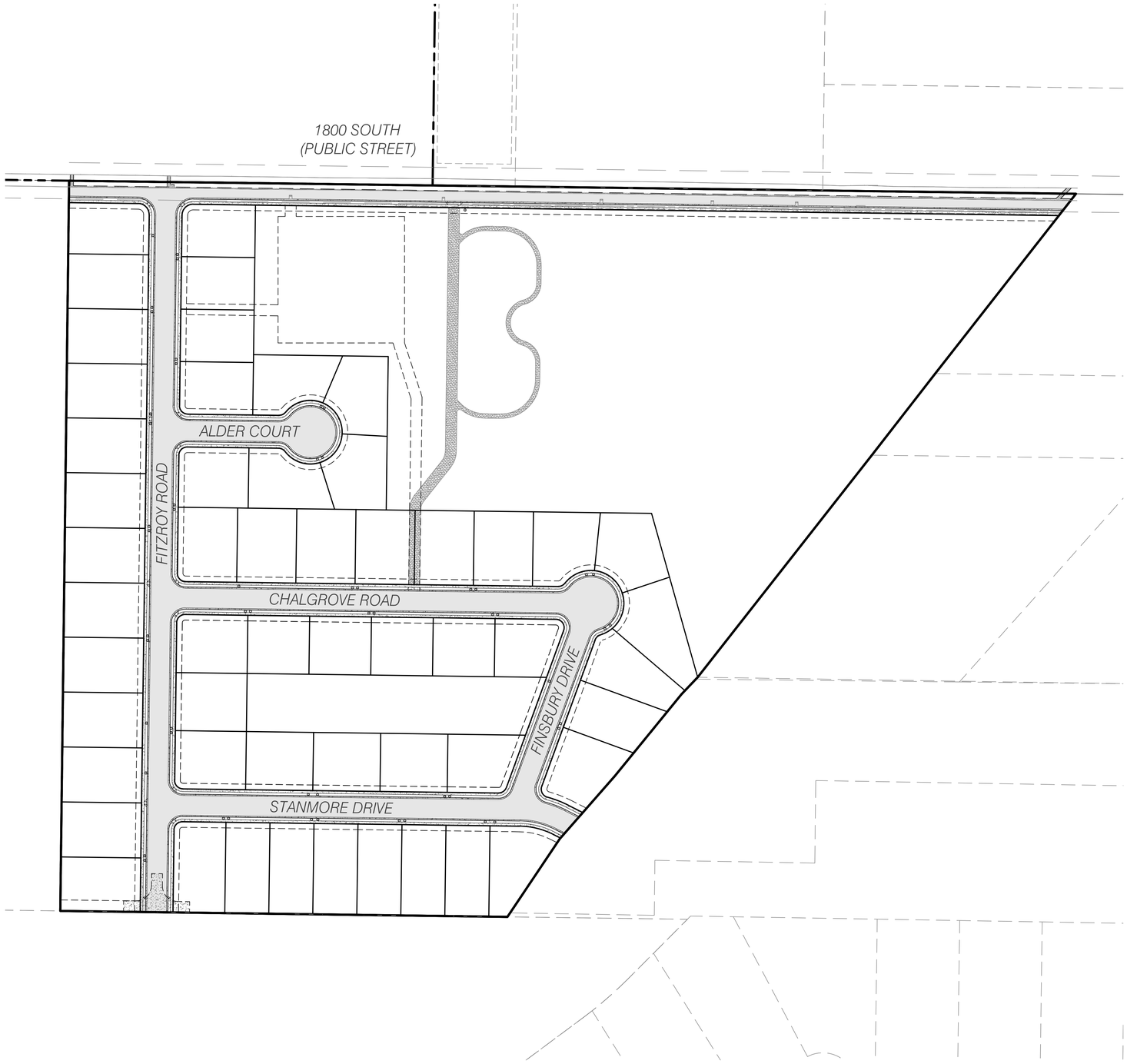
WINSTON PARK

LOCATED IN THE NORTHEAST QUARTER OF SECTION 28,
TOWNSHIP 6 NORTH NORTH, RANGE 2 WEST,
SALT LAKE BASE AND MERIDIAN
WEBER COUNTY, UTAH

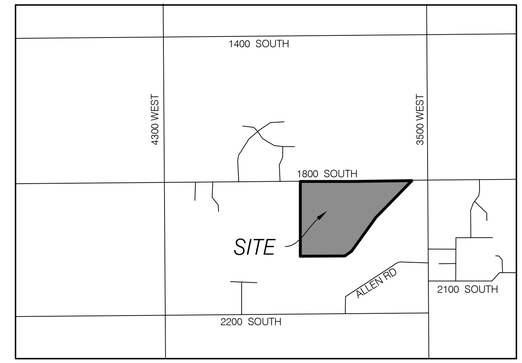


NORTH

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)
1 inch =100 ft.



VICINITY MAP
N.T.S

PRELIMINARY DRAWING INDEX

PRELIMINARY
CIVIL CONSTRUCTION PLANS

OWNER: IGOR MAKSYMIW
EMAIL: igormaksymiw@aol.com

BENCHMARK CIVIL

PRELIMINARY PLAN
PROFESSIONAL ENGINEER
3/23/21
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH
NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE # 100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

WINSTON PARK
3701 W 1800 S
WEBER COUNTY, UTAH

DRAFT: JHO	DESIGN: TJB	CHECK: AGA
DATE: 09/02/2020	DATE: 03/12/2021	DATE: 03/12/2021

No.	DATE	DESCRIPTION
1	03/25/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

PROJECT NO: 2006142

COVER

Blue Stakes of UTAH 811 Bluestakes.org

BENCHMARK ENGINEERING CONTACT: ALLISON G. ALBERT, PE

LINETYPES:

NEW / EXISTING

- SECTION LINE
- PROPERTY LINE
- ADJACENT PL or LOT LINES
- RIGHT-OF-WAY LINE
- CENTERLINE of ROAD
- EASEMENT LINE
- CURB & GUTTER
- EDGE OF ASPHALT
- FENCE / WALL, STONE
- FENCE, BLOCK
- FENCE, BRICK
- FENCE, CHAIN
- FENCE, IRON
- FENCE, VINYL
- FENCE, WIRE
- FENCE, WOOD
- INDEX CONTOUR LINE (4475)
- INTERMEDIATE CONTOUR LINE
- SPOT ELEVATION (XX.XX TOC)
- SANITARY SEWER LINE (SS)
- STORM DRAIN LINE (SD)
- WATER LINE (W)
- IRRIGATION LINE (IRR)
- OVERHEAD POWER LINE (OHP)
- UNDERGROUND POWER LINE (UG)
- GAS LINE (GAS)
- TELEPHONE LINE (T)
- CABLE TELEVISION LINE (CATV)
- DRAINAGE / DITCH CENTERLINE
- TREE LINE EDGE
- FIBER OPTIC LINE (FO)
- PROPOSED ASPHALT
- PROPOSED CONCRETE

SYMBOLS:

NEW / EXISTING

- SECTION CORNER (FOUND)
- SECTION CORNER (NOT FOUND)
- STREET MONUMENT (FOUND)
- STREET MONUMENT (NOT FOUND)
- BRASS CAP MONUMENT
- POWER POLE & OVERHEAD POWER
- LIGHT POLE
- GUY WIRE
- TELEPHONE MANHOLE
- SANITARY SEWER MANHOLE
- STORM DRAIN MANHOLE
- CATCH BASIN
- DIRECTION OF DRAINAGE
- WATER MANHOLE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- IRRIGATION VALVE
- GAS MANHOLE
- TREE

ABBREVIATIONS

BC	BAR & CAP
BOW	BOTTOM OF VISIBLE WALL
COR.	SECTION CORNER
CB	CATCH BASIN
CF	CUBIC FEET
D	DELTA ANGLE
EG	EXISTING GROUND
EOA	EDGE OF ASPHALT
EOC	EDGE OF CONCRETE
EX	EXISTING
FFE	FINISH FLOOR ELEVATION
FG	FINISHED GRADE
FH	FIRE HYDRANT
FL	FLOW LINE
GB	GRADE BREAK
GW	GUY WIRE
HW	HEAD WALL
I.E.	INVERT ELEVATION
LIP	LENGTH OF CURVE
L	LIP OF CURB
LF	LINEAR FEET
LP	LOW POINT
M-M	MONUMENT TO MONUMENT
MH	MANHOLE
MON.	SURVEY MONUMENT
OHP	OVERHEAD POWER
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
PP	POWER POLE
PT	POINT OF TANGENCY
PUE	PUBLIC UTILITY EASEMENT
R	RADIUS OF CURVE
RR	RAILROAD
ROW	RIGHT-OF-WAY
R/W	RIGHT-OF-WAY
SMH	SEWER MANHOLE
SD	STORM DRAIN
SF	SQUARE FEET
TBC	TOP BACK OF CURB
TMH	TELEPHONE MANHOLE
TOA	TOP OF ASPHALT
TOC	TOP OF CONCRETE
TOF	TOP OF FOOTING
TOE	TOE OF SLOPE
TOG	TOP OF GRATE
TOP	TOP OF SLOPE
TOW	TOP OF WALL
TR	TELEPHONE RISER
UGP	UNDERGROUND POWER
VPC	VERTICAL POINT OF CURVATURE
VPI	VERTICAL POINT INTERSECTION
VPT	VERTICAL POINT OF TANGENCY
WM	WATER METER
WV	WATER VALVE

NOTE:

IN THE EVENT THAT THE CONSTRUCTION NOTES CONFLICT WITH RESPONSIBLE DISTRICT OR AGENCY STANDARDS NOTES AND SPECIFICATIONS, THE DISTRICT OR AGENCY STANDARD NOTES AND SPECIFICATIONS GOVERN.

CAUTION NOTICE TO CONTRACTORS

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 48 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

THE CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY: THAT THIS REQUIREMENT SHALL APPLY CONTINUOUSLY AND NOT BE LIMITED TO THE NORMAL WORKING HOURS; AND THE CONTRACTOR SHALL DEFEND, INDEMNIFY, AN HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING FOR LIABILITY ARISING FROM SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

CONSTRUCTION NOTES

RESPONSIBLE DISTRICTS OR AGENCIES AND APPLICABLE STANDARDS
CITY OR COUNTY- WEBER COUNTY
WATER UTILITY COMPANY- TAYLOR WEST WEBER WATER DISTRICT
SECONDARY WATER- HOOPER IRRIGATION
SEWER- WEBER COUNTY
STORM DRAIN/GROUNDWATER- WEBER COUNTY
ELECTRICAL- ROCKY MOUNTAIN POWER
TELEPHONE- CENTURY LINK
NATURAL GAS- DOMINION ENERGY

APPLICABLE STANDARDS: APWA 2017 STANDARDS
TAYLOR-WEST WEBER WATER IMPROVEMENT DISTRICT STANDARD DRAWINGS & SPECIFICATIONS

GENERAL

1. ALL MATERIALS AND CONSTRUCTION IN THE PUBLIC RIGHT OF WAY SHALL BE IN ACCORDANCE WITH RESPONSIBLE DISTRICT OR AGENCY.

2. CONTRACTOR AND APPLICABLE SUBCONTRACTORS SHALL ATTEND ALL PRE-CONSTRUCTION CONFERENCES AND PERIODIC PROGRESS MEETINGS. PRIOR TO ANY WORK BEING PERFORMED, THE CONTRACTOR SHALL CONTACT RESPONSIBLE DISTRICT OR AGENCY FOR A PRE-CONSTRUCTION CONFERENCE. CONTRACTOR SHALL ALSO NOTIFY THE APPROPRIATE PROJECT CONTACTS (48) HOURS IN ADVANCE OF SAID MEETING.

3. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PUBLIC SAFETY AND OSHA STANDARDS.

4. THE CONTRACTOR SHALL FAMILIARIZE HIM/HER SELF WITH THE PLANS, THE GEOLOGY REPORTS AND THE SITE CONDITIONS PRIOR TO COMMENCING WORK. CONTRACTOR SHALL INSPECT THE SITE OF WORK PRIOR TO BIDDING TO SATISFY THEMSELVES BY PERSONAL EXAMINATION OR BY SUCH OTHER MEANS AS THEY MAY PREFER, OF THE LOCATION OF THE PROPOSED WORK, AND OF THE ACTUAL CONDITIONS OF AND AT THE SITE OF WORK.

CONDITIONS WHICH APPEAR TO THEM TO BE IN CONFLICT WITH THE LETTER OR SPIRIT OF THE PROJECT PLANS AND SPECIFICATIONS, THEY SHALL CONTACT THE ENGINEER FOR ADDITIONAL INFORMATION AND EXPLANATION BEFORE SUBMITTING THEIR BID.

SUBMISSION OF A BID BY THE CONTRACTOR SHALL CONSTITUTE ACKNOWLEDGMENT THAT, IF AWARDED THE CONTRACT, THEY HAVE RELIED AND ARE RELYING ON THEIR OWN EXAMINATION OF (1) THE SITE OF THE WORK, (2) ACCESS TO THE SITE, AND (3) ALL OTHER DATA AND MATTERS REQUISITE TO THE FULFILLMENT OF THE WORK AND ON THEIR OWN KNOWLEDGE OF EXISTING FACILITIES ON AND IN THE VICINITY OF THE SITE OF THE WORK TO BE CONSTRUCTED UNDER THIS CONTRACT.

THE INFORMATION PROVIDED BY THE OWNER OR THE ENGINEER IS NOT INTENDED TO BE A SUBSTITUTE FOR, OR A SUPPLEMENT TO, THE INDEPENDENT VERIFICATION BY THE CONTRACTOR TO THE EXTENT SUCH INDEPENDENT INVESTIGATION OF SITE CONDITIONS IS DEEMED NECESSARY OR DESIRABLE BY THE CONTRACTOR. CONTRACTOR SHALL ACKNOWLEDGE THAT THEY HAVE NOT RELIED SOLELY UPON OWNER OR ENGINEER FURNISHED INFORMATION REGARDING SITE CONDITIONS IN PREPARING AND SUBMITTING THEIR BID.

5. ALL WORK SHALL COMPLY WITH THE AMERICAN PUBLIC WORKS ASSOCIATION UTAH CHAPTER (APWA) MANUAL OF STANDARD SPECIFICATIONS 2017 EDITION AND THE MANUAL OF STANDARD PLANS 2017 EDITION. SAID STANDARD SPECIFICATIONS AND PLANS SHALL BE SUBSIDIARY TO MORE STRINGENT REQUIREMENTS BY APPLICABLE LOCAL JURISDICTION.

6. THE CONTRACTOR SHALL BE SKILLED AND REGULARLY ENGAGED IN THE GENERAL CLASS AND TYPE OF WORK CALLED FOR IN THE PROJECT PLANS AND SPECIFICATIONS. THEREFORE, THE OWNER IS RELYING UPON THE EXPERIENCE AND EXPERTISE OF THE CONTRACTOR, IT SHALL BE EXPECTED THAT THE PRICES PROVIDED WITHIN THE CONTRACT DOCUMENTS SHALL INCLUDE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE.

THE CONTRACTOR SHALL BE COMPETENT, KNOWLEDGEABLE AND HAVE SPECIAL SKILLS ON THE NATURE, EXTENT AND INHERENT CONDITIONS OF THE WORK TO BE PERFORMED. CONTRACTOR SHALL ALSO ACKNOWLEDGE THAT THERE ARE CERTAIN REGULAR AND INHERENT CONDITIONS EXISTENT IN THE CONSTRUCTION OF THE PARTICULAR FACILITIES WHICH MAY CREATE, DURING THE CONSTRUCTION PROGRAM, UNUSUAL OR PECULIAR UNSAFE CONDITIONS HAZARDOUS TO PERSONS, PROPERTY AND THE ENVIRONMENT. CONTRACTOR SHALL BE AWARE OF SUCH PECULIAR RISKS AND HAVE THE SKILL AND EXPERIENCE TO FORESEE AND TO ADOPT PROTECTIVE MEASURES TO ADEQUATELY AND SAFELY PERFORM THE CONSTRUCTION WORK WITH RESPECT TO SUCH HAZARDS.

7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL PERMITS AND LICENSES REQUIRED FOR THE CONSTRUCTION AND COMPLETION OF THE PROJECT, AND SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS AND CONDITIONS OF ALL PERMITS AND APPROVALS APPLICABLE TO THIS PROJECT. THE CONTRACTOR SHALL ENSURE THAT THE NECESSARY RIGHT-OF-WAY, EASEMENTS, AND/OR PERMITS ARE SECURED PRIOR TO CONSTRUCTION. CONTRACTOR SHALL OBTAIN APPROPRIATE PERMITS WHERE APPLICABLE FOR ANY WORK DONE WITHIN RIGHT-OF-WAY OR EASEMENTS FROM THE CITY AND/OR UDOT. CONTRACTOR SHALL NOTIFY CITY, COUNTY, AND/OR STATE, 24 HOURS IN ADVANCE OF COMMUNICATING THE WORK, OR AS REQUIRED BY SAID PERMITS.

8. CONSTRUCTION STAKING FOR GRADING, CURB, GUTTER, SIDEWALK, SANITARY SEWER, STORM DRAIN, WATER, AND ELECTROLIERS SHALL BE DONE BY THE OWNER'S SURVEYOR. THE CONTRACTOR SHALL NOTIFY THE SURVEYOR FORTY-EIGHT (48) HOURS IN ADVANCE OF THE NEED FOR STAKING. ANY STAKING REQUESTED BY THE CONTRACTOR OR THEIR SUBCONTRACTORS THAT IS ABOVE AND BEYOND STANDARD STAKING NEEDS, WILL BE SUBJECT TO AN EXTRA WORK BACK CHARGE TO THE CONTRACTOR. THE CONTRACTOR SHALL EXERCISE DUE CAUTION AND SHALL CAREFULLY PRESERVE BENCH MARKS, CONTROL POINTS, REFERENCE POINTS AND ALL SURVEY STAKES, AND SHALL BEAR ALL EXPENSES FOR REPLACEMENT AND/OR ERRORS CAUSED BY THEIR UNNECESSARY LOSS OR DISTURBANCE.

9. IT IS INTENDED THAT THESE PLANS AND SPECIFICATIONS REQUIRE ALL LABOR AND MATERIALS NECESSARY AND PROPER FOR THE WORK CONTEMPLATED AND THAT THE WORK BE COMPLETED IN ACCORDANCE WITH THEIR TRUE INTENT AND PURPOSE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY REGARDING ANY DISCREPANCIES OR AMBIGUITIES WHICH MAY EXIST IN THE PLANS OR SPECIFICATIONS. THE ENGINEER'S INTERPRETATION THEREOF SHALL BE CONCLUSIVE. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ANY FIELD CHANGES MADE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM THE OWNER AND/OR ENGINEER.

10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADEQUATELY SCHEDULING INSPECTION AND TESTING OF ALL FACILITIES CONSTRUCTED UNDER THIS CONTRACT. ALL TESTING SHALL CONFORM TO THE REGULATORY AGENCY'S STANDARD SPECIFICATIONS. ALL TESTING AND INSPECTION SHALL BE PAID FOR BY THE OWNER; ALL RE-TESTING AND/OR REINSPECTION SHALL BE PAID FOR BY THE CONTRACTOR.

11. IF EXISTING IMPROVEMENTS NEED TO BE DISTURBED AND/OR REMOVED FOR THE PROPER PLACEMENT OF IMPROVEMENTS TO BE CONSTRUCTED BY THESE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING EXISTING IMPROVEMENTS FROM DAMAGE. COST OF REPLACING OR REPAIRING EXISTING IMPROVEMENTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEMS REQUIRING REMOVAL AND/OR REPLACEMENT OF EXISTING IMPROVEMENTS AND ANYTHING THAT HAS ALREADY BEEN CONSTRUCTED. THERE WILL BE NO EXTRA COST DUE THE CONTRACTOR FOR REPLACING OR REPAIRING EXISTING IMPROVEMENTS. WHENEVER EXISTING FACILITIES ARE REMOVED, DAMAGED, BROKEN, OR CUT IN THE INSTALLATION OF THE WORK COVERED BY THESE PLANS OR SPECIFICATIONS, SAID FACILITIES SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE, AFTER PROPER BACKFILLING AND/OR CONSTRUCTION, WITH MATERIALS EQUAL TO OR BETTER THAN THE MATERIALS USED IN THE ORIGINAL EXISTING FACILITIES. THE FINISHED PRODUCT SHALL BE SUBJECT TO THE APPROVAL OF THE OWNER, THE ENGINEER, AND THE RESPECTIVE REGULATORY AGENCY.

12. THE CONTRACTOR SHALL MAINTAIN A NEATLY MARKED SET OF FULL-SIZE AS-BUILT RECORD DRAWINGS SHOWING THE FINAL LOCATION AND LAYOUT OF ALL MECHANICAL; ELECTRICAL AND INSTRUMENTATION EQUIPMENT; PIPING AND CONDUITS; STRUCTURES AND OTHER FACILITIES. THE AS-BUILTS OF THE ELECTRICAL SYSTEM SHALL INCLUDE THE STREET LIGHT LAYOUT PLAN SHOWING LOCATION OF LIGHTS, CONDUITS, CONDUCTORS, POINTS OF CONNECTIONS TO SERVICES, PULLBOXES, AND WIRE SIZES. AS-BUILT RECORD DRAWINGS SHALL REFLECT CHANGE ORDERS, ACCOMMODATIONS, AND ADJUSTMENTS TO ALL IMPROVEMENTS CONSTRUCTED. WHERE NECESSARY, SUPPLEMENTAL DRAWINGS SHALL BE PREPARED AND SUBMITTED BY THE CONTRACTOR.

13. PRIOR TO ACCEPTANCE OF THE PROJECT, THE CONTRACTOR SHALL DELIVER TO ENGINEER. ONE SET OF NEATLY MARKED AS-BUILT RECORD DRAWINGS SHOWING THE INFORMATION REQUIRED ABOVE. AS-BUILT RECORD DRAWINGS SHALL BE REVIEWED AND THE COMPLETE AS-BUILT RECORD DRAWING SET SHALL BE CURRENT WITH ALL CHANGES AND DEVIATION REDLINES AS A PRECONDITION TO THE FINAL PROGRESS PAYMENT APPROVAL AND/OR FINAL ACCEPTANCE.

UTILITIES

14. CONTRACTOR TO SPACE UTILITIES TO PROVIDE MINIMUM DISTANCES AS REQUIRED BY LOCAL, COUNTY, STATE, AND INDIVIDUAL UTILITY CODES.

15. ALL UTILITES INSTALLED IN ACCORDANCE WITH THE RESPONSIBLE DISTRICTS OR AGENCIES STANDARDS AND SPECIFICATIONS.

16. COORDINATE ALL SERVICE LATERAL AND BUILDING CONNECTIONS WITH CORRESPONDING ARCHITECTURAL, MECHANICAL OR ELECTRICAL DRAWING FOR LOCATION AND ELEVATION. NOTIFY ENGINEER IMMEDIATELY IF ANY DISCREPANCIES ARE ENCOUNTERED.

17. ALL STORM DRAIN MANHOLES AND CATCH BASINS ARE TO BE PRECAST CONCRETE FROM APPROVED LOCAL MANUFACTURER UNLESS OTHERWISE NOTED. AND COMPLY WITH CITY/COUNTY STANDARD

18. ALL STORM WATER CONVEYANCE PIPING TO BE RCP - CLASS 3 OR ADS HDPE PIPE OR EQUAL UNLESS OTHERWISE NOTED. ALL PIPES WITHIN PUBLIC RIGHT-OF-WAY TO BE RCP CLASS 3.

19. ALL ELECTRICAL CONDUITS/LINES TO BE PVC SCH 40 OR BETTER.

20. ALL GAS LINES TO BE HDPE WITH COPPER TRACER WIRE AND DETECTA TAPE. TERMINATE TRACER WIRE AT APPROVED LOCATIONS.

21. ALL GAS LINE TAPS, VALVES AND CAPS TO BE FUSED USING ELECTRO - FUSION TECHNOLOGY.

22. ALL PHONE AND TV CONDUITS TO BE PVC SCH 40 OR BETTER.

23. NO GROUNDWATER OR DEBRIS TO BE ALLOWED TO ENTER THE NEW PIPE DURING CONSTRUCTION. THE OPEN END OF ALL PIPES IS TO BE COVERED AND EFFECTIVELY SEALED AT THE END OF EACH DAYS WORK.

24. THE CONTRACTOR SHALL PROVIDE ALL SHORING, BRACING, SLOPING OR OTHER PROVISIONS NECESSARY TO PROTECT WORKMEN FOR ALL AREAS TO BE EXCAVATED TO A DEPTH OF 4' OR MORE AND SHALL COMPLY WITH INDUSTRIAL COMMISSION OF UTAH SAFETY ORDERS SECTION 68 - EXCAVATIONS, AND SECTION 69 - TRENCHES, ALONG WITH ANY LOCAL CODES OR ORDINANCES.

25. PRIOR TO OPENING AN EXCAVATION, EFFORT SHALL BE MADE TO DETERMINE WHETHER UNDERGROUND INSTALLATIONS; I.E. SEWER, WATER, FUEL, ELECTRIC LINES, ETC., WILL BE ENCOUNTERED AND IF SO, WHERE SUCH UNDERGROUND INSTALLATIONS ARE LOCATED. WHEN THE EXCAVATION APPROACHES THE APPROXIMATE LOCATION OF SUCH AN INSTALLATION, THE EXACT LOCATION SHALL BE DETERMINED BY CAREFUL PROBING OR HAND DIGGING; AND, WHEN IT IS UNCOVERED, ADEQUATE PROTECTION SHALL BE PROVIDED FOR THE EXISTING INSTALLATION. ALL KNOWN OWNERS OF UNDERGROUND FACILITIES IN THE AREA CONCERNED SHALL BE ADVISED OF PROPOSED WORK AT LEAST 48 HOURS PRIOR TO THE START OF ACTUAL EXCAVATION.

26. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INSTALL PIPE OF ADEQUATE CLASSIFICATION WITH SUFFICIENT BEDDING TO MEET ALL REQUIREMENTS AND RECOMMENDATIONS FOR H-20 LOAD REQUIREMENTS.

27. ACTUAL CONNECTIONS TO EXISTING WATER LINES WILL NOT BE PERMITTED PRIOR TO THE COMPLETION OF STERILIZATION AND TESTING OF NEW WATER MAINS. ALL EXISTING WATER VALVES TO BE OPERATED UNDER THE DIRECTION OF THE CITY/COUNTY PUBLIC WORKS DEPARTMENT PERSONNEL ONLY.

28. ALL UNDERGROUND UTILITIES SHALL BE IN PLACE INSPECTED, TESTED, AND APPROVED BY AUTHORITIES HAVING JURISDICTION PRIOR TO INSTALLATION OF CURB, GUTTER, SIDEWALK, AND STREET PAVING.

29. CONSTRUCTION OF THE PRESSURIZED IRRIGATION SHALL BE IN ACCORDANCE WITH HOOPER IRRIGATION STANDARDS.

SEWER

30. ALL SEWER LINE TO BE FLUSHED, PRESSURE TESTED, VIDEO INSPECTED AND OTHERWISE TESTED IN ACCORDANCE WITH DISTRICT STANDARDS PRIOR TO PLACING IN SERVICE. GROUND WATER MUST BE ACCOUNTED FOR DURING TESTING.

31. ALL SEWER PIPES ARE TO BE SDR-35 PVC PIPE. SEWER MARKING TAPE MUST BE INSTALLED IN PIPE TRENCH.

32. SEWER MANHOLES, LATERALS AND CLEANOUTS TO BE INSTALLED PER RESPONSIBLE DISTRICT OR AGENCY STANDARDS. THE UNIT COST OF THE SEWER LATERAL INCLUDES CONNECTION TO THE SEWER MAIN. THE CLEANOUT RISER FOR EACH SERVICE SHALL BE INSTALLED BY THE CONTRACTOR.

33. DURING CONSTRUCTION OF THE SEWERLINE, WYES NEED TO BE INSTALLED FOR THE LATERALS. LATERALS ARE 4" AND NEED TO COME IN AT THE TOP OF THE PIPE WITH A WYE. (SEE RESPONSIBLE DISTRICT OR AGENCY STANDARDS)

WATER

34. CONSTRUCTION OF ALL CULINARY WATER FACILITIES SHALL CONFORM TO THE STANDARD DETAILS AND SPECIFICATIONS OF THE TAYLOR-WEST WEBER WATER IMPROVEMENT DISTRICT, A COPY OF WHICH MAY BE OBTAINED BY CONTACTING THE DISTRICT AT 801.731.1668.

35. THE TAYLOR-WEST WEBER WATER IMPROVEMENT DISTRICT SHALL BE NOTIFIED 48 HOURS IN ADVANCE OF ANY PRECONSTRUCTION MEETING OR ANY CONSTRUCTION ACTIVITY ON THE SITE.

EXISTING UTILITIES

36. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UTILITIES SHOWN OR NOT SHOWN. THE INFORMATION SHOWN ON THE PLANS WITH REGARDS TO THE EXISTING UTILITIES AND/OR IMPROVEMENTS WAS DERIVED FROM FIELD INVESTIGATION AND/OR RECORD INFORMATION. NO REPRESENTATION IS MADE AS TO THE ACCURACY OR COMPLETENESS OF SAID UTILITY INFORMATION. THE CONTRACTOR SHALL TAKE DUE PRECAUTIONARY MEASURES TO PROTECT THE FACILITIES SHOWN AND ANY OTHER FACILITIES NOT OF RECORD OR NOT SHOWN ON THESE PLANS. PRIOR TO CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO VERIFY ALL EXISTING IMPROVEMENTS AND TO EXPOSE ALL EXISTING UNDERGROUND UTILITIES RELATED TO THE PROJECT, INCLUDING BUT NOT LIMITED TO, SEWER, STORM DRAIN, WATER IRRIGATION, GAS, ELECTRICAL, ETC. AND SHALL NOTIFY THE ENGINEER IN WRITING FORTY-EIGHT (48) HOURS IN ADVANCE OF EXPOSING THE UTILITIES SO, THAT THE EXACT LOCATION AND ELEVATION CAN BE VERIFIED AND DOCUMENTED. THE COST ASSOCIATED TO PERFORM THIS WORK SHALL BE INCLUDED IN EITHER THE LUMP SUMP CLEARING COST OR IN THE VARIOUS ITEMS OF WORK. IF LOCATION AND/OR ELEVATION DIFFERS FROM THAT SHOWN ON THE DESIGN PLANS, PROVISIONS TO ACCOMMODATE NEW LOCATION BE MADE PRIOR TO CONSTRUCTION.

37. PRIOR TO COMMENCING ANY WORK, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HAVE EACH UTILITY COMPANY LOCATE, IN THE FIELD, THEIR MAIN AND SERVICE LINES. THE CONTRACTOR SHALL NOTIFY BLUE STAKES 48 HOURS IN ADVANCE OF PERFORMING ANY EXCAVATION WORK THE CONTRACTOR SHALL RECORD THE BLUE STAKES ORDER NUMBER AND FURNISH ORDER NUMBER TO OWNER AND ENGINEER PRIOR TO ANY EXCAVATION. IT WILL BE THE CONTRACTORS SOLE RESPONSIBILITY TO DIRECTLY CONTACT ANY OTHER UTILITY COMPANIES THAT ARE NOT MEMBERS OF BLUE STAKES. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROTECT ALL EXISTING UTILITIES SO THAT NO DAMAGE RESULTS TO THEM DURING THE PERFORMANCE OF THIS CONTRACT. ANY REPAIRS NECESSARY TO DAMAGED UTILITIES SHALL BE PAID FOR BY THE CONTRACTORS AND UTILITY COMPANIES INSTALLING NEW STRUCTURES, UTILITIES AND SERVICE TO THE PROJECT.

38. ALL MANHOLE RIMS, LAMPHOLES, VALVE BOX COVERS, MONUMENT BOXES AND CATCH BASIN GRATES ARE TO BE ADJUSTED TO FIT THE FINISHED GRADE AFTER PAVING, UNLESS OTHERWISE NOTED. COST FOR THIS WORK SHALL BE INCLUDED IN THE UNIT PRICES FOR SAID FACILITIES.

39. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ASSURE THAT ALL PIPES, WALLS, ETC. ARE ADEQUATELY BRACED DURING CONSTRUCTION.

CLEARING AND GRADING

40. CONTRACTOR SHALL PERFORM EARTHWORK IN ACCORDANCE WITH APWA 2017 STANDARD DRAWINGS AND STANDARD SPECIFICATIONS AND THE RECOMMENDED EARTHWORK SPECIFICATION FOUND IN THE PROFESSIONALLY PREPARED REPORT OF GEOTECHNICAL INVESTIGATION.

41. THE CONTRACTOR SHALL REMOVE ALL VEGETATION AND DELETERIOUS MATERIALS FROM THE SITE UNLESS NOTED OTHERWISE; ALL EXISTING WELLS AND SEPTIC TANKS SHALL BE REMOVED AND/OR ABANDONED PER THE REQUIREMENTS OF ALL LOCAL, STATE AND FEDERAL REGULATIONS. THE COST TO PERFORM THIS WORK SHALL BE INCLUDED IN THE LUMP SUM CLEARING COST.

42. SUBSOIL INVESTIGATIONS MUST BE CONDUCTED AT THE SITE OF THE WORK. ALL FOOTING, FOUNDATION OR STRUCTURAL WALL CONSTRUCTION MUST ADHERE TO THE RECOMMENDATIONS DETAILED BY THE PROFESSIONAL REPORT OF THESE INVESTIGATIONS, CREATED BY A LICENSED GEOTECHNICAL ENGINEER.

