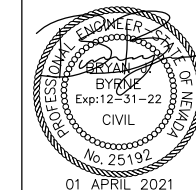
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NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

**2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER**  
**CITY OF SPARKS, WASHOE COUNTY, NEVADA**  
 INDEX PLAN SHEET

FILE : 49-20-051-GSHR-P&P  
 JUB PROJ. # : 49-20-051  
 DRAWN BY: KBK  
 DESIGN BY: BB  
 CHECKED BY: LUJ  
 AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY  
 LAST UPDATED: 4/1/2021  
**DRAWING: G-004**  
 SHEET: 4 OF 17





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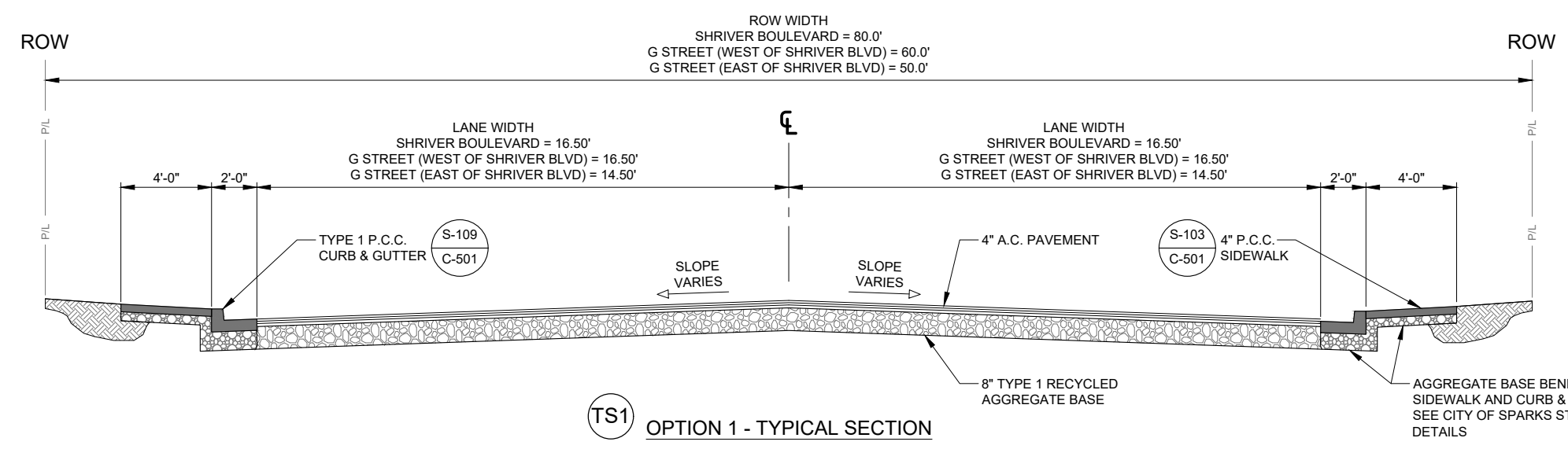
2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER  
 CITY OF SPARKS, WASHOE COUNTY, NEVADA

ROADWAY TYPICAL SECTIONS

FILE: 49-20-051-GSHR-TNLA  
 JUB PROJ. #: 49-20-051  
 DRAWN BY: KBK  
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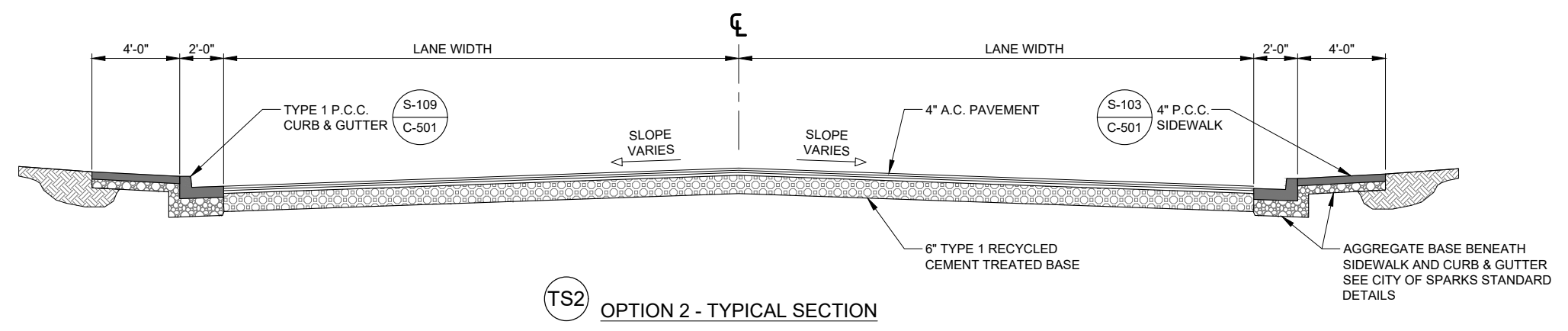
ONE INCH  
 AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY  
 LAST UPDATED: 4/1/2021

DRAWING: C-100  
 SHEET: 5 OF 17



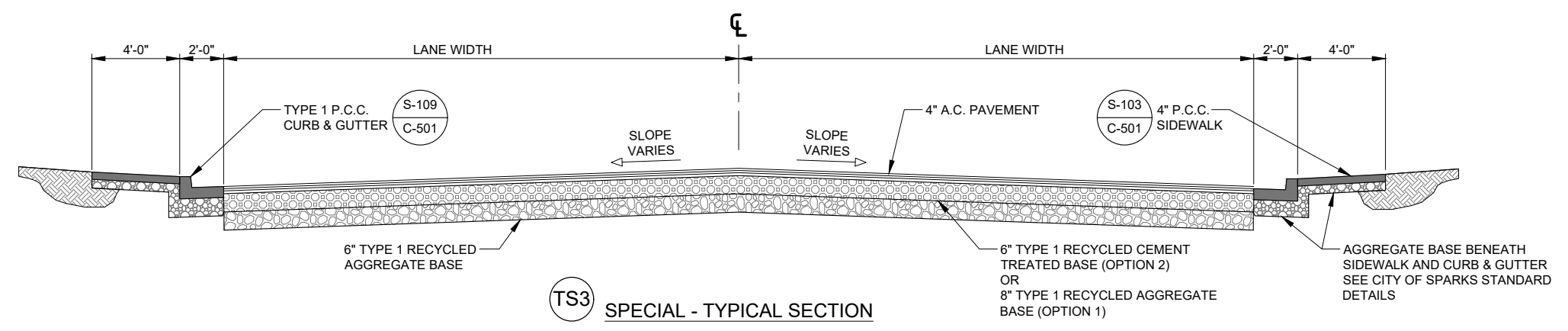
**G STREET**  
 STA 10+20 TO STA 18+53.50  
 AND  
 STA 18+86.50 TO STA 21+83  
 (STATION SPLIT @ SHRIVER BOULEVARD)

**SHRIVER BOULEVARD**  
 STA 10+41 TO STA 14+73

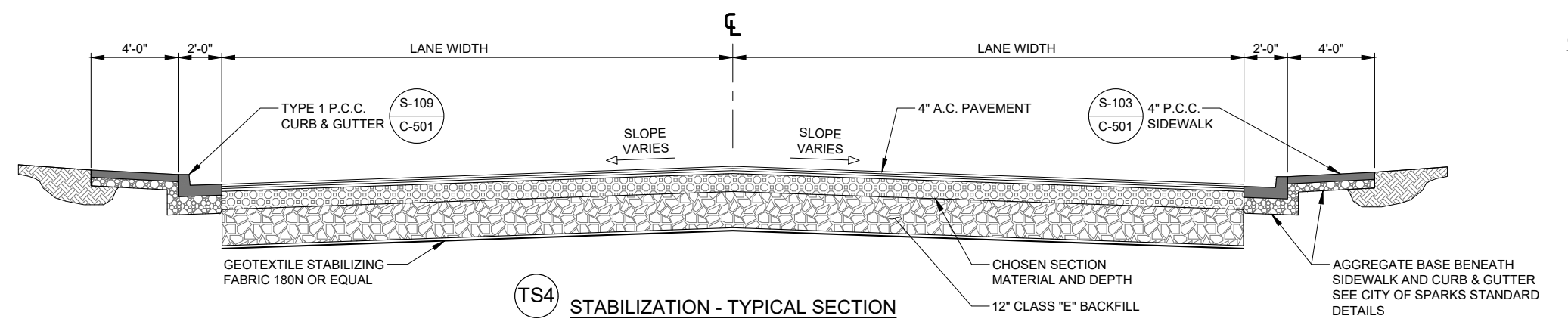


**G STREET**  
 STA 10+20 TO STA 18+53.50  
 AND  
 STA 18+86.50 TO STA 21+83  
 (STATION SPLIT @ SHRIVER BOULEVARD)

**SHRIVER BOULEVARD**  
 STA 10+41 TO STA 14+73



**SHRIVER BOULEVARD**  
 STA 14+73 TO STA 17+28

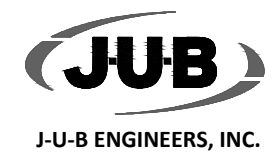


**G STREET / SHRIVER BOULEVARD**

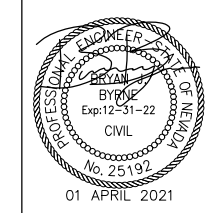
WHERE REQUIRED FOR STABILIZATION

NOTES:

- IF THIS SECTION IS REQUIRED, THE CONTRACTOR SHALL ACKNOWLEDGE THE POSSIBILITY OF EXISTING UTILITIES AND SHALL TAKE STEPS TO INSURE THAT ALL UTILITIES ARE LOCATED AND PROTECTED DURING CONSTRUCTION.
- DEPTHS MAY VARY FROM TEST RESULTS CONDUCTED IN THE FIELD BY THE MATERIAL TESTER OR ENGINEER ON RECORD.



Plot Date: 4/1/2021 3:38 PM Plotted By: Keith Kalar  
 Date Created: 4/1/2021 J:\JUB\COM\CENTRAL\CALC\EN\SPARKS\CTTY\PROJ\EC\T\49-20-051-GSTANDSHRIVERBLVD\DESIGN\CAD\SHEET\49-20-051-GSHR-TNLA.DWG

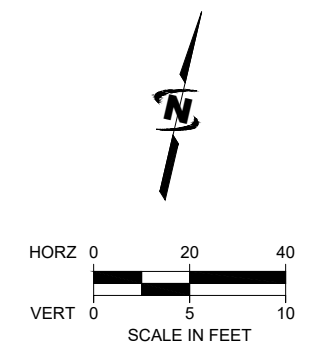


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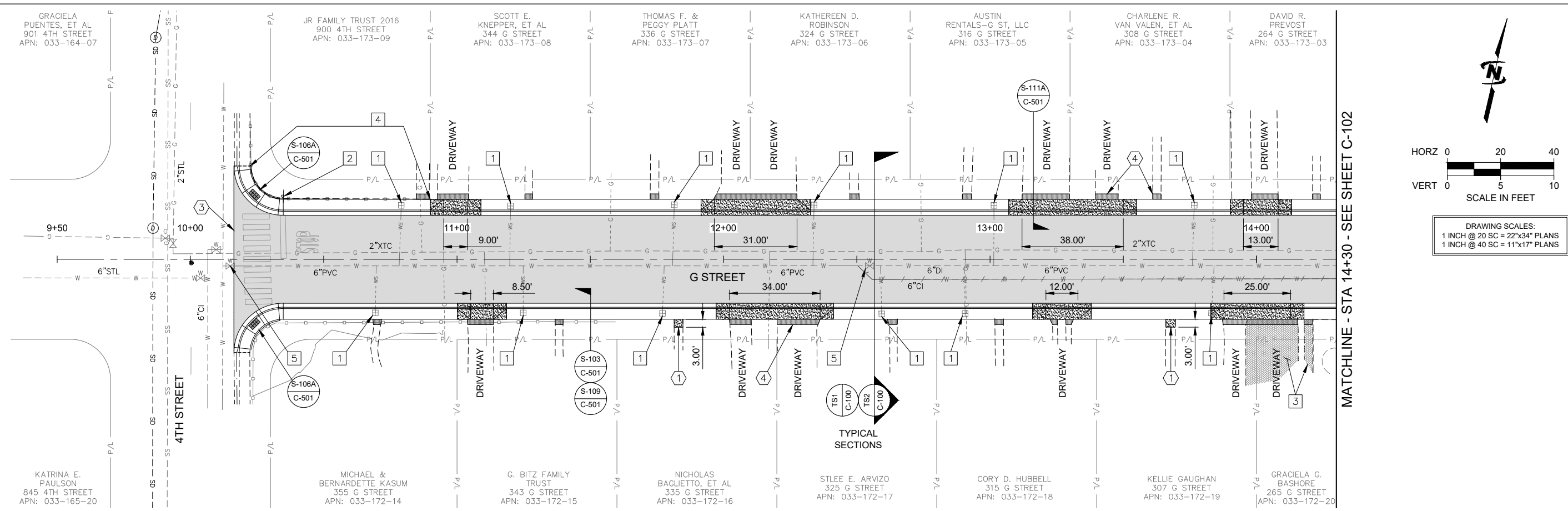
NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER  
CITY OF SPARKS, WASHOE COUNTY, NEVADA

G STREET (WEST) PLAN  
STA 10+00 TO STA 14+30



DRAWING SCALES:  
1 INCH @ 20 SC = 22"x34" PLANS  
1 INCH @ 40 SC = 11"x17" PLANS



CONSTRUCTION NOTES:

- 1 ADJUST EXISTING WATER METERS TO FINISHED GRADE, METER BOXES THAT ARE LOCATED WITHIN DRIVEWAYS SHALL REQUIRE A TRAFFIC RATED LID AND WILL BE FURNISHED BY TMWA
- 2 PROTECT EXISTING SIGN IN PLACE
- 3 EXISTING BRICK DRIVEWAY AND WALKWAY, SAW CUT EXISTING BRICKS TO MATCH NEW BACK OF SIDEWALK LIMITS AND PROTECT IN PLACE
- 4 AS NEEDED, REMOVE AND RE-INSTALL EXISTING FENCE TO CONSTRUCT NEW SIDEWALK
- 5 ADJUST EXISTING WATER VALVE TO GRADE, CONSTRUCT NEW VALVE COLLAR, SEE DETAIL NS-1, SHEET C-503. CONTRACTOR TO OBTAIN AS-BUILT PLANS INFORMATION FOR NEW WATERLINE FROM TMWA TO REFERENCE AND CONFIRM WATER MAIN, SERVICES, METERS AND VALVE LOCATIONS

RE-CONSTRUCTION NOTES:

- 1 REMOVE AND REPLACE (3 LF) EXISTING CONCRETE WALKWAY AS REQUIRED TO MATCH ROADWAY SIDEWALK GRADES, SAW CUT FULL DEPTH FOR A CLEAN VERTICAL JOINT
- 3 SAW CUT FULL DEPTH FOR A CLEAN VERTICAL JOINT, FINISHED SURFACE SHALL MATCH ADJACENT EXISTING SURFACE WITH A NEAT/CLEAN EDGE
- 4 REMOVE AND REPLACE (2 FOOT WIDE) CONCRETE TRANSITION SECTION WHERE GRADES DO NOT MATCH THE EXISTING WALKWAY OR DRIVEWAY GRADES IF REQUIRED OR AS NECESSARY (TYPICAL OF ALL LOCATION UNLESS OTHERWISE SHOWN WITH DIMENSIONS)

NEW CONSTRUCTION NOTES:

- S-103  
C-501 CONCRETE SIDEWALK, SEE DETAIL
- S-109  
C-501 TYPE 1 P.C.C. CURB & GUTTER, SEE DETAIL
- S-111A  
C-501 P.C.C. DRIVEWAY APRON, SEE DETAIL
- S-106A  
C-501 PEDESTRIAN RAMP, SEE DETAIL

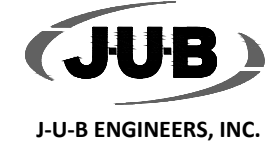
HATCH LEGEND

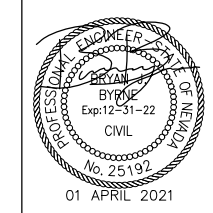
HATCH DESCRIPTION	HATCH DEPICTION	ASSOCIATED SECTION/DETAIL
PROPOSED ASPHALT TYPICAL SECTION		TS1 TS2 C-100 C-100
PROPOSED ASPHALT SPECIAL SECTION		TS3 C-100
PROPOSED CONCRETE DRIVEWAY OR PROPOSED CONCRETE REPLACEMENT SECTION		DRIVEWAY OR WALKWAY S-103 S-111A C-501 C-501
PROPOSED POSSIBLE REM & REPL SECTION		DRIVEWAY OR WALKWAY S-103 S-111A C-501 C-501

NOTE:  
SEE INTERSECTION LAYOUTS FOR STRIPING NOTES, SEE SHEETS C-401 TO C-404.

