# **BOISE DRIVE SEWER INTERCEPTOR** REHABILITATION PROJECT

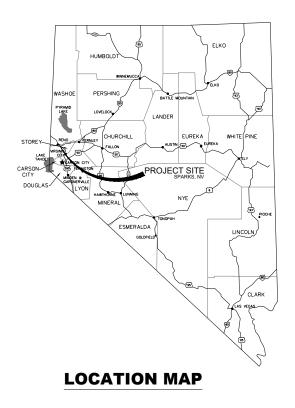
BID NO. 24/25-004 PUBLIC WORKS PROJECT NO. WA-2025-033

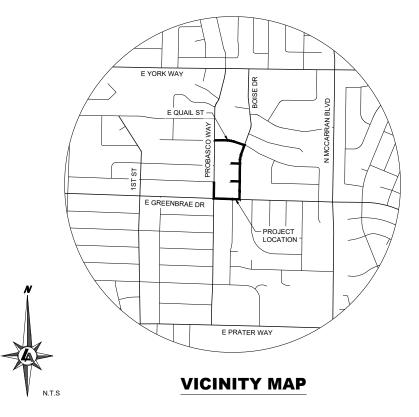
# **SPARKS CITY COUNCIL**

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WARD 1	DONALD ABBOTT
WARD 2	DIAN VANDERWELL
WARD 3	PAUL ANDERSON
WARD 4	CHARLENE BYBEE
WARD 5	KRISTOPHER DAHIR
CITY MANAGER	DION LOUTHAN

# **APPROVED BY:**







# **OWNER**

**ATTN: BOB SCHRICKER 431 PRATER WAY SPARKS, NEVADA 89431** TEL: 775.353.2375



# **ENGINEER**

950 SANDHILL ROAD, SUITE 100 **RENO, NEVADA 89521** TEL: 775.827.6111 INFO@LUMOSINC.COM

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Know what's below. Call before you dig.

950 SANDHILL ROAD, SUITE 100



BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT TITLE SHEET

IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

DESIGNED BY: CHECKED BY: JOB NO.:

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EG ELECTRIC GENERATOR EG (E) ELECTRIC MANHOLE Œ AIR CONDITIONER AC 🛛 AC 🛛 ELECTRIC OUTLET BOLLARD STORM DRAIN MANHOLE / DROP INLET തര CATCH BASIN WATER VALVE

IRRIGATION CONTROL VALVE WATER

ELECTRIC METER

METER WATER SPIGOT / HOSE BIB WATER MANHOLE (W) WATER VAULT WV FIRE HYDRANT Ø GAS VALVE GAS METER GM □

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ELEC ELEC

TELEPHONE MANHOLE TELEPHONE BOX TELEPHONE VAULT SEWER MANHOLE SEWER CLEANOUT SURVEY MONUMENT

CONTROL POINT BARRICADE SIGN RETAINING WALL

FENCE GRADE BREAK FLOW LINE SOIL TEST PIT DETAIL CALLOUT

COMM LINE GAS LINE ELECTRIC LINE

SEWER LINE WATER LINE

WL 12" C900 W AIR LINE SD 12" RCP SD STORM DRAIN RECLAIMED WATER LINE --- REC.WL ---

**ABBREVIATIONS** 

ASPHALT CONCRETE ASSESTOS CEMENT PIPE AGGREGATE NIP NTS BEGIN CURVE (HORIZONTAL) BOTTOM OF WALL BOTTOM OF FOOTING BUTTERFLY VALVE BEGIN VERTICAL CURVE (P) PCC PG PI PIVC BACK OF WALK CATCH BASIN CUBIC FEET PER SECOND CUBIC FEFT **CURB AND GUTTER** PL POCC CENTER LINE POT PP PRC PRVC CLASS / CENTER LINE CORRUGATED METAL PIPE COMPACTION CONCRETE PVC PVMT Q 5 Q 100 CONTRACTOR CONCRETE PAG CABLE TELEVISION DROP INLET DIAMETER REF END CURVE (HORIZONTAL) **ELECTRICAL** ELEVATION END VERTICAL CURVE **EXISTING EXTERIOR** FLANGE COUPLING ADAPTER FINISH ELEVATION FLARED END SECTION FINISH FLOOR FRONT FACE OF CURB FINISH GRADE FIRE HYDRAN FLOW LINE FLANGE FEET PER SECOND OOTING GAL VANIZED GRADE BREAK

AGG BC BOW

BV BVC

C&G

CMP

COMP

CONTR

CP CTV

FLEC

EX. (E)

FE FES

FL FLG

fps FTG

GALV

GB GDW

GD

G۷

HGL

INT IRR LAT LF

MAX

MDD MH MIN

GRAVEL DRIVEWAY

HYDRAULIC GRADE LINE

MAXIMUM DRY DENSITY

MAXIMUM MARSHALL DENSITY
MANUAL FOR TRAFFIC CONTROL DEVICES

MECHANICAL JOINT

GROUND

GATE VALVE HANDICAPPED

HORIZONTAL

INSIDE DIAMETER

INTERSECTION IRRIGATION

LINEAR FEET

LOW POINT

MAXIMUM

MANHOLE

MINIMUM

LATERAL

INVERT ELEVATION

BF. BOF

SSPWO STA SW TELE TBO TC TG TRANS UNO V5 VC VEL VERT VG W

W/G

WS

wv

NOT A PART NOT IN PROJECT NOT TO SCALE ON CENTER OUTSIDE DIAMETER

OVERHEAD PROPOSED PORTLAND CEMENT CONCRETE POINT OF INTERSECTION POINT OF INTERSECTION VERTICAL CURVE PROPERTY LINE POINT OF COMPOUND CURVATURE POINT OF TANGENCY POWER POLE

POINT OF REVERSE CURVE POINT OF REVERSE VERTICAL CURVE POLYVINYL CHLORIDE PAVEMENT 5 YEAR PEAK FLOW 100 YEAR PEAK FLOW RADIUS REINFORCED CONCRETE PIPE REFERENCE

CURB RETURN RADIUS POINT R/W. ROW RIGHT-OF-WAY SOUTH STORM DRAIN STORM DRAIN MANHOLE STREET LIGHT SANITARY SEWER SANITARY SEWER CLEAN OUT SANITARY SEWER MANHOLE STANDARD SPEC. FOR PUBLIC WORKS CONSTRUCTION

SIDEWALK TELEPHONE TEMPORARY BLOW OFF VALVE TOP OF CURB, TOP OF CONC TO GRADE TOP OF BERM TOP OF FOOTING TOP OF WALL TRAFFIC SIGNA TRAFFIC CONTROL SIGNAL BOX TOP OF RAIL

TRANSITION TYPICAL UNDER GROUND POWER UNLESS NOTED OTHERWISE VELOCITY AT 5 YEAR PEAK VELOCITY VERTICAL VALLEY GUTTER WATER AND GAS

WATER LINE WATER METER WATER SURFACE WATER VALVE WELDED WIRE FABRIC

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

- ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC
- WORKS CONSTRUCTION, 2012 EDITION, INCLUDING ALL APPROVED REVISIONS.
  THE CONTRACTOR SHALL REFER TO THE STANDARD DETAILS FOR PUBLIC WORKS
  CONSTRUCTION, AS ADOPTED BY THE CITY OF SPARKS, FOR ALL DETAILING NOT
- SHOWN ON THESE PLANS CONSTRUCTION SHALL COMPLY WITH THESE PLANS AND CURRENT SPARKS (STANDARD SPECIFICATIONS) AND MANUAL ON UNIFORM TRAFFIC CONTROL
- DEVICES (MUTCD). ALL WORK EITHER DIRECTLY OR INDIRECTLY RELATED TO THE PROJECT SHALL BE
- COORDINATED WITH THE APPROPRIATE UTILITY SYSTEM MANAGER.

  THE CONTRACTOR SHALL MAINTAIN AN ONSITE RECORD COPY OF ALL DRAWINGS. SPECIFICATIONS, ADDENDA, CHANGE ORDERS, WORK CHANGE DIRECTIVES, FIELD ORDERS, FIELD CHANGES, AND WRITTEN INTERPRETATIONS AND CLARIFICATIONS. RECORDS SHALL BE IN GOOD ORDER AND ANNOTATED TO SHOW CHANGES MADE DURING CONSTRUCTION.
- DURING CONSTRUCTION.

  CONTRACTOR SHALL PROVIDE MATERIALS AND EQUIPMENT SUBMITTALS AND/OR SHOP DRAWINGS TO THE PROJECT ENGINEER FOR REVIEW PRIOR TO ORDERING OR INSTALLATION. A SIGNED SET OF REVIEWED SUBMITTALS MUST ALWAYS BE
- AVAILABLE ONSITE DURING CONSTRUCTION.
  THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT AT 811 TO PROVIDE FIELD LOCATIONS OF UNDERGROUND UTILITIES PRIOR TO THE START OF CONSTRUCTION
- THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS OF POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING CONSTRUCTION. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROTECT AND MAINTAIN ALL EXISTING UTILITIES WHETHER OR NOT SHOWN ON THE PLAN.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROCURE ALL NECESSARY PERMITS THE CONTRACTOR SHALL BE RESPONSIBLE TO PROCURE ALL NECESSARY PERMITS, LICENSES, INSURANCE POLICIES, ETC. AS MAY BE NECESSARY TO COMPLY WITH LOCAL, COUNTY, STATE, AND FEDERAL LAWS ASSOCIATED WITH THE PERFORMANCE OF THE WORK; UNLESS OTHERWISE OBTAINED BY THE OWNER.
- THE WORK, OKELSO THERWISE OF THE WORK CONSTRUCTION AREA AND FOR PUBLIC SAFETY. ALL TRAFFIC CONTROL OPERATIONS SHALL COMPLY WITH THE LATEST MUTCD. AT NO TIME WILL OBSTRUCTIONS BE LEFT IN THE ROADWAY DURING NIGHT HOURS. ALL TRAFFIC CONTROL PLANS SHALL BE PREPARED BY A REGISTERED CIVIL ENGINEER OR ATTSA CERTIFIED PERSONNEL.
  THE CONTRACTOR AGREES TO ASSUME SOLE RESPONSIBILITY FOR JOB SITE
- CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND FURTHER AGREES THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS IN ACCORDANCE WITH THE PROVISIONS OUTLINED BY THE PROJECT CONTROL AND THE STANDARD SPECIFICATIONS
- THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF OSHA AND NRS CHAPTER 618. 13. THE CONTRACTOR SHALL PURSUE THE WORK IN A CONTINUOUS AND DILIGENT MANNER, CONFORMING TO ALL THE PERTINENT SAFETY REGULATIONS TO ENSURE A TIMELY COMPLETION OF THE PROJECT.
- 14. THE CONTRACTOR SHALL MAINTAIN A CLEAN PROJECT SITE, REMOVING CONSTRUCTION DEBRIS AT THE END OF EACH ACTIVITY DAY. THE CONTRACTOR SHALL MAINTAIN DEBRIS FREE CONSTRUCTION ROUTES, ADJACENT STREETS AND
- STORM DRAIN SYSTEMS. 15 TEMPORARY CONSTRUCTION FENCING SHALL BE PROVIDED AND MAINTAINED BY THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT IN AREAS AS DELINEATED ON THE PLANS OR AS DIRECTED BY THE PROJECT ENGINEER. THE TEMPORARY FENCING SHALL PREVENT CHILDREN AND PETS FROM ENTERING THE CONSTRUCTION AREA, CREATE A VISUAL BARRIER OF THE CONSTRUCTION ACTIVITIES FROM THE ADJACENT RESIDENCE AND YARDS, AND PROTECT
- VEGETATION FROM CONSTRUCTION EQUIPMENT. THE CONTRACTOR SHALL USE ONLY AUTHORIZED SITES FOR STORAGE OF EQUIPMENT AND MATERIALS AND OBTAIN PROPER APPROVALS FROM THE LAND OWNER AND LOCAL GOVERNING AUTHORITY TO DO SO. CONTRACTOR SHALL BE RESPONSIBLE FOR THE SECURITY OF ALL FOLIPMENT AND MATERIALS CONTRACTOR SHALL APPLY FOR A TEMPORARY USE PERMIT WITH THE CITY AND COMPLY WITH ALL CONDITIONS AND REQUIREMENTS ISSUED BY THE CITY.
- 17. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING SURVEY MONUMENTS AND OTHER SURVEY MARKERS DURING CONSTRUCTION. IN THE EVENT A MONUMENT IS DISTURBED, THE CONTRACTOR SHALL HAVE THE MONUMENT REPLACED, AT HIS OWN EXPENSE, BY A LICENSED SURVEYOR IN THE STATE OF NEVADA.
- ALL FIELD CHANGES MUST BE PRE-APPROVED BY THE PROJECT ENGINEER.
  SHOULD IT APPEAR THAT THE WORK TO BE DONE, OR ANY MATTER RELATIVE
  THERETO, IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.

  20. ALL SALVAGED MATERIALS ARE THE PROPERTY OF THE OWNER AND SHALL BE
- PALLETIZED ONSITE UNLESS OTHERWISE ARRANGED WITH THE OWNER AND/OF PROJECT ENGINEER.

  21. THE OWNER IS RESPONSIBLE FOR FURNISHING QUALIFIED SITE INSPECTIONS AS
- REQUIRED TO COMPLY WITH LOCAL ORDINANCES.

  22. A GEOTECHNICAL INVESTIGATION WAS PERFORMED ON THIS PROJECT. ALL RECOMMENDATIONS INCLUDED IN THE REPORT ARE HEREBY MADE A PART OF THE CONSTRUCTION DOCUMENTS UNLESS MODIFIED WITHIN THESE PLANS INSPECTION AND TESTING DURING CONSTRUCTION SHALL BE REQUIRED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED WITHIN THE REPORT.

  TITLE: BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT

DATE: DECEMBER 2021

### **UNDERGROUND UTILITIES**

- 23. THE CONTRACTOR SHALL FIELD VERIFY UTILITY LOCATIONS NEAR OR WITHIN THE CONSTRUCTION LIMITS WITH THE RESPECTIVE UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ARRANGE FOR THE NECESSARY RELOCATION OF ANY UTILITY. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES INVOLVED AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO BEGINNING WORK.
- 24. NO OTHER UTILITIES MAY BE PLACED IN A WATER OR SEWER TRENCH.
  25. ALL VALVE BOXES, MANHOLE STRUCTURES, AND CLEAN OUTS SHALL BE MARKED
- AND ACCESSIBLE AT ALL TIMES.
- 26. CONTRACTOR SHALL SUPPORT TRENCH SIDEWALLS IN ACCORDANCE WITH ALL APPLICABLE LAWS AND GOVERNING SAFETY REGULATIONS. SHEETING OR SHORING SHALL CONFORM TO LOCAL REGULATIONS AND OSHA STANDARDS.
- 27. ENDS OF UNFINISHED PIPE SHALL BE SEALED AT THE END OF EACH DAY.

  28. PIPE SHALL BE LAID IN THE UPHILL DIRECTION, WITH BELL ENDS UPHILL.

  29. THE CONTRACTOR SHALL COORDINATE ALL WATER MAIN SHUT DOWNS AND TIE-INS WITH THE WATER UTILITY A MINIMUM OF FORTY-EIGHT (48) HOURS OR TWO (2)
- BUSINESS DAYS IN ADVANCE.

  30. CONTRACTOR SHALL PERFORM PLASTIC PIPE BALL AND MANDREL TEST ON NEWLY INSTALLED SEWER PIPE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

- 31. CONTRACTOR SHALL PERFORM AIR PRESSURE TESTING ON NEWLY INSTALLED SEWER MANHOLES IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION
- ALL MANHOLE BARREL JOINTS TO BE WRAPPED WITH EXTERNAL JOINT WRAP M-860

- TRUCKEE MEADOWS WATER AUTHORITY (TMWA) NOTES

  33. CONTRACTOR TO CONTACT TMWA INSPECTOR AT LEAST 2 WORKING DAYS IN ADVANCE OF DIGGING AROUND OR EXPOSING TMWA FACILITIES. TMWA INSPECTOR WILL PERFORM A STANDBY.
- PLEASE COPY BECCA EPSTEIN, CHUCK ATKINSON, AND TMWA INSPECTOR ON ALL MEETING MINUTES AND SCHEDULE UPDATES DURING CONSTRUCTION.

**NOTES:** 

- NV ENERGY NOTES
  35. CONTRACTORS EXPOSING NATURAL GAS FACILITIES FOR MEANS OF POTHOLING, CROSSING, OR WHEN CLEARANCE MAY BE IN ISSUE, SHALL COORDINATE ALL CONSTRUCTION ACTIVITIES THROUGH GAS INSPECTION SERVICES BY EMAILING GASINSPECTION@NVENERGY.COM OR BY CALLING (775) 834-7356 AT LEAST 2-WORKING DAYS IN ADVANCE OF WORK SO THAT ONSITE INSPECTION CAN BE
- CONTRACTOR SHALL NOTE THAT THERE ARE EXISTING OVERHEAD UTILITY LINES IN CLOSE PROXIMITY TO EXCAVATION AREA. OVER UTILITY LINES SHALL BE PROTECTED IN-PLACE DURING CONSTRUCTION
- PROTECT ALL GAS MAINS IN PLACE IF EXPOSING OR CROSSING.
  MAINTAIN MINIMUM 24" RADIAL CLEARANCE BETWEEN GAS MAINS AND STORM/SEWER LINES. IF NOT ACHIEVABLE, MAINTAIN 12" RADIAL CLEARANCE WITH SANDBAGS IN BETWEEN.

### **GRADING, EXCAVATION & SURFACE IMPROVEMENTS**

- 39. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING THEIR OWN QUANTITY TAKE-OFF AND SHALL BUDGET THE PROJECT ACCORDINGLY. ALL EXCESS GRADING MATERIALS SHALL BE DISPOSED OF OFFSITE.
- ALL EARTHWORK ACTIVITIES SHALL BE IN ACCORDANCE WITH THE PROJECT'S GEOTECHNICAL REPORT.
  THE SOILS ENGINEER SHALL APPROVE ALL EARTHWORK AND GRADING TO CONFIRM
- COMPACTION REQUIREMENTS ARE MET.
- CONTRACTOR SHALL PROTECT EXISTING PAVING, CONCRETE, LANDSCAPING, FENCING, MAILBOXES, SIGNS AND ANY OTHER IMPROVEMENTS NOT SPECIFICALLY CALLED OUT FOR REPLACEMENT. CONTRACTOR SHALL REPAIR/REPLACE ANYTHING
- DAMAGED BY FORCES UNDER THEIR EMPLOY OR CONTRACT.

  43. ALL ASPHALT CONCRETE SURFACES SHALL BE SAWCUT THREE FEET MINIMUM INSIDE THE EDGE OF PAVEMENT TO A NEAT, STRAIGHT LINE AND REMOVED. THE EXPOSED PAVEMENT TIE-IN EDGES SHALL BE METICULOUSLY CLEANED OF ALL LOOSE MATERIAL AND THEN TREATED WITH BITUMINOUS EMULSION PRIOR TO PAVING. THE EXPOSED BASE MATERIALS SHALL BE GRADED AND RECOMPACTED PRIOR TO PAVING

### ENVIRONMENTAL

- ALL CONSTRUCTION SHALL BE PERFORMED IN COMPLIANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES). CONTRACTOR IS RESPONSIBLE FOR ACQUIRING AND MAINTAINING A SWPPP
- INSTALLATION AND MAINTENANCE OF EROSION CONTROL MEASURES ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION OF EROSION AND SILTATION FROM ENTERING THE STORM DRAIN SYSTEM, NATURAL DRAINAGE COURSES, AND/OR INTRUDING UPON ADJACENT ROADWAYS AND PROPERTIES. EROSION CONTROL MEASURES SHOWN ON THESE PLANS ARE INTENDED AS A GUIDE, ADDITIONAL FROSION CONTROL MEASURES MAY THROUGHOUT THE COURSE OF CONSTRUCTION AND UNTIL ALL DISTURBED AREAS HAVE BECOME STABILIZED AND SHALL NOT BE LIMITED TO WET WEATHER PERIODS. THE CONTRACTOR IS RESPONSIBLE FOR SWPPP LIPDATES.
- THE CONTRACTOR SHALL MAINTAIN AN ON-GOING DUST CONTROL PROGRAM INCLUDING WATERING OF OPEN AREAS, TO CONFORM WITH THE LATEST FEDERAL STATE, AND COUNTY AIR POLLUTION REGULATIONS. CONTRACTOR IS RESPONSIBLE
- FOR OBTAINING AND UPDATING DUST CONTROL PERMITS FOR THE PROJECT.
  ALL AREAS DISTURBED AND LEFT UNDEVELOPED FOR A PERIOD OF MORE THAN 30
  DAYS SHALL BE STABILIZED BY THE APPLICATION OF AN APPROVED DUST PALLIATIVE OR HYDROMULCH
- PALLIATIVE OR HTDROMULCH.
  THE CONTRACTOR SHALL IDENTIFY A STANDBY CREW FOR EMERGENCY WORK AND
  THEY SHALL BE AVAILABLE AT ALL TIMES. MATERIAL NECESSARY TO FACILITATE
  RAPID CONSTRUCTION OF TEMPORARY DEVICES OR TO REPAIR DAMAGED EROSION CONTROL MEASURES SHALL BE AVAILABLE ON-SITE AND STOCKPILED AT APPROVED LOCATIONS.

  49. PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS SHALL BE USED
- TO PROTECT ADJOINING PROPERTIES DURING CONSTRUCTION OF IMPROVEMENTS.

  50. AFTER A RAINSTORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS AND DESILTING FACILITIES. GRADED SLOPE SURFACE PROTECTION
- MEASURES DAMAGED DURING THE RAINSTORM SHALL ALSO BE REPAIRED 51. FILL SLOPES AT THE PROJECT PERIMETER MUST DRAIN AWAY FROM THE TOP OF THE SLOPE AT THE END OF EACH WORKING DAY.
- 52. ALL DISTURBED AREAS ARE REQUIRED TO HAVE A PALLIATIVE APPLIED FOR DUST
- CONTROL. ALL GRADING SHALL COMPLY WITH STATE AND COUNTY REGULATIONS.

  53. A SIX-FOOT HIGH PERIMETER FENCE OR A 24-HOUR GUARD SHALL BE POSTED ON THE SITE WHENEVER THE DEPTH OF WATER IN A FACILITY EXCEEDS 18".
- ALL AREAS DISTURBED BECAUSE OF THE WORK SHALL BE REVEGETATED IN
   ACCORDANCE WITH INDUSTRY BEST MANAGEMENT PRACTICES.
   NO CONSTRUCTION MATERIALS SHALL BE STORED IN A STREAM ENVIRONMENT
- ZONES (SEZ) AT ANY TIME
- ZONES (SEZ) AT ANY TIME.

  IF GROUNDWATER IS ENCOUNTERED, THE CONTRACTOR SHALL STOP WORK

  IMMEDIATELY, PREPARE A DEWATERING PLAN, AND OBTAIN APPROVAL FROM THE PROJECT ENGINEER BEFORE PROCEEDING WITH WORK, DEWATERING ACTIVITIES MAY REQUIRE THE CONTRACTOR TO OBTAIN A DISCHARGE/PUMPING PERMIT FROM THE STATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN SUCH
- 57. ALL STREETS SHALL BE MAINTAINED FREE OF DUST AND MUD CAUSED BY GRADING



50 SANDHILL ROAD, SUITE 100

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INTERCEPTOR **ABBREVIATIONS PROJE** WER **TATION** 

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LEGEND, EHABI

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BID SET FOR CONSTRUCTI SEPTEMBER 2024

BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

DRAWN BY: MEP / SSW / IPN DESIGNED BY: TDA / RHH CHECKED BY: IOB NO.

10565 000

# **BASIS OF ELEVATION**

DATUM: NAVD88

PROJECT BENCHMARK = CITY OF SPARKS BENCHMARK #79 HAVING AN ELEVATION OF 4409.18

# **BASIS OF BEARING**

THE BASIS OF BEARING FOR THIS PROJECT IS NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE NAD83(94) BASED UPON REAL TIME KINEMATIC GPS OBSERVATION, OBSERVED 11-23-2021 USING A SURVEY GRADE DUAL FREQUENCY GPS RECEIVER FROM WASHOE COUNTY CONTROL POINT
N53SM01176 MODIFIED BY A COMBINED FACTOR OF
1.000197939, SCALED FROM 0.00N, 0.00E AND CONVERTED TO U.S. SURVEY FEET. ALL DIMENSIONS ON THIS MAP ARE GROUND DISTANCES.

# **PROJECT CONTROL**

| POINT | NORTH       | EAST       | ELEVATION | DESCRIPTION          |
|-------|-------------|------------|-----------|----------------------|
| 501   | 14875192.52 | 2299161.86 | 4407.58   | CP MAG NAIL & SHINER |
| 502   | 14875469.60 | 2299159.10 | 4408.32   | CP MAG NAIL & SHINER |
| 503   | 14875770.93 | 2299347.64 | 4409.90   | CP MAG NAIL & SHINER |
| 504   | 14875840.67 | 2298874.55 | 4408.00   | CP MAG NAIL & SHINER |

# **ALIGNMENT Q**

| LINE TABLE |        |                  |  |
|------------|--------|------------------|--|
| LINE#      | LENGTH | DIRECTION        |  |
| L1         | 213.15 | S89° 14' 27.54"E |  |
| L2         | 197.89 | S69° 49' 18.01"E |  |

| CURVE TABLE |        |        |       |  |
|-------------|--------|--------|-------|--|
| CURVE#      | LENGTH | RADIUS | DELTA |  |
| C1          | 138.96 | 410.00 | 19.42 |  |
|             |        |        |       |  |

# **ALIGNMENT B**

| LINE TABLE |        |                  |  |
|------------|--------|------------------|--|
| LINE#      | LENGTH | DIRECTION        |  |
| L3         | 212.96 | S20° 04' 48.83"W |  |
| L4         | 669.84 | S0° 49' 46.47"W  |  |

| CURVE TABLE |        |        |       |
|-------------|--------|--------|-------|
| CURVE#      | LENGTH | RADIUS | DELTA |
| C2          | 67.20  | 200.00 | 19.25 |

# **ALIGNMENT BR**

| LINE TABLE |        |                  |  |
|------------|--------|------------------|--|
| LINE#      | LENGTH | DIRECTION        |  |
| L5         | 215.00 | S88° 03' 38.45"F |  |

### **ALIGNMENT R**

| LINE TABLE |        |                  |  |
|------------|--------|------------------|--|
| LINE#      | LENGTH | DIRECTION        |  |
| L6         | 215.00 | S88° 04' 31.15"E |  |

# **ALIGNMENT GB**

| LINE TABLE |        |                  |  |
|------------|--------|------------------|--|
| LINE#      | LENGTH | DIRECTION        |  |
| L7         | 450.00 | S87° 58' 12.25"E |  |

### **ALIGNMENT P**

|      | LINE TABLE              |        |                 |  |
|------|-------------------------|--------|-----------------|--|
| LINE | LINE # LENGTH DIRECTION |        |                 |  |
| L8   |                         | 199.75 | N0° 48' 58.58"E |  |



22x34 SHEETS = HORIZONTAL:1"=20' 11x17 SHEETS = HORIZONTAL:1"=40'

950 SANDHILL ROAD, SUITE 100 RENO, NV 89521 TEL: 775.827.6111

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BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT ROADWAY CONTROL SHEET

BID SET FOR CONSTRUCTION SEPTEMBER 2024

BAR IS 1 INCH ON ORIGINAL DRAWING IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DRAWN BY: MEP / SSW / IPN DESIGNED BY: TDA / RHH CHECKED BY: JOB NO.: 10565.000

# **BASIS OF ELEVATION**

DATUM: NAVD88 PROJECT BENCHMARK = CITY OF SPARKS BENCHMARK #79 HAVING AN ELEVATION OF 4409.18

# **BASIS OF BEARING**

THE BASIS OF BEARING FOR THIS PROJECT IS NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE NAD83(94) BASED UPON REAL TIME KINEMATIC GPS OBSERVATION, OBSERVED 11-23-2021 USING A GPS OBSERVATION, OBSERVED 11-23-2021 USING A SURVEY GRADE DUAL FREQUENCY GPS RECEIVER FROM WASHOE COUNTY CONTROL POINT N53SM01176 MODIFIED BY A COMBINED FACTOR OF 1.000197939, SCALED FROM 0.00N, 0.00E AND CONVERTED TO U.S. SURVEY FEET. ALL DIMENSIONS ON THIS MAP ARE GROUND DISTANCES.

