CARSON CITY ANIMAL SHELTER CARSON CITY, NV

549 AIRPORT ROAD CARSON CITY, NV 89701

February 27, 2015 CONSTRUCTION DOCUMENTS FOR BIDDING PURPOSES ONLY

HIS DESIGN DRAWING IS PROVIDED BY THE DESIGN CONSULTANT. CONSTRUCTION DOCUMENTS TO BE COMPLETED BY THE ARCHITECT OF RECORD AS REQUIRED BY LOCAL AUTHORITIES.

GENERAL NOTES 1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL STATE AND LOCAL

- BUILDING CODES AND ORDINANCES.

 2. ALL PUBLIC UTILITY TIE INS TO COMPLY WITH LOCAL MUNICIPALITY REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR ALL UNDERGROUND UTILITY LOCATIONS AND ASSOCIATED EXCAVATIONS.
 CONTRACTOR SHALL BECOME FAMILIAR WITH AND EXAMINE THE SITE PRIOR TO PROPOSING OR WORKING ON THE PROJECT. PROPOSING OR WORKING ON THE
- 5. BRACE PARTITIONS TO ROOF STRUCTURE ABOVE AS REQUIRED.
 6. ALL EXPOSED WOOD TRIM TO BE STAIN GRADE PINE OR FIR, UNLESS NOTED
- OTHERWISE.

 7. NON-BEARING PARTITIONS MAY BE CONSTRUCTED OF 2x4 WOOD or 3 5/8" 26 GA.

PROJECT SHALL CONSTITUTE UNDERSTANDING AND ACCEPTANCE OF ALL

- NON-BEARING PARTITIONS MAY BE CONSTRUCTED OF 2x4 WOOD or 3 5/8" 26 GA. METAL STUDS AT CONTRACTORS OPTION.
 PARTITIONS DESIGNATED AS DEMISING OR SOUND ATTENUATING SHALL BE CONSTRUCTED AS INDICATED, FROM FLOOR TO STRUCTURE WITH CAULKING AT
- ENTIRE PERIMETER AND ANY PENETRATIONS TIGHTLY SEALED AND CAULKED. INSULATE ENTIRE CAVITY WITH FULL THICKNESS UNFACED BATT INSULATION. GENERAL PARTITIONS SHALL EXTEND TO ABOVE FINISH CEILING.

10. ALL DOOR FRAMES TO RECEIVE SILENCERS.

12. ALL EXPOSED SURFACES TO BE FINISHED.

CFM

CLR CMU

CO

DIA DTL

EA WAY

FIN FLR

FINISH FLOOR

GYPSUM BOARD

GAGE

EWC

- ALL DOOR FRAMES TO RECEIVE SILENCERS.
 ALL ROOF PENETRATIONS SHALL BE FLASHED BY PROFESSIONAL ROOFER.
- ALL WALL SURFACES TO BE PRIME PAINTED PRIOR TO FINISH COAT OR VWC.
 ALL TRADES SHALL BE RESPONSIBLE FOR WORK IN THEIR RESPECTIVE TRADES
 REGARDLESS OF WHERE REFERENCES APPEAR. SHOULD ELECTRICAL WORK APPEAR
 ON AN ARCHITECTURAL DRAWING, THE ELECTRICAL CONTRACTOR WILL BE HELD
 RESPONSIBLE FOR ITS COMPLETION: ETC. ALL CONTRACTORS SHOULD BE
 THOROUGHLY FAMILIAR WITH ALL PLANS AND SPECIFICATIONS SECTIONS AND THE
 WORK OF ALL OTHER TRADES TO ASSURE COMPLETE COVERAGE AND SYSTEM
 INTERFACE.
- 15. THE CONTRACTOR SHALL SECURE AND PAY FOR ALL BUILDING PERMITS. A BUILDING PERMIT IS REQUIRED. ALL WORK SHALL BE EXECUTED IN ACCORDANCE WITH THE LOCAL AND STATE CODES, ORDINANCES, AND REGULATIONS. GOVERNING THE PARTICULAR CLASS OF WORK INVOLVED. THE BUILDER IS RESPONSIBLE FOR ALL PLAN CHECK AND PERMIT SUBMITTALS, INCLUDING ENERGY CODE COMPLIANCE. THE ARCHITECT WILL FURNISH ALL MECH. AND ELECTRICAL CALCS FOR THE CONTRACTORS USE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL EXECUTION OF THE WORK TO SUIT THESE REQUIREMENTS. ON COMPLETION OF THE WORK, THE CONTRACTOR SHALL OBTAIN AND DELIVER TO THE OWNER, FINAL CERTIFICATES OF ACCEPTANCE AND OCCUPANCY.

16. EXCEPT AS OTHERWISE INDICATED, COMPLY WITH APPLICABLE PROVISIONS OF NEC AND STANDARDS BY NEMA, FOR ELECTRICAL COMPONENTS OF GENERAL WORK. PROVIDE UL LISTED AND LABELED PRODUCTS.

WELDED WIRE FABRIC

INDE	X TO DRAWINGS		
G001	TITLE SHEET	A201	EXTERIOR ELEVATIONS
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S0.2	CONCRETE GENERAL NOTES & DETAILS	P103	PLUMBING MEDICAL GAS PLAN
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	GENERAL NOTES AND DETAILS	M502	MECHANICAL DETAILS
S0.5	EARTHWORK GENERAL NOTES & DETAILS	M601	MECHANICAL SCHEDULES
S100	FOUNDATION PLAN	M602	MECHANICAL SCHEDULES
S101	FOUNDATION CONTROL JOINT PLAN		
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A101	ARCHITECTURAL FLOOR PLAN	E201	POWER RISER DIAGRAM AND PANEL
A102	DIMENSION PLAN		SCHEDULE
A103	REFLECTED CEILING PLAN	E202	ELECTRICAL LEGEND, SCHEDULES

CODES

INDEX TO DDAMINGS

2012 INTERNATIONAL BUILDING CODE	2011 NATIONAL ELECTRIC CODE
2012 INTERNATIONAL MECHANICAL CODE	2009 INTERNATIONAL ENERGY CONSERV. CODE
2012 UNIFORM MECHANICAL CODE	2011 NORTHERN NEVADA ENERGY CODE AMEND.
2012 UNIFORM PLUMBING CODE	2012 NORTHERN NEVADA AMENDMENTS
2012 INTERNATIONAL FUEL GAS CODE	2012 INTERNATIONAL PROPERTY MAINTENANCE CODE

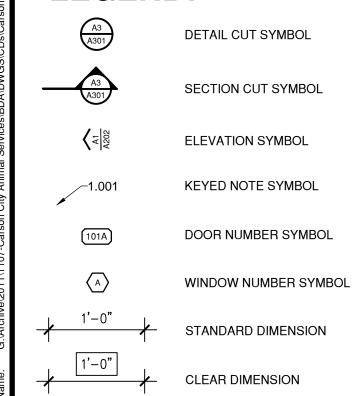
VICINITY MAP



INITIALS	3	REVIEWS
INTIALS	,	BDA DESIGN REVIEW
		BDA TECHNICAL REVIEW
		REVISIONS:
REV. NO.	DATE	COMMENTS

1107

LEGEND:



ABBREVIATIONS:

	ADJUSTABLE	GSF	GROSS SQUARE FOOT	PL	PROPERTY LINE
	ABOVE FINISH FLOOR	GYP BD	GYPSUM BOARD	PLF	PER LINEAR FOOT
	ALTERNATE	HC	HOLLOW CORE or HANDICAPPED	PSF	POUNDS PER SQUARE FOOT
	ACOUSTICAL CEILING TILE	HM	HOLLOW METAL	PSI	POUNDS PER SQUARE INCH
	CABINET	HT	HEIGHT	RD	ROOD DRAIN
	CUBIC FOOT PER MINUTE	HVAC	HEATING VENTILATING AIR CONDITIONING	RE	REFER
	CONTROL JOINT	HW	HOT WATER	RO	ROUGH OPENING
	CENTERLINE	INT	INTERIOR	SC	SOLID CORE or SEALED CONCRETE
	CEILING	JAN	JANITOR	SHT	SHEET
	CLEAR	MAX	MAXIMUM	SIM	SIMILAR
	CONCRETE MASONRY UNIT	MECH	MECHANICAL	SPEC	SPECIFICATION
	CLEAN OUT	MFG	MANUFACTURER	SS	SANITARY SEWER
	CONTINUOUS	MH	MANHOLE	SST	STAINLESS STEEL
	COLD WATER	MIN	MINIMUM	STL	STEEL
	DROP CORD OUTLET	MO	MASONRY OPENING	SQ	SQUARE
	DRINKING FOUNTAIN	MT	METAL THRESHOLD	TOA	TOP OF ASPHALT
	DIAMETER	NIC	NOT IN CONTRACT	TOC	TOP OF CURB/CONCRETE
	DETAIL	NTS	NOT TO SCALE	TOP	TOP OF PARAPET
	DRAIN WASTE VENT	O2	OXYGEN	TOW	TOP OF WALL
Y	EACH WAY	OC	ON CENTER	TYP	TYPICAL
	ELECTRIC WATER COOLER	OCP	OCCUPANTS	UNGD	UNDERGROUND
	EXPANSION JOINT	OD	OUTSIDE DIAMETER	UNO	UNLESS NOTED OTHERWISE
	EYEWASH	OFCI	OWNER FURNISHED/CONTRACTOR INSTALLED	VBI	VIEW BOX ILLUMINATOR
	EXTERIOR	OFOI	OWNER FURNISHED/OWNER INSTALLED	VTR	VENT THRU ROOF
	FLOOR DRAIN	OH	OVER HEAD or OVERHANG	WD	WOOD
	FINISH FLOOR	OR	OPERATING ROOM	WP	WATER PROOF/WEATHER PROOF

PLASTIC LAMINATE

PAINTED GYPSUM BOARD

PER CUBIC FOOT

CONSULTANTS

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	ALBUQU	ERQUE, NM 87111	
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	FAX:	()	
	E-MAIL:	jim@jjkgroup.com	

CHANICAL	THE RESPONSE GROUP, INC.
ECTRICAL	11930 MENAUL NE
JMBING:	ALBUQUERQUE, NM 87112
	PHONE: (505) 323-7629
	FAX: (505) 323-7594
	E-MAIL: theresponsegroup@trg-inc.i

PROJECT DATA:

FILOULO	DAIA.			
LEGAL DESCRIPTION:	A PORTION OF APN 010-031-04	RELEVAN	T CODE:	SEE ABOVE
SITE ADDRESS:	549 AIRPORT ROAD	BUILDING	TYPE:	ANIMAL SHELTER and CLINIC
	CARSON CITY, NEVADA 89701	OCCUPAN	ICY TYPE:	В
CURRENT ZONING:	PUBLIC REGIONAL (PR)	CONSTRU	CTION TYPE:	VB
SITE AREA:	1.5 ACRES		LE AREA: 9000 SF x2 SPRINKLED)	18,000 SF
		GROSS US	SABLE AREA (CURRENT): BUILDING: KENNELS & GARAGE: TOTAL:	10,326 SF 7,411 SF 4,136 SF 11,547 SF
		OCCUPAN	IT LOAD (CURRENT): 11,547 FF BUSINESS - 1/100:	115
		EXITS:	REQUIRED: CURRENT PROVIDED:	2 5
		WIDTHS:	REQUIRED: CURRENT PROVIDED:	.2 x 104 = 20.8 36

LEGEND

2 Ocp. OCCUPANT LOAD EXITING DIRECTION

EGRESS PATHWAY

EXIT DISCHARGE

EMERGENCY EGRESS LIGHT FIXTURE, (WALL UP 7'-6") SEE ELECTRICAL

EMERGENCY EXIT LIGHT FIXTURE, WITH BATTERY BACK-UP (CEILING SURFACE) SEE ELECTRICAL



PORTABLE FIRE EXTINGUISHER IN CABINET: LOCATIONS AS PER NFPA 10. MINIMUM SIZE TO BE _2_A_10_BC_2, INSTALLED AT A MAXIMUM OF 48" A.F.F. TO THE TOP OF THE HANDLE. EXTINGUISHERS SHALL BE LOCATED SO THAT NO TRAVEL DISTANCE

OCCUPANCY AND EGRESS TABLES

2012 INTERNATIONAL BUILDING CODE TABLE 1004.1.2 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

USE	OCCUPANT LOAD FACTOR (SF)	NUMBER OF OCCUPANTS
BUSINESS AREAS	100	22
STORAGE AND UTILITY	300	6
MINIMALLY OCCUPIED ANIMAL AREAS (CALCULATED AS "STORAGE AND UTILITY" USE)	300	48
ANIMAL HOUSING	n/a	n/a
TOTAL NUMBER OF OCCUP	PANTS PER TABLE 100	04.1.2 = 76

2012 INTERNATIONAL BUILDING CODE SECTION 1005.1 MEANS OF EGRESS SIZING PER OCCUPANT SERVEI	
EGRESS COMPONENTS WITH SPRINKLER SYSTEM (INCHES PER PERSON)	0.2

300

BDA DSGN. REV. BDA TECH REV.

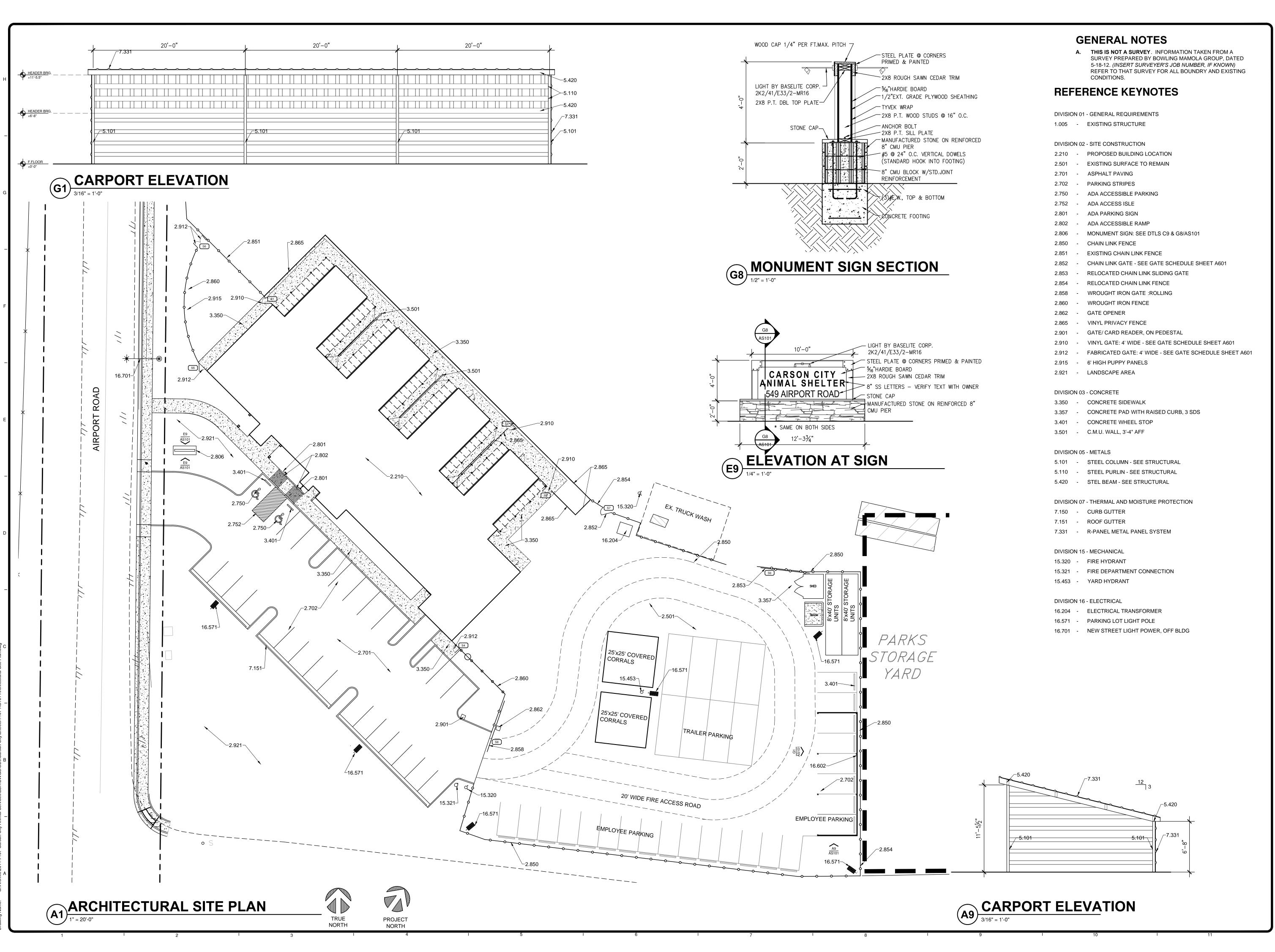
PROJECT NO.: 1107 DRAWN: DATE: 2/27/2015

G101

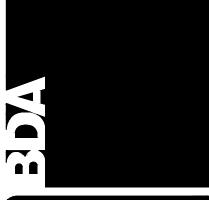
EGRESS PLAN

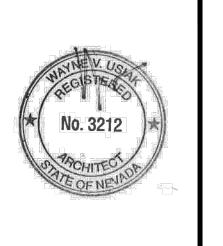
1/8"=1'-0"

BUILDING AREA = 7,411 SF KENNEL PODS = 3,016 SF INTAKE GARAGE =1,120 SF PROJECT NORTH



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CARSON CITY
ANIMAL SHELTER

TECTURAL SITE PLAN

L DATE COMMENTS

COMMENTS

REVIEWS
TIALS
- BDA DSGN. REV.
- BDA TECH REV.

CCAS

PROJECT NO.: 1107

DRAWN: DG

DATE: 2/27/2015

AS10

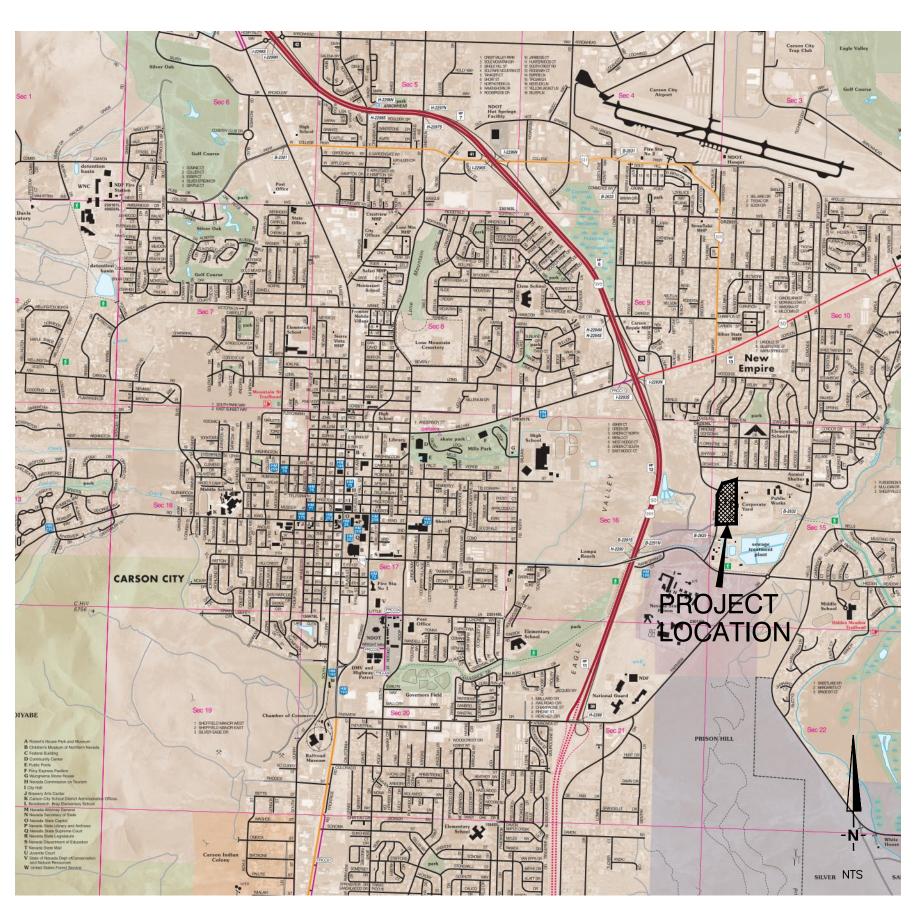
Carson City Animal Shelter

549 Airport Road Carson City, Nevada 89701

ABBREVIATIONS:

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(SOME ABBREVIATIONS LISTED BELOW MAY NOT BE INCLUDED IN THIS PLAN SET)
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FINISHED GRADE
        FIRE HYDRAN
        FEET
        FIRE WATER
        GAS LINE
        GROUND SHOT
        HIGH DENSITY POLYETHYLENE
         INVERT ELEVATION
         IRRIGATION
MAX
        MAXIMUM
        MAXIMUM DRY DENSITY
        MINIMUM
        NECESSARY
        OVERHEAD POWER
        PORTLAND CEMENT CONCRETE
POLYETHYLENE
POST INDICATOR VALVE
        POINT ON LINE
        POINT ON CURVE
        POWER POLE
        POINT OF REVERSE CURVE
        POLYVINYL CHLORIDE
        REDUCED PRESSURE BACKFLOW ASSEMBLY
SD
        STORM DRAIN
SDMH
        STORM DRAIN MANHOLE
        SANITARY SEWER
        SANITARY SEWER MANHOLE
        TOP BACK OF CURB
        TRENCH DRAIN
        TOP OF PCC BENCH
        TOP OF STEP
        TOP OF WALL
        TOP OF SLOPE
        TYPICAL
        WATER
        WATER VALVE
W/
UGP
        WITH
        UNDERGROUND POWER
        VALLEY GUTTER
        INCHES
        PERCENT
```



VICINITY MAP

CIVIL SHEET INDEX

Sheet C101 - Cover Sheet

Sheet C102 - Demolition and Existing Site Plan

Sheet C103 - Civil Site Plan

Sheet C104 - Grading and Drainage Plan

Sheet C105 - Overall Utility Plan

Sheet C106 - Detailed Utility Plan

Sheet C107 - Frontage Improvements Plan

Sheet C108 - Details

Sheet C109 - Details

Sheet C110 - Details Sheet C111 - Details

Sheet C112 - Details

SARSON CITY
IIMAL SHELTER

CARSON ANIMAL S 549 Airpor

REVIEWS

NITIALS

BDA DSGN. REV.

BDA TECH REV.

CCAS

PROJECT NO.: 14-227.1C

DRAWN: MLM/FRB

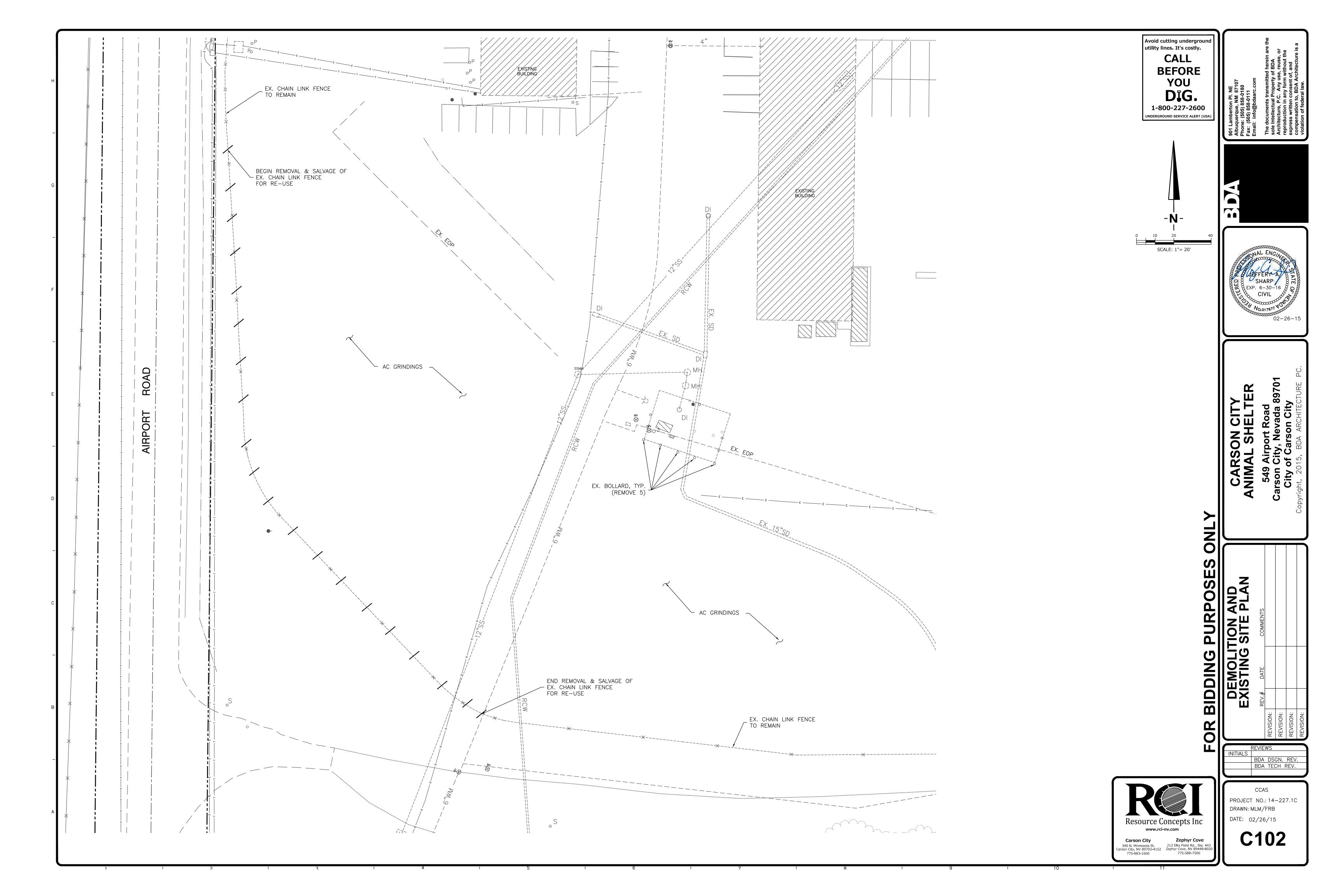
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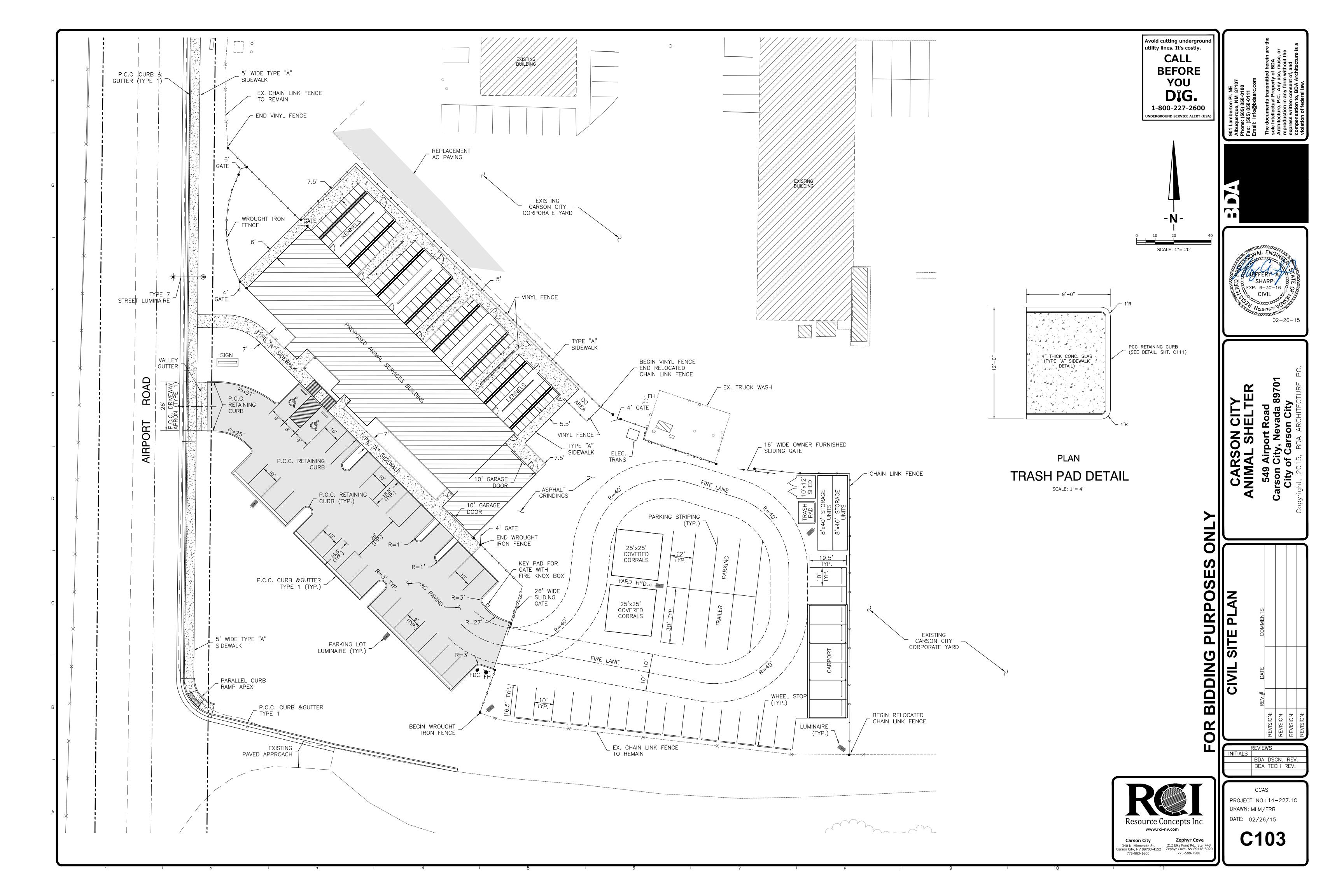
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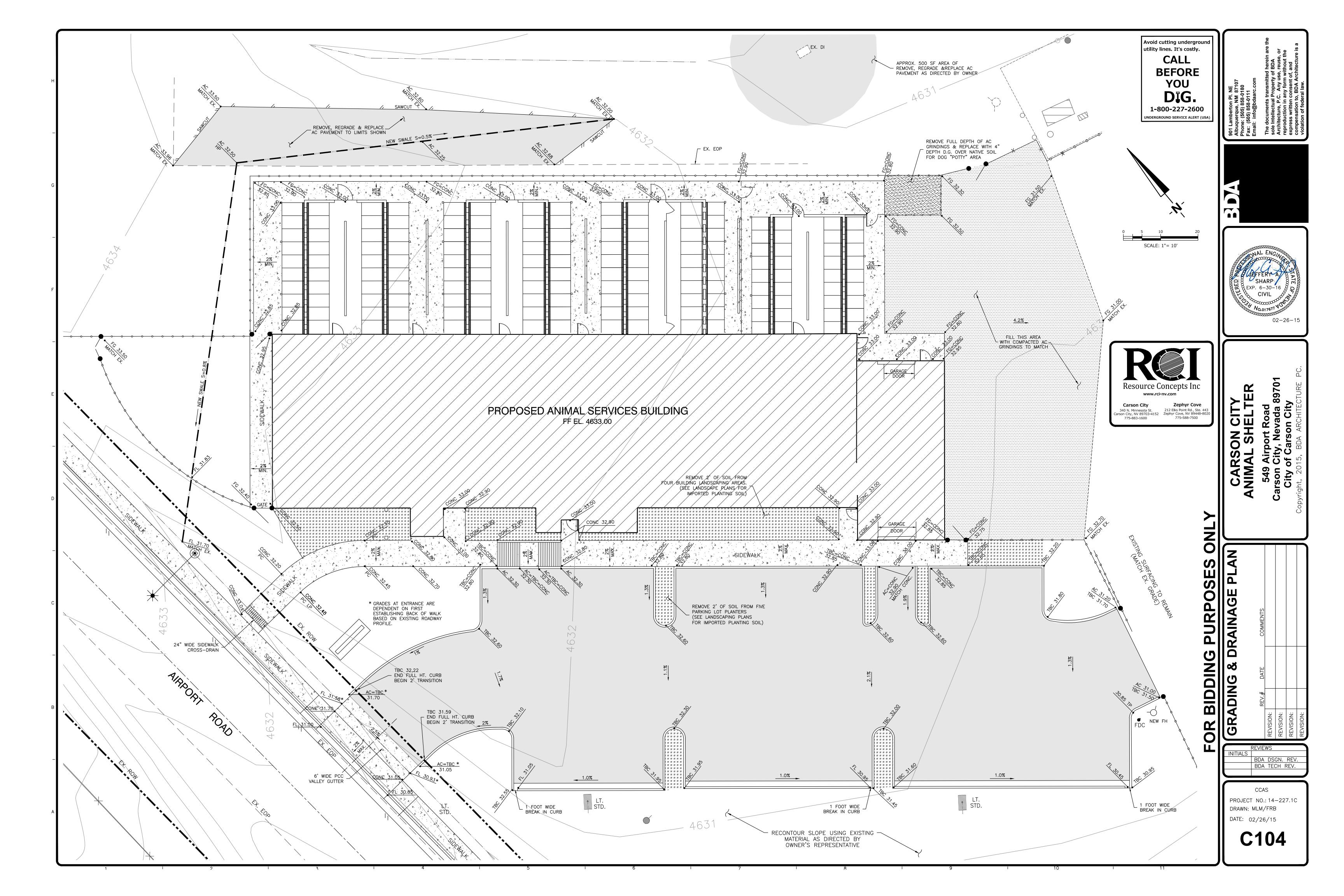
Resource Concepts Inc
www.rci-nv.com

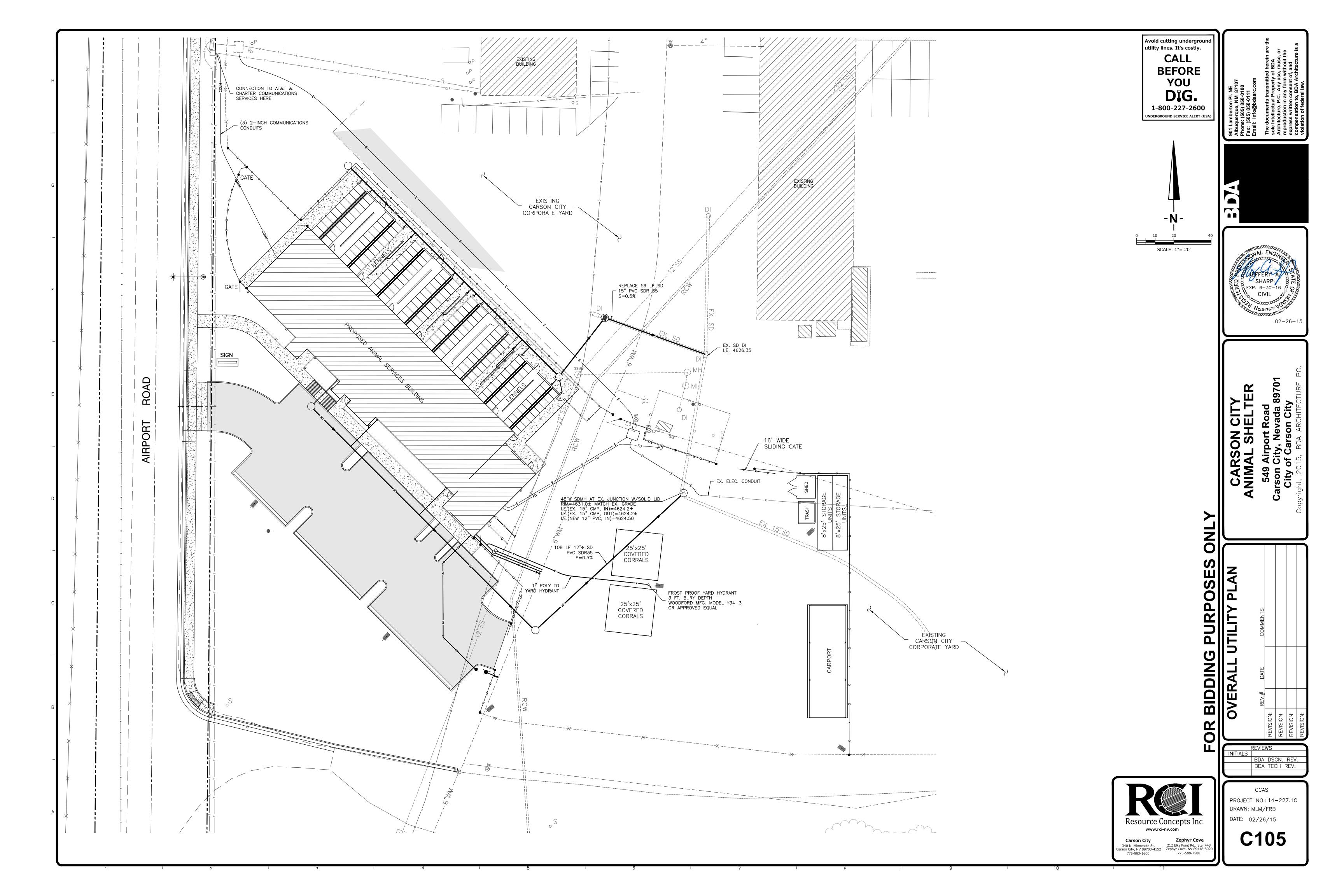
Carson City
340 N. Minnesota St.
Carson City, NV 89703-4152
775-883-1600

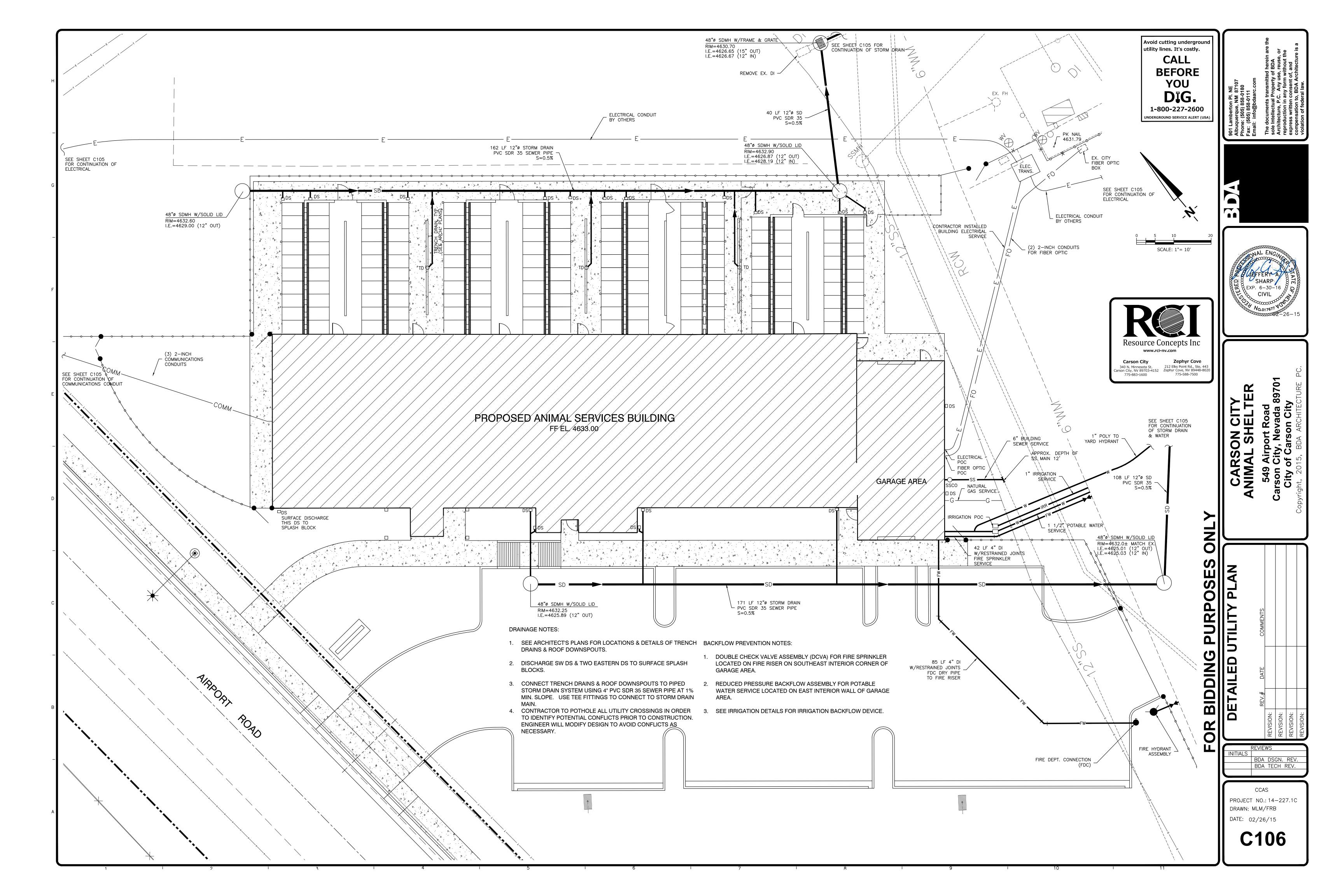
Zephyr Cove
212 Elks Point Rd., Ste. 443
Zephyr Cove, NV 89448-8020
775-588-7500

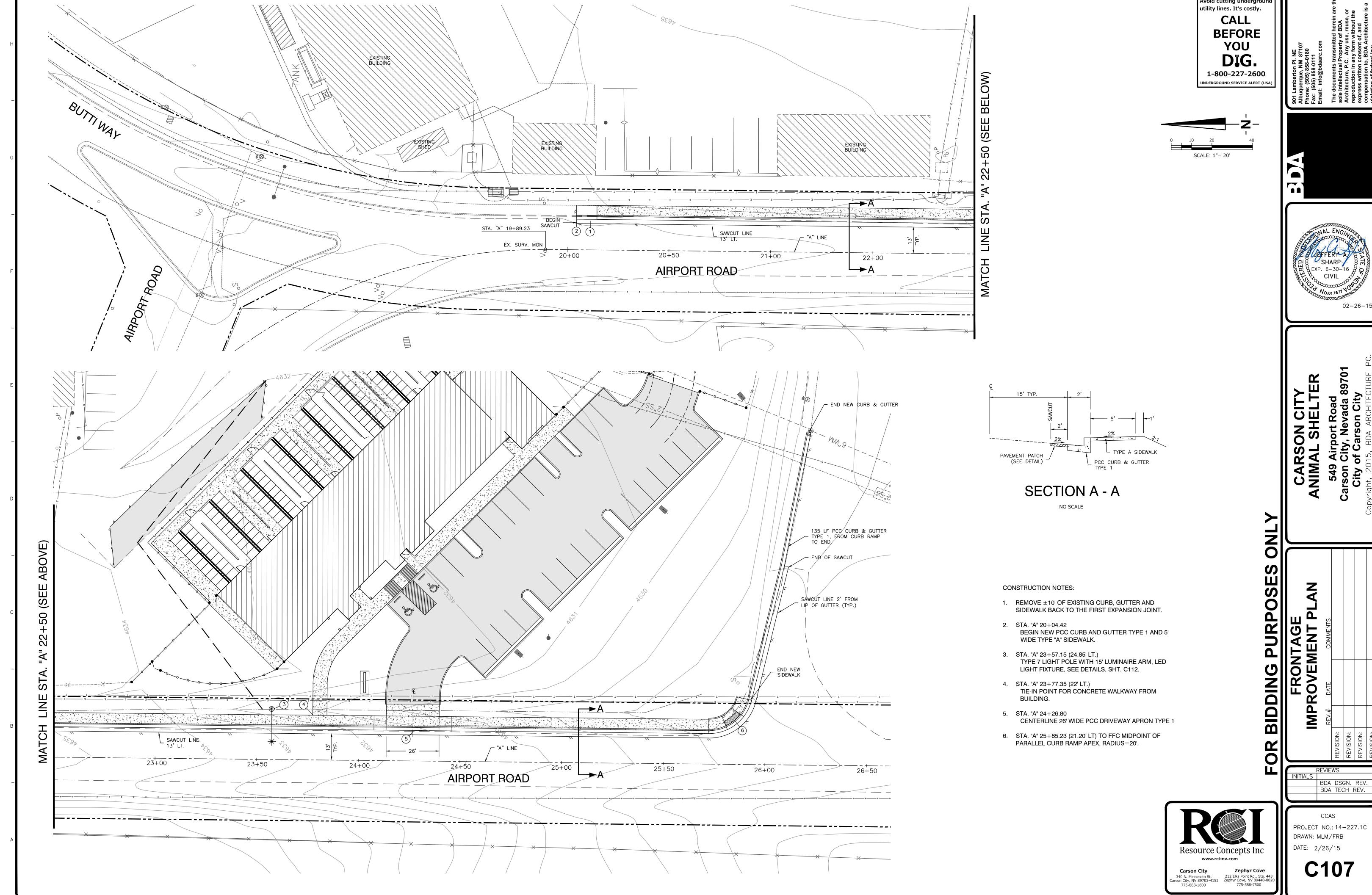


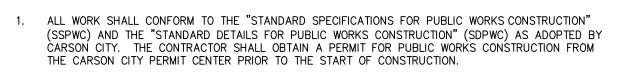












- 2. ALL TRAFFIC CONTROL AND BARRICADING WITHIN THE CARSON CITY RIGHT-OF-WAY SHALL CONFORM TO SECTION 100.33, 332.04 AND 332.05 OF THE STANDARD SPECIFICATIONS, PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, AND THE UNR T2 CENTER, TEMPORARY TRAFFIC CONTROL GUIDELINES LATEST EDITION. A TRAFFIC CONTROL PLAN MUST BE SUBMITTED AND APPROVED BY THE CARSON CITY ENGINEERING DIVISION PRIOR TO ANY STREET CLOSURES.
- 2. THE CONTRACTOR SHALL CALL UNDERGROUND SERVICE ALERT "CALL BEFORE YOU DIG" (811) OR (1-800-227-2600) AT LEAST TWO (2) WORKING DAYS PRIOR TO START OF CONSTRUCTION AND COMPLY WITH THE REQUIREMENTS OF NRS AND NAC 455 THROUGHOUT THE COURSE OF THE WORK, SEWER SERVICE LATERALS ARE NOT OWNED OR MARKED BY CARSON CITY.
- 3. THE CONTRACTOR SHALL CALL THE CARSON CITY ENGINEERING DIVISION (887-2300) TWO (2) WORKING DAYS PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL CALL ONE (1) WORKING DAY PRIOR TO REQUIRED INSPECTIONS AND TESTING. THE REQUIRED INSPECTIONS AND TESTING ARE LISTED ON THE INSPECTION RECORD ISSUED WITH EACH PERMIT. THE CONTRACTOR MUST HAVE THE PERMIT NUMBER AND THE DESCRIPTION LISTED ON THE INSPECTION RECORD TO SCHEDULE REQUIRED INSPECTIONS AND TESTING. FOR CITY CONTRACTED PROJECTS, THE CONTRACTOR SHALL SCHEDULE INSPECTIONS PER THE CONTRACT DOCUMENTS.
- 4. FINAL INSPECTIONS WILL BE PERFORMED BY CARSON CITY ENGINEERING DIVISION ACCORDING TO THE CARSON CITY INSPECTIONS AND TESTING PROCEDURES. NOTE: THESE PROCEDURES REQUIRE SUBMITTAL OF RECORD DRAWING PRINTS BY THE CONTRACTOR AND 10 WORKING DAYS TO PREPARE A FINAL PUNCH LIST. ALL CONDITIONS OF THE FINAL INSPECTION MUST BE COMPLETED PRIOR TO FINAL ACCEPTANCE OR ANY APPROVAL OF A CERTIFICATE OF OCCUPANCY BY THE CARSON CITY ENGINEERING DIVISION.
- 5. MODIFICATIONS TO THE APPROVED PLANS REQUIRES REVIEW AND APPROVAL BY THE CARSON CITY ENGINEERING DIVISION. WORK PERFORMED WITHOUT WRITTEN APPROVAL BY CARSON CITY ENGINEERING WILL REQUIRE REMOVAL AT THE CONTRACTORS EXPENSE.
- 6. THE APPROVED PLAN, PERMIT AND INSPECTION RECORD MUST BE ON THE JOB SITE AT ALL TIMES.
- 7. PLAN APPROVAL FOR SEWER AND WATER CONSTRUCTION SHALL EXPIRE ONE YEAR FROM DATE OF APPROVAL UNLESS CONSTRUCTION HAS BEEN INITIATED. (CCMC 12.06.180F, 12.01.140D)

NO. | REVISION | DATE | STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION | SECTION

GENERAL NOTES

NOTE 2

APPROVED BY: D5/14

CARSON CITY

DRAWING NO.

5/2014

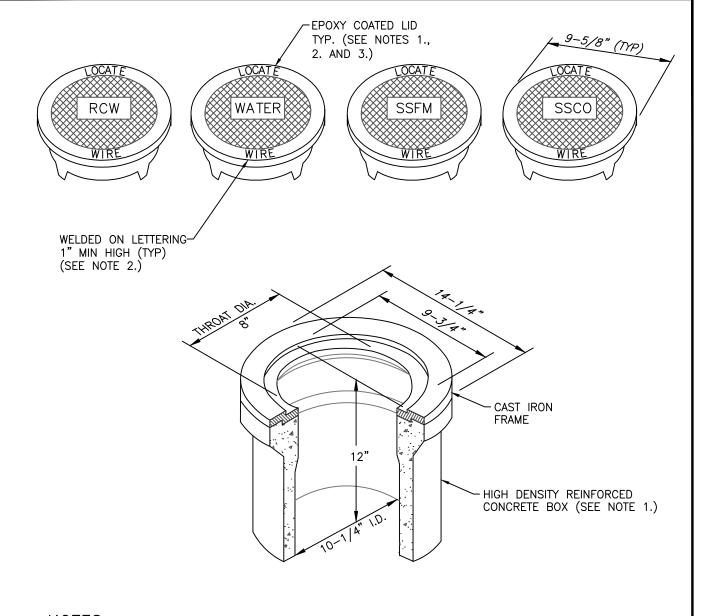
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THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR ACQUIRING A STORMWATER DISCHARGE PERMIT FROM THE NEVADA DIVISION OF ENVIRONMENTAL PROTECTION (NDEP) INCLUDING DEVELOPING, SUBMITTING AND IMPLEMENTING A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL DEVELOP, PLACE AND MAINTAIN STORM WATER PROTECTION DEVICES IN COMPLIANCE WITH THE NEVADA CONTRACTORS FIELD GUIDE FOR CONSTRUCTION SITE BEST MANAGEMENT PRACTICES (JUNE 2008).

BACKFILL TO SUBGRADE IF TRENCH IS IN AN EXISTING PAVEMENT. BACKFILL TO ORIGINAL GROUND IF TRENCH IS OUTSIDE EXISTING PAVEMENT (SEE NOTES 1., 2. & 6.) WARNING TAPE — NON METALL (SEE NOTE 7.) TRACER WIRE FOR WATER LINES, SEWE FORCE MAINS AND SEWER LATERALS (SEE NOTE 8.) BEDDING MATERIAL — CLASS "A" TRENCH SUBGRADE (SEE NOTE 4.) TRENCH SUBGRADE (SEE NOTE 4.)	LIC
MINIMUM TRENCH EXCAVATION LIMITS TYPICAL TRENCH SECTION	
NOTES:	

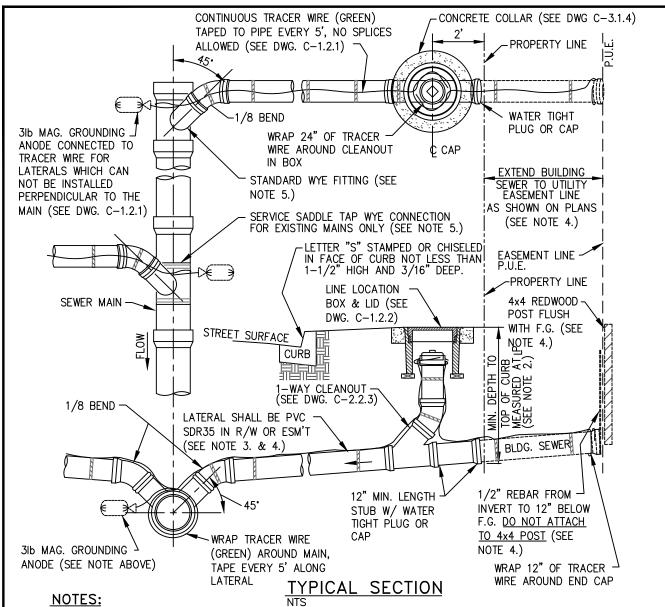
- WATER DENSIFIED BACKFILL AND TUNNELING SHALL BE BY SPECIAL PROVISION ONLY.
- BACKFILL SHALL CONFORM TO THE REQUIREMENTS OF CLASS E BACKFILL AS SPECIFIED IN SUBSECTION
- 200.03.06 OF THE SSPWC. MATERIAL SHALL BE PLACED IN LIFT THICKNESS SPECIFIED IN SUBSECTION 305.10 OF THE SSPWC AND DENSIFIED TO 90% RELATIVE COMPACTION.
- BEDDING SHALL CONFORM TO THE REQUIREMENTS OF CLASS A BACKFILL AS SPECIFIED IN SUBSECTION 200.03.02 OF THE SSPWC. MATERIAL SHALL BE DENSIFIED TO 90% RELATIVE COMPACTION.
- PLANS SHALL INCLUDE A DETAIL FOR SUBGRADE STABILIZATION INCLUDING BACKFILL MATERIAL, STRUCTURAL GEOTEXTILE FILTER FABRIC AND MODIFIED CUTOFF COLLARS WHEN POTENTIAL FOR UNSTABLE SUBGRADES
- EXIST, SUBJECT TO THE APPROVAL OF THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR. FOR TRENCHES IN ROADWAY SECTION, SEE PAVEMENT PATCH DETAIL (DWG. No. C-5.1.6).
- FOR THE PURPOSE OF PAYMENT; EXCAVATION AND BACKFILL QUANTITIES ARE BASED ON THESE STANDARD DRAWINGS, AND NO ADDITIONAL COMPENSATION WILL BE MADE. SHORING OR SLOPED CUT SLOPES MAY BE NECESSARY, BUT THERE WILL BE NO ADDITIONAL PAYMENT. ALL EXCAVATIONS SHALL CONFORM TO THE LATEST O.S.H.A. REQUIREMENTS.
- PLACE NON METALLIC WARNING TAPE 1 FOOT ABOVE ALL BURIED PIPES AND CONDUITS.
- TRACER WIRE SHALL BE 12 GAUGE (MINIMUM THICKNESS) INSULATED SOLID COPPER OR COPPER-CLAD STEEL CORE WIRE. INSULATION SHALL BE 30 MIL HDPE. PLANS SHALL SPECIFY WIRE STRENGTH AND INSULATION THICKNESS FOR BORING APPLICATIONS. SPLICES SHALL BE CONNECTED BY WIRE NUTS, SEALED WITH AQUA SEAL OR SILICON FILLED, AND DOUBLE WRAPPED WITH U/L LISTED ELECTRICAL TAPE. TRACER WIRE COLOR SHALL BE, BLUE FOR WATER, PURPLE FOR RECLAIMED WATER, AND GREEN FOR SEWER.

APPRO	VED BY:	7/09	AND DACKFILL	7/2009
			TRENCH EXCAVATION AND BACKFILL	C-1.2.1 (305)
			TDENCH EVEAVATION	CARSON CITY DRAWING NO.
NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION



- 1. BOX AND LID SHALL BE TRAFFIC RATED WITH A MINIMUM INSIDE DIAMETER OF 10 INCHES (CHRISTY G3 TRAFFIC VALVE BOX & LID).
- 2. CAST IRON LID SHALL BE MARKED AT THE FACTORY "LOCATE WIRE", AND "WATER" FOR WATER APPLICATIONS, "RCW" FOR RECLAIMED WATER APPLICATIONS, "SSFM" FOR SANITARY SEWER FORCE MAIN APPLICATIONS, AND "SSCO" FOR SANITARY SEWER CLEANOUT APPLICATIONS.
- 3. CAST IRON LID SHALL BE EPOXY COATED AT THE FACTORY, OR POWDER COATED, COLOR SHALL BE BLUE FOR WATER APPLICATIONS, PURPLE FOR RECLAIMED WATER APPLICATIONS AND GREEN FOR SANITARY SEWER APPLICATIONS.
- 4. BOX SHALL BE SET OR ADJUSTED TO GRADE PER DRAWING NO. C-3.1.4, RISER FOR ADJUSTED BOX SHALL BE PER DRAWING NO. C-3.1.4 FOR OVERLAY ADJUSTMENTS, RISER WILL NOT REQUIRE REPLACEMENT OR EXTENSION IF IT EXTENDS A MINIMUM OF 2 INCHES INTO ADJUSTED BOX.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CITY
			l LINE LOCATION	DRAWING NO.
			BUA 86 IID	C-1.2.2 (306,307) DATE
PPROV	ED BY: <u>. Ø</u>	7/09		7/2009
	NO.			LINE LOCATION BOX & LID

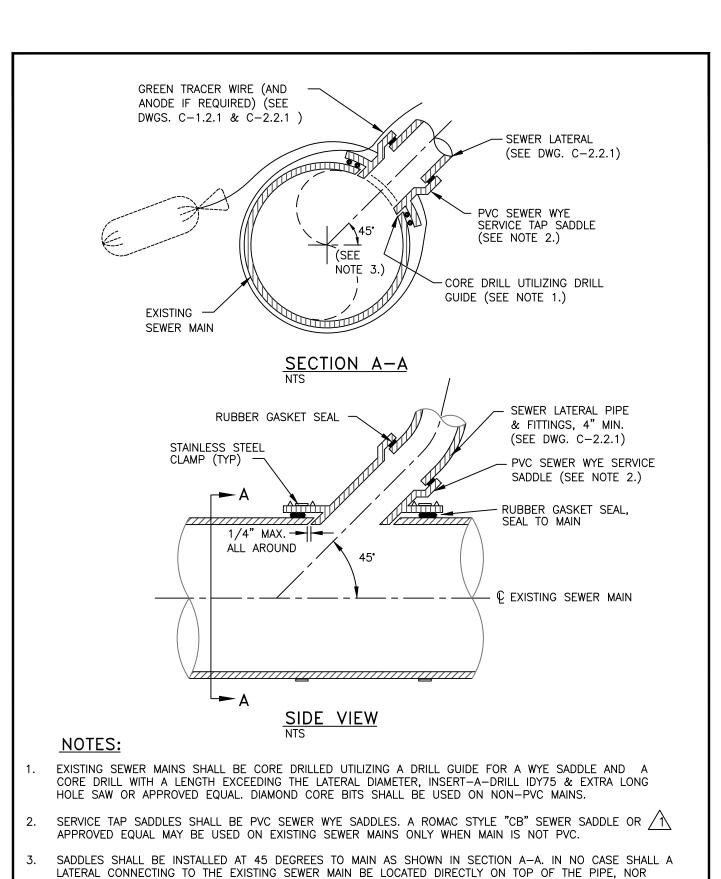


1. IN NO CASE SHALL A LATERAL CONNECT TO THE SEWER MAIN DIRECTLY ON TOP OR MATCH THE FLOWLINE OF

- 2. SEWER LATERALS SHALL HAVE A MINIMUM SLOPE OF 2%. PLANS SHALL INDICATE INVERT ELEV. REQUIRED TO SERVE PROPERTY AND CLEAR UNDERGROUND OBSTRUCTIONS.
- 3. ALL JOINTS ON SEWER LATERAL PIPE WITHIN THE RIGHT-OF-WAY SHALL BE COMPRESSION TYPE. C900 PVC MAY BE SUBSTITUTED FOR SDR35 TO MEET NDEP BSDW SEPARATIONS. 4. LATERAL SHALL BE PERPENDICULAR TO THE MAIN AND EXTEND TO PROPERTY LINE. WHEN SHOWN ON PLANS TO INSTALL BUILDING SEWER PRIOR TO PUBLIC UTILITIES, INSTALLATION OF BUILDING SEWER IS EXTENDED TO UTILITY EASEMENT LINE AND STANDARD WATERTIGHT PLUG OR CAP, REDWOOD POST AND REBAR SHALL BE
- INSTALLED AT EASEMENT LINE. 5. USE OF SEWER SERVICE TAP SADDLE CONNECTIONS SHALL NOT BE ALLOWED FOR NEW SEWER MAIN CONSTRUCTION. WHEN A TAP SADDLE CONNECTION IS TO BE USED ON AN EXISTING SEWER MAIN, IT SHALL BE A WYE SADDLE AND BE INSTALLED PER DWG. C-2.2.2.
- 6. DISCONTINUANCE OF USE OF AN EXISTING SEWER LATERAL REQUIRES ABANDONMENT OF THE LATERAL. CUT, REMOVE 1 FOOT OF EXISTING LATERAL AND CAP BOTH ENDS OF THE EXISTING SEWER LATERAL TO BE ABANDONED WITHIN 6 INCHES OF THE SEWER MAIN. INSPECTION BY CARSON CITY SEWER UTILITY IS REQUIRED
- 7. PROPERTY OWNER SHALL BE RESPONSIBLE FOR OPERATION, MAINTENANCE AND REPAIR OF THE SEWER LATERAL WITHIN THE PUBLIC RIGHT-OF-WAY PER CCMC 12 05 050 5

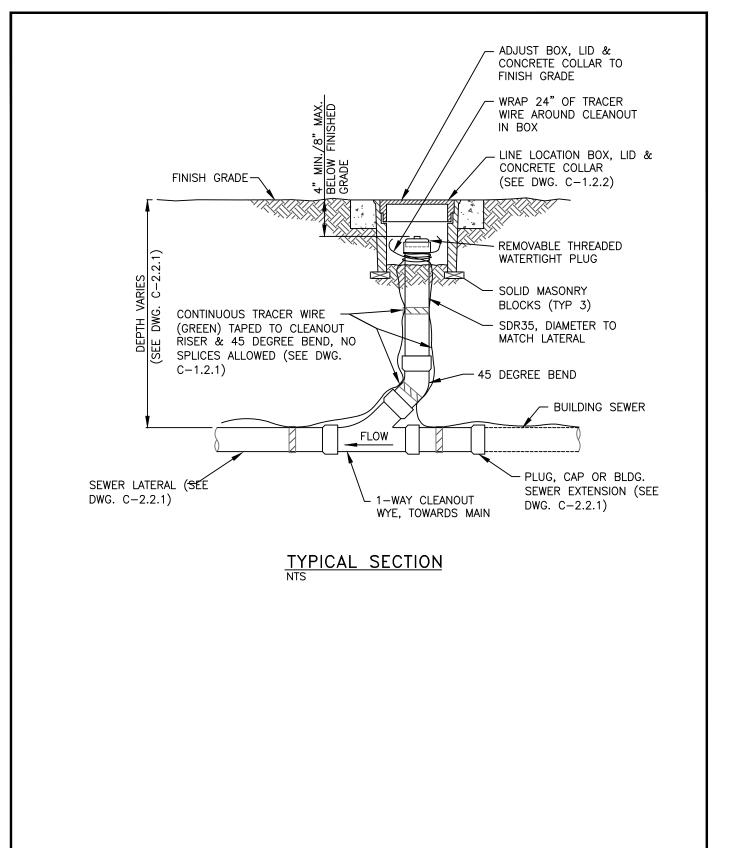
PRIOR TO BACKFILL

	EATERAL WITHIN THE FOREIGNIGHT OF WATTER COME 12.00.000.3.										
NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION							
				CARSON CITY							
			SEWER LATERAL	DRAWING NO.							
			SEWER LAIERAL	C-2.2.1 (203,306) DATE							
APPR(OVED BY: 🔏	07/09		7/2009							

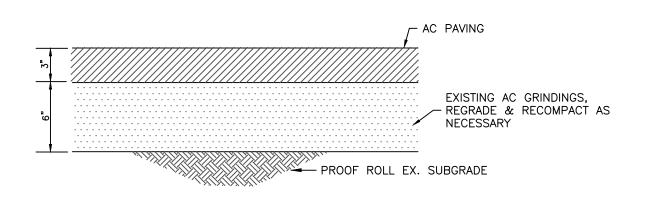


NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
\triangle	NOTE 2	7/12	CEWED CEDVICE	CARSON CITY
			SEWER SERVICE	DRAWING NO. C-2.2.2 (203,306)
			TAP SADDLE	DATE (203,306)
APPROV	ED BY:	7/09	TAP SADDLE	7/2009
	i		-	

SHALL IT MATCH THE FLOWLINE OF THE PIPE.



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l	NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
