IMPROVEMENT PLANS

CRESTLINE CIRCLE DRIVE
LEWISTON, IDAHO 83501

GENERAL NOTES

1) THE CONTRACTOR SHALL PAY FOR ALL NECESSARY PERMITS AND FEES.
2) THE CONTRACTOR SHALL INVESTIGATE ON SITE AND VERIFY ALL CONDITIONS AND DIMENSIONS OF THE PROJECT AND SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCY IN THE CONTRACT DOCUMENTS REQUIRING MODIFICATION PRIOR TO PROCEEDING.
3) THE CONTRACTOR SHALL TAKE ALL NECESSARY PREVENTATIVE MEASURES TO PROTECT THE EXISTING IMPROVEMENTS. ANY DAMAGE SHALL BE REPLACED AT NO COST TO THE OWNER.
4) THE CONTRACTOR SHALL COORDINATE THE WORK SCHEDULE SO AS TO HAVE A MINIMUM IMPACT ON THE EXISTING TRAFFIC. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL PER IDAHO TRANSPORTATION DEPARTMENT STANDARD SPECIFICATIONS.
5) OWNER'S PROPERTY CORNERS SHALL BE PROTECTED AT ALL TIMES, AND THE CONTRACTOR SHALL RETAIN THE SERVICES OF A PROFESSIONAL LAND SURVEYOR REGISTERED IN THE STATE OF IDAHO TO REFERENCE ALL CORNERS. UPON COMPLETION OF THE PROJECT, ALL EXISTING CORNERS DAMAGED BY CONSTRUCTION OR OTHER ACTIVITY SHALL BE REPLACED BY A PROFESSIONAL LAND SURVEYOR.
6) ALL WORK SHALL CONFORM TO STATE AND LOCAL CODES AND CONFORM TO THE CITY OF LEWISTON STANDARD DRAWINGS AND STANDARD TECHNICAL SPECIFICATIONS.
7) SITE DISTANCES FOR ABUTTING PROPERTIES, DRIVEWAYS, AND INTERSECTIONS MUST BE MAINTAINED.
8) EROSION AND DUST CONTROL MEASURES MUST BE USED DURING CONSTRUCTION TO REDUCE OR ELIMINATE BLOWING DUST, EXCESSIVE RUNOFF, AND SOIL EROSION ACROSS PROPERTY LINES AND INTO STREETS AND RIGHT-OF-WAY, AND TO ELIMINATE TRACKING SOIL AND MUD ONTO STREETS FROM CONSTRUCTION EQUIPMENT AND VEHICLES.
9) IMPROVEMENTS CONSTRUCTED ON RIGHT-OF-WAY REQUIRE A STREET CUT PERMIT OBTAINED AT THE CONSTRUCTION MANAGEMENT SECTION OF THE PUBLIC WORKS DEPARTMENT.
10) ALL CONSTRUCTION NOT SPECIFICALLY MENTIONED OR SHOWN SHALL CONFORM TO CITY ORDINANCES AND STANDARDS.
11) ALL TOPSOIL SHALL BE STRIPPED AND STOCKPILED BEFORE EXCAVATION.
12) ALL EXPOSED CUT/FILL SLOPES SHALL BE SEEDED TO PREVENT EROSION.
13) ALL ROADWAY FILL SHALL BE AS A MINIMUM, CLEAN, UNIFORMLY GRADED, COMPACTED TO 95% OF THE MAX. DRY DENSITY DETERMINED BY STANDARD PROCTOR, AASHTO T99. COMPACTION LAYERS SHALL BE 8" DEEP.
14) ALL ASPHALTIC CEMENT PAVING REMOVAL SHALL BE SAW CUT AND WHEN REPLACED, FEATHERED INTO EXISTING PAVEMENT.
15) UNLESS OTHERWISE NOTED, STREET CROSS SECTIONS SHALL CONFORM TO CITY OF LEWISTON STANDARD DRAWING D-1 WITH 2% CROSS-SLOPE.
16) ADD STREET MONUMENTS AND CASES DURING PAVING AT LOCATIONS SHOWN ON THE PLAT IN CONFORMANCE WITH CITY OF LEWISTON STANDARDS.
17) STREET NAME SIGNS ARE TO BE PAID FOR BY THE DEVELOPER AND INSTALLED BY THE ~~CONTRACTOR~~. City
18) ALL CURB AND GUTTER SHALL BE HIGH BACK CURB AND GUTTER AND SHALL CONFORM TO CITY OF LEWISTON STANDARD DRAWINGS ST-1A AND ST-1B, TYPE 1 WITH PEDESTRIAN DROPS.
19) SIDEWALKS SHALL CONFORM TO CITY OF LEWISTON STANDARD DRAWINGS ST-4, OPTION 2, AND D-13.
20) ALL WATER AND SEWER UTILITIES ARE TO BE CONSTRUCTED IN ACCORDANCE WITH STATE OF IDAHO STANDARDS FOR PUBLIC DRINKING WATER SYSTEMS.
21) WATER MAINS SHALL BE INSTALLED BY CONTRACTORS WITH EXPERIENCE INSTALLING PUBLIC WATER MAINS AND APPROVED BY THE CITY OF LEWISTON.
22) WATER MAINS SHALL BE LAID ONLY IN DEDICATED STREETS OR IN EASEMENTS WHICH HAVE BEEN GRANTED AND ACCEPTED BY THE CITY OF LEWISTON.
23) WATER PIPE SHALL BE P.V.C., CLASS 150 (MINIMUM) CONFORMING TO AWWA STANDARD C-900.
24) WATER LINE FITTINGS SHALL BE CAST IRON OR DUCTILE IRON CONFORMING TO AWWA STANDARD C153.
25) PROPOSED WATER LINES SHALL BE HYDROSTATICALLY TESTED AS PER AWWA C600-93. TESTS SHALL BE 1 1/2 TIMES WORKING PRESSURE, WITH A MINIMUM OF 150 PSI. PRESSURE SHALL BE HELD FOR 2 HOURS WITH NO DROP IN PRESSURE. ENGINEER OF RECORD SHALL WITNESS TEST.
26) DISINFECTING OF WATER PIPES SHALL BE IN ACCORDANCE WITH AWWA C-651-92. ISOLATE NEW PIPE FROM EXISTING SYSTEM TO PREVENT POTENTIAL CROSS-CONNECTION. ENGINEER OF RECORD SHALL WITNESS TEST.
27) THE CONTRACTOR SHALL PROVIDE LOCATE TAPE IN PVC WATER MAIN TRENCH.
28) THRUST BLOCKS SHALL CONFORM TO CITY OF LEWISTON STANDARD DRAWING W-2.
29) GATE VALVES SHALL CONFORM TO AWWA C 509-87 RESILIENT SEATED GATE VALVES FOR WATER AND SEWAGE SYSTEMS AND SHALL BE IRON BODY BRONZE-MOUNTED, DOUBLE DISC WITH BRONZE WEDGING AND O-RING STUFFING BOX.
30) THE CONTRACTOR SHALL PROVIDE 4 FT MIN. COVER ON ALL WATER LINES.
31) FIRE HYDRANTS SHALL CONFORM TO AWWA C502 AND SHALL BE OF STANDARD MANUFACTURE AND OF A PATTERN APPROVED AND/OR REQ'D. BY THE CITY OF LEWISTON AND/OR THE LEWISTON FIRE DEPARTMENT. HYDRANTS SHALL BE SO CONSTRUCTED THAT THE DIRECTION OF PUMPER CONNECTION MAY BE ROTATED TO FACE THE ROADWAY. A SIX (6) INCH MECHANICAL JOINT CONNECTION WITH LUGS AND SHACKLE RODS IS TO BE USED. A GATE VALVE SHALL BE INSTALLED AT EACH HYDRANT AS SHOWN ON STANDARD DETAIL W-5.
32) SEWER MAINS SHALL BE INSTALLED BY CONTRACTORS W/ EXPERIENCE INSTALLING PUBLIC SEWER MAINS AND APPROVED BY THE CITY OF LEWISTON.
33) ALL EXISTING LIVE SEWERS SHALL BE KEPT IN SERVICE AT ALL TIMES. PROVISIONS SHALL BE MADE FOR DISPOSAL OF SEWAGE FLOW IF ANY EXISTING SEWERS ARE DAMAGED. DAMAGE TO EXISTING SEWERS SHALL BE REPAIRED BY THE CONTRACTOR, AT NO EXPENSE TO THE CITY, TO A CONDITION EQUAL TO OR BETTER THAN CONDITIONS PRIOR TO THE DAMAGE.
34) SEWER MAIN SHALL BE LAID ONLY IN DEDICATED STREETS OR IN EASEMENTS WHICH HAVE BEEN GRANTED AND ACCEPTED BY THE CITY OF LEWISTON.
35) SEWER PIPES SHALL BE P.V.C. POLYVINYL CHLORIDE PIPE AND SHALL CONFORM TO THE REQUIREMENTS OF ASTM D 3034 SDR 35 OR ASTM F 789. JOINTS FOR P.V.C. PIPE SHALL CONFORM TO ASTM D 3212 USING RESTRAINED GASKETS CONFORMING TO ASTM F477. FITTINGS FOR P.V.C. PIPE SHALL BE INJECTION MOLDED TEES OR FACTORY SOLVENT CEMENTED SADDLE TEES.
36) SEWER LINE CONNECTIONS TO TRUNKS, MAINS, LATERALS, OR SIDE SEWERS SHALL BE LEFT UNCOVERED UNTIL AFTER THE CITY ENGINEER HAS INSPECTED AND APPROVED THE WORK. AFTER APPROVAL OF CONNECTION, THE TRENCH SHALL BE BACKFILLED AS SPECIFIED.
37) WATER LINE CONNECTIONS TO MAINS AND LATERALS SHALL BE LEFT UNCOVERED UNTIL AFTER THE CITY ENGINEER HAS INSPECTED AND APPROVED THE WORK. AFTER APPROVAL OF CONNECTION, THE TRENCH SHALL BE BACKFILLED AS SPECIFIED.
38) ALL WORK INVOLVED IN CLEANING AND TESTING SEWER LINES BETWEEN MANHOLES OR RODDING INLETS AS REQUIRED HEREIN SHALL BE COMPLETED WITHIN FIFTEEN DAYS AFTER BACKFILLING OF SEWER LINES AND STRUCTURES. ANY FURTHER DELAY WILL REQUIRE THE WRITTEN CONSENT OF THE ENGINEER.
39) ALL SANITARY SEWER LINES SHALL BE INSPECTED BY THE USE OF A TELEVISION CAMERA BEFORE FINAL ACCEPTANCE.
40) SEWER LINES SHALL BE AIR TESTED WITH A PRESSURE 4 PSI GREATER THAN AVERAGE GROUND WATER PRESSURE THAT MAY SUBMERGE THE PIPE. ALLOW A TWO MINUTE STABILIZATION TIME. AIR LOSS SHALL NOT EXCEED A TOTAL RATE OF 2 CFM OR 0.0030 CFM PER SQUARE FOOT OF INTERNAL PIPE SURFACE, WHICHEVER IS GREATER. ENGINEER OF RECORD SHALL WITNESS THE TEST.
41) SANITARY SEWER STUBS SHALL HAVE THEIR TERMINATIONS PERMANENTLY MARKED WITH A 5' STEEL FENCE POST, FOR EASE OF FUTURE LOCATION.
42) SEWER MANHOLES SHALL BE CONSTRUCTED IN CONFORMANCE WITH CITY OF LEWISTON STANDARD DRAWING S-3. USE NON-SHRINK GROUT OR GASKETED MANHOLE COUPLERS FOR MANHOLE-PIPE CONNECTIONS.
43) 'TIE-INS' TO EXISTING MANHOLES SHALL INCLUDE THE CONSTRUCTION OF NEAT, NEW, WATERTIGHT INVERTS, AS APPROVED BY THE CITY ENGINEER.
44) FINAL ADJUSTMENT AND GROUTING OF THE SANITARY SEWER AND STORM DRAIN MANHOLE RINGS SHALL BE DONE BY THE PAVING CONTRACTOR.
45) SPECIAL INSPECTION IS REQUIRED FOR SOIL COMPACTION, SEWER LINE, WATER LINE, BASE MATERIAL, AND ASPHALT.
46) UPON COMPLETION, CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS, COMPLETE WITH ELEVATIONS, TO THE ENGINEER OF RECORD TO BE

