

Public Works – Engineering Division

201 Delafield Street
Waukesha, Wisconsin 53188-3633

Alex Damien, P.E.,
Director
adamien@waukesha-wi.gov
1-262-524-3600

January 21, 2025

City of Waukesha Plan Commission
201 Delafield St
Waukesha, WI 53188

Re: Plan Commission Application
Area 7 Flood Mitigation – Waukesha North High School
2222 Michigan Avenue

Dear Commission Members,

The City has an existing stormwater ditch within an easement that bisects Waukesha North High School property. Storm water modeling shows that the existing ditch is significantly undersized and is unable to provide the necessary conveyance capacity. This project, as funded by the 2024 and 2025 CIP, will increase conveyance capacity and provide additional flood mitigation to the City.

This project will include the creation of a ditch along the west property line with an average width of about 50 feet, the filling of the existing ditch, additional site grading for proper drainage, and the creation of a stormwater detention facility. The detention facility will be located on a parcel currently owned by the School District of Waukesha that is being used as an auxiliary parking lot. The City of Waukesha is in the process of obtaining a deed transfer to take ownership of this parcel.

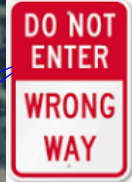
In addition to the improvements relating to flood mitigation, an additional 18-foot wide driveway is to be installed off of Michigan Avenue on the North High School property. This driveway will allow access to the teacher parking lot on the east side of the building, turning that lot into a one-way lot using the proposed access from Michigan Avenue as the entrance, and the existing access to Sherryl Drive as an exit. Additional signage will be installed in the parking lot to direct one-way traffic. This driveway concept has been discussed with Fire Marshal Brian Charlesworth, and he had no objection.

Sincerely,

Jonathan Schapekahn, P.E.
Storm Water Group Manager

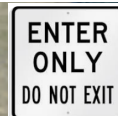
WAUKESHA NORTH PERMANENT
TRAFFIC FLOW POST CITY PROJECT

SIGN FACING NORTH



Waukesha North
High School

SIGN FACING NORTH

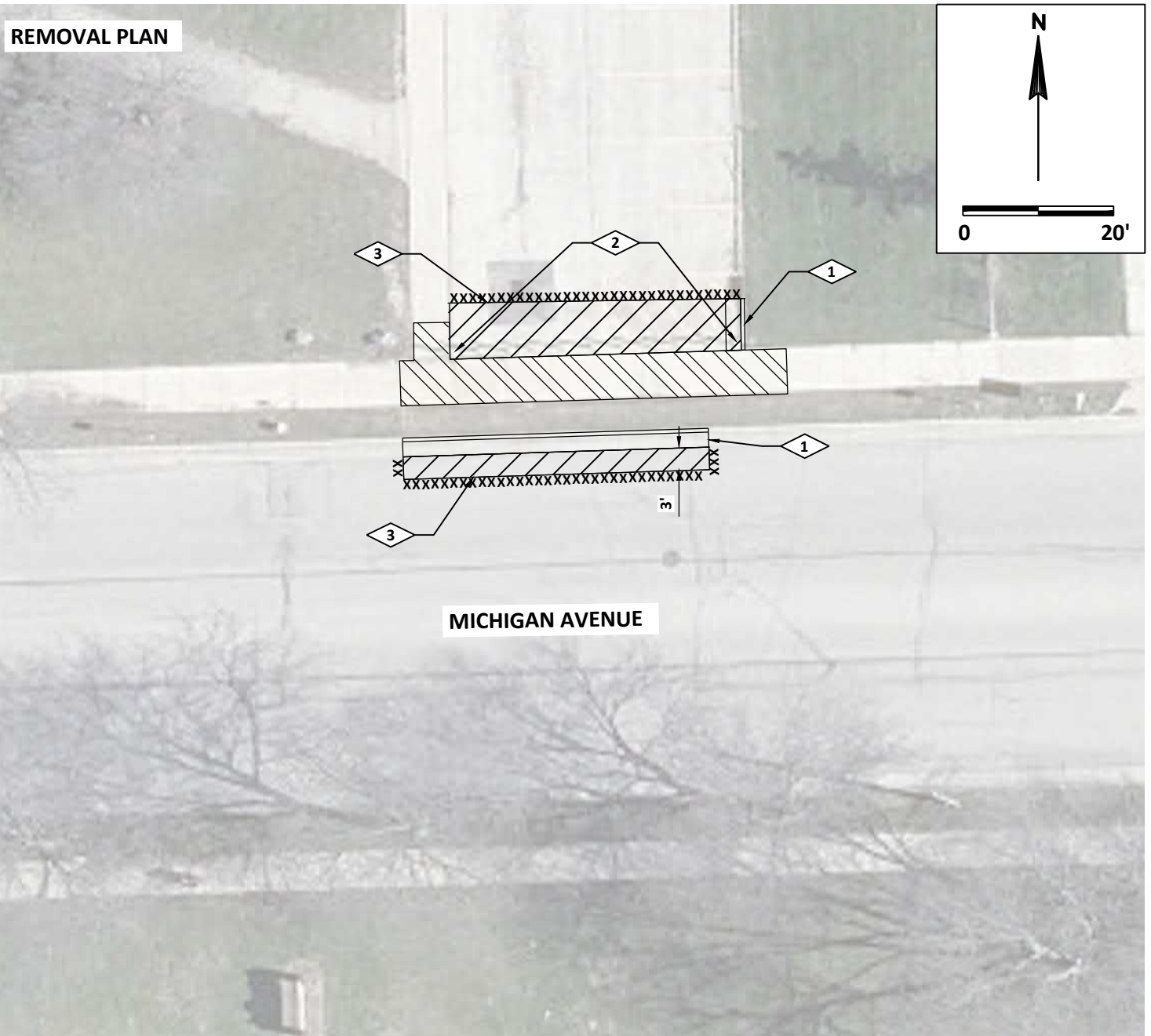


SIGN FACING SOUTH



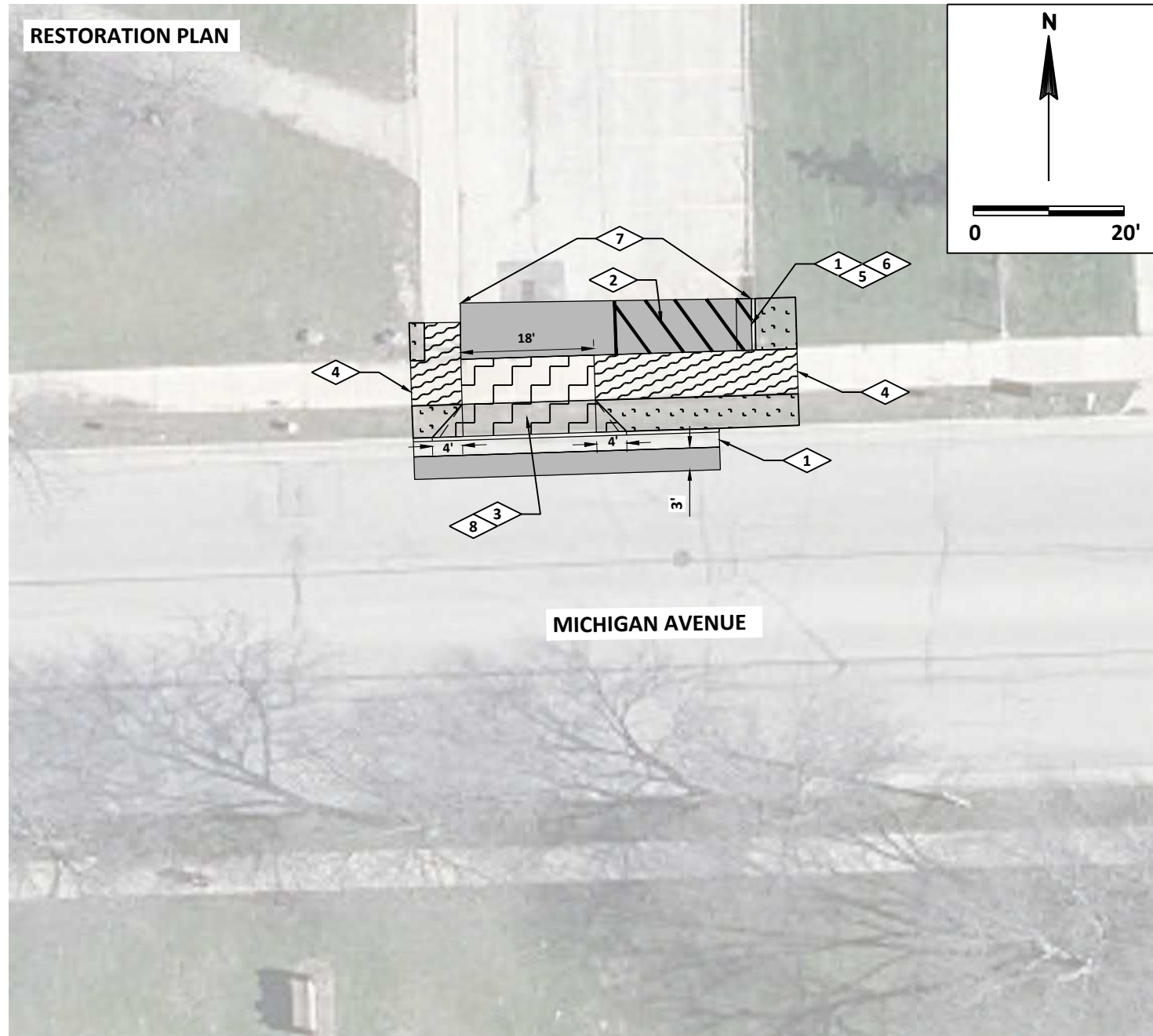
Michigan Ave

REMOVAL PLAN



MICHIGAN AVENUE

RESTORATION PLAN



MICHIGAN AVENUE

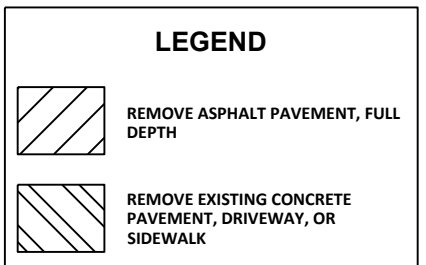
GENERAL NOTES:

1. ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY EARTH DISTURBING ACTIVITIES.
2. CONTRACTOR SHALL PROTECT ALL PUBLIC AND PRIVATE PROPERTY WITHIN THE EXISTING RIGHTS OF WAY AND EASEMENTS SHOWN. ANY DAMAGE SHALL BE REPAIRED OR REPLACED TO ORIGINAL CONDITION.
3. PROTECT EXISTING MANHOLES, PIPING, DUCTS, STRUCTURES, AND SURFACES TO REMAIN.
4. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS, AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
5. REMOVE EXISTING PAVEMENT BASE COURSE ONLY WITHIN EXCAVATION LIMITS FOR UTILITY TRENCHES.
6. REMOVE CONCRETE PAVEMENT, DRIVEWAYS, SIDEWALKS, AND CURB & GUTTER IN WHOLE PANELS/SECTIONS AT EXISTING JOINTS.