# PROJECT CONTROL

| POINT | NORTH       | EAST       | ELEVATION | DESCRIPTION          |
|-------|-------------|------------|-----------|----------------------|
| 501   | 14875192.52 | 2299161.86 | 4407.58   | CP MAG NAIL & SHINER |
| 502   | 14875469.60 | 2299159.10 | 4408.32   | CP MAG NAIL & SHINER |
| 503   | 14875770.93 | 2299347.64 | 4409.90   | CP MAG NAIL & SHINER |
| 504   | 14875840.67 | 2298874.55 | 4408.00   | CP MAG NAIL & SHINER |

### **ALIGNMENT SS-A**

| LINE TABLE |        |                  |  |
|------------|--------|------------------|--|
| LINE #     | LENGTH | DIRECTION        |  |
| L1         | 11.64  | S89° 20' 13.45"E |  |
| L2         | 38.44  | S89° 27' 16.25"E |  |
| L3         | 228.69 | S89° 54' 13.65"E |  |
| L4         | 216.05 | S70° 06' 58.88"E |  |

# **ALIGNMENT SS-B**

|     |  | LINE TABLE |        |                  |  |
|-----|--|------------|--------|------------------|--|
|     |  | LINE #     | LENGTH | DIRECTION        |  |
| 5"E |  | L5         | 42.44  | S20° 26' 33.05"W |  |
| 5"E |  | L6         | 50.20  | S19° 36' 42.38"W |  |
| 5"E |  | L7         | 137.80 | S17° 56' 33.78"W |  |
| 8"E |  | L8         | 102.99 | S2° 35' 15.12"W  |  |
|     |  | L9         | 275.62 | S0° 28' 22.48"W  |  |
|     |  | L10        | 134.13 | S0° 31' 17.49"W  |  |
|     |  | L11        | 143.06 | S0° 25' 30.46"W  |  |

### **ALIGNMENT SS-C**

| LINE TABLE  LINE # LENGTH DIRECTION |  |  |
|-------------------------------------|--|--|
| L12 40.00 S88° 09' 09.4             |  |  |

# **ALIGNMENT SS-D**

| LINE TABLE |        |                  |
|------------|--------|------------------|
| LINE#      | LENGTH | DIRECTION        |
| L13        | 40.00  | S87° 36' 47.22"E |

# **ALIGNMENT SS-E**

| LINE TABLE |        |                  |  |
|------------|--------|------------------|--|
| LINE#      | LENGTH | DIRECTION        |  |
| L14        | 40.00  | S87° 15' 02.18"E |  |

# **ALIGNMENT SS-F**

| LINE TABLE |        |                  |
|------------|--------|------------------|
| LINE#      | LENGTH | DIRECTION        |
| L15        | 25.70  | S88° 13' 48.77"E |
| L16        | 18.47  | S87° 49' 58.55"E |
| L17        | 25.82  | N0° 45' 02.48"E  |

### **ALIGNMENT SS-G**

| LINE TABLE |        |                 |  |
|------------|--------|-----------------|--|
| LINE #     | LENGTH | DIRECTION       |  |
| L18        | 115.04 | S0° 54' 43.61"W |  |
| L19        | 44.96  | S0° 54' 43.61"W |  |

# **ALIGNMENT SS-H**

| LINE TABLE |        |                  |  |
|------------|--------|------------------|--|
| LINE#      | LENGTH | DIRECTION        |  |
| L20        | 45.16  | S51° 36' 26.48"E |  |
| L21        | 116.84 | N89° 25' 40.79"E |  |
| L22        | 136.25 | S86° 02' 29.53"E |  |
| L23        | 100.37 | S88° 32' 16.72"E |  |
| L24        | 31.38  | S88° 20' 24.92"E |  |

# **ALIGNMENT SS-I**

| LINE T |        | ABLE            |
|--------|--------|-----------------|
| LINE#  | LENGTH | DIRECTION       |
| L25    | 40.00  | S1° 02' 54.38"W |



22x34 SHEETS = HORIZONTAL:1"=20' 11x17 SHEETS = HORIZONTAL:1"=40'

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BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT SEWER CONTROL SHEET

BID SET FOR CONSTRUCTION SEPTEMBER 2024

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DRAWN BY: MEP / SSW / IPN DESIGNED BY: TDA / RHH CHECKED BY: JOB NO.: 10565.000

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# ALIGNMENT SD-A ALIGNMENT SD-B

| LINE TABLE |        |                |
|------------|--------|----------------|
| LINE#      | LENGTH | DIRECTION      |
| L1         | 50.00  | N1° 25' 11.89" |

|   |       | LINE T | ABLE            |
|---|-------|--------|-----------------|
|   | LINE# | LENGTH | DIRECTION       |
|   | L2    | 33.07  | N89° 44' 50.27" |
|   | L3    | 14.54  | S89° 07' 58.45" |
| ı | 14    | 22 39  | S89° 01' 37 33" |

| LINE TABLE |        |                  |  |  |  |  |
|------------|--------|------------------|--|--|--|--|
| LINE#      | LENGTH | DIRECTION        |  |  |  |  |
| L5         | 40.00  | S87° 38' 11.57"E |  |  |  |  |

# ALIGNMENT SD-C ALIGNMENT SD-D

|       | LINE T | ABLE             |
|-------|--------|------------------|
| LINE# | LENGTH | DIRECTION        |
| L6    | 40.00  | N73° 46' 03.00"E |



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BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT STORM DRAIN CONTROL SHEET

BID SET TFOR CONSTRUCTION SEPTEMBER 2024

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BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT SANITARY SEWER SHEET INDEX

BID SET
NOT FOR CONSTRUCTION
SEPTEMBER 2024

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**C2.1** 

DRAWN BY: MEP / SSW / IPN TDA / RHH AJG 10565.000

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SEWER INTERCEPTOR OISE DRIVE SEWER INTERCEP REHABILITATION PROJECT BOISE DRIVE SEWER PLAN

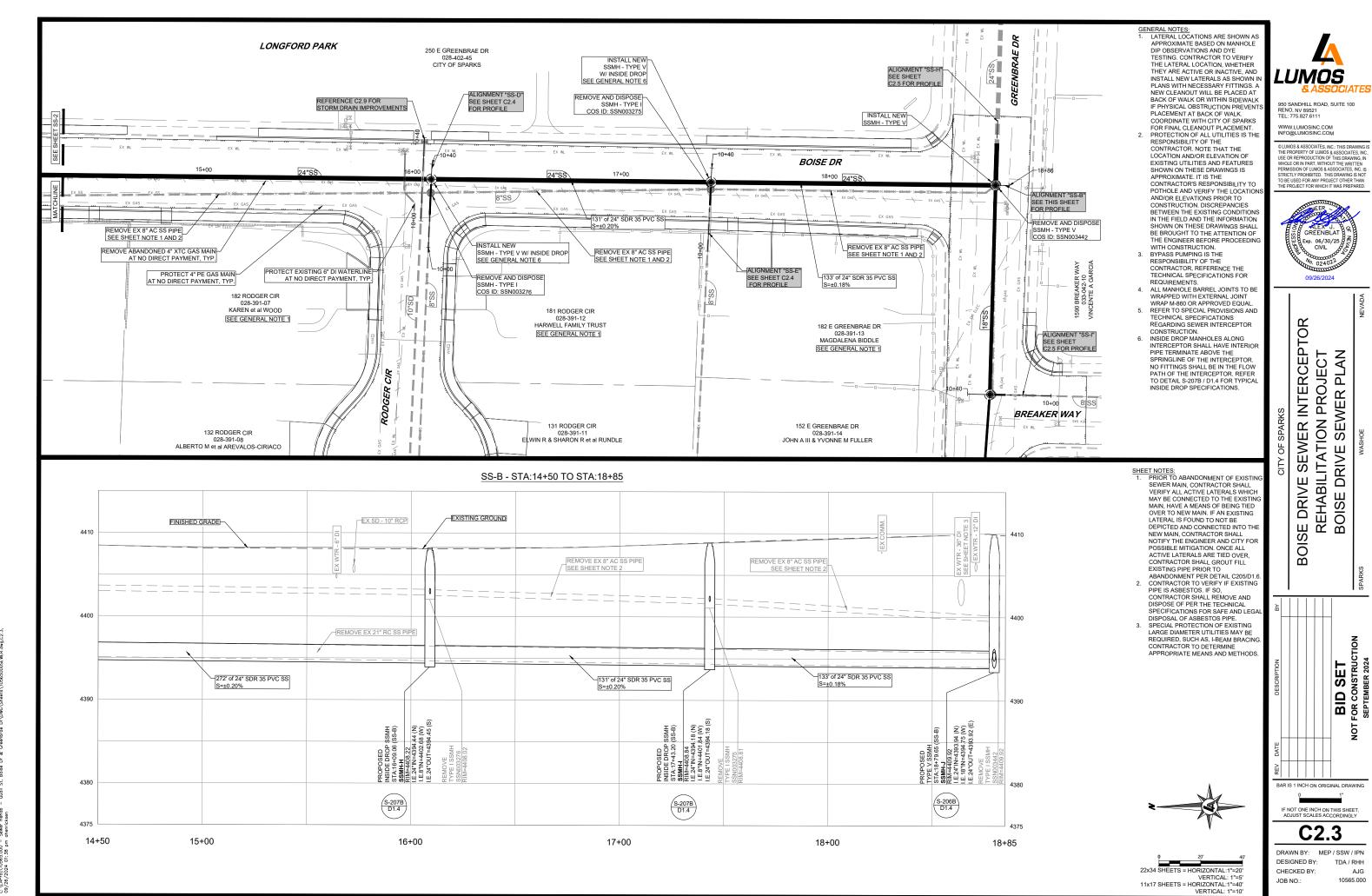
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IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

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4375

10+00

4375

10+40

4375

10+00

10+40

22x34 SHEETS = HORIZONTAL:1"=20 VERTICAL: 1"=5" 11x17 SHEETS = HORIZONTAL:1"=40' VERTICAL: 1"=10'

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PLAN

PROJEC-

DRIVE SEWER INTERCEPTOR

BOISE

BROOKS AND RODGER CIR SEWER REHABILITATION

BID SET FOR CONSTRUCTION SEPTEMBER 2024

BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

4375

10+00

4375

10+40

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BOISE DRIVE SEVVEIN III REHABILITATION P GREENBRAE DRIVE

BID SET FFOR CONSTRUCTION SEPTEMBER 2024

BAR IS 1 INCH ON ORIGINAL DRAWING

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C2.5

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SEWER INTERCEPTOR ITATION PROJECT

BOISE DRIVE SEWLINE REHABILITATION F PROBASCO WAY

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**SEWER PLAN** 



22x34 SHEETS = HORIZONTAL:1"=20 VERTICAL: 1"=5" 11x17 SHEETS = HORIZONTAL:1"=40" VERTICAL: 1"=10"

BID SET FOR CONSTRUCTION SEPTEMBER 2024 BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

C2.6

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S-207A D1.4

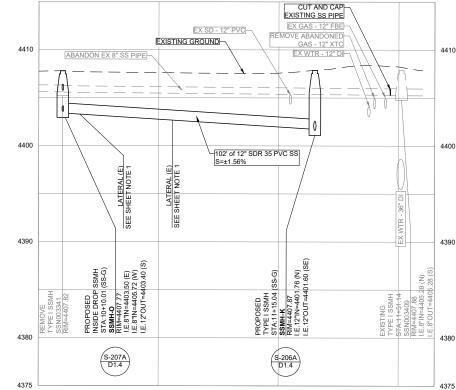
10+00

S-207A D1.4

4380

4375

9+75



11+00

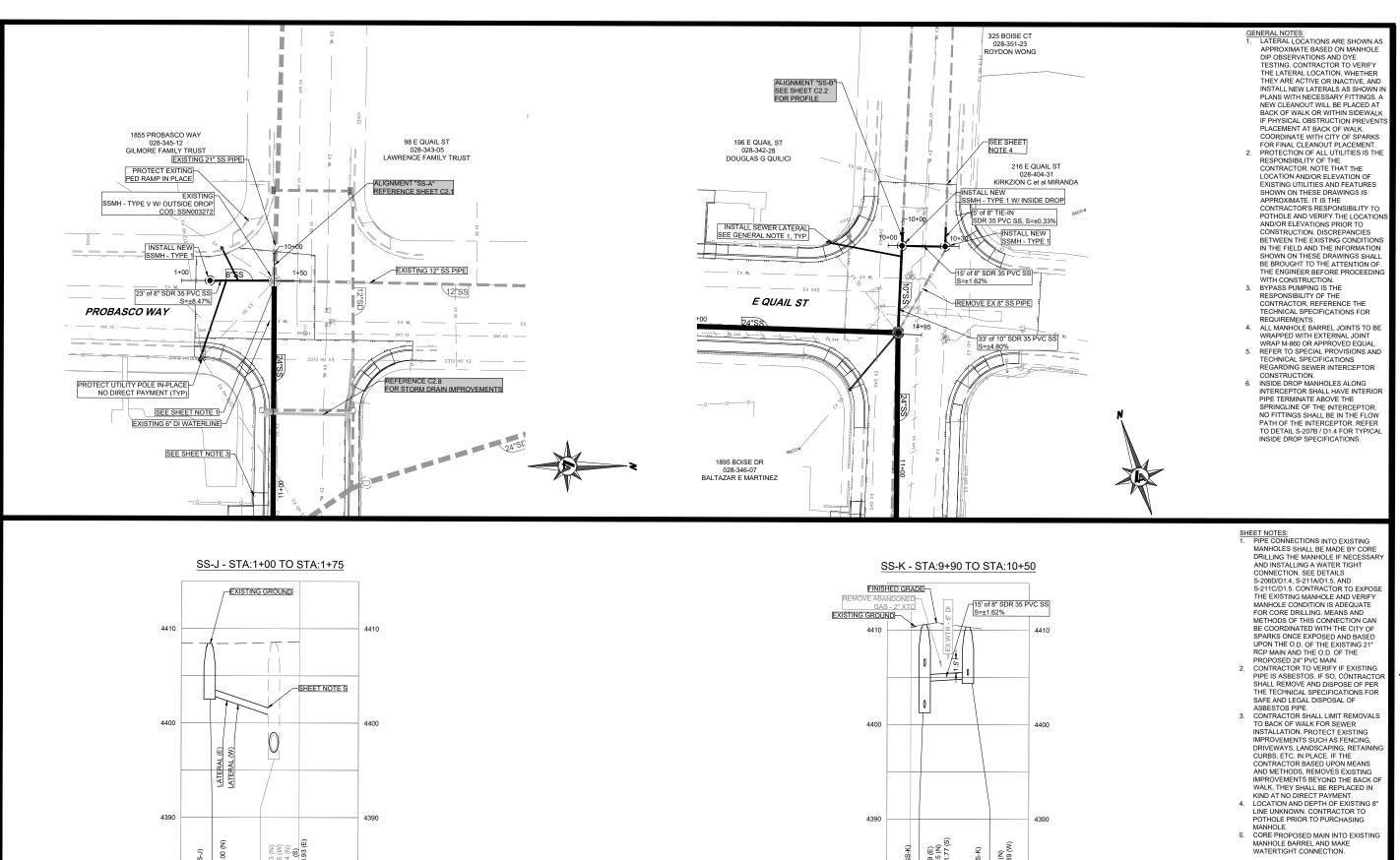
11+65

4380

4375

10+95

10+00



S-206A D1.4

10+00

4375

S-206A D1.4

4375

10+50

4380

4375

1+75

4375

1+00

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22x34 SHEETS = HORIZONTAL:1"=20 VERTICAL: 1"=5" 11x17 SHEETS = HORIZONTAL:1"=40' VERTICAL: 1"=10' BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT PROBASCO AND BOISE SEWER PLAN

950 SANDHILL ROAD, SUITE 100

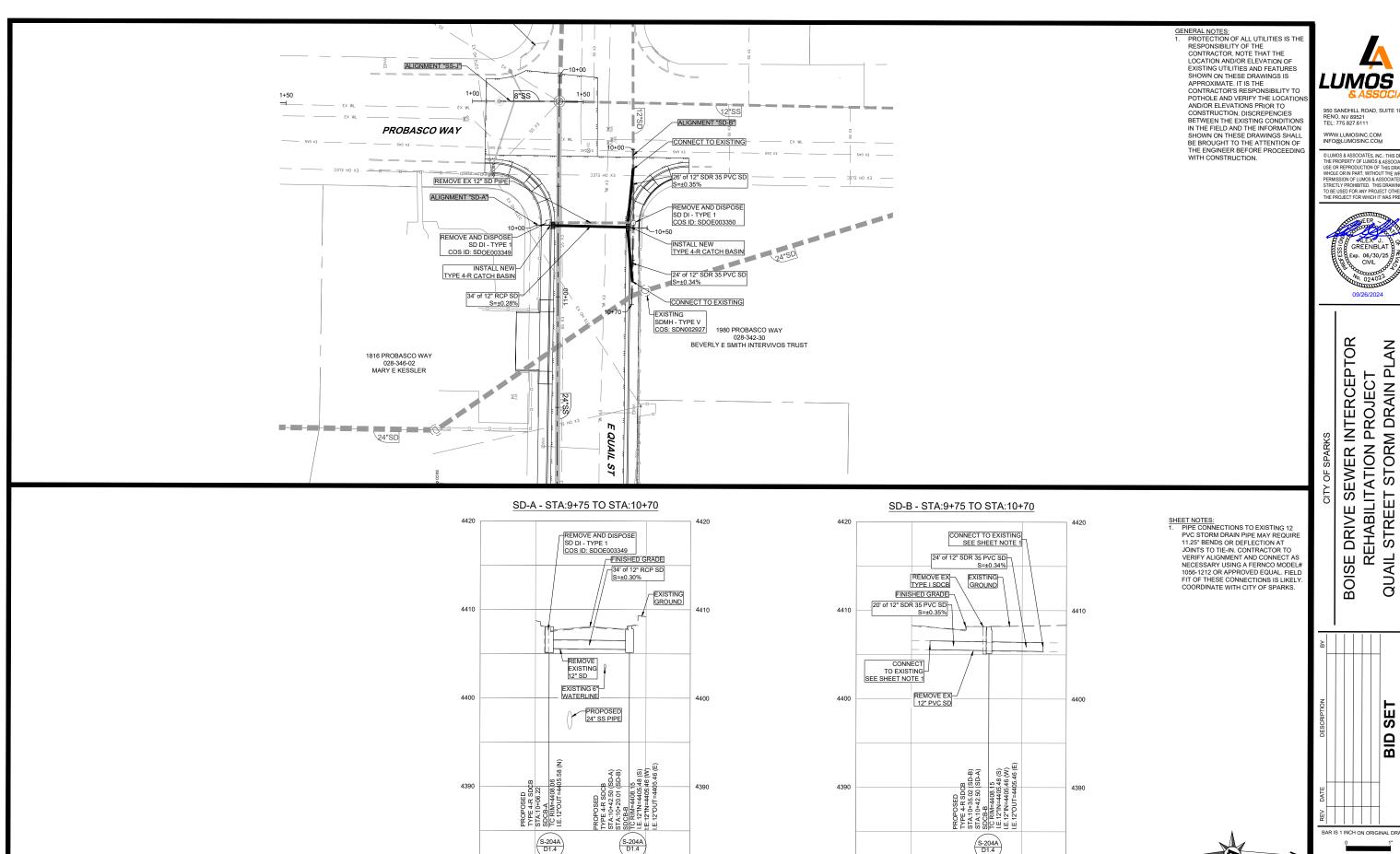
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09/26/2024

PLAN

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10+70

9+75

10+00

10+70

4380

9+75

10+00

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C2.8

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09/26/2024

BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT RODGER AND PROBASCO STORM PLAN

BID SET
NOT FOR CONSTRUCTION
SEPTEMBER 2024

BAR IS 1 INCH ON ORIGINAL DRAWING

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C2.9

DRAWN BY: MEP / SSW / IPN DESIGNED BY: TDA / RHH CHECKED BY: AJG JOB NO.: 10565.000

SHEET NOTES:

1. STORM DRAIN PIPE TO BE REPLACED IN-LINE AND IN-GRADE.



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BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT SURFACE IMPROVEMENT SHEET INDEX

BID SET
NOT FOR CONSTRUCTION
SEPTEMBER 2024

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C3.0

DRAWN BY: MEP / SSW / IPN DESIGNED BY: TDA / RHH CHECKED BY: AJG 10565.000 JOB NO.:

22x34 SHEETS = HORIZONTAL:1"=20' 11x17 SHEETS = HORIZONTAL:1"=40'

|       | LINE T | ABLE             |
|-------|--------|------------------|
| LINE# | LENGTH | DIRECTION        |
| L1    | 147.86 | N89° 31' 04.98"V |
| L2    | 99.07  | N69° 54' 22.07"V |
| L3    | 4.00   | N1° 21' 31.89"E  |
| L4    | 147.34 | S89° 14' 27.54"E |
| L5    | 96.41  | S69° 49' 18.01"E |
|       |        |                  |

| URVE ' | TABLE                              | 1                                           |
|--------|------------------------------------|---------------------------------------------|
| LENGTH | RADIUS                             | DELTA                                       |
| 40.95  | 26.00                              | 90.24                                       |
| 141.05 | 415.00                             | 19.47                                       |
| 40.86  | 26.00                              | 90.04                                       |
| 131.51 | 388.00                             | 19.42                                       |
|        | LENGTH<br>40.95<br>141.05<br>40.86 | 40.95 26.00<br>141.05 415.00<br>40.86 26.00 |

| REF     |                        |             |  |  |  |  |  |
|---------|------------------------|-------------|--|--|--|--|--|
| POINT # | STATION/OFFSET         | DESCRIPTION |  |  |  |  |  |
| 1       | "Q" 4+02.89, 43.70' LT | BEGIN C&G   |  |  |  |  |  |
| 2       | "Q" 4+06.89, 43.71' LT | BEGIN SW    |  |  |  |  |  |
| 3       | "Q" 6+25.79, 22.60' LT | END SW      |  |  |  |  |  |
| 4       | "Q" 6+62.88, 22.56' LT | BEGIN SW    |  |  |  |  |  |
| 5       | "Q" 7+77.26, 22.45' LT | END SW      |  |  |  |  |  |
| 6       | "Q" 4+02.77, 48.52' RT | BEGIN C&G   |  |  |  |  |  |
| 7       | "Q" 4+07.03, 48.51' RT | BEGIN SW    |  |  |  |  |  |

### SHEET C3.1 QUANTITIES

| NO. | DESCRIPTION                                                                                                                                                                                | UNIT | QTY.   | DETAIL      | SHEET |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------|-------------|-------|
| 1   | REMOVE AND REPLACE PCC ADA PEDESTRIAN RAMP                                                                                                                                                 | EA   | 2      | S-106       | D1.0  |
| 2   | REMOVE AND REPLACE PCC ADA PEDESTRIAN RAMP LANDING AND TRUNCATED DOMES ONLY                                                                                                                | EA   | -      | S-106       | D1.0  |
| 3   | REMOVE AND REPLACE PCC SIDEWALK                                                                                                                                                            | SF   | 1,833  | S-103       | D1.0  |
| 4   | REMOVE AND REPLACE RESIDENTIAL DRIVEWAY APRON AND TRANSITION                                                                                                                               | SF   | 2,552  | S-111       | D1.1  |
| 5   | RECONSTRUCT SECTION: PULVERIZE EXISTING ROADWAY, INSTALL 4-INCH ASPHALT ON 8-INCH AGGREGATE BASE                                                                                           | SF   | 13,642 | C104        | D1.1  |
| 6   | PERFORM 2" GRIND AND OVERLAY                                                                                                                                                               | SF   | 1,844  | C103        | D1.1  |
| 7   | PERMANENT BITUMINOUS FULL PAVEMENT PATCH (OTHER UTILITIES)                                                                                                                                 | SF   | 66     | -           | -     |
| 8   | PERMANENT BITUMINOUS PAVEMENT PATCH (SANITARY SEWER & STORM DRAIN)                                                                                                                         | LF   | 685    | S-115       | D1.2  |
| 9   | REMOVE AND REPLACE PCC TYPE 1 CURB AND GUTTER                                                                                                                                              | LF   | 785    | S-109       | D1.0  |
| 10  | REMOVE AND REPLACE PCC POST CURB                                                                                                                                                           | LF   | 54     | C100        | D1.0  |
| 11  | REMOVE AND REPLACE FENCE                                                                                                                                                                   | LF   | 48     | C110/C111   | D1.3  |
| 12  | INSTALL 4" BROKEN YELLOW PAVEMENT STRIPING                                                                                                                                                 | LF   | 92     | -           | -     |
| 13  | INSTALL 4" DOUBLE SOLID YELLOW PAVEMENT STRIPING                                                                                                                                           | LF   | 82     | -           | -     |
| 14  | INSTALL 6" SOLID WHITE PAVEMENT STRIPING                                                                                                                                                   | LF   | -      | -           | -     |
| 15  | INSTALL 24" SOLID WHITE THERMOPLASTIC STOP BAR                                                                                                                                             | LF   | 17     | -           | -     |
| 16  | INSTALL 2' x 10' SOLID WHITE THERMOPLASTIC CROSSWALK KEYS                                                                                                                                  | LF   | -      | S-411       | D1.3  |
| 17  | INSTALL RED CURB PAINT                                                                                                                                                                     | LF   | -      | -           | -     |
| 18  | INSTALL THERMOPLASTIC YIELD TRIANGLES                                                                                                                                                      | EA   | -      | S-411       | D1.3  |
| 19  | INSTALL PREFORMED SOLID WHITE THERMOPLASTIC WORD LEGENDS - "STOP"                                                                                                                          | EA   | 1      | -           | -     |
| 20  | FURNISH AND INSTALL NEW BASE, ANCHOR, AND POST                                                                                                                                             | EA   | 2      | S-401       | D1.3  |
| 21  | FURNISH AND INSTALL NEW STREET NAME SIGN                                                                                                                                                   | EA   | 2      |             |       |
| 22  | FURNISH AND INSTALL NEW TRAFFIC SIGN ASSEMBLY                                                                                                                                              | EA   | 2      |             |       |
| 23  | PROTECT AND ADJUST EXISTING GAS AND WATER VALVE BOX TO FINISH GRADE                                                                                                                        | EA   | 2      | C302        | D1.7  |
| 24  | PROTECT AND ADJUST MANHOLE STRUCTURE (NEW OR EXISTING) TO FINISH GRADE WITH NEW PCC COLLAR, AND PROVIDE NEW 24" CITY OF SPARKS LOGO COVER WITH, WHEN REQUIRED, A NEW 36" FRAME AND ADAPTOR | EA   | 2      | S-209/S-210 | D1.5  |
| 25  | RECONSTRUCT SURVEY MONUMENT                                                                                                                                                                | EA   | 1      | S-118       | D1.3  |
| 26  | PROTECT AND ADJUST EXISTING STANDARD OR SINGLE WATER METER BOX TO NEW FINISH GRADE (CONTINGENT ITEM)                                                                                       | EA   | 7      | -           | -     |
| 27  | REMOVE AND REPLACE EXISTING TYPE 1 CATCH BASIN WITH TYPE 4R CATCH BASIN                                                                                                                    | EA   | 2      | S-204       | D1.4  |
| 28  | PROTECT AND RESET EXISTING CATCH BASIN                                                                                                                                                     | EA   | -      | -           | -     |
| 29  | INSTALL SIDEWALK CROSS DRAIN                                                                                                                                                               | EA   | -      | S-105       | -     |
| 30  | REMOVE AND REPLACE PAVERS                                                                                                                                                                  | SF   | 1,033  |             |       |

### SURFACE IMPROVEMENT NOTES

- TEMPORARY PATCHES SHALL BE 3" HMA. COLD MIX NOT APPROVED. ALL AREAS MUST RECEIVE TEMPORARY PATCHES PRIOR TO OPENING TO TRAFFIC PER DETAIL
- WHEN PATCH IS LOCATED 24" OR LESS FROM CURB LINE, REPLACE TO THE CURB LINE, PER DETAIL
- SURFACE RESTORATION LIMITS ARE ESTIMATED AS SHOWN AND SHALL NOT BE CONSIDERED A MAXIMUM OR MINIMUM AREA. CONTRACTOR SHALL EVALUATE CONSTRUCTION METHODS, DESIGN DETAILS, EQUIPMENTS, SOILS, AND OTHER CONDITIONS TO
- TREES, UTILITIES, FENCING, BOXES, POLE, ETC. IN
  PLACE UNLESS NOTED OTHERWISE. IF DAMAGE IS
  CAUSE BY CONTRACTOR, THEN IT SHALL BE REPLACED AT NO DIRECT PAYMENT.
- BOXES, AND VAULT COVERS TO NEW FINISH GRADE THIN RESTORATION LIMITS.
- D1.2. GEOTECHNICAL LOGS. & BORE/TEST PITS SUMMARY TABLES ON GRADING SHEETS. THERE ARE VARIATIONS IN EXISTING AC THICKNESS.
- CONTRACTOR TO COORDINATE WITH TMWA ON THE SPECIAL PROVISIONS.
- LOCATION NOT BEING KNOWN SURFACE IMPROVEMENTS (CONCRETE, PERMANENT PATCH, ETC)
  TO INSTALL NEW SEWER LATERAL IS INCLUDED IN THE
  REMOVE AND REPLACE ACTIVE LATERAL BID ITEM.