LEGEND

XXX	PROPOSED CONTOUR	XXX	EXISTING CONTOUR
XXX	PROPOSED GRADE	(XXX)	EXISTING GRADE
	PROPOSED MONUMENT		EXISTING MONUMENT
	PROPOSED A.C.		EXISTING A.C.
SS	PROPOSED SEWER	SS	EXISTING SEWER
W	PROPOSED WATER	W	EXISTING WATER
SD	PROPOSED STORM DRAIN	SD	EXISTING STORM DRAIN
	PROPOSED SEWER MANHOLE		EXISTING SEWER MANHOLE
	PROPOSED SEWER CLEANOUT		EXISTING STORM DRAIN MANHOLE
	PROPOSED STORM DRAIN MANHOLE		EXISTING CATCH BASIN
	PROPOSED CATCH BASIN		EXISTING GATE VALVE
	PROPOSED GATE VALVE		EXISTING THRUST BLOCK
	PROPOSED THRUST BLOCK		EXISTING FIRE HYDRANT
	PROPOSED FIRE HYDRANT		
	PROPOSED WATER METER		

WATER LINE FITTINGS
PROPERTY LINE
CENTER LINE OF STREET

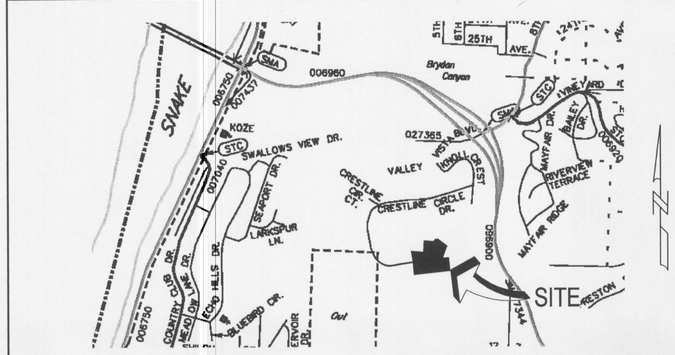
AGENCY TELEPHONE NUMBERS

CITY OF LEWISTON BUILDING INSPECTION	(208) 746-1319
CITY OF LEWISTON WATER & L.O.S.D.	(208) 746-1317
AVISTA UTILITIES CONTACT: KENNY RAY	(208) 798-1473
QWEST CORPORATION CONTACT: KIM BIGGS	(208) 798-0607
CABLE ONE CONTACT: LES SHRIVER	(208) 746-3325
UNDERGROUND UTILITY LOCATE (CALL 48 HOURS BEFORE YOU DIG)	1-800-342-1585

DEVELOPER:
McCANN FAMILY LIMITED PARTNERSHIP
202 26TH AVENUE
LEWISTON, IDAHO 83501

CONTACT: PAT McCANN (208) 743-7399

VICINITY MAP



SPECIAL INSPECTIONS

ITEM	INSPECTOR/CO.	DATE INSPECTED	INITIAL
1. SOILS COMPACTION – TRENCH BACKFILLING – STRUCTURAL FILLS	ACCURATE TESTING		
2. STORM DRAIN MAINS – ALIGNMENT AND GRADE – JOINTS ALIGNMENT – MANHOLES	KELTIC ENGINEERING		
3. WATER MAINS – ALIGNMENT AND GRADE – JOINTS ALIGNMENT – THRUST BLOCKS – HYDROSTATIC PRESSURE – CHLORINATION/BACTERIA	KELTIC ENGINEERING		
4. SEWER MAINS – ALIGNMENT AND GRADE – JOINTS ALIGNMENT – MANHOLES – PRESSURE TESTS	KELTIC ENGINEERING		

NOTE: SPECIAL INSPECTIONS TO BE COORDINATED BY CONTRACTOR AND PERFORMED BY THE COMPANIES LISTED ABOVE. 24 HOUR NOTICE TO THESE COMPANIES IS REQUIRED PRIOR TO INSPECTION.

SITE PERMIT QUANTITIES

EXCAVATION	4,009.62 C.Y.
EMBANKMENT	2,643.91 C.Y.
CATCH BASINS	9 EA.
DOMESTIC WATER LINE	1,635 L.F.
MANHOLES	14 EA.
SEWER LINE	1,357 L.F.
STORM DRAIN LINE	737 L.F.
CURB & GUTTER	1,739 L.F.

SHEET INDEX

No.	DATE	BY	DESCRIPTION

RECEIVED SEP 2006 UTILITIES

COVER SHEET & NOTES
McCANN FAMILY LIMITED PARTNERSHIP
202 26TH AVENUE

KELTIC ENGINEERING, INC.
141 9th Street ◇ Suite 2 ◇ Lewiston, Idaho 83501 ◇ (208) 743-2135 ◇ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction

PROFESSIONAL ENGINEER REGISTERED 6064 STATE OF IDAHO ERIC HASENOEHRL

DRAWN BY: RGW	CHECKED BY: EFH
DESIGNED BY: RGW	
DATE: 08-05-05	
LAST REV.: 08-05-05	

ENGINEERING DEPT. 66X

EROSION CONTROL NOTES:

1) APPROVAL OF THE EROSION CONTROL ELEMENT DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN.
2) IMPLEMENTATION, CONSTRUCTION, MAINTENANCE, REPLACEMENT AND UPGRADING OF ALL EROSION CONTROL MEASURES IS THE RESPONSIBILITY OF THE CONTRACTOR UNTIL ALL CONSTRUCTION IS COMPLETED AND APPROVED AND ALL VEGETATION/LANDSCAPING IS ESTABLISHED.
3) THE EROSION CONTROL FACILITIES ON THIS PLAN MUST BE CONSTRUCTED IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS.
4) DURING THE CONSTRUCTION PERIOD, THE CONTRACTOR SHALL UPGRADE AND MAINTAIN ALL EROSION CONTROL FACILITIES AS NEEDED FOR UNEXPECTED STORM EVENTS, AND TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT LEAVE THE SITE.
5) ALL EROSION CONTROL FACILITIES SHALL BE INSPECTED DAILY BY THE CONTRACTOR AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING.
6) DURING INACTIVE PERIODS ON THE SITE, THE CONTRACTOR MUST INSPECT AND MAINTAIN EROSION CONTROL FACILITIES ONCE A MONTH AND WITHIN 48 HOURS FOLLOWING A STORM EVENT.
7) FILTER FABRIC SHALL BE PLACED UNDER THE GRATES OF NEWLY INSTALLED CATCH BASINS UNTIL PAVING OPERATIONS ARE COMPLETE. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED PRIOR TO PAVING. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
8) STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND SHALL BE MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES MUST BE TAKEN BY THE CONTRACTOR, IF NECESSARY, TO ENSURE THAT ALL EXISTING PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.
9) SEED, MULCH, AND FERTILIZE ALL DISTURBED GROUND NOT RECEIVING HARD SURFACE AT THE EARLIEST POSSIBLE TIME. USE SEED MIXES AND RATES AS PER LANDSCAPE DESIGNER.
10) EROSION AND DUST CONTROL MEASURES MUST BE USED DURING CONSTRUCTION TO REDUCE OR ELIMINATE BLOWING DUST, EXCESSIVE RUNOFF, AND SOIL EROSION ACROSS PROPERTY LINES AND INTO STREETS AND RIGHT-OF-WAY, AND TO ELIMINATE TRACKING SOIL AND MUD ONTO STREETS FROM CONSTRUCTION EQUIPMENT AND VEHICLES.

SEQUENCE OF WORK:

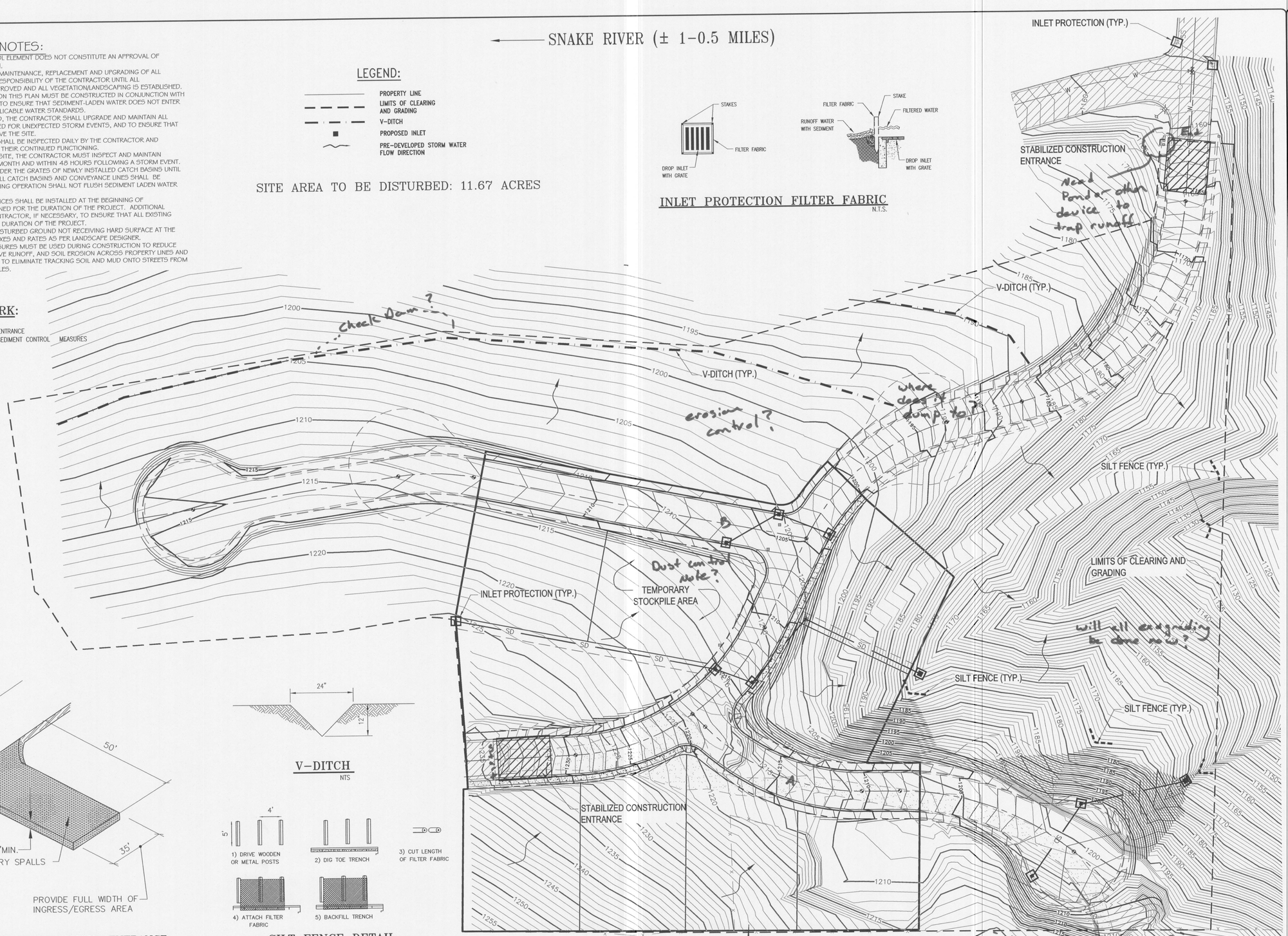
1) INSTALL STABILIZED CONSTRUCTION ENTRANCE
2) INSTALL OTHER EROSION CONTROL/SEDIMENT CONTROL MEASURES
3) CLEARING
4) GRADE SITE FOR ROAD/LOTS
5) INSTALL UTILITIES
6) TEMPORARY STABILIZE ROAD/LOTS.
7) INSTALL CURB AND GUTTER
8) CUT IN ROAD AND APPLY GRAVEL
9) FINAL GRADING
10) PERMANENT STABILIZATION