DESIGN TABLE G STREET SHEET C-101

STATION	TOP BACK OF CURB (LEFT)			LIP OF GUTTER (LEFT)			CROWN		LIP OF GUTTER (RIGHT)			TOP BACK OF CURB (RIGHT)		
	OFFSET	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED
10+00.00							4,411.58							
10+16.32							4,411.35	4,411.35						
10+18.41	33.26'	4,411.19	4,411.26	33.05'	4,410.92	4,410.92			33.05'	4,410.85	4,410.86	33.26'	4,411.14	4,411.24
10+34.82	18.50'	4,411.05	4,411.17	16.50'	4,410.85	4,410.79	4,411.36	4,411.20	16.50'	4,410.84	4,410.76	18.50'	4,411.17	4,411.14
10+50.00	18.50'	4,411.03	4,411.13	16.50'	4,410.78	4,410.75	4,411.29	4,411.16	16.50'	4,410.73	4,410.65	18.50'	4,411.06	4,411.03
10+71.63							4,411.19	4,411.10	16.50'	4,410.58	4,410.50	18.50'	4,410.91	4,410.88
11+00.00	18.50'	4,410.89	4,410.98	16.50'	4,410.62	4,410.60	4,411.08	4,411.02	16.50'	4,410.50	4,410.42	18.50'	4,410.84	4,410.80
11+25.48	18.50'	4,410.84	4,410.91	16.50'	4,410.58	4,410.53	4,411.01	4,410.94						
11+50.00	18.50'	4,410.81	4,410.82	16.50'	4,410.54	4,410.44	4,410.95	4,410.86	16.50'	4,410.37	4,410.27	18.50'	4,410.68	4,410.65
11+91.59							4,410.84	4,410.71						
12+00.00	18.50'	4,410.50	4,410.66	16.50'	4,410.39	4,410.28	4,410.80	4,410.69	16.50'	4,410.28	4,410.12	18.50'	4,410.47	4,410.50
12+50.00							4,410.57	4,410.53	16.50'	4,410.16	4,409.98	18.50'	4,410.32	4,410.36
12+50.91	18.50'	4,410.42	4,410.48	16.50'	4,410.21	4,410.10	4,410.57	4,410.52						
13+00.00	18.50'	4,410.27	4,410.34	16.50'	4,410.10	4,409.96	4,410.50	4,410.37	16.50'	4,410.04	4,409.84	18.50'	4,410.14	4,410.22
13+07.01							4,410.48	4,410.35						
13+50.00	18.50'	4,410.10	4,410.19	16.50'	4,409.93	4,409.81	4,410.36	4,410.22	16.50'	4,409.92	4,409.70	18.50'	4,410.05	4,410.08
14+00.00	18.50'	4,409.94	4,410.04	16.50'	4,409.77	4,409.66	4,410.23	4,410.08	16.50'	4,409.79	4,409.55	18.50'	4,409.91	4,409.93





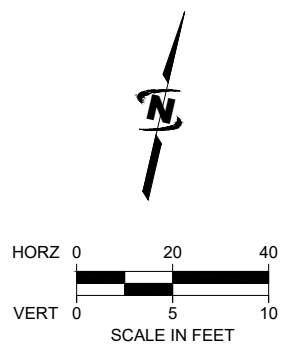
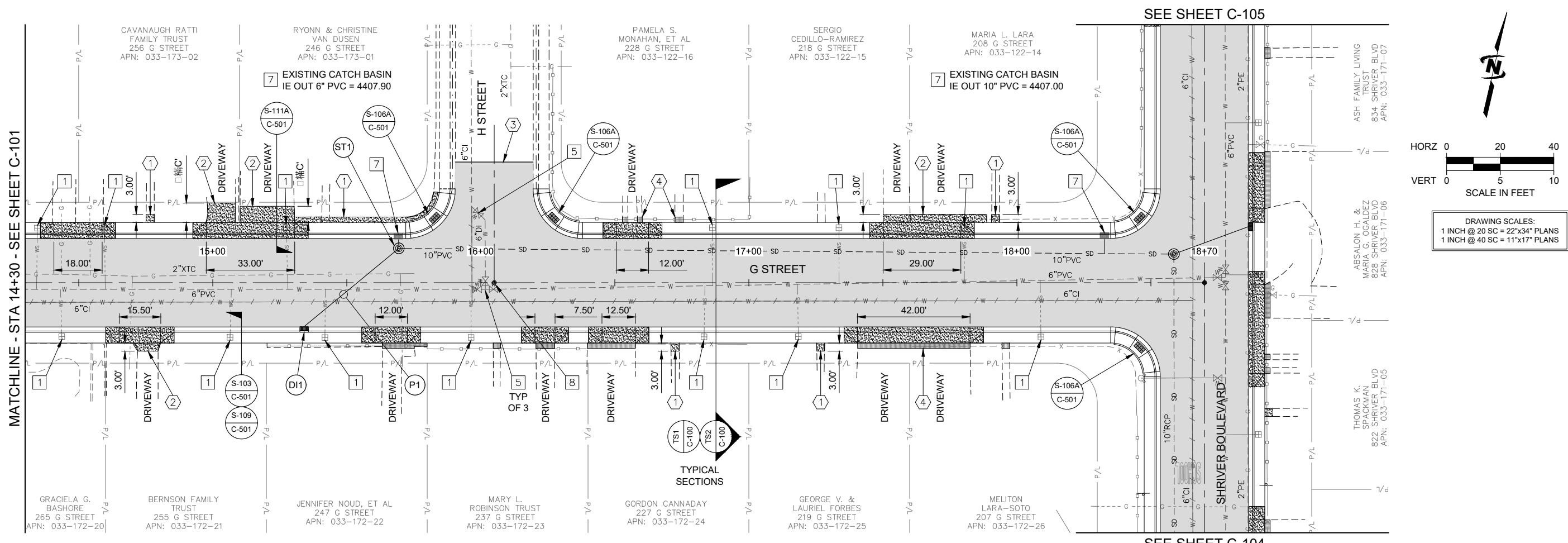
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NO.	REVISION	DESCRIPTION	BY	DATE

2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER  
CITY OF SPARKS, WASHOE COUNTY, NEVADA

G STREET (WEST) PLAN  
STA 14+30 TO STA 18+70



DRAWING SCALES:  
1 INCH @ 20 SC = 22"x34" PLANS  
1 INCH @ 40 SC = 11"x17" PLANS

- EXISTING APPURTENANCES NOTES:**
- 1 ADJUST EXISTING WATER METERS TO FINISHED GRADE. METER BOXES THAT ARE LOCATED WITHIN DRIVEWAYS SHALL REQUIRE A TRAFFIC RATED LID AND WILL BE FURNISHED BY TMWA
  - 5 ADJUST EXISTING WATER VALVE TO GRADE, CONSTRUCT NEW VALVE COLLAR, SEE DETAIL NS-1, SHEET C-503. CONTRACTOR TO OBTAIN AS-BUILT PLANS INFORMATION FOR NEW WATERLINE FROM TMWA TO REFERENCE AND CONFIRM WATER MAIN, SERVICES, METERS AND VALVE LOCATIONS
  - 7 REMOVE AND REPLACE EXISTING CATCH BASIN, FRAME AND GRATE WITH NEW TYPE 4-R CATCH BASIN, SEE DETAIL S-204A & B, SHEET C-502
  - 8 REMOVE AND RESET ROADWAY MONUMENT, SEE DETAIL S-118, SHEET C-502
- RE-CONSTRUCTION NOTES:**
- 1 REMOVE AND REPLACE (3 LF) EXISTING CONCRETE WALKWAY AS REQUIRED TO MATCH ROADWAY SIDEWALK GRADES, SAW CUT FULL DEPTH FOR A CLEAN VERTICAL JOINT
  - 2 REMOVE AND REPLACE (3 LF) EXISTING CONCRETE DRIVEWAY AS REQUIRED TO MATCH ROADWAY SIDEWALK GRADES, SAW CUT FULL DEPTH FOR A CLEAN VERTICAL JOINT
  - 3 SAW CUT FULL DEPTH FOR A CLEAN VERTICAL JOINT, FINISHED SURFACE SHALL MATCH ADJACENT EXISTING SURFACE WITH A NEAT/CLEAN EDGE
  - 4 REMOVE AND REPLACE (2 FOOT WIDE) CONCRETE TRANSITION SECTION WHERE GRADES DO NOT MATCH THE EXISTING WALKWAY OR DRIVEWAY GRADES IF REQUIRED OR AS NECESSARY (TYPICAL OF ALL LOCATION UNLESS OTHERWISE SHOWN WITH DIMENSIONS)
- NEW CONSTRUCTION NOTES:**
- S-103 CONCRETE SIDEWALK, SEE DETAIL
  - S-108 TYPE 1 P.C.C. CURB & GUTTER, SEE DETAIL
  - S-111A P.C.C. DRIVEWAY APRON, SEE DETAIL
  - S-106A PEDESTRIAN RAMP, SEE DETAIL
  - ST1 STA 15+69.40, 12.81' L INSTALL NEW TYPE 1 MH RIM (E) = 4409.57 RIM (P) = 4409.30 IE IN 6" (N) = 4407.60 IE OUT 10" (E) = 4407.40 NEW IE IN 10" (SW) = 4407.60 PIPE SLOPE = 0.50% SEE DETAIL S-206A, SHEET C-503
  - DI1 STA 15+34.09, 18.5' L INSTALL TYPE 4R CATCH BASIN, FRAME & GRATE TBC = 4409.54 FL = 4409.04 GRATE = 4408.81 IE OUT (10") = 4407.82 PIPE SLOPE = 0.50% SEE DETAIL S-204A & B, SHEET C-502
  - P1 45.8 LF - 10" C900 PVC PIPE SLOPE = 0.50% REFERENCE DETAIL S-117, SHEET C-502 BACKFILL SHALL INCLUDE 200 PSI EXCAVATABLE SLURRY BACKFILL

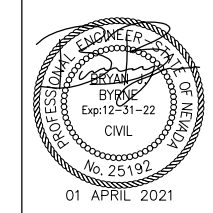
**DESIGN TABLE G STREET SHEET C-102**

STATION	TOP BACK OF CURB (LEFT)			LIP OF GUTTER (LEFT)			CROWN			LIP OF GUTTER (RIGHT)			TOP BACK OF CURB (RIGHT)			
	OFFSET	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED	EXISTING	PROPOSED	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED
14+50.00	18.50'	4,409.80	4,409.90	16.50'	4,409.57	4,409.52	4,410.11	4,409.94	16.50'	4,409.69	4,409.40	18.50'	4,409.86	4,409.78		
14+65.08							4,410.05	4,409.90								
15+00.00	18.50'	4,409.73	4,409.75	16.50'	4,409.52	4,409.37	4,409.95	4,409.85	16.50'	4,409.60	4,409.26	18.50'	4,409.72	4,409.64		
15+34.09							4,409.86	4,409.80	16.50'	4,409.54	4,409.16	18.50'	4,409.68	4,409.54		
15+50.00	18.50'	4,409.57	4,409.61	16.50'	4,409.34	4,409.23	4,409.85	4,409.78	16.50'	4,409.51	4,409.32	18.50'	4,409.65	4,409.70		
15+55.59									16.50'	4,409.50	4,409.38	18.50'	4,409.64	4,409.76		
15+67.00	18.50'	4,409.51	4,409.56	16.50'	4,409.27	4,409.18										
15+72.00	18.50'	4,409.52	4,409.56	16.50'	4,409.24	4,409.18	4,409.84	4,409.75								
15+88.41	33.26'	4,409.58	4,409.70	33.05'	4,409.45	4,409.32										
16+00.00							4,409.83	4,409.67	16.50'	4,409.39	4,409.25	18.50'	4,409.48	4,409.63		
16+05.00							4,409.80	4,409.66								
16+21.59	33.26'	4,409.51	4,409.65	33.05'	4,409.42	4,409.27										
16+38.00	18.50'	4,409.40	4,409.56	16.50'	4,409.26	4,409.18	4,409.67	4,409.56								
16+50.00	18.50'	4,409.39	4,409.51	16.50'	4,409.16	4,409.13	4,409.63	4,409.53	16.50'	4,409.18	4,409.11	18.50'	4,409.33	4,409.49		
17+00.00	18.50'	4,409.24	4,409.32	16.50'	4,409.00	4,408.94	4,409.53	4,409.38	16.50'	4,409.03	4,408.96	18.50'	4,409.28	4,409.34		
17+50.00	18.50'	4,409.10	4,409.13	16.50'	4,408.89	4,408.75	4,409.39	4,409.23	16.50'	4,408.92	4,408.81	18.50'	4,409.08	4,409.19		
18+00.00	18.50'	4,408.95	4,408.94	16.50'	4,408.74	4,408.56	4,409.25	4,409.08	16.50'	4,408.78	4,408.67	18.50'	4,408.81	4,409.05		
18+31.00	18.50'	4,408.71	4,408.82	16.50'	4,408.53	4,408.44										
18+35.00	18.50'	4,408.71	4,408.82	16.50'	4,408.55	4,408.44	4,409.23	4,408.98	16.50'	4,408.75	4,408.57	18.50'	4,408.96	4,408.95		
18+50.00							4,409.12	4,408.95								
18+53.50							4,409.13	4,409.14								
18+70.00							4,409.34	4,409.28								

**HATCH LEGEND**

HATCH DESCRIPTION	HATCH DEPICTION	ASSOCIATED SECTION/DETAIL
PROPOSED ASPHALT TYPICAL SECTION		TS1, TS2 C-100, C-100
PROPOSED ASPHALT SPECIAL SECTION		TS3 C-100
PROPOSED CONCRETE DRIVEWAY OR CONCRETE REPLACEMENT SECTION		S-103, S-111A C-501, C-501
PROPOSED POSSIBLE REM & REPL SECTION		S-103, S-111A C-501, C-501

Plot Date: 4/1/2021 3:58 PM, Plotted By: Keith Kalar, Date Created: 4/1/2021, J:\JOB\CENTRAL\CLIENT\NV\SPARKS\CTTY\PROJ\G\20-051-GST\IND\SHRIVER\BLVD\DESIGN\CAD\SHRHEET\49-20-051-GSHR-P&P.DWG



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NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER  
 CITY OF SPARKS, WASHOE COUNTY, NEVADA

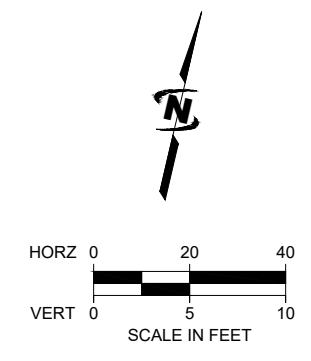
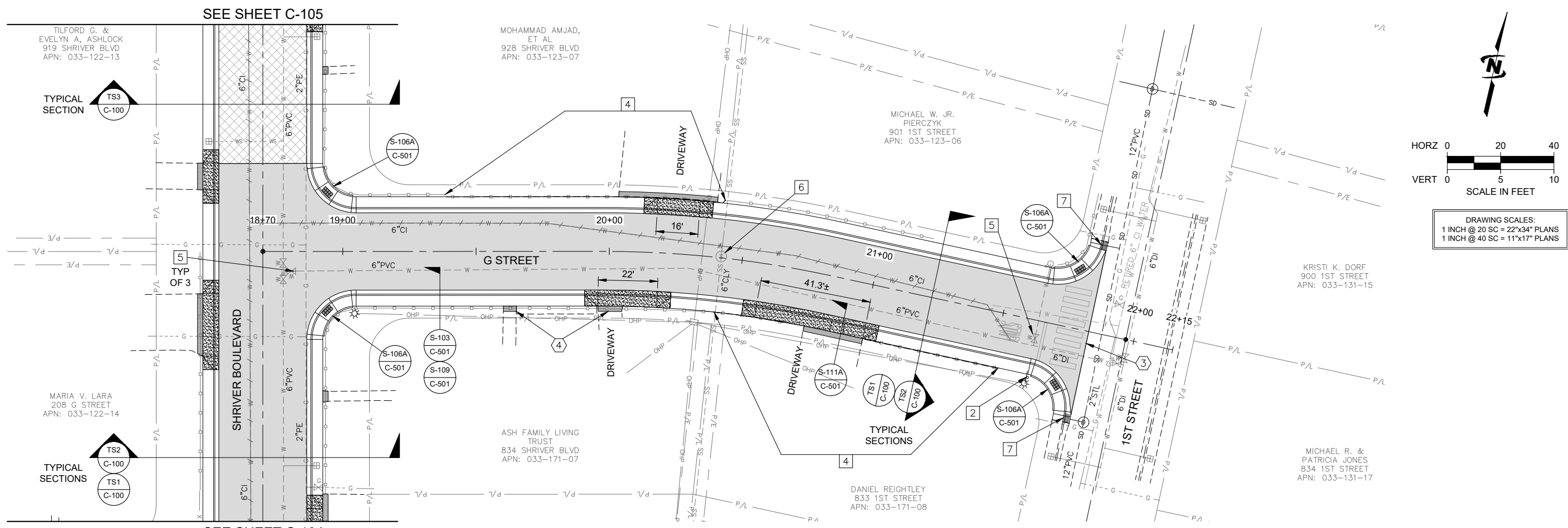
G STREET (EAST) PLAN  
 STA 18+70 TO STA 21+97

FILE: 49-20-051-GSHR-P&P  
 JUB PROJ. #: 49-20-051  
 DRAWN BY: KBK  
 DESIGN BY: BB  
 CHECKED BY: LUJ

ONE INCH  
 AT FULL SIZE. IF NOT ONE  
 INCH, SCALE ACCORDINGLY  
 LAST UPDATED: 4/1/2021

DRAWING:  
**C-103**

SHEET: 8 OF 17



DRAWING SCALES:  
 1 INCH @ 20 SC = 22"x34" PLANS  
 1 INCH @ 40 SC = 11"x17" PLANS

CONSTRUCTION NOTES:

- 2 PROTECT EXISTING SIGN IN PLACE
- 4 AS NEEDED, REMOVE AND RE-INSTALL EXISTING FENCE TO CONSTRUCT NEW SIDEWALK
- 5 ADJUST EXISTING WATER VALVE TO GRADE, CONSTRUCT NEW VALVE COLLAR, SEE DETAIL NS-1, SHEET C-503. CONTRACTOR TO OBTAIN AS-BUILT PLANS INFORMATION FOR NEW WATERLINE FROM TMWA TO REFERENCE AND CONFIRM WATER MAIN, SERVICES, METERS AND VALVE LOCATIONS
- 6 ADJUST EXISTING MANHOLE RIM TO GRADE, CONSTRUCT NEW P.C.C. COLLAR, SEE DETAIL S-210A, SHEET C-503
- 7 PROTECT IN PLACE EXISTING INLET FRAME AND GRATE

RE-CONSTRUCTION NOTES:

- 3 SAW CUT FULL DEPTH FOR A CLEAN VERTICAL JOINT, FINISHED SURFACE SHALL MATCH ADJACENT EXISTING SURFACE WITH A NEAT/CLEAN EDGE
- 4 REMOVE AND REPLACE (2 FOOT WIDE) CONCRETE TRANSITION SECTION WHERE GRADES DO NOT MATCH THE EXISTING WALKWAY OR DRIVEWAY GRADES IF REQUIRED OR AS NECESSARY (TYPICAL OF ALL LOCATION UNLESS OTHERWISE SHOWN WITH DIMENSIONS)

NEW CONSTRUCTION NOTES:

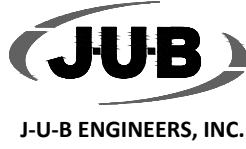
- S-103  
C-501 CONCRETE SIDEWALK, SEE DETAIL
- S-109  
C-501 TYPE 1 P.C.C. CURB & GUTTER, SEE DETAIL
- S-111A  
C-501 P.C.C. DRIVEWAY APRON, SEE DETAIL
- S-106A  
C-501 PEDESTRIAN RAMP, SEE DETAIL

STATION	TOP BACK OF CURB (LEFT)			LIP OF GUTTER (LEFT)			CROWN		LIP OF GUTTER (RIGHT)			TOP BACK OF CURB (RIGHT)		
	OFFSET	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED
18+70.00							4,409.78	4,409.44						
18+86.50							4,409.50	4,409.42						
19+00.00							4,409.46	4,409.41						
19+05.00	16.50'	4,409.40	4,409.38	14.50'	4,409.12	4,409.00	4,409.45	4,409.40	14.50'	4,409.16	4,409.04	16.50'	4,409.35	4,409.42
19+50.00	16.50'	4,407.17	4,409.12	14.50'	4,408.90	4,408.74	4,409.23	4,409.13	14.50'	4,408.91	4,408.77	16.50'	4,409.12	4,409.15
19+90.77							4,409.04	4,408.88	14.50'	4,408.66	4,408.52	16.50'	4,408.90	4,408.90
20+00.00	16.50'	4,408.87	4,408.84	14.50'	4,408.55	4,408.46	4,409.00	4,408.84	14.50'	4,408.63	4,408.48	16.50'	4,408.85	4,408.86
20+37.22	16.50'	4,408.64	4,408.62	14.50'	4,408.30	4,408.24								
20+50.00	16.50'	4,408.57	4,408.56	14.50'	4,408.24	4,408.18	4,408.76	4,408.59	14.50'	4,408.44	4,408.23	16.50'	4,408.59	4,408.61
21+00.00	16.50'	4,408.34	4,408.34	14.50'	4,408.06	4,407.96	4,408.49	4,408.35	14.50'	4,408.25	4,407.99	16.50'	4,408.28	4,408.37
21+05.43							4,408.45	4,408.32	14.50'	4,408.19	4,407.96	16.50'	4,408.20	4,408.34
21+50.00	16.50'	4,408.07	4,408.13	14.50'	4,407.82	4,407.75	4,408.15	4,408.14	14.50'	4,407.79	4,407.78	16.50'	4,408.05	4,408.16
21+63.83							4,408.08	4,408.08	14.50'	4,407.73	4,407.72	16.50'	4,408.00	4,408.10
21+63.97	16.50'	4,408.03	4,408.07	14.50'	4,407.77	4,407.69								
21+80.23									30.95'	4,407.50	4,407.50	31.20'	4,407.79	4,407.76
21+80.37	31.20'	4,407.85	4,407.95	30.95'	4,407.64	4,407.64								
21+82.77							4,407.98	4,407.98						

HATCH LEGEND

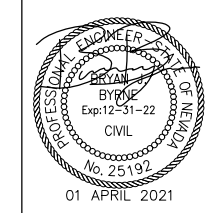
HATCH DESCRIPTION	HATCH DEPICTION	ASSOCIATED SECTION/DETAIL
PROPOSED ASPHALT TYPICAL SECTION		TS1, TS2, C-100, C-100
PROPOSED ASPHALT SPECIAL SECTION		TS3, C-100
PROPOSED CONCRETE DRIVEWAY OR WALKWAY		DRIVEWAY OR WALKWAY, S-103, S-111A, C-501, C-501
PROPOSED CONCRETE REPLACEMENT SECTION		DRIVEWAY OR WALKWAY, S-103, S-111A, C-501, C-501
PROPOSED POSSIBLE REM & REPL SECTION		DRIVEWAY OR WALKWAY, S-103, S-111A, C-501, C-501

NOTE:  
 SEE INTERSECTION LAYOUTS FOR STRIPING NOTES, SEE SHEETS C-401 TO C-404.



