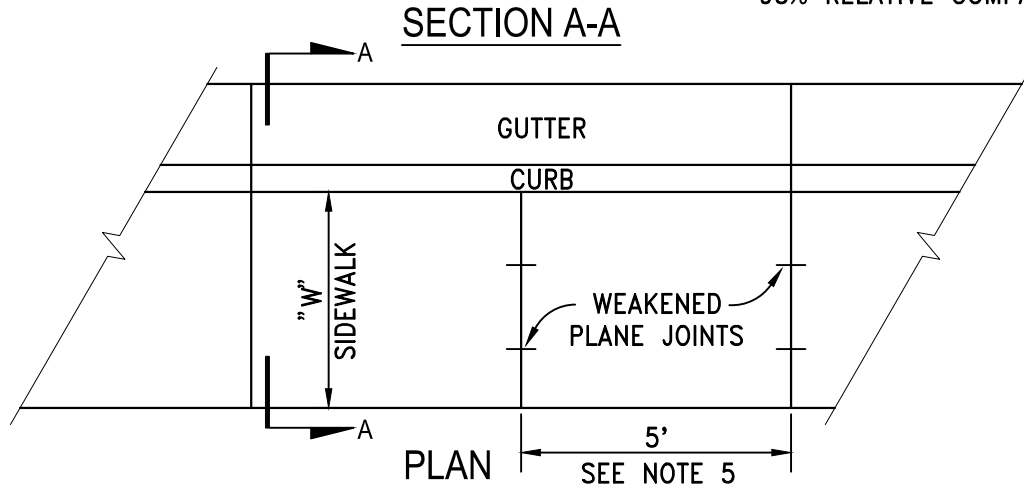
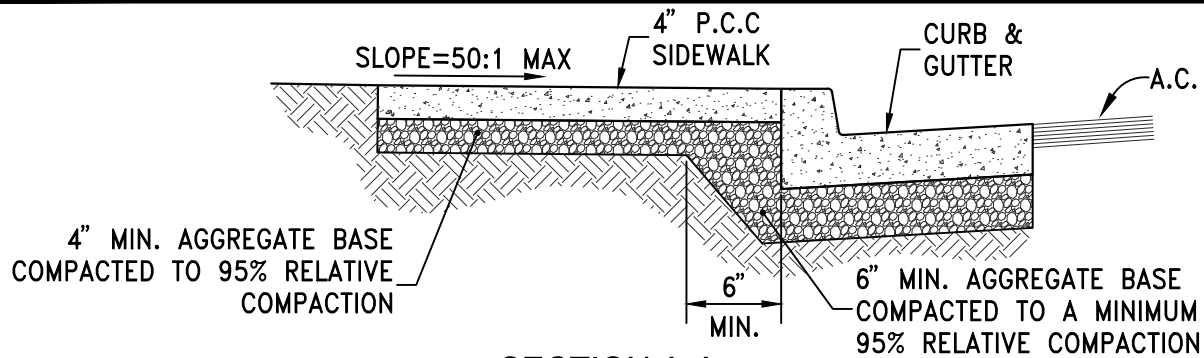


APPENDIX A

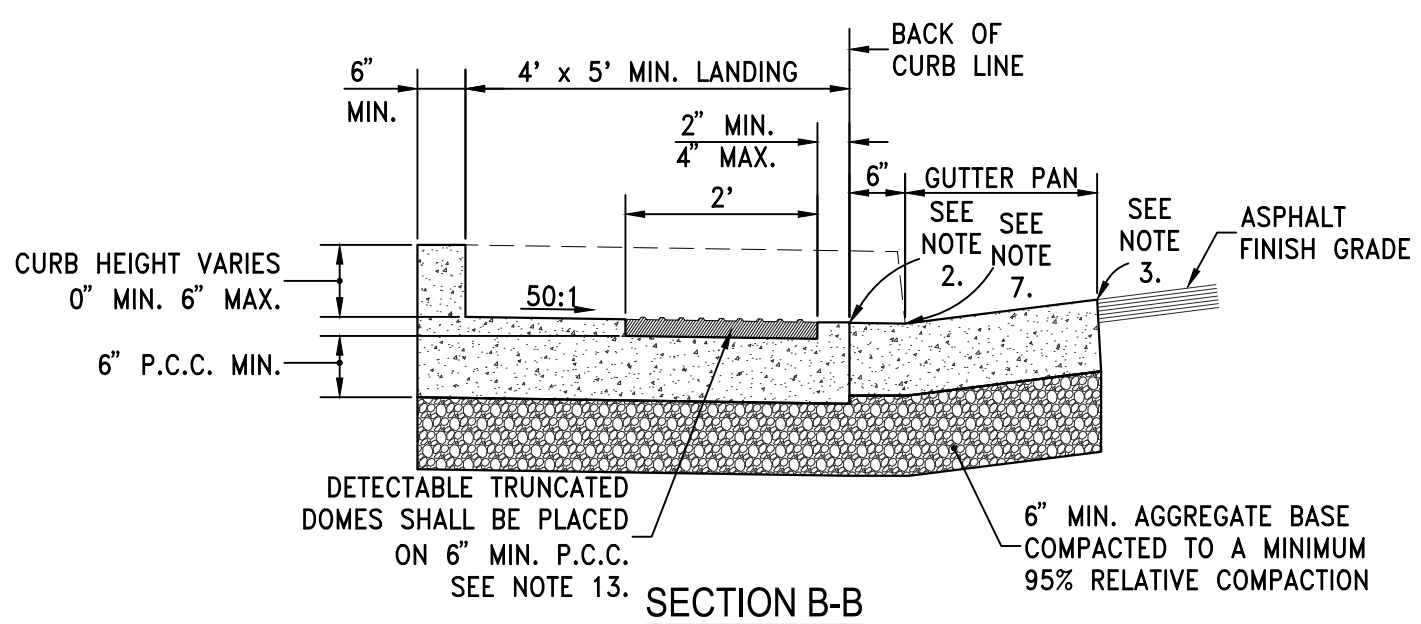
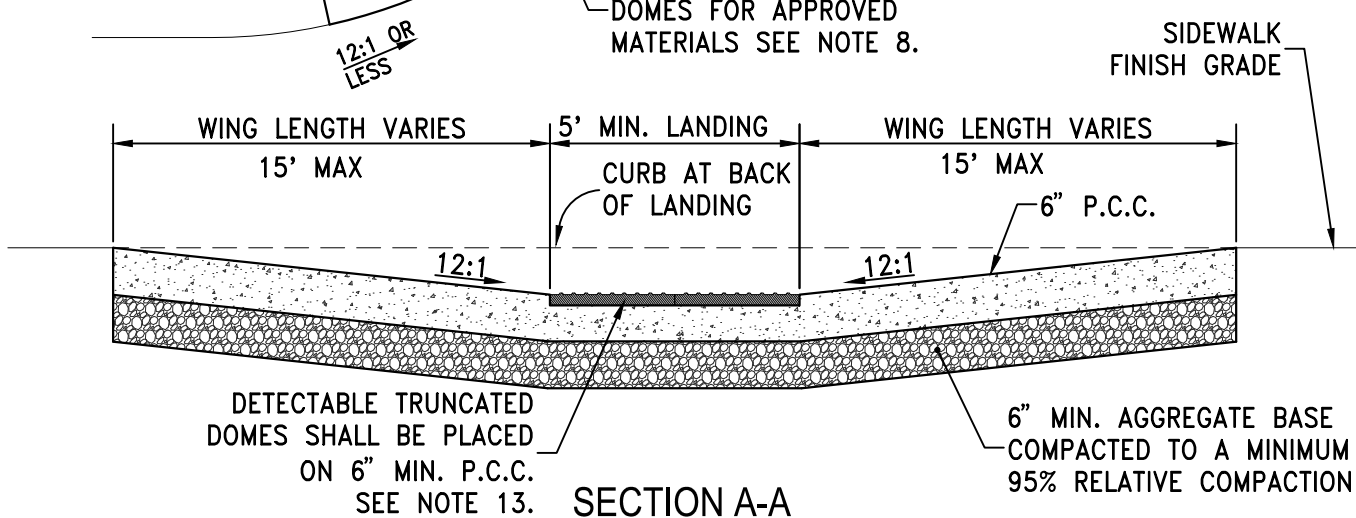
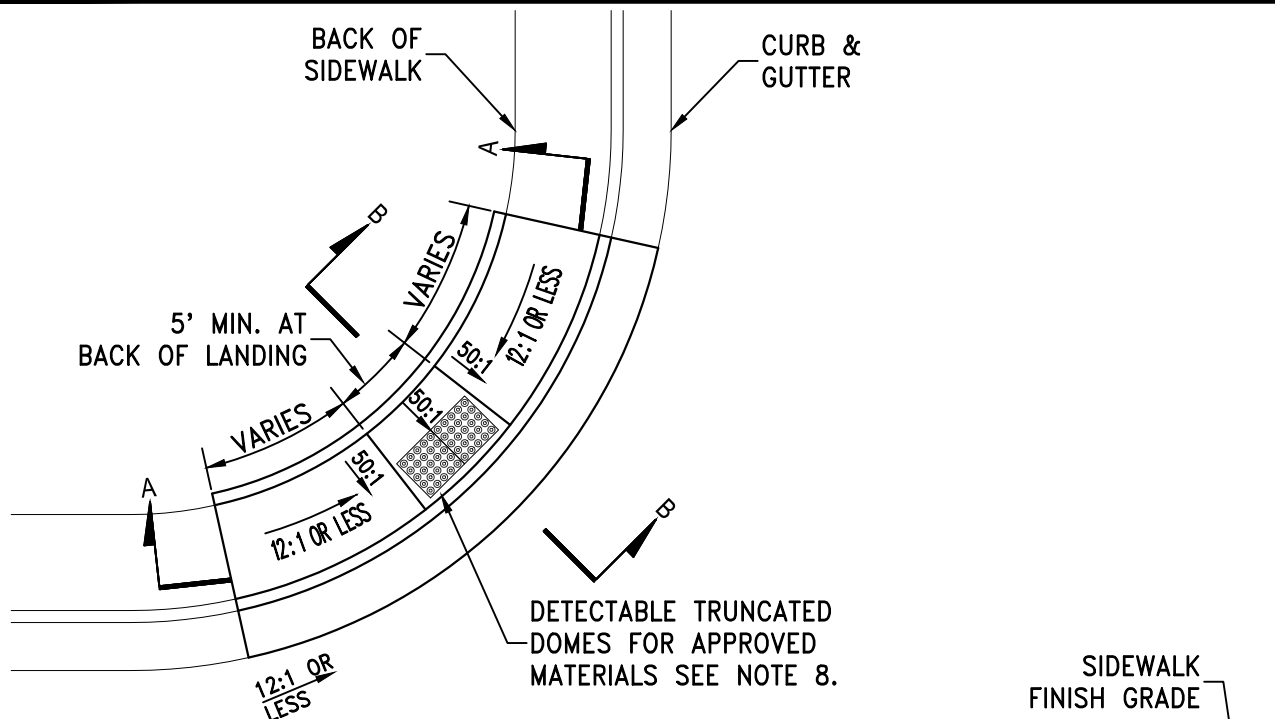
STANDARD DETAILS



NOTES:

1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
2. 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.
3. 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.
4. WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 5 FT INTERVALS AND ACCORDANCE WITH SECTION 312 OF THE SSPWC, AS ADOPTED BY CITY COUNCIL.
5. 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.
6. SIDEWALKS SHALL NOT BE POURED MONOLITHICALLY WITH CURBS.
7. TUNNELING AND/OR BORING IS NOT ALLOWED.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION		DRAWING No.
	SIDEWALK DETAIL	S-104A
		APPROVED BY: JE DATE: 5/2018



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

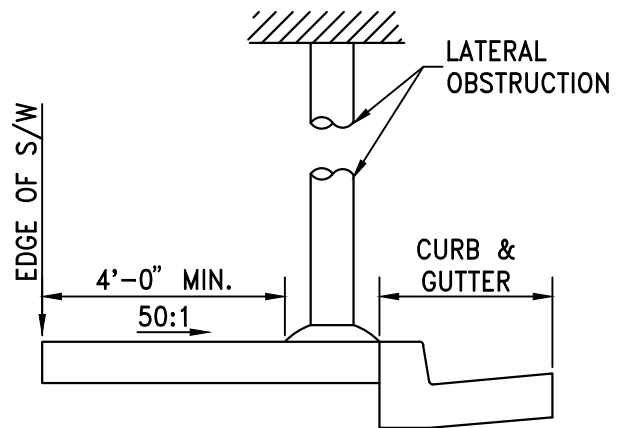
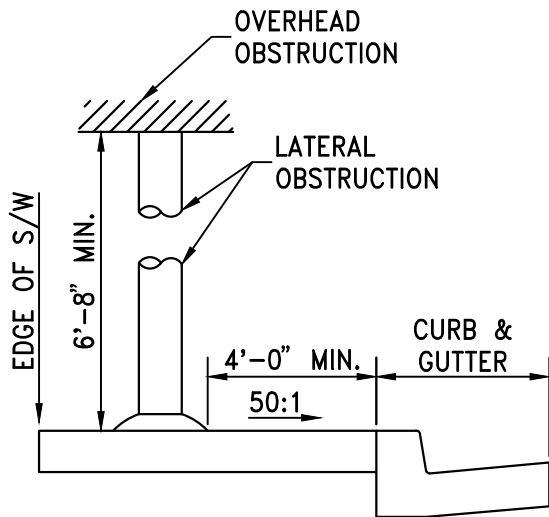
DRAWING No.



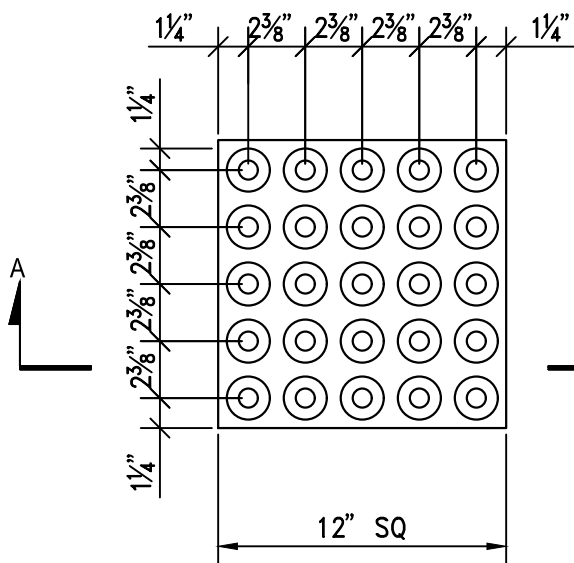
PEDESTRIAN RAMP - EXISTING SIDEWALKS

S-106A

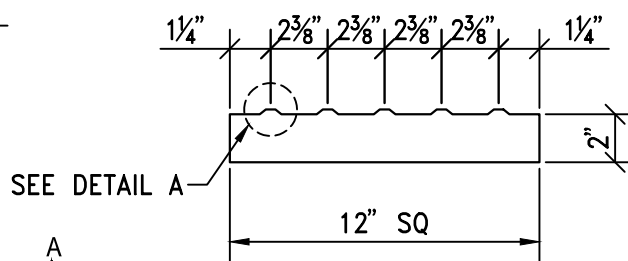
APPROVED BY: JE | DATE: 5/2018



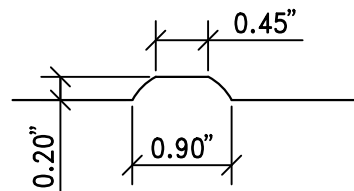
TYPICAL SIDEWALK vs OBSTRUCTION CLEARANCE DETAIL



PLAN



SECTION A-A



DETAIL A

NOTE: FOR DETECTABLE TRUNCATED DOMES APPROVED MATERIALS SEE NOTE 8.

TRUNCATED DOMES DETAIL

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No.



**PEDESTRIAN
RAMP - DETAILS**

S-106F

APPROVED BY: JE | DATE: 5/2018

1. 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.
6. 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.
8. 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", AND "ACCESS TILE". DETECTABLE WARNING SHALL BE CONSTRUCTED PER MANUFACTURER'S INSTALLATION GUIDELINES AND CONFORM TO ADAAG.
9. CONCRETE REMOVAL SHALL BE TO NEAT SAW CUT LINES
10. AGGREGATE BASE MATERIAL UNDER PEDESTRIAN RAMPS SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
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 NECESSARY TO MATCH CROSS SLOPE OF EXISTING SIDEWALK TO PEDESTRIAN RAMP IMPROVEMENTS. TRANSITION SECTIONS SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No.

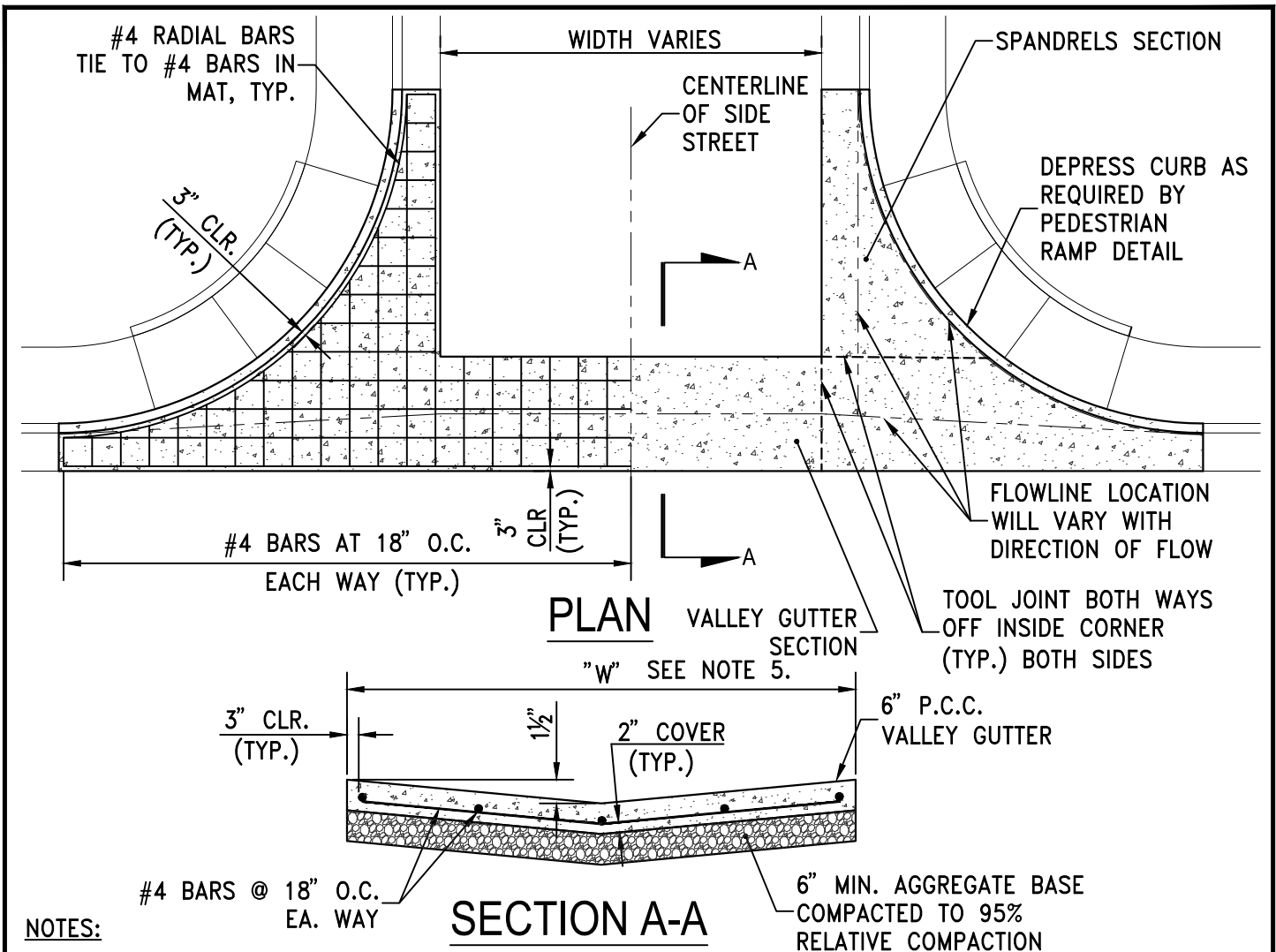


**NOTES -
PEDESTRIAN RAMP**

S-106G

APPROVED BY: JE

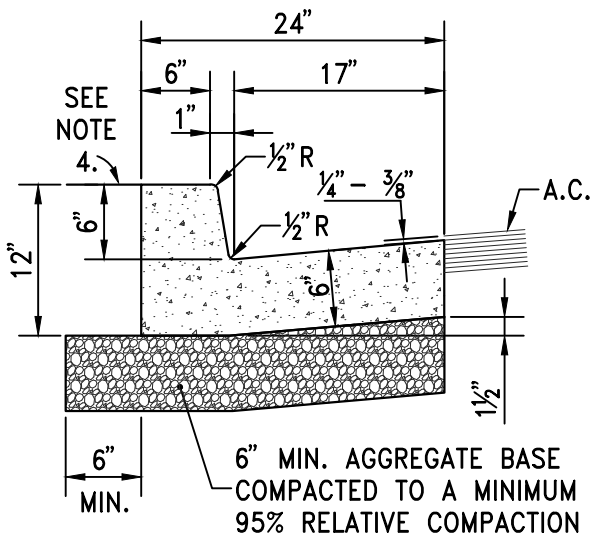
DATE: 5/2018



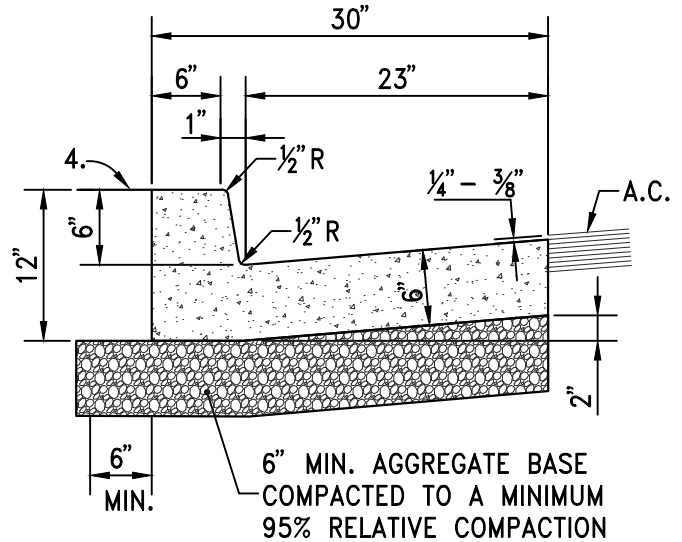
NOTES:

1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL
2. AGGREGATE BASE UNDER VALLEY GUTTER AND SPANDRELS SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE. ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
3. P.C.C VALLEY GUTTER DETAIL FOR RESIDENTIAL OR COMMERCIAL ZONES ONLY FOR OTHER APPLICATIONS AN ENGINEERED DESIGN IS REQUIRED.
4. VALLEY GUTTER SHALL HAVE WEAKENED PLANE JOINTS EVERY 10 FEET.
5. LOCAL AND COLLECTOR STREETS, "W"=6' MIN. ARTERIAL STREETS (DRIVEWAYS ONLY), "W"=10' MIN.
6. VALLEY GUTTER SECTIONS (SPANDRELS) ALONG CURB & GUTTER MAY BE A MONOLITHIC POUR AS SHOWN. DOWELS MATCHING REBAR SPACING SHOWN ARE REQUIRED FROM VALLEY GUTTER SECTION TO SPANDREL SECTION IF POURED SEPARATELY.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION		DRAWING No.
	P.C.C. VALLEY GUTTER	
	S-107	APPROVED BY: JE DATE: 5/2018




TYPE 1

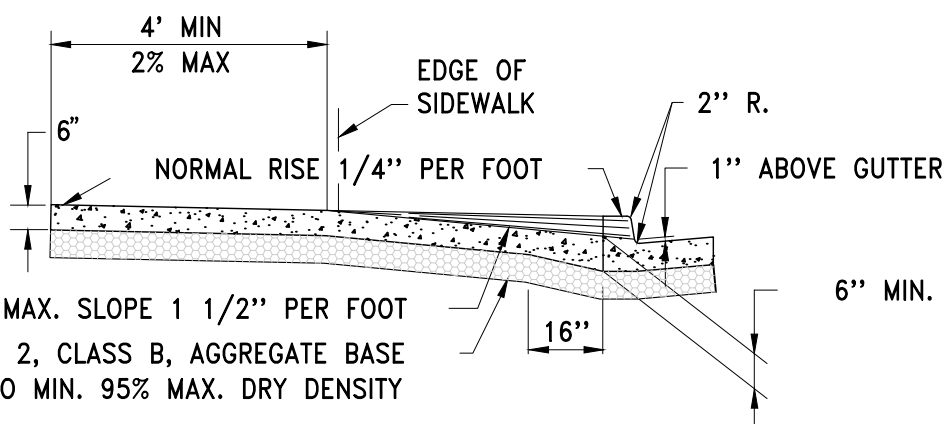
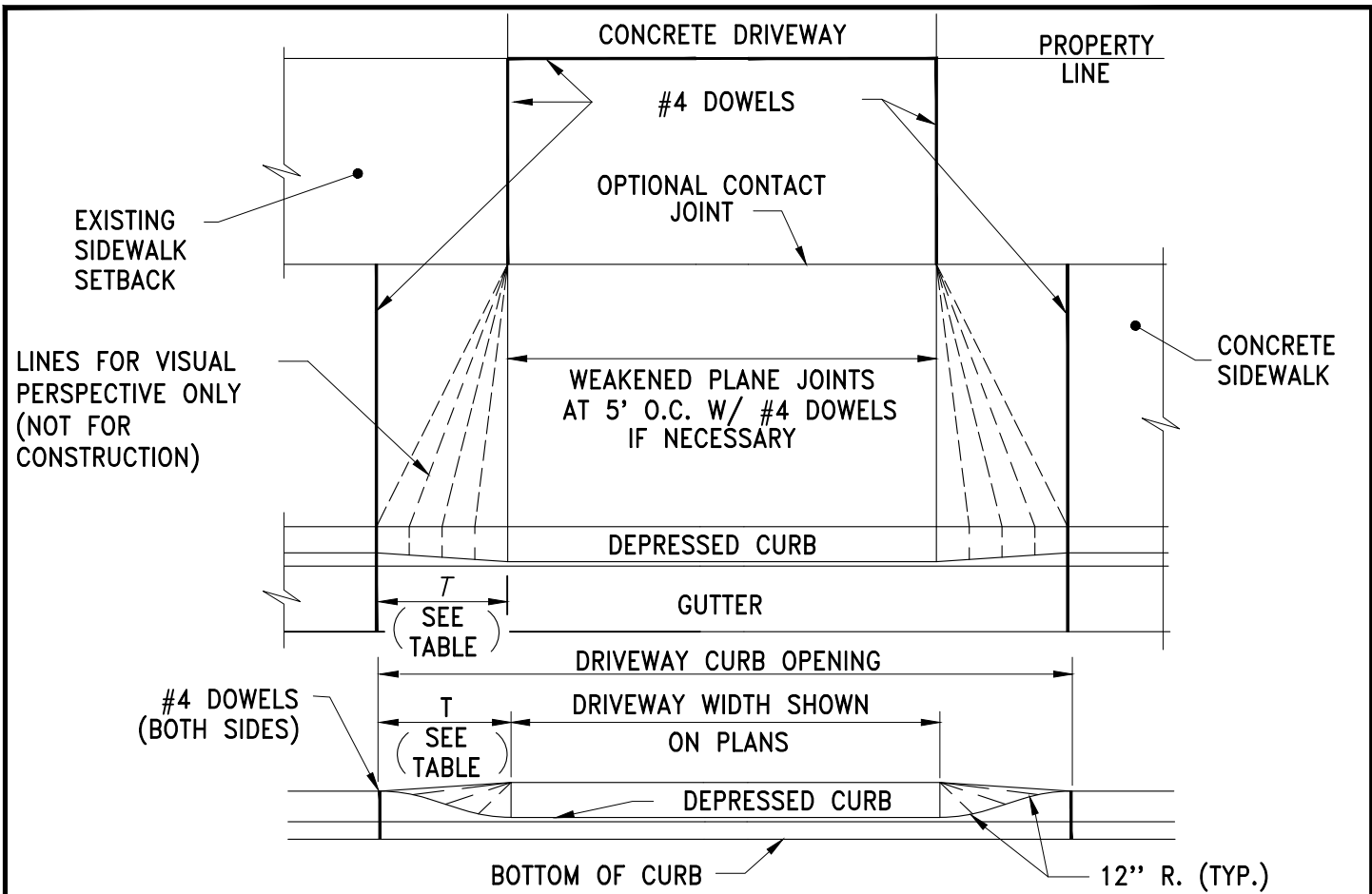


TYPE 1A

NOTES:

1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ± 1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
2. 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 COUNCIL.
3. 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.
4. 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.	
	<p>P.C.C.</p> <p>CURB & GUTTER</p>		<p>S-109</p>
			<p>APPROVED BY: JE DATE: 5/2018</p>



MAX. SLOPE 1 1/2" PER FOOT
 MIN. 6" TYPE 2, CLASS B, AGGREGATE BASE
 COMPACTED TO MIN. 95% MAX. DRY DENSITY

TAPER LENGTH T (FT.)	CURB HT.
4.25	≤ 5"
5.00	6"
5.75	7"
6.75	8"
7.50	≥ 9"

NOTES:

1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
2. 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 JOINT.
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. DETAIL S-114 SHALL NOT BE USED FOR NEW CONSTRUCTION UNLESS APPROVED BY THE CITY ENGINEER.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

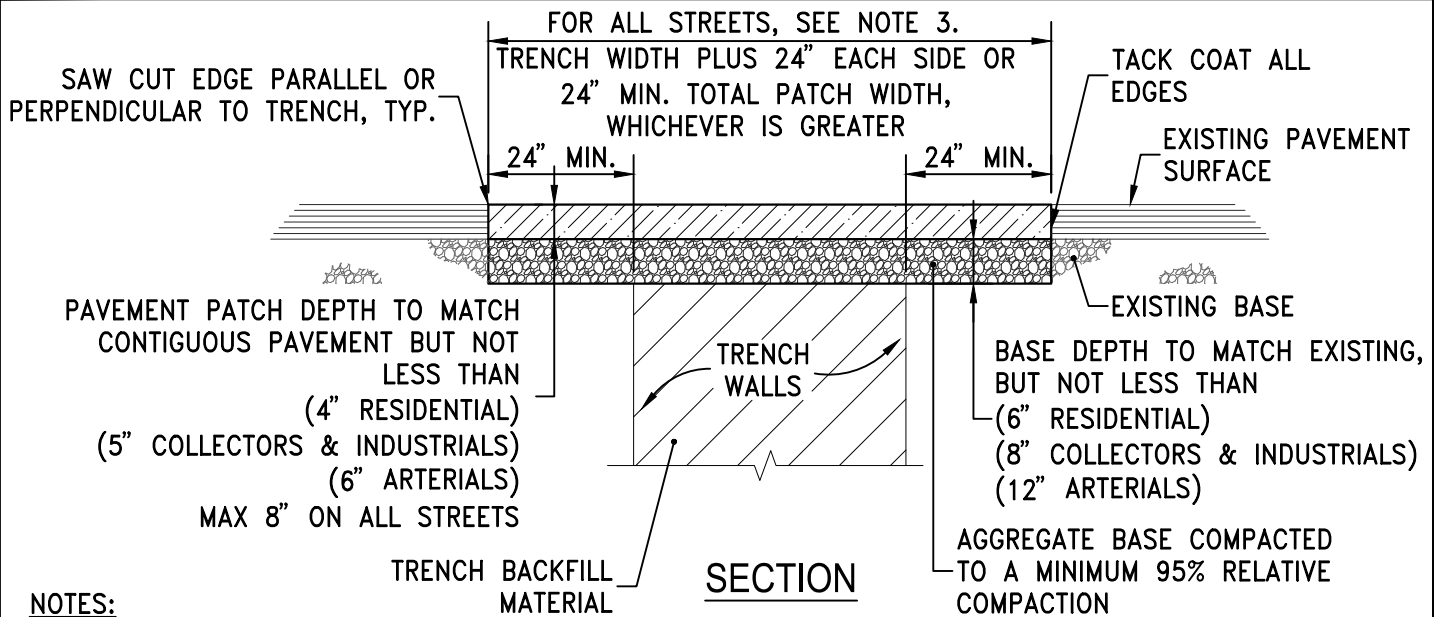
DRAWING No.



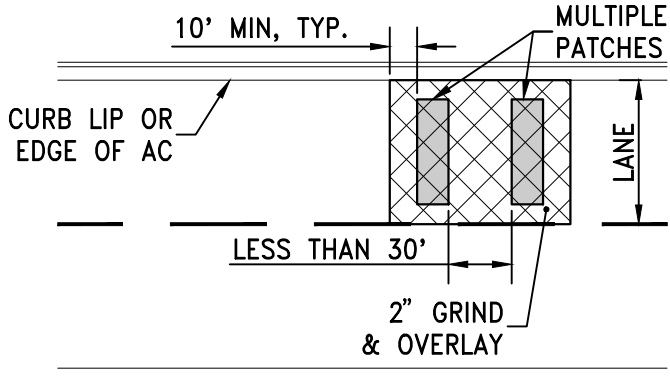
NOTES - P.C.C.
DRIVEWAY APRON

S-114B

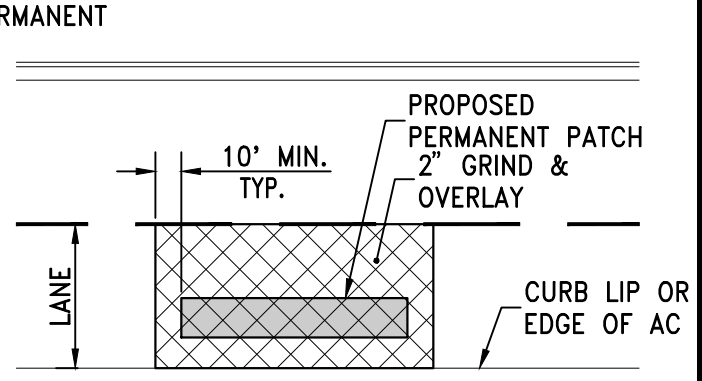
APPROVED BY: JE | DATE: 5/2018



- NOTES:**
1. AN EXCAVATION/ENCROACHMENT PERMIT MUST BE OBTAINED FROM CITY OF SPARKS PRIOR TO CUTTING ANY PUBLIC RIGHT-OF-WAY.
 2. IF SAW CUT IS WITHIN 2 FEET OF AN EXISTING PAVEMENT EDGE OR EXISTING PAVEMENT PATCH, REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE ENTIRE SECTION.
 3. ALL PERMANENT PATCH REPLACEMENT REQUIREMENTS ARE MINIMUM WIDTHS ONLY AND INCLUDES ALL AREAS WHERE THE ASPHALT PAVEMENT HAS BEEN UNDERMINED. THE CITY ENGINEER MAY REQUIRE WIDER PATCH SECTIONS OR OTHERWISE ALTER THESE REQUIREMENTS.
 4. AGGREGATE BASE MATERIAL UNDER BITUMINOUS PAVEMENT PATCH SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200, AS ADOPTED BY CITY COUNCIL.
 5. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACEMENT OF LOOP DETECTORS, ADJUSTMENT OF UTILITIES AND SURVEY MONUMENTS TO GRADE AND INSTALLATION OF PERMANENT PAVEMENT MARKINGS.
 6. FOR P.C.C. CURB REPLACEMENT, SAW CUT EXISTING PAVEMENT 18 INCHES MIN. FROM GUTTER LIP LINE, REMOVE AND REPLACE PAVEMENT TO SAW CUT EDGES. CONCRETE MAY BE POURED NEAT AGAINST EXISTING EDGE OF ASPHALT IF APPROVED BY CITY ENGINEER.



