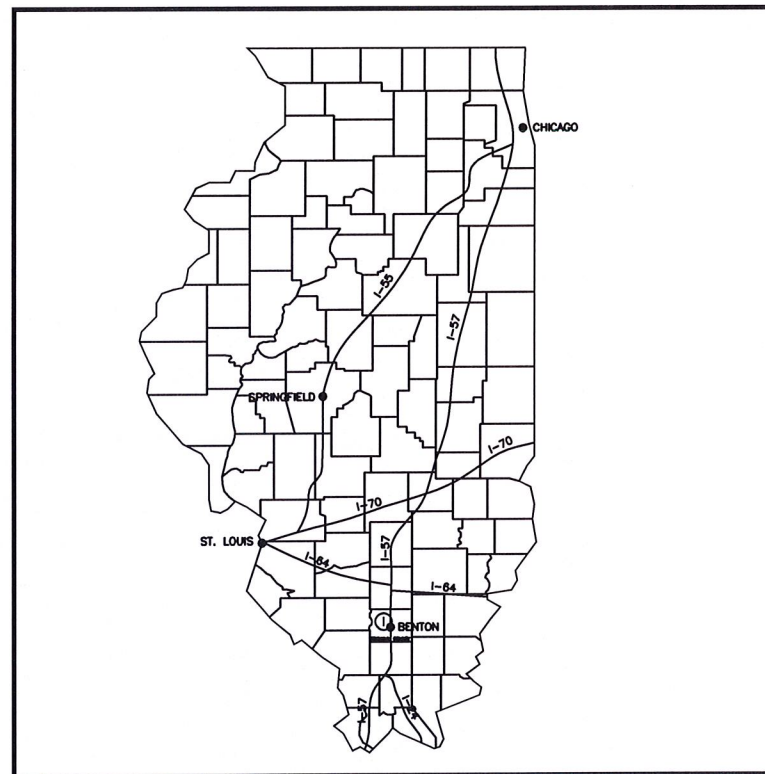


LETTING ITEM NO. 03A
APRIL 29, 2022 LETTING

BN019
TOTAL SHEETS: 11

CONSTRUCTION PLANS FOR BENTON MUNICIPAL AIRPORT

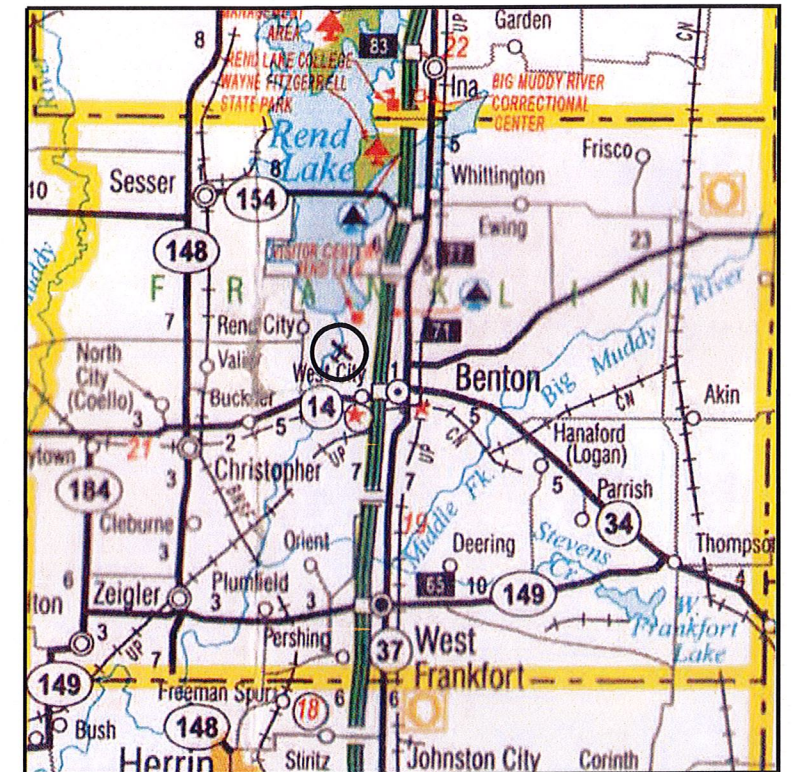
REHABILITATION OF MAIN AIRCRAFT PARKING RAMP R-1



LOCATION MAP

100% SUBMITTAL - MARCH 4, 2022
ILLINOIS PROJECT NUMBER: H96-4786
SBG PROJECT NUMBER: 3-17-SBGP-156/162

BENTON, ILLINOIS
FRANKLIN COUNTY



VICINITY MAP

DESIGN INFORMATION
- CRITICAL AIRCRAFT = CESSNA CITATION III
- AIRCRAFT APPROACH CATEGORY (AAC) = B
- AIRPLANE DESIGN GROUP (ADG) = II
- TAXIWAY DESIGN GROUP (TDG) = 2
- DEPARTURE WEIGHT = 22,000 LBS.

BROWN AND ROBERTS, INC.
CONSULTING ENGINEERS
PRESIDENT
SUBMITTED BY: *Jim W. Brown*
JIM W. BROWN, AS PRESIDENT
DATE SUBMITTED: *3/2/2022*
LIC. NUMBER: *062-035047*
LIC. EXP. DATE: *NOVEMBER 30, 2023*

PLANS PREPARED BY:

BROWN AND ROBERTS, INC.
1 WEST RIDGE ROAD
HARRISBURG, IL. 62946
(618) 252-8111

CITY OF BENTON
MAYOR
APPROVED BY: *Fred Kondritz* 3/2/22
FRED KONDRITZ DATE
CITY CLERK
ATTESTED BY: *Brook Craig* 3-2-22
BROOK CRAIG DATE



10 Mar 2022 - 2:19pm x:\2020\20169\oc\Plans\20169 Cover and Quantity - Index Sheets.dwg: Layout Tab 'Cover'

INDEX OF SHEETS	
SHEET NUMBER	DESCRIPTION
1	COVER SHEET
2	SUMMARY OF QUANTITIES & INDEX OF SHEETS
3	CONSTRUCTION SAFETY & PHASING PLAN
4	TYPICAL SECTIONS
5	APRON PAVING PLAN
6	TIE DOWN REMOVAL PLAN
7	TIE DOWN PLAN
8	TIE DOWN DETAILS
9	APRON CROSS SECTIONS 1
10	APRON CROSS SECTIONS 2
11	APRON CROSS SECTIONS 3

SUMMARY OF QUANTITIES			
ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTAL QUANTITY
AR150520	MOBILIZATION	L SUM	1
AR152511	SUBGRADE REPAIR	SQ YD	448
AR201670	CRACK CONTROL FABRIC	SQ YD	50
AR209510	CRUSHED AGGREGATE BASE COURSE	TON	57
AR401613	BIT. SURF. CSE. - METHOD I, SUPERPAVE	TON	539
AR401650	BITUMINOUS PAVEMENT MILLING	SQ YD	4480
AR401900	REMOVE BITUMINOUS PAVEMENT	SQ YD	25
AR403613	BIT. BASE CSE. - METHOD I, SUPERPAVE	TON	539
AR510510	TIE DOWN	EACH	18
AR510900	REMOVE TIE DOWN	EACH	18
AR602510	BITUMINOUS PRIME COAT	GALLON	62
AR603510	BITUMINOUS TACK COAT	GALLON	1742
AR620520	PAVEMENT MARKING - WATERBORNE	SQ FT	130

SCOPE OF WORK

THE PROJECT SCOPE CONSISTS OF THE REHABILITATION OF AIRCRAFT PARKING APRON R-1 ALONG WITH OTHER NECESSARY AND RELATED WORK.

