

# 18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT

## LEWISTON, IDAHO

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VICINITY MAP  
NOT TO SCALE

### GENERAL NOTES

- 1) 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.
- 2) THE CONTRACTOR SHALL COORDINATE THE WORK SCHEDULE SO AS TO HAVE A MINIMUM IMPACT ON THE EXISTING TRAFFIC.
- 3) SITE DISTANCES FOR ABUTTING PROPERTIES, DRIVEWAYS, AND INTERSECTIONS MUST BE MAINTAINED.
- 4) THE CONTRACTOR SHALL TAKE ALL NECESSARY PREVENTATIVE MEASURES TO PROTECT THE EXISTING IMPROVEMENTS. ANY DAMAGE SHALL BE REPLACED AT NO COST TO THE OWNER.
- 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 SHALL BE REPLACED BY A PROFESSIONAL LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
- 6) A RIGHT-OF-WAY PERMIT SHALL BE OBTAINED THROUGH THE PUBLIC WORKS DEPARTMENT PRIOR TO ANY WORK BEGINNING WITHIN PUBLIC RIGHT-OF-WAY.
- 7) THE CONTRACTOR SHALL PAY FOR AND SECURE ALL NECESSARY PERMITS AND FEES.
- 8) ALL WORK SHALL CONFORM TO STATE AND LOCAL CODES AND CONFORM TO THE CITY OF LEWISTON STANDARD DRAWINGS AND IDAHO STANDARDS FOR PUBLIC WORKS CONSTRUCTION (ISPCW) EXCEPT AS OTHERWISE SPECIFIED OR APPROVED BY THE ENGINEER. ALL CONSTRUCTION NOT SPECIFICALLY MENTIONED OR SHOWN SHALL CONFORM TO CITY OF LEWISTON ORDINANCES AND STANDARDS.
- 9) UPON COMPLETION, CONTRACTOR SHALL PROVIDE AS-BUILT DRAWINGS, COMPLETE WITH ELEVATIONS, TO THE ENGINEER OF RECORD.
- 10) THIS PROJECT SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF ALL WORK. ANY DEFECTS IN MATERIAL OR WORKMANSHIP WITHIN THIS PERIOD SHALL BE IMMEDIATELY CORRECTED BY THE CONTRACTOR AT NO COST TO THE OWNER.

### UTILITY LOCATION

THE LOCATIONS OF UNDERGROUND UTILITIES REPRESENTED ON THIS DRAWING HAVE BEEN DETERMINED FROM A FIELD SURVEY AND FROM RECORDS OBTAINED FROM THE VARIOUS UTILITY COMPANIES. THE NUMBER AND LOCATIONS OF ALL UNDERGROUND UTILITIES SHOWN ARE FOR INFORMATIONAL PURPOSES ONLY. FOR YOUR SAFETY, STATE LAW REQUIRES THAT YOU CALL THE LOCAL "ONE-CALL" UNDERGROUND UTILITY LOCATING CENTER AT LEAST TWO WORKING DAYS BEFORE BEGINNING ANY EXCAVATION: 1-800-342-1585

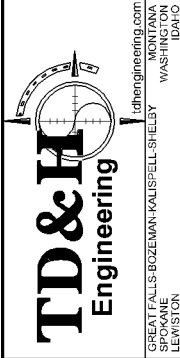
"CALL BEFORE YOU DIG"

### LEGEND

PROPOSED	EXISTING	DESCRIPTION
		ASPHALT
		ASPHALT (EDGE OF)
		CATCH BASIN
		CONCRETE
		CONTOUR
		CURB (STRAIGHT)
		CURB & GUTTER
		DETECTABLE WARNING PLATE (YELLOW)
		ELECTRICAL BOX
		FIBER OPTIC - OVERHEAD
		FIRE HYDRANT
		GRAVEL
		GRAVEL EDGE OF
		GUY WIRE
		LANDSCAPE AREA (LIGHT GREEN)
		LIGHT POLE
		MAILBOX
		MANHOLE
		MONUMENT
		POWER POLE
		PROPERTY LINE
		RIGHT-OF-WAY LINE
		RETAINING WALL
		SPEED CUSHION
		SPOT ELEVATIONS
		STORMDRAIN PIPE
		TELEPHONE RISER
		TRAFFIC SIGN
		TREE - CONIFEROUS
		TREE - DECIDUOUS
		WATER METER
		VALVE



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DESIGNED BY: HRC  
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DATE: 6/6/14  
JOB NO. L14-006  
FIELDBOOK

18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT  
LEWISTON, IDAHO  
VICINITY MAP, LEGEND, SHEET INDEX

SUMMARY OF QUANTITIES

Item No.	Total Project Quantity	Unit	Item
Division 200 - Earthwork			
201.4.1.B.1	1	LS	Clearing and Grubbing
201.4.1.D.1.1	545	SY	Removal of Sidewalk
201.4.1.D.1.2	2,870	SY	Removal of Asphalt Pavement
201.4.1.E.1.1	1,112	LF	Removal of Curb and Gutter
201.4.1.E.1.2	56	LF	Removal of Fence
201.4.1.F.1.1	1	EA	Removal of Tree
201.4.1.F.1.2	11	EA	Removal of Mailbox
201.4.1.F.1.3	3	EA	Removal of Catch Basin
Division 300 - Trenching			
301.4.1.A.1	130	LF	Trench Excavation
305.4.1.A.3	130	LF	Class A-2 Pipe Bedding for 12" Diam. Pipe
Division 600 - Culverts and Storm Drains			
601.4.1.A.17	130	LF	12" Storm Drain Pipe - Type S CPP
602.4.1.F.1.1	3	EA	Catch Basin - Type I
602.4.1.F.1.2	3	EA	Catch Basin - Type IA
Division 700 - Concrete			
706.4.1.A.3	855	LF	Vertical Curb (No Gutter)
706.4.1.A.7	1,735	LF	Curb and Gutter
706.4.1.E.1	760	SY	Concrete Sidewalks, 4"
706.4.1.F.1	406	SY	Concrete Driveway Approach
706.4.1.H.1	23	EA	Ped. Ramp w/Det. Warning Domes
Division 800 - Aggregates and Asphalt			
810.4.1.A.3	2,550	SY	Plant Mix Pavement

Item No.	Total Project Quantity	Unit	Item
Division 1000 - Construction Stormwater BMPs			
1001.4.1.A.1	1	LS	Sediment Control
Division 1100 - Traffic			
1103.4.1.A.1	1	LS	Construction Traffic Control
1104.4.1.A.1	2,928	SF	Pavement Line Paint or Painted Pavement Markings
1104.4.1.B.1	496	SF	Thermoplastic Pavement Markings
1105.4.1.A.1	183	SF	Permanent Signing
1105.4.1.E.1	30	EA	Sign Post
Division 2000 - Miscellaneous			
2010.4.1.A.1	1	LS	Mobilization
2020.4.1.F.1	4	EA	Reference and Reset Monuments
2030.4.1.C.1	3	EA	Valve Box, Adjust to Grade
2030.4.1.D.1	6	EA	Miscellaneous Utility, Adjust to Grade
2040.4.1.A.1	50	LF	Wood Fence
2040.4.1.B.1	1	EA	Man Gate
SSP 00001	3,835	SF	Landscaping
SSP 00002	5	EA	Speed Cushion
SSP 00003	5	EA	Mailbox Cluster
SSP 00004	9	EA	Remove and Reset Existing Sign
SSP 00005	1	EA	Lit Pedestrian Crossing Sign
SSP 00006	10	EA	Wayfinding Sign and Post
SSP 00007	4	EA	Flag-a-Ride Sign and Post

FINAL DESIGN

PROFESSIONAL ENGINEER  
REGISTERED  
STATE OF IDAHO  
DAVID L. WITTMAN

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LEWISTON, IDAHO  
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LEWISTON, IDAHO

SUMMARY OF QUANTITIES

L14-006 G-2.DWG  
SHEET G-2



## QUANTITY TABULATION

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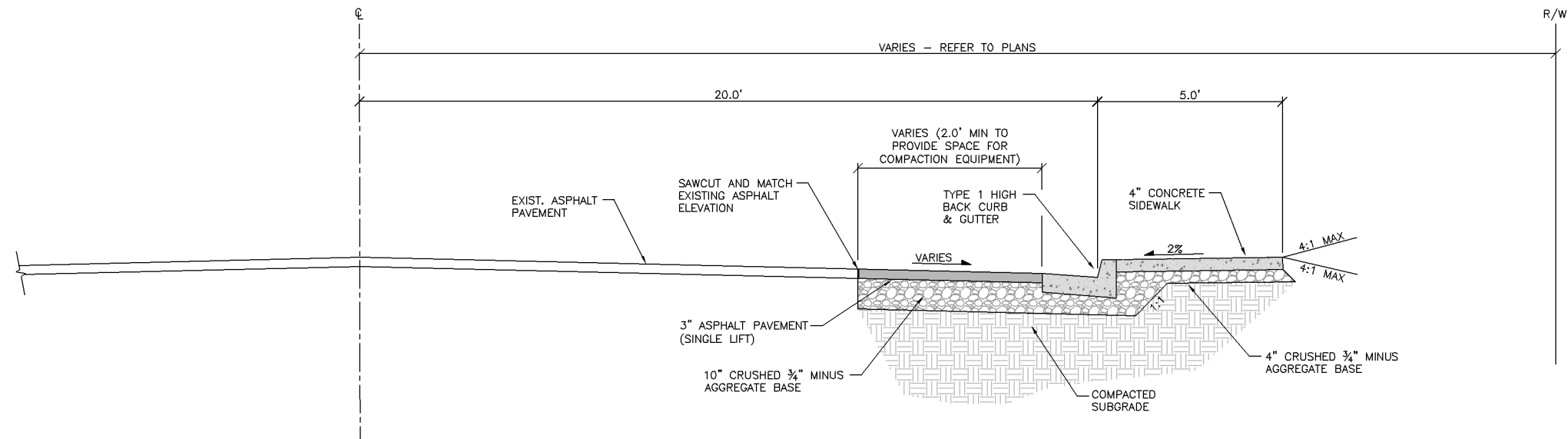
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LEWISTON, IDAHO**

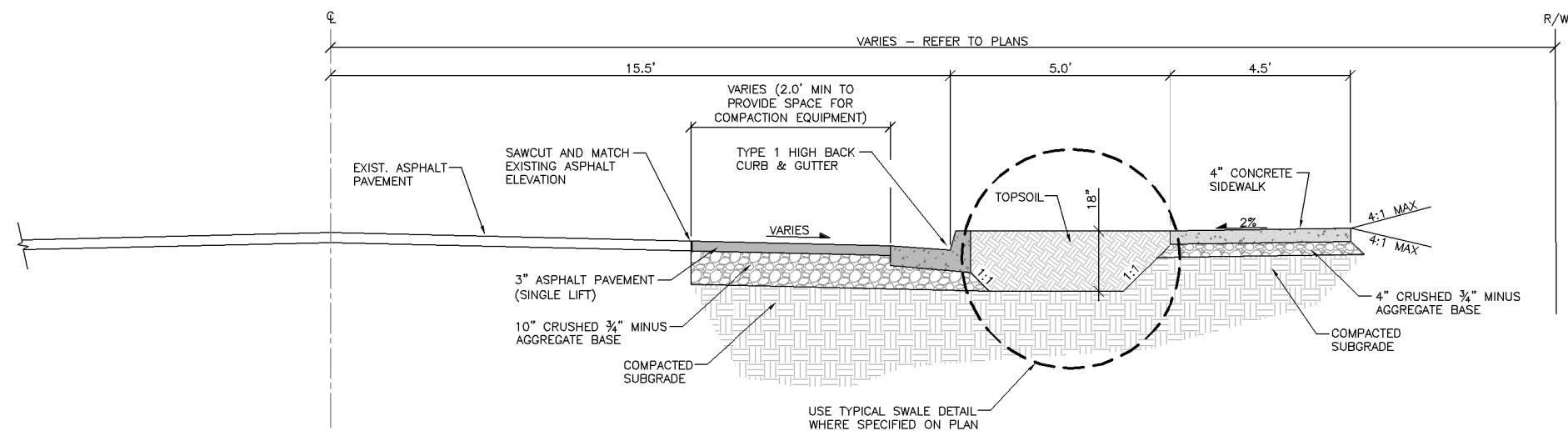
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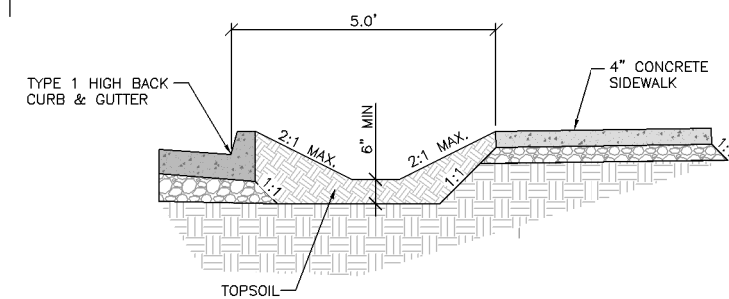
SHEET **G-3**



**TYPICAL CURB, GUTTER AND SIDEWALK ADDITION**



**BUMP OUT**



**TYPICAL SWALE DETAIL**

**FINAL DESIGN**



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8145

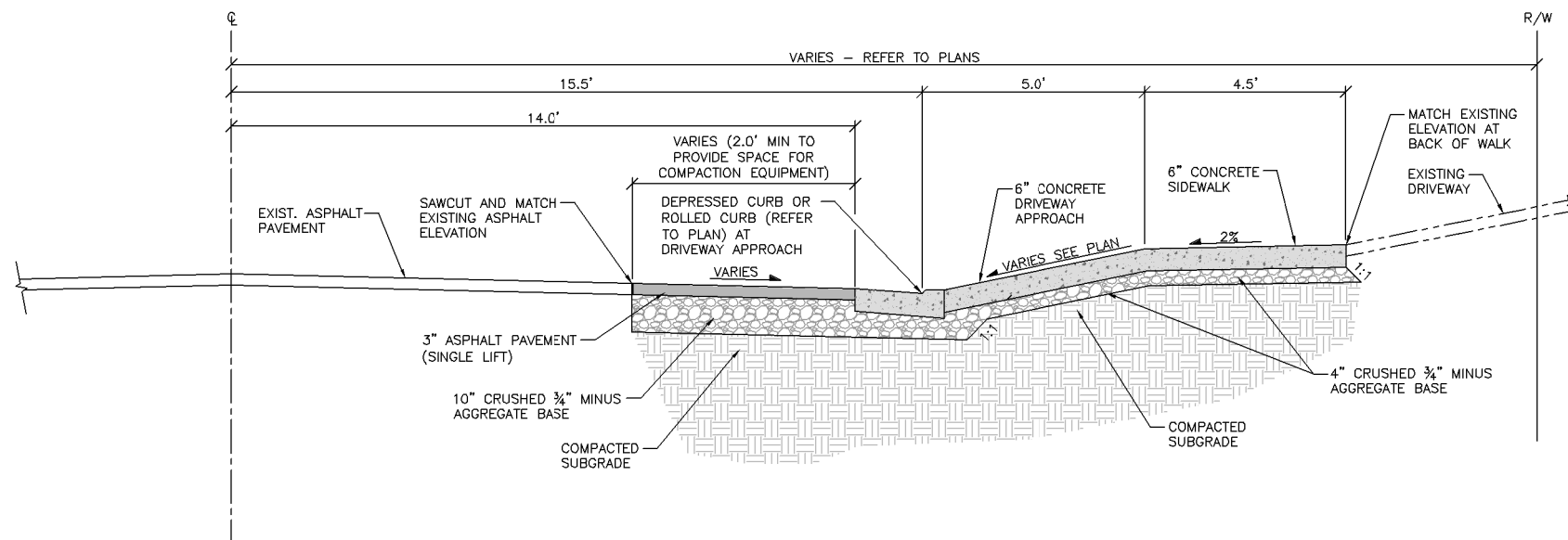
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**LEWISTON, IDAHO**

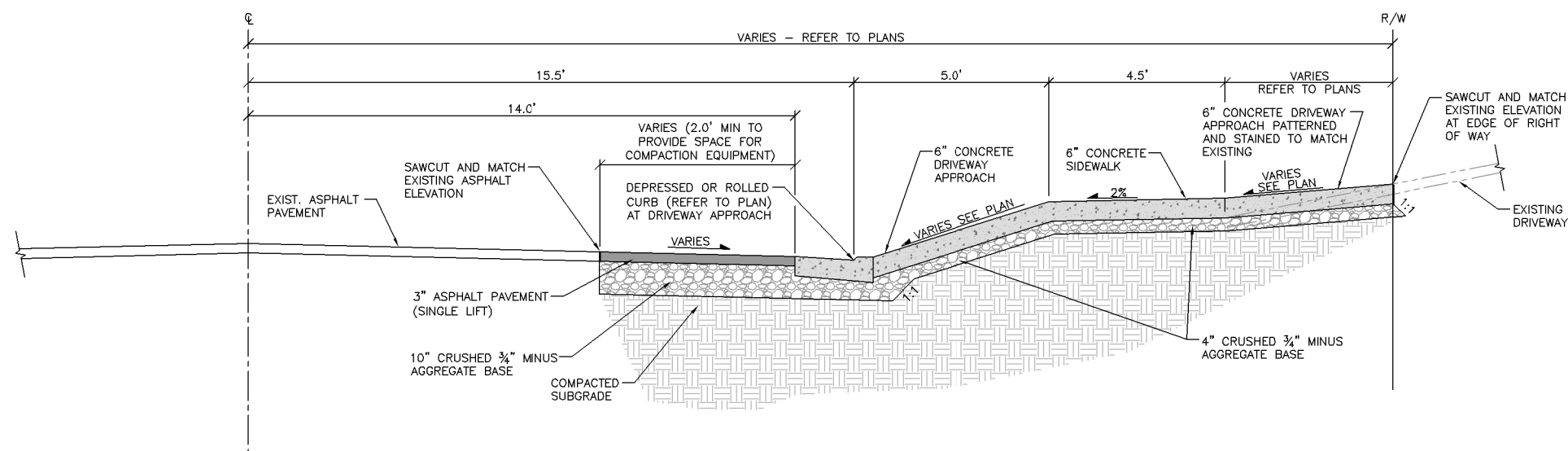
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SHEET **G-4**



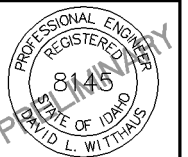


**BUMPOUT AT DRIVEWAY (MATCH AT BACK OF WALK)**



**BUMPOUT AT DRIVEWAY (MATCH AT EDGE OF RIGHT OF WAY)**

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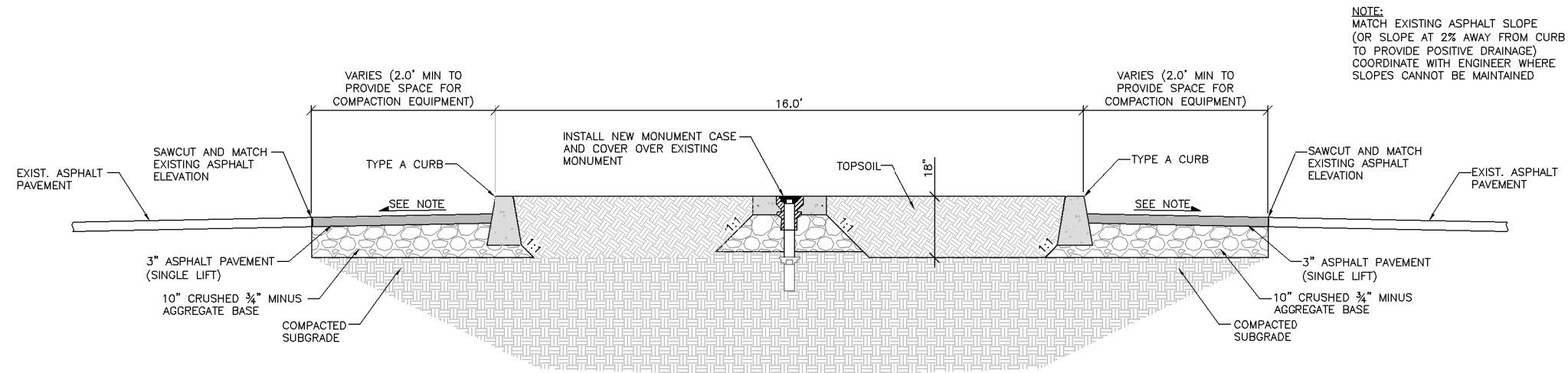
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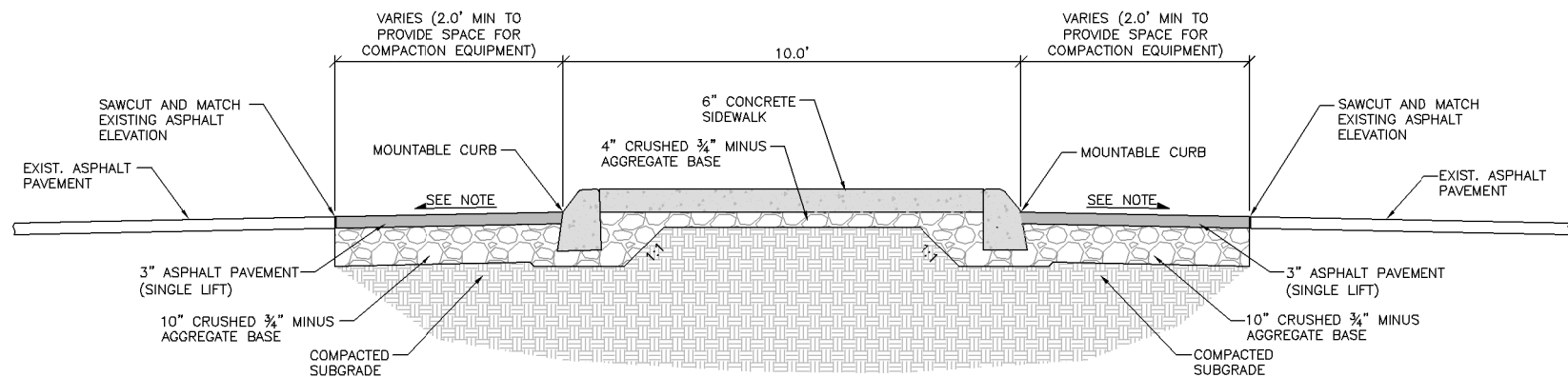
TYPICAL SECTIONS

L14-006 G-5.DWG  
SHEET **G-5**



NOTE:  
MATCH EXISTING ASPHALT SLOPE  
(OR SLOPE AT 2% AWAY FROM CURB  
TO PROVIDE POSITIVE DRAINAGE)  
COORDINATE WITH ENGINEER WHERE  
SLOPES CANNOT BE MAINTAINED

### TRAFFIC CIRCLE



NOTE:  
MATCH EXISTING ASPHALT SLOPE  
(OR SLOPE AT 2% AWAY FROM CURB  
TO PROVIDE POSITIVE DRAINAGE)  
COORDINATE WITH ENGINEER WHERE  
SLOPES CANNOT BE MAINTAINED

### BOULEVARD CROSS SECTION



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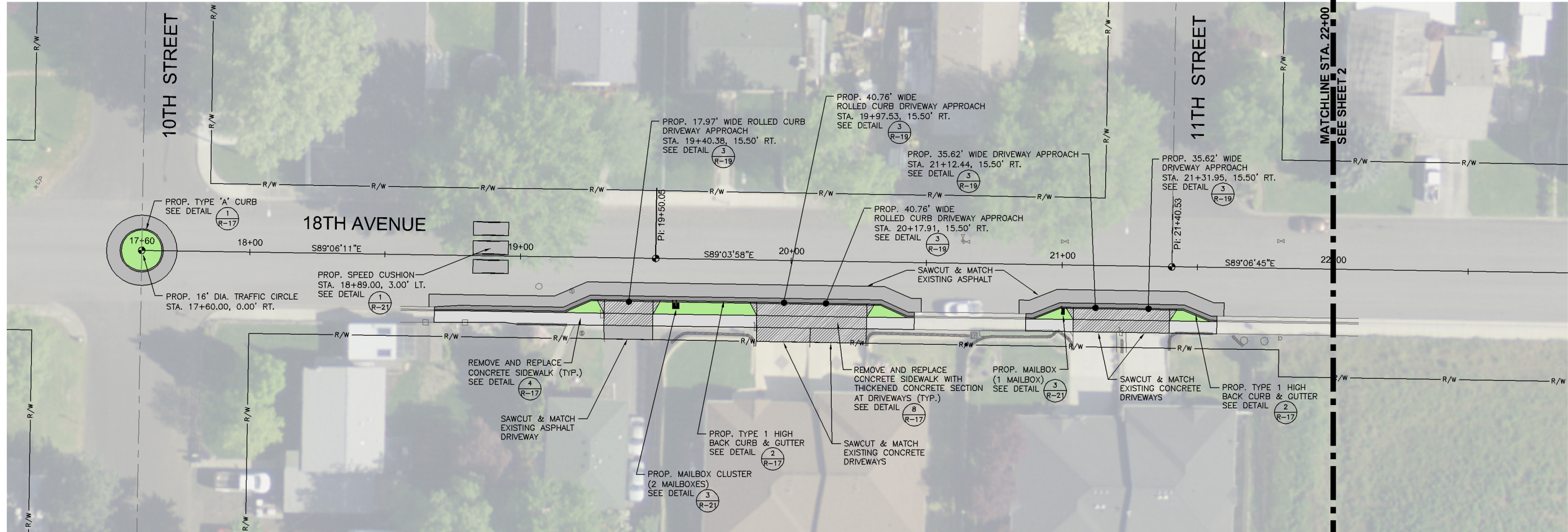
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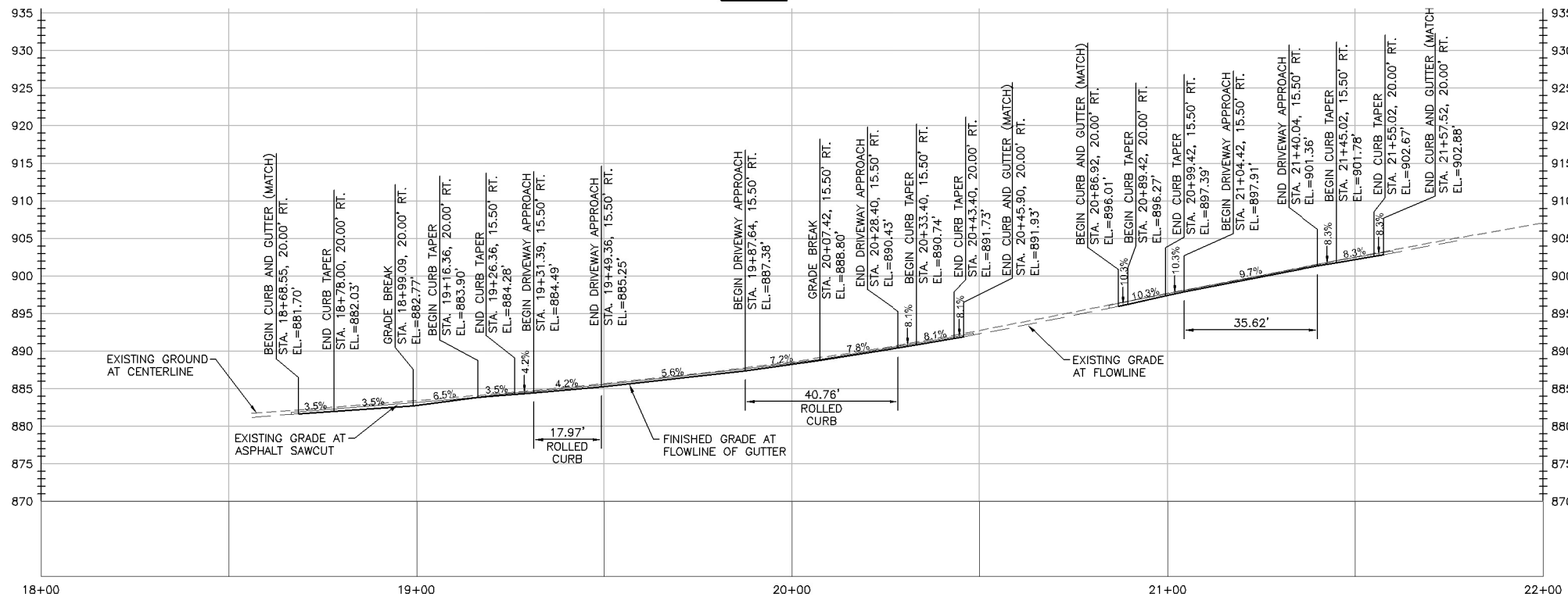
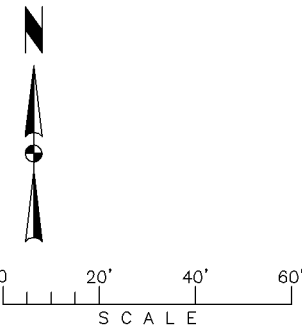
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 TYPICAL SECTIONS