7. COSTS OF CURB AND GUTTER, SIDEWALK, AND ASPHALT PAVEMENT REMOVALS LOCATED WITHIN TRENCH EXCAVATION AREAS ARE INCIDENTAL TO STORM SEWER INSTALLATION.
8. COST OF SAWCUTTING IS INCIDENTAL TO OTHER WORK ITEMS OTHER THAN WHERE SPECIFICALLY INDICATED.
9. PAVEMENT REMOVALS OUTSIDE OF AREAS SHOWN ON PLANS SHALL NOT BE CONSIDERED FOR EXTRA PAYMENT WITHOUT WRITTEN APPROVAL OF THE ENGINEER.

PLAN NOTES:

1. REMOVE CONCRETE CURB AND GUTTER TO NEAREST JOINT.
2. REMOVE BOLLARDS (TYP).
3. FULL DEPTH SAWCUT ASPHALT PAVEMENT.

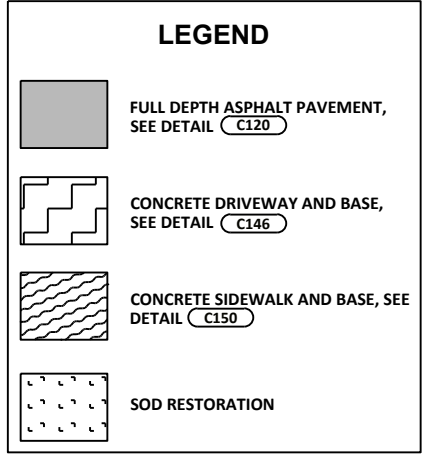


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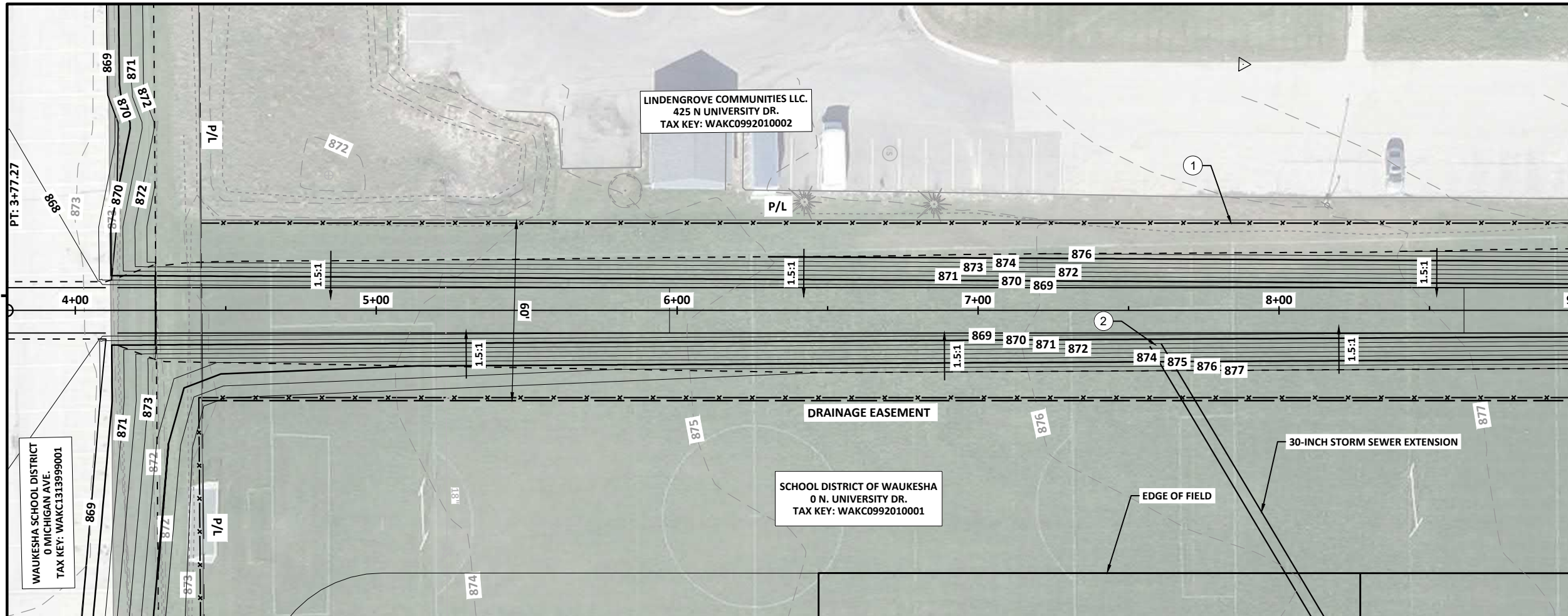
1. MATCH EXISTING GRADES WHERE REPLACEMENT OR PROPOSED IMPROVEMENTS ABUT EXISTING PAVEMENT OR OTHER SURFACE FEATURES.

PLAN NOTES:

1. CONCRETE CURB AND GUTTER. SEE DETAIL C168
2. PAVEMENT MARKING EPOXY, LINE, 4-INCH (YELLOW)
3. MAXIMUM 7% SLOPE ON DRIVEWAY APRON.
4. MAXIMUM 1.5% CROSS SLOPE ON ALL SIDEWALK.
5. TRANSITION CURB HEAD AT INLET TO MATCH SIDEWALK ELEVATION.
6. OVERLAY CURB PAN WITH ASPHALT. MATCH EXISTING.
7. MATCH EXISTING GRADES.
8. 7-INCH CONCRETE DRIVEWAY AND WALK.



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MATCH LINE 9+00

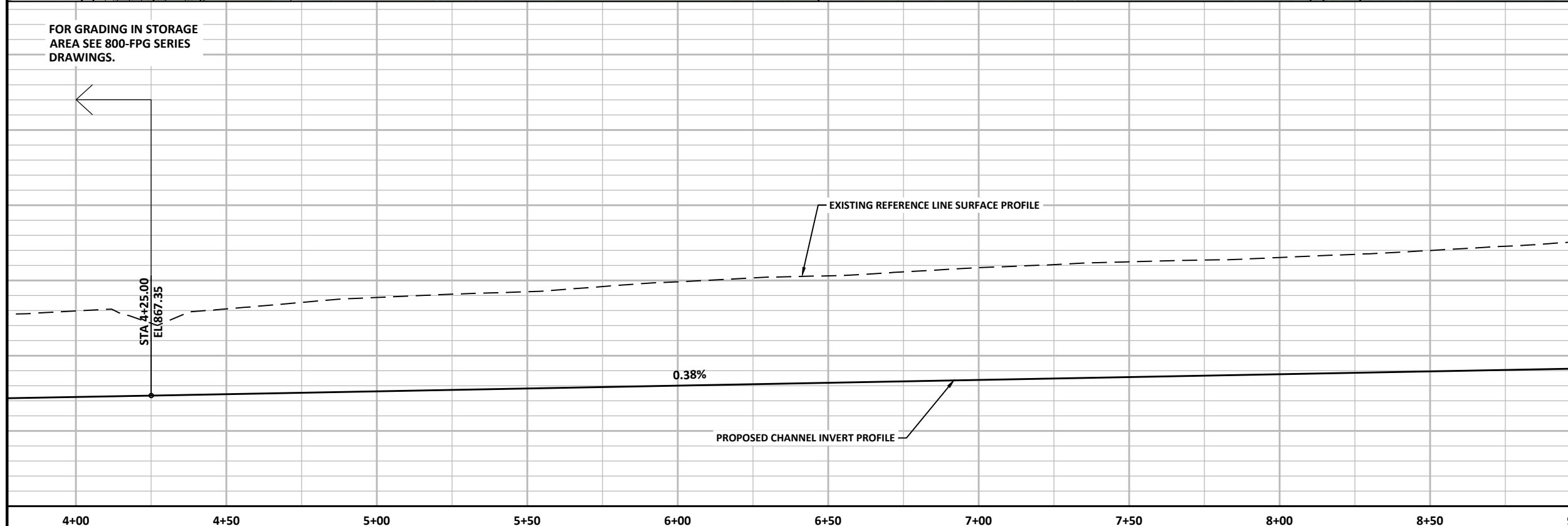
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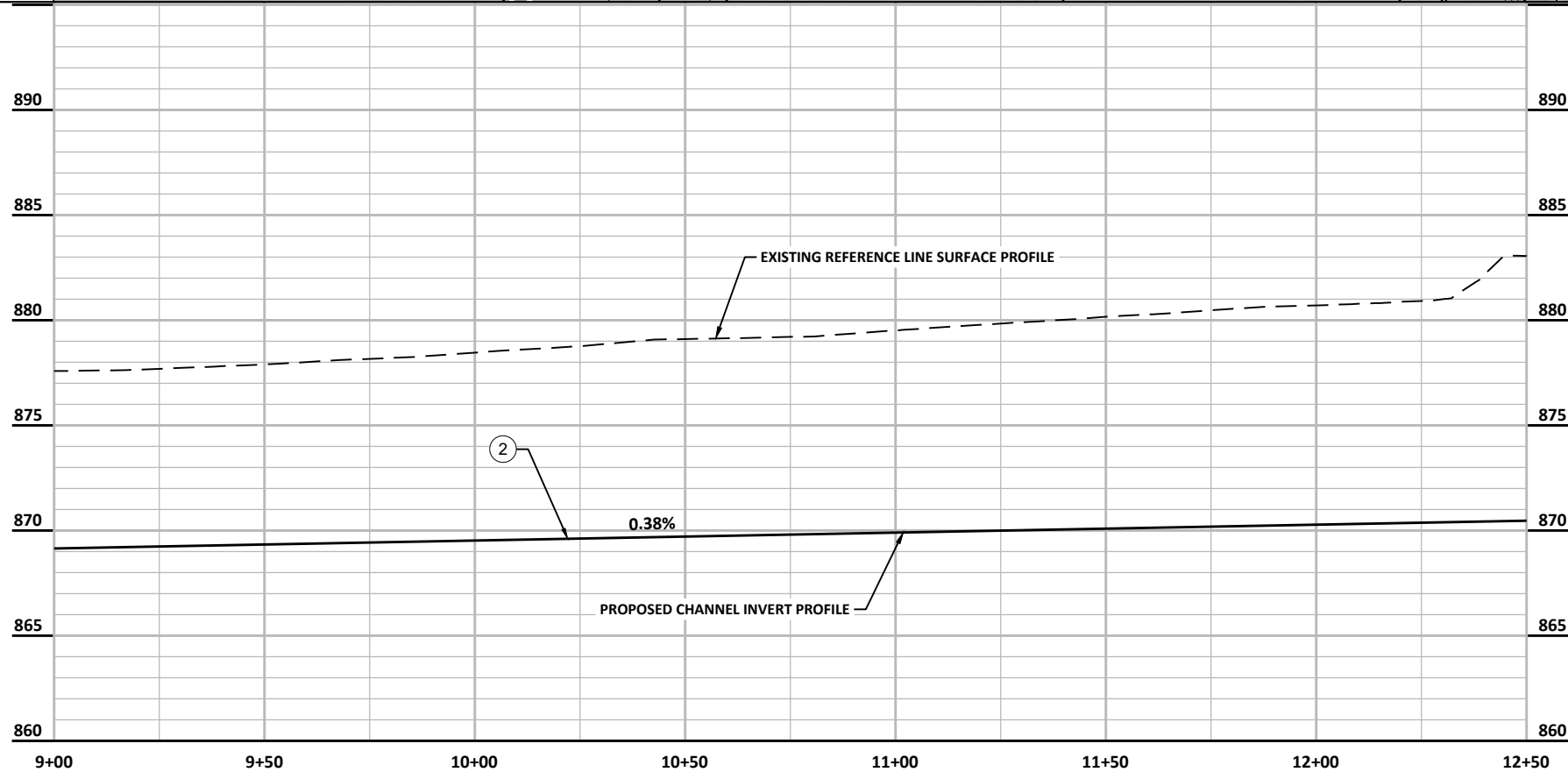
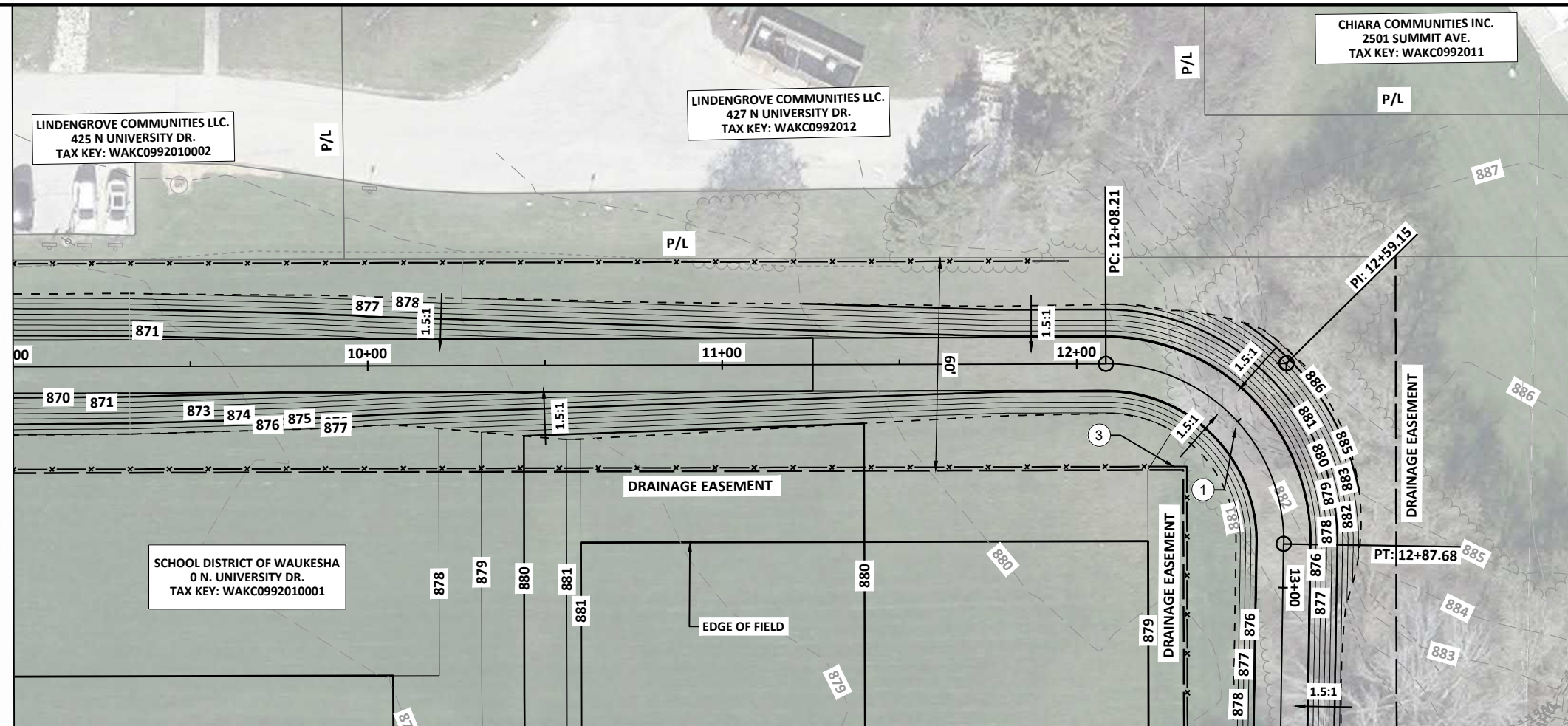
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4. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS, DIMENSIONS AND ELEVATIONS PRIOR TO CONSTRUCTION AND/OR FABRICATION.
5. ALL EXISTING PIPING AND UTILITIES SHALL BE FIELD VERIFIED FOR LOCATION AND ELEVATION. CONTACT ENGINEER IF UNKNOWN CONFLICTS EXIST.
6. SEE 800-FPG DRAWINGS FOR SURFACE RESTORATION INFORMATION.
7. PROPERTY LINES SHOWN IN GRAYSCALE FOR CLARITY.