PROPOSED SAFETY PLAN

GENERAL- THE BENTON MUNICIPAL AIRPORT CURRENTLY HAS A PAVED NORTH-SOUTH RUNWAY (4000-FT BY 75-FT).

IT IS ANTICIPATED THAT RUNWAY 18-36 WILL REMAIN OPEN FOR THE DURATION OF THIS PROJECT, AS NO CONSTRUCTION ACTIVITIES WILL BE WITHIN 200' OF THE RUNWAY 18-36 CENTERLINE. ANY WORK WITHIN 200' OF THE CENTERLINE WILL REQUIRE CLOSURE OF THAT RUNWAY.

CONTRACTOR'S RESPONSIBILITIES

IDENTIFICATION - THE CONTRACTOR'S VEHICLES AND EQUIPMENT SHALL BE PROPERLY MARKED WITH 3-FOOT SQUARE INTERNATIONAL ORANGE AND WHITE CHECKERED FLAGS ANYTIME THEY ARE ON AIRPORT PROPERTY.

THE CONTRACTOR AND HIS EMPLOYEES SHALL BE RESTRICTED TO THE WORK AREA.

EQUIPMENT PARKING AND STORAGE - THE CONTRACTOR'S EQUIPMENT PARKING, STORAGE, AND EMPLOYEE PARKING WILL BE AT THE LOCATION SHOWN ON THIS SHEET. ONLY CONTRACTOR VEHICLES AND EQUIPMENT REQUIRED FOR CONSTRUCTION WILL BE ALLOWED OUTSIDE THIS AREA.

BARRICADES AND TRAFFIC CONES - IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PLACE AND MAINTAIN BARRICADES AND TRAFFIC CONES AS REQUIRED AND AS DIRECTED BY THE RESIDENT ENGINEER. BARRICADES, THEIR MAINTENANCE, PLACEMENT, AND REMOVAL WILL BE CONSIDERED AS AN INCIDENTAL ITEM TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

THE CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING PAVEMENTS CAUSED BY HIS PERSONNEL OR EQUIPMENT.

HAUL ROUTE AND EQUIPMENT PARKING

THE CONTRACTOR WILL USE THE DESIGNATED HAUL ROUTE AND EQUIPMENT PARKING AREA SHOWN ON THIS SAFETY PLAN. THE PROPOSED EQUIPMENT PARKING AREA WILL BE APPROXIMATELY 100-FT BY 200-FT. THE CONTRACTOR WILL BE REQUIRED TO MAINTAIN THE PROPOSED HAUL ROUTE AND PARKING AREA THROUGHOUT THE COURSE OF THE PROJECT. AT THE CONCLUSION OF THE PROJECT, ALL AREAS DISTURBED WILL BE RESTORED AS NEEDED TO ITS ORIGINAL STATE. RESTORATION OF THE HAUL ROUTE AND EQUIPMENT PARKING AREA WILL BE CONSIDERED INCIDENTAL TO THE PROJECT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

UTILITY NOTE

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ALL UTILITY COMPANIES AND ORGANIZATIONS THAT HAVE LINES OR CONDUITS IN THE PROPOSED WORK AREA. ALL LINES AND CONDUITS SHALL BE LOCATED AND IDENTIFIED FOR DEPTH BEFORE ANY EXCAVATION BEGINS. THE CONTRACTOR SHALL CALL JULIE (1-800-892-0123) TO ACCOMPLISH THESE REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING ALL NON-JULIE UTILITIES AND AIRPORT UTILITIES LOCATED WITHIN THE PROPOSED CONSTRUCTION LIMITS. THESE UTILITIES ARE TO BE LOCATED PRIOR TO THE START OF CONSTRUCTION.

J.U.L.I.E. INFORMATION

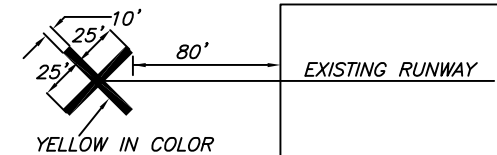
COUNTY.....FRANKLIN
 CITY.....BENTON
 TOWNSHIP.....BROWNING
 SECTION NO.....12 & 13
 NEAREST MAJOR ROAD INTERSECTION...RT 37 PETROFF RD.
 AIRPORT ADDRESS....BENTON MUNICIPAL AIRPORT
 P.O. BOX 158
 BENTON, IL. 62812

AIRPORT SECURITY

AIRPORT SECURITY WILL BE MAINTAINED AT ALL TIMES. THE PROPOSED HAUL ROUTE SHOWN ON THIS SAFETY PLAN IS THE ONLY ACCESS. THE CONTRACTOR EQUIPMENT AND PERSONNEL WILL BE ALLOWED TO USE. THE CONTRACTOR SHALL PROVIDE BARRICADES AT THIS ACCESS AND ENSURE THE BARRICADES ARE IN PLACE AT THE END OF EACH WORKING DAY.

AIRCRAFT OPERATIONAL AREA

THE CONTRACTOR, HIS EMPLOYEES, OR ANY EQUIPMENT WILL NOT PROCEED WITH ANY WORK WITHIN THE AIRCRAFT OPERATIONAL AREA WITHOUT FIRST CLOSING THE RUNWAY.



DETAIL OF CROSS FOR CLOSED RUNWAY

"NOT TO SCALE"

NOTE:

THE COST OF CONSTRUCTING, PLACING, MAINTAINING, AND REMOVING CROSSES WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED. THE CROSSES WILL BE YELLOW IN COLOR AND SHALL BE MADE OF A SUITABLE MATERIAL AS APPROVED BY THE RESIDENT ENGINEER. THE CROSSES WILL BE PLACED AT THE ENDS OF THE RUNWAY AND SECURED IN A MANNER APPROVED BY THE RESIDENT ENGINEER. THE PROPOSED CROSSES WILL BE PLACED WHEN THE RUNWAY IS CLOSED AND REMOVED WHEN THE RUNWAY IS RE-OPENED. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PLACEMENT AND REMOVAL OF THE CROSSES AT NO ADDITIONAL COST TO THE CONTRACT.

RUNWAY CLOSURE PROCEDURES:

- * CONTACT THE AIRPORT MANAGER OR HIS ASSIGNED REPRESENTATIVE.
- * ISSUANCE OF NOTAM BY THE AIRPORT MANAGER OR HIS ASSIGNED REPRESENTATIVE.
- * PLACEMENT OF CROSSES (SEE DETAIL THIS SHEET).
- * PLACEMENT OF LIGHTED BARRICADES. ONLY AT THE TIME THAT ALL OF THE ABOVE ARE COMPLETED MAY ANY CONSTRUCTION OPERATIONS WITHIN 200-FT OF THE AFFECTED RUNWAY CENTERLINE AND WITHIN 600 FT OF THE RUNWAY END BEGIN.
- * RUNWAY LIGHTS SHALL BE DISABLED

RUNWAY RE-OPENING PROCEDURES:

- * REMOVE CROSSES.
- * REMOVE LIGHTED BARRICADES.
- * NOTIFY THE AIRPORT MANAGER OR HIS REPRESENTATIVE TO CANCEL THE NOTAM.
- * CANCELLATION OF THE NOTAM. A CLOSED RUNWAY WILL NOT BE RE-OPENED UNTIL ALL EQUIPMENT AND WORK ARE FURTHER THAN 200 FT. FROM THE AFFECTED RUNWAY CENTERLINE
- * RUNWAY LIGHTS SHALL BE REACTIVATED.

