CONSTRUCTION PLANS

FOR

KILLIP ELEMENTARY SCHOOL

FLAGSTAFF, ARIZONA

LOCATED IN NW QUARTER OF SECTION 11, TOWNSHIP 21 NORTH, RANGE 7 EAST, GILA AND SALT RIVER MERIDIAN, COCONINO COUNTY, FLAGSTAFF, ARIZONA

CITY CONCEPT APPROVAL

THE CITY APPROVES THESE PLANS FOR CONCEPT ONLY. ALL LIABILITY FOR ERRORS AND OMISSIONS IS THE RESPONSIBILITY OF THE DESIGN ENGINEER.

CITY ENGINEER:

BY: ______________________ DATE:

CITY PUBLIC WORKS DIRECTOR

BY: ______________________ DATE:

CITY WATER SERVICES DIRECTOR

BY: ______________________ DATE:

AUTHORIZATION TO CONSTRUCT:

THE SIGNATURES ABOVE ARE REQUIRED BEFORE THE CONTRACTOR CAN COMMENCE. UNSIGNED, THESE PLANS HAVE NOT BEEN COMPLETED WITH RESPECT TO AGENCY REVIEW AND APPROVAL.

LANDSCAPE APPROVAL

BY SIGNING THESE PLANS, THE DESIGNER OF THE LANDSCAPING PLANS CONFIRMS THAT THESE GRADING PLANS HAVE BEEN REVIEWED, IS AWARE OF THE SCOPE OF THE PROJECT, AND HAS IDENTIFIED AND ADDRESSED ANY POTENTIAL CONFLICTS BETWEEN THE GRADING AND LANDSCAPING PLANS.

LANDSCAPE DESIGNER: ______________________ DATE:

UTILITY COMPANY APPROVAL

ARIZONA PUBLIC SERVICE

MEGAN MCCARTHY 03/25/2021
BY: DATE:

UNISOURCE ENERGY SERVICES

MARTIN CONBOY 03/08/2021
BY: DATE:

CENTURYLINK

MANUEL HERNANDEZ 03/19/2021
BY: DATE:

ALTICE U.S.A

SANFORD YAZZIE 03/08/2021
BY: DATE:

UTILITY COMPANY CONTACTS

APS
CONTACT: MEGAN MCCARTHY
2200 E. HUNTINGTON
FLAGSTAFF, AZ 86004
MEGAN.MCCARTHYS@APS.COM
PHONE: (928) 773-6446

UNISOURCE ENERGY SERVICES
CONTACT: MARTIN CONBOY
2901 W SHAMRELL BLVD #110
FLAGSTAFF, AZ 86001
MCONBOY@UESAZ.COM
PHONE: (928) 226-2269

CENTURYLINK
CONTACT: MANUEL HERNANDEZ
112 NORTH BEAVER STREET
FLAGSTAFF, AZ 86001
MANUEL.HERNANDEZ4@CENTURYLINK.COM
PHONE: (928) 779-4935

ALTICE USA
CONTACT: SANFORD YAZZIE
1601 SOUTH PLAZA WAY
FLAGSTAFF, AZ 86001
SANFORD.YAZZIE@ALTICEUSA.COM
PHONE: (928) 266-0672

UTILITY CONFLICT

UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE AND WERE COMPILED FROM RECORD DRAWINGS, SURVEY, AND CONSTRUCTION PLANS FURNISHED BY OTHERS. THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR DETERMINING THE ACTUAL LOCATIONS OF ALL UNDERGROUND LINES THAT MAY AFFECT WORK PRIOR TO CONSTRUCTION.

THERE ARE NO APPARENT UTILITY CONFLICTS WITH APS, CENTURYLINK, UNISOURCE, OR ALTICE USA; HOWEVER, THEY DO HAVE EXISTING FACILITIES IN THE AREA THAT WILL NEED TO BE PROTECTED AND/OR RELOCATED.

RESOURCE PRESERVATION

THE PROJECT DOES NOT CURRENTLY FALL WITHIN THE CITY OF FLAGSTAFF RESOURCE PROTECTION OVERLAY ZONE AND DOES NOT REQUIRE A RESOURCE PROTECTION PLAN.

FEMA DESIGNATION

THIS PROJECT IS LOCATED WITHIN AN AREA OF MINIMAL FLOOD HAZARD IN ZONE X OF FEMA FIRM MAP #04005C6828G, EFFECTIVE SEPTEMBER 3, 2010. AREAS OF MINIMAL FLOOD HAZARD IN ZONE X ARE DESCRIBED AS AREAS OUTSIDE OF THE 0.2% (500-YEAR) ANNUAL CHANCE FLOODPLAIN.

SOURCE OF PROJECT INFORMATION

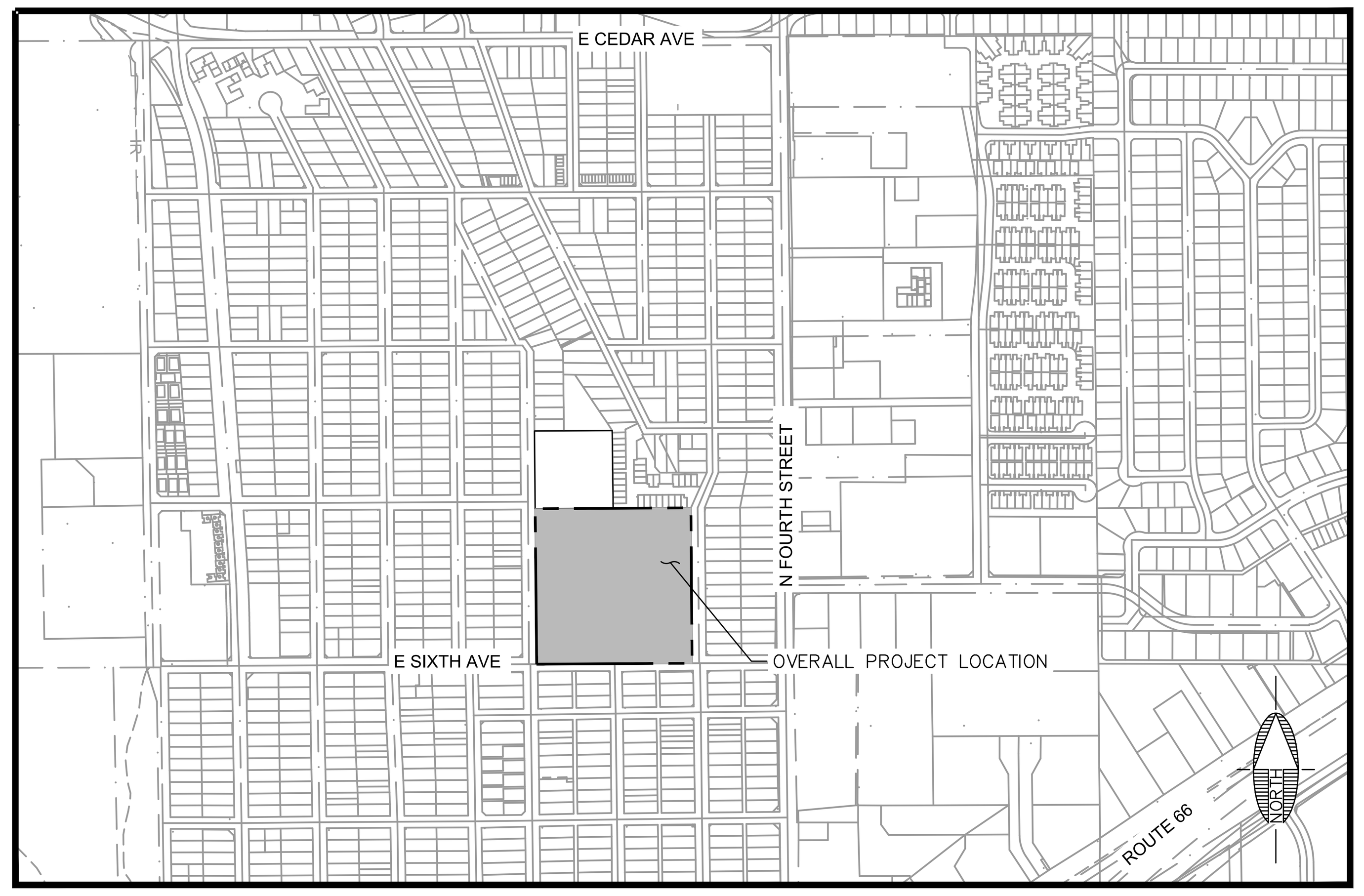
TOPOGRAPHIC DATA AND BOUNDARY INFORMATION WAS PROVIDED BY SHEPHARD-WESNITZER,INC. ON JULY 6, 2020.

IMPERVIOUS AREA SUMMARY

PHASE 1 PRE-DEVELOPMENT IMPERVIOUS AREA = 117,064 SF
PHASE 1 POST-DEVELOPMENT IMPERVIOUS AREA = 127,368 SF

PHASE 2 PRE-DEVELOPMENT IMPERVIOUS AREA = 54,067 SF
PHASE 2 POST-DEVELOPMENT IMPERVIOUS AREA = 169,818 SF

TOTAL PRE-DEVELOPMENT IMPERVIOUS AREA = 171,131 SF
TOTAL POST-DEVELOPMENT IMPERVIOUS AREA = 297,186 SF



VICINITY MAP

N.T.S.

LEGEND

ROW	EX. LOT LINE
EASEMENT	EX. EASEMENT
8"SS GRAVITY SEWER LINE	EX. 100-YR FLOODPLAIN
8"W PUBLIC WATER LINE	EX. INTERMEDIATE CONTOUR
STORM DRAIN PIPE	6945 EX. INDEX CONTOUR
LOT BOUNDARY	12"W EX. WATER LINE
FIRE HYDRANT	EX. SEWER LINE
W WATER METER	G EX. GAS
SEWER MANHOLE	S EX. STORM DRAIN
STORM DRAIN MANHOLE	UGE EX. UNDERGROUND UTIL.
STORM DRAIN GRATE	OHE EX. OVERHEAD UTIL.
RPA REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY	SECTION LINE
GATE VALVE	EX. ROAD STRIPING
DRAINAGE ARROW	WV EX. WATER VALVE
4"SS PROPOSED SEWER SERVICE	EX. IRRIGATION
4"W PROPOSED WATER SERVICE	EX. SIGNAGE
	EX. LIGHT POLE
	SC687478 EX. ELECTRIC BOX
	EX. DRAINAGE ARROW

PROJECT OWNER/DEVELOPER:

FLAGSTAFF UNIFIED SCHOOL DISTRICT #1
CONTACT: BOB KUHN
3285 SPARROW AVE
FLAGSTAFF, AZ 86004
(928) 220-2035

PROJECT ENGINEER:

SHEPHARD-WESNITZER INC.
CONTACT: STEPHEN IRWIN, PE
110 WEST DALE AVE
FLAGSTAFF, AZ 86001
(928) 773-0354

PROJECT ARCHITECT:

DLR GROUP
CONTACT: DAVID SCHMIDT
6225 NORTH 24TH STREET, SUITE 250
PHOENIX, AZ 85016
(602)-381-8580

PROPERTY INFORMATION:

APN#: 109-09-002A (±9.37 AC)
APN#: 109-09-002B (±0.13 AC)

ZONING: PUBLIC FACILITY

2300 E SIXTH AVE
FLAGSTAFF, AZ 86004

PRELIMINARY
NOT FOR CONSTRUCTION, BIDDING OR RECORDING

CIVIL SHEET INDEX

SHEET NO.	DRAWING NO.	DESCRIPTION
1	C-CVR	COVER SHEET
2	C-GN01	NOTES AND DETAILS
3	C-DT01	DETAIL SHEET
4	C-DM01	DEMOLITION PLAN - PHASE 1
5	C-DM02	DEMOLITION PLAN - PHASE 2
6	C-GD01	GRADING & DRAINAGE PLAN
7	C-IP01	IMPROVEMENT PLAN
8	C-UT01	UTILITY PLAN
9	C-SD01	STORM DRAIN PLAN
10	C-HC01	HORIZONTAL CONTROL PLAN
11	C-EC01	EROSION CONTROL PLAN
12	C-EC02	EROSION CONTROL NOTES & DETAILS

LANDSCAPE & IRRIGATION SHEET INDEX

SHEET NO.	DRAWING NO.	DESCRIPTION
13	L-001	HARDSCAPE NOTES AND SCHEDULES
14	L-002	LANDSCAPE NOTES AND SCHEDULES
15	L-100	HARDSCAPE PLAN
16	L-200	LANDSCAPE PLAN
17	L-301	HARDSCAPE DETAILS
18	L-302	HARDSCAPE DETAILS
19	L-303	HARDSCAPE DETAILS
20	L-304	HARDSCAPE DETAILS
21	L-305	HARDSCAPE DETAILS
22	L-306	PLAYGROUND DETAILS
23	L-400	LANDSCAPE DETAILS
24	L-500	IRRIGATION NOTES
25	L-501	IRRIGATION PLAN
26	L-601	IRRIGATION DETAILS
27	L-602	IRRIGATION DETAILS

SYNTHETIC TURF SHEET INDEX

28	C0.0	COVER SHEET
29	C4.1	GRADING PLAN
30	C5.1	DRAINAGE PLAN
31	D1.1	SECTIONS AND DETAILS

COORDINATE SYSTEM DETAILS

LINEAR UNIT: INTERNATIONAL FEET
GEODETIC DATUM: NAD 83 (CONUS)
VERTICAL DATUM: NAVD 88, REFERENCED FROM NGS CONTROL POINT "AZFL"
SYSTEM: CITY OF FLAGSTAFF LOW DISTORTION PROJECTION (2015)

PROJECTION:
TRANSVERSE MERCATOR
LATITUDE OF GRID ORIGIN: 35° 00' 00" N
LONGITUDE OF CENTRAL MERIDIAN: 111° 37' 00" W
NORTHING AT GRID ORIGIN: 0 FT
EASTING AT CENTRAL MERIDIAN: 70,000 FT
CENTRAL MERIDIAN SCALE FACTOR: 1.000333 (EXACT)

ALL MEASURED DISTANCES AND BEARINGS SHOWN HEREON ARE GRID VALUES BASED ON THE PRECEDING PROJECTION DEFINITION. THE PROJECTION WAS DEFINED SUCH THAT GRID DISTANCES ARE EQUIVALENT TO "GROUND" DISTANCES IN THE PROJECT AREA.

THE BASIS OF BEARINGS IS TRUE GEODEDIC NORTH; NOTE THAT THE MEASURED GRID BEARINGS SHOWN HEREON (OR IMPLIED BY GRID COORDINATES) DO NOT EQUAL GEODETIC BEARINGS DUE TO MERIDIAN CONVERGENCE.

ORTHOMETRIC HEIGHTS (ELEVATIONS) WERE TRANSFERRED TO THE SITE FROM NGS CONTROL POINT "AZFL" USING GPS WITH NGS GEOID MODEL "GEOID12A". ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE PUBLISHED ELEVATION OF THIS STATION.

THE SURVEY WAS CONDUCTED USING GPS REFERENCED TO THE NATIONAL SPATIAL REFERENCE SYSTEM. A PARTIAL LIST OF POINT COORDINATES FOR THIS SURVEY IS GIVEN BELOW (ADDITIONAL COORDINATES ARE AVAILABLE UPON REQUEST). LOCAL NETWORK ESTIMATES ARE GIVEN AT THE 95% CONFIDENCE LEVEL AND ARE BASED ON A LEAST-SQUARES ADJUSTMENT OF STATISTICALLY INDEPENDENT OBSERVATIONS.

POINT #1014 = 1.5" ALUMINUM CAP ON CENTERLINE OF FIRST ST. AND COLANTHE AVE.
NORTHING = 77414.3840 FT
EASTING = 69866.2810 FT
ELEVATION = 6893.24 FT

POINT #1015 = 2" ALUMINUM CAP IN HANDHOLE ON CENTERLINE OF SIXTH AVE. AND FIRST ST.
NORTHING = 76724.3130 FT
EASTING = 69870.4630 FT
ELEVATION = 6880.63 FT

POINT #1016 = 2" ALUMINUM CAP IN HANDHOLE ON CENTERLINE OF SIXTH AVE. AND THIRD ST.
NORTHING = 76725.9080 FT
EASTING = 70590.7100 FT
ELEVATION = 6877.48 FT

DLR Group
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Shephard Wesnitzer Inc.

Call at least two full working days before you begin excavation.
ARIZONA811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

KILLIP ELEMENTARY SCHOOOL
FLAGSTAFF UNIFIED SCHOOL DISTRICT
2300 E 6th Ave., Flagstaff, AZ 86004

100% CONSTRUCTION DOCUMENTS
02.08.2021
REVISIONS
1 ASI11 REGIONAL DET. BASIN 06/15/2021

30-20149-00

COVER SHEET

C-CVR

COF PZ-20-00157

C.O.F. GENERAL NOTES

1. APPROVAL OF THESE PLANS BY THE CITY ENGINEER IS FOR A ONE (1) YEAR PERIOD, SUBSEQUENT TO THE DATE OF APPROVAL. IF CONSTRUCTION WORK IS NOT STARTED WITHIN THE ONE (1) YEAR PERIOD, OR HAS BEEN DISCONTINUED FOR ANY REASON FOR LONGER THAN ONE (1) YEAR, THE PLANS SHALL BE RESUBMITTED FOR REVIEW AND RE-APPROVAL.
2. PLAN REVIEW BY THE CITY DOES NOT EXTEND TO MATERIAL QUANTITIES SHOWN ON THE PLANS.
3. A PUBLIC WORKS PERMIT, ISSUED BY THE CITY, IS REQUIRED FOR ALL WORK IN CITY RIGHTS-OF-WAY OR EASEMENTS AND FOR CONSTRUCTION OF ANY IMPROVEMENTS INTENDED TO BECOME PUBLIC PROPERTY.
4. THE CITY SHALL BE NOTIFIED TWENTY-FOUR (24) HOURS PRIOR TO BEGINNING DIFFERENT PHASES OF CONSTRUCTION SO THAT CITY INSPECTORS MAY BE SCHEDULED.
5. ALL MATERIALS AND WORKMANSHIP SHALL COMPLY WITH TITLE 13, ENGINEERING DESIGN AND STANDARDS AND SPECIFICATIONS FOR NEW INFRASTRUCTURE, CURRENT "MAG UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION", THE CITY OF FLAGSTAFF STORMWATER DESIGN MANUAL, AND WITH GENERALLY ACCEPTED ENGINEERING DESIGN AND CONSTRUCTION PRACTICE. ALL WORK AND MATERIALS, WHICH DO NOT CONFORM TO THE STANDARDS AND SPECIFICATIONS, ARE SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR REVIEWING CHAPTER 13-21 OF THESE STANDARDS WHICH MAKES MINOR MODIFICATIONS TO CERTAIN MAG SPECIFICATIONS AND DETAILS.
6. ANY WORK PERFORMED WITHOUT THE KNOWLEDGE AND APPROVAL OF THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE IS SUBJECT TO REMOVAL AND REPLACEMENT AT THE CONTRACTOR'S EXPENSE.
7. THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE MAY SUSPEND THE WORK BY WRITTEN NOTICE WHEN, IN HIS JUDGMENT, PROGRESS IS UNSATISFACTORY, WORK BEING DONE IS UNAUTHORIZED OR DEFECTIVE, WEATHER CONDITIONS ARE UNSUITABLE, OR THERE IS DANGER TO THE PUBLIC HEALTH OR SAFETY.
8. THE CITY ENGINEER MAY ORDER ANY OR ALL MATERIALS USED IN THE WORK TO BE TESTED ACCORDING TO THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) AND THE AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) STANDARDS. THE CONTRACTOR SHALL, AT HIS EXPENSE, SUPPLY ALL SAMPLES REQUIRED FOR TESTING.
9. ACCESS WHICH MEETS SECTION 13-13-004-0001, FIRE ACCESS SHALL BE IN PLACE AND APPROVED BEFORE AND AT ALL TIMES DURING ON-SITE COMBUSTIBLE CONSTRUCTION AND/OR PRIOR TO ISSUANCE OF BUILDING PERMITS IN NEW SUBDIVISIONS. FIRE DEPARTMENT AND ENGINEERING SECTION APPROVAL IS REQUIRED FOR OBSTRUCTION OF ACCESS OR WATER SYSTEM SHUTDOWN.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THE STREETS AND OF PARTIALLY COMPLETED PORTIONS OF THE WORK UNTIL FINAL ACCEPTANCE OF THE WORK. THE CONTRACTOR SHALL SUBMIT TO THE CITY ENGINEER FOR APPROVAL A CONSTRUCTION SCHEDULE FOR ANY STREETS REQUIRED TO BE CLOSED OR PARTIALLY CLOSED FOR THE CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL REOPEN THE STREETS NO LATER THAN THE OPENING DATE SHOWN ON THE CONSTRUCTION SCHEDULE OR UPON ORDER OF THE CITY ENGINEER. THE REGULATION AND CONTROL OF CONSTRUCTION TRAFFIC SHALL BE AS DIRECTED BY THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.
11. APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL WRITTEN FINAL ACCEPTANCE OF A COMPLETE WORKABLE UNIT. ANY DEFECTS WHICH APPEAR IN THE WORK WITHIN ONE (1) YEAR FROM THE DATE OF ACCEPTANCE AND WHICH ARE DUE TO IMPROPER WORKMANSHIP OR INFERIOR MATERIALS SUPPLIED SHALL BE CORRECTED BY OR AT THE EXPENSE OF THE OWNER/DEVELOPER OR THE CONTRACTOR.
12. ACCEPTANCE OF COMPLETED PUBLIC IMPROVEMENTS WILL NOT BE GIVEN UNTIL DEFECTIVE OR UNAUTHORIZED WORK IS REMOVED, AND FINAL CLEAN-UP IS COMPLETE.
13. LOCATION OF UNDERGROUND UTILITIES BEFORE WORK IS BEGUN IS TO BE ACCOMPLISHED IN ACCORDANCE WITH ARS 40-360.22.
14. IF WORK IS DONE ON PRIVATE PROPERTY IN RELATION TO A PROJECT CONSTRUCTED UNDER THESE STANDARDS, THE CONTRACTOR WILL PROVIDE THE CITY WITH WRITTEN AUTHORIZATION FROM THE PROPERTY OWNER TO DO SO.
15. THE ESTABLISHMENT AND USE OF TEMPORARY CONSTRUCTION YARDS SHALL CONFORM TO THE CURRENT CITY ZONING CODE STANDARDS FOR "TEMPORARY USES".
16. ALL EXCAVATED MATERIAL SHALL BE DISPOSED OF IN ACCORDANCE WITH APPLICABLE CITY CODES AND REGULATIONS. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED CITY APPROVALS AND PERMITS, AS DEEMED NECESSARY BY THE CITY, TO DISPOSE OF EXCAVATED MATERIAL.
17. ALL CONSTRUCTION STAKING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR/DEVELOPER AND PERFORMED UNDER THE DIRECT SUPERVISION OF A REGISTERED LAND SURVEYOR OR CIVIL ENGINEER.
18. ALL TRAFFIC SIGN SHEETING SHALL BE TYPE VIII AS DESIGNED BY ASTM D4956-07E1 STANDARD SPECIFICATIONS FOR RETRO REFLECTIVE SHEETING FOR TRAFFIC CONTROL, UNLESS SPECIFIED OTHERWISE ON THE CONSTRUCTION PLANS.
19. WHEN THE CONSTRUCTION PLANS SPECIFY GRAFFITI CONTROL ON BRIDGES OR OTHER STRUCTURES, THE CONTRACTOR SHALL SEAL THE STRUCTURE FIRST USING MONOCHEM AQUASEAL ME 12 AND THEN APPLY MONOCHEM PERMASHIELD, SACRIFICIAL GRAFFITI CONTROL SYSTEM (OR APPROVED EQUAL).
20. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED AND RESEEDED IN ACCORDANCE WITH CHAPTER 13-17 OF THIS TITLE. IN THE EVENT THAT THE CONSTRUCTION ACTIVITY DISTURBS MORE THAN ONE (1) ACRE, A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE PREPARED IN ORDER TO OBTAIN A CONSTRUCTION GENERAL PERMIT FROM ADEQ. (ORD. 22017-22, REP&REEN, 07/05/2017)

C.O.F. WATER AND SEWER NOTES

ALL DESIGN, CONSTRUCTION, TESTING AND INSPECTION SHALL CONFORM TO THE ADEQ REQUIREMENTS: WATER DISTRIBUTION IN ACCORDANCE WITH BULLETINS 10 AND 8, AND SEWER COLLECTION IN ACCORDANCE WITH AAC TITLE 18. IN THE EVENT THE ADEQ REQUIREMENTS CONFLICT WITH THESE STANDARDS, THE MORE RESTRICTIVE SHALL APPLY.

A. ROUGH GRADING SHALL BE COMPLETED WITHIN ONE-TENTH ($\frac{1}{10}$) OF A FOOT OF PLAN GRADE AND APPROVED BY THE CITY ENGINEER'S AUTHORIZED REPRESENTATIVES PRIOR TO INSTALLATION OF UNDERGROUND UTILITIES.
B. NO TRENCH SHALL BE FILLED WITH BEDDING MATERIAL OR BACKFILL UNTIL THE EXCAVATION AND PIPE LAYING, RESPECTIVELY, HAVE BEEN APPROVED BY THE CITY ENGINEER'S AUTHORIZED REPRESENTATIVE.
C. A WATER PRESSURE TEST IS REQUIRED OF ALL WATER LINES AND A HYDROSTATIC OR AIR TEST IS REQUIRED OF ALL SEWER LINES AND MANHOLES. TESTS ARE TO BE CONDUCTED AFTER BACKFILLING IS COMPLETE AND COMPACTED ON ALL PUBLIC AND/OR PRIVATE UNDERGROUND UTILITIES.
D. WATER AND SEWER SERVICE LINES ARE TO BE MARKED AS SHOWN ON THE STANDARD SERVICE DETAILS.
E. WATER LINE DISINFECTION IS TO BE ACCOMPLISHED AS OUTLINED IN ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) "BULLETIN NO. 8."
F. WATER PIPE CLASSIFICATION SHALL BE CLASS 305 FOR A.W.W.A. C-900 PVC AND CLASS 350 FOR DUCTILE IRON UNLESS OTHERWISE APPROVED BY THE CITY ENGINEER. C-900 SHALL CONFORM TO CAST-IRON-EQUIVALENT OUTSIDE DIAMETER AND HAVE ELASTROMERIC GASKETS AND COUPLINGS. ALL DUCTILE IRON PIPE LINES SHALL BE POLYETHYLENE ENCASED IN ACCORDANCE WITH MAG SPECIFICATIONS.
G. ALL MATERIALS THAT COME INTO CONTACT WITH DRINKING WATER SHALL CONFORM TO NSF STANDARD 61 INCLUDING, BUT NOT LIMITED TO, GASKETS, LUBRICANTS, PIPE FITTINGS, AND VALVES. (NSF-PW SEAL) (R18-4-119B).
H. ALL PUBLIC SANITARY SEWER LINES AND PRIVATE SEWER SERVICE LINES WITHIN A PUBLIC UTILITY EASEMENT OR RIGHT-OF-WAY WILL BE INSPECTED PRIOR TO ACCEPTANCE BY THE CITY.
I. WATER AND SEWER MAINS SHALL BE SEPARATED IN ORDER TO PROTECT PUBLIC WATER SYSTEMS FROM POSSIBLE CONTAMINATION. ALL DISTANCES ARE MEASURED PERPENDICULARLY FROM THE OUTSIDE OF THE SEWER MAIN TO THE OUTSIDE OF THE WATER MAIN. SEPARATION REQUIREMENTS ARE AS FOLLOWS:
   1. A WATER MAIN SHALL NOT BE PLACED:
      a. WITHIN SIX (6) FEET, HORIZONTAL DISTANCE, AND LESS THAN TWO (2) FEET, VERTICAL DISTANCE, ABOVE THE TOP OF A SEWER MAIN UNLESS EXTRA PROTECTION IS PROVIDED. EXTRA PROTECTION SHALL CONSIST OF CONSTRUCTING THE SEWER MAIN WITH MECHANICAL JOINT DUCTILE IRON PIPE OR WITH SLIP-JOINT DUCTILE IRON PIPE IF JOINT RESTRAINT IS PROVIDED. ALTERNATE EXTRA PROTECTION SHALL CONSIST OF ENCASING BOTH THE WATER AND SEWER MAINS IN AT LEAST SIX (6) INCHES OF CONCRETE FOR AT LEAST TEN (10) FEET BEYOND THE AREA COVERED BY THIS SUBSECTION.
      b. WITHIN TWO (2) FEET HORIZONTALLY AND TWO (2) FEET BELOW THE SEWER MAIN. WHEN A WATER MAIN IS PLACED BELOW A SEWER MAIN, EXTRA PROTECTION IS ALWAYS REQUIRED REGARDLESS OF THE VERTICAL SEPARATION.

   2. NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF A SEWER MANHOLE. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAINS AND MANHOLES SHALL BE SIX (6) FEET, MEASURED FROM THE CENTER OF THE MANHOLE.

   3. THE MINIMUM SEPARATION BETWEEN FORCE MAINS OR PRESSURE SEWERS AND WATER MAINS SHALL BE TWO (2) FEET VERTICALLY AND SIX (6) FEET HORIZONTALLY UNDER ALL CONDITIONS. WHERE A SEWER FORCE MAIN CROSSES ABOVE OR LESS THAN SIX (6) FEET BELOW A WATER LINE, THE SEWER MAINS SHALL BE ENCASED IN AT LEAST SIX (6) INCHES OF CONCRETE OR CONSTRUCTED USING MECHANICAL JOINT DUCTILE IRON PIPE FOR TEN (10) FEET ON EITHER SIDE OF THE WATER MAIN.

   4. EVEN WHEN EXTRA PROTECTION IS UTILIZED, THE MINIMUM CLEARANCE BETWEEN WATER AND SEWER SHALL BE ONE (1) FOOT.

   5. THE SEPARATION REQUIREMENTS DO NOT APPLY TO BUILDING, PLUMBING, OR INDIVIDUAL HOUSE SERVICE CONNECTIONS.
J. WHEN HYDROSTATIC TESTING IS PERFORMED, SEWER LINES SHALL BE TESTED FOR INFILTRATION/EXFILTRATION PER ADEQ ENGINEERING BULLETIN NO. 11. MANHOLES SHALL BE TESTED BY FILLING THE MANHOLE WITH WATER. THE APPLICANT SHALL ENSURE THAT THE DROP IN WATER LEVEL DOES NOT EXCEED ONE-THOUSANDTH (0.001) OF THE TOTAL MANHOLE VOLUME IN ONE (1) HOUR.