Plot Date: 4/1/2021 3:58 PM, Plotted By: Keith Kuhn, Date Created: 4/1/2021, J:\JUB\CENTRAL\CLIENT\SPARKS\SCITY\PROJ\G\G STREET\49-20-051-GSTANDSHRIVERBLVD\DESIGN\CAD\SHEET\49-20-051-GSHR-P&P.DWG





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NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER  
CITY OF SPARKS, WASHOE COUNTY, NEVADA

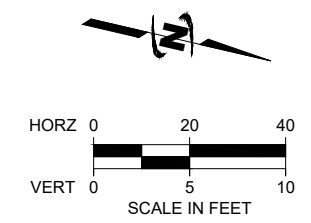
SHRIVER BOULEVARD PLAN  
STA 10+25 TO STA 13+75

FILE: 49-20-051-GSHR-P&PS  
JOB PROJ. #: 49-20-051  
DRAWN BY: KBK  
DESIGN BY: BB  
CHECKED BY: LLJ

AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY  
LAST UPDATED: 4/1/2021

DRAWING:  
**C-104**

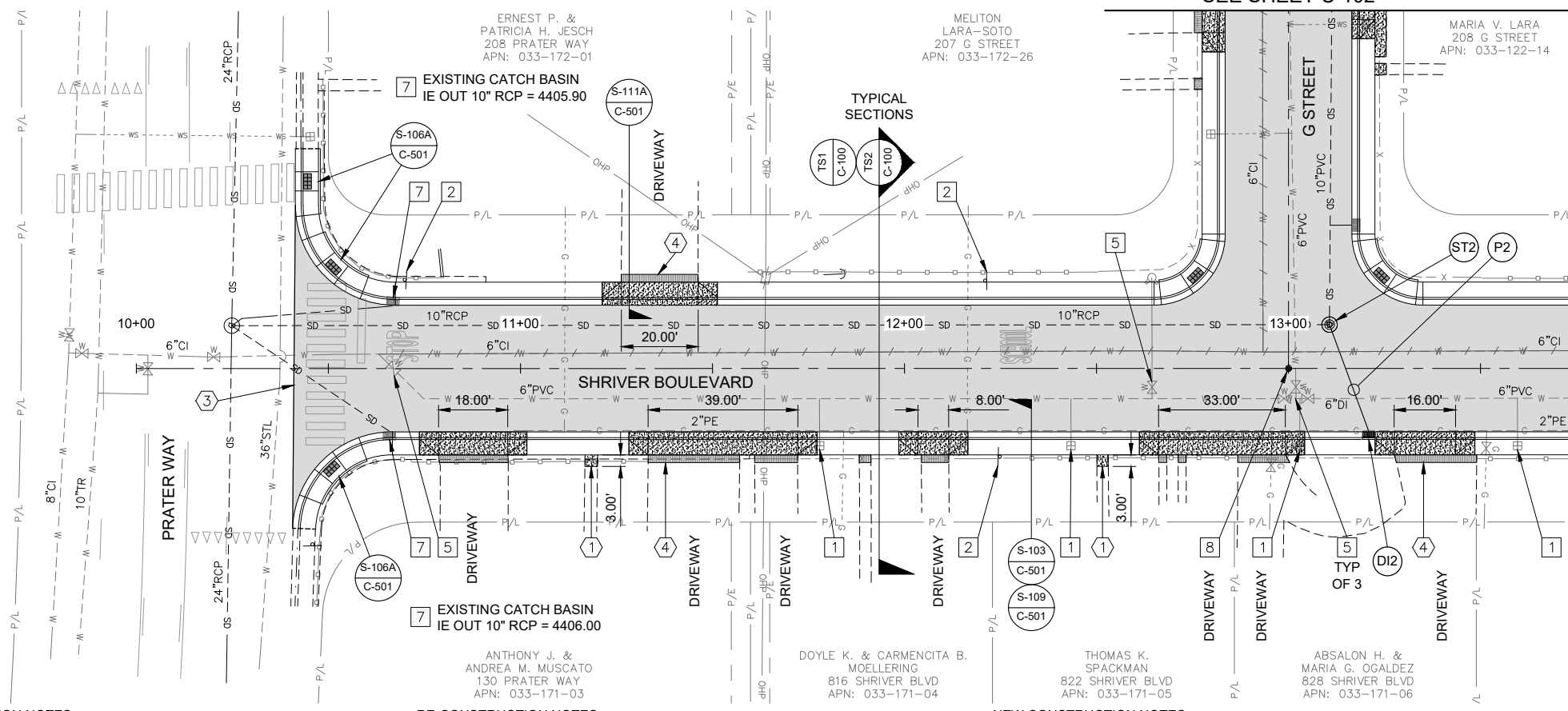
SHEET: 9 OF 17



DRAWING SCALES:  
1 INCH @ 20 SC = 22"x34" PLANS  
1 INCH @ 40 SC = 11"x17" PLANS

SEE SHEET C-102

MATCHLINE - STA 13+75 - SEE SHEET C-105



CONSTRUCTION NOTES:

- ADJUST EXISTING WATER METERS TO FINISHED GRADE, METER BOXES THAT ARE LOCATED WITHIN DRIVEWAYS SHALL REQUIRE A TRAFFIC RATED LID AND WILL BE FURNISHED BY TMWA
- PROTECT EXISTING SIGN IN PLACE
- ADJUST EXISTING WATER VALVE TO GRADE, CONSTRUCT NEW VALVE COLLAR, SEE DETAIL NS-1, SHEET C-503. CONTRACTOR TO OBTAIN AS-BUILT PLANS INFORMATION FOR NEW WATERLINE FROM TMWA TO REFERENCE AND CONFIRM WATER MAIN, SERVICES, METERS AND VALVE LOCATIONS
- REMOVE AND REPLACE EXISTING CATCH BASIN, FRAME AND GRATE WITH NEW TYPE 4-R CATCH BASIN, SEE DETAIL S-204A & B, SHEET C-502
- REMOVE AND RESET ROADWAY MONUMENT, SEE DETAIL S-118, SHEET C-502

RE-CONSTRUCTION NOTES:

- REMOVE AND REPLACE (3 LF) EXISTING CONCRETE WALKWAY AS REQUIRED TO MATCH ROADWAY SIDEWALK GRADES, SAW CUT FULL DEPTH FOR A CLEAN VERTICAL JOINT
- SAW CUT FULL DEPTH FOR A CLEAN VERTICAL JOINT, FINISHED SURFACE SHALL MATCH ADJACENT EXISTING SURFACE WITH A NEAT/CLEAN EDGE
- REMOVE AND REPLACE (2 FOOT WIDE) CONCRETE TRANSITION SECTION WHERE GRADES DO NOT MATCH THE EXISTING WALKWAY OR DRIVEWAY GRADES IF REQUIRED OR AS NECESSARY (TYPICAL OF ALL LOCATION UNLESS OTHERWISE SHOWN WITH DIMENSIONS)

NEW CONSTRUCTION NOTES:

- (S-103) CONCRETE SIDEWALK, SEE DETAIL
- (S-109) TYPE 1 P.C.C. CURB & GUTTER, SEE DETAIL
- (S-111A) P.C.C. DRIVEWAY APRON, SEE DETAIL
- (S-106A) PEDESTRIAN RAMP, SEE DETAIL
- (ST2) STA 13+10.65, 11.42' L INSTALL NEW TYPE 1 MH RIM (E) = 4409.17 RIM (P) = 4409.04 IE IN 10" (W) = 4406.70 IE OUT 10" (S) = 4406.70 NEW IE IN 10" (NE) = 4406.80 PIPE SLOPE = 0.50% SEE DETAIL, S-206A, SHEET C-503
- (D12) STA 13+20.90, 18.5' R INSTALL TYPE 4R CATCH BASIN, FRAME & GRATE TBC = 4409.05 FL = 4408.55 GRATE = 4408.32 IE OUT 10" (SW) = 4406.94 PIPE SLOPE = 0.50%
- (P2) 29.6 LF - 10" SDR-35 PVC PIPE SLOPE = 0.50% REFERENCE DETAIL S-117, SHEET C-502 BACKFILL SHALL INCLUDE 200 PSI EXCAVATABLE SLURRY BACKFILL

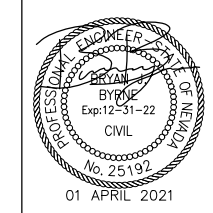
HATCH LEGEND

HATCH DESCRIPTION	HATCH DEPICTION	ASSOCIATED SECTION/DETAIL
PROPOSED ASPHALT TYPICAL SECTION		(TS1) (TS2) (C-100) (C-100)
PROPOSED ASPHALT SPECIAL SECTION		(TS3) (C-100)
PROPOSED CONCRETE DRIVEWAY OR WALKWAY		(S-103) (S-111A) (C-501) (C-501)
PROPOSED CONCRETE REPLACEMENT SECTION		(S-103) (S-111A) (C-501) (C-501)
PROPOSED POSSIBLE REM & REPL SECTION		(S-103) (S-111A) (C-501) (C-501)

NOTE:  
SEE INTERSECTION LAYOUTS FOR STRIPING NOTES, SEE SHEETS C-401 TO C-404.

DESIGN TABLE SHRIVER STREET SHEET C-104

STATION	TOP BACK OF CURB (LEFT)			LIP OF GUTTER (LEFT)			CROWN		LIP OF GUTTER (RIGHT)			TOP BACK OF CURB (RIGHT)		
	OFFSET	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED
10+00.00														
10+41.83							4,408.83	4,408.83						
10+44.35									32.92'	4,408.42	4,408.34	33.66'	4,408.59	4,408.72
10+44.95	34.04'	4,408.28	4,408.69	33.33'	4,408.35	4,408.31								
10+50.00							4,408.73	4,408.73						
10+64.50									16.60'	4,408.42	4,408.14	18.60'	4,408.55	4,408.52
10+65.56	18.57'	4,408.35	4,408.38	16.58'	4,408.24	4,408.00								
10+66.66							4,408.65	4,408.55	16.50'	4,408.43	4,408.14	18.50'	4,408.54	4,408.52
10+67.40	18.50'	4,408.47	4,408.38	16.50'	4,408.24	4,408.00	4,408.64	4,408.55						
11+00.00	18.50'	4,408.58	4,408.46	16.50'	4,408.36	4,408.08	4,408.77	4,408.64	16.50'	4,408.40	4,408.23	18.50'	4,408.68	4,408.61
11+50.00	18.50'	4,408.63	4,408.58	16.50'	4,408.43	4,408.20	4,408.88	4,408.76	16.50'	4,408.48	4,408.35	18.50'	4,408.76	4,408.73
11+77.25							4,408.98	4,408.83	16.50'	4,408.58	4,408.42	18.50'	4,408.83	4,408.80
12+00.00	18.50'	4,408.66	4,408.71	16.50'	4,408.46	4,408.33	4,409.03	4,408.90	16.50'	4,408.59	4,408.49	18.50'	4,408.82	4,408.87
12+50.00	18.50'	4,408.79	4,408.83	16.50'	4,408.57	4,408.45	4,409.20	4,409.05	16.50'	4,408.71	4,408.63	18.50'	4,408.92	4,409.01
12+65.00	18.50'	4,408.80	4,408.87	16.50'	4,408.61	4,408.49	4,409.25	4,409.09						
13+00.00							4,409.34	4,409.28	16.50'	4,408.86	4,408.78	18.50'	4,409.07	4,409.16
13+04.18												18.50'	4,409.08	4,409.18
13+20.90							4,409.35	4,409.23	16.50'	4,408.92	4,408.67	18.50'	4,409.08	4,409.05
13+35.00							4,409.37	4,409.20						
13+50.00	18.50'	4,408.98	4,409.00	16.50'	4,408.80	4,408.62	4,409.42	4,409.23	16.50'	4,408.96	4,408.75	18.50'	4,409.09	4,409.13



REUSE OF DRAWINGS

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NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER  
 CITY OF SPARKS, WASHOE COUNTY, NEVADA

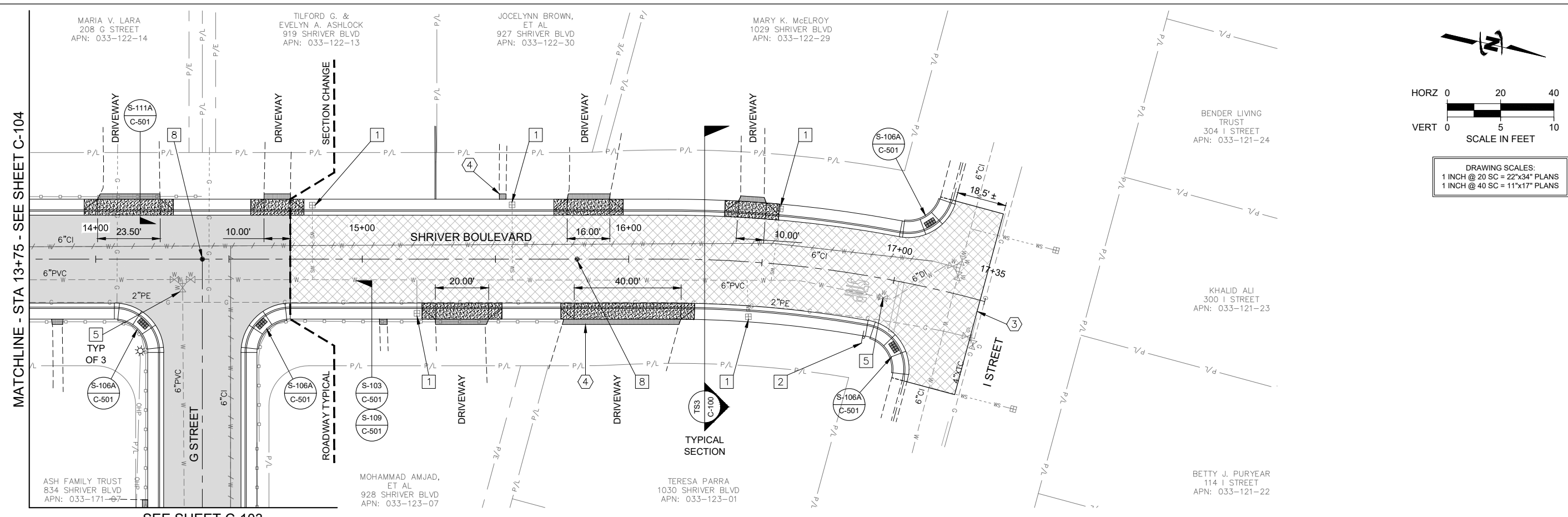
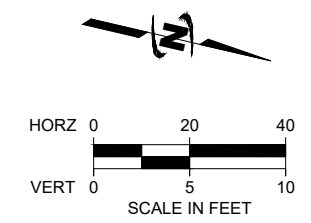
SHRIVER BOULEVARD PLAN  
 STA 13+75 TO STA 17+33.90

FILE: 49-20-051-GSHR-P&P  
 JUB PROJ. #: 49-20-051  
 DRAWN BY: KBK  
 DESIGN BY: BB  
 CHECKED BY: LUJ

AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY  
 LAST UPDATED: 4/1/2021

DRAWING:  
**C-105**

SHEET: 10 OF 17



CONSTRUCTION NOTES:

- 1 ADJUST EXISTING WATER METERS TO FINISHED GRADE, METER BOXES THAT ARE LOCATED WITHIN DRIVEWAYS SHALL REQUIRE A TRAFFIC RATED LID AND WILL BE FURNISHED BY TMWA
- 2 PROTECT EXISTING SIGN IN PLACE
- 5 ADJUST EXISTING WATER VALVE TO GRADE, CONSTRUCT NEW VALVE COLLAR, SEE DETAIL NS-1, SHEET C-503. CONTRACTOR TO OBTAIN AS-BUILT PLANS INFORMATION FOR NEW WATERLINE FROM TMWA TO REFERENCE AND CONFIRM WATER MAIN, SERVICES, METERS AND VALVE LOCATIONS
- 8 REMOVE AND RESET ROADWAY MONUMENT, SEE DETAIL S-118, SHEET C-502

RE-CONSTRUCTION NOTES:

- 3 SAW CUT FULL DEPTH FOR A CLEAN VERTICAL JOINT, FINISHED SURFACE SHALL MATCH ADJACENT EXISTING SURFACE WITH A NEAT/CLEAN EDGE
- 4 REMOVE AND REPLACE (2 FOOT WIDE) CONCRETE TRANSITION SECTION WHERE GRADES DO NOT MATCH THE EXISTING WALKWAY OR DRIVEWAY GRADES IF REQUIRED OR AS NECESSARY (TYPICAL OF ALL LOCATION UNLESS OTHERWISE SHOWN WITH DIMENSIONS)

NEW CONSTRUCTION NOTES:

- S-103 C-501 CONCRETE SIDEWALK, SEE DETAIL
- S-109 C-501 TYPE 1 P.C.C. CURB & GUTTER, SEE DETAIL
- S-111A C-501 P.C.C. DRIVEWAY APRON, SEE DETAIL
- S-106A C-501 PEDESTRIAN RAMP, SEE DETAIL

HATCH LEGEND

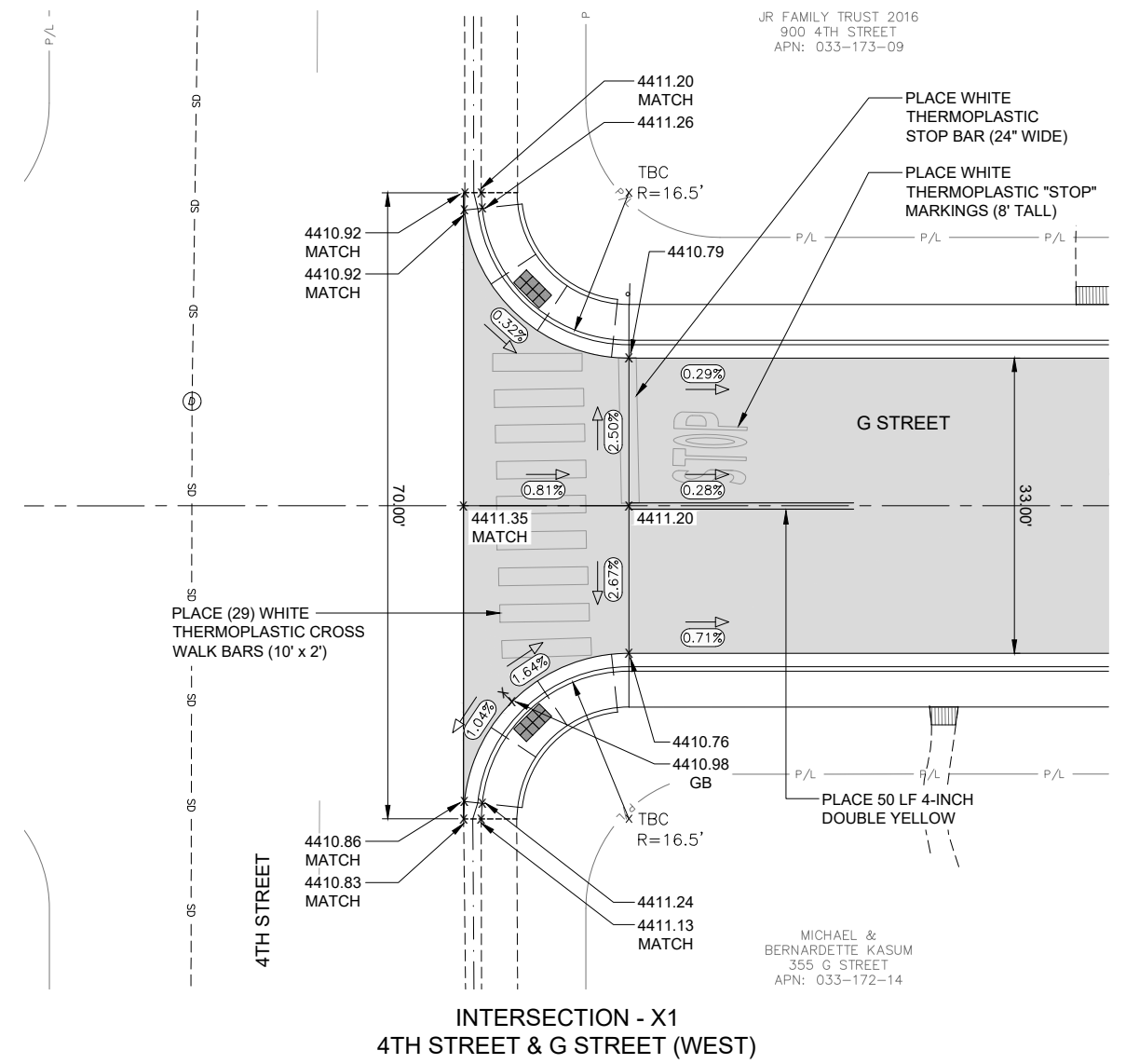
HATCH DESCRIPTION	HATCH DEPICTION	ASSOCIATED SECTION/DETAIL
PROPOSED ASPHALT TYPICAL SECTION		TS1 C-100, TS2 C-100
PROPOSED ASPHALT SPECIAL SECTION		TS3 C-100
PROPOSED CONCRETE DRIVEWAY OR PROPOSED CONCRETE REPLACEMENT SECTION		DRIVEWAY OR WALKWAY, S-103 C-501, S-111A C-501
PROPOSED POSSIBLE REM & REPL SECTION		DRIVEWAY OR WALKWAY, S-103 C-501, S-111A C-501

NOTE:  
 SEE INTERSECTION LAYOUTS FOR STRIPING NOTES, SEE SHEETS C-401 TO C-404.

DESIGN TABLE SHRIVER STREET SHEET C-105

STATION	TOP BACK OF CURB (LEFT)			LIP OF GUTTER (LEFT)			CROWN		LIP OF GUTTER (RIGHT)			TOP BACK OF CURB (RIGHT)		
	OFFSET	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED	OFFSET	EXISTING	PROPOSED
14+00.00	18.50'	4,409.16	4,409.18	16.50'	4,408.96	4,408.80	4,409.59	4,409.32	16.50'	4,409.07	4,408.90	18.50'	4,409.20	4,409.28
14+00.68	18.50'	4,409.16	4,409.18	16.50'	4,408.96	4,408.80								
14+07.00							4,409.59	4,409.33	16.50'	4,409.03	4,408.92	18.50'	4,409.22	4,409.30
14+40.00							4,409.78	4,409.44						
14+50.00	18.50'	4,409.41	4,409.37	16.50'	4,409.17	4,408.99	4,409.79	4,409.47						
14+73.00							4,409.80	4,409.54	16.50'	4,409.35	4,409.13	18.50'	4,409.52	4,409.51
15+00.00	18.50'	4,409.60	4,409.55	16.50'	4,409.38	4,409.17	4,409.87	4,409.63	16.50'	4,409.38	4,409.22	18.50'	4,409.65	4,409.60
15+50.00	18.50'	4,409.75	4,409.75	16.50'	4,409.50	4,409.37	4,409.93	4,409.79	16.50'	4,409.53	4,409.38	18.50'	4,409.79	4,409.76
15+97.91	18.50'	4,409.84	4,409.93	16.50'	4,409.66	4,409.55	4,410.07	4,409.95						
16+00.00	18.50'	4,409.84	4,409.94	16.50'	4,409.66	4,408.56	4,410.07	4,409.95	16.50'	4,409.71	4,409.54	18.50'	4,409.75	4,409.92
16+50.00	18.50'	4,409.84	4,410.09	16.50'	4,409.71	4,409.71	4,410.25	4,410.11	16.50'	4,409.79	4,409.69	18.50'	4,409.93	4,410.07
16+93.06							4,410.34	4,410.32	16.50'	4,409.87	4,409.82	18.50'	4,410.12	4,410.20
16+98.94	18.50'	4,410.14	4,410.24	16.50'	4,409.90	4,409.86								
17+00.00							4,410.37	4,410.39						
17+10.86									33.48'	4,409.97	4,409.94	33.68'	4,410.19	4,410.32
17+14.16	32.91'	4,410.16	4,410.33	32.69'	4,409.99	4,409.95								
17+14.69							4,410.54	4,410.54						

Plot Date: 4/1/2021 3:58 PM Plotted By: Keith Kalar  
 Date Created: 3/1/2021 J:\JUB\COM\CENTRAL\CLIENTS\NV\SPARKS\CITY\PROJECTS\49-20-051-GSHR\PA&P.DWG



**INTERSECTION - X1**  
4TH STREET & G STREET (WEST)

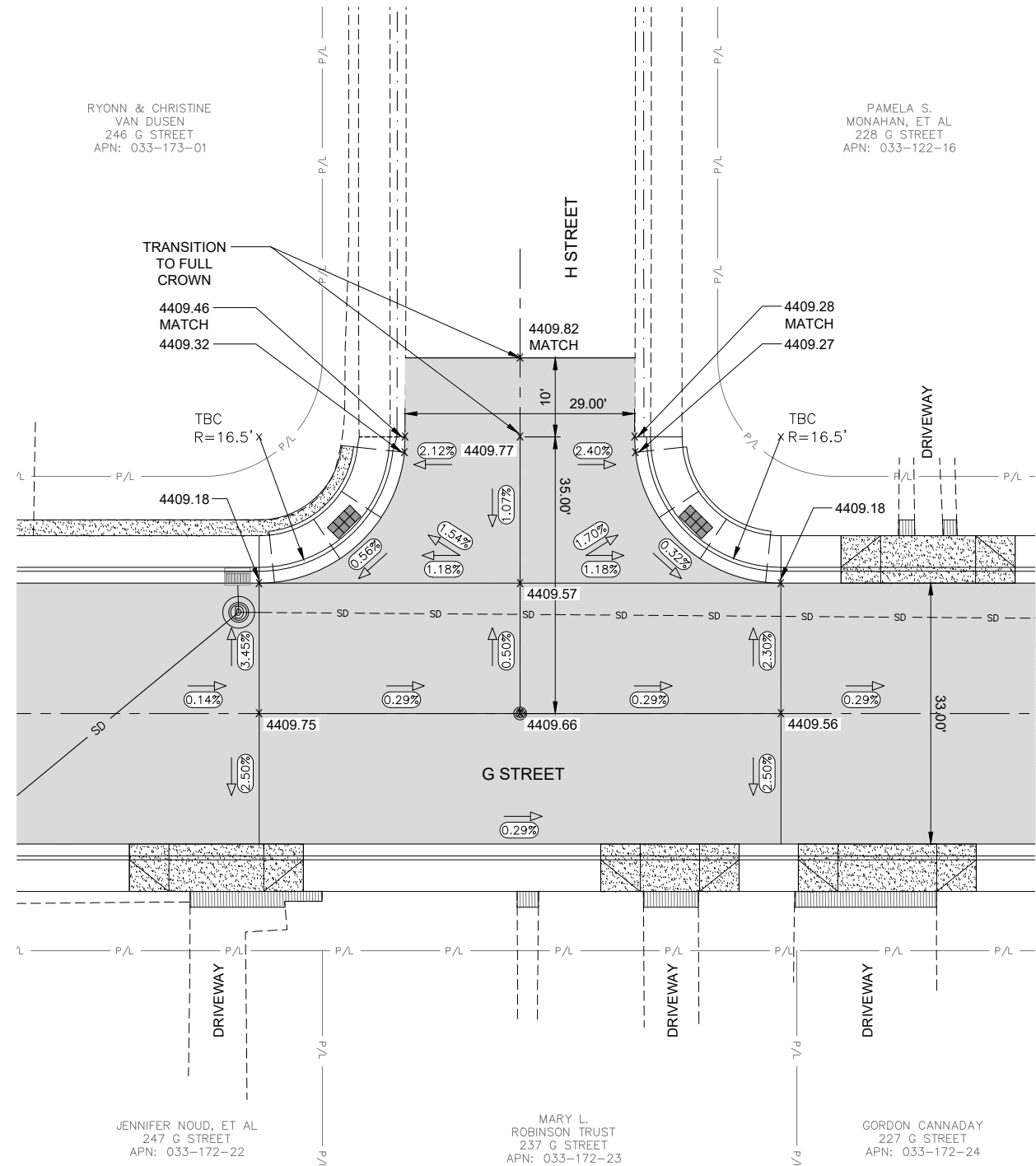
**GRADING & DRAINAGE LEGEND**

- PROPOSED LONGITUDINAL GRADE SLOPES
- GRADE BREAK LOCATION

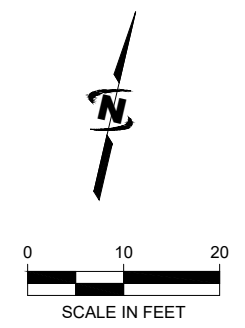
SEE DETAIL

**STRIPING NOTES:**

1. ALL LONGITUDINAL LINES SHALL BE PAINTED WITH (2) COATS OF NDOT TYPE II PAINT OR APPROVED EQUAL.
2. PREFORMED THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND IN ACCORDANCE WITH SECTION 634 OF THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY THE STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION (NDOT), EXCEPT ALL THERMOPLASTIC MARKINGS WILL BE 0.090 INCHES THICK. HOT-APPLIED EXTRUDED THERMOPLASTIC SHALL NOT BE USED.
3. ALL LETTERED "STOP", "15MPH", AND "SCHOOL" MARKINGS SHALL BE PREFORMED THERMOPLASTIC LEGENDS.
4. ANY REMOVAL OR DAMAGE TO STRIPING OUTSIDE OF LIMITS AS SHOWN, WILL BE RE-STRIPED AT THE CONTRACTOR'S EXPENSE.
5. ALL PAVEMENT MARKINGS AND STRIPING SHALL CONFORM TO (ASSHTO & MUTCD) SPECIFICATIONS AND REQUIREMENTS FOR STREETS AND HIGHWAYS, LATEST ADDITION.



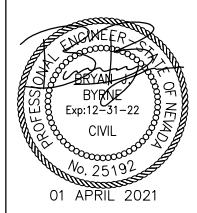
**INTERSECTION - X2**  
G STREET (WEST) & H STREET



DRAWING SCALES:  
 1 INCH @ 10 SC = 22"x34" PLANS  
 1 INCH @ 20 SC = 11"x17" PLANS



**J-U-B ENGINEERS, INC.**  
 9160 Double  
 Diamond Parkway  
 Reno, NV 89521  
 Phone: 775.852.1440  
 www.jub.com



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NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

**2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER**  
**CITY OF SPARKS, WASHOE COUNTY, NEVADA**

**INTERSECTION LAYOUTS**

FILE: 49-20-051-GSHR-PA&P  
 JUB PROJ. #: 49-20-051  
 DRAWN BY: KBK  
 DESIGN BY: BB  
 CHECKED BY: LU

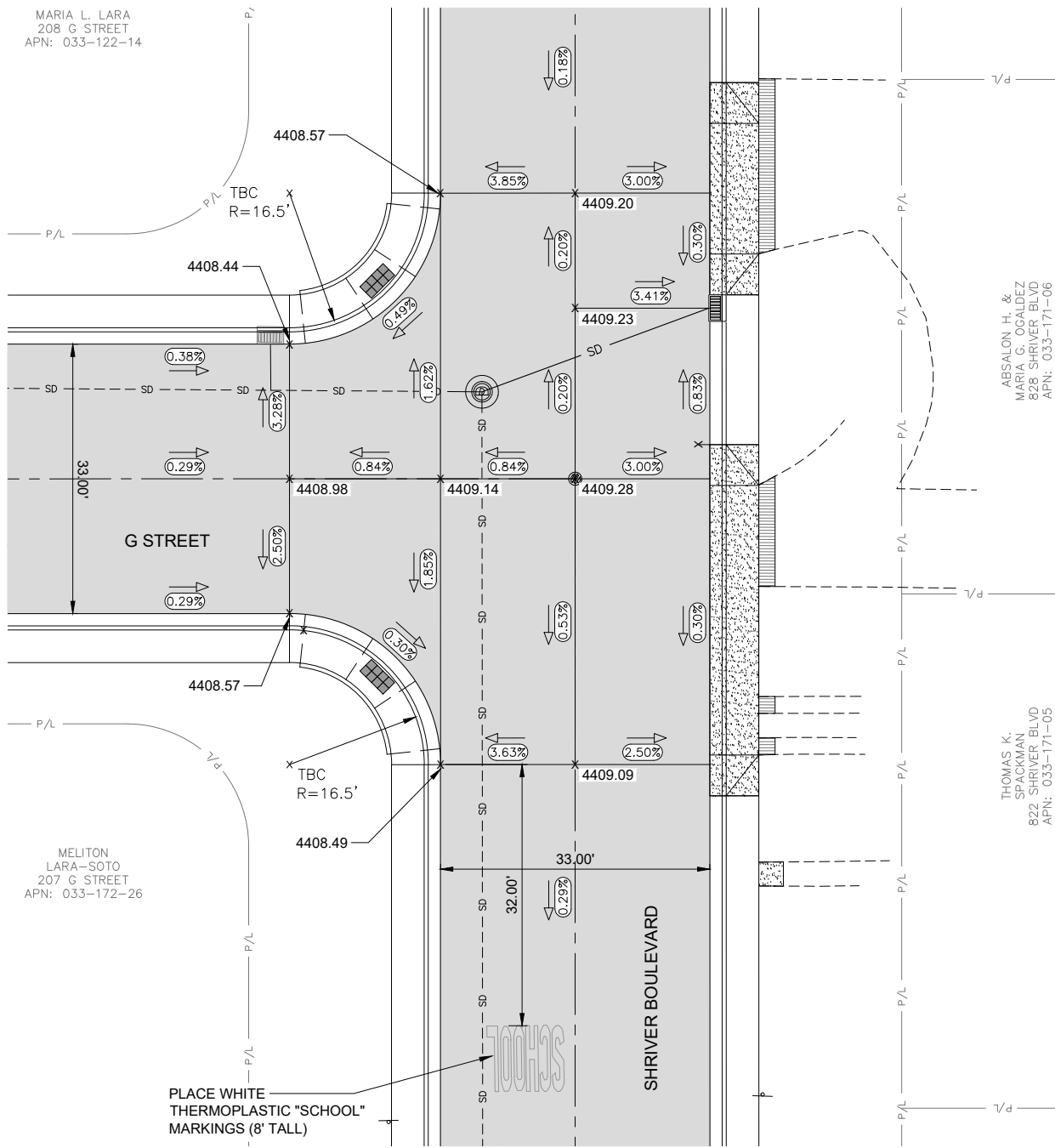
AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY  
 LAST UPDATED: 4/1/2021

DRAWING:  
**C-401**

SHEET: 11 OF 17



MARIA L. LARA  
208 G STREET  
APN: 033-122-14



INTERSECTION - X3  
G STREET (WEST) & SHRIVER BOULEVARD

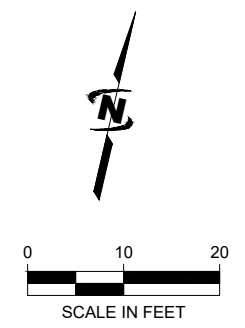
ABSALON H. &  
MARIA G. OCALDEZ  
828 SHRIVER BLVD  
APN: 033-171-06

THOMAS K.  
SPACKMAN  
822 SHRIVER BLVD  
APN: 033-171-05

S-411 SEE DETAIL  
C-503

STRIPING NOTES:

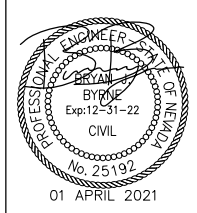
1. ALL LONGITUDINAL LINES SHALL BE PAINTED WITH (2) COATS OF NDOT TYPE II PAINT OR APPROVED EQUAL.
2. PREFORMED THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND IN ACCORDANCE WITH SECTION 634 OF THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY THE STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION (NDOT). EXCEPT ALL THERMOPLASTIC MARKINGS WILL BE 0.090 INCHES THICK. HOT-APPLIED EXTRUDED THERMOPLASTIC SHALL NOT BE USED.
3. ALL LETTERED "STOP", "15MPH", AND "SCHOOL" MARKINGS SHALL BE PREFORMED THERMOPLASTIC LEGENDS.
4. ANY REMOVAL OR DAMAGE TO STRIPING OUTSIDE OF LIMITS AS SHOWN, WILL BE RE-STRIPED AT THE CONTRACTOR'S EXPENSE.
5. ALL PAVEMENT MARKINGS AND STRIPING SHALL CONFORM TO (ASSHTO & MUTCD) SPECIFICATIONS AND REQUIREMENTS FOR STREETS AND HIGHWAYS, LATEST ADDITION.