PLAN NOTES:

DESIGNER NOTES:

1. FENCE ON BOTH SIDES OF CHANNEL. DOES CITY WANT FENCE ON LINDEN SIDE? IF YES, WOULD FENCE ON LINDEN SIDE MATCH SCHOOL SIDE?
2. PLANNING ON GROUTED AGGREGATE OR RIPRAP WHERE STORM SEWER DISCHARGES INTO CHANNEL.





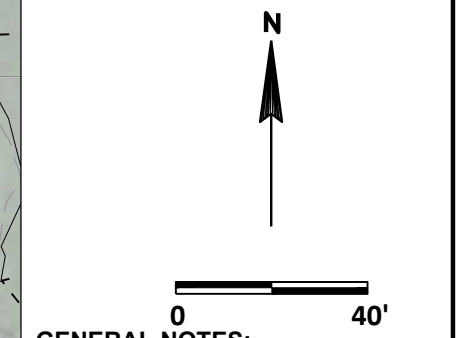
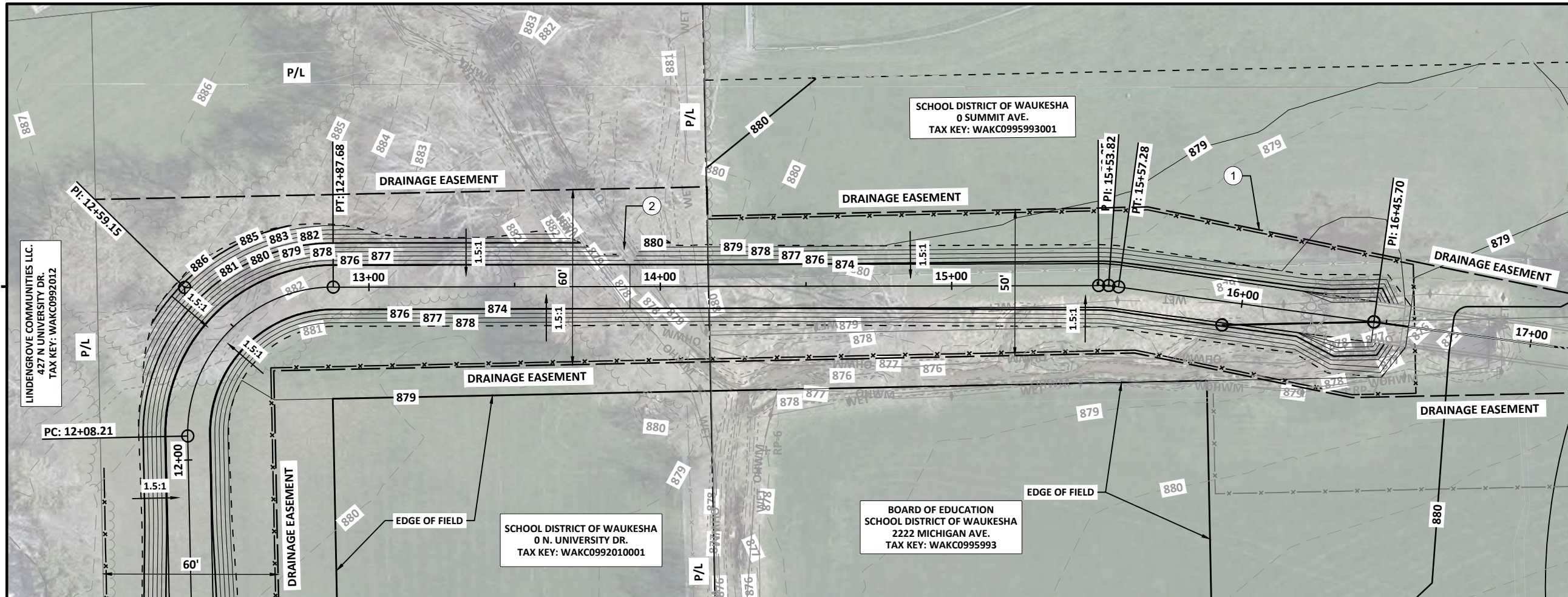
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PLAN NOTES:

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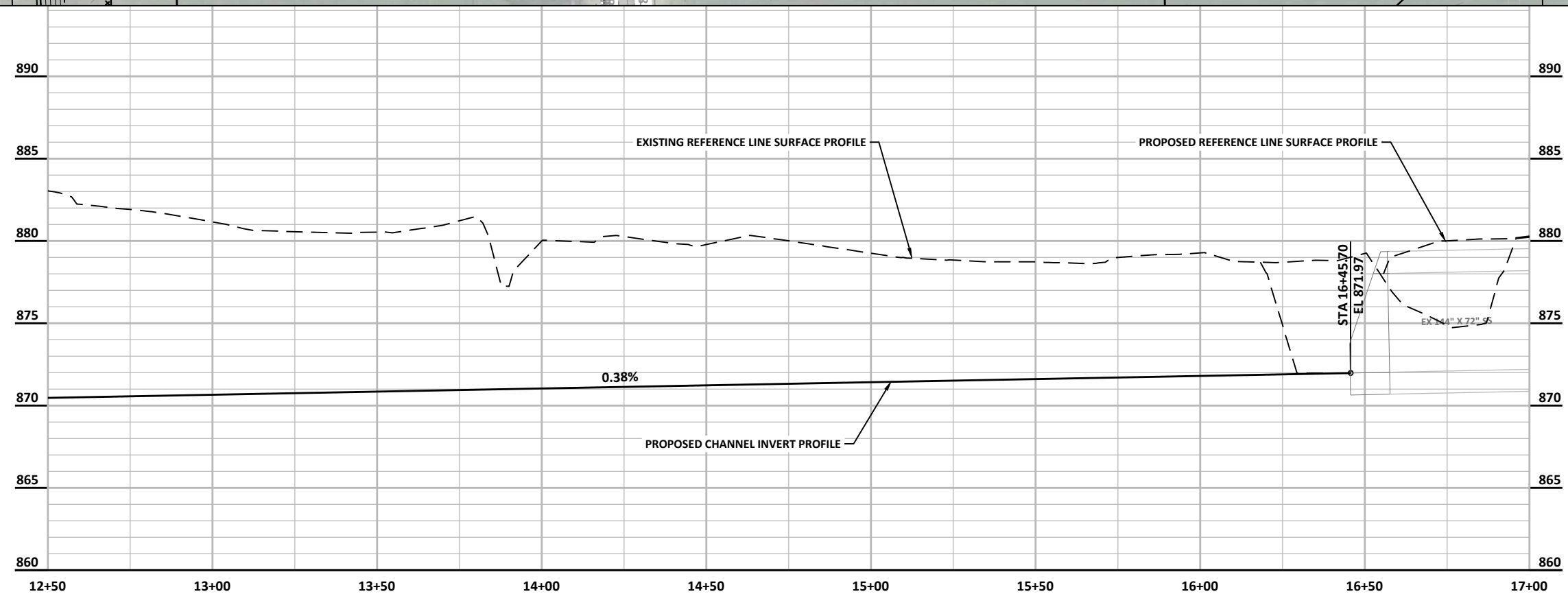
1. NEED TO DISCUSS ARMORING 90 DEGREE BEND WITH PRESTO. THINKING OF USING RIPRAP ON TOP OF GEOWEB.
2. AT SOME POINT CHANNEL BOTTOM WILL TRANSITION FROM ROCK TO EARTH. WILL NEED TRANSITION SECTION. PLANNING ON CONCRETE ANCHORED INTO THE BEDROCK.
3. WILL RE-ALIGN FENCE HERE. TOO CLOSE TO CHANNEL. LIKELY PUT A 45-DEGREE BEND AT THE CORNER.

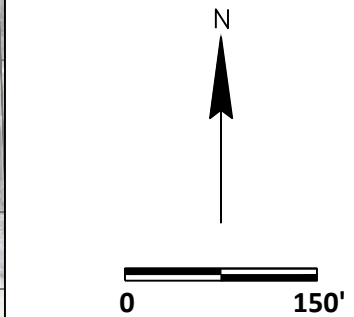
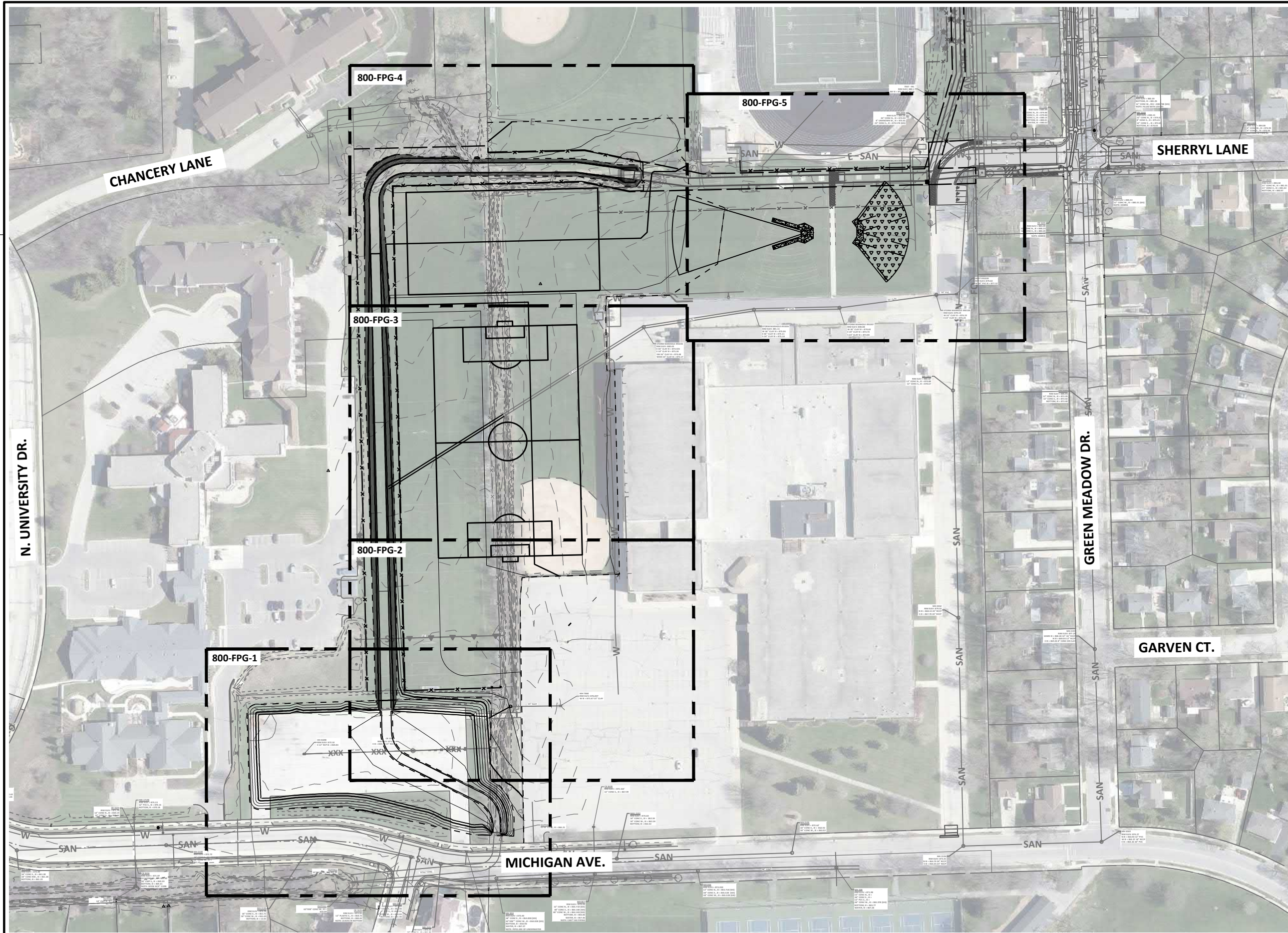


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PLAN NOTES:

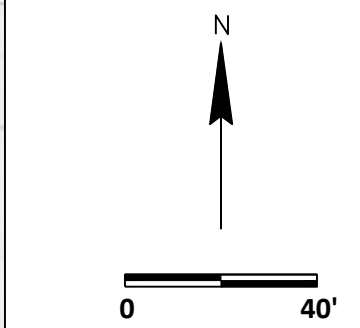
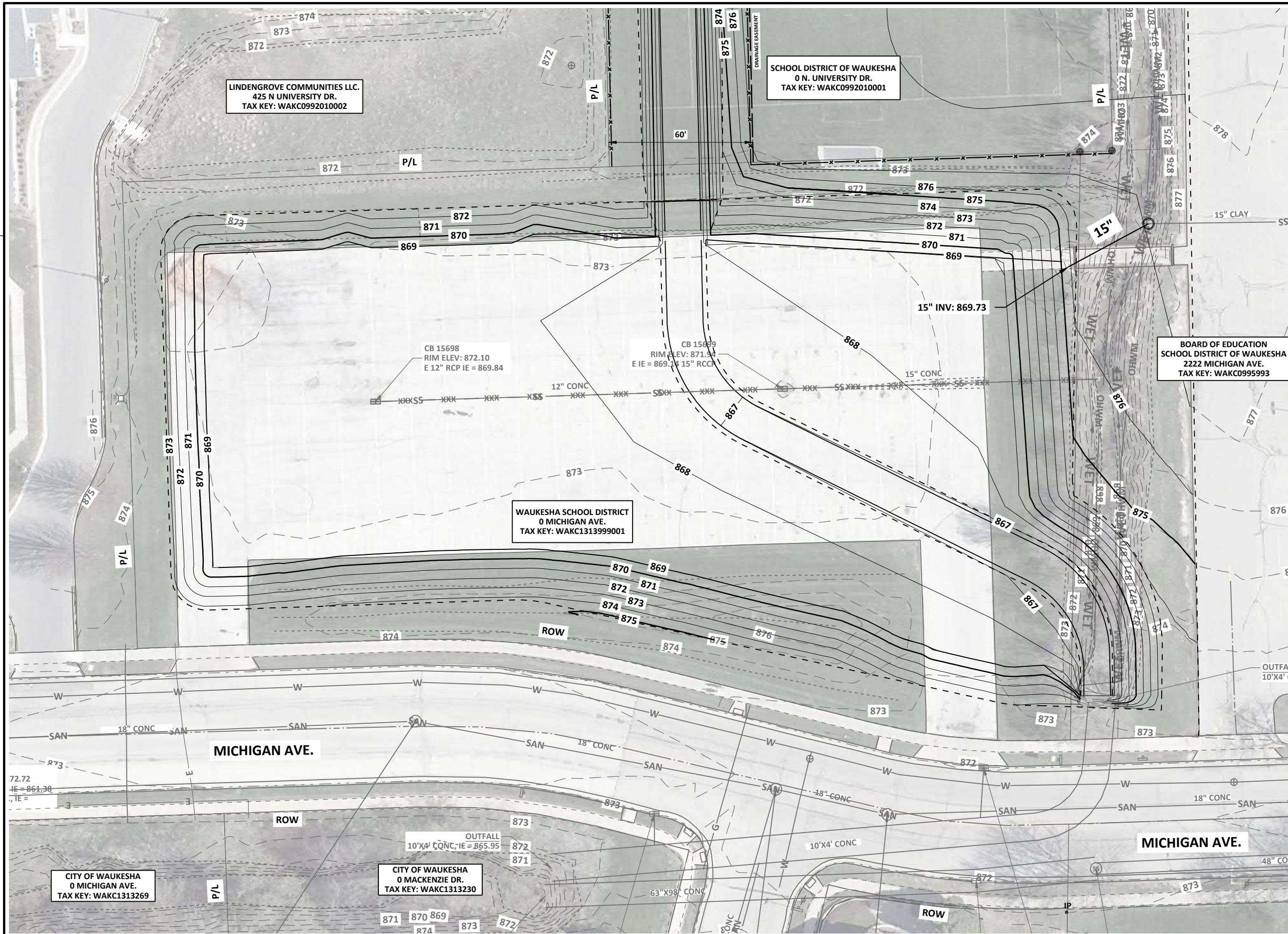
- DESIGNER NOTES:**
1. DISCUSS EASEMENT LAYOUTS AND HOW TO PRESENT THEM.
 2. WILL NEED TO COORDINATE WITH PRESTO ON CHANNEL PROTECTION AT LOCATION WHERE SUMMIT WOODS CHANNEL DISCHARGES INTO THE NEW CHANNEL.