   WHEN AIR TESTING IS PERFORMED, SEWER LINES SHALL BE TESTED IN ACCORDANCE WITH ASTM F1417-92. MANHOLES SHALL BE TESTED IN ACCORDANCE WITH ASTM C1244.
K. SEWER PIPE SHALL BE SDR 35, ASTM D3034 FOR PVC PIPE, OR CLASS 150 DIP LINED WITH PROTECTO 401 CERAMIC EPOXY OR HDPE ASTM F894. ALL DUCTILE IRON PIPELINES SHALL BE POLYETHYLENE ENCASED IN ACCORDANCE WITH MAG SPECIFICATIONS. SPECIAL DESIGN CONSIDERATIONS MAY REQUIRE A HIGHER CLASS RATING OF DIP.
L. NO WATER SETTLING OF TRENCH FILL MATERIAL IS ALLOWED.
M. ALL WATER AND SEWER DESIGN AND CONSTRUCTION SHALL CONFORM TO THE CURRENT ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) REQUIREMENTS. WHEN ADEQ REQUIREMENTS ARE IN CONFLICT WITH THESE STANDARDS, THE MORE RESTRICTIVE SHALL APPLY.
N. TRACER WIRES AND TAPES SHALL BE INSTALLED PRIOR TO TESTING THE WATER OR SEWER MAIN AS REQUIRED BY SECTION 13-09-001-0002. (STRIP WIRE 2 INCHES AT TERMINATION OF THE SERVICE).
O. WATER VALVES SHALL BE ADJUSTED IN ACCORDANCE WITH CITY OF FLAGSTAFF ENGINEERING DETAIL NO. 9-03-060 AND MANHOLES SHALL BE ADJUSTED IN ACCORDANCE WITH CITY OF FLAGSTAFF DETAIL NO. 9-03-062.
P. ONE HUNDRED PERCENT (100%) OF THE SEWER LINE SHALL BE TESTED FOR UNIFORM SLOPE BY REMOTE CAMERA AND TESTED FOR SHORT-TERM DEFLECTION.
   1. WHEN A SEWER SERVICE IS REQUIRED TO BE ABANDONED, IT SHALL BE ABANDONED AT THE PROPERTY LINE AND CAPPED USING THE APPROPRIATE MATERIALS (PVC, CLAY, OR CONCRETE).
   2. WHEN AN EXISTING WATER SERVICE IS REQUIRED TO BE ABANDONED, IT SHALL BE ABANDONED AT THE MAIN. THE SADDLE AND CORP. STOP SHALL BE REMOVED AND THE MAIN CLAMPED WITH AN APPROVED FULL CIRCLE REPAIR CLAMP.
Q. THE LOCATION OF WATER SERVICES SHALL BE IDENTIFIED BY BRANDING A "W" ON THE TOP OR FACE OF CURB.
R. SEWER SERVICE LOCATIONS SHALL BE IDENTIFIED BY BRANDING AN "S" ON THE TOP OR FACE OF THE CURB. (ORD. 2017-22, REP&REEN, 07/05/2017)

C.O.F. PAVING NOTES

A. EXACT POINT OF MATCHING TERMINATION AND OVERLAY, IF NECESSARY, SHALL BE DETERMINED IN THE FIELD BY THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE. WHEN A LONGITUDINAL JOINT ASSOCIATED WITH A TRENCH PATH, PAVEMENT MATCHUP OR OTHER OCCURS ON A STREET THAT INCLUDES A BIKE LANE, THE JOINT SHALL BE LOCATED OUTSIDE THE BIKE LANE.
B. NO JOB WILL BE CONSIDERED COMPLETE UNTIL:
   1. ALL CURBS, PAVEMENTS, SIDEWALKS, CATCH BASINS, STORM DRAINS, AND MANHOLES HAVE BEEN CLEANED OF ALL DIRT AND DEBRIS;
   2. SURVEY MONUMENTS ARE INSTALLED AND STAMPED; AND
   3. ALL FRAMES, COVERS, AND VALVE BOXES ARE ADJUSTED TO GRADE.
C. NO PAVING CONSTRUCTION SHALL BE STARTED UNTIL ALL UTILITY LINES ARE COMPLETED AND APPROVED UNDER PROPOSED PAVED AREAS.
D. BASE COURSE WILL NOT BE PLACED UNTIL SUBGRADE HAS BEEN APPROVED BY THE CITY ENGINEER OR HIS AUTHORIZED REPRESENTATIVE.
E. THE LOCATION OF ALL WATER VALVES, FIRE HYDRANTS, AND MANHOLES MUST AT ALL TIMES DURING CONSTRUCTION BE REFERENCED AND MADE ACCESSIBLE TO THE CITY.
F. UTILITY FACILITIES IN CONFLICT WITH THIS WORK WILL BE RELOCATED BY THE PERMITTEE OR THE UTILITY OWNER. THIS ACTIVITY SHALL BE COORDINATED WITH THE OWNER OF THE UTILITY TO PREVENT ANY UNNECESSARY INTERRUPTION OF SERVICE TO EXISTING CUSTOMERS.
G. EXISTING STREET NAME SIGNS, TRAFFIC SIGNS AND DEVICES ASSOCIATED WITH THE PROJECT SHALL BE MAINTAINED DURING CONSTRUCTION AND RELOCATED BY THE CONTRACTOR AS SHOWN ON THE APPROVED PLANS.
H. ANY CHANGES OR ADDITIONS TO PAVEMENT MARKINGS CAUSED BY PAVEMENT OVERLAY, CHIP SEAL, OR INSTALLATION OF UNDERGROUND FACILITIES SHALL BE SHOWN ON THE APPROVED PLANS.
I. ON PROJECTS WHERE THE CONTRACTOR CAUSES EXCESSIVE DAMAGE TO AN EXISTING PAVED STREET OR THERE ARE MULTIPLE STREET CUTS (MAXIMUM OF FOUR (4) IN FIVE HUNDRED (500) FEET) AN ASPHALT OVERLAY SHALL BE REQUIRED.
J. A PRIME COAT IS NOT REQUIRED UNLESS SO SPECIFIED IN THE SOILS AND PAVEMENT REPORT AND/OR SHOWN ON THE PLANS.
K. ALL CURB AND GUTTER, SIDEWALK, DRIVEWAYS, AND SIDEWALK RAMPS SHALL BE CONSTRUCTED ON A MINIMUM THREE (3) INCHES OF AGGREGATE BASE COURSE (ABC). THE ABC SHALL BE CONSTRUCTED PER MAG SECTION 310, AND SHALL BE COMPACTED TO NINETY-FIVE (95%) RELATIVE DENSITY. ALL PRECAST STRUCTURES SUCH AS MANHOLE BASES, CATCH BASINS, AND BOX CULVERTS SHALL BE CONSTRUCTED ON A MINIMUM OF THREE (3) INCHES OF ABC.
L. PERMANENT PAVEMENT MARKINGS.
   1. LONGITUDINAL PAVEMENT MARKINGS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 13-16-006-0001.
   2. TRANSVERSE PAVEMENT MARKINGS SUCH AS STOP BARS, CROSSWALKS, ARROWS, AND LEGENDS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 13-16-006-0002.
M. TEMPORARY PAVEMENT MARKINGS.
   1. TEMPORARY PAVEMENT MARKINGS, WHEN APPROVED, SHALL BE INSTALLED IN ACCORDANCE WITH SECTIONS 13-16-006-0001 AND 13-16-006-0002.

   NOTES:

   1. THE USE OF TEMPORARY MARKINGS IS STRONGLY DISCOURAGED AND MAY ONLY BE USED WITH PRIOR APPROVAL.

   WHEN IT IS USED, THE CONTRACTOR MUST BE AVAILABLE TO RESTRIPE AS NEEDED UNTIL THE PERMANENT MARKINGS CAN BE INSTALLED.

   2. WHEN IT IS IMPRACTICABLE FOR THE CONTRACTOR TO PROVIDE PERMANENT MARKINGS, THE CITY PUBLIC WORKS DEPARTMENT MAY INSTALL THE MARKINGS ON BEHALF OF THE CONTRACT PROVIDED THE FEE FOR THE WORK IS AGREED UPON AND PAID FOR IN ADVANCE.
N. THE MAXIMUM THICKNESS OF A SINGLE LIFT OF PAVEMENT SHALL BE FOUR (4) INCHES. (ORD. 2017-22, REP&REEN, 07/05/2017)

C.O.F. GRADING AND DRAINAGE NOTE:

"ADEQUATE DRAINAGE, EROSION AND SEDIMENT CONTROL MEASURES, BEST MANAGEMENT PRACTICES, AND/OR OTHER STORM WATER MANAGEMENT FACILITIES SHALL BE PROVIDED AND MAINTAINED AT ALL TIMES DURING CONSTRUCTION. DAMAGES TO ADJACENT PROPERTY AND/OR THE CONSTRUCTION SITE CAUSED BY CONTRACTOR'S PROPERTY OR PROPERTY OWNER'S FAILURE TO PROVIDE AND MAINTAIN ADEQUATE DRAINAGE AND EROSION/SEDIMENT CONTROL FOR THE CONSTRUCTION AREA SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND/OR PROPERTY OWNER."

C.O.F. SEEDING NOTES

TO BE APPLIED ON ALL CUT/FILL SLOPES.

THE CONTRACTOR SHALL RESEED ALL DISTURBED AREA ACCORDING TO THE PROVISIONS OF THIS SECTION. THE WORK UNDER THIS SECTION SHALL CONSIST OF FURNISHING, HAULING, PLACING, AND APPLYING EROSION CONTROL (SEED, MULCH, AND EROSION CONTROL BLANKETS) TO ALL DISTURBED AREAS WITHIN THE PROJECT AREAS AS SHOWN ON THE PLANS. REFER TO THE CITY OF FLAGSTAFF ENGINEERING STANDARDS, TITLE 13, CHAPTER 17 FOR SEEDING REQUIREMENTS.

SHEPHARD-WESNITZER GENERAL NOTES

PROJECT SPECIFICATIONS
ALL WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING STANDARDS AND SPECIFICATIONS, AND ANY SPECIAL PROVISIONS PREPARED FOR THE PROJECT. THE TERM "CURRENT" MEANS THE DATE OF THE SPECIFICATIONS IN EFFECT AS OF THE DATE OF THE ENGINEERS SEAL ON THESE PLANS.

MARICOPA ASSOCIATION OF GOVERNMENTS (M.A.G.) UNIFORM STANDARD SPECIFICATIONS AND DETAILS FOR PUBLIC WORKS CONSTRUCTION
CITY OF FLAGSTAFF ENGINEERING DESIGN AND CONSTRUCTION STANDARDS & SPECIFICATION
AMERICAN WATER WORKS ASSOCIATION STANDARDS
ARIZONA ADMINISTRATIVE CODE
INTERNATIONAL PLUMBING CODE (IPC)
INTERNATIONAL BUILDING CODE (IBC)

THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE REQUIRED TO OBTAIN COPIES OF THESE, AS WELL AS ANY OTHER STANDARDS OR SPECIFICATIONS REQUIRED TO SUCCESSFULLY COMPLETE THE WORK AS DESCRIBED IN THESE PLANS AND/OR ANY SPECIAL PROVISIONS PREPARED FOR THE PROJECT. THIS REQUIREMENT EXTENDS TO ANY STANDARDS, DETAILS, OR SPECIFICATIONS REFERENCED BY THE CONSTRUCTION DOCUMENTS AND NOT INCLUDED IN THE LIST ABOVE.

QUANTITY ESTIMATE AND PAYMENT PROVISIONS
IF ANY MATERIAL QUANTITIES ARE SHOWN ON THESE PLANS, THEY ARE TO BE CONSIDERED AS APPROXIMATE ONLY AND ARE FURNISHED AS A CONVENIENCE TO THE CONTRACTOR IN EVALUATING THE MAGNITUDE OF THE PROJECT SCOPE. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE ACTUAL QUANTITIES OF WORK REQUIRED AND BASE HIS BID ON HIS OWN INDEPENDENT ESTIMATE OF THE WORK SCOPE AND QUANTITIES OF MATERIALS REQUIRED.

THE ESTIMATED QUANTITIES MAY NOT DIRECTLY CORRESPOND TO A BID SCHEDULE/SCHEDULE OF VALUES INCLUDED IN THE CONTRACT DOCUMENTS. PAYMENT FOR ANY WORK ACCOMPLISHED SHALL BE IN ACCORDANCE WITH THE PAYMENT PROVISIONS OUTLINED IN THE CONTRACT DOCUMENTS.

UTILITY COORDINATION
THE CONTRACTOR SHALL HAVE THE RESPONSIBILITY FOR COORDINATING ALL UTILITY RELOCATIONS, VALVE BOX/MANHOLE OR OTHER SURFACE APPURTENANCE ADJUSTMENTS, RESOLUTION OF UTILITY CONFLICTS, OBTAINING NECESSARY PERMITS, SCHEDULING BLUE STAKE, CONDUCTING EXPLORATORY EXCAVATIONS IN ADVANCE OF UTILITY INSTALLATIONS, AND GENERAL CONFORMANCE TO UTILITY AGENCY REQUIREMENTS AND SPECIFICATIONS FOR CONDUCTING THE WORK.

THE CONTRACTOR IS SPECIFICALLY ADVISED TO EXAMINE THE SITE FOR EVIDENCE OF AND CONFLICTS WITH EXISTING UTILITIES PRIOR TO SUBMITTING HIS BID. EXISTING UTILITIES HAVE BEEN SHOWN ON THE PLANS IN THEIR APPROXIMATE LOCATIONS BASED ON FIELD OBSERVATIONS AND ANY FURNISHED RECORD INFORMATION, BUT THERE IS NO GUARANTEE THAT ALL UTILITY CONFLICTS HAVE BEEN IDENTIFIED. AT THE TIME OF CONSTRUCTION, THE EXACT SIZES, TYPES, AND LOCATIONS OF EXISTING UNDERGROUND IMPROVEMENTS SHALL BE DETERMINED BY THE CONTRACTOR AND HE SHALL FURNISH MATERIALS AS NECESSARY TO CONSTRUCT THE REQUIRED CONNECTIONS.
THE CONTRACTOR SHALL PERFORM ALL NECESSARY POTHOLES AND UTILITY LOCATING AT LEAST TWO WEEKS IN ADVANCE OF ALL UNDERGROUND UTILITY WORK TO ENSURE EXPEDIENT COMPLETION OF THE WORK IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. LOCATING EXISTING UTILITIES FOR THE PURPOSE OF IDENTIFYING CONFLICTS IN ADVANCE OF THE UTILITY RELOCATIONS IS AN IMPORTANT ELEMENT OF THE PROJECT. FAILURE OF THE CONTRACTOR TO LOCATE EXISTING UTILITIES AT LEAST TWO WEEKS IN ADVANCE OF THE CONSTRUCTION ACTIVITIES WILL DIMINISH HIS ABILITY TO MAKE A CLAIM FOR DELAYS FOR UTILITY RELOCATIONS.

ALL FRAMES, COVERS AND VALVE BOXES IN THE CONSTRUCTION AREA SHALL BE ADJUSTED TO FINAL FINISH GRADES, WHETHER INDICATED ON THE PLANS OR NOT. ANY NECESSARY ADJUSTMENTS WHICH ARE NOT SEPARATELY ITEMIZED IN THE BID SCHEDULE SHALL BE CONSIDERED INCIDENTAL TO THE WORK.

THE APPROPRIATE UTILITY COMPANIES SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO ANY CONSTRUCTION. "BLUE STAKE" NUMBER IS 1-800-STAKE-IT. CONTRACTOR SHALL ALLOW TWO WORKING DAYS AFTER "BLUE STAKE" IS NOTIFIED, BEFORE COMMENCING ANY EXCAVATION WORK IN PROXIMITY OF BURIED UTILITIES.

AT LEAST TWO WORKING DAYS PRIOR NOTICE IS REQUIRED BEFORE DISRUPTING EXISTING UTILITY SERVICES TO MAKE CONNECTIONS. THE NOTICE MUST INCLUDE THE EXACT TIME OF THE DISRUPTION OF SERVICE AND THE EXPECTED DURATION OF THE LOSS OF SERVICE. THE NOTICE SHALL BE FURNISHED TO THE OWNER OR OTHERS AS SPECIFIED IN THE CONTRACT DOCUMENTS.

THE LOCATION OF ALL WATER VALVES MUST AT ALL TIMES DURING CONSTRUCTION BE REFERENCED AND MADE AVAILABLE TO THE GOVERNING WATER COMPANY/DEPARTMENT.

ALL WATER LINES SHALL BE PRESSURE AND LEAKAGE TESTED PER AWWA C605-13 OR MAG STANDARDS SECTION 611.

PERMITS

CITY OF FLAGSTAFF PERMITS
A PUBLIC IMPROVEMENTS PERMIT AND A GRADING PERMIT ARE REQUIRED FOR THIS PROJECT, CONTACT COMMUNITY DEVELOPMENT AT 928-213-2606 TO INITIATE THE PROCESS. CONTACT THE ENGINEERING INSPECTION DEPARTMENT AND STORM WATER DEPARTMENT AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF THE PROJECT TO COORDINATE INSPECTIONS. GRADING CERTIFICATION IS REQUIRED, WHICH SHALL BE SEALED BY THE SURVEYOR AND GEOTECHNICAL ENGINEER; SPECIAL INSPECTION CERTIFICATION FOR ANY BUILT IN PLACE STRUCTURES WILL ALSO BE REQUIRED. AS-BUILTS ARE REQUIRED WITH THE CERTIFICATION.

A PRE-CONSTRUCTION MEETING WITH THE CITY OF FLAGSTAFF IS REQUIRED PRIOR TO THE START OF ANY WORK. CONTACT THE CITY OF FLAGSTAFF PROJECT MANAGER TO SCHEDULE THE MEETING.

EARTHWORK SUMMARY

SITE GRADING:

UNADJUSTED CUT: 35,094 CY ⚠1
UNADJUSTED FILL: 12,486 CY

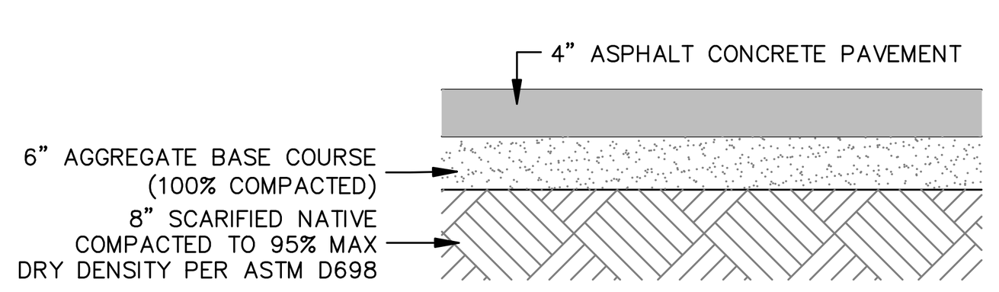
EARTHWORK VOLUMES SHOWN ABOVE ARE BASED ON IN-PLACE VOLUMES REQUIRED FOR SITE GRADING. QUANTITIES ARE NOT ADJUSTED FOR SHRINKAGE (SEE GEOTECH REPORT FOR ESTIMATED SHRINKAGE FACTORS). THESE RESULTS MAY NOT REFLECT THE FINAL CONSTRUCTED QUANTITIES. THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN QUANTITY DETERMINATIONS. ADDITIONAL EARTHWORK QUANTITIES SHALL BE CONSIDERED INCIDENTAL TO BUILDING CONSTRUCTION. ANY WASTE MATERIAL SHALL BE INCIDENTAL TO CONSTRUCTION.

CLEAR VIEW ZONE CALCULATIONS

ID #	MAJOR STREET	MANEUVER DIRECTION	DESIGN SPEED (VMAJOR)[1]	TIME GAP tg (unadjusted)[2]	GRADE ≤ 3%	MULTIPLE LANE CROSSINGS	NO. OF LANES[4]	TIME GAP tg(adjusted)[2]	INTERSECTION SIGHT DISTANCE (ISD3)	STOPPING SIGHT DISTANCE (SSD)
D1	6th Avenue	Right	15	6.5	Yes	No	1	6.5	143	80
D2	3rd Street	Right	15	6.5	Yes	No	1	6.5	143	80
D3	3rd Street	Left	15	7.5	Yes	Yes	2	8.0	176	80
D4	3rd Street	Left	15	5.5	Yes	Yes	2	6.0	132	80

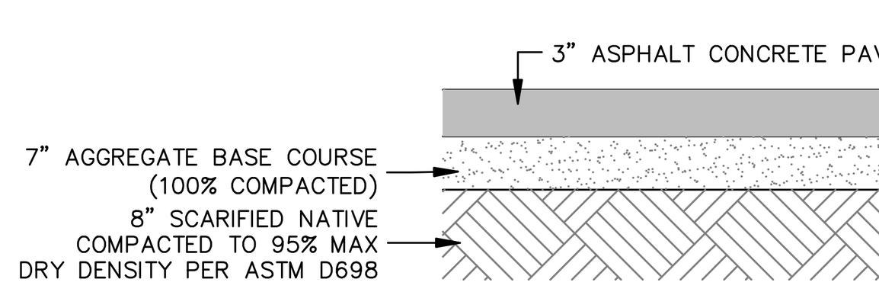
Notes:

(1)	The major road speed limits (VMAJOR in MPH) are based on existing conditions in the project vicinity.
(2)	The time gap values, adjusted (tg (adjusted) in seconds) and unadjusted (tg (unadjusted) in seconds), are based on the current site plan and the AASHTO-Geometric Design of Highways and Streets Exhibits 9-54 and 9-57 for D1 and D2 and Exhibits 9-66 and 9-67 for M1. The first lane crossed does not warrant an adjustment to the time gap.
(3)	The intersection site distance (ISD in feet) calculations are based on Equation 9-1 in the AASHTO-Geometric Design of Highways and Streets. Equation 9-1: ISD=1.47*VMAJOR*tg
(4)	The number of lanes crossed may include medians converted to equivalent lanes. The number of lanes provided in the table includes the first lane crossed.
(5)	If the approach grade is greater than 3%, add 0.1 seconds for each percent grade.



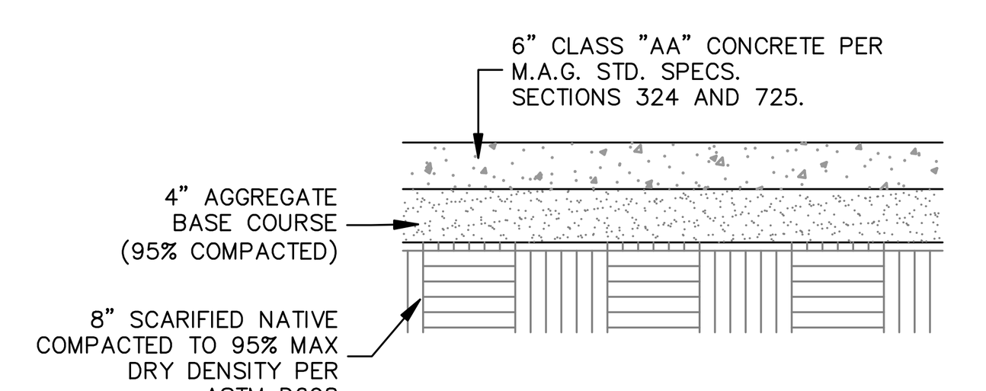
*SEE GEOTECHNICAL REPORT (WESTERN TECHNOLOGIES INC. DATED 10-21-2020) FOR COMPACTION AND EARTHWORK RECOMMENDATIONS

A ASPHALTIC PAVEMENT STRUCTURAL FOR HEAVY DUTY N.T.S.



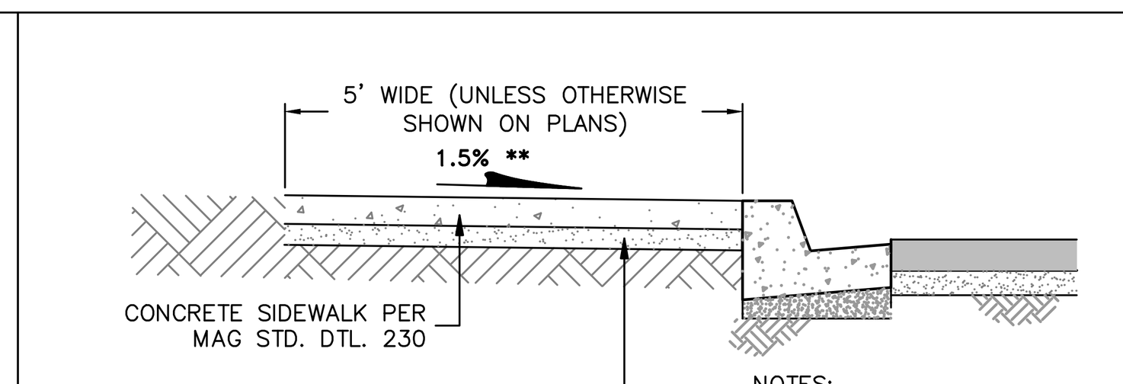
*SEE GEOTECHNICAL REPORT (WESTERN TECHNOLOGIES INC. DATED 10-21-2020) FOR COMPACTION AND EARTHWORK RECOMMENDATIONS

B ASPHALTIC PAVEMENT STRUCTURAL FOR LIGHT DUTY N.T.S.



*SEE GEOTECHNICAL REPORT (WESTERN TECHNOLOGIES INC. DATED 10-21-2020) FOR COMPACTION AND EARTHWORK RECOMMENDATIONS

C CONCRETE PAVING STRUCTURAL SECTION N.T.S.

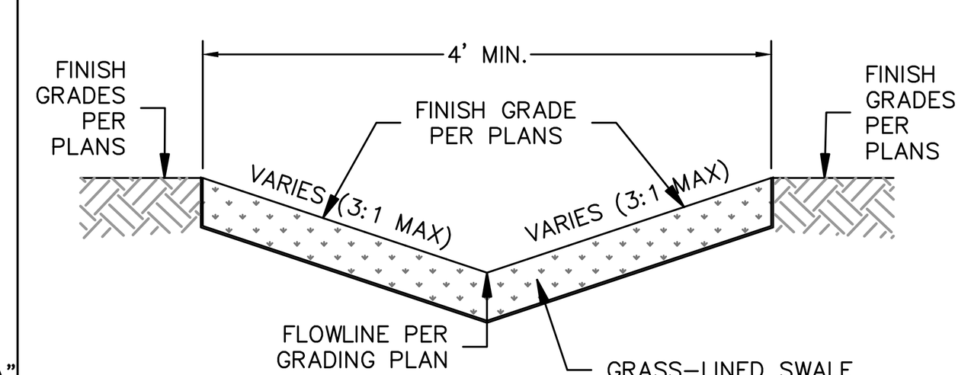


NOTES:
-CONCRETE SHALL HAVE 5% TO 7% AIR ENTRAINMENT.
-CONCRETE SHALL BE CLASS "A" IN ACCORDANCE WITH M.A.G. SPEC. SEC. 725.

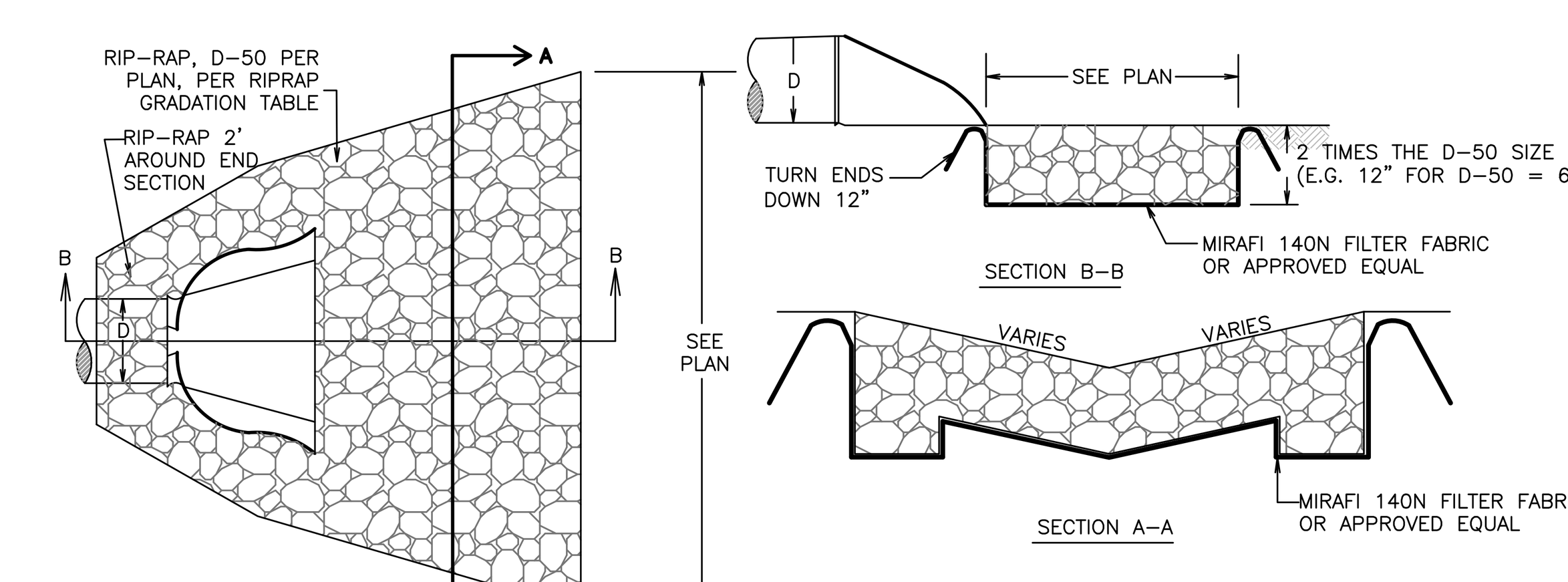
*SEE GEOTECHNICAL REPORT (WESTERN TECHNOLOGIES INC. DATED 10-21-2020) FOR COMPACTION AND EARTHWORK RECOMMENDATIONS

** SLOPE SIDEWALK AT 1.5% MIN TOWARD ROADWAY UNLESS MORE DETAILED GRADING IS PROVIDED ON PLAN

D CONCRETE SIDEWALK STRUCTURAL SECTION N.T.S.



E LANDSCAPE SWALE N.T.S.

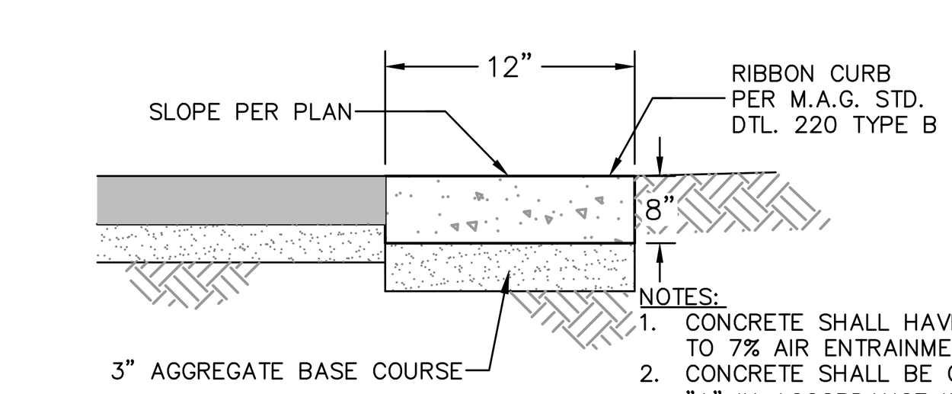


RIPRAP GRADATION TABLE

PERCENT PASSING	SIZE	D-50 CLASS RIPRAP, INCHES						
		6	9	12	18	24	36	30
100 to 90	2.0 D-50	12	18	24	36	48	72	60
85 to 70	1.5 D-50	9	14	18	27	36	54	45
50 to 30	1.0 D-50	6	9	12	18	24	36	30
15 to 5	0.67 D-50	4	6	8	12	16	24	20
5 to 0	0.33 D-50	2	3	4	6	8	12	10

RIPRAP (MALAPAI ROCK)
-MALAPAI ROCK SHALL HAVE A BULK SPECIFIC GRAVITY OF 2.4 OR GREATER (PER ASTM C127) AND ALL ROCK SHALL BE ANGULAR
-MALAPAI ROCK SHALL BE BETWEEN 3-INCHES AND 12-INCHES IN DIAMETER, WITH 50% (BY WEIGHT) LARGER THAN 6-INCHES IN DIAMETER UNLESS OTHERWISE SPECIFIED BY THE CITY ENGINEER

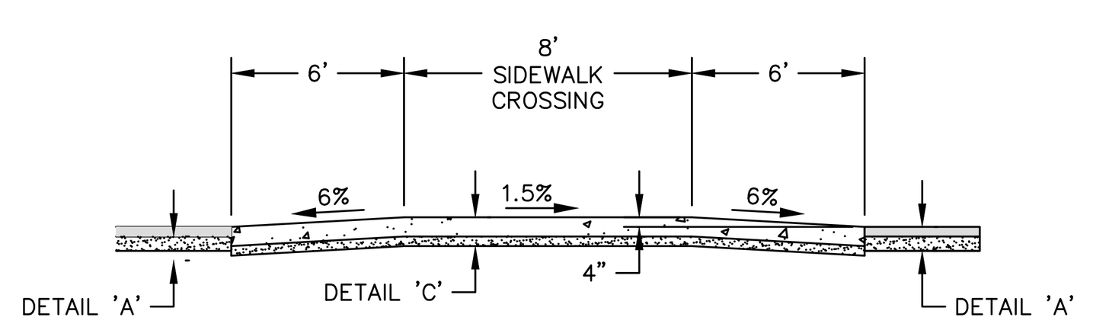
F RIPRAP INSTALLATION DETAIL N.T.S.