43. SOIL INVESTIGATIONS MUST BE CONDUCTED BY A LICENSED GEOTECHNICAL ENGINEER FOR DESIGN PURPOSES ONLY, AND THE DATA SHOWN IN THE REPORTS ARE FOR SUBSURFACE CONDITIONS FOUND AT THE TIME OF THE INVESTIGATION. THE OWNER AND ENGINEER DISCLAIM RESPONSIBILITY FOR THE INTERPRETATION BY THE CONTRACTOR OF DATA, SUCH PROJECTION OR EXTRAPOLATION, FROM THE TEST HOLES TO OTHER LOCATIONS ON THE SITE OF THE WORK, SOIL BEARING VALUES AND PROFILES, SOIL STABILITY AND THE PRESENCE, LEVEL AND EXTENT OF UNDERGROUND WATER FOR SUBSURFACE CONDITIONS DURING CONSTRUCTION OPERATIONS.

44. ALL PROPOSED ELEVATIONS SHOWN ON THE GRADING PLAN ARE TO FINISHED SURFACE, THE CONTRACTOR IS RESPONSIBLE TO DEDUCT THE THICKNESS OF THE PAVEMENT STRUCTURAL SECTION FOR TOP OF SUB GRADE ELEVATIONS.

45. IF AT ANY TIME DURING CONSTRUCTION ANY UNFAVORABLE GEOLOGICAL CONDITIONS ARE ENCOUNTERED, WORK IN THAT AREA WILL STOP UNTIL APPROVED CORRECTIVE MEASURES ARE OBTAINED FROM THE ENGINEER.

46. UNSUITABLE MATERIAL, SUCH AS TOP SOIL, WEATHERED BED ROCK, ETC., SHALL BE REMOVED AS REQUIRED BY THE SOILS ENGINEER (AND/OR ENGINEERING GEOLOGIST, WHERE EMPLOYED) FROM ALL AREAS TO RECEIVE COMPACTED FILL OR DRAINAGE STRUCTURES.

47. NO TREES SHALL BE REMOVED OR DAMAGED WITHOUT SPECIFIC WRITTEN AUTHORIZATION FROM PROPERTY OWNER.

48. THE EXISTING TOPOGRAPHY ON THESE PLANS IS BASED ON A TOPOGRAPHIC SURVEY PERFORMED BY BENCHMARK ENGINEERING AND LAND SURVEYING ON 7/31/20 HAVE BEEN MODIFIED SINCE THIS SURVEY WAS PERFORMED.

49. FILLS IN EXCESS OF 4 FEET IN THICKNESS AND BENEATH ALL FOUNDATIONS OR PAVEMENT SECTIONS SHALL BE COMPACTED TO 95 PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE ASTM D-1557 COMPACTION CRITERIA. ALL OTHER STRUCTURAL FILL LESS THAN 4 FEET IN THICKNESS SHOULD BE COMPACTED TO AT LEAST 90 PERCENT OF THE ABOVE CRITERIA. THE GEOTECHNCIAL REPORT.

50. COMPACTION TESTING WILL BE ACCOMPLISHED BY THE CONTRACTOR, OR THE CONTRACTOR WILL HAVE SUCH TESTING ACCOMPLISHED BY A SEPARATE CONTRACTOR. TEST RESULTS WILL BE SUBMITTED FOR REVIEW WITHIN 24 HOURS AFTER TEST.

51. CONTRACTOR TO SUBMIT PROCTOR AND/OR MARSHALL TEST DATA 24 HOURS PRIOR TO COMPACTION TESTS.

52. STRAIGHT GRADE SHALL BE MAINTAINED BETWEEN CONTOUR LINES AND SPOT ELEVATIONS UNLESS OTHERWISE SHOWN ON PLANS.

53. ALL SLOPES IN ADJOINING STREETS, DRAINAGE CHANNELS, OR OTHER FACILITIES SHALL BE GRADED NO STEEPER THAN 2 TO 1 FOR CUT AND FILL.

54. GRADES WITHIN ASPHALT PARKING AREAS SHALL BE CONSTRUCTED TO WITHIN 0.10 FEET OF THE DESIGN GRADE. HOWEVER, THE CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN ALL PAVEMENT AREAS AND ALONG ALL CURBS. ALL CURBS SHALL BE BUILT IN ACCORDANCE TO THE PLAN. CURBS AND PAVEMENT AREAS WHICH ARE NOT INSTALLED PER PLAN MUST BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

55. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING HIS OWN ESTIMATE OF EARTHWORK QUANTITIES.

56. WHERE NEW CURB AND GUTTER IS BEING CONSTRUCTED ADJACENT TO EXISTING ASPHALT OR CONCRETE PAVEMENT, THE FOLLOWING SHALL APPLY; PRIOR TO PLACEMENT OF ANY CONCRETE THE CONTRACTOR SHALL HAVE A LICENSE SURVEYOR VERIFY THE GRADE AND CROSS SLOPE OF THE CURB AND GUTTER FORMS, THE CONTRACTOR SHALL SUBMIT THE SLOPE AND GRADES TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT OF CONCRETE. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY OF ANY SECTION WHICH DOES NOT CONFORM TO THE DESIGN OR TYPICAL CROSS SECTION. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CURB AND GUTTER POURS WITHOUT THE APPROVAL OF THE ENGINEER.

57. SITE WORK SHALL MEET OR EXCEED OWNER'S SITE SPECIFICATIONS.

58. ALL SITE CONCRETE OR CONCRETE ELEMENT NOT SPECIFICALLY SHOWN AND DETAILED ON STRUCTURAL DRAWINGS TO HAVE A MINIMUM OF 28 DAY COMPRESSION STRENGTH OF 4000 PSI.

59. CUT SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL

60. FILL SLOPES SHALL BE NO STEEPER THAN 2 HORIZONTAL TO 1 VERTICAL

61. APPROVED PROTECTIVE MEASURES AND TEMPORARY DRAINAGE PROVISIONS MUST BE USED TO PROTECT ADJOINING PROPERTIES DURING THE GRADING PROJECT.

DEWATERING

62. THE CONTRACTOR SHALL FURNISH, INSTALL, OPERATE AND MAINTAIN ALL MACHINERY, APPLIANCES AND EQUIPMENT TO MAINTAIN ALL EXCAVATIONS FREE FROM WATER DURING CONSTRUCTION. THE CONTRACTOR SHALL DISPOSE OF THE WATER SO AS NOT TO CAUSE DAMAGE TO PUBLIC OR PRIVATE PROPERTY, OR TO CAUSE A NUISANCE OR MENACE TO THE PUBLIC OR VIOLATE THE LAW. THE DEWATERING SYSTEM SHALL BE INSTALLED AND OPERATED SO THAT THE GROUND LEVEL OUTSIDE THE EXCAVATION IS NOT REDUCED TO THE EXTENT WHICH WOULD CAUSE DAMAGE OR ENDANGER ADJACENT STRUCTURES OR PROPERTY. ALL COST FOR DEWATERING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ALL PIPE CONSTRUCTION. THE STATIC WATER LEVEL SHALL BE DRAWN DOWN A MINIMUM OF 1 FOOT BELOW THE BOTTOM OF EXCAVATIONS TO MAINTAIN THE UNDISTURBED STATE OF NATURAL SOILS AND ALLOW THE PLACEMENT OF ANY FILL TO THE SPECIFIED DENSITY. THE CONTRACTOR SHALL HAVE ON HAND, PUMPING EQUIPMENT AND MACHINERY IN GOOD CONDITION FOR EMERGENCIES AND SHALL HAVE WORKMEN AVAILABLE FOR ITS OPERATION: DEWATERING SYSTEM SHALL OPERATE CONTINUOUSLY UNTIL BACKFILL HAS BEEN COMPLETED TO 1 FOOT ABOVE THE NORMAL STATIC GROUNDWATER LEVEL.

63. THE CONTRACTOR SHALL CONTROL SURFACE WATER TO PREVENT ENTRY INTO EXCAVATIONS. AT EACH EXCAVATION, A SUFFICIENT NUMBER OF TEMPORARY OBSERVATION WELLS TO CONTINUOUSLY CHECK THE GROUNDWATER LEVEL SHALL BE PROVIDED.

64. SUMPS SHALL BE NO DEEPER THAN 5 FEET AND SHALL BE AT THE LOW POINT OF EXCAVATION. EXCAVATION SHALL BE GRADED TO DRAIN TO THE SUMPS.

65. THE CONTROL OF GROUNDWATER SHALL BE SUCH THAT SOFTENING OF THE BOTTOM OF EXCAVATIONS, OR FORMATION OF "QUICK" CONDITIONS OR "BOILS", DOES NOT OCCUR. DEWATERING SYSTEMS SHALL BE DESIGNED AND OPERATED SO AS TO PREVENT REMOVAL OF NATURAL SOILS. THE RELEASE OF GROUNDWATER AT ITS STATIC LEVEL SHALL BE PERFORMED IN SUCH A MANNER AS TO MAINTAIN THE UNDISTURBED STATE OF NATURAL FOUNDATION SOILS, PREVENT DISTURBANCE OF COMPACTED BACKFILL, AND PREVENT FLOTATION OR MOVEMENT OF STRUCTURES, PIPELINES AND SEWERS. IF A UPDES (UTAH POLLUTANT DISCHARGE ELIMINATION SYSTEM) PERMIT IS REQUIRED FOR DISPOSAL OF WATER FROM CONSTRUCTION DEWATERING ACTIVITIES, IT SHALL BE OBTAINED BY THE CONTRACTOR PRIOR TO ANY DEWATERING ACTIVITIES.

66. ONE HUNDRED PERCENT STANDBY PUMPING CAPACITY SHALL BE AVAILABLE ON SITE AT ALL TIMES AND SHALL BE CONNECTED TO THE DEWATERING SYSTEM PIPING AS TO PERMIT IMMEDIATE USE. IN ADDITION STANDBY EQUIPMENT AND APPLIANCES FOR ALL ORDINARY EMERGENCIES, AND COMPETENT WORKMEN FOR OPERATION AND MAINTENANCE OF ALL DEWATERING EQUIPMENT SHALL BE ON SITE AT ALL TIMES. STANDBY EQUIPMENT SHALL INCLUDE EMERGENCY POWER GENERATION AND AUTOMATIC SWITCH OVER TO THE EMERGENCY GENERATOR WHEN NORMAL POWER FAILS. DEWATERING SYSTEMS SHALL NOT BE SHUT DOWN BETWEEN SHIFTS, ON HOLIDAYS, ON WEEKENDS, OR DURING WORK STOPPAGES.

SITE SAFETY AND MAINTENANCE

67. THE CONTRACTOR SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR THE JOB SITE CONDITIONS, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT. THIS REQUIREMENT SHALL APPLY CONTINUOUSLY, AND SHALL NOT BE LIMITED TO NORMAL WORKING HOURS. THE CONTRACTOR SHALL DEFEND, INDEMNIFY AND HOLD THE OWNER AND THE ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH PERFORMANCE OF WORK ON THIS PROJECT.

68. THE CONTRACTOR AGREES THAT:

A. THEY SHALL BE RESPONSIBLE TO CLEAN THE JOB SITE AT THE END OF EACH PHASE OF WORK.

B. THEY SHALL BE RESPONSIBLE TO REMOVE AND DISPOSE OF ALL TRASH, SCRAP AND UNUSED MATERIAL AT THEIR OWN EXPENSE IN A TIMELY MANNER.

C. THEY SHALL BE RESPONSIBLE TO MAINTAIN THE SITE IN A NEAT, SAFE AND ORDERLY MANNER AT ALL TIMES.

D. THEY SHALL BE RESPONSIBLE TO KEEP MATERIALS, EQUIPMENT, AND TRASH OUT OF THE WAY OF OTHER CONTRACTORS SO AS NOT TO DELAY THE JOB. FAILURE TO DO SO WILL RESULT IN A DEDUCTION FOR THE COST OF CLEAN UP FROM THE FINAL PAYMENT.

E. THEY SHALL BE RESPONSIBLE FOR THEIR OWN SAFETY, TRAFFIC CONTROL, PERMITS, RETESTING AND REINSPECTIONS AT THEIR OWN EXPENSE.

F. UNLESS OTHERWISE NOTED ALL EXCESS SOILS AND MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE LAWFULLY DISPOSED OF OFF SITE AT THE CONTRACTOR'S EXPENSE.

G. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, BARRICADES, SIGNS, FLAGMEN OR OTHER DEVICES NECESSARY FOR PUBLIC SAFETY.

H. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL WATER, POWER, SANITARY FACILITIES AND TELEPHONE SERVICES AS REQUIRED FOR THE CONTRACTORS USE DURING CONSTRUCTION.

I. ALL DEBRIS AND FOREIGN MATERIAL SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT APPROVED DISPOSAL SITES. THE CONTRACTOR SHALL OBTAIN NECESSARY PERMITS FOR THE TRANSPORTATION OF MATERIAL TO AND FROM THE SITE.

72. FOR ALL WORK WITHIN PUBLIC RIGHTS-OF-WAY OR EASEMENTS, THE CONTRACTOR SHALL PRESERVE THE INTEGRITY AND LOCATION OF ANY AND ALL PUBLIC UTILITIES AND PROVIDE THE NECESSARY CONSTRUCTION TRAFFIC CONTROL. CONTRACTOR SHALL, THROUGH THE ENCROACHMENT PERMIT PROCESS, VERIFY WITH THE NECESSARY REGULATORY AGENCIES, THE NEED FOR ANY TRAFFIC ROUTING PLAN. IF PLAN IS REQUIRED, CONTRACTOR SHALL PROVIDE PLAN AND RECEIVED PROPER APPROVALS PRIOR TO BEGINNING CONSTRUCTION. WORK IN EASEMENT AND/OR RIGHTS-OF-WAY IS SUBJECT TO THE APPROVAL AND ACCEPTANCE OF THE REGULATORY AGENCY RESPONSIBLE FOR OPERATION AND/OR MAINTENANCE OF SAID AND/OR RIGHT-OF-WAY. ALL CONSTRUCTION WORK IN UDOT RIGHT- OF -WAY SHALL BE SUBJECT TO INSPECTION BY THE STATE. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT INSPECTIONS TAKE PLACE WHERE AND WHEN REQUIRED AND TO INSURE THAT ALL WORK IS COMPLETED TO UDOT STANDARDS.

SURFACE IMPROVEMENTS:

73. SUBGRADE PREPARATION: SUBGRADE SHALL BE COMPACTED TO A 95% RELATIVE C0MPACTION TO A MINIMUM DEPTH OF 6" FOR ALL ON-SITE DEVELOPMENT. ALL OFF-SITE IMPROVEMENTS ARE TO BE DONE PER APWA STANDARDS.

74. AGGREGATE SUB-BASE: AGGREGATE SUB-BASE SHALL BE GRANULAR BACKFILL BORROW. AGGREGATE SUB-BASE MATERIAL SHALL BE CLEAN AND FREE FROM VEGETABLE MATTER AND OTHER DELETERIOUS SUBSTANCE. AGGREGATE SHALL COMPLY WITH THE GUIDELINE REQUIREMENTS FOR PAVEMENTS FOUND IN THE PROFESSIONALLY PREPARED OF THE SOILS INVESTIGATIONS COMPLETED ON THIS SITE.

75. AGGREGATE BASE: AGGREGATE BASE SHALL BE GRADE 3/4 UNTREATED BASE COURSE, AND COMPLY PREPARED REPORT OF THE SOILS INVESTIGATION PREPARED ON THIS SITE.

76. ALL SIDEWALKS AND CROSSINGS TO MEET CURRENT ADA STANDARDS/ APWA STANDARDS.

77. PAYMENT FOR PAVEMENT WILL BE MADE ONLY FOR AREAS SHOWN ON PLANS. REPLACEMENT OF PAVEMENT WHICH IS BROKEN OR CUT DURING THE INSTALLATION OF THE WORK COVERED BY THESE GENERAL NOTES, AND WHICH LIES OUTSIDE OF SAID AREAS, SHALL BE INCLUDED IN THE CONTRACTOR'S UNIT PRICE FOR PAVEMENT, AND NO ADDITIONAL PAYMENT SHALL BE MADE FOR SUCH WORK.

78. INSTALLATION OF STREET LIGHTS SHALL BE IN ACCORDANCE WITH CITY STANDARDS.

79. PRIOR TO FINAL ACCEPTANCE OF THE IMPROVEMENTS BUILT BY THESE PLANS AND SPECIFICATIONS THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH THE OWNER, CITY, AND POWER COMPANY TO HAVE THE ELECTRICAL SYSTEM AND ALL STREET LIGHTS ENERGIZED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL STRIPING AND/OR PAVEMENT MARKINGS NECESSARY TO THE EXISTING STRIPING INTO FUTURE STRIPING. METHOD OF REMOVAL SHALL BE BY GRINDING OR SANDBLASTING.

80. STRIPING AND PAVEMENT MARKINGS SHALL BE IN CONFORMANCE WITH MUTCD & APWA 32 17 23.

81. DURING THE BIDDING PROCESS, CONTRACTOR TO REVIEW DESIGN SLOPES SHOWN FOR PAVEMENT AND WARRANTY THE PAVEMENT TO THE OWNER BASED UPON THE DESIGN SLOPES SHOWN HEREON. CONCERNS WITH SLOPES MUST BE BROUGHT DURING THE BIDDING PROCESS.

82. IT IS THE INTENT ON THESE PLANS THAT ALL PAVEMENT SLOPE TO A CATCH BASIN, INLET BOX OR OUT INTO A STREET.CONTRACTOR TO VERIFY FINISH SPOT ELEVATIONS AND NOTIFY ENGINEER IF THERE ARE DISCREPANCIES THAT WOULD CAUSE PUDDLING ON THE SITE.

No.	DATE	DESCRIPTION
1	03/25/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

DRAWN BY JHO
CHECKED BY AGA
FIELD CREW SURVEY
DATE 03/12/2021
DWG. FILE 2006142_SITE_OPTION 2

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

PRELIMINARY PLAN
PROFESSIONAL ENGINEER
3/25/21
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH
NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

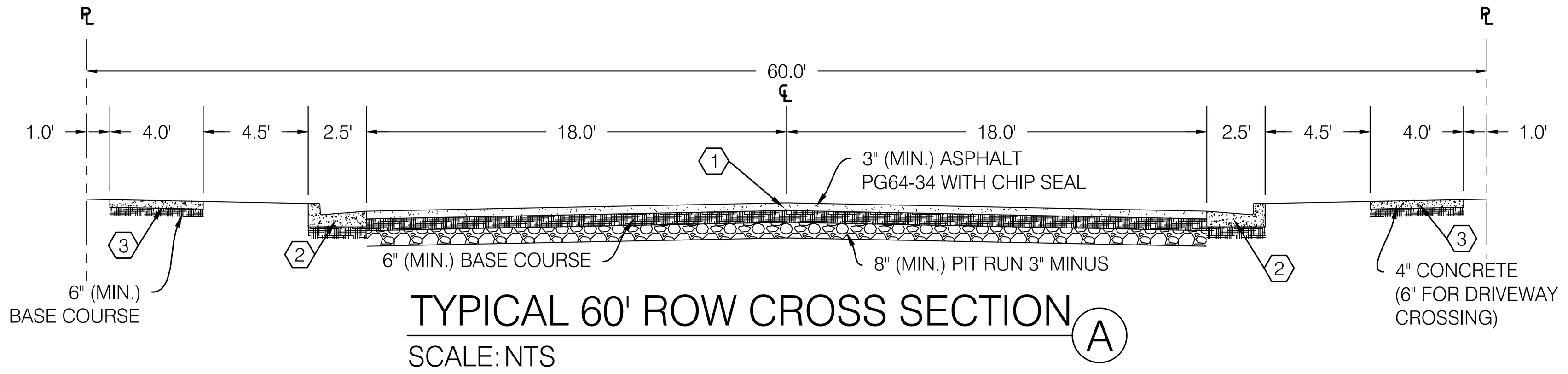
BENCHMARK CIVIL

WINSTON PARK

3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

GEN. NOTES LEGEND & ABBREV.



TYPICAL 60' ROW CROSS SECTION (A)

SCALE: NTS

CONSTRUCTION KEY NOTE REFERENCE

NO.	DESCRIPITON	DETAIL
1	ASPHALT PAVEMENT (PG64-34) WITH CHIP SEAL PER WEBER COUNTY PUBLIC STDS.	1/CDT.01
2	CONCRETE CURB AND GUTTER PER WEBER COUNTY PUBLIC STDS.	2/CDT.01
3	SIDEWALK PER WEBER COUNTY PUBLIC STDS.	2/CDT.01
4	ADA RAMP PER WEBER COUNTY PUBLIC STDS.	4/CDT.01
5	LIGHTPOLE (TO BE OWNED AND MAINTAINED BY HOA)	
6	'TYPE B' DRIVE APPROACH PER WEBER COUNTY PUBLIC STDS.	3/CDT.01
7	GRAVEL ACCESS ROAD/PATHWAY	1/CDT.01
8	NEW FENCE	

AREA TABLE

PARTICULARS	S.F.	%
BUILDING*	162,000	9.5
HARDSCAPE*	237,126	13.8
LANDSCAPE	1,313,176	76.7
DEDICATED	301,208	N/A
TOTAL	1,712,302	100

*BUILDING AND HARDSCAPE AREAS ASSUME A BUILDING FOOTPRINT OF 3,000 S.F. AND A HARDSCAPE OF 500 S.F. PER LOT (54 LOTS).

NOTE:
SAWCUT WIDTH, LOCATIONS AND TIE-IN ELEVATIONS IN EXISTING HARDSCAPE ARE APPROXIMATE, CONTRACTOR TO FIELD VERIFY LOCATION AND EXTENT OF SAWCUTTING PRIOR TO CONSTRUCTION. NOTIFY CIVIL ENGINEER IF REVISIONS ARE REQUIRED. SEE NOTE 58 ON CGN.01 FOR FURTHER DETAIL.

NOTE:
ALL WORK DONE IN PUBLIC ROADS TO BE DONE IN STRICT ACCORDANCE WITH WEBER COUNTY STANDARDS & SPECIFICATIONS.

NORTH

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.


RAY L. BERTODI, TR
PARCEL NO. 15-057-0006
JEFFERY & TRUDY EAST
PARCEL NO. 15-057-0027
JEFFERY & TRUDY EAST
PARCEL NO. 15-057-0004
FRANCIS & NOLA HESSELGESSER
PARCEL NO. 15-057-0052
SAWCUT EXISTING ASPHALT
AREA TO BE DEDICATED TO WEBER COUNTY
EX. EOA
EX. ROW
SEE WEBER COUNTY STANDARD URBAN ROADWAY SECTION (MINOR ARTERIAL - 80' ROW)
1800 SOUTH (PUBLIC STREET)
5' TELEPHONE EASEMENT
NEW ROW DEDICATION
40.0' ROW HALF WIDTH
DRAINAGE EASEMENT
FITZROY ROAD (PUBLIC STREET)
ALDER COURT (PUBLIC STREET)
CHALGROVE ROAD (PUBLIC STREET)
FINSBURY DRIVE (PUBLIC STREET)
EX. WIRE FENCE
EX. DITCH
N00° 41' 23.11"E
1327.748
A. JAY SMITH ETAL
PARCEL NO. 15-078-0001
LOT 102 14,520 SQ FT 0.333 ACRES
LOT 103 14,520 SQ FT 0.333 ACRES
LOT 104 14,520 SQ FT 0.333 ACRES
LOT 105 14,520 SQ FT 0.333 ACRES
LOT 106 14,520 SQ FT 0.333 ACRES
LOT 107 14,520 SQ FT 0.333 ACRES
LOT 108 14,520 SQ FT 0.333 ACRES
LOT 153 12,697 SQ FT 0.291 ACRES
LOT 152 12,697 SQ FT 0.291 ACRES
LOT 151 12,649 SQ FT 0.290 ACRES
LOT 150 13,838 SQ FT 0.318 ACRES
LOT 149 13,855 SQ FT 0.318 ACRES
LOT 148 13,855 SQ FT 0.318 ACRES
LOT 147 13,855 SQ FT 0.318 ACRES
LOT 146 13,855 SQ FT 0.318 ACRES
LOT 145 14,520 SQ FT 0.333 ACRES
LOT 144 14,520 SQ FT 0.333 ACRES
LOT 143 14,520 SQ FT 0.333 ACRES
LOT 142 14,520 SQ FT 0.333 ACRES
LOT 141 14,520 SQ FT 0.333 ACRES
LOT 140 14,520 SQ FT 0.333 ACRES
LOT 139 14,375 SQ FT 0.330 ACRES
LOT 138 14,672 SQ FT 0.337 ACRES
LOT 137 16,789 SQ FT
LOT 128
LOT 129
LOT 130
LOT 131
LOT 132
LOT 133
20.0' SETBACK (TYP.)
SETBACK (TYP.)
8.0' SETBACK (TYP.)
30.0' SETBACK (TYP.)
20.0' SETBACK (TYP.)
10.0' PUE (TYP.)
60.0' ROW
OPEN SPACE "A"
667,600 SQ FT
15.326 ACRES
MARDELL & FRANCES W GOODRIDGE FAMILY TRUST
PARCEL NO. 15-078-0050
EX. WIRE FENCE (REMOVE)
513.118
S38° 06' 03.77"W
MATCH LINE (SEE CSP.02)
MATCH LINE (SEE CSP.02)

NOTE:
SEE CURVE TABLE AND PARCEL LINE TABLE, CSP.02.

No.	DATE	DESCRIPTION
1	03/25/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

SCALE MEASURES 1 INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: JHO
CHECKED BY: AGA
FIELD CREW: SURVEY
DATE: 03/12/2021

PRELIMINARY PLAN
PROFESSIONAL ENGINEER
3/25/21
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH
NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
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SANDY, UTAH 84070 (801) 542-7192
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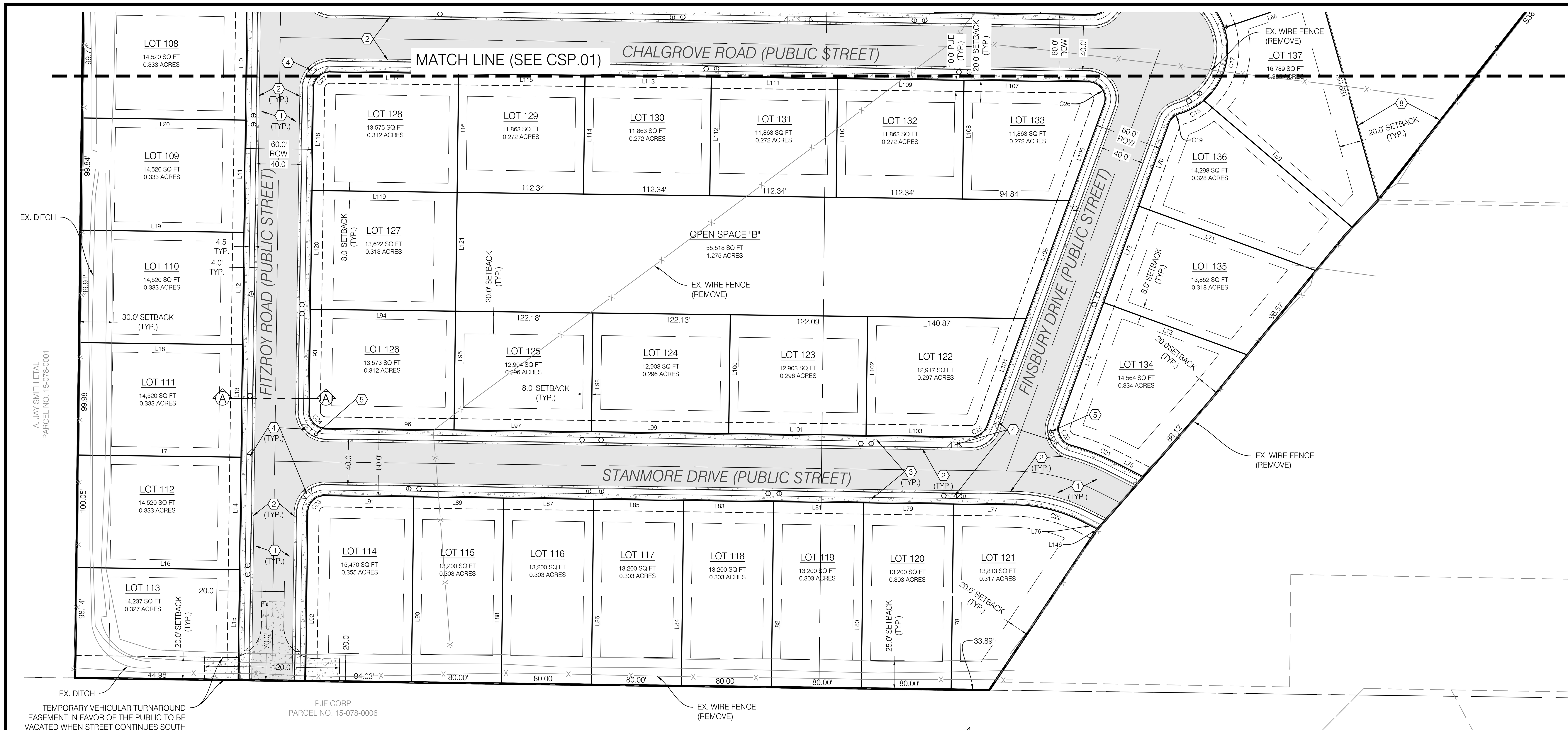
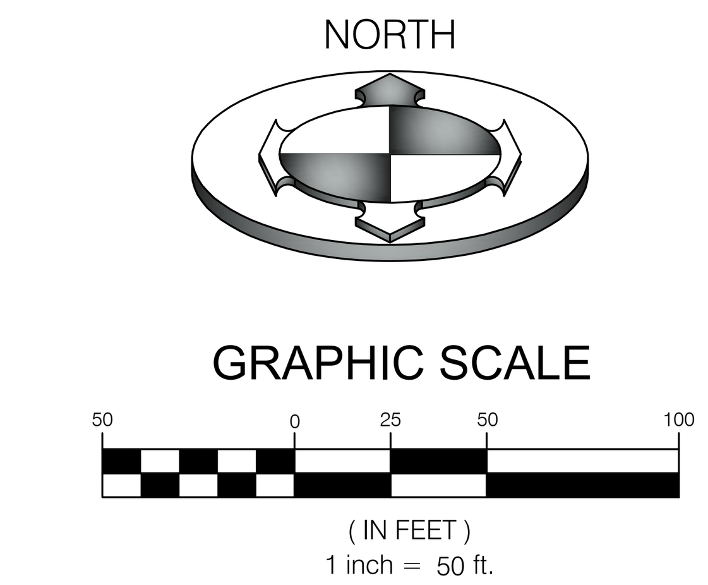
WINSTON PARK

3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

SITE PLAN





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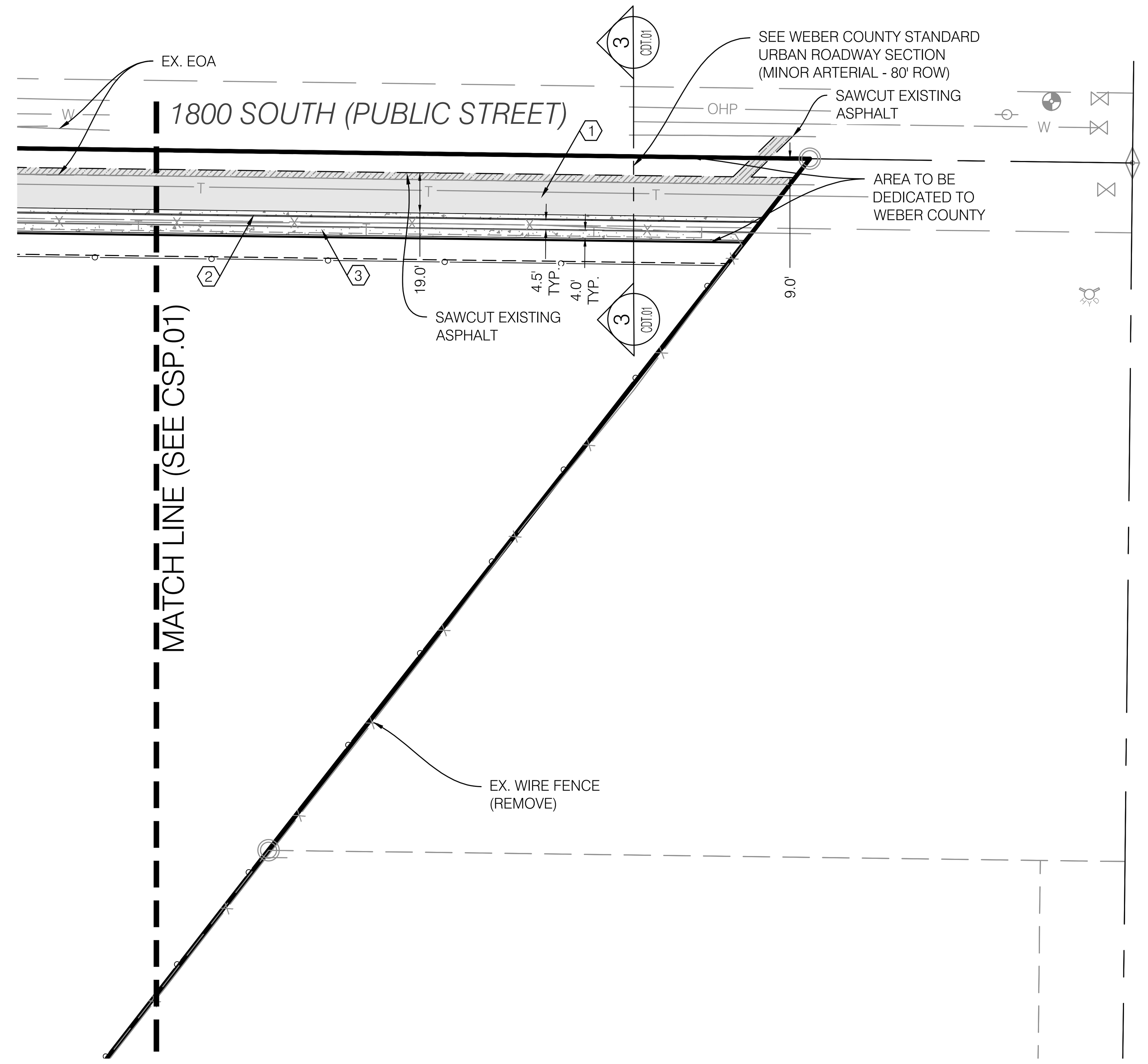