### IMPROVEMENT LEGEND

RECONSTRUCT ROADWAY 2" GRIND AND OVERLAY S115 D1.2 PERMANENT UTILITY PATCH FOR

STORM & SEWER PERMANENT PATCH FOR OTHER UTILITIES

PCC SIDEWALK

LANDSCAPING

PAVERS

TYPE 1 CURB AND GUTTER

RESIDENTIAL DRIVEWAY APRON

DETERMINE QUANTITIES. PROTECT ALL EXISTING LANDSCAPE, STRUCTURES,

UNLESS OTHERWISE NOTED, PROTECT AND ADJUST ALL EXISTING UTILITY MANHOLE FRAME AND COVER, VALVE

PAVEMENT PATCHING SHALL MATCH EXISTING THICKNESS, BUT SHALL BE NO MORE THAN 8" AND NO LESS THAN 4". REFER TO PATCHING DETAILS ON SHEET

CONDITION OF EXISTING BOXES FOR PROTECTION OR REPLACEMENT. EXISTING NON-TRAFFIC RATED BOXES WITHIN PROPOSED DRIVEWAY APRONS OR WINGS ARE WI HIM PROPOSED DRIVE WAT APROIS OR WINGS ARE TO BE REPLACED WITH NEW TRAFFIC RATED BOXES. CONTRACTOR SHALL BE REQUIRED TO ATTEND PRE-CONSTRUCTION WALK WITH THE TMWA INSPECTOR TO ESTABLISH MUTUAL AGREEMENT ON WATER METER ADJUSTMENTS. REFERENCE SECTION SECTION 19 OF

SURFACE IMPROVEMENTS ARE NOT SHOWN FOR LATERAL REPLACEMENTS DUE TO THE ACTUAL

### SIGN LEGEND





E DRIVE S REHABILI TREET S ш<sub>В</sub>S



950 SANDHILL ROAD, SUITE 100

USE OR REPROJUCTION OF HIS DIRAWING, IN WHOLE OR IN PART, WITHOUT THE WRITTEN PERMISSION OF LUMOS & ASSOCIATES, INC. IS STRICTLY PROHIBITED. THIS DRAWING IS NOT TO BE USED FOR ANY PROJECT OTHER THAN THE PROJECT FOR WHICH IT WAS PREPARED.

09/26/2024

INTERCEPTOR N PROJECT SE IMPROVEMENT

E SEWER IN ILITATION F I SURFACE

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WWW LUMOSING COM INFO@LUMOSING COM

BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DRAWN BY: MEP / SSW / IPN TDA / RHH JOB NO.

22x34 SHEETS = HORIZONTAL:1"=20' 11x17 SHEETS = HORIZONTAL:1"=40"

DESIGNED BY: CHECKED BY:

10565,000

|   |       | LINE T | ABLE             |
|---|-------|--------|------------------|
| Ī | LINE# | LENGTH | DIRECTION        |
|   | L6    | 0.74   | N68° 40' 15.36"W |
|   | L7    | 2.39   | S30° 05' 10.43"W |
| ſ | L8    | 0.86   | S19° 57' 32.22"W |
|   | L9    | 47.50  | S19° 57' 32.22"W |
|   | L10   | 27.69  | S20° 27' 12.17"W |
|   | L11   | 106.66 | S0° 47' 56.08"W  |
| ſ | L12   | 0.15   | S20° 35' 46.32"W |
| [ | L13   | 7.00   | S18° 38' 25.01"W |
|   | L14   | 76.71  | N20° 38' 30.04"E |
| ſ | L15   | 4.60   | N3° 28' 33.41"E  |

| CURVE TABLE |                         |        |       |  |  |  |  |
|-------------|-------------------------|--------|-------|--|--|--|--|
| CURVE#      | LENGTH                  | RADIUS | DELTA |  |  |  |  |
| C5          | 33.07                   | 26.50  | 71.50 |  |  |  |  |
| C6          | 36.87                   | 26.00  | 81.24 |  |  |  |  |
| C7          | 5.30                    | 30.00  | 10.13 |  |  |  |  |
| C8          | 68.61                   | 200.00 | 19.65 |  |  |  |  |
| C9          | 42.20                   | 27.00  | 89.56 |  |  |  |  |
| C10         | 42.40                   | 27.00  | 89.97 |  |  |  |  |
| C11         | 73.40                   | 245.00 | 17.17 |  |  |  |  |
| C12         | 28.36                   | 396.00 | 4.10  |  |  |  |  |
| C13         | 4.22                    | 19.50  | 12.40 |  |  |  |  |
| C14         | 22.65                   | 19.50  | 66.54 |  |  |  |  |
| C15         | 4.73                    | 19.50  | 13.89 |  |  |  |  |
| C16         | 27.91                   | 20.00  | 79.96 |  |  |  |  |
|             |                         |        |       |  |  |  |  |
| ERENCE      | ERENCE POINT (RP) TABLE |        |       |  |  |  |  |

| E | RENCE POINT (R         | P) TABLE    | REFE   | ERENCE POINT (R        | P) TABLE    |
|---|------------------------|-------------|--------|------------------------|-------------|
|   | STATION/OFFSET         | DESCRIPTION | POINT# | STATION/OFFSET         | DESCRIPTION |
|   | "B" 1+22.33, 49.21' RT | BEGIN SW    | 23     | "B" 3+07.54, 22.36' LT | END SW      |
|   | "B" 0+99.40, 22.02' RT | END SW      | 24     | "B" 3+88.58, 22.37' LT | BEGIN SW    |
|   | "B" 0+99.43, 18.02' RT | END C&G     | 25     | "B" 4+89.99, 18.42' LT | END C&G     |
|   | "B" 1+00.53, 19.02' LT | BEGIN C&G   | 26     | "B" 1+97.58, 18.37' RT | END C&G     |
|   | "B" 1+00.50, 22.93' LT | BEGIN SW    | 27     | "B" 1+97.57, 22.44' RT | END SW      |
|   | "B" 1+25.43, 37.37' LT | END C&G     | 28     | "B" 2+27.58, 18.41' RT | BEGIN C&G   |
|   | "B" 1+21.61, 38.59' LT | END SW      | 29     | "B" 2+27.57, 22.41' RT | BEGIN SW    |
|   | "B" 1+63.86, 46.13' LT | BEGIN C&G   | 30     | "B" 4+74.19, 18.65' RT | END C&G     |
|   | "B" 1+67.91, 46.21' LT | BEGIN SW    | 31     | "B" 4+96.84, 18.40' RT | BEGIN C&G   |
|   | "B" 1+79.19, 26.14' LT | END SW      |        |                        |             |
|   | "B" 1+86.49, 23.05' LT | BEGIN SW    |        |                        |             |
|   | "B" 1+93.80, 18.35' LT | END C&G     |        |                        |             |
|   | "B" 2+62.55, 22.49' LT | END SW      |        |                        |             |
|   | "B" 2+33.30, 18.43' LT | BEGIN C&G   |        |                        |             |

| INT# | STATION/OFFSET         | DESCRIPTION |   |
|------|------------------------|-------------|---|
| 8    | "B" 1+22.33, 49.21' RT | BEGIN SW    |   |
| 9    | "B" 0+99.40, 22.02' RT | END SW      |   |
| 10   | "B" 0+99.43, 18.02' RT | END C&G     |   |
| 11   | "B" 1+00.53, 19.02' LT | BEGIN C&G   |   |
| 12   | "B" 1+00.50, 22.93' LT | BEGIN SW    |   |
| 13   | "B" 1+25.43, 37.37' LT | END C&G     |   |
| 14   | "B" 1+21.61, 38.59' LT | END SW      |   |
| 15   | "B" 1+63.86, 46.13' LT | BEGIN C&G   |   |
| 16   | "B" 1+67.91, 46.21' LT | BEGIN SW    |   |
| 17   | "B" 1+79.19, 26.14' LT | END SW      | _ |
| 18   | "B" 1+86.49, 23.05' LT | BEGIN SW    |   |
| 19   | "B" 1+93.80, 18.35' LT | END C&G     |   |

S109 D1.0

22 "B" 2+77.46, 22.52' LT BEGIN SW

| NO.           | DESCRIPTION                                                                                                                                                                                | UNIT | QTY.   | DETAIL      | SHEET |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------|-------------|-------|
| 1             | REMOVE AND REPLACE PCC ADA PEDESTRIAN RAMP                                                                                                                                                 | EA   | 6      | S-106       | D1.0  |
| 2             | REMOVE AND REPLACE PCC ADA PEDESTRIAN RAMP LANDING AND TRUNCATED DOMES ONLY                                                                                                                | EA   | -      | S-106       | D1.0  |
| 3             | REMOVE AND REPLACE PCC SIDEWALK                                                                                                                                                            | SF   | 1,960  | S-103       | D1.0  |
| 4             | REMOVE AND REPLACE RESIDENTIAL DRIVEWAY APRON AND TRANSITION                                                                                                                               | SF   | 1,590  | S-111       | D1.1  |
| 5             | RECONSTRUCT SECTION: PULVERIZE EXISTING ROADWAY, INSTALL 4-INCH ASPHALT ON 8-INCH AGGREGATE BASE                                                                                           | SF   | 19,110 | C104        | D1.1  |
| 6             | PERFORM 2" GRIND AND OVERLAY                                                                                                                                                               | SF   | -      | C103        | D1.1  |
| 7             | PERMANENT BITUMINOUS FULL PAVEMENT PATCH (OTHER UTILITIES)                                                                                                                                 | SF   |        | -           |       |
| 8             | PERMANENT BITUMINOUS PAVEMENT PATCH (SANITARY SEWER & STORM DRAIN)                                                                                                                         | LF   |        | S-115       | D1.2  |
| 9             | REMOVE AND REPLACE PCC TYPE 1 CURB AND GUTTER                                                                                                                                              | LF   | 630    | S-109       | D1.0  |
| 10            | REMOVE AND REPLACE PCC POST CURB                                                                                                                                                           | LF   | 20     | C100        | D1.0  |
| 11            | REMOVE AND REPLACE FENCE                                                                                                                                                                   | LF   | 13     | C110/C111   | D1.3  |
| 12            | INSTALL 4" BROKEN YELLOW PAVEMENT STRIPING                                                                                                                                                 | LF   | -      | -           |       |
| 13            | INSTALL 4" DOUBLE SOLID YELLOW PAVEMENT STRIPING                                                                                                                                           | LF   | 168    | -           |       |
| 14            | INSTALL 6" SOLID WHITE PAVEMENT STRIPING                                                                                                                                                   | LF   | -      | -           |       |
| 15            | INSTALL 24" SOLID WHITE THERMOPLASTIC STOP BAR                                                                                                                                             | LF   | 69     | -           |       |
| 16            | INSTALL 2' x 10' SOLID WHITE THERMOPLASTIC CROSSWALK KEYS                                                                                                                                  | LF   | 410    | S-411       | D1.3  |
| 17            | INSTALL RED CURB PAINT                                                                                                                                                                     | LF   | 11     | -           |       |
| 18            | INSTALL THERMOPLASTIC YIELD TRIANGLES                                                                                                                                                      | EA   | -      | S-411       | D1.3  |
| 19            | INSTALL PREFORMED SOLID WHITE THERMOPLASTIC WORD LEGENDS - "STOP"                                                                                                                          | EA   | 4      | -           |       |
| 20            | FURNISH AND INSTALL NEW BASE, ANCHOR, AND POST                                                                                                                                             | EA   | 5      | S-401       | D1.3  |
| 21            | FURNISH AND INSTALL NEW STREET NAME SIGN                                                                                                                                                   | EA   | 4      | -           |       |
| 22            | FURNISH AND INSTALL NEW TRAFFIC SIGN ASSEMBLY                                                                                                                                              | EA   | 4      | -           |       |
| 23            | PROTECT AND ADJUST EXISTING GAS AND WATER VALVE BOX TO FINISH GRADE                                                                                                                        | EA   | 18     | C302        | D1.7  |
| 24            | PROTECT AND ADJUST MANHOLE STRUCTURE (NEW OR EXISTING) TO FINISH GRADE WITH NEW PCC COLLAR, AND PROVIDE NEW 24" CITY OF SPARKS LOGO COVER WITH, WHEN REQUIRED, A NEW 36" FRAME AND ADAPTOR | EA   | 3      | S-209/S-210 | D1.5  |
| 25            | RECONSTRUCT SURVEY MONUMENT                                                                                                                                                                | EA   | 1      | S-118       | D1.3  |
| 26            | PROTECT AND ADJUST EXISTING STANDARD OR SINGLE WATER METER BOX TO NEW FINISH GRADE (CONTINGENT ITEM)                                                                                       | EA   | 2      | -           |       |
| 27            | REMOVE AND REPLACE EXISTING TYPE 1 CATCH BASIN WITH TYPE 4R CATCH BASIN                                                                                                                    | EA   | -      | S-204       | D1.4  |
| 28            | PROTECT AND RESET EXISTING CATCH BASIN                                                                                                                                                     | EA   | -      | -           |       |
| 29            | INSTALL SIDEWALK CROSS DRAIN                                                                                                                                                               | EA   | -      | S-105       |       |
| 30            | REMOVE AND REPLACE PAVERS                                                                                                                                                                  | SF   | -      | -           |       |
| $\overline{}$ |                                                                                                                                                                                            |      |        |             |       |

### SURFACE IMPROVEMENT NOTES

2. VEGETATION TO BE TRIMMED TO ALLOW CONSTRUCTION ACTIVITIES WHILE MAINTAINING

4. CONTRACTOR TO INFILL BEHIND SIDEWALK AND POST CURB TO WALL AT NO DIRECT PAYMENT.  ${\it 5.}~{\it PROTECT}~{\it EXISTING}~{\it POLE}~{\it IN}~{\it PLACE}.~{\it INSTALL}~{\it PEDESTRIAN}~{\it RAMP}~{\it POST}~{\it CURB}~{\it AROUND}~{\it EXISTING}$ 

1. SIGN TO BE RELOCATED TO BEHIND BACK OF WALK.

GENERAL AESTHETICS OF LANDSCAPING AT NO DIRECT PAYMENT. 3. CONTRACTOR TO MATCH POST CURB INTO EXISTING VARIABLE HEIGHT CURB.

- TEMPORARY PATCHES SHALL BE 3" HMA. COLD MIX NOT APPROVED. ALL AREAS MUST RECEIVE TEMPORARY PATCHES PRIOR TO OPENING TO TRAFFIC PER DETAIL
- WHEN PATCH IS LOCATED 24" OR LESS FROM CURB LINE, REPLACE TO THE CURB LINE, PER DETAIL
- SURFACE RESTORATION LIMITS ARE ESTIMATED AS SHOWN AND SHALL NOT BE CONSIDERED A MAXIMUM OR MINIMUM AREA. CONTRACTOR SHALL EVALUATE CONSTRUCTION METHODS, DESIGN DETAILS, EQUIPMENTS, SOILS, AND OTHER CONDITIONS TO **DETERMINE QUANTITIES**
- PROTECT ALL EXISTING LANDSCAPE, STRUCTURES. TREES, UTILITIES, FENCING, BOXES, POLE, ETC. IN
  PLACE UNLESS NOTED OTHERWISE. IF DAMAGE IS
  CAUSE BY CONTRACTOR, THEN IT SHALL BE REPLACED AT NO DIRECT PAYMENT
- UNLESS OTHERWISE NOTED, PROTECT AND ADJUST ALL EXISTING UTILITY MANHOLE FRAME AND COVER, VALVE BOXES, AND VAULT COVERS TO NEW FINISH GRADE THIN RESTORATION LIMITS.
- PAVEMENT PATCHING SHALL MATCH EXISTING THICKNESS, BUT SHALL BE NO MORE THAN 8" AND NO LESS THAN 4". REFER TO PATCHING DETAILS ON SHEET D1.2. GEOTECHNICAL LOGS. & BORE/TEST PITS SUMMARY TABLES ON GRADING SHEETS. THERE ARE VARIATIONS IN EXISTING AC THICKNESS.
- CONTRACTOR TO COORDINATE WITH TMWA ON CONDITION OF EXISTING BOXES FOR PROTECTION OR REPLACEMENT. EXISTING NON-TRAFFIC RATED BOXES WITHIN PROPOSED DRIVEWAY APRONS OR WINGS ARE TO BE REPLACED WITH NEW TRAFFIC RATED BOXES.
  CONTRACTOR SHALL BE REQUIRED TO ATTEND PRE-CONSTRUCTION WALK WITH THE TMWA INSPECTOR TO ESTABLISH MUTUAL AGREEMENT ON WATER METER ADJUSTMENTS. REFERENCE SECTION SECTION 19 OF THE SPECIAL PROVISIONS.
- SURFACE IMPROVEMENTS ARE NOT SHOWN FOR LATERAL REPLACEMENTS DUE TO THE ACTUAL LOCATION NOT BEING KNOWN SURFACE IMPROVEMENTS (CONCRETE, PERMANENT PATCH, ETC)
  TO INSTALL NEW SEWER LATERAL IS INCLUDED IN THE REMOVE AND REPLACE ACTIVE LATERAL BID ITEM.

### IMPROVEMENT LEGEND

RECONSTRUCT ROADWAY 2" GRIND AND OVERLAY

> PERMANENT UTILITY PATCH FOR STORM & SEWER

PERMANENT PATCH FOR OTHER UTILITIES

RESIDENTIAL DRIVEWAY APRON

PCC SIDEWALK TYPE 1 CURB AND GUTTER

PAVERS

LANDSCAPING

### SIGN LEGEND



R1-3P D3-1



22x34 SHEETS = HORIZONTAL:1"=20' 11x17 SHEETS = HORIZONTAL:1"=40'

DESCRIPTION END SW

SE DRIVE SEHABILI S  $\overline{\circ}$ 

SE  $\overline{\circ}$ m

50 SANDHILL ROAD, SUITE 100

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EMENT

E SEWER INTERCEPTOR LITATION PROJECT SURFACE IMPROVEMENT PLAN

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BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

DRAWN BY: MEP / SSW / IPN DESIGNED BY: TDA / RHH

CHECKED BY: AJG JOB NO. 10565,000

|        | LINE TABLE              |                 |  |  |  |  |
|--------|-------------------------|-----------------|--|--|--|--|
| LINE # | NE # LENGTH DIRECTION   |                 |  |  |  |  |
| L19    | L19 94.50 S0° 51' 45.03 |                 |  |  |  |  |
| L20    | 228.89                  | S0° 48' 04.65"W |  |  |  |  |
| L21    | 11.38                   | N0° 47' 42.15"E |  |  |  |  |
| L24    | 103.75                  | S0° 55' 51.93"W |  |  |  |  |
| L25    | 102.21                  | S1° 50' 22.78"W |  |  |  |  |

| CURVE TABLE |        |        |       |  |
|-------------|--------|--------|-------|--|
| CURVE#      | LENGTH | RADIUS | DELTA |  |
| C17         | 31.65  | 20.00  | 90.68 |  |
| C18         | 29.22  | 19.00  | 88.13 |  |
| C19         | 0.31   | 19.00  | 0.93  |  |
|             |        |        |       |  |

| С      | URVE   | TABLE  |       | REF     |   |
|--------|--------|--------|-------|---------|---|
| CURVE# | LENGTH | RADIUS | DELTA | POINT # |   |
| C17    | 31.65  | 20.00  | 90.68 | 32      |   |
| C18    | 29.22  | 19.00  | 88.13 | 33      |   |
| C19    | 0.31   | 19.00  | 0.93  | 34      |   |
|        |        |        |       | 35      |   |
|        |        |        |       |         | i |

|   | REFERENCE POINT (RP) TABLE |                          |            |  |
|---|----------------------------|--------------------------|------------|--|
| ] | POINT #                    | STATION/OFFSET           | DESCRIPTIO |  |
|   | 32                         | "GB" 4+93.44, 414.39' LT | END SW     |  |
|   | 33                         | "GB" 4+90.36, 371.53' LT | BEGIN C&G  |  |
|   | 34                         | "GB" 4+94.78, 351.62' LT | BEGIN SW   |  |
|   | 35                         | "GB" 4+96.30, 277.13' LT | END SW     |  |
|   | 36                         | "GB" 4+92.30, 277.04' LT | END C&G    |  |
|   | 37                         | "GB" 4+96.49, 268.63' LT | BEGIN SW   |  |
|   |                            |                          |            |  |

| REFERENCE POINT (RP) TABLE |                          |             |  |
|----------------------------|--------------------------|-------------|--|
| POINT#                     | STATION/OFFSET           | DESCRIPTION |  |
| 38                         | "GB" 4+92.49, 268.54' LT | BEGIN C&G   |  |
| 39                         | "GB" 4+97.09, 241.14' LT | END SW      |  |
| 40                         | "GB" 4+99.39, 136.72' LT | BEGIN SW    |  |
| 41                         | "GB" 5+01.42, 38.56' LT  | END SW      |  |
| 42                         | "GB" 4+97.42, 38.49' LT  | END C&G     |  |

43 "GB" 4+53.10, 391.62' LT END C&G

# REFERENCE POINT (RP) TABLE

| POINT # | STATION/OFFSET           | DESCRIPTION |
|---------|--------------------------|-------------|
| 44      | "GB" 4+54.57, 323.21' LT | BEGIN C&G   |
| 45      | "GB" 4+58.60, 39.79' LT  | END C&G     |
| 46      | "GB" 4+54.63, 33.84' LT  | END SW      |

### SHEET NOTES

 INSTALLED POST CURB TO MATCH HEIGHT
 OF EXISTING VARIABLE HEIGHT CURB AT BACK OF WALK

2. POWER POLE TO BE PROTECTED IN PLACE.

3. 1' TRANSITION AT BACK OF WALK NOT TO INTERFERE WITH GATE TRACKS OR WALL.

### SHEET C3.3 QUANTITIES

| NO. | DESCRIPTION                                                                                                                                                                                | UNIT | QTY.   | DETAIL      | SHEET |
|-----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|--------|-------------|-------|
| 1   | REMOVE AND REPLACE PCC ADA PEDESTRIAN RAMP                                                                                                                                                 | EA   | 2      | S-106       | D1.0  |
| 2   | REMOVE AND REPLACE PCC ADA PEDESTRIAN RAMP LANDING AND TRUNCATED DOMES ONLY                                                                                                                | EA   | 2      | S-106       | D1.0  |
| 3   | REMOVE AND REPLACE PCC SIDEWALK                                                                                                                                                            | SF   | 2,211  | S-103       | D1.0  |
| 4   | REMOVE AND REPLACE RESIDENTIAL DRIVEWAY APRON AND TRANSITION                                                                                                                               | SF   | 825    | S-111       | D1.1  |
| 5   | RECONSTRUCT SECTION: PULVERIZE EXISTING ROADWAY, INSTALL 4-INCH ASPHALT ON 8-INCH AGGREGATE BASE                                                                                           | SF   | 16,093 | C104        | D1.1  |
| 6   | PERFORM 2" GRIND AND OVERLAY                                                                                                                                                               | SF   | 3,104  | C103        | D1.1  |
| 7   | PERMANENT BITUMINOUS FULL PAVEMENT PATCH (OTHER UTILITIES)                                                                                                                                 | SF   | 430    | -           | -     |
| 8   | PERMANENT BITUMINOUS PAVEMENT PATCH (SANITARY SEWER & STORM DRAIN)                                                                                                                         | LF   | 90     | S-115       | D1.2  |
| 9   | REMOVE AND REPLACE PCC TYPE 1 CURB AND GUTTER                                                                                                                                              | LF   | 651    | S-109       | D1.0  |
| 10  | REMOVE AND REPLACE PCC POST CURB                                                                                                                                                           | LF   | -      | C100        | D1.0  |
| 11  | REMOVE AND REPLACE FENCE                                                                                                                                                                   | LF   | 17     | C110/C111   | D1.3  |
| 12  | INSTALL 4" BROKEN YELLOW PAVEMENT STRIPING                                                                                                                                                 | LF   | 101    | -           | -     |
| 13  | INSTALL 4" DOUBLE SOLID YELLOW PAVEMENT STRIPING                                                                                                                                           | LF   | 50     | -           | -     |
| 14  | INSTALL 6" SOLID WHITE PAVEMENT STRIPING                                                                                                                                                   | LF   | 97     | -           | -     |
| 15  | INSTALL 24* SOLID WHITE THERMOPLASTIC STOP BAR                                                                                                                                             | LF   | 17     | -           | -     |
| 16  | INSTALL 2' x 10' SOLID WHITE THERMOPLASTIC CROSSWALK KEYS                                                                                                                                  | LF   | 190    | S-411       | D1.3  |
| 17  | INSTALL RED CURB PAINT                                                                                                                                                                     | LF   | 46     | -           | -     |
| 18  | INSTALL THERMOPLASTIC YIELD TRIANGLES                                                                                                                                                      | EA   | 3      | S-411       | D1.3  |
| 19  | INSTALL PREFORMED SOLID WHITE THERMOPLASTIC WORD LEGENDS - "STOP"                                                                                                                          | EA   | 1      | -           | -     |
| 20  | FURNISH AND INSTALL NEW BASE, ANCHOR, AND POST                                                                                                                                             | EA   | 1      | S-401       | D1.3  |
| 21  | FURNISH AND INSTALL NEW STREET NAME SIGN                                                                                                                                                   | EA   | 1      | -           | -     |
| 22  | FURNISH AND INSTALL NEW TRAFFIC SIGN ASSEMBLY                                                                                                                                              | EA   | -      | -           | -     |
| 23  | PROTECT AND ADJUST EXISTING GAS AND WATER VALVE BOX TO FINISH GRADE                                                                                                                        | EA   | 6      | C302        | D1.7  |
| 24  | PROTECT AND ADJUST MANHOLE STRUCTURE (NEW OR EXISTING) TO FINISH GRADE WITH NEW PCC COLLAR, AND PROVIDE NEW 24" CITY OF SPARKS LOGO COVER WITH, WHEN REQUIRED, A NEW 36" FRAME AND ADAPTOR | EA   | 3      | S-209/S-210 | D1.5  |
| 25  | RECONSTRUCT SURVEY MONUMENT                                                                                                                                                                | EA   | 1      | S-118       | D1.3  |
| 26  | PROTECT AND ADJUST EXISTING STANDARD OR SINGLE WATER METER BOX TO NEW FINISH GRADE (CONTINGENT ITEM)                                                                                       | EA   | 1      | -           | -     |
| 27  | REMOVE AND REPLACE EXISTING TYPE 1 CATCH BASIN WITH TYPE 4R CATCH BASIN                                                                                                                    | EA   | -      | S-204       | D1.4  |
| 28  | PROTECT AND RESET EXISTING CATCH BASIN                                                                                                                                                     | EA   | -      | -           | -     |
| 29  | INSTALL SIDEWALK CROSS DRAIN                                                                                                                                                               | EA   | -      | S-105       | -     |
| 30  | REMOVE AND REPLACE PAVERS                                                                                                                                                                  | SF   | 144    | -           | -     |

### SURFACE IMPROVEMENT NOTES

- TEMPORARY PATCHES SHALL BE 3" HMA. COLD MIX NOT APPROVED. ALL AREAS MUST RECEIVE TEMPORARY PATCHES PRIOR TO OPENING TO TRAFFIC PER DETAIL
- WHEN PATCH IS LOCATED 24" OR LESS FROM CURB LINE, REPLACE TO THE CURB LINE, PER DETAIL
- SHOWN AND SHALL NOT BE CONSIDERED A MAXIMUM OR MINIMUM AREA. CONTRACTOR SHALL EVALUATE CONSTRUCTION METHODS, DESIGN DETAILS, EQUIPMENTS, SOILS, AND OTHER CONDITIONS TO DETERMINE QUANTITIES.
- AT NO DIRECT PAYMENT,
- BOXES, AND VAULT COVERS TO NEW FINISH GRADE THIN RESTORATION LIMITS.
- THICKNESS, BUT SHALL BE NO MORE THAN 8" AND NO LESS THAN 4". REFER TO PATCHING DETAILS ON SHEET D1.2. GEOTECHNICAL LOGS. & BORE/TEST PITS SUMMARY TABLES ON GRADING SHEETS. THERE ARE VARIATIONS IN EXISTING AC THICKNESS.
- CONDITION OF EXISTING BOXES FOR PROTECTION OR REPLACEMENT. EXISTING NON-TRAFFIC RATED BOXES WITHIN PROPOSED DRIVEWAY APRONS OR WINGS ARE TO BE REPLACED WITH NEW TRAFFIC RATED BOXES.
  CONTRACTOR SHALL BE REQUIRED TO ATTEND
  PRE-CONSTRUCTION WALK WITH THE TMWA INSPECTOR TO ESTABLISH MUTUAL AGREEMENT ON WATER METER ADJUSTMENTS. REFERENCE SECTION SECTION 19 OF THE SPECIAL PROVISIONS.
- LOCATION NOT BEING KNOWN SURFACE IMPROVEMENTS (CONCRETE, PERMANENT PATCH, ETC)
  TO INSTALL NEW SEWER LATERAL IS INCLUDED IN THE
  REMOVE AND REPLACE ACTIVE LATERAL BID ITEM.