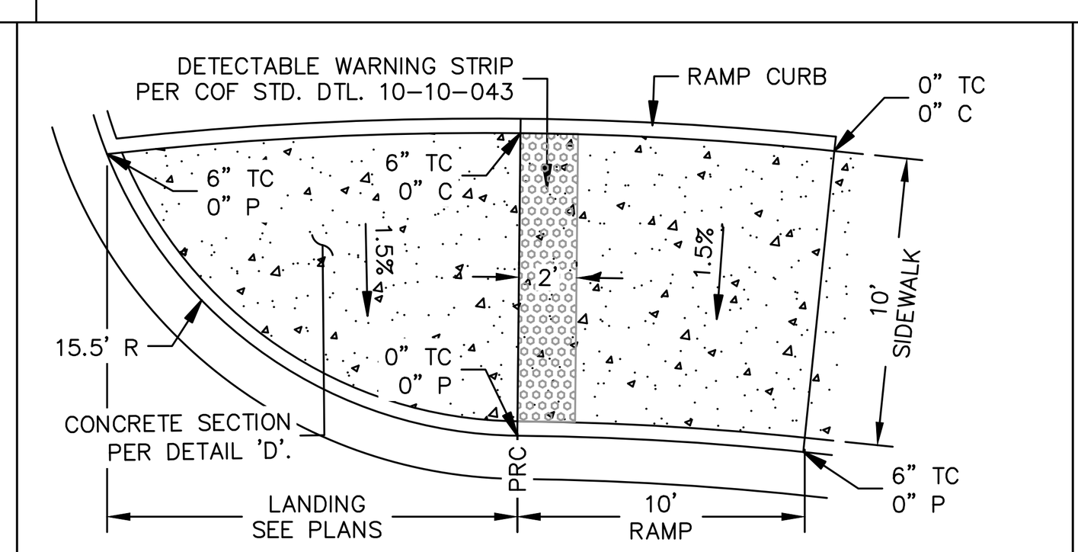
NOTES:
1. CONCRETE SHALL HAVE 5% TO 7% AIR ENTRAINMENT.
2. CONCRETE SHALL BE CLASS "A" IN ACCORDANCE WITH M.A.G. SPEC. SEC. 725.

*SEE GEOTECHNICAL REPORT (WESTERN TECHNOLOGIES INC. DATED 12-21-2020) FOR COMPACTION AND EARTHWORK RECOMMENDATIONS

G RIBBON CURB N.T.S.

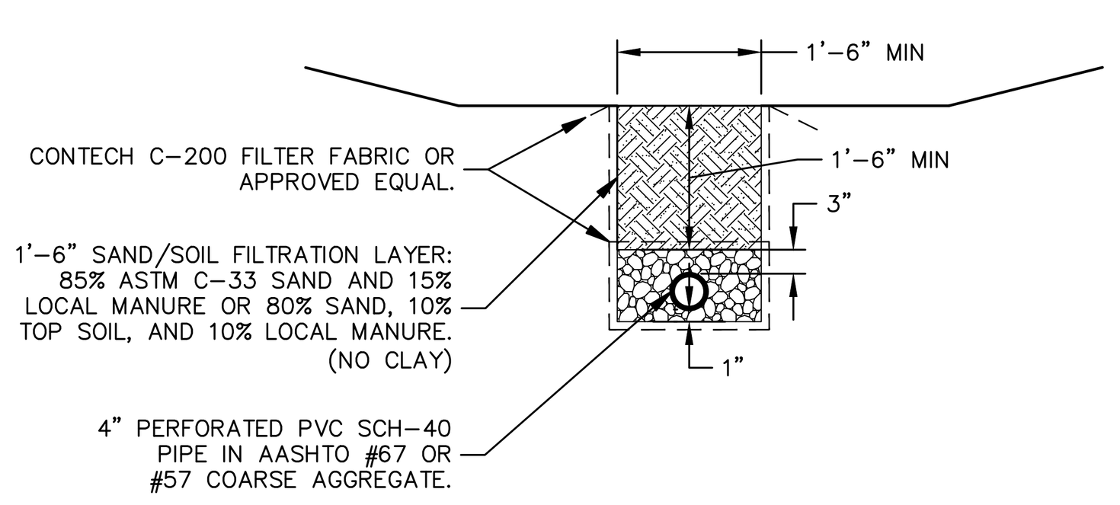


H SPEED TABLE (RAISED CROSSWALK) N.T.S.

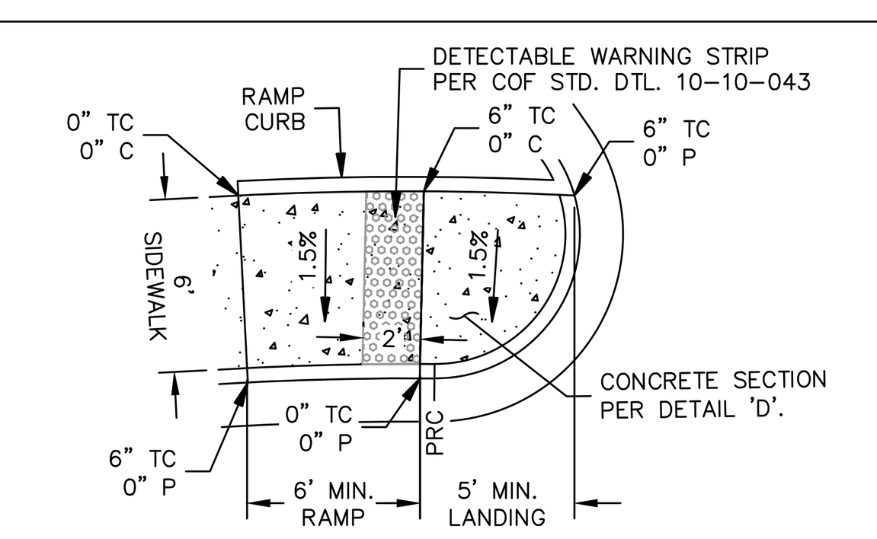


NOTE: REFER TO SHEET C-GD01 FOR ELEVATIONS

I SIDEWALK RAMP N.T.S.

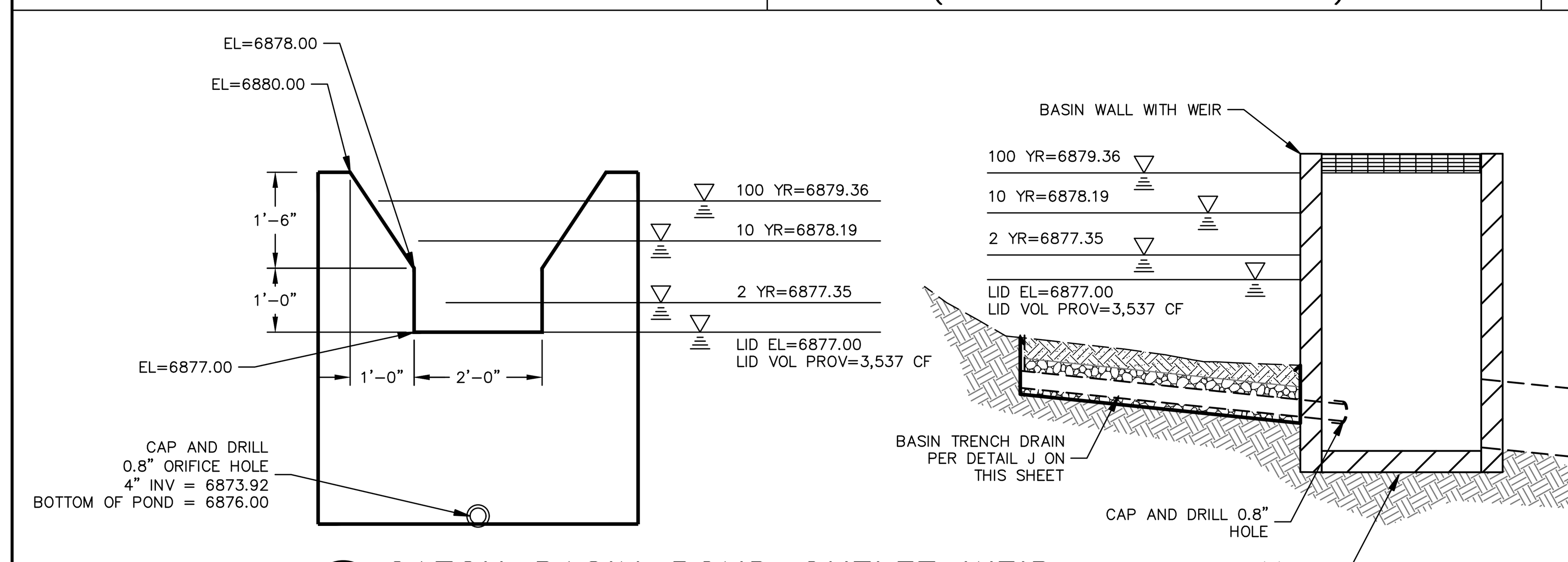


J BASIN TRENCH DRAIN N.T.S.

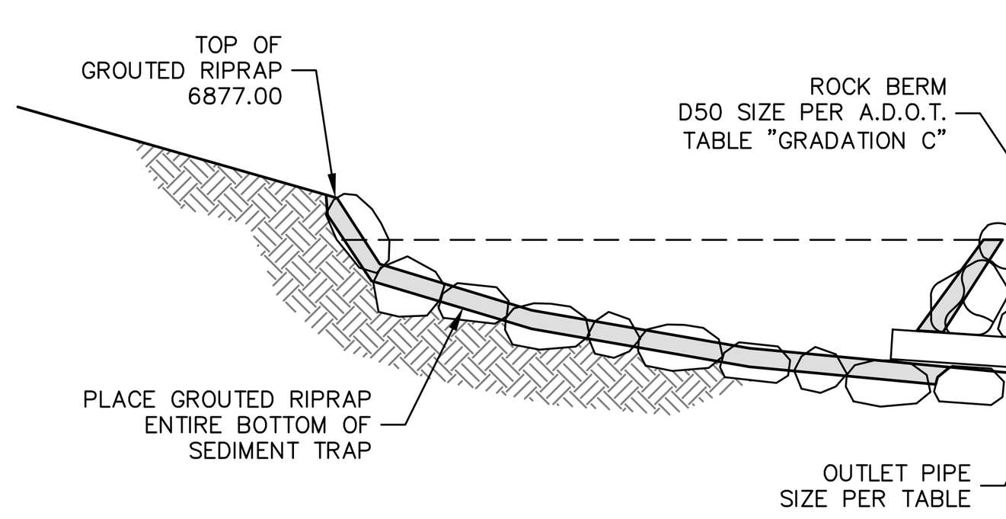


NOTE: REFER TO SHEET C-GD01 FOR ELEVATIONS

M SIDEWALK RAMP N.T.S.

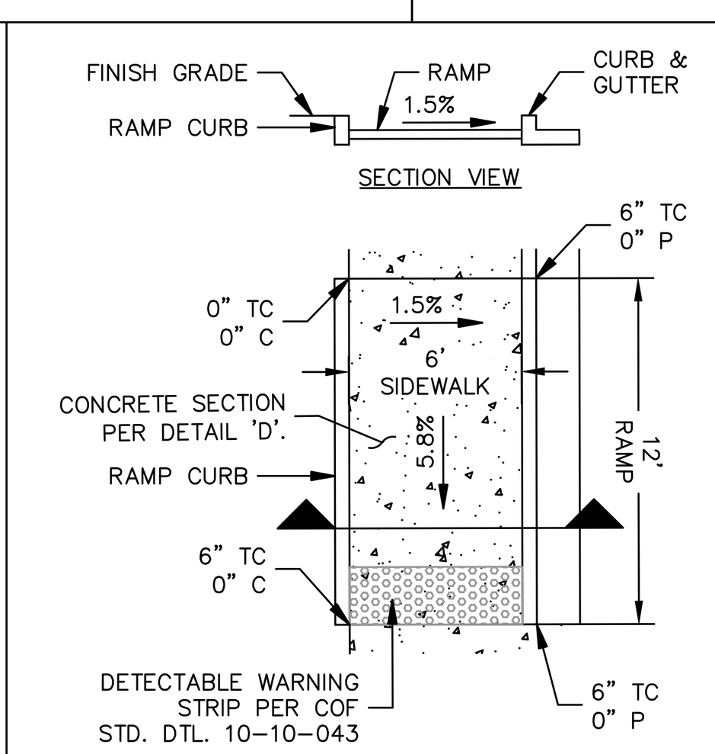


K CATCH BASIN POND OUTLET WEIR N.T.S.



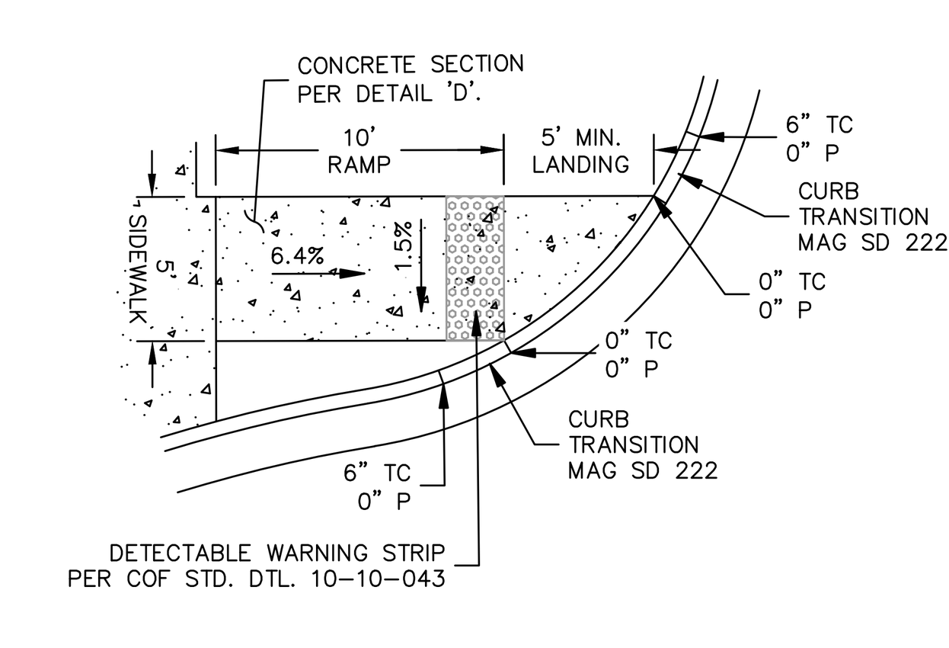
POND ID	ROCV	TRAP VOLUME (4%±)	BERM HEIGHT	PIPE SIZE
A	3,537 C.F.	140 C.F.	1'	6" = 0.98 cfs = 3 min.

L BASIN SEDIMENT TRAP N.T.S.



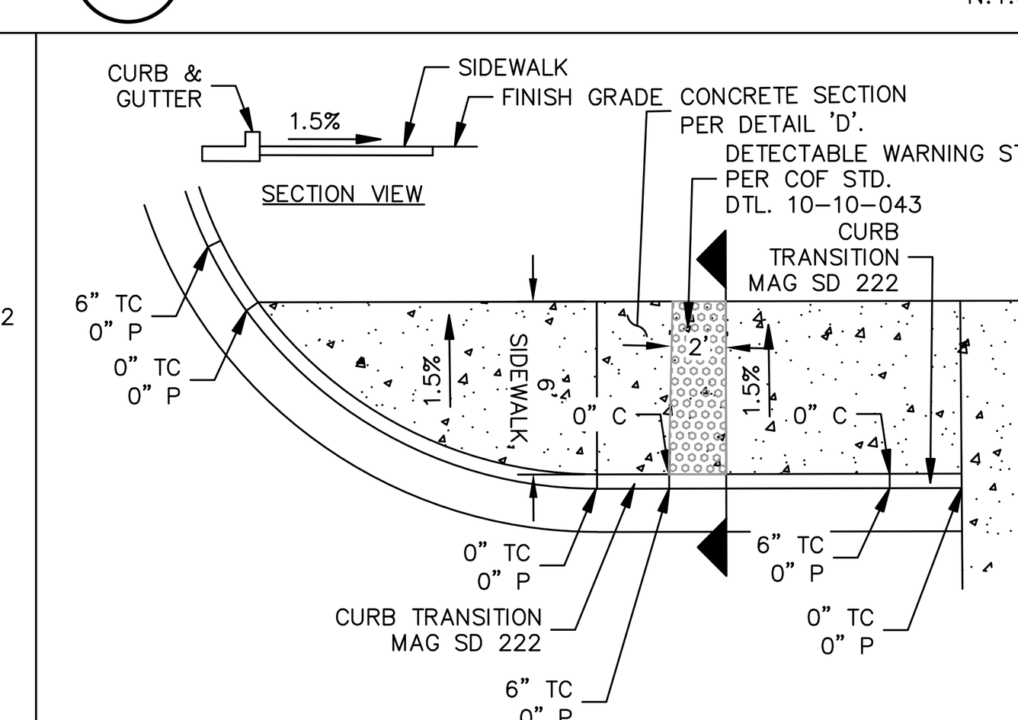
NOTE: REFER TO SHEET C-GD01 FOR ELEVATIONS

N SIDEWALK RAMP N.T.S.



NOTE: REFER TO SHEET C-GD01 FOR ELEVATIONS

O SIDEWALK RAMP N.T.S.



NOTE: REFER TO SHEET C-GD01 FOR ELEVATIONS

P SIDEWALK N.T.S.

DLR Group
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PRELIMINARY
NOT FOR CONSTRUCTION, BIDDING OR RECORDING

Shephard Wesnitzer, Inc.

Call at least two full working days before you begin excavation.
ARIZONA811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

KILLIP ELEMENTARY SCHOOL
FLAGSTAFF UNIFIED SCHOOL DISTRICT
2300 E 6th Ave., Flagstaff, AZ 86004

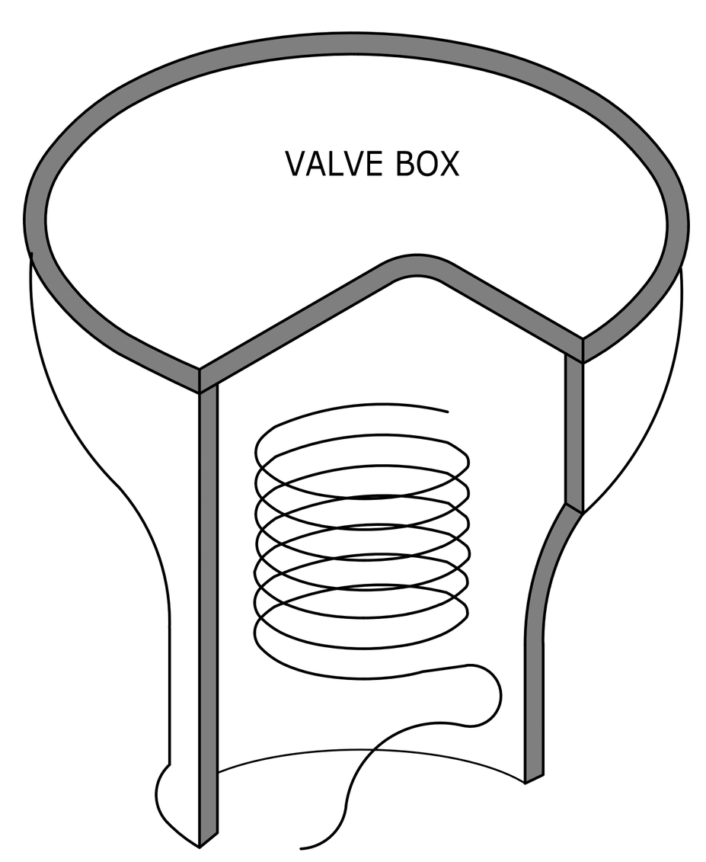
100% CONSTRUCTION DOCUMENTS
02.08.2021
REVISIONS
⚠1 ASI11 REGIONAL DET. BASIN 06/15/2021

30-20149-00

NOTES AND DETAILS

C-GN01

COF PZ-20-00157

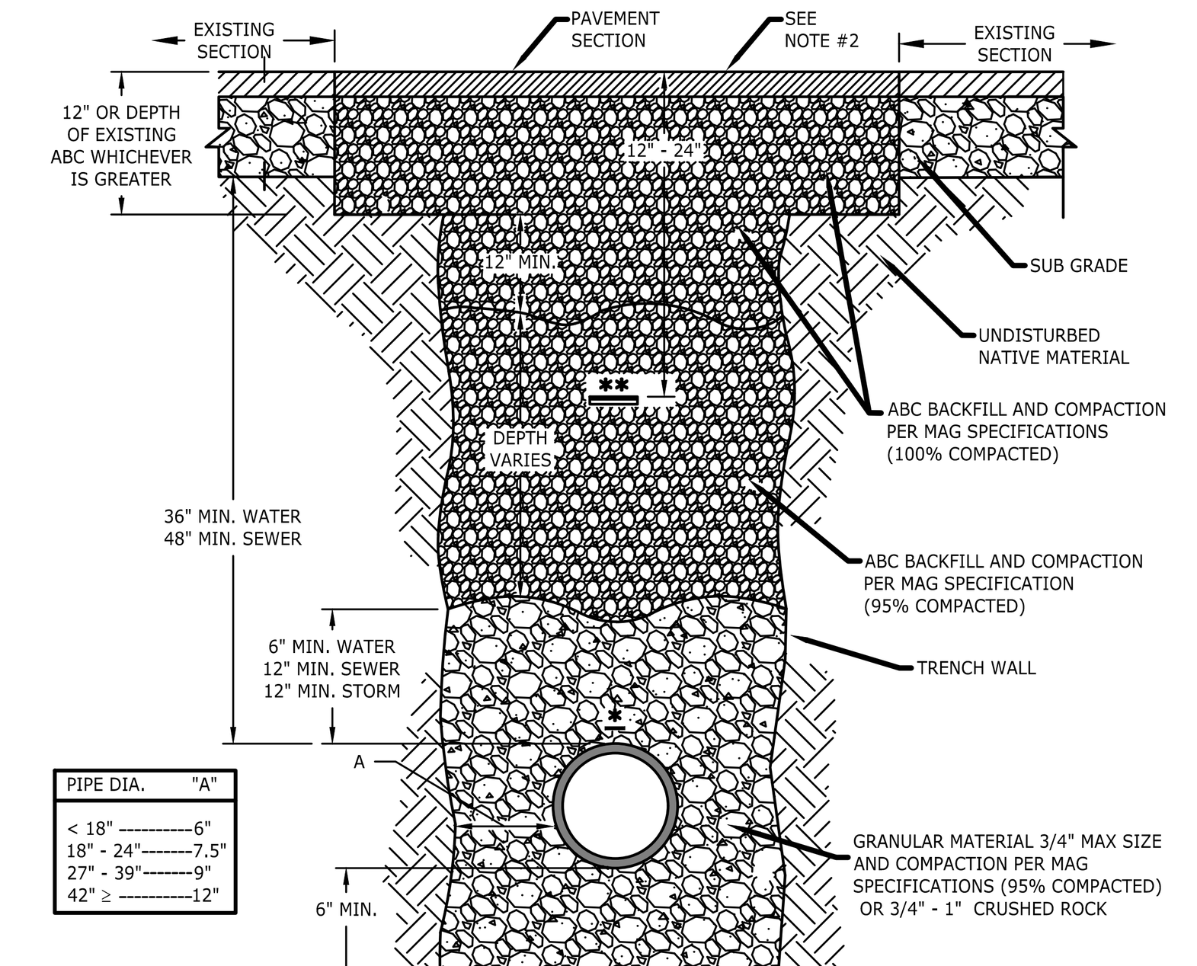


NOTES:

1. THE UF-600 TRACER WIRE SHALL BE A MINIMUM 8 FOOT OUTSIDE OF BOX WHEN EXTENDED, IN A CAST IRON VALVE BOX WITHOUT A VALVE.
2. THE TRACER WIRE EXTENDS FROM THE MAIN ON THE FIRE HYDRANT OR METER SERVICE RUNS. THE END COIL MUST BE SET IN A SEPARATE VALVE BOX.
3. COVER SHALL BE LABELED WATER, SEWER OR RECLAIM WASTEWATER.
4. LOCATE VALVE BOX 1 FOOT BEHIND SIDEWALK WITHIN RIGHT OF WAY.

NTS

City of Flagstaff — ENGINEERING DETAIL — TRACER WIRE — DETAIL NO. 09-01-020 — REVISION DATE: 12/30/2017 — 1/1



PIPE DIA.	"A"
< 18"	6"
18" - 24"	7.5"
27" - 39"	9"
42" ≥	12"

NOTES:

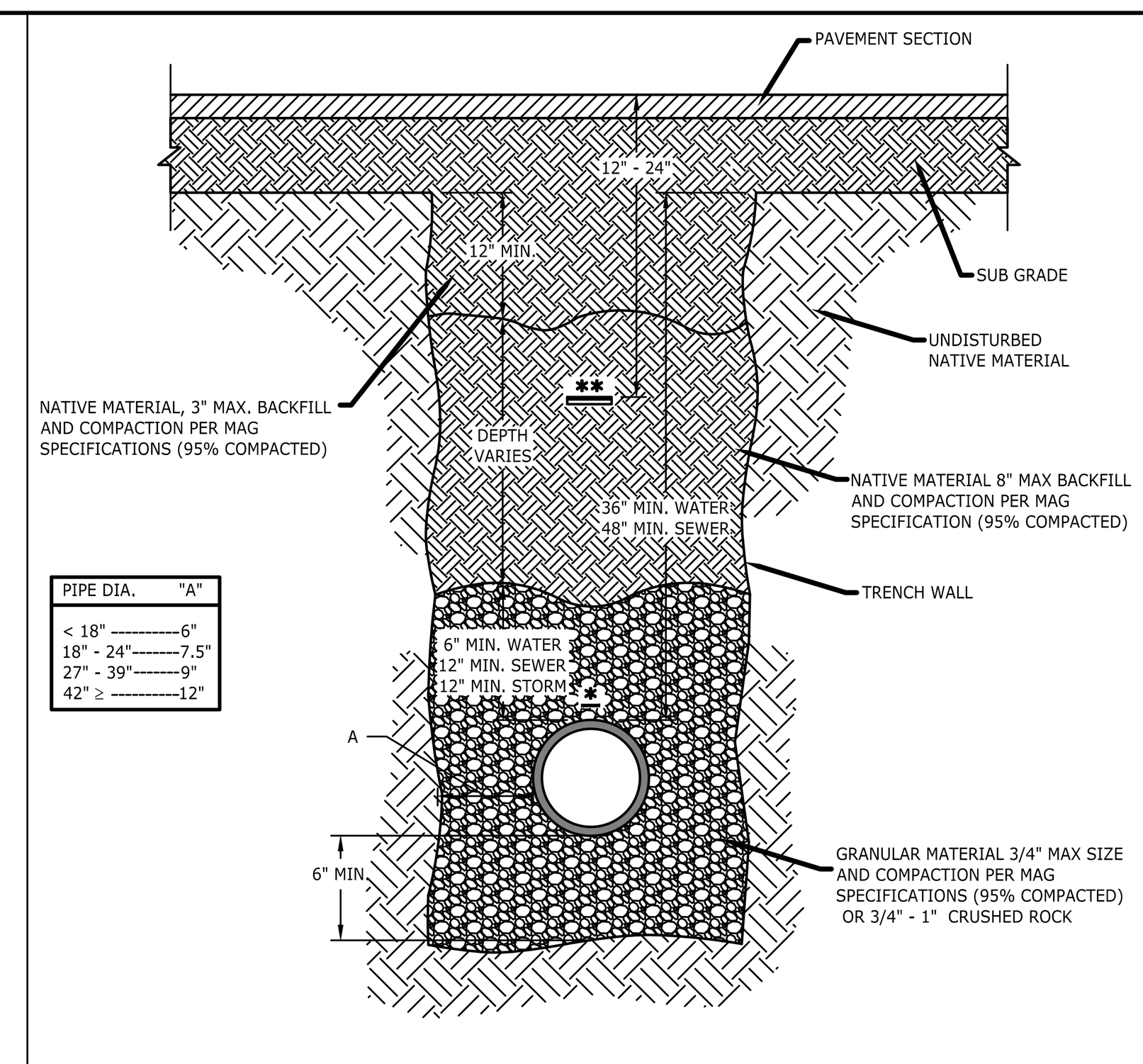
1. BACKFILL MATERIAL SHALL BE PER MAG SPECS.
2. THE DEPTH OF THE AC SHALL MATCH EXISTING OR TYPICAL MIN. PAVEMENT DEPTH FOR THE TYPE OF ROADWAY, WHICHEVER IS GREATER. THE TYPICAL MINIMUM PAVEMENT DEPTHS ARE AS FOLLOWS: ARTERIAL = 5", COLLECTOR = 4", LOCAL = 3"
3. NON-SHRINK BACKFILL IN ACCORDANCE WITH COF STD. 9-6-030 AND MAY BE USED FOR BACKFILL UP TO EXISTING SUBGRADE. THE NON-SHRINK BACKFILL SHALL BE PROPORTIONED AS FOLLOWS: 2600 LBS OF 3/8" MINUS AGGREGATE, 800 LBS SAND, 94 LBS CEMENT AND 11 GALLONS WATER.
4. A MIN. 2" OF UPM™ MAY BE USED FOR TEMPORARY TRENCH PAVING IF HOT MIX IS NOT AVAILABLE. UPM™ TEMPORARY PAVEMENT SHALL NOT REMAIN IN PLACE LONGER THAN 5 WORKING DAYS OR UNTIL HOT MIX ASPHALT IS AVAILABLE. AFTER 5 WORKING DAYS, THE CITY MAY PERFORM THE PERMANENT TRENCH PAVEMENT AT THE CONTRACTORS EXPENSE. IN LIEU OF PLACING UPM™ THOUGH STILL TEMPORARY, THE CONTRACTOR MAY ELECT TO COMPLETELY BACKFILL THE TRENCH TO WITHIN 2" OF THE FINISH TRENCH GRADE WITH NON-SHRINK BACKFILL; THE FINAL 2" SHALL BE MAG CLASS "C" CONCRETE

* TRACER WIRE TAPED TO TOP CENTER OF MAIN WITH 10MIL PVC TAPE ON 4' CENTERS, SEE COF STD 9-01-020.