HEIGHT OF CONSTRUCTION EQUIPMENT

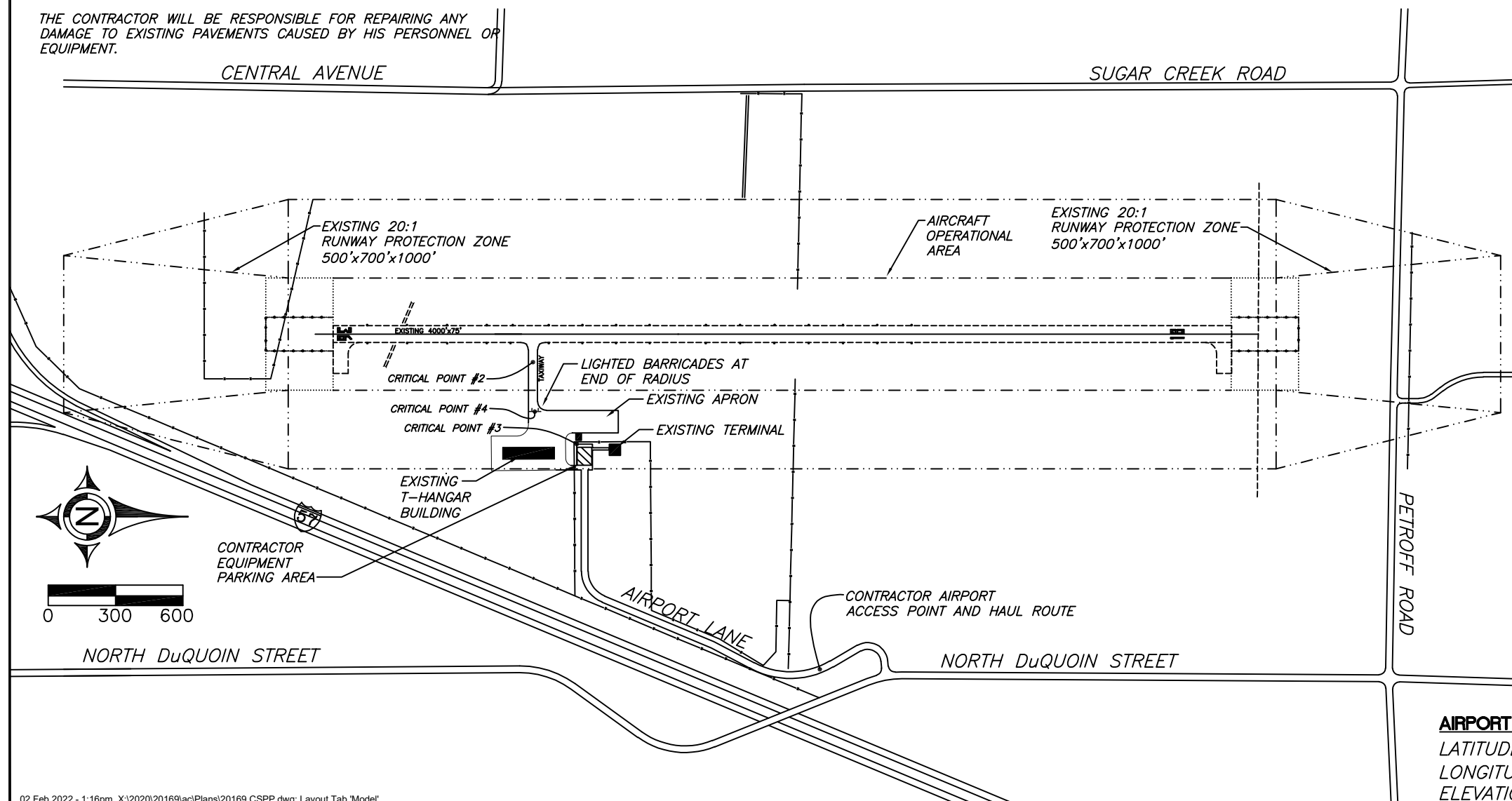
THE MAXIMUM ANTICIPATED HEIGHT OF THE CONSTRUCTION EQUIPMENT IS 20 FEET. THE TALLEST EQUIPMENT IS EXPECTED TO BE SEMI-TRAILER WITH THE BED RAISED.

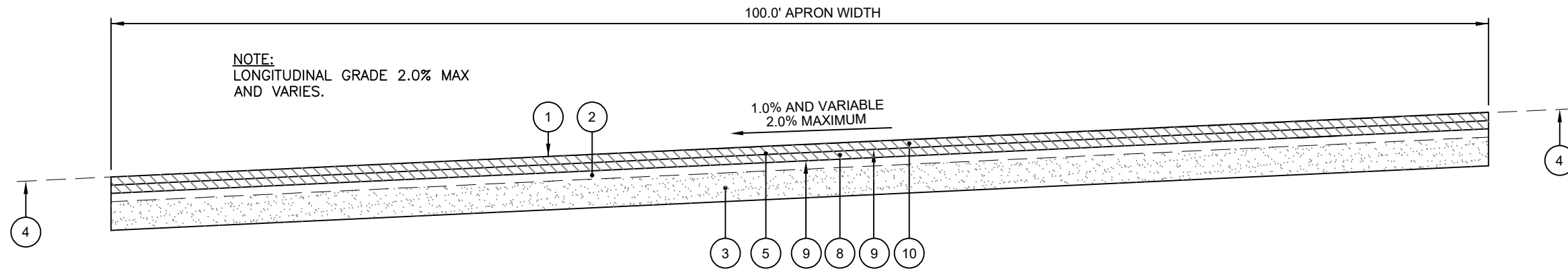
CRITICAL POINT LIST

CRITICAL PT. NO.	LATITUDE	LONGITUDE	ELEVATION (MSL)
1	38° 00' 11.21"N	88° 56' 02.08"W	442.0
2	38° 00' 19.66"N	88° 56' 02.23"W	439.5
3	38° 00' 21.65"N	88° 55' 57.71"W	443.5
4	38° 00' 19.72"N	88° 55' 59.56"W	442.0

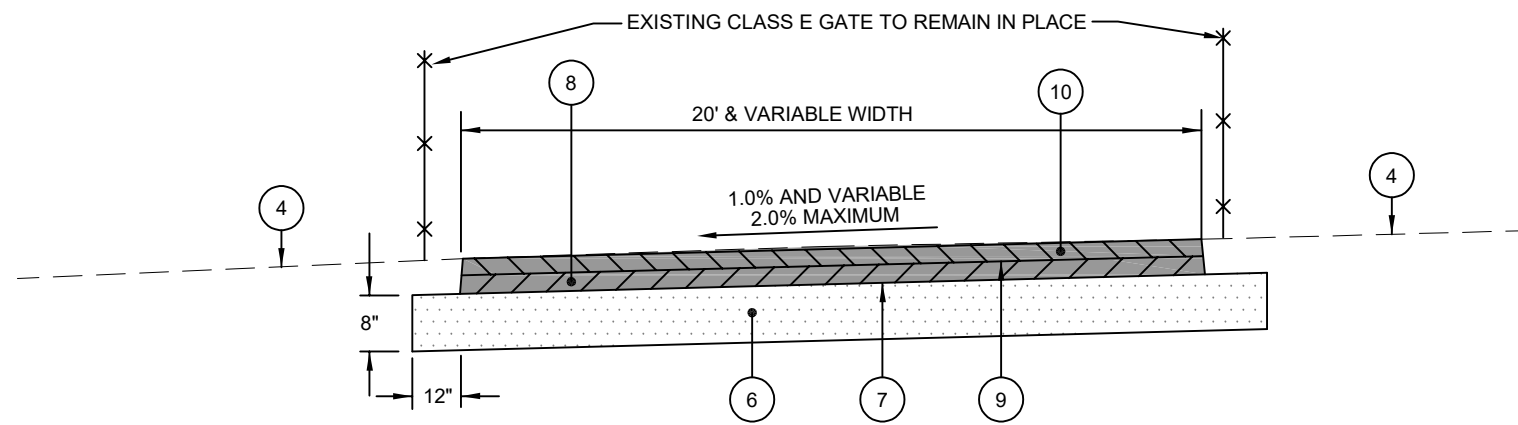
AIRPORT REFERENCE POINT:

LATITUDE: 38° 00' 24.334"N
 LONGITUDE: 88° 56' 03.910"W
 ELEVATION: 444 MSL

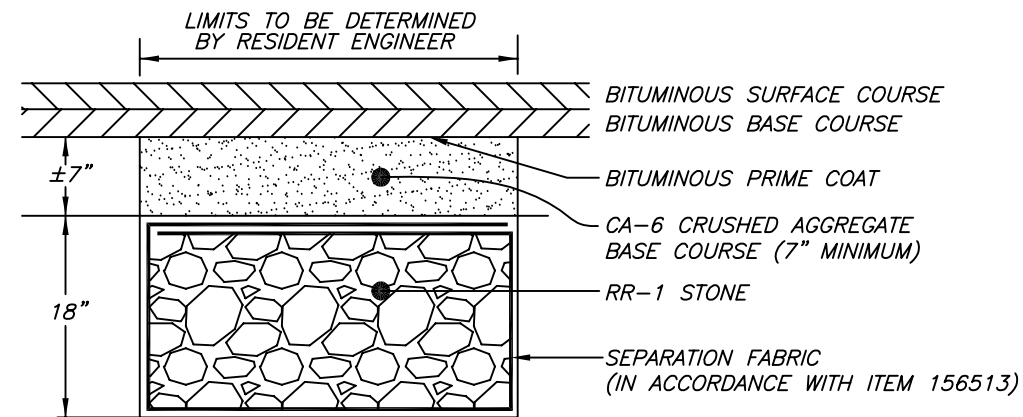




TYPICAL SECTION (EAST - WEST)
NO SCALE



AUTOMOBILE PARKING LOT TO APRON AREA R-1
NO SCALE

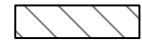
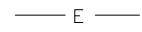



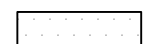
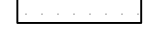


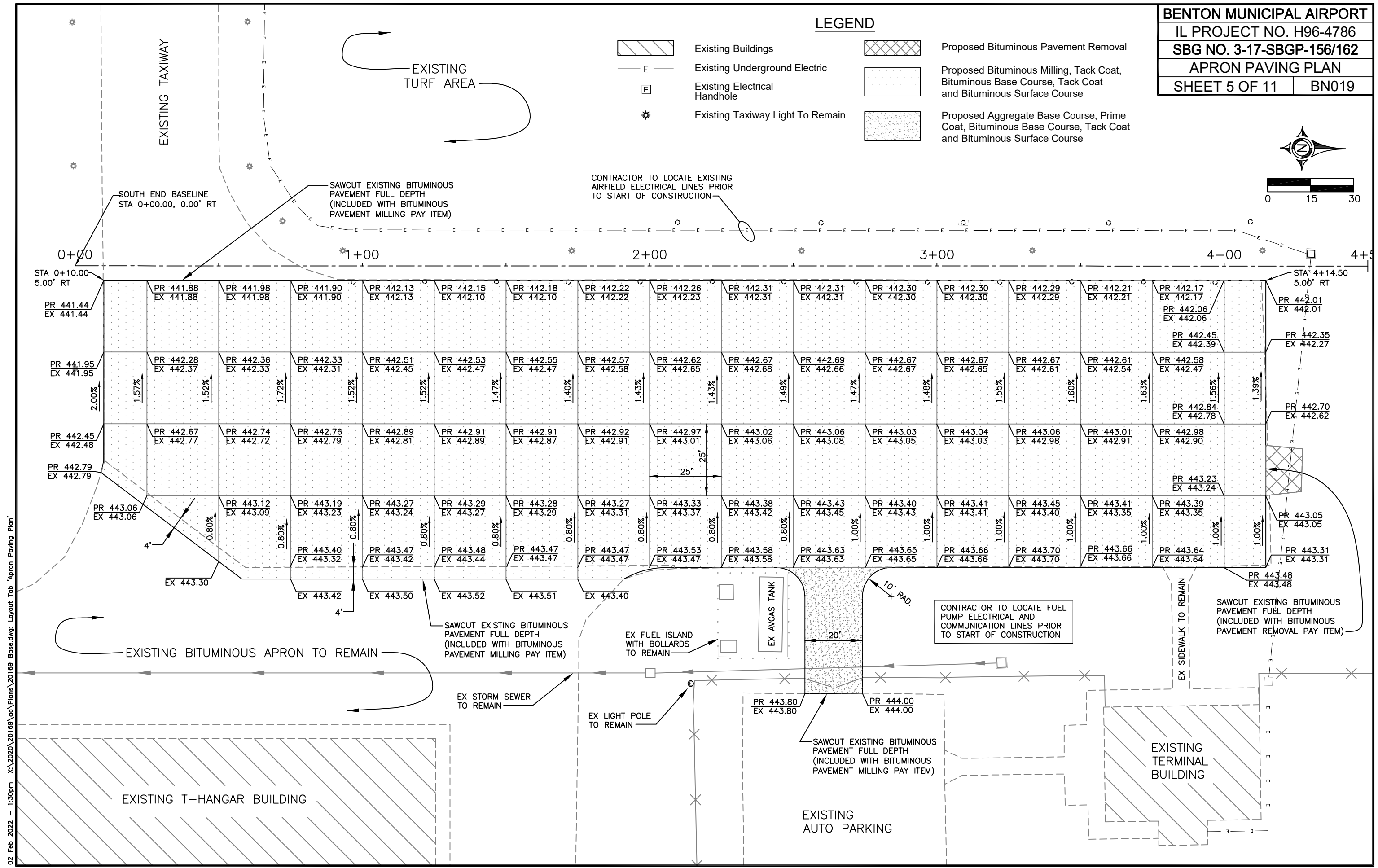
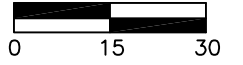
SUBGRADE REPAIR
NO SCALE