### IMPROVEMENT LEGEND



TYPE 1 CURB AND GUTTER

LANDSCAPING

PAVERS

RESIDENTIAL DRIVEWAY APRON

PERMANENT PATCH FOR OTHER UTILITIES PCC SIDEWALK

TREES, UTILITIES, FENCING, BOXES, POLE, ETC. IN
PLACE UNLESS NOTED OTHERWISE. IF DAMAGE IS
CAUSE BY CONTRACTOR, THEN IT SHALL BE REPLACED

EXISTING UTILITY MANHOLE FRAME AND COVER, VALVE

# SIGN LEGEND



22x34 SHEETS = HORIZONTAL:1"=20' 11x17 SHEETS = HORIZONTAL:1"=40'

BID SET FOR CONSTRUCTION SEPTEMBER 2024

950 SANDHILL ROAD, SUITE 100

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CITY OF SPAKKS

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SILITATION PROJECT
SURFACE IMPROVEMENT
PLAN

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SURFACE RESTORATION LIMITS ARE ESTIMATED AS

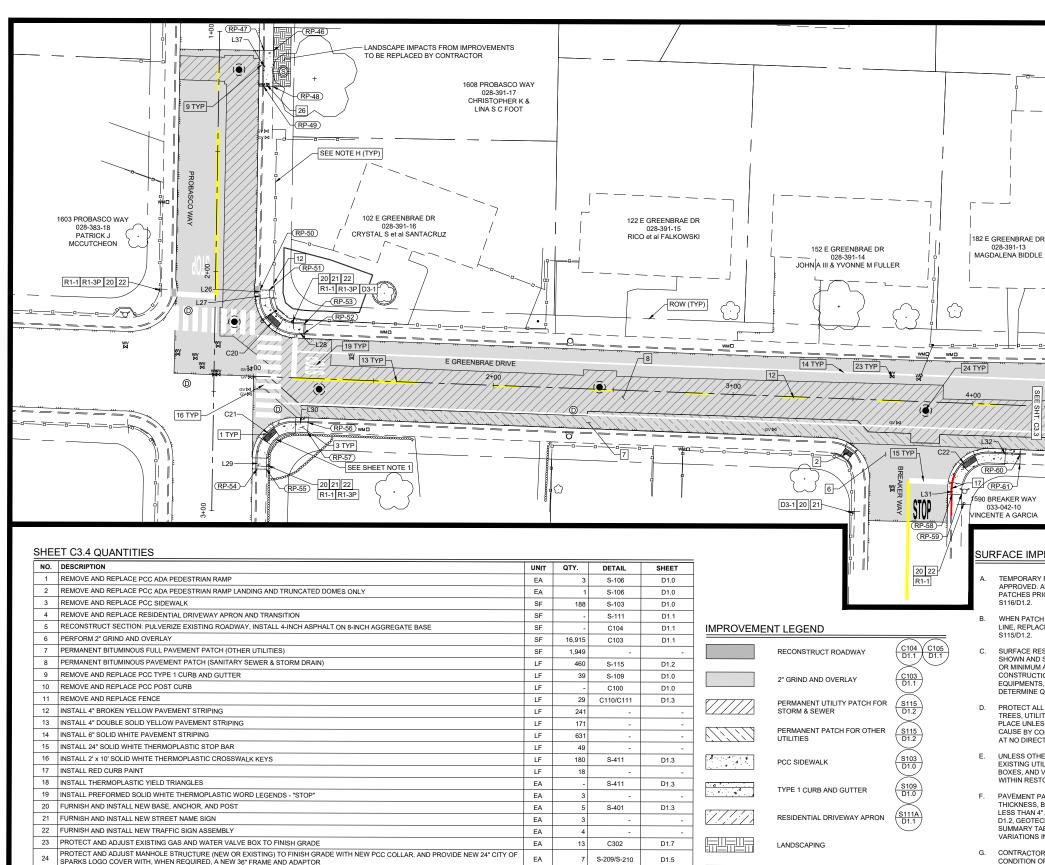
PROTECT ALL EXISTING LANDSCAPE, STRUCTURES,

UNLESS OTHERWISE NOTED, PROTECT AND ADJUST ALL

PAVEMENT PATCHING SHALL MATCH EXISTING

CONTRACTOR TO COORDINATE WITH TMWA ON

SURFACE IMPROVEMENTS ARE NOT SHOWN FOR LATERAL REPLACEMENTS DUE TO THE ACTUAL



FA

EA

EA

EA

FA

S-209/S-210

S-118

S-204

S-105

D1.5

D1.3

D1.4

PAVERS

|                     | LINE TABLE |                  |                  |  |  |  |
|---------------------|------------|------------------|------------------|--|--|--|
|                     | LINE #     | LENGTH           | DIRECTION        |  |  |  |
|                     | L26        | 1.56             | S1° 21' 50.14"W  |  |  |  |
|                     | L27        | 1.96             | S4° 11' 44.82"E  |  |  |  |
| L28 3.57 S87° 33' ( |            | S87° 33' 04.49"E |                  |  |  |  |
|                     | L29        | 4.61             | N0° 50' 34.26"E  |  |  |  |
|                     | L30        | 6.30             | N89° 39' 46.63"E |  |  |  |
|                     | L31        | 2.34             | N0° 44' 27.48"E  |  |  |  |
|                     | L32        | 12.79            | S87° 51' 53.98"E |  |  |  |
|                     | L37        | 15.00            | S0° 53' 03.73"W  |  |  |  |

| С      | URVE   | TABLE  | ŀ     |
|--------|--------|--------|-------|
| CURVE# | LENGTH | RADIUS | DELTA |
| C20    | 22.91  | 15.50  | 84.70 |
| C21    | 23.25  | 15.00  | 88.82 |
| C22    | 23.93  | 15.00  | 91.39 |

| REFERENCE POINT (RP) TABLE |                         |             |  | REF     | ERI |
|----------------------------|-------------------------|-------------|--|---------|-----|
| DINT#                      | STATION/OFFSET          | DESCRIPTION |  | POINT # |     |
| 46                         | "P" 1+07.66, 22.50' LT  | BEGIN SW    |  | 58      | "G  |
| 47                         | "P" 1+07.66, 18.66' LT  | BEGIN C&G   |  | 59      | "G  |
| 48                         | "P" 1+22.66, 22.53' LT  | END SW      |  | 60      | "G  |
| 49                         | "P" 1+22.66, 18.64' LT  | END C&G     |  | 61      | "GI |
| 50                         | "GB" 1+01.41, 36.03' LT | BEGIN C&G   |  |         |     |
| 51                         | "GB" 1+05.20, 36.11' LT | BEGIN SW    |  |         |     |
| 52                         | "GB" 1+20.25, 18.54' LT | END C&G     |  |         |     |
| 53                         | "GB" 1+20.28, 22.54' LT | END SW      |  |         |     |
| 54                         | "GB" 1+02.93, 38.59' RT | BEGIN C&G   |  |         |     |
| 55                         | "GB" 1+06.93, 38.50' RT | BEGIN SW    |  |         |     |

'GB" 1+23.51, 18.43' RT | END C&G

"GB" 1+23.50, 22.50' RT | END SW

| REFI    | ERENCE POINT (RI        | P) TABLE   |
|---------|-------------------------|------------|
| POINT # | STATION/OFFSET          | DESCRIPTIO |
| 58      | "GB" 3+92.80, 38.12' RT | BEGIN C&G  |
| 59      | "GB" 3+96.72, 37.88' RT | BEGIN SW   |
| 60      | "GB" 4+20.56, 20.47' RT | END C&G    |
| 61      | "GB" 4+20.55, 24.45' RT | END SW     |

### SHEET NOTES

1. EXISTING MASONRY BLOCK WALL IS INSTALLED ON TOP OF POST CURB. WALL TO BE REMOVED, SALVAGED, AND REPLACED ATOP PROPOSED POST CURB.

### SURFACE IMPROVEMENT NOTES

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PROTECT ALL EXISTING LANDSCAPE STRUCTURES TREES, UTILITIES, FENCING, BOXES, POLE, ETC. IN PLACE UNLESS NOTED OTHERWISE. IF DAMAGE IS CAUSE BY CONTRACTOR, THEN IT SHALL BE REPLACED AT NO DIRECT PAYMENT.

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TO INSTALL NEW SEWER LATERAL IS INCLUDED IN THE REMOVE AND REPLACE ACTIVE LATERAL BID ITEM

### SIGN LEGEND

Probasco : 💴 E Greenbrae 🔐



IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY

DESIGNED BY: CHECKED BY: JOB NO.

11x17 SHEETS = HORIZONTAL:1"=40

25 RECONSTRUCT SURVEY MONUMENT

29 INSTALL SIDEWALK CROSS DRAIN

30 REMOVE AND REPLACE PAVERS

28 PROTECT AND RESET EXISTING CATCH BASIN

26 PROTECT AND ADJUST EXISTING STANDARD OR SINGLE WATER METER BOX TO NEW FINISH GRADE (CONTINGENT ITEM)

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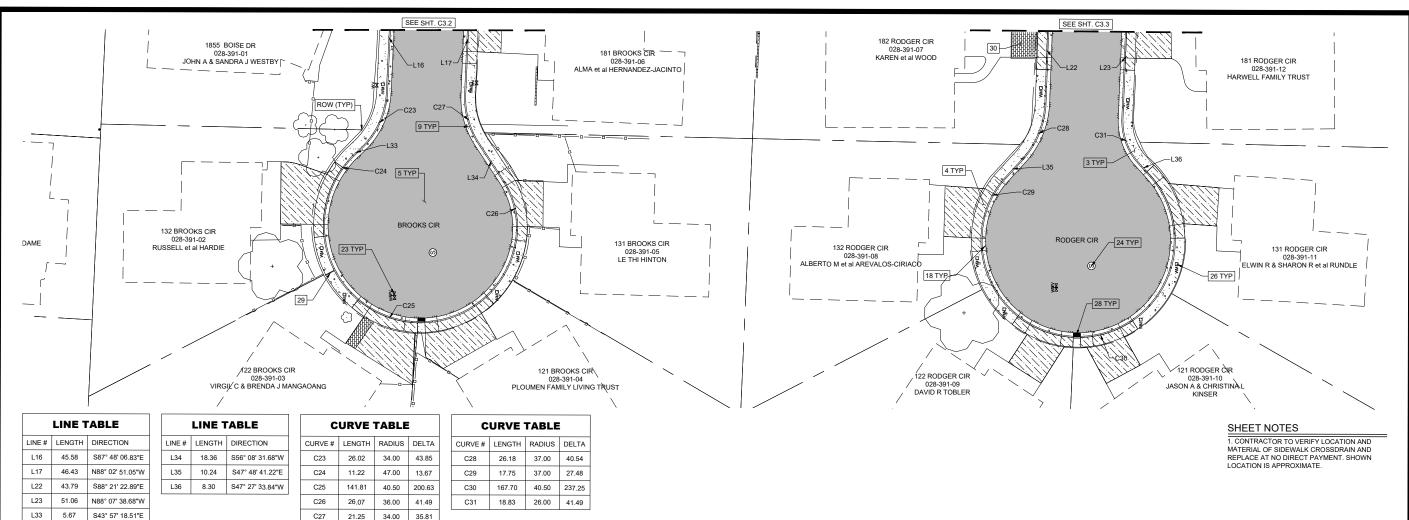
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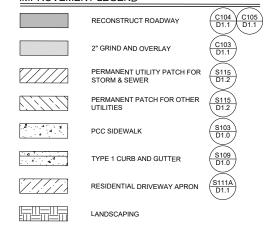


### SHEET C3.5 QUANTITIES NO. DESCRIPTION UNIT QTY. DETAIL SHEET 1 REMOVE AND REPLACE PCC ADA PEDESTRIAN RAMP EΑ S-106 D1.0 2 REMOVE AND REPLACE PCC ADA PEDESTRIAN RAMP LANDING AND TRUNCATED DOMES ONLY FΔ S-106 D1.0 REMOVE AND REPLACE PCC SIDEWALK 1,396 S-103 D1.0 4 REMOVE AND REPLACE RESIDENTIAL DRIVEWAY APRON AND TRANSITION SF 3.755 S-111 D1.1 5 RECONSTRUCT SECTION: PULVERIZE EXISTING ROADWAY, INSTALL 4-INCH ASPHALT ON 8-INCH AGGREGATE BASE SF 12,137 C104 D1.1 6 PERFORM 2" GRIND AND OVERLAY SF C103 D1.1 7 PERMANENT BITUMINOUS FULL PAVEMENT PATCH (OTHER UTILITIES) SF 8 PERMANENT BITUMINOUS PAVEMENT PATCH (SANITARY SEWER & STORM DRAIN) D1.2 S-115 9 REMOVE AND REPLACE PCC TYPE 1 CURB AND GUTTER LF 612 S-109 D1.0 10 REMOVE AND REPLACE PCC POST CURB C100 D1.0 11 REMOVE AND REPLACE FENCE LF C110/C111 D1.3 12 INSTALL 4" BROKEN YELLOW PAVEMENT STRIPING LF 13 INSTALL 4" DOUBLE SOLID YELLOW PAVEMENT STRIPING 14 INSTALL 6" SOLID WHITE PAVEMENT STRIPING LF 15 INSTALL 24" SOLID WHITE THERMOPLASTIC STOP BAR LF 16 INSTALL 2' x 10' SOLID WHITE THERMOPLASTIC CROSSWALK KEYS S-411 LF D1.3 17 INSTALL RED CURB PAINT LF 18 INSTALL THERMOPLASTIC YIELD TRIANGLES EA S-411 D1.3 19 INSTALL PREFORMED SOLID WHITE THERMOPLASTIC WORD LEGENDS - "STOP" FA 20 FURNISH AND INSTALL NEW BASE, ANCHOR, AND POST EΑ S-401 D1.3 21 FURNISH AND INSTALL NEW STREET NAME SIGN EA 22 FURNISH AND INSTALL NEW TRAFFIC SIGN ASSEMBLY EA PROTECT AND ADJUST EXISTING GAS AND WATER VALVE BOX TO FINISH GRADE D1.7 C302 EΑ 24 PROTECT AND ADJUST MANHOLE STRUCTURE (NEW OR EXISTING) TO FINISH GRADE WITH NEW PCC COLLAR, AND PROVIDE NEW 24" CITY C SPARKS LOGO COVER WITH, WHEN REQUIRED, A NEW 36" FRAME AND ADAPTOR FA S-209/S-210 D1.5 25 RECONSTRUCT SURVEY MONUMENT S-118 D1.3 26 PROTECT AND ADJUST EXISTING STANDARD OR SINGLE WATER METER BOX TO NEW FINISH GRADE (CONTINGENT ITEM) EA 27 REMOVE AND REPLACE EXISTING TYPE 1 CATCH BASIN WITH TYPE 4R CATCH BASIN EA S-204 D1.4 28 PROTECT AND RESET EXISTING CATCH BASIN EA 29 INSTALL SIDEWALK CROSS DRAIN FA S-105 30 REMOVE AND REPLACE PAVERS 112

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### IMPROVEMENT LEGEND



PAVERS



22x34 SHEETS = HORIZONTAL:1"=20' 11x17 SHEETS = HORIZONTAL:1"=40

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BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT GRADING SHEET INDEX

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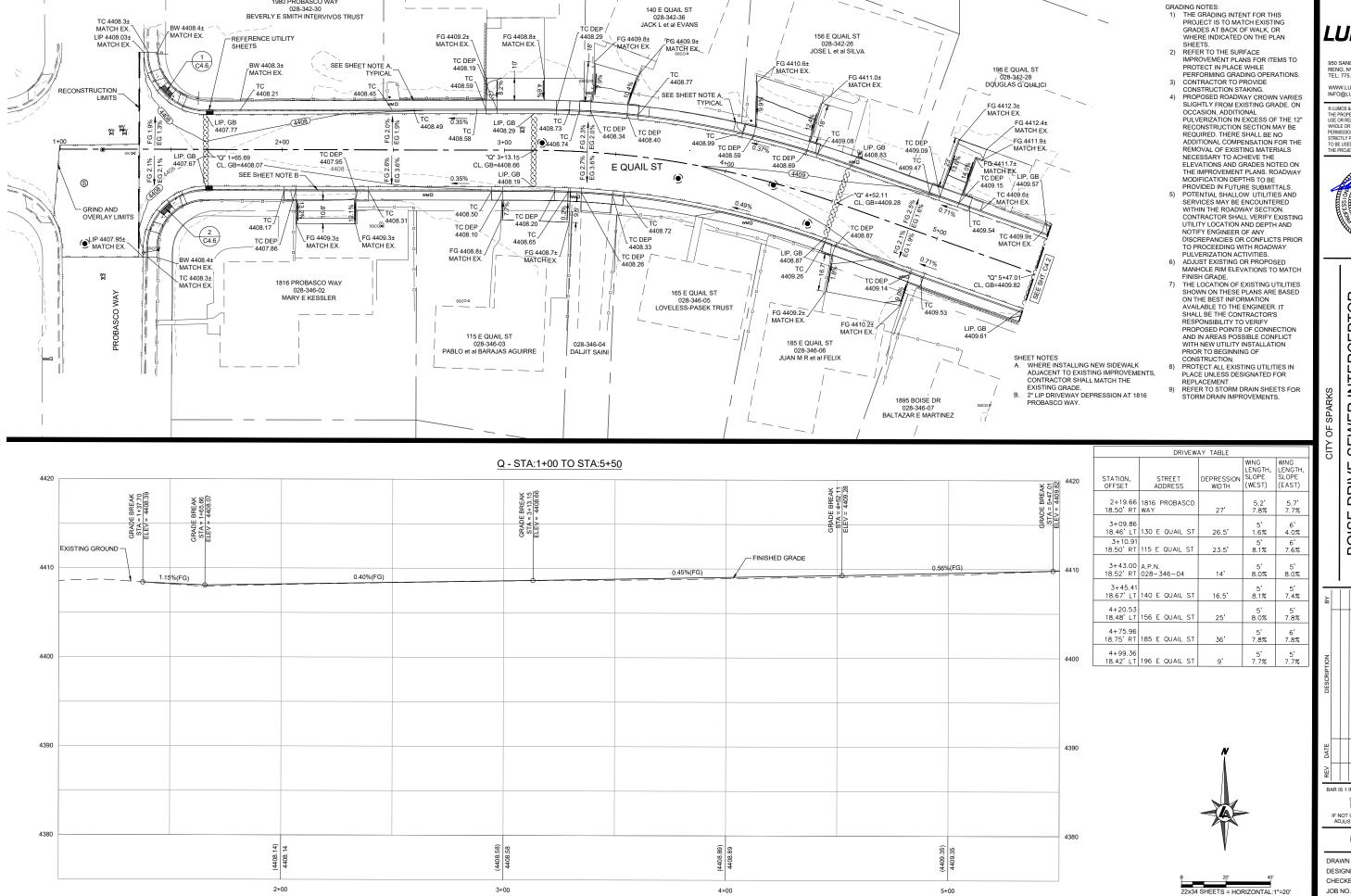
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BOISE DRIVE SEWER INTERCEPTOR
REHABILITATION PROJECT
QUAIL STREET GRADING PLAN

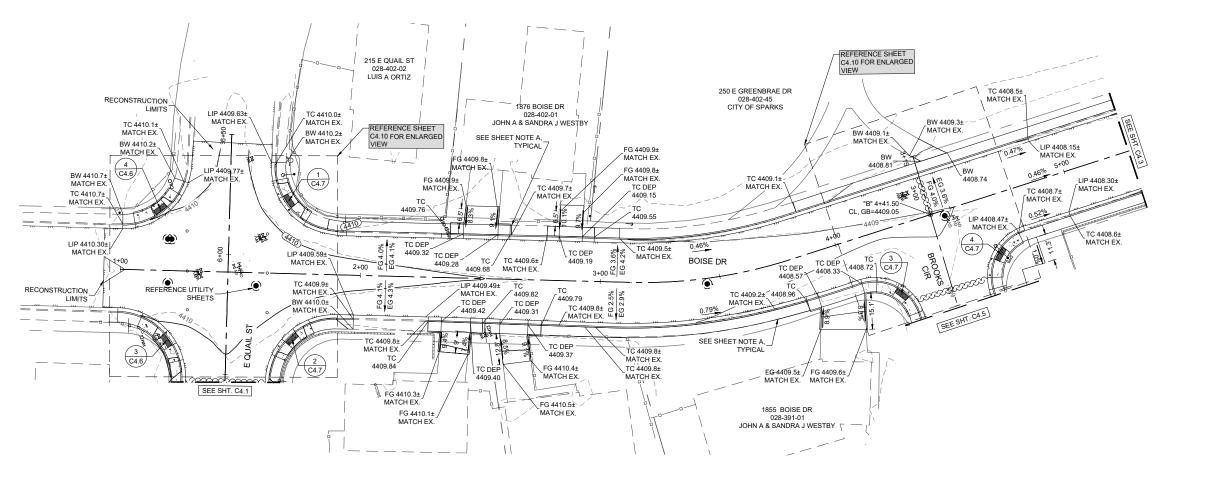
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- GRADING NOTES:

  1) THE GRADING INTENT FOR THIS PROJECT IS TO MATCH EXISTING GRADES AT BACK OF WALK, OR WHERE INDICATED ON THE PLAN SHEETS.
- 2) REFER TO THE SURFACE IMPROVEMENT PLANS FOR ITEMS TO PROTECT IN PLACE WHILE PERFORMING GRADING OPERATIONS.
- CONTRACTOR TO PROVIDE CONSTRUCTION STAKING.
- 4) PROPOSED ROADWAY CROWN VARIES SLIGHTLY FROM EXISTING GRADE. ON OCCASION, ADDITIONAL PULVERIZATION IN EXCESS OF THE 12" RECONSTRUCTION IN EACESS OF THE 12 RECONSTRUCTION SECTION MAY BE REQUIRED. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR THE REMOVAL OF EXISTING MATERIALS NECESSARY TO ACHIEVE THE ELEVATIONS AND GRADES NOTED ON THE IMPROVEMENT PLANS, ROADWAY
- MODIFICATION DEPTHS TO BE PROVIDED IN FUTURE SUBMITTALS.

  5) POTENTIAL SHALLOW UTILITIES AND SERVICES MAY BE ENCOUNTERED
  WITHIN THE ROADWAY SECTION.
  CONTRACTOR SHALL VERIFY EXISTING
  UTILITY LOCATION AND DEPTH AND NOTIFY ENGINEER OF ANY
  DISCREPANCIES OR CONFLICTS PRIOR TO PROCEEDING WITH ROADWAY
- PULVERIZATION ACTIVITIES.

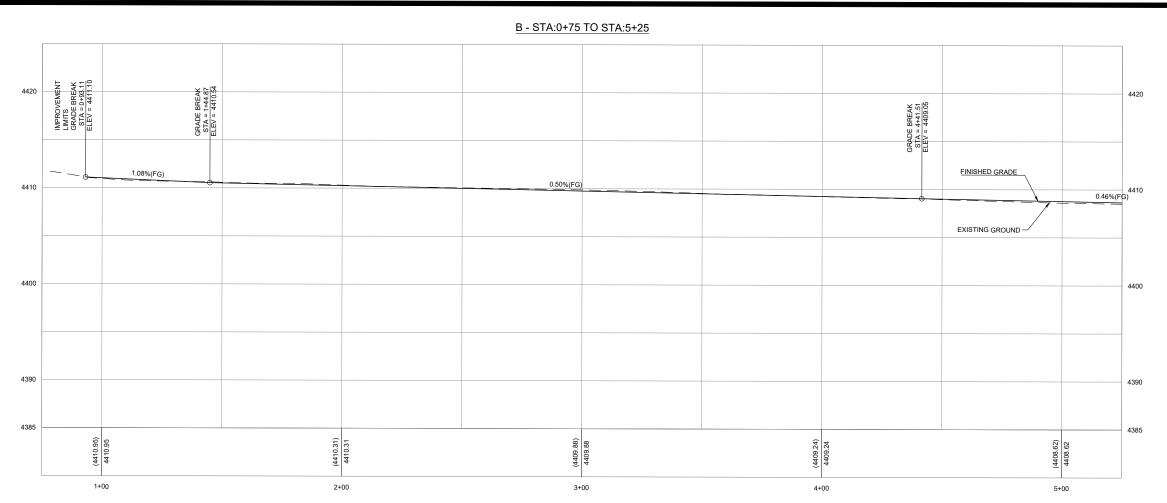
  6) ADJUST EXISTING OR PROPOSED MANHOLE RIM ELEVATIONS TO MATCH
- FINISH GRADE.

  7) THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING OF CONSTRUCTION.

  8) PROTECT ALL EXISTING UTILITIES IN
- PLACE UNLESS DESIGNATED FOR
- REPLACEMENT.

  9) REFER TO STORM DRAIN SHEETS FOR STORM DRAIN IMPROVEMENTS.

SHEET NOTES
A. WHERE INSTALLING NEW SIDEWALK ADJACENT TO EXISTING IMPROVEMENTS, CONTRACTOR SHALL MATCH THE EXISTING GRADE



|                      | DRIVEWAY TABLE    |                     |                                     |                                     |  |
|----------------------|-------------------|---------------------|-------------------------------------|-------------------------------------|--|
| STATION,<br>OFFSET   | STREET<br>ADDRESS | DEPRESSION<br>WIDTH | WING<br>LENGTH,<br>SLOPE<br>(NORTH) | WING<br>LENGTH,<br>SLOPE<br>(SOUTH) |  |
| 2+40.36<br>18.54' RT | 1895 BOISE DR     | 12.2'               | 5.5'<br>7.8%                        | 5'<br>8.33%                         |  |
| 2+49.77<br>18.47 LT  | 1876 BOISE DR     | 14.5'               | 5.5'<br>8.1%                        | 5'<br>7.5%                          |  |
| 2+64.55<br>18.50' RT | 1875 BOISE DR     | 11,7'               | 6.2'<br>8.1%                        | 5.5'<br>7.7%                        |  |
| 2+87.24<br>18.49' LT | 1876 BOISE DR     | 9.7'                | 5'<br>7.8%                          | 5'<br>8.1%                          |  |
| 3+94.06<br>18.92' LT | 1855 BOISE DR     | 18.9'               | 5'<br>7.8%                          | 6.3'<br>7.9%                        |  |

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22x34 SHEETS = HORIZONTAL:1"=20" 11x17 SHEETS = HORIZONTAL:1"=40"

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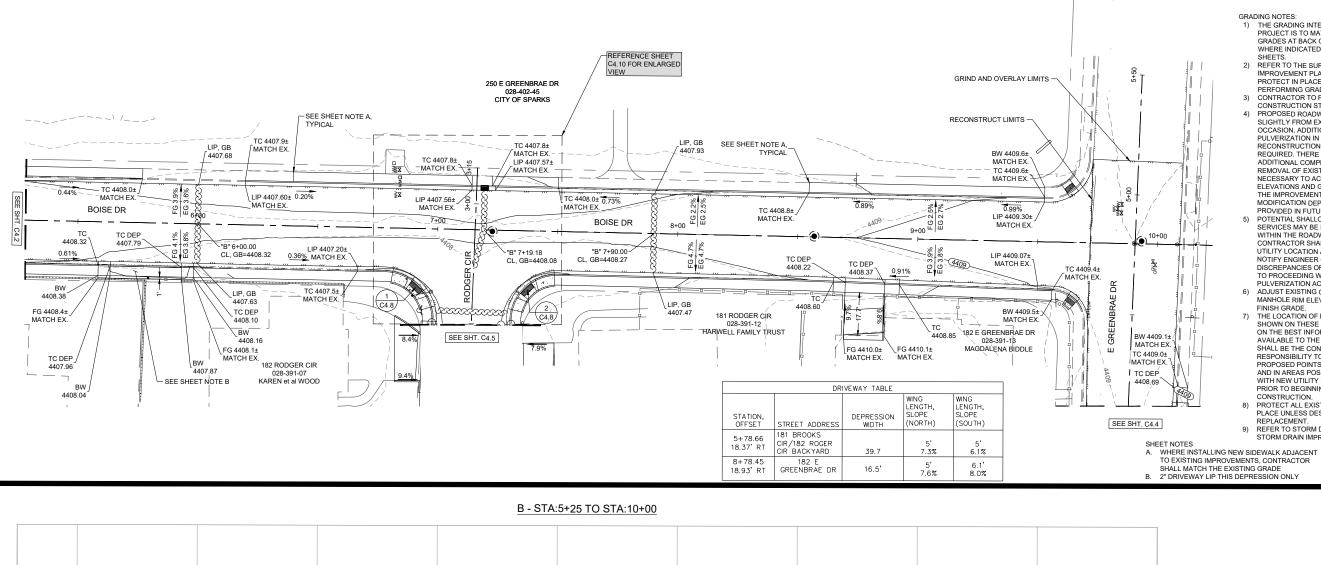
09/26/2024

SEWER INTERCEPTOR

BOISE DRIVE SEWEK IIN L. .. REHABILITATION PROJECT

BID SET FOR CONSTRUCT SEPTEMBER 2024

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY C4.2



- GRADING NOTES:

  1) THE GRADING INTENT FOR THIS PROJECT IS TO MATCH EXISTING GRADES AT BACK OF WALK, OR WHERE INDICATED ON THE PLAN SHEETS.
- 2) REFER TO THE SURFACE IMPROVEMENT PLANS FOR ITEMS TO PROTECT IN PLACE WHILE PERFORMING GRADING OPERATIONS.
- CONTRACTOR TO PROVIDE CONSTRUCTION STAKING. WWW LUMOSING COM INFO@LUMOSINC.COM

950 SANDHILL ROAD, SUITE 100

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09/26/2024

- PROPOSED ROADWAY CROWN VARIES SLIGHTLY FROM EXISTING GRADE. ON OCCASION, ADDITIONAL PULVERIZATION IN EXCESS OF THE 12" RECONSTRUCTION IN EACESS OF THE 12 RECONSTRUCTION SECTION MAY BE REQUIRED. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR THE REMOVAL OF EXISTING MATERIALS NECESSARY TO ACHIEVE THE ELEVATIONS AND GRADES NOTED ON THE IMPROVEMENT PLANS, ROADWAY MODIFICATION DEPTHS TO BE PROVIDED IN FUTURE SUBMITTALS.
- 5) POTENTIAL SHALLOW UTILITIES AND SERVICES MAY BE ENCOUNTERED
  WITHIN THE ROADWAY SECTION.
  CONTRACTOR SHALL VERIFY EXISTING UTILITY LOCATION AND DEPTH AND NOTIFY ENGINEER OF ANY
  DISCREPANCIES OR CONFLICTS PRIOR TO PROCEEDING WITH ROADWAY
- PULVERIZATION ACTIVITIES.