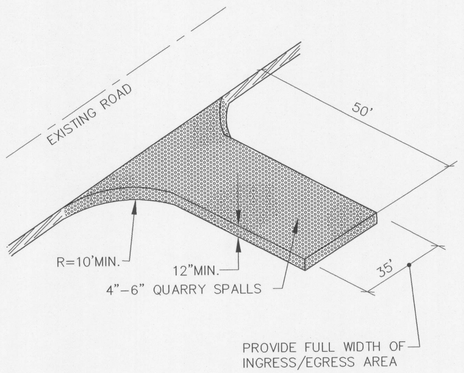
LEGEND:

- PROPERTY LINE
- LIMITS OF CLEARING AND GRADING
- V-DITCH
- PROPOSED INLET
- PRE-DEVELOPED STORM WATER FLOW DIRECTION

SITE AREA TO BE DISTURBED: 11.67 ACRES

INLET PROTECTION FILTER FABRIC
N.T.S.





STABALIZED CONSTRUCTION ENTRANCE
NO SCALE

V-DITCH
NTS

SILT FENCE DETAIL
NTS

EROSION CONTROL PLAN

40 0 40 80
Scale: 1" = 40'

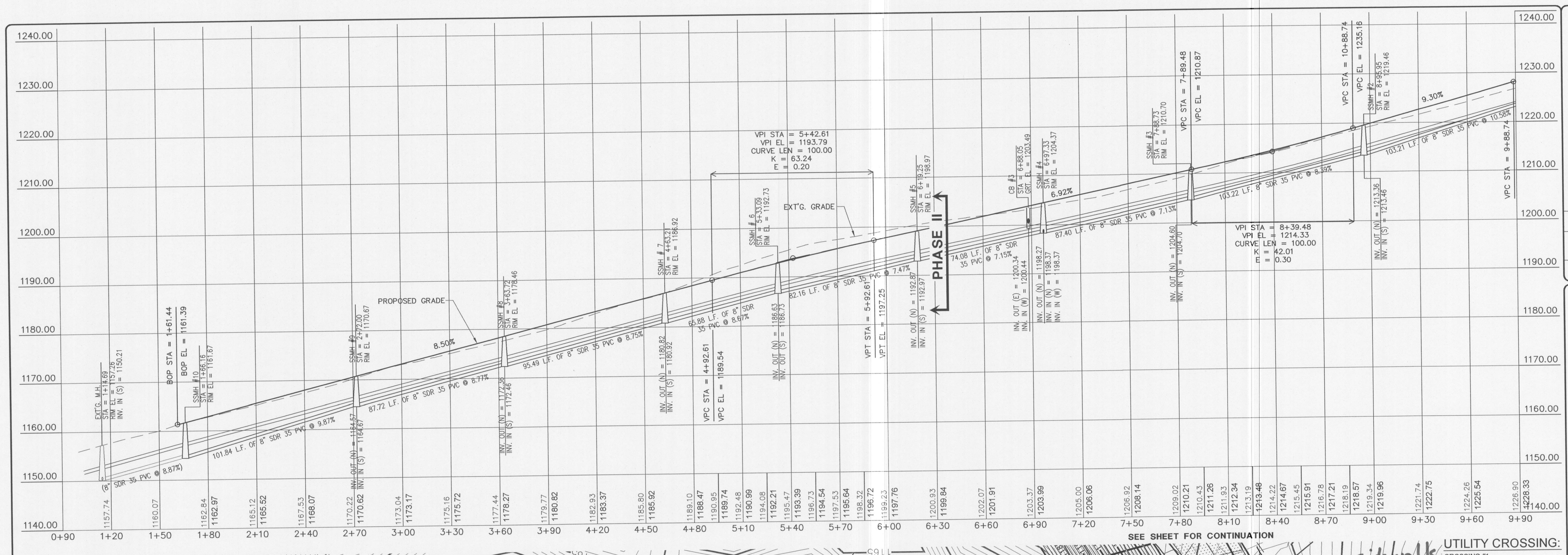
No.	DATE	BY	DESCRIPTION

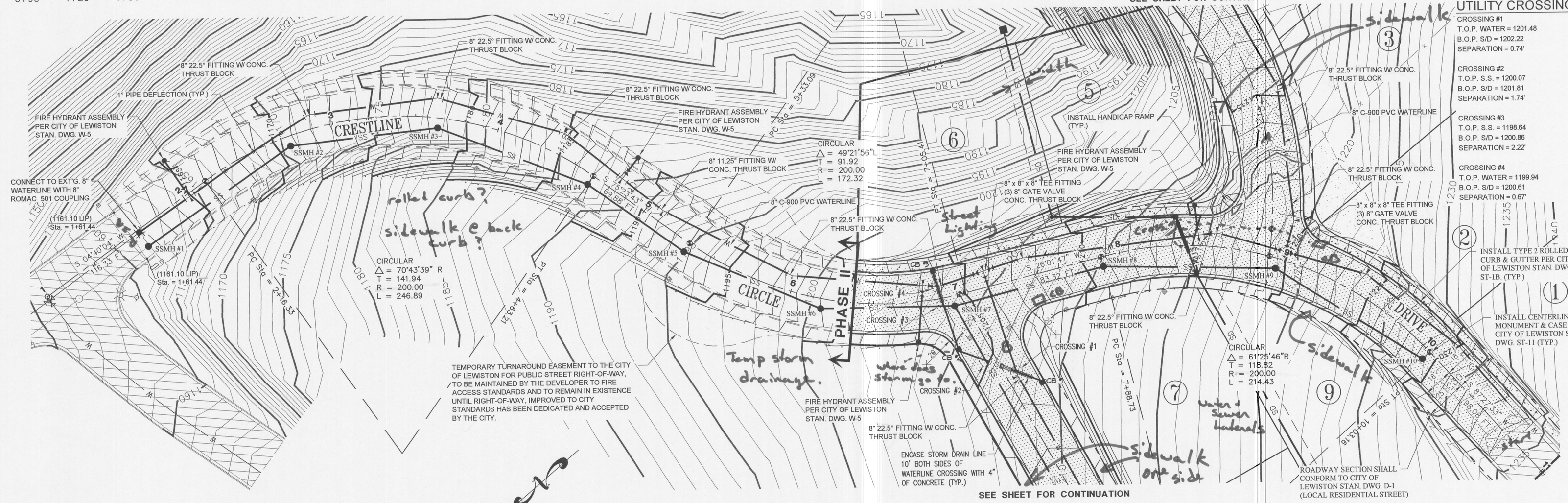
EROSION CONTROL PLAN
McCANN FAMILY LIMITED PARTNERSHIP
202 26TH AVENUE
LEWISTON, ID. 83501

KELTIC ENGINEERING, INC.
141 9th Street ◇ Suite 2 ◇ Lewiston, Idaho 83501 ◇ (208) 743-2135 ◇ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 STATE OF IDAHO ERIC HASENOEHRL

DRAWN BY: RGW	CHECKED BY: EFH
DESIGNED BY: KHK	
DATE: 08-25-05	
LAST REV.: 08-25-05	
PROJECT NO. 05-051	
SHEET NO. 2 OF 9	





UTILITY CROSSING:

CROSSING #1
T.O.P. WATER = 1201.48
B.O.P. S/D = 1202.22
SEPARATION = 0.74'

CROSSING #2
T.O.P. S.S. = 1200.07
B.O.P. S/D = 1201.81
SEPARATION = 1.74'

CROSSING #3
T.O.P. S.S. = 1198.64
B.O.P. S/D = 1200.86
SEPARATION = 2.22'

CROSSING #4
T.O.P. WATER = 1199.94
B.O.P. S/D = 1200.61
SEPARATION = 0.67'

CRESTLINE CIRCLE DRIVE STA. 1+00 TO 9+60

30 0 30 60
Scale: 1" = 30'

No.	DATE	BY	DESCRIPTION

CRESTLINE CIRCLE DRIVE

McCANN FAMILY LIMITED PARTNERSHIP

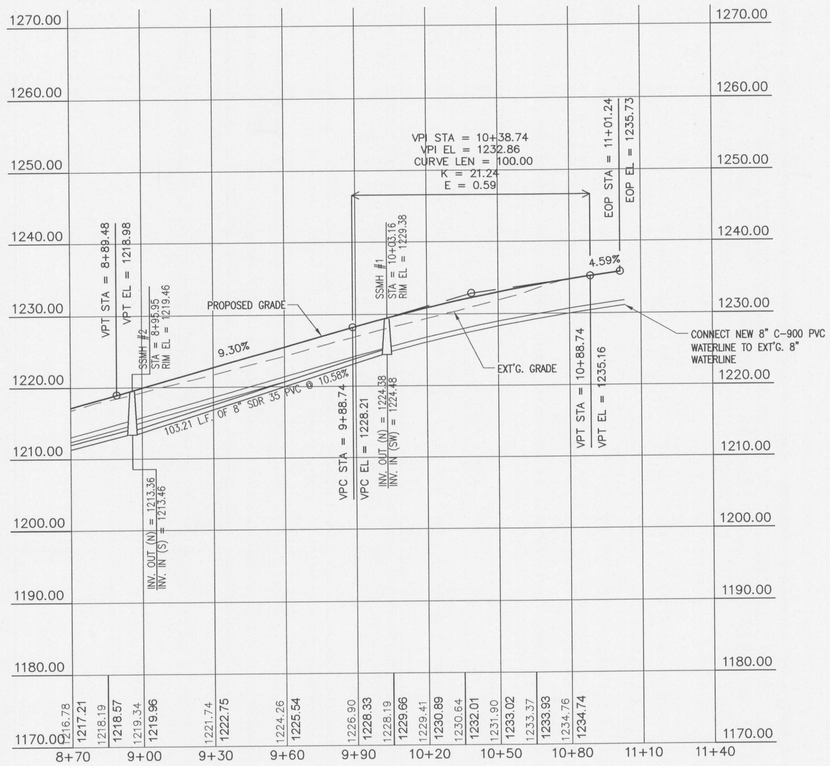
202 26TH AVENUE

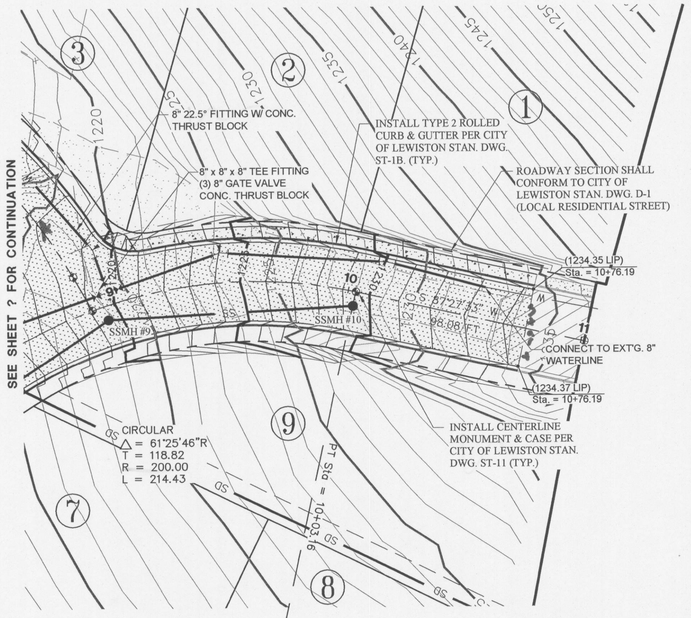
LEWISTON, ID. 83501

KELTIC ENGINEERING, INC.
141 9th Street ◊ Suite 2 ◊ Lewiston, Idaho 83501 ◊ (208) 743-2133 ◊ (208) 743-2136 fax
Development ◊ Planning ◊ Design ◊ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 8/26/05 STATE OF IDAHO ERIC HASENOEHRL