LEGEND

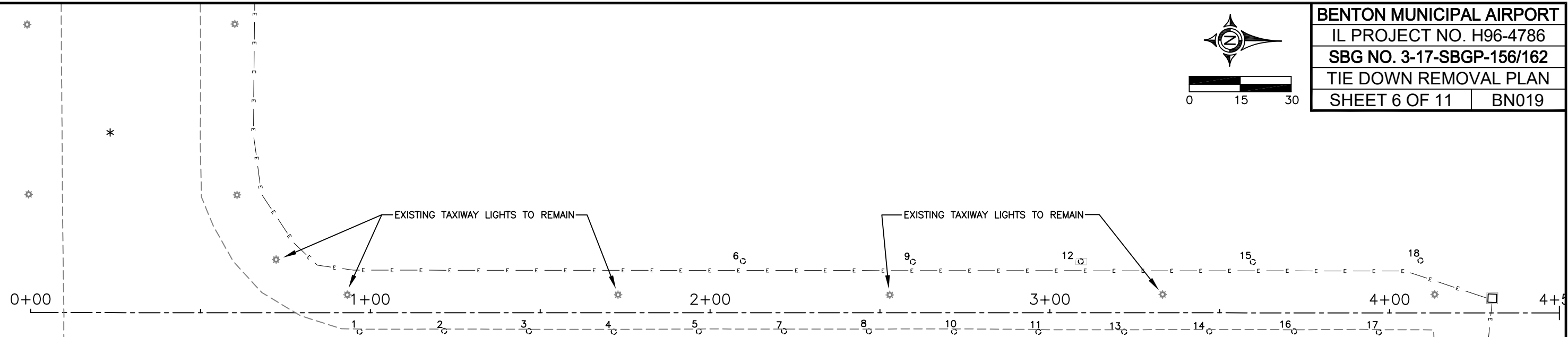
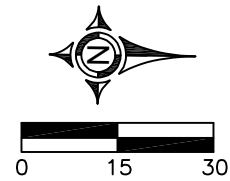
- | | | | |
|---|----------------------------------------|---|-----------------------------------------------------------------|
| ① | EXISTING BITUMINOUS SURFACE | ⑥ | AR209510 - CRUSHED AGGREGATE BASE COURSE (8") |
| ② | EXISTING BITUMINOUS BASE TO REMAIN | ⑦ | AR602510 - BITUMINOUS PRIME COAT |
| ③ | EXISTING AGGREGATE BASE TO REMAIN | ⑧ | AR403613 - BITUMINOUS BASE COURSE - METHOD I, SUPERPAVE (2") |
| ④ | EXISTING TURF SHOULDER | ⑨ | AR603510 - BITUMINOUS TACK COAT |
| ⑤ | AR401650 - BITUMINOUS PAVEMENT MILLING | ⑩ | AR401613 - BITUMINOUS SURFACE COURSE - METHOD I, SUPERPAVE (2") |

LEGEND

-  Existing Buildings
-  Existing Underground Electric
-  Existing Electrical Handhole
-  Existing Taxiway Light To Remain
-  Proposed Bituminous Pavement Removal
-  Proposed Bituminous Milling, Tack Coat, Bituminous Base Course, Tack Coat and Bituminous Surface Course
-  Proposed Aggregate Base Course, Prime Coat, Bituminous Base Course, Tack Coat and Bituminous Surface Course



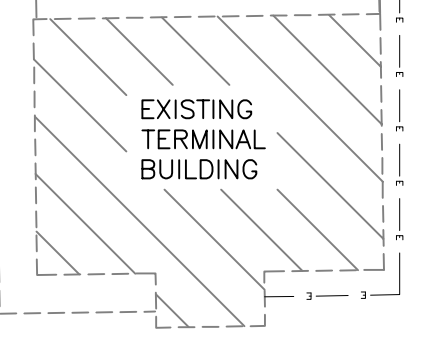
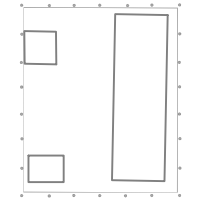
02 Feb 2022 1:30pm X:\2020\20169 Base.dwg: Layout Tab 'Apron Paving Plan'



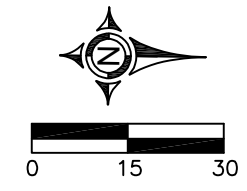
TIE DOWN REMOVAL SCHEDULE		
TIE DOWN #	STATION	OFFSET
* 1	0+97	5.5' RT
* 2	1+22	5.5' RT
* 3	1+47	5.5' RT
* 4	1+71.5	5.5' RT
* 5	1+97	5.5' RT
** 6	2+10	15' LT
* 7	2+22	5.5' RT
* 8	2+47	5.5' RT
** 9	2+60	15' LT
* 10	2+72	5.5' RT
* 11	2+97	5.5' RT
** 12	3+15	15' LT
* 13	3+22	5.5' RT
* 14	3+47	5.5' RT
** 15	3+60	15' LT
* 16	3+72	5.5' RT
* 17	3+97	5.5' RT
** 18	4+09	15' LT

- * EXISTING TIE DOWN TO BE REMOVED AND PERMANENTLY BACKFILLED WITH COMPACTED CA-6.
- ** EXISTING TIE DOWN TO BE REMOVED AND PERMANENTLY BACKFILLED WITH COMPACTED DIRT.

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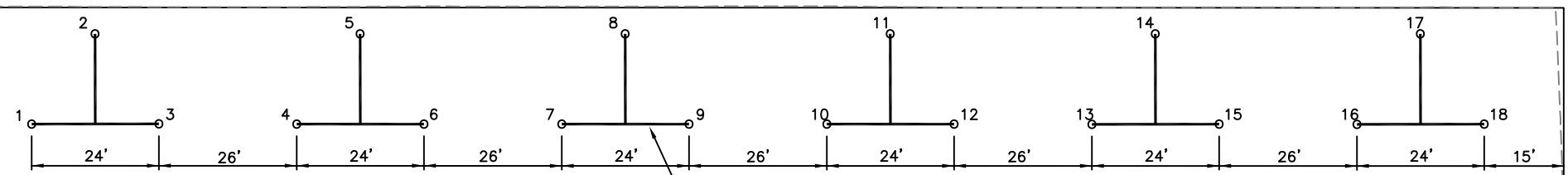


BENTON MUNICIPAL AIRPORT
 IL PROJECT NO. H96-4786
 SBG NO. 3-17-SBGP-156/162
 TIE DOWN PLAN
 SHEET 7 OF 11 | BN019

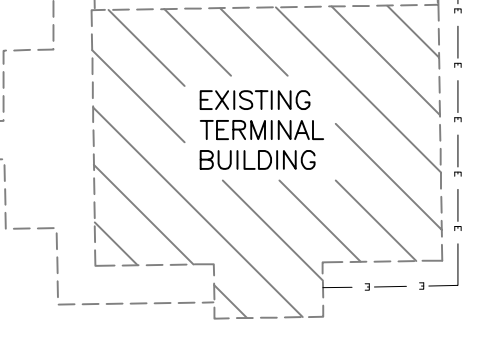
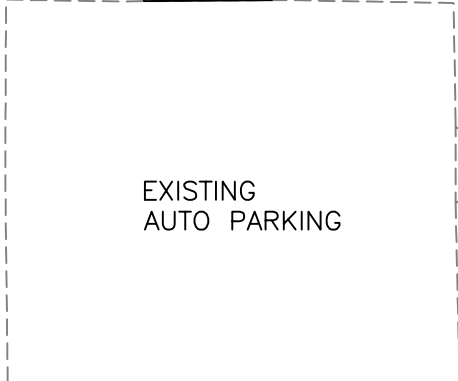
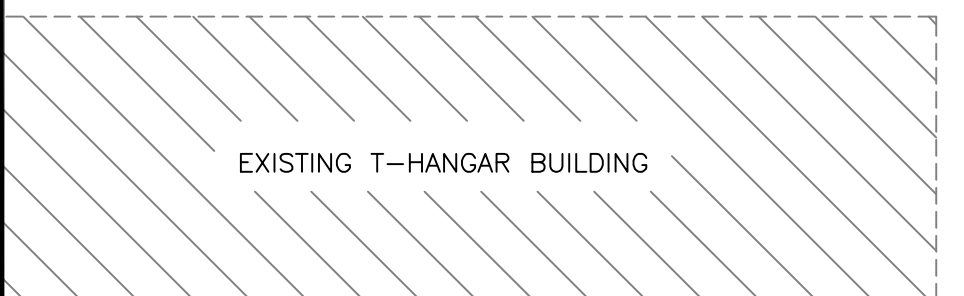