GENERAL NOTES:

1. WHERE NO PROPOSED GRADES OR CONTOURS ARE SHOWN, EXISTING GRADES ARE TO REMAIN.
2. MATCH EXISTING GRADES WHERE REPLACEMENT OR PROPOSED IMPROVEMENTS ABUT EXISTING PAVEMENT OR OTHER SURFACE FEATURES.
3. EROSION CONTROL TO REMAIN IN PLACE UNTIL TURF RESTORATION AREAS HAVE BEEN PERMANENTLY STABILIZED.
4. LAWN RESTORATION. 4" TOPSOIL, WISDOT NO. 40 SEED MIXTURE, FERTILIZER, EROSION CONTROL MAT TYPE PER SPECIFICATIONS.
5. PROPERTY LINES SHOWN GRAYSCALE FOR CLARITY.

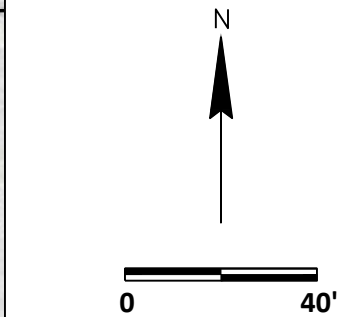
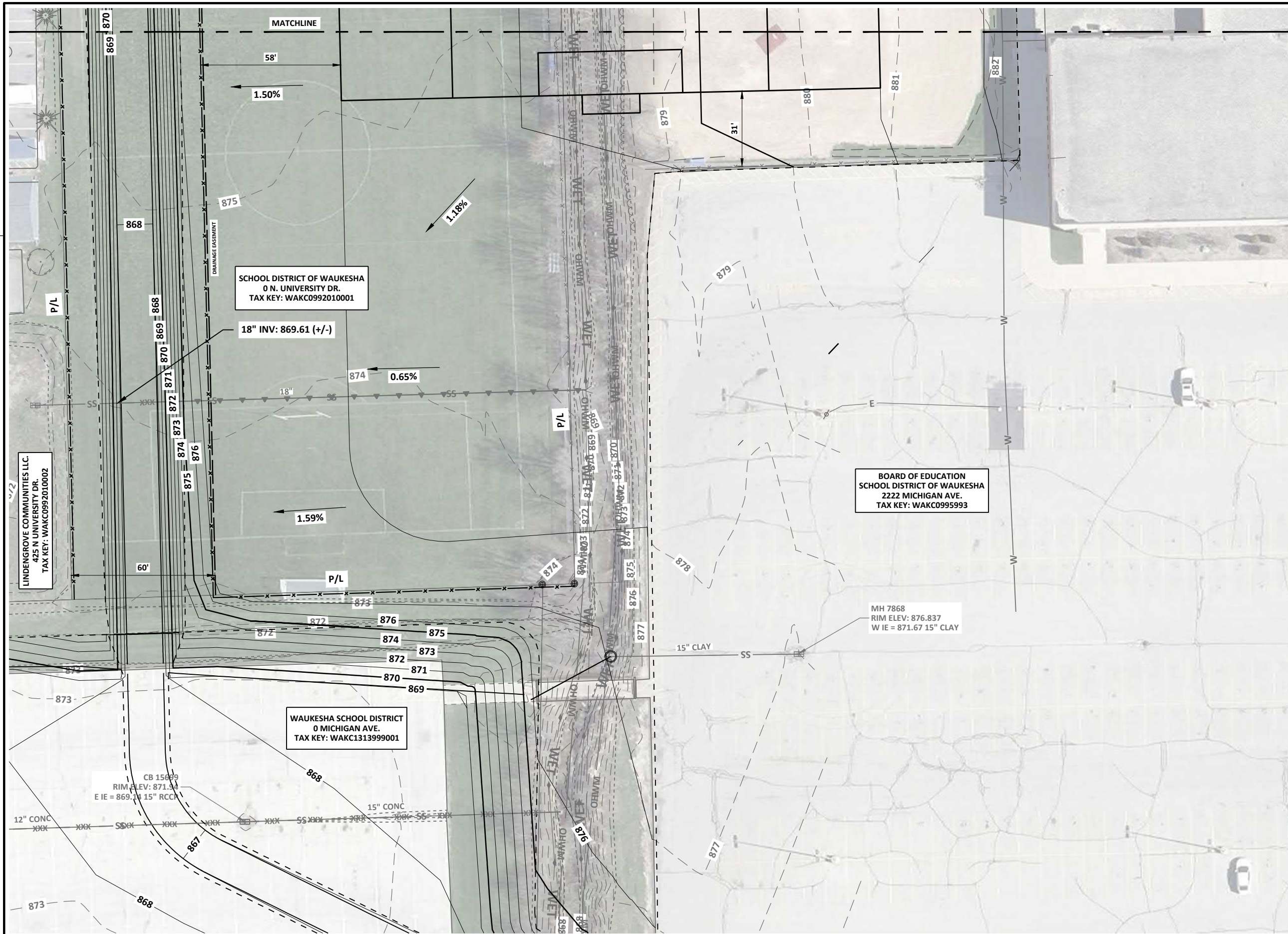


GENERAL NOTES:
 1. SEE DRAWING 800-FPGK-1 FOR ADDITIONAL GENERAL NOTES THAT APPLY TO THIS DRAWING.

PLAN NOTES:

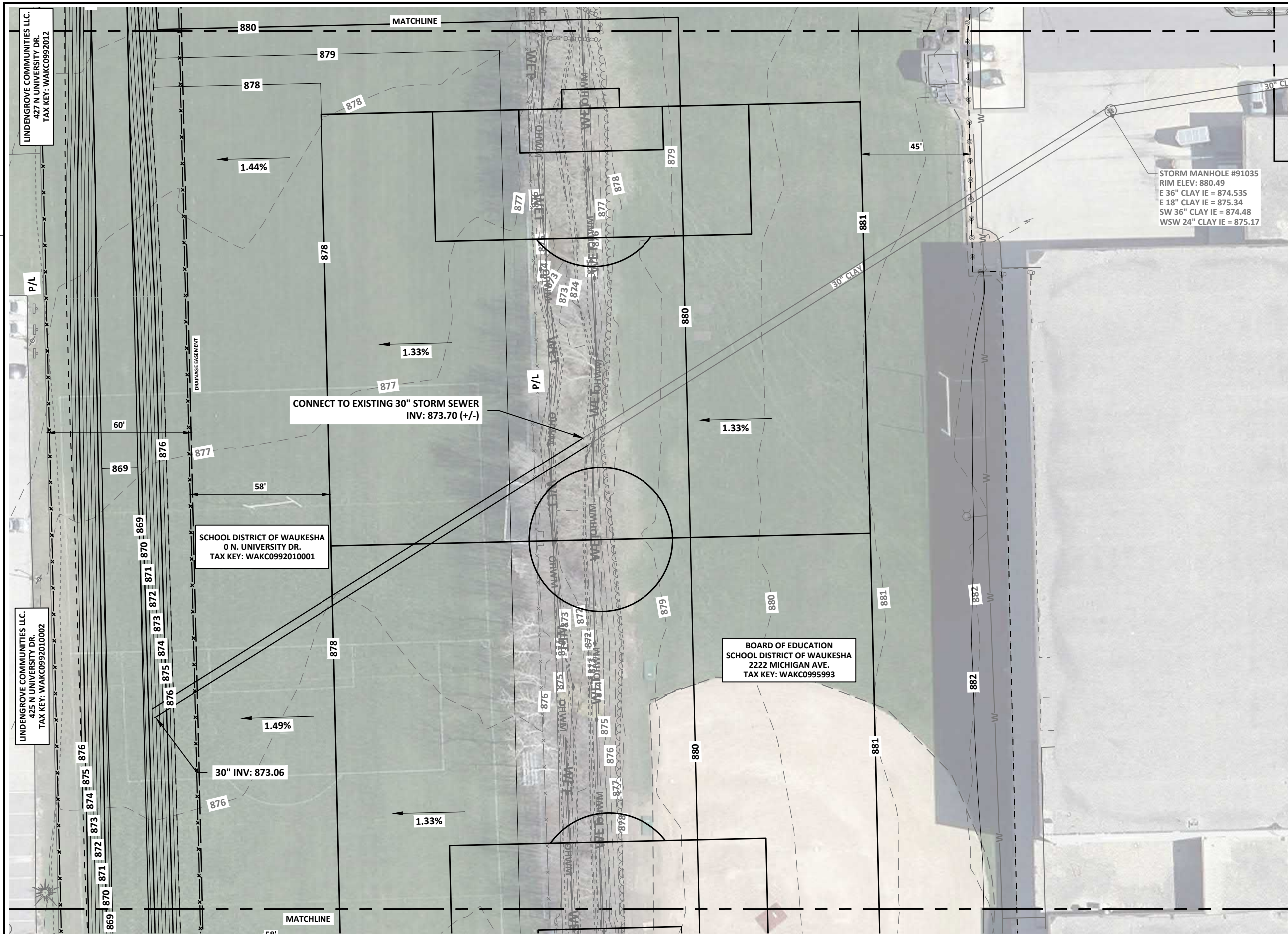
60% PLANS
NOT FOR CONSTRUCTION

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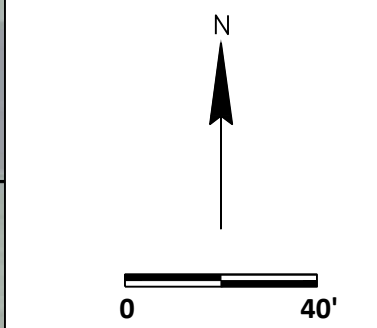
PLAN NOTES:



STORM MANHOLE #91035
 RIM ELEV: 880.49
 E 36" CLAY IE = 874.535
 E 18" CLAY IE = 875.34
 SW 36" CLAY IE = 874.48
 WSW 24" CLAY IE = 875.17