DRAWING SCALES:  
1 INCH @ 10 SC = 22"x34" PLANS  
1 INCH @ 20 SC = 11"x17" PLANS



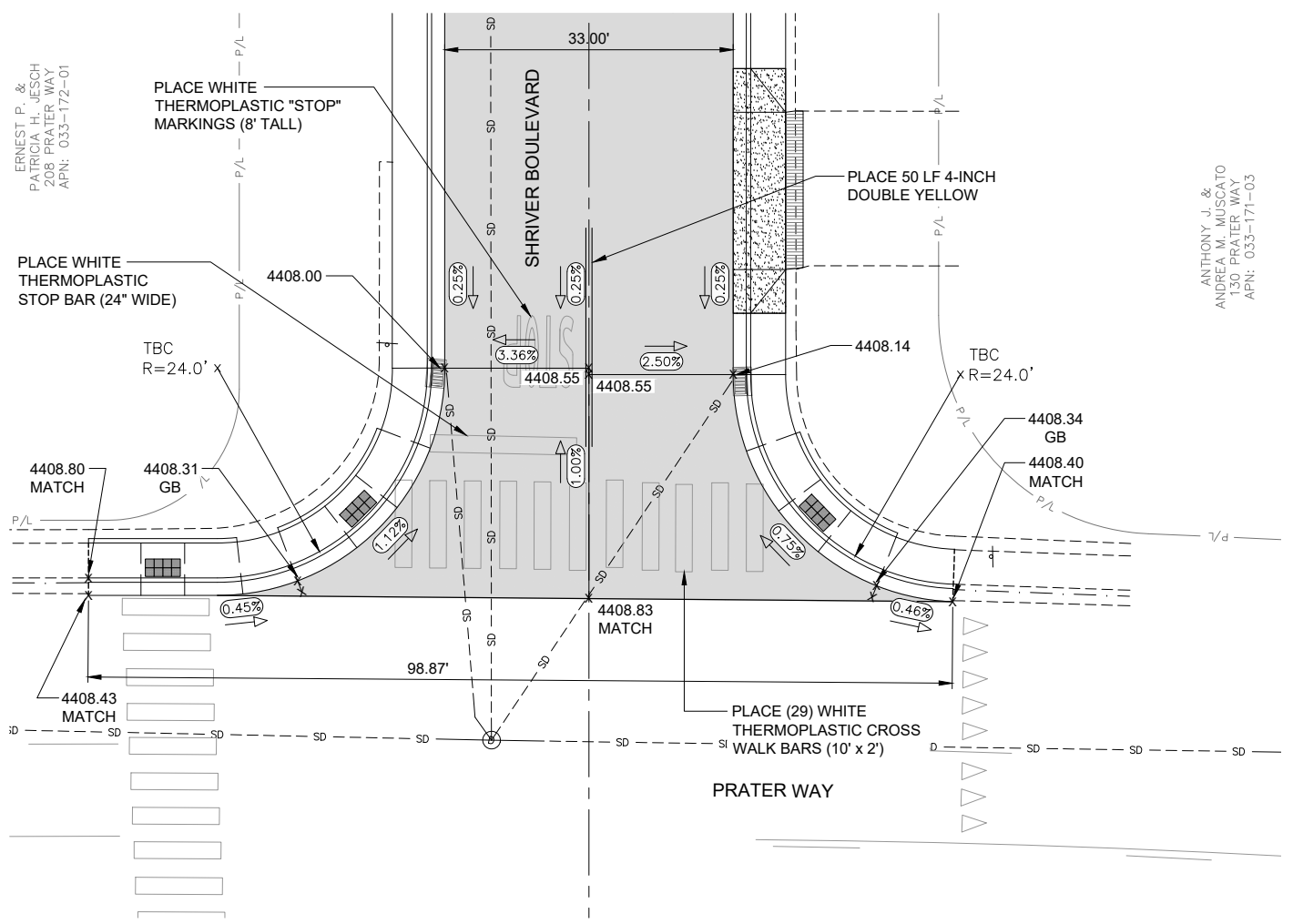
J-U-B ENGINEERS, INC.  
9160 Double  
Diamond Parkway  
Reno, NV 89521  
Phone: 775.852.1440  
www.jub.com



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NO.	REVISION	DESCRIPTION	BY	DATE

GRADING & DRAINAGE LEGEND



INTERSECTION - X4  
SHRIVER BOULEVARD & PRATER WAY

ANTHONY J. &  
ANDREA M. MUSCATO  
130 PRATER WAY  
APN: 033-171-03

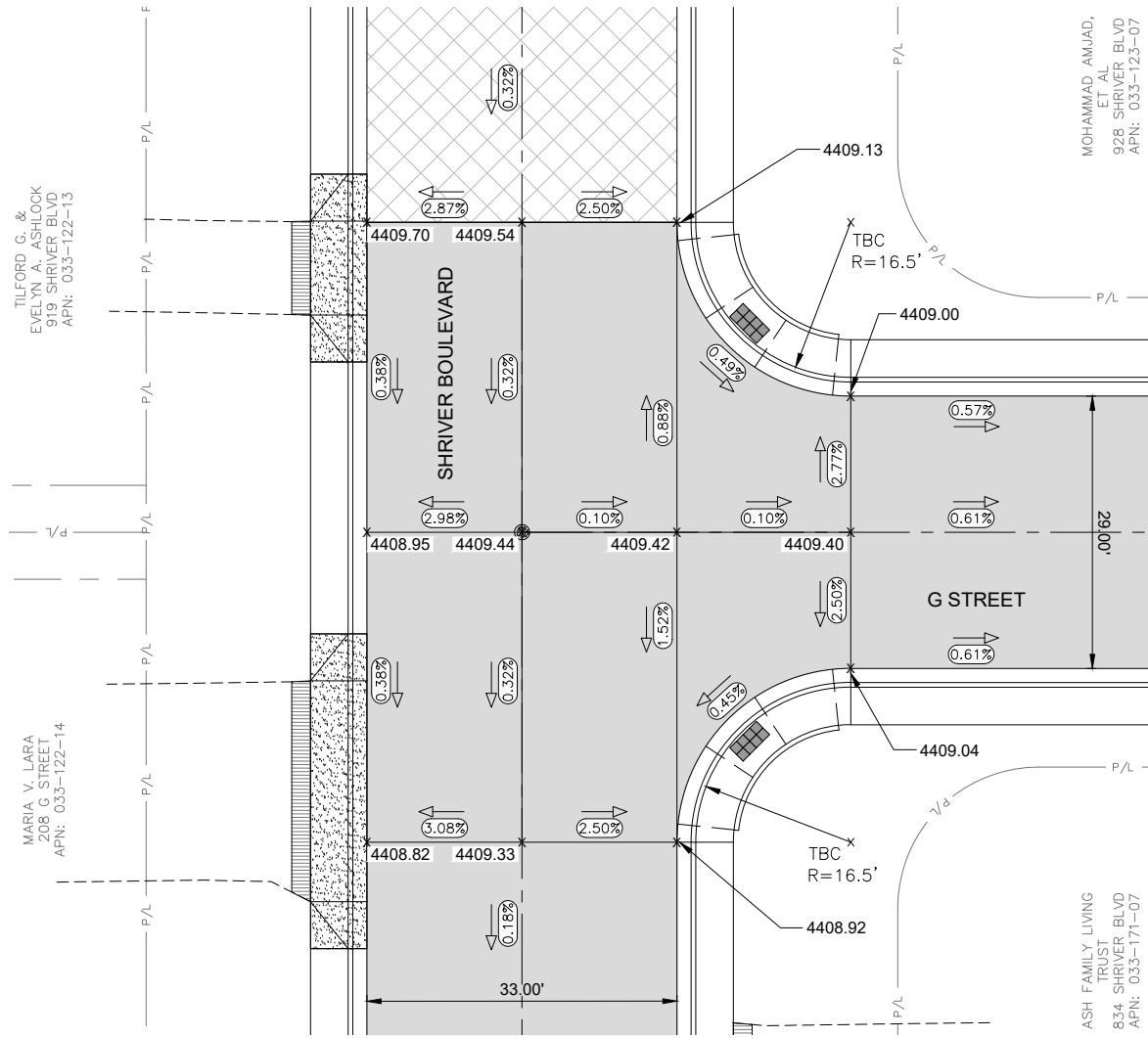
2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER  
CITY OF SPARKS, WASHOE COUNTY, NEVADA  
INTERSECTION LAYOUTS

FILE: 49-20-051-GSHR-P&P  
JUB PROJ. #: 49-20-051  
DRAWN BY: KBK  
DESIGN BY: BB  
CHECKED BY: LUJ  
ONE INCH  
AT FULL SIZE. IF NOT ONE  
INCH, SCALE ACCORDINGLY  
LAST UPDATED: 4/1/2021  
DRAWING:  
C-402  
SHEET: 12 OF 17



Plot Date: 4/1/2021 3:58 PM Plotted By: Keith Kalar Date Created: 4/1/2021 J:\JUB\CENTRAL\Clients\NV\SPARKS\CITY PROJ\GCT\549-20-051\_GSTANDSHRIVERBLVD\DESIGN\CAD\DRG\49-20-051-GSHR-P&P.DWG

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 Date Created: 3/12/21 J:\B\C\CENTRAL\Clients\SPARKS\CITY PROJECTS\DESIGN\49-20-051-GS\TND\SHRIVERBLVD\DESIGN\CAD\SHEET\49-20-051-GSHR-P&P.DWG



INTERSECTION - X5  
SHRIVER BOULEVARD & G STREET (EAST)

MOHAMMAD AMJAD,  
 ET AL  
 928 SHRIVER BLVD  
 APN: 033-123-07  
 ASH FAMILY LIVING  
 TRUST  
 834 SHRIVER BLVD  
 APN: 033-171-07

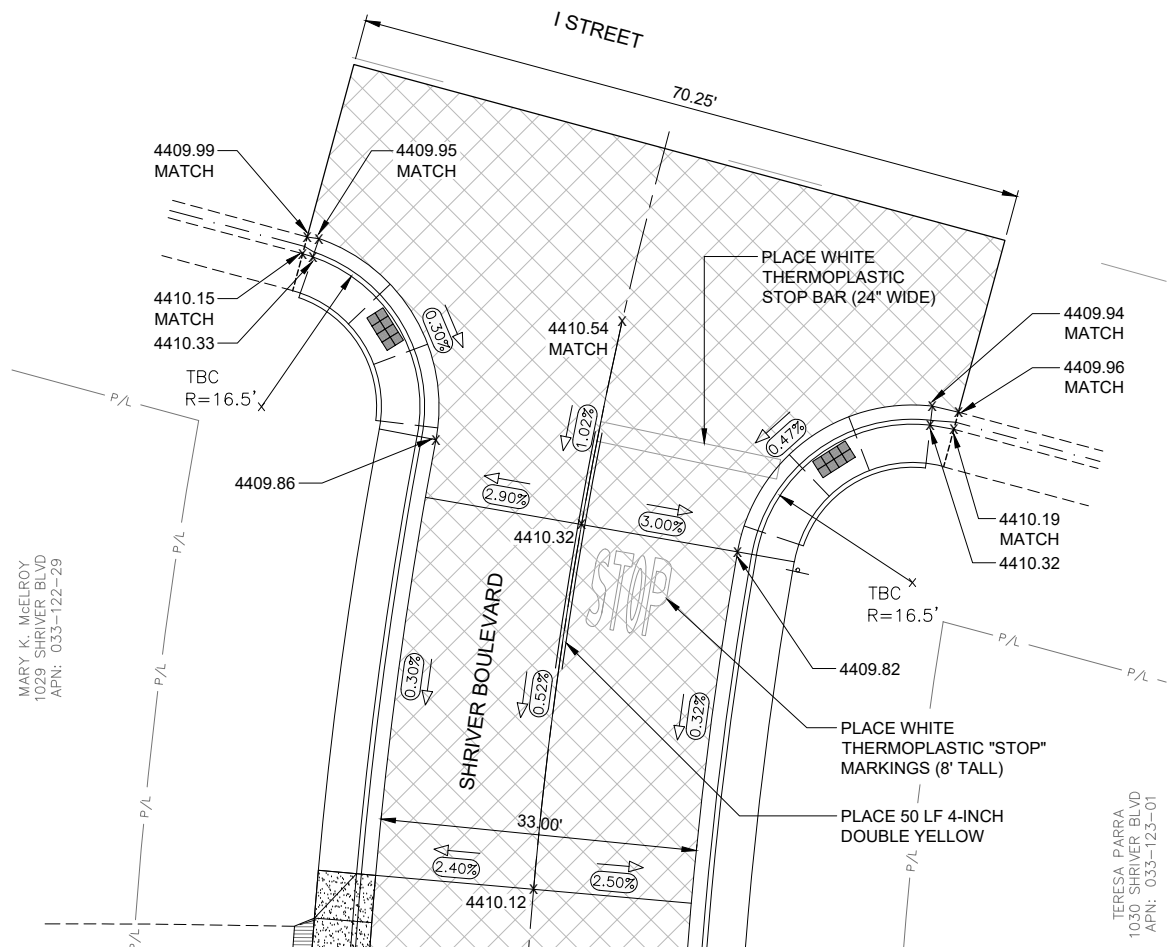
**GRADING & DRAINAGE LEGEND**

- PROPOSED LONGITUDINAL GRADE SLOPES
- GRADE BREAK LOCATION

SEE DETAIL

**STRIPING NOTES:**

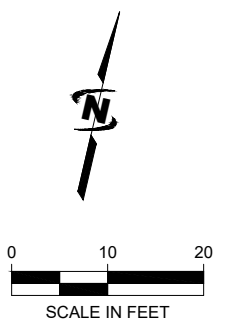
1. ALL LONGITUDINAL LINES SHALL BE PAINTED WITH (2) COATS OF NDOT TYPE II PAINT OR APPROVED EQUAL.
2. PREFORMED THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND IN ACCORDANCE WITH SECTION 634 OF THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY THE STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION (NDOT), EXCEPT ALL THERMOPLASTIC MARKINGS WILL BE 0.090 INCHES THICK. HOT-APPLIED EXTRUDED THERMOPLASTIC SHALL NOT BE USED.
3. ALL LETTERED "STOP", "15MPH", AND "SCHOOL" MARKINGS SHALL BE PREFORMED THERMOPLASTIC LEGENDS.
4. ANY REMOVAL OR DAMAGE TO STRIPING OUTSIDE OF LIMITS AS SHOWN, WILL BE RE-STRIPED AT THE CONTRACTOR'S EXPENSE.
5. ALL PAVEMENT MARKINGS AND STRIPING SHALL CONFORM TO (ASSHTO & MUTCD) SPECIFICATIONS AND REQUIREMENTS FOR STREETS AND HIGHWAYS, LATEST ADDITION.



