HISTORIC ARKANSAS RIVERWALK OF PUEBLO

Know what's below.
Call before you dig.

SHEET No.

GATEWAY PLAZA CONSTRUCTION DOCUMENTS

EDA PROJECT NO. 05-01-05793

CITY PROJECT NO. 18-046 (EDA 1503 & RTA 1601)
320 CENTRAL MAIN STREET
PUEBLO, CO 81003

JUNE 14, 2018

INDEX OF SHEETS TITLE SHEET **GENERAL NOTES** DEMOLITION PLAN C103 SITE PLAN C104-C105 HORIZONTAL CONTROL PLAN C106-C107 **GRADING & EROSION CONTROL PLAN** SITE IMPROVEMENTS PLAN SITE IMPROVEMENTS DETAILS LANDSCAPE PLAN LANDSCAPE DETAILS IR100 IR101-IR102 27-28 **IRRIGATION DETAILS** TRAFFIC SIGNAL NOTES

OWNERS:

1) CITY OF PUEBLO
DEPARTMENT OF PUBLIC WORKS

211 EAST "D" STREET PUEBLO, CO 81003 CONTACT: JEFF BAILEY (719)553-2295

CITY OF PUEBLO

PLANNING AND COMMUNITY DEVELOPMENT 211 EAST "D" STREET PUEBLO, CO 81003 CONTACT: STEVEN MEIER (719)553-2259

2) HAR

LYNN CLARK 125 RIVERWALK PLACE PUEBLO, CO 81003

3) PUEBLO URBAN RENEWAL AUTHORITY 115 EAST RIVERWALK, #410 PUEBLO, CO 81003

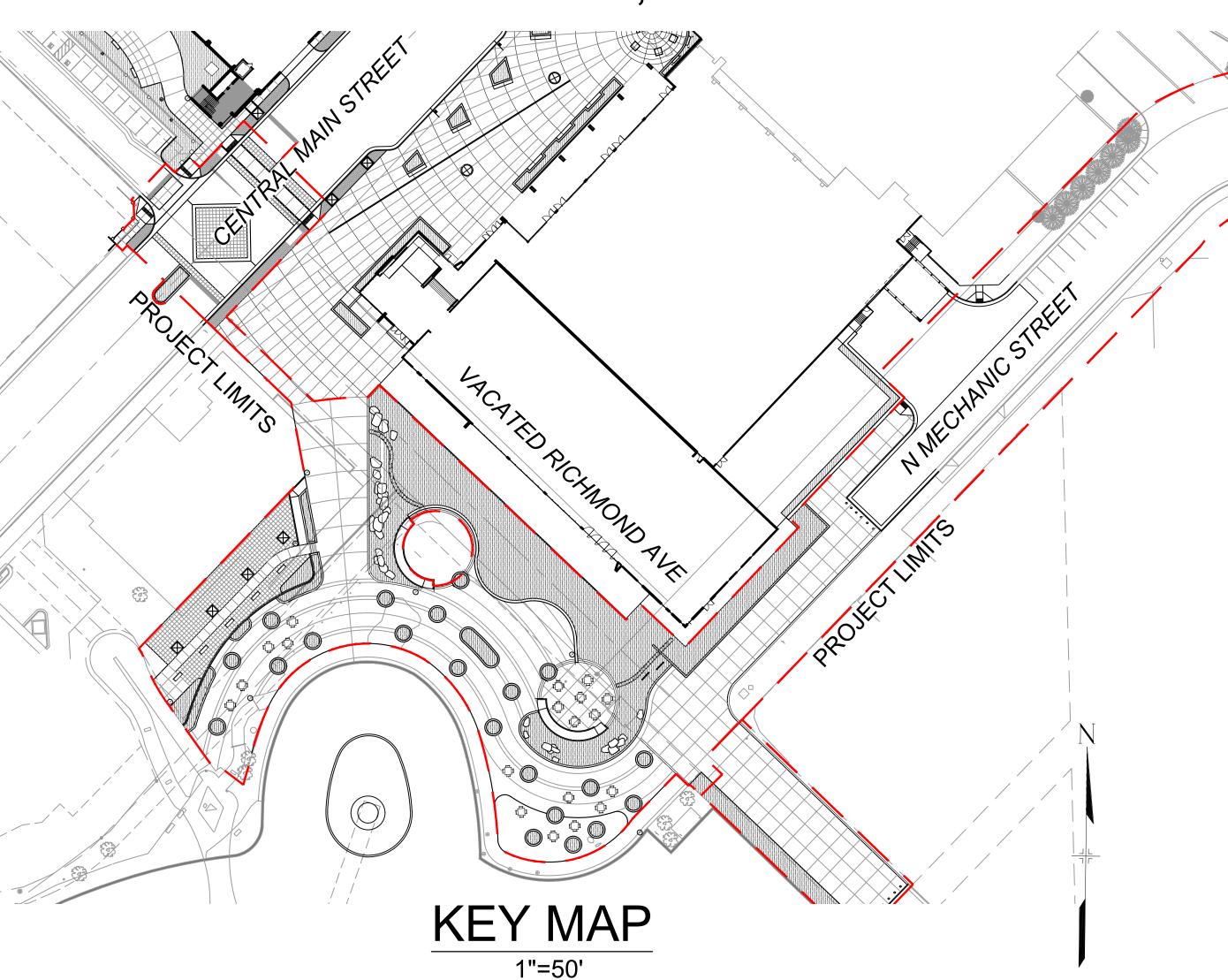
LAND PLANNERS

& CIVIL ENGINEERS:

MATRIX DESIGN GROUP, INC. 2435 RESEARCH PARKWAY, SUITE 300 COLORADO SPRINGS, CO 80920 CONTACT: GREGORY SHANER, P.E. (719) 575-0100

LANDSCAPE ARCHITECT:

MATRIX DESIGN GROUP, INC 1601 BLAKE STREET, SUITE 200 DENVER, CO 80202 (303) 572-0200



OWNER APPROVAL:

CITY OF PUEBLO DATE:

PUEBLO URBAN RENEWAL AUTHORITY DATE:

HARP DATE:

ENGINEER'S STATEMENT:

THESE DETAILED PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECTION AND SUPERVISION.

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.
GREGORY SHANER, PE# 36307

Original Date of Licensure

OF COLORED

PROJECT No. 17.946.001

THE LOCATIONS OF EXISTING ABOVE GROUND AND UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE CAUSED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL ABOVE GROUND AND UNDERGROUND UTILITIES.

REFERENCE DRAWINGS					
X-946-PR-BASE X-946-EX-BASE-COMBINED X-946-EX-MAP-COMBINED X-946-PR-BASE - PARKING GA X-479-PR-BASE - Gateway Parl					
X-MAIN INTERSECTION X-481-TITLE-LANDSCAPE	No.	DATE	DESCRIPTION	BY	
X-PR-LIMIT-Gateway Park	REVISIONS				
	COMPUTER FILE MANAGEMENT				
	CTB FIL PLOT D	LE: DATE: 6/14/2018	.001 (Pueblo Convention Center)\Dwg\Construction Plans\EDA Package\TS01.dwg 3 2:31 PM 5 OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.		

PREPARED BY:

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

EDA PROJECT NUMBER: 05-01-05793

HISTORIC ARKANSAS RIVERWALK OF PUEBLO GATEWAY PLAZA PROJECT

TITLE SHEET

DESIGNED BY: ME SCALE DATE ISSUED: JUNE 14, 2018 DRAWING NO. CHECKED BY: GS VERT. N/A SHEET 1 OF 31

GENERAL NOTES

- 1. THE CONTRACTOR SHALL CONFORM TO ALL CITY OF PUEBLO RULES, REGULATIONS AND STIPULATIONS WHILE ACCESSING THROUGH OR WORKING ON SITE.
- 2. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH MATRIX DESIGN GROUP, INC., THE CITY OF PUEBLO AND THE OWNER AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. PLANS FOR CONSTRUCTION WILL BE DISTRIBUTED AT THIS MEETING. NO CONSTRUCTION WILL BE PERMITTED PRIOR TO THE PRE-CONSTRUCTION MEETING.
- 3. THE CONTRACTOR IS WARNED THAT CONFLICTS WITH EXISTING UTILITY SERVICES MAY EXIST. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES FOR LINE LOCATIONS, AND CONTRACTOR SHALL LOCATE ALL UTILITIES (INCLUDING DEPTH). NEITHER MATRIX DESIGN GROUP, INC. NOR THE OWNER ASSUME ANY RESPONSIBILITY FOR UTILITY LOCATIONS. ANY CONFLICTS WITH THE PROPOSED CONSTRUCTION SHALL BE BROUGHT TO THE ATTENTION OF MATRIX DESIGN GROUP, INC. AND THE OWNER SO THAT MINOR LINE OR GRADE CHANGES CAN BE MADE TO ELIMINATE ANY CONFLICTS WITH EXISTING UTILITIES. ALL EXISTING UTILITIES SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR. UTILITIES THAT ARE DAMAGED BY THE CONTRACTOR THAT WERE PROPERLY MARKED/LOCATED SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER OR ENGINEER.
- 4. THE CONTRACTOR SHALL OBTAIN ALL PERMITS AND INSPECTIONS, WHICH ARE NECESSARY TO PERFORM WORK IN RIGHT OF WAY AND BUILDING DEPT. CITY OF PUEBLO WILL WAIVE THE FEE FOR RIGHT OF WAY PERMIT. OTHER BUILDING PERMITS SHALL BE OBTAINED AND PAID FOR BY THE CONTRACTOR.
- 5. ALL CONSTRUCTION SHALL CONFORM TO CITY OF PUEBLO STANDARDS AND SPECIFICATIONS AND SHALL BE SUBJECT TO CONSTRUCTION OBSERVATION BY THEIR REPRESENTATIVES. COPIES OF THE CITY OF PUEBLO STANDARDS PUBLIC WORKS MANUAL MUST BE OBTAINED BY THE CONTRACTOR.
- 6. CONTRACTOR SHALL NOT SCALE DRAWINGS FOR CONSTRUCTION PURPOSES. ANY MISSING DIMENSIONS OR DISCREPANCIES IN THE PLANS, FIELD STAKING OR PHYSICAL FEATURES SHALL BE BROUGHT TO THE ATTENTION OF MATRIX DESIGN GROUP, INC. AND THE OWNER. IF THE CONTRACTOR PROCEEDS WITH THE WORK WITHOUT NOTIFYING MATRIX DESIGN GROUP, INC. AND THE OWNER, HE DOES SO AT HIS OWN RISK.
- 7. OBSERVATIONS OF THE WORK IN PROGRESS AND ONSITE VISITS ARE NOT TO BE CONSTRUED AS A GUARANTEE OR WARRANTY BY MATRIX DESIGN GROUP, INC. OF THE CONTRACTOR'S CONTRACTUAL RESPONSIBILITIES.
- 8. THE CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION OF STOCKPILING OF MATERIALS. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER, THE CITY OF PUEBLO AND THE MATERIAL SUPPLIER.
- 9. CONSTRUCTION STAKING WILL BE PERFORMED BY THE CONTRACTOR SELECTED FIRM.
- 10. THE CONTRACTOR IS REQUIRED TO CONTACT MATRIX DESIGN GROUP TO ESTABLISH CONSTRUCTION BENCHMARKS.
- 11. SAFETY IS A RESPONSIBILITY OF THE CONTRACTOR. MATRIX DESIGN GROUP, INC. IS NEITHER RESPONSIBLE FOR SAFETY IN, ON, OR ABOUT THE PROJECT SITE NOR FOR COMPLIANCE BY THE APPROPRIATE PARTY WITH ANY REGULATIONS RELATING THERETO.
- 12. ALL UTILITY TRENCHES IN ROAD AND PATH PRISM TO BE COMPACTED AND TESTED PER GEOTECHNICAL ENGINEER REQUIREMENT.
- 13. SOILS TESTING IS BY THE OWNER, BUT THE CONTRACTOR MUST NOTIFY THE SOILS ENGINEER, THE OWNER AND MATRIX DESIGN GROUP, INC. OF SCHEDULING.
- 14. THE CONTRACTOR SHALL TAKE ALL APPROPRIATE PRECAUTIONS TO SIGNIFICANTLY REDUCE ANY POTENTIAL POLLUTION CAUSED BY HIS ACTIVITIES, INCLUDING VEHICLE FUELING, STORAGE OF FERTILIZERS OR CHEMICALS, ETC. THE CONTRACTOR SHALL HAVE IDENTIFIED PROCEDURES FOR HANDLING POTENTIAL POLLUTANTS AND HAVE IDENTIFIED SPILL PREVENTION AND RESPONSE PROCEDURES PRIOR TO ANY ACTIVITIES AT THE PROJECT SITE.
- 15. THE CONTRACTOR SHALL KEEP TWO (2) SETS OF CONTRACT DRAWINGS MARKED TO FULLY INDICATE "AS-BUILT" CONDITIONS. THE DRAWINGS SHALL BE PROVIDED TO THE OWNER AND MATRIX DESIGN GROUP, INC. UPON COMPLETION OF THIS WORK. THREE (3) "AS-BUILT" TIES TO ALL SERVICES, FITTINGS, VALVES AND MANHOLES TO PHYSICAL MONUMENTS ARE TO BE PROVIDED BY THE CONTRACTOR.
- 16. IF ANY GROUND WATER IS ENCOUNTERED, THE CONTRACTOR SHALL CONTACT THE PROJECT ENGINEER AND THE PROJECT GEOTECHNICAL ENGINEER IMMEDIATELY.
- 17. THE CONTRACTOR SHALL MAINTAIN EXISTING DRAINAGE CHANNELS, CULVERTS AND APPURTENANCES DURING CONSTRUCTION, AS NECESSARY TO PROTECT ROADS AND PROPERTY.
- 18. EXISTING TOPOGRAPHIC INFORMATION PROVIDED WAS PROVIDED IN JULY 2017 BY MATRIX DESIGN GROUP.
- 19. ASPHALT DEPTH AND SUBBASE THICKNESS HAS BEEN PROVIDED ON SHEET C103.
- 20. GRADING SHALL BE CONSTRUCTED TO A TOLERANCE OF \pm 0.2 FEET. SUBGRADE IN TREE LAWN AREAS SHALL BE LEFT 6" LOW OF THE PLACEMENT OF TOPSOIL. TOPSOIL PLACEMENT SHALL BE BY OTHERS, UNLESS OTHERWISE NOTED.
- 21. CONTRACTOR SHALL COORDINATE WITH OWNER AND ENVIRONMENTAL CONSULTANT ON THE REMOVAL AND TREATMENT OF SOIL SUSCEPTIBLE TO TOXIC HAZARDS.
- 22. CONTRACTOR IS RESPONSIBLE TO MAINTAIN CLEAN ROADS AT ALL TIMES, INCLUDING ACCESS ROADS, PUBLIC STREETS, AND SIDEWALKS NECESSITATED BY HIS ACTIVITIES ON THE SITE.
- 23. DUST CONTROL IS INCIDENTAL TO THE EARTHWORK CONSTRUCTION AND SHALL BE PROVIDED BY CONTRACTOR DURING ALL CONSTRUCTION ACTIVITY AND DURING OFF CONSTRUCTION TIME.

24. ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH THE STATE OF COLORADO PERMITTING FOR "STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY AND AIR POLLUTANT EMISSION PERMIT." FOR INFORMATION CONTACT THE COLORADO DEPARTMENT OF HEALTH, WATER QUALITY CONTROL DIVISION, WQCD-PE-B2, 4300 CHERRY CREEK DRIVE SOUTH, DENVER, CO 80223 ATTENTION: PERMITS AND ENFORCEMENT SECTION, PHONE (303) 692-3590. THE CONTRACTOR IS RESPONSIBLE FOR THIS PERMIT.

25. SEE STANDARD CONSTRUCTION SPECIFICATIONS AND STANDARD DETAILS FOR CITY OF PUEBLO FOR FLOWABLE FILL REQUIREMENTS FOR HDPE PIPE AT MANHOLE CONNECTIONS.

ENERGY CONSTRUCTION SPECIFICATIONS

- 1. BLACK HILLS ENERGY REQUIREMENTS WILL TAKE PRECEDENCE OVER ANY ENERGY GUIDELINES PROVIDED HEREIN, AND BLACK HILLS ENERGY SHALL BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION TO COORDINATE RELOCATION OR REMOVAL DESIGN DETAILS AND INSTRUCTION.
- 2.TRENCH WILL BE EXCAVATED DEEP ENOUGH TO ENSURE THAT THE TOP OF INSTALLED POWER FACILITIES WILL BE 48" BELOW FINISHED GRADE. SPECIAL CARE MUST BE TAKEN TO INSURE THAT THE TOP OF CONDUITS WILL BE 48" BELOW THE BOTTOM OF DRAINAGE DITCHES AND ALL OTHER LOW AREAS. WHERE INITIAL EXCAVATION IS LESS THAN 48" IN DEPTH DUE TO THE PLANNED SUBSEQUENT FILL, SERVICE WILL NOT BE PROVIDED UNTIL FINAL GRADE IS REACHED.
- 3. TRENCHING AND CONDUITS WILL BE INSTALLED AS STRAIGHT AS POSSIBLE BETWEEN VAULTS AND SHALL HAVE A SMOOTH BOTTOM FREE OF ROCKS. A MINIMUM OF 4" OF SOIL WILL BE PLACED OVER ANY ROCKS LEFT IN THE TRENCH PRIOR TO CONDUIT INSTALLATION. ANY SOIL PLACED IN THE TRENCH TO COVER ROCKS OR SMOOTH OUT LOW PLACES WILL BE COMPACTED PRIOR TO CONDUIT INSTALLATION.
- 4. POWER FACILITIES TO BE PLACED PARALLEL TO DEEPER UTILITIES WILL HAVE A HORIZONTAL SEPARATION FROM THE DEEPER UTILITY GREATER THAN THE DEPTH OF SUCH UTILITY BELOW FINAL GRADE. WHEN CROSSING A DEEPER UTILITY IS UNAVOIDABLE, THE CROSSING WILL BE MADE AS CLOSE TO PERPENDICULAR AS POSSIBLE. POWER FACILITIES WILL BE INSTALLED BELOW THE LAYBACK SLOPE OF 1-1/2:1 FROM THE BOTTOM OF THE DEEPER UTILITY.
- 5. IF CABLE TELEVISION OR TELEPHONE FACILITIES ARE PLACED IN THE POWER TRENCH, A MINIMUM OF 12" HORIZONTAL SEPARATION MUST BE MAINTAINED BETWEEN THE POWER FACILITIES AND THE OTHER UTILITIES IN NO CASE WILL FACILITIES OF ANOTHER UTILITY INSTALLED IN THE TRENCH BE PLACED AT A GREATER DEPTH THAN THE POWER FACILITIES.
- 6. BACKFILL AND COMPACTION WILL BE PERFORMED AS REQUIRED BY THE GOVERNMENTAL ENTITY OR OTHER PARTY HAVING JURISDICTION.
- 7. CONDUIT JOINTS SHALL BE KNOCKED COMPLETELY HOME DURING GLUING. A PULL STRING WILL BE PLACED THROUGH EACH CONDUIT AND TIED OFF IN THE VAULT AT EACH END. NO UNNECESSARY BENDS WILL BE ALLOWED IN CONDUIT RUNS. CHANGES IN CONSTRUCTION FROM THAT SHOWN ON THE PROJECT PLANS WILL NOT BE MADE WITHOUT PRIOR WRITTEN APPROVAL FROM HOLY CROSS ENERGY.
- 8. CONDUIT SHALL BE COVERED WITH AT LEAST 4" OF ROCK-FREE SOILS OR SAND PRIOR TO BACKFILL. LARGE ROCKS SHALL NOT BE PUSHED IN DIRECTLY ON TOP OF THIS 4" COVER. CARE MUST BE TAKEN TO AVOID DAMAGE TO CONDUITS OR CABLES DURING BACKFILL AND COMPACTION. RESTRAIN LENGTHS PER MANUFACTURER SPECIFICATIONS.
- 9. BLACK HILLS ENERGY MUST INSPECT ALL CONDUIT INSTALLATION BEFORE THE CONDUIT IS COVERED AND AGAIN AFTER COVERING, BUT PRIOR TO BACKFILL. (BLACK HILLS ENERGY MUST ACCEPT THE LINE, PRIOR TO BACKFILL).
- 10. CONDUITS ENDING OUTSIDE A VAULT SHALL BE CAPPED AND MARKED WITH A 4"X4" POST.
- 11. RED TRENCH MARKING TAPE WILL BE SUPPLIED BY BLACK HILLS ENERGY AND SHALL BE INSTALLED 18" ABOVE THE CONDUIT OR CABLE DURING BACKFILL.
- 12. VAULTS SHALL BE INSTALLED AS FOLLOWS:
- A. SPLICE VAULTS SHALL BE INSTALLED WITH THE MANHOLE AT OR SLIGHTLY ABOVE FINAL GRADE.
- B. TRANSFORMER VAULTS AND SWITCHGEAR VAULTS WILL BE INSTALLED WITH THE BOTTOM OF THE PAD AT FINAL GRADE.C. WHERE VAULTS ARE SET INTO HILLSIDES OR SLOPED CUTS, THE DOWNHILL SIDE OF THE
- VAULT WILL BE GRADED ACCORDING TO A OR B ABOVE. THE SLOPE BEHIND THE VAULT WILL BE LAID BACK SUFFICIENTLY TO PROHIBIT SOIL OR ROCKS FROM SLOUGHING INTO THE PAD-MOUNTED EQUIPMENT OR ONTO THE MANHOLE. IF THE SLOPE CANNOT BE LAID BACK FAR ENOUGH, A RETAINING WALL SHALL BE CONSTRUCTED BEHIND THE VAULT.
- D. ALL VAULTS WILL BE INSTALLED SO THAT THE TOP PAD IS LEVEL.
- E. PADS OR LIDS WILL BE PLACED AT THE TIME OF VAULT INSTALLATION UNLESS OTHERWISE REQUIRED BY HOLY CROSS ENERGY.
- F. VAULTS ARE TO BE LOCATED BACK OF DRAIN SWALES NEAR PROPERTY LINES.
- 13. HOLES KNOCKED IN VAULTS FOR CONDUIT INSTALLATION SHALL BE AS SMALL AS POSSIBLE AND SHALL BE GROUTED CLOSED ON THE OUTSIDE OF THE VAULT PRIOR TO BACKFILL.
- 14. CONDUIT SHALL ENTER VAULTS PERPENDICULAR TO THE VAULT WALL AND ABOUT 2" ABOVE THE FLOOR OF THE VAULT.
- 15. CONDUIT WILL BE CUT OFF 2" TO 4" FROM THE INSIDE WALL OF THE VAULT.
- 16. PEDESTALS FOR OTHER UTILITIES SHALL NOT BE LOCATED CLOSER THAN 10 FEET TO A VAULT ON SIDES WHERE TRANSFORMERS OR SWITCHGEAR WILL HAVE ACCESS DOORS. PEDESTALS SHALL NOT BE LOCATED CLOSER THAN 3 FEET TO A VAULT ON SIDES WHERE THE PAD-MOUNTED EQUIPMENT WILL NOT HAVE ACCESS DOORS.
- 15. ALL ELECTRIC SERVICE STUBS TO BE MARKED WITH RED LATHE FOR ASBUILT SURVEY LOCATES.

SYMBOLS



SHEET No.

PROPOSED CENTERLINE RIGHT OF WAY **EXISTING CURB & GUTTER** PROPOSED CURB & GUTTER EXISTING CONTOUR PROPOSED CONTOUR PROPOSED EASEMENT PROPOSED STORM SEWER (RCP/PP) PROPOSED 8" WATER MAIN (PVC) PROPOSED 15" SAN. SEWER (PVC) EXISTING WATER MAIN (PVC) EXISTING SAN. SEWER MAIN (PVC) EXISTING STORM SEWER (RCP/PP) EXISTING FIBER OPTIC CABLE LINE **EXISTING GAS LINE EXISTING TELEPHONE LINE** EXISTING ELECTRIC LINE PROPOSED PLUG PROPOSED MANHOLE PROPOSED FIRE HYDRANT **EXISTING WATER VALVE** PROPOSED WATER VALVE PROPOSED STORM INLET

ABBREVIATIONS:

FOR AND ON BEHALF OF

MATRIX DESIGN GROUP, INC.

