HISTORIC ARKANSAS RIVERWALK OF PUEBLO

SHEET No. Know what's below. Call before you dig.

GATEWAY PLAZA CONSTRUCTION DOCUMENTS

EDA PROJECT NO. 05-01-05793

SHEET No INDEX OF SHEETS C100 TITLE SHEET GENERAL NOTES C101 DEMOLITION PLAN C104-C105 HORIZONTAL CONTROL PLAN GRADING & EROSION CONTROL PLAN STORM SEWER PLAN & PROFILE C106-C107 C108-C109 C1010-C113 **DETAIL SHEET** L100-L101 SITE IMPROVEMENTS PLAN L102-L105 SITE IMPROVEMENTS DETAILS 17-20 21-22 L106-L107 LANDSCAPE PLAN LANDSCAPE DETAILS IRRIGATION NOTES IR101-IR102 IRRIGATION PLANS 27-28 IR103-IR104 IRRIGATION DETAILS TRAFFIC SIGNAL NOTES TRAFFIC SIGNAL PLAN

CITY PROJECT NO. 18-046 (EDA 1503 & RTA 1601)
320 CENTRAL MAIN STREET
PUEBLO, CO 81003
JUNE 14, 2018

OWNERS:

1) CITY OF PUEBLO DEPARTMENT OF PUBLIC WORKS 211 EAST "D" STREET PUEBLO, CO 81003 CONTACT: JEFF BAILEY (719)553-2295

TRAFFIC SIGNING PLAN

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

2) HARP

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 **KEY MAP** 1"=50

OWNER APPROVAL:

CITY OF PUEBLO DATE:

PUEBLO URBAN RENEWAL AUTHORITY DAT

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, I GREGORY SHANER, PE# 36307



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 G X-479-PR-BASE - GATEWAY PARK X-481-TITLE-LANDSCAPE X-PR-LIMIT-Gateway Park					
		DATE	DESCRIPTION	BY	
	REVISIONS			1 61	
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FILE NAME: S:\17.946.001 (Pueblo Convention Center)\Dwg\Construction Plans\EDA Package\TS01.dwg CTB FILE: PI OT DATE: 6/14/2018 2:31 PM					
			S 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

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.
- 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 ± 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:

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

DRAWINGS

X946-PRASS-COMBINED
X946-PRASS-COMBI

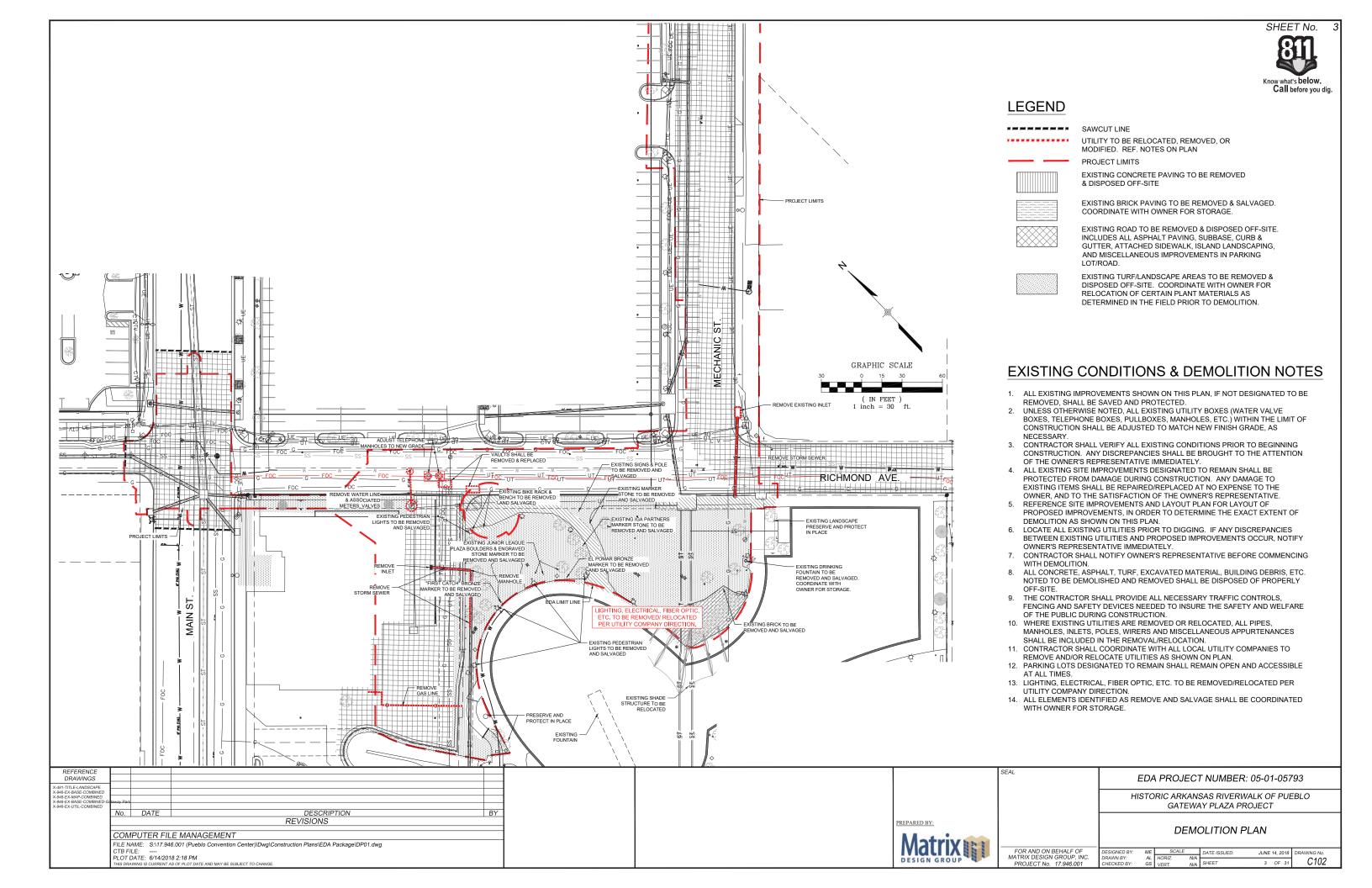
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.
PROJECT No. 17 946 001

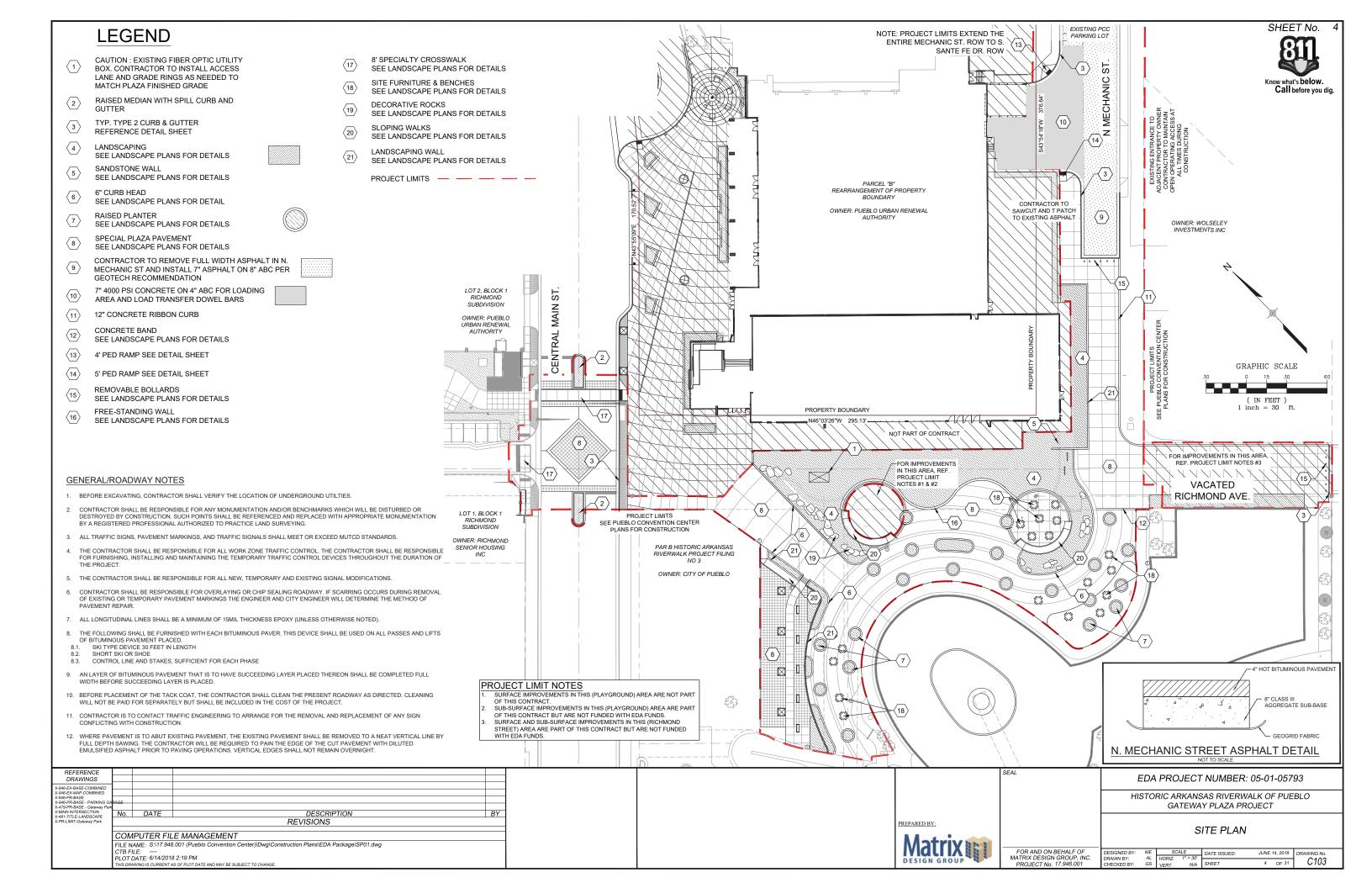
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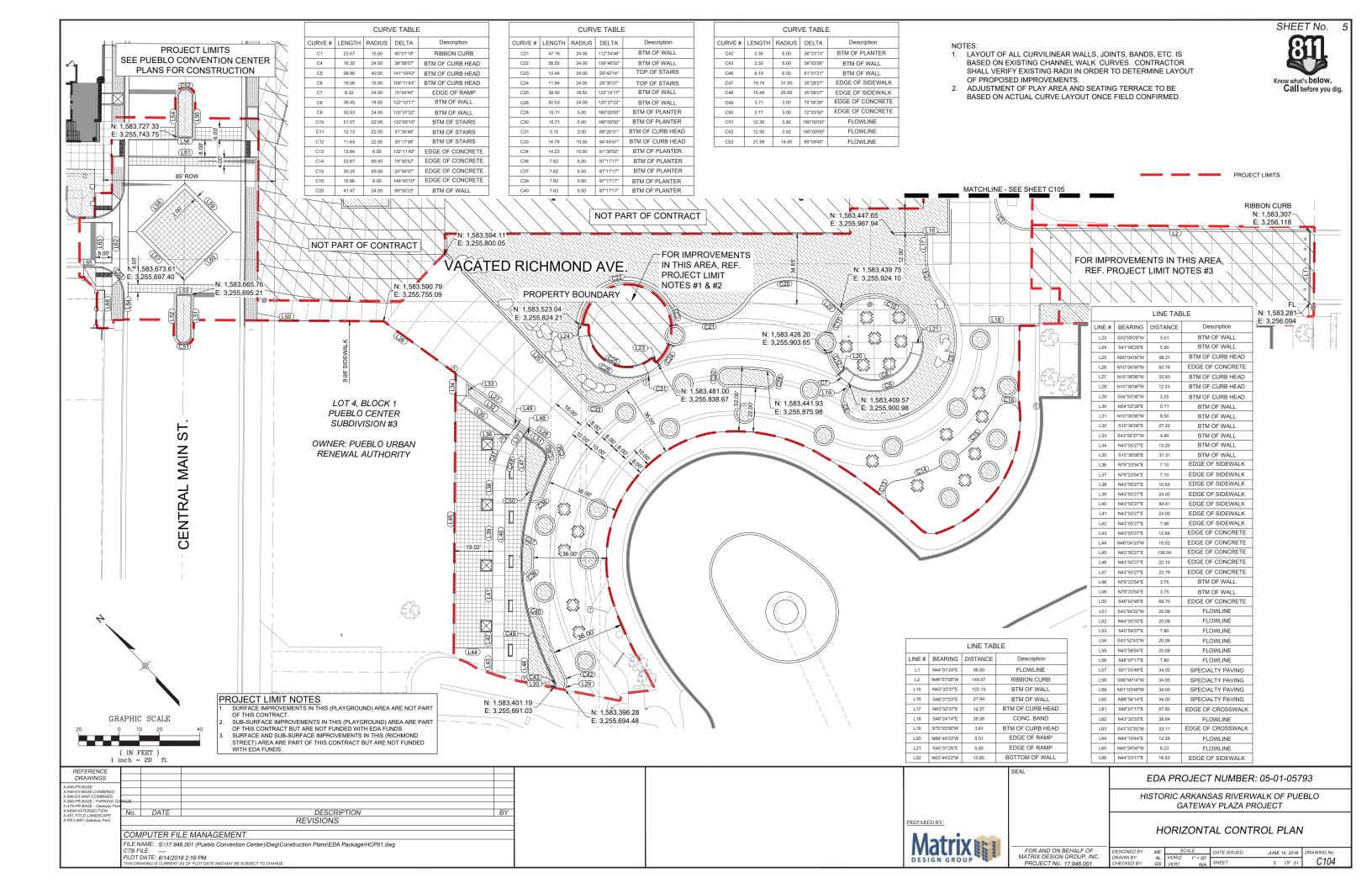
HISTORIC ARKANSAS RIVERWALK OF PUEBLO GATEWAY PLAZA PROJECT