PROPOSED TIE DOWN SCHEDULE				
TIE DOWN #	STATION	OFFSET	NORTHING	EASTING
1	1+26	27' RT	488125.31	811425.92
2	1+38	10' RT	488139.29	811408.91
3	1+50	27' RT	488149.31	811425.89
4	1+76	27' RT	488175.31	811425.93
5	1+88	10' RT	488187.29	811408.92
6	2+00	27' RT	488199.31	411425.90
7	2+26	27' RT	488225.31	811425.94
8	2+38	10' RT	488239.29	811408.92
9	2+50	27' RT	488249.31	811425.91
10	2+76	27' RT	488275.31	811425.95
11	2+88	10' RT	488287.29	811408.93
12	3+00	27' RT	488299.31	811425.92
13	3+26	27' RT	488325.31	811425.95
14	3+38	10' RT	488337.29	811408.94
15	3+50	27' RT	488349.31	811425.92
16	3+76	27' RT	488375.31	811425.96
17	3+88	10' RT	488387.29	811408.95
18	4+00	27' RT	488399.31	811425.93

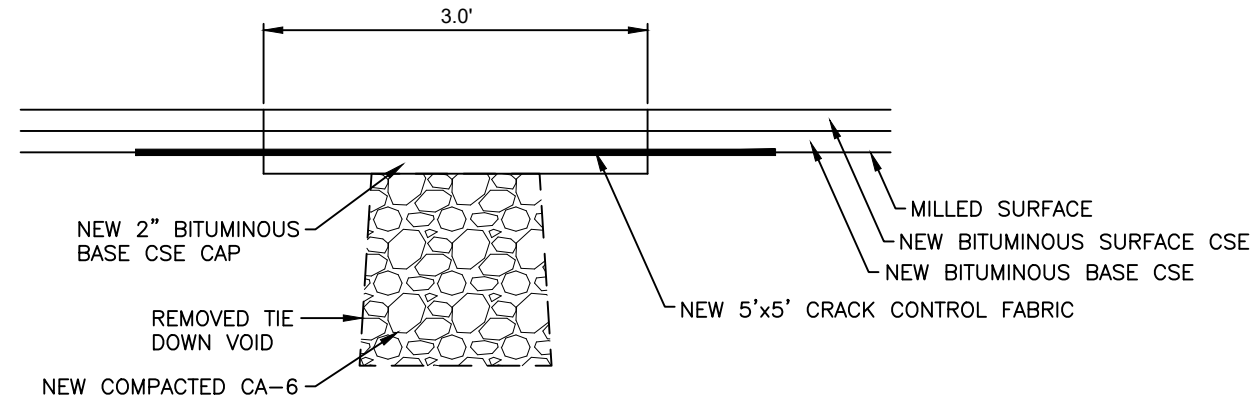
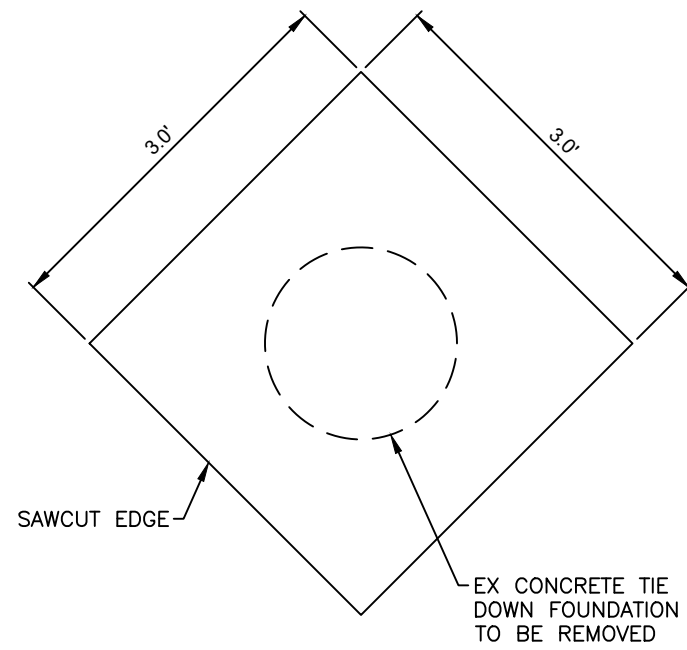
0+00 1+00 2+00 3+00 4+00 4+50



PR 6" YELLOW TIE DOWN MARKING LINE (TYP)



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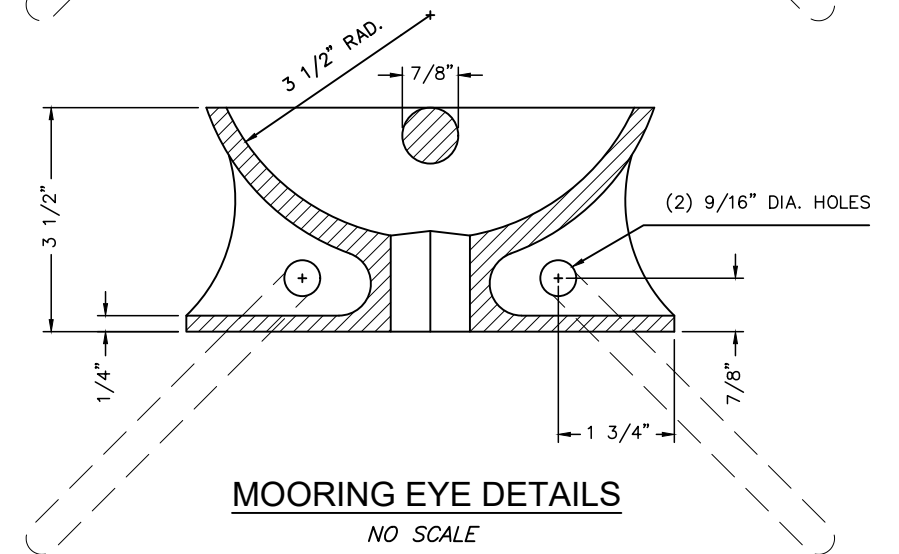
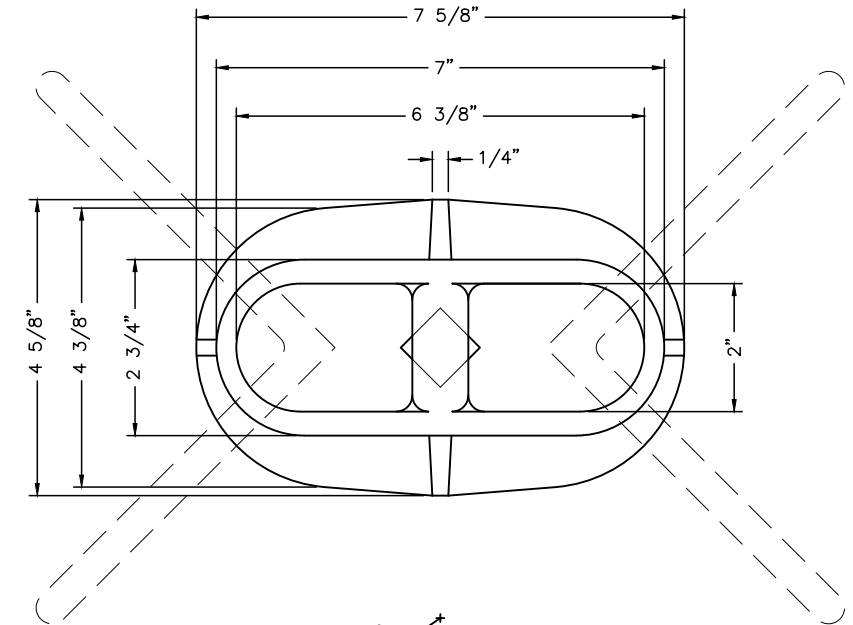


TIE DOWN REMOVAL/BACKFILL NOTES:

1. SAWCUT, PAVEMENT REMOVAL, EXCAVATION AND DISPOSAL, AND BACKFILL SHALL BE INCIDENTAL TO REMOVE TIE DOWN PAY ITEM.
2. BITUMINOUS SURFACE AND BASE COURSES AND CRACK CONTROL FABRIC TO BE PAID FOR SEPARATELY.
3. WHERE NEW TIE DOWNS WILL BE IN SAME LOCATION AS EXISTING TIE DOWNS, CONTRACTOR MAY BACKFILL VOID FROM TIE DOWN REMOVAL WITH SAND OR OTHER MATERIALS APPROVED BY THE RESIDENT ENGINEER IN LIEU OF COMPACTED CA-6.