PROJECT No. 17,946,001

BS BTM © or CL CFS CONC CONST CONT EA EGL ELEV or EL ESMT EX or EXIST FES FFE © or FL FLG FS HGL HP INV K LF LP LS LT MH NTS	BOTTOM OF STAIRS BOTTOM CENTERLINE CUBIC FEET PER SECOND CONCRETE CONSTRUCTION CONTINUOUS EACH ENERGY GRADE LINE ELEVATION EASEMENT EXISTING FLARED END SECTION FINISH FLOOR ELEVATION FLOWLINE FLANGE FINISH SURFACE HYDRAULIC GRADE LINE HIGH POINT INVERT VERTICAL CURVE FACTOR LINEAR FEET LOW POINT LANDSCAPING LEFT MANHOLE NOT TO SCALE	PCC PCR PRC PT PVC PVI PVMT PVT RC RCP REQ ROW RT SCH SD STA STD SS or SAN SW or S/W TAN TBC TFC TOB TS TYP UTIL VC	POINT OF COMPOUND CURVE POINT OF CURB RETURN POINT OF REVERSE CURVE POINT OF TANGENCY POINT OF VERTICAL CURVE or POLYVINYL CHLORIDE POINT OF VERTICAL INTERSECTION PAVEMENT POINT OF VERTICAL TANGENT REVERSE CROWN REINFORCED CONCRETE PIPE REQUIRED RIGHT-OF-WAY RIGHT SCHEDULE STORM SEWER STATION STANDARD SANITARY SEWER SIDEWALK TANGENT TOP BACK OF CURB TOP FACE OF CURB TOP OF STAIRS TYPICAL UTILITY VERTICAL CURVE
NTS P	NOT TO SCALE PROPOSED		
PC	POINT OF CURVATURE		

REFERENCE DRAWINGS					
X-946-PR-BASE X-946-EX-BASE-COMBINED					
X-946-EX-MAP-COMBINED X-946-PR-BASE - PARKING GA					
X-479-PR-BASE - Gateway Park X-MAIN INTERSECTION X-481-TITLE-LANDSCAPE	No.	DATE	DESCRIPTION	BY	
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PREPARED BY:

Matrix
DESIGN GROUP

EDA PROJECT NUMBER: 05-01-05793

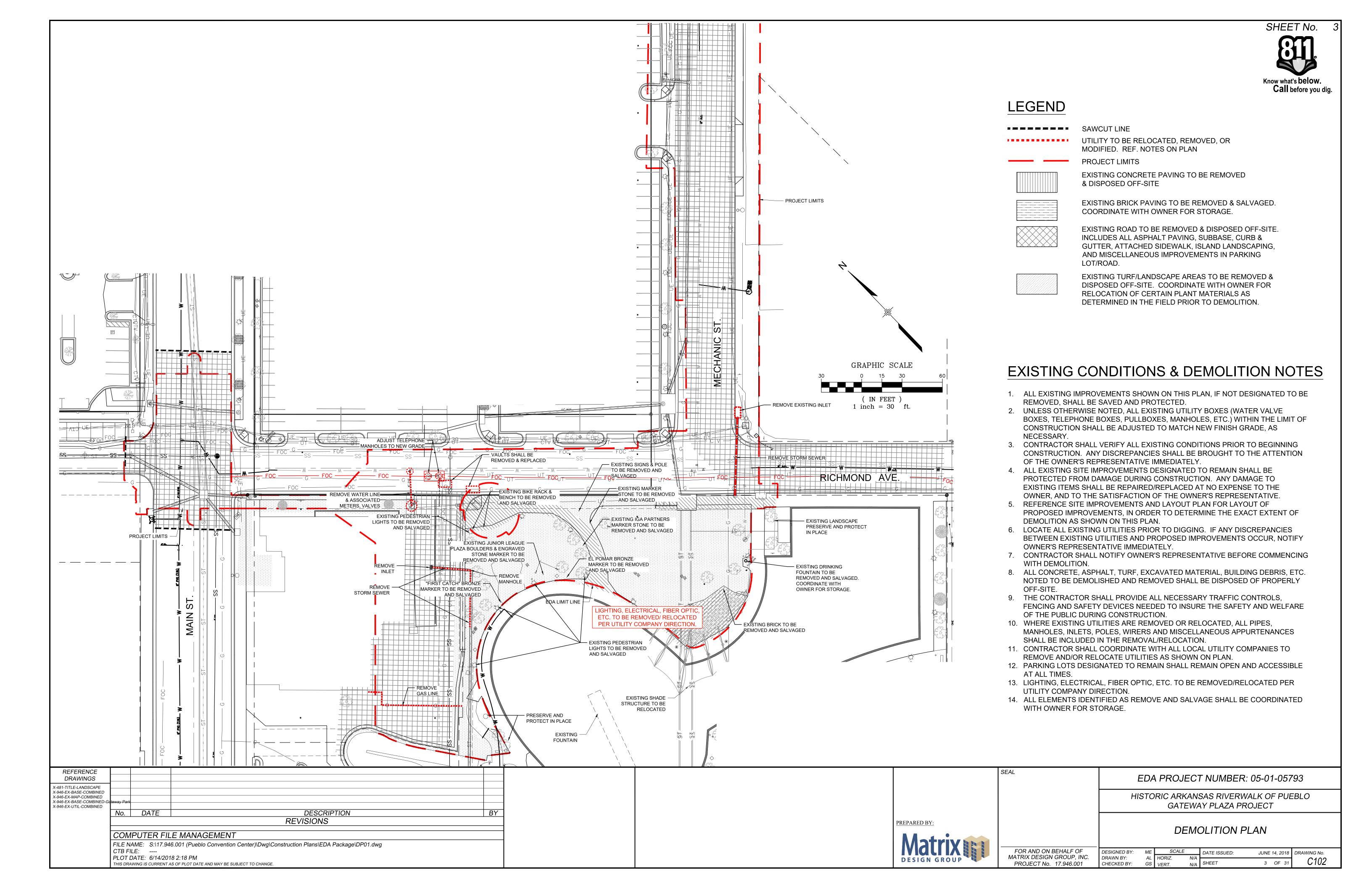
HISTORIC ARKANSAS RIVERWALK OF PUEBLO GATEWAY PLAZA PROJECT

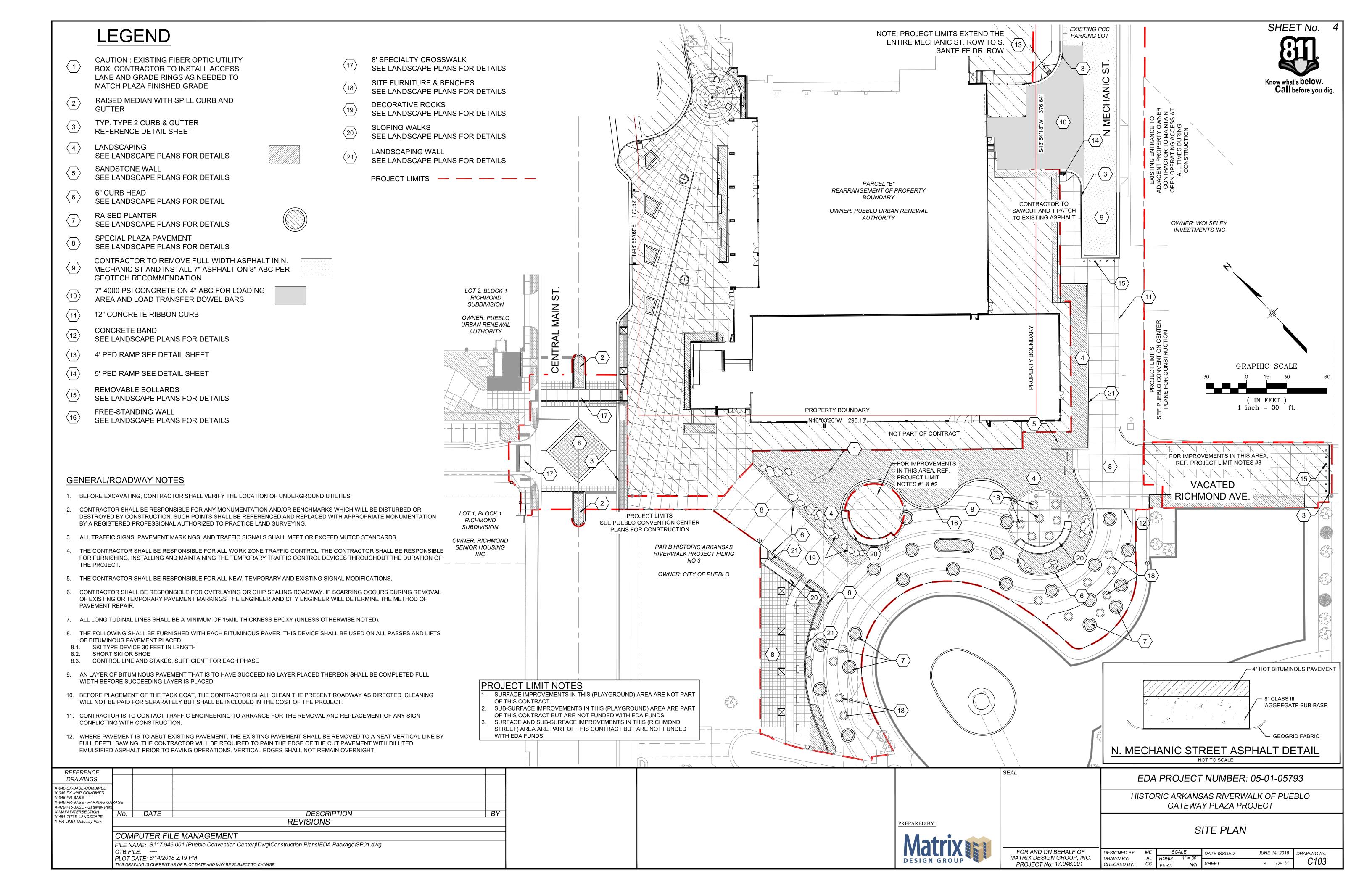
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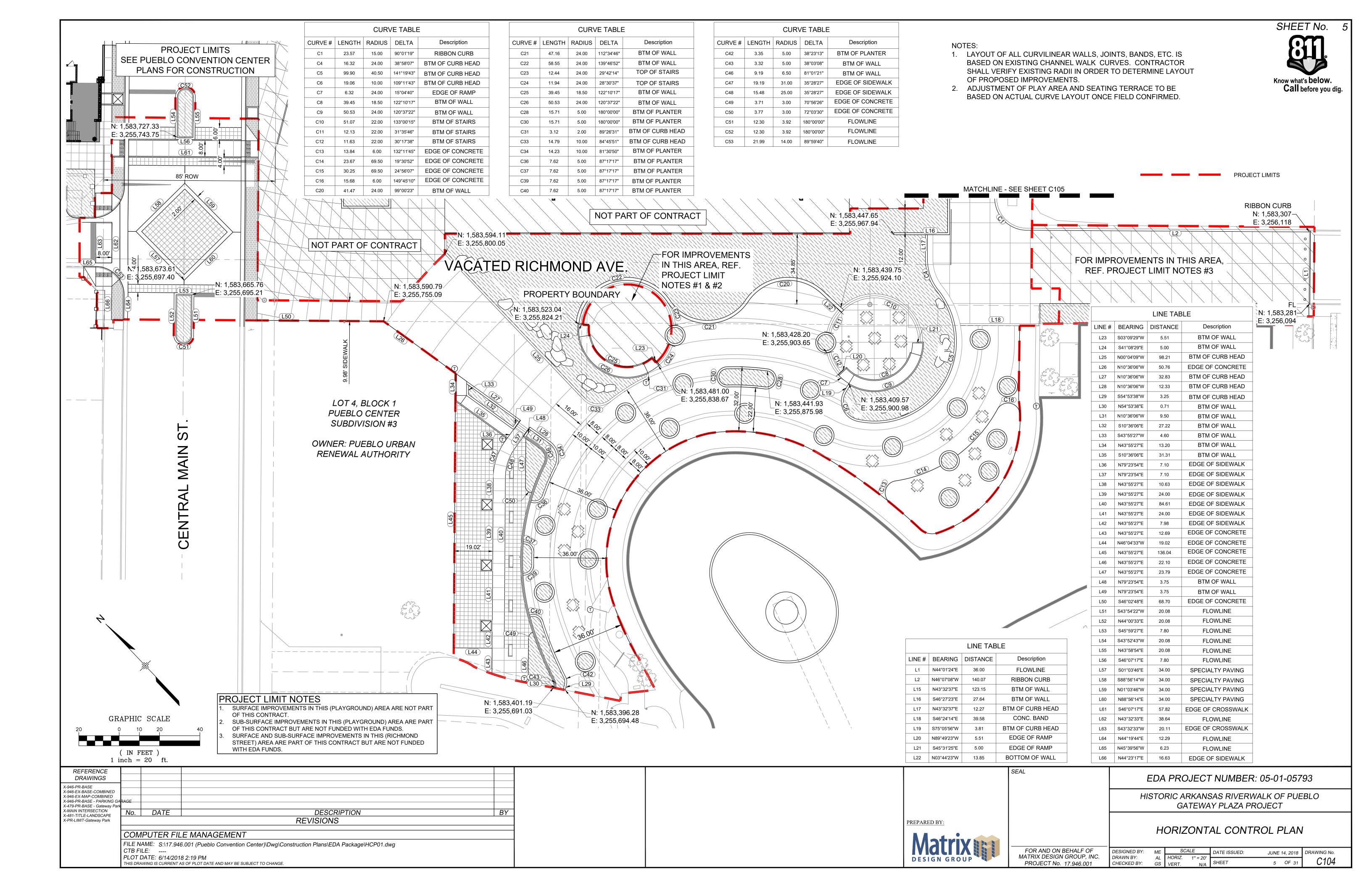
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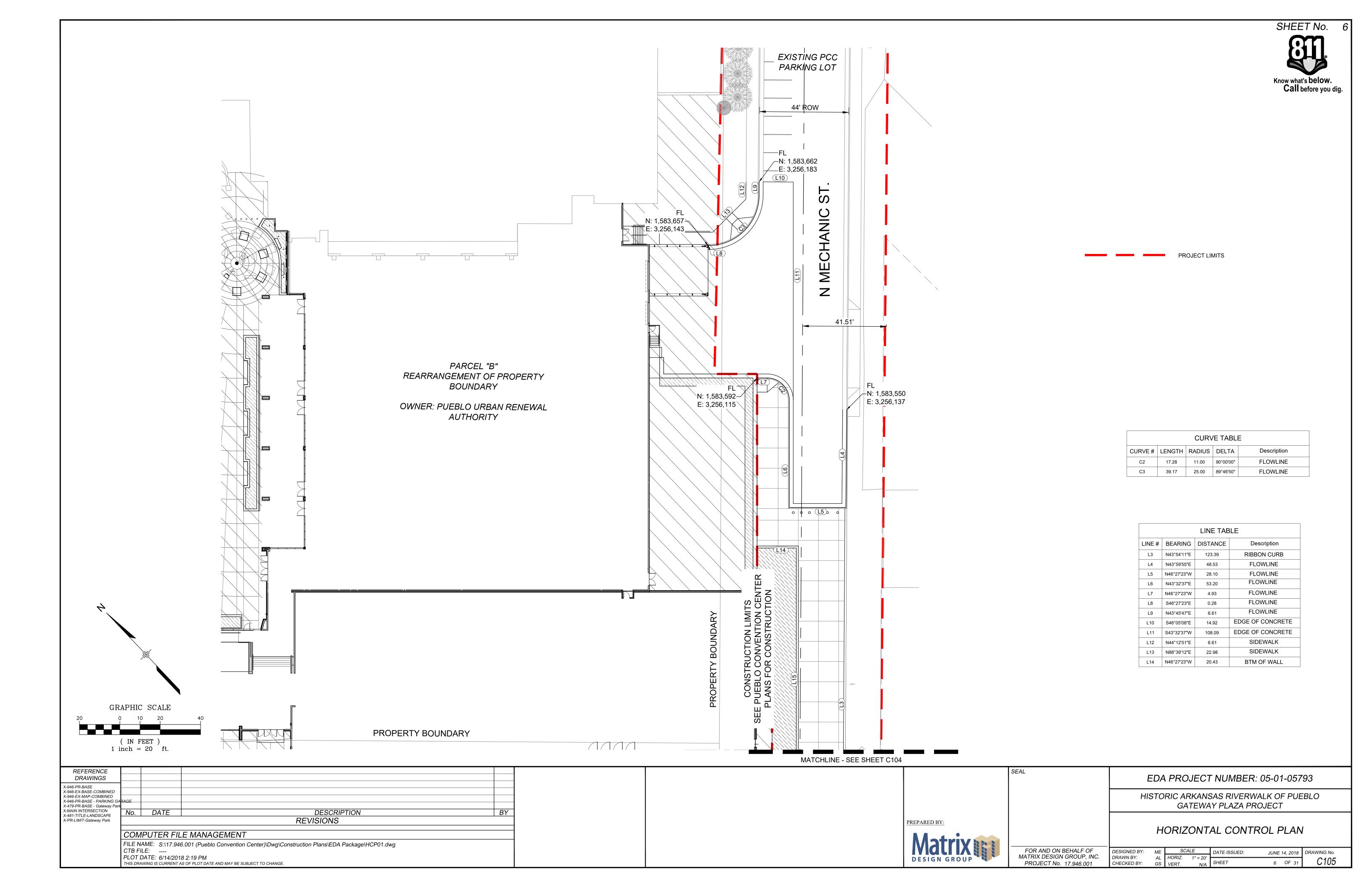
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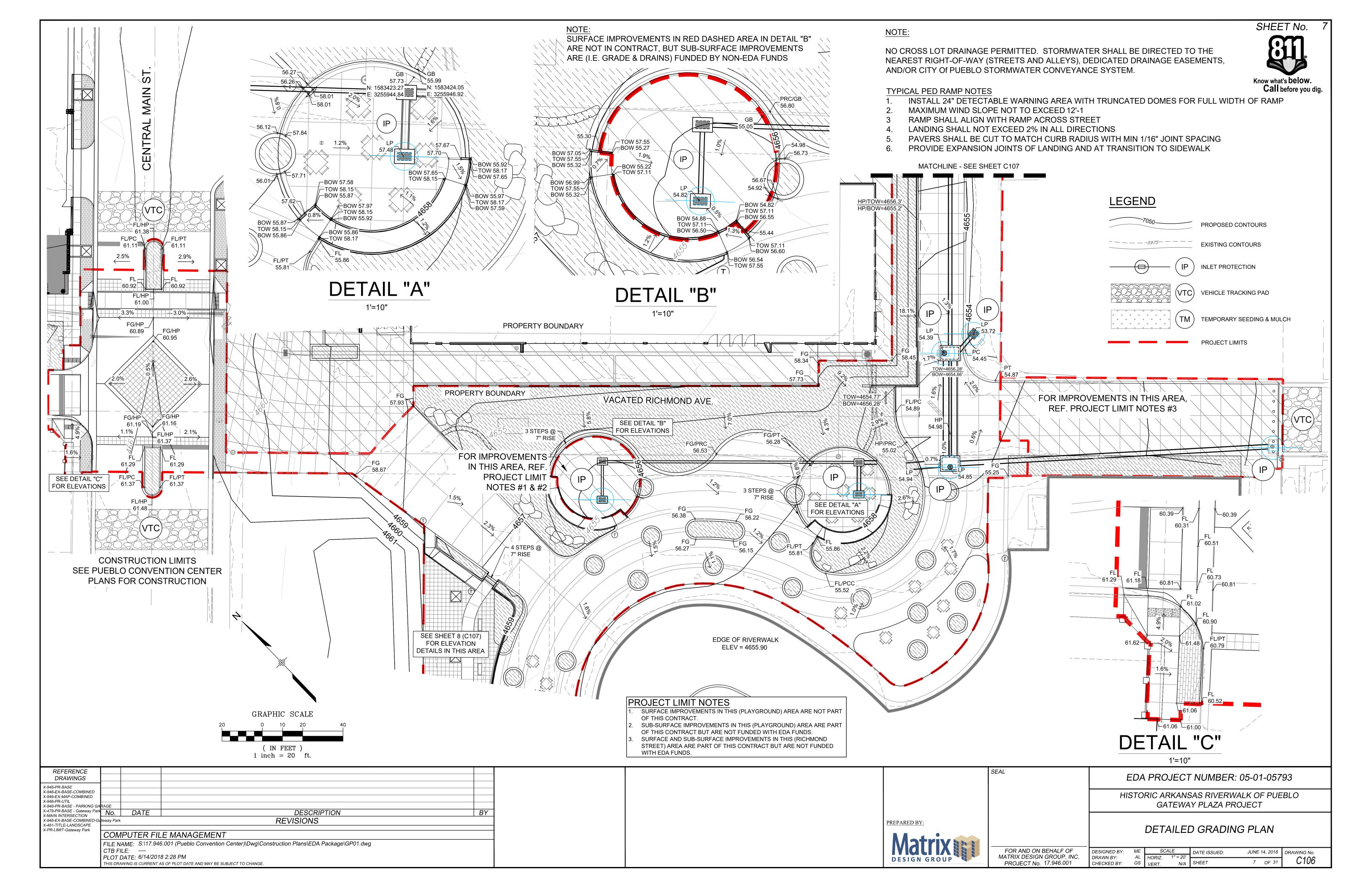
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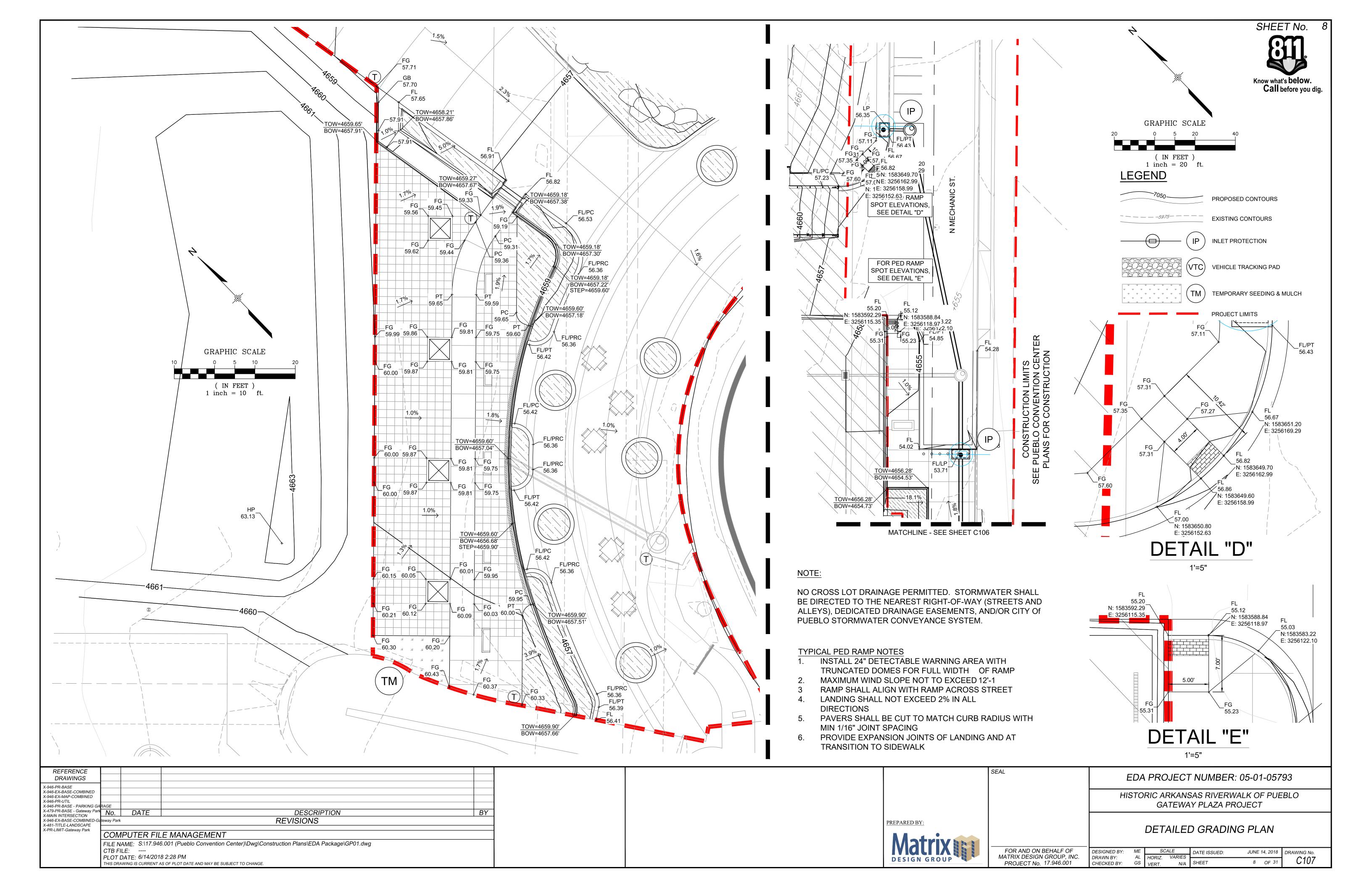