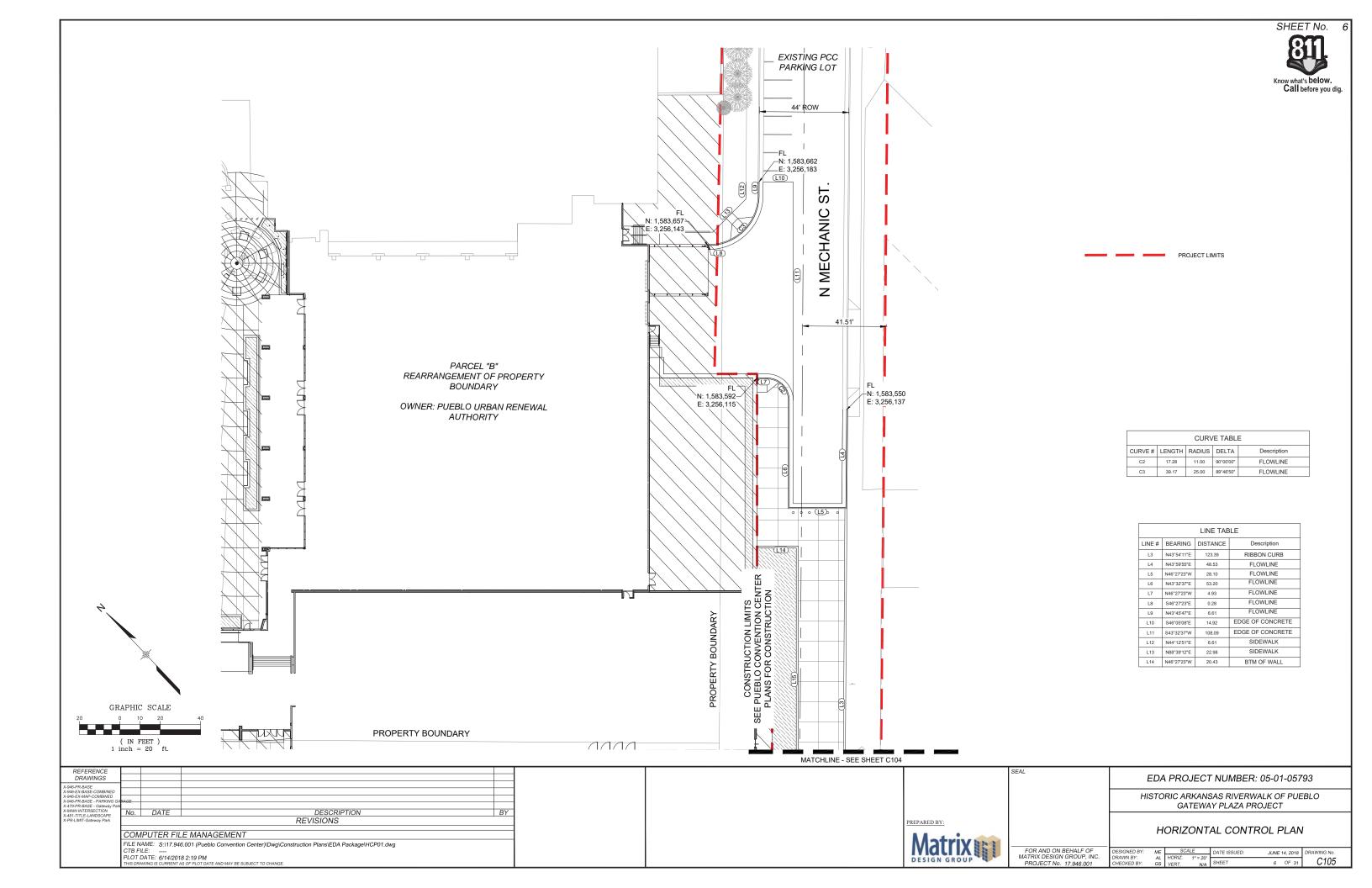
GENERAL NOTES

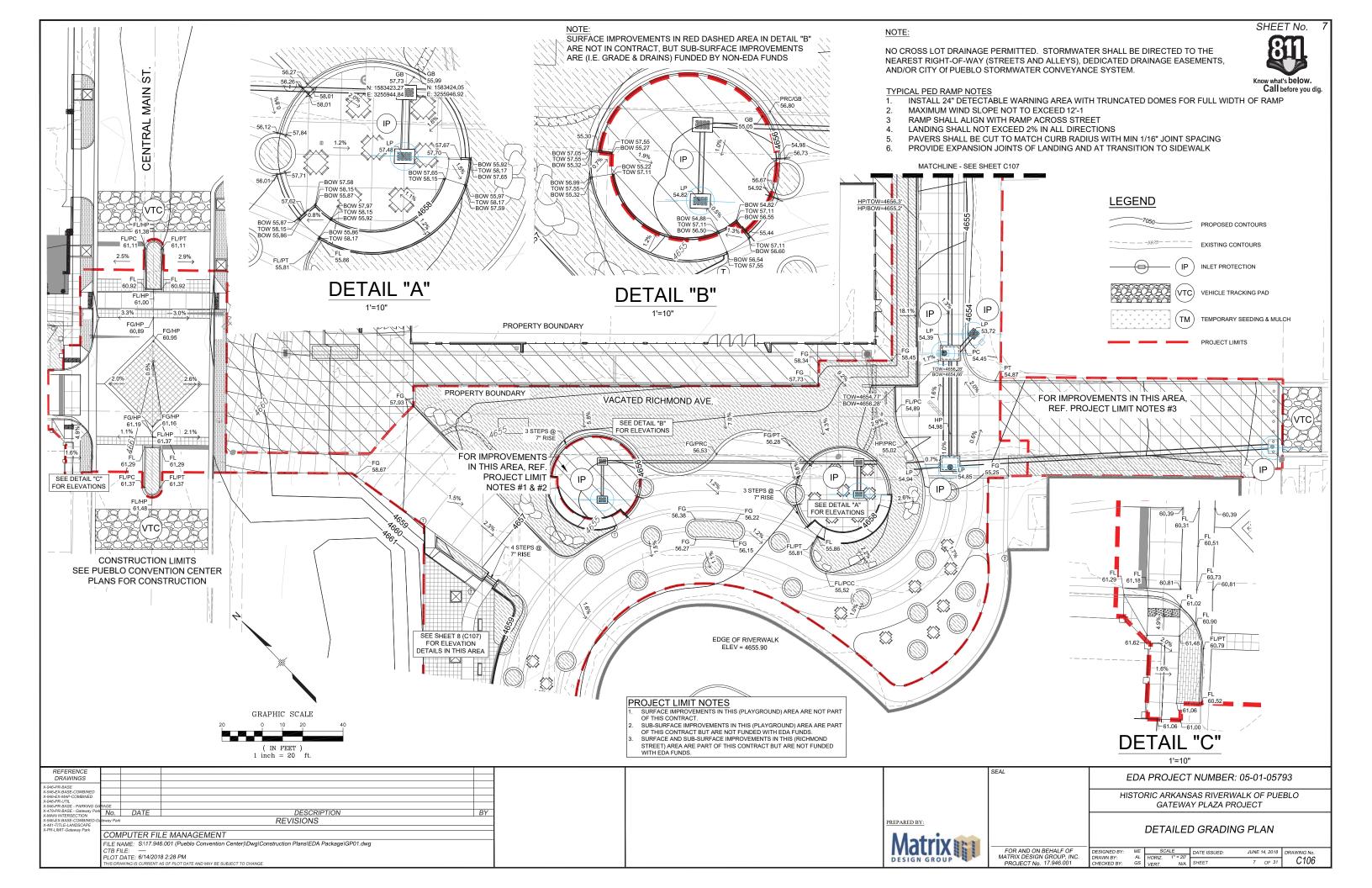
FOR AND ON REHALF OF DESIGNED BY ME SCALE DATE ISSUED.