SEE NOTE 7. TRANSVERSE PATCHING

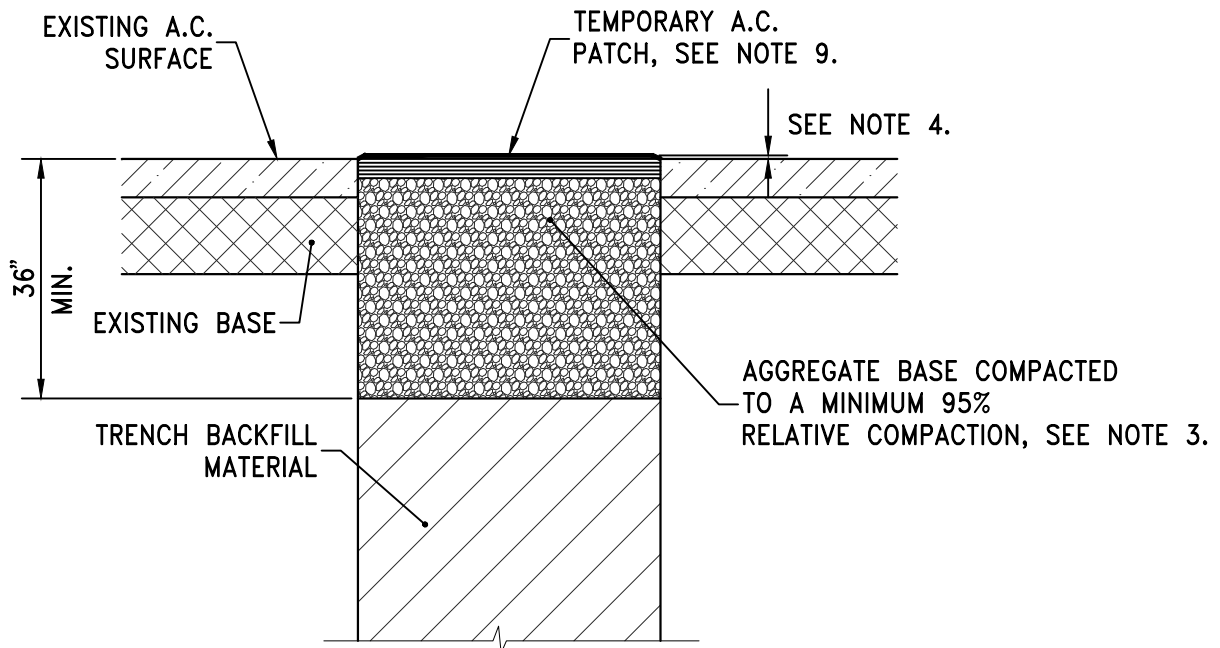


SEE NOTE 8. LONGITUDINAL PATCHING

ALL STREETS WITH PAVEMENT CONDITION INDEX (PCI) GREATER THAN 65:

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.
8. 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.
9. DRIVEWAY & INTERSECTION LIMITS TO BE DETERMINED BY STREET CUT COORDINATOR.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION		DRAWING No.	
	PERMANENT BITUMINOUS PAVEMENT PATCH		S-120
			APPROVED BY: JE



NOTES:

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

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

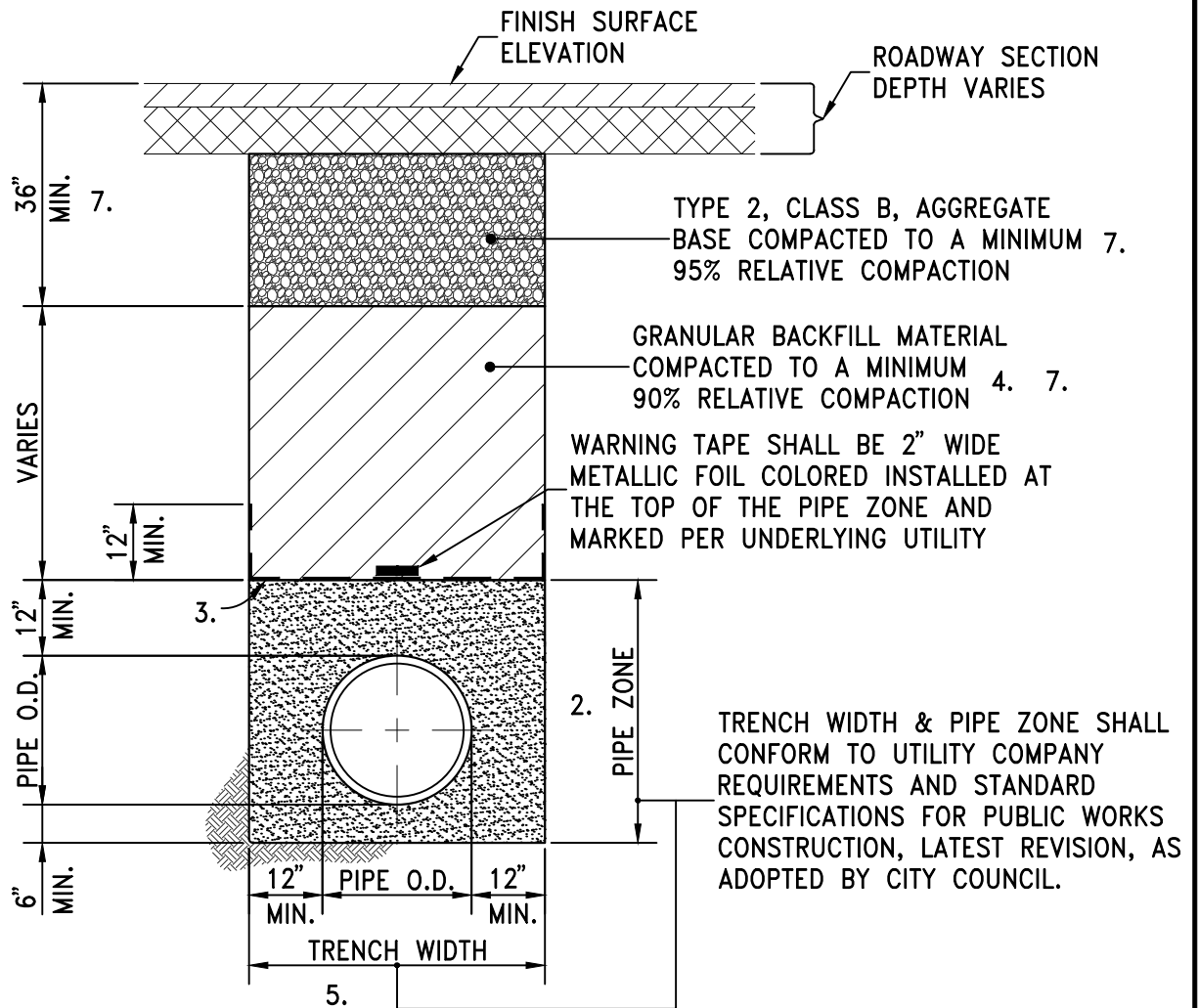
DRAWING No.



**TEMPORARY A.C.
TRENCH PATCH**


S-121

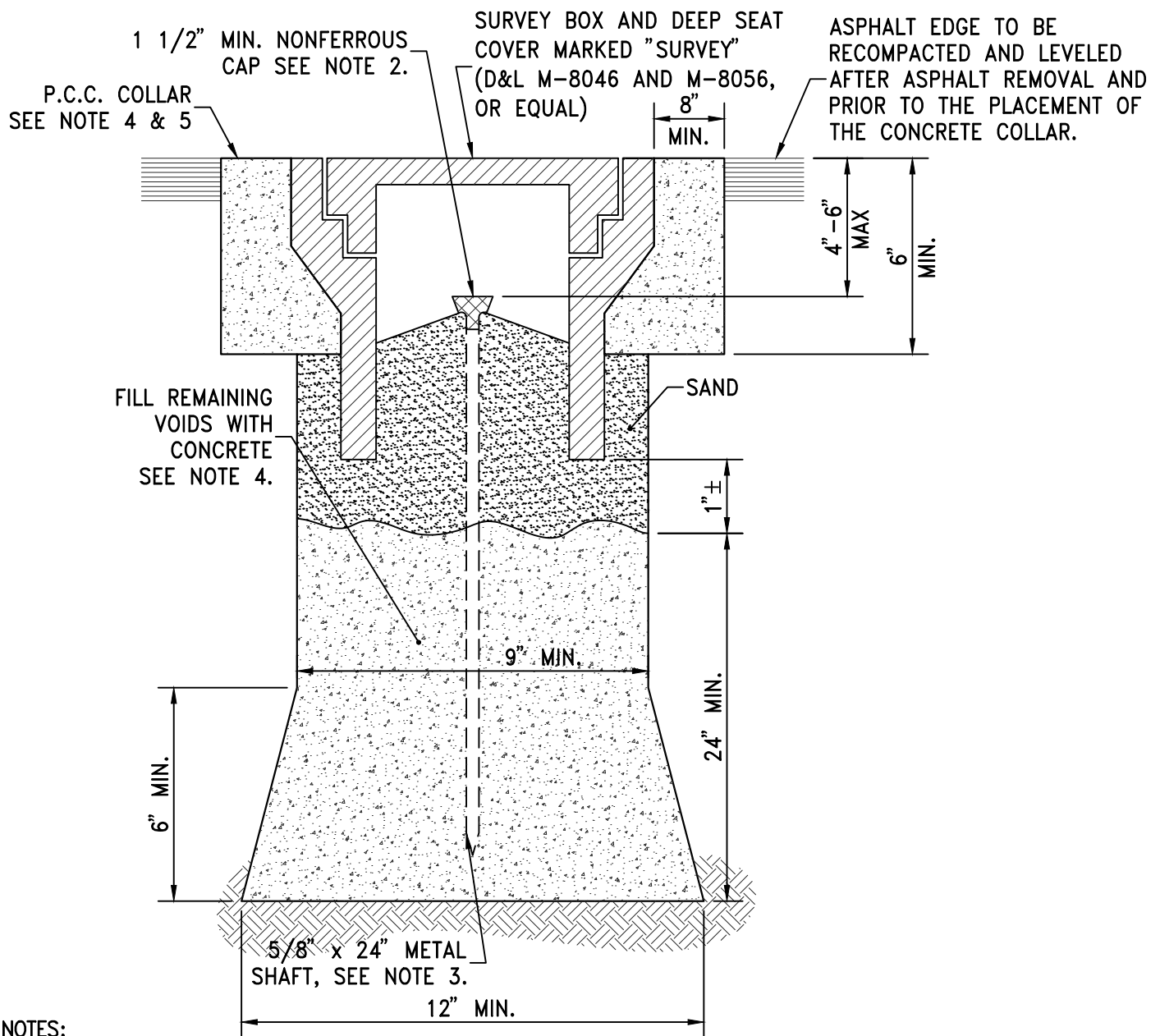
APPROVED BY: JE | DATE: 5/2018



NOTES:

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

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION		DRAWING No.	
	<h1>TRENCH EXCAVATION/BACKFILL</h1>	S-122	
		APPROVED BY: JE	DATE: 5/2018



NOTES:

1. FERROUS METAL OVER MONUMENT FOR RECOVERY BY DIP NEEDLE OR MAGNETIC INSERT IN CAP.
2. 1 1/2" MIN. NONFERROUS CAP WITH PROFESSIONAL LAND SURVEYOR NO. PERMANENTLY ATTACHED PRIOR TO PLACEMENT. PRE-PUNCHED CAPS SHALL NOT BE PERMITTED
3. 5/8" METALLIC SHAFT (SMOOTH SHAFTS TO BE DEFORMED).
4. 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.
5. 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

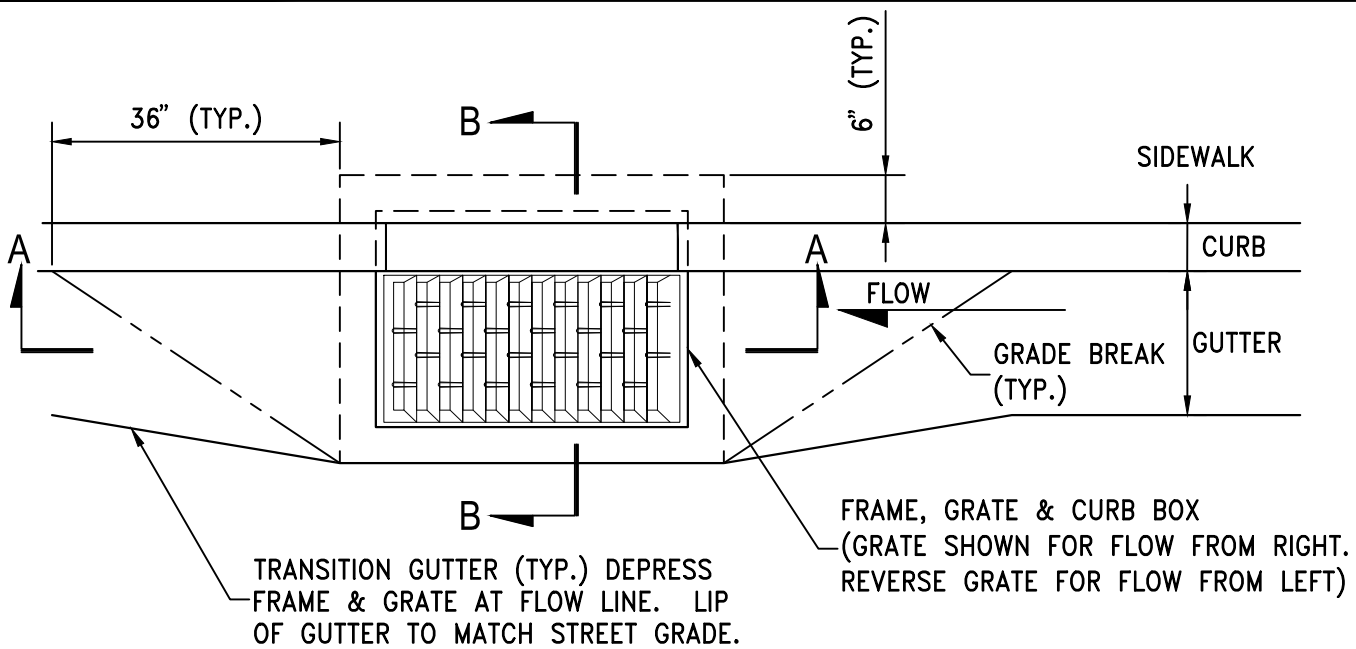
DRAWING No.



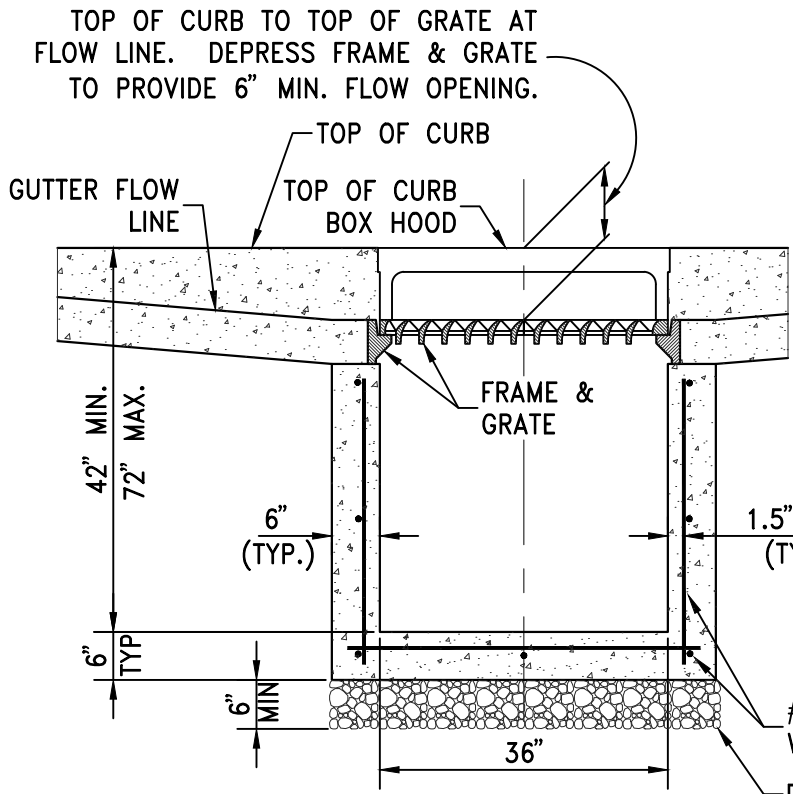
MONUMENTS

S-124

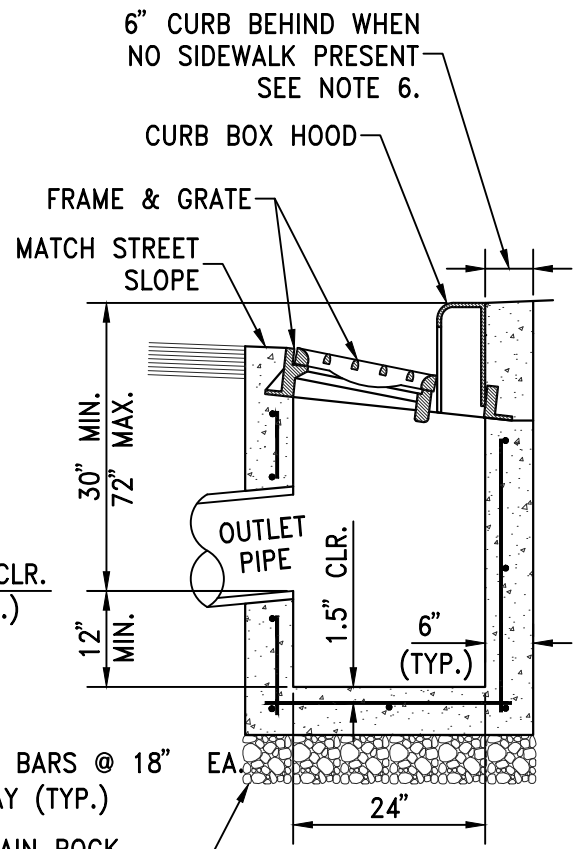
APPROVED BY: JE DATE: 5/2018



PLAN



SECTION A-A



SECTION B-B

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No.



**CATCH BASIN
TYPE 4-R**

S-206A

APPROVED BY: JE | DATE: 5/2018

NOTES:

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

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

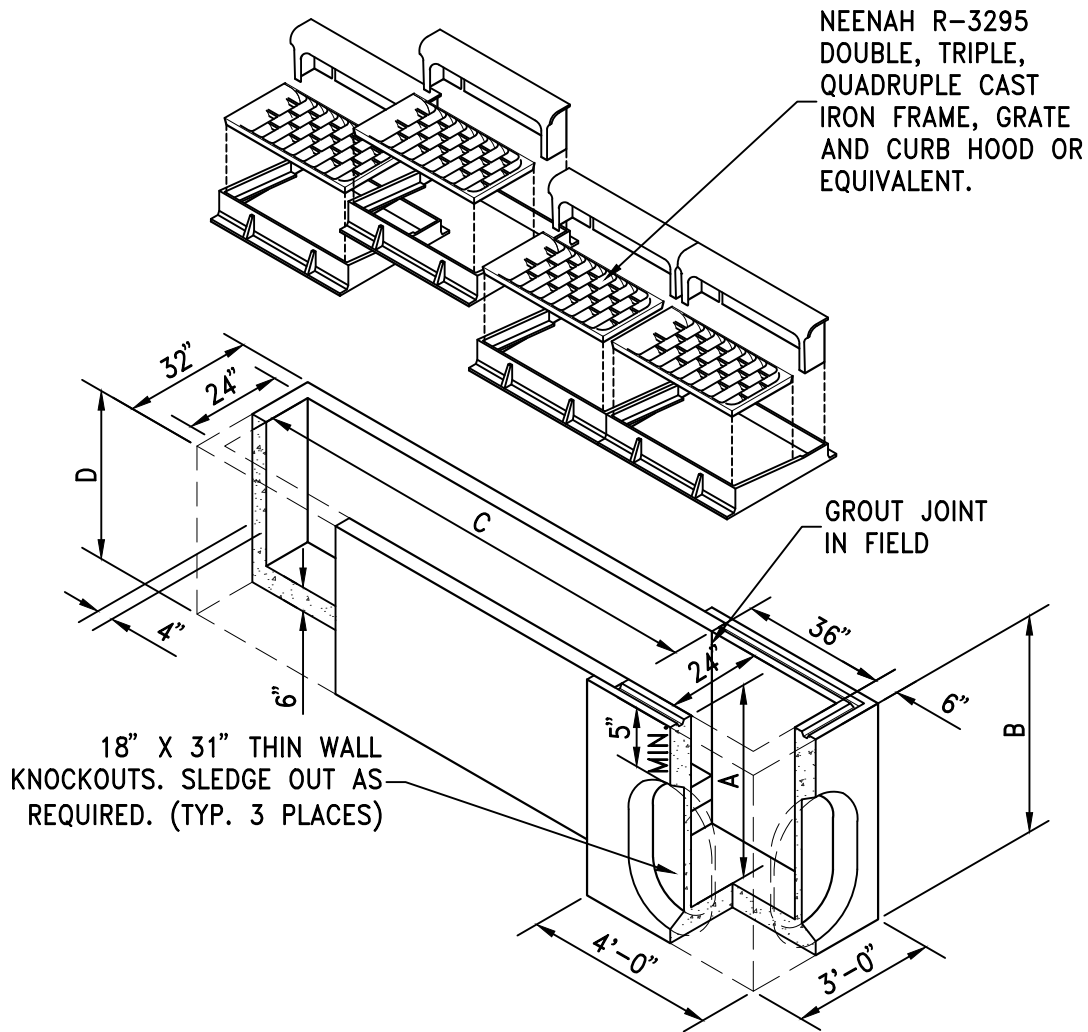
DRAWING No.



NOTES - CATCH
BASIN TYPE 4-R

S-206B

APPROVED BY: JE | DATE: 5/2018



NOTES:

1. A HIGH CAPACITY CURB INLET SHALL BE USED WHEN DESIGN FLOW RATES EXCEED THE CAPACITY OF A SINGLE CATCH BASIN.
2. FOR DIMENSIONS, NOTES, AND DETAILS NOT SHOWN, REFER TO THE APPLICABLE CATCH BASIN DETAIL DRAWINGS.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

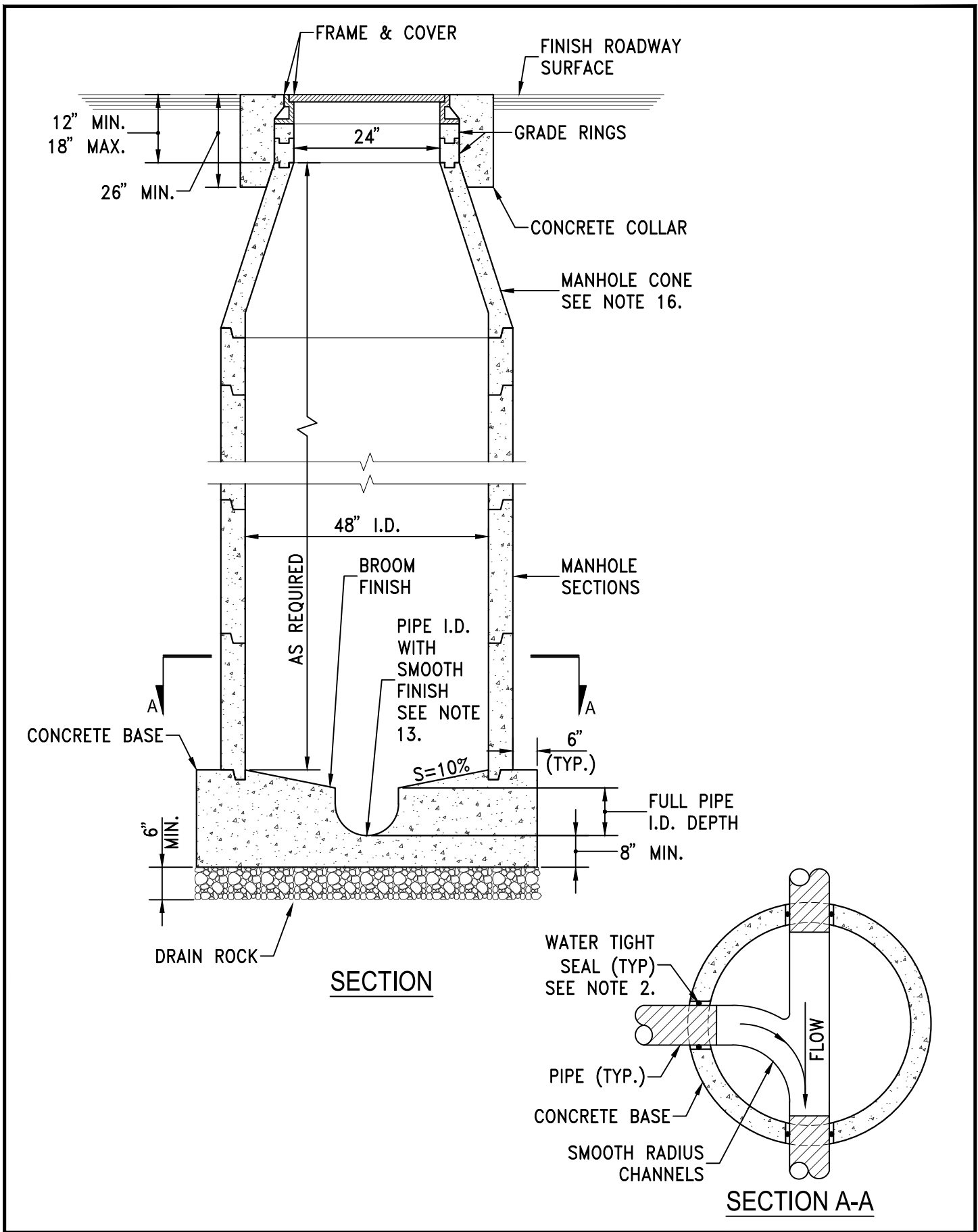
DRAWING No.



**HIGH CAPACITY
CURB INLET**

S-207

APPROVED BY: JE | DATE: 5/2018



STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No.



MANHOLE TYPE I

S-208A

APPROVED BY: JE

DATE: 5/2018

GENERAL MANHOLE NOTES

1. ALL PRECAST MANHOLE COMPONENTS SHALL CONFORM TO ASTM C-478.
2. PIPES SHALL NOT PROTRUDE MORE THAN 3" INSIDE MANHOLE SECTION AS MEASURED AT THE OUTSIDE EDGES OF THE PIPE, VERTICALLY ALIGNED WITH THE SPRINGLINE. PIPE CONNECTION TO MANHOLE SHALL BE WATERTIGHT PER STANDARD DETAILS S-223A, S-223B AND S-223C.
3. MANHOLE BASE SHALL BE PORTLAND CEMENT CONCRETE (P.C.C.) AND SHALL HAVE THE FOLLOWING CHARACTERISTICS: 3000 PSI MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS, MINIMUM 6 SACKS OF CEMENT PER CUBIC YARD WITH SLUMP AT 1 TO 4 INCHES. ALL MATERIAL SHALL CONFORM TO STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. PRECAST CONCRETE BASE MAY BE USED IN LIEU OF CAST-IN-PLACE BASE.
4. TYPE I MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 12" OR SMALLER AND DEPTHS NOT EXCEEDING 18 FEET.
5. TYPE V MANHOLE TO BE UTILIZED FOR PIPE DIAMETERS OF 15" THROUGH 27" OR DEPTHS EXCEEDING 18 FEET.
6. MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 204 "MANHOLES AND CATCH BASINS" OF THE STANDARD SPECIFICATIONS.
7. PRECAST MANHOLE SECTIONS, OTHER THAN GRADE RINGS, SHALL BE JOINED WITH FLEXIBLE GASKET MATERIAL SUCH AS "RAM-NEK" OR EQUAL AS PER MANUFACTURER'S RECOMMENDATIONS.
8. EXCAVATION AND BACKFILL SHALL BE AS SPECIFIED FOR "TRENCH EXCAVATION AND BACKFILL" IN SECTION 305 OF THE STANDARD SPECIFICATIONS.
9. EXCAVATION SHALL BE AS NEARLY VERTICAL AS POSSIBLE (SHEET AND SHORE IF SOIL CONDITIONS REQUIRE) IN EXISTING STREET SECTIONS, ALLEY SECTIONS, AND CONFINED AREAS, SUCH AS LIMITED EASEMENTS OR ADJACENT STRUCTURES.
10. MANHOLE PRECAST SECTION LENGTH SHALL BE ARRANGED TO FIT THE REQUIRED DEPTH.
11. NO LATERALS OR PIPES LESS THAN 8" IN DIAMETER SHALL BE CONNECTED TO THE MANHOLE.
12. PRECAST CONCRETE BASE MAY BE USED IN LIEU OF CAST-IN-PLACE BASE.
13. MATCH PIPE INVERTS TO MANHOLE INVERTS WHERE PIPES CONNECT TO MANHOLE BASE.
14. ALL MANHOLES SHALL BE WATERTIGHT.
15. SEE DETAIL FOR INSIDE DROP MANHOLE FOR SANITARY SEWERS WITH MORE THAN 2 FEET VERTICAL DROP AT THE MANHOLE. THE USE OF "OUTSIDE DROP" MANHOLES IS NOT PERMITTED.
16. THE USE OF FLAT TOP MANHOLE CONES REQUIRES PRIOR APPROVAL FROM THE CITY ENGINEER.
17. PRIOR TO BACKFILLING, ALL MANHOLES SHALL BE VACUUM TESTED PER ASTM C-1244.
18. NO STEPS, LADDERS, OR OTHER CLIMBING DEVICES SHALL BE INSTALLED IN THE MANHOLE.
19. REINFORCING STEEL SHALL BE AS SHOWN, WIRED TIGHTLY AT ALL INTERSECTIONS AND EMBEDDED AT LEAST 1½" 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-223A & S-223B.

21. TYPE IV MANHOLES SHOULD ONLY BE USED AS APPROVED BY CITY ENGINEER
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

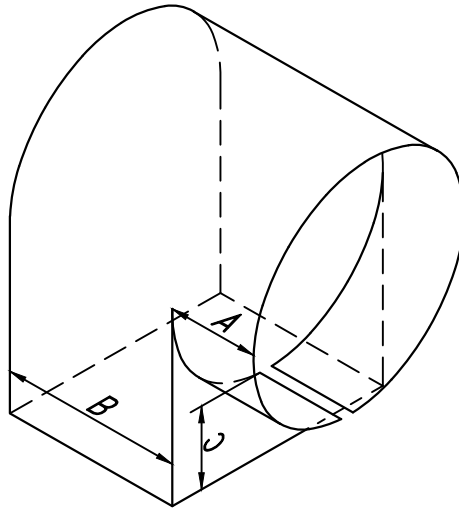
DRAWING No.



NOTES - MANHOLE
TYPE I, TYPE IV & TYPE V

S-208C

APPROVED BY: JE | DATE: 5/2018



DIMENSIONS			
SIZE	A	B	C
4"	3"	3"	3"
6"	4"	5"	4"
8"	4"	6.5"	4"
10"	4"	8"	4"
12"	5"	10"	4"
15"	6"	10.5"	6.5"

NOTES:

1. ALL CATCH BASINS, PUBLIC OR PRIVATE, SHALL BE PROVIDED WITH A "SUR-TRAP" OIL/WATER SEPARATOR OR APPROVED EQUAL.
2. INSTALL OIL/WATER SEPARATOR WITH THE BOTTOM EDGE PARALLEL TO THE WATER SURFACE AND THE RECTANGULAR OPENING FACING DOWNWARD AND THE CIRCULAR END PLACED INSIDE THE OUTLET PIPE.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No.

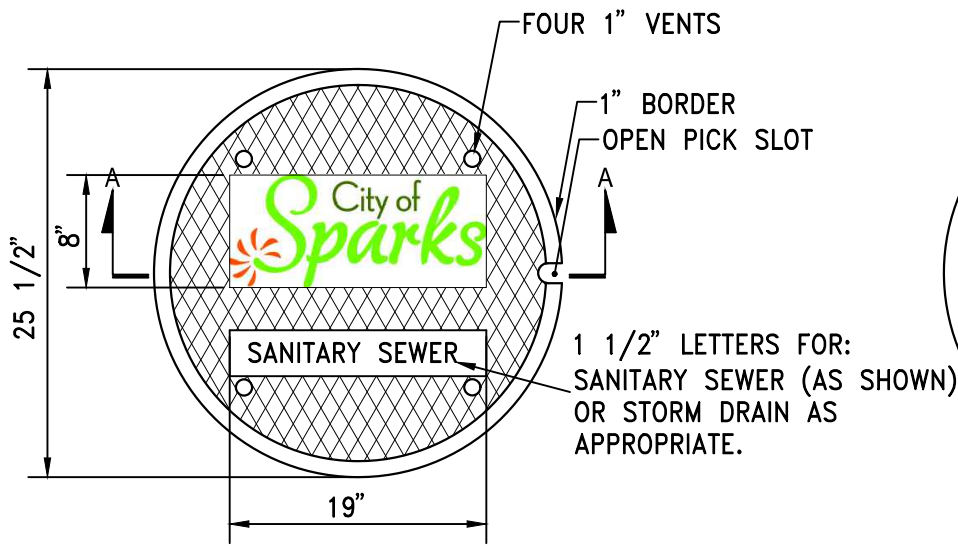


**CATCH BASIN OIL/
WATER SEPARATOR**

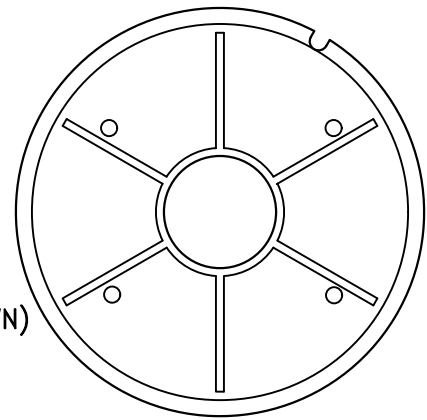
S-213

APPROVED BY: JE

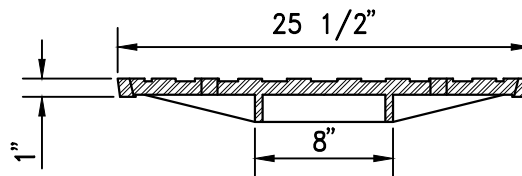
DATE: 5/2018



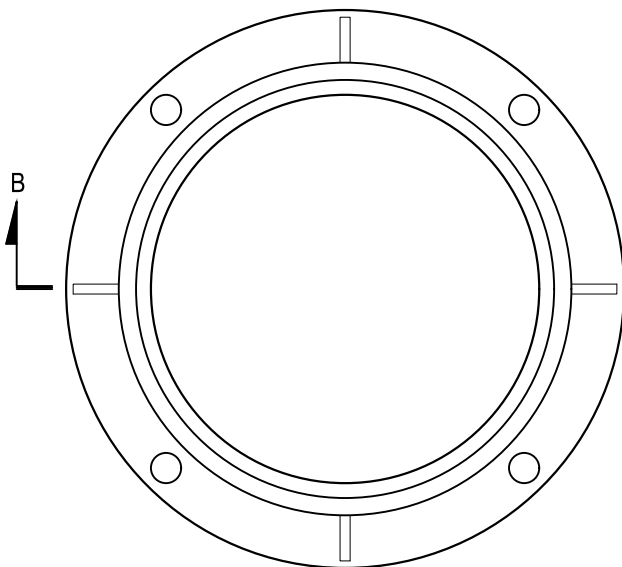
24" COVER PLAN - TOP



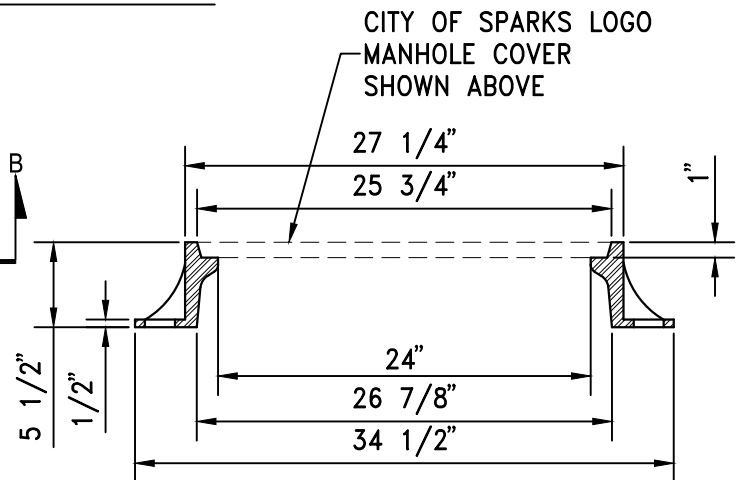
24" COVER PLAN - BOTTOM



SECTION A-A



24" MANHOLE FRAME



SECTION B-B

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".
2. FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
3. CASTINGS SHALL BE CAST GRAY IRON AND MEET THE REQUIREMENTS OF ASTM A-48, CLASS 35B, NO PAINT.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No.