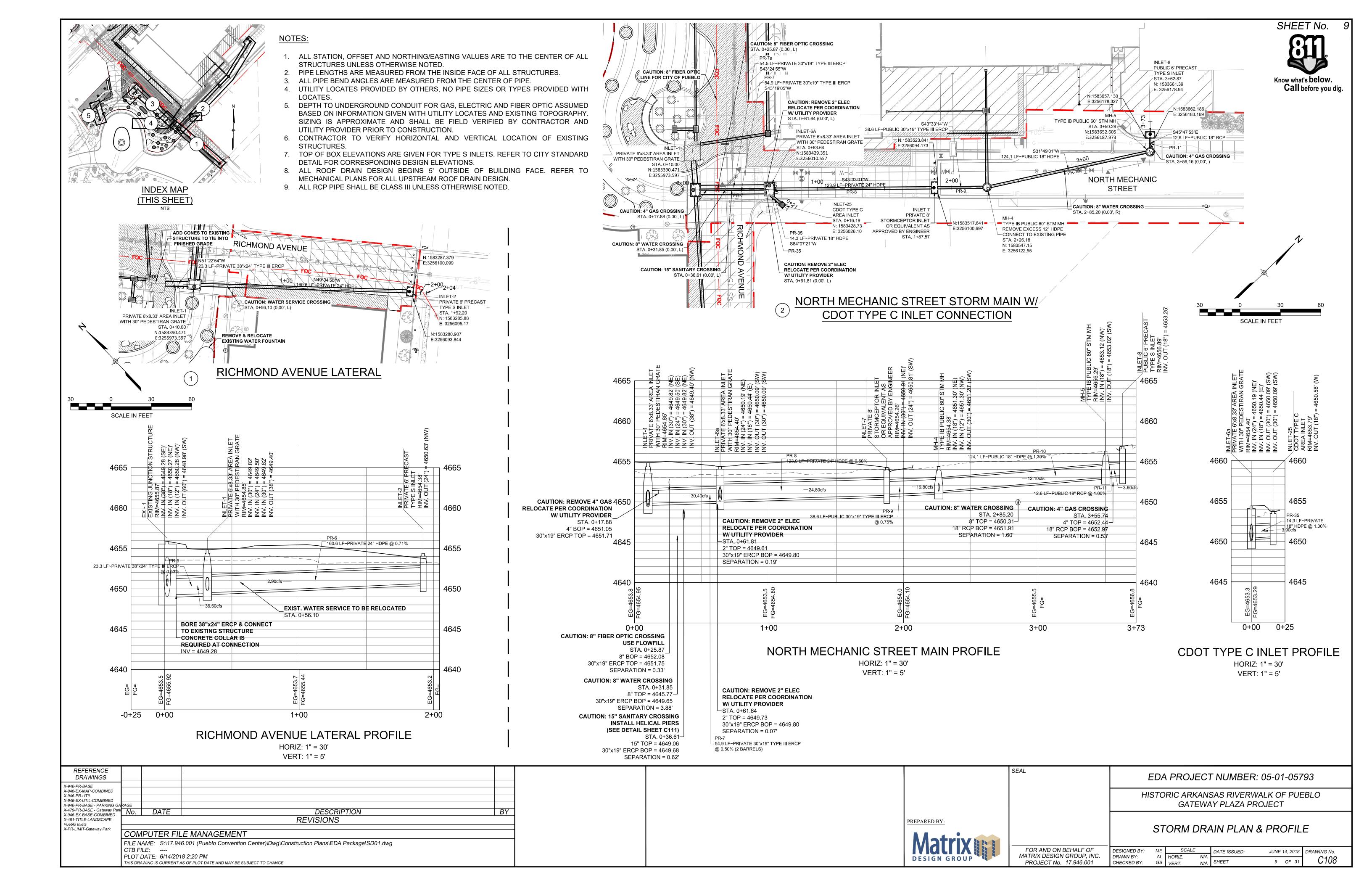


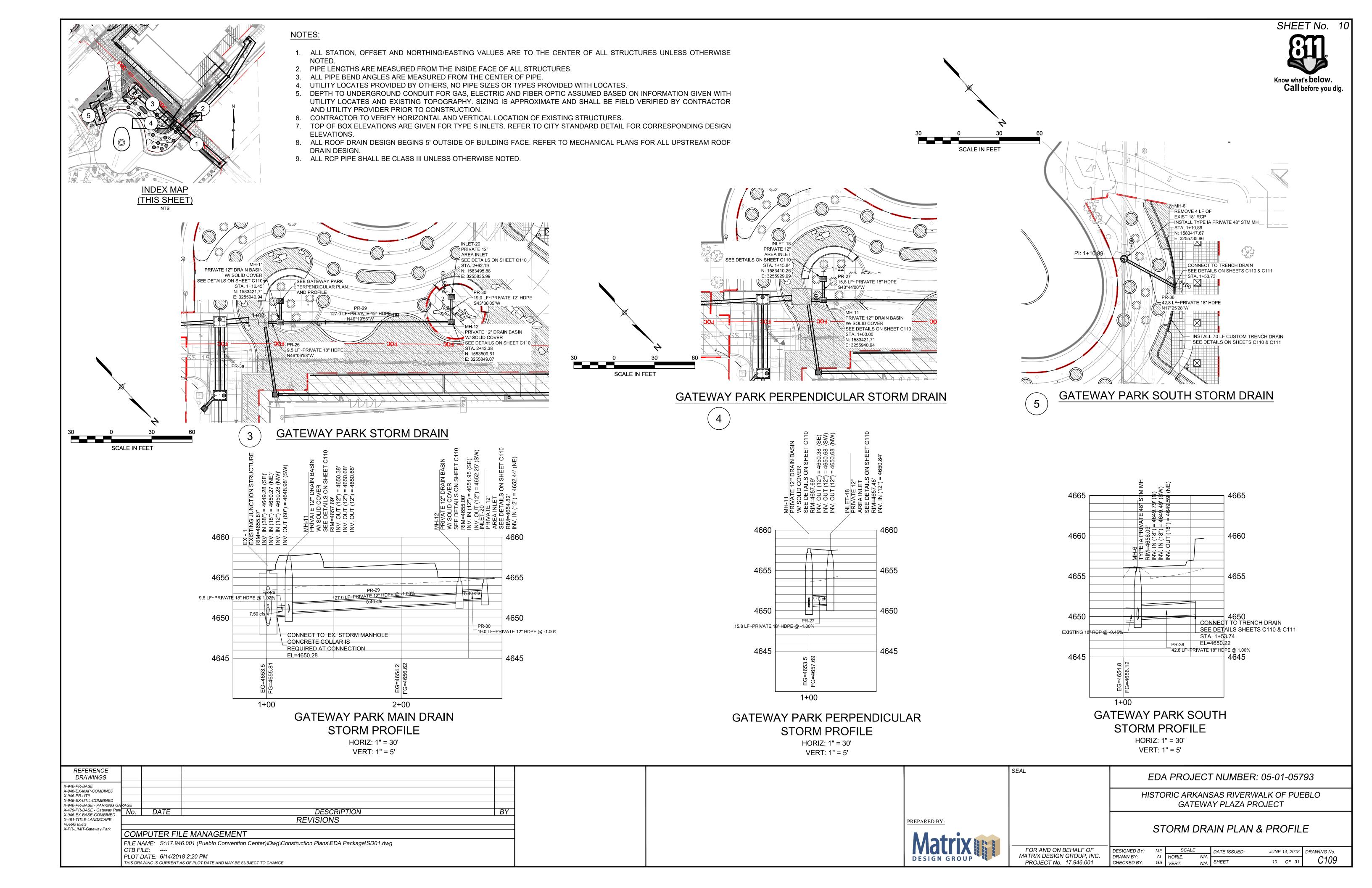


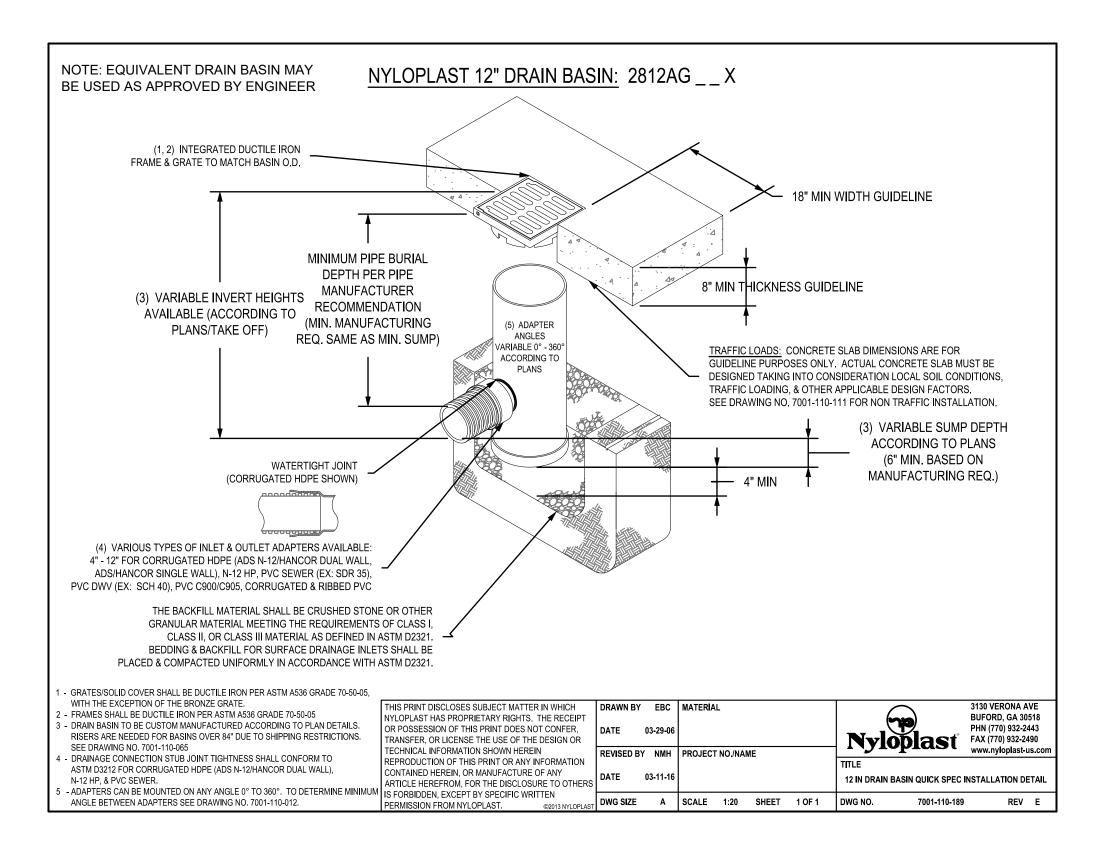




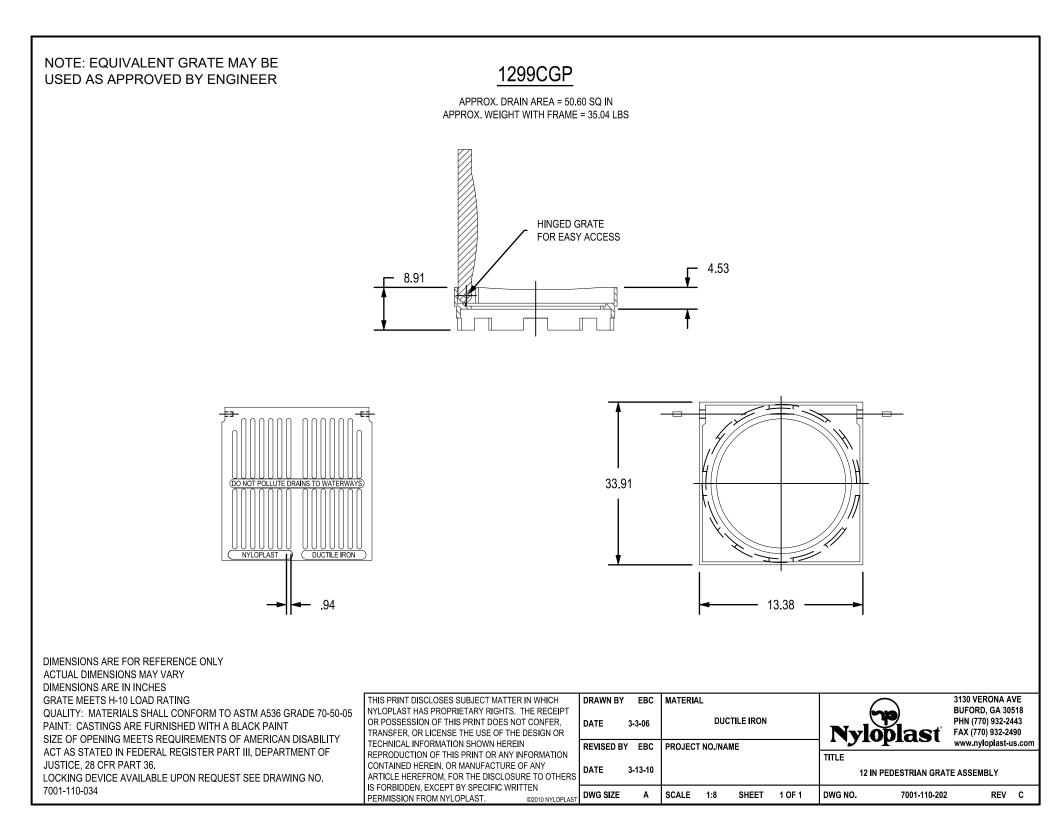


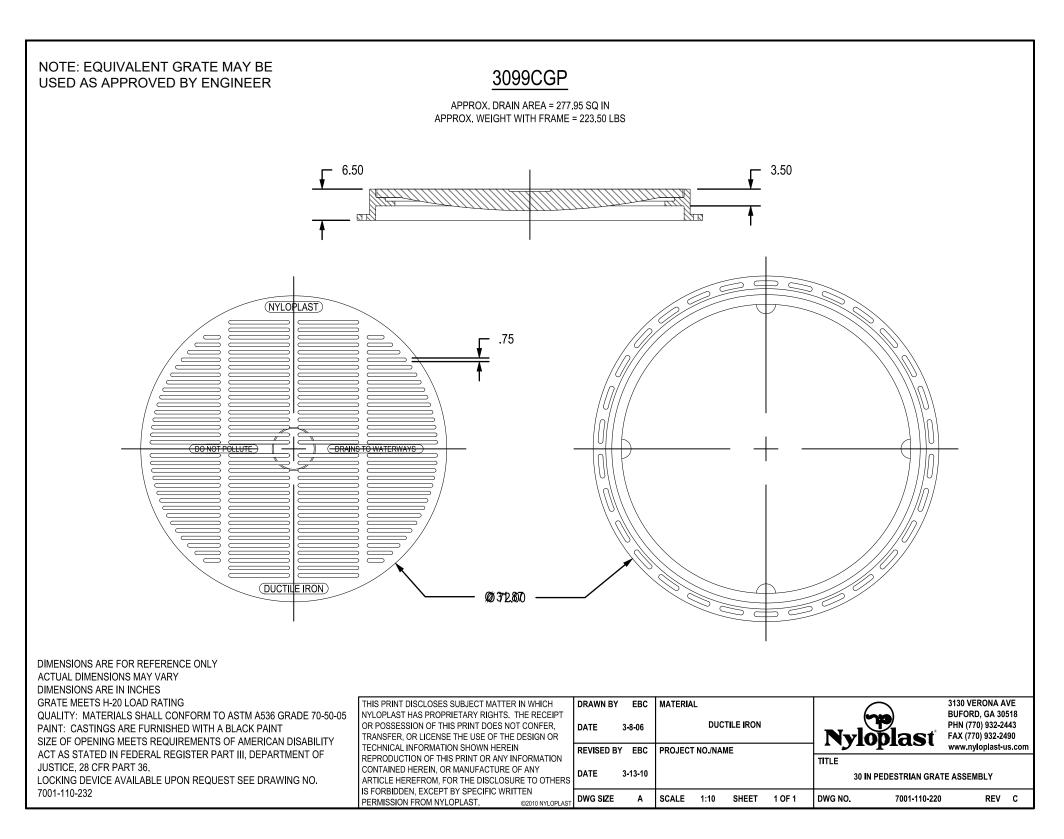




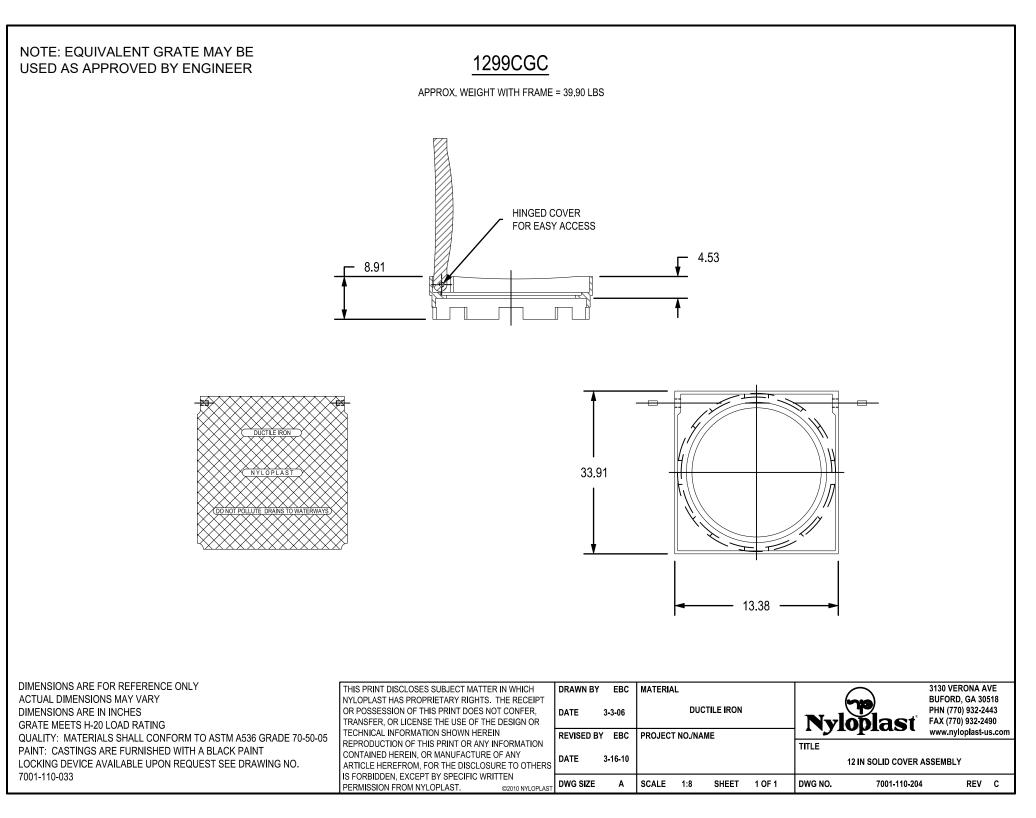


DETAIL: EXAMPLE 12" DRAIN BASIN

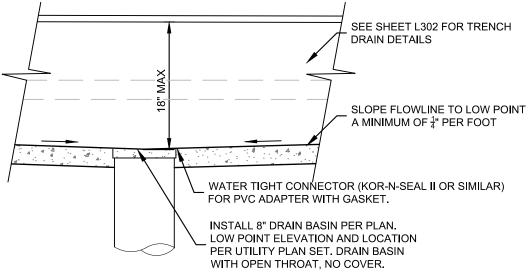




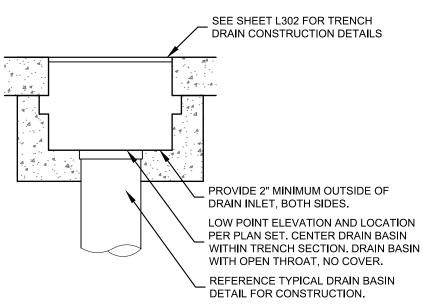
DETAIL: EXAMPLE 30" PEDESTRIAN GRATE



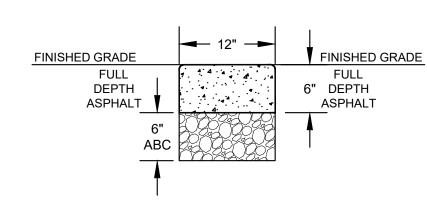
SHEET No. 11 Call before you dig.



DETAIL: CUSTOM TRENCH DRAIN SECTION



DETAIL: CUSTOM TRENCH DRAIN BASIN INSTALLATION



RIBBON CURB HEAD DETAIL

DETAIL: EXAMPLE 12" SOLID GRATE

REFERENCE DRAWINGS		
X-946-PR-BASE X-946-EX-MAP-COMBINED X-946-PR-UTIL X-946-EX-UTIL-COMBINED		
X-946-PR-BASE - PARKING GA X-479-PR-BASE - Gateway Park X-946-EX-BASE-COMBINED X-481-TITLE-LANDSCAPE Pueblo Inlets X-PR-LIMIT-Gateway Park		BY
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DETAIL: EXAMPLE 12" PEDESTRIAN GRATE

PREPARED BY:	
Matrix DESIGN GROUP	

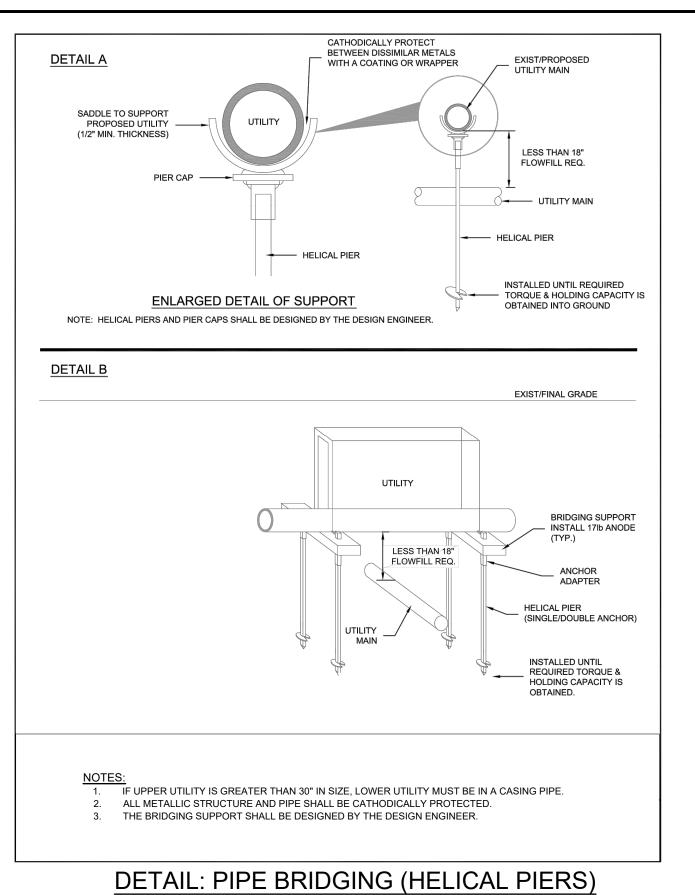
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	HISTORIC ARKANSAS RIVERWALK OF PUEBLO GATEWAY PLAZA PROJECT
	STORM DRAIN PLAN & PROFILE
FOR AND ON BEHALF OF	DESIGNED BY: ME SCALE DATE ISSUED: JUNE 14, 2018 DRAWING No.

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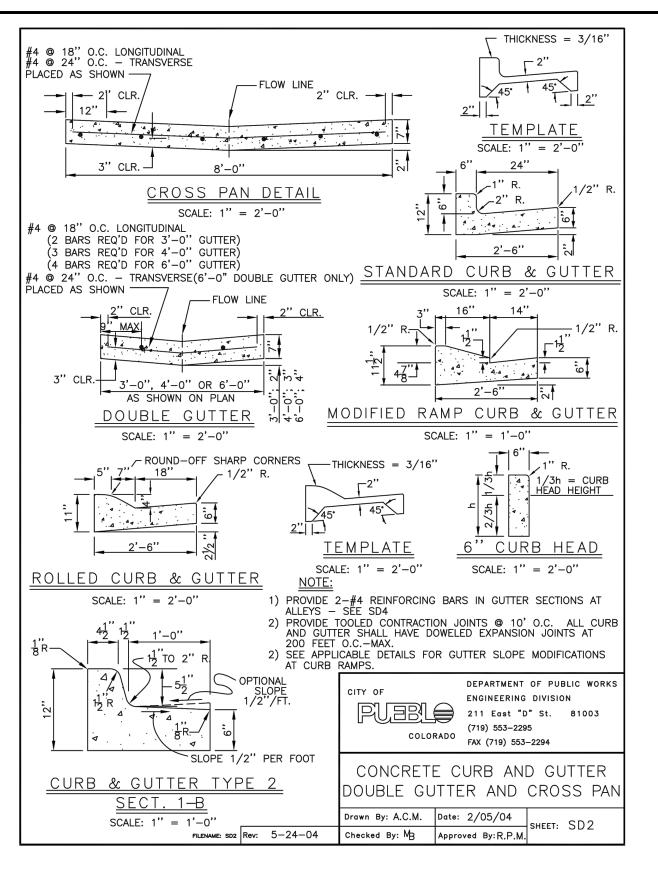
MATRIX DESIGN GROUP, INC.

PROJECT No. 17.946.001

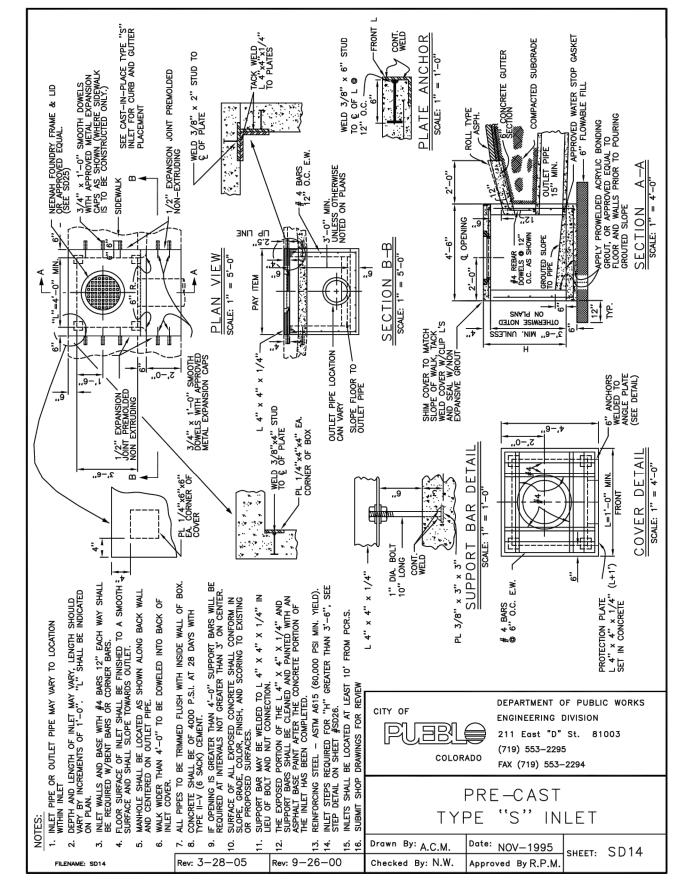
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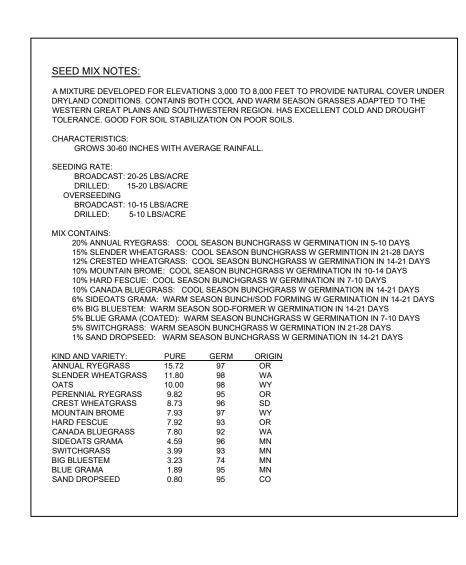






DETAIL: STD CURB & GUTTER



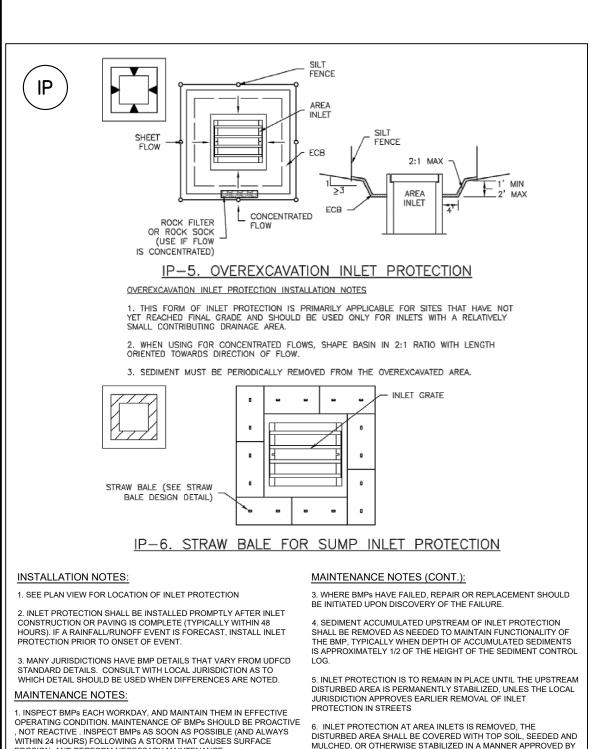


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DETAIL: TYPE S PRE-CAST INLET NTS

PREPARED BY



THE LOCAL JURISDICTION.

