

CITY OF SPARKS 2019 CDBG STREET IMPROVEMENTS

FEDERALLY FUNDED

I ST. FROM ROCK BLVD TO 15TH ST.

WASHOE COUNTY, NEVADA

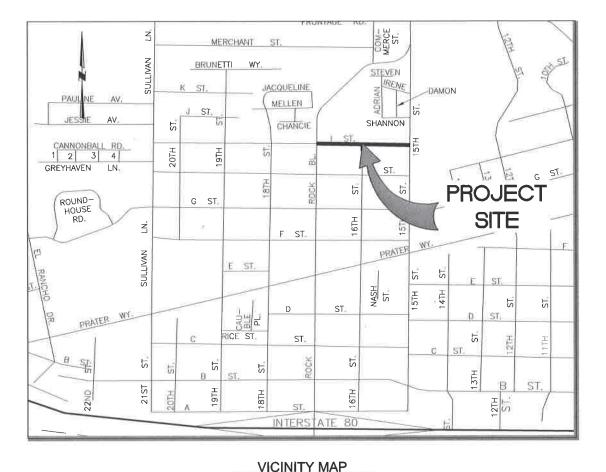
COS PROJECT NUMBER: 18/19-018 PWP NO: WA-2019-152

SPARKS CITY COUNCIL

MAYOR RONALD E. SMITH
WARD ONE DONALD ABBOTT
WARD TWO ED LAWSON
WARD THREE PAUL ANDERSON
WARD FOUR CHARLENE BYBEE
WARD FIVE KRISTOPHER DAHIR
CITY MANAGER STEPHEN DRISCOLL

CIVIL:

CFA, INC. 1150 CORPORATE BOULEVARD RENO, NEVADA 89502 (775) 856-1150 VOICE (775) 856-1160 FAX CONTACT: MIKE WILHELM, P.E.



SCALE: NTS

City of Community Services

APPROVALS

JON R. ERICSON, P.E., P.T.O.E. DATE OF THE CITY ENGINEER

BASIS OF BEARINGS AND COORDINATES:

THE BASIS OF BEARINGS FOR THIS SURVEY IS NEVADA STATE PLANE, WEST ZONE NAD83(94) BASED ON REAL TIME KINEMATIC (RTK.) GPS OBSERVATIONS UTILIZING CORRECTIONS FROM THE NORTHERN NEVADA COOPERATIVE REAL TIME NETWORK. COORDINATES AND DISTANCES HEREON ARE AT GROUND LEVEL BASED ON A COMBINED GRID TO GROUND FACTOR OF 1.000197939.

BASIS OF ELEVATIONS:

THE BASIS OF ELEVATIONS FOR THIS SURVEY IS THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88) BASED UPON GPS OBSERVATIONS UTILIZING GEOID99, CITY OF SPARKS BENCHMARK #59 AS USED IN THIS SURVEY WITH AN ELEVATION OF 4422.01 FEET.

PREPARED AND SUBMITTED BY:



ADOPTED BY CITY OF SPARKS, AND SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER. ALL SPECIFICATIONS REFERENCED HEREIN REFER TO THE SSPWC UNLESS INDICATED OTHERWISE. 2. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ALL NECESSARY TRAFFIC CONTROL, THROUGHOUT

CONSTRUCTION, IN ACCORDANCE WITH APPLICABLE PARTS OF SPECIFICATION SECTION 332, AND

THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD, LATEST EDITION).

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE GENERAL SAFETY DURING CONSTRUCTION, AND ALL WORK SHALL CONFORM TO PERTINENT SAFETY REGULATIONS AND CODES. THE CONTRACTOR SHALL FENCE AND OR BARRICADE THE CONSTRUCTION AREA AS REQUIRED TO PROTECT ADJACENT SITES, VEHICULAR TRAFFIC, AND PEDESTRIAN TRAFFIC. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE PROVISIONS OF OSHA AND NRS CHAPTER 618, IN THE CONSTRUCTION PRACTICES FOR ALL EMPLOYEES DIRECTLY ENGAGED IN THE CONSTRUCTION OF THIS PROJECT.

4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND/OR PROTECTION OF ALL EXISTING AND PROPOSED PIPING, UTILITIES, TRAFFIC SIGNAL EQUIPMENT (BOTH ABOVE GROUND AND BELOW GROUND), STRUCTURES ADJACENT TO STREETS, AND ALL OTHER EXISTING IMPROVEMENTS THROUGHOUT CONSTRUCTION.

5. THE CONTRACTOR SHALL PURSUE WORK IN A CONTINUOUS AND DILIGENT MANNER TO ENSURE A TIMELY COMPLETION OF THE PROJECT.

. ALL CONSTRUCTION SHALL BE CLOSELY COORDINATED WITH THE CITY OF SPARKS SO THAT THE QUALITY OF WORK CAN BE CHECKED FOR APPROVAL.

. THE CONTRACTOR SHALL INCORPORATE ADEQUATE DRAINAGE PROCEDURES DURING THE CONSTRUCTION PROCESS TO ELIMINATE EXCESSIVE PONDING AND/OR EROSION.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE SITE IN A NEAT AND ORDERLY MANNER THROUGHOUT THE CONSTRUCTION PROCESS. ALL MATERIALS SHALL BE STORED WITHIN APPROVED CONSTRUCTION AREAS.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTINUOUS DUST CONTROL THROUGHOUT THE CONSTRUCTION OF ALL ITEMS SHOWN ON THESE DRAWINGS IN CONFORMITY WITH SECTION 40.030 OF WASHOE COUNTY AIR POLLUTION REGULATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REGULAR CLEANING OF ALL MUD, DIRT, DEBRIS, ETC., FROM ANY AND ALL ADJACENT STREETS AND SIDEWALKS.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING, ALL PERMITS AS REQUIRED BY CITY OF SPARKS. THE DUST CONTROL PERMIT SHALL BE AT THE CONTRACTOR'S EXPENSE. THE ENCROACHMENT, EXCAVATION, AND LANE CLOSURE PERMITS ARE "NO FEE" PERMITS FOR CITY PROJECTS.

11. THE CONTRACTOR'S NORMAL WORKING HOURS SHALL BE FROM 7:00 A.M. UNTIL 7:00 P.M.. MONDAY THROUGH FRIDAY UNLESS OTHERWISE REQUIRED BY THESE SPECIFICATIONS OR APPROVED IN WRITING BY THE CITY PROJECT COORDINATOR WHEN REQUESTED IN WRITING BY THE CONTRACTOR. THE CONTRACTOR SHALL NOT COMMENCE CONSTRUCTION OPERATIONS BEFORE SEVEN O'CLOCK (7:00 A.M. PACIFIC TIME) EACH WORKING DAY EXCEPT AS DIRECTED BY THE CITY PROJECT COORDINATOR AND AS SPECIFIED HEREIN.

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

IF THE CONTRACTOR PLANS TO PERFORM WORK OUTSIDE OF THE TWELVE (12) HOURS AVAILABLE DURING A REGULAR WORKING DAY, THE CONTRACTOR SHALL FIRST OBTAIN APPROVAL FROM THE CITY PROJECT COORDINATOR AT LEAST TWENTY-FOUR (24) HOURS PRIOR TO COMMENCING SUCH OVERTIME WORK. IF THE CONTRACTOR PLANS TO PERFORM WORK ON SATURDAY OR SUNDAY, HE/SHE SHALL OBTAIN APPROVAL BY THE THURSDAY PRIOR TO WORK ON THE SATURDAY OR SUNDAY FOR WHICH WORK IS PLANNED. IF THE CONTRACTOR PLANS TO PERFORM WORK ON A LEGAL HOLIDAY, HE/SHE SHALL FIRST OBTAIN APPROVAL FROM THE CITY PROJECT COORDINATOR AT LEAST 48 HOURS IN ADVANCE.

THE CONTRACTOR SHALL BE CHARGED FOR ALL OF CITY OF SPARKS' EMPLOYEE(S) TIME SPENT FOR OVERTIME, SATURDAY, SUNDAY OR HOLIDAY WORK, BASED ON THE EMPLOYEE'S HOURLY RATE, PLUS BENEFITS. THE CONTRACTOR WILL BE NOTIFIED OF THE COSTS INCURRED AND IF THE PAYMENT IS NOT MADE, SUCH COSTS WILL BE DEDUCTED FROM ANY PAYMENT DUE TO THE CONTRACTOR. IN ADDITION, TO THE CHARGE FOR THE CITY EMPLOYEE(S) TIME OUTSIDE A STANDARD WORK DAY, CONTRACTOR WILL BE REQUIRED TO SUBMIT FOR A TEMPORARY USE PERMIT (T.U.P.) AND PAY A FEE OF ONE-HUNDRED (\$100.00) DOLLARS TO WORK OUTSIDE OF THE ABOVE, APPROVED WORK HOURS. SUBMITTAL AND PAYMENT OF FEES DOES NOT GUARANTEE APPROVAL.

12. ALL DIMENSIONS ARE TO FRONT FACE OF CURB UNLESS NOTED OTHERWISE.

13. SHOULD ANY PREHISTORIC OR HISTORIC REMAINS OR ARTIFACTS BE DISCOVERED DURING SITE DEVELOPMENT, WORK SHALL BE TEMPORARILY HALTED AT THE SPECIFIC SITE AND THE STATE HISTORIC PRESERVATION OFFICE OF THE DEPARTMENT OF MUSEUMS, LIBRARY AND ARTS. SHALL BE NOTIFIED TO RECORD AND PHOTOGRAPH THE SITE. THE PERIOD OF TEMPORARY DELAY SHALL BE LIMITED TO A MAXIMUM OF TWO (2) WORKING DAYS FROM THE DATE OF NOTIFICATION.