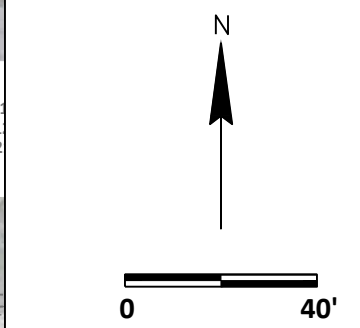
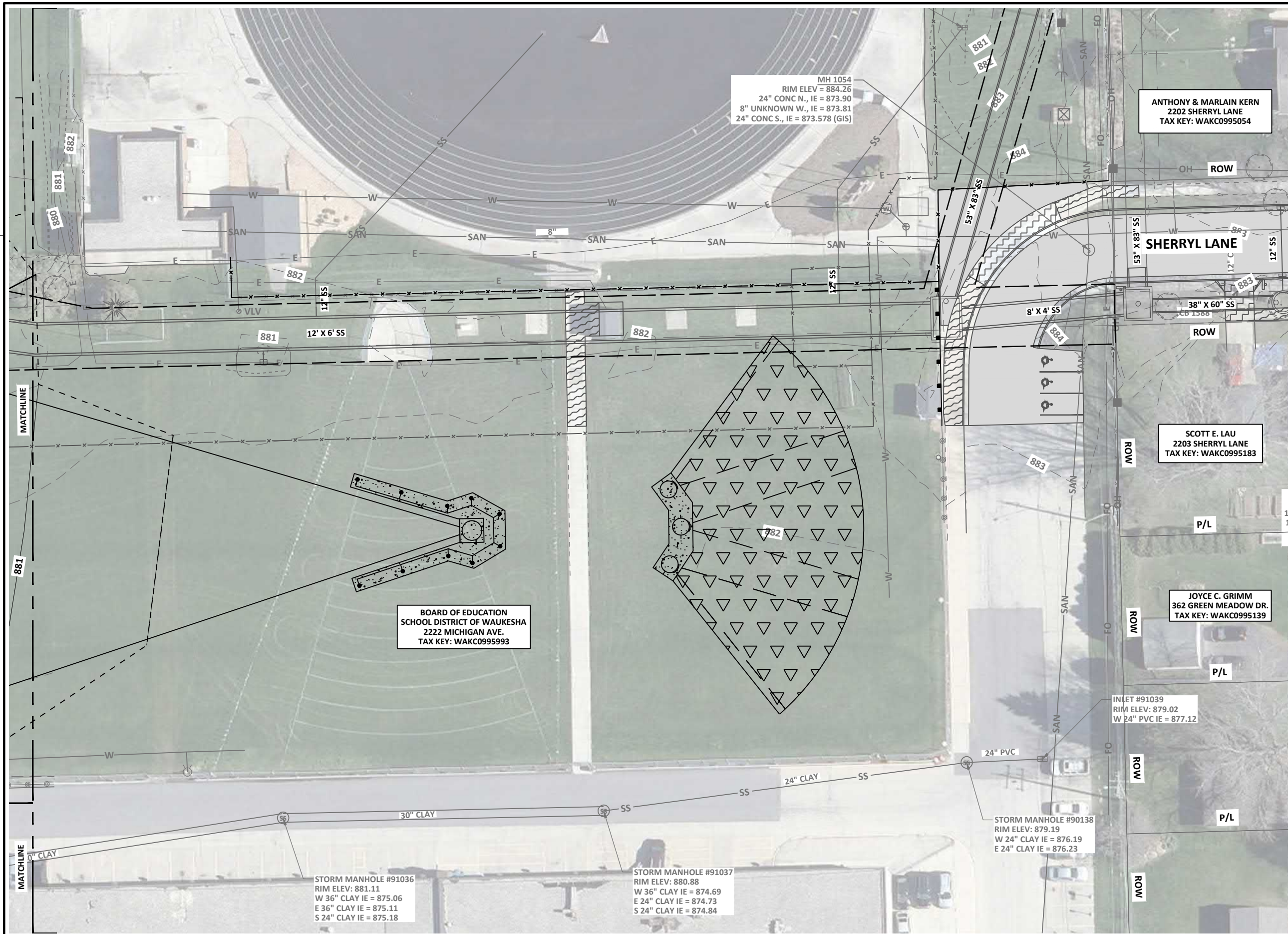
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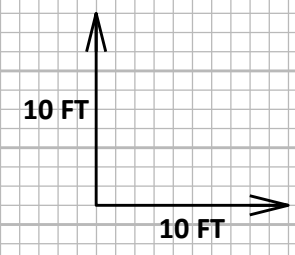
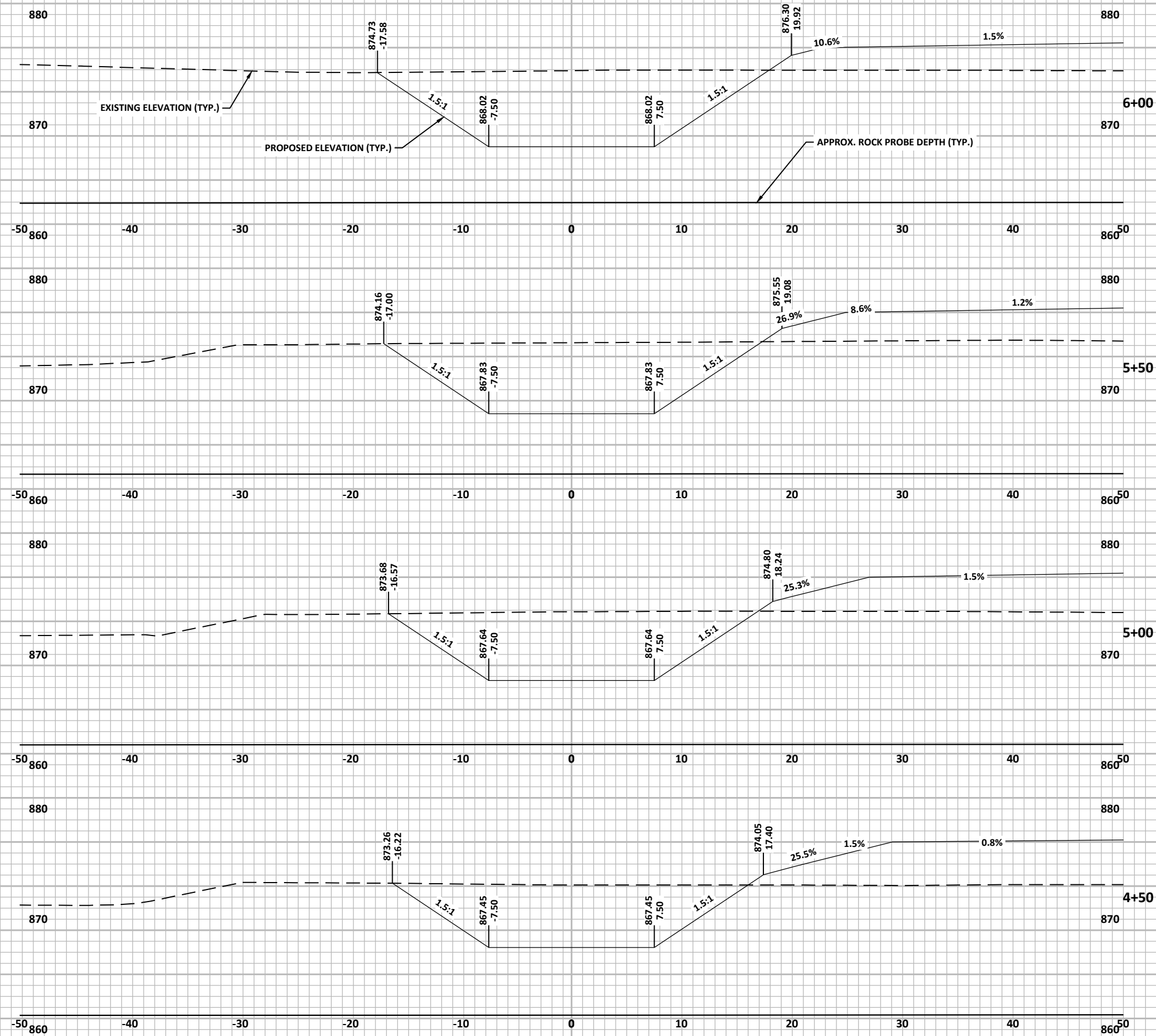
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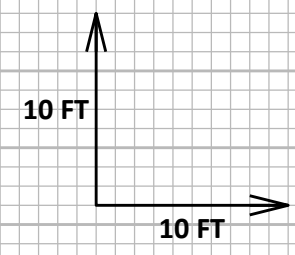
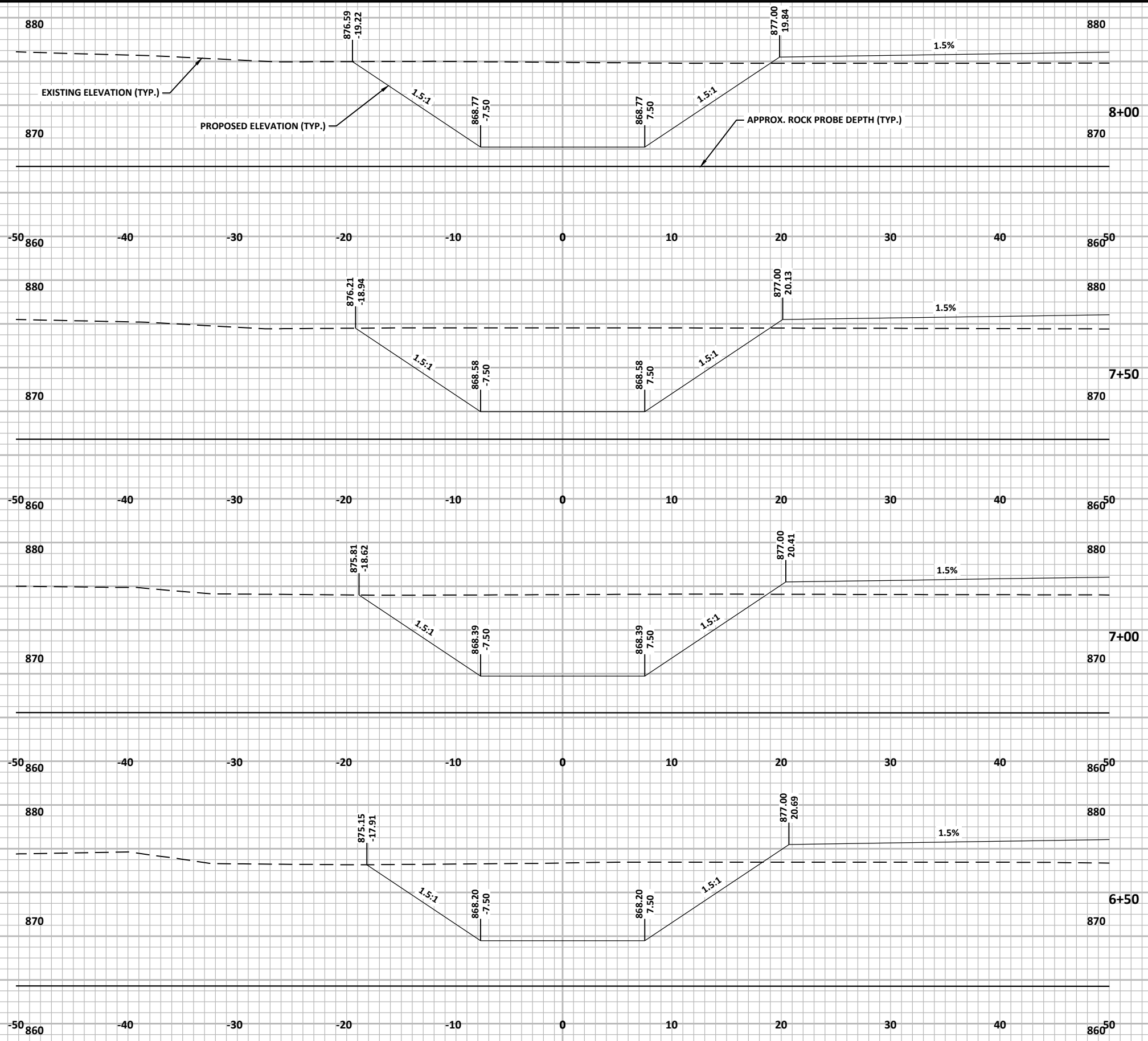
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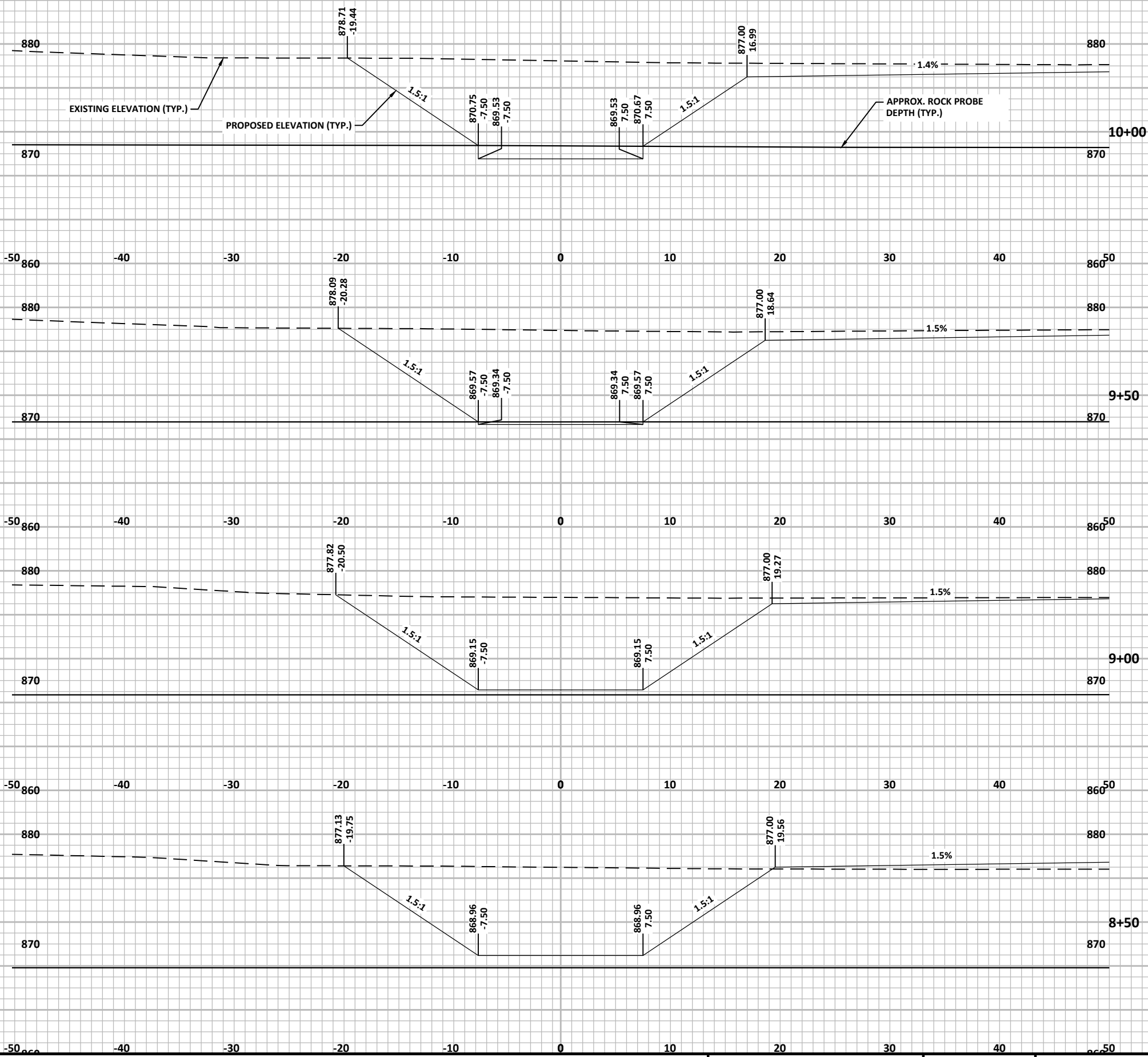