١					CARSON CITY
1				SEWER CLEANOUT	DRAWING NO.
ł				SEWER CLEANOUT	C-2.2.3 (203,306) DATE
I	APPROV	/ED BY:	07/09		7/2009



TYPICAL SITE PAVEMENT SECTION NO SCALE

NOTE: DEPTHS SHOWN ARE MINIMUM COMPACTED THICKNESS

Resource Concepts Inc

www.rci-nv.com

340 N. Minnesota St. Carson City, NV 89703-4152 Zephyr Cove, NV 89448-8020 775-883-1600 775-588-7500

Carson City

SHARP

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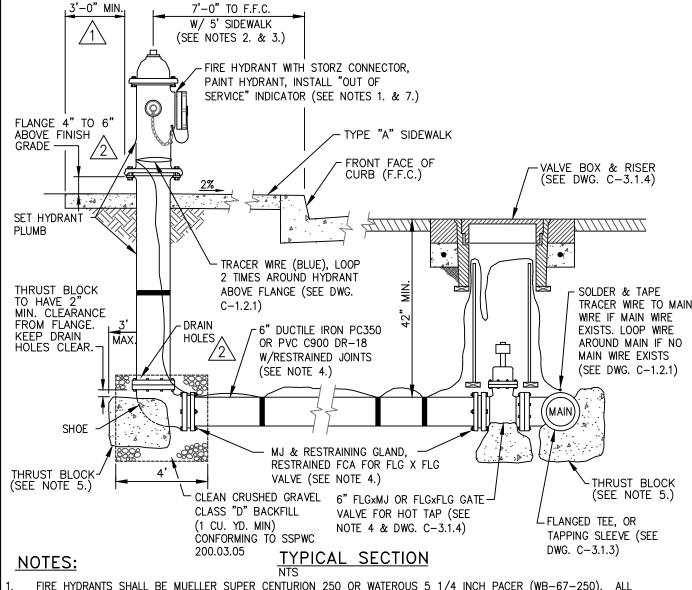
BDA TECH REV.

PROJECT NO.: 14-227.1C DRAWN: MLM/FRB DATE: 02/26/15

C108

- 1. WATER MAIN SHUTDOWNS/INTERRUPTION OF WATER/FIRE SERVICE; OBTAIN TENTATIVE APPROVAL FROM CARSON CITY WATER UTILITY PRIOR TO PLANNING A SHUTDOWN. APPROVAL IS REQUIRED ONE WORKING DAY PRIOR TO NOTIFICATION OF CUSTOMERS. COMMERCIAL CUSTOMERS SHALL RECEIVE 2 WORKING DAYS WRITTEN AND VERBAL NOTICE OF A SHUTDOWN. SPECIAL ARRANGEMENTS INCLUDING NIGHT TIME SHUTDOWNS MAY BE REQUIRED OF THE CONTRACTOR TO ACCOMMODATE CUSTOMER OPERATIONS. RESIDENTIAL CUSTOMERS SHALL RECEIVE 24 HOURS WRITTEN NOTICE. WHEN WORK IS PERFORMED BY CITY STAFF, THE CITY IS RESPONSIBLE FOR THE NOTIFICATION. THE CONTRACTOR IS RESPONSIBLE IN ALL OTHER CASES. A LIST SHALL BE KEPT BY THE RESPONSIBLE PARTY LISTING THI DATE, TIME AND ADDRESS OF ALL PERSONS NOTIFIED. THE PERSON NOTIFIED SHALL BE INCLUDED ON THE LIST FOR ALL COMMERCIAL CUSTOMERS. CONTACT CARSON CITY WATER UTILITY FOR PHONE NUMBERS WHEN COMMERCIAL CUSTOMERS CANNOT BE LOCATED. THE CONTRACTOR WILL BE SUBJECT TO DAMAGE CLAIMS SHOULD THEY FAIL TO NOTIFY CUSTOMERS OR MAINTAIN DOCUMENTATION OF NOTIFICATION OF CUSTOMERS. THE TOTAL TIME OF ANY WATER SERVICE INTERRUPTION IS LIMITED TO 4 HOURS MAXIMUM. THE CONTRACTOR SHALL NOT OPERATE ANY EXISTING WATER VALVES. WATER MAIN SHUTDOWNS WILL ONLY BE SCHEDULED FOR TUESDAYS, WEDNESDAYS, OR THURSDAYS, EXCLUDING THE WORKING DAYS BEFORE AND AFTER A HOLIDAY. CONTRACTOR SHALL MAKE A WRITTEN REQUEST, TO THE WATER OPERATIONS CHIEF, A MINIMUM OF 10 CALENDAR DAYS IN ADVANCE OF ANY
- 2. WATER MAINS (6 INCH THRU 12 INCH) SHALL BE PVC C900, DR 18 (MINIMUM WALL THICKNESS) UNLESS HIGHER PRESSURE IS SPECIFIED ON THE PLANS. WATER SERVICES 2 INCHES OR LESS SHALL BE CTS, PE TUBING MINIMUM 200 PSI; WATER SERVICES 3 INCHES OR GREATER SHALL BE 4 INCH MINIMUM DIAMETER PVC C900, DR 18 OR AS SPECIFIED ON THE PLANS.
- 3. MAINTAIN 18 INCHES VERTICAL AND 5 FEET HORIZONTAL SEPARATION BETWEEN ALL UNDERGROUND UTILITY LINES AND WATER LINES. IF WATER LINE IS BELOW POWER LINE OR IS WITHIN 18 INCH VERTICAL SEPARATION OF POWER LINE, POWER/TELEPHONE LINE SHALL BE ENCASED WITH 4 INCHES MINIMUM OF CONCRETE EXTENDING 5 FEET EACH SIDE OF CROSSING. (SEE NV ENERGY SPECS.) CONCRETE ENCASEMENT OF WATER LINES IS NOT ALLOWED.
- ∧ 4. ALL HOT TAPS, GREATER THAN 2 INCHES AND LESS THAN 12 INCHES, ARE TO BE PERFORMED BY CARSON CITY WATER UTILITY. THE CONTRACTOR SHALL CONTACT THE WATER OPERATIONS CHIEF AT LEAST 2 WORKING DAYS PRIOR TO SCHEDULING HOT TAP DATE AND TIME (HOT TAPS ARE PERFORMED TUESDAY THRU THURSDAY EXCLUDING THE WORKING DAYS BEFORE AND AFTER A HOLIDAY). PRIOR TO HOT TAPPING, THE SADDLE SHALL BE HYDROSTATICALLY PRESSURE TESTED TO 150 PSI MINIMUM OR THE DESIGN OF PIPE SYSTEM FOR A MINIMUM OF 5 MINUTES. THE TEST SHALL BE PERFORMED IN THE PRESENCE OF THE WATER UTILITY PERSONNEL PRIOR TO PERFORMING THE TAP. ALL TAPPING EQUIPMENT SHALL BE DISINFECTED AND INSPECTED BY CITY FORCES PRIOR TO TAPPING A CITY MAIN.
- 5. WATER VALVE MARKERS SHALL BE BLUE CARSONITE UTILITY MARKER (CUM-375), 5 FEET-2 INCHES (5'-2") WITH CARSON CITY WATER VALVE DECAL (CWV-116) OR APPROVED EQUAL. PLACE MARKER NO MORE THAN 5 FEET FROM THE VALVE OR AS DIRECTED BY THE CARSON CITY INSPECTOR.
- 6. REDUCED PRESSURE PRINCIPLE AND DOUBLE CHECK VALVE BACKFLOW ASSEMBLIES SHALL BE APPROVED BY THE CARSON CITY INSPECTOR, AND TESTED BY A CERTIFIED BACKFLOW ASSEMBLY TESTER, AND TEST RESULTS SHALL BE APPROVED BY CARSON CITY WATER UTILITY. FOR NEW WATER METER SETS, THE REQUIRED BACKFLOW PREVENTION ASSEMBLY SHALL BE INSTALLED, INSPECTED. APPROVED AND CERTIFIED TEST RESULTS PROVIDED TO THE CARSON CITY INSPECTOR WITHIN 5 DAYS OF METER SET, UNLESS THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR APPROVES OTHERWISE. THE SERVICE WILL BE LOCKED OFF IF INSPECTIONS AND CERTIFICATIONS ARE NOT COMPLETED AS SPECIFIED ABOVE. A 25 DOLLAR FEE WILL BE ASSESSED AT TIME OF TURN-ON WHEN LOCK IS REMOVED DURING NORMAL WORKING HOURS. THE FEE WILL BE ASSESSED ON THE BUILDING PERMIT FOR THE INSTALLATION OF THE BACKFLOW DEVICE.
- 7. ALL WATER MAIN, WATER/FIRE SERVICE, AND BACKFLOW PREVENTION INSPECTIONS AND TESTING MUST BE APPROVED PRIOR TO APPROVAL OF ANY CERTIFICATE OF OCCUPANCY.
- 8. DISINFECTION TABLETS SHALL BE PLACED USING TITEBOND MULTI-PURPOSE CLEAR 100% SILICONE OR APPROVED EQUAL FOOD GRADE SILICONE

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	
/1\	NOTE 4	05/14		CARSON CITY
			WATER	DRAWING NO. C-3.1.1 (307)
			GENERAL NOTES	DATE (307)
APPROV	ED BY: BS	05/14	GLINLINAL MOTES	5/2014



FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION 250 OR WATEROUS 5 1/4 INCH PACER (WB-67-250). ALL HYDRANTS SHALL HAVE HARRINGTON HIHS 5 INCH INTEGRAL HYDRANT STORZ, OR APPROVED EQUAL, WITH BLIND CAP & CABLE AND "OUT OF SERVICE" INDICATOR. OPERATING NUT SHALL BE 1-1/2 INCH PENTAGON. VALVE OPENING SHALL BE 5-1/4 INCHES AND OPEN COUNTER-CLOCKWISE. HYDRANTS SHALL HAVE (2) 2-1/2 INCH HOSE NOZZLES WITH AMERICAN NATIONAL HOSE COUPLING THREADS, (NO SUBSTITUTIONS).

HYDRANT SHALL BE INSTALLED SO AS TO PROVIDE CLEARANCE IN ALL DIRECTIONS PER DWG. C-3.1.7.1. FOR 9 FEET-0 INCHES OR WIDER SIDEWALK OR OFFSET SIDEWALK, HYDRANT SHALL BE 2 FEET-0 INCHES TO FRONT

- FACE OF CURB. IF SIDEWALK IS NOT PRESENT, HYDRANT SHALL BE LOCATED 7 FEET-0 INCHES TO FRONT FACE OF CURB, EXCEPT IN DOWNTOWN AREA. RESTRAINING GLANDS SHALL BE ROMAC GRIPRING PIPE RESTRAINER FOR MECHANICAL JOINT VALVES OR ROMAC RESTRAINED FCA FOR FLANGED VALVES OR APPROVED EQUAL. PIPE RESTRAINT SHALL BE ROMAC "600" SERIES RESTRAINING SYSTEM OR APPROVED EQUAL. RESTRAINING DEVICES SHALL BE FULL CIRCLE (NON POINT) LOADING TYPE. HYDRANT SHOE MAY BE
- AQUAGRIP, RESTRAINED MECHANICAL JOINT (MJ) OR APPROVED EQUAL. THRUST BLOCKS SHALL HAVE THREE (3) SQUARE FEET MINIMUM AREA AND SHALL BE FORMED AGAINST UNDISTURBED NATIVE OR BACKFILL COMPACTED TO 95%, AND CONFORM TO DWG. C-3.1.14. NO CONCRETE ON HYDRANT DRAIN HOLES OR BOLTS. INSPECTION BY THE CARSON CITY INSPECTOR SHALL BE REQUIRED PRIOR TO BACKFILLING.
- HYDRANTS SHALL BE PAINTED INTERNATIONAL ORANGE (RUST-OLEUM 7400 HIGH GLOSS ALKYD ENAMEL OR APPROVED EQUAL). DO NOT PAINT 5 INCH STORZ, CAP OR CABLE. RECLAIMED WATER HYDRANTS SHALL BE PAINTED PURPLE. INSTALL "OUT OF SERVICE" INDICATOR COLLAR ON 2-1/2 INCH NOZZLE. INDICATOR SHALL BE HIGHLY VISIBLE, YELLOW WITH BLACK LETTERS, 2-1/2 INCH MINIMUM WIDTH WITH 1 INCH LETTERS STATING "OUT OF SERVICE". INDICATOR SHALL BE "CALPICO" OR EQUAL APPROVED BY THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
1	REVISED CONC. LIMITS	01/14		CARSON CITY
<u>/2\</u>	FLANGE HEIGHT	5/14	FIRE HYDRANT	DRAWING NO. C-3.1.7 (203,307)
			V C C L V D I A	DATE (200,307)
APPRO	VED BY: BS	5/14	ASSEMBLI	5/2014

MATERIAL SPECIFICATIONS

SHELL: 304 STAINLESS STEEL

GRADE 65-45-12.

LUGS: 304 STAINLESS STEEL BOLTS, WASHERS AND NUTS: NC ROLLED THREAD 304 STAINLESS STEEL, 5/8" DIAMETER.

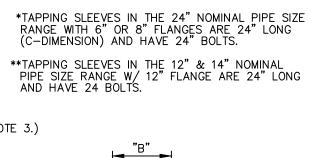
GASKETS: VIRGIN SBR COMPOUNDED FOR WATER SERVICE. ASTM D2000-80MA 4AA607 FULL GASKET. 360° PIPE COVERAGE 150 PSI MIN.

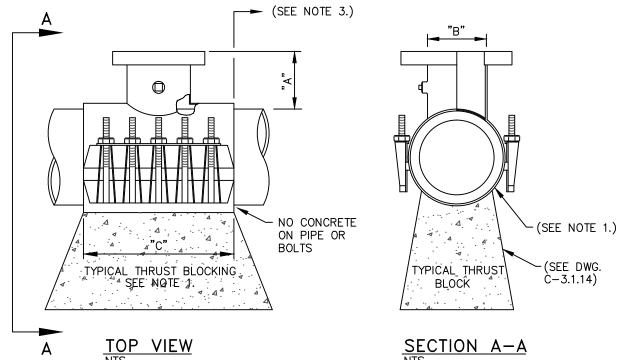
FLANGE: 304 STAINLESS STEEL OR HIGH TENSILE

PERFORMED BY CARSON CITY WATER UTILITY.

DUCTILE (NODULAR) IRON, ASTM A536-80,

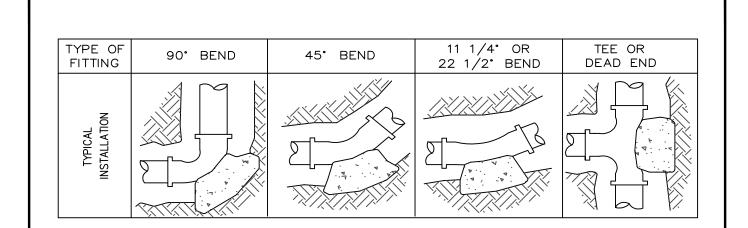
6* 4-1/2" 7-1/32" 16" 8* 4" 9-1/32" 20" 10 5-1/2" 11-1/32" 24" 12** 6-1/2" 13-1/32" 30"





- 1. MATERIAL USED FOR THRUST BLOCKING SHALL NOT PREVENT ACCESS TO THE BOLT ASSEMBLY. POTABLE WATER HOT TAPS GREATER THAN 2 INCHES AND LESS THAN 14 INCHES SHALL BE
- 3. MINIMUM DISTANCE BETWEEN TAP SADDLE, COLLARS, JOINTS, SERVICE TAPS, ETC. SHALL BE 18 INCHES
- 4. SADDLE TO BE HYDROSTATICALLY PRESSURE TESTED BY THE CONTRACTOR, TO 150 PSI (MIN.) FOR A
- MINIMUM OF 5 MINUTES, WITNESSED BY CARSON CITY WATER UTILITY, PRIOR TO PERFORMING TAP.
- REFERENCE "WATER GENERAL NOTES" DWG. C-3.1.1, FOR HOT-TAP SCHEDULING INFORMATION.

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I	NO.	REVISION	DATE	STANDARD DETAIL F	OR PUBLIC	WORKS	CONSTRUCTION	SECTION	
Ì								CARSON C	YTIC
I				TAPF	PING	SLFF	-VF	DRAWING I C-3.1.3	NO. (203,3
ŀ	APPROV	 /ED BY:	07/09	17(1)	1110	OLLI	_	DATE 7/20	 009



THRUST BLOCK BEARING AREA (SQ. FT.)										
	PE OF TTING	90° BEND	45° BEND	11 1/4° OR 22 1/2° BEND	TEE OR DEAD END	TEE W/PLUG	CROSS W/PLUG			
	4"	2	1	1	2	2	2			
PIPE	6"	4	4	2	4	4	4			
₫	8"	7	4	2	5	7	7			
A F	10	' 12	6	3	8	12	12			
	12	' 16	10	5	12	16	16			
SIZE	14	' 20	12	6	14	20	20			
"	16	" 27	15	8	18	27	27			
	18	" 45	25	13	32	45	45			
	24	" 65	35	18	46	65	65			

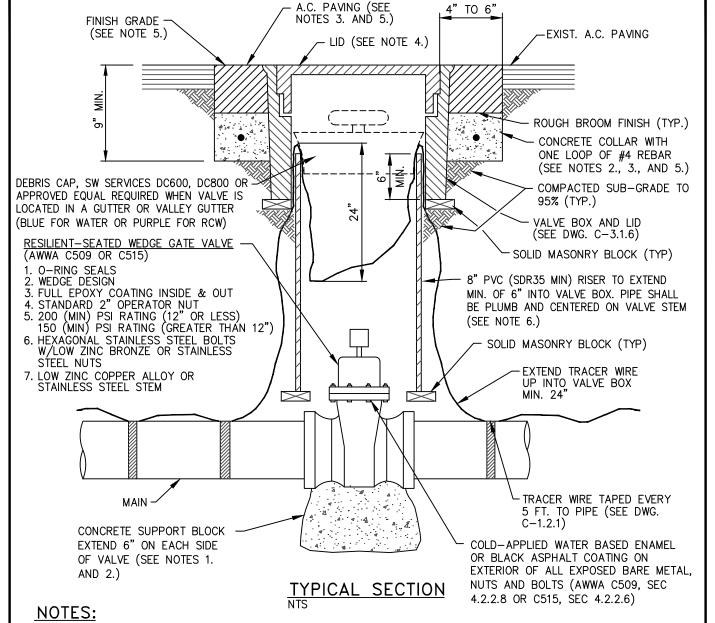
TYPE OF	CROSS	TEE
FITTING	W/PLUG	W/PLUG
TYPICAL INSTALLATION		

- . THRUST BLOCKS TO BE CONSTRUCTED OF CONCRETE CONFORMING TO 337.10 OF THE SSPWC AND SHALL HAVE
- AREAS GIVEN ARE FOR CLASS 150 PIPE AT WORKING AND TESTING PRESSURE OF 150 P.S.I., WITH 2000 P.S.F. BEARING CAPACITY. INSTALLATIONS USING DIFFERENT PIPE, TEST PRESSURES, AND/OR SOIL TYPES SHOULD HAVE AREAS ADJUSTED ACCORDINGLY, SUBJECT TO THE APPROVAL OF THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
- THRUST BLOCKS SHALL BE POURED AGAINST UNDISTURBED SOIL.

A MINIMUM COMPRESSIVE STRENGTH OF 4000 PSI @ 28 DAYS.

JOINTS, FLANGES, NUTS, BOLTS AND FACE OF PLUG SHALL BE KEPT CLEAR OF CONCRETE.

	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CITY
			TUDUST DIOCKS	DRAWING NO. C-3.1.14
			THRUST BLOCKS	DATE
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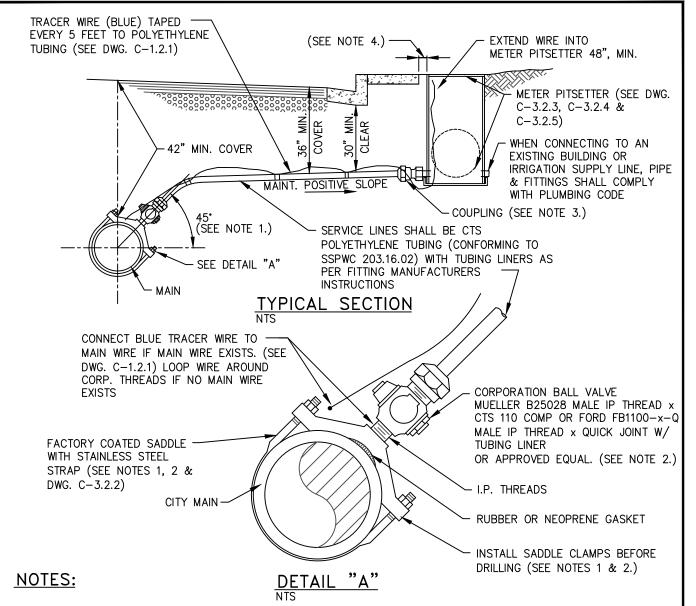
SUPPORT BLOCKING SHALL BE POURED AGAINST UNDISTURBED SOIL AND NOT PREVENT ACCESS TO BOLT ASSEMBLY OR VALVE JOINTS. CONCRETE SHALL CONFORM TO THE SSPWC SECTION 337.10. REBAR SHALL ONLY BE USED WHEN THE VALVE BOX IS LOCATED OUTSIDE PAVED AREAS.

THE CONCRETE COLLAR SHALL BE LEFT 2 1/2 INCHES - 3 INCHES BELOW FINISHED ASPHALT SURFACE. APPLY AN

- APPROVED TACK COAT (CONFORMING TO THE SSPWC SECTION 316) AND FILL VOID BETWEEN ADJACENT PAVEMENT AND FRAME WITH TYPE 3 PG 64-22 PAVING (CONFORMING TO THE SSPWC SECTION 320). APPLY FOG SEAL (CONFORMING TO THE SSPWC SECTION 317) TO THE ASPHALT SURFACE. ALL CUTS IN PAVING SHALL BE STRAIGHT ÀND EVEN. EXCEPTION: WHEN STRUCTURE NOT LOCATED IN ASPHALT PAVEMENT OR IN AN UNPAVED AREA, EXTEND CONCRETE TO FINISH GRADE.