FINAL DESIGN





PLAN



PROFILE

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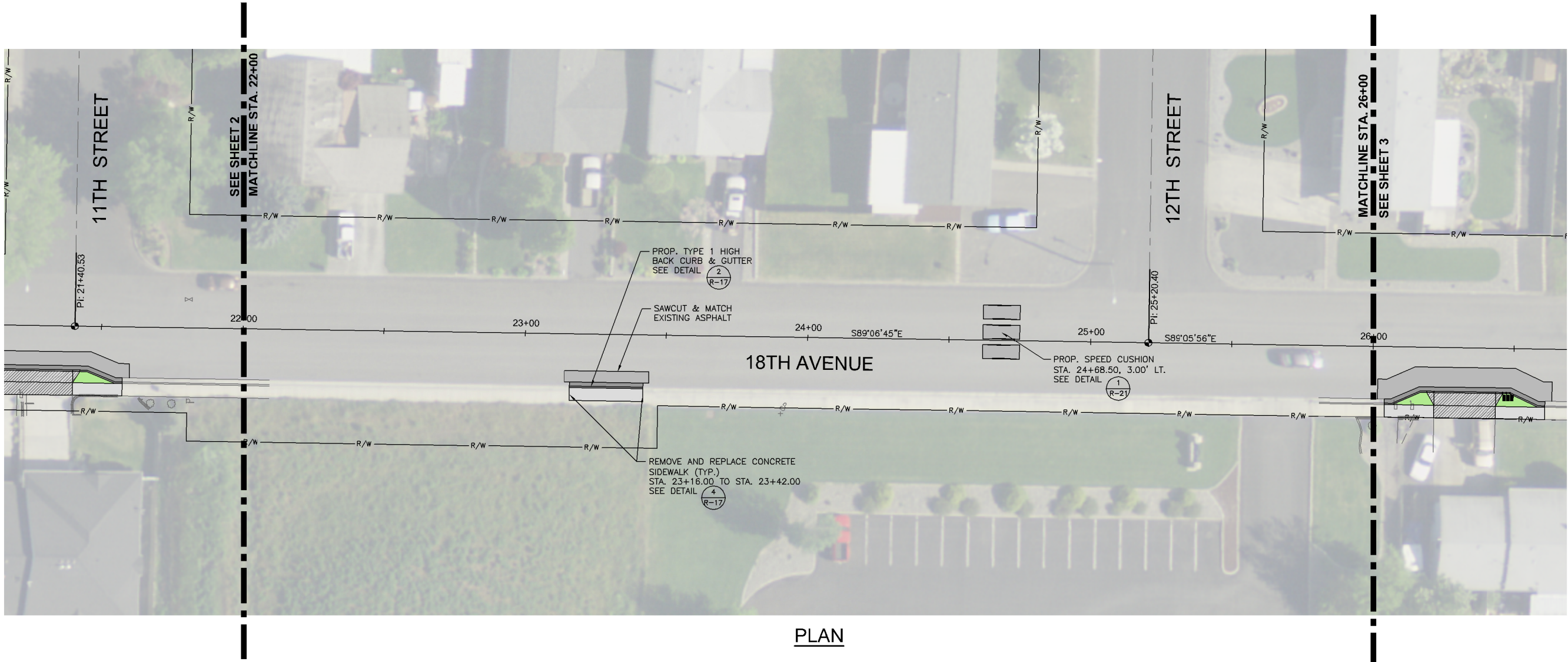
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STA. 17+60 TO STA. 22+00






PLAN

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PLAN & PROFILE  
STA. 26+00 TO STA. 30+00

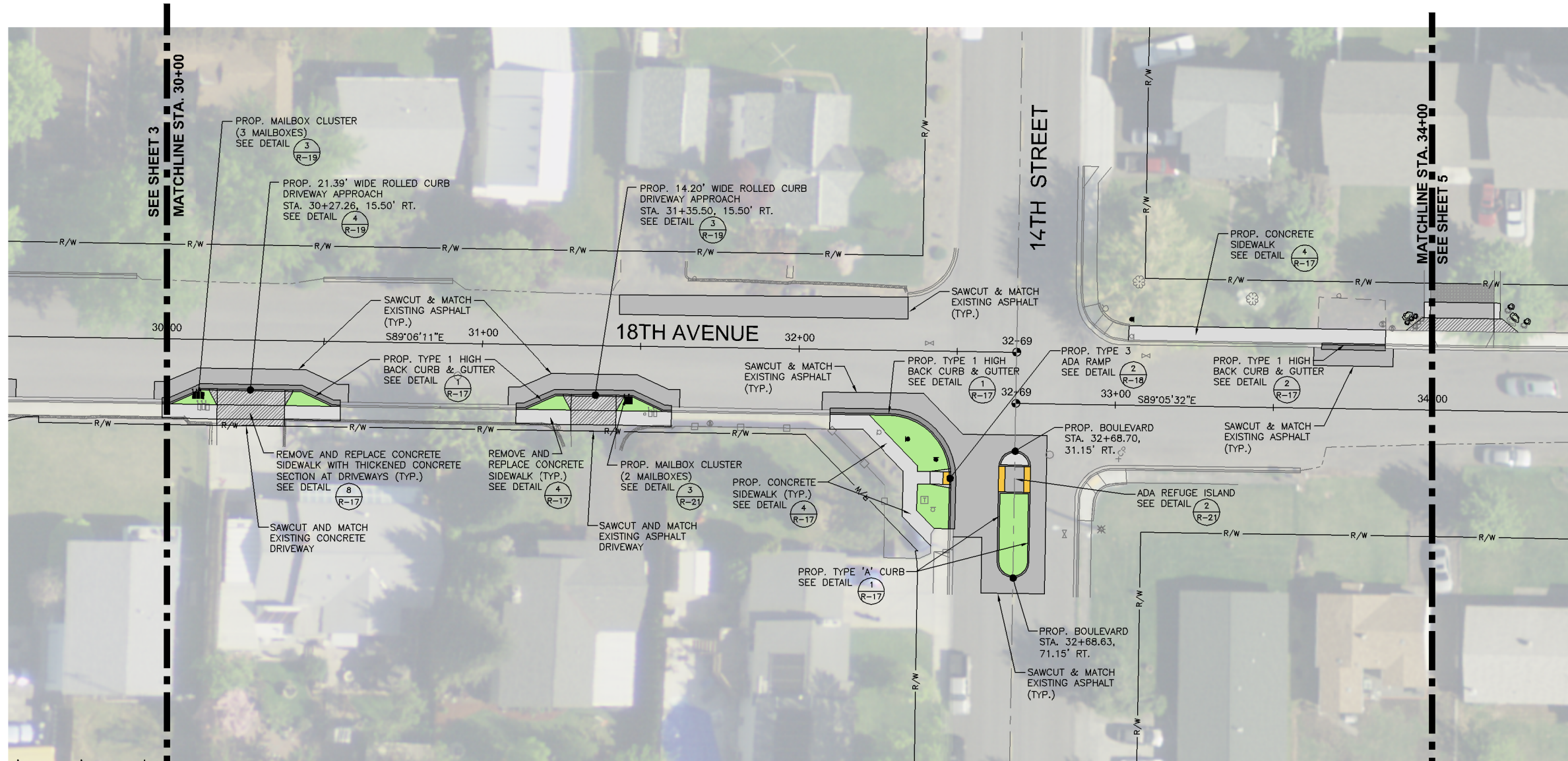
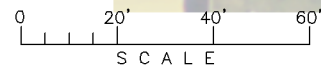
L14-006 R-3.DWG  
SHEET R-3

PLAN

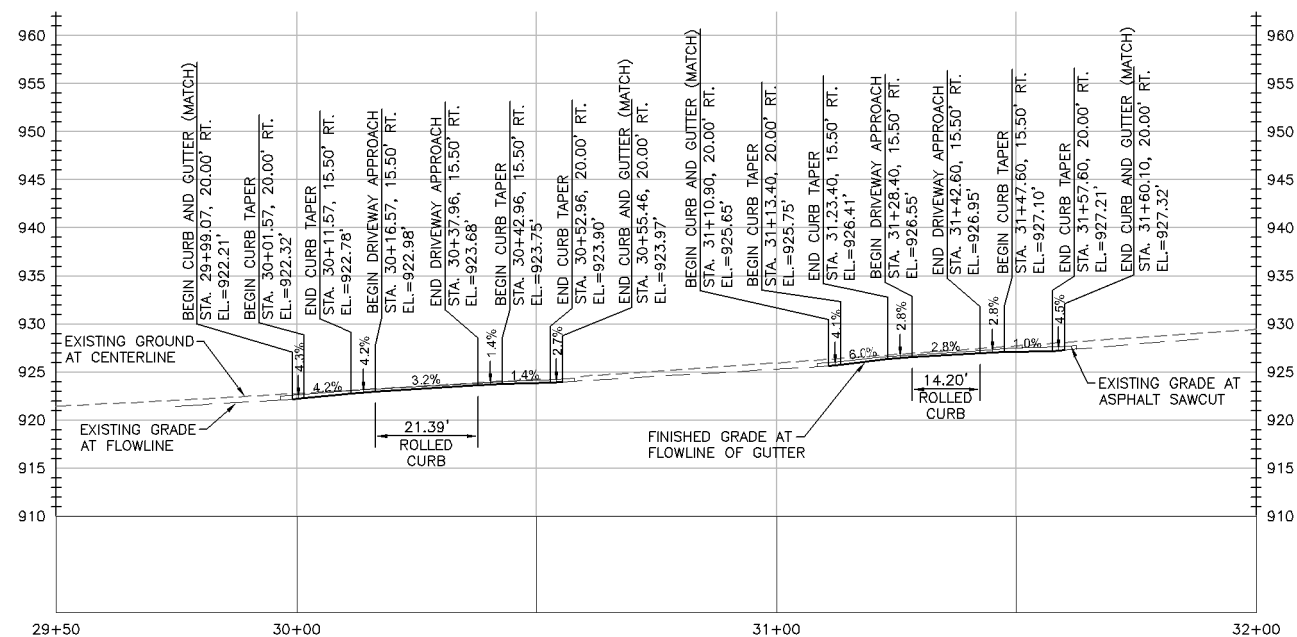
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FINAL DESIGN





PLAN



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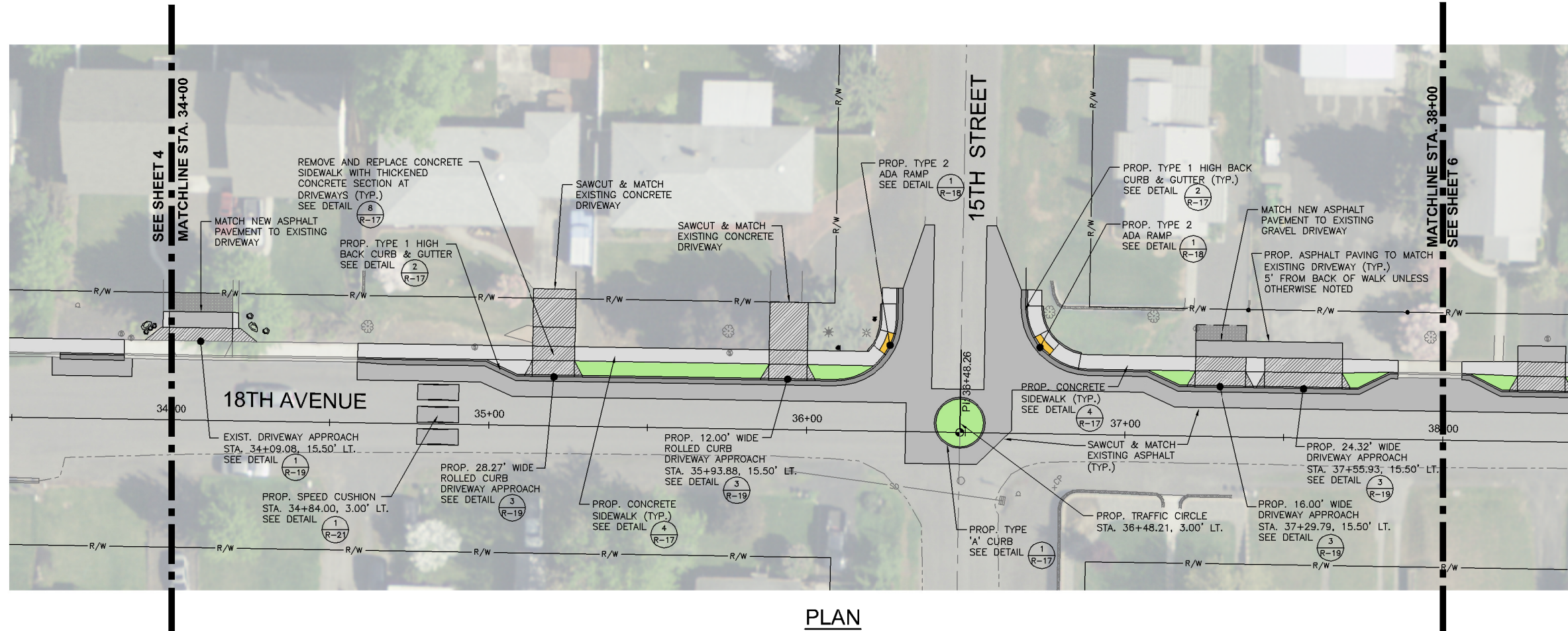
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STA. 30+00 TO STA. 34+00

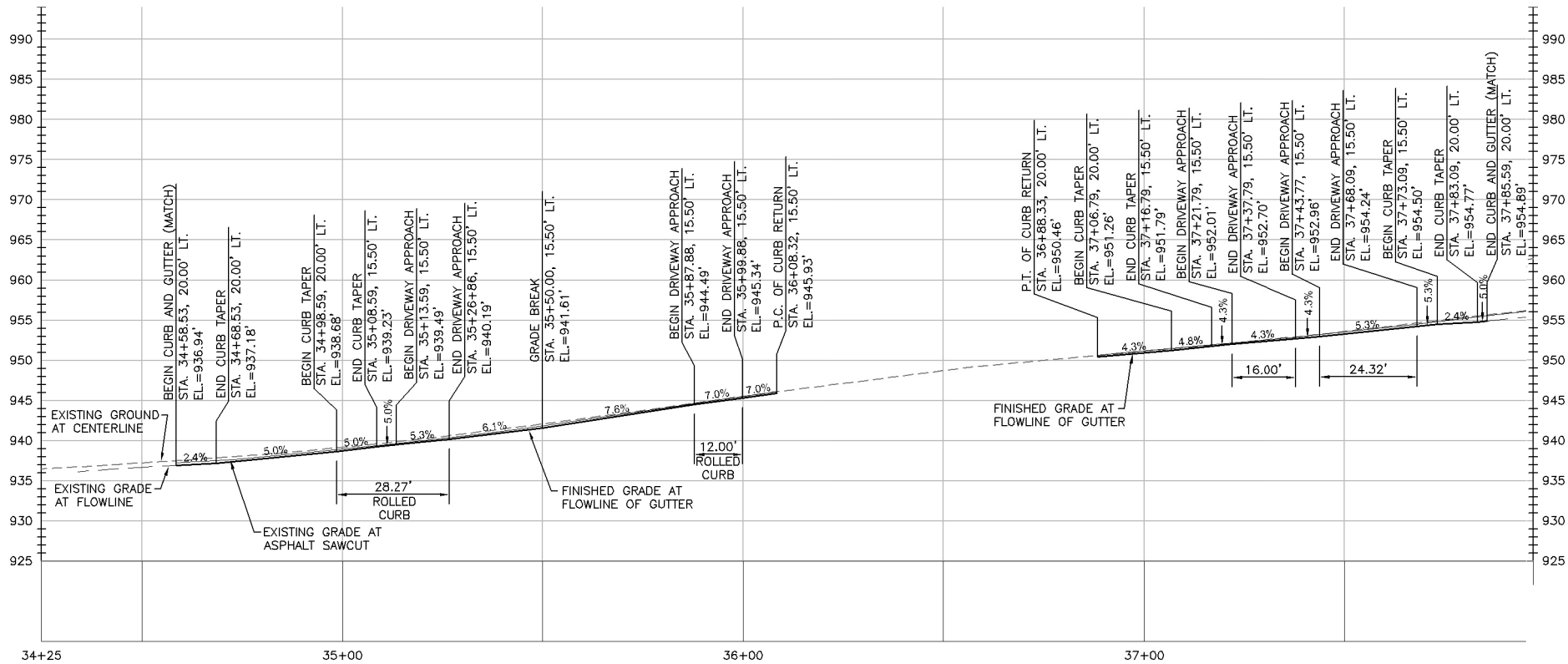
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SHEET R-4





PLAN



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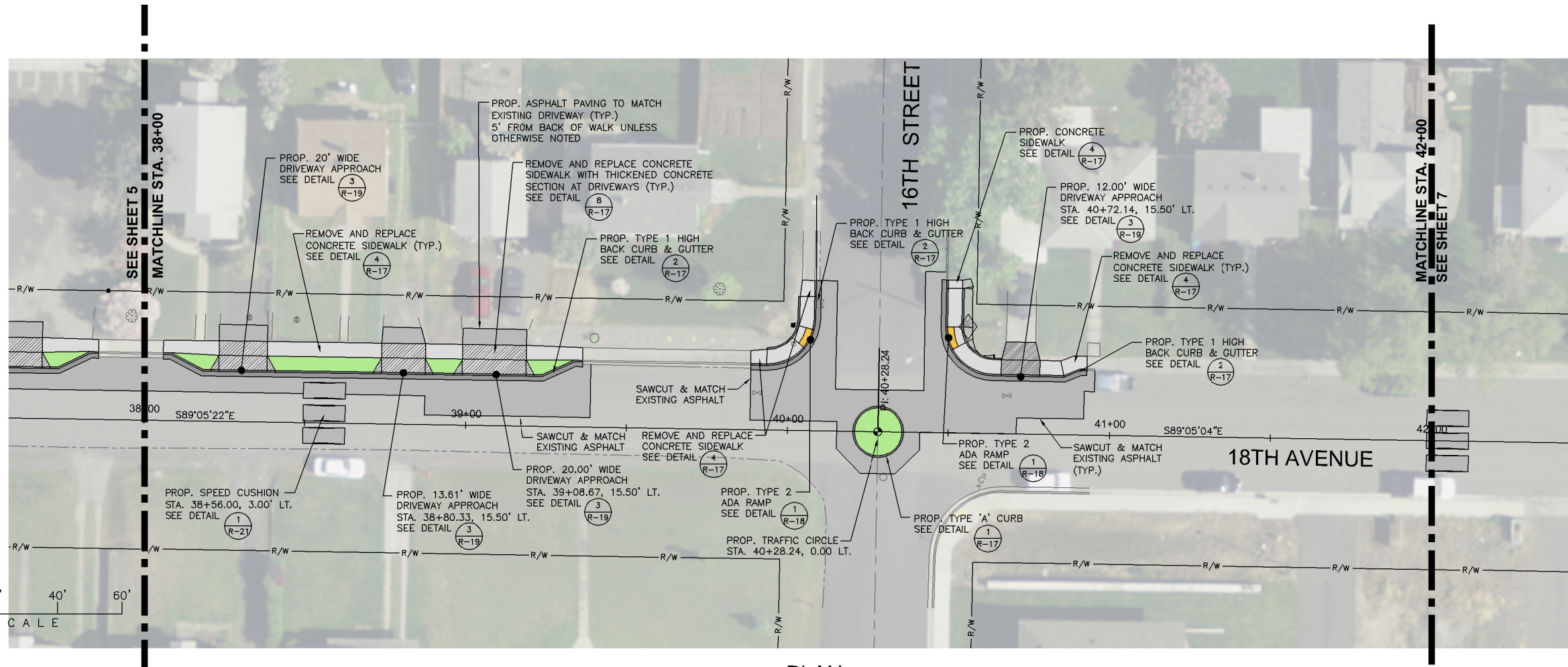
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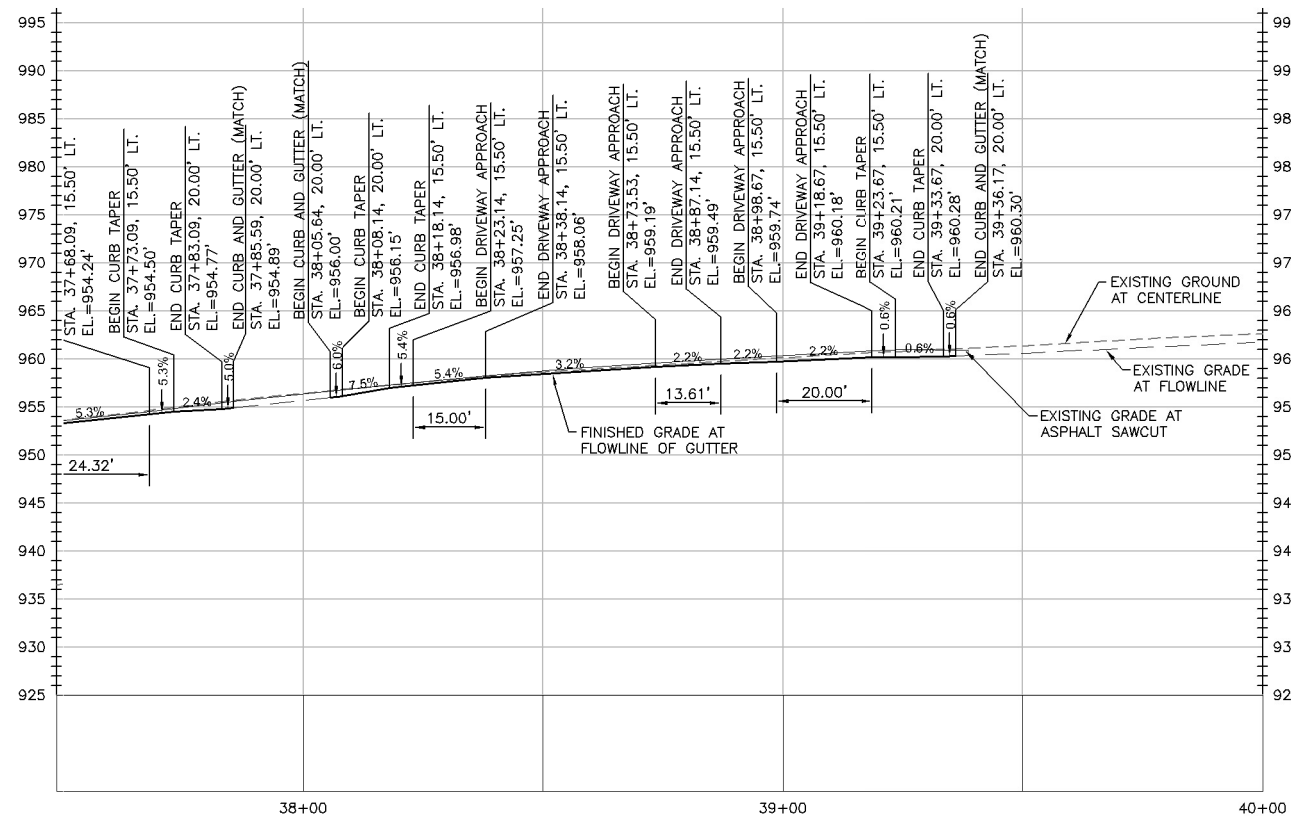
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STA. 34+00 TO STA. 38+00