CONSTRUCTION KEY NOTE REFERENCE		
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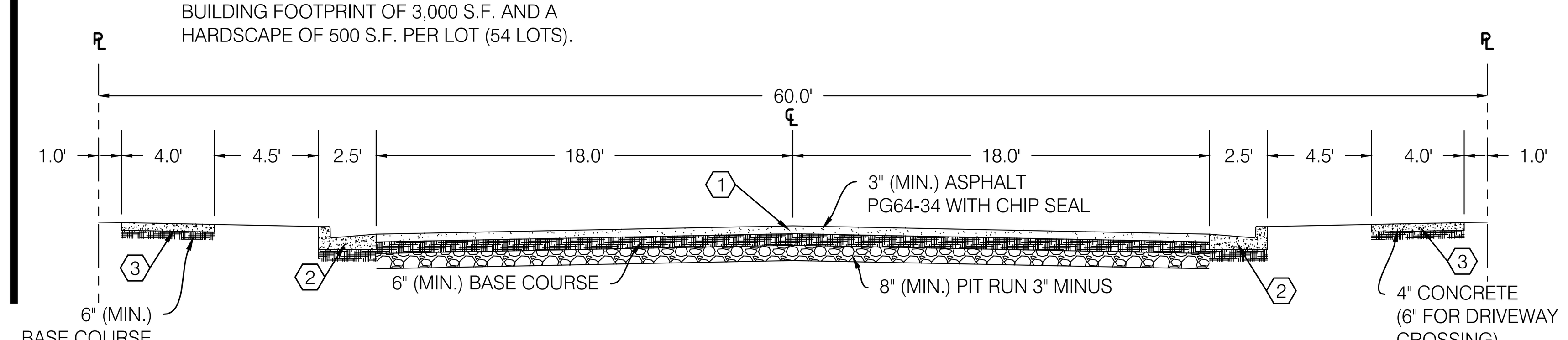


TYPICAL 60' ROW CROSS SECTION (A)
SCALE: NTS

CURVE TABLE					
CURVE #	LENGTH	RADIUS	DELTA	CHORD BEARING	CHORD DISTANCE
C1	77.39'	170.00'	26°04'54"	N 76°11'45" W	76.72'
C2	31.42'	20.00'	90°00'00"	N 44°15'08" W	28.28'
C3	31.42'	20.00'	90°00'00"	S 45°44'52" W	28.28'
C4	23.56'	15.00'	90°00'00"	S 44°15'08" E	21.21'
C5	13.60'	15.00'	51°56'37"	N 64°46'33" E	13.14'
C6	75.07'	58.00'	74°09'36"	S 75°53'03" W	69.94'
C7	70.98'	58.00'	70°06'57"	N 31°58'41" W	66.63'
C8	70.33'	58.00'	69°28'26"	N 37°49'01" E	66.10'
C9	71.00'	58.00'	70°08'15"	S 72°22'39" E	66.65'
C10	13.60'	15.00'	51°56'37"	N 63°16'50" W	13.14'
C11	23.56'	15.00'	90°00'00"	S 45°44'52" W	21.21'
C12	287.38'	58.00'	283°53'13"	N 00°44'52" E	71.51'
C13	23.56'	15.00'	90°00'00"	S 44°15'08" E	21.21'
C14	13.91'	15.00'	53°07'48"	N 64°10'57" E	13.42'
C15	61.00'	60.00'	58°15'11"	S 66°44'39" W	58.41'
C16	68.77'	60.00'	65°40'01"	N 51°17'46" W	65.06'
C17	71.36'	60.00'	68°08'43"	N 15°36'37" E	67.23'
C18	24.58'	60.00'	23°28'25"	N 61°25'11" E	24.41'
C19	13.91'	15.00'	53°07'48"	S 46°35'29" W	13.42'
C20	24.81'	15.00'	94°46'35"	S 27°21'43" E	22.08'
C21	40.47'	200.00'	11°35'42"	N 68°57'09" W	40.41'
C22	63.73'	140.00'	26°04'54"	N 76°11'45" W	63.18'
C23	23.57'	15.00'	90°00'57"	S 45°45'20" W	21.22'
C24	23.56'	15.00'	89°59'03"	S 44°14'40" E	21.21'
C25	18.52'	15.00'	70°44'14"	N 55°23'42" E	17.37'
C26	28.61'	15.00'	109°16'43"	N 34°36'47" W	24.47'
C27	23.56'	15.00'	90°00'00"	S 45°44'52" W	21.21'
C28	225.71'	60.00'	215°32'20"	N 34°36'47" W	114.28'

PARCEL LINE TABLE		
LINE #	BEARING	DISTANCE
L1	S 63°09'18" E	22.14'
L2	S 89°15'08" E	126.28'
L3	S 00°44'52" W	72.88'
L4	S 00°44'52" W	99.36'
L5	S 00°44'52" W	99.43'
L6	S 00°44'52" W	99.50'
L7	S 00°44'52" W	99.56'
L8	S 00°44'52" W	99.63'
L9	S 00°44'52" W	99.70'
L10	S 00°44'52" W	99.77'
L11	S 00°44'52" W	99.84'
L12	S 00°44'52" W	99.91'
L13	S 00°44'52" W	99.98'
L14	S 00°44'52" W	100.05'
L15	S 00°44'52" W	98.18'
L16	N 89°15'08" W	145.08'
L17	S 89°15'08" E	145.18'
L18	N 89°15'08" W	145.28'
L19	S 89°15'08" E	145.38'
L20	N 89°15'08" W	145.48'
L21	S 89°15'08" E	145.58'
L22	N 89°15'08" W	145.68'
L23	S 89°15'08" E	145.79'
L24	N 89°15'08" W	145.89'
L25	S 89°15'08" E	145.99'
L26	N 89°15'08" W	146.09'
L27	S 89°15'08" E	146.19'
L28	S 00°44'52" W	75.38'
L29	S 00°44'52" W	95.38'
L30	S 00°44'52" W	95.38'
L31	S 00°44'52" W	80.38'
L32	S 89°15'08" E	133.13'
L33	S 89°15'08" E	133.13'
L34	S 89°15'08" E	133.13'
L35	S 00°44'52" W	95.38'
L36	S 00°44'52" W	95.38'
L37	S 00°44'52" W	109.50'
L38	S 89°15'08" E	118.13'
L39	S 89°15'08" E	47.61'
L40	N 22°57'51" E	92.69'

No.	DATE	DESCRIPTION
1	03/25/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

DRAWN BY JHO
CHECKED BY AGA
FIELD CREW SURVEY
DATE 03/12/2021
DWG. FILE 2006142_SITE_OPTION 2

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

PRELIMINARY PLAN
PROFESSIONAL ENGINEER
3/25/21
No. 11366633
ALLISON G. ALBERT
[illegible]
STATE OF UTAH
NOT FOR CONSTRUCTION

BENCHMARK
ENGINEERING &
LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

WINSTON PARK

3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

SITE PLAN

CONSTRUCTION KEY NOTE REFERENCE

NO.	DESCRIPITON	DETAIL
1	8" PVC C-900 CULINARY WATER MAIN PER TAYLOR WEST WEBER WATER DISTRICT STDS.	
2	1" POLY WATER SERVICE LINE & METER PER TAYLOR WEST WEBER WATER DISTRUCT STDS.	3/CDT.05
3	12" BUTTERFLY VALVE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	1/CDT.05
4	12" PVC C-900 DR18 CULINARY WATER MAIN PER TAYLOR WEST WEBER WATER DISTRICT STDS.	
5	6" PVC C-900 FIRELINE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	
6	FIRE HYDRANT PER TAYLOR WEST WEBER WATER DISTRICT STDS.	3/CDT.05
7	THRUST BLOCK PER TAYLOR WEST WEBER WATER DISTRICT STDS.	1/CDT.05
8	GATE VALVE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	1/CDT.05
9	BLOW OFF VALVE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	8/CDT.05
10	8" PVC SDR-35 SEWER MAIN PER WEBER COUNTY ENGINEERING STDS.	
11	4" PVC SDR-35 SEWER LATERAL (2% MIN SLOPE) PER WEBER COUNTY ENGINEERING STDS.	
12	4' SSMH PER WEBER COUNTY ENGINEERING STDS.	
13	5' SSMH PER WEBER COUNTY ENGINEERING STDS.	

CONSTRUCTION KEY NOTE REFERENCE

NO.	DESCRIPITON	DETAIL
14	12" PVC SDR-35 SEWER MAIN PER WEBER COUNTY ENGINEERING STDS.	
15	12" PVC C-900 PRESSURIZED IRRIGATION PIPE PER HOOPER IRRIGATION STDS.	3/CDT.02
16	8" PVC C-900 PRESSURIZED IRRIGATION PIPE PER HOOPER IRRIGATION STDS.	3/CDT.02
17	THRUST BLOCK PER HOOPER IRRIGATION STDS.	2/CDT.02
18	GATE VALVE PER HOOPER IRRIGATION STDS.	6/CDT.02
19	BLOW OFF VALVE PER HOOPER IRRIGATION STDS.	
20	1" POLY IRRIGATION SERVICE LINE & METER PER HOOPER IRRIGATION STDS.	5/CDT.02
21	8"X6" REDUCER	
22	8"X8"X8" TEE	
23	8"X8"X6" TEE	
24	8"X12" REDUCER	
25	8" 90° BEND	
26	12" 45° BEND	
27	STREET LIGHT PER WEBER COUNTY STDS.	

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION. NOTIFY ENGINEER FOR REDESIGN IF CONNECTION POINT IS HIGHER THAN SHOWN OR IF ANY UTILITY CONFLICTS OCCUR. GRAVITY CONNECTIONS MUST BE DONE PRIOR TO BUILDING FOOTINGS AND ROUGH PLUMBING ARE CONSTRUCTED.

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

NOTE:
CONSTRUCTION OF THE PRESSURIZED IRRIGATION SHALL BE IN ACCORDANCE WITH HOOPER IRRIGATION STANDARDS.

NOTE A:
12" OF VERTICAL SEPARATION REQUIRED BETWEEN STORM AND WATER LINES. LOOP WATER MAIN IF IN CONFLICT.

NOTE B:
18" OF VERTICAL SEPERATION REQUIRED BETWEEN SEWER AND WATER LINES. CONTACT ENGINEER FOR REDESIGN IF NECESSARY

NOTE C:
12" OF VERTICAL SEPERATION REQUIRED BETWEEN SEWER AND STORM. CONTACT ENGINEER FOR REDESIGN IF NECESSARY

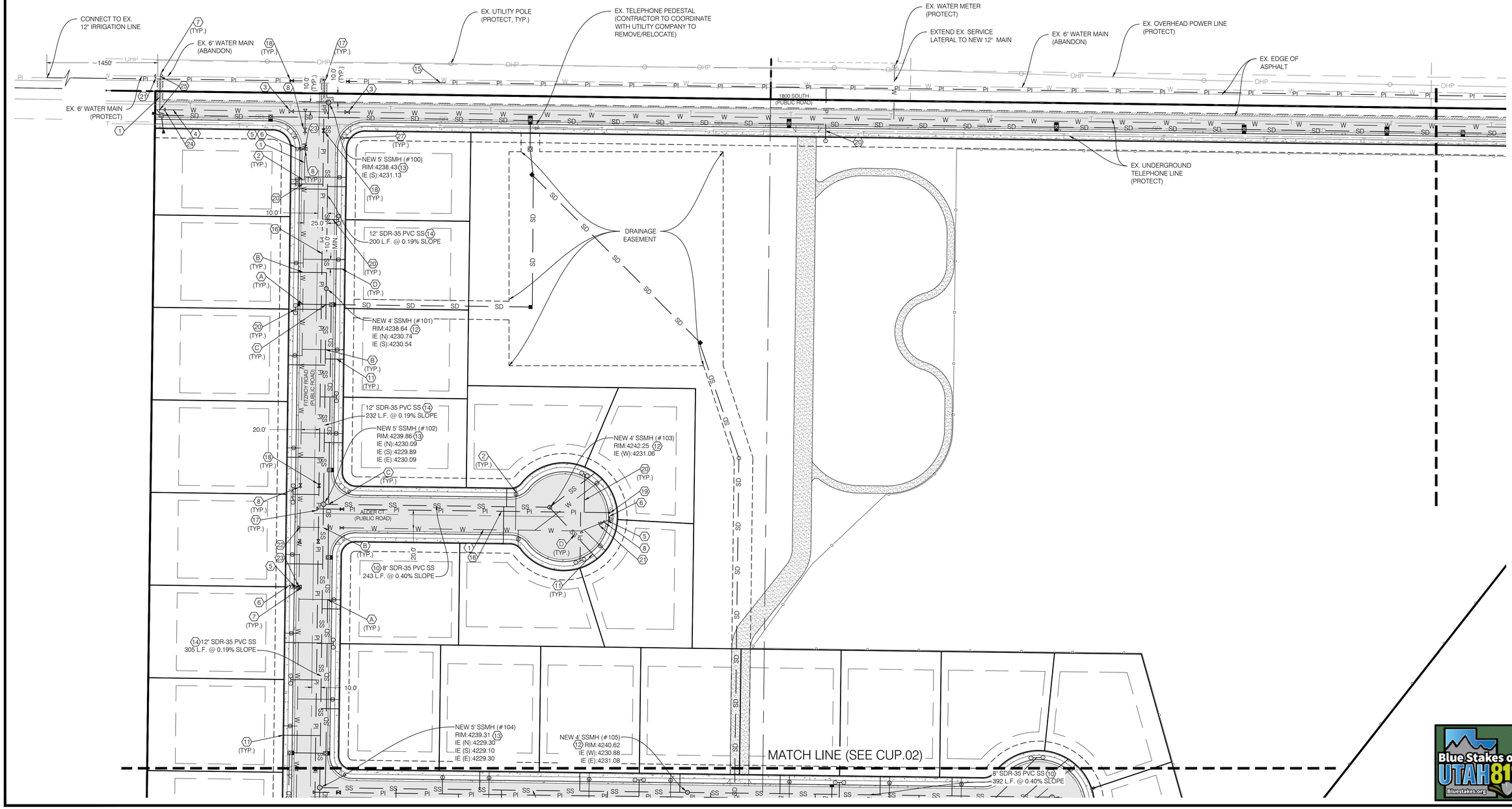
NOTE D:
SEWER CLEANOUTS MUST BE PROVIDED EVERY 50' ON 4" SEWER LATERALS

NORTH

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.



No.	DATE	DESCRIPTION
1	03/29/21	REVISED PER COUNTY WATER & IRRIGATION COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: JHO
CHECKED BY: AGA
FIELD CREW: SURVEY
DATE: 03/12/2021
DWG FILE: 2006142_CUP_OPTION2

PRELIMINARY PLAN
PROFESSIONAL ENGINEER
3/25/21
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH
NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
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WINSTON PARK
3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

UTILITY PLAN

CUP.01
5 OF 21

Blue Stakes of UTAH 811 Bluestakes.org

MATCH LINE (SEE CUP.01)

NEW 5' SSMH (#104)
RIM:4239.31 (13)
IE (N):4229.30
IE (S):4229.10
IE (E):4229.30

NEW 4' SSMH (#105)
(12) RIM:4240.62
IE (W):4230.88
IE (E):4231.08

8" SDR-35 PVC SS (10)
392 L.F. @ 0.40% SLOPE

NEW 5' SSMH (#106)
RIM:4241.49 (13)
IE (W):4232.65
IE (S):4232.99

CHALLGROVE RD
(PUBLIC ROAD)

8" SDR-35 PVC SS (10)
395 L.F. @ 0.40% SLOPE

(14) 12" SDR-35 PVC SS
377 L.F. @ 0.19% SLOPE

NEW 5' SSMH (#109)
RIM:4240.57 (13)
IE (N):4228.37
IE (S):4228.17
IE (E):4228.37

(12) NEW 4' SSMH (#108)
RIM:4242.19
IE (W):4229.68
IE (E):4229.88

(10) 8" SDR-35 PVC SS
327 L.F. @ 0.40% SLOPE

8" SDR-35 PVC SS (10)
399 L.F. @ 0.40% SLOPE

PROPERTY LINE (TYP.)

FITZROY ROAD
(PUBLIC ROAD)

STANMORE DR.
(PUBLIC ROAD)

(14) 12" SDR-35 PVC SS
200 L.F. @ 0.19% SLOPE

8" SDR-35 PVC SS (10)
327 L.F. @ 0.40% SLOPE

NEW 5' SSMH (#107) (13)
RIM:4242.07
IE (W):4231.19
IE (N):4231.39
IE (E):4231.39

8" PVC SDR-35
SEWER MAIN
STUB PER WEBER
COUNTY STDS.

CAP EAST BOUND LEG OF
TEE WITH MJ CAP OR PLUG
FOR FUTURE CONNECTION

NEW 5' SSMH (#110) (13)
RIM:4241.91
IE (N):4227.78
IE (W):4227.58

SANITARY SEWER TO BE CONVEYED
TO TAYLOR LIFT STATION

EX. OVERHEAD POWER LINE

EX. 6" WATER MAIN
(ABANDON)

CONNECT TO EX. 12"
WATER MAIN

EX. 12" WATER MAIN
(PROTECT)

CAP END 12" C-900
PVC PRESSURIZED
IRRIGATION

MATCH LINE (SEE CUP.01)

NORTH

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

No.	DATE	DESCRIPTION: REVISED PER COUNTY WATER & IRRIGATION COMMENTS
1	05/2021	

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY	JHO
CHECKED BY	AGA
FIELD CREW	SURVEY
DATE	03/12/2021
DWG FILE	2006142_CUP_OPTION 2

PRELIMINARY PLAN

PROFESSIONAL ENGINEER
3/25/21
No. 11366633
ALLISON G. ALBERTY
STATE OF UTAH

NOT FOR CONSTRUCTION

CONSTRUCTION KEY NOTE REFERENCE

NO	DESCRIPITON	DETAIL
1	8" PVC C-900 CULINARY WATER MAIN PER TAYLOR WEST WEBER WATER DISTRICT STDS.	
2	1" POLY WATER SERVICE LINE & METER PER TAYLOR WEST WEBER WATER DISTRUCT STDS.	3/CDT.05
3	12" BUTTERFLY VALVE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	1/CDT.05
4	12" PVC C-900 DR18 CULINARY WATER MAIN PER TAYLOR WEST WEBER WATER DISTRICT STDS.	
5	6" PVC C-900 FIRELINE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	
6	FIRE HYDRANT PER TAYLOR WEST WEBER WATER DISTRICT STDS.	3/CDT.05
7	THRUST BLOCK PER TAYLOR WEST WEBER WATER DISTRICT STDS.	1/CDT.05
8	GATE VALVE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	1/CDT.05
9	BLOW OFF VALVE PER TAYLOR WEST WEBER WATER DISTRICT STDS.	8/CDT.05
10	8" PVC SDR-35 SEWER MAIN PER WEBER COUNTY ENGINEERING STDS.	
11	4" PVC SDR-35 SEWER LATERAL (2% MIN SLOPE) PER WEBER COUNTY ENGINEERING STDS.	
12	4' SSMH PER WEBER COUNTY ENGINEERING STDS.	
13	5' SSMH PER WEBER COUNTY ENGINEERING STDS.	
14	12" PVC SDR-35 SEWER MAIN PER WEBER COUNTY ENGINEERING STDS.	
15	12" PVC C-900 PRESSURIZED IRRIGATION PIPE PER HOOPER IRRIGATION STDS.	3/CDT.02
16	8" PVC C-900 PRESSURIZED IRRIGATION PIPE PER HOOPER IRRIGATION STDS.	3/CDT.02
17	THRUST BLOCK PER HOOPER IRRIGATION STDS.	2/CDT.02
18	GATE VALVE PER HOOPER IRRIGATION STDS.	6/CDT.02
19	BLOW OFF VALVE PER HOOPER IRRIGATION STDS.	
20	1" POLY IRRIGATION SERVICE LINE & METER PER HOOPER IRRIGATION STDS.	5/CDT.02
21	8"X6" REDUCER	
22	8"X8"X8" TEE	
23	8"X8"X6" TEE	
24	8"X12" REDUCER	
25	8" 90° BEND	
26	12" 45° BEND	
27	STREET LIGHT PER WEBER COUNTY STDS.	

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION. NOTIFY ENGINEER FOR REDESIGN IF CONNECTION POINT IS HIGHER THAN SHOWN OR IF ANY UTILITY CONFLICTS OCCUR. GRAVITY CONNECTIONS MUST BE DONE PRIOR TO BUILDING FOOTINGS AND ROUGH PLUMBING ARE CONSTRUCTED.

NOTE A:
12" OF VERTICAL SEPARATION REQUIRED BETWEEN STORM AND WATER LINES. LOOP WATER MAIN IF IN CONFLICT.

NOTE B:
18" OF VERTICAL SEPERATION REQUIRED BETWEEN SEWER AND WATER LINES. CONTACT ENGINEER FOR REDESIGN IF NECESSARY

NOTE C:
12" OF VERTICAL SEPERATION REQUIRED BETWEEN SEWER AND STORM. CONTACT ENGINEER FOR REDESIGN IF NECESSARY

NOTE D:
SEWER CLEANOUTS MUST BE PROVIDED EVERY 50' ON 4" SEWER LATERALS

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

NOTE:
CONSTRUCTION OF THE PRESSURIZED IRRIGATION SHALL BE IN ACCORDANCE WITH HOOPER IRRIGATION STANDARDS.

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BENCHMARK CIVIL

WINSTON PARK
3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

UTILITY PLAN

CUP.02
6 OF 21

Blue Stakes of UTAH 811
Bluestakes.org

GRADING AND DRAINAGE KEY NOTE REFERENCE

NO.	DESCRIPITON	DETAIL
1	GRADE SITE TO ELEVATIONS SHOWN ON PLAN	
2	8.5' ORIFICE PLATE	2/CDT.03
3	STORM DRAIN INLET BOX PER APWA #315.1	
4	STORM DRAIN CLEAN OUT	1/CDT.04
5	STORM DRAIN COMBO BOX PER APWA #316	
6	FLARED END SECTION	2/CDT.04
7	18F SNOUT	4/CDT.03
8	STORM DRAIN MANHOLE	

GRADING AND DRAINAGE KEY NOTE REFERENCE

NO.	DESCRIPITON	DETAIL
9	15" Ø RCP CLASS III SD PIPE	
10	18" Ø RCP CLASS III SD PIPE	
11	21" Ø RCP CLASS III SD PIPE	
12	24" Ø RCP CLASS III SD PIPE	
13	12" Ø PERFORATED HDPE SD PIPE	3/CDT.04
14	3'X3' CATCH BASIN	1/CDT.03
15	SERIES 37 IN-LINE CHECK VALVE OR APPROVED EQUAL	3/CDT.03
16	15" Ø RCP CLASS III SD PIPE; 2-5 LF @0.50% (SEE NOTE A)	

ALL HDPE/RCP CLASS III PIPE TO HAVE SOIL TIGHT JOINTS

NOTE:
STORM DRAINAGE CALCULATIONS CAN BE SEEN ON SHEET CGD.02

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION. NOTIFY ENGINEER FOR REDESIGN IF CONNECTION POINT IS HIGHER THAN SHOWN OR IF ANY UTILITY CONFLICTS OCCUR. GRAVITY CONNECTIONS MUST BE DONE PRIOR TO BUILDING FOOTINGS AND ROUGH PLUMBING ARE CONSTRUCTED.

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

NOTE A:
CONTRACTOR TO FIELD VERIFY DISTANCE BETWEEN EXISTING SD COMBO BOX AND NEW SDIB PRIOR TO INSTALLATION OF 15" Ø CLASS III RCP. ADJUST EX. COMBO BOX LID TO GRADE AS NEEDED.

SURVEY CONTROL NOTE:
THE CONTRACTOR OR SURVEYOR PERFORMING THE CONSTRUCTION SURVEYING SHALL BE RESPONSIBLE TO PROVIDE CONSTRUCTION LAYOUT PER THE APPROVED PLANS ONLY. THE SURVEYOR SHALL ALSO BE RESPONSIBLE FOR VERIFYING HORIZONTAL CONTROL FROM THE SURVEY MONUMENTS AND FOR VERIFYING ANY ADDITIONAL CONTROL POINTS SHOWN ON THE SURVEY OR IMPROVEMENTS PLANS OR ON ELECTRONIC DATA PROVIDED BY BENCHMARK ENGINEERING AND LAND SURVEYING. THE SURVEYOR SHALL ALSO USE THE BENCHMARKS AS SHOWN ON THE PLAN, AND VERIFY THEM AGAINST NO LESS THAN THREE EXISTING HARD IMPROVEMENT ELEVATIONS INCLUDED ON THESE PLANS OR ON ELECTRONIC DATA PROVIDED BY BENCHMARK ENGINEERING AND LAND SURVEYING. IF ANY DISCREPANCIES ARE ENCOUNTERED, THE SURVEYOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND RESOLVE THE DISCREPANCIES BEFORE PROCEEDING WITH ANY CONSTRUCTION SURVEYING. IT IS ALSO THE RESPONSIBILITY OF THE SURVEYOR TO VERIFY ANY ELECTRONIC DATA WITH THE APPROVED STAMPED AND SIGNED PLANS AND NOTIFY THE ENGINEER WITH ANY DISCREPANCIES.

NORTH

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

NEW DETENTION POND
VOLUME =74,487 C.F.
1' BERM/ FREEBOARD = 4239.98
HWM=4238.98
BTTM=4236.98
SIDE SLOPES=4:1

24 INCH FLARED END SECTION 67 X 74 (#200)
IE (E):4233.80 (6)

NEW SD CLEANOUT (#201)
RIM:4237.75 (4)
IE (W):4233.81
IE (S):4233.81
IE (E):4233.81

EX. SDMH (#204)
TBC:4238.20
IE (W):4234.07
IE (E):4234.07

EX. SD COMBO BOX (#205)
RIM:4238.25
IE (W):4234.32
IE (S):4234.70
IE (E):4234.32

24" Ø RCP CLASS III - SD
278 L.F. @ 0.04% SLOPE

NEW SDIB (#239)
TBC:4238.53 (3)
IE (S):4234.72
IE (N):4234.72

EX. SD COMBO BOX (#206)
RIM:4238.53 (5)
IE (W):4234.44
IE (S):4234.44
IE (E):4234.44

24" Ø RCP CLASS III - SD
202 L.F. @ 0.04% SLOPE

EX. SD COMBO BOX (#208)
RIM:4238.55
IE (W):4234.76
IE (S):4234.76
IE (E):4234.76

24" Ø RCP CLASS III - SD
82 L.F. @ 0.22% SLOPE

24" Ø RCP CLASS III - SD
117 L.F. @ 0.18% SLOPE

18" Ø RCP CLASS III - SD
17 L.F. @ 0.20% SLOPE

24" Ø RCP CLASS III - SD
79 L.F. @ 0.06% SLOPE

15" Ø RCP CLASS III - SD
26 L.F. @ 0.48% SLOPE

NEW SD CLEANOUT
W/ BAFFLE (#212)
RIM:4236.29 (2) (4)
IE (S):4234.85
IE (N):4234.85
BTTM: 4231.85

NEW SDIB (#240)
(3) TBC:4238.80
IE (N):4234.46

24" Ø RCP CLASS III - SD
287 L.F. @ 0.08% SLOPE

EX. SD COMBO BOX (#207)
RIM:4238.71
IE (W):4234.67
IE (S):4234.67
IE (E):4234.67

NEW SDIB (#241)
TBC:4238.98 (3)
IE (N):4234.69

EX. SD COMBO BOX (#209)
RIM:4238.95
IE (W):4234.93
IE (S):4234.93
IE (E):4234.93

NEW SDIB (#242)
TBC:4238.82 (3)
IE (N):4234.78

NEW SDIB (#243)
TBC:4239.25 (3)
IE (N):4234.95

NEW SD COMBO BOX (#210)
RIM:4238.99 (5)
IE (W):4235.11
IE (E):4235.11

NEW SD COMBO BOX (#203)
(5) RIM:4237.84
IE (W):4234.02
IE (E):4234.02

15" Ø RCP CLASS III - SD
29 L.F. @ 0.44% SLOPE

NEW 3' X 3' CB (#213)
(14) TG: 4236.98
IE (S):4234.98
IE (N):4234.98
IE (SE):4234.98
BTTM: 4232.98

12" Ø PERFORATED HDPE SD PIPE
252 L.F. @ 0.00% SLOPE (12)

18" Ø FLARED END SECTION (#202)
IE (N):4233.84 (6)

NEW SD COMBO BOX (#215)
RIM:4238.47 (5)
IE (S):4235.40
IE (W):4235.40
IE (E):4235.40

24" Ø RCP CLASS III - SD
7 L.F. @ 0.20% SLOPE

NEW SDIB (#216)
(3) TBC:4238.77
IE (E):4235.59

24" Ø RCP CLASS III - SD
211 L.F. @ 0.20% SLOPE

15" Ø RCP CLASS III - SD
39 L.F. @ 0.50% SLOPE

12" Ø PERFORATED HDPE SD PIPE
141 L.F. @ 0.00% SLOPE (12)

NEW 3' X 3' CB (#222)
(14) TG: 4236.98
IE (S):4234.98
IE (NW):4234.98
BTTM: 4232.98

DRAINAGE EASEMENT

NEW 3' X 3' CB (#214)
(14) TG: 4237.23
IE (W):4234.98
IE (N):4234.98
BTTM: 4232.98

21" Ø RCP CLASS III - SD
132 L.F. @ 0.19% SLOPE

NEW SDMH (#223)
RIM:4237.15 (8)
IE (S):4235.24
IE (N):4235.24

24" Ø RCP CLASS III - SD
177 L.F. @ 0.20% SLOPE

NEW SD COMBO BOX (#217)
RIM:4239.33 (5)
IE (S):4235.75
IE (N):4235.75

21" Ø RCP CLASS III - SD
93 L.F. @ 0.20% SLOPE

NEW SD COMBO BOX (#238)
RIM:4239.78 (5)
IE (S):4235.94
IE (N):4235.94

21" Ø RCP CLASS III - SD
386 L.F. @ 0.20% SLOPE

15" Ø RCP CLASS III - SD
34 L.F. @ 0.20% SLOPE

NEW REVERSE SD COMBO BOX (#237)
(5) RIM:4239.56
IE (S):4236.43
IE (E):4236.43

21" Ø RCP CLASS III - SD
211 L.F. @ 0.20% SLOPE

NEW SD COMBO BOX (#235)
RIM:4239.22 (5)
IE (S):4236.36
IE (W):4236.36
IE (N):4236.36

NEW SD COMBO BOX (#225)
RIM:4239.76 (5)
IE (W):4236.23
IE (E):4236.23
IE (N):4236.23

NEW SD COMBO BOX (#224)
(5) RIM:4240.25
IE (E):4236.02
IE (N):4236.01

NEW SDIB (#226)
TBC:4240.06 (3)
IE (S):4236.41

NEW SDMH (#227)
RIM:4241.19 (8)
IE (W):4236.63
IE (S):4236.62

NEW SD COMBO BOX (#218)
(5) RIM:4238.81
IE (S):4236.54
IE (N):4236.54

15" Ø RCP CLASS III - SD
93 L.F. @ 0.20% SLOPE

15" Ø RCP CLASS III - SD
36 L.F. @ 0.50% SLOPE

15" Ø RCP CLASS III - SD
90 L.F. @ 0.20% SLOPE

NEW REVERSE SD COMBO BOX (#219)
(5) RIM:4239.15
IE (N):4236.61

21" Ø RCP CLASS III - SD
104 L.F. @ 0.20% SLOPE

21" Ø RCP CLASS III - SD
201 L.F. @ 0.20% SLOPE

21" Ø RCP CLASS III - SD
62 L.F. @ 0.20% SLOPE

MATCH LINE (SEE CGD.02)

MATCH LINE (SEE CGD.02)

No.	DATE	DESCRIPTION
1	03/2021	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: JHO
CHECKED BY: AGA
FIELD CREW: SURVEY
DATE: 03/12/2021
DWG FILE: 2006142_CGD_OPTION2

PRELIMINARY PLAN
PROFESSIONAL ENGINEER
3/23/21
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH
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BENCHMARK ENGINEERING & LAND SURVEYING
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BENCHMARK CIVIL

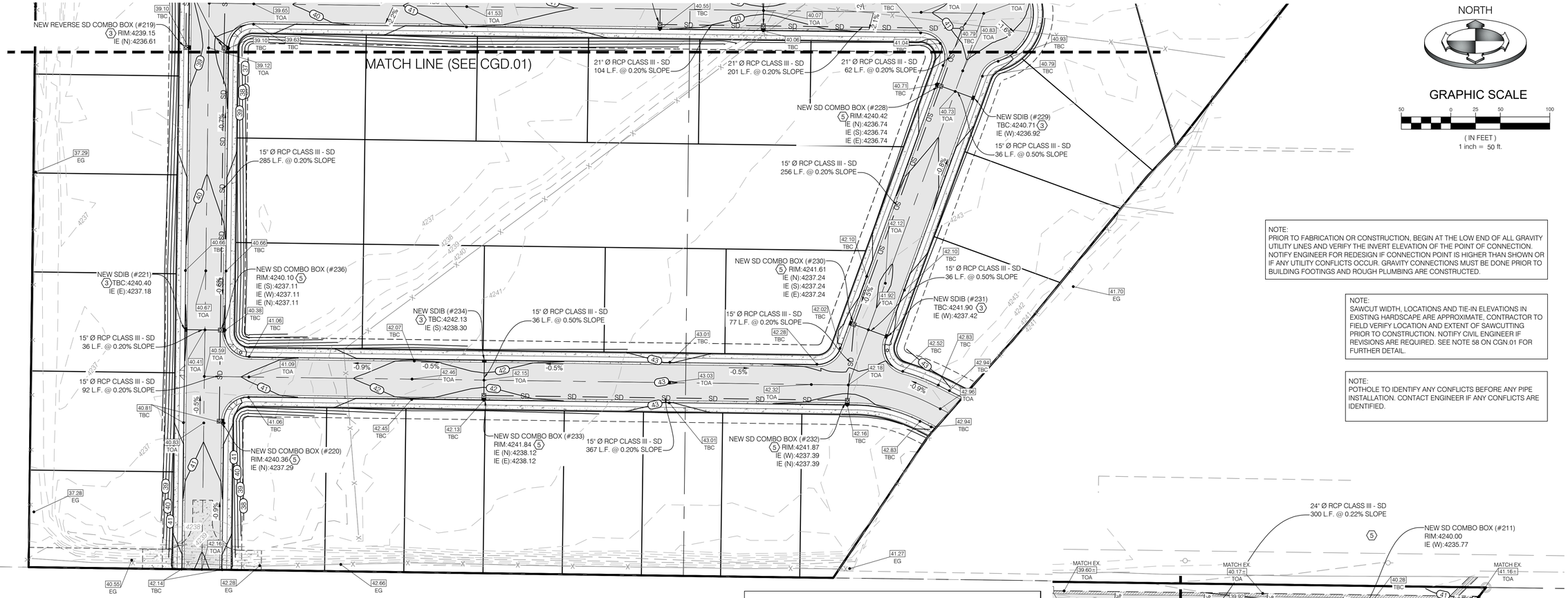
WINSTON PARK
3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

GRADING & DRAINAGE PLAN

CGD.01
7 OF 21

Blue Stakes of UTAH 811
Bluestakes.org



GRADING AND DRAINAGE KEY NOTE REFERENCE		
NO.	DESCRIPITON	DETAIL
1	GRADE SITE TO ELEVATIONS SHOWN ON PLAN	
2	8.5" ORIFICE PLATE	2/CDT.03
3	STORM DRAIN INLET BOX PER APWA #315.1	
4	STORM DRAIN CLEAN OUT	1/CDT.04
5	STORM DRAIN COMBO BOX PER APWA #316	
6	FLARED END SECTION	2/CDT.04
7	18F SNOUT	4/CDT.03
8	STORM DRAIN MANHOLE	
9	15" Ø RCP CLASS III SD PIPE	
10	18" Ø RCP CLASS III SD PIPE	
11	21" Ø RCP CLASS III SD PIPE	
12	24" Ø RCP CLASS III SD PIPE	
13	12" Ø PERFORATED HDPE SD PIPE	3/CDT.04
14	3'X3' CATCH BASIN	1/CDT.03
15	SERIES 37 IN-LINE CHECK VALVE OR APPROVED EQUAL	3/CDT.03
16	15" Ø RCP CLASS III SD PIPE; 1-5 LF @0.50% (SEE NOTE A)	

ALL HDPE/RCP CLASS III PIP TO HAVE SOIL TIGHT JOINTS

SURVEY CONTROL NOTE:
THE CONTRACTOR OR SURVEYOR PERFORMING THE CONSTRUCTION SURVEYING SHALL BE RESPONSIBLE TO PROVIDE CONSTRUCTION LAYOUT PER THE APPROVED PLANS ONLY. THE SURVEYOR SHALL ALSO BE RESPONSIBLE FOR VERIFYING HORIZONTAL CONTROL FROM THE SURVEY MONUMENTS AND FOR VERIFYING ANY ADDITIONAL CONTROL POINTS SHOWN ON THE SURVEY OR IMPROVEMENTS PLANS OR ON ELECTRONIC DATA PROVIDED BY BENCHMARK ENGINEERING AND LAND SURVEYING. THE SURVEYOR SHALL ALSO USE THE BENCHMARKS AS SHOWN ON THE PLAN, AND VERIFY THEM AGAINST NO LESS THAN THREE EXISTING HARD IMPROVEMENT ELEVATIONS INCLUDED ON THESE PLANS OR ON ELECTRONIC DATA PROVIDED BY BENCHMARK ENGINEERING AND LAND SURVEYING. IF ANY DISCREPANCIES ARE ENCOUNTERED, THE SURVEYOR SHALL IMMEDIATELY NOTIFY THE ENGINEER AND RESOLVE THE DISCREPANCIES BEFORE PROCEEDING WITH ANY CONSTRUCTION SURVEYING. IT IS ALSO THE RESPONSIBILITY OF THE SURVEYOR TO VERIFY ANY ELECTRONIC DATA WITH THE APPROVED STAMPED AND SIGNED PLANS AND NOTIFY THE ENGINEER WITH ANY DISCREPANCIES.