- LIDS SHALL BE SET FLUSH WITH FINISH GRADE UNLESS OTHERWISE NOTED. WHEN LOCATED IN NDOT RIGHT-OF-WAY, CONCRETE COLLAR SHALL CONFORM TO NDOT STANDARD PLAN SHT R-4.3.3 AND STANDARD SPECIFICATION 609.
- RISER COLOR SHALL BE BLUE, OR SAME COLOR AS MAIN FOR WATER APPLICATIONS, PURPLE FOR RECLAIMED WATER APPLICATIONS, AND GREEN FOR SANITARY SEWER APPLICATIONS.

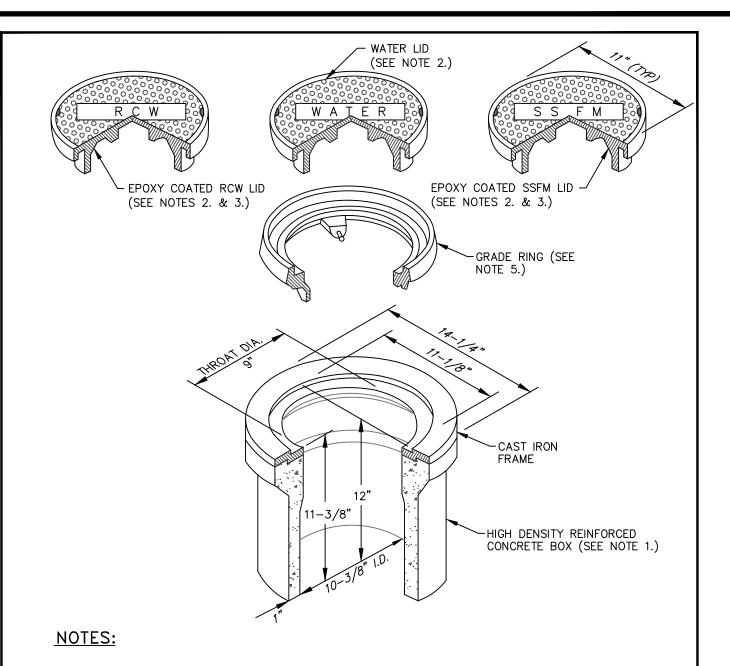
7.	VALVES ON FIRE							LICABLE NFPA F	REQUI	REMENTS.
NO	REVISION	DATE	STANIDARD	DETAII	FOR	PURUC	WORKS	CONSTRUCT	ΙΟΝ	SECTION

٧٥.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	
				CARSON CITY
			C A T C \	DRAWING NO.
			GAIL VALVE	C-3.1.4 (203,307)
	10			DATE
PPROV	ED BY:	07/09		7/2009
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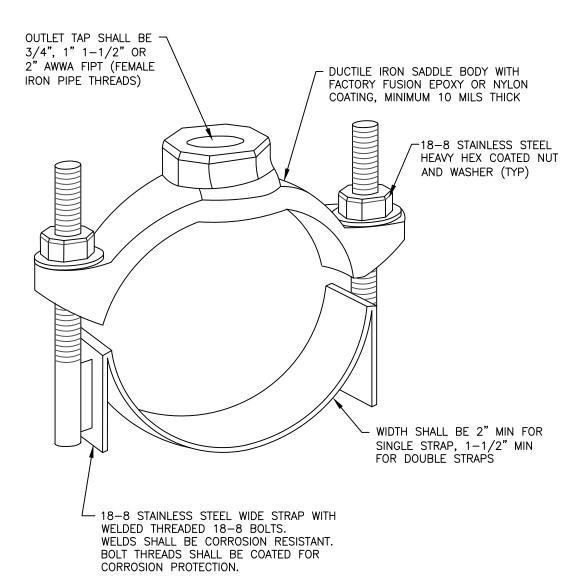
- MINIMUM DISTANCE BETWEEN TAPS AND MAINLINE FITTINGS, INCLUDING BELLS SHALL BE 18 INCHES. TAPPING SADDLE MUST BE AT 45 DEGREE ANGLE, EXCEPTIONS MUST BE APPROVED BY CARSON CITY WATER UTILITY.
- CORPORATION VALVES AND SERVICE SADDLES SHALL CONFORM TO AWWA C800 AND BE NO LESS THAN THE SERVICE LINE SIZE. WHEN REPLACING AN EXISTING SERVICE LINE AND A SIZE LARGER THAN SHOWN IS ENCOUNTERED, THE LARGER SIZE LINE, FITTINGS AND SADDLE SHALL BE INSTALLED UNLESS APPROVED BY CARSON CITY WATER UTILITY.
- COUPLING FITTING SHALL CONFORM TO AWWA C800 AND BE A MUELLER H-15451 CTS 110 COMP OR FORD C14-xx-Q QUICK JOINT W/ TUBING LINER x FEMALE IP THREAD OR APPROVED EQUAL.
- METER PITSETTERS TO BE PLACED 4 INCHES FROM BACK OF SIDEWALK IN AREAS WHERE SIDEWALK IS ADJACENT TO CURB, OR 6 INCHES FROM BACK OF CURB IN AREAS WHERE SIDEWALK IS OFFSET FROM CURB, OR AS DIRECTED BY CARSON CITY WATER UTILITY. IN AREAS WHERE NO CURB OR SIDEWALK IS PRESENT, METER PITSETTERS SHALL BE PLACED WITHIN THE RIGHT-OF-WAY AS SHOWN ON THE APPROVED PLANS.
- DISCONTINUANCE OF USE OF A SERVICE REQUIRES ABANDONMENT OF THE SERVICE. NOTIFY CARSON CITY PUBLIC WORKS FOR METER REMOVAL PRIOR TO PROCEEDING WITH ABANDONMENT. REMOVE EXISTING METER BOX AND EXPOSE CORP STOP AT MAIN FOR SHUT-OFF. ALL PIPING OR TUBING SHALL BE DISCONNECTED FROM CORP AND PLUGGED AT BOTH ENDS. CARSON CITY PUBLIC WORKS SHALL BE NOTIFIED FOR INSPECTION OF CORP ASSEMBLY PRIOR TO

	BACKFILLING.			
NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
			/ **	CARSON CITY
			3/4" TO 2"	DRAWING NO. C-3.2.1 (203,307)
APPROV	L VED BY: 12	07/09	WATER SERVICE	DATE 7 /2000
ALLINO	<u> </u>	07/09		7/2009



- 1. VALVE BOX AND LID SHALL BE H20 TRAFFIC RATED WITH A MINIMUM INSIDE DIAMETER OF 10 INCHES (CHRISTY G5 TRAFFIC VALVE BOX & LID).
- 2. CAST IRON LID SHALL BE MARKED AT THE FACTORY "WATER" FOR WATER APPLICATIONS, "RECLAIMED WATER" OR "RCW" FOR RECLAIMED WATER APPLICATIONS, AND "SS FORCE MAIN" OR "SSFM" FOR SANITARY SEWER APPLICATIONS.
- 3. FOR RECLAIMED WATER AND SANITARY SEWER APPLICATIONS, CAST IRON LID SHALL BE EPOXY COATED AT THE FACTORY, OR POWDER COATED, COLOR SHALL BE PURPLE FOR RECLAIMED WATER APPLICATIONS AND
- GREEN FOR SANITARY SEWER APPLICATIONS. 4. VALVE BOX SHALL BE SET OR ADJUSTED TO GRADE PER DRAWING NO. C-3.1.4, RISER FOR ADJUSTED VALVE BOX SHALL BE PER DRAWING NO. C-3.1.4. FOR OVERLAY ADJUSTMENTS, RISER WILL NOT REQUIRE
- REPLACEMENT OR EXTENSION IF IT EXTENDS A MINIMUM OF 2 INCHES INTO ADJUSTED VALVE BOX. 5. GRADE RING IS NOT ALLOWED FOR NEW VALVE BOX INSTALLATIONS. CAST IRON GRADE RING (CHRISTY G5 GRADE RING) MAY BE USED FOR OVERLAY ADJUSTMENTS WHEN OVERLAY DEPTH EQUALS THE GRADE RING DEPTH. NO MORE THAN ONE GRADE RING ALLOWED PER BOX.

NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	ON SECTION
				CARSON CITY
			VALVE BOX & LID	DRAWING NO. C-3.1.6 (203,306,307
			YALVL BOX & LID	DATE
APPROV	/ED BY:	07/09		7/2009



<u>SERVICE SADDLE DETAIL</u>

SERVICE SADDLES FOR 3/4 INCH, 1 INCH, 1-1/2 INCH & 2 INCH TAPS SHALL CONFORM TO C800 WITH A MINIMUM WORKING PRESSURE OF 150 PSI, UNLESS A HIGHER PRESSURE IS SPECIFIED, AND BE MANUFACTURED BY FORD, MUELLER, ROMAC, SMITH-BLAIR OR APPROVED EQUAL. (SEE DWG. C-3.2.1 FOR ADDITIONAL NOTES AND DETAILS.) POTABLE SERVICE SADDLES SHALL BE IN COMPLIANCE WITH NSF61.

SERVICE SADDLES SHALL BE FACTORY COATED DUCTILE IRON (ASTM A395 OR A536) WITH TYPE 18-8 STAINLESS STEEL (304 OR 304L) STRAP(S), BOLTS, NUTS, & WASHERS. ALL STAINLESS

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NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CITY
			3/4" TO 2"	DRAWING NO. C-3.2.2 (203, 307)
			SERVICE SADDLE	DATE
APPROV	ED BY:	07/09	SERVICE SADDLE	7/2009

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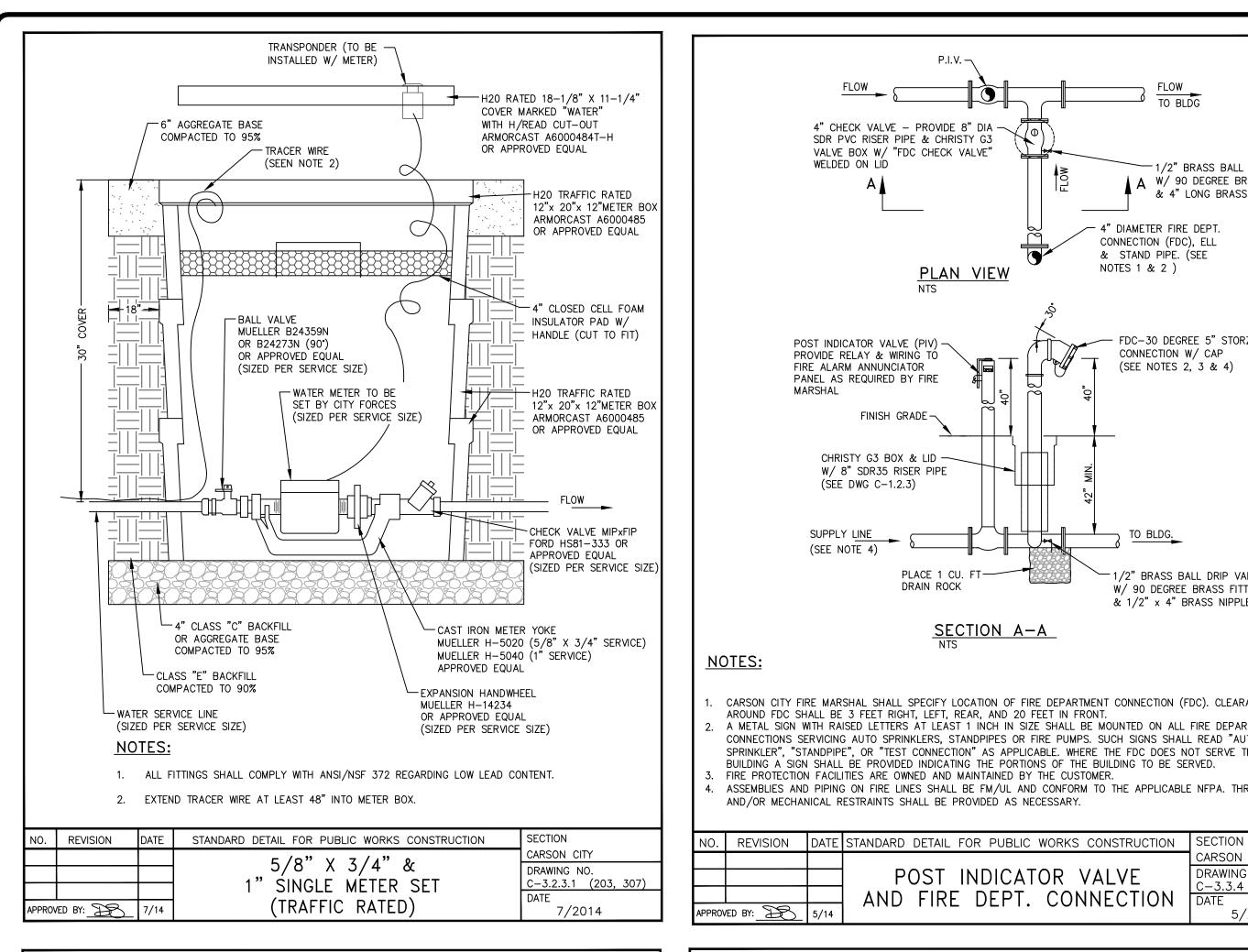
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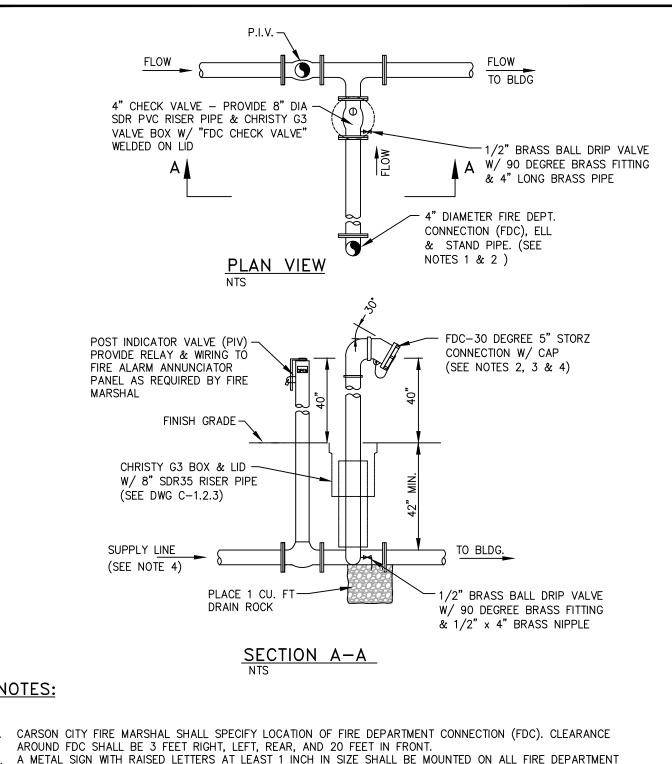
BDA TECH REV.

CCAS PROJECT NO.: 14-227.1C



DRAWN: MLM/FRB DATE: 02/26/15





CONNECTIONS SERVICING AUTO SPRINKLERS, STANDPIPES OR FIRE PUMPS. SUCH SIGNS SHALL READ "AUTO SPRINKLER", "STANDPIPE", OR "TEST CONNECTION" AS APPLICABLE. WHERE THE FDC DOES NOT SERVE THE ENTIRE

ASSEMBLIES AND PIPING ON FIRE LINES SHALL BE FM/UL AND CONFORM TO THE APPLICABLE NFPA. THRUST BLOCKING

POST INDICATOR VALVE

AND FIRE DEPT. CONNECTION

CARSON CITY

2-3.3.4 (203, 207)

5/2014

DRAWING NO.

-FLOW LINES (TYPICAL)

EXPANSION

6" MIN. TYPE 2, CLASS B. AGGREGATE BASE

COMPACTED TO 95%

JOINT (TYP.)

BUILDING A SIGN SHALL BE PROVIDED INDICATING THE PORTIONS OF THE BUILDING TO BE SERVED.

FIRE PROTECTION FACILITIES ARE OWNED AND MAINTAINED BY THE CUSTOMER.

AND/OR MECHANICAL RESTRAINTS SHALL BE PROVIDED AS NECESSARY.

P.I.V. —	
FLOW TO BLDG	
4" CHECK VALVE — PROVIDE 8" DIA SDR PVC RISER PIPE & CHRISTY G3 VALVE BOX W/ "FDC CHECK VALVE" WELDED ON LID A A W/ 90 DEGREE BRASS FITTING & 4" LONG BRASS PIPE 4" DIAMETER FIRE DEPT. CONNECTION (FDC), ELL	
& STAND PIPE. (SEE PLAN VIEW NTS & STAND PIPE. (SEE NOTES 1 & 2)	
POST INDICATOR VALVE (PIV) PROVIDE RELAY & WIRING TO FIRE ALARM ANNUNCIATOR PANEL AS REQUIRED BY FIRE MARSHAL FINISH GRADE CHRISTY G3 BOX & LID W/ 8" SDR35 RISER PIPE (SEE DWG C-1.2.3)	
SUPPLY LINE (SEE NOTE 4) PLACE 1 CU. FT DRAIN ROCK TO BLDG. 1/2" BRASS BALL DRIP VALVE W/ 90 DEGREE BRASS FITTING & 1/2" x 4" BRASS NIPPLE	
SECTION A-A NTS OTES:	

- 1. MANHOLE MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS OF SECTION 204 "MANHOLES AND CATCH BASINS" OF THE SSPWC.
- 2. MARKING TAPE SHALL BE INSTALLED 12 INCHES ABOVE ALL STORM DRAIN PIPE. TAPE WIDTH SHALL BE 3 INCHES; THICKNESS SHALL BE FOUR (4) MIL OR GREATER AND SHALL BE GREEN AND BEAR LARGE PRINTING DENOTING "CAUTION BURIED STORM DRAIN LINE BELOW" OR EQUIVALENT WORDING.
- 3. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4000 PSI MIN. COMPRESSIVE STRENGTH @ 28 DAYS, (CURB AND GUTTER TRANSITION ONLY, ALL UNEXPOSED CONCRETE MAY BE 3000 PSI) MIN. 6 SACKS OF CEMENT PER CUBIC YARD WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES. ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 202.
- 4. REINFORCING STEEL SHALL BE GRADE 40 AND HAVE 1.5 INCHES MINIMUM CLEAR COVER.
- 5. EACH CATCH BASIN SHALL HAVE A 4 INCH ALUMINUM BLUE DISK WITH FISH IMAGE AND THE WORDS "NO DUMPING! DRAINS TO RIVER" (ALMETEK SD-4 OR APPROVED EQUAL) INSTALLED ON THE TOP OF
- 6. FRAMES AND GRATES SHALL BE MATCHED TO ACHIEVE A CLOSE TOLERANCE FIT, WITH MINIMAL GAPS, AS APPROVED BY THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
- 7. STORM DRAINAGE IMPROVEMENTS SHALL INCORPORATE WATER QUALITY AND EROSION CONTROLS IN ACCORDANCE WITH THE NEVADA "HANDBOOK OF BEST MANAGEMENT PRACTICES".
- 8. PRECAST MANHOLES SECTIONS, OTHER THAN GRADE RINGS, SHALL BE JOINED WITH FLEXIBLE PLASTIC
- GASKET MATERIAL SUCH AS RAM-NEK OR APPROVED EQUAL PER MANUFACTURERS RECOMMENDATIONS.
- 9. TRACER WIRE SHALL BE ATTACHED TO ANY STORM DRAIN LATERAL WHICH IS NOT PERPENDICULAR TO THE STORM DRAIN MAIN. 10. MANHOLES LOCATED OUTSIDE PAVED AREAS SHALL REQUIRE ALL WEATHER ACCESS ROADWAY CONSISTING
- OF 6 INCHES TYPE 2, CLASS B AGGREGATE BASE (CONFORMING TO THE SSPWC SECTION 200.01.02) AND STORM DRAIN MANHOLE MARKERS BE INSTALLED. STORM DRAIN MANHOLE MARKERS SHALL BE GREÉN CARSONITE UTILITY MARKER (CUM 375), 5 FEET-2 INCHES (5'-2") WITH DECAL READING "STORM DRAIN MANHOLE". PLACE MARKERS ON EASEMENT LINE NEAREST TO MANHOLE OR AS DIRECTED BY THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR.
- 11. MANHOLE CONCRETE COLLARS SHALL BE LEFT 2 1/2 INCHES TO 3 INCHES BELOW FINISHED ASPHALT SURFACE. APPLY AN APPROVED TACK COAT (CONFORMING TO THE SSPWC SECTION 316) AND FILL VOID BETWEEN ADJACENT PAVEMENT AND FRAME WITH TYPE 3 AC 20 PAVING (CONFORMING TO THE SSPWC SECTION 320). APPLY FOG SEAL (CONFORMING TO SSPWC SECTION 317) TO THE ASPHALT SURFACE. ALL CUTS IN PAVING SHALL BE STRAIGHT AND EVEN. EXCEPTION: WHEN STRUCTURE NOT LOCATED IN ASPHALT PAVEMENT OR LOCATED IN AN UNPAVED AREA, EXTEND CONCRETE TO FINISH GRADE.
- 12. GRATES SHALL BE PLACED OUTSIDE OF THE PEDESTRIAN TRAVELED WAY. GRATE OPENINGS SHALL NOT EXCEED 0.5 INCHES IN WIDTH OR 4 INCHES IN LENGTH. GRATES SHALL BE TRAFFIC RATED AND ADA

STORM DRAIN

GENERAL NOTES

CARSON CITY

DRAWING NO.

7/2009

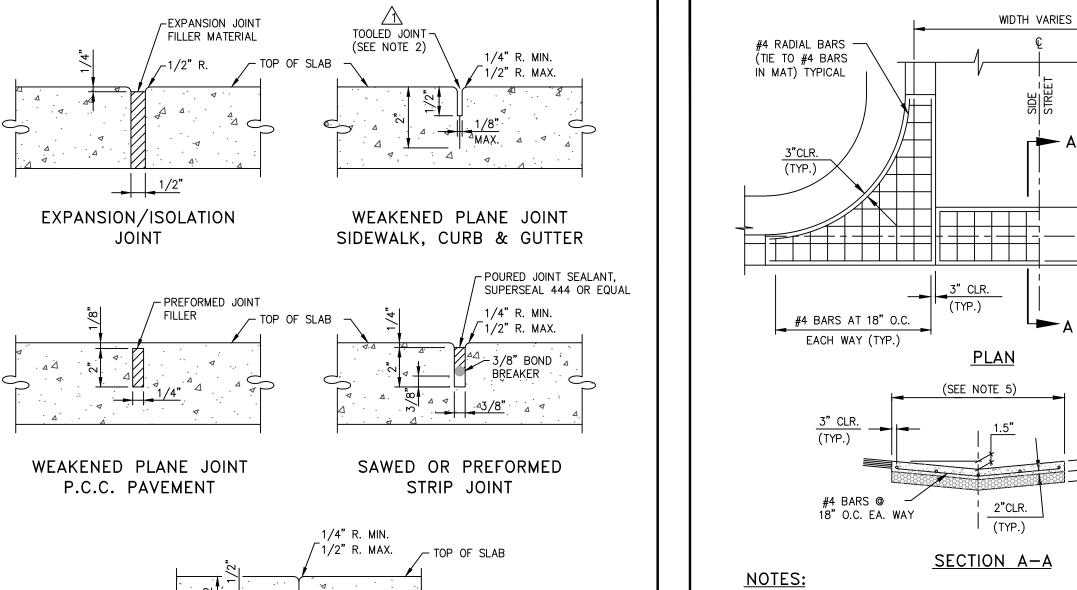
C-4.1.1

NO. | REVISION | DATE STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION | SECTION

SOLID STEEL DIAMOND PLATE W/ NON-SKID PATTERN → (********************************	
12", 18", 24" WIDTH - 5/8" THICKNESS (MIN.)	
$ \begin{array}{c c} 24" \\ & 2 \frac{1}{4}" \\ & 1/8" \\ & 5/8 \end{array} $	
m	" BAR (CONT.)
A TACK WELDS EQUALLY SPACED 4 TACK WELDS WELDS EQUALLY SPACED	\rangle
SPACED SPACED	
1/2" x 3" STEEL ANCHOR	
12" O.C.	
DETAIL 1	
LIP OF GUTTER PLAN	
STEEL FLOOR	-BACK OF
JOINT (TYP) 2% 2% 2%	SIDEWALK FLOW
\[\frac{1}{2} \] \[\frac{1}	1
8" 12" 19 1/2" 12" 8" \	
TOF GUTTER 1/2" 6" TYPE II BELOW BOTTOM OF AGGREGATE BAS UNDERDRAIN	SE .
SECTION A-A SECTION B-B	
NOTES:	
1. IF WIDTH OF PLATE IS GREATER THAN 24 INCHES, A SPECIAL DESIGN IS REQUIRED.	
2. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AND ALL GALVANIZING DAMAGED BY FABRICATION OR INSTALLATION SHALL RECEIVE TWO COATS OF ALUMINUM PAINT (GALVONOX OR EQUAL).	
3. SHARP EDGES SHALL BE GROUND OFF AND PAINTED.	
4. FIBER-REINFORCED PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: 4 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% ±1.5%, SLUMP AT 1 TO 4 INCHES. ALL MATERIALS S CONFORM TO SSPWC SECTION 202. POLYPROPYLENE FIBERS SHALL BE ADDED TO THE P.C.C. PER THE	

- CONFORM TO SSPWC SECTION 202. POLYPROPYLENE FIBERS SHALL BE ADDED TO THE P.C.C. PER THE MANUFACTURER'S RECOMMENDATIONS.
- BASE BENEATH CONCRETE DRAIN SUPPORT STRUCTURE SHALL BE 6 INCH MIN. TYPE 2, CLASS B AGGREGATE BASE, COMPACTED TO A MINIMUM 95% OF MAXIMUM DRY DENSITY.

	NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
	/1\	FLOW	05/14		CARSON CITY
			<u> </u>	I SIDFWALK	DRAWING NO.
				SIDLWALK	C-4.1.8