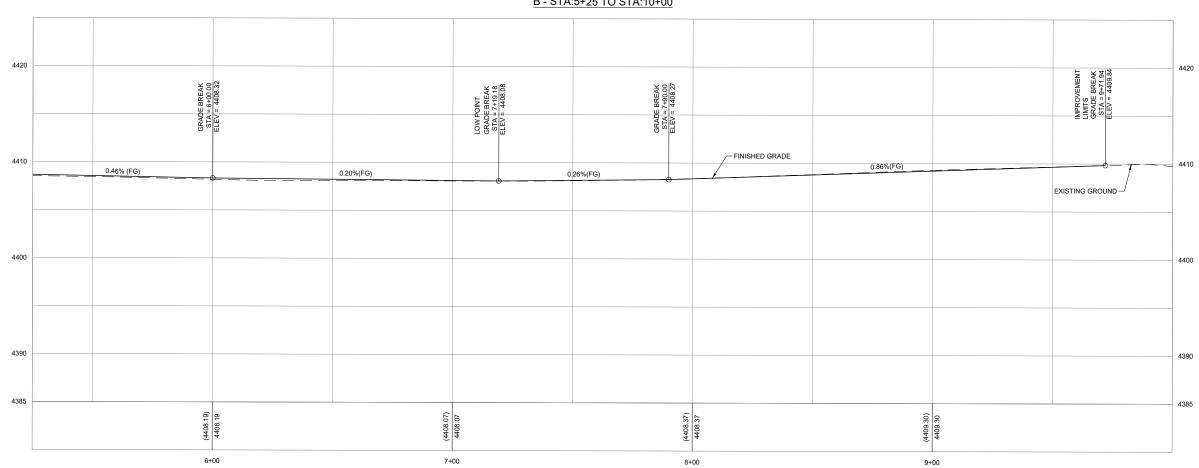
  6) ADJUST EXISTING OR PROPOSED MANHOLE RIM ELEVATIONS TO MATCH
- FINISH GRADE.

  7) THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING OF CONSTRUCTION.

  8) PROTECT ALL EXISTING UTILITIES IN
- PLACE UNLESS DESIGNATED FOR
- REPLACEMENT.

  9) REFER TO STORM DRAIN SHEETS FOR STORM DRAIN IMPROVEMENTS.

B. 2" DRIVEWAY LIP THIS DEPRESSION ONLY





22x34 SHEETS = HORIZONTAL:1"=20" 11x17 SHEETS = HORIZONTAL:1"=40"

BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

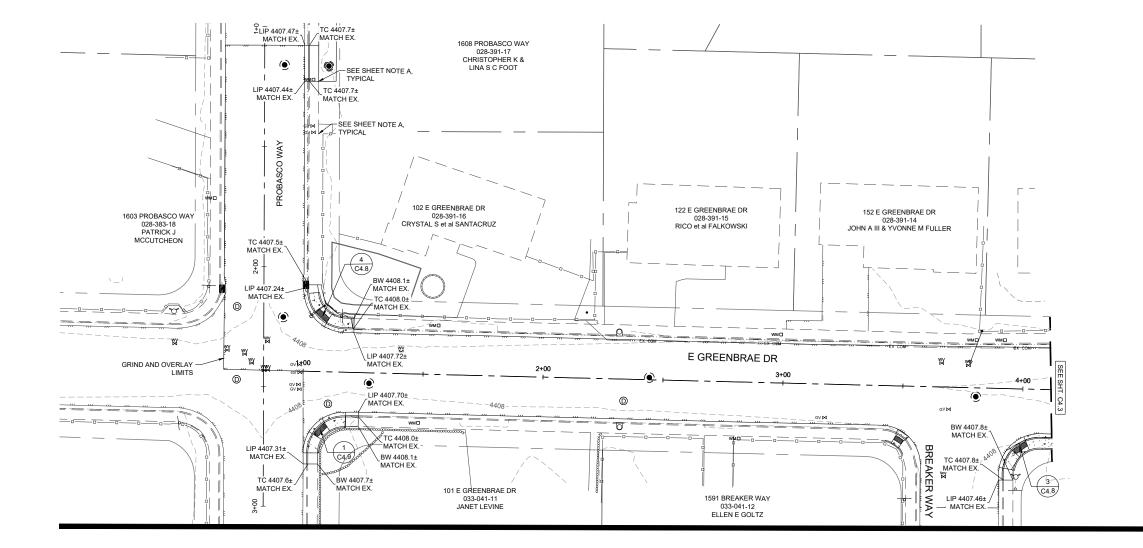
C4.3

DRAWN BY: MEP / SSW / IPN TDA / RHH CHECKED BY: JOB NO.: 10565.000

BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT BOISE DRIVE GRADING PLAN

BID SET FOR CONSTRUCTION SEPTEMBER 2024

DESIGNED BY:



- GRADING NOTES:

  1) THE GRADING INTENT FOR THIS PROJECT IS TO MATCH EXISTING GRADES AT BACK OF WALK, OR WHERE INDICATED ON THE PLAN
- SHEETS.
  2) REFER TO THE SURFACE IMPROVEMENT PLANS FOR ITEMS TO PROTECT IN PLACE WHILE PROTECT IN PLACE WHILE
  PERFORMING GRADING OPERATIONS.
  3) CONTRACTOR TO PROVIDE
  CONSTRUCTION STAKING.
- PROPOSED ROADWAY CROWN VARIES SLIGHTLY FROM EXISTING GRADE. ON OCCASION, ADDITIONAL PULVERIZATION IN EXCESS OF THE 12" RECONSTRUCTION IN EACESS OF THE 12 RECONSTRUCTION SECTION MAY BE REQUIRED. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR THE REMOVAL OF EXISTING MATERIALS NECESSARY TO ACHIEVE THE ELEVATIONS AND GRADES NOTED ON THE IMPROVEMENT PLANS, ROADWAY MODIFICATION DEPTHS TO BE PROVIDED IN FUTURE SUBMITTALS.

  5) POTENTIAL SHALLOW UTILITIES AND
- SERVICES MAY BE ENCOUNTERED
  WITHIN THE ROADWAY SECTION.
  CONTRACTOR SHALL VERIFY EXISTING
  UTILITY LOCATION AND DEPTH AND NOTIFY ENGINEER OF ANY
  DISCREPANCIES OR CONFLICTS PRIOR TO PROCEEDING WITH ROADWAY
  PULVERIZATION ACTIVITIES.
  6) ADJUST EXISTING OR PROPOSED
  MANHOLE RIM ELEVATIONS TO MATCH
- MANHOLE RIM ELEVATIONS TO MATCH FINISH GRADE.

  7) THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING OF
- CONSTRUCTION.

  8) PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS DESIGNATED FOR REPLACEMENT.

  9) REFER TO STORM DRAIN SHEETS FOR STORM DRAIN IMPROVEMENTS.

SHEET NOTES

A. WHERE INSTALLING NEW SIDEWALK ADJACENT
TO EXISTING IMPROVEMENTS, CONTRACTOR
SHALL MATCH THE EXISTING GRADE



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BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT GREENBRAE DRIVE GRADING PLAN



22x34 SHEETS = HORIZONTAL:1"=5' 11x17 SHEETS = HORIZONTAL:1"=10"



DRAWN BY: MEP / SSW / IPN

TDA / RHH

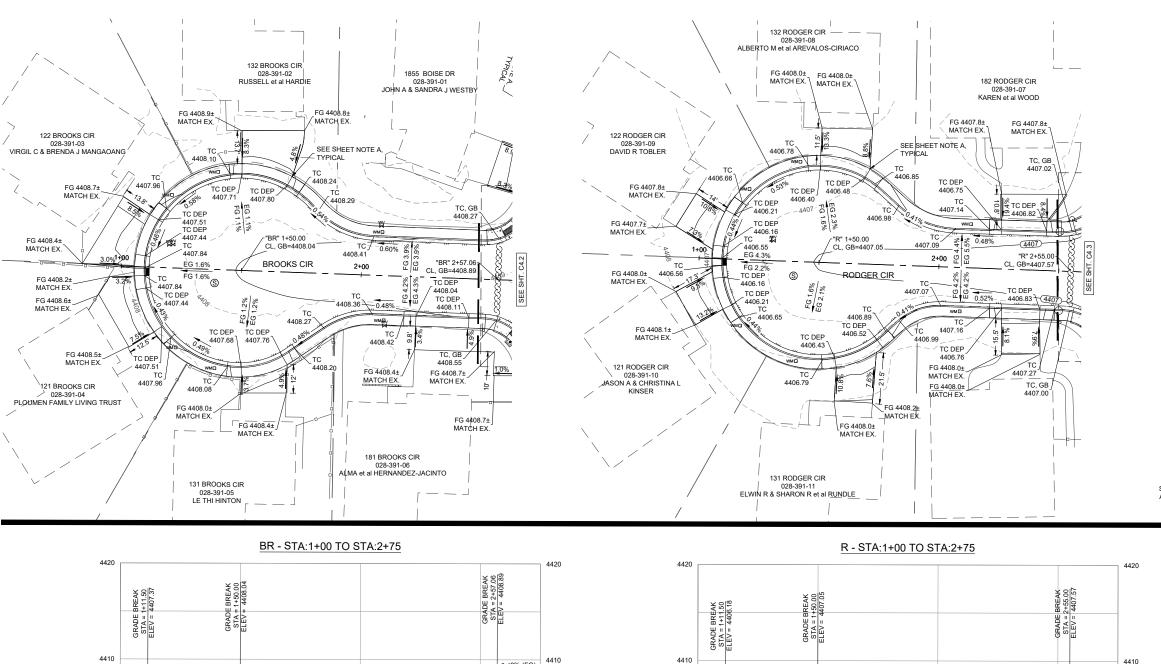
10565.000

AJG

DESIGNED BY:

CHECKED BY:

JOB NO.:



GRADING NOTES:

- THE GRADING INTENT FOR THIS
   PROJECT IS TO MATCH EXISTING GRADES AT BACK OF WALK, OR WHERE INDICATED ON THE PLAN SHEETS.
  2) REFER TO THE SURFACE
- IMPROVEMENT PLANS FOR ITEMS TO PROTECT IN PLACE WHILE PERFORMING GRADING OPERATIONS.

  3) CONTRACTOR TO PROVIDE
- CONSTRUCTION STAKING.
  4) PROPOSED ROADWAY CROWN VARIES SLIGHTLY FROM EXISTING GRADE. ON OCCASION, ADDITIONAL
  PULVERIZATION IN EXCESS OF THE 12"
  RECONSTRUCTION SECTION MAY BE REQUIRED THERE SHALL BE NO ADDITIONAL COMPENSATION FOR THE REMOVAL OF EXISTING MATERIALS NECESSARY TO ACHIEVE THE ELEVATIONS AND GRADES NOTED ON THE IMPROVEMENT PLANS. ROADWAY MODIFICATION DEPTHS TO BE
- PROVIDED IN FUTURE SUBMITTALS.

  5) POTENTIAL SHALLOW UTILITIES AND SERVICES MAY BE ENCOUNTERED WITHIN THE ROADWAY SECTION.
  CONTRACTOR SHALL VERIFY EXISTING
  UTILITY LOCATION AND DEPTH AND
  NOTIFY ENGINEER OF ANY DISCREPANCIES OR CONFLICTS PRIOR TO PROCEEDING WITH ROADWAY PULVERIZATION ACTIVITIES.
- 6) ADJUST EXISTING OR PROPOSED
  MANHOLE RIM ELEVATIONS TO MATCH
  FINISH GRADE.

  7) THE LOCATION OF EXISTING UTILITIES
- SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S
  RESPONSIBILITY TO VERIFY
  PROPOSED POINTS OF CONNECTION AND IN AREAS POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING OF CONSTRUCTION.
- PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS DESIGNATED FOR REPLACEMENT.

  9) REFER TO STORM DRAIN SHEETS FOR

1.51% (FG)

4400

4390

SHEET NOTES
A. WHERE INSTALLING NEW SIDEWALK ADJACENT TO EXISTING IMPROVEMENTS, CONTRACTOR SHALL MATCH THE EXISTING GRADE

|           | BR - STA:1+00 TO                                                                  | STA:2+75                                       |            |                                                                                                  | R - STA:1+00 TO STA:2+75 |
|-----------|-----------------------------------------------------------------------------------|------------------------------------------------|------------|--------------------------------------------------------------------------------------------------|--------------------------|
| 0         | 8.04<br>8.04<br>8.04                                                              | FEAK<br>408.89                                 | 4420 44    |                                                                                                  |                          |
|           | GRADE BREAK STA = 1+11.50 ELEV = 4407.37 GRADE BREAK STA = 1+50.00 ELEV = 4408.04 | GRÁDE BREAK<br>STA = 2-57.06<br>ELEV = 4408.89 |            | GRADE BREAK<br>STA = 1+11.50<br>ELEV = 4408.18<br>GRADE BREAK<br>STA = 1+50.00<br>ELEV = 4407.05 | ORADE BREAK              |
| j         |                                                                                   | 0.49% (FG)                                     | 3) 4410 44 | 2.26%(FG)                                                                                        |                          |
| )         |                                                                                   |                                                | 4400 44    | 000                                                                                              |                          |
|           |                                                                                   |                                                |            |                                                                                                  |                          |
| )         |                                                                                   |                                                | 4390 43    | 90                                                                                               |                          |
| )         |                                                                                   |                                                | 4380 43    | 80                                                                                               |                          |
| (4407.98) | 4408.01                                                                           | 4408.44                                        |            | (4407.38)<br>4407.38                                                                             | (4407.51)                |
| 1+        | 00                                                                                | 2+00                                           |            | 1+00                                                                                             | 2+00                     |

|                      | DRIVEW            | AY TABLE            |                                    |                                    |
|----------------------|-------------------|---------------------|------------------------------------|------------------------------------|
| STATION,<br>OFFSET   | STREET<br>ADDRESS | DEPRESSION<br>WIDTH | WING<br>LENGTH,<br>SLOPE<br>(WEST) | WING<br>LENGTH,<br>SLOPE<br>(EAST) |
| 1+11.56<br>12.85'LT  | 122 BROOKS CIR    | 16.1'               | 5.3'<br>7.6%                       | 5.8'<br>7.9%                       |
| 1+13.25<br>17.02'RT  | 121 BROOKS CIR    | 17.5'               | 5.2'<br>7.6%                       | 6'<br>7.6%                         |
| 1+58.65<br>39.57' LT | 132 BROOKS CIR    | 19.8'               | 5'<br>7.9%                         | 5.7'<br>7.6%                       |
| 1+60.25<br>38.85' RT | 131 BROOKS CIR    | 18'                 | 5.7'<br>7.0%                       | 6.1'<br>7.4%                       |
| 2+34.47<br>16.52' RT | 181 BROOKS CIR    | 22.1'               | 5'<br>7.6%                         | 6.9'<br>6.7%                       |
| 1+11.36<br>12.14' LT | 122 RODGER CIR    | 14.1'               | 5'<br>8.0%                         | 6'<br>7.6%                         |
| 1+11.82<br>13.50' RT | 121 RODGER CIR    | 12.1'               | 5'<br>8.0%                         | 6 <b>'</b><br>7.5 <b>%</b>         |
| 1+58.96<br>39.50'LT  | 132 RODGER CIR    | 19.5'               | 5.3'<br>7.6%                       | 6'<br>7.5%                         |
| 1+67.22<br>36.66' RT | 131 RODGER CIR    | 19.5'               | 5.5'<br>7.3%                       | 6'<br>7.5%                         |
| 2+34.74<br>16.52' RT | 181 RODGER CIR    | 16'                 | 5'<br>8.0%                         | 6'<br>7.4%                         |
| 2+34.91<br>16.40'LT  | 182 RODGER CIR    | 18.8'               | 5'<br>7.9%                         | 6'<br>7.5%                         |



22x34 SHEETS = HORIZONTAL:1"=20" 11x17 SHEETS = HORIZONTAL:1"=40"

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09/26/2024

PLAN

BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT BROOKS AND ROGER CIR GRADING PLA

BID SET FOR CONSTRUCT SEPTEMBER 2024

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C4.5

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DESIGNED BY: CHECKED BY: JOB NO.

4400

4390

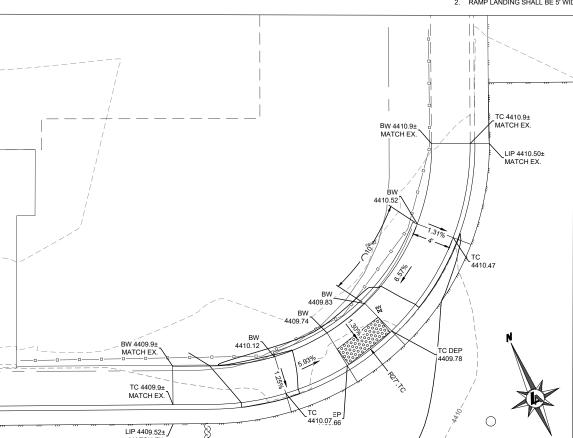
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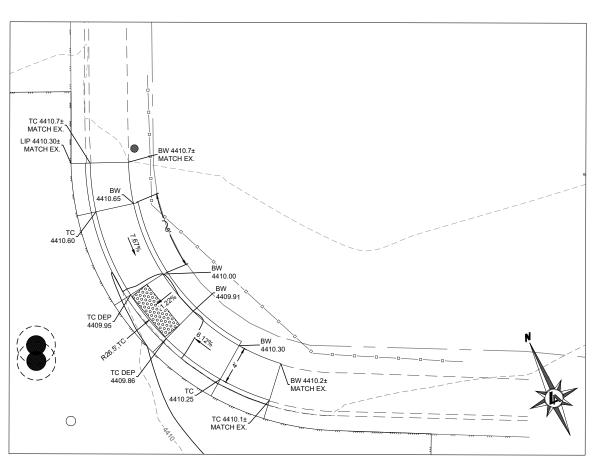
4408.1 TC DEP 4407.65 \ bw 4408.11 TC DEP 4407.69 BW 4408.34 LIP 4407.95± MATCH EX. BW 4408.4+ MATCH EX. TC 4408.3± MATCH EX.

1. PEDESTRIAN RAMP WING SHALL BE 6' MINIMUM LENGTH (UNLESS NOTED

ON THIS PLAN) AND NOT EXCEED 8.3%

2. RAMP LANDING SHALL BE 5' WIDE





PEDESTRIAN PATH DETAIL - PROBASCO WAY AND QUAIL STREET STREET (SE)

PEDESTRIAN PATH DETAIL - QUAIL STREET AND BOISE DRIVE (NE)

- GRADING NOTES:
  1) THE GRADING INTENT FOR THIS PROJECT IS TO MATCH EXISTING GRADES AT BACK OF WALK, OR WHERE INDICATED ON THE PLAN SHEETS.
- 2) REFER TO THE SURFACE IMPROVEMENT PLANS FOR ITEMS TO PROTECT IN PLACE WHILE PERFORMING GRADING OPERATIONS.
- CONTRACTOR TO PROVIDE CONSTRUCTION STAKING.
- 4) PROPOSED ROADWAY CROWN VARIES SLIGHTLY FROM EXISTING GRADE. ON OCCASION, ADDITIONAL PULVERIZATION IN EXCESS OF THE 12" RECONSTRUCTION IN EACESS OF THE 12 RECONSTRUCTION SECTION MAY BE REQUIRED. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR THE REMOVAL OF EXISTING MATERIALS NECESSARY TO ACHIEVE THE ELEVATIONS AND GRADES NOTED ON THE IMPROVEMENT PLANS. ROADWAY MODIFICATION DEPTHS TO BE PROVIDED IN FUTURE SUBMITTALS.
- 5) POTENTIAL SHALLOW UTILITIES AND SERVICES MAY BE ENCOUNTERED
  WITHIN THE ROADWAY SECTION.
  CONTRACTOR SHALL VERIFY EXISTING
  UTILITY LOCATION AND DEPTH AND NOTIFY ENGINEER OF ANY
  DISCREPANCIES OR CONFLICTS PRIOR TO PROCEEDING WITH ROADWAY
- PULVERIZATION ACTIVITIES.

  6) ADJUST EXISTING OR PROPOSED MANHOLE RIM ELEVATIONS TO MATCH
- 7) THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING OF
- PRIOR TO BEGINNING OF
  CONSTRUCTION.

  8) PROTECT ALL EXISTING UTILITIES IN
  PLACE UNLESS DESIGNATED FOR
  REPLACEMENT.

  9) REFER TO STORM DRAIN SHEETS FOR
  STORM DRAIN IMPROVEMENTS.

22x34 SHEETS = HORIZONTAL:1"=5'

11x17 SHEETS = HORIZONTAL:1"=10

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SEWER INTERCEPTOR REHABILITATION PROJECT PEDESTRIAN PATH GRADING PLAN **BOISE DRIVE** 

BID SET
NOT FOR CONSTRUCTI
SEPTEMBER 2024

BAR IS 1 INCH ON ORIGINAL DRAWING

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C4.6

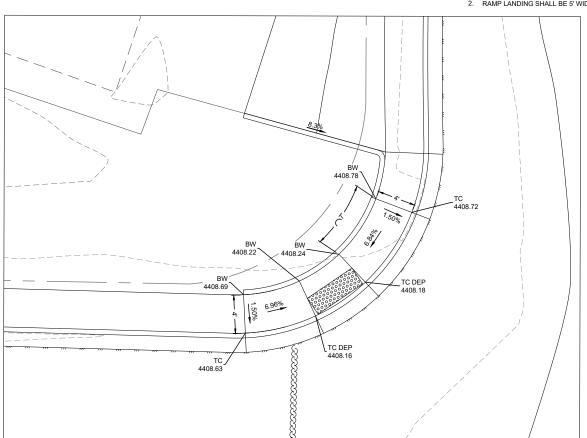
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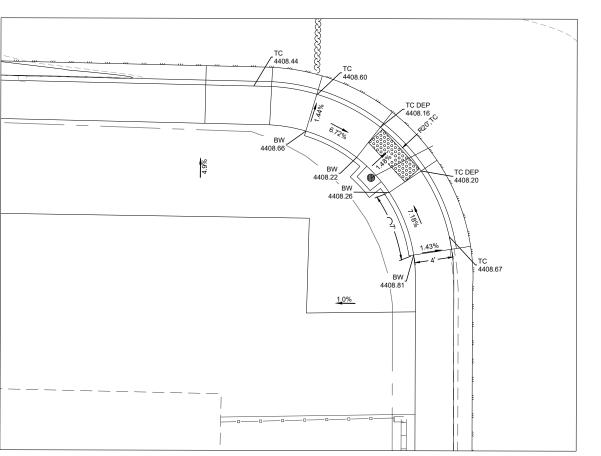
JOB NO. 10565.000 LIP 4409.63+

0 TC DEP 4409.71 4410.17 4409.78 4409.76 4410.17 4409.83 TC 4409.9± MATCH EX. BW 4410.0+ LIP 4409.59±

PEDESTRIAN PATH DETAIL - BOISE DRIVE AND QUAIL STREET (SW)

1. PEDESTRIAN RAMP WING SHALL BE 6' MINIMUM LENGTH (UNLESS NOTED





PEDESTRIAN PATH DETAIL - BOISE DR AND BROOKS CIRCLE (SW)

- GRADING NOTES:
  1) THE GRADING INTENT FOR THIS PROJECT IS TO MATCH EXISTING GRADES AT BACK OF WALK, OR WHERE INDICATED ON THE PLAN SHEETS.
- 2) REFER TO THE SURFACE IMPROVEMENT PLANS FOR ITEMS TO PROTECT IN PLACE WHILE PERFORMING GRADING OPERATIONS.
- CONTRACTOR TO PROVIDE CONSTRUCTION STAKING.
- 4) PROPOSED ROADWAY CROWN VARIES
- SLIGHTLY FROM EXISTING GRADE. ON OCCASION, ADDITIONAL PULVERIZATION IN EXCESS OF THE 12" RECONSTRUCTION IN EACESS OF THE 12 RECONSTRUCTION SECTION MAY BE REQUIRED. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR THE REMOVAL OF EXISTING MATERIALS NECESSARY TO ACHIEVE THE ELEVATIONS AND GRADES NOTED ON THE IMPROVEMENT PLANS, ROADWAY MODIFICATION DEPTHS TO BE PROVIDED IN FUTURE SUBMITTALS.
- 5) POTENTIAL SHALLOW UTILITIES AND SERVICES MAY BE ENCOUNTERED
  WITHIN THE ROADWAY SECTION.
  CONTRACTOR SHALL VERIFY EXISTING
  UTILITY LOCATION AND DEPTH AND NOTIFY ENGINEER OF ANY
  DISCREPANCIES OR CONFLICTS PRIOR TO PROCEEDING WITH ROADWAY
- PULVERIZATION ACTIVITIES.

  6) ADJUST EXISTING OR PROPOSED MANHOLE RIM ELEVATIONS TO MATCH
- 7) THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING OF
- CONSTRUCTION.

  8) PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS DESIGNATED FOR
- REPLACEMENT.

  9) REFER TO STORM DRAIN SHEETS FOR STORM DRAIN IMPROVEMENTS.

22x34 SHEETS = HORIZONTAL:1"=5'

11x17 SHEETS = HORIZONTAL:1"=10"

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SEWER INTERCEPTOR REHABILITATION PROJECT PEDESTRIAN PATH GRADING PLAN DRIVE BOISE

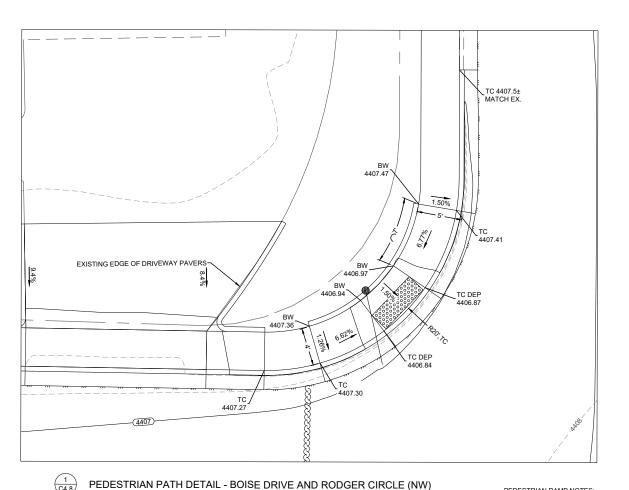
BID SET FOR CONSTRUCT SEPTEMBER 2024

BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

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M



6.82% 4407.37 4406.91 4406.95 1.34% LIP 4407.07 TC 4407.44 4407.50

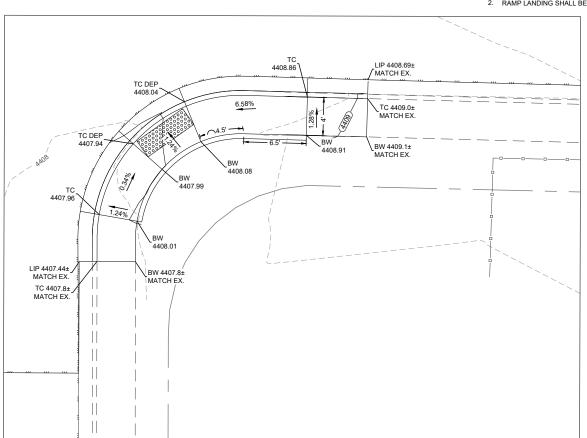
PEDESTRIAN PATH DETAIL - BOISE DRIVE AND RODGER CIRCLE (SW)

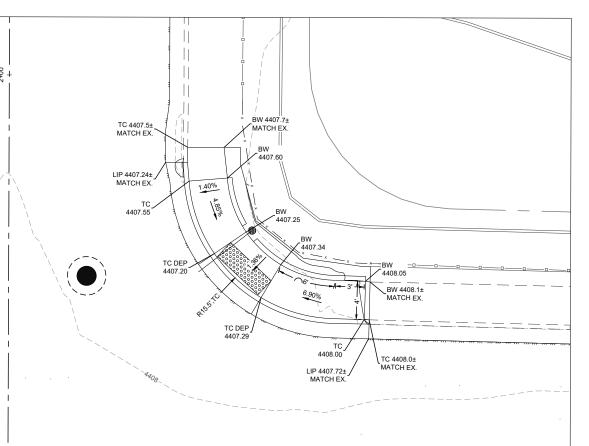
PEDESTRIAN RAMP NOTES:

1. PEDESTRIAN RAMP WING SHALL BE 6' MINIMUM LENGTH (UNLESS NOTED

ON THIS PLAN) AND NOT EXCEED 8.3%

2. RAMP LANDING SHALL BE 5' WIDE







- GRADING NOTES:
  1) THE GRADING INTENT FOR THIS PROJECT IS TO MATCH EXISTING GRADES AT BACK OF WALK, OR WHERE INDICATED ON THE PLAN SHEETS.
- 2) REFER TO THE SURFACE IMPROVEMENT PLANS FOR ITEMS TO PROTECT IN PLACE WHILE

PERFORMING GRADING OPERATIONS.