14. A PRECONSTRUCTION CONFERENCE WILL BE HELD WITH CITY OF SPARKS PRIOR TO ANY CONSTRUCTION.

15. NO MATERIALS OF ANY KIND SHALL BE STOCKPILED OR CONSTRUCTION EQUIPMENT PARKED ON CONCRETE OR ASPHALT SURFACES.

16. CONSTRUCTION OF STREET IMPROVEMENTS MUST ALLOW FOR THE PERPETUATION OF ALL EXISTING LEGAL ACCESSES AND EXISTING DRIVEWAYS.

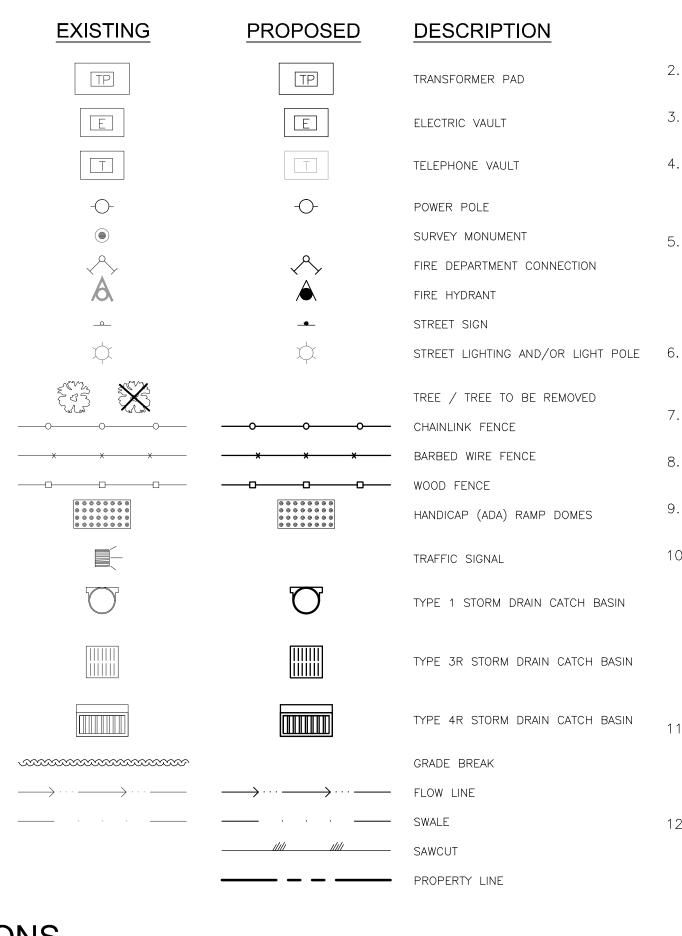
17. THE CONTRACTOR SHALL FURNISH PRODUCT SUBMITTALS FOR IMPROVEMENTS INCLUDING MANUFACTURER'S SPECIFICATIONS, SHOP DRAWINGS, CONCRETE MIX DESIGNS, ASPHALT MIX DESIGNS, GRADATION CERTIFICATIONS, ETC. FOR REVIEW BY THE ENGINEER OF RECORD. SUBMITTALS SHALL BE FURNISHED PROMPTLY AFTER EXECUTION OF THE CONTRACT, BUT IN ALL CASES PRIOR TO DELIVERY OF SUCH MATERIALS.

18. THE CONTRACTOR UPON COMPLETION OF THE PROJECT, SHALL PREPARE AND SUBMIT RECORD DRAWINGS TO THE OWNER. SUBMITTAL SHALL BE IN THE FORM OF A CD IN 300 DPI, MULTIPAGE PDF FORMAT.

19. THE CONTRACTOR IS REQUIRED TO FILE A NOTICE OF INTENT (NOI) WITH THE NEVADA DEPARTMENT OF ENVIRONMENTAL PROTECTION. THE CONTRACTOR IS REQUIRED TO SUBMIT THE NOI, PAY THE ASSOCIATED FEES, AND PROVIDE A COPY OF THE NOI RECEIPT WITH THE EE PERMIT APPLICATION. BEST MANAGEMENT PRACTICES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION. THE CONTACTOR SHALL COMPLY AND MAINTAIN THE CONSTRUCTION SITE INSPECTION CHECKLIST, LOCATED IN APPENDIX D OF THE TRUCKEE MEADOWS BMP HANDBOOK. THE CHECKLIST SHALL BE ONSITE FOR REVIEW BY STATE AND LOCAL GOVERNMENT INSPECTORS. THE CONTACTOR SHALL INSPECT THE SITE DAILY; PRIOR TO FORECASTED RAIN EVENTS AND WITHIN 24 HOURS OF ANY RAIN EVENT. IF AN INSPECTOR DETERMINES THAT INSTALLED STORM WATER CONTROLS PLACE THE CITY AT RISK OF VIOLATING ITS NPDES PERMIT, THE INSPECTOR MAY ORDER A CHANGE TO THE STORM WATER CONTROLS. IF THE CHANGE IS NOT ACCEPTABLE OR IS NOT IMMEDIATELY IMPLEMENTED, A VIOLATION POSSIBLY RESULTING IN A FINE MAY BE ISSUED. THE CONTACTOR SHALL NOT DISPOSE OR PLACE DEBRIS IN ANY CITY OF SPARKS MANHOLE, CATCH BASIN OR FACILITY.

LEGEND

EXISTING	PROPOSED	DESCRIPTION		
₩ = = = =		CURB & GUTTER		
4391 — —		1' CONTOUR		
— — 4390 — —		5' CONTOUR		
<u>(97.55)</u> EG	97.55 FG	SPOT ELEVATION		
		SANITARY SEWER (AND SIZE, IF AVAILABLE)		
	D	STORM DRAIN (AND SIZE, IF AVAILABLE)		
E	E	ELECTRIC		
G	G	GAS (AND SIZE, IF AVAILABLE)		
		WATER AND GAS		
W	v	WATER (AND SIZE, IF AVAILABLE)		
Т ———	т	TELEPHONE		
DH	DH	OVERHEAD LINES		
CATV	CATV	CABLE TV		
CDM	СШМ	COMMUNICATION		
FD	FD	FIBER OPTIC		
S	S	SANITARY SEWER MANHOLE		
	0	STORM DRAIN MANHOLE		
\Box	\bigcirc	TELEPHONE MANHOLE		
©	©	ELECTRIC MANHOLE		
0	0	UTILITY MANHOLE		
⊘	©	WATER VALVE		
G	©	GAS VALVE		
©	છ	SEWER OR STORM DRAIN CLEANOUT		
	•	WATER METER		
0 <u>,</u> 0 <u>,</u>	QQ	BACKFLOW PREVENTER		



UTILITY NOTES

- 1. UTILITIES MAY EXIST THAT ARE NOT SHOWN ON THE PLANS. HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING UTILITIES ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL VERIFY ACTUAL LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICES ALERT (USA) AT 811 PRIOR TO ANY EXCAVATION.
- 2. THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES WHICH MAY CONFLICT WITH THE NEW WORK PRIOR TO BEGINNING CONSTRUCTION.
- 3. THE CONTRACTOR SHALL NOTIFY NV ENERGY AND TMWA AT LEAST 48 HOURS PRIOR TO THE START OF UTILITY CONSTRUCTION.
- 4. THE CONTRACTOR SHALL MAKE EVERY ATTEMPT TO AVOID SHUT OFF OR DISCONNECTION OF ACTIVE UTILITIES. IF SHUT OFFS ARE UNAVOIDABLE, THE CONTRACTOR SHALL COORDINATE THAT SHUT OFF WITH THE AFFECTED CUSTOMERS AND UTILITY COMPANIES AT LEAST 48 HOURS IN ADVANCE OF THE DISRUPTION OF THE SERVICE.
- 5. A MANHOLE PROTECTION PLAN SHALL BE SUBMITTED AND APPROVED PRIOR TO ANY MANHOLE ADJUSTMENTS. THE PLAN SHALL CLEARLY IDENTIFY HOW THE CONTRACTOR WILL PROTECT FROM ALL DEBRIS ENTERING INTO THE SYSTEM AND A DETAIL OF HOW THE CONTRACTOR IS PREPARED FOR EMERGENCY OVERFLOWS. PRIOR TO PERFORMING ANY ADJUSTMENTS OR GROUTING, THE ENGINEER OF RECORD SHALL OBSERVE AND VERIFY THAT THE CONTRACTOR IS IN COMPLIANCE WITH THE "MANHOLE PROTECTION PLAN".

STREET LIGHTING AND/OR LIGHT POLE 6. MANHOLES AND CATCH BASINS SHALL BE PORTLAND CEMENT CONCRETE PER SPECIFICATION SECTION 204.00. MANHOLES AND CATCH BASINS SHALL BE PLACED PER APPLICABLE PARTS OF SPECIFICATION SECTIONS 305.00, 306.00, AND 311.00.

> 7. ALL CATCH BASIN COVERS DESIGNATED TO BE RESET TO GRADE SHALL BE REPLACED WITH A NEW FRAME AND COVER AT THE CONTRACTOR'S EXPENSE.

8. CONTRACTOR TO VACUUM CLEAN ALL STORM DRAIN & SANITARY SEWER MANHOLES AND CATCH BASINS AFTER REMOVING CONTAINMENT DEVICES UPON COMPLETION OF THE PROJECT.