DRAWN BY: RGW	CHECKED BY: EFH
DESIGNED BY: RGW	
DATE: 08-04-05	
LAST REV.: 08-04-05	
PROJECT NO. 05-051	
SHEET NO. 3 OF 9	





CRESTLINE CIRCLE DRIVE STA. 8+70 TO 11+01.24

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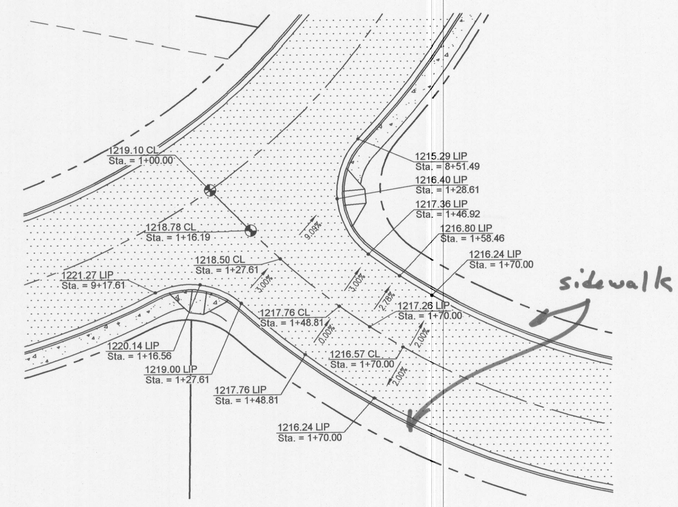
Scale: 1" = 30'



CRESTLINE CIRCLE DRIVE - A-LINE INTERSECTION

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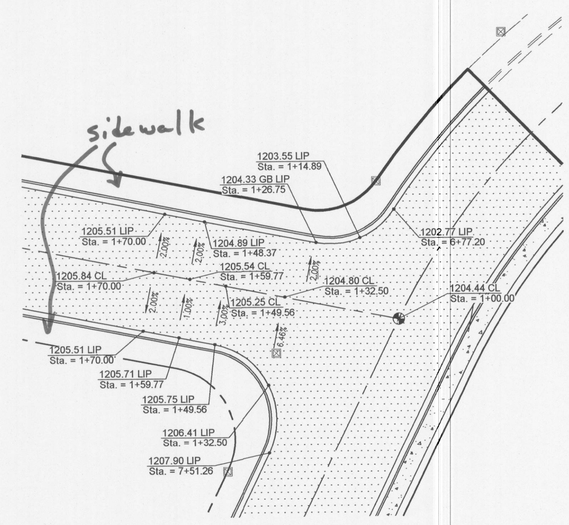
Scale: 1" = 20'



CRESTLINE CIRCLE DRIVE - B-LINE INTERSECTION

20 0 20 40

Scale: 1" = 20'

No.	DATE	BY	DESCRIPTION

CRESTLINE CIRCLE DRIVE

McCANN FAMILY LIMITED PARTNERSHIP

202 26TH AVENUE

LEWISTON, ID. 83501

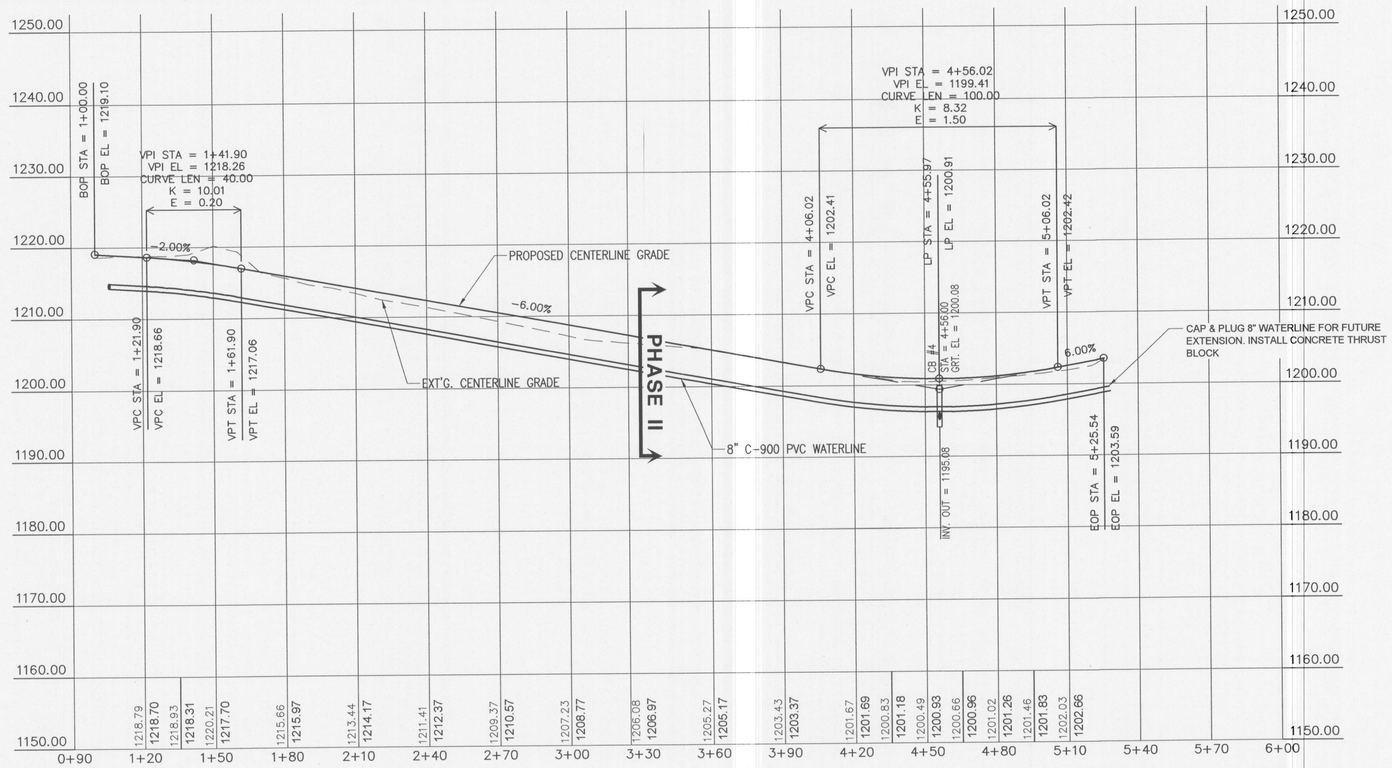
KELTIC ENGINEERING, INC.

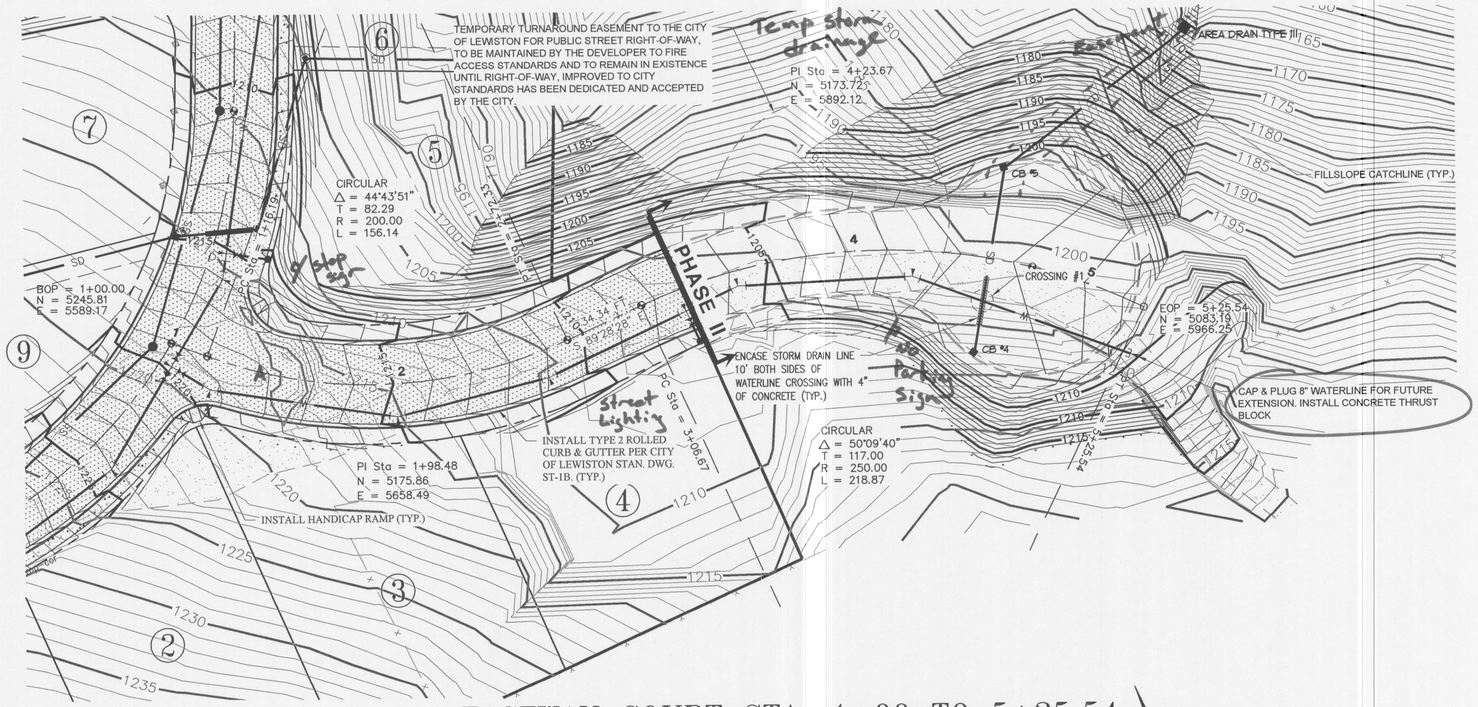
141 9th Street ◊ Suite 2 ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax

Development ◊ Planning ◊ Design ◊ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 8/26/05 STATE OF IDAHO ERIC HASENOEHRL

DRAWN BY: RGW	CHECKED BY: EFH
DESIGNED BY: RGW	
DATE: 08-04-05	
LAST REV.: 08-04-05	
PROJECT NO. 05-051	
SHEET NO. 4 OF 9	





UTILITY CROSSING:

CROSSING #1
T.O.P. S/D = 1195.65
B.O.P. WATER = 1196.25
SEPARATION = 0.59'

EASTWAY COURT STA. 1+00 TO 5+25.54

30 0 30 60
Scale: 1" = 30'

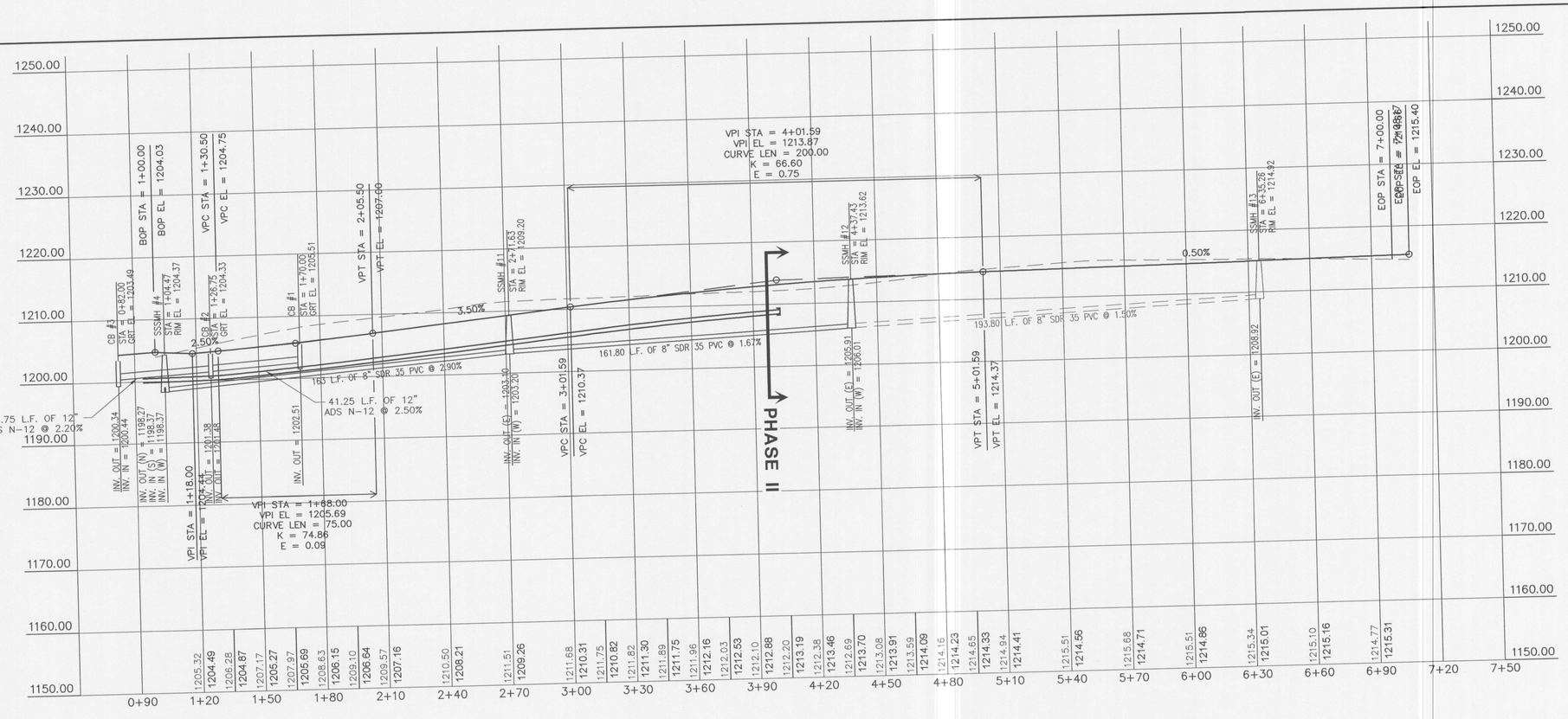
No.	DATE	BY	DESCRIPTION

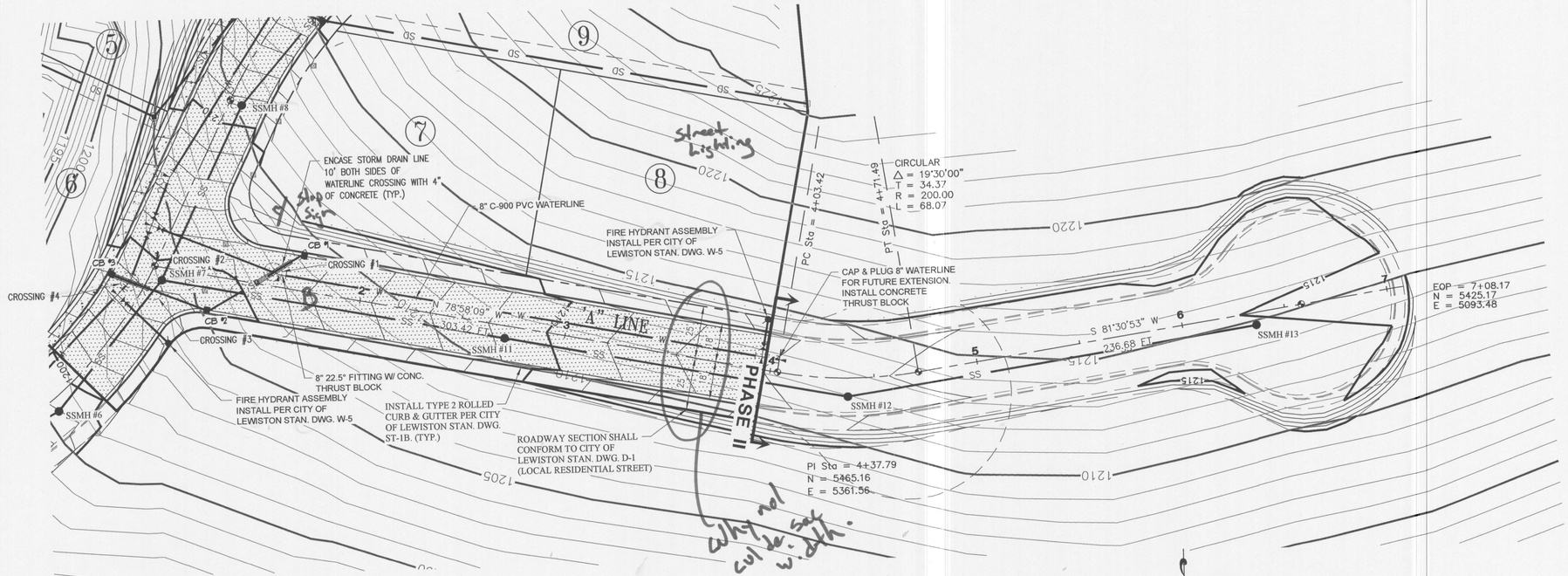
EASTWAY COURT PLAN & PROFILE
McCANN LIMITED FAMILY PARTNERSHIP
202 26TH AVENUE
LEWISTON, ID. 83501

KELTIC ENGINEERING, INC.
141 9th Street ◊ Suite 2 ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 8/16/05 STATE OF IDAHO ERIC HASENOEHRL

DRAWN BY: RGW	CHECKED BY: EFH
DESIGNED BY: RGW	
DATE: 08-04-05	
LAST REV.: 08-04-05	
PROJECT NO. 05-051	
SHEET NO. 5 OF 9	





WESTWAY COURT STA. 1+00 TO 7+08.17

Scale: 1" = 30'

UTILITY CROSSING:

CROSSING #1
T.O.P. WATER = 1201.48
B.O.P. S/D = 1202.22
SEPARATION = 0.74'

CROSSING #2
T.O.P. S.S. = 1200.07
B.O.P. S/D = 1201.81
SEPARATION = 1.74'

CROSSING #3
T.O.P. S.S. = 1198.64
B.O.P. S/D = 1200.86
SEPARATION = 2.22'

CROSSING #4
T.O.P. WATER = 1199.94
B.O.P. S/D = 1200.61
SEPARATION = 0.67'