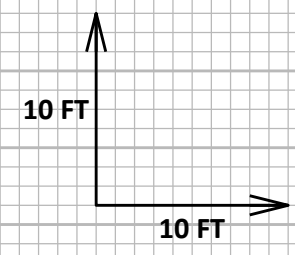
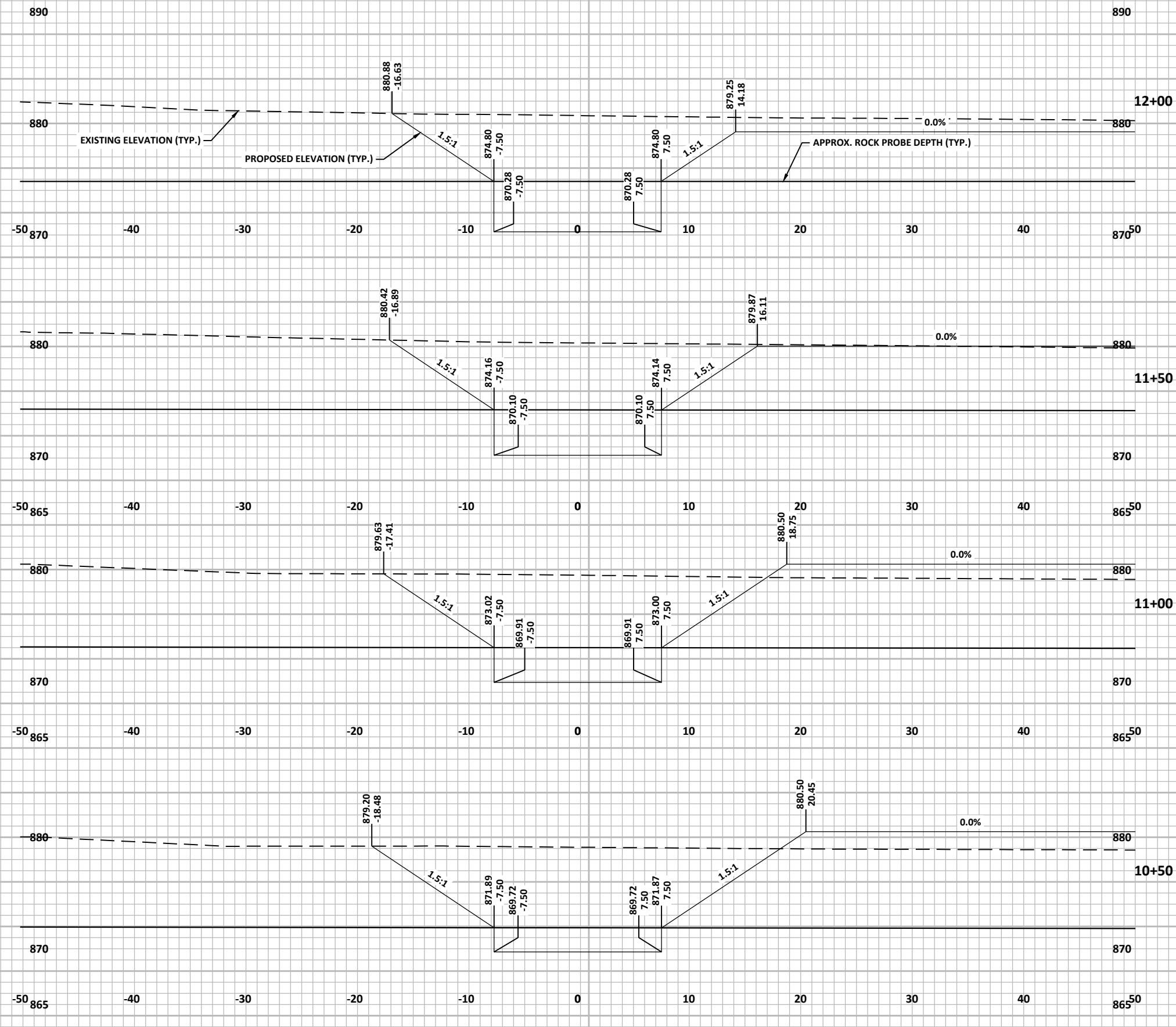


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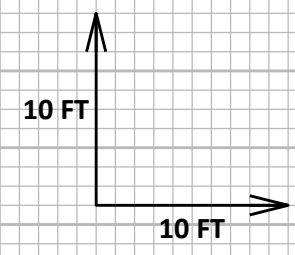
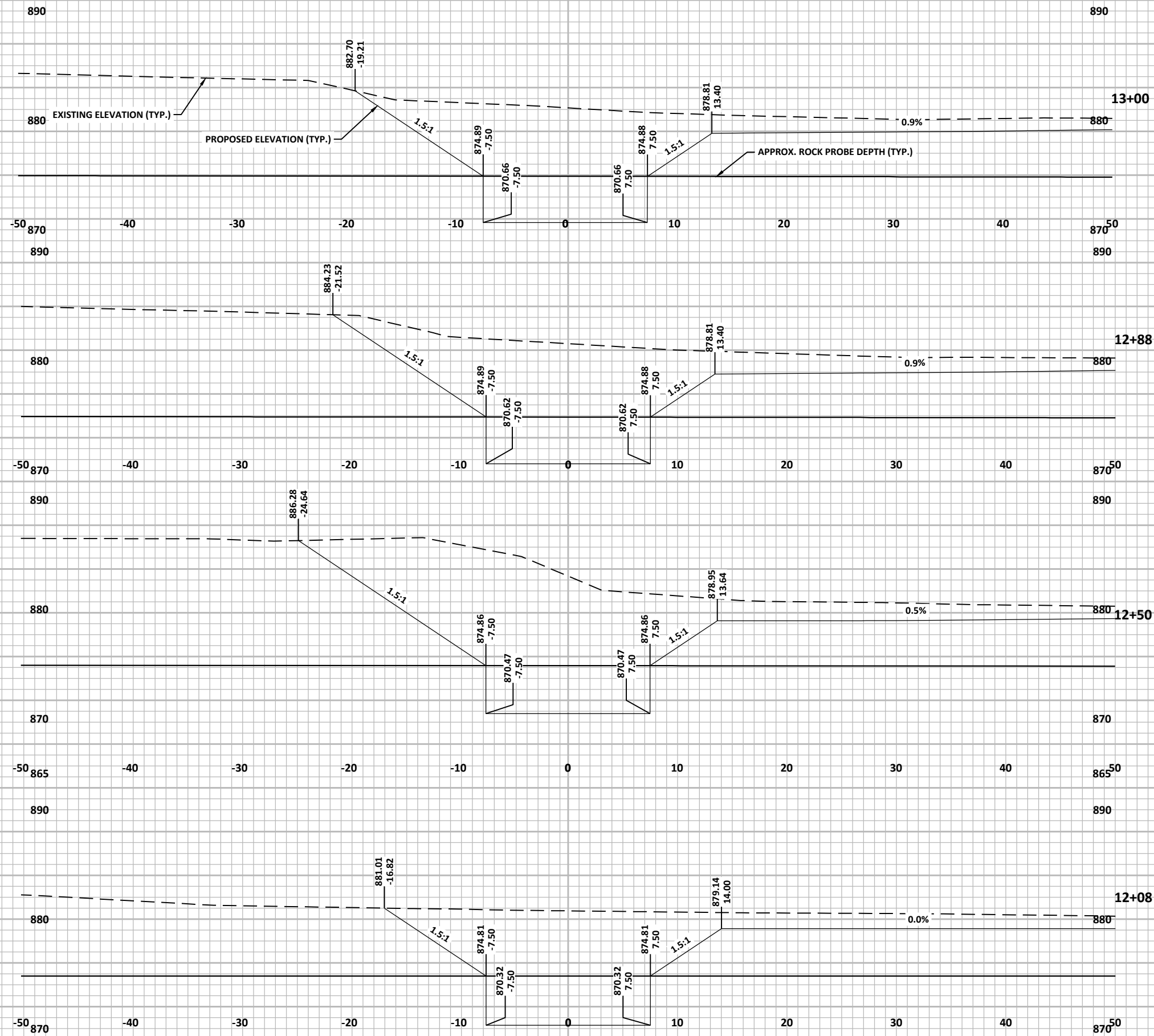
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LAYOUT NAME - 900-XS-2