- CONTRACTOR TO PROVIDE CONSTRUCTION STAKING.
- 4) PROPOSED ROADWAY CROWN VARIES SLIGHTLY FROM EXISTING GRADE. ON OCCASION, ADDITIONAL PULVERIZATION IN EXCESS OF THE 12" RECONSTRUCTION IN EACESS OF THE 12 RECONSTRUCTION SECTION MAY BE REQUIRED. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR THE REMOVAL OF EXISTING MATERIALS NECESSARY TO ACHIEVE THE ELEVATIONS AND GRADES NOTED ON THE IMPROVEMENT PLANS, ROADWAY MODIFICATION DEPTHS TO BE PROVIDED IN FUTURE SUBMITTALS.
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- PULVERIZATION ACTIVITIES.

  6) ADJUST EXISTING OR PROPOSED MANHOLE RIM ELEVATIONS TO MATCH
- FINISH GRADE.

  7) THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING OF CONSTRUCTION.

  8) PROTECT ALL EXISTING UTILITIES IN
- PLACE UNLESS DESIGNATED FOR

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SEWER INTERCEPTOR

REPLACEMENT.

9) REFER TO STORM DRAIN SHEETS FOR STORM DRAIN IMPROVEMENTS.

22x34 SHEETS = HORIZONTAL:1"=5'

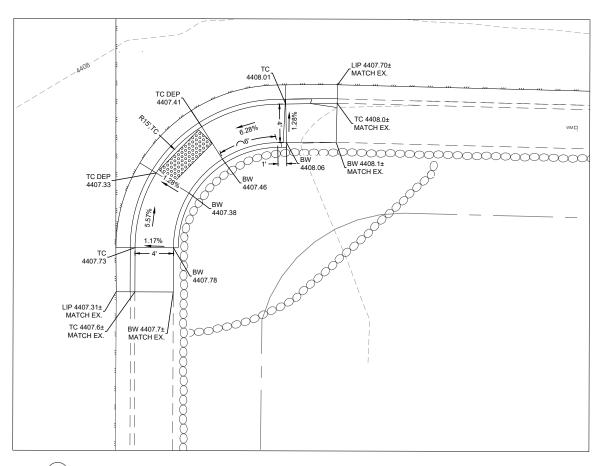
11x17 SHEETS = HORIZONTAL:1"=10"

REHABILITATION PROJECT PEDESTRIAN PATH GRADING PLAN DRIVE BOISE



IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY C4.8

DRAWN BY: DESIGNED BY: CHECKED BY: AJG JOB NO. 10565.000



PEDESTRIAN PATH DETAIL - PROBASCO WAY AND GREENBRAE DRIVE (SE)

### PEDESTRIAN RAMP NOTES:

- PEDESTRIAN RAMP WING SHALL BE 6' MINIMUM LENGTH (UNLESS NOTED ON THIS PLAN) AND NOT EXCEED 8.3%
- 2. RAMP LANDING SHALL BE 5' WIDE

- GRADING NOTES:
  1) THE GRADING INTENT FOR THIS PROJECT IS TO MATCH EXISTING GRADES AT BACK OF WALK, OR WHERE INDICATED ON THE PLAN
- SHEETS.
  2) REFER TO THE SURFACE
  IMPROVEMENT PLANS FOR ITEMS TO
  PROTECT IN PLACE WHILE PROTECT IN PLACE WHILE
  PERFORMING GRADING OPERATIONS.
  3) CONTRACTOR TO PROVIDE
  CONSTRUCTION STAKING.
  4) PROPOSED ROADWAY CROWN VARIES
- SLIGHTLY FROM EXISTING GRADE. ON OCCASION, ADDITIONAL PULVERIZATION IN EXCESS OF THE 12" RECONSTRUCTION IN EACESS OF THE 12 RECONSTRUCTION SECTION MAY BE REQUIRED. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR THE REMOVAL OF EXISTING MATERIALS NECESSARY TO ACHIEVE THE ELEVATIONS AND GRADES NOTED ON THE IMPROVEMENT PLANS, ROADWAY MODIFICATION DEPTHS TO BE PROVIDED IN FUTURE SUBMITTALS.

  5) POTENTIAL SHALLOW UTILITIES AND
- SERVICES MAY BE ENCOUNTERED
  WITHIN THE ROADWAY SECTION.
  CONTRACTOR SHALL VERIFY EXISTING
  UTILITY LOCATION AND DEPTH AND NOTIFY ENGINEER OF ANY
  DISCREPANCIES OR CONFLICTS PRIOR TO PROCEEDING WITH ROADWAY
  PULVERIZATION ACTIVITIES.
  6) ADJUST EXISTING OR PROPOSED
  MANHOLE RIM ELEVATIONS TO MATCH
- MANHOLE RIM ELEVATIONS TO MATCH FINISH GRADE.

  7) THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING OF
- CONSTRUCTION.

  8) PROTECT ALL EXISTING UTILITIES IN PLACE UNLESS DESIGNATED FOR

950 SANDHILL ROAD, SUITE 100

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REPLACEMENT.

9) REFER TO STORM DRAIN SHEETS FOR STORM DRAIN IMPROVEMENTS.

BOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT PEDESTRIAN PATH GRADING PLAN

BID SET
NOT FOR CONSTRUCTION
SEPTEMBER 2024

BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

C4.9

DRAWN BY: MEP / SSW / IPN DESIGNED BY: TDA / RHH CHECKED BY: AJG JOB NO. 10565.000



22x34 SHEETS = HORIZONTAL:1"=5'

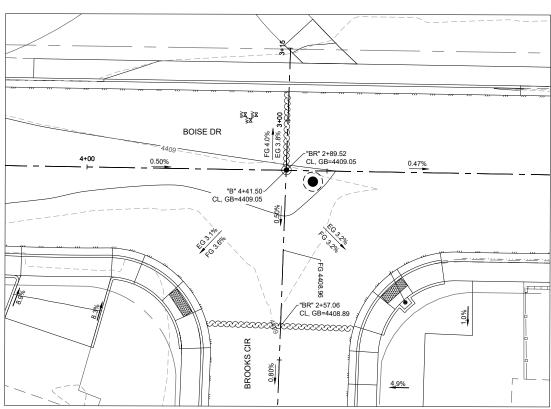
11x17 SHEETS = HORIZONTAL:1"=10"

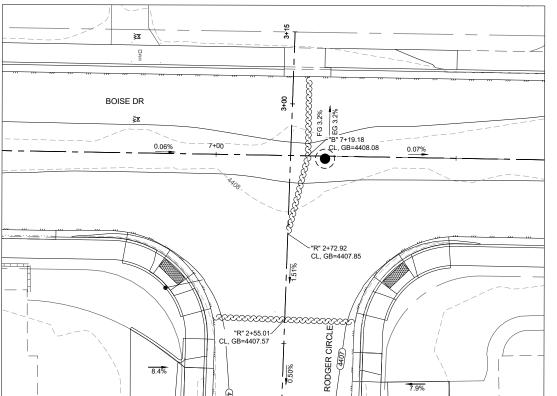
- GRADING NOTES:
  1) THE GRADING INTENT FOR THIS PROJECT IS TO MATCH EXISTING GRADES AT BACK OF WALK, OR WHERE INDICATED ON THE PLAN SHEETS.
- SHEETS.

  2) REFER TO THE SURFACE IMPROVEMENT PLANS FOR ITEMS TO PROTECT IN PLACE WHILE
- SLIGHTLY FROM EXISTING GRADE. ON OCCASION, ADDITIONAL PULVERIZATION IN EXCESS OF THE 12" RECONSTRUCTION IN EACESS OF THE 12 RECONSTRUCTION SECTION MAY BE REQUIRED. THERE SHALL BE NO ADDITIONAL COMPENSATION FOR THE REMOVAL OF EXISTING MATERIALS NECESSARY TO ACHIEVE THE ELEVATIONS AND GRADES NOTED ON THE IMPROVEMENT PLANS. ROADWAY MODIFICATION DEPTHS TO BE PROVIDED IN FUTURE SUBMITTALS.

  5) POTENTIAL SHALLOW UTILITIES AND
- SERVICES MAY BE ENCOUNTERED
  WITHIN THE ROADWAY SECTION.
  CONTRACTOR SHALL VERIFY EXISTING
  UTILITY LOCATION AND DEPTH AND NOTIFY ENGINEER OF ANY
  DISCREPANCIES OR CONFLICTS PRIOR TO PROCEEDING WITH ROADWAY
  PULVERIZATION ACTIVITIES.
  6) ADJUST EXISTING OR PROPOSED
  MANHOLE RIM ELEVATIONS TO MATCH
- MANHOLE RIM ELEVATIONS TO MATCH FINISH GRADE.

  7) THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PROPOSED POINTS OF CONNECTION AND IN AREAS POSSIBLE CONFLICT WITH NEW UTILITY INSTALLATION PRIOR TO BEGINNING OF
- PRIOR TO BEGINNING OF
  CONSTRUCTION.
  8) PROTECT ALL EXISTING UTILITIES IN
  PLACE UNLESS DESIGNATED FOR
  REPLACEMENT.
  9) REFER TO STORM DRAIN SHEETS FOR
  STORM DRAIN IMPROVEMENTS.





INTERSECTION ENLARGED VIEW - RODGER CIRCLE AND BOISE DRIVE

950 SANDHILL ROAD, SUITE 100

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SOISE DRIVE SEWER INTERCEPTOR REHABILITATION PROJECT INTERSECTION ENLARGED VIEWS

BID SET NOT FOR CONSTRUCTION SEPTEMBER 2024

**BOISE DRIVE** 

BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

C4.10

DRAWN BY: DESIGNED BY: TDA / RHH CHECKED BY: AJG JOB NO. 10565.000

INTERSECTION ENLARGED VIEW - BROOKS CIRCLE AND BOISE DRIVE



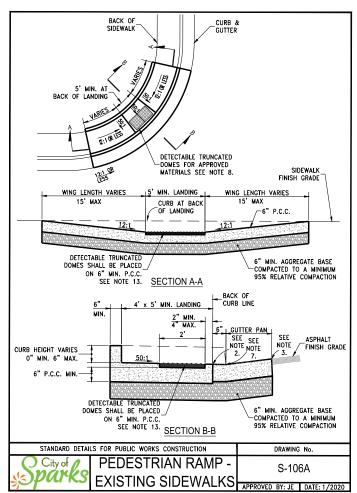
22x34 SHEETS = HORIZONTAL:1"=10' 11x17 SHEETS = HORIZONTAL:1"=20'

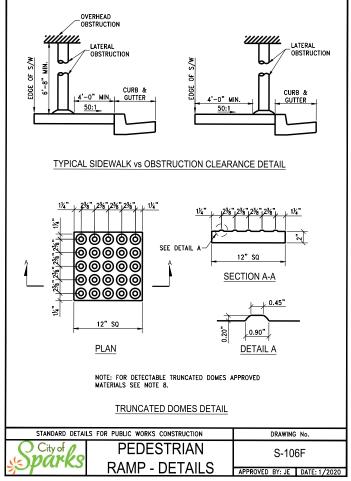
PROTECT IN PLACE WHILE
PERFORMING GRADING OPERATIONS.
3) CONTRACTOR TO PROVIDE
CONSTRUCTION STAKING.
4) PROPOSED ROADWAY CROWN VARIES

09/26/2024

- PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT FER 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 SIDEWALKS SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
- SIDEWALK WIDTH "W" SHALL BE 4 FT MIN. WITH 60" PASSING SPACE EVERY 200' ON RESIDENTIAL STREETS AND 6 FT MIN. ON COLLECTOR AND ARTERIAL STREETS.
- WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 5 FT INTERVALS AND ACCORDANCE WITH SECTION 312 OF THE SSPWC, AS ADOTED BY CITY COUNCIL.
- ALL ADJACENT CONCRETE REMOVAL SHALL BE TO NEAT SAW CUT LINES AT RIGHT ANGLES TO NEW SIDEWALK. DOWEL INTO EXISTING ADJACENT CONCRETE SIDEWALK WITH A MINIMUM OF TWO (2) No. 4 REINFORCEMENT BARS EQUALLY SPACED ACROSS WIDTH "W". DOWELS SHALL PENETRATE A MINIMUM OF 4" INTO EXISTING CONCRETE.
- SIDEWALKS SHALL NOT BE POURED MONOLITHICALLY WITH CURBS.
- TUNNELING AND/OR BORING IS NOT ALLOWED.

| STANDARD DETAILS | FOR PUBLIC WORKS CONSTRUCTION | DRAWING         | No.          |
|------------------|-------------------------------|-----------------|--------------|
| City of Darks    | SIDEWALK DETAIL               | S-10            | 3            |
|                  |                               | APPROVED BY: JE | DATE: 1/2020 |
|                  |                               |                 |              |



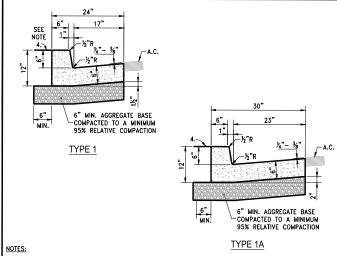


STORM DRAIN INLETS OR SIMILAR ACCESSES SHALL NOT BE LOCATED IN THE AREA AT THE BASE OF THE CURB RAMP OR LANDING AREA. IF OBSTRUCTIONS SUCH AS INLETS, UTILITY POLES, PULL BOXES, FIRE HYDRANTS, ETC. ARE ENCOUNTERED, THE LOCATION AND DIMENSIONS MAY BE ADJUSTED UPON APPROVAL OF THE CITY ENGINEER.

2. NO LIP SHALL BE PERMITTED AT THE CURB RAMP SLOPE TO GUTTER PAN.

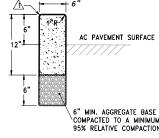
- 3. PLANTMIX BITUMINOUS SURFACE SHALL BE FLUSH WITH THE EDGE OF THE GUTTER PAN IN THE AREA OF THE CURB RAMP.
- 4. ROUGH BROOM TEXTURE ON CURB RAMPS AND WINGS
- 5. DETECTABLE WARNING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND SHALL BE PLACED ON MIN. SIX (6") INCHES OF P.C.C.
- ALL SLOPE RATES ARE RELATIVE TO LEVEL AND SHALL COMPLY WITH THE PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) STANDARDS.
- 7. 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: "CASTINTACT 3", "TEKWAY DOME-TILES", "ADA SOLUTIONS", 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
- 11. 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
- 12. 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.
- 13. 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 NEEDESSARY TO MATCH CROSS SLOPE OF EXISTING SIDEWALK MAY BE NEEDESSARY TO MATCH CROSS SLOPE OF EXISTING SIDEWALK MAY BE NEEDESSARY TO MATCH CROSS SLOPE OF EXISTING SIDEWALK MAY BE NEEDESTRIAN RAMP IMPROVEMENTS. TRANSITION SECTIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

| NOTES - S-106G PEDESTRIAN RAMP APPROVED BY: JE   DATE: 3/2021 | STANDARD D | TAILS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.                    |
|---------------------------------------------------------------|------------|-------------------------------------|--------------------------------|
| PEDESTRIAN RAMP APPROVED BY: JE   DATE: 3/2021                | City of    | NOTES -                             | S-106G                         |
|                                                               | spurk      | PEDESTRIAN RAMP                     | APPROVED BY: JE   DATE: 3/2021 |



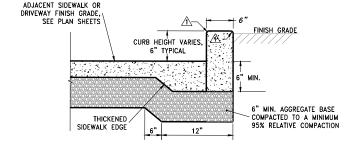
- . PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES, MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF 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 AND BEHIND CURB AND GUTTER SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY
- WEAKENED PLANE JOINTS SHALL BE EVERY 10 FEET AND LOCATED ON THE BACK, TOP AND FACE OF THE CURB AND THE TOP OF THE GUTTER PAN.
- . CURB & GUTTER SECTIONS SHALL BE PLACED SEPARATELY FROM SIDEWALK SECTIONS. WHEN SIDEWALK IS NOT REQUIRED DIRECTLY BEHIND THE CURB, BACKFILL TO TOP OF CURB FOR A HORIZONTAL DISTANCE OF 12" FROM BACK FACE OF CURB AND COMPACT TO 90% RELATIVE COMPACTION.
- 5. FOR REPLACEMENT OF EXISTING CURB AND GUTTER, MATCH EXISTING TYPE

| STANDARD DETAILS | FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.                  |
|------------------|-------------------------------|------------------------------|
| City of          | P.C.C.                        | S-109                        |
| sparks           | <b>CURB &amp; GUTTER</b>      | APPROVED BY: JE DATE: 1/2020 |



 $\dot{\Lambda}_{\!\scriptscriptstyle \sim}$  RADIUS TO BE 1/2 INCH, OMIT ROUNDING IF CURBS ARE BACK TO BACK.

- 2. FIBER-REINFORCED 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). 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
- AGGREGATE BASE MATERIAL UNDER AND BEHIND CURB AND GUTTER SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200.
- WEAKENED PLANE JOINTS SHALL BE EVERY 10 FEET AND LOCATED ON THE BACK, TOP AND FACE OF THE CURB AND THE TOP OF THE GUTTER PAN



- 1. RADIUS TO BE 1/2 INCH, OMIT ROUNDING IF CURBS ARE BACK TO BACK.
- FIBER-REINFORCED 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). 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.
- 3. AGGREGATE BASE MATERIAL UNDER AND BEHIND CURB AND GUTTER SHALL BE TYPE 2. CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION
- 4. WEAKENED PLANE JOINTS SHALL MATCH SPACING OF ADJACENT SIDEWALK OR DRIVEWAY AND IN ACCORDANCE WITH SECTION 312 OF SSPWC
- 5. SIDEWALK AND/OR DRIVEWAY SECTIONS MAY BE PLACED MONOLITHICALLY WITH POST

P.C.C. POST CURB TRANSITIONAL

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INTERCE I PROJEC S ES SEWER ITATI EHABILI DRIVE

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09/26/2024

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DRAWN BY: MED / SSW / IPN DESIGNED BY: TDA / RHH CHECKED BY: 10565.000

P.C.C. POST CURB

SCALE: NTS

PLAN EXISTING 6" P.C.C-DRIVEWAY OR AC BEVELED @ 1:1 PAVEMENT 6" MIN. AGGREGATE BASE 6" MIN. AGGREGATE BASE COMPACTED TO A MINIMUM 95% RELATIVE COMPACTION COMPACTED TO A MINIMUM-95% RELATIVE COMPACTION SECTION A-A

ADA P.C.C. DRIVEWAY - APRON EXISTING

BOTH SIDES UNLESS NOTED TO REMAIN PER PLAN

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 DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 357 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.

3. RESIDENTIAL DRIVEWAYS SHALL BE POURED SEPARATE FROM CURB AND GUTTER.

4. 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

5. IF JOINT EXISTS WITHIN 4 FEET OF DRIVEWAY, REMOVE SIDEWALK AND CURB AND GUTTER TO THAT

6. 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.

7. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 5 FT INTERVALS AND IN ACCORDANCE WITH SECTION 312 OF THE SSPWC, AS ADOPTED BY CITY COUNCIL.

8. OPTION 1 IS PREFERRED. REGRADE EXISTING LANDSCAPING INCLUDING ADJUSTMENT OF SPRINKLER HEADS, IRRIGATION LINES, ROCK, SOD, ETC.

OPTION 2 WILL REQUIRE CITY OF SPARKS APPROVAL PRIOR TO PLACEMENT. THIS OPTION MAY BE NECESSARY TO PROTECT EXITING FENCING, WALLS, OR FEATURES THAT CANNOT BE REGRADED.

10.A 2" LIP MAY BE NECESSARY AT SELECT LOCATIONS, REFERENCE PLAN SHEETS.

WIDTH VARIES TO LIP WIDTH VARIES (SEE NOTE 1) WIDTH VARIES (SEE NOTE 1) MATCH EX. SLOPE (2% MIN.) SEE SECTION AC PLANTMIX TO BE PLACED 3/8" MAX ABOVE LIP OF GUTTER, EXCEPT AT PEDESTRIAN RAMPS EXISTING C&G AND SIDEWALK SECTIONS TO REMAIN UNLESS NOTED WHERE IT SHALL BE FLUSH WITH OTHERWISE BY PLAN.

> 2" MIN. TYPE 2, PG 64-28NV PLANTMIX BITUMINOUS PAVEMENT. 75 BLOW WITH 4% /EX. PAVEMENT (DEPTH VARIES) EX. AGGREGATE BASE AND SUBGRADE (DEPTH VARIES)

> > **SECTION**

GRIND AND OVERLAY TO LIMITS SHOWN ON PLANS.

FOR STREET WIDTHS SEE PLAN SHEETS.

PROTECT IN PLACE EXISTING UTILITIES AND APPURTENANCES. GRIND AND OVERLAY TO BE COMPLETED ONCE ALL PERMANENT PATCHING IS COMPLETED.

CONTRACTOR SHALL PROTECT IN PLACE ALL CONCRETE CURB & GUTTER DURING MILL & OVERLAY CONSTRUCTION ACTIVITIES AT NO DIRECT PAYMENT.

PULVERIZE APPROXIMATELY TWO INCHES (2") EXISTING PLANTMIX BITUMINOUS PAVEMENT AFTER COMPLETION OF ALL PERMANENT PATCHING ACTIVITIES.

PLACE TWO INCHES (2") PLANTMIX BITUMINOUS PAVEMENT (ONE LIFT)
OF TYPE 2, PG 64-28NV PLANTMIX BITUMINOUS PAVEMENT. 75 BLOW WITH 4% VOIDS.

IF THE MATERIAL BELOW SUBGRADE IS DETERMINED TO BE UNSUITABLE BY THE ENGINEER, THE TYPICAL OVER EXCAVATION SECTION WILL BE USED, SEE SPECS.

CONTRACTOR SHALL BE ADVISED: IF SHALLOW UTILITIES ARE ENCOUNTERED FROM ROADWAY REMOVAL METHOD, THERE SHALL BE NO DIRECT PAYMENT FOR MODIFYING REMOVAL METHOD TO PROTECT

2" GRIND AND OVERLAY - GREENBRAE DRIVE PROBASCO WAY

SCALE: NTS

TYPE III W/ PG64-28NV. 50 BLOW WITH 3% VOIDS 2" MIN. PLANTMIX BITUMINOUS PAVEMENT TYPE II W/ PG-28NV. 50 BLOW WITH 4% VOIDS (BOTTOM) AND 2" MIN. PLANTMIX BITUMINOUS PAVEMENT TYPE III W/ PG64-28NV, 50 BLOW WITH 3% VOIDS (TOP)

MOISTURE CONDITION TO WITHIN TWO PERCENT (2%) OF OPTIMUM AND COMPACT TO A MINIMUM OF NINETY-FIVE PERCENT (95%) M.D.D. PER ASTM D1557.

4" MIN. PLANTMIX BITUMINOUS PAVEMENT

IF EXISTING SUBGRADE IS UNSUITABLE FOR USE, THEN THE OVER-EXCAVATION SECTION WILL BE PLACED

8" TYPE 1 RECYCLED

PULVERIZED, AND COMPACTED

AGGREGATE BASE

1. FOR STREET WIDTHS SEE PLAN SHEETS.

NOTES:

CONTRACTOR SHALL REMOVE ALL CONCRETE GUTTER PANS THAT EXTEND BEYOND PROPOSED LIP OF GUTTER PRIOR TO PULVERIZATION AT NO DIRECT COST.

CONTRACTOR SHALL PROTECT IN PLACE ALL IMPROVEMENTS DESIGNATED FOR PROTECTION DURING REMOVAL ACTIVITIES AT NO DIRECT PAYMENT.

PULVERIZE THE EXISTING ASPHALT, BASE, AND SUBGRADE SOILS TO A DEPTH OF TWELVE INCHES (12"). PULVERIZED MATERIAL SHALL MEET THE REQUIREMENTS OF TYPE 1 RECYCLED AGGREGATE BASE

HAUL AWAY EXCESS MATERIAL TO ACCOMMODATE 4-INCH PLANTMIX BITUMINOUS PAVEMENT. MOISTURE CONDITION REMAINING EIGHT INCHES (8") TO AT LEAST TWO PERCENT (2%) OF OPTIMUM, AND COMPACT TO A MINIMUM OF NINETY-FIVE PERCENT (95%) RELATIVE TO ASTM D1557.

PLACE FOUR INCHES (4") OF PLANTMIX BITUMINOUS PAVEMENT WITH TYPE III AGGREGATE, PG64–28NV BINDER, WITH 50 BLOW MARSHAL MIX TARGETING 3% AIR VOIDS OR TWO INCHES (2") OF PLANTMIS BITUMINOUS PAVEMENT WITH TYPE II AGGREGATE, PG-28NV BINDER, WITH 50 BLOW MARSHAL MIX TARGETING 4% AIR VOIDS ON BOTTOM WITH TWO INCHES (2") OF PLANTIMIX BITUMINOUS PAYEMENT WITH TYPE III AGGREGATE, PG64-28NV BINDER, WITH 50 BLOW MARSHAL MIX TARGETING 3% AIR VOIDS PLACED ON TOP. THE ASPHALT SHALL BE COMPACTED TO BETWEEN NINETY-TWO PERCENT (92%) AND NINETY-SEVEN PERCENT (97%) OF THE THEORETICAL MAXIMUM ("RICE") SPECIFIC GRAVITY.

IF THE MATERIAL BELOW SUBGRADE IS DETERMINED TO BE UNSUITABLE BY THE ENGINEER, THE TYPICAL OVER EXCAVATION SECTION WILL BE USED.

ANY ADDITIONAL MATERIAL REMOVED BELOW THE TOP OF SUBGRADE ELEVATION IN ORDER TO MEET NEW ROADWAY SECTION GRADING SHALL BE REMOVED AT NO DIRECT PAYMENT.

CONTRACTOR SHALL BE ADVISED: IF SHALLOW UTILITIES ARE ENCOUNTERED FROM ROADWAY REMOVAL METHOD, THERE SHALL BE NO DIRECT PAYMENT FOR MODIFYING REMOVAL METHOD TO PROTECT

TYPICAL RECONSTRUCTION SECTION - QUAIL STREET, BOISE DRIVE, BROOKS CIRCLE, & RODGER CIRCLE

WIDTH VARIES TO TRO CL-ALIGNMEN VARIES (SEE PLAN FOR WIDTHS) VARIES (SEE PLAN FOR WIDTHS) SLOPE VARIES SEE RECONSTRUCTION SECTION REFERENCE SIDEWALK, AC PLANTMIX TO BE PLACED 3/8" MAX ABOVE LIP OF GUTTER. EXCEPT PCC DRIVEWAY TRANSITION. AND POST CURB TRANSITION DETAILS. AT PEDESTRIAN RAMPS, TYP. NEW TYPE 1 C&G

CENTERLINE CROWN

WIDTH VARIES SEE RECONSTRUCTION SECTION DETAIL THIS SHEET FOR NEW PAVEMENT AND BASE REQUIREMENTS FABRIC VARIES TOP OF SUBGRADE ELEVATION REMOVE UNSUITABLE SUBGRADE AND PLACE 12" MINIMUM OF 4" TO 6" ANGULAR ROCK AND FINES PER GEOTECHNICAL REPORT MIRAFI HP370 STABILIZATION FABRIC (OR EQUIVALENT)

1. LIMITS OF OVER EXCAVATION, WIDTHS, AND DEPTH TO BE DETERMINED BY THE ENGINEER

MIRIGI 180N FILTER

BID SET FOR CONSTRUCTI SEPTEMBER 2024

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WWW LUMOSING COM INFO@LUMOSING COM

0 SANDHILL ROAD, SUITE 100

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TDA / RHH 10565.000

TYPICAL ROADWAY RECONSTRUCTION CROSS SECTION — QUAIL STREET, BOISE DRIVE, BROOKS CIRCLE, & RODGER CIRCLE

C106 TYPICAL OVER-EXCAVATION SECTION

CRUSHED AGGREGATE BASE. MATERIALS SHALL COMFORM TO SSPWC SECTION 200, AS ADDITED BT CITY CODINCTS. HALL BE RESPONSIBLE FOR REPLACEMENT OF LOOP DETECTORS, ADJUSTMENT OF UTILITIES AND SURVEY MONUMENTS TO GRADE AND INSTALLATION OF PERMANENT PAYEMENT MARKINGS. 6. FOR P.C.C. CURB REPLACEMENT, SAW CUT EXISTING PAYEMENT 18 INCHES MIN. FROM GUTTER LIP LINE, REMOVE AND REPLACE PAYEMENT TO SAW CUT EDGES. CONCRETE MAY BE POURED NEAT AGAINST EXISTING EDGE OF ASPHALT IF APPROVED BY CITY ENGINEER. MULTIPLE PERMANENT
PATCHES 10' MIN, TYP. PROPOSED CURB LIP OR \_ EDGE OF AC PERMANENT PATCH
\_2" GRIND &
OVERLAY 10' MIN. LESS THAN 30'

SEE NOTE 7.TRANSVERSE PATCHING SEE NOTE 8. LONGITUDINAL PATCHING ALL STREETS WITH PAVEMENT CONDITION INDEX (PCI) GREATER THAN 65:

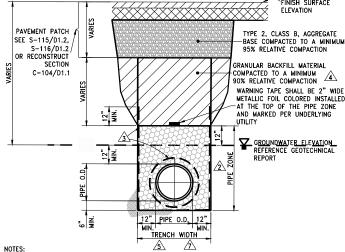
2" CPIND

7. TRANSVERSE PATCHES SHALL INCLUDE A GRIND AND OVERLAY WHEREVER THERE ARE MULTIPLE PATCHES WITHIN 30 FEET OF EACH OTHER. 2" MINIMUM FOR RESIDENTIAL, COLLECTORS & INDUSTRIALS. 3" MINIMUM FOR ARTERIALS.