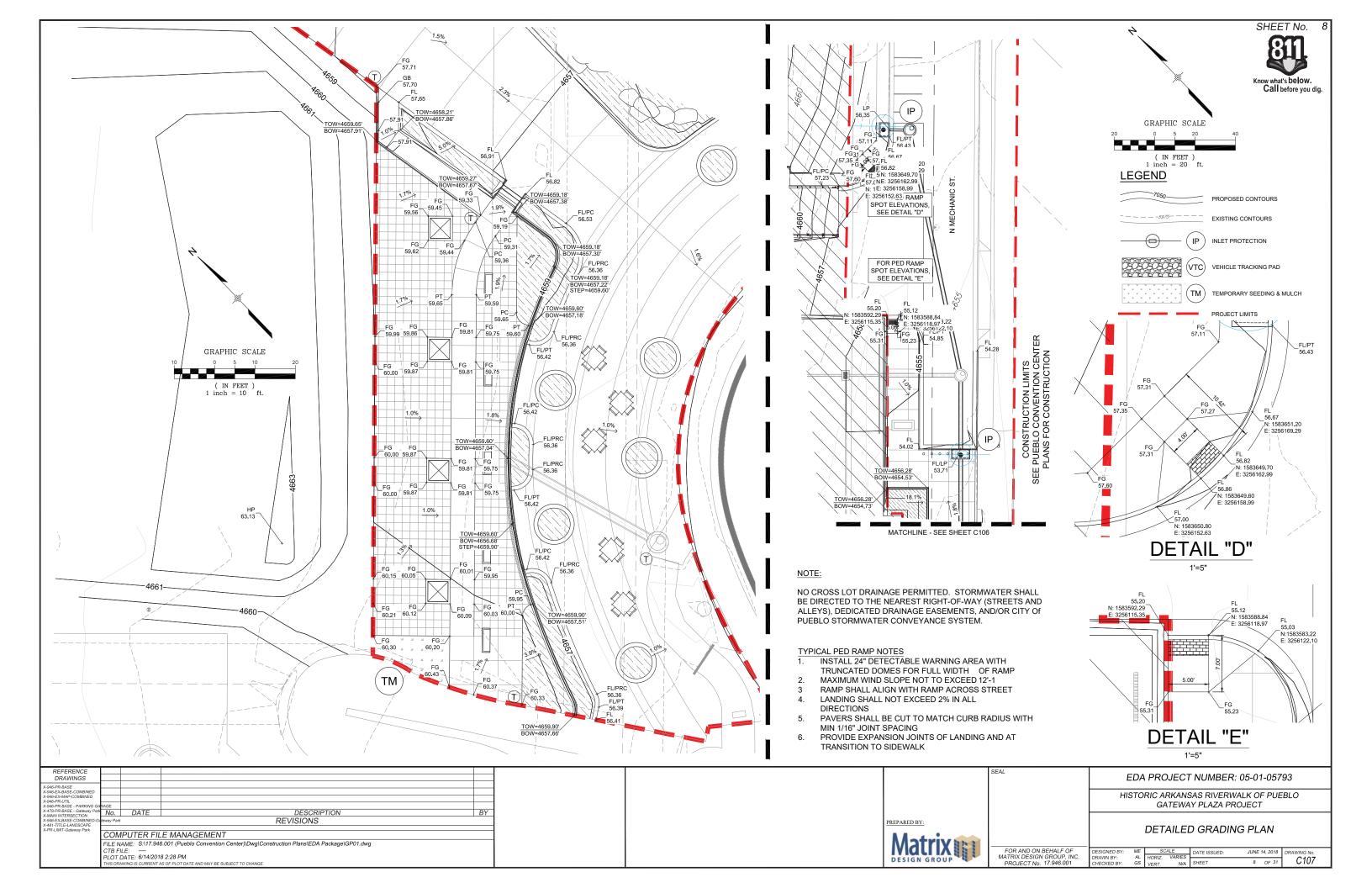


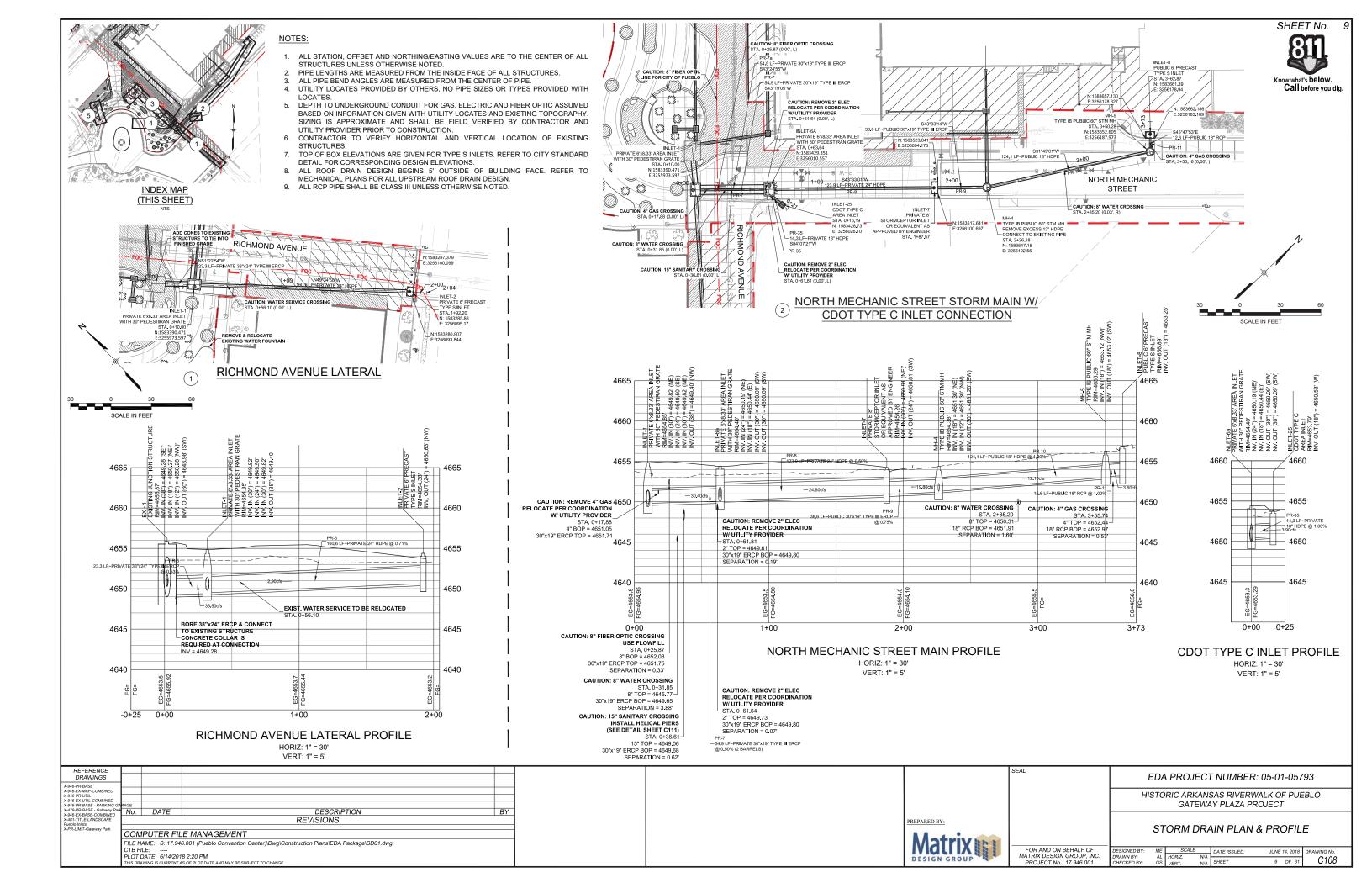


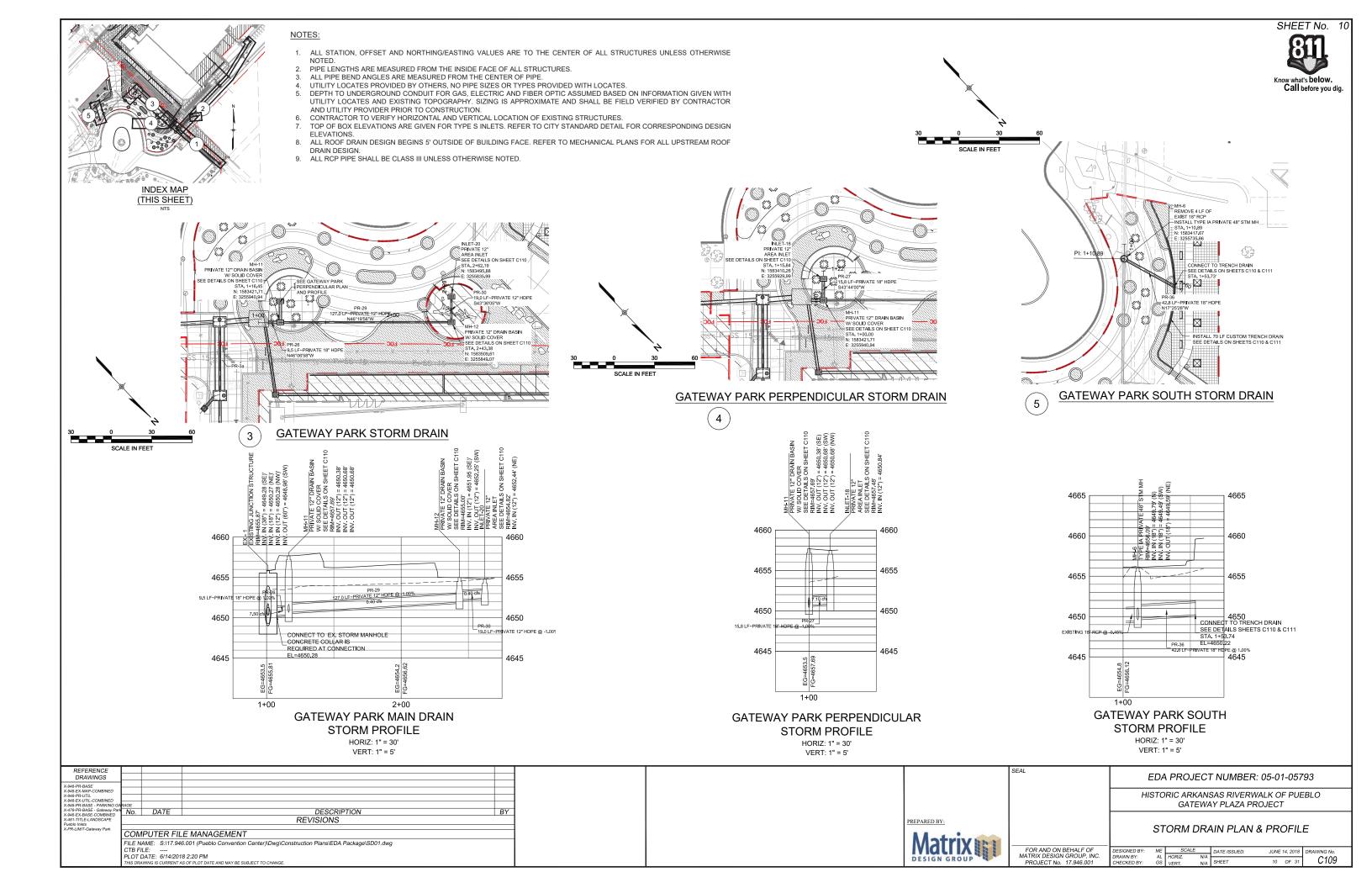


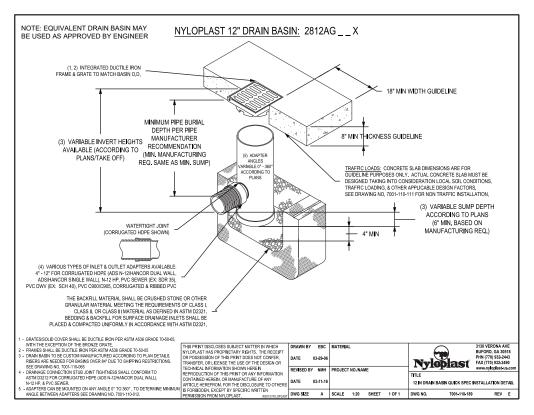




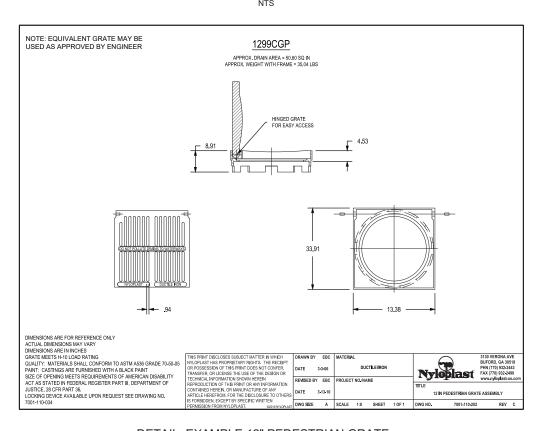


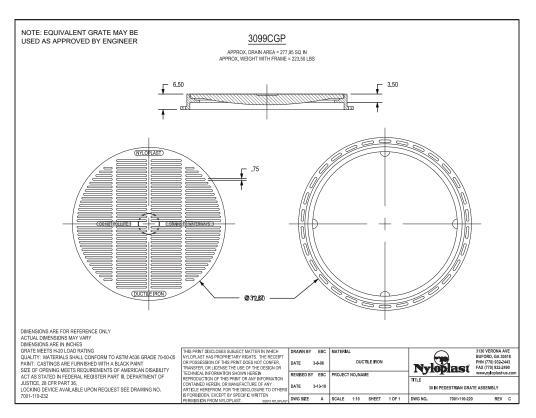




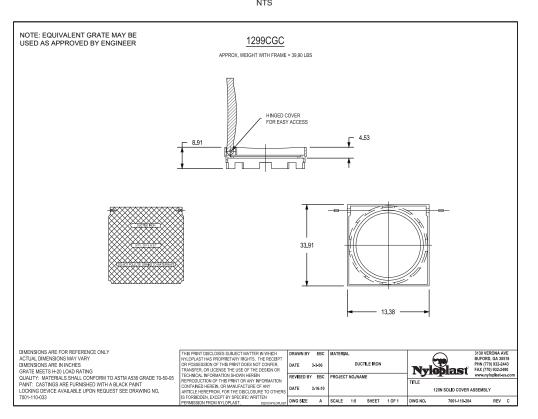


DETAIL: EXAMPLE 12" DRAIN BASIN

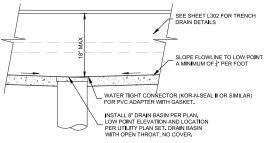




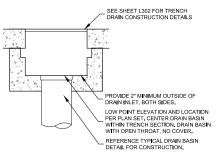
DETAIL: EXAMPLE 30" PEDESTRIAN GRATE



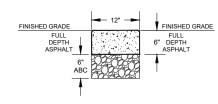
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DETAIL: CUSTOM TRENCH DRAIN SECTION

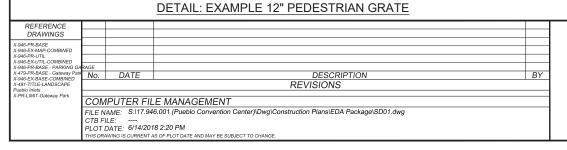


DETAIL: CUSTOM TRENCH DRAIN BASIN INSTALLATION



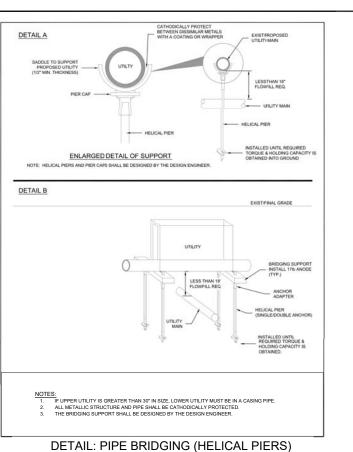
RIBBON CURB HEAD DETAIL

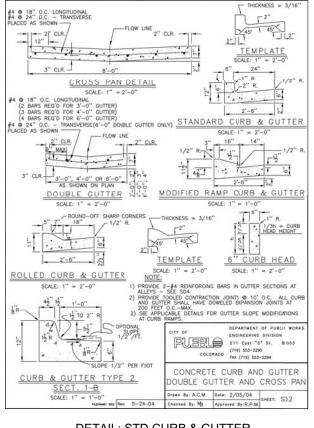
DETAIL: EXAMPLE 12" SOLID GRATE

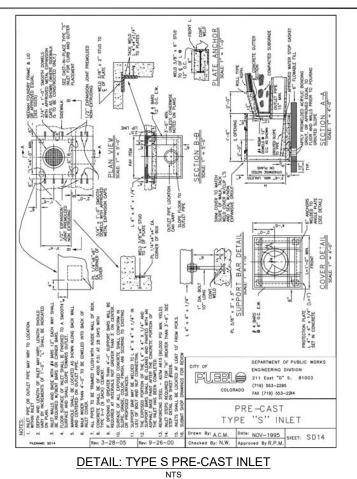


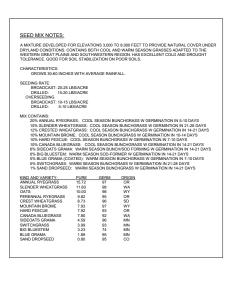
PREPARED BY:	
DESIGN GROUP	

SEAL	EDA PROJECT NUMBER: 05-01-05793				
	HISTORIC ARKANSAS RIVERWALK OF PUEBLO GATEWAY PLAZA PROJECT				
	STORM DRAIN PLAN & PROFIL	E			
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 17.946.001	DESIGNED BY: ME SCALE DATE ISSUED: JUNE 14, 2018 DRAWN BY: AL HORIZ. NA CHECKED BY: GS VERT. N/A SHEET 11 OF 31	DRAWING No. C110			







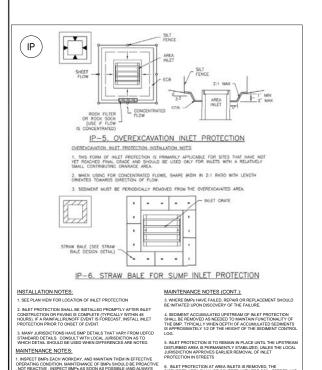


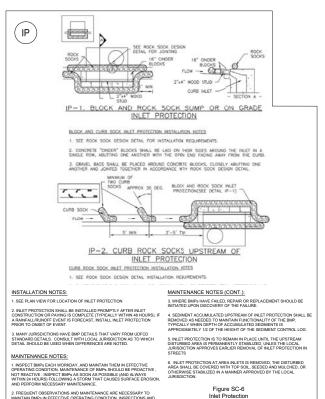
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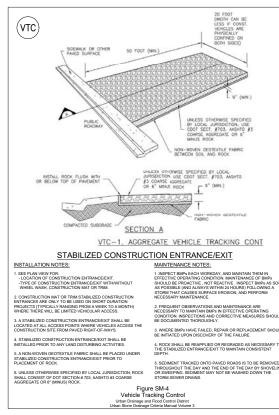
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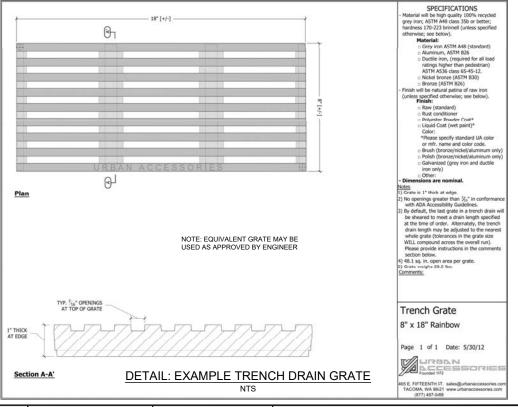
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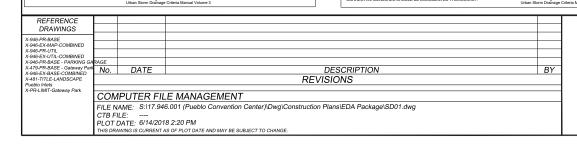
DETAIL: STD CURB & GUTTER NTS