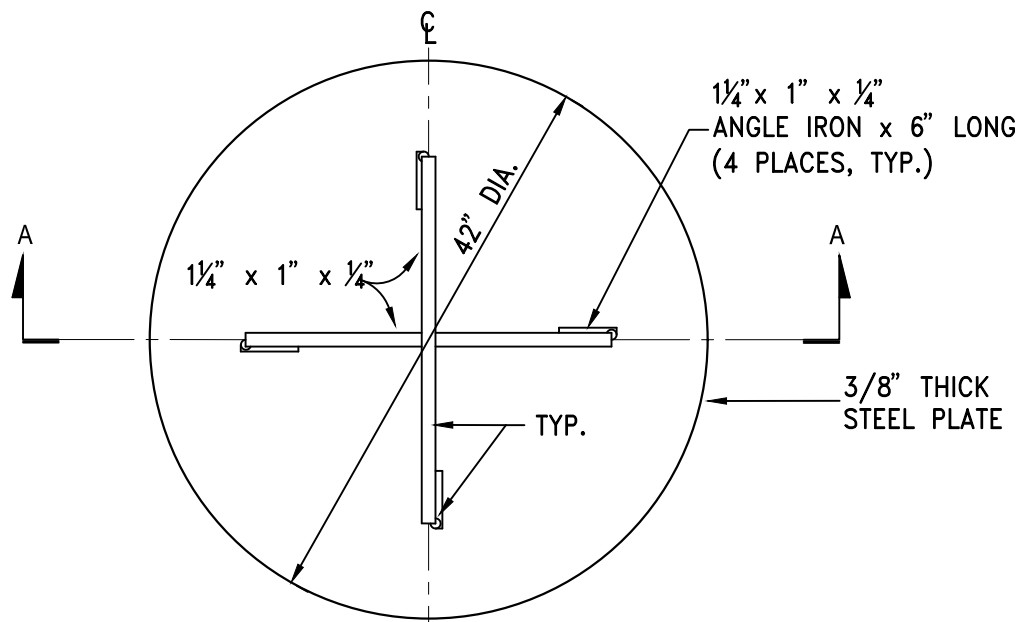


24" MANHOLE FRAME &
COVER

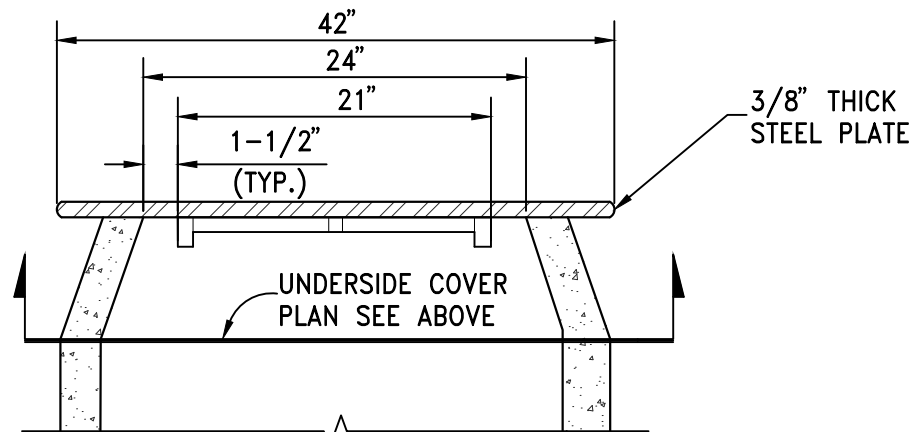
S-214A

APPROVED BY: JE

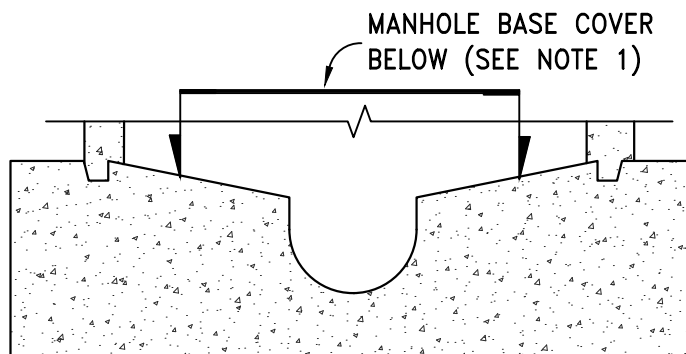
DATE: 5/2018



TEMPORARY COVER



SECTION A-A



NOTES:

1. 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 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.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

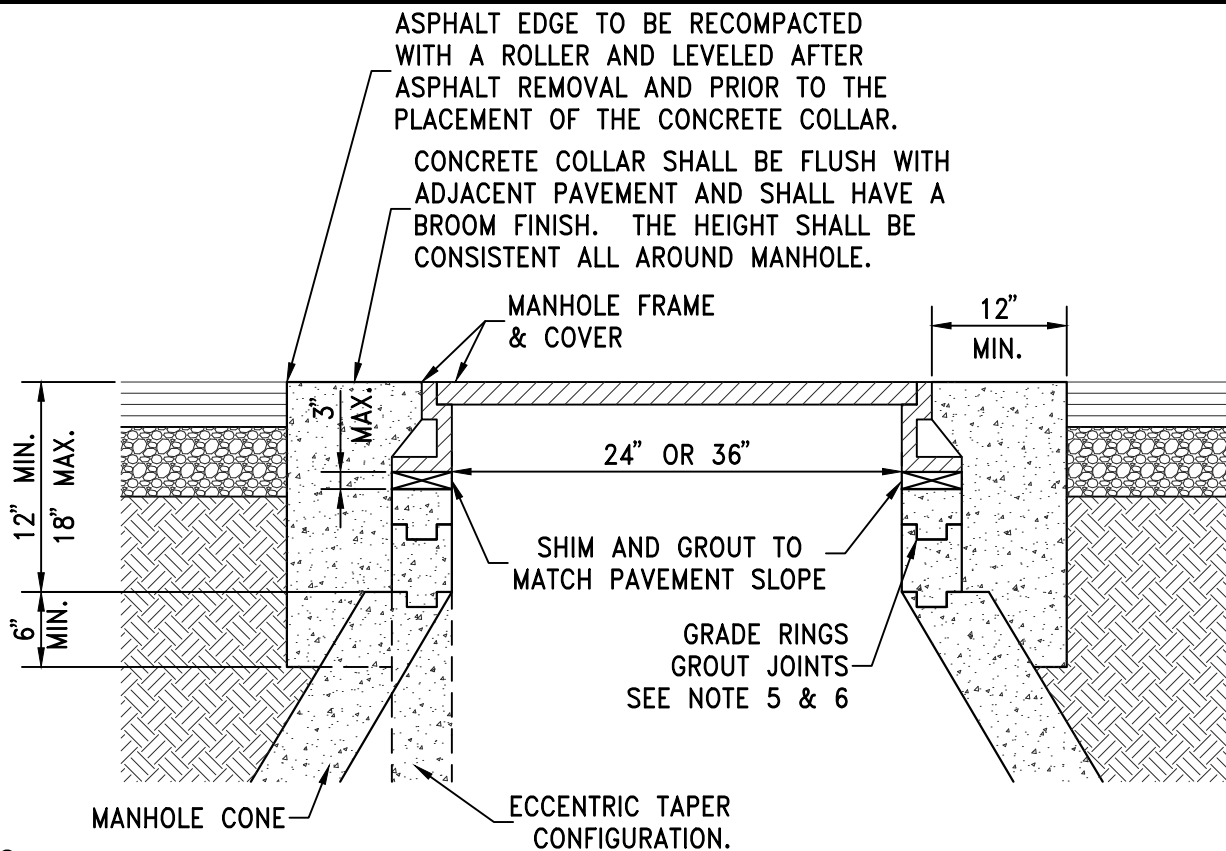
DRAWING No.



**TEMPORARY
MANHOLE COVER**


S-214C

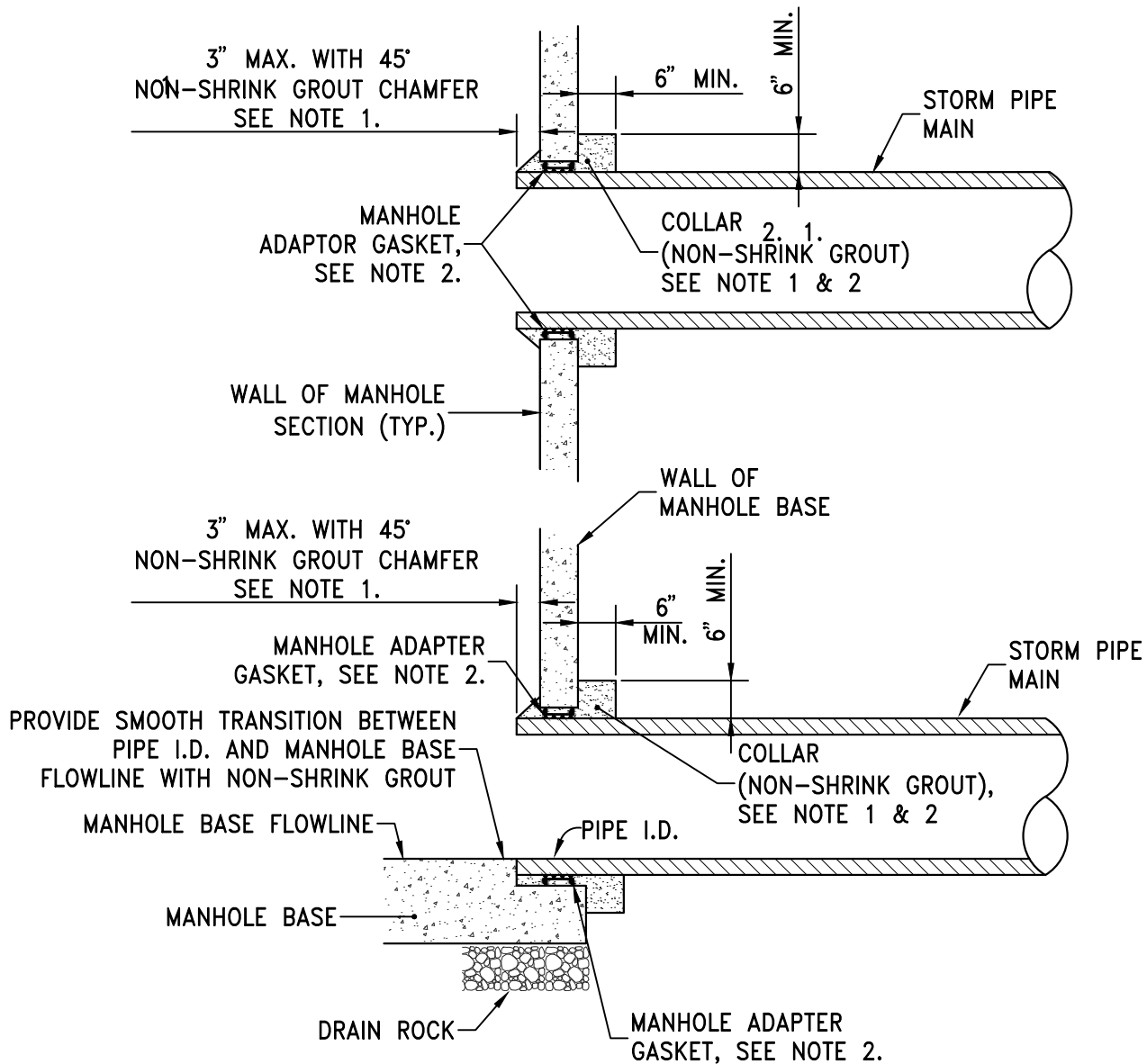
APPROVED BY: JE | DATE: 5/2018



NOTES:


1. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
2. CIRCUMSTANCES MAY REQUIRE THE NEED FOR SPECIAL TYPES OF TOP OF MANHOLE CONFIGURATIONS SUCH AS FLAT TOP, ABOVE GROUND, ETC. AS DIRECTED BY THE CITY OF SPARKS. DETAILED PLANS OF ANY SPECIAL TOP OF MANHOLE CONFIGURATIONS AND ASSOCIATED COLLARS MUST BE APPROVED BY THE ENGINEER.
3. IN UNPAVED AREAS, IT SHALL BE NECESSARY TO SET THE MANHOLE RIM APPROXIMATELY 6 INCHES ABOVE THE SURROUNDING AREA. INSTALL A 6 INCH THICK RING OF CONCRETE, TAPERED AT A 3:1 SLOPE, FROM THE TOP, OUTSIDE EDGE OF THE COLLAR TO THE EXISTING GROUND SURFACE.
4. EXISTING SANITARY SEWER MANHOLE LIDS LOCATED IN GUTTER PANS, SHALL HAVE NEW WATER TIGHT FRAMES AND COVERS.
5. ALL GRADE RING JOINTS ARE TO BE GROUTED WITH NON-SHRINK GROUT HAVING THE FOLLOWING CHARACTERISTICS: 3000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD AND SLUMP AT 1 TO 4 INCHES. ALL MATERIAL SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.
6. ALL GRADE RINGS SHALL BE PORTLAND CEMENT CONCRETE. PVC GRADE RINGS ARE NOT ALLOWED.
7. P.C.C. COLLARS IN ALL ROADWAYS SHALL BE PROTECTED FROM TRAFFIC LOADS UNTIL MINIMUM 3000 PSI IS

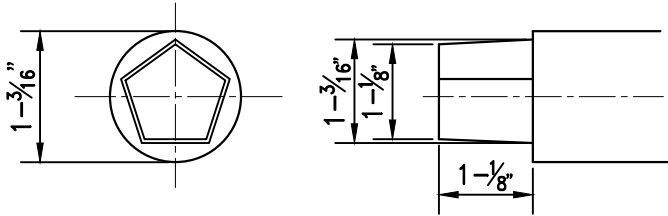
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION		DRAWING No.	
	<h1 style="text-align: center;">MANHOLE COLLAR</h1>		S-218A
			APPROVED BY: JE



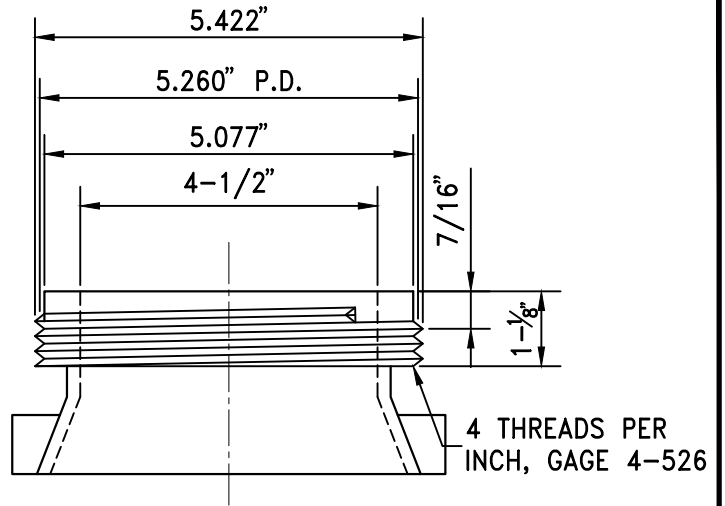
NOTE:

1. 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 SSPWC SECTION 202, AS ADOPTED BY CITY COUNCIL.
2. STORM DRAIN PIPE CONNECTIONS TO MANHOLE BASES AND SECTIONS REQUIRE AN AGENCY-APPROVED FORM OF SEAL OR WATER STOP AND IS REQUIRED ON ALL STORM DRAIN INSTALLATIONS TO PROVIDE A WATERTIGHT CONNECTION. UTILIZE A ROMAC STYLE "LCT" MANHOLE ADAPTER GASKET OR APPROVED EQUAL IN CONJUNCTION WITH THE NON-SHRINK GROUT.
3. A RESILIENT FLEXIBLE CONNECTOR INSTALLED IN ACCORDANCE WITH STANDARD DETAIL S-223C MAY BE USED TO SATISFY THE REQUIREMENTS OF NOTE 2 ABOVE.
4. 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.

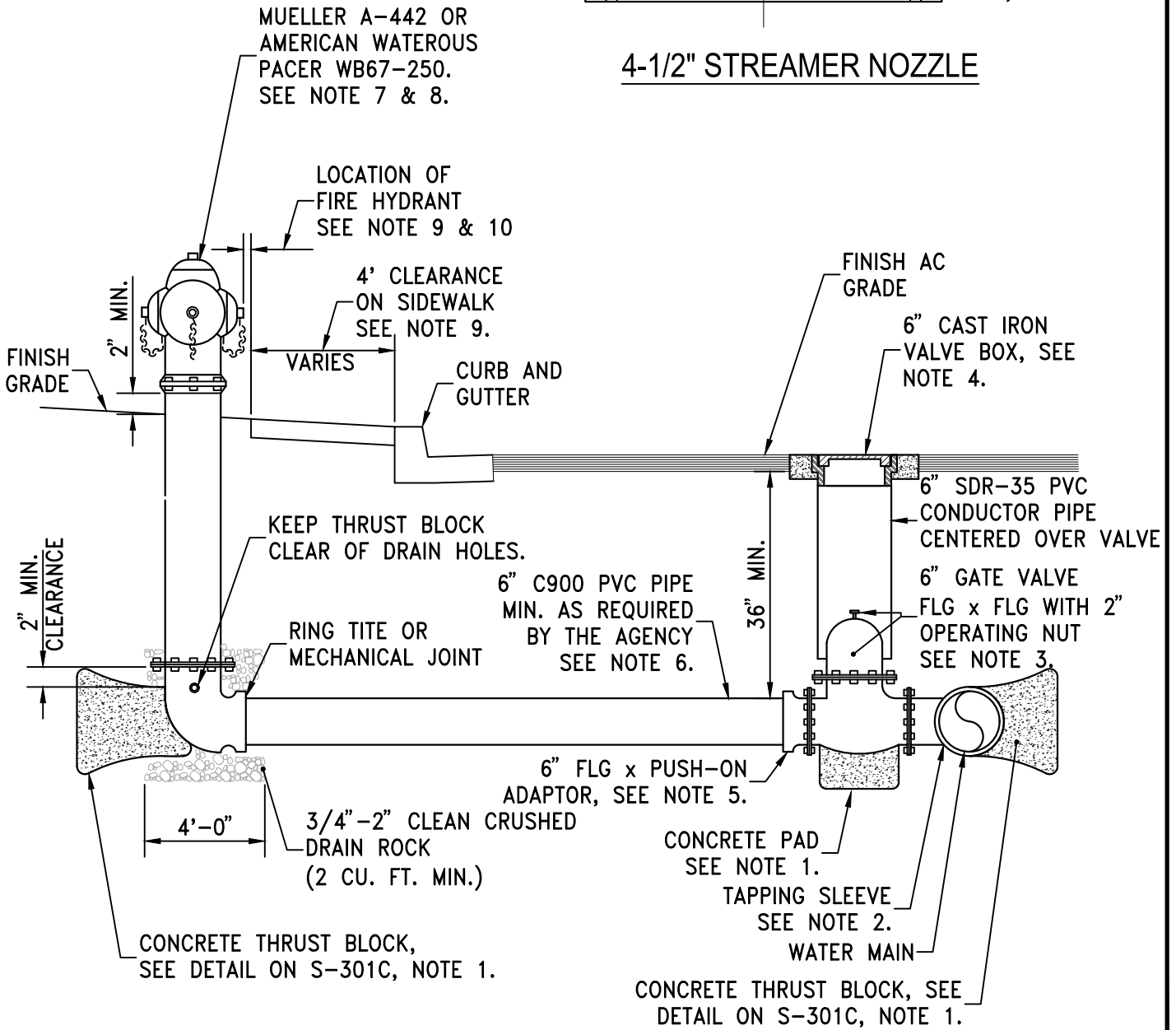
STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION		DRAWING No.	
	STORM DRAIN PIPE TO MANHOLE CONNECTION		S-223B
			APPROVED BY: JE



OPERATING NUT - PENTAGON



4-1/2" STREAMER NOZZLE



ELEVATION

OPERATING VALVE

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No.



FIRE HYDRANT

S-301A

APPROVED BY: JE DATE: 5/2018

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 FOR PUBLIC WORKS CONSTRUCTION (SSPWC), AS ADOPTED BY CITY COUNCIL. CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSE AGGREGATE GRADATION CONFORMING TO SIZE No. 67. POLYPROPYLENE OR CELLULOSE FIBERS SHALL BE ADDED TO THE P.C.C. AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO SSPWC, AS ADOPTED BY CITY COUNCIL.

2. TAPPING SLEEVE
HOT-TAP TAPPING SLEEVES SHALL BE FULL-CIRCLE ASTM A 240, TYPE 304 STAINLESS STEEL WITH FULL CIRCUMFERENCE GASKETS THROUGHOUT SLEEVE LENGTH WITH AWWA C207 CLASS D ANSI 150 LB. DRILLING ASTM A 240, TYPE 304 STAINLESS STEEL FLANGE. TYPE 304 STAINLESS STEEL STUD BOLTS, HEAVY HEX NUTS, AND WASHERS SHALL BE INCLUDED. HEAVY HEX NUTS AND STUD BOLTS SHALL BE COATED TO PREVENT GALLING. TYPE 304 STAINLESS STEEL TEST PLUG SHALL BE INCLUDED WITH THREADS COATED TO PREVENT GALLING. TAPPING SLEEVE SHALL BE RATED FOR A TEST PRESSURE OF 300 PSI AND WORKING PRESSURE OF 200 PSI. TAPPING SLEEVE SHALL BE ROMAC STYLE "SST" STAINLESS STEEL TAPPING SLEEVE AS MANUFACTURED BY ROMAC INDUSTRIES, INC.; SMITH-BLAIR 663 STAINLESS STEEL FLANGE TAPPING SLEEVE AS MANUFACTURED BY SMITH-BLAIR, INC.; OR EQUAL.

ALL WATER MAIN SHUT DOWNS AND/OR INSTALLATION OF TAPPING SLEEVES SHALL BE COORDINATED WITH TRUCKEE MEADOWS WATER AUTHORITY (TMWA) AND CONFORM TO TMWA REQUIREMENTS.

3. GATE VALVE
GATE VALVE SHALL BE 6-INCH, FLG X FLG AND SHALL MEET AWWA C515, DUCTILE IRON BODY, NON-RISING STEM, RESILIENT-SEATED VALVE. GATE VALVE SHALL BE EQUIPPED WITH A 2-INCH OPERATING NUT FOR BURIED SERVICE. GATE VALVE SHALL BE FUSION EPOXY LINED AND COATED. ALL VALVES FOR BURIED SERVICE SHALL BE POLYETHYLENE ENCASED PER AWWA C105. GATE VALVE SHALL BE A MUELLER A-2361 RESILIENT WEDGE GATE VALVE; AMERICAN AVK COMPANY SERIES 65 AWWA C515 DUCTILE IRON GATE VALVE; OR EQUAL. LANDER CO. - BUTTERFLY VALVE SHALL BE USED IN LIEU OF GATE VALVE IN STREET.

4. 6" VALVE BOX SHALL BE D&L #8044 & #8056 OR APPROVED EQUAL. CASTINGS SHALL BE CAST IRON GRAY AND MEET THE REQUIREMENTS OF ASTM A48-74, CLASS 30B, NO PAINT.

5. 6-INCH FLG X PUSH-ON ADAPTER
6-INCH FLG X PUSH-ON ADAPTER SHALL BE DUCTILE IRON AND MEET THE REQUIREMENTS OF AWWA STANDARDS C110/C153 AND C104. ALL FITTINGS SHALL BE POLYETHYLENE ENCASED PER AWWA C105. ADAPTER SHALL BE ASPHALTIC COATED WITH CEMENT-MORTAR LINING PER AWWA C110/C153 AND C104.

6. 6-INCH C900 PVC LATERAL PIPE
C900 PVC WATER PIPE SHALL BE MANUFACTURED FROM NSF APPROVED COMPOUNDS CONFORMING TO ASTM D1784 WITH A CELL CLASSIFICATION OF 12454. C900 PVC WATER PIPE SHALL MEET ALL THE DIMENSIONAL, CHEMICAL, AND PHYSICAL REQUIREMENTS AS OUTLINED IN AWWA C900 AND WILL BE SUPPLIED IN 20 FOOT LAYING LENGTHS. JOINTS SHALL MEET THE REQUIREMENTS OF ASTM D3139 AND SHALL BE FORMED USING RIEBER TECHNOLOGY. GASKETS SHALL MEET THE REQUIREMENTS OF ASTM F477. C900 PVC WATER PIPE SHALL BE PRESSURE CLASS 235 (DR 18) PER AWWA C900. C900 PVC WATER PIPE SHALL BE AS MANUFACTURED BY DIAMOND PLASTICS CORPORATION; VINYLTECH PVC PIPE; NORTH AMERICAN PIPE CORPORATION; OR EQUAL.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

DRAWING No.



**NOTES -
FIRE HYDRANT**

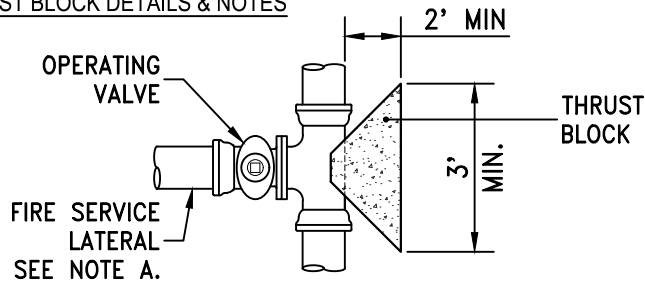
S-301B

APPROVED BY: JE | DATE: 5/2018

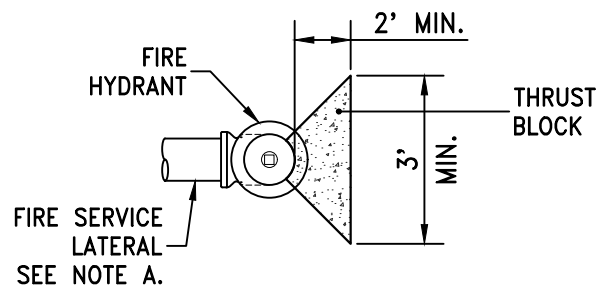
NOTES CONT:

7. MUELLER A-442 WITH 5-1/4" VALVE OPENING, AMERICAN WATEROUS PACER WB67-250 WITH 5-1/4" VALVE OPENING OR SPARKS FIRE DEPARTMENT APPROVED EQUAL. RISER SHALL BE 4 FT OR 5 FT AND RISER TYPE SHALL BE SAME AS THE FIRE HYDRANT MANUFACTURER. PRIVATE HYDRANTS SHALL BY ULTRA-RED SEMI-GLOSS OR EQUIVALENT, PUBLIC HYDRANTS SHALL BE SHERWIN WILLIAMS SAFETY YELLOW OR EQUIVALENT AND MUST BE FACTORY PAINTED TO BE ACCEPTED. ALL HYDRANTS SHALL HAVE TWO 2-1/2" HOSE NOZZLES AND ONE 4-1/2" STREAMER NOZZLE.
8. FIRE HYDRANTS SHALL BE INSPECTED BY CITY OF SPARKS FIRE DEPARTMENT INSPECTOR. INSPECTIONS SHALL BE SCHEDULED A MINIMUM OF TWO BUSINESS DAYS PRIOR AND INSPECTIONS SHALL BE PERFORMED DURING REGULAR BUSINESS HOURS. CONTACT CITY OF SPARKS FIRE PREVENTION BUREAU AT (775) 353-2266 TO SCHEDULE INSPECTIONS.
9. FIRE HYDRANTS SHALL BE PLACED WITHIN THE RIGHT-OF-WAY OR EASEMENT GRANTED OUTSIDE THE RIGHT-OF-WAY. FIRE HYDRANT PLACED WITHIN PEDESTRIAN WALKWAY AND/OR SIDEWALKS SHALL PROVIDE FOR A MINIMUM OF 4 FT CLEARANCE IN ACCORDANCE WITH PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG).
10. SPARKS FIRE DEPARTMENT APPROVAL IS REQUIRED FOR HYDRANT LOCATION WHERE NO SIDEWALK EXISTS BEHIND CURB OR WHERE A LANDSCAPE STRIP IS BETWEEN THE CURB AND THE SIDEWALK.
11. NO FENCES, LANDSCAPE FEATURES, OR OTHER OBSTRUCTIONS SHALL BE ALLOWED WITHIN 3-FEET OF ANY PORTION OF A FIRE HYDRANT. CLEARANCE IS MEASURED FROM ALL OBSTRUCTIONS TO THE NEAREST POINT ON THE FIRE HYDRANT.

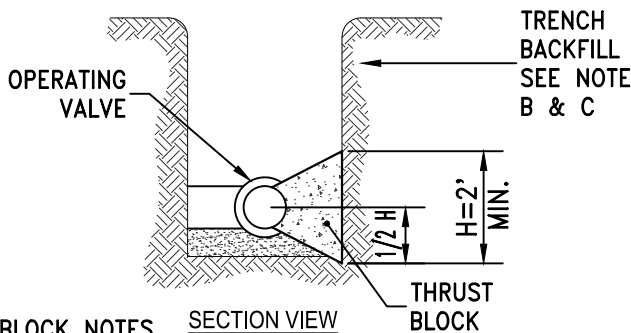
THRUST BLOCK DETAILS & NOTES



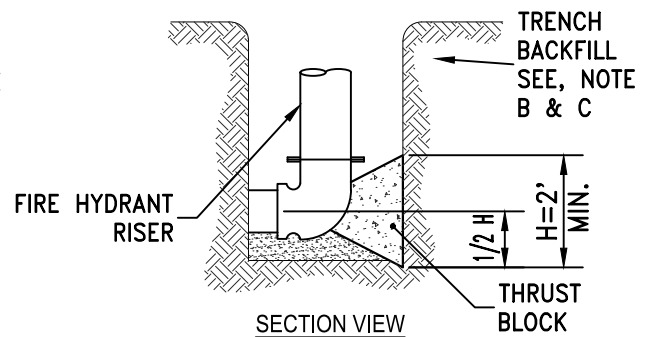
THRUST BLOCK AT OPERATING VALVE - PLAN VIEW



THRUST BLOCK AT FIRE HYDRANT - PLAN VIEW



THRUST BLOCK NOTES SECTION VIEW



SECTION VIEW

- A. THRUST BLOCK SIZE ASSUMES MAXIMUM 6" DIAMETER FIRE HYDRANT SERVICE. THRUST BLOCKS FOR LARGER SERVICES REQUIRE APPROVAL OF CITY ENGINEER.
- B. FOR SITE SPECIFIC CONDITIONS OF SOIL BEARING CAPACITY LESS THAN 2,000 PSF AND/OR DESIGN PRESSURE GREATER THAN 150 PSI WILL REQUIRE REVISED THRUST BLOCK SIZE TO BE SUBMITTED TO THE CITY ENGINEER FOR APPROVAL.
- C. THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL. IN CASES WHERE THIS IS NOT PRACTICAL, BACKFILL AREA BEHIND WHERE THRUST BLOCK WILL BE PLACED WITH AGGREGATE BASE COMPACTED TO 95% RELATIVE COMPACTION, CUT-BACK COMPACTED AGGREGATE BASE TO EXPOSE A FIRM SURFACE, THEN PLACE THRUST BLOCK.

STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION

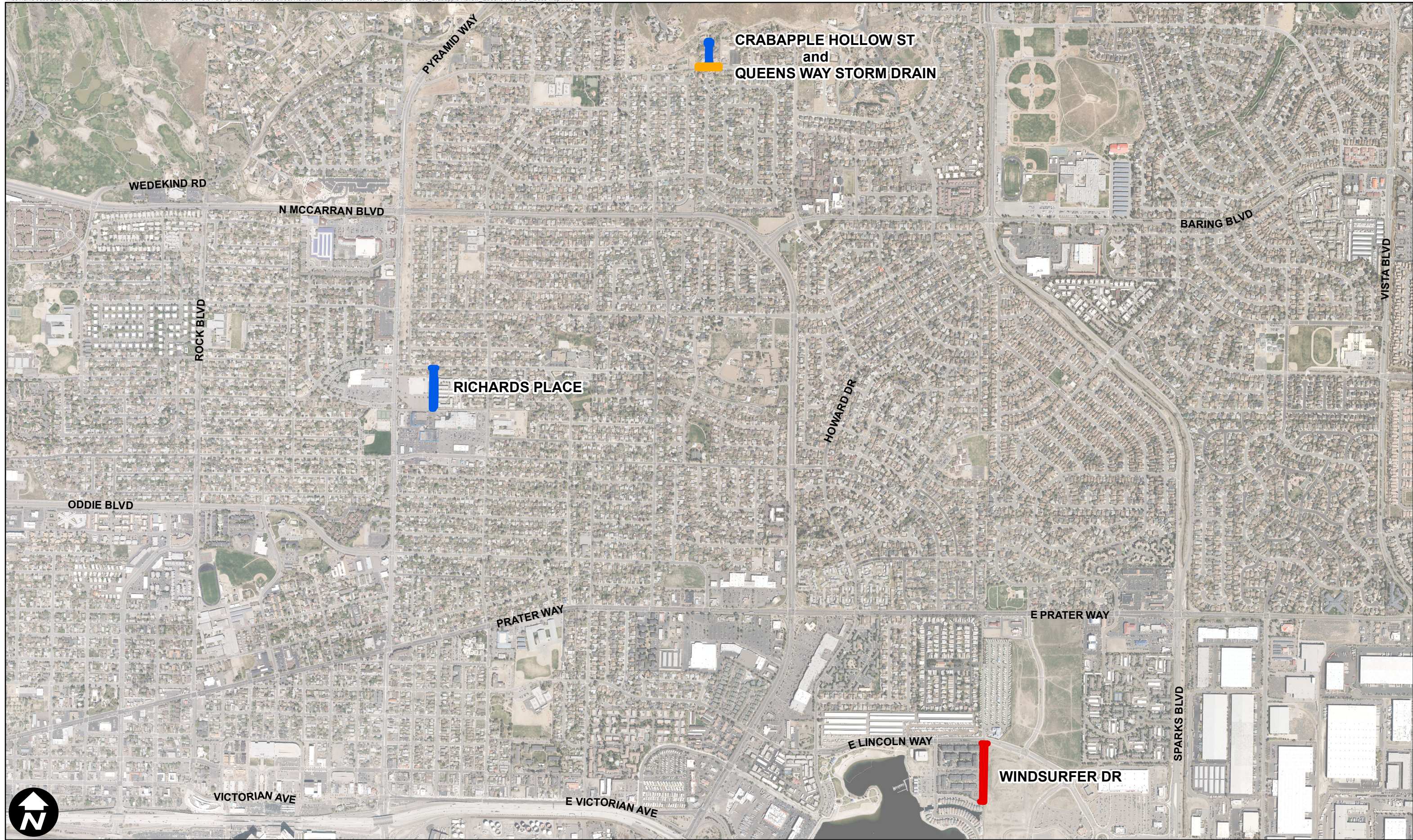
DRAWING No.



**NOTES -
FIRE HYDRANT**

S-301C

APPROVED BY: JE | DATE: 5/2018

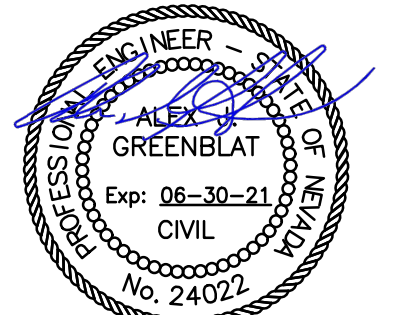


**CRABAPPLE HOLLOW ST
and
QUEENS WAY STORM DRAIN**

RICHARDS PLACE

WINDSURFER DR





11/4/2019

CITY OF SPARKS
**2020 STREET REHABILITATION
COMBINED UNIT 3
QUEEN WAY DRAINAGE IMPROVEMENTS**
SPARKS NEVADA
WASHOE

REV	DATE	DESCRIPTION

BID SET
11/4/2019

BAR IS 1/8" ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

C1.0
DRAWN BY: NM
DESIGNED BY: AJG/NM
CHECKED BY: AJG
JOB NO.: 9690.000

LEGEND

	EXISTING		PROPOSED
	EDGE OF PAVEMENT		AC PAVING
	CURB & GUTTER		CONCRETE
	TREE		ROCK
	RETAINING WALL		LANDSCAPE WALL
	FENCE		SURVEY MONUMENT
	CONTROL POINT SIGN		CONTOUR LINE
	GRADE TAG W/ DESCRIPTION		GRADE BREAK
	FLOW LINE		WATER MAIN
	WATER VALVE		IRRIGATION CONTROL VALVE
	WATER METER		FIRE HYDRANT
	WATER VAULT		GAS MAIN
	GAS VALVE		GAS METER
	STORM DRAIN MAIN		STORM DRAIN MANHOLE
	CATCH BASIN		SEWER MANHOLE
	SEWER MAIN		ELECTRICAL CONDUIT
	UTILITY POLE		LIGHT
	GUY WIRE		ELECTRIC TRANSFORMER
	ELECTRIC BOX		TELEPHONE BOX
	DETAIL CALLOUT		

GENERAL NOTES

- THE CONTRACTOR SHALL MAINTAIN A DUST CONTROL PROGRAM THAT INCLUDES WATERING OF OPEN AREAS. THE CONTRACTOR SHALL ALSO MAINTAIN CONFORMITY WITH 040.030 OF THE WASHOE COUNTY AIR POLLUTION REGULATIONS.
- THE CONTRACTOR SHALL VERIFY IN FIELD, ALL ELEVATIONS, DIMENSIONS, FLOW LINES, EXISTING CONDITIONS, AND POINTS OF CONNECTIONS WITH ADJOINING PROPERTY. ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL MAINTAIN AN ONGOING PROCESS OF REMOVAL OF ALL SPILLAGE OF EXCAVATION MATERIAL ON ALL PAVED STREETS.
- THE INSPECTION AND TESTING OF SOILS SHALL BE TO CITY OF SPARKS SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION PERMITS AND FEES, INCLUDING E&E, QA, NOI PERMITS, ETC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONSTRUCTION, WHETHER OR NOT SAID UTILITIES ARE SHOWN ON PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES IN PLACE UNLESS SHOWN ON THESE PLANS AS BEING REPLACED OR ABANDONED.

SURFACE IMPROVEMENT KEY NOTES

- MATCH EXISTING GRADE AT SAWCUT LINE, TYPICAL
- CONSTRUCT PCC ADA PEDESTRIAN RAMP
- CONSTRUCT PCC ADA PEDESTRIAN RAMP. UTILIZE EXISTING KEYSTONE BLOCKS FOR POST CURB.
- CONSTRUCT 664 SF (TOTAL THIS SHEET) PCC VALLEY GUTTER AND SPANDREL
- CONSTRUCT 190 SF (TOTAL THIS SHEET) PCC SIDEWALK
- CONSTRUCT 22 LF (TOTAL THIS SHEET) PCC TYPE 1 CURB AND GUTTER
- CONSTRUCT 523 SF (TOTAL THIS SHEET) AC PERMANENT PATCH
- CRABAPPLE HOLLOW STREET RECONSTRUCTION TO BE A PART OF CITY OF SPARKS 2020 STREET REHABILITATION COMBINED UNIT 3 PROJECT - SEE CITY OF SPARKS PLAN SHEETS FOR REHABILITATION

UTILITY IMPROVEMENT KEY NOTES

- INSTALL 48"Ø TYPE 1 STORM DRAIN MANHOLE. RIM AND INVERT ELEVATIONS SHOWN ON PLAN.
- INSTALL 12"Ø SDR 35 PVC STORM DRAIN PIPE AND CONNECT TO MANHOLE. LENGTH & SLOPE SHOWN ON PLAN.
- INSTALL TYPE 4R STORM DRAIN CATCH BASIN. RIM AND INVERT ELEVATIONS SHOWN ON PLAN.
- CONNECT NEW PVC PIPE TO EXISTING RCP PIPE USING RS5000 FERNCO COUPLER W/CONCRETE PILLOW.
- ABANDON EXISTING STORM DRAIN PIPE, CAP ENDS, AND FILL WITH AN APPROVED CELLULAR CONCRETE FOAM OR GROUT MATERIAL
- INSTALL 12"Ø SDR 35 PVC STORM DRAIN PIPE. LENGTH & SLOPE SHOWN ON PLAN.
- UTILITY CROSSING: TOP OF EX 8" SS=4434.88; IE OF NEW 12" SD=4436.33; ±17" CLEARANCE

CURB LINE TABLE [FFC]			CURB CURVE TABLE [FFC]				
LINE #	LENGTH	DIRECTION	CURVE #	LENGTH	RADIUS	DELTA	CHORD LENGTH
L1	8.00	S89° 54' 45.66"W	C1	36.81	24.50	86.07	33.44
L2	3.00	S3° 50' 17.51"W	C2	36.72	25.50	82.51	33.63
L3	3.00	S7° 20' 29.54"E					
L4	8.00	N89° 44' 25.62"E					
L5	14.00	S89° 53' 44.98"W					
L6	15.00	N0° 06' 15.02"W					

PROJECT CONTROL

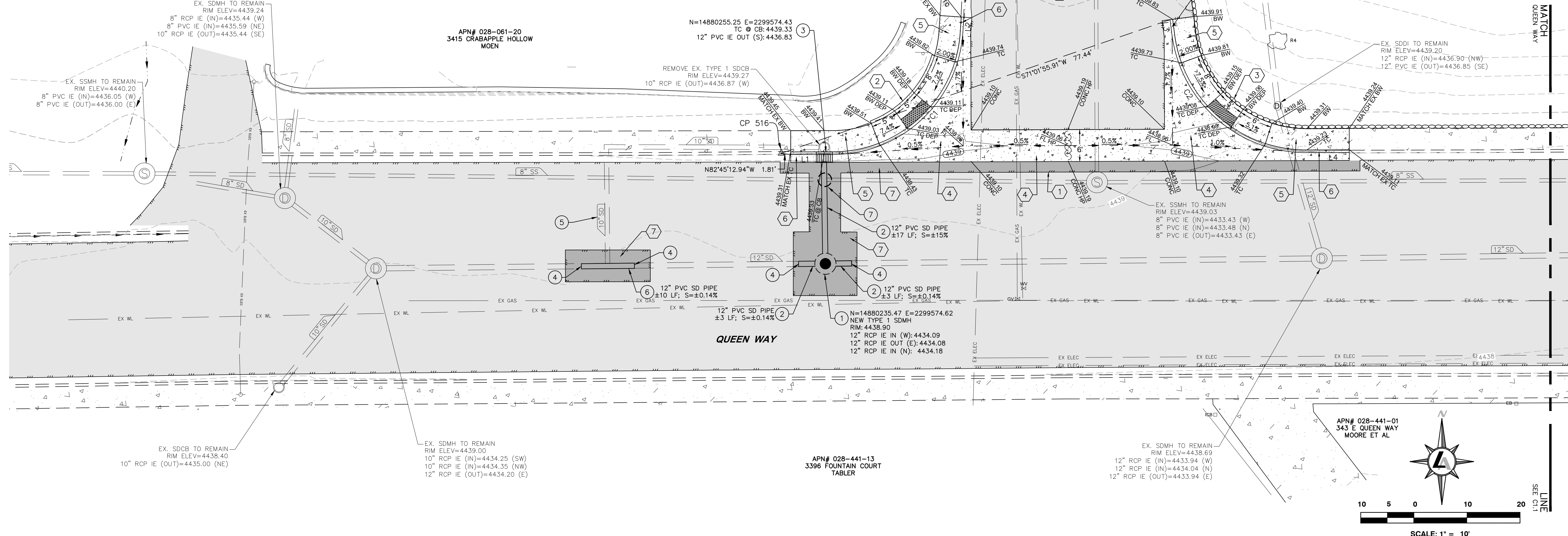
POINT	Northing	Easting	Elevation	Description
516	14880256.28	2299566.31	4439.34	CP SCRIBE X ON TC
518	14880271.19	2299834.50	4442.52	CP MAG ON STUMP
519	14880210.24	2299764.36	4438.09	CP SCRIBE X ON CONG DW

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE NAD83(94) BASED UPON REAL TIME KINEMATIC GPS OBSERVATIONS, OBSERVED JANUARY 21, 2019 USING A SURVEY GRADE DUAL FREQUENCY GPS RECEIVER FROM N53SM1055 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.