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SHEET R-5





PLAN



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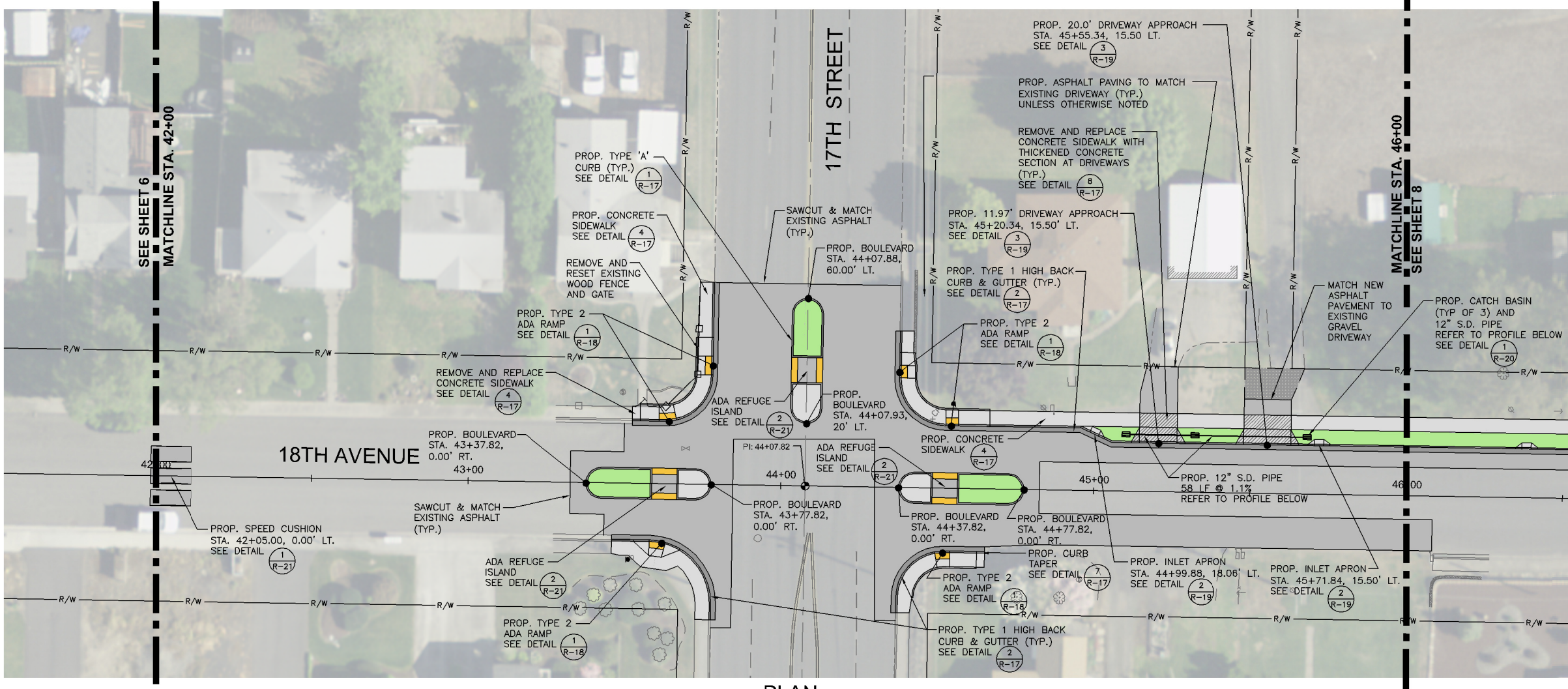
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LEWISTON, IDAHO

PLAN & PROFILE  
STA. 38+00 TO STA. 42+00

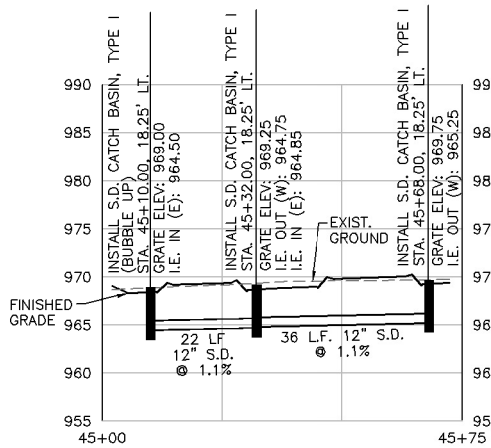
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L14-006 R-6.DWG  
SHEET R-6

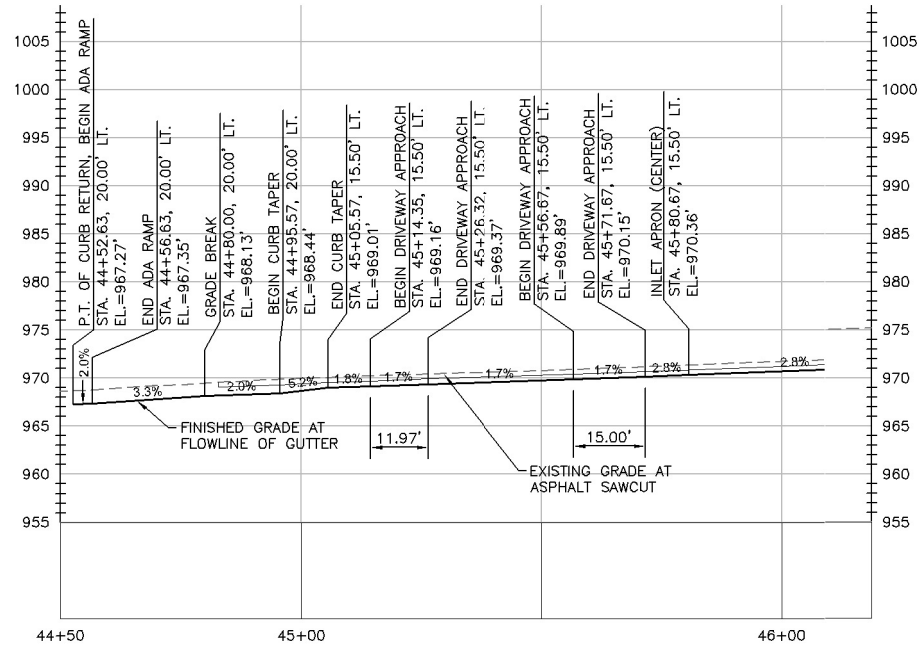




PLAN



STORM DRAIN PROFILE



PROFILE

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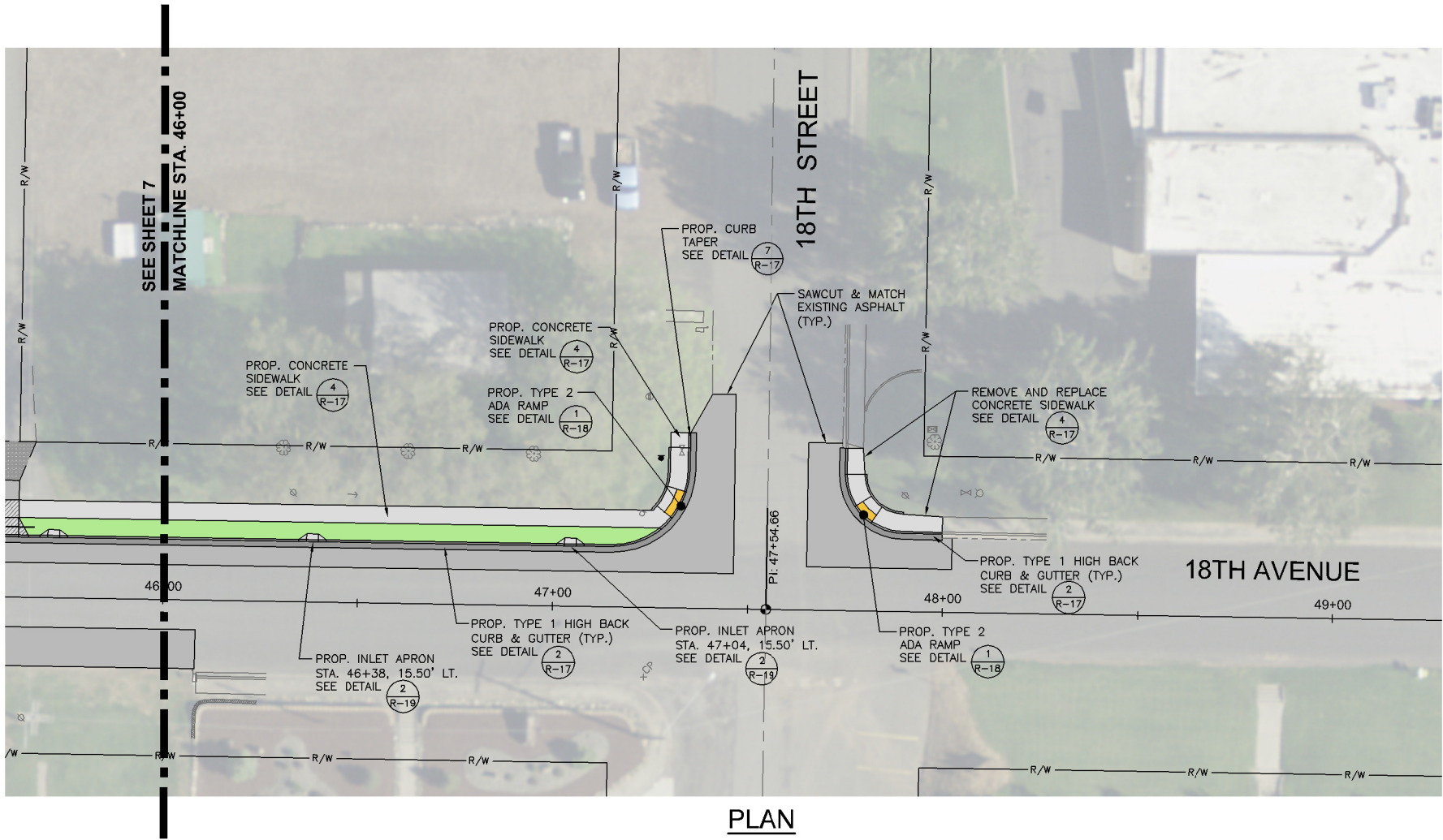
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LEWISTON, IDAHO

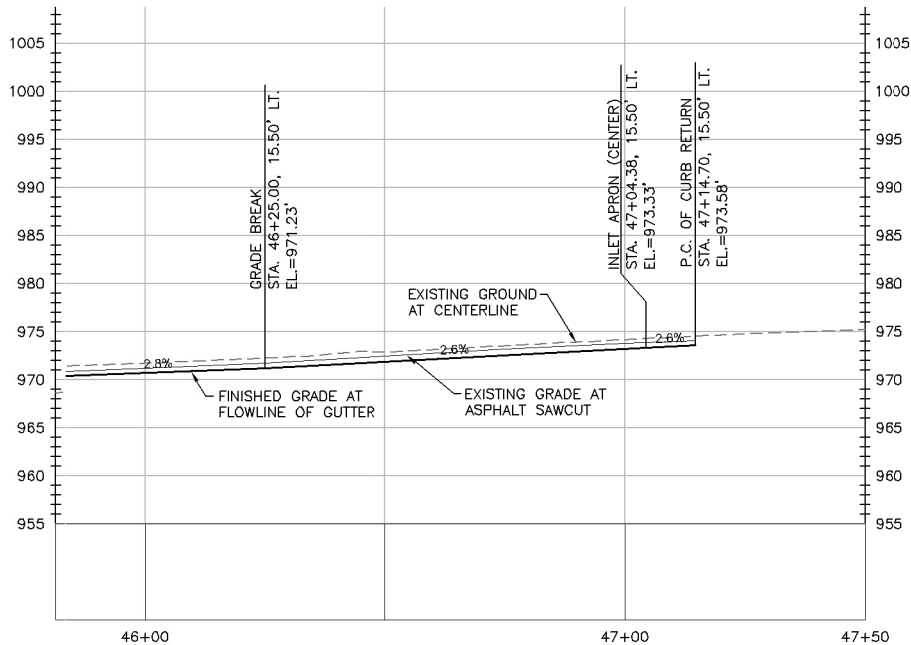
PLAN AND PROFILE  
STA. 42+00 TO STA. 46+00

L14-006 R-7.DWG  
SHEET R-7





PLAN

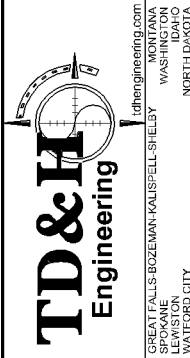


PROFILE

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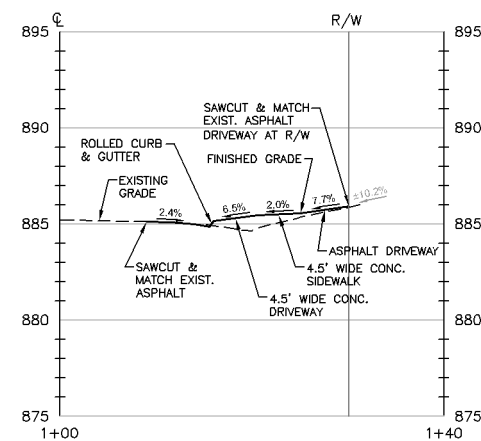


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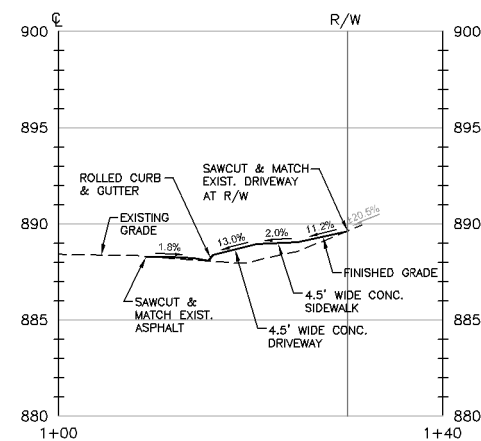


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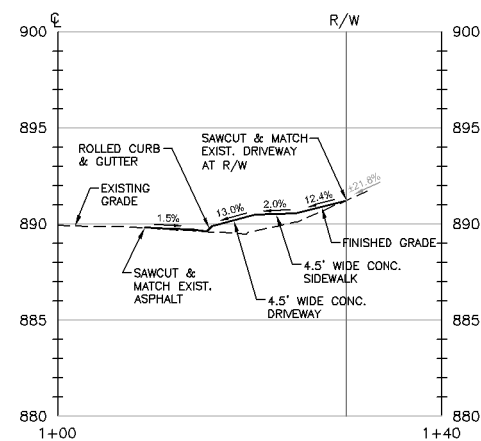
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LEWISTON, IDAHO  
PLAN & PROFILE  
STA. 46+00 TO STA. 48+00



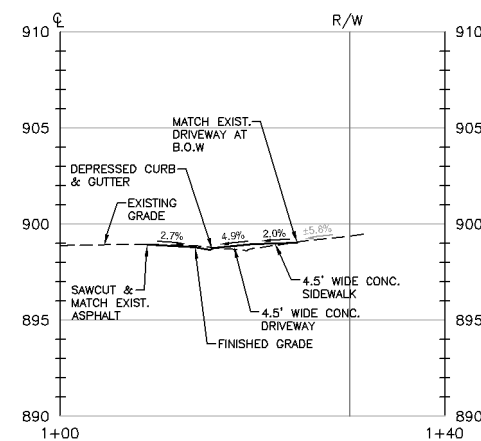
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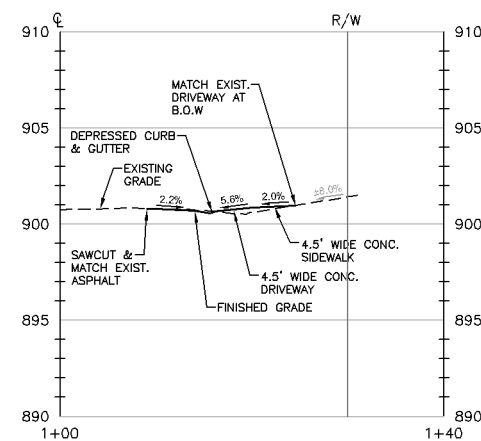
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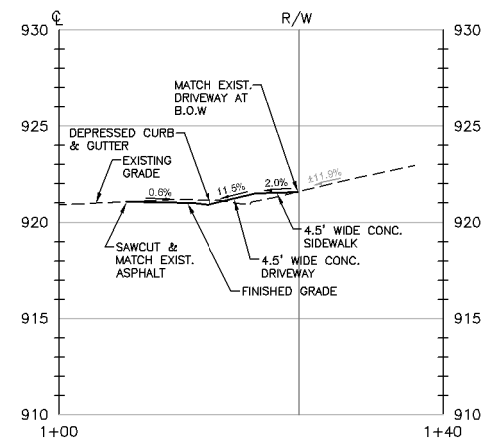
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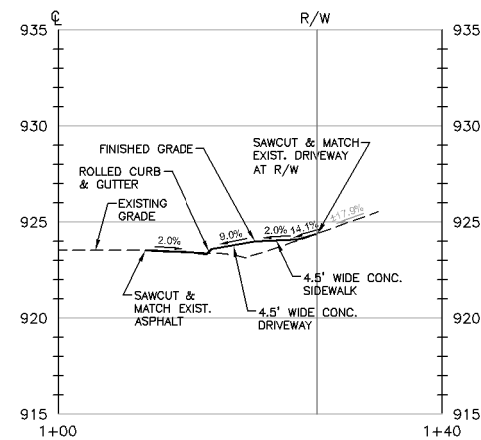
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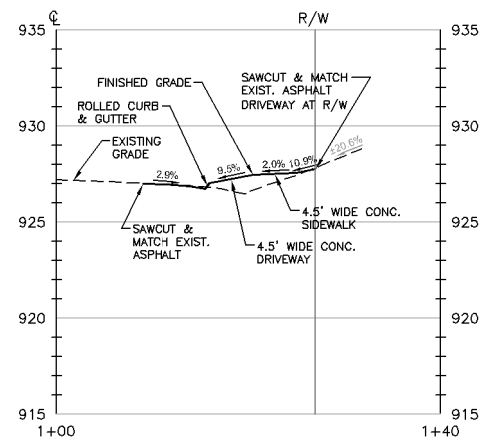
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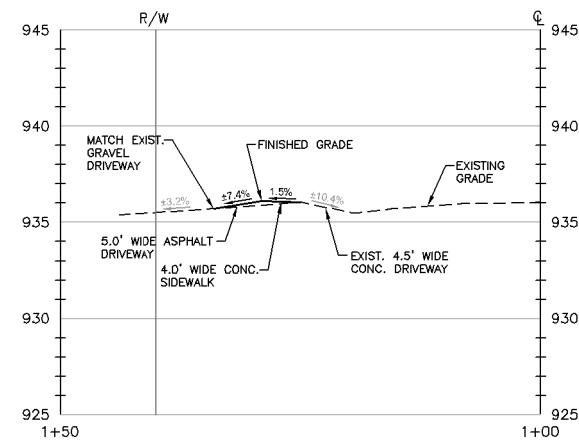
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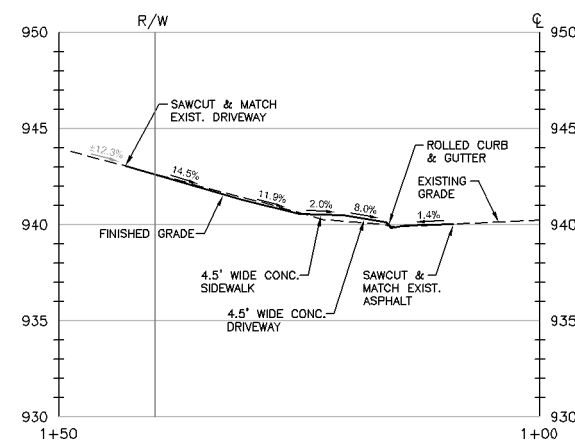
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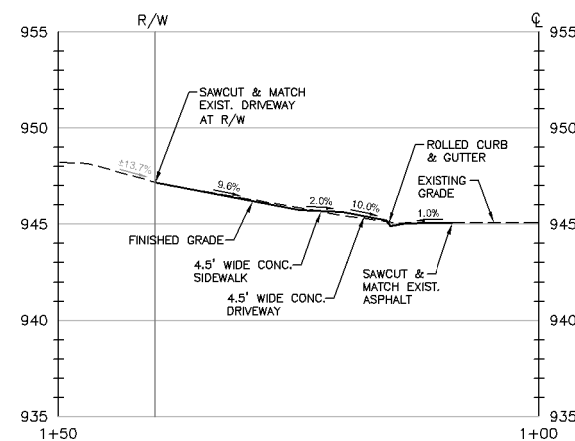
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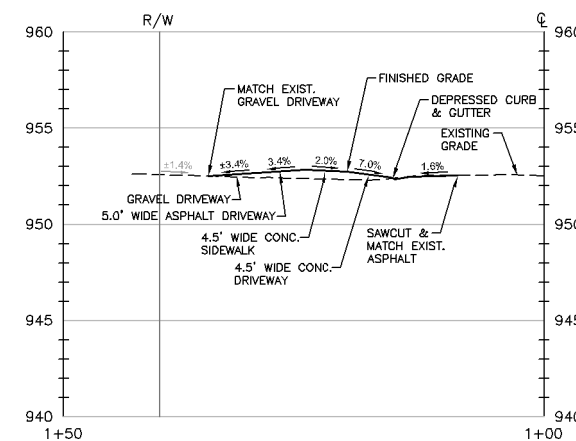
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STA. 35+20.23 LT.



STA. 35+93.88 LT.



STA. 37+29.79 LT.

FINAL DESIGN



REV	DATE	REVISION

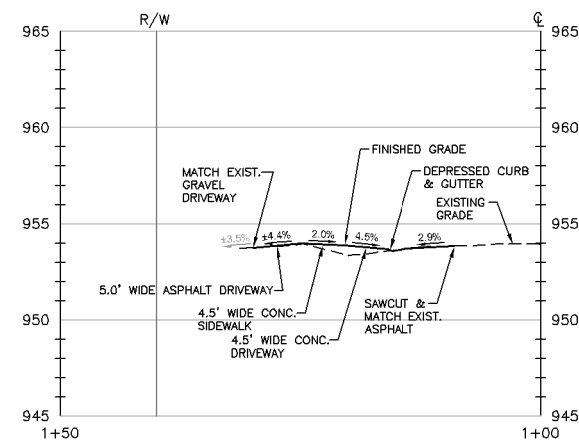
**TD&H Engineering**  
GREAT FALLS, BOZEMAN, KALISPELL, SHELLEY, MONTANA  
SPOKANE, IDAHO  
WASHINGTON, NORTH DAKOTA

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DESIGNED BY:	HRC
QUALITY CHECK:	DLW
DATE:	6/6/14
JOB NO.	L14-006
FIELDBOOK	

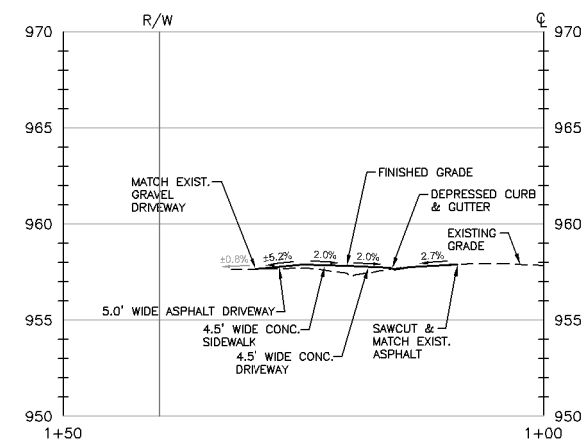
18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT  
LEWISTON, IDAHO

DRIVEWAY APPROACH PROFILES

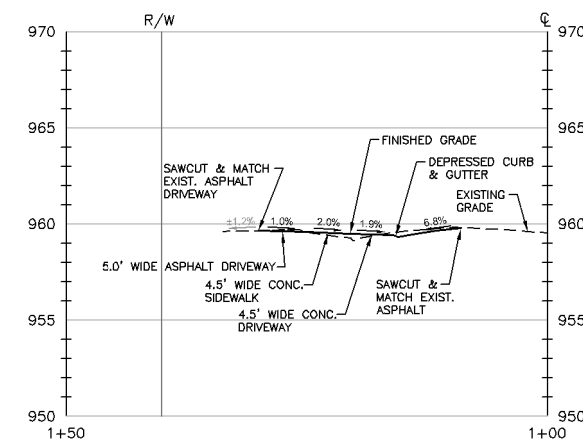
L14-006 R-9.DWG  
SHEET R-9



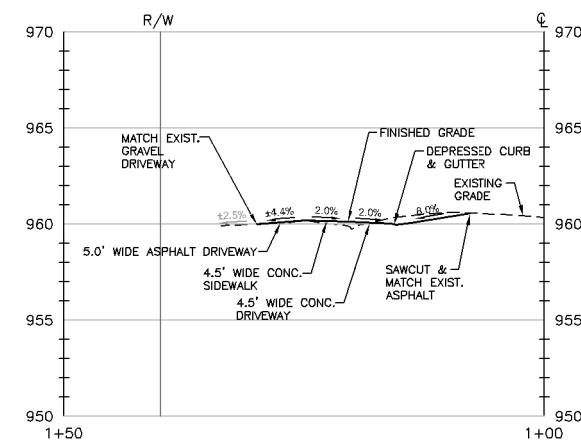
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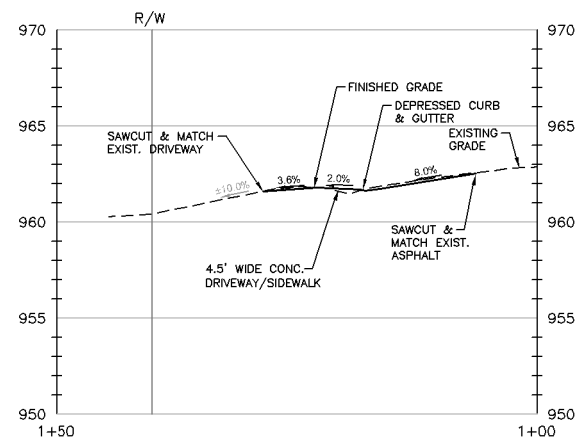
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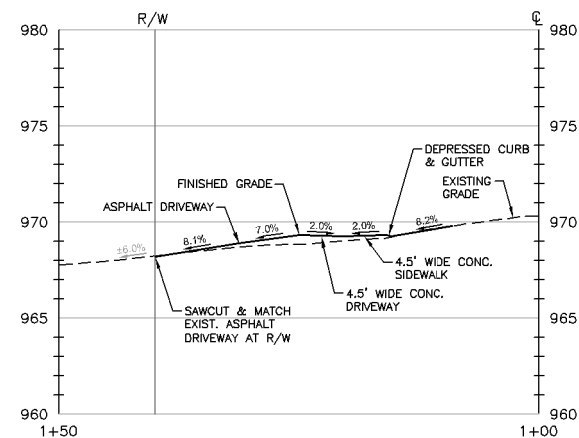
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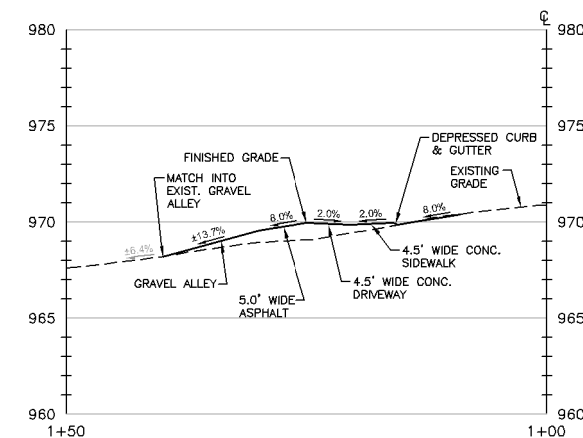
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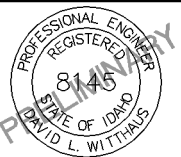
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STA. 45+20.34 LT.



STA. 45+55.34 LT.