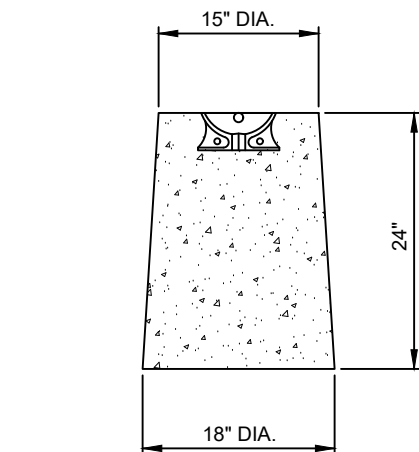
TIE DOWN REMOVAL/BACKFILL DETAIL

NO SCALE



MOORING EYE DETAILS

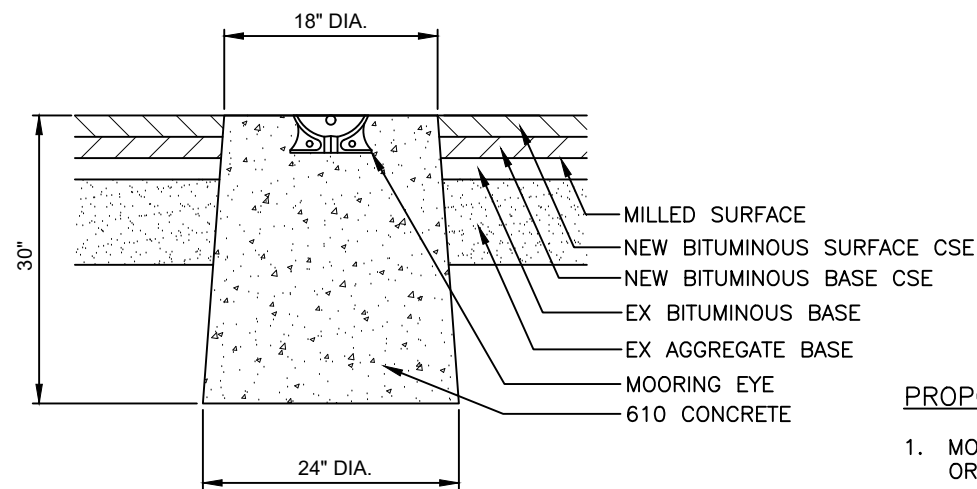
NO SCALE



EXISTING TIE DOWN DETAIL

NO SCALE

NOTE: EXISTING TIE DOWN DETAILS TO BE FIELD VERIFIED BY THE CONTRACTOR.

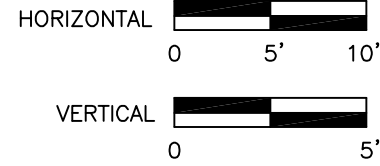


PROPOSED TIE DOWN DETAIL

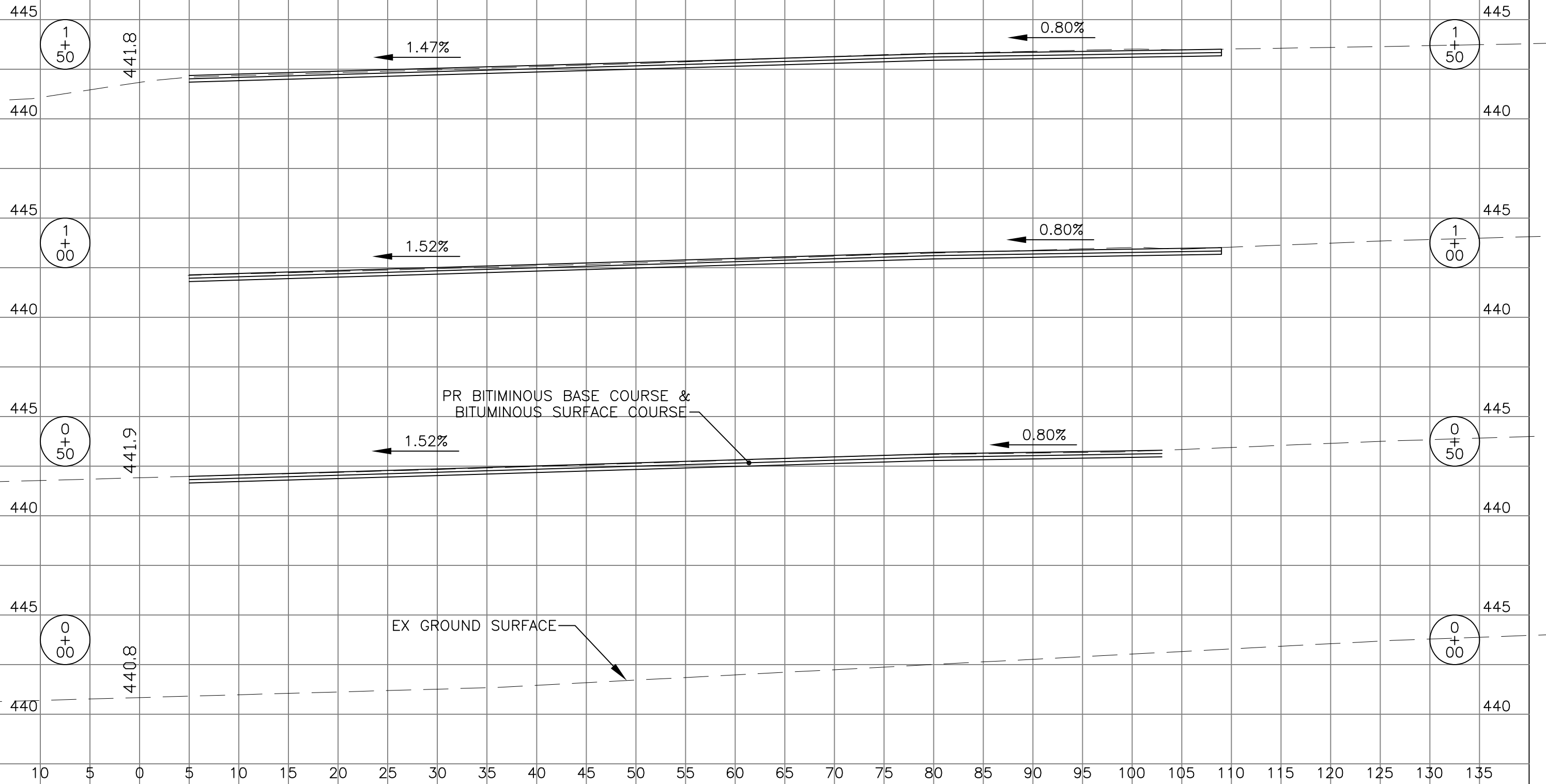
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PROPOSED TIE DOWN/MOORING EYE NOTES:

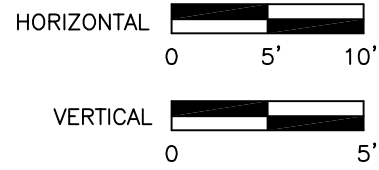
1. MOORING EYE CASTINGS SHALL BE NEENAH R-3490, EJCO 00599300, OR APPROVED EQUIVALENT.
2. ANCHOR RODS SHALL BE #4 DEFORMED REBAR, 24" LONG AND SHALL BE BENT DOWNWARD AT 45°.
3. CONCRETE TIE DOWNS SHALL BE INSTALLED AFTER PAVING OPERATIONS ARE COMPLETE BY CORING THROUGH NEW PAVEMENT.
4. PROPOSED CONCRETE TIE DOWN FOUNDATIONS SHALL BE POURED AGAINST NATURAL UNDISTURBED EARTH. CARE SHALL BE TAKEN BY CONTRACTOR NOT TO OVER-EXCAVATE DURING REMOVAL OPERATIONS.