BASIS OF ELEVATIONS

DATUM: NAVD 88
PROJECT BENCHMARK = CITY OF SPARKS BM 85
HAVING AN ELEVATION OF 4416.73



L:\LAFrog\9690.000 - Eng Services - Queen Way 19th Drainage\DWG\Civil\3D\9690.000base_REVISD.dwg,C1.0, 11/04/2019 12:28 pm rmmckenzie

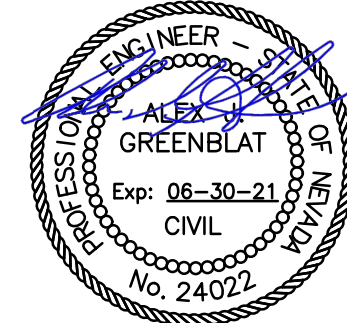
APN# 028-441-01
343 E QUEEN WAY
MOORE ET AL

SCALE: 1" = 10'



9222 PROTOTYPE DRIVE
RENO, NV 89521
TEL: 775.827.8111
WWW.LUMOSINC.COM

© LUMOS & ASSOCIATES, INC. THIS DRAWING IS THE PROPERTY OF LUMOS & ASSOCIATES, INC. USE OR REPRODUCTION OF THIS DRAWING, 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.



11/4/2019

CITY OF SPARKS
2020 STREET REHABILITATION
COMBINED UNIT 3
QUEEN WAY DRAINAGE IMPROVEMENTS
NEVADA
SPARKS
WASHOE

REV	DATE	DESCRIPTION	BY

BID SET
11/4/2019

BAR IS 1/8" ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

C1.1

DRAWN BY: NM
DESIGNED BY: AJG/NM
CHECKED BY: AJG
JOB NO.: 9690.000

BASIS OF BEARINGS

THE BASIS OF BEARINGS FOR THIS SURVEY IS NEVADA STATE PLANE COORDINATE SYSTEM, WEST ZONE NAD83(94) BASED UPON REAL TIME KINEMATIC GPS OBSERVATIONS, OBSERVED JANUARY 21, 2019 USING A SURVEY GRADE DUAL FREQUENCY GPS RECEIVER FROM NSSM01055 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.

BASIS OF ELEVATIONS

DATUM: NAVD 88
PROJECT BENCHMARK = CITY OF SPARKS BM 85
HAVING AN ELEVATION OF 4416.73

PROJECT CONTROL

POINT	Northing	Easting	Elevation	Description
516	14880256.28	2299566.31	4439.34	CP SCRIBE X ON TC
518	14880271.19	2299834.50	4442.52	CP MAG ON STUMP
519	14880210.24	2299764.36	4438.09	CP SCRIBE X ON CONC DW

CURB LINE TABLE [FFC]			CURB CURVE TABLE [FFC]				
LINE #	LENGTH	DIRECTION	CURVE #	LENGTH	RADIUS	DELTA	CHORD LENGTH
L1	8.00	S89° 54' 45.66"W	C1	36.81	24.50	86.07	33.44
L2	3.00	S3° 50' 17.51"W	C2	36.72	25.50	82.51	33.63
L3	3.00	S7° 20' 29.54"E					
L4	8.00	N89° 44' 25.62"E					
L5	14.00	S89° 53' 44.98"W					
L6	15.00	N0° 06' 15.02"W					

SURFACE IMPROVEMENT KEY NOTES

- MATCH EXISTING GRADE AT SAWCUT LINE, TYPICAL
- CONSTRUCT 104 SF (TOTAL THIS SHEET) PCC RESIDENTIAL DRIVEWAY APRON
- CONSTRUCT 30 LF (TOTAL THIS SHEET) PCC POST CURB
- CONSTRUCT A PCC COLLAR AROUND THE EXISTING SEWER MANHOLE TO FINISH GRADE - SEE NOTE 3 OF REFERENCED DETAIL
- CONSTRUCT 86 SF (TOTAL THIS SHEET) PCC SIDEWALK
- CONSTRUCT 50 LF (TOTAL THIS SHEET) PCC TYPE 1 CURB AND GUTTER
- CONSTRUCT 2,051 SF (TOTAL THIS SHEET) AC PERMANENT PATCH
- INSTALL 234 SF (TOTAL THIS SHEET) 12" THICK CL 150 RIP RAP SWALE W/FILTER FABRIC
- CONSTRUCT 172 SF (TOTAL THIS SHEET) AC PERMANENT PATCH, 3" AC ON 6" AGG. BASE

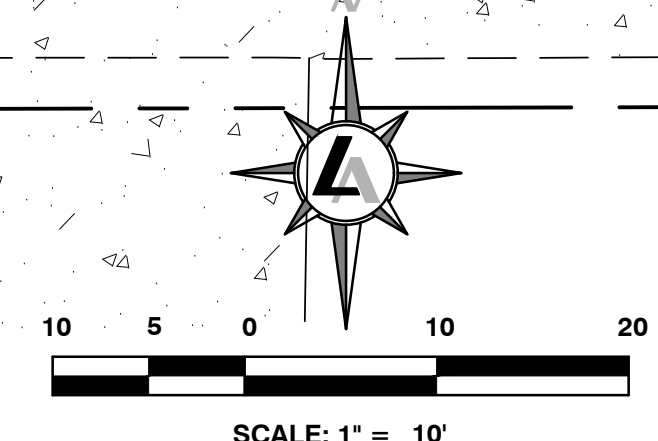
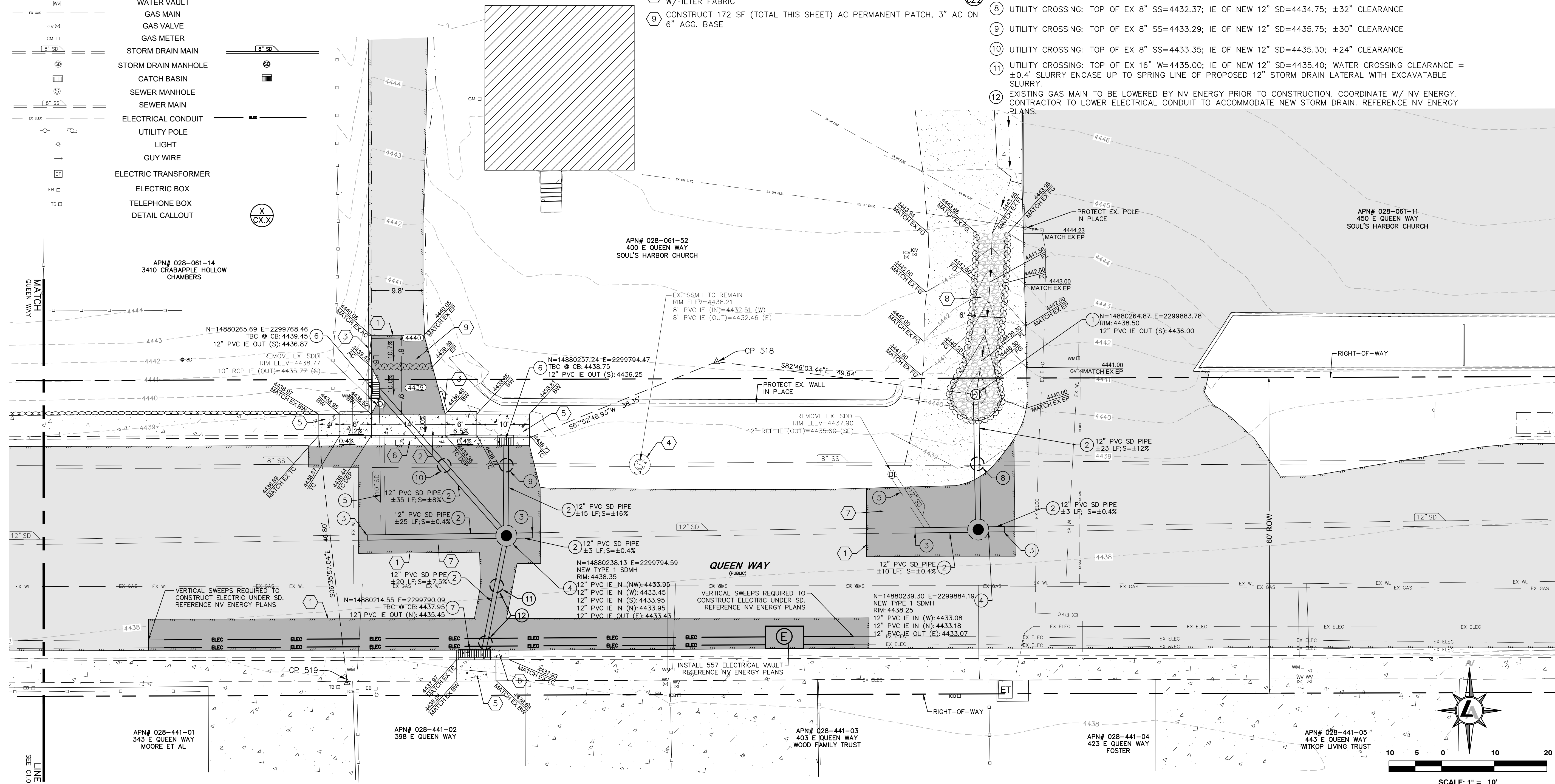
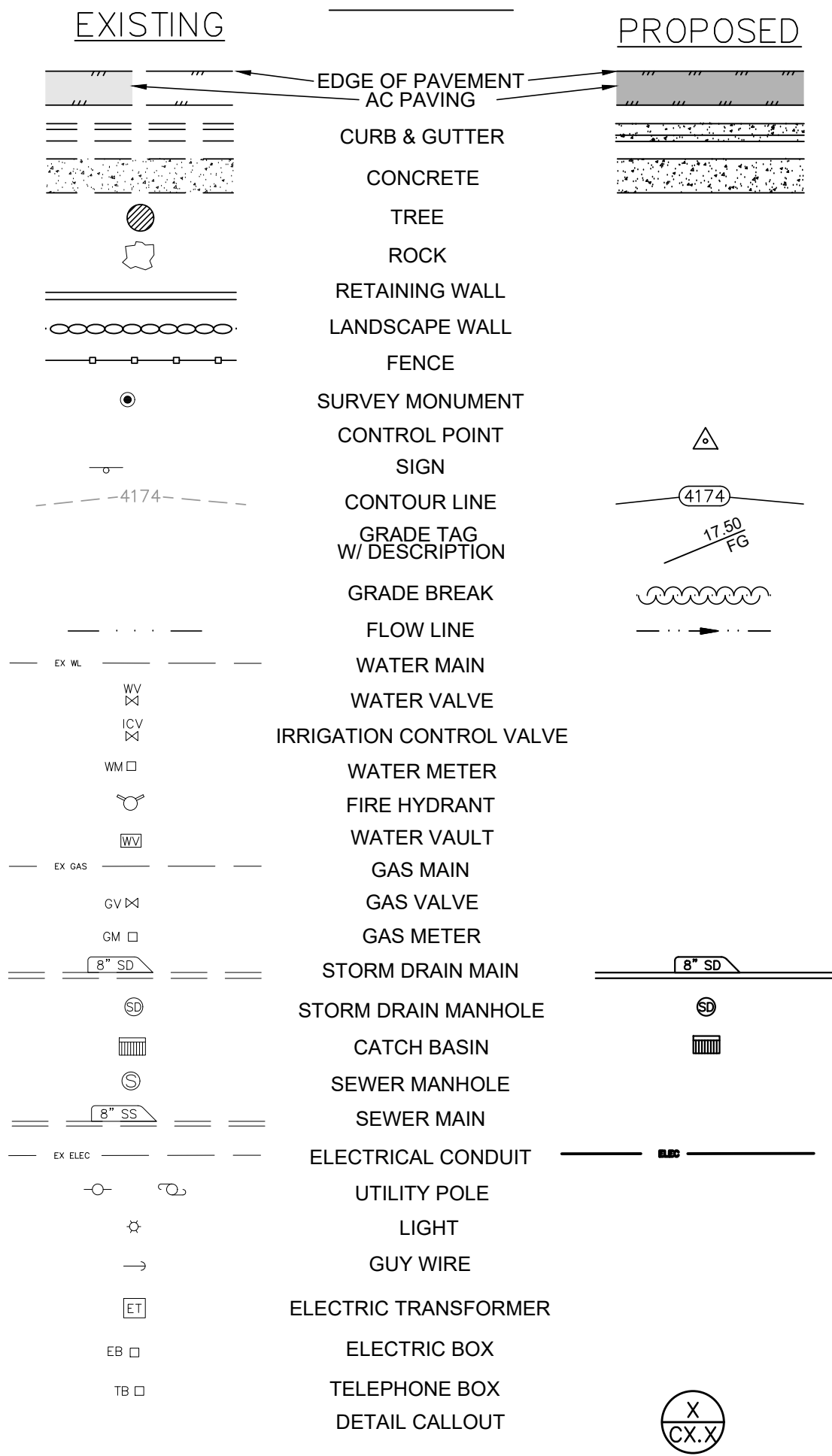
UTILITY IMPROVEMENT KEY NOTES

- INSTALL JENSEN PRECAST NO. 200 DROP INLET W/ BEEHIVE GRATE. RIM & INVERT ELEVATION SHOWN ON PLAN
- INSTALL 12" SDR 35 PVC STORM DRAIN PIPE AND CONNECT TO MANHOLE. LENGTH & SLOPE SHOWN ON PLAN
- CONNECT NEW PVC PIPE TO EXISTING RCP PIPE USING FERNCO RS5000 COUPLER W/ CONCRETE PILLOW
- INSTALL 48" TYPE 1 STORM DRAIN MANHOLE. RIM AND INVERT ELEVATIONS SHOWN ON PLAN
- ABANDON EXISTING STORM DRAIN PIPE BY REMOVAL OR CAP ENDS AND FILL WITH AN APPROVED CELLULAR CONCRETE FOAM OR GROUT MATERIAL
- INSTALL TYPE 4R STORM DRAIN CATCH BASIN. RIM AND INVERT ELEVATIONS SHOWN ON PLAN
- INSTALL DUAL HIGH CAPACITY CURB INLET. RIM AND INVERT ELEVATIONS SHOWN ON PLAN
- UTILITY CROSSING: TOP OF EX 8" SS=4432.37; IE OF NEW 12" SD=4434.75; ±32" CLEARANCE
- UTILITY CROSSING: TOP OF EX 8" SS=4433.29; IE OF NEW 12" SD=4435.75; ±30" CLEARANCE
- UTILITY CROSSING: TOP OF EX 8" SS=4433.35; IE OF NEW 12" SD=4435.30; ±24" CLEARANCE
- UTILITY CROSSING: TOP OF EX 16" W=4435.00; IE OF NEW 12" SD=4435.40; WATER CROSSING CLEARANCE = ±0.4' SLURRY ENCASE UP TO SPRING LINE OF PROPOSED 12" STORM DRAIN LATERAL WITH EXCAVATABLE SLURRY
- EXISTING GAS MAIN TO BE LOWERED BY NV ENERGY PRIOR TO CONSTRUCTION. COORDINATE W/ NV ENERGY. CONTRACTOR TO LOWER ELECTRICAL CONDUIT TO ACCOMMODATE NEW STORM DRAIN. REFERENCE NV ENERGY PLANS.

GENERAL NOTES

- THE CONTRACTOR SHALL MAINTAIN A DUST CONTROL PROGRAM THAT INCLUDES WATERING OF OPEN AREAS. THE CONTRACTOR SHALL ALSO MAINTAIN CONFORMITY WITH 040.030 OF THE WASHOE COUNTY AIR POLLUTION REGULATIONS.
- THE CONTRACTOR SHALL VERIFY IN FIELD, ALL ELEVATIONS, DIMENSIONS, FLOW LINES, EXISTING CONDITIONS, AND POINTS OF CONNECTIONS WITH ADJOINING PROPERTY. ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- THE CONTRACTOR SHALL MAINTAIN AN ONGOING PROCESS OF REMOVAL OF ALL SPILLAGE OF EXCAVATION MATERIAL ON ALL PAVED STREETS.
- THE INSPECTION AND TESTING OF SOILS SHALL BE TO CITY OF SPARKS SPECIFICATIONS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION PERMITS AND FEES, INCLUDING E&E, QA, NOI PERMITS, ETC.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES WITHIN THE LIMITS OF CONSTRUCTION, WHETHER OR NOT SAID UTILITIES ARE SHOWN ON PLANS.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL EXISTING UTILITIES IN PLACE UNLESS SHOWN ON THESE PLANS AS BEING REPLACED OR ABANDONED.

LEGEND



L:\Map\9690.0000 - Eng Services - Queen Way 19th Drainage\DWG\Civil\20\9690.00base_REVISED.dwg,C1.1, 11/04/2019 12:28 pm rmmccandee



11/4/2019

2020 STREET REHABILITATION
COMBINATION UNIT 3
QUEEN WAY DETAIL SHEET

NEVADA

WASHOE

SPARKS

CITY OF SPARKS

BY

DESCRIPTION

REV. DATE

11/4/2019

BAR IS 1 INCH ON ORIGINAL DRAWING

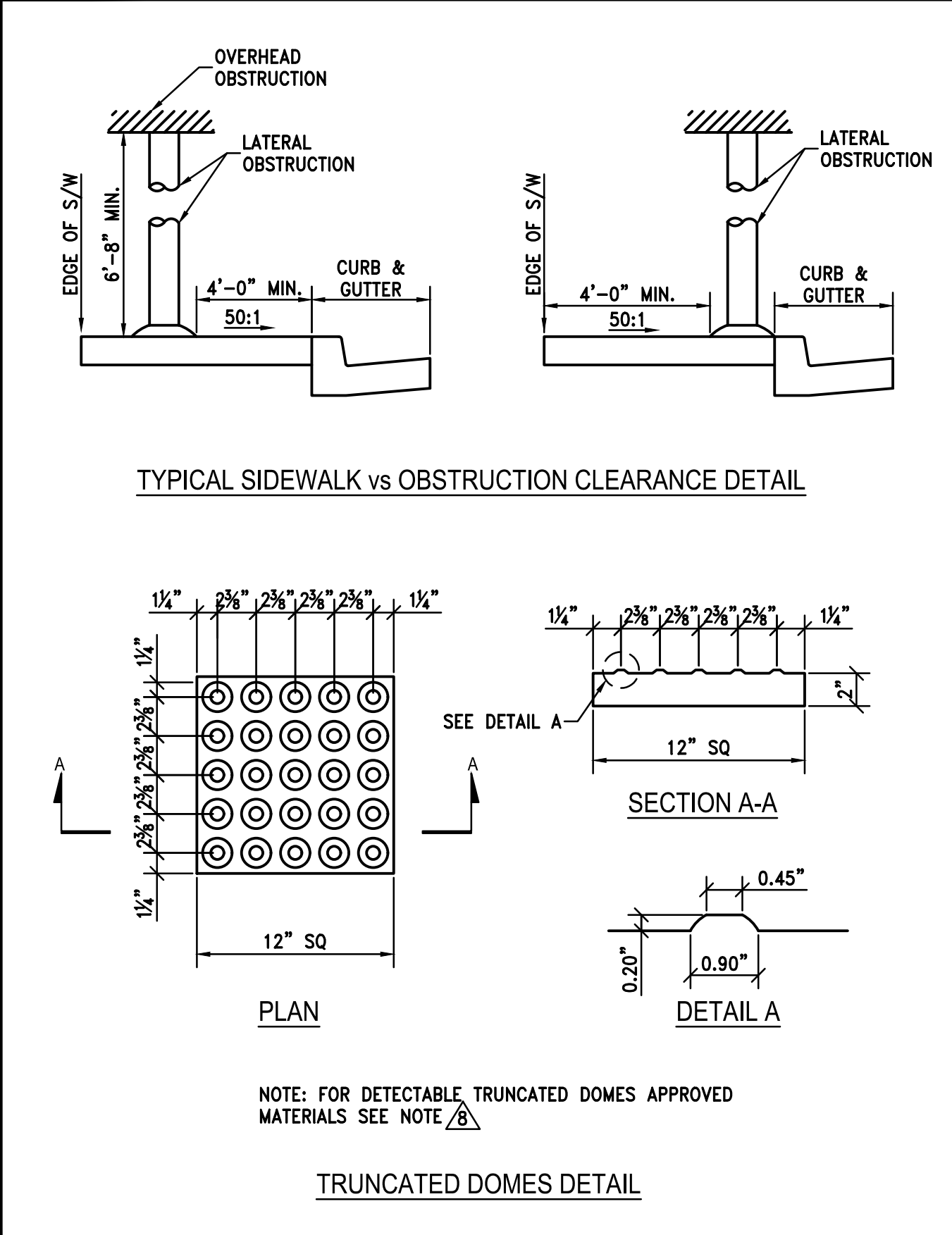
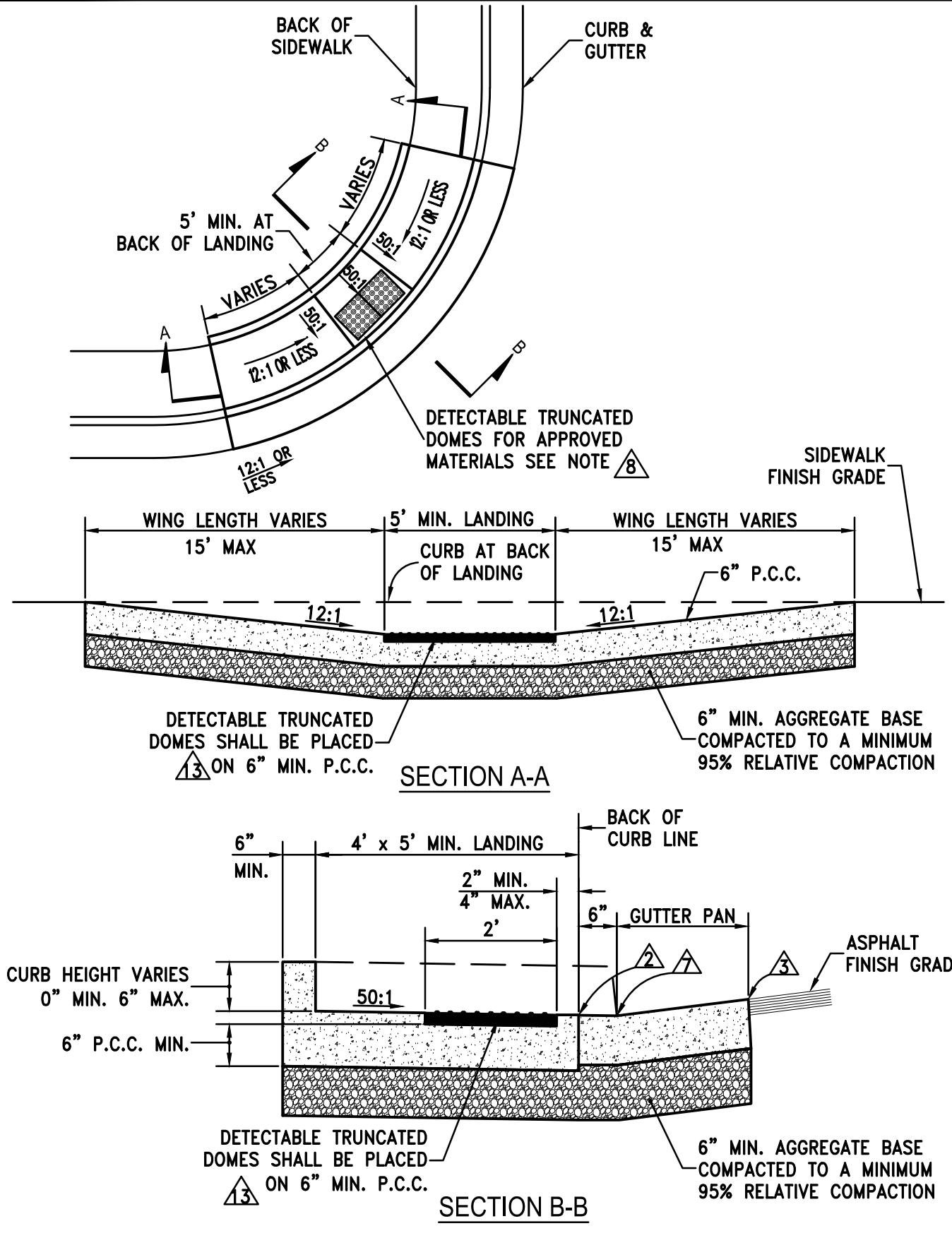
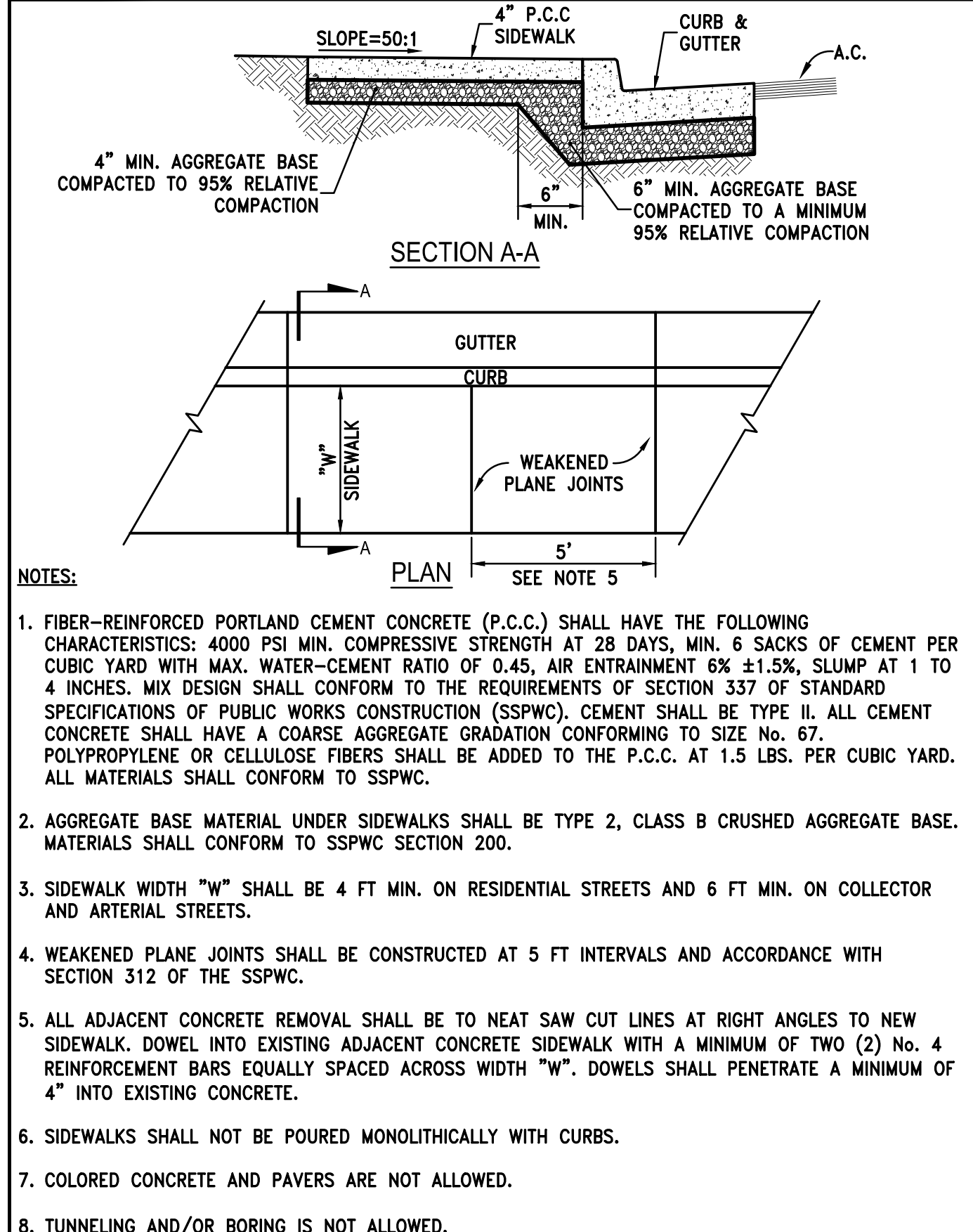
0 NTS

IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

C2.0

DRAWN BY: NM
DESIGNED BY: AJG/NM
CHECKED BY: AJG
JOB NO.: 9690.000

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

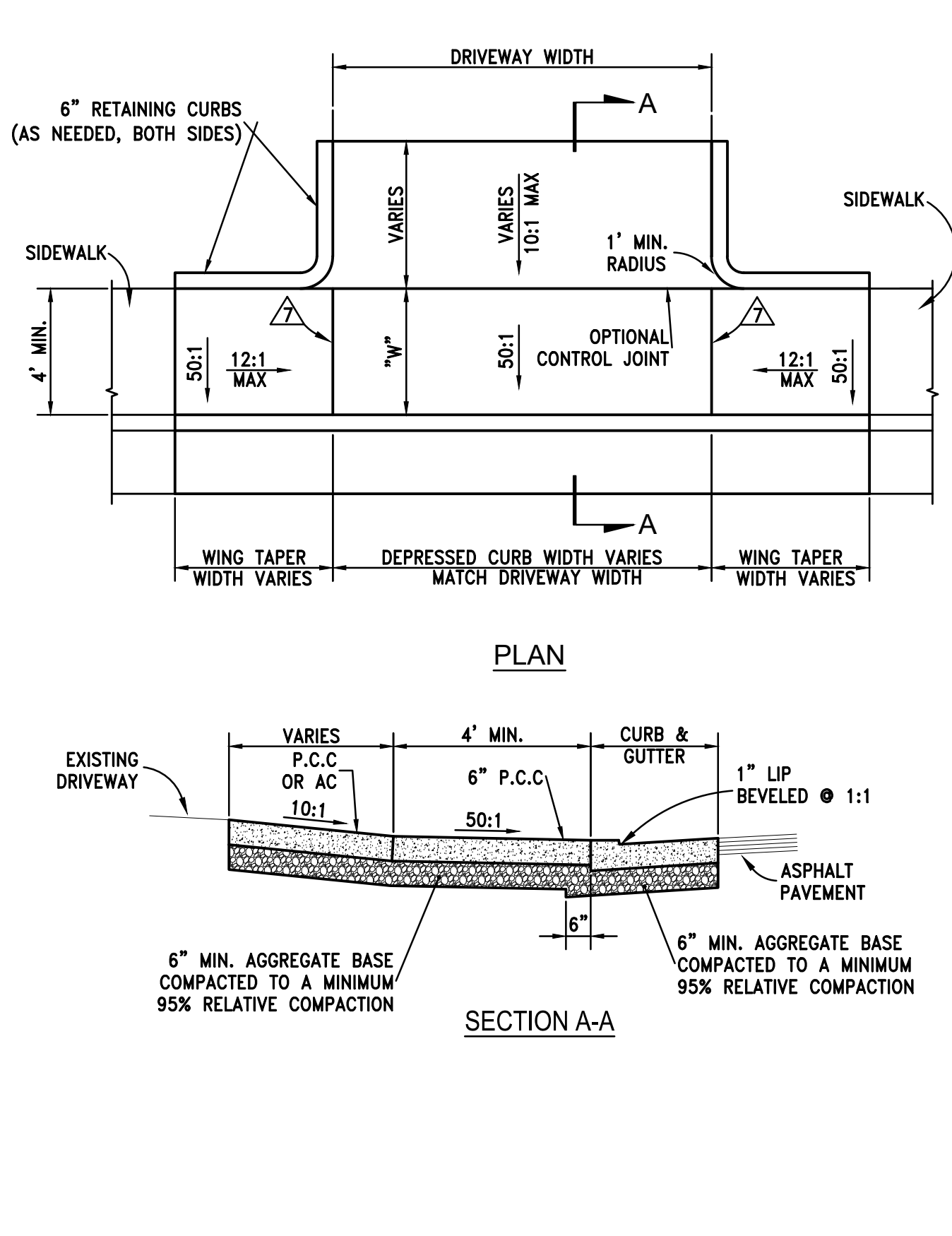
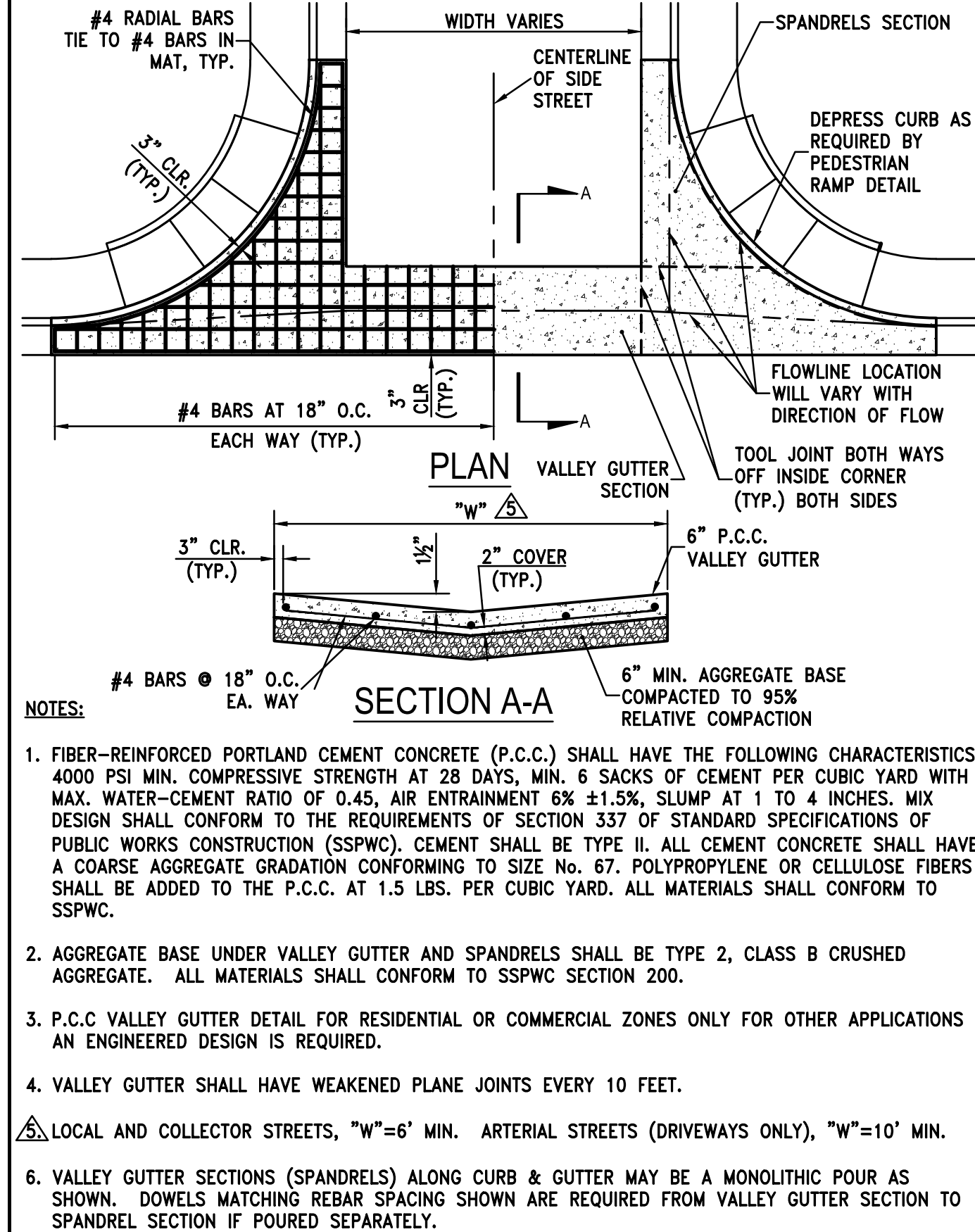


1
C2.0
P.C.C. SIDEWALK
SCALE: NTS

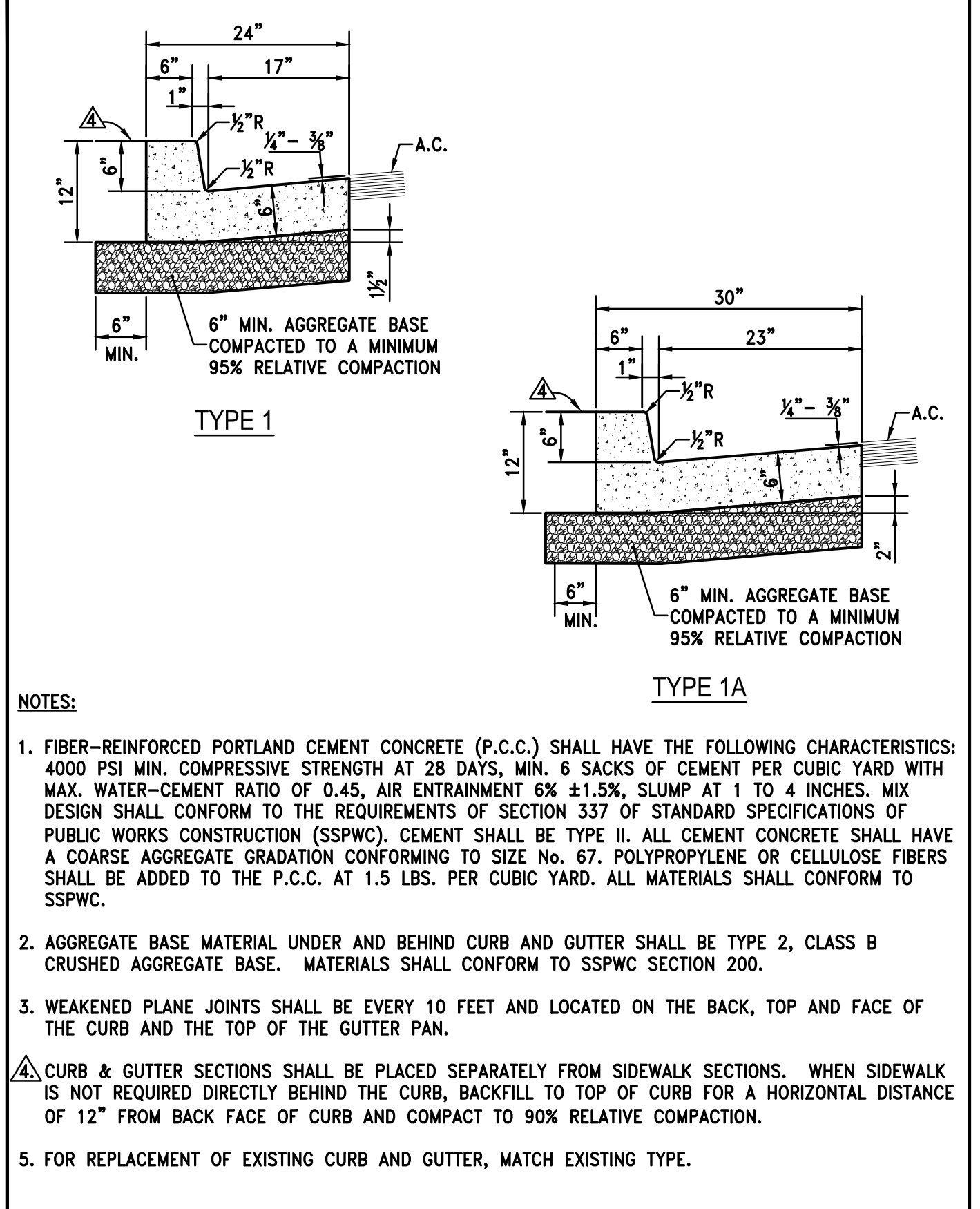
2
C2.0
P.C.C. PEDESTRIAN RAMP
SCALE: NTS

3
C2.0
PEDESTRIAN RAMP - DETAILS
SCALE: NTS

4
C2.0
NOTES - PEDESTRIAN RAMP
SCALE: NTS



- 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.
 - AGGREGATE BASE MATERIAL UNDER DRIVEWAYS AND SIDEWALKS SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 200.
 - RESIDENTIAL DRIVEWAYS SHALL BE POURED SEPARATE FROM CURB AND GUTTER.
 - COMMERCIAL DRIVEWAYS MAY BE POURED MONOLITHIC WITH CURB AND GUTTER. COMMERCIAL DRIVEWAYS TO HAVE #4 BARS AT 18" ON CENTER LONGITUDINAL & TRANSVERSE EXTENDING INTO GUTTER PAN AND DRIVEWAY WINGS. MINIMUM 2" CONCRETE COVER FOR ALL REINFORCING BARS. WHEN COMMERCIAL DRIVEWAY APPROACH AND CURB & GUTTER IS POURED SEPARATELY, IT SHALL BE REQUIRED FOR EACH REINFORCING BAR TO BE DOWELED INTO ADJACENT CURB & GUTTER. DOWELS SHALL #4 REBAR, PENETRATE INTO CURB & GUTTER MINIMUM OF 6", SPACED AT 18" ON CENTER AND BE SECURELY TIED TO THE DRIVEWAY APPROACH REINFORCING.
 - IF JOINT EXISTS WITHIN 4 FEET OF DRIVEWAY, REMOVE SIDEWALK AND CURB AND GUTTER TO THAT JOINT.
 - ALL ADJACENT CONCRETE REMOVAL SHALL BE TO NEAT SAW CUT LINES AT RIGHT ANGLES. DOWEL INTO EXISTING ADJACENT CONCRETE DRIVEWAY APPROACH OR SIDEWALK WITH (2) NO. 4 REINFORCEMENT BARS EQUALLY SPACED ACROSS WIDTH "W". DOWELS SHALL PENETRATE A MINIMUM OF 4" INTO EXISTING CONCRETE.
 - WEAKENED PLANE JOINTS SHALL BE CONSTRUCTED AT 5 FT INTERVALS AND IN ACCORDANCE WITH SECTION 312 OF THE SSPWC.