NOTE A:
CONTRACTOR TO FIELD VERIFY DISTANCE BETWEEN EXISTING SD COMBO BOX AND NEW SDIB PRIOR TO INSTALLATION OF 15" Ø CLASS III RCP. ADJUST EX. COMBO BOX LID TO GRADE AS NEEDED.

NOTE:
PRIOR TO FABRICATION OR CONSTRUCTION, BEGIN AT THE LOW END OF ALL GRAVITY UTILITY LINES AND VERIFY THE INVERT ELEVATION OF THE POINT OF CONNECTION. NOTIFY ENGINEER FOR REDESIGN IF CONNECTION POINT IS HIGHER THAN SHOWN OR IF ANY UTILITY CONFLICTS OCCUR. GRAVITY CONNECTIONS MUST BE DONE PRIOR TO BUILDING FOOTINGS AND ROUGH PLUMBING ARE CONSTRUCTED.

NOTE:
SAWCUT WIDTH, LOCATIONS AND TIE-IN ELEVATIONS IN EXISTING HARDSCAPE ARE APPROXIMATE, CONTRACTOR TO FIELD VERIFY LOCATION AND EXTENT OF SAWCUTTING PRIOR TO CONSTRUCTION. NOTIFY CIVIL ENGINEER IF REVISIONS ARE REQUIRED. SEE NOTE 58 ON CGN.01 FOR FURTHER DETAIL.

NOTE:
POTHOLE TO IDENTIFY ANY CONFLICTS BEFORE ANY PIPE INSTALLATION. CONTACT ENGINEER IF ANY CONFLICTS ARE IDENTIFIED.

STORM DRAINAGE CALCULATIONS
Rational Method (Q=CIA)

Area Identification (A)		Rational Coefficient (C)	C*A
Roof =	162,000	0.9	145800 S.F.
Pavement =	237,126	0.9	213413 S.F.
Landscaping =	1,313,176	0.2	262635 S.F.
Sum:	1712302 S.F.	Sum:	621848 S.F.

NOAA ATLAS 14 (100 YEAR STORM)				Allowable Discharge =	.10cfs/acre
Time (min)	Intensity (in/hr)	Rainfall (inches)	Rainfall Excess (cu.ft.)	Allowed Discharge (cu.ft)	Volume to Detain (cu.ft)
15	4.10	1.025	53116	3538	49578
30	2.76	1.380	71513	7076	64437
60	1.71	1.710	88613	14151	**74462**
120	0.93	1.860	96387	28303	68084
180	0.64	1.905	98718	42454	56265
360	0.35	2.124	110067	84908	25160
720	0.22	2.604	134941	169815	0
1440	0.12	2.904	150487	339630	0

Detention Calculations

Pond Volume

Detention Pond Civil 3D = **74,487 cf**

Pipe Volume

12 in. Pipe Length = **393 lf**
Volume = **309 cf**

15 in. Pipe Length = **1,513 lf**
Volume = **1,857 cf**

21 in. Pipe Length = **1,189 lf**
Volume = **2,860 cf**

24 in. Pipe Length = **388 lf**
Volume = **1,219 cf**

Is there adequate storage? Storage Provided = **80,731 cf**
Req. Storage = **74,462 cf** **YES**

Orifice Design:
The storm runoff will be detained at 0.1 cfs/acre

$$Q = C_d A_0 \sqrt{2gh}$$

Total acreage of development:	39.31 acres
Allowable discharge:	0.1 cfs/acre
Max head:	4.13 ft
Design diameter for new orifice:	8.5 inch

No.	DATE	DESCRIPTION
1	03/2021	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: JHO
CHECKED BY: AGA
FIELD CREW: SURVEY
DATE: 03/12/2021
DWG. FILE: 2006142_CGD_OPTION2

PRELIMINARY PLAN
PROFESSIONAL ENGINEER
3/23/21
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH
NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

WINSTON PARK
3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

GRADING & DRAINAGE PLAN

CGD.02
8 OF 21

Blue Stakes of UTAH 811 Bluestakes.org

NORTH

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

No.	DATE	DESCRIPTION
1	03/2021	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

0 0.5 1"

DRAWN BY	JHO
CHECKED BY	AGA
FIELD CREW	SURVEY
DATE	03/12/2021
DWG FILE	2006142_CPP_OPTION2

PRELIMINARY PLAN

PROFESSIONAL ENGINEER
3/25/21
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH

NOT FOR CONSTRUCTION

24 INCH FLARED END SECTION 67 X 74 (#200)
IE (E):4233.80

CONNECT TO EX. 6" WATERLINE

8" Ø PVC C-900 DR-18 WATERLINE
45 L.F. SLOPE AS NEEDED TO
CONNECT TO EXISTING 6" PIPE

NEW SD CLEANOUT (#201)
RIM:4237.75
IE (W):4233.81
IE (S):4233.81
IE (E):4233.81

SAWCUT

NEW 5' SSMH (#100)
RIM:4238.43
INV (S):4231.13

EX. SD COMBO BOX (#205)
RIM:4238.25
IE (W):4234.32
IE (S):4234.70
IE (E):4234.32

DOTTED AREA
DEDICATED TO
WEBER COUNTY

24" Ø RCP CLASS III - SD
278 L.F. @ 0.04% SLOPE

EX. EOA

EX. SD COMBO BOX (#206)
RIM:4238.53
IE (W):4234.44
IE (S):4234.44
IE (E):4234.44

12" Ø PVC C-900 IRRIGATION PIPE
3300 L.F. @ 0.12% SLOPE

SAWCUT EXISTING
ASPHALT TO CROWN

12" Ø PVC C-900 DR-18 WATERLINE
1828 L.F. @ 0.12% SLOPE

24" Ø RCP CLASS III - SD
202 L.F. @ 0.04% SLOPE

24" Ø RCP CLASS III - SD
153 L.F. @ 0.11% SLOPE

24" Ø RCP CLASS III - SD
300 L.F. @ 0.22% SLOPE

1800 SOUTH

MATCHLINE (SEE CPP.03)

18" Ø RCP CLASS III - SD
17 L.F. @ 0.20% SLOPE

24" Ø RCP CLASS III - SD
117 L.F. @ 0.18% SLOPE

NEW SD COMBO BOX (#203)
RIM:4237.84
IE (W):4234.02
IE (E):4234.02

18" Ø FLARED END SECTION (#202)
IE (N):4233.84

24" Ø RCP CLASS III - SD
7 L.F. @ 0.20% SLOPE

FITZROY ROAD

24" Ø RCP CLASS III - SD
79 L.F. @ 0.06% SLOPE

15" Ø RCP CLASS III - SD
26 L.F. @ 0.48% SLOPE

15" Ø RCP CLASS III - SD
29 L.F. @ 0.44% SLOPE

12" SDR-35 PVC SS
200 L.F. @ 0.19% SLOPE

NEW 4' SSMH (#101)
RIM:4238.64
INV (N):4230.74
INV (S):4230.54

NEW SD CLEANOUT
W/ BAFFLE (#212)
RIM:4236.29
IE (S):4234.85
IE (N):4234.85

NEW 3'X 3' CB (#213)
TG: 4236.98
IE (S):4234.98
IE (N):4234.98
IE (SE):4234.98
BTTM: 4232.98

NEW SDIB (#239)
TBC:4238.53
IE (S):4234.72
IE (N):4234.72

NEW SDIB (#240)
TBC:4238.80
IE (N):4234.46

24" Ø RCP CLASS III - SD
287 L.F. @ 0.08% SLOPE

NEW SDIB (#241)
TBC:4238.98
IE (N):4234.69

5' TELEPHONE
EASEMENT

EX. SD COMBO BOX (#207)
RIM:4238.71
IE (W):4234.67
IE (S):4234.67
IE (E):4234.67

NEW SDIB (#242)
TBC:4238.82
IE (N):4234.78

EX. SD COMBO BOX (#208)
RIM:4238.55
IE (W):4234.76
IE (S):4234.76
IE (E):4234.76

EX. SD COMBO BOX (#209)
RIM:4238.95
IE (W):4234.93
IE (S):4234.93
IE (E):4234.93

NEW SD COMBO BOX (#210)
RIM:4238.99
IE (W):4235.11
IE (E):4235.11

24" Ø RCP CLASS III - SD
82 L.F. @ 0.22% SLOPE

NEW SDIB (#243)
TBC:4239.25
IE (N):4234.95

MATCH LINE
(SEE CPP.02)

1800 SOUTH PLAN

STATION

TIE FINISHED GRADE INTO EX.
GRADE AT 3:1 SLOPE

GRADE BREAK STA = 100+00.01
ELEV = 4237.66

HIGH PT ELEV=4237.88
HIGH PT STA=100+80.12
PVI STA=100+80.20
PVI ELEV=4237.90
K=44.00
26.57' VC

LOW PT ELEV=4237.72
LOW PT STA=101+47.45
PVI STA=101+47.58
PVI ELEV=4237.69
K=64.00
39.14' VC

HIGH PT ELEV=4238.30
HIGH PT STA=103+51.35
PVI STA=103+51.17
PVI ELEV=4238.32
K=44.00
26.74' VC

LOW PT ELEV=4238.19
LOW PT STA=104+03.15
PVI STA=104+03.15
PVI ELEV=4238.16
K=64.00
38.40' VC

HIGH PT ELEV=4238.69
HIGH PT STA=105+86.97
PVI STA=105+86.97
PVI ELEV=4238.71
K=44.00
26.40' VC

LOW PT ELEV=4238.46
LOW PT STA=106+81.08
PVI STA=106+81.08
PVI ELEV=4238.43
K=64.00
38.40' VC

FINISH GRADE
AT LIP OF PROPOSED GUTTER

HIGH PT ELEV=4238.93
HIGH PT STA=108+53.20
PVI STA=108+53.20
PVI ELEV=4238.95
K=44.00
26.40' VC

LOW PT ELEV=4238.63
LOW PT STA=109+68.15
PVI STA=109+68.15
PVI ELEV=4238.60
K=64.00
38.40' VC

HIGH PT ELEV=4238.81
HIGH PT STA=110+42.29
PVI STA=110+42.29
PVI ELEV=4238.83
K=44.00
26.40' VC

LOW PT ELEV=4238.47
LOW PT STA=111+69.72
PVI STA=111+69.72
PVI ELEV=4238.44
K=64.00
38.40' VC

HIGH PT ELEV=4238.98
HIGH PT STA=113+55.64
PVI STA=113+55.64
PVI ELEV=4239.00
K=44.00
26.40' VC

LOW PT ELEV=4238.89
LOW PT STA=114+02.79
PVI STA=114+04.79
PVI ELEV=4238.85
K=64.00
42.38' VC

STA:100+66.92 ELEV=4237.86
STA:100+93.48 ELEV=4237.86
STA:101+28.01 ELEV=4237.75
STA:101+67.15 ELEV=4237.75
STA:103+37.80 ELEV=4238.28
STA:103+64.55 ELEV=4238.28
STA:103+83.95 ELEV=4238.22
STA:104+22.35 ELEV=4238.22
STA:105+73.77 ELEV=4238.67
STA:106+00.17 ELEV=4238.67
STA:106+61.88 ELEV=4238.49
STA:107+00.28 ELEV=4238.49
STA:108+40 ELEV=4238.91
STA:108+66.40 ELEV=4238.91
STA:109+48.95 ELEV=4238.66
STA:109+87.35 ELEV=4238.66
STA:110+29.09 ELEV=4238.79
STA:110+55.49 ELEV=4238.79
STA:111+50.52 ELEV=4238.50
STA:111+88.92 ELEV=4238.50
STA:113+42.44 ELEV=4238.96
STA:113+68.84 ELEV=4238.96
STA:113+85.59 ELEV=4238.92
STA:114+25.98 ELEV=4238.93

2.0' MIN.
4.0' MIN.

0.30% -0.30% 0.31% 0.30% -0.30% 0.30% -0.30% 0.30% -0.30% 0.30% -0.30%

24" Ø RCP CLASS III - SD
117 L.F. @ 0.18% SLOPE

24" Ø RCP CLASS III - SD
200 L.F. @ 0.12% SLOPE

24" Ø RCP CLASS III - SD
278 L.F. @ 0.04% SLOPE

24" Ø RCP CLASS III - SD
287 L.F. @ 0.08% SLOPE

24" Ø RCP CLASS III - SD
202 L.F. @ 0.04% SLOPE

24" Ø RCP CLASS III - SD
153 L.F. @ 0.11% SLOPE

NEW SDIB (#243)
TBC:4239.25
IE (N):4234.95

12" BUTTERFLY VALVE

12" X12" X 8" IRRIGATION TEE
IE (12") = 4230.26
IE (8") = 4230.40

12" X12" X 8' WATER TEE
IE (12") = 4232.22
IE (8") = 4232.38

IRR. GATE VALVE (TYP.)

NEW SD COMBO BOX (#203)
RIM:4237.84
IE (W):4234.02
IE (E):4234.02

8" 90° BEND

8"X12" REDUCER

NEW SD CLEANOUT (#201)
RIM:4237.75
IE (W):4233.81
IE (S):4233.81
IE (E):4233.81

24" Ø RCP CLASS III - SD
7 L.F. @ 0.20% SLOPE

EX. SD COMBO BOX (#205)
RIM:4238.25
IE (W):4234.32
IE (S):4234.70
IE (E):4234.32

NEW SDIB (#239)
TBC:4238.53
IE (S):4234.72
IE (N):4234.72

NEW SDIB (#240)
TBC:4238.80
IE (N):4234.46

EX. SD COMBO BOX (#206)
RIM:4238.53
IE (W):4234.44
IE (S):4234.44
IE (E):4234.44

12" Ø PVC C-900 IRRIGATION PIPE
3300 L.F. @ 0.12% SLOPE

EXISTING GRADE
AT LIP OF PROPOSED GUTTER

12" Ø PVC C-900 DR-18 WATERLINE
1828 L.F. @ 0.12% SLOPE

NEW SDIB (#241)
TBC:4238.98
IE (N):4234.69

EX. SD COMBO BOX (#207)
RIM:4238.71
IE (W):4234.67
IE (S):4234.67
IE (E):4234.67

EX. SD COMBO BOX (#208)
RIM:4238.55
IE (W):4234.76
IE (S):4234.76
IE (E):4234.76

NEW SDIB (#242)
TBC:4238.82
IE (N):4234.78

EX. SD COMBO BOX (#209)
RIM:4238.95
IE (W):4234.93
IE (S):4234.93
IE (E):4234.93

24" Ø RCP CLASS III - SD
82 L.F. @ 0.22% SLOPE

NEW SD COMBO BOX (#210)
RIM:4238.99
IE (W):4235.11
IE (E):4235.11

NEW SDIB (#243)
TBC:4239.25
IE (N):4234.95

1800 SOUTH PROFILE

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
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3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

ROADWAY PLAN & PROFILE

CPP.01
9 OF 21

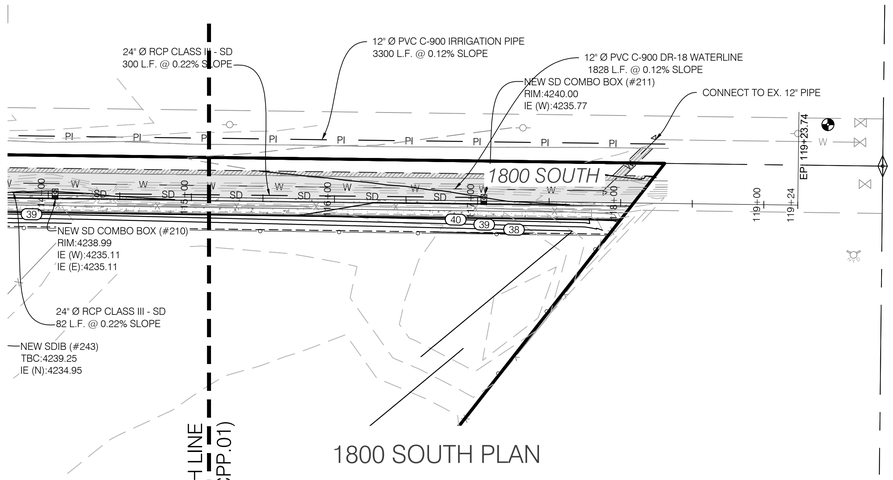
Blue Stakes of UTAH 811
Bluestakes.org

NORTH

GRAPHIC SCALE

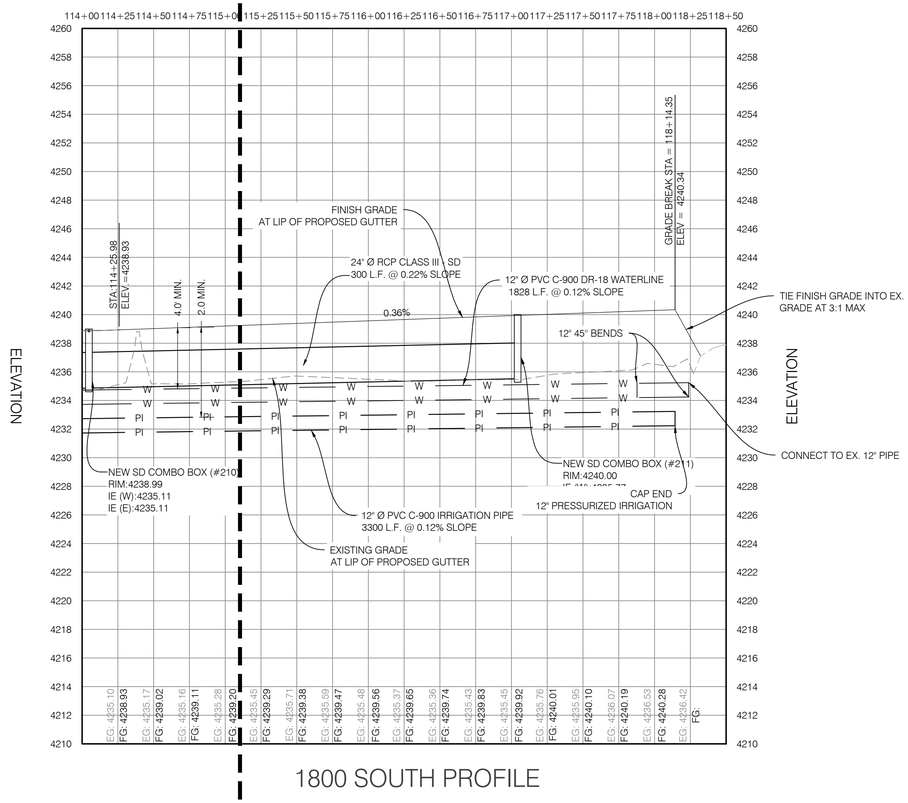
50 0 25 50 100

(IN FEET)
1 inch = 50 ft.



1800 SOUTH PLAN

STATION



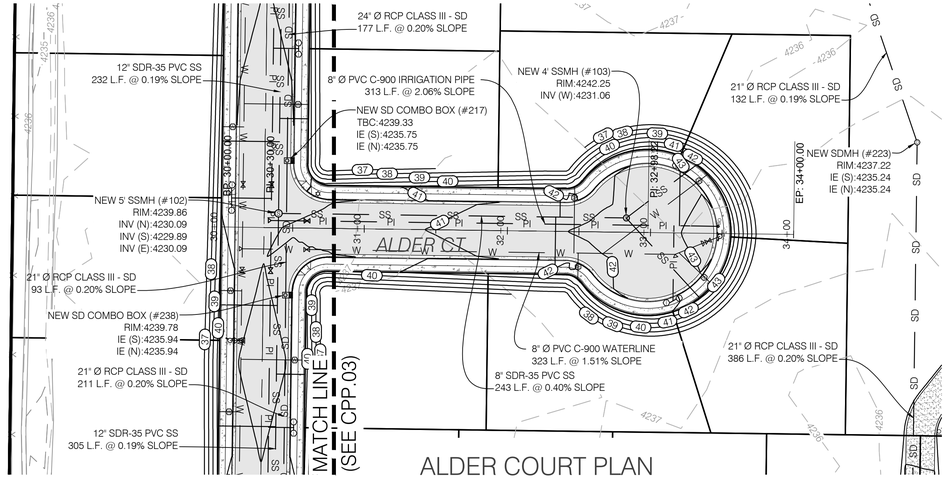
1800 SOUTH PROFILE

NORTH

GRAPHIC SCALE

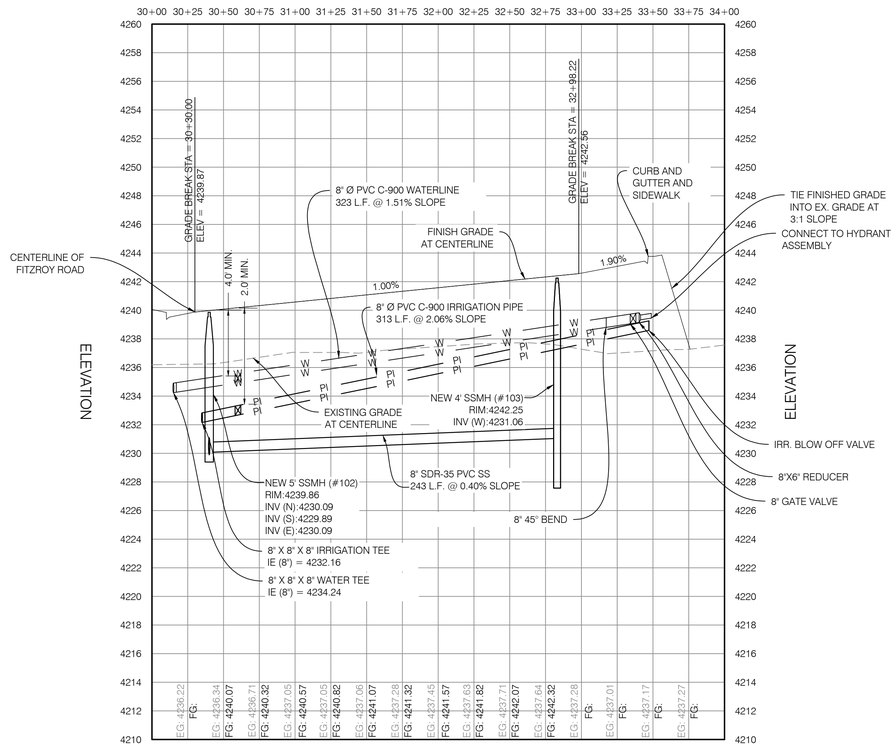
50 0 25 50 100

(IN FEET)
1 inch = 50 ft.



ALDER COURT PLAN

STATION



ALDER CT PROFILE

No.	DATE	DESCRIPTION
1	03/2021	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY	JHO
CHECKED BY	AGA
FIELD CREW	SURVEY
DATE	03/12/2021
DWG FILE	2006142_CPP_OPTION2

PRELIMINARY PLAN

PROFESSIONAL ENGINEER
3/25/21
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH

NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
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WEBER COUNTY, UTAH

PROJECT NO. 2006142

ROADWAY PLAN & PROFILE

CPP.02
10 OF 21

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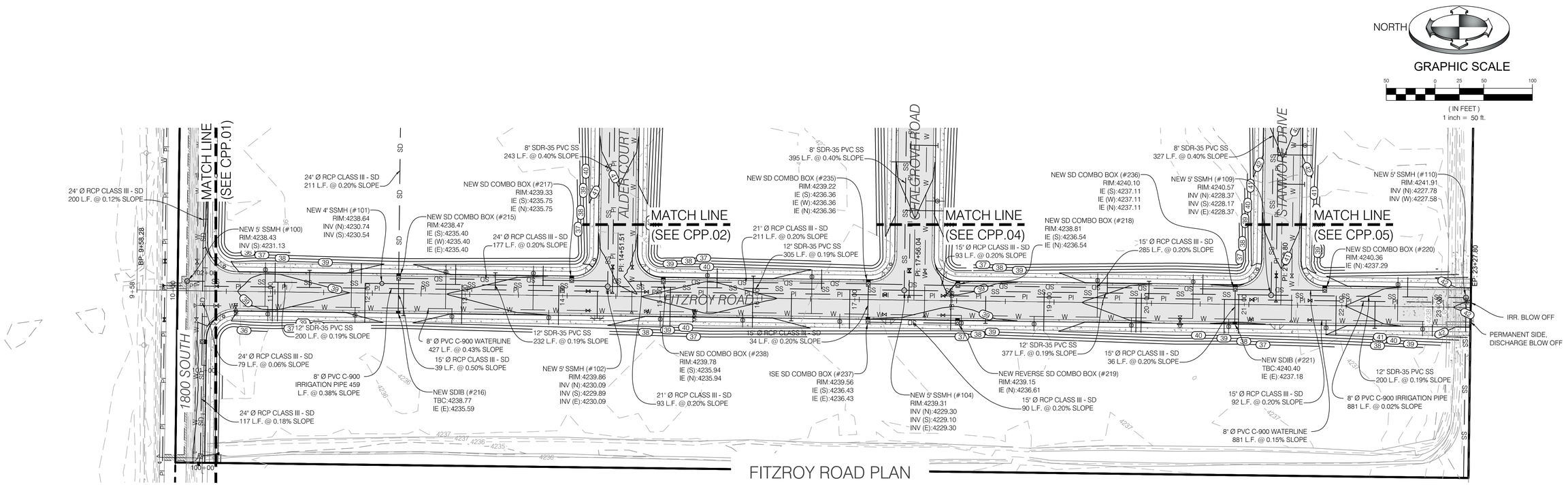

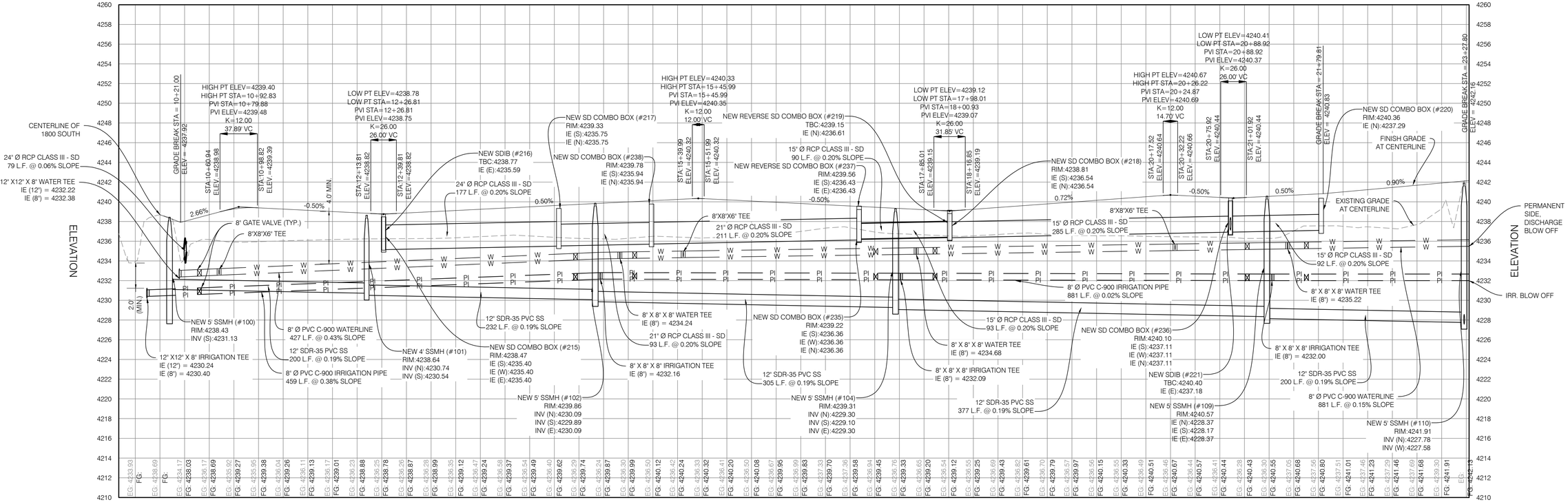

No.	DATE	DESCRIPTION
1	03/22/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY	JHO
CHECKED BY	AGA
FIELD CREW	SURVEY
DATE	03/12/2021
DWG. FILE	2006142_CPP_OPTION2

PRELIMINARY PLAN

PROFESSIONAL ENGINEER 3/23/21 No. 11366633 ALLISON G. ALBERT STATE OF UTAH

NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
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WINSTON PARK

3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

ROADWAY PLAN & PROFILE

CPP.03
11 OF 21

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NORTH

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

No.	DATE	DESCRIPTION
1	03/2/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