Inlet Protection

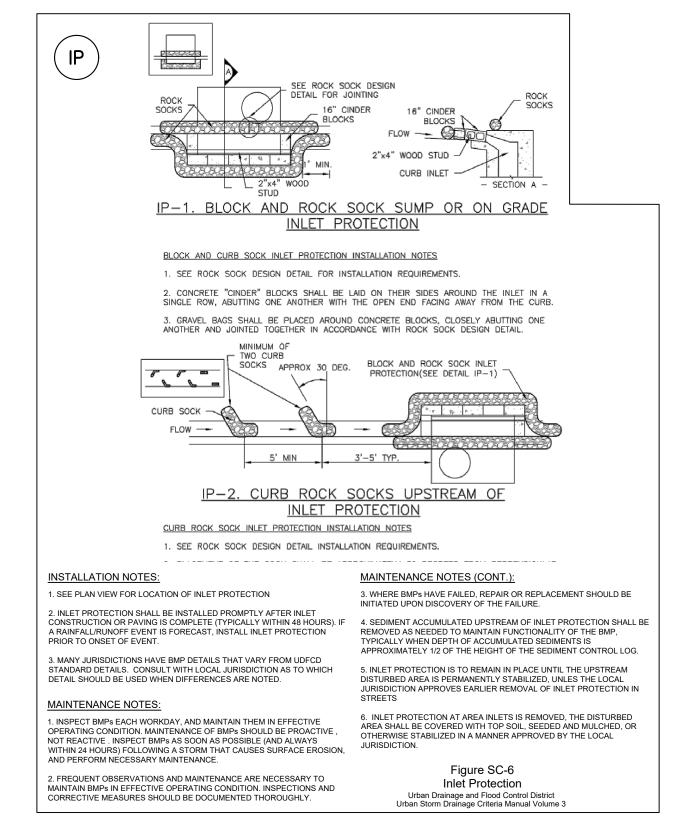
Urban Drainage and Flood Control District Urban Storm Drainage Criteria Manual Volume 3

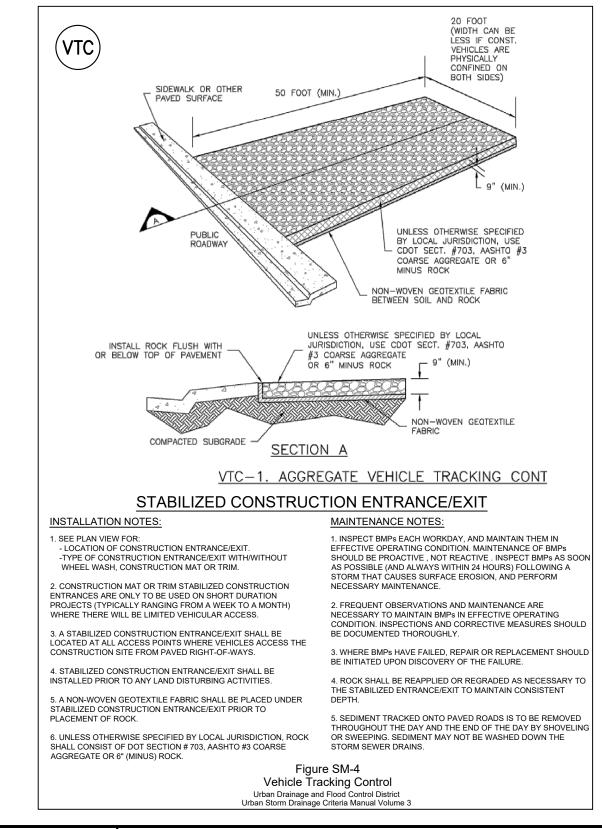
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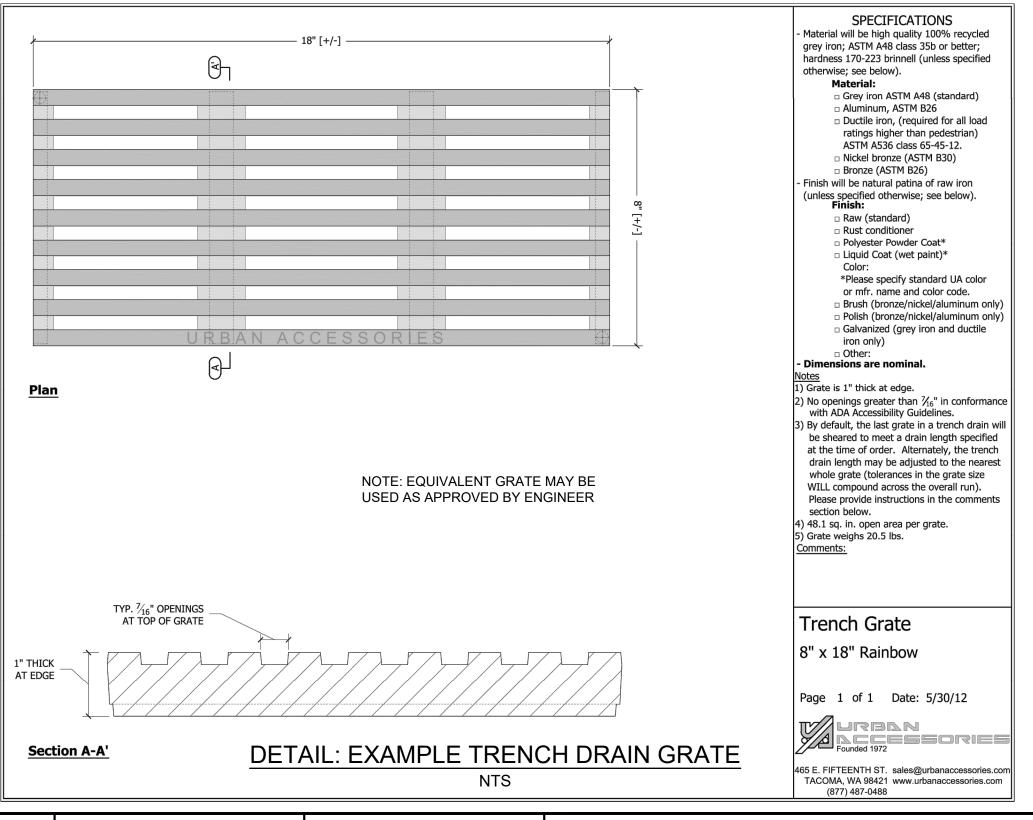
2. FREQUENT OBSERVATIONS AND MAINTENANCE ARE NECESSARY TO

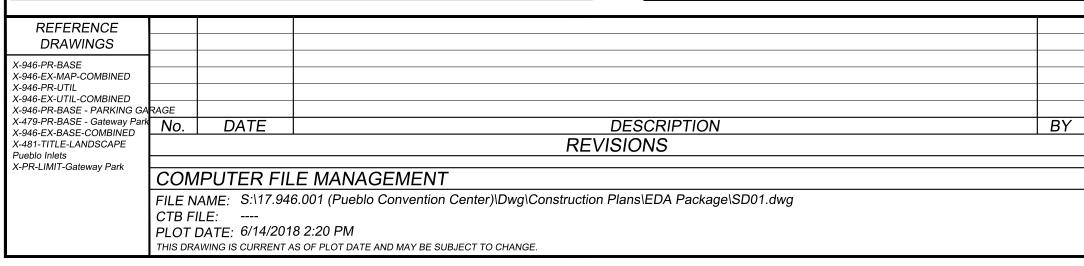
MAINTAIN BMPs IN EFFECTIVE OPERATING CONDITION. INSPECTIONS

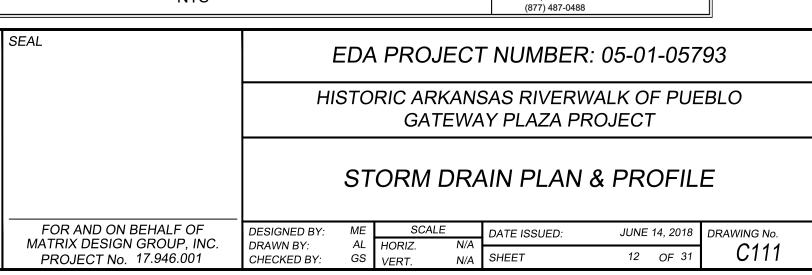
AND CORRECTIVE MEASURES SHOULD BE DOCUMENTED THORO





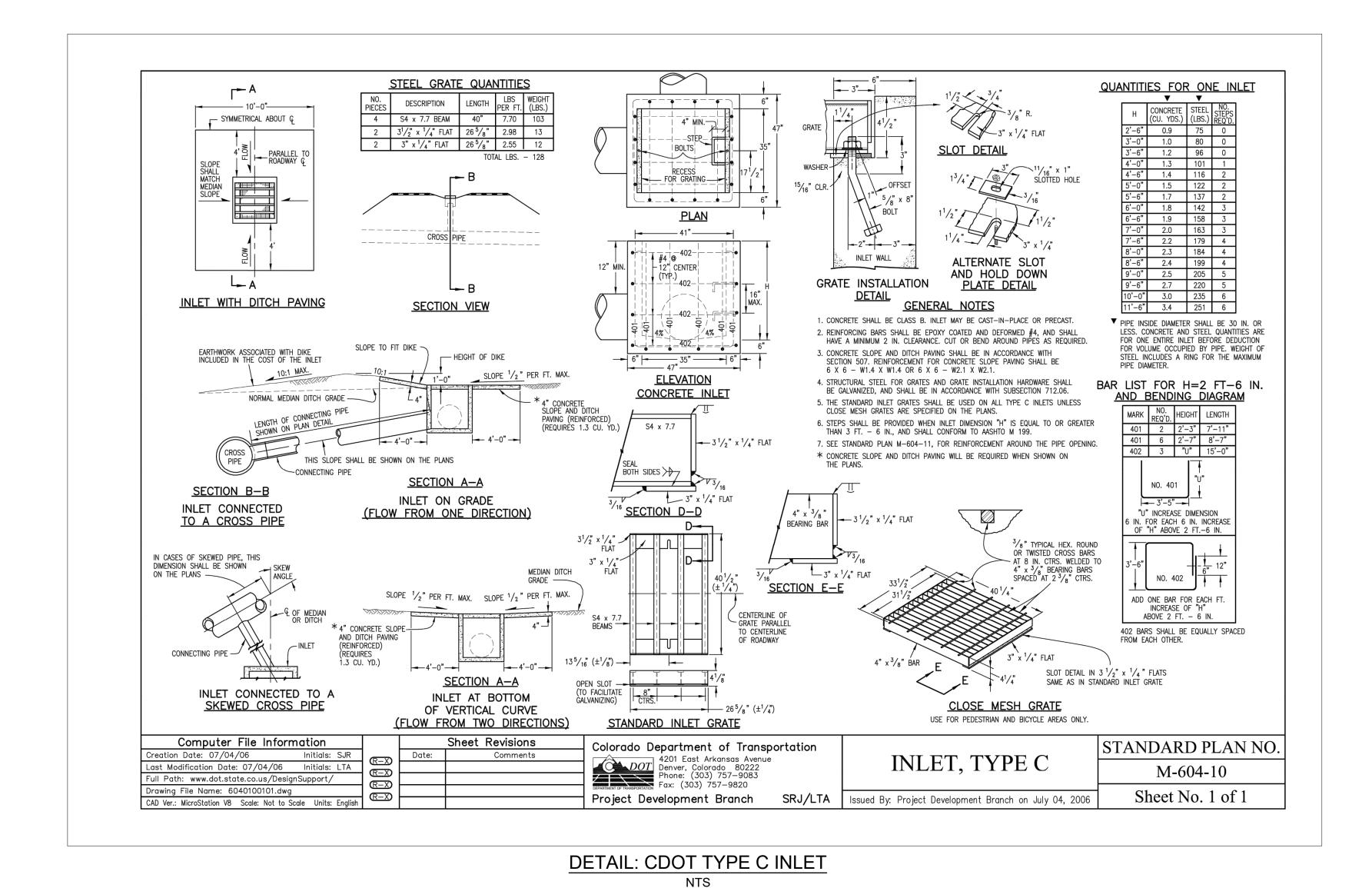


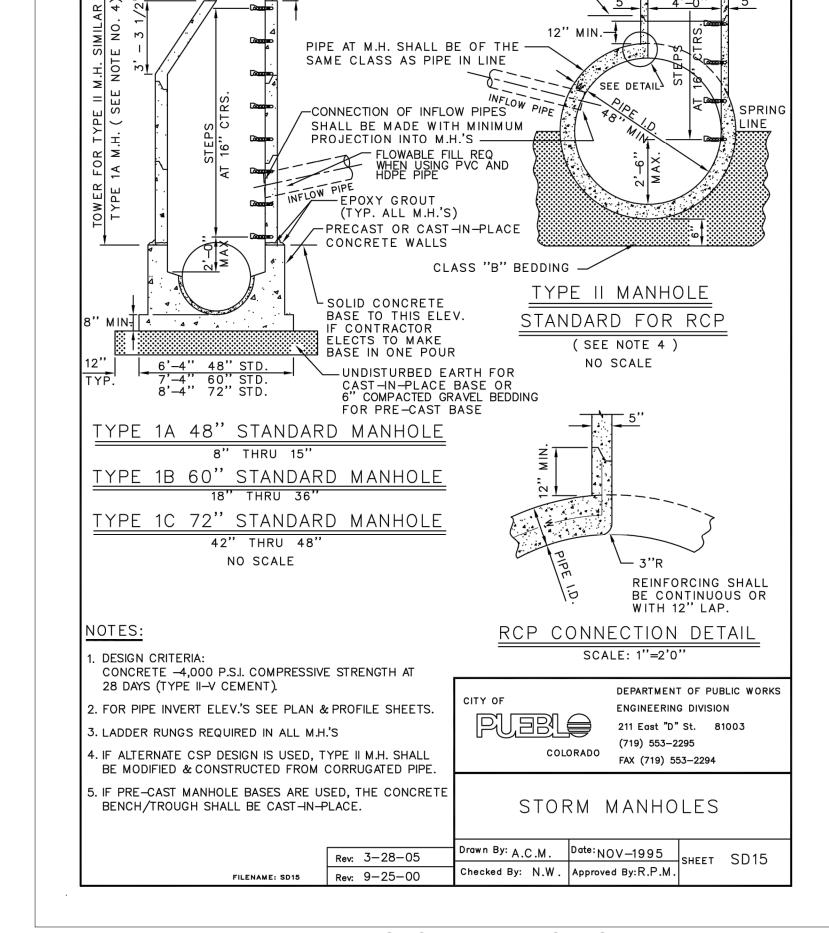




JUNE 14, 2018 DRAWING No.

C112





-CONCRETE COLLAR

PRECAST SPACER RINGS THIS ELEVATION -

SEE TYPE 1A STD. M.H.

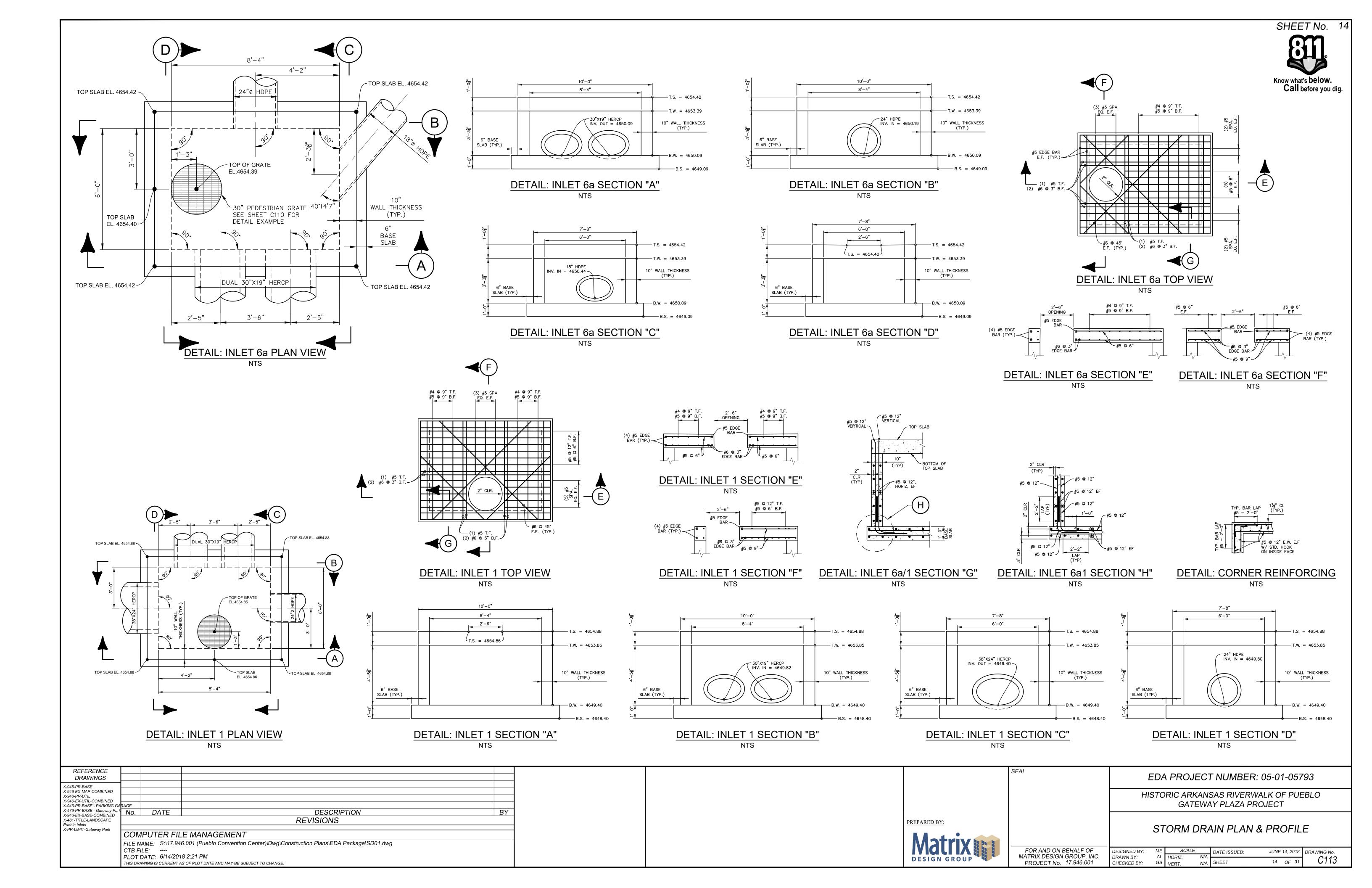
FOR TOWER ABOVE

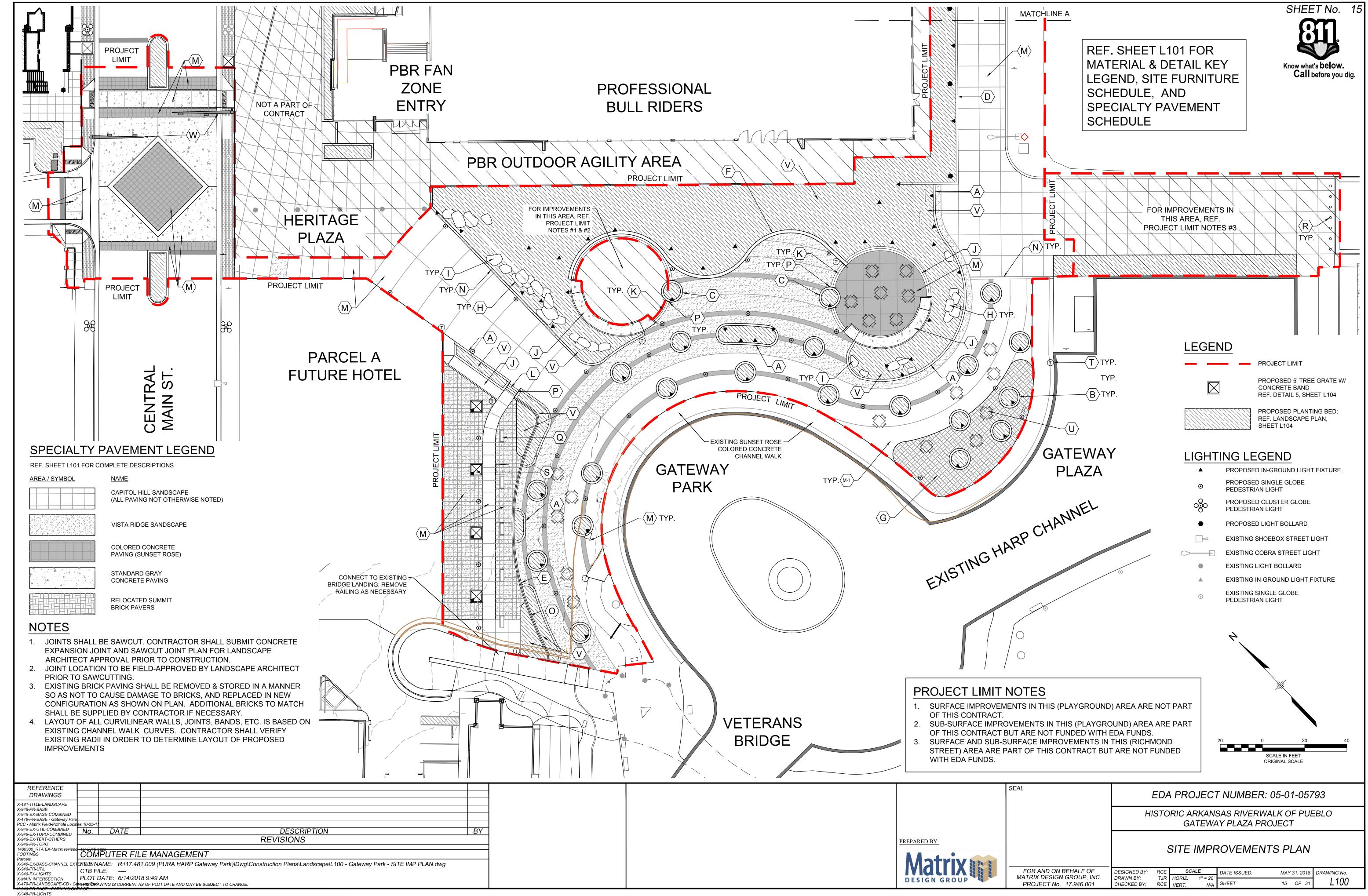
AS REQUIRED

DETAIL: STORM MANHOLES NTS

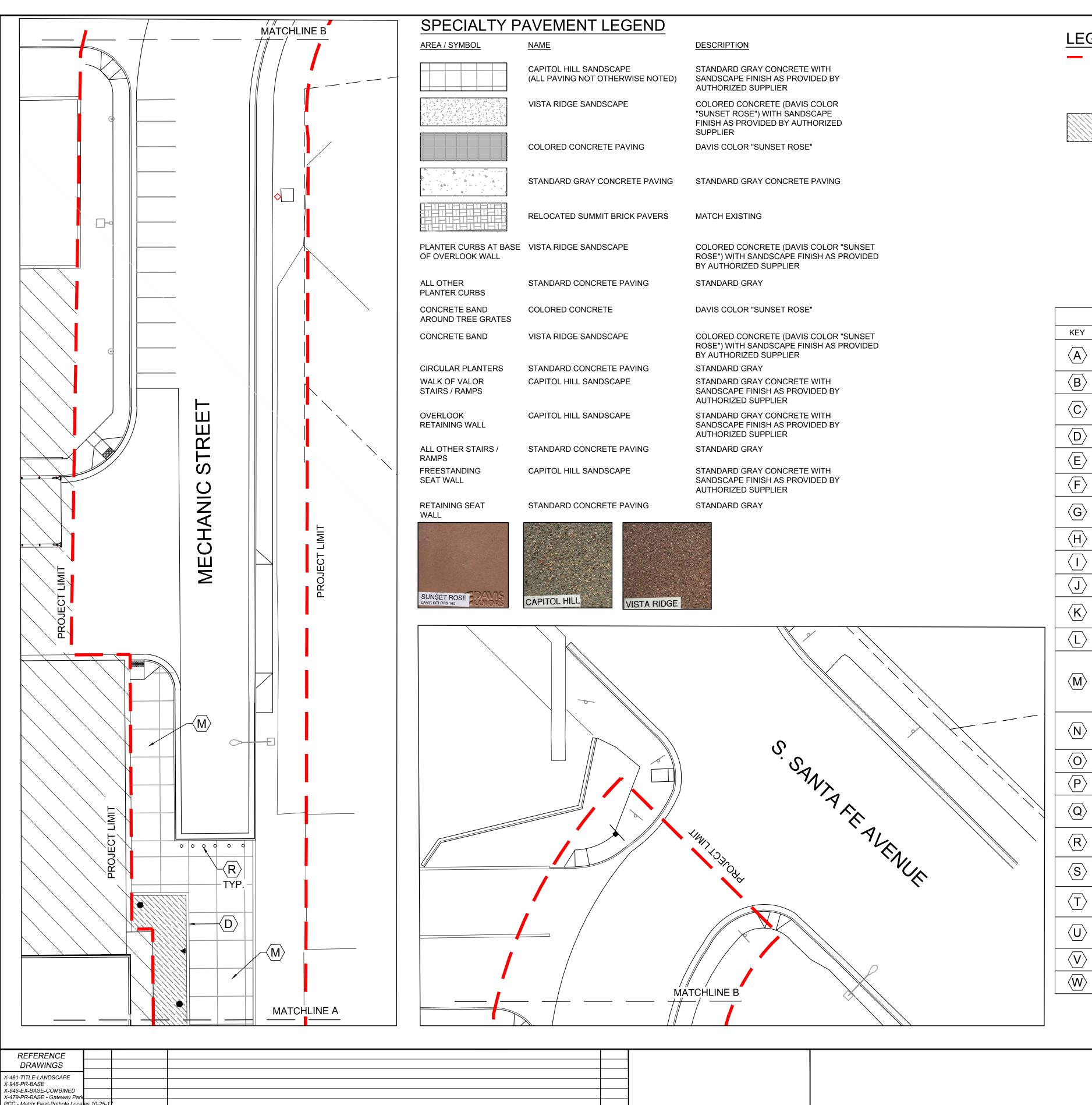
REFERENCE DRAWINGS			
X-946-PR-BASE X-946-EX-MAP-COMBINED X-946-PR-UTIL X-946-EX-UTIL-COMBINED X-946-PR-BASE - PARKING GA X-479-PR-BASE - Gateway Park X-946-EX-BASE-COMBINED X-481-TITLE-LANDSCAPE Pueblo Inlets		DESCRIPTION REVISIONS	BY
Pueblo Inlets X-PR-LIMIT-Gateway Park	COMPUTER FILE MANAG FILE NAME: S:\17.946.001 (Pueblo 0 CTB FILE: PLOT DATE: 6/14/2018 2:21 PM THIS DRAWING IS CURRENT AS OF PLOT DATE AI	Convention Center)\Dwg\Construction Plans\EDA Package\SD01.dwg	

	SEAL	EDA PROJECT NUMBER: 05-01-05793	
		HISTORIC ARKANSAS RIVERWALK OF PUEBLO GATEWAY PLAZA PROJECT)
PREPARED BY:		STORM DRAIN PLAN & PROFILE	
Matrix Design Group	FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 17.946.001	DESIGNED BY: ME SCALE DATE ISSUED: JUNE 14, 2018 DRAWIN BY: AL HORIZ. N/A CHECKED BY: GS VERT. N/A SHEET 13 OF 31	ing C1





X-946-PR-LIGHTS
X-946-PR-LANDSCAPE
transfer-Matrix
X-PR-LIMIT-Gateway Park



LEGEND

<u> JLIND</u>

PROJECT LIMIT



PROPOSED 5' TREE GRATE W/ CONCRETE BAND REF. DETAIL 5, SHEET L104



PROPOSED LANDSCAPE AREA; REF. LANDSCAPE PLAN, SHEETS L106 & L107



6' BENCH; REF. SITE FURNITURE SCHEDULE, THIS SHEET, AND DETAIL 4, SHEET L102

T

DESCRIPTION

CONCRETE

PLANTER CURB

TABLE & CHAIRS; REF. SITE FURNITURE SCHEDULE, THIS SHEET, AND DETAILS 2 & 5, SHEET L102

MATERIAL & DETAIL KEY LEGEND

REFERENCE

DETAIL 4, SHEET L104

NOTES

REF. SPECIALTY PAVEMENT

SCHEDULE, THIS SHEET

TRASH RECEPTACLE; REF. SITE

SHEET, AND DETAIL 1, SHEET L102

FURNITURE SCHEDULE, THIS

LIGHTING LEGEND

▲ PROPOSED IN-GROUND LIGHT FIXTURE

PROPOSED SINGLE GLOBE
 PEDESTRIAN LIGHT



PROPOSED LIGHT BOLLARD

EXISTING SHOEBOX STREET LIGHT

EXISTING COBRA STREET LIGHT
EXISTING LIGHT BOLLARD

▲ EXISTING IN-GROUND LIGHT FIXTURE

EXISTING SINGLE GLOBE PEDESTRIAN LIGHT

SINGLE GLOBE

PEDESTRIAN LIGHT

	SITE F	URNITURE SC	HEDULE	
TYPE	QUANTITY	MANUFACTURER	MODEL NO.	COLOR
ASH RECEPTACLE	5		PARC VUE TOP OPEN	
BENCH	4	LANDSCAPE FORMS, OR	PARC VUE BACKED ARMS 72" WITH SEAT DIVIDERS	SILVER
TABLE	19	APPROVED EQUAL	PARC CENTRE 30" ROUND	
CHAIRS	76 (4 PER TABLE)		PARC CENTRE ARMLESS	
TREE GRATE	4	IRONSMITH, OR APPROVED EQUAL	#6086 MARINA 60" SQ.	UNPAINTED CAST IRON
REMOVABLE BOLLARD	13	FORMS & SURFACES, OR APPROVED EQUAL	LBLCO-604-N W/REMOVABLE BASE	STAINLESS STEEL SATIN FINISH
-GROUND LIGHT FIXTURE	58	LUMASCAPE, OR APPROVED EQUAL	LS393LED	POLISHED
		PER CITY C		

STREETSCAPE GUIDELINES;

COORDINATE WITH BLACK HILLS

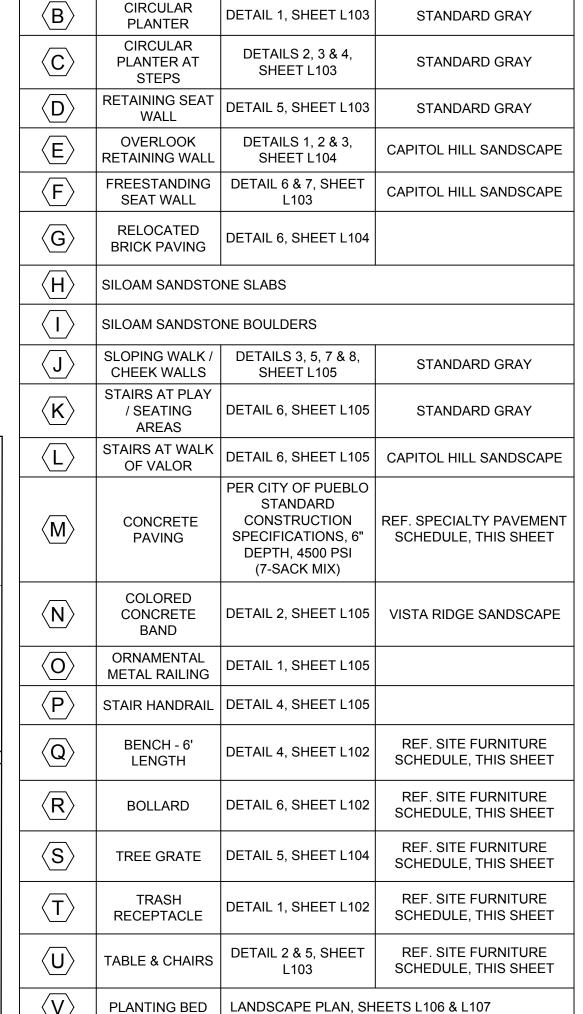
ENERGY

SHEET No. 16

Know what's **below**.