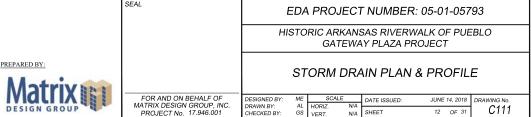




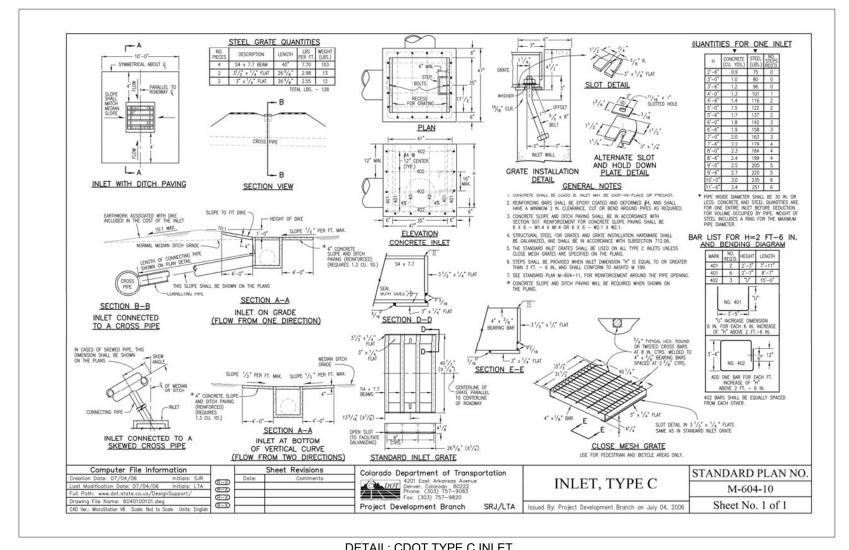


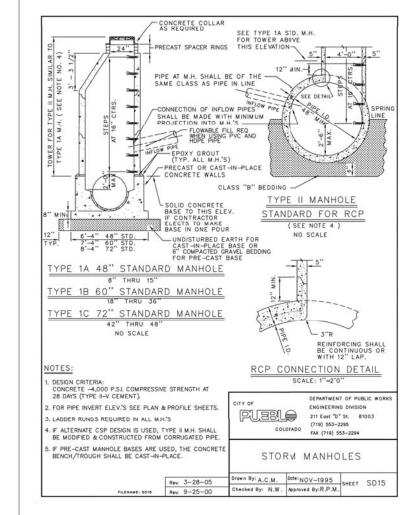










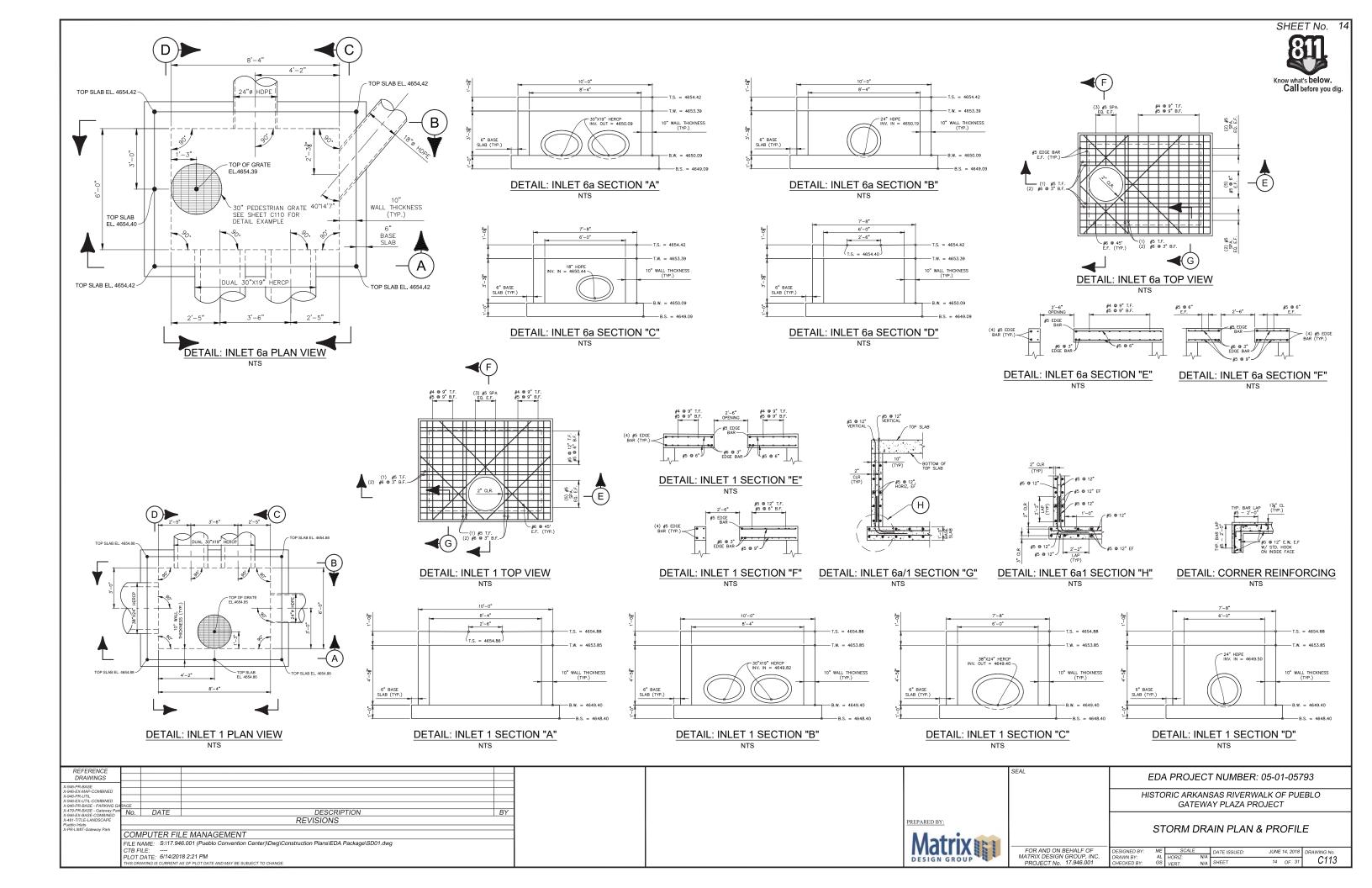


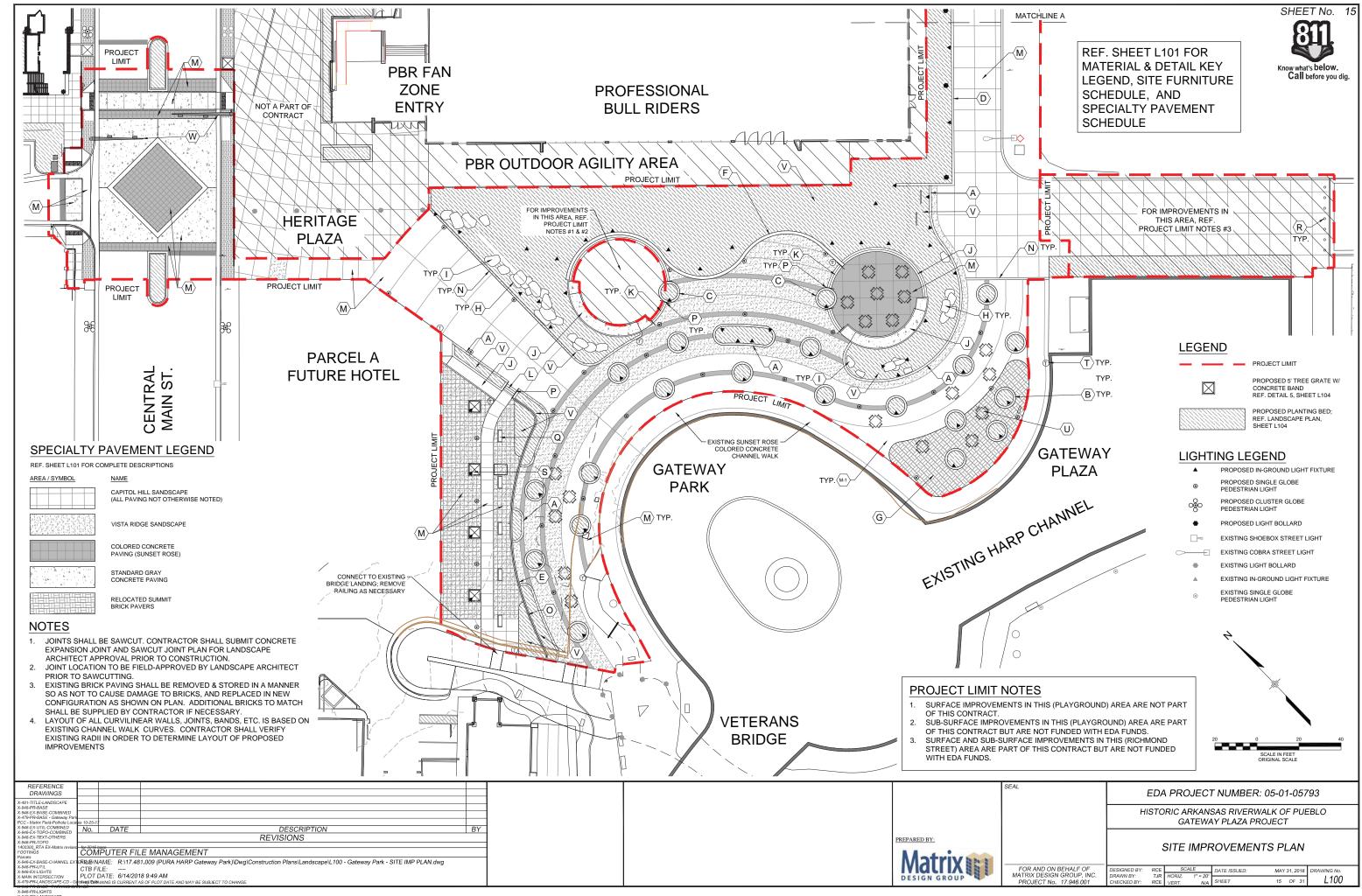
DETAIL: STORM MANHOLES

NTS

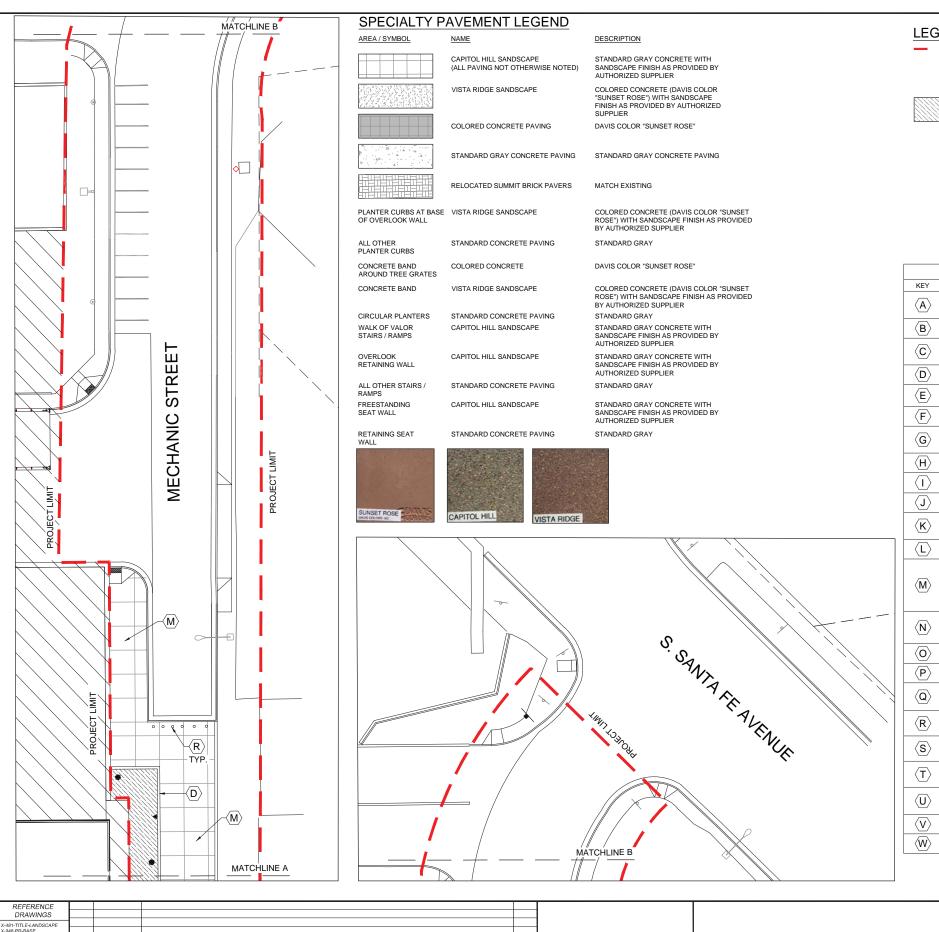
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NIO	

REFERENCE DRAWINGS			1	SEAL	EDA PROJECT NUMBER: 05-01-05793
S-PR-BASE S-EX-MAP-COMBINED S-PR-UTIL S-EX-UTIL-COMBINED S-PR-BASE - PARKING GA S-PR-BASE - Gateway Park S-EX-BASE-COMBINED I-TITLE-LANDSCAPE					HISTORIC ARKANSAS RIVERWALK OF PUEBLO
-EX-UTIL-COMBINED 3-PR-BASE - PARKING GA	RAGE DESCRIPTION DESCRIPTION				GATEWAY PLAZA PROJECT
S-EX-BASE-COMBINED I-TITLE-LANDSCAPE	No. DATE DESCRIPTION BY REVISIONS	PREI	EPARED BY:		
	COMPUTER FILE MANAGEMENT				STORM DRAIN PLAN & PROFILE
	FILE NAME: S:\17.946.001 (Pueblo Convention Center)\Dwg\Construction Plans\EDA Package\SD01.dwg CTB FILE:		Matrix	FOR AND ON BEHALF OF	DESIGNED BY: ME SCALE DATE ISSUED: JUNE 14, 2018 DRAWIN
	PLOT DATE: 6/14/2018 2:21 PM THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.	D	ESIGN GROUP	MATRIX DESIGN GROUP, INC. PROJECT No. 17.946.001	DRAWN BY: AL HORIZ. N/A CHECKED BY: GS VERT. N/A SHEET 13 OF 31





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





PROJECT LIMIT



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 TRASH RECEPTACLE; REF. SITE FURNITURE SCHEDULE, THIS



DESCRIPTION

CONCRETE PLANTER CURB

CIRCULAR

PLANTER

PLANTER AT

STEPS

RETAINING SEAT

OVERLOOK

RETAINING WALL

FREESTANDING

SEAT WALL

RELOCATED BRICK PAVING

SLOPING WALK / CHEEK WALLS

STAIRS AT PLAY

/ SEATING AREAS

CONCRETE

PAVING

COLORED

CONCRETE ORNAMENTAL

METAL RAILING

LENGTH

BOLLARD

TREE GRATE

RECEPTACLE

TABLE & CHAIRS

SILOAM SANDSTONE SLABS

SILOAM SANDSTONE BOULDERS

TABLE & CHAIRS: REF. SITE SHEET, AND DETAILS 2 & 5, SHEET

MATERIAL & DETAIL KEY LEGEND

REFERENCE

DETAIL 1. SHEET L103

DETAILS 2, 3 & 4,

SHEET L103

DETAIL 5, SHEET L103

DETAILS 1, 2 & 3, SHEET L104

DETAIL 6 & 7, SHEET

DETAIL 6, SHEET L104

DETAILS 3, 5, 7 & 8, SHEET L105

DETAIL 6. SHEET L105

PER CITY OF PUEBLO STANDARD CONSTRUCTION

SPECIFICATIONS, 6"

DEPTH, 4500 PSI (7-SACK MIX)

DETAIL 2, SHEET L105

DETAIL 1, SHEET L105

DETAIL 4, SHEET L102

DETAIL 6. SHEET L102

DETAIL 5, SHEET L104

DETAIL 1, SHEET L102

DETAIL 2 & 5, SHEET

PLANTING BED LANDSCAPE PLAN, SHEETS L106 & L107

STAIR HANDRAIL DETAIL 4, SHEET L105

HAWK PEDESTRIAN SIGNAL CROSSING

STAIRS AT WALK DETAIL 6, SHEET L105 CAPITOL HILL SANDSCAPE

NOTES

SCHEDULE, THIS SHEET

STANDARD GRAY

STANDARD GRAY

STANDARD GRAY

CAPITOL HILL SANDSCAPE

CAPITOL HILL SANDSCAPE

STANDARD GRAY

SCHEDULE, THIS SHEET

VISTA RIDGE SANDSCAPE

REF. SITE FURNITURE SCHEDULE, THIS SHEET

REF. SITE FURNITURE

SCHEDULE, THIS SHEET

REF. SITE FURNITURE

REF. SITE FURNITURE SCHEDULE, THIS SHEET

REE SITE FURNITURE

DETAIL 4, SHEET L104 REF. SPECIALTY PAVEMENT

SHEET, AND DETAIL 1, SHEET L102

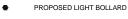
LIGHTING LEGEND

PROPOSED IN-GROUND LIGHT FIXTURE

PROPOSED SINGLE GLOBE PEDESTRIAN LIGHT



PROPOSED CLUSTER GLOBE PEDESTRIAN LIGHT



EXISTING SHOEBOX STREET LIGHT EXISTING COBRA STREET LIGHT

EXISTING LIGHT BOLLARD EXISTING IN-GROUND LIGHT FIXTURE

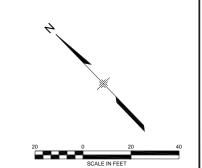
EXISTING SINGLE GLOBE PEDESTRIAN LIGHT

SITE FURNITURE SCHEDULE					
TYPE	QUANTITY	MANUFACTURER	MODEL NO.	COLOR	
RASH 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	
N-GROUND LIGHT FIXTURE	58	LUMASCAPE, OR APPROVED EQUAL	LS393LED	POLISHED	
SINGLE GLOBE EDESTRIAN LIGHT	31	PER CITY C STREETSCAPE COORDINATE WIT ENEF	GUIDELINES; H BLACK HILLS	BLACK	

SHEET No.

Know what's helow

Call before you dig.