9. ALL BMPS SHALL BE REMOVED FROM CATCH BASINS & MANHOLES PRIOR TO FINAL ACCEPTANCE & RELEASE OF RETENTION.

10. THE CONTRACTOR SHALL POTHOLE ALL WATER MAINS AHEAD OF CONSTRUCTION AND VERIFY THAT SUFFICIENT VERTICAL CLEARANCE EXISTS TO PROVIDE SUFFICIENT PROTECTIVE COVER AND TO ACCOMMODATE THE STREET STRUCTURAL SECTION. IF WATER PIPE IS NEAR THE SUBGRADE, THE CONTRACTOR MAY NEED TO PERFORM ADDITIONAL WORK TO SHIELD WATER MAINS FROM DAMAGE SUCH WORK MAY INCLUDE, BUT NOT BE LIMITED TO, REDUCING EXCAVATION/PULVERIZATION DEPT OVER THE PIPE ZONE. ADDING BASE OVER THE PIPE TO INCREASE COVER PRIOR TO COMPACTION OR REDUCING VIBRATORY COMPACTION AND CONSTRUCTION TRAFFIC OVER THE PIPE ZONE. ACTUA FIELD CONDITIONS SHOULD BE EXAMINED AND CONSTRUCTION METHODS DISCUSSED PRIOR TO BEGINNING EXCAVATION. WATER MAINS IN I STREET AND 16TH STREET ARE DI CL 350 PSI, AND D STREET IS C-900 PVC CL 235 PSI.

11. TMWA WILL INSPECT, CLEAN, OPERATE AND DOCUMENT ALL TMWA-OWNED VALVES WITHIN THE CONSTRUCTION ZONE PRIOR TO THE PRE-CONSTRUCTION MEETING. THE CONTRACTOR SHALL REVIEW AND VERIFY THIS INFORMATION WITH CITY OF SPARKS. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF TMWA'S INSPECTOR PRIOR TO CONSTRUCTION. THE FINAL LIST WILL BE USED FOR VALVE ADJUSTMENT/CLEANING VERIFICATION AT THE END OF THE PROJECT.

12. STEEL PLATES — THE USE OF STEEL PLATES SERVING AS A TEMPORARY TRENCH COVER SHALL ONLY BE USED WITHIN CLOSED TRAVEL LANES. THE USE OF STEEL PLATES WITHIN CLOSED TRAVEL LANES SERVING AS A TEMPORARY TRENCH COVER SHALL HAVE ASPHALT RAMPS CONSTRUCTED AROUND THE PERIMETER OF THE PLATE(S) FOR EMERGENCY VEHICLES AND CONSTRUCTION VEHICLES. WARNING SIGNS MUST BE APPROPRIATELY PLACED TO CAUTION MOTORISTS. STEEL PLATES WILL NOT BE ALLOWED IF SNOW OR FREEZING TEMPERATURES ARE EXPECTED.

ABBREVIATIONS

CITY OF SPARKS

TMWA

AT&T

CHARTER

NV ENERGY

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_ _ _ _ _

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REINFORCED CONCRETE PIPE

REFERENCE or REFER

AB	ANCHOR BOLT	Е	EASTING	MDD	MAXIMUM DRY D
ABAN	ABANDONED	EX or EXIST	EXISTING	MECH	MECHANICAL
ABC	AGGREGATE BASE COURSE	EA	EACH	MFR	MANUFACTURER
AC	ASPHALT CONCRETE	EC	END CURVE	MH	MANHOLE
ADD	ADDITIONAL	ECR	END CURB RETURN	MIN	MINIMUM
ADJ	ADJACENT	ECC	ECCENTRIC	MISC	MISCELLANEOUS
APPROX	APPROXIMATE	EL	ELEVATION	MPH	MILES PER HOUF
APPR	APPROVED	ELEC	ELECTRIC	N	NORTHING
ARV	AIR RELEASE VALVE	ENGR	ENGINEER	NDP	NO DIRECT PAYM
BC	BEGIN CURVE	EVC	END OF VERTICAL CURVE	NTS	NOT TO SCALE
BCR	BEGIN CURB RETURN	EW	EACH WAY	OC	ON CENTER
BFC	BACK FACE OF CURB	EXP JT	EXPANSION JOINT	OG	ORIGINAL GROUN
BLDG	BUILDING	FES	FLARED END SECTION	OZ	OUNCE
ВМ	BENCH MARK	FFC	FRONT FACE OF CURB	PC	POINT OF CURVE
BOT	ВОТТОМ	FG	FINISH GRADE	PCC	PORTLAND CEME
BSW	BACK OF SIDEWALK	FH	FIRE HYDRANT	PI	POINT OF INTERS
BVC	BEGIN VERTICAL CURVE	FIG	FIGURE	Plor PL	PROPERTY LINE
СВ	CATCH BASIN	€ or FL	FLOWLINE	PRC	POINT OF REVER
CFM	CUBIC FEET PER MINUTE	FPS	FEET PER SECOND	PREFAB	PREFABRICATED
CFS	CUBIC FEET PER SECOND	FT	FOOT or FEET	PROP	PROPERTY
CI	CAST IRON	F'	DEGREE FAHRENHEIT	PSF	POUNDS PER SO
CJ	CONSTRUCTION JOINT	G	GAS	PSI	POUNDS PER SO
€ or CL	CENTERLINE	GAL	GALLON	PT	POINT OF TANGE
CLR	CLEAR	GALV	GALVANIZED	PUE	PUBLIC UTILITY E
CMP	CORRUGATED METAL PIPE	GB	GRADE BREAK	PVC	POLYVINYL CHLO
CMU	CONCRETE MASONRY UNIT	GPD	GALLONS PER DAY	PVI	POINT OF VERTIC
CO	CLEANOUT	HORIZ	HORIZONTAL	PVMT	PAVEMENT
		HP	HORSEPOWER	R	RADIUS
CONC	CONCRETE	ID	INSIDE DIAMETER	RCB	REINFORCED CON
CONN	CONNECTION	IE	INVERT ELEVATION	RCP	REINFORCED CON
CONT	CONTINUOUS	IN	INCH	RD	ROAD
COORD	COORDINATE	INV	INVERT	REF	REFERENCE or F
CTR	CENTER	IRR	IRRIGATION	REINF	REINFORCED
CU	CUBIC	KW	KILOWATT	REQD	REQUIRED
CU FT	CUBIC FEET	L	LENGTH	RT	RIGHT
CU IN	CUBIC INCH	LAT	LATERAL	RW or ROW	RIGHT-OF-WAY
CU YD	CUBIC YARD	LB	POUNDS	SCH	SCHEDULE
CULV	CULVERT		POUNDS PER CUBIC FOOT	SD	STORM DRAIN
DBL	DOUBLE	LB/CU FT	LONGITUDINAL	SECT	SECTION
DEP	DEPRESSED	LONG	LEFT	SF	SQUARE FOOT
DTL	DETAIL	LT	MAXIMUM	SI	SQUARE INCH
DI	DROP INLET	MAX		⊸ ,	
DIA	DIAMETER				
DWG	DRAWING				

UTILITY OWNERSHIP

SANITARY SEWER & STORM DRAIN

WATER

GAS & ELECTRIC

TELEPHONE

CABLE TV

MAXIMUM DRY DENSITY SSE SANITARY SEWER EASEMENT STA **MECHANICAL** STATION MANUFACTURER SIMILAR MANHOLE **SPECIFICATIONS** MINIMUM SQUARE **MISCELLANEOUS** SANITARY SEWER MILES PER HOUR STD STANDARD NORTHING SYMMETRICAL SYMM NO DIRECT PAYMENT TAN TANGENT NOT TO SCALE TB THRUST BLOCK ON CENTER TOP OF CURB TC-DEP ORIGINAL GROUND TECHNICAL OUNCE TEL TELEPHONE POINT OF CURVE TEMPERATURE TEMP PORTLAND CEMENT CONCRETE TOP FACE POINT OF INTERSECTION TW or TOW TOP OF WALL PROPERTY LINE **TYPICAL** POINT OF REVERSE CURVE VELOCITY PREFABRICATED VERTICAL CURVE **PROPERTY** VERTICAL VERT POUNDS PER SQUARE FOOT VALLEY GUTTER VG POUNDS PER SQUARE INCH WATER POINT OF TANGENCY WWF PUBLIC UTILITY EASEMENT YARD YD POLYVINYL CHLORIDE POINT OF VERTICAL INTERSECTION PAVEMENT

TOP OF CURB — DEPRESSED WELDED WIRE FABRIC REINFORCED CONCRETE BOX CULVERT

Know what's **below**.

Call before you dig.

CAUTION - NOTICE TO CONTRACTOR 1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND FEATURES AS SHOWN ON THESE PLANS IS BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR

2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE LOCATIONS AND/OR ELEVATIONS AT THE PROPOSED POINTS OF CONNECTION AND IN AREAS OF POSSIBLE CONFLICT PRIOR TO BEGINNING CONSTRUCTION. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, HE SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.

3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE OR RELOCATE ALL EXISTING UTILITIES AND FEATURES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. CONTRACTOR SHALL OBTAIN APPROVALS FROM THE GOVERNING AGENCIES, THE ENGINEER, AND THE UTILITY COMPANIES PRIOR TO SUCH REMOVAL AND/OR RELOCATION.

THE CONTRACTOR ASSUMES ALL RISK FOR ANY CONSTRUC-TION PERFORMED WITH PRELIMINARY OR NONAPPROVED PLANS. 5. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN CONFORM-ANCE WITH THE LATEST EDITION OF MUTCD WHENEVER CON-STRUCTION IS IN PROGRESS WITHIN THE PUBLIC TRAVEL WAY.