		~		CROSS-DRAIN	DATE
_	APPROV	ED BY:	05/14		5/2014

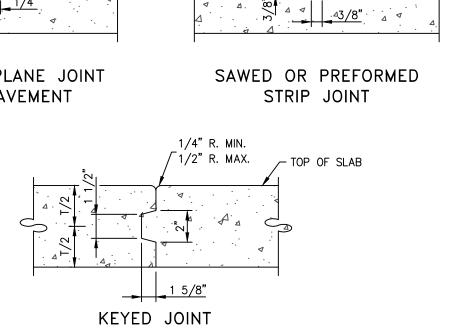


CARSON CITY

PRAWING NO.

-5.1.1 (312)

5/2014



1. ALL CONCRETE EDGING AND JOINTING SHALL CONFORM TO SECTION 312.09 OF THE STANDARD

NO. | REVISION | DATE | STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION | SECTION

2. AFTER PRELIMINARY TROWELING, THE CONCRETE SHALL BE PARTED TO A DEPTH OF 2 INCHES WITH A

STRAIGHTEDGE. THE CONCRETE SHALL THEN BE REFLOATED TO FILL THE PARTED JOINT WITH MORTAR.

FINAL JOINT FINISHING SHALL BE ACCOMPLISHED WITH A JOINTER TOOL AS SHOWN. (SSPWC 312.09.02)

P.C.C. JOINTING DETAILS

SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).

REVISED JOINT ADDED NOTE 2 5/14

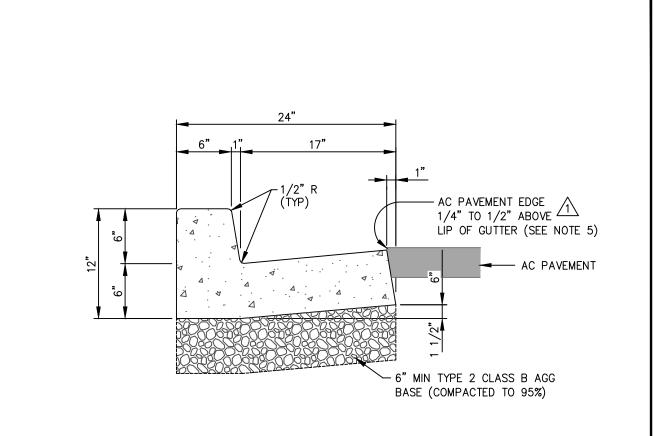
APPROVED BY:

5/14

APPROVED BY: 5/14

- PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: SYNTHETIC FIBER-REINFORCEMENT (AT A MINIMUM OF 1 POUND PER CUBIC YARD), 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% ±1.5%, SLUMP AT 1 TO 4 INCHES. ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 202. POLYPROPYLENE FIBERS SHALL BE ADDED TO THE P.C.C. PER THE MANUFACTURER'S RECOMMENDATIONS.
- 2. FOR INDUSTRIAL AREAS, AN ENGINEERED DESIGN IS REQUIRED.
- AGGREGATE BASE SHALL BE ENGINEERED TYPE 2, CLASS B WITH 95% COMPACTION.
- 4. VALLEY GUTTER SHALL HAVE WEAKENED PLANE JOINTS EVERY 10 FEET.
- 5. LOCAL AND COLLECTOR STREETS, WIDTH = 6 FEET. ARTERIAL STREETS (DRIVEWAYS ONLY), WIDTH = 10 FEET.
- 6. VALLEY GUTTER SECTIONS (SPANDRELS) ALONG CURB & GUTTER SHALL BE A MONOLITHIC POUR AS SHOWN.
- 7. ALL CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DETAIL C-5.1.1 AND CONFORM TO SECTION 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).

CARSON (
	CHY
P.C.C. VALLEY GUTTER C-5.1.2	NO.
DATE	
APPROVED BY:	009

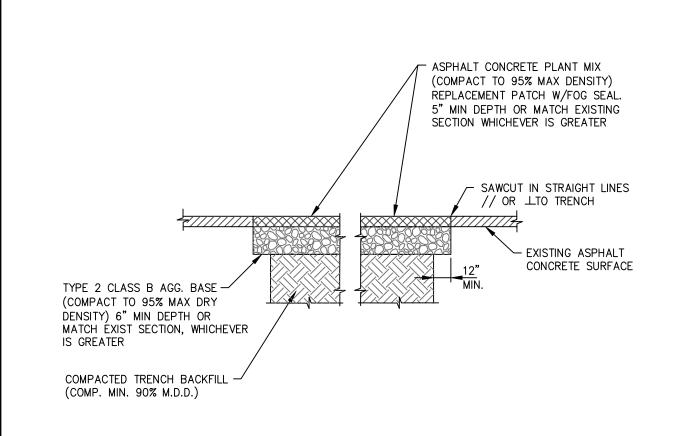


NOTES:

APPROVED BY:

- PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: SYNTHETIC FIBER-REINFORCEMENT (AT A MINIMUM OF 1 POUND PER CUBIC YARD), 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% ±1.5%, SLUMP AT 1 TO 4 INCHES ALL MATERIALS SHALL CONFORM TO SECTION 202 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- ALL CONCRETE CURB & GUTTER SHALL HAVE 1/2 INCH EXPANSION JOINTS EVERY 30 FEET (UNLESS APPROVED OTHERWISE BY THE ENGINEER) AND AT ALL CURB RETURNS AND SHALL HAVE WEAKENED PLANE JOINTS EVERY 10 FEET. CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD DETAIL C-5.1.1 AND CONFORM TO SECTION 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS
- ALL AGGREGATE BASE SHALL BE TYPE 2, CLASS B AND CONFORM TO SECTION 200.01. OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, AND SHALL BE MECHANICALLY COMPACTED TO 95% COMPACTION, IN CONFORMANCE WITH SECTION 308.05 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS
- 4. CURBS SHALL BE MARKED WITH A 2 INCH "S" ON THE TOP OF CURB AT SEWER LATERAL LOCATIONS.
- EXCEPTION: AC PAVEMENT EDGE SHALL BE FLUSH TO 1/4 INCH ABOVE THE LIP OF GUTTER WHEN LOCATED ADJACENT TO A PEDESTRIAN RAMP, WITHIN AN ACCESSIBLE ROUTE OR BIKE LANE.

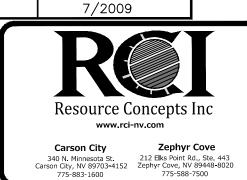
NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
/ <u>1</u> / <u>2</u>		06/12 05/14		CARSON CITY DRAWING NO. C-5.1.3
APPROV	/ED BY:	05/14	TYPE 1	DATE 5/2014



- IF SAWCUT IS WITHIN 24 INCHES OF EDGE OF A.C. PAVEMENT REMOVE EXISTING PAVEMENT TO THAT EDGE AND REPLACE ENTIRE SECTION.
- BITUMINOUS MATERIAL SHALL MEET THE REQUIREMENTS OF SECTIONS 201 AND 320 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- MIXING, SPREADING, AND COMPACTING OF BITUMINOUS PAVEMENT SHALL BE DONE ONLY WHEN THE SURFACE ON WHICH THE MATERIALS ARE TO BE PLACED IS DRY AND WHEN THE ATMOSPHERIC TEMPERATURE IS ABOVE 50 DEGREES FAHRENHEIT AND HAS NOT BEEN BELOW 40 DEGREES FAHRENHEIT DURING THE PRECEDING 24 HOURS.
- FINISHED SURFACE VARIATIONS SHALL BE 0 TO 0.25 INCHES ABOVE EXISTING SURFACE. ALL HUMPS EXCEEDING THIS TOLERANCE SHALL BE CORRECTED BY REMOVAL OF MATERIAL AND REPLACING IT WITH NEW MATERIAL. FINISHED SURFACE OF PATCH SHALL NOT BE BELOW EXISTING ADJACENT SURFACE.
- PLANTMIX BITUMINOUS PAVEMENT SURFACE COURSE SHALL BE PG-64-22 TYPE 3 AND SUB SURFACE COURSES SHALL BE PG-64-22 TYPE 3 UNLESS OTHERWISE NOTED.
- 6. PLANTMIX BITUMINOUS PAVEMENT PATCHES SHALL MATCH EXISTING SECTION OR HAVE A MINIMUM THICKNESS OF 5 INCHES, WHICHEVER IS GREATER.

7.	PLANS SHALL SPECIFY PAVEMENT PAT	H AND AGGREGATE BASE DEPTHS	S AS SPECIFIED BY THE DESIGN ENGINEER.
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NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
				CARSON CITY DRAWING NO.
			PAVEMENT PATCH	C-5.1.6 DATE



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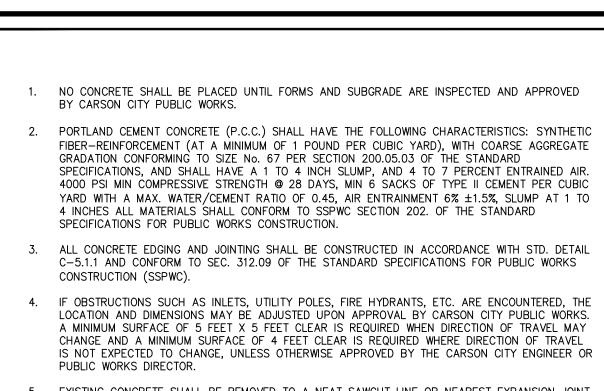
02-26-1

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BDA TECH REV.

CCAS PROJECT NO.: 14-227.1C

DRAWN: MLM/FRB DATE: 02/26/15



- 5. EXISTING CONCRETE SHALL BE REMOVED TO A NEAT SAWCUT LINE OR NEAREST EXPANSION JOINT. 6. ALL AGGREGATE BASE SHALL BE TYPE 2, CLASS B AND SHALL CONFORM TO SEC.200.01. OF THE

STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).

7. NEW CONCRETE SHALL HAVE A HEAVY BROOM FINISH PERPENDICULAR TO SIDEWALK.

NO. | REVISION | DATE | STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION | SECTION

APPROVED BY: 35/14

CURB & GUTTER

RETAINING CURB MAINTAIN GRADE -

1. NOT FOR USE WITH OFFSET SIDEWALKS.

(SEE DWG C-5.3.10)

OF SIDEWALK ADJACENT TO RAMP

1/2" EXPANSION JOINT —

NOTES:

APPROVED BY:

SIDEWALK AND DRIVEWAY

GENERAL NOTES

__ TYPE 1 CURB & GUTTER

1/2" EXPANSION JOINT

<u>PLAN</u>

PARALLEL CURB RAMP

APEX

NTS

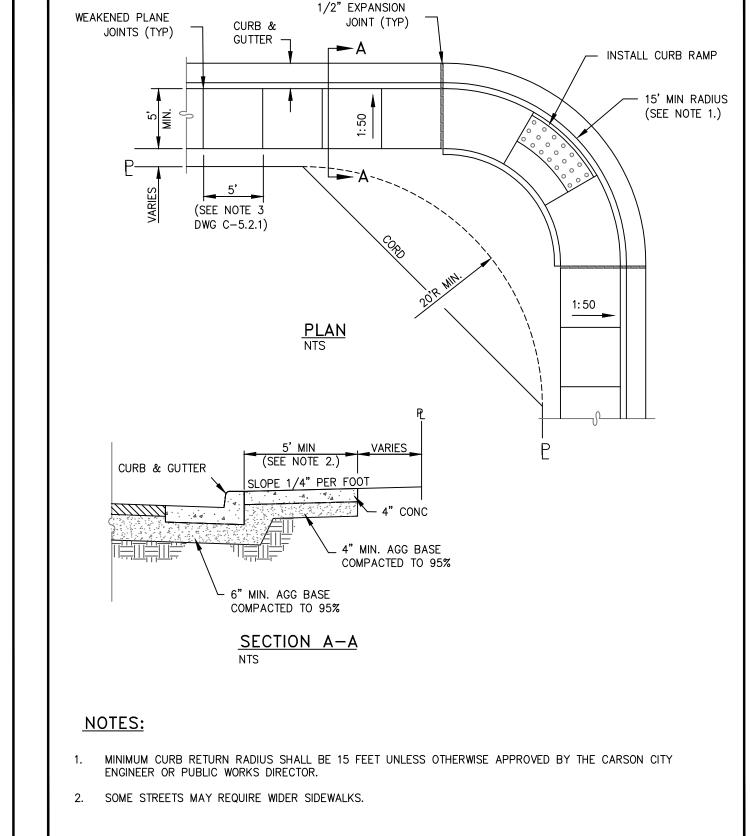
SIDEWALK IS TO BE RAISED TO TOP OF RETAINING CURB ELEVATION.

3. SEE "CURB RAMP GENERAL NOTES" DWG C-5.3.1 FOR FURTHER REQUIREMENTS.

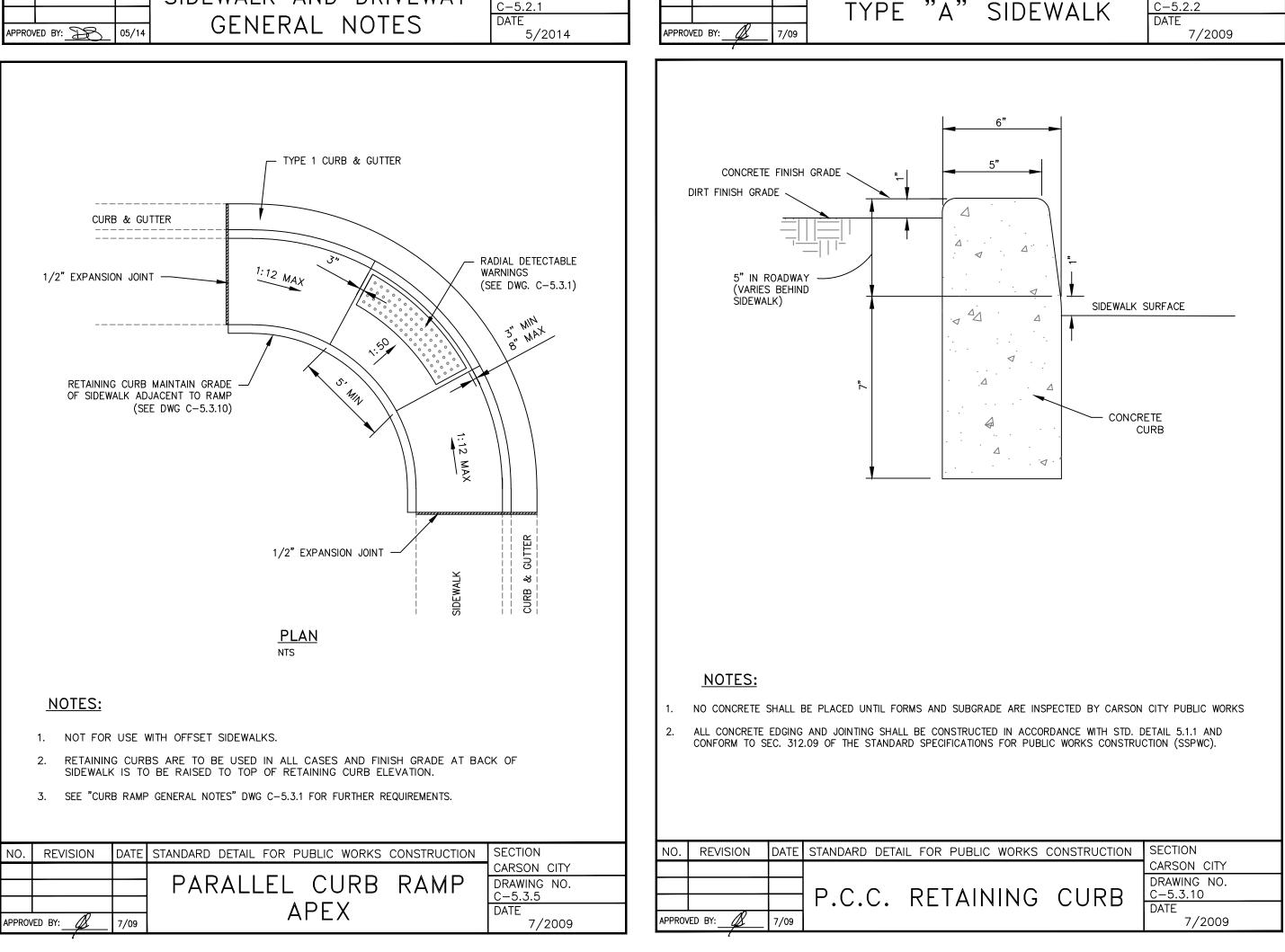
CARSON CITY

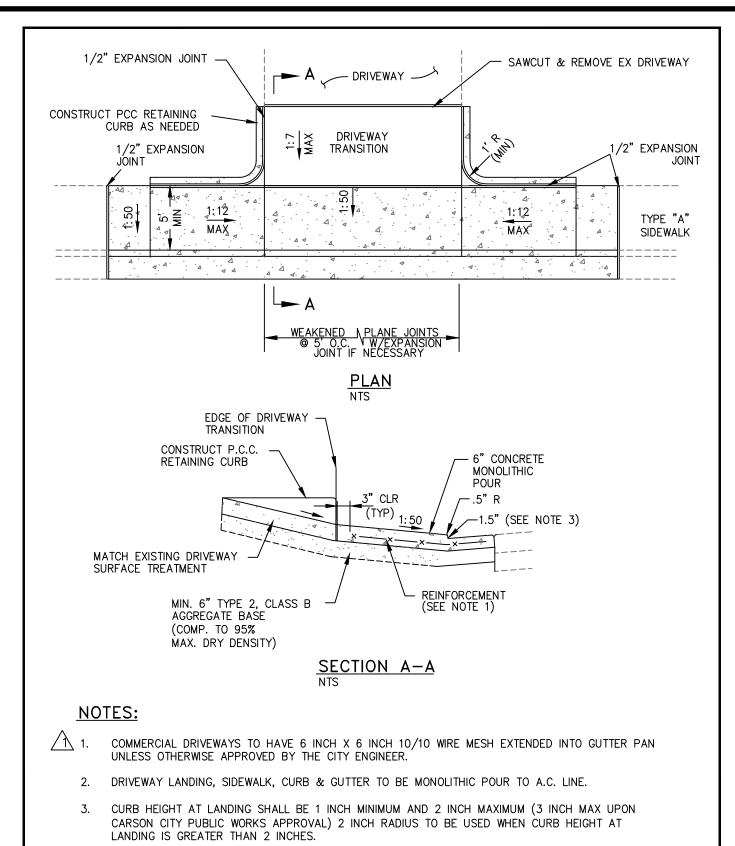
DRAWING NO.

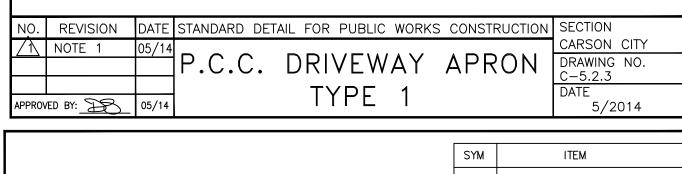
AC PAVEMENT EDGE SHALL BE 1/4 INCH TO 1/2 INCH ABOVE THE LIP OF GUTTER. EXCEPTION: AC PAVEMENT EDGE SHALL BE FLUSH TO 1/4 INCH ABOVE THE LIP OF GUTTER WHEN LOCATED ADJACENT TO A PEDESTRIAN RAMP, WITHIN AN ACCESSIBLE ROUTE OR BIKE LANE.



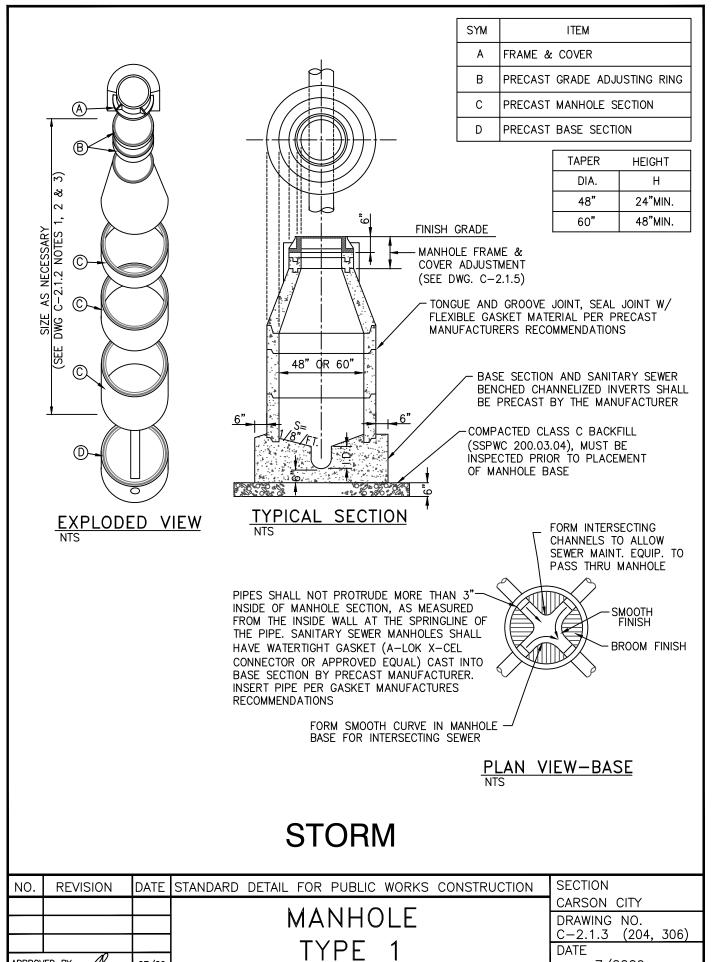
TYPE "A" SIDEWALK CARSON CITY DRAWING NO. C-5.2.2 DATE T/2009	O. REVISION DAT		SECTION
		 	C-5.2.2
	PROVED BY:	1	







4. DRIVEWAY APRONS SHALL BE CONSTRUCTED IN COMPLIANCE WITH STANDARD DETAILS C-5.1.1 AND



7/2009

PPROVED BY:

- 1. NO CONCRETE SHALL BE PLACED UNTIL FORMS AND SUBGRADE ARE INSPECTED BY CARSON CITY
- 2. PORTLAND CEMENT CONCRETE (P.C.C.) SHALL HAVE THE FOLLOWING CHARACTERISTICS: SYNTHETIC FIBER-REINFORCEMENT (AT A MINIMUM OF 1 POUND PER CUBIC YARD), 4000 PSI MIN COMPRESSIVE STRENGTH @ 28 DAYS, MIN 6 SACKS OF CEMENT PER CUBIC YARDS WITH A MAX. WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT 6% ±1.5%, SLUMP AT 1 TO 4 INCHES ALL MATERIALS SHALL CONFORM TO SSPWC SECTION 202. OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
- 3. ALL CONCRETE EDGING AND JOINTING SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. DETAIL C-5.1.1 AND CONFORM TO SEC. 312.09 OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
- 4. IF OBSTRUCTIONS SUCH AS INLETS, UTILITY POLES, FIRE HYDRANTS, ETC. ARE ENCOUNTERED, THE LOCATION AND DIMENSIONS MAY BE ADJUSTED UPON APPROVAL BY CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR. A MINIMUM LANDING OF 5 FEET X 5 FEET CLEAR IS REQUIRED WHEN DIRECTION OF TRAVEL MAY CHANGE. A MINIMUM OF 4 FEET CLEAR IS MAY BE USED UPON APPROVAL OF THE CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR WHERE DIRECTION OF TRAVEL IS NOT EXPECTED TO CHANGE.
- 5. WHEN A CROSSWALK IS SERVICED BY RAMP, LANDINGS SHALL BE CONTAINED WITHIN THE CROSSWALK
- 6. EXISTING CONCRETE SHALL BE REMOVED TO A NEAT SAWCUT LINE OR NEAREST EXPANSION JOINT.
- 7. PLANTMIX BITUMINOUS SURFACE SHALL BE FLUSH WITH THE EDGE OF THE GUTTER PAN IN THE AREA OF THE CURB RAMP. GUTTER SHALL MAINTAIN POSITIVE DRAINAGE TO PREVENT PONDING.
- 8. ALL AGGREGATE BASE SHALL BE TYPE 2, CLASS B AND SHALL CONFORM TO SEC.200.01. OF THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (SSPWC).
- 9. NEW CONCRETE SHALL HAVE A HEAVY BROOM FINISH PERPENDICULAR TO SIDEWALK.
- 10. DETECTABLE WARNINGS SHALL BE EAST JORDAN IRON WORKS 7005 SERIES CAST IRON DETECTABLE WARNING PLATES OR APPROVED EQUAL. INSTALLED PER MANUFACTURERS INSTALLATION GUIDELINES AND CONFORM TO ADAAG (4.29) "DETECTABLE WARNINGS". COLOR: ASPHALT DIPPED UNLESS OTHERWISE APPROVED BY CARSON CITY ENGINEER OR PUBLIC WORKS DIRECTOR. RADIAL DETECTABLE WARNINGS SHALL BE USED WHEN REQUIRED TO MAINTAIN MINIMUM CLEARANCE OF 3 INCHES AND MAXIMUM CLEARANCE OF 8 INCHES FROM DETECTABLE WARNINGS TO BACK FACE OF CURB. RADIAL DETECTABLE WARNINGS SHALL HAVE A RADIUS WITHIN 5 FEET OF BACK FACE OF
- 11. AC PAVEMENT EDGE SHALL BE 1/4 INCH TO 1/2 INCH ABOVE THE LIP OF GUTTER. EXCEPTION: AC PAVEMENT EDGE SHALL BE FLUSH TO 1/4 INCH ABOVE THE LIP OF GUTTER WHEN LOCATED ADJACENT TO A PEDESTRIAN RAMP OR WITHIN AN ACCESSIBLE ROUTE.

	NO.	REVISION	DATE	STANDARD DETAIL FOR PUBLIC WORKS CONSTRUCTION	SECTION
	/ 1	NOTE 11	6/12		CARSON CITY
				I CURB RAMP	DRAWING NO.
				OFMEDAL MOTEO	C-5.3.1
AF		10		GENERAL NOTES	DATE
	APPROV	APPROVED BY: 6/12			6/2012

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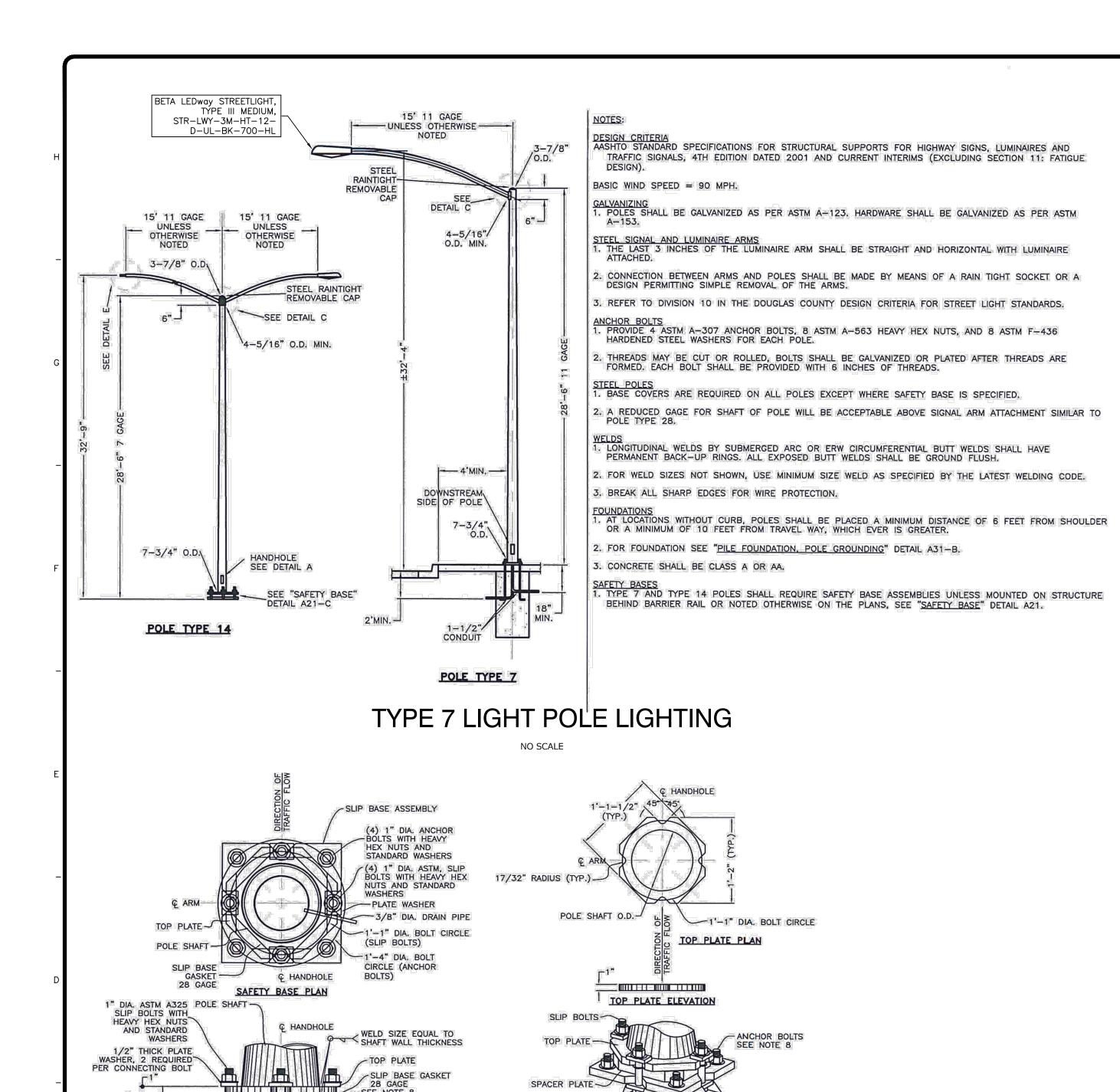
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BDA TECH REV.

CCAS PROJECT NO.: 14-227.1C DRAWN: MLM/FRB

DATE: 02/26/15

Resource Concepts Inc www.rci-nv.com Carson City 340 N. Minnesota St.
Carson City, NV 89703-4152
775-883-1600
212 Elks Point Rd., Ste. 443
Zephyr Cove, NV 89448-8020
775-588-7500



GALVANIZED SHEET METAL

1'-4" DIA. BOLT CIRCLE

17/32" RADIUS (TYP.)

∕-4-1/8" DIA. HOLE

CLIPPED CORNERS

TO KEEP GROUT FROM SLIP BOLTS

SAFETY BASE ELEVATION

SLIP BASE & SPACER PLATE PLAN

SECTION A-A

SLIP BASE GASKET

SPACER PLATE

10-11/16"

3/16"MAX.-

1'-1" DIA, BOLT CIRCLE

WITH HEAVY HEX NUTS-AND STANDARD WASHERS

GALVANIZED SHEET

1'-1-1/2" (TYP.)

(A) 1−1/2"

-1/2"THICK

-1-1/8" DIA. HOLE

PLATE WASHER

1. PLACE BOTTOM PLATE WITH SPACER PLATE ON LEVELING NUTS ON ANCHOR BOLTS AND FASTEN IN PLACE.

2. TOP PLATE SHALL BE FURNISHED BY LIGHT POLE FABRICATOR AS LIGHT POLE BASE PLATE WITH DIMENSIONS AS SHOWN IN PLAN VIEW.

3. ALL STEEL PLATE ASSEMBLIES SHALL BE HOT-DIP GALVANIZED AFTER FABRICATION.

5. ALL CONTACT AREAS OF PLATES SHALL BE FREE OF GALVANIZING BEADS OR RUNS.

D. CAULK AREAS AROUND SLIP BASE GASKET, MATERIAL SHALL CONFORM TO FED. SPEC. NO. TT-S-230 TYPE II OR EQUAL.

E. SPRAY CADMIUM BOLTS WITH GALVILITE COLD GALVANIZING COMPOUND OR

4. ALL NUTS, BOLTS AND WASHERS SHALL BE ELECTRO-PLATED CADMIUM IN CONFORMANCE WITH ASTM B-766, TYPE NS.