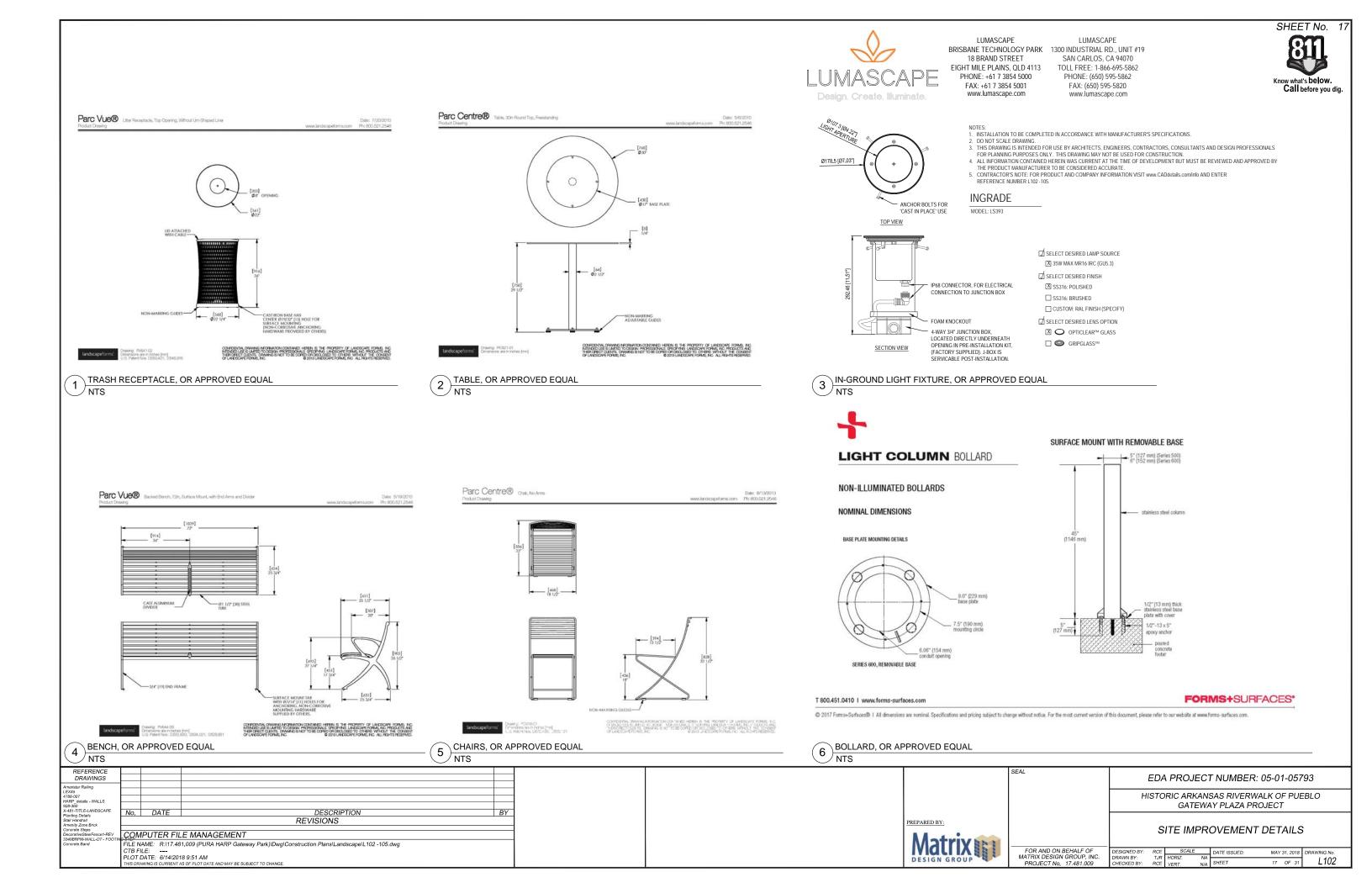
ı	REFERENCE							
-	DRAWINGS							
-	X-481-TITLE-LANDSCAPE							
-	X-946-PR-BASE							
-	X-946-EX-BASE-COMBINED X-479-PR-BASE - Gateway Park							
	PCC - Matrix Field-Pothole Local							
1	X-946-EX-UTIL-COMBINED X-946-EX-TOPO-COMBINED	No.	DATE	DESCRIPTION	BY			
ı	X-946-EX-TEXT-OTHERS		REVISIONS					
ı	K-946-PR-TOPO W-946-PR-TOPO W-							
ı	FOOTINGS Parcels	COM	IPUTER FIL	E MANAGEMENT				
ı	X-946-EX-BASE-CHANNEL EXT	ER批配 N	AME: R:\17.48	1.009 (PURA HARP Gateway Park)\Dwg\Construction Plans\Landscape\L100 - Gateway Park - SITE IMP PLAN.dwg				
-	X-946-PR-UTIL X-946-EX-LIGHTS	CTB F	ILE:					
ı	X-MAIN INTERSECTION		DATE: 6/14/201					