No.	DATE	BY	DESCRIPTION

WESTWAY COURT PLAN & PROFILE

McCANN FAMILY LIMITED PARTNERSHIP

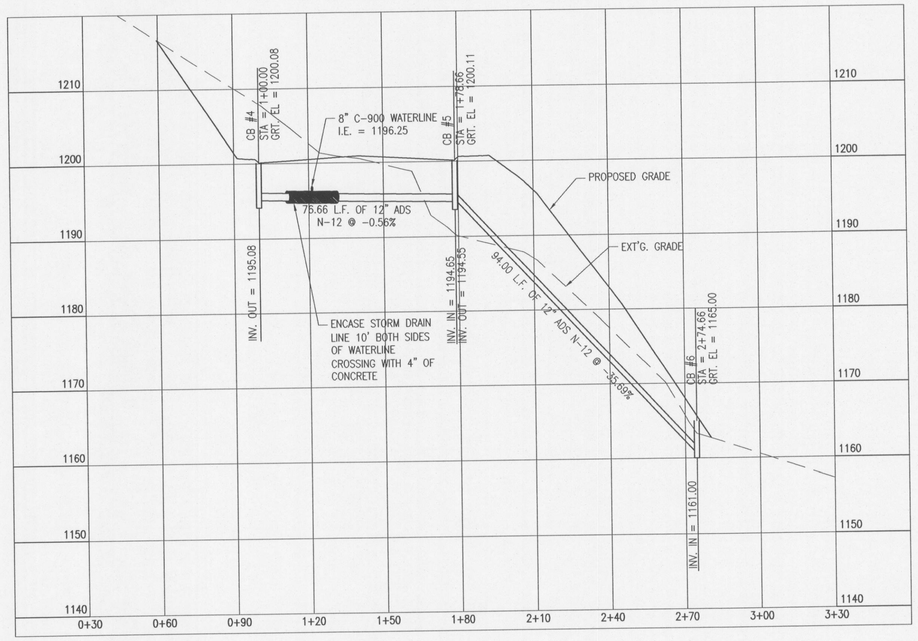
202 26TH AVENUE

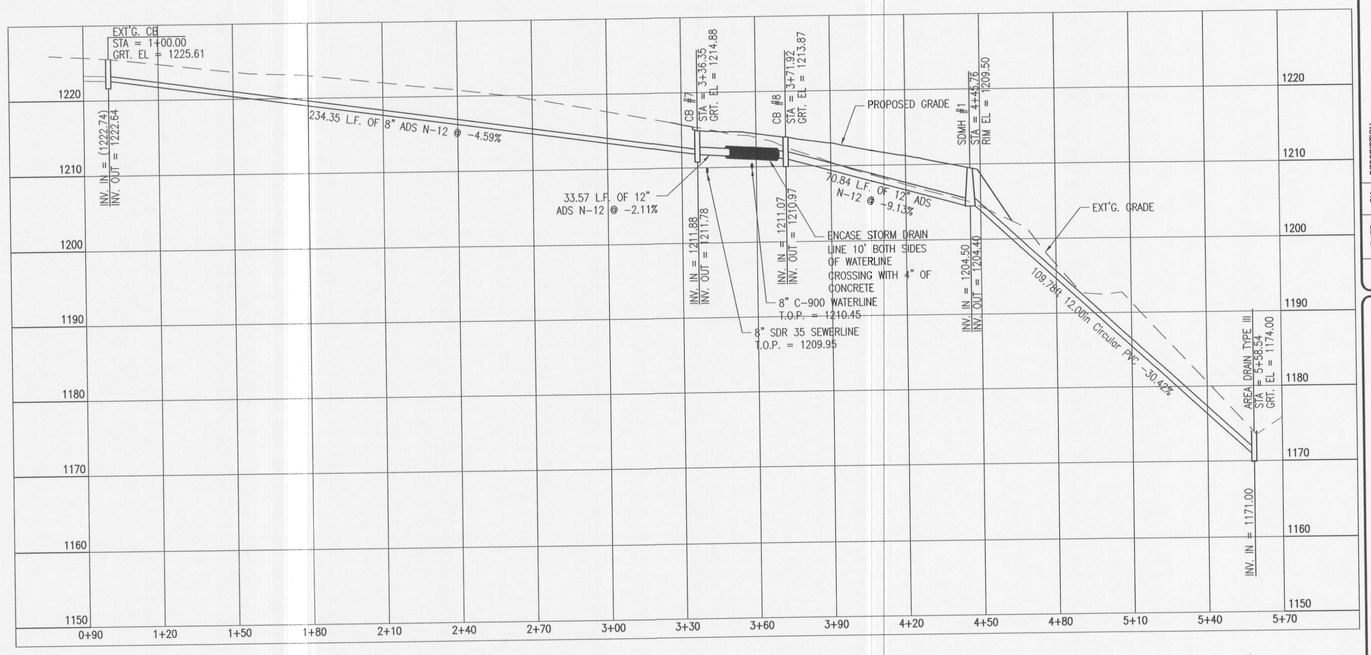
LEWISTON, IDAHO 83501

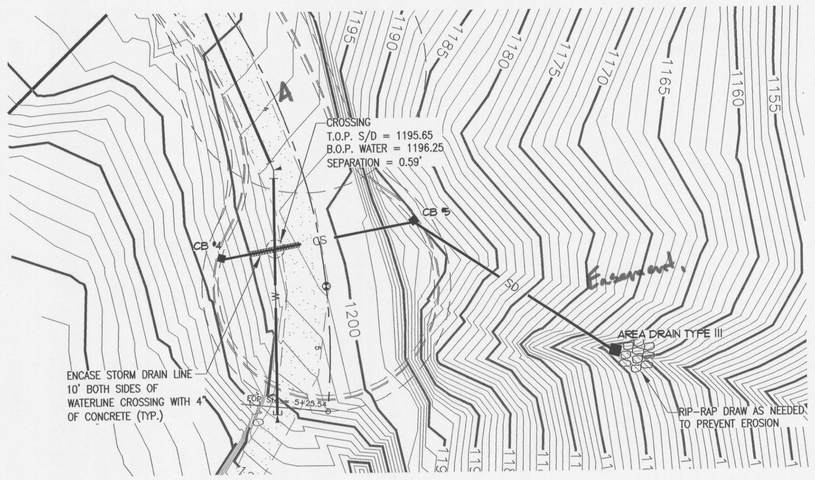
KELTIC ENGINEERING, INC.
141 9th Street ◊ Suite 2 ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ◊ Planning ◊ Design ◊ Construction Management

PROFESSIONAL ENGINEER REGISTERED 6064 STATE OF IDAHO ERIC HASENOEHRL

DRAWN BY: RGW	CHECKED BY: EFH
DESIGNED BY: RGW	
DATE: 08-05-05	
LAST REV.: 08-05-05	
PROJECT NO. 05-051	
SHEET NO. 6 OF 9	



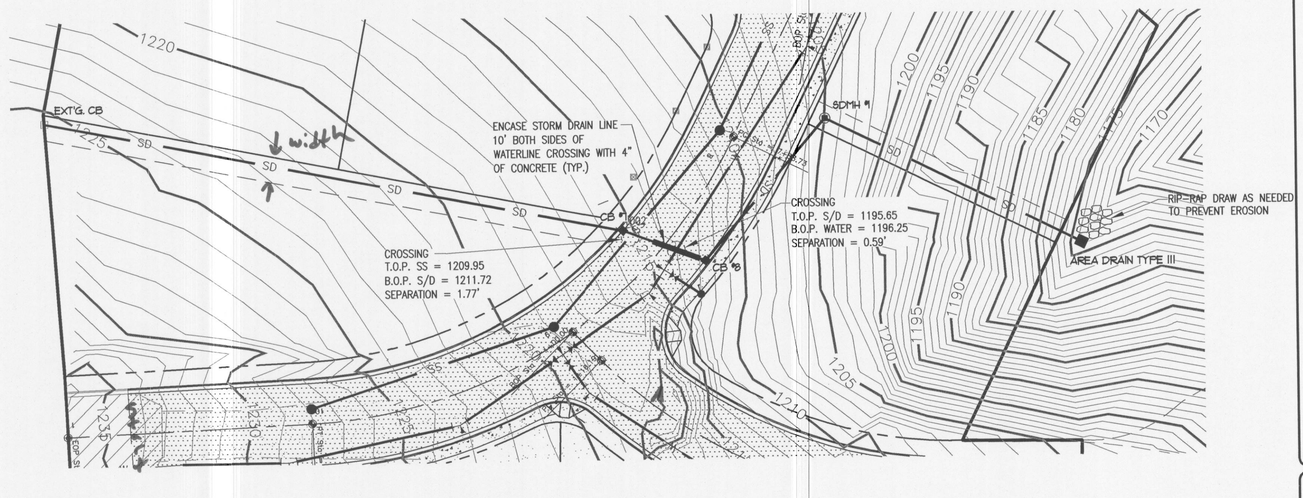




CB #4 TO AREA DRAIN TYPE III

30 0 30 60

Scale: 1" = 30'



EXT'G. CB TO AREA DRAIN TYPE III

30 0 30 60

Scale: 1" = 30'

No.	DATE	BY	DESCRIPTION

STORMDRAIN PLAN & PROFILES

McCANN FAMILY LIMITED PARTNERSHIP

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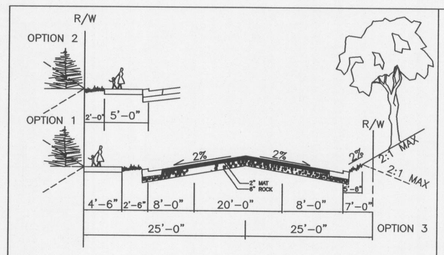
PROFESSIONAL ENGINEER
REGISTERED
6064
8/26/05
STATE OF IDAHO
ERIC HASENOEHRL

DRAWN BY: RGW	CHECKED BY: EFH
DESIGNED BY: RGW	
DATE: 08-05-05	
LAST REV.: 08-05-05	
PROJECT NO. 05-051	
SHEET NO. 7 OF 9	



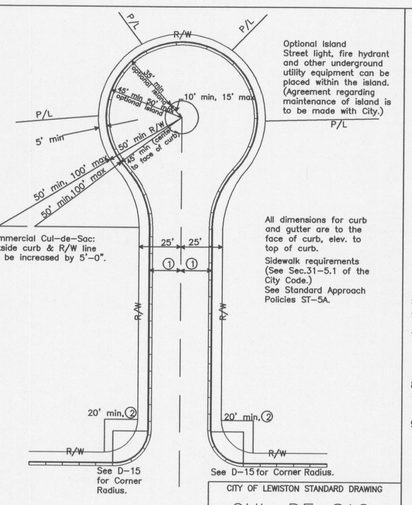
50' Right -of-way (Min.)
25 M.P.H.
11% Max. Grade
100-2,000 A.D.T.
Corner Radius (See D-15, CORNER RADIUS)
200' Center Line Radius (Min.)
High Back Curb
10' Travel Lanes
8' Parking Lanes
See Standard Approach Policies ST-5A
Sidewalk Requirements (See Section 31-51.1 of City Code)
Options 2 & 3 with Public Works permission only

CITY OF LEWISTON STANDARD DRAWING

LOCAL RESIDENTIAL STREET
TYPICAL
50 FT. RIGHT-OF-WAY

APPROVED Michael Johnson, P.E.

REVISED	EXPLANATION	DWG. NO.
10-4-83 MRJ	Add note	D-1
11-19-84 TCH	Add note	



Optional Island
Street light, fire hydrant
and other underground
utility equipment can be
placed within the island.
(Agreement regarding
maintenance of island is
to be made with City.)

All dimensions for curb
and gutter are to the
face of curb, elev. to
top of curb.
Sidewalk requirements
(See Sec.31-5.1 of the
City Code.)
See Standard Approach
Policies ST-5A.

① See Typical Street Sections for widths.

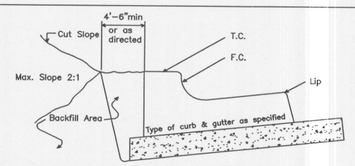
② 30' Recommended for Property line corner radius.

CITY OF LEWISTON STANDARD DRAWING

CUL-DE-SAC
DESIGN

APPROVED Michael Johnson P.E.

REVISED	EXPLANATION	DWG. NO.
10-4-83 MJR	Add Note	D-7
12-13-84 TCH	Add Note	
01-11-93	ACAD/Radius Increased	



GENERAL NOTES for all types of curb & gutter

1. Line and grade staked to T.C.-(top of curb) and F.C.-(face of curb) or lip of gutter.
2. Grade and alignment to be approved by the Public Works Dept.
3. The tolerance for finished curb, horizontal and vertical variance, is not to exceed 0.02'from line and grade as shown on plans.
4. Base will be 6" of 3/4 crushed gravel compacted to 95% max. dry density & to be placed in 6" lifts for all fill or backfill areas. No rock is needed under curb and gutter in cut areas.
5. Concrete will be 3000 psi.
6. Dummy joint at 10 ft. intervals, 3/16 inch deep, construction joints as directed by Engineer.
7. Name of contractor and year, to be stamped at each end of work and at intervals of 100 feet. Bench mark bolt to be set in top of curb in radius when supplied and requested by the Public Works Dept.
8. The contractor may be required by the Public Works Dept. to mark stubouts and valves in the uncured concrete. The City will provide the necessary tools.
9. Inspection: The contractor or owner shall notify the Public Works Dept. for inspection of the base material after the forms are set, and the Public Works Dept. will be notified no less than 18 hours before placement of concrete for a "final" inspection.

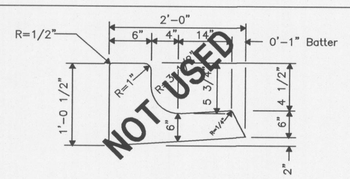
Secure a permit for construction, before beginning construction in public right-of-way.

CITY OF LEWISTON STANDARD DRAWING

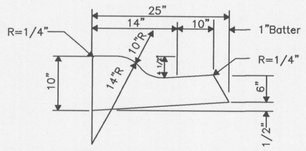
CURB & GUTTER
CONSTRUCTION
REQUIREMENTS

APPROVED Michael Johnson P.E.

REVISED	EXPLANATION	DWG. NO.
10-4-83 MRJ	REVISE NOTE #6	ST-1A
06-4-92	ACAD	



TYPE 1 HIGH BACK CURB & GUTTER



TYPE 2 ROLLED CURB & GUTTER

NOTE:
Type 2 rolled curb and gutter shall only be installed with approval of Public Works Department.