Call before you dig.

BLACK



1			
20	0	20	40
	SCALE ORIGIN	IN FEET AL SCALE	

REFERENCE				
DRAWINGS				
(-481-TITLE-LANDSCAPE				
-946-PR-BASE				
(-946-EX-BASE-COMBINED				
(-479-PR-BASE - Gateway Park PCC - Matrix Field-Pothole Local				
(-946-EX-UTIL-COMBINED	No.	DATE	DESCRIPTION	BY
(-946-EX-TOPO-COMBINED	140.	DATE		
(-946-EX-TEXT-OTHERS (-946-PR-TOPO			REVISIONS	
400300 RTA EX-Matrix revised	for 2016 b	ese		
OOTINGS	COM	PUTER FIL	E MANAGEMENT	
			1.009 (PURA HARP Gateway Park)\Dwg\Construction Plans\Landscape\L100 - Gateway Park - SITE IMP PLAN.dwg	
OAC DO LITH			1.003 (FURA HARE Galeway Fark)/Dwg/Construction Flans/Landscape/L100 - Galeway Fark - SITE livie FLAN.dwg	
:-946-EX-LIGHTS	CTB FII			
		DATE: 6/14/201		
(-479-PR-LANDSCAPE-CD - Ga	tervans Parka	WING IS CURRENT A:	S OF PLOT DATE AND MAY BE SUBJECT TO CHANGE	

Matriv Res

HAWK PEDESTRIAN SIGNAL CROSSING

EDA PROJECT NUMBER: 05-01-05793

HISTORIC ARKANSAS RIVERWALK OF PUEBLO

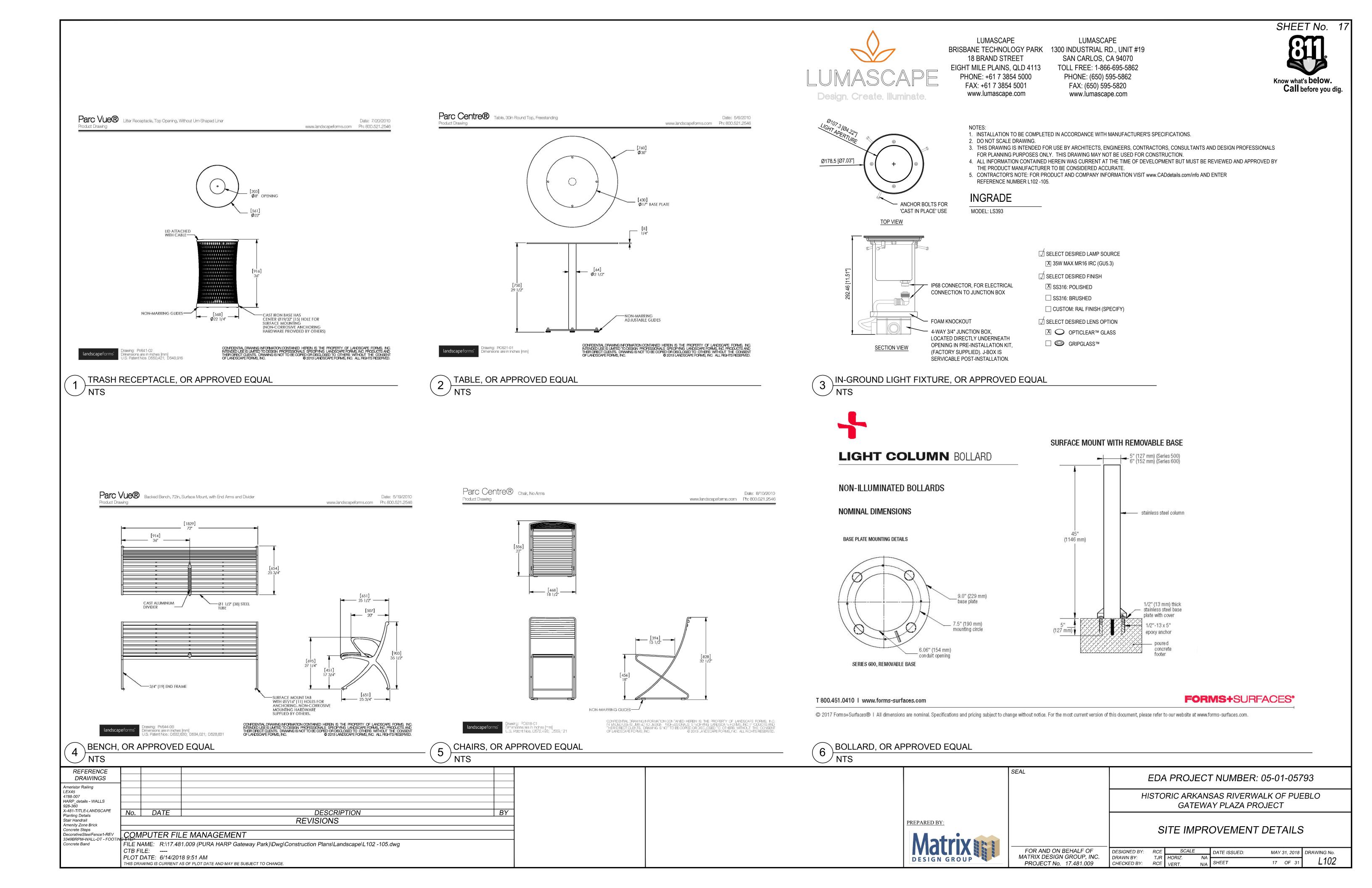
GATEWAY PLAZA PROJECT

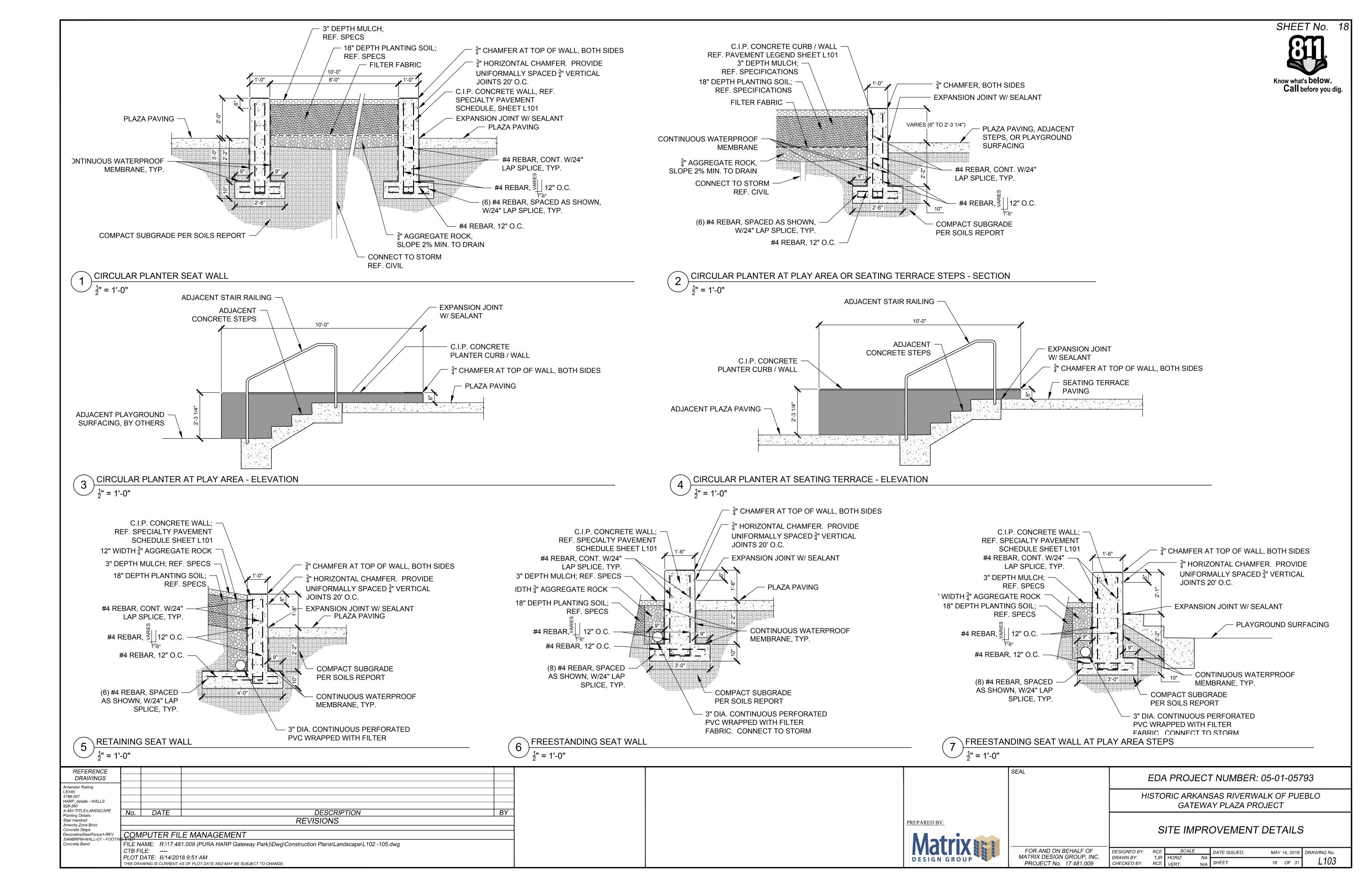
SITE IMPROVEMENTS PLAN

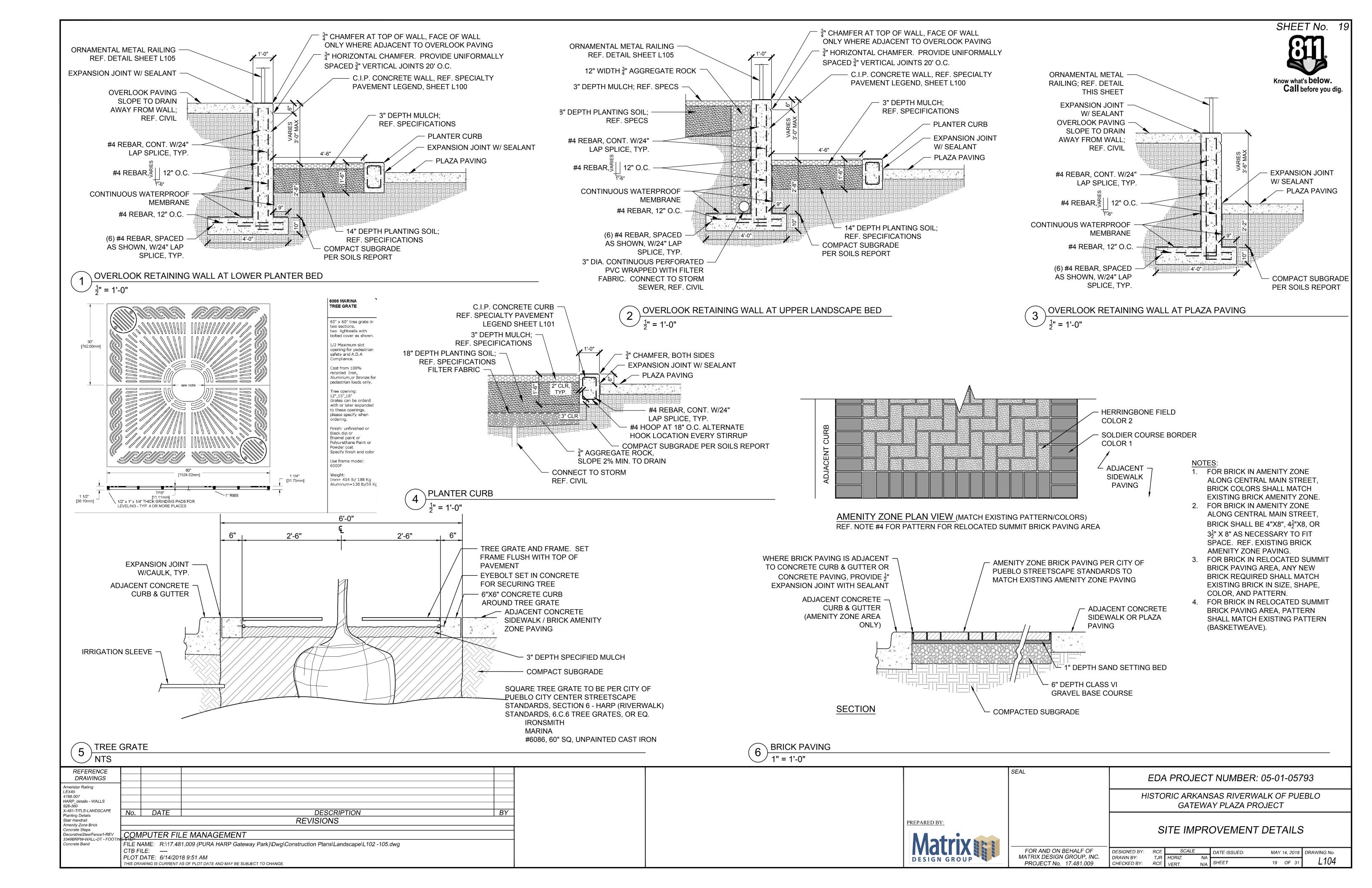
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 17.946.001

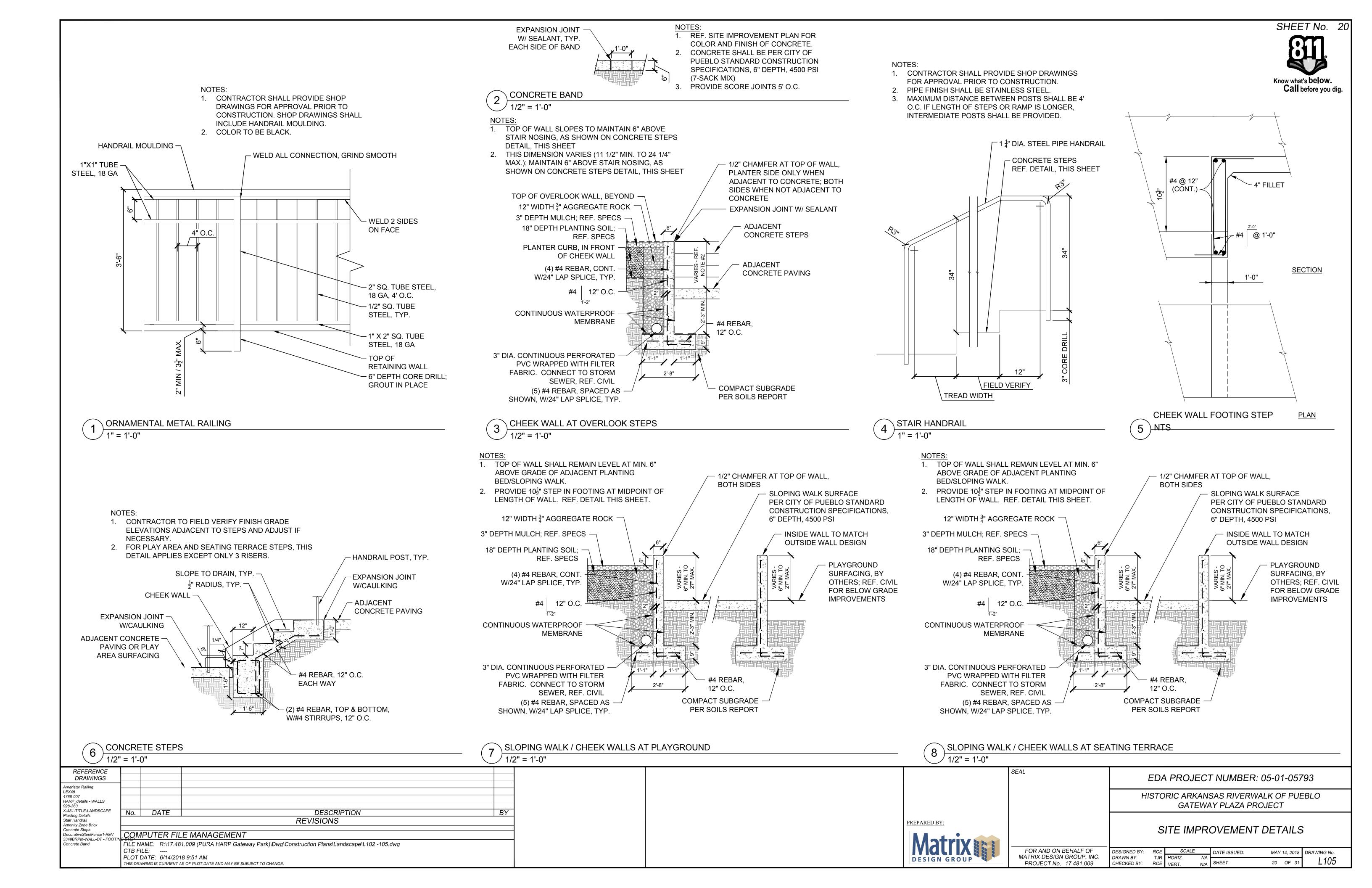
DESIGNED BY: RCE SCALE DATE ISSUED: MAY 31, 2018 DRAWING No. L101

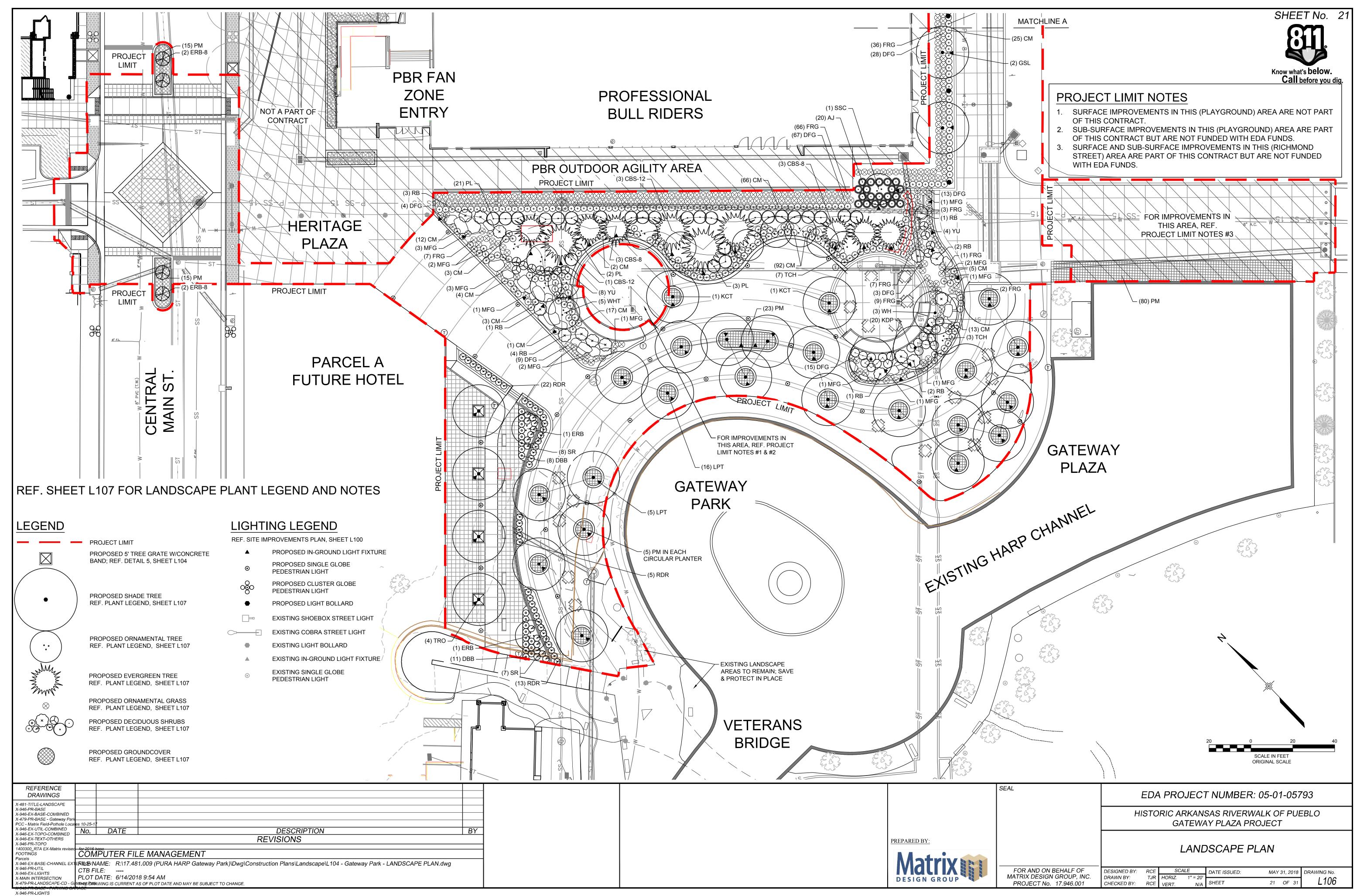
CHECKED BY: RCE VERT. N/A SHEET 16 OF 31 L101











Know what's below.

Call before you dig.

LANDSCAPE NOTES

MATCHLINE B

MECHANIC

1. LANDSCAPING SHALL BE PLANTED AND MAINTAINED IN A LIVING CONDITION BY THE OWNER. ALL LANDSCAPE IMPROVEMENTS / MATERIALS MUST HAVE A 100% ON-GOING SURVIVAL RATE. ANY DEAD OR DAMAGED PLANT MATERIAL, (AS DETERMINED BY THE CITY), SHALL BE REPLACED WITHIN 6 MONTHS OF NOTIFICATION BY THE CITY. ALL LANDSCAPE IMPROVEMENTS / MATERIALS MUST BE MAINTAINED AS REQUIRED BY THE LANDSCAPE REGULATIONS AND THIS PLAN.

2. ALL CONSTRUCTION SHALL BE DONE PER REGULATIONS OF GOVERNING AGENCIES.

SOIL PREPARATION FOR LANDSCAPE AREAS SHALL INCLUDE TOPSOIL AND/OR ORGANIC MATTER (COMPOST OR AGED GROUND MANURE) AND SHALL BE ADDED AT A RATE OF FIVE CUBIC YARDS PER ONE THOUSAND SQUARE FEET AND TILLED 8" DEPTH INTO THE SOIL.

4. SHRUB BEDS ARE REQUIRED TO BE AMENDED AND TILLED IN THEIR ENTIRETY.

- 5. AN AUTOMATIC UNDERGROUND IRRIGATION SYSTEM IS REQUIRED FOR ALL LANDSCAPE AREAS. ALL PLANTING BEDS, TREES AND SHRUBS ON THIS PLAN SHALL BE IRRIGATED WITH A PERMANENT, AUTOMATIC UNDERGROUND DRIP IRRIGATION SYSTEM.
- 6. IRRIGATION SYSTEMS SHALL BE MAINTAINED AND PERIODICALLY ADJUSTED TO ASSURE WATERING EFFICIENCY AND CONSERVATION METHODS. IRRIGATION SHOULD NOT OCCUR BETWEEN THE HOURS OF 10 A.M. AND 6 P.M. IN ORDER TO REDUCE EVAPORATION. EXCESSIVE WATER RUN OFF IS NOT PERMITTED.
- 7. ALL SHRUB PLANTING BEDS SHALL HAVE $\frac{3}{8}$ " RED BREEZE MULCH, 3" DEPTH, OVER A SUITABLE WEED BARRIER FABRIC. NO WEED BARRIER FABRIC IN PERENNIAL AREAS. REF. SPECS.

8. CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE IN ALL LANDSCAPE AREAS.

EXISTING -

REMAIN

LANDSCAPE TO

CONTRACTOR SHALL ENSURE THAT THE LANDSCAPE PLAN IS COORDINATED WITH THE PLANS PREPARED BY OTHER CONSULTANTS SO THAT THE PROPOSED GRADING, STORM DRAINAGE, OR OTHER CONSTRUCTION DOES NOT CONFLICT WITH NOR PRECLUDE INSTALLATION AND MAINTENANCE OF LANDSCAPE ELEMENTS AS DESIGNATED ON THIS PLAN.

