



G R O U P  
 P  
 ARCHITECTURE  
 RESEARCH +  
 PLANNING, INC  
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**SPOKANE  
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 LIBRARY:  
 SHADLE BRANCH**  
 2111 W WELLESLEY AVE,  
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**SPOKANE PUBLIC  
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Project	Mark Dalley
Rev.	---
PROJECT:	18515-04
ISSUE	
COST ESTIMATING SET	05-13-2019
SCHEMATIC DESIGN SET	06-10-2019
DD COST ESTIMATING SET	08-23-2019
DD 09-06-2019 COST ESTIMATING SET	09-06-2019
DD 100% SUBMISSION SET	09-13-2019
CD GC/CM COST PRICING SET	12-09-2019
REVISION #	09-05-2019

SHEET TITLE AND NO.  
**GRADING & DRAINAGE  
 PLAN**

**C201**

DATE: December 5, 2019 FILENAME: G:\2018\218006414\_CIV\CAD\2180064-SH-GRAD.dwg

**SPOT GRADE KEYNOTES**

- FG FINISHED GROUND ELEVATION
- FL FLOWLINE ELEVATION
- FF FINISHED FLOOR ELEVATION
- EG EXISTING GROUND ELEVATION
- HP HIGH POINT ELEVATION
- LP LOW POINT ELEVATION
- EP EDGE OF PAVEMENT ELEVATION
- TW TOP OF WALL ELEVATION
- BW BOTTOM OF WALL ELEVATION

**KEY NOTES**

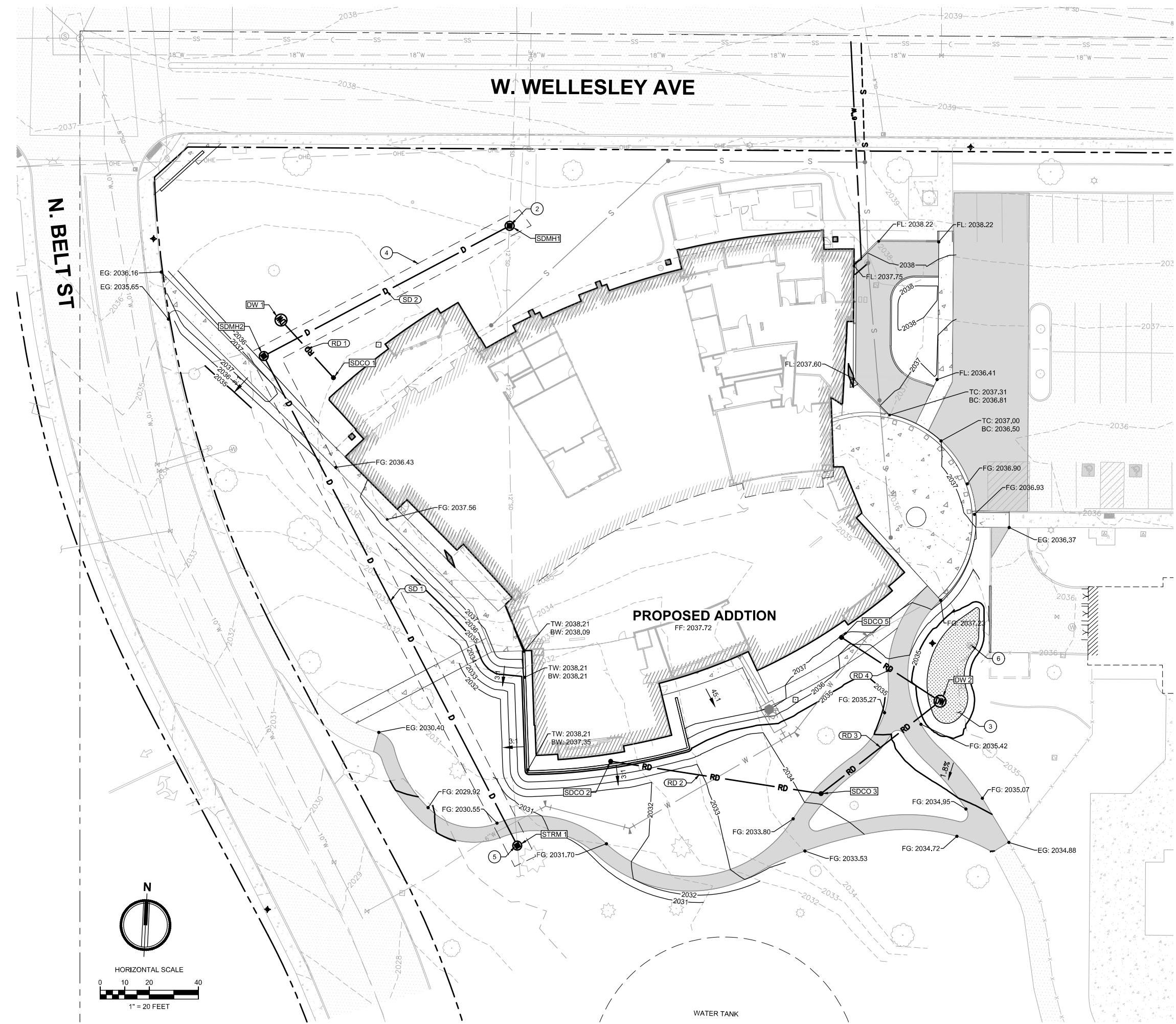
- 1 PROVIDE DOWNSPOUT CONNECTION TO ROOF DRAIN LINES. SEE ARCHITECTURAL PLANS FOR DOWNSPOUT LOCATIONS AND COORDINATE WITH DOWNSPOUT CONTRACTOR. NO ABOVE-GRADE OFFSETS ALLOWED.
- 2 VERIFY STORM DRAIN INVERT BEFORE SETTING MANHOLE. AFTER SETTING THE MANHOLE, PLUG THE PIPE RUNNING TO THE SOUTH. THE PLUG SHALL BE WATER-TIGHT.
- 3 BIO-INFILTRATION POND 1  
 BOTTOM AREA: 615 SF  
 BOTTOM EL: 2034.00  
 DRYWELL RIM: 2034.50
- 4 BID ALTERNATE 2
- 5 PLUG THE PIPE OPENING RUNNING TO THE NORTH. THE PLUG SHALL BE WATER-TIGHT.
- 6 ADJUST EXISTING DRYWELL GRATE TO 2034.50'