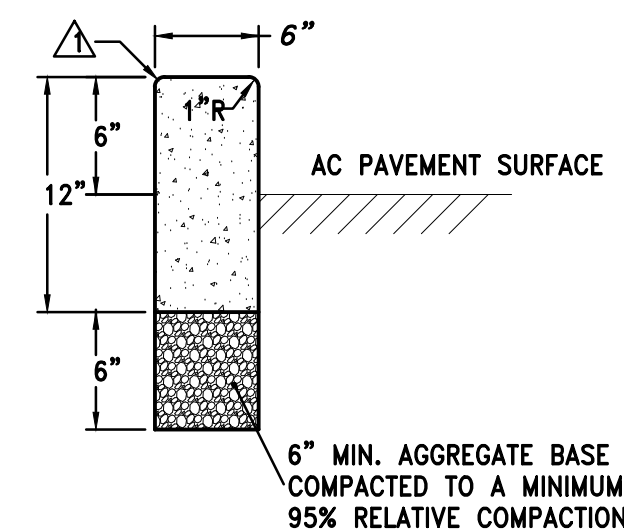


5
C2.0
P.C.C. VALLEY GUTTER
SCALE: NTS

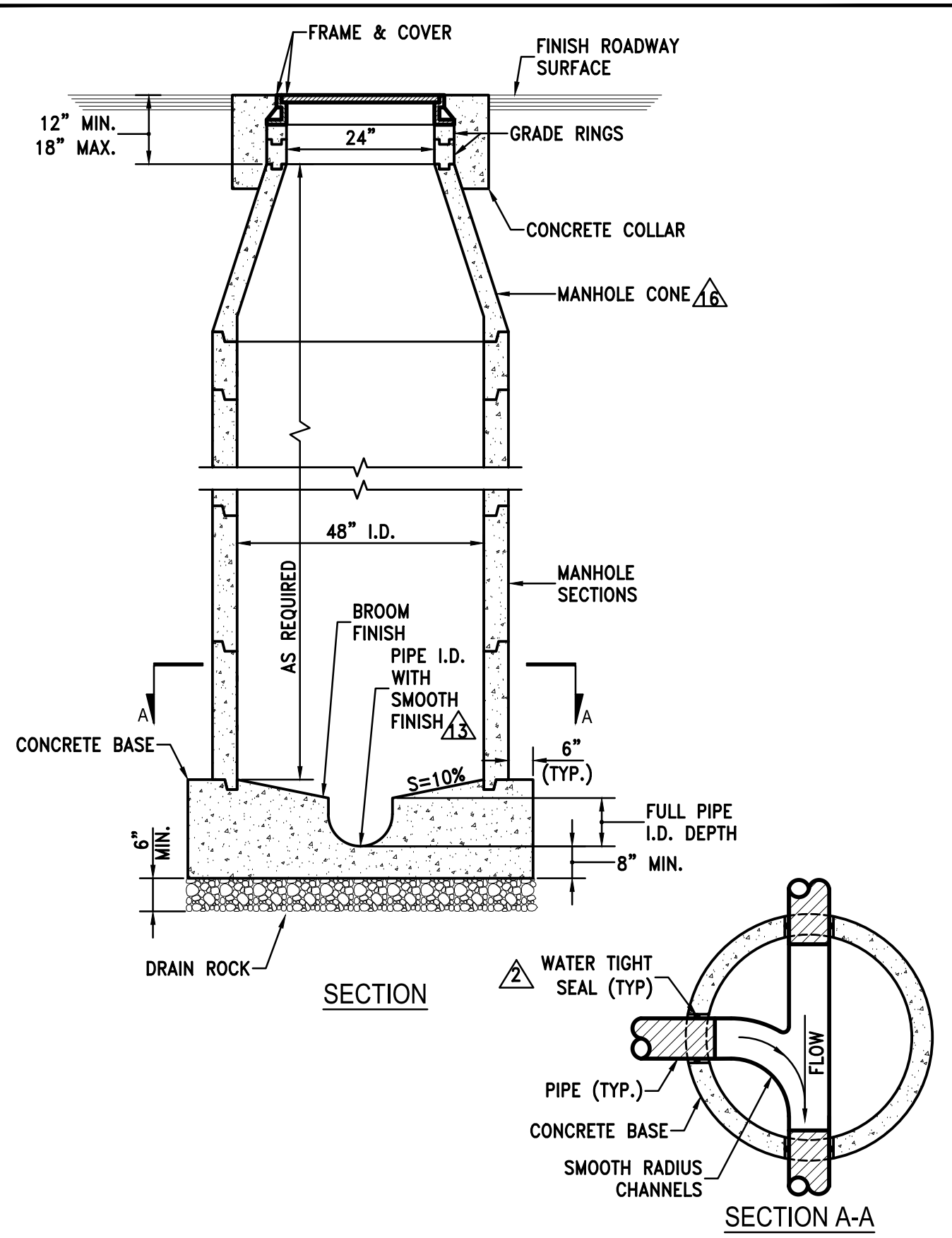
6
C2.0
P.C.C. DRIVEWAY APRON
SCALE: NTS

7
C2.0
NOTES - P.C.C. DRIVEWAY APRON
SCALE: NTS

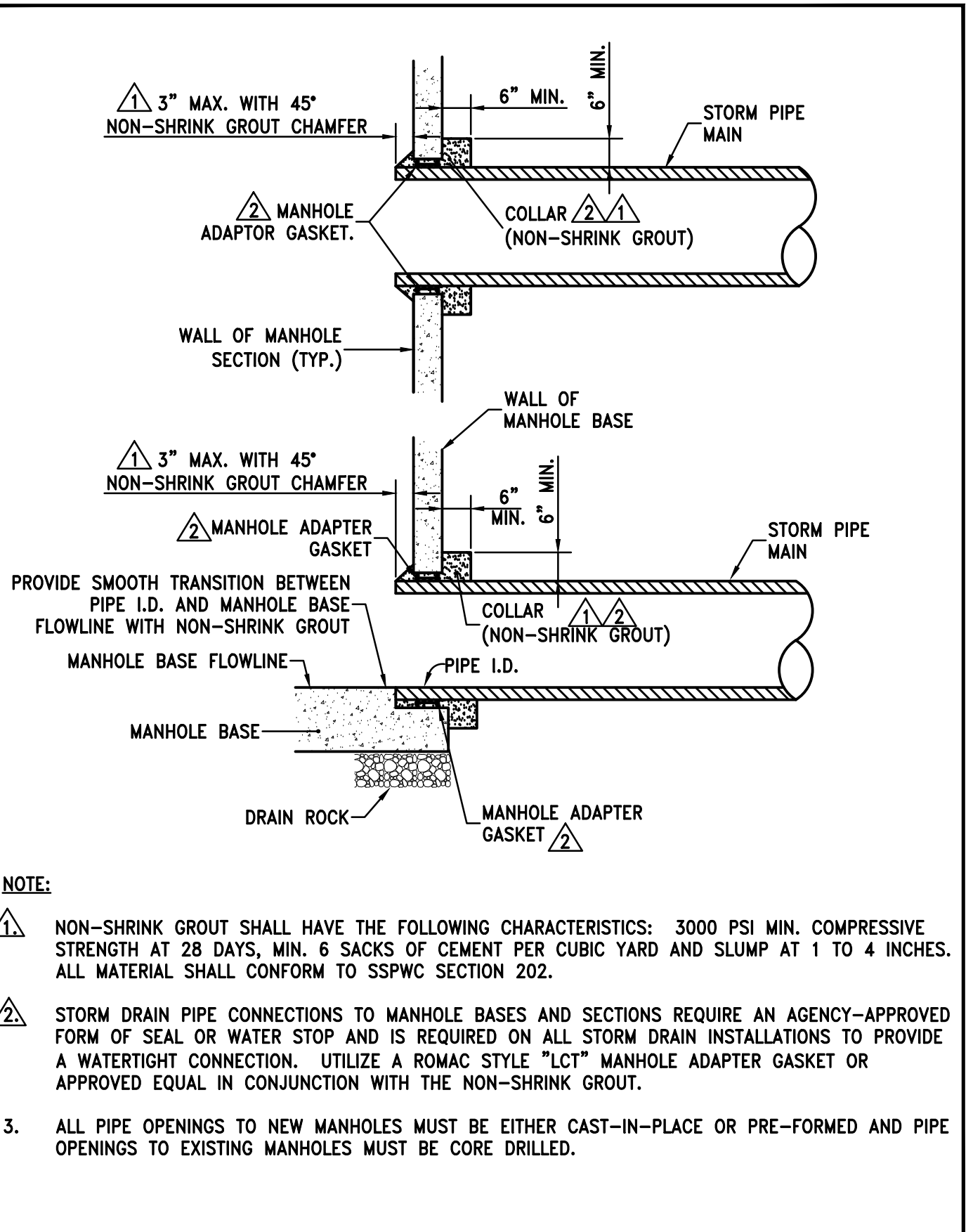
8
C2.0
P.C.C. CURB & GUTTER
SCALE: NTS



- NOTES:
- 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.
 - AGGREGATE BASE MATERIAL UNDER AND BEHIND CURB AND GUTTER SHALL BE TYPE 2, CLASS B CRUSHED GRANULAR UNDERBASE. 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.



- GENERAL MANHOLE NOTES:
- ALL PRECAST MANHOLE COMPONENTS SHALL CONFORM TO ASTM C-478.
 - PIPES SHALL NOT PROTRUDE MORE THAN 3" INSIDE MANHOLE SECTION AS MEASURED AT THE OUTSIDE EDGES OF THE PIPE, VERTICALLY ALIGNED WITH THE SPRINGLINE. PIPE CONNECTION TO MANHOLE SHALL BE WATERTIGHT DETAIL 12/C2.1.
 - 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). 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.
 - 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.
 - MANHOLE PRECAST SECTION LENGTH SHALL BE ARRANGED TO FIT THE REQUIRED DEPTH.
 - NO LATERALS OR PIPES LESS THAN 8" IN DIAMETER SHALL BE CONNECTED TO THE MANHOLE.
 - PRECAST CONCRETE BASE MAY BE USED IN LIEU OF CAST-IN-PLACE BASE.
 - MATCH PIPE INVERTS TO MANHOLE INVERTS WHERE PIPES CONNECT TO MANHOLE BASE.
 - ALL MANHOLES SHALL BE WATERTIGHT.
 - SEE DETAIL FOR OUTSIDE DROP MANHOLE FOR SANITARY SEWERS WITH MORE THAN 2 FEET VERTICAL DROP AT THE MANHOLE. THE USE OF "INSIDE DROP" MANHOLES IS NOT PERMITTED.
 - THE USE OF FLAT TOP MANHOLE CONES REQUIRES PRIOR APPROVAL FROM THE CITY ENGINEER.
 - PRIOR TO BACKFILLING, ALL MANHOLES SHALL BE VACUUM TESTED PER ASTM C-1244.
 - NO STEPS, LADDERS, OR OTHER CLIMBING DEVICES SHALL BE INSTALLED IN THE MANHOLE.
 - REINFORCING STEEL SHALL BE AS SHOWN, WIRE TIGHTLY AT ALL INTERSECTIONS AND EMBEDDED AT LEAST 1 1/2" CLEAR, UNLESS OTHERWISE NOTED.
 - WHEN PIPE CONNECTIONS TO EXISTING MANHOLES ARE ALLOWED, THEY SHALL BE MADE BY CORE DRILLING THE MANHOLE AND CONNECTING THE PIPE PENETRATION PER DETAIL 12/C2.1.



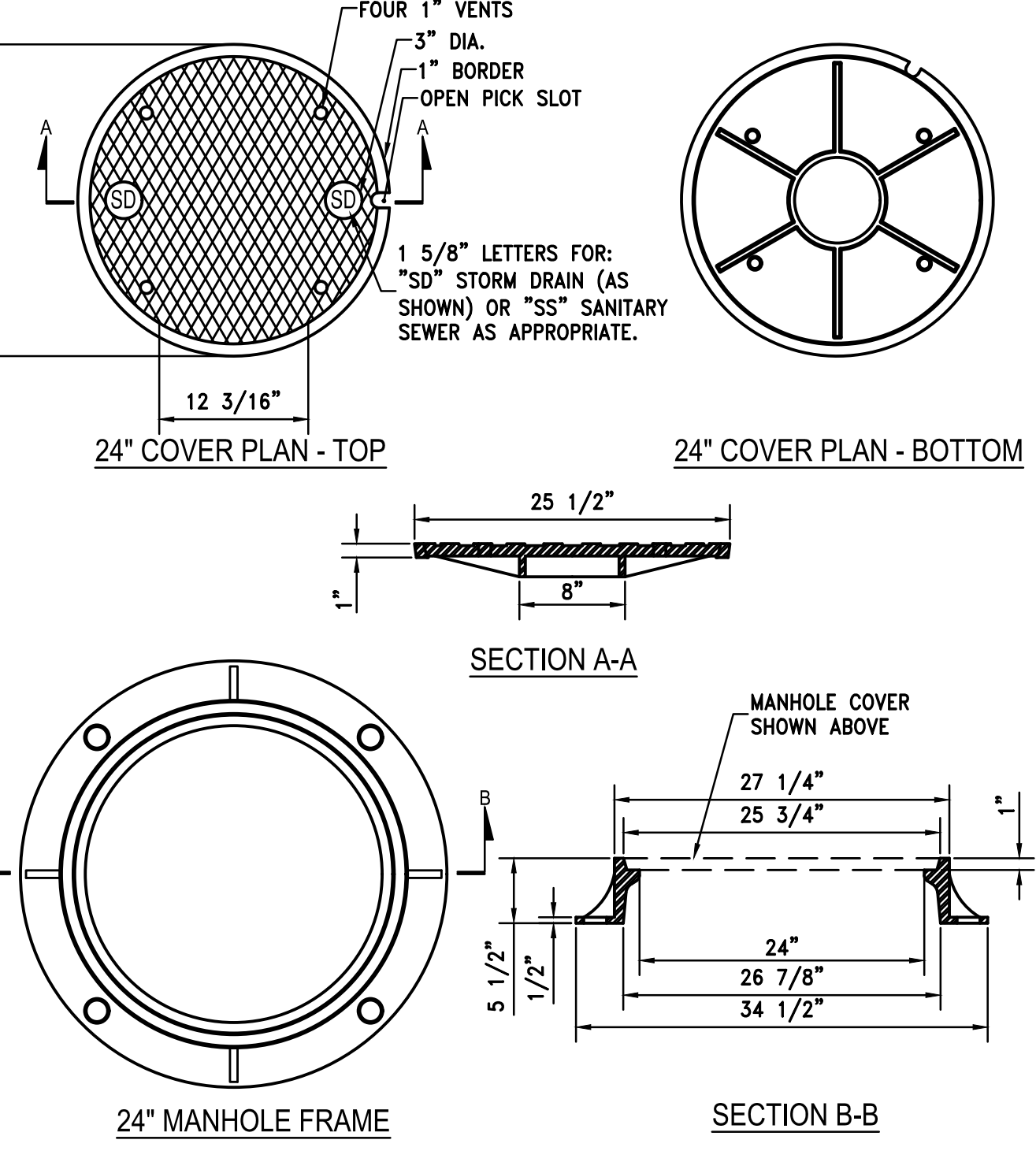
- NOTE:
- NON-SHRINK GROUT SHALL HAVE THE FOLLOWING CHARACTERISTICS: 3000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD AND SLUMP AT 1 TO 4 INCHES. ALL MATERIAL SHALL CONFORM TO SSPWC SECTION 202.
 - STORM DRAIN PIPE CONNECTIONS TO MANHOLE BASES AND SECTIONS REQUIRE AN AGENCY-APPROVED FORM OF SEAL OR WATER STOP AND IS REQUIRED ON ALL STORM DRAIN INSTALLATIONS TO PROVIDE A WATERTIGHT CONNECTION. UTILIZE A ROMAC STYLE "LCT" MANHOLE ADAPTER GASKET OR APPROVED EQUAL IN CONJUNCTION WITH THE NON-SHRINK GROUT.
 - 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.

9 C2.1 P.C.C. POST CURB SCALE: NTS

10 C2.1 MANHOLE TYPE I SCALE: NTS

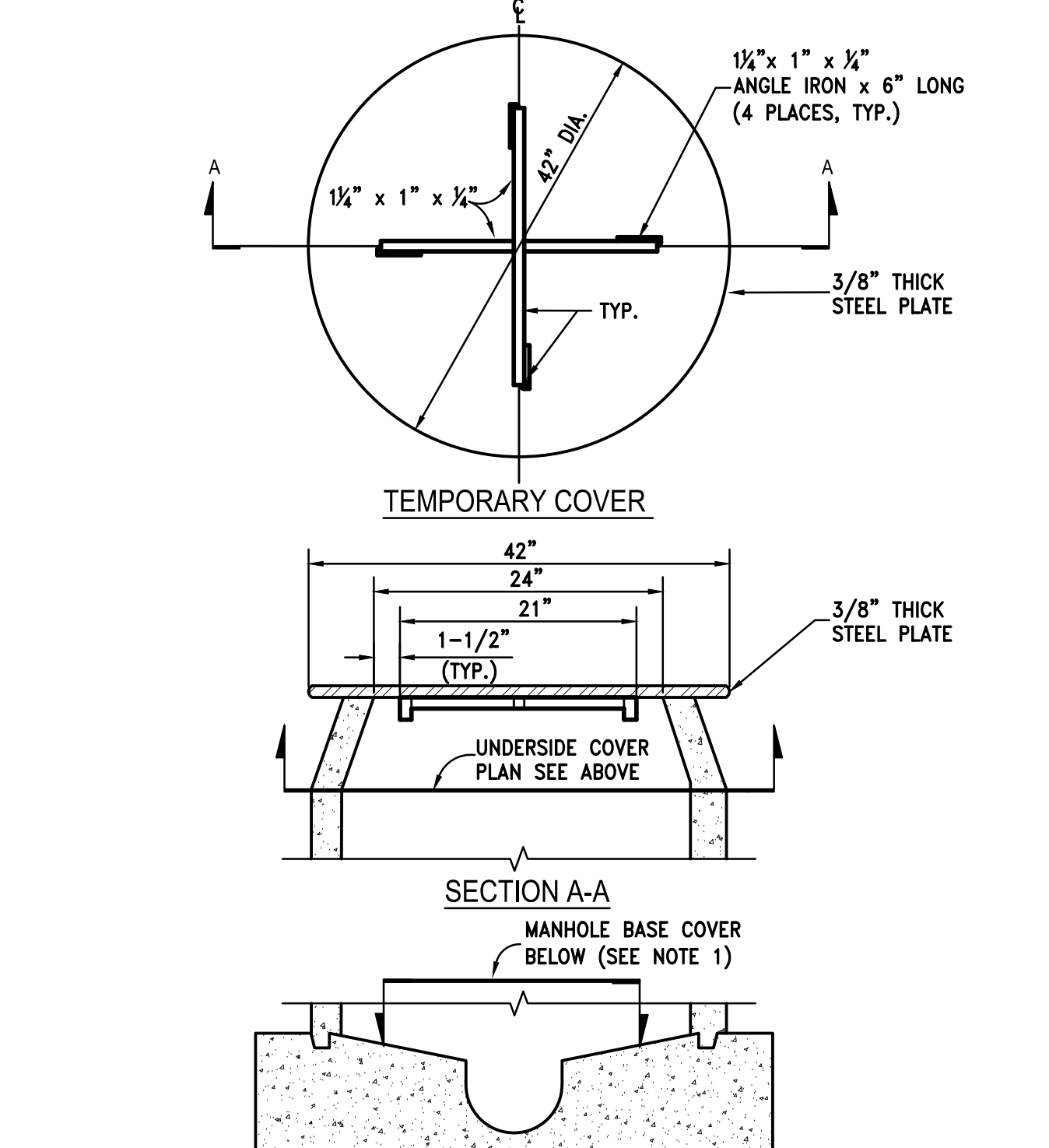
11 C2.1 NOTES - MANHOLE TYPE I & TYPE V SCALE: NTS

12 C2.1 STORM DRAIN PIPE TO MANHOLE CONNECTION SCALE: NTS



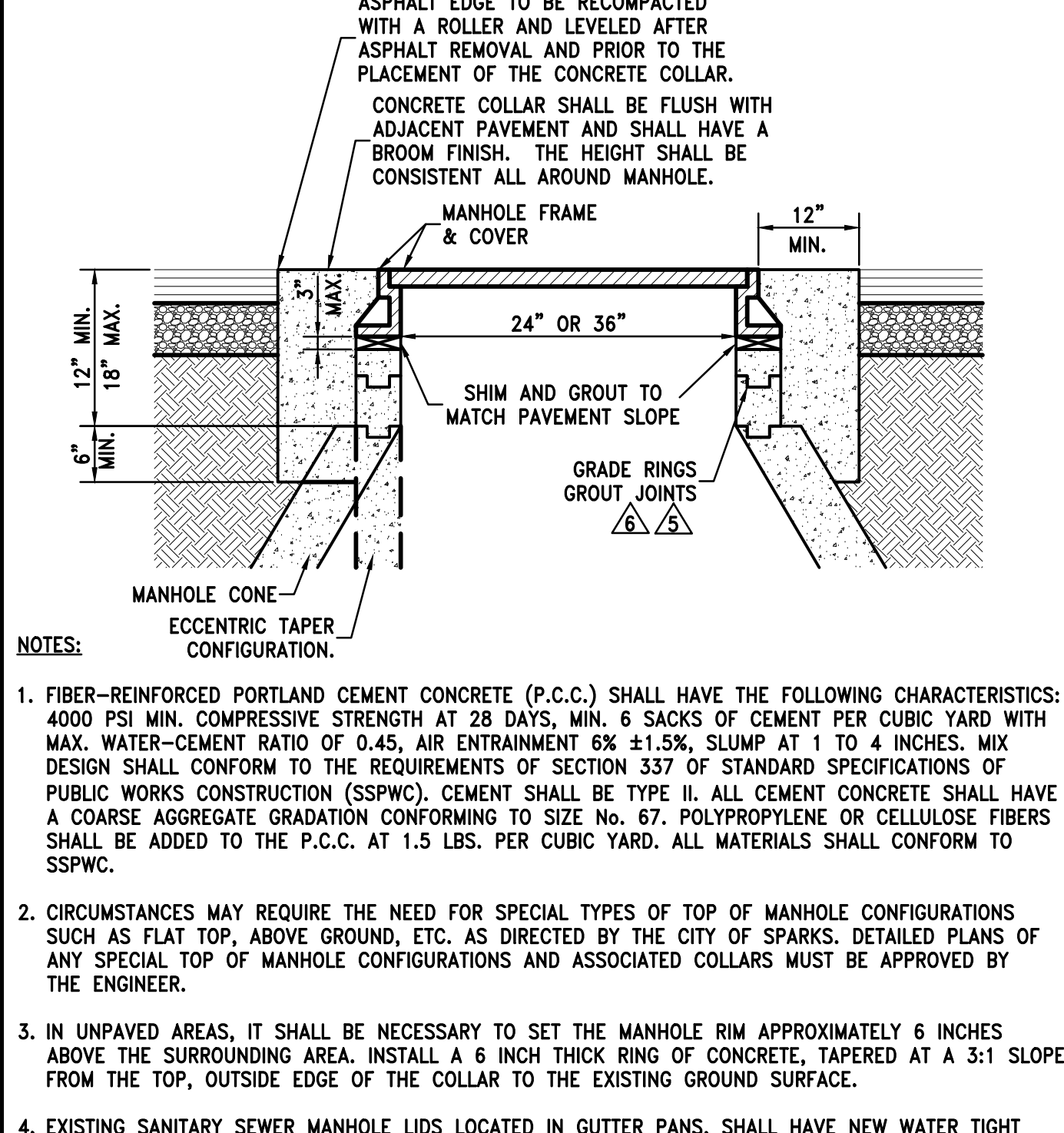
- 24" FRAME AND COVER NOTES:
- FRAME AND COVERS SHALL BE D&L FOUNDRY A1032 APPROVED EQUAL.
 - FURNISHED WITH MACHINED HORIZONTAL BEARING SURFACE.
 - CASTINGS SHALL BE CAST GRAY IRON AND MEET THE REQUIREMENTS OF ASTM A-48, CLASS 35B, NO PAINT.

13 C2.1 24" MANHOLE FRAME & COVER SCALE: NTS



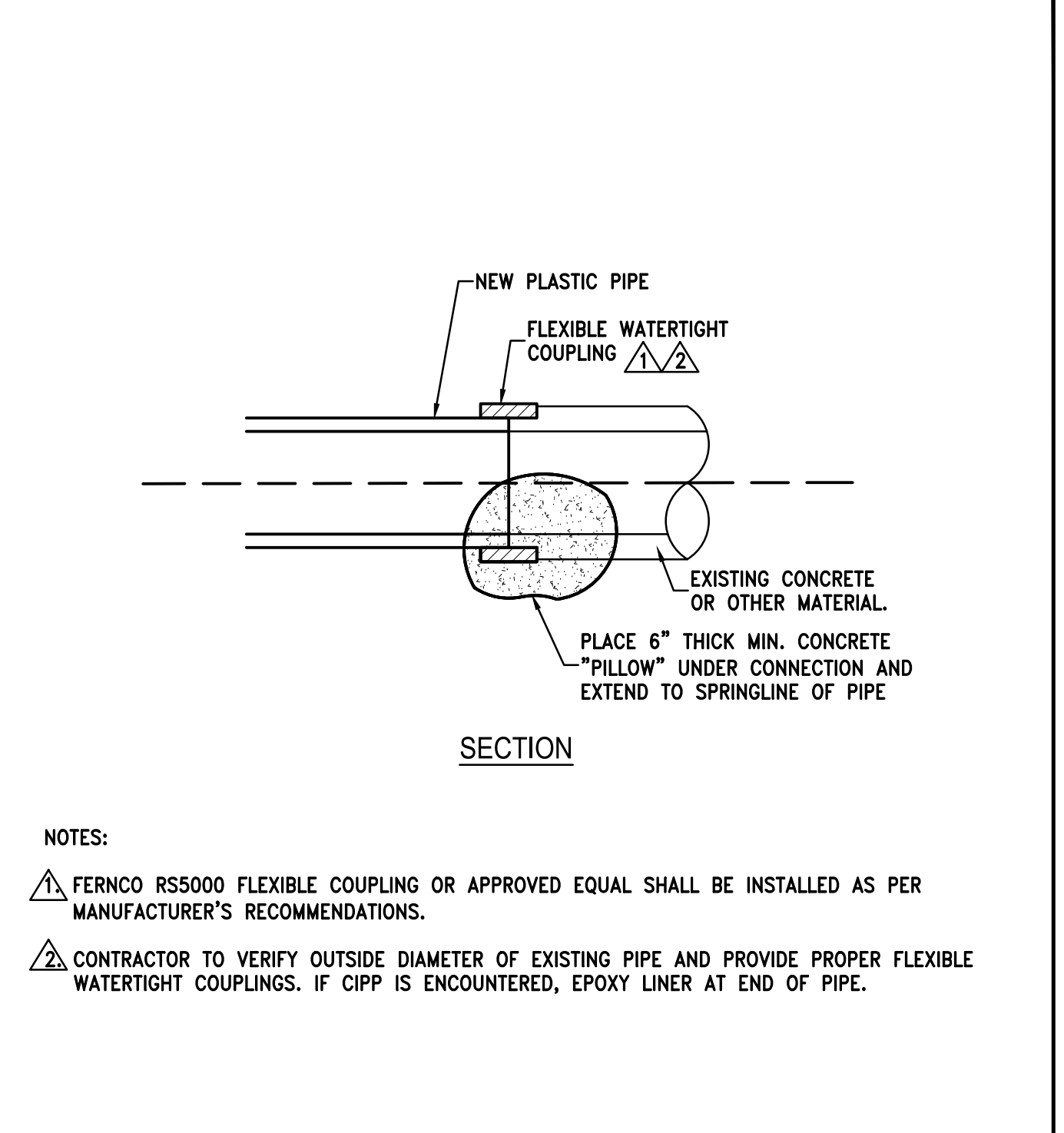
- NOTES:
- INSTALL TEMPORARY COVER WITH CONE INSTALLATION WHEN INSTALLING NEW MANHOLE OR PRIOR TO REMOVING EXISTING FRAME & COVER AND GRADE RINGS TO ADJUST TO FINISH GRADE. INSTALL COVER OVER MANHOLE BASE TO PREVENT DEBRIS FROM ENTERING SEWER SYSTEM. THE MANHOLE BASE COVER SHALL BE IN PLACE PRIOR TO PERFORMING ANY 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.

14 C2.1 TEMPORARY MANHOLE COVER SCALE: NTS



- 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.
 - 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 ENGINEER.
 - IN UNPAVED AREAS, IT SHALL BE NECESSARY TO SET THE MANHOLE RIM APPROXIMATELY 6 INCHES ABOVE THE SURROUNDING AREA. INSTALL A 6 INCH THICK RING OF CONCRETE, TAPERED AT A 3:1 SLOPE, FROM THE TOP, OUTSIDE EDGE OF THE COLLAR TO THE EXISTING GROUND SURFACE.
 - 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.
 - ALL GRADE RINGS SHALL BE PORTLAND CEMENT CONCRETE. PVC GRADE RINGS ARE NOT ALLOWED.

15 C2.1 MANHOLE COLLAR SCALE: NTS



- NOTES:
- FERRO RS5000 FLEXIBLE COUPLING OR APPROVED EQUAL SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS.
 - CONTRACTOR TO VERIFY OUTSIDE DIAMETER OF EXISTING PIPE AND PROVIDE PROPER FLEXIBLE WATERTIGHT COUPLINGS. IF CIPP IS ENCOUNTERED, EPOXY LINER AT END OF PIPE.

16 C2.1 EXISTING PIPE TO NEW PVC PIPE CONNECTION SCALE: NTS



9222 PROTOTYPE DRIVE
RENO, NV 89521
TEL: 775.827.8111
WWW.LUMOSINC.COM

© LUMOS & ASSOCIATES, INC. THIS DRAWING IS THE PROPERTY OF LUMOS & ASSOCIATES, INC. USE OR REPRODUCTION OF THIS DRAWING, 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.