** WARNING TAPE

NTS

City of Flagstaff — ENGINEERING DETAIL — 'TRENCHING & BACKFILL' EXISTING PAVED STREET — DETAIL NO. 09-01-030 — REVISION DATE: 12/30/2017 — 1/1



PIPE DIA.	"A"
< 18"	6"
18" - 24"	7.5"
27" - 39"	9"
42" ≥	12"

NOTES:

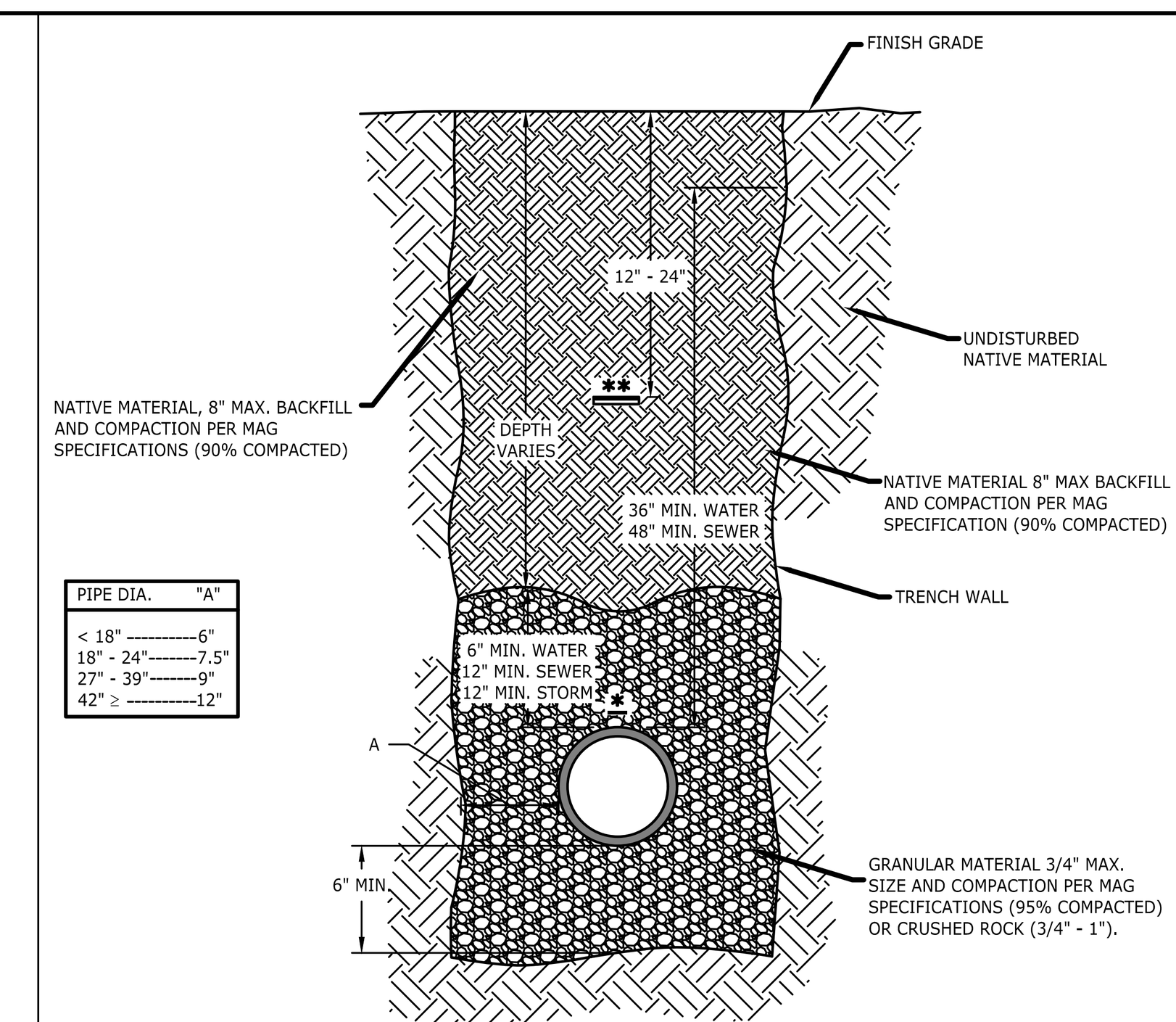
1. NATIVE BACKFILL SHALL BE PER MAG SPECS AND MAY BE SELECTED FROM THE EXCAVATION MATERIAL OR FROM A SOURCE SELECTED BY THE CONTRACTOR AND APPROVED BY THE CITY ENGINEER.
2. NON-SHRINK BACKFILL IN ACCORDANCE WITH COF STD. 9-6-030 AND MAY BE USED FOR BACKFILL UP TO EXISTING SUBGRADE. THE NON-SHRINK BACKFILL SHALL BE PROPORTIONED AS FOLLOWS: 2600 LBS OF 3/8" MINUS AGGREGATE, 800 LBS SAND, 94 LBS CEMENT AND 11 GALLONS WATER

* TRACER WIRE TAPED TO TOP CENTER OF MAIN WITH 10MIL PVC TAPE ON 4' CENTERS, SEE COF STD 9-01-020.

** WARNING TAPE

NTS

City of Flagstaff — ENGINEERING DETAIL — TRENCHING AND BACKFILL NEW PAVED STREET — DETAIL NO. 09-01-031 — REVISION DATE: 12/30/2017 — 1/1



PIPE DIA.	"A"
< 18"	6"
18" - 24"	7.5"
27" - 39"	9"
42" ≥	12"

NOTES:

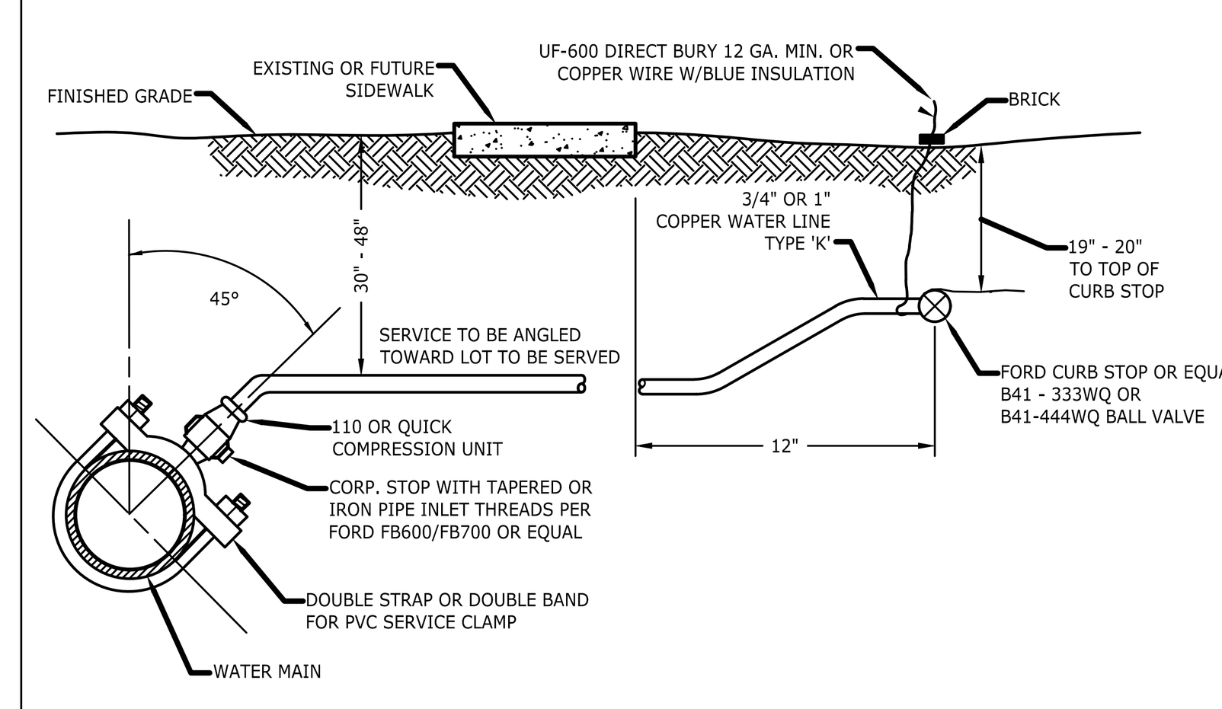
1. NATIVE BACKFILL SHALL BE PER MAG SPECS AND MAY BE SELECTED FROM THE EXCAVATION MATERIAL OR FROM A SOURCE SELECTED BY THE CONTRACTOR AND APPROVED BY THE CITY ENGINEER.
2. IF THE UNPAVED STREET HAS A SURFACE MATERIAL (ABC, CINDERS, ETC) OTHER THAN NATIVE, THE SURFACE MATERIAL SHALL BE REPLACED TO ITS EXISTING DEPTH.
3. NON-SHRINK BACKFILL IN ACCORDANCE WITH COF STD. 9-6-030 AND MAY BE USED FOR BACKFILL UP TO 6" BELOW FINISH GRADE. THE FINAL 6" SHALL BE NATIVE MATERIAL 8" MAX. THE NON-SHRINK BACKFILL SHALL BE PROPORTIONED AS FOLLOWS: 2600 LBS OF 3/8" MINUS AGGREGATE, 800 LBS SAND, 94 LBS CEMENT AND 11 GALLONS WATER

* TRACER WIRE TAPED TO TOP CENTER OF MAIN WITH 10MIL PVC TAPE ON 4' CENTERS, SEE COF STD 9-01-020.

** WARNING TAPE

NTS

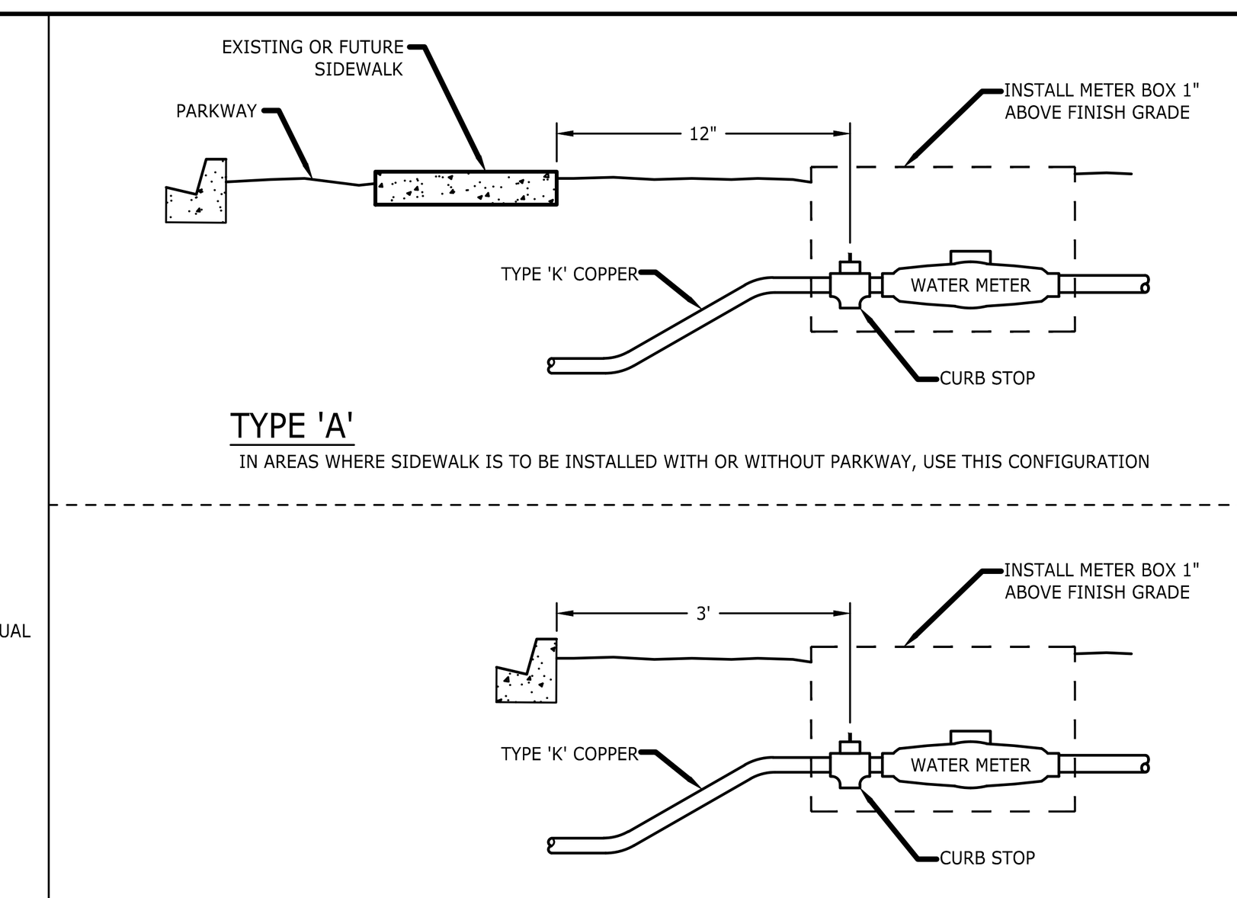
City of Flagstaff — ENGINEERING DETAIL — TRENCHING AND BACKFILL UNPAVED EASEMENT OR STREET — DETAIL NO. 09-01-032 — REVISION DATE: 12/30/2017 — 1/1



SEE SECTION 13-09-003-0007 FOR NOTES RELATING TO THIS DETAIL.

NTS

City of Flagstaff — ENGINEERING DETAIL — WATER SERVICE CONNECTION 3/4" AND 1" — DETAIL NO. 09-03-070 — REVISION DATE: 12/30/2017 — 1/2

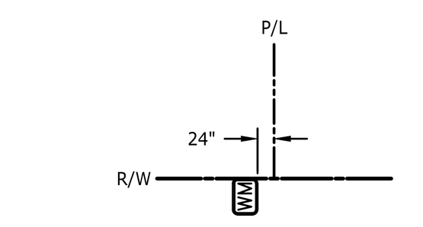


TYPE 'A'

IN AREAS WHERE SIDEWALK IS TO BE INSTALLED WITH OR WITHOUT PARKWAY, USE THIS CONFIGURATION

TYPE 'B'

IN AREAS WHERE NO SIDEWALK IS REQUIRED, USE THIS CONFIGURATION



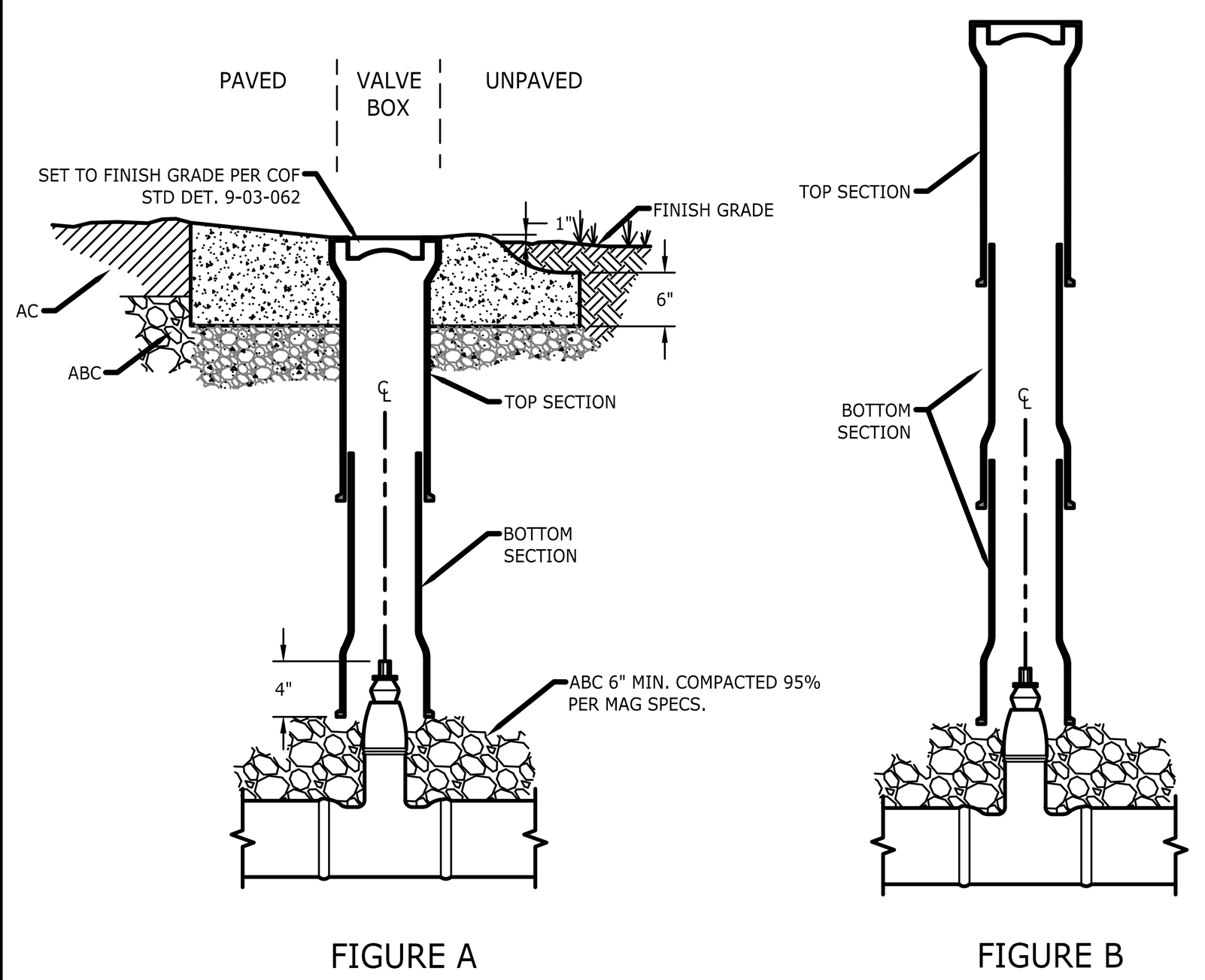
TYPE 'C'

IN AREAS WHERE NO CURB, GUTTER OR SIDEWALK IS REQUIRED THE FOLLOWING REQUIREMENTS SHALL BE MET:

1. METER BOX SHALL BE SET ON FRONT PROPERTY LINE.
2. 3/4" AND 1" CURB STOP SHALL BE 24" OUTSIDE PROPERTY LINE.
3. 1 1/2" AND 2" CURB STOP SHALL BE 36" OUTSIDE PROPERTY LINE.
4. CURB STOP SHALL BE 2" FROM INSIDE OF BOX TO ALLOW FOR EASY ACCESS TO BOTH COUPLINGS

NTS

City of Flagstaff — ENGINEERING DETAIL — WATER SERVICE CONNECTION 1 1/2" AND 2" — DETAIL NO. 09-03-070 — REVISION DATE: 12/30/2017 — 2/2

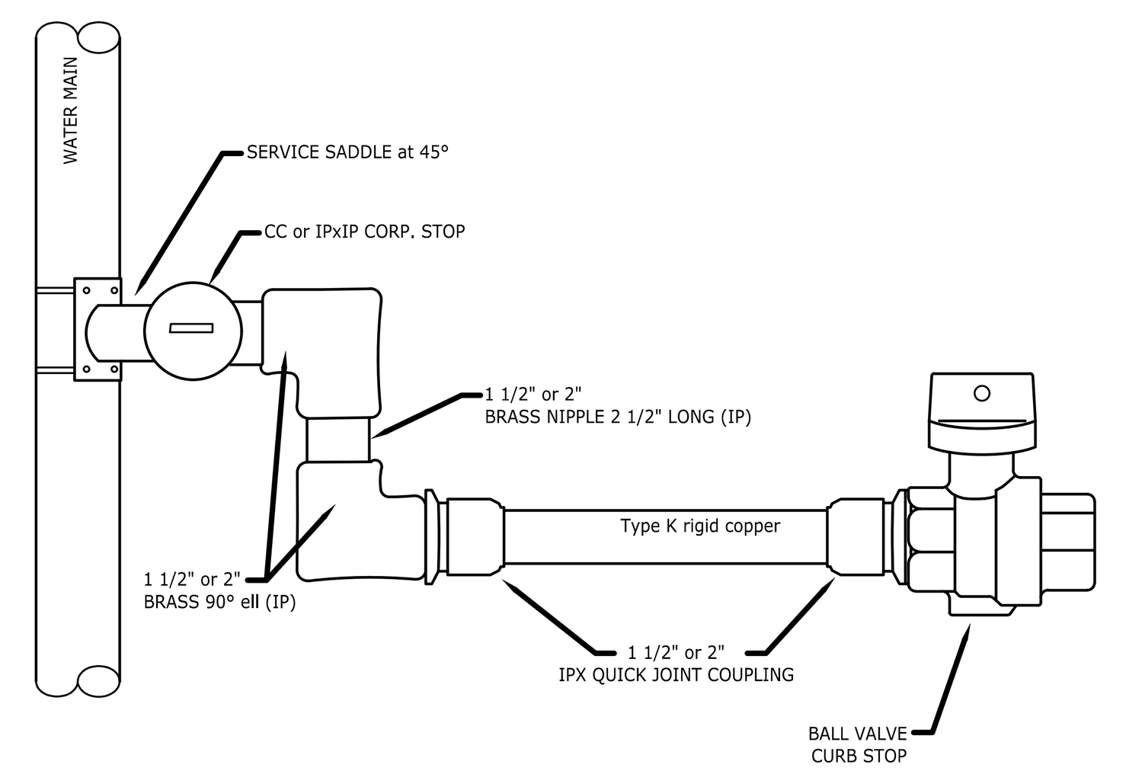


NOTES:

1. SEE COF STD. DETAIL 9-03-062 FOR NOTES RELATING TO THIS DETAIL.

NTS

City of Flagstaff — ENGINEERING DETAIL — VALVE BOX ADJUSTMENT — DETAIL NO. 09-03-060 — REVISION DATE: 12/30/2017 — 1/1

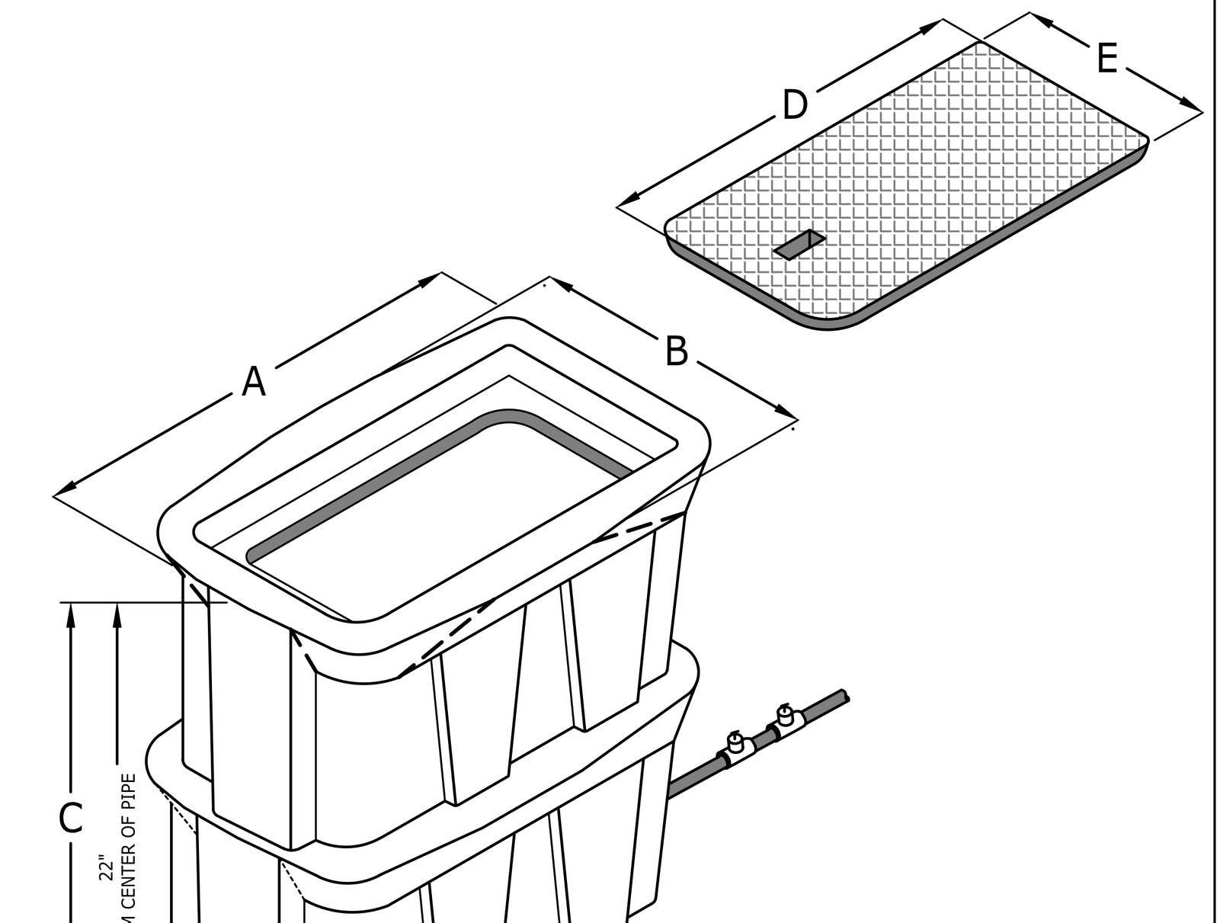


NOTE:

1. ALL FITTINGS USED IN CONNECTIONS WITH 1 1/2" AND 2" TYPE K RIGID COPPER SHALL BE NEW MUELLER OR FORD QUICK JOINT COUPLINGS PER SECTION 9-3-070.1
2. ALL 1 1/2" AND 2" SHALL ENTAIL A SWING TYPE CONNECTION CONSISTING OF TWO 90 DEGREE ELLS AND ONE 1 1/2" x 2 1/2" OR 2" x 2 1/2" BRASS NIPPLE BETWEEN THE 90 DEGREE ELLS.
3. ALL 1 1/2" AND 2" METER VALVE CONNECTIONS SHALL BE IPxIP BALL VALVE TYPE THAT ARE EQUAL OR EXCEED THOSE MANUFACTURED FORD, B11-666; OR JONES J-1900.
4. THE CURB STOP SHALL BE INSTALLED 19-20" BELOW FINISHED GRADE.

NTS

City of Flagstaff — ENGINEERING DETAIL — WATER SERVICE CONNECTION 1 1/2" AND 2" — DETAIL NO. 09-03-071 — REVISION DATE: 12/30/2017 — 1/1



METER BOX DIMENSIONS

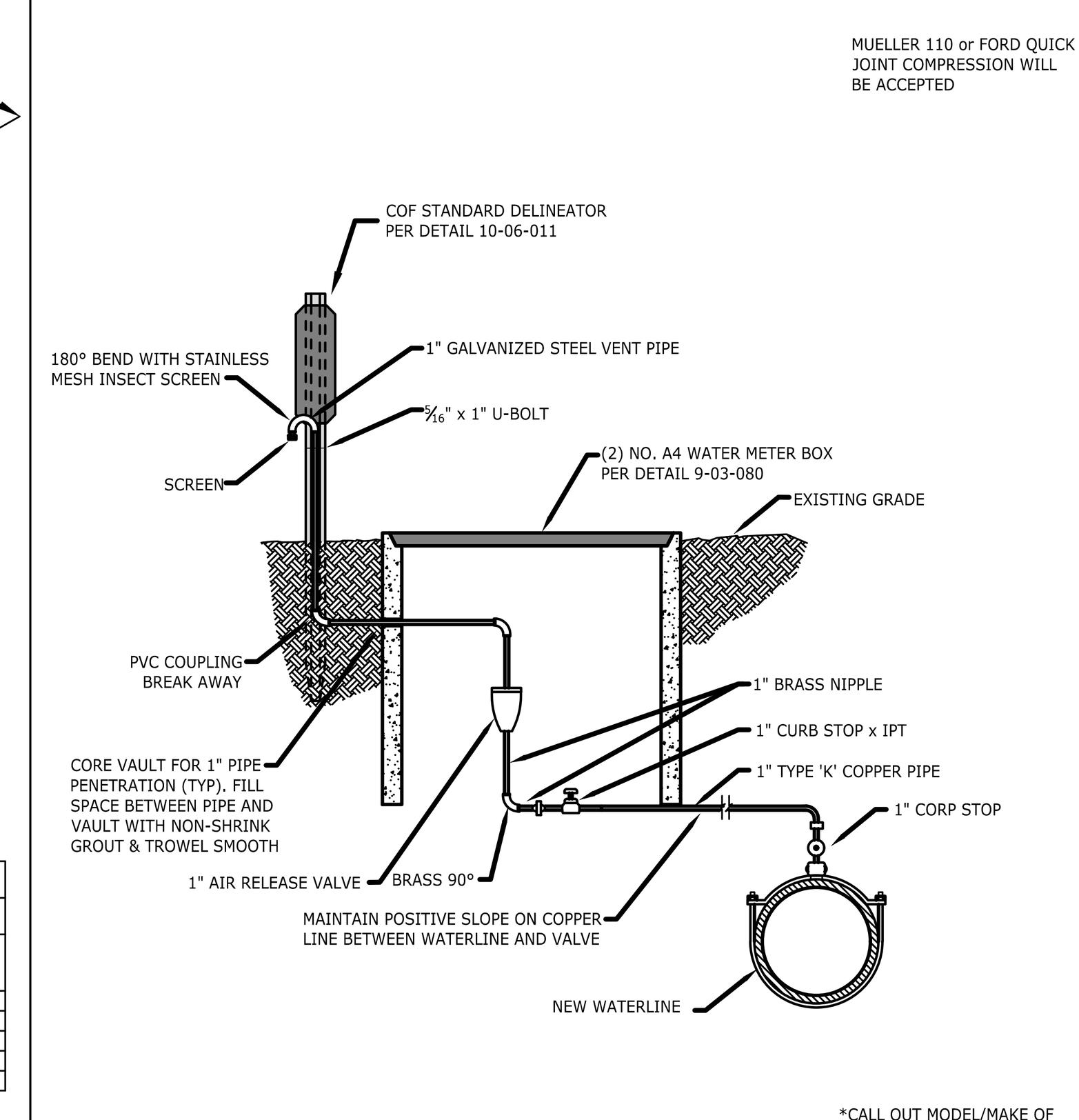
DIM	A1C (3/4" METER)	A2C (1" METER)	A3C (1 1/2" METER)	A4C (2" METER)
A	19 1/4"	25 1/8"	29 9/16"	33 7/8"
B	12 1/2"	17 5/8"	18 13/16"	23 3/8"
C	12" / 14"	12" / 14"	12" / 14"	12" / 14"
D	14"	19 7/8"	23 1/2"	28 1/4"
E	7 1/4"	12 1/8"	12 5/8"	17 3/4"

NOTES:

1. THE METER BOXES SHALL CONFORM TO THE DIMENSIONS AS SHOWN AND SHALL BE MADE OF LLDPE POLYMER.
2. MINIMUM 3/8" WALL THICKNESS.
3. THE METER BOXES SHALL BE BLACK EXCEPT FOR THE LID THROUGHOUT USING POLYETHYLENE MATERIALS AND SHALL NOT HAVE FOAMING OR BLOWING AGENTS.
4. LIDS SHALL BE OF THE LOCATABLE TYPE, COLORED AS FOLLOWS: BLUE (POTABLE WATER USE) PURPLE (RECLAIM WATER USE)
5. BOXES & LIDS SHALL BE MADE IN THE U.S.A. BY DFW OR APPROVED EQUAL.