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**TD&H Engineering**  
1000 N. 10th St.  
Spokane, WA 99201  
509.325.1111  
tdandhengineering.com

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SPokane, WASHINGTON  
LEWISTON, IDAHO  
WATERBURY, VERMONT

DRAWN BY: TJP  
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DATE: 6/6/14  
JOB NO. L14-006  
FIELDBOOK

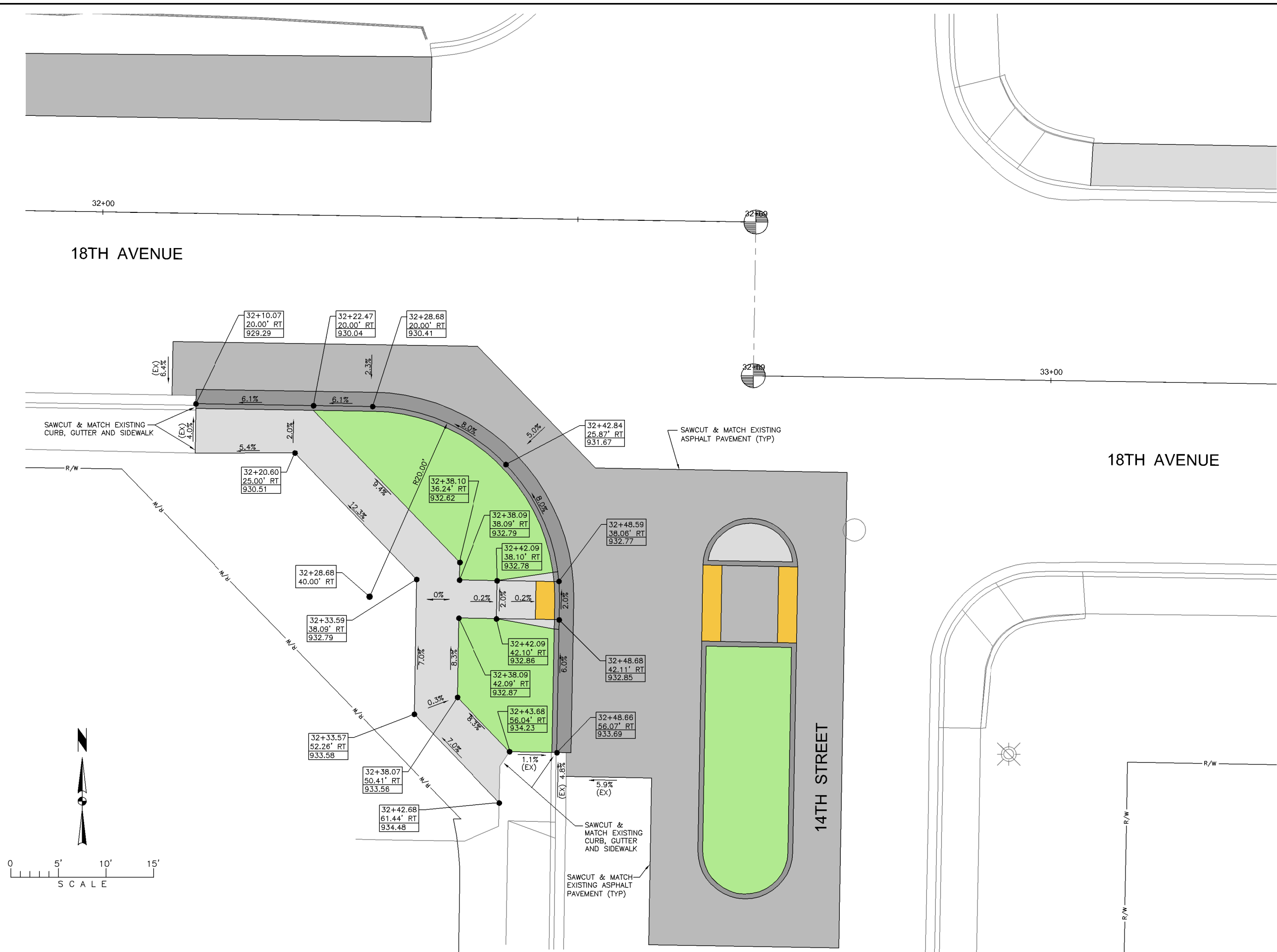
18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT  
LEWISTON, IDAHO

DRIVEWAY APPROACH PROFILES

FINAL DESIGN







14TH STREET AND 18TH AVENUE INTERSECTION DETAIL

FINAL DESIGN

PROFESSIONAL ENGINEER  
REGISTERED  
STATE OF IDAHO  
DAVID L. WITTMAN

REV

DATE

REVISION

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Engineering

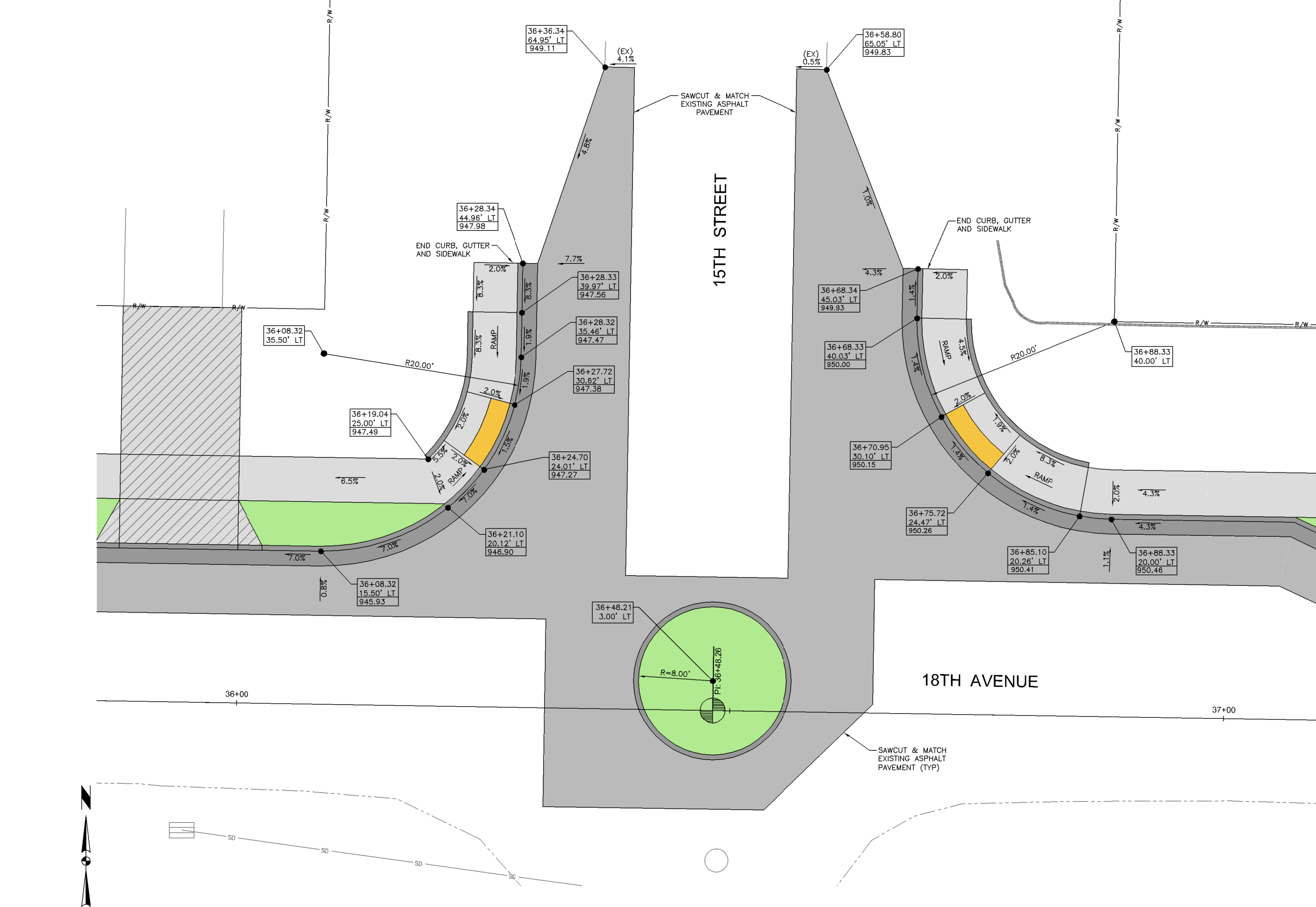
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GREAT FALLS, BOZEMAN, KALISPELL, SHELBY, MONTANA  
SPOKANE, WASHINGTON  
MADISON, WISCONSIN  
WATERLOO, IOWA

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JOB NO. FIELDBOOK

18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT  
LEWISTON, IDAHO

INTERSECTION DETAILS

L14-006 R-12.DWG  
SHEET R-12



15TH STREET AND 18TH AVENUE INTERSECTION DETAIL

FINAL DESIGN

PROFESSIONAL ENGINEER  
REGISTERED  
STATE OF IDAHO  
DAVID L. WITTMAN

REV

DATE

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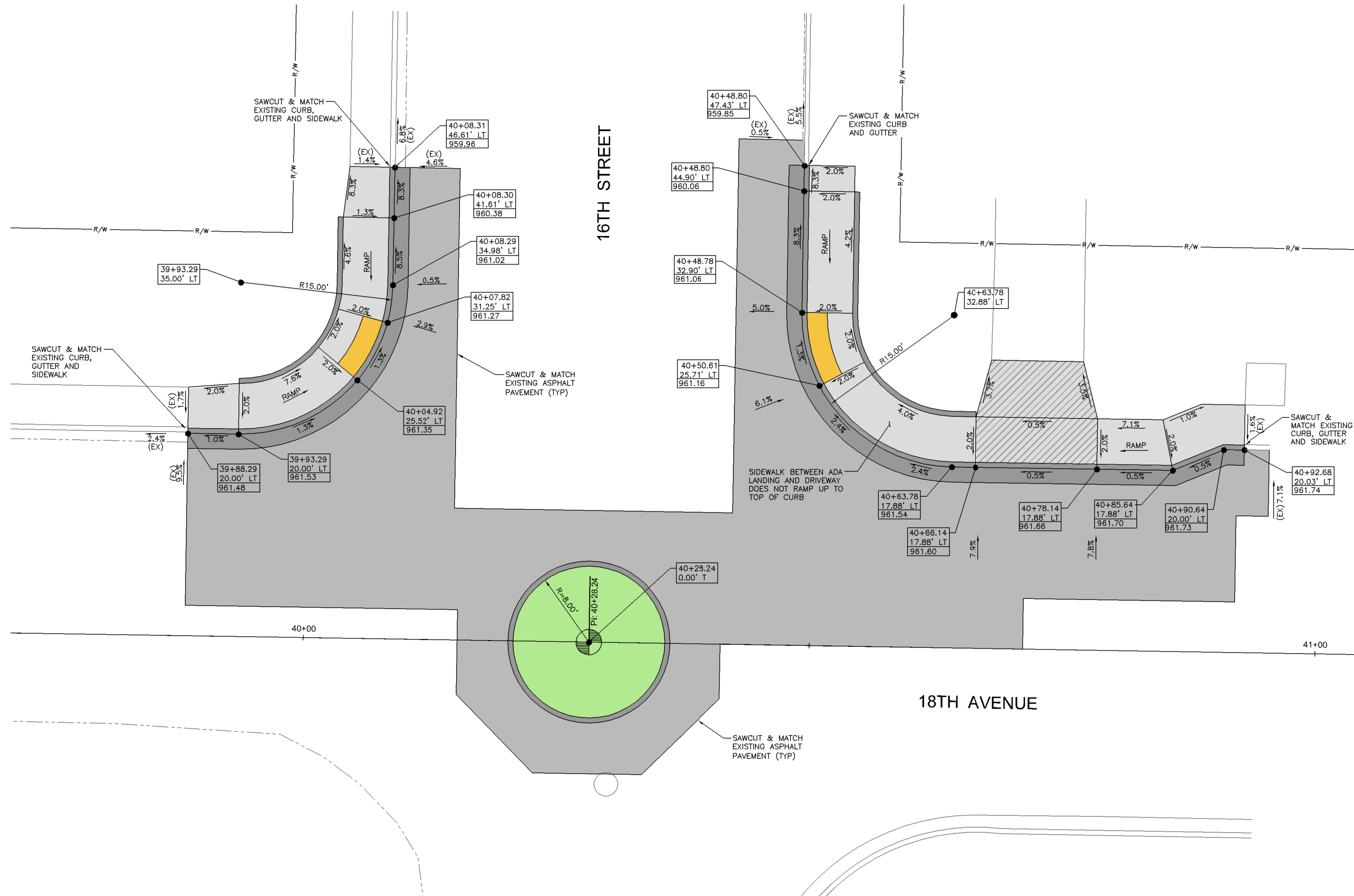
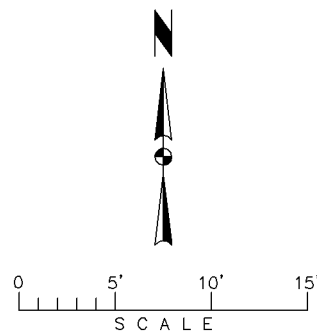
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SPOKANE, WASHINGTON, IDAHO, WYOMING  
NORTH DAKOTA

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DESIGNED BY: HRC  
QUALITY CHECK: DLW  
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FIELDBOOK

18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT  
LEWISTON, IDAHO

INTERSECTION DETAILS

L14-006 R-13.DWG  
SHEET R-13



16TH STREET AND 18TH AVENUE INTERSECTION DETAIL

FINAL DESIGN



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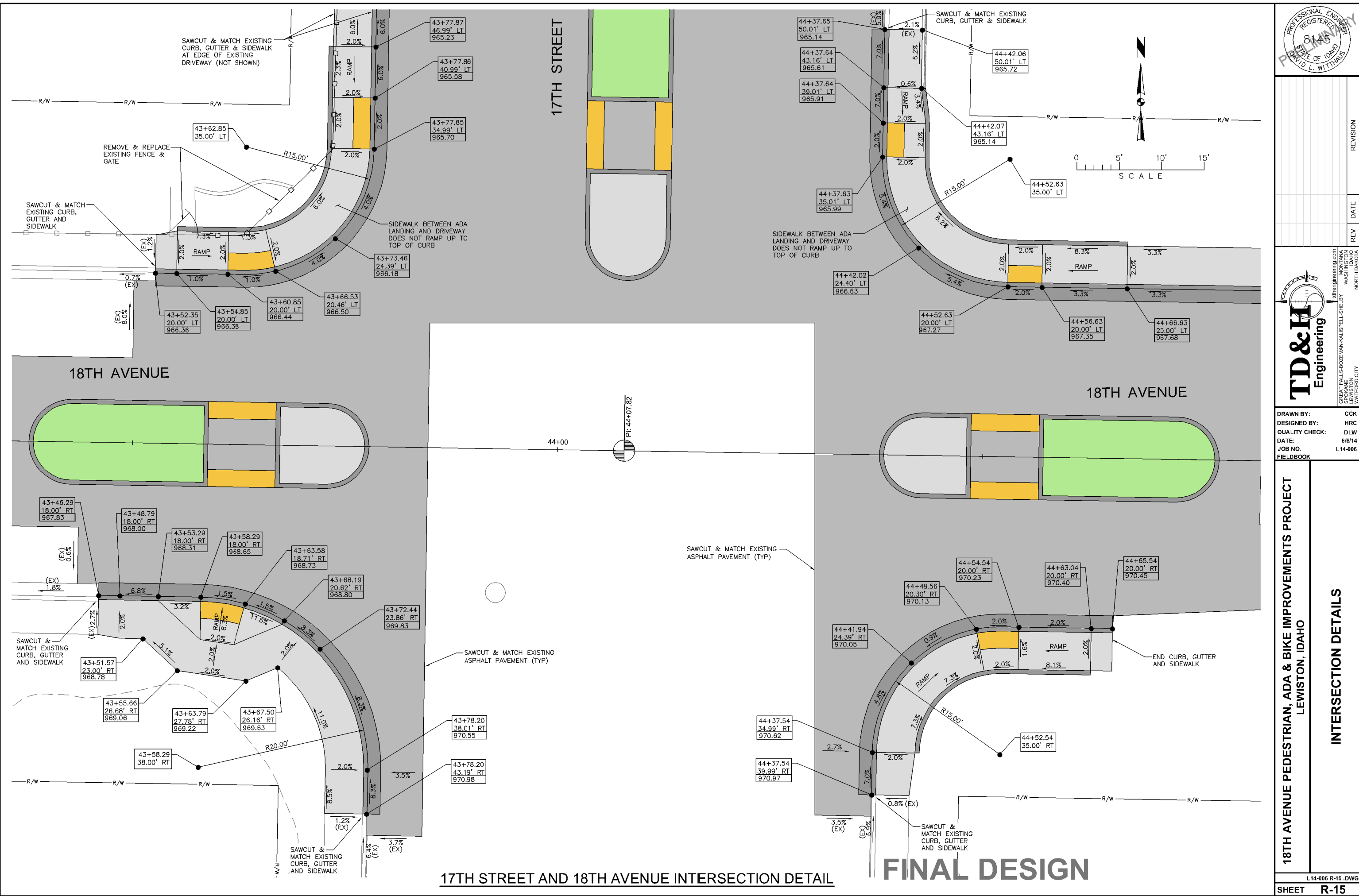
idengineering.com  
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SPOKANE, WASHINGTON  
BOISE, IDAHO  
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LEWISTON, IDAHO

INTERSECTION DETAILS





PROFESSIONAL ENGINEER  
STATE OF IDAHO  
81445  
DAVID L. WITTMAN

REVISION  
DATE  
REV

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Engineering

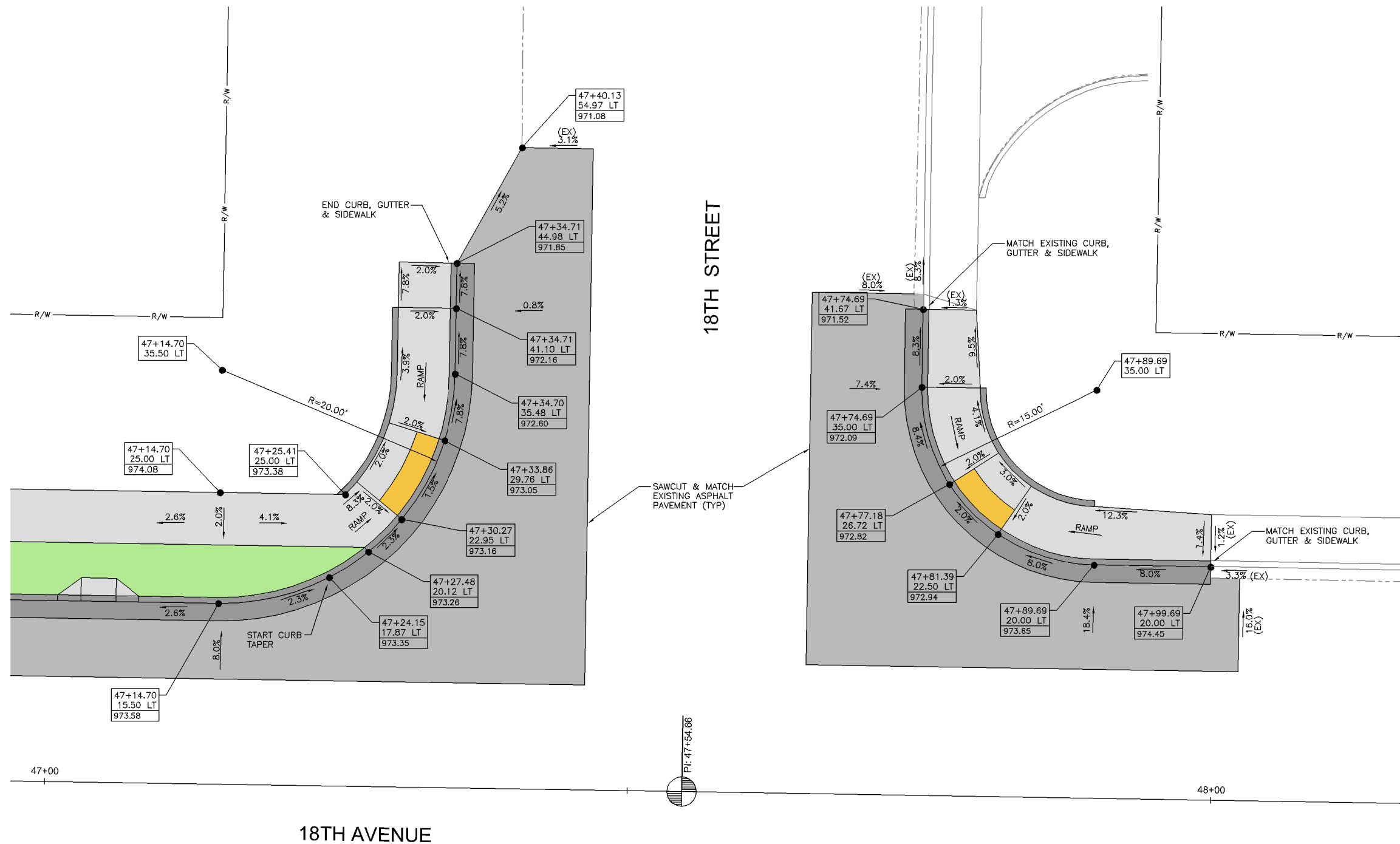
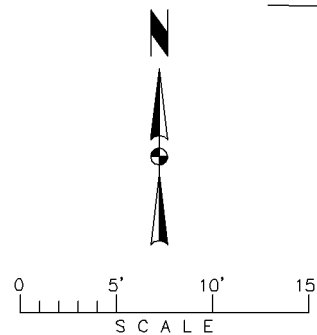
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18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT  
LEWISTON, IDAHO

INTERSECTION DETAILS

L14-006 R-15.DWG  
SHEET R-15



NORTH SIDE OF 18TH STREET AND 18TH AVENUE DETAIL

FINAL DESIGN

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WATERLOO, NORTH DAKOTA

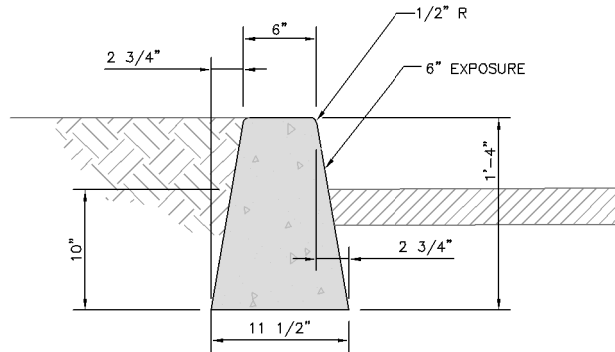
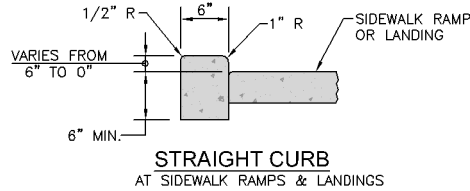
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FIELDBOOK

18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT  
LEWISTON, IDAHO

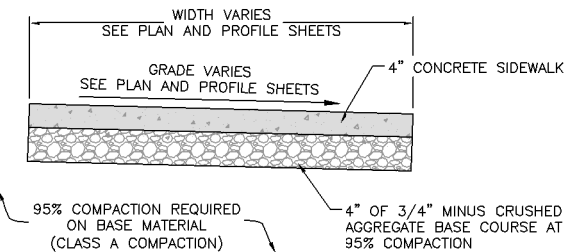
INTERSECTION DETAILS

L14-006 R-16 .DWG  
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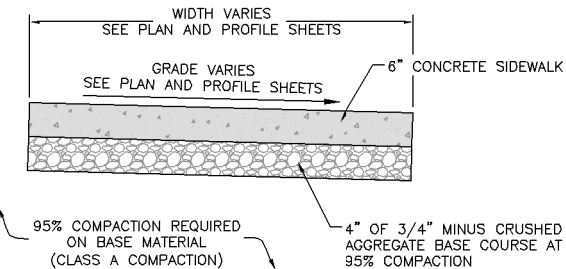




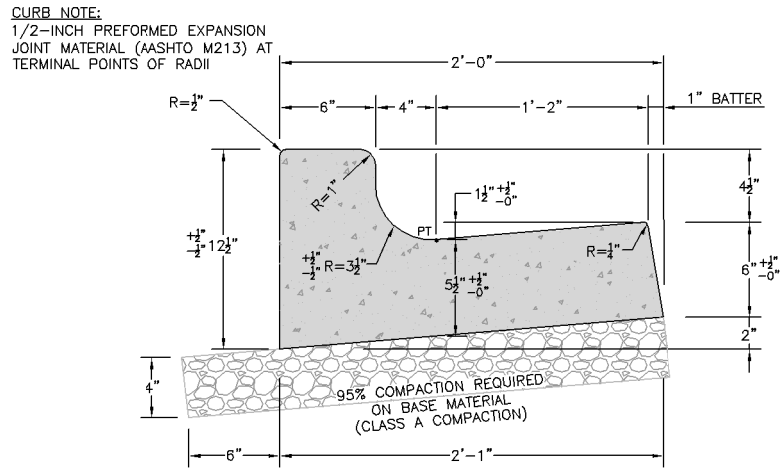
TYPE 'A' CURB  
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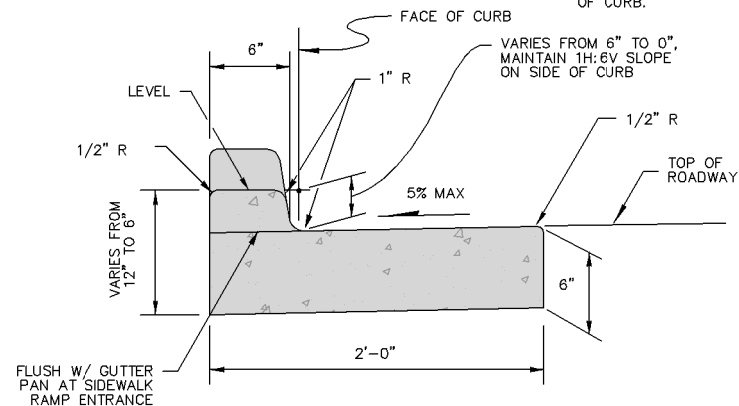
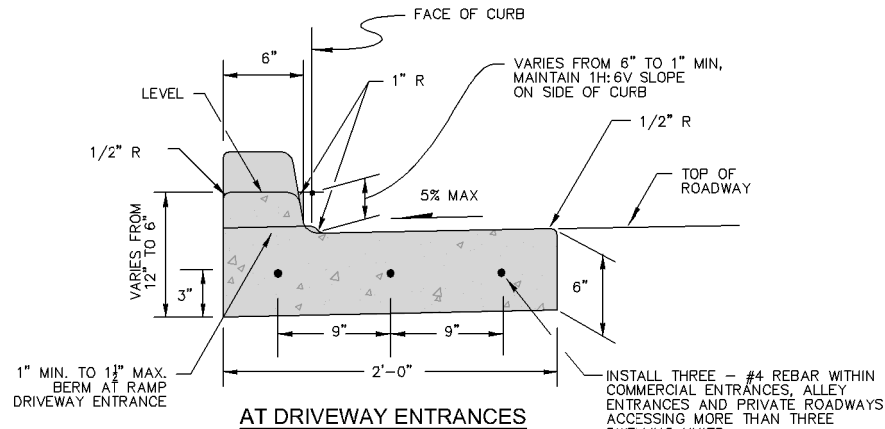
4" CONCRETE SIDEWALK  
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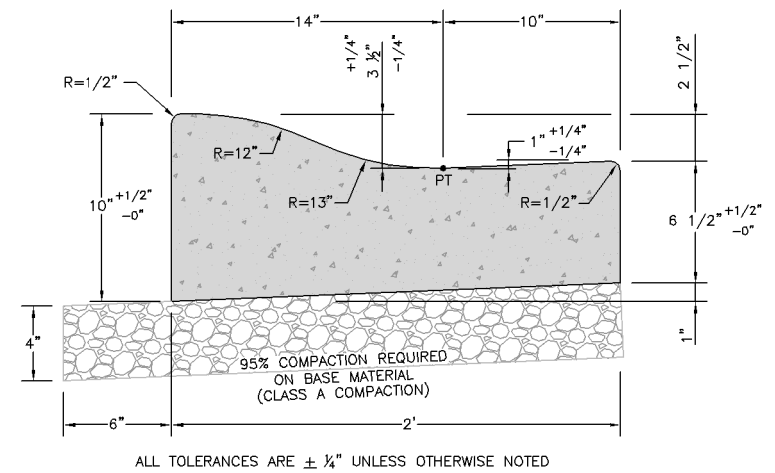
6" CONCRETE SIDEWALK  
NOT TO SCALE