INTERSECTION - X6  
SHRIVER BOULEVARD & I STREET

MARY K. MCELROY  
 1029 SHRIVER BLVD  
 APN: 033-122-29

TERESA PARRA  
 1030 SHRIVER BLVD  
 APN: 033-123-01



**DRAWING SCALES:**  
 1 INCH @ 10 SC = 22"x34" PLANS  
 1 INCH @ 20 SC = 11"x17" PLANS



**J-U-B ENGINEERS, INC.**  
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 Diamond Parkway  
 Reno, NV 89521  
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 www.jub.com



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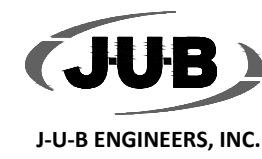
NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

**2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER**  
**CITY OF SPARKS, WASHOE COUNTY, NEVADA**  
 INTERSECTION LAYOUTS

FILE :	49-20-051-GSHR-P&P
JUB PROJ. # :	49-20-051
DRAWN BY :	KBK
DESIGN BY :	BB
CHECKED BY :	LU

AT FULL SIZE. IF NOT ONE INCH SCALE ACCORDINGLY  
 LAST UPDATED: 4/1/2021

DRAWING:  
**C-403**



MICHAEL W. JR.  
PIERCZYK  
901 1ST STREET  
APN: 033-123-06

PLACE 50 LF 4-INCH  
P<sub>v</sub> DOUBLE YELLOW

4407.95  
MATCH  
4407.95  
4407.95

TBC  
R=16.5'

4407.64  
MATCH

4407.64  
MATCH

PLACE (29) WHITE  
THERMOPLASTIC CROSS  
WALK BARS (10' x 2')

KRISTI K. DORF  
900 1ST STREET  
APN: 033-131-15

G STREET

4408.08

4407.98  
MATCH

4407.72

TBC  
R=16.5'

4407.50  
MATCH

4407.50  
MATCH

PLACE WHITE  
THERMOPLASTIC "STOP"  
MARKINGS (8' TALL)

PLACE WHITE  
THERMOPLASTIC  
STOP BAR (24" WIDE)

MICHAEL R. &  
PATRICIA JONES  
834 1ST STREET  
APN: 033-131-17

DANIEL REIGHTLEY  
833 1ST STREET  
APN: 033-171-08

INTERSECTION - X7  
G STREET (EAST) & 1ST STREET

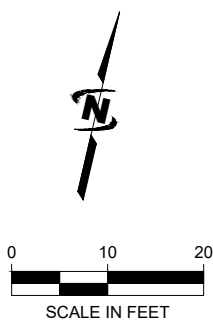
GRADING & DRAINAGE LEGEND

- PROPOSED LONGITUDINAL GRADE SLOPES
- GRADE BREAK LOCATION

SEE DETAIL

STRIPING NOTES:

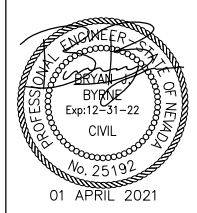
1. ALL LONGITUDINAL LINES SHALL BE PAINTED WITH (2) COATS OF NDOT TYPE II PAINT OR APPROVED EQUAL.
2. PREFORMED THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND IN ACCORDANCE WITH SECTION 634 OF THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY THE STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION (NDOT), EXCEPT ALL THERMOPLASTIC MARKINGS WILL BE 0.090 INCHES THICK. HOT-APPLIED EXTRUDED THERMOPLASTIC SHALL NOT BE USED.
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DRAWING SCALES:  
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1 INCH @ 20 SC = 11"x17" PLANS



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NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER  
CITY OF SPARKS, WASHOE COUNTY, NEVADA

INTERSECTION LAYOUTS

FILE: 49-20-051-GSHR-P&P  
JUB PROJ. #: 49-20-051  
DRAWN BY: KBK  
DESIGN BY: BB  
CHECKED BY: LUJ

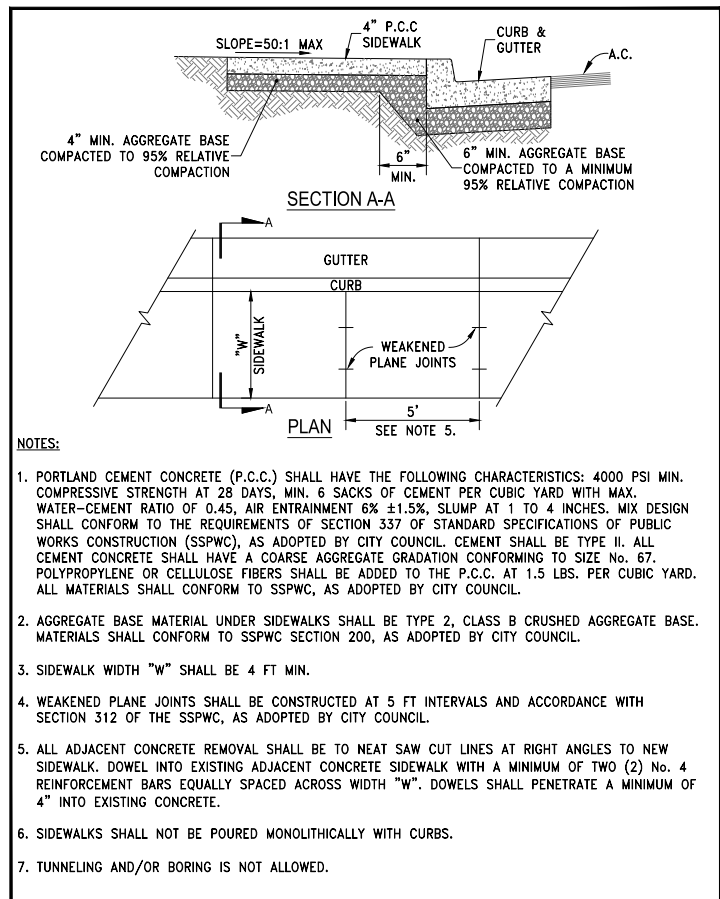


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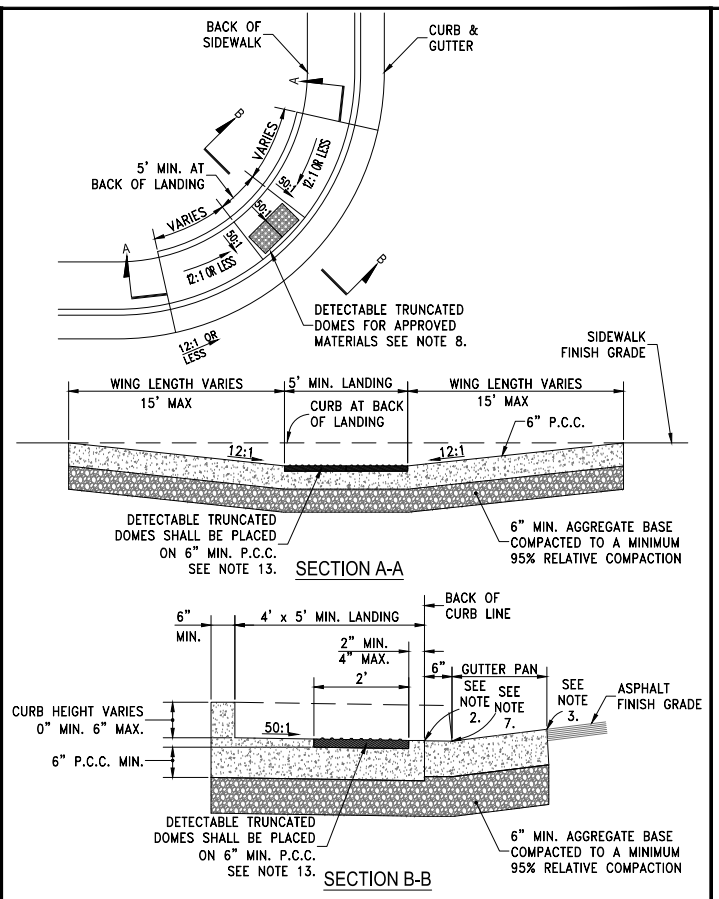
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AT FULL SIZE, IF NOT ONE  
INCH, SCALE ACCORDINGLY  
LAST UPDATED: 4/1/2021  
DRAWING:  
**C-404**  
SHEET: 14 OF 17

Plot Date: 4/1/2021 3:08 PM Plotted By: Keith Kalar Date Created: 4/1/2021 J:\JUB\COM\CENTRAL\CLIENTS\SPARKS\CITY PROJ\ECTS\49-20-051\_GSTANDSHRIVER\BUD\DESIGN\CAD\SHEET\49-20-051-GSHR-P&P.DWG

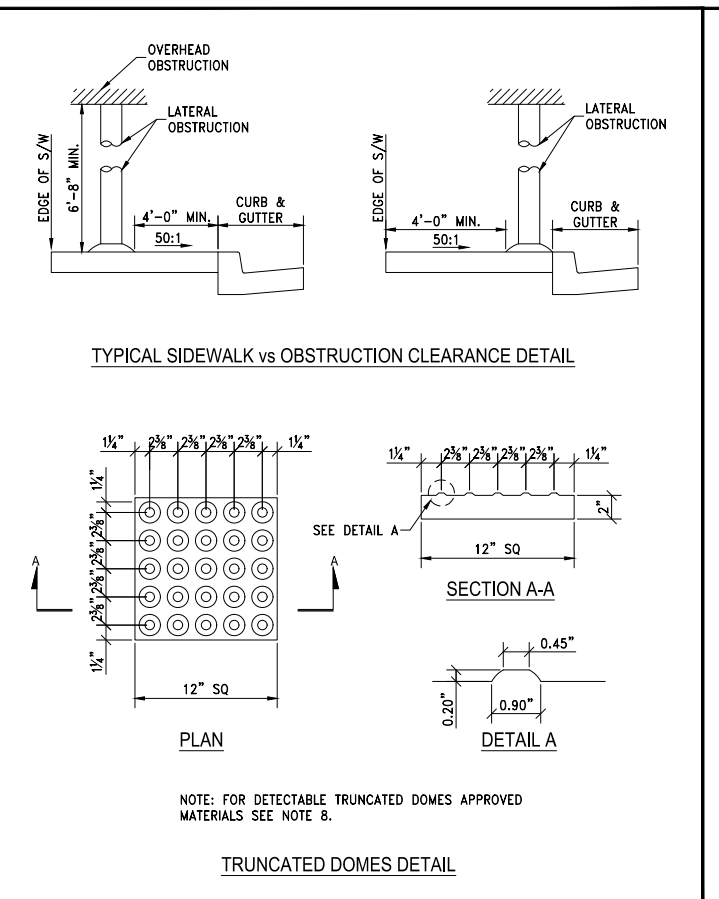
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 Date Created: 3/12/21 J:\JUB\COM\CENTRAL\CALC\CLIENT\SPARKS\DR\TY\PROJ\JUB\GSHR\DETAILS.DWG



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
SIDEWALK DETAIL	S-103
	APPROVED BY: JE DATE: 1/2020



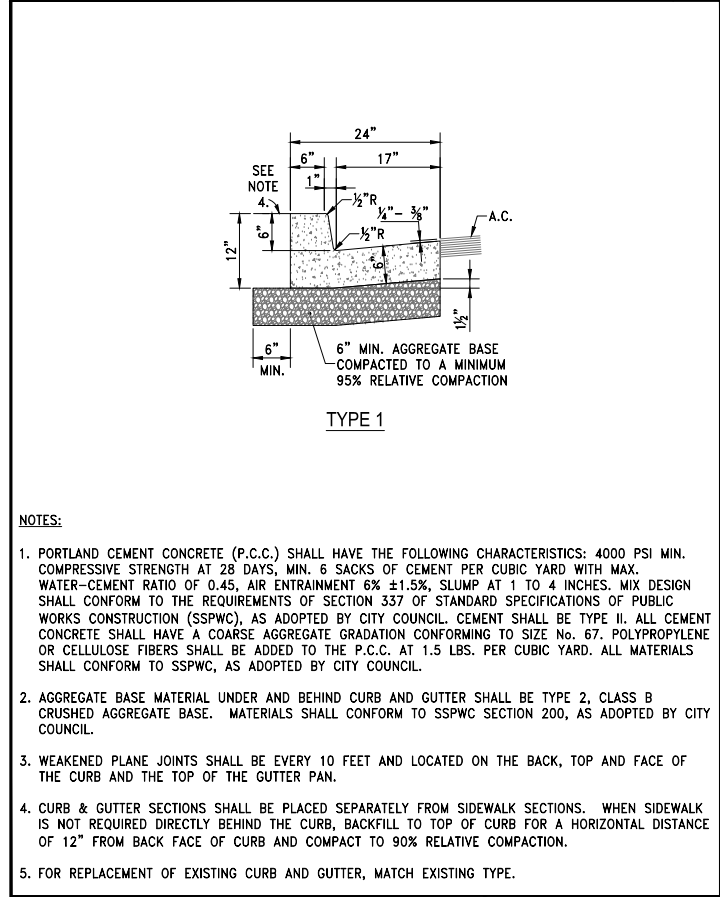
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
PEDESTRIAN RAMP - EXISTING SIDEWALKS	S-106A
	APPROVED BY: JE DATE: 1/2020



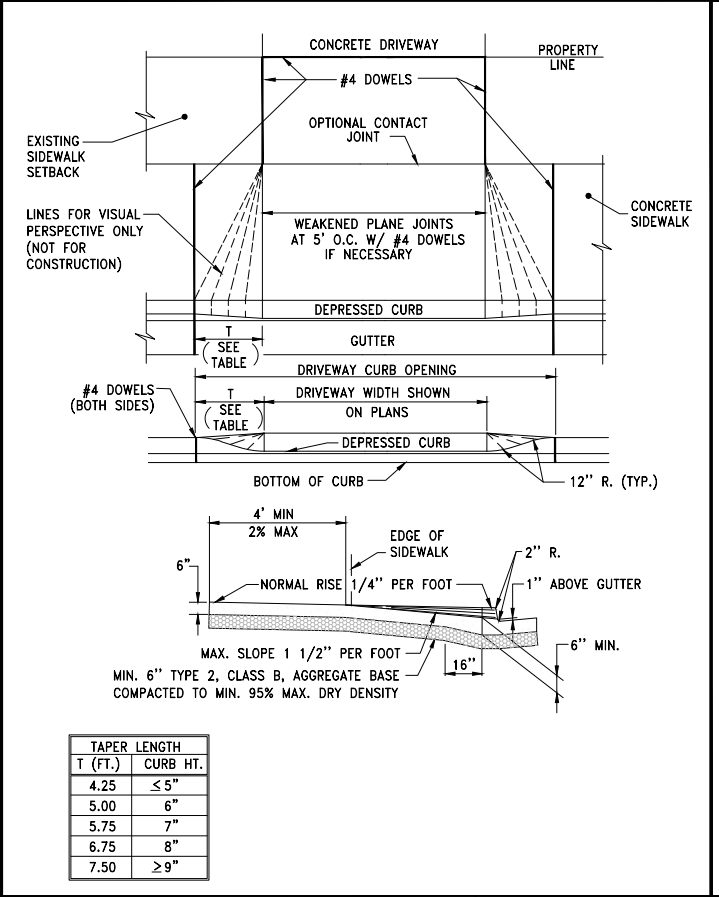
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
PEDESTRIAN RAMP - DETAILS	S-106F
	APPROVED BY: JE DATE: 1/2020

- STORM DRAIN INLETS OR SIMILAR ACCESSES SHALL NOT BE LOCATED IN THE AREA AT THE BASE OF THE CURB RAMP OR LANDING AREA. IF OBSTRUCTIONS SUCH AS INLETS, UTILITY POLES, PULL BOXES, FIRE HYDRANTS, ETC. ARE ENCOUNTERED, THE LOCATION AND DIMENSIONS MAY BE ADJUSTED UPON APPROVAL OF THE CITY ENGINEER.
- NO LIP SHALL BE PERMITTED AT THE CURB RAMP SLOPE TO GUTTER PAN.
- PLANTMIX BITUMINOUS SURFACE SHALL BE FLUSH WITH THE EDGE OF THE GUTTER PAN IN THE AREA OF THE CURB RAMP.
- ROUGH BROOM TEXTURE ON CURB RAMPS AND WINGS.
- DETECTABLE WARNING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND SHALL BE PLACED ON MIN. SIX (6") INCHES OF P.C.C.
- ALL SLOPE RATES ARE RELATIVE TO LEVEL AND SHALL COMPLY WITH THE PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) STANDARDS.
- GUTTER SHALL MAINTAIN POSITIVE DRAINAGE TO PREVENT PONDING.
- DETECTABLE WARNING SHALL CONSIST OF PRECAST WETSET TILES WITH MIN. SIZE OF 2' X 2', COLOR YELLOW. APPROVED PRODUCTS INCLUDE: "CASTITACT 3", "TEKWAY DOME-TILES", AND "ACCESS TILE". DETECTABLE WARNING SURFACES SHALL EXTEND THE FULL WIDTH OF THE RAMP RUN (EXCLUDING ANY FLARED SIDES), BLENDED TRANSITION, OR TURNING SPACE. DETECTABLE WARNING SHALL BE CONSTRUCTED PER MANUFACTURER'S INSTALLATION GUIDELINES AND CONFORM TO ADAAG.
- CONCRETE REMOVAL SHALL BE TO NEAT SAW CUT LINES
- AGGREGATE BASE MATERIAL UNDER PEDESTRIAN RAMPS SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
- PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
- CONTRACTORS SHALL CORRECT ANY GRADE CONFLICT WITH EXISTING BOXES. THE CITY ENGINEER SHALL MAKE THE FINAL DETERMINATION REGARDING THE DEGREE OF MODIFICATIONS REQUIRED BY THE CONTRACTOR FOR GRADE CONFLICTS BETWEEN EXISTING BOXES AND NEW PEDESTRIAN RAMPS.
- SIDEWALK AT BOTH SIDES OF RAMP MAY BE RECONSTRUCTED TO MINIMIZE THE GRADE AT A HORIZONTAL DISTANCE TO BE DETERMINED IN THE FIELD, UPON APPROVAL OF THE CITY ENGINEER, SUBJECT TO PROWAG REQUIREMENTS. CURB AT THE BACK OF WALK MAY BE NEEDED. A TRANSITION SECTION OF SIDEWALK MAY BE NECESSARY TO MATCH CROSS SLOPE OF EXISTING SIDEWALK TO PEDESTRIAN RAMP IMPROVEMENTS. TRANSITION SECTIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
NOTES - PEDESTRIAN RAMP	S-106G
	APPROVED BY: JE DATE: 1/2020



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
P.C.C. CURB & GUTTER	S-109
	APPROVED BY: JE DATE: 1/2020



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
P.C.C. DRIVEWAY APRON-EXISTING	S-111A
	APPROVED BY: JE DATE: 1/2020

- PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
- AGGREGATE BASE MATERIAL UNDER DRIVEWAYS AND SIDEWALKS SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
- RESIDENTIAL DRIVEWAYS SHALL BE POURED SEPARATE FROM CURB AND GUTTER.
- COMMERCIAL DRIVEWAYS MAY BE POURED MONOLITHIC WITH CURB AND GUTTER. COMMERCIAL DRIVEWAYS TO HAVE #4 BARS AT 18" ON CENTER LONGITUDINAL & TRANSVERSE EXTENDING INTO GUTTER PAN AND DRIVEWAY WINGS. MINIMUM 2" CONCRETE COVER FOR ALL REINFORCING BARS. WHEN COMMERCIAL DRIVEWAY APPROACH AND CURB & GUTTER IS POURED SEPARATELY, IT SHALL BE REQUIRED FOR EACH REINFORCING BAR TO BE DOWELED INTO ADJACENT CURB & GUTTER. DOWELS SHALL #4 REBAR, PENETRATE INTO CURB & GUTTER MINIMUM OF 6", SPACED AT 18" ON CENTER AND BE SECURELY TIED TO THE DRIVEWAY APPROACH REINFORCING.
- IF JOINT EXISTS WITHIN 4 FEET OF DRIVEWAY, REMOVE SIDEWALK AND CURB AND GUTTER TO THAT JOINT.
- ALL ADJACENT CONCRETE REMOVAL SHALL BE TO NEAT SAW CUT LINES AT RIGHT ANGLES. DOWEL INTO EXISTING ADJACENT CONCRETE DRIVEWAY APPROACH OR SIDEWALK WITH (2) No. 4 REINFORCEMENT BARS EQUALLY SPACED ACROSS WIDTH "W". DOWELS SHALL PENETRATE A MINIMUM OF 4" INTO EXISTING CONCRETE.
- WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 5 FT INTERVALS AND IN ACCORDANCE WITH SECTION 312 OF THE SSPWC, AS ADOPTED BY CITY COUNCIL.
- DETAIL S-111A SHALL NOT BE USED FOR NEW CONSTRUCTION UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
NOTES - P.C.C. DRIVEWAY APRON	S-111C
	APPROVED BY: JE DATE: 1/2020

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NO.	REVISION	DESCRIPTION	BY	DATE