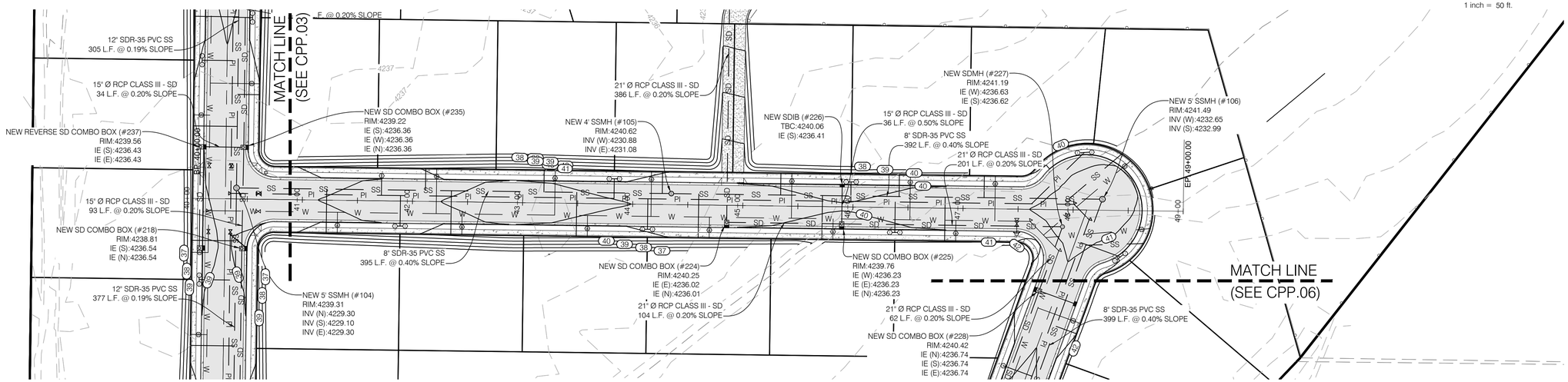
0 0.5 1"

DRAWN BY: JHO
CHECKED BY: AGA
FIELD CREW: SURVEY
DATE: 03122021
DWG. FILE: 2006142_CPP_OPTION2

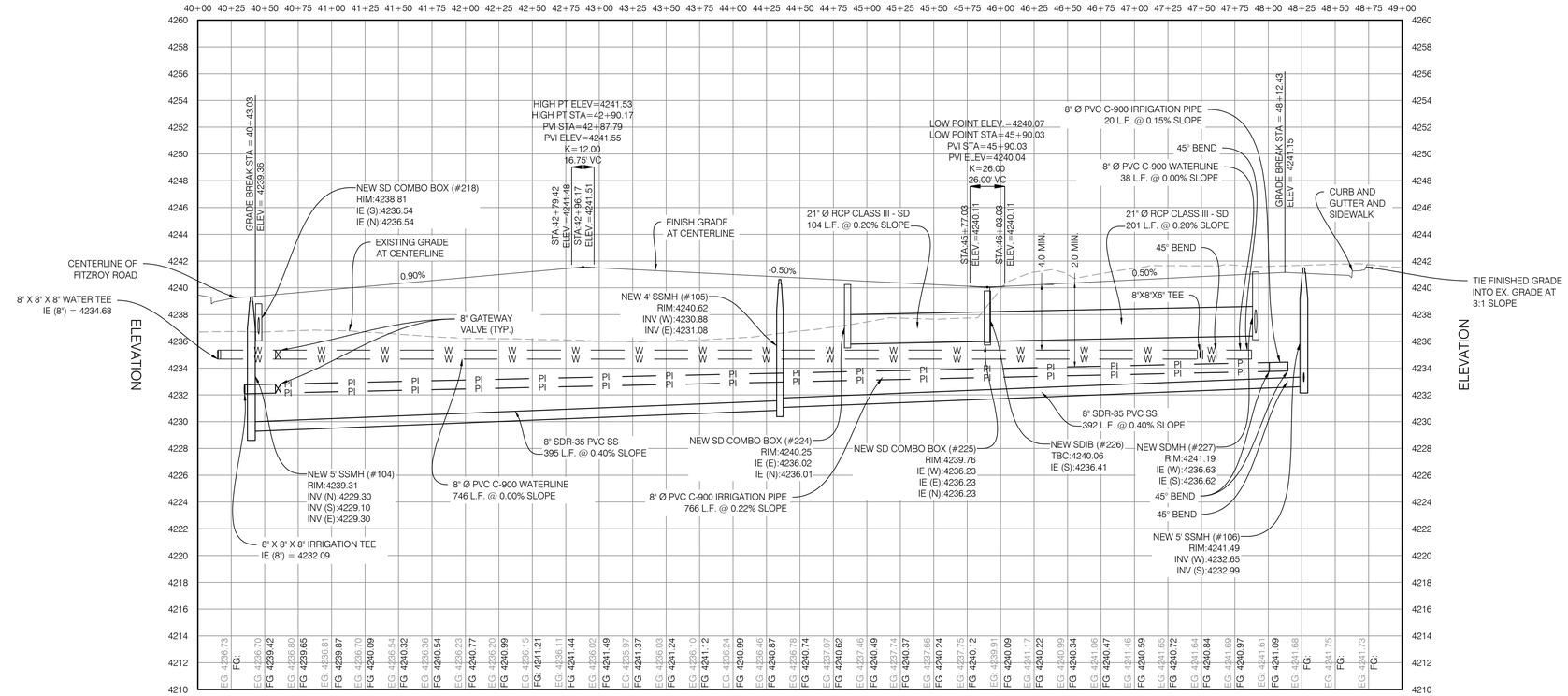
PRELIMINARY PLAN

PROFESSIONAL ENGINEER
3/23/21
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH

NOT FOR CONSTRUCTION



CHALGROVE DRIVE PLAN



CHALGROVE RD PROFILE

BENCHMARK ENGINEERING & LAND SURVEYING
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3701 W 1800 S
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PROJECT NO. 2006142

ROADWAY PLAN & PROFILE

CPP.04
12 OF 21

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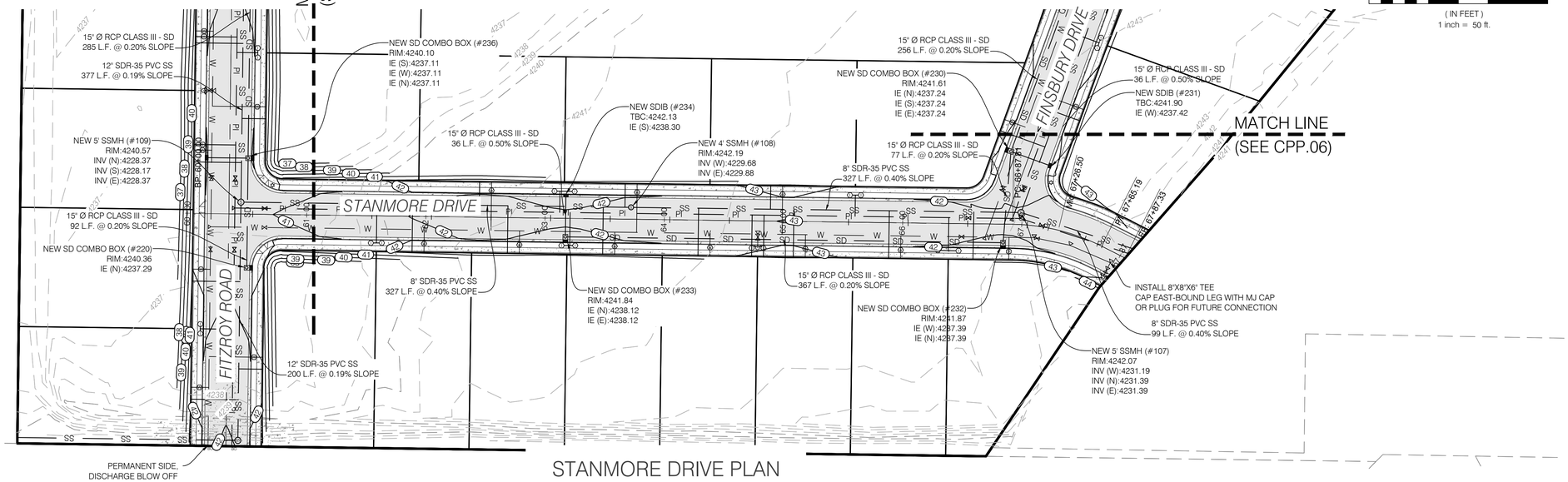
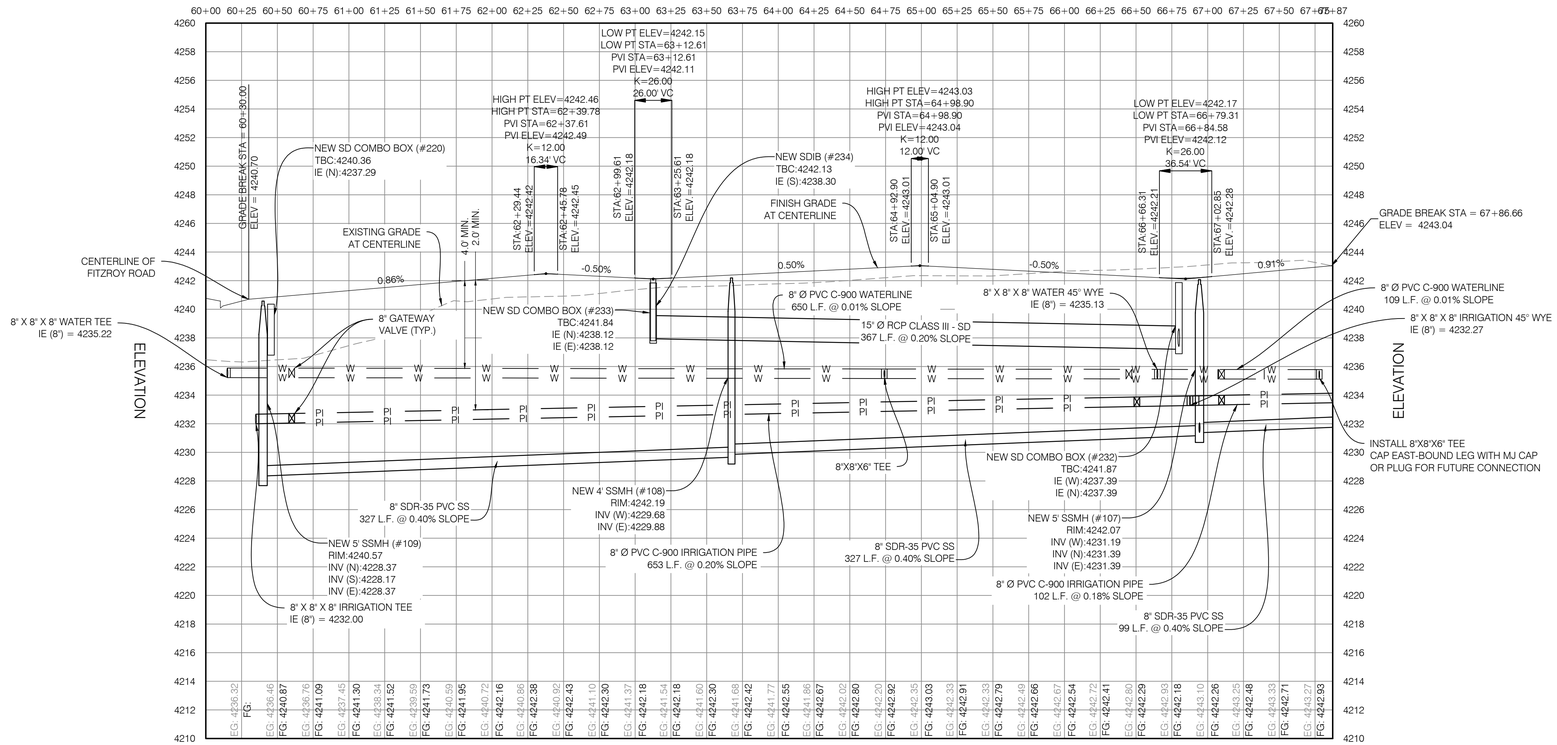
Bluestakes.org



STANMORE DRIVE PLAN



STANMORE DR PROFILE

NORTH

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

No.	DATE	DESCRIPTION
1	03/2021	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

SCALE MEASURES 1 INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY	JHO
CHECKED BY	AGA
FIELD CREW	SURVEY
DATE	03/12/2021
DWG. FILE	2006142_CPP_OPTION2

PRELIMINARY PLAN

PROFESSIONAL ENGINEER
3/23/21
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH

NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
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WINSTON PARK

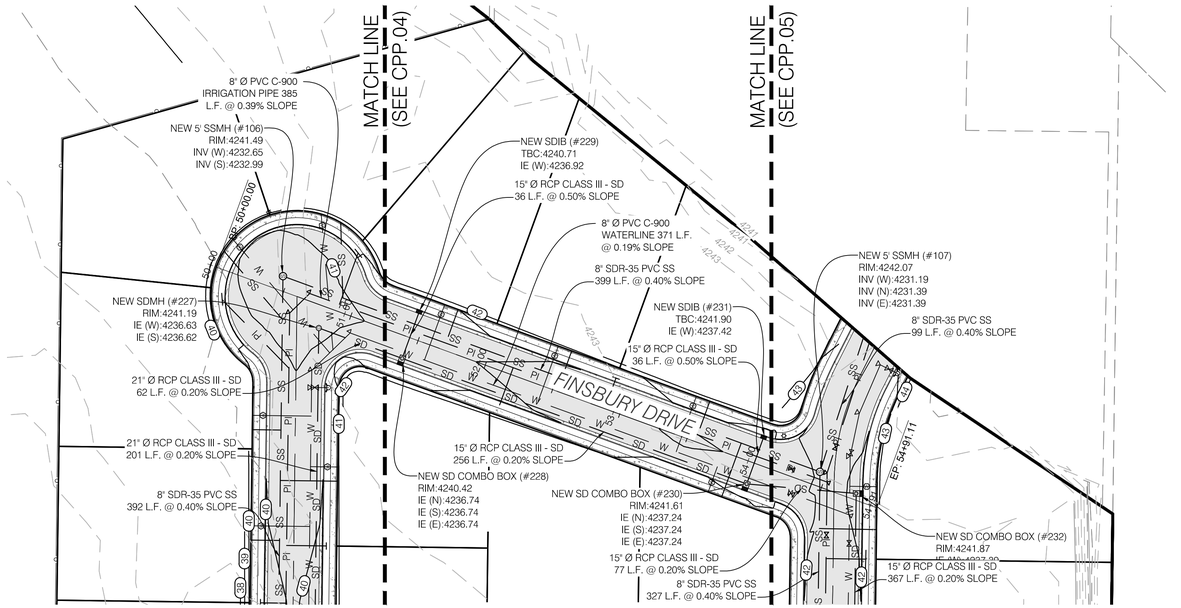
3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

ROADWAY PLAN & PROFILE

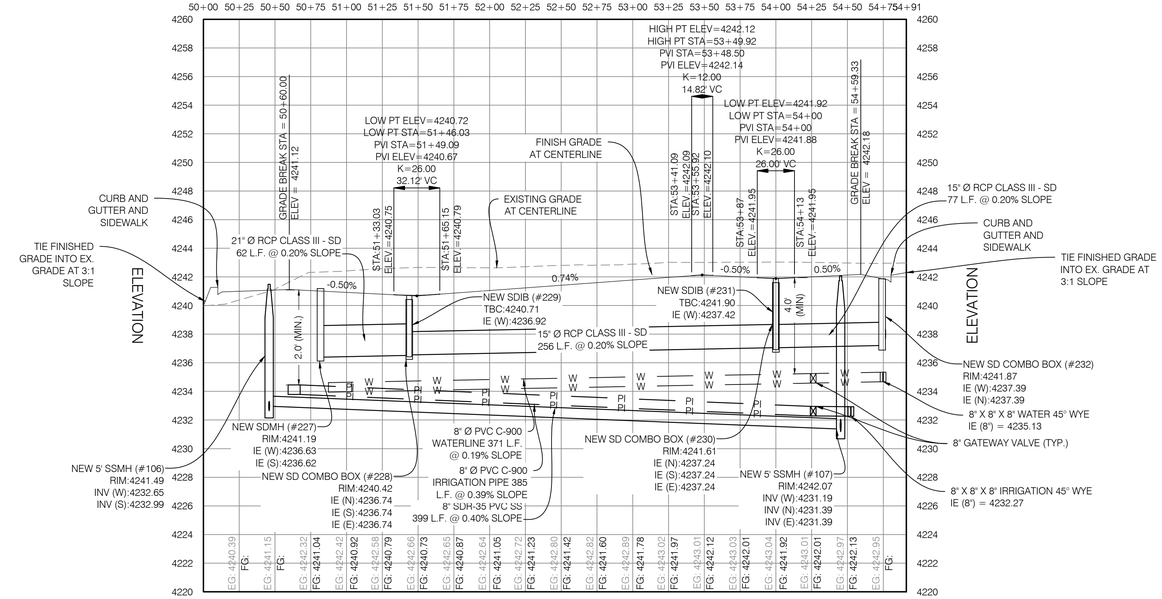
CPP.05
13 OF 21

Blue Stakes of UTAH 811
Bluestakes.org



FINSBURY DRIVE PLAN

STATION



FINSBURY DR PROFILE

NORTH

GRAPHIC SCALE

50 0 25 50 100

(IN FEET)
1 inch = 50 ft.

No.	DATE	DESCRIPTION
1	03/2021	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: JHO
CHECKED BY: AGA
FIELD CREW: SURVEY
DATE: 03122021
DWG. FILE: 2006142_CPP_OPTION2

PRELIMINARY PLAN

PROFESSIONAL ENGINEER
3/23/21
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH

NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

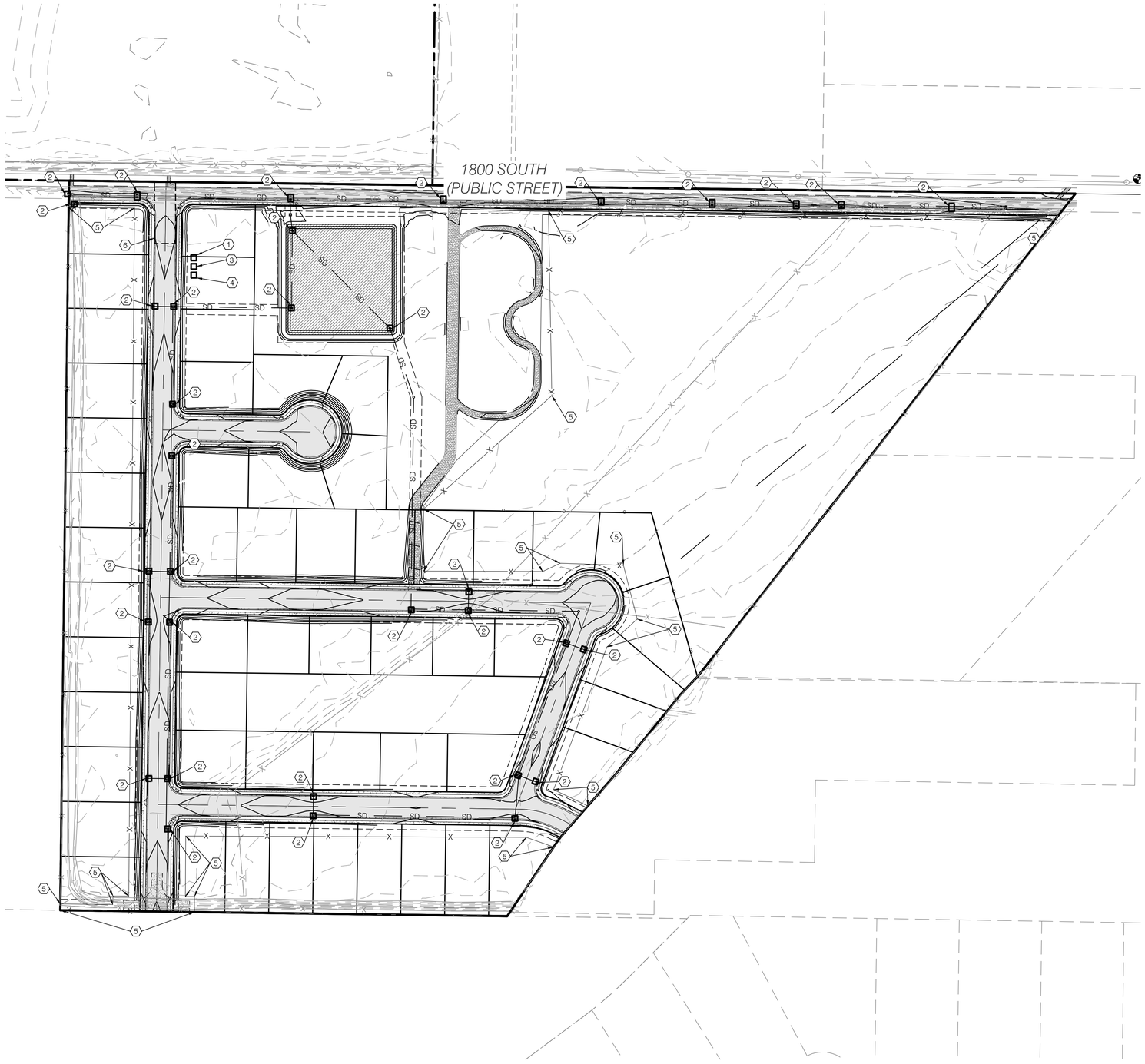
WINSTON PARK
3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

ROADWAY PLAN & PROFILE

CPP.06
14 OF 21

Blue Stakes of UTAH 811 Bluestakes.org



NORTH

GRAPHIC SCALE

100 0 50 100 200

(IN FEET)
1 inch = 100ft.

SWPPP KEY NOTES REFERENCE

PROVIDE, INSTALL AND/OR CONSTRUCT THE FOLLOWING PER THE SPECIFICATIONS GIVEN OR REFERENCED AND THE DETAILS NOTED AND AS SHOWN ON THE CONSTRUCTION DRAWINGS.

NO.	DESCRIPTION	DETAIL
1	CONCRETE WASTE MANAGEMENT	1/CEP.02
2	INLET PROTECTION WATTLE	2/CEP.02
3	MATERIALS STORAGE	3/CEP.02
4	PORTABLE TOILETS	4/CEP.02
5	SILT FENCE	6/CEP.02
6	TEMPORARY CONSTRUCTION ENTRANCE	7/CEP.02

NOTE: CONTRACTOR SHALL INSTALL EROSION CONTROLS (SILT FENCES, STRAW BALES, ETC) AS REQUIRED BY REGULATORY AGENCIES. SAID CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH AGENCY STANDARDS AND FOLLOWING BEST MANAGEMENT PRACTICES FOR ACTUAL PLACEMENT ON SITE. STRAW BALES SHOWN ON THESE DRAWINGS ARE INTENDED AS A MINIMUM REQUIREMENT. ADDITIONAL CONTROLS REQUESTED BY AGENCY INSPECTORS SHALL BE REQUIRED. DUST CONTROL SHALL BE PROVIDED AT ALL TIMES, AT THE CONTRACTORS EXPENSE, TO MINIMIZE ANY DUST NUISANCE AND SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CITY.

No.	DATE	DESCRIPTION
1	03/25/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

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FIELD CREW: SURVEY
DATE: 03/12/2021
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0 0.5 1

PRELIMINARY PLAN

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WEBER COUNTY, UTAH

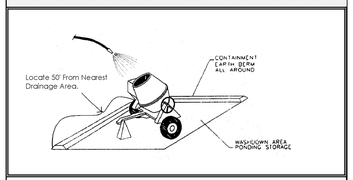
PROJECT NO. 2006142

EROSION CONTROL PLAN

CEP.01
15OF 21

Blue Stakes of UTAH 811 Bluestakes.org

BMP: Concrete Waste Management



DESCRIPTION:
Prevent or reduce the discharge of pollutants to storm water from concrete waste by conducting washout off-site, performing on-site washout in a designated area, and training employees and subcontractors.

APPLICATIONS:
This technique is applicable to all types of sites.

INSTALLATION/APPLICATION CRITERIA:
- Store dry and wet materials under cover, away from drainage areas.
- Avoid mixing excess amounts of fresh concrete or cement on-site.
- Perform washout of concrete trucks off-site or in designated areas only.
- Do not wash out concrete trucks into storm drains, open ditches, streets, or streams.
- Do not allow excess concrete to be dumped on-site, except in designated areas.
- When washing concrete to remove fine particles and expose the aggregate, avoid creating runoff by draining the water within a bermed or level area. (See Earth Berm Barrier information sheet.)
- Train employees and subcontractors in proper concrete waste management.

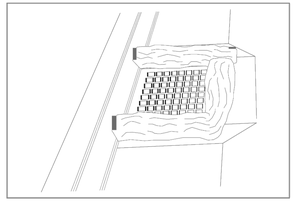
LIMITATIONS:
- Off-site washout of concrete wastes may not always be possible.

MAINTENANCE:
- Inspect subcontractors to ensure that concrete wastes are being properly managed.
- If using a temporary pit, dispose hardened concrete on a regular basis.

CONCRETE WASTE MANAGEMENT 1
SCALE: NTS

BMP: Inlet Protection – Wattle

IP-W
CONSTRUCTION



DESCRIPTION:
Sediment barrier erected around storm drain inlet.

APPLICATION:
Construct at storm drainage inlets located down-gradient of areas to be disturbed by construction.

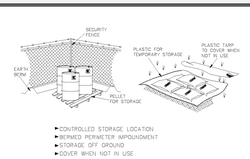
INSTALLATION/APPLICATION CRITERIA:
- Provide up-gradient sediment controls, such as silt fence during construction of inlet
- When construction of curb and gutter and roadways is complete, install gravel filled wattles around perimeter of inlet

LIMITATIONS:
- Recommended maximum contributing drainage area of one acre
- Requires shallow slopes adjacent to inlet

MAINTENANCE:
- Inspect inlet protection following storm event and at a minimum of once every 14 days.
- Remove accumulated sediment when it reaches 4 inches in depth.
- Look for bypassing or undercutting and repair or realign as needed.

INLET PROTECTION WATTLE 2
SCALE: NTS

BMP: Materials Storage



DESCRIPTION:
Controlled storage of on-site materials.

APPLICATION:
- Storage of hazardous, toxic, and all chemical substances.
- Any construction site with outside storage of materials.

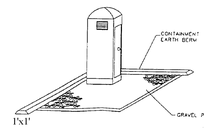
INSTALLATION/APPLICATION CRITERIA:
- Designate a secured area with limited access as the storage location. Ensure no waterways or drainage paths are nearby.
- Construct compacted earthen berm (See Earth Berm Barrier Information Sheet), or similar perimeter containment around storage location for impoundment in the case of spills.
- Ensure all on-site personnel utilize designated storage area. Do not store excessive amounts of material that will not be utilized on site.
- For active use of materials away from the storage area ensure materials are not set directly on the ground and are covered when not in use. Protect storm drainage during use.

LIMITATIONS:
- Does not prevent contamination due to mishandling of products.
- Spill Prevention and Response Plan still required.
- Only effective if materials are actively stored in controlled location.

MAINTENANCE:
- Inspect daily and repair any damage to perimeter impoundment or security fencing.
- Check materials are being correctly stored (i.e. standing upright, in labeled containers, tightly capped) and that no materials are being stored away from the designated location.

MATERIALS STORAGE 3
SCALE: NTS

BMP: Portable Toilets



DESCRIPTION:
Temporary on-site sanitary facilities for construction personnel.

APPLICATION:
All sites with no permanent sanitary facilities or where permanent facility is too far from activities.

INSTALLATION/APPLICATION CRITERIA:
- Locate portable toilets in convenient locations throughout the site.
- Prepare level, gravel surface and provide clear access to the toilets for servicing and for on-site personnel.
- Construct earth berm perimeter (See Earth Berm Barrier Information Sheet), control for spill/protection leak.

LIMITATIONS:
No limitations.

MAINTENANCE:
- Portable toilets should be maintained in good working order by licensed service with daily observation for leak detection.
- Regular waste collection should be arranged with licensed service.
- All waste should be deposited in sanitary sewer system for treatment with appropriate agency approval.

PORTABLE TOILETS 4
SCALE: NTS

BMP: Spill Clean-Up

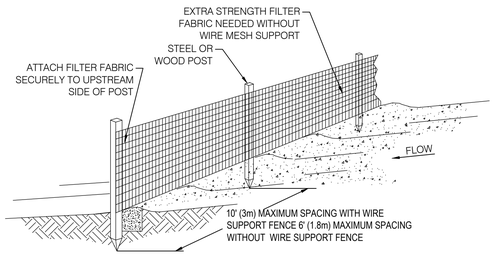
DESCRIPTION:
Practices to clean-up leakage/spillage of on-site materials that may be harmful to receiving waters.

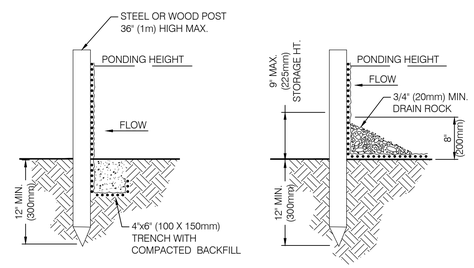
APPLICATION:
All sites

GENERAL:
- Store controlled materials within a storage area.
- Educate personnel on prevention and clean-up techniques.
- Designate an Emergency Coordinator responsible for employing preventative practices and for providing spill response.
- Maintain a supply of clean-up equipment on-site and post a list of local response agencies with phone numbers.

METHODS:
- Clean-up spills/leaks immediately and remediate cause.
- Use as little water as possible. NEVER HOSE DOWN OR BURY SPILL CONTAMINATED MATERIAL.
- Use rags or absorbent material for clean-up. Excavate contaminated soils. Dispose of clean-up material and soil as hazardous waste.
- Document all spills with date, location, substance, volume, actions taken and other pertinent data.
- Contact local Fire Department and State Division of Environmental Response and Remediation (Phone #536-4100) for any spill of reportable quantity.

SPILL CLEAN UP 5
SCALE: NTS





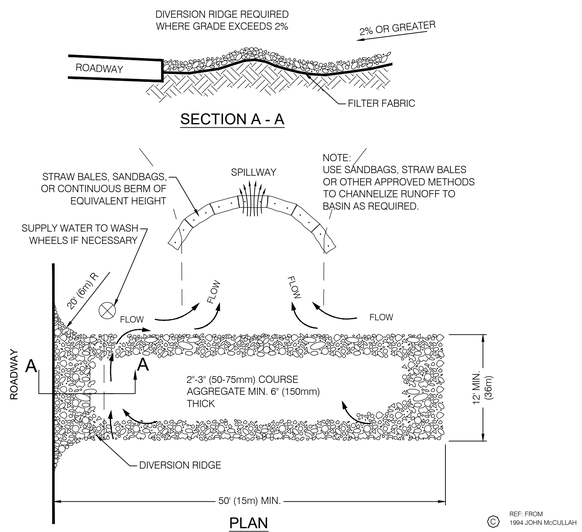
NOT TO SCALE

NOTES:
1. SILT FENCE SHALL BE PLACED ON SLOPE CONTOURS TO MAXIMIZE PONDING EFFICIENCY.

2. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY. 9" (225mm) MAXIMUM RECOMMENDED STORAGE HEIGHT.

3. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.

SILT FENCE 6
SCALE: NTS

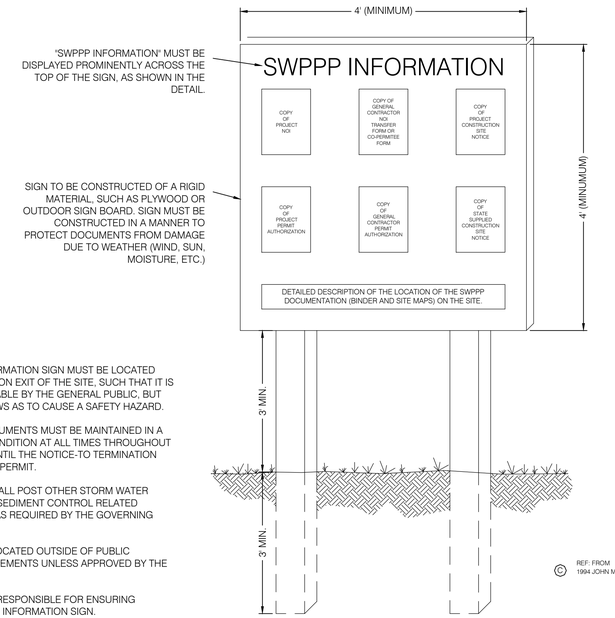


NOTES:
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.

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 7
SCALE: NTS



NOTES:
1) THE SWPPP INFORMATION SIGN MUST BE LOCATED NEAR THE CONSTRUCTION EXIT OF THE SITE, SUCH THAT IT IS ACCESSIBLE AND VIEWABLE BY THE GENERAL PUBLIC, BUT NOT OBSTRUCTING VIEWS AS TO CAUSE A SAFETY HAZARD.

2) ALL POSTED DOCUMENTS MUST BE MAINTAINED IN A CLEARLY READABLE CONDITION AT ALL TIMES THROUGHOUT CONSTRUCTION AND UNTIL THE NOTICE-TO TERMINATION (NOT) IS FILED FOR THE PERMIT.

3) CONTRACTOR SHALL POST OTHER STORM WATER AND/OR EROSION AND SEDIMENT CONTROL RELATED PERMITS ON THE SIGN AS REQUIRED BY THE GOVERNING AGENCY.

4) SIGN SHALL BE LOCATED OUTSIDE OF PUBLIC RIGHT-OF-WAY AND EASEMENTS UNLESS APPROVED BY THE GOVERNING AGENCY.

5) CONTRACTOR IS RESPONSIBLE FOR ENSURING STABILITY IF THE SWPPP INFORMATION SIGN.