CONCRETE & PAVEMENT NOTES

- FIBER-REINFORCED PORTLAND CEMENT CONCRETE (PCC) SHALL MEET THE REQUIREMENTS OF SPECIFICATION SECTION 202.00. PCC EXPOSED TO FREEZE-THAW ENVIRONMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF 4,000 PSI AND MEET THE SPECIFIC REQUIREMENTS OF SPECIFICATION SECTION 337.10.01.01. 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 PCC AT 1.5 LBS. PER CUBIC YARD. ALL MATERIALS SHALL CONFORM TO
- 2. CURB, GUTTER AND SIDEWALK SHALL BE PLACED IN ACCORDANCE WITH SPECIFICATION SECTION 312.00.
- 3. REFERENCE DETAIL 2, SHEET C3.1 FOR ASPHALTIC CONCRETE REQUIREMENTS.
- 4. ASPHALT CONCRETE PAVEMENT SHALL BE PLACED IN ACCORDANCE WITH SPECIFICATION SECTION 320.00.
- 5. TEMPORARY PATCHES SHALL BE HOT-MIX ASPHALT WITH A MINIMUM OF 3-INCHES IN DEPTH UNLESS INDICATED OTHERWISE. TEMPORARY PATCHES SHALL BE PLACED IMMEDIATELY FOLLOWING BACKFILLING AND COMPACTION OF TRENCHES THROUGH EXISTING PAVEMENTS. COLD MIX PATCHES SHALL ONLY BE ALLOWED ON AN INTERIM BASIS IF HOT-MIX PAVEMENT IS NOT AVAILABLE LOCALLY. COLD MIX PATCHES SHALL BE REPLACED WITH HOT-MIX PAVEMENT WHEN AVAILABLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF TEMPORARY COLD MIX PATCHES UNTIL THE TIME THE TEMPORARY HOT MIX PATCHES ARE PLACED. COLD MIX PATCHES SHALL BE DURA PATCH AS REQUIRED BY THE CITY OF SPARKS. THE CONTRACTOR SHALL MAINTAIN PAVEMENT IN A SAFE AND SMOOTH CONDITION UNTIL FINAL PAVEMENT CAN BE PLACED, TO THE SATISFACTION OF THE ENGINEER.

DEMOLITION NOTES

- 1. THE REMOVAL OF EXISTING IMPROVEMENTS SHALL BE PERFORMED IN ACCORDANCE WITH THE SPECIAL TECHNICAL SPECIFICATIONS AND THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC, 2012), SECTION 301.00.
- 2. NOT ALL EXISTING IMPROVEMENTS, ADJACENT PROPERTY, INCLUDING BUT NOT LIMITED TO, FENCING, WALLS, UTILITIES AND OTHER FACILITIES, MAILBOXES, WATER METERS, POWER POLES. OVERHEAD LINES, STREET SIGNS, CATCH BASINS, TREES AND PLANTS, ETC., ARE SHOWN ON THE PLANS. ALL EXISTING ITEMS THAT ARE NOT TO REMOVED SHALL BE PROTECTED FROM INJURY OR DAMAGE RESULTING FROM THE CONTRACTORS OPERATIONS IN ACCORDANCE WITH SPECIFICATION SECTION 301.04 AND 300.04.
- 3. THE CONTRACTOR SHALL ADJUST ALL EXISTING MANHOLE RIMS, WATER & GAS VALVE COVERS, & UTILITY BOXES AND FRAME AND COVERS, BOTH HORIZONTALLY AND VERTICALLY, AS REQUIRED TO FIT THE NEW WORK. THE CONTRACTOR SHALL REPLACE ANY APPURTENANCE DAMAGED DURING RELOCATION AT THE COST OF THE CONTRACTOR.
- 4. ALL EXISTING FEATURES IN CONFLICT WITH PROPOSED SHALL BE REMOVED, RELOCATED AND/OR REPLACED. CONTRACTOR SHALL OBTAIN APPROVAL FROM THE ENGINEER AND THE GOVERNING AGENCIES PRIOR TO SUCH REMOVAL, RELOCATION AND/OR REPLACEMENT.
- 5. ALL SETTLING, DRAINAGE ISSUES, AND UNSUITABLE MATERIALS SHALL BE REMOVED, CORRECTED, AND REPLACED WITH RECYCLED AGGREGATE BASE OR IMPORTED TYPE 2, CLASS B AGGREGATE BASE.
- 6. LENGTHS SHOWN FOR RAMPS ON DRIVEWAYS AND PEDESTRIAN RAMPS ARE FOR BID PURPOSES ONLY. LENGTHS SHALL BE VERIFIED IN FIELD AND CONFORM TO THE DETAILS AND SPECIFICATIONS PROVIDED.
- 7. LINE AND GRADE FOR IMPROVEMENTS SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR IN COORDINATION WITH THE CITY OF SPARKS INSPECTOR.

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WILHELM

Exp. 06-30-20

CIVIL

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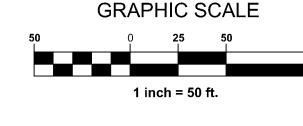
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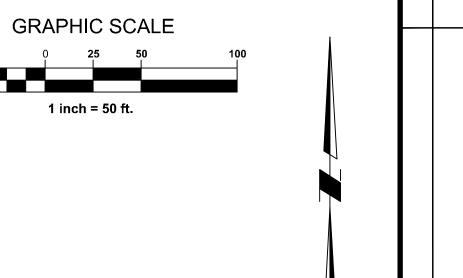
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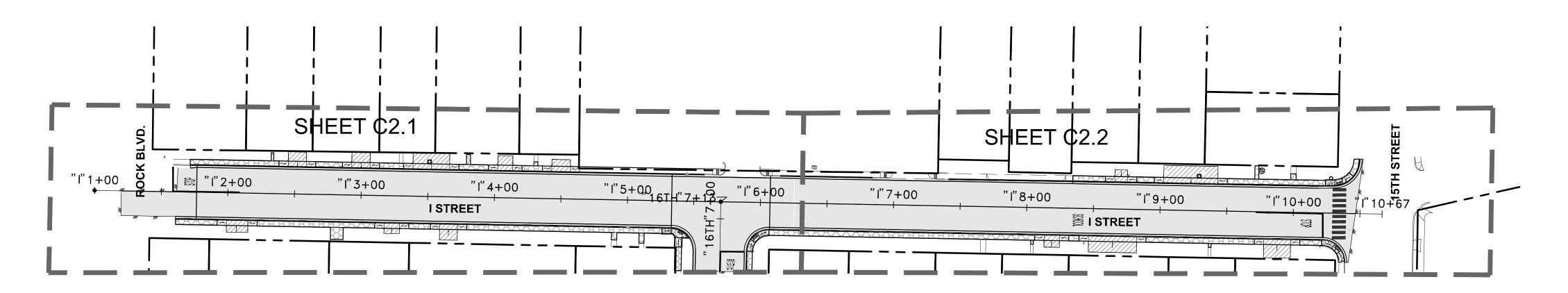
JOB NO. 17-107.00 DESIGNED BY BEH/CH CHECKED BY DATE 02-21-2019

SHEET

WARNING: WRITTEN CONSENT IS REQUIRED OF CFA, OWNER OF DESIGNS & DRAWINGS AS INSTRUMENTS OF SERVICE, FOR DUPLICATION AND-OR DISTRIBUTION OF DOCUMENTS.







SHEET INDEX

C1.0	TITLE SHEET
C1.1	GENERAL NOTES
C2.0	SHEET INDEX
C2.1	PLAN & PROFILE - I STREET, STA: "I" 1+00 - 6+25
C2.2	PLAN & PROFILE - I STREET, STA: "I" 6+25 - 10+67
C3.0	DETAILS
C3.1	DETAILS
C3.2	DETAILS

02-21-2019



SHEET INDE

CITY OF SPARKS STREET IMPROVEMENTS PROJECT

2019

17-107.00 JOB NO. DESIGNED BY BEH/CH CHECKED BY DATE 02-21-2019 SHEET

S

SCALE: 1" = 50'

SHEET INDEX - I STREET

Know what's below.

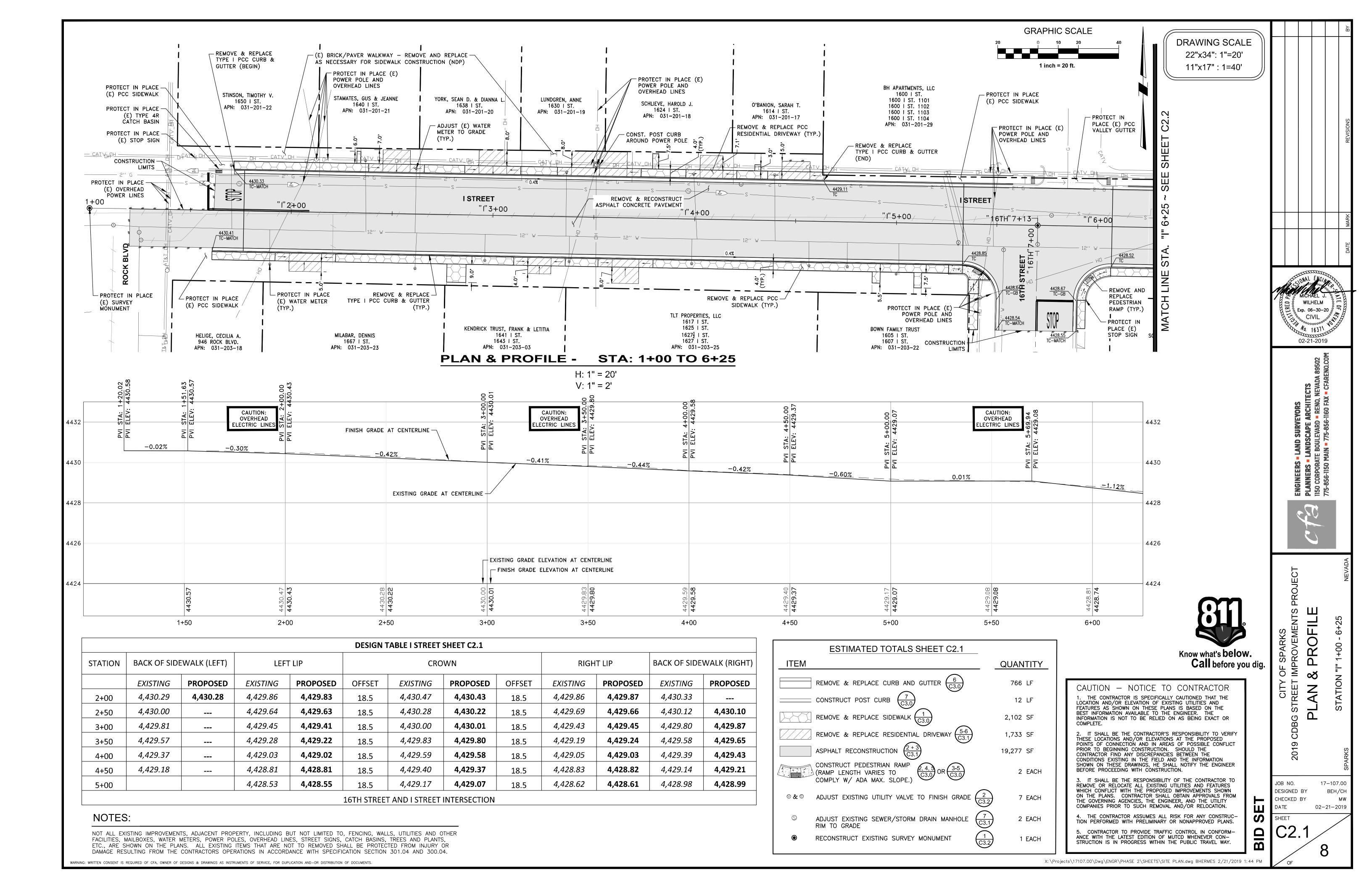
Call before you dig.