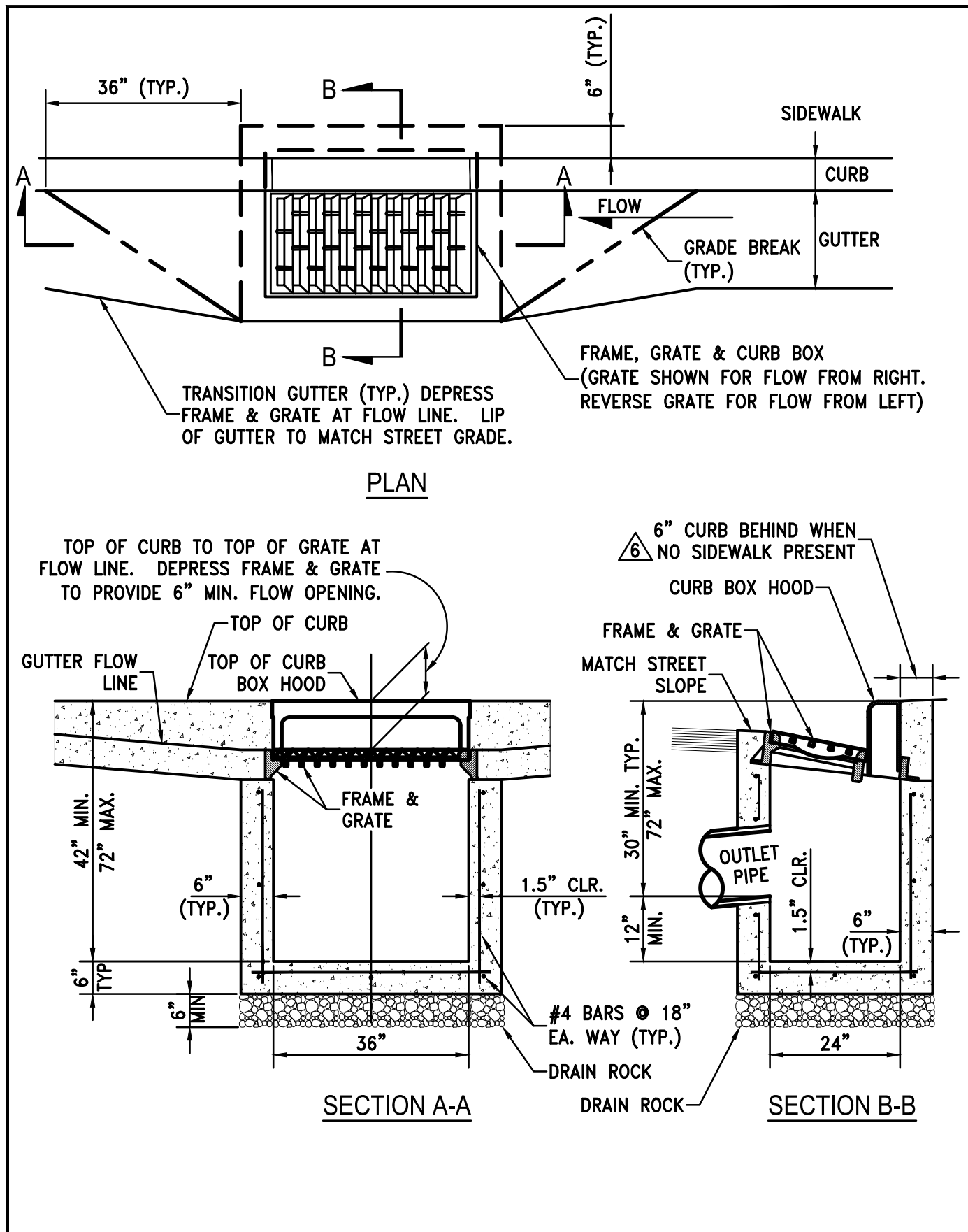
CITY OF SPARKS
2020 STREET REHABILITATION
COMBINED UNIT 3
QUEEN WAY DETAIL SHEET
NEVADA
SPARKS
11/04/2019

REV.	DATE	DESCRIPTION

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

C2.1

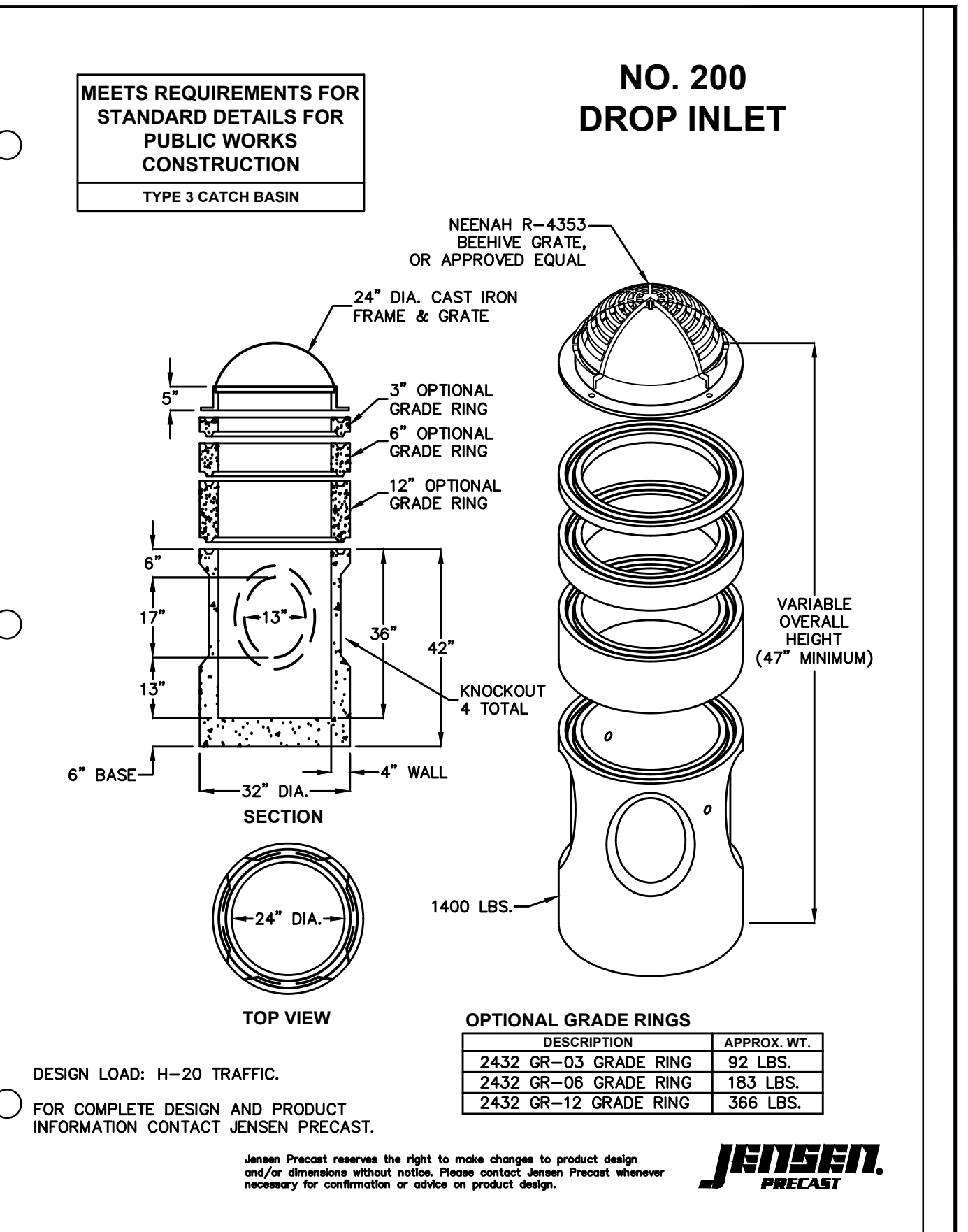
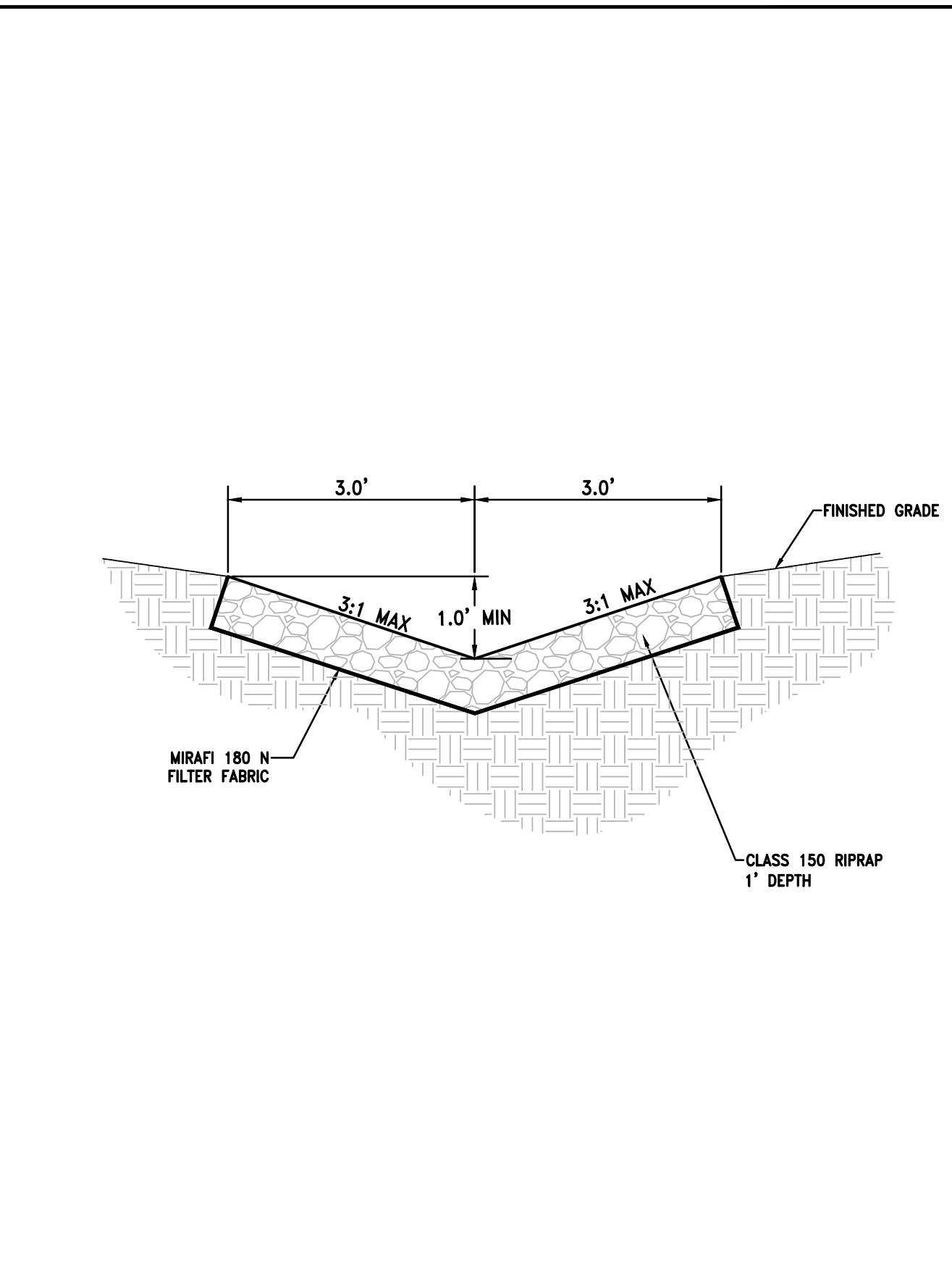
DRAWN BY: NM
DESIGNED BY: AJG/NM
CHECKED BY: AJG
JOB NO.: 9690.000



NOTES:

- P.C.C. CURB AND GUTTER TRANSITION SHALL BE FIBER-REINFORCED PORTLAND CEMENT CONCRETE (P.C.C.) AND SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSPWC). 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.
- REINFORCING STEEL SHALL BE GRADE 40 AND HAVE 1.5" MINIMUM CLEAR COVER.
- CONCRETE STRUCTURE MAY BE A PRE-CAST CONCRETE UNIT UPON APPROVAL OF THE CITY OF SPARKS ENGINEER. BASE OF PRE-CAST 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 WATERWAYS" IN THE TOP OF EACH CURB HOOD.
- 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).
- 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.
- FRAMES AND GRATES SHALL BE MATCHED TO ACHIEVE A CLOSE TOLERANCE FIT WITH MINIMAL GAPS.
- CATCH BASIN SHALL NOT BE PLACED WITHIN THE RADIUS OF THE CURB.

SCALE: NTS



17
C2.2

CATCH BASIN TYPE 4-R

18
C2.2

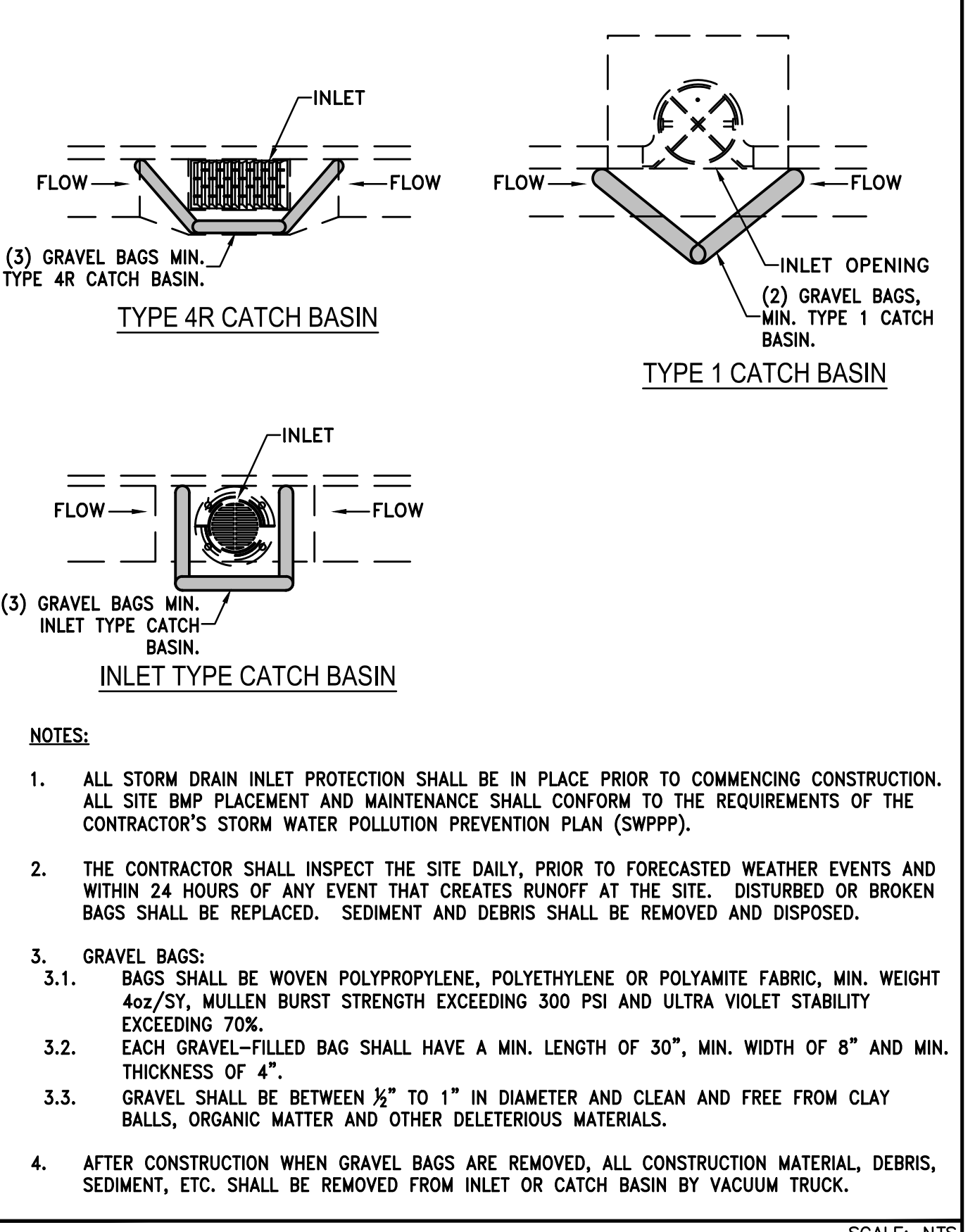
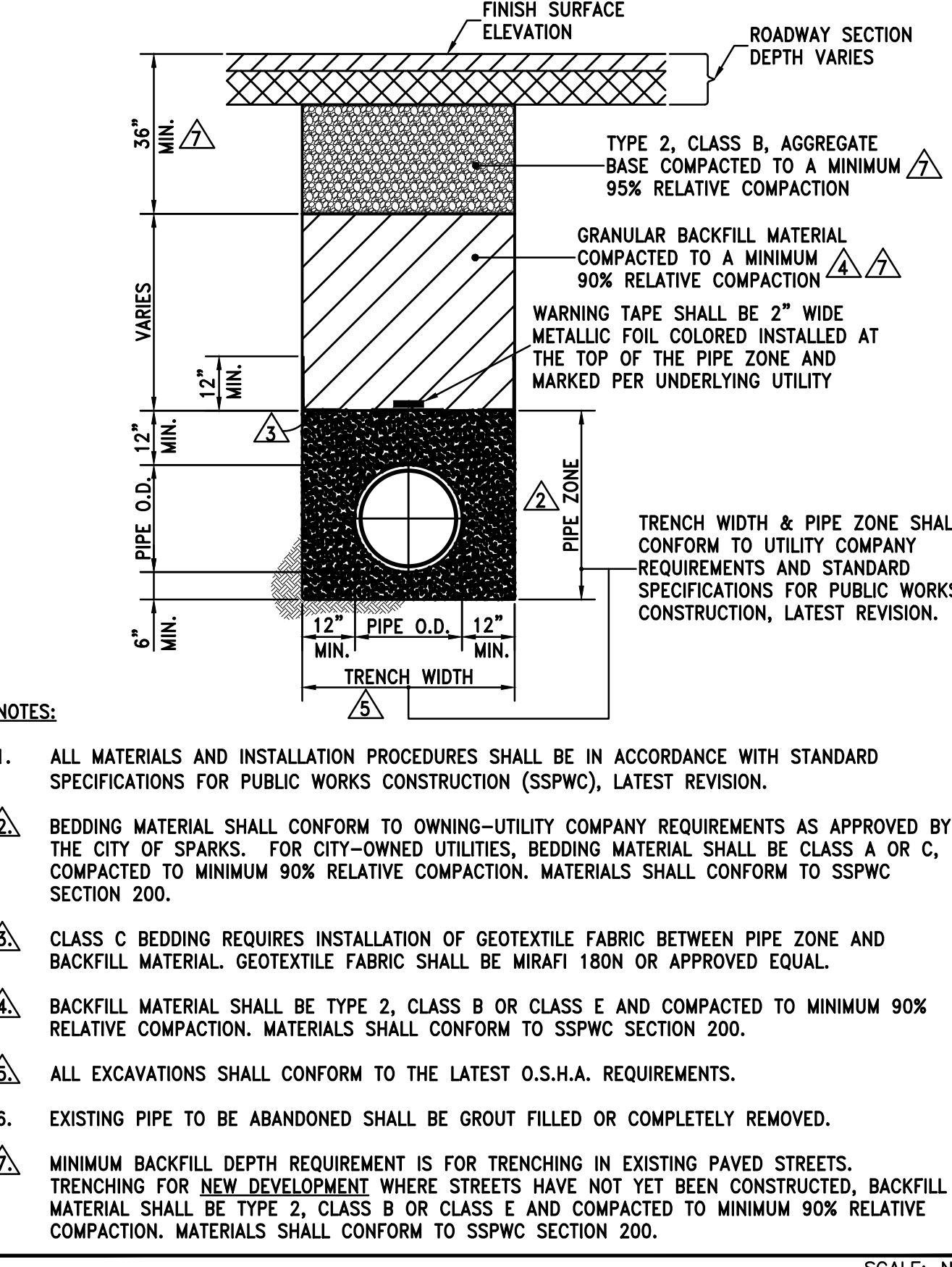
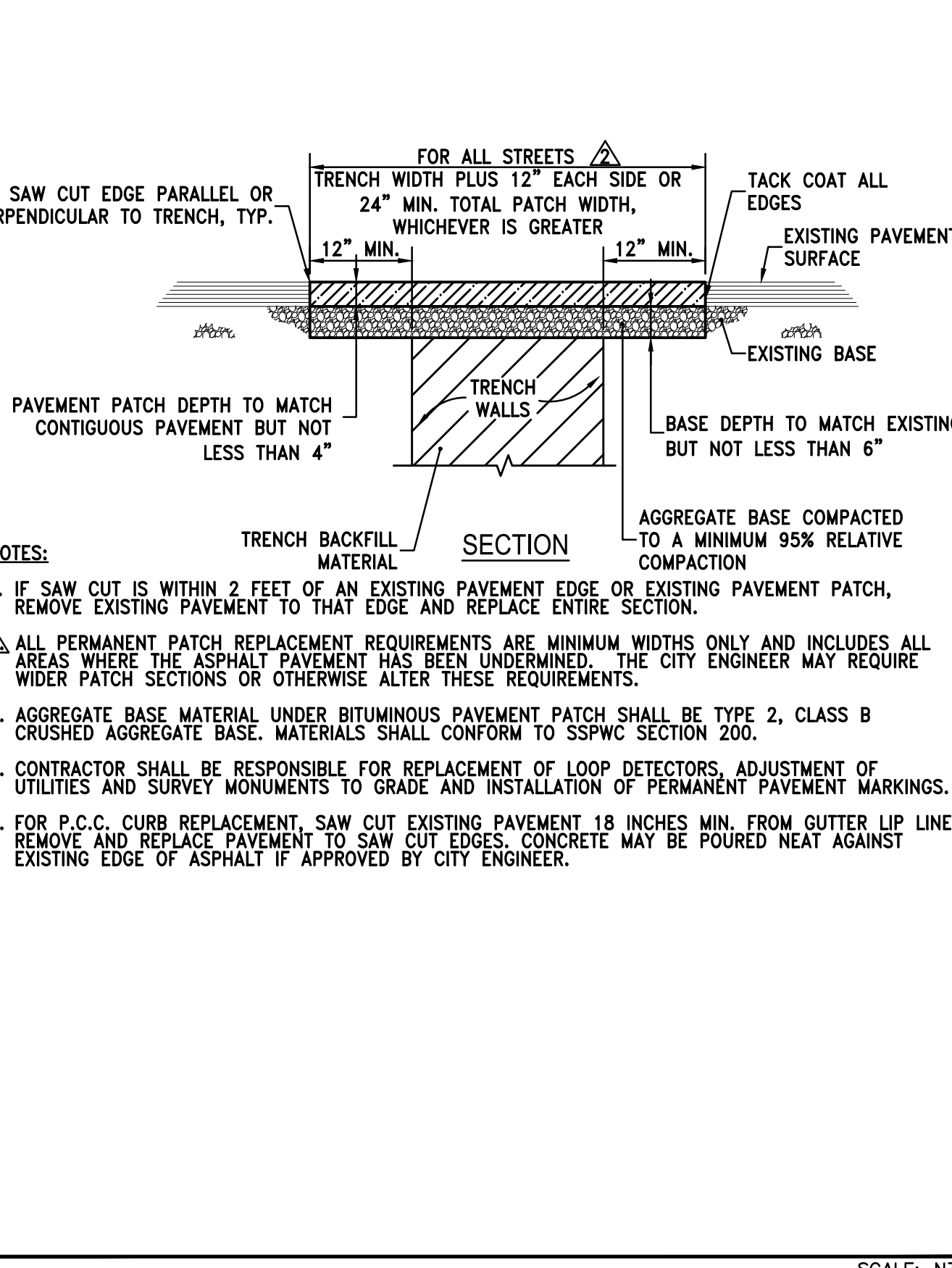
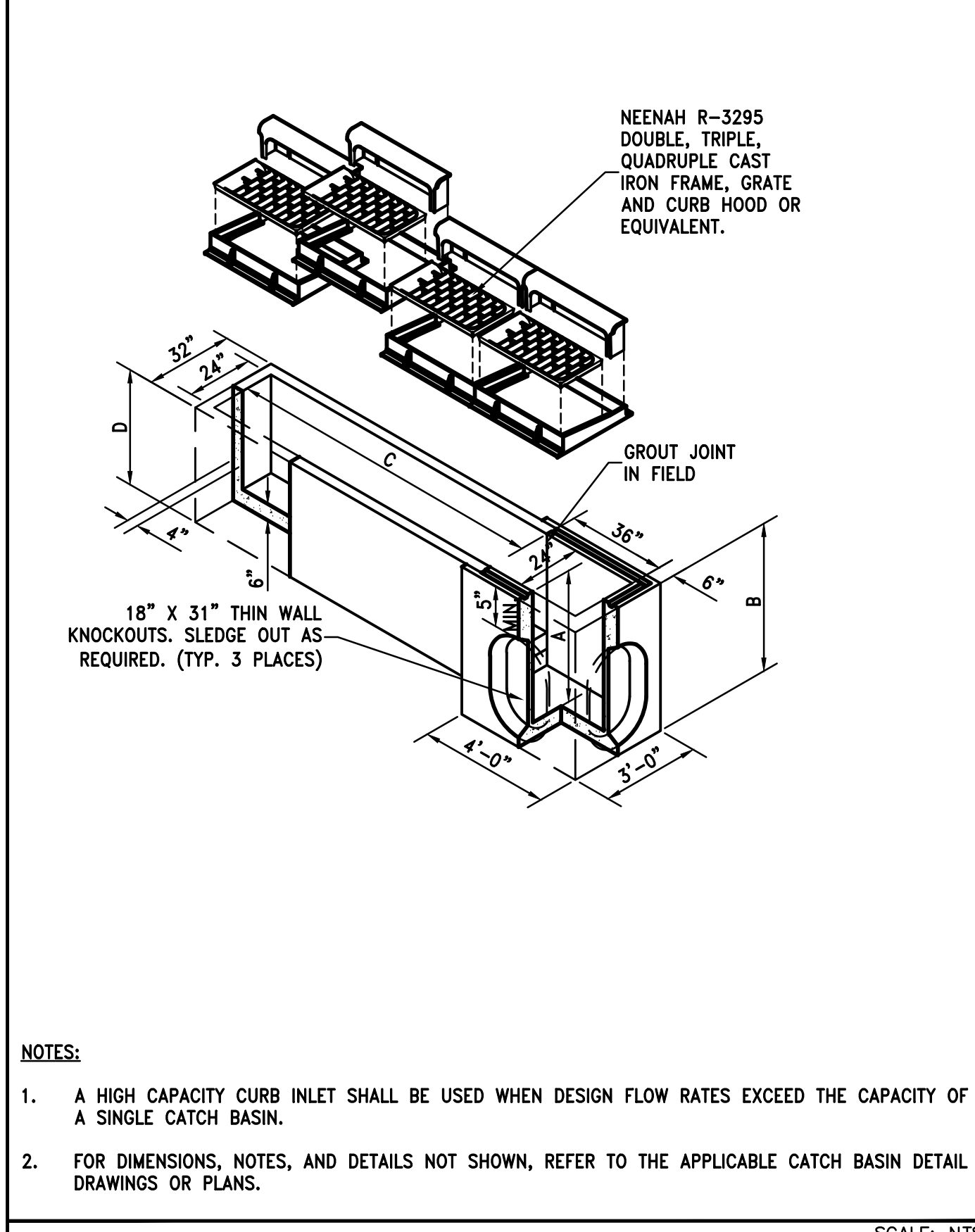
NOTES CATCH BASIN TYPE 4-R

19
C2.2

RIPRAP SWALE

20
C2.2

No. 200 DROP INLET WITH BEEHIVE GRATE



21
C2.2

HIGH CAPACITY CURB INLET

22
C2.2

PERMANENT BITUMINOUS PAVEMENT PATCH

23
C2.2

TRENCH EXCAVATION/BACKFILL

24
C2.2

STORM DRAIN INLET PROTECTION



9222 PROTOTYPE DRIVE
RENO, NV 89521
TEL: 775.827.6111
WWW.LUMOSINC.COM

© LUMOS & ASSOCIATES, INC. THIS DRAWING IS THE PROPERTY OF LUMOS & ASSOCIATES, INC. USE OR REPRODUCTION OF THIS DRAWING, 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.



11/4/2019

2020 STREET REHABILITATION
COMBINATION UNIT 3
QUEEN WAY DETAIL SHEET

CITY OF SPARKS

NEVADA

SPARKS

BY: _____

DESCRIPTION: _____

REV. DATE: _____

BID SET

11/4/2019

BAR IS 1 INCH ON ORIGINAL DRAWING
0 NTS

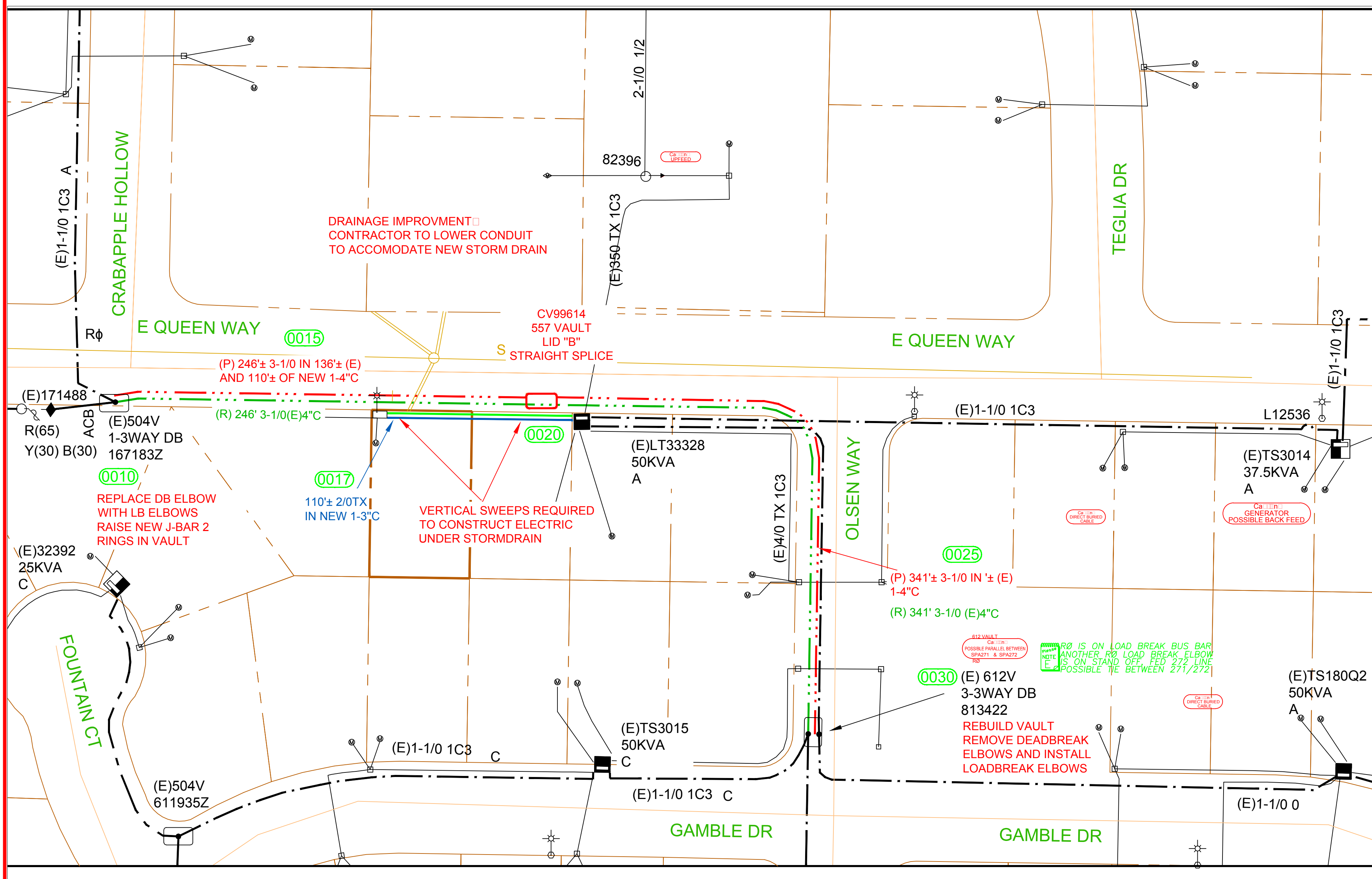
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

C2.2

DRAWN BY: NM
DESIGNED BY: AJG/NM
CHECKED BY: AJG
JOB NO.: 9690.000

L:\A\Proj\9690.000 - Eng Services - Queen Way 19th Drainage\DWG\Civil\3D\9690.000base_REVISED.dwg,C2.2, 11/04/2019 12:28 pm mncs2rte

OUTAGE REQUIRED



NV ENERGY TO FURNISH AND/OR INSTALL:

- APPROX. 587 CKT. FT. 25 KV 3Ø U/G PRIMARY C/O 3-1/0 CABLE IN 477' OF (E) AND 110' OF NEW 1-4" (CONDUIT BY APPLICANT).
- APPROX. 110 CKT. FT. 1Ø U/G SECONDARY BUSS C/O 1- 2/0TX, IN 1-3" (CONDUIT BY CONTRACTOR).

NV ENERGY TO REMOVE:

- 587' 3-1/0 U/G CABLE

APPLICANT TO CONTACT AT&T REGARDING ALTERATION OR REMOVAL OF AT&T'S FACILITIES.

APPLICANT TO FURNISH AND/OR INSTALL:

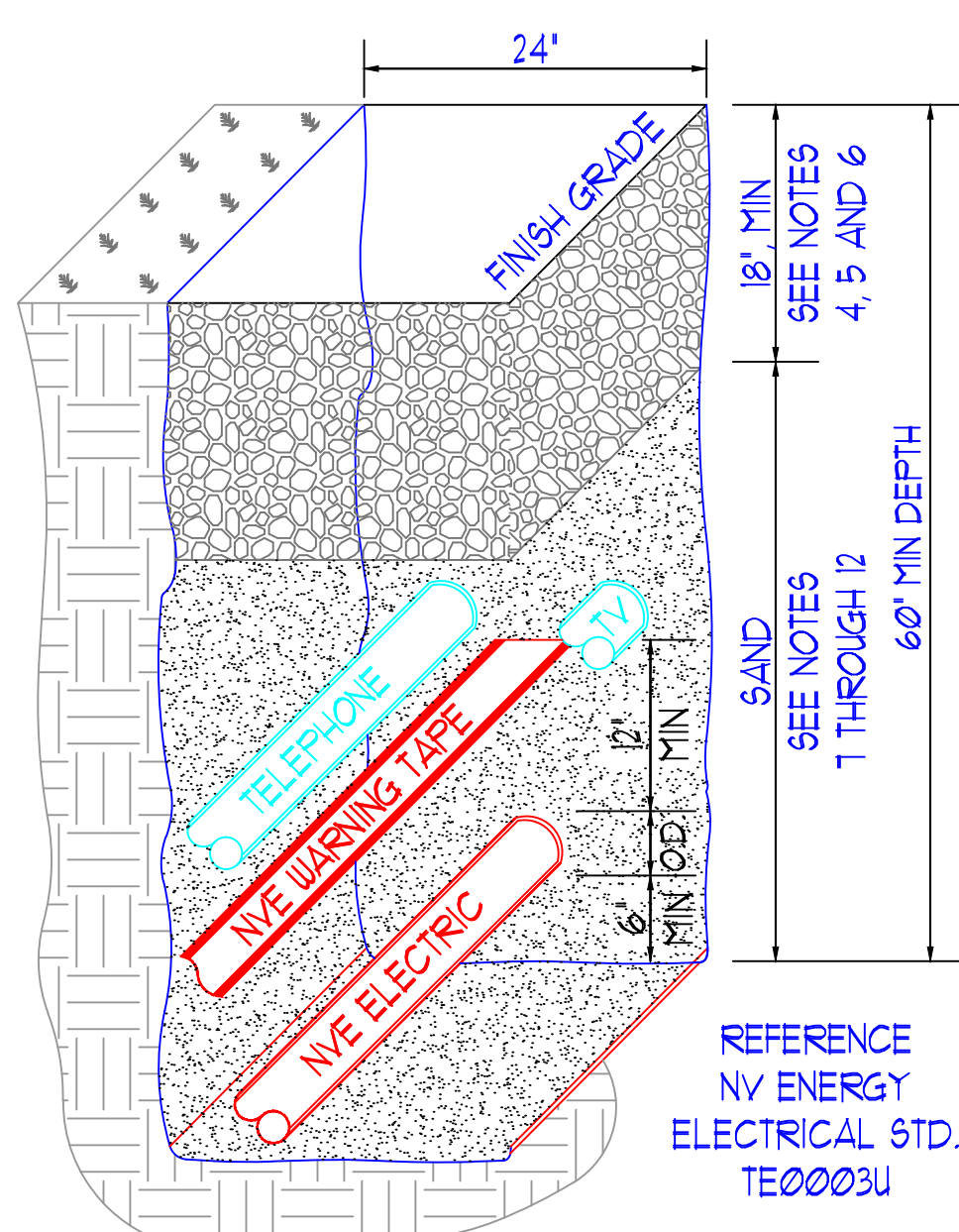
- 1- 557 CABLE VAULT 49"x79"x61" I.D. WITH LID "B" PER NVE. STD. #WB0071U.
 - (LID "A" H-10 RATED, LID "B" H-20 RATED EQUIPMENT, LID "B-1" H-20 RATED 3' MANHOLE, LID "C" OR "C-1" NON RATED, OR LID "D" MAINTENANCE ONLY)
 - PROPOSED APPROX. 110 FT. 4" PVC PRIMARY CONDUIT.
 - PROPOSED APPROX. 110 FT. 3" PVC SECONDARY CONDUIT.
- APPLICANT IS RESPONSIBLE FOR MANDRELLING CONDUIT AND INSTALLING A PULL LINE THAT MEETS OR EXCEEDS THE FOLLOWING REQUIREMENTS:
 THE PULL LINE WILL BE OF A FLAT DESIGN
 SHALL HAVE A MINIMUM BREAKING STRENGTH OF 400 LBS.
 WILL HAVE SEQUENTIAL FOOTAGE MARKINGS
 EXAMPLES OF PULL LINES THAT MEET THESE REQUIREMENTS (NVE. STK.#95-7305)
 NEPTCO "MULE TAPE" (WP400P)
 CONDUX INTERNATIONAL (08096203)
 SEE NVE VOLUME 17, SECTION 4-CD0001U.

ALL TRENCHING AND BACKFILL PER APPLICABLE NVE. STDS. TE0001, TE0003, TE0004 AND TE0020.
 ALL STREET CUT PERMITS AND PAVEMENT CUTTING AND REPLACEMENT AS REQUIRED.