SWPPP INFORMATION SIGN 8
SCALE: NTS

No.	DATE	DESCRIPTION
1	10/25/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

DRAWN BY: JHO
CHECKED BY: AGA
FIELD CREW: SURVEY
DATE: 03/12/2021
SPEC FILE: 2006142_SITE_OPTION2

SCALE MEASURES 1/INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS
1" 0.5 0

PRELIMINARY PLAN
NOT FOR CONSTRUCTION

PROFESSIONAL ENGINEER
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH
3/25/21

BENCHMARK ENGINEERING & LAND SURVEYING
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WINSTON PARK
3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

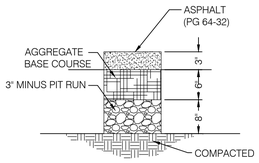
EROSION CONTROL DETAILS

CEP.02
16 OF 21

Blue Stakes of UTAH 811
Bluestakes.org

ALTERNATE: STANDARD

CONCRETE	5"
GRAVEL BASE	4"
GRAVEL BASE	8"

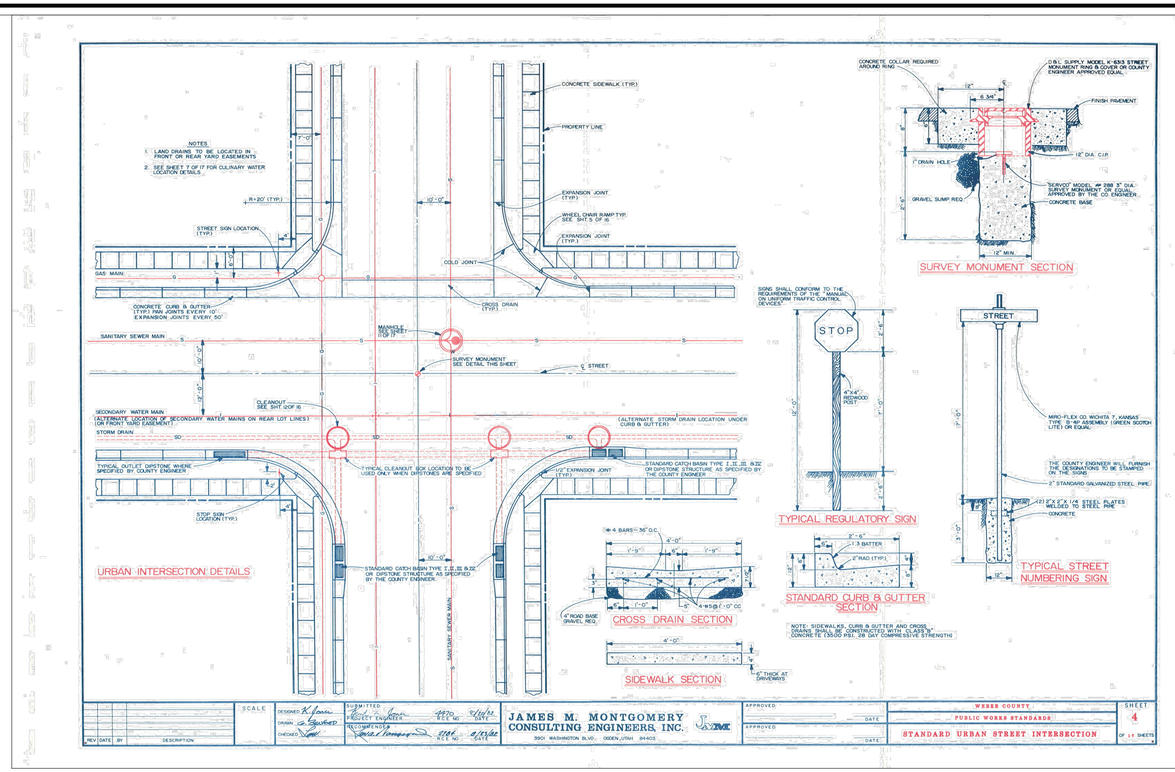


STANDARD DUTY PAVEMENT

NOTE:
1. FOR REINFORCEMENT DESIGN OF PCC PAVEMENT SECTIONS SEE STRUCTURAL ENGINEER
2. FOR DOWEL DESIGN OF PCC PAVEMENT SECTIONS SEE GEOTECHNICAL ENGINEER.
3. REFER TO GEOTECHNICAL REPORT #1160708 PREPARED BY AGEC ON OCTOBER 12, 2016 FOR PAVEMENT DESIGN. DEFER TO GEOTECHNICAL REPORT OR COUNTY STANDARDS, WHICHEVER IS MORE CONSERVATIVE.
4. COMPACTION TESTING REQUIRED FOR BOTH ROAD BASE AND SUB BASE PER WEBER COUNTY STANDARDS.

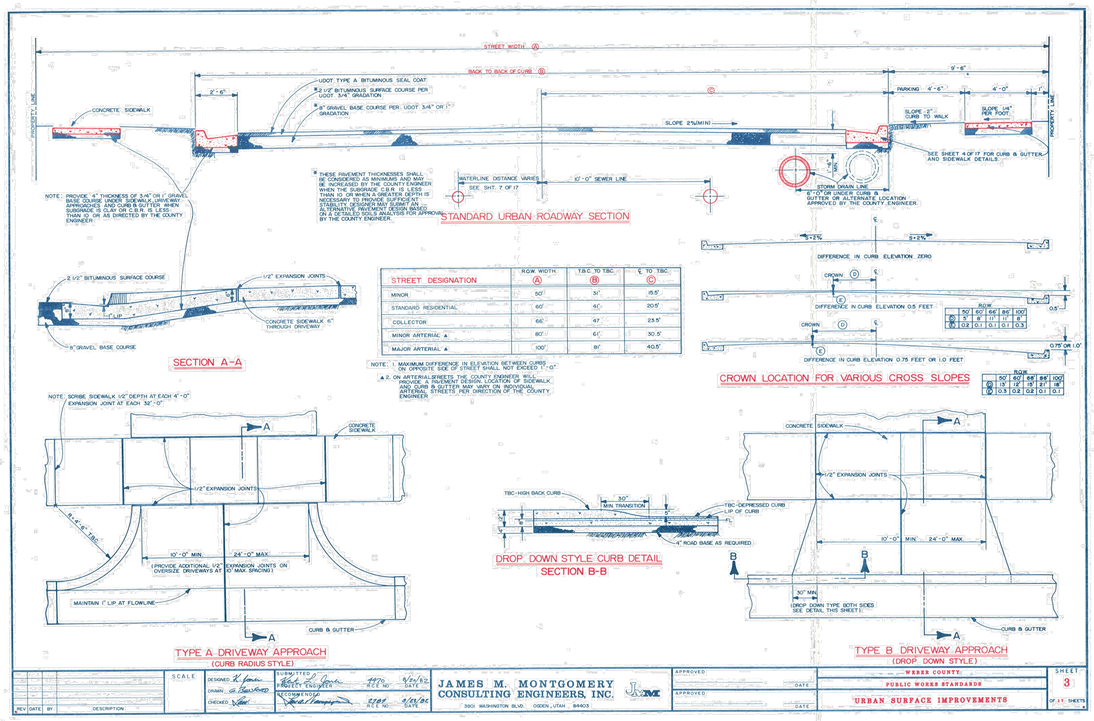
PAVEMENT SECTIONS 1

SCALE: N.T.S.



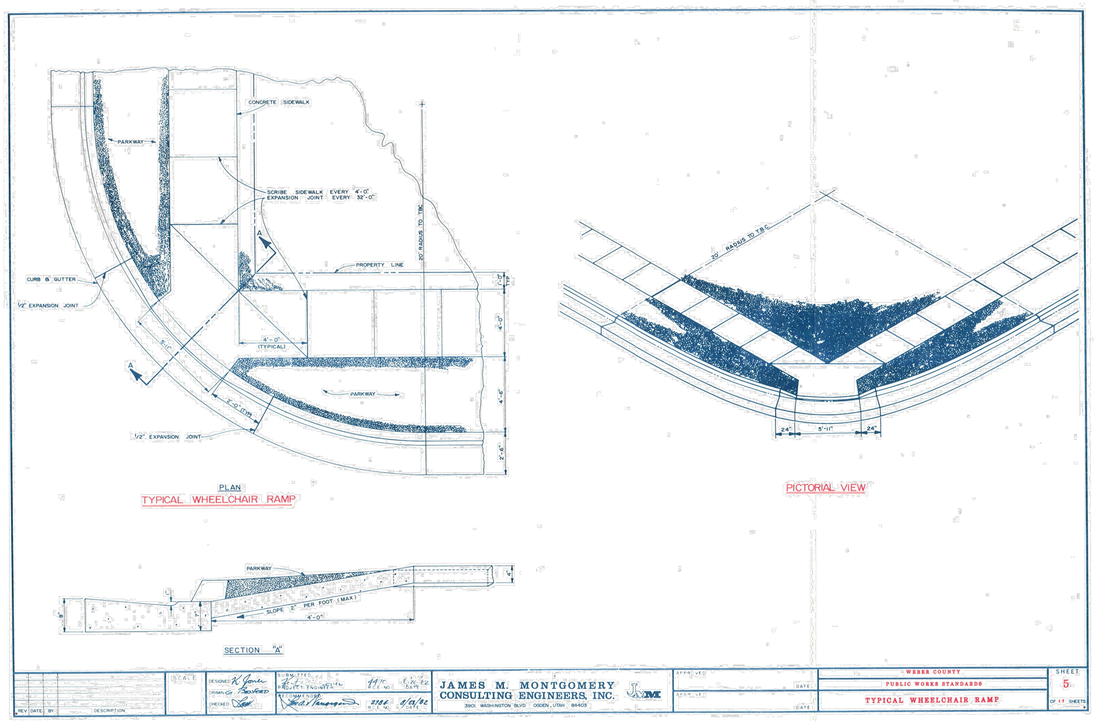
WEBER COUNTY INTESECTION DETAILS 2

SCALE: N.T.S.



WEBER COUNTY SURFACE IMPROVEMENTS DETAILS 3

SCALE: N.T.S.



WEBER COUNTY WHEELCHAIR RAMP DETAILS 4

SCALE: N.T.S.

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1" 0.5 0

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WINSTON PARK
3701 W 1800 S
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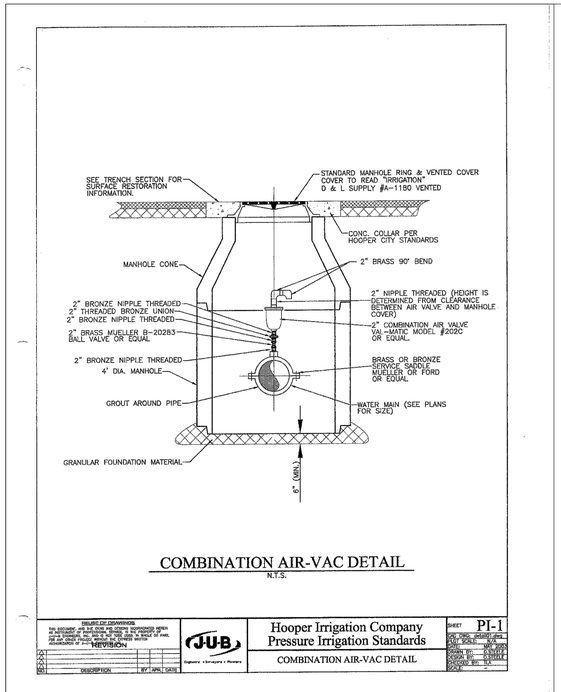
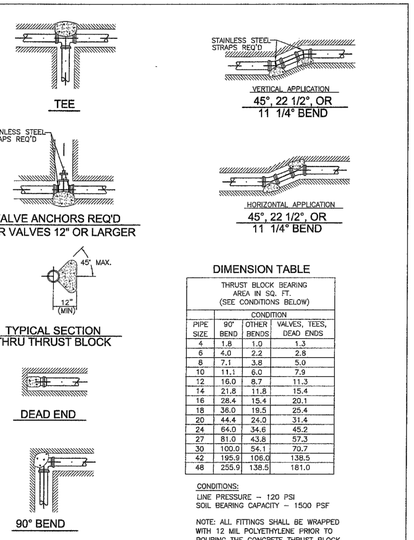
PROJECT NO. 2006142

DETAILS & NOTES SHEET

CDT.01
17 OF 21



COMBINATION AIR-VAC DETAIL
N.T.S.



DIMENSION TABLE

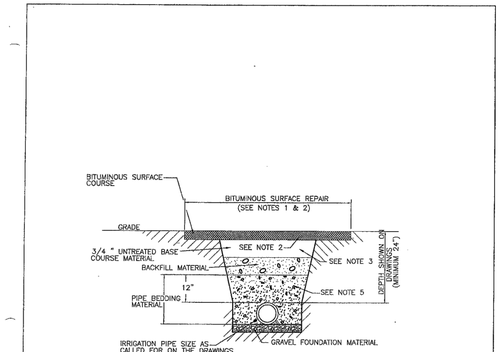
THRUST BLOCK BEARING AREA IN SQ. FT. (SEE CONDITIONS BELOW)

PIPE SIZE	CONDITION 90° BEND	OTHER BENDS	VALVES, TEES, DEAD ENDS
4	1.8	1.0	1.3
6	4.0	2.2	2.8
8	7.1	3.8	5.0
10	11.1	6.0	7.9
12	16.0	8.7	11.3
14	21.8	11.8	15.4
16	28.4	15.4	20.1
18	36.0	19.5	25.4
20	44.4	24.0	31.4
24	64.0	34.6	45.2
27	81.0	43.8	57.3
30	100.0	54.1	70.7
42	195.9	106.0	138.5
48	255.9	138.5	181.0

CONDITIONS:
LINE PRESSURE – 120 PSI
SOIL BEARING CAPACITY – 1500 PSF

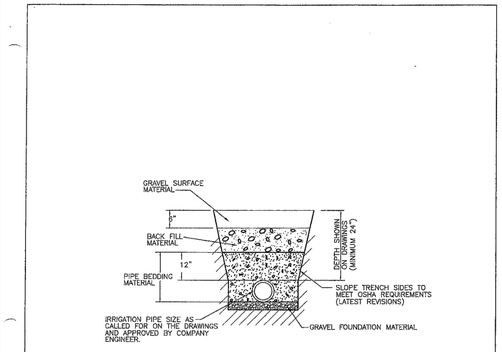
NOTE: ALL FITTINGS SHALL BE WRAPPED WITH 12 MIL POLYETHYLENE PRIOR TO POURING THE CONCRETE THRUST BLOCK.

THRUST BLOCKING
N.T.S.



NOTES:
1. SAW CUT BITUMINOUS ASPHALT SURFACE 0.5' WIDER THAN TRENCH ON EACH SIDE FOR FINAL TRENCH REPAIR WHERE BITUMINOUS SURFACE EXISTS.
2. BITUMINOUS SURFACE IS TO BE 6" OR TO MATCH EXISTING THICKNESS, WHICHEVER IS GREATER, FOR STATE ROADS & 4" FOR ALL OTHER ROADS.
3. 3/4" UNTREATED BASE COURSE MATERIAL IS TO BE 12" OR TO MATCH EXISTING THICKNESS, WHICHEVER IS GREATER.
4. SLOPE TRENCH SIDES TO MEET OSHA SAFETY REQUIREMENTS, (LATEST REV.)
5. SEE SPECIFICATIONS FOR GRADATION & COMPACTION REQUIREMENTS.
6. REFER TO U.D.O.T. STANDARDS FOR TRENCH SECTION DETAIL.

BITUMINOUS SURFACE
TRENCH SECTION
N.T.S.



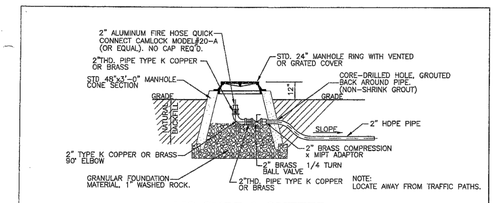
NOTES:
SEE SPECIFICATIONS FOR GRADATION & COMPACTION REQUIREMENTS.

GRAVEL SURFACE
TRENCH SECTION
N.T.S.

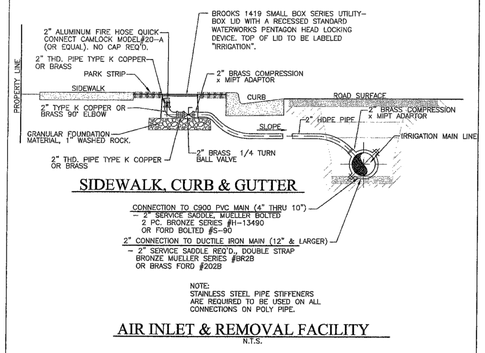
COMBINATION AIR-VAC DETAIL
HOOPER IRRIGATION STANDARDS (1)
SCALE: N.T.S.

THRUST BLOCKING DETAILS
HOOPER IRRIGATION STANDARDS (2)
SCALE: N.T.S.

TRENCH SECTIONS
HOOPER IRRIGATION STANDARDS (3)
SCALE: N.T.S.



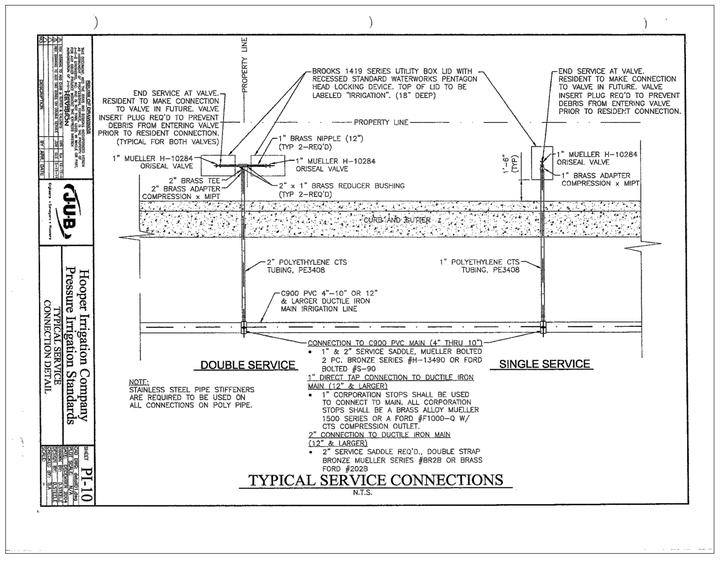
NO CURB & GUTTER



NOTE:
STAINLESS STEEL PIPE STIFFENERS ARE REQUIRED TO BE USED ON ALL CONNECTIONS ON POLY PIPE.

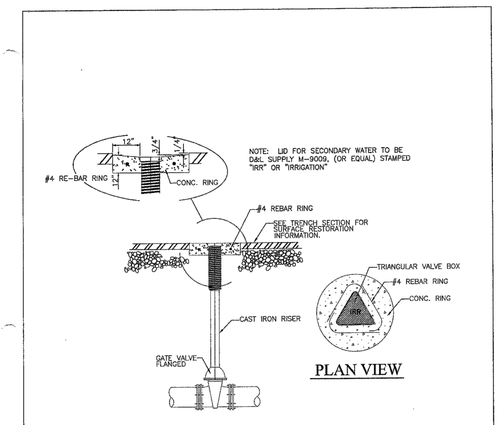
SIDEWALK, CURB & GUTTER

AIR INLET & REMOVAL FACILITY
N.T.S.



NOTE:
STAINLESS STEEL PIPE STIFFENERS ARE REQUIRED TO BE USED ON ALL CONNECTIONS ON POLY PIPE.

TYPICAL SERVICE CONNECTIONS
N.T.S.



PLAN VIEW

VALVE BOX CONCRETE COLLAR DETAIL
N.T.S.

AIR INLET & REMOVAL FACILITY
HOOPER IRRIGATION STANDARD (4)
SCALE: N.T.S.

TYPICAL SERVICE CONNECTION DETAIL
HOOPER IRRIGATION STANDARDS (5)
SCALE: N.T.S.

VALVE BOX CONCRETE COLLAR DETAIL
HOOPER IRRIGATION STANDARDS (6)
SCALE: N.T.S.

No.	DATE	DESCRIPTION
1	03/22/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

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SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS
0 0.5 1

PRELIMINARY PLAN

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No. 11366633
ALLISON G. ALLRED
STATE OF UTAH

NOT FOR CONSTRUCTION

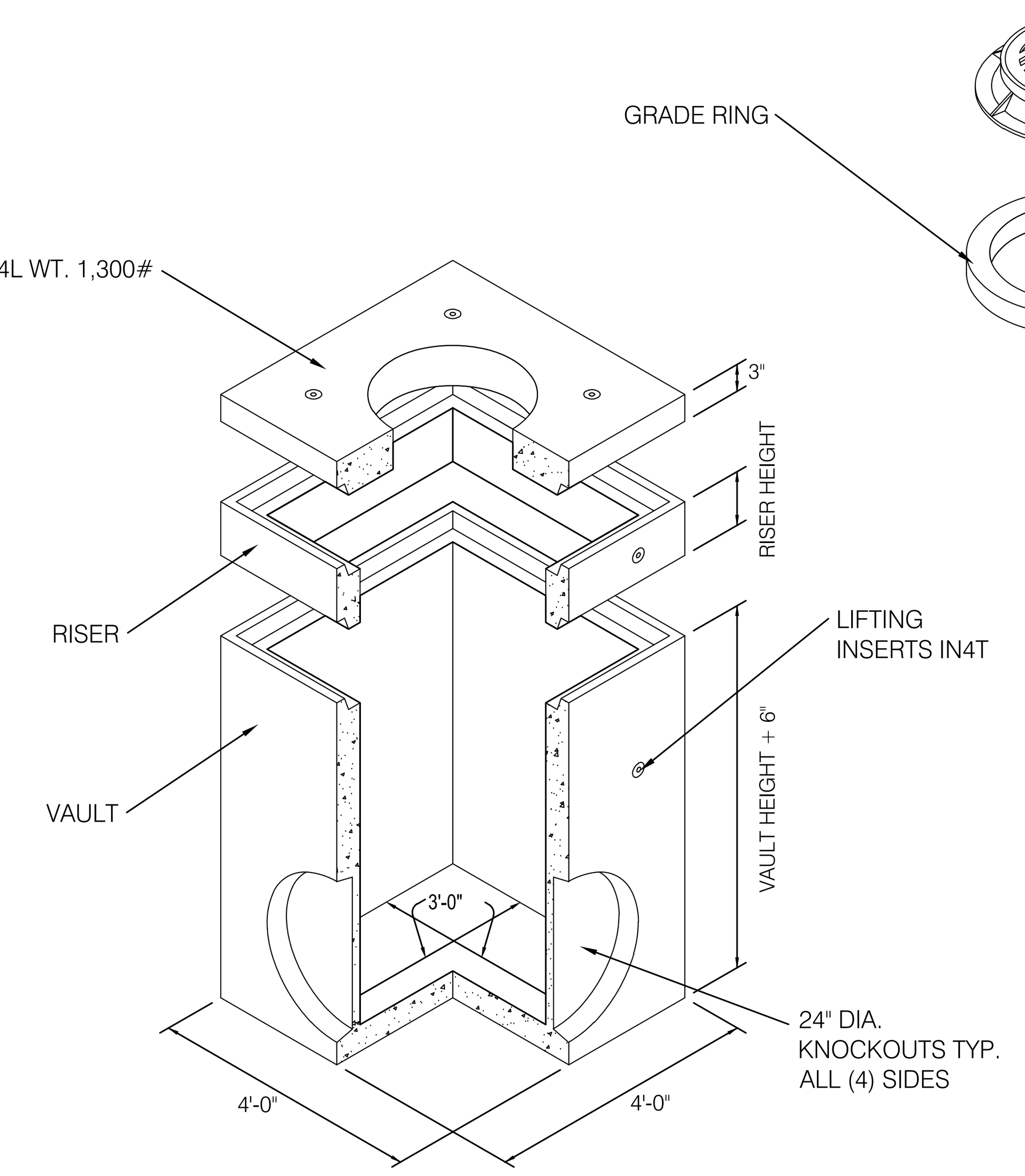
BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070. (801) 542-7192
www.benchmarkcivil.com

WINSTON PARK
3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

DETAILS & NOTES SHEET

CDT.02
18 OF 21



GRADE RING

HEIGHT	CODE	WEIGHT
4"	GR304	180#
6"	GR306	270#

RISER

HEIGHT	CODE	WEIGHT
1'	UV441R	1,350#
2'	UV442R	2,700#
3'	UV443R	4,050#
4'	UV444R	5,400#
5'	UV445R	6,750#
6'	UV446R	8,100#

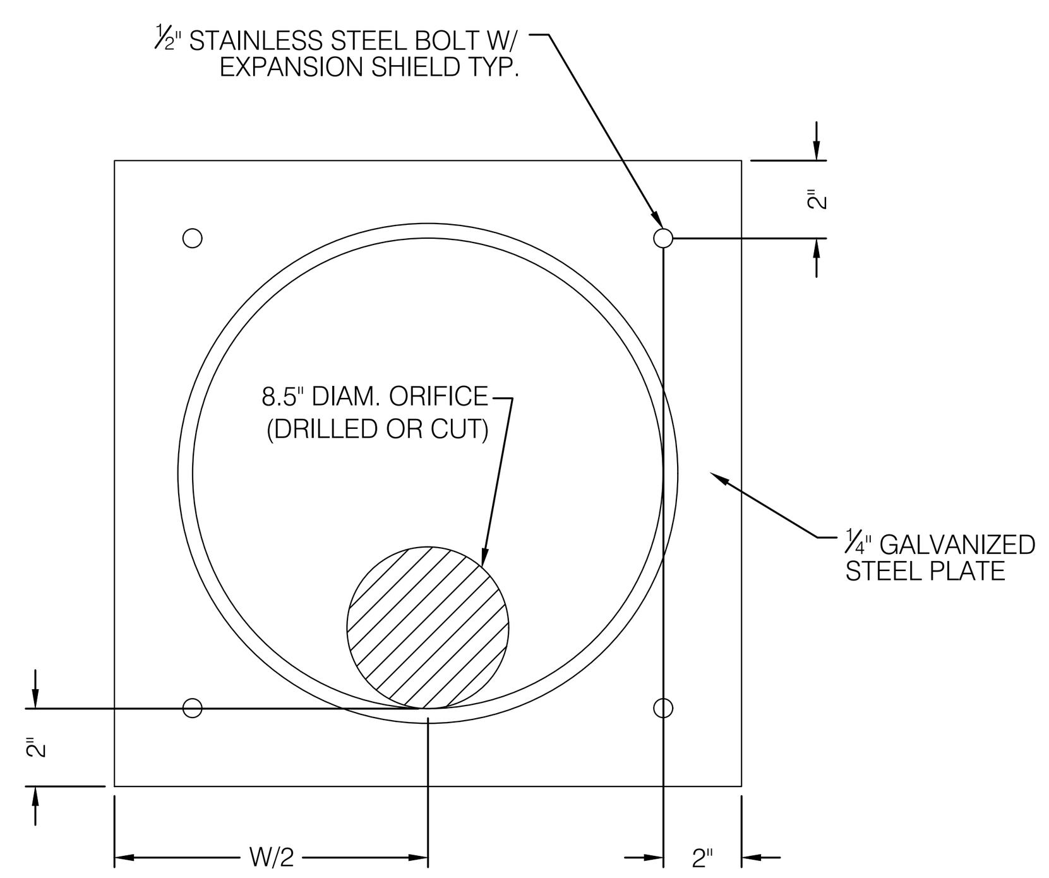
VAULT

HEIGHT	CODE	WEIGHT
3'	CB443	3,225#
4'	CB444	4,575#
5'	CB445	5,925#
6'	CB446	7,275#

3'x3' CATCH BASIN (1)

SCALE: NTS

NOTES:
1. CATCH BASINS ARE DESIGNED TO MEET ASTM C858 WITH AASHTO HS-20 LOADING.
2. OPENINGS MAY BE SIZED AND LOCATED AS REQUIRED.
3. OPTIONAL GRATING OR COVER MATERIAL MAY BE CAST IN AS REQUIRED.
4. CHECK HARDWARE SECTION FOR OPTIONAL ACCESSORIES.



FLOW RESTRICTOR PLATE

8.5" ORIFICE RESTRICTOR (2)

SCALE: N.T.S.

1. STEEL: ASTM A 36 STEEL
2. BOLTS: USE ½" STAINLESS STEEL BOLTS AND ½" STAINLESS WASHERS.
3. COATING: COAT ALL METAL PARTS WITH ASPHALTUM PAINT.

Series 37

- Installs between pipe flanges, eliminating valve body.
- Offers minimal face-to-face dimension—only the thickness of the flange.
- Features unique, maintenance-free, one-piece elastomer check sleeve design.
- Eliminates chatter—silent, non-slamming.
- Closes on entrapped solids.

Materials of Construction

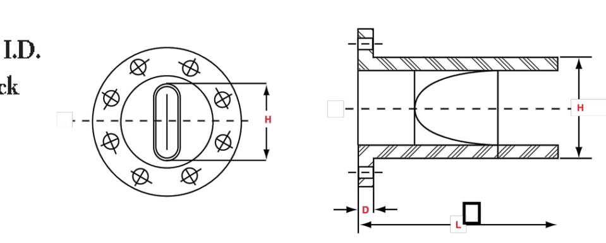
- Valves are available in pure gum rubber, neoprene, Hypalon®, buna-N, Viton® and EPDM.
- ANSI Class 125 Flanges, DIN PN6, PN10, PN16.
- Special coating available.

Tideflex® Technologies' Series 37 Flanged InLine Check Valve is a simple, reliable, cost-effective solution to backflow problems. Designed to be installed between twomating flanges, the Series 37 eliminates the need for a valve body.

With only one moving part, the maintenance-free rubber check sleeve, the Series 37 InLine Check Valve is simple in design. Sliding, rotating, swinging and spring parts are eliminated. There are no seats to corrode or packing to maintain. In addition, the Series 37 is a passive design, requiring no external source of air or electricity to operate. The result is reduced operating costs.

The Series 37 InLine Check Valve can be ordered in a variety of elastomers. Flanges conform to ANSI B16.1 Class 125 specifications. Special custom designs or metric flanged models are also available. When ordering, specify line pressure, backpressure and whether an SST is required.

The pressure drop of the Series 37 is increased because of the smaller I.D. required to fit the check valve in the line.



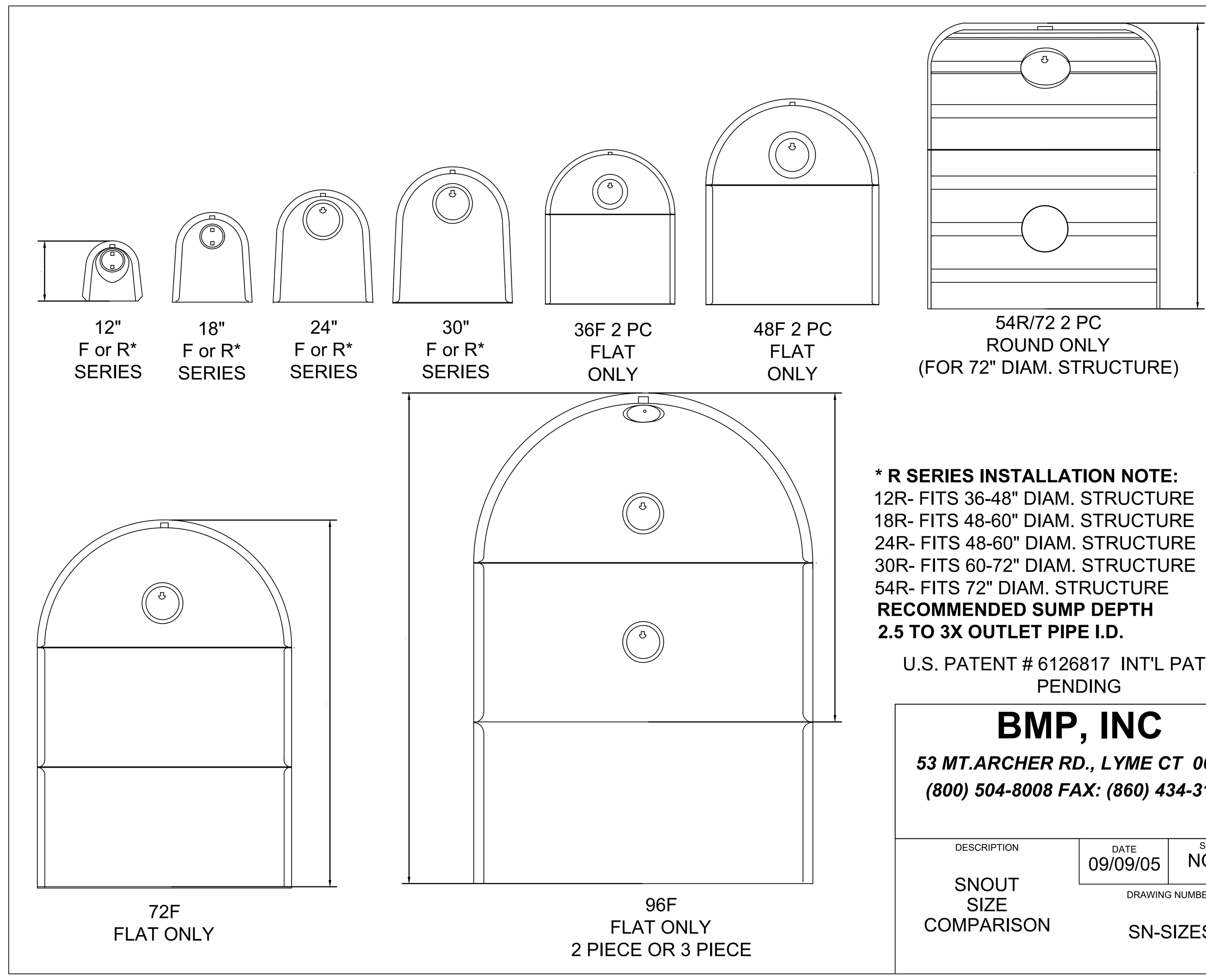
Dimensions Series 37 Flanged InLine Check Valve

Nominal Size* (Pipe I.D.)	Length L	Height of Bill H	Flange Thickness D	Max. Backpressure (psi) Standard Tideflex®	Max. Backpressure (psi) With Saddle Support
2	5	1 7/8	3/8	150	N/A
3	5 1/2	2 7/8	3/8	100	N/A
4	7	3 7/8	3/8	75	150
6	11	5 7/8	3/8	75	150
8	12 1/2	7 7/8	1/2	60	125
10	15 1/2	9 7/8	1/2	45	75
12	18 1/2	11 7/8	1/2	35	75
14	22	13 3/4	5/8	25	70
16	23	15 3/4	3/4	20	60
18	24	17 3/4	1	15	45
20	32	19 3/4	1	10	40
24	37	23 3/4	1	10	40
30	41	29 3/4	11/2	8	40
36	47	35 3/4	11/2	8	35
42	49	41 1/2	1 3/4	5	25
48	52	47 1/2	1 3/4	5	25
54	57	53 1/2	2	5	CONTACT FACTORY
60	64	59 1/2	2	5	
72	73	71 1/2	2	5	

Numbers indicate maximum dimensions in inches.
** Larger sizes available upon request.*

CHECK VALVE DETAIL (3)

SCALE: N.T.S.