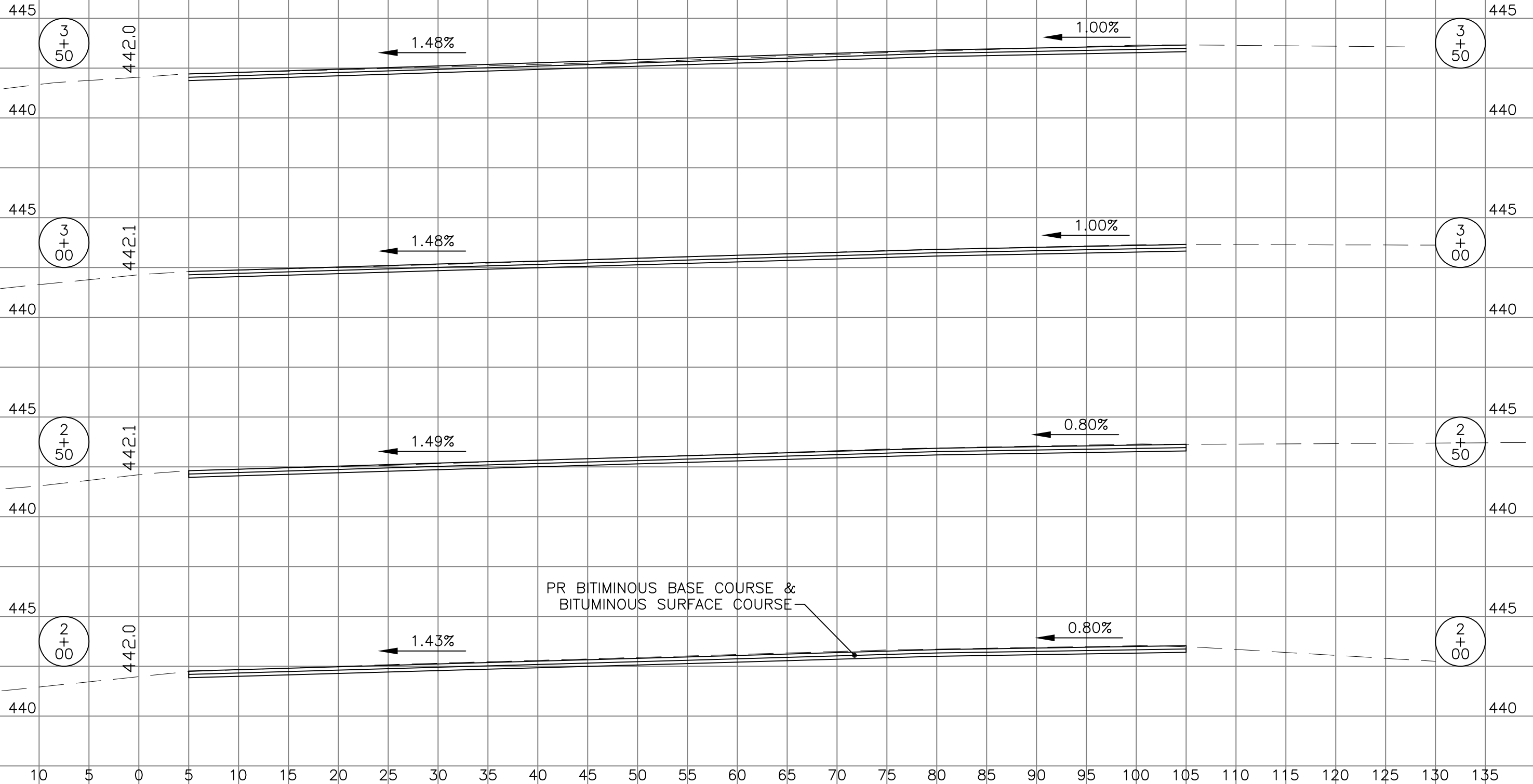
BENTON MUNICIPAL AIRPORT
 IL PROJECT NO. H96-4786
 SBG NO. 3-17-SBGP-156/162
 APRON CROSS SECTIONS 1
 SHEET 9 OF 11 | BN019



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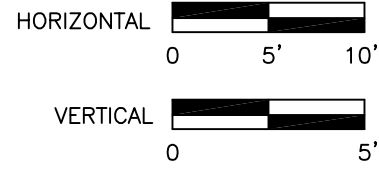


BENTON MUNICIPAL AIRPORT	
IL PROJECT NO. H96-4786	
SBG NO. 3-17-SBGP-156/162	
APRON CROSS SECTIONS 2	
SHEET 10 OF 11	BN019

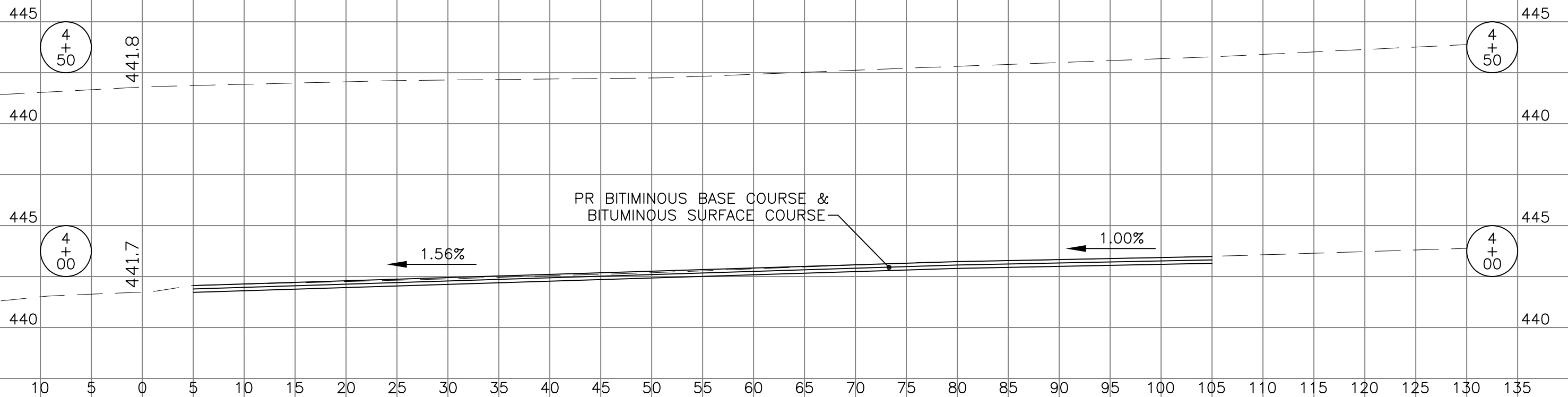


PR BITIMINOUS BASE COURSE &
BITUMINOUS SURFACE COURSE

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BENTON MUNICIPAL AIRPORT	
IL PROJECT NO. H96-4786	
SBG NO. 3-17-SBGP-156/162	
APRON CROSS SECTIONS 3	
SHEET 11 OF 11	BN019



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