GENERAL COMMENTS:

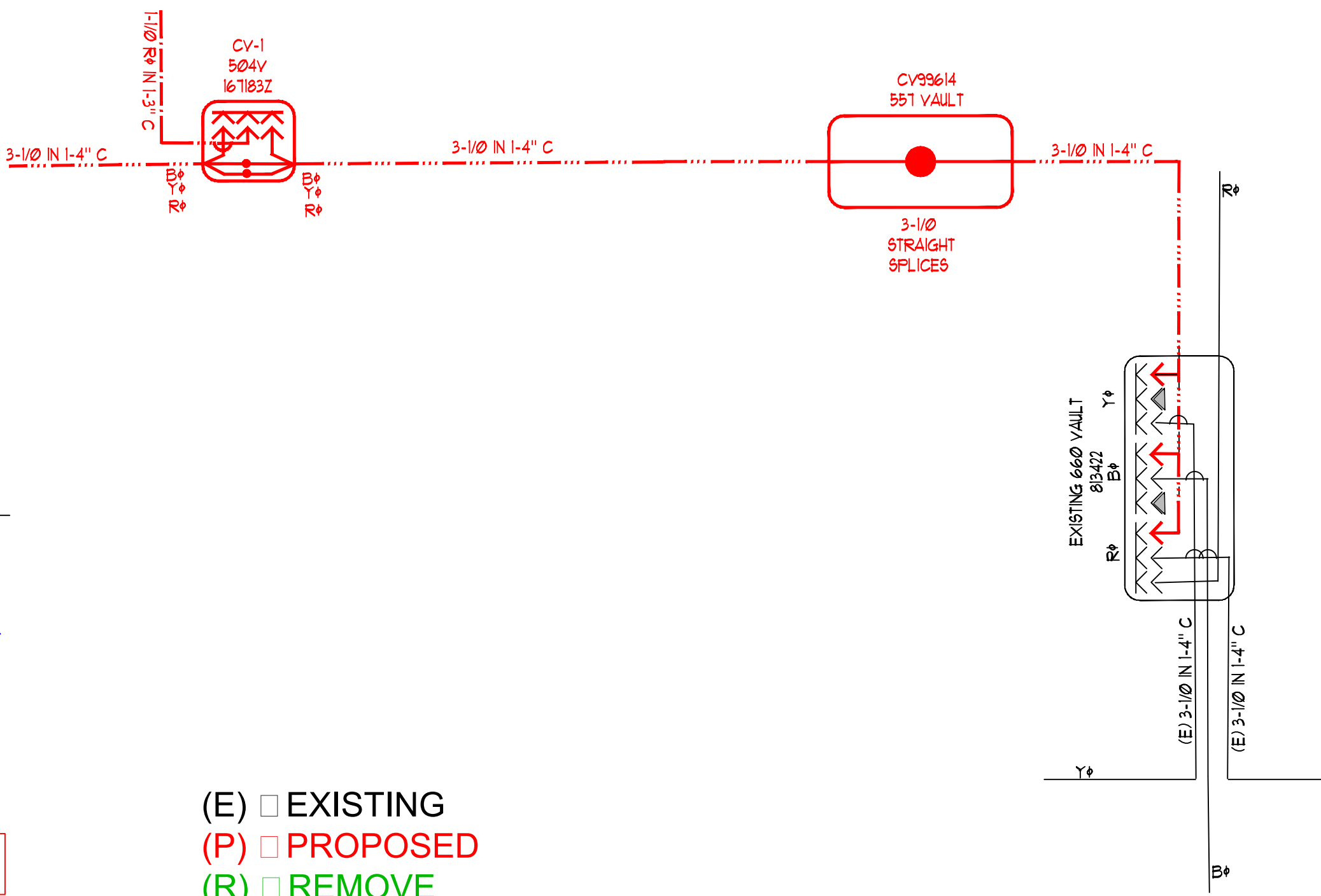
- CALL NVE INSPECTION REQUEST LINE (775) 834-7520 48 HOURS PRIOR TO START OF ALL OVERHEAD OR UNDERGROUND CONSTRUCTION. (INCLUDE PROJECT NUMBER, NAME AND PHONE NUMBER, AND TYPE OF INSPECTION REQUIRED)
- ALL MATERIAL SHALL BE ON THE JOB SITE PRIOR TO THE START OF ANY WORK BY NVE. COMPACTION TESTS REQUIRED PER NVE. STD. SUB01X.
- NO TREE SHALL BE PLANTED UNDER OR ADJACENT TO ENERGIZED POWER LINES WHICH, AT MATURITY, SHALL GROW WITHIN 10 FEET OF THE ENERGIZED CONDUCTORS. NOR SHALL ANY PERMANENT STRUCTURE, FENCE, SHRUB OR TREE BE PLANTED CLOSER THAN 10 FEET IN FRONT AND 3 FEET FROM ALL OTHER SIDES OF A PAD MOUNTED TRANSFORMER.
- THESE DRAWINGS ARE BASED ON CIVIL PLANS DATED: 7/8/2019
- NOTE: DEVELOPER IS RESPONSIBLE FOR ADHERENCE TO NV ENERGY GAS AND ELECTRIC STANDARDS. CONSTRUCTION STANDARDS CAN BE FOUND ON-LINE AT THE FOLLOWING WEB SITE: <http://www.nvenergy.com/account-services/building-and-new-construction>
- THIS MAP ILLUSTRATES DATA COLLECTED FROM VARIOUS SOURCES AND MAY NOT REPRESENT A SURVEY OF THE PREMISES. NO RESPONSIBILITY IS ASSUMED AS TO THE SUFFICIENCY OR ACCURACY OF THE DATA DISPLAYED HEREON.
- ALL WORK SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE SPECIFICATIONS SET FORTH IN THE ELECTRIC DISTRIBUTION GUIDE, VOL. 17 AS CURRENTLY ADOPTED BY NVE. THE CONTRACTOR SHALL SECURE COPIES OF THE AFOREMENTIONED CONSTRUCTION SPECIFICATIONS ON HIS OR HER OWN BEHALF.
- USE CAUTION! PRIOR TO EXCAVATION, CHECK TO ENSURE ADDITIONAL DEPTH IS NOT REQUIRED TO ACCOMMODATE GAS AND/OR WATER FACILITIES.

SYMBOLS ARE NOT TO SCALE AND DO NOT NECESSARILY REPRESENT ACTUAL LOCATIONS OF FACILITIES.



TYPICAL PRIMARY OR SECONDARY TRENCH
SCALE: N.T.S.

SYMBOLS ARE NOT TO SCALE AND DO NOT NECESSARILY REPRESENT ACTUAL LOCATIONS OF FACILITIES.



(E) EXISTING
(P) PROPOSED
(R) REMOVE

DRAWING	DESIGNED BY	DATE
BASE	CD	09/24/2019
ELECTRIC	CD	09/24/2019
GAS		

REVIEWED BY:			
Utility Designer	Engineer	Design Administrator	Design Facilitator

NO.	REVISION	DESCRIPTIONS	DATE	DI
1				
2				
3				
4				
5				
6				
7				

Call before you dig
Call 1-702-227-2929

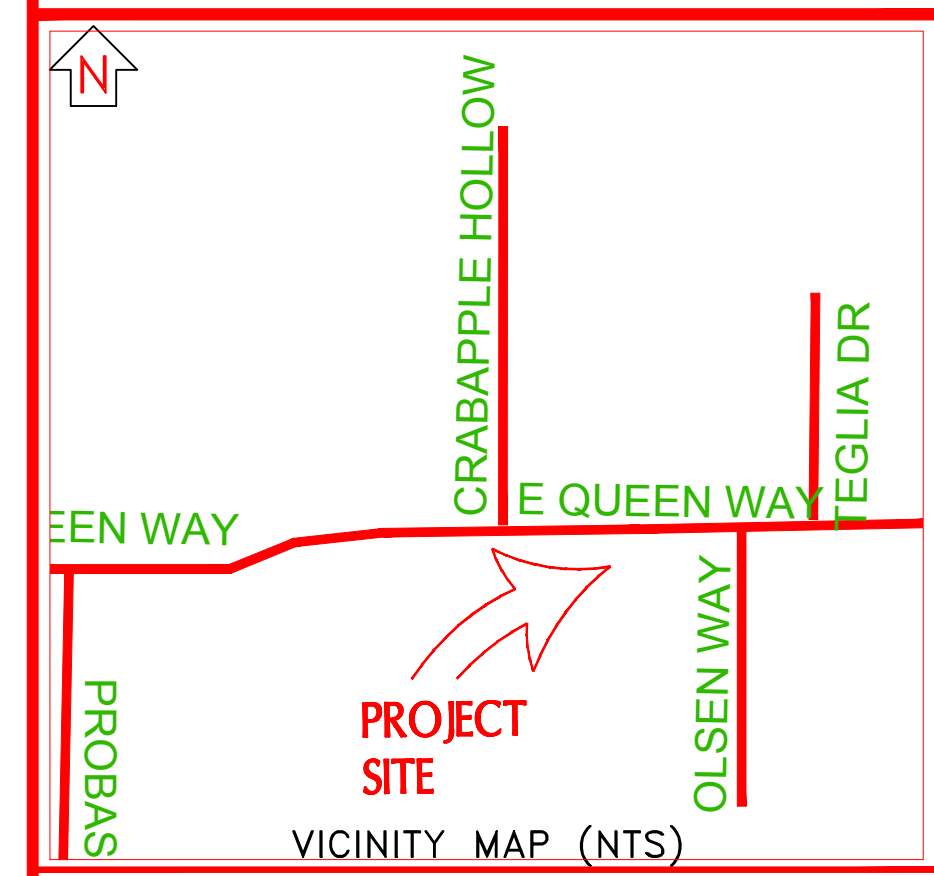
NV Energy
P.O. Box 10100
R77CSE
Reno, NV, 89520-0024

NV ENERGY CONTACT INFORMATION:
 COORDINATOR: CARRIE DUESING
 OFFICE: # 775 834-7232
 CELL: # 775 846-2003
 FAX: #
 EMAIL: CDUESING@NVENERGY.COM
 DESIGNER: CARRIE DUESING
 INSPECTION HOTLINE#: 888/999-1556

CUSTOMER CONTACT INFORMATION:
 CUSTOMER: NVE
 ATTENTION: CONNER ALTENBURG
 PHONE: # 834-7082
 FAX: #
 EMAIL:
 CUST REP: #
 PHONE: #
 EMAIL:

TOWNSHIP-RANGE-SECTION 2020-33	APN# 2844102
-----------------------------------	-----------------

SOURCE INFORMATION
 272
 25KV NORM OUT OF SPANISH SPRINGS SUB



E-QUEEN WAY STORM DRAIN RELO-E-S/H-CPM-NVE

EXHIBIT "A" APPLICANT INSTALLED CONDUIT
ELECTRIC DESIGN

SCALE 1"=50'

SHEET E.10F1

GAS
AUD
ELE 300445344

2020 STREET REHABILITATION COMBINED UNIT 3 WINDSURFER DRIVE CONSTRUCTION

CITY OF SPARKS

SPARKS, WASHOE COUNTY, NEVADA 89434

OWNER/DEVELOPER

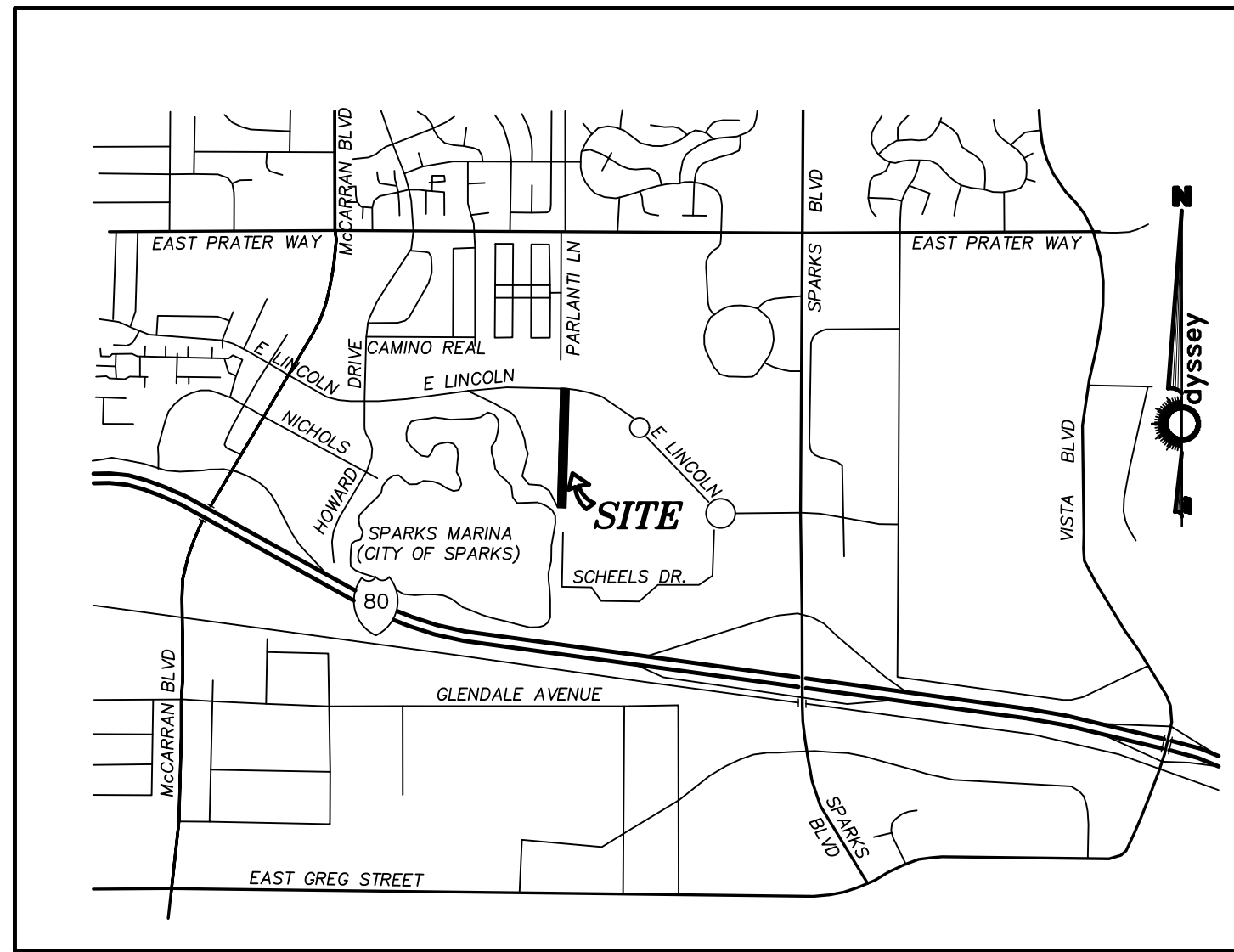
CITY OF SPARKS
431 PRATER WAY
SPARKS, NEVADA 89431
(775) 353-2345

DESIGN ENGINEER

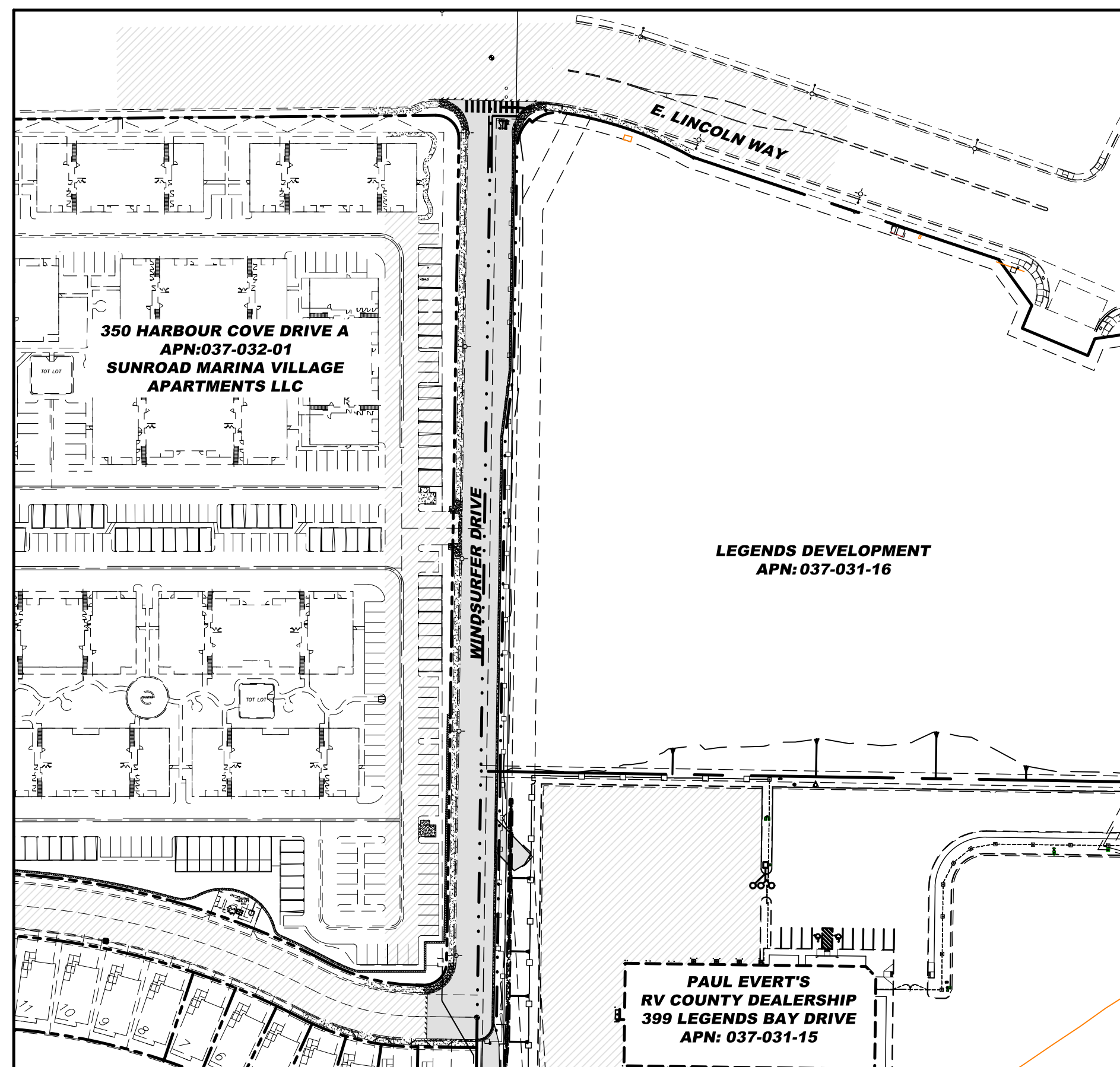
ODYSSEY ENGINEERING INC.
895 ROBERTA LANE, SUITE 104
RENO, NEVADA 89431
(775) 359-3303

LIST OF ABBREVIATIONS

A.C.	ASPHALTIC CONCRETE
B.C.	BEGIN CURVE
B.V.C.	BEGIN VERTICAL CURVE
B.S.	BACK OF SIDEWALK
C.B.	CATCH BASIN
CL	CENTERLINE
CH	CHORD
C.M.P.	CORRUGATED METAL PIPE
CONC.	CONCRETE
CONST.	CONSTRUCT
C.P.	CONCRETE PIPE
D.I.	DROP INLET
DET.	DETAILS
ELEV.	ELEVATION
E.C.	END OF CURVE
E.V.C.	END VERTICAL CURVE
EXIST.	EXISTING
E.G.	EXISTING GRADE
F.F.	FINISH FLOOR
F.F.C.	FRONT FACE CURB
F.G.	FINISH GRADE
F.H.	FIRE HYDRANT
FL	FLOW LINE
G	GAS
G.B.	GRADE BREAK
HORIZ.	HORIZONTAL
INT.	INTERSECTION
I.E.	INVERT ELEVATION
L.T.	LEFT
L	LENGTH
L.F.	LINEAL FEET
M.H.	MANHOLE
P.	PAD ELEVATION
P.I.	POINT OF INTERSECTION
P.R.C.	POINT OF REVERSE CURVATURE
P.O.T.	POINT OF TANGENT
P.V.C.	POLYVINYL CHLORIDE PIPE
P	PROPERTY LINE
(R)	RADIAL
R	RADIUS
REF.	REFERENCE
RET.	RETURN
R.C.P.	REINFORCED CONCRETE PIPE
RT	RIGHT
R/W	RIGHT OF WAY
S.S.	SANITARY SEWER
S.W.	SIDEWALK
SHT.	SHEET
STA.	STATION
S.D.	STORM DRAIN
T	TANGENT
T.C.	TOP OF CURB
T.P.	TOP OF PAVEMENT
TYP.	TYPICAL
VERT.	VERTICAL
V.C.	VERTICAL CURVE
V.P.I.	VERTICAL POINT OF INTERSECTION
W	WATER



VICINITY MAP



CITY OF SPARKS APPROVAL:

JON R. ERICSON, P.E., P.T.O.E. DATE: _____
CITY ENGINEER

CIVIL SHEET INDEX

- T-1TITLE SHEET
- N-1GENERAL NOTES
- P-1PLAN AND PROFILE
- EC-1EROSION CONTROL
- D-1DETAIL SHEET

CIVIL ENGINEER



NOTE:

THE DEVELOPER SHALL COMPLY WITH THE CONSTRUCTION HOURS INCLUDED IN THE CITY OF SPARKS AND WASHOE COUNTY DEVELOPMENT HANDBOOK. THE DEVELOPER SHALL INSTALL SIGNS AT ALL ACCESS POINTS OF THE PROJECT THAT CLEARLY INDICATE THE HOURS OF ACTIVITY ON-SITE PRIOR TO THE START OF ANY CONSTRUCTION-RELATED ACTIVITIES TO THE APPROVAL OF THE ADMINISTRATOR. THE DEVELOPER SHALL MAINTAIN THESE SIGNS IN GOOD REPAIR FOR THE DURATION OF THE CONSTRUCTION OF THE PROJECT. ONCE CONSTRUCTION IS FINISHED, THE DEVELOPER SHALL REMOVE THESE SIGNS.

SPECIFICATIONS

ALL CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS, AND THE LATEST STANDARD DETAILS, FOR PUBLIC WORKS CONSTRUCTION (2016 EDITION AND ANY APPURTENANT SUPPLEMENTS) SPONSORED AND DISTRIBUTED BY RENO, SPARKS, AND WASHOE COUNTY.

ENGINEER'S CERTIFICATE

THESE PLANS, SHEETS T-1 OF 5 THROUGH D-1 OF 5, HAVE BEEN PREPARED IN ACCORDANCE WITH THE CITY COUNCIL CONDITIONS OF APPROVAL AND CITY CODE. IN THE EVENT OF CONFLICT BETWEEN ANY PORTION OF THESE PLANS AND CITY CODE, CITY STANDARDS SHALL PREVAIL.

FRANK A. BIDART P.E. #10504

BY	APP'D	
DESCRIPTION		
DATE		
REV.		
DATE	NOV. 2019	
DRAWN BY	TCP	
DESIGNED BY	ACAD 2017	
CHECKED BY	FAB	
2020 STREET REHABILITATION COMBINED UNIT 3		
WINDSURFER DRIVE CONSTRUCTION		
TITLE SHEET		
SPARKS WASHOE NEVADA		
895 ROBERTA LANE, SUITE 104, SPARKS, NV 89431 (775) 359-3303 FAX (775) 359-3303 ODYSSEY-RENO.COM		
odyssey ENGINEERING INCORPORATED		
FRANK A. BIDART Exp. 12-31-20 CIVIL No. 10504 10/31/19		
SCALE		
HORIZ. ---		
VERT. ---		
JOB NO.		
SHEET		
T-1		
OF		
5		



Know what's below.
Call before you dig.

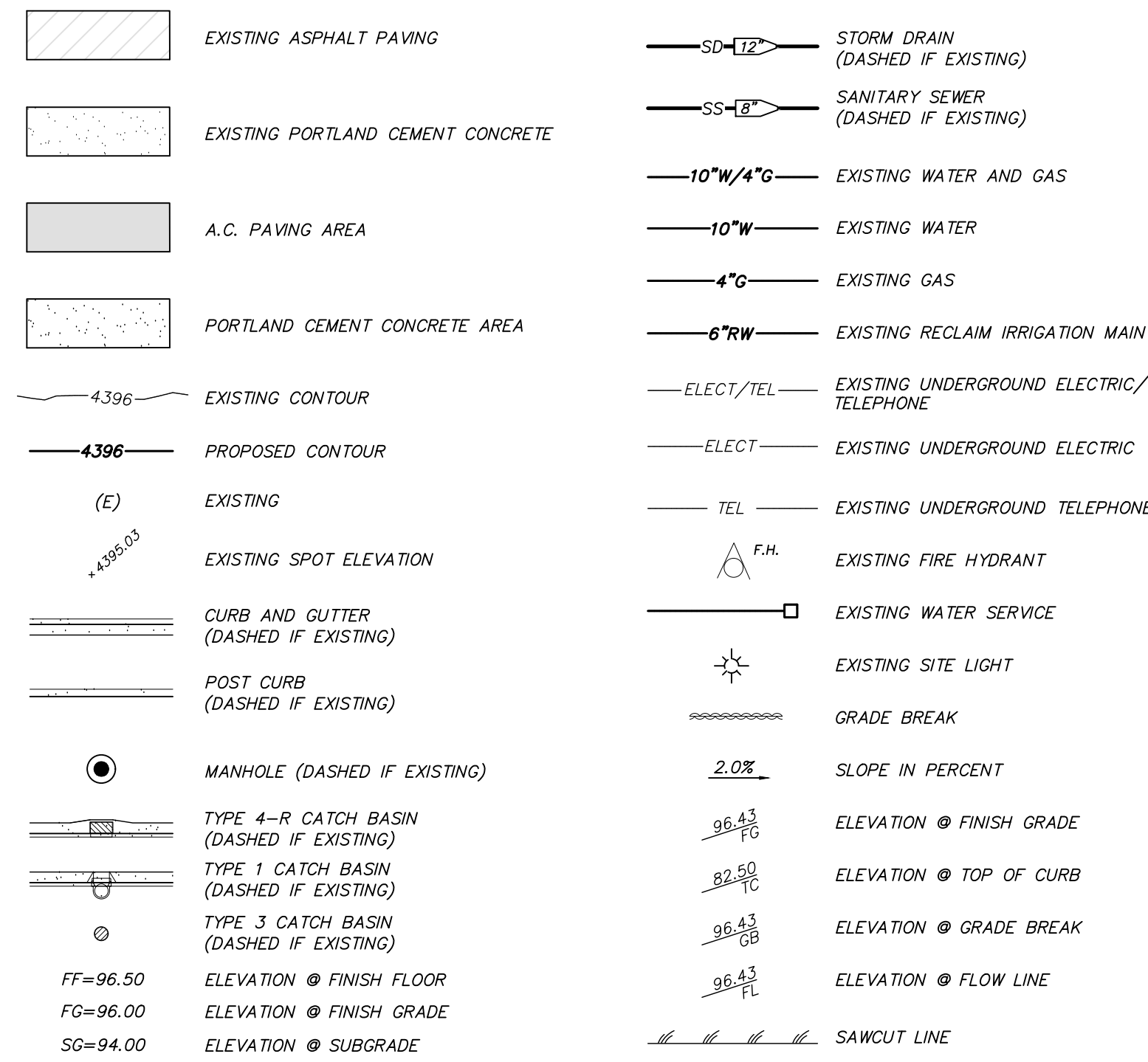
GENERAL NOTES:

- ALL CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS, AND THE LATEST STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION 2016 EDITION (AND ANY APPURTENANT SUPPLEMENTS) SPONSORED BY THE CITY OF SPARKS, WASHOE COUNTY.
- THE CONTRACTOR SHALL VERIFY IN FIELD, ALL ELEVATIONS, DIMENSIONS, FLOW LINES, EXISTING CONDITIONS, AND POINT OF CONNECTION WITH ADJOINING PROPERTY (PUBLIC OR PRIVATE). ANY DISCREPANCY SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING UTILITIES DURING CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITY COMPANIES FOR LOCATIONS OR POT-HOLING PRIOR TO CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING UTILITIES ENCOUNTERED DURING CONSTRUCTION. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE UTILITY COMPANIES FOR LOCATIONS OR POT-HOLING PRIOR TO CONSTRUCTION.
- ALL REQUIRED UTILITY SHUT-DOWNS SHALL BE COORDINATED WITH APPROPRIATE UTILITY COMPANY AND LEGENDS PERSONNEL.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE, PERMIT AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN IN CONFORMANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL MAINTAIN EXISTING B.M.P. IMPROVEMENTS THAT ARE IN PLACE, AND SHALL PROVIDE AND MAINTAIN ADDITIONAL B.M.P.'S AS REQUIRED TO IMPLEMENT HIS S.W.P.P.
- THE CONTRACTOR SHALL OBTAIN AND THE OWNER SHALL PAY FOR ALL NECESSARY PERMITS AND FEES REQUIRED FOR CONSTRUCTION.
- THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE SOIL ENGINEERS AND CITY OF SPARKS 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
- ALL DIMENSIONS ARE TO FRONT FACE OF CURB UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL MAINTAIN A DUST CONTROL PROGRAM, INCLUDING WATERING OF OPEN AREAS. THE CONTRACTOR SHALL ALSO MAINTAIN CONFORMITY WITH SECTION 040.030 OF THE WASHOE COUNTY AIR POLLUTION REGULATIONS.
- THE CONTRACTOR SHALL DISPOSE OF ALL DEMOLITION DEBRIS PER FEDERAL, STATE AND LOCAL REGULATIONS AND ORDINANCES.
- NO MATERIAL OF ANY KIND SHALL BE STOCKPILED, OR CONSTRUCTION EQUIPMENT PARKED ON CONCRETE OR ASPHALT SURFACES MAINTAINED BY THE CITY OF SPARKS.
- ALL UNDERGROUND UTILITIES SHOWN HEREON WERE TAKEN FROM SURFACE EVIDENCE AND AVAILABLE UTILITY COMPANY RECORDS. ALL UTILITIES SHOULD BE VERIFIED IN THE FIELD. ODYSSEY ENGINEERING INC. ASSUMES NO RESPONSIBILITY FOR ACCURACY OR COMPLETENESS OF SUCH RECORDS.
- THE CONTRACTOR SHALL MAINTAIN AN ON-GOING PROCESS OF REMOVAL OF ALL SPILLAGE OF EXCAVATION MATERIAL ON ALL PAVED STREETS.
- LAND GRADING SHALL BE DONE IN A METHOD TO PREVENT DUST FROM TRAVERSING THE PROPERTY LINE.
- ALL REQUIRED UTILITY SHUT-DOWNS SHALL BE COORDINATED WITH APPROPRIATE UTILITY COMPANY AND OWNERS PERSONNEL.
- THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE, PERMIT AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN IN CONFORMANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL MAINTAIN EXISTING B.M.P. IMPROVEMENTS THAT ARE IN PLACE, AND SHALL PROVIDE AND MAINTAIN ADDITIONAL B.M.P.'S AS REQUIRED TO IMPLEMENT HIS S.W.P.P.
- ADD 4300 FEET TO ALL TRUNCATED ELEVATIONS.
- THE NATURAL VEGETATION AND EXISTING LANDSCAPING SHALL BE PRESERVED AS MUCH AS PRACTICAL DURING ROADWAY AND DRAINAGE IMPROVEMENTS CONSTRUCTION.
- ANY EXCESS OR UNSUITABLE MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH THE LATEST CITY OF SPARKS REGULATIONS OR IN APPROVED AREAS.
- THE CONTRACTOR SHALL MAINTAIN AN ON-GOING PROCESS OF REMOVAL OF ALL SPILLAGE OF EXCAVATION MATERIAL ON ALL PAVED STREETS.
- LAND GRADING SHALL BE DONE IN A METHOD TO PREVENT DUST FROM TRAVERSING THE PROPERTY LINE.
- ALL REQUIRED UTILITY SHUT-DOWNS SHALL BE COORDINATED WITH APPROPRIATE UTILITY COMPANY AND OWNERS PERSONNEL.
- SLOPES STEEPER THAN 3:1 SHALL BE MECHANICALLY STABILIZED WITH ROCK-RIP.

TRUCKEE MEADOWS REGIONAL STORMWATER QUALITY NOTES:

- THE OWNER, SITE DEVELOPER, CONTRACTOR AND OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATE IN, THE PUBLIC RIGHTS OF WAYS OF THE CITY OF SPARKS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
- ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CITY OF SPARKS AND THE TRUCKEE MEADOWS CONSTRUCTION SITE BEST MANAGEMENT PRACTICES HANDBOOK.
- TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO STORMWATER GENERAL PERMIT NVR100000, SECTION 1.B.a.b. (2).
- AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIST LOCATIONS AND ALL BMPs WEEKLY, PRIOR TO A FORECASTED RAIN EVENT AND WITHIN 24 HOURS AFTER ANY ACTUAL RAIN EVENT. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS FROZEN GROUND CONDITIONS OR SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO STORMWATER GENERAL PERMIT NVR100000, SECTION 1.B.A.g.
- ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BE REDUCED BY 50 PERCENT OR MORE.

LEGEND:



CITY OF SPARKS APPROVAL:

JON R. ERICSON, P.E., P.T.O.E.
CITY ENGINEER

DATE:

REV.	DATE	DESCRIPTION	BY	APP'D

DATE: NOV. 2019	DRAWN BY: TCP	DESIGNED BY: ACAD 2017	CHECKED BY: FAB
-----------------	---------------	------------------------	-----------------

2020 STREET REHABILITATION COMBINED UNIT 3

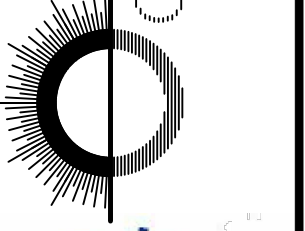
WINDSURFER DRIVE CONSTRUCTION

GENERAL NOTES

SPARKS WASHOE NEVADA

895 ROBERTA LANE SUITE 104 SPARKS, NV 89431
(775) 350-3303 FAX (775) 350-3393
ODYSSEY-RENO.COM

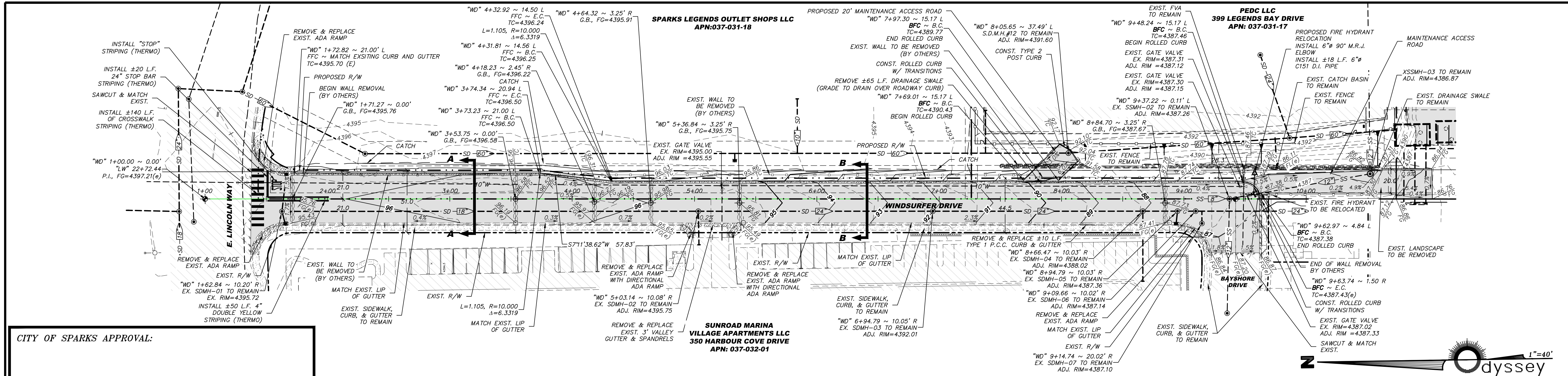
odyssey ENGINEERING INCORPORATED



SCALE
HORIZ. —
VERT. —
JOB NO.
JOB
SHEET
N-1
OF
5



Know what's below.
Call before you dig.



CITY OF SPARKS APPROVAL:

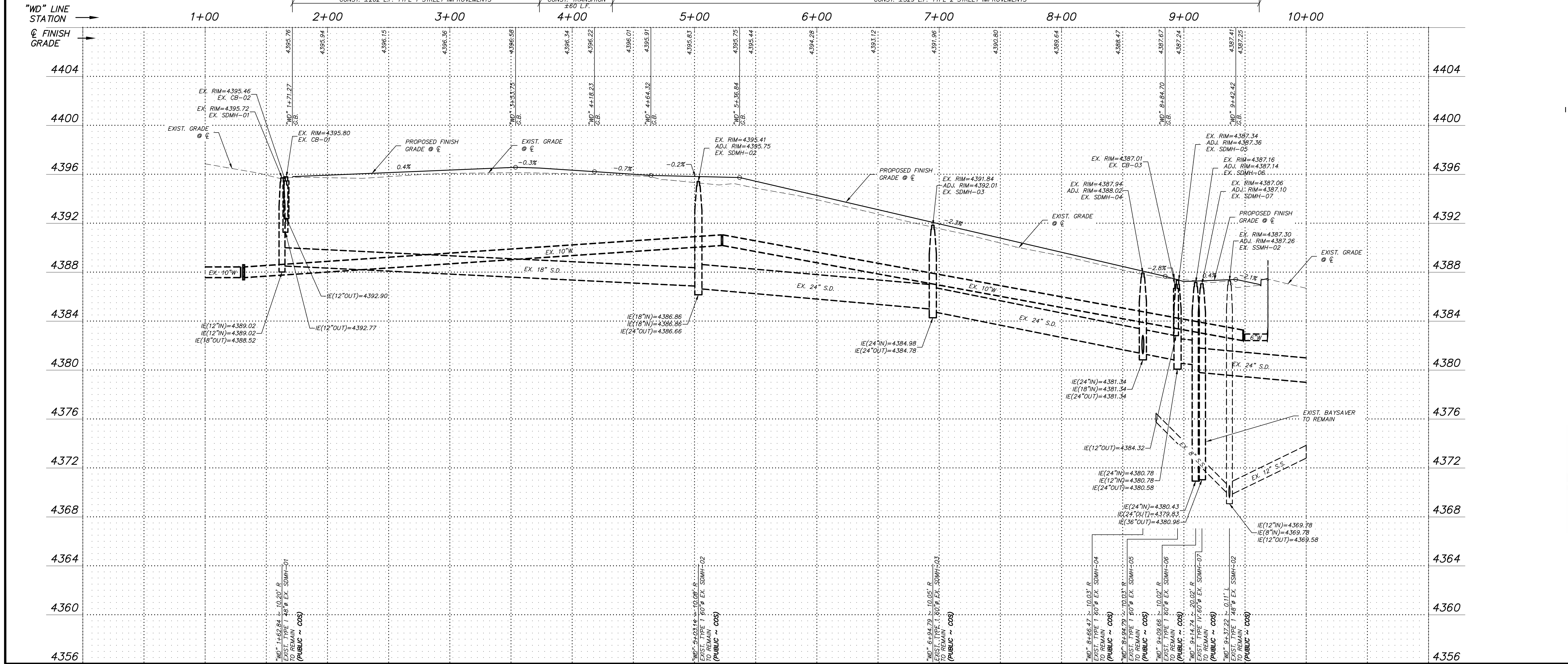
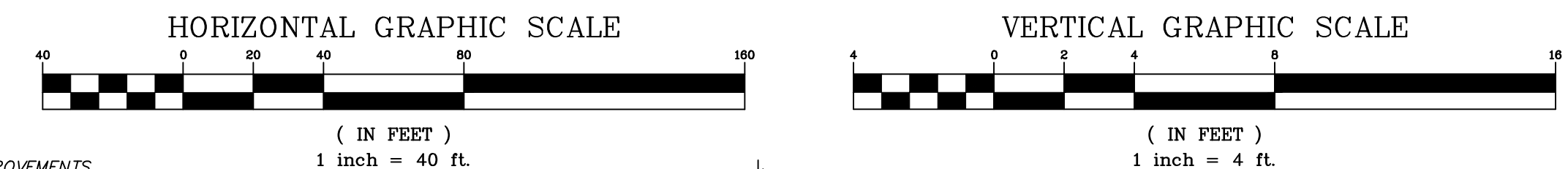
JON R. ERICSON, P.E., P.T.O.E. CITY ENGINEER

DATE: _____

NOTE: MAINTENANCE ACCESS ROAD SECTION: 1" AC ON 6" TYPE 2 AGG. BASE, 95% RELATIVE COMPACTION

WINDSURFER DRIVE (PUBLIC)

STA. "WD" 1+00.00 TO 10+00.00



REV.	DATE	DESCRIPTION
BY	APP'D	
NOV. 2019		2020 STREET REHABILITATION COMBINED UNIT 3
DRAWN BY: TJP		WINDSURFER DRIVE CONSTRUCTION
DESIGNED BY: ACAD 2017		PLAN AND PROFILE
CHECKED BY: FAB		SPARKS
		WASHOE
		NEVADA

SCALE

HORIZ. 1"=40'

VERT. 1"=4'

JOB NO.