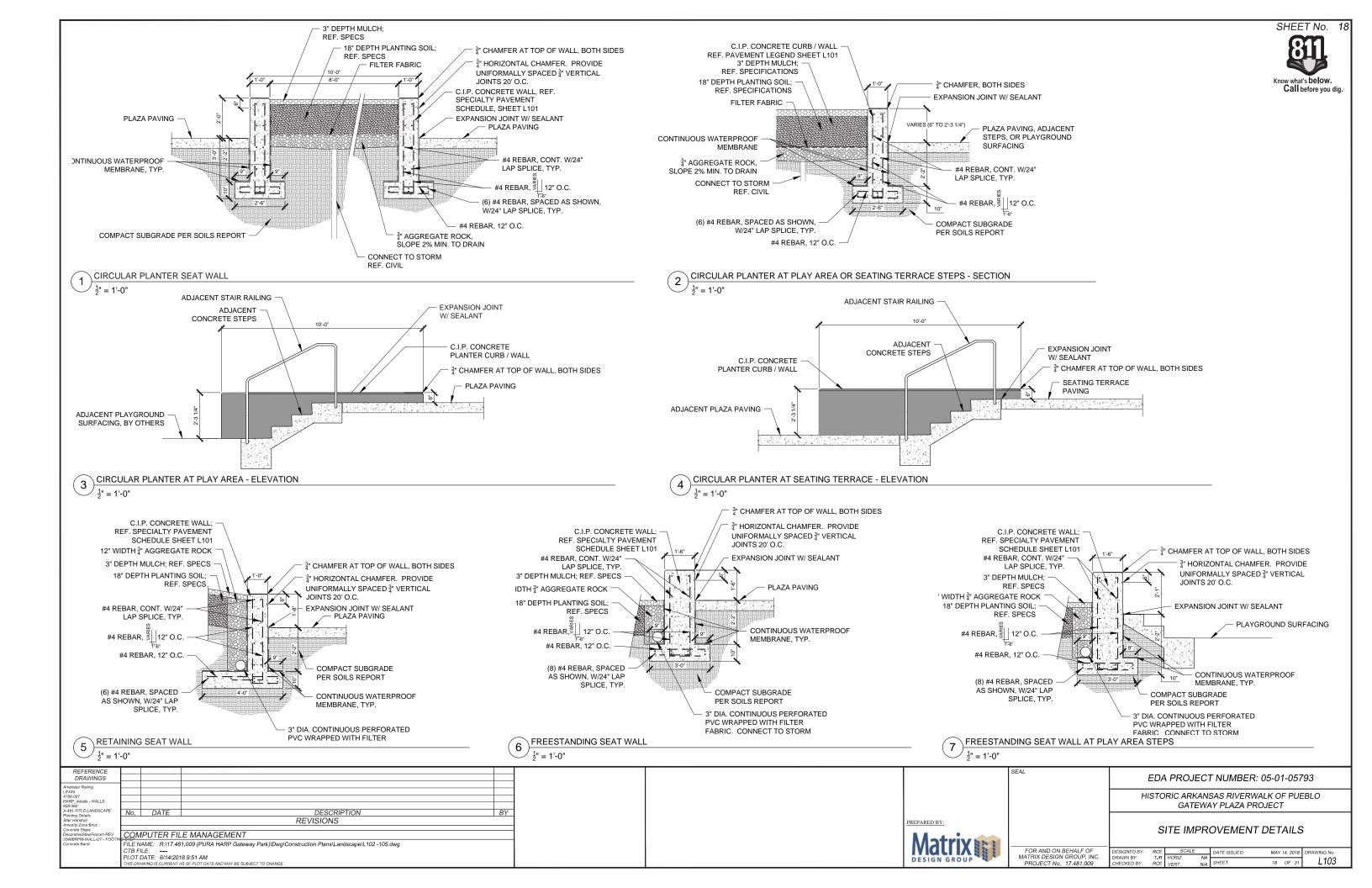
EDA PROJECT NUMBER: 05-01-05793

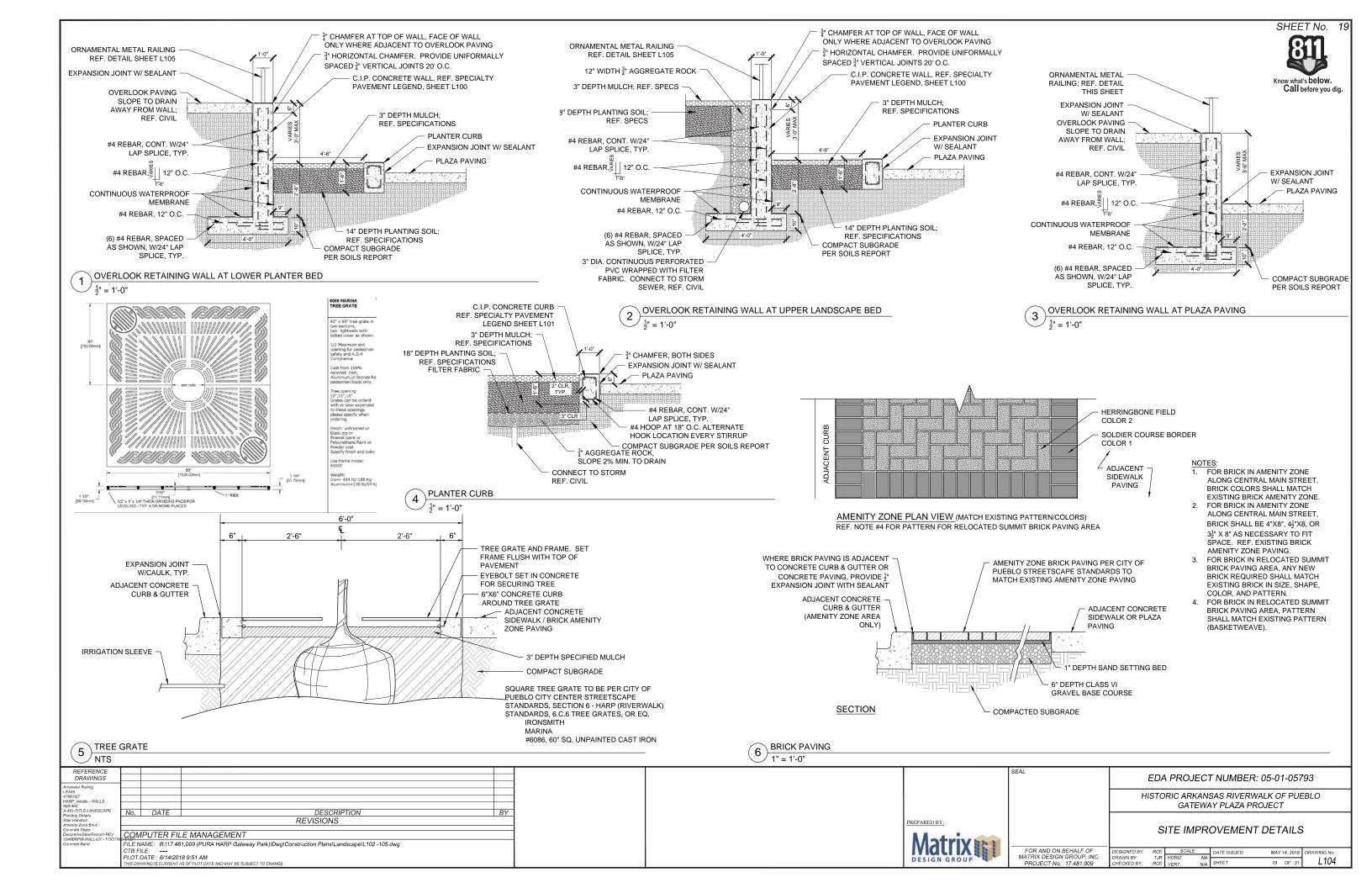
HISTORIC ARKANSAS RIVERWALK OF PUEBLO GATEWAY PLAZA PROJECT

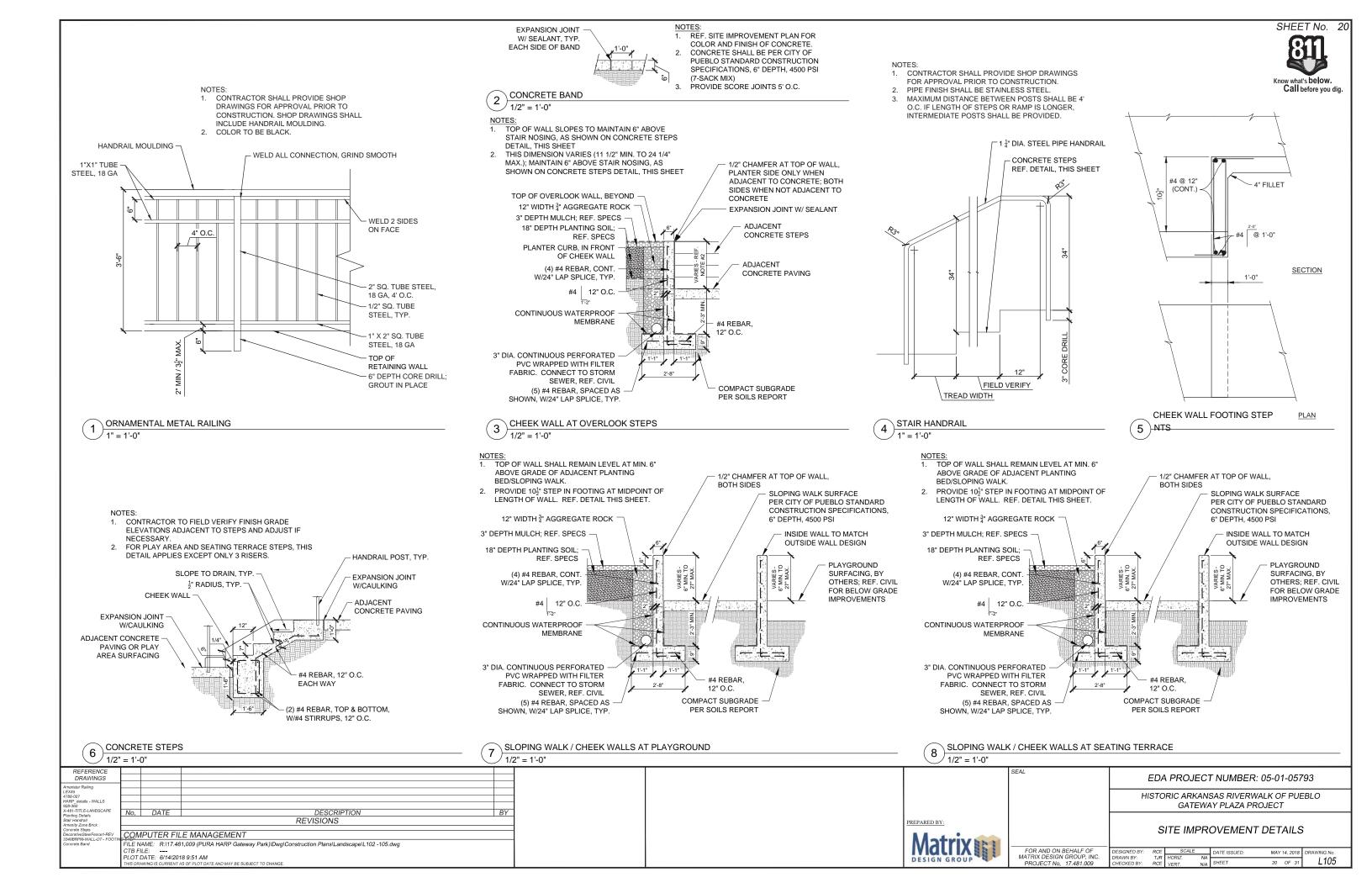
SITE IMPROVEMENTS PLAN

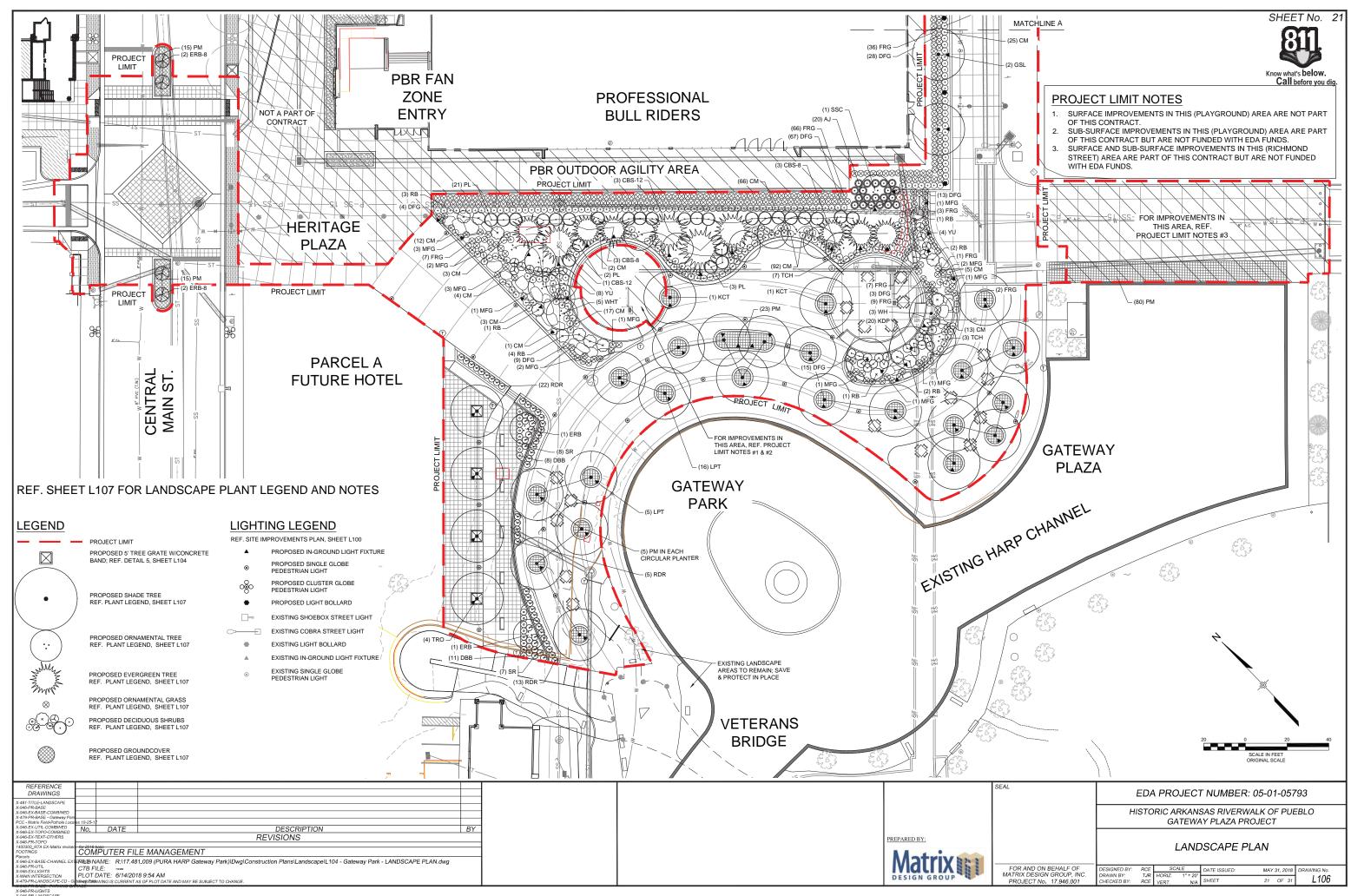
FOR AND ON BEHALF OF MAY 31, 2018 L101 16 OF 31





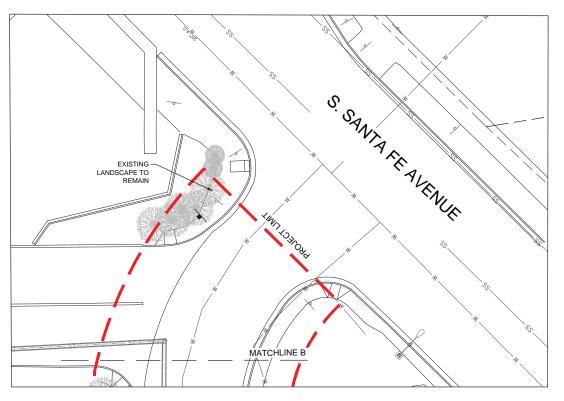






LANDSCAPE NOTES

- 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.
- . 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.
- SHRUB BEDS ARE REQUIRED TO BE AMENDED AND TILLED IN THEIR ENTIRETY.
- 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.
- 5. 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 3" 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.
- OCONTRACTOR 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.
- 10. PERENNIALS SHOWN IN PLANT LEGEND SHALL BE SELECTED AND FIELD-LOCATED IN COORDINATION WITH LANDSCAPE ARCHITECT.



PLANT LEGEND NOTES SYMBOL QUANTITY COMMON NAME BOTANICAL NAME SIZE DECIDUOUS SHADE TREES KENTUCKY COFFEE TREE GYMNOCLADUS DIOICA GREENSPIRE LINDEN TILIA CORDATA 'GREENSPIRE' 4" CAL. B&B LONDON PLANE TREE PLATANUS X ACERIFOLIA B&B WESTERN HACKBERRY CELTIS OCCIDENTALIS B&B EVERGREEN TREE COLORADO BLUE SPRUCE PICEA PUNGENS GLAUCA COLORADO BLUE SPRUCE PICEA PUNGENS GLAUCA B&B ORNAMENTAL TREES EASTERN REDBUD CERCIS CANADENSIS B&B ERB SPRING SNOW CRABAPPLE MALUS 'SPRING SNOW 4" CAL. B&B HORNLESS COCKSPUR CRATAEGUS CRUS-GALLI 4" CAL. B&B HAW/THORN INFRMIS WASHINGTON HAWTHORN CRATAEGUS PHAENOPYRUM 4" CAL. B&B **EVERGREEN SHRUBS** ANDORRA JUNIPER 5 GAL. SPACING AS SHOWN JUNIPERUS HORIZONTALIS 'YOUNGSTOWN' 5 GAL. SPACING AS SHOWN DECIDUOUS SHRUBS CREEPING MAHONIA MAHONIA REPENS 5 GAL. SPACING AS SHOWN 19 DWARF BUTTERFLY BUSH BUDDLEJA BLUE CHIP 5 GAL. SPACING AS SHOWN 8' HT. B&B; MULTI-TRUNK EASTERN REDBUD CERCIS CANADENSIS 20 KATHERINE DYKES POTENTILLA POTENTILLA FRUTICOSA 'K. 5 GAL. SPACING AS SHOWN DYKES' PURPLE LILAC SYRINGA VULGARIS 5 GAL. SPACING AS SHOWN ERICAMERIA NAUSEOSA SPE 5 GAL. SPACING AS SHOWN 40 RED DRIFT ROSE ROSA MEIGALPIO 5 GAL. SPACING AS SHOWN SHRUB ROSE 'RAINBOW ROSA 'RAINBOW 5 GAL. SPACING AS SHOWN **GROUNDCOVERS** PANCHITO MANZANITA ARCTOSTAPHYLOS X 3' O.C. COLORADENSIS 'PANCHITO' ORNAMENTAL GRASSE 156 DWARF FOUNTAIN GRASS PENNISETUM ALOPECUROIDES 5 GAL. SPACING AS SHOWN FEATHER REED GRASS CALAMAGROSTIS ACUTIFLORA | 5 GAL. | SPACING AS SHOWN KARL FOERSTER MEXICAN FEATHER GRASS NASSELLA TENUISSIMA 5 GAL. SPACING AS SHOWN PERENNIALS 300 VARIOUS PERENNIALS TO BE DETERMINED 1 GAL.

LEGEND

•••

 \otimes

PROJECT LIMIT

PROJECT LIMIT

REF. PLANT LEGEND, THIS SHEET

REF. PLANT LEGEND, THIS SHEET

REF. PLANT LEGEND, THIS SHEET

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

PROPOSED SHADE TREE
REF. PLANT LEGEND, THIS SHEET

PROPOSED EVERGREEN TREE

PROPOSED ORNAMENTAL GRASS
REF. PLANT LEGEND, THIS SHEET

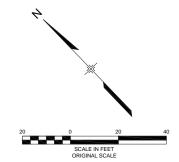
PROPOSED DECIDIOUS SHRUBS

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 LIGHT BOLLARD
- EXISTING IN-GROUND LIGHT FIXTURE
- EXISTING SINGLE GLOBE



SHEET No. 22

Know what's below.

Call before you dig.

REFERENCE						
DRAWINGS						
X-481-TITLE-LANDSCAPE	1					
X-946-PR-BASE						
X-946-EX-BASE-COMBINED X-479-PR-BASE - Gateway Park						
PCC - Matrix Field-Pothole Local		,				
X-946-EX-UTIL-COMBINED X-946-EX-TOPO-COMBINED	No.	DATE	DESCRIPTION	BY		
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FOOTINGS						
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X-946-PR-UTIL X-946-EX-LIGHTS	CTB F.	ILE:	. , , ,			
X-MAIN INTERSECTION	PLOT	DATE: 6/14/201	!8 9:54 AM			
X-479-PR-LANDSCAPE-CD - G	SINGNIE BIRKAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.					

(1) GSL

MATCHLINE A

Matrix

EDA PROJECT NUMBER: 05-01-05793
HISTORIC ARKANSAS RIVERWALK OF PUEBLO

GATEWAY PLAZA PROJECT

LANDSCAPE PLAN

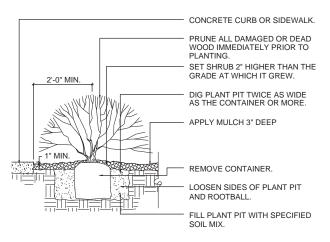
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 17.946.001

DESIGNED BY: RCE SCALE DATE ISSUED: MAY 14, 2018 DRAWING No. 17.946.001

DRAWN BY: TJR HORIZ. 1" = 20" OLICIENTED BY: RCE VERT. N/A SHEET 22 OF 31 L107

X-946-PR-LIGHTS X-946-PR-LANDSCAPI transfer-Matrix (15) FRG -





 $\underline{\text{NOTE:}}$ ANY BROKEN OR CRUMBLING ROOTBALL WILL BE REJECTED. REMOVING THE CONTAINERS WILL NOT BE AN EXCUSE FOR DAMAGED ROOTBALLS.

 $\underline{\text{NOTE:}}$ HOLD GRADE 1" BELOW EDGE OF WALK OR CURB. THIS DETAIL SHALL ALSO APPLY TO PERENNIAL FLOWERS IN CONTAINER.

 $\underline{\text{NOTE:}}$ ALL JUNIPER PLANTS SHOULD BE PLANTED SO TOP OF ROOT MASS OCCURS AT FINISH GRADE OF MULCH LAYER.

DO NOT CUT SINGLE LEADER. PRUNE DAMAGED OR DEAD WOOD AND CO-DOMINANT LEADERS AT LANDSCAPE ARCHITECT'S DIRECTION ONLY - 12 GAUGE GALV, WIRE WITH $\frac{1}{2}$ " DIA. WHITE PVC ON ENTIRE LENGTH OF EACH WIRE. - TREE COLLAR STRAPS, NON-STRETCH WEBBING. ALIGN E/W, 2 PER TREE - WRAP ENTIRE SURFACE OF TRUNK UP TO SECOND BRANCH WITH TREE WRAPPING SECURED AT TOP AND BOTTOM AND AT 2' INTERVALS. - SPECIFIED POSTS - RE: FINAL TOP ROOTBALL GRADE PLANT TREE 3" ABOVE FINAL TOP ROOTBALL GRADE -36" DIA., 3" MULCH RING, TYP. IN TURF AREAS GRADE TO SLOPE AWAY FROM ROOTBALL - SPECIFIED BACKFILL MIXTURE AS PER SPECIFICATIONS REMOVE ALL TWINE & WIRE, PULL BURLAP BACK $\frac{2}{3}$ MIN. 12" MIN. UNDISTURBED OR COMPACTED SUBGRADE - SETTLING OF ROOTBALL SHALL BE CAUSE FOR REJECTION

SHRUB / ORNAMENTAL GRASS PLANTING

DECIDUOUS TREE PLANTING

NTS

REFERENCE DRAWINGS				
Planting Details Silva Cell X-481-TITLE-LANDSCAPE				
	No.	DATE	DESCRIPTION REVISIONS	BY
	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 DRAWNS is CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.			