NTS

City of Flagstaff — ENGINEERING DETAIL — POLYMER WATER METER BOX — DETAIL NO. 09-03-080 — REVISION DATE: 12/30/2017 — 1/1

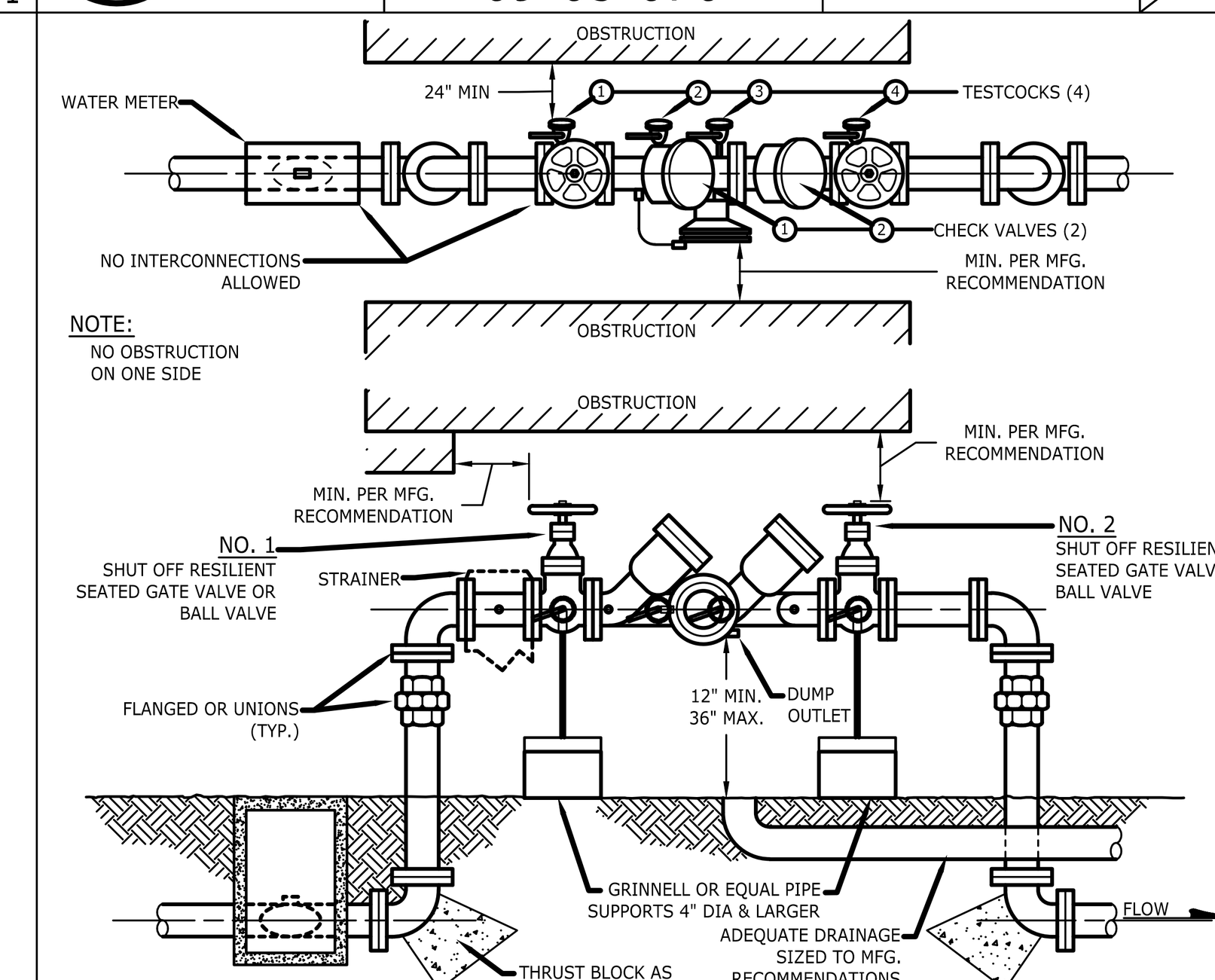


NOTE:

1. SHOP DRAWINGS REQUIRED ON ALL COMPONENTS OF AIR RELEASE VALVE ASSEMBLY VAULT.
2. SERVICE SADDLE AND CORP STOP PER COF STANDARD DETAIL 9-03-070-1

NTS

City of Flagstaff — ENGINEERING DETAIL — AIR RELEASE VALVE 1" — DETAIL NO. 09-03-101 — REVISION DATE: 12/30/2017 — 1/1

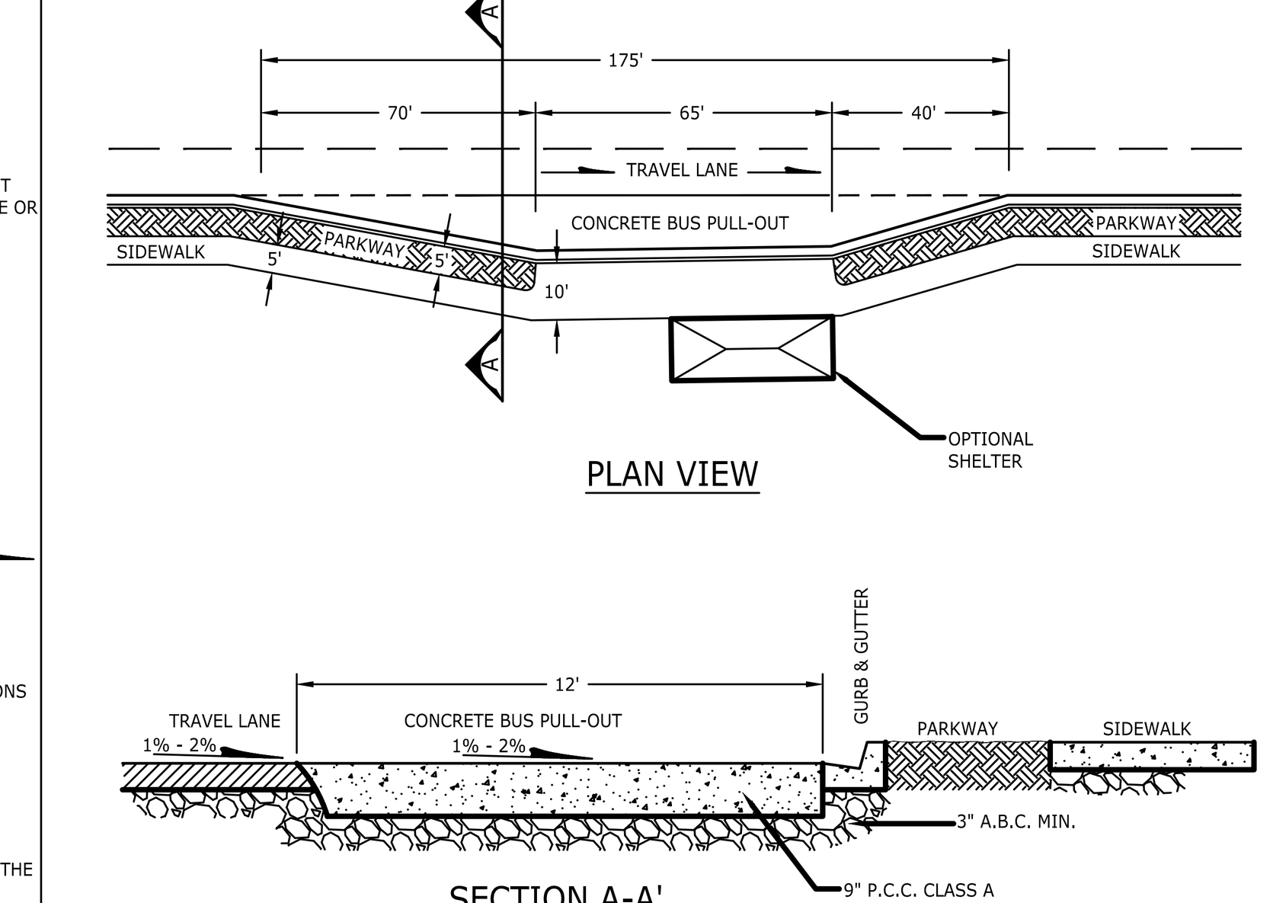


NOTES:

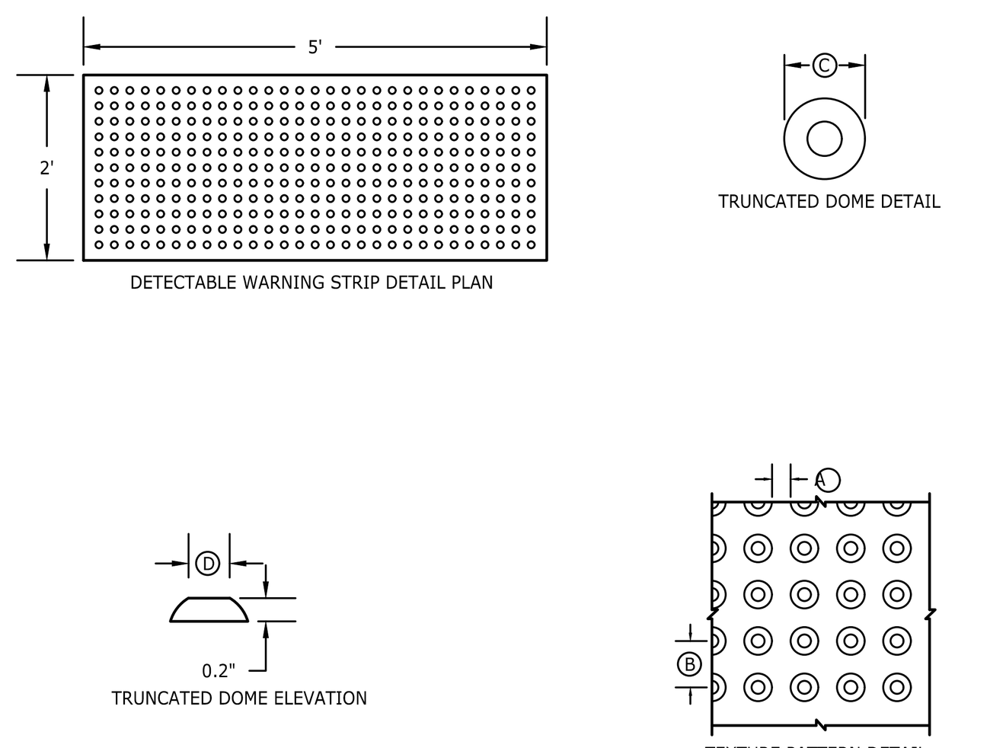
1. A CORRECT REDUCED PRESSURE BACKFLOW ASSEMBLY (RPA) INSTALLATION IS SHOWN ABOVE. THERE MUST NOT BE ANY CONNECTIONS ON THE SERVICE LINE BETWEEN THE RPA AND THE WATER METER.
2. PROTECTIVE CAGES ARE OPTIONAL, AND WHEN INSTALLED MUST MEET CLEARANCE REQUIREMENTS IN ADDITION TO PROVIDING SIDE AND TOP ACCESS.
3. CAGES MUST NOT RETAIN WATER.
4. THE ASSEMBLY MUST BE ACCESSIBLE AT ALL TIMES.
5. THE RPA MUST BE INSTALLED ABOVE GROUND AND AS CLOSE TO THE WATER METER AS POSSIBLE.
6. THE ASSEMBLY MUST BE PROTECTED FROM FREEZING.
7. DISTANCE FROM THE BOTTOM OF PRESSURE RELIEF VALVE TO THE DRAIN OPENING MUST BE A MINIMUM OF TWICE THE DIAMETER OF THE ASSEMBLY PIPING.
8. INSTALLATION MUST MEET UNIFORM PLUMBING CODES IN ADDITION TO FLAGSTAFF WATER STANDARD DETAILS.
9. INSTALLATION MUST BE LEFT EXPOSED UNTIL INSPECTED AND APPROVED BY FLAGSTAFF CITY UTILITIES.
10. IN CASES WHERE WATER SUPPLY MAY NOT BE INTERRUPTED DURING NORMAL WORKING HOURS, TWO ASSEMBLIES INSTALLED IN PARALLEL ARE REQUIRED.
11. THE ASSEMBLY MUST BE APPROVED BY THE CITY UTILITIES PRIOR TO INSTALLATION.
12. FOR AN UPDATED LIST OF APPROVED ASSEMBLIES OR ADDITIONAL QUESTIONS CONTACT THE CITY UTILITIES DEPARTMENT AT (928) 213-2117
13. THREE SETS OF PLANS SHALL BE SUBMITTED TO CITY UTILITIES DEPARTMENT FOR APPROVAL BY SIGNATURE PRIOR TO INSTALLATION

NTS

City of Flagstaff — ENGINEERING DETAIL — REDUCED PRESSURE ASSEMBLY (RPA) INSTALLATION — DETAIL NO. 09-09-072 — REVISION DATE: 12/30/2017 — 1/1



City of Flagstaff — ENGINEERING DETAIL — BUS PULLOUT — DETAIL NO. 10-10-019 — REVISION DATE: 12/30/2017 — 1/1



NOTES:

1. DETECTABLE WARNING STRIPS SHALL BE USED ON ALL NEW AND RETRO-FIT RAMPS, PEDESTRIAN REFUGES AND OTHER LOCATIONS AS OUTLINED IN THE CURRENT ACCESS BOARD GUIDELINES FOR RIGHT OF WAY DEVELOPMENT.
2. DETECTABLE WARNING STRIPS SHALL BE MECHANICALLY ATTACHED FOR NEW RAMP INSTALLATIONS.
3. DIMENSIONS ARE SUBJECT TO SITE CONDITIONS AND ADA REGULATIONS.

KEYNOTES:

- (A) 11/16" MINIMUM (TYP.) (0.65" MINIMUM ADA ACTUAL)
- (B) 1-5/8" to 2-3/8" (TYP.) (1.6" to 2.4" ADA ACTUAL)
- (C) 7/8" to 1-3/8" (TYP.) (0.9" to 1.4" ADA ACTUAL)
- (D) 50% to 65% OF 'C'

MATERIALS:

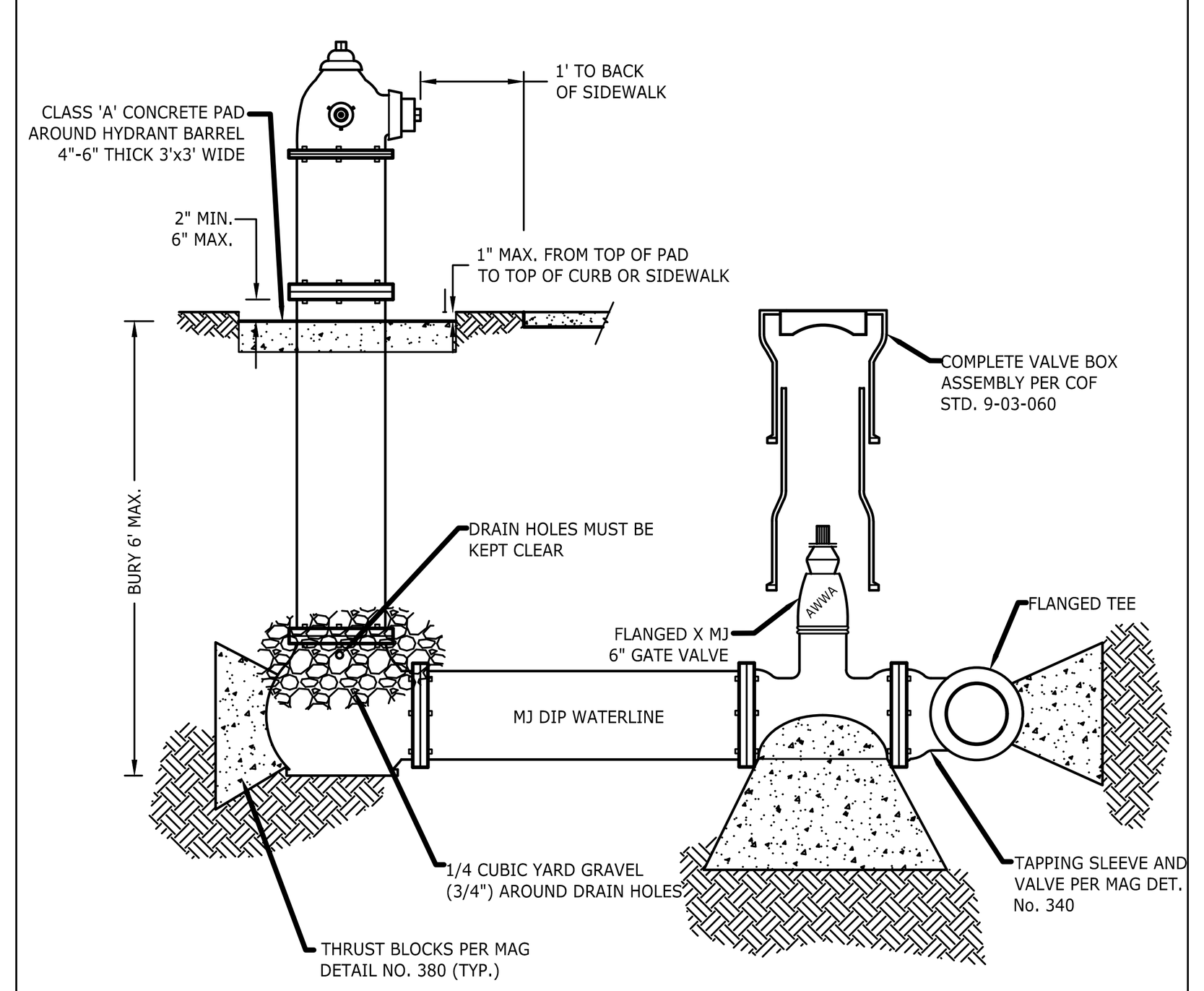
CAST GRAY IRON CONFORMING TO ASTM A-48 CLASS 30A MINIMUM

NTS

City of Flagstaff — ENGINEERING DETAIL — DETECTABLE WARNING STRIP — DETAIL NO. 10-10-043 — REVISION DATE: 12/30/2017 — 1/1

SEE DETAIL NO. 13-03-012 FOR PROTECTION POST INSTALLATION

NOTE: MIN. 3' CLEAR LEVEL AREA AROUND HYDRANT



FOR SPECIFICATIONS, INSTALLATION, AND TESTING REFER TO SECTION 13-09-006-0006 (FIRE HYDRANTS).

NTS

City of Flagstaff — ENGINEERING DETAIL — FIRE HYDRANT ASSEMBLY — DETAIL NO. 13-03-011 — REVISION DATE: 12/30/2017 — 1/1

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SWI Shepherd & Wesnitzer, Inc.

ARIZONA811 Arizona Blue Stake, Inc. Call at least two full working days before you begin excavation. Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

KILLIP ELEMENTARY SCHOOL
FLAGSTAFF UNIFIED SCHOOL DISTRICT
2300 E. 6th Ave., Flagstaff, AZ 86004

100% CONSTRUCTION DOCUMENTS
02.08.2021

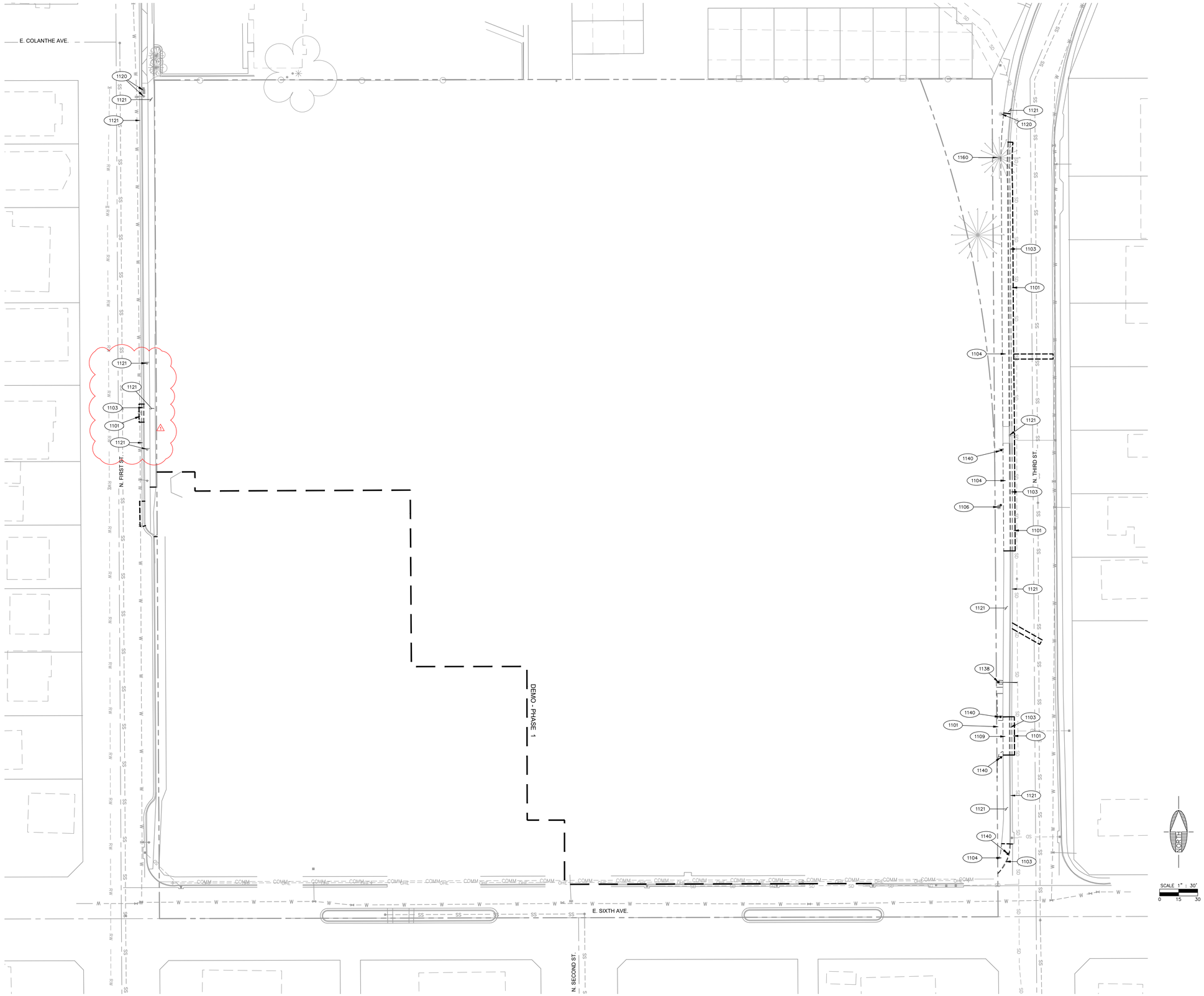
REVISIONS
1 ASI1 REGIONAL DET. BASIN 06/15/2021

30-20149-00

DETAIL SHEET

C-DT01

COF PZ-20-00157



PUBLIC DEMOLITION NOTES

1101	123	SY	REMOVE AND DISPOSE OF EXISTING AC PAVEMENT PER M.A.G. SPECS. 336 & 350.
1103	392	LF	REMOVE AND DISPOSE OF EXISTING CONCRETE CURB AND GUTTER PER M.A.G. SPECS. 336 & 350.
1104	1,887	SF	REMOVE AND DISPOSE OF EXISTING CONCRETE SIDEWALK PER M.A.G. SPECS. 336 & 350. SIDEWALK SHALL BE REMOVED TO NEAREST JOINT.
1106	1	EA	REMOVE AND SALVAGE EXISTING LIGHT POLE PER M.A.G. SPECS. 336 & 350. SALVAGE EXISTING MAST ARM AND LUMINAIRE TO OWNER. CONTRACTOR TO COORDINATE RELOCATION WITH THE CITY OF FLAGSTAFF.
1109	148	SF	REMOVE AND DISPOSE OF EXISTING CONCRETE DRIVEWAY PER M.A.G. SPECS. 336 & 350.
1119		NPI	WARNING! OVERHEAD UTILITY. CONTRACTOR TO MAINTAIN SAFE VERTICAL DISTANCE FROM EXISTING OVERHEAD UTILITY.
1120		NPI	PROTECT EXISTING UTILITY IN PLACE
1121		NPI	PROTECT EXISTING IMPROVEMENT IN PLACE
1138	1	EA	REMOVE AND DISPOSE OF EXISTING CATCH BASIN PER M.A.G. SPECS. 336 & 350.
1140	5	EA	REMOVE EXISTING SIGN AND POST AT LOCATIONS SHOWN.
1160	1	LS	INSTALL TREE PROTECTION FENCING PER C.O.F. ENGINEERING STANDARDS SECTIONS 10-50.90.090 AND 13-18-006-0001.

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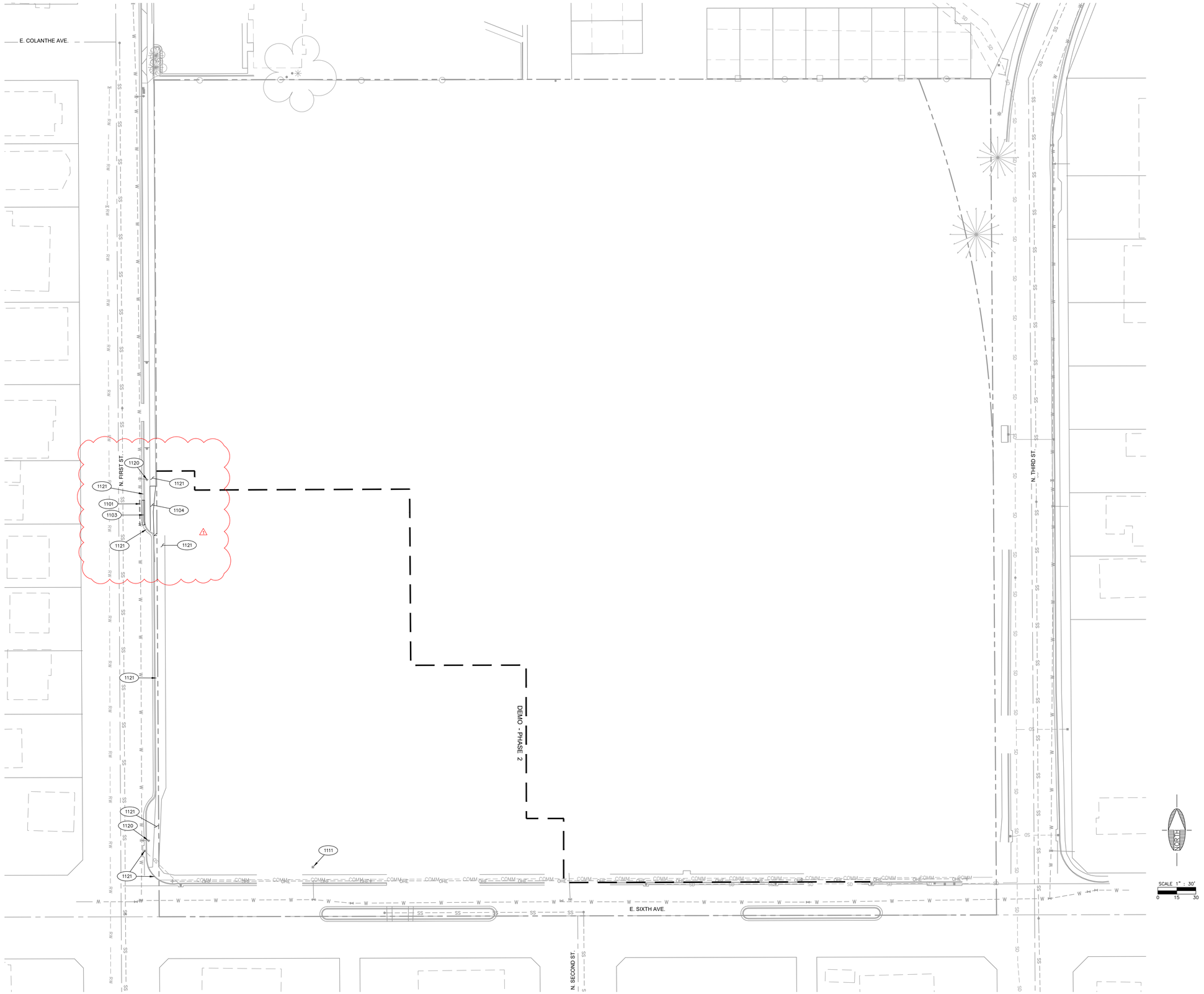
30-20149-00

DEMOLITION PLAN - PHASE 1

C-DM01

COF PZ-20-00157



PUBLIC DEMOLITION NOTES

1101	4	SY	REMOVE AND DISPOSE OF EXISTING AC PAVEMENT PER M.A.G. SPECS. 336 & 350.
1103	20	LF	REMOVE AND DISPOSE OF EXISTING CONCRETE CURB AND GUTTER PER M.A.G. SPECS. 336 & 350.
1104	111	SF	REMOVE AND DISPOSE OF EXISTING CONCRETE SIDEWALK PER M.A.G. SPECS. 336 & 350. SIDEWALK SHALL BE REMOVED TO NEAREST JOINT.
1111	1	EA	ABANDON EXISTING 2" WATER METER & SERVICE IN PLACE PER M.A.G. SPECS. 336 & 350 & COF ENGINEERING STANDARDS.
1120		NPI	PROTECT EXISTING UTILITY IN PLACE
1121		NPI	PROTECT EXISTING IMPROVEMENT IN PLACE

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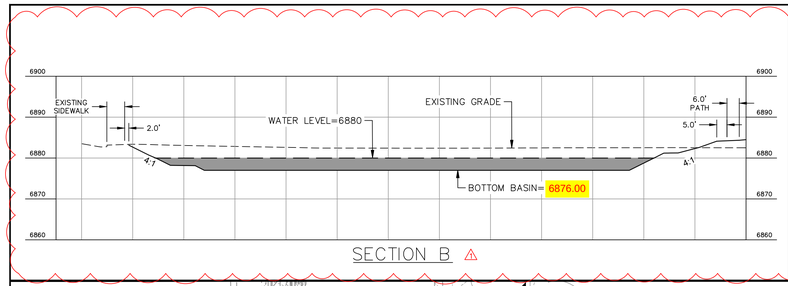
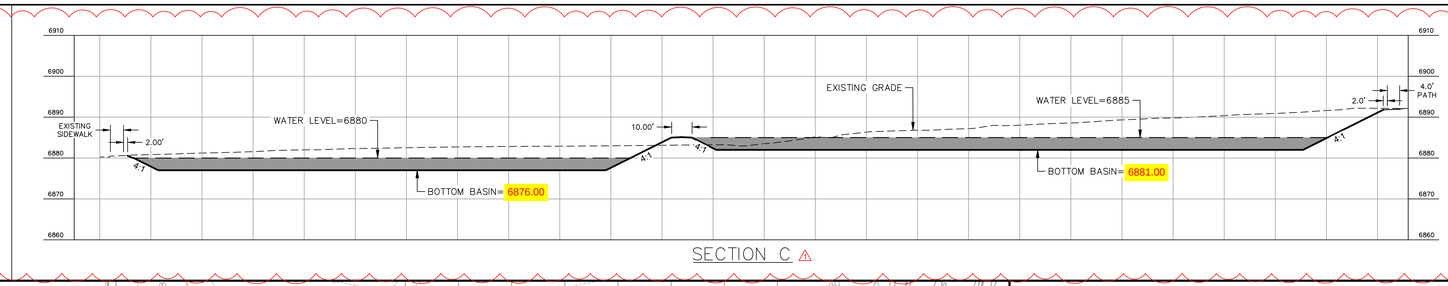
DEMOLITION PLAN - PHASE 2

C-DM02

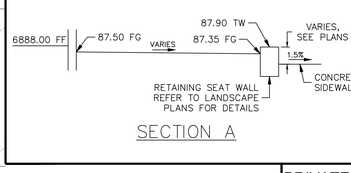
COF PZ-20-00157



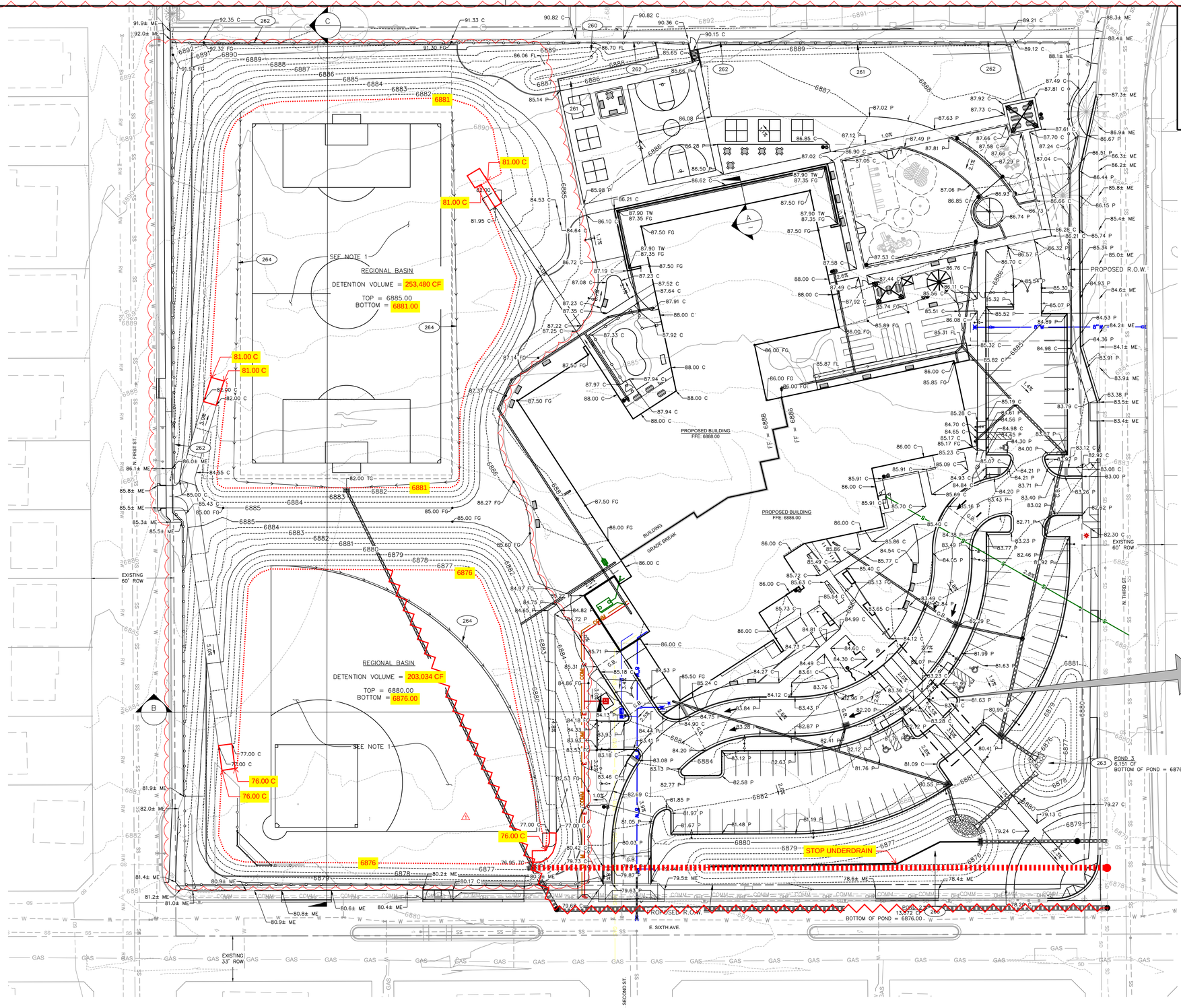
SECTION B ⚠



SECTION C ⚠



SECTION A



PRIVATE GRADING / DRAINAGE NOTES

260	1	LS	CONSTRUCT CUT/FILL SLOPE (3' HORIZONTAL TO 1' VERTICAL) TO DAYLIGHT.
261	1	LS	CONSTRUCT CUT/FILL SLOPE (4' HORIZONTAL TO 1' VERTICAL) TO DAYLIGHT.
262	1	LS	MAINTAIN 2' SHOULDER PRIOR TO CONSTRUCTING SLOPE
263	1	LS	CONSTRUCT RETENTION/LID BASIN AS SHOWN ON PLANS. SLOPE SHALL BE 4' HORIZONTAL TO 1' VERTICAL).
264	1	LS	CONSTRUCT SWALE FLOWLINE AS SHOWN ON PLANS. SEE PLANS FOR SIDE SLOPES.