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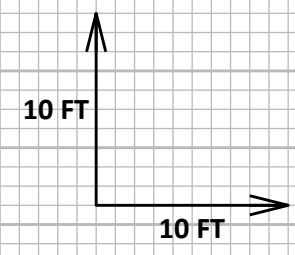
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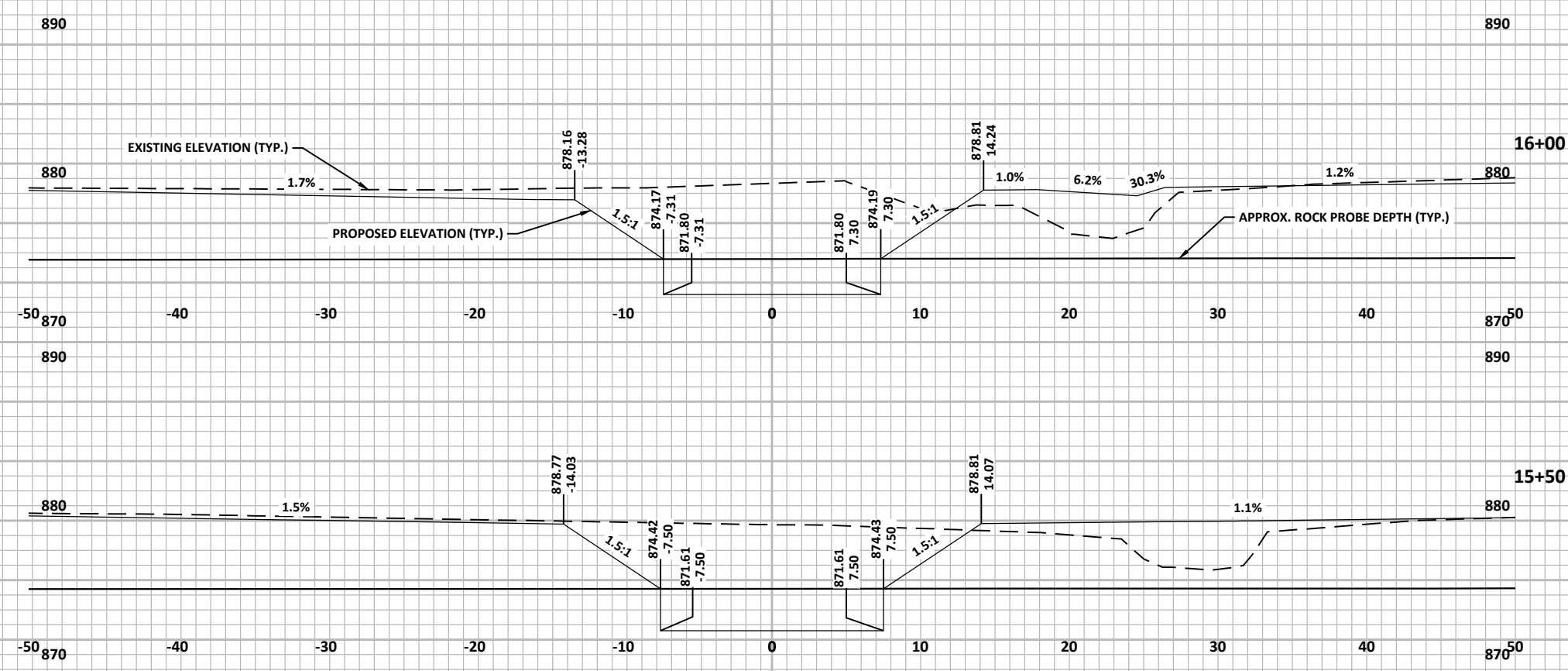
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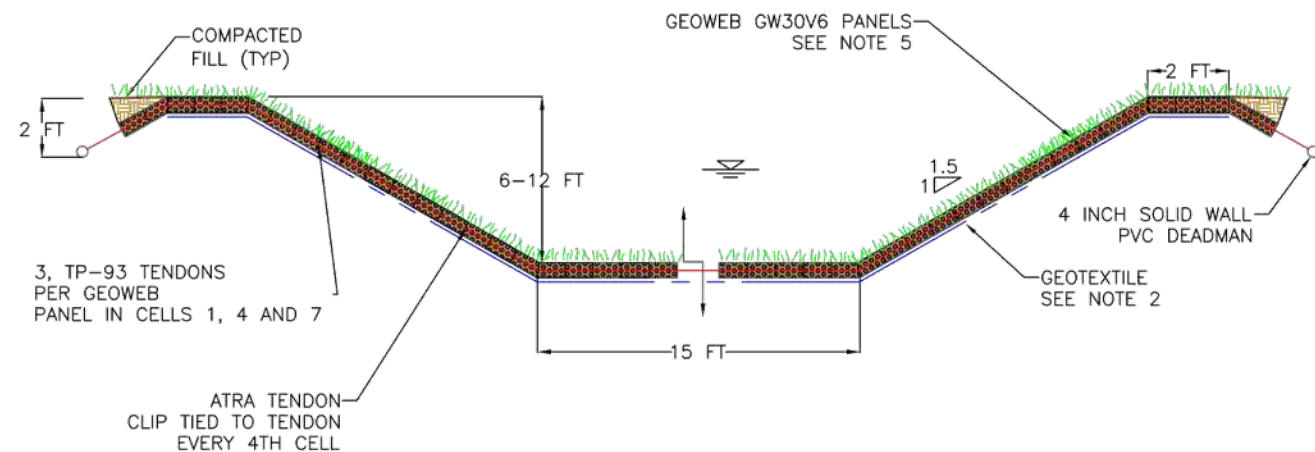
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Notes:

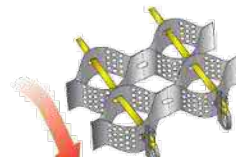
1. This evaluation is copyrighted and is based on the use of GEOWEB® manufactured by Reynolds Presto Products, Inc. All rights reserved. Any use of this evaluation for any geocell product other than that manufactured by Reynolds Presto Products, Inc is strictly prohibited and makes this evaluation invalid.
2. The evaluation assumes that the slope is globally stable.
3. If required, provide a non-woven geotextile layer and install per Manufacturer recommendations including overlaps.
4. The GEOWEB panels shall be connected with ATRA® keys at each interleaf and end to end connection.
5. GEOWEB infill shall be nutrient-rich, pulverized topsoil. Limit the drop of infill to prevent panel distortion.
6. Provide surface protection (hydroseed, ECB or TRM) sized for hydraulic and shear stress conditions to prevent cell wash-out prior to the establishment of vegetation.
7. Refer to the GEOWEB Channel Protection [Installation Guide](#) for installation procedures.



ATRA KEY



ATRA TENDON CLIP

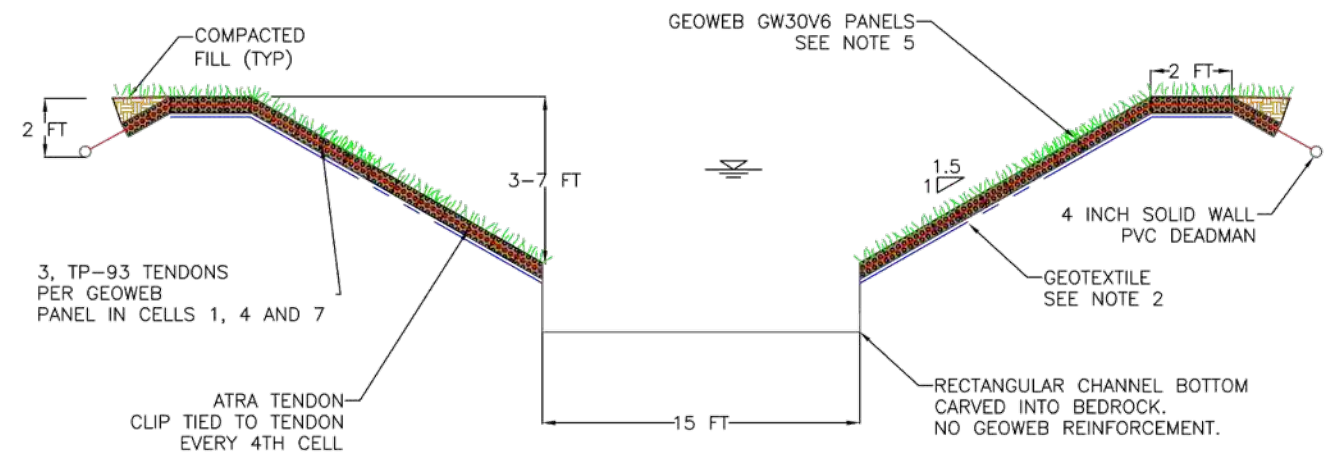


INSTALLATION

		REYNOLDS PRESTO PRODUCTS, INC. 670 NORTH PERKINS STREET APPLETON, WI 54914 920-729-1342 WWW.PRESTOCEO.COM
PR24671 AREA 7 FLOOD MITIGATION GEOWEB CHANNEL PROTECTION		
<small>GEOSYSTEMS®, GEOWEB®, AND ATRA® ARE REGISTERED TRADEMARKS OF REYNOLDS PRESTO PRODUCTS, INC.</small>		
DATE: NOVEMBER 18, 2024	FILE NAME: SHEET 1	
SCALE: NTS	SHEET: 1 OF 3	

Notes:

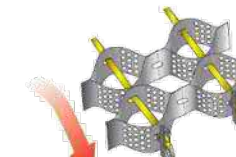
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DATE: NOVEMBER 18, 2024	FILE NAME: SHEET 2	
SCALE: NTS	SHEET: 2 OF 3	

CHANNEL TYPICAL SECTION AND LINING DETAILS C787
NTS