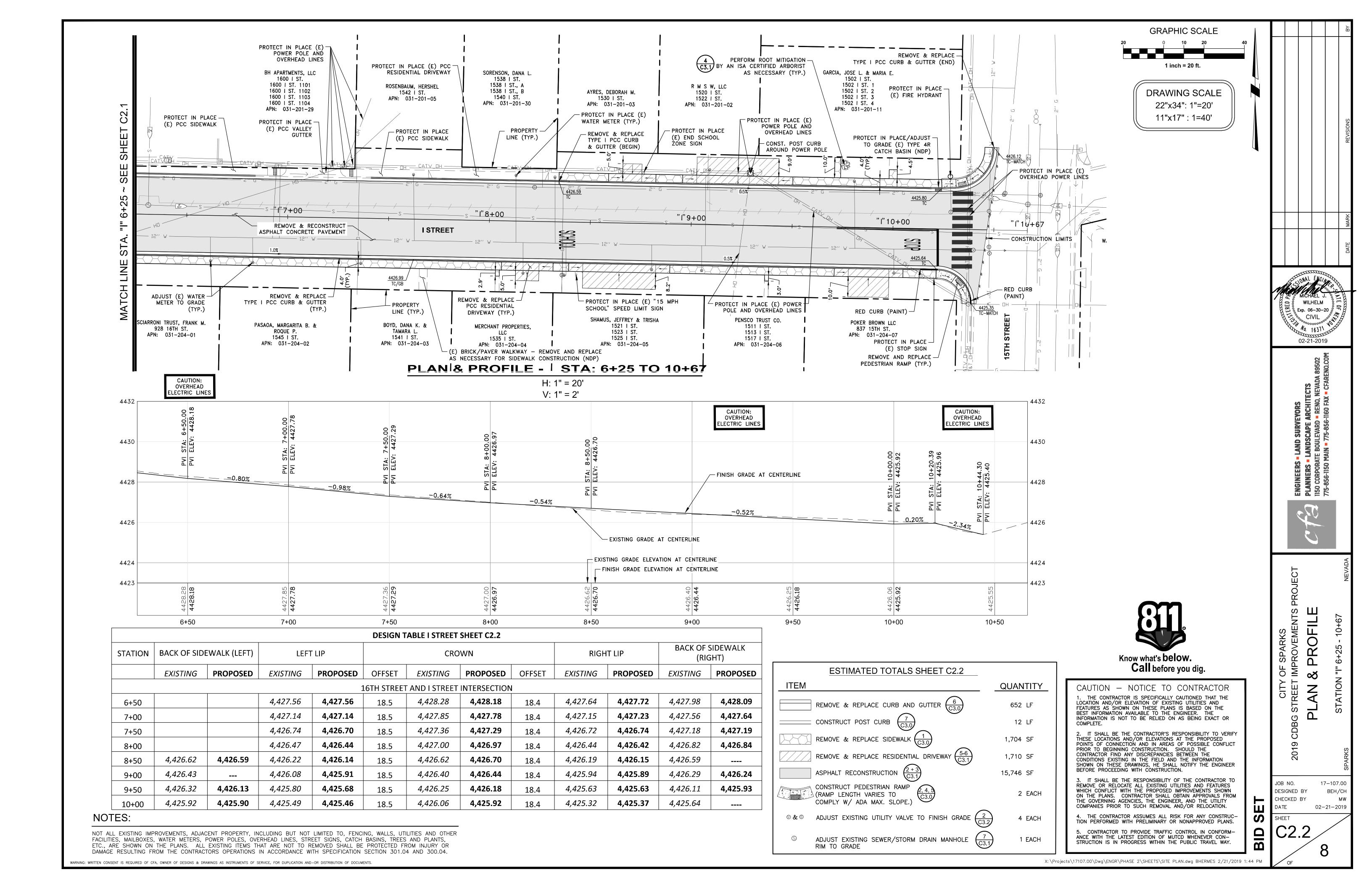
CAUTION - NOTICE TO CONTRACTOR 1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND FEATURES AS SHOWN ON THESE PLANS IS BASED ON THE BEST INFORMATION AVAILABLE TO THE ENGINEER. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE.

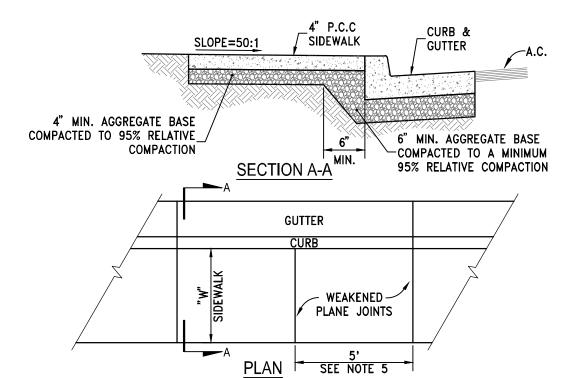
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY THESE LOCATIONS AND/OR ELEVATIONS AT THE PROPOSED POINTS OF CONNECTION AND IN AREAS OF POSSIBLE CONFLICT PRIOR TO BEGINNING CONSTRUCTION. SHOULD THE CONTRACTOR FIND ANY DISCREPANCIES BETWEEN THE CONDITIONS EXISTING IN THE FIELD AND THE INFORMATION SHOWN ON THESE DRAWINGS, HE SHALL NOTIFY THE ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.

3. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE OR RELOCATE ALL EXISTING UTILITIES AND FEATURES
WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS. CONTRACTOR SHALL OBTAIN APPROVALS FROM THE GOVERNING AGENCIES, THE ENGINEER, AND THE UTILITY COMPANIES PRIOR TO SUCH REMOVAL AND/OR RELOCATION.

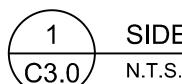
4. THE CONTRACTOR ASSUMES ALL RISK FOR ANY CONSTRUC-TION PERFORMED WITH PRELIMINARY OR NONAPPROVED PLANS. 5. CONTRACTOR TO PROVIDE TRAFFIC CONTROL IN CONFORM—ANCE WITH THE LATEST EDITION OF MUTCD WHENEVER CON—STRUCTION IS IN PROGRESS WITHIN THE PUBLIC TRAVEL WAY.







- 1. 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.
- 2. AGGREGATE BASE MATERIAL UNDER SIDEWALKS SHALL BE TYPE 2, CLASS B CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200.
- 3. SIDEWALK WIDTH "W" SHALL BE 4 FT MIN. 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.
- 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. COLORED CONCRETE AND PAVERS ARE NOT ALLOWED.
- 8. TUNNELING AND/OR BORING IS NOT ALLOWED.

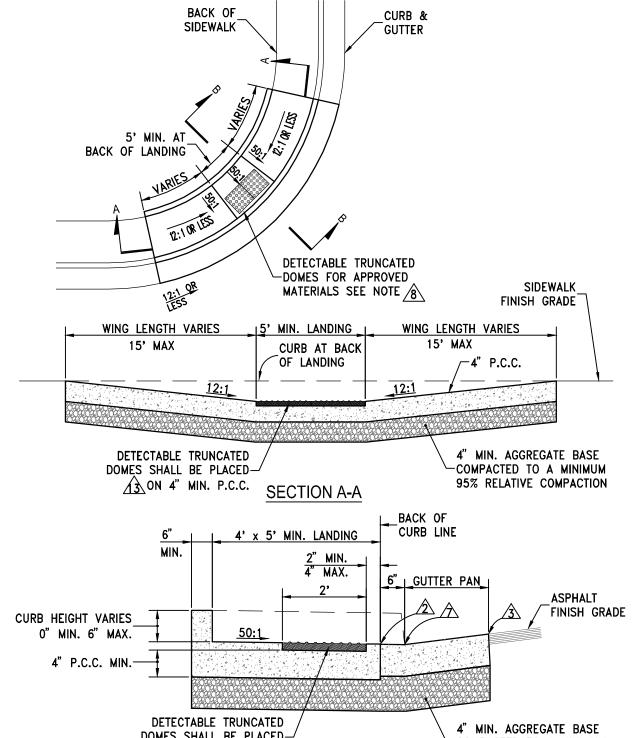


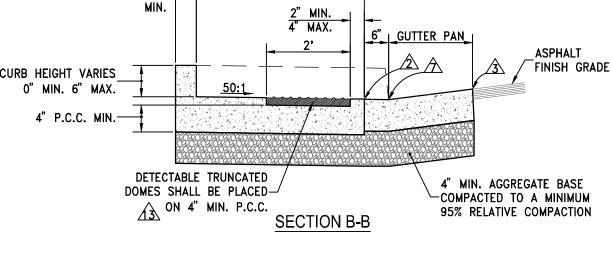
SIDEWALK DETAIL

- 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
- 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
- 4. ROUGH BROOM TEXTURE ON CURB RAMPS AND WINGS.