NOTE:
1. ~~REFER TO SYNTHETIC TURF FIELD CONSTRUCTION PLANS PROVIDED BY HELLAS CONSTRUCTION INC.~~

ABBREVIATIONS

C	CONCRETE ELEVATION
FG	FINISH GRADE ELEVATION
FL	FLOW LINE ELEVATION
ME	MATCH EXISTING ELEVATION
P	PAVEMENT ELEVATION
TG	TOP OF GRATE ELEVATION

SCALE 1" : 30'
0 15 30

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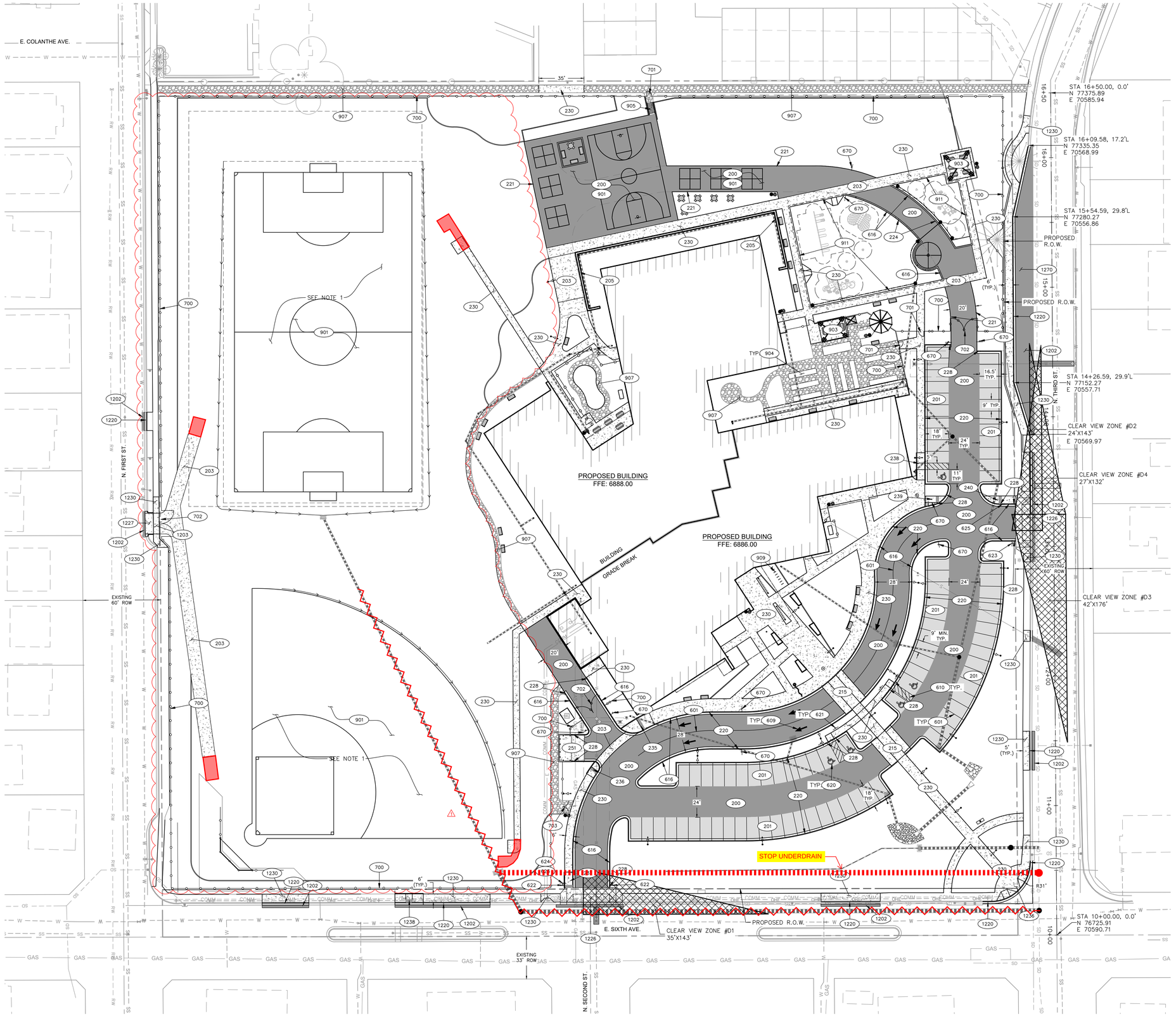
GRADING & DRAINAGE PLAN

C-GD01

COF PZ-20-00157



PRIVATE IMPROVEMENT NOTES

200	4,566	SY	CONSTRUCT HEAVY DUTY ASPHALT PAVEMENT PER DETAIL "A" ON SHEET C-GN01.
201	1,489	SY	CONSTRUCT LIGHT DUTY ASPHALT PAVEMENT PER DETAIL "B" ON SHEET C-GN01.
203	6,083	SF	CONSTRUCT CONCRETE STRUCTURAL SECTION PER DETAIL "C" ON SHEET C-GN01.
205	255	LF	CONSTRUCT MODULAR BLOCK RETAINING WALL. REFER TO LANDSCAPE PLANS FOR WALL MODEL & COLOR. EXTEND BLOCK TO 30" BELOW SIDEWALK GRADE.
208	2,668	SF	UNPAVED MAINTENANCE/ACCESS ROAD. REFER LANDSCAPE PLANS FOR DETAILS.
215	2	EA	RAISED SIDEWALK (SPEED TABLE) PER DETAIL 'H' ON SHEET C-GN01.
220	2,272	LF	CONSTRUCT VERTICAL CURB AND GUTTER PER MAG STD. DTL. 220, TYPE 'A'.
221	601	LF	CONSTRUCT ASPHALT THICKENED EDGE PER MAG STD. DTL. 201, TYPE 'A'.
224	290	LF	CONSTRUCT RIBBON CURB PER DETAIL 'G' ON SHEET C-GN01.
228	16	EA	CONSTRUCT CURB TRANSITION PER MAG STD DTL 222.
230	23,139	SF	CONSTRUCT CONCRETE SIDEWALK PER DETAIL "D" ON SHEET C-GN01, SIDEWALK WIDTH PER PLAN.
235	1	EA	CONSTRUCT CONCRETE SIDEWALK RAMP PER DETAIL "I" ON SHEET C-GN01.
236	1	EA	CONSTRUCT CONCRETE SIDEWALK RAMP PER DETAIL "M" ON SHEET C-GN01.
237	1	EA	CONSTRUCT CONCRETE SIDEWALK RAMP PER DETAIL "N" ON SHEET C-GN01.
238	1	EA	CONSTRUCT CONCRETE SIDEWALK RAMP PER MAG STD. DTL. 238-3.
239	1	EA	CONSTRUCT CONCRETE SIDEWALK RAMP PER DETAIL "O" ON SHEET C-GN01.
240	1	EA	CONSTRUCT CONCRETE SIDEWALK PER DETAIL "P" ON SHEET C-GN01.
250	1	EA	CONSTRUCT STAIRS PER DETAILS ON LANDSCAPE PLANS.
251	1	EA	CONSTRUCT DOUBLE TRASH ENCLOSURE. REFER TO LANDSCAPE PLANS FOR DETAILS.
252	1	EA	CONSTRUCT CONCRETE STEPS AS SHOWN ON PLANS. SEE SHEET GD01 FOR ELEVATIONS
601	1,797	LF	PAINT 4" WHITE PARKING STRIPING.
609	8	EA	INSTALL 8' WHITE THRU LANE ARROW. PREFORMED PAVEMENT MARKING TYPE I PER ADOT DWGS. M-10 AND M-11. HORIZONTAL PLACEMENT AS SHOWN PLANS.
610	300	SF	PAINT NO PARKING AREA, 4" YELLOW DIAGONAL PAVEMENT MARKINGS, SPACED 2' APART.
616	1,071	LF	CURB SHALL BE PAINTED RED AT LOCATIONS SHOWN, TO INDICATE NO PARKING/FIRE LANE.
620	5	EA	PAINT UNIVERSAL "HANDICAPPED PARKING ONLY" SYMBOL IN ACCORDANCE WITH ADA STANDARDS.
621	5	EA	INSTALL HANDICAP PARKING SIGN (R7-8AZ) ON 'U' CHANNEL POST PER MUTCD AND MAG STD DTL 131, TYPE 'A'.
622	2	EA	INSTALL 'DO NOT ENTER' SIGN ON 'U' CHANNEL POST PER MUTCD AND MAG STD DTL 131, TYPE 'A'.
623	2	EA	INSTALL STOP SIGN (R1-1) ON 'U' CHANNEL POST PER MUTCD.
624	1	EA	INSTALL NO LEFT TURN (R3-2) ON SAME POST WITH STOP SIGN AS SHOWN ON PLANS AND PER MUTCD.
625	1	EA	INSTALL CUSTOM (RED SPLIT) 18"X12" SIGN, "NO PARKING" "NO PICK-UP OR DROP-OFF", ON 'U' CHANNEL POST. LOCATION AS SHOWN ON PLANS.
670	10	EA	INSTALL "NO PARKING FIRE LANE" SIGN PER IFC SECTION D103.6, TYPE 'D'.
700	1,898	LF	INSTALL CHAINLINK FENCE. REFER TO LANDSCAPE PLANS FOR DETAILS.
701	6	EA	INSTALL 4' WIDE GATE (CHAINLINK FENCE). REFER TO LANDSCAPE PLANS FOR DETAILS.
702	2	EA	INSTALL DOUBLE GATE (20' TOTAL OPENING). REFER TO LANDSCAPE PLANS FOR DETAILS.
703	1	EA	INSTALL DOUBLE GATE (10' TOTAL OPENING). REFER TO LANDSCAPE PLANS FOR DETAILS.
901		NPI	PLAY AREAS, REFER TO LANDSCAPE ARCHITECT PLANS FOR DETAILS.
903		NPI	FUTURE RAMADA, BY OTHERS. REFER TO LANDSCAPE ARCHITECT PLANS FOR DETAILS.
904		NPI	FUTURE RAISED GARDEN BED, BY OTHERS. REFER TO LANDSCAPE PLANS FOR DETAILS.
905		NPI	CONCRETE STAIRWAY. REFER TO LANDSCAPE PLANS FOR DETAILS.
907		NPI	DECOMPOSED GRANITE PATHWAY. REFER TO LANDSCAPE PLANS FOR DETAILS.
909		NPI	BIKE RACK. REFER TO LANDSCAPE PLANS FOR DETAILS.
910		NPI	LOW WATER CROSSING. REFER TO LANDSCAPE PLANS FOR DETAILS.
911		NPI	PLAYGROUND CURB. REFER TO LANDSCAPE PLANS FOR DETAILS.
913		NPI	EXISTING BUILDING TO BE REMAIN IN PLACE. REFER TO ARCHITECT PLANS FOR DETAILS.

PUBLIC IMPROVEMENT NOTES

1202	393	SY	CONSTRUCT PAVEMENT PATCH TO MATCH EXISTING SECTION OR PER DETAIL "A" ON SHEET C-GN01, WHICHEVER IS GREATER.
1203	1,187	SF	CONSTRUCT CONCRETE STRUCTURAL SECTION PER DETAIL "C" ON SHEET C-GN01.
1220	621	LF	CONSTRUCT VERTICAL CURB AND GUTTER PER MAG STD. DTL. 220, TYPE 'A'.
1226	2	EA	CONSTRUCT CONCRETE DRIVEWAY PER MAG STD DTL 250-1.
1227	1	EA	CONSTRUCT CONCRETE DRIVEWAY PER MAG STD DTL 251
1230	3,488	SF	CONSTRUCT CONCRETE SIDEWALK PER DETAIL "D" ON SHEET C-GN01, SIDEWALK WIDTH PER PLAN.
1236	2	EA	CONSTRUCT CONCRETE SIDEWALK RAMP PER MAG STD. DTL. 236.
1238	1	EA	CONSTRUCT CONCRETE SIDEWALK RAMP PER MAG STD. DTL. 238-3.
1270	1	LS	CONSTRUCT BUS PULL-OUT PER C.O.F. STD. DTL. 10-10-019 ON SHEET C-DT01.

NOTE:
1. ~~REFER TO SYNTHETIC TURF FIELD CONSTRUCTION PLANS PROVIDED BY HELLAS CONSTRUCTION INC.~~

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Shephard Wesnitzer, Inc.

KILLIP ELEMENTARY SCHOOL
FLAGSTAFF UNIFIED SCHOOL DISTRICT
2300 E 6th Ave., Flagstaff, AZ 86004

100% CONSTRUCTION DOCUMENTS
02.08.2021
REVISIONS
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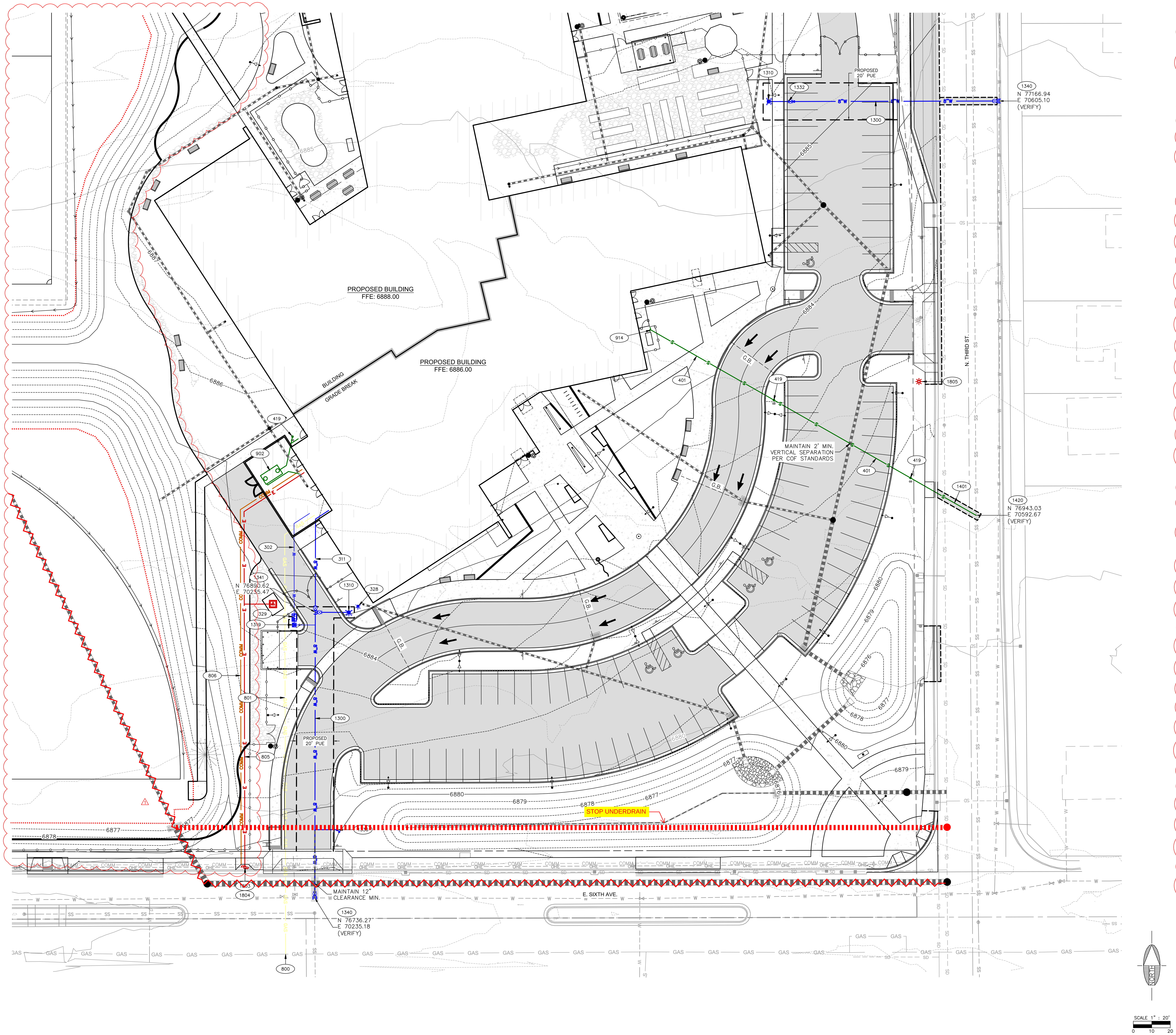
IMPROVEMENT PLAN

C-IP01

COF PZ-20-00157



PRIVATE WATER & SEWER NOTES

302	76	LF	INSTALL NEW 2" WATER SERVICE LINE PER C.O.F. STD. DTL. 9-03-070 ON SHEET C-DT01. INSTALL TRACER WIRE ALONG WATER SERVICE PER C.O.F. STD. DTL. 9-01-020 ON SHEET C-DT01, AND C.O.F. SECTION 13-09-001-0002. INSTALL SALAVAGED WATER METER AND NEW RPA AT LOCATION SHOWN ON PLANS PER COF STANDARD SPECIFICATIONS.
311	59	LF	INSTALL 8" FIRE LINE (C-900/CL 305 PVC) PER M.A.G. SPEC. SECTION 610. TRENCH, EXCAVATION, BACKFILLING AND COMPACTION PER C.O.F. STD. DTLS. 09-01-030, 09-01-031 AND 09-01-032 ON SHEET C-DT01.
328	1	EA	INSTALL REMOTE FIRE DEPARTMENT CONNECTION PER COF FIRE DEPARTMENT REQUIREMENTS AND NFPA 13. CONTRACTOR TO COORDINATE WITH BUILDING PLUMBING PLANS FOR LOCATION OF WATER LINE STUB. FDC SHALL BE FITTED WITH APPROVED KNOX LOCKING FDC CAPS. FDC SHALL HAVE A MIN. OF 3' CLEARANCE. CONTRACTOR TO COORDINATE WITH FIRE INSPECTOR FOR SPECIFICATIONS ON FDC SIGNAGE. SEE FIRE PROTECTION PLANS FOR CONTINUATION INTO BUILDING.
329	1	EA	INSTALL 2" REDUCED PRESSURE BACKFLOW PREVENTION ASSEMBLY (RPA) PER C.O.F. STD. DTL. 9-06-072 ON SHEET C-DT01. CONTRACTOR TO INSTALL RPA IN A HEATED (OR APPROVED EQUAL) ENCLOSURE. CONTRACTOR TO COORDINATE SIZE OF ENCLOSURE WITH MANUFACTURER.
401	162	LF	INSTALL 6" SEWER LINE. TRENCH EXCAVATION, BACKFILLING, AND COMPACTION PER COF STD DTL 9-01-030, 9-01-031, AND 9-01-032 ON SHEET C-DT01
419	2	EA	INSTALL SEWER CLEAN OUT PER MAG STD DTL 441. REFER TO PLUMBING PLANS FOR CONTINUATON OF SEWER SERVICE INTO BUILDING.
800	1	EA	CONNECT NEW GAS SERVICE TO EXISITNG GAS. CONTRACTOR SHALL COORDINATE CONNECTION WITH UTILITY OWNER.
801	246	LF	INSTALL NEW GAS SERVICE LINE PER UTILITY OWNER SPECIFICATIONS.
805	231	LF	INSTALL NEW UNDERGROUND ELECTRIC LINE PER UTILITY OWNER SPECIFICATIONS.
806	232	LF	INSTALL NEW UNDERGROUND COMMUNICATION LINE PER UTILITY OWNER SPECIFICATIONS.
902		NPI	GREASE INTERCEPTER AND SEWER SYSTEM. REFER TO ARCHITECT AND PLUMBING PLANS FOR DETAILS.
914		NPI	REFER TO PLUMBING PLANS, FOR CONTINUATION OF SERVICE SERVICE INTO BUILDING.

1

PUBLIC WATER & SEWER NOTES

1300	266	LF	INSTALL 8" WATERLINE (C-900/CL 305 PVC/DR14) INCLUDING ALL APPURTENANCES PER M.A.G. SPEC. SECTION 601 AND 610 AND AS MODIFIED IN THE C.O.F. REVISIONS TO M.A.G. SECTION 13-21-001-0601. INSTALL TRACER WIRE ALONG WATERLINE PER C.O.F. STD. DTL. 9-01-020 ON SHEET C-DT01 AND C.O.F. SECTION 13-09-001-0002. TRENCH EXCAVATION, BACKFILLING AND COMPACTION PER C.O.F. STD. DTLS. 9-01-030, 9-01-031, AND 9-01-032 ON SHEET C-DT01.
1310	2	EA	INSTALL NEW FIRE HYDRANT ASSEMBLY IN ACCORDANCE WITH C.O.F. STD. DTL. 13-03-011 ON SHEET C-GN01. SET NEW VALVE, BOX, & COVER TO FINISH GRADE PER C.O.F. STD. DTL. 9-03-060 ON SHEET C-DT01.
1319	1	EA	INSTALL NEW 2" WATER METER ASSEMBLY PER COF STD DTL 9-03-071. INSTALL IN NEW POLYMER MATER METER BOX PER COF STD. DTL. 09-03-080 ON SHEET C-DT01.
1332	1	EA	INSTALL 8"x6" REDUCER DIP CLASS 250, WITH JOINT RESTRAINTS PER M.A.G. STD. DTL. 303 AND AS MODIFIED BY C.O.F. REVISIONS TO M.A.G. SECTION 13-21-002-0380.
1336	1	EA	INSTALL 1" AIR RELEASE VALVE PER COF STD DTL 9-03-101 ON SHEET C-DT01.
1340	2	EA	INSTALL 8"X8" COF APPROVED STAINLESS STEEL TAPPING SLEEVE AND VALVE PER MAG STD DTL 340. CLASS 250 EPOXY COATED RESILIENT SEAT VALVE. THRUST BLOCK PER M.A.G. STD. DTL. 380 AND COF REVISION TO ENGINEERING STANDARDS SECTION 13-21-002-0380.
1341	1	EA	INSTALL 8"X8"X6" TEE DIP CLASS 250, WITH JOINT RESTRAINTS PER M.A.G. STD. DTL. 303 AND AS MODIFIED BY C.O.F. REVISIONS TO M.A.G. SECTION 13-21-002-0380. INSTALL 8" GATE VALVE DIP CLASS 250, EPOXY-COATED RESILIENT SEAT (INCLUDING VALVE BOX AND COVER) PER M.A.G. STD. DTL. 340 AND M.A.G. SPEC 610. ADJUST BOX TO FINISH GRADE PER C.O.F. STD. DTLS. 9-03-060 AND 9-03-062 ON SHEET C-DT01. THRUST BLOCK PER M.A.G. STD. DTL. 301 AND AS MODIFIED BY C.O.F. REVISIONS TO M.A.G SECTION 13-21-002-0380.
1401	41	LF	INSTALL 6" SEWER LINE. TRENCH EXCAVATION, BACKFILLING, AND COMPACTION PER COF STD DTL 9-01-030, 9-01-031, AND 9-01-032 ON SHEET C-DT01
1420	1	EA	CONNECT NEW 6" SEWER TO EXISTING SEWER MAIN. CONTRACTOR TO VERIFY LOCATION, DEPTH AND MATERIAL PRIOR TO CONSTRUCTION.
1803	1	EA	INSTALL NEW UTILITY POLE AT LOCATION SHOWN ON PLANS. CONTRACTOR SHALL COORDINATE INSTALLATION AND RECONNECTION OF OVERHEAD UTILITY WITH UTILITY OWNER.
1804	1	EA	CONNECT NEW UNDERGROUND ELECTRIC LINE AT LOCATION SHOWN PER UTILITY OWNER SPECIFICATIONS.
1805	1	EA	INSTALL SALVAGED LIGHT POLE LOCATION SHOWN ON PLANS. CONTRACTOR TO COORDINATE RELOCATION WITH THE CITY OF FLAGSTAFF.

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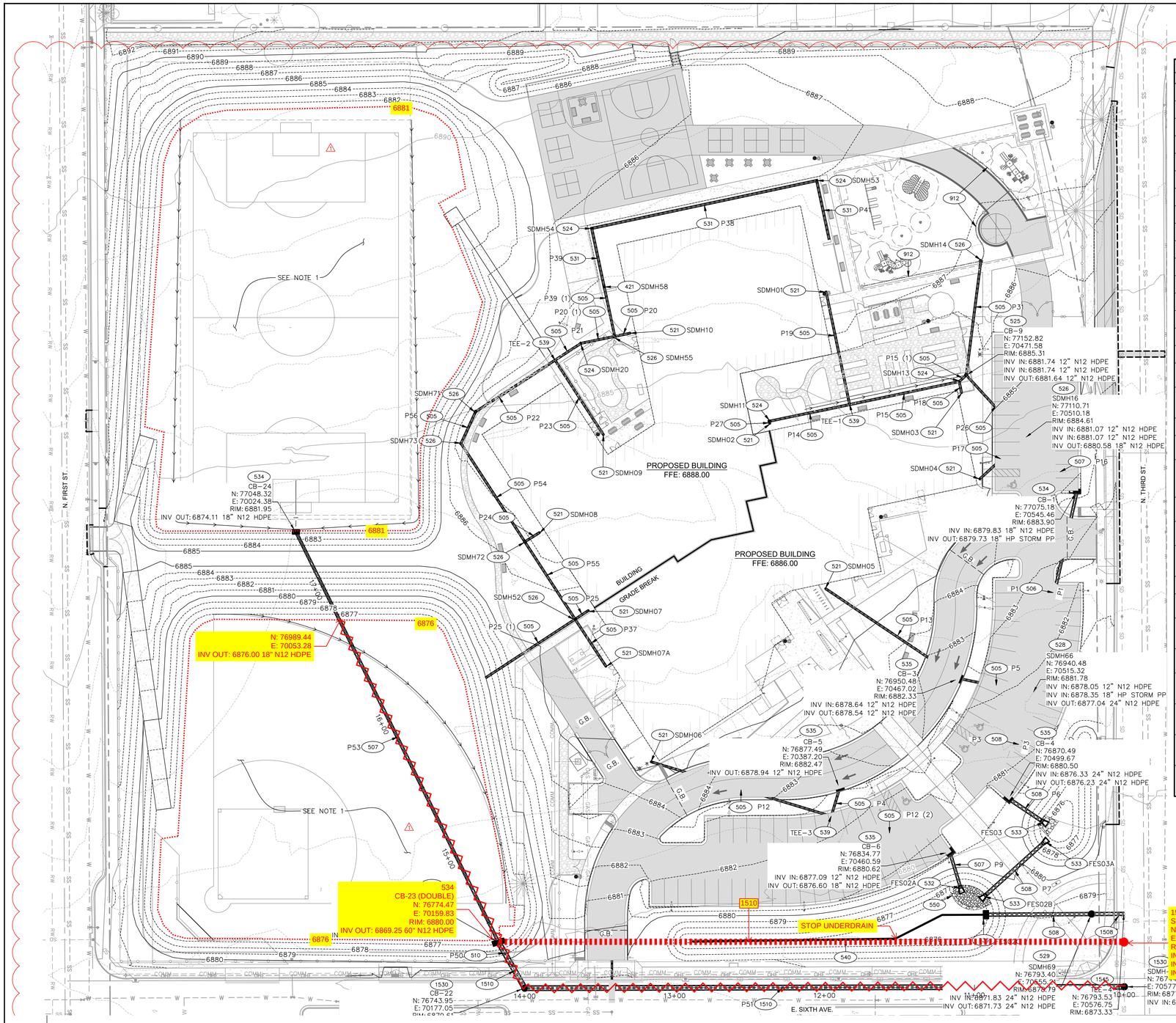
30-20149-00