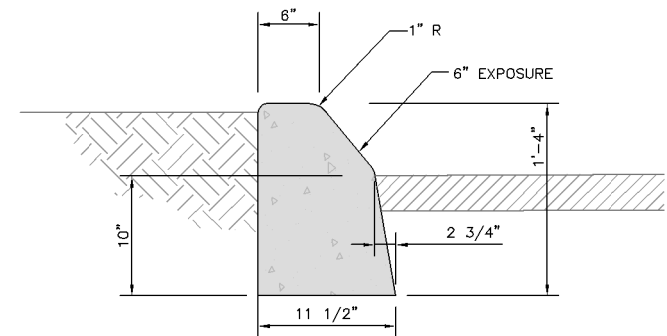
TYPE 1 HIGH BACK CURB & GUTTER  
NOT TO SCALE



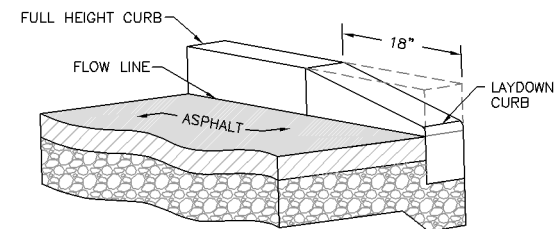
DEPRESSED CURB SECTION  
NOT TO SCALE



ROLLED CURB & GUTTER  
NOT TO SCALE



MOUNTABLE TYPE 'A' CURB  
NOT TO SCALE



CURB TAPER DETAIL  
NOT TO SCALE

#### GENERAL NOTES FOR ALL CURB & GUTTER

1. SECURE A PERMIT FOR CONSTRUCTION, BEFORE BEGINNING CONSTRUCTION IN PUBLIC RIGHT-OF-WAY.
2. GRADE, ALIGNMENT AND CURB TYPE SHALL BE AS APPROVED BY THE CITY ENGINEER.
3. ALIGNMENT AND GRADE STAKED TO LIP OF GUTTER (LIP) SHALL BE ESTABLISHED OR APPROVED BY THE CITY ENGINEER.
4. THE TOLERANCE FOR FINISHED CURB AND GUTTER - MAX. VARIATION OF SURFACE FLATNESS: 1/4 INCH IN 10 FEET MAX. VARIATION FROM TRUE POSITION (DESIGN GRADE): 1/2 INCH
5. BASE MATERIAL SHALL BE 4" OF 3/4 INCH MINUS [CURRENT ITS SPC 703.04] OR 5/8 INCH MINUS [CURRENT WDOT/M41-10 SPEC9-03.9] CRUSHED AGGREGATE BASE MATERIAL COMPACTED TO 95% MAXIMUM DENSITY AS DETERMINED BY MODIFIED PROCTOR AS PER AASHTO T180. ALL FILL OR BACKFILL AREAS SHALL BE PLACED IN 6" TO 8" MAXIMUM LIFTS. IN AREAS OF SMALL PROJECTS, LIMITED HEAVY TRUCK TRAFFIC OR WHERE COMPACTION EQUIPMENT HAS LIMITED ACCESS A REDUCED % COMPACTION MAY BE ALLOWED WITH WRITTEN APPROVAL FROM PUBLIC WORKS DIRECTOR.
6. CONCRETE SHALL BE 3,000 PSI MINIMUM AT 28 DAYS, MAXIMUM WATER/CEMENT RATIO SHALL BE 0.5 (LB/LB), 5" MAX. SLUMP, AIR CONTENT (%) 6.5 ±1.5.
7. DUMMY JOINTS AT 10 FOOT INTERVALS AND AT CURB RADII, 3/4" TO 1" DEEP. CONSTRUCTION JOINTS LOCATIONS AS DIRECTED BY CITY ENGINEER. DIFFERENTIAL ELEVATION BETWEEN ADJACENT SECTIONS SHALL NOT EXCEED 1/4".
8. THE CONTRACTOR IS REQUIRED BY THE PUBLIC WORKS DEPARTMENT TO MARK STUB-OUTS AND VALVES IN THE UNCURED CONCRETE.
9. THE CONTRACTOR OR OWNER SHALL NOTIFY THE PUBLIC WORKS DEPARTMENT FOR INSPECTION AFTER THE FORMS ARE SET AND THE PUBLIC WORKS DEPARTMENT SHALL BE NOTIFIED NO LESS THAN 2 WORKING DAYS BEFORE PLACEMENT OF CONCRETE FOR A FINAL INSPECTION. FAILURE TO NOTIFY THE PUBLIC WORKS DEPARTMENT IS GROUNDS FOR REJECTION OF CURB AND GUTTER.
10. CONCRETE SURFACE TO HAVE A LIGHT BROOM FINISH PARALLEL WITH THE LENGTH OF THE CURB.
11. APPLY UNIFORM COAT OF REZ-SEAL OR APPROVED EQUIVALENT CURING COMPOUND TO EXPOSED CONCRETE IMMEDIATELY AFTER FINISHING.

FINAL DESIGN

PROFESSIONAL ENGINEER  
REGISTERED  
STATE OF IDAHO  
8145  
DAVID L. WITTMAN

REVISION  
DATE  
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Engineering  
GREAT FALLS, BOZEMAN, KALISPELL, SHELLEY, MONTANA  
SPOKANE, WASHINGTON  
PORTLAND, OREGON  
NORTH DAKOTA

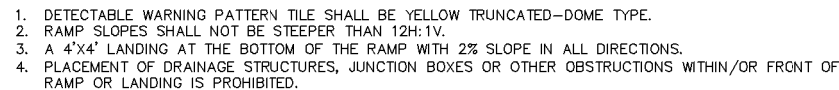
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DATE: 6/6/14  
JOB NO. L14-006  
FIELDBOOK

18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT  
LEWISTON, IDAHO

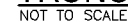
DETAILS

L14-006 R-17.DWG  
SHEET R-17

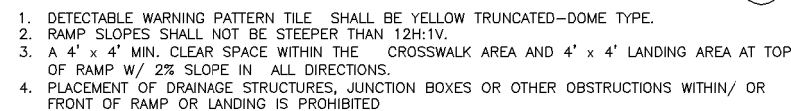
1. LINE AND GRADE STAKED T.S., TOP OF SIDEWALK, B.S., BACK OF SIDEWALK
2. GRADE AND ALIGNMENT TO BE APPROVED BY THE CITY ENGINEER.
3. TOLERANCE FOR FINISHED SIDEWALK—  
MAX. VARIATION OF SURFACE FLATNESS: 1/4 INCH  
IN 10 FEET  
MAX. VARIATION FROM TRUE POSITION (DESIGN  
GRADE): 1/2 INCH
4. NO PONDING IS ALLOWED ON SIDEWALKS, STEPS OR PEDESTRIAN RAMPS.
5. BASE MATERIAL SHALL BE 4" OF 3/4" MINUS [CURRENT  
WOT SPEC 703.04] OR 5/8" INCH MINUS [CURRENT  
IDOT/M41-10 SPEC 9-03.9] CRUSHED AGGREGATE BASE  
MATERIAL COMPACTED TO 95% MAXIMUM DENSITY AS  
DETERMINED BY MODIFIED PROCTOR AS PER AASHTO T180.  
ALL FILLS OR BACKFILL AREAS SHALL BE PLACED IN 6"  
MAX. LIFTS.
6. DUMMY JOINTS SHALL BE PLACED AT 5' INTERVALS, 3/4"  
TO 1" DEEP.
7. CONCRETE SHALL BE 3,000 PSI MIN. AT 28 DAYS, MAX.  
WATER/CEMENT RATIO SHALL BE 0.5 (LB/LB), 5" MAX.  
SLUMP, AIR CONTENT (%) 6.5±1.5.
8. THE CONTRACTOR OR OWNER SHALL NOTIFY PUBLIC WORKS  
DEPT. FOR INSPECTION OF BASE MATERIAL AFTER THE  
FORMS ARE SET AND THE PUBLIC WORKS DEPT. WILL BE  
NOTIFIED NO LESS THAN 2 WORKING DAYS BEFORE  
PLACEMENT OF CONCRETE, FOR FINAL INSPECTION.
9. CONCRETE SURFACE TO HAVE A LIGHT BROOM FINISH  
PERPENDICULAR TO THE LENGTH OF SIDEWALK.
10. APPLY UNIFORM COAT OF REZ-SEAL OR APPROVED  
EQUIVALENT CURING COMPOUND TO EXPOSED CONCRETE  
IMMEDIATELY AFTER FINISHING.
11. NAME OF CONTRACTOR AND YEAR TO BE STAMPED AT  
EACH END OF WORK AND AT INTERVALS OF 300 FT.
12. CONCRETE SURFACE SHALL BE FREE OF SURFACE  
BLEMISHES OR VOIDS GREATER THAN 1/4". JOINTS AND  
EDGES SHALL BE CLEAN AND FREE OF EXCESS SPALLING  
OR VOIDS.



1  
R-18

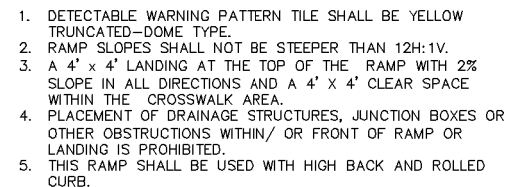


1. DETECTABLE TRUNCATED-DOME WARNING, 2 FT WIDE, MUST BE PROVIDED FOR THE FULL WIDTH OF RAMPS AND BLENDED CONNECTIONS TO MARK THE STREET EDGE AND FULLY APPROVED BY CURRENT ADA REQUIREMENTS.
2. AT LEAST ONE CORNER OF THE DETECTABLE WARNING PANEL SHALL BE COINCIDENT TO THE BACK OF CURB.



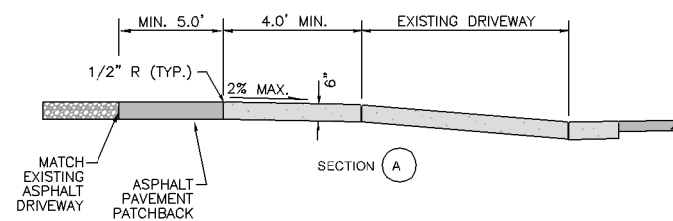
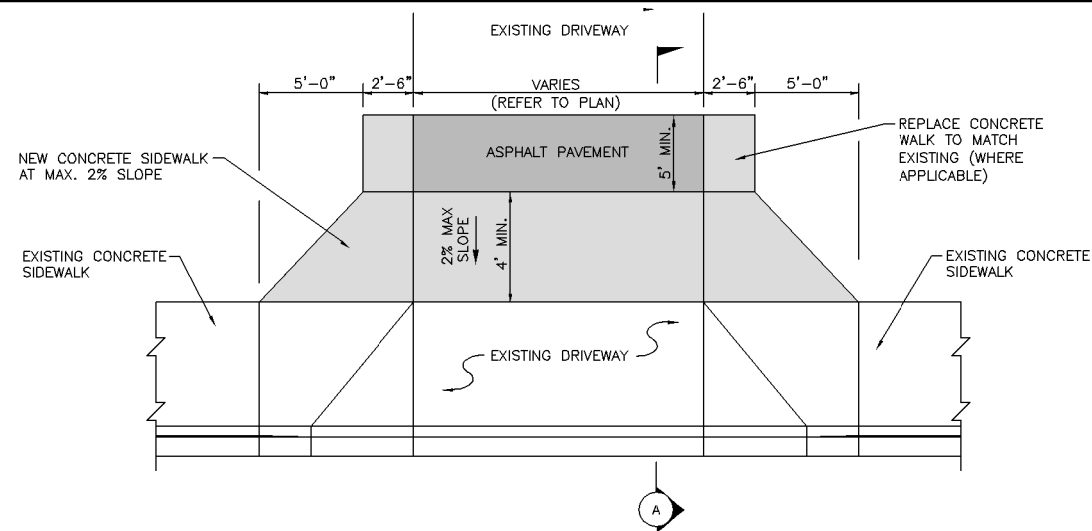
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R-18

## FINAL DESIGN

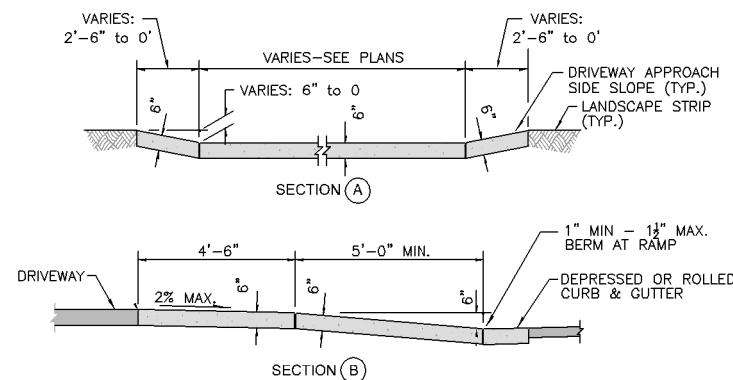
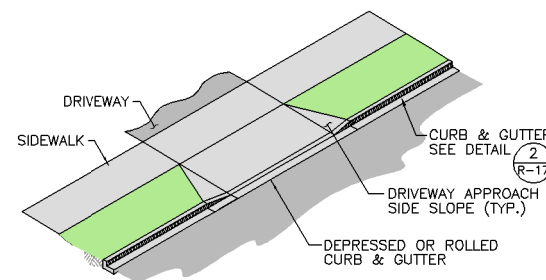
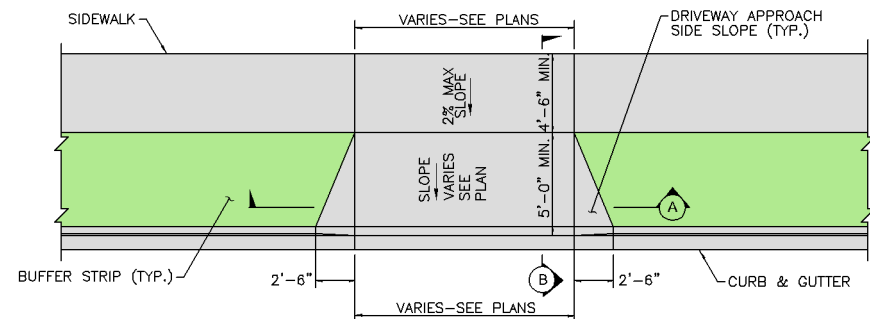


2  
R-18





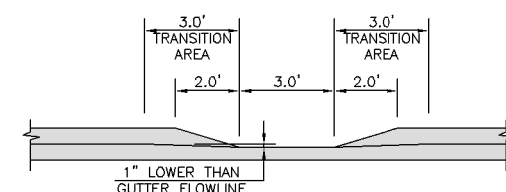
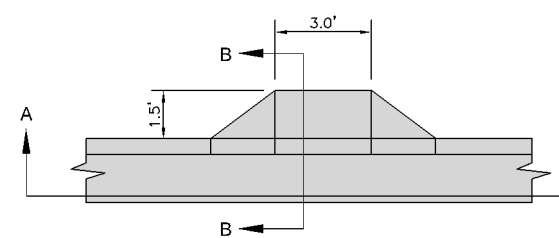
**DRIVEWAY APPROACH TYPE 1** 1  
NOT TO SCALE R-19



**DRIVEWAY APPROACH TYPE 3** 3  
NOT TO SCALE R-19

**DRIVEWAY NOTES:**

1. BASE MATERIAL SHALL BE 4" OF 3/4 INCH MINUS CRUSHED AGGREGATE BASE MATERIAL COMPACTED 95% MAXIMUM DENSITY AS DETERMINED BY MODIFIED PROCTOR AS PER AASHTO T180. ALL FILL OR BACKFILL AREAS SHALL BE PLACED IN 6" LIFTS.
2. PLACEMENT OF DRAINAGE STRUCTURES JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF DRIVEWAY ENTRANCES IS PROHIBITED.
3. THIS RAMP SHALL BE USED WITH HIGH BACK AND ROLLED CURB.
4. ALL ALLEYS, COMMERCIAL DRIVEWAYS AND PRIVATE ROADWAYS ACCESSING MORE THAN THREE DWELLING UNITS WILL BE REQUIRED TO PLACE 3 - # 4 REBARS WITHIN CURB & GUTTER (CENTER AND 9" OFF CENTER) OF THE DRIVEWAY APPROACH.



**INLET APRON DETAIL** 2  
NOT TO SCALE R-19

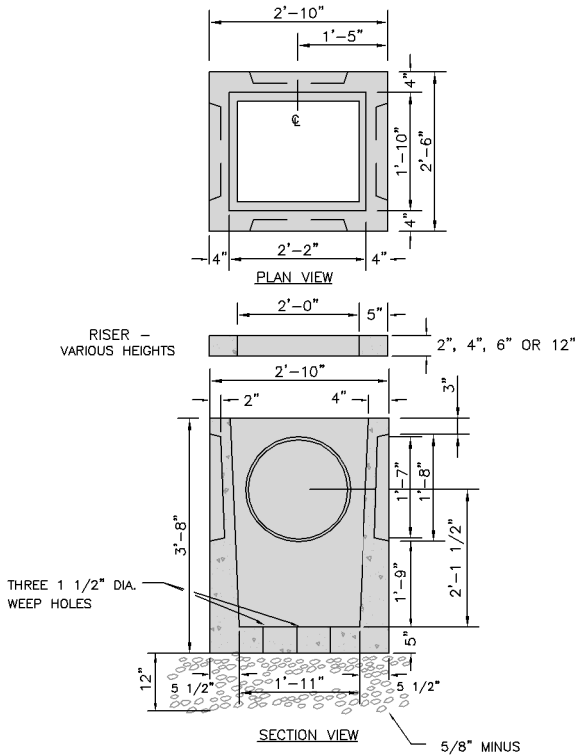
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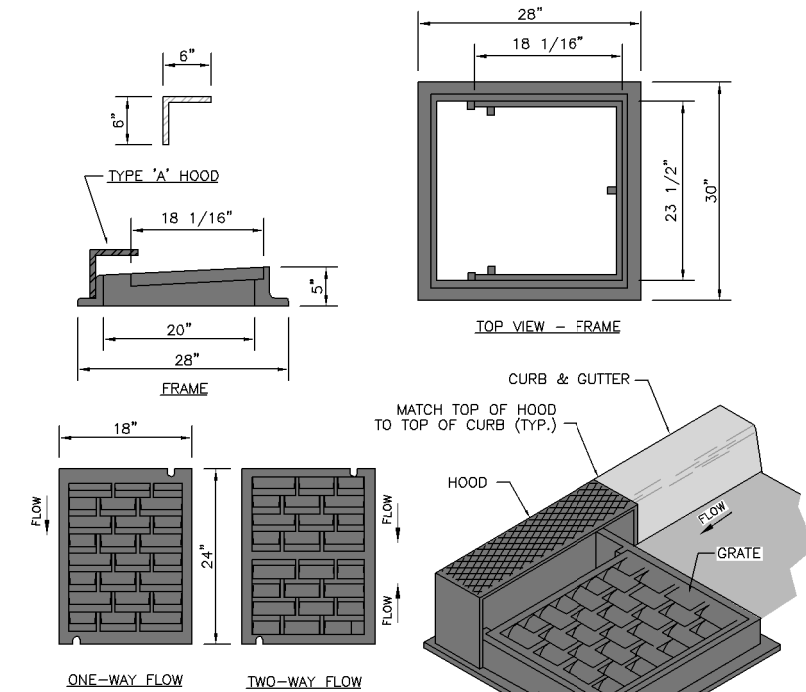
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**18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT**  
**LEWISTON, IDAHO**

**DETAILS**



- NOTES:
1. TYPICAL CATCH BASIN [WILBERT PRECAST PRODUCT #1827] AND RISERS [WILBERT PRECAST #1830 (FOR 12") OR #1831-2,4,6 (FOR 2", 4" OR 6")] OR BY OTHER MANUFACTURER WILL BE ACCEPTABLE ONLY WITH WRITTEN APPROVAL FROM PUBLIC WORKS DEPT.
  2. FOR CATCH BASINS' GENERAL NOTES, SEE DETAIL 3



\*\*\* ILLUSTRATED CATCH BASIN IS FOR USE AT HIGH BACK CURB & GUTTER LOCATIONS ONLY. SEE NOTES FOR CATCH BASIN PRODUCT TO BE USED AT MOUNTABLE CURB LOCATIONS.

NOTES:

1. CATCH BASIN FRAME, GRATE & HOOD PRODUCT NO'S:
  - D&L SUPPLY PRODUCT I-4434
2. COVER MATERIAL SPECIFICATION GRAY IRON (ASTM A48 CL35B)
3. FOR CATCH BASIN GENERAL NOTES, SEE DETAIL 3

NON-CURB LOCATIONS

NOTE:  
FOR CATCH BASINS LOCATED AT NON-CURB LOCATIONS CATCH BASIN FRAME & GRATE TO BE D&L FOUNDRY PRODUCT I-4431 OR OTHER ENGINEER APPROVED EQUAL.

STORMWATER TYPE 1 CATCH BASIN

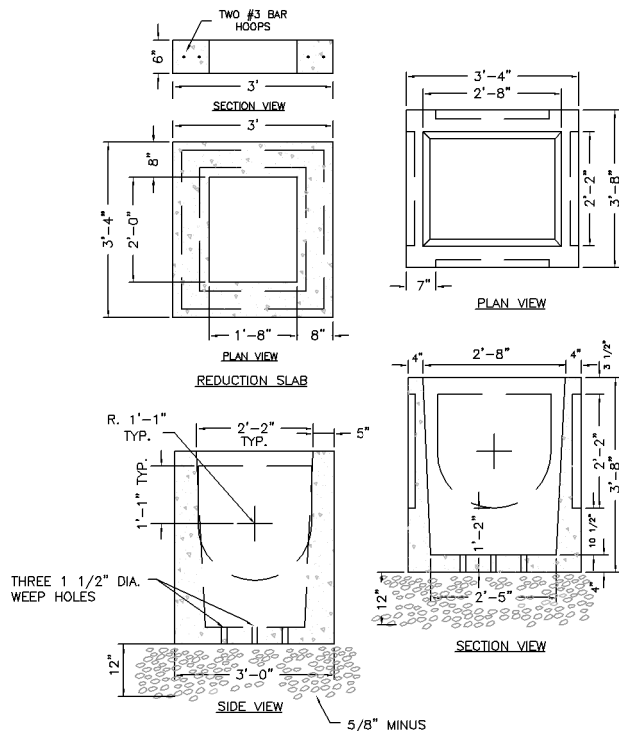
NOT TO SCALE

1  
R-20

STORMWATER CATCH BASIN  
FRAME AND GRATE AT CURB LOACTIONS

NOT TO SCALE

2  
R-20



NOTES:

1. SHALLOW CATCH BASIN [WILBERT PRECAST PRODUCT #1845] AND REDUCTION SLAB [WILBERT PRECAST #1846] OR BY OTHER MANUFACTURER WILL BE ACCEPTABLE ONLY WITH WRITTEN APPROVAL FROM PUBLIC WORKS DEPT.
2. SEE CITY DWG 6-6 'GENERAL NOTES FOR CATCH BASINS'.

STORMWATER TYPE 1A CATCH BASIN (SHALLOW CATCH BASIN)

NOT TO SCALE

4  
R-20

GENERAL NOTES FOR CATCH BASINS

1. ALL UNITS TO MEET OR EXCEED THE REQUIREMENTS OF ASTM C478/AASHTO M199.
2. ALL CURB INLET STRUCTURES SHALL HAVE A MINIMUM 12" SUMP WITH THREE 1 1/2" DIA. WEEP HOLES IN BASE AND MINIMUM OF 12" OF COMPACTED 5/8" MINUS UNDER BASE; CRUSHED AGGREGATE MATERIAL COMPACTED TO 95% MODIFIED PROCTOR AS PER AASHTO T180
3. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.
4. ALL PIPES SHALL BE FLUSH WITH BASIN WALL AND SHALL BE MORTARED ALL AROUND.
5. REDUCTION SLAB, RISERS, AND FRAME & GRATE SHALL NOT BE MORE THAN ONE INCH OUT OF VERTICAL ALIGNMENT WITH CATCH BASIN BASE.
6. USE A MINIMUM OF 1/2" NON-SHRINK GROUT BETWEEN RISERS, BASE, AND FRAME.
7. CURB INLET TO BE PLACED WITHIN A TOLERANCE OF 1/2" HORIZONTAL ALIGNMENT FROM CURB LINE.
8. SET GRATE 1" LOWER THAN PROPOSED FLOWLINE TO ENSURE POSITIVE DRAINAGE INTO CATCH BASIN. CURB FLOWLINE SHALL BE TRANSITIONED FOR 3' ON EACH SIDE OF THE CATCH BASIN TO ADJUST FOR 1" DROP. GUTTER LIP AND TOP OF CURB ARE NOT TO BE DEPRESSED.