2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER  
 CITY OF SPARKS, WASHOE COUNTY, NEVADA

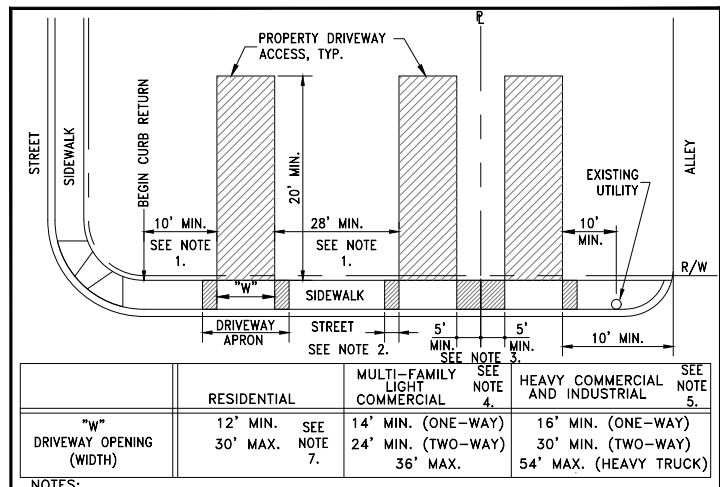
DETAILS

FILE : 49-20-051-GSHR-DETAILS  
 JUB PROJ. # : 49-20-051  
 DRAWN BY: KBK  
 DESIGN BY: BB  
 CHECKED BY: LU

AT FULL SIZE, IF NOT ONE INCH, SCALE ACCORDINGLY  
 LAST UPDATED: 4/1/2021

DRAWING:  
**C-501**

SHEET: 15 OF 17

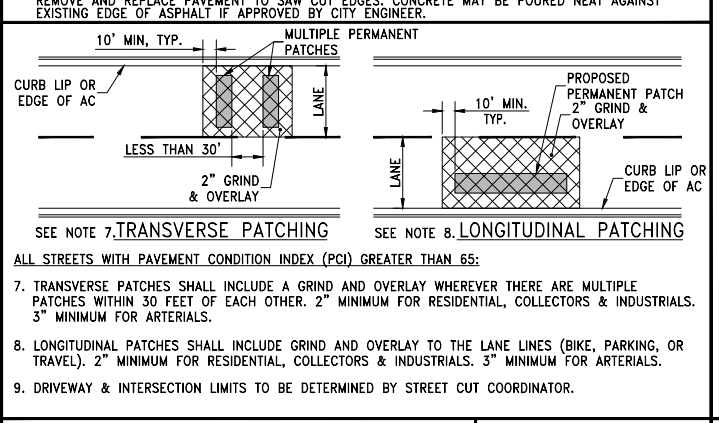
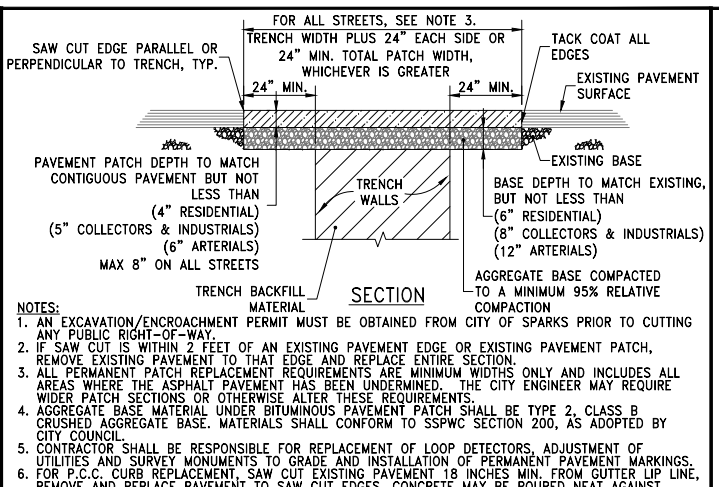


"W"	RESIDENTIAL	MULTI-FAMILY LIGHT COMMERCIAL	HEAVY COMMERCIAL AND INDUSTRIAL
DRIVEWAY OPENING (WIDTH)	12' MIN. SEE NOTE 7. 30' MAX.	14' MIN. (ONE-WAY) 24' MIN. (TWO-WAY) 36' MAX.	16' MIN. (ONE-WAY) 30' MIN. (TWO-WAY) 54' MAX. (HEAVY TRUCK)

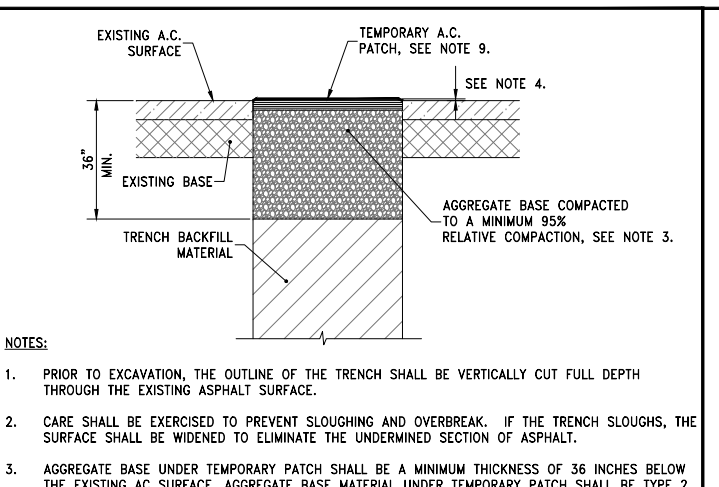
NOTES:

1. COMMERCIAL COLLECTOR - 50' MINOR ARTERIAL - 150' MAJOR ARTERIAL - 235' DOWNTOWN PARKING DISTRICT TO BE APPROVED BY THE CITY ENGINEER.
2. DRIVEWAY WING TAPER LENGTH VARIES. SEE P.C.C. DRIVEWAY APRON DETAIL.
3. 5' MINIMUM SPACE NOT REQUIRED ON SHARED DRIVEWAYS. WHEN THIS DIMENSION BETWEEN ADJACENT DRIVEWAYS IS LESS THAN 10', SUCH AS WITH CUL-DE-SAC CONFIGURATIONS, THE CURB SHALL BE DEEPENED BETWEEN THE DRIVEWAYS. PROPERTIES WITH COMMON INTERNAL ACCESS MAY SHARE A SINGLE DRIVEWAY WITH THE APPROPRIATE EASEMENT.
4. INCLUDES MULTI-RESIDENTIAL WITH 2 UNITS OR GREATER, OFFICE BUILDINGS, AND OTHER COMMERCIAL BUILDINGS.
5. INCLUDES DRIVE-IN ESTABLISHMENTS, FACTORIES, SERVICE STATIONS, WAREHOUSES AND DISTRIBUTION, MANUFACTURING AND INDUSTRIAL.
6. ANY DEVIATION FROM THESE DIMENSIONS MUST BE SUBMITTED TO AND APPROVED BY THE CITY ENGINEER.
7. THE WIDTH OF THE DEPRESSED CURB SECTION OF THE DRIVEWAY IS TO MATCH THE WIDTH OF THE LARGEST GARAGE OPENING OR THE OPENING THAT FACES THE STREET.
8. DRIVEWAYS ARE TO CONNECT PERPENDICULAR TO THE STREET CENTERLINE. ON CUL-DE-SACS, CURVED STREETS, ETC., WHERE THIS REQUIREMENT MAY NOT BE POSSIBLE, ANY DIFFERENT DRIVEWAY SHALL BE TREATED AS AN INTERSECTION AND ACCESS MANAGEMENT STANDARDS SHALL APPLY.
9. ADDITIONAL DRIVEWAY WIDTH MAY BE ALLOWED TO THE PROPERTY LINE SIDE OF THE NORMAL DRIVEWAY LOCATION TO ACCOMMODATE LARGE VEHICLE ACCESS, ACCESS TO THE REAR OR SIDE YARD, ETC. REQUIRES CITY ENGINEER APPROVAL.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>DRIVEWAY GEOMETRICS</b>	<b>S-112A</b>
APPROVED BY: JE	DATE: 1/2020

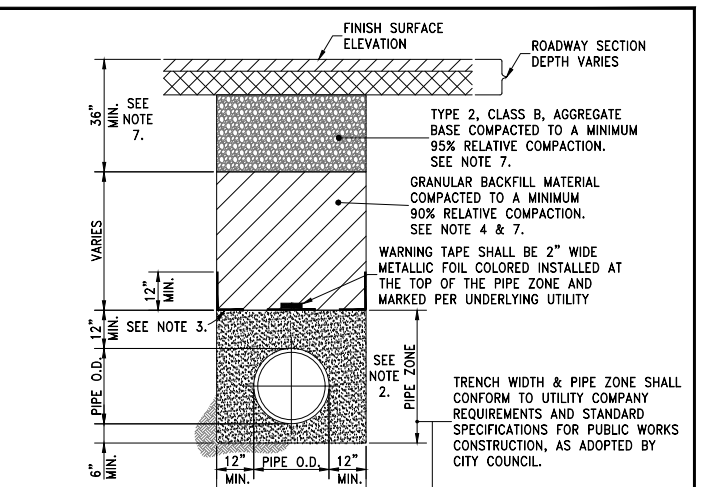


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>PERMANENT BITUMINOUS PAVEMENT PATCH</b>	<b>S-115</b>
APPROVED BY: JE	DATE: 1/2020



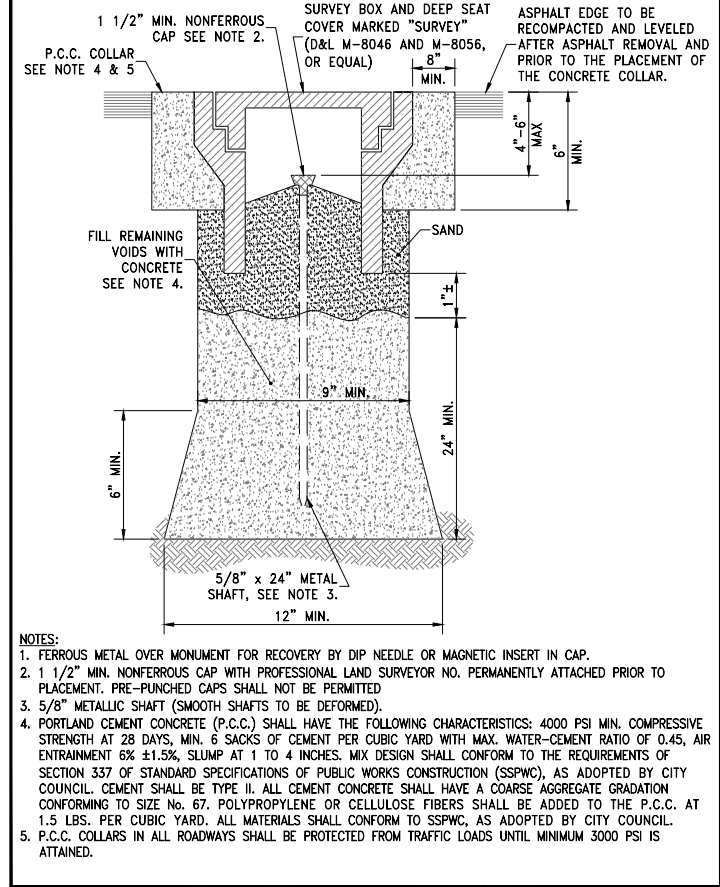
- NOTES:
1. PRIOR TO EXCAVATION, THE OUTLINE OF THE TRENCH SHALL BE VERTICALLY CUT FULL DEPTH THROUGH THE EXISTING ASPHALT SURFACE.
  2. CARE SHALL BE EXERCISED TO PREVENT SLOUGHING AND OVERBREAK. IF THE TRENCH SLOUGHS, THE SURFACE SHALL BE WIDENED TO ELIMINATE THE UNDERMINED SECTION OF ASPHALT.
  3. AGGREGATE BASE UNDER TEMPORARY PATCH SHALL BE A MINIMUM THICKNESS OF 36 INCHES BELOW THE EXISTING A.C. SURFACE. AGGREGATE BASE MATERIAL UNDER TEMPORARY PATCH SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
  4. TEMPORARY PATCHES SHALL BE PLACED AND COMPACTED. THE COMPACTED PATCH SHALL BE APPROXIMATELY 1/8" TO 1/4" ABOVE THE LEVEL OF THE ADJACENT PAVEMENT. IF NOT PATCHED WITHIN 24 HOURS AFTER BACKFILLING, THE CITY MAY PATCH AND BACK-CHARGE THE PERMITTEE FOR ALL COSTS.
  5. COMPACTION OF BACKFILL, BASE AND A.C. TEMPORARY PATCH SHALL BE PERFORMED WITH APPROVED MECHANICAL TAMPERS. EQUIPMENT WHEEL ROLLING IS NOT PERMITTED.
  6. ENTIRE AREA SHALL BE CLEANED OF ALL DIRT, DUST, DEBRIS, ETC. BEFORE LEAVING SITE. ANY SITE LEFT UNCLEANED WILL BE CLEANED BY THE CITY AND ALL COSTS BACK-CHARGED TO THE CONTRACTOR.
  7. ALL EXCAVATIONS SHALL BE COMPLETE OR BACKFILLED AT THE END OF THE SHIFT, INCLUDING TEMPORARY PATCH.
  8. TEMPORARY PATCH WORK AND PATCH MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
  9. ALL TEMPORARY PATCHES ON ALL STREETS SHALL BE HOT-MIX ASPHALT A MINIMUM OF 3" THICK.
  10. PLATES MAY BE USED UPON APPROVAL FROM THE CITY ENGINEER.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>TEMPORARY A.C. TRENCH PATCH</b>	<b>S-116</b>
APPROVED BY: JE	DATE: 1/2020

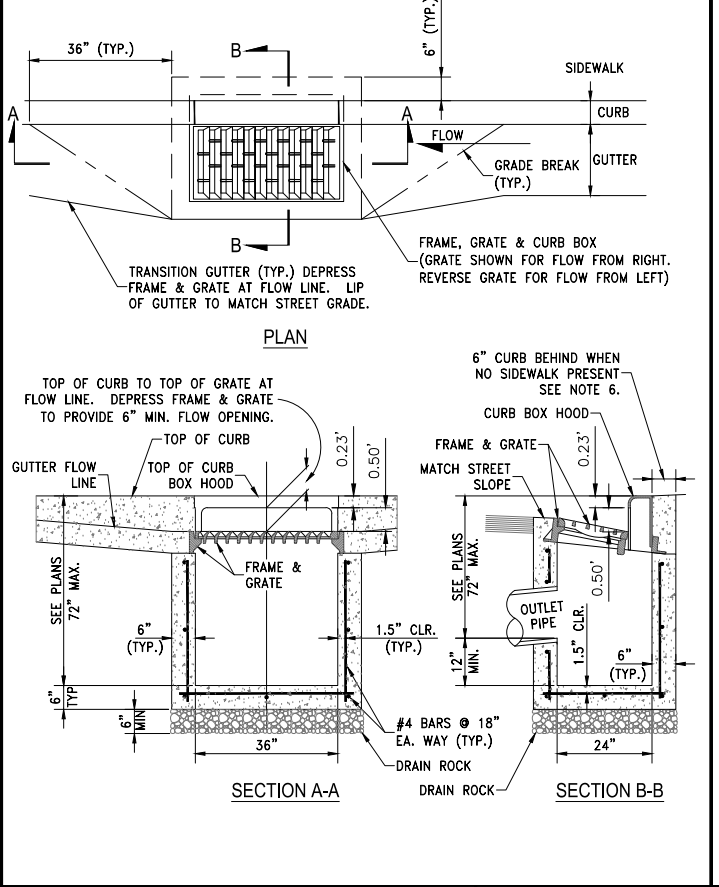


- NOTES:
1. ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL.
  2. BEDDING MATERIAL SHALL CONFORM TO OWNING-UTILITY COMPANY REQUIREMENTS AS APPROVED BY THE CITY OF SPARKS. FOR CITY-OWNED UTILITIES, BEDDING MATERIAL SHALL BE CLASS A OR C, COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
  3. CLASS C BEDDING REQUIRES INSTALLATION OF GEOTEXTILE FABRIC BETWEEN PIPE ZONE AND BACKFILL MATERIAL. GEOTEXTILE FABRIC SHALL BE MIRAFI 180N OR APPROVED EQUAL.
  4. BACKFILL MATERIAL SHALL BE TYPE 2, CLASS B OR CLASS E AND COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
  5. ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
  6. EXISTING PIPE TO BE ABANDONED SHALL BE GROUT FILLED OR COMPLETELY REMOVED.
  7. MINIMUM BACKFILL DEPTH REQUIREMENT IS FOR TRENCHING IN EXISTING PAVED STREETS. TRENCHING FOR NEW DEVELOPMENT WHERE STREETS HAVE NOT YET BEEN CONSTRUCTED, BACKFILL MATERIAL SHALL BE TYPE 2, CLASS B OR CLASS E AND COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>TRENCH EXCAVATION/BACKFILL</b>	<b>S-117</b>
APPROVED BY: JE	DATE: 1/2020



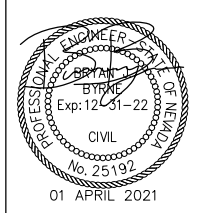
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>MONUMENTS</b>	<b>S-118</b>
APPROVED BY: JE	DATE: 1/2020



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>CATCH BASIN TYPE 4-R</b>	<b>S-204A</b>
APPROVED BY: JE	DATE: 1/2020

- NOTES:
1. P.C.C. CURB AND GUTTER TRANSITION SHALL BE PORTLAND CEMENT CONCRETE (P.C.C.) AND SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
  2. REINFORCING STEEL SHALL BE GRADE 40 AND HAVE 1.5" MINIMUM CLEAR COVER.
  3. CONCRETE STRUCTURE MAY BE A CAST-IN-PLACE CONCRETE UNIT UPON APPROVAL OF THE CITY ENGINEER. BASE OF CAST-IN-PLACE CONCRETE UNIT SHALL BE PLACED ON 6" COMPACTED DRAIN ROCK.
  4. FRAME, GRATE AND CURB BOX HOOD ASSEMBLY SHALL BE D&L I-3519 WITH TYPE L "VANE GRATE" OR APPROVED EQUAL. GRATE SHALL BE INSTALLED WITH PROPER FLOW DIRECTION. EACH CATCH BASIN SHALL BE CAST WITH A FISH IMAGE AND THE WORDS "NO DUMPING! DRAINS TO RIVERS" IN THE TOP OF EACH CURB HOOD.
  5. TILT FRAME & GRATE AS REQUIRED TO ATTAIN 6" MIN. FLOW OPENING & INSTALL DURABLE SHIMS BETWEEN THE CURB BOX & FRAME AS REQUIRED TO MATCH CURB BOX TO TOP OF CURB AND FACE OF CURB (SEE SECTION B-B).
  6. WHEN SIDEWALK IS PRESENT CONCRETE BEHIND CURB BOX SHALL BE THICKENED TO THE FULL DEPTH OF THE CURB BOX. IF NO SIDEWALK IS PRESENT, POUR 6" CONCRETE CURB STRUCTURE BEHIND GRATE AND TIE BEAM INTO BOX.
  7. ALL CATCH BASINS, PUBLIC OR PRIVATE, SHALL BE PROVIDED WITH A "SUR-TRAP" OIL/WATER SEPARATOR OR APPROVED EQUAL.
  8. FRAMES AND GRATES SHALL BE MATCHED TO ACHIEVE A CLOSE TOLERANCE FIT WITH MINIMAL GAPS.
  9. CATCH BASIN SHALL NOT BE PLACED WITHIN THE RADIUS OF THE CURB UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