ADJUSTED UPON APPROVAL OF THE ENGINEER.

- 5. DETECTABLE WARNING SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS AND SHALL BE PLACED ON MIN. FOUR (4") 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, CURRENT VERSION.
- 7. GUTTER SHALL MAINTAIN POSITIVE DRAINAGE TO PREVENT PONDING.
- DETECTABLE WARNING SHALL CONSIST OF PRECAST WETSET TILES WITH MIN. SIZE OF 2' X 2', COLOR DARK RED. APPROVED PRODUCTS INCLUDE: "CASTINTACT", "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.
- 11. 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.
- 12. CONTRACTORS SHALL CORRECT ANY GRADE CONFLICT WITH EXISTING BOXES. THE 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 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.
- 14. CONTRACTOR SHALL CONSTRUCT ROUNDED CURBS WHERE THEY INTERSECT. RADIUS SHALL BE 1 FT MINIMUM MEASURED FROM FACE OF CURB. CURBS THAT INTERSECT AT A POINT SHALL NOT





PEDESTRIAN RAMP DETAIL

1. FIBER-REINFORCED PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS:

MAX. WATER-CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% $\pm 1.5\%$, SLUMP AT 1 TO 4 INCHES. MIX

DESIGN SHALL CONFORM TO THE REQUIREMENTS OF SECTION 337 OF STANDARD SPECIFICATIONS OF

4000 PSI MIN. COMPRESSIVE STRENGTH AT 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH

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

2. AGGREGATE BASE MATERIAL UNDER AND BEHIND CURB AND GUTTER SHALL BE TYPE 2, CLASS B

3. WEAKENED PLANE JOINTS SHALL BE EVERY 10 FEET AND LOCATED ON THE BACK, TOP AND FACE OF

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

CRUSHED AGGREGATE BASE. MATERIALS SHALL CONFORM TO SSPWC SECTION 200.

OF 12" FROM BACK FACE OF CURB AND COMPACT TO 90% RELATIVE COMPACTION.

5. FOR REPLACEMENT OF EXISTING CURB AND GUTTER, MATCH EXISTING TYPE.

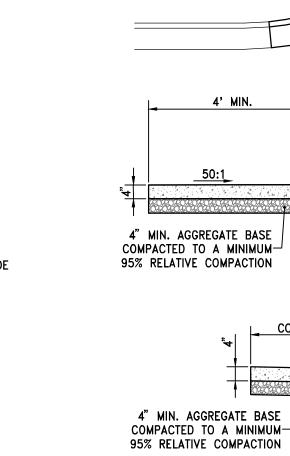
6" MIN. AGGREGATE BASE

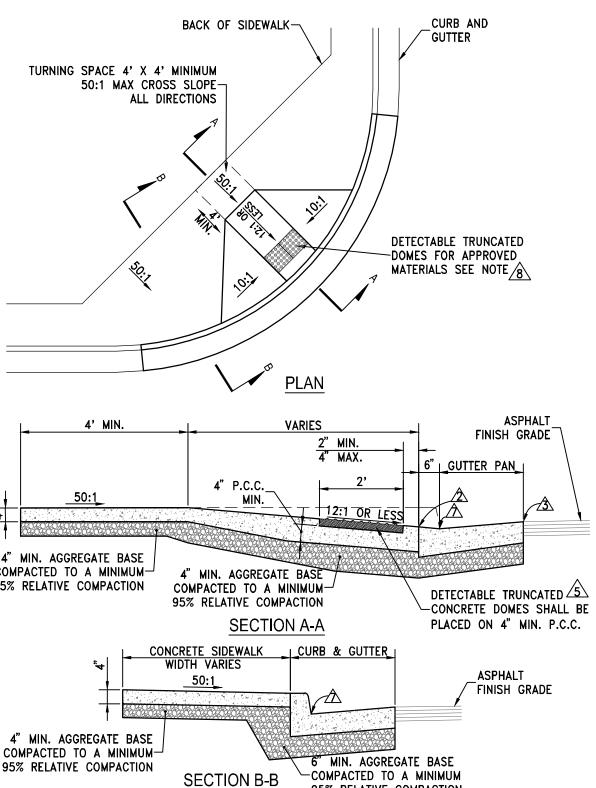
-COMPACTED TO A MINIMUM

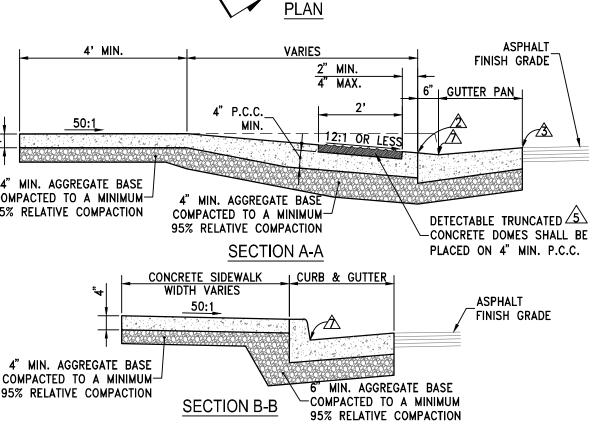
95% RELATIVE COMPACTION

TYPE 1

THE CURB AND THE TOP OF THE GUTTER PAN.









N.T.S.

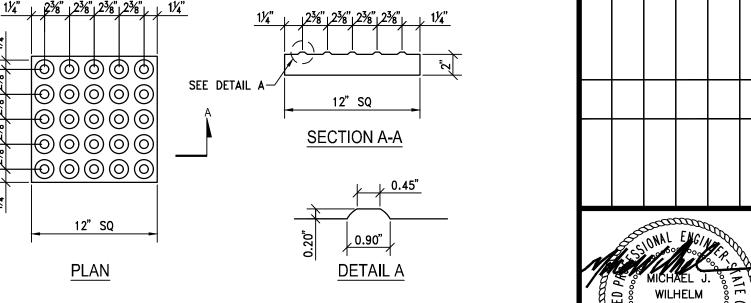
PEDESTRIAN RAMP DETAIL

POWER POLE --FINISHED GRADE PCC SURFACE -PORTLAND CEMENT CONCRETE 6" MIN. TYPE 2, CLASS B AGGREGATE BASE COMPACTED TO A MINIMUM 95% RELATIVE COMPACTION

1. FIBER-REINFORCED PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH @ 28 DAYS, MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT $6\% \pm$ 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

2. EXPANSION JOINTS 1/2-INCH WIDE SHALL BE LOCATED IN CURBS AND GUTTERS AT EACH SIDE OF STRUCTURES, AT THE ENDS OF ALL CURB RETURNS, AND ABUTTING HARDENED IN-PLACE CURB AND GUTTER, EXCEPT THAT EXPANSION JOINTS SHALL NOT BE INSTALLED WITHIN 20 FEET OF AN ISLAND NOSE. EXPANSION JOINTS SHALL BE 1/2-INCH THICK, SHAPED TO THE CROSS SECTION OF THE CURB AND GUTTER, AND CONSTRUCTED AT RIGHT ANGLES TO THE CURB AND GUTTER. JOINT FILLER MATERIAL SHALL CONFORM TO SECTION 202.10. WEAKENED PLANE JOINTS SHALL BE EVERY 10 FEET AND LOCATED ON THE BACK, TOP AND EDGE OF THE CURB.

3. CURB AND GUTTER SECTIONS SHALL BE PLACED SEPARATELY FROM SIDEWALK SECTIONS.



Exp. 06-30-20

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02-21-2019

OF SPARKS
IMPROVEMENTS F

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JOB NO. DESIGNED BY

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02-21-2019

BEH/CH

OBSTRUCTION

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

TRUNCATED DOMES DETAIL

TYPICAL SIDEWALK vs OBSTRUCTION CLEARANCE DETAIL

OBSTRUCTION

OBSTRUCTION

4'-0" MIN. | GUTTER

50:1_

PEDESTRIAN RAMP DETAIL C3.0

SUBGRADE TO BE COMPACTED TO 90% M.D.D.



S BID

PEDESTRIAN RAMP NOTES

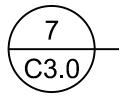
PCC CURB AND GUTTER DETAIL N.T.S.