. LONGITUDINAL PATCHES SHALL INCLUDE GRIND AND OVERLAY TO THE LANE LINES (BIKE, PARKING, OR TRAVEL). 2" MINIMUM FOR RESIDENTIAL, COLLECTORS & INDUSTRIALS. 3" MINIMUM FOR ARTERIALS.

DRIVEWAY & INTERSECTION LIMITS TO BE DETERMINED BY STREET CUT COORDINATOR.





- ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), LATEST REVISION.
- BEDDING MATERIAL SHALL BE CLASS C DRAIN ROCK, IT SHALL MEET THE REQUIREMENTS IN THE STANDARD SPECIFICATIONS. DRAIN ROCK SHALL EXTEND AT LEAST 12" ABOVE THE TOP OF PIPE ELEVATION. CLASS C DRAIN ROCK SHALL BE PLACED IN ONE FOOT LIFTS AND COMPACTED WITH A VIBRA PLATE TO THE SATISFACTION OF THE ENGINEER.
- CLASS C DRAIN ROCK BEDDING REQUIRES INSTALLATION OF GEOTEXTILE FABRIC TO ENCASE THE PIPE AND SURROUNDING BEDDING AREA AND EXTEND ABOVE BEDDING BY A MINIMUM OF 12 INCHES. GEOTEXTILE FABRIC SHALL BE MIRAFI 180N OR APPROVED EQUAL.
- 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
- ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.

D1.2

- EXISTING PIPE TO BE ABANDONED SHALL BE GROUT FILLED OR COMPLETELY REMOVED. WHERE PIPE IS SHOWN ON PLAN SHEETS TO BE REMOVED, TRENCH WIDTH SHALL EXTEND TO INCLUDE REMOVAL, DISPOSAL OF EXISTING PIPE, BACKFILL AND SURFACE RESTORATION ACCORDING TO THE PLANS AND
- CONTRACTOR SHALL NOTE THAT TRENCH WIDTH SHOWN IS MINIMUM. CONTRACTOR IS CAUTIONED THAT THEY MAY ENCOUNTER UNSTABLE TRENCH WALLS DUE TO LARGE BOULDERS AND/OR GRANULAR BACKFILL FROM ADJACENT UTILITIES. SPECIAL CONSTRUCTION TECHNIQUES, WIDER TRENCH WIDTH, ADDITIONAL TRENCHING, BACKFILL AND SURFACE RESTORATION MAY BE NECESSARY AND WILL NOT BE
- WHERE SANITARY SEWER MAIN CROSSES THWA OWNED WATER MAIN FACILITIES. SEE DETAIL SHEET D1.7. TRENCH EXCAVATION/BACKFILL - GROUNDWATER

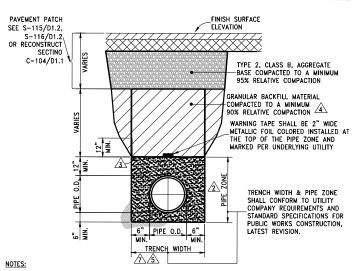
EXISTING A.C. SURFACE TEMPORARY A.C. PATCH, SEE NOTE 9. SEE NOTE 4. EXISTING BASE-AGGREGATE BASE COMPACTED TO A MINIMUM 95% TRENCH BACKFILL RELATIVE COMPACTION, SEE NOTE 3. MATERIAL

CURB LIP (

EDGE OF

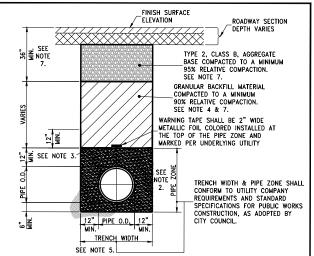
- PRIOR TO EXCAVATION, THE OUTLINE OF THE TRENCH SHALL BE VERTICALLY CUT FULL DEPTH THROUGH THE EXISTING ASPHALT SURFACE.
- CARE SHALL BE EXERCISED TO PREVENT SLOUGHING AND OVERBREAK. IF THE TRENCH SLOUGHS, TH SURFACE SHALL BE WIDENED TO ELIMINATE THE UNDERMINED SECTION OF ASPHALT.
- AGGREGATE BASE UNDER TEMPORARY PATCH SHALL BE A MINIMUM THICKNESS OF 36 INCHES BELOW THE EXISTING AC 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.
- 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
- COMPACTION OF BACKFILL, BASE AND A.C. TEMPORARY PATCH SHALL BE PERFORMED WITH APPROVED MECHANICAL TAMPERS. EQUIPMENT WHEEL ROLLING IS NOT PERMITTED.
- 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
- ALL EXCAVATIONS SHALL BE COMPLETE OR BACKFILLED AT THE END OF THE SHIFT, INCLUDING TEMPORARY PATCH.
- TEMPORARY PATCH WORK AND PATCH MAINTENANCE SHALL BE THE RESPONSIBILITY OF THE
- ALL TEMPORARY PATCHES ON ALL STREETS SHALL BE HOT-MIX ASPHALT A MINIMUM OF 3" THICK.
- PLATES MAY BE USED UPON APPROVAL FROM THE CITY ENGINEER.

| STANDARD DETAIL | S FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.                |      |
|-----------------|---------------------------------|----------------------------|------|
| O City of       | TEMPORARY A.C.                  | S-116                      |      |
| sparks          | TRENCH PATCH                    | 10000V50 DV 15   0.75 4 /s |      |
| -,              | 11(=1101117(1011                | APPROVED BY: JE DATE: 1/2  | 2020 |



- ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), LATEST REVISION.
- BEDDING MATERIAL SHALL CONFORM TO OWNING-UTILITY COMPANY REQUIREMENTS AS APPROVED BY THE CITY OF SPARKS. FOR CITY OF SPARKS SANITARY SEWER AND STORM DRAINAGE, BEDDING MATERIAL SHALL BE CLASS A OR C, COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200.
- CLASS C BEDDING REQUIRES INSTALLATION OF GEOTEXTILE FABRIC BETWEEN PIPE ZONE AND BACKFILL MATERIAL. GEOTEXTILE FABRIC SHALL BE MIRAFI 180N OR APPROVED EQUAL.
- 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.
- ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
- EXISTING PIPE TO BE ABANDONED SHALL BE GROUT FILLED OR COMPLETELY REMOVED. WHERE PIPE IS SHOWN ON PLAN SHEETS TO BE REMOVED, TRENCH WIDTH SHALL EXTEND TO INCLUDE REMOVAL, DISPOSAL OF EXISTING PIPE, BACKFILL AND SURFACE RESTORATION ACCORDING TO THE PLANS AND SPECIFICATIONS
- CONTRACTOR SHALL NOTE THAT TRENCH WIDTH SHOWN IS MINIMUM. CONTRACTOR IS CAUTIONED THAT THEY MAY ENCOUNTER UNSTABLE TRENCH WALLS DUE TO LARGE BOULDERS AND/OR GRANULAR BACKFILL FROM ADJACENT UTILITIES. SPECIAL CONSTRUCTION TECHNIQUES. WIDER TRENCH WIDTH
- WHERE SANITARY SEWER MAIN CROSSES THWA OWNED WATER MAIN FACILITIES, SEE DETAIL SHEET D1.7.

TRENCH EXCAVATION/BACKFILL - SEWER LATERALS

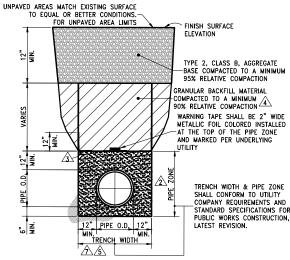


ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL

NOTES:

- 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.
- CLASS C BEDDING REQUIRES INSTALLATION OF GEOTEXTILE FABRIC BETWEEN PIPE ZONE AND BACKFILL MATERIAL. GEOTEXTILE FABRIC SHALL BE MIRAFI 180N OR APPROVED EQUAL.
- 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
- 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.
- MINIMUM BACKFILL DEPTH REQUIREMENT IS FOR TRENCHING IN EXISTING PAVED STREETS. TRENCHING FOR <u>NEW DEVELOPMENT</u> WHERE STREETS HAVE NOT YET BEEN CONSTRUCTED, BACKFILL MATERIAL SHALL BE TYPE 2. CLASS B OR LCASS E AND COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.

| STANDARD DETAI | LS FOR PUBLIC WORKS CONSTRUCTION | DRAWING         | No.          |
|----------------|----------------------------------|-----------------|--------------|
| City of Narks  | TRENCH<br>EXCAVATION/BACKEILL    | S-11            | 7            |
|                | LACAVATION/BACKITLL              | APPROVED BY: JE | DATE: 1/2020 |



- ALL MATERIALS AND INSTALLATION PROCEDURES SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC), LATEST REVISION.
- BEDDING MATERIAL SHALL CONFORM TO OWNING-UTILITY COMPANY REQUIREMENTS AS APPROVED BY THE CITY OF SPARKS. FOR CITY OF SPARKS SANITARY SEWER AND STORM DRAINAGE, BEDDING MATERIAL SHALL BE CLASS A OR C, COMPACTED TO MINIMUM 90% RELATIVE COMPACTION. MATERIALS SHALL CONFORM TO SSPWC SECTION 200.
- CLASS C BEDDING REQUIRES INSTALLATION OF GEOTEXTILE FABRIC BETWEEN PIPE ZONE AND BACKFILL MATERIAL. GEOTEXTILE FABRIC SHALL BE MIRAFI 180N OR APPROVED EQUAL.
- 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
- ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
- EXISTING PIPE TO BE ABANDONED SHALL BE GROUT FILLED OR COMPLETELY REMOVED. WHERE PIPE IS SHOWN ON PLAN SHEETS TO BE REMOVED, TRENCH WIDTH SHALL EXTEND TO INCLUDE REMOVAL, DISPOSAL OF EXISTING PIPE, BACKFILL AND SURFACE RESTORATION ACCORDING TO THE PLANS AND
- CONTRACTOR SHALL NOTE THAT TRENCH WIDTH SHOWN IS MINIMUM. CONTRACTOR IS CAUTIONED THAT THEY MAY ENCOUNTER UNSTABLE TRENCH WALLS DUE TO LARGE BOULDERS AND/OR GRANULAR BACKFILL FROM ADJACENT UTILITIES. SPECIAL CONSTRUCTION TECHNIQUES, WIDER TRENCH WIDTH, ADDITIONAL TRENCHING, BACKFILL AND SURFACE RESTORATION MAY BE NECESSARY AND WILL NOT BE SUBJECT TO ADDITIONAL PAYMENT.
- WHERE SANITARY SEWER MAIN CROSSES THWA OWNED WATER MAIN FACILITIES, SEE DETAIL SHEET D1.7

TRENCH EXCAVATION/BACKFILL - UNPAVED AREAS

950 SANDHILL ROAD, SUITE 100

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DESIGNED BY: TDA / RHH CHECKED BY:

JOB NO. 10565 000

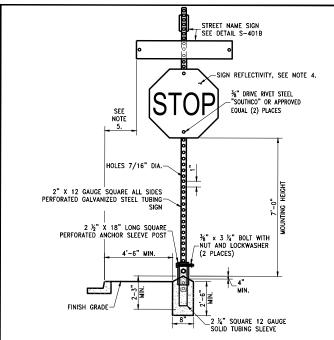
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. 5/8" METALLIC SHAFT (SMOOTH SHAFTS TO BE DEFORMED).

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 ACGREGATE GRADATION CONFORMING TO SIZE NO. 6.7 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.

P.C.C. COLLARS IN ALL ROADWAYS SHALL BE PROTECTED FROM TRAFFIC LOADS UNTIL MINIMUM 3000 PSI IS

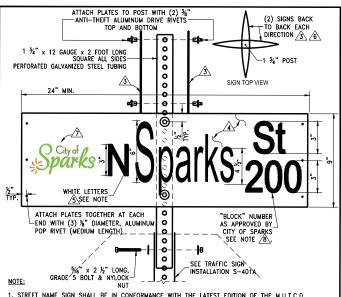
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. City of S-118 **MONUMENTS** 



TES: SIGN MATERIALS, CONSTRUCTION AND PLACEMENT SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

- 2. ON STREETS WHERE CURBING DOES NOT EXIST, SET SIGN 6' MINIMUM FROM PAVEMENT EDGE.
- CONCRETE BASE SHALL BE LOCATED AT BACK OF SIDEWALK, UNLESS OTHERWISE DIRECTED BY THE CITY ENGINEER.
- ALL REGULATORY SIGNS SHALL BE 3M DIAMOND GRADE (DG3) WITH A 3M CLEAR TRANSPARENT OVERLAY #1170 OR APPROVED EQUAL.
- 2 FOOT MINIMUM FROM EDGE OF SIGN TO FACE OF CURB IN RESIDENTIAL, COMMERCIAL OR BUSINESS AREAS.

| STANDARD DETAIL | S FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.                  |
|-----------------|---------------------------------|------------------------------|
| City of         | TRAFFIC SIGN                    | S-401A                       |
| =)PUTKS         | INSTALLATION                    |                              |
|                 | INSTALLATION                    | APPROVED BY: JE DATE: 4/2021 |



1. STREET NAME SIGN SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE M.U.T.C.D.

- 2. SIGN LETTERING AND HEIGHT SHALL CONFORM TO THE CURRENT MUTCD.
- 🖄 EACH STREET NAME SIGN INSTALLATION SHALL HAVE (4) FLAT PLATE ALUMINUM NO. 6061-T6, .080
- ⚠ WHITE SHEETING LETTERING SHALL BE RETROREFLECTIVE ASTM IX DIAMOND GRADE VIP "3M" OR APPROVED EQUAL. WHITE SHEETING SHALL BE FROM THE SAME MANUFACTURER AS GREEN TRANSPARENCY FILM.

6. EACH STREET NAME SIGN INSTALLATION SHALL INCLUDE (2) SIGNS BACK TO BACK EACH DIRECTION FOR A TOTAL OF (4) STREET NAME SIGNS. SEE DETAIL S-401A FOR TRAFFIC SIGN INSTALLATION.

CONTACT THE CITY OF SPARKS' MAINTENANCE SERVICES AT 353-2271 FOR INFORMATION ON THE CITY OF SPARKS LOGO. LOGO EXTENTS SHALL NOT EXCEED 6 INCHES.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. City of S-401B STREET NAME SIGN **SDARKS** 

CENTER CROSSWALK ON PEDESTRIAN RAMP CURB & GUTTER LANDING (TYP.) MEDIAN ISLAND NS <u>applicable</u> 2' TYP. 2' WIDE BARS TO BE CENTERED BETWEEN LANE
LINES AND ON LANE LINES 4' MIN (TYP.) ANE LINES-**=====**= STOP BAR USED FOR STOP AND PLACE FROM EDGE OF LANE TO EDGE OF PAYEMENT OR LIP SIGNALIZED CONDITION OTHERWISE USE YIELD BAR SEE NOTE 4. VOF CURB. 12" | 24" TYPICAL CROSSWALK  $\Box$ STRIPING DETAIL TRIANGLE HEIGHT IS EQUAL TO 1.5 TIMES THE BASE DIRECTION OF TRAV DIMENSION YIELD BAR MARKINGS

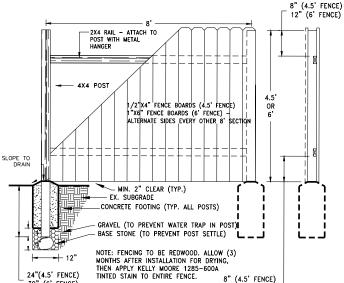
ALL STRIPING SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS, LATEST EDITION.

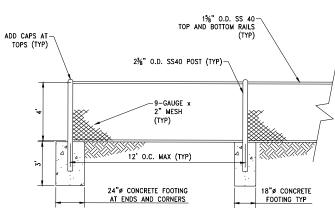
- PREFORMED THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND IN ACCORDANCE WITH SECTION 834 OF THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY THE STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION (MODT), EXCEPT ALL THERMOPLASTIC MARKINGS WILL BE 0.090 INCHES THICK, EXCEPT MARKING FOR BIKE LANES WHICH WILL BE 0.075 INCHES. HOT-APPLIED EXTRUDED THERMOPLASTIC SHALL NOT BE USED.
- . CROSSWALK MARKINGS SHALL BE INSTALLED AT ALL LOCATIONS AS DIRECTED BY ENGINEER.
- . PLACE 24" WIDE STOP BAR FOR SIGNALIZED CONTROL INTERSECTIONS. USE 24" WIDE STOP BAR FOR STOP CONTROL INTERSECTIONS. FOR YIELD CONDITION SEE YIELD MARKINGS ABOVE.

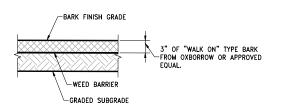
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

City of 1 park.

**CROSSWALK** S-411 LEGEND APPROVED BY: JE DATE: 1/2020

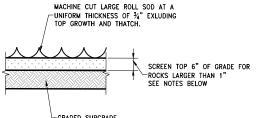






1. ALL AREA TO RECEIVE BARK SHALL BE SCREENED OF ROCKS TO A DEPTH OF 3 INCHES.

- 2. LEVEL THE ENTIRE AREA TO FINISH GRADE, READY FOR BARK INSTALLATION. RAKE AND REMOVE ALL ROCKS LARGER THAN 1" FROM THE TOP 2", ALONG WITH ANY ROOTS OR DEBRIS
- 3. PLACE WEED BARRIER AND SECURE WITH 6" STEEL GARDEN STAPLES.
- 4. THIS DETAIL IS INDENTED FOR AREAS OF BARK REPLACEMENT DUE TO REMOVAL ACTIVITIES.
  LANDSCAPE RESTORATION IN OTHER AREAS DUE TO REMOVAL ACTIVITIES SHALL BE RESTORED
  TO EQUAL OR BETTER CONDITIONS AT NO DIRECT PAYMENT. SEE CONTRACT DOCUMENTS



1. ALL AREA TO RECEIVE TURF SHALL BE SCREENED OF ROCKS TO A DEPTH OF 6 INCHES.

- CONTRACTOR SHALL PLACE 6" TOPSOIL. TOP SOIL SHALL CONFORM TO SECTION 333 OF THE CONTRACT DOCUMENTS.
- 3. LEVEL THE ENTIRE AREA TO FINISH GRADE, READY FOR SOD INSTALLATION. RAKE AND REMOVE ALL ROCKS LARGER THAN 1" FROM THE TOP 2", ALONG WITH ANY ROOTS OR DEBRIS.
- PLACE SOD, ROLL THE AREA, BRING TO FINISH GRADE, AND REMOVE ALL VOIDS. SOD SHALL CONFORM TO SECTION 333 OF THE CONTRACT DOCUMENTS.
- 5. IMMEDIATELY AFTER SOD IS LAID, ROLL TO REMOVE AIR POCKETS AND OBTAIN UNIFORM GRADE. ANY AREA OF SETTLEMENT SHOULD BE CORRECTED BY LIFTING SOD, GRADING, AND RECOMPACTING THE AREA.
- WHEN SOD PLACEMENT IS COMPLETE, CONTRACTOR SHALL NOTIFY ENGINEER AND PROPERTY OWNER SO PROPER WATERING SCHEDULE CAN BE COORDINATED.
- 7. THIS DETAIL IS INDENTED FOR AREAS OF SOD REPLACEMENT DUE TO REMOVAL ACTIVITIES LANDSCAPE RESTORATION IN OTHER AREAS DUE TO REMOVAL ACTIVITIES SHALL BE RESTORED TO EQUAL OR BETTER CONDITIONS AT NO DIRECT PAYMENT. SEE CONTRACT DOCUMENTS SECTION 333.18

-GRADED SUBGRADE

SET BID BAR IS 1 INCH ON ORIGINAL DRAWING

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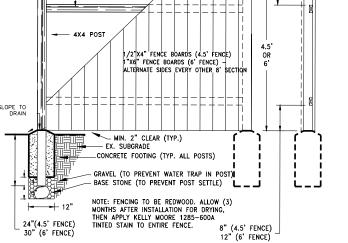
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D1.3 DESIGNED BY:

DRAWN BY: MED / SSW / IPN TDA / RHH CHECKED BY: AJG JOB NO.



CHAINLINK FENCE AND POSTS

BARK INSTALLATION

SCALE: NTS

110 4.5' OR 6' TALL WOOD FENCE

SOD REPLACEMENT DETAIL

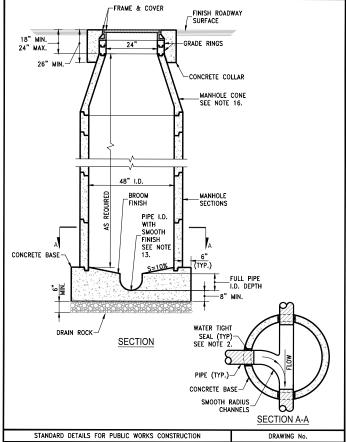
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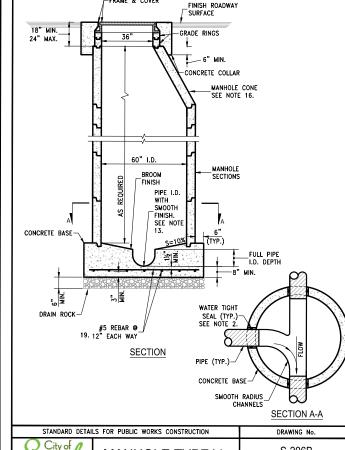
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### NOTES:

- 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% 4.15%, 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 ADDE TO THE P.C.C. TI. 1.5. LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADD
- 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.
- . 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.
- 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
- CATCH BASIN SHALL NOT BE PLACED WITHIN THE RADIUS OF THE CURB UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.

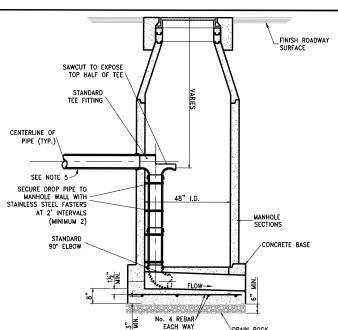
| STANDARD DETAIL | S FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.                    |
|-----------------|---------------------------------|--------------------------------|
| O City of       | NOTES - CATCH                   | S-204B                         |
| <i>Sparks</i>   | BASIN TYPE 4-R                  | APPROVED BY: JE   DATE: 1/2020 |





MANHOLE TYPE V

FRAME & COVER

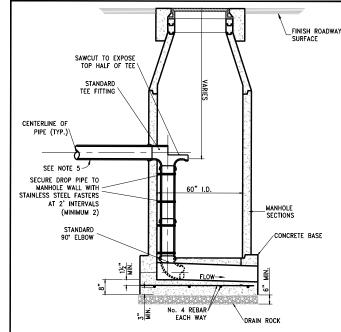


- DETAIL FOR INSIDE DROP ASSEMBLY ONLY. FOR DIMENSIONS, NOTES AND DETAILS NOT SHOWN, REFER TO THE APPLICABLE STANDARD DETAIL DRAWING.

  CONSTRUCTION OF AN INSIDE DROP MANHOLE MUST BE APPROVED IN WRITING BY THE CITY ENGINEER IN
- ADVANCE OF ANY CONSTRUCTION.
- 5. INSIDE DROP MANHOLES ARE TO BE USED ON SANITARY SEWERS WITH MORE THAN 2 FEET VERTICAL DROP AT THE MANHOLE, NOT TO EXCEED 8 FEET, UNLESS OTHERWISE APPROVED BY THE CITY
- ENGINEER.

  SANITARY SEWER PIPE COMPONENTS OF THE INSIDE DROP CONFIGURATION SHALL BE C900 PVC PIPE
  WITH PUSH-ON FITTINGS. SECURE FITTINGS TO PIPE USING STAINLESS STEEL SCREWS.
- . INSTALL ONE FULL LENGTH OF C900 PVC PIPE (MIN. LENGTH 20') BEYOND THE UPSTREAM END OF THE STANDARD TEE FITTING. FERNCO ADAPTER AT THE SDR3S TO C900 TRANSITION UPSTREAM CORE BARREL SECTION FOR THE UPPER PENETRATION AND SEAL WITH NONSHRINK GROUT

| STANDARD DETAIL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | S FOR PUBLIC WORKS CONSTRUCTION | DRAWING         | No.           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|-----------------|---------------|
| City of City o | MANHOLE TYPE I<br>INSIDE DROP   | S-20            | 7A            |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                 | APPROVED BY: JE | DATE: 01/2022 |



- DETAIL FOR INSIDE DROP ASSEMBLY ONLY. FOR DIMENSIONS, NOTES AND DETAILS NOT SHOWN, REFER TO THE APPLICABLE STANDARD DETAIL DRAWING. 2. CONSTRUCTION OF AN INSIDE DROP MANHOLE MUST BE APPROVED IN WRITING BY THE CITY ENGINEER I
- ADVANCE OF ANY CONSTRUCTION.

  INSIDE DROP MANHOLES ARE TO BE USED ON SANITARY SEWERS WITH MORE THAN 2 FEET VERTICAL
  DROP AT THE MANHOLE, NOT TO EXCEED 8 FEET, UNLESS OTHERWISE APPROVED BY THE CITY
  ENGINEER.

- ENGINEER.

  I. SANITARY SEWER PIPE COMPONENTS OF THE INSIDE DROP CONFIGURATION SHALL BE C900 PVC PIPE
  WITH PUSH-ON FITTINGS. SECURE FITTINGS TO PIPE USING STAINLESS STEEL SCREWS.

  I. INSTALL ONE FULL LENGTH OF C900 PVC PIPE (MIN. LENGTH 20') BEYOND THE UPSTREAM END OF THE
  STANDARD TEE FITTING. FERRICO ADAPTER AT THE SDRSS TO C900 TRANSITION UPSTREAM

  I. CORE BARREL SECTION FOR THE UPPER PENETRATION AND SEAL WITH NONSHRINK GROUT

| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  City of MANHOLE TYPE V INSIDE DROP  S-207B |                 |                                  |                 |               |
|--------------------------------------------------------------------------------------------|-----------------|----------------------------------|-----------------|---------------|
| INSIDE DROP                                                                                | STANDARD DETAI  | LS FOR PUBLIC WORKS CONSTRUCTION | DRAWING         | No.           |
|                                                                                            | City of City of |                                  | S-20            | 7B            |
| APPROVED BY: JE   DATE: 01/2022                                                            |                 |                                  | APPROVED BY: JE | DATE: 01/2022 |

City or

park

- ALL PRECAST MANHOLE COMPONENTS SHALL CONFORM TO ASTM C-478.
- PIPES SHALL NOT PROTRUDE MORE THAN  $3^{\rm o}$  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.

MANHOLE TYPE I

S-206A

APPROVED BY: JE | DATF: 1.