UTILITY PLAN

C-UT01

COF PZ-20-00157



STRUCTURE TABLE

STRUCTURE NAME	DETAILS	LOCATION
FES02A	INV IN (18") = 6876.00 N RIM = 6877.72	N 76809.66 E 70468.18
FES02B	INV IN (24") = 6876.00 NE RIM = 6878.24	N 76804.65 E 70482.98
FES02C	INV OUT (24") = 6876.00 E RIM = 6879.66	N 76792.97 E 70485.67
FES03	INV IN (24") = 6876.00 NW RIM = 6878.24	N 76854.43 E 70523.66
FES03A	INV OUT (24") = 6876.51 SW RIM = 6878.75	N 76841.65 E 70524.06
SDMH01	INV OUT (12") = 6885.25 S RIM = 6887.89	N 77208.32 E 70378.08
SDMH02	INV OUT (12") = 6883.25 N RIM = 6885.99	N 77120.69 E 70340.45
SDMH03	INV OUT (12") = 6883.33 N RIM = 6885.87	N 77141.21 E 70468.44
SDMH04	INV OUT (12") = 6883.33 NE RIM = 6885.17	N 77083.62 E 70480.63
SDMH05	INV OUT (12") = 6881.33 SE RIM = 6885.13	N 77010.37 E 70377.83
SDMH06	INV OUT (12") = 6881.25 E RIM = 6885.71	N 76894.91 E 70261.47
SDMH07	INV OUT (12") = 6881.12 SW RIM = 6885.92	N 76995.75 E 70219.38
SDMH07A	INV OUT (12") = 6881.76 NW RIM = 6885.96	N 76958.71 E 70231.15
SDMH08	INV OUT (12") = 6881.86 SW RIM = 6887.34	N 77047.74 E 70186.72
SDMH09	INV OUT (12") = 6885.33 NW RIM = 6887.98	N 77113.18 E 70229.47
SDMH10	INV OUT (12") = 6885.25 W RIM = 6887.92	N 77180.80 E 70247.25
SDMH11	INV IN (12") = 6883.24 S INV OUT (12") = 6883.14 E RIM = 6885.99	N 77122.09 E 70340.15
SDMH13	INV IN (12") = 6881.84 W INV IN (12") = 6882.96 S INV OUT (12") = 6881.84 NE RIM = 6885.74	N 77148.54 E 70466.91
SDMH14	INV OUT (12") = 6882.51 S RIM = 6885.85	N 77228.83 E 70481.31
SDMH20	INV IN (12") = 6883.35 E INV OUT (12") = 6883.35 SW RIM = 6887.40	N 77174.07 E 70214.54
SDMH52	INV IN (12") = 6880.91 NE INV IN (12") = 6881.01 SE INV IN (12") = 6880.81 NW INV OUT (12") = 6880.71 SW RIM = 6885.70	N 76990.04 E 70210.65
SDMH53	INV IN (12") = 6885.50 S INV OUT (12") = 6885.50 W RIM = 6887.30	N 77282.57 E 70371.76
SDMH54	INV IN (12") = 6884.32 E INV OUT (12") = 6884.31 S RIM = 6887.87	N 77250.69 E 70221.77
SDMH55	INV IN (12") = 6884.73 E INV IN (12") = 6883.58 N INV OUT (12") = 6883.58 W RIM = 6887.75	N 77178.70 E 70237.08
SDMH57	INV OUT (12") = 6885.70 N RIM = 6886.87	N 77243.45 E 70380.07
SDMH58	INV IN (12") = 6883.92 N INV OUT (12") = 6883.92 S RIM = 6887.36	N 77211.57 E 70230.09
SDMH66	INV IN (12") = 6878.05 W INV IN (18") = 6878.35 N INV OUT (24") = 6877.04 S RIM = 6881.78	N 76940.48 E 70515.32
SDMH71	INV IN (12") = 6882.74 NE INV OUT (12") = 6882.64 SW RIM = 6887.25	N 77128.40 E 70144.21
SDMH72	INV IN (12") = 6881.53 NW INV IN (12") = 6881.63 NE INV OUT (12") = 6881.43 SE RIM = 6886.82	N 77041.71 E 70177.10
TEE-1	INV IN (12") = 6882.59 W INV IN (12") = 6882.59 N INV OUT (12") = 6882.59 E RIM = 6883.76	N 77133.27 E 70393.74
TEE-2	INV IN (12") = 6883.14 NE INV IN (12") = 6883.14 SE INV OUT (12") = 6883.14 SW RIM = 6884.31	N 77162.83 E 70197.23
TEE-3	INV IN (12") = 6878.74 W INV IN (12") = 6878.74 N INV OUT (12") = 6878.74 E RIM = 6879.91	N 76858.65 E 70381.51

PIPE TABLE

NAME	SIZE	LENGTH	SLOPE	MATERIAL
P1	18"	138.03'	1.00%	HP STORM PP
P3	24"	71.73'	1.00%	N12 HDPE
P4	12"	19.68'	1.00%	N12 HDPE
P5	12"	49.33'	1.01%	N12 HDPE
P6	24"	26.59'	0.85%	N12 HDPE
P7	24"	50.72'	1.00%	N12 HDPE
P9	18"	23.94'	2.49%	N12 HDPE
P11	24"	69.55'	6.00%	N12 HDPE
P12	12"	125.40'	2.00%	N12 HDPE
P12 (2)	12"	82.61'	2.00%	N12 HDPE
P13	12"	107.43'	2.50%	N12 HDPE
P14	12"	54.74'	1.00%	N12 HDPE
P15	12"	74.74'	1.00%	N12 HDPE
P15 (1)	12"	6.34'	1.58%	N12 HDPE
P16	18"	50.07'	1.50%	N12 HDPE
P17	12"	40.09'	5.63%	N12 HDPE
P18	12"	7.49'	5.00%	N12 HDPE
P19	12"	76.66'	3.47%	N12 HDPE
P20	12"	10.39'	5.00%	N12 HDPE
P20 (1)	12"	23.01'	1.00%	N12 HDPE
P21	12"	20.64'	1.00%	N12 HDPE
P22	12"	63.22'	0.63%	N12 HDPE
P23	12"	59.20'	3.69%	N12 HDPE
P24	12"	11.36'	2.00%	N12 HDPE
P25	12"	10.43'	2.00%	N12 HDPE
P25 (1)	12"	71.23'	1.00%	N12 HDPE
P26	12"	57.13'	1.00%	N12 HDPE
P27	12"	1.43'	1.00%	N12 HDPE
P31	12"	76.63'	1.00%	N12 HDPE
P37	12"	37.44'	2.00%	N12 HDPE
P38	12"	153.33'	0.77%	N12 HDPE
P39	12"	39.99'	1.00%	N12 HDPE
P39 (1)	12"	33.61'	1.00%	N12 HDPE
P41	12"	39.99'	0.50%	N12 HDPE
P50	36"	35.32'	1.00%	N12 HDPE
P51	36"	400.00'	0.50%	N12 HDPE
P53	18"	305.25'	0.50%	N12 HDPE
P54	12"	78.15'	1.00%	N12 HDPE
P55	12"	61.61'	1.00%	N12 HDPE

PRIVATE STORM DRAIN NOTES

505	1199	LF	INSTALL 12" ADS HDPE (N-12) DUAL WALL STORM PIPE OR APPROVED EQUAL PER M.A.G. SPEC. SECTION 738. TRENCH, EXCAVATION, BACKFILLING, AND COMPACTION PER M.A.G. SPEC. SECTION 603 AND C.O.F. STD. DTL. 9-01-30, 9-01-31, AND 9-01-32 ON SHEET C-DT01.
506	138	LF	INSTALL 18" ADS HP STORM DUAL WALL PP PIPE OR APPROVED EQUAL PER M.A.G. SPEC. SECTION 738. TRENCH, EXCAVATION, BACKFILLING, AND COMPACTION PER M.A.G. SPEC. SECTION 603 AND C.O.F. STD. DTL. 9-01-30, 9-01-31, AND 9-01-32 ON SHEET C-DT01.
507	142	LF	INSTALL 18" ADS HDPE (N-12) DUAL WALL STORM PIPE OR APPROVED EQUAL PER M.A.G. SPEC. SECTION 738. TRENCH, EXCAVATION, BACKFILLING, AND COMPACTION PER M.A.G. SPEC. SECTION 603 AND C.O.F. STD. DTL. 9-01-30, 9-01-31, AND 9-01-32 ON SHEET C-DT01.
508	204	LF	INSTALL 24" ADS HDPE (N-12) DUAL WALL STORM PIPE OR APPROVED EQUAL PER M.A.G. SPEC. SECTION 738. TRENCH, EXCAVATION, BACKFILLING, AND COMPACTION PER M.A.G. SPEC. SECTION 603 AND C.O.F. STD. DTL. 9-01-30, 9-01-31, AND 9-01-32 ON SHEET C-DT01.
510	15	LF	INSTALL 36" ADS HDPE (N-12) DUAL WALL STORM PIPE OR APPROVED EQUAL PER M.A.G. SPEC. SECTION 738. TRENCH, EXCAVATION, BACKFILLING, AND COMPACTION PER M.A.G. SPEC. SECTION 603 AND C.O.F. STD. DTL. 9-01-30, 9-01-31, AND 9-01-32 ON SHEET C-DT01.
521	12	EA	INSTALL 12" NYLOPLAST DRAIN BASIN WITH SOLID COVER OR APPROVED EQUAL. SEE STRUCTURAL PLANS FOR ROOF DRAIN CONNECTION.
524	5	EA	INSTALL 18" NYLOPLAST DRAIN BASIN WITH SOLID COVER OR APPROVED EQUAL.
525	1	EA	INSTALL 24" NYLOPLAST DRAIN BASIN WITH 24" DOME GRATE COVER OR APPROVED EQUAL.
526	6	EA	INSTALL 24" NYLOPLAST DRAIN BASIN WITH SOLID COVER OR APPROVED EQUAL.
528	1	EA	INSTALL 36" NYLOPLAST DRAIN BASIN WITH SOLID COVER OR APPROVED EQUAL.
529	1	EA	INSTALL 48" DIA. STORM DRAIN MANHOLE PER M.A.G. STD. DTL. 520 AND MANHOLE SHAFT PER M.A.G. STD. DTL. 522.
531	234	LF	INSTALL ACO KLASSICDRAIN K300 OR APPROVED EQUAL. CONTRACTOR TO INSTALL PER MANUFACTURER'S RECOMMENDATIONS AND DETAILS.
532	1	EA	INSTALL 18" ADS FLARED END SECTION OR APPROVED EQUAL. INSTALL D50=6" RIPRAP EROSION PROTECTION PLACED MIN. 12" THICK OVER MIRAFI 140N FILTER FABRIC PER RIPRAP INSTALLATION DETAIL "F" ON SHEET C-GN01.
533	3	EA	INSTALL 24" ADS FLARED END SECTION OR APPROVED EQUAL. INSTALL D50=6" RIPRAP EROSION PROTECTION PLACED MIN. 12" THICK OVER MIRAFI 140N FILTER FABRIC PER RIPRAP INSTALLATION DETAIL "F" ON SHEET C-GN01.
534	3	EA	CONSTRUCT TYPE "E" CATCH BASIN PER MAG STD DTL 534.
535	5	EA	CONSTRUCT TYPE "F" CATCH BASIN PER MAG STD DTL 535.
536	1	EA	CONSTRUCT DOUBLE TYPE "G" CATCH BASIN PER MAG STD DTL 537 WITH MODIFIED WIER BASIN WALL PER DETAIL 'K' ON SHEET C-GN01.
539	3	EA	INSTALL 12"X12"X12" INSERTA TEE PER MANUFACTURER'S SPECIFICATIONS.
540	1	EA	CONSTRUCT BASIN TRENCH DRAIN PER DETAIL 'J' ON SHEET C-GN01. INSTALL CLEANOUTS AT ALL ENDS, BENDS AND JUNCTIONS.
550	1	EA	CONSTRUCT BASIN SEDIMENT TRAP PER DETAIL 'L' ON SHEET C-GN01.
908		NPI	ROCK WALL AT CULVERT CROSSING PER DETAILS ON LANDSCAPE PLANS.
912		NPI	PLAYGROUND DRAINAGE SYSTEM. REFER TO LANDSCAPE PLANS FOR DETAILS.

PUBLIC STORM DRAIN NOTES

1508	17	LF	INSTALL 24" ADS HDPE (N-12) DUAL WALL STORM PIPE OR APPROVED EQUAL PER M.A.G. SPEC. SECTION 738. TRENCH, EXCAVATION, BACKFILLING, AND COMPACTION PER M.A.G. SPEC. SECTION 603 AND C.O.F. STD. DTL. 9-01-30, 9-01-31, AND 9-01-32 ON SHEET C-DT01.
1510	417	LF	INSTALL 60" ADS HDPE (N-12) DUAL WALL STORM PIPE OR APPROVED EQUAL PER M.A.G. SPEC. SECTION 738. TRENCH, EXCAVATION, BACKFILLING, AND COMPACTION PER M.A.G. SPEC. SECTION 603 AND C.O.F. STD. DTL. 9-01-30, 9-01-31, AND 9-01-32 ON SHEET C-DT01.
1530	1	EA	INSTALL 60" DIA. STORM DRAIN MANHOLE PER M.A.G. STD. DTL. 521 AND MANHOLE SHAFT PER M.A.G. STD. DTL. 522.
~~1545~~	~~1~~	~~EA~~	~~INSTALL 60"X60"X12" INSERTA TEE PER MANUFACTURER'S SPECIFICATIONS.~~

NOTE:
1. ~~REFER TO SYNTHETIC TURF FIELD CONSTRUCTION PLANS PROVIDED BY HELLAS CONSTRUCTION INC.~~

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30-20149-00

STORM DRAIN PLAN

C-SD01

COF PZ-20-00157

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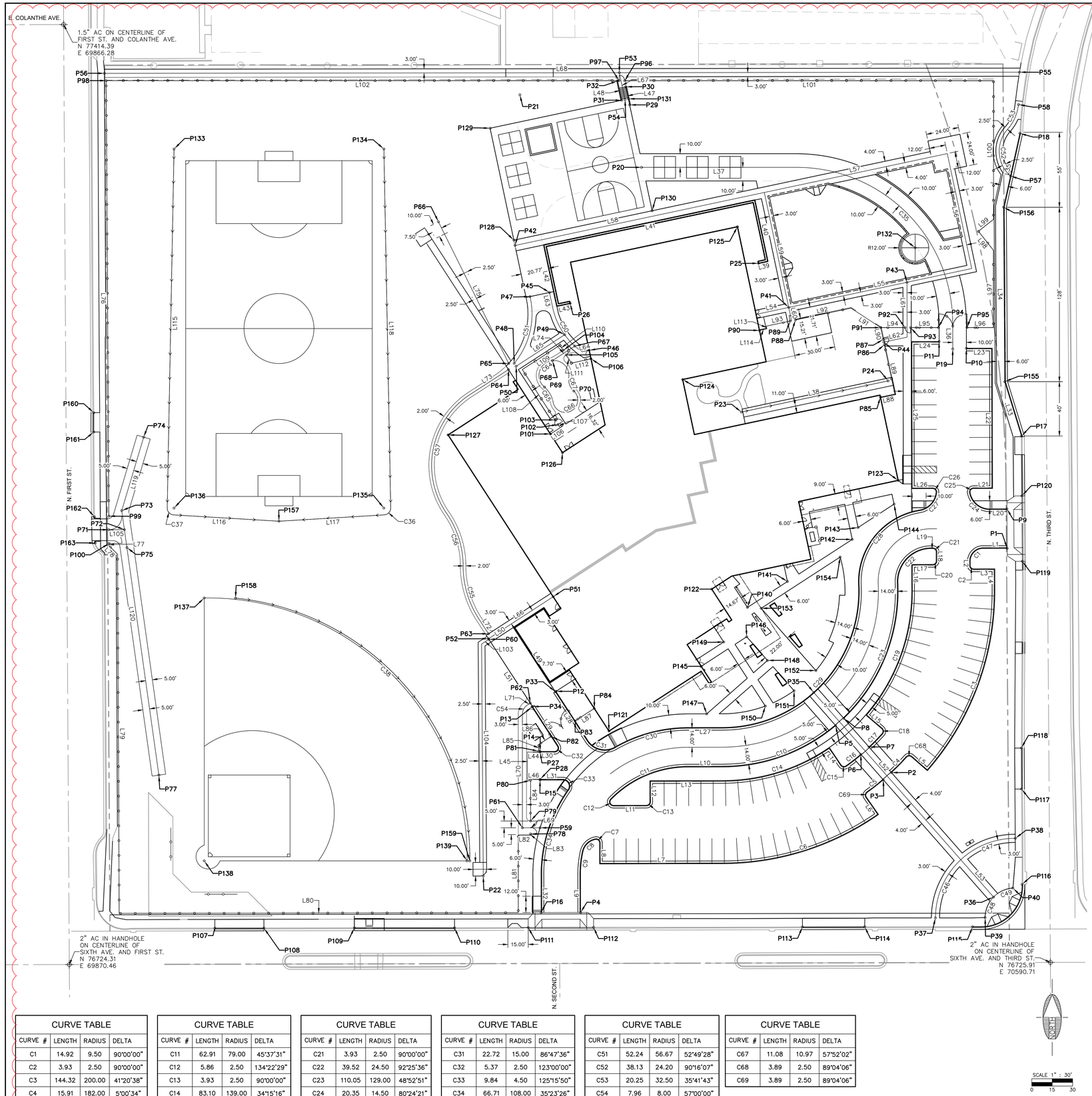

LINE TABLE		
LINE #	LENGTH	DIRECTION
L1	17.64	N 89°52'23" E
L2	3.00	N 0°07'37" W
L3	15.50	S 89°52'23" W
L4	16.00	N 0°07'37" W
L5	15.52	S 48°55'35" E
L6	15.52	N 34°49'06" W
L7	90.62	N 89°52'23" E
L8	15.50	S 0°07'37" E
L9	27.54	N 0°07'37" W
L10	25.62	N 89°52'23" E
L11	24.18	S 89°52'23" W
L12	15.50	S 0°07'37" E
L13	53.62	S 89°52'23" W
L14	15.47	N 34°10'30" W
L15	15.47	S 49°23'43" E
L16	19.35	S 0°07'37" E
L17	15.50	S 89°52'23" W
L18	6.65	S 0°07'37" E
L19	1.14	N 89°52'23" E
L20	12.65	S 89°52'23" W
L21	14.00	N 89°52'23" E
L22	103.00	N 0°07'37" W
L23	19.00	S 89°52'23" W
L24	20.50	S 89°52'23" W
L25	108.00	S 0°07'37" E
L26	15.50	N 89°52'23" E
L27	25.62	S 89°52'23" W
L28	42.91	N 33°00'00" E
L29	34.35	S 33°00'00" E
L30	10.64	N 90°00'00" W
L31	16.85	N 90°00'00" E

LINE TABLE		
LINE #	LENGTH	DIRECTION
L32	27.56	S 0°07'37" E
L33	41.76	N 17°04'46" W
L34	128.13	N 0°22'49" W
L35	55.51	N 12°25'22" E
L36	18.85	N 0°07'37" W
L37	113.74	N 90°00'00" W
L38	110.14	N 78°00'00" E
L39	7.00	S 78°00'00" W
L40	45.99	S 12°00'00" E
L41	158.33	N 78°00'00" E
L42	45.99	N 12°00'00" W
L43	10.00	S 78°00'00" W
L44	9.33	N 90°00'00" W
L45	20.00	S 0°00'00" E
L46	9.33	N 90°00'00" E
L47	13.55	S 12°00'00" E
L48	14.50	S 12°00'00" E
L49	56.36	S 33°00'13" E
L50	20.00	N 57°00'00" E
L51	56.36	N 33°00'00" W
L52	163.58	S 41°18'46" E
L53	36.48	S 41°18'46" E
L54	24.50	N 78°00'00" E
L55	137.35	N 78°00'00" E
L56	86.27	N 12°00'00" W
L57	137.35	S 78°00'00" W
L58	187.11	S 78°00'00" W
L59	86.27	S 12°00'00" E
L60	10.00	S 12°00'00" E
L61	40.28	N 0°07'37" W
L62	17.48	N 78°00'00" E

LINE TABLE		
LINE #	LENGTH	DIRECTION
L63	11.56	N 12°00'00" W
L64	5.35	N 78°00'00" E
L65	42.49	S 57°00'00" W
L66	56.67	N 57°00'00" E
L67	20.15	N 12°00'00" W
L68	671.84	N 89°55'36" E
L69	13.02	N 90°00'00" W
L70	83.39	S 0°00'00" E
L71	2.59	S 57°00'00" W
L72	12.94	S 33°00'00" E
L73	33.64	N 57°00'00" E
L74	19.59	N 57°00'00" E
L75	116.04	S 26°23'19" E
L76	319.73	N 0°20'50" W
L77	1.71	S 0°20'50" E
L78	8.80	N 45°33'00" W
L79	263.69	S 0°15'24" E
L80	293.01	S 89°53'42" W
L81	56.80	N 0°00'00" E
L82	9.00	N 90°00'00" E
L83	1.00	S 0°00'00" E
L84	29.89	S 0°00'00" E
L85	4.93	S 0°00'00" E
L86	10.85	S 57°00'00" W
L87	16.79	S 57°00'00" W
L88	10.83	S 78°00'00" W
L89	36.98	S 12°00'00" E
L90	8.90	N 12°00'00" W
L91	26.09	N 56°49'03" W
L92	41.65	S 78°00'00" W
L93	17.93	S 78°00'00" W

LINE TABLE		
LINE #	LENGTH	DIRECTION
L94	17.87	N 90°00'00" E
L95	20.47	N 90°00'00" E
L96	19.36	N 90°00'00" E
L97	56.68	N 0°03'11" E
L98	17.86	N 38°15'10" W
L99	14.09	N 51°44'50" E
L100	101.83	N 0°02'47" E
L101	270.86	N 89°59'45" W
L102	376.63	N 89°59'45" W
L103	6.37	S 56°58'57" W
L104	170.31	S 0°24'46" E
L105	11.38	S 89°39'10" W
L106	8.39	S 57°00'00" W
L107	2.85	N 33°00'00" W
L108	44.09	N 33°00'00" W
L109	32.86	N 57°00'00" E
L110	4.55	S 33°00'00" E
L111	7.19	S 33°00'00" E
L112	14.66	N 77°15'49" E
L113	2.06	S 12°00'00" E
L114	5.53	S 78°00'00" W
L115	263.57	S 1°05'12" E
L116	77.45	S 86°33'39" E
L117	77.17	S 86°33'18" W
L118	263.57	S 1°05'12" E
L119	56.30	N 16°37'59" W
L120	196.09	N 7°59'28" W

POINT TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
1	77029.84	70559.01	Back Curb
2	76865.24	70474.03	Back Curb
3	76859.91	70468.06	Back Curb
4	76762.60	70245.84	Back Curb
5	76899.73	70433.06	Back Curb
6	76878.69	70451.55	Back Curb
7	76884.02	70457.51	Back Curb
8	76905.07	70439.02	Back Curb
9	77058.84	70558.78	Back Curb
10	77176.77	70529.04	Back Curb
11	77181.73	70509.03	Back Curb
12	76924.88	70227.72	Back Curb
13	76913.44	70210.10	Back Curb
14	76880.77	70216.07	Back Curb
15	76859.77	70216.07	Back Curb
16	76762.52	70216.84	Back Curb
17	77112.27	70569.48	Back Curb
18	77334.53	70568.30	Back Curb
19	77176.25	70519.04	CL
20	77309.56	70290.55	CL
21	77362.80	70201.23	FL
22	76789.30	70174.35	FL
23	77129.92	70363.84	FL
24	77152.82	70471.58	FL
25	77239.09	70376.40	Wall
26	77209.71	70238.15	Wall
27	76880.27	70216.07	Wall
28	76860.27	70216.07	Wall
29	77355.41	70281.82	Wall
30	77368.67	70279.01	Wall
31	77358.82	70275.99	Wall
32	77373.01	70272.97	Wall
33	76924.60	70227.30	Pavement
34	76913.71	70210.52	Pavement
35	76924.14	70416.93	SW–CL
36	76773.86	70549.01	SW–CL
37	76758.57	70506.34	SW–CL
38	76816.97	70564.95	SW–CL
39	76758.80	70542.79	SW–CL
40	76780.47	70563.15	SW–CL
41	77206.73	70398.61	SW–CL
42	77252.21	70197.66	SW–CL
43	77225.18	70485.43	SW–CL
44	77181.27	70468.43	SW–CL
45	77217.72	70222.97	SW–CL
46	77175.27	70252.12	SW–CL
47	77214.74	70208.69	SW–CL
48	77165.68	70197.08	SW–CL
49	77186.68	70234.11	SW–CL
50	77163.54	70198.47	SW–CL
51	76994.37	70225.72	SW–CL
52	76963.50	70178.19	SW–CL
53	77379.05	70274.24	SW–CL
54	77359.34	70278.43	SW–CL
55	77379.43	70568.05	SW–CL
56	77378.57	69896.22	SW–CL

POINT TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
57	77303.22	70561.41	SW–CL
58	77355.69	70567.30	SW–CL
59	76824.71	70216.09	SW–CL
60	76963.08	70178.46	SW–CL
61	76824.71	70203.07	SW–CL
62	76916.23	70208.89	SW–CL
63	76967.10	70178.23	SW–CL
64	77161.11	70192.89	SW–CL
65	77165.62	70193.04	SW–CL
66	77269.57	70141.47	SW–CL
67	77178.36	70241.57	SW–CL
68	77167.68	70225.14	SW–CL
69	77148.28	70219.30	SW–CL
70	77145.38	70240.87	SW–CL
71	77043.52	69899.53	ROAD–CL
72	77043.59	69910.91	ROAD–CL
73	77057.56	69908.94	ROAD–CL
74	77111.51	69925.06	ROAD–CL
75	77030.44	69912.75	ROAD–CL
77	76863.37	69936.20	ROAD–CL
78	76820.21	70209.07	Fence
79	76829.71	70209.07	Fence
80	76859.60	70209.07	Fence
81	76880.94	70215.07	Fence
82	76891.77	70224.17	Fence
83	76903.21	70241.79	Fence
84	76912.35	70255.87	Fence
85	77140.89	70465.94	Fence
86	77179.32	70468.85	Fence
87	77183.23	70468.02	Fence
88	77197.56	70403.59	Fence
89	77196.73	70399.67	Fence
90	77189.83	70377.16	Fence
91	77191.94	70466.16	Fence
92	77191.94	70484.04	Fence
93	77191.94	70488.04	Fence
94	77191.94	70508.51	Fence
95	77191.94	70529.51	Fence
96	77373.22	70278.16	Fence
97	77373.22	70274.16	Fence
98	77373.25	69897.53	Fence
99	77053.52	69899.47	Fence
100	77033.43	69899.59	Fence
101	77113.84	70223.73	Fence
102	77120.80	70229.21	Fence
103	77124.15	70227.03	Fence
104	77175.21	70233.05	Fence
105	77171.85	70235.23	Fence
106	77169.06	70253.44	Fence
107	76751.09	69977.27	Back Curb
108	76751.10	70013.33	Back Curb
109	76751.30	70079.73	Back Curb
110	76751.33	70153.25	Back Curb
111	76751.49	70207.37	Back Curb
112	76751.63	70255.37	Back Curb
113	76751.93	70408.68	Back Curb
114	76752.03	70454.38	Back Curb

POINT TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
115	76752.10	70533.57	Back Curb
116	76783.15	70569.91	Back Curb
117	76853.16	70569.54	Back Curb
118	76883.31	70569.43	Back Curb
119	77020.36	70570.09	Back Curb
120	77068.36	70569.71	Back Curb
121	76895.72	70266.67	BLDG
122	76999.94	70342.07	BLDG
123	77079.75	70478.93	BLDG
124	77153.82	70320.75	BLDG
125	77265.97	70360.97	BLDG
126	77100.09	70232.52	BLDG
127	77113.12	70148.54	BLDG
128	77256.12	70196.83	Court
129	77338.29	70179.36	Court
130	77277.70	70298.34	Court
131	77359.86	70280.88	Court
132	77250.54	70491.44	Pavement
133	77323.03	69947.35	Field
134	77323.03	70101.41	Field
135	77059.41	70101.41	Field
136	77059.41	69947.35	Field
137	76993.44	69969.50	Field
138	76800.47	69969.50	Field
139	76800.47	70162.47	Field
140	76986.47	70368.31	Sidewalk
141	77005.53	70397.65	Sidewalk
142	77036.42	70445.23	Sidewalk
143	77045.16	70449.50	Sidewalk
144	77062.33	70475.94	Sidewalk
145	76943.26	70334.36	Sidewalk
146	76964.94	70367.75	Sidewalk
147	76908.35	70338.44	Sidewalk
148	76947.55	70383.04	Sidewalk
149	76961.14	70350.87	Sidewalk
150	76914.07	70381.44	Sidewalk
151	76925.35	70402.55	Sidewalk
152	76940.13	70418.55	Sidewalk
153	76985.85	70378.37	Sidewalk
154	77023.51	70436.36	Sidewalk
155	77152.19	70557.21	Back Curb
156	77280.32	70556.36	Back Curb
157	77049.78	70024.38	FL
158	76993.34	69992.45	FL
159	76800.43	70164.47	FL

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C1	14.92	9.50	90°00'00"
C2	3.93	2.50	90°00'00"
C3	144.32	200.00	41°20'38"
C4	15.91	182.00	5°00'34"
C5	14.98	182.00	4°42'59"
C6	121.60	200.00	34°50'05"
C7	4.38	2.50	100°17'12"
C8	13.48	11.50	67°10'58"
C9	17.28	79.00	12°31'50"
C10	90.04	129.00	39°59'30"

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C11	62.91	79.00	45°37'31"
C12	5.86	2.50	134°22'29"
C13	3.93	2.50	90°00'00"
C14	83.10	139.00	34°15'16"
C15	3.98	2.50	91°06'45"
C16	13.82	157.00	5°02'38"
C17	13.79	157.00	5°01'52"
C18	3.98	2.50	91°06'45"
C19	99.32	139.00	40°56'16"
C20	3.93	2.50	90°00'00"

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C21	3.93	2.50	90°00'00"
C22	39.52	24.50	92°25'36"
C23	110.05	129.00	48°52'51"
C24	20.35	14.50	80°24'21"
C25	4.35	2.50	99°35'39"
C26	4.16	2.50	95°25'47"
C27	19.09	14.50	75°25'28"
C28	77.76	53.50	83°16'51"
C29	161.31	100.00	92°25'36"
C30	55.92	108.00	29°39'59"

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C31	22.72	15.00	86°47'36"
C32	5.37	2.50	123°00'00"
C33	9.84	4.50	125°15'50"
C34	66.71	108.00	35°23'26"
C35	179.94	114.71	89°52'23"
C46	47.90	58.44	46°57'19"
C47	44.03	58.44	43°10'00"
C48	16.69	22.00	43°28'02"
C49	15.95	22.00	41°33'02"
C50	39.72	52.42	43°24'24"

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C51	52.24	56.67	52°49'28"
C52	38.13	24.20	90°16'07"
C53	20.25	32.50	35°41'43"
C54	7.96	8.00	57°00'00"
C55	41.27	72.00	32°50'27"
C56	40.99	68.00	34°32'29"
C57	99.23	62.00	91°42'02"
C64	45.64	10.98	238°08'05"
C65	13.05	19.34	38°40'30"
C66	34.46	9.11	216°37'30"

CURVE TABLE			
CURVE #	LENGTH	RADIUS	DELTA
C67	11.08	10.97	57°52'02"
C68	3.89	2.50	89°04'06"
C69	3.89	2.50	89°04'06"

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Shephard Wesnitzer, Inc.

KILLIP ELEMENTARY SCHOOL
FLAGSTAFF UNIFIED SCHOOL DISTRICT
2300 E 6th Ave., Flagstaff, AZ 86004

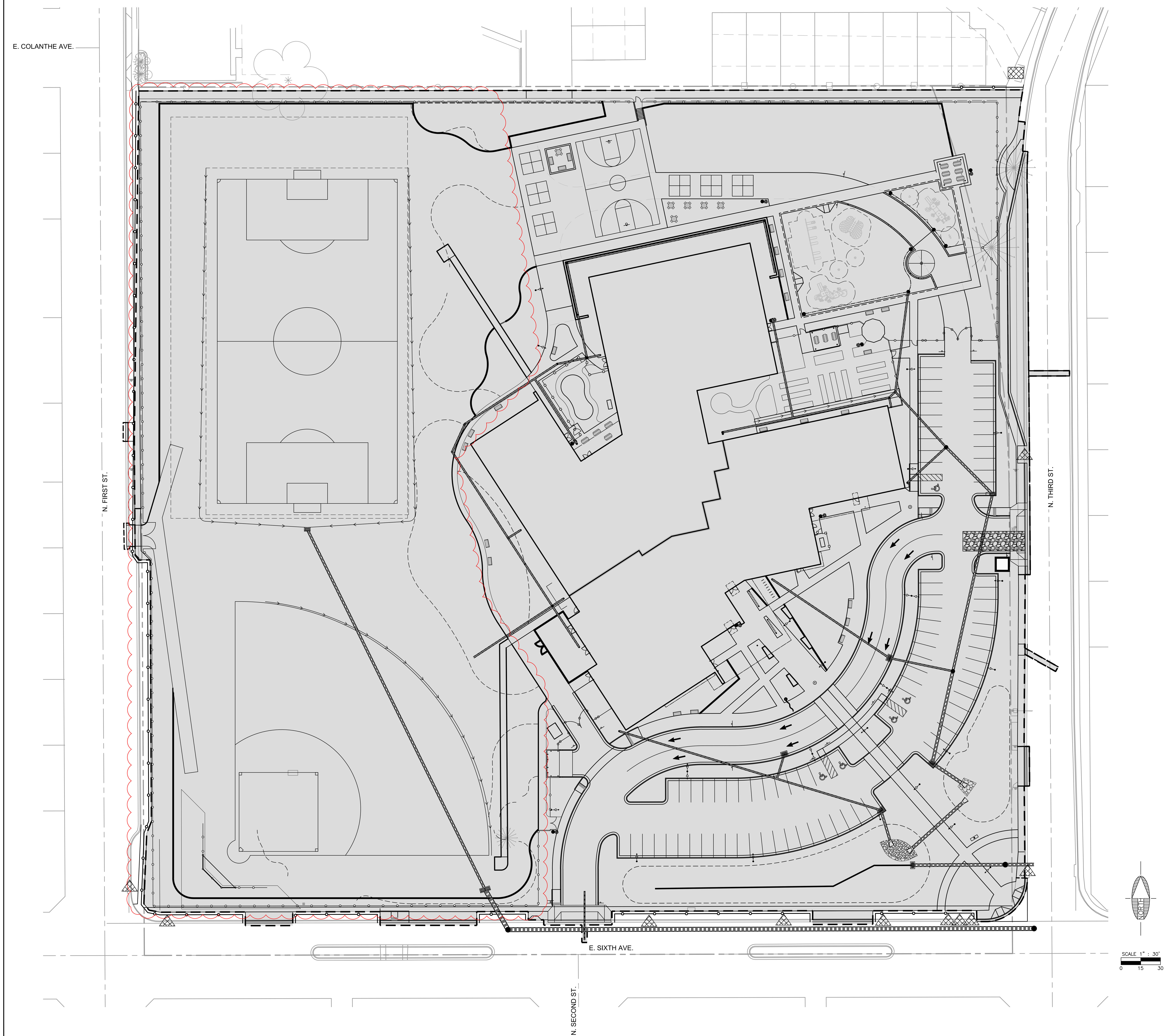
100% CONSTRUCTION DOCUMENTS
02.08.2021
REVISIONS
1 ASI11 REGIONAL DET. BASIN 06/15/2021

30-20149-00

HORIZONTAL CONTROL PLAN

C-HC01

COF PZ-20-00157



LEGEND

- DISTURBED AREA
- DRAINAGE FLOW DIRECTION
- "STRAW ROLLS" PER DETAIL ON SHEET EC02.
- "CURB INLET SEDIMENT BARRIER" ULTRATECH UTLRA-CURB GUARD PLUS, OR APPROVED EQUAL.
- "DROP INLET SEDIMENT BARRIER" PER DETAIL ON SHEET EC02.
- "TEMPORARY CONSTRUCTION ENTRANCE" PER DETAIL ON SHEET EC02.
- "CONCRETE WASHOUT" PER DETAIL ON SHEET EC02.