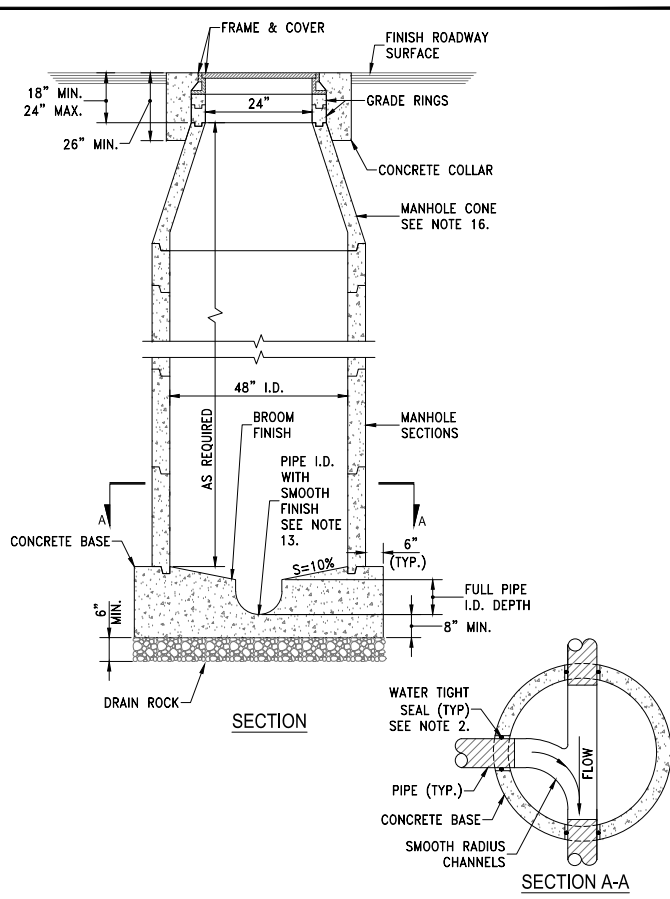
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>NOTES - CATCH BASIN TYPE 4-R</b>	<b>S-204B</b>
APPROVED BY: JE	DATE: 1/2020



NO.	REVISION	DESCRIPTION	BY	DATE

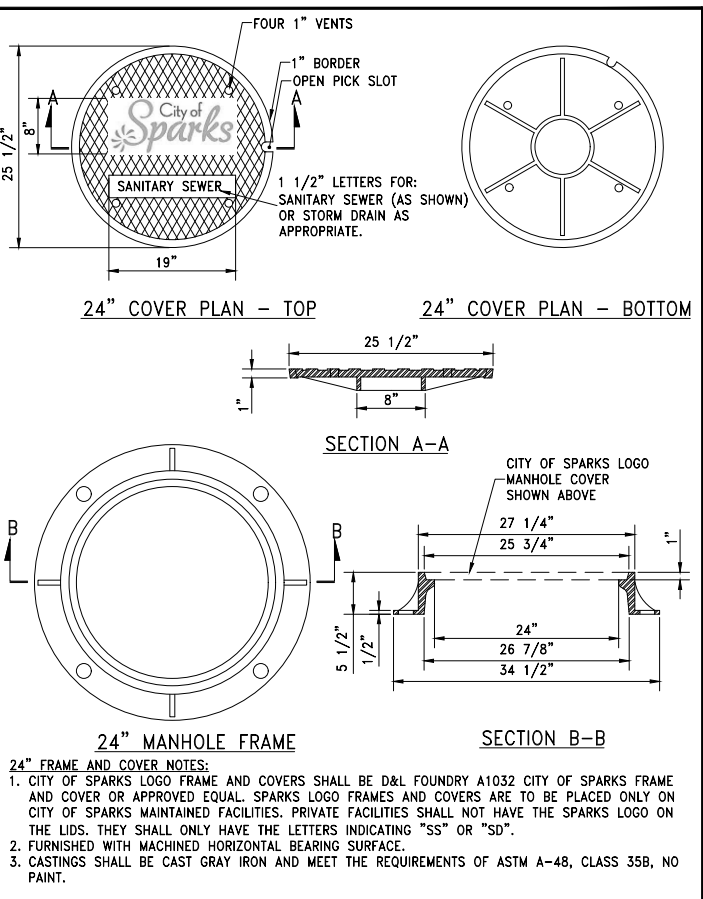






**GENERAL MANHOLE NOTES**

1. ALL PRECAST MANHOLE COMPONENTS SHALL CONFORM TO ASTM C-478.
2. PIPES SHALL NOT PROTRUDE MORE THAN 3" INSIDE MANHOLE SECTION AS MEASURED AT THE OUTSIDE EDGES OF THE PIPE, VERTICALLY ALIGNED WITH THE SPRINGLINE. PIPE CONNECTION TO MANHOLE SHALL BE WATERTIGHT PER STANDARD DETAILS S-211A, S-211B AND S-211C.
3. MANHOLE BASE SHALL BE PORTLAND CEMENT CONCRETE (P.C.C.) AND SHALL HAVE THE FOLLOWING CHARACTERISTICS: 3000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, MINIMUM 6 SACKS OF CEMENT PER CUBIC YARD WITH SLUMP AT 1 TO 4 INCHES. ALL MATERIAL SHALL CONFORM TO STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. PRECAST CONCRETE BASE MAY BE USED IN LIEU OF CAST-IN-PLACE BASE.
4. TYPE I MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 12" OR SMALLER AND DEPTHS NOT EXCEEDING 18 FEET.
5. TYPE V MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 15" THROUGH 27" OR DEPTHS EXCEEDING 18 FEET.
6. MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 204 "MANHOLES AND CATCH BASINS" OF THE STANDARD SPECIFICATIONS.
7. PRECAST MANHOLE SECTIONS, OTHER THAN GRADE RINGS, SHALL BE JOINED WITH FLEXIBLE GASKET MATERIAL SUCH AS "RAM-NEK" OR EQUAL AS PER MANUFACTURER'S RECOMMENDATIONS.
8. EXCAVATION AND BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION AND BACKFILL" IN SECTION 305 OF THE STANDARD SPECIFICATIONS.
9. EXCAVATION SHALL BE AS NEARLY VERTICAL AS POSSIBLE (SHEET AND SHORE IF SOIL CONDITIONS REQUIRE) IN EXISTING STREET SECTIONS, ALLEY SECTIONS, AND CONFINED AREAS, SUCH AS LIMITED EASEMENTS OR ADJACENT STRUCTURES.
10. MANHOLE PRECAST SECTION LENGTH SHALL BE ARRANGED TO FIT THE REQUIRED DEPTH.
11. NO LATERALS OR PIPES LESS THAN 8" IN DIAMETER SHALL BE CONNECTED TO THE MANHOLE.
12. PRECAST CONCRETE BASE MAY BE USED IN LIEU OF CAST-IN-PLACE BASE.
13. MATCH PIPE INVERTS TO MANHOLE INVERTS WHERE PIPES CONNECT TO MANHOLE BASE.
14. ALL MANHOLES SHALL BE WATERTIGHT.
15. SEE DETAIL FOR INSIDE DROP MANHOLE FOR SANITARY SEWERS WITH MORE THAN 2 FEET VERTICAL DROP AT THE MANHOLE. THE USE OF "OUTSIDE DROP" MANHOLES IS NOT PERMITTED.
16. THE USE OF FLAT TOP MANHOLE CONES REQUIRES PRIOR APPROVAL FROM THE CITY ENGINEER.
17. PRIOR TO BACKFILLING, ALL MANHOLES SHALL BE VACUUM TESTED PER ASTM C-1244.
18. NO STEPS, LADDERS, OR OTHER CLIMBING DEVICES SHALL BE INSTALLED IN THE MANHOLE.
19. REINFORCING STEEL SHALL BE AS SHOWN, WIRED TIGHTLY AT ALL INTERSECTIONS AND EMBEDDED AT LEAST 1 1/2" CLEAR, UNLESS OTHERWISE NOTED.
20. WHEN PIPE CONNECTIONS TO EXISTING MANHOLES ARE ALLOWED, THEY SHALL BE MADE BY CORE DRILLING THE MANHOLE AND CONNECTING THE PIPE PENETRATION PER DETAIL S-211A & S-211B.



**NOTES:**

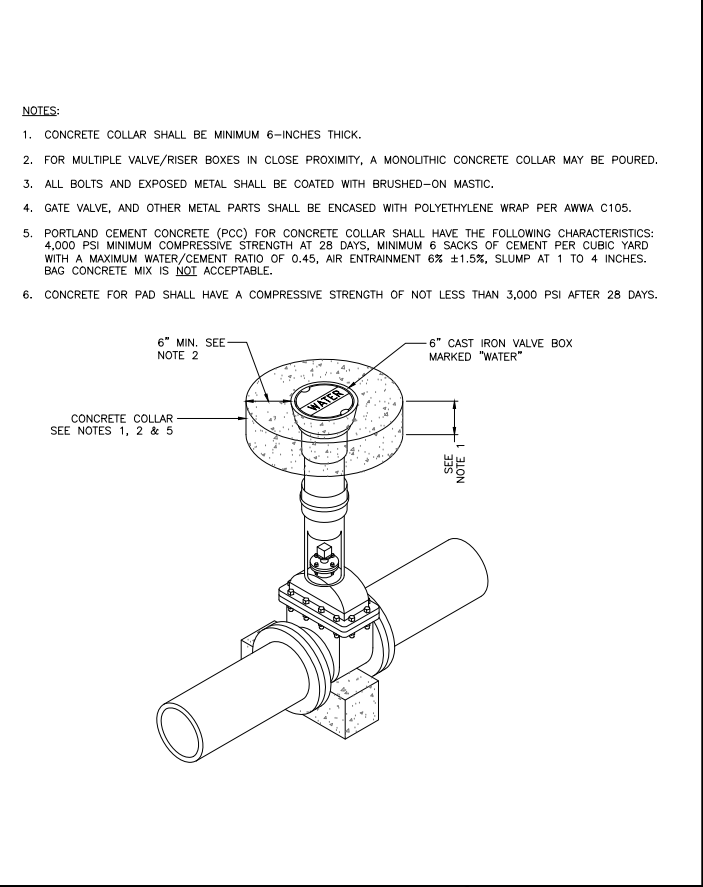
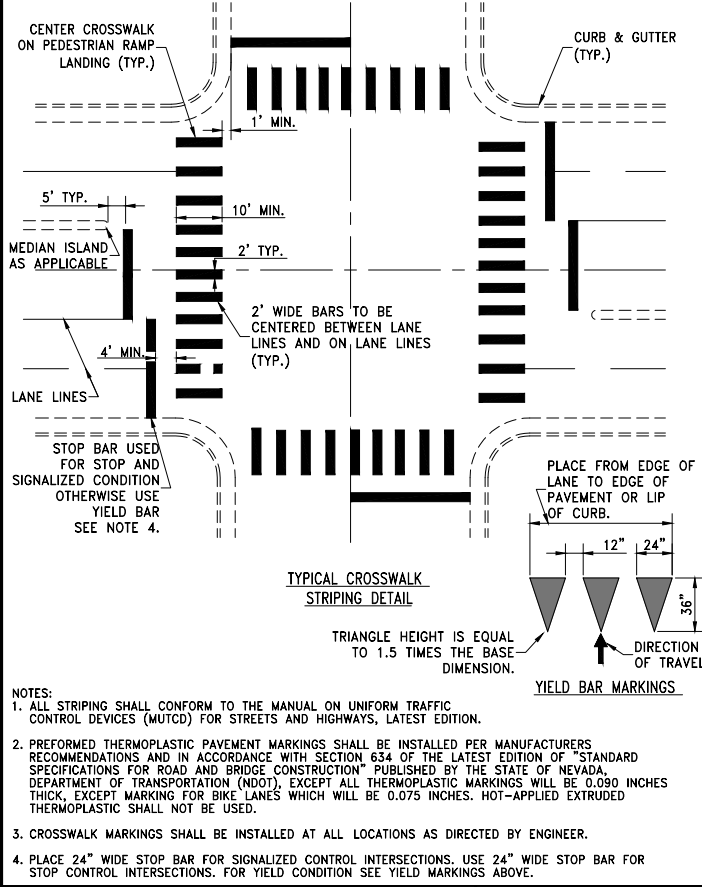
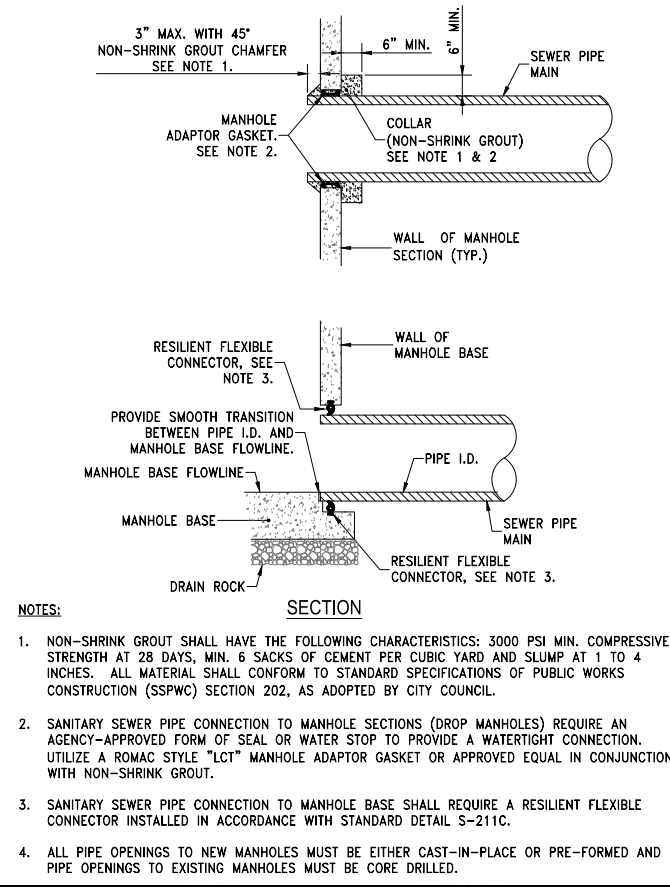
1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
2. CIRCUMSTANCES MAY REQUIRE THE NEED FOR SPECIAL TYPES OF TOP OF MANHOLE CONFIGURATIONS SUCH AS FLAT TOP, ABOVE GROUND, ETC. AS DIRECTED BY THE CITY OF SPARKS. DETAILED PLANS OF ANY SPECIAL TOP OF MANHOLE CONFIGURATIONS AND ASSOCIATED COLLARS MUST BE APPROVED BY THE CITY ENGINEER.
3. IN UNPAVED AREAS, IT SHALL BE NECESSARY TO SET THE MANHOLE RIM APPROXIMATELY 6 INCHES ABOVE THE SURROUNDING AREA. INSTALL A 6 INCH THICK RING OF CONCRETE, TAPERED AT A 3:1 SLOPE, FROM THE TOP, OUTSIDE EDGE OF THE COLLAR TO THE EXISTING GROUND SURFACE.
4. EXISTING SANITARY SEWER MANHOLE LIDS LOCATED IN GUTTER PANS, SHALL HAVE NEW WATER TIGHT FRAMES AND COVERS.
5. ALL GRADE RING JOINTS ARE TO BE GROUTED WITH NON-SHRINK GROUT HAVING THE FOLLOWING CHARACTERISTICS: 3000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD AND SLUMP AT 1 TO 4 INCHES. ALL MATERIAL SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
6. ALL GRADE RINGS SHALL BE PORTLAND CEMENT CONCRETE. PVC GRADE RINGS ARE NOT ALLOWED. CONTRACTOR SHALL USE AS FEW GRADE RINGS AS POSSIBLE TO REACH REQUIRED DEPTH. HOWEVER IN NO CASE SHALL THE QUANTITY EXCEED 4 GRADE RINGS WITHOUT APPROVAL OF THE CITY ENGINEER.
7. P.C.C. COLLARS IN ALL ROADWAYS SHALL BE PROTECTED FROM TRAFFIC LOADS UNTIL MINIMUM 3000 PSI IS ATTAINED.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>MANHOLE TYPE I</b>	<b>S-206A</b>
APPROVED BY: JE	DATE: 1/2020

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>NOTES - MANHOLE TYPE I, TYPE V &amp; TYPE IV</b>	<b>S-206D</b>
APPROVED BY: JE	DATE: 1/2020

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>24\"/&gt; </b>	

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>MANHOLE COLLAR</b>	<b>S-210A</b>
APPROVED BY: JE	DATE: 1/2020

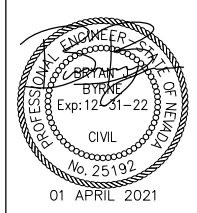


STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>SANITARY SEWER PIPE TO MANHOLE CONNECTION</b>	<b>S-211A</b>
APPROVED BY: JE	DATE: 1/2020

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>CROSSWALK LEGEND</b>	<b>S-411</b>
APPROVED BY: JE	DATE: 1/2020

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION	DRAWING No.
<b>VALVE COLLAR</b>	<b>NS-1</b>
APPROVED BY:	DATE:

**City of Sparks**  
**J-U-B ENGINEERS, INC.**  
 9160 Double Diamond Parkway  
 Reno, NV 89521  
 Phone: 775.852.1440  
 www.jub.com



NO.	REVISION	DESCRIPTION	BY	APPR.	DATE

**2021 DRAINAGE AND ROADWAY PROJ - G ST & SHRIVER**  
**CITY OF SPARKS, WASHOE COUNTY, NEVADA**

FILE #: 49-20-051-GSHR-DETAILS  
 JOB PROJ. #: 49-20-051  
 DRAWN BY: KBC  
 DESIGN BY: BB  
 CHECKED BY: LLU

**JUB**  
**J-U-B ENGINEERS, INC.**

AT FULL SIZE. IF NOT ONE INCH, SCALE ACCORDINGLY.  
 LAST UPDATED: 4/1/2021  
 DRAWING: **C-503**  
 SHEET: 17 OF 17