6" MIN. AGGREGATE BASE

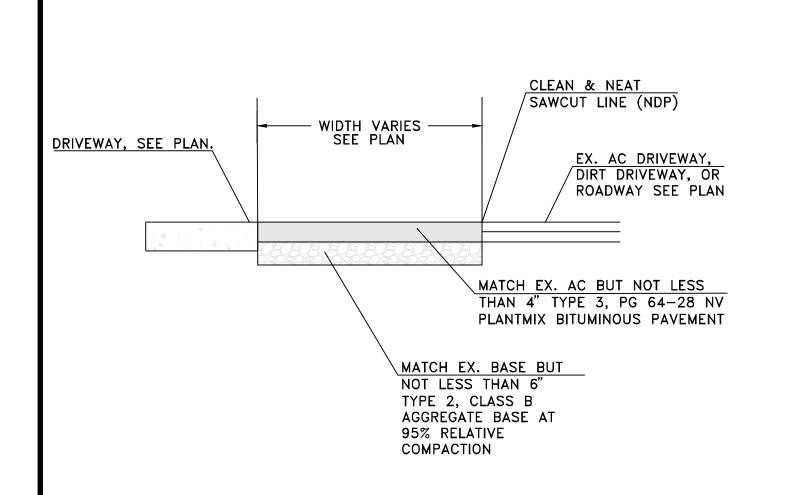
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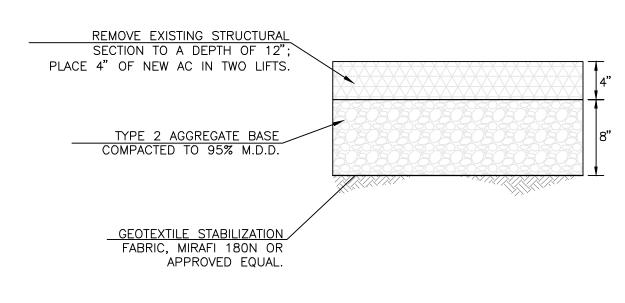
-COMPACTED TO A MINIMUM

95% RELATIVE COMPACTION



POST CURB N.T.S.



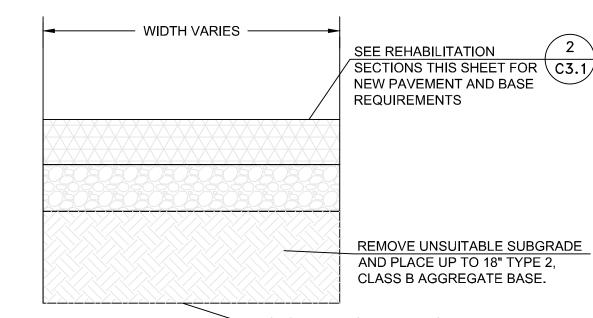


STRUCTURAL PAVEMENT SECTION NOTES:

PLANTMIX BITUMINOUS PAVEMENT SHALL BE A TYPE 3, 50 BLOW, 3% AIR VOID MIX USING PG64-28NV ASPHALT CEMENT. AGGREGATES SHALL BE PRE-MARINATED WITH LIME PER NDOT SPECIFICATIONS. RECYCLED ASPHALT PAVEMENT (RAP) UP TO 15% WILL BE ALLOWED; HOWEVER, ALL VIRGIN AGGREGATES WILL BE SUBJECT TO LIME PRE-MARINATING PER NDOT SPECIFICATIONS.

GEOTECHINCAL REPORT NOT PROVIDED. ROADWAY ASPHALT SECTION THICKNESS, AGGREGATE BASE, AND SUBGRADE PREPARATION HAS BEEN PROVIDED BY THE CITY OF SPARKS FOR ROADWAY IMPROVEMENTS. NO WARRANTIES OR GUARANTEES ARE IMPLIED OR PROVIDED FOR THE MATERIALS PERFORMANCE OF ROADWAY AREA. PLANS PROVIDE LIMITS OF ASPHALT, CURB AND GUTTER, AND REMOVAL OF PROPOSED IMPROVEMENTS ONLY.

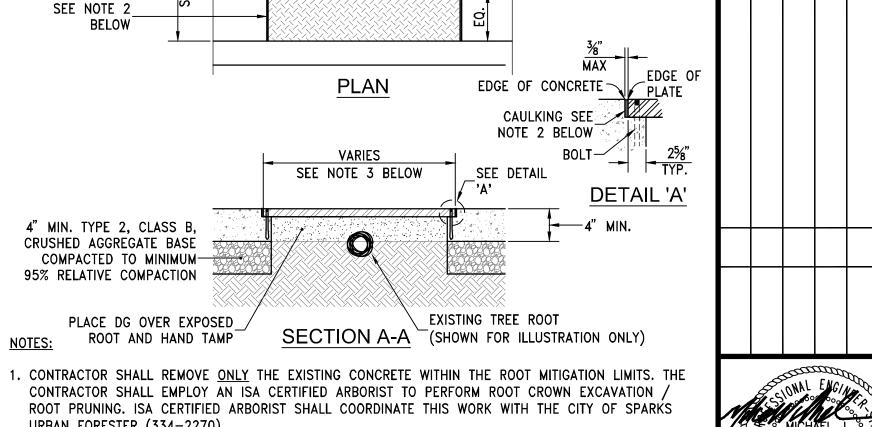
OVEREXCAVATE AND STABILIZE ANY UNSUITABLE SUBGRADE MATERIAL AS DIRECTED BY THE ENGINEER PRIOR TO PAVING OPERATIONS. REFERENCE DETAIL 3, SHEET C3.1.



GEOTEXTILE STABILIZATION FABRIC, MIRAFI 180N OR APPROVED EQUAL.

TYPICAL STABILIZATION SECTION

NOTE: LIMITS OF OVEREXCAVATION, WIDTHS, AND DEPTH TO BE DETERMINED BY THE ENGINEER.



BOLT PLATE TO CONCRETE WITH $\frac{3}{8}$ " DIA.

BEVELED HEAD BOLTS, FLUSH WITH PLATE. BOLT SPACING FOR 4' SIDEWALK SHOWN

> SEE NOTE 2 **BELOW**

CONTRACTOR SHALL EMPLOY AN ISA CERTIFIED ARBORIST TO PERFORM ROOT CROWN EXCAVATION / ROOT PRUNING. ISA CERTIFIED ARBORIST SHALL COORDINATE THIS WORK WITH THE CITY OF SPARKS URBAN FORESTER (334-2270).

SOLID STEEL DIAMOND PLATE

12" WIDE X 1/2" THICK (MIN.)

W/ NON-SKID PATTERN-

2. SET PLATE FLUSH WITH ADJACENT CONCRETE AND PROVIDE 3/8" MAX GAP BETWEEN STEEL PLATE AND EDGE OF SIDEWALK. FILL GAP WITH CAULKING AFTER PLACEMENT OF PLATE. CAULKING MATERIAL SHALL BE GE SILICONE II* W/D SUPREME, OR APPROVED EQUAL. COLOR SHALL BE WHITE.

3. ROOT PLATE WIDTH SHALL MATCH WIDTH OF SIDEWALK. ROOT PLATE LENGTH VARIES, FINAL LENGTH SHALL BE DETERMINED IN THE FIELD BY THE CERTIFIED ARBORIST AND ENGINEER.

A BOLTS: 38" DIA x 2 78" LONG DYNABOLT SLEEVE ANCHOR RAMSET REDHEAD FS-3826 OR APPROVED EQUAL. SIDEWALK WIDER THAN 4FT, BOLTS SHALL BE PLACED AT 18" O.C. FOR WIDTH OF SIDEWALK.

5. CONTRACTOR SHALL PROTECT TREES AT ALL TIMES, INCLUDING BUT NOT LIMITED TO TRUNKS, LIMBS AND ROOTS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH REPAIR OR REMOVAL OF DAMAGED TREES DUE TO CONSTRUCTION ACTIVITIES.



PAVEMENT PATCH DETAIL N.T.S.

SIDEWALK <

EXISTING

DRIVEWAY

P.C.C

OR AC

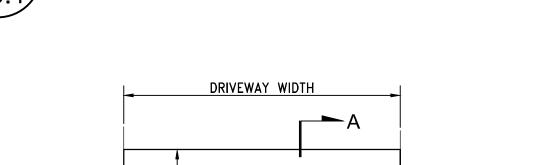
10:1 MAX

6" MIN. AGGREGATE BASE

COMPACTED TO A MINIMUM-

95% RELATIVE COMPACTION

DETAIL



1' MIN.

RADIUS

OPTIONAL

CONTROL JOINT

MATCH DRIVEWAY WIDTH

PLAN



SIDEWALK <

BEVELED @ 1:1

ASPHALT

6" MIN. AGGREGATE BASE

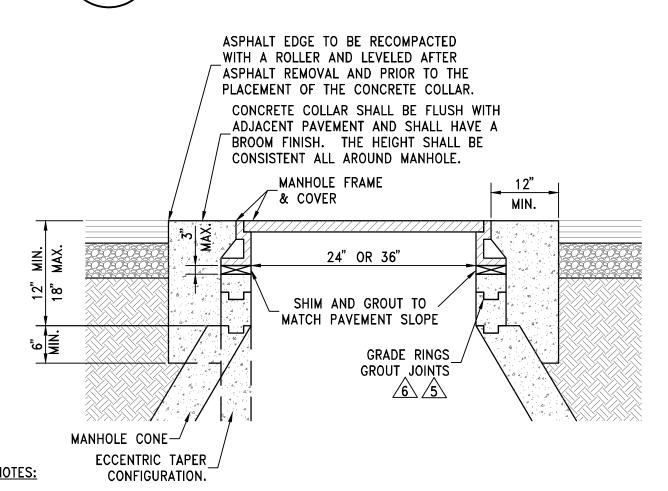
COMPACTED TO A MINIMUM

95% RELATIVE COMPACTION

N.T.S.

PAVEMENT

- 1. 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.
- 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.
- 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.



OVEREXCAVATION SECTION

N.T.S.

FOR UNSUITABLE MATERIAL

- 1. 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 $6\% \pm 1.5\%$, 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.
- 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.
- 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.
- TIGHT FRAMES AND COVERS.

<u>√5.</u> ALL GRADE RING JOINTS ARE TO BE GROUTED WITH NON-SHRINK GROUT HAVING THE FOLLOWING

6. ALL GRADE RINGS SHALL BE PORTLAND CEMENT CONCRETE. PVC GRADE RINGS ARE NOT ALLOWED.

N.T.S.

3. IN UNPAVED AREAS, IT SHALL BE NECESSARY TO SET THE MANHOLE RIM APPROXIMATELY 6 INCHES

4. EXISTING SANITARY SEWER MANHOLE LIDS LOCATED IN GUTTER PANS, SHALL HAVE NEW WATER

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.