SEAL	EDA PROJECT NUMBER: 05-01-05793
	HISTORIC ARKANSAS RIVERWALK OF PUEBLO GATEWAY PLAZA PROJECT
	LANDOGADE DETAILO

LANDSCAPE DETAILS

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



IRRIGATION SCHEDULE					
SYMBOL MANUFACTURER MODEL NO. DESCRIPTION DETAIL NO.					
•B	RAIN BIRD (OR EQUAL)	1402	BUBBLER	1	
•	RAIN BIRD (OR EQUAL)	PEB-PRS-D	ELECTRIC CONTROL VALVE	2	
▼	RAIN BIRD (OR EQUAL)	44-LRC	QUICK COUPLING VALVE	3	
N/5	OLDCASTLE / CARSON (OR EQUAL)	REFER TO SPECIFICATIONS AND DETAILS	VALVE BOXES	VARIOUS	
N/S	MATCO (OR EQUAL)	201X	MANUAL DRAIN VALVE	4	
M	►■ LINE SIZE - 2½" AND SMALLER GATE VALVE			5	
	CLASS 200 BE - 2½" \$ SMALLER PVC MAINLINE CLASS 200 BE PVC LATERAL		6		
			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	
③ [^]			MIRE SPLICE	11	
			EXISTING MAINLINE		
	(P)-(CONTROLLER & STATION NO. CONTROL VALVE SIZE		
	A (controller)		RE WIRES - 2 CONTROL AND 1 SPARE CONTROLLER - SEE CONSTRUCTION NOT	res	

IRRIGATION CONSTRUCTION NOTES

- 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 LIBILITIES ASSOCIATED WITH THOSE FIELD CHANGES.
 REFER TO SPECIFICATIONS FOR ADDITIONAL PROJECT REQUIREMENTS, CONTACT IRRIGATION CONSULTANT FOR CURRENT SPECIFICATIONS IF NOT PROVIDED.
- SYSTEM PRESSURE HYDROSYSTEMS*KDI HAS CONTACTED THE LOCAL WATER 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. MRITTEN 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 REQUIRED STATIC PRESSURE OF 75 PSI MINIMUM.
- 3 IRRIGATION SYSTEM OPERATION INTENT THIS IRRIGATION SYSTEM HAS BEEN DESIGNED TO IRRIGATE THE ESTABLISHED LANDSCAPE MITHIN A THREE NIGHT PER MEEK, 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 WEATHER CONDITIONS ABOVE AND BELOW THE AVERAGE VALUES UTILIZED.

 BLUEGRASS TURF

 1.75" PER WEEK PEAK SEASON

ORNAMENTAL PLANTINGS 1.00" PER WEEK PEAK SEASON

- 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 PAYED 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'-O" 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 WOOD 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
- 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
- 6. DRIP IRRIGATION REFER TO IRRIGATION DETAIL SHEET FOR DRIP EMITTER QUANTITIES AND PLACEMENT
- 8. SLEEVING ALL SLEEVING UNDER PAVED 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 B INSTALLED IN SLEEVING. ALL MAINLINE SLEEVE LOCATIONS TO INCLUDE A SEPARATE WIRE SLEEVE

SLEEVED PIPE SIZE/WIRE QUANTITY 34" - 11/4" PIPING 11/2" - 2" PIPING

REQUIRED SLEEVE SIZE & (QUANTITY)

4" PVC (1) - 3" PIPING 6" PVC (1 1-25 CONTROL WIRES

- SPARE CONTROL WIRES CONTRACTOR SHALL EXTEND THREE SPARE WIRES (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 ENGURE WORK CONFORMS TO PLANS AND SPECIFICATIONS. AT ONSET OF CONSTRUCTION, VERIFY FLANS 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 L 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
- 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 RESPONSIBILE, AND ACCEPTS NO RESPONSIBILITY, FOR THE ACTUAL WATER 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 WIDTH ROLLS OF SOD, NEW SOD, GRADE SHALL, MATCH ADJACENT, UNDISTURBED GRADE. ROLL NEW SOD AS REQUIRED TO MESH EVENLY WITH EXISTING TURE. 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 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 RESERVED 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 USIDE 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

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, 80401

IR100

REFERENCE DRAWINGS					
X-479-PR-BASE - Gateway Par	×				
X-479-PR-LANDSCAPE-CD - G	iateway Park				
X-946-EX-BASE-COMBINED X-946-EX-BASE-CHANNEL EX	TENSION				
transfer-Matrix					
X-PR-LIMIT-Gateway Park X-MAIN INTERSECTION	No.	DATE	DESCRIPTION	BY	
X-946-PR-UTIL X-946-PR-LIGHTS	REVISIONS				
X-946-PR-BASE					
X-946-PR-BASE - PARKING GA X-946-EX-UTIL-COMBINED	∲GOM	IPUTER FIL	E MANAGEMENT		
X-946-EX-LIGHTS	FILE N	FILE NAME: T:\6300-6399 Jobs\6390-Gateway Plaza\6390-GP-IRR-CDrev.dwg			
2998-HarpPh3-BlockIRR VAULT LOCATIONS	CTB FI	LE:			
X-481-TITLE-LANDSCAPE	PLOT I	DATE: 5/31/201	8 12:20 PM		
	THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.				

PREPARED BY

SEAL

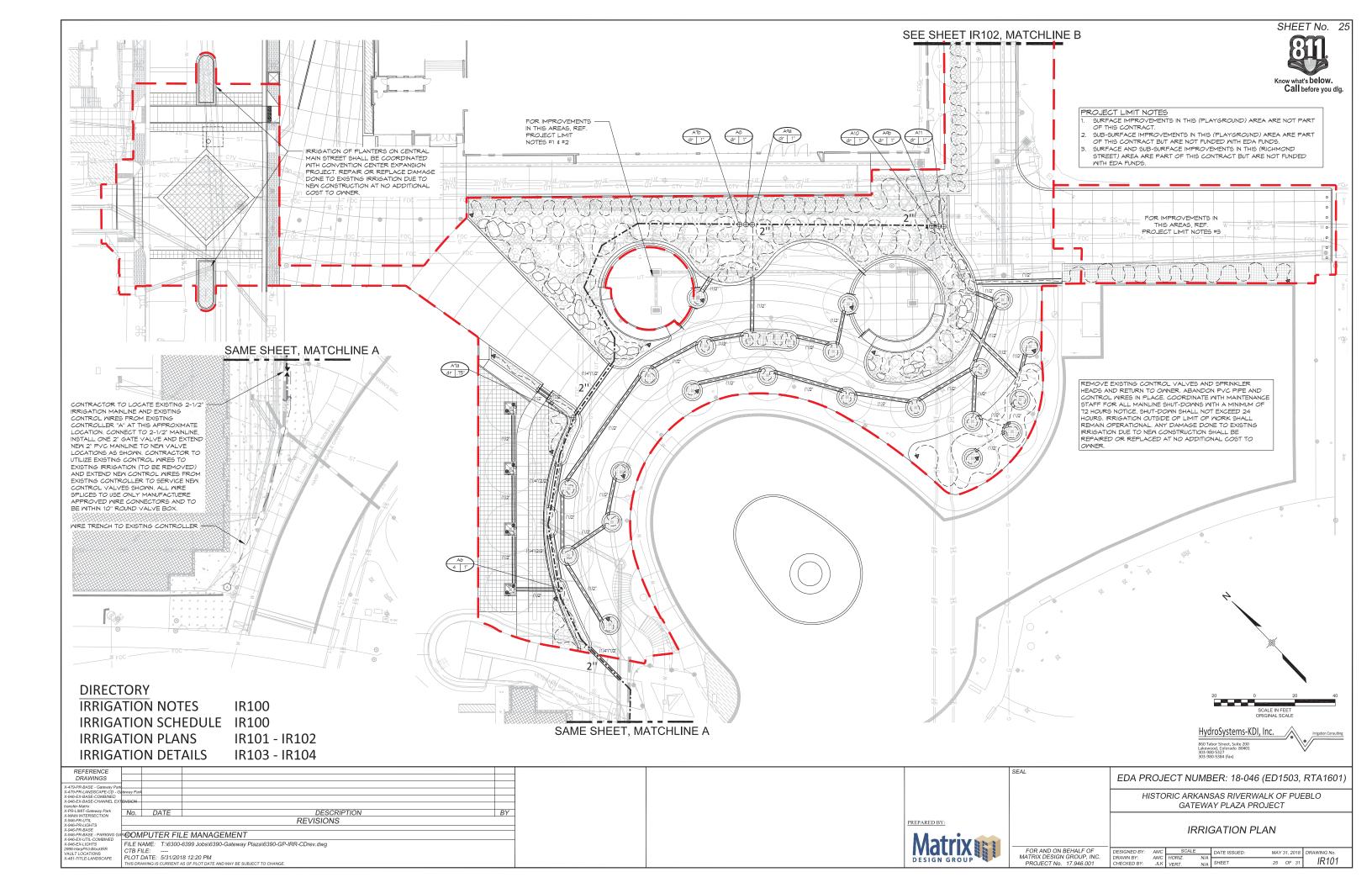
PROJECT No. 17 946 001

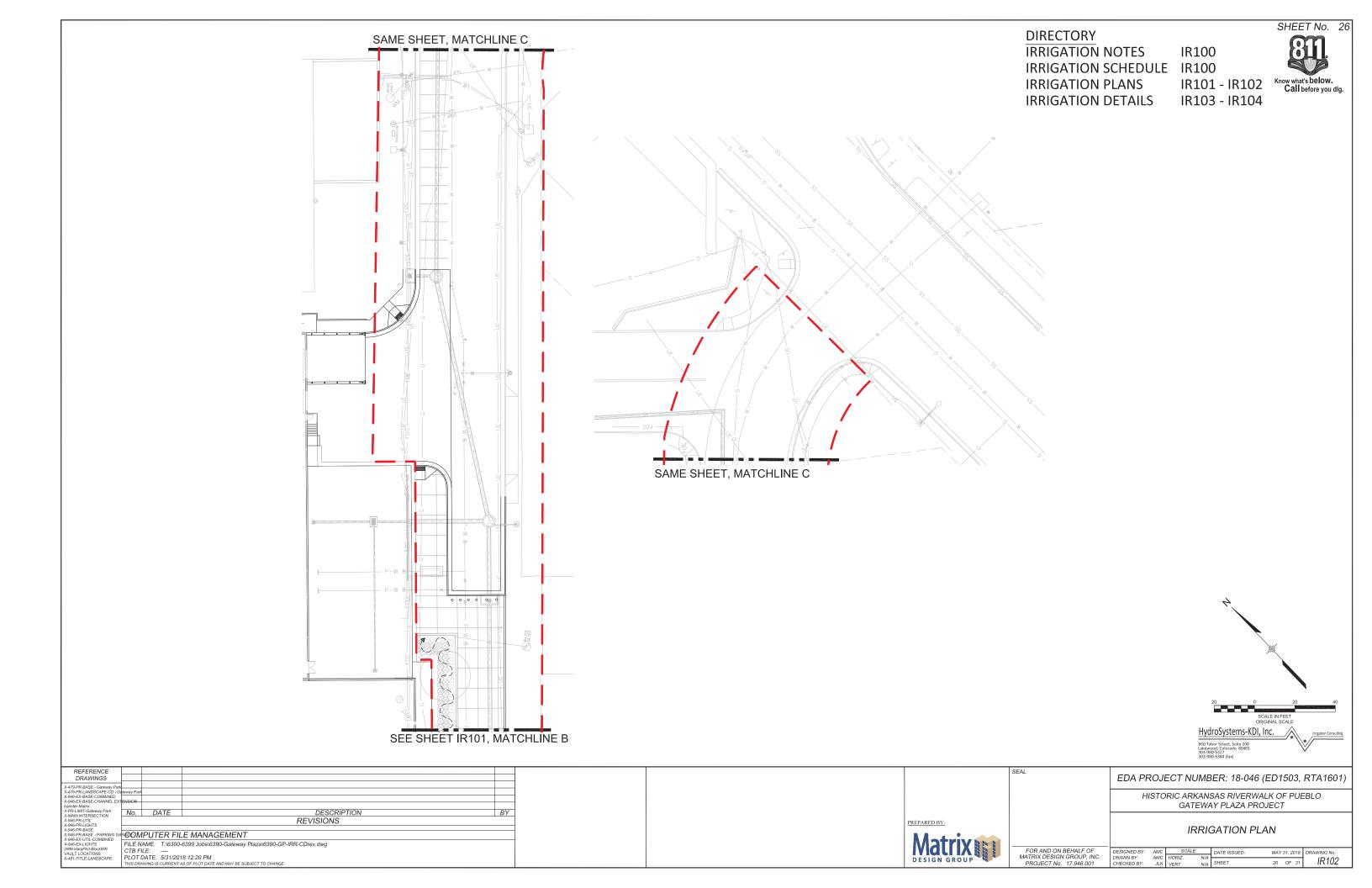
EDA PROJECT NUMBER: 18-046 (ED1503, RTA1601)
HISTORIC ARKANSAS RIVERWALK OF PLIEBLO

IRRIGATION NOTES

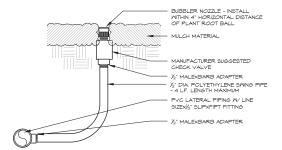
GATEWAY PLAZA PROJECT

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.









OTE:
SET BUBBLER(S) ON UPHILL SIDE OF ROOT BALL
WHERE TREES PLANTED ON SLOPES EQUAL TO
O'R GREATER THAN 4 TO 1.
APPLY TEFLON TAPE TO ALL MIPT FITTINGS

FINISH GRADE

6" CLASS 160 PVC SLEEVE BOTTOM TO BE NOTCHED AND CONTACT TOP OF PRESSURE MAINLINE

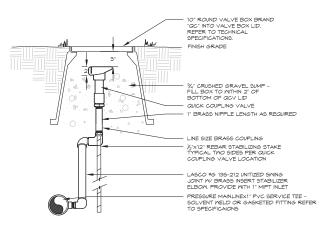
SCH, 40 PVC MALE ADAPTER (2) - SIZE TO EQUAL GATE VALVE DIAMETER

5

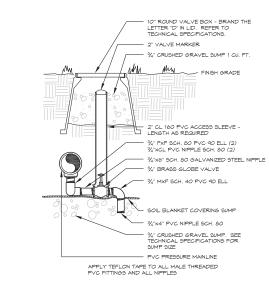
PVG PRESSURE MAINLINE

- UNDISTURBED SOIL

- PVC LATERAL 45 ELL TO
 SPECIFIED DEPTH
 5CH. 40 PVC REDUCING
 MALE ADAPTER
 RECTANGULAR VALVE BOX. BRAND LID
 MITH CONTROLLER 19 STATION 11. REFER
 TO TECHNICAL SPECIFICATIONS. CENTER
 BOX OVER ASSEMBLY. PROVIDE 12" CONTINUOUS COILS OF ALL "MAINTENANCE" SPARE CONTROL/COMMC WIRING WITHIN VALVE BOX PVC BALL VALVE - FIPTXFIPT ELECTRIC CONTROL VALVE ¾" CRUSHED GRAVEL SUMP - FILL BOX TO BOTTOM OF VALVE BODY
 SCH. 80 PVC NIPPLE - LENGTH AS REGUIRED SERVICE TEE - SOLVENT WELD OR GASKETED FITTING - REFER TO SPECIFICATIONS CONTROL WIRE BUNDLE
 - NOTE: DIAMETERS OF BALL VALVES, PVC FITTINGS AND NIFPLES SHALL EQUIA. ELECTRIC CONTROL. VALVE DIAMETER. VALVE BOXES SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO ADJACCHT SIDEPANALS AND HARD SURFACES WHERE APPLICABLE. APPLY TEFLON TAPE TO ALL MALE THEADED NIFFLES.



APPLY TEFLON TAPE TO ALL THREADED NIPPLES

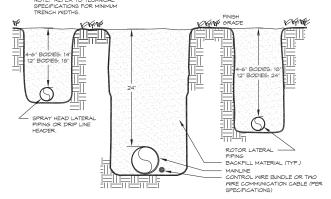


BUBBLER 1



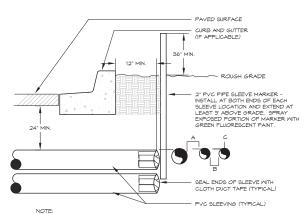
ELECTRIC CONTROL VALVE 2 24V - PVC Lateral





TRENCH 6 24" MAINLINE

QUICK COUPLING VALVE



- NOTE:

 ALL SLEEVE MATERIAL PER IRRIGATION SCHEDULE, SIZE AS NOTED ON PLAN.