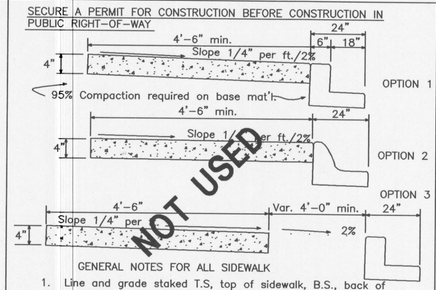
CITY OF LEWISTON STANDARD DRAWING

CURB & GUTTER
CONSTRUCTION REQUIREMENTS

APPROVED

REVISED	EXPLANATION	DWG. NO.
		ST-1B

SECURE A PERMIT FOR CONSTRUCTION BEFORE CONSTRUCTION IN PUBLIC RIGHT-OF-WAY



GENERAL NOTES FOR ALL SIDEWALK

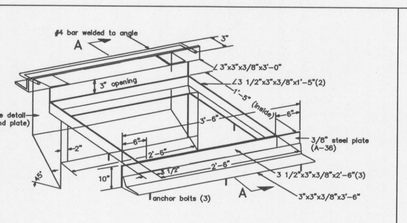
1. Line and grade staked T.S, top of sidewalk, B.S., back of sidewalk.
2. Grade and alignment to be approved by the Public Works Dept.
3. The tolerance for finished sidewalk, horizontal and vertical variance is not to exceed 0.02' from line and grade as shown on plans.
4. Base will be 6" of 5/8" crushed gravel compacted to 95% max. dry density and to be placed in 6" lifts for all fill or backfill areas. No rock is needed under sidewalk in cut areas.
5. Dummy joints shall be placed at 5'or 10' intervals, 3/16" deep.
6. Concrete will be 3,000 p.s.i.
7. Name of Contractor and year to be stamped at each end of work and at intervals of 100 ft.
8. The Contractor or Owner shall notify the Public Works Dept. for inspection of base mat'l after the forms are set and the Public Works Dept. will be notified no less than 18 hrs. before placement of concrete, for final inspection.
9. See ST-5 for Driveway Entrance.
10. Option 1 & 2 without planting strip: with Public Works Dept. permission only.

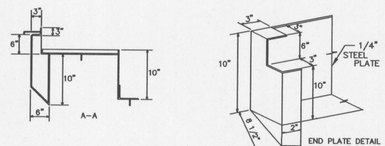
CITY OF LEWISTON STANDARD DRAWING

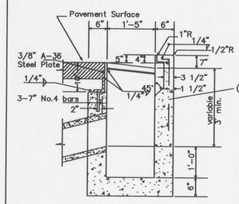
CONCRETE
SIDEWALK

APPROVED Michael Johnson P.E.

REVISED	EXPLANATION	DWG. NO.
1-3-85 TCH	S/W WIDTH	ST-4
6-4-92	ACAD	







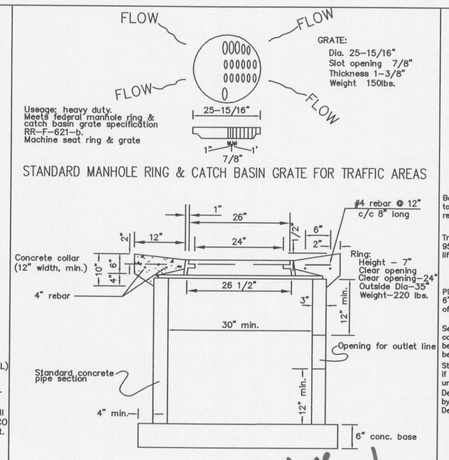
NOTES:
Approved Alternate:
Washington combination curb & gutter inlet catch basin; frame style A or style B (429-F-A or B); grate style II (429-G-B) or style IV (429-G-E) IFCO
All joints to be welded with 1/4" fillet.

CITY OF LEWISTON STANDARD DRAWING

FRAME DETAIL FOR
DROP INLET TYPE II

APPROVED MICHAEL JOHNSON P.E.

REVISED	EXPLANATION	DWG. NO.
10-25-83 MRJ	notes, dimensions	ST-7A
12-17-84 TCH	add IFCO	
7-24-92	acad	



STANDARD MANHOLE RING & CATCH BASIN GRATE FOR TRAFFIC AREAS

For all fill of backfill area, the backfill material will be 5/8" crushed gravel compacted to 95% max. dry density and be placed in 6" lifts. No rock is needed under concrete base.

Use standard manhole for depths over 10'-0

Alternate:
Washington Round Standard
Frame 428F IFCO Grate 429-G-B Style II

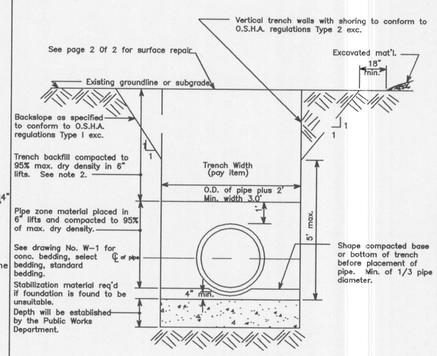
CITY OF LEWISTON STANDARD DRAWING

AREA DRAIN TYPE III

APPROVED Michael Johnson P.E.

REVISED	EXPLANATION	DWG. NO.
10-5-83	title, conc.base	ST-8
7-18-92	ACAD	

NOTE:
1. Where trench passes through existing pavement see page 2 of 2.
2. Trench backfill beneath streets and alleys shall be 3/4" Max. crushed rock.



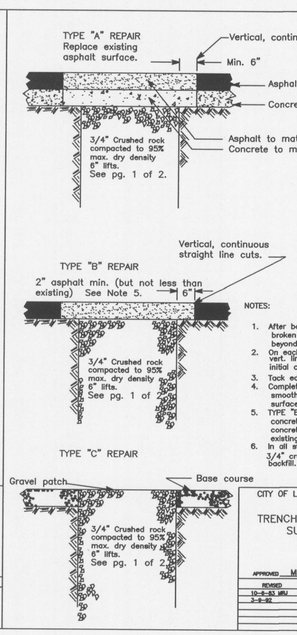
See drawing No. W-1, Water Section for cutoff walls and conc. encasements and bedding detail.

CITY OF LEWISTON STANDARD DRAWING

TRENCH EXCAVATION
& BACKFILL DETAIL
PG. 1 OF 2

APPROVED MICHAEL JOHNSON P.E.

REVISED	EXPLANATION	DWG. NO.
3-9-92	NOTE 2 ADDED VADO	ST-9A



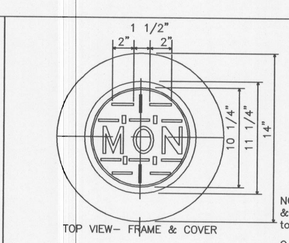
NOTES:
1. After backfilling trench, remove all broken or loose asphalt or conc. beyond the initial trench.
2. On each side, cut a smooth, cont., vert. line, 6" or more from the initial cut & clean all surfaces.
3. Tack edge before patching.
4. Completed patch shall be flush & smooth with existing bituminous surface.
5. TYPE "B" repair if existing surface is concrete. The repair will be 5" of concrete, min. but not less than existing.
6. In all street and alley sections use 3/4" crushed rock for trench backfill.

CITY OF LEWISTON STANDARD DRAWING

TRENCH EXCAVATION DETAIL
SURFACE REPAIR
PG. 2 OF 2

APPROVED MICHAEL JOHNSON P.E.

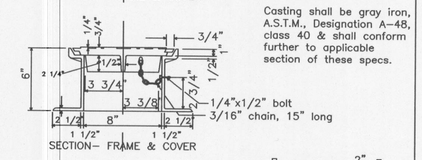
REVISED	EXPLANATION	DWG. NO.
10-8-83 MRJ	ADD NOTE 6	ST-9B
3-9-92	ADD NOTE 5,ACAD	



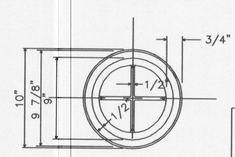
TOP VIEW- FRAME & COVER

NOTE: Machine bearing & faces of cover & case to insure positive fit.

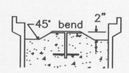
Casting shall be gray iron, A.S.T.M., Designation A-48, class 40 & shall conform further to applicable section of these specs.



SECTION- FRAME & COVER



BOTTOM VIEW OF COVER



BRASS MON. CAP

CITY OF LEWISTON STANDARD DRAWING

MONUMENT
FRAME & COVER

APPROVED Michael Johnson P.E.

REVISED	EXPLANATION	DWG. NO.
1-3-85	Brass Mon. Cap	ST-11
8-19-92	ACAD	

No.	DATE	BY	DESCRIPTION

DETAIL SHEET
McCANN FAMILY LIMITED PARTNERSHIP
202 26TH AVENUE
LEWISTON, IDAHO 83501

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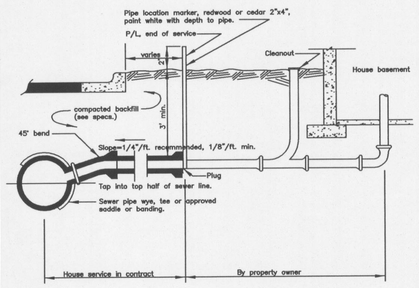
SHEET NO. 8 OF 9	



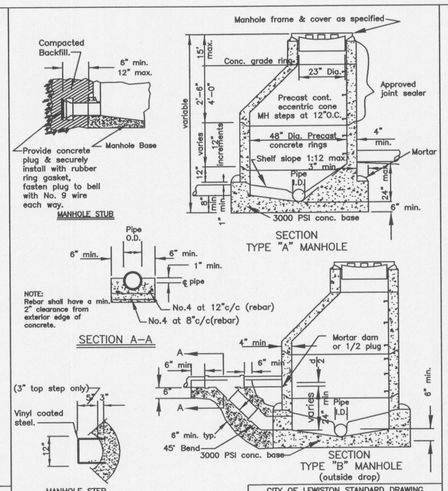
Approved pipe and fittings:
A.B.S. plastic 6"
Cast iron

CITY OF LEWISTON STANDARD DRAWING

SANITARY SEWER HOUSE SERVICE CONNECTION

APPROVED

REVISED	EXPLANATION	DWG. NO.
08-18-92	ACAD	S-1



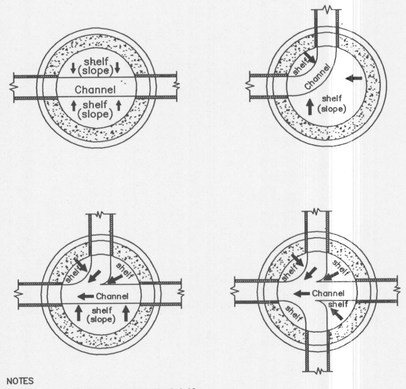
MANHOLE NOTES:
1.) Lower 12"pre-cast conc. ring to be set into base & leveled before conc. is set. Mortar joint to insure bond.
2.) Allow a min. of 24 hrs. to elapse before placing the remaining ring & conc., unless precast base is used.
3.) All manhole sections to conform to A.S.T.M. spec. 478.
4.) Max. distance from manhole wall to a flexible joint shall be 12".
5.) All lifting holes to be mortared inside & outside of manhole.