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Shepherd & Wesnitzer, Inc.

Call at least two full working days before you begin excavation
ARIZONA811 Arizona Blue Stake, Inc.
Dial 8-1-1 or 1-800-STAKE-IT (782-5348)

KILLIP ELEMENTARY SCHOOL
FLAGSTAFF UNIFIED SCHOOL DISTRICT
2300 E 6th Ave., Flagstaff, AZ 86004

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30-20149-00

EROSION CONTROL PLAN

C-EC01

COF PZ-20-00157

MANAGEMENT STRATEGIES

1. CONSTRUCTION WILL BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.

2. INSTALL TEMPORARY CONSTRUCTION ENTRANCE, MUD AND DEBRIS SHALL BE WASHED FROM ALL CONSTRUCTION VEHICLES AND EQUIPMENT BEFORE LEAVING THE SITE. A WATER TANK TRUCK WILL BE USED IF PUBLIC WATER IS UNAVAILABLE.

3. INSTALL PERIMETER CONTROLS AS SHOWN TO INCLUDE DIVERSION DIKES AND SILT FENCE. SEDIMENT TRAPPING MEASURES SHALL BE INSTALLED AS A FIRST STEP IN GRADING

4. GRADING OPERATIONS MAY COMMENCE ONCE PERIMETER CONTROLS, DIVERSIONS AND TRAPPING MEASURES ARE INSTALLED.

5. FILL SLOPE SURFACES SHALL BE LEFT IN ROUGHENED CONDITION TO REDUCE SHEET AND RILL EROSION OF THE SLOPES. THE CONTRACTOR SHALL REDIRECT CONCENTRATED FLOW AWAY FROM THE FILL SLOPES BY INSTALLING EARTH BERMS AND DIRECT THE RUN-OFF TO STABILIZED OUTLET OR SEDIMENT BASIN AND TRAPPING DEVICES.

6. TEMPORARY SEEDING, SODDING OR OTHER STABILIZATION METHODS WILL FOLLOW IMMEDIATELY AFTER GRADING.

7. ONCE THE UTILITIES, CURB AND GUTTER, AND THE ROADS ARE BROUGHT NEAR FINAL GRADE IN A MANNER SUCH THAT STORM SEWER SYSTEMS ARE FUNCTIONAL, INSTALL THE STANDARD INLET PROTECTION AROUND THE STRUCTURES AND SILT FENCE ALONG THE SITE PERIMETER.

8. FOR VEGETATIVE STABILIZATION OF ALL DENUDED AREAS SEE EROSION CONTROL MEASURES AND VEGETATIVE PRACTICES.

9. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.

10. AFTER ACHIEVING FINAL STABILIZATION, THE TEMPORARY EROSION & SILTATION CONTROLS WILL BE CLEANED UP AND REMOVED FROM THE SITE.

GENERAL LAND CONSERVATION NOTES

1. VEGETATED STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRECIPITATION OR IRRIGATION IS AVAILABLE.

2. ALL EROSION AND SILTATION CONTROL MEASURES ARE TO BE PLACED PRIOR TO OR AS THE FIRST STEP IN GRADING. FIRST AREAS TO BE CLEARED ARE TO BE THOSE REQUIRED FOR THE PERIMETER CONTROLS.

3. DURING CONSTRUCTION, ALL STORM SEWER INLETS WILL BE PROTECTED BY INLET PROTECTION DEVICES, MAINTAINED AND MODIFIED AS REQUIRED BY CONSTRUCTION PROGRESS.

4. ANY DISTURBED AREA NOT COVERED BY NOTE #1 ABOVE AND NOT PAVED, SODDED OR BUILT UPON IS TO BE MULCHED WITH HAY OR STRAW MULCH AT THE RATE OF TWO TONS PER ACRE AND OVER-SEEDED AS SOON AS PRECIPITATION OR IRRIGATION IS AVAILABLE.

5. AT THE COMPLETION OF CONSTRUCTION PROJECTS, AND PRIOR TO THE RELEASE OF THE BOND, ALL TEMPORARY SILTATION AND EROSION CONTROLS SHALL BE REMOVED AND DISTURBED AREAS SHALL BE STABILIZED.

6. TEMPORARY DIVERSIONS, SEEDED AND MULCHED OR SILT FENCE AND OTHER CONTROL MEASURES AS NECESSARY ARE TO BE PLACED AS INDICATED ON THE DRAWINGS PRIOR TO OR THE FIRST STEP IN EXCAVATION.

7. WHERE CONSISTENT WITH JOB SAFETY REQUIREMENTS, ALL EXCAVATED MATERIAL IS TO BE PLACED ON THE UPHILL SIDE OF TRENCHES. NO MATERIAL IS TO BE PLACED IN STREAMBEDS. NO STOCKPILE IS PERMITTED. WHERE SOIL IS PLACED ON DOWNHILL SIDE OF TRENCHES, IT IS TO BE BACK-SLOPE TO DRAIN TOWARD THE TRENCH. WHEN NECESSARY TO DEWATER THE TRENCHES, THE PUMP DISCHARGE HOSE MUST OUTLET IN A STABILIZED AREA TO AN EXISTING STORM INLET OR DITCH IF NO INLET AVAILABLE.

EROSION & SEDIMENT CONTROL STANDARD NOTES

1. THE CONTRACTOR MUST NOTIFY BLUE STAKE AT 1-800-STAKE-IT AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION IN ACCORDANCE WITH APPLICABLE COUNTY ORDINANCES AND POLICIES.

2. ALL EROSION CONTROL MEASURES SHOWN ON THE APPROVED PLAN MUST BE IN PLACE AND INSPECTED AND APPROVED BY THE PRIOR TO CLEARING, STRIPPING OF TOPSOIL OR GRADING.

3. THE CONTRACTOR SHALL POST A SIGN AT THE MAIN ENTRANCE TO THE CONSTRUCTION SITE CONTAINING THE AZPDES AUTHORIZATION NUMBER AND/OR COPY OF NOTICE OF INTENT AUTHORIZATION, CONSTRUCTION SITE OPERATOR CONTACT NAME AND TELEPHONE NUMBER, A BRIEF PROJECT DESCRIPTION, AND THE LOCATION OF THE APPROVED STORM WATER POLLUTION PREVENTION PLAN. THE SIGN SHALL ALSO DISPLAY THE NAME, CONTACT INFORMATION, AND QUALIFICATIONS OF THE PERSONNEL PERFORMING ROUTINE INSPECTIONS.

4. THE CONTRACTOR'S REPRESENTATIVE IS RESPONSIBLE FOR THE INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION.

5. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL COMPLETE AND ADEQUATE STABILIZATION IS ACHIEVED.

6. WATER MUST BE PUMPED INTO AN APPROVED FILTERING DEVICE DURING DEWATERING OPERATIONS.

7. THE CONTRACTOR'S REPRESENTATIVE SHALL INSPECT AND DOCUMENT ALL EROSION AND SEDIMENT CONTROL MEASURES DAILY AND AFTER EACH SIGNIFICANT RAINFALL. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

A. GRAVEL OUTLETS WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED.

B. SILT FENCE AND SEDIMENT BARRIERS WILL BE CHECKED REGULARLY FOR UNDERMINING OR DETERIORATION OF THE FABRIC. SEDIMENT SHALL BE REMOVED WHEN THE LEVEL OF SEDIMENT DEPOSITION REACHES HALF WAY TO THE TOP OF THE BARRIER.

C. SEEDED AND SODDED AREAS WILL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE FERTILIZED AND RESEEDED OR SODDED AS NEEDED.

8. INSPECTION FORMS SHALL BE COMPLETED BY THE CONTRACTOR'S INSPECTOR WITH THE MINIMUM FOLLOWING INFORMATION: INSPECTION DATE, TITLE AND QUALIFICATIONS OF EACH INSPECTOR, WEATHER INFORMATION FOR PERIOD SINCE LAST INSPECTION, LOCATION OF DISCHARGE OF SEDIMENT OR OTHER POLLUTANTS, LIST OF BMPS THAT NEED TO BE MAINTAINED OR INADEQUATE, LIST ADDITIONAL NEEDED BMPS, CORRECTIVE ACTION REQUIRED, SOURCES OF ALL NON-STORMWATER AND CONTROL MEASURES, DATES WHEN MAJOR GRADING ACTIONS OCCURRED, POLLUTANT DISCHARGE STATUS OF STORAGE AREAS, AND DATES WHEN CONSTRUCTION ACTIVITIES CEASED.

9. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING INSPECTION RECORDS FOR AT LEAST THREE (3) YEARS FOLLOWING THE COMPLETION OF PROJECT.

10. THE SWPPP SHALL BE MODIFIED BY THE CONTRACTOR WITHIN 7 CALENDAR DAYS FOLLOWING THE INSPECTION OF AN INADEQUATE BMP WHEN NEEDED. BMPS SHALL BE MODIFIED OR ADDED AS SOON AS PRACTICABLE AFTER THE BMP HAS BEEN DETERMINED INADEQUATE.

11. PERMANENT SOIL STABILIZATION SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED AND ALL WORK COMPLETED ON ANY PORTION OF THE SITE. TEMPORARY SOIL STABILIZATION SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN UNDISTURBED FOR LONGER THAN FOURTEEN (14) DAYS. ROADS AND PARKING AREAS SHALL BE STABILIZED AS SOON AS PRECIPITATION OR IRRIGATION IS AVAILABLE.

12. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES WILL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION AND AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED, AS AUTHORIZED BY THE INSPECTORS. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES WILL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

13. WHEN SEDIMENT IS TRANSPORTED ONTO A PAVED ROAD SURFACE, THE ROAD WILL BE CLEANED THOROUGHLY AT THE END OF EACH DAY. SEDIMENT WILL BE REMOVED FROM THE ROADS BY SHOVELING OR SWEEPING AND TRANSPORTED TO A SEDIMENT CONTROL DISPOSAL AREA. STREET WASHING WILL BE ALLOWED ONLY AFTER SEDIMENT IS REMOVED IN THIS MANNER.

14. AREAS WHICH ARE NOT TO BE DISTURBED WILL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.

15. FLOOD PLAIN LIMITS SHALL BE CLEARLY MARKED IN THE FIELD BY FLAGS, SIGNS, ETC.

16. TREE SAVE AREAS SHALL BE CLEARLY MARKED IN THE FIELD BY ORANGE SAFETY FENCE.

17. ORANGE SAFETY FENCE MUST BE INSTALLED AROUND ALL SILT TRAPS AND SEDIMENT BASINS.

18. SEEDING AND MULCHING SHALL BE IN ACCORDANCE WITH THE STANDARDS.

19. THE SWPPP SHALL BE MODIFIED BY THE CONTRACTOR WITHIN 15 BUSINESS DAYS FOLLOWING ANY CHANGE IN DESIGN, CONSTRUCTION OPERATION, OR MAINTENANCE THAT HAS A SIGNIFICANT EFFECT ON DISCHARGE OR NOT PREVIOUSLY ASSESSED IN THE SWPPP.

20. THE SWPPP SHALL BE MODIFIED BY THE CONTRACTOR WITHIN 15 BUSINESS DAYS IF IT IS DETERMINED THAT DISCHARGE IS CAUSING OR CONTRIBUTING TO WATER QUALITY EXCEEDENCES OR THE SWPPP IS INEFFECTIVE.

EROSION CONTROL MEASURES

ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS ESTABLISHED HEREIN.

STRUCTURAL PRACTICES

1. SILT FENCE BARRIER: SILT FENCE SEDIMENT BARRIERS WILL BE INSTALLED DOWNSLOPE OF AREAS WITH MINIMAL GRADES TO FILTER SEDIMENT LADEN RUNOFF FROM SHEET FLOW AS INDICATED ON THE PLANS.

2. A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE INSTALLED WHERE THE ACCESS AREA INTERSECTS WITH EXISTING ROADS DURING MUDDY CONDITIONS. DRIVERS OF CONSTRUCTION VEHICLES WILL BE REQUIRED TO WASH THEIR WHEELS BEFORE ENTERING THE HIGHWAY.

3. STORM DRAIN INLET & SPILLWAY PROTECTION: ALL STORM SEWER INLETS AND SPILLWAYS SHALL BE PROTECTED DURING CONSTRUCTION. SEDIMENT-LADEN WATER SHALL BE FILTERED BEFORE ENTERING THE STORM SEWER INLETS AND CULVERTS.

VEGETATIVE PRACTICES

1. TOP SOILING (STOCKPILE) TOPSOIL WILL BE STRIPPED FROM AREAS TO BE GRADED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATIONS ARE TO BE STABILIZED WITH TEMPORARY VEGETATION. PRIOR TO LAND DISTURBING ACTIVITIES, THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION & SEDIMENT PLAN TO THE CITY OF FLAGSTAFF COVERING THE STOCKPILE AREA WHICH MAY HAVE TO BE APPROVED BY THE PLAN APPROVING AUTHORITY BEFORE ANY ACTIVITY COMMENCES.

2. TEMPORARY SEEDING ALL DENUDED AREAS WHICH WILL BE LEFT DORMANT FOR EXTENDED PERIODS OF TIME SHALL BE SEEDED WITH FAST GERMINATING TEMPORARY VEGETATION IMMEDIATELY FOLLOWING GRADING. SELECTION OF THE SEED MIXTURE WILL DEPEND ON THE TIME OF YEAR IT IS APPLIED.

3. GRASS AREAS THAT ARE DISTURBED DURING CONSTRUCTION SHALL BE REPLACED WITH SOD BY THE CONTRACTOR. THE SOD GRASS TYPE SHALL MATCH THE EXISTING AND SHALL BE MAINTAINED BY THE CONTRACTOR UNTIL THE SOD IS STABILIZED.

GENERAL NOTES FOR EROSION CONTROL

1. A STANDBY CREW FOR EMERGENCY WORK SHALL BE AVAILABLE AT ALL TIMES DURING THE RAINY SEASON. NECESSARY MATERIALS SHALL BE AVAILABLE ON SITE AND STOCKPILED AT CONVENIENT LOCATIONS TO FACILITATE RAPID CONSTRUCTION OF TEMPORARY DEVICES OR TO REPAIR ANY DAMAGED EROSION CONTROL MEASURES, ESPECIALLY WHEN RAIN IS IMMINENT.

2. DEVICES SHALL NOT BE MOVED OR MODIFIED WITHOUT APPROVAL OF THE INSPECTOR.

3. ALL PROTECTIVE DEVICES SHOWN SHALL BE IN PLACE AT THE END OF EACH DAY.

4. AFTER A RAIN STORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM CHECK BERMS AND DESILTING BASINS. ANY GRADED SLOPE SURFACE PROTECTION MEASURE DAMAGED DURING A RAIN STORM SHALL BE IMMEDIATELY REPAIRED.

5. FILL SLOPES AT THE CONSTRUCTION SITE PERIMETER MUST DRAIN AWAY FROM THE TOPS OF THE SLOPES AT THE END OF EACH DAY.

6. A COPY OF THE PROJECTS STORM WATER POLLUTION PROTECTION PLAN (SWPPP) SHALL BE MAINTAINED AT THE CONSTRUCTION SITE AND ALWAYS AVAILABLE FOR REVIEW.

7. PROTECT ALL STORM DRAINAGE STRUCTURES FROM SEDIMENT CLOGGING BY PROVIDING INLET PROTECTION AT ALL OPENINGS.

8. AVOID PAVING DURING WET WEATHER.

9. STORE MATERIALS AWAY FROM DRAINAGE COURSES TO PREVENT CONTACT WITH STORM WATER.

10. PLACE DRIP PANS OR ABSORBENT MATERIALS UNDER CONSTRUCTION EQUIPMENT WHEN NOT IN USE.

11. CLEAN UP SPILLS WITH ABSORBENT MATERIALS.

12. OLD ASPHALT MUST BE DISPOSED OF PROPERLY.

13. KEEP WORK SITE CLEAN AND ORDERLY DAILY.

14. PROPERLY STORE PAINTS AND SOLVENTS.

15. PERMANENTLY MARK STORM DRAIN STRUCTURES IN A MANNER APPROVED BY THE CONSTRUCTION INSPECTOR TO MINIMIZE INADVERTENT DISPOSAL OF RESIDUAL PAINTS, SOLVENTS, OR ANY OTHER POLLUTANT.

16. ALLOW MATERIAL DELIVERY AND STORAGE ONLY IN DESIGNATED AREAS AND AVOID TRANSPORT NEAR DRAINAGE PATHS AND WATERWAYS.

17. MINIMIZE THE USE OF HAZARDOUS MATERIALS ON SITE.

18. CLEAN UP LEAKS AND SPILLS IMMEDIATELY.

19. USE WATERTIGHT DUMPSTERS FOR TRASH AND CONSTRUCTION WASTE.

20. COLLECT SITE TRASH AS NEEDED, ESPECIALLY DURING RAINY OR WINDY CONDITIONS.

21. ARRANGE FOR REGULAR WASTE COLLECTION BEFORE CONTAINERS OVERFLOW.

22. DO NOT ALLOW BRUSHES OR PAINT CONTAINERS TO BE CLEANED OUT IN THE DIRT, STREET, GUTTER, OR STORM DRAINS.

23. STORE AND COVER DRY AND WET MATERIALS FROM CONCRETE PLACEMENT AWAY FROM DRAINAGE AREAS.

24. PERFORM WASHOUT OF CONCRETE TRUCKS IN DESIGNATED AREAS ONLY. WASHOUT AREAS SHALL BE AWAY FROM STORM DRAINS, OPEN DITCHES, OR STREETS.

25. TEMPORARY SANITARY FACILITIES SHALL BE MAINTAINED IN GOOD WORKING ORDER BY A LICENSED SERVICE.

26. CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING HIS PLAN THROUGHOUT CONSTRUCTION AND INDICATE ANY AND ALL REVISIONS / UPDATES ON THIS PLAN.

27. CONTRACTOR SHALL CONDUCT HIS OPERATIONS IN SUCH A MANNER THAT STORM WATER WILL BE CONTAINED WITHIN THE PROJECT OR CHANNELED INTO THE STORM DRAIN SYSTEM PROVIDED THAT IT IS FREE FROM POLLUTANTS AND DEBRIS.

28. CITY APPROVAL OF PLANS DOES NOT RELIEVE THE DEVELOPER FROM CORRECTING ERRORS OR OMISSIONS DISCOVERED DURING CONSTRUCTION. CONFORMANCE WITH THE REQUIREMENTS OF THIS PLAN SHALL IN NO WAY RELIEVE THE DEVELOPER FROM HIS RESPONSIBILITIES TO THE SITE AND ADJACENT PROPERTIES. TEMPORARY EROSION CONTROL SHALL CONSIST OF, BUT NOT BE LIMITED TO, CONSTRUCTING SUCH FACILITIES AND TAKING SUCH MEASURES AS ARE NECESSARY TO PREVENT, CONTROL AND ABATE WATER, MUD AND EROSION DAMAGE TO PUBLIC AND PRIVATE PROPERTY AS A RESULT OF THE CONSTRUCTION OF THIS PROPERTY.

29. CLEARING AND GRUBBING SHOULD BE LIMITED TO AREAS THAT WILL RECEIVE IMMEDIATE GRADING. EROSION CONTROL MEASURES WILL BE REQUIRED TO PROTECT AREAS WHICH HAVE BEEN CLEARED AND GRUBBED. THESE MEASURES MAY INCLUDE BUT NOT BE LIMITED TO: GRADED DITCHES, SAND OR GRAVEL BAGS, BARRIERS AND SILT FENCING. CARE SHALL BE EXERCISED TO PRESERVE VEGETATION BEYOND LIMITS OF GRADING AND PREVENT SEDIMENT DISCHARGE WHILE CONSTRUCTION IN THIS AREA IS ACTIVE.

30. SEDIMENT CONTROL SHALL BE USED AT THE TOE OF ANY ERODIBLE SLOPE.

31. CONTRACTOR SHALL IMMEDIATELY RESTORE ANY DAMAGED EROSION CONTROL MEASURE WITHIN THE PROJECT BOUNDARY.

32. FACES OF FINISHED CUT AND FILL SLOPES SHALL BE PREPARED AND MAINTAINED TO CONTROL AGAINST EROSION. THESE PERMANENT CONTROL MEASURES MAY CONSIST OF ADEQUATE SEEDING, PLANTING AND JUTE MATTING. THE PROTECTION FOR THE SLOPES SHALL BE INSTALLED AS SOON AS PRACTICABLE AND PRIOR TO CALLING FOR FINAL APPROVAL.

33. AFTER A RAIN STORM, ALL SILT AND DEBRIS SHALL BE REMOVED FROM STREETS, CHECK BERMS AND BASINS.

34. CONTRACTOR / SUBCONTRACTOR TRAINING IN SEDIMENT AND EROSION CONTROL IN ACCORDANCE WITH AZPDES.

35. THE PERMITTEE AND CONTRACTOR SHALL BE RESPONSIBLE, AND TAKE NECESSARY PRECAUTIONS, TO PREVENT PUBLIC TRESPASS ONTO AREAS WHERE IMPOUNDED WATER CREATES A HAZARDOUS CONDITION.

36. ALL DISTRUBED AREAS SHALL BE HYDROSEEDED IN ACCORDANCE WITH CITY OF FLAGSTAFF ENGINEERING STANDARDS SECTION 13-17. A REVEGETATION PLAN WILL BE REQUIRED TO BE IMPLEMENTED AND PROVED SUCCESSFUL PRIOR TO PROJECT CLOSEOUT. CONTRACTOR SHALL PROVIDE 70% SUCCESSFUL REGROWTH PER ADEQ PERMANENT STABILIZATION REQUIREMENTS FOR ALL AREAS DISTURBED DURING CONSTRUCTION. SOIL CONDITIONERS AND WATERING ARE REQUIRED IN ACCORDANCE WITH 13-17-002-004 AND 13-17-002-0005.6.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL CONFORM TO MAG STANDARDS, AZPDES STANDARDS AND SPECIFICATIONS AND GENERALLY ACCEPTED CONSTRUCTION PRACTICE.

2. THESE PLANS REPRESENT A REASONABLE EFFORT TO IMPLEMENT THE MOST CURRENT BEST MANAGEMENT PRACTICES (BMPS) IN MITIGATING STORM WATER POLLUTION DURING CONSTRUCTION. THE EFFECTIVENESS OF THE MITIGATION MEASURES DEPICTED IN THESE PLANS DEPEND IN PART ON PROPER INSTALLATION, IMPLEMENTATION, MAINTENANCE, AND REPAIR OF THE DEVICES SELECTED.

MAINTENANCE:

IN GENERAL, ALL EROSION & SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. REFER TO THE ATTACHED EROSION & SEDIMENT CONTROL STANDARD NOTES FOR DETAILED MAINTENANCE AND REVEGATATION / STABILIZATION REQUIREMENTS.

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TEMPORARY CONCRETE WASHOUT FACILITY NOTES

1. CONTRACTOR TO DESIGNATE EQUIP./MATERIAL STORAGE SITE AND CONCRETE WASHOUT AS PART OF SWPPP PRIOR TO START OF CONSTRUCTION.

2. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BE LOCATED A MINIMUM OF 50 FEET FROM STORM DRAIN INLETS, OPEN DRAINAGE FACILITIES AND WATERCOURSES, UNLESS DETERMINED UNFEASIBLE BY ENGINEER. EACH FACILITY SHALL BE LOCATED AWAY FROM CONSTRUCTION TRAFFIC OR ACCESS AREAS TO PREVENT DISTURBANCE OR TRACKING.

3. TEMPORARY CONCRETE WASHOUT FACILITIES SHALL HAVE A TEMPORARY PIT (BELOW GRADE) OR BERMED AREA (ABOVE GRADE) OF SUFFICIENT VOLUME TO COMPLETELY CONTAIN ALL LIQUID AND WASTE CONCRETE MATERIALS GENERATED DURING WASHOUT PROCEDURES. IF LOCATED ABOVE GRADE, THE WASHOUT AREA SHALL BE LINED WITH AN IMPERMEABLE MATERIAL.

4. ONCE CONCRETE WASTES ARE WASHED INTO THE DESIGNATED AREA AND ALLOWED TO HARDEN, THE CONCRETE SHALL BE BROKEN UP, REMOVED AND DISPOSED OF PER BMP "SOLID WASTE MANAGEMENT."

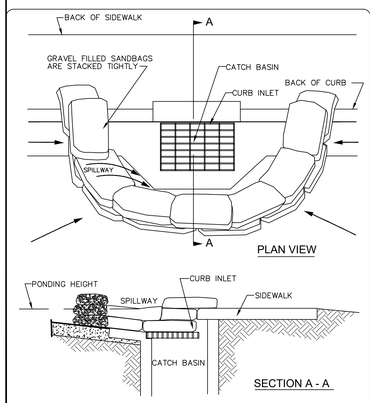
5. WHEN TEMPORARY CONCRETE WASHOUT FACILITIES ARE NO LONGER REQUIRED FOR THE WORK, AS DETERMINED BY THE ENGINEER, THE HARDENED CONCRETE SHALL BE REMOVED AND PROPERLY DISPOSED OF. MATERIALS USED TO CONSTRUCT TEMPORARY CONCRETE WASHOUT FACILITIES SHALL BECOME THE PROPERTY OF THE CONTACTOR, SHALL BE REMOVED THE SITE OF THE WORK AND SHALL BE DISPOSED OF OUTSIDE THE HIGHWAY RIGHT-OF-WAY.

6. HOLE, DEPRESSIONS OR OTHER GROUND DISTURBANCE CAUSED BY THE REMOVAL OF THE FACILITIES SHALL BE BACKFILLED AND REPAIRED.

7. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30 FT OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

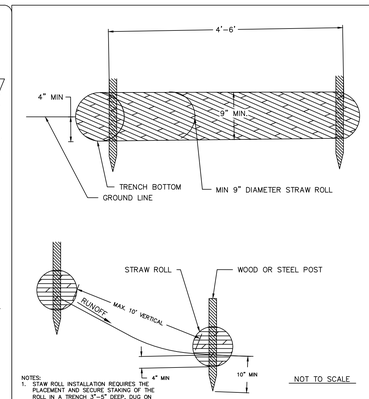
CONSTRUCTION SEQUENCE

1. INSTALL INLET PROTECTION
2. PAVEMENT REMOVAL AND INSTALL HAY BALES
3. INSTALL CONSTRUCTION ENTRANCES
4. DRAINAGE INFRASTRUCTURE/UTILITIES
5. SITE CONSTRUCTION
6. PERMANENT REVEGETATION/SLOPE STABILIZATION
7. SCHEDULED MONITORING AND MAINTENANCE



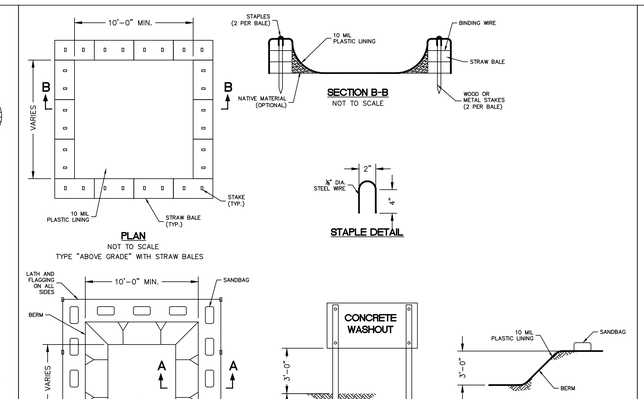
NOTES:
1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. SANDBAGS, OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC, ARE FILLED WITH GRAVEL, LAYERED AND PACKED TIGHTLY.
3. LEAVE ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB INLET SEDIMENT BARRIER (SANDBAGS)

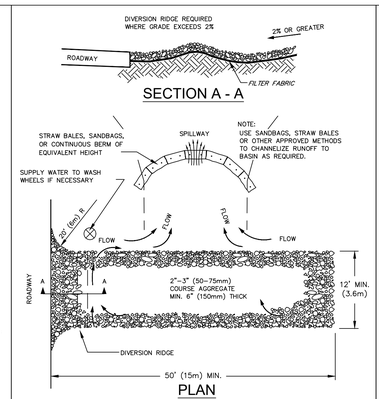


NOTES:
1. STRAW ROLL INSTALLATION REQUIRES THE PLACEMENT AND SECURE STAKING OF THE ROLL IN A TRENCH 3"-5" DEEP, DUG ON CONTOUR. RUNOFF MUST NOT BE ALLOWS TO RUN UNDER OR AROUND ROLL.

STRAW ROLL STAKED IN TRENCH

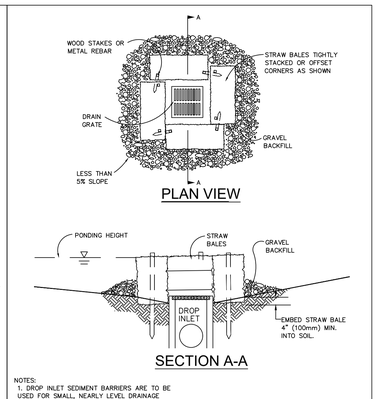


CONCRETE WASHOUT DETAILS



NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT



NOTES:
1. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS. (LESS THAN 5%)
2. EMBED THE BALES 4" (100mm) INTO THE SOIL AND OFFSET CORNERS OR PLACE BALES WITH ENDS TIGHTLY ABUTTING. GRAVEL BACKFILL WILL PREVENT EROSION OR FLOW AROUND THE BALES.
3. THE TOP OF THE STRUCTURE (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BYPASSING THE INLET. EXCAVATION OF A BASIN ADJACENT TO THE DROP INLET OR A TEMPORARY DIKE ON THE DOWNSLOPE OF THE STRUCTURE MAY BE NECESSARY.

STRAW BALE/GRAVEL DROP INLET SEDIMENT BARRIER

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EROSION CONTROL NOTES & DETAILS

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