*** R SERIES INSTALLATION NOTE:**
12R- FITS 36-48" DIAM. STRUCTURE
18R- FITS 48-60" DIAM. STRUCTURE
24R- FITS 48-60" DIAM. STRUCTURE
30R- FITS 60-72" DIAM. STRUCTURE
54R- FITS 72" DIAM. STRUCTURE
RECOMMENDED SUMP DEPTH 2.5 TO 3X OUTLET PIPE I.D.

U.S. PATENT # 6126817 INT'L PATENTS PENDING

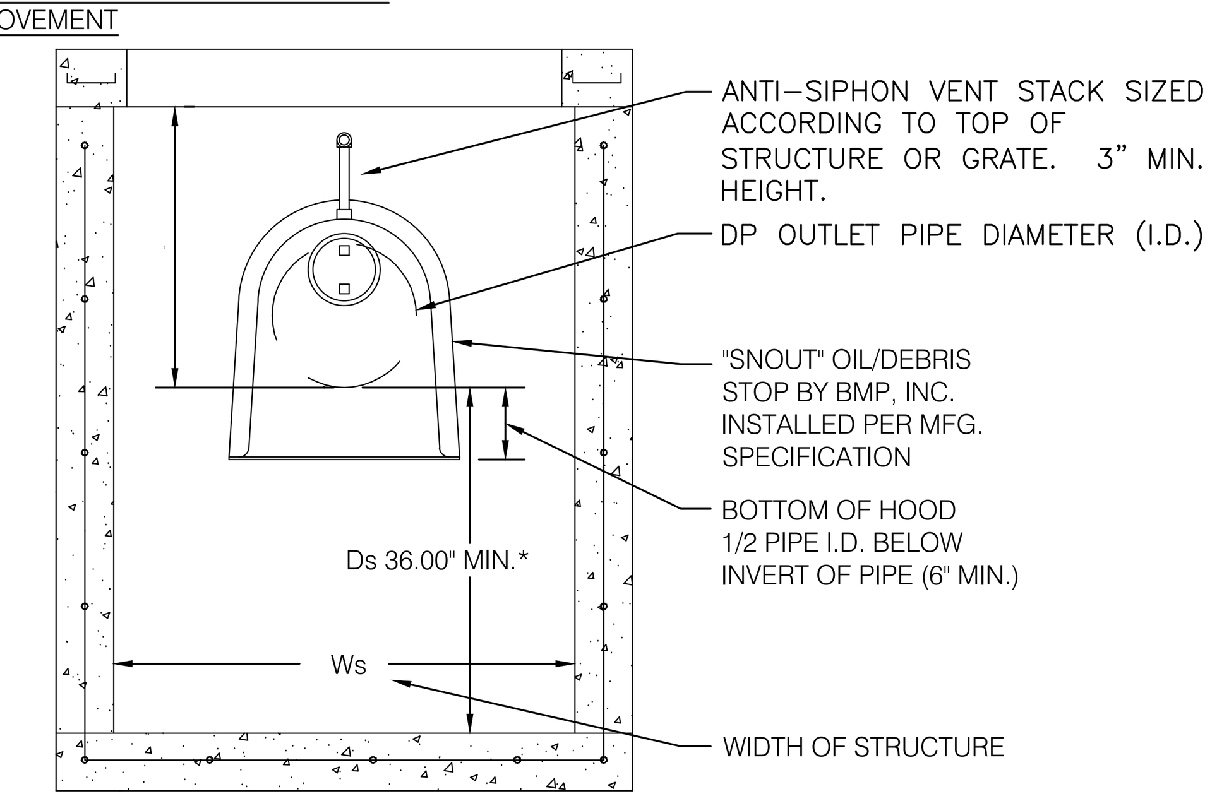
BMP, INC
53 MT.ARCHER RD., LYME CT 06371
(800) 504-8008 FAX: (860) 434-3195

DESCRIPTION	DATE	SCALE
SNOUT SIZE COMPARISON	09/09/05	NONE
	DRAWING NUMBER	SN-SIZES

18F SNOUT DETAILS (4)

SCALE: NTS

DESIGN PARAMETER GUIDELINES FOR WATER QUALITY IMPROVEMENT



RULE # 1- AT AN ABSOLUTE MINIMUM, STRUCTURE INTERNAL DIMENSIONS MUST BE AT LEAST LARGE ENOUGH TO ACCOMODATE EXTERNAL DIMENSIONS OF THE SNOUT, AND ALLOW FOR A PERSON TO INSTALL IT. REFER TO BMP, INC. CAD DETAILS FOR PART DIMENSIONS.

RULE #2- USE ONLY "F" SERIES SNOUTS FOR RECTANGULAR OR SQUARE STRUCTURES, AVAILABLE IN 12", 18", 24", 30", 48", 72" AND 96" SIZES. USE ONLY "R" SERIES SNOUTS FOR ROUND STRUCTURES, AVAILABLE IN 12", 18", 24", 30", AND 54" SIZES.

*SUMP DEPTH (Ds)- SUMP DEPTH SHOULD BE A MINIMUM OF 36" FOR ANY NEW CONSTRUCTION FOR PIPES 12" AND LESS. FOR 15"-18" PIPE MIN. DEPTH SHOULD BE 48". OPTIMAL SIZING IS AT LEAST 2.5X TO 3X OUTLET PIPE DIAMETER (Dp) FOR MAXIMUM POLLUTANT REMOVAL EFFICIENCY AND MINIMAL CLEANOUT FREQUENCY.

STRUCTURE DIMENSIONS- PLAN DIMENSIONS FOR A STRUCTURE SHOULD BE UP TO 7X AREA OF OUTLET PIPE FOR MAXIMUM POLLUTANT REMOVAL EFFICIENCY AND MINIMAL CLEANOUT FREQUENCY.
(SEE "MAINTENANCE CONSIDERATIONS" DOCUMENT FOR MORE INFORMATION)

IMPORTANT NOTICE: DO NOT CONFUSE PIPE O.D WITH PIPE I.D. A SNOUT FITS OVER A PIPE, NOT IN IT. THUS, SNOUT MUST BE SIZED TO FIT OVER PIPE OPENING IN STRUCTURE. SNOUTS ARE AVAILABLE FOR ROUND STRUCTURES TO ACCOMODATE PIPES OF 54" O.D. MAX. FOR PIPES 54" O.D. AND ABOVE, USE SQUARE OR RECTANGULAR STRUCTURES.

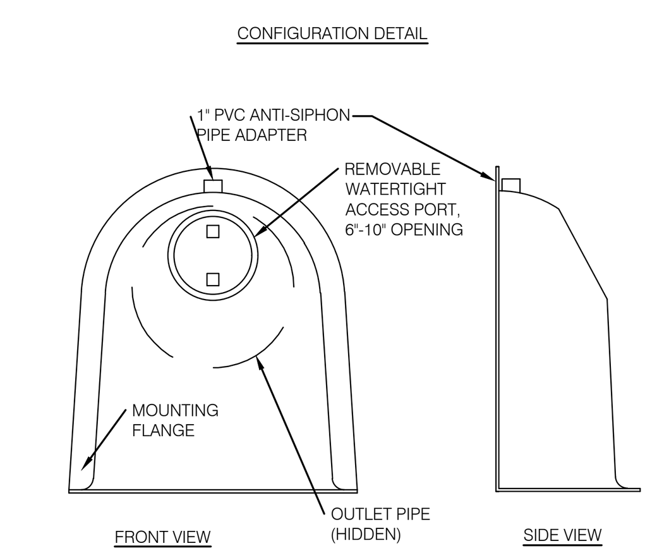
SIZING EXAMPLES:

OUTLET HOLE SIZE	SNOUT SIZE
11.9" O.D. OR LESS	12 F or R (R FITS 36"-48" DIAM STRUCTURE)
12.0"-17.9" O.D.	18 F or R (R FITS 48"-60" DIAM STRUCTURE)
18.0"-23.9" O.D.	24 F or R (R FITS 48"-60" DIAM STRUCTURE)
24.0"-29.9" O.D.	30 F or R (R FITS 60"-72" DIAM STRUCTURE)
30.0"-35.9" O.D.	36F
30.0"-47.9" O.D.	48 F
30.0"-53.9" O.D.	54R/72 (FITS 72" DIAM STRUCTURE ONLY)
48.0"-71.9" O.D.	72F
72"-95.9" O.D.	96 F

BMP, INC.
53 MT. ARCHER ROAD, LYME, CT. 06371
(800) 504-8008 FAX: (860)434-3195

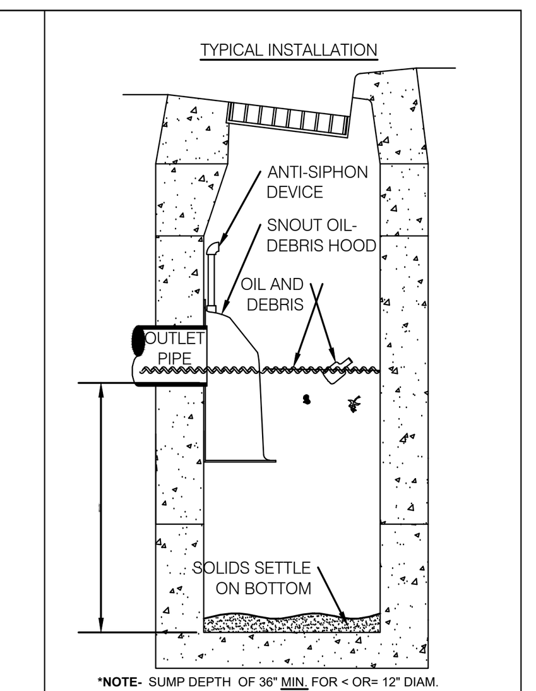
DESCRIPTION	DATE	SCALE
SNOUT SIZING CHART	09/09/05	NONE
	DRAWING NUMBER	SP-SI

CONFIGURATION DETAIL



SNOUT OIL-WATER-DEBRIS SEPARATOR

TYPICAL INSTALLATION

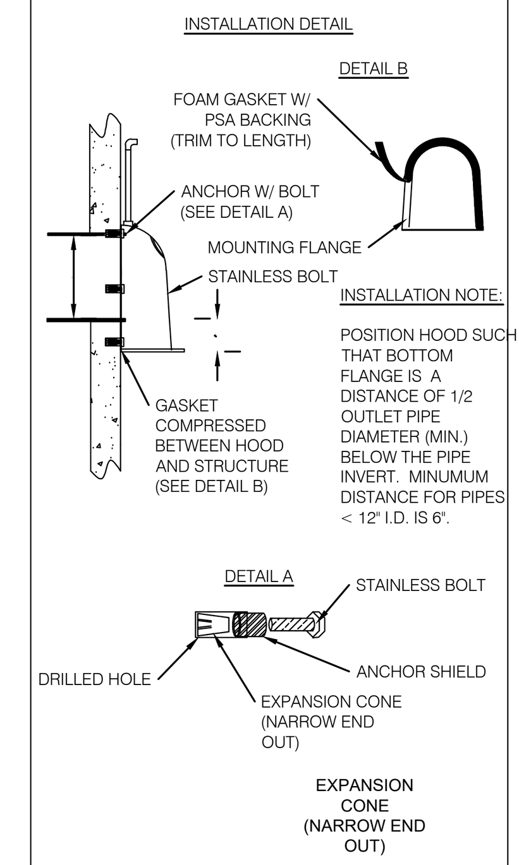


***NOTE-** SUMP DEPTH OF 36" MIN. FOR < OR= 12" DIAM. OUTLET. FOR OUTLETS >OR= 15", DEPTH = 2.5-3X DIAM.

NOTES:
1. ALL HOODS AND TRAPS FOR CATCH BASINS AND WATER QUALITY STRUCTURES SHALL BE
AS MANUFACTURED BY:
BEST MANAGEMENT PRODUCTS, INC.
53 MT. ARCHER RD.
LYME, CT 06371
(860) 434-0277, (860) 434-3195 FAX
TOLL FREE: (800) 504-8008 OR (888) 354-7585
WEB SITE: www.bestmp.com
OR PRE-APPROVED EQUAL
2. ALL HOODS SHALL BE CONSTRUCTED OF A GLASS REINFORCED RESIN COMPOSITE WITH ISO GEL COAT EXTERIOR FINISH WITH A MINIMUM 0.125" LAMINATE THICKNESS.
3. ALL HOODS SHALL BE EQUIPPED WITH A WATERTIGHT ACCESS PORT, A MOUNTING FLANGE, AND AN ANTI-SIPHON VENT AS DRAWN. (SEE CONFIGURATION DETAIL)
4. THE SIZE AND POSITION OF THE HOOD SHALL BE DETERMINED BY OUTLET PIPE SIZE AS PER MANUFACTURER'S RECOMMENDATION.
5. THE BOTTOM OF THE HOOD SHALL EXTEND DOWNWARD A DISTANCE EQUAL TO 1/2 THE OUTLET PIPE DIAMETER WITH A MINIMUM DISTANCE OF 6" FOR PIPES <12" I.D.
6. THE ANTI-SIPHON VENT SHALL EXTEND ABOVE HOOD BY MINIMUM OF 3" AND A MAXIMUM OF 24" ACCORDING TO STRUCTURE CONFIGURATION.
7. THE SURFACE OF THE STRUCTURE WHERE THE HOOD IS MOUNTED SHALL BE FINISHED SMOOTH AND FREE OF LOOSE MATERIAL.
8. THE HOOD SHALL BE SECURELY ATTACHED TO STRUCTURE WALL WITH 3/8' STAINLESS STEEL BOLTS AND OIL-RESISTANT GASKET AS SUPPLIED BY MANUFACTURER. (SEE INSTALLATION DETAIL)
9. INSTALLATION INSTRUCTIONS SHALL BE FURNISHED WITH MANUFACTURER SUPPLIED INSTALLATION KIT.
INSTALLATION KIT SHALL INCLUDE:
A. INSTALLATION INSTRUCTIONS
B. PVC ANTI-SIPHON VENT PIPE AND ADAPTER
C. OIL-RESISTANT CRUSHED CELL FOAM GASKET WITH PSA BACKING
D. 3/8" STAINLESS STEEL BOLTS
E. ANCHOR SHIELDS

US Patent # 6126817

INSTALLATION DETAIL



INSTALLATION NOTE:
POSITION HOOD SUCH THAT BOTTOM FLANGE IS A DISTANCE OF 1/2 OUTLET PIPE DIAMETER (MIN.) BELOW THE PIPE INVERT. MINUMUM DISTANCE FOR PIPES < 12" I.D. IS 6".

EXPANSION CONE (NARROW END OUT)

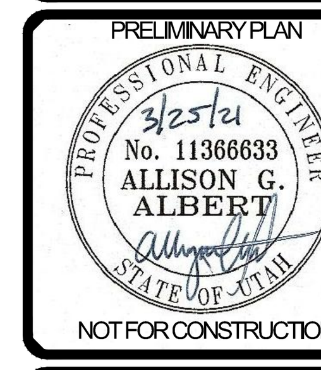
HOOD SPECIFICATION FOR CATCH BASINS AND WATER QUALITY STRUCTURES

DESCRIPTION	DATE	SCALE
OIL- DEBRIS HOOD SPECIFICATION AND INSTALLATION (TYPICAL)	09/08/00	NONE
	DRAWING NUMBER	SP-SN

No.	DATE	DESCRIPTION
1	03/25/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY JHO
CHECKED BY AGA
FIELD CREW SURVEY
DATE 03/12/2021
DWG. FILE 2006142_SITE_OPTION2
0 0.5 1



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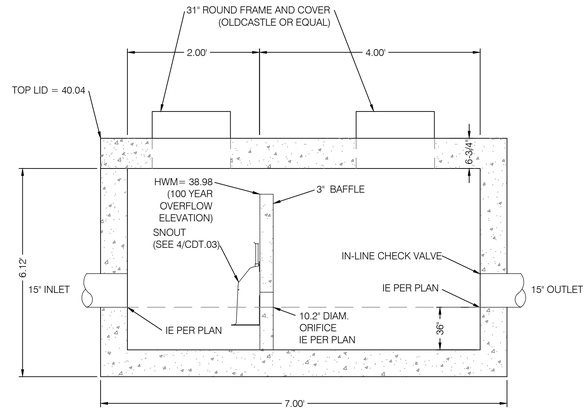
WINSTON PARK
3701 W 1800 S
WEBER COUNTY, UTAH

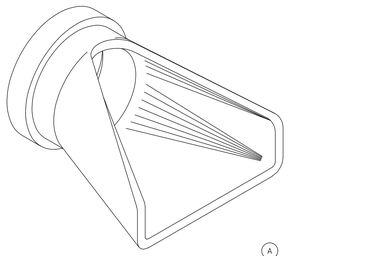
PROJECT NO. 2006142

DETAILS & NOTES SHEET



4'X6' CLEANOUT BOX WITH BAFFLE (1)

SCALE: N.T.S.

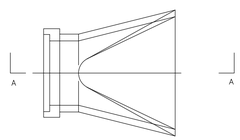


DETAIL A

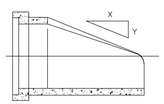
Sealant Detail
Check CP110 and CP120
for Specific Joint Details

ASSEMBLED SECTION

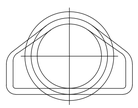
Diameter	Code	Weight
12"	FES12B	530#
15"	FES15B	740#
18"	FES18B	990#
24"	FES24B	1,540#
30"	FES30B	2,190#
36"	FES36B	4,100#
42"	FES42B	5,380#
48"	FES48B	6,550#



PLAN VIEW



SECTION A-A



END VIEW

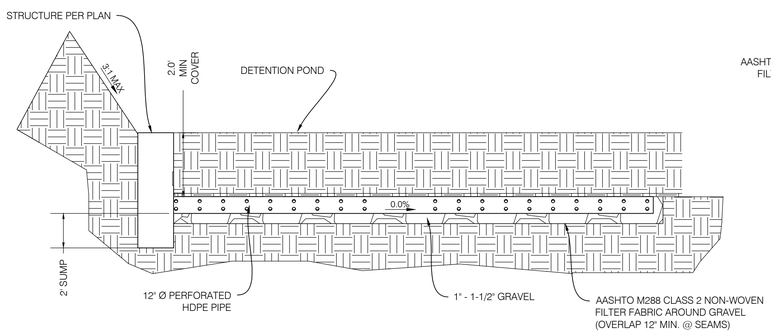
Diam.	Slope X : Y	A	B	C	E	F	G
12"	2.4 : 1	4"	24"	48⅛"	72⅛"	24"	2"
15"	2.4 : 1	6"	27"	46"	73"	30"	2¾"
18"	2.3 : 1	9"	27"	46"	73"	36"	3⅝"
24"	2.5 : 1	9⅝"	43⅝"	50"	73⅝"	48"	3"
30"	2.5 : 1	12"	54"	19⅛"	73⅛"	60"	3⅝"
36"	2.5 : 1	15"	63"	34⅝"	97⅛"	72"	4"
42"	2.5 : 1	21"	63"	35"	98"	78"	4⅝"
48"	2.5 : 1	24"	72"	26"	98"	84"	5"

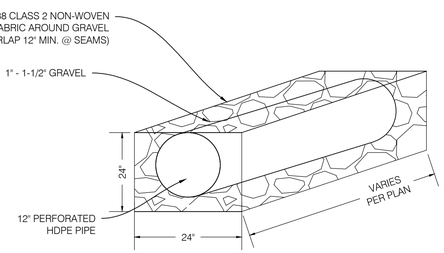
Oldcastle Precast	Flared End	Flared End Section for Round Pipe
801 West 12th Street, Ogden, Utah 84404 Phone: 801-399-1171 Fax: 801-392-7949	FILE NAME: 210DPERINDFLARE ISSUE DATE: 5/2008 www.oldcastleprecast.com	Copyright © 2008

Oldcastle Precast	Flared End	Flared End Section for Round Pipe
801 West 12th Street, Ogden, Utah 84404 Phone: 801-399-1171 Fax: 801-392-7949	FILE NAME: 210DPERINDFLARE ISSUE DATE: 5/2008 www.oldcastleprecast.com	Copyright © 2008

FLARED END SECTION WITH TRASH GATE (2)

SCALE: N.T.S.





PERFORATED PIPE DETAIL (3)

SCALE: N.T.S.

No.	DATE	DESCRIPTION
1.	05/25/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

DRAWN BY: JHO
CHECKED BY: AGA
FIELD CREW: SURVEY
DATE: 03/12/2021
DWG FILE: 2006142_SITE_OPTION2

PRELIMINARY PLAN

PROFESSIONAL ENGINEER
No. 11366833
ALLISON G. ALBERT
STATE OF UTAH
3/25/21

NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
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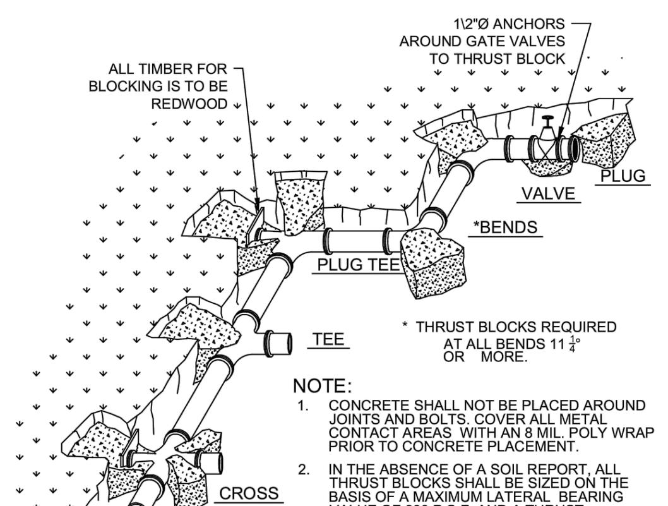
DETAILS & NOTES SHEET

CDT.04
20 OF 21



NOTE:
1. CONCRETE SHALL NOT BE PLACED AROUND JOINTS AND BOLTS. COVER ALL METAL CONTACT AREAS WITH AN 8 MIL. POLY WRAP PRIOR TO CONCRETE PLACEMENT.
2. IN THE ABSENCE OF A SOIL REPORT, ALL THRUST BLOCKS SHALL BE SIZED ON THE BASIS OF A MAXIMUM LATERAL BEARING VALUE OF 800 P.S.F. AND A THRUST RESULTING FROM 150% OF THE WATER LINE STATIC PRESSURE.

TABLE OF BEARING AREAS IN SQ. FT FOR CONCRETE THRUST BLOCKING

SIZE	BENDS 90°	45°	22 ½°	11 ¼°	TEES*	GATE VALVES	DEAD ENDS	CROSSW/ 1BRANCH PLUGGED	CROSSW/ 2 BRAN. PLUGGED
3	1.0	0.0	0.3	0	0.7	0.5	0.7	0.7	0.7
4	1.8	1.0	0.5	0	1.3	0.5	1.3	1.3	1.3
6	4.0	2.2	1.1	0	2.8	0.7	2.8	2.8	2.8
8	7.1	3.8	2.0	1.0	5.0	2.4	5.0	5.0	5.0
10	11.1	6.0	3.0	1.5	7.8	4.5	7.8	7.8	7.8
12	16.0	8.6	4.4	2.2	11.3	7.3	11.3	11.3	11.3
14	21.7	11.8	6.0	3.0	15.4	11.0	15.4	15.4	15.4
15	25.0	13.5	7.0	3.5	17.6	SPECIAL DESIGN	176	17.6	17.6
16	28.4	15.3	8.0	4.0	20.0		20.0	20.0	20.0
18	36.0	19.4	10.0	5.0	25.4		25.4	25.4	25.4
20	44.2	24.0	12.2	6.1	31.4		31.4	31.4	31.4
21	49.0	26.5	13.5	6.8	34.6		34.6	34.6	34.6
22	54.0	29.0	14.8	7.4	38.0		38.0	38.0	38.0
24	64.0	34.5	17.7	8.8	45.0		45.0	45.0	45.0
30	100.0	54.0	27.6	13.8	71.0		71.0	71.0	71.0
36	144.0	78.0	40.0	20.0	102.0		102.0	102.0	102.0

*SIZE IS BRANCH SIZE.
FOR 100 P.S.I. INTERNAL STATIC PRESSURE AND 1000 LBS.PER SQ. FT. SOIL BEARING CAPACITY.

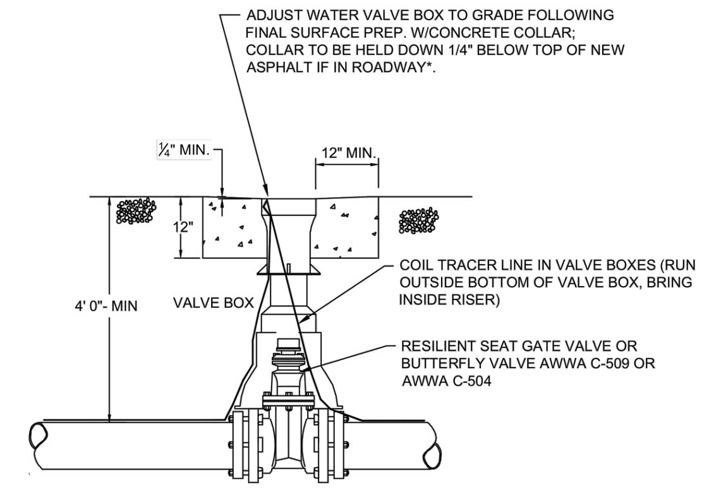
*ALL VALVES, TEES, CROSSES AND BENDS SHALL ALSO BE FITTED WITH MECHANICAL RESTRAINTS, SUCH AS MEGA LUG OR ROMA GRIP WITH FLUOROPOLYMER COATED BOLTS AND NUTS.

AREAS GIVEN IN TABLE ARE BASED UPON AN INTERNAL STATIC PRESSURE OF 100 P.S.I AND A SOIL BEARING CAPACITY OF 1000 LBS PER SQ. FT. BEARING AREAS FOR ANY PRESSURE AND SOIL BEARING CAPACITY MAY BE OBTAINED BY MULTIPLYING THE TABULATED VALUES BY A CORRECTION FACTOR "F".

F= ACTUAL SPECIFIED TEST PRESSURE IN HUNDREDS OF LBS/SQ. IN. / ACTUAL SOIL BEARING CAPACITY IN THOUSANDS OF LBS.

EXAMPLE: TO FIND BEARING AREA FOR 8"-90° BEND WITH A STATIC INTERNAL PRESSURE OF 150 P.S.I AND WITH A SOIL BEARING CAPACITY OF 3000 LBS. PER SQ. FT.
F=1.5 / 3=0.5 TABULATED VALUE = 7.1 SQ. FT.
0.5 X 7.1=3.56 ~ 4 SQ. FT. (~OR 2FT. LONG BY 2FT. HIGH.)

1 THRUST BLOCK DETAIL
APPLIES TO ALL PRESSURE PIPE
NTS



NOTE: VALVE BOX, RISER AND LID MUST COME FROM THE SAME MFR., BE INTENDED FOR USE TOGETHER AND SHALL BE WITHIN PUBLISHED DIMENSION TOLERANCES.
IF LOCATED IN ROADWAY W/ SPEED LIMIT OF 40 MPH OR GREATER, LID SHALL BE HEAVY AND EXTRA DEEP.

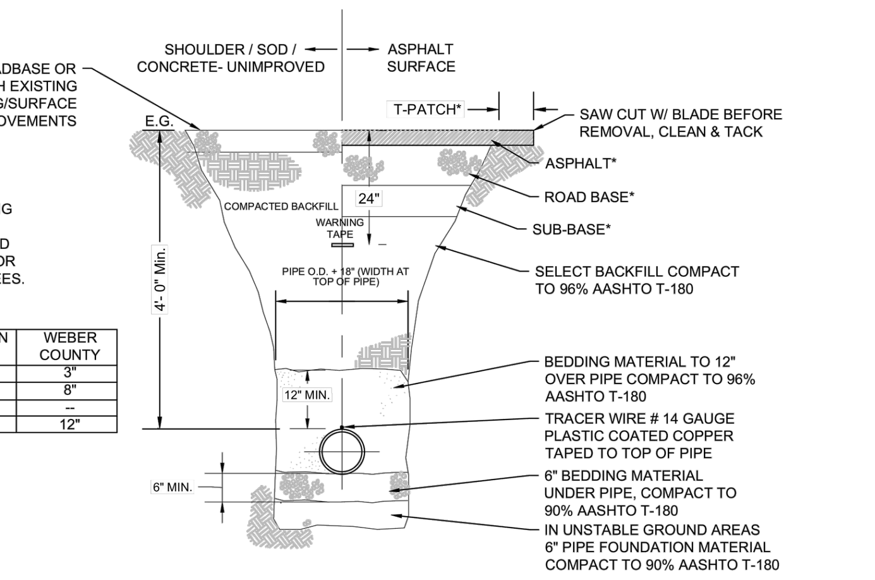
2 TYPICAL VALVE DETAIL
NTS

DRAFTED: MDD | DESIGNED: DW | CHECKED: VS | DATE: 11/2018 | REV 1: | REV 2:
DEVIATIONS FROM STANDARDS MUST BE APPROVED BY TAYLOR WEST WEBER WATER IMPROVEMENT DISTRICT.
STANDARD WATER DETAILS
TAYLOR WEST WEBER
WATER IMPROVEMENT DISTRICT
THRUST BLOCK DETAIL
TYPICAL VALVE DETAIL
SHEET 1
GARDNER ENGINEERING
CIVIL • LAND PLANNING
MUNICIPAL • LAND SURVEYING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801.476.0202 FAX: 801.476.0066

NOTE:
CONTRACTOR IS RESPONSIBLE TO MEET TRENCH RESTORATION STANDARDS OF THE ENTITY OWNING THE ROADWAY, RESTORE THE ROADWAY TO SAID STANDARDS AND SHALL BE SOLELY RESPONSIBLE FOR ALL ROADWAY PERMITS AND/OR FEES.

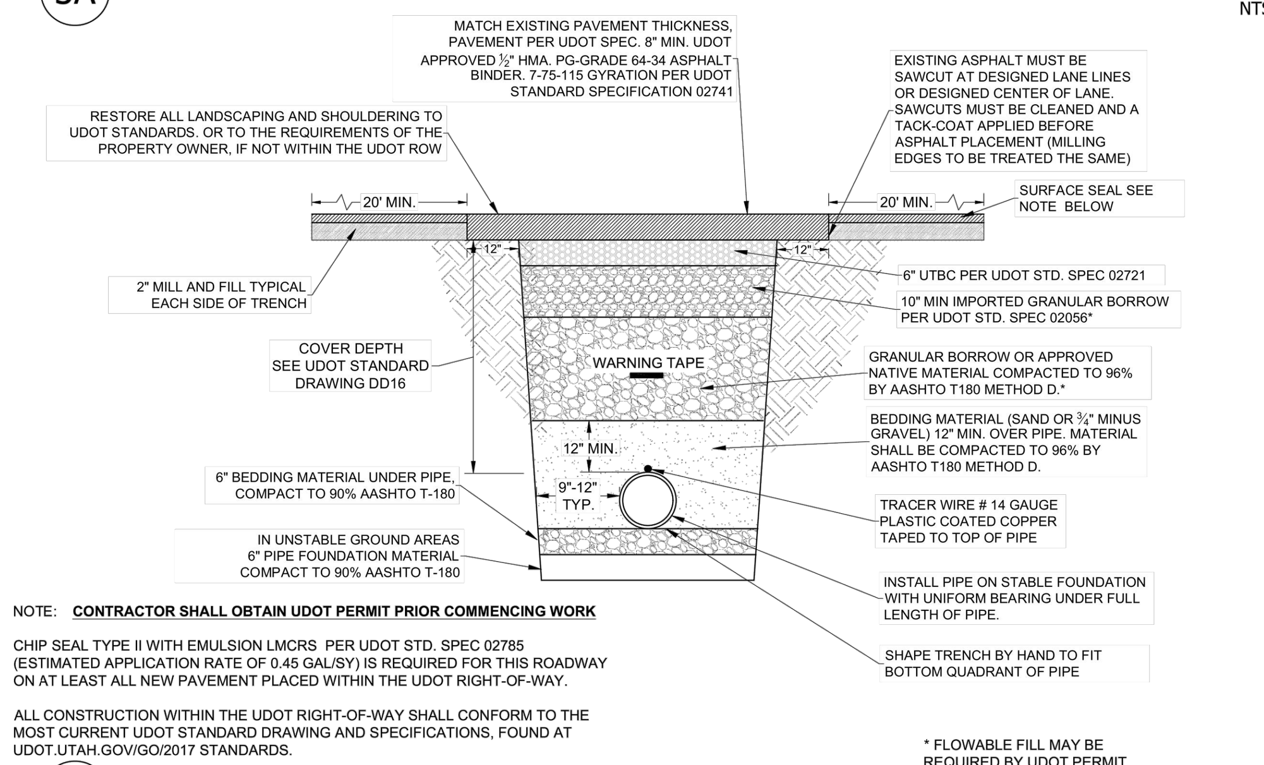
*STANDARDS AS OF 11/2018

	HOOPER CITY	WEST HAVEN CITY	WEBER COUNTY
ASPHALT	3"	3"	3"
ROAD BASE	12"	8"	8"
SUB BASE	--	12"	--
T-PATCH	24"	12"	12"



NOTE:
- WATER & SEWER LINES SHALL BE INSTALLED A MINIMUM OF 10 HORIZONTAL FEET FROM EACH OTHER.
- WHERE A WATER MAIN AND A SEWER MAIN MUST CROSS, THE WATER MAIN SHALL BE AT LEAST 18" ABOVE THE SEWER MAIN.
- SEPARATION DISTANCES ARE TO BE MEASURED EDGE-TO-EDGE.
- WATER MAINS SHALL NOT BE INSTALLED IN THE SAME TRENCH WITH EITHER SEWER OR SECONDARY PIPES.
- IF THESE STANDARDS CANNOT BE MET AN EXCEPTION TO THE STANDARD MAY BE POSSIBLE. THE ENTITY SEEKING THE EXCEPTION SHALL INITIATE AND PURSUE A REQUEST FOR A SEPARATION EXCEPTION WITH THE STATE DIVISION OF DRINKING WATER, IN ACCORDANCE WITH R309-550-7 OF THE STATE OF UTAH ADMINISTRATIVE RULES.