CITY OF LEWISTON STANDARD DRAWING

MANHOLE DETAILS

APPROVED Michael Johnson P.E.

REVISED	EXPLANATION	DWG. NO.
10-8-93	Renumber	S-3
06-19-93	ACAD/TYPE B MOD.	



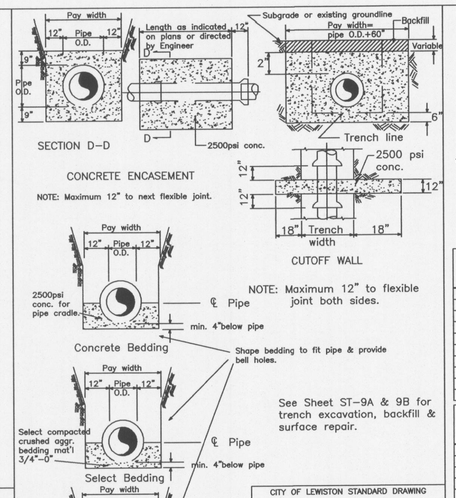
NOTES
1. Slope all shelves to channel at 1:12.
2. See plan & profile sheets for slope of channel.
3. For pipes of different sizes, the top of pipe (crown) shall be at the same elevation.

CITY OF LEWISTON STANDARD DRAWING

MANHOLE CHANNEL DETAIL

APPROVED Michael Johnson P.E.

REVISED	EXPLANATION	DWG. NO.
8-21-92	Acad	S-5



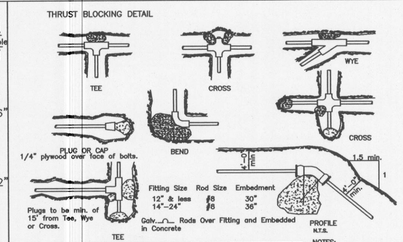
CITY OF LEWISTON STANDARD DRAWING

ENCASEMENT, CUT OFF WALL, BEDDING DETAIL

APPROVED Michael Johnson P.E.

REVISED	EXPLANATION	DWG. NO.
12-26-91	Note	W-1
06-23-92	ACAD	

THRUST BLOCKING DETAIL



Fitting Size	Embedment
12" & less	30"
#8	36"
#8	36"

Fitting Size	BEARING AREA OF THRUST BLOCKS IN SQ. FT.				
	Tee, Wye, Plug or Cap	90° Bend Plugged Cross; Tee	45° Bend	22 1/2° Bend	11 1/4° Bend
4	1.0	1.4	1.0	---	---
6	2.1	3.0	1.6	1.0	---
8	3.8	5.3	2.9	1.5	1.0
10	5.9	8.4	4.6	2.4	1.2
12	8.5	12.0	6.6	3.4	1.7
14	11.5	16.3	8.9	4.6	2.3
16	15.0	21.3	11.6	6.0	3.0
18	19.0	27.0	14.6	7.6	3.8
20	23.5	33.3	18.1	9.4	4.7
24	34.0	48.0	26.2	13.6	6.8

Fitting Size	VOLUME OF THRUST BLOCK IN CU.YD.			
	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
4	---	---	---	---
6	1.3	---	---	---
8	2.3	1.1	---	---
10	3.7	1.8	---	---
12	5.5	2.8	1.2	---
14	7.6	3.9	1.7	---
16	9.9	5.1	2.3	0.9
18	---	6.3	3.2	1.4
20	---	7.7	4.0	1.8
24	---	11.1	5.7	2.6

NOTE:
Above volumes based on test pressure of 150 p.s.i. & the weight of concrete=4050 lbs./cu.yd. To compare volumes for different test pressures use the folling equation: Volume=(test pressure/150)(table value).

Thrust blocks for vertical up-bends shall be the same as for horizontal bends.

NOTES:
1. Bearing areas based on test pressure of 150 p.s.i. & soil bearing stress of 2,000 lbs. per sq.ft. To areas for different test pressure & soil bearing stresses, following equation: bearing area=(test pressure/150)(2000/soil bearing stress)(table value).
2. Concrete thrust blocking to be placed against undisturbed earth.
3. Keep concrete clear of joint and accessories.
4. The required thrust bearing areas for special connections are shown encircled on the plans.e.g. (15) indicates 15 sq. ft. bearing area required.
5. If not shown on plans, required bearing areas at fittings shall be as indicated above, adjusted if necessary, to conform to the test pressure(s) & allowable soil bearing stress(es) stated in the Special Specifications.
6. Bearing areas & special blocking details shown on plans take precedence over bearing areas & blocking details shown on this standard detail.
7. Concrete will be 2500 p.s.i. min.
8. Concrete will be allowed 48 hrs. to set if high early yeild concrete is used, otherwise, 7 days curing will be required.

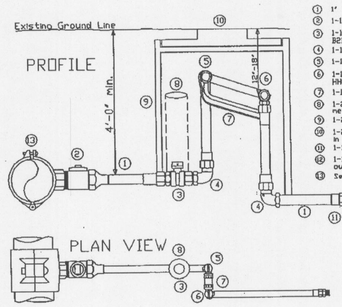
CITY OF LEWISTON STANDARD DRAWING

THRUST BLOCKING DETAIL

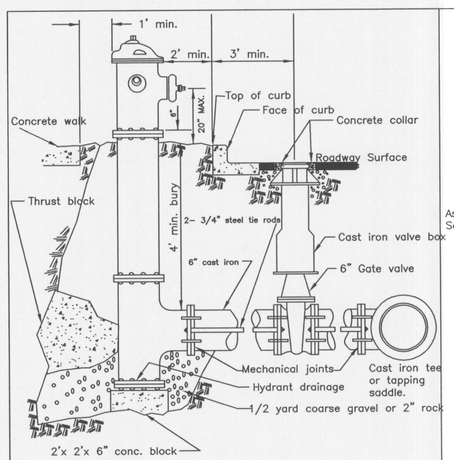
APPROVED Michael Johnson P.E.

REVISED	EXPLANATION	DWG. NO.
11-3-93	Note #8	W-2
09-30-92	ACAD	

WATER SERVICE CONNECTION



1. 1" U.S. K Copper Pipe
2. 1-1" Ball I.P. corp at main, F700
3. 1-1" Ball curb stop in meter box, B21-444
4. 1-1" St. ell, L28-44
5. 1-1" Angle yoke valve m-coning, AV92-444V
6. 1-1" Dual angle check valve out-going KMCA92-444
7. 1-1" Meter yoke
8. 1-2" PVC foot tube for 1" ball curb stop in meter box
9. 1-20"x30" PVC meter box cylinder
10. 1-20" Meter box ring & lid with 1 3/4" hole in lid X31
11. 1-1" Male C28-44 with cap
12. 1-1" Female C21-44 with plug on end of out-going copper
13. Service saddle on main



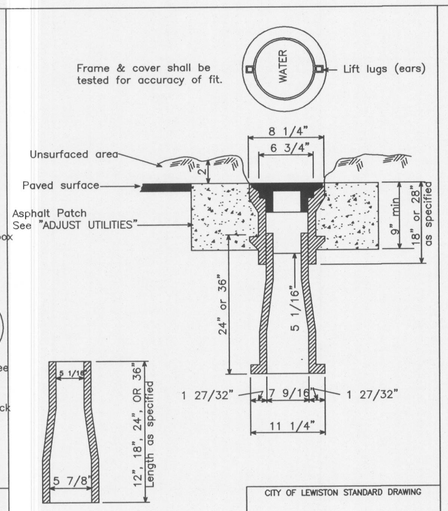
GENERAL NOTES:
Engineer to approve location and elevation on all fire hydrants on streets.

CITY OF LEWISTON STANDARD DRAWING

HYDRANT SETTING

APPROVED Michael Johnson P.E.

REVISED	EXPLANATION	DWG. NO.
10-15-92	ACAD	W-5
12-1-93	Nozzel Height	

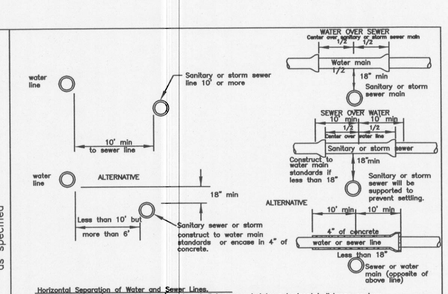


CITY OF LEWISTON STANDARD DRAWING

CAST IRON VALVE BOX

APPROVED Michael Johnson P.E.

REVISED	EXPLANATION	DWG. NO.
1-3-80	ICH	W-7
4-3-92	TJR	



Horizontal Separation of Water and Sewer Lines.
Water and sewer (sanitary or storm) mains shall be separated by a horizontal distance no less than ten (10) feet. In any instance where such separation is not achievable, the following standards shall be met:
Sewer main shall be constructed to water main standards at all points within ten (10) feet but more than six (6) horizontal feet of any water main. Horizontal distance shall never be less than 6'. In the alternative, the sewer main shall be encased in no less than four (4) inches of concrete in all such points.

Water Main Crossing Over a Sewer or Storm Main.
At any point where the water main crosses above the sewer main or storm sewer main, they shall be separated by a vertical distance of no less than eighteen (18) inches. The water main shall be centered at the crossing so that the joints will be an equal distance and as far as possible from the sewer main.

Sewer or Storm Main Crossing Over a Water Main.
At any point where the sewer main or storm sewer main crosses above the water main, they shall be separated by a vertical distance of no less than eighteen (18) inches. The sewer main shall be supported to prevent settling. The water main shall be centered at the crossing so that the joints will be an equal distance and as far as possible from the sewer main. The sewer main shall be constructed of materials conforming to water main standards if the eighteen (18) inches vertical separation cannot be maintained.

Alternative to Construction or Reconstruction.
The sewer main or the water main may be encased with four (4) inches of concrete for a distance of ten (10) horizontal feet on both sides of the crossing.

Separation from Sewage Disposal Systems.
A minimum horizontal distance of twenty-five (25) feet shall be maintained between a subsurface sewage disposal system and any water distribution pipes.

Professional Engineer.
Plans and specifications shall be prepared by or under the supervision of a professional engineer registered in Idaho and shall bear the imprint of the engineer's seal. Construction shall be inspected by a professional engineer or a person under the supervision of a professional engineer.

Deviation from Plans and Specifications.
No significant deviation may be made from the approved plan without prior approval of the City Engineer and the Department of Health & Welfare, in writing.

Approval of Plans and Specifications.
Plans and specifications for the construction of new public water supply systems or for modification or expansion to existing public water supply systems shall be submitted to and approved by the Department of Health & Welfare and the City of Lewiston before construction may begin.

CITY OF LEWISTON STANDARD DRAWING

WATER, SEWER & STORM SEWER SEPARATION STANDARDS

APPROVED

REVISED	EXPLANATION	DWG. NO.
		W-9

No.	DATE	BY	DESCRIPTION

DETAIL SHEET
McCANN FAMILY LIMITED PARTNERSHIP
202 26TH AVENUE
LEWISTON, IDAHO 83501

KELTIC ENGINEERING, INC.
141 9th Street ◊ Suite 2 ◊ Lewiston, Idaho 83501 ◊ (208) 743-2135 ◊ (208) 743-2136 fax
Development ⊕ Planning ⊕ Design ⊕ Construction Management

DRAWN BY: RGW	CHECKED BY: EFH
DESIGNED BY: RGW	
DATE: 08-05-05	
LAST REV.: 08-05-05	
PROJECT NO. 05-051	
SHEET NO. 9 OF 9	