MATCHLINE B

10. PERENNIALS SHOWN IN PLANT LEGEND SHALL BE SELECTED AND FIELD-LOCATED IN COORDINATION WITH LANDSCAPE ARCHITECT.

PLAN	T LEGEN	D				
	SYMBOL	QUANTITY	COMMON NAME	BOTANICAL NAME	SIZE	NOTES
DECIDL	JOUS SHADI	E TREES				
	KCT	2	KENTUCKY COFFEE TREE	GYMNOCLADUS DIOICA	4" CAL.	B&B
	GSL	3	GREENSPIRE LINDEN	TILIA CORDATA 'GREENSPIRE'	4" CAL.	B&B
	LPT	21	LONDON PLANE TREE	PLATANUS X ACERIFOLIA	4" CAL.	B&B
	WH	3	WESTERN HACKBERRY	CELTIS OCCIDENTALIS	4" CAL.	B&B
EVERG	REEN TREE	S				
	CBS-12	4	COLORADO BLUE SPRUCE	PICEA PUNGENS GLAUCA	12' HT.	B&B
	CBS-8	6	COLORADO BLUE SPRUCE	PICEA PUNGENS GLAUCA	8' HT.	B&B
ORNAM	ENTAL TREI	ĖS		•	•	
	ERB	2	EASTERN REDBUD	CERCIS CANADENSIS	4" CAL.	B&B
	SSC	1	SPRING SNOW CRABAPPLE	MALUS 'SPRING SNOW'	4" CAL.	B&B
	TCH	8	THORNLESS COCKSPUR	CRATAEGUS CRUS-GALLI	4" CAL.	B&B
			HAWTHORN	INERMIS		
	WHT	5	WASHINGTON HAWTHORN	CRATAEGUS PHAENOPYRUM	4" CAL.	B&B
EVERG	⊥ REEN SHRU	l BS				
	AJ	20	ANDORRA JUNIPER	JUNIPERUS HORIZONTALIS 'YOUNGSTOWN'	5 GAL.	SPACING AS SHOWN
	YU	12	YUCCA	YUCCA GLAUCA	5 GAL.	SPACING AS SHOWN
DECIDL	JOUS SHRUE	3S		•		
	СМ	276	CREEPING MAHONIA	MAHONIA REPENS	5 GAL.	SPACING AS SHOWN
	DBB	19	DWARF BUTTERFLY BUSH	BUDDLEJA 'BLUE CHIP'	5 GAL.	SPACING AS SHOWN
	ERB-8	4	EASTERN REDBUD	CERCIS CANADENSIS	8' HT.	B&B MULTI-TRUNK
	KDP	20	KATHERINE DYKES POTENTILLA	POTENTILLA FRUTICOSA 'K. DYKES'	5 GAL.	SPACING AS SHOWN
	PL	26	PURPLE LILAC	SYRINGA VULGARIS	5 GAL.	SPACING AS SHOWN
	RB	15	RABBITBRUSH	ERICAMERIA NAUSEOSA SPP.	5 GAL.	SPACING AS SHOWN
	RDR	40	RED DRIFT ROSE	ROSA MEIGALPIO	5 GAL.	SPACING AS SHOWN
	SR	15	SHRUB ROSE 'RAINBOW'	ROSA 'RAINBOW'	5 GAL.	SPACING AS SHOWN
GROUN	DCOVERS		<u> </u>			
	РМ	238	PANCHITO MANZANITA	ARCTOSTAPHYLOS X COLORADENSIS 'PANCHITO'	5 GAL.	3' O.C.
ORNAM	ENTAL GRA	SSES				
	DFG	156	DWARF FOUNTAIN GRASS	PENNISETUM ALOPECUROIDES	5 GAL.	SPACING AS SHOWN
	FRG	148	FEATHER REED GRASS	CALAMAGROSTIS ACUTIFLORA 'KARL FOERSTER'	5 GAL.	SPACING AS SHOWN
	MFG	17	MEXICAN FEATHER GRASS	NASSELLA TENUISSIMA	5 GAL.	SPACING AS SHOWN
PERENI		1 ''		I TO TO THE TOTAL OF THE TOTAL		1 3. 7.0.1.13 7.0 01 10 VVI
LIXLINI	10 (20	300	VARIOUS PERENNIALS TO BE DE	TERMINED	1 GAL.	18" O.C.
		1 300	TAULIOUS I FILENINIVES IO DE DE	ILIMINITU	i GAL.	10 0.0.

LEGEND

PROJECT LIMIT PROPOSED 5' TREE GRATE W/CONCRETE BAND; REF. DETAIL 5, SHEET L104

PROPOSED SHADE TREE REF. PLANT LEGEND, THIS SHEET

PROPOSED ORNAMENTAL TREE REF. PLANT LEGEND, THIS SHEET

> PROPOSED EVERGREEN TREE REF. PLANT LEGEND, THIS SHEET

PROPOSED ORNAMENTAL GRASS REF. PLANT LEGEND, THIS SHEET PROPOSED DECIDUOUS SHRUBS

REF. PLANT LEGEND, THIS SHEET

PROPOSED GROUNDCOVER REF. PLANT LEGEND, THIS SHEET

LIGHTING LEGEND

REF. SITE IMPROVEMENTS PLAN, SHEET L100

PROPOSED IN-GROUND LIGHT FIXTURE

PROPOSED SINGLE GLOBE PEDESTRIAN LIGHT

PROPOSED CLUSTER GLOBE PEDESTRIAN LIGHT

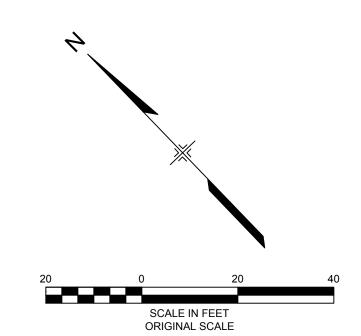
PROPOSED LIGHT BOLLARD

EXISTING SHOEBOX STREET LIGHT

EXISTING COBRA STREET LIGHT EXISTING LIGHT BOLLARD

EXISTING IN-GROUND LIGHT FIXTURE

EXISTING SINGLE GLOBE PEDESTRIAN LIGHT



REFERENCE DRAWINGS							
X-481-TITLE-LANDSCAPE X-946-PR-BASE X-946-EX-BASE-COMBINED X-479-PR-BASE - Gateway Park PCC - Matrix Field-Pothole Local	es 10-25-1 7						
X-946-EX-UTIL-COMBINED X-946-EX-TOPO-COMBINED	No. DATE	DESCRIPTION	BY				
X-946-EX-TEXT-OTHERS X-946-PR-TOPO	REVISIONS						
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X-946-EX-BASE-CHANNEL EXT X-946-PR-UTIL X-946-EX-LIGHTS X-MAIN INTERSECTION	CTB FILE: PLOT DATE: 6/14/20	81.009 (PURA HARP Gateway Park)\Dwg\Construction Plans\Landscape\L104 - Gateway Park - LANDSCAPE PLAN.dwg 18 9:54 AM AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.					

MATCHLINE A

PREPARED BY:

SEAL	EDA	A PROJECT	ΓNUMBER: 0	5-01-057	93
	HISTC		SAS RIVERWAL AY PLAZA PROJ		BLO
		LANE	SCAPE PLA	٨N	
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 17.946.001	DESIGNED BY: RCE DRAWN BY: TJR CHECKED BY: RCE	SCALE HORIZ. 1" = 20' VERT. N/A	DATE ISSUED: SHEET	MAY 14, 2018 22 OF 31	DRAWING No. L107

X-946-PR-LIGHTS X-946-PR-LANDSCAPE transfer-Matrix

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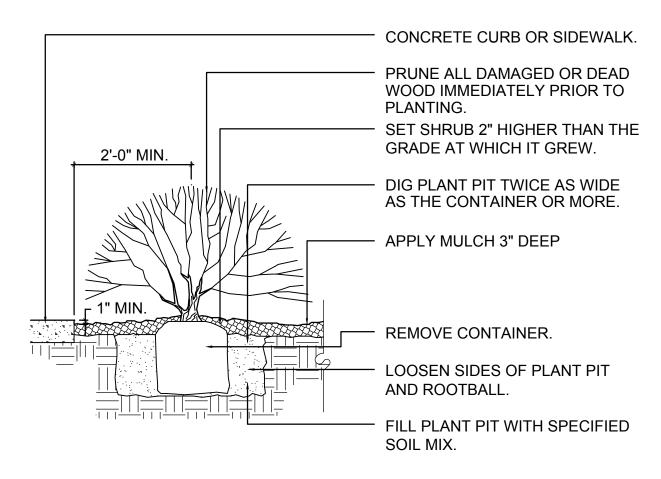
REMAIN

LANDSCAPE TO

1 1 1

(17) DFG -

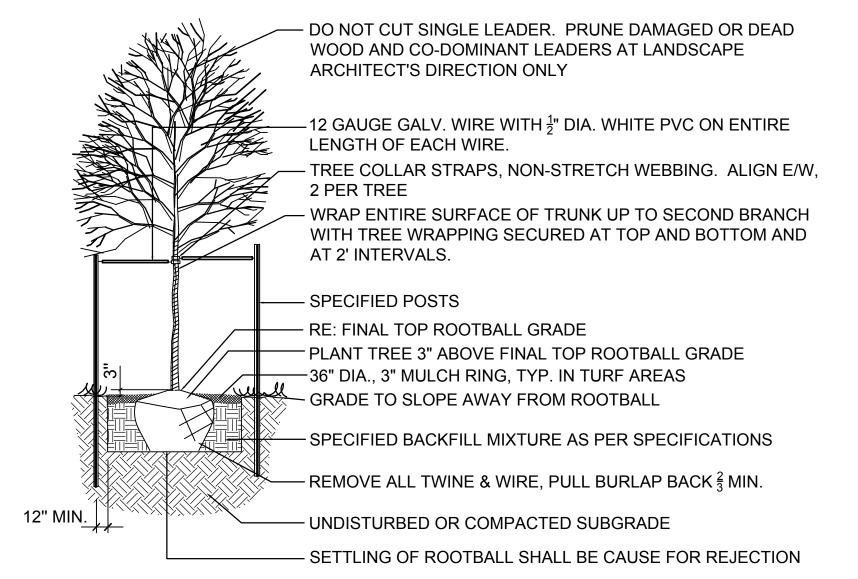
(15) FRG -



NOTE: ANY BROKEN OR CRUMBLING ROOTBALL WILL BE REJECTED. REMOVING THE CONTAINERS WILL NOT BE AN EXCUSE FOR DAMAGED ROOTBALLS.

NOTE: HOLD GRADE 1" BELOW EDGE OF WALK OR CURB. THIS DETAIL SHALL ALSO APPLY TO PERENNIAL FLOWERS IN CONTAINER.

NOTE: ALL JUNIPER PLANTS SHOULD BE PLANTED SO TOP OF ROOT MASS OCCURS AT FINISH GRADE OF MULCH LAYER.



1 SHRUB / ORNAMENTAL GRASS PLANTING

2 DECIDUOUS TREE PLANTING NTS

REFERENCE DRAWINGS							
Planting Details Silva Cell X-481-TITLE-LANDSCAPE							
	No.	No. DATE DESCRIPTION REVISIONS					
	COMPUTER FILE MANAGEMENT						
	FILE NAME: R:\17.481.009 (PURA HARP Gateway Park)\Dwg\Construction Plans\Landscape\L108 - Gateway Park - LANDSCAPE DETAILS.dwg CTB FILE: PLOT DATE: 6/14/2018 9:55 AM THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.						

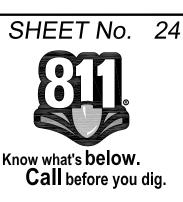


EAL	EDA PROJECT NUMBER: 05-01-05793
	HISTORIC ARKANSAS RIVERWALK OF PUEBLO GATEWAY PLAZA PROJECT
	LANDSCAPE DETAILS

FOR AND ON BEHALF OF
MATRIX DESIGN GROUP, INC.
PROJECT No. 17.481.009

DESIGNED BY: ROUP OF THE PROJECT NO. 17.481.009

ESIGNED BY: RCE SCALE DATE ISSUED: MAY 14, 2018 DRAWING No.



IRRIGATION SCHEDULE SYMBOL MANUFACTURER MODEL NO. DESCRIPTION DETAIL NO. RAIN BIRD (OR EQUAL) 1402 BUBBLER ELECTRIC CONTROL VALVE RAIN BIRD (OR EQUAL) PEB-PRS-D 2 RAIN BIRD (OR EQUAL) QUICK COUPLING VALVE 44-LRC 3 OLDCASTLE / CARSON REFER TO SPECIFICATIONS AND DETAILS N/S VARIOUS VALVE BOXES (OR EQUAL) N/S 4 MATCO (OR EQUAL) 201X MANUAL DRAIN VALVE LINE SIZE - 21/2" AND SMALLER GATE VALVE 5 CLASS 200 BE - 21/2" & SMALLER PVC MAINLINE 6 CLASS 200 BE PVC LATERAL 6 CLASS 160 PVC SLEEVING 7 TORO (OR EQUAL) BLUE STRIPE POLY DRIP TUBING -3/4" MIN. WIDTH 8, 9 \$ 10 \oplus RAIN BIRD (OR EQUAL) XCZ-100-PRB-COM DRIP VALVE ASSEMBLY 8 DRIP LINE BLOW-OUT STUB 10 N/S RAIN BIRD (OR EQUAL) XERI-BUG DRIP EMITTERS 9 **MIRE SPLICE** 11 EXISTING MAINLINE CONTROLLER & STATION NO. CONTROL VALVE SIZE A (controller) NUMBER OF SPARE WIRES - 2 CONTROL AND 1 SPARE WIRES TO WHICH CONTROLLER - SEE CONSTRUCTION NOTES

IRRIGATION CONSTRUCTION NOTES

- 1. DRAWINGS AND BASE INFORMATION ALL BASE AND PLANTING INFORMATION HAVE BEEN PROVIDED BY MATRIX DESIGN GROUP. THE CONTRACTOR IS RESPONSIBLE TO NOTIFY HYDROSYSTEMS*KDI OF ANY DISCREPANCIES BETWEEN THE UTILITY OR PLANTING PLANS AND THE IRRIGATION PLAN. IF CONTRACTOR FAILS TO NOTIFY HYDROSYSTEMS*KDI AND MAKES CHANGES TO THE IRRIGATION SYSTEM DESIGN, HE ASSUMES ALL COSTS AND LIABILITIES ASSOCIATED WITH THOSE FIELD CHANGES. REFER TO SPECIFICATIONS FOR ADDITIONAL PROJECT REQUIREMENTS. CONTACT IRRIGATION CONSULTANT FOR CURRENT SPECIFICATIONS IF NOT PROVIDED.
- 2. SYSTEM PRESSURE HYDROSYSTEMS*KDI HAS CONTACTED THE LOCAL MATER DISTRICT THAT SERVES THIS SITE AND THEY HAVE BEEN TOLD THAT THE STATIC WATER PRESSURE IN THIS AREA SHOULD BE 75 PSI. THE CONTRACTOR IS RESPONSIBLE TO FIELD VERIFY PRESSURE PRIOR TO COMMENCING ANY CONSTRUCTION AND NOTIFY HYDROSYSTEMS*KDI OF ANY VARIANCE FROM THE STATED PRESSURE IMMEDIATELY. WRITTEN DOCUMENTATION OF PRESSURE TEST AND RESULTS SHALL BE PROVIDED TO HYDROSYSTEMS*KDI AT CONSTRUCTION ONSET. IF CONTRACTOR FAILS TO FIELD VERIFY PRESSURE AND/OR NOTIFY HYDROSYSTEMS*KDI OR ANY VARIATIONS FROM THIS PRESSURE, THEN HE ASSUMES ALL CONSTRUCTION AND ENGINEERING COSTS ASSOCIATED WITH SYSTEM MODIFICATIONS REQUIRED TO ACCOMMODATE ACTUAL SITE PRESSURE. REFER TO POINT OF CONNECTION & CONTROLLER DATA MATRIX BELOW FOR REQUIRED PRESSURE AT EACH LOCATION. THIS SYSTEM HAS BEEN DESIGNED FOR A REQUIRED STATIC PRESSURE OF 75 PSI MINIMUM.
- 3. IRRIGATION SYSTEM OPERATION INTENT THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO IRRIGATE THE ESTABLISHED LANDSCAPE WITHIN A THREE NIGHT PER WEEK, SIX HOUR PER NIGHT WATERING WINDOW. ESTABLISHMENT WATERING WILL REQUIRE UP TO TWICE AS MUCH IRRIGATION FOR A FOUR TO SIX WEEK PERIOD. THE DESIGN IS BASED ON THE FOLLOWING PROJECTED WEEKLY APPLICATION RATES AFTER ESTABLISHMENT. THESE FIGURES ARE BASED ON A 30-YEAR AVERAGE WEATHER DATA AND WILL NEED TO BE ADJUSTED DUE TO SEASONAL CHANGES AND MEATHER CONDITIONS ABOVE AND BELOW THE AVERAGE VALUES UTILIZED.

BLUEGRASS TURF 1.75" PER WEEK PEAK SEASON ORNAMENTAL PLANTINGS 1.00" PER WEEK PEAK SEASON

- 4. EQUIPMENT INSTALLATION IT IS THE INTENT OF THIS DESIGN THAT ALL IRRIGATION EQUIPMENT BE INSTALLED WITHIN PROPERTY LIMITS AND WITHIN LANDSCAPED AREAS. ANY EQUIPMENT OTHER THAN VALVE BOXES OR SLEEVING THAT CONTAINS PIPE OR WIRES SHOWN OUTSIDE OF THESE LIMITS IS SHOWN IN THAT LOCATION FOR GRAPHICAL CLARITY ONLY. ALL VALVE BOXES SHALL BE INSTALLED A MINIMUM OF 2'-O" FROM EDGE OF ANY PAVED SURFACES UNLESS SPECIFICALLY INDICATED ON PLANS. BOXES INSTALLED IN OPEN TURF AREAS SHALL BE KEPT TO EDGES AND STAKED FOR REVIEW IF ALONG HIGH TRAFFIC AREAS. ALL VALVE BOXES SHALL BE PLACED A MINIMUM OF 3'-0" FROM THE CENTERLINE OF ANY DRAINAGE SWALE. ALL VALVE BOXES WITHIN PAVEMENT SHALL BE TIER 15 RATED BOXES FOR HEAVY DUTY NON-DELIBERATE TRAFFIC. BOX LID COLOR SHALL MATCH ADJACENT MATERIALS, I.E. GREEN IN TURF, TAN IN MOOD MULCH, GRAY IN STONE MULCH, PURPLE FOR RECLAIMED WATER SYSTEMS (IF REQUIRED). REFER TO LANDSCAPE PLANS FOR MATERIAL COLORS AND TYPES. ALL BOXES SHALL BE INSTALLED TO BE FLUSH WITH GRADE AND IN AN ORDERLY MANNER.
- MANUAL DRAIN VALVES CONTRACTOR TO INSTALL ONE MANUAL DRAIN VALVE ON PRESSURE SUPPLY LINE DIRECTLY DOWNSTREAM OF BACKFLOW PREVENTER AND AT ALL LOW POINTS AND DEAD ENDS OF PRESSURE SUPPLY PIPING TO ENSURE COMPLETE DRAINAGE OF SYSTEM. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THESE LOCATIONS IN-FIELD AND INSTALLATION LOCATIONS SHALL BE NOTED ON AS-BUILTS.
- 6. DRIP IRRIGATION REFER TO IRRIGATION DETAIL SHEET FOR DRIP EMITTER QUANTITIES AND PLACEMENT.
- 7. UNLABELED PIPING ALL UNLABELED LATERAL PIPING SHALL BE 3/4" MINIMUM UNLESS OTHERWISE NOTED.
- 8. SLEEVING ALL SLEEVING UNDER PAYED SURFACES SHOWN ON PLANS IS BY CONTRACTOR UNLESS OTHERWISE NOTED. SLEEVING SHALL BE INSTALLED IN THE SIZES AND QUANTITIES SHOWN ON PLANS OR BASED ON THE SCHEDULE BELOW. WHERE SLEEVES ARE SHOWN, BUT NOT LABELED, FOLLOW THE SCHEDULE BELOW. ALL MAINLINE, CONTROL WIRES AND DRIP LINES UNDER PAVED SURFACES ARE TO BE INSTALLED IN SLEEVING. ALL MAINLINE SLEEVE LOCATIONS TO INCLUDE A SEPARATE WIRE SLEEVE.

2" PVC (1)

SLEEVED PIPE SIZE/WIRE QUANTITY REQUIRED SLEEVE SIZE & (QUANTITY)

3/4" - 11/4" PIPING 2" PVC (1) 1/2" - 2" PIPING 4" PVC (1) 21/2" - 3" PIPING 6" PVC (1)

1-25 CONTROL WIRES

- 9. SPARE CONTROL WIRES CONTRACTOR SHALL EXTEND THREE SPARE MIRES (ONE COMMON AND 2 CONTROL WIRES) FROM EACH CONTROLLER TO THE END OF THE MAINLINE SERVING THAT CONTROLLER OR AS SHOWN ON THE PLANS. INSTALL SPARE WIRES IN 10" ROUND VALVE BOX WITH QUICK COUPLING VALVE. REFER TO SPECIFICATIONS FOR WIRE COLOR. SEE IRRIGATION SCHEDULE FOR ADDITIONAL INFORMATION.
- 10. ADJUSTMENT CONTRACTOR SHALL FINE TUNE/ADJUST THE IRRIGATION SYSTEM TO REDUCE/AVOID OVERSPRAY ONTO HARD SURFACES BY ADJUSTING NOZZLE DIRECTION AND NOZZLE RADIUS.
- 11. PLANS AND SPECIFICATIONS CONTRACTOR RESPONSIBLE TO ENSURE MORK CONFORMS TO PLANS AND SPECIFICATIONS. AT ONSET OF CONSTRUCTION, VERIFY PLANS ARE CURRENT. WHERE REQUIRED BY CITY OR TOWN, CONTRACTOR SHALL CONSTRUCT ONLY OFF CITY OR TOWN STAMPED PLANS. REVISIONS TO CITY OR TOWN STAMPED PLANS SHALL CONFORM TO CITY OR TOWN FIELD CHANGE PROCEDURES AND DOCUMENTATION.
- 12. EXISTING IRRIGATION DAMAGE CONTRACTOR SHALL REPAIR OR REPLACE ANY EXISTING IRRIGATION SYSTEMS DAMAGED DURING NEW INSTALLATION. REPAIR OR REPLACEMENT SHALL BE DETERMINED BY OWNER OR OWNER'S REPRESENTATIVE AND PAID FOR BY THE LANDSCAPE CONTRACTOR.
- 13. EXISTING IRRIGATION COORDINATION EXISTING IRRIGATION SYSTEM SHALL NOT BE TURNED OFF FOR MORE THAN 24 HOURS MAXIMUM. CONTRACTOR SHALL COORDINATE TURN OFF OF SYSTEM WITH OWNER OR MAINTENANCE STAFF 72 HOURS PRIOR TO ANY NEW CONSTRUCTION.
- 14. SIMULTANEOUS ZONE OPERATION THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO OPERATE MULTIPLE ZONES SIMULTANEOUSLY BASED ON INDIVIDUAL ZONE FLOW. THE DESIGN IS INTENDED TO OPERATE MULTIPLE VALVES, UP TO THE MAXIMUM FLOW IN THE POINT OF CONNECTION NOTE. REFER TO CONTROLLER SPECIFICATION FOR MAXIMUM SIMULTANEOUS VALVE COUNT.
- 15. WATER BUDGETS AND PROJECTIONS HYDROSYSTEMS-KDI HAS BASED THE IRRIGATION DESIGN AND THE ASSOCIATED PROJECTED WATER USE UPON SUCH FACTORS AS CITY OR WATER DISTRICT IMPOSED REQUIREMENTS, PUBLISHED PLANT SPECIES WATER NEEDS, SELECTED IRRIGATION METHOD EFFICIENCIES AS REPORTED BY INDEPENDENT TESTING FACILITIES, HISTORICAL WEATHER DATA FOR THE PROJECT LOCATION, AND PROPER MAINTENANCE PROCEDURES. HYDROSYSTEMS*KDI IS NOT RESPONSIBLE, AND ACCEPTS NO RESPONSIBILITY, FOR THE ACTUAL MATER USAGE VARIATION THAT IS A RESULT OF FIELD MODIFICATIONS TO THE SYSTEM NOT MATCHING CONSTRUCTION DOCUMENTS, IMPROPER MAINTENANCE, WASTE DUE TO SYSTEM DAMAGE OR VANDALISM, OR WEATHER CONDITIONS THAT DEVIATE FROM PUBLISHED 30 YEAR HISTORICAL AVERAGES.
- 16. CONTRACTOR SHALL SOD ALL MAINLINE TRENCHES, VALVE BOX AREAS, AND AREAS EXCEEDING 10 SF INSIDE AND OUTSIDE OF INDICATED WORK LIMITS UTILIZING FULL MIDTH ROLLS OF SOD. NEW SOD GRADE SHALL MATCH ADJACENT, UNDISTURBED GRADE. ROLL NEW SOD AS REQUIRED TO MESH EVENLY WITH EXISTING TURF. SOD CUT FOR MAINLINE INSTALLATION MAY BE REUSED TO SOD MAINLINE TRENCHES. CONTRACTOR WILL BE REQUIRED TO REPLACE REUSED SOD PER SPECIFICATIONS FOR NEW SOD. IF SOD IS CUT AND NOT REUSED FOR A PERIOD EXCEEDING 48 HOURS. IT MAY NOT BE REUSED. NO SODDING OR SEEDING SHALL OCCUR BETWEEN OCTOBER 1 AND APRIL 15 AND SHALL NOT OCCUR WITHOUT IRRIGATION SYSTEM BEING OPERATIONAL - UNLESS OTHERWISE NOTED ON PLANS
- 17. LATERAL TRENCHES AND DISTURBED AREAS LESS THAN 10 S.F. INSIDE & OUTSIDE SHALL BE RESEEDED WITH BLUEGRASS BLEND HAND-BROADCAST AND LIGHTLY RAKED INTO TRENCH SOIL. GRADES SHALL MATCH EXISTING, UNDISTURBED GRADES. CONTRACTOR SHALL BE RESPONSIBLE FOR SEED AND SOD ESTABLISHMENT. SOIL PREPARATION WILL NOT BE REQUIRED FOR MAINLINE AND LATERAL TRENCHES.
- 18. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING TURF LOCATED INSIDE AND OUTSIDE WORK LIMITS IN A VIABLE, GREEN, HEALTHY CONDITION UNTIL FINAL ACCEPTANCE OF PROJECT. THIS SHALL INCLUDE PROVIDING TEMPORARY WATERING OF TURF AS CONDITIONS REQUIRE. DEAD TURF AREAS EXCEEDING 10 S.F. DETERMINED BY OWNER'S REPRESENTATIVE AS HAVING DIED DUE TO LACK OF INTERIM MAINTENANCE BY CONTRACTOR SHALL BE REPLACED BY CONTRACTOR AT NO ADDITIONAL COST TO OWNER. ALL MOWING OPERATIONS DURING CONSTRUCTION WILL BE PROVIDED BY OWNER.