)par

- 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.
- TYPE I MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 12" OR SMALLER AND DEPTHS NOT EXCEEDING 18 FEET.
- TYPE V MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 15" THROUGH 27" OR DEPTHS EXCEEDING 18 FEET.
- MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 204 "MANHOLES AND CATCH BASINS" OF THE STANDARD SPECIFICATIONS.
- 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.
- EXCAVATION AND BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION AND BACKFILL" IN SECTION 305 OF THE STANDARD SPECIFICATIONS.
- 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 11/2" 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.
- 21. TYPE IV MANHOLES SHOULD ONLY BE USED AS APPROVED BY CITY ENGINEER
- 22. ALL MANHOLE BARREL JOINTS TO BE RAPPED WITH EXTERNAL JOINT WRAP M-860 OR APPROVED EQUAL.

| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.                  |
|------------------------------------------------|------------------------------|
| NOTES - MANHOLE TYPE I, TYPE V & TYPE IV       | S-206D                       |
| 5,0 f car / car                                | APPROVED BY: JE DATE: 1/2020 |



09/26/2024

S-206B

APPROVED BY: JE DATE: 1/2020

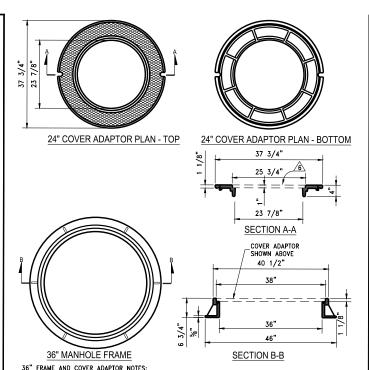
IF NOT ONE INCH ON THIS SHEET ADJUST SCALES ACCORDINGLY D1.4

DRAWN BY: MED / SSW / IPN DESIGNED BY: CHECKED BY: JOB NO.

TDA / RHH AJG 10565.000 24" FRAME AND COVER NOTES:

1. CITY OF SPARKS LOGO FRAME AND COVERS SHALL BE D&L FOUNDRY A1032 CITY OF SPARKS FRAME AND COVER OR APPROVED EQUAL. SPARKS LOGO FRAMES AND COVERS ARE TO BE PLACED ONLY ON CITY OF SPARKS MAINTAINED FACILITIES. PRIVATE FACILITIES SHALL NOT HAVE THE SPARKS LOGO ON THE LIDS. THEY SHALL ONLY HAVE THE LETTERS INDICATING "SS" OR "SD". FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.CASTINGS SHALL BE CAST GRAY IRON AND MEET THE REQUIREMENTS OF ASTM A-48, CLASS 35B, NO

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION DRAWING No. City of 24" MANHOLE FRAME & S-209A park! COVER APPROVED BY: JE DATE: 2/2020



24" COVER ADAPTER SHALL BE D&L FOUNDRY A1462-R5, TO ACCEPT D&L FOUNDRY A1032 CITY OF SPARKS MANHOLE COVERS AND TO SET IN D&L FOUNDRY A1462 CITY OF RENO FRAME OR APPOVED

2. 36" MANHOLE FRAME SHALL BE D&L FOUNDRY A1462 CITY OF SPARKS FRAME OR APPROVED EQUAL.
3. CASTINGS SHALL BE CAST GRAY IRON AND MEET THE REQUIREMENTS OF ASTM A-48, CLASS 35B, NO PAINT.

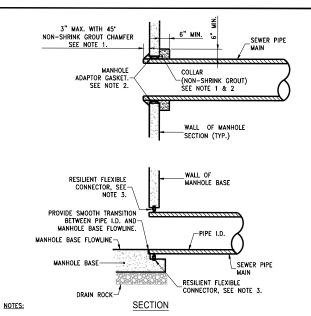
4. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.

\*\*. IONNISHED WITH MACHINED HUNIZUNIAL BEARING SURFACE.

\$. MANHOLE COVER SHALL BE FREE OF HOOKS OR PROTRUSIONS THAT MAY HINDER REMOVAL.

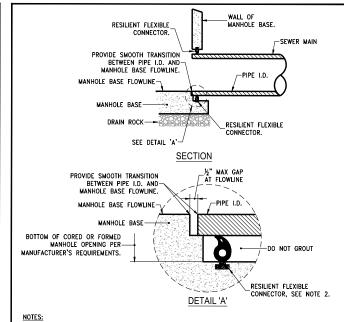
\$\frac{40}{20}\$: CITY OF SPARKS LOGO FRAME AND COVERS SHALL BE D&L FOUNDRY \$1032 CITY OF SPARKS FRAME AND COVER OR APPROVED EQUAL. SPARKS LOGO FRAMES AND COVERS ARE TO BE PLACED ONLY ON CITY OF SPARKS MAINTAINED FACILITIES. PRIVATE FACILITIES SHALL NOT HAVE THE SPARKS LOGO ON THE LIDS. THEY SHALL ONLY HAVE THE LETTERS INDICATING "SS" OR "SD".

36-INCH MANHOLE FRAME W/ 24-INCH COVER ADAPTOR



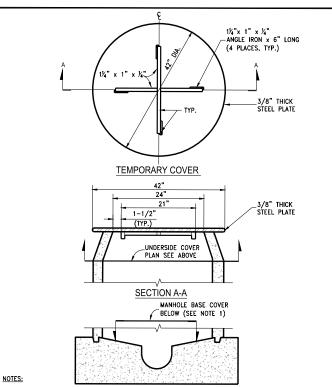
- NON-SHRINK GROUT SHALL HAVE THE FOLLOWING CHARACTERISTICS: 3000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD AND SLUMP AT 1 TO 4 INCHES. ALL MATERIAL SHALL CONFORM TO STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC) SECTION 202, AS ADOPTED BY CITY COUNCIL
- SANITARY SEWER PIPE CONNECTION TO MANHOLE SECTIONS (DROP MANHOLES) REQUIRE AN
  AGENCY-APPROVED FORM OF SEAL OR WATER STOP TO PROVIDE A WATERTIGHT CONNECTION. UTILIZE A ROMAC STYLE "LCT" MANHOLE ADAPTOR GASKET OR APPROVED EQUAL IN CONJUNCTION WITH NON-SHRINK GROUT.
- SANITARY SEWER PIPE CONNECTION TO MANHOLE BASE SHALL REQUIRE A RESILIENT FLEXIBLE CONNECTOR INSTALLED IN ACCORDANCE WITH STANDARD DETAIL S-211C.
- ALL PIPE OPENINGS TO NEW MANHOLES MUST BE EITHER CAST-IN-PLACE OR PRE-FORMED AND PIPE OPENINGS TO EXISTING MANHOLES MUST BE CORE DRILLED.

| STANDARD DETAI  | STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION |                 | DRAWING No.  |  |  |
|-----------------|------------------------------------------------|-----------------|--------------|--|--|
| City of City of | SANITARY SEWER PIPE<br>TO MANHOLE CONNECTION   | S-21            | 17.1         |  |  |
|                 |                                                | APPROVED BY: JE | DATE: 1/2020 |  |  |



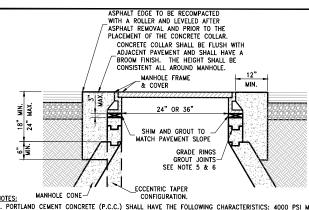
- . A SEAL OR WATER STOP IS REQUIRED ON ALL SANITARY SEWER INSTALLATIONS AND IN OTHER
- 2. A RESILIENT FLEXIBLE CONNECTOR PER ASTM C 923-89 SHALL BE USED AT THE MANHOLE/PIPE CONNECTION TO SATISFY THE REQUIREMENTS OF NOTE 1. FOR PRE-CAST CONCRETE STRUCTURES, THE RESILIENT FLEXIBLE CONNECTOR SHALL BE AN "A-LOK" TYPE PIPE-TO-MANHOLE CONNECTOR OR APPROVED EQUAL. FOR CAST-IN-PLACE STRUCTURES, THE RESILIENT FLEXIBLE CONNECTOR SHALL BE A "KOR-N-SEAL I - TOGGLE KORBAND" TYPE PIPE-TO-MANHOLE CONNECTOR OR APPROVED EQUAL
- THE INTERIOR MANHOLE CONNECTION SHALL HAVE A SMOOTH TRANSITION BETWEEN PIPE I.D. AND MANHOLE BASE FLOWLINE. NO GROUT OR CONCRETE SHALL BE PLACED AROUND THE RESILIENT FLEXIBLE CONNECTOR.

| STANDARD DETAI | LS FOR PUBLIC WORKS CONSTRUCTION | DRAWING No.     |              |
|----------------|----------------------------------|-----------------|--------------|
| City of Darks  | RESILIENT FLEXIBLE<br>CONNECTOR  | S-21            | 1C           |
| 5,07           | CONNECTOR                        | APPROVED BY: JE | DATE: 1/2020 |



INSTALL TEMPORARY COVER WITH CONE INSTALLATION WHEN INSTALLING NEW MANHOLE OR PRIOR TO REMOVING EXISTING FRAME & COVER AND GRADE RINGS TO ADJUST TO FINISH GRADE. INSTALL COVER OVER MANHOLE BASE TO PREVENT DEBRIS FROM ENTERING SEWER SYSTEM. THE MANHOLE BASE COVER SHALL BE IN PLACE PRIOR TO PERFORMING ANY ADJUSTMENT SISTEM. HE MANNOLE BASE COVER SHALL BE IN PLACE PRIOR TO PERFORMING ANY ADJUSTMENTS OR GROUTING AND SHALL REMAIN IN PLACE WHILE ADJUSTMENTS OR GROUTING ARE BEING PERFORMED. REMOVE BASE COVER UPON ADJUSTMENT APPROVAL BY CITY OF SPARKS.

| COVER OF ON ADJUSTMENT AFFROVAL BI CITY OF SPARKS.                        |               |                 |              |  |
|---------------------------------------------------------------------------|---------------|-----------------|--------------|--|
| STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION  City of TEMPORARY  S-209B |               |                 |              |  |
| City of                                                                   | TEMPORARY     | S-20            | 9B           |  |
| <b>SPURKS</b>                                                             | MANHOLE COVER |                 |              |  |
|                                                                           |               | APPROVED BY: JE | DATE: 1/2020 |  |



TIES:

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. POLYPROPYLEN 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.

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.

IN UNPAYED 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.

EXISTING SANITARY SEWER MANHOLE LIDS LOCATED IN GUTTER PANS. SHALL HAVE NEW WATER TIGHT FRAMES AND COVERS.

. 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.

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.

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. |                |                              |  |  |
| City of City of                                            | MANHOLE COLLAR | S-210A                       |  |  |
|                                                            |                | APPROVED BY: JE DATE: 1/2020 |  |  |

LUMOS

950 SANDHILL ROAD, SUITE 100

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SEWER INTERCEPTOR ITATION PROJECT

EHABILITATION PR DETAIL SHEE

DRIVE

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2

BID SET FOR CONSTRUCTION SEPTEMBER 2024

BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY D1.5

DRAWN BY: MED / SSW / IPN DESIGNED BY: CHECKED BY:

TDA / RHH AJG JOB NO. 10565 000

### NOTES

**EXISTING** 

LATERAL

TO CLEANOUT

CONCRETE PILLOW
6" THICK MINIMUM

UNDER CONNECTION

EXISTING SEWER MAIN

TO BE ABANDONED OR REMOVED

-EXISTING SEWER MAIN

PROPOSED SEWER MAIN

TO BE ABANDONED OR REMOVED

1 RC5000 STRONG BACK COUPLING OR APPROVED EQUAL SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.

(2) CONTRACTOR TO VERIFY OUTSIDE DIAMETER OF EXISTING PIPE AND PROVIDE PROPER FLEXIBLE WATERTIGHT COUPLINGS. IF CIPP IS ENCOUNTERED, EPOXY LINER AT END OF PIPE.

# EXISTING PIPE TO NEW PVC PIPE CONNECTION

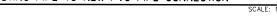
FLEXIBLE WATERTIGHT COUPLING 🔨 🛕

EXISTING PVC LATERAL TO BE

GROUT FILLED, AND CAPPED OR

REMOVED ALTOGETHER

ABANDONED.

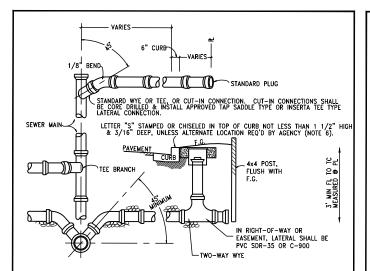


REFERENCE DETAIL S-212A/D-3 FOR ANGLE POINT DETAILS

REFERENCE DETAIL S-212A/D-3 FOR ANGLE POINT DETAILS

FLEXIBLE ...
COUPLING 1

FLEXIBLE WATERTIGHT



- 1. SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF 2%, UNLESS OTHERWISE APPROVED BY
- 2. LATERAL SHALL BE CUT BACK TO SOUND MATERIAL FOR COUPLING.
- ALL CONNECTIONS TO THE CITY SEWER MAINS MUST BE CORE DRILLED.

1 RC5000 STRONG BACK COUPLING OR APPROVED EQUAL SHALL BE INSTALLED AS PER

CONTRACTOR TO VERIFY OUTSIDE DIAMETER OF EXISTING PIPE AND PROVIDE PROPER FLEXIBLE WATERTIGHT COUPLINGS. IF CIPP IS ENCOUNTERED, EPOXY LINER AT END OF PIPE.

CONTRACTOR TO CONNECT THE NEW LATERAL TO THE EXISTING LATERAL A MINIMUM OF 12" FROM THE ANGLE POINT OF THE EXISTING LATERAL.

ATHE NEW LATERAL EXTENSION SHALL MAINTAIN SIMILAR SLOPE AS THE EXISTING LATERAL UNTIL THE ANGLE POINT TO THE NEW MAIN. ADJUSTMENTS MAY BE NECESSARY IF UTILITY CONFLICTS EXIST.

5 CONTRACTOR SHALL EXTEND CONNECTION TO EXISTING LATERAL A MINIMUM OF 12" BEYOND THE NEW

(a) CONCRETE PILLOW DOES NOT NEED TO BE PLACED IF A NEW LATERAL IS CONSTRUCTED ALL THE WAY BACK TO THE CLEANOUT.

MANUFACTURER'S RECOMMENDATIONS.

- ENCASE LATERAL CONNECTION IN CEMENT, STABILIZED SAND OR 2000 PSI CONCRETE FOLLOWING INSTALLATION. CONNECTION MUST BE INSPECTED BY CITY PRIOR TO BACKFILL.
- 5. NO LATERAL CONNECTIONS SHALL BE MADE TO SANITARY SEWER "INTERCEPTOR" LINES WITHOUT THE APPROVAL OF THE CITY ENGINEER.
- 6. ALL APPLICABLE SANITARY SEWER PIPE INSTALLATION WORK SHALL BE IN ACCORDANCE WITH THE UNIFORM PLUMBING CODE.

| STANDARD DETAIL | S FOR PUBLIC WORKS CONSTRUCTION | DRAWING         | No.          |
|-----------------|---------------------------------|-----------------|--------------|
| City of Darks   | SANITARY SEWER                  | S-21:           | 2A           |
|                 | 27 (1210)                       | APPROVED BY: JE | DATE: 1/2020 |
|                 |                                 |                 |              |

### NOTES:

- SEWER LATERALS SHALL HAVE A MINIMUM PIPE DIAMETER OF 4-INCHES.
- ALL PLASTIC PIPE USED FOR SEWER SERVICE LATERAL CONSTRUCTION SHALL BE SOLID WALL AND SHALL MEET THE REQUIREMENTS OF D-2412, HAVE A MINIMUM STIFFNESS OF 46 PSI AS DEFINED BY THE REQUIREMENTS OF ASTM D-3034.
- SERVICE LATERALS SHALL HAVE A MINIMUM SLOPE OF 1/4-INCH PER FOOT UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER.
- SEWER LATERALS SHALL HAVE A MINIMUM COVER OF 36-INCHES IN THE PUBLIC RIGHT-OF-WAY AND IN EASEMENTS UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. THE DEFINITION OF "COVER" IS THE DISTANCE FROM THE TOP OF PIPE TO FINISHED GRADE.
- USE OF SEWER SERVICE TAP SADDLE CONNECTIONS SHALL NOT BE ALLOWED FOR NEW SEWER MAIN CONSTRUCTION. WHEN A TAP SADDLE CONNECTION IS TO BE USED ON AN EXISTING SEWER MAIN, IT SHALL BE A WYE SADDLE AND BE INSTALLED PER DETAIL S-212C.
- SEWER LATERALS SHALL HAVE A CLEANOUT INSTALLED BETWEEN SIDEWALK AND RIGHT-OF-WAY. A G5 BOX CLEARLY MARKED "SEWER" SHALL BE INSTALLED OVER THE TOP OF THE CLEANOUT RISER CAP PIPE.
- SEWER LATERALS SHALL NOT BE CONNECTED DIRECTLY TO OR WITHIN 5-FEET OF A MANHOLE STRUCTURE.
- EXISTING SEWER LATERALS SHALL BE CUT BACK TO SOUND MATERIAL FOR COUPLING. PLACE 6-INCH THICK CONCRETE PAD UNDER CONNECTION.
- SEWER LATERAL CONNECTION SHALL BE STABILIZED WITH APPROVED MATERIAL FOLLOWING INSTALLATION. CONNECTION TO CITY SEWER MAIN MUST BE INSPECTED BY THE CITY PRIOR TO
- NO LATERAL CONNECTIONS SHALL BE MADE DIRECTLY TO A SANITARY SEWER "INTERCEPTOR" UNLESS APPROVED BY THE CITY ENGINEER.
- SEWER LATERALS SHALL NOT BE CONNECTED TO A SEWER MAIN UNLESS THE CONNECTION POINT IS BETWEEN TWO MANHOLE STRUCTURES.
- EACH INDIVIDUAL PARCEL SHALL HAVE A MINIMUM OF ONE SEWER LATERAL. TWO OR MORE PARCELS SHALL NOT SHARE ONE SEWER LATERAL.
- 13. SANITARY SEWER LATERAL IDENTIFICATION AND LOCATING REQUIREMENTS SHALL BE PER SPARKS
- MUNICIPAL CODE 17.16.130 (SMC 17.16.130). DISCONTINUANCE OF USE OF AN EXISTING SEWER LATERAL REQUIRES ABANDONMENT OF THE LATERAL. CUT, REMOVE 1-FOOT OF EXISTING LATERAL AND CAP BOTH ENDS OF THE EXISTING SEWER LATERAL TO BE ABANDONED WITHIN 6-INCHES OF THE SEWER MAIN. ABANDONMENT MUST
- PROPERTY OWNER SHALL BE RESPONSIBLE FOR OPERATION, MAINTENANCE AND REPAIR OF THE SEWER LATERAL WITHIN THE PUBLIC RIGHT-OF-WAY PER SPARKS MUNICIPAL CODE.

BE INSPECTED BY CITY PRIOR TO BACKFILL.

| STANDARD DETAI | DRAWING No.            |                 |              |
|----------------|------------------------|-----------------|--------------|
| City of Carks  | NOTES - SANITARY SEWER | S-212B          |              |
|                | 27 (1 2 1 0 1 2        | APPROVED BY: JE | DATE: 1/2020 |
| -              |                        |                 | _            |

# AB OR SOIL AC PAVING JENSEN PRECAST G5 BOX AND COVER OR APPROVED EQUAL COVER LABELED "SEWER TOP OF VB TO BE SET ¼" BELOW FINISH AC SURFACE I-CONE EXPANDABLE PLUG OR EQUAL (NO METAL PARTS) 4" OR 6" PIPE RISER AS REQD. SDR 35 PVC -BRICKS (4" MIN) EX SERVICE LATERAL TO SS MAIN TO RESIDENC



PLACE 6" THICK MIN. CONCRETE "PILLOW": UNDER CONNECTION.

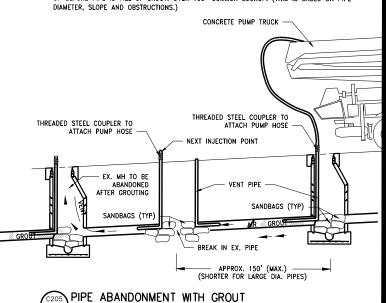
FERNCO STRONG BACK R.C. SERIES COUPLING OR

APPROVED EQUAL.

- 1. FLUSH PIPE W/ WATER TO LUBRICATE PRIOR TO GROUTING
- 2. VERIFY ALL EX. LATERALS ARE ABANDONED & CAPPED. (VIDEO.)
- 3. GROUT WILL FLOW OUT OF VENT PIPE, GIVING VISUAL CONFIRMATION THAT MAINLINE IS FULL OF
- 4. CUT & BURY STAND PIPES MIN. 18" BELOW GRADE AFTER GROUTING IS COMPLETE
- PREPARE MULTIPLE SECTIONS FOR GROUTING IN ADVANCE SO THAT PUMP TRUCK DOES NOT HAVE DOWN TIME BETWEEN SECTIONS.
- 6. CONCRETE TRUCKS TO ARRIVE BEFORE PREVIOUS TRUCK EMPTIES. (SEE NOTE #5.)
- 7. PUMP IN DIRECTION OF FLOW (DOWNSTREAM.)

TWO-WAY WYE FITTING

RECOMMEND SMALLER SECTIONS (<100') TO BE ABANDONED TO DECREASE LIKELIHOOD OF LOCKING UP BEFORE PIPE IS FILL OF GROUT. OVER 100'=COMMON LOCKUP. (THIS IS BASED ON PIPE





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INTERCEPTOR I PROJECT

SEWER

REHABILITATION F DETAIL SHE DRIVE SE ਨ

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BID SET FOR CONSTRUCTI SEPTEMBER 2024 BAR IS 1 INCH ON ORIGINAL DRAWING

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

D1.6

DRAWN BY: MEP / SSW / IPN DESIGNED BY TDA / RHH CHECKED BY: 10565.000

EXISTING PVC LATERAL EXTENSION AND CONNECTION TO NEW MAIN

PROPOSED SEWER MAIL

CONCRETE PILLOW

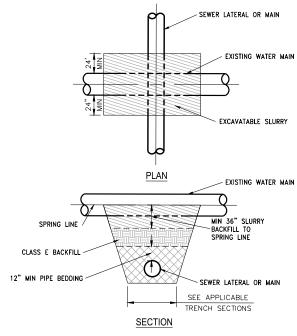
TO SPRING LINE

UNDER CONNECTION

SCALE: NTS

- 1. SLURRY FROM SPRING LINE OF WATER PIPE TO 3" ABOVE TOP OF SEWER PIPE OR A MAXIMUM
- 2. SANITARY SEWER MAIN OR SEWER LATERAL CROSSINGS UNDER TMWA 6" AND 8" TRANSITE AND CAST IRON PIPES SHALL REQUIRE THE FOLLOWING: THE TRENCH WIDTH BELOW THE WATER
  PIPE SHALL BE HELD TO APPROXIMATELY 2' AND THE USE OF NON-SHRINK SLURRY BACKFILL TO THE WATER PIPE SPRING LINE. PRIOR TO SLURRY PLACEMENT THE LOWER UTILITY BEDDING
  SHALL BE MECHANICALLY COMPACTED TO 90% MAXIMUM DENSITY, AFTER WHICH ENGINEERING
  FABRIC SHALL BE PLACED ON THE BEDDING. A BENCH OR OTHER NOTCH SHALL BE CUT INTO
  THE TRENCH SIDE WALL TO ACT AS A SUPPORT FOR THE SLURRY SECTION. SLURRY SHALL BE ALLOWED TO SET UP FOR A MINIMUM OF 24-HOURS BEFORE BACKFILLING THE REMAINDER OF
- 3. CONTRACTOR SHALL COORDINATE WITH TMWA FOR ALL WATER CROSSINGS.

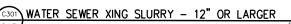
C300 WATER SEWER XING SLURRY - 10" OR SMALLER

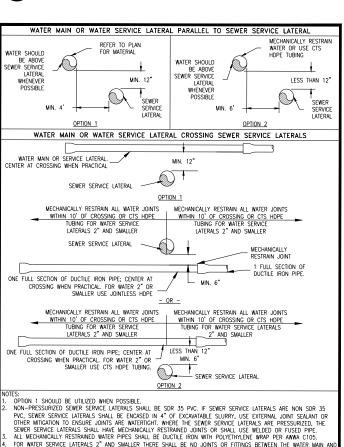


NOTES:

1. SANITARY SEWER MAIN OR SEWER LATERAL CROSSINGS UNDER TMWA 12" OR LARGER PIPES
SHALL REQUIRE THE FOLLOWING: THE TRENCH WIDTH BELOW THE WATER PIPE SHALL BE HELD
TO APPROXIMATELY 36" AND THE USE OF NON-SHRINK SLURRY BACKFILL TO THE WATER PIPE SPRING LINE. PRIOR TO SLURRY PLACEMENT THE LOWER UTILITY CLASS E BACKFILL AND/OR BEDDING SHALL BE MECHANICALLY COMPACTED TO 90% MAXIMUM DENSITY. ENGINEERED FABRIC SHALL BE PLACED BETWEEN THE BEDDING AND THE CLASS E BACKFILL. A BENCH OR THRIC NOTCH SHALL BE CUT INTO THE TRENCH SIDE WALL TO ACT AS A SUPPORT FOR THE SLURRY SECTION. SLURRY SHALL BE ALLOWED TO SET UP FOR A MINIMUM OF 24—HOURS BEFORE BACKFILLING THE REMAINDER OF THE TRENCH TO FINISH GRADE.

2. CONTRACTOR SHALL COORDINATE WITH TMWA FOR ALL WATER CROSSINGS.

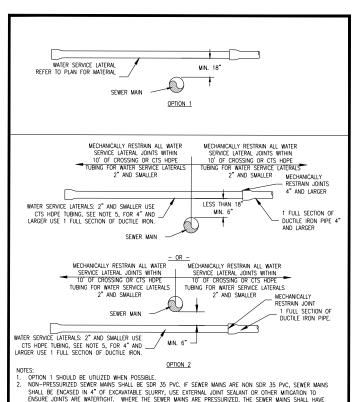




MISCELLANEOUS WATER DETAILS

10L-12

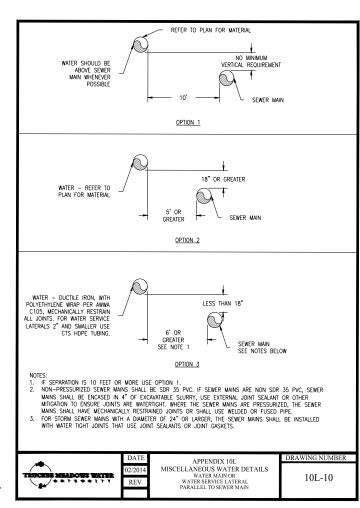
WATER MAIN OR WATER SERVICE LATER.
PARALLEL TO OR CROSSING
SEWER SERVICE LATERAL

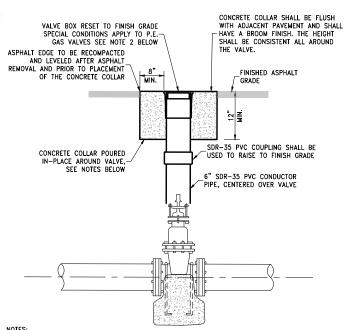


TES:
OPTION 1 SHOULD BE UTILIZED WHEN POSSIBLE.
NON-PRESSURIZED SEWER MAINS SHALL BE SOR 35 PVC. IF SEWER MAINS ARE NON SDR 35 PVC, SEWER MAINS
SHALL BE ENCASED IN 4"OF EXCAVATABLE SLURRY, USE EXTERNAL JOINT SEALANT OR OTHER MITIGATION TO
ENSURE JOINTS ARE MATERITICHT, WHERE THE SEWER MAINS ARE PRESSURIZED, THE SEWER MAINS SHALL HAVE
MECHANICALLY RESTRAINED JOINTS OR SHALL USE WELDED OR FLISED PIEC.
ALL MECHANICALLY RESTRAINED WATER PIPES SHALL BE DUCTILE IRON WITH POLYETHYLENE WRAP PER AWMA C105.
FOR WATER SERVICE LATEROS. 2" AND SALLED THE DEFAULT OF OR THAT OF DUTTERS PROTECTED THE PROPERTY.

FOR WATER SERVICE LATERALS 2" AND SMALLER THERE SHALL BE NO JOINTS OR FITTINGS BETWEEN THE WATER MAIN AND THE WATER METER.



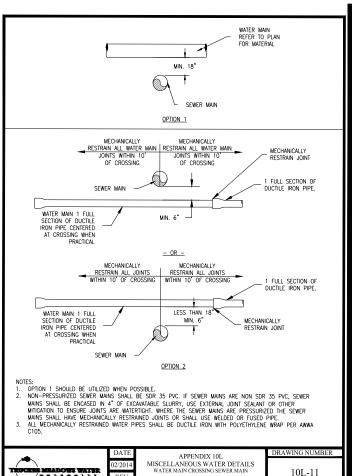




NOTES: . FIBER-REINFORCED PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC). 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.

SPECIAL CONDITIONS APPLY TO P.E. GAS VALVES WITH TELESCOPING RISERS. CONTRACTORS SHALL NOT RAISE TO GRADE RISERS THAT HAVE BEEN CUT-OFF DURING LOWERING. RISERS CUT-OFF DURING LOWERING SHALL BE REMOVED COMPLETELY TO MAIN AND TAKEN TO NY ENERGY FOR EXACT MATERIAL REPLACEMENT PRIOR TO RAISING TO GRADE.

VALVE BOX COLLAR





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BID SET FOR CONSTRUCTION SEPTEMBER 2024

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DRAWN BY: MED / SSW / IPN DESIGNED BY: TDA / RHH CHECKED BY: AJG JOB NO. 10565 000