3A TYPICAL TRENCH SECTION
NTS



NOTE: CONTRACTOR SHALL OBTAIN UDOT PERMIT PRIOR COMMENCING WORK

CHIP SEAL TYPE II WITH EMULSION LMCRS PER UDOT STD. SPEC 02785 (ESTIMATED APPLICATION RATE OF 0.45 GAL/SY) IS REQUIRED FOR THIS ROADWAY ON AT LEAST ALL NEW PAVEMENT PLACED WITHIN THE UDOT RIGHT-OF-WAY.

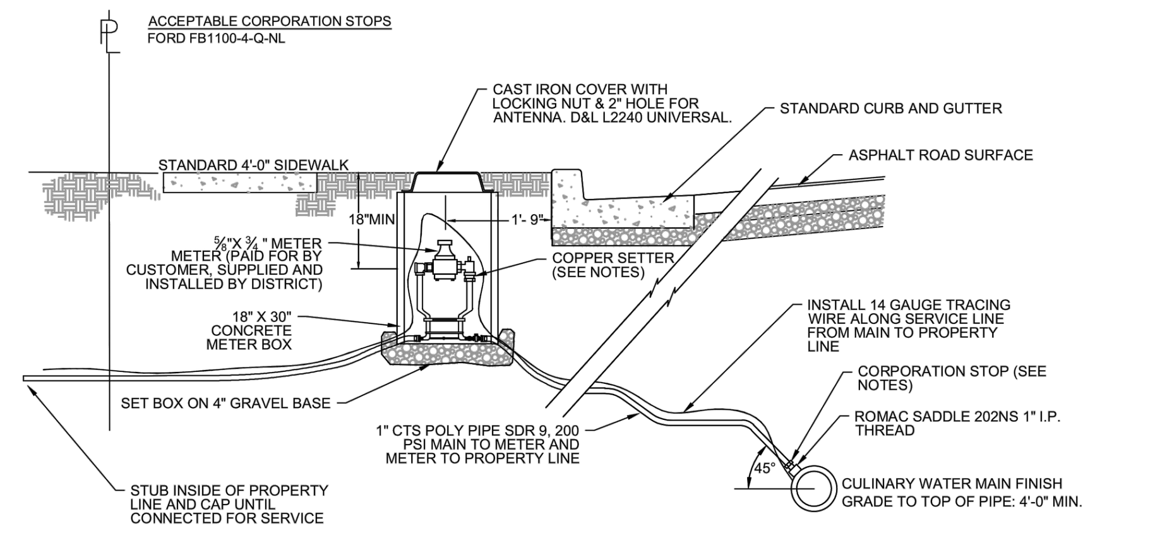
ALL CONSTRUCTION WITHIN THE UDOT RIGHT-OF-WAY SHALL CONFORM TO THE MOST CURRENT UDOT STANDARD DRAWING AND SPECIFICATIONS, FOUND AT UDOT.UTAH.GOV/GO/2017 STANDARDS.

* FLOWABLE FILL MAY BE REQUIRED BY UDOT PERMIT.

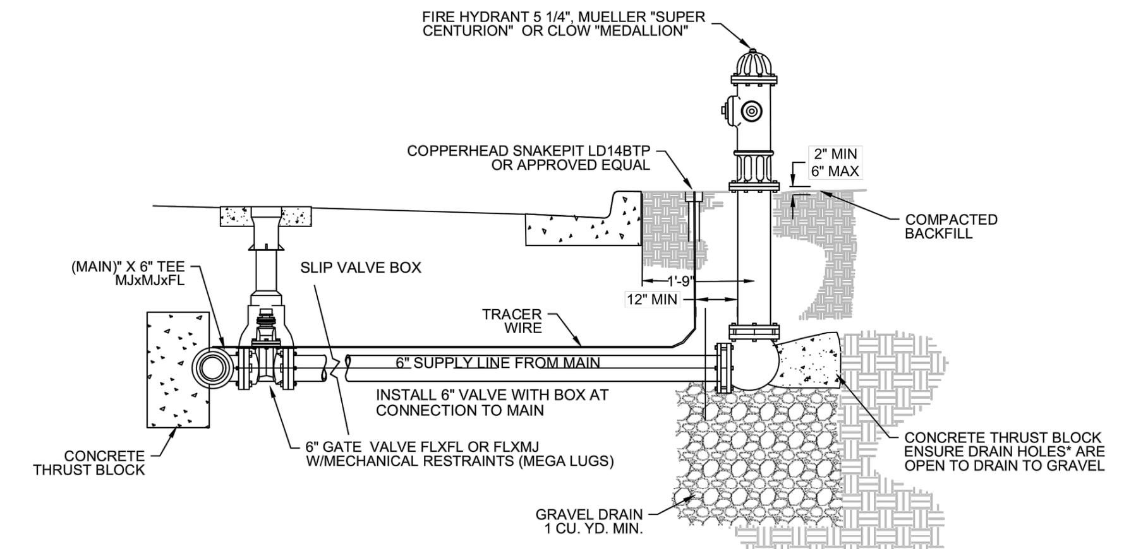
3B UDOT CROSSING TRENCH DETAIL
NTS

DRAFTED: MDD | DESIGNED: DW | CHECKED: VS | DATE: 11/2018 | REV 1: | REV 2:
DEVIATIONS FROM STANDARDS MUST BE APPROVED BY TAYLOR WEST WEBER WATER IMPROVEMENT DISTRICT.
STANDARD WATER DETAILS
TAYLOR WEST WEBER
WATER IMPROVEMENT DISTRICT
TYPICAL TRENCH SECTION
UDOT CROSSING TRENCH DETAIL
SHEET 2
GARDNER ENGINEERING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801.476.0202 FAX: 801.476.0066

NOTES:
ACCEPTABLE COPPER SETTERS
FORD VBHC 72-18W-44-44QNL
ALL COMPRESSION FITTINGS:
SHALL HAVE STAINLESS STEEL INSERTS
ACCEPTABLE CORPORATION STOPS
FORD FB1100-4-Q-NL



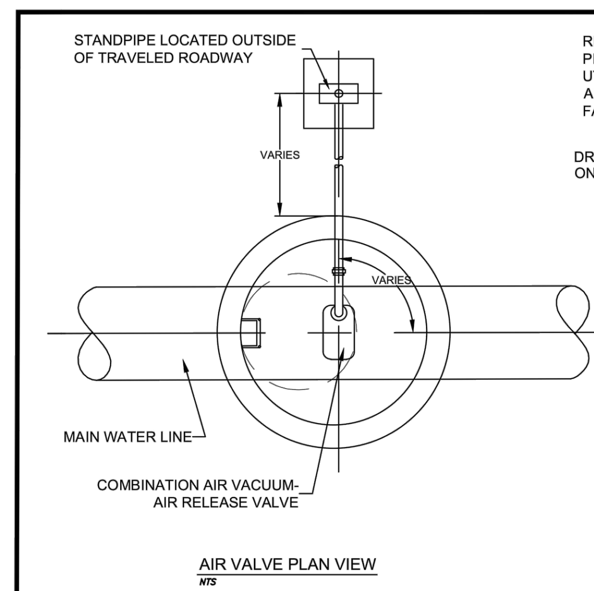
4 TYPICAL WATER CONNECTION\RE-CONNECTION
NTS

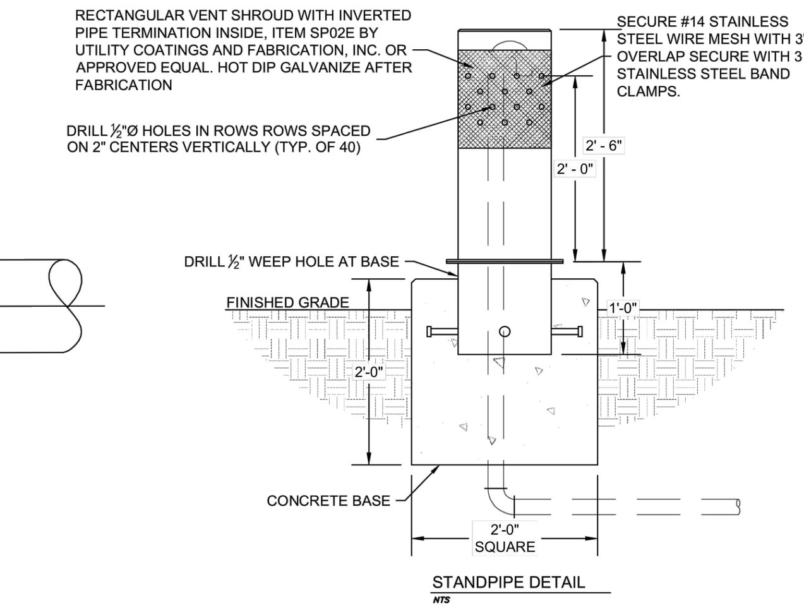


*NOTE: HYDRANT DRAINS SHALL NOT BE CONNECTED TO, OR LOCATED WITHIN, 10 FEET OF SANITARY SEWERS. WHERE POSSIBLE, HYDRANT DRAINS SHALL NOT BE LOCATED WITHIN 10 FEET OF STORM DRAINS.

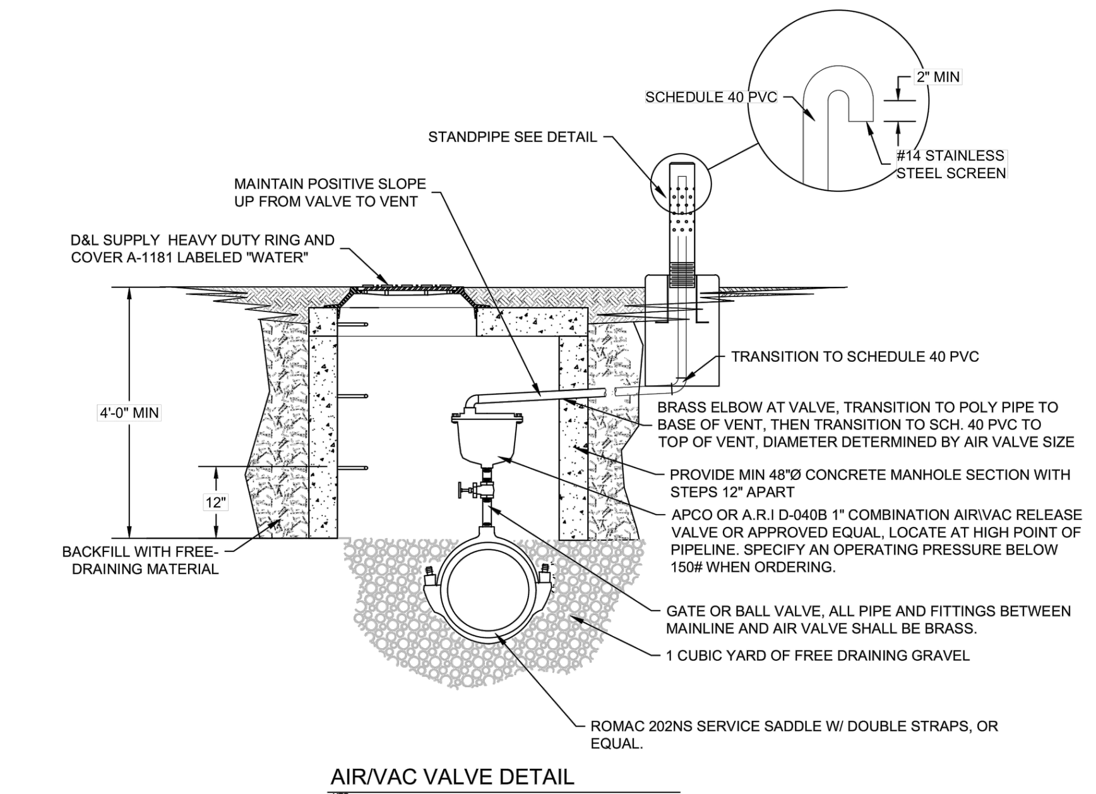
5 FIRE HYDRANT DETAIL
NTS

DRAFTED: MDD | DESIGNED: DW | CHECKED: VS | DATE: 11/2018 | REV 1: 03/11/19 UNIVERSAL METER BOX LID | REV 2:
DEVIATIONS FROM STANDARDS MUST BE APPROVED BY TAYLOR WEST WEBER WATER IMPROVEMENT DISTRICT.
STANDARD WATER DETAILS
TAYLOR WEST WEBER
WATER IMPROVEMENT DISTRICT
TYPICAL WATER CONNECTION DETAIL
FIRE HYDRANT DETAIL
SHEET 3
GARDNER ENGINEERING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801.476.0202 FAX: 801.476.0066





NOTES:
1. LOCATE STANDPIPE WELL OUTSIDE TRAVELED ROADWAY OR AS DIRECTED BY THE ENGINEER. INSTALL 4" STEEL PIPE FOR A 1" AIR VAC/AIR RELEASE VALVE AND 6" STEEL PIPE FOR A 2" VALVE.



6 COMBINATION AIR/VAC VALVE DETAILS
NTS

DRAFTED: MDD | DESIGNED: DW | CHECKED: VS | DATE: 11/2018 | REV 1: | REV 2:
DEVIATIONS FROM STANDARDS MUST BE APPROVED BY TAYLOR WEST WEBER WATER IMPROVEMENT DISTRICT.
STANDARD WATER DETAILS
TAYLOR WEST WEBER
WATER IMPROVEMENT DISTRICT
COMBINATION AIR/VAC VALVE DETAIL
SHEET 4
GARDNER ENGINEERING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801.476.0202 FAX: 801.476.0066

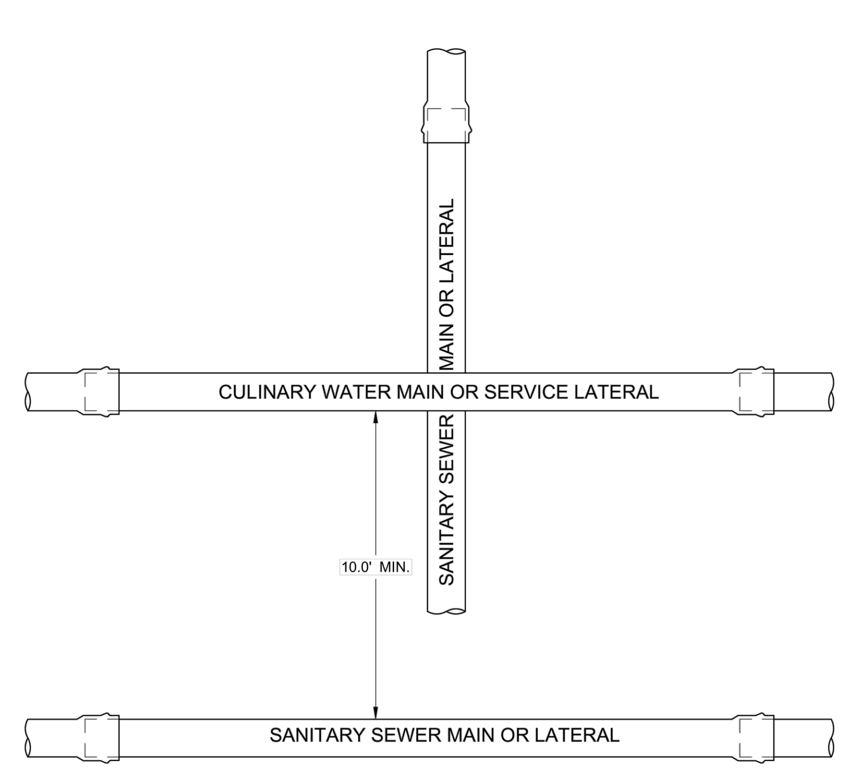
THRUST BLOCK AND VALVE DETAILS
TAYLOR-WEST WEBER WATER DISTRICT STDS. (1)
SCALE: N.T.S.

TRENCH DETAILS
TAYLOR-WEST WEBER WATER DISTRICT STDS. (2)
SCALE: N.T.S.

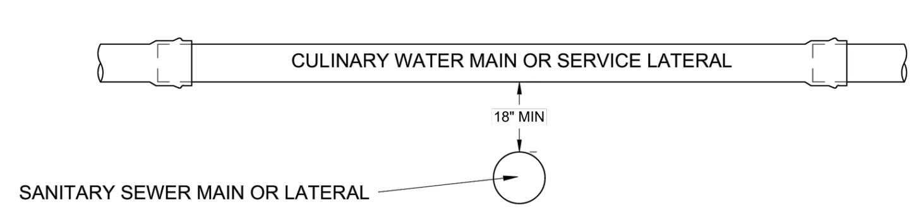
TYP. CONNECTION AND FIRE HYDRANT DETAILS
TAYLOR-WEST WEBER WATER DISTRICT STDS. (3)
SCALE: N.T.S.

COMBO AIR-VAC DETAIL
TAYLOR-WEST WEBER WATER DISTRICT STDS. (4)
SCALE: N.T.S.

NOTE:
WATER MAINS AND SEWER LINES SHALL NOT BE INSTALLED IN THE SAME TRENCH. WHERE LOCAL CONDITIONS MAKE IT IMPOSSIBLE TO INSTALL WATER OR SEWER LINES AT THE SEPARATION DISTANCES SHOWN HERE, AN EXCEPTION TO THE STANDARD MAY BE POSSIBLE. THE ENTITY SEEKING THE EXCEPTION SHALL INITIATE AND PURSUE A REQUEST FOR A SEPARATION EXCEPTION WITH THE STATE DIVISION OF DRINKING WATER, IN ACCORDANCE WITH R309-550-7 OF THE STATE OF UTAH ADMINISTRATIVE RULES.



PLAN VIEW

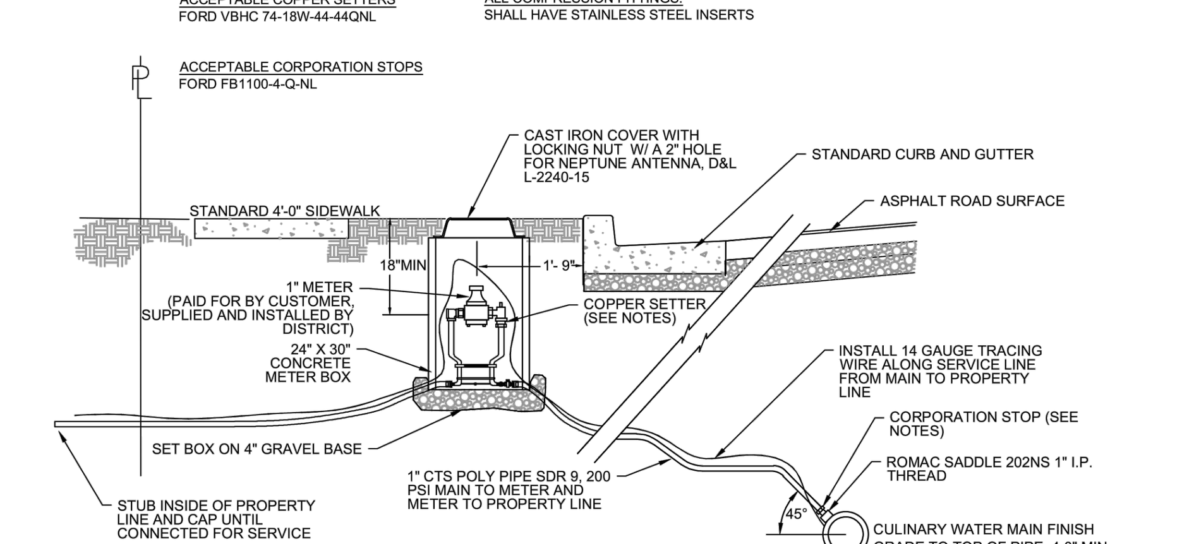


PROFILE VIEW

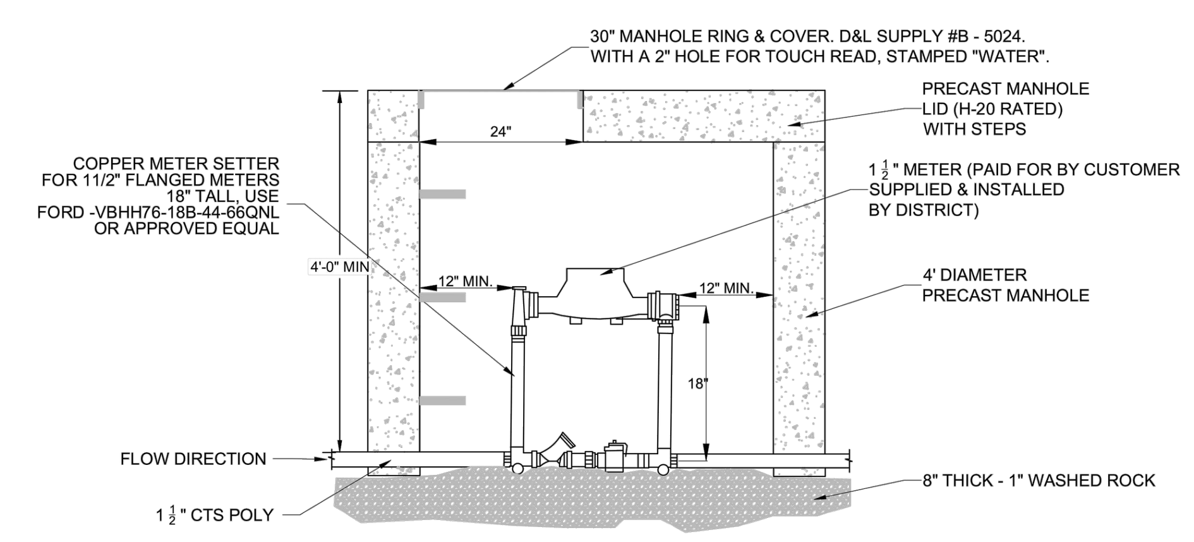
7 TYPICAL SEWER CROSSING DETAIL
NTS

DRAFTED: MDD | DESIGNED: DW | CHECKED: VS | DATE: 11/2018 | REV 1: | REV 2:
DEVIATIONS FROM STANDARDS MUST BE APPROVED BY TAYLOR WEST WEBER WATER IMPROVEMENT DISTRICT.
STANDARD WATER DETAILS
TAYLOR WEST WEBER
WATER IMPROVEMENT DISTRICT
TYPICAL SEWER CROSSING
SHEET 5
GARDNER ENGINEERING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801.476.0202 FAX: 801.476.0066

NOTES:
ACCEPTABLE COPPER SETTERS
FORD VBHC 74-18W-44-44QNL
ALL COMPRESSION FITTINGS:
SHALL HAVE STAINLESS STEEL INSERTS
ACCEPTABLE CORPORATION STOPS
FORD FB1100-4-Q-NL



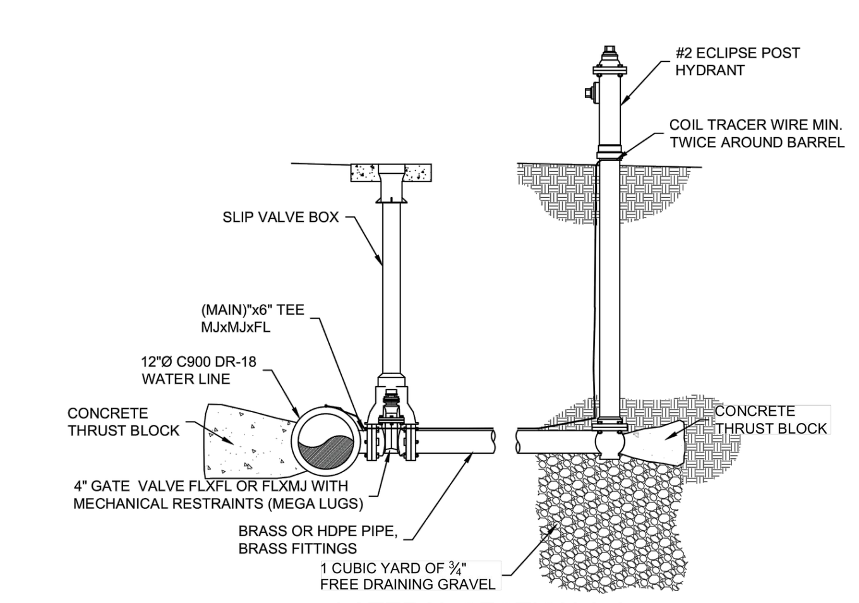
9 1" WATER METER DETAIL
NTS



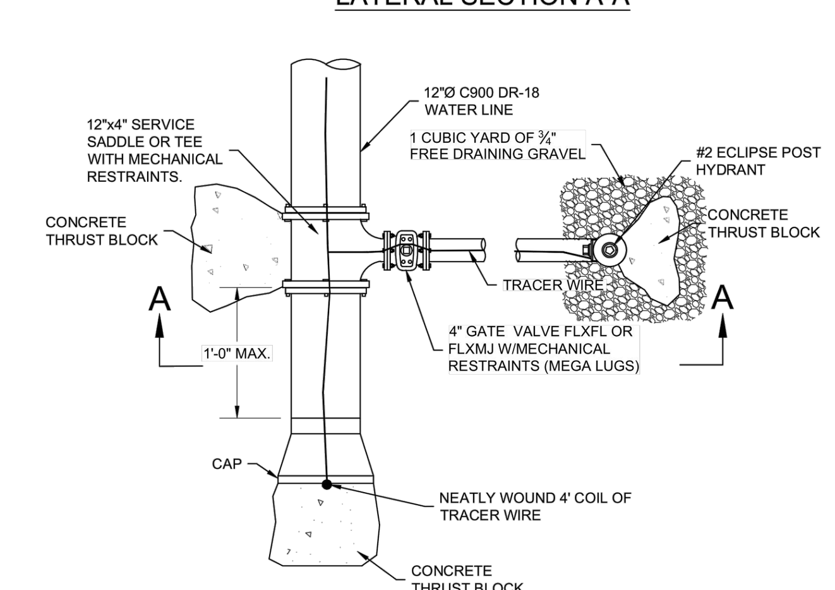
NOTES:
1. SERVICE LINE COVER UNDER CURB AND GUTTER MUST BE ADJUSTED BETWEEN THE LIMITS OF 36" AND 48". COVER OF SERVICE LINE IN THE STREET MUST NOT BE GREATER THAN 48"
2. DISTRICT MANAGER OR FOREMAN MUST APPROVE LOCATION OF METER BOX IF DISTANCE FROM TOP BACK CURB & GUTTER EXCEEDS 1' -0".
3. METER SETTER, CONSISTS OF 2 DUAL CHECK VALVES, 2 LOCKING KEY VALVES, FITTINGS & SPOOLS, COMPLETE.
4. ALL PIPING, VAULT, & MISCELLANEOUS ITEMS SHALL BE FURNISHED & INSTALLED BY THE CONTRACTOR, COMPLETE. COST OF METER SHALL BE BORNE BY SERVICED CUSTOMER.
5. ANY CHANGES MUST BE APPROVED BY DISTRICT MANAGER OR INSPECTOR.
6. IF SERVICE LINE IS NOT 1 ½" CTS POLY THEN INSTALLER WILL HAVE TO INSTALL TRANSITION FITTINGS.

10 1 1/2" WATER METER DETAIL
NTS

DRAFTED: MDD | DESIGNED: DW | CHECKED: VS | DATE: 11/2018 | REV 1: | REV 2:
DEVIATIONS FROM STANDARDS MUST BE APPROVED BY TAYLOR WEST WEBER WATER IMPROVEMENT DISTRICT.
STANDARD WATER DETAILS
TAYLOR WEST WEBER
WATER IMPROVEMENT DISTRICT
1" METER DETAIL
1 1/2" METER DETAIL
SHEET 7
GARDNER ENGINEERING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801.476.0202 FAX: 801.476.0066



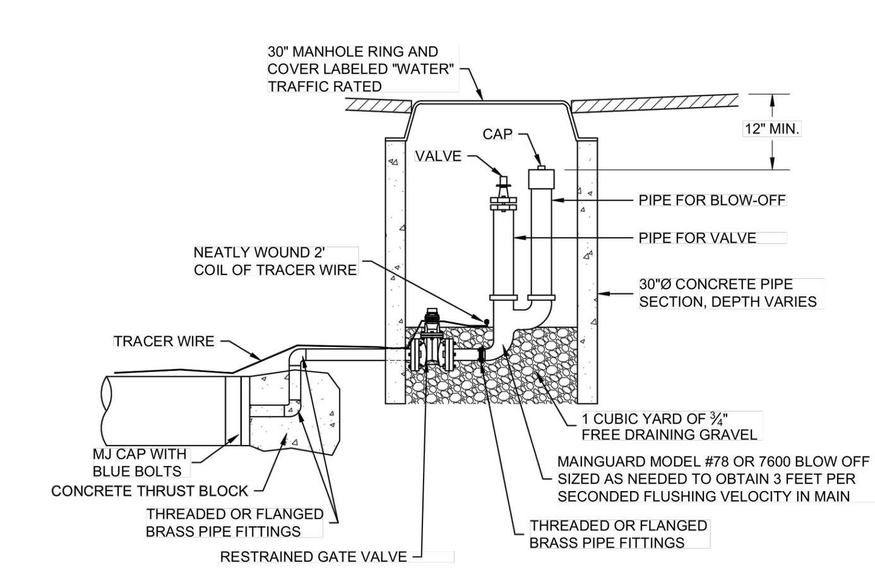
LATERAL SECTION A-A



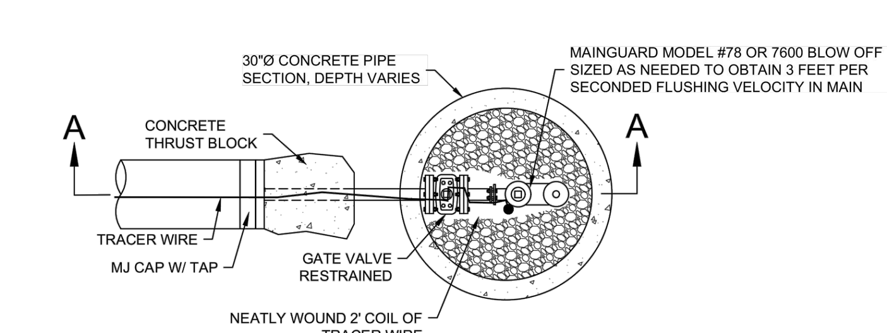
LATERAL PLAN VIEW

14A BLOW OFF DETAIL
NTS

DRAFTED: MDD | DESIGNED: DW | CHECKED: VS | DATE: 11/2018 | REV 1: | REV 2:
DEVIATIONS FROM STANDARDS MUST BE APPROVED BY TAYLOR WEST WEBER WATER IMPROVEMENT DISTRICT.
STANDARD WATER DETAILS
TAYLOR WEST WEBER
WATER IMPROVEMENT DISTRICT
BLOW OFF DETAIL
SHEET 11A
GARDNER ENGINEERING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801.476.0202 FAX: 801.476.0066



END OF LINE SECTION A-A



END OF LINE PLAN VIEW

14B BLOW OFF DETAIL
NTS

DRAFTED: MDD | DESIGNED: DW | CHECKED: VS | DATE: 11/2018 | REV 1: | REV 2:
DEVIATIONS FROM STANDARDS MUST BE APPROVED BY TAYLOR WEST WEBER WATER IMPROVEMENT DISTRICT.
STANDARD WATER DETAILS
TAYLOR WEST WEBER
WATER IMPROVEMENT DISTRICT
BLOW OFF DETAIL
SHEET 11B
GARDNER ENGINEERING
5150 SOUTH 375 EAST OGDEN, UT
OFFICE: 801.476.0202 FAX: 801.476.0066

TYPICAL SEWER CROSSING DETAIL
TAYLOR-WEST WEBER WATER DISTRICT STDS. (5)
SCALE: N.T.S.

METER DETAIL
TAYLOR-WEST WEBER WATER DISTRICT STDS. (6)
SCALE: N.T.S.

LATERAL BLOW OFF DETAIL
TAYLOR-WEST WEBER WATER DISTRICT STDS. (7)
SCALE: N.T.S.

END LINE BLOW OFF DETAL
TAYLOR-WEST WEBER WATER DISTRICT STDS. (8)
SCALE: N.T.S.

No.	DATE	DESCRIPTION
1	03/25/21	REVISED PER COUNTY, WATER & IRRIGATION COMMENTS

DRAWN BY: JHO
CHECKED BY: AGA
FIELD CREW: SURVEY
DATE: 03/12/2021
DWG. FILE: 2006142_SITE_OPTION 2

SCALE MEASURES 1-INCH ON FULL SIZE SHEETS
ADJUST ACCORDINGLY FOR REDUCED SIZE SHEETS

PRELIMINARY PLAN
PROFESSIONAL ENGINEER
3/25/21
No. 11366633
ALLISON G. ALBERT
STATE OF UTAH
NOT FOR CONSTRUCTION

BENCHMARK ENGINEERING & LAND SURVEYING
9138 SOUTH STATE STREET SUITE #100
SANDY, UTAH 84070 (801) 542-7192
www.benchmarkcivil.com

WINSTON PARK
3701 W 1800 S
WEBER COUNTY, UTAH

PROJECT NO. 2006142

DETAILS & NOTES SHEET