DIRECTORY

IRRIGATION NOTES IR100 IRRIGATION SCHEDULE IR100

IRRIGATION PLANS IR101 - IR102 **IRRIGATION DETAILS** IR103 - IR104 HydroSystems-KDI, Inc.

860 Tabor Street, Suite 200 Lakewood, Colorado 8040: 303-980-5327 303-980-5384 (fax)

REFERENCE DRAWINGS						
X-479-PR-BASE - Gateway Park						
X-479-PR-LANDSCAPE-CD - Ga	teway Park					
X-946-EX-BASE-COMBINED X-946-EX-BASE-CHANNEL EXT	ENSION					
transfer-Matrix						
X-PR-LIMIT-Gateway Park X-MAIN INTERSECTION	No.	DATE	DESCRIPTION	B		
X-946-PR-UTIL X-946-PR-LIGHTS	REVISIONS					
X-946-PR-BASE						
X-946-PR-BASE - PARKING GARGOMPUTER FILE MANAGEMENT						
X-946-EX-UTIL-COMBINED X-946-EX-LIGHTS FILE NAME: T:\6300-6399 Jobs\6390-Gateway Plaza\6390-GP-IRR-CDrev.dwg						
2998-HarpPh3-BlockIRR	1	CTB FILE:				
VAULT LOCATIONS X-481-TITLE-LANDSCAPE	PLOT DATE: 5/31/2018 12:20 PM					
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PREPARED BY:	
Matrix DESIGN GROUP	_

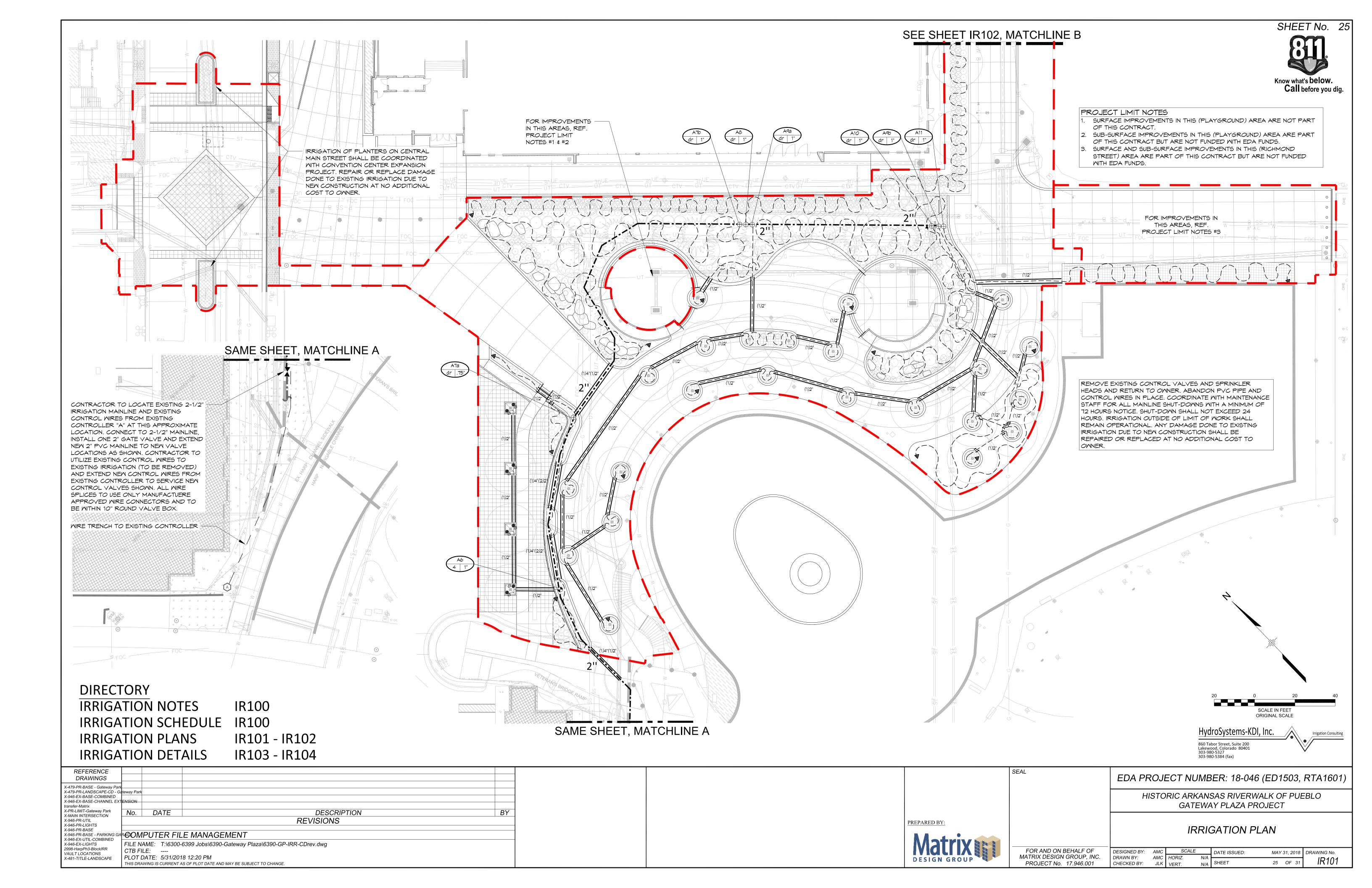
PROJECT No.

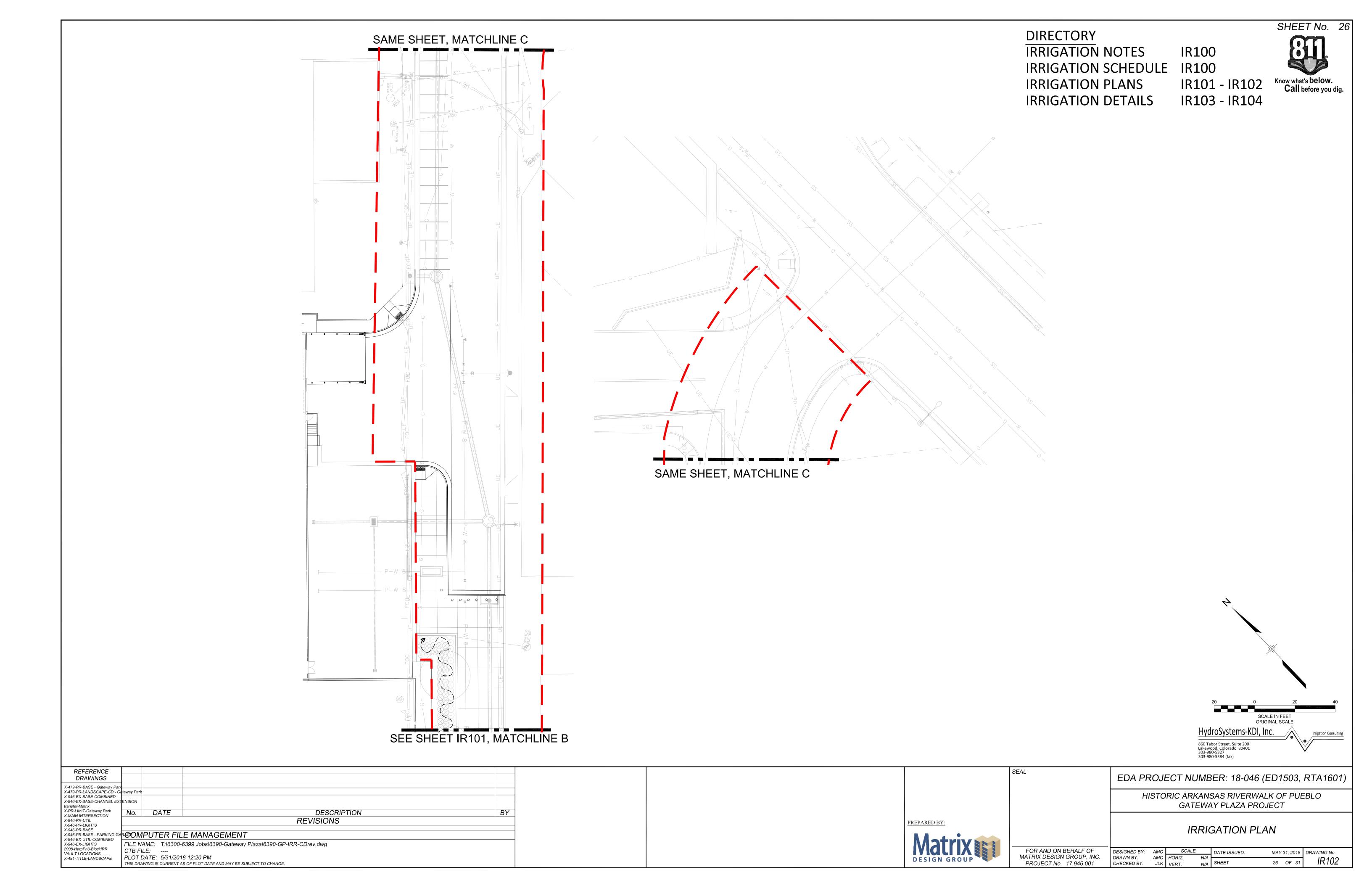
SEAL	EDA PROJECT NUMBER: 18-046 (ED1503, RTA1601)
	HISTORIC ARKANSAS RIVERWALK OF PUEBLO
	GATEWAY PLAZA PROJECT

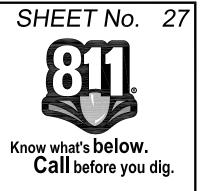
IRRIGATION NOTES

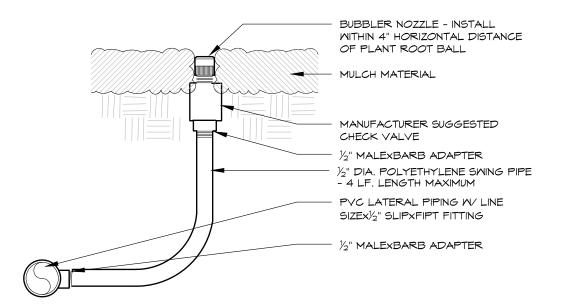
FOR AND ON MATRIX DESIGN

I BEHALF OF	DESIGNED BY:	AMC	SCALE		DATE ISSUED:	MAY	31, 2018	DRAWING No.
N GROUP, INC.	DRAWN BY:	AMC	HORIZ.	N/A			,	10100
. 17.946.001	CHECKED BY:	JLK	VERT.	N/A	SHEET	24	OF 31	IR100

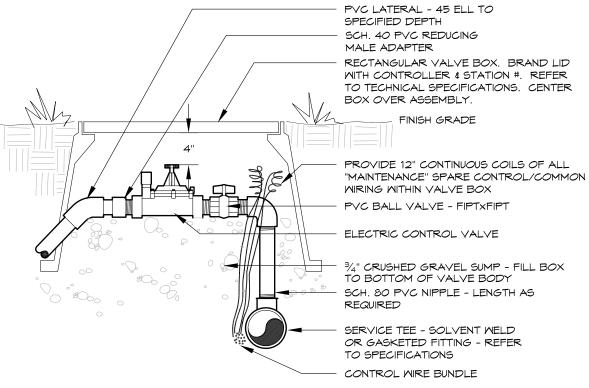








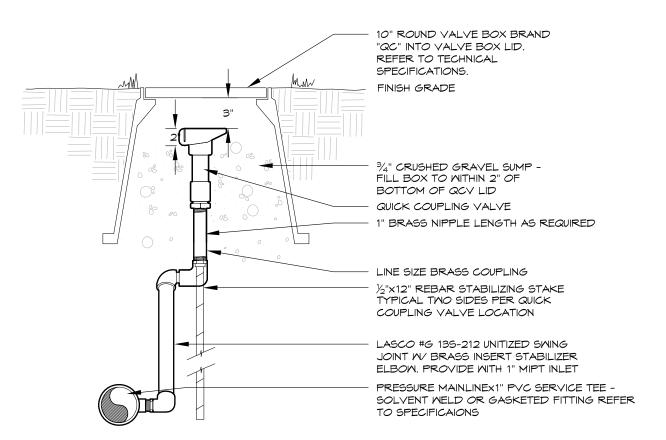




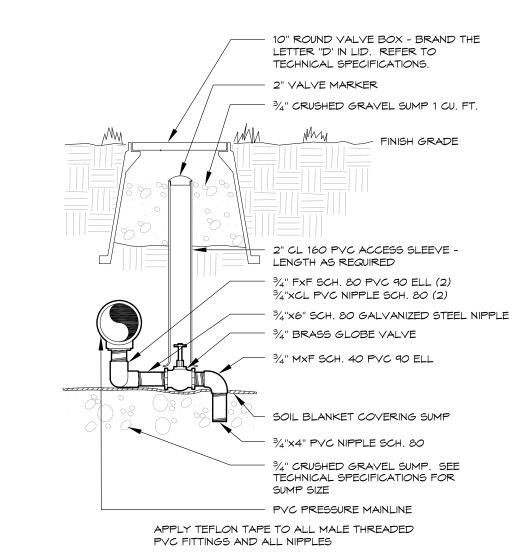
NOTE: DIAMETERS OF BALL VALVES, PVC FITTINGS AND NIPPLES SHALL EQUAL ELECTRIC CONTROL VALVE DIAMETER. VALVE BOXES SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO ADJACENT SIDEWALKS AND HARD SURFACES WHERE APPLICABLE. APPLY TEFLON TAPE TO ALL MALE THREADED FITTINGS AND THREADED NIPPLES.

ELECTRIC CONTROL VALVE

24V - PVC Lateral

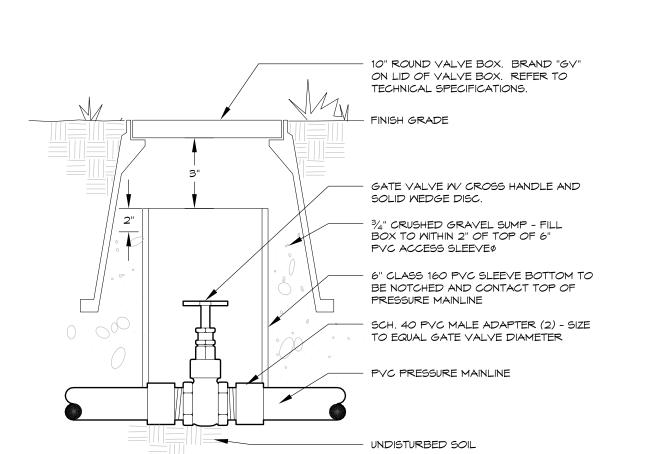


APPLY TEFLON TAPE TO ALL THREADED NIPPLES

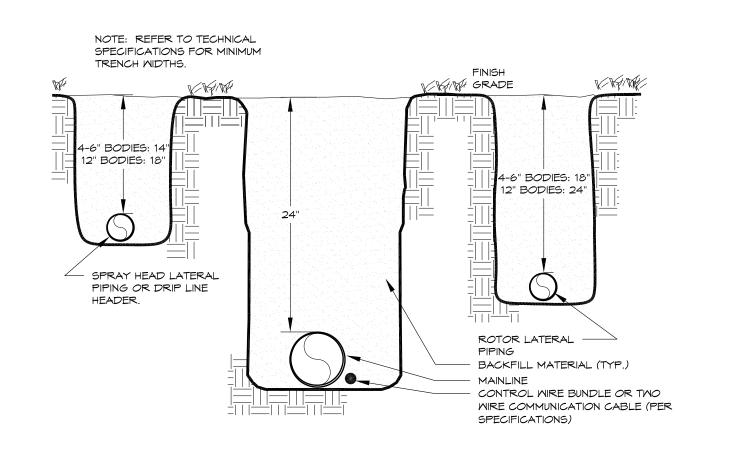


QUICK COUPLING VALVE

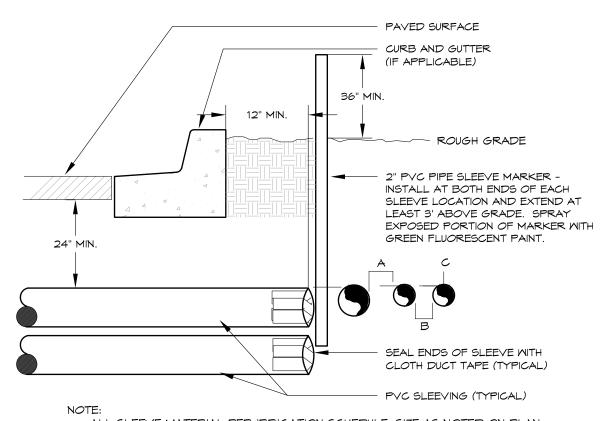








TRENCH 6 24" MAINLINE



 ALL SLEEVE MATERIAL PER IRRIGATION SCHEDULE, SIZE AS NOTED ON PLAN. INSTALL SLEEVES IN SIDE-BY-SIDE CONFIGURATION WHERE MULTIPLE SLEEVES ARE TO BE INSTALLED. SPACE SLEEVES 4" TO 6" APART. DO NOT STACK SLEEVES VERTICALLY. CONTRACTOR TO COORDINATE WITH FLATWORK INSTALLER TO BRAND A

"V" IN SIDEMALK OR CURB AT BOTH ENDS OF SLEEVE CROSSING.

IRRIGATION SLEEVING

FINISH GRADE PVC SCH. 40 ELL PVC SCH. 80 NIPPLE 24" COILED WIRE WATERPROOF SPLICE JUMBO VALVE BOX - BRAND BOX LID W/ CONTROLLER AND STATION NUMBER -REFER TO TECHNICAL SPECIFICATIONS. 12" POP-UP SPRAY HEAD WITH CHECK VALVE, CLOSED NOZZLE, PURPLE CAP & SMING PIPE (ZONE OPERATIONAL INDICATOR) DRIP VALVE ASSEMBLY (SEE SCHEDULE) VALVE SIZE MIPTXINS. PVC ADAPTER STAINLESS STEEL WORM GEAR OR PINCH CLAMP INSERT TEE WITH CLAMPS VALVE SIZE POLY PIPING -SWEEP TO SPECIFIED DEPTH - PVC SCH. 80 NIPPLE 3" MIN. DEPTH $\frac{3}{4}$ " WASHED GRAVEL - PVC SCH. 40 TEE OR ELL LINE SIZE PVC BALL VALVE - PVC MAINLINE

INSTALL ASSEMBLY TO REST ON GRAVEL SUMP. CONTAIN ENTIRE ASSEMBLY WITHIN BOX. NO VALVE BOX EXTENSIONS WILL BE ACCEPTED. PROVIDE 3"-4" CLEARANCE BETWEEN TOP OF CONTROL VALVE SOLENOID AND BOTTOM OF VALVE BOX LID. TOP OF VALVE BOX TO BE FLUSH WITH FINISH GRADE. VALVE BOX SHALL NOT REST ON DRIP TUBING.

DRIP VALVE

24V - POLY LATERAL

DIRECTORY

IRRIGATION NOTES IR100 IRRIGATION SCHEDULE IR100

BUBBLER

IR101 - IR102 **IRRIGATION PLANS IRRIGATION DETAILS** IR103 - IR104

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HydroSystems-KDI, Inc.	Irrigation Consulting
860 Tabor Street, Suite 200 Lakewood, Colorado 80401 303-980-5327 303-980-5384 (fax)	

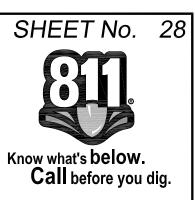
REFERENCE DRAWINGS						
X-479-PR-BASE - Gateway Park X-479-PR-LANDSCAPE-CD - Ga X-946-EX-BASE-COMBINED X-946-EX-BASE-CHANNEL EXT	teway Park					
X-946-PR-UTIL	No.	DATE	DESCRIPTION REVISIONS	BY		
X-946-PR-LIGHTS X-946-PR-BASE X-946-PR-BASE - PARKING GA X-946-EX-UTIL-COMBINED X-946-EX-LIGHTS	RGOMPUTER FILE MANAGEMENT FILE NAME: T:\6300-6399 Jobs\6390-Gateway Plaza\6390-GP-IRR-CDrev.dwg					
2998-HarpPh3-BlockIRR VAULT LOCATIONS X-481-TITLE-LANDSCAPE	CTB FILE: PLOT DATE: 5/31/2018 12:20 PM THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.					

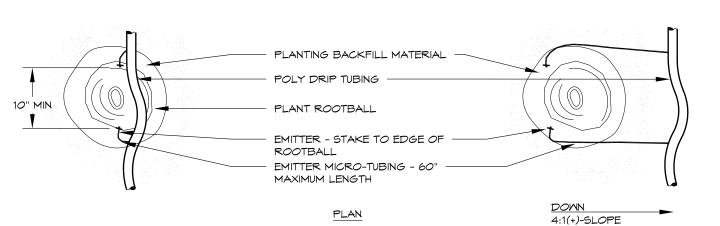
PREPARED BY

EDA PROJECT NUMBER: 18-046 (ED1503, RTA1601)
HISTORIC ARKANSAS RIVERWALK OF PUEBLO GATEWAY PLAZA PROJECT

IRRIGATION DETAILS

FOR AND ON BEHALF OF DESIGNED BY: AMC MAY 31, 2018 DRAWING No. MATRIX DESIGN GROUP, INC. DRAWN BY: AMC IR103 27 OF 31 PROJECT No. 17.946.001 CHECKED BY:





PLANT SIZE	EMITTER	EMITTER QTY. AT MULCHED	EMITTER QTY. AT NATIVE
PLAINT SIZE	FLOW RATE	BED LOCATIONS	SEED LOCATIONS
1 - 2 GALLON MATERIAL	0.5 GPH	ONE EACH	ONE EACH
5 GALLON MATERIAL	0.5 GPH	TMO EACH	TMO EACH
1½" CALIPER TREE	1.0 GPH	THREE EACH	FOUR EACH
2" CALIPER TREE	1.0 GPH	FOUR EACH	SIX EACH
21/2" CALIPER TREE	1.0 GPH	SIX EACH	EIGHT EACH
3" CALIPER TREE	1.0 GPH	EIGHT EACH	TEN EACH
3½" CALIPER TREE	1.0 GPH	NINE EACH	ELEVEN EACH
4" CALIPER TREE	1.0 GPH	TEN EACH	TMELVE EACH
6 FT. CONIFEROUS TREE	1.0 GPH	FOUR EACH	SIX EACH
8 FT. CONIFEROUS TREE	1.0 GPH	SIX EACH	NINE EACH
10 FT. CONIFEROUS TREE	1.0 GPH	EIGHT EACH	TMELVE EACH
12 FT. CONIFEROUS TREE	1.0 GPH	TEN EACH	FOURTEEN EACH

PLANT MATERIAL - EMITTER - REFER TO SCHEDULE FOR EMITTER QUANTITY. REFER TO SPECIFICATIONS FOR MANUFACTURER AND MODEL NUMBER. MULCH LAYER EMITTER MICRO-TUBING POLY DRIP TUBING - RE: TECHNICAL SPECIFICATIONS 6" 10 GAUGE JUTE STAKE OR APPROVED EQUAL

 INSTALL EMITTERS ON OPPOSING SIDES OF ROOTBALL. THREE OR MORE EMITTERS
 SHALL BE EQUALLY SPACED AROUND ROOT BALL. EMITTERS ARE TO BE INSTALLED TO CLEAR SURFACE BY A MINIMUM OF 1" AND A

- FLUSH ALL LINES THOROUGHLY, INCLUDING EMITTER MICRO-TUBING PRIOR TO EMITTER INSTALLATION.
- IF PLANTING ON A 4:1 SLOPE OR STEEPER, INSTALL BOTH EMITTERS ON UPHILL SIDE OF ROOT BALL. EMITTERS SHALL BE SELF-FLUSHING, PRESSURE COMPENSATING-TYPE UNLESS NOTED OTHERWISE WITHIN TECHNICAL SPECIFICATIONS.
- DRIP VALVE ZONES ARE DESIGNED TO ACCOUNT FOR DIFFERENCES IN PLANT REQUIREMENTS (HYDROZONES) AND SUN EXPOSURE.
- CONTRACTOR SHALL ENSURE HYDROZONES ARE VALVED SEPARATELY AS SHOWN
- SITE CONDITIONS MAY DICTATE THAT MULTIPLE SUN EXPOSURES ARE VALVED TOGETHER DURING THE DESIGN PROCESS. CONTRACTOR SHALL ADJUST EMITTER.
- SCHEDULE AS FOLLOWS:
- EMITTER QUANTITIES SHALL REMAIN THE SAME BUT EMITTER GALLONAGES SHALL
 BE DOUBLED FOR PLANTS WITH SOUTH AND WEST EXPOSURES.

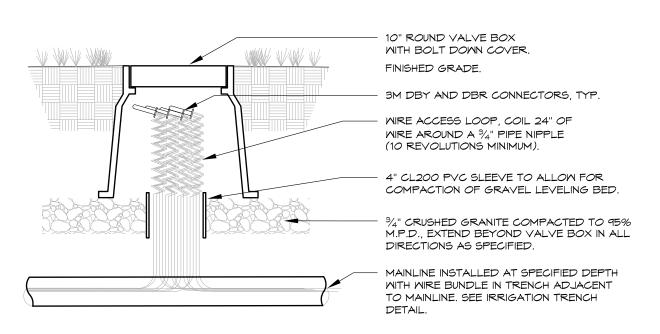
 EMITTER QUANTITIES AND GALLONAGE SHALL BE AS SHOWN IN SCHEDULE FOR PLANTS WITH NORTH AND EAST EXPOSURES.

 PLANTINGS WITH NORTH AND EAST EXPOSURE SHALL DICTATE VALVE RUN-TIMES

 AND CONTRACTOR SHALL AD JUST SCHEDULING ACCORDINGLY.
- AND CONTRACTOR SHALL ADJUST SCHEDULING ACCORDINGLY.