6. SAFETY BASES SHALL BE UTILIZED ON ALL STEEL LIGHT POLES EXCEPT ON STRUCTURES OR IF PLACED BARRIER RAIL OR GUARDRAIL.

7. GROUTING SHALL BE DONE AFTER LIGHT POLE HAS BEEN LOCATED IN FINAL

C. RETIGHTEN TO FINAL TORQUE USING THE FOLLOWING SEQUENCES:

B. ANCHOR BOLT SHALL NOT EXTEND ABOVE SLIP BASE GASKET.

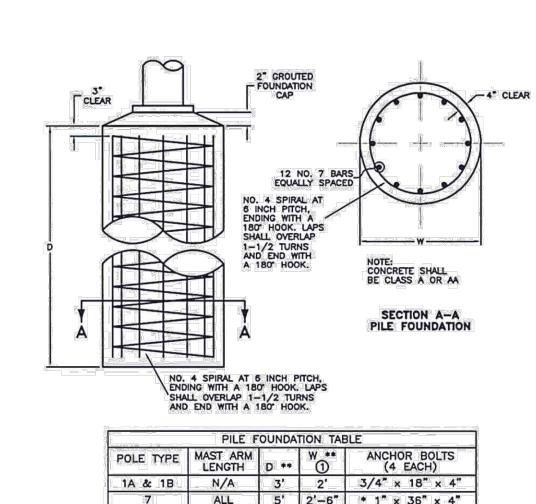
9. SLIP BOLT TORQUING REQUIREMENTS:

B. LOOSEN BOLTS.

SAFETY BASE

NO SCALE

A. TORQUE ALL BOLTS TO 60 FOOT POUNDS.



7 ALL 5' 2'-6" * 1" × 36" × 4"

14 ALL 5' 2'-6" * 1" × 48" × 4"

28 ALL 12' 3' 2" × 66" × 6"

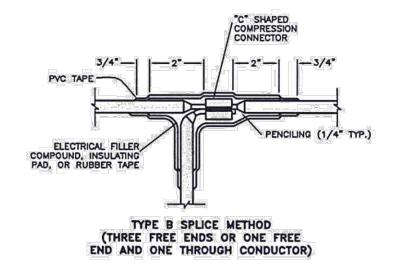
30 & 35 ≤45 12' 3' 1-3/4" × 60" × 6"

30A & 35A ≤60 12' 3' 2" × 66" × 6" ** UNLESS OTHERWISE SHOWN ON PLANS * NOT APPLICABLE WHEN MOUNTED ON STRUCTURES

① WHEN W = 2'-0" USE (4) NO. 5 BARS EQUALLY SPACED WHEN W = 2'-6" USE (8) NO. 5 BARS EQUALLY SPACED

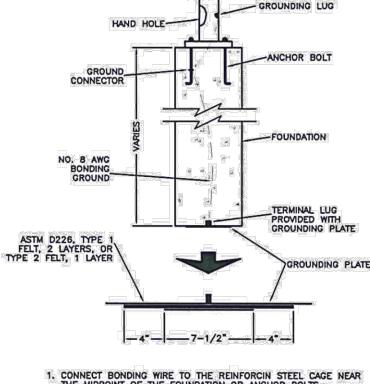
TYPE A SPLICE METHOD (TWO FREE ENDS

1. COMPLETELY COVER THE SPLICE AREA WITH AN ELECTRICAL INSULATING COATING AND ALLOW TO DRY. 2. APPLY ELECTRICAL FILLER COMPOUND WITH MINIMUM THICKNESS OF 1/8". 3. APPLY 3 LAYERS OF HALF LAPPED PVC TAPE.



1. COMPLETELY COVER THE SPLICE AREA WITH AN ELECTRICAL INSULATING COATING AND ALLOW TO DRY. 3. APPLY 3 LAYERS OF HALF LAPPED PVC TAPE.

CONDUCTOR SPLICING METHODS



POLE GROUNDING DETAIL

1. ALL DIMENSIONS ARE MINIMAL

2. RUBBER TAPES SHALL BE ROLLED AFTER APPLICATION.

3. WHEN PVC TAPE IS USED AS A FINAL LAYER, PAINT FINISHED SPLICE WITH ELECTRICAL INSULATING

POLE FOUNDATION, GROUNDING & SPLICING

NO SCALE



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02-26-15

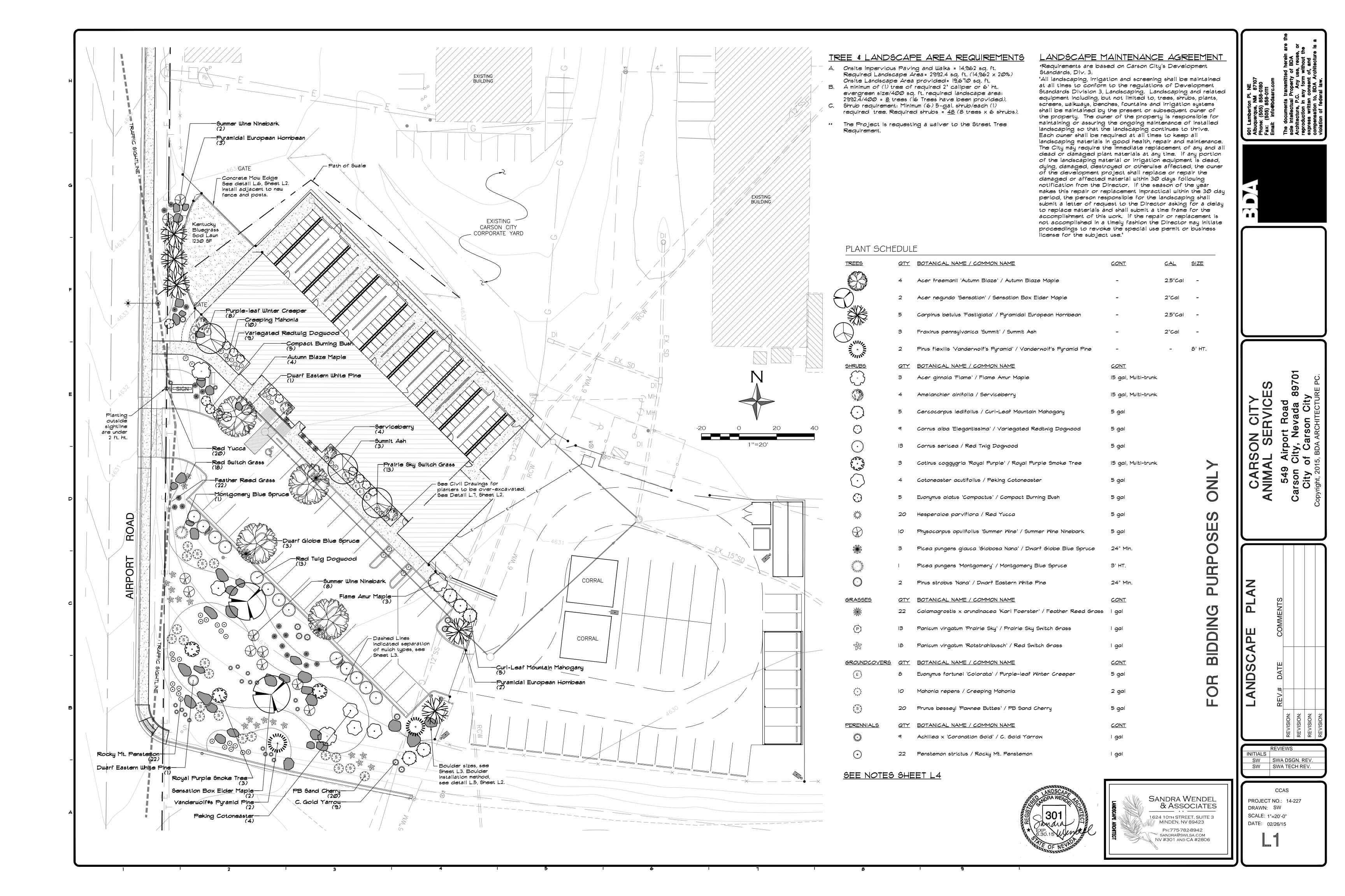
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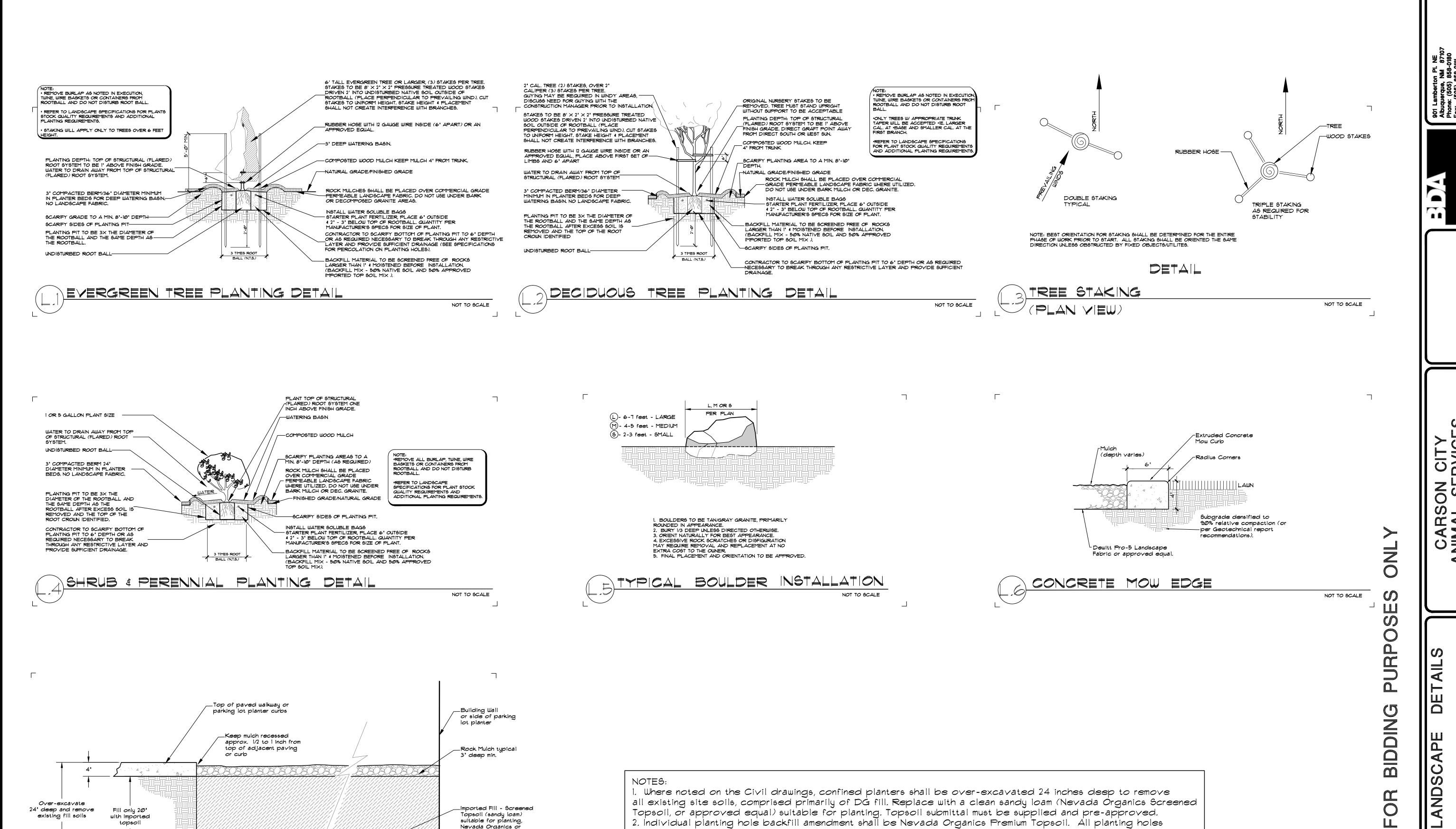
BDA TECH REV.

PROJECT NO.: 14-227.1C DRAWN: MLM/FRB DATE: 02/26/15

Resource Concepts Inc www.rci-nv.com 340 N. Minnesota St.
Carson City, NV 89703-4152
775-883-1600
212 Elks Point Rd., Ste. 443
Zephyr Cove, NV 89448-8020
775-588-7500







_Imported Fill - Screened

approved equal. Submittal

Roughen interface and

co-mingle (2) soils to prevent creating perched

water table situation.

Topsoil (sandy loam)

suitable for planting,

Nevada Organics or

required.

NOT TO SCALE

Fill only 20"

with imported

topsoil

PLANTER BACKFILL DETAIL

24" deep and remove

existing fill soils

all existing site soils, comprised primarily of DG fill. Replace with a clean sandy loam (Nevada Órganics Screened Topsoil, or approved equal) suitable for planting. Topsoil submittal must be supplied and pre-approved. 2. Individual planting hole backfill amendment shall be Nevada Organics Premium Topsoil. All planting holes shall be dug out minimum 3 times the width of the rootball. 50% of the on-site planting medium (primarily Decomposed Granite fill) shall be removed and replaced with 50% of the Premium Topsoil mix. Thoroughly combine soil types prior to backfilling around installed plants/rootballs. This requirement is to create a more suitable planting environment.

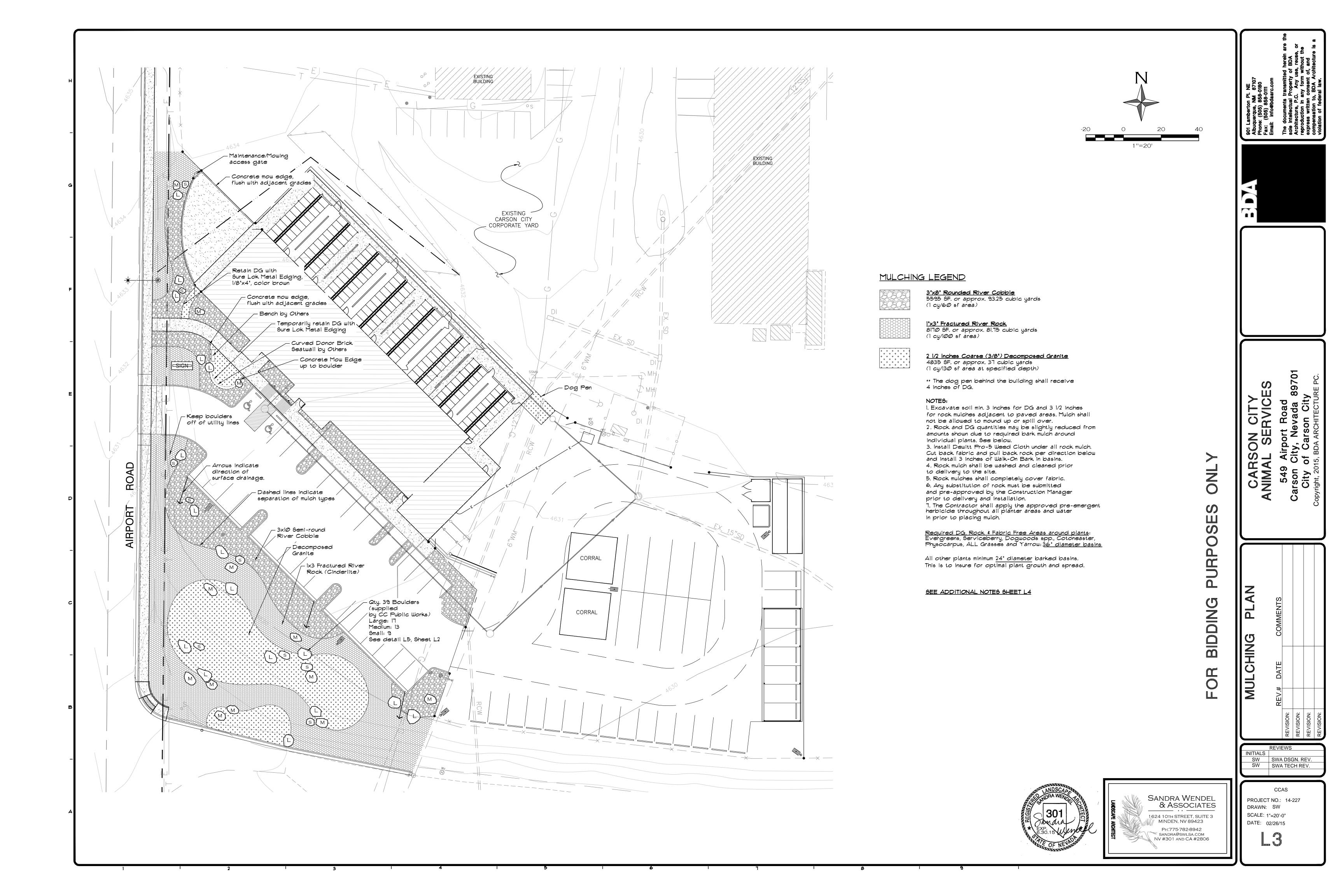




AND SW SWA DSGN. REV. SW SWA TECH REV.

CCAS

PROJECT NO.: 14-227 DRAWN: SW SCALE: NONE DATE: 02/26/15



LANDSCAPING

PART 1 - GENERAL REQUIREMENTS

1.1 DESCRIPTION & QUALITY ASSURANCE

All property lines were provided and established by others. These plans do not constitute a legal survey.

2. All construction work shall be in accordance with the plans, project specifications, The Standard Specifications and Details for Public Works Construction as adopted by Carson City. The Uniform Building Code and other codes or regulations that

3. The Contractor shall be a Nevada licensed C-10, bonded, and experienced installer who has completed landscape and irrigation systems similar in material, design and extent to that indicated for this project.

4. The Contractor shall have on the job site, at all times, a foreman fluent in understanding and speaking the English language. 5. The work shall consist of furnishing all labor, materials, services, tools, equipment and incidentals and performing all of the work required in the contract documents and as specified herein.

6. The Contractor is responsible for locating all underground utilities prior to any digging or construction. Protect utility lines from damage during all phases of landscape and irrigation work. Existing lines shall be marked prior to digging or trenching. Call Underground Service Alert at 811.

7. The Contractor shall refer to the Civil drawings for location of utilities. If damage occurs during the course of the work, the Contractor shall promptly repair all damages to existing site at no cost to the Owner. Protect all existing work during construction.

8. The acquisition of all necessary permits and approvals associated with construction shall be the Contractor's responsibility. 9. The Contractor will be solely and completely responsible for the conditions of the job site, including safety of all persons and property during performance of the work. This requirement will apply continuously and not be limited to normal working hours. The duties of the Owner or Landscape Architect do not include review of the adequacy of the Contractor's safety in,

10. The Contractor shall be responsible for reading all notes, checking plant names and confirming all numbers, sizes, and plant availability prior to submitting bid. If quantities listed in the planting schedules do not correlate with the quantities indicated

on the plans, then plan quantities shall govern. 11. The Contractor shall take all necessary precautions to provide effective dust control of all prepared soil areas.

12. The Contractor shall perform a soils test to see if there is a need for soil amendments to compensate for a high pH or nutrient deficiencies. Testing shall be conducted as soon as grading is finished, and shall be completed no later than two weeks after Contractor begins work on the site. Samples shall be sent to a certified soils testing laboratory for analysis and recommendations shall be obtained for amending soil if indicated by the lab report. The Landscape Architect shall receive a copy of the lab report and recommendations for improving soils shall become a part of the landscape work

13. It is understood that minor deviation and/or plant substitutions may be necessary during the course of the project. These deviations may be done if approved by the Landscape Architect or others as allowed per NRS, and if consistent with the original approved design and plants selected are similar to the original plan and intended purpose. Notification in writing to the Community Development Planning Department is required for these instances. Approval is required from the Director prior to installation.

There shall be no dumping, parking or storage of materials in areas to be landscaped.

1. The Contractor shall submit the following items for review and approval prior to purchase and delivery to the site: a. (1) gallon sample of Bark Mulch for use in the planting basins, (2) gallon sample of Decomposed Granite, (2) gallon

sample of River Cobble, (2) gallon sample of Fractured Rock. b. Procured list of all trees and shrubs and certificates of inspection as required by governmental authorities.

c. The Contractor may submit pictures of all trees before ordering. This is encouraged to facilitate smoother ordering and maintain quality control.

d. Pre-emergent herbicide

e. Tree stakes

Specified Topsoil and Fertilizers q. Tags, labels or manufacturer's literature on all mandatory products

1.2 DELIVERY, STORAGE AND HANDLING

l. Deliver packaged materials in original containers showing weight, analysis and name of manufacturer.

2. Protect materials from deterioration during delivery and while stored at the project site.

3. Protect plant material at all times from sun ore drying winds until planted. Plants shall not be handled by unprotected root balls, stems, trunks, or tops, but only by the container. 4. If planting is delayed more than 6 hours after delivery, set plants in shaded area and keep roots moist by watering as

needed, and by covering with mulch, burlap or other acceptable means of retaining moisture. Do not permit roots to dry out for any reason. 5. Shipped or transported plants shall be fully protected from exhaust fumes, wind, whipping, drying, breakage, etc. by any

6. The Construction Manager or Landscape Architect has the authority to reject any plants that are not considered acceptable at the time of planting or that deteriorate prior to final acceptance.

2.1 PLANT MATERIALS

1. All plant materials and trees to be #1 grade nursery stock and meet current industry quality standards adopted by The American Association of Nurserymen, American National Standards Institute (ANSI) Z60 and Nevada Revised Statutes (NRS) 555 'Regulations of Nursery and Nursery Stock). All (particularly trees) must comply with the following as applicable:

-no girdling, kinked, circling or "J" roots. -no trees that have been topped

-no large wounds in the trunk bark or on the limbs. Any small wounds must have a satisfactory callus roll formed or forming

-free from insects, disease, sunscald, windburn, rodent or mechanical damage

-no trees with large nursery stakes through the rootball or those grown on a nursery stake -rootball to be appropriate to caliper and crown size

-no double leaders on single trunk species

-crotches sound and unsplit

-buds plump on deciduous trees and evergreen foliage with good, intense color

-trunk/crown structure and trunk taper to be appropriate to the species -all graft unions to be healthy with trunk diameter below the union larger than above the union

-all trees to stand upright without stakes

-roots, bark, and shoot growth to give evidence of good tree vigor

-evergreen trees must branch to the ground -no pruning cuts over 1" diameter in evidence

-all box trees to be stake free nursery stock. No large stakes through rootball.

-Any replacement of plant stock to be equal to original specification and approved by the Construction Manager or Landscape Architect.

2. Deciduous trees shall be single-stem with appropriate trunk taper (larger caliper at the base and smaller caliper at the first branch), intact main leader, height of branching shall bear a relationship to the size and kind of tree so the crown of the

3. Evergreen trees and shrubs shall have full branching structure, oversized root balls, with a well-balanced form that complies with the dimensions required for quality shrubs per the American Standards for Nursery Stock