STORMWATER GENERAL CATCH BASIN NOTES

NOT TO SCALE

3  
R-20

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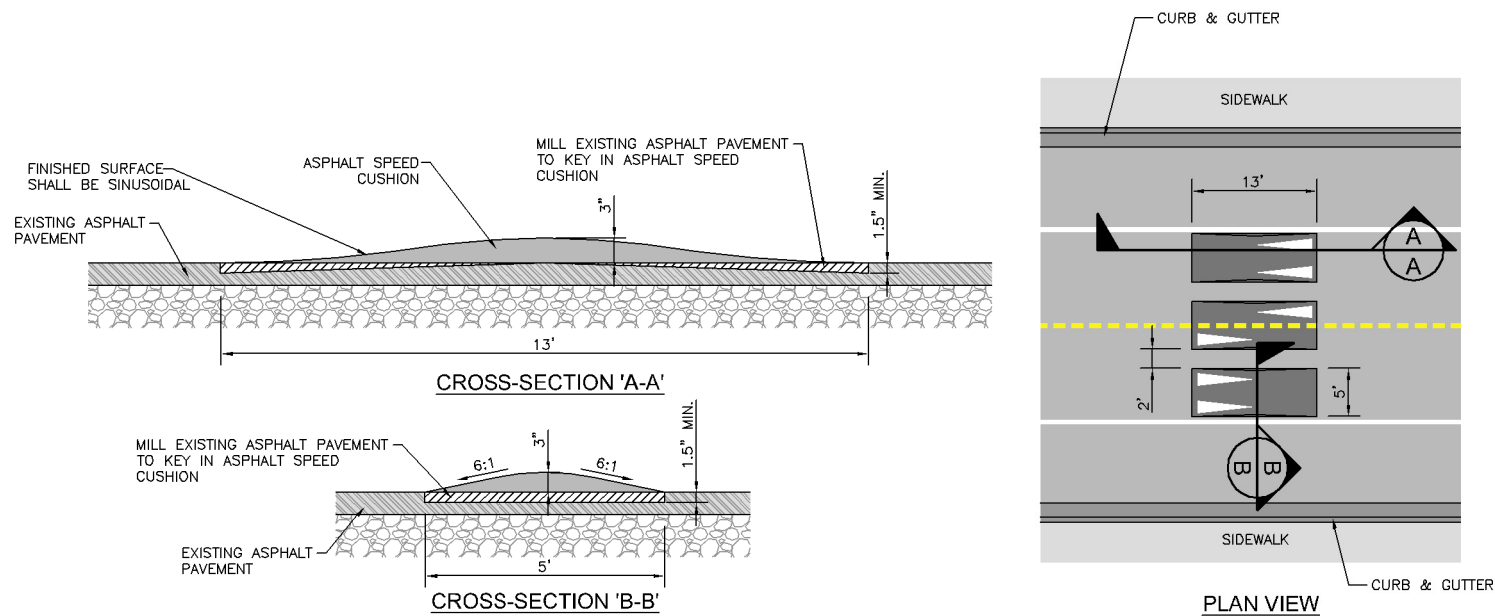
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DESIGNED BY: HRC  
QUALITY CHECK: DLW  
DATE: 6/6/14  
JOB NO. L14-006  
FIELDBOOK

18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT  
LEWISTON, IDAHO

DETAILS

FINAL DESIGN

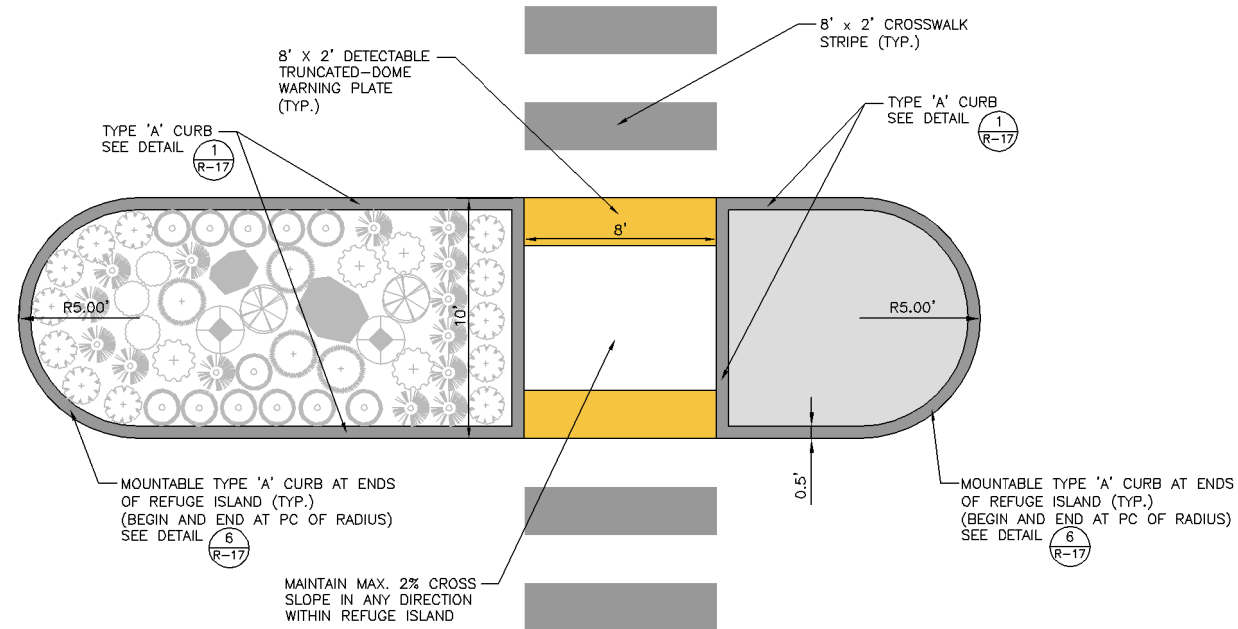




NOTE:  
CONTRACTOR SHALL SUBMIT A PLAN FOR APPROVAL TO CONSTRUCT SPEED CUSHIONS IN ACCORDANCE WITH SPECIFIED REQUIREMENTS

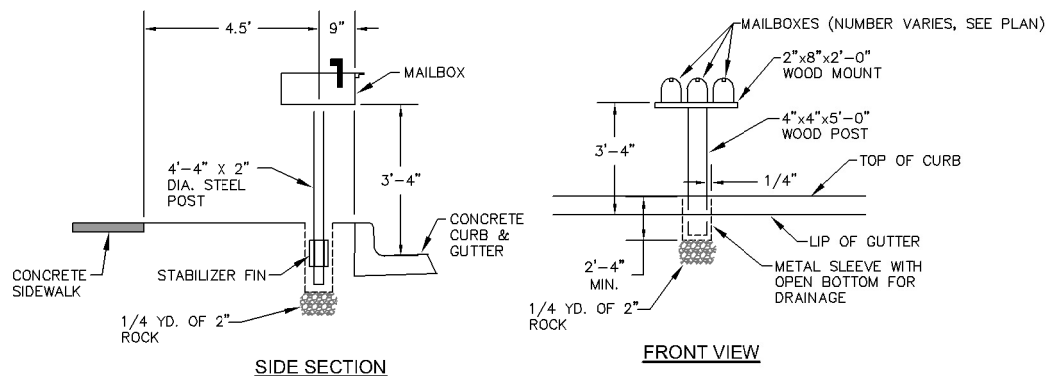
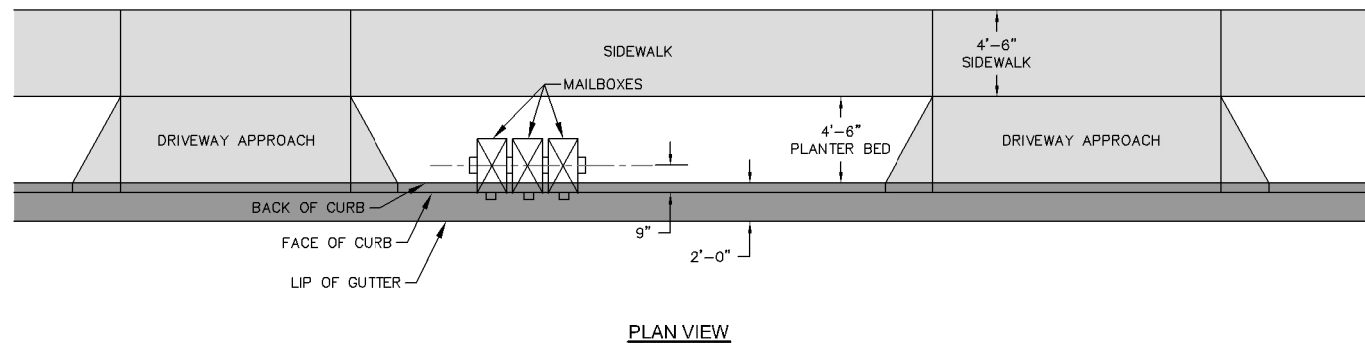
**SPEED CUSHION DETAIL**  
NOT TO SCALE

1  
R-21



**ADA REFUGE ISLAND DETAIL**  
NOT TO SCALE

2  
R-21



**CURBSIDE MAILBOX DETAIL**  
NOT TO SCALE

3  
R-21

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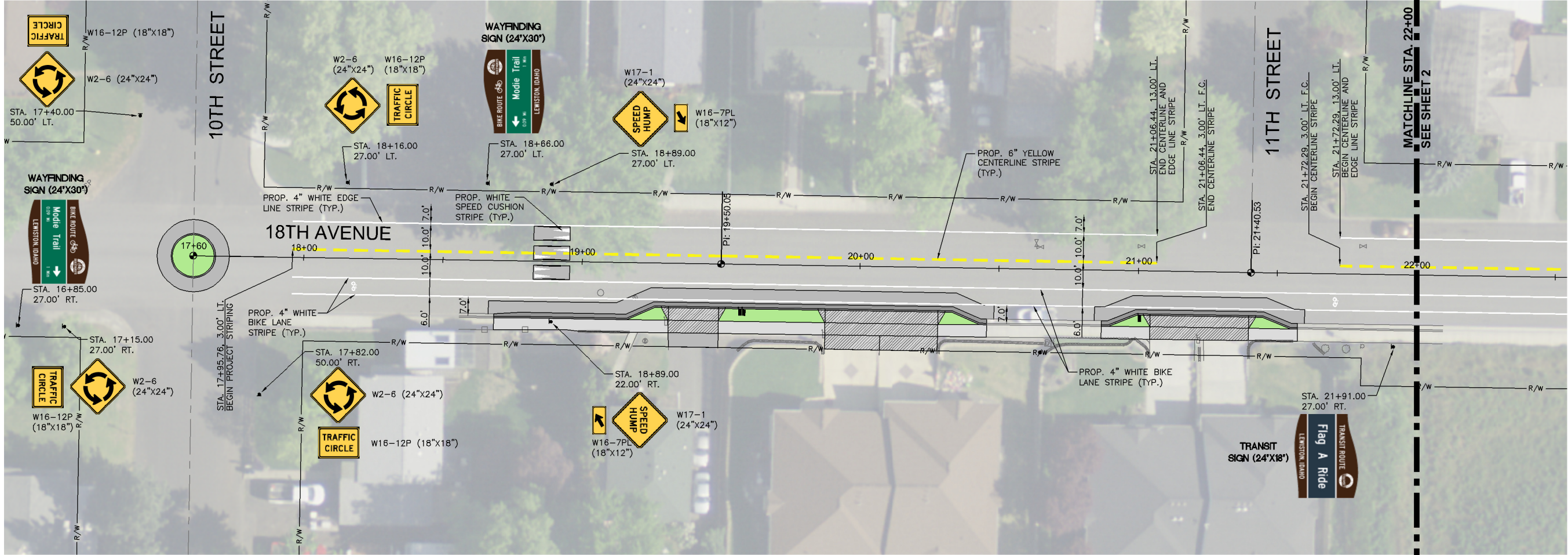
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SPOKANE, WASHINGTON  
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SHEET R-21



PLAN



WAYFINDING SIGN AT 8TH STREET INTERSECTION



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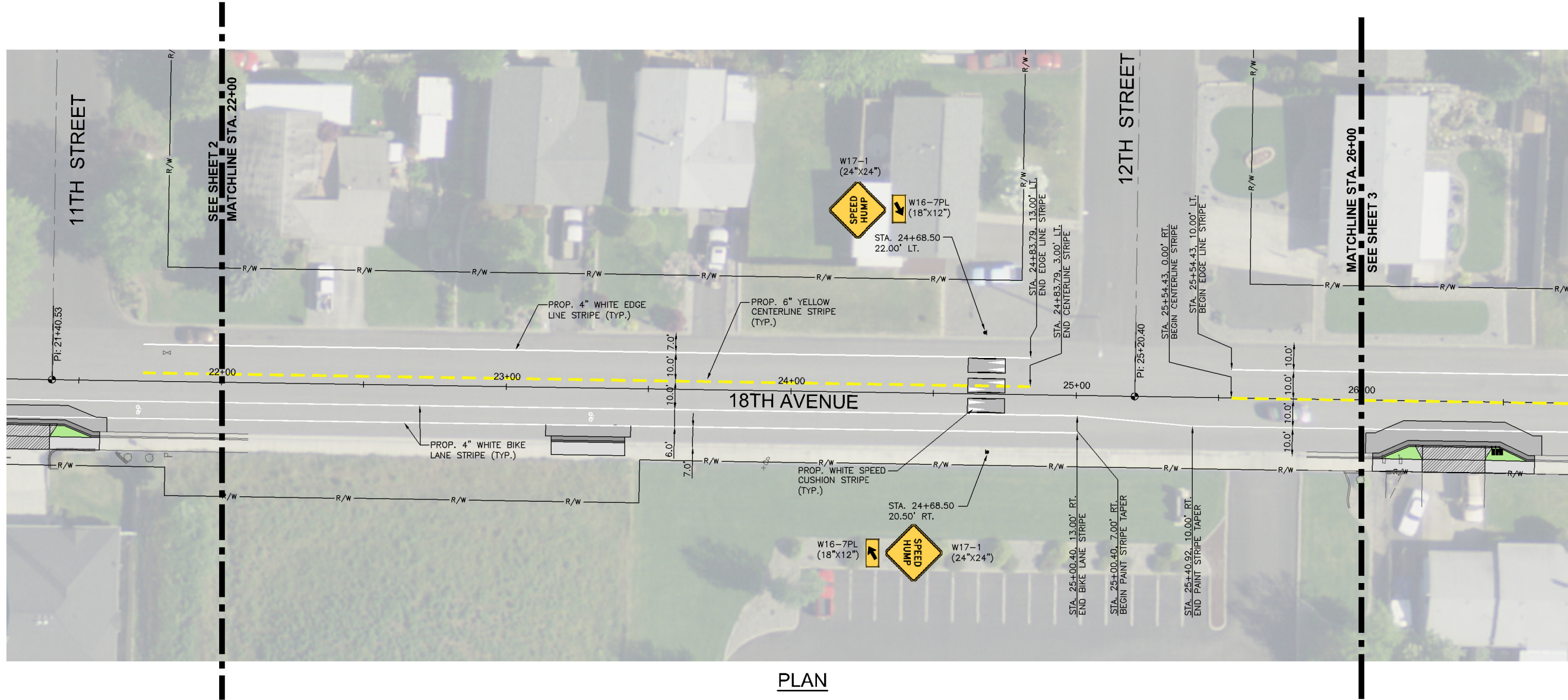
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STA. 17+60 TO STA. 22+00

L14-006 T-1.DWG  
SHEET T-1





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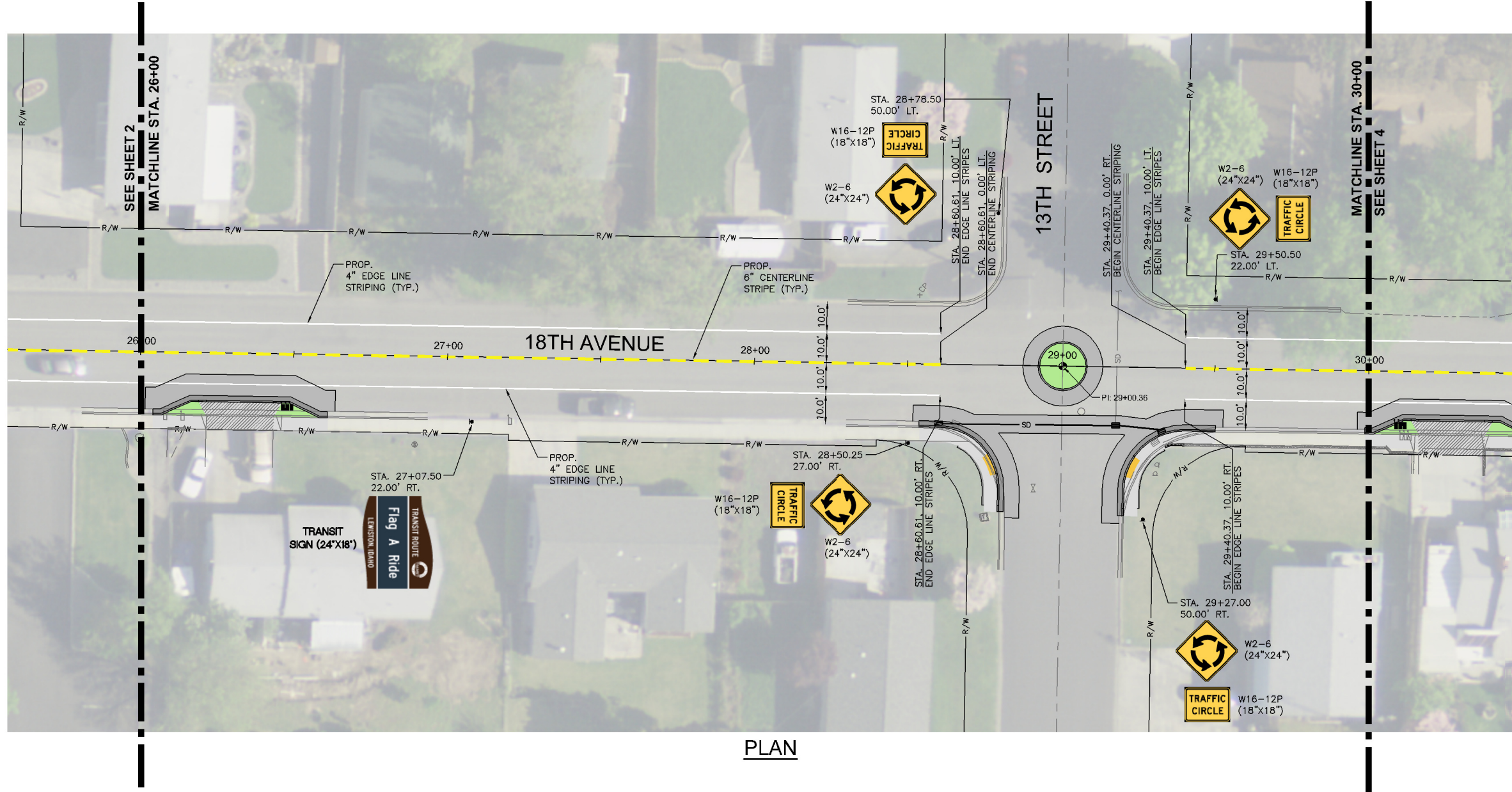
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L14-006 T-2.DWG

SHEET T-2





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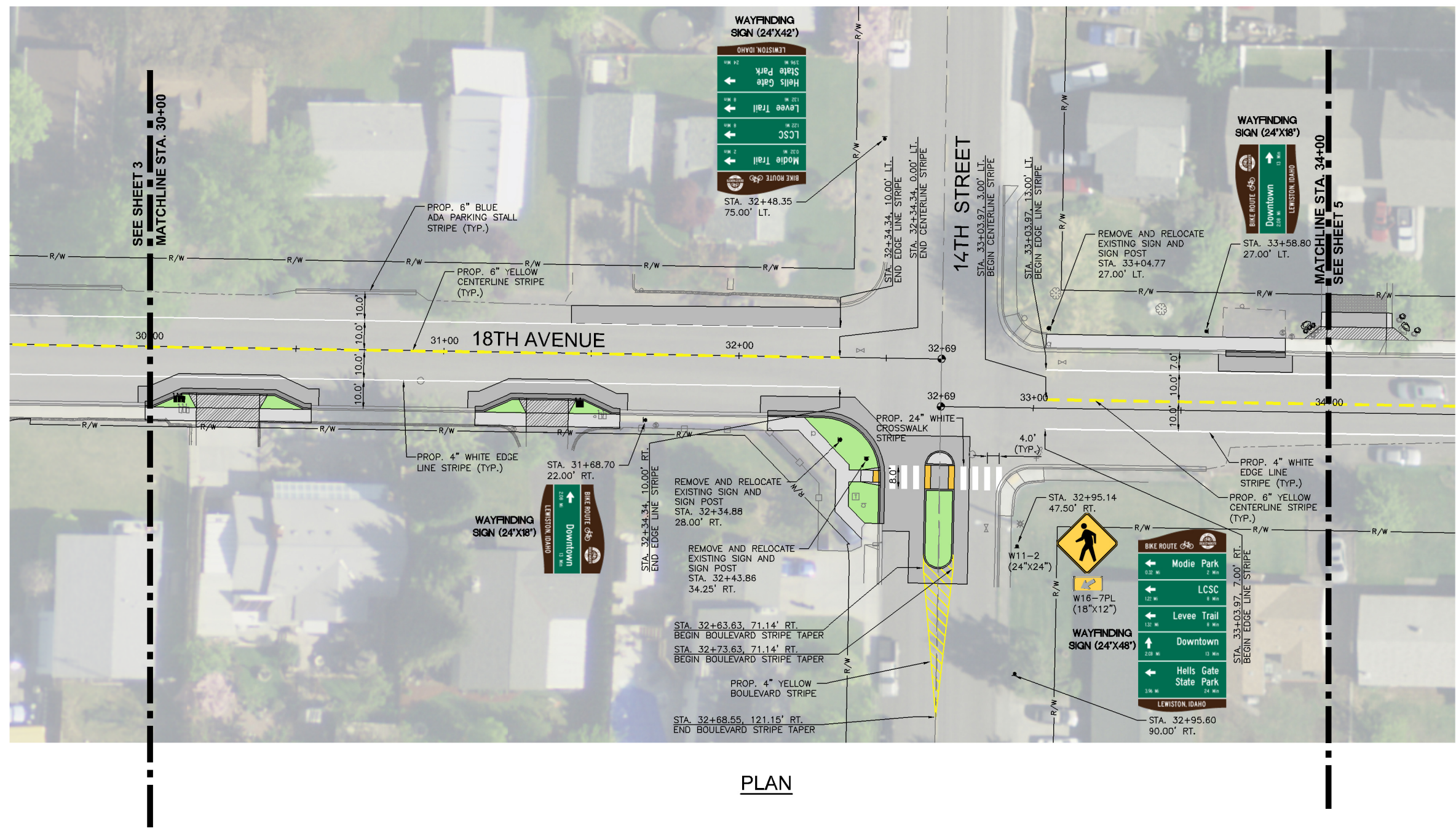
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L14-006 T-3.DWG

SHEET T-3





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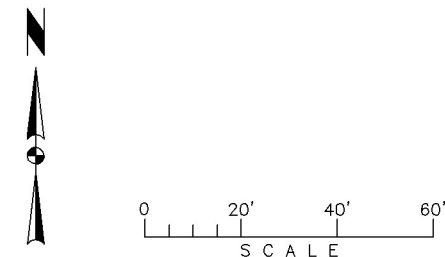
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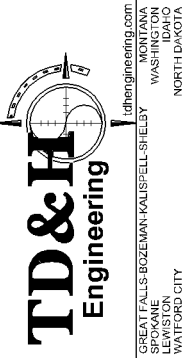
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SHEET T-4





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**LEWISTON, IDAHO**

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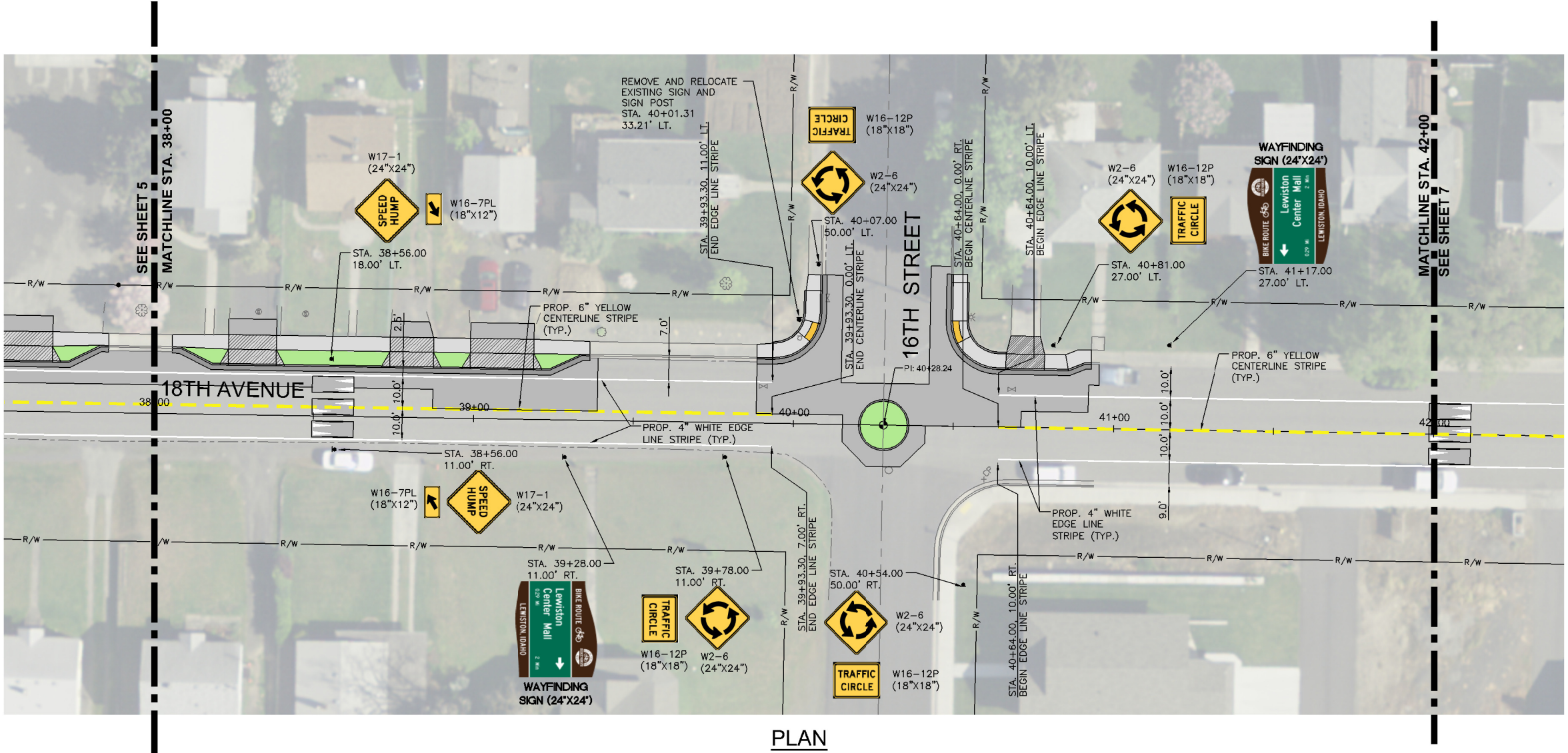
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**STA. 34+00 TO STA. 38+00**