MANHOLE COLLAR

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

P.C.C. DRIVEWAY APRON NOTES N.T.S.

WARNING: WRITTEN CONSENT IS REQUIRED OF CFA, OWNER OF DESIGNS & DRAWINGS AS INSTRUMENTS OF SERVICE, FOR DUPLICATION AND-OR DISTRIBUTION OF DOCUMENTS.

P.C.C. DRIVEWAY APRON

SECTION A-A

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WILHELM

Exp. 06-30-20

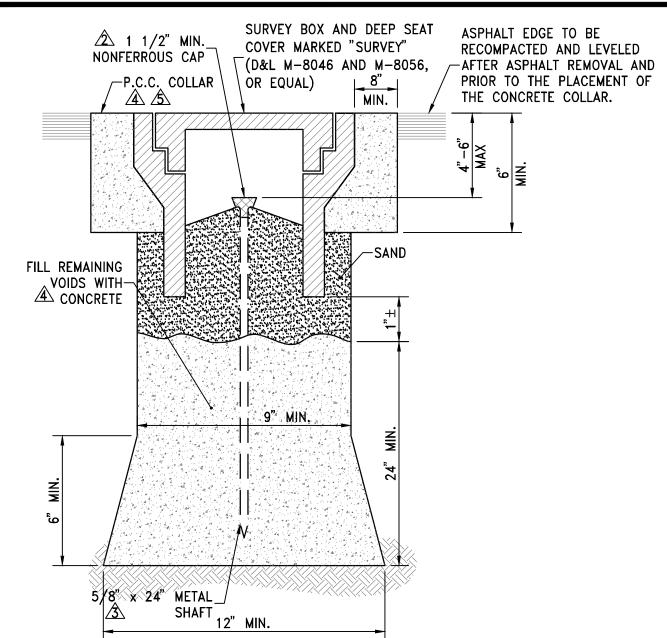
CIVIL

No. 16371

02-21-2019

TAIL

> 17-107.00 BEH/CH 02-21-2019



 $\overline{\bigwedge}$ Ferrous metal over monument for recovery by DIP needle or magnetic insert in CAP.

1 1/2" MIN. NONFERROUS CAP WITH PROFESSIONAL LAND SURVEYOR NO. PERMANENTLY ATTACHED PRIOR TO PLACEMENT. PRE-PUNCHED CAPS SHALL NOT BE PERMITTED

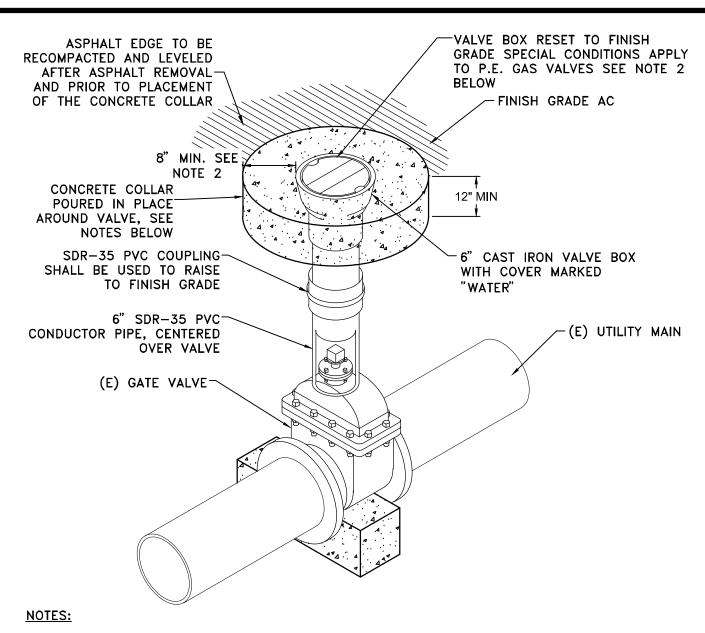
3. 5/8" METALLIC SHAFT (SMOOTH SHAFTS TO BE DEFORMED).

1 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 $6\% \pm 1.5\%$, 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.

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

SURVEY MONUMENT

N.T.S.



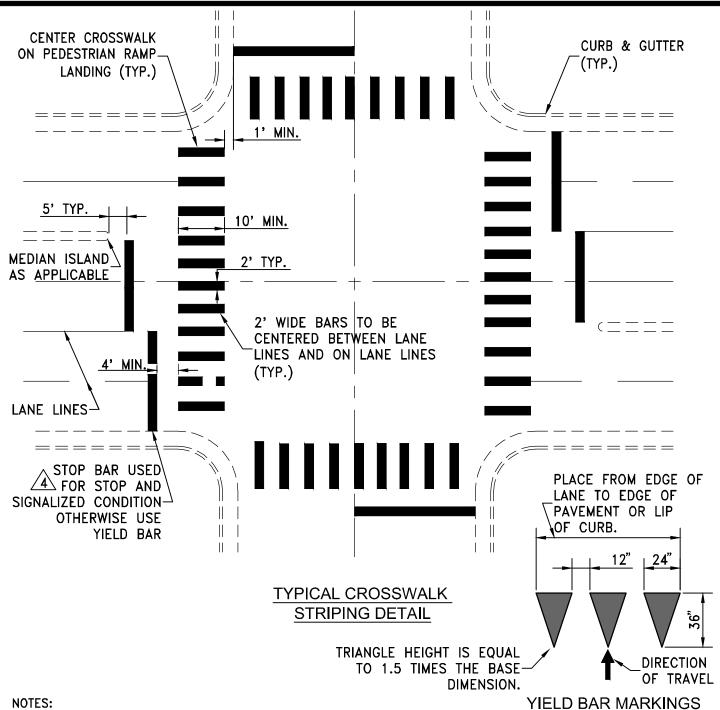
CONCRETE COLLAR SHALL BE FIBER-REINFORCED PORTLAND CEMENT CONCRETE (P.C.C.) AND SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRÉSSIVE STRENGTH AT 28 DAYS, AIR ENTRAINMENT 6% ±1.5%, AND SLUMP AT 1 TO 4 INCHES. MIX DESIGN SHALL CONFORM TO THE STANDARD SPECIFICATIONS OF PUBLIC WORKS CONSTRUCTION (SSWPC). CEMENT SHALL BE TYPE II. ALL CEMENT CONCRETE SHALL HAVE A COARSÉ 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 SECTION 200.02.02.

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

3. FOR MULTIPLE VALVE/RISER BOXES IN CLOSE PROXIMITY, A MONOLITHIC CONCRETE COLLAR MAY BE POURED.

VALVE BOX COLLAR

N.T.S.



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

2. PREFORMED THERMOPLASTIC PAVEMENT MARKINGS SHALL BE INSTALLED PER MANUFACTURERS RECOMMENDATIONS AND IN ACCORDANCE WITH SECTION 634 OF THE LATEST EDITION OF "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" PUBLISHED BY THE STATE OF NEVADA, DEPARTMENT OF TRANSPORTATION (NDOT), EXCEPT ALL THERMOPLASTIC MARKINGS WILL BE 0.090 INCHES THICK, EXCEPT MARKING FOR BIKE LANES WHICH WILL BE 0.075 INCHES. HOT-APPLIED EXTRUDED THERMOPLASTIC SHALL NOT BE USED.

3. CROSSWALK MARKINGS SHALL BE INSTALLED AT ALL TRAFFIC SIGNAL LOCATIONS AND AT OTHER LOCATIONS AS DIRECTED BY ENGINEER.

4. PLACE 24" WIDE STOP BAR FOR SIGNALIZED CONTROL INTERSECTIONS AND STOP CONTROL INTERSECTIONS. FOR YIELD CONDITION SEE YIELD MARKINGS ABOVE.

C3.2

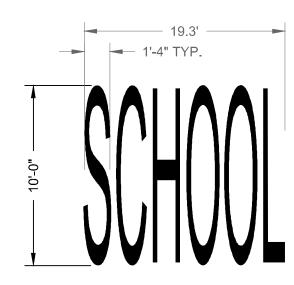
CROSSWALK LEGEND DETAIL

N.T.S.

___ 4" STRIPE (TYP.) 4" SPACING BETWEEN EDGES OF SOLID STRIPES —

NOTES

- 1. REFERENCE THE MANUAL OF UNIFORM TRAFFIC DEVICES (MUTCD) 2009 EDITION FOR STRIPING AND SIGNAGE INSTALLATION.
- 2. REFERENCE SHEET C1.1 FOR GENERAL NOTES.
- 3. REMOVE ALL EXISTING STRIPING AND PAVEMENT MARKINGS WHICH CONFLICT WITH PROPOSED MARKINGS BY GRINDING.



"SCHOOL" TEXT

TRANSVERSE STRIPING, LEGENDS, AND SYMBOLS SHALL BE THERMOPLASTIC IN ACCORDANCE WITH STANDARD SPECIFICATIONS, SECTIONS 214.00 AND 324.00 AND THE CITY OF RENO STANDARD SPECIFICATIONS FOR THERMOPLASTIC

IINFORMATION BASED ON NDOT STANDARD DRAWING T38-1.1 THRU T38-1.4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.

N.T.S.

N.T.S.

"STOP" PAVEMENT MARKING DETAIL

DOUBLE YELLOW STRIPE DETAIL N.T.S.

"SCHOOL STRIPING" DETAIL



CHECKED BY DATE SHEET BID

WARNING: WRITTEN CONSENT IS REQUIRED OF CFA, OWNER OF DESIGNS & DRAWINGS AS INSTRUMENTS OF SERVICE, FOR DUPLICATION AND-OR DISTRIBUTION OF DOCUMENTS.

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CITY OF SPARKS STREET IMPROVEMENTS PRO

DETAIL

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