4. Deciduous shrubs shall have no less than the minimum number of canes required by the Current Edition of the Am. Standards for Nursery Stock. 5. Balled and burlapped stock shall have a firm, natural ball of earth in which they were grown.

6. Containerized stock shall be healthy, vigorous, well-rooted (but not root-bound) established in the container in which they Trees that arrive with supporting stakes and cannot support themselves, will be rejected.

2.2 MATERIALS OTHER THAN PLANTS

Rock mulches (see Sheet L3-Mulching Plan) Tree stakes and tree ties (see Sheet L2-Planting Details)

3. Plant Fertilizer (see Part 3 - Execution)

4. Bark Mulch for plant basins (see Sheet L3-Mulching Plan) 5. Fill Soil for Excavated Planters - Nevada Organics Screened Topsoil or approved equal

6. Imported Topsoil for Planting Holes and Lawn - Nevada Organics Premium Topsoil Mix

7. Soil Amendment other than Topsoil - Kelloggs amend or equal

8. Weed Fabric - DeWitt Pro-5 (for use under Rock mulches only, not Decomposed Granite) 9. Pre-emergent product - Ronstar / or Bests granular. (DO NOT use around perennials)

PART 3 - EXECUTION

. Before beginning work, the Contractor shall inspect the existing grades and installed work of other trades to verify that landscape construction can begin. 2. All planting beds shall have positive drainage away from existing structures, adjacent property, etc. Insure for even

drainage of planting areas.

3. Hand excavate as required to prevent damage to existing utilities and infrastructure.

4. The Contractor shall be required to insure that all planting bed areas are properly graded/excavated to establish rough grade and finish grade once all required soil amendments and groundcover mulches have been installed. See sheet L3 for

5. Rough grade in all planting bed areas shall be scarified to a minimum depth of 8"-10" (min.) prior to installation of plant material. This is especially critical in areas of compaction. Work with the concrete contractor up front to prevent excess accumulations of base material, or remove excess base material from the planting areas and fill voids with topsoil.

6. See Material Section for Topsoil requirements. 7. All planting beds shall be stripped and cleared of all lawn, roots, weeds, and debris and shall be raked to a smooth and

even grade prior to plant material installation.

8. All mulches must be contained within the boundaries of curb or walk and not mound up or spill over. Install medium chipped bark mulch in all plant basins sized per Sheet L3, Mulching Plan, by plant type. Barked basins shall not have weed fabric under. 9. Final location of all landscape plant material shall be set by the Contractor according to the plans and approved by the Landscape Architect before installation.

10. No plant or irrigation locations shall be placed to conflict or create conflict with signs, lights, utilities, sight lines, etc. If a proposed location will create a conflict, contact the Landscape Architect or Construction Manager for direction.

11. The Contractor shall space plant materials to accommodate evergreen tree growth. Space all

shrubs/groundcovers/perennials a minimum of 8' away from any evergreen tree trunk

12. All planting pits shall be either hand or backhoe dug (no auger). The bottom and sides of the planting pits shall be scarified before installation of the plant material. Holes shall be three times as wide as the rootball diameter, the same depth as the rootball and backfilled with an approved soil mix. The Contractor shall remove twine, ties, containers and wire baskets from all plant material. Do not disturb rootballs. Remove any excess soil on trees or shrubs that has accumulated during the packaging 4 shipping process, (B4B stock - especially) in order to determine proper planting depth in order to place rootball at 1" above grade. Clean down to the top of structural (flared) root system. Peel back and remove excess burlap so that the remaining fabric is concealed underneath the soil. Slash in several places underground. Remove wire baskets once the tree is placed in the planting hole. Foot tamp soil around the rootball as the hole is filled. Do not plant trees with rootballs that are loose and unstable.

13. Do not plant in areas with poor drainage. If a planting hole, filled with water, has not drained after 30 minutes, contact the Landscape Architect or Construction Manager for alternative locations, or drainage measures.

14. Install Best Paks (or approved equal) water soluble starter plant fertilizer, in all planting pits. Use: (1) per 1-gallon container

(3) per 5-gallon container (5) per 15-gallon container/2"-caliper or larger tree 15. Tree staking shall be done on all trees. The Contractor shall stake as per details. Original nursery stakes on trees shall be

removed before installation. Trees must stand upright without support to be acceptable. Add a third stake if trees are not stable with two. Allow for some flex of trunk Remove stakes after one or two growing seasons. Cut stakes to a level where they do not interfere with or injure tree branches. Top of cut stakes shall be at the same height. 16. Spread Ronstar or Best's pre-emergent granules on the soil in planting areas and wet in prior to laying down mulch. Apply per manufacturer's specifications.

SOD INSTALLATION

 Sod Lawn Preparation: a. Place 2" (inches) Nevada Organic Premium Topsoil in sod areas as shown on the drawings and till in 6" deep.

b. Top dress all lawn areas with an additional 2" (inches) topsoil to establish finish grade.

c. Use topsoil in a relatively dry state. Place during dry weather. d. Fine grade soil to a uniform finish. Remove all surface rock larger than I" diameter. Maintain levels, profiles and contours of existing grades. Roll all sod lawn areas to approximately 80% compaction, do not overcompact.

e. Install sod so all joints are tight and smooth on a moist, lightly compacted surface. lay sod such that long edges are parallel to contours and perpendicular to slope. Alternate joints in a running bond pattern. `. Roll sod. Adjust grade irregularities as required.

PART 4 - MAINTENANCE The Contractor shall remove and haul away all debris from landscape work on a daily basis from the site. Keep all equipment, materials or other items on the jobsite out of the way of pedestrian and vehicular areas.

q. Upon completion of rolling, the lawn shall be watered frequently (typically 3 times/day) for 5-10 minutes or as weather

conditions dictate. Longer irrigation times may be required due to type of sprinkler head. Do not water at night.

2. Begin maintenance upon completion of and immediately after installation of any landscape plant material. 3. Any pruning shall be in accordance with the most recent edition of the ANSI A300 Pruning Standards. 4. The Contractor shall inspect the site regularly to review the condition of all plantings. If any changes in the overall maintenance program are required to improve the conditions to an acceptable standard the Contractor shall notify the Owner in writing. Otherwise the Contractor accepts full responsibility for the condition of the plantings and must honor the guarantee. Any plants replaced under this quarantee shall be quaranteed for one (1) full year from the date of replacement. 5. The Contractor shall be required to provide maintenance of the entire irrigation system 4 all landscaping until Final Acceptance.

<u>PART 5 - INSPECTIONS AND APPROVALS</u>

. All approvals shall be made by the Construction Manager, Landscape Architect or Carson City representative, who shall be present for the following tests and inspections:

a. Finish grade for all planting beds shall be approved before installation of plant material and mulches.

b. All trees and shrub quality to be approved upon delivery and prior to installation. c. Field placement of all boulders shall be approved prior to planting and installation of mulches.

d. Plants shall be set in proposed locations and reviewed/approved by the Landscape Architect prior to digging in. e. A walk-through and punch list will be made at the time of Substantial Completion. At this time, the Contractor will be required to correct all non-conforming items identified as incomplete or inadequate.

f. A final walk-through will be made after being notified by the Contractor of 100% completion of all punch list items. Plant species identification tags are to be left on plants until after approval of the landscaping and then removed.

All landscape and irrigation work and products shall be warranted for (1) year following Final Acceptance. Replacement of any plant which dies shall be done within (2) weeks notice, with plants equal to original materials used except for plant losses due to vandalism, acts of nature, animal damage, or neglect by the Owner.

IRRIGATION

PART 1 - GENERAL REQUIREMENTS

1.1 DESCRIPTION & QUALITY ASSURANCE

All plumbing and electrical work shall be completed as per all local codes. 2. Installation of materials shall be per manufacturers recommendations or as specified. No extra payment will be made where piping must be offset to avoid existing conditions, other work or where changes are necessary to facilitate installation.

3. The Contractor shall have all necessary qualifications to perform the work (see Landscape).

4. The irrigation system shall be constructed for full winterization by the Contractor who shall supply manual mainline drains in any location required. See Record Drawing requirements. 5. The Contractor shall take all precautionary measures necessary to protect existing improvements which are to remain in place, from damage, and all such improvements damaged by the Contractor's operations

shall be repaired or reconstructed to the Owner's satisfaction at the Contractor's expense. 6. The Contractor shall use extreme caution when working near overhead or underground power and/or telephone, water, gas and sewer facilities so as to safely protect all utilities, personnel, and equipment, and shall be responsible for all costs and liability in connection therewith. The Contractor shall coordinate his work with other Contractors, for the location and installation of

pipe sleeves and laterals under sidewalks and paving. 8. The layout is diagrammatic and field adjustment shall be made in response to actual site conditions. Do not willfully install the irrigation system as shown on the drawings when it is obvious in the field that unknown obstructions, grade differences or differences in the area dimensions exist that might not have been considered in the design. Such obstructions or differences shall be brought to the attention of the Construction Manager. In the event this notification is not performed, the Contractor shall assume full