L14-006 T-5.DWG

**SHEET T-5**

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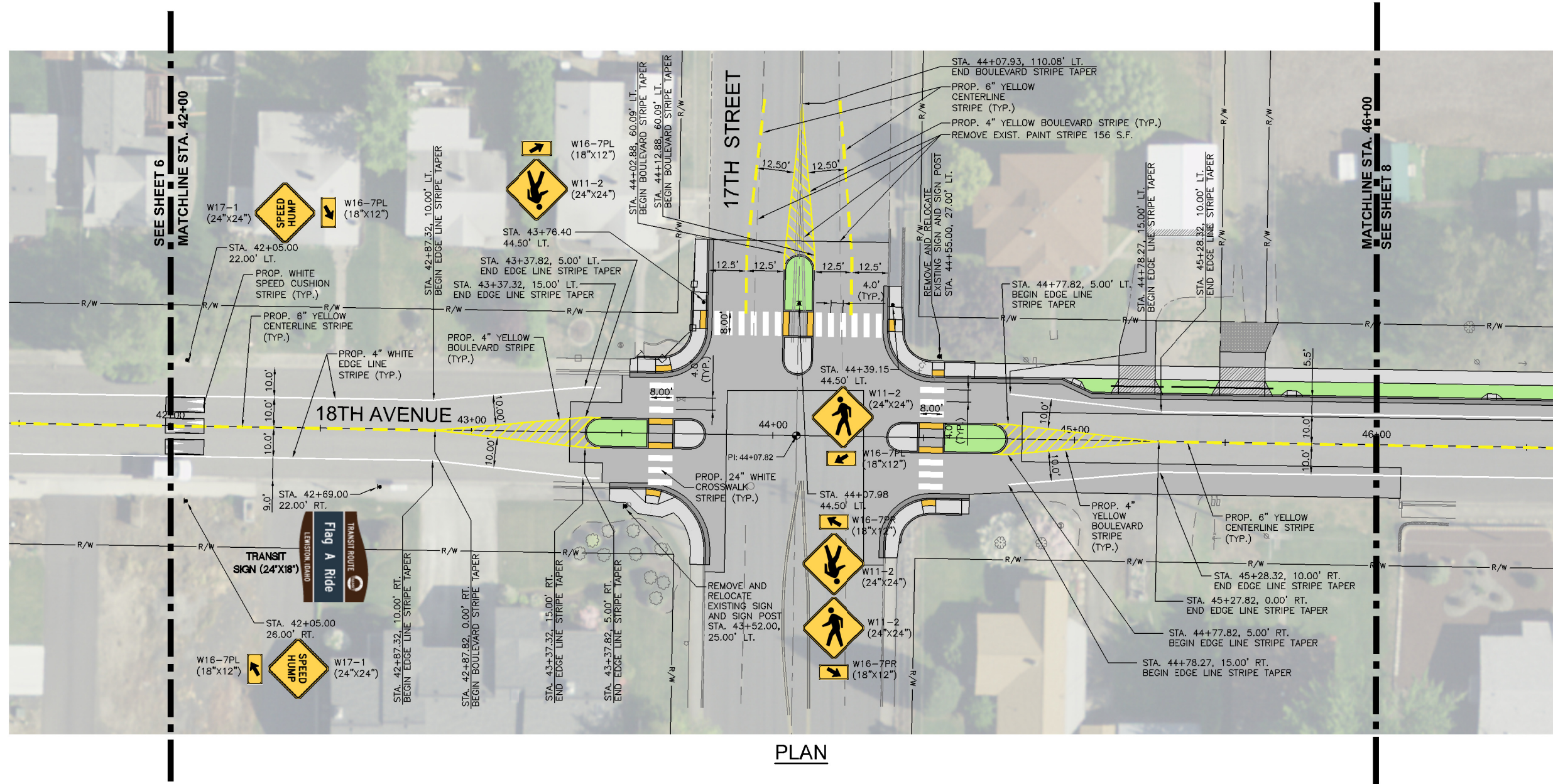
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L14-006 T-6.DWG

SHEET T-6





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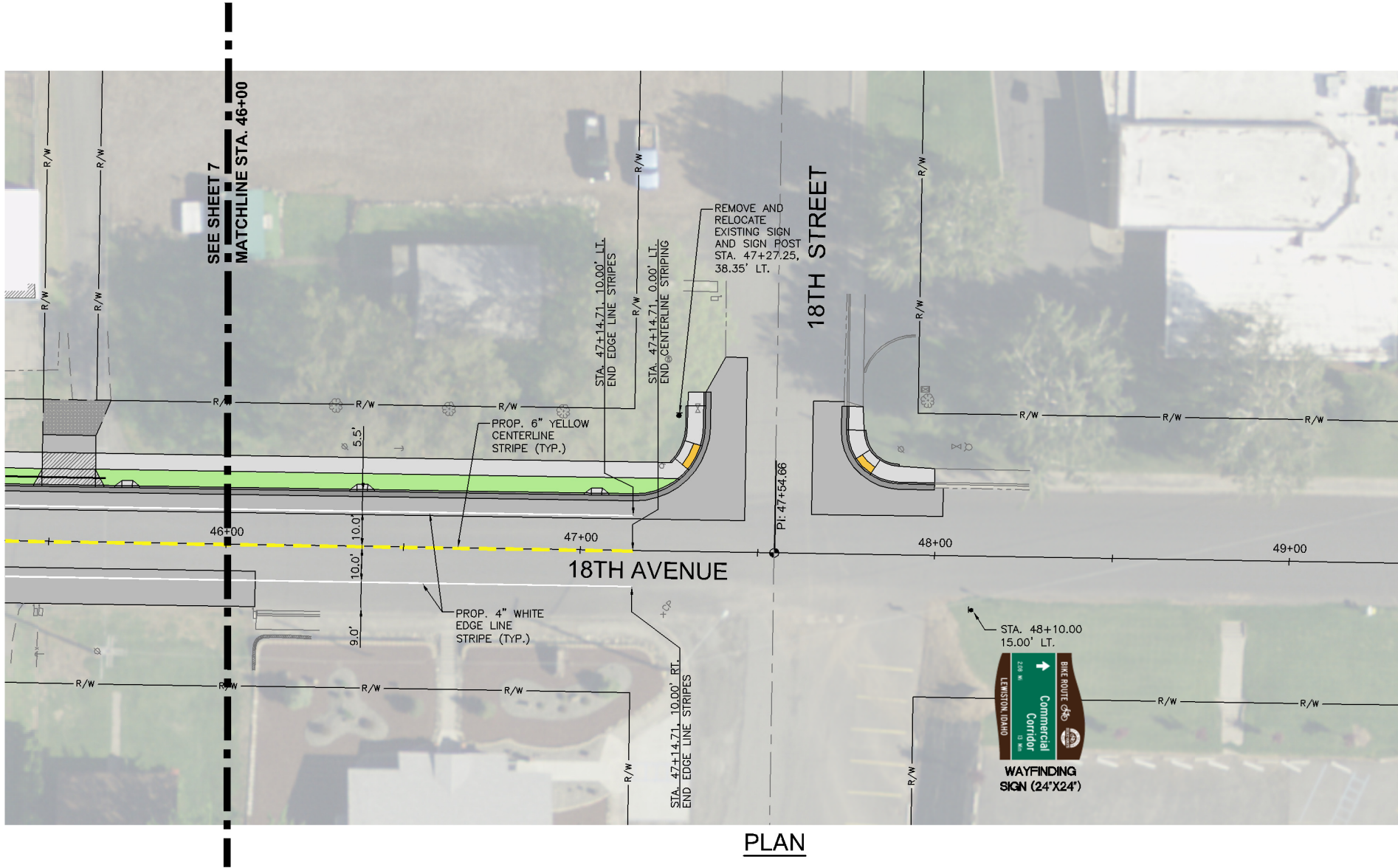
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SIGNING & PAVEMENT MARKINGS  
STA. 42+00 TO STA. 46+00

L14-006 T-7.DWG

SHEET T-7



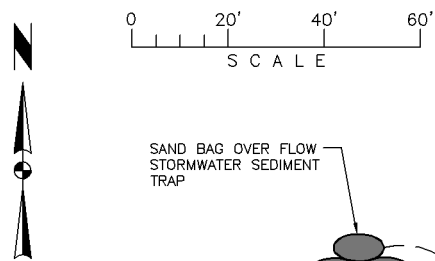
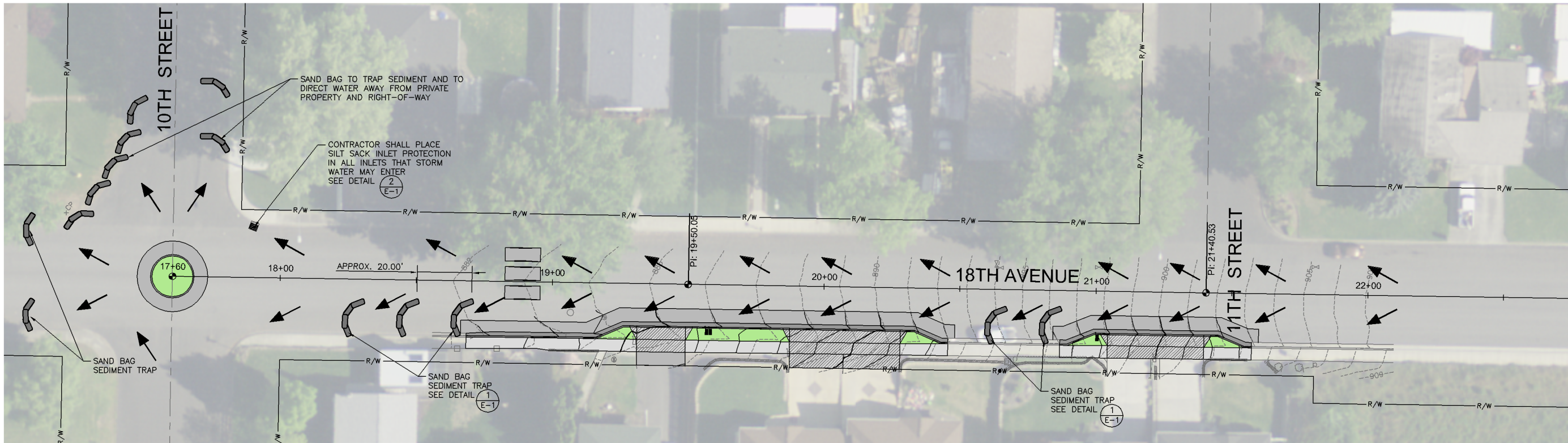


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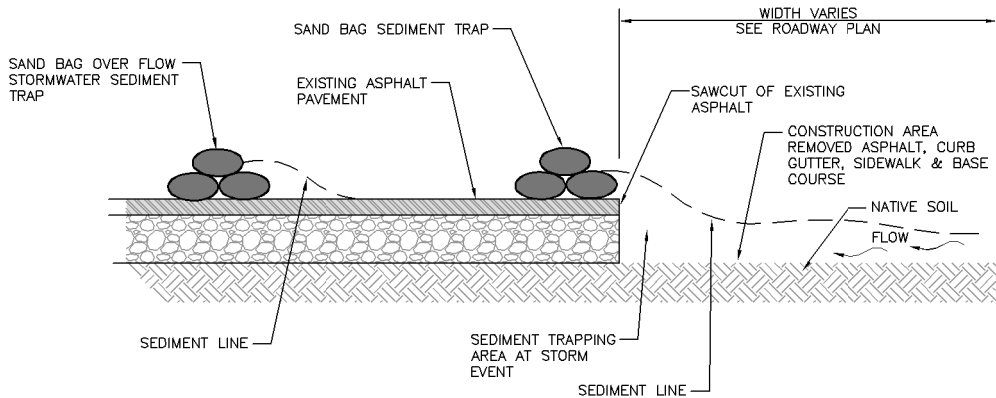
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SHEET T-8	

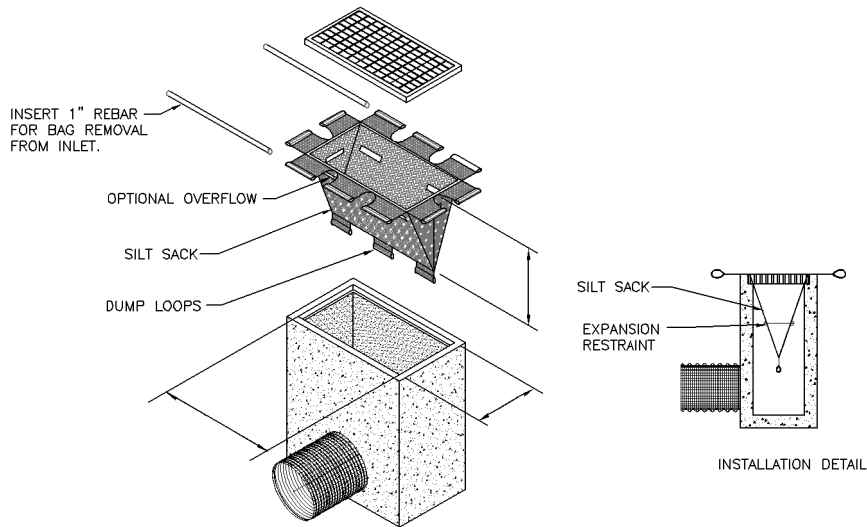




TYPICAL EROSION AND SEDIMENT CONTROL APPLICATION



SAND BAG SEDIMENT TRAP DETAIL 1 E-1  
NOT TO SCALE



SILT SACK INLET PROTECTION DETAIL 2 E-1  
NOT TO SCALE

LEGEND	
	SAND BAG
	STORMWATER FLOW DIRECTION
	FINISHED GRADE CONTOUR
	EXISTING GRADE CONTOUR
	SILT SACK INLET PROTECTION

- NOTES:
1. SEDIMENTATION AND EROSION CONTROL MEASURES MUST BE INSPECTED BY QUALIFIED PERSONNEL. INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY 7-CALENDAR DAYS AND WITHIN 24 HOURS AFTER A STORM EVENT OF 0.5 INCHES OR GREATER. AN INSPECTION REPORT SHALL BE COMPLETED FOR EACH INSPECTION. ALL INSPECTIONS AND THE INSPECTION REPORT SHALL BE IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN.
  2. SILT SACK INLET PROTECTION SHALL OCCUR AT ALL INLETS ALONG PROJECT CORRIDOR. SILT SACK INLET PROTECTION SHALL ALSO OCCUR ON ALL OF THE NORTH AND SOUTH BLOCKS ON THE DOWNHILL SIDE (10TH STREET TO 18TH STREET) INCLUDING AT LEAST A ONE BLOCK BUFFER DOWN STREAM.
  3. EXCAVATION PILES SHALL HAVE SAND BAGS AROUND PERIMETER OF PILE TO CONTAIN MATERIAL.
  4. SLURRY AND CUTTINGS IN ADDITION TO SEDIMENT SHALL BE COLLECTED AND DISPOSED OF IN A MANNER THAT DOES NOT ALLOW THE MATERIAL TO ENTER WATERS OF THE STATE.
  5. CATCH BASIN OFF PROJECT IN BETWEEN 8TH AND 9TH STREET ALONG 18TH AVENUE SHALL RECEIVE SILT SACK INLET PROTECTION.

POLLUTION CONTROL

EROSION & SEDIMENT CONTROL NOTES:

**POLLUTION CONTROL MEASURES:** POLLUTION CONTROL MEASURES WILL BE ESTABLISHED AND SET IN PLACE PRIOR TO BEGINNING PROJECT CONSTRUCTION AND WILL BE MAINTAINED THROUGHOUT THE ENTIRE PROJECT CONSTRUCTION TIME PERIOD. THE PROPOSED POLLUTION CONTROL MEASURES ARE BASED ON IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY BEST MANAGEMENT PRACTICES (BMP'S) AND ARE LISTED AS FOLLOWS:

**STAGING AREAS:** THIS BMP INCLUDES MEASURES FOR COLLECTING RUNOFF FROM A STAGING AREA, MATERIALS STORAGE SITE, OR INDUSTRIAL ACTIVITY AREA OR FOR DIVERTING WATER FLOW AWAY FROM SUCH AREAS SO THAT POLLUTANTS DO NOT MIX WITH CLEAN STORMWATER RUNOFF. SEVERAL OPTIONS ARE AVAILABLE:

**STORMWATER CONVEYANCES:** THIS TERM INCLUDES MANY KINDS OF CHANNELS, GUTTERS, DRAINS, AND SEWERS.

**SPILL PREVENTION AND CONTROL:** THIS DESCRIBES METHODS OF MINIMIZING EXPOSURE OF POLLUTANTS TO STORM WATER RUNOFF BY ENCLOSING ANY DRIPS, OVERFLOWS, LEAKS, AND OTHER LIQUID MATERIAL RELEASES OR BY ISOLATING POLLUTANT SPILLS FROM STORMWATER RUNOFF. THREE POSSIBLE OPTIONS ARE DISCUSSED BELOW:

**CONTAINMENT DIKING:** TEMPORARY OR PERMANENT EARTH BERMS, CONCRETE BERMS, OR RETAINING WALLS DESIGNED TO HOLD SPILLS.

**CURBING:** LIKE CONTAINMENT DIKING, CURBING IS A BARRIER THAT SURROUNDS AN AREA OF CONCERN.

**DRIP PANS:** PANS USED TO CONTAIN VERY SMALL VOLUMES OF LEAKS, DRIPS, AND SPILLS.

GENERAL MAINTENANCE & GUIDELINES

1. 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. THE CONTRACTOR IS RESPONSIBLE FOR STREET CLEANUP AT THE END OF EACH SHIFT.
2. IT IS IMPORTANT TO IMPLEMENT A THOROUGH MAINTENANCE PROGRAM BEFORE, DURING, AND AFTER DEVELOPMENT IS COMPLETED. INSPECT ALL BMPs AND ADDITIONAL SAFEGUARDS TO DETERMINE THAT THEY ARE WORKING PROPERLY AND TO ENSURE THAT PROBLEMS ARE CORRECTED AS SOON AS THEY DEVELOP. THE MAINTENANCE SCHEDULE SHOULD BE BASED ON SITE CONDITIONS, DESIGN SAFEGUARDS, CONSTRUCTION SEQUENCE, AND ANTICIPATED WEATHER CONDITIONS.
3. INSPECTIONS SHOULD INCLUDE MATERIALS STORAGE AREAS, LOCATIONS WHERE VEHICLES ENTER AND EXIT THE SITE, THE OPERATIONAL FUNCTIONALITY OF BMPs, AND EVIDENCE OF POLLUTANTS ENTERING THE DRAINAGE SYSTEM IN DISTURBED AREAS. AN INDIVIDUAL SHOULD BE ASSIGNED THE RESPONSIBILITY FOR ROUTINE CHECKS OF OPERATING PRACTICES. ALL TEMPORARY AND PERMANENT EROSION CONTROL BMPs SHOULD BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION. SPECIAL ATTENTION SHOULD BE PAID TO CONTROLS AFTER STORM EVENTS TO ENSURE THEY ARE FUNCTIONING PROPERLY.
4. AREAS TO HAVE PERMANENT SEEDING SHALL BE GRADED WITHIN A MINIMUM OF SIX INCHES OF TOPSOIL.

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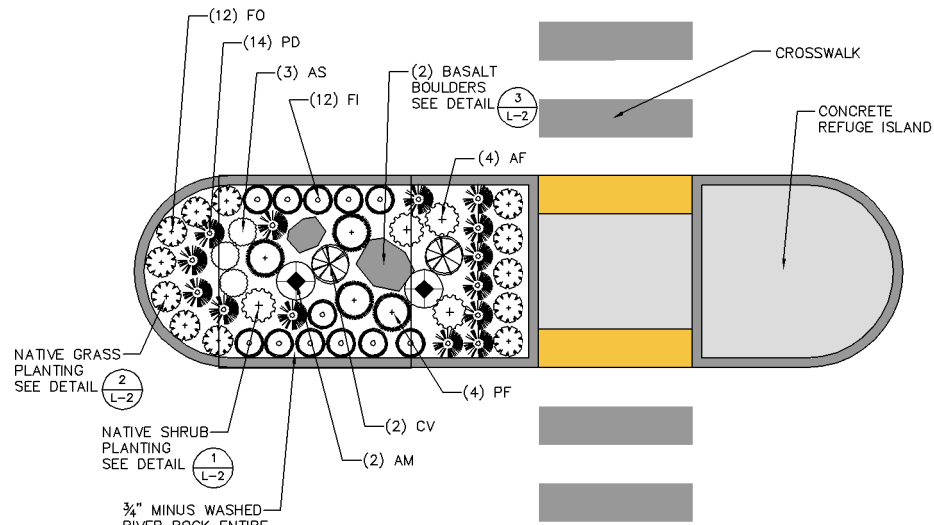
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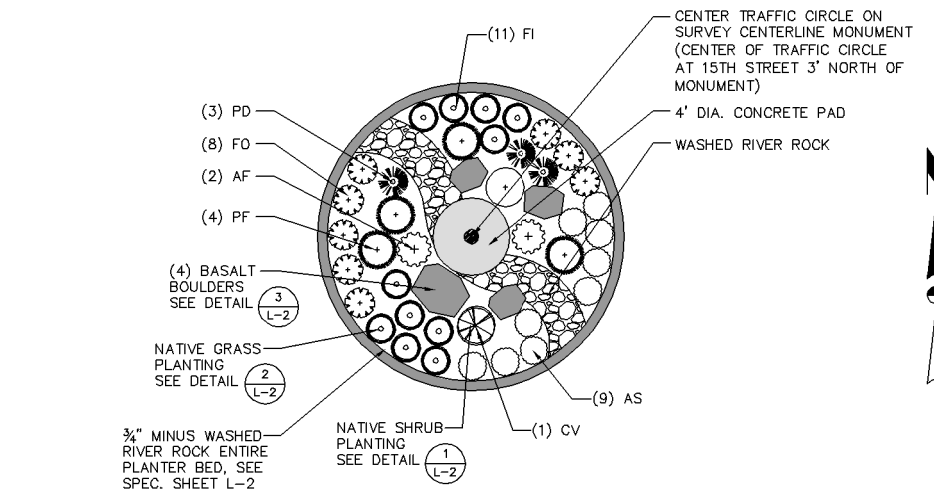
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LEWISTON, IDAHO

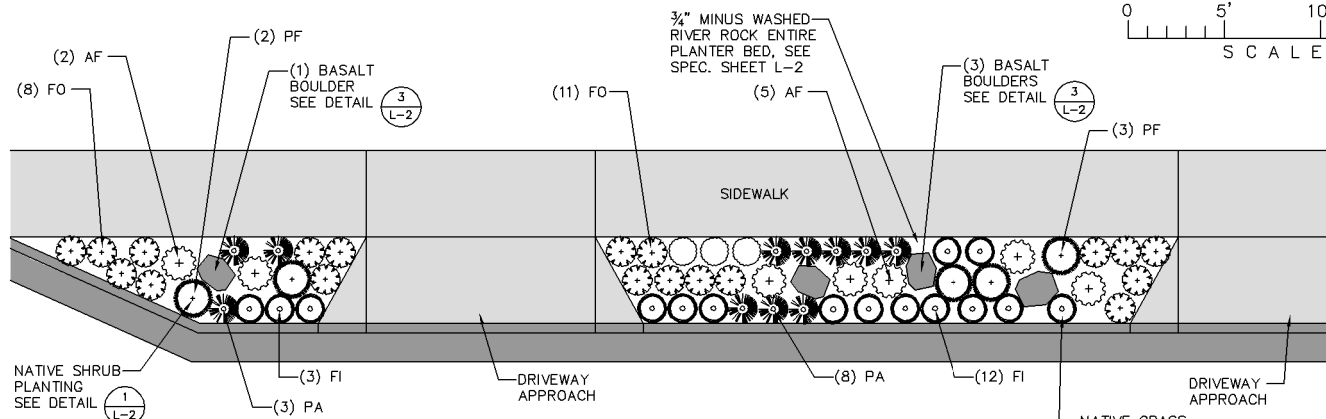
EROSION & SEDIMENT CONTROL PLAN



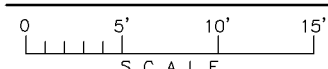
TYPICAL BOULEVARD NATIVE PLANTING DETAIL



TYPICAL TRAFFIC CIRCLE NATIVE PLANTING DETAIL



TYPICAL CURB BUMP OUT NATIVE PLANTING DETAIL

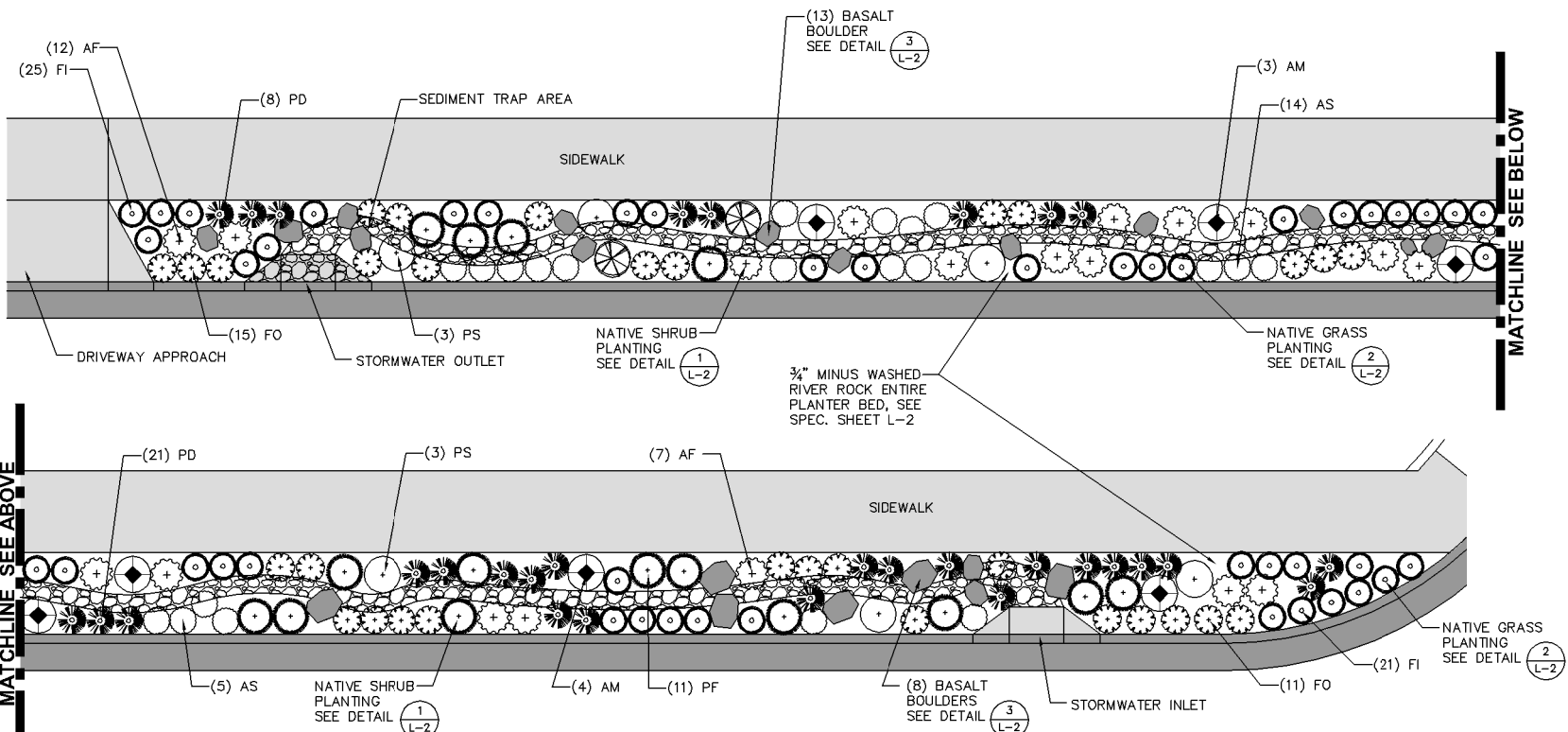


PLANTING NOTES:

1. ALL VOIDS IN PLANTER BEDS BETWEEN PLANT MATERIAL SHALL RECEIVE 3" DEPTH OF 3/4" MINUS WASHED RIVER ROCK. REFER TO PLANTING SPECIFICATION, SHEET L-2 FOR PLACEMENT OF ROCK.