**GRADING & DRAINAGE NOTES**

1. THE CONTRACTOR SHOULD TAKE PRECAUTIONS TO PROTECT THE INFILTRATION CAPACITY OF STORMWATER FACILITIES (E.G. LINE THE FACILITY WITH FILTER FABRIC, OVER-EXCAVATE UPON COMPLETION OF THE INFRASTRUCTURE, ETC.)
2. EXCAVATION TO COMPLY WITH JULY 23, 2018 "GEOTECHNICAL ENGINEERING EVALUATION" BY STRATA.
3. CONTRACTOR SHALL HAVE A MINIMUM (4) TEMPORARY BENCHMARKS (TBMS) WITHIN THE BUILDING PAD AREA WHILE PERFORMING EXCAVATION AND EMBANKMENT. TBMS SHALL HAVE ELEVATIONS NOTED ON LATHE AND BE AVAILABLE FOR INDEPENDENT GRADE VERIFICATION.
4. ALL SPOT ELEVATIONS ARE RELATIVE TO 2200'.

**STORM NOTES**

1. DRYWELL TYPE 1 PER COS STD PLAN B-102C.
2. THE CONTRACTOR SHOULD TAKE PRECAUTIONS TO PROTECT THE INFILTRATION CAPACITY OF STORMWATER FACILITIES (E.G. LINE THE FACILITY WITH FILTER FABRIC, OVER-EXCAVATE UPON COMPLETION OF THE INFRASTRUCTURE, ETC.)
3. FOR CONSTRUCTION OF DRYWELLS, INSTALL FILTER FABRIC (MOCO 4545 OR APPROVED EQUIVALENT) BETWEEN THE WASHED DRAIN ROCK AND THE NATIVE SOILS.
4. DRYWELLS SHALL BE INSTALLED TO THE ELEVATIONS INDICATED ON THE PLANS. FINISHED TOP SOIL ADJACENT TO THE DRYWELL SHALL BE AT LEAST 2-INCHES BELOW THE DRYWELL RIM.
5. IF DURING FINAL INSPECTION, IT IS FOUND THAT THE CONSTRUCTED SWALE DOES NOT CONFORM TO THE ACCEPTED DESIGN, THE SYSTEM SHALL BE RECONSTRUCTED SO THAT IT DOES COMPLY.
6. STORM SEWER PIPES AND DRYWELLS SHALL BE SEPARATED AT LEAST 10 FEET HORIZONTALLY FROM DOMESTIC WATER MAINS. CROSSINGS OF WATER MAINS AND SEWER SYSTEMS SHALL HAVE A MINIMUM 18-INCH VERTICAL SEPARATION. ANY ANTICIPATED SEPARATION LESS THAN MINIMUM STANDARDS CONTAINED HEREIN, SHALL CONFORM TO THE CITY OF SPOKANE STANDARD DETAILS W-110, W-111, AND W-112 (EXISTING) OR W-113 (NEW).
7. EXCAVATE, REPLACE, AND CONNECT ALL STORM SPOUTS/PIPES FROM THE EXISTING BUILDING INTO THE PROPOSED STORM SYSTEM. EXISTING LOCATIONS OF THE STORM SPOUTS ARE UNKNOWN. IT IS ASSUMED THE STORM AND SEWER LINES ARE SEPARATE, IF THEY ARE COMBINED, NOTIFY THE ENGINEER IMMEDIATELY.
8. MANHOLES SHALL BE PER COS STD PLAN Z-101.



**STORM STRUCTURE TABLE**

TYPE	COORDINATES	INVERT ELEVATION	DIAMETER
TYPE 1 DRYWELL	N: 273885.8843 E: 2475013.0176 RIM 2034.87	IE 2032.00 (4" PVC SE)	4"
TYPE 1 DRYWELL	N: 273743.8967 E: 2475288.8291 RIM 2034.49	IE 2031.00 (6" PVC NW)	6"
TYPE 1 DRYWELL	N: 273743.8967 E: 2475288.8291 RIM 2034.49	IE 2031.00 (6" PVC SW)	6"
CLEANOUT	N: 273863.4870 E: 2475035.5332 RIM 2034.85	IE 2034.00 (4" PVC NW)	4"
CLEANOUT	N: 273712.9073 E: 2475155.9989 RIM 2037.74	IE 2034.70 (6" PVC E)	6"
CLEANOUT	N: 273703.9593 E: 2475242.2412 RIM 2034.13	IE 2032.65 (6" PVC W)	6"
CLEANOUT	N: 273767.9262 E: 2475247.4481 RIM 2036.86	IE 2033.00 (6" PVC SE)	6"

**STORM PIPE TABLE**

PIPE ID	SIZE	SLOPE
RD 1	32 LF 4" PVC	@ 6.30%
RD 2	87 LF 6" PVC	@ 2.36%
RD 3	61 LF 6" PVC	@ 2.89%
RD 4	48 LF 6" PVC	@ 5.43%
SD 1	225 LF 12" CPEP	@ 1.00%
SD 2	113 LF 12" CPEP	@ 1.00%