responsibility for any revisions necessary. 9. Provide equipment and parts not specifically noted, but reasonably inferred from the plans and standard installation practice for a complete and workable system. All equipment, specialties and accessories on the job shall be listed, labeled or permanently marked.

10. There shall be no substitutions of products on this project without pre-approval. 11. All materials shall be new, without flaws and considered the best available. The completed system shall have a one-year warranty after final project acceptance on all parts and labor. 12. The design is to an estimated constant of 60 psi at the minimum. Test for static water pressure prior to starting work. Notify the Landscape Architect if pressure differs significantly or high pressure requires additional in-line pressure regulation.

1.1 SUBMITTALS

The Contractor shall initially submit the following items for review and approval prior to purchase and delivery to the site. This list shall provide the item number, trade name, corresponding catalog number and other. supportive data in the form of catalog sheets, specifications or brochures including detailed information for each item:

a. Information/date on all products or materials to be used in the construction of the irrigation system including but not limited to PVC pipe, Polytubing, Glues and Fittings, Backflow Preventer including Test Equipment, Backflow Blanket, Controller, Valves (both manual and automatic control), Quick Couplers, Isolation Valves, Sprinklers, Drip Equipment, and Field Control Wiring. 2. The Contractor shall submit post-construction the following items:

a. Record Drawings (see description below) b. One Controller Chart, showing the areas covered by each valve and hermetically sealed between two pieces of plastic for installation on the controller door. Chart to be a legible, reduced drawing of the actual as-built system. c. Maintenance and product data/warranties in an 'Operations and Maintenance Manual' for project

close-out for the: Backflow Preventer (including instructions for testing), Pressure Regulators (as

. All products and materials used in construction shall comply with the approved list for projects occurring in Carson City and used on public projects.

req.d.), Automatic Control Valves and Quick Coupler Valves, and the Controller.

PART 3 - EXECUTION 3.1 DESCRIPTION

1. The RPA backflow unit shall be protected by a winterization blanket. Lock and key shall be provided.

2. On all threaded joints within the irrigation system, the Contractor shall use 2-3 full turns of teflon tape at each connection. The Contractor may use teflon paste as a lubricant with teflon tape, but not as a substitute for it.

3. Pipe dope shall not be used anywhere on the irrigation system. 4. Filter fabric for above all rock sumps shall be Dewitt Pro-5 weed barrier or an approved equal.

5. All irrigation mainline 4 lateral piping shall be schedule 40 Polyvinyl Chloride (PVC) plastic pipe, ASTM D 1785 except where noted under roads, Note 7 and 8 below.

6. All Sch. 80 plastic pipe fittings and risers shall be molded fittings manufactured of the same material as the pipe and shall be suitable for solvent weld, slip joint ring tight seal, or screwed connections. 7. Pipe sizes shall conform to those shown on the drawings. No substitutions of smaller pipe sizes shall be permitted, but substitutions of larger sizes may be approved. All damaged and rejected pipe shall be removed from the site at the time of said rejection.

8. PVC pipe joining materials shall be solvent cement, ASTM F 65 Primer and ASTM D 2564 Solvent cement in color other than orange. No clear glue or hot glue is permitted.

9. Irrigation mainline to be buried 24" below finished grade and all lateral line piping to be buried 18" below finish grade. All drip irrigation tubing to be buried 4"-6" below finish grade.

10. Trench walls shall be vertical, free of rocks and debris and bottom of trench shall be excavated tree inches below the required grade so that the pipe can be laid on a compacted bed of imported Type A Bedding Sand.

II. Install piping at a uniform slope, free of sag and bends. Slope all lines to drain. Install Manual drains to drain down backflow and wherever else needed on mainline for proper winterization. White King drains shall be installed at all low points on the lateral lines. Construct gravel sumps under mainline drains (min. 2 cu. ft.). 12. Gate Valves 2" and smaller shall be brass, rising-stem gate valves with (PFTE) impregnated packing and star top handle.

13. Provide concrete thrust blocks under RPA as shown in the detail. 14. Backfilling: backfill material shall be installed in 4-6 inch lifts with each lift being thoroughly moistened and compacted to a relative density of not less than 95% by the use of hand tampers. No water jetting shall be allowed. Use only materials that is either sand, pit run, or excavated material that contains no rocks larger than I inch in diameter.

15. The Contractor shall expose ends of all irrigation sleeves. Any broken or shattered ends shall be cut to a clean and even end before installation of either mainline pipe, lateral lines or drip irrigation tubing. All sleeve ends shall be inspected by the Construction Manager or Landscape Architect before burying. 16. Mainlines shall be flushed and pressure tested at 1.5 times the static pressure for a minimum 2 hour period. Test will be considered successful if no pressure loss occurs during the two hours. If any leaks are present they shall be corrected and lines shall be re-tested. Notify the Construction Manager two (2) working days in advance to schedule a hydrostatic pressure test. 17. The Contractor shall flush all laterals and emitter lines prior to installing drip emitters.

3.2 CONTROL YALVES AND WIRING

1. All irrigation valves shall be located in professional grade valve boxes, Carson Industries or NDS Pro Series. Size of valve boxes shall vary with number of valves located in box. All valve box lid elevations shall be set flush with finished grade. Provide box size that will allow 6" clearance around all sides of valves, rectangular for valves, and round for quick couplers and manual drains. Place 3" min. drain rock 3" below valve. Use valve box extensions if required. Surrounding soil areas must be shielded in all cases. Provide bolts per manufacturer's recommendations and secure each valve box.

2. All control wire shall bear a U/L approved label for direct underground burial in National Electric Code class it circuits. AllG sizes. All new wiring shall be 12/1 AllG UF gauge for control wires and copper 12/1 AWG UF RHH for common. Control wire shall have a jacket color of red -- Common wire shall have a jacket color white. Furnish cables with jackets of different colors for multiple cable installation in each trench. All wires shall be labeled in valves boxes and at the controller. No 14 gauge wire will be permitted anywhere on this project.

3. Provide (2) extra valve control wires as a system backup and loop into each valve box. See Detail i.4 and i.8, Sheet L6, for extra wiring diagram.

4. All control wire runs less than 1000' shall have no splices. If a splice occurs on a field control wire, the Contractor shall install the splice in a 6" round valve box using RainBird Pen-Tite or Kingwire watertight splice wire connectors. All splices have to be approved by the Carson City Parks and Recreation Department, otherwise the entire field control wire shall have to be removed and replaced. 5. Tape and bundle all control wire to the bottom of the mainline pipe at 10' on center except in sleeving

under roads where separate sleeves have been provided. 6. Electrical connections for the Controller to be installed by a licensed Electrician. The Contractor will be responsible for connecting the valve wires to the controller.

3.3 DRIP IRRIGATION

l. Drip Emitters schedule: use Rain Bird pressure compensating XB-10 and XB-20.

(2) each one gal/hour for all I gal. plants (3) each one gal/hour for all 5 gallon plants and Evergreen speciman shrubs

(4) each two gal/hour for Vanderwolf Pines (5) each two gal/hour for all 2" and larger Caliper Trees Multiple emitters shall be evenly distributed around the rootball. Locate emitters to wet the rootball and

areas of new soil. Do not place emitters at the trunk. Secure all drip and emitter tubing with tubing

3.4 CONCRETE THRUST BLOCKS

1. Concrete: Portland cement mix, 3000 psi., ASTM C 150, Type 1. Fine Aggregate: ASTM C 33, sand. Coarse Aggregate: ASTM C 33, crushed gravel. Water: Potable. Reinforcement: Steel Bars, ASTM A 615 Grade 60, deformed.

PART 4 - INSPECTIONS AND APPROVALS

All approvals to be by the Landscape Architect or Carson City representative, who shall be present for the following tests and inspections:

a. Open trench mainline inspection (lines can be covered for static pressure test, but all joints and valve connections must be visible).

b. Open trench wire control wire inspection

c. Sleeving inspection, prior to burial

d. Layout of the drip system prior to coverage e. 100% Coverage test/automatic operation of the drip system

f. Inspection and punchlist at the time of Substantial Completion Inspection prior to Final Acceptance. **DO not backfill lines/trenches prior to inspection. Failure to do so will result in the Contractor digging

up selected areas for spot checking quality of workmanship at no cost to the Owner. 2. A minimum of 48 hours advance notice is required for all inspections. 3. Prior to final project acceptance, the Contractor shall instruct the Animal Services staff in the irrigation system operation and winterization to insure for a smooth transition.

PART 5 - PROJECT CLOSE OUT

. Record Drawings : The Contractor shall provide and keep current a complete set of Record Drawings which shall be corrected daily to show changes in the original drawings. All mainline piping, valve locations and drip tubing layout shall be shown with actual measurements to reference points. These drawings shall be submitted to the Construction Manager for in-field inspection and verification prior to final payment.

PART 6 - CONTRACT WARRANTY

. See Landscape Specifications 2. In addition, the Contractor shall be responsible for any settling in the irrigation trenches or failure of

any components or workmanship executed by the Contractor. 3. All manufacturer's extended warranties shall apply for the period provided by the manufacturer of the





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DRAWN: SW SCALE: NONE DATE: 02/26/15