PLANTING LEGEND

SYMBOL	BOTANICAL NAME	COMMON NAME	(DENSITY PER 100 S.F.) QUANTITY	SIZE AND CONDITION	REMARKS
AM	ACHILLEA MILLEFOLIUM 'MOONSHINE'	COMMON YARROW 'MOONSHINE'	1	3.5" POT	2' O.C. (2' H X 2' W)
AS	AGROPYRON SPICATUM	BLUEBUNCH WHEATGRASS	3	10 CUBIC INCH PLUG	1.5' O.C. (1.5' H X 1.5' W)
AF	ARTEMISIA FRIGIDA	FRINGED SAGEBRUSH	2	1 GAL.	1.5' O.C. (1.5' H X 1.5' W)
CV	CHRYSOTHAMNUS VISCIDIFLORUS	LOW GREEN RABBITBRUSH	1	1 GAL.	2' O.C. (2' H X 2' W)
FI	FESTUCA IDAHOENSIS	IDAHO FESCUE	10	3.5" POT	1.5' O.C. (1.5' H X 1.5' W)
FO	FESTUCA OVINA	SHEEP FESCUE	1	10 CUBIC INCH PLUG	1.5' O.C. (1.5' H X 1.5' W)
PD	PENSTEMON DEUSTUS	HOT ROCK PENSTEMON	4	3.5" POT	1.5' O.C. (1.5' H X 1.5' W)
PF	PENSTEMON FRUTICOSUS	SHRUBBY PENSTEMON	1	3.5" POT	1.5' O.C. (1.5' H X 1.5' W)
PS	PENSTEMON STRICTUS	ROCKY MOUNTAIN PENSTEMON	1	3.5" POT	2' O.C. (2' H X 2' W)
SYMBOL	NAME		(DENSITY PER 100 S.F.) QUANTITY	SIZE AND CONDITION	
	BASALT BOULDER		1	1' TO 2' DIA.	
	WASHED RIVER ROCK		0.33 C.Y.	1.5" MINUS	



TYPICAL DETENTION SWALE NATIVE PLANTING DETAIL



- NOTE:  
1. STORMWATER DETENTION SWALE PLANTING LOCATED BETWEEN THE BLOCKS OF 17TH STREET AND 18TH STREET.

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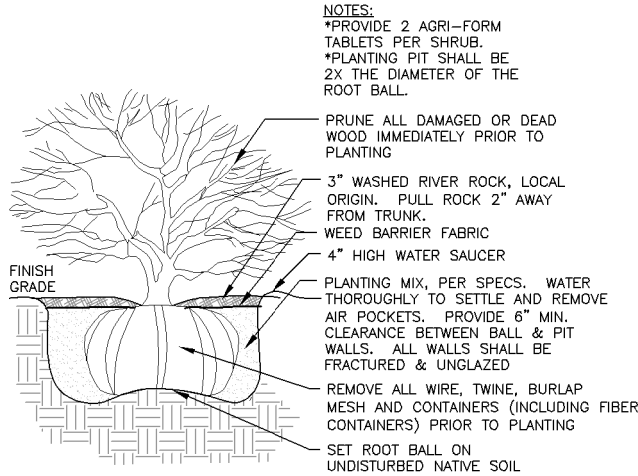


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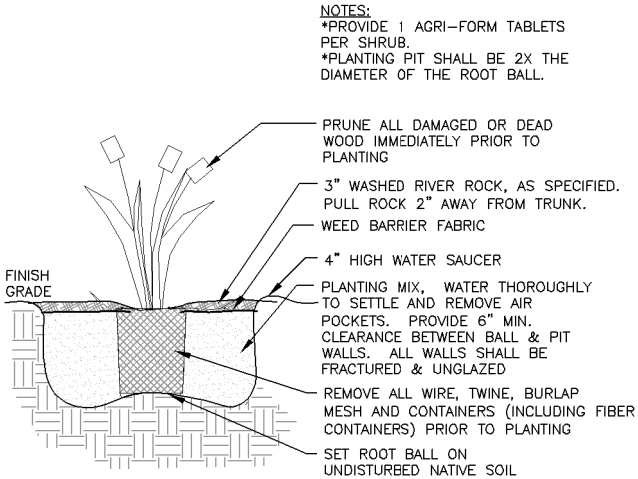
18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT  
LEWISTON, IDAHO

PLANTING DETAILS

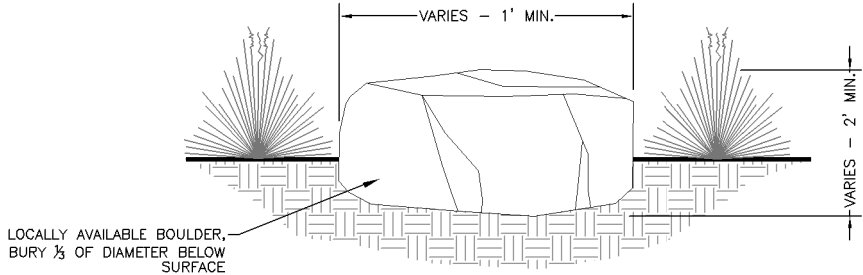




NATIVE SHRUB PLANTING DETAIL 1 L-2



NATIVE GRASS PLANTING DETAIL 2 L-2



BOULDER PLACEMENT DETAIL 3 L-2

## PLANTING SPECIFICATIONS

### QUALITY ASSURANCE

- COMPLY WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK.
- OWNER'S REPRESENTATIVE RESERVES RIGHT TO REVIEW AND REJECT MATERIALS AT GROWING SITE AND AS DELIVERED TO SITE.
- OBSERVATION AT GROWING SITE DOES NOT PRECLUDE RIGHT OF REJECTION AT JOB SITE. REMOVE REJECTED MATERIALS FROM SITE IMMEDIATELY.
- PERSONNEL: EMPLOY ONLY QUALIFIED PERSONNEL FAMILAR WITH REQUIRED WORK.
- CONTRACTOR'S RESPONSIBILITIES: LANDSCAPE CONTRACTOR TO COORDINATE ACTIVITIES WITH ALL OTHER TRADES. LANDSCAPE CONTRACTOR TO ALSO SECURE UTILITY LOCATES PRIOR TO COMMENCING WORK INVOLVING EXCAVATION OR DIGGING.

### PREPARATION AND PROTECTION

- BALLED AND BURLAPPED (B&B) PLANTS: DIG AND PREPARE SHIPMENT IN A MANNER THAT WILL NOT DAMAGE ROOTS, BRANCHES, SHAPE, AND FUTURE DEVELOPMENT.
- CONTAINER GROWN PLANTS: DELIVER PLANTS IN CONTAINER SUFFICIENTLY RIGID TO HOLD BALL SHAPE AND PROTECT ROOT MASS.
- USE ALL MEANS NECESSARY TO PROTECT AND MAINTAIN MATERIALS BEFORE, DURING AND AFTER INSTALLATION AND TO PROTECT THE INSTALLED WORK AND MATERIALS OF ALL OTHER TRADES.
- DELIVER ALL PRODUCTS, AS SPECIFIED, TO SITE IN ORIGINAL, SEALED CONTAINERS BEARING MANUFACTURER'S GUARANTEED STATEMENT OF ANALYSIS.

### DELIVERY

- DELIVER ONLY PLANT MATERIALS THAT CAN BE PLANTED IN ONE DAY UNLESS ADEQUATE STORAGE AND WATERING FACILITIES ARE AVAILABLE ON JOB SITE.
- PROTECT ROOT BALLS BY HEELING IN WITH MULCH IF NOT PLANTED WITHIN 24 HOURS OF DELIVERY.
- PROTECT DURING DELIVERY TO PREVENT DAMAGE TO ROOTS AT ALL TIMES. COVER ALL MATERIALS DURING TRANSPORT.
- REMOVE REJECTED PLANT MATERIAL IMMEDIATELY FROM SITE.
- DO NOT LIFT, MOVE, ADJUST, PLUMB, OR OTHERWISE MANIPULATE PLANTS BY TRUNK OR STEMS. AVOID DAMAGE OR STRESS BY PROPER HANDLING. PLANT MATERIAL DROPPED ON THE GROUND, RATHER THAN GENTLY PLACED INTO THE STORAGE AREA OR PLANTING BED, WILL BE REJECTED.

### STORAGE

- PLANT MATERIAL SHALL BE STORED IN A SECURE LOCATION, AND SHALL BE WATERED REGULARLY PRIOR TO PLANTING TO PREVENT DRYING OUT OF THE ROOTBALL.
- SEED, FERTILIZER, HERBICIDE, HYDROMULCH, AND TACKIFIER SHALL BE KEPT IN DRY STORAGE AWAY FROM CONTAMINANTS, AT A WEATHERPROOF LOCATION.

### SITE AND PLANT PROTECTION

- CARE MUST BE EXERCISED TO MINIMIZE DISTURBANCE OR COMPACTION OF AREAS ADJACENT TO ANY PROJECT. TREES SHALL BE PROTECTED.
- IN ORDER TO PREVENT EXCESSIVE SOIL COMPACTION AND DESTRUCTION OF SOIL STRUCTURE, NO SITE WORK WILL BE PERFORMED IN CASES WHERE EQUIPMENT OR TRAFFIC MUST PASS OVER WET SOILS OR IF WET SOILS MUST BE HANDLED OR MANIPULATED IN ORDER FOR THE WORK TO PROGRESS. WET SOIL IS DEFINED AS ANY SOIL WITHIN 90 PERCENT OF FIELD CAPACITY (SATURATION).
- DO NOT MOVE EQUIPMENT OVER EXISTING LANDSCAPE OR NEWLY PLACED STRUCTURES WITHOUT APPROVAL OF THE OWNER OR OWNER'S REPRESENTATIVE.
- PROVIDE BOARD ROADING AS REQUIRED TO PROTECT PAVING. PROTECT OTHER IMPROVEMENTS FROM DAMAGE, WITH PROTECTION BOARDS, RAMPS AND PROTECTIVE SHEETING.

### UTILITIES

- UTILITY LOCATES ARE REQUIRED PRIOR TO EXCAVATION OR ANY CONSTRUCTION ACTIVITIES.
- COORDINATE WORK WITH OWNER, INCLUDING IRRIGATION SPECIALIST, IN ORDER TO PREVENT DAMAGE TO UNDERGROUND SPRINKLER SYSTEM.

### WARRANTY

- WARRANTY PLANT MATERIAL FOR ONE YEAR AFTER FINAL ACCEPTANCE. REPLACE DEAD OR DYING MATERIALS NOT IN VIGOROUS, THRIVING CONDITION AS SOON AS WEATHER PERMITS AND ON NOTIFICATION BY OWNER'S REPRESENTATIVE. REPLACE PLANTS, WHICH IN OPINION OF OWNER'S REPRESENTATIVE HAVE PARTIALLY DIED, THEREBY COMPROMISING SHAPE, SIZE OR SYMMETRY.
- REPLACE PLANTS WITH SAME KIND AND SIZE AS ORIGINALLY PLANTED, AT NO COST TO OWNER. PROVIDE 90-DAY WARRANTY ON REPLACEMENT PLANTS.
- WARRANTY EXCLUDES REPLACEMENT OF PLANTS AFTER FINAL ACCEPTANCE BECAUSE OF INJURY BY STORM, DROUGHT, DROWNING, HAIL, FREEZE, INSECTS, OR DISEASE. MATERIALS DAMAGED BY "ACTS OF GOD" PRIOR TO FINAL ACCEPTANCE ARE RESPONSIBILITY OF CONTRACTOR.

### PLANTING SOILS

- PLANTING SOIL FOR PLANT STOCK PITS: EXISTING, NATIVE SURFACE TOPSOIL FORMED UNDER NATURAL CONDITIONS WITH THE DUFF LAYER RETAINED DURING EXCAVATION PROCESS AND STOCKPILED ON-SITE. VERIFY SUITABILITY OF NATIVE SURFACE TOPSOIL TO PRODUCE VIABLE PLANTING SOIL. CLEAN SOIL OF ROOTS, PLANTS, SOD, STONES, CLAY LUMPS, AND OTHER EXTRANEOUS MATERIALS HARMFUL TO PLANT GROWTH.
  - SUPPLEMENT WITH IMPORTED TOPSOIL PLANTING SOIL WHEN QUANTITIES ARE INSUFFICIENT.
  - MIX EXISTING, NATIVE SURFACE TOPSOIL WITH THE FOLLOWING SOIL AMENDMENTS IN THE FOLLOWING QUANTITIES TO PRODUCE PLANTING SOIL:
    - RATIO OF LOOSE COMPOST TO TOPSOIL BY VOLUME: 1:3.
    - RATIO OF SAND TO TOPSOIL BY VOLUME: 1:3.

### PLANTING FERTILIZERS

- PLANTING TABLETS: TIGHTLY COMPRESSED CHIP TYPE, LONG-LASTING, SLOW-RELEASE, COMMERCIAL-GRADE PLANTING FERTILIZER IN TABLET FORM. TABLETS SHALL BREAK DOWN WITH SOIL BACTERIA, CONVERTING NUTRIENTS INTO A FORM THAT CAN BE ABSORBED BY PLANT ROOTS.
  - SIZE: 21-GRAM TABLETS.
  - NUTRIENT COMPOSITION: 20 PERCENT NITROGEN, 10 PERCENT PHOSPHOROUS, AND 5 PERCENT POTASSIUM, BY WEIGHT PLUS MICRONUTRIENTS.

### FERTILIZERS

FERTILIZER TO BE SPREAD ON AREAS TO BE SEEDED SHALL BE COMMERCIALY PREPARED PRODUCT PRE-APPROVED BY THE OWNER. FERTILIZER SHALL CONTAIN THE FOLLOWING PERCENTAGES AND SHALL BE APPLIED AT 200 LBS/ACRE BY WEIGHT UNLESS OTHERWISE APPROVED:

11% NITROGEN	55% PHOSPHORUS	12% POTASH
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3/4" WASHED RIVER ROCK

WASHED RIVER ROCK: FREE FROM DELETERIOUS MATERIALS AND SUITABLE AS A TOP DRESSING OF SHRUBS.

### LANDSCAPE FABRIC

HEAVY, PROFESSIONAL GRADE, SPUN-BONDED NYLON LANDSCAPE FABRIC WITH SIX-INCH ANCHORING PINS. WOVEN FABRIC IS UNACCEPTABLE.

### PESTICIDES

- GENERAL: PESTICIDE REGISTERED AND APPROVED BY EPA, ACCEPTABLE TO AUTHORITIES HAVING JURISDICTION, AND OF TYPE RECOMMENDED BY MANUFACTURER FOR EACH SPECIFIC PROBLEM AND AS REQUIRED FOR PROJECT CONDITIONS AND APPLICATION. DO NOT USE RESTRICTED PESTICIDES UNLESS AUTHORIZED IN WRITING BY AUTHORITIES HAVING JURISDICTION.
- PRE-EMERGENT HERBICIDE (SELECTIVE AND NON-SELECTIVE): EFFECTIVE FOR CONTROLLING THE GERMINATION OR GROWTH OF WEEDS WITHIN PLANTED AREAS AT THE SOIL LEVEL DIRECTLY BELOW THE MULCH LAYER.
- POST-EMERGENT HERBICIDE (SELECTIVE AND NON-SELECTIVE): EFFECTIVE FOR CONTROLLING WEED GROWTH THAT HAS ALREADY GERMINATED.

### MAINTENANCE

- WATER WILL BE AVAILABLE ON SITE. PROVIDE NECESSARY HOSES AND OTHER WATERING EQUIPMENT REQUIRED TO COMPLETE WORK.
- MAINTAIN PLANTINGS BY WATERING, CULTIVATING, WEEDING, SPRAYING, CLEANING, AND REPLACING AS NECESSARY TO KEEP LANDSCAPE IN A VIGOROUS, HEALTHY CONDITION.
- COORDINATE WATERING SCHEDULES WITH IRRIGATION CONTRACTOR DURING INSTALLATION AND UNTIL FINAL ACCEPTANCE.
- WEEDING: REMOVE WEEDS AND FOREIGN GRASSES IN PLANTED AREAS AT LEAST ONCE PER WEEK. HERBICIDES MAY BE USED ONLY WHEN APPROVED BY THE OWNER'S REPRESENTATIVE.

### PLANTS

- GENERAL: FURNISH NURSERY-GROWN PLANTS TRUE TO GENUS, SPECIES, VARIETY, CULTVAR, STEM FORM, SHEARING, AND OTHER FEATURES INDICATED IN PLANT SCHEDULE OR PLANT LEGEND SHOWN ON DRAWINGS AND COMPLYING WITH ANSI Z60.1; AND WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK, DENSELY FOLIATED WHEN IN LEAF AND FREE OF DISEASE, PESTS, EGGS, LARVAE, AND DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT.
  - COLLECTED STOCK: DO NOT USE PLANTS HARVESTED FROM THE WILD, FROM NATIVE STANDS, FROM AN ESTABLISHED LANDSCAPE PLANTING, OR NOT GROWN IN A NURSERY UNLESS OTHERWISE INDICATED.
  - PROVIDE PLANTS OF SIZES, GRADES, AND BALL OR CONTAINER SIZES COMPLYING WITH ANSI Z60.1 FOR TYPES AND FORM OF PLANTS REQUIRED. PLANTS OF A LARGER SIZE MAY BE USED IF ACCEPTABLE TO OWNER'S REPRESENTATIVE, WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR BALLS.
  - ROOT-BALL DEPTH: FURNISH SHRUBS WITH ROOT BALLS MEASURED FROM TOP OF ROOT BALL, WHICH SHALL BEGIN AT ROOT FLARE ACCORDING TO ANSI Z60.1. ROOT FLARE SHALL BE VISIBLE BEFORE PLANTING.

### NATIVE TOPSOIL

REFER TO IDAHO STANDARD SPECIFICATIONS SUBSECTIONS ---- TOPSOIL SALVAGING AND PLACING, ---- TOP SOILING AND ---- TOPSOIL MATERIAL.

### IMPORTED TOPSOIL

IN THE EVENT SUFFICIENT QUANTITIES OF NATIVE TOPSOIL CANNOT BE SALVAGED FROM THE SITE, THE CONTRACTOR SHALL PROVIDE IMPORTED TOPSOIL TO SUPPLEMENT THE PROJECT REQUIREMENTS. THE CONTRACTOR SHALL PROVIDE TOPSOIL THAT MEETS OR EXCEEDS THE QUALITY OF THE NATIVE TOPSOIL MATERIAL AVAILABLE ON SITE. CONTRACTOR SHALL PROVIDE SOURCE AND ANALYSIS INFORMATION TO THE OWNER'S REPRESENTATIVE, FOR HIS APPROVAL PRIOR TO DELIVERY. THE CONTRACTOR SHALL INCORPORATE INTO THE TOPSOIL, AMENDMENTS NECESSARY TO PROVIDE TOPSOIL FERTILITY AND QUALITY, EQUAL TO OR EXCEEDING THE CHARACTERISTICS OF THE NATIVE TOPSOIL.

### TOP SOIL DEPTH:

- PLANTING BED AREAS: PROVIDE A 12 INCH DEPTH OF TOPSOIL IN ALL PLANTING BED AREAS.
- COMPACT ALL AREAS TO RECEIVE SOD OR PLANTINGS TO 85 PERCENT PROCTOR DENSITY. DO NOT OVER COMPACT.

### COMPOST:

- WELL-COMPOSTED, STABLE, AND WEED-FREE ORGANIC MATTER, PH RANGE OF 6 TO 8.5; MOISTURE CONTENT 30 TO 60 PERCENT BY WEIGHT; 98 PERCENT PASSING THROUGH 3/4-INCH SIEVE; SOLUBLE SALT CONTENT OF MAXIMUM OF 10 DECISIEMENS/M; NOT EXCEEDING 0.5 PERCENT INERT CONTAMINANTS AND FREE OF SUBSTANCES TOXIC TO PLANTINGS; AND AS FOLLOWS:
  - ORGANIC MATTER CONTENT: 30-65 PERCENT OF DRY WEIGHT.
  - FEEDSTOCK: AGRICULTURAL, FOOD, OR INDUSTRIAL RESIDUALS; BIOSOLIDS; YARD TRIMMINGS; OR SOURCE-SEPARATED OR COMPOSTABLE MIXED SOLID WASTE.

### BED PREPARATION

- SCARIFY ALL SUB-GRADE OF BED AREAS TO SIX INCHES, ALL AREAS.
- CONTRACTOR SHALL SPREAD TOPSOIL EVENLY THROUGHOUT BED AFTER THOROUGHLY MIXING SOIL, AMENDMENTS AND FERTILIZER TOGETHER ON SITE.
- REMOVE ANY DEBRIS AND ROCKS LARGER THAN ONE INCH.

### SHRUB AND GROUND COVER PLANTING

- PROVIDE ONE-FOOT DEEP TOP SOIL IN ALL SHRUB BEDS.
- PLACE PLANTS IN A POSITION ON BED AREAS BEFORE REMOVAL FROM CONTAINERS. OBTAIN APPROVAL FROM OWNER'S REPRESENTATIVE OF PLANT LAYOUT IN THE FIELD. OWNER'S REPRESENTATIVE RESERVES THE RIGHT TO SHIFT LOCATIONS OF PLANTS PRIOR TO PLANTING.
- REMOVE BURLAP FROM UPPER ONE-HALF OF ROOT BALL ON ALL B&B PLANTS.
- PLANT ALL PLANTS AS LOCATED, SETTING PLANTS WITH TOPS OF BALLS EVEN WITH THE TOPS OF BED GRADES. BACKFILL WITH NATIVE SOIL AND COMPACT SOIL CAREFULLY AROUND EACH PLANT BALL. WATER THOROUGHLY TO ELIMINATE AIR POCKETS. CAREFULLY PRUNE PLANTS TO REMOVE DEAD OR BROKEN BRANCHES AND HAND-RAKE BED AREAS TO SMOOTH EVEN SURFACES.

### ROOT BALLS

- ROOT BALLS SHALL BE PROPERLY LOCATED IN RELATIONSHIP TO ADJACENT SOIL AS REQUIRED BY REFERENCED STANDARDS.
- BALLS SET TOO DEEP OR TOO SHALLOW SHALL BE CAREFULLY REMOVED AND REPLANTED AS REQUIRED BY THE OWNER'S REPRESENTATIVE.

### LANDSCAPE FABRIC

AFTER PLANTING HAS BEEN COMPLETED AND APPROVED BY THE OWNER'S REPRESENTATIVE, INSTALL LANDSCAPE FABRIC ACROSS PLANTING BEDS. SHEETS OF FABRIC SHOULD HAVE A MINIMUM SIX-INCH OVERLAP AT THE BED MARGINS. FABRIC SHOULD BE INSTALLED UNDER THE BOTTOM OF CONCRETE CURBING. FABRIC LAPPING OUTSIDE THE CONCRETE CURBING SHOULD BE TRIMMED TO BELOW GRADE AND BURIED WHEN THE CURB IS BACKFILLED. FABRIC SHOULD BE WELL ANCHORED WITH 6 INCH STAKES POUNDED FLUSH WITH THE GRADE. PLANT OPENINGS MUST BE LARGE ENOUGH TO ALLOW FOR FUTURE GROWTH.

### TOP DRESSING 3/4" MINUS WASHED RIVER ROCK

AFTER LANDSCAPE FABRIC HAS BEEN INSTALLED AND ACCEPTED BY THE OWNER'S REPRESENTATIVE, TOP DRESS BED AREAS WITH 3/4" MINUS WASHED RIVER ROCK, AS INDICATED ON DRAWINGS, A MINIMUM OF THREE INCHES DEEP. FABRIC MUST NOT BE EXPOSED OR PROTRUDE ABOVE THE WASHED RIVER ROCK OR CURB. ROCK SHOULD BE CLEAN AND SHOULD BE FREE OF DEBRIS AND SOIL.

### CLEANUP

- KEEP PREMISES NEAT AND ORDERLY INCLUDING ORGANIZATION OF STORAGE AREAS. REMOVE TRASH AND DEBRIS FROM EXCAVATED PLANTING AREAS, PREPARING BEDS, OR PLANTING PLANTS FROM SITE DAILY AS WORK PROGRESSES. KEEP PAVED AREAS CLEAN BY SWEEPING OR HOSING.
- REPAIR ALL DAMAGE CAUSED BY LANDSCAPE OPERATIONS.



REVISION	DATE	REV

**TD&H Engineering**

18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT  
LEWISTON, IDAHO

PLANTING DETAILS

PROFESSIONAL ENGINEER  
REGISTERED ENGINEER  
STATE OF IDAHO  
NO. 8145  
DAVID L. WITTMAN

GREAT FALLS, BOZEMAN, KALISPELL, SHELLEY, MONTANA  
SPOKANE, WASHINGTON  
PORTLAND, OREGON  
NORTH DAKOTA, WATERLOO, IOWA

DRAWN BY: CCK  
DESIGNED BY: HRC  
QUALITY CHECK: DLW  
DATE: 6/6/14  
JOB NO. L14-006  
FIELDBOOK

18TH AVENUE PEDESTRIAN, ADA & BIKE IMPROVEMENTS PROJECT

LEWISTON, IDAHO

PLANTING DETAILS

L14-006 L-2.DWG

SHEET L-2

FINAL DESIGN