DRIP EMITTER

BELOW GRADE



 SET TOP OF BOX LEVEL WITH FINISHED GRADE IN TURF
 AREAS AND LEVEL WITH TOP OF MULCH IN SHRUB BEDS. 2. USE STANDARD RECTANGULAR VALVE BOX WITH BOLT DOWN LID FOR SPLICES OF MORE THAN TWENTY (20)

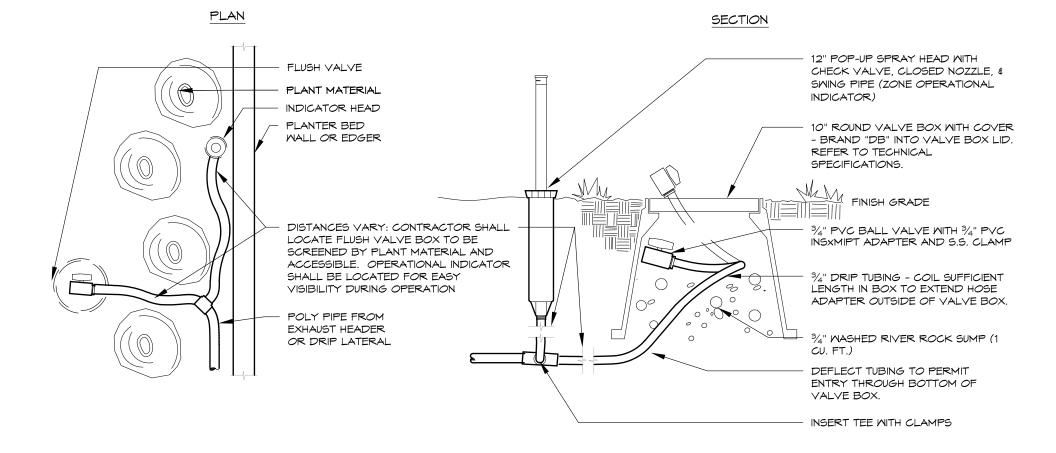
WIRE SPLICE BOX

TYPICAL

DIRECTORY

IRRIGATION NOTES IR100 IRRIGATION SCHEDULE IR100

IRRIGATION PLANS IR101 - IR102 **IRRIGATION DETAILS** IR103 - IR104



DRIP FLUSH VALVE

WITH OPERATIONAL INDICATOR

HydroSystems-KDI, Inc.

860 Tabor Street, Suite 200 Lakewood, Colorado 80401 303-980-5327 303-980-5384 (fax)

REFERENCE DRAWINGS			
X-479-PR-BASE - Gateway Parl X-479-PR-LANDSCAPE-CD - G X-946-EX-BASE-COMBINED X-946-EX-BASE-CHANNEL EX			
transfer-Matrix X-PR-LIMIT-Gateway Park X-MAIN INTERSECTION X-946-PR-UTIL	No. DATE	DESCRIPTION REVISIONS	BY
X-946-PR-LIGHTS X-946-PR-BASE X-946-PR-BASE - PARKING GA X-946-EX-UTIL-COMBINED	©€OMPUTER FILE MANAGEMENT		
X-946-EX-LIGHTS 2998-HarpPh3-BlockIRR VAULT LOCATIONS X-481-TITLE-LANDSCAPE	FILE NAME: T:\6300-6399 Jobs\6390-Gateway Plaza\6390-GI CTB FILE: PLOT DATE: 5/31/2018 12:20 PM THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE		



EDA PROJECT NUMBER: 18-046 (ED1503, RTA1601
HISTORIC ARKANSAS RIVERWALK OF PUEBLO GATEWAY PLAZA PROJECT

IRRIGATION DETAILS

FOR AND ON BEHALF OF DESIGNED BY: AMC MAY 31, 2018 DRAWING No. MATRIX DESIGN GROUP, INC. DRAWN BY: AMC IR104 28 OF 31 PROJECT No. 17.946.001 CHECKED BY:

TRAFFIC SIGNAL GENERAL NOTES

- 1. MAST ARM LENGTHS ARE TO ALLOW ALL SIGNAL HEADS TO BE CENTERED OVER THE LANES. SIGNAL POLE AND PEDESTAL CAISSON LOCATIONS SHALL BE STAKED IN THE FIELD AND FIELD VERIFIED BY PROJECT ENGINEER PRIOR TO SETTING THE FOUNDATIONS/CAISSONS. ALL CAISSONS SHALL BE CAST IN PLACE.
- 2. ALL VEHICLE AND PEDESTRIAN INDICATIONS SHALL BE APPROVED SOLID STATE LED TYPE. ALL VEHICLE AND PEDESTRIAN HEAD HOUSINGS SHALL BE BLACK IN COLOR.
- 3. ALL SIGNAL POLES, MAST ARMS, TRAFFIC SIGNAL PEDESTAL POLES, AND PEDESTRIAN PUSH BUTTON POST ASSEMBLIES SHALL BE GALVANIZED AND THEN POWDER COATED FEDERAL STANDARD COLOR 37040 (BLACK).
- 4. TRAFFIC SIGNALS THAT ARE MOUNTED ON MAST ARMS SHALL BE FURNISHED WITH MOUNTING BRACKETS AND BLACK LOUVERED BACKING PLATES. ALL BLACK PLATES SHALL INCLUDE A ONE-INCH YELLOW RETROREFLECTIVE BORDER.
- 5. SIGNAL HEADS SHALL BE BAGGED WITH A HEAVY BLACK PLASTIC UNTIL READY FOR OPERATION.
- 6. NO EXCAVATION SHALL BE PERMITTED UNTIL UNDERGROUND UTILITIES HAVE BEEN LOCATED TO THE SATISFACTION OF ALL PARTIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL AERIAL AND UNDERGROUND UTILITIES DURING CONSTRUCTION. FOR LOCATION OF CDOT UTILITIES, CONTACT 719-385-7621.
- 7. PULL BOX LOCATIONS ARE APPROXIMATE. ACTUAL LOCATIONS SHALL BE VERIFIED IN THE FIELD BY THE ENGINEER. ALL PULL BOXES SHALL BE FLUSH WITH THE FINISHED GROUND SURFACE AS TO FOLLOW THE INSTALLATION SET FORTH BY THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD PLANS, M AND S STANDARDS, JULY 2012. ALL PULL BOXES SHALL NOT BE LOCATED WITHIN A HANDICAP RAMP.
- 8. ALL TOPS OF CAISSONS SHALL BE FLUSH FINISHED AND LEVELED TO THE CROWN OF THE EXISTING ROADWAY SURFACE OR NO MORE THAN 4" ABOVE THE SURROUNDING SUBGRADE OR MEDIAN COVER, WHICHEVER IS THE LESSER.
- 9. ALL CONDUIT SHALL HAVE A PULL ROPE LEFT IN THEM WHEN CONSTRUCTION IS COMPLETED. ALL CONDUIT UNDER THE ROADWAY SHALL BE DIRECTIONALLY BORED A MINIMUM OF 3' BELOW EXISTING PAVEMENT. ALL CONDUIT AND FITTINGS SHALL BE SCHEDULE 80 PVC. ALL CONDUIT SHALL BE SEALED WITH DUCT SEAL PUTTY.
- 10. ALL CONDUIT RUNS WITH MULTIPLE CONDUITS SHALL BE INSTALLED IN ONE COMMON BORE.
- 11. PERMANENT PULL BOXES SHALL BE MANUFACTURED ON POLYMER CONCRETE AND BE RATED FOR VEHICLE TRAFFIC. NOMINAL PULL BOX SIZES ARE:

SMALL - TYPE THREE (AT SIGNAL POLE)

REFERENCE

DRAWINGS (-481-TITLE-LANDSCAPE (-946-PR-BASE

X-946-EX-BASE-COMBINED X-479-PR-BASE - Gatewav Pa

X-946-EX-UTIL-COMBINED

X-MAIN INTERSECTION

(-946-PR-BASE - PARKING

X-946-EX-MAP-COMBINED

No. DATE

CTB FILE: ----

PLOT DATE: 5/14/2018 12:39 PM

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X-946-PR-UTIL

X-946-PR-LIGHTS

X-946-PR-LANDSCAPE

LARGE - TYPE FOUR (AT CONTROLLER CABINET)

- 12. CONTRACTOR'S SIGNAL ELECTRICIAN IS REQUIRED TO BE ONSITE, AT A MINIMUM, DURING AM & PM PEAK HOURS FOLLOWING THE NEXT DAY A SIGNAL IS TURNED ON TO OBSERVE OPERATION AND MAKE ADJUSTMENTS AS NEEDED. SIGNAL ELECTRICIAN'S ADDITIONAL HOURS MAY BE REQUIRED BY THE ENGINEER. THIS APPLIES TO BOTH PERMANENT AND TEMPORARY INSTALLATIONS. TIME FOR SIGNAL ELECTRICIAN SHALL NOT BE MEASURED AND PAID FOR SEPARATELY, BUT SHALL BE INCIDENTAL TO THE PROJECT.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE LOCAL ELECTRIC UTILITY TO PROVIDE POWER (METERED ELECTRICAL SERVICE) TO THE SIGNAL SYSTEM. 50amp, 120 volt FEEDER CIRCUIT.
- 14. THE CONTRACTOR SHALL PROVIDE CITY OF PUEBLO WITH FOUR (4) SETS OF EQUIPMENT SPECIFICATIONS/DESCRIPTIONS, SHOP DRAWINGS AND OBTAIN APPROVALS PRIOR TO ORDERING THE EQUIPMENT AND COMMENCEMENT OF WORK FOR VERIFICATION OD CORRECTNESS AND COMPLETENESS
- 15. ALL MANUALS, INSTALLATION GUIDES AND ASSOCIATED EQUIPMENT SHALL BE PROVIDED TO THE ENGINEER AT TIME OF INSPECTION.
- 16. LOCATIONS OF THE TRAFFIC SIGNAL POLES AND PEDESTAL POLE FOUNDATIONS/CAISSONS SHALL BE ADJUSTED BY THE ENGINEER IF NECESSARY.
- 17. UPON COMPLETION OF THE WORK, THE CONTRACTOR SHALL SUPPLY CITY OF PUEBLO WITH 2 SETS OF RECORD DRAWINGS, CORRECTED PLANS, AND ANY OTHER ADDITIONAL DATA REQUIRED BY THE ENGINEER.
- 18. THE CONTRACTOR IS RESPONSIBLE FOR ALL PERMITS/INSPECTIONS REQUIRED TO COMPLETE THE SCOPE OF WORK PRESENTED HEREIN. THE CONTRACTOR SHALL PROVIDE SHOP DRAWINGS FOR APPROVAL BY ENGINEER PRIOR TO COMMENCEMENT OF WORK.
- 19. PRIOR TO SIGNALS BEING PUT IN FLASH OPERATIONS, THE CONTRACTOR WILL BE REQUIRED TO HAVE FINAL PAVEMENT MARKING AND STOP BARS INSTALLED.
- 20. CONTRACTOR SHALL COMPLETE ALL WORK NECESSARY FOR OPERATION ON THE SYSTEM AND SHALL CONTACT CITY OF PUEBLO TO SCHEDULE A COMPLIANCE INSPECTION. UPON COMPLETION OF THE INSPECTION, FIELD OPERATIONS TESTING SHALL BEGIN. THE COMPLETE TRAFFIC SYSTEM SHALL BE FULLY OPERATIONAL, AND FULLY TESTED, AND APPROPRIATE ROADWAY MARKINGS SHALL BE IN PLACE, PRIOR TO THE SIGNAL BEING TURNED ON. THIS TIME SHALL TYPICALLY BE TUESDAY, WEDNESDAY OR THURSDAY DURING OFF-PEAK TRAFFIC PERIOD.
- 21. TRAFFIC CONTROLLER CABINET SHALL BE MODEL 336 (1 EA.) WITH 44-CONTACT INPUT FILE AND BATTERY BACKUP. LOAD SWITCHES SHALL BE INPUT AND OUTPUT INDICATING. UPS SHALL BE PROVIDED TO RUN THE SIGNAL FOR 1 HOUR IN ALL PHASES AND FLASH UP TO 2 ADDITIONAL HOURS. A CLARY SP 1000 OR EQUIVALENT SHALL BE USED.
- 22. MAST ARM LENGTHS UP TO 55' M&S STANDARD S614-40A SHALL BE USED. FOR MAST ARM LENGTHS GREATER THAN 55' IN LENGTH M&S STANDARD S614-40 SHALL BE USED.
- 23. UNDERGROUND FEEDER CABLE SHALL BE THHN OR THWM IMSA CABLE FROM THE HAND HOLE THROUGHOUT THE SIGNAL POLE (19-1 14gs OR BETTER).

FILE NAME: R:\17.481.009 (PURA HARP Gateway Park)\Dwg\Construction Plans\Traffic\HAWK signalization.dwg

DESCRIPTION

REVISIONS

TRAFFIC SIGNAL NOTES - CITY OF PUEBLO

(THE FOLLOWING NOTES ARE APPLICABLE TO ALL SIGNALS. THESE NOTES ARE SUPPLEMENTAL TO THE TRAFFIC SIGNAL GENERAL NOTES.)

- 1. REMOVED SIGN PANELS SHALL BE SALVAGED AND RETURNED TO THE CITY OF PUEBLO.
- 2. ALL CONDUIT SHALL BE SEAMLESS. ALL CONDUITS SHALL HAVE PULL ROPE AND 14 AWG TRACE WIRE LEFT IN THEM WHEN CONSTRUCTION IS COMPLETED AND END HOLES SEALED TO PREVENT MOISTURE, DEBRIS, AND ANIMALS FROM GETTING INTO THEM.
- 3. ALL CONDUITS SHALL BE COLOR-CODED AND PERMANENTLY TAGGED PER THE FOLLOWING SCHEDULE:

DIRECTIONAL/MOVEMENT	TAPE COLOR	TAG LABEL
EASTBOUND	ORANGE	PH 2 - EB
EASTBOUND LEFT TURN	ORANGE	PH 5 - EBL
WESTBOUND	BROWN	PH 6 - WB
WESTBOUND LEFT TURN	BROWN	PH 1 - WBL
NORTHBOUND	BLUE	PH 8 - SB
NORTHBOUND LEFT TURN	BLUE	PH 3 - SBL
SOUTHBOUND	RED	PH 4 - NB
SOUTHBOUND LEFT TURN	RED	PH 7 - NBL

- 4. ALL SIGNAL CABLE IS CONTINUOUS FROM CONNECTIONS MADE IN THE HAND HOLE COMPARTMENT OF SIGNAL POLE TO THE TERMINAL COMPARTMENT IN THE CONTROLLER CABINET. ALL SPLICING OF CONDUCTORS SHALL BE DONE IN HAND HOLES OF THE SIGNAL POLE. NO ELECTRIC SPLICES WILL BE ALLOWED UNDERGROUND OR IN PULL BOXES.
- 5. TRAFFIC SIGNAL POLES, PEDESTAL POLES, AND PUSH BUTTON EXTENDERS SHALL BE GALVANIZED THEN POWDER-COATED BLACK.
- 6. CONTRACTOR SHALL CONTACT CITY OF PUEBLO TO COMPLETE COMPLIANCE PRIOR TO OPERATION. UPON COMPLETION OF THE INSPECTION, FIELD OPERATION TESTING SHALL BEGIN. PLEASE SEE NOTE #13 FOR CONTACT INFORMATION.
- 7. ALL AUDIBLE PEDESTRIAN PUSH BUTTON SHALL BE DELIVERED TO CITY OF PUEBLO FOR PROGRAMMING AT LEAST 2 WEEKS PRIOR TO INSTALLATION. PLEASE SEE NOTE #13 FOR CONTACT INFORMATION..
- 8. DETECTION SHALL BE OPERATIONAL PRIOR TO TURNING ON THE NEW SIGNAL. COORDINATE THE SETUP OF DETECTION ZONES AND RADIO PROGRAMMING WITH CITY OF PUEBLO. PLEASE SEE NOTE #13 FOR CONTACT INFORMATION.
- 9. SIGNAL CABINET SHALL BE DELIVERED TO CITY OF PUEBLO AT LEAST TWO WEEKS PRIOR TO INSTALLATION FOR TESTING OR THE CONTRACTOR SHALL PROVIDE PROOF OF A 7 DAY RUN TIME OF CABINET PRIOR TO INSTALLATION. IF CONTRACTOR CHOOSES TO TEST CABINET, CONTACT CITY OF PUEBLO 1 WEEK PRIOR TO TEST PERIOD FOR THE TRAFFIC SIGNAL CONTROLLER.
- 10. ONE 336 TRAFFIC CONTROLLER CABINET SHALL BE FURNISHED AND INSTALLED. SEE TRAFFIC TABULATIONS FOR LOCATIONS.
- 13. CONTACT PERSON:
 JASON ARNDT, TRAFFIC MAINTENANCE SUPERVISOR
 OFFICE 719-553-2300
 CELL 719-320-2463
- 14. CONTRACTOR SHALL FURNISH AND INSTALL A CABINET BASE, QUAZITE, FIBERLYTE OR APPROVED EQUAL, 24" IN HEIGHT AND SIZED TO FIT A 336 CABINET. CABINET BASE SHALL BE INSTALLED WITH 12" EXPOSED ABOVE FINISHED GRADE. CONTRACTOR SHALL PROVIDE MINIMUM OF 3' x 3' ADJACENT TO EACH DOOR OF THE CABINET (SIDEWALK MAY SUFFICE AS CONCRETE PAD). CONCRETE PAD INCLUDED IN COST OF CONSTRUCTING CABINET BASE.
- 15. CONTRACTOR SHALL PROVIDE AN UNMETERED FEED TO STREETLIGHTS AND A METERED FEED TO THE TRAFFIC SIGNAL CONTROLLER WIRING PER BLACK HILLS ENERGY SPECIFICATIONS.
- 16. INSTALLATION SHALL INCLUDE ADA PEDESTRIAN PUSH BUTTONS. ALL PEDESTRIAN PUSH BUTTON SIGNS SHALL CONFORM TO MUTCD OR R10-3e. PEDESTRIAN PUSH BUTTON SIGNS SHALL BE PANEL TYPE. BUTTON SIGNS SHALL BE INCIDENTAL TO THE PUSH BUTTON. MINIMUM REACH TO THE BUTTON SHALL BE 10".

SHEET No. 29

Know what's below.
Call before you dig.



PROJECT No. 17.946.001

EDA PROJECT NUMBER: 05-01-05793

HISTORIC ARKANSAS RIVERWALK OF PUEBLO
GATEWAY PLAZA PROJECT

TRAFFIC SIGNAL NOTES

T100

29 OF 31

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

DESIGNED BY: SDB SCALE DATE ISSUED: MAY 9, 2018 DRAWING No.

T100

RCE VERT.

CHECKED BY:

TABULATION OF SIGNAL QUANTITIES

ITEM#	ITEM DESCRIPTION	UNIT	QUANTITY
503-00018	DRILLED CAISSON (18 INCH)	LF	5
503-00036	DRILLED CAISSON (36 INCH)	LF	28
613-01200	(1) 2 INCH CONDUIT (PVC)	LF	231
613-01300	(1) 3 INCH CONDUIT (PVC)	LF	416
613-00502	PULL BOX (36" x 24" x 18")	EA	3
613-07034	SIGNAL CABINET BASE (ROCK FIBER)	EA	1
613-10000	WIRING	LS	1
613-80130	METER PEDESTAL	EA	1
614-01000	INSTALL TRAFFIC SIGNAL EQUIPMENT	LS	1
614-70150	PEDESTRIAN SIGNAL FACE (16) (COUNTDOWN)	EA	2
614-70336	TRAFFIC SIGNAL FACE (12-12-12)	EA	4
614-72855	TRAFFIC SIGNAL CONTROL CABINET	EA	1
614-72860	PEDESTRIAN PUSH BUTTON	EA	2
614-81125	SIGNAL LIGHT POLE STEEL (1-25 ft)	EA	1
614-81130	SIGNAL LIGHT POLE STEEL (1-30 ft)	EA	1
614-84000	TRAFFIC SIGNAL PEDESTRIAN POLE STEEL	EA	1
614-86246	CONTROLLER (TY170E-HCII)	EA	1
614-86800	UPS	EA	1
627-30210	THERMOPLASTIC PAVEMENT MARKING	SF	132

SIGNAL POLE SCHEDULE

POLE NUMBER	A		B	
LOCATION	NW CORN	NW CORNER NE CORNER		RNER
NORTHING	1583729.	62	15836	91.83
EASTING	3255707.48		3255763.75	
CAISSON ELEV.	4660.408		4660.158	
MAST ARM WIRE LENGTH	25'		30'	
BASE DIA. DEPTH	36"	14'	36"	14'

Pole: VISCO V1-A14/36-1FT/21-V318/250HPS/TYPE III/21 BOS - 1 MA

PEDESTRIAN POLE SCHEDULE

POLE NUMB	⟨C⟩			
LOCATION		NW CORNER		
NORTHING		1583749.53		
EASTING		3255721.08		
CAISSON ELEV.		4660.605		
POLE HEIGHT		10'		
BASE DIA.	DEPTH	18"	5'	
Sada di an Dalay M. I. Miladian Ing. (an anno and a				

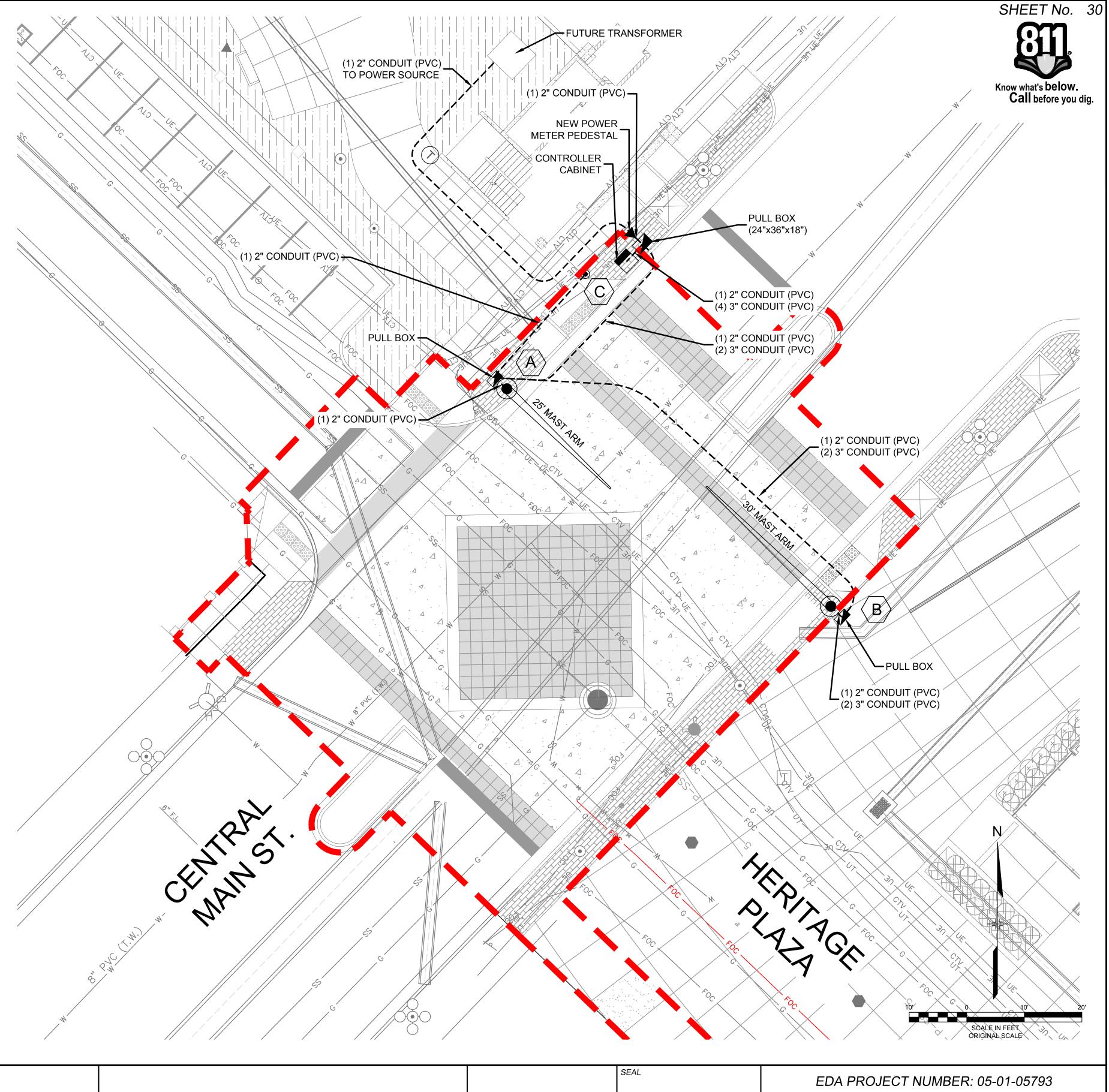
Pedestrian Pole: W.J. Whatley Inc. (or approved equal) 400 Series Post - black, fluted and tapered Base: Model 409 Yorktown (or approved equal), black (16.5" w x 20") Installed with anchor base

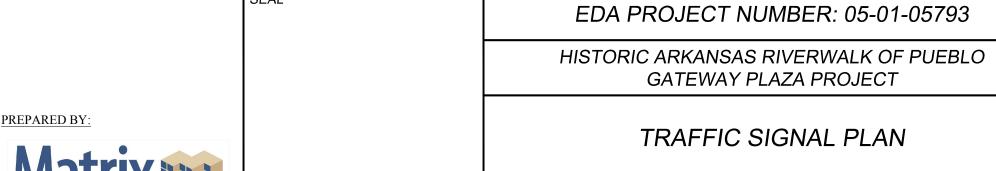
NOTE: CONTRACTOR TO VERIFY ALL ELEVATIONS PRIOR TO CONSTRUCTION.

SIGNAL EQUIPMENT LEGEND

PEDESTRIAN SIGNAL HEAD		POWER METER PEDESTAL	▼
TRAFFIC SIGNAL HEAD W/ BACKPLATE	\rightarrow	CONTROLLER CABINET	
TRAFFIC SIGNAL HEAD W/O BACKPLATE		PEDESTRIAN PUSH BUTTON AND SIGN	\triangle
LUMINAIRE	——	DETECTOR CAMERA ON 6' EXTENSION	
PED PUSH BUTTON POLE	•	YAGI ANTENNA	
SIGNAL POLE		TRAFFIC SIGN	
PULL BOX		ILLUMINATED STREET NAME SIGN	
PROPOSED SIGNAL CONDUIT ——		POWER SOURCE	<u></u>

REFERENCE DRAWINGS					
X-481-TITLE-LANDSCAPE X-946-PR-BASE X-946-EX-BASE-COMBINED					
X-479-PR-BASE - Gateway Park X-946-EX-UTIL-COMBINED X-946-PR-UTIL X-MAIN INTERSECTION	No.	DATE	DESCRIPTION		BY
X-WAIN INTERSECTION X-946-PR-BASE - PARKING GA X-946-PR-LIGHTS	RAGE		REVISIONS		
X-946-PR-LANDSCAPE X-946-EX-MAP-COMBINED PLIBA HARR Gataway Park	COMPUTER FILE MANAGEMENT				
	CTB FIL PLOT D	LE: DATE: 6/1/2018	.009 (PURA HARP Gateway Park)\Dwg\Construction Plans\Traffic\HAWK signalization.dwg 9:03 AM		





DESIGNED BY: SDB SCALE DATE ISSUED: DRAWN BY: MHH HORIZ. 1'' = 20' CHECKED BY: SDB VERT. N/A SHEET

MAY 31, 2018 DRAWING No.

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FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 17.946.001