 INSTALL SLEEVES IN SIDE-BY-SIDE CONFIGURATION INHERE MILITIPLE
 SLEEVES ARE TO BE INSTALLED. SPACE SLEEVES 4" TO 6" APART. DO NOT
 STACK SLEEVES VERTICALLY.

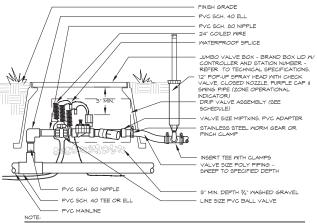
 CONTRACTOR TO COORDINATE WITH FILATMORK INSTALLER TO BRAND A
 'V" IN SIDEMALK OR CURB AT BOTH ENDS OF SLEEVE CROSSING.

IRRIGATION SLEEVING

SEAL

MANUAL DRAIN VALVE

4



NOTE:

NOTALL ASSEMBLY TO REST ON GRAVEL SUMP, CONTAIN ENTIRE ASSEMBLY WITHIN BOX. NO VALVE
BOX EXTENSIONS MILL BE ACCEPTED. PROVIDE 3"-4" CLEARANCE BETWEEN TOP OF CONTROL.

VALVE SOLENOID AND BOTTOM OF VALVE BOX LID. TOP OF VALVE BOX TO BE FLISH WITH FINISH

GRADE. VALVE BOX SHALL NOT REST ON DRIP TIBING.

DRIP VALVE 24V - POLY LATERAL

8

DIRECTORY

IRRIGATION NOTES IR100 IRRIGATION SCHEDULE IR100

GATE VALVE

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

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 Park X-479-PR-LANDSCAPE-CD - Ga X-946-EX-BASE-COMBINED X-946-EX-BASE-CHANNEL EXT transfer-Matrix X-PR-LIMIT-Gateway Park X-MAIN INTERSECTION	teway Park	DESCRIPTION	BY
X-946-PR-UTIL X-946-PR-LIGHTS X-946-PR-BASE	REVISIONS		
X-946-PR-BASE - PARKING GA X-946-EX-UTIL-COMBINED	RGOMPUTER FI	LE MANAGEMENT	
X-946-EX-LIGHTS 2998-HampPh3-BlockIRR VAULT LOCATIONS X-481-TITLE-LANDSCAPE	CTB FILE: PLOT DATE: 5/31/20	1-6399 Jobs 6390-Gateway Plaza 6390-GP-IRR-CDrev.dwg 118 12:20 PM As OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.	

PF	REPARED BY:
	Matrix
	DESIGN GROUP

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

IRRIGATION DETAILS

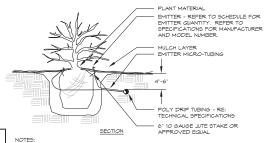
FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC. PROJECT No. 17 946 001

IR103





EMITTER QTY. AT MULCHED | EMITTER QTY. AT NATIVE EMITTER PLANT SIZE BED LOCATIONS SEED LOCATIONS ONE EACH 0.5 GPH 1½" CALIPER TREE 1.0 GPH FOUR EACH SIX EACH 2" CALIPER TREE SIX EACH EIGHT EACH 21/2" CALIPER TREE 1.0 GPH 3" CALIPER TREE EIGHT EACH TEN EACH NINE EACH ELEVEN EACH 3%" CALIPER TREE 1.0 GPH TEN EACH TMELVE EACH 4" CALIPER TREE 1.0 GPH FOUR EACH SIX EACH 8 FT. CONIFEROUS TREE 1.0 GPH SIX EACH NINE EACH 1.0 GPH TWELVE EACH 10 FT. CONIFEROUS TREE EIGHT EACH 1.0 GPH 12 FT, CONIFEROUS TREE FOURTEEN EACH TEN EACH



OTES:

NSTALL EMITTERS ON OFPOSING SIDES OF ROOTBALL. THREE OR MORE EMITTERS
SHALL BE EQUALLY SPACED AROUND ROOT BALL.

BE AGUALLY SPACED AROUND ROOT BALL.

BHITTERS ARE TO BE INSTALLED TO CLEAR SURFACE BY A MINIMUM OF 1" AND A
MAXIMUM OF 2".

FLUSH ALL LINES THOROUGHLY, INCLIDING EMITTER MICRO-TUBING FRICK TO

EMITTER INSTALLATION.

F FLANTING ON A 4-1 SLOPE OR STEEPER, INSTALL BOTH EMITTERS ON UPHILL SIDE

OF PLANTING ON A 4-1 SLOPE OR STEEPER, INSTALL BOTH EMITTERS ON UPHILL SIDE

DAITTERS SHALL BE SELF-FLUSHING, PRESSURE COMPENSATING-TYPE UNLESS

NOTED OTHERWISE MITHIN TECHNICAL SPECIAL TOONS,

DRIP VALVE ZONES ARE DESIGNED TO ACCOUNT FOR DIFFERENCES IN PLANT

REQUIREMENTS (HYDROZONES) AND SUR EXPOSURE.

CONTRACTOR SHALL ENSURE HYDROZONES ARE VALVED SEPARATELY AS SHOWN

ON FLAN.

- CONTRACTOR SHALL ENSURE HYDROZONES ARE VALVEU SCHARALLEL AL SHOWN PLAN.
 SITE CONDITIONS MAY DICTATE THAT MULTIPLE SUN EXPOSURES ARE VALVEU TOOSETHER DURING THE DESIGN PROCESS. CONTRACTOR SHALL ADJUST EMITTER SCHEDULE AS FOLLOWS:

 EMITTER QUANTITIES SHALL REMAIN THE SAME BUT EMITTER SALLONAGES 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 EXPOSURES SHALL DICTATE VALVE RUN-TIMES AND CONTRACTOR SHALL ADJUST SCHEDULING ACCORDINGLY.

DRIP FLUSH VALVE

WITH OPERATIONAL INDICATOR

(

(Q)

- PLANT MATERIAL

PLANTER BED
 WALL OR EDGER

INDICATOR HEAD

SECTION

10

12" POP-UP SPRAY HEAD WITH CHECK VALVE, CLOSED NOZZLE, & SWING PIPE (ZONE OPERATIONAL INDICATOR)

10" ROUND VALVE BOX WITH COVER - BRAND "DB" INTO VALVE BOX LID, REFER TO TECHNICAL SPECIFICATIONS.

%" DRIP TUBING - COIL SUFFICIENT LENGTH IN BOX TO EXTEND HOSE ADAPTER OUTSIDE OF VALVE BOX

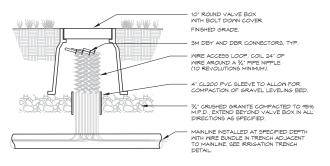
¾" WASHED RIVER ROCK SUMP (1 CU. FT.)

DEFLECT TUBING TO PERMIT ENTRY THROUGH BOTTOM OF VALVE BOX.

- INSERT TEE WITH CLAMPS

DRIP EMITTER

BELOW GRADE



TYPICAL

NOTE:

1. SET TOP OF BOX LEVEL WITH FINISHED GRADE IN TURF
A REAS 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)
NIRES

WIRE SPLICE BOX

11

DIRECTORY

IRRIGATION NOTES IR100 IR100 IRRIGATION SCHEDULE

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



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 transfer-Matrix X-PR-LIMIT-Gateway Park X-MAIN INTERSECTION	teway Park	DATE	DESCRIPTION	BY	-
X-946-PR-UTIL X-946-PR-LIGHTS X-946-PR-BASE	REVISIONS			-	
X-946-PR-BASE - PARKING GA X-946-EX-UTIL-COMBINED	©OMPUTER FILE MANAGEMENT]	
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PREPARED BY:

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

IRRIGATION DETAILS

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

TRAFFIC SIGNAL GENERAL NOTES

- 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 FOLINDATIONS/CAISSONS ALL CAISSONS SHALL BE CAST IN PLACE
- ALL VEHICLE AND PEDESTRIAN INDICATIONS SHALL BE APPROVED SOLID STATE LED TYPE. ALL VEHICLE AND PEDESTRIAN HEAD HOUSINGS SHALL BE BLACK IN COLOR.
- 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).
- 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
- SIGNAL HEADS SHALL BE BAGGED WITH A HEAVY BLACK PLASTIC UNTIL READY FOR OPERATION.
- 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
- 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
- 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
- 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)

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 INSTALL ATIONS. TIME FOR SIGNAL FLECTRICIAN 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
- 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
- 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).

TRAFFIC SIGNAL NOTES - CITY OF PUEBLO

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

- 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
Ī	EASTBOUND	ORANGE	PH 2 - EB
	EASTBOUND LEFT TURN	ORANGE	PH 5 - EBL
	WESTBOUND	BROWN	PH 6 - WB
	WESTBOUND LEFT TURN	BROWN	PH 1 - WBL
- 1	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
- TRAFFIC SIGNAL POLES, PEDESTAL POLES, AND PUSH BUTTON EXTENDERS SHALL BE GALVANIZED THEN POWDER-COATED BLACK.
- 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
- 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.
- 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
- 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
- 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 Call before you dig.

No. DATE G-PR-BASE - PAR REVISIONS COMPUTER FILE MANAGEMENT FILE NAME: R:\17.481.009 (PURA HARP Gateway Park)\Dwg\Construction Plans\Traffic\HAWK signalization.dwg OT DATE: 5/14/2018 12:39 PM

EDA PROJECT NUMBER: 05-01-05793 HISTORIC ARKANSAS RIVERWALK OF PUEBLO

GATEWAY PLAZA PROJECT

TRAFFIC SIGNAL NOTES

T100

FOR AND ON BEHALF OF MATRIX DESIGN GROUP, INC.

PROJECT No. 17.946.001

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 C	NW CORNER		NE CORNER	
NORTHING	1583	1583729.62		1583691.83	
EASTING	325	3255707.48		3255763.75	
CAISSON ELEV.	466	4660.408		4660.158	
MAST ARM WIRE LEN	GTH	25'	3	0'	
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	©			
LOCATION	NW CORNER			
NORTHING	1583749.53			
EASTING	3255721.08			
CAISSON EL	EV.	4660.605		
POLE HEIGH	1	0'		
BASE DIA.	DEPTH	18"	5'	
Dadastrian Dalar I	1A/ I \A/ha4la.			

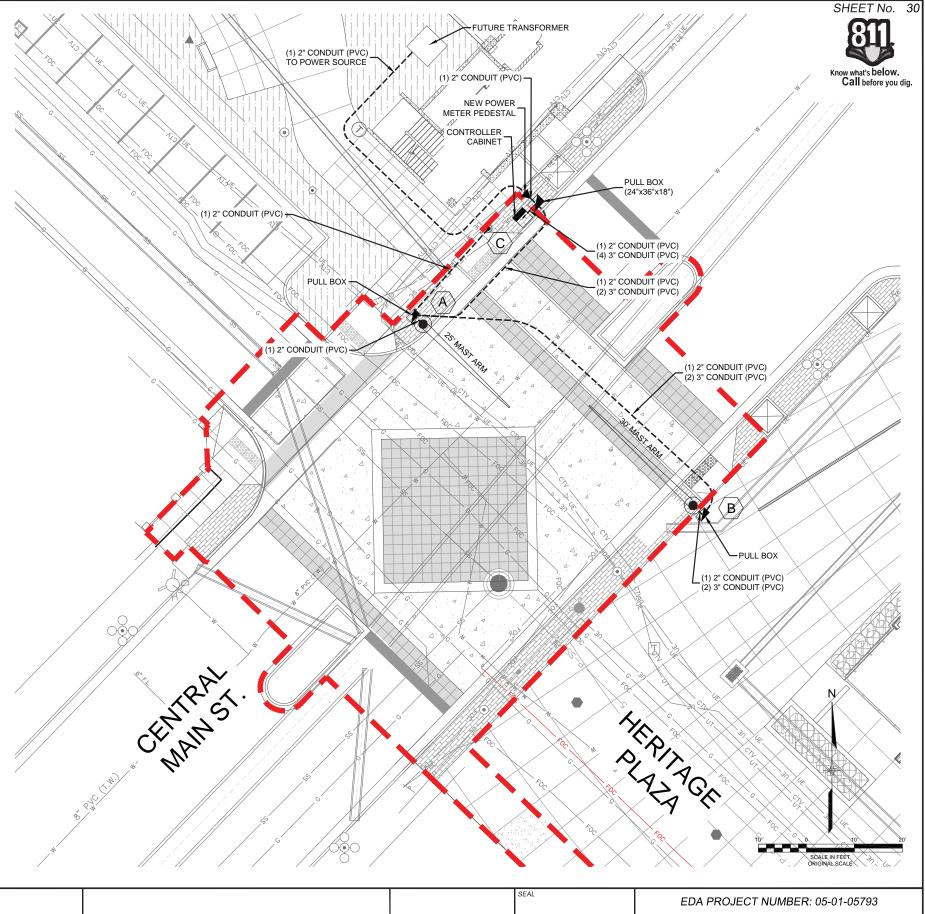
Pedestrian Pole: W.J. Whatley Inc. (or approved equal) 400 Series Post - black, fluted and tapered Base: Model 409 Yorktown (or approved equal), black (16.5" w x 20") Installed with anchor base

NOTE: CONTRACTOR TO VERIFY ALL ELEVATIONS PRIOR TO CONSTRUCTION.

SIGNAL EQUIPMENT LEGEND

PEDESTRIAN SIGNAL HEAD		POWER METER PEDESTAL	▼
TRAFFIC SIGNAL HEAD W/ BACKPLATE	$\rightarrow \blacktriangleright$	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						Г		
X-481-TITLE-LANDSCAPE X-946-PR-BASE	<u> </u>					1		
X-946-EX-BASE-COMBINED X-479-PR-BASE - Gateway Pari						П		
X-946-EX-UTIL-COMBINED						1		
X-946-PR-UTIL X-MAIN INTERSECTION	No.	DATE	DESCRIPTION		BY	1		
X-946-PR-BASE - PARKING GA X-946-PR-LIGHTS	RAGE	REVISIONS REVISIONS						
X-946-PR-LIGHTS X-946-PR-LANDSCAPE								
X-946-EX-MAP-COMBINED PURA HARP Gateway Park	CON	COMPUTER FILE MANAGEMENT						
X-PR-LIMIT-Gateway Park	FILE N	FILE NAME: R:\17.481.009 (PURA HARP Gateway Park)\Dwg\Construction Plans\Traffic\HAWK signalization.dwg						
	CTB FILE:							
1	PLOT DATE: 6/1/2018 9:03 AM							
1	THIS DRAWING IS CURRENT AS OF PLOT DATE AND MAY BE SUBJECT TO CHANGE.							



HISTORIC ARKANSAS RIVERWALK OF PUEBLO GATEWAY PLAZA PROJECT

TRAFFIC SIGNAL PLAN

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