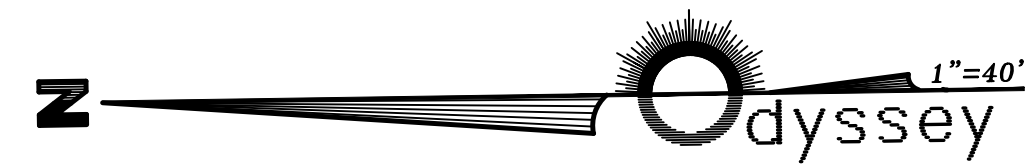
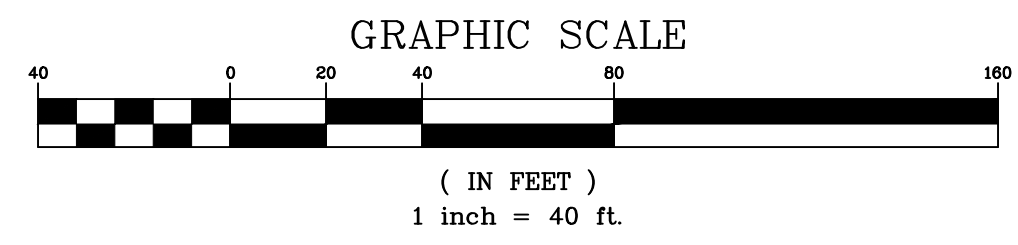
SHEET

P-1

OF

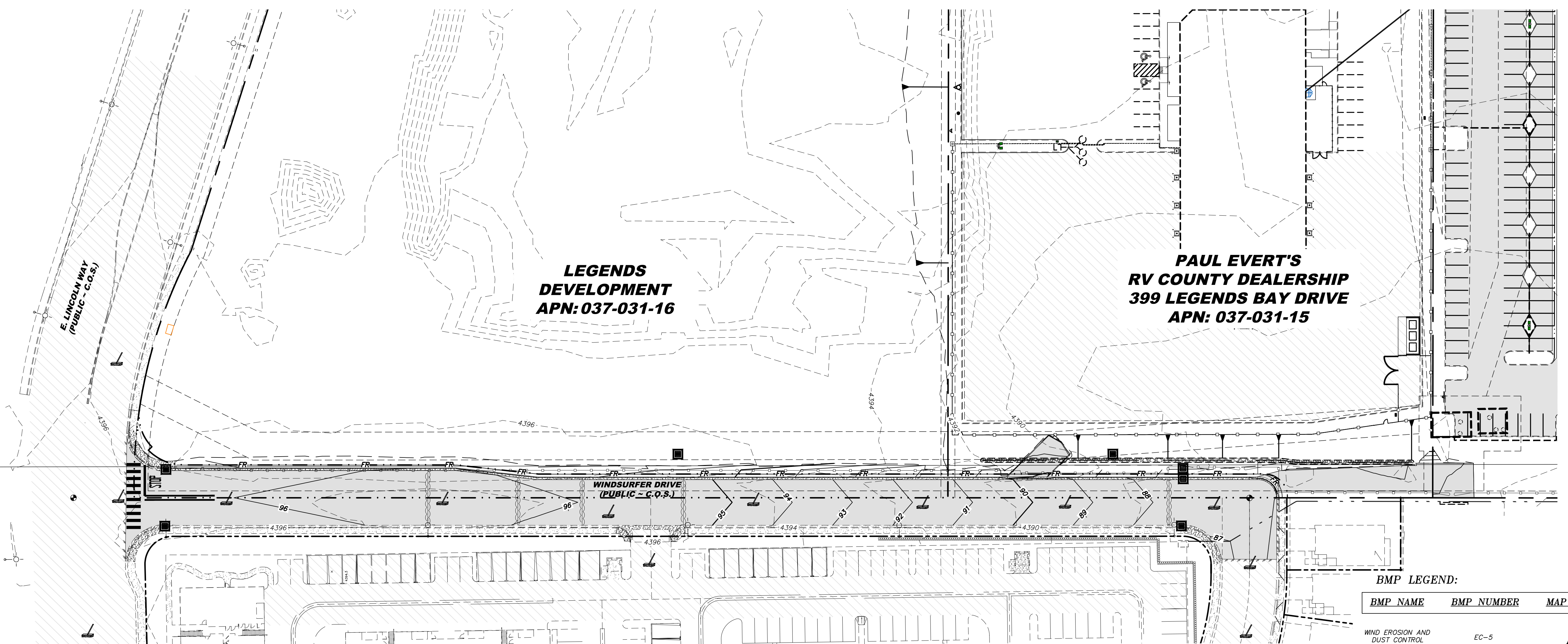
5

November 1, 2019 - 10:18 Dwg Name: h:\cos windsurfer\production drawings\PLAN AND PROFILE.dwg Updated By: TRAVIS



CITY OF SPARKS APPROVAL:

 JON R. ERICSON, P.E., P.T.O.E. DATE: _____
 CITY ENGINEER



TRUCKEE MEADOWS REGIONAL STORMWATER QUALITY NOTES:

1. THE OWNER, SITE DEVELOPER, CONTRACTOR AND OR THEIR AUTHORIZED AGENTS SHALL EACH DAY REMOVE ALL SEDIMENT, MUD, CONSTRUCTION DEBRIS, OR OTHER POTENTIAL POLLUTANTS THAT MAY HAVE BEEN DISCHARGED TO, OR ACCUMULATE IN, THE PUBLIC RIGHTS OF WAYS OF THE CITY OF SPARKS AS A RESULT OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THIS SITE DEVELOPMENT OR CONSTRUCTION PROJECT. SUCH MATERIALS SHALL BE PREVENTED FROM ENTERING THE STORM SEWER SYSTEM.
 2. ADDITIONAL CONSTRUCTION SITE DISCHARGE BEST MANAGEMENT PRACTICES MAY BE REQUIRED OF THE OWNER AND HIS OR HER AGENTS DUE TO UNFORESEEN EROSION PROBLEMS OR IF THE SUBMITTED PLAN DOES NOT MEET THE PERFORMANCE STANDARDS SPECIFIED IN THE CITY OF SPARKS AND THE TRUCKEE MEADOWS CONSTRUCTION SITE BEST MANAGEMENT PRACTICES HANDBOOK.
 3. TEMPORARY OR PERMANENT STABILIZATION PRACTICES WILL BE INSTALLED ON DISTURBED AREAS NO LATER THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. SOME EXCEPTIONS MAY APPLY; REFER TO STORMWATER GENERAL PERMIT NVR100000, SECTION 1.B.A.b. (2).
 4. AT A MINIMUM, THE CONTRACTOR OR HIS AGENT SHALL INSPECT ALL DISTURBED AREAS, AREAS USED FOR STORAGE OF MATERIALS AND EQUIPMENT THAT ARE EXPOSED TO PRECIPITATION, VEHICLE ENTRANCE AND EXIST LOCATIONS AND ALL BMPs WEEKLY, PRIOR TO A FORECASTED RAIN EVENT AND WITHIN 24 HOURS AFTER ANY ACTUAL RAIN EVENT. THE CONTRACTOR OR HIS AGENT SHALL UPDATE OR MODIFY THE STORMWATER POLLUTION PREVENTION PLAN AS NECESSARY. SOME EXCEPTIONS TO WEEKLY INSPECTIONS MAY APPLY, SUCH AS FROZEN GROUND CONDITIONS OR SUSPENSION OF LAND DISTURBANCE ACTIVITIES. REFER TO STORMWATER GENERAL PERMIT NVR100000, SECTION 1.B.A.g.
 5. ACCUMULATED SEDIMENT IN BMPs SHALL BE REMOVED WITHIN SEVEN DAYS AFTER A STORMWATER RUNOFF EVENT OR PRIOR TO THE NEXT ANTICIPATED STORM EVENT WHICHEVER IS EARLIER. SEDIMENT MUST BE REMOVED WHEN BMP DESIGN CAPACITY HAS BEEN REDUCED BY 50 PERCENT OR MORE.
- PROJECT DURATION: TBA
 TOTAL PROJECT AREA: 0.7+/- ACRES

GRADING NOTES:

1. ALL CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS, AND THE LATEST STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION 2012 EDITION (AND ANY APPURTENANT SUPPLEMENTS) SPONSORED AND DISTRIBUTED BY RENO, SPARKS, AND WASHOE COUNTY.
2. THE CONTRACTOR SHALL MAINTAIN A DUST CONTROL PROGRAM, INCLUDING WATERING OF OPEN AREAS. THE CONTRACTOR SHALL ALSO MAINTAIN CONFORMITY WITH SECTION 040.030 OF THE WASHOE COUNTY AIR POLLUTION REGULATIONS.
3. THE CONTRACTOR SHALL VERIFY IN FIELD, ALL ELEVATIONS, DIMENSIONS, FLOW LINES, EXISTING CONDITIONS, AND POINT OF CONNECTION WITH ADJOINING PROPERTY (PUBLIC OR PRIVATE). ANY DISCREPANCIES SHALL BE CALLED TO THE ATTENTION OF THE ENGINEER PRIOR TO PROCEEDING WITH CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGE TO EXISTING UTILITIES DURING CONSTRUCTION. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO CONTACT THE UTILITY COMPANIES FOR LOCATIONS OR POT-HOLING PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL DISPOSE OF ALL DEMOLITION DEBRIS PER FEDERAL, STATE AND LOCAL REGULATIONS AND ORDINANCES.
5. ALL UNDERGROUND UTILITIES SHOWN HEREON WERE TAKEN FROM SURFACE EVIDENCE AND AVAILABLE UTILITY COMPANY RECORDS. ALL UTILITIES SHOULD BE VERIFIED IN THE FIELD. ODYSSEY ENGINEERING INC. ASSUMES NO RESPONSIBILITY FOR ACCURACY OR COMPLETENESS OF SUCH RECORDS.
6. THE CONTRACTOR SHALL MAINTAIN AN ON-GOING PROCESS OF REMOVAL OF ALL SPILLAGE OF EXCAVATION MATERIAL ON ALL PAVED STREETS.
7. LAND GRADING SHALL BE DONE IN A METHOD TO PREVENT DUST FROM TRAVERSING THE PROPERTY LINE.
8. ALL REQUIRED UTILITY SHUT-DOWNS SHALL BE COORDINATED WITH APPROPRIATE UTILITY COMPANY AND OWNERS PERSONNEL.
9. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE, PERMIT AND IMPLEMENT A STORM WATER POLLUTION PREVENTION PLAN IN CONFORMANCE WITH FEDERAL, STATE AND LOCAL REQUIREMENTS. THE CONTRACTOR SHALL MAINTAIN EXISTING B.M.P. IMPROVEMENTS THAT ARE IN PLACE, AND SHALL PROVIDE AND MAINTAIN ADDITIONAL B.M.P.'S AS REQUIRED TO IMPLEMENT HIS S.W.P.P.
10. THE CONTRACTOR SHALL OBTAIN AND THE OWNER SHALL PAY FOR ALL NECESSARY PERMITS AND FEES REQUIRED FOR CONSTRUCTION.
11. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE SOILS ENGINEER, NEVADA ENERGY, CITY OF SPARKS, AND THE TRUCKEE MEADOWS WATER AUTHORITY 48 HOURS PRIOR TO COMMENCEMENT OF WORK.
12. ADD 4300 FEET TO ALL TRUNCATED ELEVATIONS.
13. THE NATURAL VEGETATION AND EXISTING LANDSCAPING SHALL BE PRESERVED AS MUCH AS PRACTICAL DURING SITE IMPROVEMENTS CONSTRUCTION.
14. SLOPES STEEPER THAN 3:1 SHALL BE MECHANICALLY STABILIZED WITH ROCK-RIP.
15. ANY EXCESS OR UNSUITABLE MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH THE LATEST CITY OF SPARKS REGULATIONS OR IN APPROVED AREAS.

BMP LEGEND:

BMP NAME	BMP NUMBER	MAP SYMBOL
WIND EROSION AND DUST CONTROL	EC-5	
RIP-RAP	EC-7	
FIBER ROLLS	SC-1	
CONSTRUCTION SITE ENTRANCES AND EXITS	SC-8	
STORM DRAIN INLET PROTECTION	DP-3	
STOCKPILE MANAGEMENT	GM-2	
STREET SWEEPING	GM-5	
SPILL PREVENTION AND CONTROL	GM-6	
VEHICLE AND EQUIPMENT CLEANING	GM-7	
VEHICLE AND EQUIPMENT MAINTENANCE AND FUELING	GM-8	
HANDLING AND DISPOSAL OF CONCRETE AND CEMENT	GM-9	
MATERIAL DELIVERY, HANDLING, STORAGE, AND USE	GM-10	
PAVEMENT CONSTRUCTION MANAGEMENT	GM-12	
SANITARY/SEPTIC WASTE MANAGEMENT	GM-14	

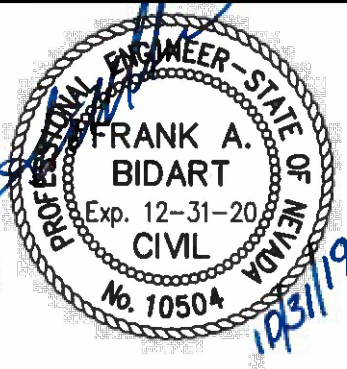
REV.	DATE	DESCRIPTION	BY	APP'D

DATE: NOV. 2019
 DRAWN BY: TCP
 DESIGNED BY: ACAD 2017
 CHECKED BY: FAB

2020 STREET REHABILITATION COMBINED UNIT 3
 WINDSURFER DRIVE CONSTRUCTION
 EROSION CONTROL
 SPARKS WASHOE NEVADA

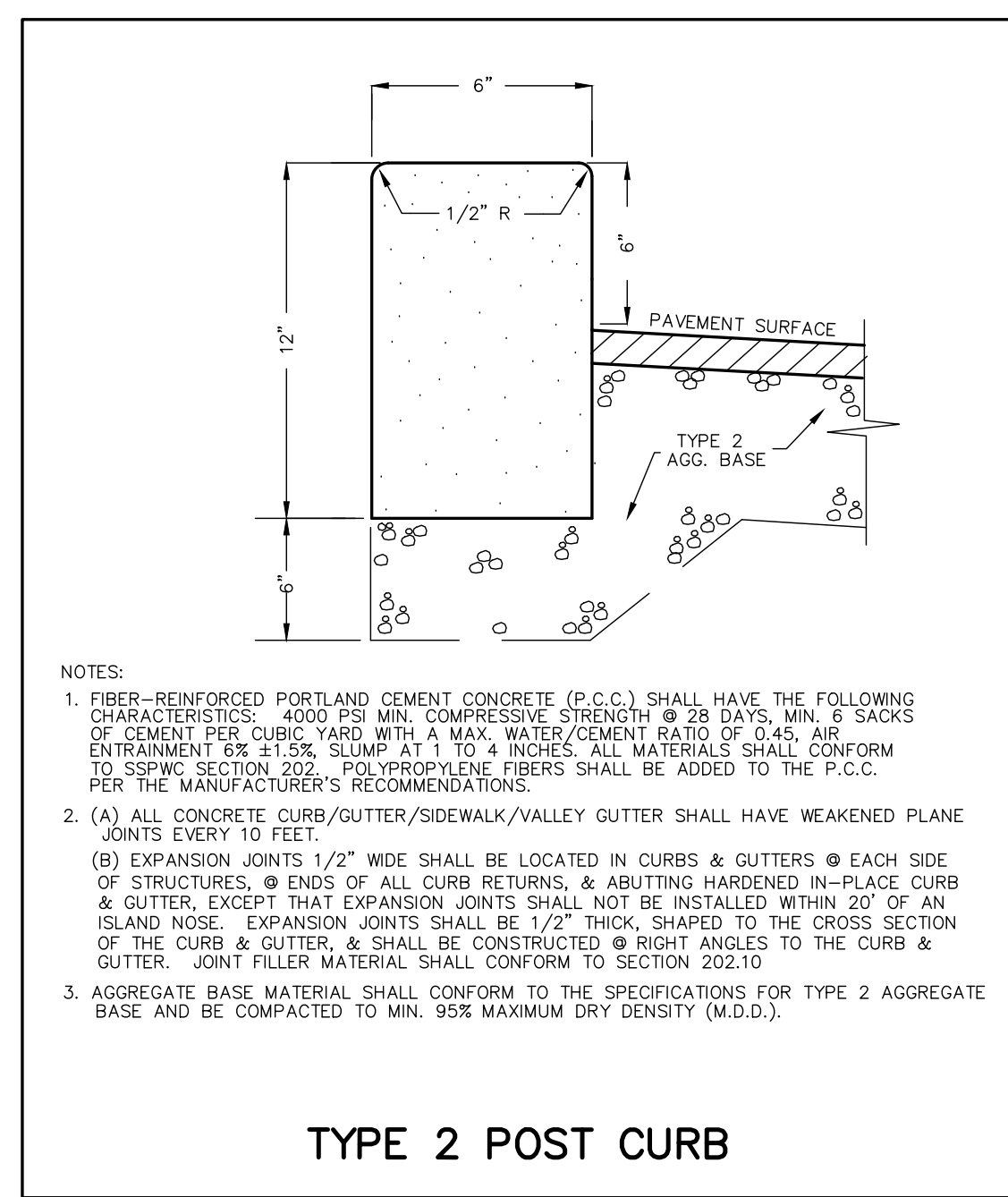
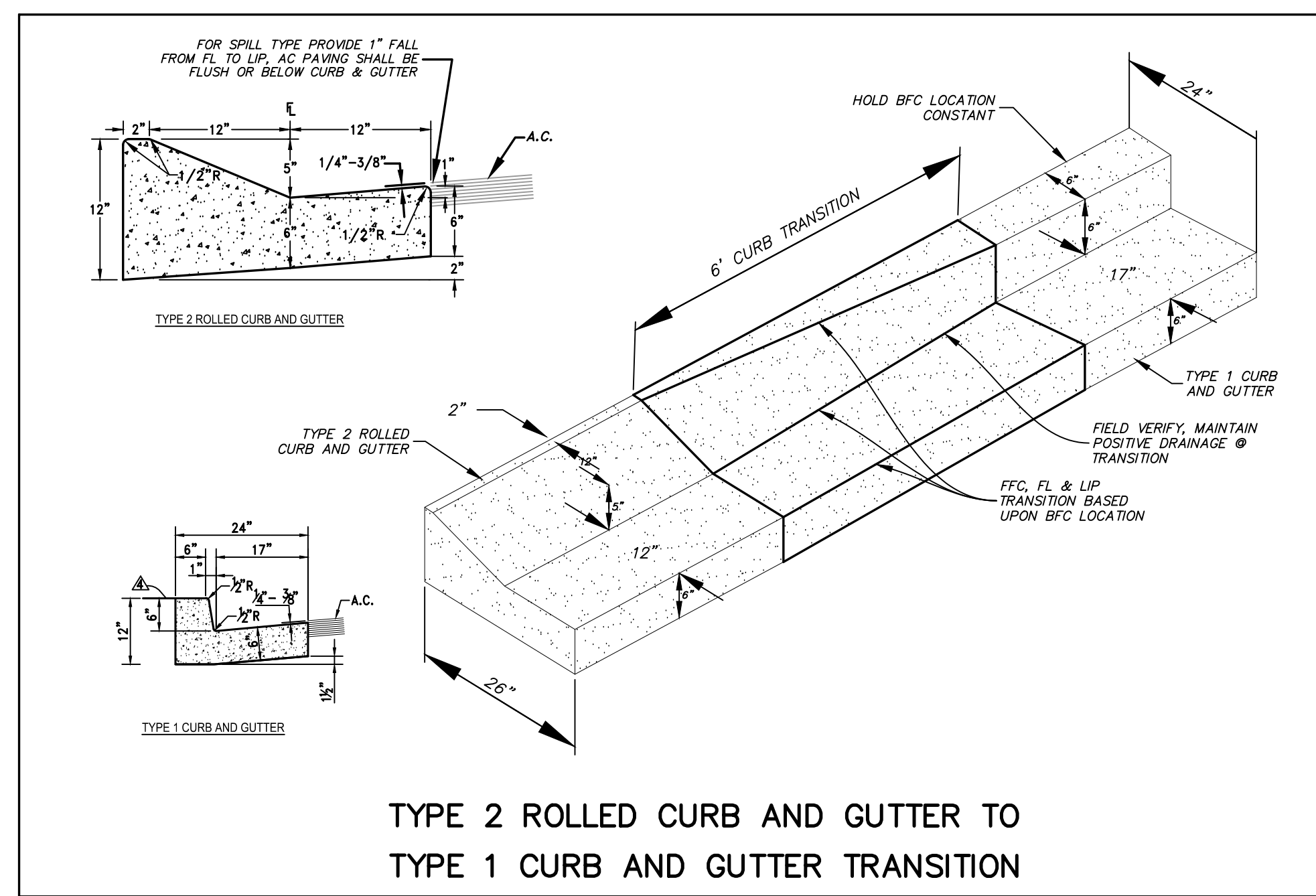
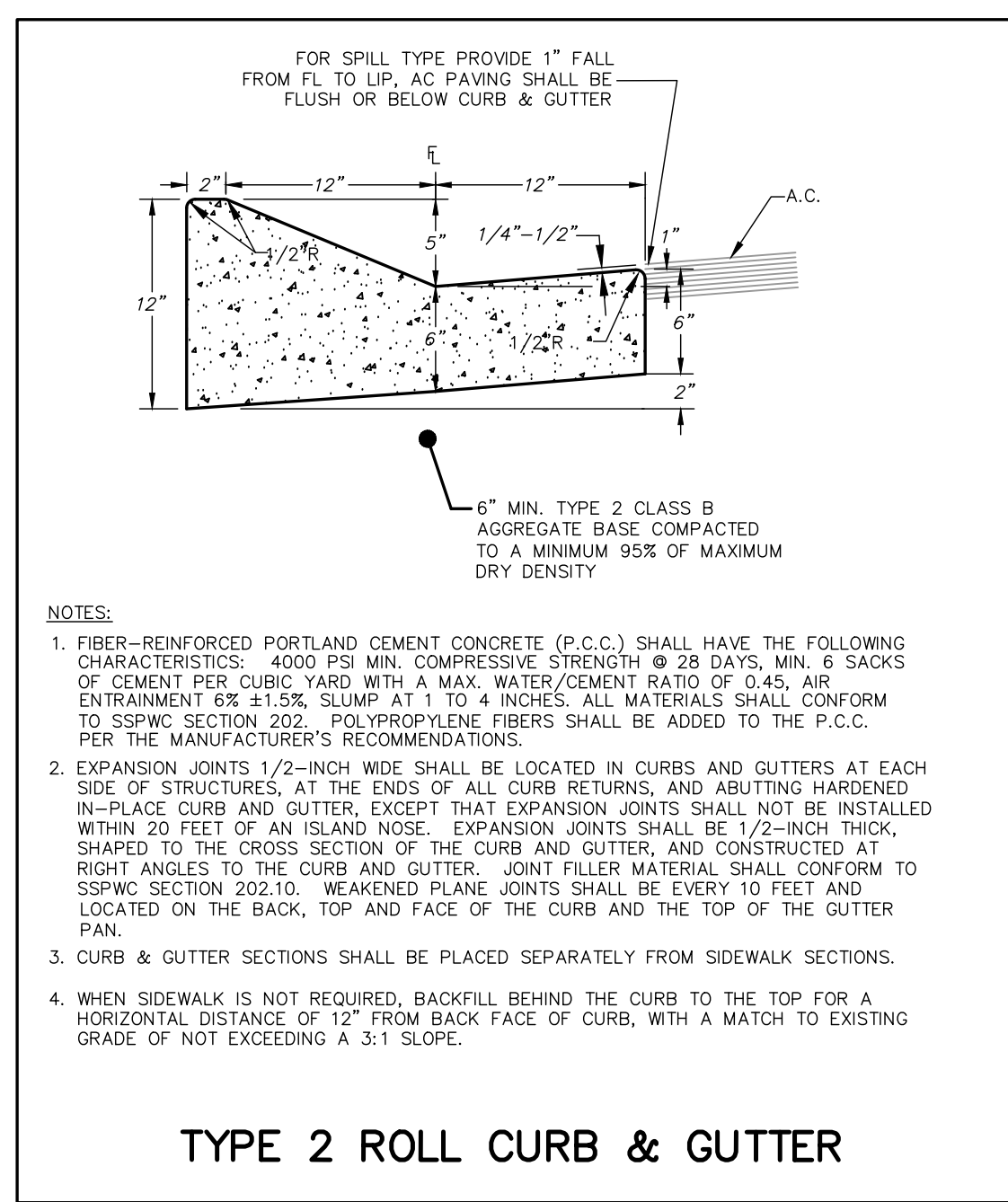
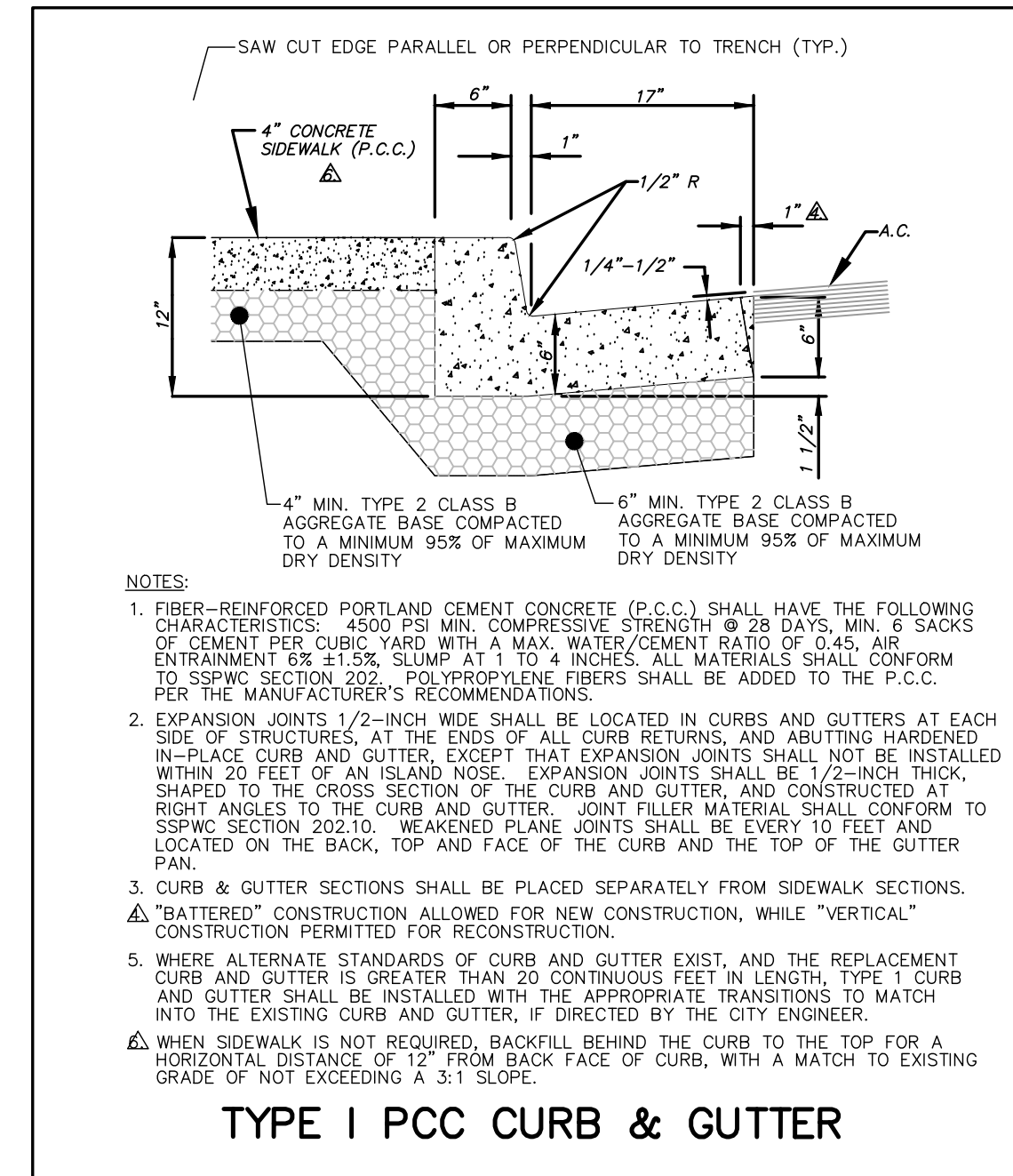
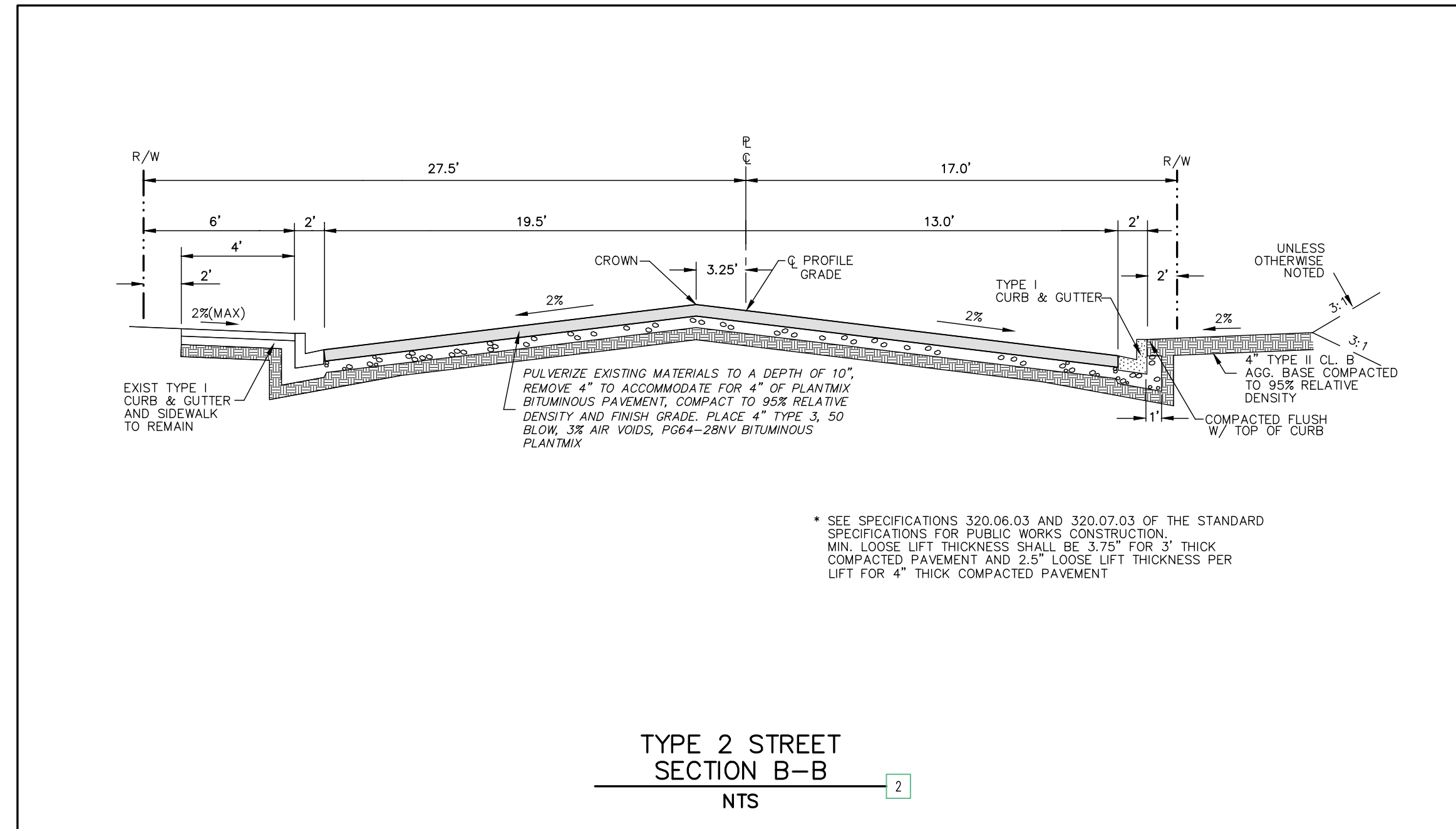
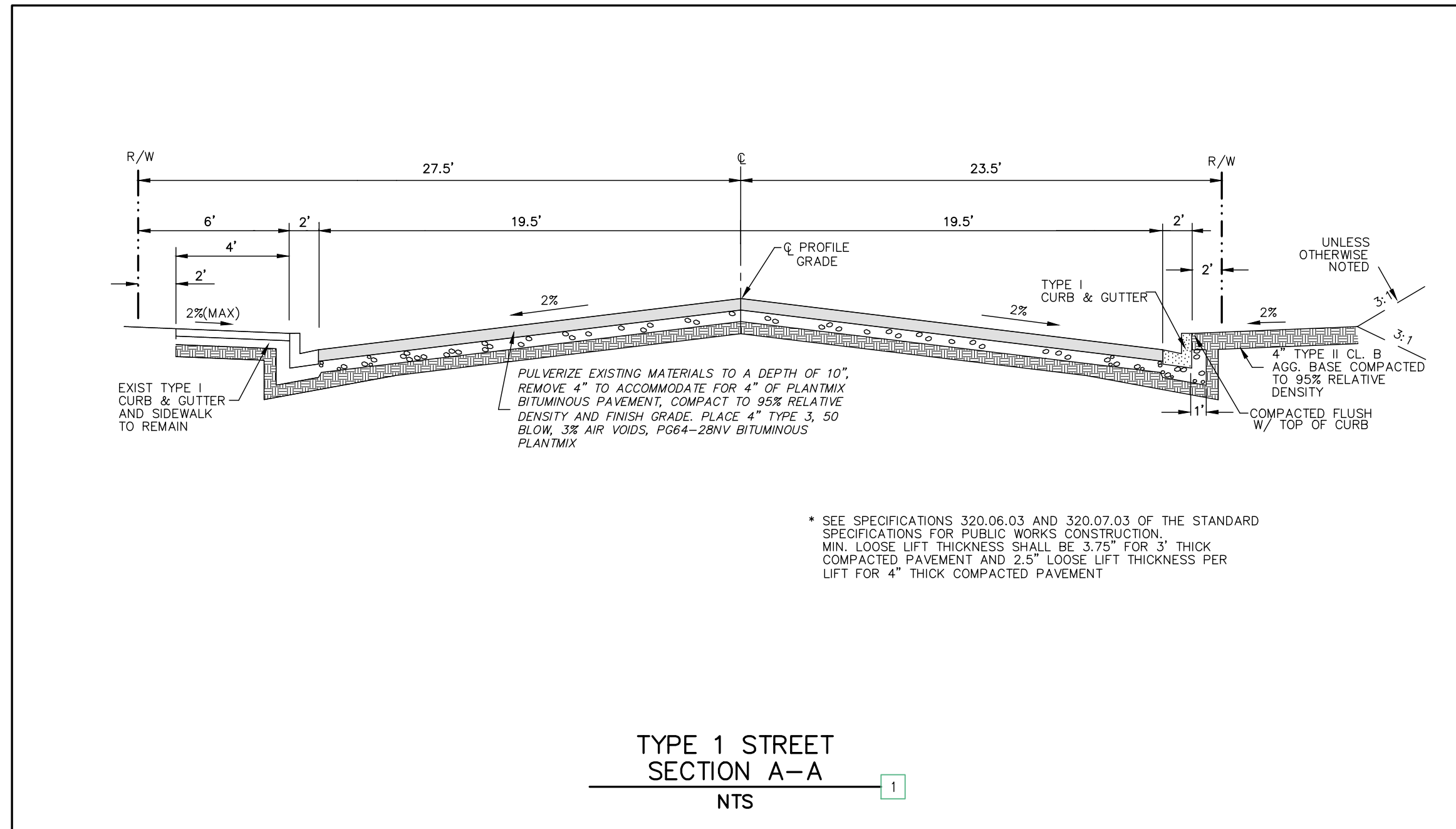
885 ROBERTA LANE, SUITE 104, SPARKS, NV 89431
 (775) 369-3303 FAX (775) 359-3393
 ODYSSEY-RENO.COM

odyssey ENGINEERING INCORPORATED



SCALE
 HORIZ. 1"=40'
 VERT. —
 JOB NO.
 JOB
 SHEET
EC-1
 OF
5





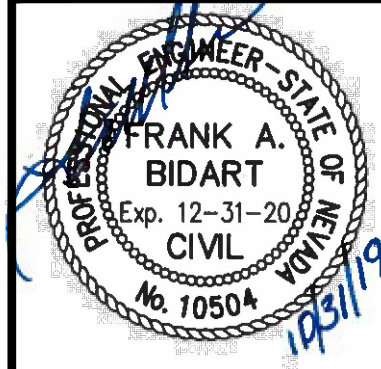
REV.	DATE	DESCRIPTION	BY	APP'D

DATE: NOV. 2019
DRAWN BY: TCP
DESIGNED BY: ACAD 2017
CHECKED BY: FAB

2020 STREET REHABILITATION COMBINED UNIT 3
WINDSURFER DRIVE CONSTRUCTION
DETAILS
SPARKS WASHOE NEVADA

895 ROBERTA LANE, SUITE 104, SPARKS, NV 89431
(775) 369-3303 FAX (775) 359-3393
ODYSSEYRENO.COM

odyssey ENGINEERING INCORPORATED



CITY OF SPARKS APPROVAL:

JON R. ERICSON, P.E., P.T.O.E. DATE: _____
CITY ENGINEER

SCALE: -
HORIZ. -
VERT. -
JOB NO. -
JOB -
SHEET D-1 OF 5